

WIS

SEP 2013

ORDER OF SHEETS

Section No.	1	Title Sheet
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	5	Plan and Profile (Includes Erosion Control)
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	9	Cross Sections

TOTAL SHEETS = 114

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
WISCONSIN DELLS - ENDEAVOR
ADAMS COUNTY LINE TO I39
STH 23
MARQUETTE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6566-00-61		

STATE PROJECT NUMBER
6566-00-61

R-8-E

R-9-E

END PROJECT
ID 6566-00-61
STA 548+50.00

T-14-N



PROJECT LOCATION

DESIGN DESIGNATION

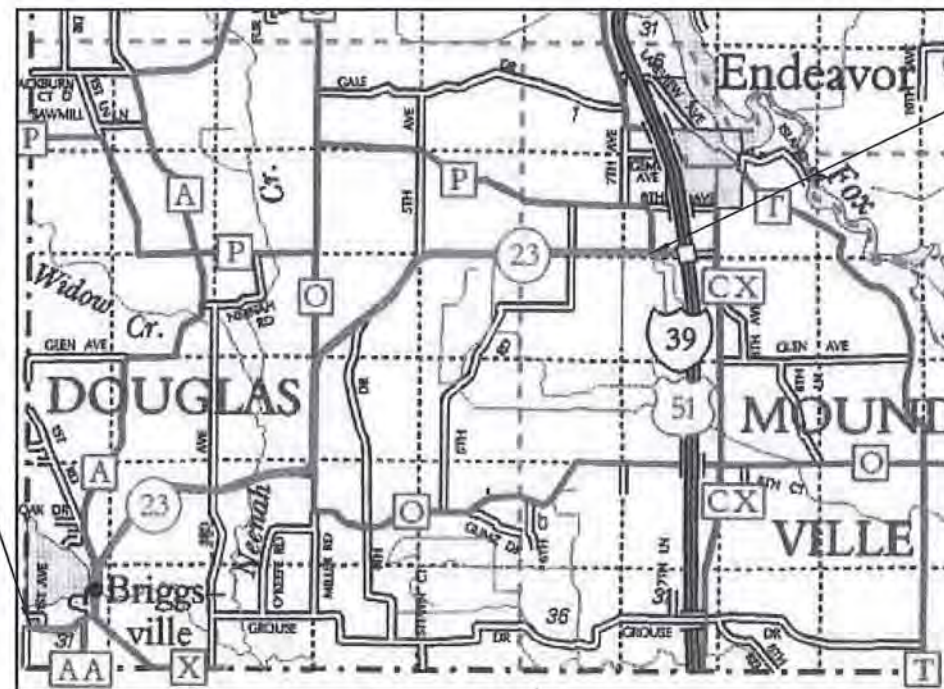
A.A.D.T. (2013)	=	2400
A.A.D.T. (2033)	=	3300
D.H.V. (2033)	=	426
D.D.	=	61/39
T.	=	11.3%
DESIGN SPEED	=	55 MPH
ESALS	=	540,200

BEGIN PROJECT
ID 6566-00-61
STA 100+50.00
Y = 202155.235
X = 400319.315

CONVENTIONAL SYMBOLS

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

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



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 8.48 MI.

Elevations on the plan are referenced to the NAVD 88 datum
Coordinates on this plan are referenced to the Wisconsin County
Coordinate System (WCCS), Marquette County

ORIGINAL PLANS PREPARED BY



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	BURSE SURVEYING AND ENGINEERING
Surveyor	
Designer	SRF CONSULTING GROUP, INC.
Project Manager	KEVIN GARRIGAN
Regional Examiner	CHERYL SIMON
Regional Supervisor	MICHAEL KRETSCHMER

APPROVED FOR THE DEPARTMENT

DATE: 04/19/2013
(Signature)

E

GENERAL NOTES

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT 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

WISCONSIN DNR
2984 SHAWANO AVENUE
PO BOX 10448
GREEN BAY WI, 54307-0448
PHONE: (920) 787-4686
ATTN: BOBBY JO FISCHER
EMAIL: BOBBY.FISCHER@WISCONSIN.GOV

UTILITY CONTACTS

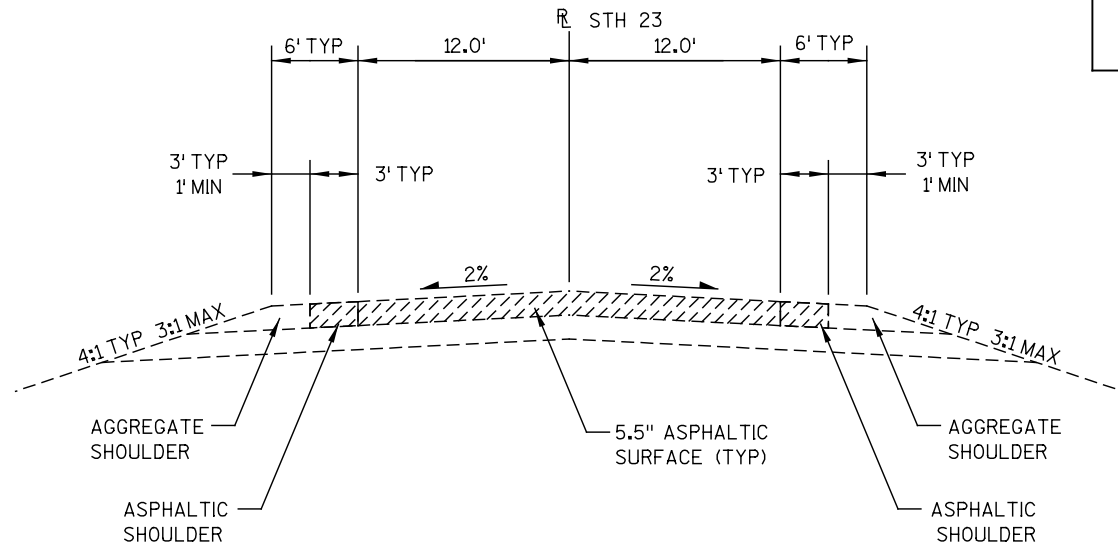
ADAMS-COLUMBIA ELECTRIC COOPERATIVE
(ELECTRICITY)
W6290 HWY 33
PARDEEVILLE, WI 53954
PHONE: (800) 831-8629 EXT. 333
ATTN: ED NEVAR
EMAIL: ENEVAR@ACECWI.COM

ALLIANT ENERGY
(ELECTRICITY/GAS/PETROLEUM)
2777 COLUMBIA DRIVE
PORTAGE, WI 53901
PHONE: (608) 742-0801
ATTN: MATTHEW JOHNSON
EMAIL: MATTHEWJOHNSON@ALLIANTENERGY.COM

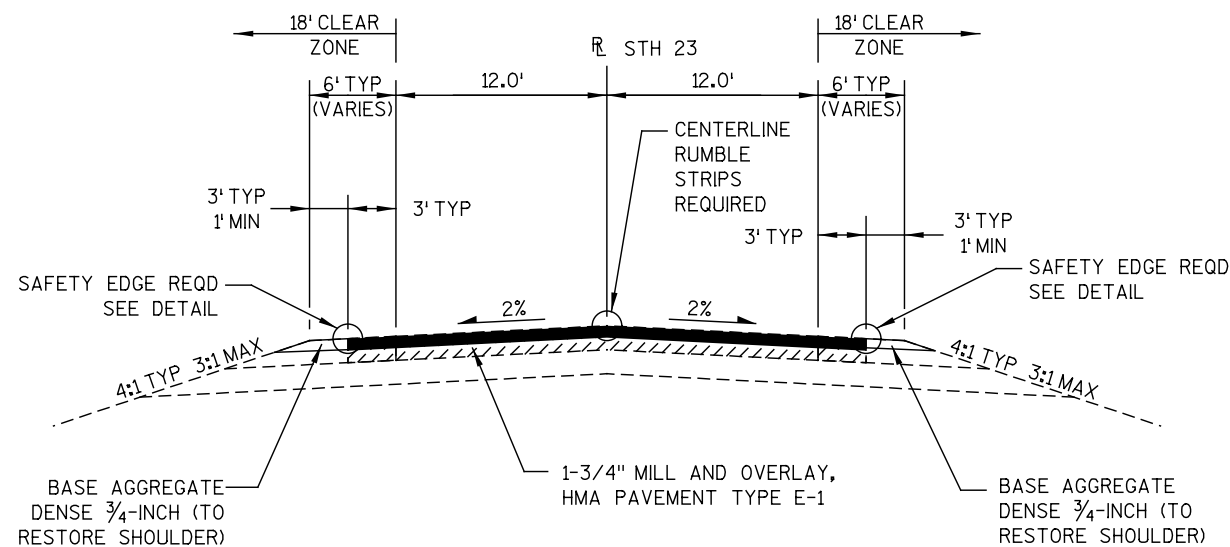
FRONTIER COMMUNICATIONS OF WI LLC
(COMMUNICATION LINE)
118 DIVISION STREET
PLYMOUTH, WI 53073
PHONE: 608.837.1881
ATTN: JERRY MOORE
EMAIL: JERALD.R.MOORE@FTR.COM



Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

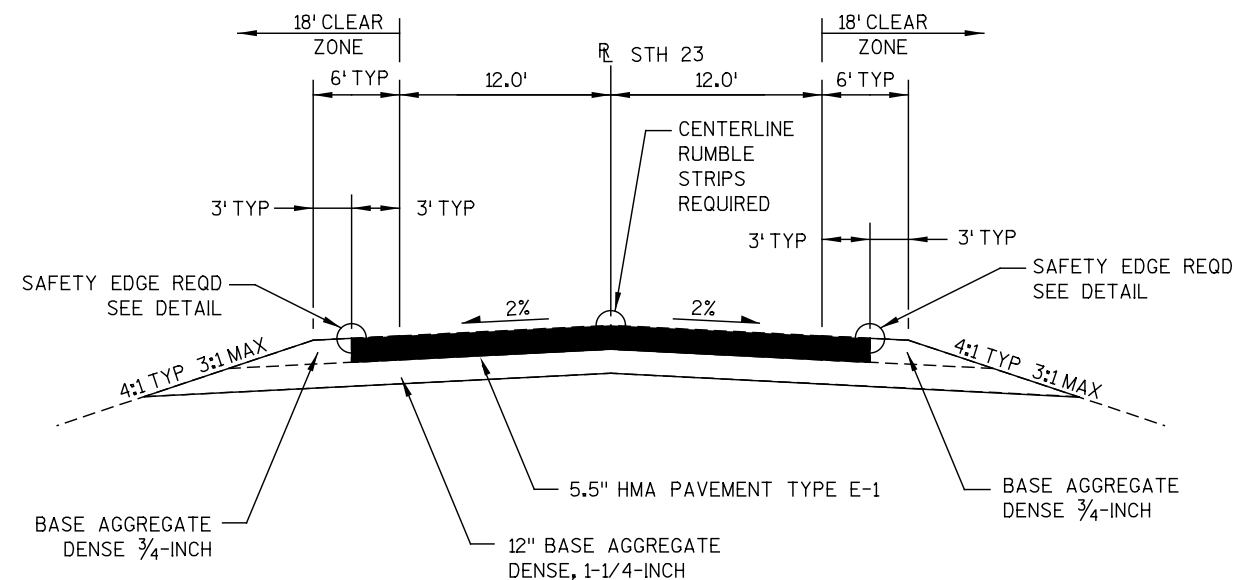


TYPICAL EXISTING SECTION
STH 23



TYPICAL FINISHED SECTION
STH 23

STA 100+50 TO 258+67
STA 259+81 TO 469+70
STA 469+90 TO 525+55
STA 525+75 TO 533+50
STA 533+70 TO 548+50



TYPICAL FINISHED SECTION
STH 23 - CULVERT CROSSINGS

STA 469+70 TO 469+90
STA 525+55 TO 525+75
STA 533+50 TO 533+70

NAME STH23-1
PISTA 121+01.58
X = 402,356.433
Y = 201,912.105
DELTA = 43° 00' 25" (LT)
D = 9° 59' 57"
T = 225.75
L = 430.10
R = 573.00
PC STA 118+75.83
X = 402,132.274
Y = 201,938.859
PT STA 123+05.93
X = 402,538.603
Y = 202,045.437
DB = S 83° 11' 38" E
DA = N 53° 47' 57" E
SE = 5.2%

NAME STH23-2
PISTA 131+24.97
X = 403,199.535
Y = 202,529.181
DELTA = 12° 41' 00" (RT)
D = 4° 00' 00"
T = 317.08
L = 159.19
R = 1,432.40
PC STA 129+65.78
X = 403,071.074
Y = 202,435.159
PT STA 132+82.87
X = 403,345.505
Y = 202,592.704
DB = N 53° 47' 57" E
DA = N 66° 28' 57" E
SE = 6.0%

NAME STH23-3
PISTA 138+15.51
X = 403,833.904
Y = 202,805.243
DELTA = 66° 32' 55" (LT)
D = 16° 16' 38"
T = 230.99
L = 408.85
R = 352.00
PC STA 135+84.51
X = 403,622.096
Y = 202,713.069
PT STA 139+93.36
X = 403,833.637
Y = 203,036.237
DB = N 66° 28' 57" E
DA = N 0° 03' 58" W
SE = 6.3%

NAME STH23-4
PISTA 148+06.64
X = 403,832.699
Y = 203,849.521
DELTA = 16° 24' 39" (RT)
D = 5° 43' 46"
T = 144.20
L = 286.42
R = 1,000.00
PC STA 146+62.44
X = 403,832.865
Y = 203,705.321
PT STA 149+48.86
X = 403,873.279
Y = 203,987.892
DB = N 0° 03' 58" W
DA = N 16° 20' 41" E
SE = 4.0%

NAME STH23-5
PISTA 153+13.43
X = 403,975.873
Y = 204,337.720
DELTA = 17° 26' 27" (LT)
D = 7° 54' 10"
T = 111.20
L = 220.69
R = 725.00
PC STA 152+02.22
X = 403,944.578
Y = 204,231.010
PT STA 154+22.91
X = 403,973.746
Y = 204,448.905
DB = N 16° 20' 41" E
DA = N 1° 05' 45" W
SE = 3.0%

NAME STH23-6
PISTA 162+32.49
X = 403,958.261
Y = 205,258.339
DELTA = 36° 23' 57" (RT)
D = 5° 59' 58"
T = 313.98
L = 606.70
R = 955.00
PC STA 159+18.51
X = 403,964.266
Y = 204,944.417
PT STA 165+25.21
X = 404,139.711
Y = 205,514.580
DB = N 1° 05' 45" W
DA = N 35° 18' 11" E
SE = 5.0%

NAME STH23-7
PISTA 192+14.09
X = 405,693.625
Y = 207,708.992
DELTA = 9° 32' 00" (RT)
D = 1° 59' 59"
T = 238.90
L = 476.70
R = 818.60
PC STA 189+75.19
X = 405,555.561
Y = 207,514.021
PT STA 194+51.89
X = 405,862.072
Y = 207,878.403
DB = N 35° 18' 11" E
DA = N 44° 50' 12" E
SE = 3.0%

NAME STH23-8
PISTA 214+89.96
X = 407,299.083
Y = 209,323.635
DELTA = 49° 40' 57" (RT)
D = 6° 59' 57"
T = 644.61
L = 709.83
R = 2,865.00
PC STA 211+10.99
X = 407,031.882
Y = 209,054.905
PT STA 218+20.82
X = 407,676.867
Y = 209,293.776
DB = N 44° 50' 12" E
DA = S 85° 28' 51" E
SE = 8.0%

NAME STH23-9
PISTA 244+89.15
X = 410,307.989
Y = 209,085.821
DELTA = 25° 21' 37" (LT)
D = 1° 59' 59"
T = 644.61
L = 1,268.10
R = 818.60
PC STA 238+15.54
X = 409,665.384
Y = 209,136.610
PT STA 250+83.64
X = 410,910.422
Y = 209,315.158
DB = S 85° 28' 51" E
DA = N 69° 09' 32" E
SE = 3.0%

NAME STH23-10
PISTA 269+30.55
X = 412,636.486
Y = 209,972.245
DELTA = 18° 35' 10" (RT)
D = 2° 29' 59"
T = 375.05
L = 743.50
R = 2,292.00
PC STA 265+55.50
X = 412,285.979
Y = 209,838.812
PT STA 272+99.00
X = 413,011.242
Y = 209,987.001
DB = N 69° 09' 32" E
DA = N 87° 44' 42" E
SE = 4.0%

NAME STH23-11
PISTA 285+70.16
X = 414,281.417
Y = 210,037.015
DELTA = 4° 48' 45" (LT)
D = 3° 26' 11"
T = 70.06
L = 140.04
R = 1,667.30
PC STA 285+00.10
X = 414,211.408
Y = 210,034.258
PT STA 286+40.14
X = 414,350.947
Y = 210,045.635
DB = N 87° 44' 42" E
DA = N 82° 55' 57" E
SE = 5.0%

NAME STH23-12
PISTA 292+92.24
X = 414,998.094
Y = 210,125.867
DELTA = 77° 03' 17" (LT)
D = 6° 59' 45"
T = 652.10
L = 1,101.44
R = 819.00
PC STA 286+40.14
X = 414,350.947
Y = 210,045.635
PT STA 297+41.58
X = 415,064.874
Y = 210,774.540
DB = N 82° 55' 57" E
DA = N 5° 52' 40" E
SE = 8.0%

NAME STH23-13
PISTA 298+11.62
X = 415,072.047
Y = 210,844.213
DELTA = 4° 53' 57" (LT)
D = 3° 29' 58"
T = 70.04
L = 140.00
R = 1,637.30
PC STA 297+41.58
X = 415,064.874
Y = 210,774.540
PT STA 298+81.58
X = 415,073.244
Y = 210,914.245
DB = N 5° 52' 40" E
DA = N 0° 58' 44" E
SE = 5.0%

NAME STH23-14
PISTA 348+06.28
X = 415,157.366
Y = 215,838.224
DELTA = 49° 16' 00" (RT)
D = 4° 29' 59"
T = 583.86
L = 1,094.87
R = 1,273.30
PC STA 342+22.42
X = 415,147.393
Y = 215,254.451
PT STA 353+17.29
X = 415,606.232
Y = 216,211.602
DB = N 0° 58' 44" E
DA = N 50° 14' 44" E
SE = 6.5%

ADVANCE WARNING SIGNS REQUIRED AT EACH INTERSECTION WITH STH 23
SEE TRAFFIC CONTROL, ADVANCED WARNING SIGNS 45 MPH OR GREATER
TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

END PROJECT

STA. 548+50.00

END ASPHALTIC CENTERLINE
RUMBLE STRIPS

BEGIN PROJECT

STA. 100+50.00

Y = 202155.235
X = 400319.315

STA 469+80.22
REPLACE EXISTING CULVERT
SEE PLAN PROFILE SHEET

STA 525+64.34
REPLACE EXISTING CULVERT
SEE PLAN PROFILE SHEET

STA 533+60.50
REPLACE EXISTING CULVERT
SEE PLAN PROFILE SHEET

TRAFFIC CONTROL
ADVANCE WARNING
SIGNS NEEDED (SEE
TRAFFIC CONTROL,
ADVANCED WARNING
SIGNS 45 MPH OR
GREATER TWO-WAY
UNDIVIDED ROAD
OPEN TO TRAFFIC)
INSTALL STANDARD
SIGN G20-57 MOUNTED
ON POSTS

STA 149+00 TO 150+50
DRAINAGE IMPROVMENTS REQ'D
SEE PLAN PROFILE SHEET

REPLACE GUARDRAIL
STA 147+00 LT AND RT

REPLACE GUARDRAIL
STA 138+00 RT

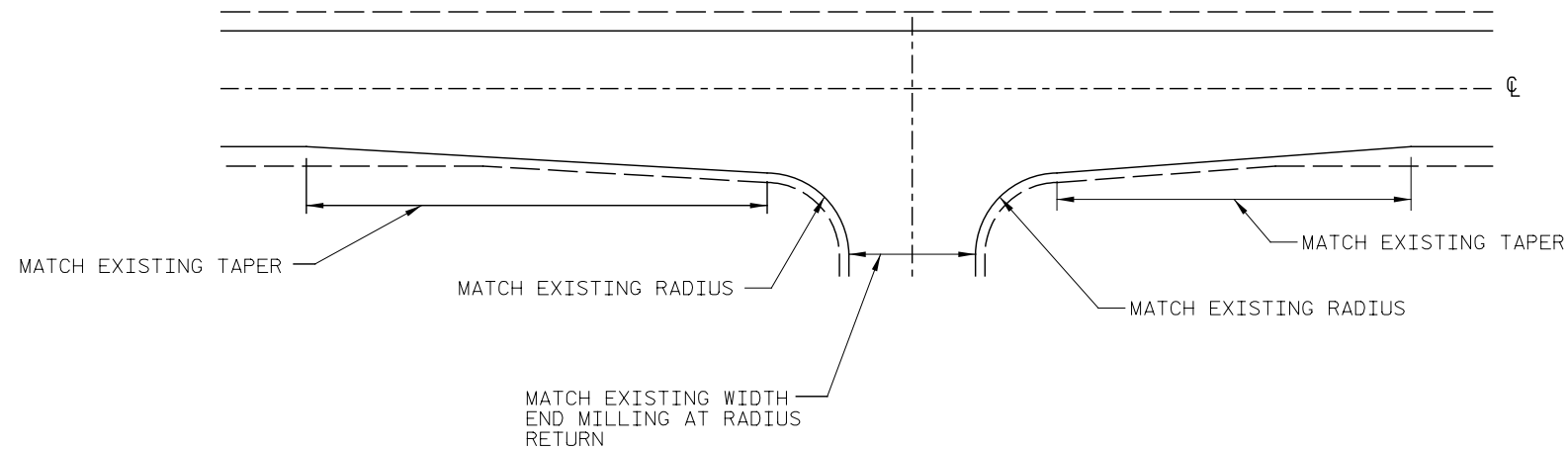
TRAFFIC CONTROL ADVANCE WARNING SIGNS NEEDED
(SEE TRAFFIC CONTROL, ADVANCED WARNING SIGNS 45 MPH OR GREATER
TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC)
INSTALL STANDARD SIGN G20-57 MOUNTED ON POSTS

NAME STH23-15
PISTA 399+33.29
X = 419,154.970
Y = 219,163.535
DELTA = 18° 53' 00" (LT)
D = 2° 59' 59"
T = 317.63
L = 629.49
R = 1,910.00
PC STA 396+15.66
X = 418,910.782
Y = 218,960.413
PT STA 402+45.15
X = 419,320.277
Y = 219,434.754
DB = N 50° 14' 44" E
DA = N 31° 21' 44" E
SE = 4.5%

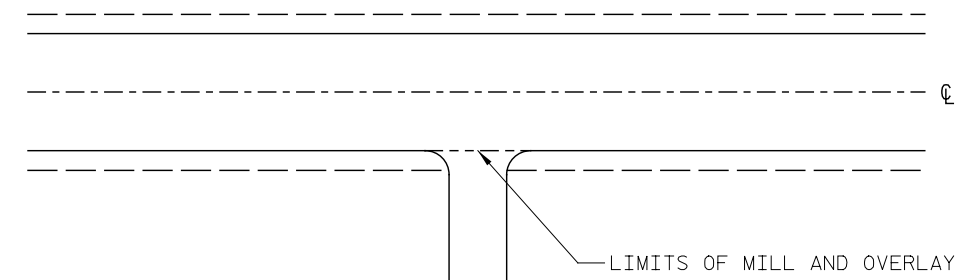
NAME STH23-16
PISTA 424+17.00
X = 420,450.605
Y = 221,289.286
DELTA = 59° 36' 33" (RT)
D = 4° 29' 55"
T = 729.53
L = 1,325.02
R = 1,273.60
PC STA 416+87.47
X = 420,070.923
Y = 220,666.342
PT STA 430+12.49
X = 421,180.032
Y = 221,276.920
DB = N 31° 21' 44" E
DA = S 89° 01' 44" E
SE = 6.5%

NAME STH23-17
PISTA 471+73.24
X = 425,340.178
Y = 221,206.393
DELTA = 4° 04' 01" (LT)
D = 0° 30' 00"
T = 406.90
L = 813.47
R = 1,1460.00
PC STA 467+66.33
X = 424,933.333
Y = 221,213.290
PT STA 475+79.80
X = 425,746.488
Y = 221,228.368
DB = S 89° 01' 44" E
DA = N 86° 54' 15" E
SE = 3.0%

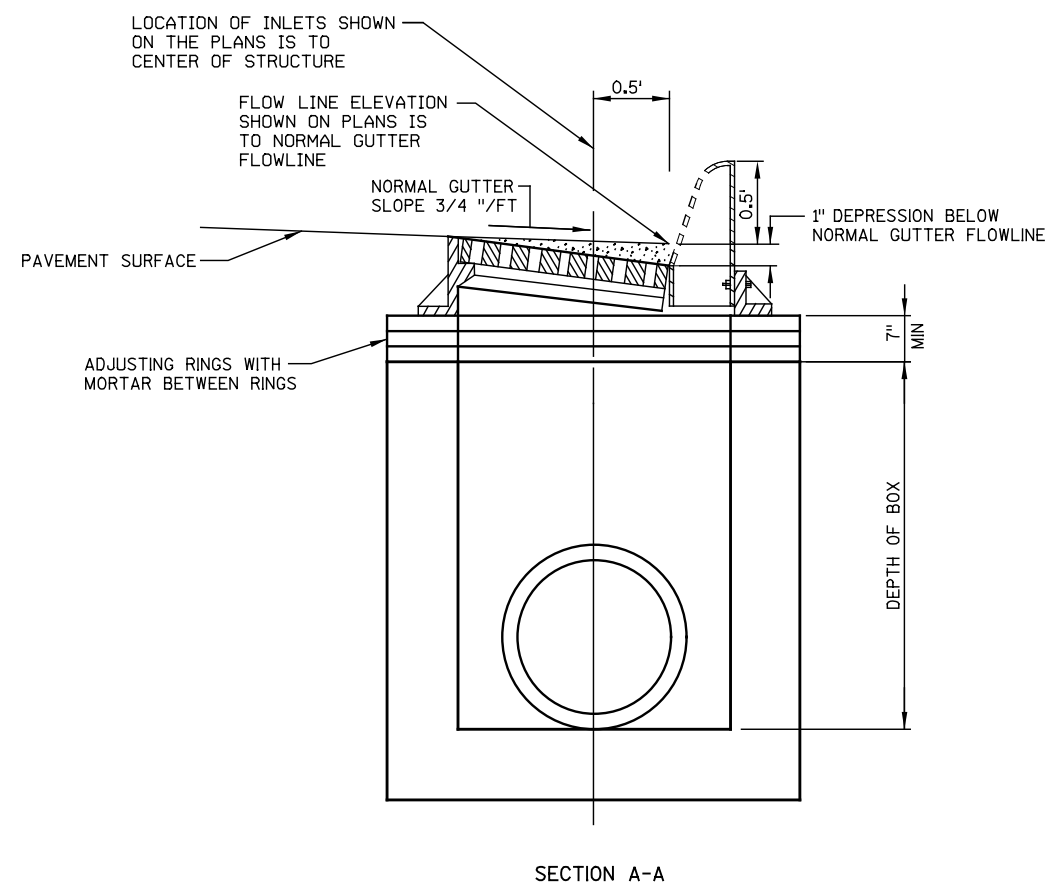
NAME STH23-18
PISTA 505+60.76
X = 428,723.100
Y = 221,389.356
DELTA = 4° 37' 36" (RT)
D = 1° 00' 00"
T = 231.48
L = 462.71
R = 5,730.00
PC STA 503+29.28
X = 428,491.956
Y = 221,376.854
PT STA 507+91.99
X = 428,954.499
Y = 221,383.171
DB = N 86° 54' 15" E
DA = S 88° 28' 08" E
SE = 3.0%



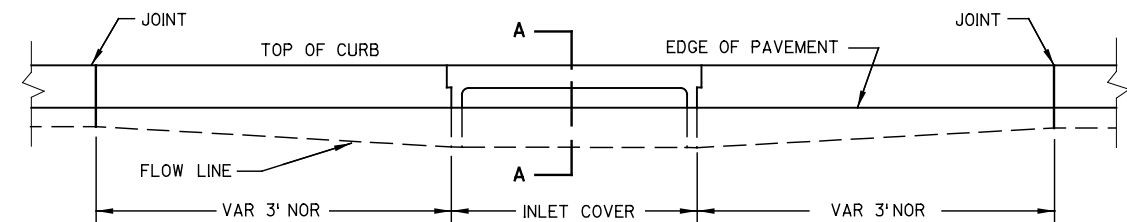
TYPICAL INTERSECTION



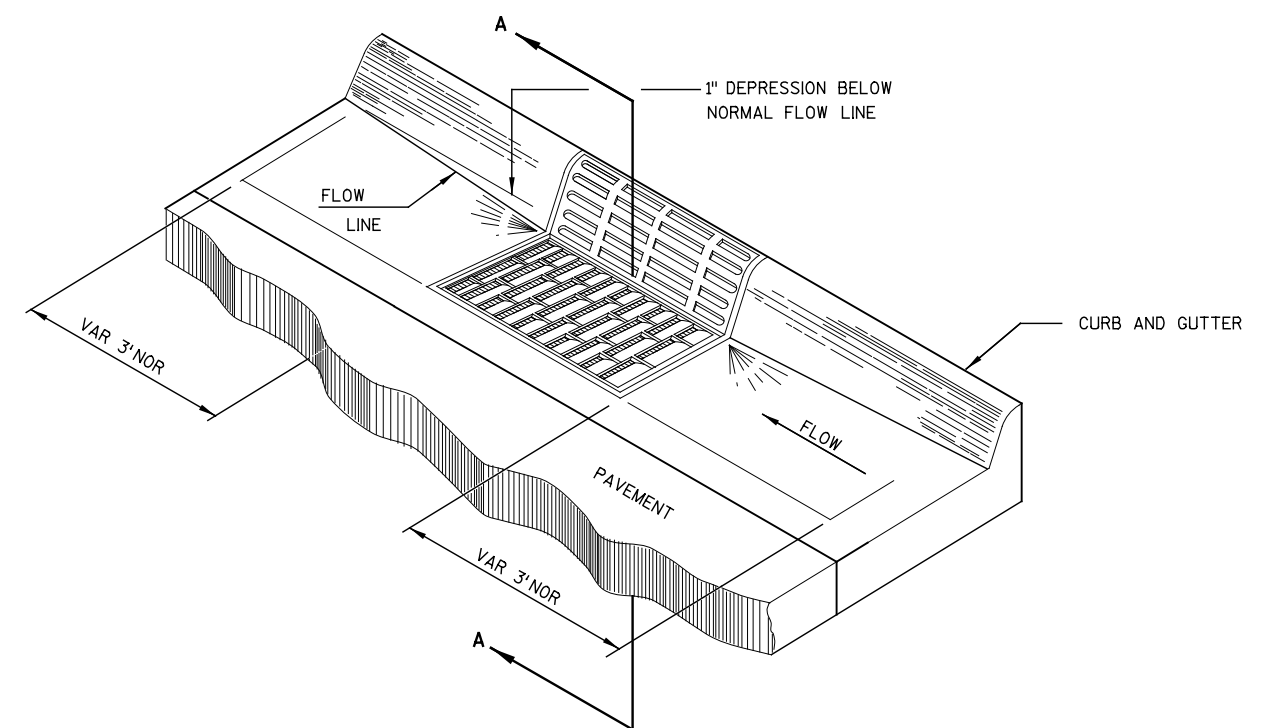
TYPICAL DRIVEWAY

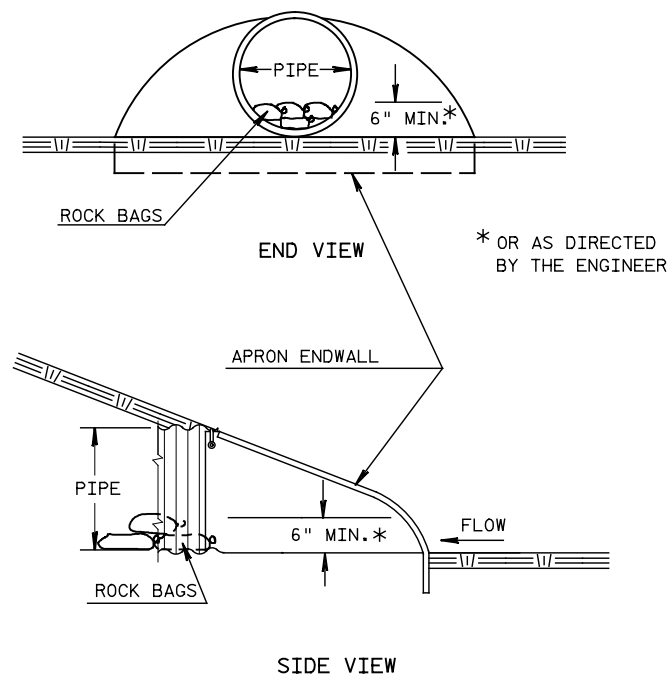


INLET

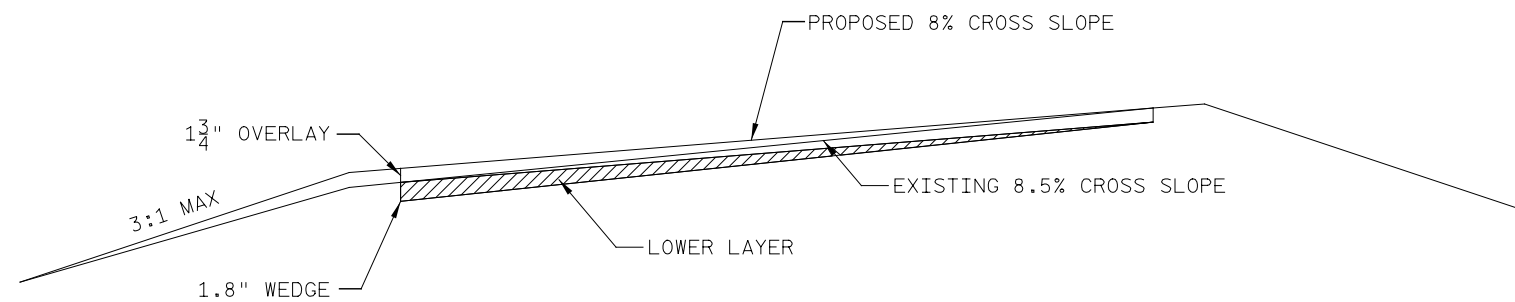


ELEVATION



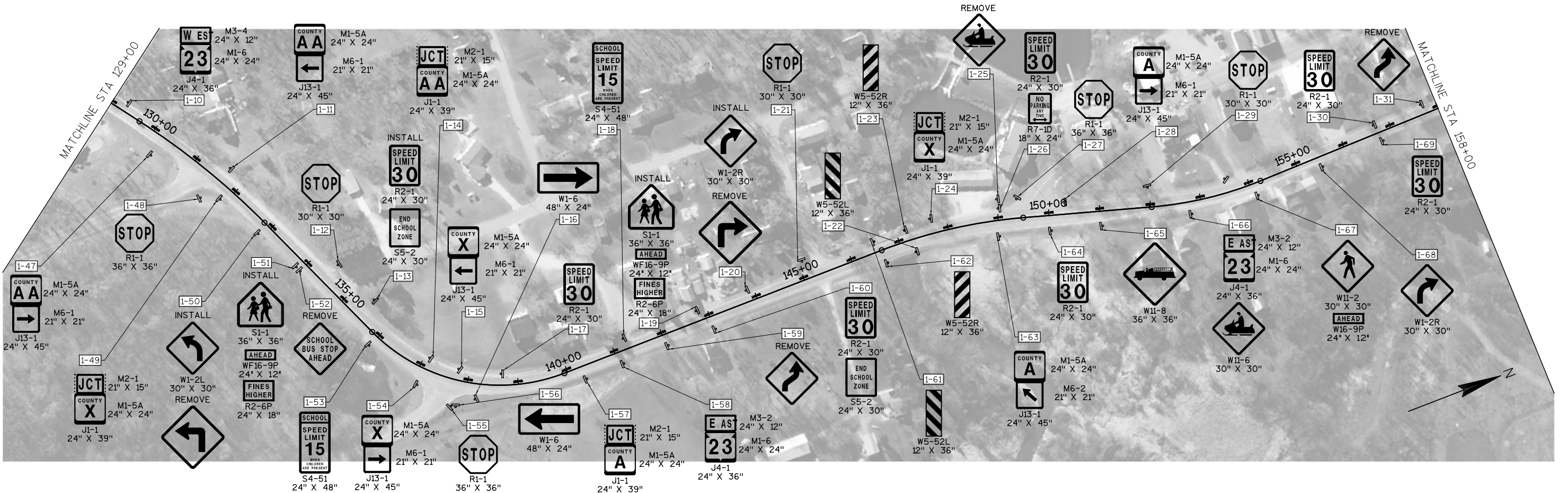


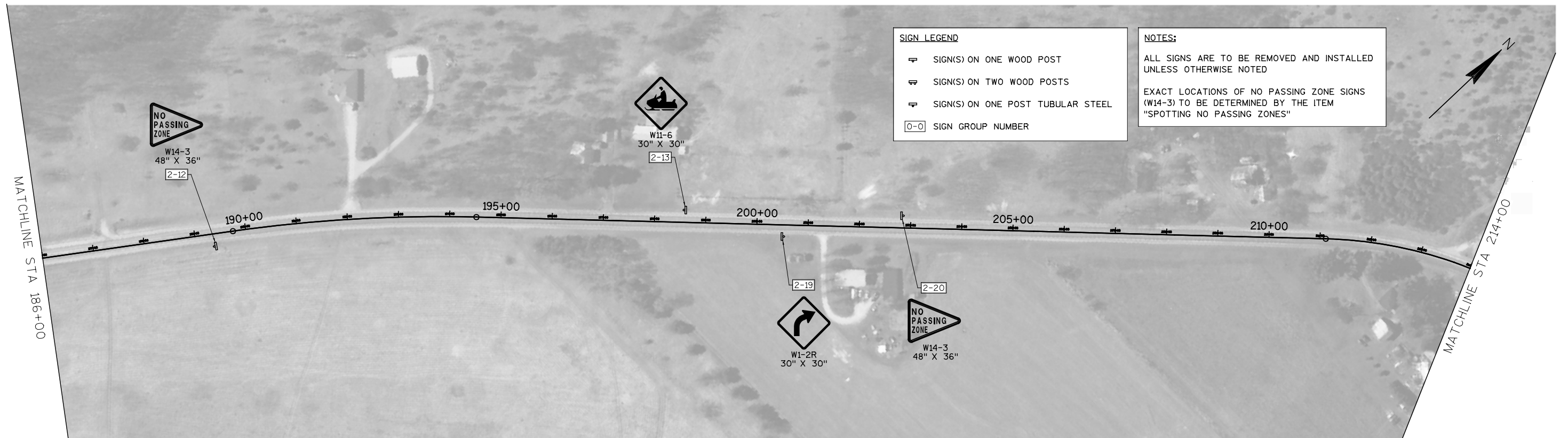
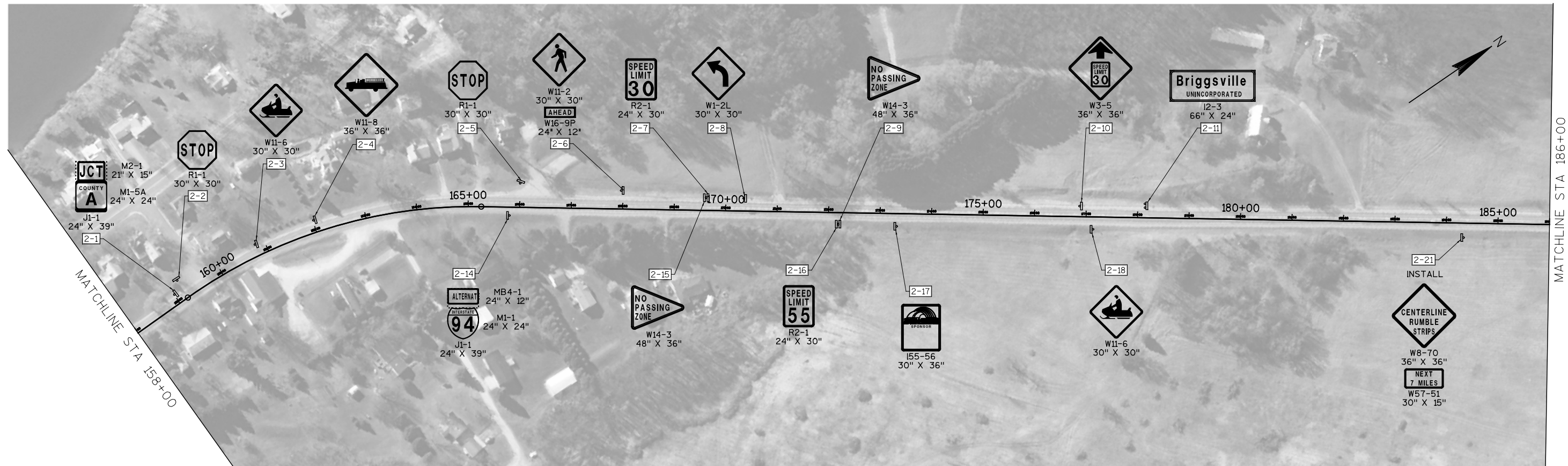
CULVERT PIPE DITCH CHECK

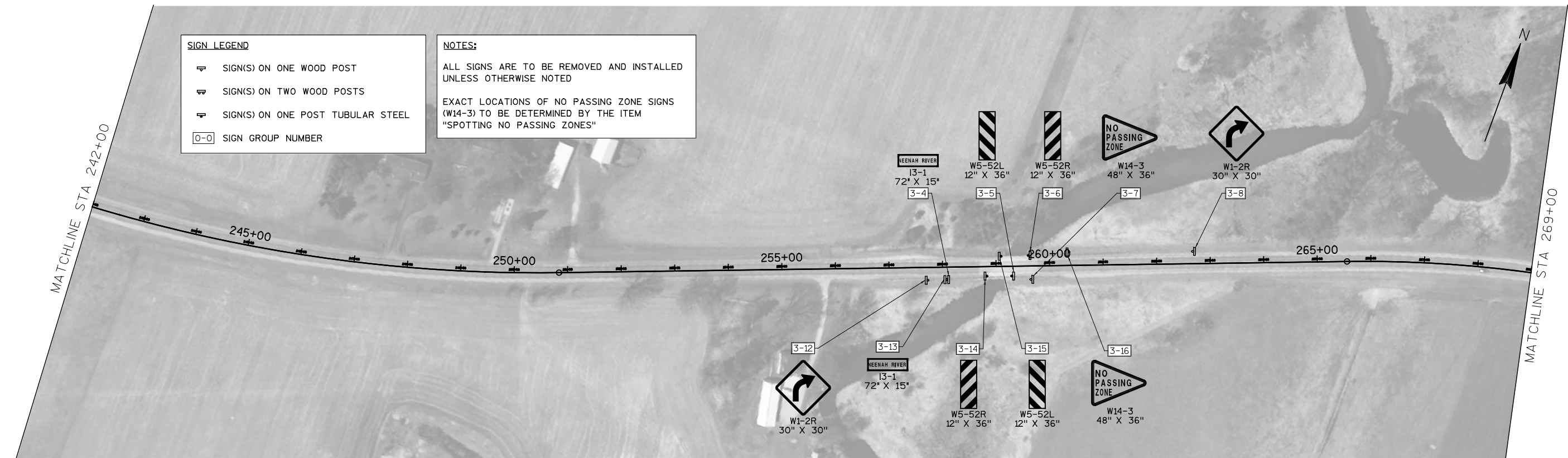
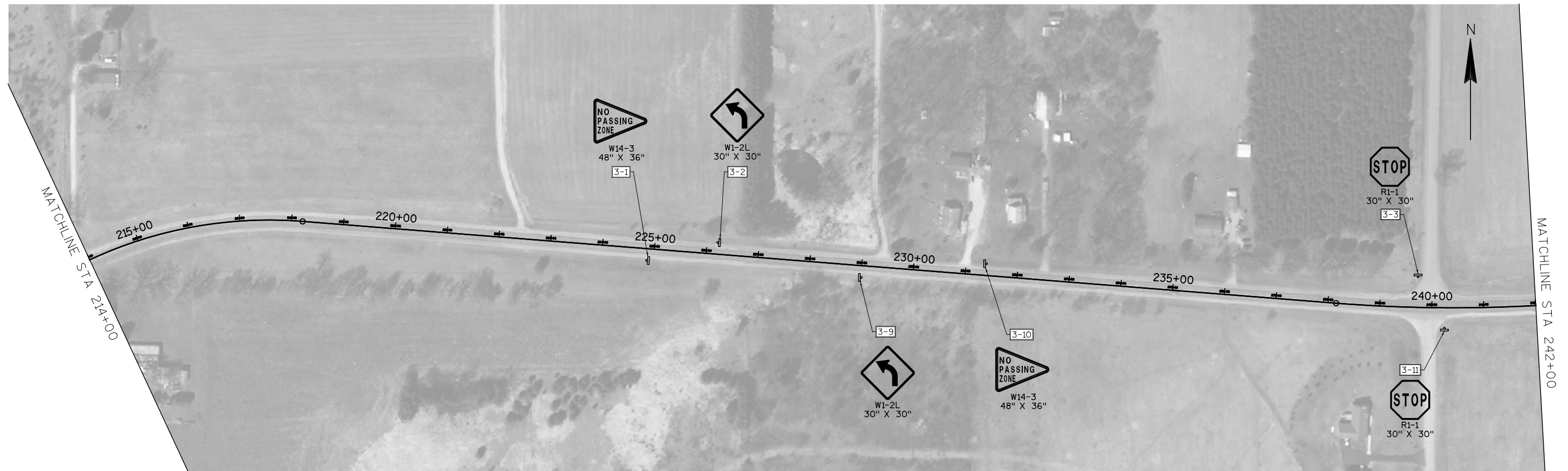


