

GENERAL NOTES

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS THAT ARE SHOWN ON THE PLANS ARE APPROXIMATE. NOT ALL UTILITY INSTALLATIONS WITHIN THE PROJECT AREA ARE SHOWN.

DNR LIAISON

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(715)-421-7867
marc.hershfield@wisconsin.gov

Utilities

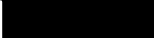


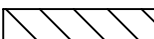
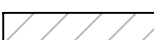
Scott Brookman
Oakdale Electric Coop.
PO Box 128
Oakdale WI 54649
1-608-372-4131 EXT 208
1-608-343-5340
sbrookma@oakdalerec.com

Steve Jakubiec
Central State Telephone
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Appleton, WI 54911
1-920-882-4166
1-920-562-7221
Steve.jakubiec@tdstelecom.com

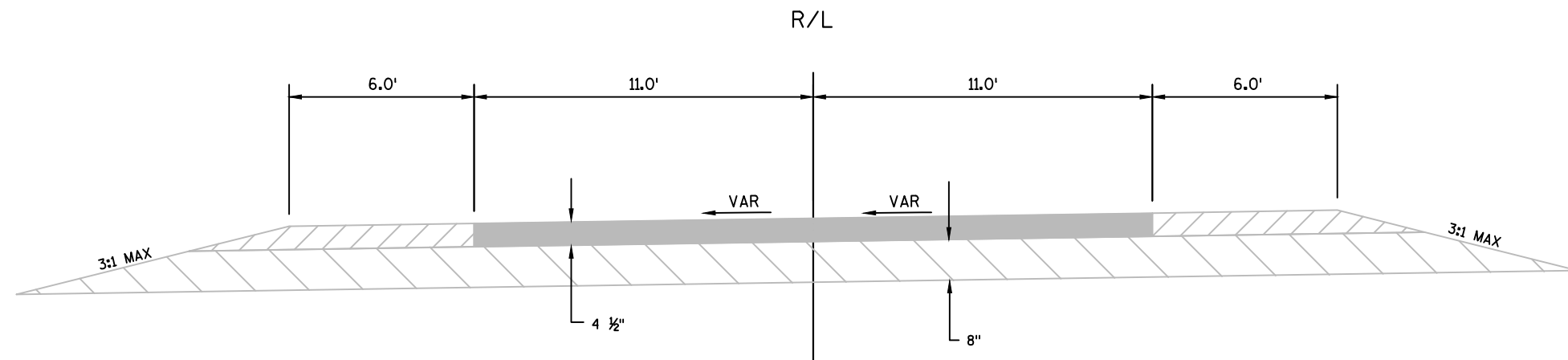


Dial  or (800)242-8511
www.DiggersHotline.com

LEGEND

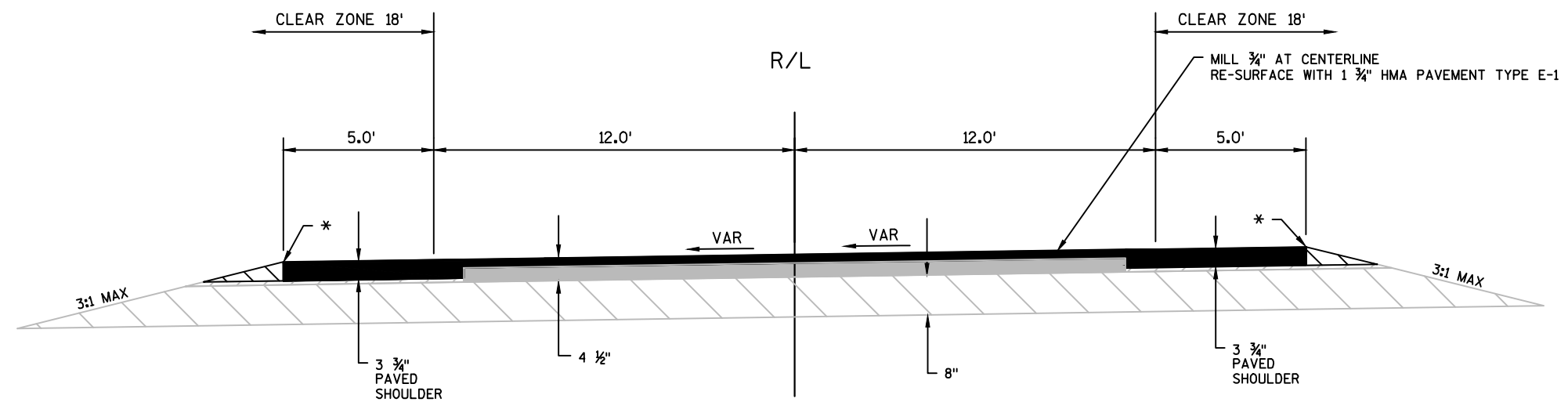
	HMA PAVEMENT TYPE E-1
	EXISTING ASPHALTIC PAVEMENT
	EXISTING CRUSHED AGGREGATE BASE COURSE
	¾" BASE AGGREGATE DENSE
	EXISTING SHOULDER BASE COURSE

* NOTE: SEE SAFETY EDGE DETAIL



STH 54 EXISTING TYPICAL SECTION (CURVES)

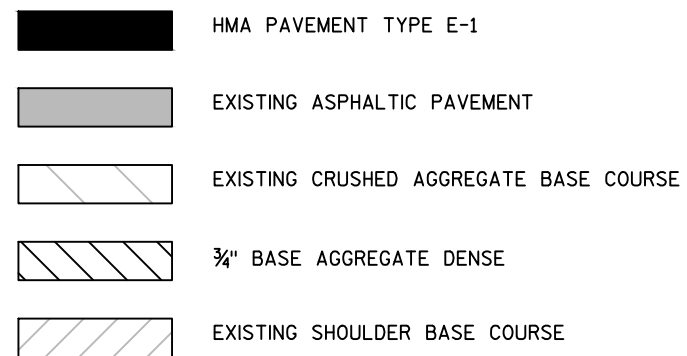
STA. 264+83 - STA. 278+82
STA. 313+95 - STA. 327+96
STA. 336+43 - STA. 350+28
STA. 387+27 - STA. 398+50
STA. 619+40 - STA. 627+43



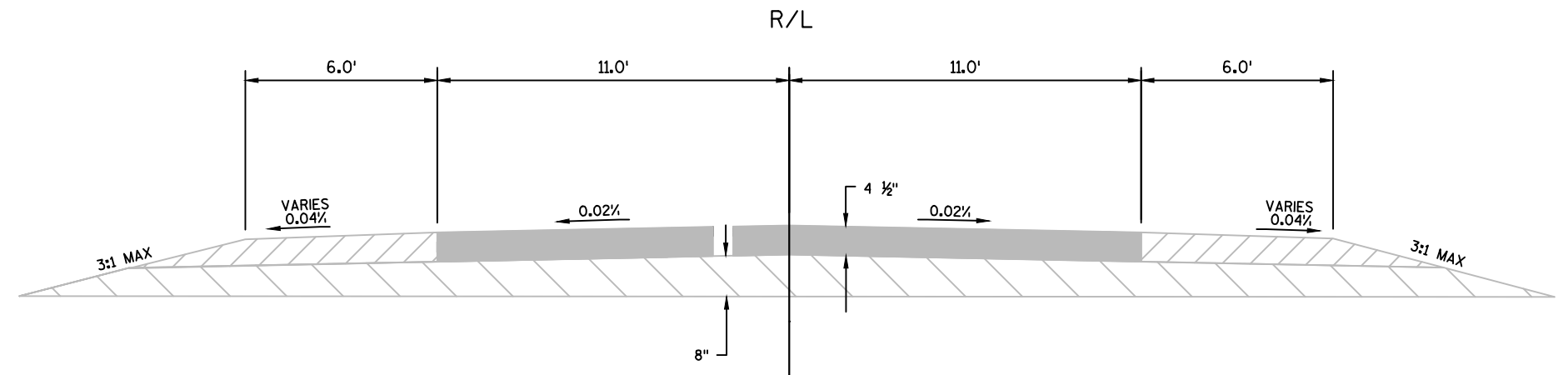
STH 54 PROPOSED TYPICAL SECTION (CURVES)

STA. 264+83 - STA. 278+82
STA. 313+95 - STA. 327+96
STA. 336+43 - STA. 350+28
STA. 387+27 - STA. 398+50
STA. 619+40 - STA. 627+43

LEGEND

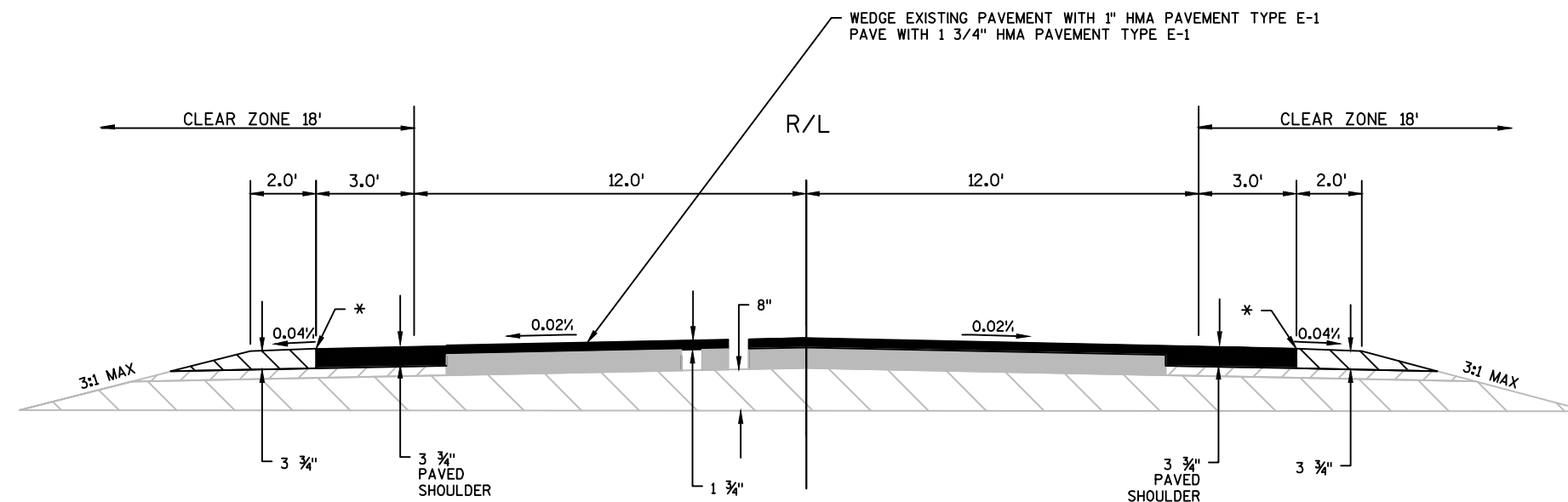


* NOTE: SEE SAFETY EDGE DETAIL



STH 54 EXISTING TYPICAL SECTION

STA. 70+30 - STA. 197+02



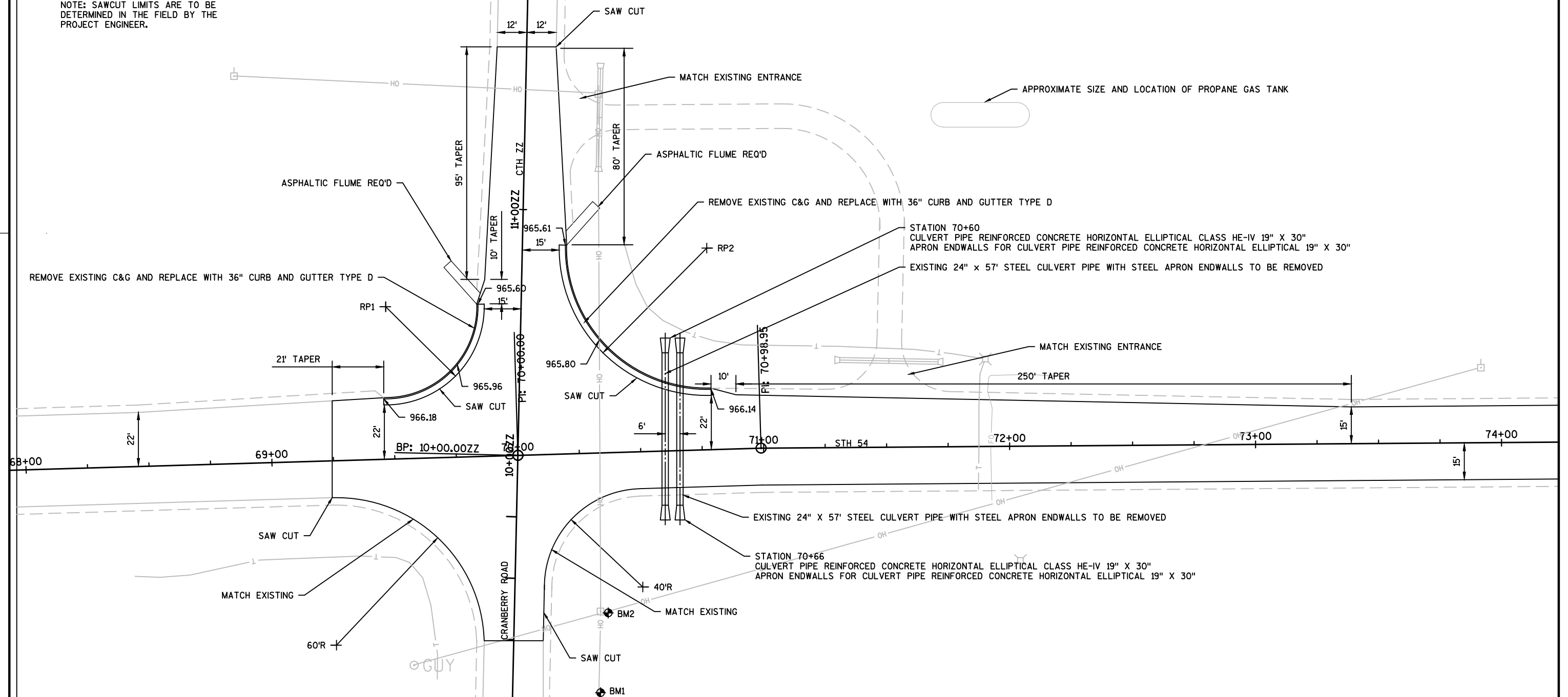
STH 54 PROPOSED TYPICAL SECTION

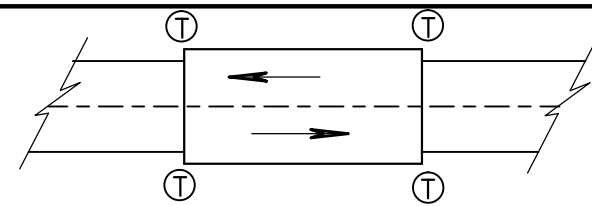
STA. 70+30 - STA. 197+02

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
RP1	69+48.11	62.00' LT	40'	Y:437868.3534 X:600989.9773
RP2	70+79.03	82.00' LT	60'	Y:437895.2022 X:601120.5258

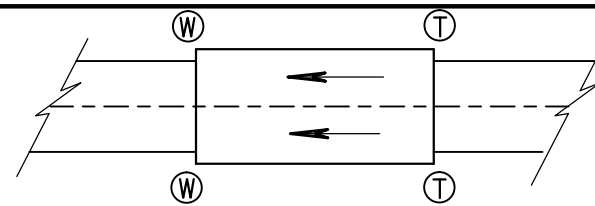
BENCHMARKS			
NO.	STATION	DESCRIPTION	EVEATION
BM1	70+30	CAPPED PIPE SOUTH OF R/W POST	966.13
BM2	70+33	CAPPED PIPE EAST SIDE OF PP	966.64

NOTE: SAWCUT LIMITS ARE TO BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER.





TWO WAY TRAFFIC

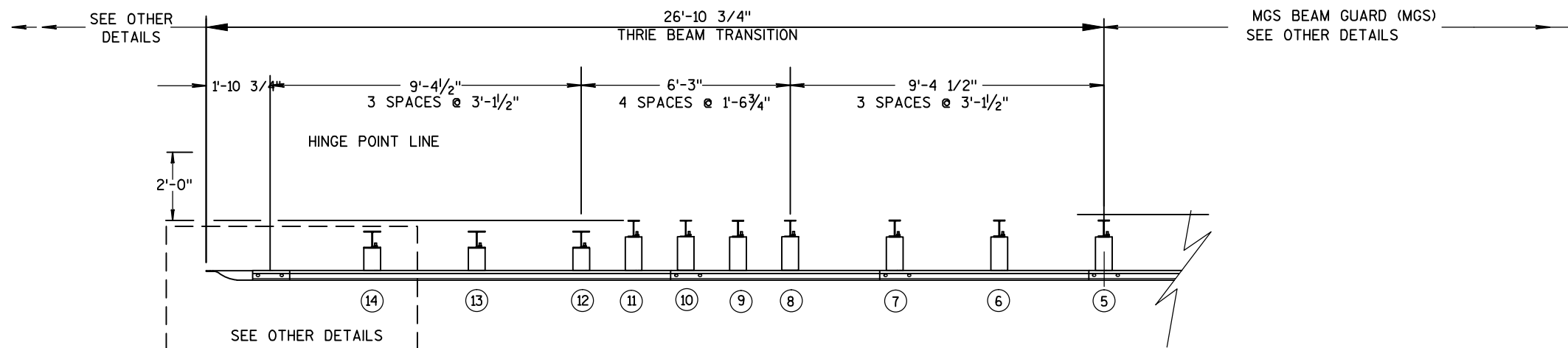


ONE WAY TRAFFIC

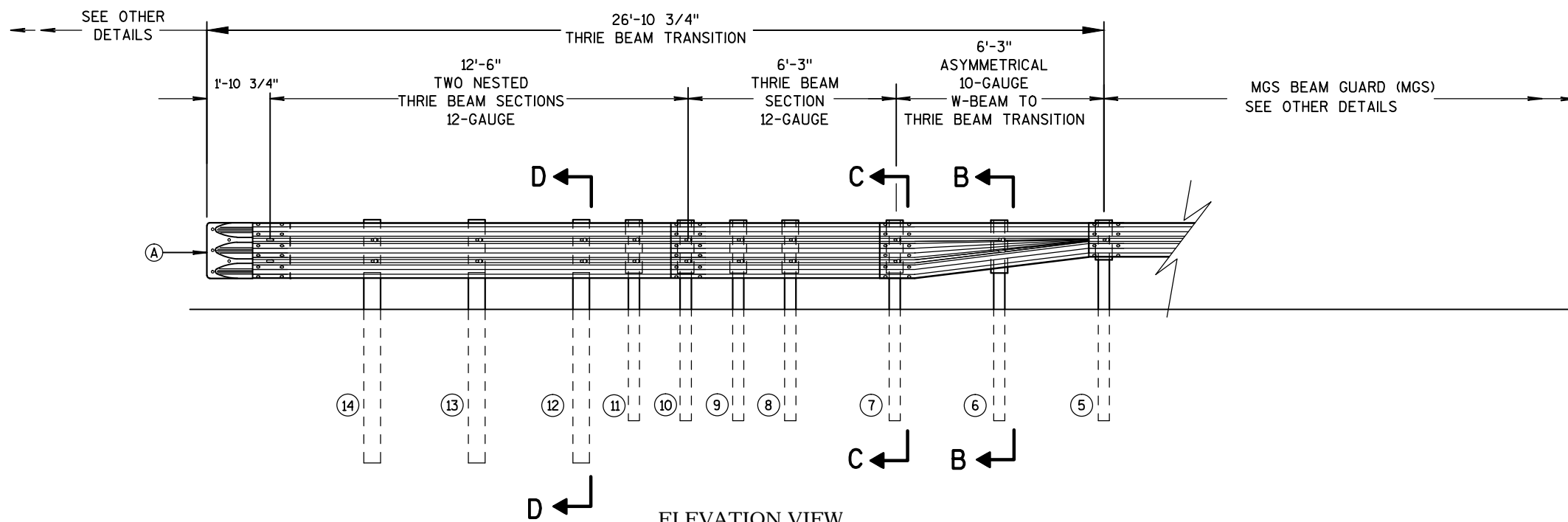
Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

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



PLAN VIEW

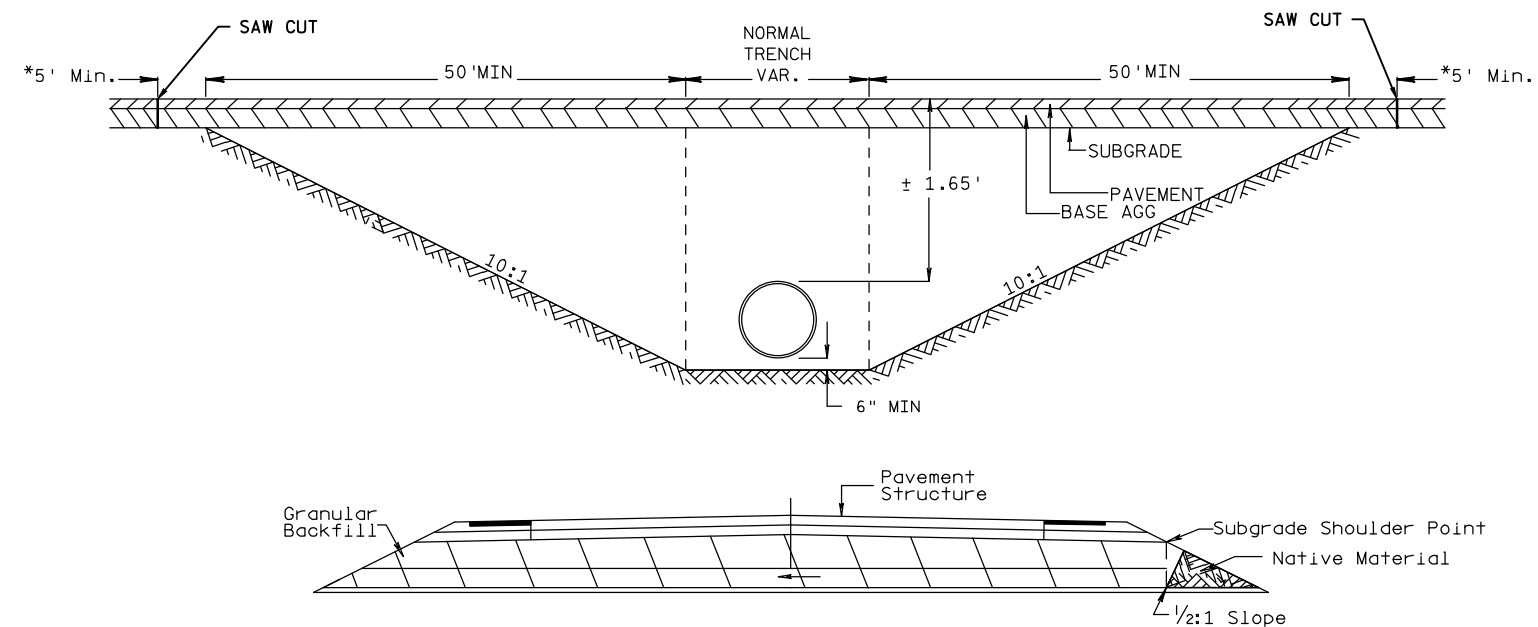
ELEVATION VIEW
THRIE BEAM TRANSITION

GENERAL NOTES

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

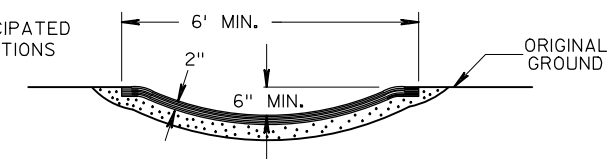
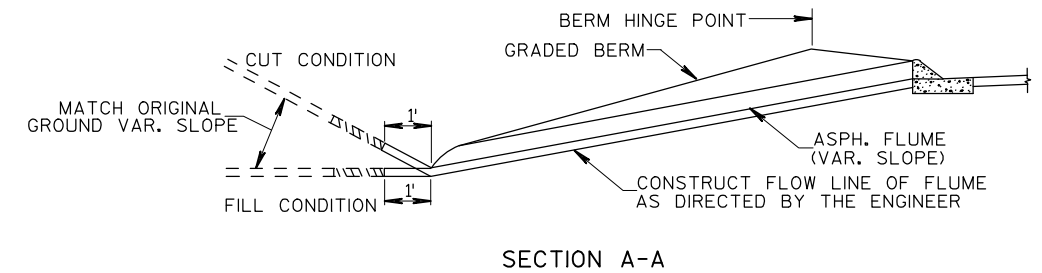
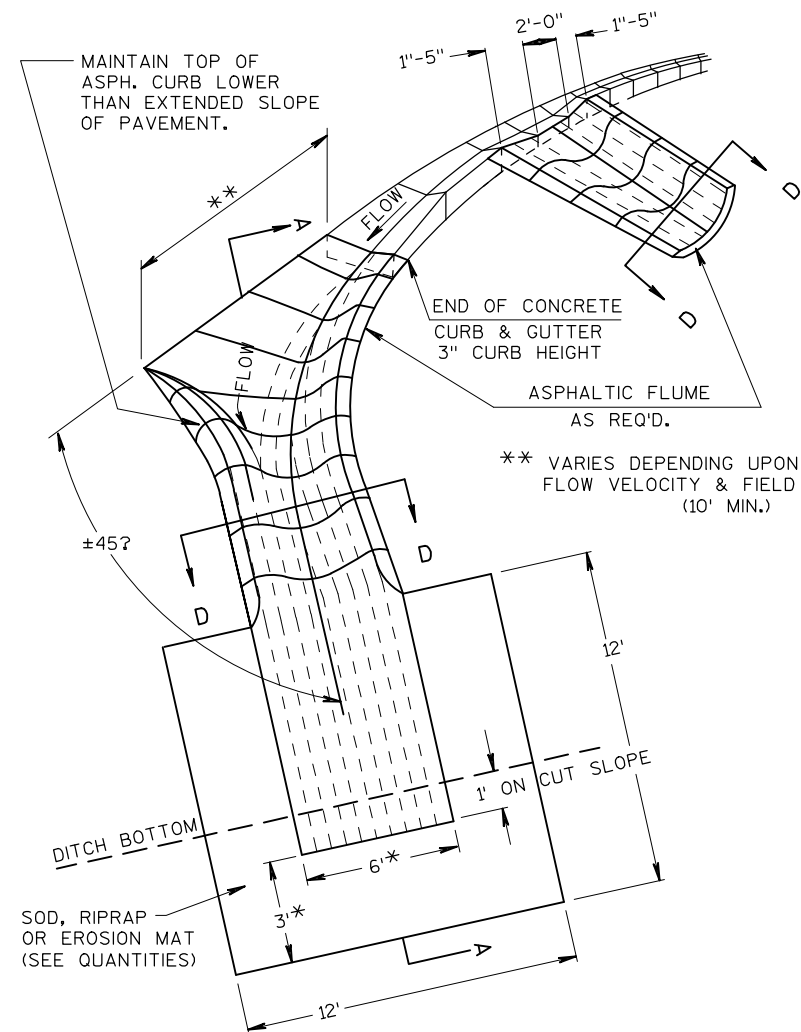
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.



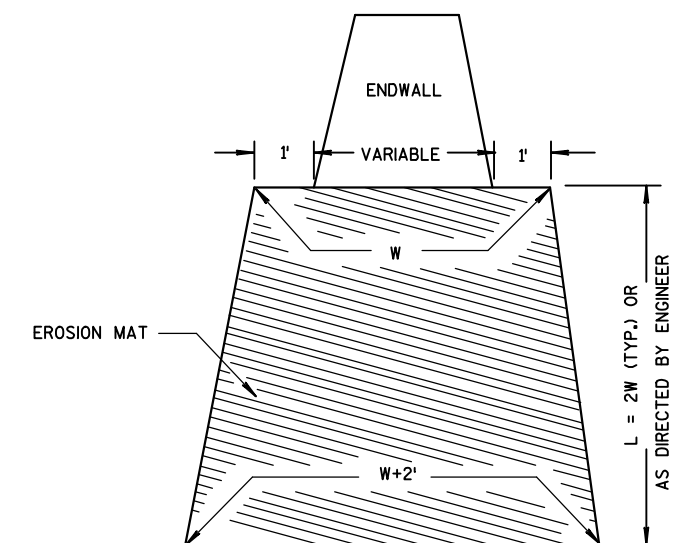
CROSS DRAIN INSTALLATION DETAIL
FOR $D \leq 5'$

* Pavement Removal Limits (Typical)

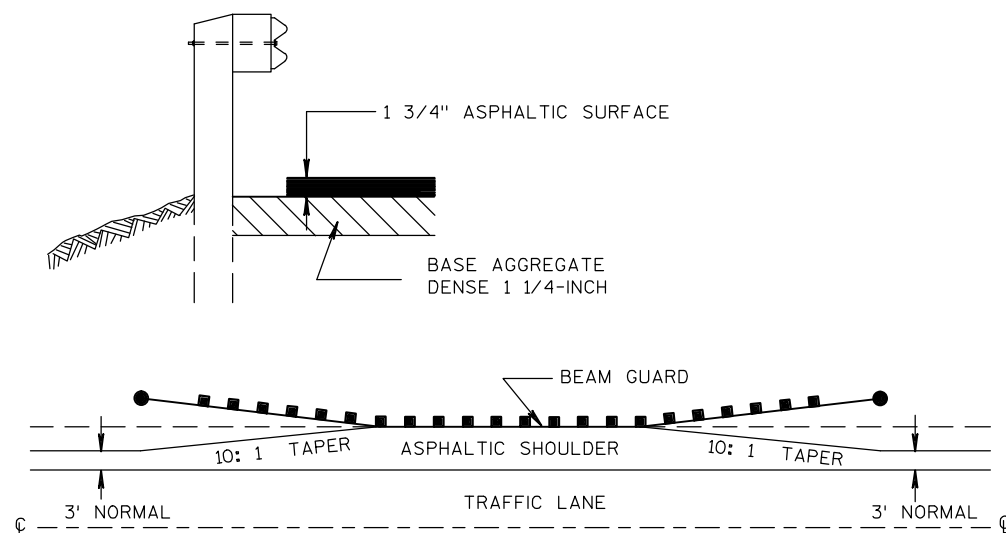


SECTION D-D

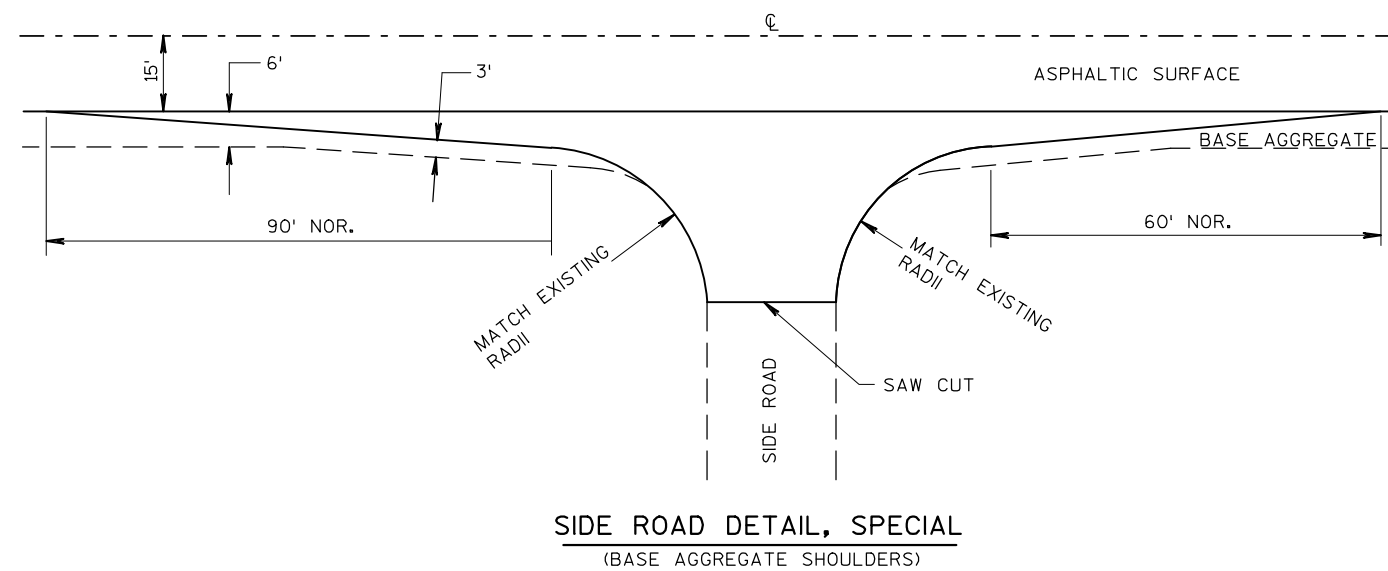
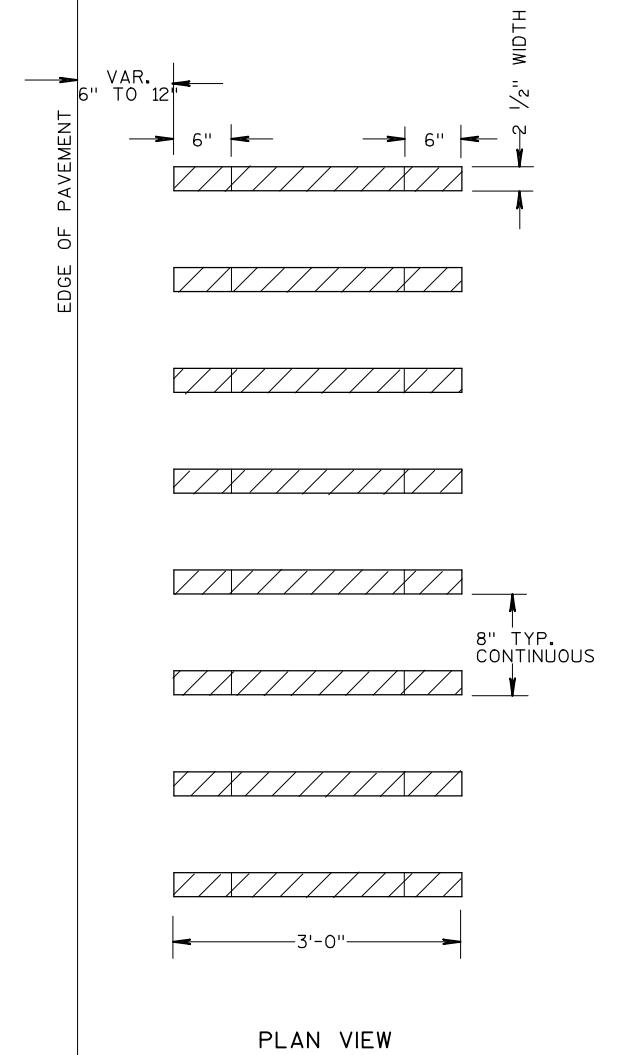
ASPHALTIC FLUME DETAIL AT RURAL INTERSECTIONS

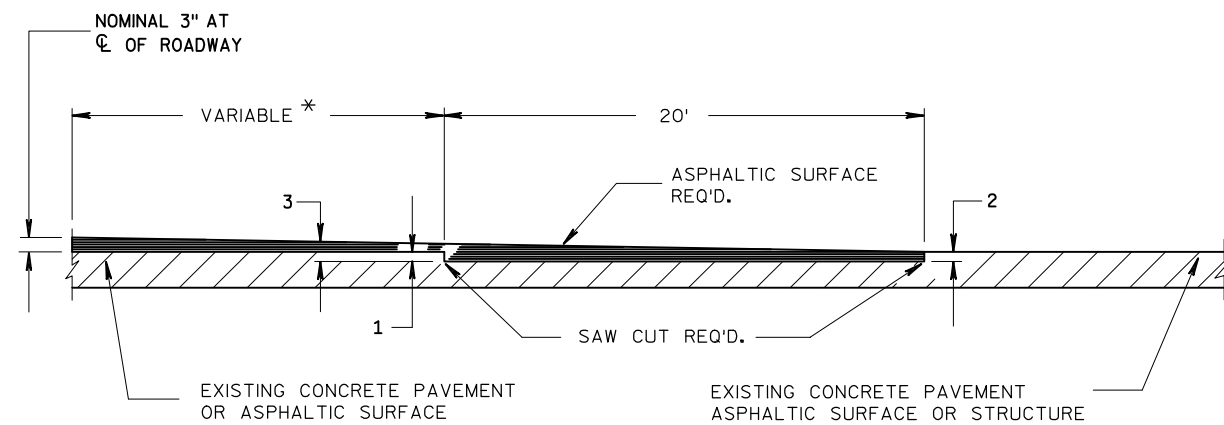


EROSION MAT TREATMENT AT CULVERTS



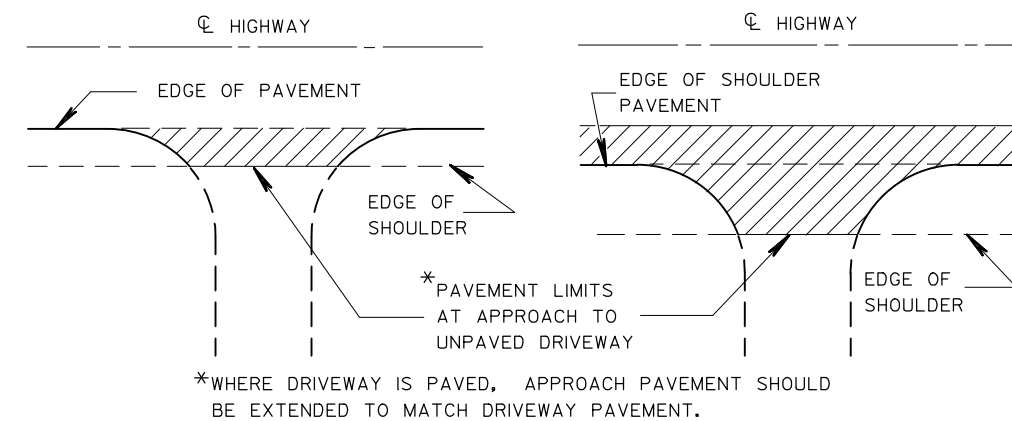
DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD





DETAIL OF BUTTED JOINT

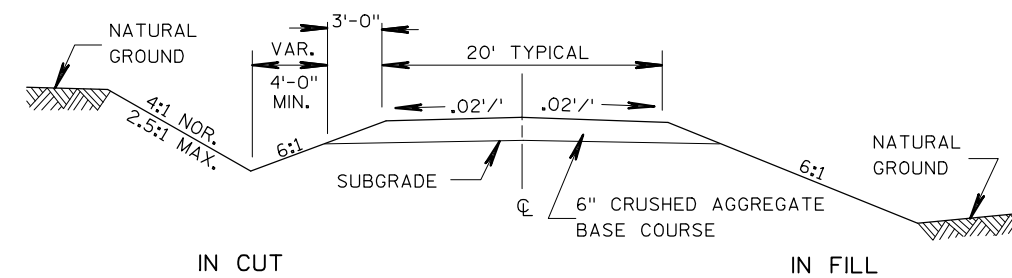
* EXACT DIMENSIONS TO BE DETERMINED BY ENGINEER IN THE FIELD.



PLAN VIEW

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

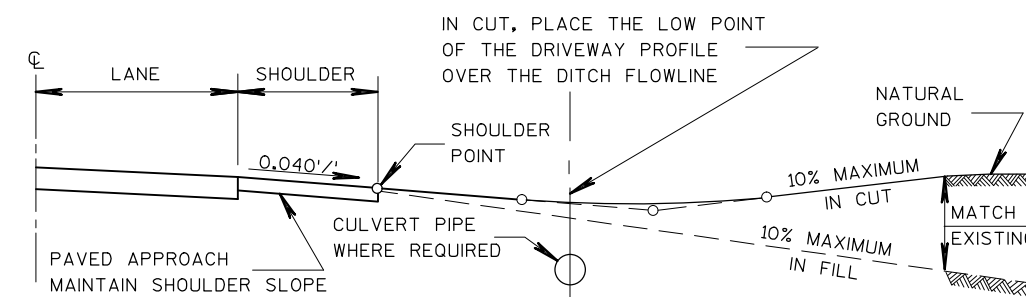
RURAL DRIVEWAY INTERSECTION DETAIL



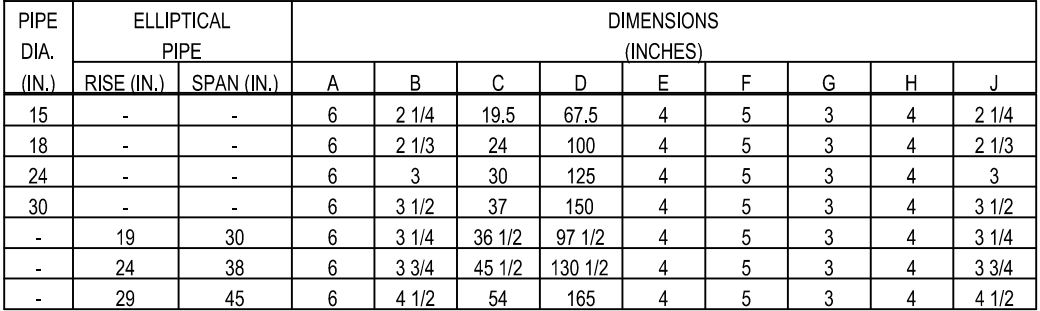
IN CUT

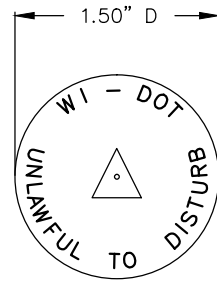
IN FILL

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE



TYPICAL DRIVEWAY PROFILES

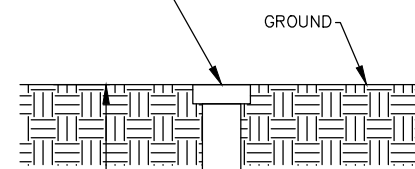




② WIS DOT MONUMENT CAP MARKER LOGO (SSDR130)

CONTRACTOR TO ORDER LANDMARK REFERENCE MONUMENTS WITH THE ABOVE STAMPING

② MONUMENT MARKER FURNISHED BY CONTRACTOR TO BE FLUSH WITH GROUND SURFACE OR DEPRESSED IN PAVED SURFACE.

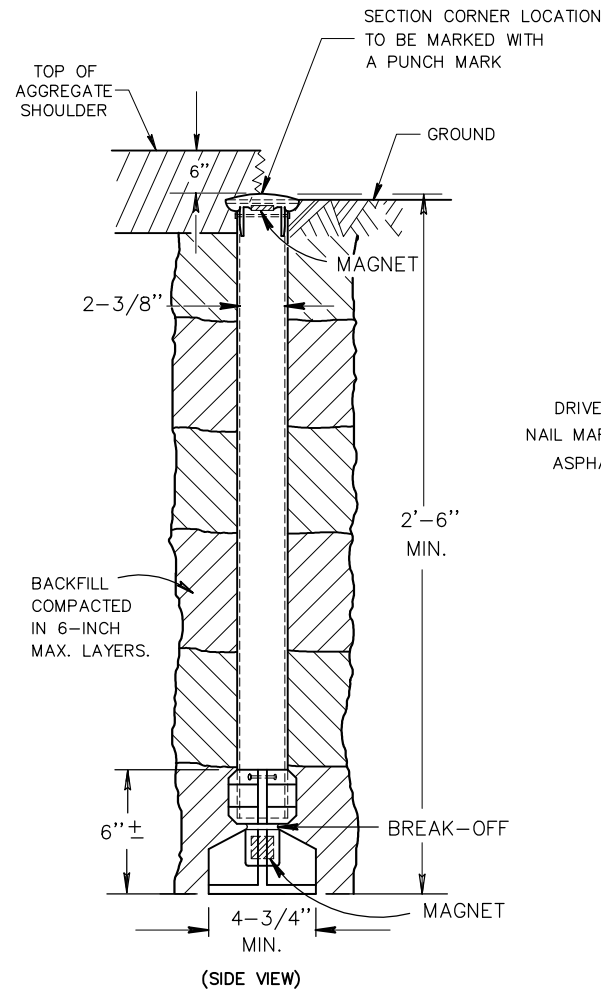


30"

(FRONT VIEW)

BERNSTEN DRIVABLE MONUMENT SSDR130

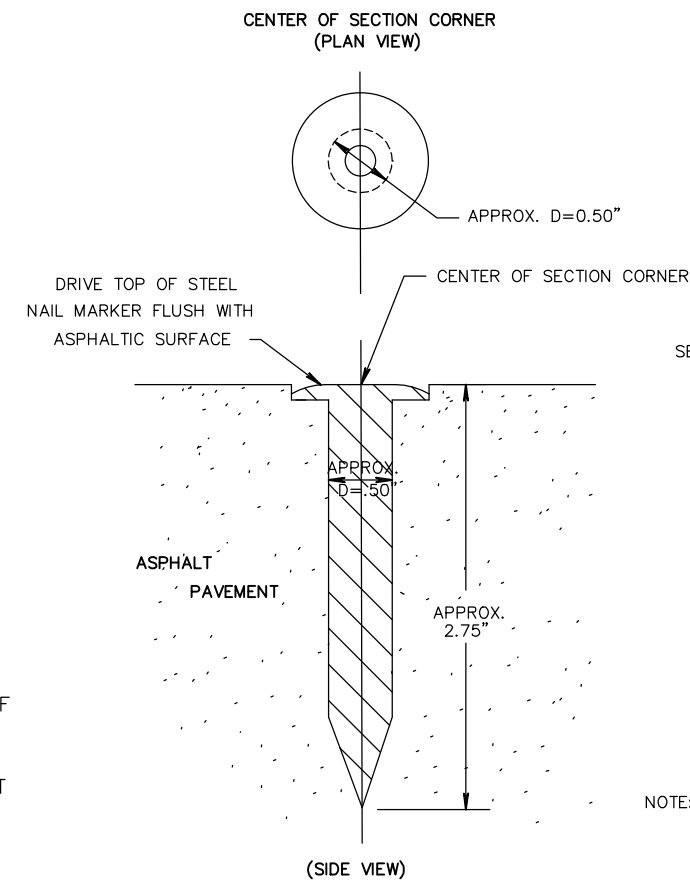
LANDMARK REFERENCE MONUMENT (TIES ONLY)



(SIDE VIEW)

OUTSIDE OF PAVEMENT

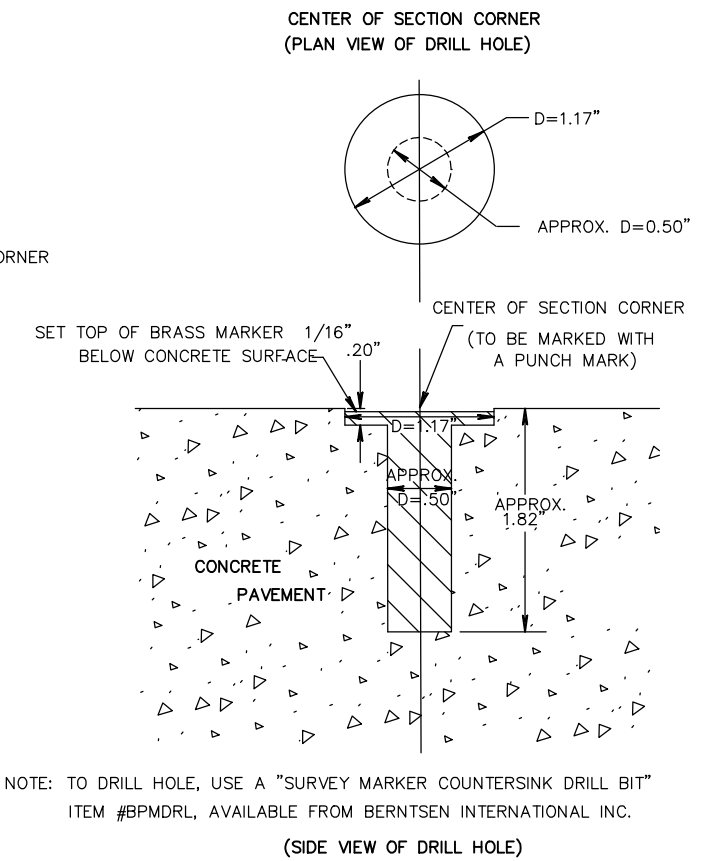
① BERNTSEN A1BR30 ALUMINUM BREAK-OFF MONUMENT



(SIDE VIEW)

IN ASPHALTIC PAVEMENT

① BERNTSEN SNM1 STEEL NAIL MARKER



(SIDE VIEW OF DRILL HOLE)

IN CONCRETE PAVEMENT

① BERNTSEN BP - 1 BRASS MARKER WITH ANCHOR PLUG

NOTE: TO DRILL HOLE, USE A "SURVEY MARKER COUNTERSINK DRILL BIT" ITEM #BPMDDL, AVAILABLE FROM BERNTSEN INTERNATIONAL INC.

SECTION CORNER MONUMENTS

GENERAL NOTES

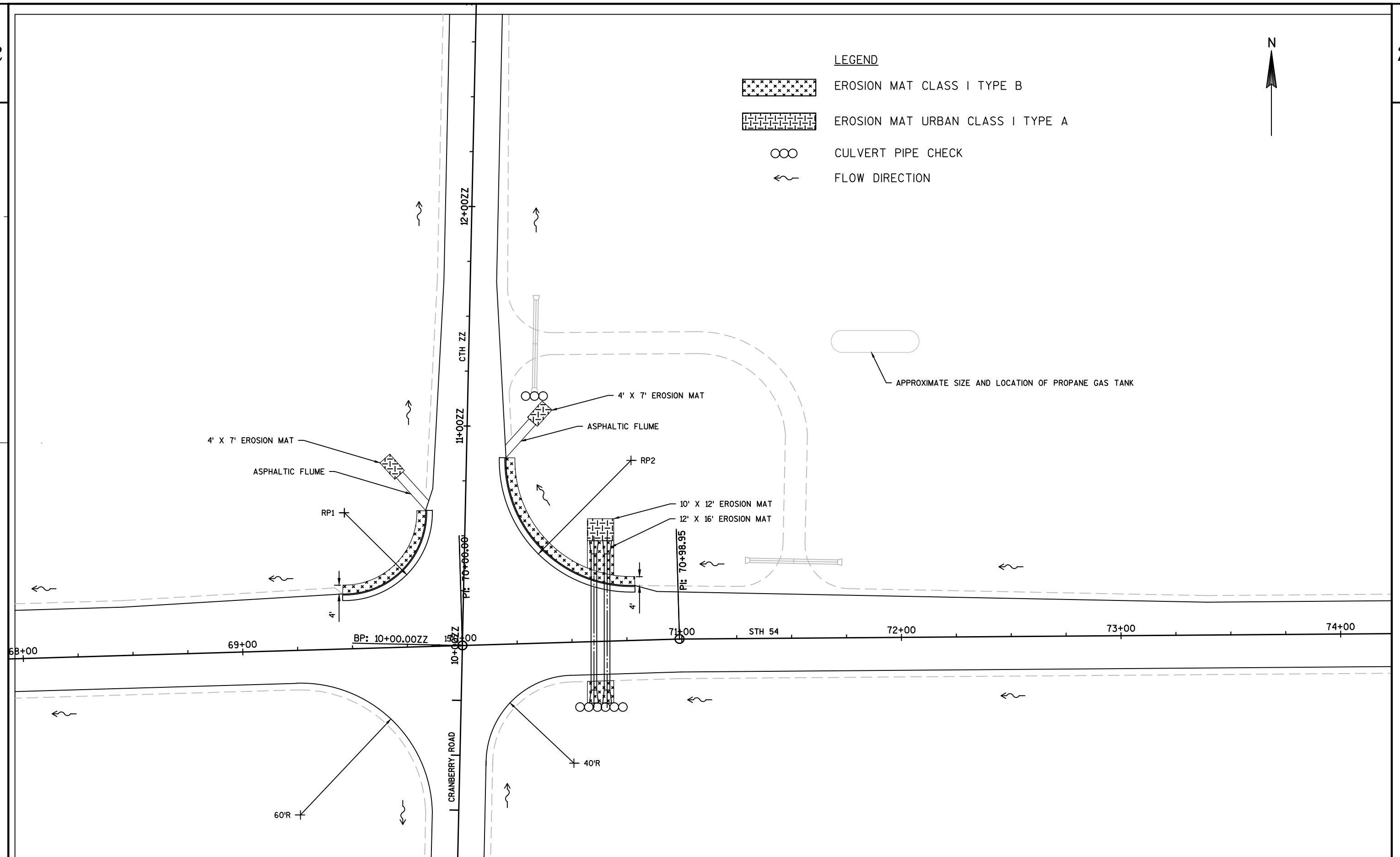
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

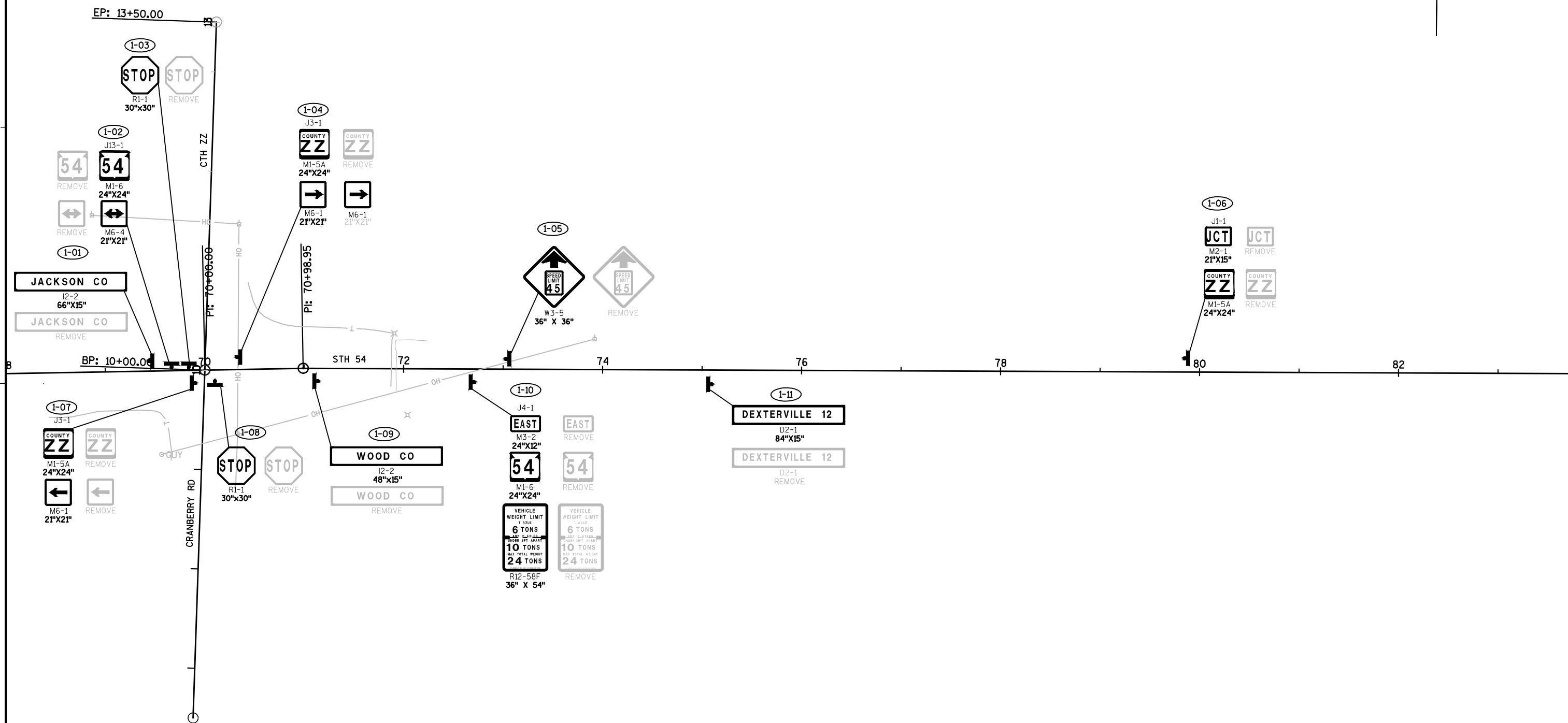
LOCATE LANDMARK REFERENCE MONUMENTS OUTSIDE THE CONSTRUCTION LIMITS AND WITHIN WISDOT RIGHT OF WAY. LOCATION TO BE APPROVED BY THE ENGINEER.

① THE REGIONAL SURVEY COORDINATOR WILL SUPPLY.

② CONTRACTOR WILL SUPPLY.

SECTION CORNER MONUMENT AND LANDMARK REFERENCE MONUMENT DETAIL

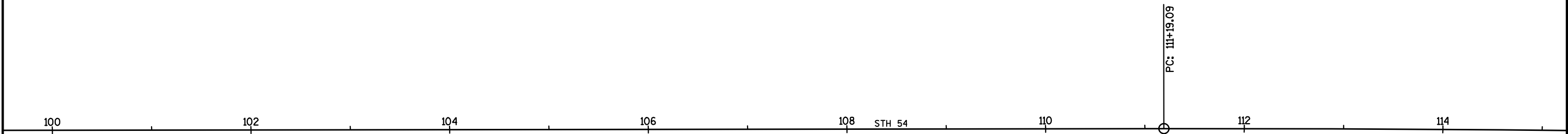






2

2

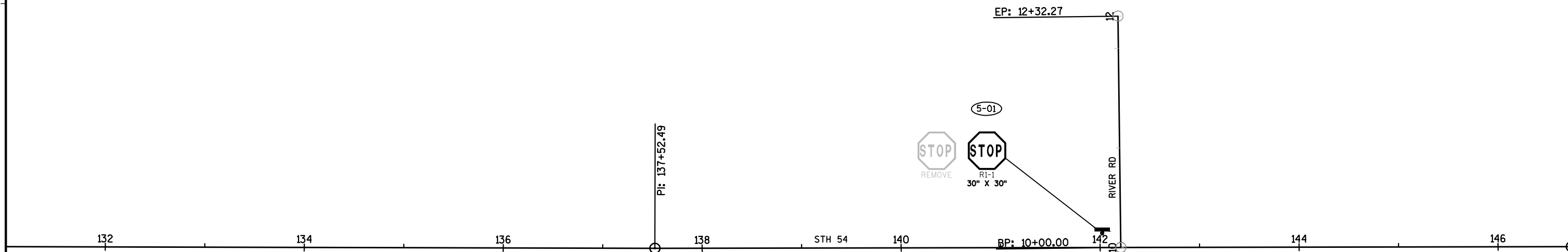




PT: 119+66.54

116 118 120 122 STH 54 124 126 128 130

PI STA = 115+42.83
Y = 437841.995
X = 605586.354
DELTA = 1°19'29"
D = 0°09'23"
T = 423.75'
L = 847.45'
R = 36651.11'
PC STA = 111+19.09
PT STA = 119+66.54





Pl: 146+73.56

148

150

152

STH 54

154

EP: 10+00.00

156

158

160

162

Pl: 152+54.89

BERRY RD

6-01



30" X 30"



REMOVE

BP: 7+67.71



PI: 169+31.29

164

166

168

170

STH 54

172

174

176

178

2

2



180

182

184

STH 54

186

188

190

PC: 191+19.87

192

194

PROJECT NO: 7513-00-81

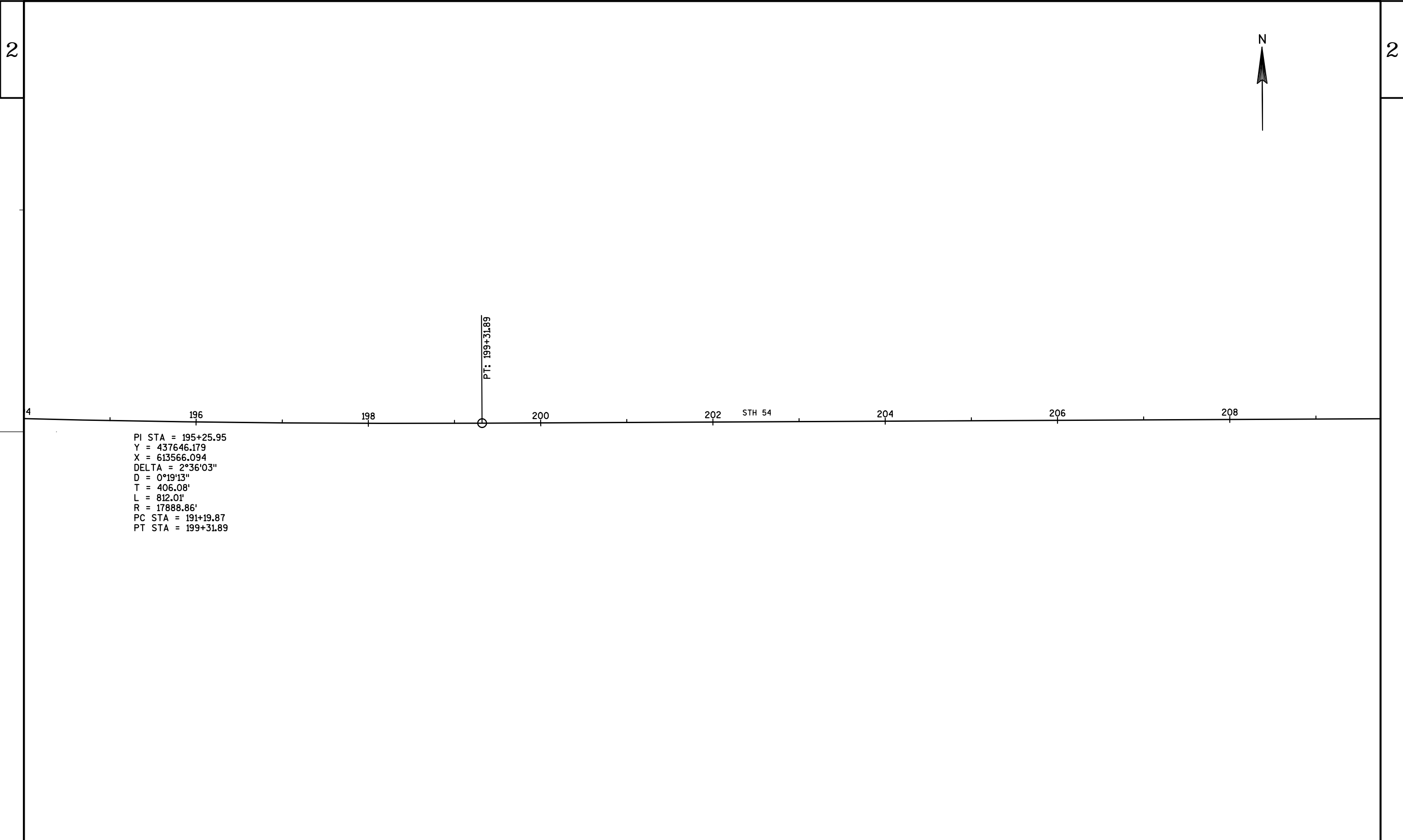
HWY: STH 54

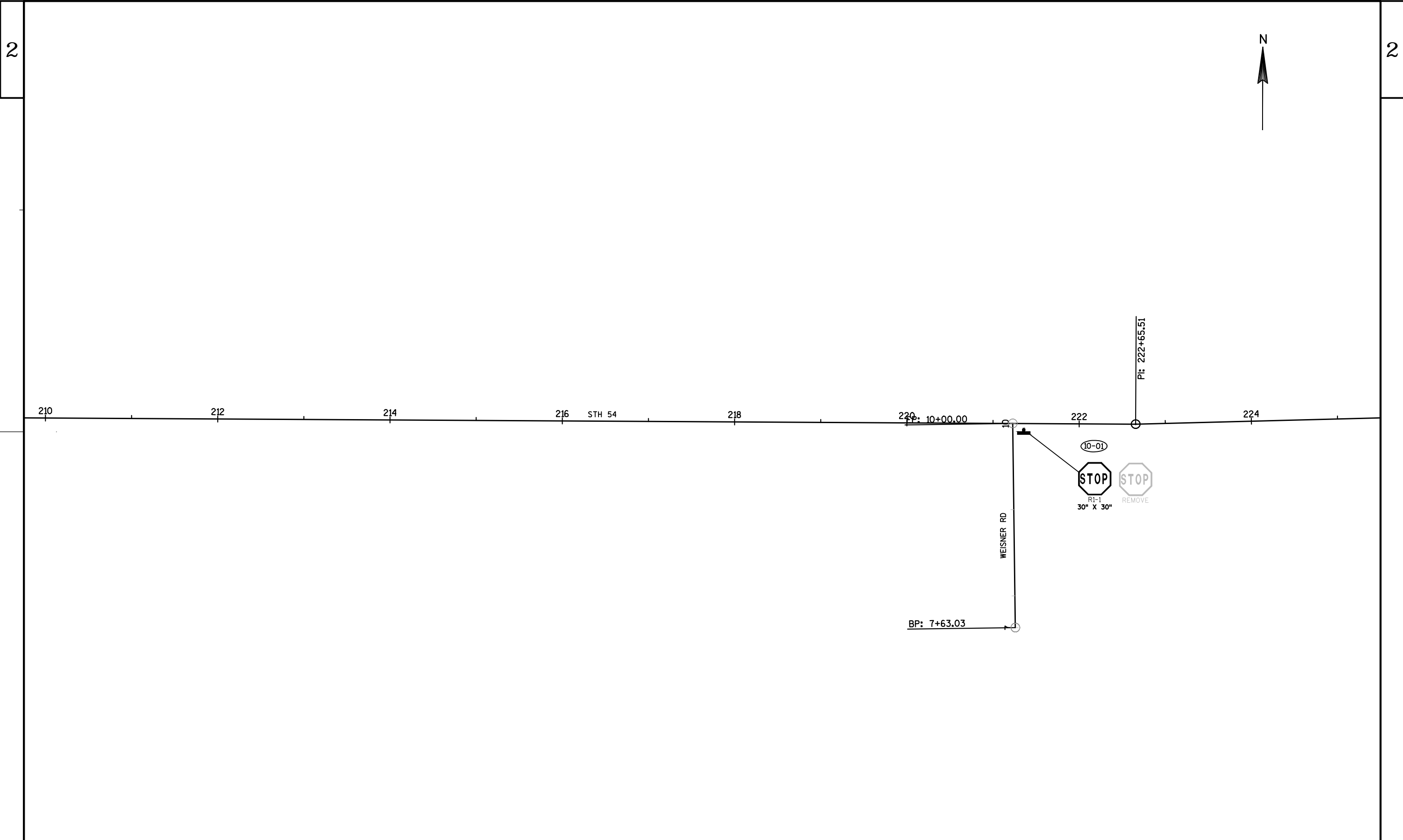
COUNTY: WOOD

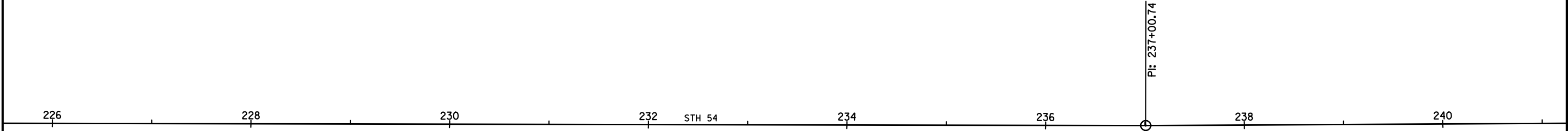
PLAN DETAIL

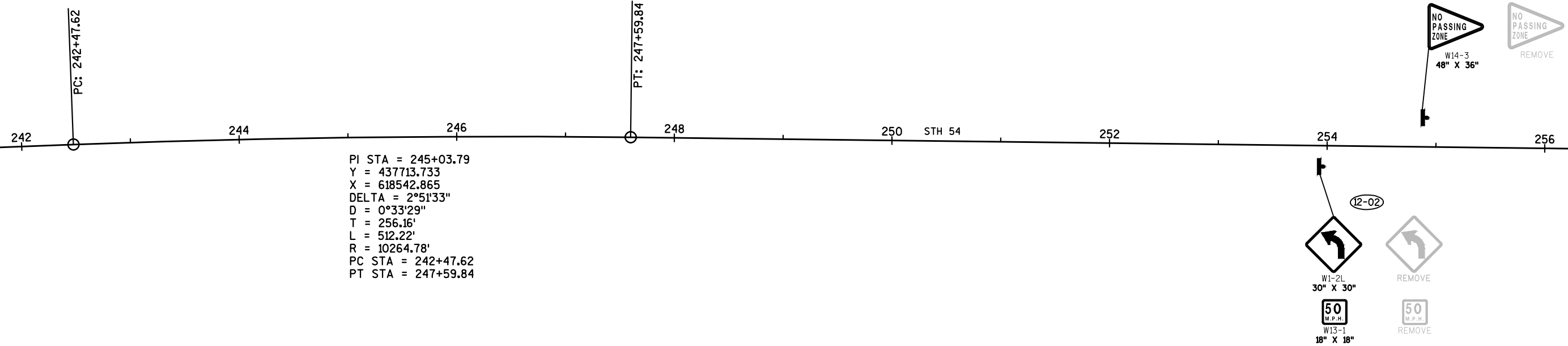
SHEET

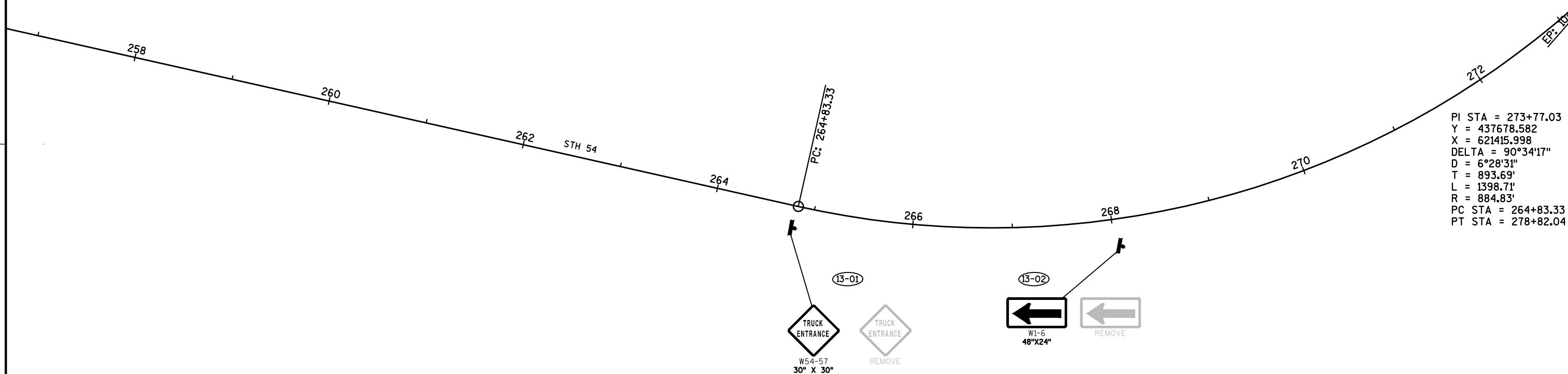
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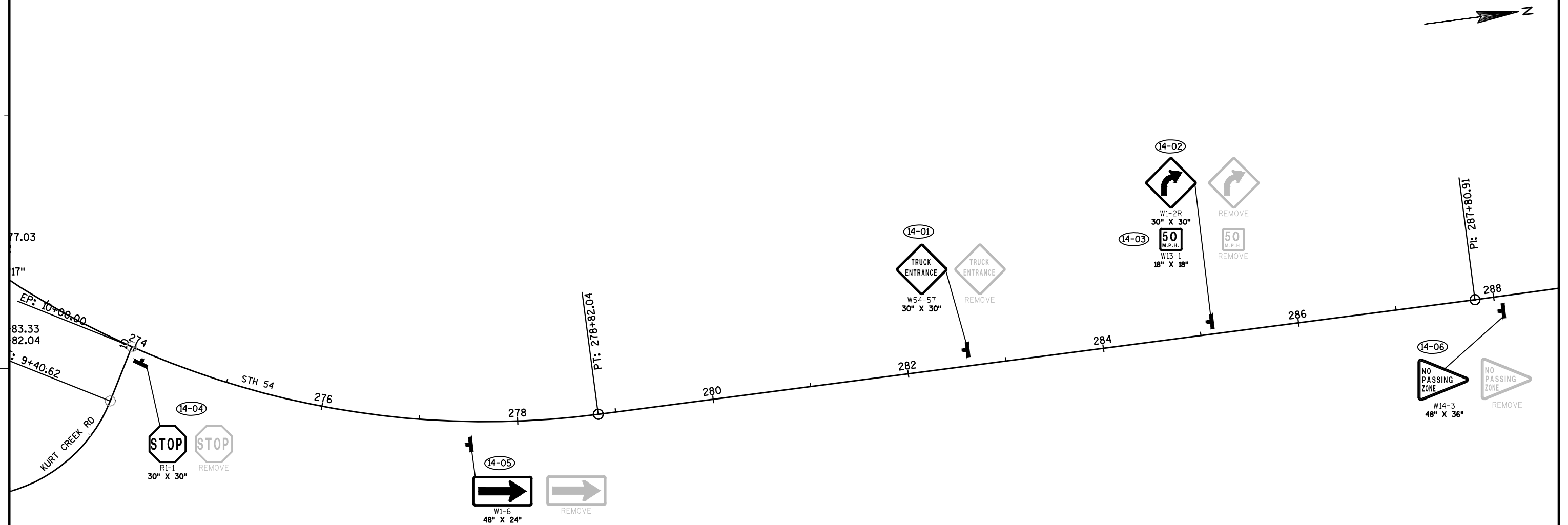