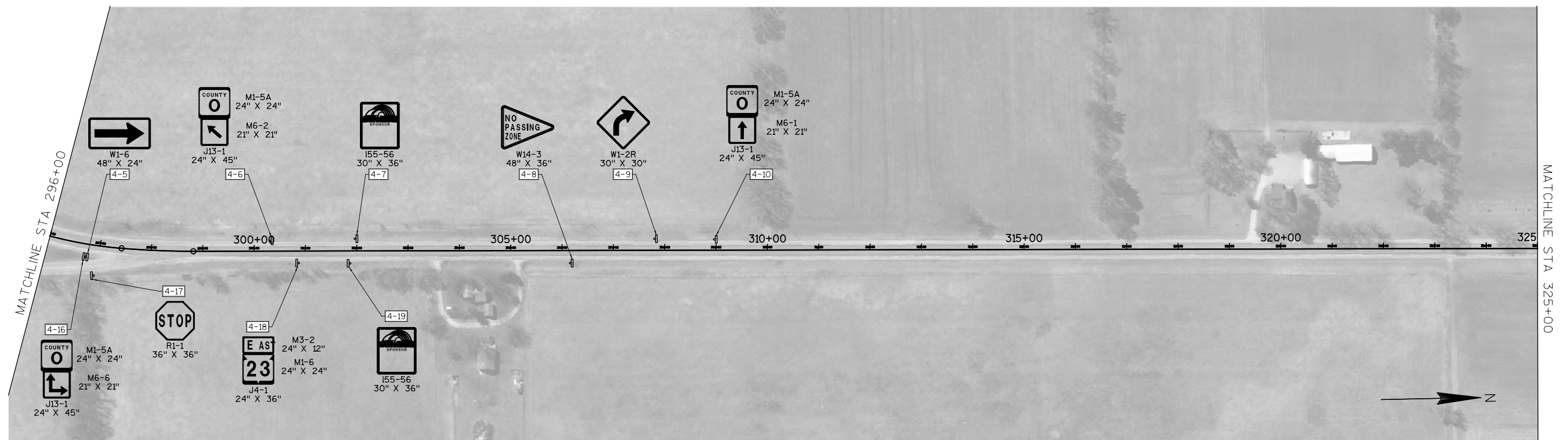
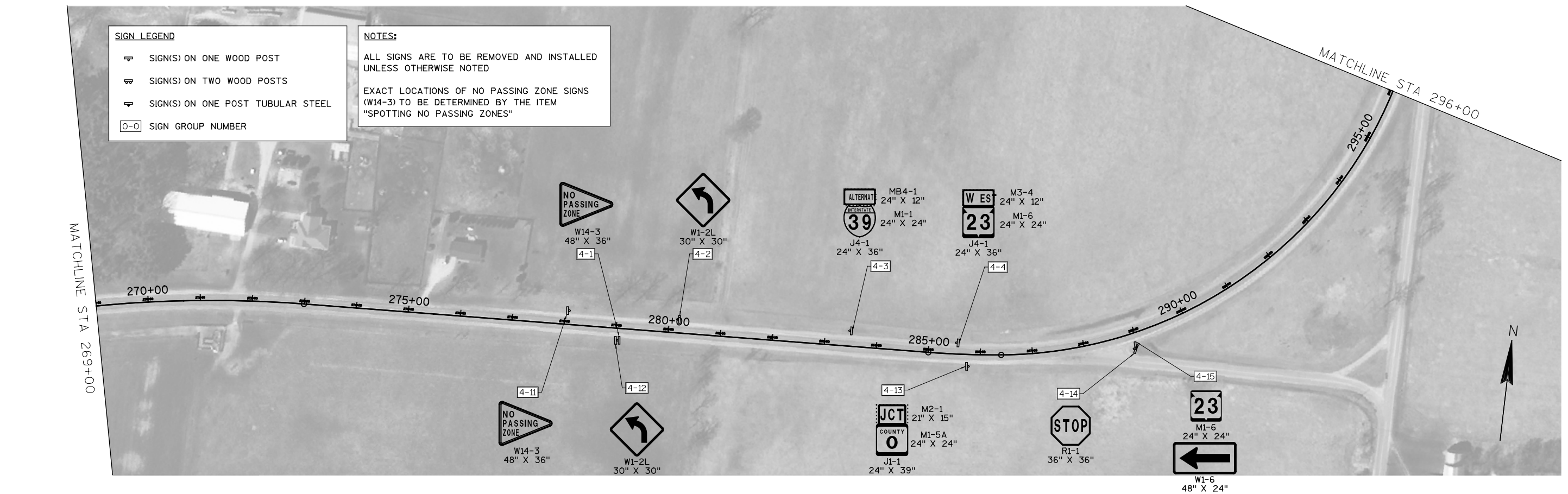
SUPERELEVATION CORRECTION

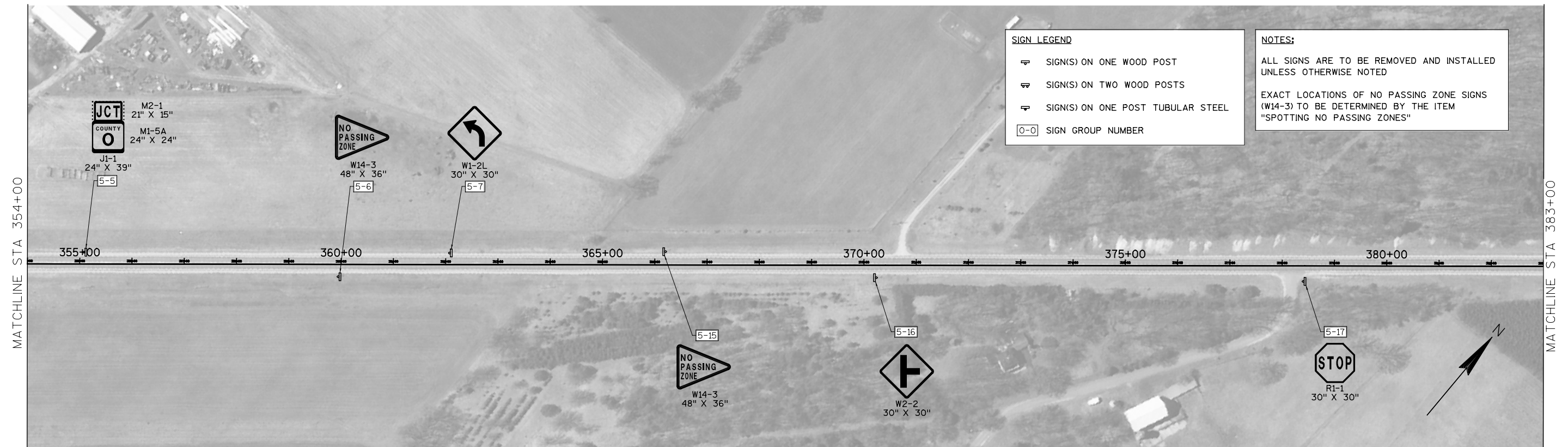
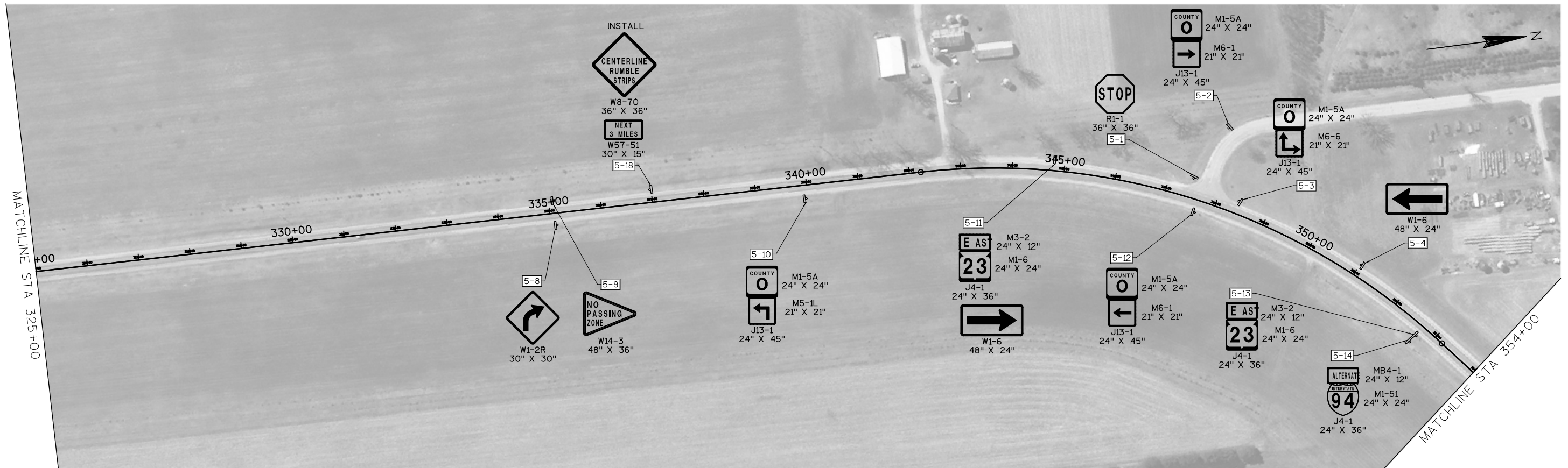
STA 211+10.99 TO STA 218+20.82
STA 286+40.14 TO STA 297+41.58

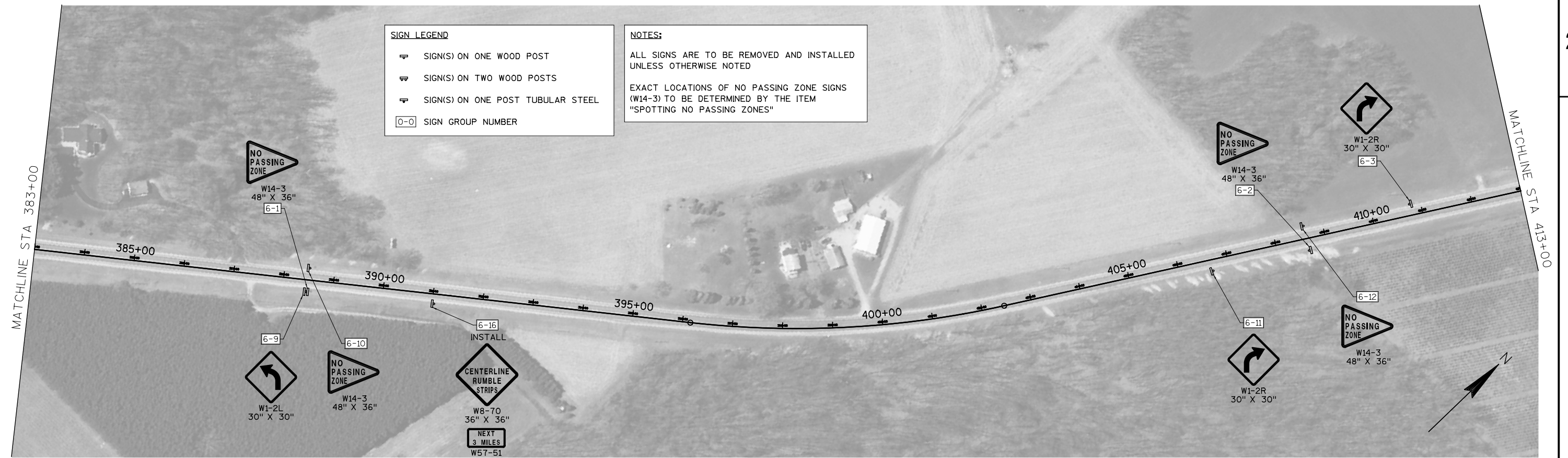


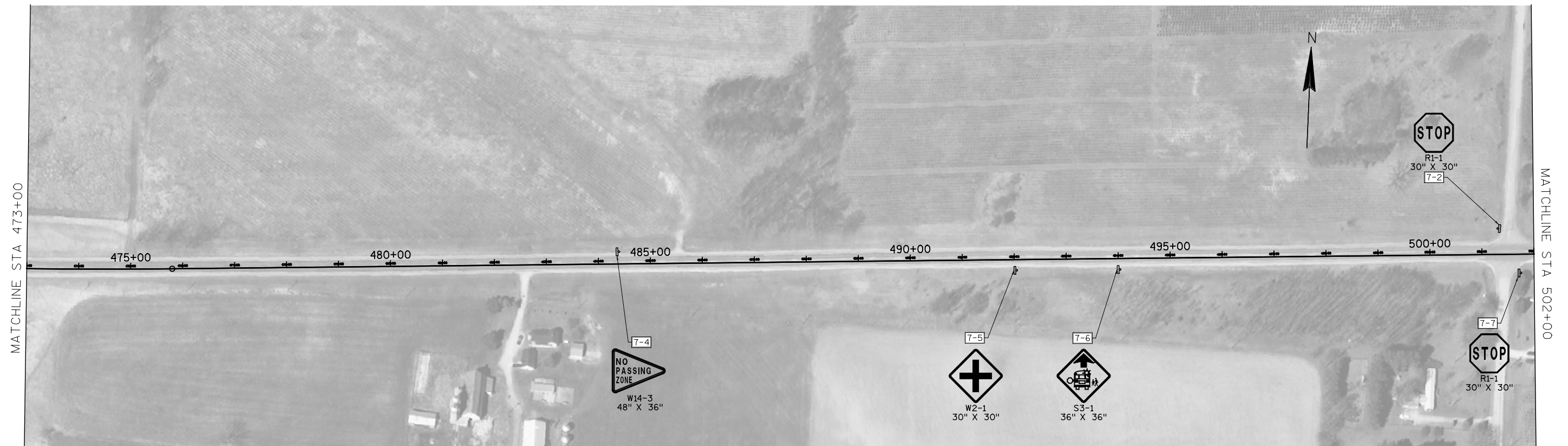
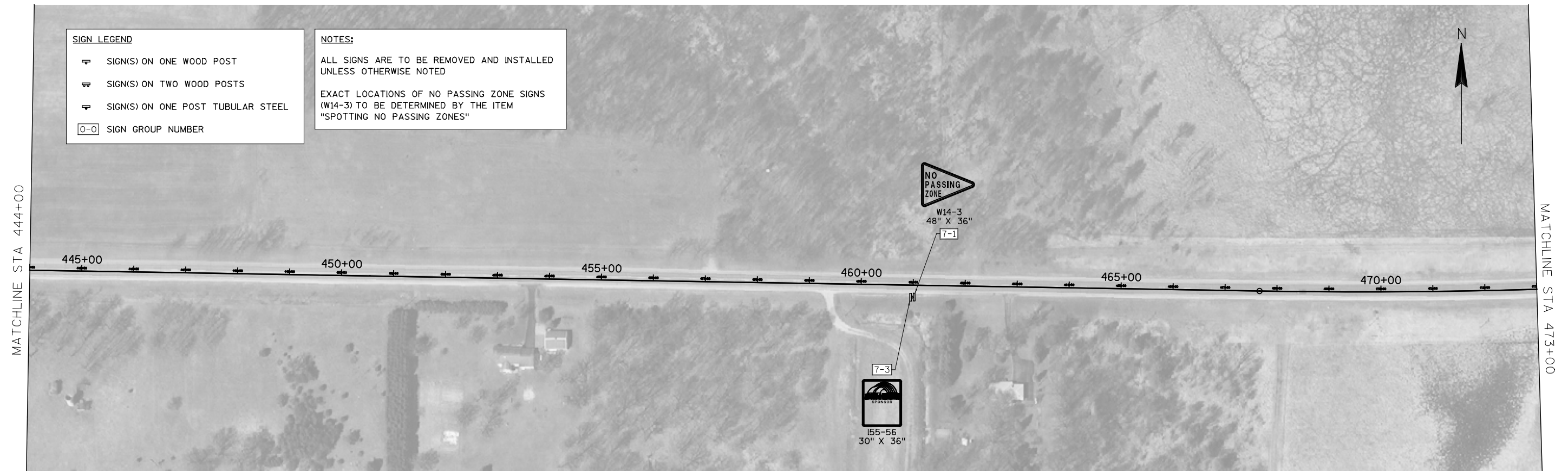


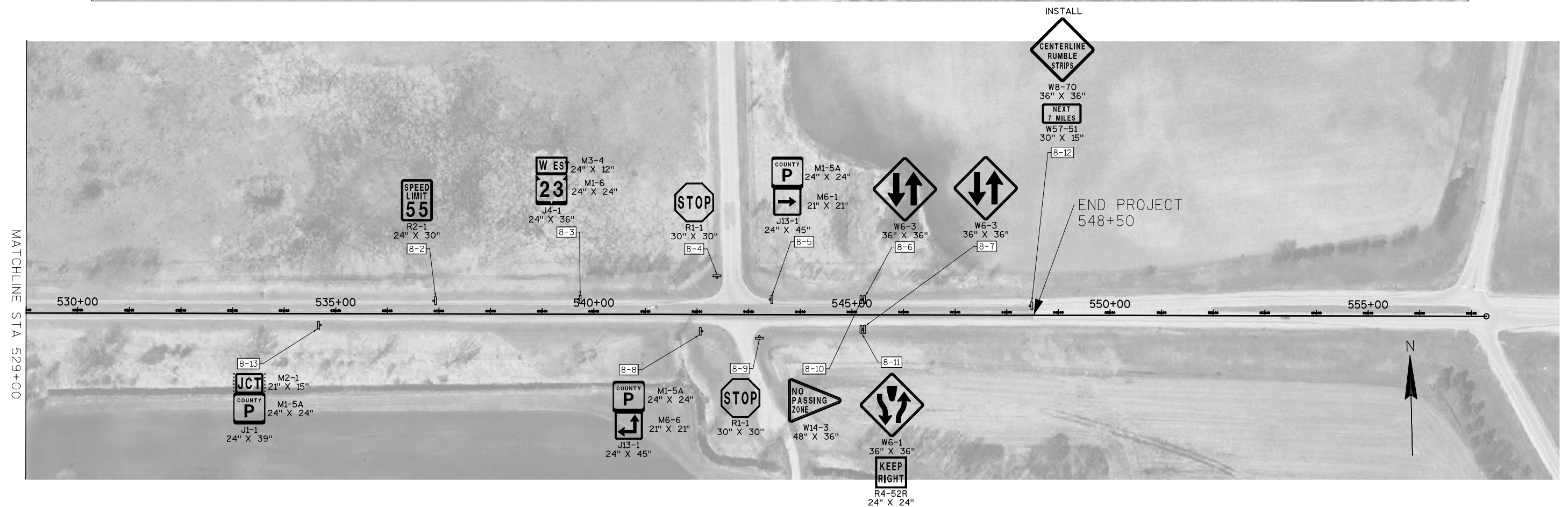


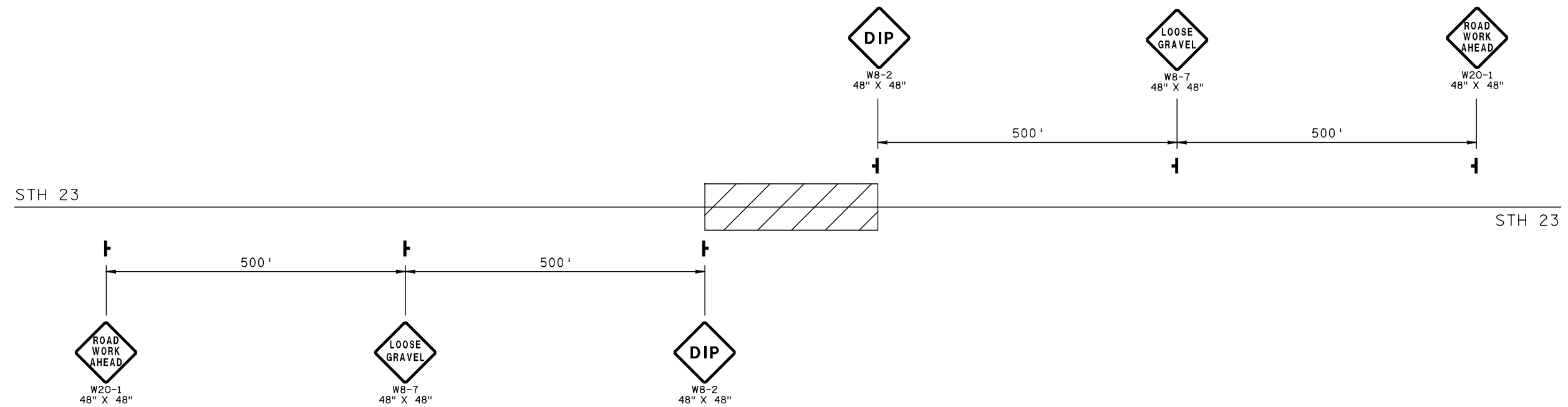








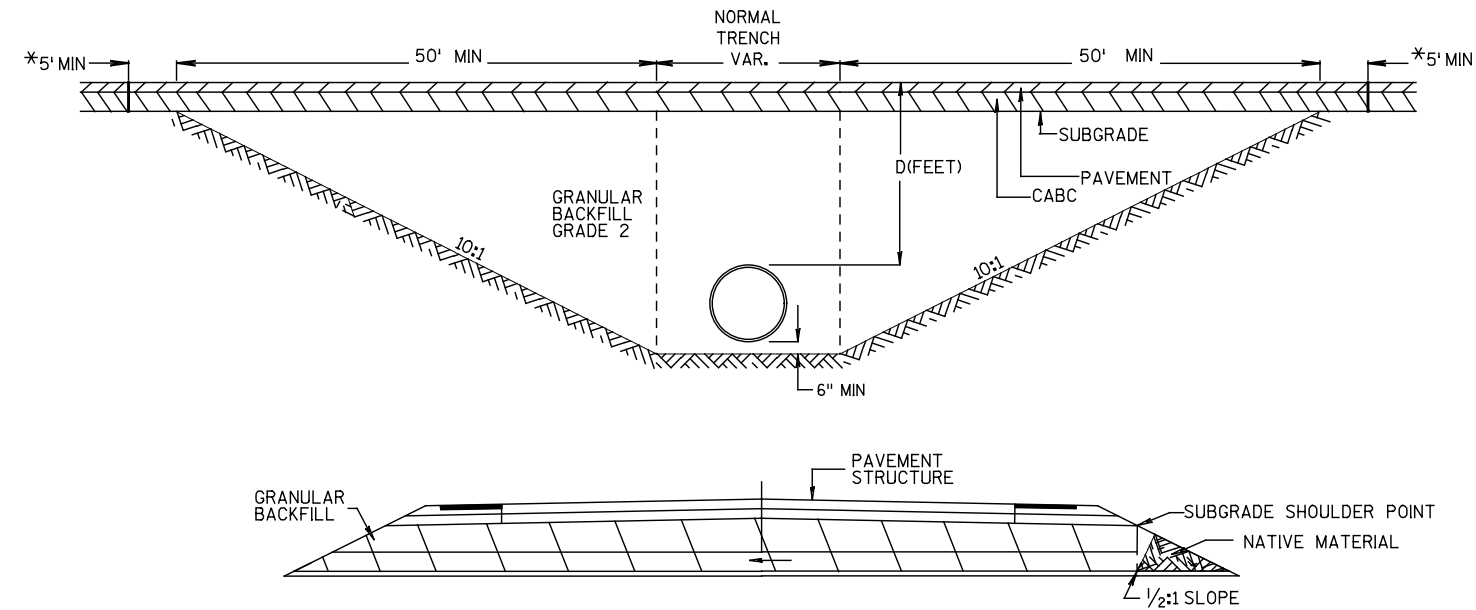




CULVERT PIPE TRANSITION AREA
48' MIN - 110' MAX

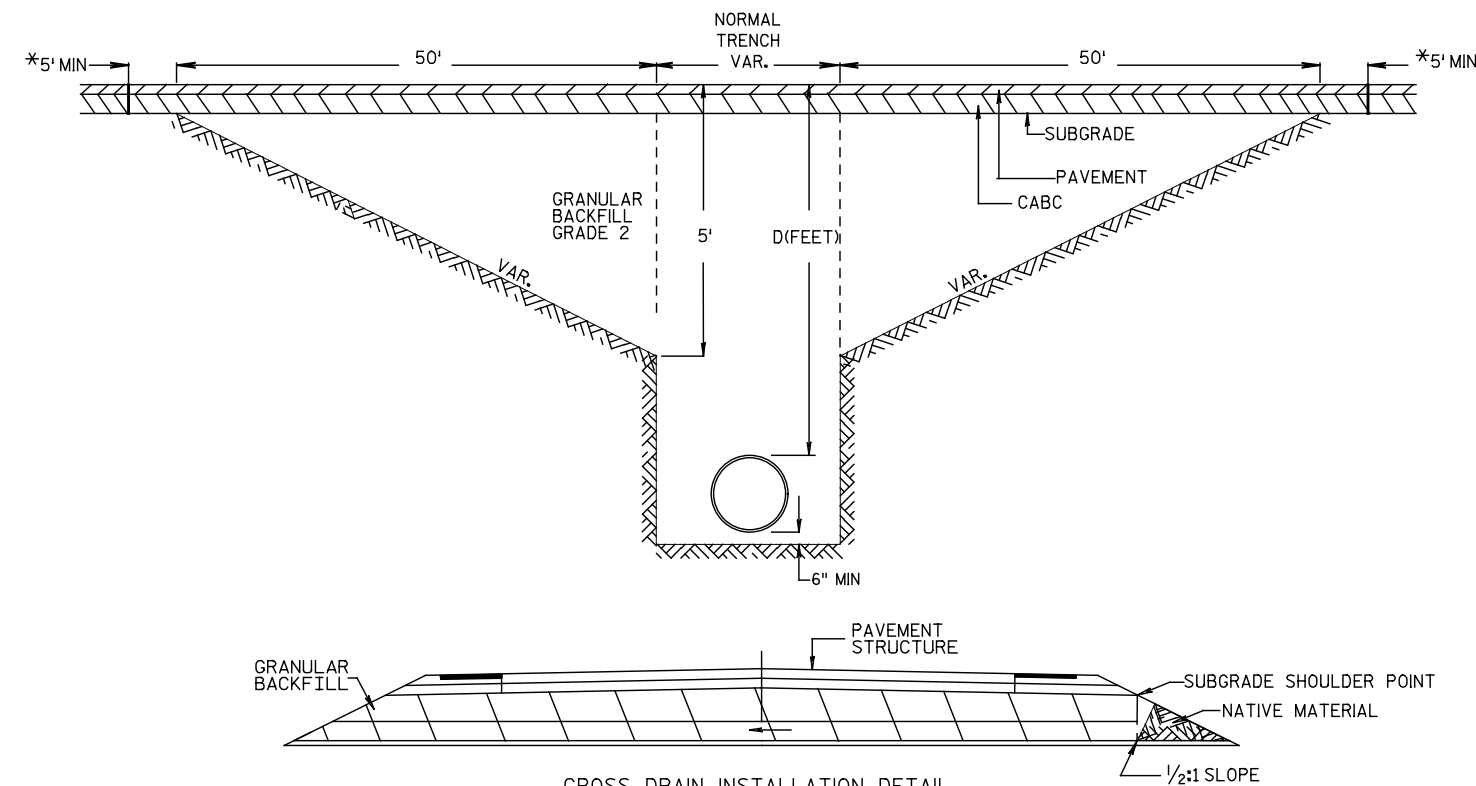
TEMPORARY SIGNING AT CULVERT PIPE REPLACEMENT

STA 469+80
STA 525+64
STA 535+60

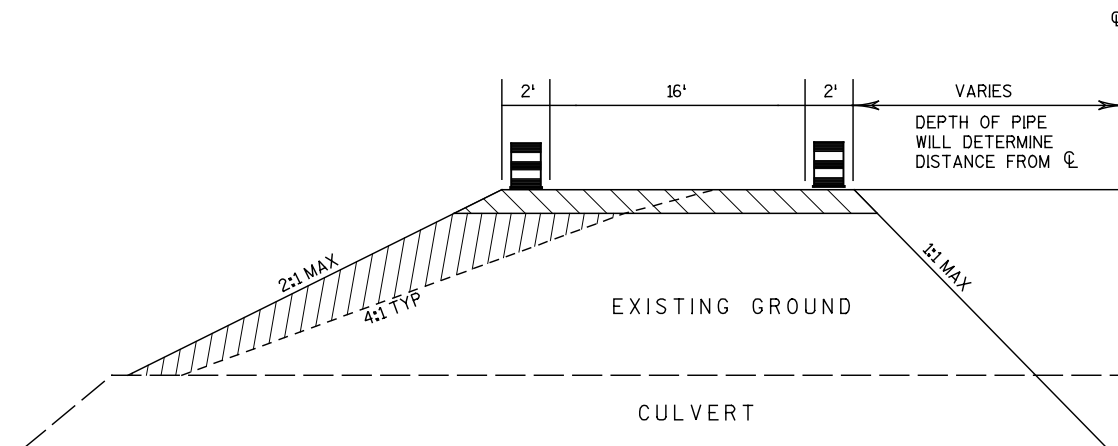
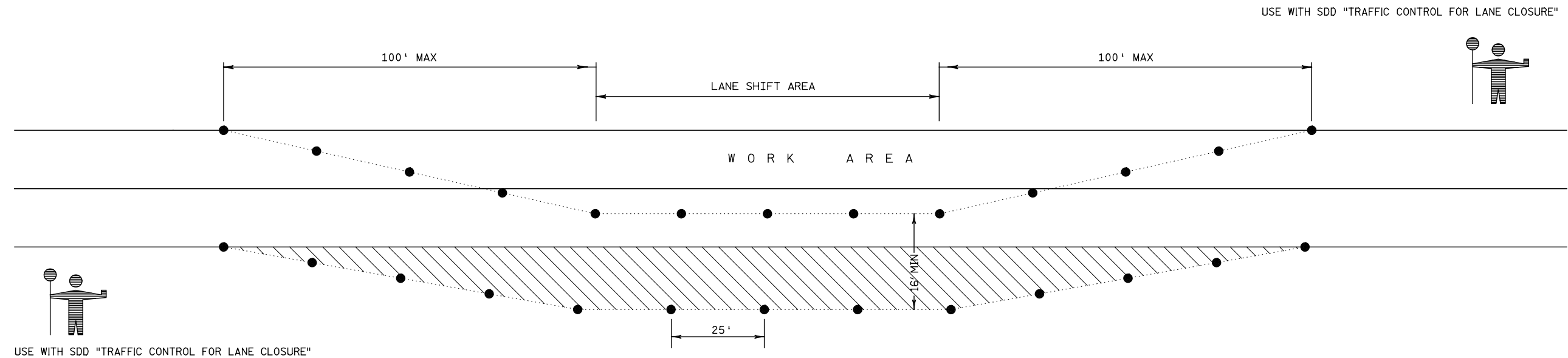


CROSS DRAIN INSTALLATION DETAIL
FOR $D \leq 5'$

* PAVEMENT REMOVAL LIMITS (TYPICAL)



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



NOTES

1. THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION
2. ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL DEVICES REMOVED BEYOND THE SHOULDER WHEN WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION
3. CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS
4. USE WITH SDD "TRAFFIC CONTROL FOR LANE CLOSURE"

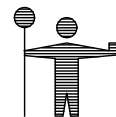
KEY

●	DRUM WITHOUT WARNING LIGHT
	6" BASE AGGREGATE DENSE 1 1/4 INCH - INCIDENTAL TO LANE SHIFT ITEM
	FILL - INCIDENTAL TO LANE SHIFT ITEM

LANE SHIFT DETAIL

STA 469+80
STA 525+64
STA 533+60

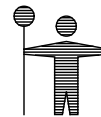
USE WITH SDD "TRAFFIC CONTROL FOR LANE CLOSURE" DURING INLET CONSTRUCTION



W O R K
A R E A

W O R K
A R E A

25'



USE WITH SDD "TRAFFIC CONTROL FOR LANE CLOSURE" DURING INLET CONSTRUCTION

KEY

● DRUM WITHOUT WARNING LIGHT

TRAFFIC CONTROL DRUMS DETAIL

STA 149+90

3

DATE 18JUL13		E S T I M A T E O F Q U A N T I T I E S			
LINE				6566-00-61	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	4.000	4.000
0020	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	4,200.000	4,200.000
0030	204.0125	REMOVING ASPHALTIC SURFACE MILLING	TON	14,900.000	14,900.000
0040	204.0165	REMOVING GUARDRAIL	LF	470.000	470.000
0050	204.0220	REMOVING INLETS	EACH	1.000	1.000
0060	205.0100	EXCAVATION COMMON	CY	1,119.000	1,119.000
0070	209.0100	BACKFILL GRANULAR	CY	555.000	555.000
0080	213.0100	FINISHING ROADWAY (PROJECT) 01.	EACH	1.000	1.000
		6566-00-61			
0090	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	3,380.000	3,380.000
0100	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	265.000	265.000
0110	455.0105	ASPHALTIC MATERIAL PG58-28	TON	860.000	860.000
0120	455.0605	TACK COAT	GAL	3,400.000	3,400.000
0130	460.1101	HMA PAVEMENT TYPE E-1	TON	15,700.000	15,700.000
0140	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	10,050.000	10,050.000
0150	465.0110	ASPHALTIC SURFACE PATCHING	TON	50.000	50.000
0160	465.0475.S	ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	LF	33,100.000	33,100.000
0170	521.0124	CULVERT PIPE CORRUGATED STEEL 24-INCH	LF	54.000	54.000
0180	521.0130	CULVERT PIPE CORRUGATED STEEL 30-INCH	LF	192.000	192.000
0190	521.1024	APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH	EACH	2.000	2.000
0200	521.1030	APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH	EACH	6.000	6.000
0210	522.1012	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	EACH	1.000	1.000
0220	601.0557	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	LF	29.000	29.000
0230	608.0512	STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH	LF	64.000	64.000
0240	611.0627	INLET COVERS TYPE HM	EACH	2.000	2.000
0250	611.3230	INLETS 2X3-FT	EACH	2.000	2.000
0260	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	6.000	6.000
0270	614.0305	STEEL PLATE BEAM GUARD CLASS A	LF	50.000	50.000
0280	614.0345	STEEL PLATE BEAM GUARD SHORT RADIUS	LF	65.000	65.000
0290	614.0370	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	EACH	1.000	1.000
0300	614.0390	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL	EACH	1.000	1.000
0310	614.2300	MGS GUARDRAIL 3	LF	126.000	126.000
0320	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	4.000	4.000
0330	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 6566-00-61	EACH	1.000	1.000
0340	619.1000	MOBILIZATION	EACH	1.000	1.000
0350	625.0500	SALVAGED TOPSOIL	SY	210.000	210.000
0360	627.0200	MULCHING	SY	210.000	210.000
0370	628.1504	SILT FENCE	LF	530.000	530.000
0380	628.1520	SILT FENCE MAINTENANCE	LF	530.000	530.000
0390	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	1.000	1.000
0400	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	1.000	1.000
0410	628.7020	INLET PROTECTION TYPE D	EACH	2.000	2.000
0420	628.7555	CULVERT PIPE CHECKS	EACH	50.000	50.000
0430	629.0210	FERTILIZER TYPE B	CWT	0.120	0.120
0440	630.0130	SEEDING MIXTURE NO. 30	LB	4.000	4.000
0450	630.0140	SEEDING MIXTURE NO. 40	LB	1.000	1.000

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DATE 18JUL13		E S T I M A T E O F Q U A N T I T I E S			
LINE					6566-00-61
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0460	633.5200	MARKERS CULVERT END	EACH	20.000	20.000
0470	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	41.000	41.000
0480	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	110.000	110.000
0490	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	5.000	5.000
0500	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	4.000	4.000
0510	634.0808	POSTS TUBULAR STEEL 2X2-INCH X 8-FT	EACH	8.000	8.000
0520	637.0202	SIGNS REFLECTIVE TYPE II	SF	1,384.000	1,384.000
0530	638.2602	REMOVING SIGNS TYPE II	EACH	213.000	213.000
0540	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	160.000	160.000
0550	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0560	643.0100	TRAFFIC CONTROL (PROJECT) 01. 6566-00-61	EACH	1.000	1.000
0570	643.0300	TRAFFIC CONTROL DRUMS	DAY	468.000	468.000
0580	643.0900	TRAFFIC CONTROL SIGNS	DAY	2,172.000	2,172.000
0590	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	64.000	64.000
0600	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	142,200.000	142,200.000
0610	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	52,000.000	52,000.000
0620	648.0100	LOCATING NO-PASSING ZONES	MI	8.500	8.500
0630	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	52,000.000	52,000.000
0640	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	3.000	3.000
0650	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	3.000	3.000
0660	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	44,800.000	44,800.000
0670	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 6566-00-61	LS	1.000	1.000
0680	690.0150	SAWING ASPHALT	LF	276.000	276.000
0690	690.0250	SAWING CONCRETE	LF	12.000	12.000
0700	SPV.0060	SPECIAL 01. LANE SHIFT	EACH	3.000	3.000
0710	SPV.0105	SPECIAL 01. GRADING AND SHAPING FOR CURB AND GUTTER (CTH A)	LS	1.000	1.000
0720	SPV.0105	SPECIAL 02. REMOVING AND REPLACING GUARDRAIL POSTS	LS	1.000	1.000
0730	SPV.0165	SPECIAL 01. SPRAYED ASPHALTIC SHOULDER TREATMENT	SF	2,400.000	2,400.000
0740	SPV.0180	SPECIAL 01. PREPARING TOPSOIL FOR LAWN TYPE TURF	SY	210.000	210.000

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REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	203.0100 EACH	REMARKS
149+35	LT	1	12" CPCS
470+00	LT	1	48" CPCS
525+50	LT	1	30" CPCS
533+50	LT	1	30" CPCS
TOTAL		4	

REMOVING ASPHALTIC SURFACE MILLING

STATION - STATION	LOCATION	204.0120 SY	204.0125 TON	REMARKS
100+50 - 135+00	ML	-	1100	
135+00 - 152+00	ML	-	1050	
152+00 - 469+70	ML	-	10200	
469+90 - 525+55	ML	-	1800	
525+75 - 533+50	ML	-	250	
533+70 - 548+50	ML	-	500	
108+00	LT	170	-	LAKEVIEW ROAD
131+00	RT	200	-	CTH AA
134+50	LT	170	-	NEBRASKA STREET
137+50	RT	320	-	CTH XX
145+50	LT	170	-	BENTON STREET
153+50	LT	200	-	DRIVEWAY
166+00	LT	270	-	CEMETARY ROAD
182+25	LT	60	-	CEMETARY ROAD
240+00	LT	200	-	3RD AVE
240+00	RT	200	-	3RD AVE
288+00	RT	400	-	CTH O
328+00	RT	300	-	CTH O
348+00	LT	270	-	CTH O
378+00	RT	200	-	4TH DRIVE
423+00	LT	200	-	DOUGLAS AVE
501+50	RT	200	-	5TH ROAD
501+50	LT	200	-	5TH ROAD
542+75	RT	190	-	CTH P
542+75	LT	280	-	CTH P
TOTAL		4200	14900	

REMOVING GUARDRAIL

STATION	LOCATION	204.0165 LF
137+50 - 139+00	RT	180
146+00 - 147+50	LT	145
146+00 - 147+50	RT	145
TOTAL		470

REMOVING INLETS

STATION	LOCATION	204.0220 EACH
150+00	CTH A	1
TOTAL		1

EXCAVATION COMMON

		205.0100
		P
LOCATION		CY
149+00	LT	9
469+80	-	370
525+65	-	370
533+60	-	370
TOTAL		1119

BACKFILL GRANULAR

LOCATION	209.0100 CY
469+80 -	185
525+65 -	185
533+60 -	185
TOTAL	555

TACK COAT

STATION - STATION	455.0605 GAL
100+50 - 548+50	3400
TOTAL	<u>3400</u>

ASPHALTIC SURFACE PATCHING

STATION	LOCATION	465.0110 TON
UNDISTRIBUTED		50
TOTAL		50

ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL

STATION	465.0475.S LF
184+30 - 237+90	5360
241+90 - 258+50	1660
260+00 - 285+50	2550
289+50 - 295+80	640
299+80 - 345+70	4600
349+70 - 376+20	2650
380+20 - 421+00	4080
425+00 - 499+40	7440
503+40 - 540+65	3730
544+65 - 548+50	390
TOTAL	<u>33,100</u>

CULVERTS

STATION - STATION	CULVERT PIPE CORRUGATED STEEL 24-INCH 521.01240 LF	CULVERT PIPE CORRUGATED STEEL 30-INCH 521.0130 LF	APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH 521.1024 EACH	APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH 521.1030 EACH	Minimum Thickness IN
469+80	-	140	-	4	0.079
525+64	52	-	2	-	0.064
535+60	-	52	-	2	0.079
TOTAL		52	192	2	6

CONCRETE CURB & GUTTER

STATION	LOCATION	6-INCH SLOPED 36-INCH TYPE D 601.0557 LF	REMARKS
149+63	LT	15	CTH A
150+10	LT	14	CTH A
TOTAL		29	

P PAY PLAN QUANTITY

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	1 1/4-IN 305.0120 TONS	3/4-IN 305.0110 TONS	REMARKS
149+50	LT	85	-	
469+80	-	60	10	
525+64	-	60	10	
535+60	-	60	10	
100+50 - 548+50	-	-	3350	SHOULDER RESTORATION
TOTAL		265	3380	

ASPHALTIC PAVEMENT ITEMS

STATION - STATION	LOCATION	ASPHALTIC MATERIAL PG58-28 455.0105 TON	HMA PAVEMENT TYPE E-1 460.1101 TON	REMARKS
100+50 - 135+00	ML	62	1110	
135+00 - 152+00	ML	57	1140	
152+00 - 469+70	ML	560	10195	
469+25 - 470+35	ML	6.1	110	CULVERT
469+90 - 525+55	ML	98	1790	
525+10 - 526+20	ML	6.1	110	CULVERT
525+75 - 533+50	ML	15	250	
533+05 - 534+15	ML	6.1	110	CULVERT
533+70 - 548+50	ML	27	475	
108+00	LT	0.9	17	LAKEVIEW ROAD
131+00	RT	1.1	19	CTH AA
134+50	LT	0.9	17	NEBRASKA STREET
137+50	RT	1.7	31	CTH XX
145+50	LT	0.9	17	BENTON STREET
153+50	LT	1.1	19	DRIVEWAY
166+00	LT	1.4	27	CEMETARY ROAD
182+25	LT	0.3	6	CEMETARY ROAD
240+00	LT	1.1	19	3RD AVE
240+00	RT	1.1	19	3RD AVE
288+00	RT	2.1	39	CTH O
328+00	RT	1.6	30	CTH O
348+00	LT	1.4	27	CTH O
378+00	RT	1.1	19	4TH DRIVE
423+00	LT	1.1	19	DOUGLAS AVE
501+50	RT	1.1	19	5TH ROAD
501+50	LT	1.1	19	5TH ROAD
542+75	RT	1.0	19	CTH P
542+75	LT	1.5	27	CTH P
TOTAL		860	15700	

STORM SEWER

PIPE NUMBER	STATION	LOCATION	PIPE		SLOPE %	REINFORCED CONCRETE CLASS V
			INLET ELEV	OUTLET ELEV		12-INCH
						608.0512 LF
P-1	149+63.29	56.2' LT	793.98	793.92	0.3%	48
P-2	150+10.16	44.0' LT	793.84	793.80	0.3%	16
TOTAL						64

STORM SEWER STRUCTURES ITEMS

STRUCTURE NUMBER	STATION	LOCATION	FLOW LINE ELEVATION	TOP STRUCTURE ELEVATION	SUMP ELEVATION	STRUCTURE DEPTH - FT	APRON ENDWALLS FOR CULVERT PIPE	INLET COVERS	INLET	REMARKS
							REINFORCED CONCRETE 12-INCH	TYPE HM	2X3-FT	
							522.1012 EACH	611.0627 EACH	611.3230 EACH	
A	149+63.29	56.2' LT	796.24	795.74	793.81	1.93	-	1	1	MONOLITHIC BASE REQ'D
B	150+10.16	44.0' LT	796.41	795.74	793.67	2.07	1	1	1	MONOLITHIC BASE REQ'D
TOTAL							1	2	2	

GUARDRAIL

STATION - STATION	LOCATION	MGS GUARDRAIL 3	MSG GUARDRAIL TERMINAL EAT	STEEL PLATE BEAMGUARD CLASS A	STEEL PLATE BEAMGUARD SHORT RADIUS	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
		614.2300 LF	614.2610 EACH	614.0305 LF	614.0345 LF	614.0370 EACH	614.0390 EACH
146+00 - 147+60	LT	62	2	-	-	-	-
146+00 - 147+75	RT	64	2	-	-	-	-
137+50 - 139+07	RT	-	-	50	65	1	1
TOTAL		126	4	50	65	1	1

TOPSOIL, SALVAGED TOPSOIL, MULCHING, FERTILIZER, AND SEEDING

STATION - STATION		SALVAGED TOPSOIL	MULCHING	FERTILIZER TYPE B	SEEDING MIXTURE NO. 30	SEEDING MIXTURE NO. 40	REMARKS
		625.0500 SY	627.0200 SY	629.0210 CWT	630.0130 LB	630.0140 LB	
149+00	LT	30	30	0.02	-	1	CTH A - WEST
469+80	-	70	70	0.04	1	-	CULVERT
525+64	-	30	30	0.02	1	-	CULVERT
535+60	-	30	30	0.02	1	-	CULVERT
SUBTOTAL		160	160	0.10	3	1	
UNDISTRIBUTED		50	50	0.02	1	-	
TOTAL		210	210	0.12	4	1	

EROSION CONTROL

STATION	LOCATION	SILT FENCE	SILT FENCE MAINTENANCE	CULVERT PIPE CHECKS	INLET PROTECTION TYPE D
		628.1504 LF	628.1520 LF	628.7555 EACH	628.7020 EACH
146+25	LT	69	69	-	-
146+25	RT	67	67	-	-
147+50	LT	48	48	-	-
147+50	RT	46	46	-	-
149+63	LT	-	-	10	1
150+10	LT	-	-	10	1
469+80	RT & LT	100	100	10	-
525+64	RT & LT	100	100	10	-
553+60	RT & LT	100	100	10	-
TOTAL		530	530	50	2

MARKERS CULVERT END

STATION	633.5200 EACH
469+80	2
525+65	2
533+60	2
UNDISTRIBUTED*	14
TOTAL	20

*REPLACE MISSING OR DAMAGED MARKERS AT ENGINEER'S DISCRETION

TRAFFIC CONTROL

STATION	LOCATION	DAYS	TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL DRUMS		REMARKS
			643.0900 EACH	643.0300 EACH	643.0300 EACH	643.0300 EACH	
100+00	-	70	5	350	-	-	BEGIN PROJECT
557+30	-	70	5	350	-	-	END PROJECT
100+00	-	70	1	70	-	-	1ST STREET
108+00	LT	70	1	70	-	-	LAKEVIEW ROAD
131+00	RT	70	1	70	-	-	CTH AA
134+50	LT	70	1	70	-	-	NEBRASKA STREET
137+50	RT	70	1	70	-	-	CTH XX
145+50	LT	70	1	70	-	-	BENTON STREET
149+63	-	3	-	-	6	18	CURB REPLACEMENT
150+10	-	3	-	-	6	18	CURB REPLACEMENT
153+50	LT	70	1	70	-	-	DRIVEWAY
166+00	LT	70	1	70	-	-	CEMETARY ROAD
182+25	LT	70	1	70	-	-	CEMETARY ROAD
240+00	-	70	2	140	-	-	3RD AVE
288+00	RT	70	1	70	-	-	CTH O
328+00	RT	70	1	70	-	-	CTH O
348+00	LT	70	1	70	-	-	CTH O
378+00	RT	70	1	70	-	-	4TH DRIVE
423+00	LT	70	1	70	-	-	DOUGLAS AVE
470+00	-	4	6	24	26	104	CULVERT
501+50	-	70	2	140	-	-	5TH ROAD
525+50	-	4	6	24	26	104	CULVERT
533+50	-	4	6	24	26	104	CULVERT
542+75	-	70	2	140	-	-	CTH P
UNDISTRIBUTED	-	6	-	-	120	120	-
TOTAL			2172		468		

TRAFFIC CONTROL SIGNS FIXED MESSAGE

SIGN NO.	SIGN MESSAGE	SIGN SIZE		643.1000 SF
		W	H	
		(FT)	(FT)	
1	HWY 23 UNDER CONSTR XXX XX-XXX XX	8	X 4	32
2	HWY 23 UNDER CONSTR XXX XX-XXX XX	8	X 4	32
TOTAL				64