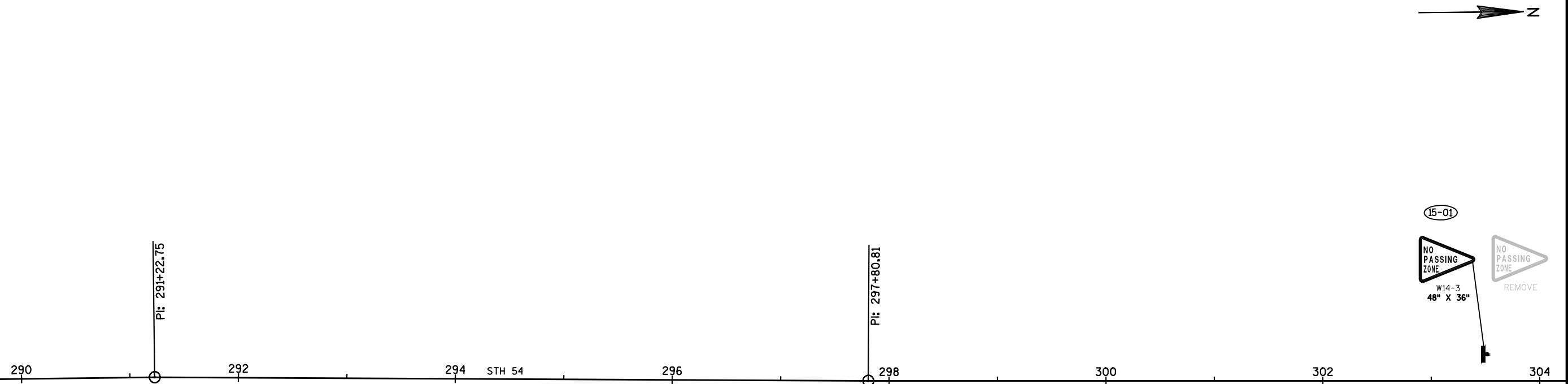


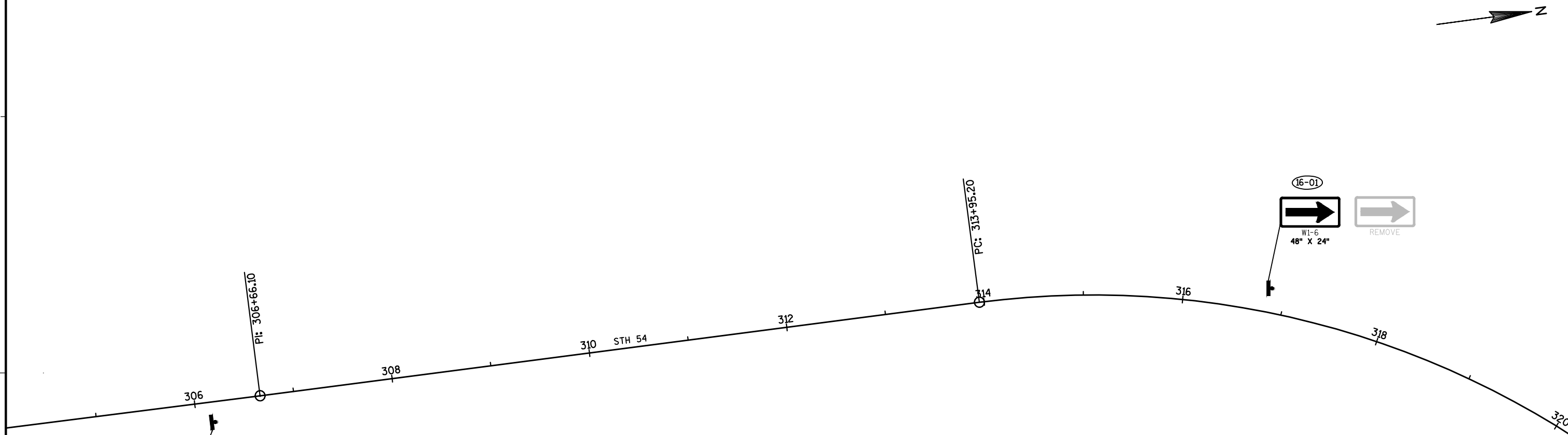


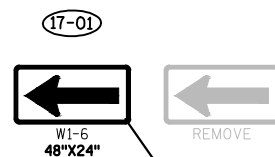












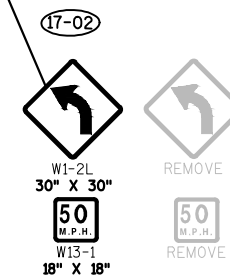
17-01

W1-6
48" X 24"



REMOVE

PT: 327+96.35
STH 54



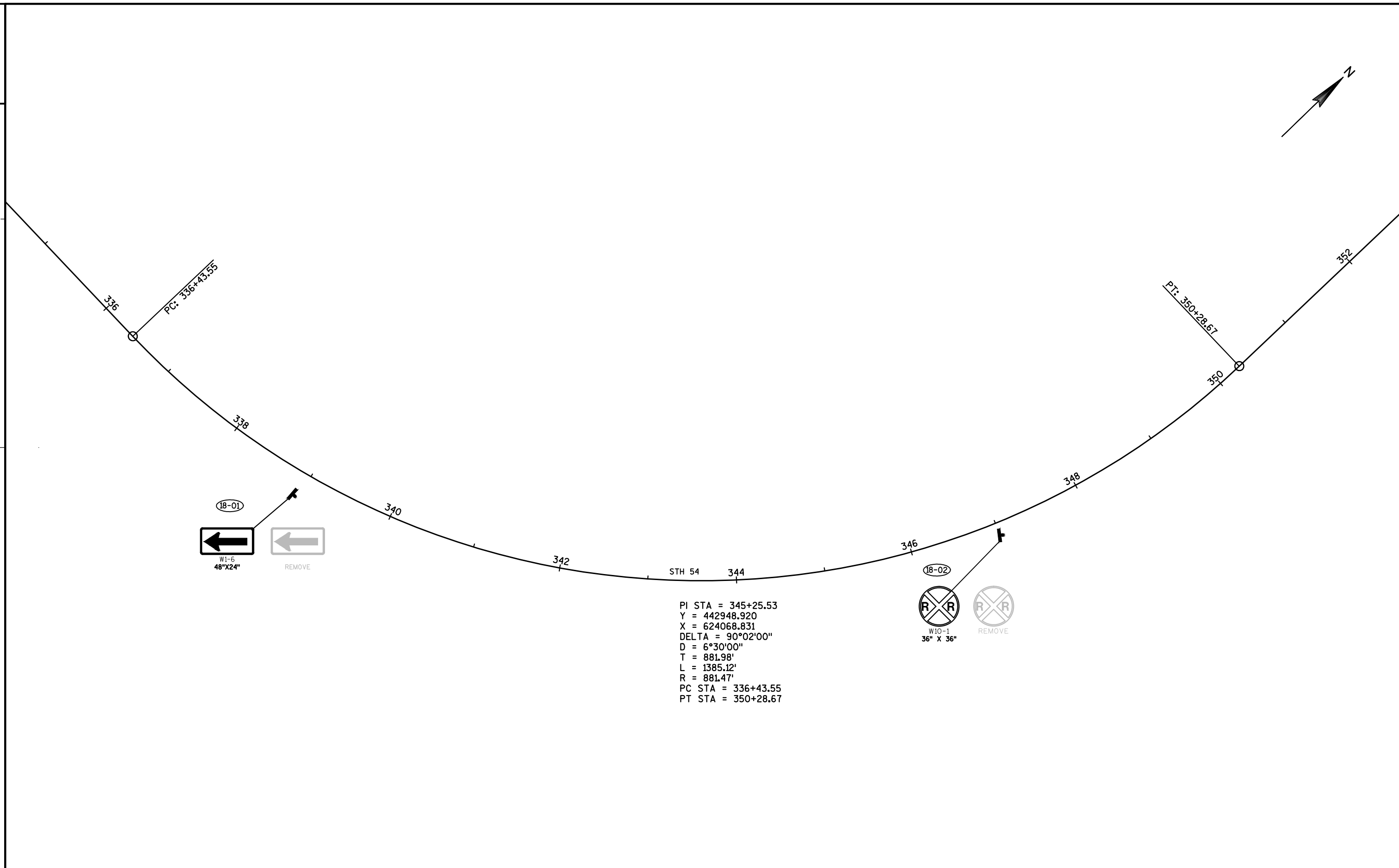
17-02

W1-2L
30" X 30"
50
M.P.H.
W13-1
18" X 18"



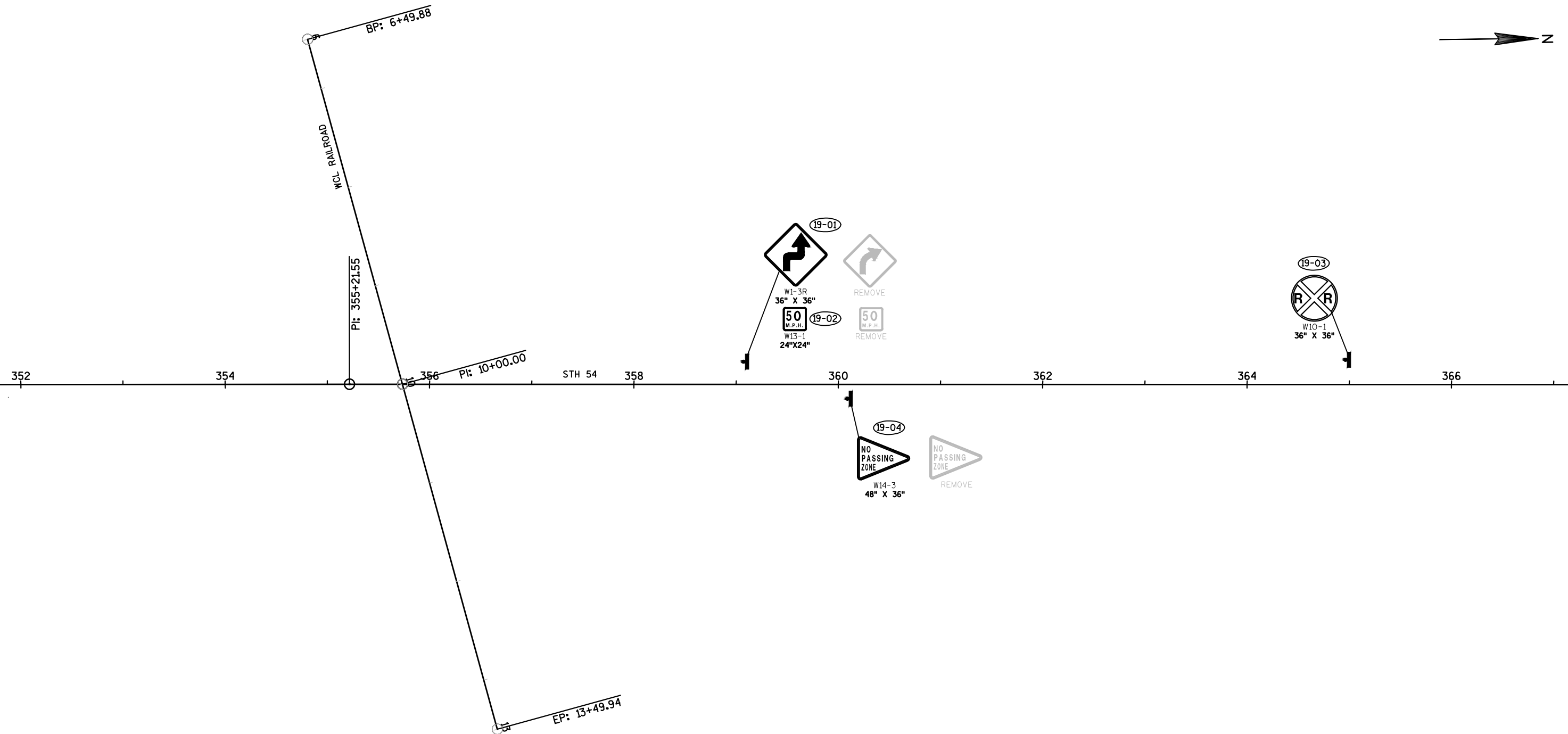
REMOVE
50
M.P.H.
REMOVE

PI STA = 322+88.99
Y = 442979.090
X = 621446.037
DELTA = 90°18'54"
D = 6°26'45"
T = 893.79'
L = 1401.16'
R = 888.89'
PC STA = 313+95.20
PT STA = 327+96.35



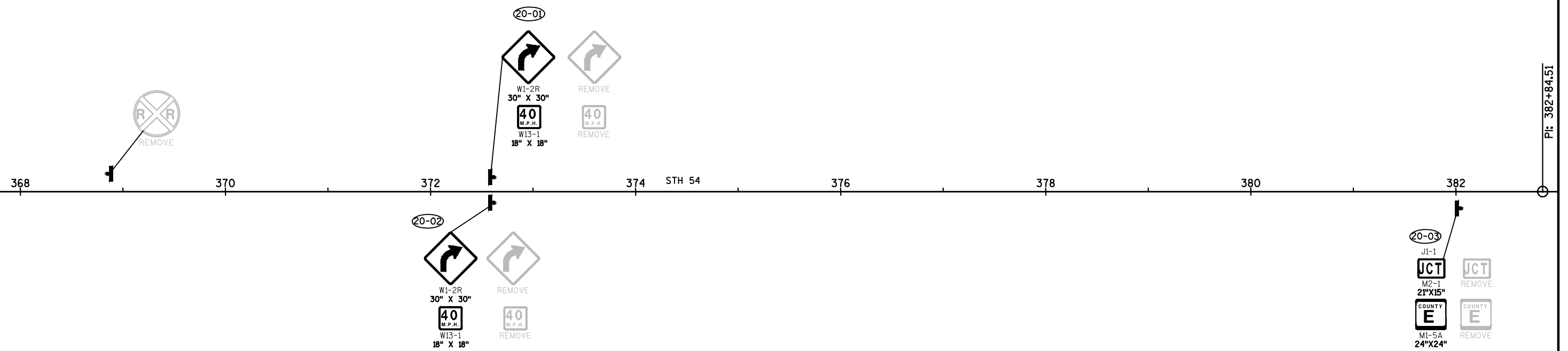
2

2



2

2 |



PROJECT NO: 7513-00-81

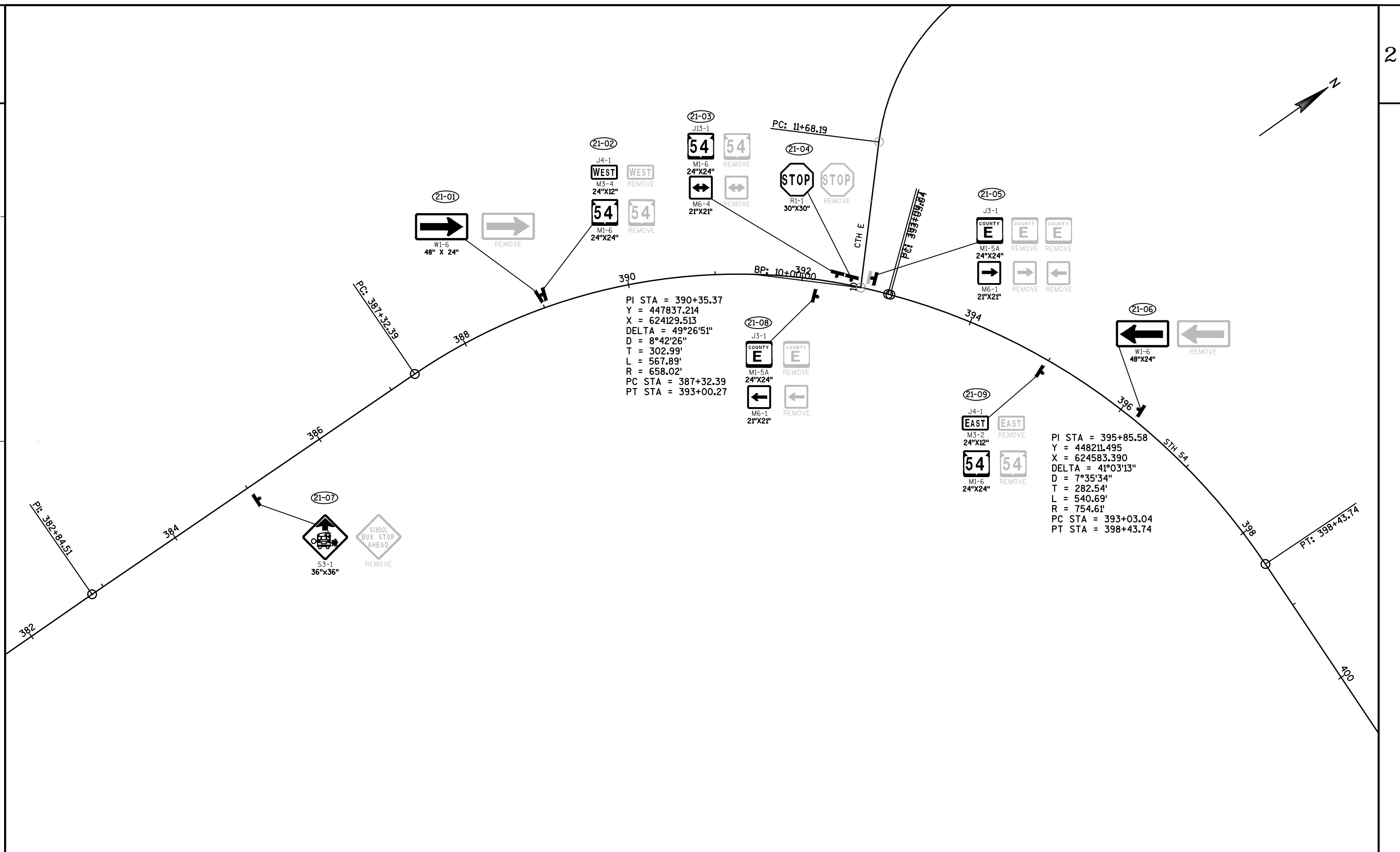
HWY: STH 54

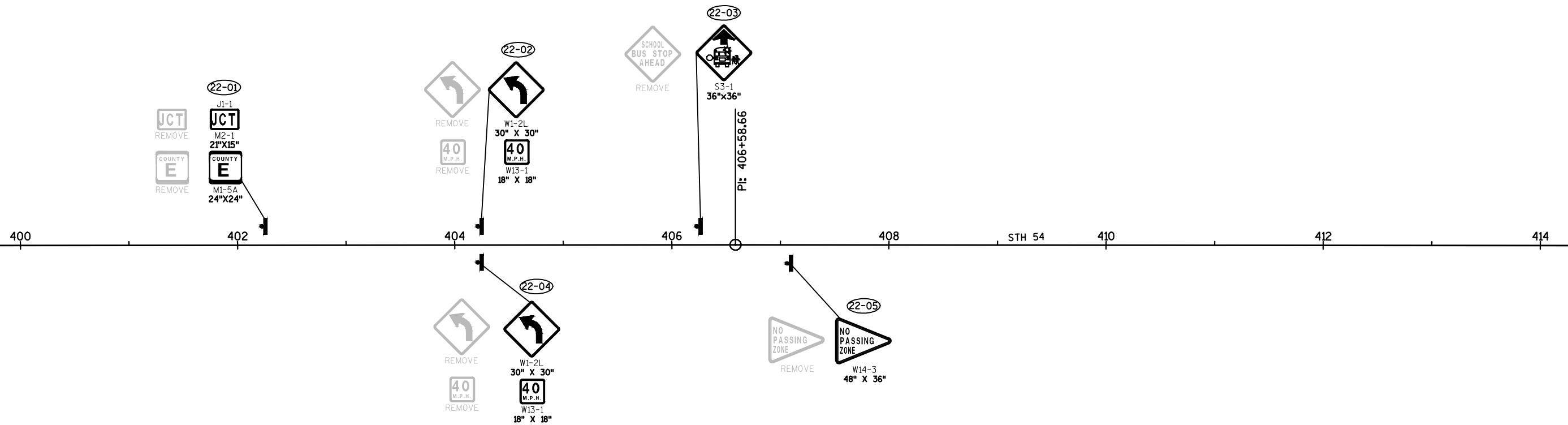
COUNTY: WOOD

PLAN DETAIL

SHEET

[F]







PI: 417+47.44

416

418

420

422

STH 54

424

426

428

430

2

2



432

434

436

STH 54

438

440

442

444

446

PROJECT NO: 7513-00-81

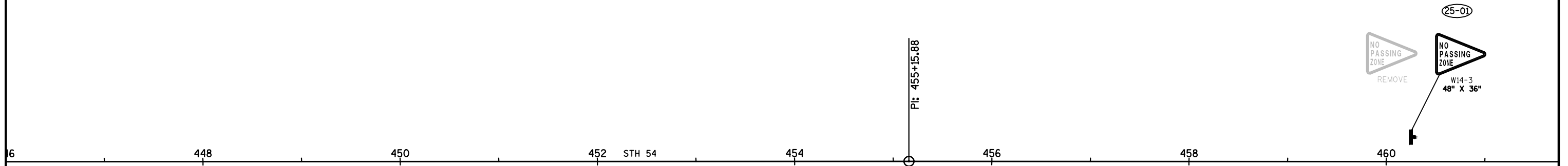
HWY: STH 54

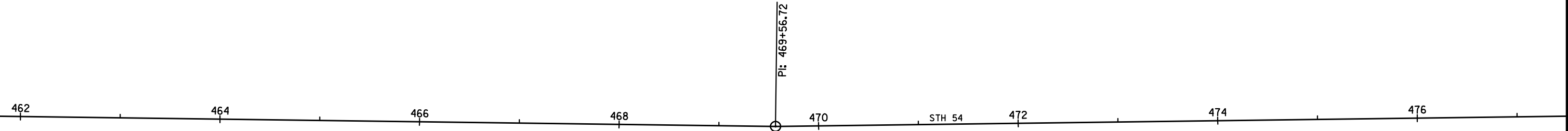
COUNTY: WOOD

PLAN DETAIL

SHEET

E







Pl: 479+03.99

Pl: 489+04.11

478

480

482

484

486

STH 54

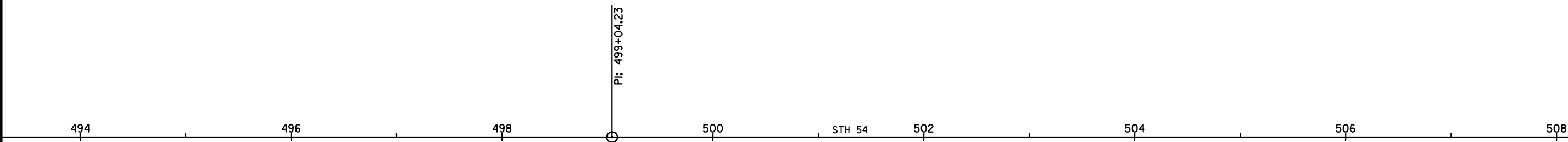
488

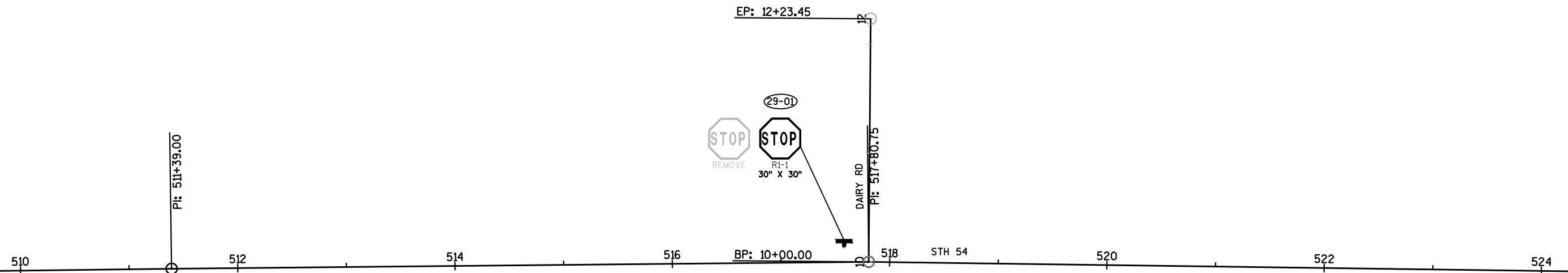
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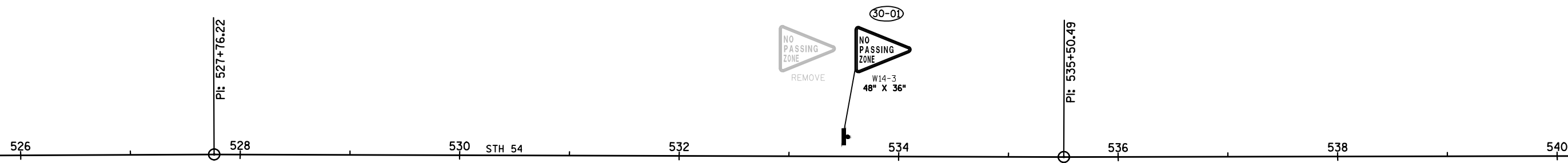
492



(27-01)









PI: 544+37.28

542

544

546

548

STH 54

550

552

554

556



REMOVE

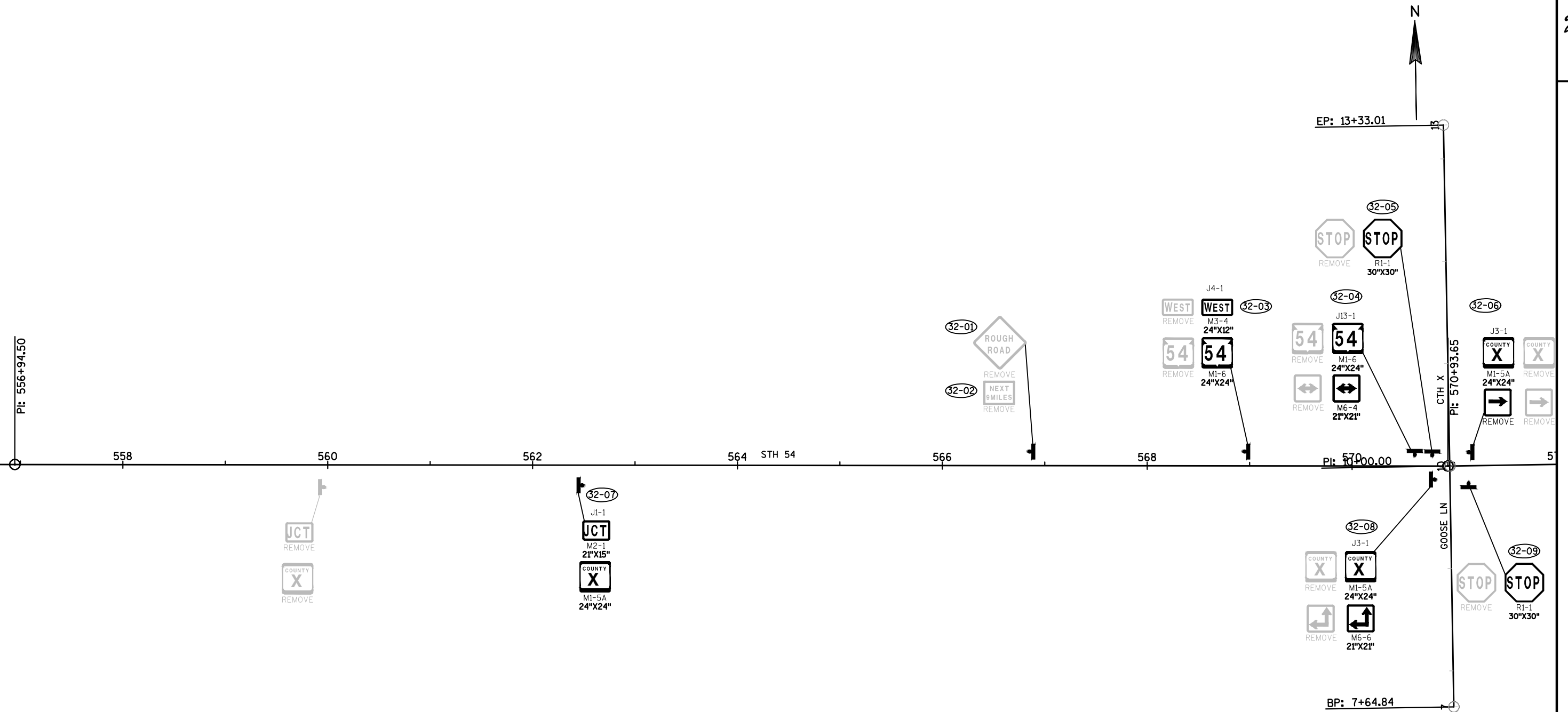


31-01

W14-3
48" X 36"

2

2 |



PROJECT NO: 7513-00-81

HWY: STH 54

COUNTY: WOOD

PLAN DETAIL

SHEET

[T]



33-01

J2-1



M1-5A
24"X24"



M5-1R
21"X21"

576

STH 54

578

580

582

584

586

33-02

J4-1



M3-2
24"X12"



M1-6
24"X24"



REMOVE



REMOVE

572

574



588 590 592 594 596 STH 54 598 600 602



604 606 608 STH 54 610 612 614 616 618



35-02

ROAD TO
DEXTER
County Park
1 MILE

D7-68
60"X42"

CAMPING
DB5-69G
48" X 9"

ROAD TO
DEXTER
County Park
1 MILE

REMOVE

CAMPING
REMOVE

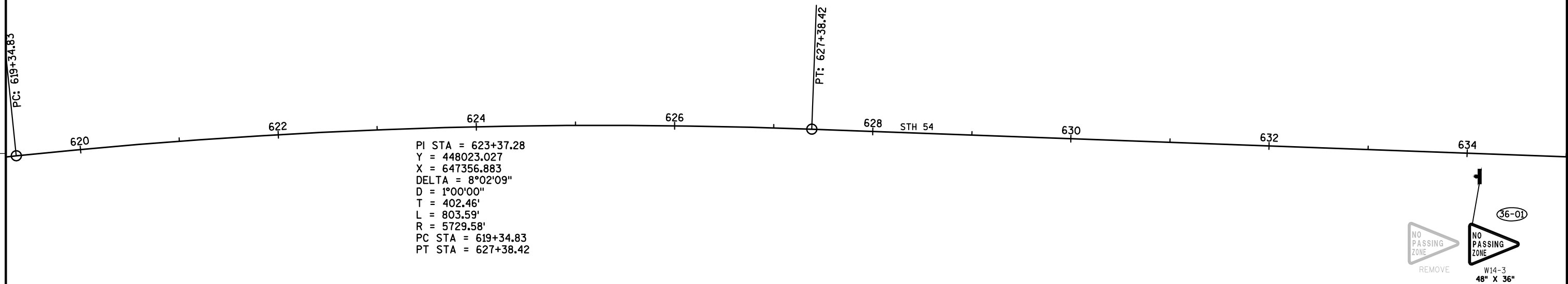
35-01

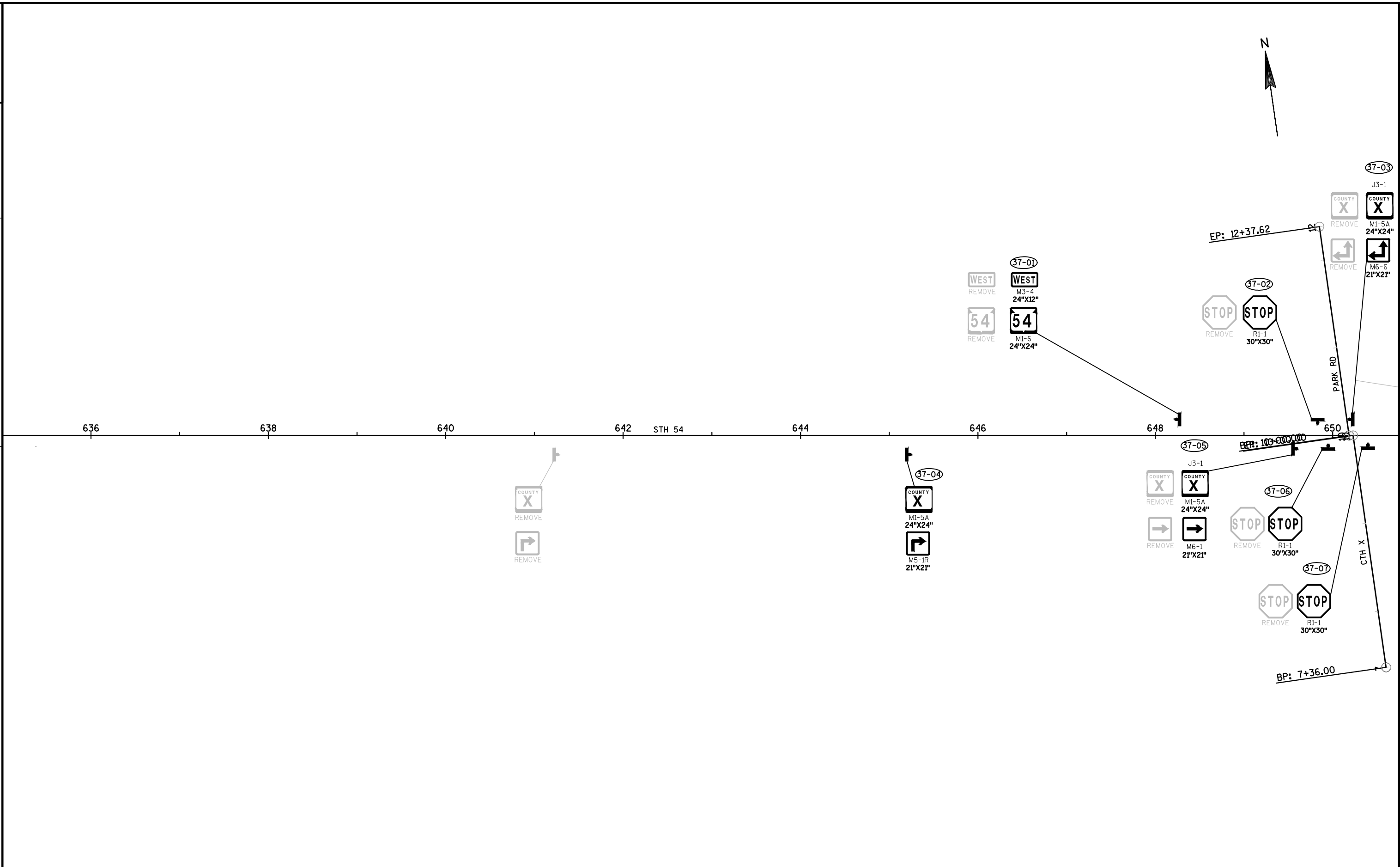
NO
PASSING
ZONE

W14-3
48" X 36"

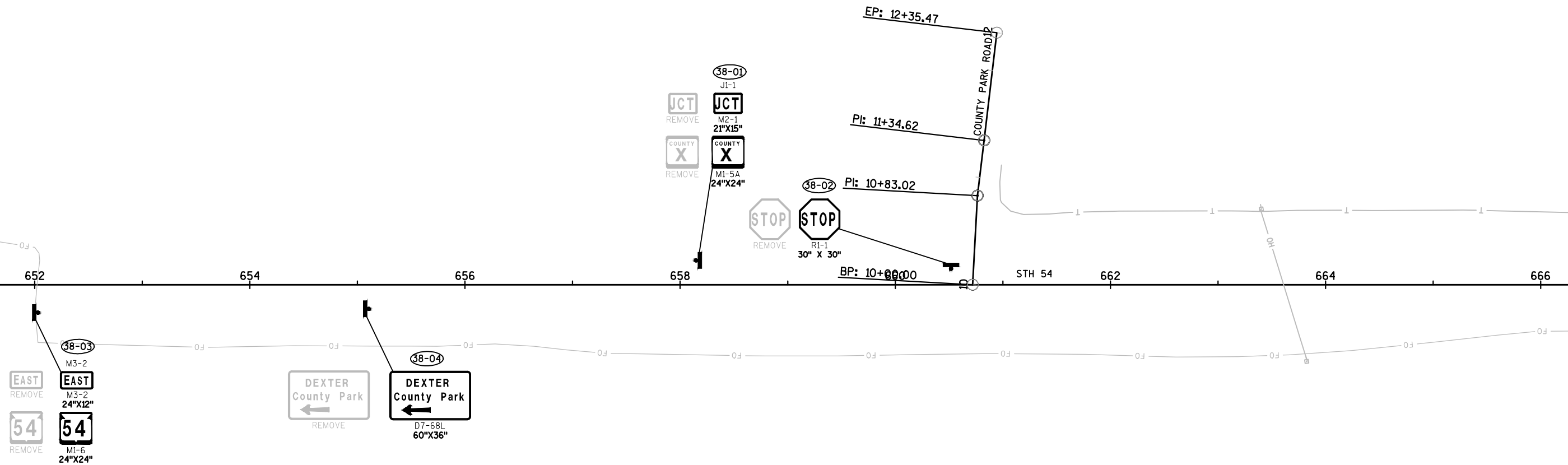
NO
PASSING
ZONE

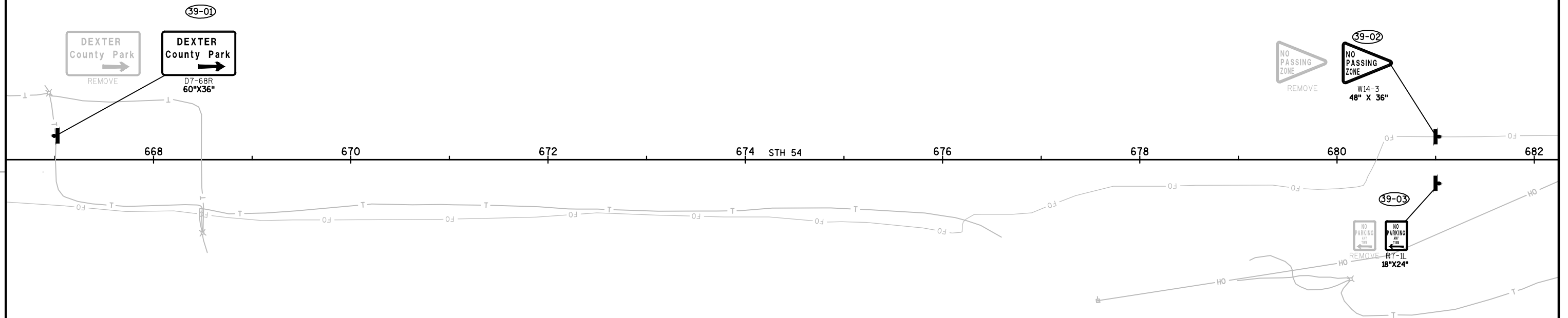
REMOVE

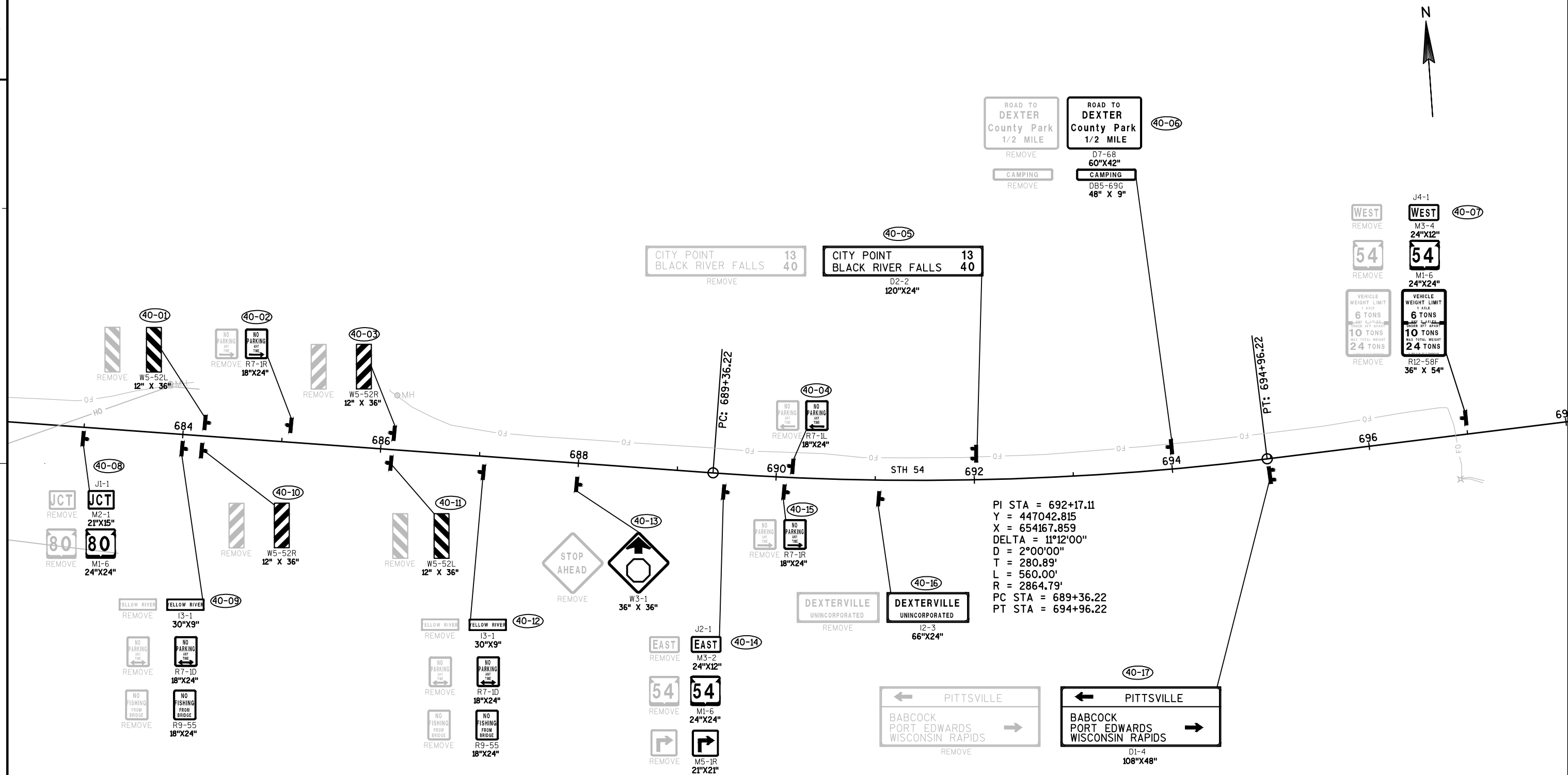


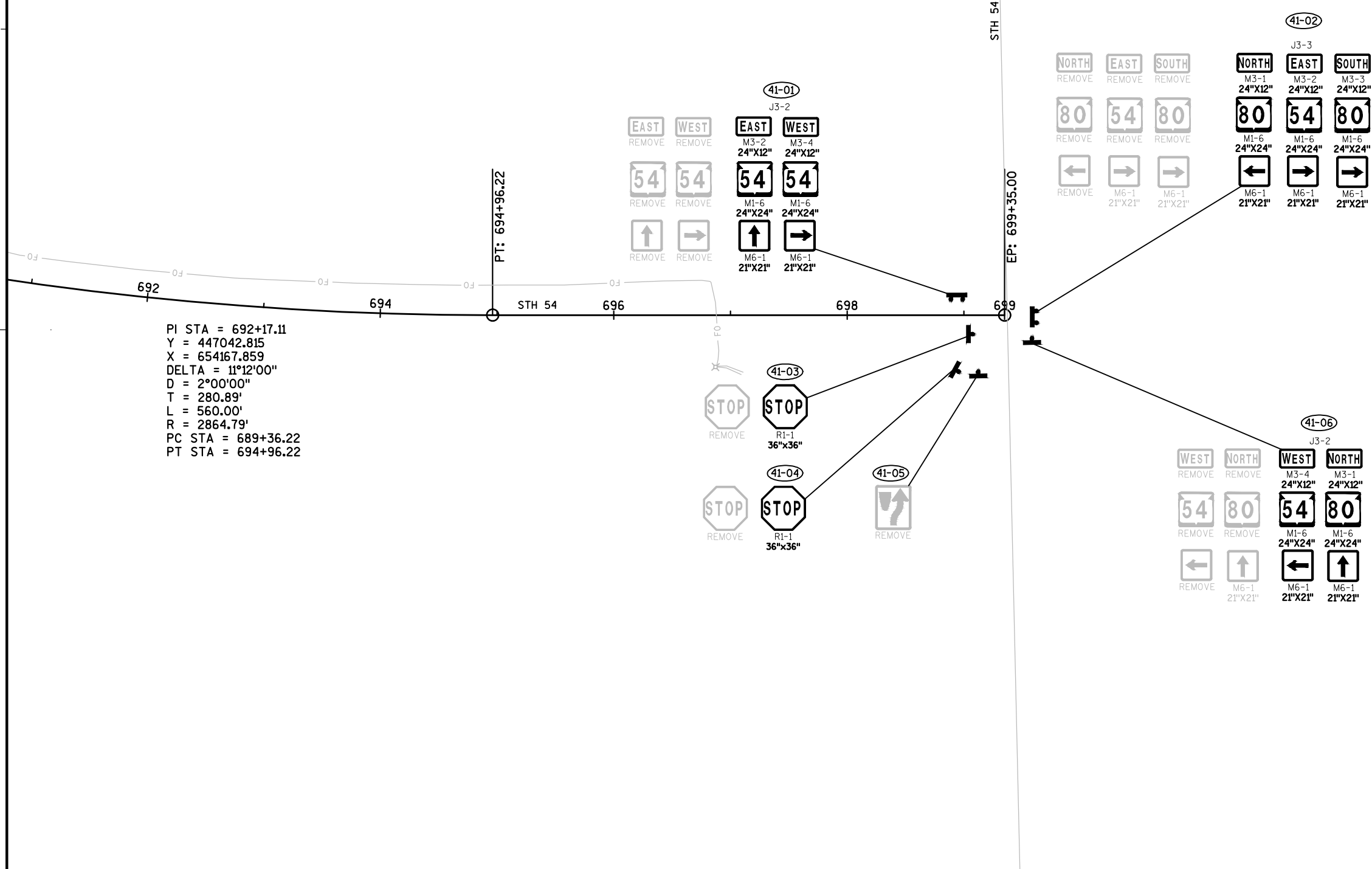


PROJECT NO: 7513-00-81	HWY: STH 54	COUNTY: WOOD	PLAN DETAIL	SHEET	E
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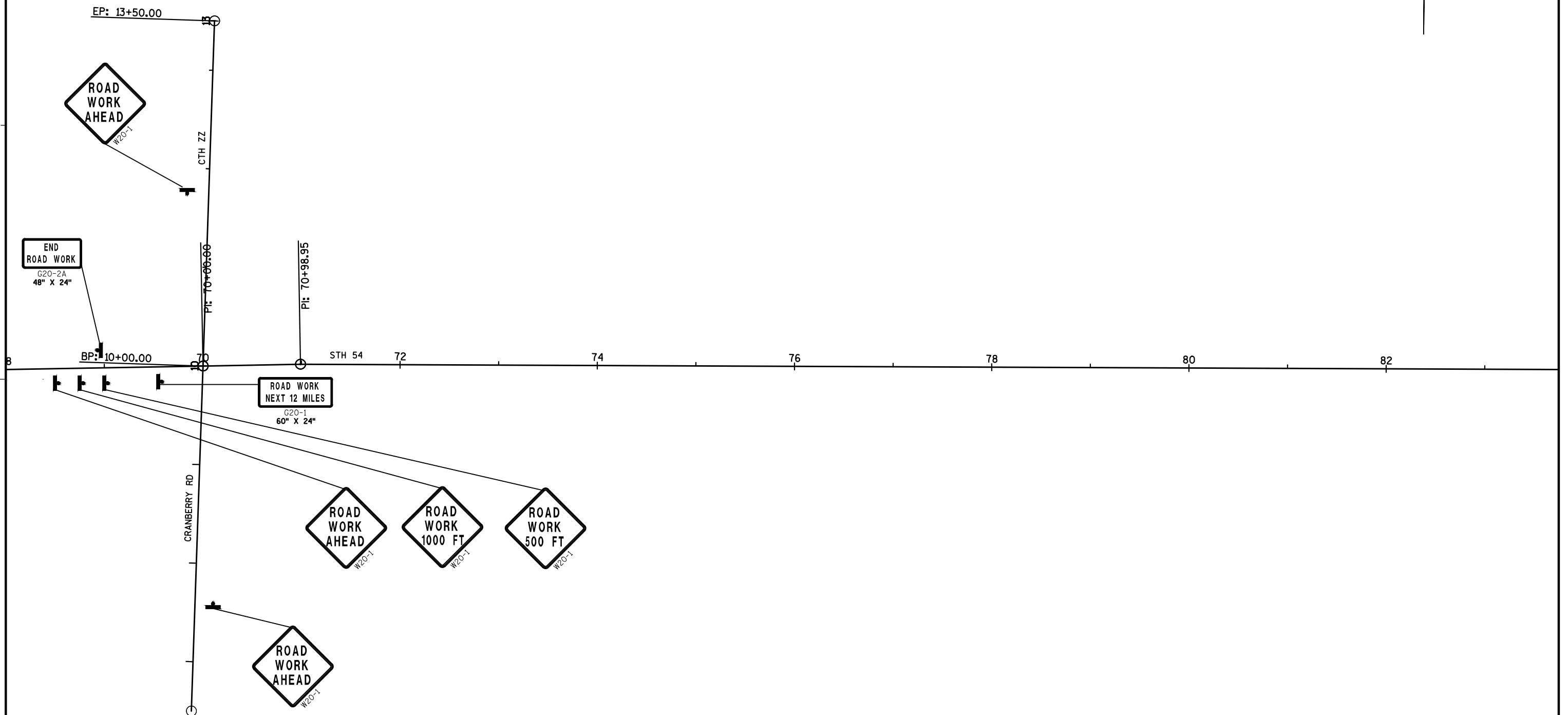


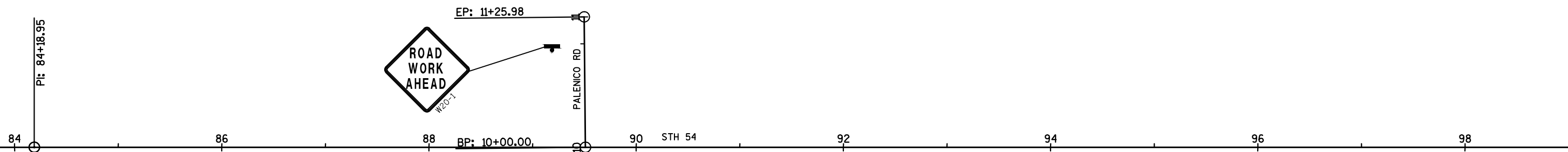


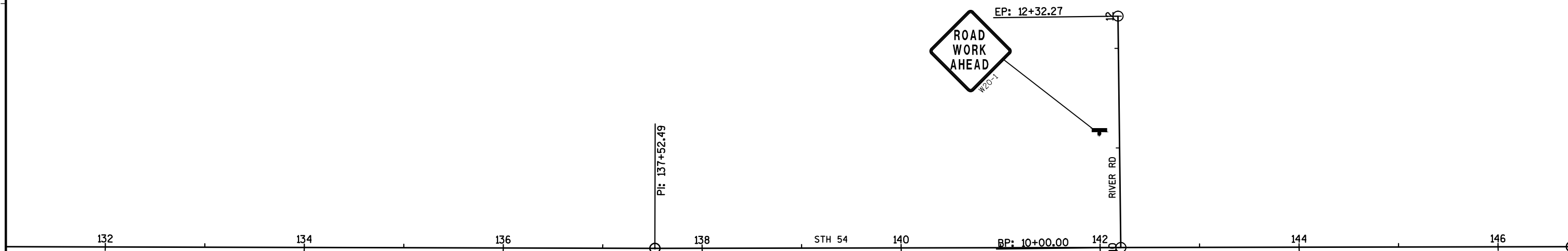




NOTE:
SEE S.D.D. FOR SIGN
SPACING









Pl: 146+73.56

148

150

152

STH 54

154

EP: 10+00.00

156

158

160

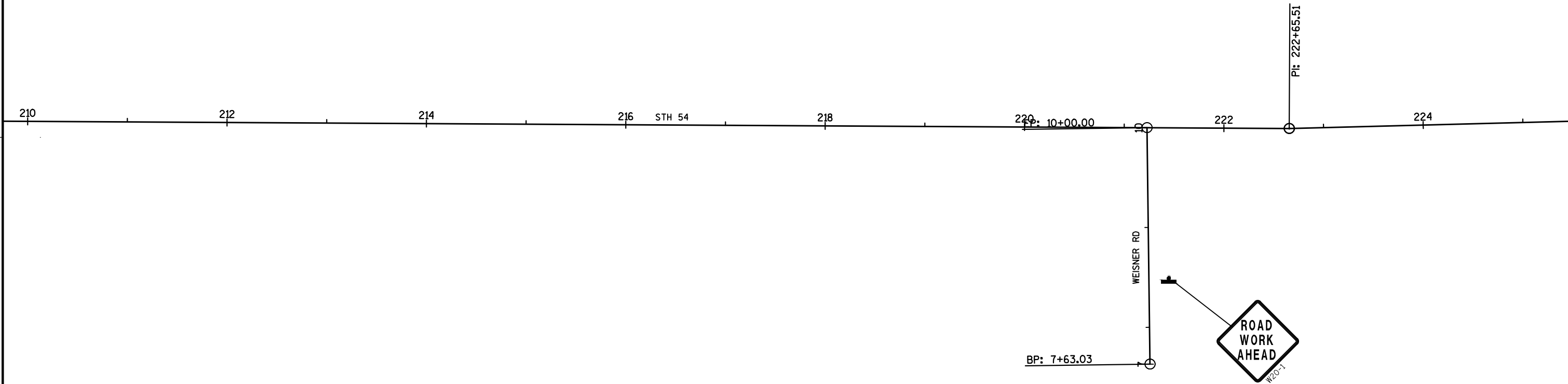
162

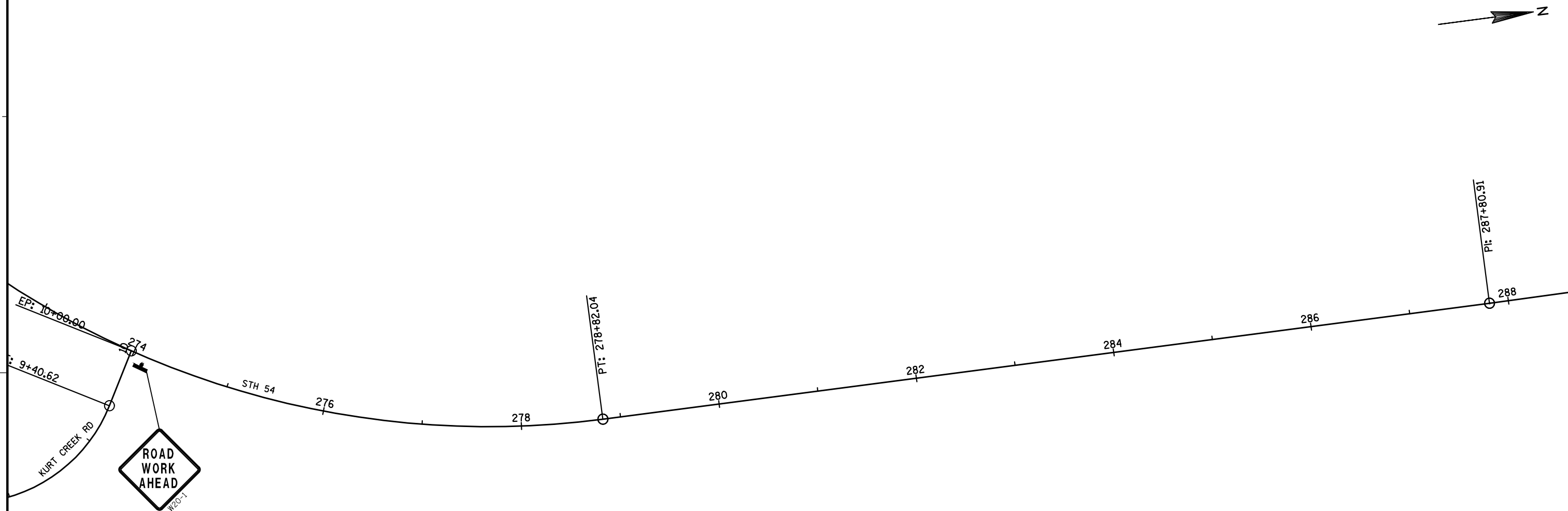
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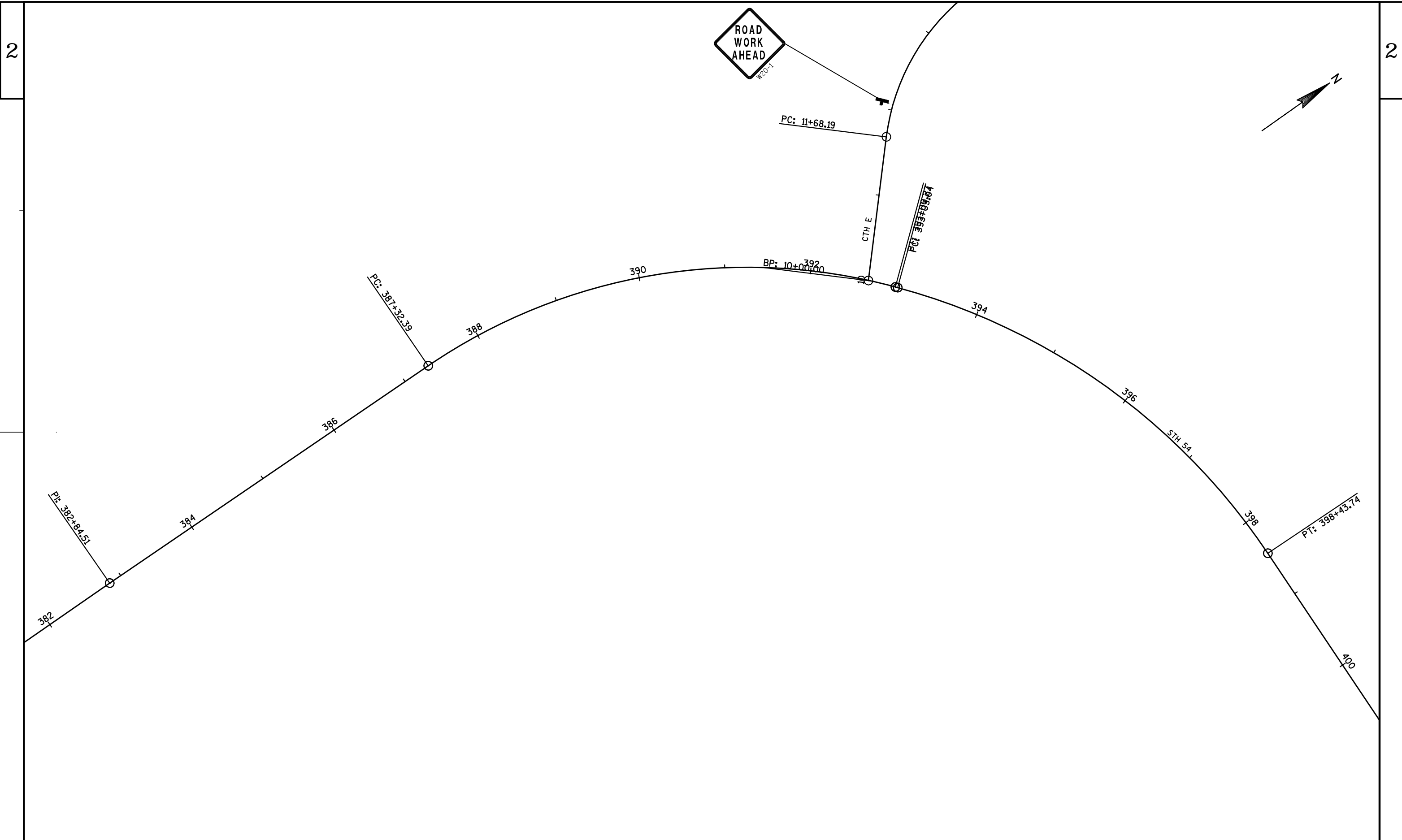
BERRY RD

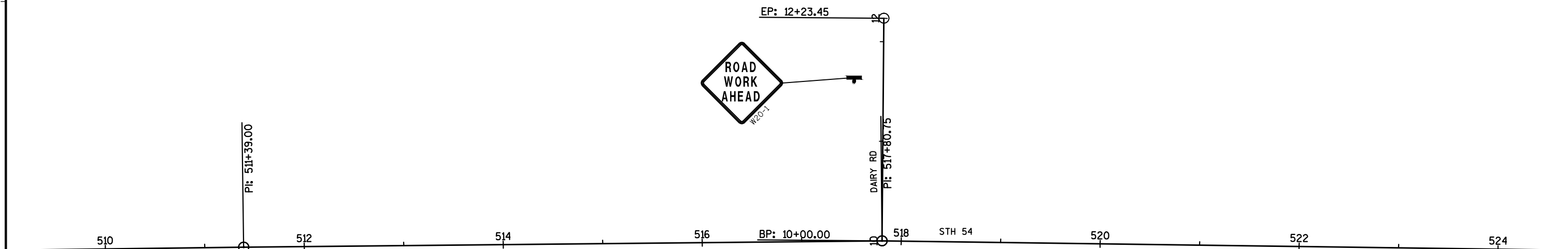
BP: 7+67.71





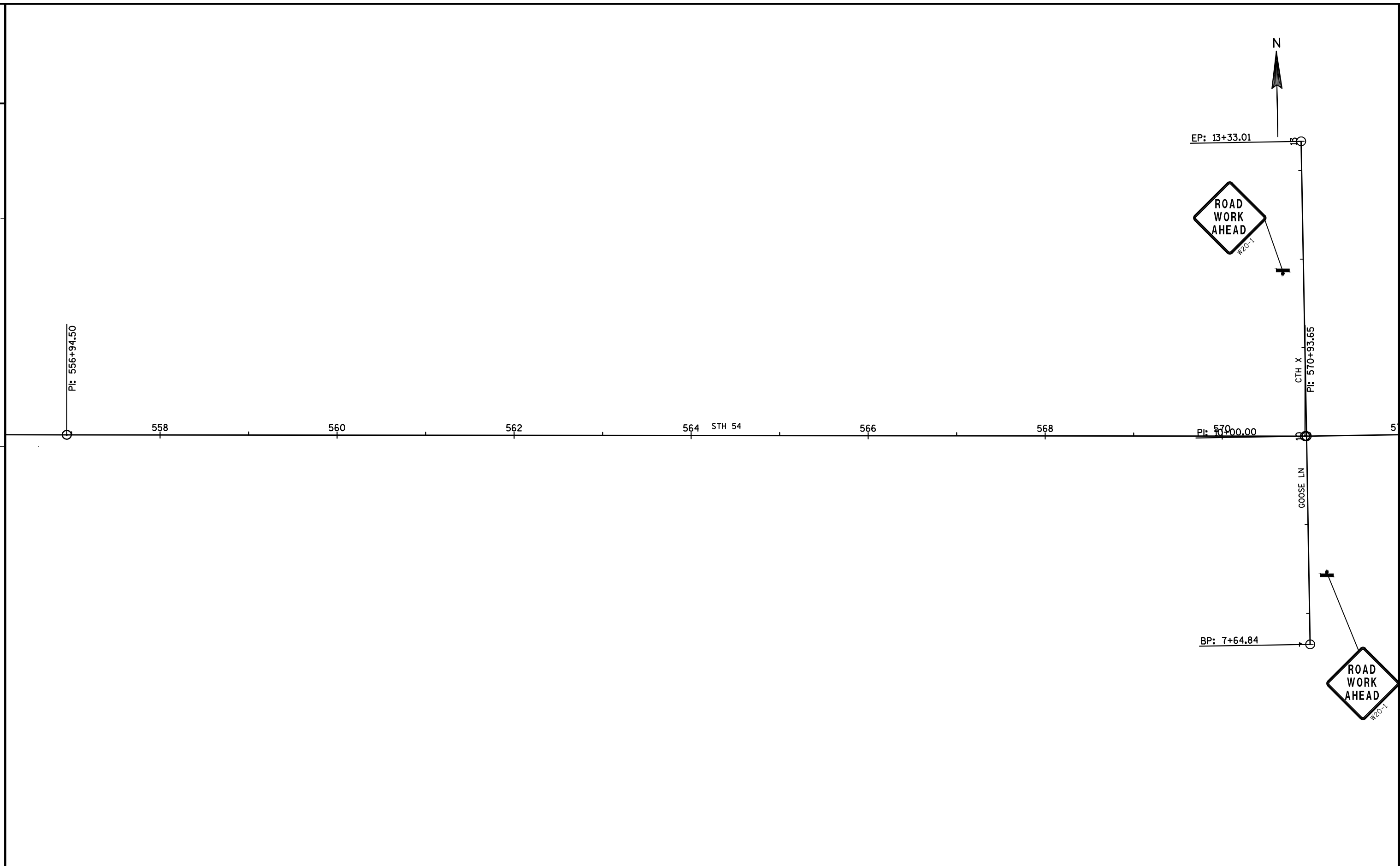






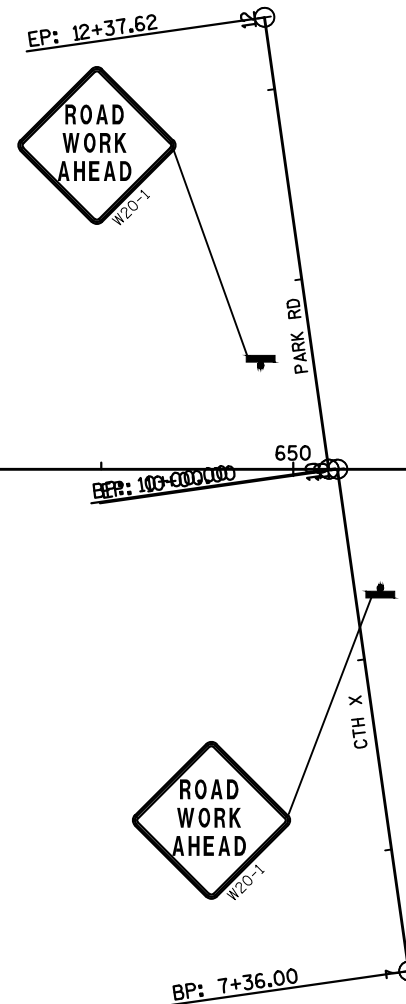
2

2

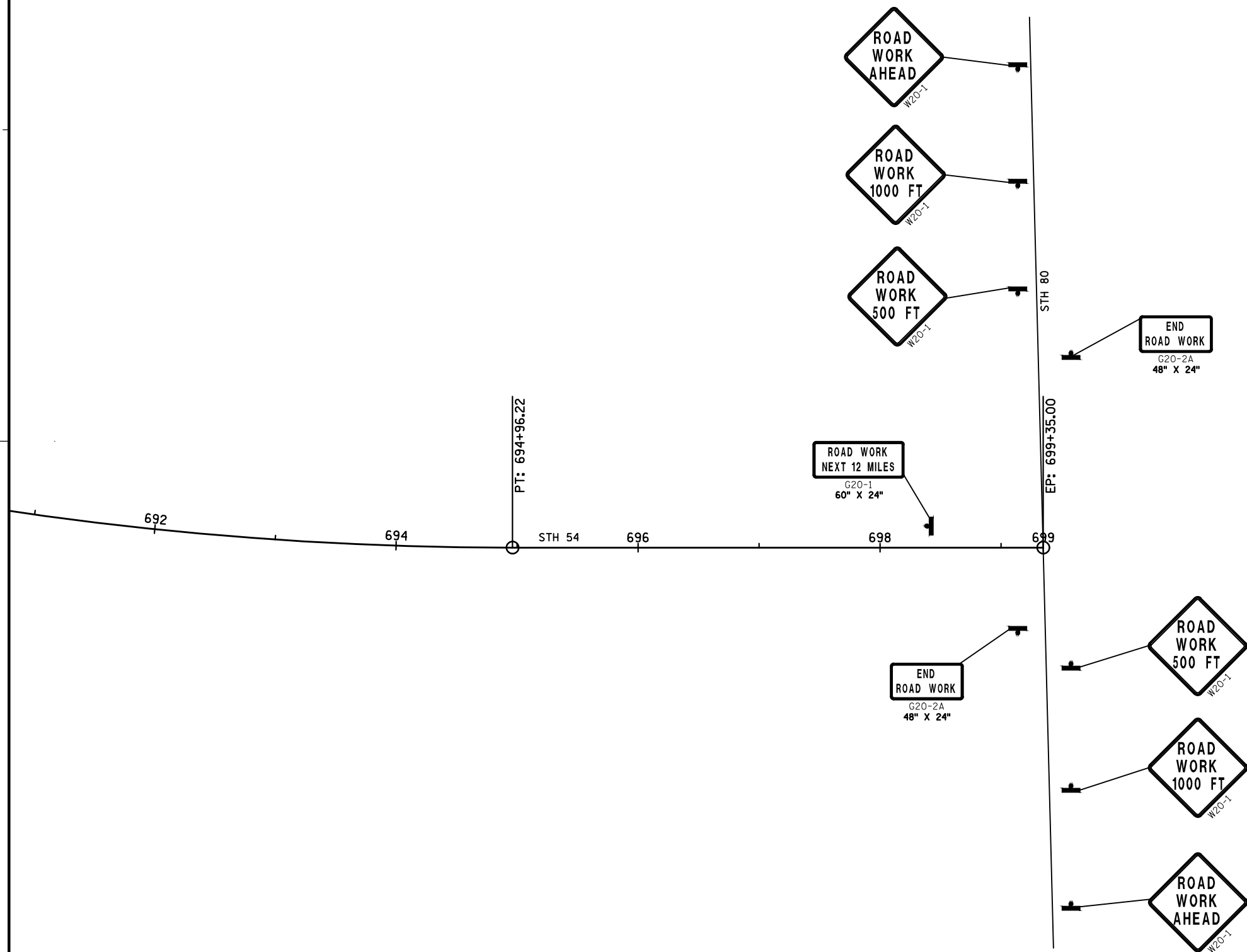


PROJECT NO: 7513-00-81	HWY: STH 54	COUNTY: WOOD	TRAFFIC CONTROL	SHEET	E
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NOTE:
SEE S.D.D. FOR SIGN
SPACING



DATE 31MAR14		E S T I M A T E O F Q U A N T I T I E S			
LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7513-00-81 QUANTITY
0010	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	2.000	2.000
0020	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	1,500.000	1,500.000
0030	204.0125	REMOVING ASPHALTIC SURFACE MILLING	TON	5,200.000	5,200.000
0040	204.0150	REMOVING CURB & GUTTER	LF	159.000	159.000
0050	211.0400	PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS	STA	1,260.000	1,260.000
0060	213.0100	FINISHING ROADWAY (PROJECT) 01. 7513-00-81	EACH	1.000	1.000
0070	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	3,730.000	3,730.000
0080	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	180.000	180.000
0090	455.0105	ASPHALTIC MATERIAL PG58-28	TON	1,505.300	1,505.300
0100	455.0605	TACK COAT	GAL	5,575.000	5,575.000
0110	460.1101	HMA PAVEMENT TYPE E-1	TON	27,363.000	27,363.000
0120	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	17,500.000	17,500.000
0130	465.0105	ASPHALTIC SURFACE	TON	2,800.000	2,800.000
0140	465.0315	ASPHALTIC FLUMES	SY	20.000	20.000
0150	465.0425	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL	LF	11,702.000	11,702.000
0160	465.0475	ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	LF	57,977.000	57,977.000
0170	523.0419	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH	LF	114.000	114.000
0180	601.0553	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D	LF	159.000	159.000
0190	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	3.000	3.000
0200	614.0345	STEEL PLATE BEAM GUARD SHORT RADIUS	LF	50.000	50.000
0210	614.0920	SALVAGED RAIL	LF	3,039.000	3,039.000
0220	614.2300	MGS GUARDRAIL 3	LF	3,037.500	3,037.500
0230	614.2500	MGS THREE BEAM TRANSITION	LF	160.200	160.200
0240	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	3.000	3.000
0250	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 02. 7513-00-81	EACH	1.000	1.000
0260	619.1000	MOBILIZATION	EACH	1.000	1.000
0270	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	56.000	56.000
0280	625.0500	SALVAGED TOPSOIL	SY	112.000	112.000
0290	628.1504	SILT FENCE	LF	1,522.000	1,522.000
0300	628.1520	SILT FENCE MAINTENANCE	LF	1,522.000	1,522.000
0310	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	2.000	2.000
0320	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0330	628.2004	EROSION MAT CLASS I TYPE B	SY	28.000	28.000
0340	628.2006	EROSION MAT URBAN CLASS I TYPE A	SY	84.000	84.000
0350	628.7555	CULVERT PIPE CHECKS	EACH	18.000	18.000
0360	629.0210	FERTILIZER TYPE B	CWT	0.100	0.100
0370	630.0130	SEEDING MIXTURE NO. 30	LB	2.000	2.000
0380	633.5200	MARKERS CULVERT END	EACH	4.000	4.000
0390	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	31.000	31.000
0400	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	90.000	90.000
0410	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	6.000	6.000
0420	637.2210	SIGNS TYPE II REFLECTIVE H	SF	1,808.770	1,808.770
0430	637.2215	SIGNS TYPE II REFLECTIVE H FOLDING	SF	27.000	27.000
0440	637.2230	SIGNS TYPE II REFLECTIVE F	SF	1,561.840	1,561.840
0450	638.2602	REMOVING SIGNS TYPE II	EACH	124.000	124.000
0460	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	113.000	113.000
0470	643.0100	TRAFFIC CONTROL (PROJECT) 03. 7513-00-81	EACH	1.000	1.000

DATE 31MAR14			E S T I M A T E O F Q U A N T I T I E S		
LINE					7513-00-81
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0480	643.0300	TRAFFIC CONTROL DRUMS	DAY	100.000	100.000
0490	643.0900	TRAFFIC CONTROL SIGNS	DAY	1,350.000	1,350.000
0500	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	29,786.000	29,786.000
0510	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	41,463.000	41,463.000
0520	648.0100	LOCATING NO-PASSING ZONES	MI	11.930	11.930
0530	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	29,768.000	29,768.000
0540	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	2.000	2.000
0550	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	63,014.000	63,014.000
0560	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 04. 7513-00-81	LS	1.000	1.000
0570	690.0150	SAWING ASPHALT	LF	514.000	514.000
0580	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	HRS	1,260.000	1,260.000
0590	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	1,000.000	1,000.000
0600	SPV.0060	SPECIAL 01. REESTABLISH SECTION CORNER	EACH	14.000	14.000
0610	SPV.0060	SPECIAL 02. 19X30-INCH HORIZONTAL 4:1	EACH	4.000	4.000
0620	SPV.0090	SPECIAL 01. PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY PAVEMENT 4-INCH	LF	125,328.000	125,328.000
0630	SPV.0090	SPECIAL 02. PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY PAVEMENT 8-INCH	LF	10.000	10.000

REMOVING ASPHALTIC SURFACE MILLING

LOCATION	204.0120 SY	204.0125 TONS	REMARKS
197+02 - 699+39	-	5200	MAINLINE STH 54
INTERSECTIONS			
54 - X to the North	800	-	
54 - E	150	-	
Dairy rd	100	-	
54 - X to the South	300	-	
54 - Park entrance	150	-	
TOTAL	1500	5200	

REMOVING CURB & GUTTER

STATION - STATION	LOCATION	204.0150 LF	REMARKS
69+48 - 69+86	LEFT	61	CTH ZZ NW QUAD
70+19 - 70+79	LEFT	98	CTH ZZ NE QUAD
	TOTAL	159	

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

STATION - STATION	LOCATION	211.0400 STATION	REMARKS
69+00 - 699+40	RIGHT	630	STH 54
69+00 - 699+40	LEFT	630	STH 54
	TOTAL	1260	

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0120 1 1/4-INCH TON	305.0110 3/4-INCH TON	REMARKS
70+30 - 264+83	Right & Left	-	1340	
264+83 - 278+82	Right & Left	-	30	
278+82 - 313+95	Right & Left	-	260	
313+95 - 327+96	Right & Left	-	30	
327+96 - 336+43	Right & Left	-	60	
336+43 - 350+28	Right & Left	-	30	
350+28 - 387+27	Right & Left	-	260	
387+27 - 398+50	Right & Left	-	30	
398+50 - 619+40	Right & Left	-	1520	
619+40 - 627+43	Right & Left	-	20	
627+43 - 699+39	Right & Left	-	150	
70+58	Culvert Pipes	180	-	
	TOTALS	180	3730	

ASPHALTIC FLUMES

STATION	LOCATION	465.0315 SY	REMARKS
69+83	62' LEFT	10	
70+20	85' LEFT	10	
	TOTAL	20	

CROSS DRAINS

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	523.0419 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19x30-INCH LF	SPV.0061.02 REINFORCED CONCRETE ENDWALLS 19X30-INCH HORIZONTAL ELLIPTICAL 4:1 SPECIAL EACH	REMARKS
70+60	LT & RT	1	57	2	
70+66	LT & RT	1	57	2	
	TOTALS	2	114	4	

HMA PAVEMENT

STATION - STATION	LOCATION	455.0605 TACK COAT GAL	460.1101 HMA PAVEMENT TYPE E-1 TON	455.0105 ASPHALTIC MATERIAL PG58-28 TON	465.0105 ASPHALTIC SURFACE TON	REMARKS
70+00 - 699+39	RT & LT	3846	15100	830.5	-	MAINLINE (24')
70+00 - 264+83	RT & LT	433	3637	200.0	-	SHOULDER (6' TOTAL)
70+30 - 197+02	RT & LT	0	0	0.0	1900.0	WEDGING
278+82 - 313+95	RT & LT	78	656	36.1	-	SHOULDER (6' TOTAL)
327+96 - 336+43	RT & LT	19	158	8.7	-	SHOULDER (6' TOTAL)
350+28 - 387+27	RT & LT	82	690	38.0	-	SHOULDER (6' TOTAL)
398+50 - 619+40	RT & LT	491	4123	226.8	-	SHOULDER (6' TOTAL)
627+43 - 699+39	RT & LT	400	1343	73.9	-	SHOULDER (6' TOTAL)
264+83 - 278+82	RT & LT	39	330	18.2	-	SHOULDER (10' TOTAL)
313+95 - 327+96	RT & LT	39	330	18.2	-	SHOULDER (10' TOTAL)
336+43 - 350+28	RT & LT	38	323	17.8	-	SHOULDER (10' TOTAL)
387+27 - 398+50	RT & LT	31	260	14.3	-	SHOULDER (10' TOTAL)
619+40 - 627+43	RT & LT	22	190	10.5	-	SHOULDER (10' TOTAL)
54-ZZ	RT & LT	19	76	4.2	-	INTERSECTION
54 - X	RT & LT	21	81	4.5	-	INTERSECTION
54 - E	LT	4	14	0.8	-	INTERSECTION
DAIRY ROAD	LT	2	8	0.4	-	INTERSECTION
54 - X	RT	7	29	1.6	-	INTERSECTION
54 - PARK ENTERANCE	LT	4	15	0.8	-	INTERSECTION
UNDISTRIBUTED	0	0	0	0.0	900	FOR SPOT LANE REPAIR
	TOTALS	5575	27363	1505.3	2800	

LANDMARK REFERENCE MONUMENTS

LANDMARK		SPV.0061.01 REESTABLISH SECTION CORNER MOMUMENTS	621.0100 REFERENCE MONUMENTS	REMARKS
STATION	LOCATION	EACH	EACH	
70+00	C/L	1	4	NW COR SECTION 31 T22N R2E
89+52	7' RT OF C/L	1	4	S 1/4 COR SECTION 30 T22N R2E
115+83	5.5' RT OF C/L	1	4	SW COR SECTION 29 T22N R2E
142+14	C/L	1	4	S 1/4 COR SECTION 29 T22N R2E
168+48	C/L	1	4	SE COR SECTION 29 T22N R2E
247+46	6.7' RT OF C/L	1	4	N 1/4 COR SECTION 34 T22N R2E
296+38	5' RT OF C/L	1	4	E 1/4 COR SECTION 27 T22N R2E
417+53	2' RT OF C/L	1	4	NW COR SECTION 24 T22N R2E
443+65	1' RT OF C/L	1	4	N 1/4 COR SECTION 24 T22N R2E
517+86	1' LT OF C/L	1	4	SW COR SECTION 17 T22N R3E
544+43	2' RT OF C/L	1	4	S 1/4 COR SECTION 17 T22N R3E
570+99	C/L	1	4	SW COR SECTION 16 T22N R3E
597+34	C/L	1	4	N1/4 COR SECTION 21 T22N R3E
623+67	17.3' LT OF C/L	1	4	SE COR SECTION 16 T22N R3E
TOTAL		14	56	

CONCRETE CURB & GUTTER

STATION - STATION		LOCATION	601.0553 36-INCH TYPE D LF	REMARKS
69+48 - 69+86		LEFT	61	CTH ZZ NW QUAD
70+19 - 70+79		LEFT	98	CTH ZZ NE QUAD
		TOTAL	159	

STEEL PLATE BEAM GUARD

STATION - STATION	LOCATION	614.0920	614.2300	614.2500	614.2610	614.0345	REMARKS
		SALVAGED GUARDRAIL LF	MSG GUARDRAIL 3 LF	MSG THRIE BEAM TRANSITION LF	MSG GUARDRAIL TERMINAL EAT EACH	STEEL PLATE BEAM GUARD SHORT RADIUS LF	
672+43	LEFT	-	-	-	1	-	
680+32	LEFT	-	-	-	1	-	
692+59	RIGHT	-	-	-	-	50	
694+25	LEFT	-	-	-	1	-	
672+43 - 680+10	LEFT	767	-	-	-	-	
672+47 - 680+10	LEFT	-	762.5	-	-	-	
680+10 - 684+22	RIGHT	-	412.5	-	-	-	
680+10 - 684+25	RIGHT	415	-	-	-	-	
680+25 - 684+25	LEFT	-	400.0	-	-	-	
680+32 - 684+25	LEFT	393	-	-	-	-	
686+10 - 692+59	RIGHT	649	-	-	-	-	
686+10 - 692+60	RIGHT	-	650.0	-	-	-	
686+10 - 694+22	LEFT	-	812.5	-	-	-	
686+10 - 694+25	LEFT	815	-	-	-	-	
683+72 - 684+25	RIGHT	-	-	53.4	-	-	
680+10 - 680+63	LEFT	-	-	53.4	-	-	
680+10 - 680+63	RIGHT	-	-	53.4	-	-	
TOTALS		3039	3037.5	160.2	3	50	

ASPHALTIC CENTER LINE RUMBLE STRIP

STATION - STATION	LOCATION	465.0475	REMARKS
		LF	
72+00 - 87+50	C/L	1550	
91+50 - 140+20	C/L	4870	
144+20 - 153+36	C/L	916	
157+36 - 219+23	C/L	6187	
223+23 - 271+98	C/L	4875	
275+98 - 291+70	C/L	1572	
292+50 - 354+73	C/L	6223	
356+73 - 390+48	C/L	3375	
394+48 - 515+81	C/L	12133	
519+81 - 568+95	C/L	4914	
572+95 - 648+23	C/L	7528	
652+23 - 658+73	C/L	650	
662+73 - 683+95	C/L	2122	
686+38 - 697+00	C/L	1062	
TOTAL		57977	

ASPHALTIC SHOULDER RUMBLE STRIP

STATION - STATION	LOCATION	465.0425	REMARKS
		TYPE 1 LF	
264+83 - 273+38	RIGHT	855	EDGE LINE
264+83 - 278+82	LEFT	1399	EDGE LINE
274+58 - 278+82	RIGHT	424	EDGE LINE
313+95 - 327+96	R & L	2802	EDGE LINE
336+43 - 350+28	R & L	2770	EDGE LINE
387+27 - 390+48	LEFT	321	EDGE LINE
394+48 - 398+50	LEFT	402	EDGE LINE
387+27 - 398+50	RIGHT	1123	EDGE LINE
619+40 - 627+43	R & L	1606	EDGE LINE
TOTAL		11702	

MOBILIZATIONS EROSION CONTROL

STATION - STATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	REMARKS
PROJECT	2	2	
TOTALS	2	2	

EROSION MAT

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	628.2004 CLASS I TYPE B SY	628.2006 URBAN CLASS I TYPE A SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEED MIXTURE NO 30 LB	REMARKS
69+48 - 69+86	25' LEFT	24	-	24	0.02	0.4	
70+19 - 70+79	25 LEFT	40	-	40	0.03	0.7	
69+61 - 69+71	60' LEFT	7	7	-	0.01	0.1	
70+36 - 70+46	83' LEFT	7	7	-	0.01	0.1	
70+55 - 70+69	19' RIGHT	7	-	7	0.01	0.1	
70+59 - 70+71	42' LEFT	14	14	-	0.01	0.3	
70+59 - 70+71	33' LEFT	13	-	13	0.01	0.2	
TOTALS		112	28	84	0.10	2	

NOTE: ADDITIONAL QUANTITIES SHOWN IN GRADING SHAPING AND EROSION CONTROL

SILT FENCE

STATION - STATION	LOCATION	628.1504 LF	628.1520 MAINTENANCE LF	REMARKS
671+38 - 673+00	LEFT	162	162	
680+20 - 684+00	RIGHT	380	380	
686+20 - 694+00	RIGHT	780	780	
693+50 - 695+50	LEFT	200	200	
TOTALS		1522	1522	

CULVERT PIPE CHECKS

STATION	LOCATION	628.7555 CULVERT PIPE CHECKS EACH	REMARKS
11"ZZ"+32	RIGHT	6	
70+60	RIGHT	6	
70+66	RIGHT	6	
TOTAL		18	

MARKERS CULVERT END

633.5200 MARKERS CULVERT END EACH				REMARKS
STATION	LOCATION	OFFSET		
70+62	RIGHT	19'	1	
70+62	LEFT	31'	1	
70+65	RIGHT	19'	1	
70+65	LEFT	31'	1	
TOTALS			4	

CONSTRUCTION STAKING

STATION - STATION	650.6000 PIPE CULVERTS EACH	650.8000 RESURFACING REFERENCE LF	650.9910 SUPPLEMENTAL CONTROL LS	REMARKS
69+25 - 699+39	---	63014	1	STH 54
70+60	1	---	---	CTH ZZ
70+66	1	---	---	CTH ZZ
TOTALS	2	63014	1	

SAWING ASPHALT

		690.0150 LF	REMARKS
STATION	LOCATION		
69+25	RT & LT	39	STH 54
69+45	LT	63	ALONG CURB
70+00	LT	30	CTH ZZ
70+00	RT	24	CRANBERRY RD
70+18	LT	94	ALONG CURB
70+60	RT & LT	37	WEST OF CULVERT
70+66	RT & LT	37	EAST OF CULVERT
155+35	RT	22	BERRY RD
392+60	LT	22	CTH E
517+86	LT	20	DAIRY RD
570+98	RT	22	GOOSE LN
570+98	LT	32	CTH X NORTH
650+80	RT	28	CTH X SOUTH
660+83	LT	20	PARK ENTRANCE
699+39	RT & LT	24	STH 54
TOTAL		514	

SIGN LISTING												
SIGN NO.	SIGN CODE	MESSAGE	SIZE INCHES	637.2210	637.2215	637.2230	WOOD POSTS 4" X 6"			638.2602	638.3000	REMARKS
				REFLECTIVE	REFLECTIVE	REFLECTIVE				REMOVING	REMOVING	
				TYPE II	TYPE II	TYPE II	634.0612	634.0614	634.0616	SIGNS	SIGN	
				H	H	F	12-FT	14-FT	16-FT	TYPE II	SUPPORTS	
				SF	SF	SF	EACH	EACH	EACH	EACH	EACH	
1-01	I2-2	JACKSON COUNTY	66"X15"	6.88	---	---	2	---	---	1	1	
1-02	J13-1	54 LEFT, RIGHT ARROW	24"X45"	7.50	---	---	---	1	---	1	1	
1-03	R1-1	STOP	30: X 30"	5.18	---	---	---	1	---	1	1	
1-04	J3-1	CTY ZZ RIGHT ARROW	24"X45"	7.50	---	---	---	1	---	1	1	
1-05	W3-5	SPEED LIMIT 45 AHEAD	36"X36"	---	---	9.00	---	1	---	1	1	
1-06	J1-1	JCT ZZ	24"X39"	6.50	---	---	---	1	---	1	1	
1-07	J3-1	CTY ZZ , LEFT ARROW	24"X45"	7.50	---	---	---	1	---	1	1	
1-08	R1-1	STOP	30"X30"	5.18	---	---	---	1	---	1	1	
1-09	I2-2	WOOD COUNTY	48"X15"	5.00	---	---	2	---	---	1	1	
1-10	J4-1	EAST 54	24"X36"	6.00	---	---	---	1	---	1	1	
1-10	R12-58-F	WEIGHT LIMIT	36" x 54"	---	13.50	---	---	---	---	1	---	
1-11	D2-1	DEXTERVILLE 12 MILES	84"X15"	8.75	---	---	2	---	---	1	1	
2-01	R1-1	STOP	30"X30"	5.18	---	---	---	1	---	1	1	
5-01	R1-1	STOP	30"X30"	5.18	---	---	---	1	---	1	1	
6-01	R1-1	STOP	30"X30"	5.18	---	---	---	1	---	1	1	
10-01	R1-1	STOP	30"X30"	5.18	---	---	---	1	---	1	1	
12-01	W14-3	NO PASSING ZONE	48"X36"	---	---	6.00	---	1	---	1	1	
12-02	W1-2L	RIGHT CURVE	30"X30"	----	---	6.25	---	1	---	1	1	
12-02	W13-1	50 MPH	18"X18"	---	---	2.25	---	---	---	1	---	SAME POST AS SIGN 12-02
13-01	W54-57	TRUCK ENTRANCE	30"X30"	---	---	6.25	---	1	---	1	1	
13-02	W1-6	LEFT NIGHT ARROW	48"X24"	---	---	8.00	2	---	---	1	1	
14-01	W54-57	TRUCK ENTRANCE	30"X30"	---	---	6.25	---	1	---	1	1	
14-02	W1-2R	RIGHT CURVE	30"X30"	---	---	6.25	---	1	---	1	1	
14-03	W13-1	50 MPH	18"X18"	---	---	2.25	---	---	---	1	---	SAME POST AS SIGN 14-02
14-04	R1-1	STOP	30"X30"	5.18	---	---	---	1	---	1	1	
14-05	W1-6	RIGHT NIGHT ARROW	48"X24"	---	---	8.00	2	---	---	1	1	
14-06	W14-3	NO PASSING ZONE	48"X36"	---	---	6.00	---	1	---	1	1	
15-01	W14-3	NO PASSING ZONE	48"X36"	---	---	6.00	---	1	---	1	1	
16-01	W1-6	RIGHT NIGHT ARROW	48"X24"	---	---	8.00	2	---	---	1	1	
16-02	W1-3R	REVERSE CURVE	36" X 36"	---	---	7.07	---	1	---	1	1	
17-01	W1-6	LEFT NIGHT ARROW	48"X24"	---	---	8.00	2	---	---	1	1	
17-02	W1-2L	LEFT CURVE	30"X30"	---	---	6.25	---	1	---	1	1	
17-02	W13-1	50 MPH	18"X18"	---	---	2.25	---	---	---	1	---	SAME POST AS SIGN 17-02
18-01	W1-6	LEFT NIGHT ARROW	48"X24"	---	---	8.00	2	---	---	1	1	
18-02	W10-1	RAIL ROAD CROSSING	36"X36"	---	---	7.07	---	1	---	1	1	
19-01	W1-3R	RIGHT CURVE	36"X36"	---	---	9.00	---	1	---	1	1	
19-02	W13-1	50 MPH	24"X24"	---	---	4.00	---	---	---	1	---	SAME POST AS SIGN 19-01
19-03	W10-1	RAIL ROAD CROSSING	36"X36"	---	---	7.07	---	1	---	1	1	
19-04	W14-3	NO PASSING ZONE	48"X36"	---	---	6.00	---	1	---	1	1	
20-01	W1-2R	RIGHT CURVE	30"X30"	---	---	6.25	---	1	---	1	1	
20-01	W13-1	40 MPH	18"X18"	---	---	2.25	---	---	---	1	---	SAME POST AS SIGN 20-01
20-02	W1-2R	RIGHT CURVE	30"X30"	---	---	6.25	---	1	---	1	1	
20-02	W13-1	40 MPH	18"X18"	---	---	2.25	---	---	---	1	---	SAME POST AS SIGN 20-02
20-03	J1-1	JCT CTY E	24"X39"	6.50	---	---	---	1	---	1	1	
21-01	W1-6	RIGHT NIGHT ARROW	48"X24"	---	---	8.00	2	---	---	1	1	
CONTINUED ON NEXT PAGE												
PROJECT NO: 7513-00-81			HWY: STH 54		COUNTY: WOOD			MISCELLANEOUS QUANTITIES				SHEET:G

SIGN LISTING

SIGN NO.	SIGN CODE	MESSAGE	SIZE INCHES	637.2210	637.2215	637.2230	WOOD POSTS 4" X 6"			638.2602	638.3000	REMARKS
				REFLECTIVE	REFLECTIVE FOLDING	REFLECTIVE				REMOVING	REMOVING	
				TYPE II	TYPE II	TYPE II	634.0612	634.0614	634.0616	SIGNS	SIGN	
				H SF	H SF	F SF	12-FT EACH	14-FT EACH	16-FT EACH	TYPE II EACH	SUPPORTS EACH	
CONTINUED FROM PREVIOUS PAGE												
21-02	J4-1	WEST 54	24"X36"	6.00	---	---	---	1	---	1	1	
21-03	J13-1	54 LEFT, RIGHT ARROW	24"X45"	7.50	---	---	---	1	---	1	1	
21-04	R1-1	STOP	30"X30"	5.18	---	---	---	1	---	1	1	
21-05	J3-1	CTY E RIGHT ARROW	24"X45"	7.50	---	---	---	1	---	1	1	
21-06	W1-6	LEFT NIGHT ARROW	48"X24"	---	---	8.00	2	---	---	1	1	
21-07	S3-1	SCHOOL BUS STOP AHEAD	36"X36"	---	---	9.00	---	1	---	1	1	
21-08	J3-1	CTY E LEFT ARROW	24"X45"	7.50	---	---	---	1	---	1	1	
21-09	J4-1	EAST 54	24"X36"	6.00	---	---	---	1	---	1	1	
22-01	J1-1	JCT CTY E	24"X39"	6.50	---	---	---	1	---	1	1	
22-02	W1-2L	LEFT CURVE	30"X30"	---	---	6.25	---	1	---	1	1	
22-02	W13-1	40 MPH	18"X18"	---	---	2.25	---	---	---	1	---	SAME POST AS SIGN 22-02
22-03	S3-1	SCHOOL BUS STOP AHEAD	36"X36"	---	---	9.00	---	1	---	1	1	
22-04	W1-2L	LEFT CURVE	30"X30"	---	---	6.25	---	1	---	1	1	
22-04	W13-1	40 MPH	18"X18"	---	---	2.25	---	---	---	1	---	SAME POST AS SIGN 12-02
22-05	W14-3	NO PASSING ZONE	48"X36"	---	---	6.00	---	1	---	1	1	
25-01	W14-3	NO PASSING ZONE	48"X36"	---	---	6.00	---	1	---	1	1	
27-01	W14-3	NO PASSING ZONE	48"X36"	---	---	6.00	---	1	---	1	1	
29-01	R1-1	STOP	30"X30"	---	---	5.18	---	1	---	1	1	
30-01	W14-3	NO PASSING ZONE	48"X36"	---	---	6.00	---	1	---	1	1	
31-01	W14-3	NO PASSING ZONE	48"X36"	---	---	6.00	---	1	---	1	1	
32-01		ROUGH ROAD		---	---	---	---	---	---	1	1	REMOVE ONLY
32-02		NEXT 9 MILES		---	---	---	---	---	---	1	---	REMOVE ONLY
32-03	J4-1	WEST 54	24"X36"	6.00	---	---	---	1	---	1	1	
32-04	J13-1	54 LEFT, RIGHT ARROW	24"X45"	7.50	---	---	---	1	---	1	1	
32-05	R1-1	STOP	30"X30"	5.18	---	---	---	1	---	1	1	
32-06	J2-1	CTY X RIGHT ARROW	24"X45"	7.50	---	---	---	1	---	1	1	
32-07	J1-1	JCT CTY X	24"X39"	6.50	---	---	---	1	---	1	1	
32-08	J3-1	CTY X AHEAD LEFT ARROW	24"X45"	7.50	---	---	---	1	---	1	1	
32-09	R1-1	STOP	30"X30"	5.18	---	---	---	1	---	1	1	
33-01	J3-1	CTY X ADVANCED RIGHT ARROW	24"X45"	7.50	---	---	---	1	---	1	1	
33-02	J4-1	EAST 54	24"X36"	6.00	---	---	---	1	---	1	1	
35-01	W14-3	NO PASSING ZONE	48"X36"	---	---	6.00	---	1	---	1	1	
35-02	D7-68	ROAD TO DEXTER CTY PARK 1 MILE	60"X42"	17.50	---	---	---	2	---	1	1	
35-02	DB5-69G	CAMPING	48"X9"	3.00	---	---	---	---	---	1	---	SAME POST AS SIGN 35-02
36-01	W14-3	NO PASSING ZONE	48"X36"	---	---	6.00	---	1	---	1	1	
37-01	J4-1	WEST 54	24"X36"	6.00	---	---	---	1	---	1	1	
37-02	R1-1	STOP	30"X30"	5.18	---	---	---	1	---	1	1	
37-03	J3-1	CTY X AHEAD LEFT ARROW	24"X45"	7.50	---	---	---	1	---	1	1	
37-04	J2-1	CTY X ADVANCE RIGHT ARROW	24"X45"	7.50	---	---	---	1	---	1	1	
37-05	J3-1	CTY X RIGHT ARROW	24"X45"	7.50	---	---	---	1	---	1	1	
37-06	R1-1	STOP	30"X30"	5.18	---	---	---	1	---	1	1	

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SIGN LISTING

SIGN NO.	SIGN CODE	MESSAGE	SIZE INCHES	637.2210	637.2215	637.2230	WOOD POSTS 4" X 6"			638.2602	638.3000	REMARKS
				REFLECTIVE	REFLECTIVE FOLDING	REFLECTIVE				REMOVING	REMOVING	
				TYPE II	TYPE II	TYPE II	634.0612	634.0614	634.0616	SIGNS	SIGN	
				H SF	H SF	F SF	12-FT EACH	14-FT EACH	16-FT EACH	TYPE II EACH	SUPPORTS EACH	
CONTINUED FROM PREVIOUS PAGE												
37-07	R1-1	STOP	30"X30"	5.18	---	---	---	1	---	1	1	
38-01	J1-1	JCT CTY X	24"X39"	6.50	---	---	---	1	---	1	1	
38-02	R1-1	STOP	30"X30"	5.18	---	---	---	1	---	1	1	
38-03	J4-1	EAST 54	24"X36"	6.00	---	---	---	1	---	1	1	
38-04	D7-68L	DEXTER CTY PARK LEFT ARROW	60"X36"	15.00	---	---	---	2	---	1	1	
39-01	D7-68R	DEXTER CTY PARK RIGHT ARROW	60"X36"	15.00	---	---	---	2	---	1	1	
39-02	W14-3	NO PASSING ZONE	48"X36"	---	---	6.00	---	1	---	1	1	
39-03	R7-1L	NO PARKING ANY TIME LT. ARROW	18"X24"	3.00	---	---	---	1	---	1	1	
40-01	W5-52L	TIGER BOARD	12"X36"	---	---	3.00	---	1	---	1	1	
40-02	R7-1R	NO PARKING ANY TIME RT. ARROW	18"X24"	3.00	---	---	---	1	---	1	1	
40-03	W5-52R	TIGER BOARD	12"X36"	---	---	3.00	---	1	---	1	1	
40-04	R7-1L	NO PARKING ANY TIME LT. ARROW	18"X24"	3.00	---	--	---	1	---	1	1	
40-05	D2-2	CITY POINT 13 BLK RIVER FALLS 40	120"X24"	20.00	---	---	---	2	---	1	2	
40-06	D7-68	ROAD TO DEXTER CO PARK 1/2 MILE	60"X42"	17.50	---	---	---	2	---	1	1	
40-06	DB5-69G	CAMPING	48"X9"	3.00	---	---	---	---	---	1	---	SAME POST AS SIGN 40-06 ON 2"X2"STEEL POST TELSPAR
40-07	J4-1	WEST 54	24"X36"	6.00	---	---	---	---	---	1	---	
40-07	R12-58-F	WEIGHT LIMIT	36"x54"	---	13.50	---	---	1	---	1	1	
40-08	J1-1	JCT 80	24"X39"	6.50	---	---	---	1	---	1	1	
40-09	I3-1	YELLOW RIVER	30"X9"	1.88	---	---	1	---	---	1	1	
40-09	R7-1D	NO PARKING ANY TIME LT RT ARROW	18"X24"	3.00	---	---	1	---	---	1	1	
40-09	R9-55	NO FISHING FROM BRIDGE	18"X24"	3.00	---	---	1	---	---	1	1	
40-10	W5-52R	TIGER BOARD	12"X36"	---	---	3.00	1	---	---	1	1	
40-11	W5-52L	TIGER BOARD	12"X36"	---	---	3.00	1	---	---	1	1	
40-12	I3-1	YELLOW RIVER	30"X9"	1.88	---	---	1	---	---	1	1	
40-12	R7-1D	NO PARKING ANY TIME LT RT ARROW	18"X24"	3.00	---	---	1	---	---	1	1	
40-12	R9-55	NO FISHING FROM BRIDGE	18"X24"	3.00	---	---	1	---	---	1	1	
40-13	W3-1	STOP AHEAD	36"X36"	---	---	9.00	---	1	---	1	1	
40-14	J2-1	EAST 54 ADVANCE RT ARROW	24"X57"	9.50	---	---	---	---	1	1	1	
40-15	R7-1R	NO PARKING ANY TIME RT ARROW	18"X24"	3.00	---	---	1	---	---	1	1	
40-16	I2-3	DEXTERVILLE UNIC.	66"X24"	11.00	---	---	2	---	---	1	1	
40-17	D1-4	PITTSVILLE LEFT ARROW	108"X48"	36.00	---	---	---	2	---	1	2	
		BABCOCK,PORT EDWARDS,WIS RAPIDS RT ARROW	---	---	---	---	---	---	---	1	---	
41-01	J3-2	E 54 AHEAD ARROW, W 54 RIGHT ARROW	48"X57"	19.00	---	---	---	---	1	1	1	
41-02	J3-3	NO. 80 LEFT E 54 RT SO 80 RT ARROW	72"X57"	28.50	---	---	---	---	2	1	2	
41-03	R1-1	STOP	36"X36"	7.46	---	---	---	1	---	1	1	
41-04	R1-1	STOP	36"X36"	7.46	---	---	---	1	---	1	1	
41-05		KEEP RIGHT	---	---	---	---	---	---	---	1	1	REMOVE ONLY
41-06	J3-2	W 54 LT ARROW, N 80 AHEAD ARROW	48"X57"	19.00	---	--	---	---	2	1	1	
TOTALS				1808.77	27.00	1561.84	31	90	6	124	113	

TRAFFIC CONTROL

LOCATION	DAYS	643.0100 TRAFFIC CONTROL EACH	ROAD WORK AHEAD W20-1 EACH	ROAD WORK 1500 FT W20-1 EACH	ROAD WORK 1000 FT W20-1 EACH	ROAD WORK 500 FT W20-1 EACH	ROAD WORK NEXT 12 MILE G20-2A EACH	END ROAD WORK G20-2A EACH	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.0300 DRUMS DAYS	REMARKS
MAINLINE STH 54	45	-	1	1	1	1	1	1	270	-	
CRANBERRY RD.	45	-	1	-	-	-	-	-	45	-	
CTH ZZ	45	-	1	-	-	-	-	-	45	-	
PALENICO RD.	45	-	1	-	-	-	-	-	45	-	
RIVER RD.	45	-	1	-	-	-	-	-	45	-	
BERRY RD.	45	-	1	-	-	-	-	-	45	-	
WEISNER RD.	45	-	1	-	-	-	-	-	45	-	
KURT CREEK RD.	45	-	1	-	-	-	-	-	45	-	
CTH E	45	-	1	-	-	-	-	-	45	-	
DAIRY RD.	45	-	1	-	-	-	-	-	45	-	
GOOSE LN.	45	-	1	-	-	-	-	-	45	-	
CTH X NORTH	45	-	1	-	-	-	-	-	45	-	
CTH X SOUTH	45	-	1	-	-	-	-	-	45	-	
PARK RD.	45	-	1	-	-	-	-	-	45	-	
MAINLINE STH 54	45	-	-	-	-	-	1	-	45	-	
STH 80	45	-	2	2	2	2	-	2	450	-	
UNDISTRIBUTED	-	-	-	-	-	-	-	-	-	100	CULVERT & BEAMGUARD AREAS
PROJECT	-	1	-	-	-	-	-	-	-	-	
TOTALS		1	16	3	3	3	2	3	1350	100	

PAVEMENT MARKING EPOXY

STATION - STATION	LOCATION	SPV.0090.01	SPV.0090.02	646.0406	649.0100	646.0106	COMMENTS
		PAVEMENT WET GROOVED EPOXY 4-INCH LF	PAVEMENT WET GROOVED EPOXY 8-INCH LF	SAME DAY EPOXY 4-INCH LF	TEMPORARY PAVEMENT MARKING 4-INCH LF	EPOXY 4-INCH LF	
70+00 - 155+00	Right	8500	-	-	-	-	WHITE EDGELINE
70+00 - 89+25	Left	1925	-	-	-	-	WHITE EDGELINE
89+75 - 142+00	Left	5225	-	-	-	-	WHITE EDGELINE
142+50 - 392+50	Left	25000	-	-	-	-	WHITE EDGELINE
70+00 -254+80	CL	-	-	4620	1478	1478	YELLOW CENTERLINE
254+80 - 266+41	CL	-	-	1452	1255	1255	YELLOW CENTERLINE
155+50 - 221+00	Right	6550	-	-	-	-	WHITE EDGELINE
221+50 - 273+80	Right	5230	-	-	-	-	WHITE EDGELINE
274+30 - 570+75	Right	29645	-	-	-	-	WHITE EDGELINE
266+41 - 276+97	CL	-	-	2112	2112	2112	YELLOW CENTERLINE
276+37 - 287+99	CL	-	-	1452	1255	1255	YELLOW CENTERLINE
287+99 - 303+30	CL	-	-	383	122	122	YELLOW CENTERLINE
303+30 - 314+92	CL	-	-	1452	1255	1255	YELLOW CENTERLINE
393+00 - 517+60	Left	12460	-	-	-	-	WHITE EDGELINE
314+92 - 355+58	CL	-	-	8132	8132	8132	YELLOW CENTERLINE
355+58 - 360+86	CL	-	-	660	570	570	YELLOW CENTERLINE
360+86 - 372+48	CL	-	-	290	93	93	YELLOW CENTERLINE
372+48 - 383+57	CL	-	-	1386	1198	1198	YELLOW CENTERLINE
383+57 - 396+77	CL	-	-	2640	2640	2640	YELLOW CENTERLINE
396+77 - 407+86	CL	-	-	1386	1198	1198	YELLOW CENTERLINE
407+86 - 460+66	CL	-	-	1320	422	422	YELLOW CENTERLINE
460+66 - 470+16	CL	-	-	1188	1026	1026	YELLOW CENTERLINE
470+16 - 472+27	CL	-	-	53	17	17	YELLOW CENTERLINE
472+27 - 480+72	CL	-	-	1056	913	913	YELLOW CENTERLINE
480+72 - 532+99	CL	-	-	1307	418	418	YELLOW CENTERLINE
518+10 - 570+75	Left	5265	-	-	-	-	WHITE EDGELINE
571+25 - 650+00	Left	7875	-	-	-	-	WHITE EDGELINE
532+99 - 541+44	CL	-	-	1056	913	913	YELLOW CENTERLINE
541+44 - 544+08	CL	-	-	66	21	21	YELLOW CENTERLINE
544+08 - 552+00	CL	-	-	990	855	855	YELLOW CENTERLINE
552+00 - 611+14	CL	-	-	1478	473	473	YELLOW CENTERLINE
571+25 - 650+00	Right	7875	-	-	-	-	WHITE EDGELINE
611+14 - 633+32	CL	-	-	2772	177	177	YELLOW CENTERLINE
633+32 - 679+78	CL	-	-	1162	372	372	YELLOW CENTERLINE
650+50 - 699+39	Right	4889	-	-	-	-	WHITE EDGELINE
650+50 - 699+39	Left	4889	-	-	-	-	WHITE EDGELINE
679+78 - 691+40	CL	-	-	1452	1255	1255	YELLOW CENTERLINE
691+40 - 699+39	CL	-	-	1598	1598	1598	YELLOW CENTERLINE
699+39		-	10	-	-	-	STH 80 Right Turn island WHITE
SUB TOTALS		125328	10	41463	29768	29768	

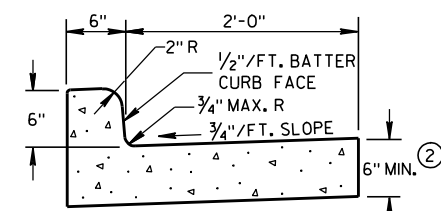
GRADING, SHAPING AND EROSION CONTROL

STATION - STATION	LOCATION	*CUT CY	* FILL CY	268.2004 EROSION MAT CLASS I	* TOPSOIL SY	* TYPE B FERTILIZER	*SEED MIXTURE	614.0010 BARRIER SYSTEM GRADING SHAPING AND FINISHING	REMARKS
				TYPE B SY		CWT	NO. 30 LBS	EACH	
671+65 - 672+95	STH 54	0	59	295	295	0.19	5	1	
671+65 - 680+37.5	STH 54	0	1	0	0	0.00	0	0	
680+05 - 693+65.19	STH 54	0	445	4760	4760	3.00	86	1	
692+03.02 - 695+35	STH 54	0	58	708	708	0.45	13	1	
TOTALS			563	5763	5763	4	104	3	

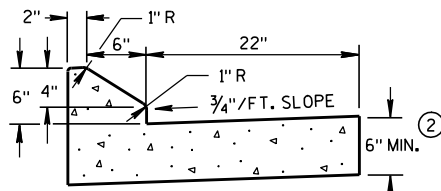
* INCULUED IN BARRIER SYSTEM GRADING, SHAPING, FINISHING, QUANTITIES FOR INFORMATION ONLY
NOTE: ADDITIONAL QUANTITIES SHOWN ELSEWHERE

Standard Detail Drawing List

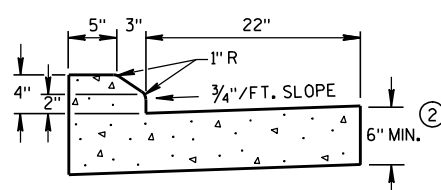
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E09-06	SILT FENCE
13A10-01A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01c	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B29-01	SAFETY EDGE
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)



TYPES A & D ①



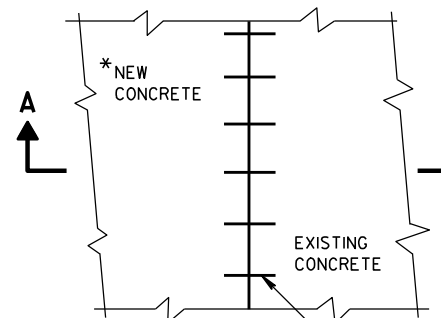
6" SLOPED CURB TYPES G & J ①



4" SLOPED CURB TYPES G & J ①

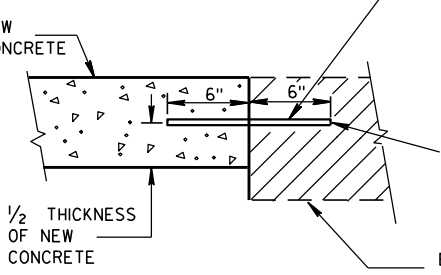
CONCRETE CURB & GUTTER 30"

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

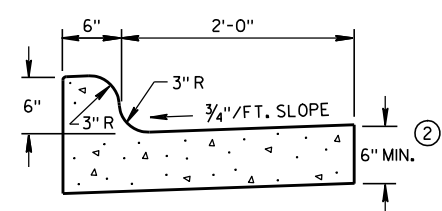


PLAN VIEW

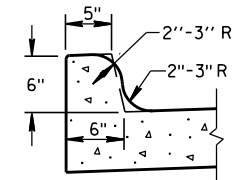
NO. 6 TIE BARS SPACED 2'-6" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT.



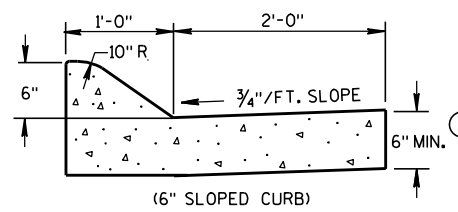
SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT



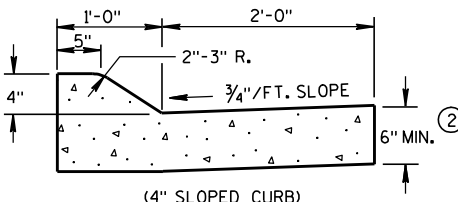
TYPES K & L ①



OPTIONAL CURB SHAPE
FOR TYPES K & L ①

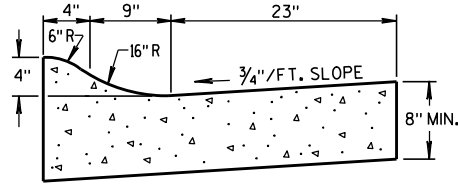


(6" SLOPED CURB)



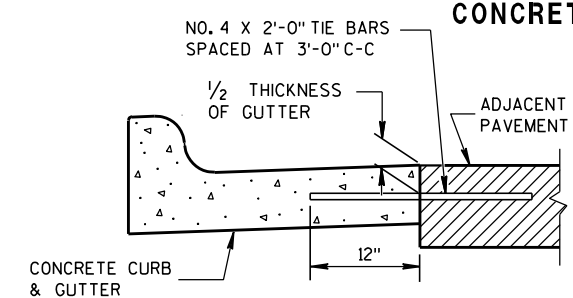
(4" SLOPED CURB)

TYPES A & D ①

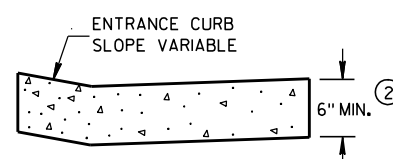


4" SLOPED CURB TYPES R & T ① ④

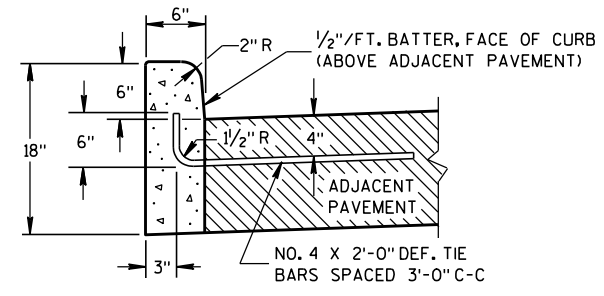
CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION ①

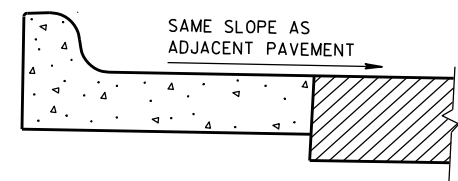


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

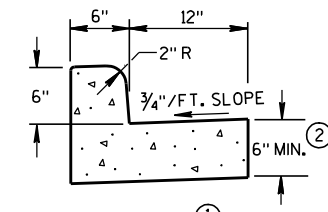


TYPES A & D ①

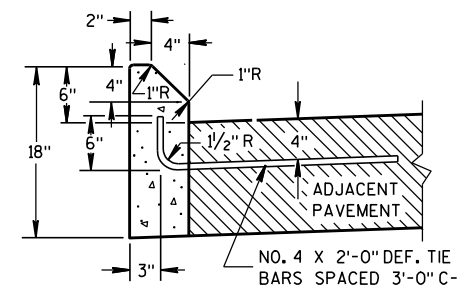
CONCRETE CURB



REVERSE SLOPE GUTTER
(TYPICAL FOR ALL CURB & GUTTER TYPES) ⑤



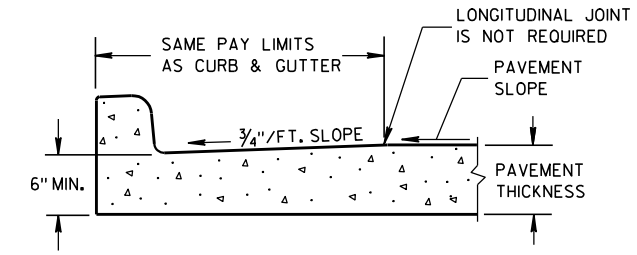
TYPES A & D
CONCRETE CURB & GUTTER 18"



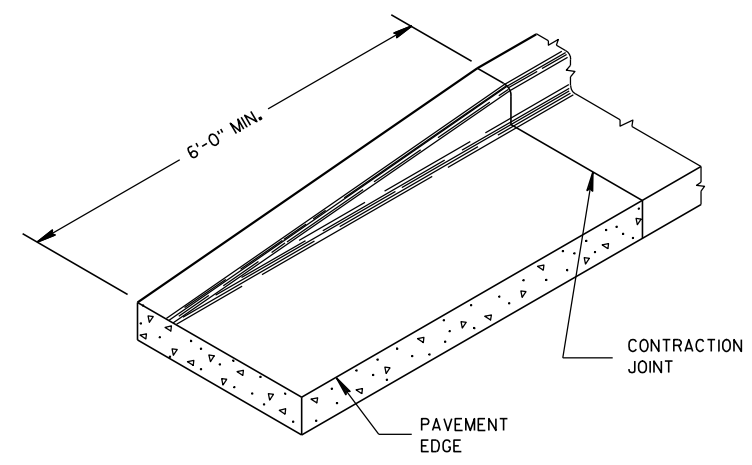
TYPES G & J ①

GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS 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 & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.
- WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.
- 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 GUTTER TYPES A, G, K AND R.
 - 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 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.
 - ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
 - ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

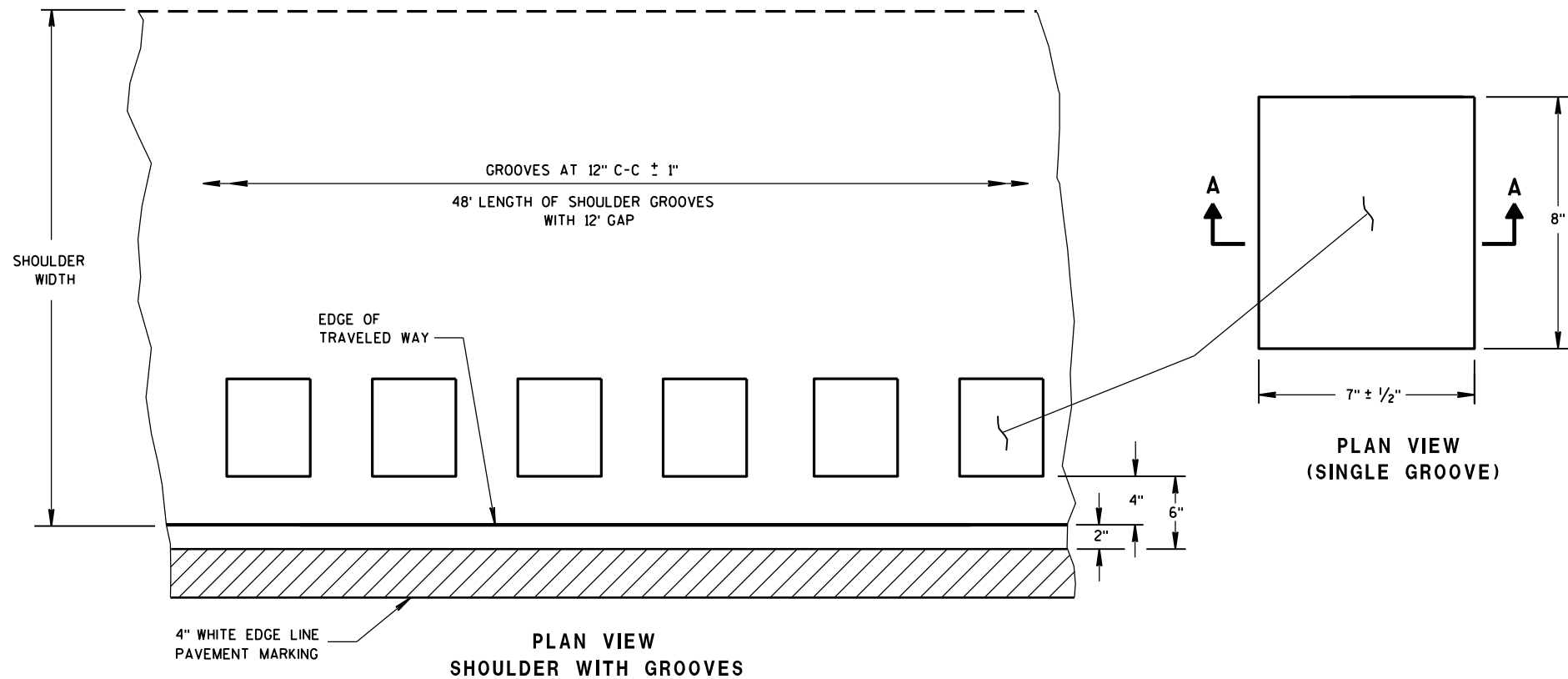
APPROVED
9/4/08 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



- 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.

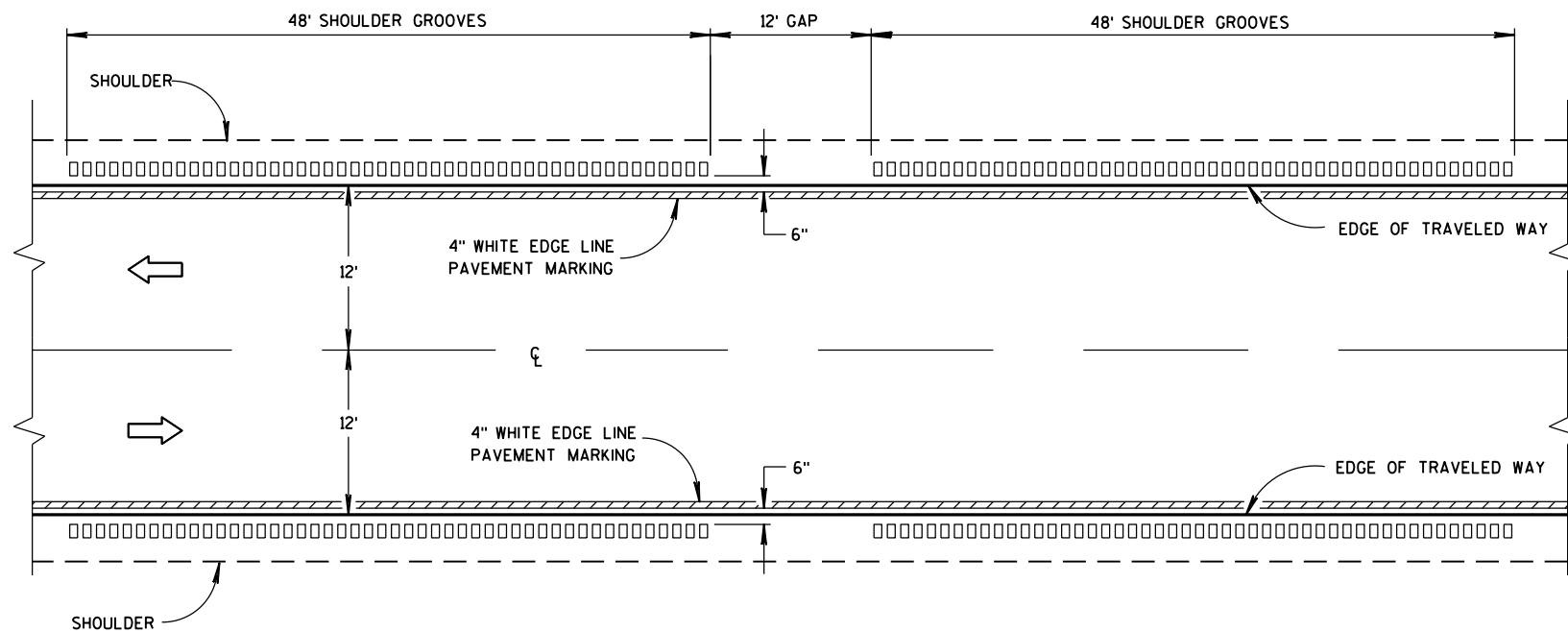


<p>SILT FENCE</p>	
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>	
<p>APPROVED 4-29-05 DATE</p>	<p>/s/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER</p>



6

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



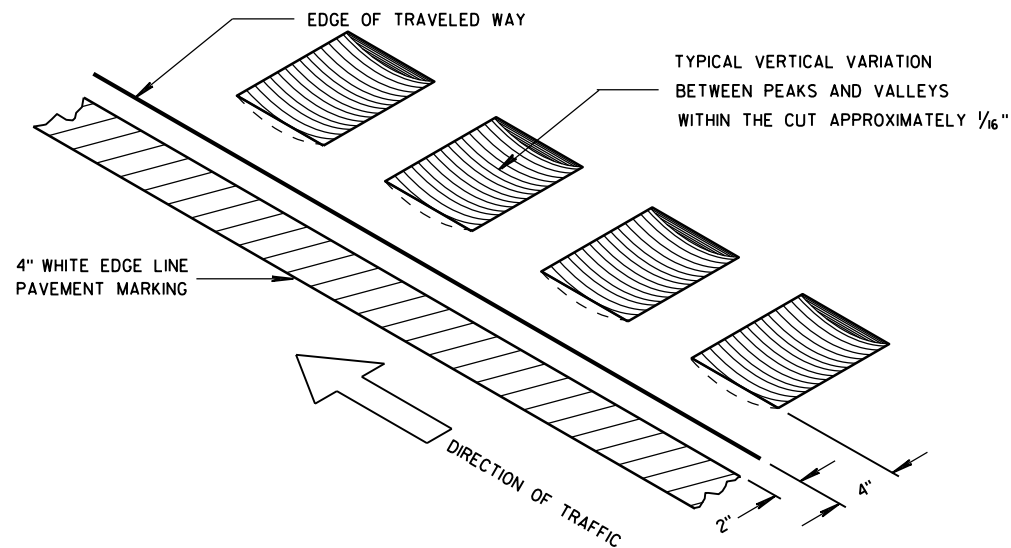
TYPE 1
2-LANE SHOULDER RUMBLE STRIP

GENERAL NOTES

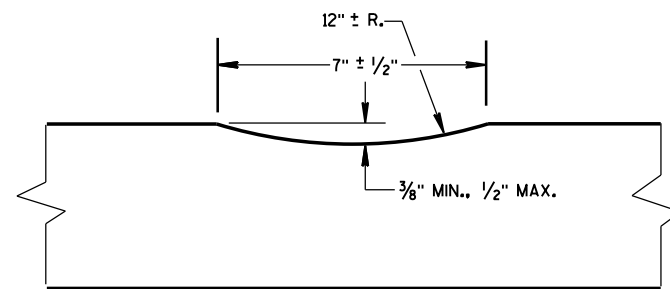
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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



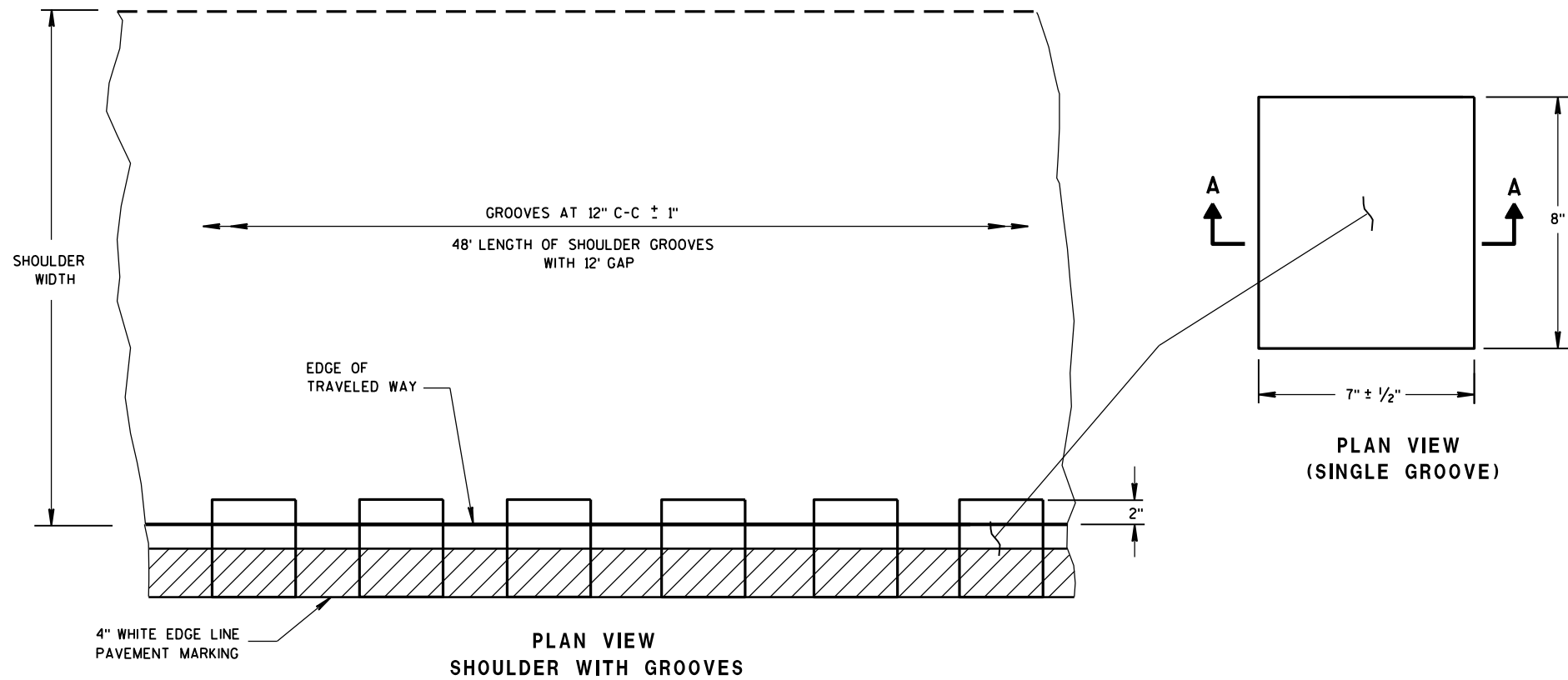
ISOMETRIC



SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

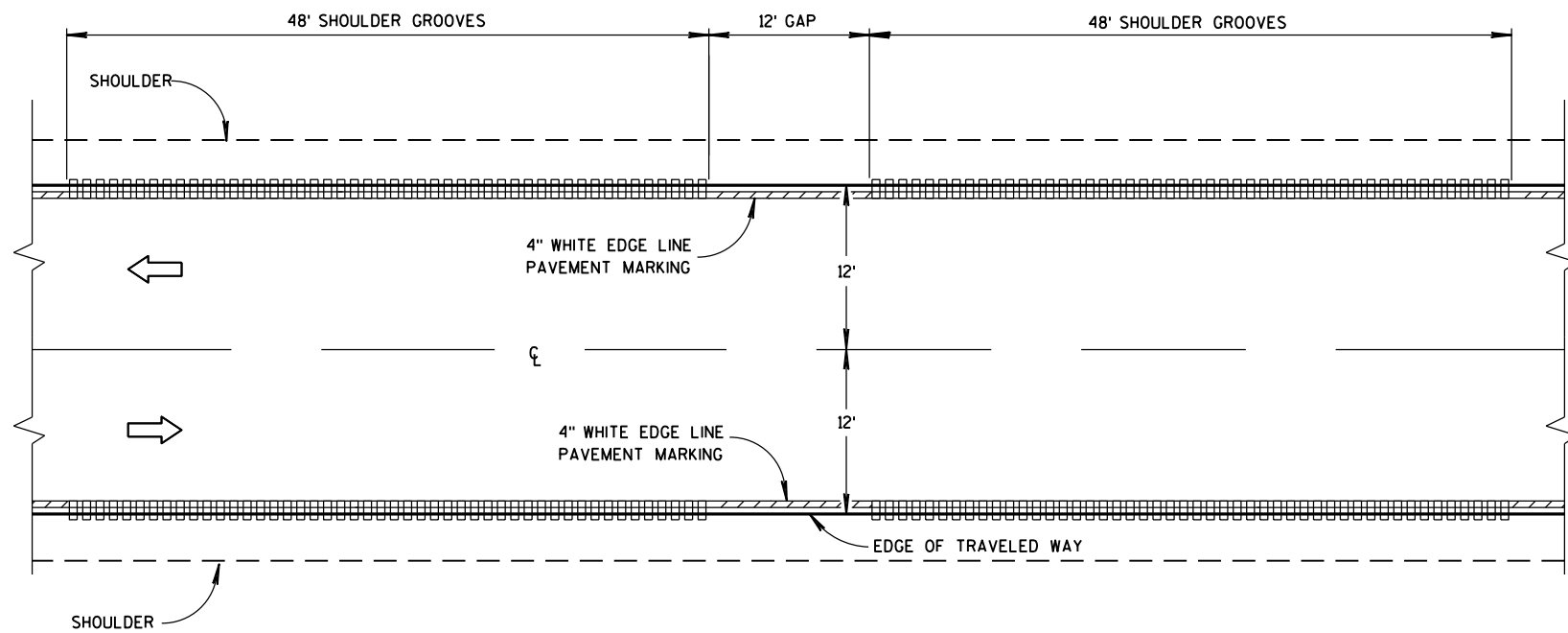
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

6
PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP

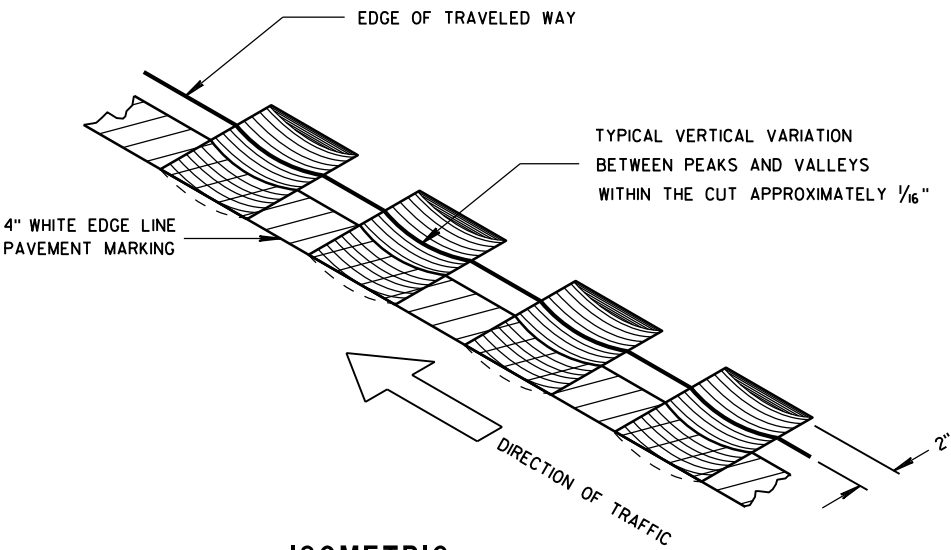


TYPE 2
2-LANE SHOULDER RUMBLE STRIP

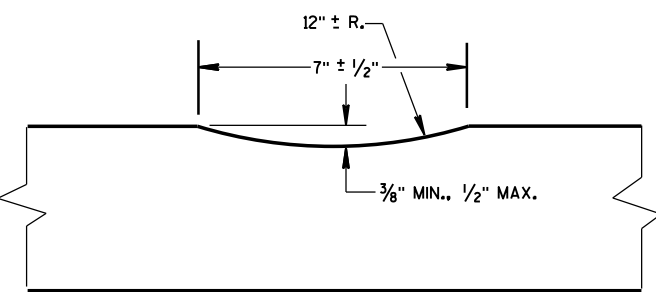
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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



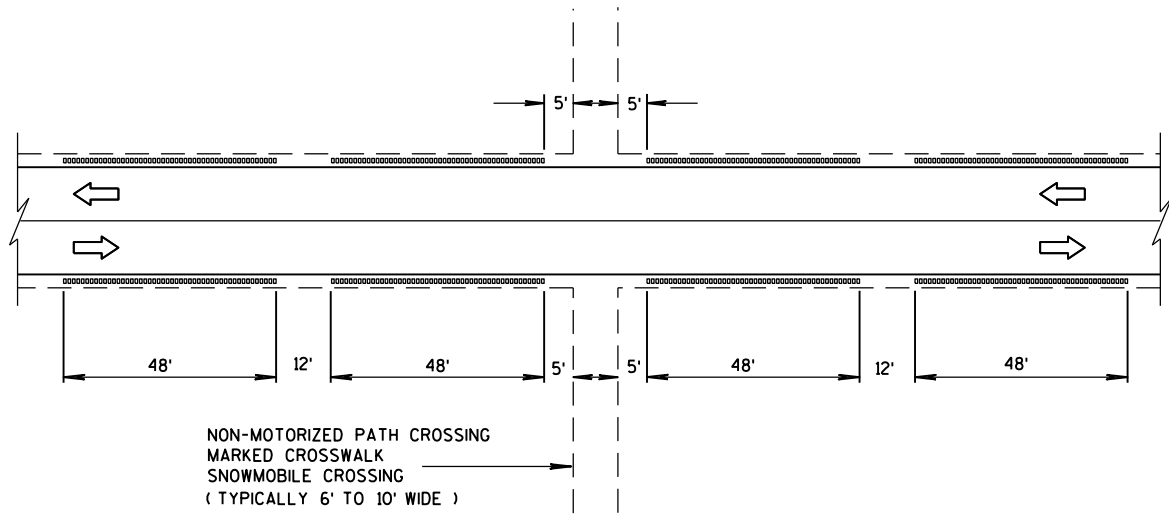
ISOMETRIC



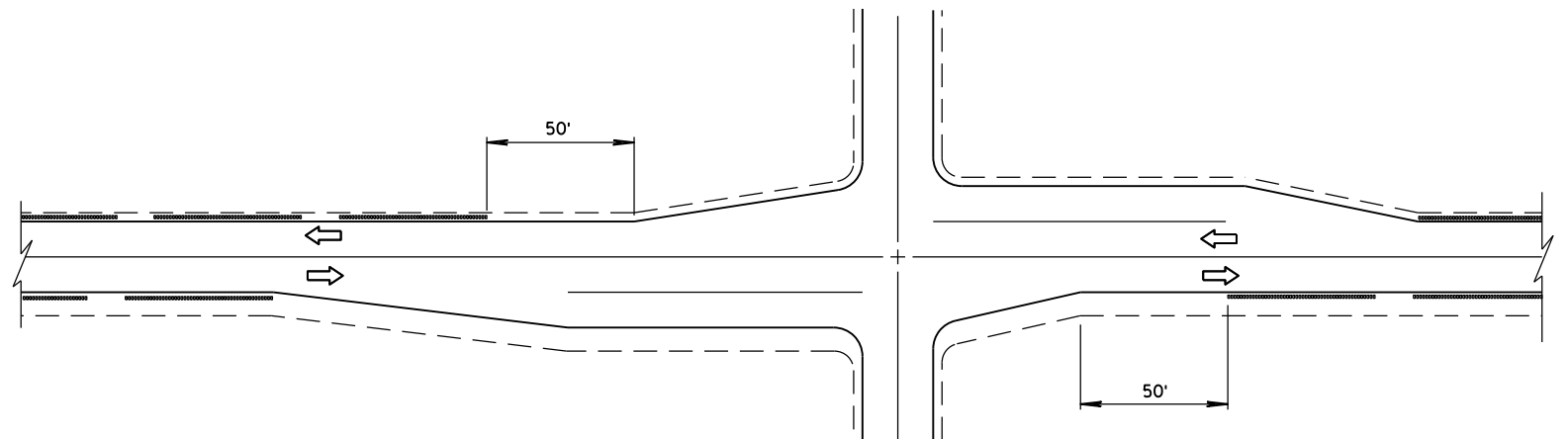
SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

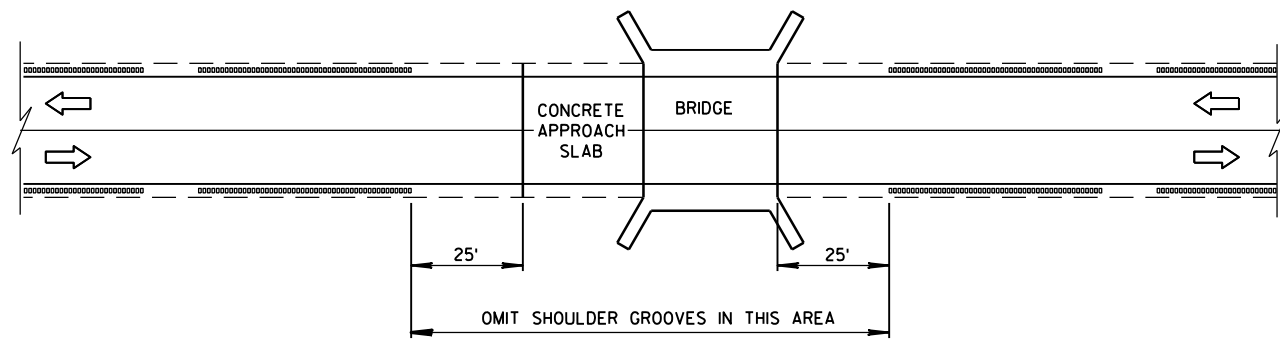
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



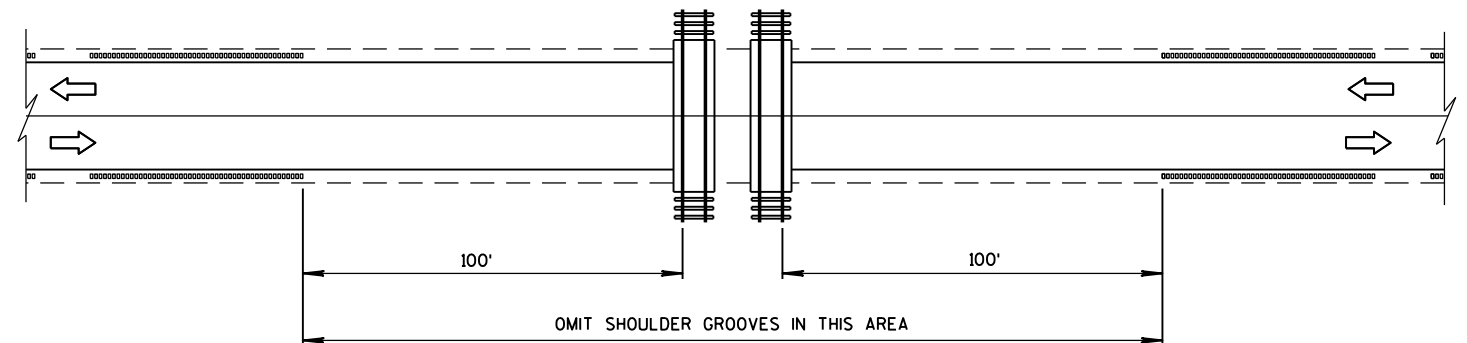
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



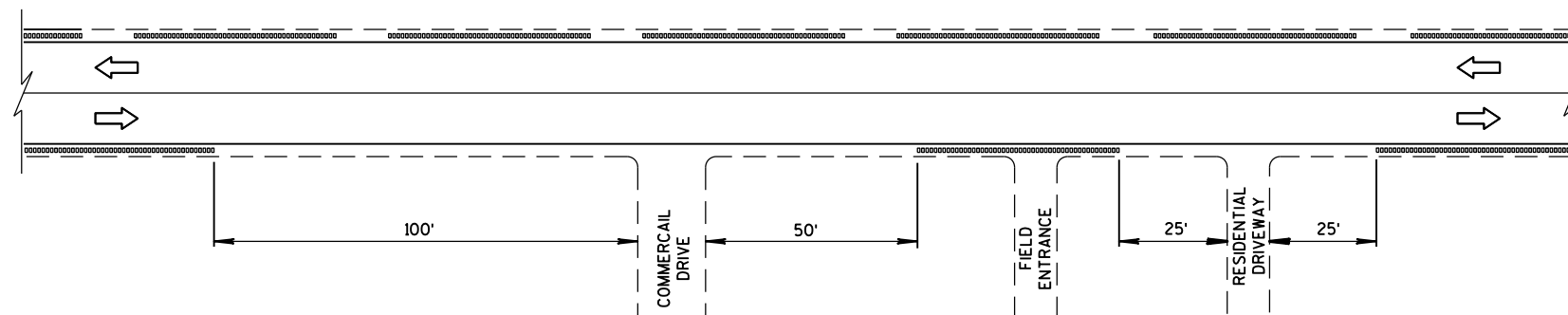
SHOULDER GROOVES AT INTERSECTIONS



SHOULDER GROOVES AT BRIDGES



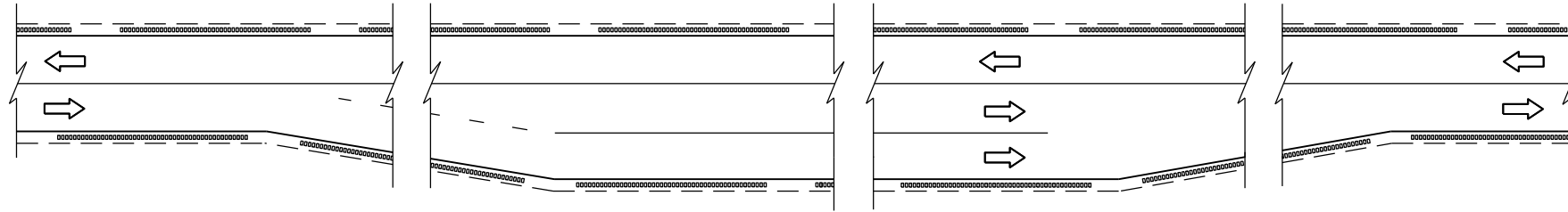
SHOULDER GROOVES AT RAILROADS



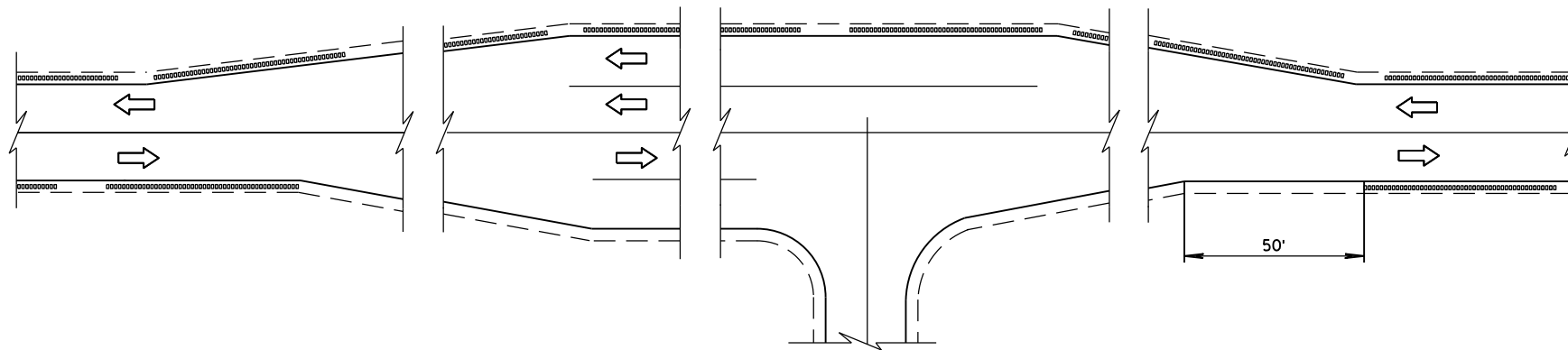
SHOULDER GROOVES AT DRIVEWAYS^①

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/17/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