PAVEMENT MARKING

STATION - STATION	LOCATION	EPOXY 4-INCH 646.0106*		TEMPORARY EPOXY 4-INCH 649.0100	PAVEMENT MARKING SAME DAY EPOXY 4-INCH 646.0406
		WHITE LF	YELLOW LF		
100+00 - 557+30	LT & RT	90200	-	-	-
DOUBLE YELLOW (23%)	CL	-	21000	21000	21000
DASHED YELLOW (28%)	CL	-	3200	3200	3200
ONE LANE PASSING YELLOW (49%)	CL	-	27800	27800	27800
TOTAL		90,200	52,000	52,000	52,000
*PROJECT GRAND TOTAL		142200			

LOCATING NO-PASSING ZONES

STATION - STATION	648.0100 MI
100+50 - 548+50	8.5
TOTAL	<u>8.5</u>

CONSTRUCTION STAKING

STATION - STATION	STORM SEWER	PIPE CULVERTS	RESURFACING REFERENCE
	650.4000 EACH	650.6000 EACH	650.8000 LF
100+50 - 548+50	-	-	44800
149+63.29	1	-	-
150+10.16	2	-	-
469+80.22	-	1	-
525+61.28	-	1	-
533+60.50	-	1	-
TOTAL		3	44800

SAWNG ASPHALT

STATION	LOCATION	SAWING ASPHALT	SAWING CONCRETE	REMARKS
		690.0150 LF	690.0250 LF	
149+50	LT	48	6	CULVERT REPLACEMENT
150+00	LT	48	6	CULVERT REPLACEMENT
469+25	-	30	-	
470+35	-	30	-	
525+10	-	30	-	
526+20	-	30	-	
533+05	-	30	-	
534+15	-	30	-	
TOTAL		276	12	

LANE SHIFT

STATION - STATION	LOCATION	LANE SHIFT
		SPV.0060 EACH
469+80	-	1
525+64	-	1
535+60	-	1
TOTAL		3

SPRAYED ASPHALTIC SHOULDER TREATMENT

STATION	LOCATION	SPRAYED ASPHALTIC SHOULDER
		SPV.0165.01 SF
137+50 - 139+07	RT	800
146+00 - 147+60	LT	800
146+00 - 147+50	RT	800
TOTAL		2400

GRADING AND SHAPING FOR CURB AND GUTTER

LOCATION	GRADING AND SHAPING
	SPV.0105 LS
CTH A	1
TOTAL	1

BARRIER SYSTEM GRADING SHAPING FINISHING

STATION	LOCATION	614.0010 EACH	*BORROW CY	*SALVAGED TOPSOIL SY	*FERTILIZER TYPE B CWT	*SEEDING MIXTURE NO. 30 LB	*MULCHING SY	REMARKS
137+50	RT	1	1	7	0.01	0.1	7	CTH X
139+07	RT	1	13	63	0.04	1.1	63	CTH X
146+00	LT	1	19	47	0.03	0.9	47	BOX CULVERT
146+00	RT	1	10	65	0.04	1.2	65	BOX CULVERT
147+60	LT	1	5	29	0.02	0.5	29	BOX CULVERT
147+75	RT	1	7	31	0.02	0.6	31	BOX CULVERT
TOTAL		6	56	242	0.16	4	242	

*ITEMS AND QUANTITIES LISTED FOR INFORMATION ONLY

PREPARING TOPSOIL FOR LAWN TYPE TURF

STATION	SPV 0180.01 SY
149+25 - 150+25	210
	210

SIGNING

ROUTE	PLAN SIGN NUMBER	STATION (ESTIMATED)	SIGN CODE	SIGN WIDTH	SIGN HEIGHT	637.0202		634.0612	634.0614	634.0616	634.0618	634.0808	638.2602	638.3000	SIGN MOUNTED ON SAME POST AS	SITE ID	POSITION	DESCRIPTION	TEXT - LINE 1	TEXT - LINE 2	COMMENTS
						SIGNS - REFLECTIVE TYPE II	POST 1	POSTS - WOOD (4x6 - 12')	POSTS - WOOD (4x6 - 14')	POSTS - WOOD (4x6 - 16')	POSTS - WOOD (4x6 - 18')	POSTS - TUBULAR STEEL (2X2 - 8')	REMOVING SIGNS - TYPE II	REMOVING SMALL SIGN SUPPORTS							
				IN	IN	SF		EACH	EACH	EACH	EACH	EACH	EACH	EACH							
_023E	1-32	100+40	R1-1	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		1st Ave	Crossroad	Stop			REMOVE AND INSTALL
_023W	1-1	100+60	I2-2	60	15	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		Lakeview Rd	Right	County Line Name	Adams Co		REMOVE AND INSTALL
_023E	1-33	100+60	I2-2	78	15	8.13	WP 4 x 6 - 14 ft.	--	2	--	--	--	1	2		1st Ave	Right	County Line Name	Marquette Co		REMOVE AND INSTALL
_023E	1-34	106+20	I2-3	66	24	11.00	WP 4 x 6 - 14 ft.	--	2	--	--	--	1	2		Lakeview Rd	Right	Community Population Name Sign	Briggsville	Unincorporated	REMOVE AND INSTALL
_023W	1-2	107+70	R1-1	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		Lakeview Rd	Crossroad	Stop			REMOVE AND INSTALL
_023W	1-3	108+90	W14-3	48	36	12.00	WP 4 x 6 - 16 ft.	--	--	1	--	--	1	1	1-35	Lakeview Rd	Left	No Passing Zone			REMOVE AND INSTALL
_023E	1-35	108+90	W3-5	36	36	9.00	--	--	--	--	--	--	1	--	1-3	Lakeview Rd	Right	Speed Limit _ Ahead [Arrow]	30		REMOVE AND INSTALL
_023E	1-37	109+40	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Lakeview Rd	Left	No Passing Zone			REMOVE AND INSTALL
_023E	1-36	109+80	W1-2L	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Lakeview Rd	Right	Left Curve			REMOVE AND INSTALL
_023W	1-4	112+00	J4-1	24	36	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH AA	Right	Reassurance Assembly			REMOVE AND INSTALL
_023W	1-4	112+00	M1-1	24	24	4.00	--	--	--	--	--	--	1	--		CTH AA	Right	Interstate Route Marker	39		REMOVE AND INSTALL
_023W	1-4	112+00	MB4-1	24	12	2.00	--	--	--	--	--	--	1	--		CTH AA	Right	Alternate			REMOVE AND INSTALL
_023W	1-5	114+00	D2-1	72	15	7.50	WP 4 x 6 - 14 ft.	--	2	--	--	--	1	2		CTH AA	Right	Destination/Distance (One) with Die Cut Letters	Wis Dells 11		REMOVE AND INSTALL
_023E	1-38	115+80	R2-1	24	30	5.00	WP 4 x 6 - 16 ft.	--	--	1	--	--	1	1		Lakeview Rd	Right	Speed Limit _ MPH	30		REMOVE AND INSTALL
_023W	1-6	115+80	R2-1	24	30	5.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH AA	Right	Speed Limit _ MPH	55		REMOVE AND INSTALL
_023E	1-39	118+20	W1-8	18	24	3.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	---	---		CTH AA	Right	Left Chevron			INSTALL
_023E	1-40	119+40	W1-8	18	24	3.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	---	---		CTH AA	Right	Left Chevron			INSTALL
_023W	1-7	119+60	S3-1	36	36	9.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH AA	Right	School Bus Stop Ahead			REMOVE AND INSTALL
_023E	1-41	120+20	W1-6	48	24	8.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH AA	Right	Night Arrow (Single)			REMOVE AND INSTALL
_023E	1-42	120+50	W1-8	18	24	3.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	---	---		CTH AA	Right	Left Chevron			INSTALL
_023E	1-43	121+60	W1-8	18	24	3.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	---	---		CTH AA	Right	Left Chevron			INSTALL
_023E	1-44	123+00	W1-8	18	24	3.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	---	---		CTH AA	Right	Left Chevron			INSTALL
_023E	1-45	126+20	J1-1	24	39	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH AA	Right	Junction or End Assembly			REMOVE AND INSTALL
_023E	1-45	126+20	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH AA	Right	County Route Marker	AA		REMOVE AND INSTALL
_023E	1-45	126+20	M2-1	21	15	2.19	--	--	--	--	--	--	1	--		CTH AA	Right	Junction Marker	JCT		REMOVE AND INSTALL
_023W	1-8	126+80	W1-2R	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH AA	Right	Right Curve			REMOVE AND INSTALL
_023E	1-46	128+10	R2-1	24	30	5.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH AA	Right	Speed Limit _ MPH	30		REMOVE AND INSTALL
_023W	1-9	128+20	R2-1	24	30	5.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH AA	Right	Speed Limit _ MPH	30		REMOVE AND INSTALL
_023W	1-10	129+30	J4-1	24	36	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH AA	Right	Reassurance Assembly			REMOVE AND INSTALL
_023W	1-10	129+30	M1-6	24	24	4.00	--	--	--	--	--	--	1	--		CTH AA	Right	State Route Marker	23		REMOVE AND INSTALL
_023W	1-10	129+30	M3-4	24	12	2.00	--	--	--	--	--	--	1	--		CTH AA	Right	WEST Cardinal Route Marker			REMOVE AND INSTALL
_023E	1-47	130+20	J13-1	24	45	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH AA	Right	Directional without Cardinal			REMOVE AND INSTALL
_023E	1-47	130+20	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH AA	Right	County Route Marker	AA		REMOVE AND INSTALL
_023E	1-47	130+20	M6-1	21	21	3.06	--	--	--	--	--	--	1	--		CTH AA	Right	Arrow - Right, Left, or Ahead	RIGHT		REMOVE AND INSTALL
_023W	1-11	131+60	J13-1	24	45	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH AA	Right	Directional without Cardinal			REMOVE AND INSTALL
_023W	1-11	131+60	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH AA	Right	County Route Marker	AA		REMOVE AND INSTALL
_023W	1-11	131+60	M6-1	21	21	3.06	--	--	--	--	--	--	1	--		CTH AA	Right	Arrow - Right, Left, or Ahead	LEFT		REMOVE AND INSTALL
_023E	1-48	131+60	R1-1	36	36	9.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH AA	Crossroad	Stop			REMOVE AND INSTALL
_023E	1-49	131+90	J1-1	24	39	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH AA	Right	Junction or End Assembly			REMOVE AND INSTALL
_023E	1-49	131+90	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH AA	Right	County Route Marker	X		REMOVE AND INSTALL
_023E	1-49	131+90	M2-1	21	15	2.19	--	--	--	--	--	--	1	--		CTH AA	Right	Junction Marker	JCT		REMOVE AND INSTALL
_023E	1-50	132+90	W1-1L	36	36	--	WP 4 x 6 - 14 ft.	--	--	--	--	--	1	1		CTH X	Right	Left Turn			REMOVE
_023E	1-50	132+90	W1-2L	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	--		CTH X	Right	Left Curve			INSTALL
_023E	1-51	133+80	R2-6P	24	18	3.00	--	--	--	--	--	--	--	--		CTH X	Right	Fines Higher			INSTALL
_023E	1-51	133+80	S1-1	36	36	9.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	--		CTH X	Right	School Crossing			INSTALL
_023E	1-51	133+80	WF16-9P	24	12	2.00	--	--	--	--	--	--	--	--		CTH X	Right	Ahead			INSTALL
_023E	1-52	134+00	S3-1	30	30	--	WP 4 x 6 - 14 ft.	--	--	--	--	--	1	1		CTH X	Right	School Bus Stop Ahead			REMOVE
_023W	1-12	134+40	R1-1	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Nebraska St	Crossroad	Stop			REMOVE AND INSTALL
_023W	1-13	135+50	R2-1	24	30	5.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	--		Nebraska St	Left	Speed Limit _ MPH	30		INSTALL
_023W	1-13	135+50	S5-2	24	30	5.00	--	--	--	--	--	--	--	--		Nebraska St	Left	End School Zone			INSTALL
_023E	1-53	136+00	S4-51	24	48	8.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH X	Right	School Speed Limit	15		REMOVE AND INSTALL
_023W	1-14	137+10	J1-1	24	39	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH AA	Right	Junction or End Assembly			REMOVE AND INSTALL
_023W	1-14	137+10	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH AA	Right	County Route Marker	AA		REMOVE AND INSTALL
_023W	1-14	137+10	M2-1	21	15	2.19	--	--	--	--	--	--	1	--		CTH AA	Right	Junction Marker	JCT		REMOVE AND INSTALL
_023E	1-54	137+10	J13-1	24	45	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH X	Right	Directional without Cardinal			REMOVE AND INSTALL
_023E	1-54	137+10	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH X	Right	County Route Marker	X		REMOVE AND INSTALL
_023E	1-54	137+10	M6-1	21	21	3.06	--	--	--	--	--	--	1	--		CTH X	Right	Arrow - Right, Left, or Ahead	RIGHT		REMOVE AND INSTALL

SIGNING - CONTINUED

ROUTE	PLAN SIGN NUMBER	STATION (ESTIMATED)	SIGN CODE	SIGN WIDTH	SIGN HEIGHT	637.0202	POST 1	634.0612	634.0614	634.0616	634.0618	634.0808	638.2602	638.3000	SIGN MOUNTED ON SAME POST AS	SITE ID	POSITION	DESCRIPTION	TEXT - LINE 1	TEXT - LINE 2	COMMENTS
				IN	IN	SF		EACH	EACH	EACH	EACH	EACH	EACH	EACH							
023W	1-15	137+80	J13-1	24	45	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH X	Right	Directional without Cardinal			REMOVE AND INSTALL
023W	1-15	137+80	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH X	Right	County Route Marker	X		REMOVE AND INSTALL
023W	1-15	137+80	M6-1	21	21	3.06	--	--	--	--	--	--	1	--		CTH X	Right	Arrow - Right, Left, or Ahead	LEFT		REMOVE AND INSTALL
023E	1-55	137+80	R1-1	36	36	9.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH X	Crossroad	Stop			REMOVE AND INSTALL
023E	1-56	137+90	W1-6	48	24	8.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH X	Right	Night Arrow (Single)			REMOVE AND INSTALL
023W	1-16	138+20	W1-6	24	48	8.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH X	Left	Night Arrow (Single)			REMOVE AND INSTALL
023W	1-17	138+70	R2-1	24	30	5.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH X	Right	Speed Limit _ MPH	30		REMOVE AND INSTALL
023E	1-57	140+20	J1-1	24	39	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH A	Right	Junction or End Assembly			REMOVE AND INSTALL
023E	1-57	140+20	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH A	Right	County Route Marker	A		REMOVE AND INSTALL
023E	1-57	140+20	M2-1	21	15	2.19	--	--	--	--	--	--	1	--		CTH A	Right	Junction Marker	JCT		REMOVE AND INSTALL
023E	1-58	141+00	J4-1	24	36	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH A	Right	Reassurance Assembly			REMOVE AND INSTALL
023E	1-58	141+00	M1-6	24	24	4.00	--	--	--	--	--	--	1	--		CTH A	Right	State Route Marker	23		REMOVE AND INSTALL
023E	1-58	141+00	M3-2	24	12	2.00	--	--	--	--	--	--	1	--		CTH A	Right	EAST Cardinal Route Marker			REMOVE AND INSTALL
023W	1-18	141+30	S4-51	24	48	8.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH X	Right	School Speed Limit	15		REMOVE AND INSTALL
023E	1-59	142+00	W1-4R	30	30	--	WP 4 x 6 - 14 ft.	--	--	--	--	--	1	1		CTH A	Right	Right Reverse Curve			REMOVE
023W	1-19	142+80	R2-6P	24	18	3.00	--	--	--	--	--	--	--	--		CTH X	Right	Fines Higher			INSTALL
023W	1-19	142+80	S1-1	36	36	9.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	--		CTH X	Right	School Crossing			INSTALL
023W	1-19	142+80	WF16-9P	24	12	2.00	--	--	--	--	--	--	--	--		CTH X	Right	Ahead			INSTALL
023E	1-60	143+00	R2-1	24	30	5.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH X	Right	Speed Limit _ MPH	30		REMOVE AND INSTALL
023E	1-60	143+00	S5-2	24	30	5.00	--	--	--	--	--	--	--	--		CTH X	Right	End School Zone			INSTALL
023W	1-20	143+90	W1-1R	36	36	--	WP 4 x 6 - 14 ft.	--	--	--	--	--	1	1		CTH X	Right	Right Turn			REMOVE
023W	1-20	143+90	W1-2R	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	--		CTH X	Right	Right Curve			INSTALL
023W	1-21	145+10	R1-1	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		Benton St	Crossroad	Stop			REMOVE AND INSTALL
023E	1-61	146+50	W5-52L	12	36	3.00	SCP - 7 ft.	--	--	--	--	1	1	1		CTH A	Left	Clearance Striper Down Right			REMOVE AND INSTALL
023E	1-62	146+60	W5-52R	12	36	3.00	SCP - 7 ft.	--	--	--	--	1	1	1		CTH A	Right	Clearance Striper Down Left			REMOVE AND INSTALL
023W	1-22	147+20	W5-52L	12	36	3.00	SCP - 7 ft.	--	--	--	--	1	1	1		CTH X	Left	Clearance Striper Down Left			REMOVE AND INSTALL
023W	1-23	147+20	W5-52R	12	36	3.00	SCP - 7 ft.	--	--	--	--	1	1	1		CTH X	Right	Clearance Striper Down Right			REMOVE AND INSTALL
023W	1-24	147+70	J1-1	24	39	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH X	Right	Junction or End Assembly			REMOVE AND INSTALL
023W	1-24	147+70	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH X	Right	County Route Marker	X		REMOVE AND INSTALL
023W	1-24	147+70	M2-1	21	15	2.19	--	--	--	--	--	--	1	--		CTH X	Right	Junction Marker	JCT		REMOVE AND INSTALL
023W	1-25	149+00	W11-6	24	24	--	WP 4 x 6 - 14 ft.	--	--	--	--	--	1	1		CTH A	Right	Snowmobile Crossing Symbol			REMOVE
023W	1-26	149+00	R2-1	24	30	5.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH A	Right	Speed Limit _ MPH	30		REMOVE AND INSTALL
023W	1-26	149+00	R7-1D	18	24	3.00	--	--	--	--	--	--	1	--		CTH A	Right	No Parking Any Time - Double Arrow			REMOVE AND INSTALL
023E	1-63	149+00	J13-1	24	45	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH A	Right	Directional without Cardinal			REMOVE AND INSTALL
023E	1-63	149+00	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH A	Right	County Route Marker	A		REMOVE AND INSTALL
023E	1-63	149+00	M6-2	21	21	3.06	--	--	21	--	--	--	1	--		CTH A	Right	Arrow Tilt Right or Left	Tilt Left		REMOVE AND INSTALL
023W	1-27	149+40	R1-1	36	36	9.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH A	Crossroad	Stop			REMOVE AND INSTALL
023E	1-64	150+00	R2-1	24	30	5.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH A	Right	Speed Limit _ MPH	30		REMOVE AND INSTALL
023W	1-28	150+30	J13-1	24	45	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH A	Right	Directional without Cardinal			REMOVE AND INSTALL
023W	1-28	150+30	M1-5A	24	24	4.00	--	--	24	--	--	--	1	--		CTH A	Right	County Route Marker	A		REMOVE AND INSTALL
023W	1-28	150+30	M6-1	21	21	3.06	--	--	--	--	--	--	1	--		CTH A	Right	Arrow - Right, Left, or Ahead	RIGHT		REMOVE AND INSTALL
023E	1-65	151+00	W11-8	36	36	9.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH A	Right	Fire Station Truck Crossing Symbol			REMOVE AND INSTALL
023W	1-29	152+00	R1-1	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		Park St	Crossroad	Stop			REMOVE AND INSTALL
023E	1-66	152+70	J4-1	24	36	--	WP 4 x 6 - 16 ft.	--	--	1	--	--	--	1		CTH A	Right	Reassurance Assembly			REMOVE AND INSTALL
023E	1-66	152+70	M1-6	24	24	4.00	--	--	--	--	--	--	1	--		CTH A	Right	State Route Marker	23		REMOVE AND INSTALL
023E	1-66	152+70	M3-2	24	12	2.00	--	--	--	--	--	--	1	--		CTH A	Right	EAST Cardinal Route Marker			REMOVE AND INSTALL
023E	1-66	152+70	W11-6	30	30	6.25	--	--	--	--	--	--	1	--		CTH A	Right	Snowmobile Crossing Symbol			REMOVE AND INSTALL
023E	1-67	154+00	W11-2	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH A	Right	Pedestrian Crossing Symbol			REMOVE AND INSTALL
023E	1-67	154+00	W16-9P	24	12	2.00	--	--	--	--	--	--	1	--		CTH A	Right	Ahead			REMOVE AND INSTALL
023E	1-68	155+40	W1-2R	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH A	Right	Right Curve			REMOVE AND INSTALL
023E	1-69	156+70	R2-1	24	30	5.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH A	Right	Speed Limit _ MPH	30		REMOVE AND INSTALL
023W	1-30	156+80	R2-1	24	30	5.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH A	Right	Speed Limit _ MPH	30		REMOVE AND INSTALL
023W	1-31	157+80	W1-4R	30	30	--	WP 4 x 6 - 14 ft.	--	--	--	--	--	1	1		CTH A	Right	Right Reverse Curve			REMOVE
023W	2-1	159+00	J1-1	24	39	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH A	Right	Junction or End Assembly			REMOVE AND INSTALL
023W	2-1	159+00	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH A	Right	County Route Marker	A		REMOVE AND INSTALL
023W	2-1	159+00	M2-1	21	15	2.19	--	--	--	--	--	--	1	--		CTH A	Right	Junction Marker	JCT		REMOVE AND INSTALL
023W	2-2	159+10	R1-1	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		Cass St	Crossroad	Stop			REMOVE AND INSTALL

SIGNING - CONTINUED

ROUTE	PLAN SIGN NUMBER	STATION (ESTIMATED)	SIGN CODE	SIGN WIDTH	SIGN HEIGHT	637.0202		634.0612	634.0614	634.0616	634.0618	634.0808	638.2602	638.3000	SIGN MOUNTED ON SAME POST AS	SITE ID	POSITION	DESCRIPTION	TEXT - LINE 1	TEXT - LINE 2	COMMENTS
						SIGNS - REFLECTIVE TYPE II	POST 1	POSTS - WOOD (4x6 - 12')	POSTS - WOOD (4x6 - 14')	POSTS - WOOD (4x6 - 16')	POSTS - WOOD (4x6 - 18')	POSTS - TUBULAR STEEL (2X2 - 8')	REMOVING SIGNS - TYPE II	REMOVING SMALL SIGN SUPPORTS							
				IN	IN	SF		EACH	EACH	EACH	EACH	EACH	EACH	EACH							
023W	2-3	160+80	W11-6	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Cementary Rd	Right	Snowmobile Crossing Symbol			REMOVE AND INSTALL
023W	2-4	162+00	W11-8	36	36	9.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Cementary Rd	Right	Fire Station Truck Crossing Symbol			REMOVE AND INSTALL
023W	2-14	165+80	J1-1	24	39	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH A	Right	Junction or End Assembly			REMOVE AND INSTALL
023W	2-14	165+80	M1-1	24	24	4.00	--	--	--	--	--	--	1	--		CTH A	Right	Interstate Route Marker	39		REMOVE AND INSTALL
023W	2-14	165+80	MB4-1	24	12	2.00	--	--	--	--	--	--	1	--		CTH A	Right	Alternate			REMOVE AND INSTALL
023W	2-5	166+00	R1-1	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		Cementary Rd	Crossroad	Stop			REMOVE AND INSTALL
023W	2-6	168+00	W11-2	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		3rd Ave	Right	Pedestrian Crossing Symbol			REMOVE AND INSTALL
023W	2-6	168+00	W16-9P	24	12	2.00	--	--	--	--	--	--	1	--		3rd Ave	Right	Ahead			REMOVE AND INSTALL
023E	2-15	169+60	W14-3	48	36	12.00	--	--	--	--	--	--	1	--	2-7	Cementary Rd	Left	No Passing Zone			REMOVE AND INSTALL
023W	2-7	169+60	R2-1	24	30	5.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1	2-15	3rd Ave	Right	Speed Limit _ MPH	30		REMOVE AND INSTALL
023W	2-8	170+30	W1-2L	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		3rd Ave	Right	Left Curve			REMOVE AND INSTALL
023E	2-16	172+20	R2-1	24	30	5.00	--	--	--	--	--	--	1	--	2-9	Cementary Rd	Right	Speed Limit _ MPH	55		REMOVE AND INSTALL
023W	2-9	172+20	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1	2-16	3rd Ave	Left	No Passing Zone			REMOVE AND INSTALL
023E	2-17	173+30	I55-56	30	36	7.50	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Cementary Rd	Right	Adopt-A-Highway [Sponsor]	The Brancel Family		REMOVE AND INSTALL
023W	2-10	176+90	W3-5	36	36	9.00	WP 4 x 6 - 16 ft.	--	--	1	--	--	1	1		3rd Ave	Right	Speed Limit _ Ahead [Arrow]	30		REMOVE AND INSTALL
023E	2-18	177+10	W11-6	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Cementary Rd	Right	Snowmobile Crossing Symbol			REMOVE AND INSTALL
023W	2-11	177+20	I2-3	66	24	11.00	WP 4 x 6 - 14 ft.	--	2	--	--	--	1	2		3rd Ave	Right	Community Population Name Sign	Briggsville		REMOVE AND INSTALL
023E	2-21	184+30	W57-51	30	15	3.13	--	--	--	--	--	--	--	--		3rd Ave	Right	Next XX Miles	7		INSTALL
023E	2-21	184+30	W8-70	36	36	9.00	WP 4x6 - 18 ft.	--	--	--	1	--	--	--		3rd Ave	Right	Centerline Rumble Strips			INSTALL
023W	2-12	189+40	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		3rd Ave	Left	No Passing Zone			REMOVE AND INSTALL
023W	2-13	198+60	W11-6	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		3rd Ave	Right	Snowmobile Crossing Symbol			REMOVE AND INSTALL
023E	2-19	200+50	W1-2R	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Cementary Rd	Right	Right Curve			REMOVE AND INSTALL
023E	2-20	202+80	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		3rd Ave	Left	No Passing Zone			REMOVE AND INSTALL
023W	3-1	224+80	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		3rd Ave	Left	No Passing Zone			REMOVE AND INSTALL
023W	3-2	226+20	W1-2L	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		3rd Ave	Right	Left Curve			REMOVE AND INSTALL
023E	3-9	229+00	W1-2L	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		3rd Ave	Right	Left Curve			REMOVE AND INSTALL
023E	3-10	231+30	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		3rd Ave	Left	No Passing Zone			REMOVE AND INSTALL
023W	3-3	239+80	R1-1	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		3rd Ave	Crossroad	Stop			REMOVE AND INSTALL
023E	3-11	240+20	R1-1	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		3rd Ave	Crossroad	Stop			REMOVE AND INSTALL
023E	3-12	257+70	W1-2R	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		3rd Ave	Right	Right Curve			REMOVE AND INSTALL
023E	3-13	258+10	I2-2	30	9	1.88	--	--	--	--	--	--	1	--	3-4	3rd Ave	Left	Lake or River Name - Stencil Message	Neenah Creek		REMOVE AND INSTALL
023W	3-4	258+10	I2-2	30	9	1.88	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1	3-13	CTH O	Right	Lake or River Name - Stencil Message	Neenah Creek		REMOVE AND INSTALL
023E	3-14	258+70	W5-52R	12	36	3.00	SCP - 7 ft.	--	--	--	--	1	1	1		3rd Ave	Left	Clearance Striper Down Right			REMOVE AND INSTALL
023E	3-15	259+10	W5-52L	12	36	3.00	SCP - 7 ft.	--	--	--	--	1	1	1		3rd Ave	Right	Clearance Striper Down Left			REMOVE AND INSTALL
023W	3-5	259+30	W5-52L	12	36	3.00	SCP - 7 ft.	--	--	--	--	1	1	1		CTH O	Left	Clearance Striper Down Left			REMOVE AND INSTALL
023W	3-6	259+60	W5-52R	12	36	3.00	SCP - 7 ft.	--	--	--	--	1	1	1		CTH O	Right	Clearance Striper Down Left			REMOVE AND INSTALL
023W	3-7	259+70	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH O	Left	No Passing Zone			REMOVE AND INSTALL
023E	3-16	260+30	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		3rd Ave	Left	No Passing Zone			REMOVE AND INSTALL
023W	3-8	262+70	W1-2R	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH O	Right	Right Curve			REMOVE AND INSTALL
023E	4-11	278+10	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH O	Left	No Passing Zone			REMOVE AND INSTALL
023E	4-12	279+00	W1-2L	30	30	6.25	--	--	--	--	--	--	1	--	4-1	CTH O	Right	Left Curve			REMOVE AND INSTALL
023W	4-1	279+10	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1	4-12	CTH O	Left	No Passing Zone			REMOVE AND INSTALL
023W	4-2	280+20	W1-2L	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH O	Right	Left Curve			REMOVE AND INSTALL
023W	4-3	283+50	J4-1	24	36	6.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH O	Right	Reassurance Assembly			REMOVE AND INSTALL
023W	4-3	283+50	M1-1	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Right	Interstate Route Marker	39		REMOVE AND INSTALL
023W	4-3	283+50	MB4-1	24	12	2.00	--	--	--	--	--	--	1	--		CTH O	Right	Alternate			REMOVE AND INSTALL
023W	4-4	285+50	J4-1	24	36	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH O	Right	Reassurance Assembly			REMOVE AND INSTALL
023W	4-4	285+50	M1-6	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Right	State Route Marker	23		REMOVE AND INSTALL
023W	4-4	285+50	M3-4	24	12	2.00	--	--	--	--	--	--	1	--		CTH O	Right	WEST Cardinal Route Marker			REMOVE AND INSTALL
023E	4-13	285+70	J1-1	24	39	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH O	Right	Junction or End Assembly			REMOVE AND INSTALL
023E	4-13	285+70	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Right	County Route Marker	O		REMOVE AND INSTALL
023E	4-13	285+70	M2-1	21	15	2.19	--	--	--	--	--	--	1	--		CTH O	Right	Junction Marker	JCT		REMOVE AND INSTALL
023E	4-14	288+90	R1-1	36	36	9.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH O	Crossroad	Stop			REMOVE AND INSTALL
023E	4-15	289+00	M1-6	24	24	4.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH O	Right	State Route Marker	23		REMOVE AND INSTALL
023E	4-15	289+00	W1-6	48	24	8.00	--	--	--	--	--	--	1	--		CTH O	Right	Night Arrow (Single)			REMOVE AND INSTALL
023E	4-16	296+80	J13-1	24	45	--	--	--	--	--	--	--	--	--	4-5	CTH O	Right	Directional without Cardinal			REMOVE AND INSTALL
023E	4-16	296+80	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Right	County Route Marker	O		REMOVE AND INSTALL
023E	4-16	296+80	M6-6	21	21	3.06	--	--	--	--	--	--	1	--		CTH O	Right	Directional Arrows LA/UA COMBO OR UA/RA	UA/RA		REMOVE AND INSTALL

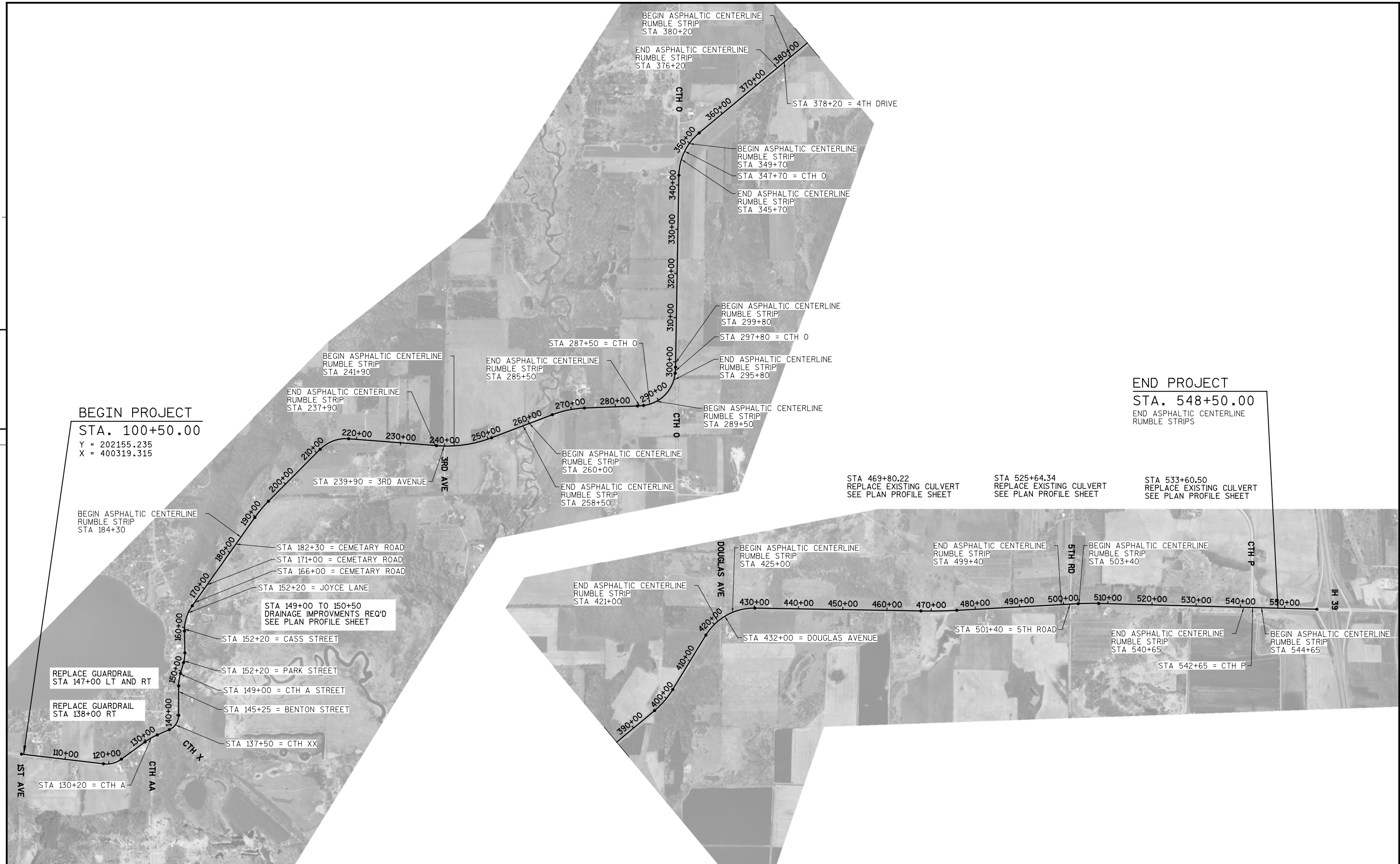
SIGNING - CONTINUED

ROUTE	PLAN SIGN NUMBER	STATION (ESTIMATED)	SIGN CODE	SIGN WIDTH	SIGN HEIGHT	637.0202	POST 1	634.0612	634.0614	634.0616	634.0618	634.0808	638.2602	638.3000	SIGN MOUNTED ON SAME POST AS	SITE ID	POSITION	DESCRIPTION	TEXT - LINE 1	TEXT - LINE 2	COMMENTS
				IN	IN	SF		EACH	EACH	EACH	EACH	EACH	EACH	EACH							
023W	4-5	296+80	W1-6	48	24	8.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1	4-16	CTH O	Left	Night Arrow (Single)			REMOVE AND INSTALL
023E	4-17	296+90	R1-1	36	36	9.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH O	Crossroad	Stop			REMOVE AND INSTALL
023W	4-6	300+40	J13-1	24	45	7.50	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH O	Right	Directional without Cardinal			REMOVE AND INSTALL
023W	4-6	300+40	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Right	County Route Marker	O		REMOVE AND INSTALL
023W	4-6	300+40	M6-2	21	21	3.06	--	--	--	--	--	--	1	--		CTH O	Right	Arrow Tilt Right or Left	Left Tilt		REMOVE AND INSTALL
023E	4-18	300+80	J4-1	24	36	6.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH O	Right	Reassurance Assembly			REMOVE AND INSTALL
023E	4-18	300+80	M1-6	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Right	State Route Marker	23		REMOVE AND INSTALL
023E	4-18	300+80	M3-2	24	12	2.00	--	--	--	--	--	--	1	--		CTH O	Right	EAST Cardinal Route Marker			REMOVE AND INSTALL
023E	4-19	301+80	I55-56	30	36	7.50	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH O	Right	Adopt-A-Highway [Sponsor]	Douglas Doer 4H		REMOVE AND INSTALL
023W	4-7	302+00	I55-56	30	36	7.50	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH O	Right	Adopt-A-Highway [Sponsor]	The Brancel Family		REMOVE AND INSTALL
023W	4-8	306+20	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH O	Left	No Passing Zone			REMOVE AND INSTALL
023W	4-9	307+80	W1-2R	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH O	Right	Right Curve			REMOVE AND INSTALL
023W	4-10	309+00	J13-1	24	45	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH O	Right	Directional without Cardinal			REMOVE AND INSTALL
023W	4-10	309+00	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Right	County Route Marker	O		REMOVE AND INSTALL
023W	4-10	309+00	M6-1	21	21	3.06	--	--	21	--	--	--	1	--		CTH O	Right	Arrow - Right, Left, or Ahead	AHEAD		REMOVE AND INSTALL
023E	5-8	335+10	W1-2R	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH O	Right	Right Curve			REMOVE AND INSTALL
023E	5-9	335+10	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH O	Left	No Passing Zone			REMOVE AND INSTALL
023W	5-18	337+00	W57-51	30	15	3.13	--	--	--	--	--	--	--	--		4th Dr	Right	Next XX Miles	3		INSTALL
023W	5-18	337+00	W8-70	36	36	9.00	WP 4x6 - 18 ft.	--	--	--	1	--	--	--		4th Dr	Right	Centerline Rumble Strips			INSTALL
023E	5-10	339+90	J13-1	24	45	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH O	Right	Directional without Cardinal			REMOVE AND INSTALL
023E	5-10	339+90	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Right	County Route Marker	O		REMOVE AND INSTALL
023E	5-10	339+90	M5-1L	21	21	3.06	--	--	--	--	--	--	1	--		CTH O	Right	Advance Arrow Left Turn			REMOVE AND INSTALL
023E	5-11	344+80	J4-1	24	36	--	WP 4 x 6 - 12 ft.	1	--	--	--	--	--	1		CTH O	Left	Reassurance Assembly			REMOVE AND INSTALL
023E	5-11	344+80	M1-6	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Left	State Route Marker	23		REMOVE AND INSTALL
023E	5-11	344+80	M3-2	24	12	2.00	--	--	--	--	--	--	1	--		CTH O	Left	EAST Cardinal Route Marker			REMOVE AND INSTALL
023E	5-11	344+80	W1-6	48	24	8.00	--	--	--	--	--	--	1	--		CTH O	Left	Night Arrow (Single)			REMOVE AND INSTALL
023W	5-1	347+40	R1-1	36	36	9.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH O	Crossroad	Stop			REMOVE AND INSTALL
023E	5-12	347+70	J13-1	24	45	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH O	Right	Directional without Cardinal			REMOVE AND INSTALL
023E	5-12	347+70	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Right	County Route Marker	O		REMOVE AND INSTALL
023E	5-12	347+70	M6-1	21	21	3.06	--	--	--	--	--	--	1	--		CTH O	Right	Arrow - Right, Left, or Ahead	LEFT		REMOVE AND INSTALL
023W	5-2	347+80	J13-1	24	45	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH O	Right	Directional without Cardinal			REMOVE AND INSTALL
023W	5-2	347+80	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Right	County Route Marker	O		REMOVE AND INSTALL
023W	5-2	347+80	M6-1	21	21	3.06	--	--	--	--	--	--	1	--		CTH O	Crossroad	Arrow - Right, Left, or Ahead	RIGHT		REMOVE AND INSTALL
023W	5-3	348+40	J13-1	24	45	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH O	Right	Directional without Cardinal			REMOVE AND INSTALL
023W	5-3	348+40	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Right	County Route Marker	O		REMOVE AND INSTALL
023W	5-3	348+40	M6-6	21	21	3.06	--	--	21	--	--	--	1	--		CTH O	Right	Directional Arrows LA/UA COMBO OR UA/RA	UA/RA		REMOVE AND INSTALL
023W	5-4	351+00	W1-6	48	24	8.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH O	Right	Night Arrow (Single)			REMOVE AND INSTALL
023E	5-13	352+60	J4-1	24	36	6.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH O	Right	Reassurance Assembly			REMOVE AND INSTALL
023E	5-13	352+60	M1-6	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Right	State Route Marker	23		REMOVE AND INSTALL
023E	5-13	352+60	M3-2	24	12	2.00	--	--	--	--	--	--	1	--		CTH O	Right	EAST Cardinal Route Marker			REMOVE AND INSTALL
023E	5-14	352+60	J4-1	24	36	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH O	Right	Reassurance Assembly			REMOVE AND INSTALL
023E	5-14	352+60	M1-51	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Right	Interstate Route Marker	94		REMOVE AND INSTALL
023E	5-14	352+60	MB4-1	24	12	2.00	--	--	--	--	--	--	1	--		CTH O	Right	Alternate			REMOVE AND INSTALL
023W	5-5	355+10	J1-1	24	39	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH O	Right	Junction or End Assembly			REMOVE AND INSTALL
023W	5-5	355+10	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH O	Right	County Route Marker	O		REMOVE AND INSTALL
023W	5-5	355+10	M2-1	21	15	2.19	--	--	--	--	--	--	1	--		CTH O	Right	Junction Marker	JCT		REMOVE AND INSTALL
023W	5-6	360+00	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Douglas Ave	Left	No Passing Zone			REMOVE AND INSTALL
023W	5-7	362+10	W1-2L	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Douglas Ave	Right	Left Curve			REMOVE AND INSTALL
023E	5-15	366+20	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH O	Left	No Passing Zone			REMOVE AND INSTALL
023E	5-16	370+20	W2-2	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		4th Dr	Right	Side Road (90 Degrees)			REMOVE AND INSTALL
023E	5-17	378+40	R1-1	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		4th Dr	Crossroad	Stop			REMOVE AND INSTALL
023E	6-10	388+50	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		4th Dr	Right	No Passing Zone			REMOVE AND INSTALL
023E	6-9	388+50	W1-2L	30	30	6.25	--	--	--	--	--	--	1	--	6-1	4th Dr	Left	Left Curve			REMOVE AND INSTALL
023W	6-1	388+50	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1	6-9	Douglas Ave	Left	No Passing Zone			REMOVE AND INSTALL
023E	6-16	391+00	W57-51	30	15	3.13	--	--	--	--	--	--	--	--		Douglas Ave	Right	Next XX Miles	3		INSTALL
023E	6-16	391+00	W8-70	36	36	9.00	WP 4x6 - 18 ft.	--	--	--	1	--	--	--		Douglas Ave	Right	Centerline Rumble Strips			INSTALL
023E	6-11	406+60	W1-2R	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		4th Dr	Right	Right Curve			REMOVE AND INSTALL

SIGNING - CONTINUED

ROUTE	PLAN SIGN NUMBER	STATION (ESTIMATED)	SIGN CODE	SIGN WIDTH	SIGN HEIGHT	637.0202	POST 1	634.0612	634.0614	634.0616	634.0618	634.0808	638.2602	638.3000	SIGN MOUNTED ON SAME POST AS	SITE ID	POSITION	DESCRIPTION	TEXT - LINE 1	TEXT - LINE 2	COMMENTS
						SIGNS - REFLECTIVE TYPE II		POSTS - WOOD (4x6 - 12')	POSTS - WOOD (4x6 - 14')	POSTS - WOOD (4x6 - 16')	POSTS - WOOD (4x6 - 18')	POSTS - TUBULAR STEEL (2X2 - 8')	REMOVING SIGNS - TYPE II	REMOVING SMALL SIGN SUPPORTS							
				IN	IN	SF		EACH	EACH	EACH	EACH	EACH	EACH	EACH							
023E	6-12	408+60	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		4th Dr	Left	No Passing Zone			REMOVE AND INSTALL
023W	6-2	408+70	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Douglas Ave	Left	No Passing Zone			REMOVE AND INSTALL
023W	6-3	410+80	W1-2R	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Douglas Ave	Right	Right Curve			REMOVE AND INSTALL
023W	6-4	417+00	I55-56	30	36	7.50	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		Douglas Ave	Right	Adopt-A-Highway [Sponsor]	Douglas Doer 4H		REMOVE AND INSTALL
023E	6-13	419+20	J4-1	24	36	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		Douglas Ave	Left	Reassurance Assembly			REMOVE AND INSTALL
023E	6-13	419+20	W1-6	48	24	8.00	--	--	--	--	--	--	1	--		Douglas Ave	Left	Night Arrow (Single)			REMOVE AND INSTALL
023E	6-13	419+20	M1-6	24	24	4.00	--	--	--	--	--	--	1	--		Douglas Ave	Left	State Route Marker	23		REMOVE AND INSTALL
023E	6-13	419+20	M3-2	24	12	2.00	--	--	--	--	--	--	1	--		Douglas Ave	Left	EAST Cardinal Route Marker			REMOVE AND INSTALL
023W	6-5	422+70	R1-1	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		5Th Rd	Crossroad	Stop			REMOVE AND INSTALL
023W	6-6	427+70	M1-6	24	24	4.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		5Th Rd	Right	State Route Marker	23		REMOVE AND INSTALL
023W	6-6	427+70	W1-6	48	24	8.00	--	--	--	--	--	--	1	--		5Th Rd	Right	Night Arrow (Single)			REMOVE AND INSTALL
023E	6-14	437+30	W14-3	48	36	12.00	--	--	--	--	--	--	1	--	6-8	Douglas Ave	Left	No Passing Zone			REMOVE AND INSTALL
023W	6-7	437+30	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		5Th Rd	Left	No Passing Zone			REMOVE AND INSTALL
023W	6-8	437+30	W1-2L	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1	6-14	5Th Rd	Right	Left Curve			REMOVE AND INSTALL
023E	6-15	443+70	S3-1	36	36	9.00	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		Douglas Ave	Right	School Bus Stop Ahead			REMOVE AND INSTALL
023W	7-1	461+00	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1	7-3	5Th Rd	Left	No Passing Zone			REMOVE AND INSTALL
023E	7-3	461+00	I55-56	30	36	7.50	--	--	--	--	--	--	1	--	7-1	Douglas Ave	Right	Adopt-A-Highway [Sponsor]	Endeavor Lions Club		REMOVE AND INSTALL
023E	7-4	484+30	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Douglas Ave	Left	No Passing Zone			REMOVE AND INSTALL
023E	7-5	492+00	W2-1	30	30	6.25	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Douglas Ave	Right	Cross Road			REMOVE AND INSTALL
023E	7-6	494+00	S3-1	36	36	9.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		Douglas Ave	Right	School Bus Stop Ahead			REMOVE AND INSTALL
023W	7-2	500+30	R1-1	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH P	Crossroad	Stop			REMOVE AND INSTALL
023E	7-7	501+70	R1-1	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		5Th Rd	Crossroad	Stop			REMOVE AND INSTALL
023W	8-1	507+20	W14-3	48	36	12.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1		CTH P	Left	No Passing Zone			REMOVE AND INSTALL
023E	8-13	534+75	J1-1	24	39	6.50	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH P	Right	Junction or End Assembly			REMOVE AND INSTALL
023E	8-13	534+75	M2-1	21	15	2.19	--	--	--	--	--	--	1	--		CTH P	Right	Junction	JCT		REMOVE AND INSTALL
023E	8-13	534+75	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH P	Right	County Route Marker	P		REMOVE AND INSTALL
023W	8-2	536+90	R2-1	24	30	5.00	WP 4 x 6 - 16 ft.	--	--	1	--	--	1	1		CTH P	Right	Speed Limit _ MPH	55		REMOVE AND INSTALL
023W	8-3	539+70	M1-6	24	24	4.00	--	--	--	--	--	--	1	--		CTH P	Right	State Route Marker	23		REMOVE AND INSTALL
023W	8-3	539+70	M3-4	24	12	2.00	--	--	--	--	--	--	1	--		CTH P	Right	WEST Cardinal Route Marker			REMOVE AND INSTALL
023W	8-3	539+70	J4-1	24	36	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH P	Right	Reassurance Assembly			REMOVE AND INSTALL
023E	8-8	542+10	J13-1	24	45	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH P	Right	Directional without cardinal			REMOVE AND INSTALL
023E	8-8	542+10	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH P	Right	County Route Marker	P		REMOVE AND INSTALL
023E	8-8	542+10	M6-6	21	21	3.06	--	--	--	--	--	--	1	--		CTH P	Right	Directional Arrows LA/UA COMBO OR UA/RA	LA/UA		REMOVE AND INSTALL
023W	8-4	542+40	R1-1	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH P	Crossroad	Stop			REMOVE AND INSTALL
023E	8-9	543+20	R1-1	30	30	6.25	WP 4 x 6 - 12 ft.	1	--	--	--	--	1	1		CTH P	Crossroad	Stop			REMOVE AND INSTALL
023W	8-5	543+50	J13-1	24	45	--	WP 4 x 6 - 14 ft.	--	1	--	--	--	--	1		CTH P	Right	Directional without Cardinal			REMOVE AND INSTALL
023W	8-5	543+50	M1-5A	24	24	4.00	--	--	--	--	--	--	1	--		CTH P	Right	County Route Marker	P		REMOVE AND INSTALL
023W	8-5	543+50	M6-1	21	21	3.06	--	--	--	--	--	--	1	--		CTH P	Right	Arrow - Right, Left, or Ahead	RIGHT		REMOVE AND INSTALL
023E	8-10	545+20	W14-3	48	36	12.00	--	--	--	--	--	--	1	--	8-6	IH 39	Left	No Passing Zone			REMOVE AND INSTALL
023E	8-11	545+20	R4-52-R	24	24	4.00	--	--	--	--	--	--	1	--	8-7	IH 39	Right	Keep Right - NO Arrow			REMOVE AND INSTALL
023E	8-11	545+20	W6-1	36	36	9.00	--	--	--	--	--	--	1	--	8-7	IH 39	Right	Divided Highway Ahead			REMOVE AND INSTALL
023W	8-6	545+20	W6-3	36	36	9.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1	8-10	CTH P	Right	Two Way Traffic Symbol			REMOVE AND INSTALL
023W	8-7	545+20	W6-3	36	36	9.00	WP 4 x 6 - 14 ft.	--	1	--	--	--	1	1	8-11	CTH P	Left	Two Way Traffic Symbol			REMOVE AND INSTALL
023E	8-12	548+50	W57-51	30	15	3.13	--	--	--	--	--	--	--	--		IH 39	Right	Next XX Miles	7		INSTALL
023E	8-12	548+50	W8-70	36	36	9.00	WP 4x6 - 18 ft.	--	--	--	1	--	--	--		IH 39	Right	Centerline Rumble Strips			INSTALL

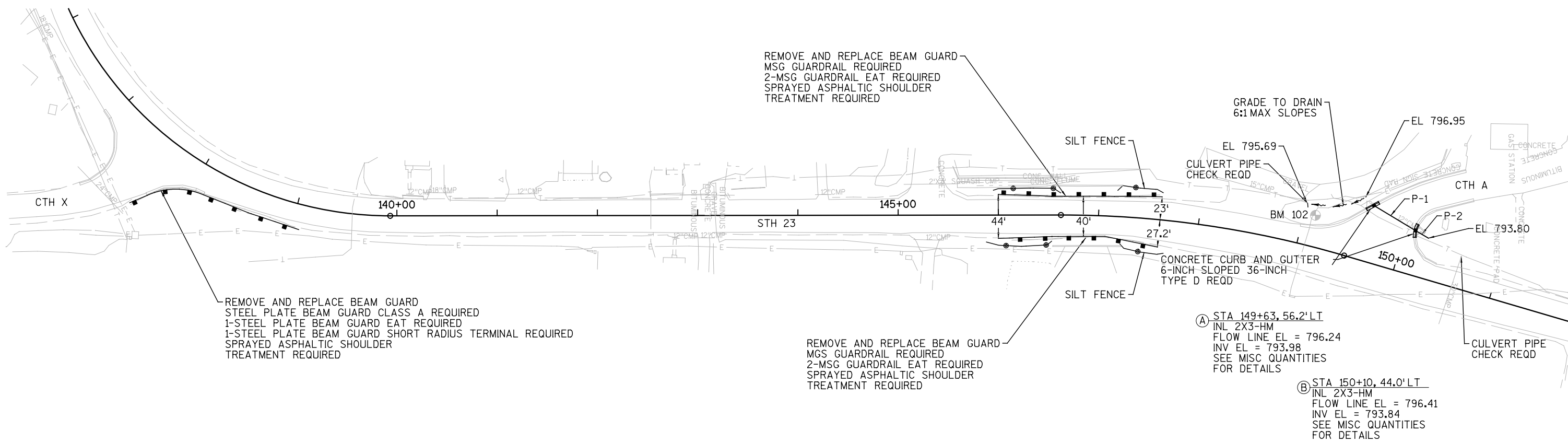
TOTALS 1384 41 110 5 4 8 213 160





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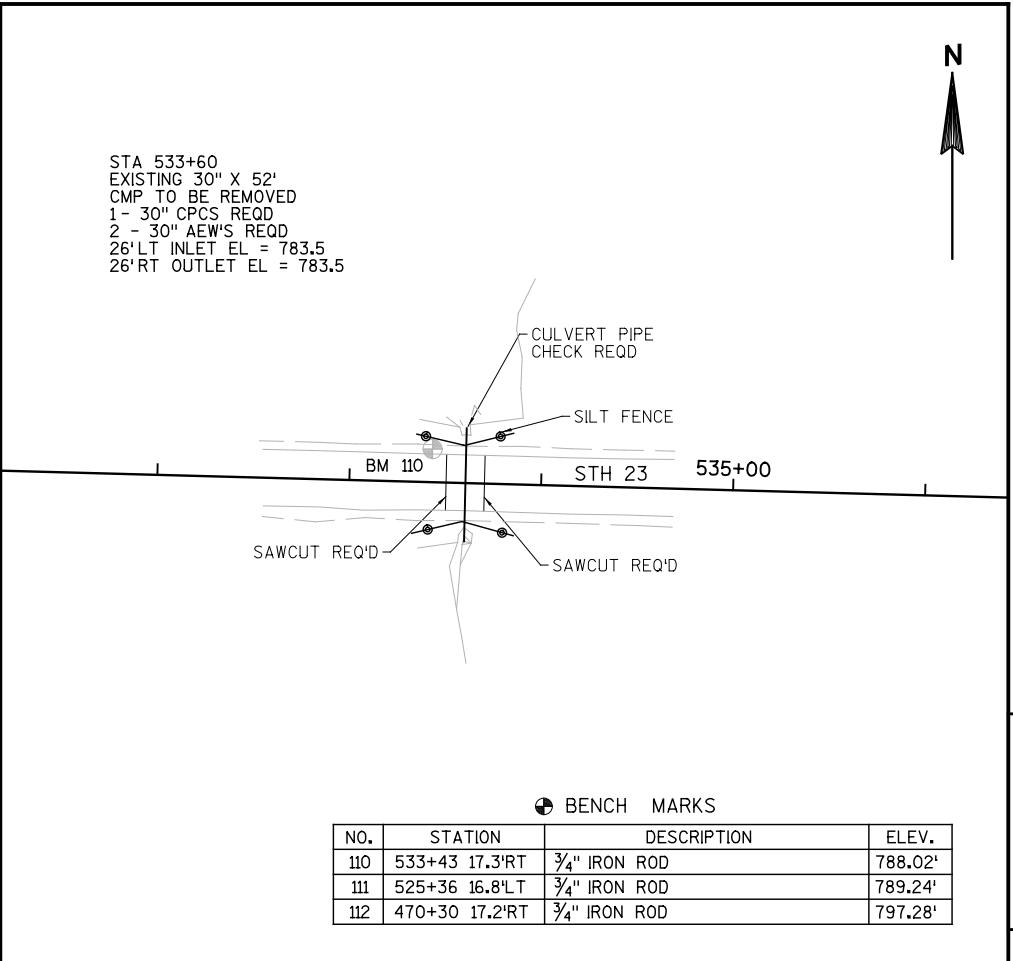
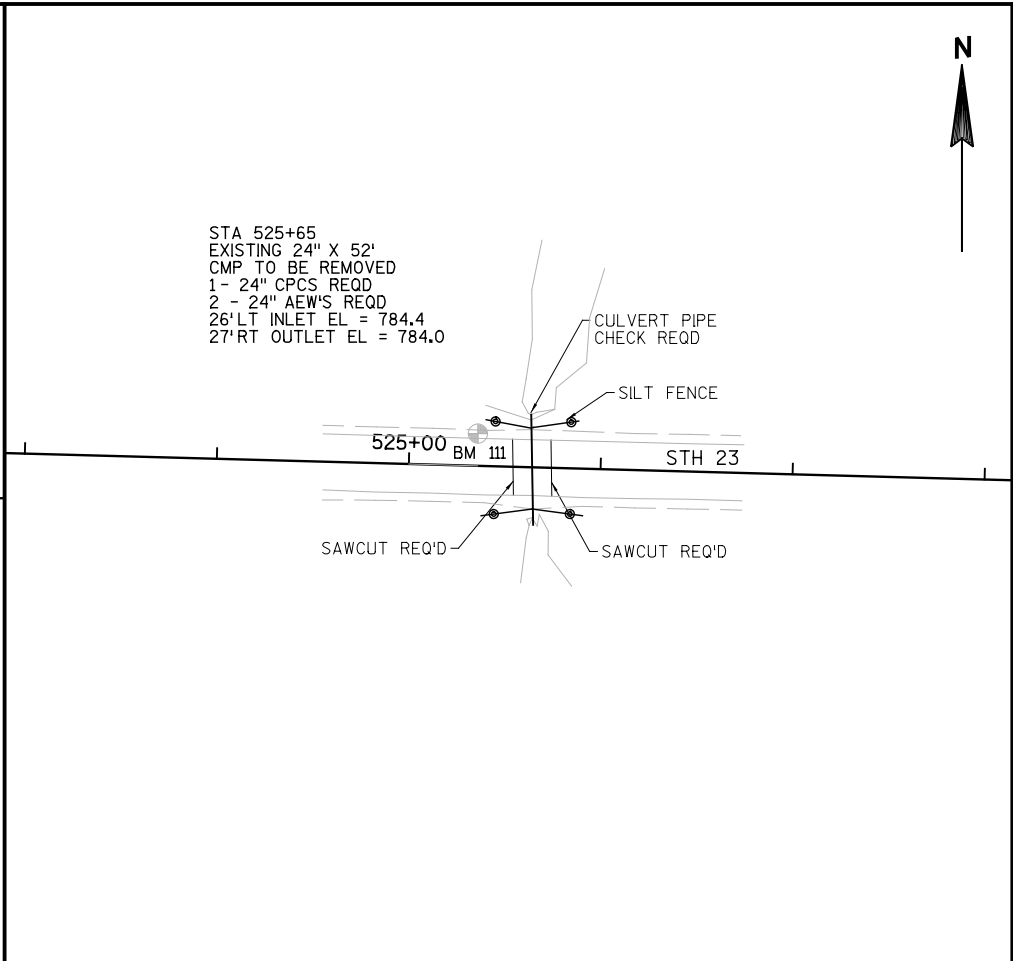
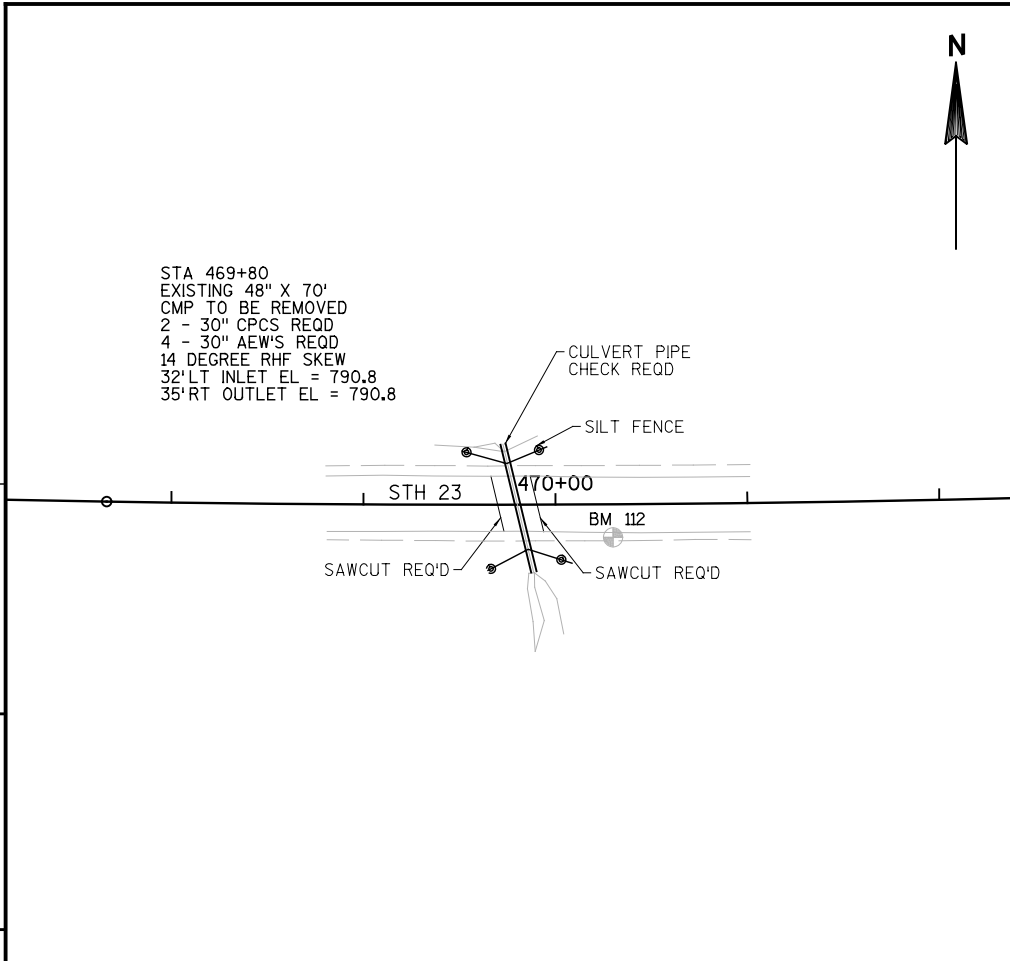


- Ⓐ STA 149+63.56.2' LT
INL 2X3-HM
FLOW LINE EL = 796.24
INV EL = 793.98
SEE MISC QUANTITIES
FOR DETAILS
- Ⓑ STA 150+10.44.0' LT
INL 2X3-HM
FLOW LINE EL = 796.41
INV EL = 793.84
SEE MISC QUANTITIES
FOR DETAILS

⊕ BENCH MARKS

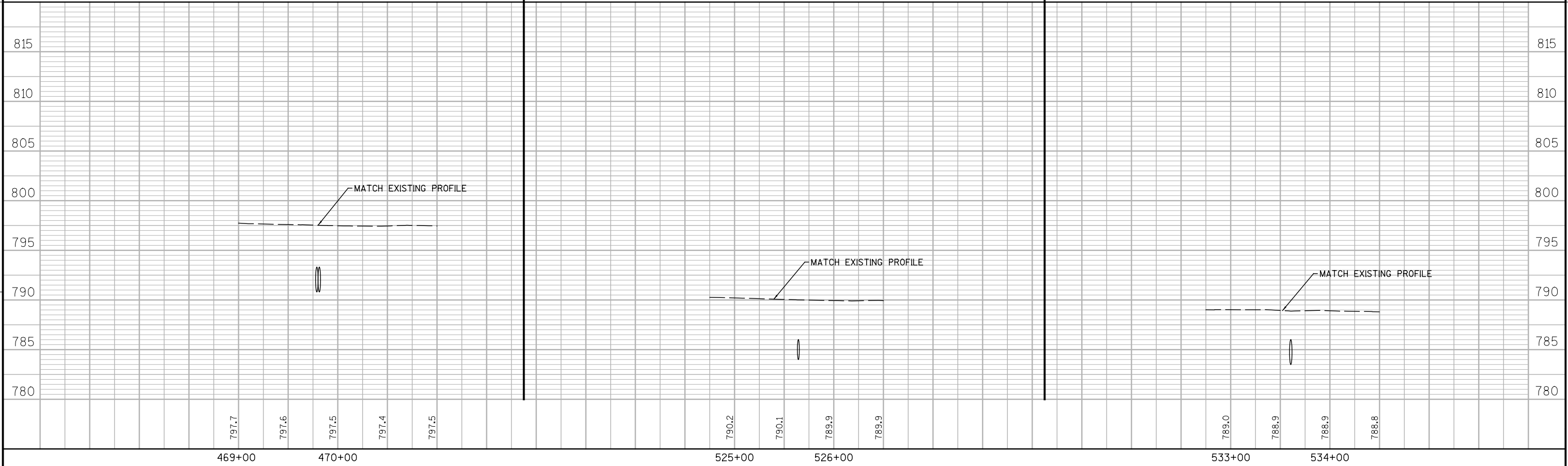
NO.	STATION	DESCRIPTION	ELEV.
102	149+10 31.2' LT	3/4" IRON ROD	797.02'

5



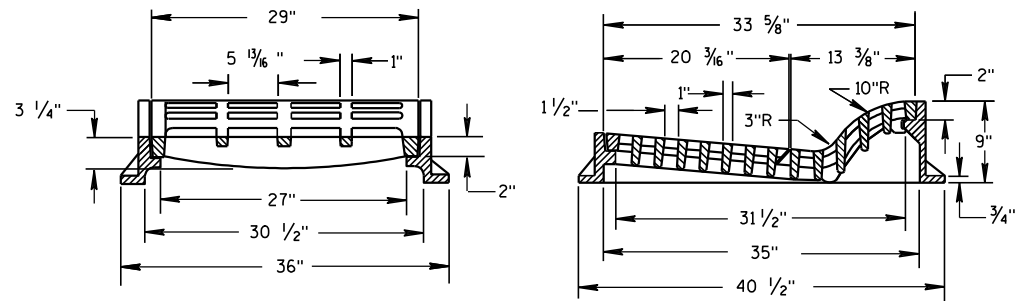
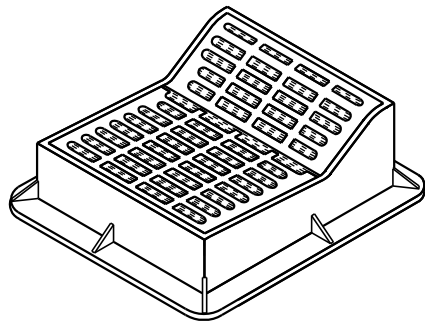
BENCH MARKS				
NO.	STATION		DESCRIPTION	ELEV.
110	533+43	17.3'RT	3/4" IRON ROD	788.02'
111	525+36	16.8'LT	3/4" IRON ROD	789.24'
112	470+30	17.2'RT	3/4" IRON ROD	797.28'

5



Standard Detail Drawing List

08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B15-07A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B24-07A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-07B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-07C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
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)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15B	PAVEMENT MARKING (INTERSECTIONS)
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)



TYPE "F"

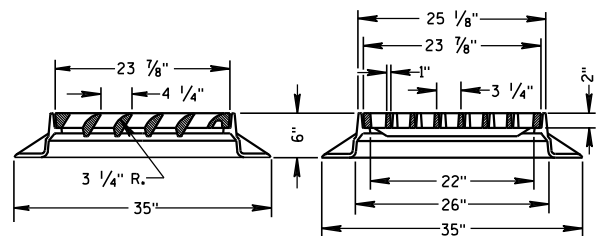
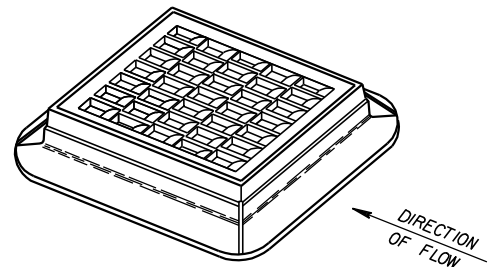
(APPROXIMATE WEIGHT 644 LBS.)

FRAME.....302 LBS.

GRATE.....160 LBS.

GRATE.....182 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

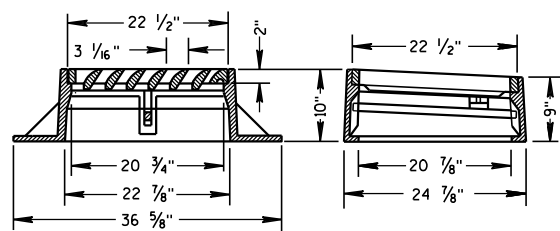
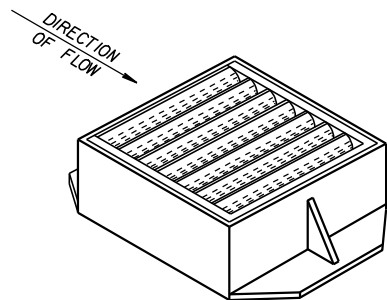


TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

FRAME.....164 LBS.

GRATE.....169 LBS.



TYPE "V"

(APPROXIMATE WEIGHT 410 LBS.)

FRAME.....269 LBS.

GRATE.....136 LBS.

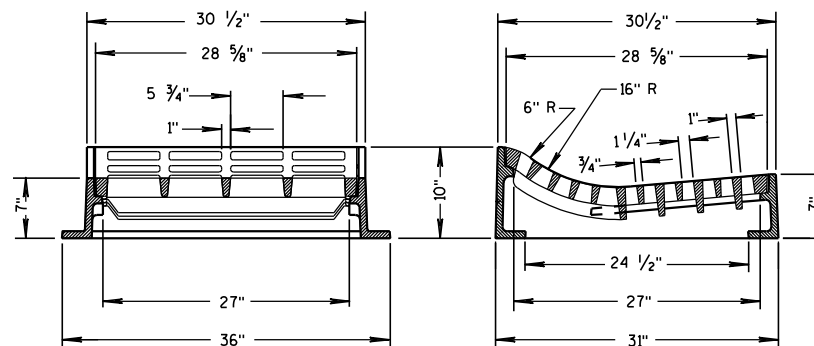
SAFETY BAR.....5 LBS.

**ALTERNATIVE CURB BOX
FOR TYPE "HM" COVER**

(APPROXIMATE WEIGHT CURB BOX 68 LBS.)

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE



TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)

FRAME.....270 LBS.

GRATE.....260 LBS.

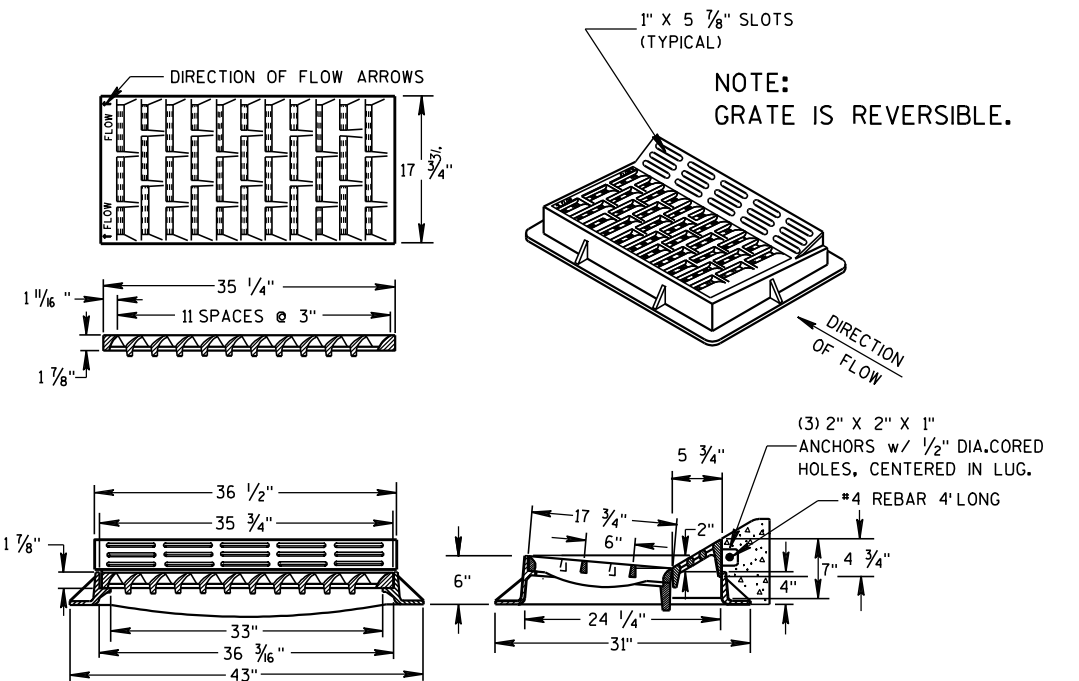
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.

GENERAL NOTES

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

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

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



TYPE "HM"

(APPROXIMATE WEIGHT 414 LBS.)

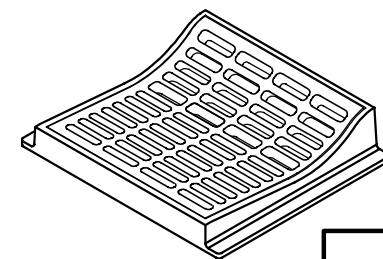
FRAME.....181 LBS.

GRATE.....159 LBS.

CURB BOX.....74 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

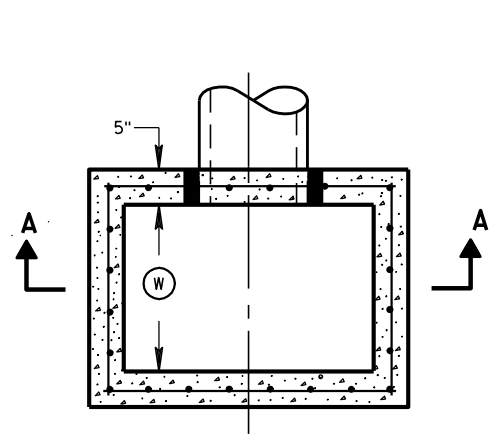
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



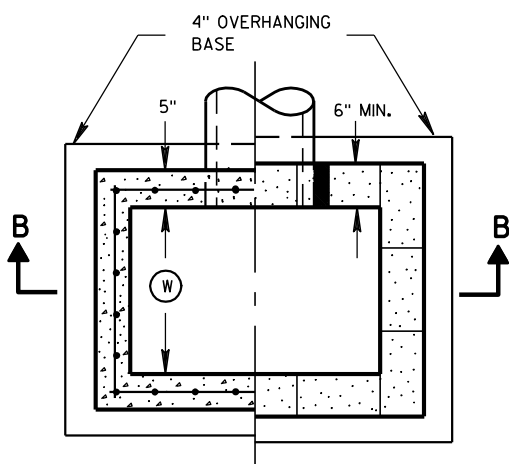
INLET COVERS
TYPE F, HM, HM-S, S, T, V,
HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS 32
FHWA ENGINEER

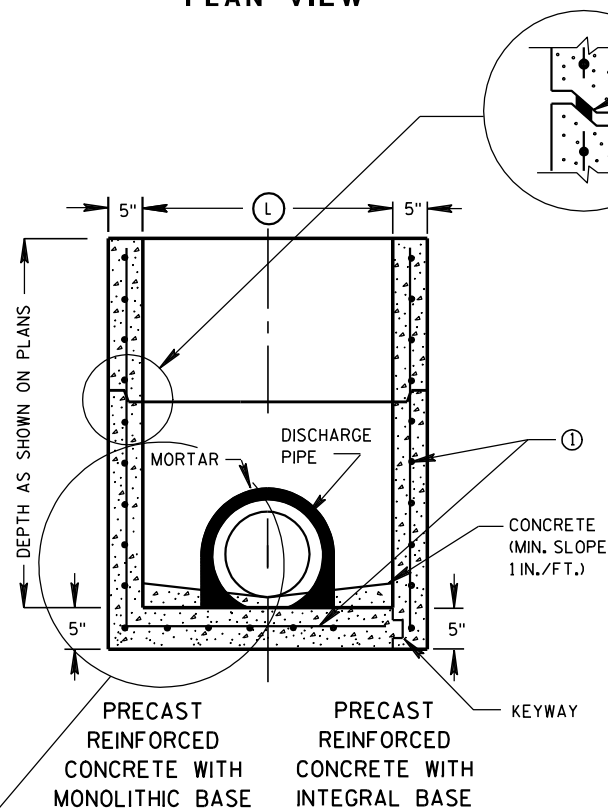


PLAN VIEW

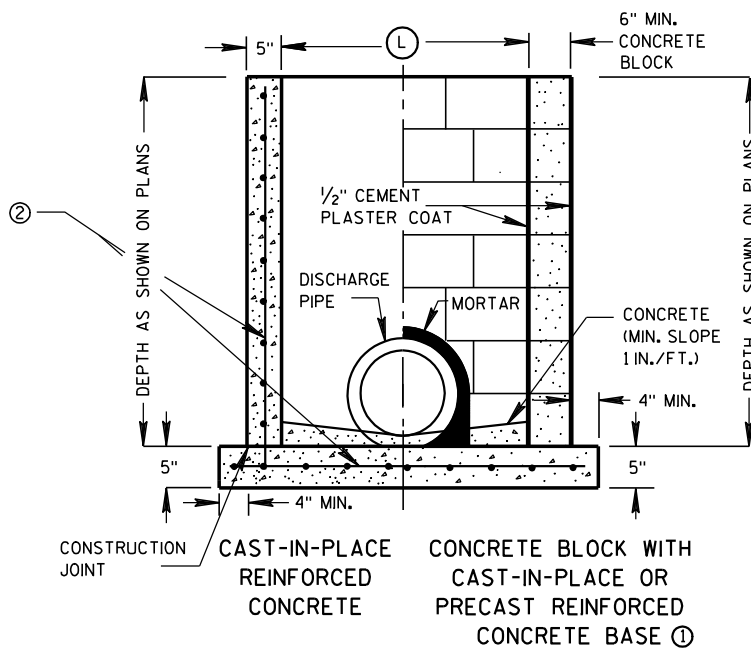


PLAN VIEW

RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B

SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

GENERAL NOTES

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

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

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

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

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

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

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

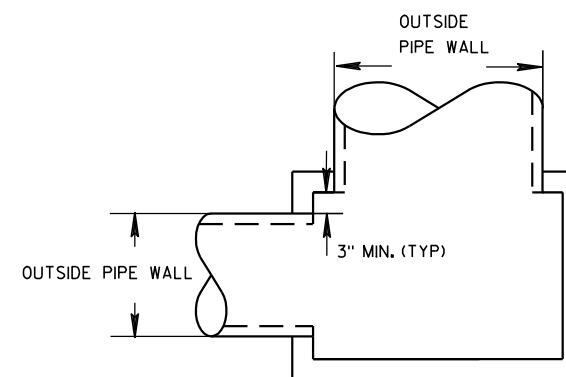
- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (FT)	LENGTH (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24

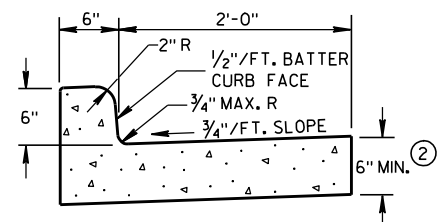


DETAIL "A"

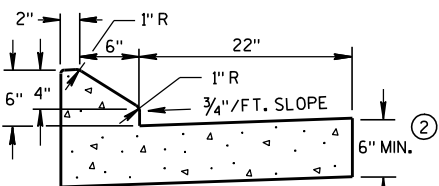
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

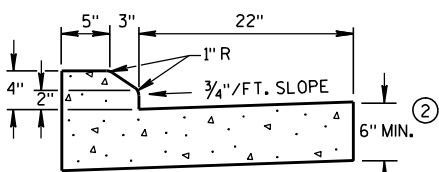
APPROVED
6/5/2012 /S/ Jerry H. Zoaa
DATE ROADWAY STANDARDS D 33 IT
FHWA ENGINEER



TYPES A & D ①



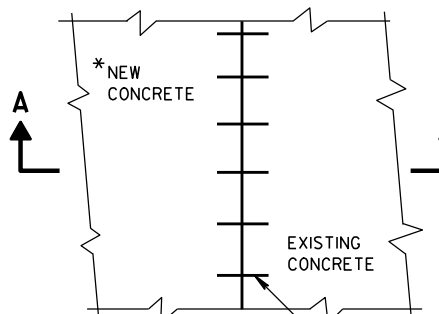
6" SLOPED CURB TYPES G & J ①



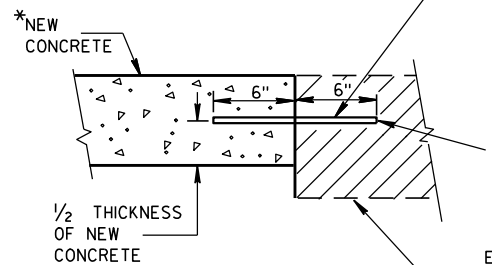
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

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



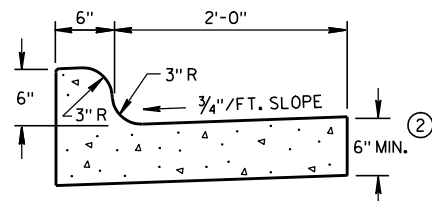
PLAN VIEW

SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

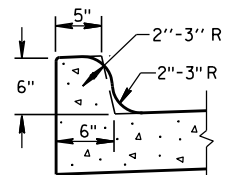
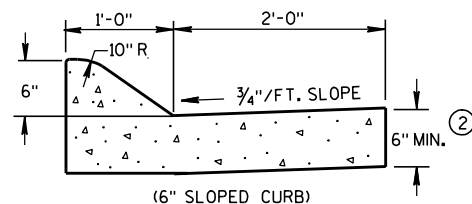
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

MAXIMUM DRILL HOLE
SIZE IS 1/8" GREATER
THAN TIE BAR DIAMETER

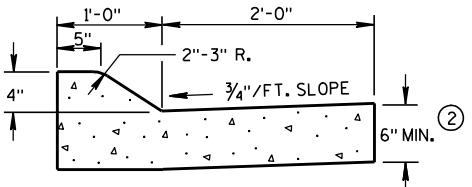
EXISTING
CONCRETE



TYPES K & L ①

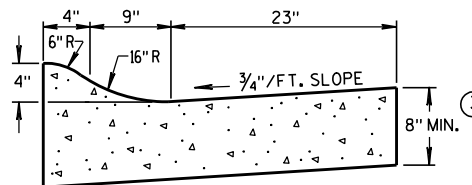
OPTIONAL CURB SHAPE
FOR TYPES K & L ①

(6" SLOPED CURB)



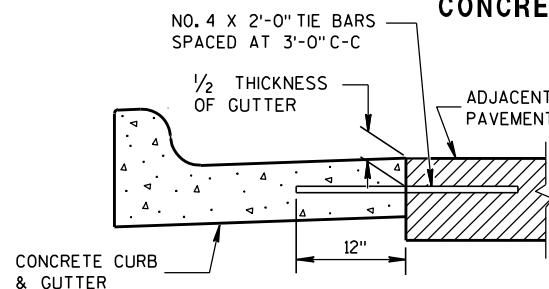
(4" SLOPED CURB)

TYPES A & D ①

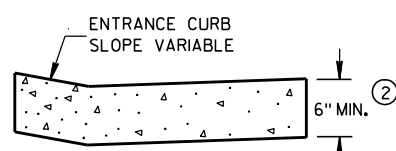


4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

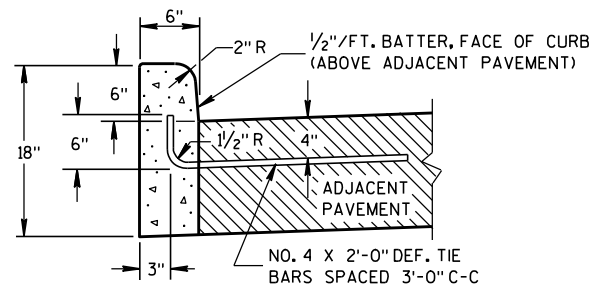


TYPICAL TIE BAR LOCATION ①



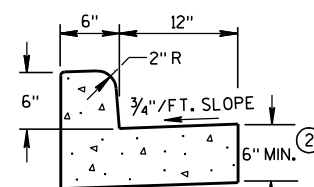
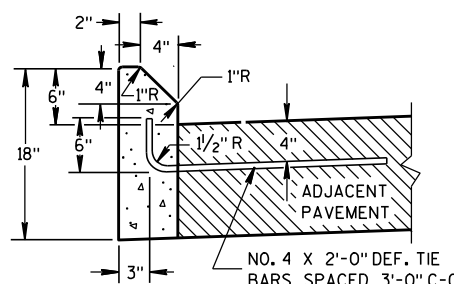
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



TYPES A & D ①

CONCRETE CURB

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.

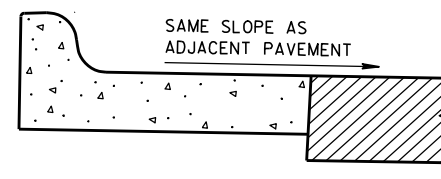
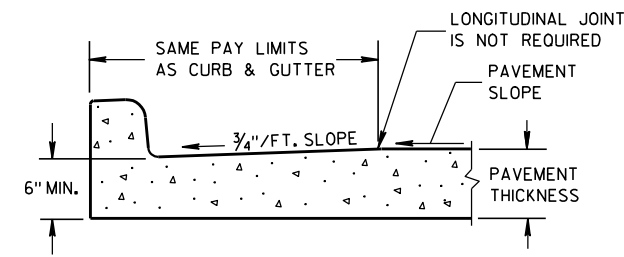
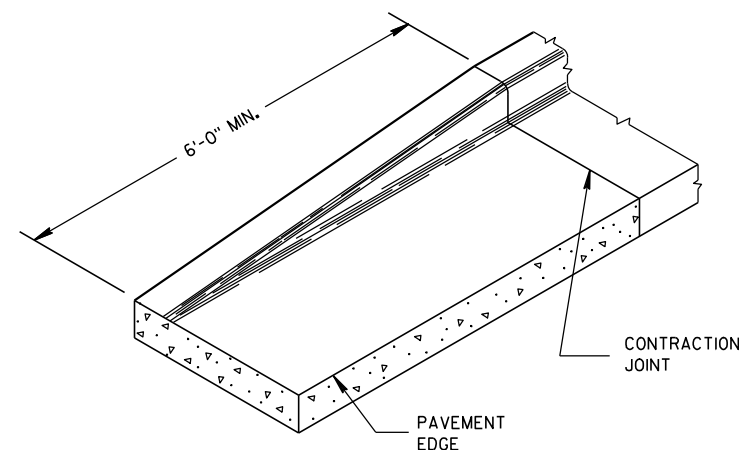
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.

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

DATE

FHWA

/S/ Jerry H. 7

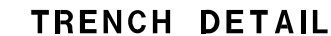
ROADWAY STANDARDS 34

ENGINEER

ENT



- 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 1½" X 1½" 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.