GENERAL NOTES

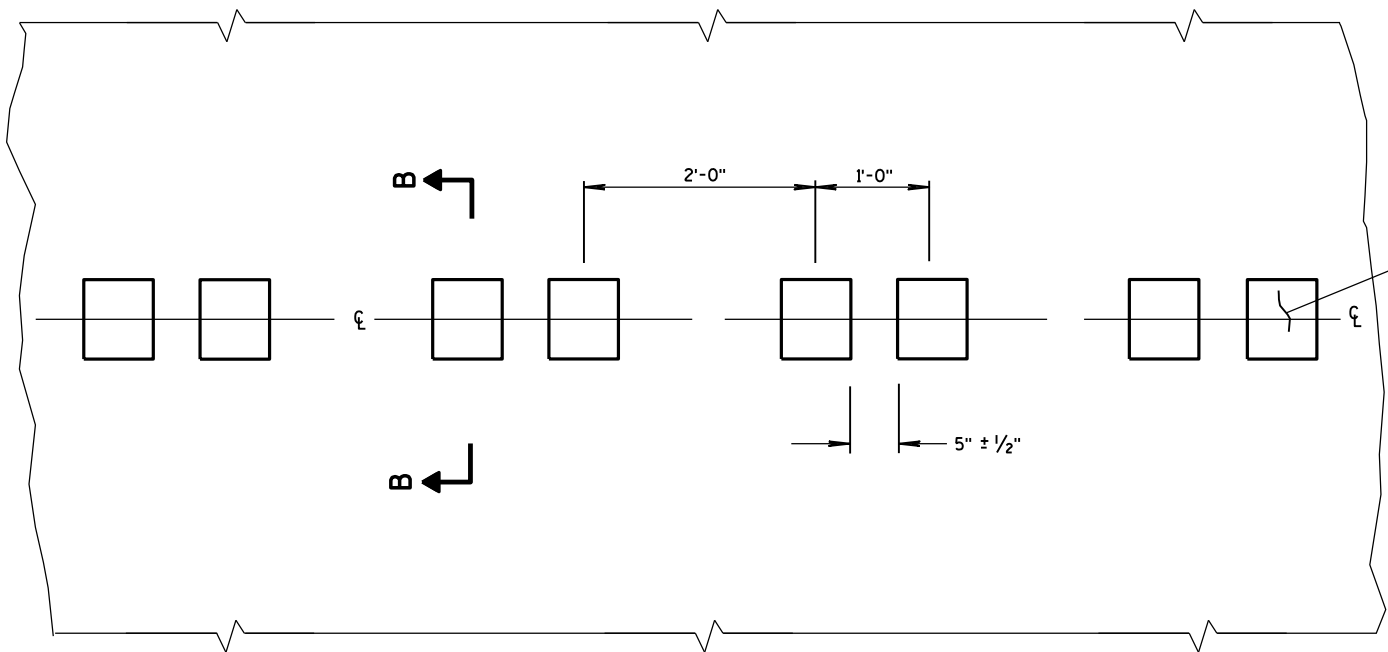
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTER LINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

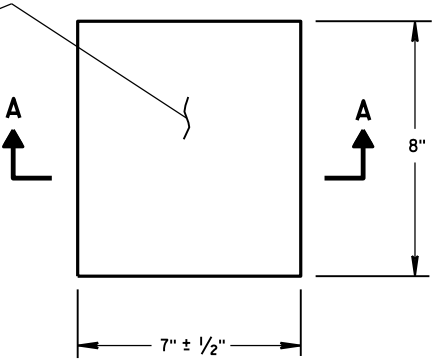
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

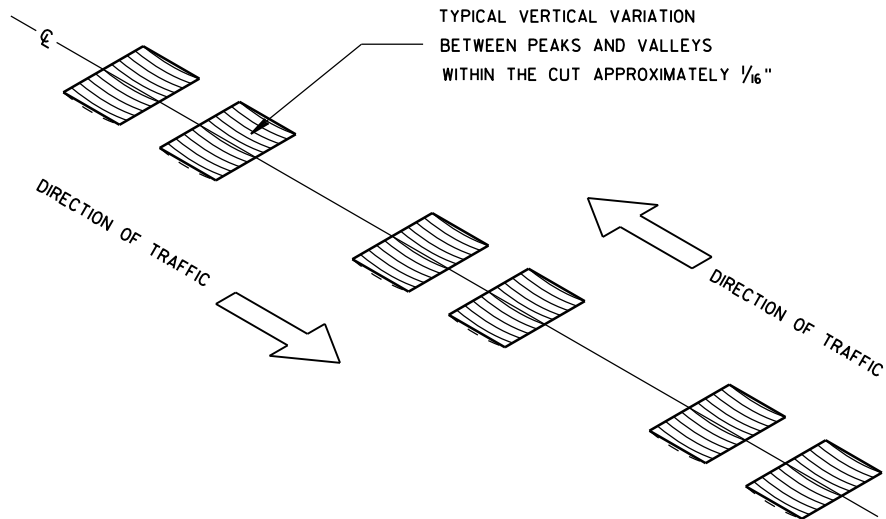
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



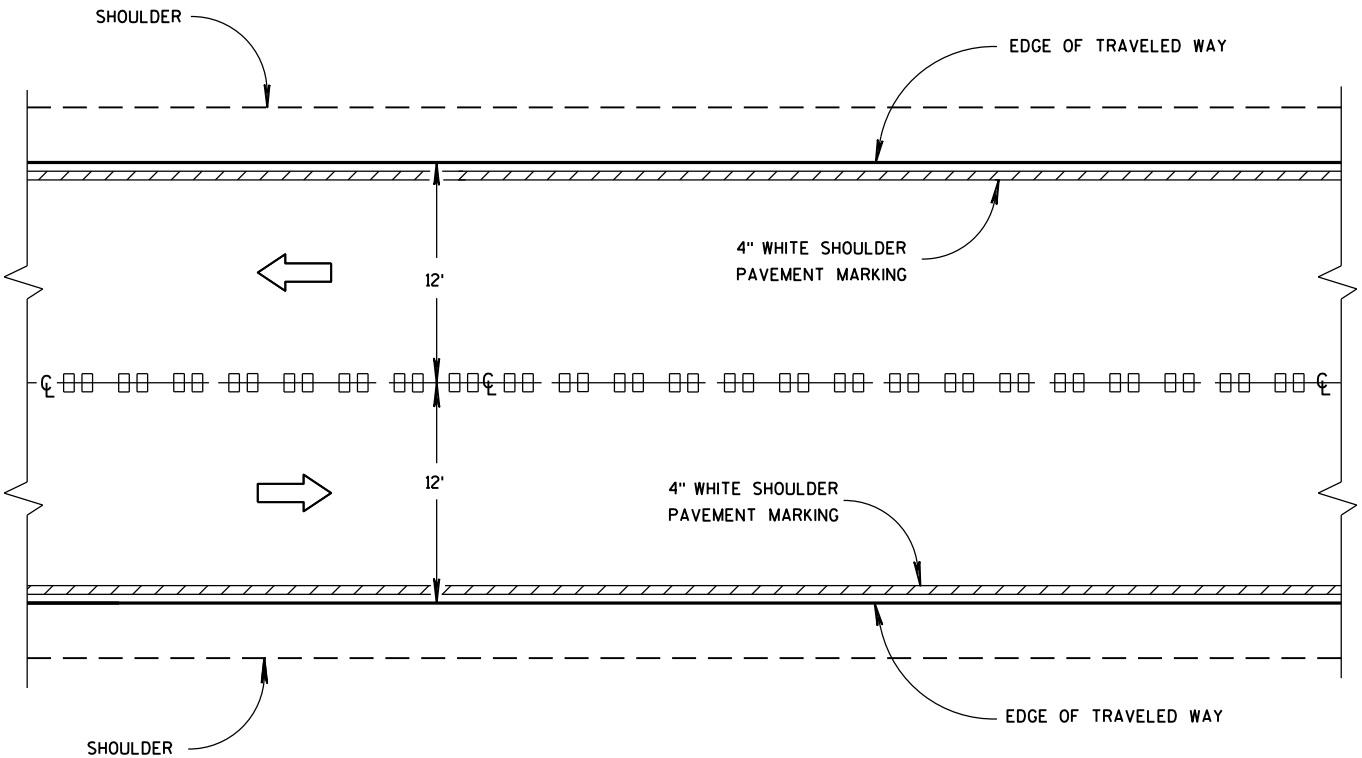
PLAN VIEW
CENTER LINE WITH GROOVES



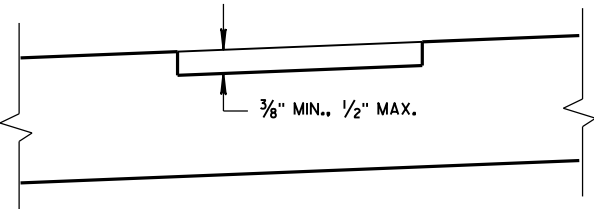
PLAN VIEW
(SINGLE GROOVE)



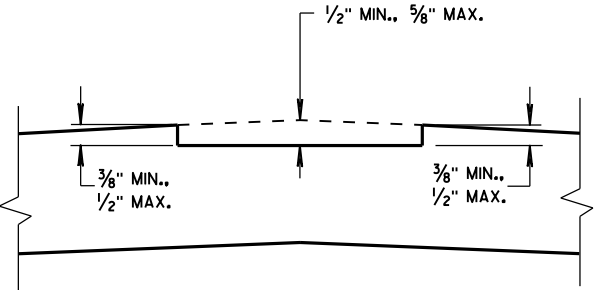
ISOMETRIC



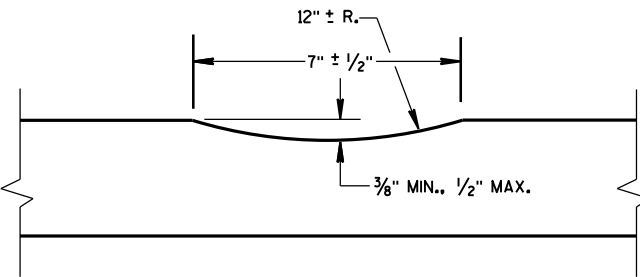
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



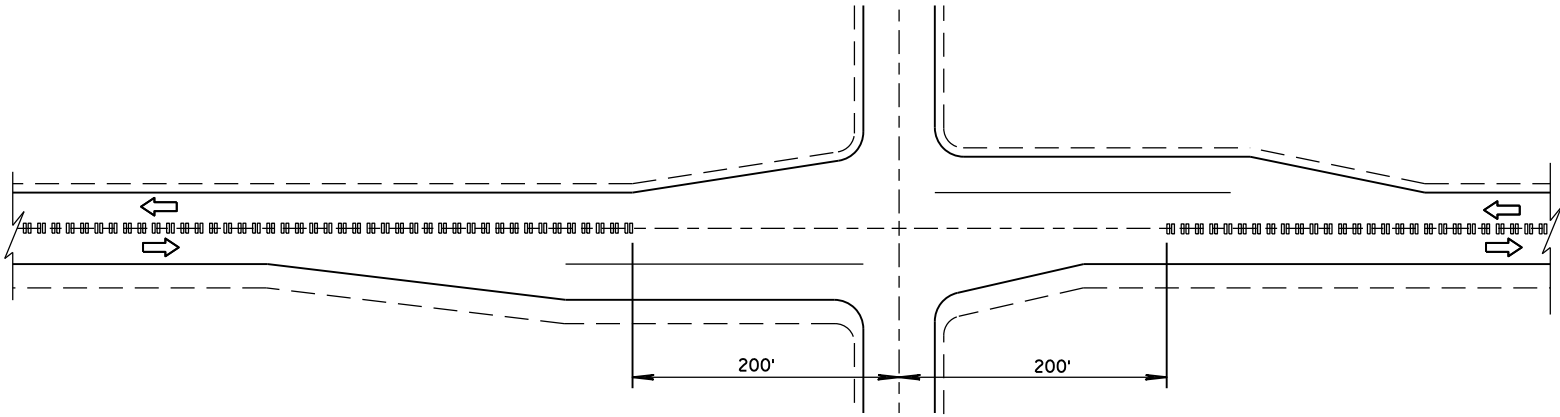
SECTION B-B
CROWNED ROADWAY



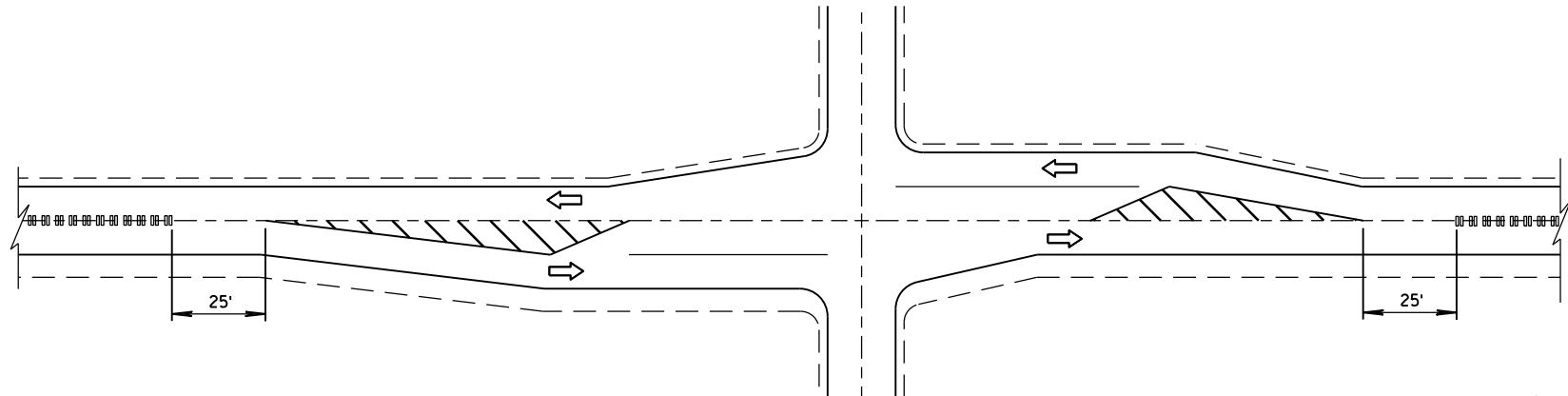
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

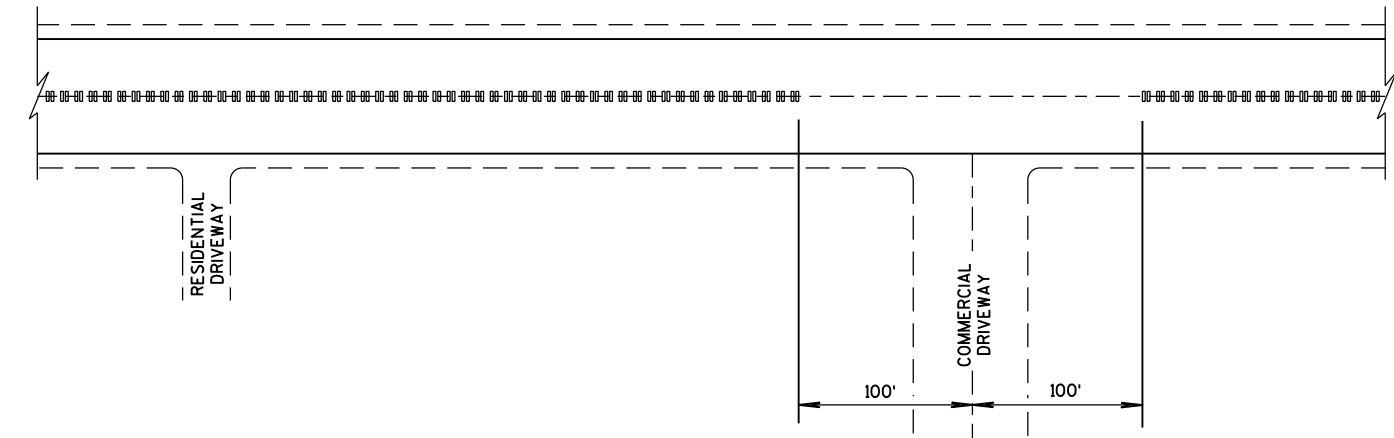
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

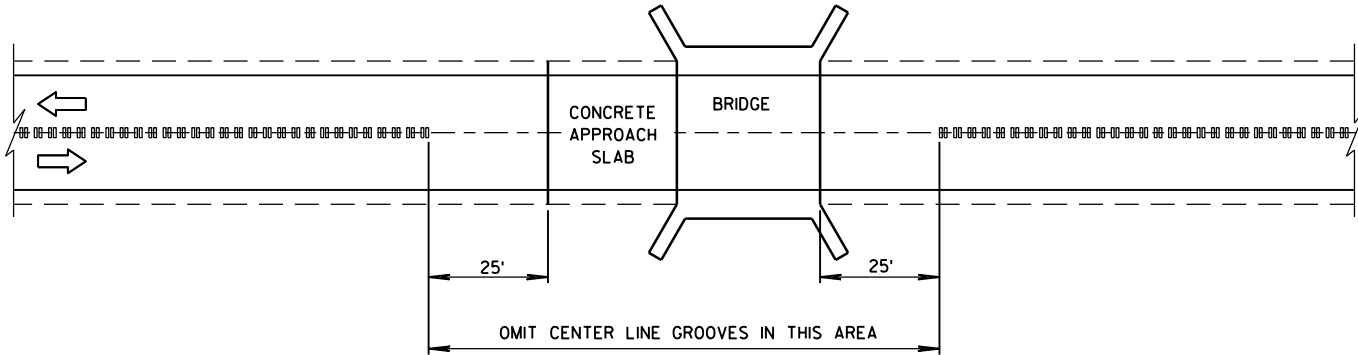


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

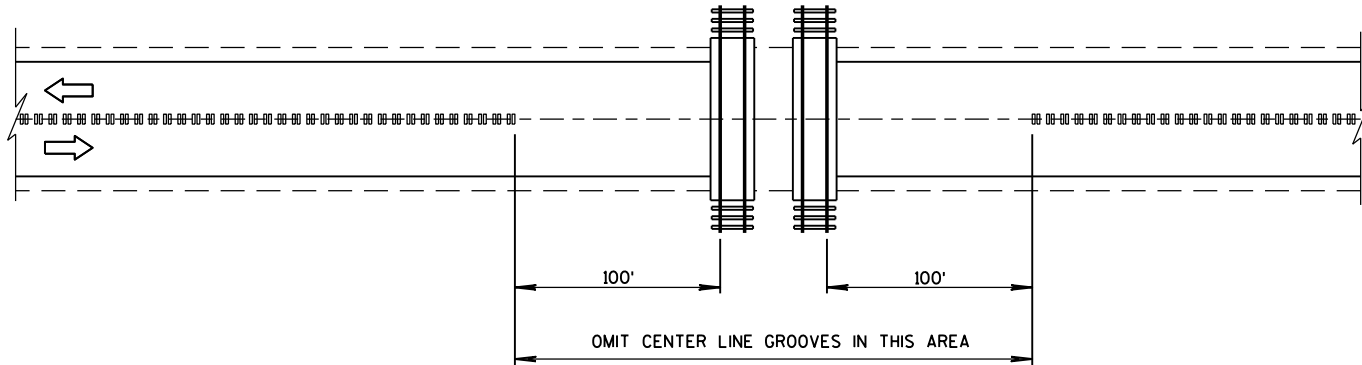


CENTER LINE GROOVES AT DRIVEWAYS^①

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

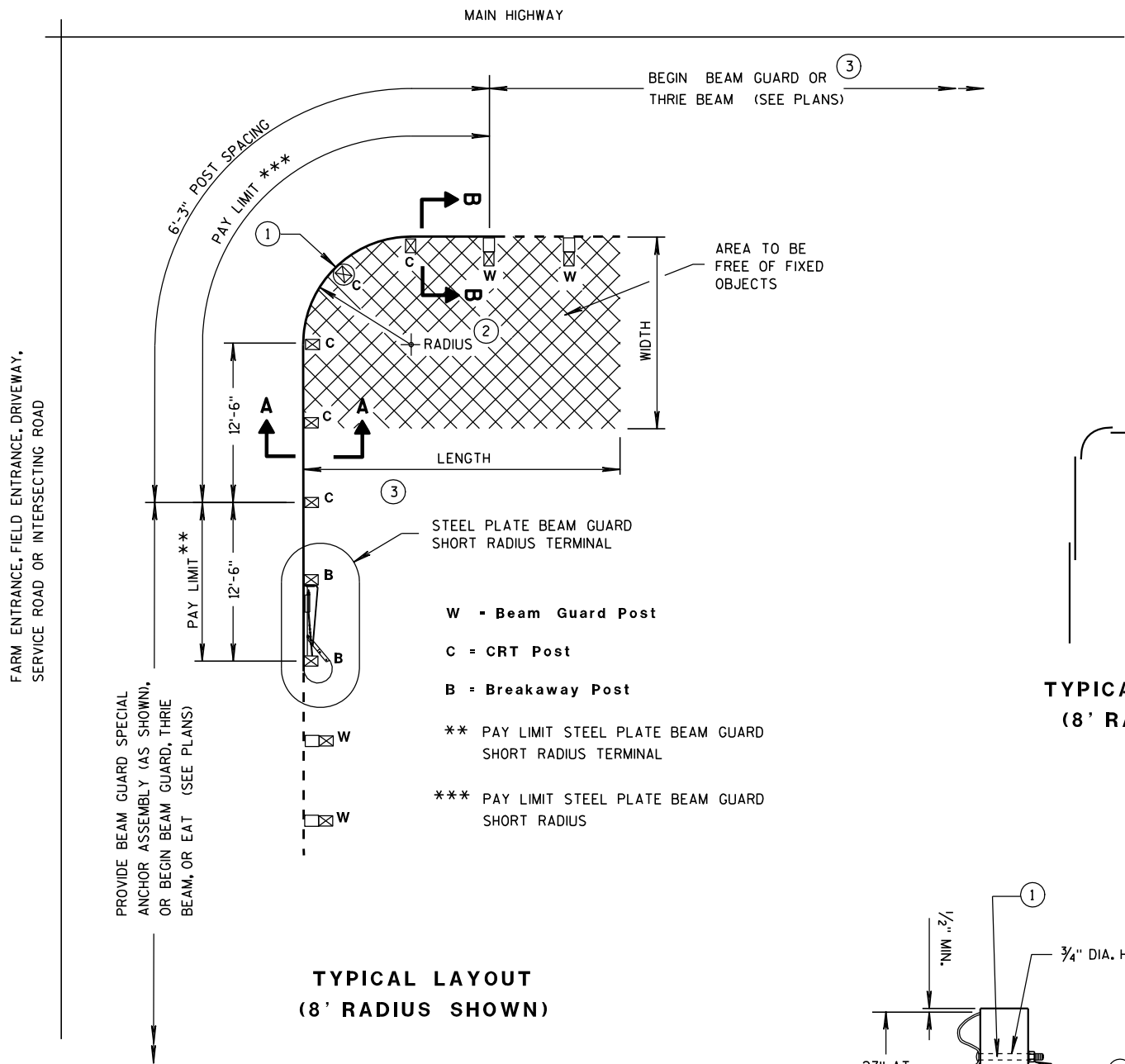


CENTER LINE GROOVES AT BRIDGES

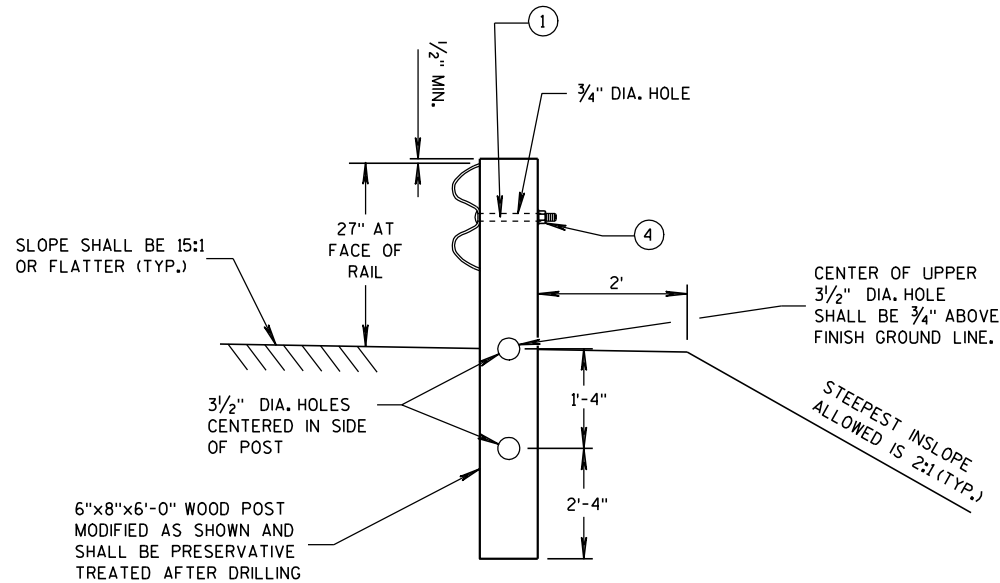


CENTER LINE GROOVES AT RAILROADS

2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/15/2013 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



TYPICAL LAYOUT
(8' RADIUS SHOWN)



SECTION A-A
(CRT POST)

TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

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

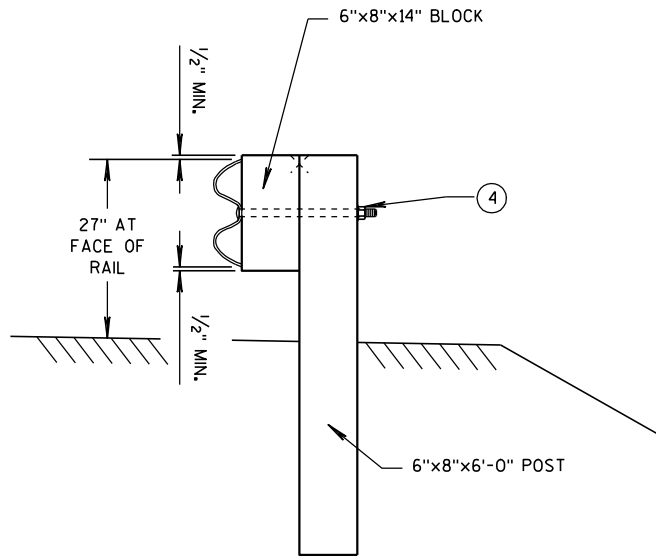
SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

- 1 ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.
- 2 RADIUS FROM 8' - 36'. SEE PLAN.
- 3 HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.
- 4 5/8" Ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

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

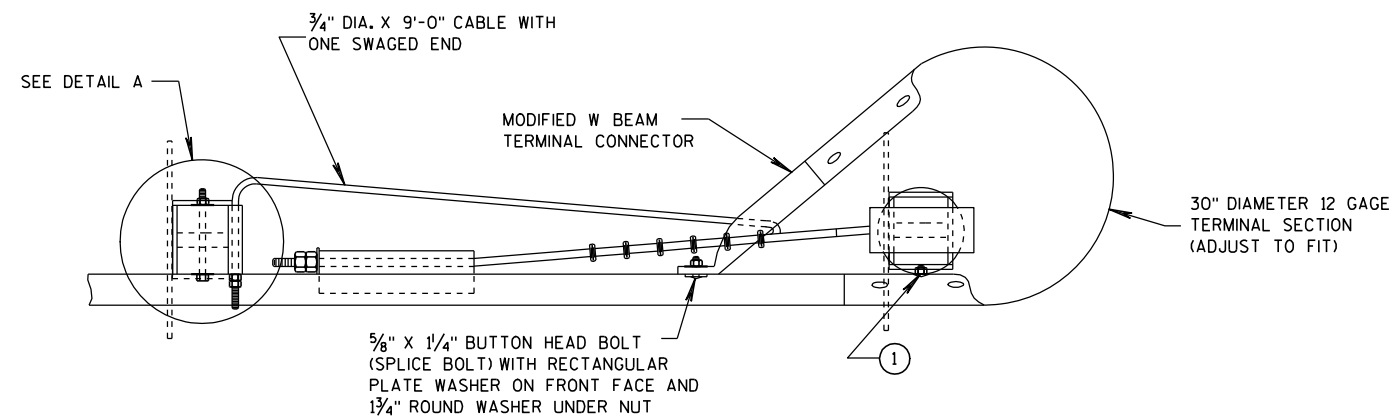
* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



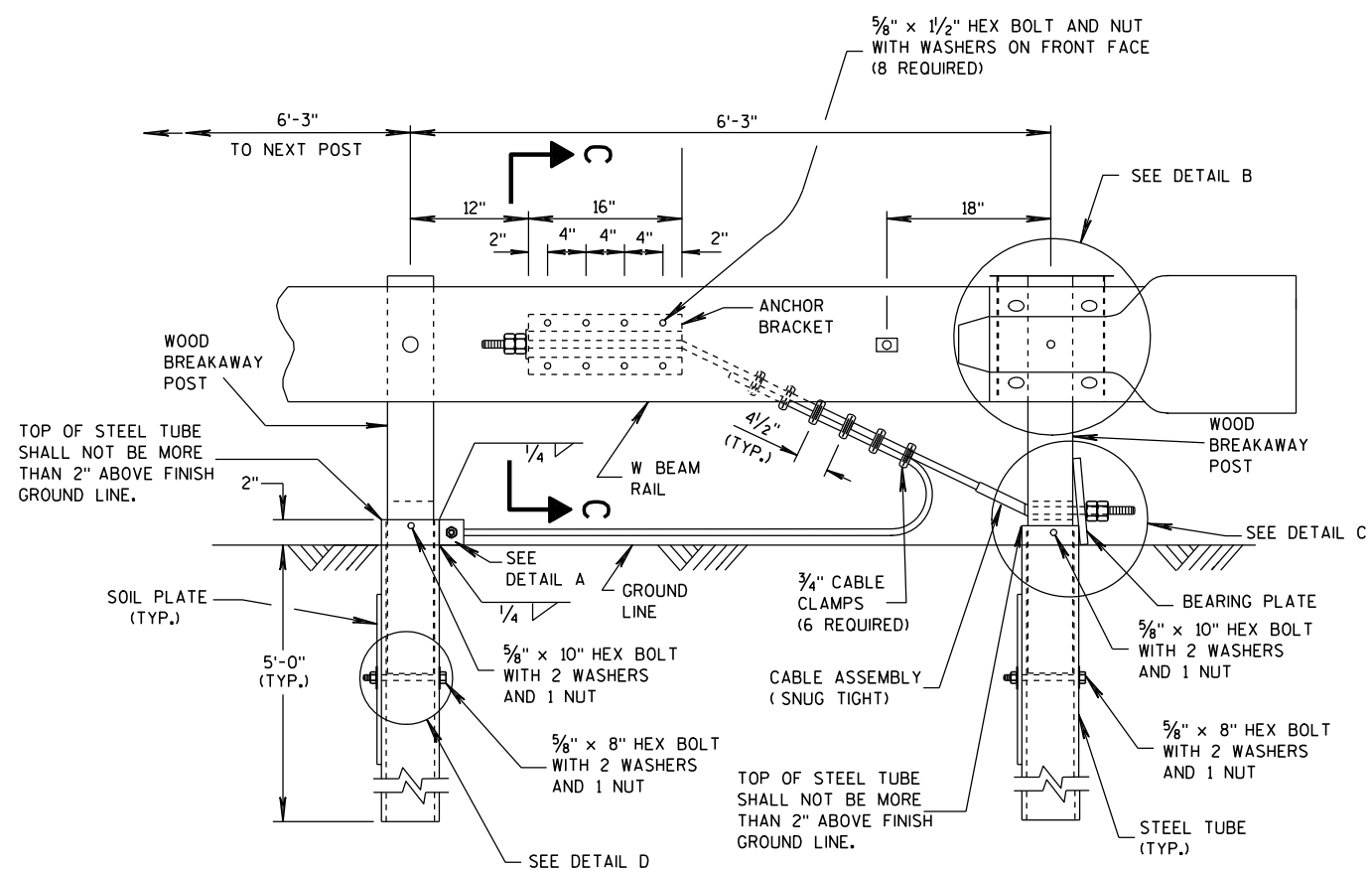
SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW

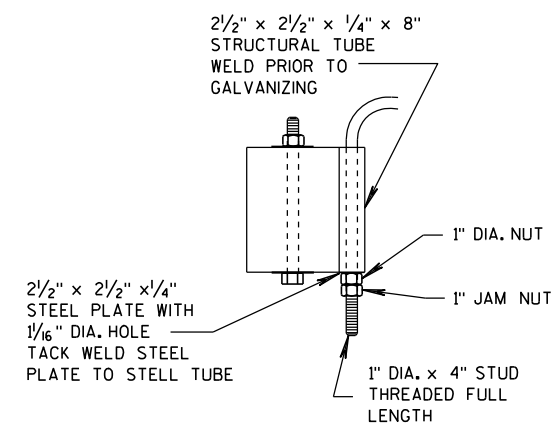


ELEVATION VIEW

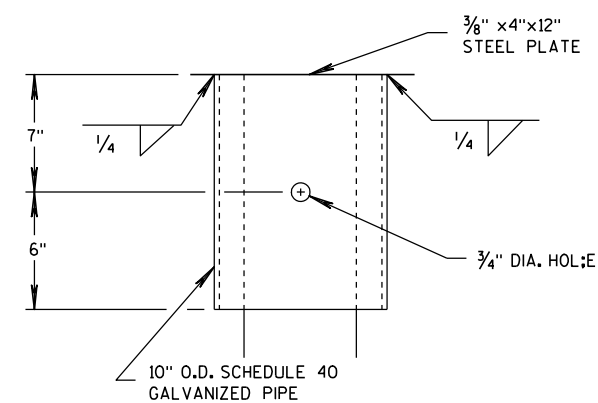
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

GENERAL NOTES

- 1 ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A $\frac{5}{8}$ " X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.
- INSTALL GALVANIZED $\frac{3}{4}$ " (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED FLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



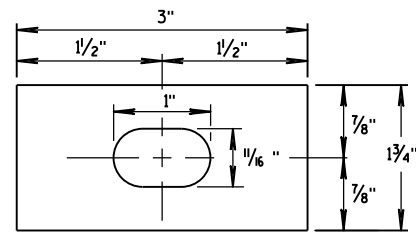
DETAIL A



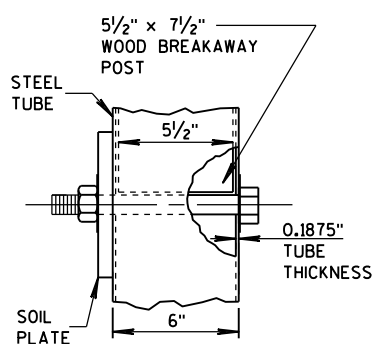
DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

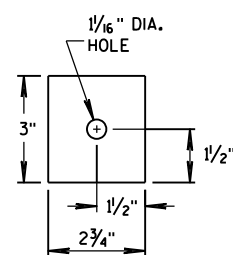
STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINALSTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



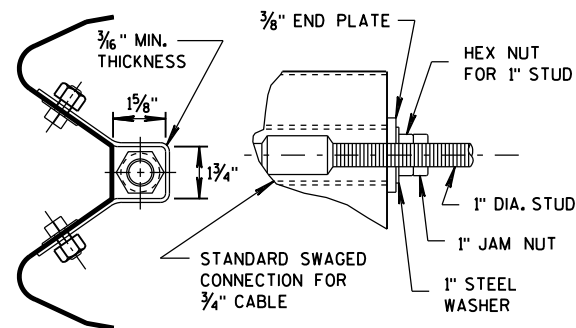
**RECTANGULAR
PLATE WASHER**



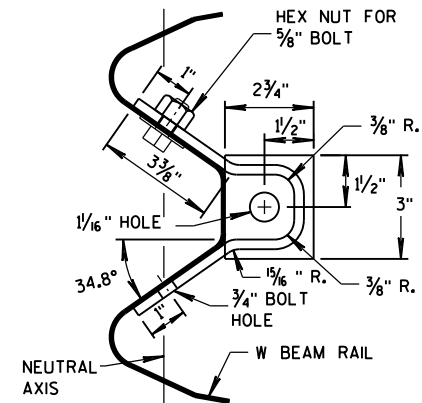
DETAIL D



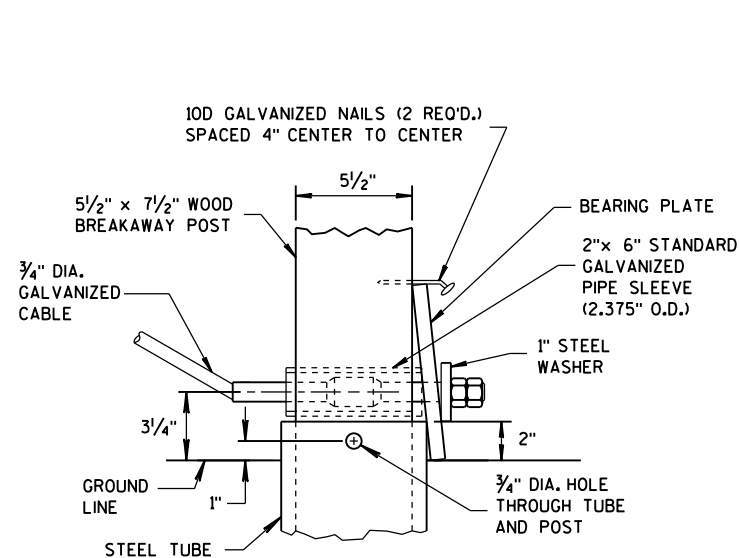
END PLATE



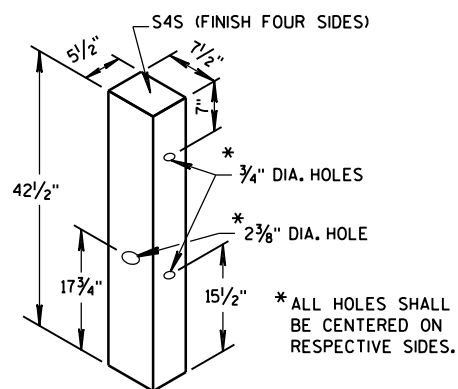
**SECTION C-C
(END PLATE REMOVED)**



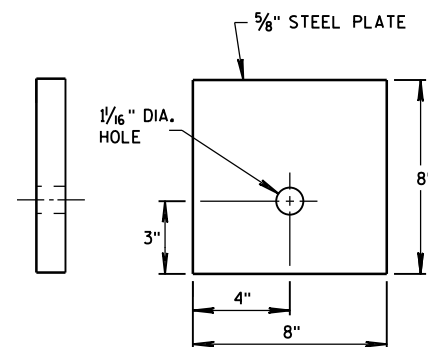
ANCHOR BRACKET



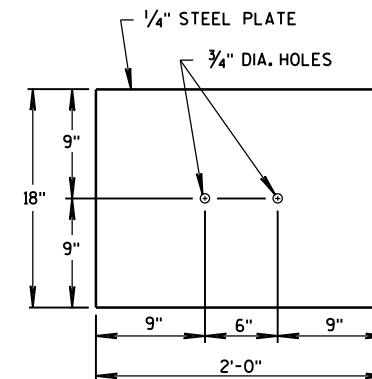
DETAIL C



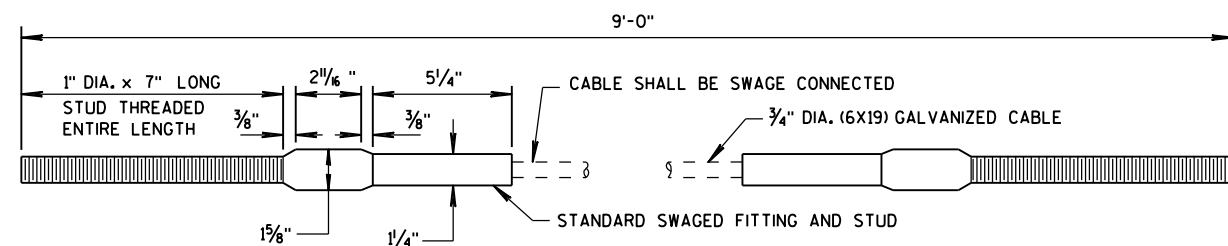
WOOD BREAKAWAY POST



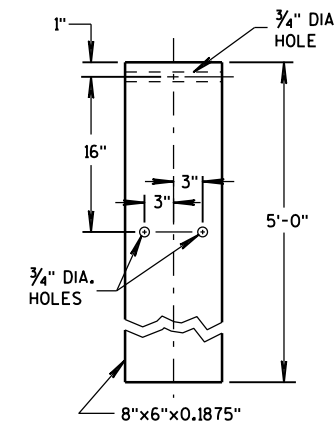
BEARING PLATE



SOIL PLATE



CABLE ASSEMBLY



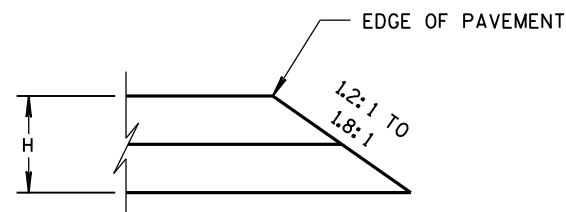
STEEL TUBE

**STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL**

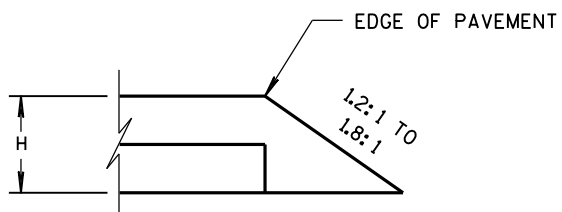
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/08
DATE
FHWA

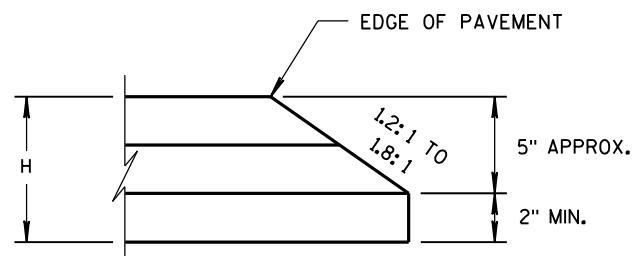
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



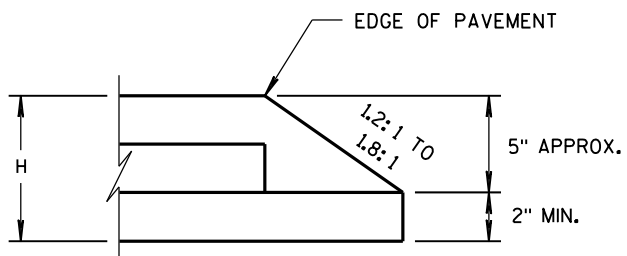
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

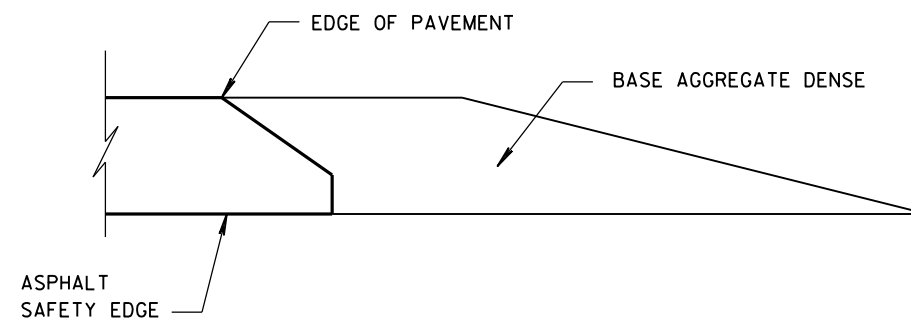


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

SAFETY EDGE_{SM}

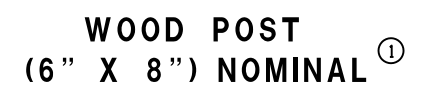
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

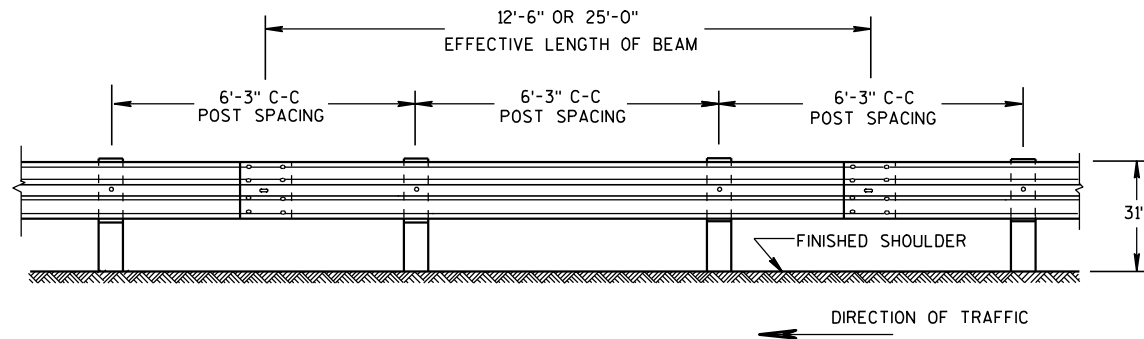
APPROVED
11/30/2012
DATE
FHWA

/s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

6

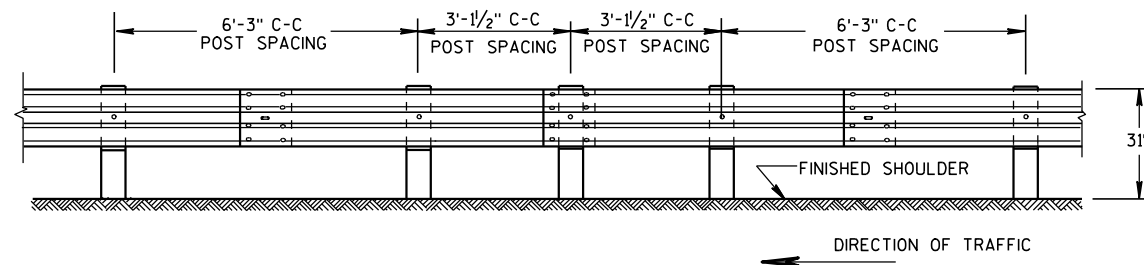
- S.D.D. 14 B 42-2a**





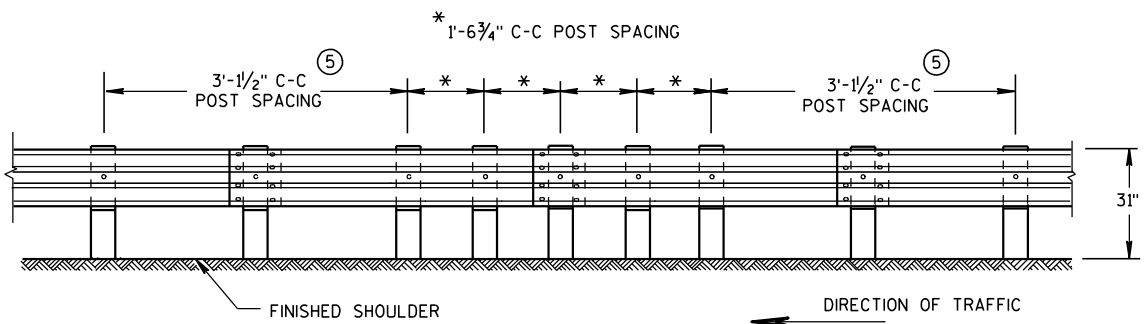
FRONT VIEW

POST SPACING STANDARD INSTALLATION



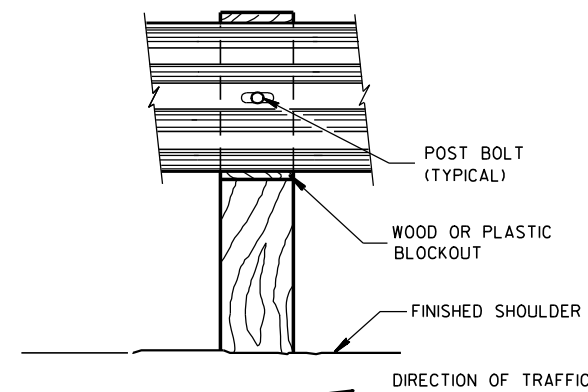
FRONT VIEW

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

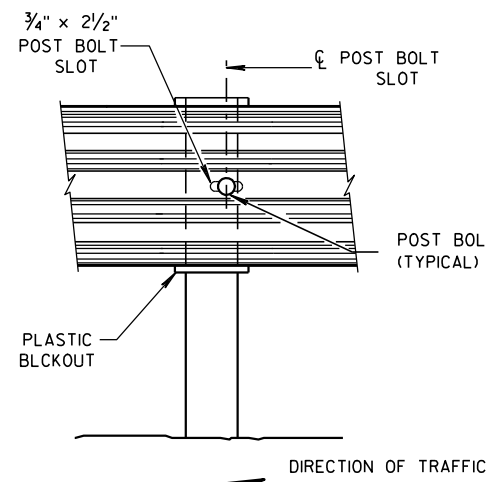


FRONT VIEW

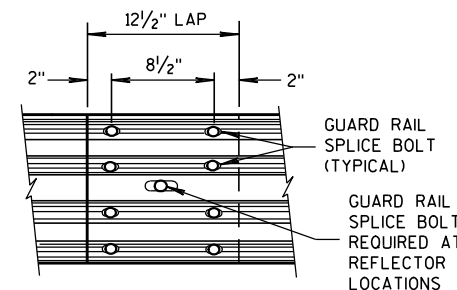
QUARTER POST SPACING (QS)



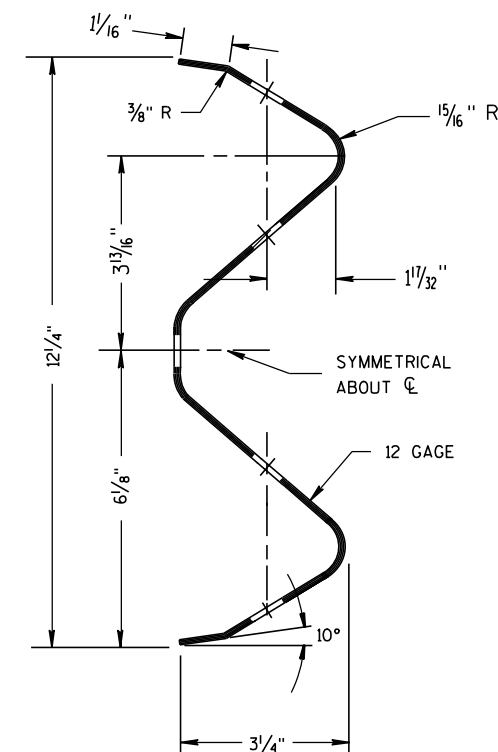
FRONT VIEW AT WOOD POST



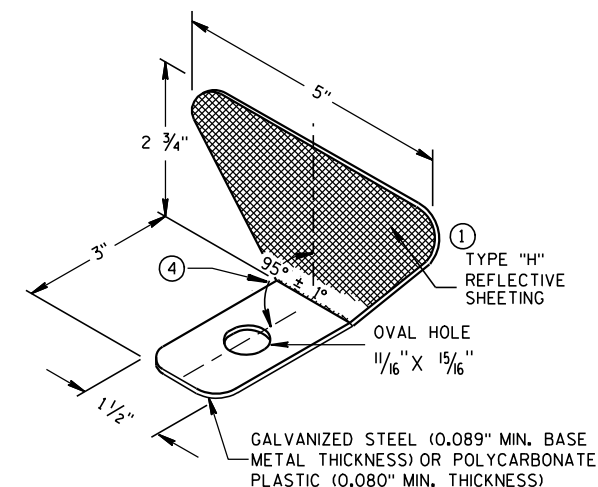
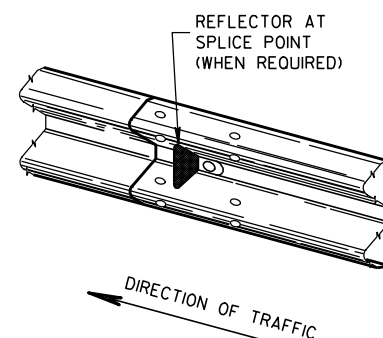
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

- 1 PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
- 2 DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
- 3 REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- 4 PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
- 5 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND $\frac{5}{8}$ " DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

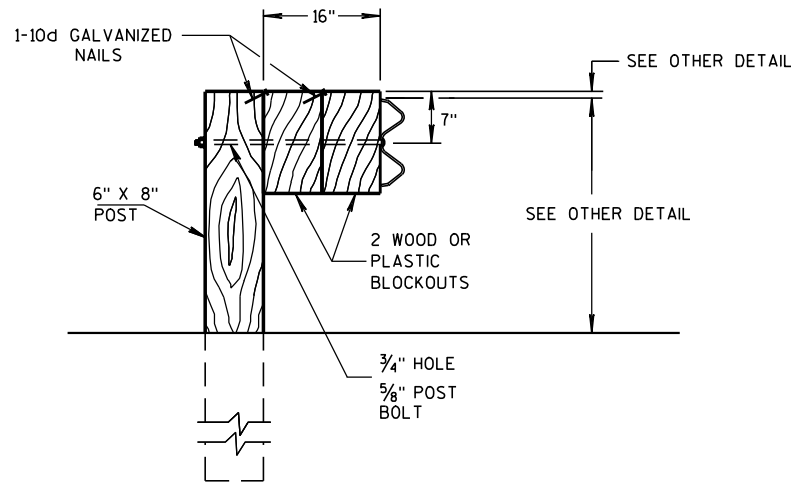
GUARD RAIL SPLICE BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2	

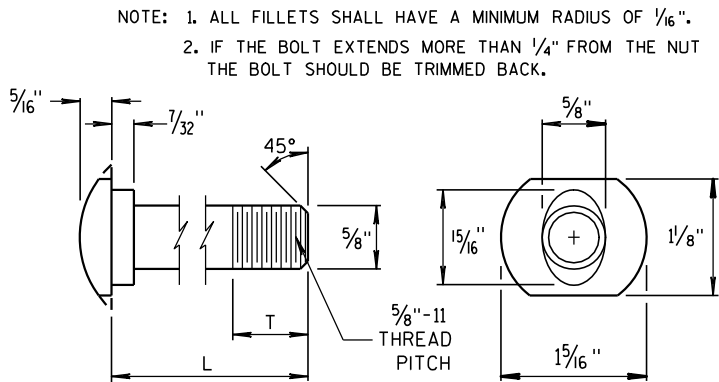
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

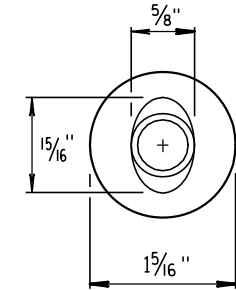


DETAIL FOR 16" BLOCKOUT DEPTH

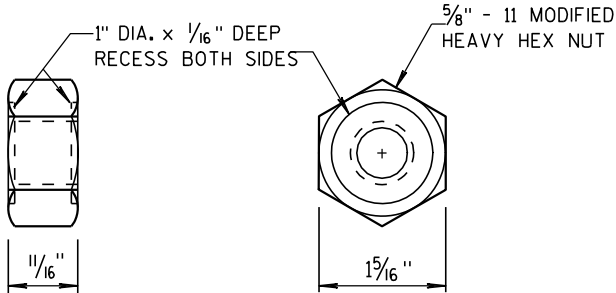
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



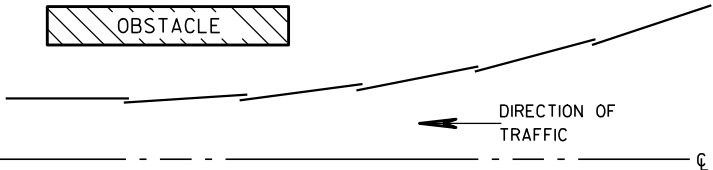
POST BOLT TABLE



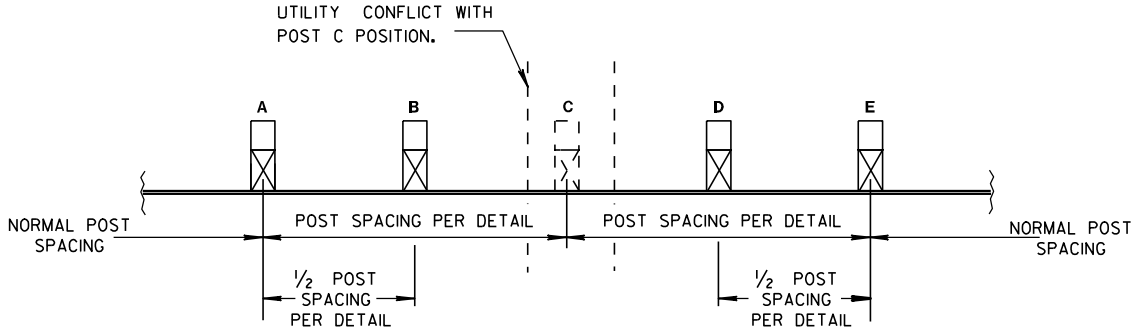
ALTERNATE BOLT HEAD



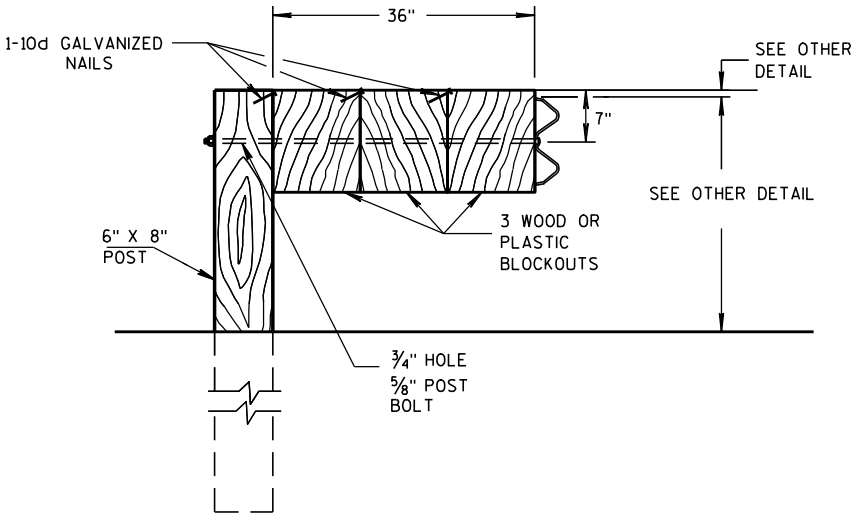
POST BOLT AND RECESS NUT



PLAN VIEW
BEAM LAPPING DETAIL



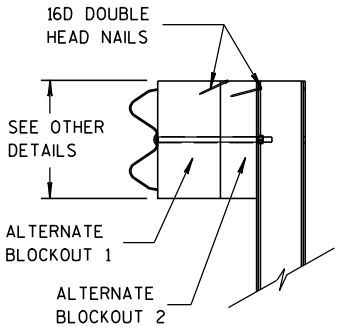
POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION



DETAIL FOR 36" BLOCKOUT DEPTH

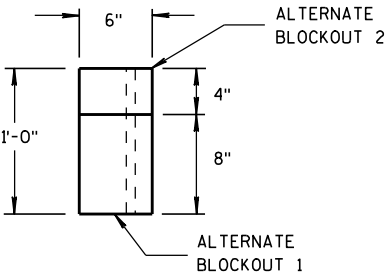
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

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



SIDE VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL



TOP VIEW

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/15/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

6

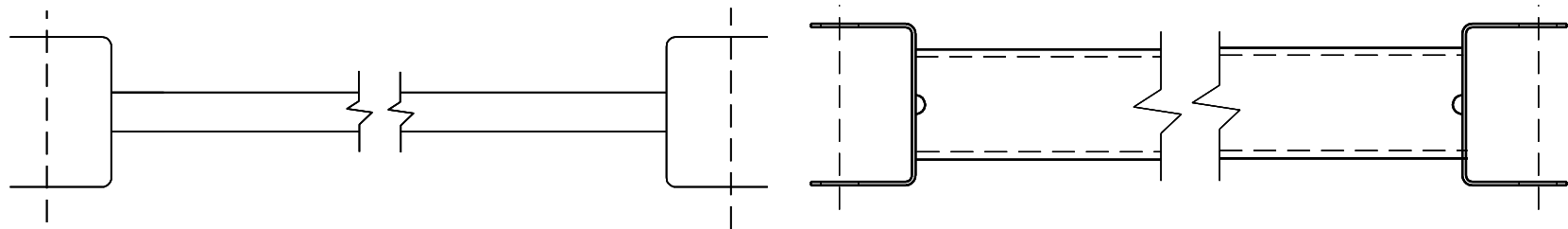
- S.D.D. 14 B 44-1a**

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 (+ 3/4")

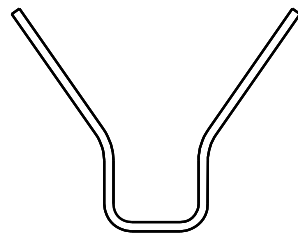
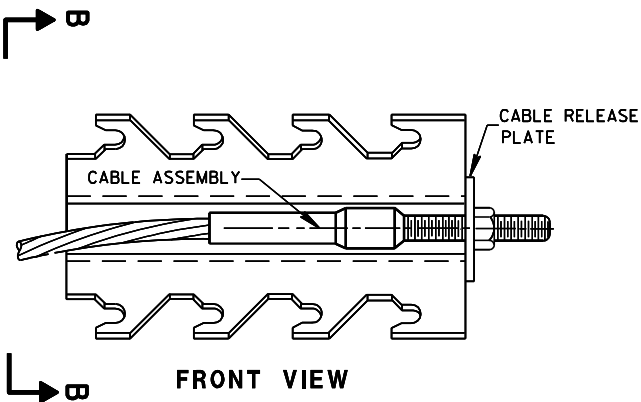


STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

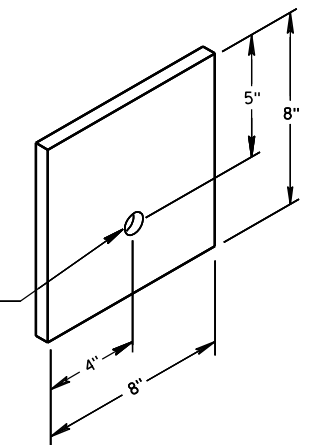
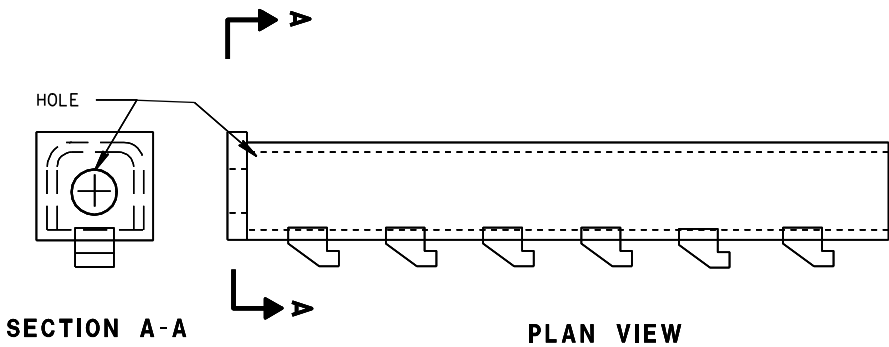
S.D.D. 14 B 44-1a



9 H
GENERIC GROUND STRUT

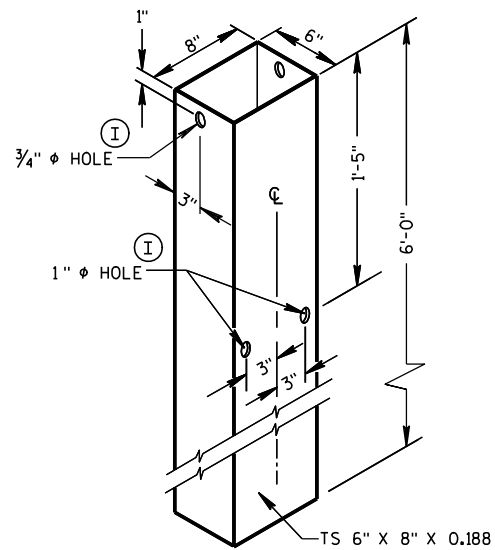


SECTION B-B
8 H
GENERIC ANCHOR CABLE BOX

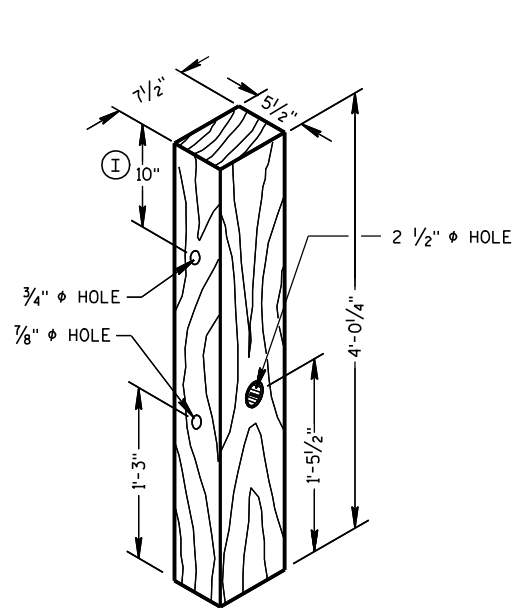


6
BEARING PLATE

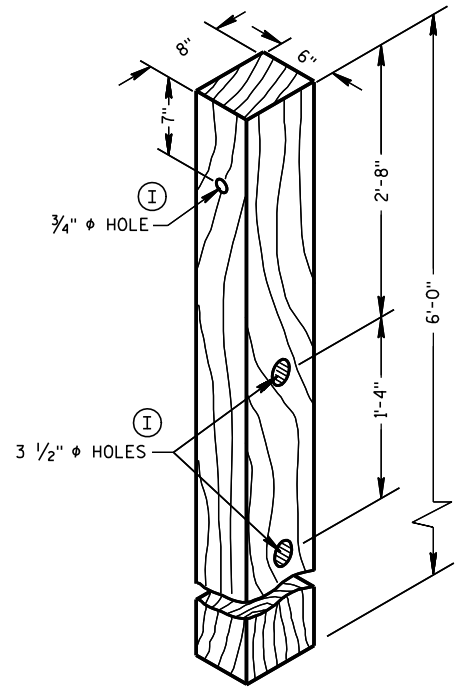
BILL OF MATERIALS	
PART NO.	DESCRIPTION
MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.	
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR 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	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



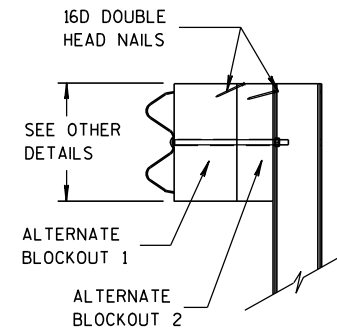
FOUNDATION TUBE ②



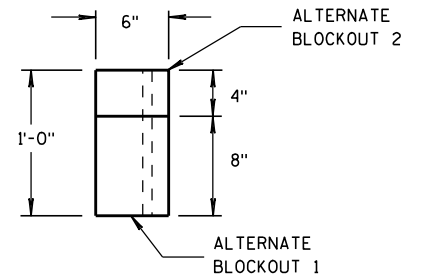
WOOD BREAKAWAY POST ①



WOOD CRT POST ③

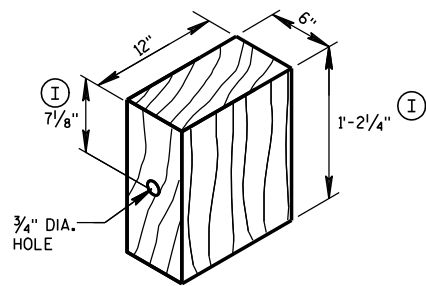


SIDE VIEW



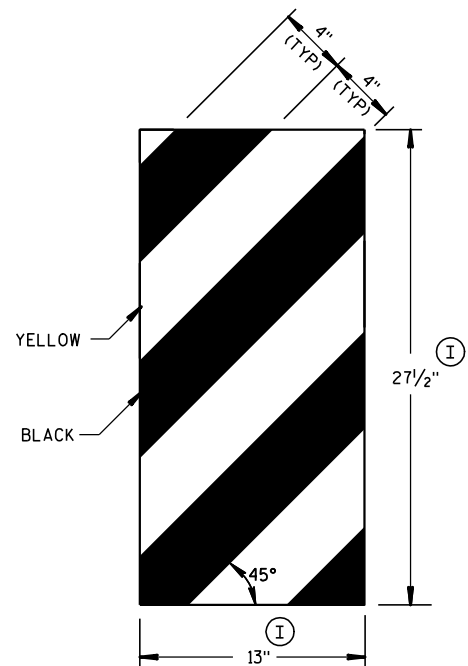
TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

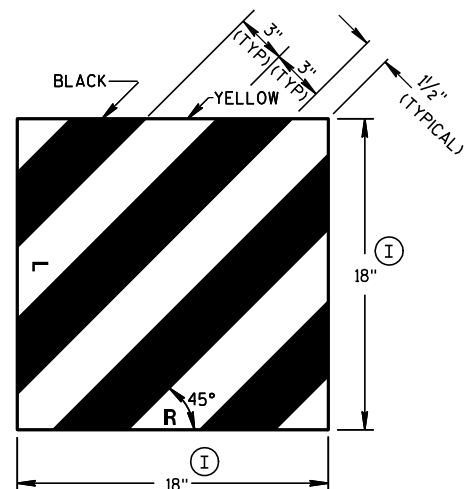


WOOD BLOCKOUT ④
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

YELLOW REFLECTIVE TAPE
3" X 9" TYPE H
REFLECTIVE SHEETING



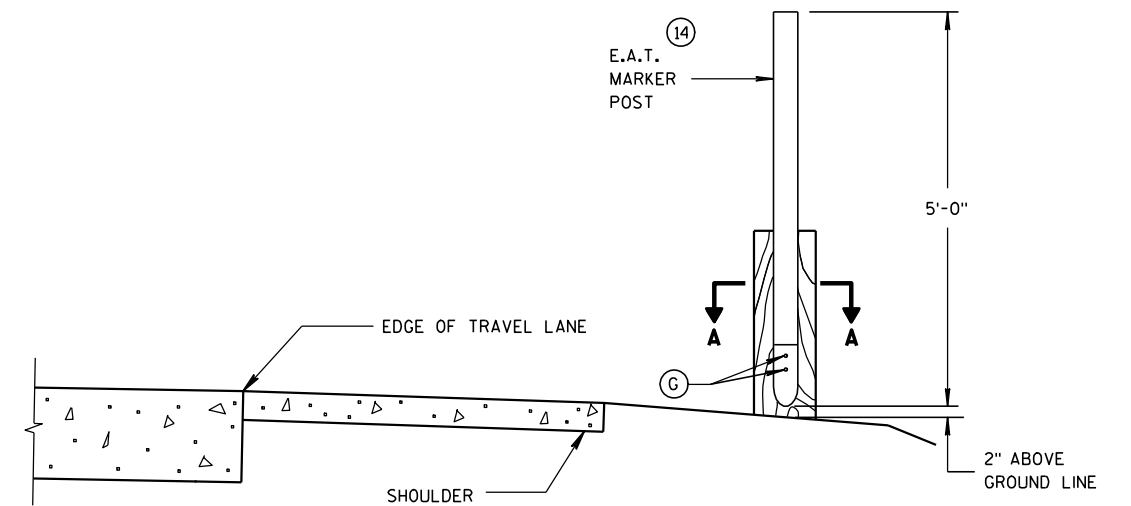
GENERIC REFLECTIVE SHEETING ⑬ ④



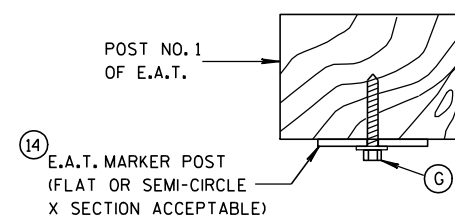
FRONT VIEW

SIDE VIEW

E.A.T. MARKER POST ⑭



TYPICAL INSTALLATION OF E.A.T.
MARKER POST BACKSIDE OF POST NO. 1
(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

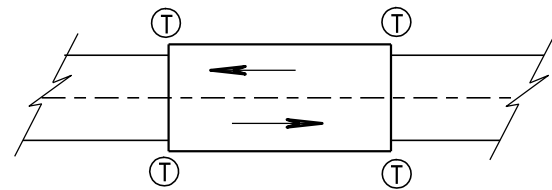
APPROVED

5/23/2011

DATE

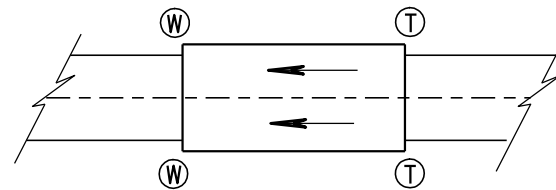
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



TWO WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION



ONE WAY TRAFFIC

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

GENERAL NOTES

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

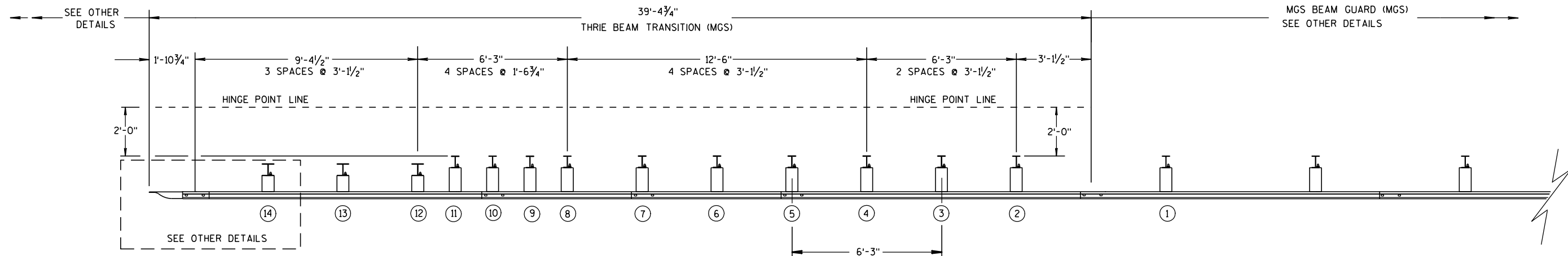
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

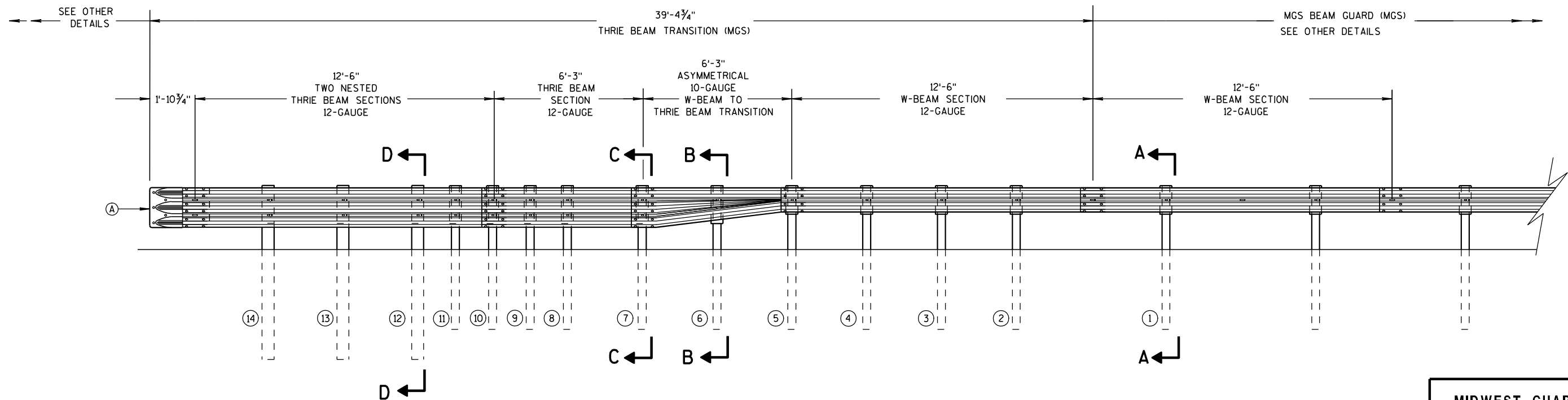
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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

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



PLAN VIEW



ELEVATION VIEW

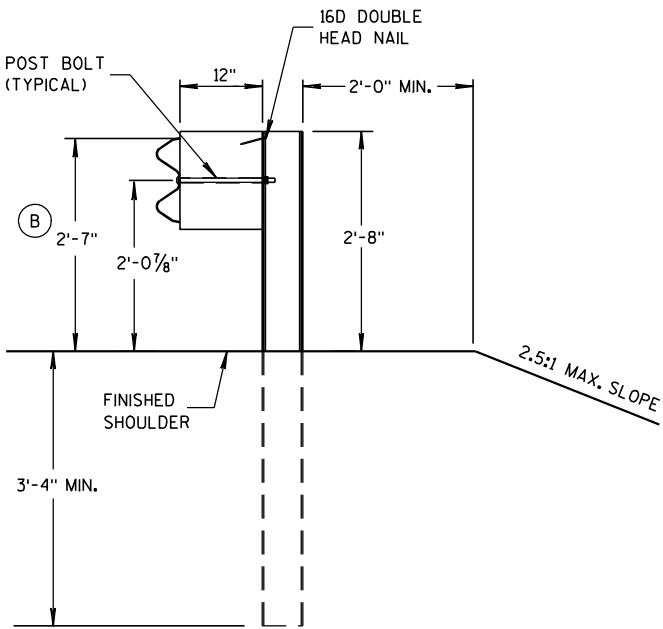
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

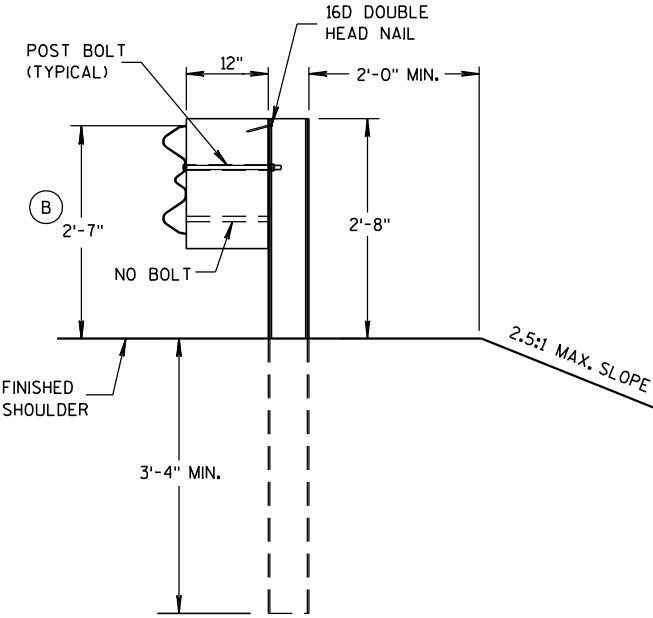
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

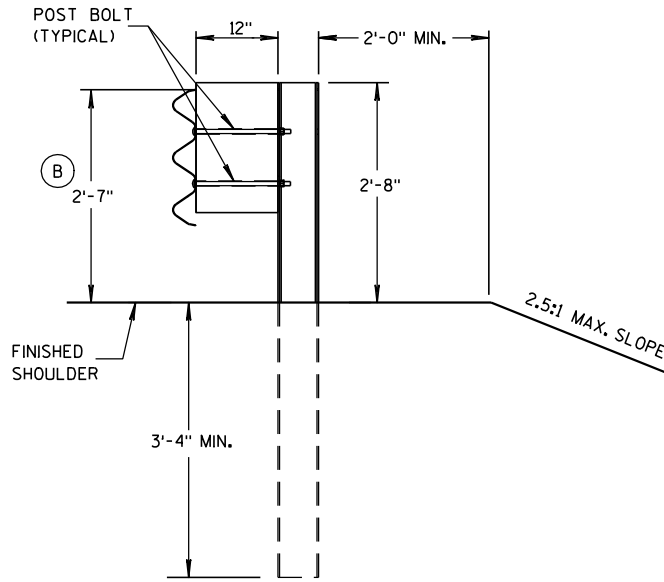
(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS $\pm 1"$.