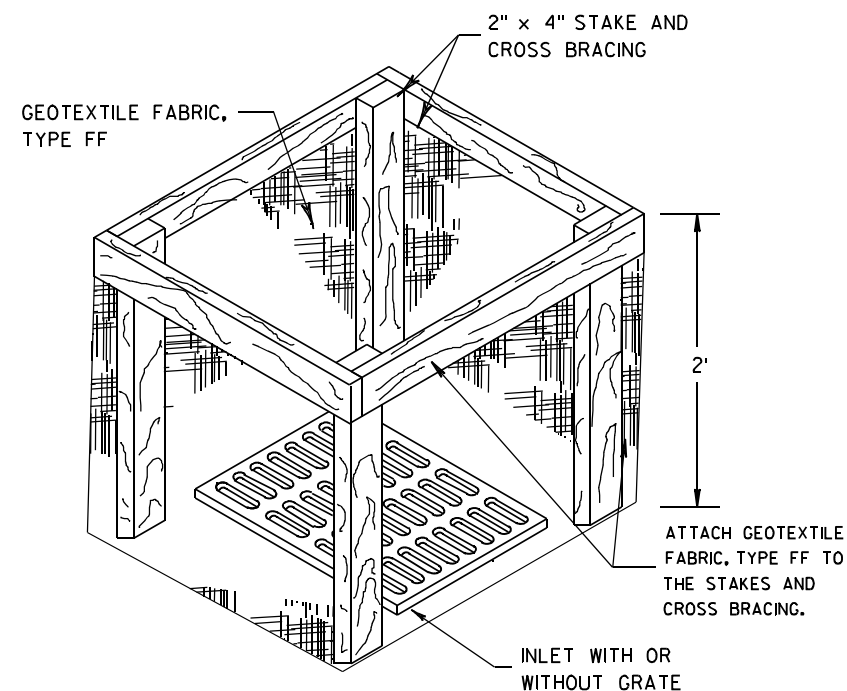
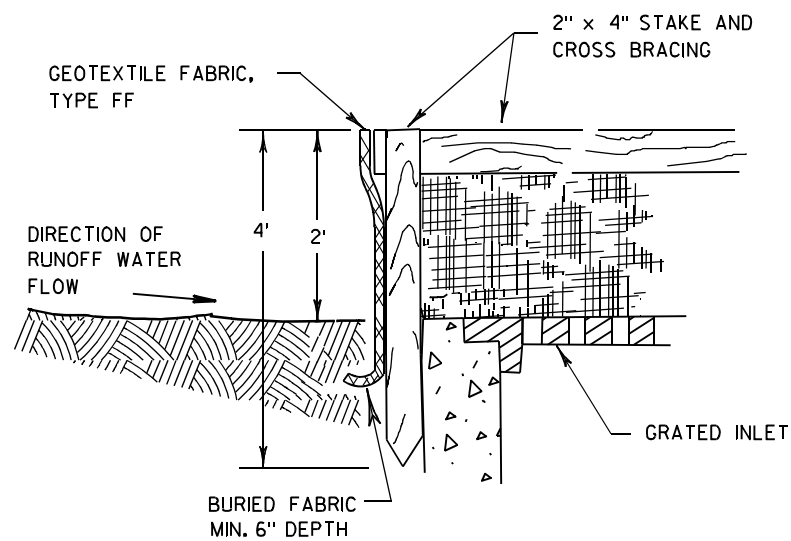


SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 /S/ Beth Connolly
DATE CHIEF ROADWAY DEVELOP 35 INEER

FHWA



INLET PROTECTION, TYPE A

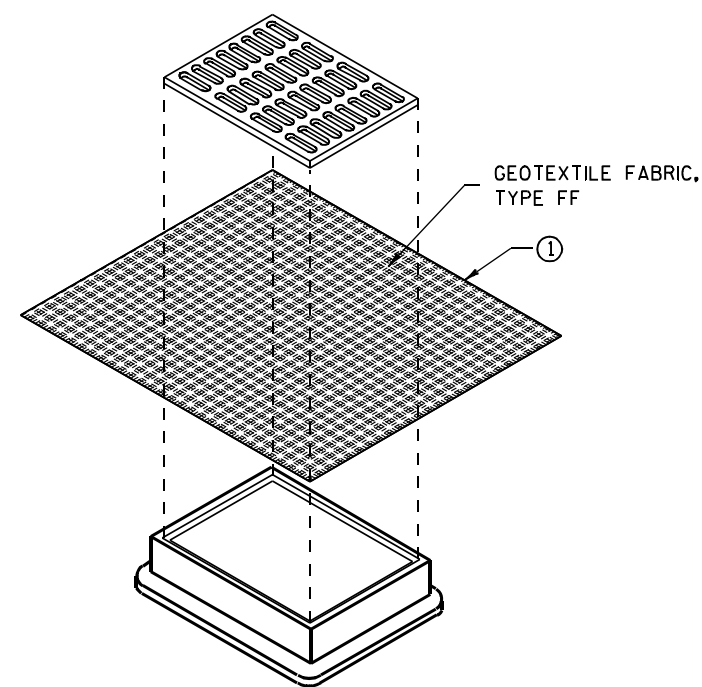
GENERAL NOTES

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

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

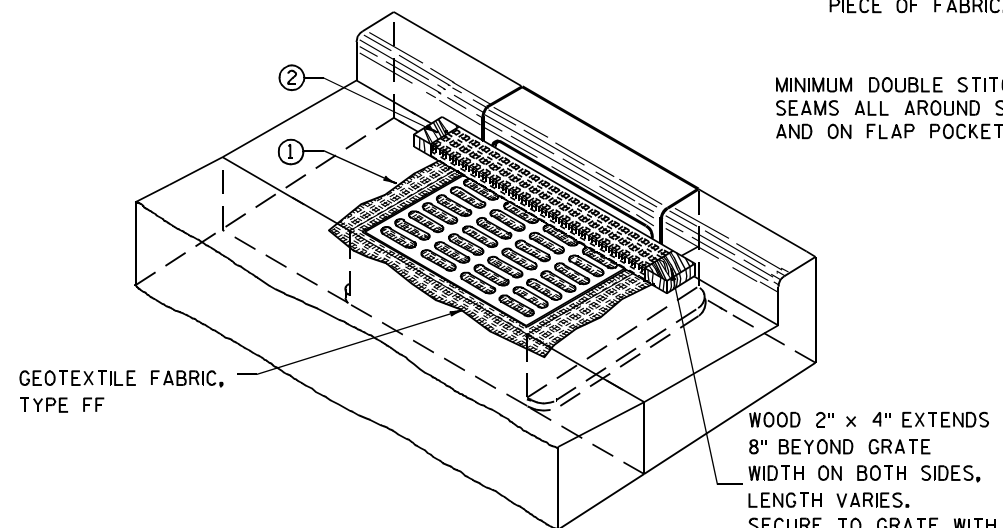
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

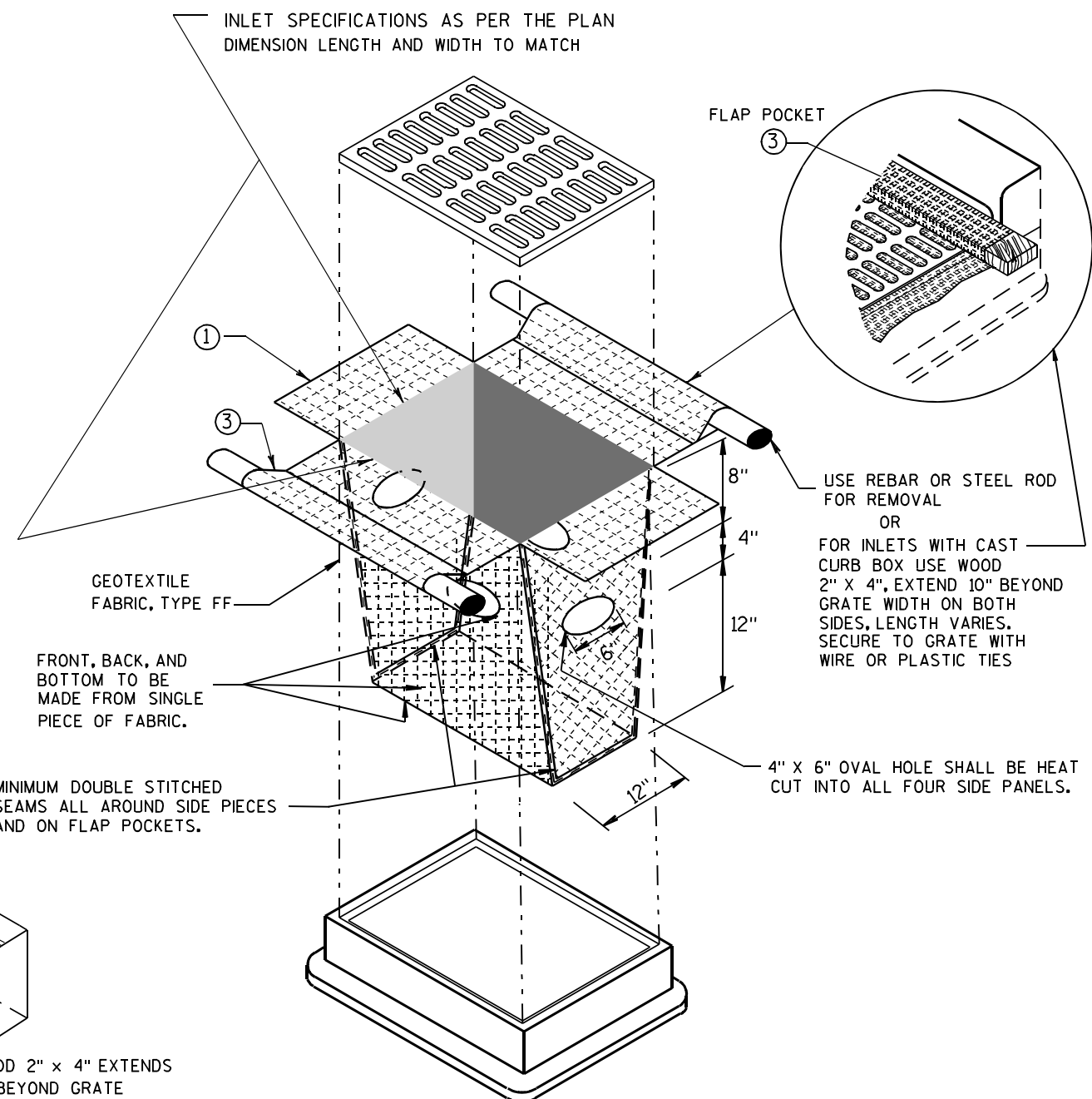
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



INLET PROTECTION, TYPE D

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

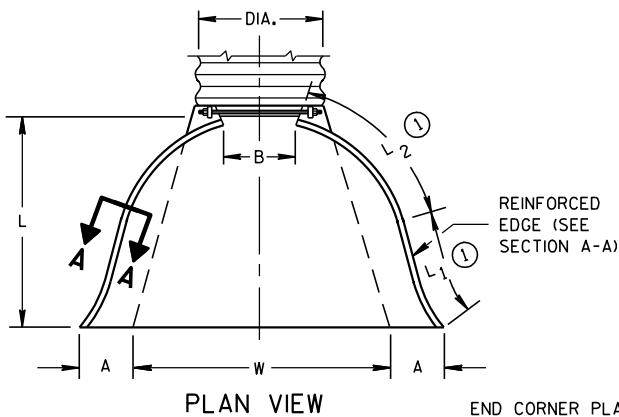
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

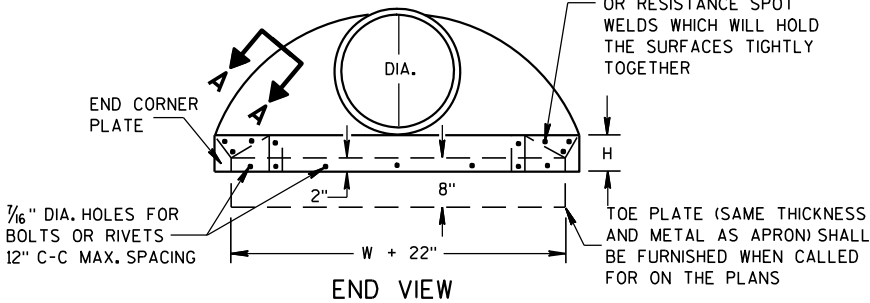
APPROVED
10/16/02 /S/ Beth Connolly
DATE 36
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER

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

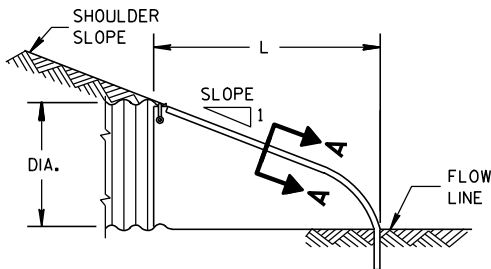
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



REINFORCED
EDGE (SEE
SECTION A-A)

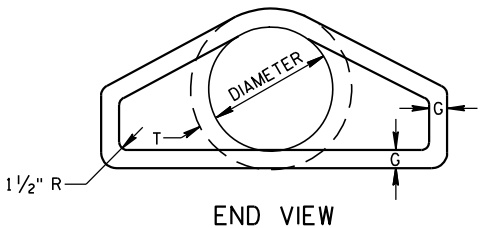
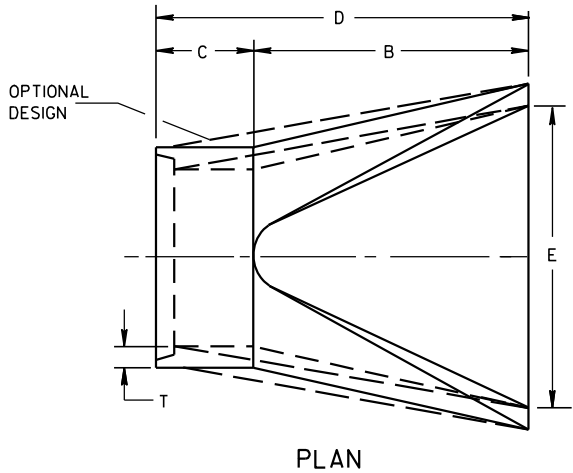


SIDE ELEVATION
METAL ENDWALLS

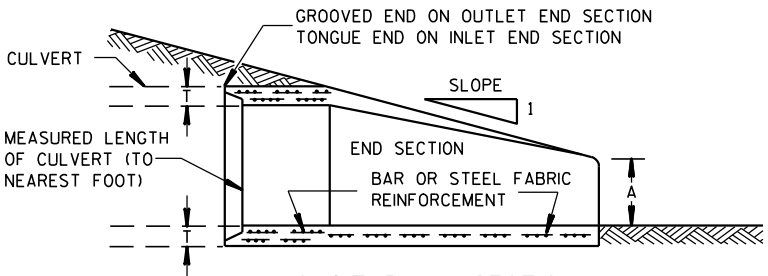


REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 ⁷ / ₈	72 ⁷ / ₈	24	2	3 to 1
15	2 ¹ / ₄	6	27	46	73	30	2 ¹ / ₄	3 to 1
18	2 ¹ / ₂	9	27	46	73	36	2 ¹ / ₂	3 to 1
21	2 ³ / ₄	9	36	37 ¹ / ₂	73 ¹ / ₂	42	2 ³ / ₄	3 to 1
24	3	9 ¹ / ₂	43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

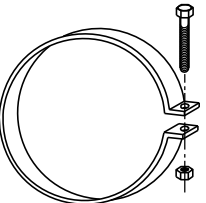
*MINIMUM
**MAXIMUM



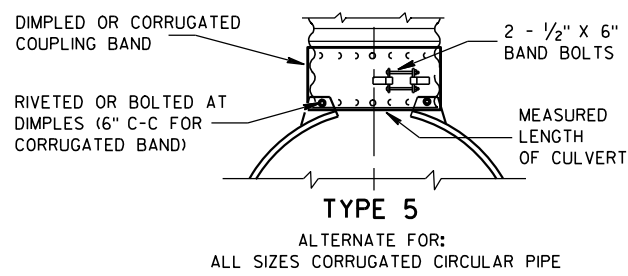
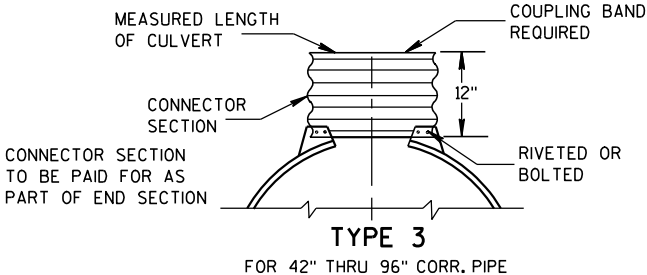
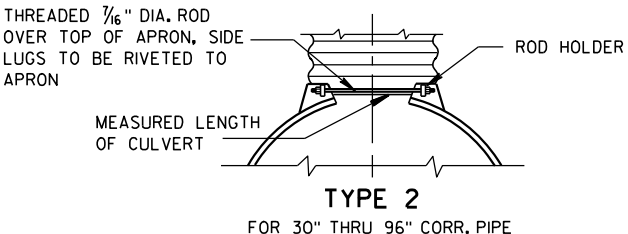
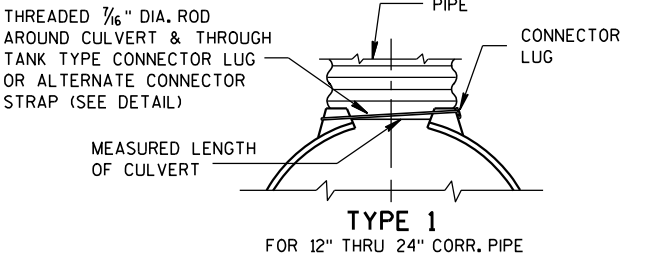
LONGITUDINAL SECTION
CONCRETE ENDWALLS



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



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



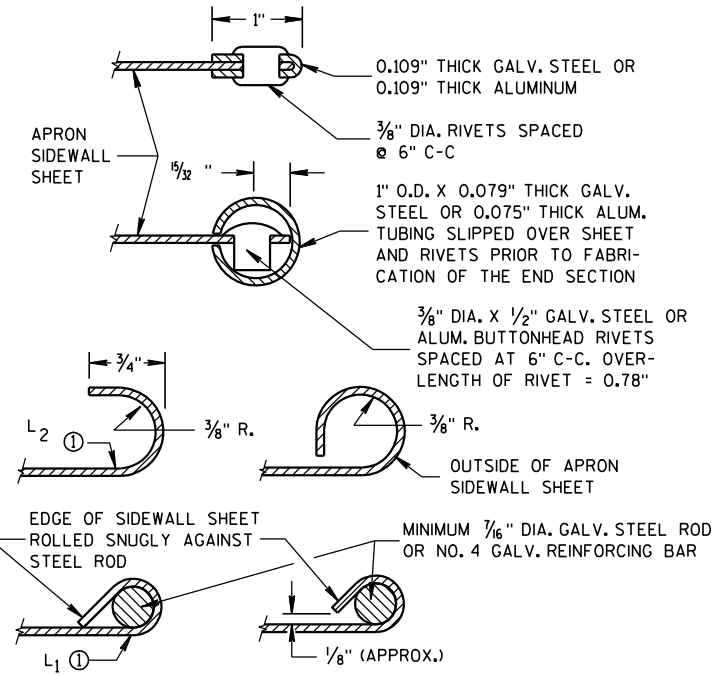
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

APRON ENDWALLS FOR CULVERT PIPE			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED 11/30/94 DATE	/S/ Rory L. Rhinehart CHIEF ROADWAY DEVELOP	37	NEER
FHWA			

GENERAL NOTES

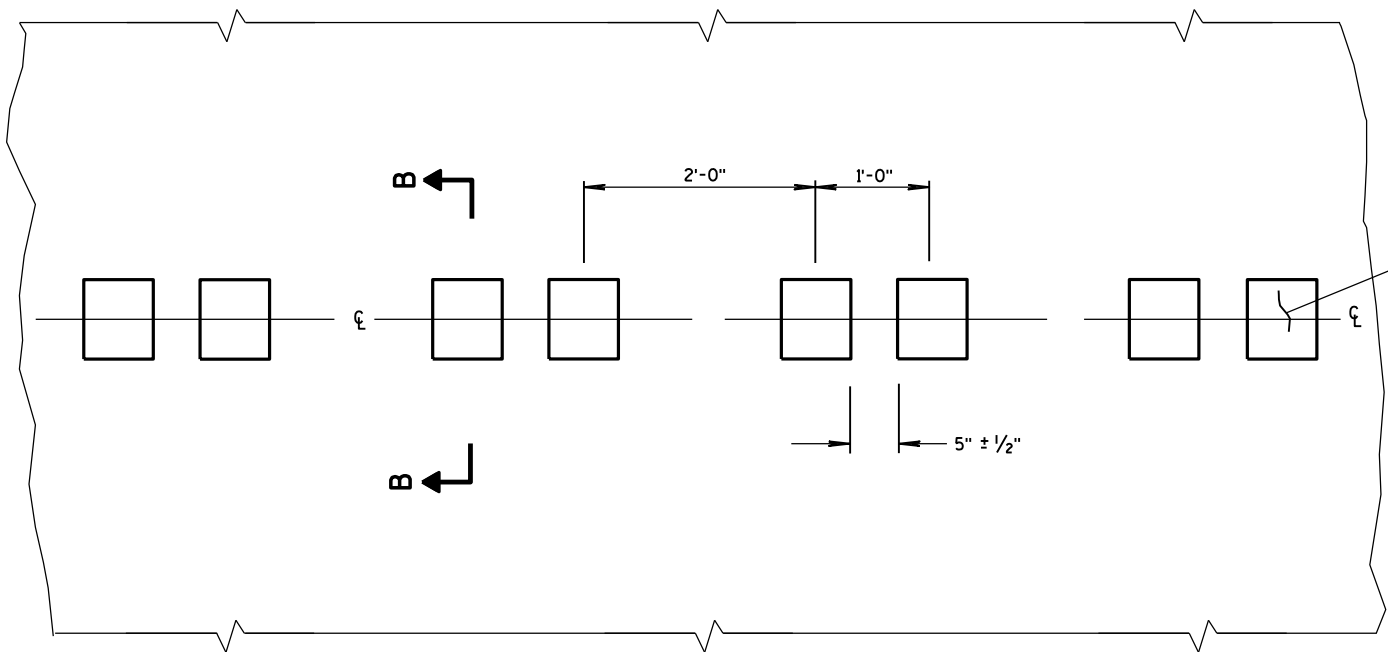
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

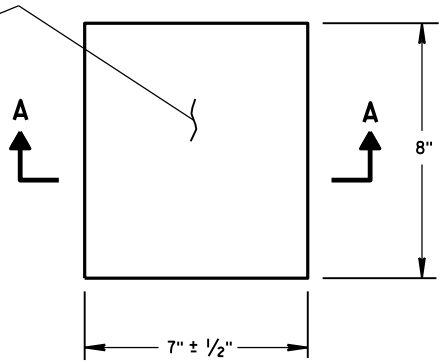
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

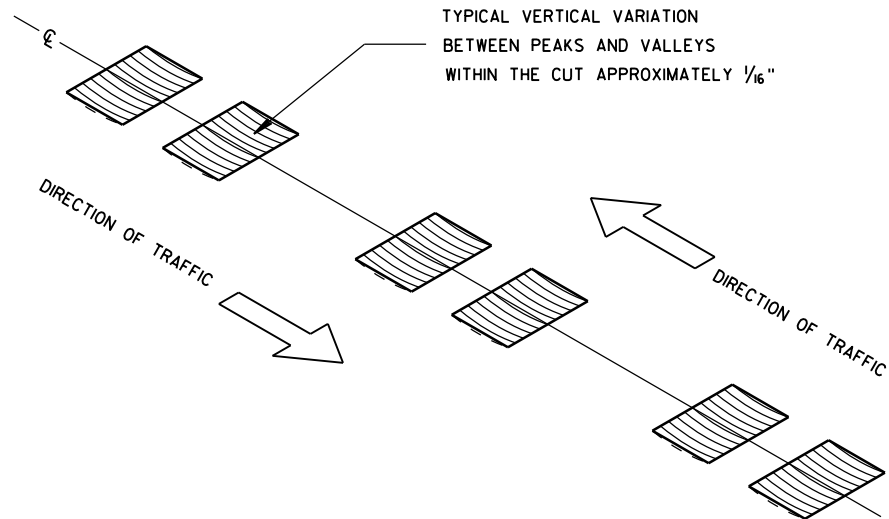
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



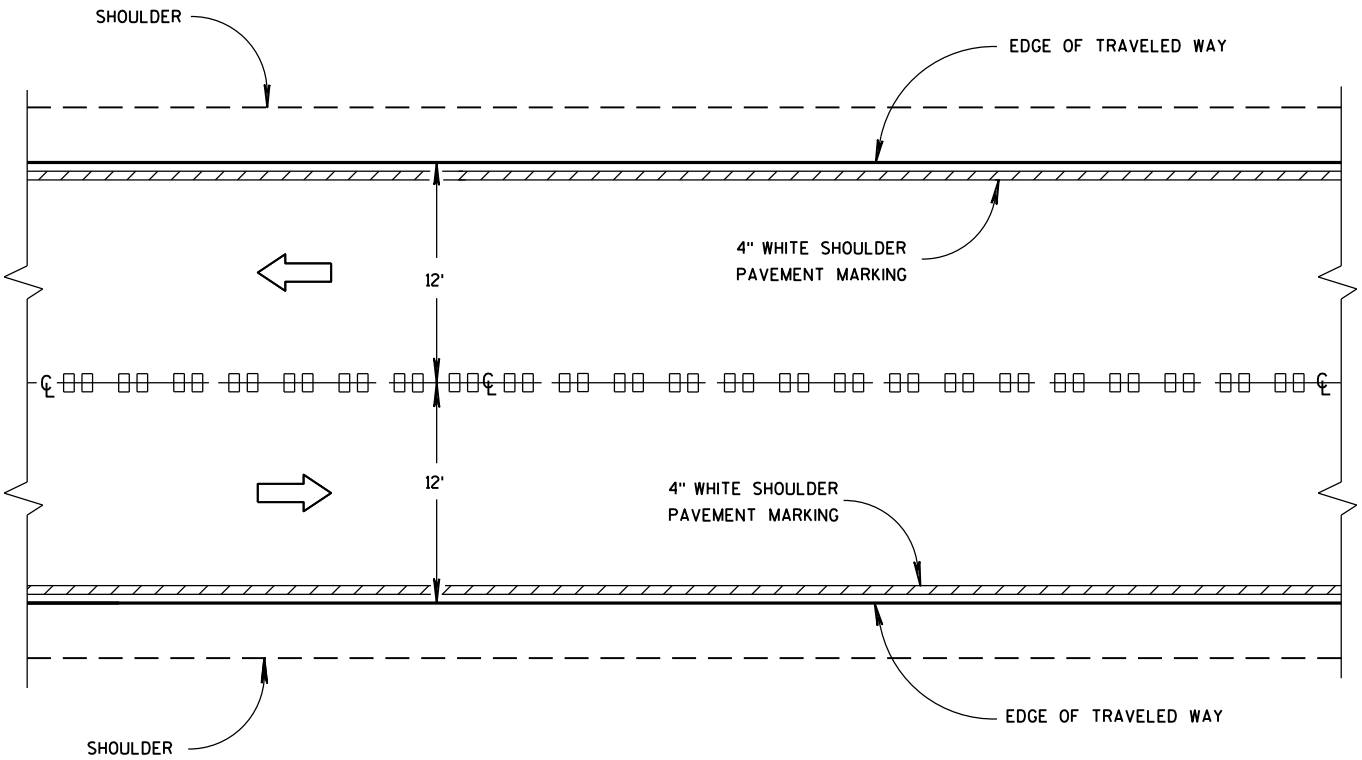
PLAN VIEW
CENTER LINE WITH GROOVES



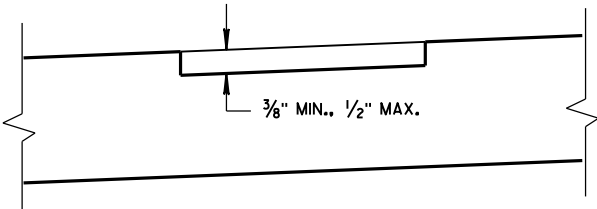
PLAN VIEW
(SINGLE GROOVE)



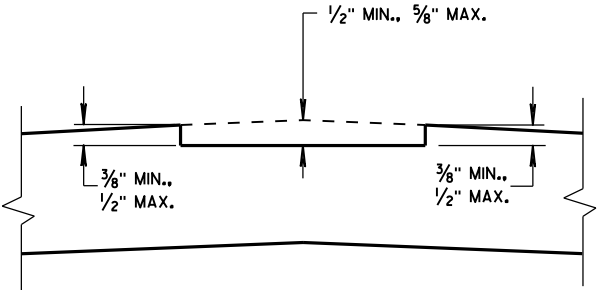
ISOMETRIC



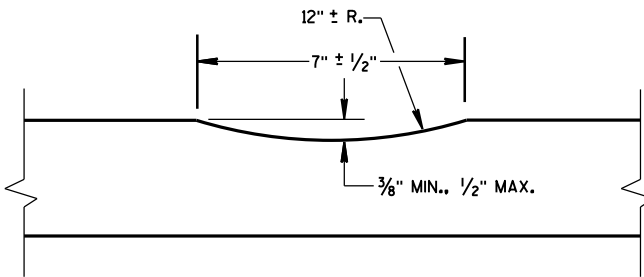
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



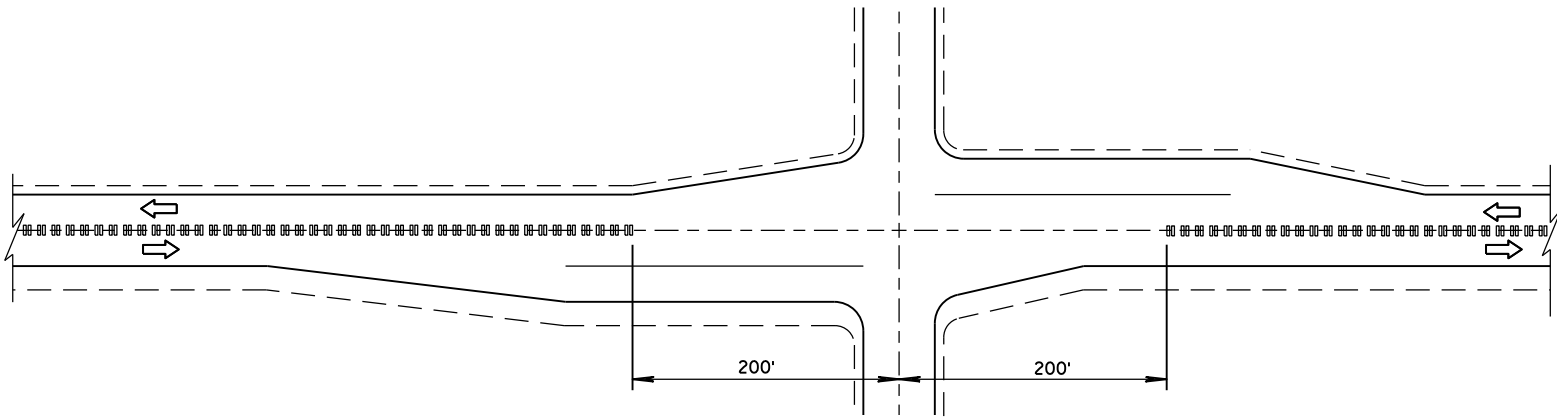
SECTION B-B
CROWNED ROADWAY



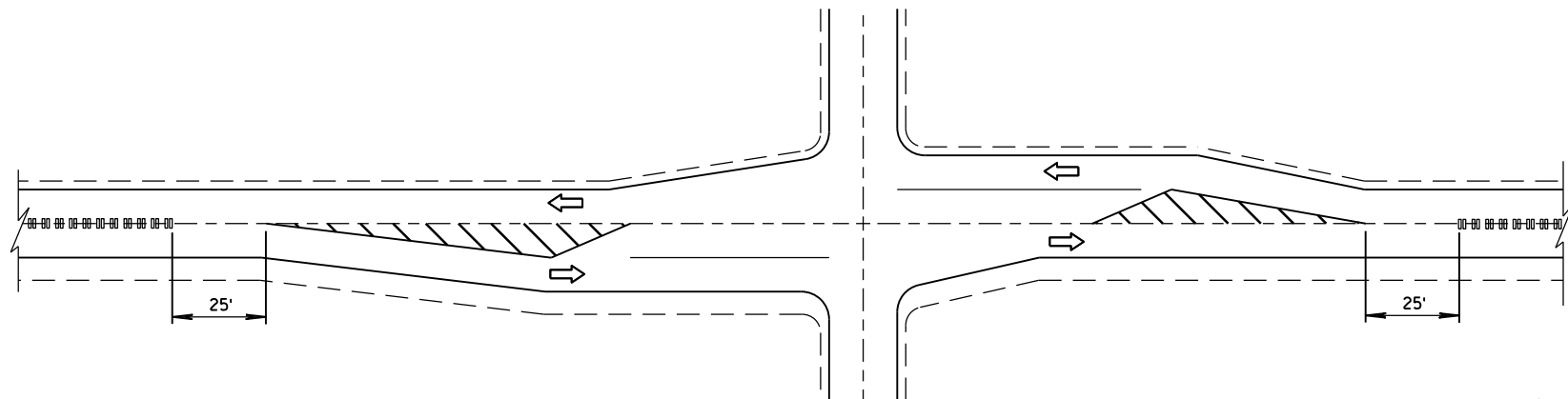
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

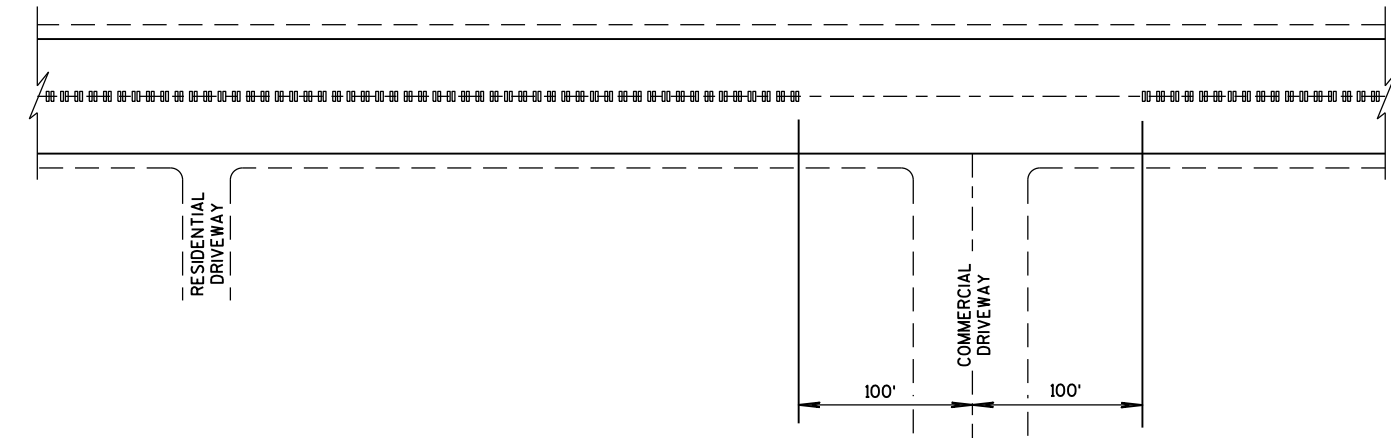
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

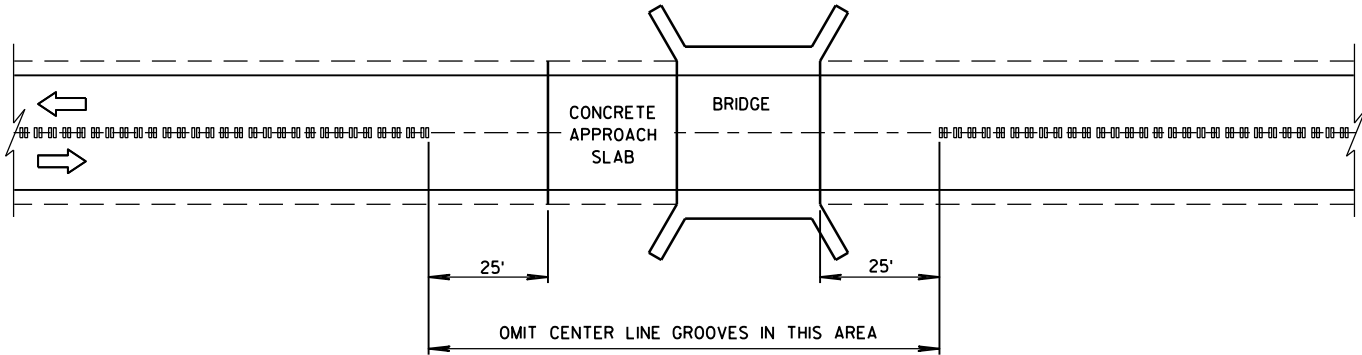


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

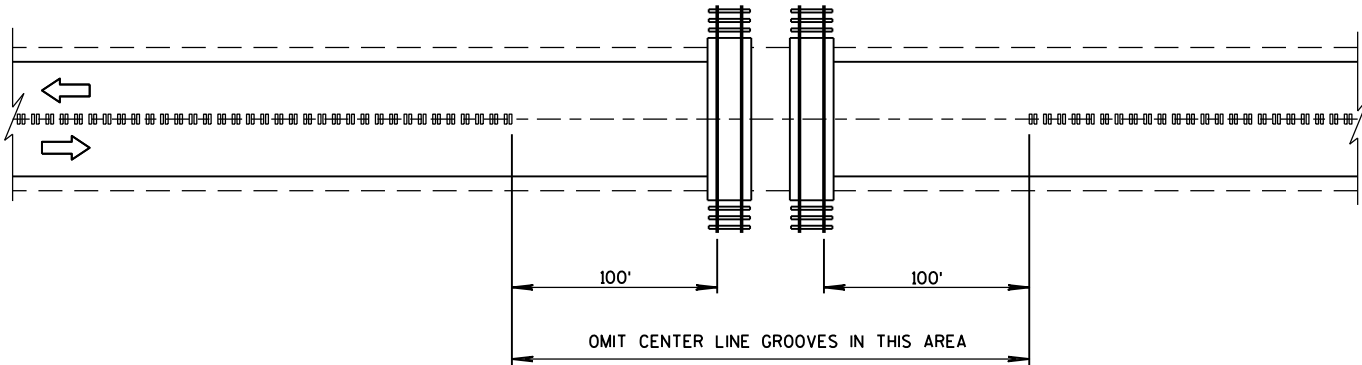


CENTER LINE GROOVES AT DRIVEWAYS¹

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

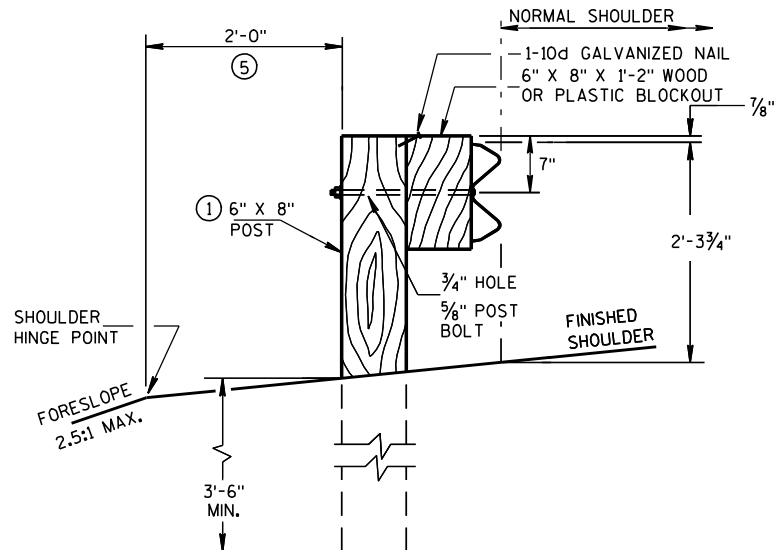
2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 5/15/2013	/S/ Jerry H. Zoog ROADWAY STANDARDS ENGINEER
FHWA	

GENERAL NOTES

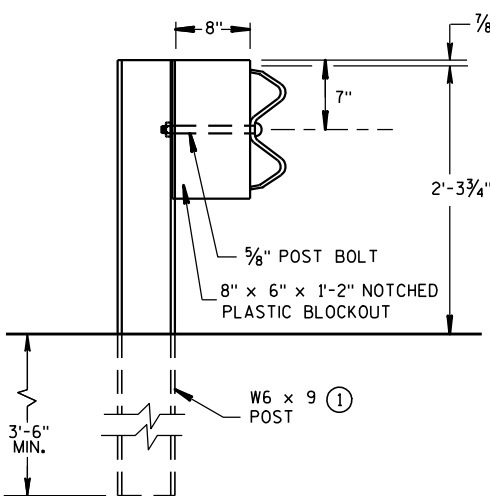
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, AND THE APPLICABLE SPECIAL PROVISIONS.

- ① W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS. DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.
- ② USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111 EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPALTER COATING ON GALVANIZED POSTS.
- ③ INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ④ USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
- ⑤ IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).
- ⑥ IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2 INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN THE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATELY.

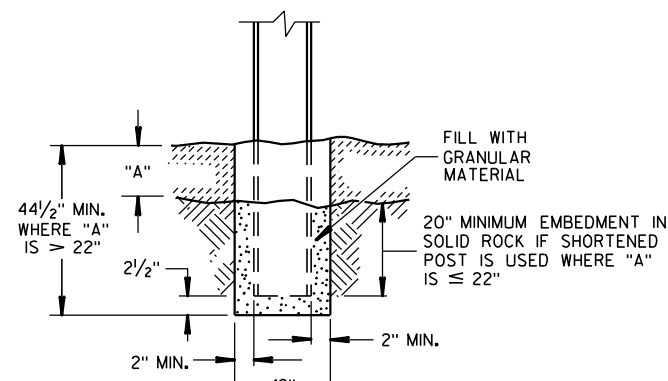
INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



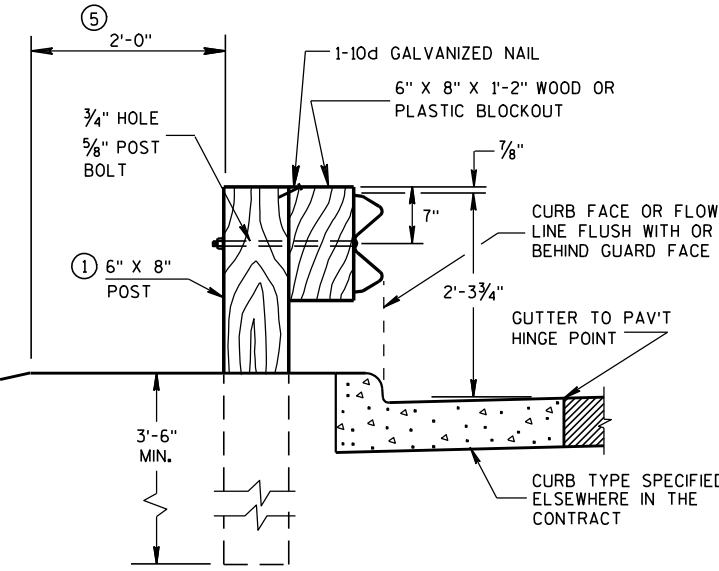
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



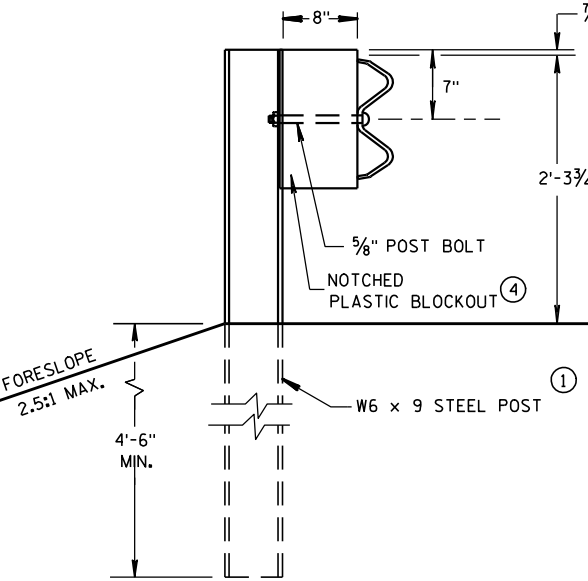
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



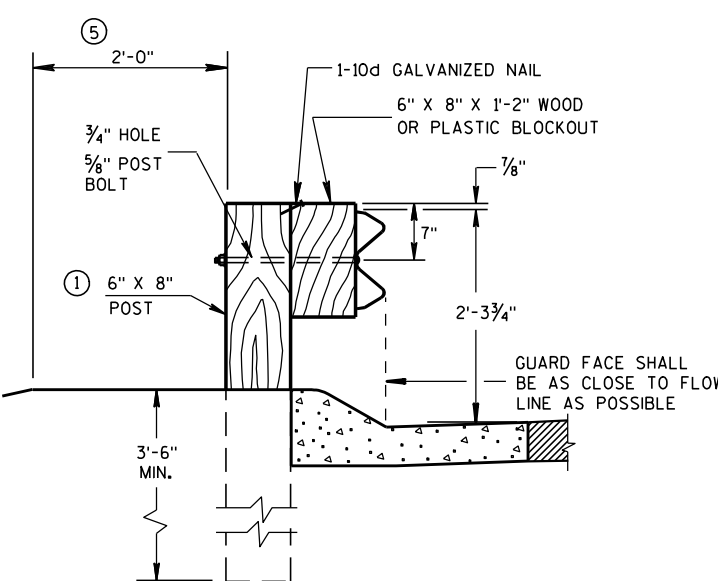
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ⑥



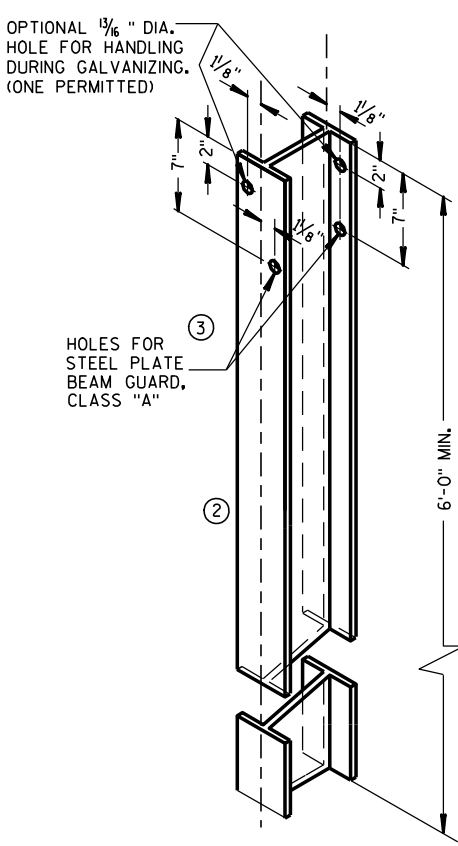
END VIEW
LOCATED ALONG A CURBED ROADWAY



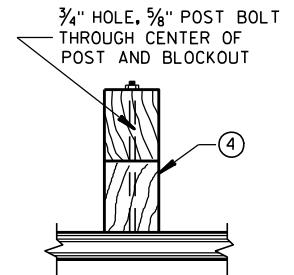
END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



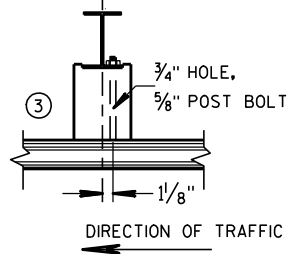
END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY



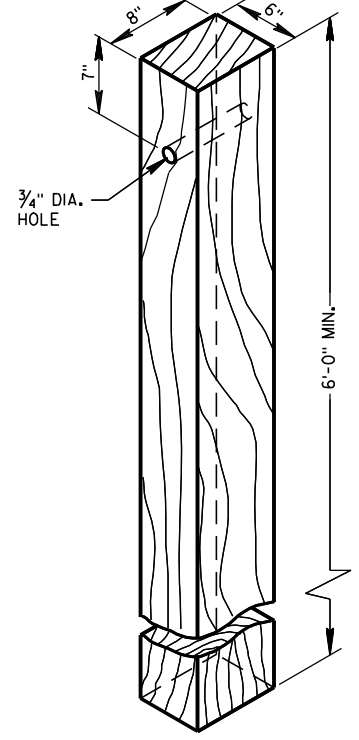
STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) ①
ALL HOLES 1 3/8" DIAMETER EXCEPT AS NOTED



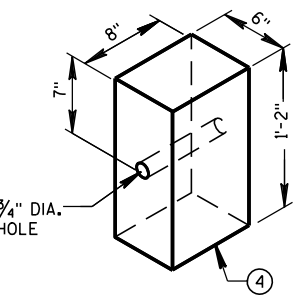
PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



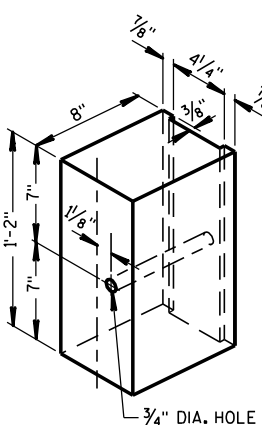
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



WOOD POST
(6"X8") NOMINAL



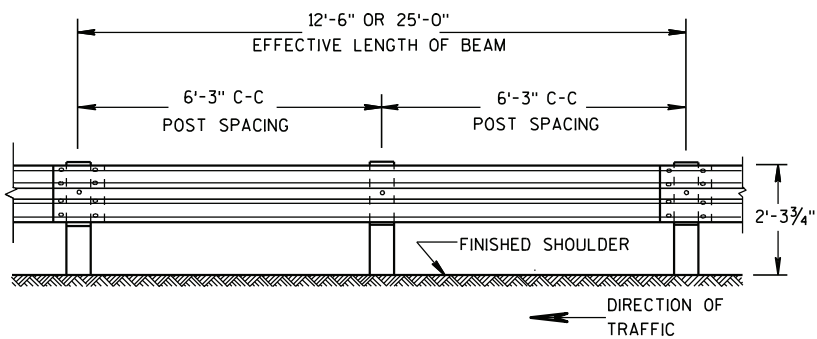
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS ①

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

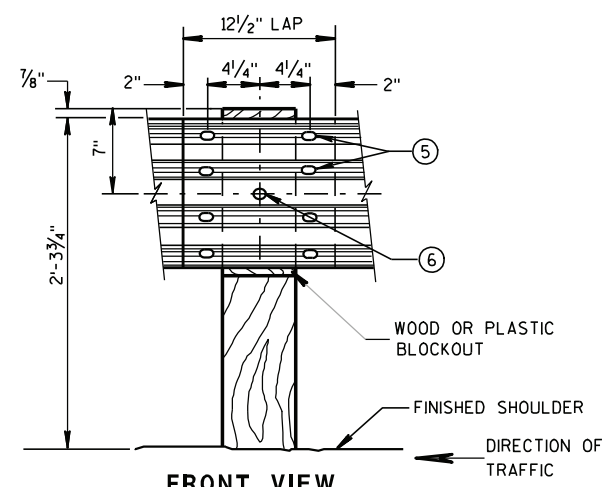
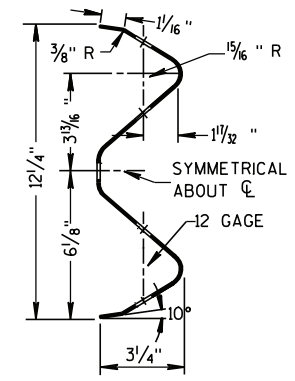
STATE OF WISCONSIN
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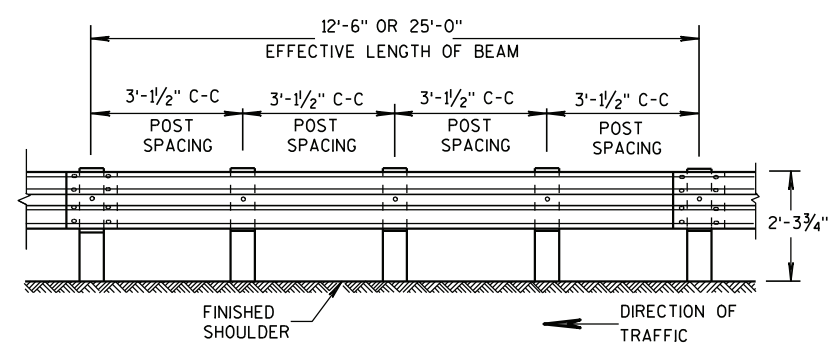
FRONT VIEW

POST SPACING STANDARD INSTALLATION

SECTION THRU W BEAM

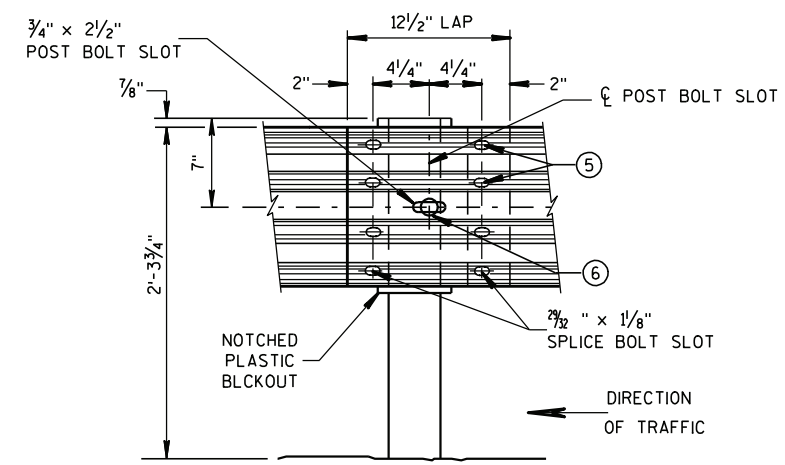


FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL



FRONT VIEW

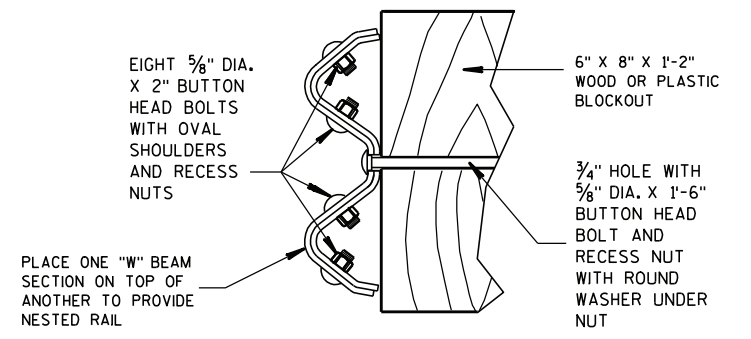
POST SPACING FOR LONGER POST
AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW
BEAM SPLICE AT STEEL POST
TYPICAL SPLICING DETAILS
OF STEEL PLATE BEAM GUARD

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.
- 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 8 $\frac{5}{8}$ " ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑥ $\frac{5}{8}$ " ϕ X 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.

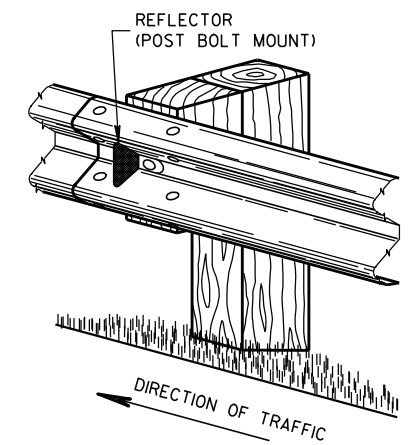


NESTED W BEAM (NW)

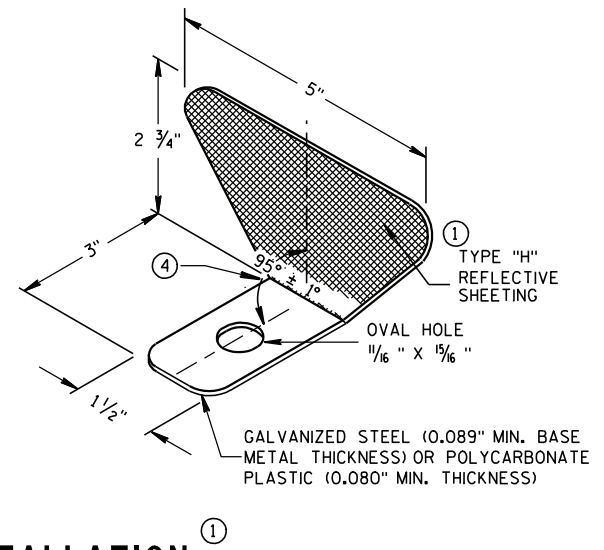
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING^②

	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 ③	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ④	3
	> 200'	100' C-C	2	

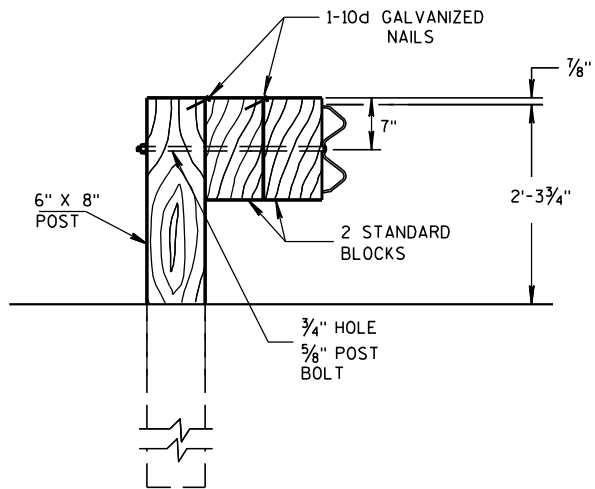


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION



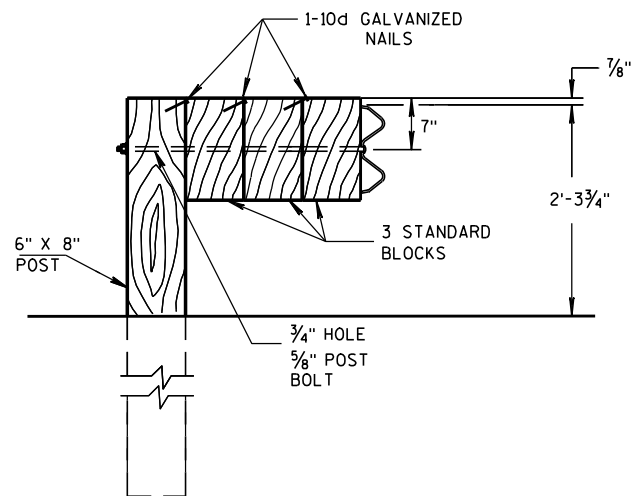
STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

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

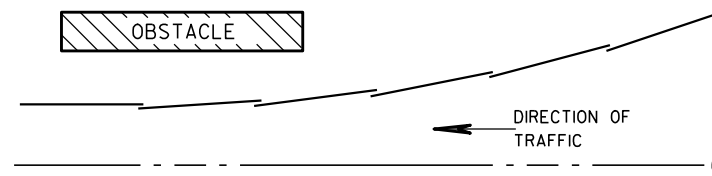


DETAIL FOR TRIPLE BLOCKS

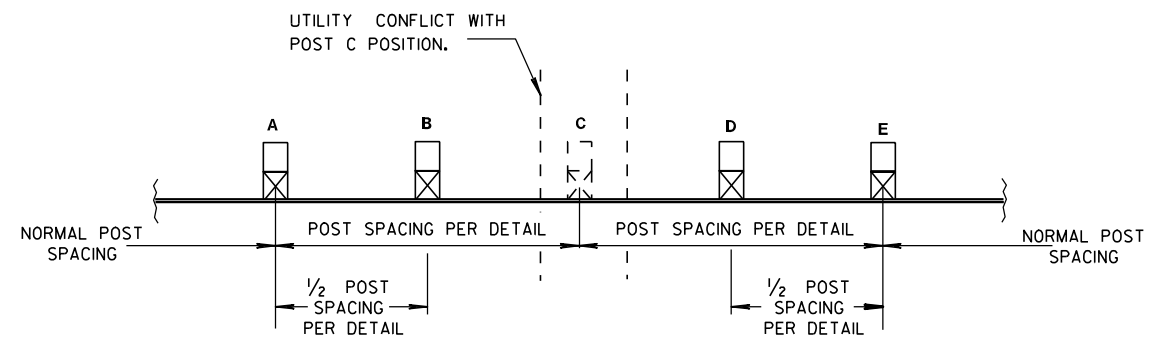
TRIPLE BLOCK DETAIL IS LIMITED TO ONE
LOCATION WITHIN A BEAM GUARD RUN.

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

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



PLAN VIEW BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/11 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS 42 ENT
FHWA ENGINEER

BILL OF MATERIALS

NOTE NO.	QTY.	DESCRIPTION
①	4	WOOD BREAKAWAY TERMINAL POST: 5 1/2" X 7 1/2" X 3'-9"
②	**	STEEL TUBE: OPTION 1 - QUANTITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - QUANTITY OF 2 TS 8" X 6" X 0.188", 6'-0" AND 2 TS 8" X 6" X 0.188", 4'-6" LONG
③	2	SOIL PLATE: 2'-0" X 1'-6" X 1/4" **
④	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	6	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	1	PIPE SLEEVE: 2" X 5 1/2" STANDARD PIPE
⑦	1	BEARING PLATE
⑧	1	BCT CABLE ASSEMBLY
⑨	1	CABLE ANCHOR BOX
⑩	1	STRUT & YOKE
⑪	1	STEEL PLATE BEAM, END PANEL 12 GA, 13'-6 1/2" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
⑫	3	STEEL PLATE BEAM: 12 GA, 13'-6 1/2"
⑬	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
⑭	1	REFLECTIVE SHEETING TYPE H: 18" X 18"
⑮	1	E.A.T. MARKER POST

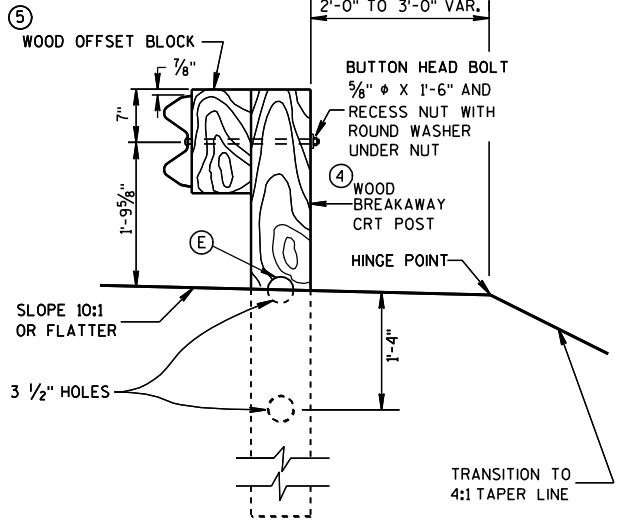
GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS. IF NONE ARE AVAILABLE, INSTALL 5/8" Ø X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.

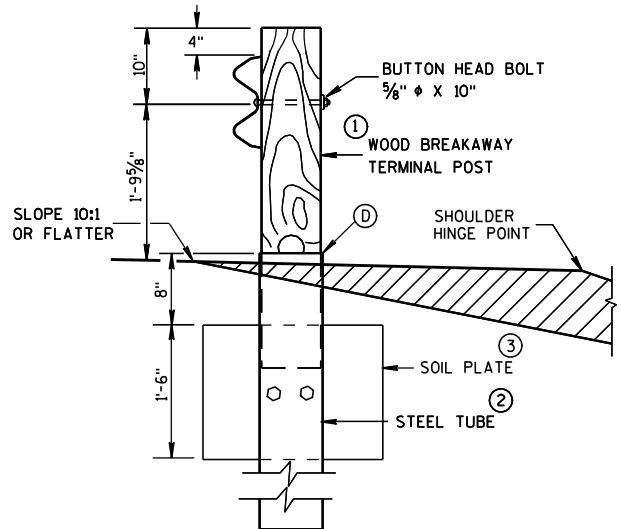
- (A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (C) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.
- (D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE 3/4" ABOVE THE FINISHED GROUND LINE.
- (F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER OF E.A.T. STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.
- DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

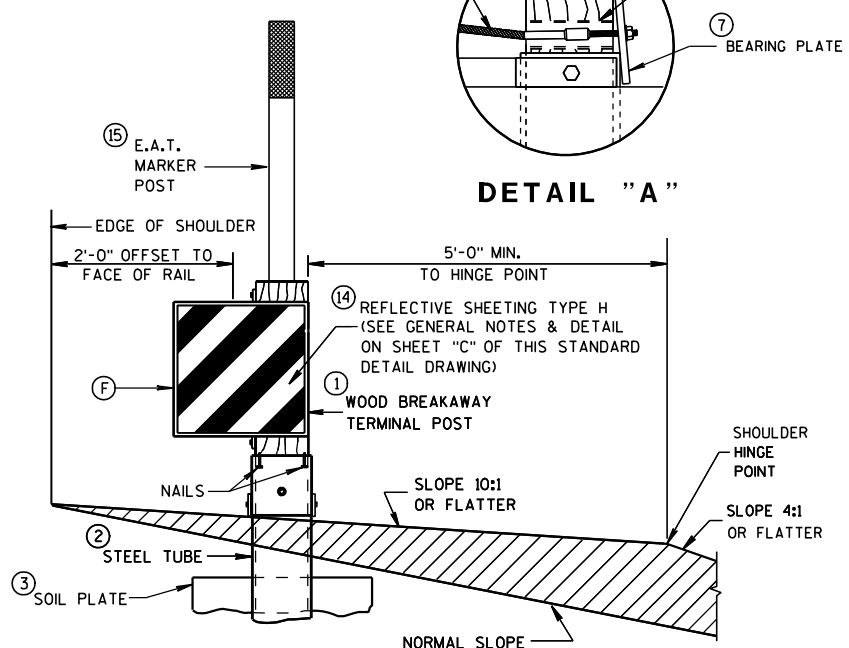
** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.



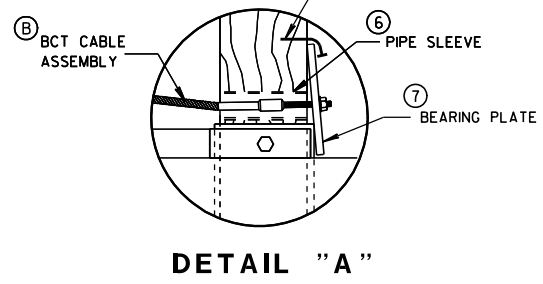
SECTION C-C
TYPICAL AT POST NOS. 6, 8



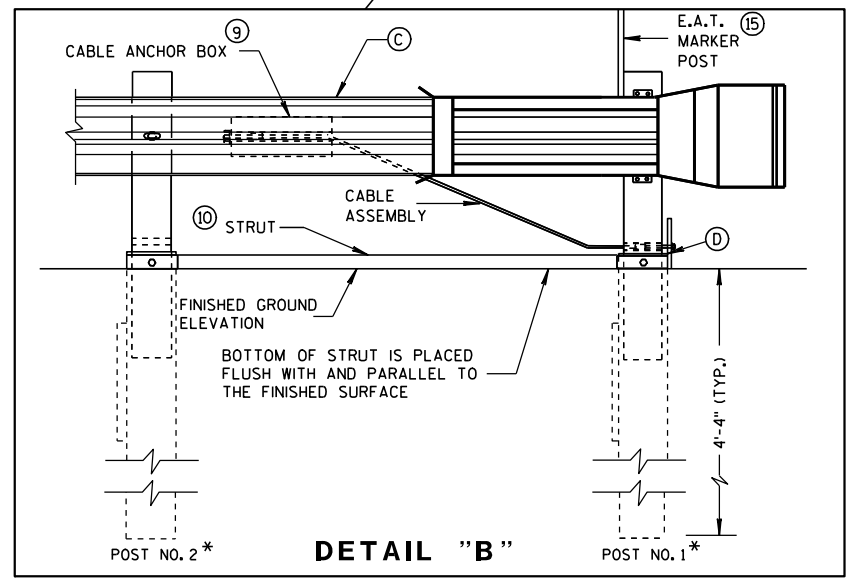
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



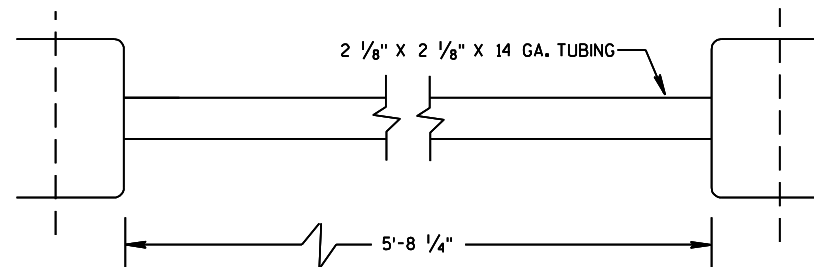
DETAIL "A"



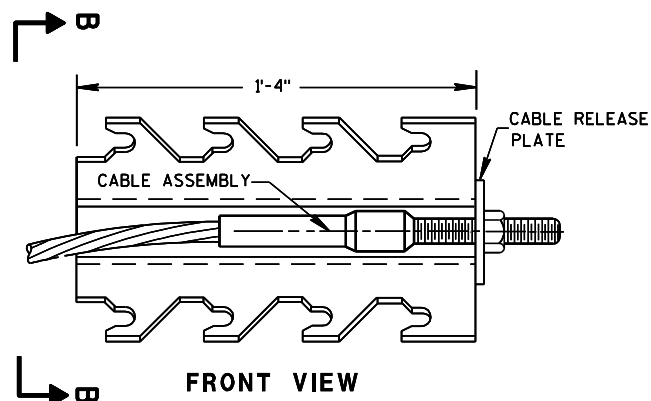
DETAIL "B"

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

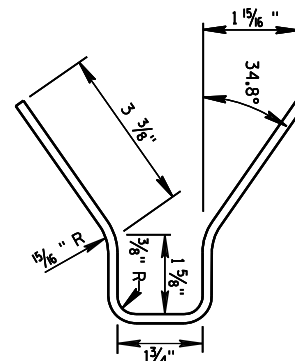


⑩ STRUT DETAIL (SKT-350)

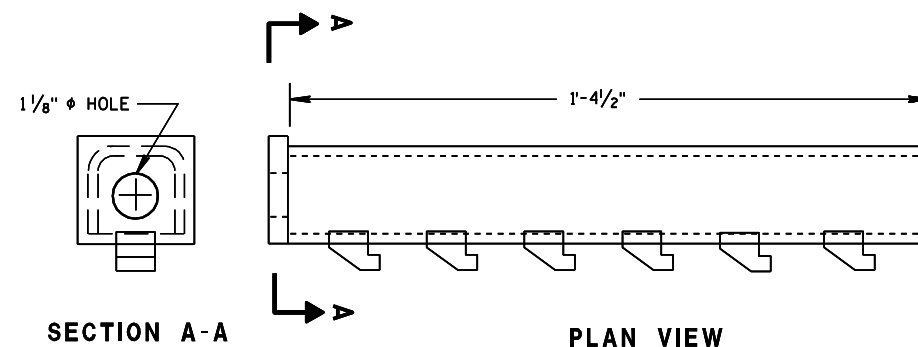


⑨ CABLE ANCHOR BOX (SKT-350)

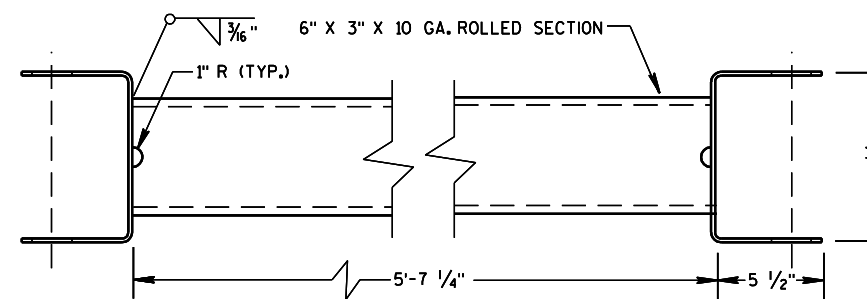
(SKT-350)



SECTION B-B

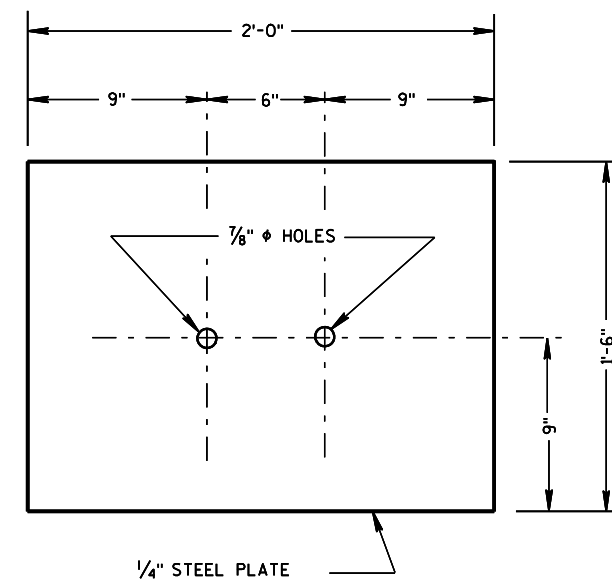


⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)

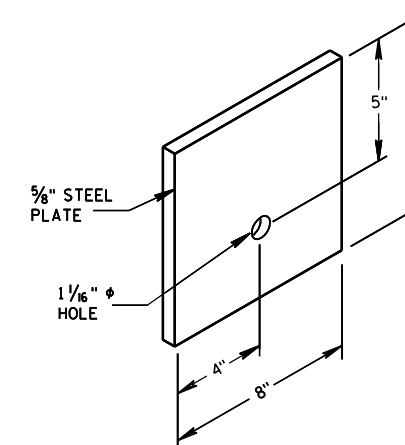


⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)

(ET-2000/ET-2000 PLUS)



③ SOIL PLATE
(SKT-350, ET-2000/ET-2000 PLUS)



⑦ STEEL BEARING PLATE
(SKT-350, ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



⑤ **WOOD OFFSET BLOCK**
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



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



APPROVED

4-12-10 /S/ Jerry H. Z...

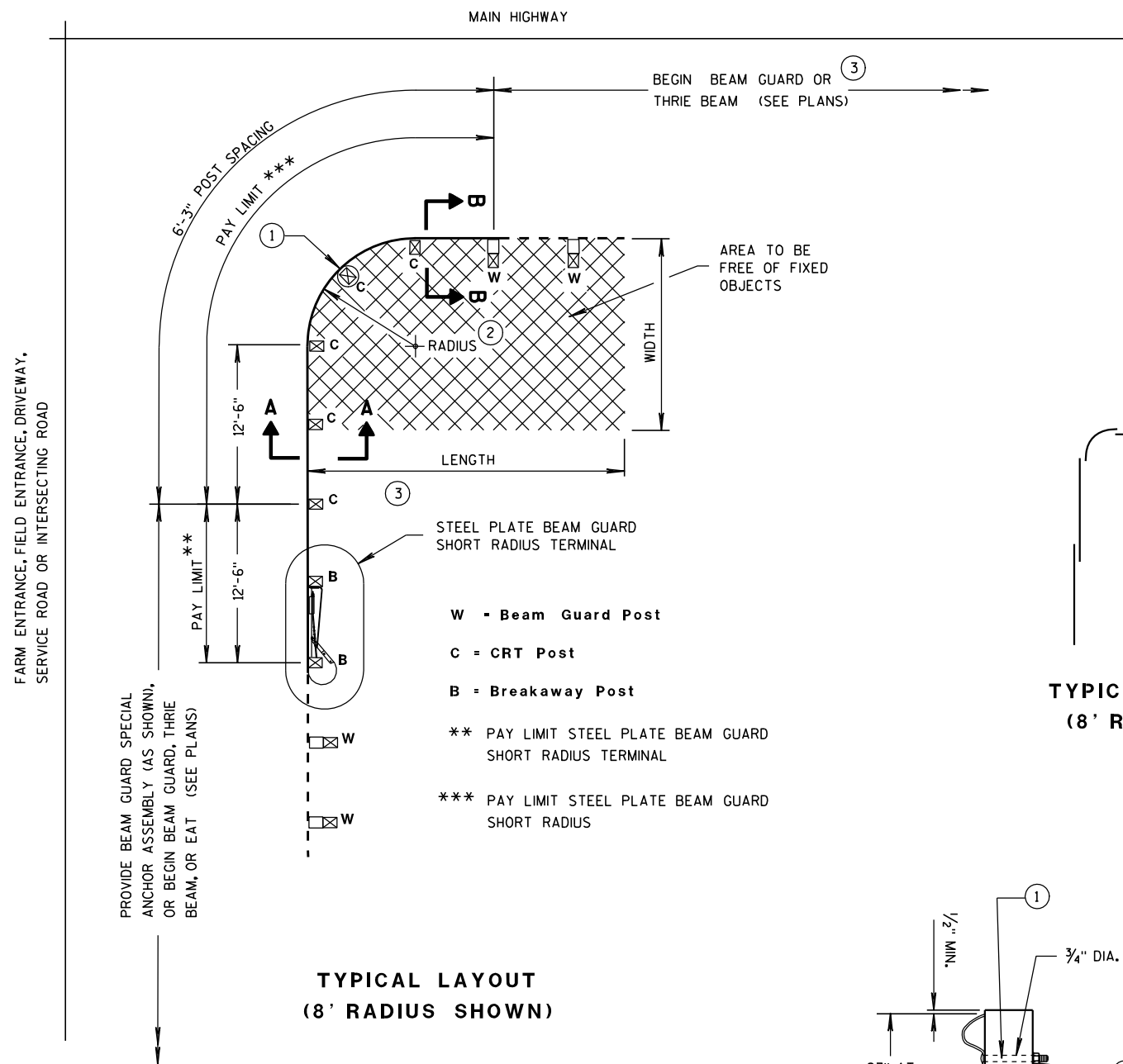
DATE ROADWAY STANDARDS 45

ENGINEER

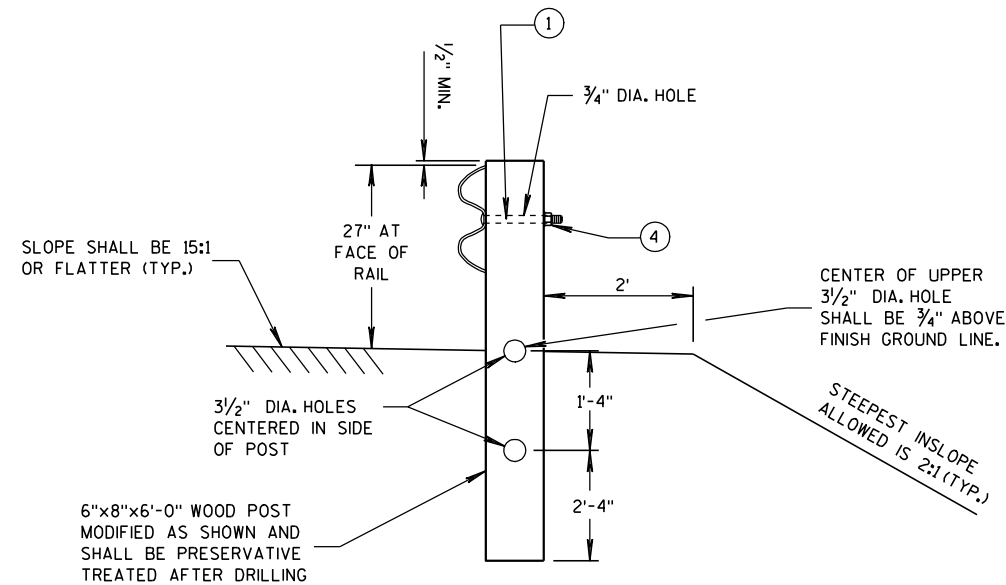
(G) 1/2" DIA. X 3" LAG BOLT WITH WASHER.



REFLECTIVE SHEETING DETAILS



**TYPICAL LAYOUT
(8' RADIUS SHOWN)**



**SECTION A-A
(CRT POST)**

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

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.

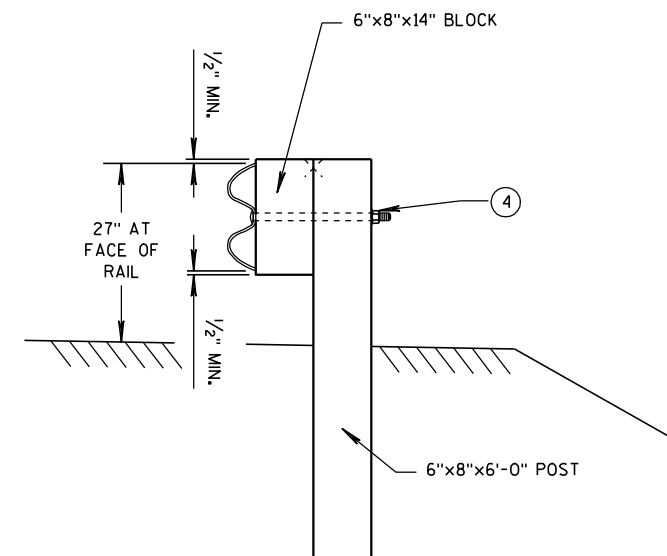
SHOP BEND CURVED RAIL SECTIONS.

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" ϕ 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'

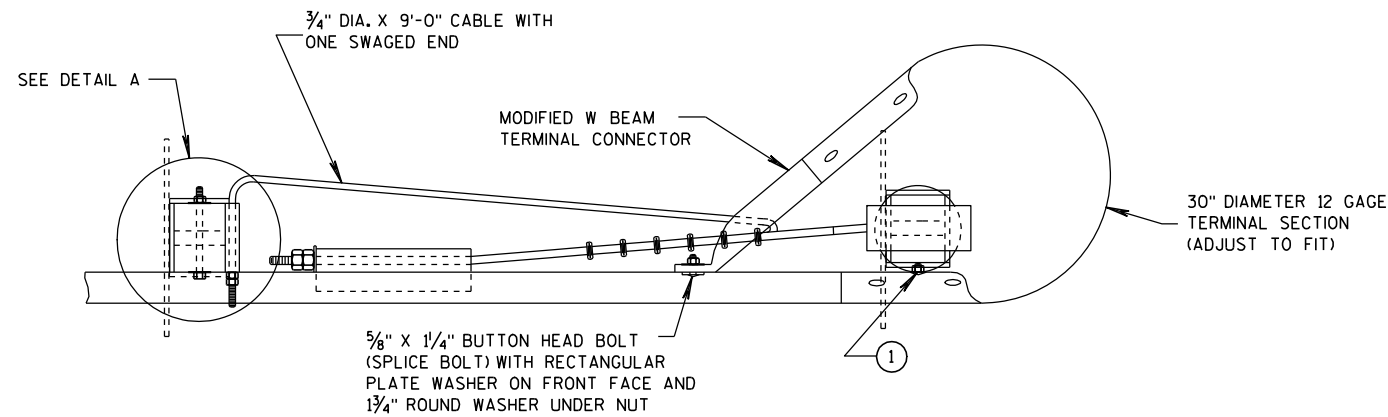
* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



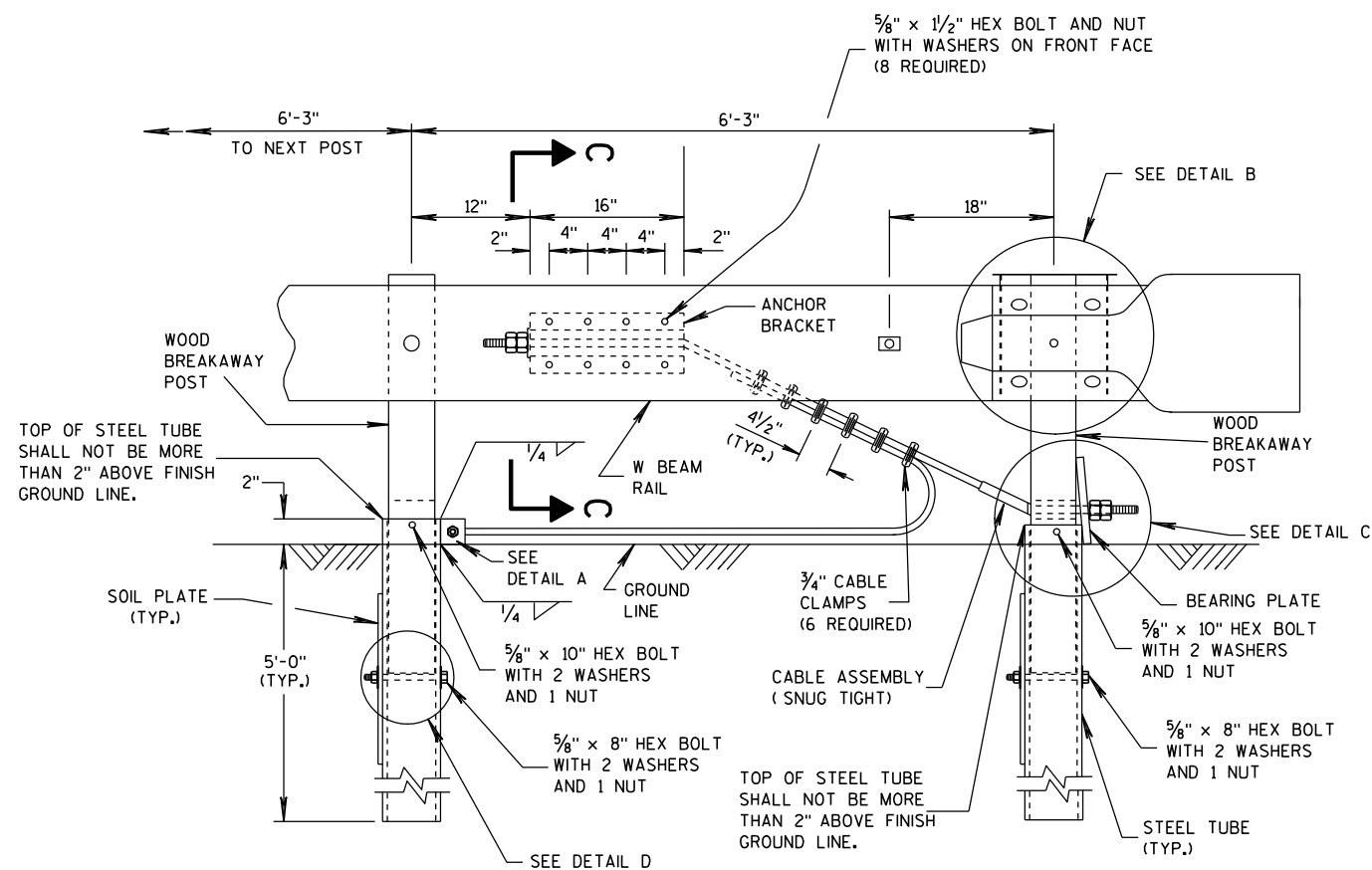
**SECTION B-B
(BEAM GUARD POST)**

**STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW

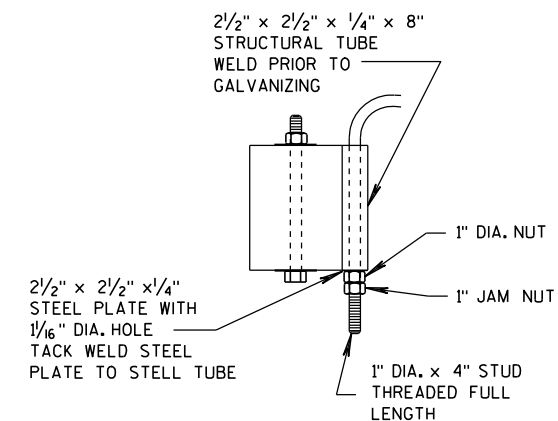


ELEVATION VIEW

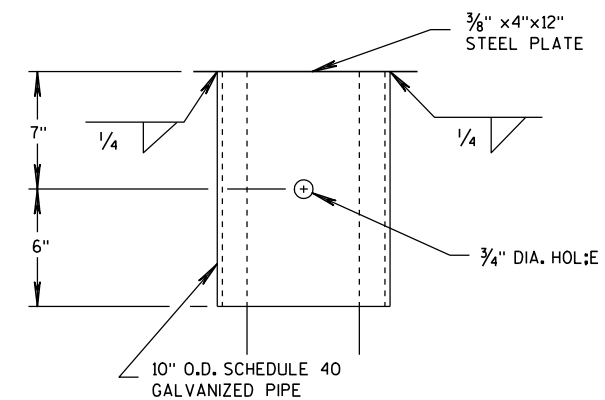
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

GENERAL NOTES

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



DETAIL A

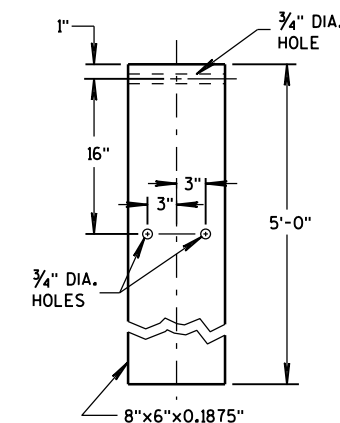
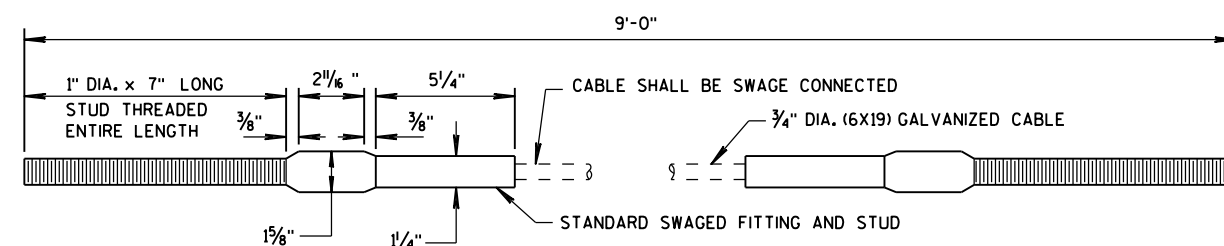
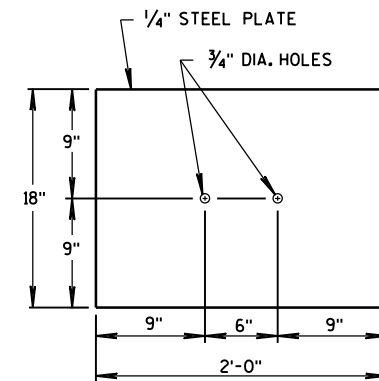
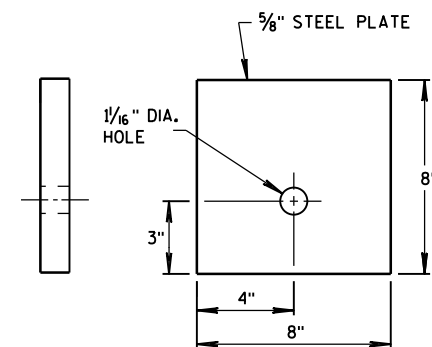
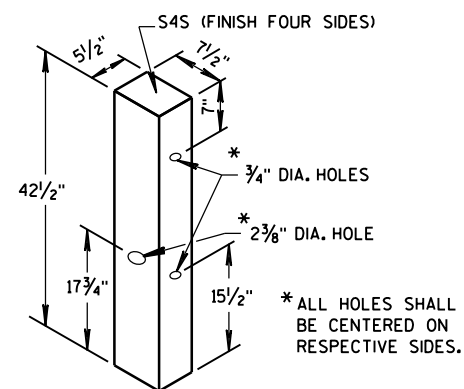
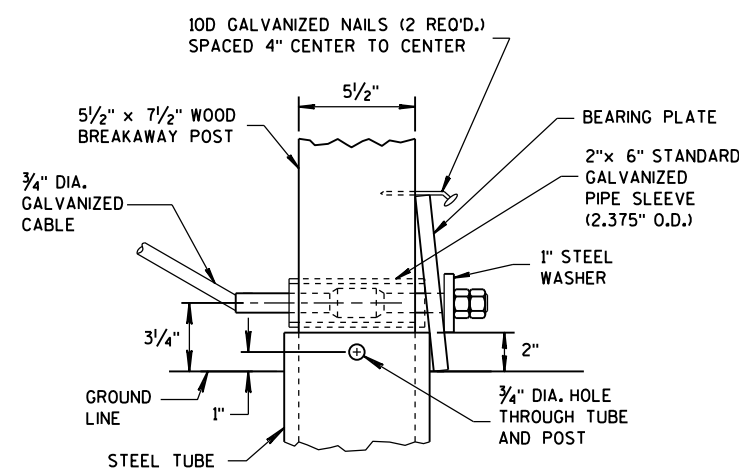
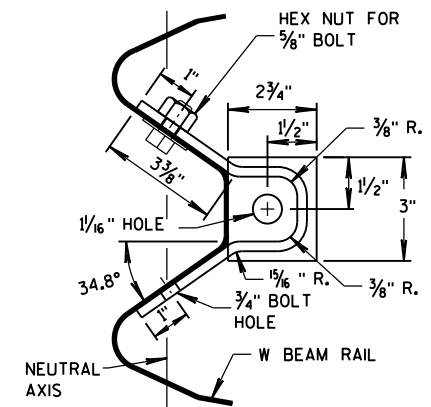
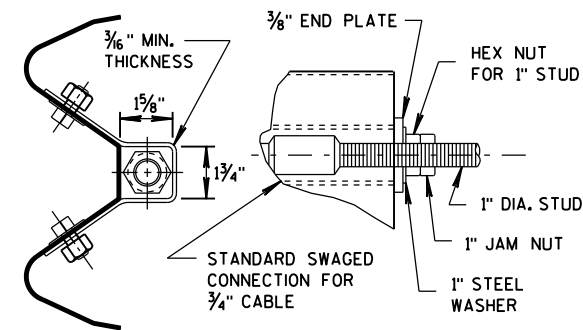
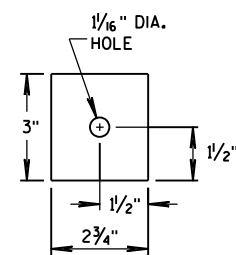
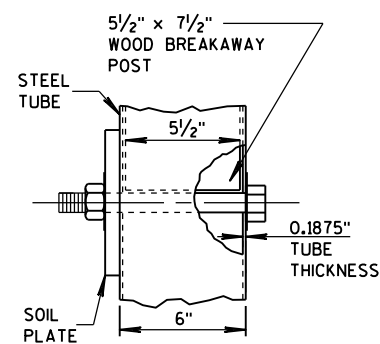
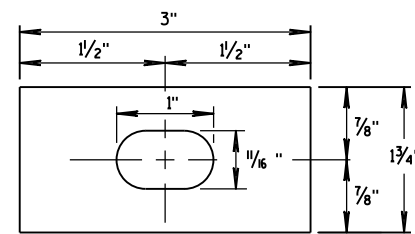


DETAIL B

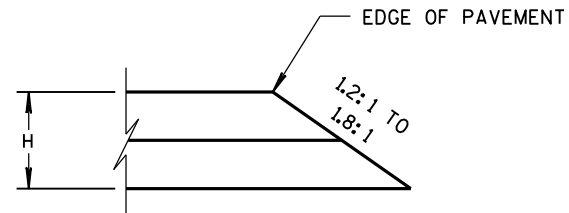
(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

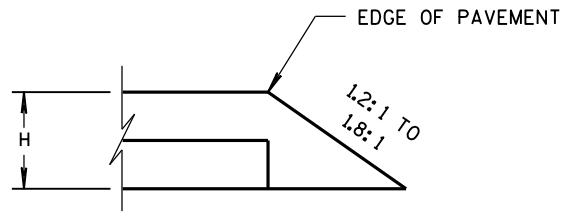
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



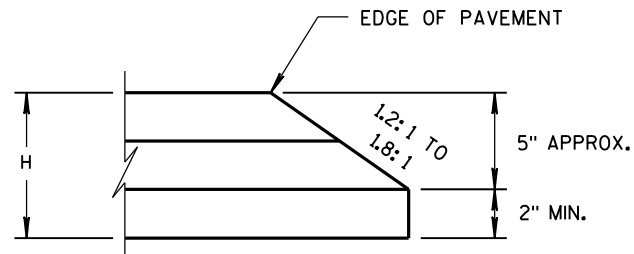
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL



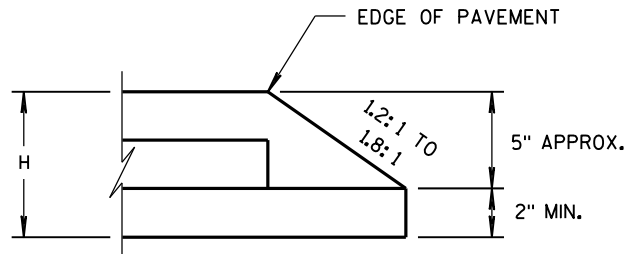
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