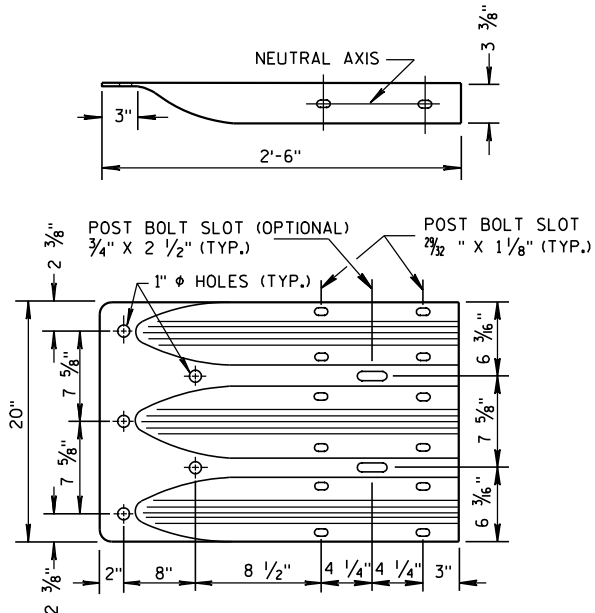
SECTION A-A
POSTS 1-5



SECTION B-B
POST 6



SECTION C-C
POSTS 7-11



THRIE BEAM
TERMINAL CONNECTOR

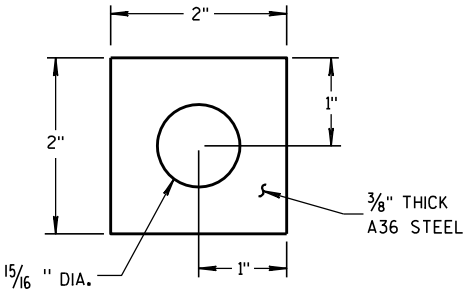
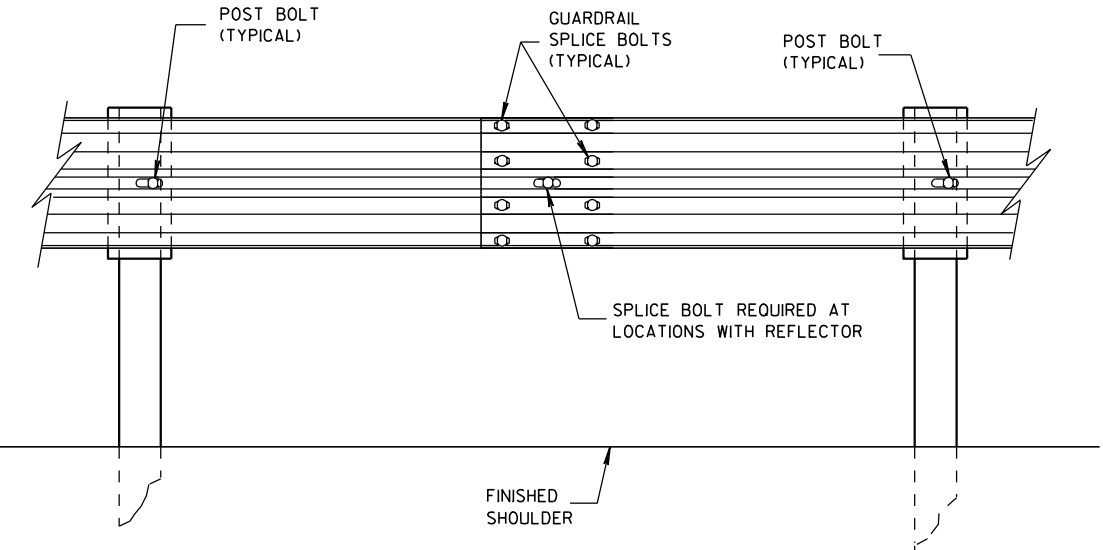
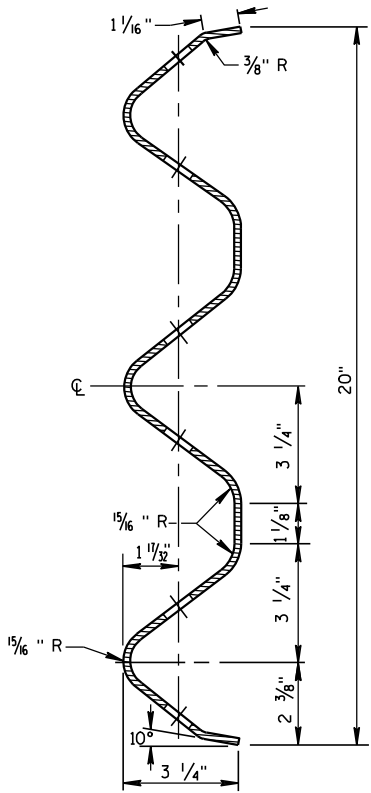


PLATE WASHER DETAIL



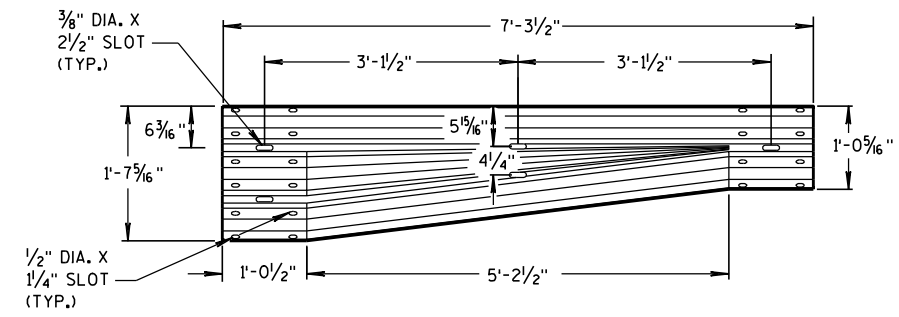
SPLICE DETAIL



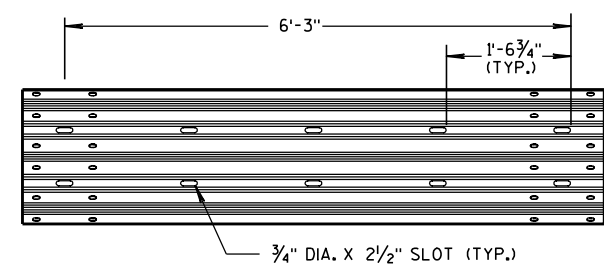
SECTION THRU THRIE
BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

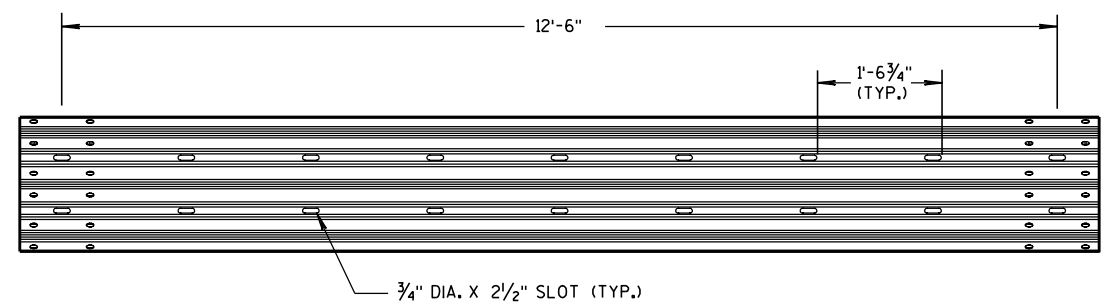
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



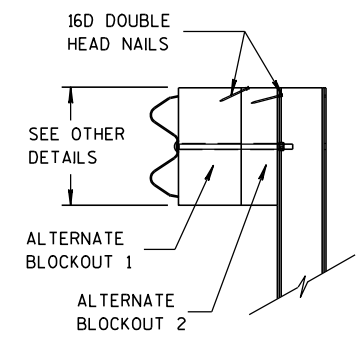
W-BEAM TO THRIE BEAM TRANSITION SECTION



6'-3" THRIE BEAM SECTION

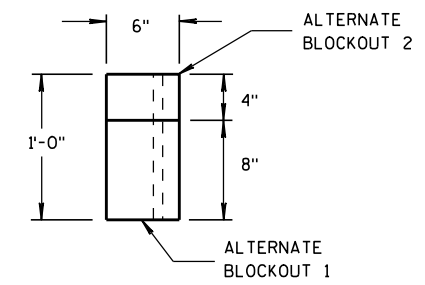


12'-6" THRIE BEAM SECTION

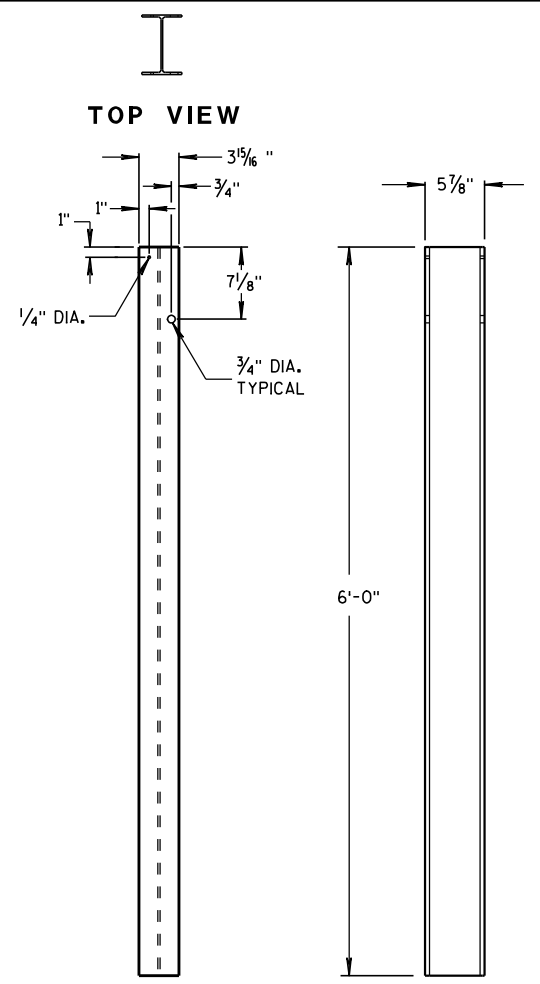


SIDE VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



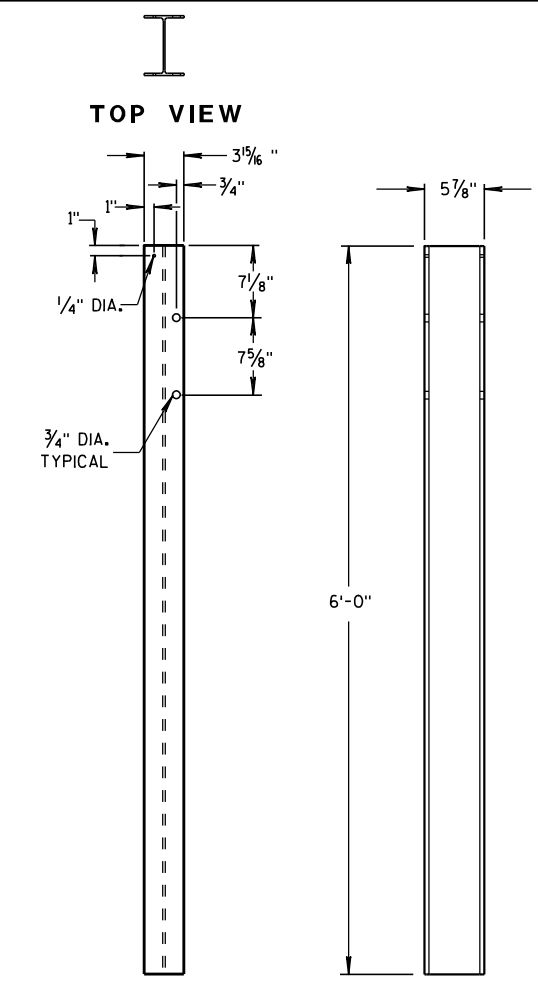
TOP VIEW



FRONT VIEW

SIDE VIEW

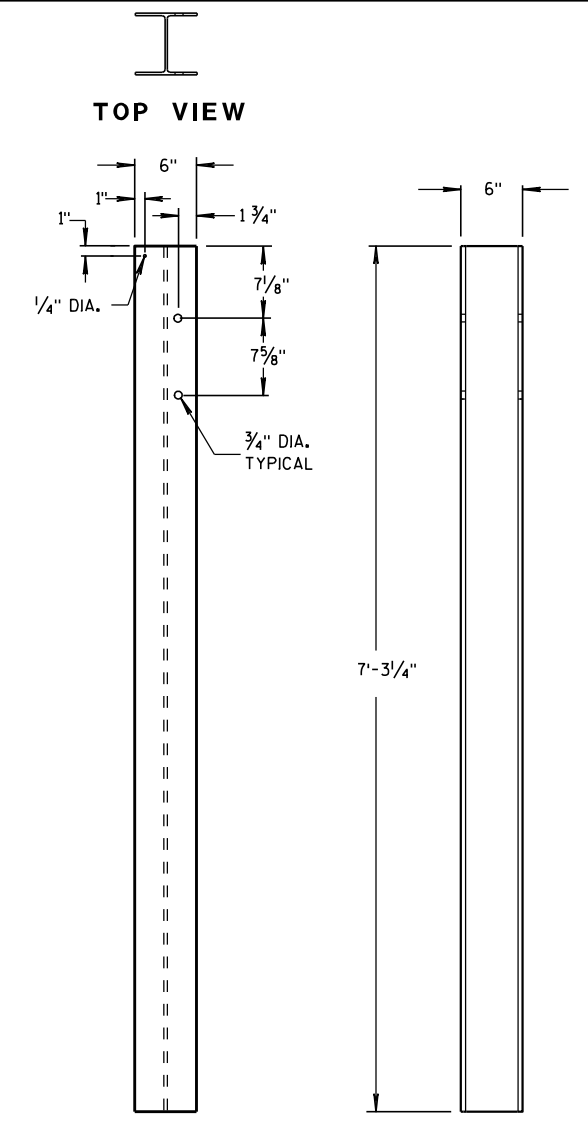
STEEL POSTS 1-5



FRONT VIEW

SIDE VIEW

STEEL POSTS 6-11

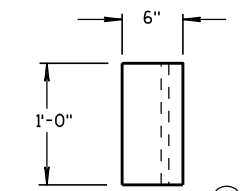


FRONT VIEW

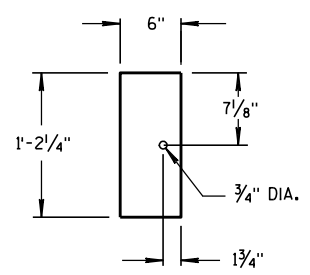
SIDE VIEW

STEEL POSTS 12-14

① WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

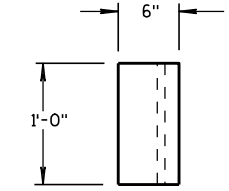


TOP VIEW

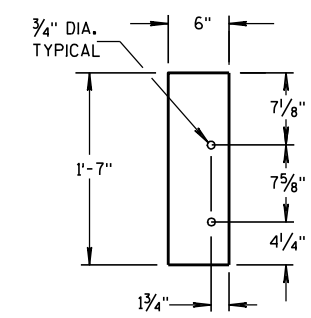


FRONT VIEW

BLOCKOUT POSTS 1-5

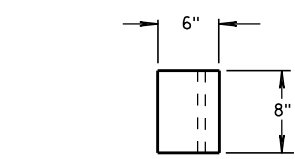


TOP VIEW

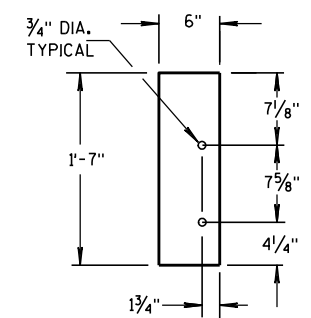


FRONT VIEW

BLOCKOUT POSTS 6-11



TOP VIEW



FRONT VIEW

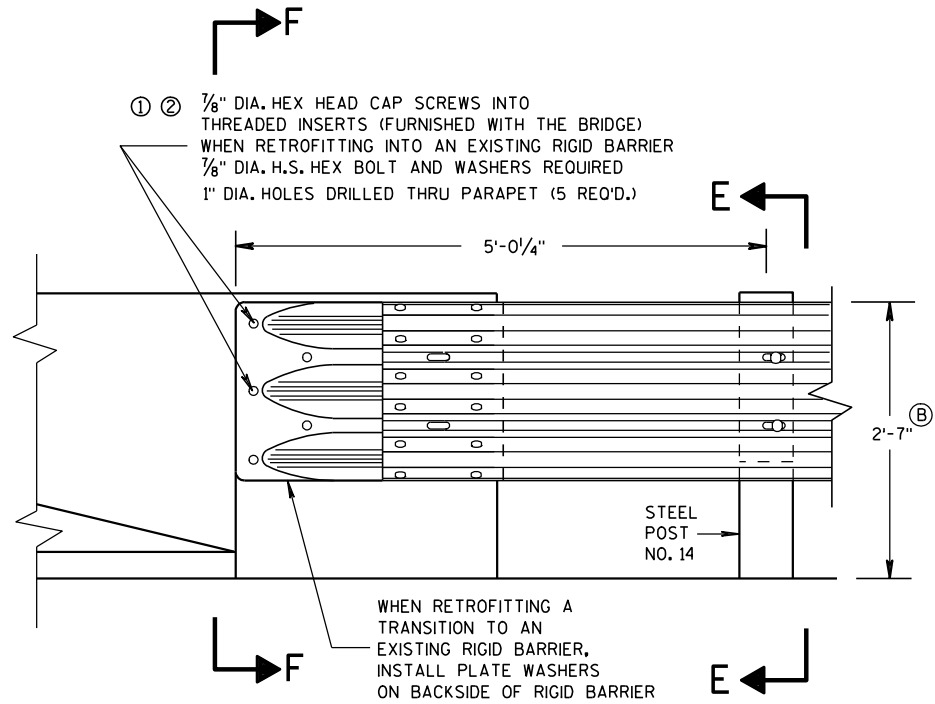
BLOCKOUT POSTS 12-14

STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
①	W6x9	72"
②	W6x9	72"
③	W6x9	72"
④	W6x9	72"
⑤	W6x9	72"
⑥	W6x9	72"
⑦	W6x9	72"
⑧	W6x9	72"
⑨	W6x9	72"
⑩	W6x9	72"
⑪	W6x9	72"
⑫	W6x15	87 7/8"
⑬	W6x15	87 7/8"
⑭	W6x15	87 7/8"

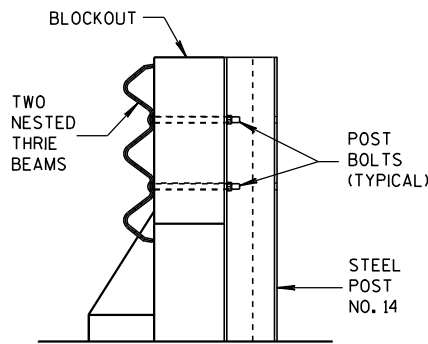
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



FRONT VIEW

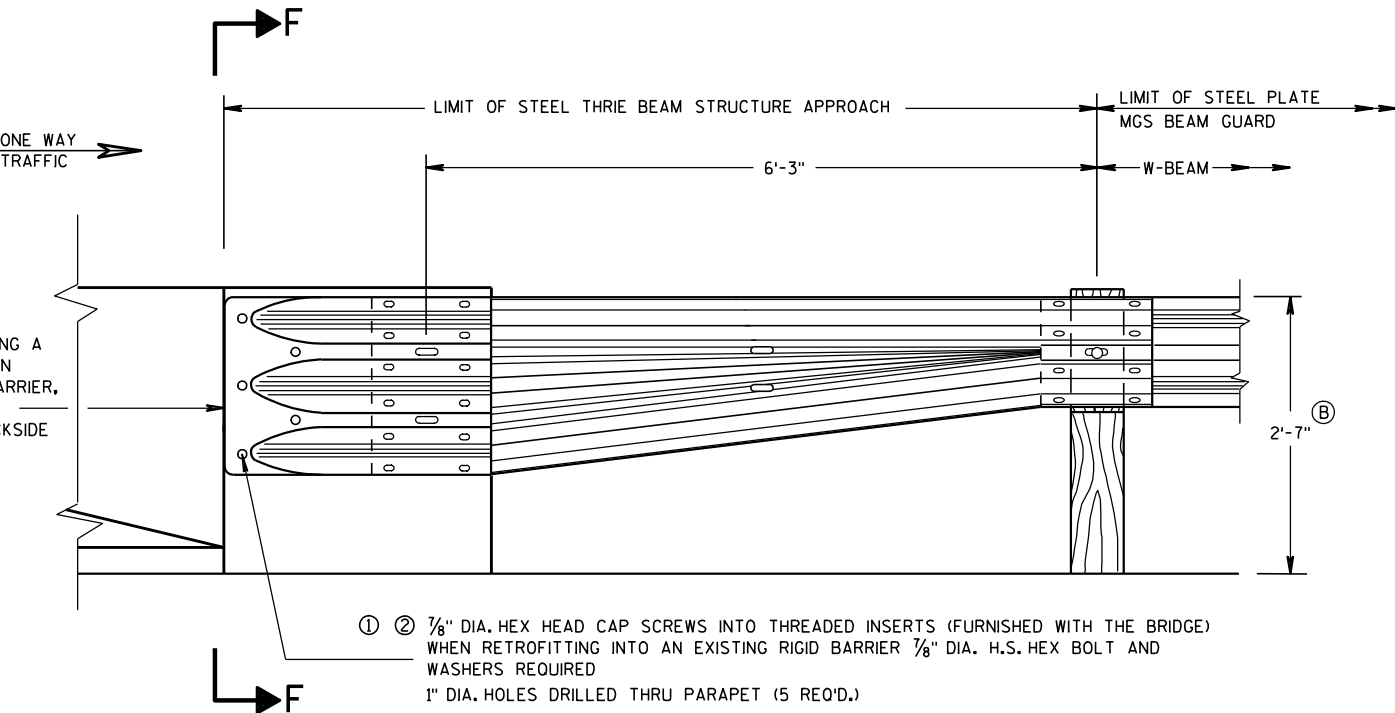
THRIE BEAM CONNECTION TO BRIDGE
PARAPET WITH SQUARE ENDS



SECTION E-E

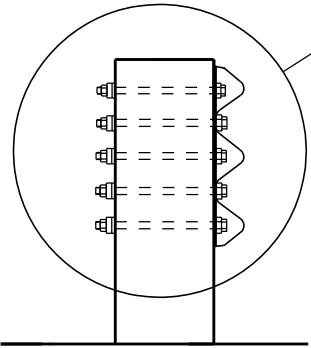
GENERAL NOTES

- THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.
- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
 - ② BOLTS MAY BE A325 BOLTS OR A449 BOLTS, BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM 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 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
 - ③ 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".
- ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

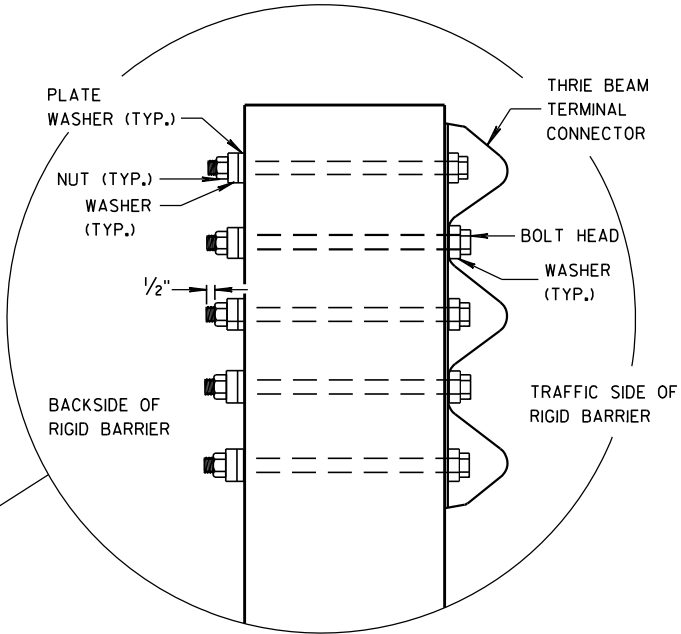


FRONT VIEW

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

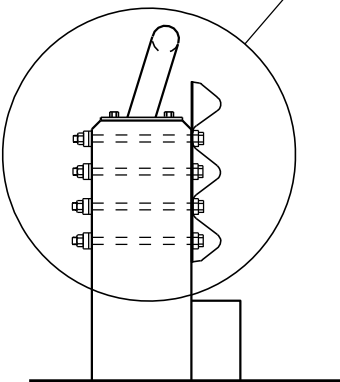
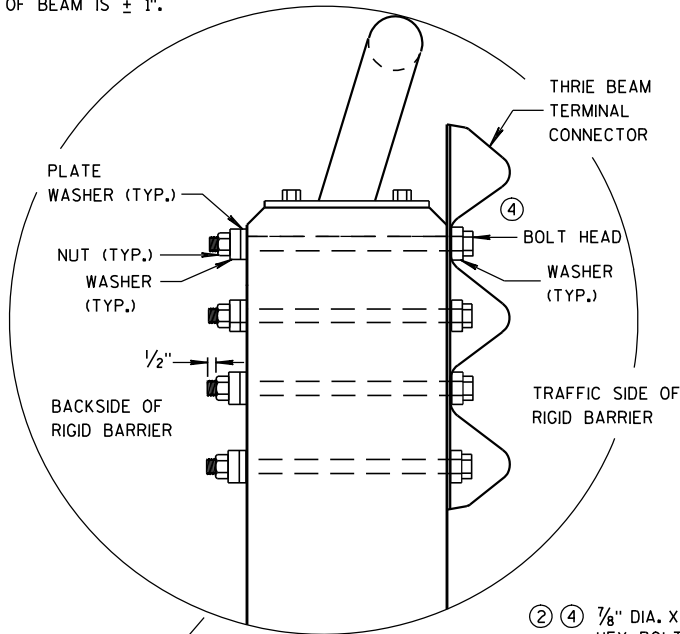


MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/31/2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

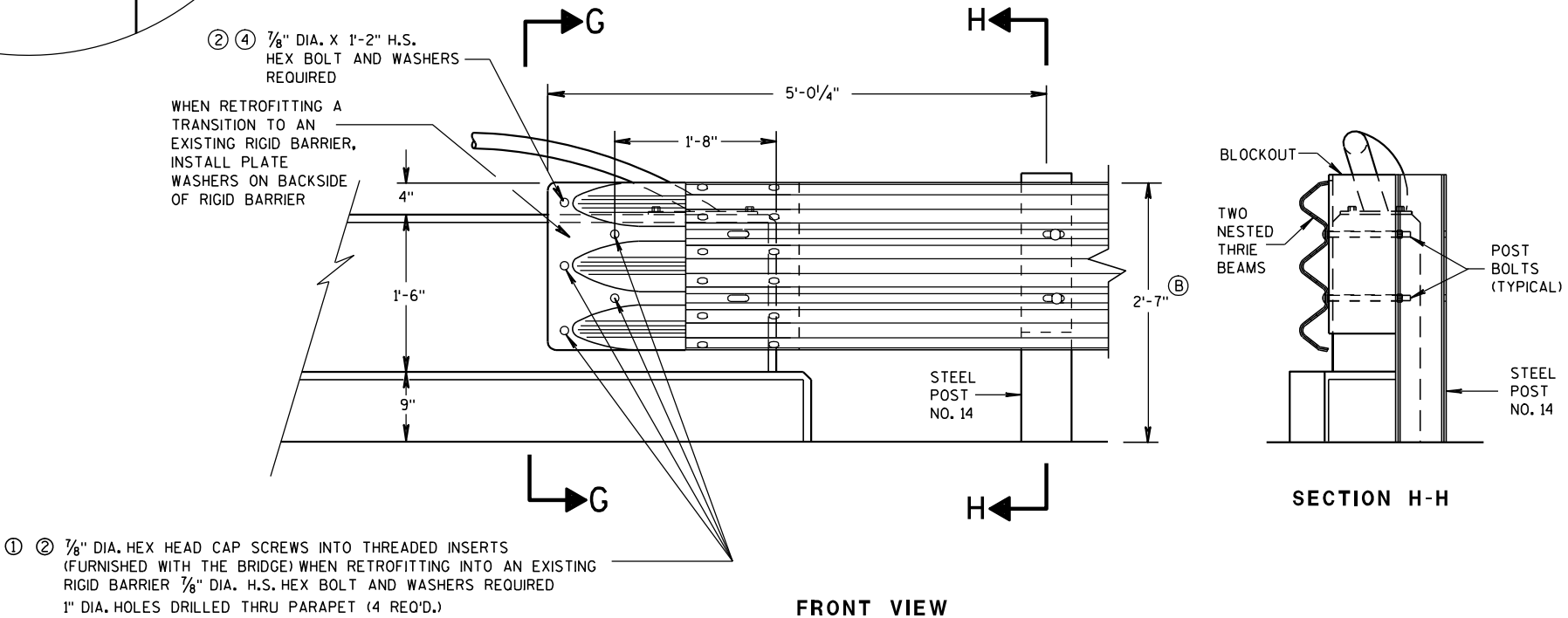
GENERAL NOTES

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

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM 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 $\frac{5}{8}$ " THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ③ 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 $\frac{1}{2}$ ". BLOCK IS INCIDENTAL TO THE CONTRACT.
- ④ 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.
- ⓑ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.

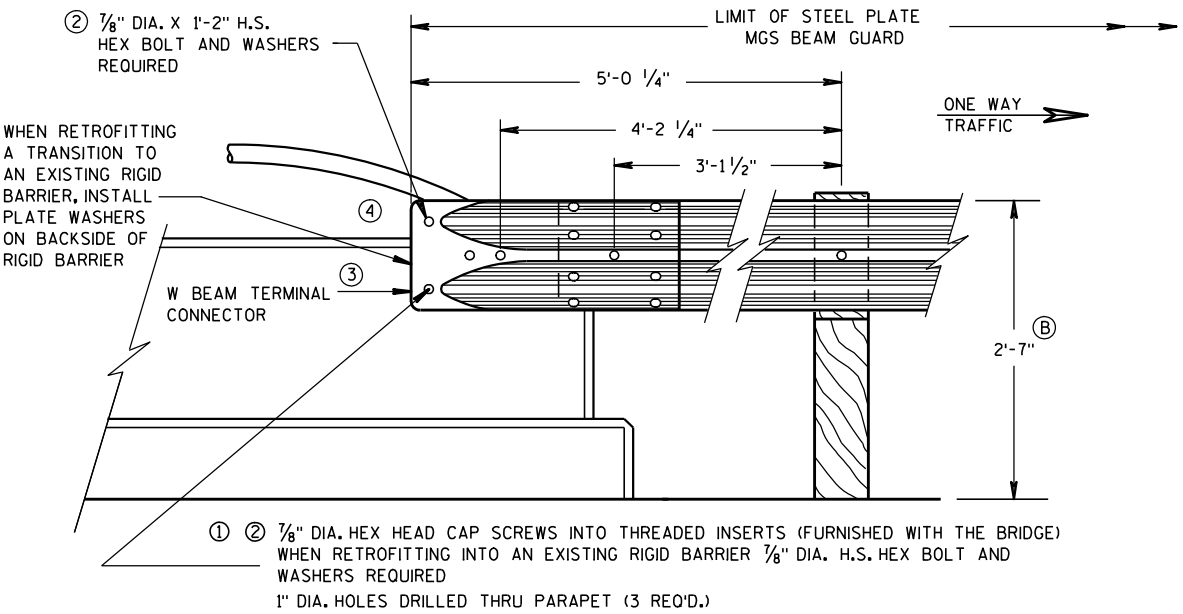


SECTION G-G



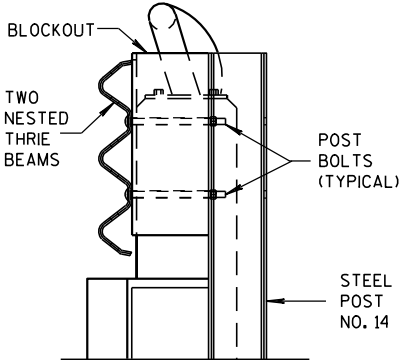
FRONT VIEW

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

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



SECTION H-H

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-31-2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

ONE WAY
TRAFFIC →

- ① ② $\frac{7}{8}$ " DIA. HEX HEAD CAP SCREWS INTO
THREADED INSERTS (FURNISHED WITH THE BRIDGE)
WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER
 $\frac{7}{8}$ " DIA. H.S. HEX BOLT AND WASHERS REQUIRED
1" DIA. HOLES DRILLED THRU PARAPET
(4 REQ'D.)

W-BEAM
TERMINAL
CONNECTOR

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

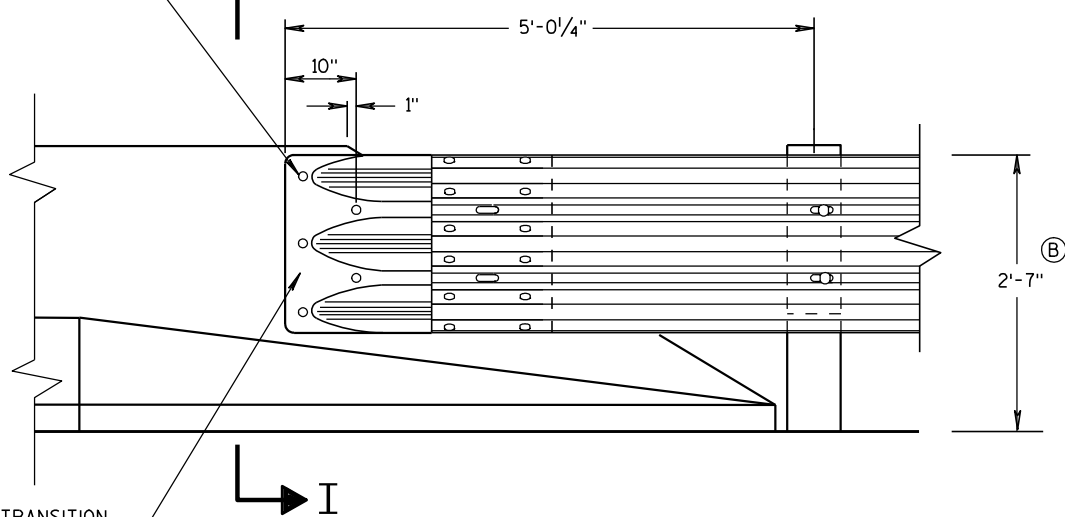
FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

- ① ② $\frac{7}{8}$ " DIA. HEX HEAD CAP SCREWS INTO
THREADED INSERTS (FURNISHED WITH THE BRIDGE)
WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER
 $\frac{7}{8}$ " DIA. H.S. HEX BOLT AND WASHERS REQUIRED
1" DIA. HOLES DRILLED THRU PARAPET
(5 REQ'D.)

I



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

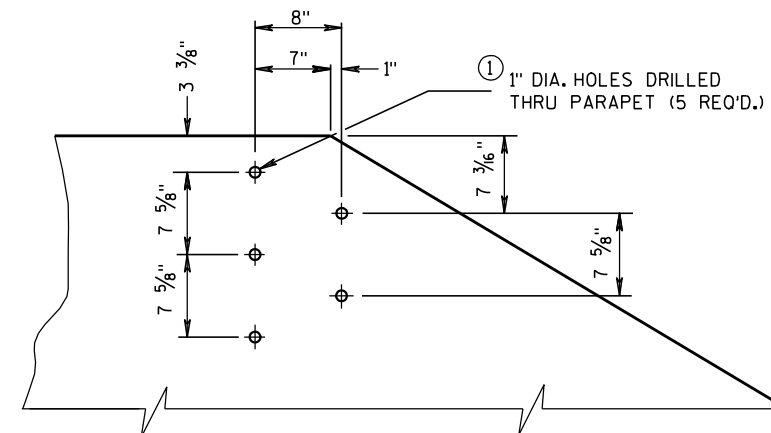
FRONT VIEW

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

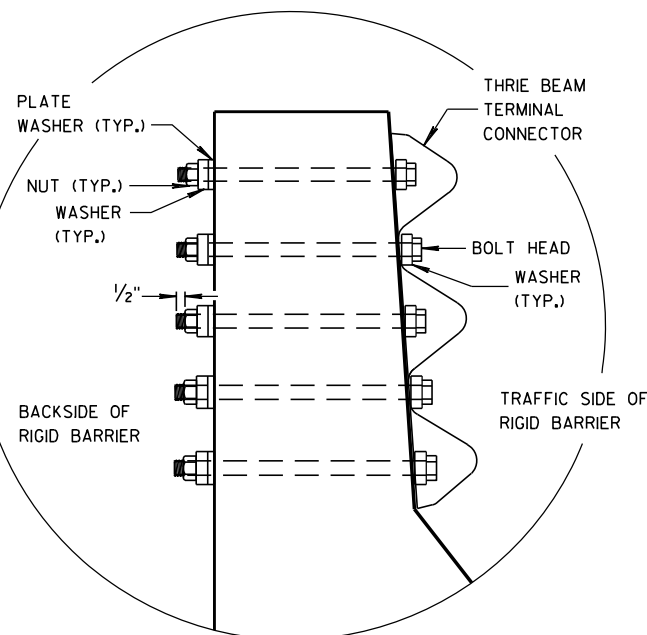
SECTION I-I

GENERAL NOTES

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM 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 $\frac{5}{8}$ " THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ③ TOLERANCE FOR TOP OF BEAM IS ± 1 ".



DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION

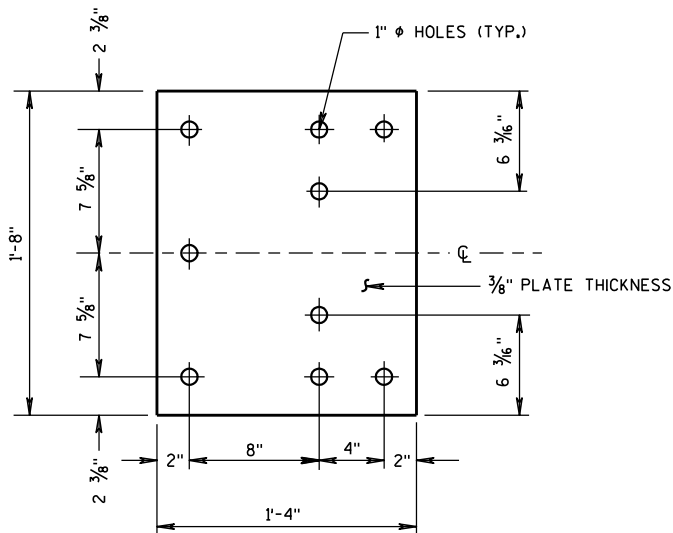


MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

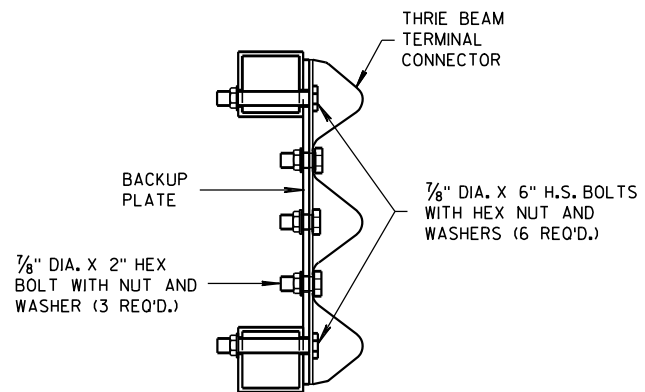
STATE OF WISCONSIN
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8/31/2012
DATE
FHWA

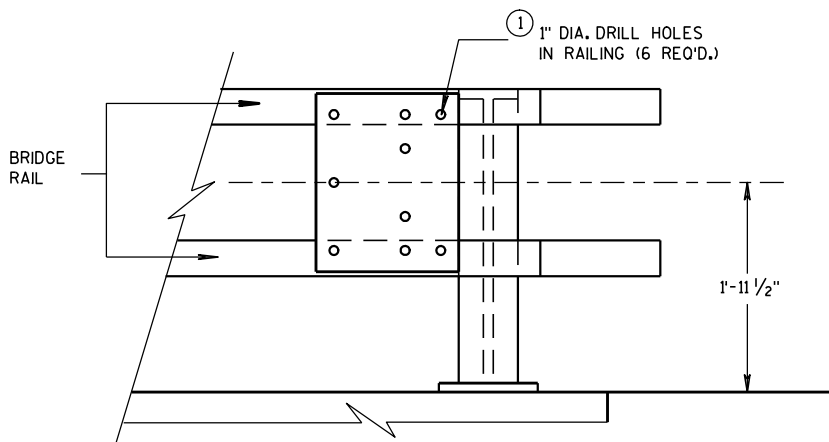
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



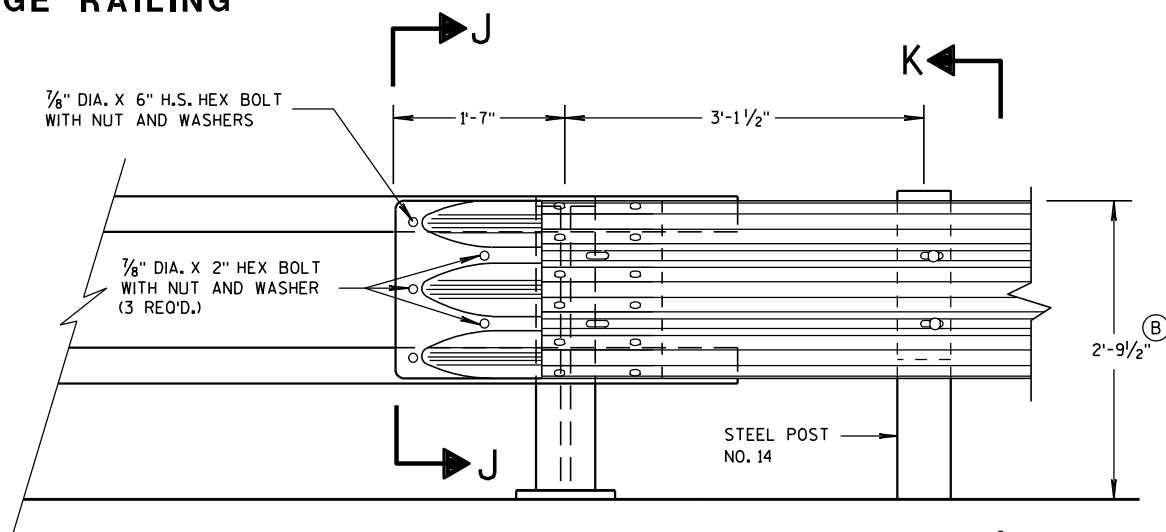
BACK-UP PLATE DETAIL



SECTION J-J

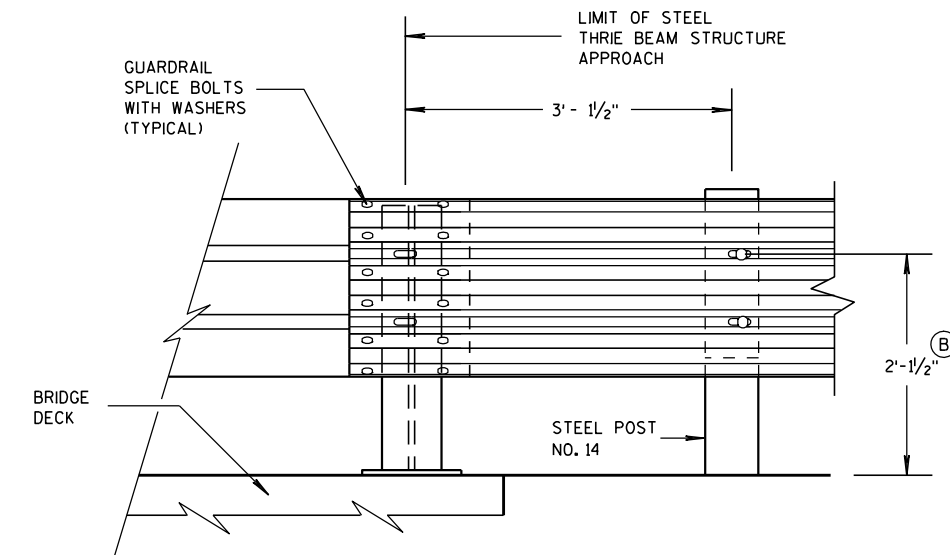


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



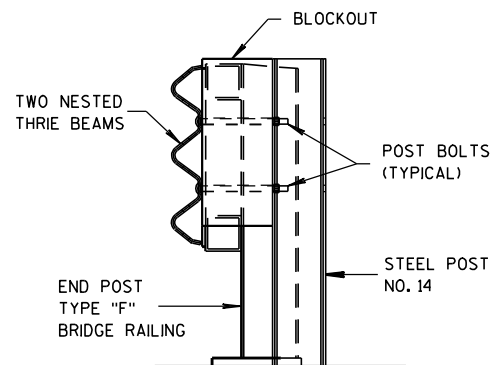
FRONT VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



SECTION K-K

GENERAL NOTES

- ① DRILLING HOLES THROUGH THE PAPER, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.

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

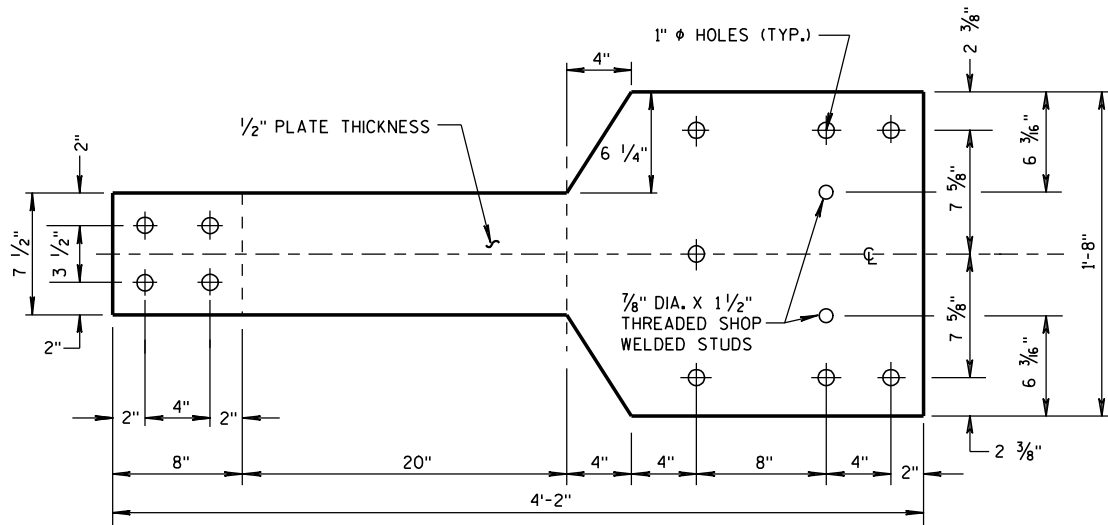
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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8/31/2012
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FHWA

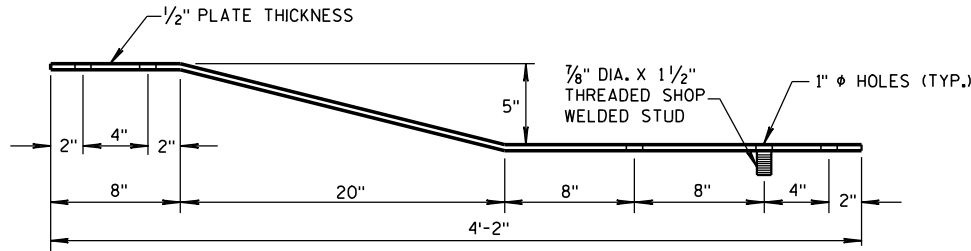
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

GENERAL NOTES

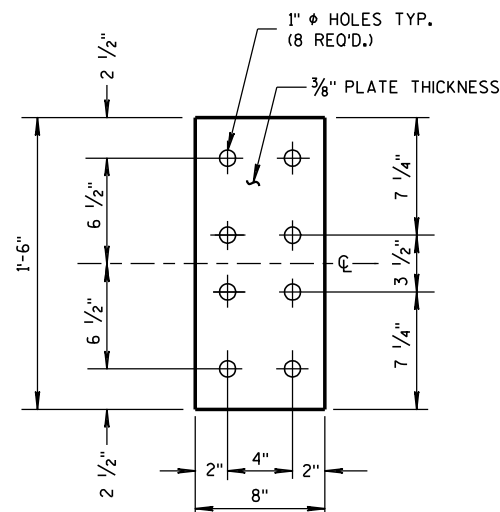
(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS $\pm 1"$.



FRONT VIEW

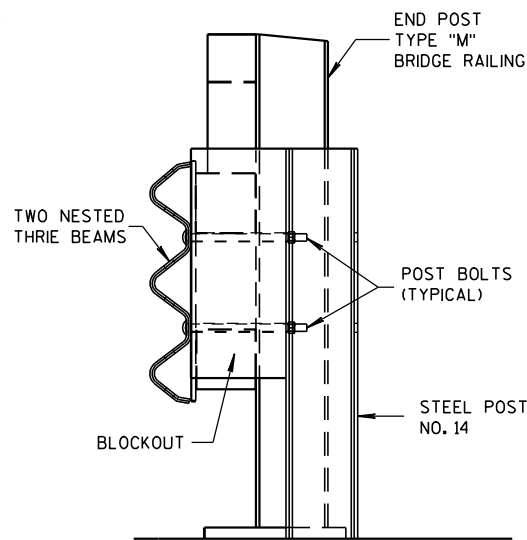


PLAN VIEW
BACK-UP PLATE DETAIL, TYPE "M"

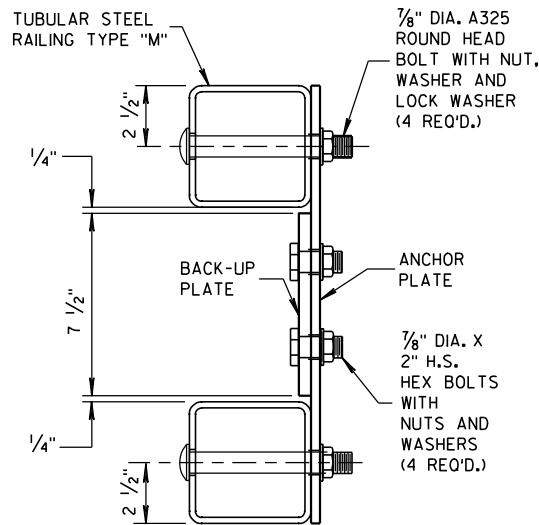


FRONT VIEW

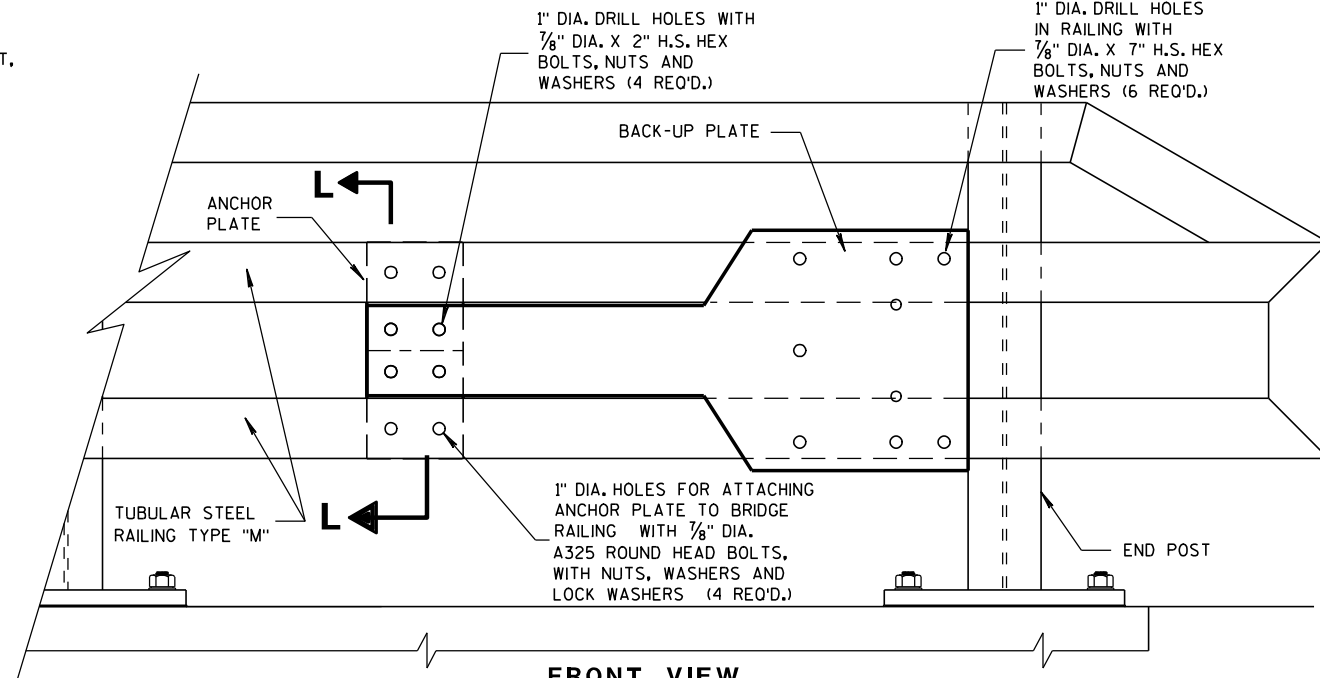
ANCHOR
PLATE DETAIL,
TYPE "M"



SECTION M-M

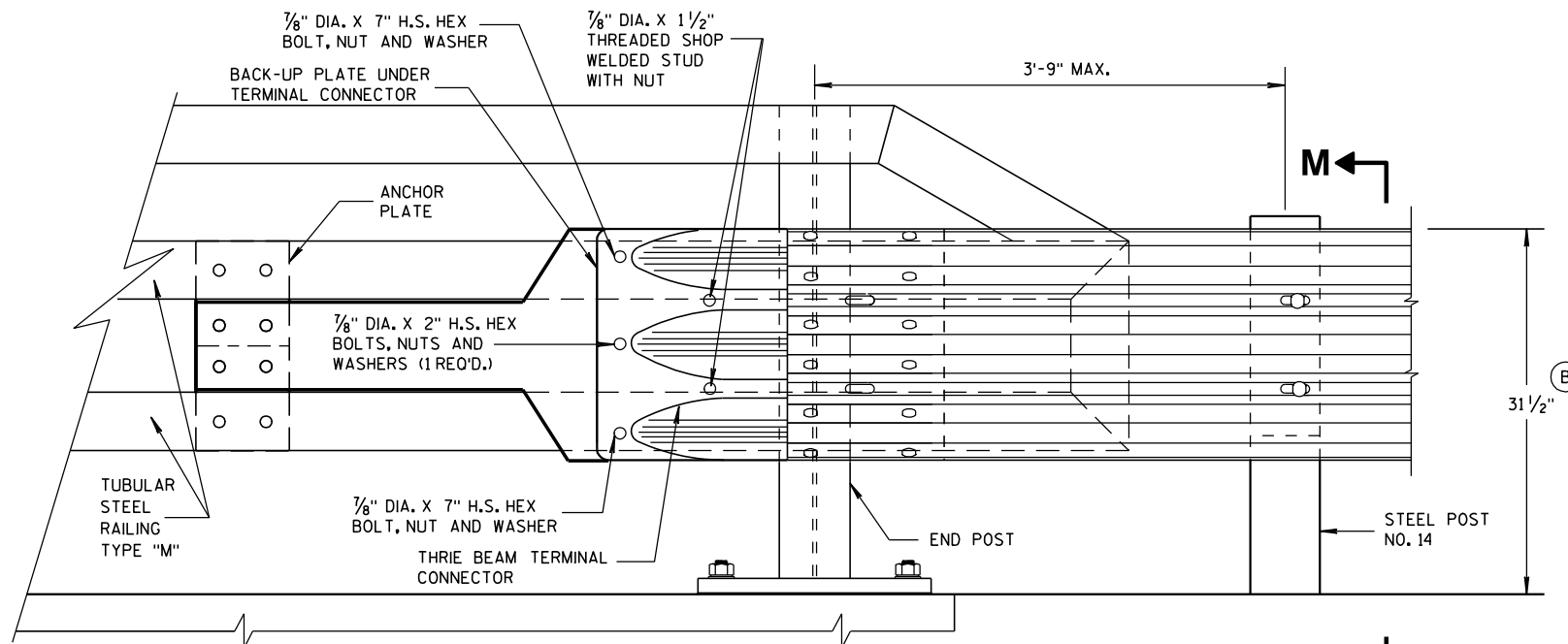


SECTION L-L

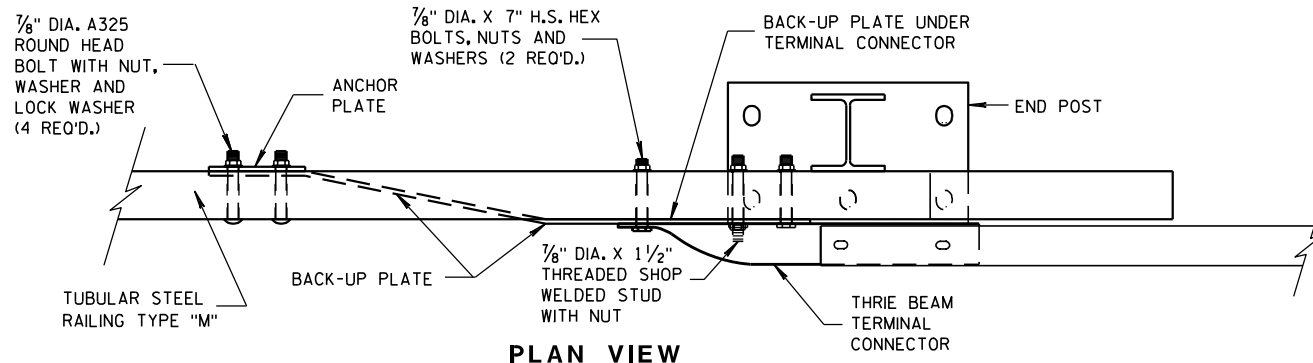


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-31-2012

DATE

FHWA

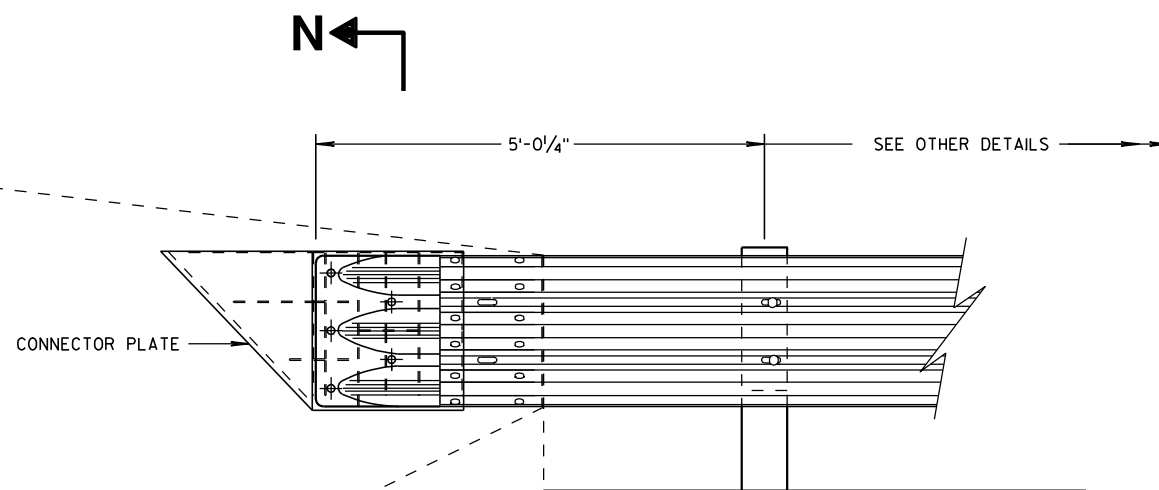
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



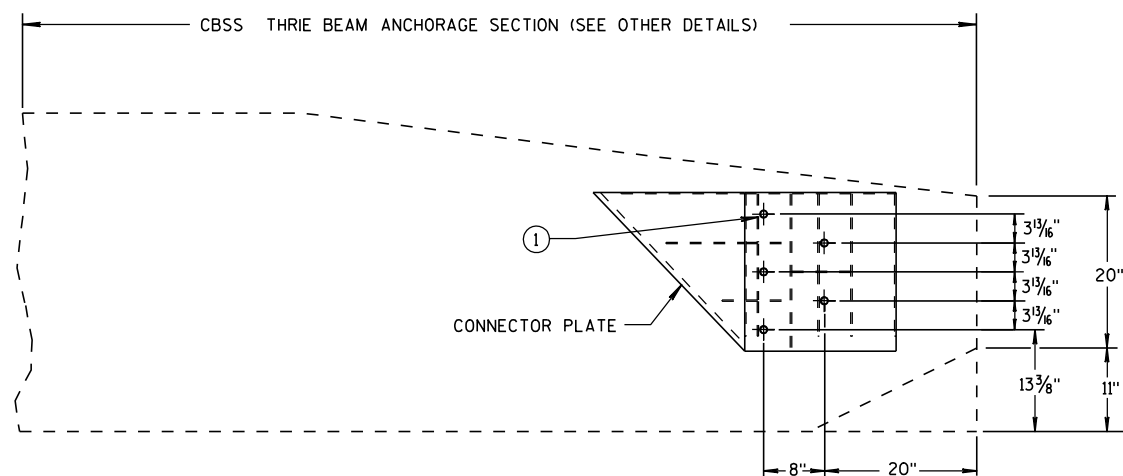
- ① STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND $\frac{3}{16}$ " FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.
- ② STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
 $\frac{3}{16}$ " FILLET WELD BY 1" LONG SPACED AT 2".