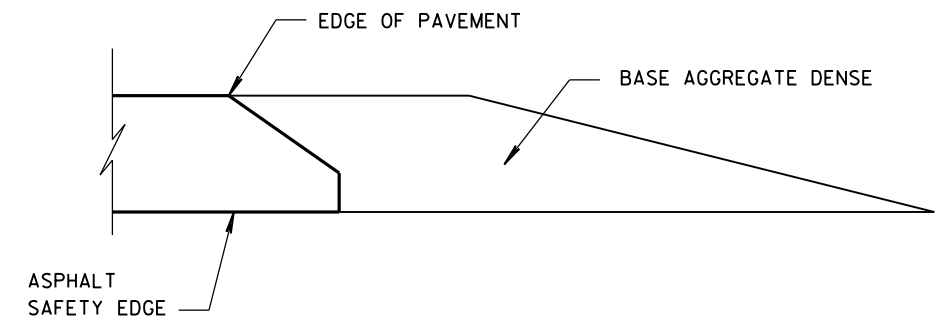


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



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. Zoog

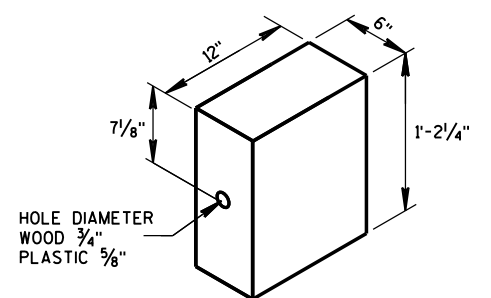
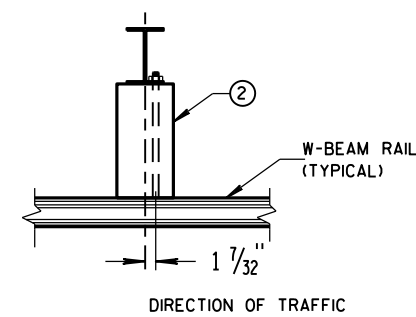
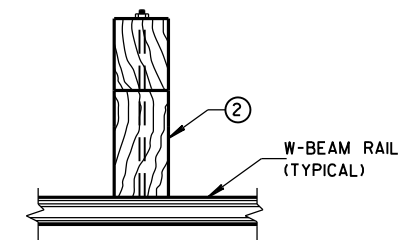
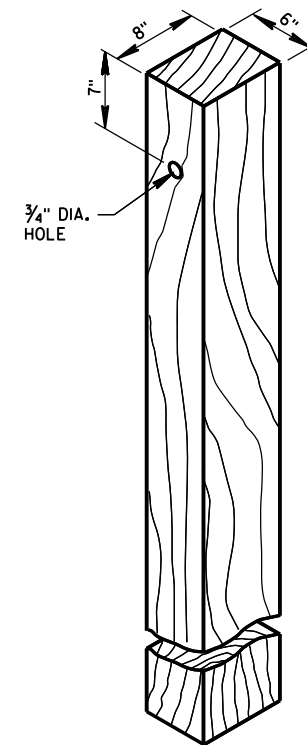
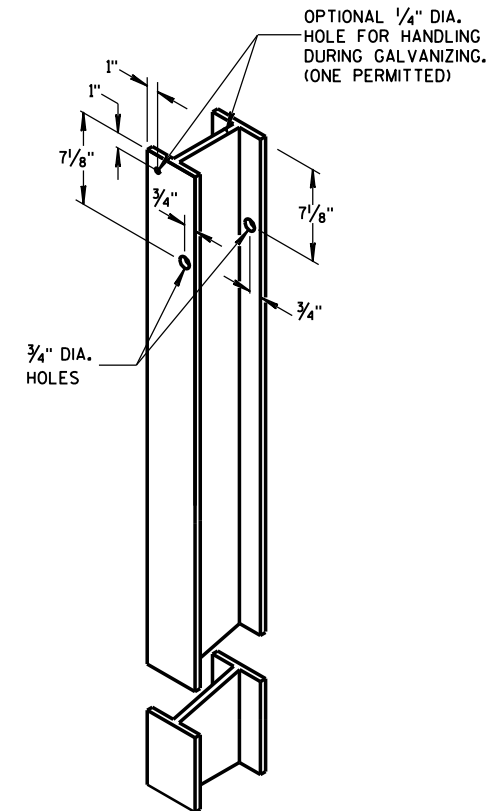
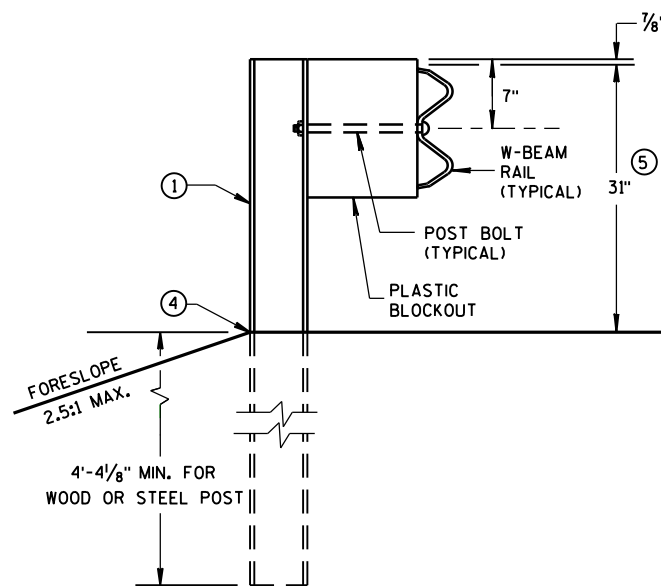
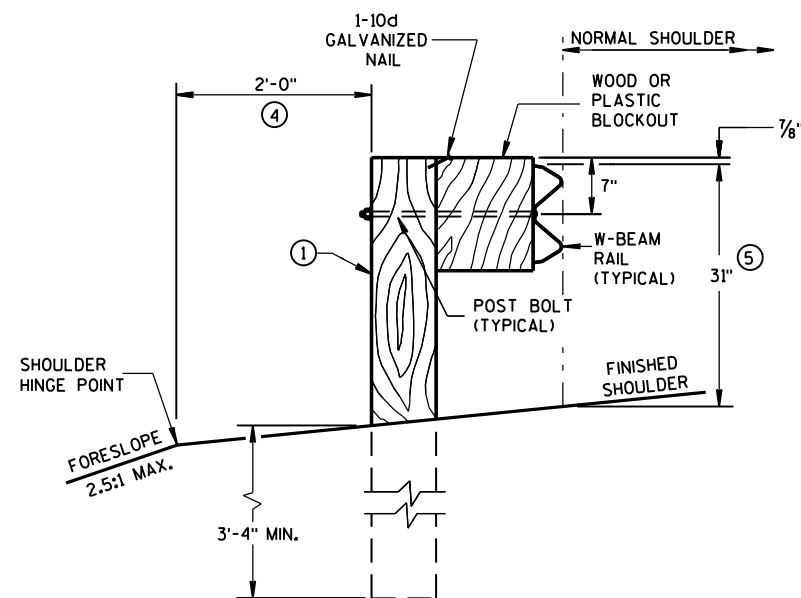
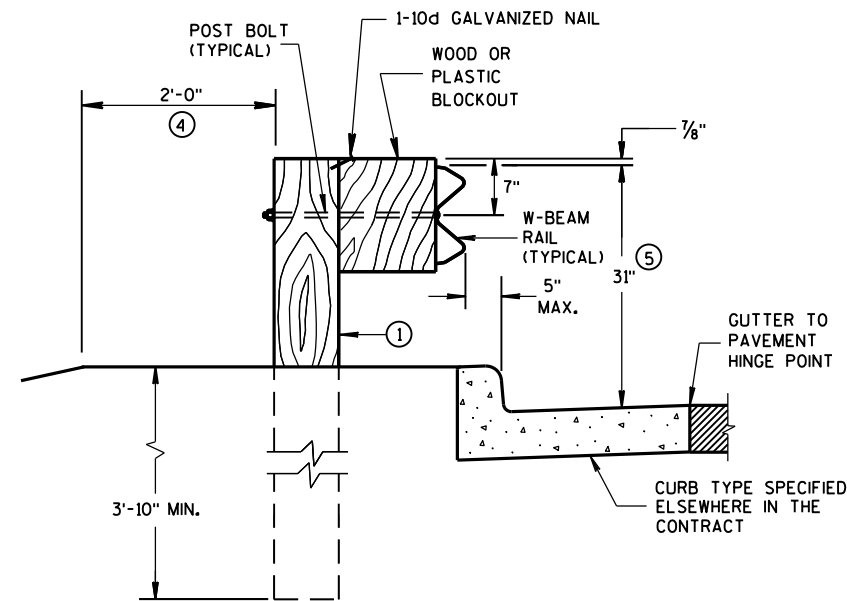
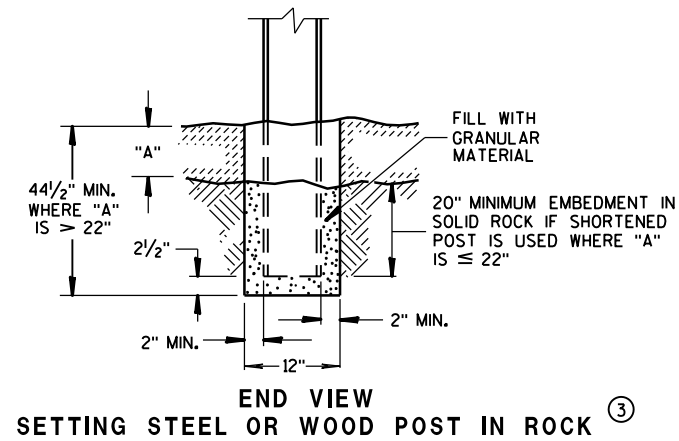
ROADWAY STANDARDS ENGINEER

49

INT

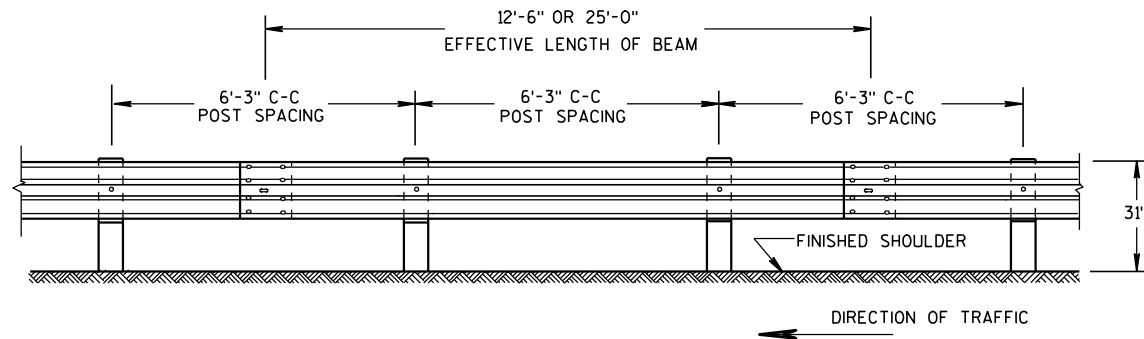
S.D.D. 14 B 42-2a

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



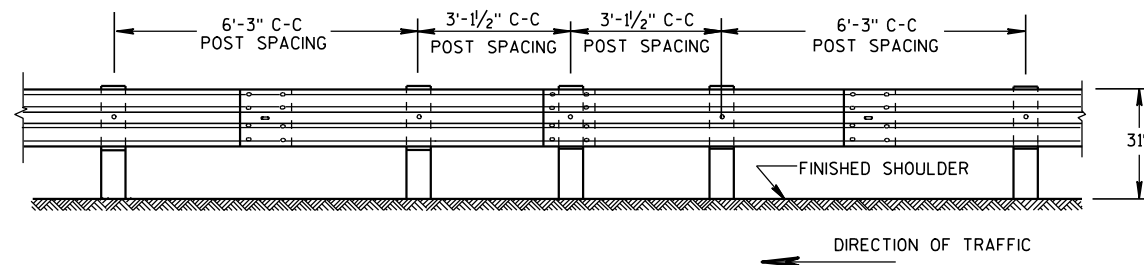
**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 50



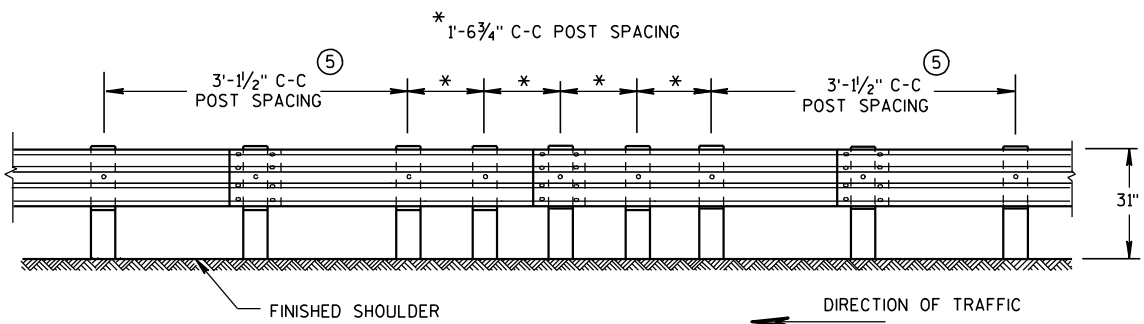
FRONT VIEW

POST SPACING STANDARD INSTALLATION



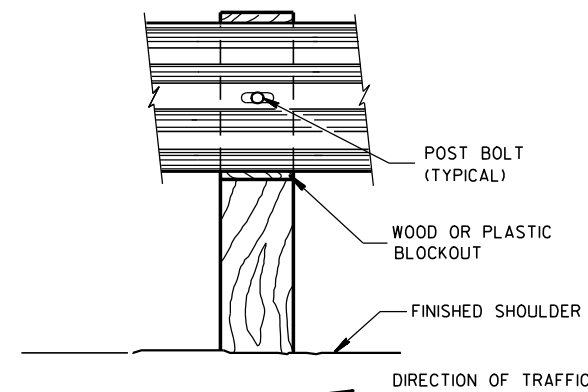
FRONT VIEW

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

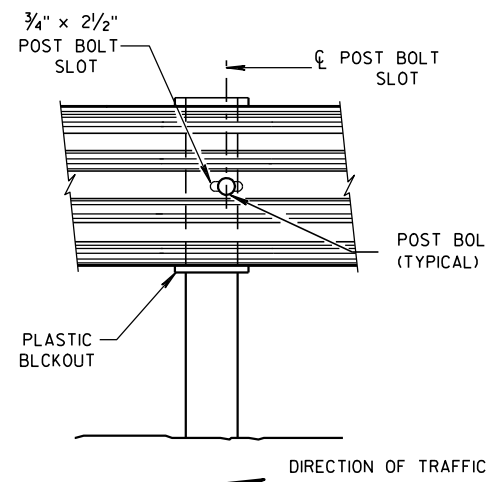


FRONT VIEW

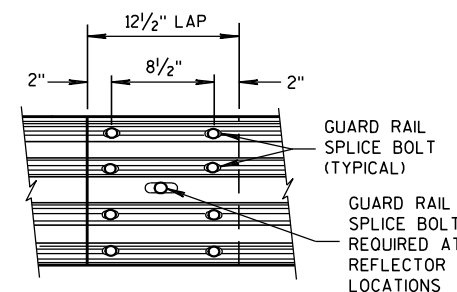
QUARTER POST SPACING (QS)



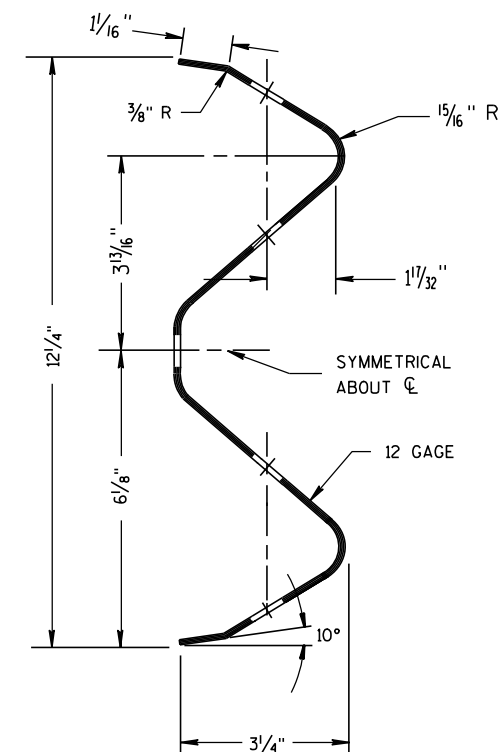
FRONT VIEW AT WOOD POST



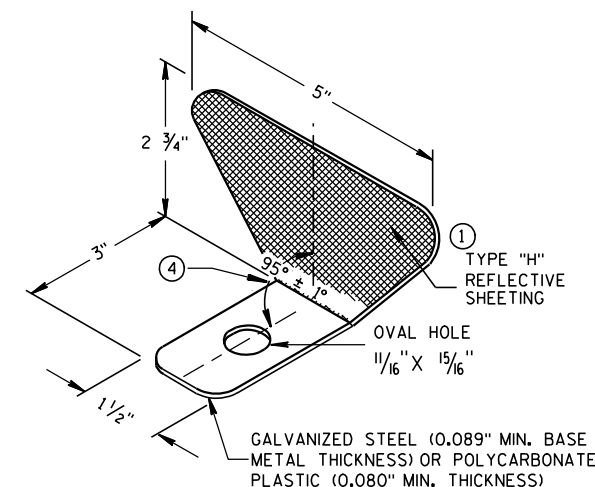
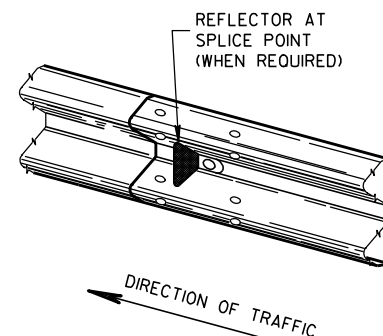
FRONT VIEW AT STEEL POST



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.

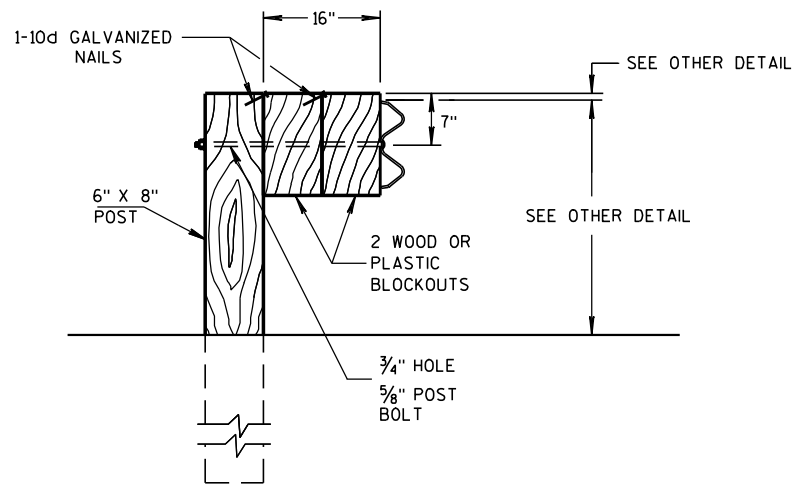
GUARD RAIL SPLICE BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

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	

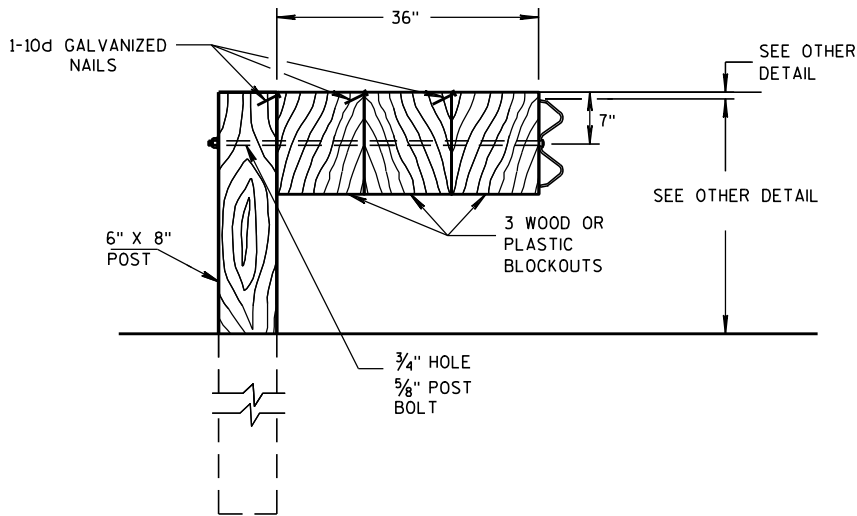
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

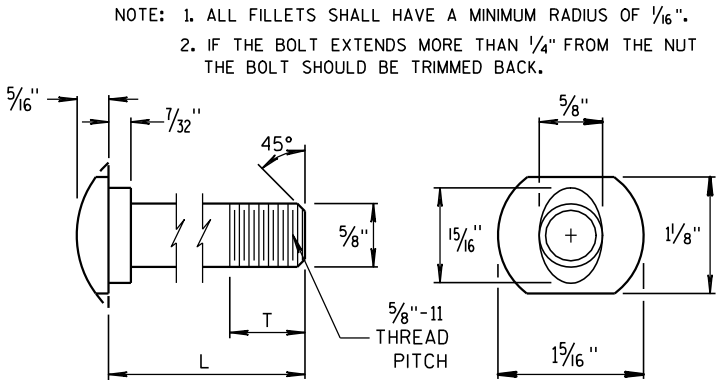
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



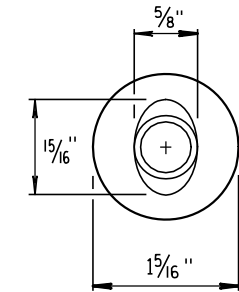
DETAIL FOR 36" BLOCKOUT DEPTH

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

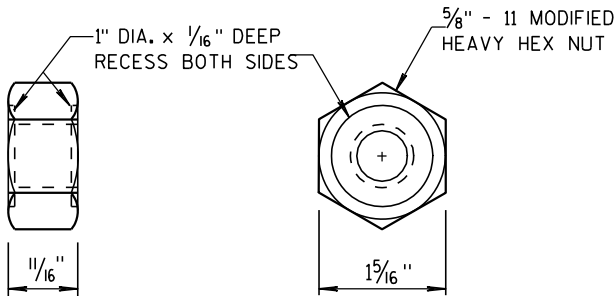
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



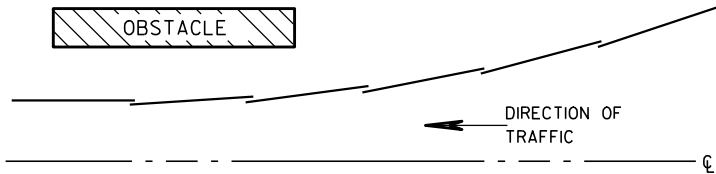
POST BOLT TABLE



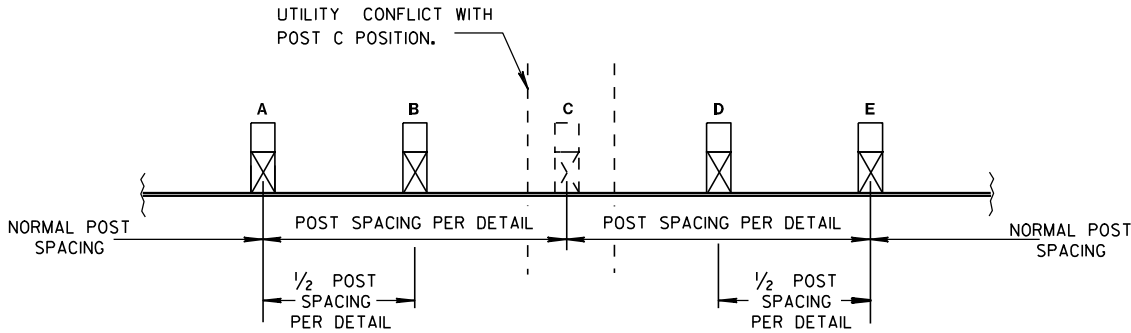
ALTERNATE BOLT HEAD



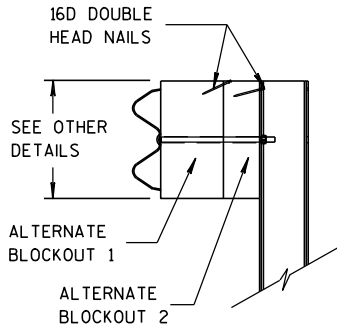
POST BOLT AND RECESS NUT



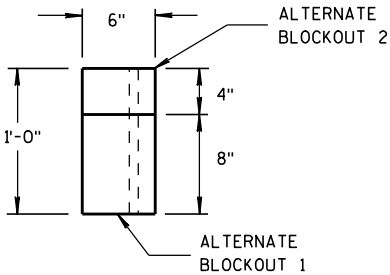
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE 11/15/2011
FHW

15/ Jerry H. 3000
ROADWAY STANDARDS 52
ENGINEER ENT

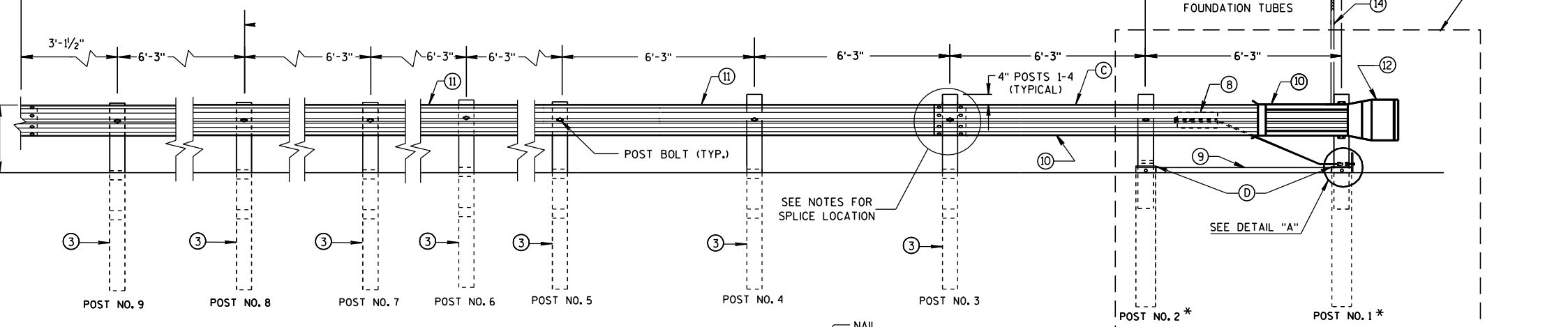
6

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

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

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")



EDGE OF SHOULDER

2'-0" OFFSET TO FACE OF RAIL

5'-0" MIN. TO HINGE POINT

DETAIL "A"

SHOULDER HINGE POINT

SLOPE 10:1 OR FLATTER

SLOPE 4:1 OR FLATTER

NORMAL SLOPE

NAILS

14

13

1

2

F

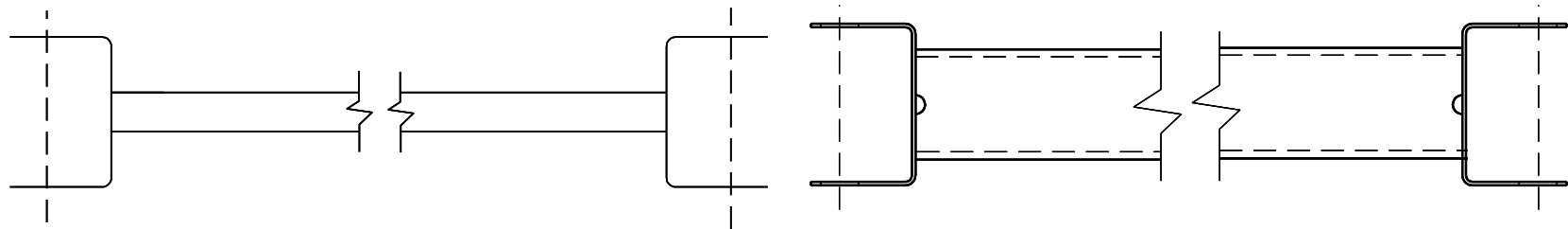
12

6

[illegible]

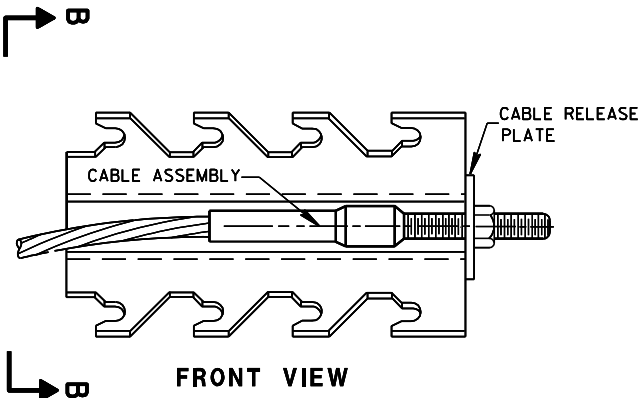
**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

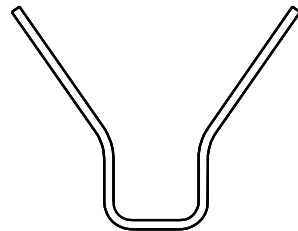


GENERIC GROUND STRUT

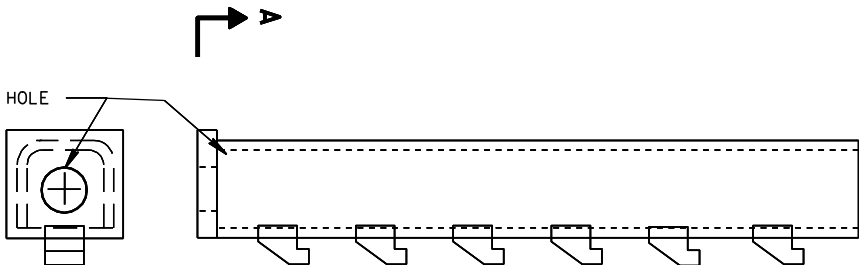
9 H



FRONT VIEW



SECTION B-B



SECTION A-A

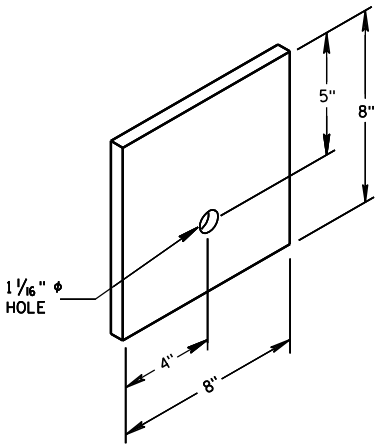
PLAN VIEW

GENERIC ANCHOR CABLE BOX

8 H

BILL OF MATERIALS

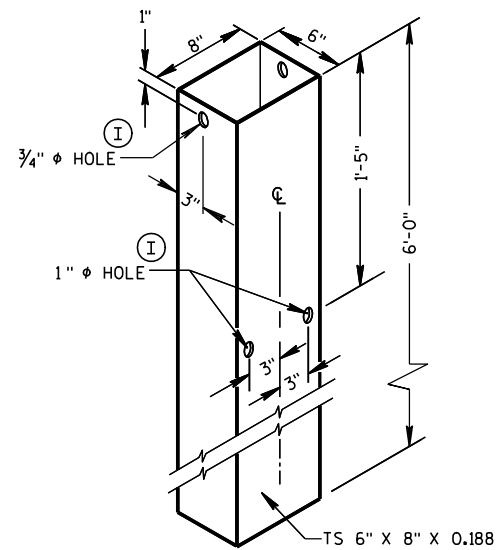
PART NO.	DESCRIPTION
MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.	
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND 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)



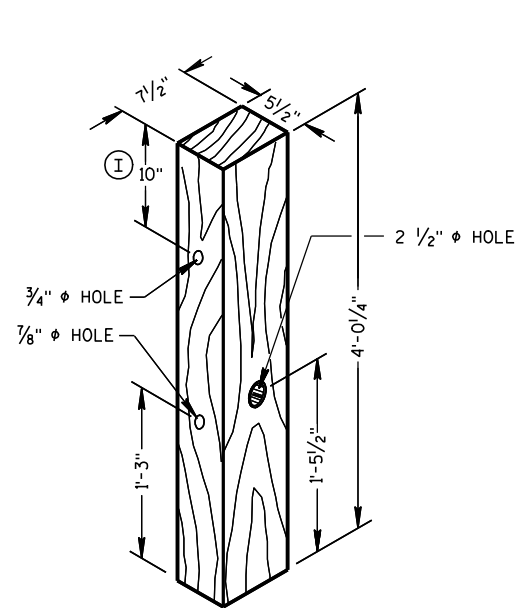
BEARING PLATE

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

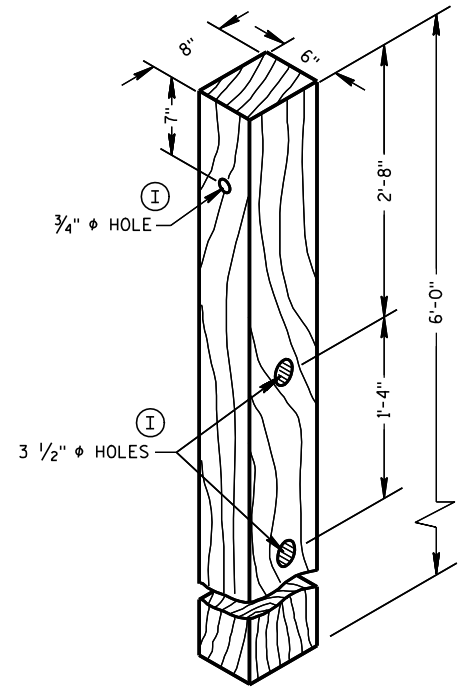
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



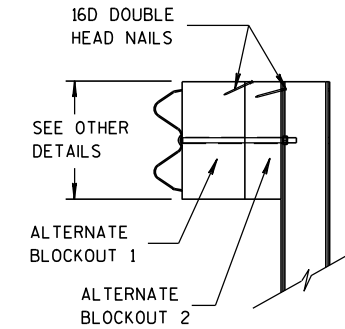
FOUNDATION TUBE ②



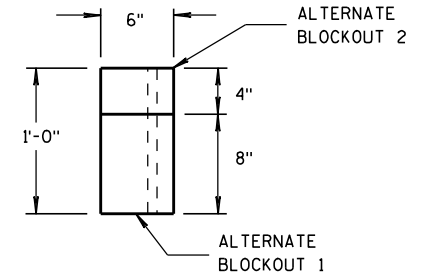
WOOD BREAKAWAY POST ①



WOOD CRT POST ③

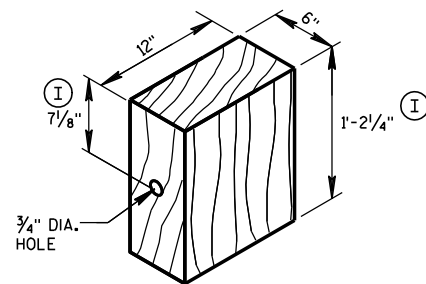


SIDE VIEW



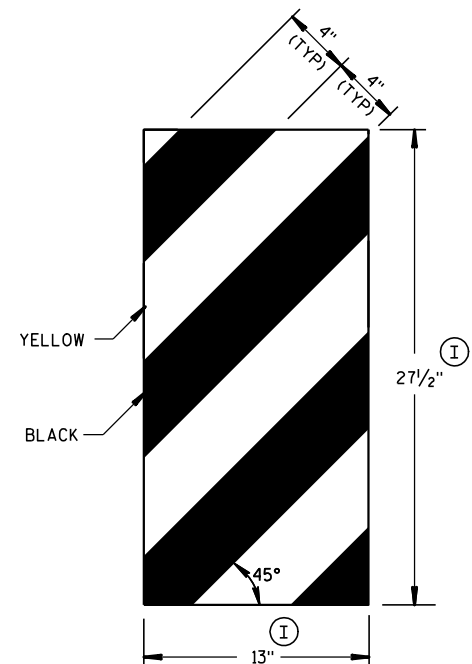
TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

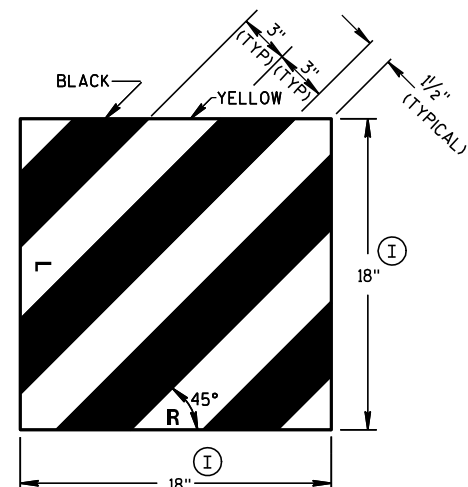


WOOD BLOCKOUT ④

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



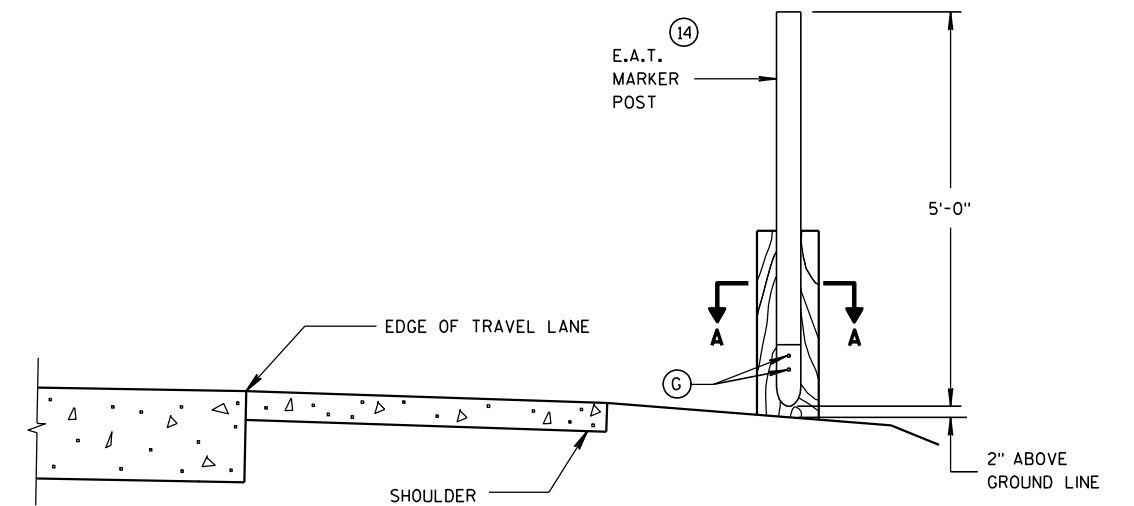
GENERIC REFLECTIVE SHEETING ⑬ ④



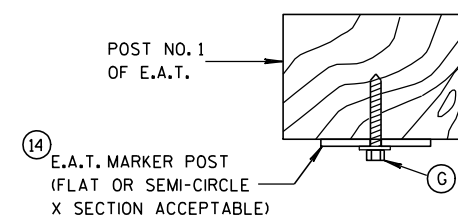
FRONT VIEW

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)

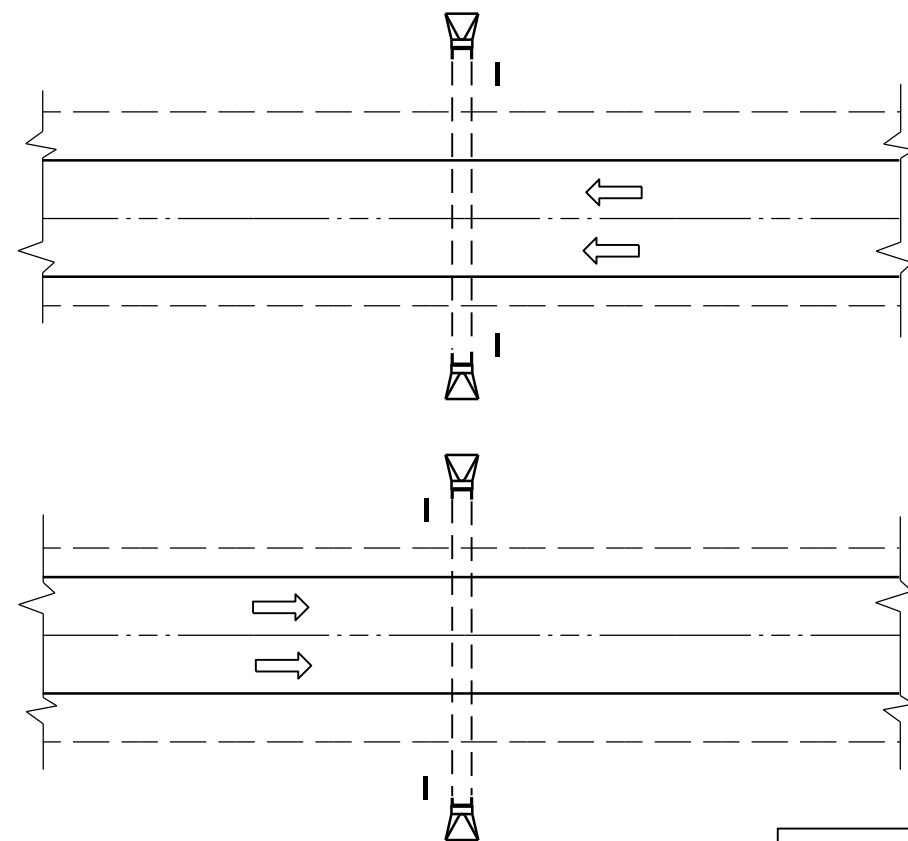


SECTION A-A

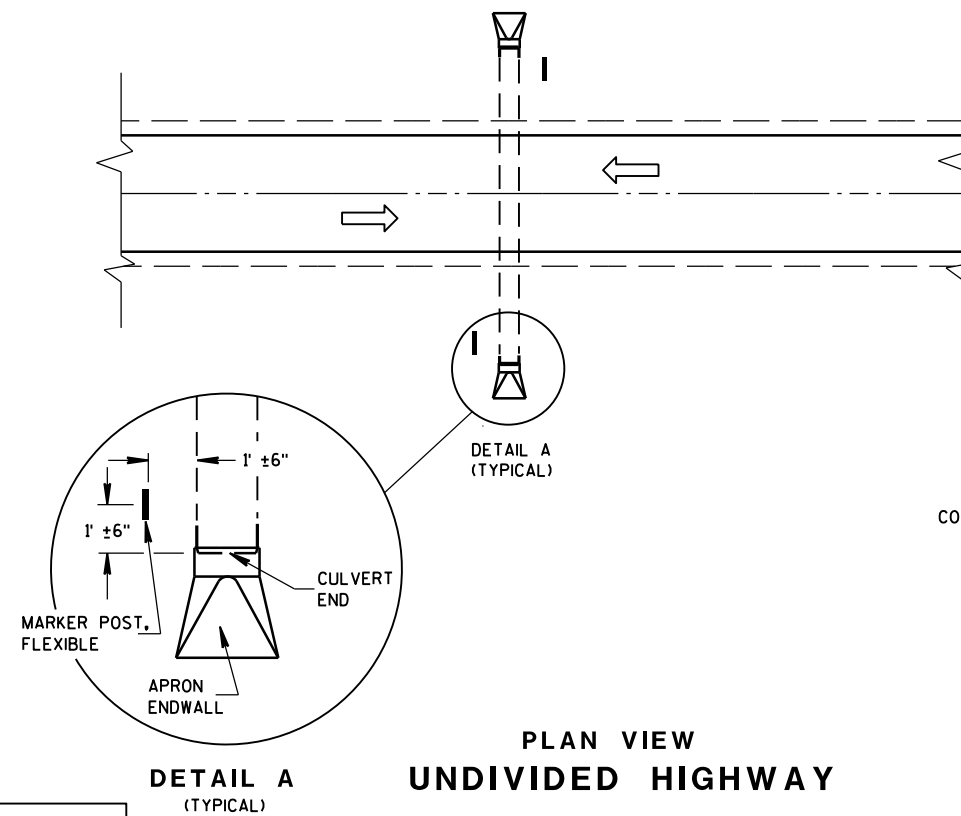
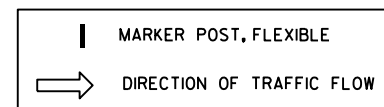
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011 /S/ Jerry H. 3000
DATE ROADWAY STANDARDS 55 1ENT
FHWA ENGINEER



PLAN VIEW
DIVIDED HIGHWAY

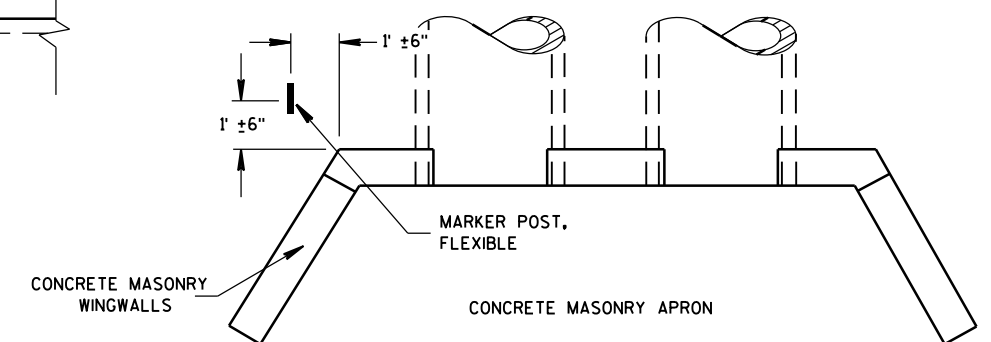


PLAN VIEW
UNDIVIDED HIGHWAY

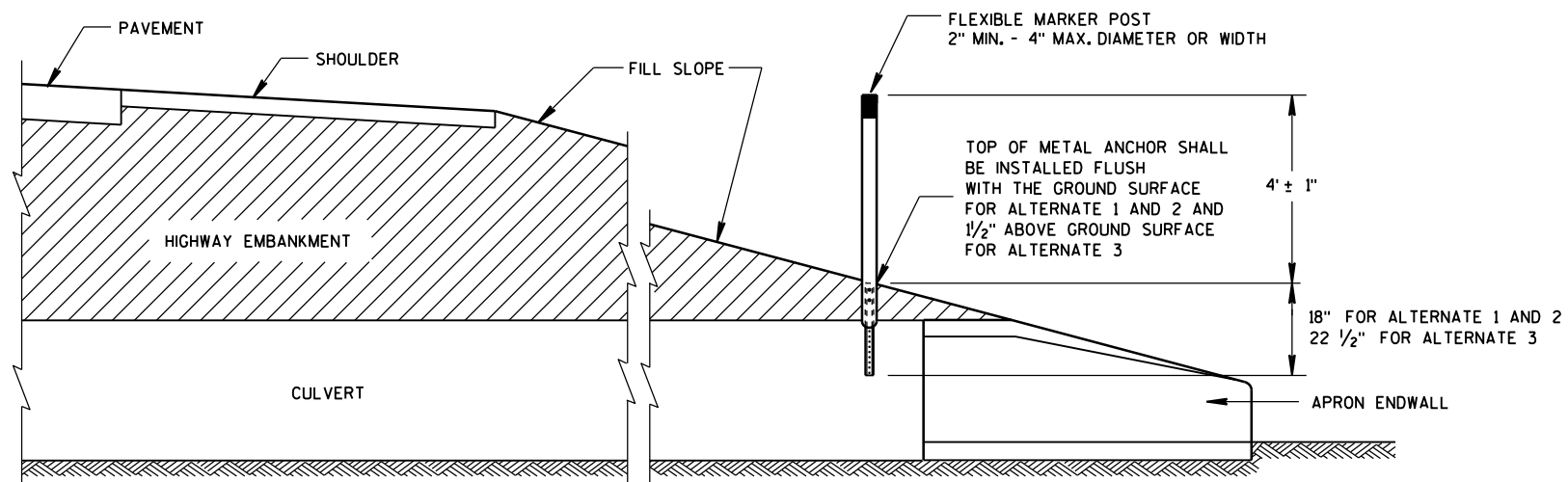
FLEXIBLE MARKER POST LOCATION

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.