SINGLE SLOPE CONNECTION PLATE

S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

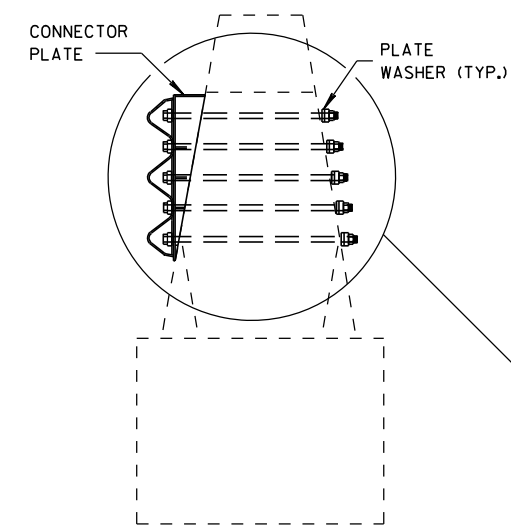


SINGLE SLOPE CONNECTION PLATE PLACEMENT

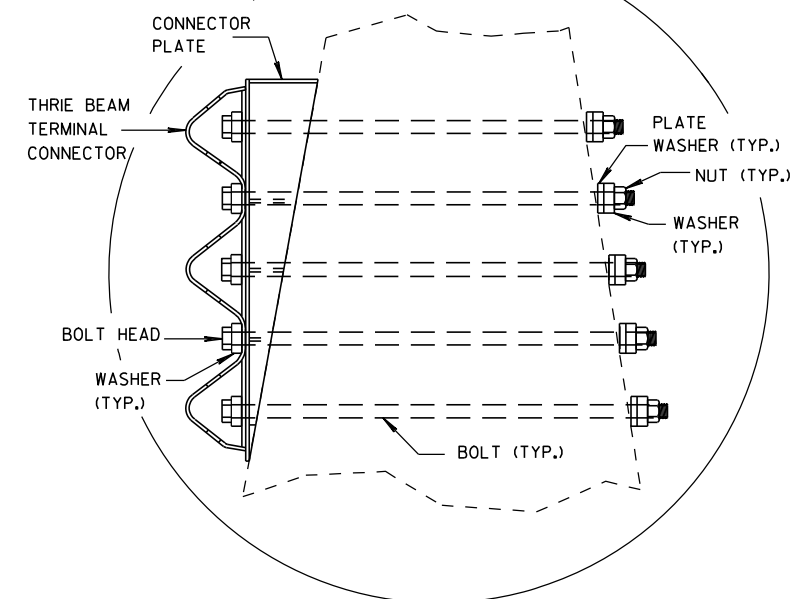
GENERAL NOTES

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

- ① 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 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



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

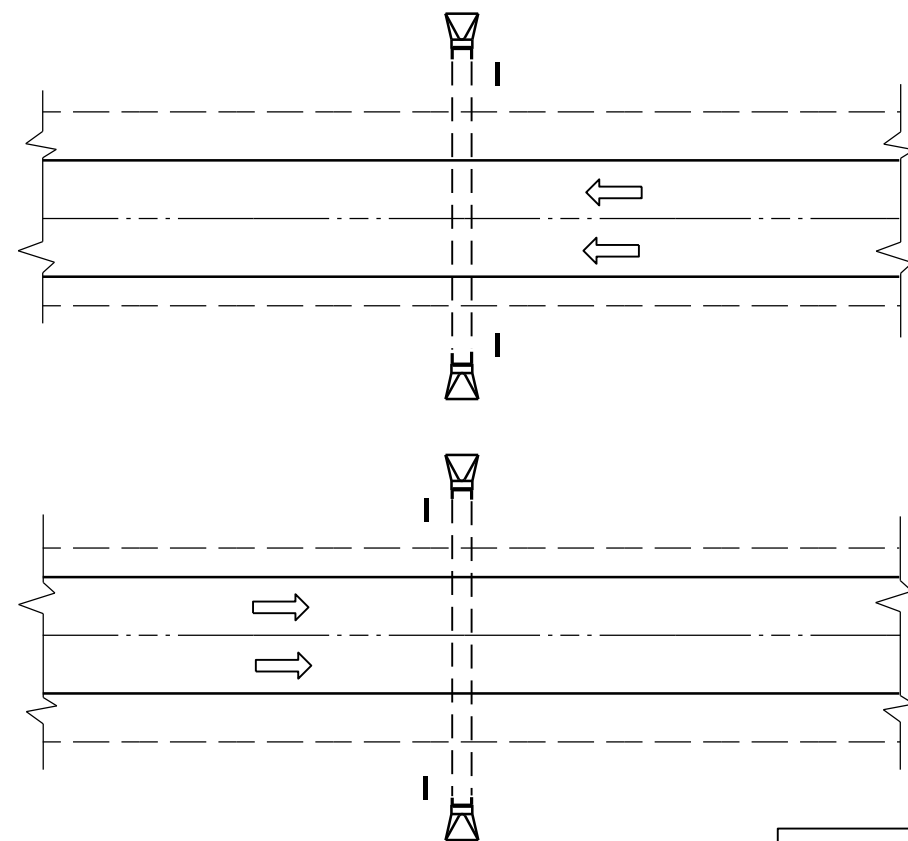
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

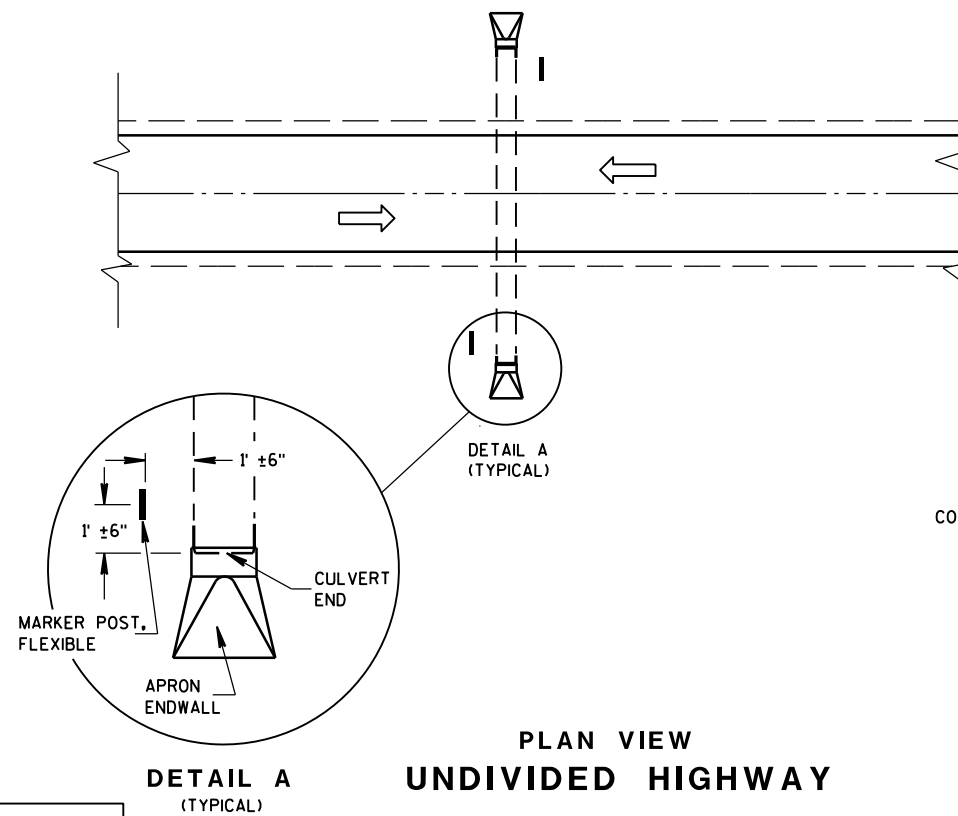
8/31/2012
DATE

FHWA

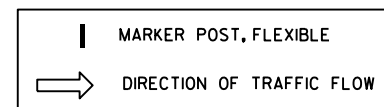
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



PLAN VIEW
DIVIDED HIGHWAY



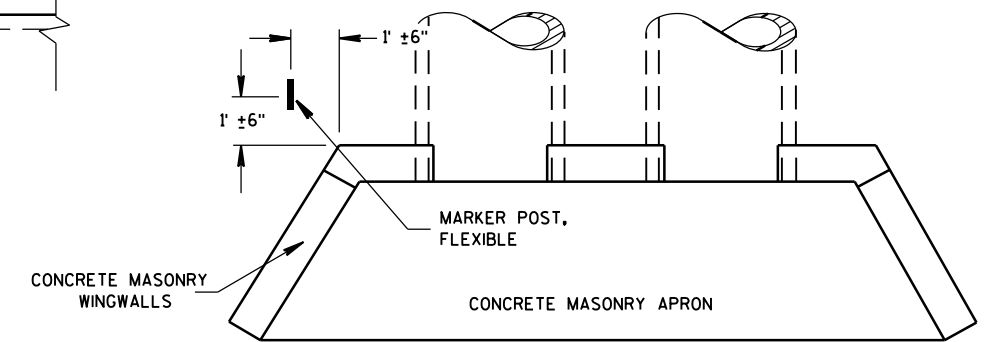
PLAN VIEW
UNDIVIDED HIGHWAY



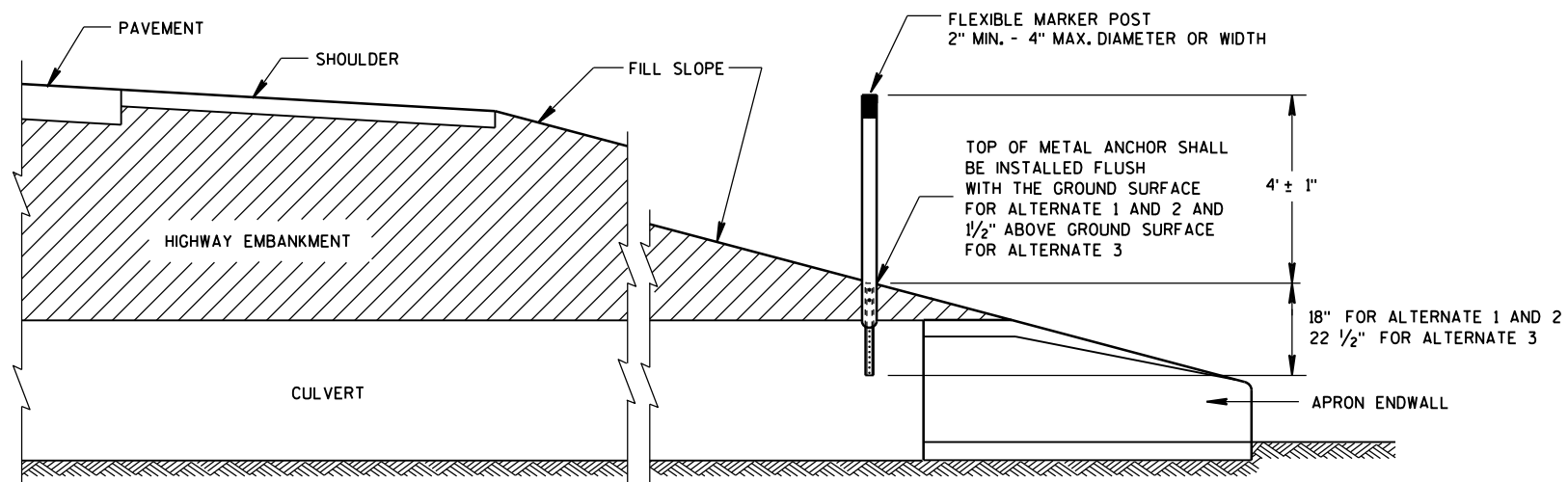
FLEXIBLE MARKER POST LOCATION

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.



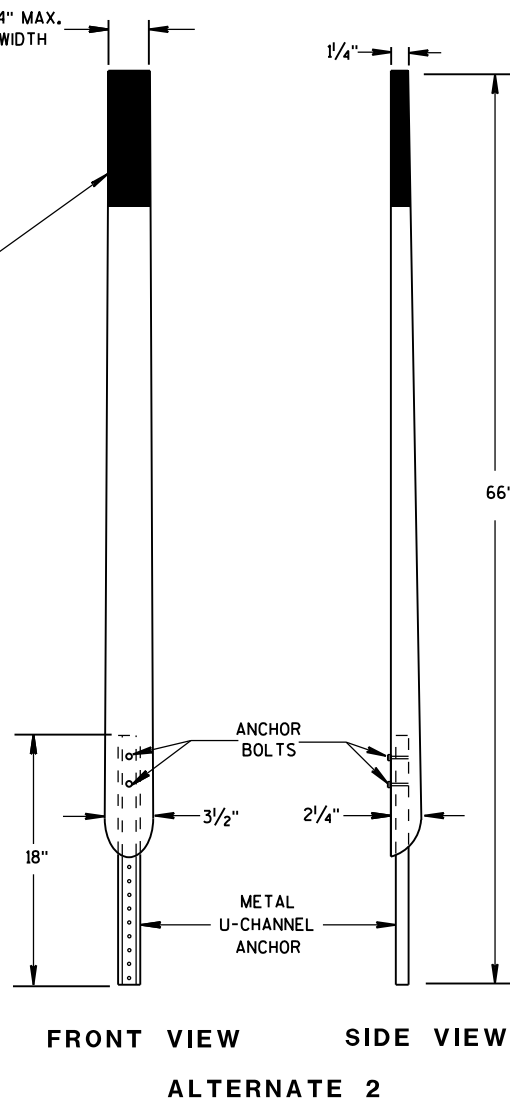
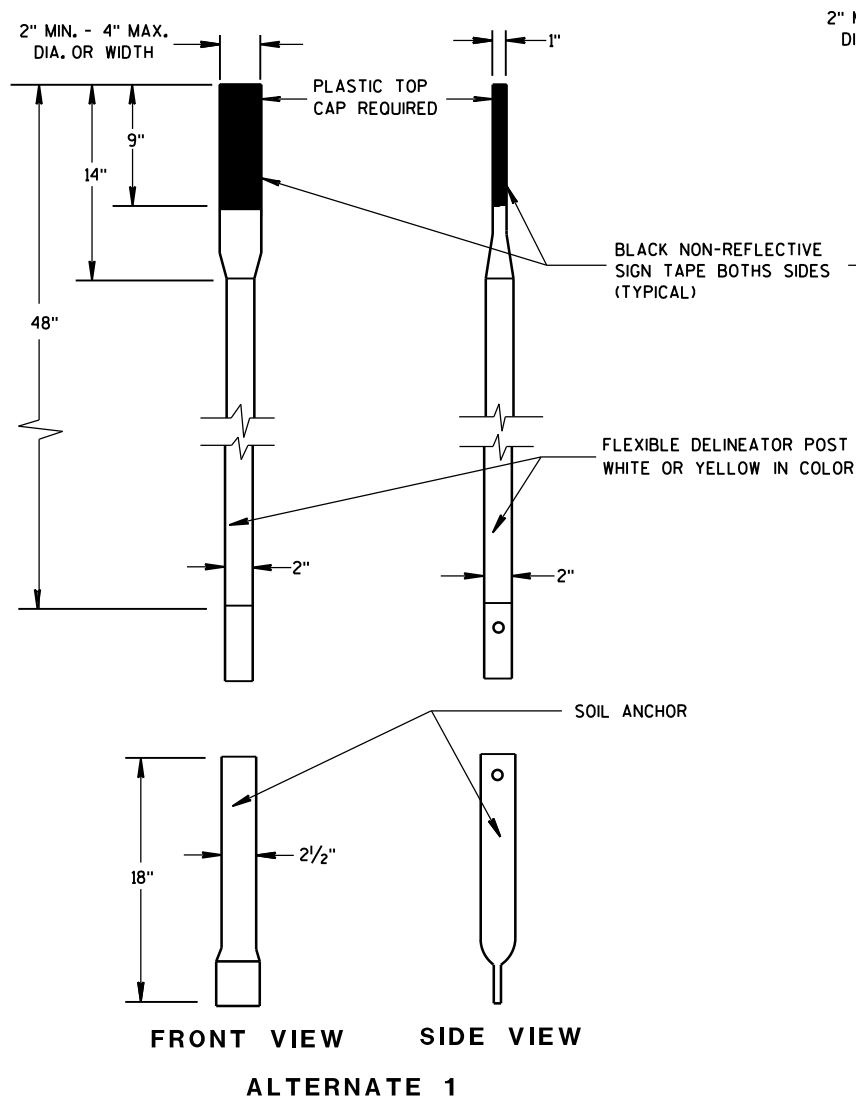
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



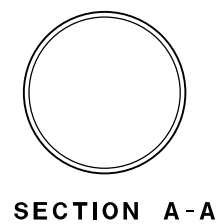
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

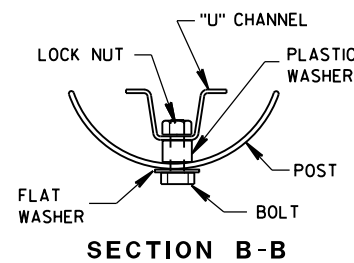
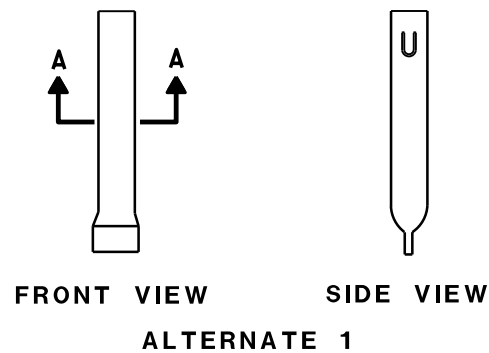
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



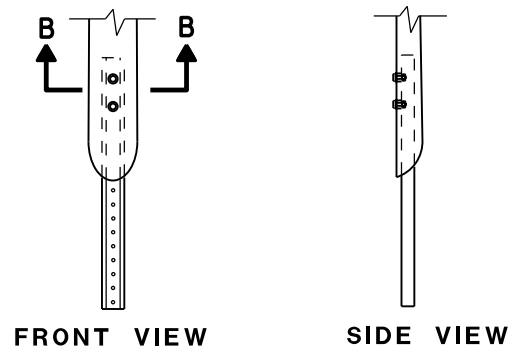
FLEXIBLE MARKER POSTS



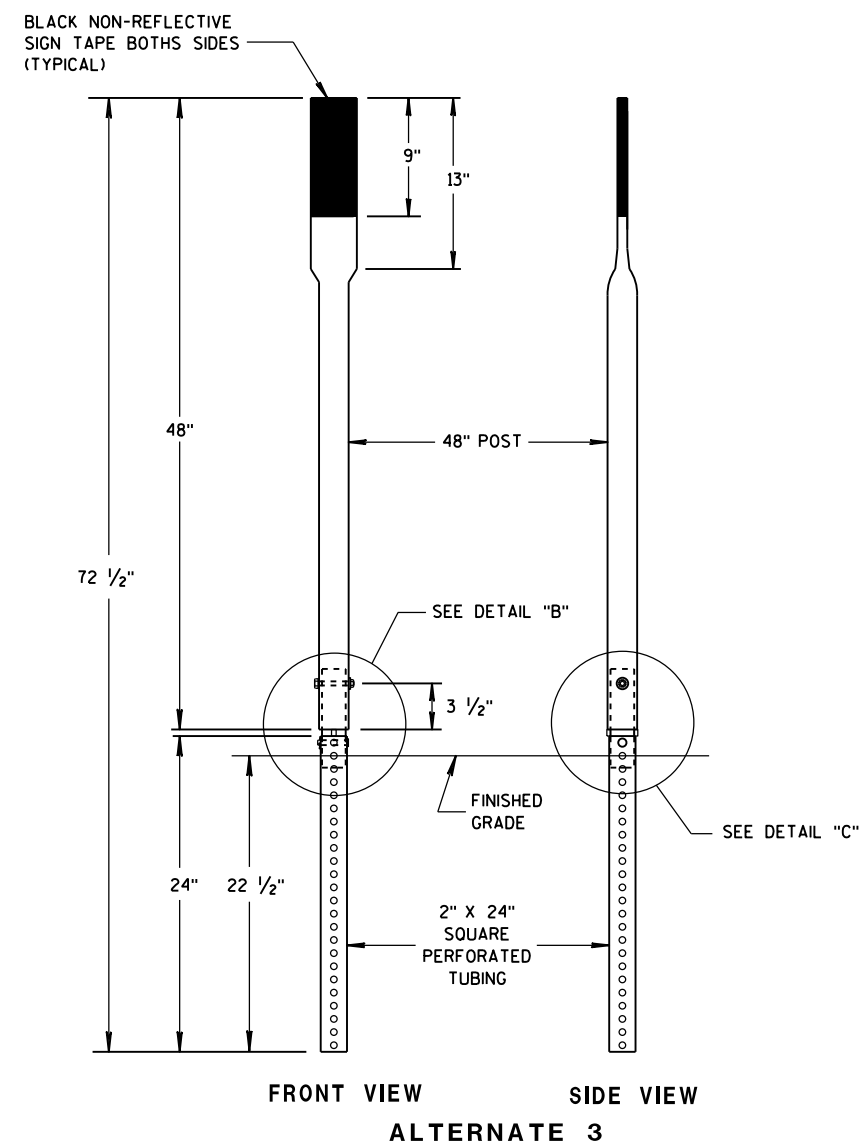
SECTION A-A



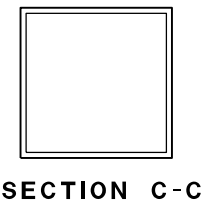
SECTION B-B



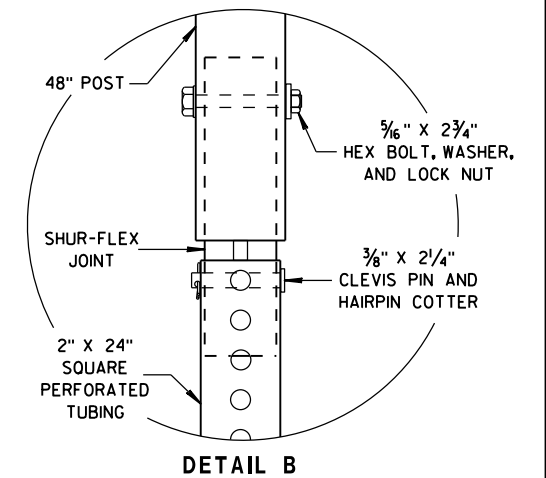
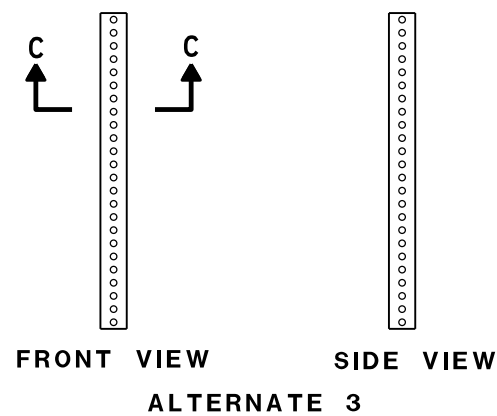
FLEXIBLE MARKER POST ANCHORS



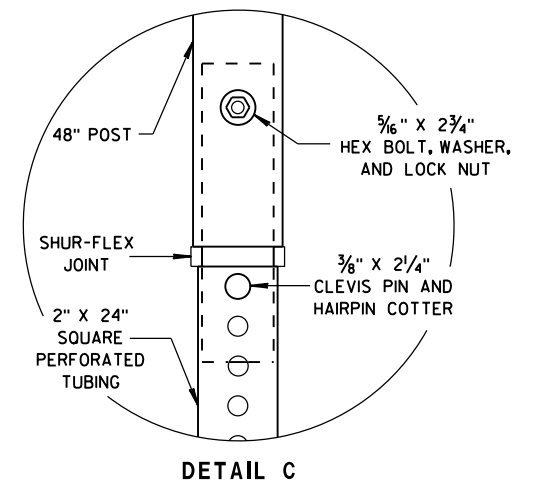
FLEXIBLE MARKER POSTS



SECTION C-C



DETAIL B

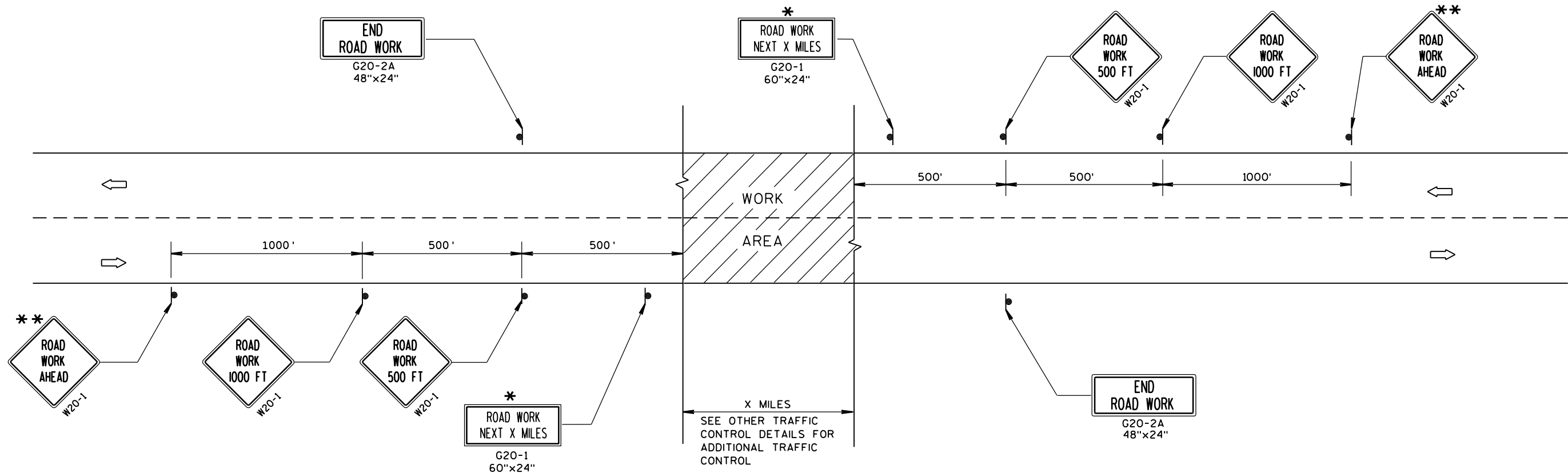


DETAIL C

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

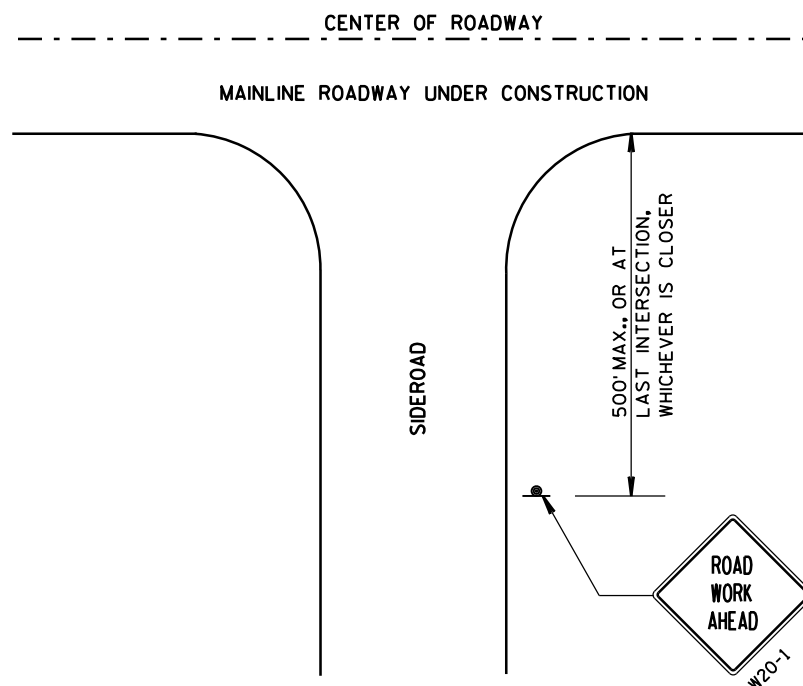
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

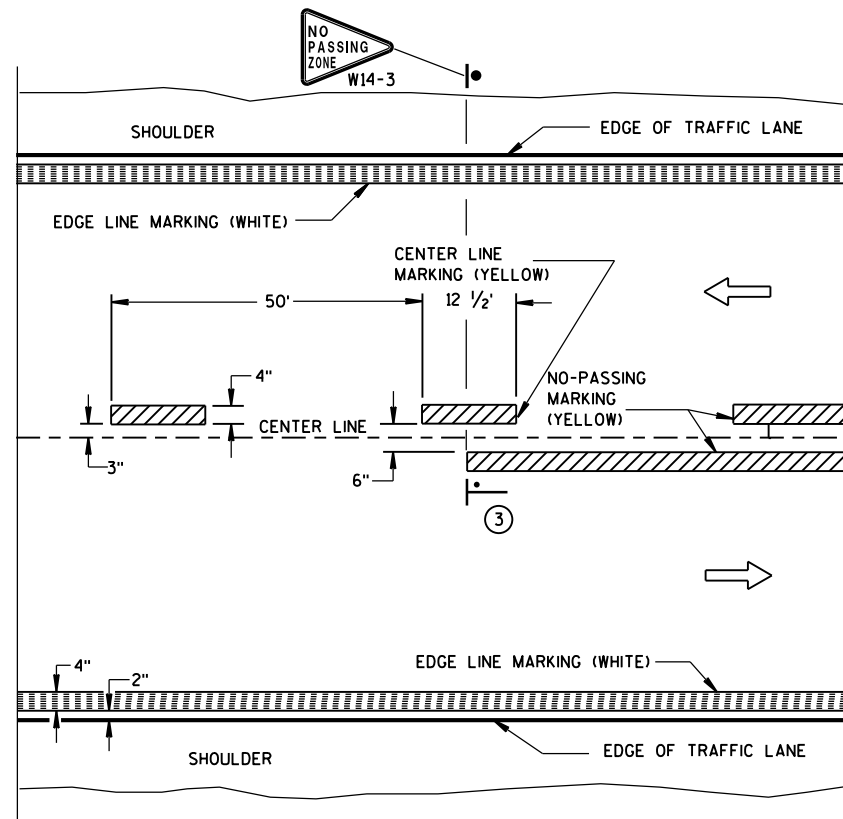
** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



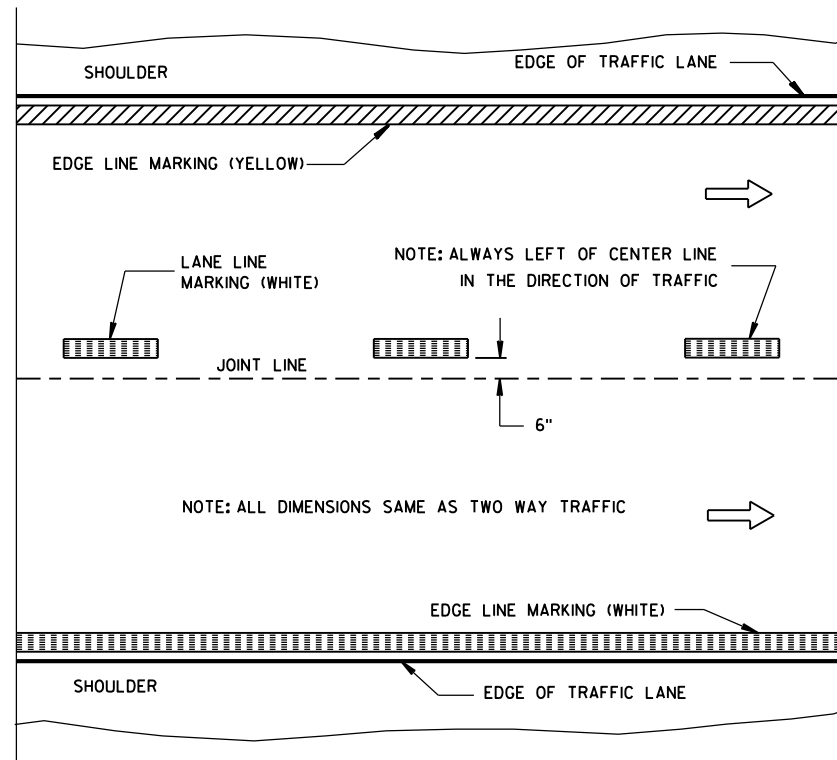
LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

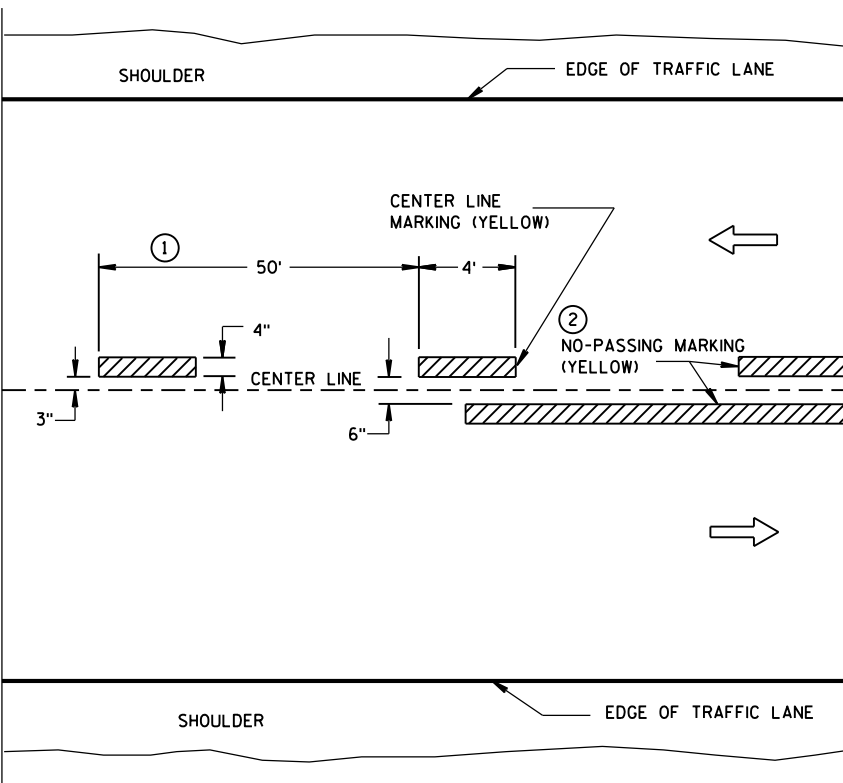


TWO WAY TRAFFIC

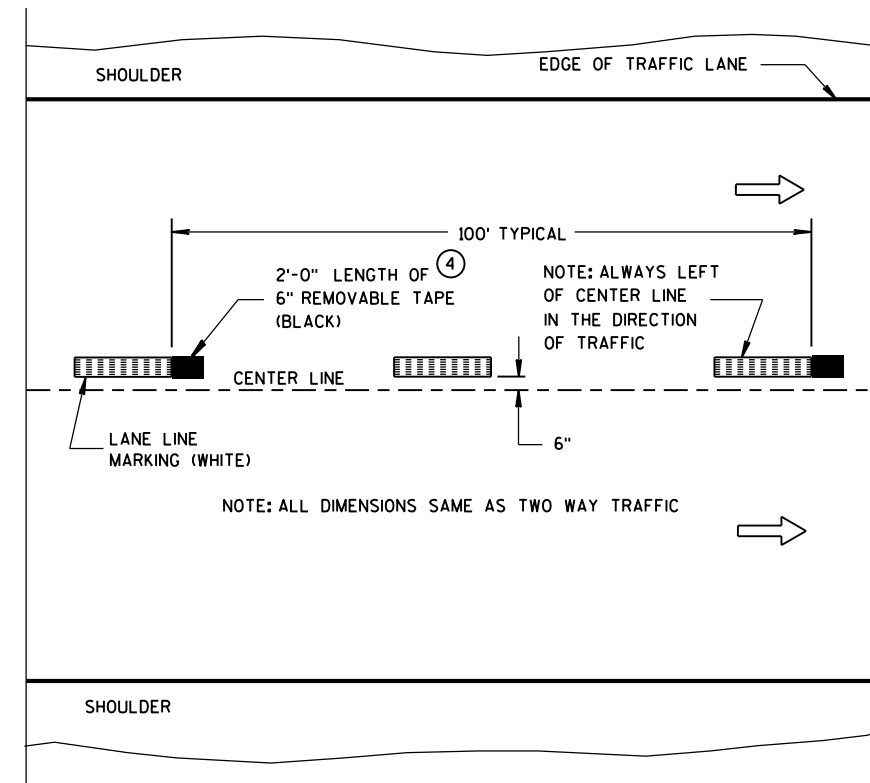


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

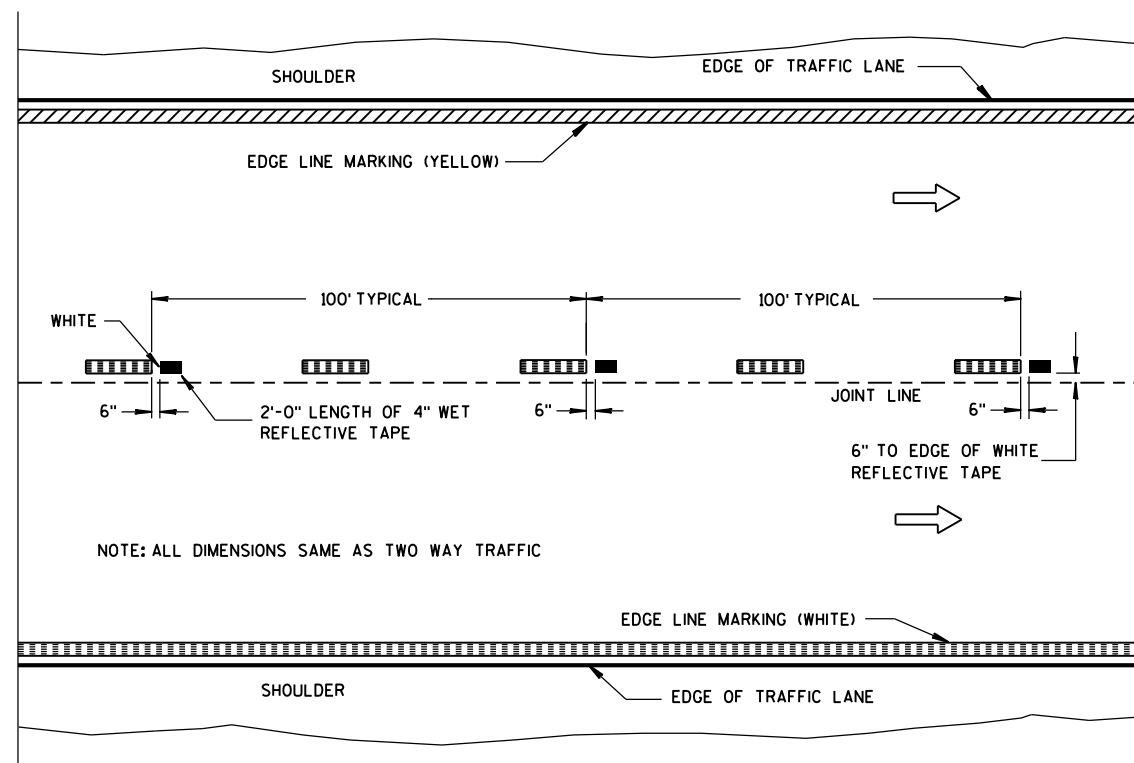
GENERAL NOTES

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

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

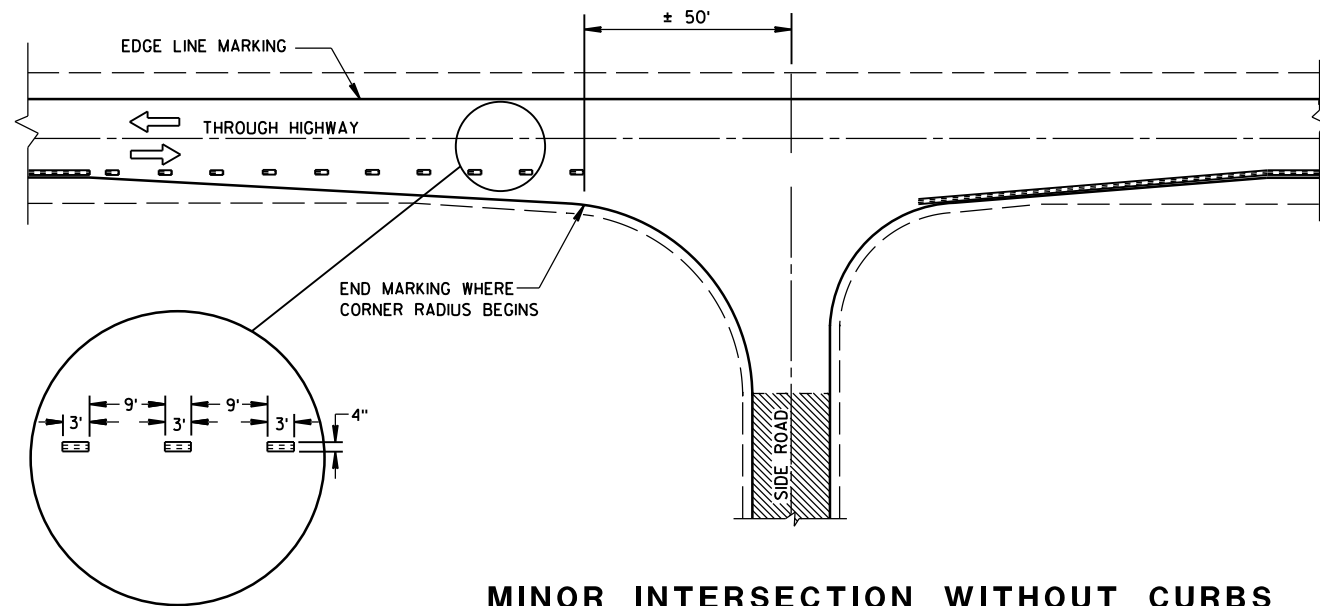
- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013
DATE
FHWA

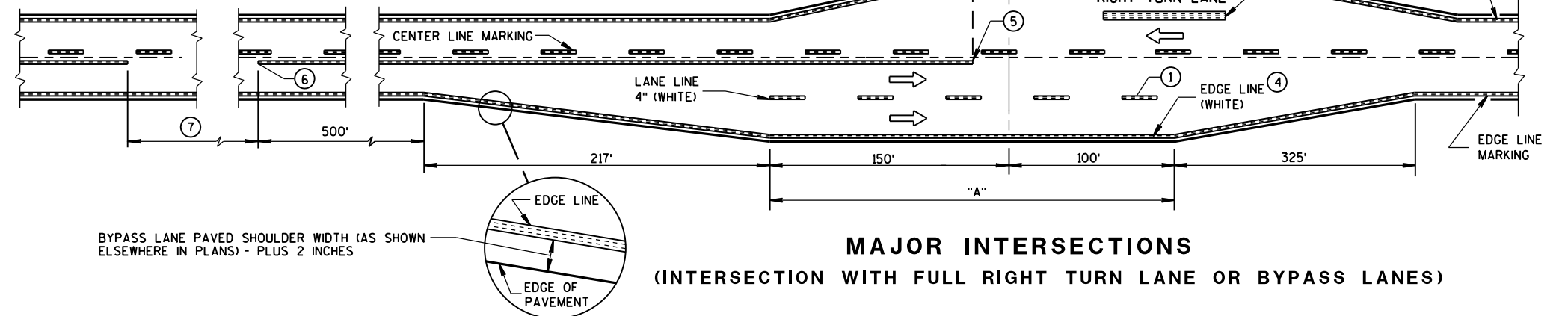
/S/ Travis Feltes
STATE TRAFFIC ENGINEER



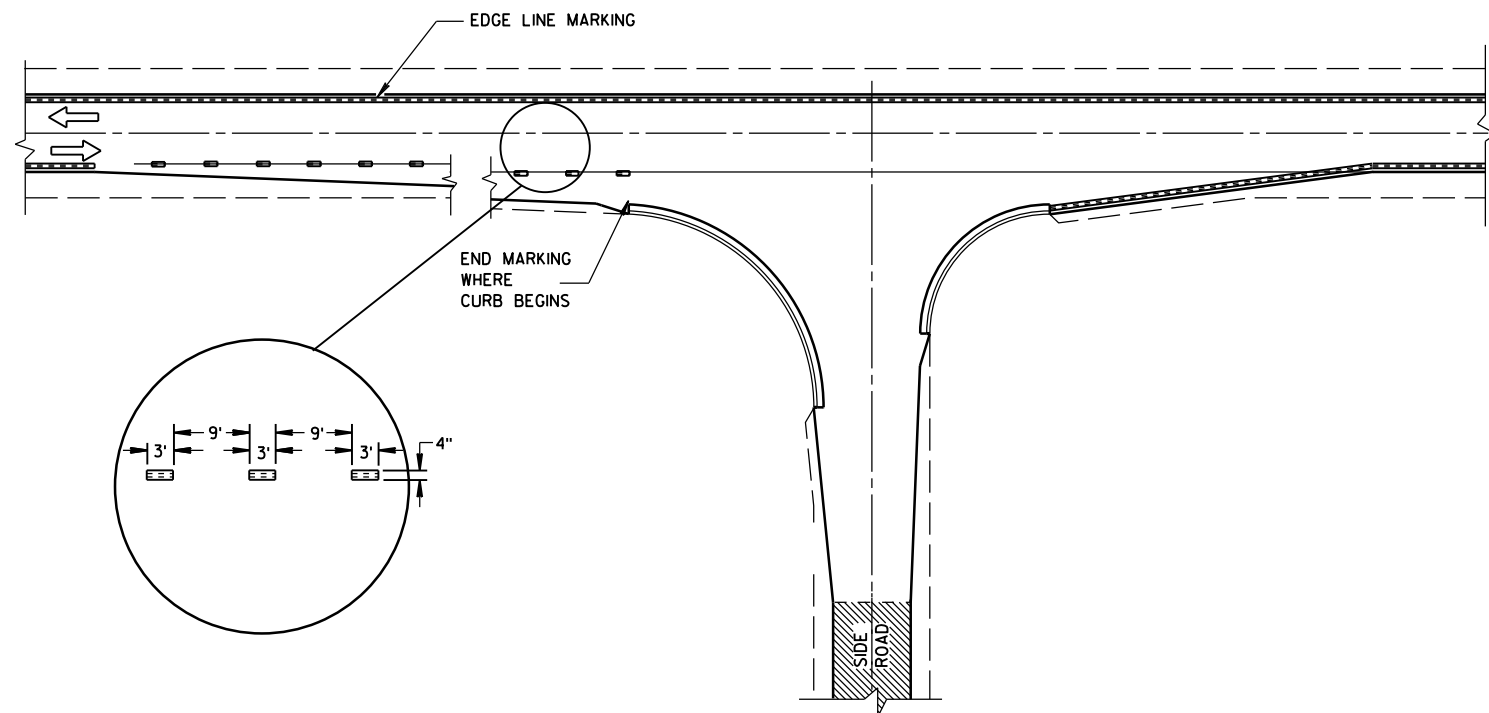
MINOR INTERSECTION WITHOUT CURBS

⑦

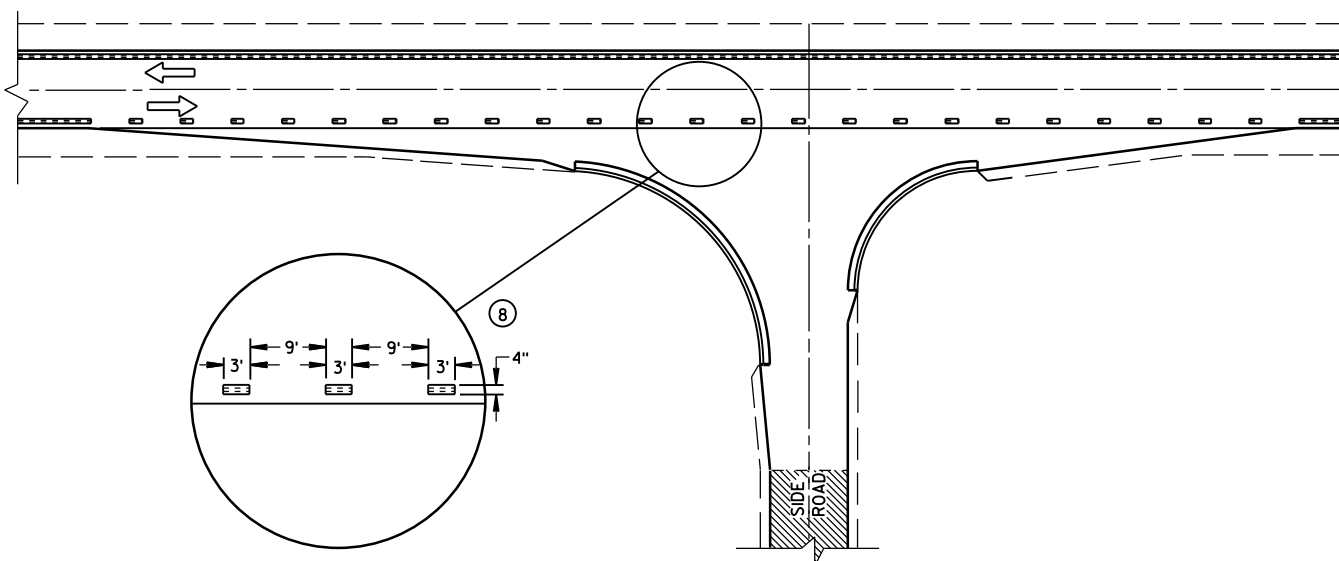
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)





GENERAL NOTES

- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
 - ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.
 - ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
 - ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
 - ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
 - ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

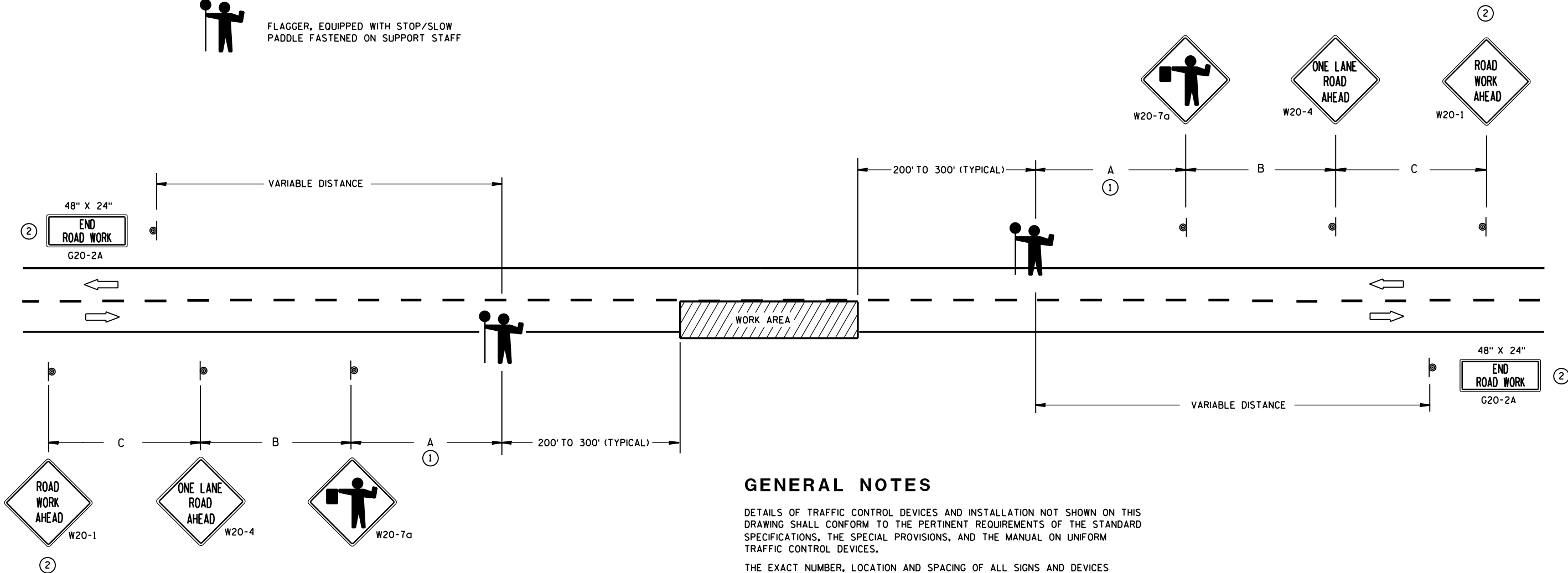
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



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.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE 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.

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, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

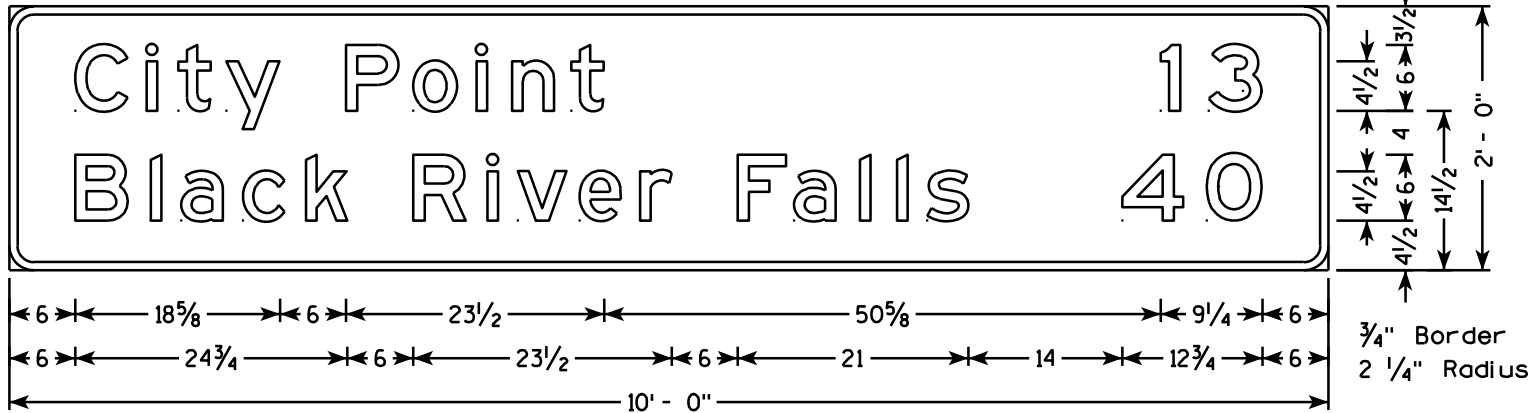
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT 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.

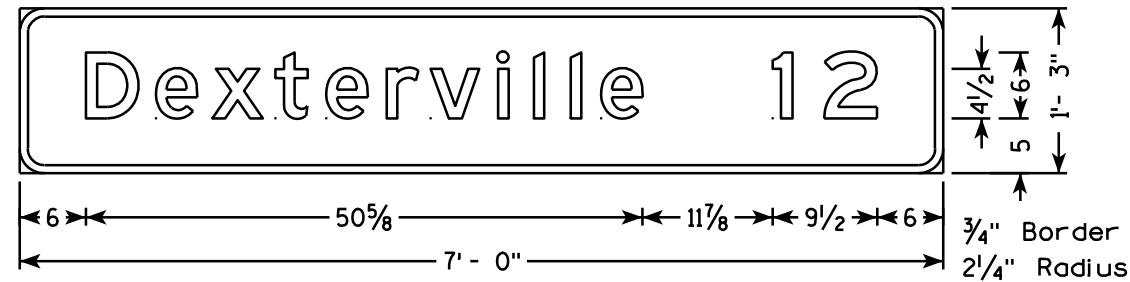
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

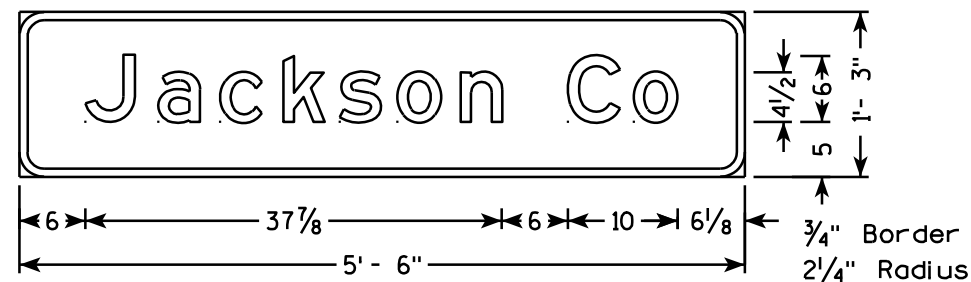
APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



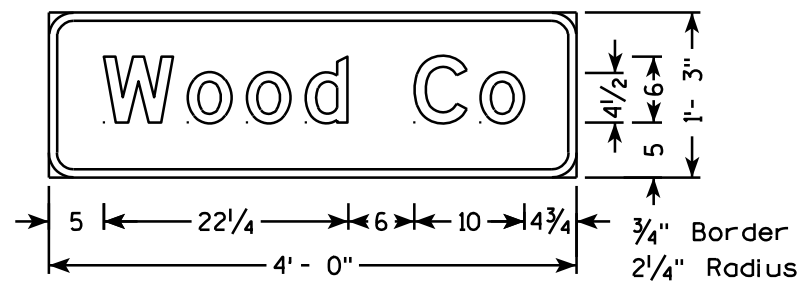
D2-2



D2-1



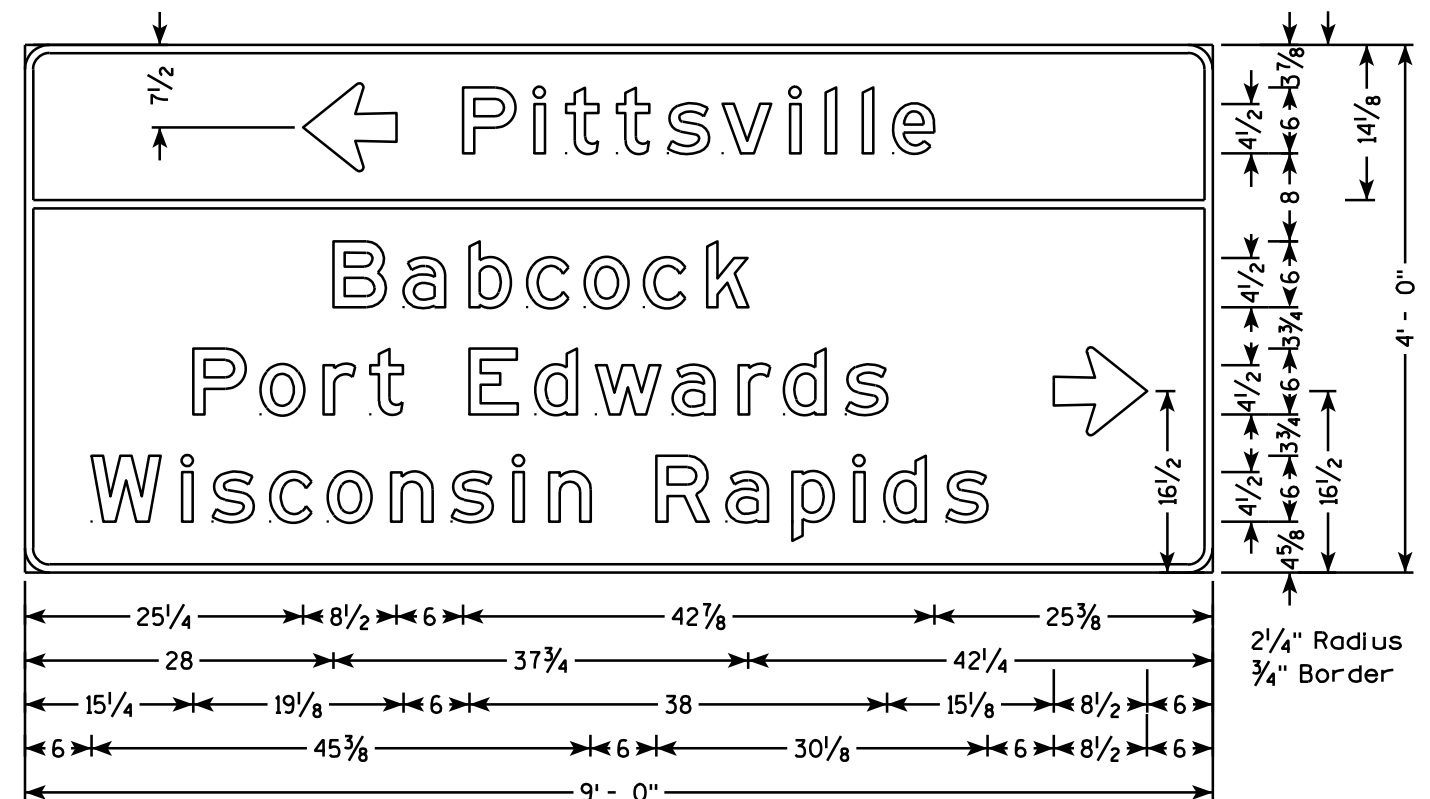
I2-2



I2-2



I2-3



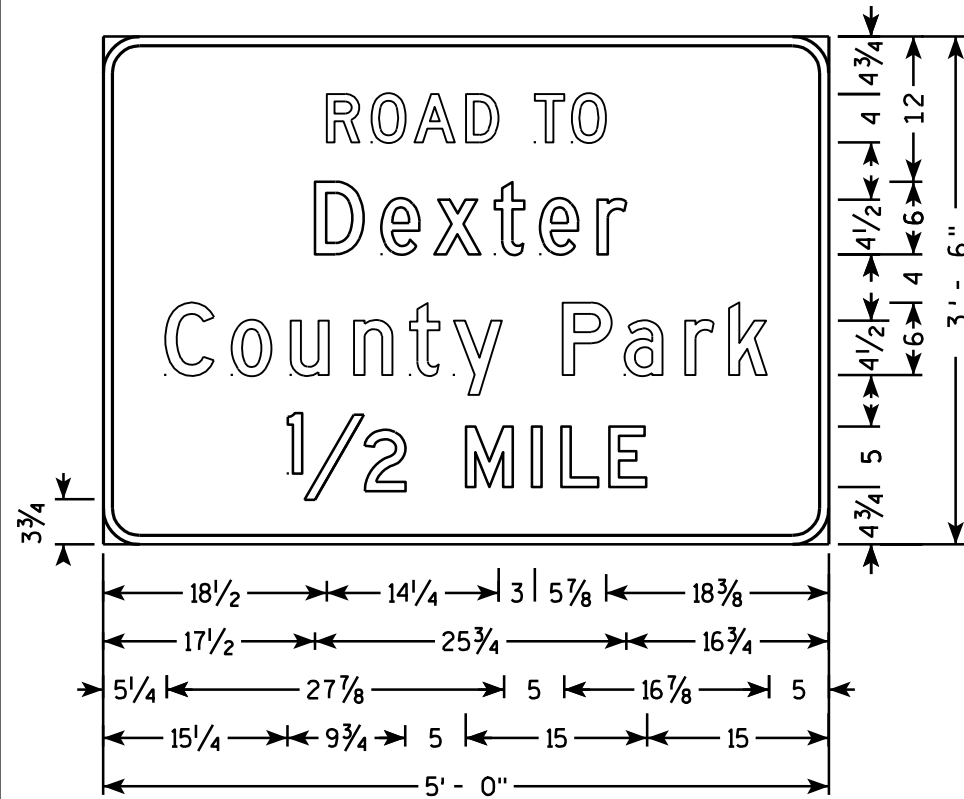
D1-4

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - GREEN
Message - WHITE
3. Message Series - E except as Shown

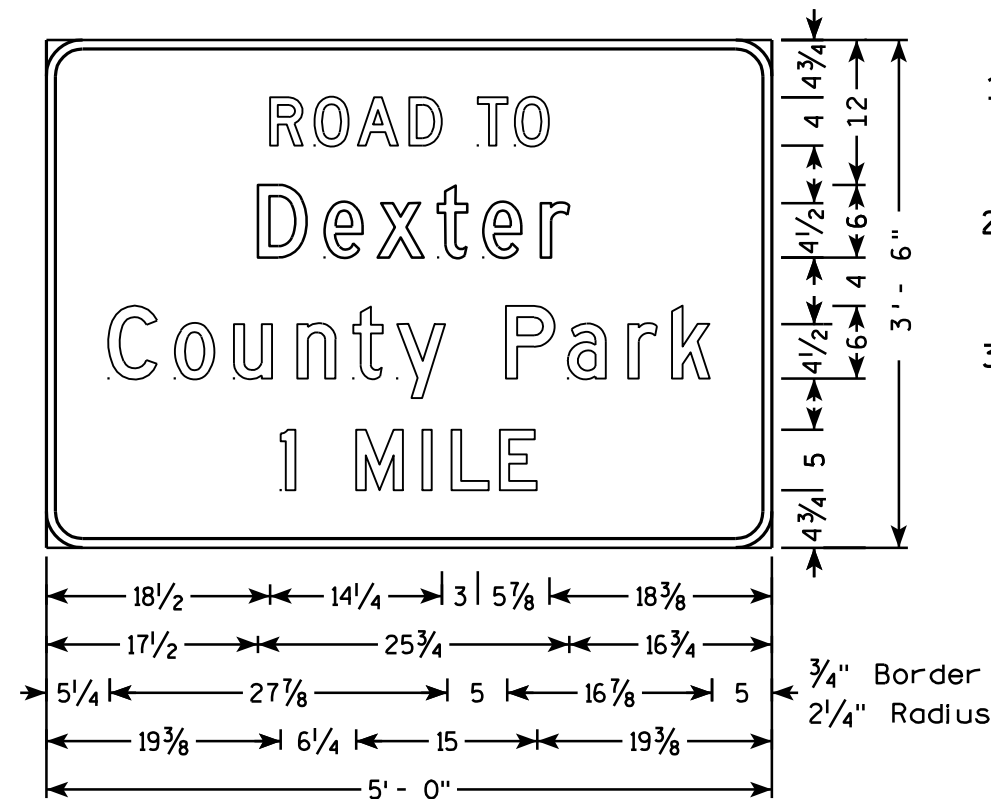
7

7



D7-68

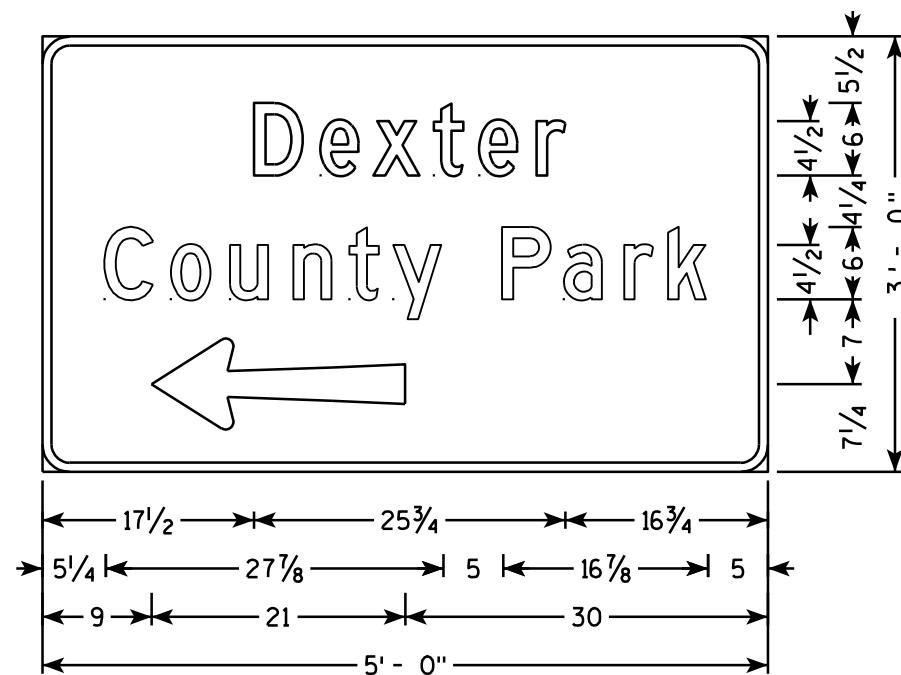
$\frac{3}{4}$ " Border
 $2\frac{1}{4}$ " Radius



D7-68

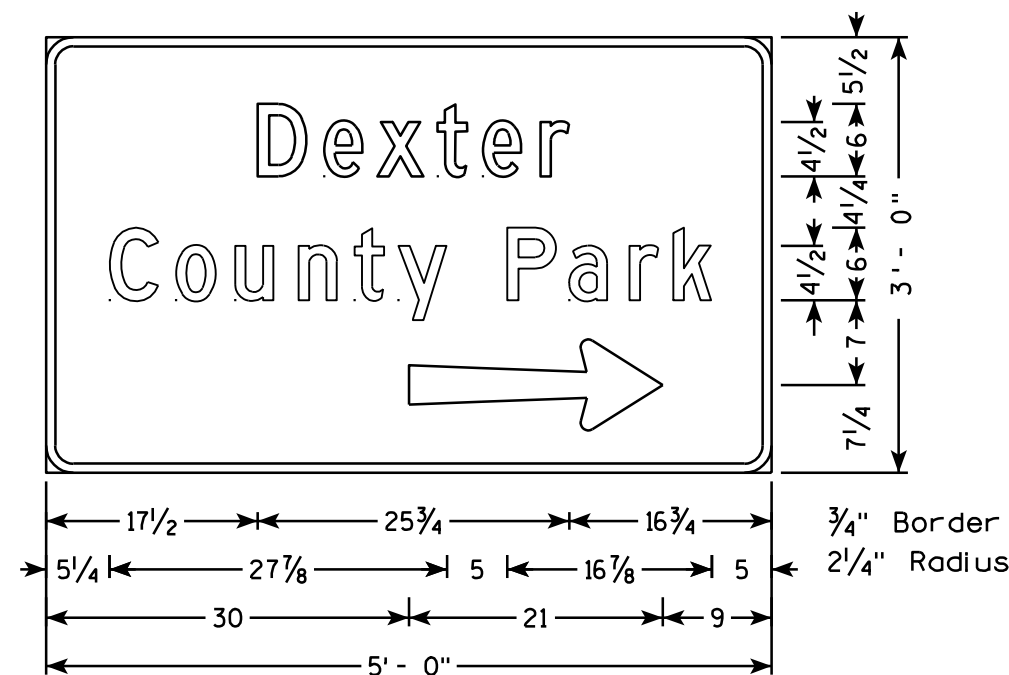
- NOTES**
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - BROWN
Message - WHITE
 3. Message Series - D

7



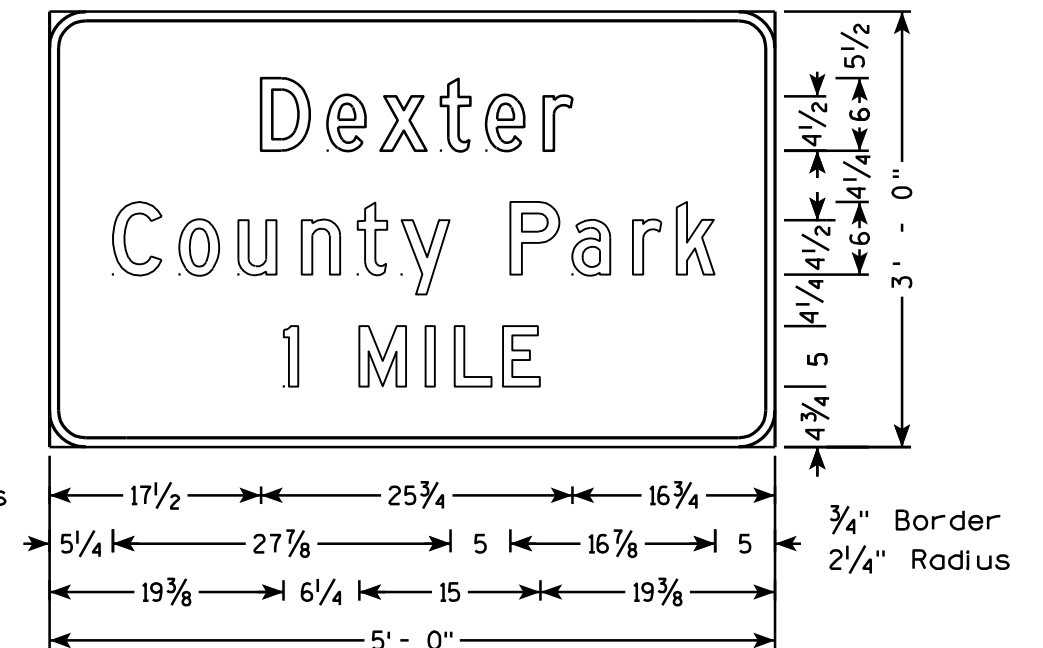
D7-68L

$\frac{3}{4}$ " Border
 $2\frac{1}{4}$ " Radius



D7-68R

$\frac{3}{4}$ " Border
 $2\frac{1}{4}$ " Radius

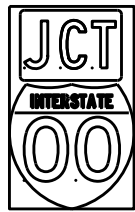


D7-67

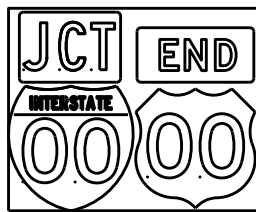
$\frac{3}{4}$ " Border
 $2\frac{1}{4}$ " Radius

7

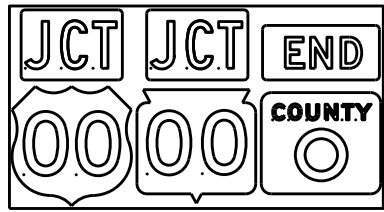
TYPICAL ASSEMBLIES



J1-1



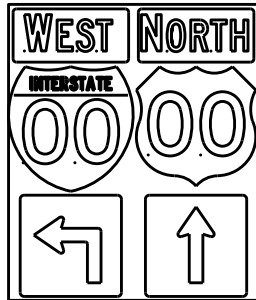
J1-2



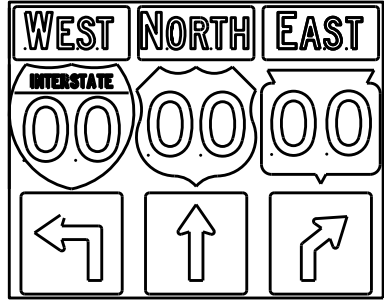
J1-3



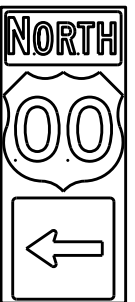
J2-1



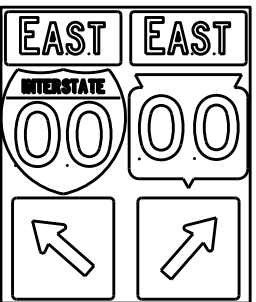
J2-2



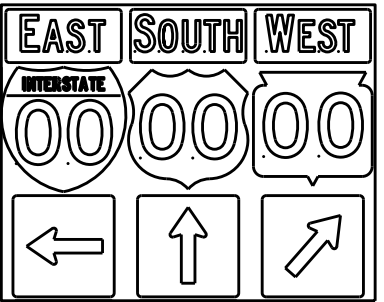
J2-3



J3-1



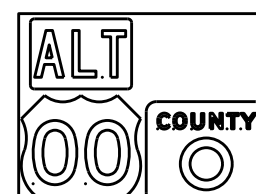
J3-2



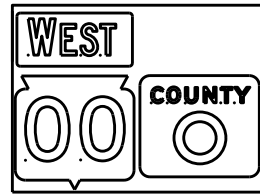
J3-3



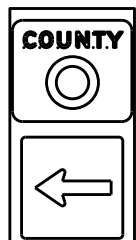
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

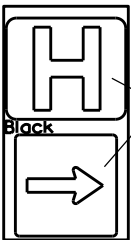


J22-1



JV

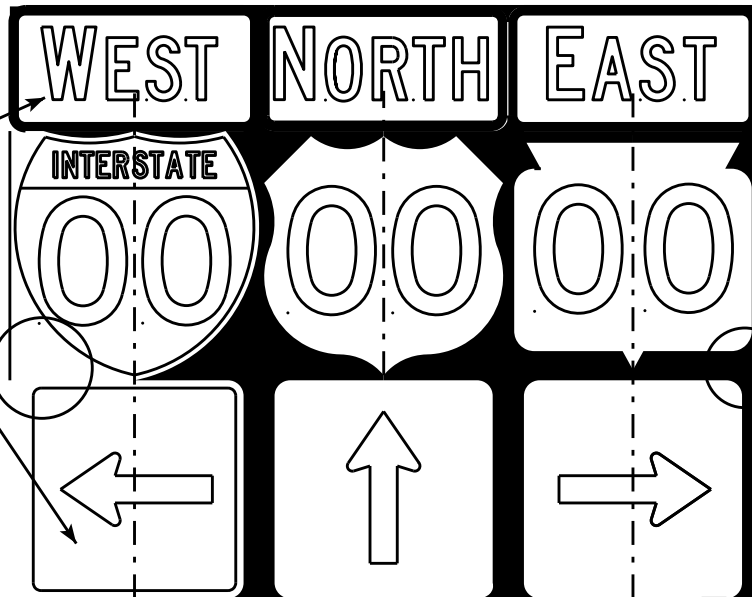
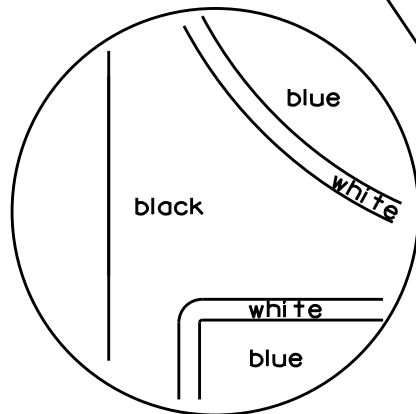
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/06/14 PLATE NO. A2-1S.8

NOTES

- Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Black Non-reflective
Message - see Note 5
- Message Series - See Note 5
- Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
- Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
- Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- All Vertical J Assemblies are given a Sign Code of JV
- For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

PROJECT NO:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN

PLOT DATE : 06-FEB-2014 14:10

PLOT BY : mscs.ja

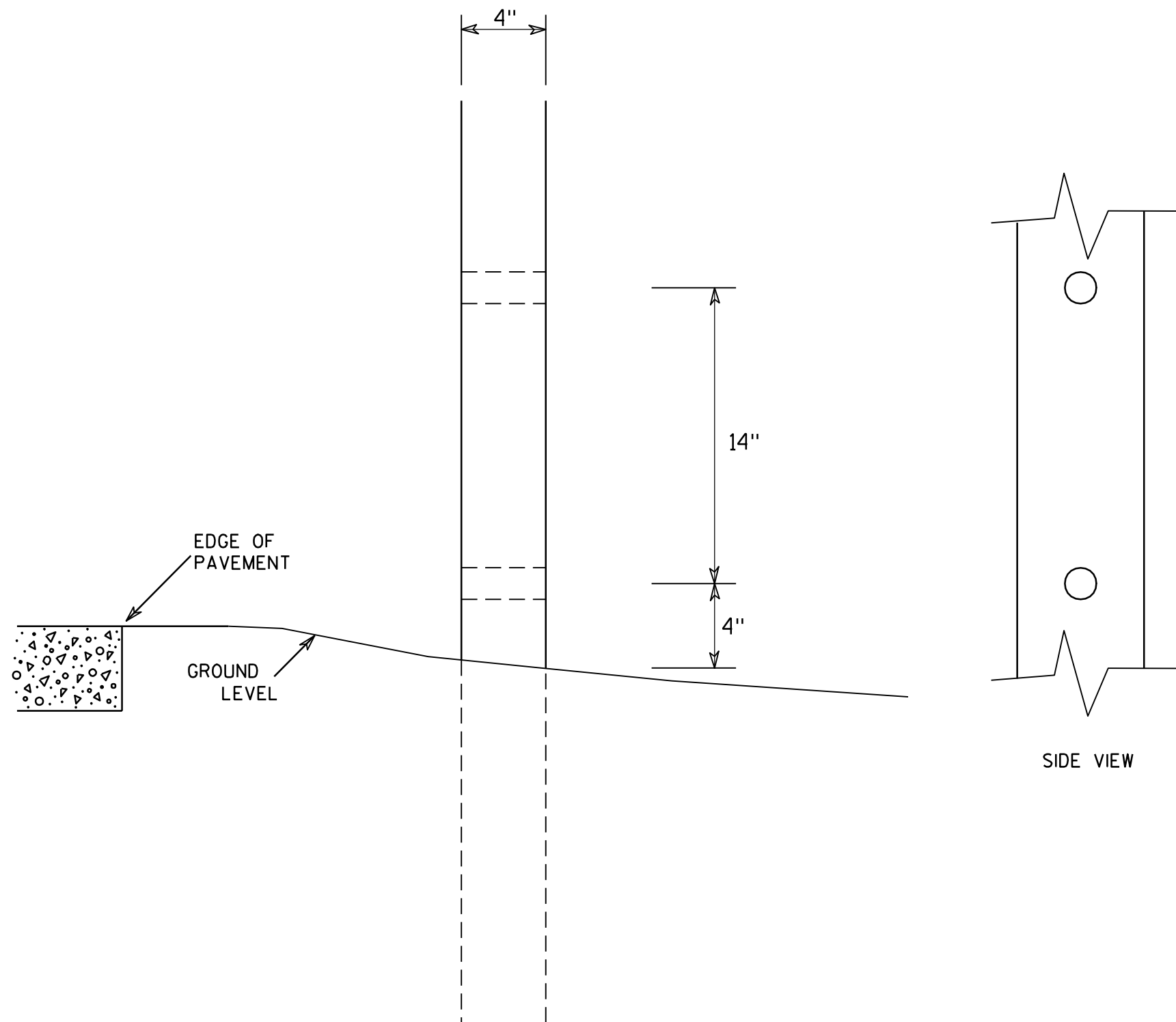
PLOT NAME :

SHEET NO:

E

WISDOT/CADDs SHEET 42

7

GENERAL NOTES

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

7

**4 X 6 WOOD POST
MODIFICATIONS**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

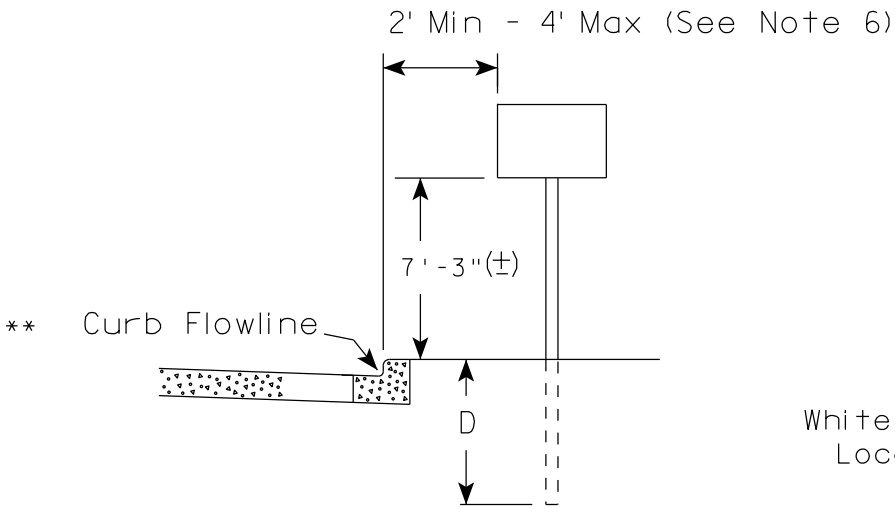
HWY:

COUNTY:

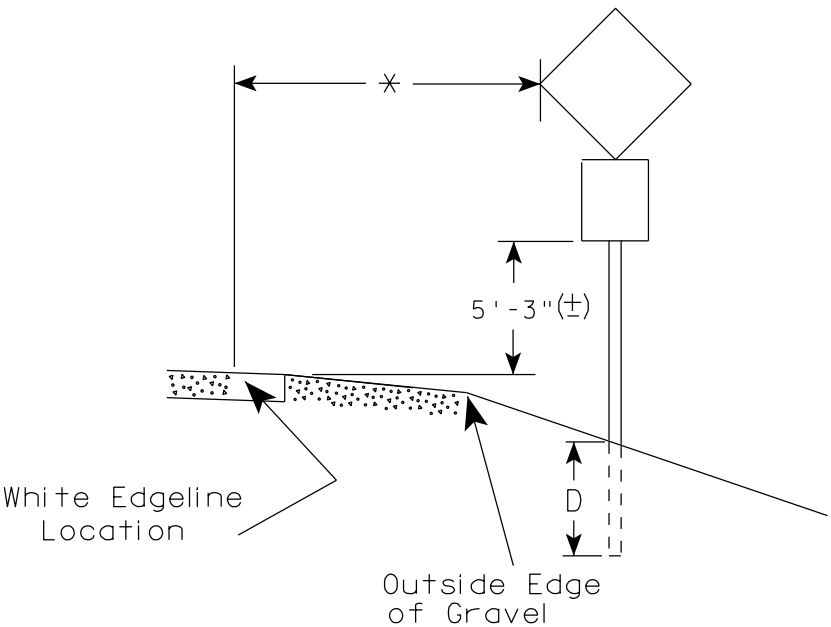
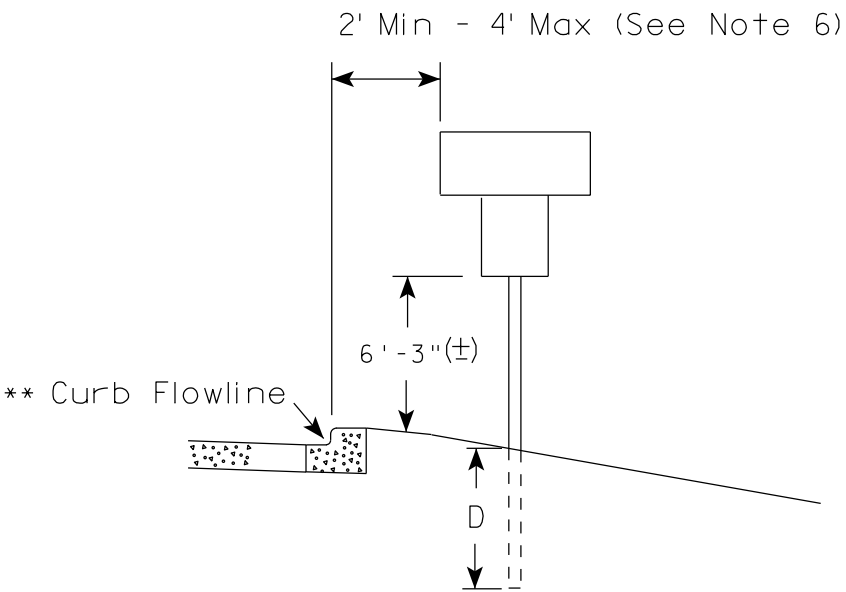
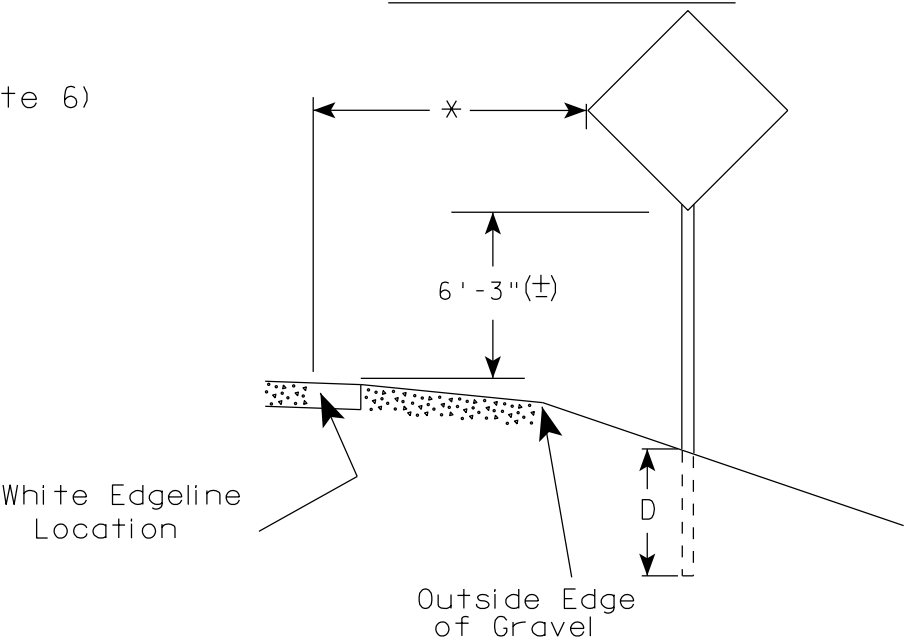
SHEET NO:

E

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

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

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

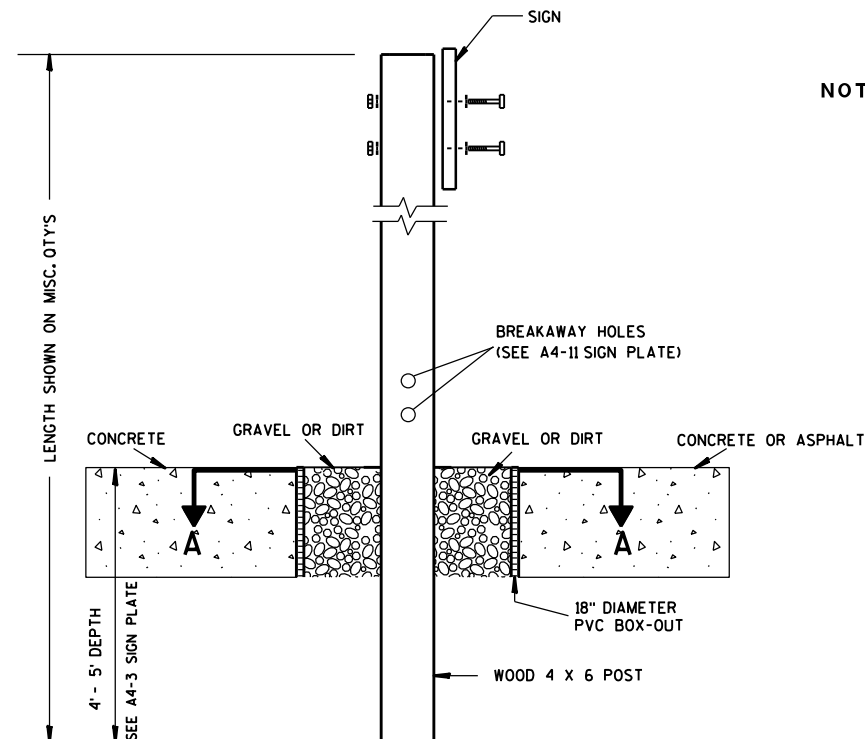
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

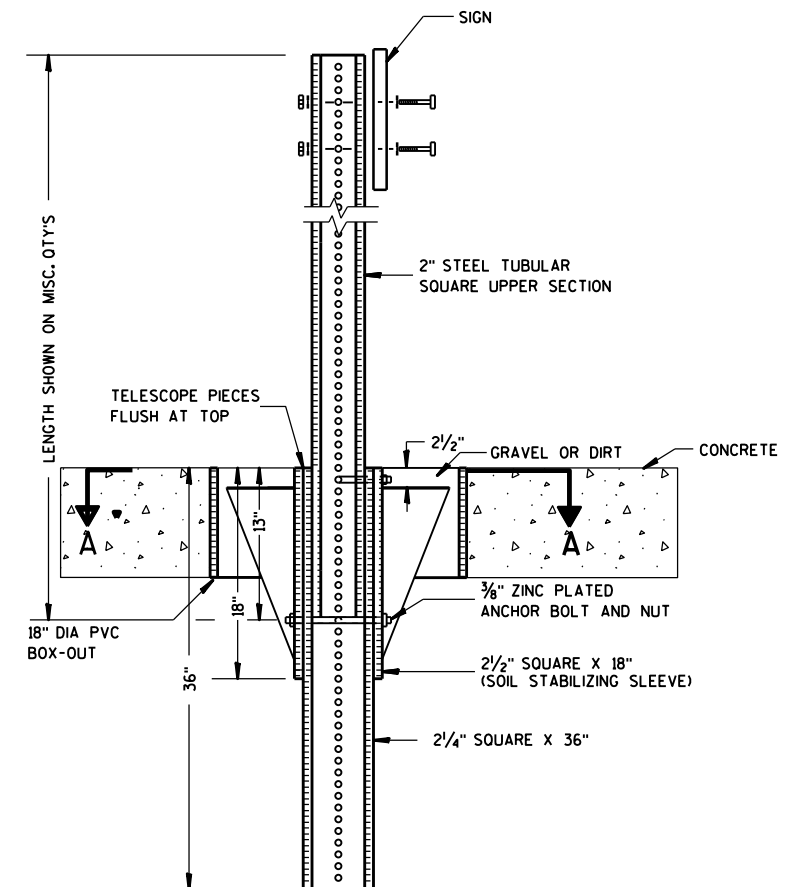
DATE 9/30/13 PLATE NO. A4-3.18



ELEVATION VIEW

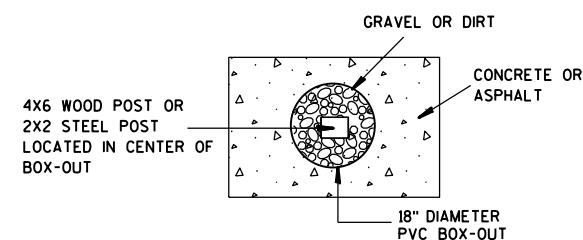
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

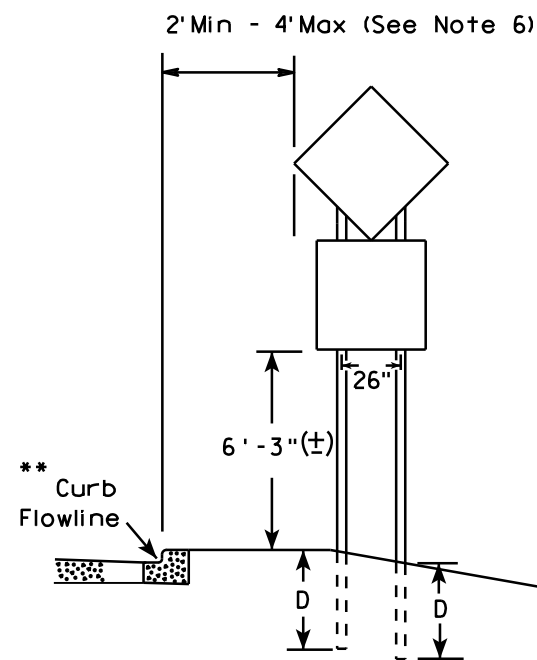
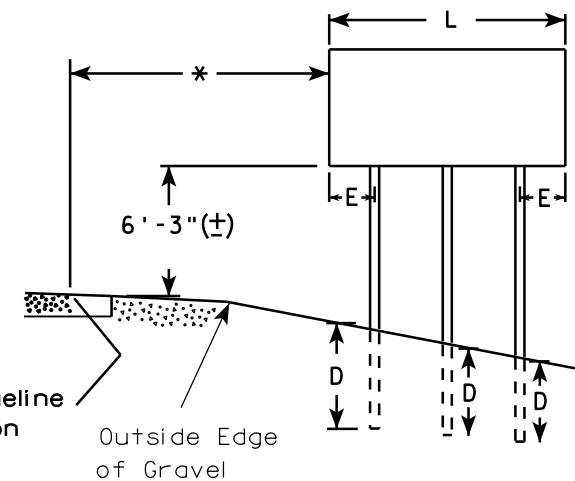
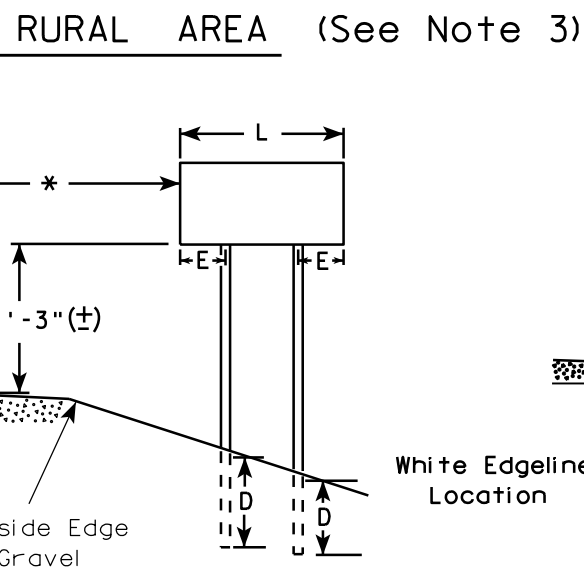
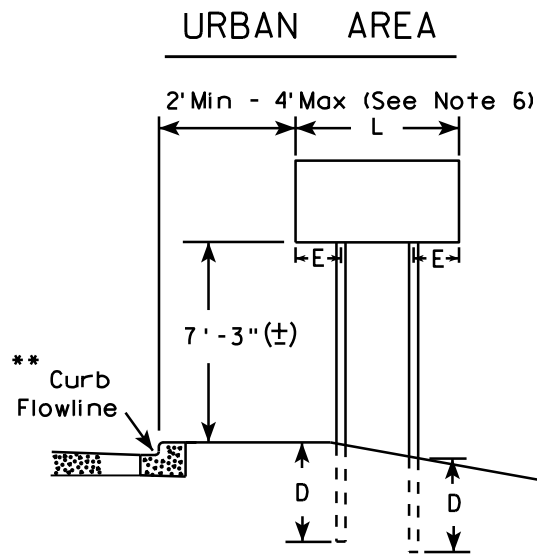
PROJECT NO:

HWY:

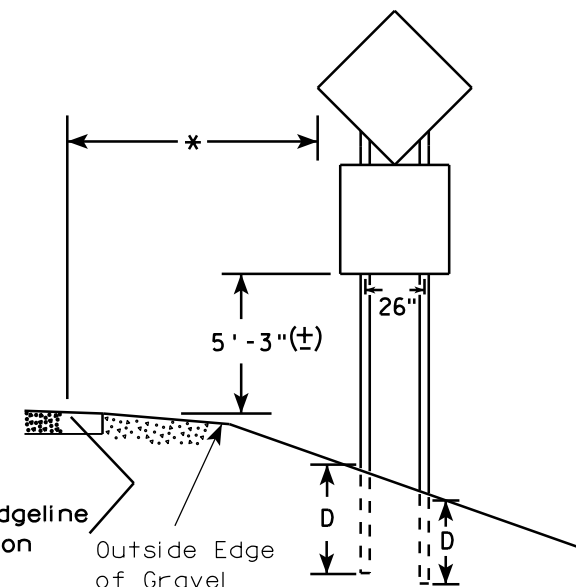
COUNTY:

SHEET NO:

E



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

- GENERAL NOTES**
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 - See tables below for required number of posts.
 - For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 - The (±) tolerance for mounting height is 3 inches.
 - Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 - Offset distance shall be consistent with existing signs or consistent throughout length of project.
 - Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 - The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

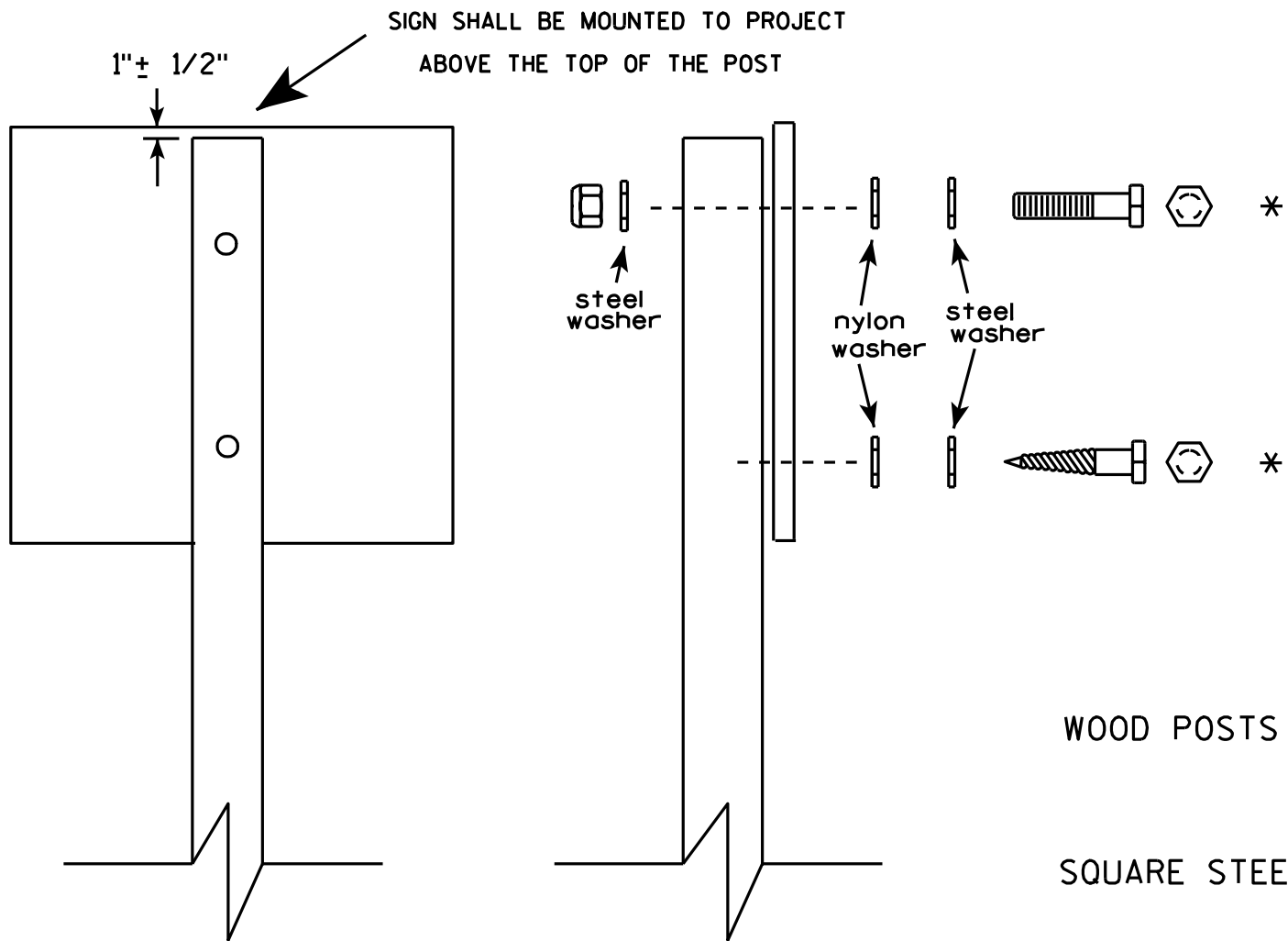
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-4.12

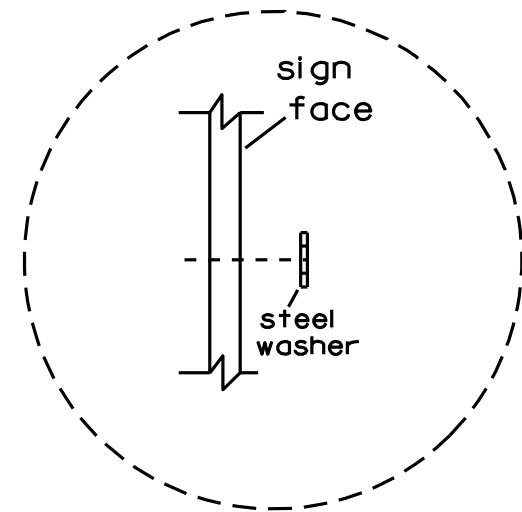


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

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

- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7

Metric equivalent
for this sign is:

SIZE	
1	1200 mm X 225 mm
2	1200 mm X 225 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m
1	48	9	1 1/8	3/8	1/2	4	2 1/2	12	24	5 3/4	12 1/4	2 3/4	22	5 1/4	3			4 1/2	19 1/2	4 1/4	23 1/4	2 5/8	16 3/8	2 7/8	21	2	3.0	.27
2	48	9	1 1/8	3/8	1/2	4	2 1/2	12	24	5 3/4	12 1/4	2 3/4	22	5 1/4	3			4 1/2	19 1/2	4 1/4	23 1/4	2 5/8	16 3/8	2 7/8	21	2	3.0	.27
3																												
4																												
5																												

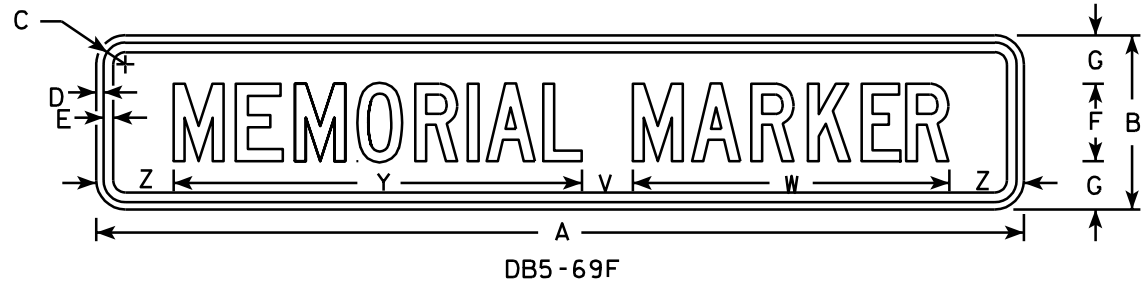
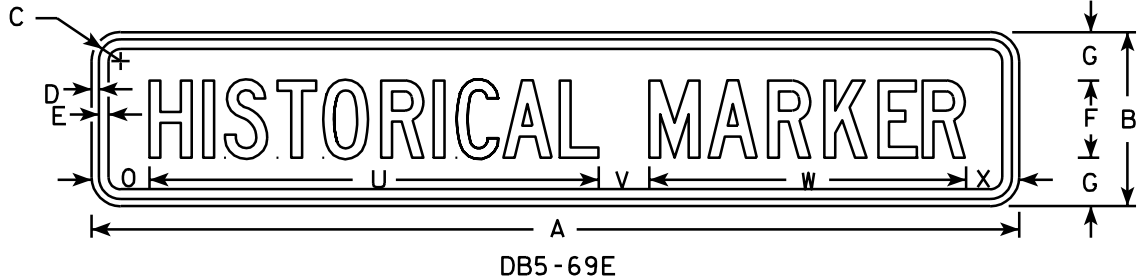
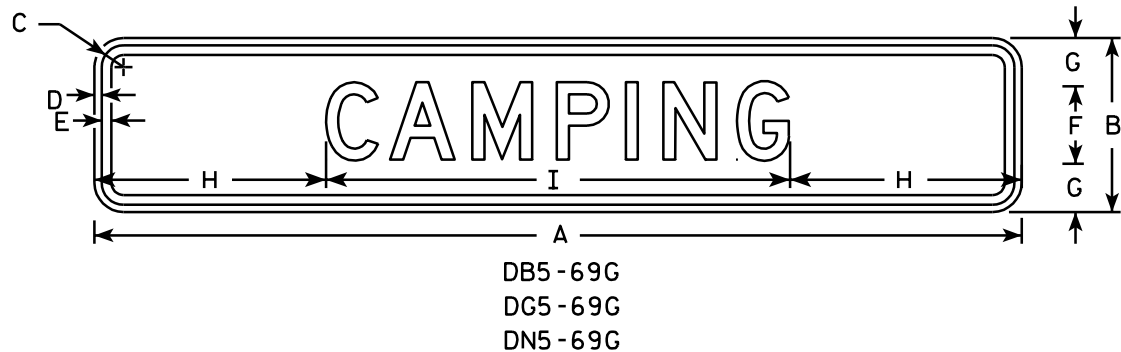
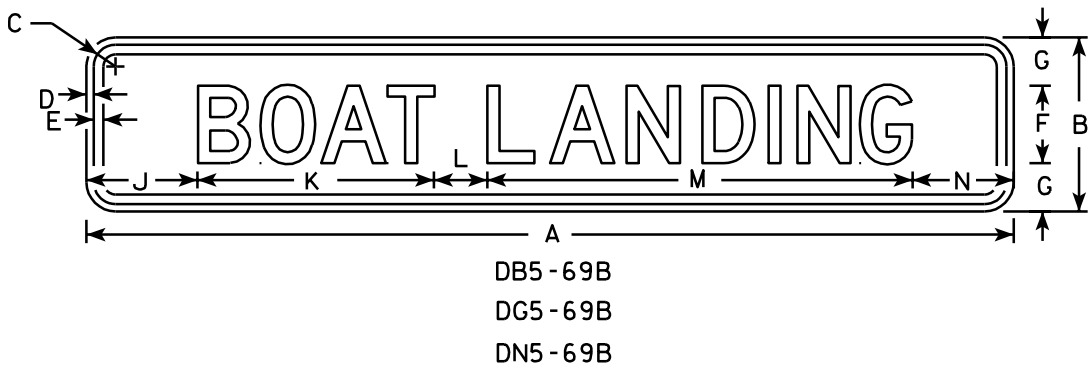
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

- Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
 - Background - See note 5
 - Message - White - Type H Reflective
- Message Series - See note 6
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- DB5-69B
DB5-69E
DB5-69F
DB5-69G
DG5-69B
DG5-69G
DN5-69B
DN5-69G
 - Background BLUE
 - Background GREEN
 - Background BROWN
- All signs are series D except for DB5-69E & DB5-69F which are Series C.

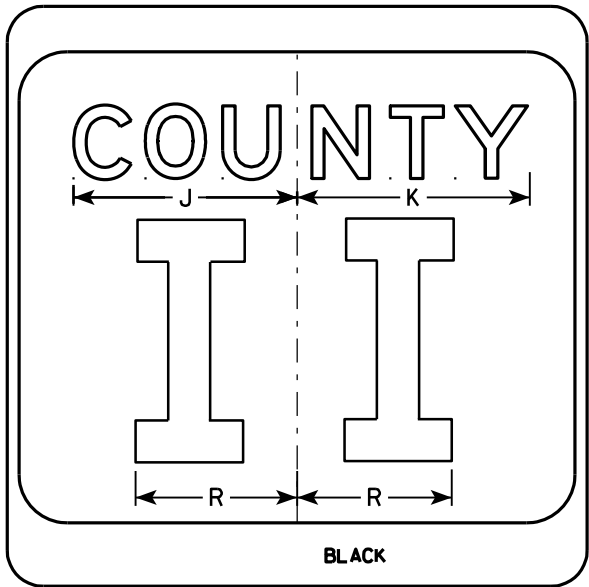
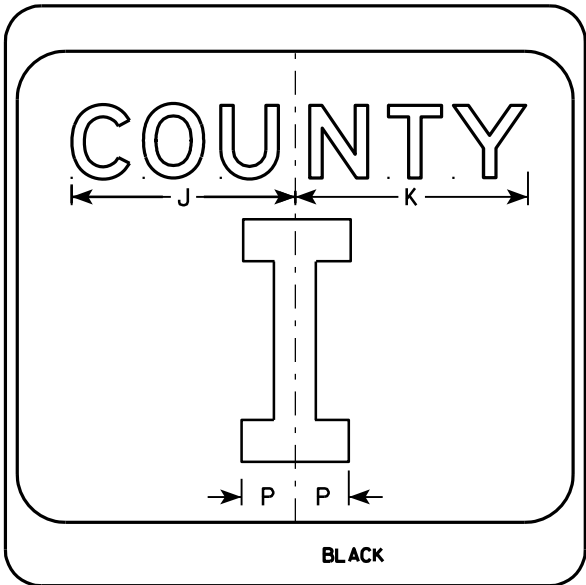
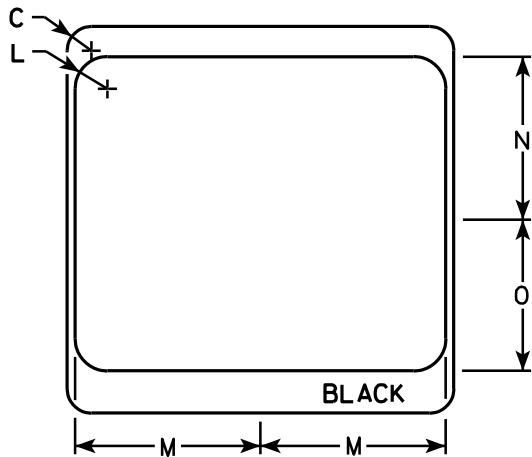
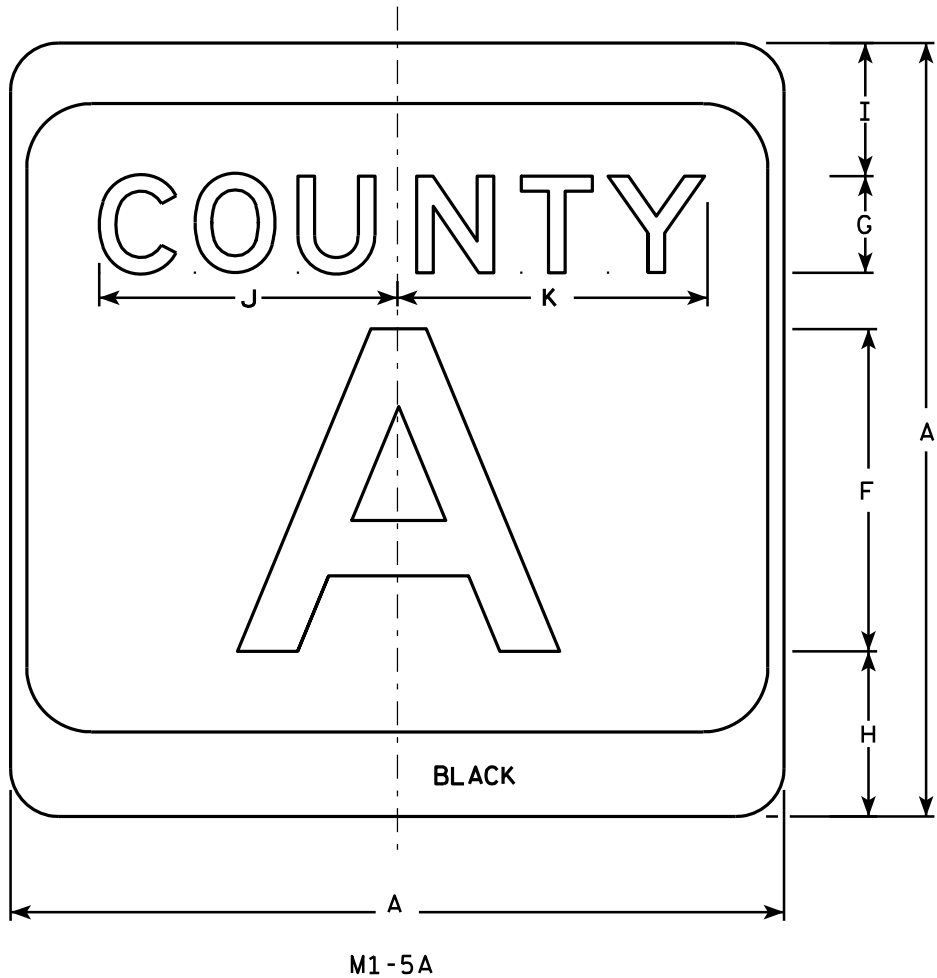
STANDARD SIGN
DB5-69 & DG5-69
& DN5-69 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/04 PLATE NO. DB5-69.5

7



NOTES

- 1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - White & Black - See Note 7
Message - Black
- 3. Message Series - see Note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
- 6. Substitute appropriate letters & optically center to achieve proper balance.
- 7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

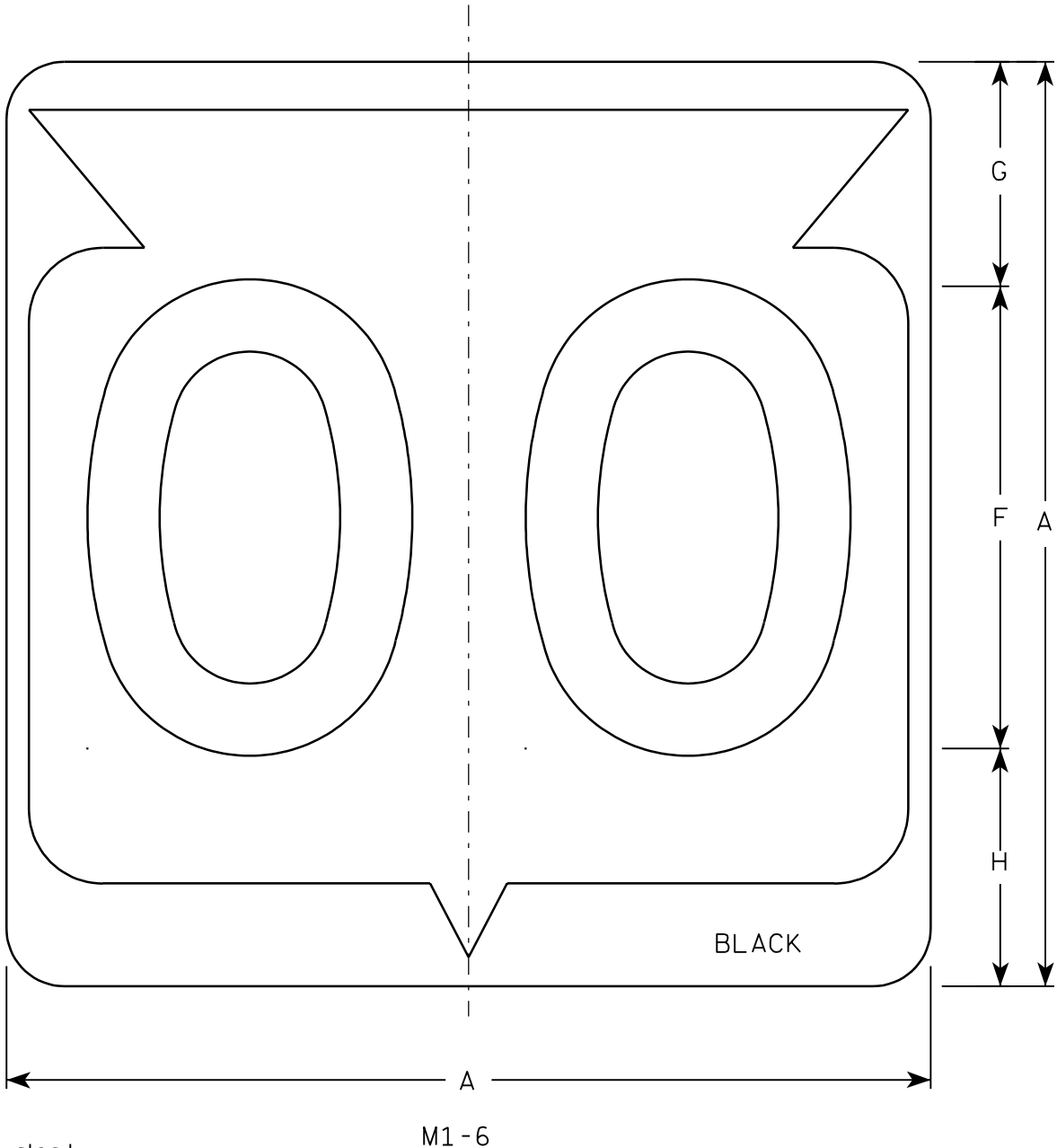
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

7



Metric equivalent
for this sign is:

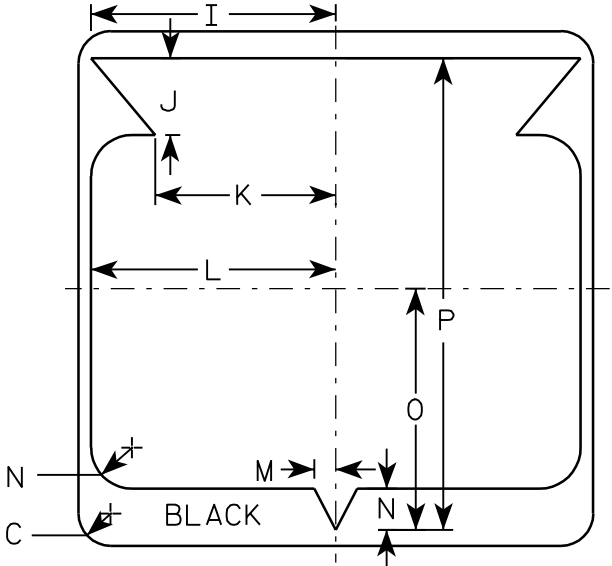
SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

PROJECT NO:		HWY:		COUNTY:		SHEET NO:		E
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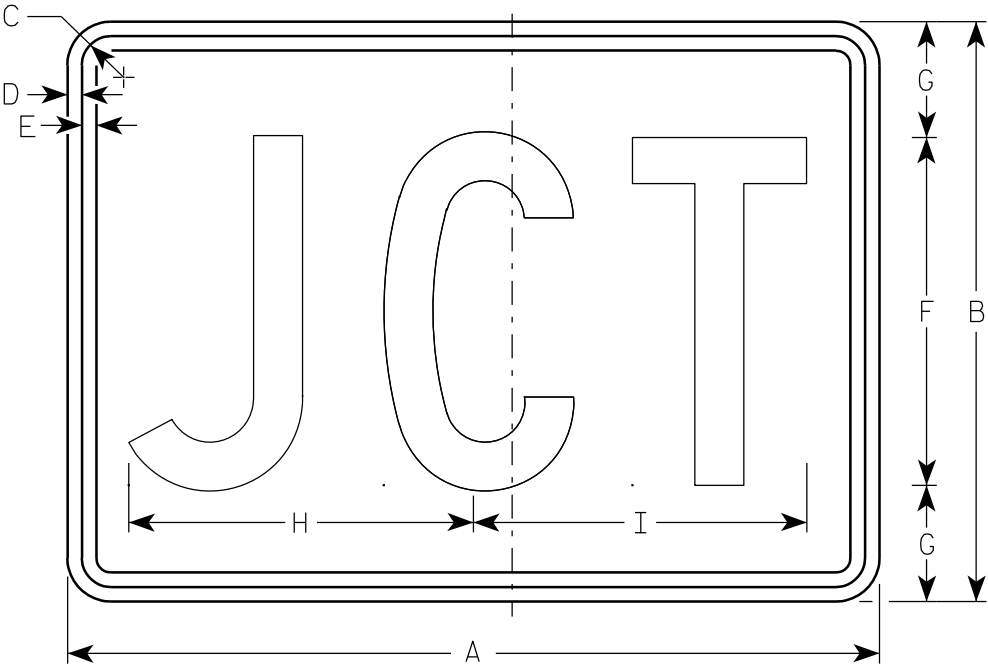
NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



7

7



M2-1
MK2-1
MM2-1
MR2-1

Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

PROJECT NO:

HWY:

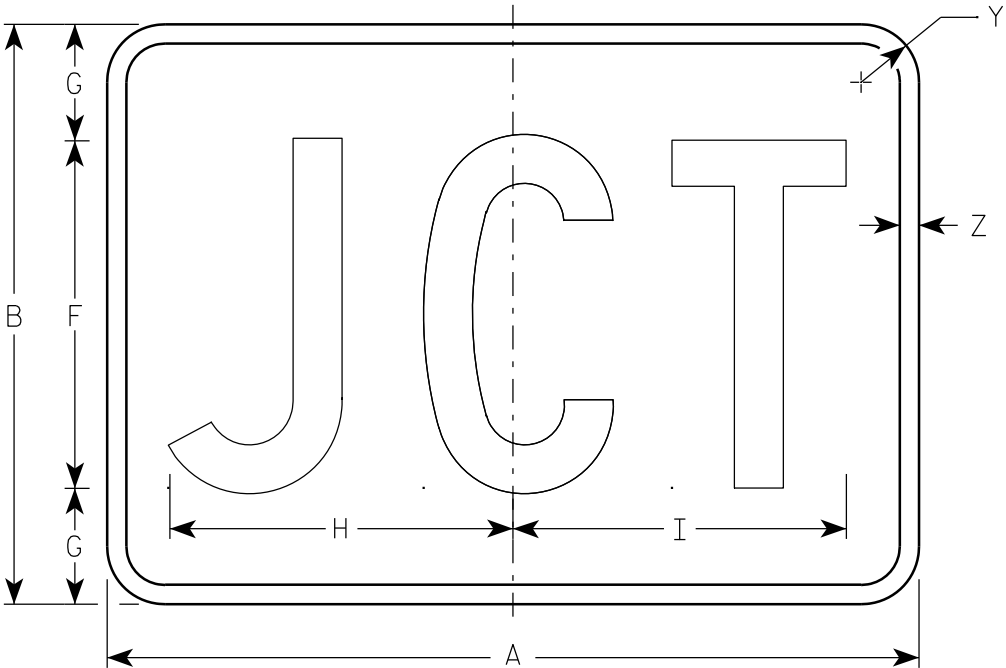
COUNTY:

SHEET NO:

E

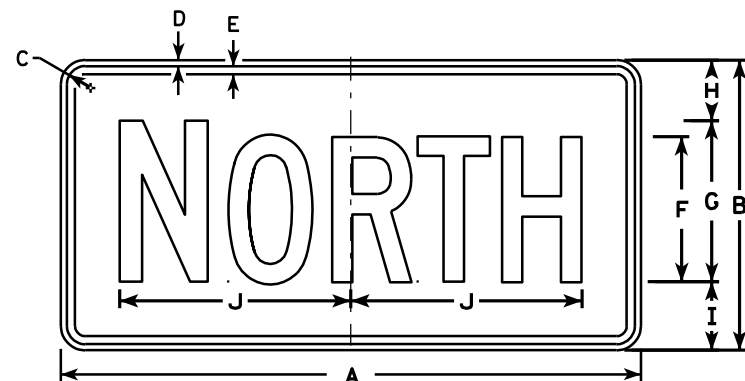
NOTES

- Sign is Type II - See Note 5 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 5
Message - See note 5
- Message Series - C
- Corners may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
- M2-1 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB2-1 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG2-1 Background - Green
Message - White - Type H Reflective
MK2-1 Background - Green
Message - White - Type H Reflective
MM2-1 Background - White - Type H Reflective
Message - Green
MN2-1 Background - Brown
Message - White - Type H Reflective
MR2-1 Background - Brown
Message - Yellow - Type H Reflective



MB2-1
MG2-1
MN2-1

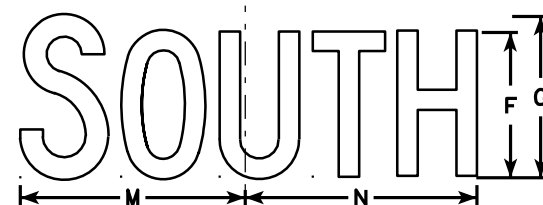
7



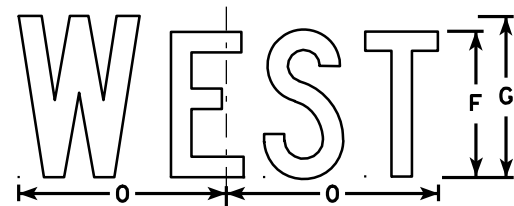
M3-1
MK3-1
M03-1



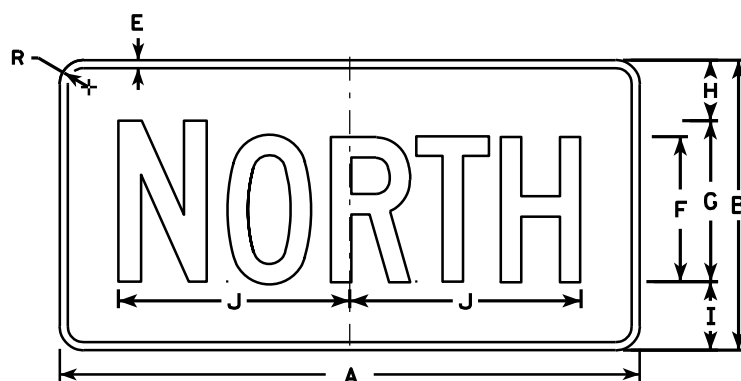
M3-2
MK3-2
M03-2



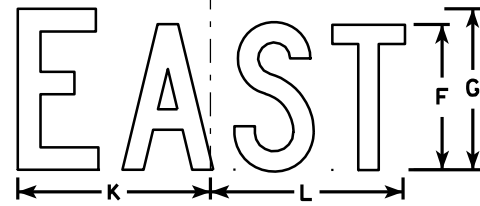
M3-3
MK3-3
M03-3



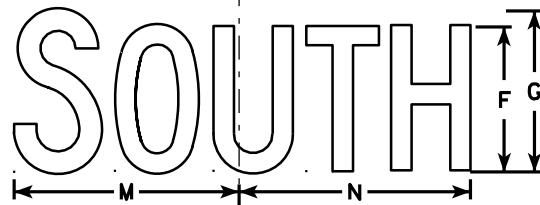
M3-4
MK3-4
M03-4



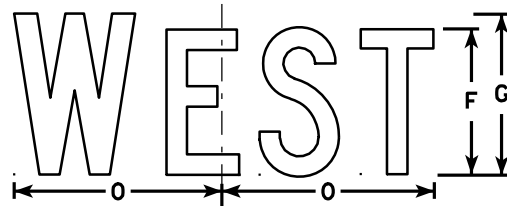
MB3-1
MG3-1
MM3-1
MN3-1



MB3-2
MG3-2
MM3-2
MN3-2



MB3-3
MG3-3
MM3-3
MN3-3



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective (Detour or temporary signs - Reflective)
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White - Type H Reflective (Detour or temporary signs - Reflective)
MG3-1 thru MG3-4 Background - Green
Message - White - Type H Reflective
MK3-1 thru MK3-4 Background - Green
Message - White - Type H Reflective
MM3-1 thru MM3-4 Background - White - Type H Reflective
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White - Type H Reflective
M03-1 thru M03-4 Background - Orange - Reflective
Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

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

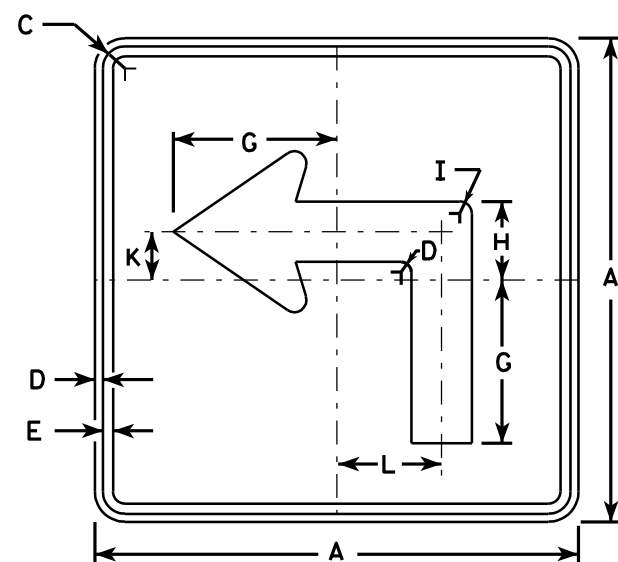
PROJECT NO: HWY: COUNTY: SHEET NO: E

STANDARD SIGNS M3-1 thru M3-4 SERIES

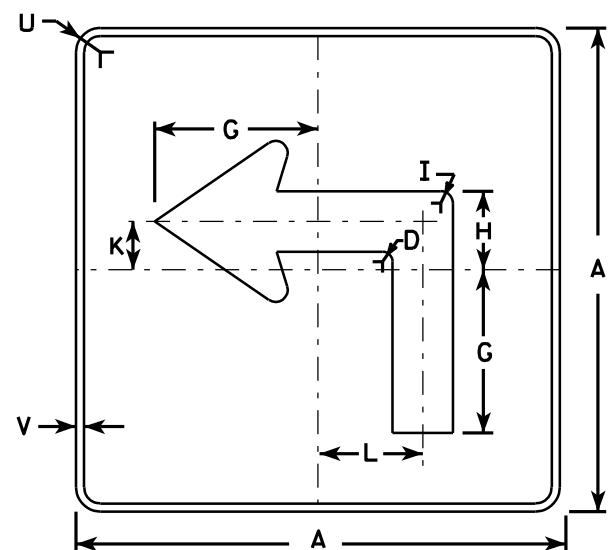
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

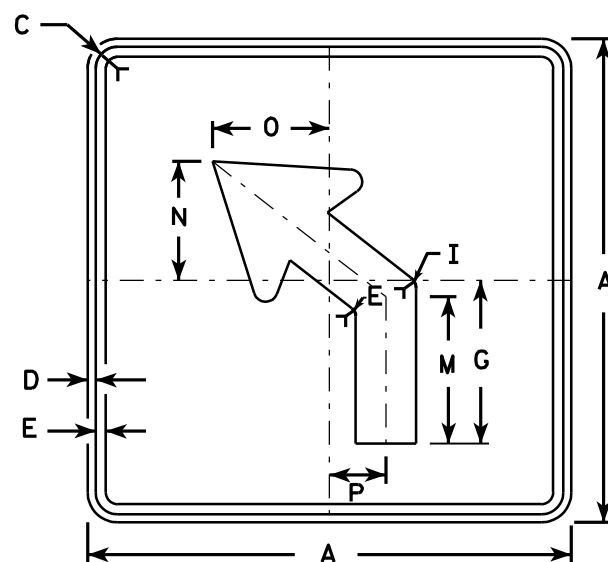
DATE 11/10/10 PLATE NO. M3-1.12



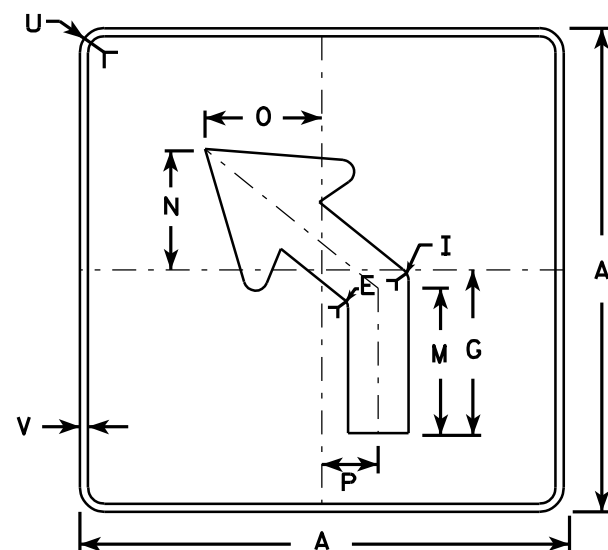
M5-1L
MK5-1L
MM5-1L
M05-1L
MP5-1L
MR5-1L



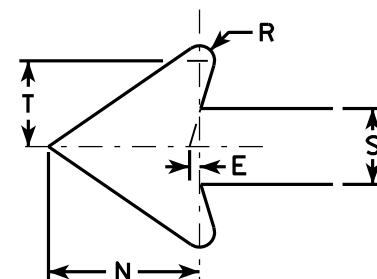
MB5-1L
MG5-1L
MN5-1L



M5-2L
MK5-2L
MM5-2L
M05-2L
MP5-2L
MR5-2L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - See note 4
Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
Message - Black
MB5-1 and MB5-2 Background - Blue
Message - White - Type H Reflective
MG5-1 and MG5-2 Background - Green
Message - White - Type H Reflective
MK5-1 and MK5-2 Background - Green
Message - White Type H Reflective
MM5-1 and MM5-2 Background - White - Type H Reflective
Message - Green
MN5-1 and MN5-2 Background - Brown
Message - White - Type H Reflective
M05-1 and M05-2 Background - Orange - Type F Reflective
Message - Black
MP5-1 and MP5-2 Background - White - Type H Reflective
Message - Blue
MR5-1 and MR5-2 Background - Brown
Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

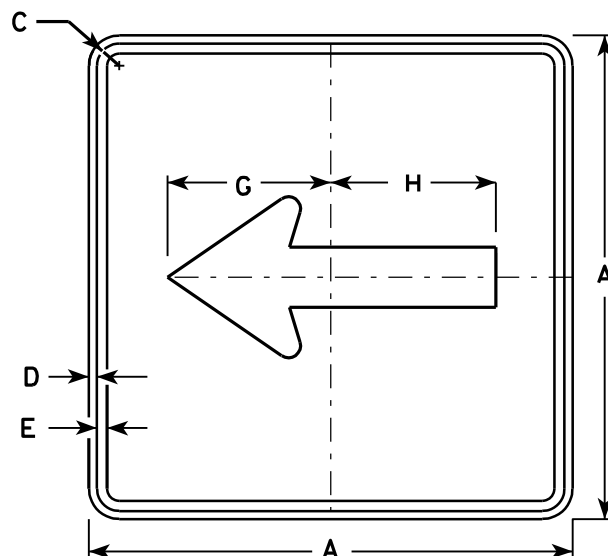
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25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

STANDARD SIGN
M5-1 & M5-2

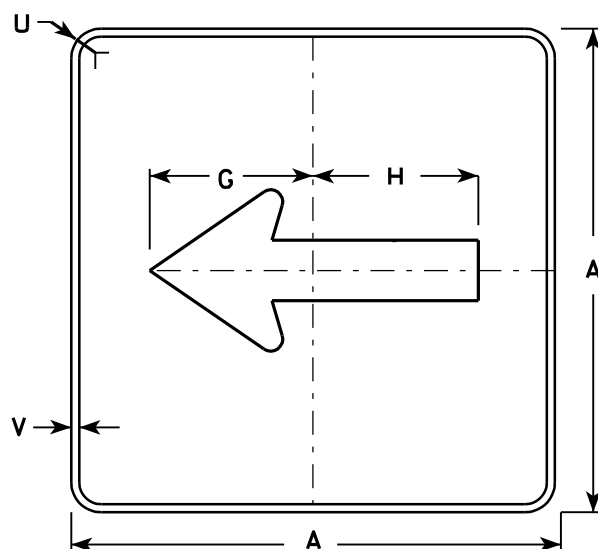
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

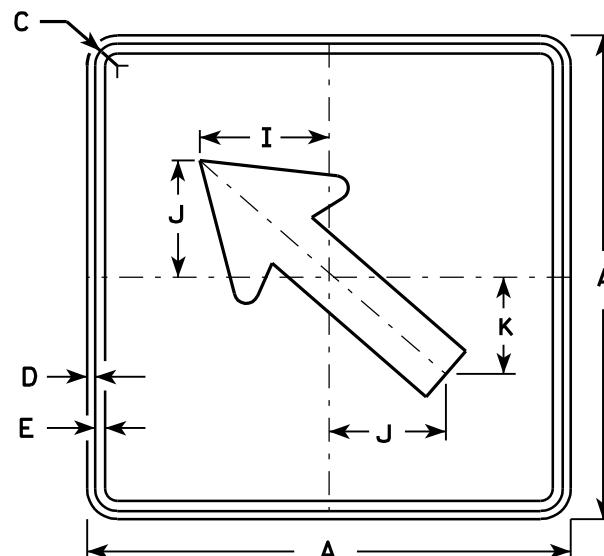
DATE 7/29/13 PLATE NO. M5-1.12



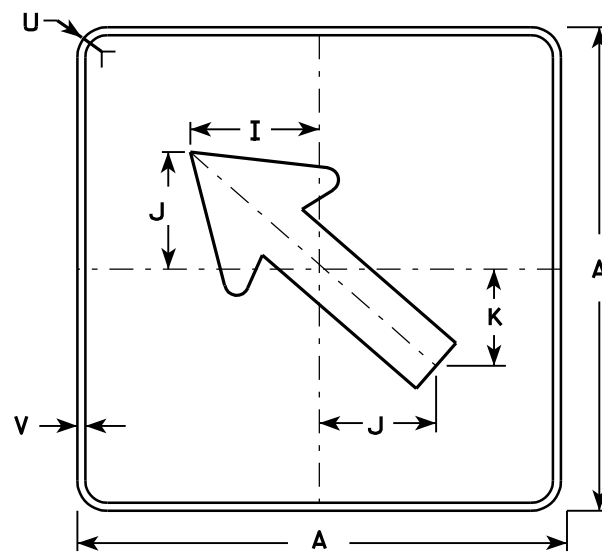
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



MB6-1
MG6-1
MN6-1



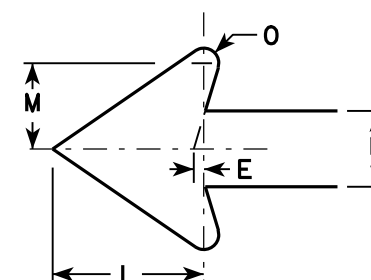
M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



MB6-2
MG6-2
MN6-2

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-1 and M6-2 Background - White - Type H Reflective
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White - Type H Reflective
MG6-1 and MG6-2 Background - Green
Message - White - Type H Reflective
MK6-1 and MK6-2 Background - Green
Message - White - Type H Reflective
MM6-1 and MM6-2 Background - White - Type H Reflective
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White - Type H Reflective
MO6-1 and MO6-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White - Type H Reflective
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow - Type H Reflective



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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

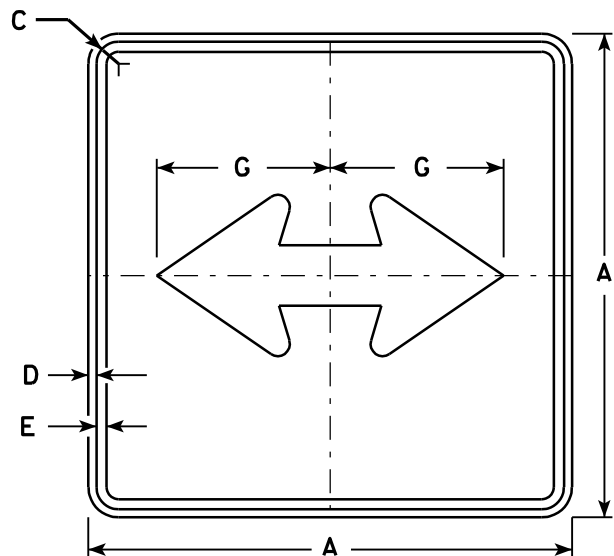
E

STANDARD SIGN
M6-1 & M6-2
SERIES

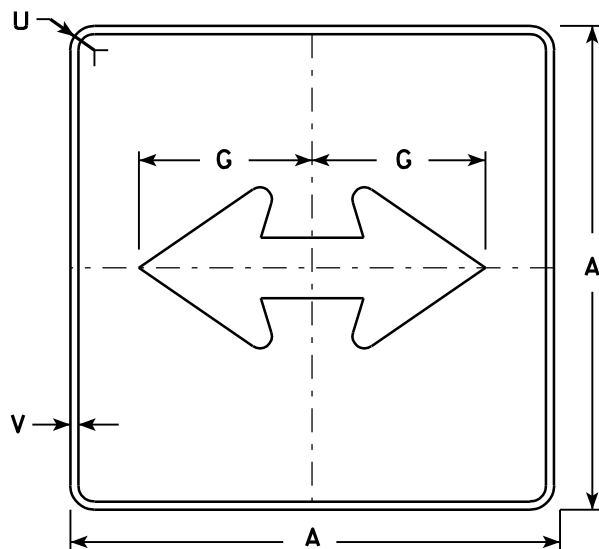
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

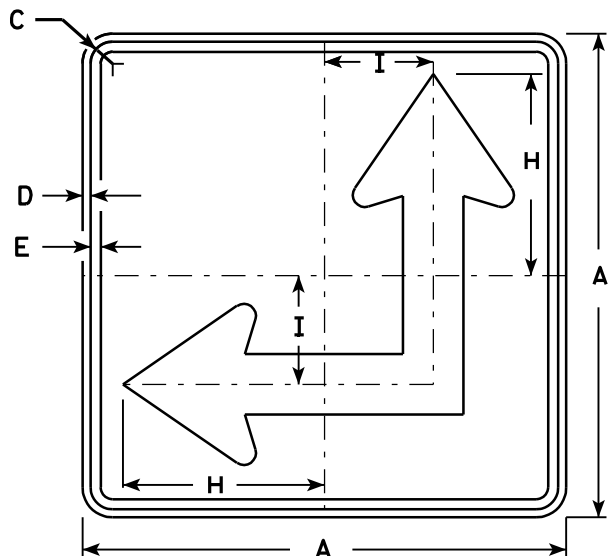
DATE 7/29/13 PLATE NO. M6-1.13



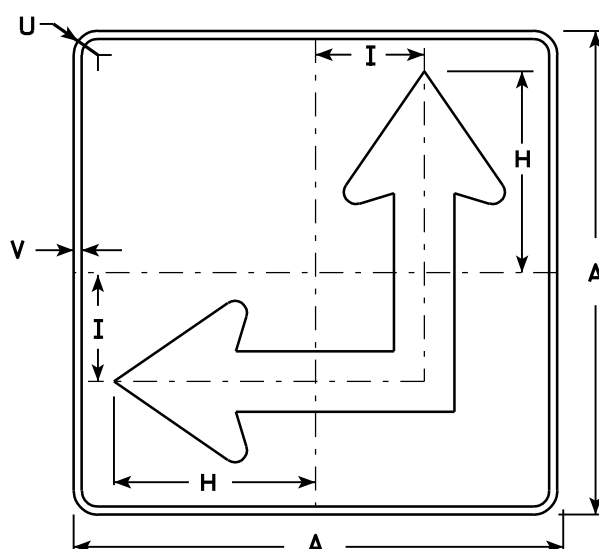
M6 - 4
MK6 - 4
MM6 - 4
MO6 - 4
MP6 - 4
MR6 - 4



MB6 - 4
MG6 - 4
MN6 - 4



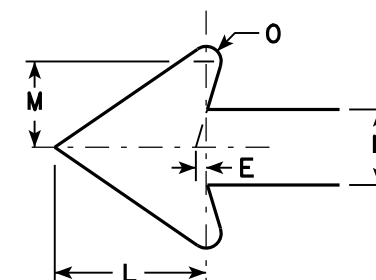
M6 - 6
MK6 - 6
MM6 - 6
MO6 - 6
MP6 - 6
MR6 - 6



MB6 - 6
MG6 - 6
MN6 - 6

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See Note 4
Message - See Note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-4 and M6-6 Background - White - Type H Reflective
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White - Type H Reflective
MG6-4 and MG6-6 Background - Green
Message - White - Type H Reflective
MK6-4 and MK6-6 Background - Green
Message - White - Type H Reflective
MM6-4 and MM6-6 Background - White - Type H Reflective
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White - Type H Reflective
MO6-4 and MO6-6 Background - Orange - Type F Reflective
Message - Black
MP6-4 and MP6-6 Background - White - Type H Reflective
Message - Blue
MR6-4 and MR6-6 Background - Brown
Message - Yellow - Type H Reflective
- M6-6R same as M6-6L except arrow points ahead and right.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

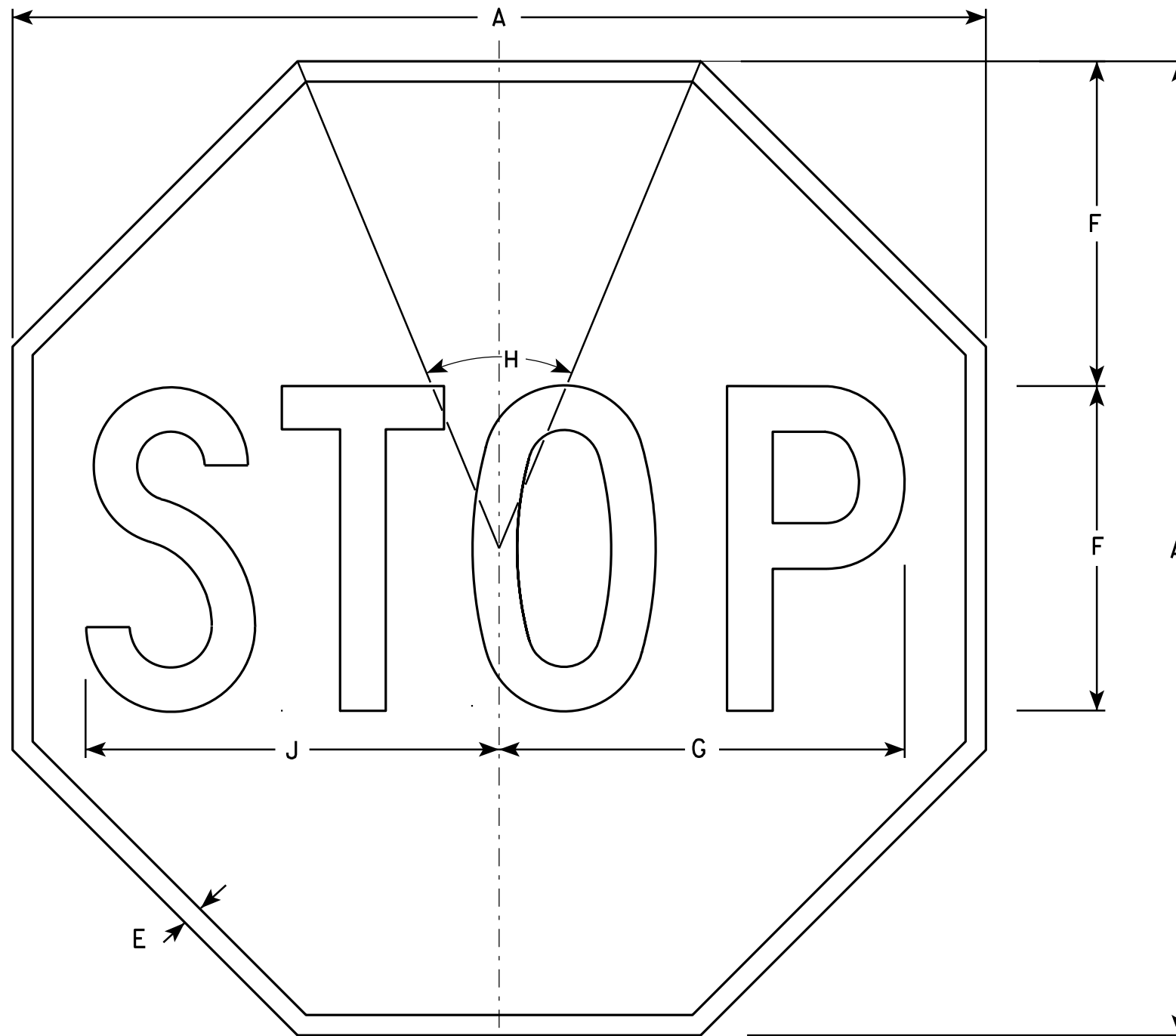
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-4.8



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Red
Message - White
3. Message Series - C

R1-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

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

SIZE	AA	BB	CC	DD	EE
1					
2S	2 1/2	5 3/8	6 1/4	9 3/4	12 1/4
2M	2 1/2	5 3/8	6 1/4	9 3/4	12 1/4
3					
4					
5					

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	54	1 5/8	5/8	3/4	4	3	3/4	6	2	1 1/2	1	2 1/4	9	14 1/8	10 7/8		4 1/2	5	2 3/4	10	1 3/4	6 3/4	7	8 1/4	11 1/2	13.5
2M	36	54	1 5/8	5/8	3/4	4	3	3/4	6	2	1 1/2	1	2 1/4	9	14 1/8	10 7/8		4 1/2	5	2 3/4	10	1 3/4	6 3/4	7	8 1/4	11 1/2	13.5
3																											
4																											
5																											

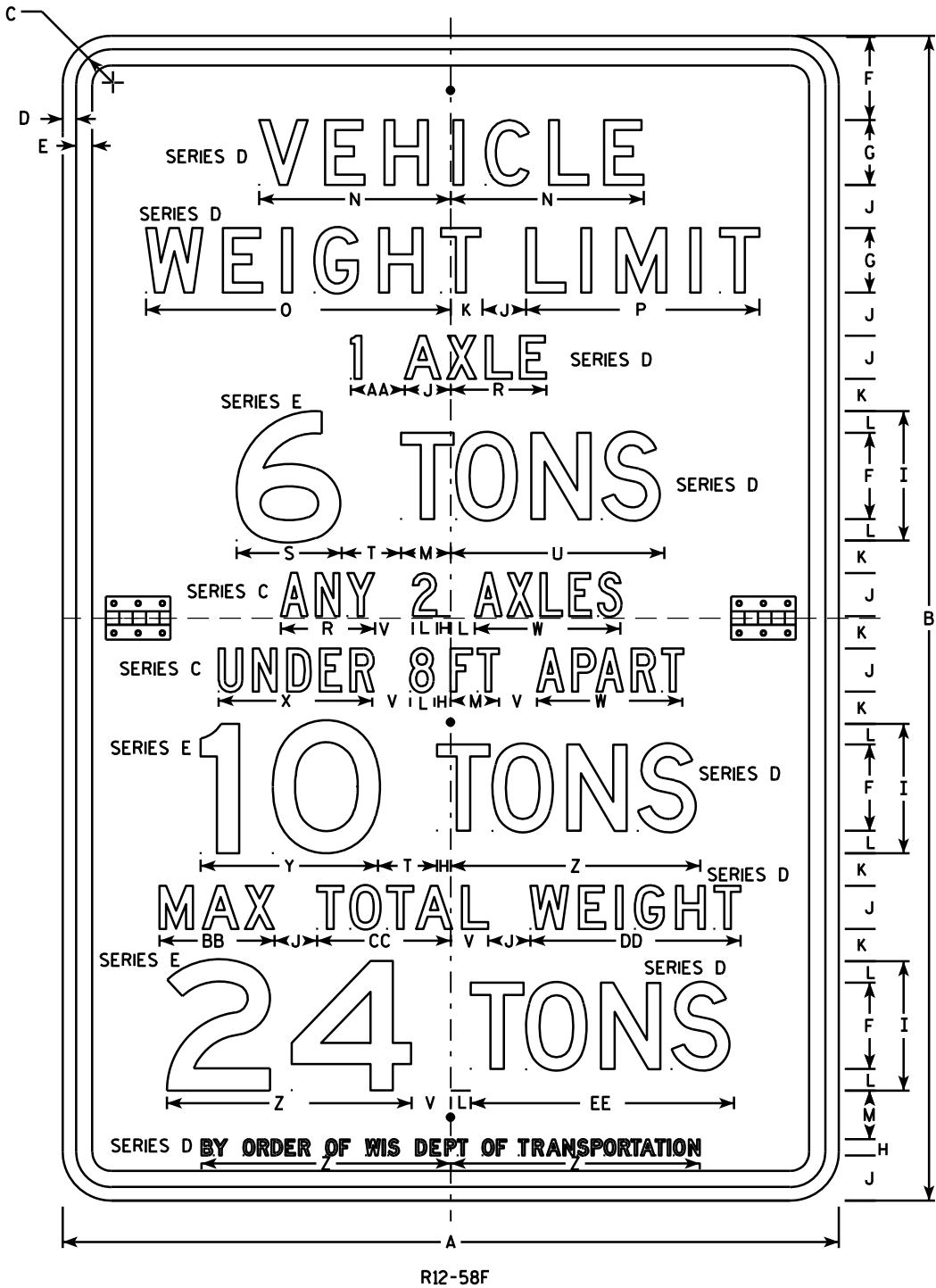
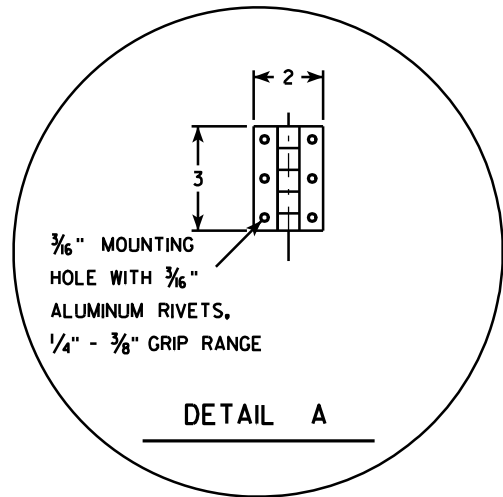
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

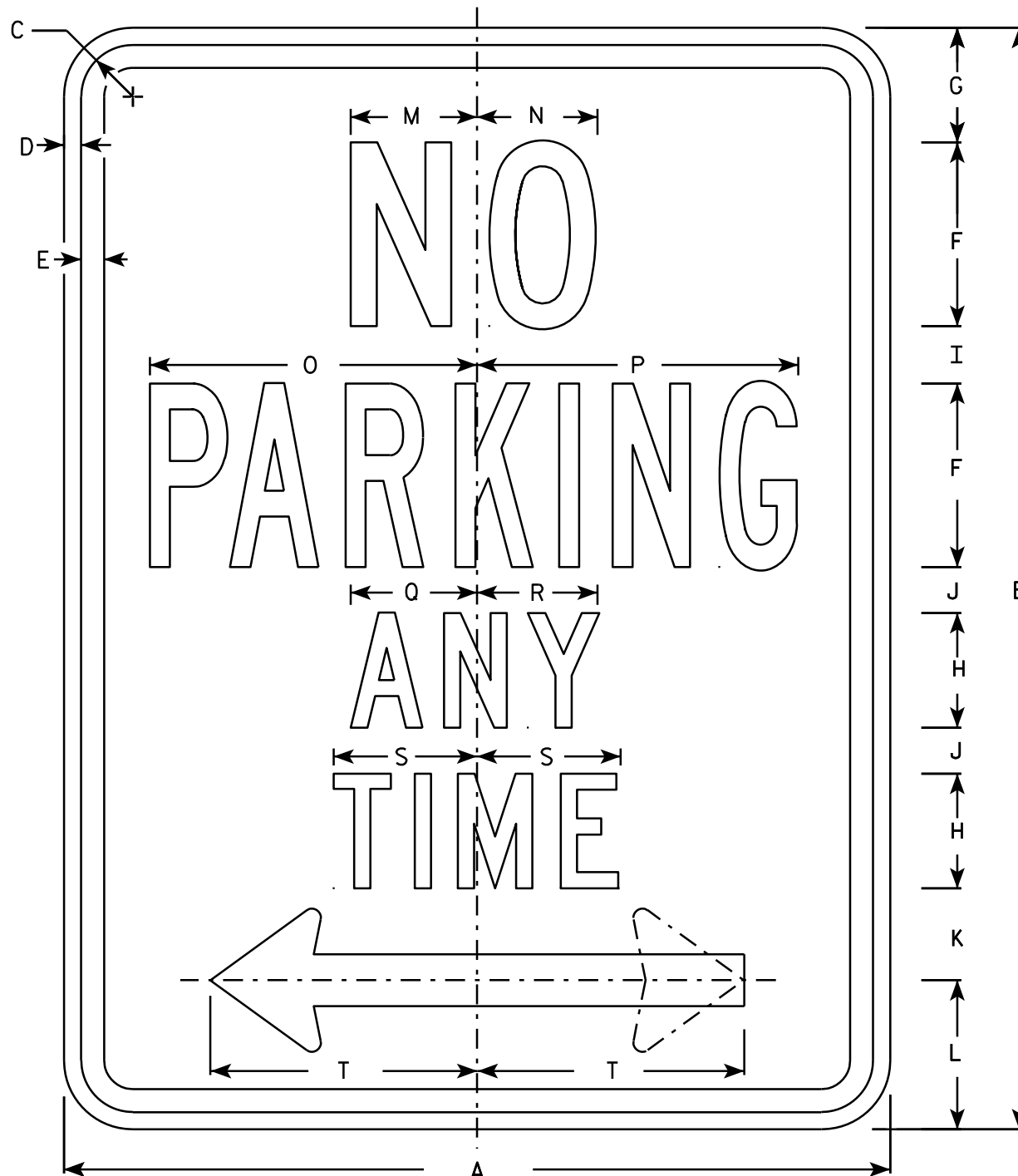
- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - WHITE
Message - BLACK
- Message Series - As noted
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Substitute appropriate numerals.
- Mounting Holes are 7/16"
Mounting Holes are centered horizontally
Top Mounting Hole is 2 1/2" from top
Middle Mounting Hole is 5" Down from the middle of sign
Bottom Mounting Hole is 4" from the bottom.

STANDARD SIGN
R12-58F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

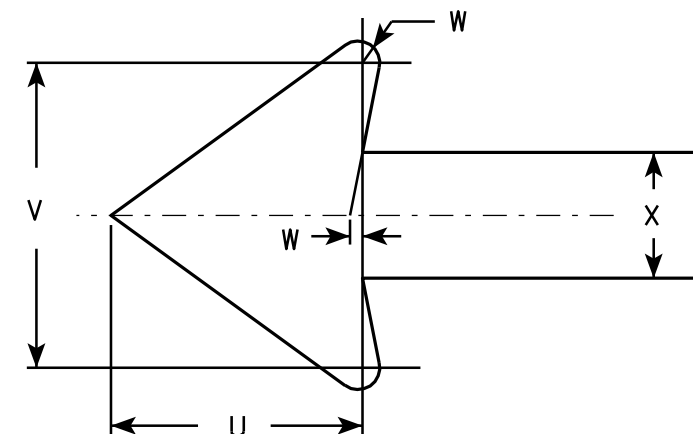
DATE 4/1/11 PLATE NO. R12-58F.2



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
R7-1L (left arrow)
R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: HWY: COUNTY: SHEET NO: E



R9-55

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series E.
Lines 2, 3 and 4 are Series C.

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

STANDARD SIGN R9-55

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/4/2011 PLATE NO. R9-55.6

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 - Background - YELLOW-GREEN
 - Message - BLACK except as noted
 - Circles except PEDS- RED BACKGROUND
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

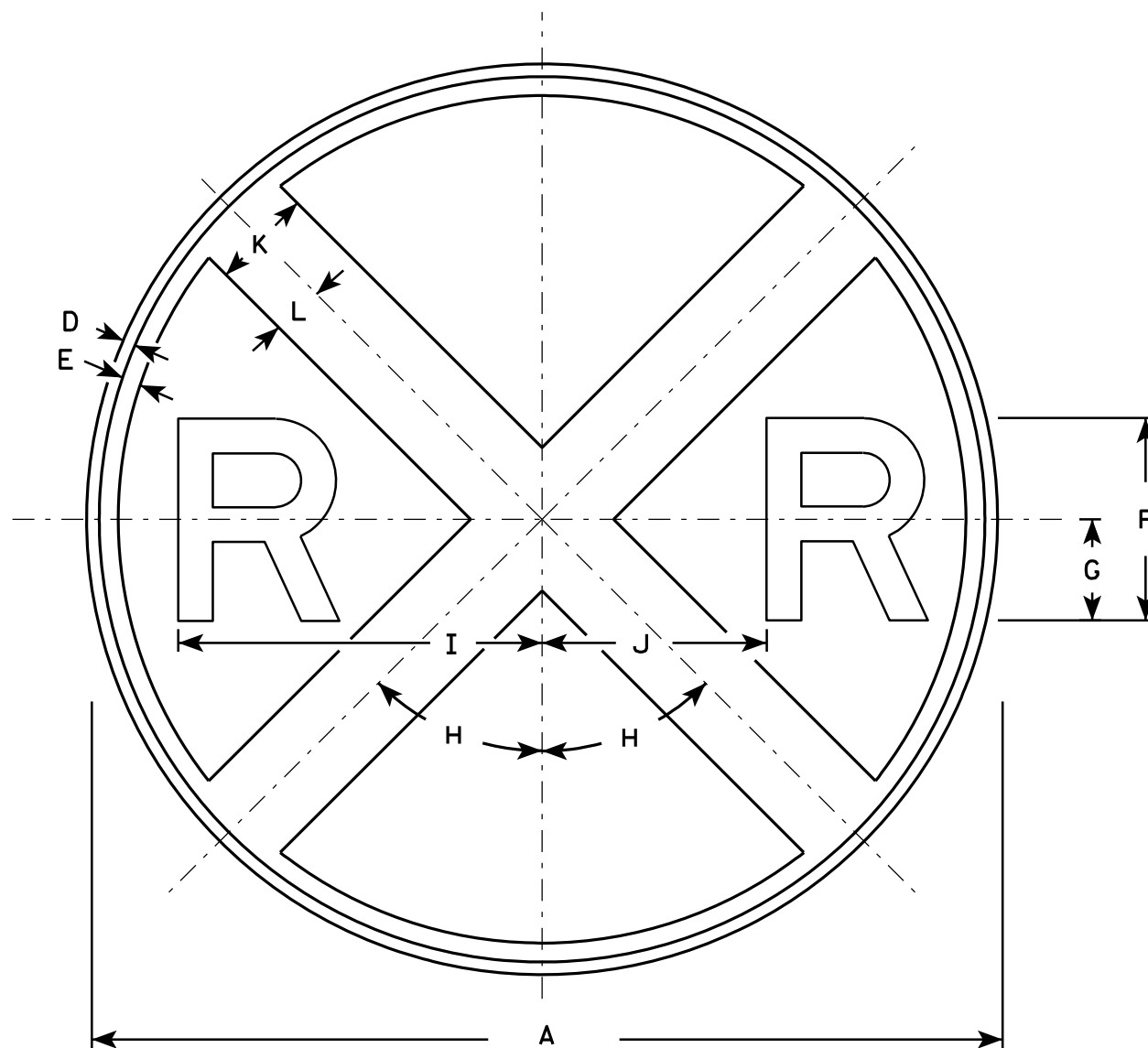


PROJECT NO:				SHEET NO:	E
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WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/8/10 PLATE NO. S3-16



W10-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30			$\frac{3}{8}$	$\frac{5}{8}$	7	3 1/2	45°	12 $\frac{3}{8}$	7 $\frac{1}{8}$	3	1 1/2															4.91
2S	36			$\frac{5}{8}$	$\frac{3}{4}$	8	4	45°	14 $\frac{3}{8}$	8 $\frac{5}{8}$	4	2															7.07
2M	36			$\frac{5}{8}$	$\frac{3}{4}$	8	4	45°	14 $\frac{3}{8}$	8 $\frac{5}{8}$	4	2															7.07
3																											
4	48			$\frac{3}{4}$	1 1/4	10	5	45°	18 $\frac{3}{8}$	11 $\frac{5}{8}$	5	2 1/2															12.5
5																											

STANDARD SIGN
W10-1

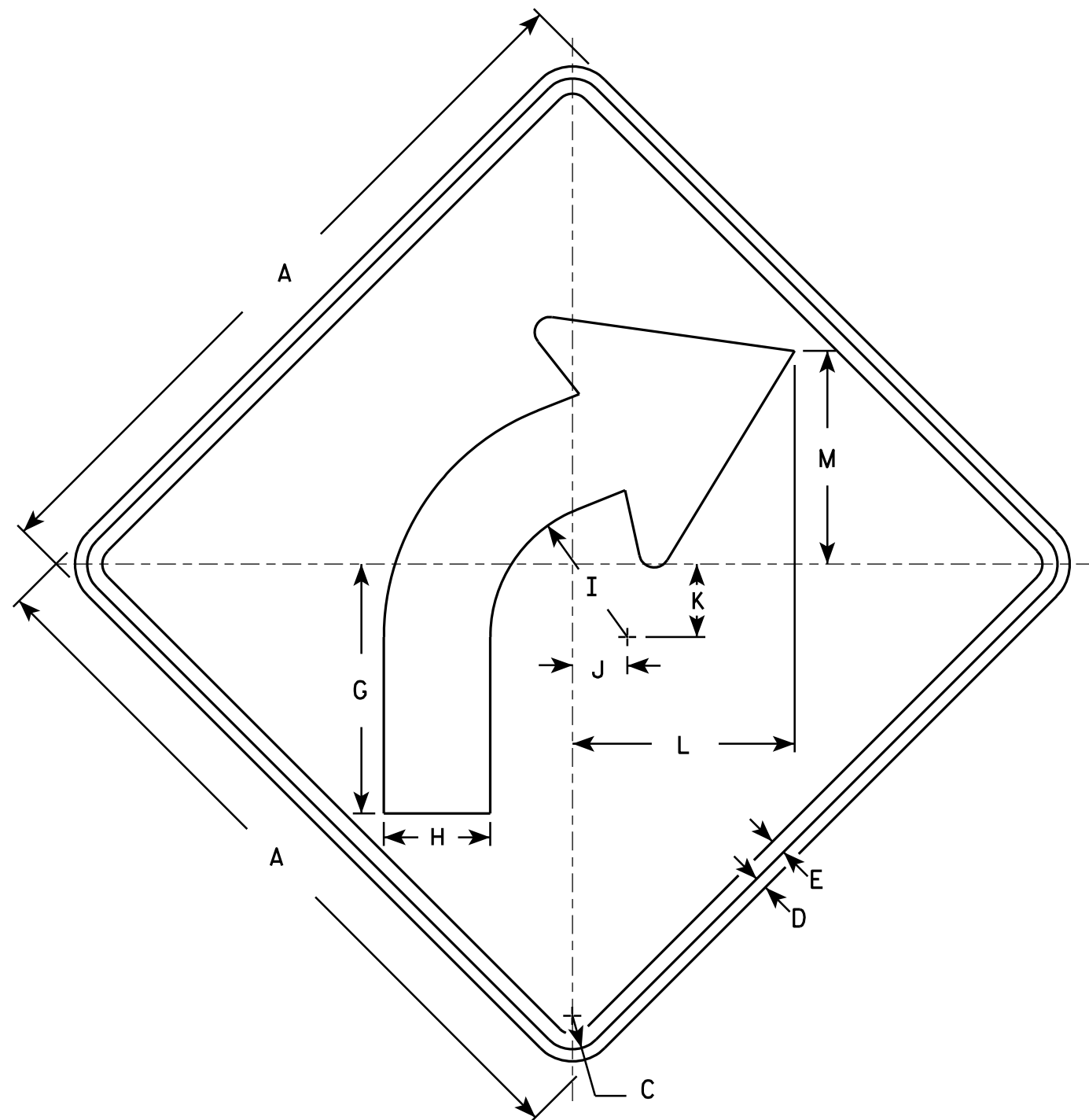
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/13/13 PLATE NO. W10-1.8

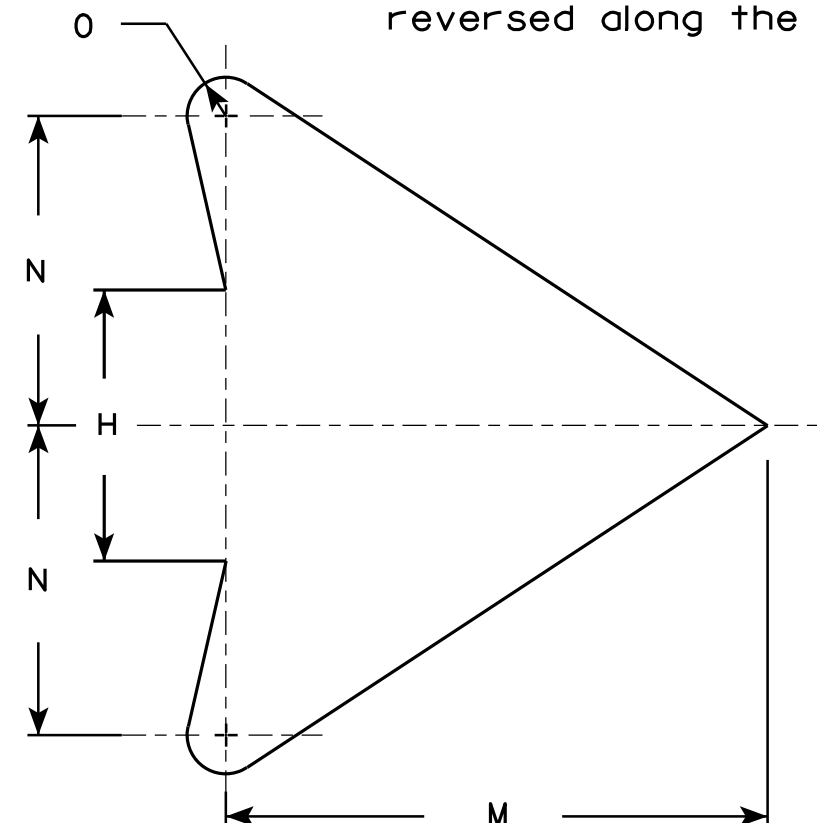
PROJECT NO: HWY: COUNTY: SHEET NO: E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

STANDARD SIGN W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

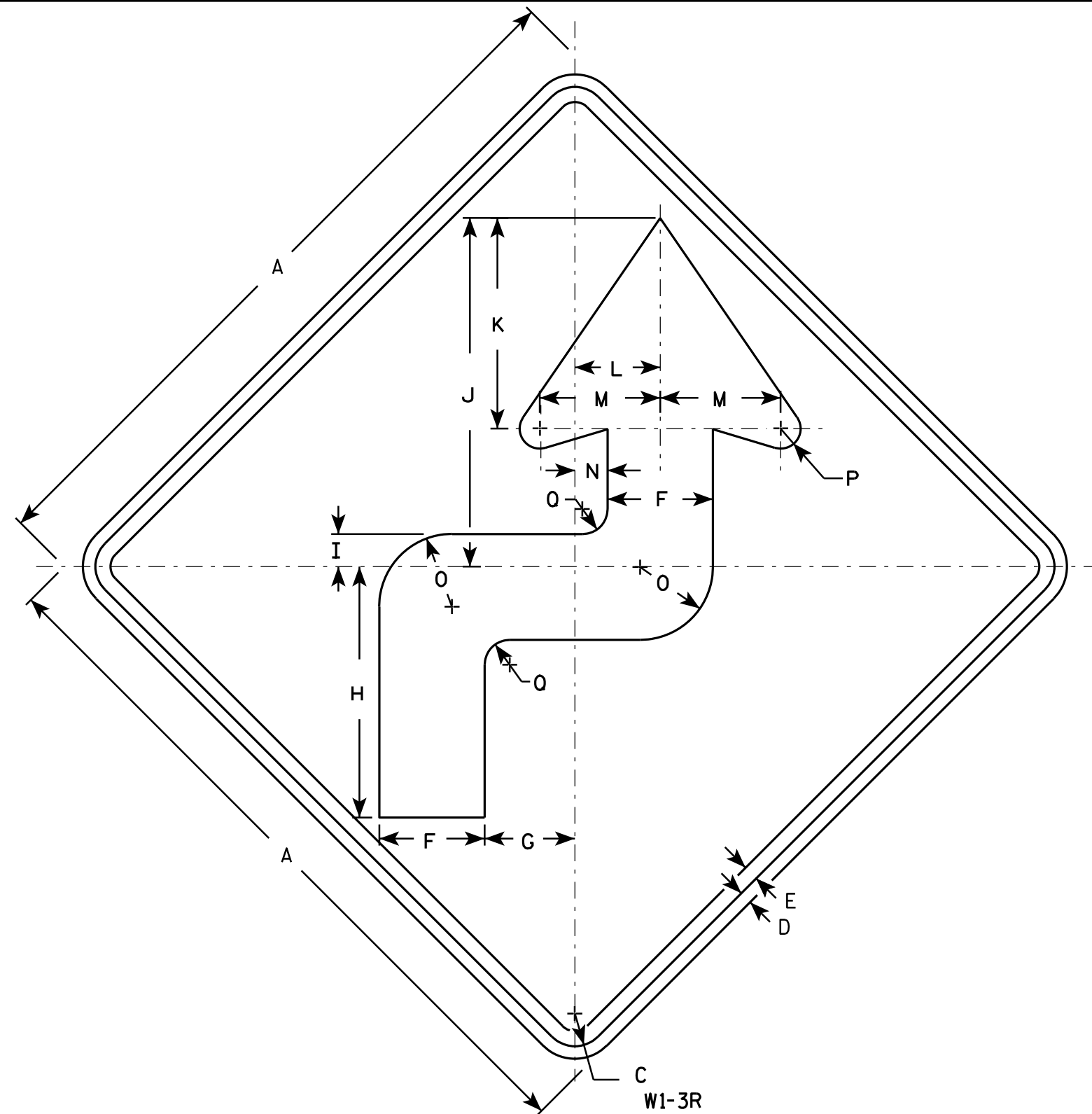
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-3L is the same as W1-3R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	3 1/2	3	8 3/8	1 1/8	11 5/8	7	2 3/4	4	1 1/8	2 1/2	5/8	7/8										4.0
2S	36		1 5/8	5/8	3/4	5 1/4	4 1/2	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
2M	36		1 5/8	5/8	3/4	5 1/4	4 1/2	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
3	36		1 5/8	5/8	3/4	5 1/4	4 1/2	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
4	36		1 5/8	5/8	3/4	5 1/4	6	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
5	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0

STANDARD SIGN W1-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 5/17/12 PLATE NO. W1-3.8

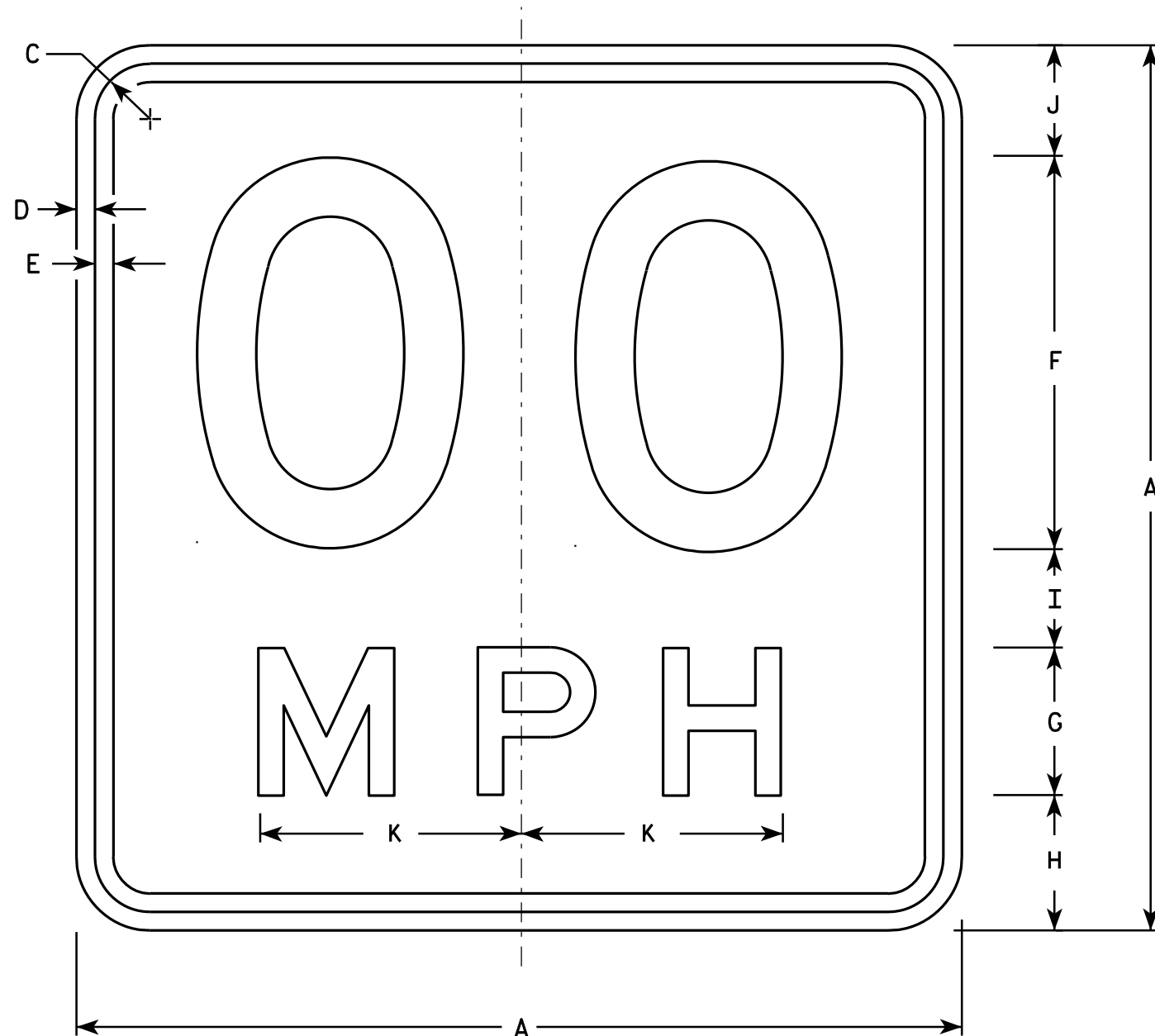
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

W13-1

- * For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area Sq. Ft.
1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO:

HWY:

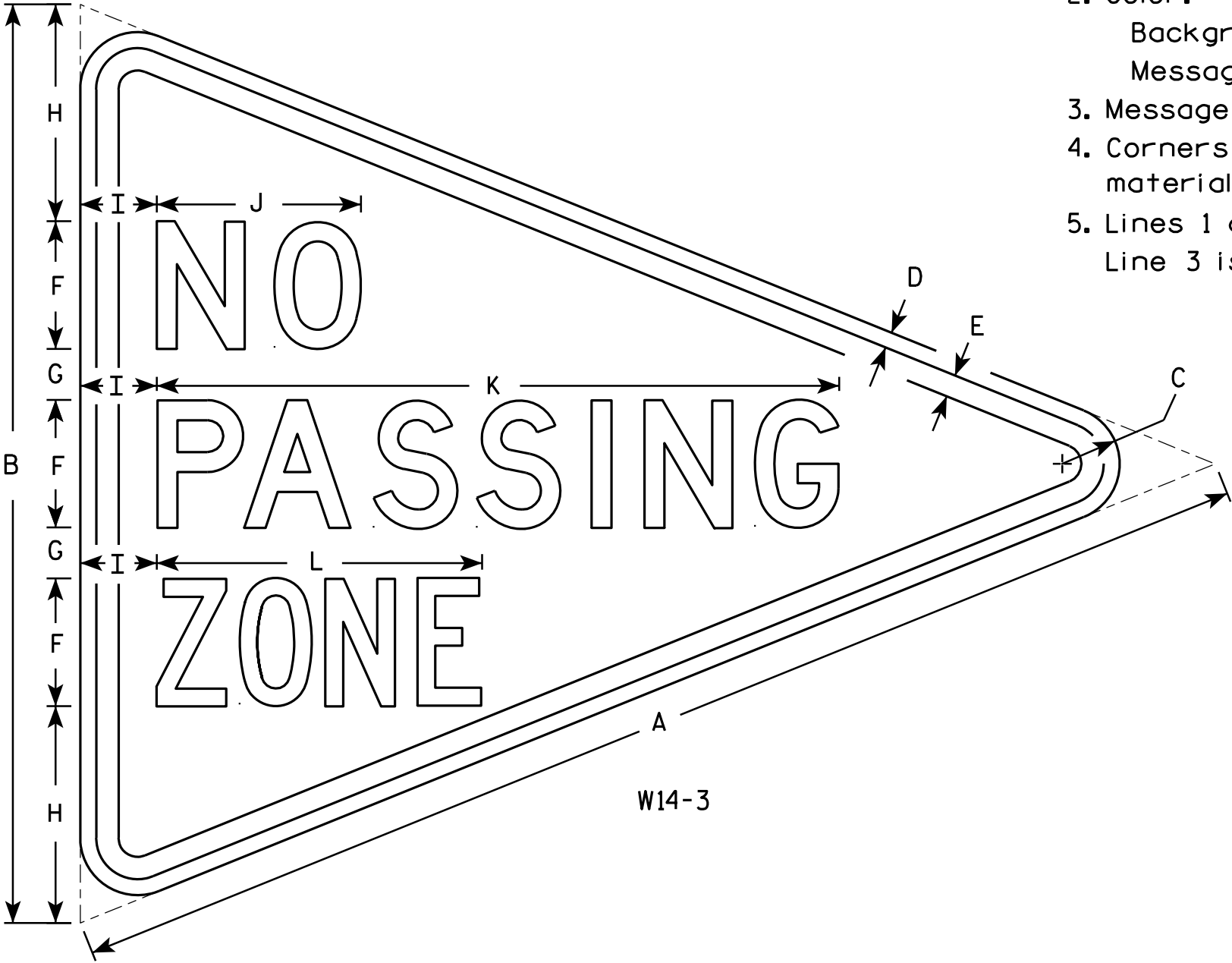
COUNTY:

SHEET NO:

E

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - See note 5
- 4. Corners and borders shall be rounded on all base materials for this sign.
- 5. Lines 1 and 2 are Series D.
Line 3 is series C.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

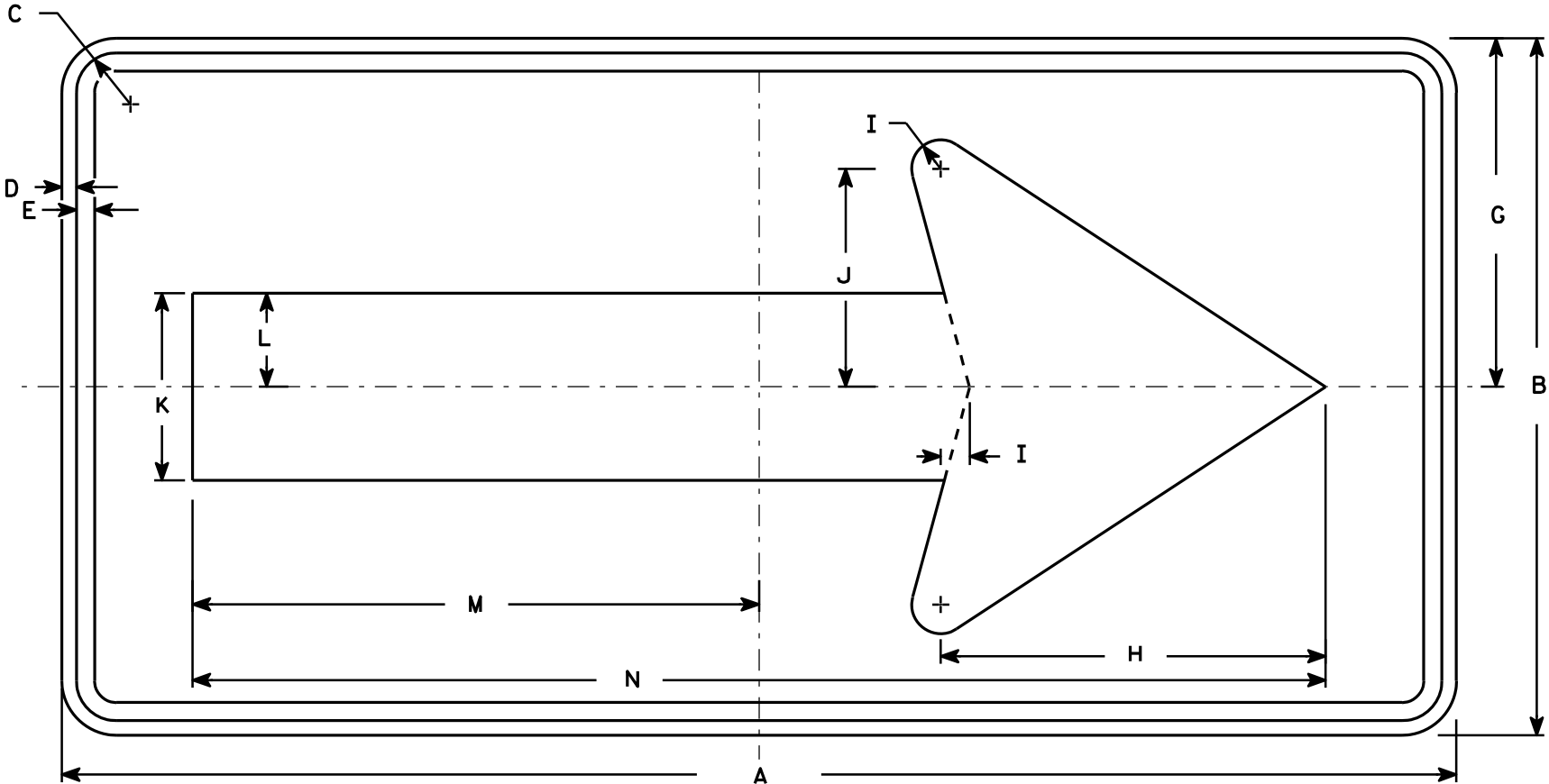
DATE 6/7/10 PLATE NO. W14-3.9

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:

Background - Yellow

Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



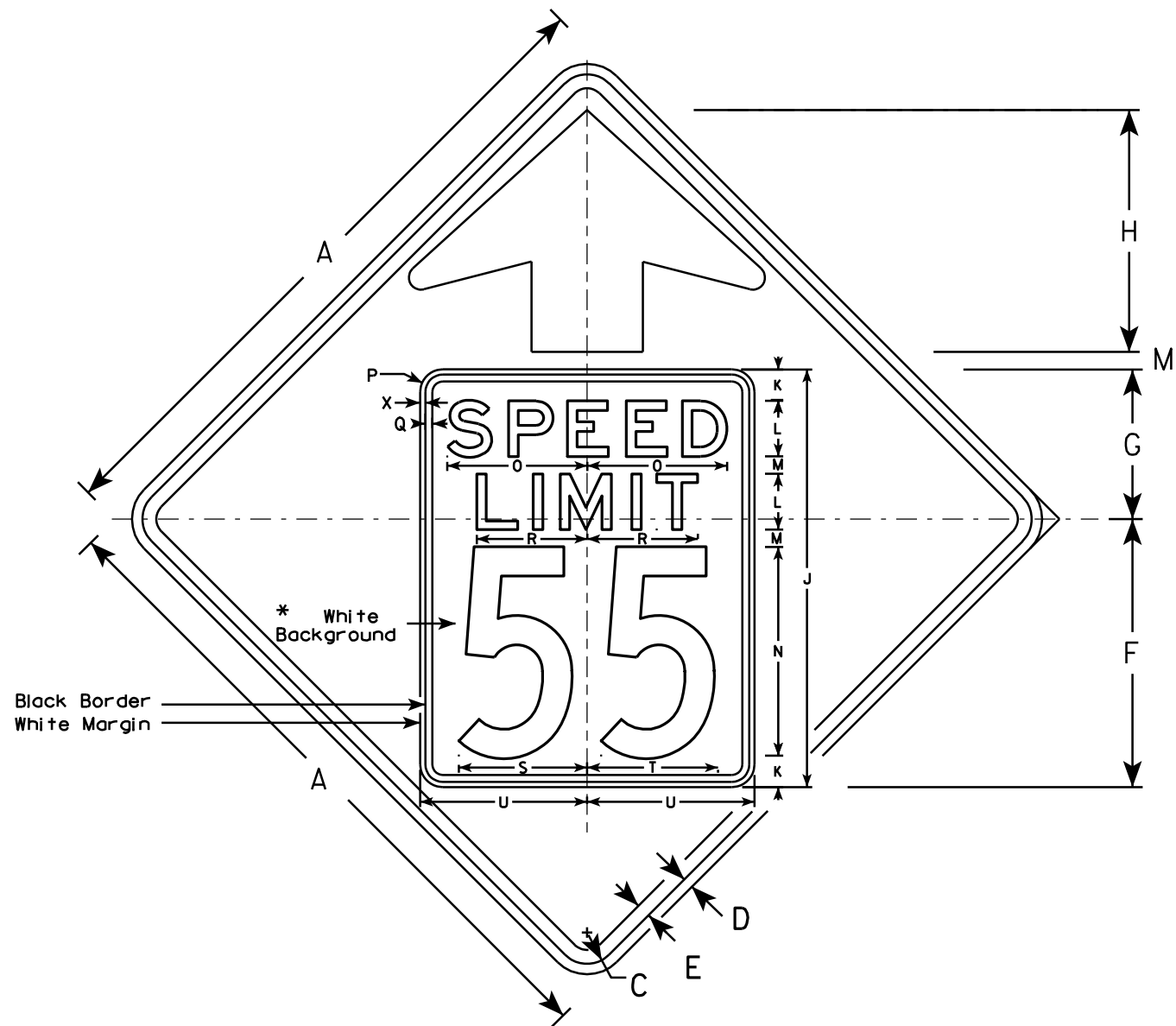
W1-6

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W1-6.8

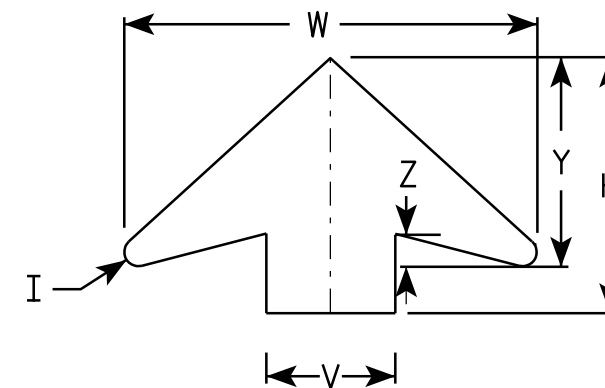


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
Background - YELLOW*
Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
2M	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
3	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
4	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0
5	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0

STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

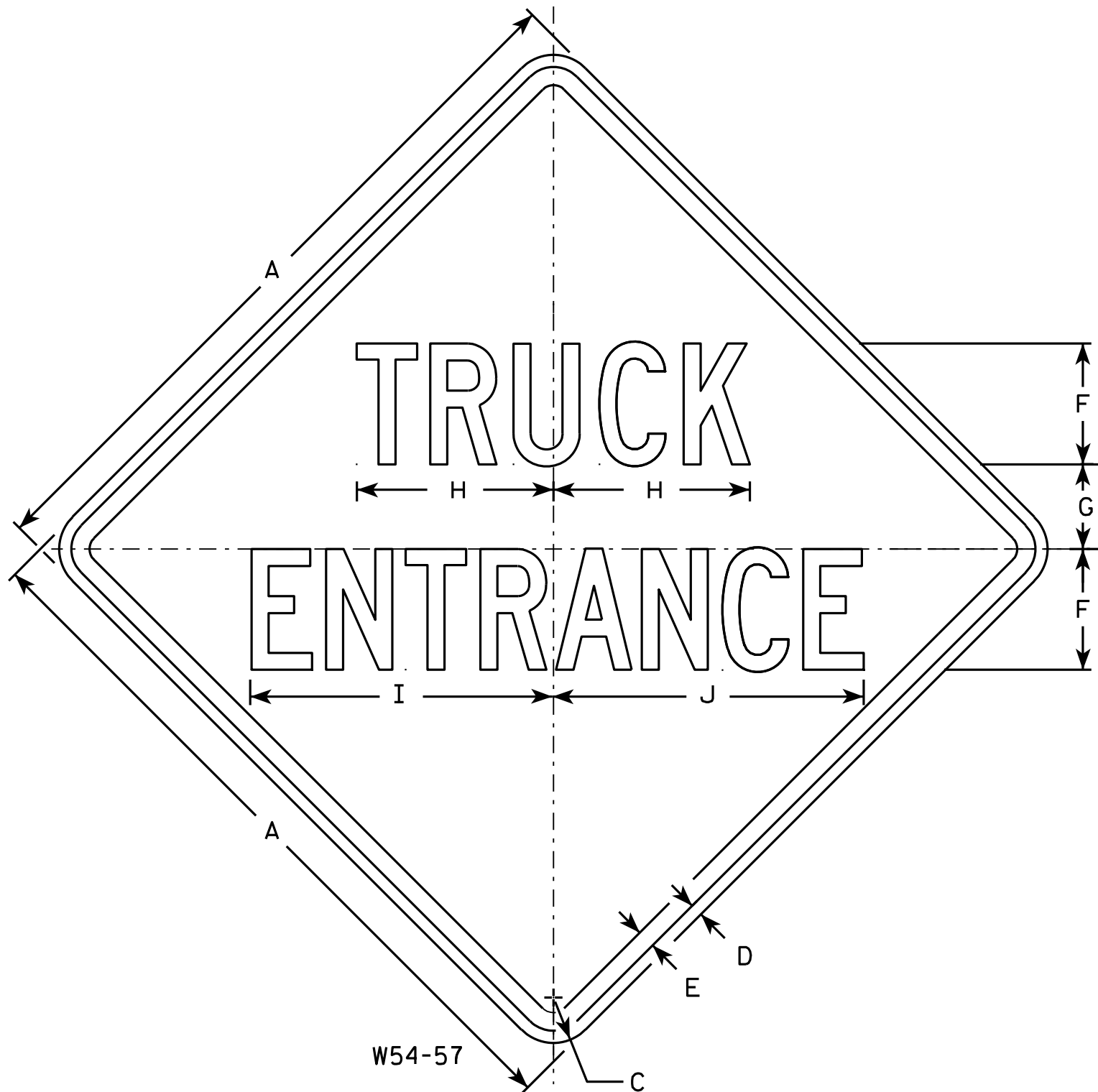
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO:

E



NOTES

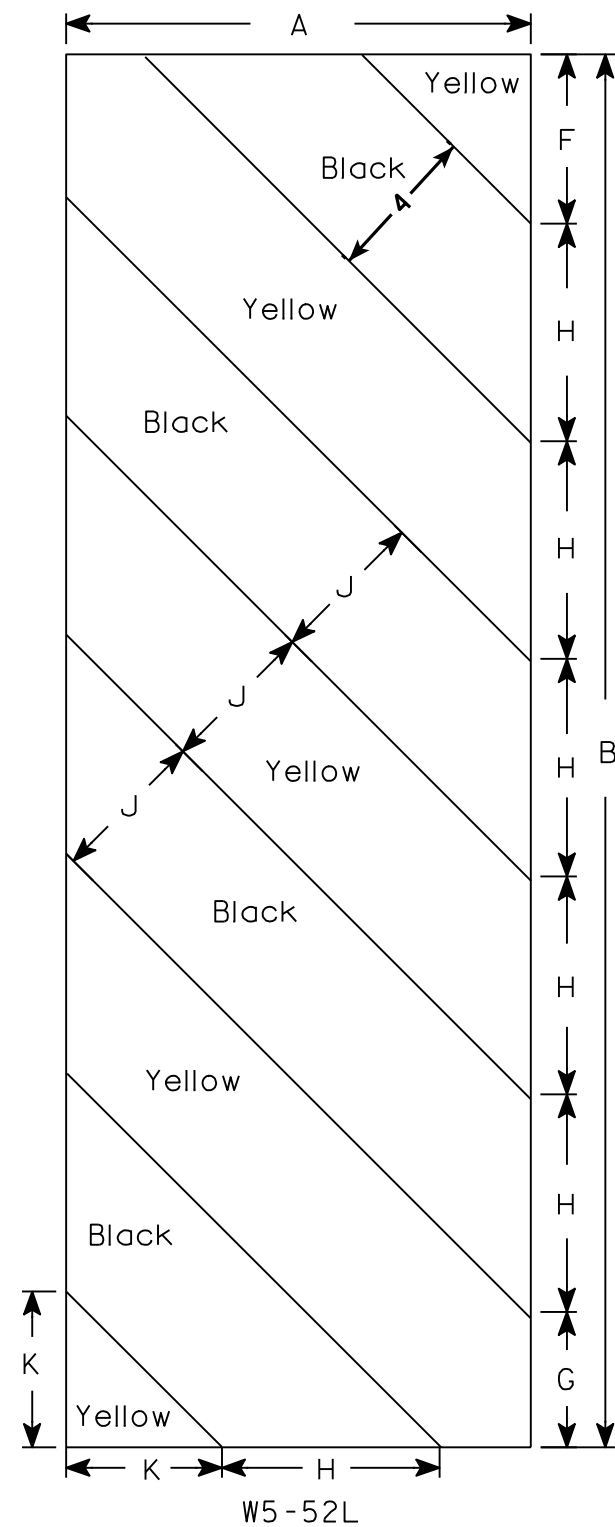
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 3/8	1/2	5/8	5	3 1/2	8 1/8	12 1/2	12 7/8																	6.25
2M	36		1 5/8	5/8	3/4	6	4 1/4	9 5/8	15	15 3/8																	9.00
3	36		1 5/8	5/8	3/4	6	4 1/4	9 5/8	15	15 3/8																	9.00
4																											
5																											

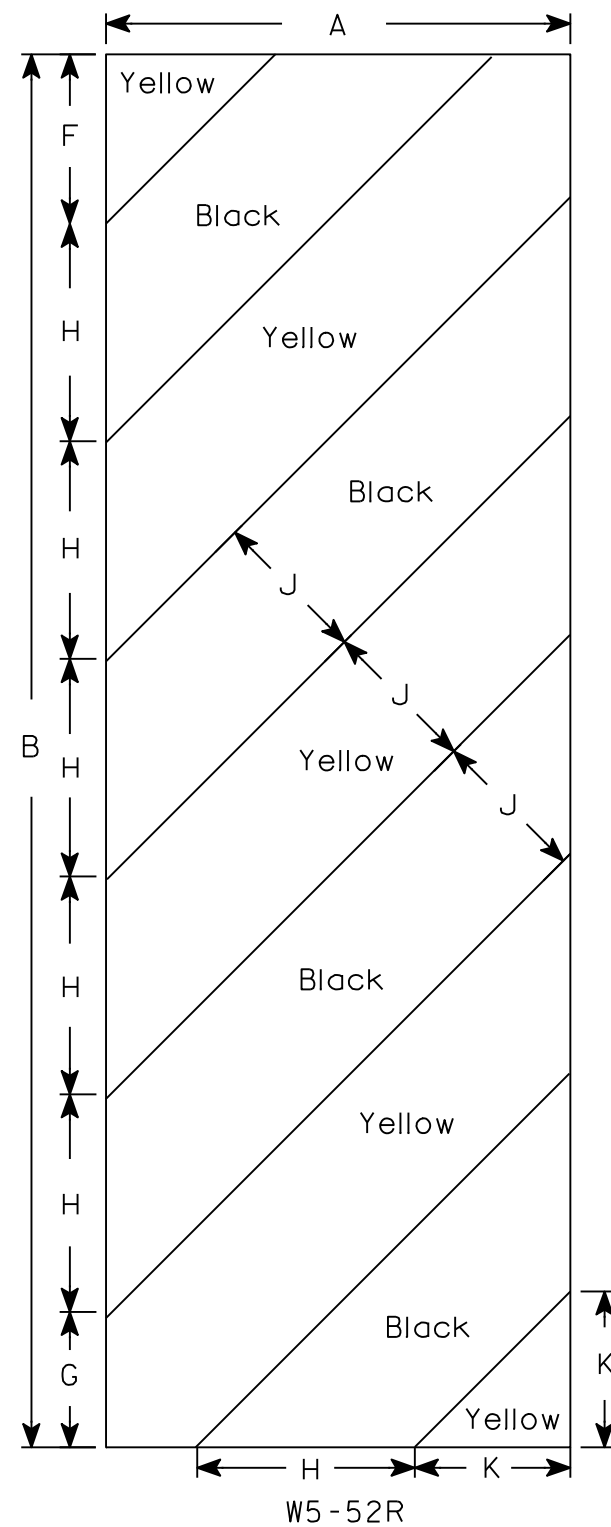
STANDARD SIGN W54-57

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/13/13 PLATE NO. W54-57.9

PROJECT NO: HWY: COUNTY: SHEET NO: E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

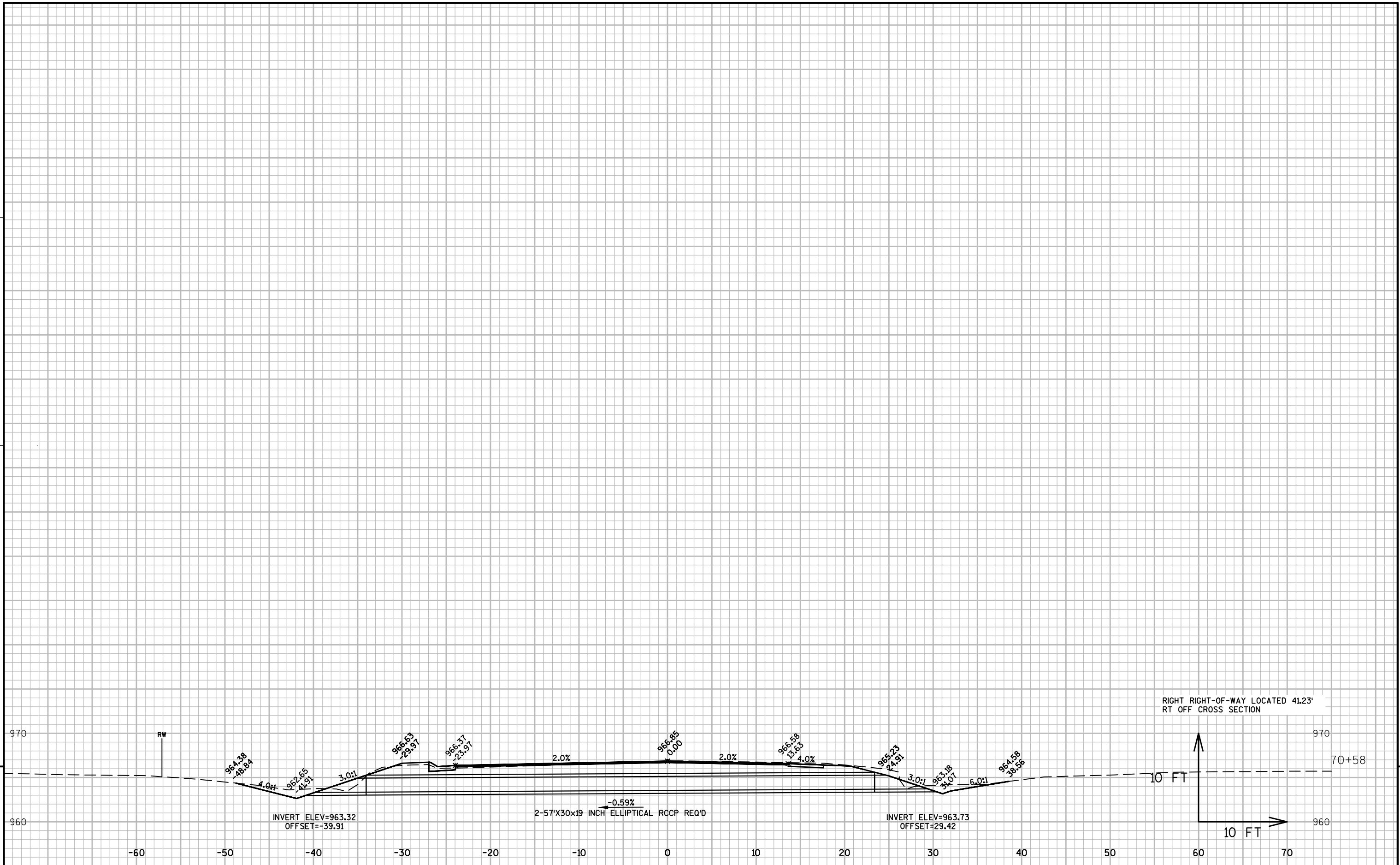
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
2M	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
3	18	54				6	5 1⁄2	8 1⁄2	45°	6	6 5⁄6																6.75
4																											
5																											

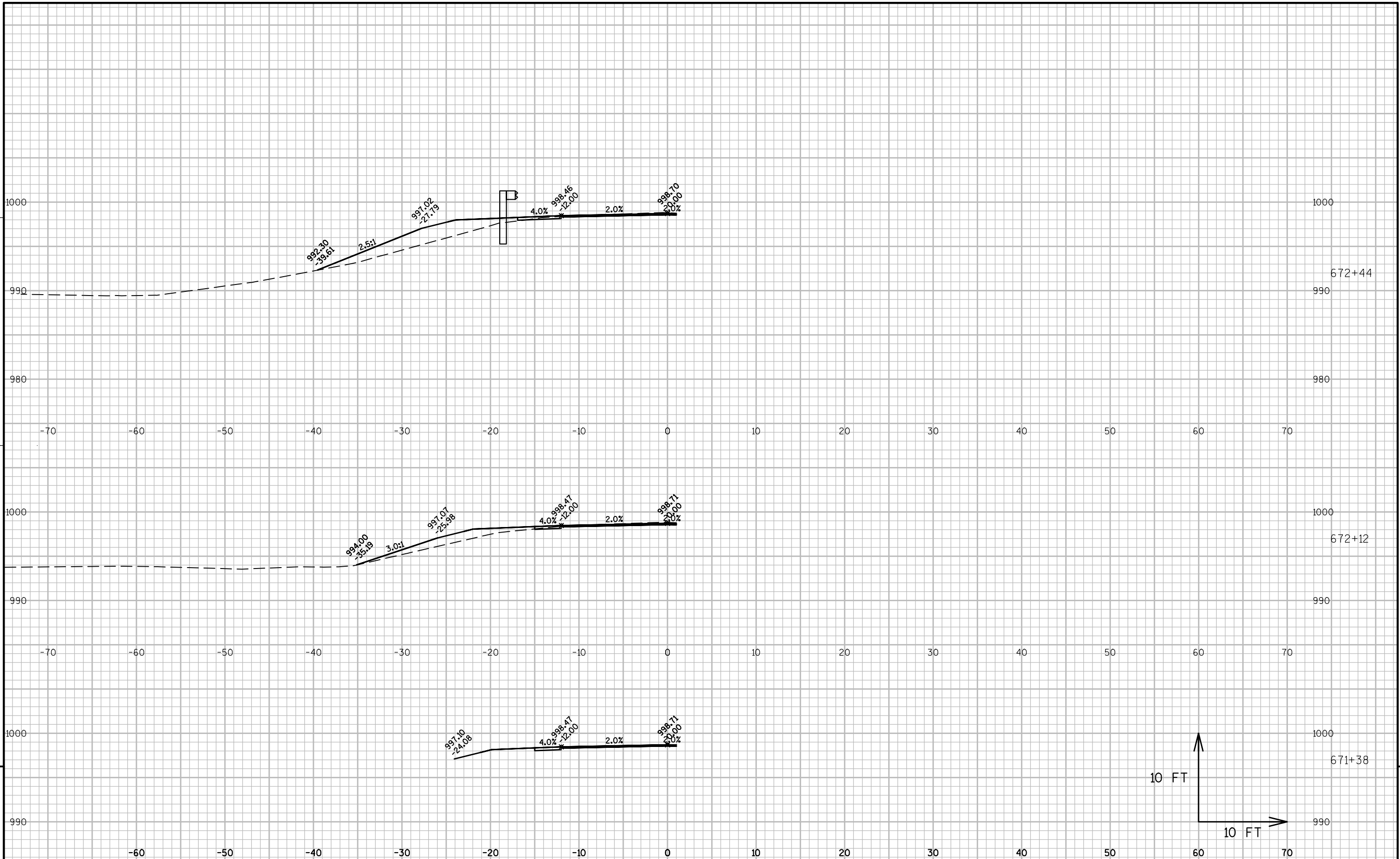
STANDARD SIGN
W5-52L & W5-52R

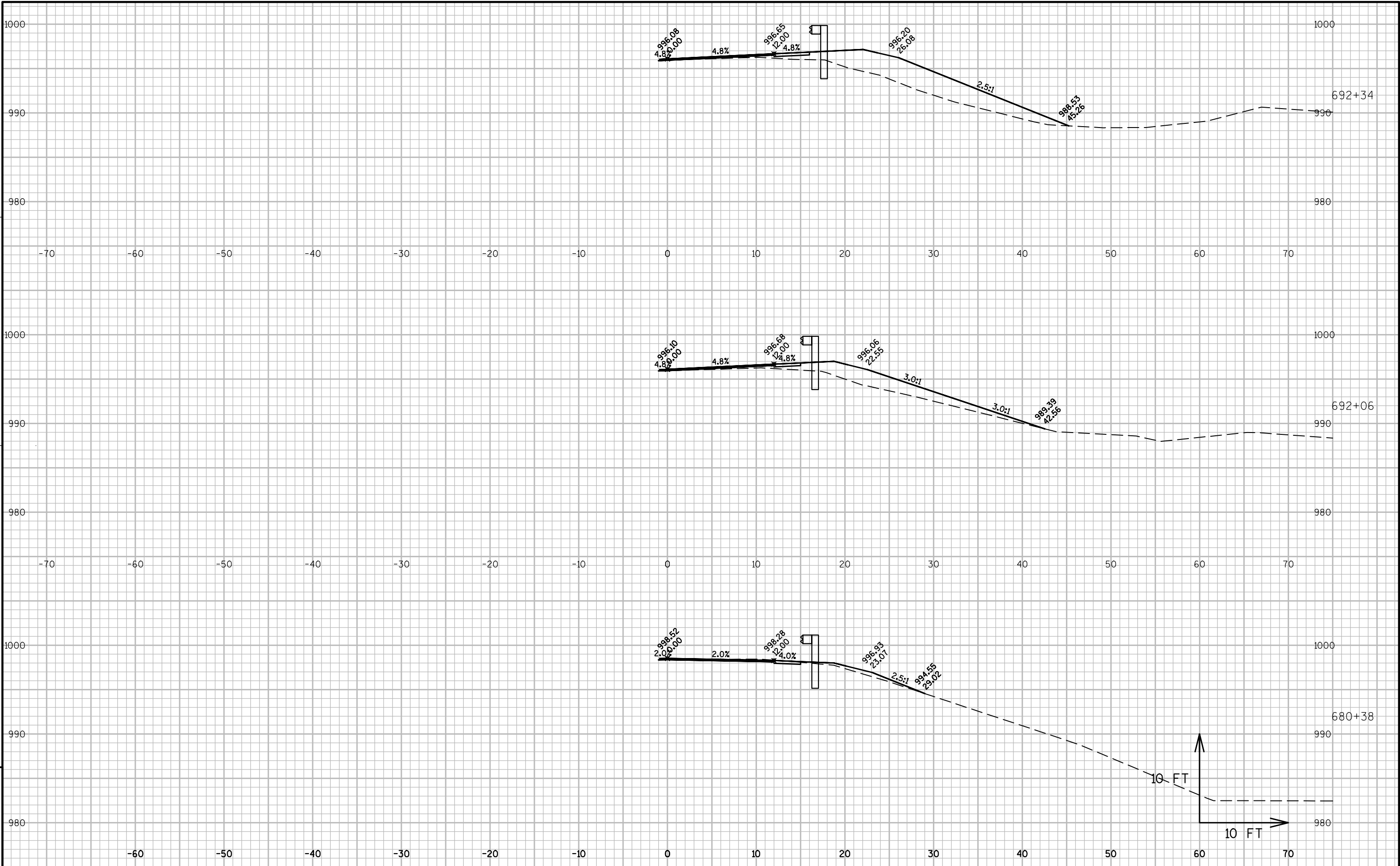
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9







PROJECT NO: 7513-00-81

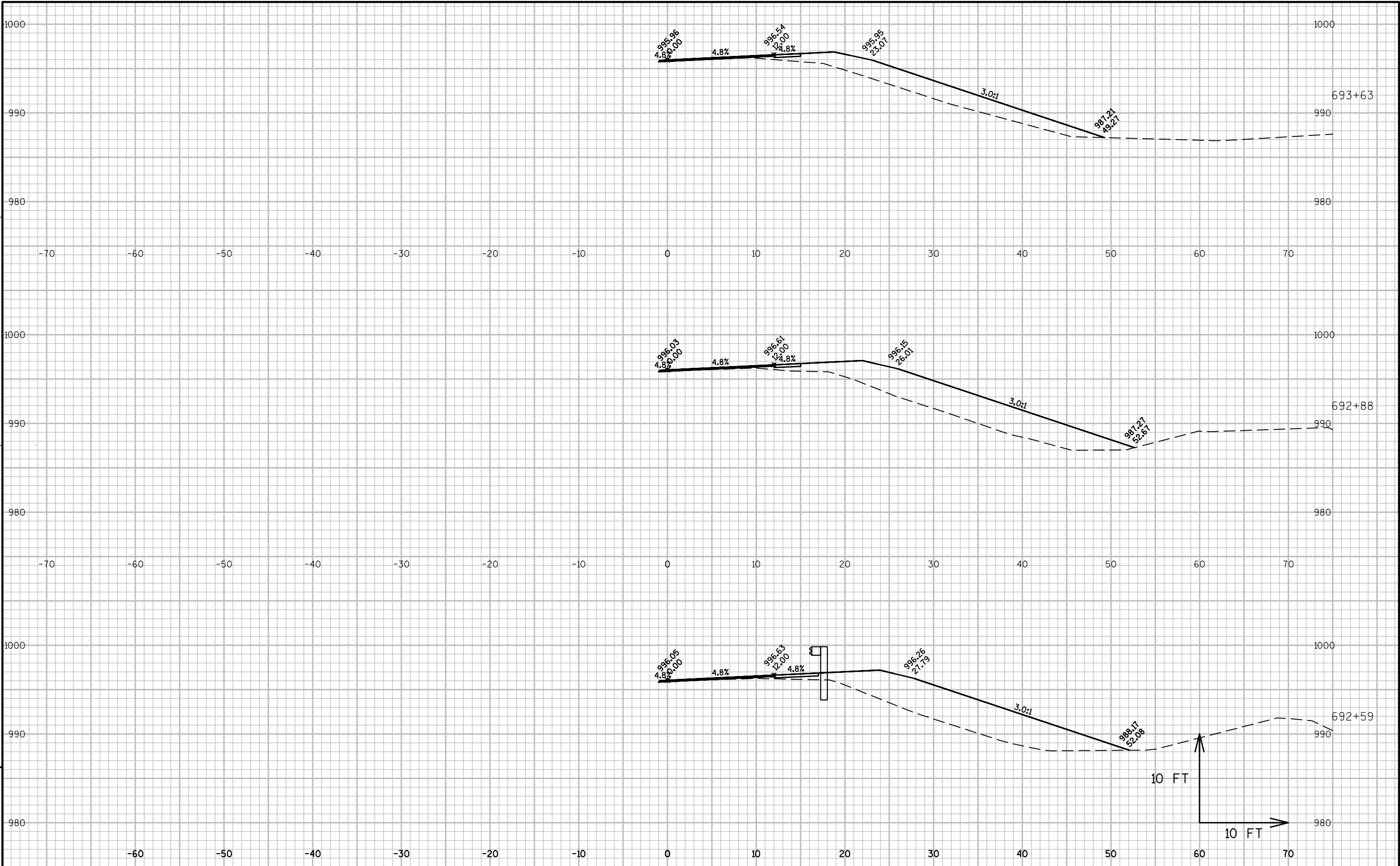
HWY: STH 54

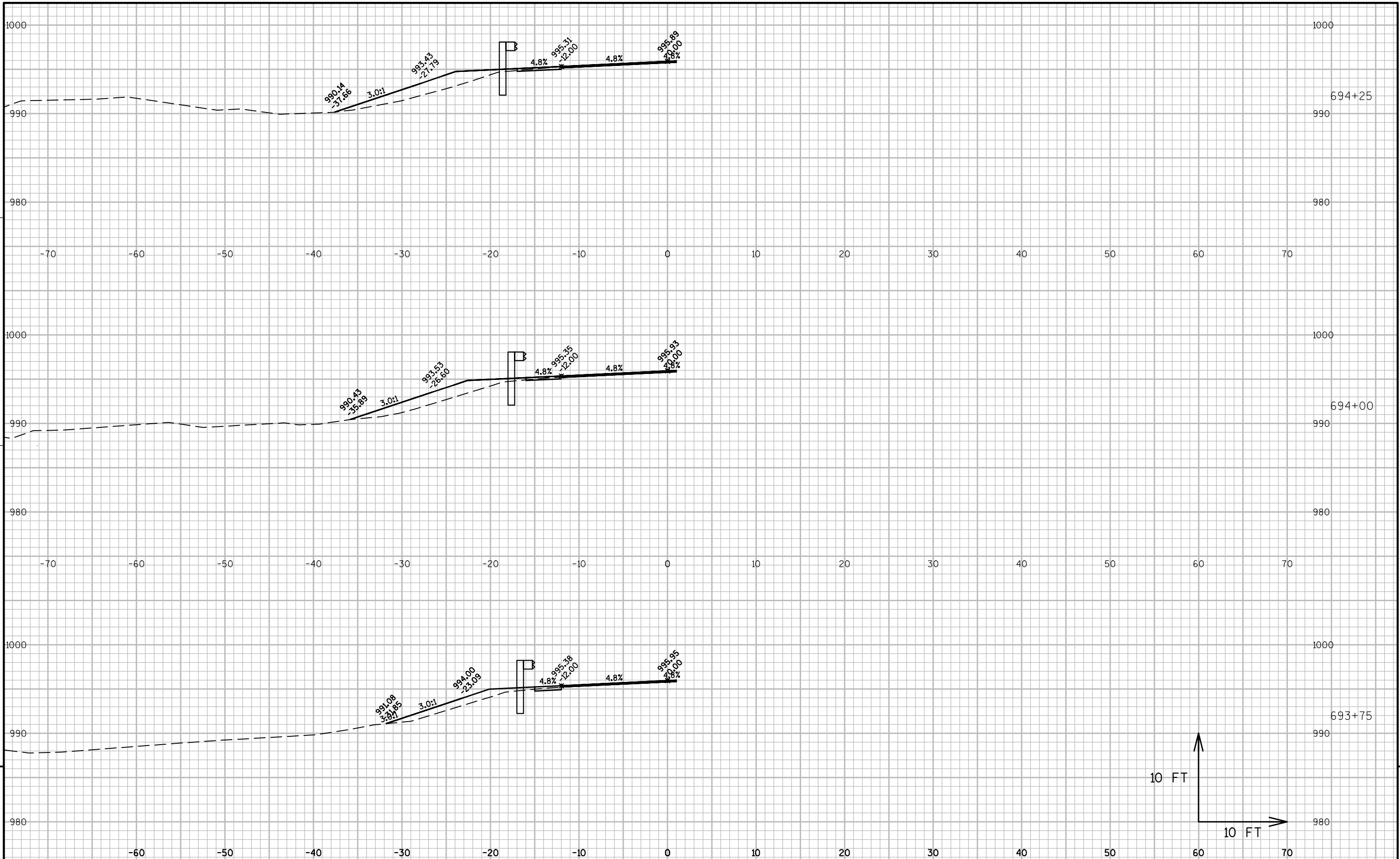
COUNTY: WOOD

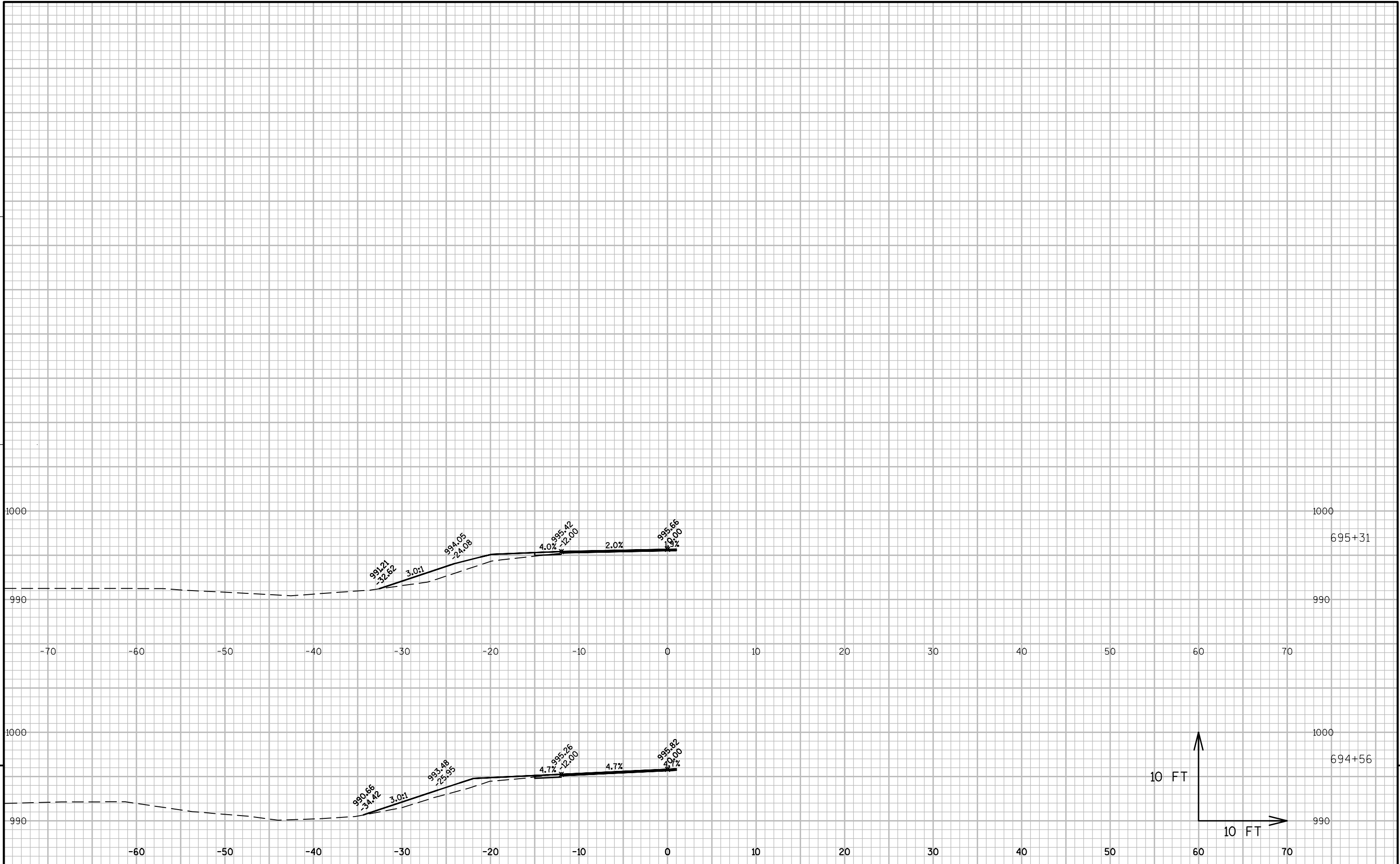
CROSS SECTIONS: BEAM GUARD GRADING REFERENCE

SHEET

E







Notes



Wisconsin Department of Transportation

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<http://www.dot.wisconsin.gov>