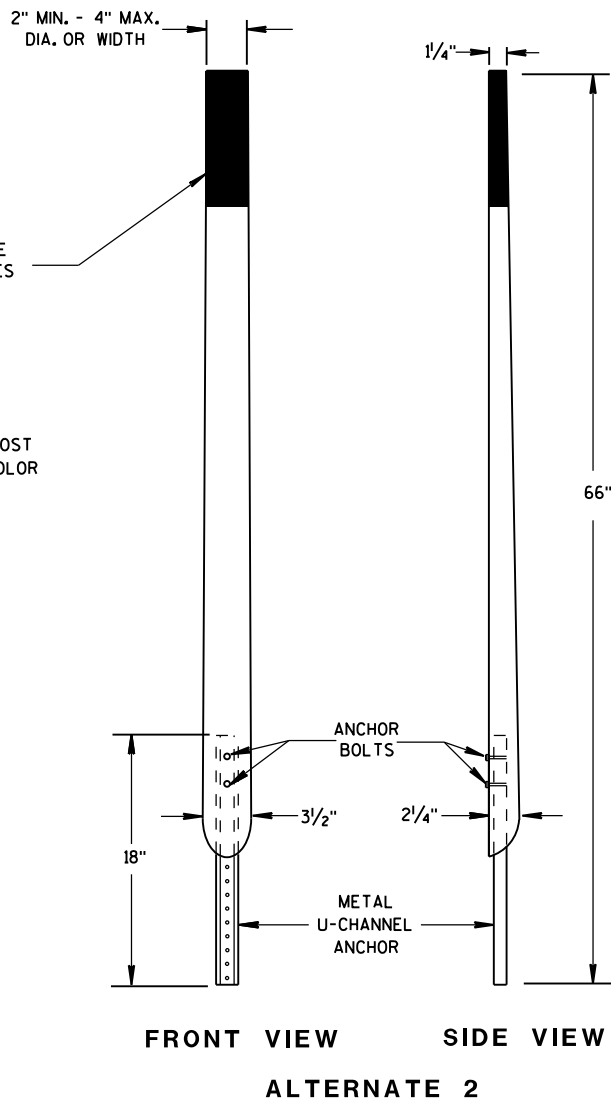
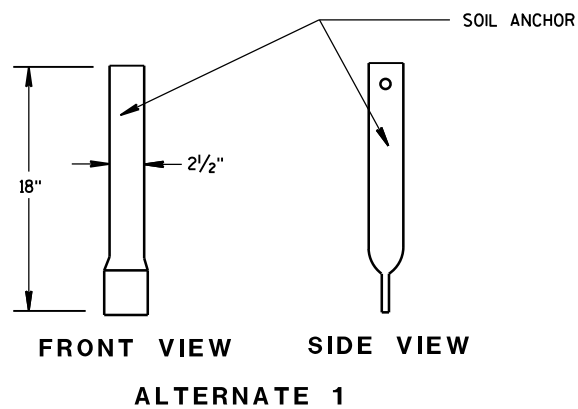
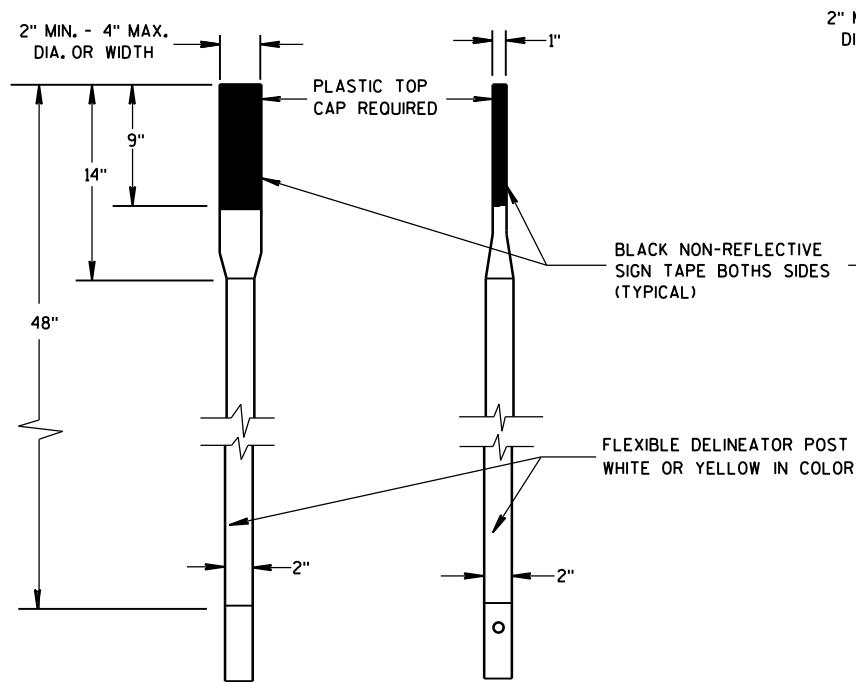
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



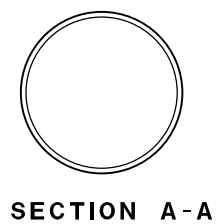
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

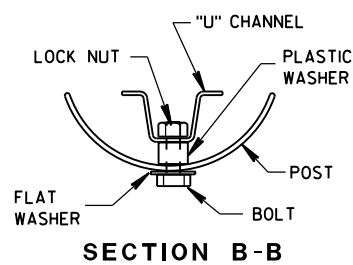
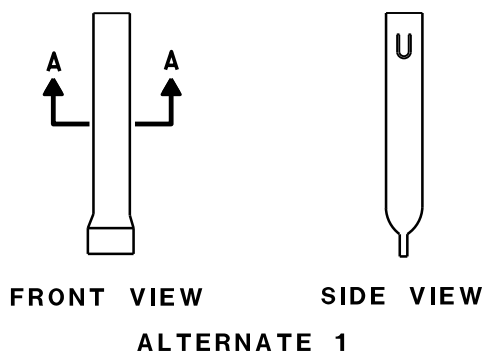
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



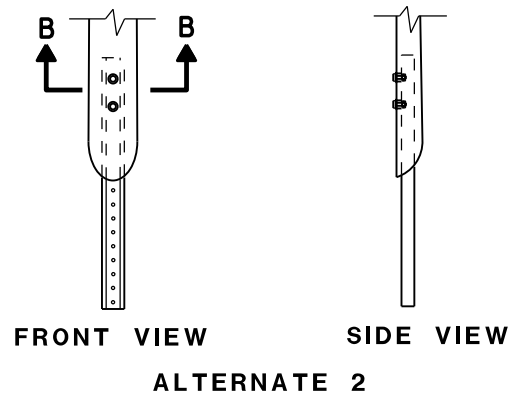
FLEXIBLE MARKER POSTS



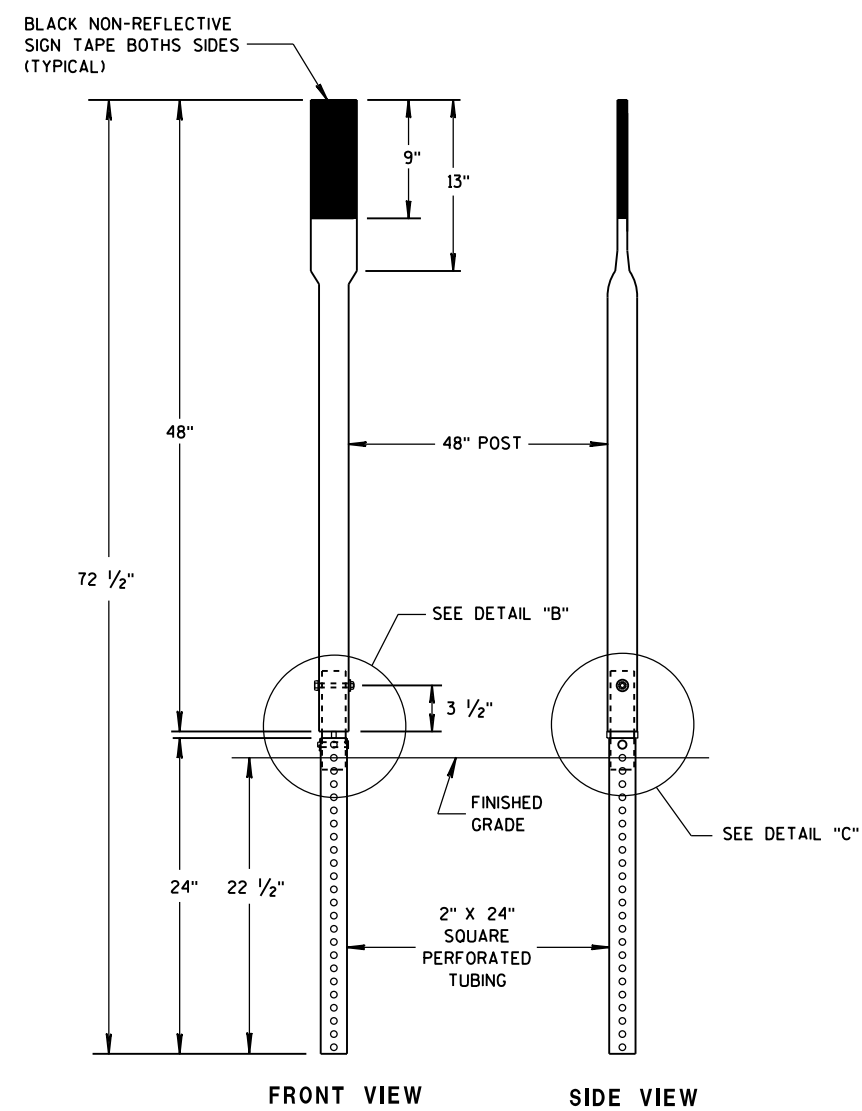
SECTION A-A



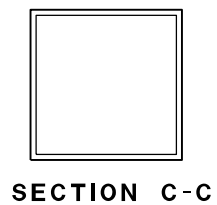
SECTION B-B



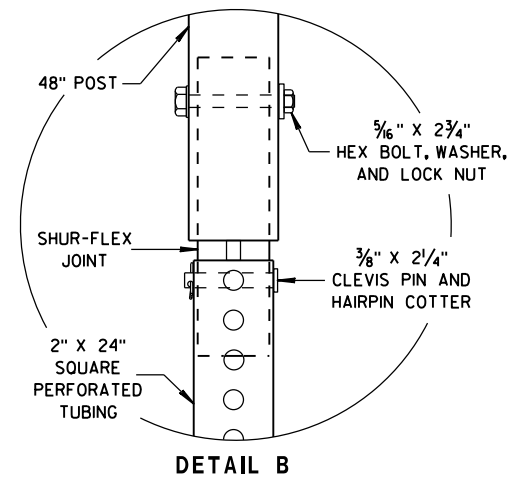
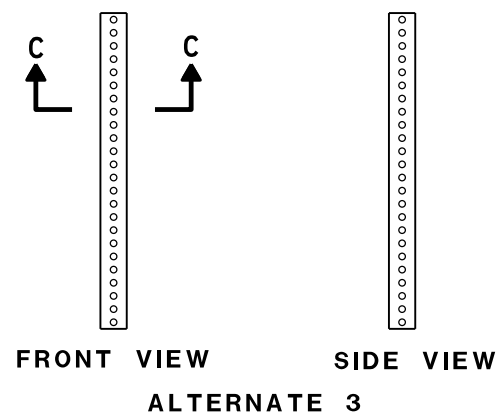
FLEXIBLE MARKER POST ANCHORS



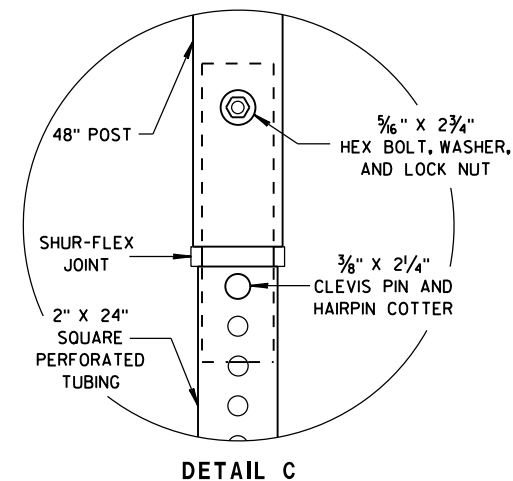
FLEXIBLE MARKER POSTS



SECTION C-C



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT ENDSTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

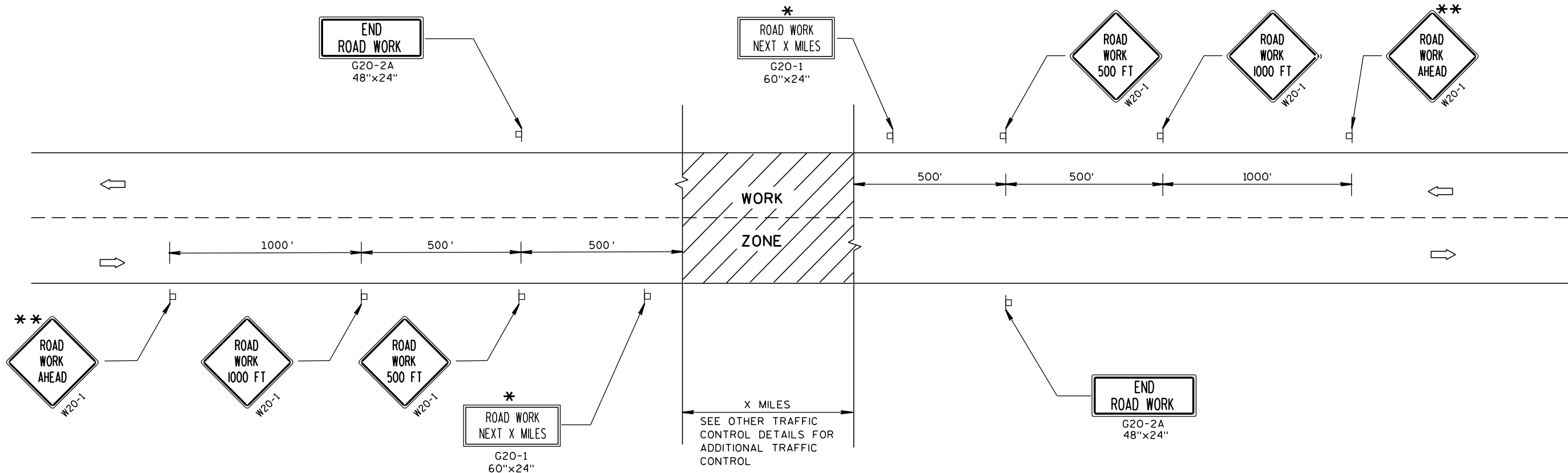
APPROVED

10/1/2012
DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER 57

IGN



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.

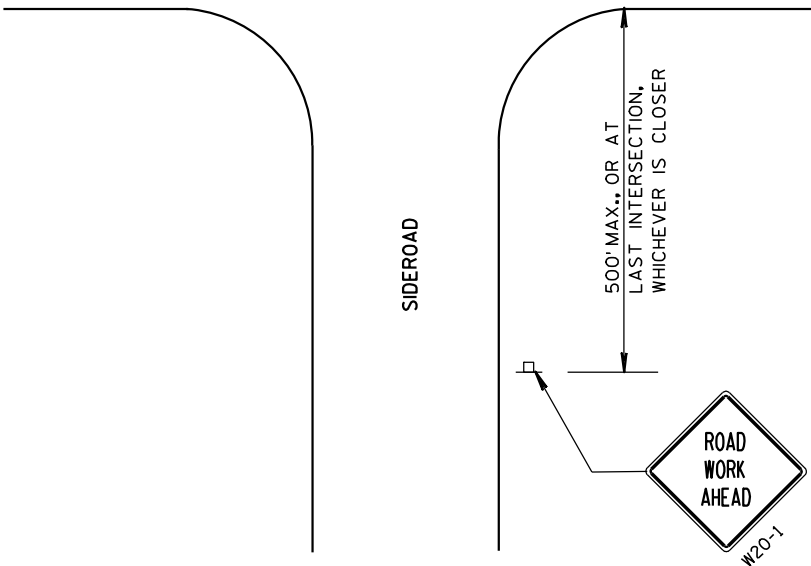
IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* 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 OR SIGNING.

CENTER OF ROADWAY

MAINLINE ROADWAY UNDER CONSTRUCTION



LEGEND

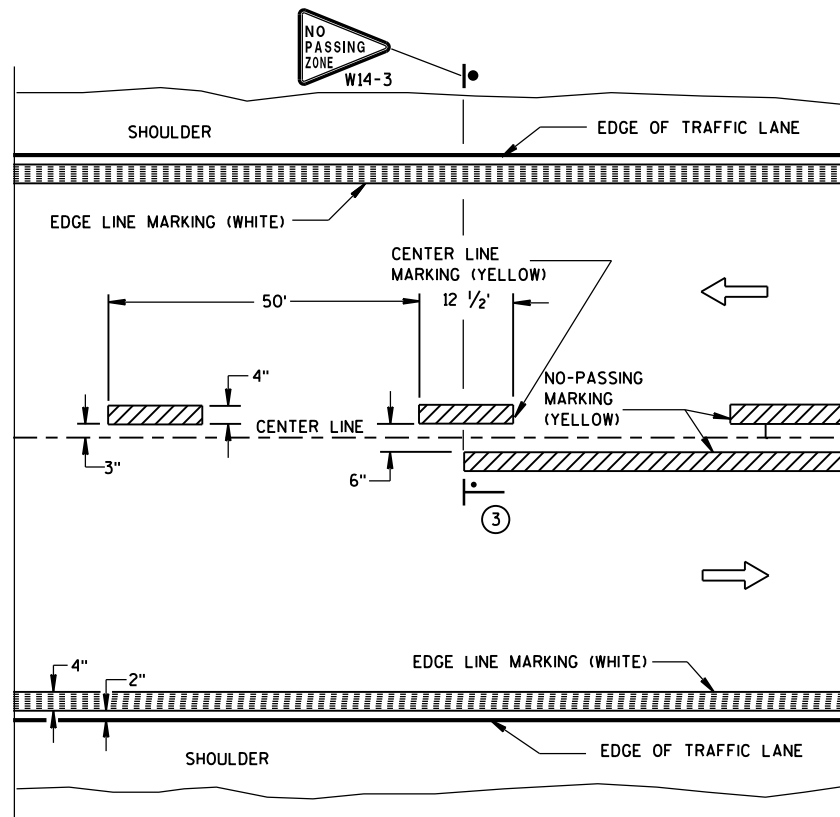
POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

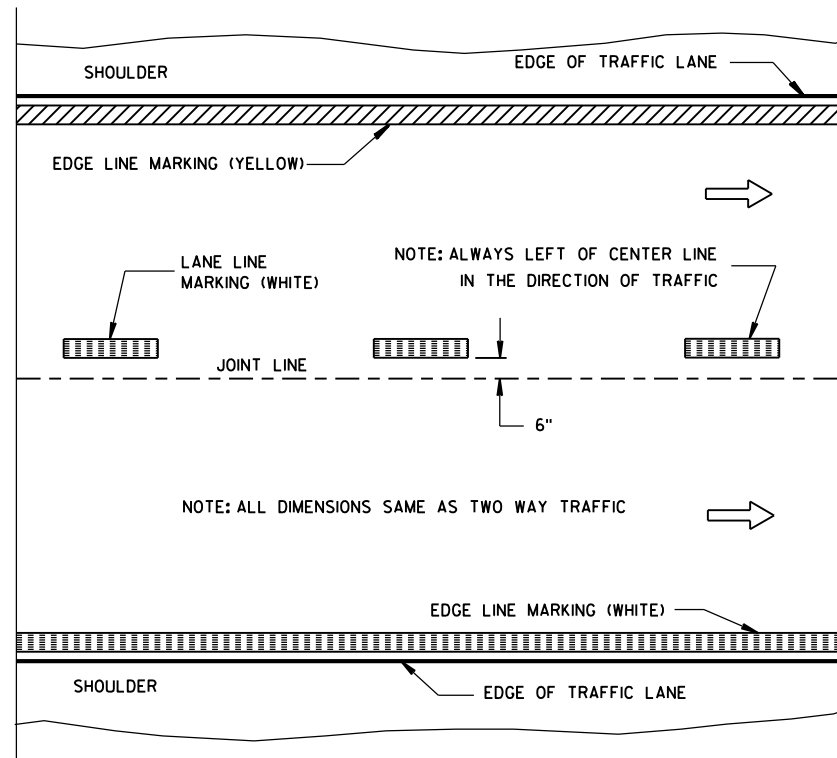
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 45 M.P.H.
OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 /S/ Chester J. NEER
DATE CHIEF SIGNS AND MARKS
FHWA

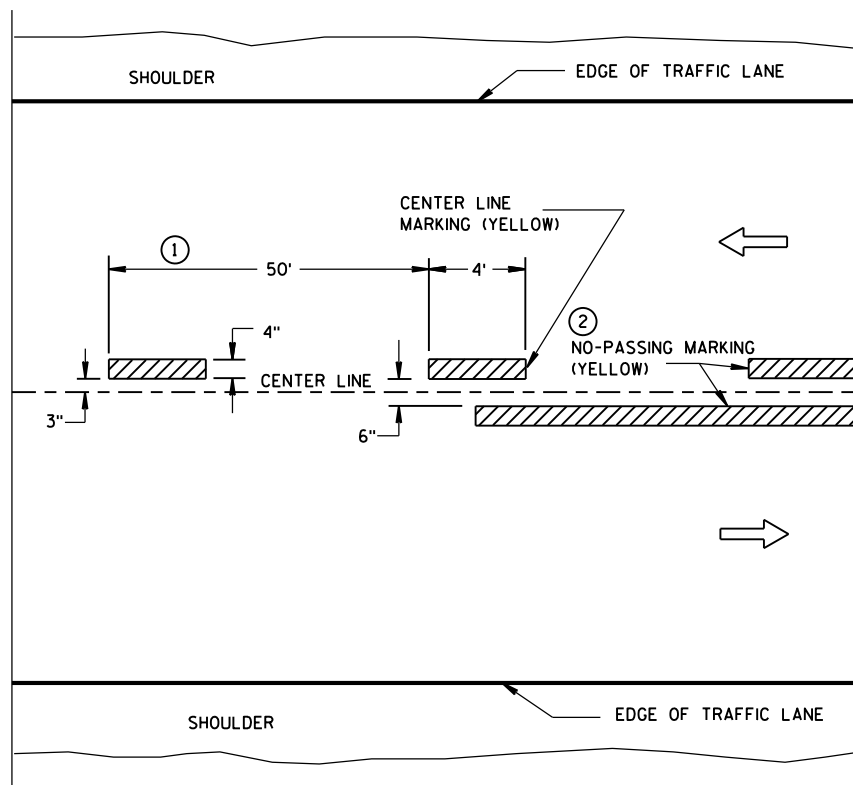


TWO WAY TRAFFIC

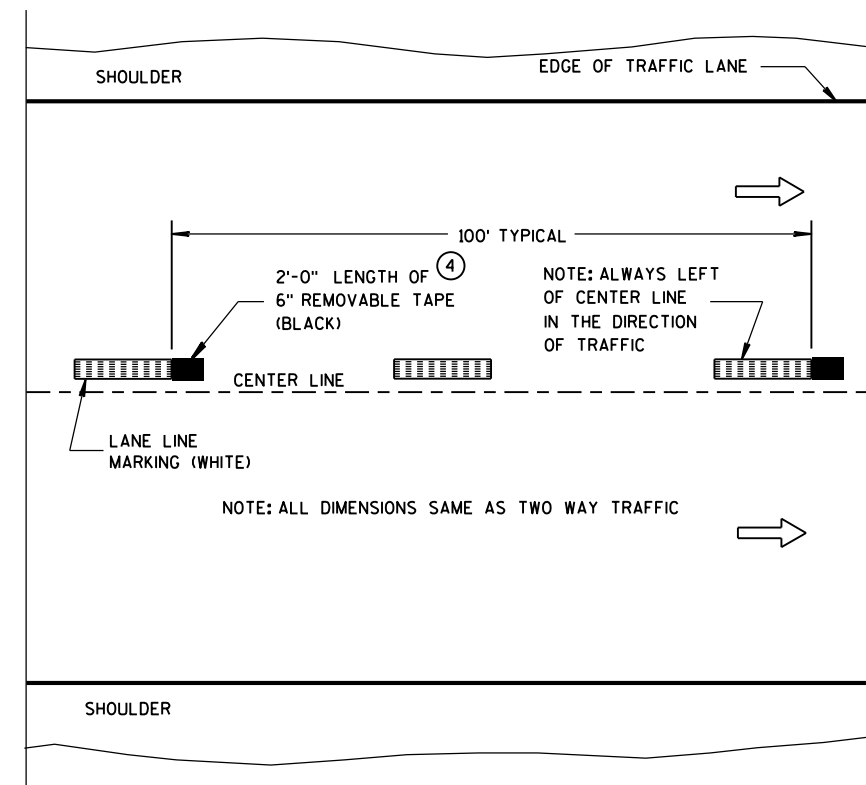


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

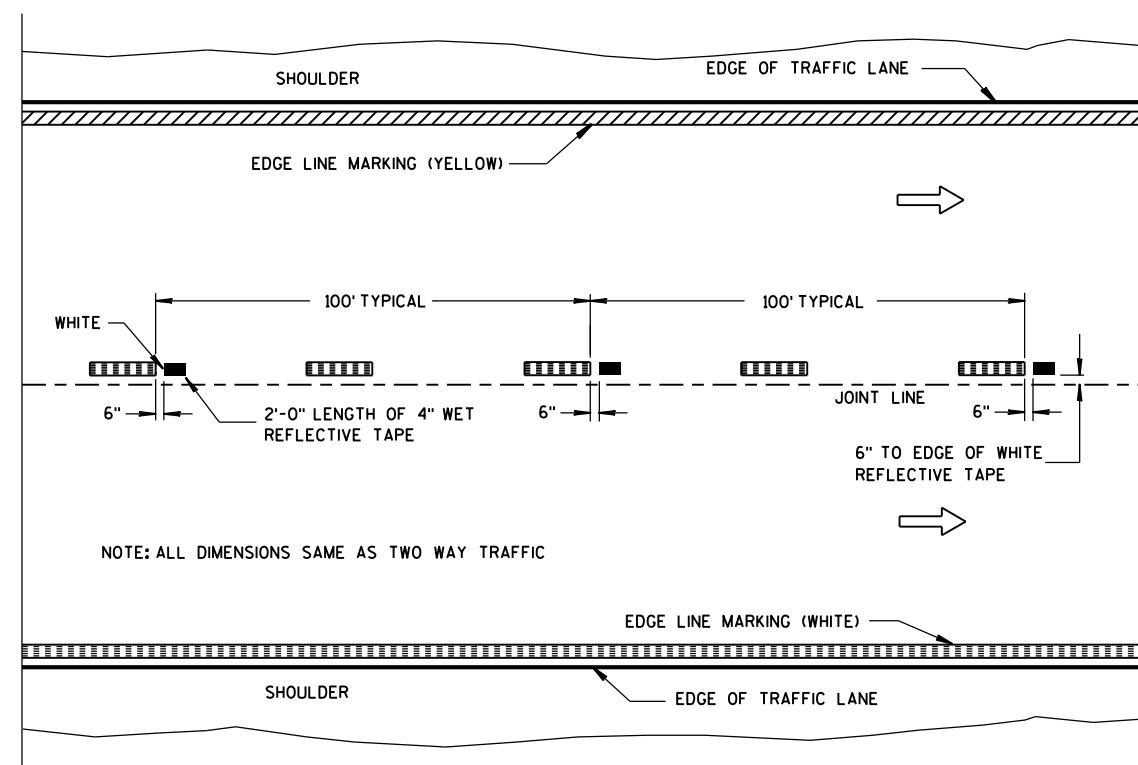
GENERAL NOTES

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

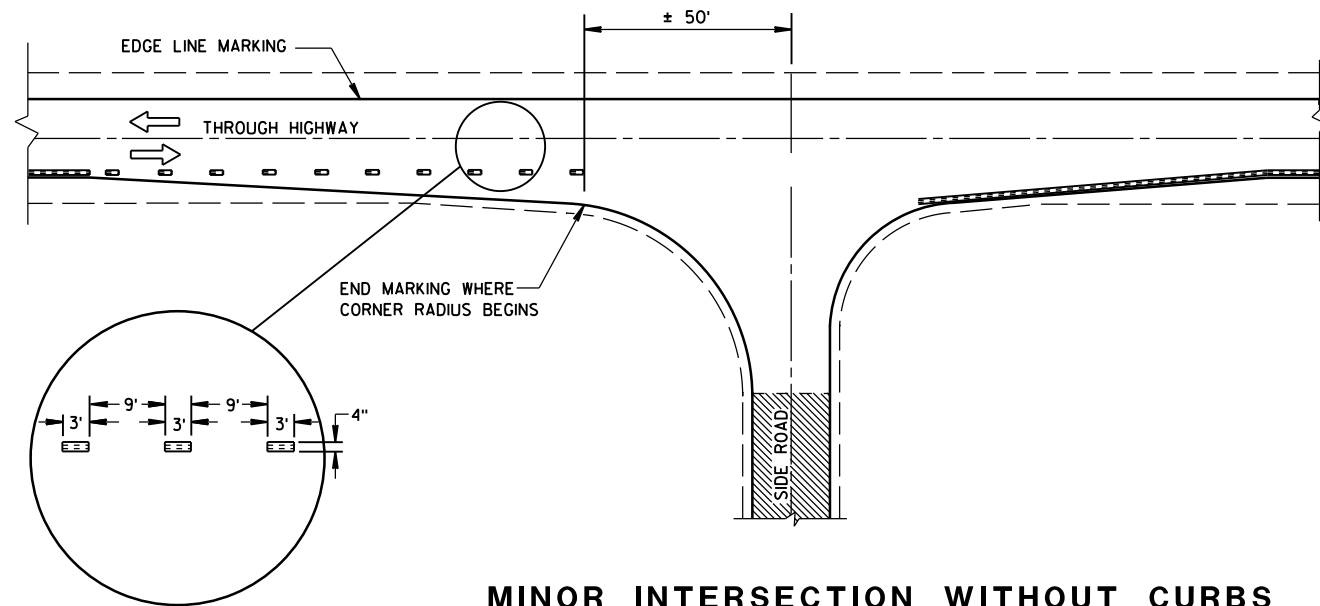
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

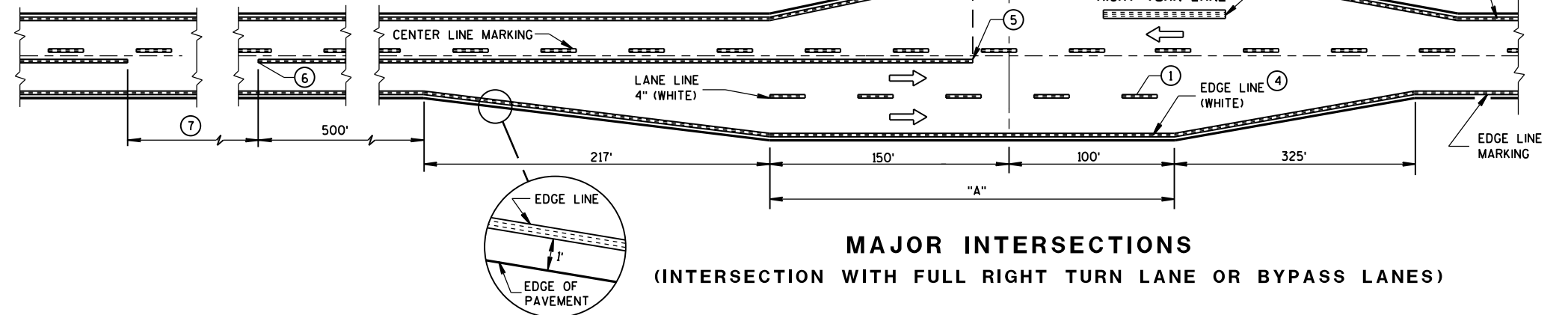
APPROVED
10-1-2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER 59 :SIGN
FHWA



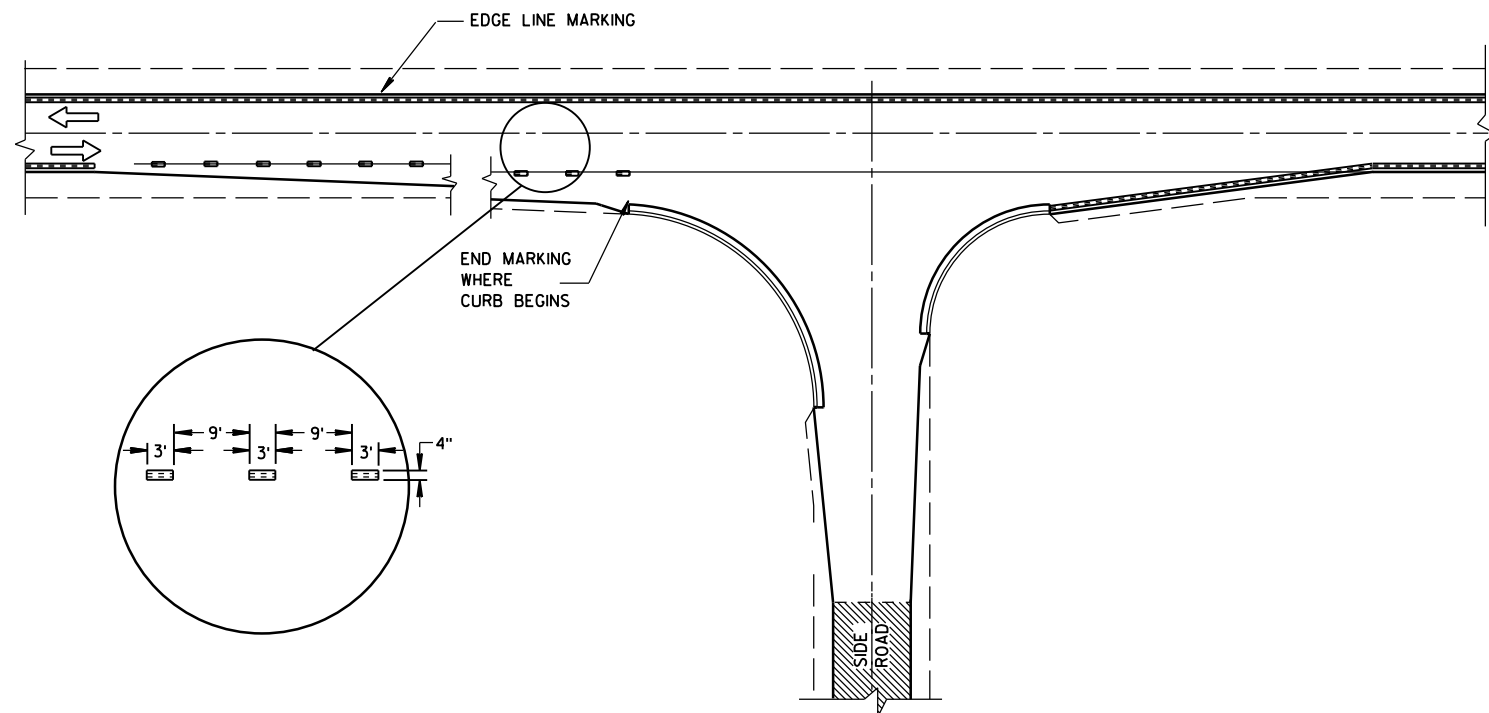
MINOR INTERSECTION WITHOUT CURBS

⑦

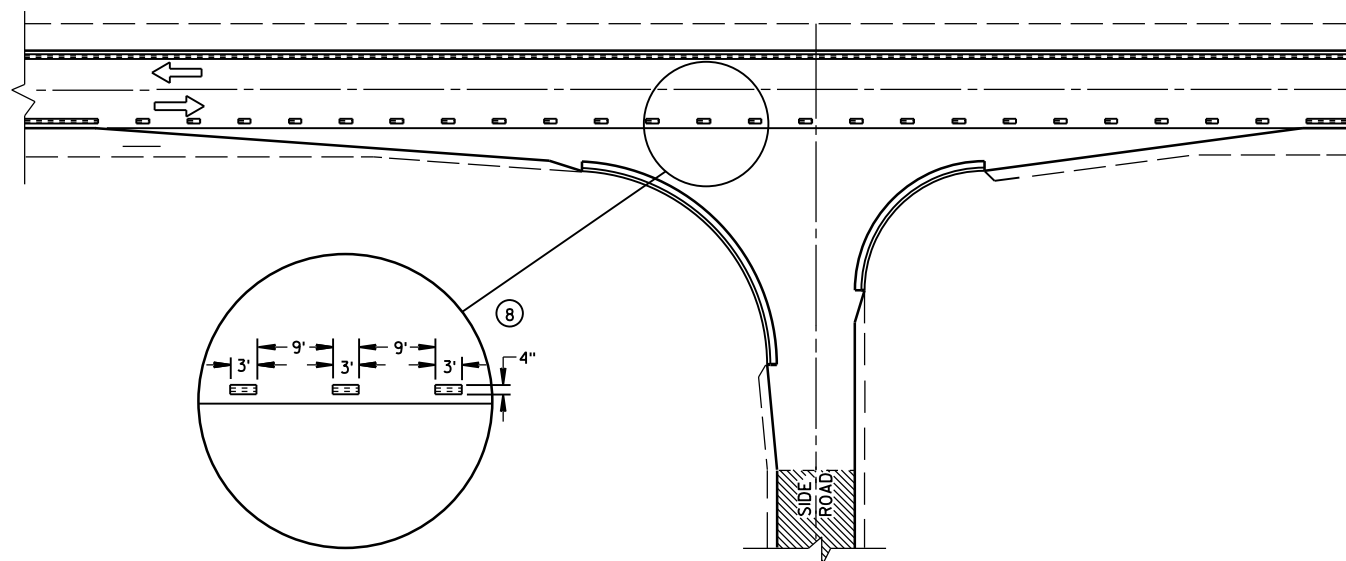
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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 60

TWO-LANE ROADWAY

SYMBOLS



WORK AREA



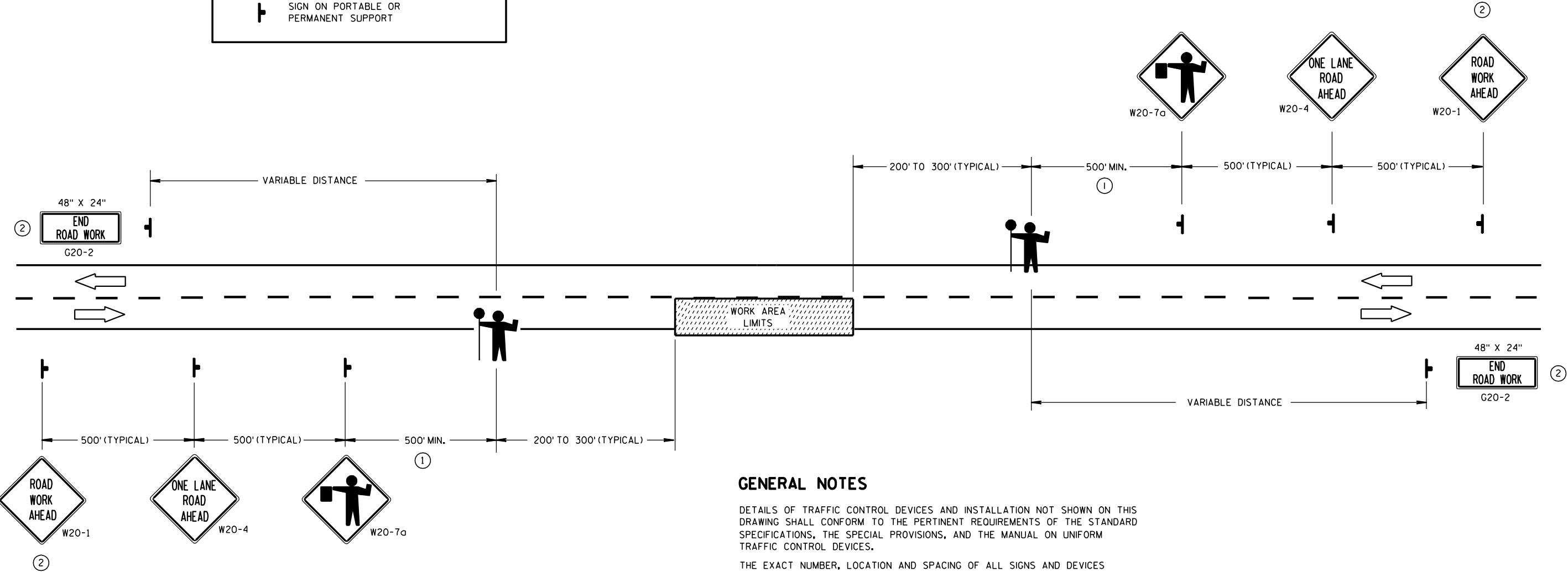
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



SIGN ON PORTABLE OR PERMANENT SUPPORT



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, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

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

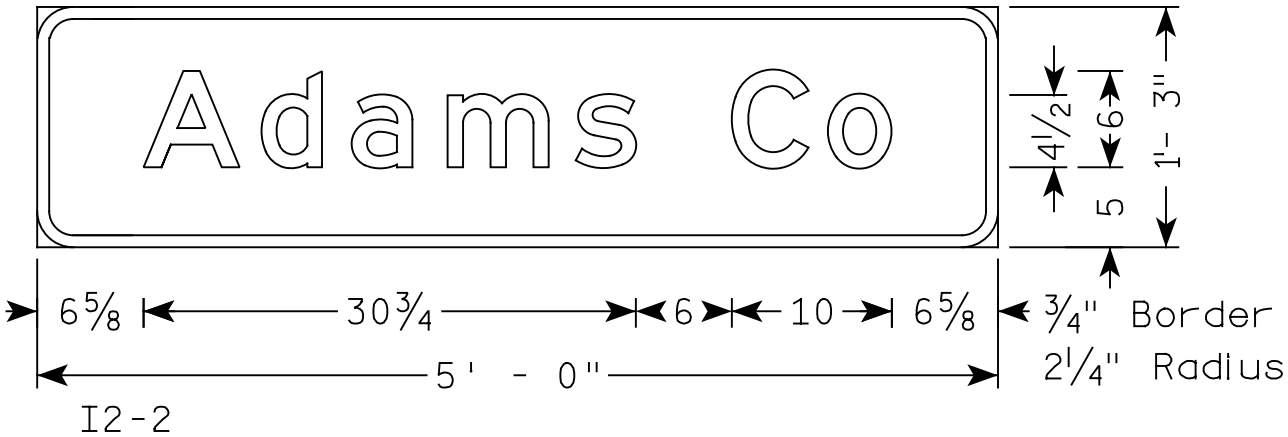
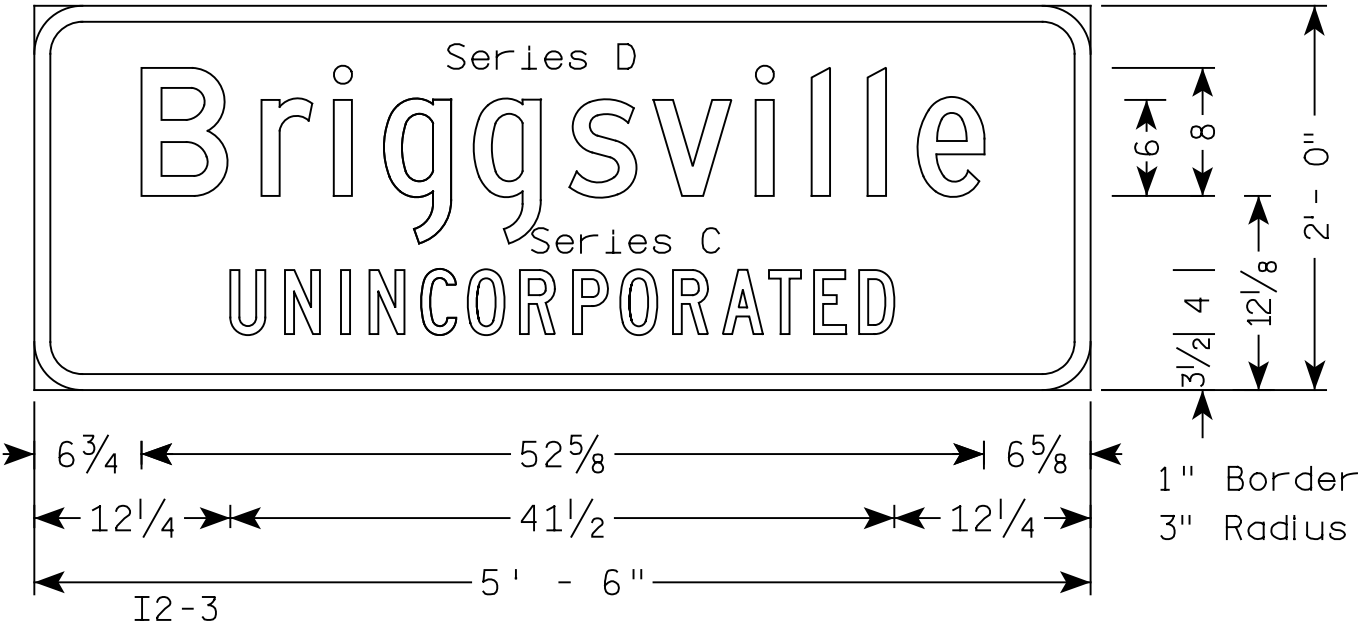
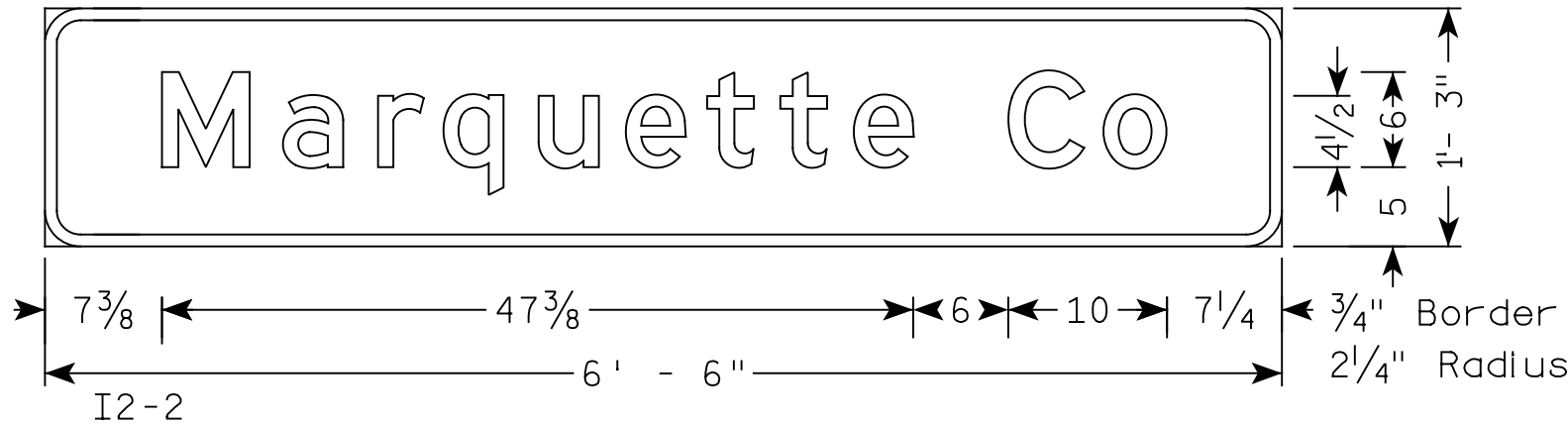
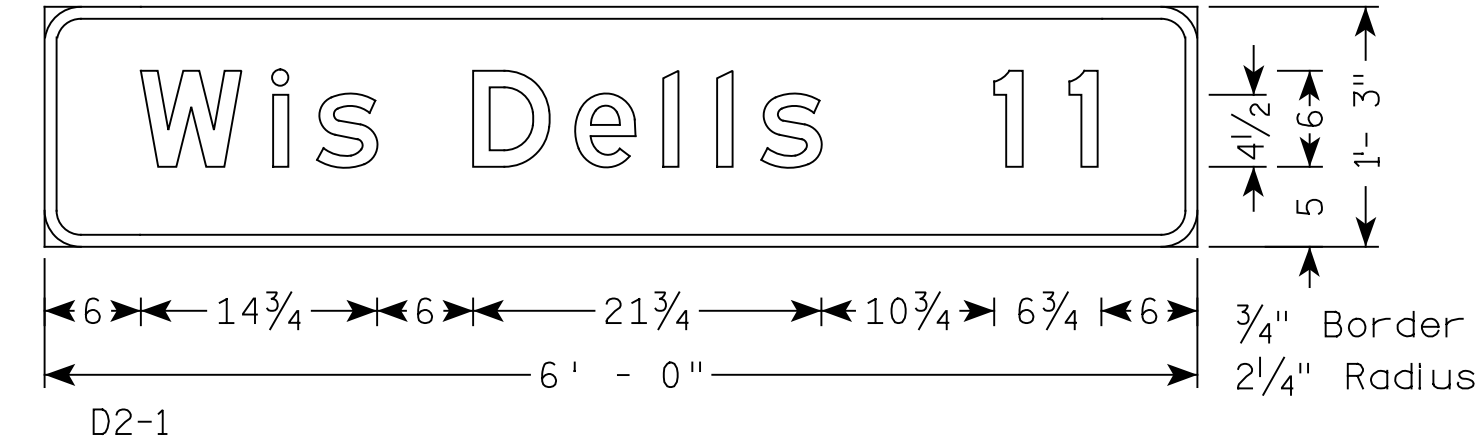
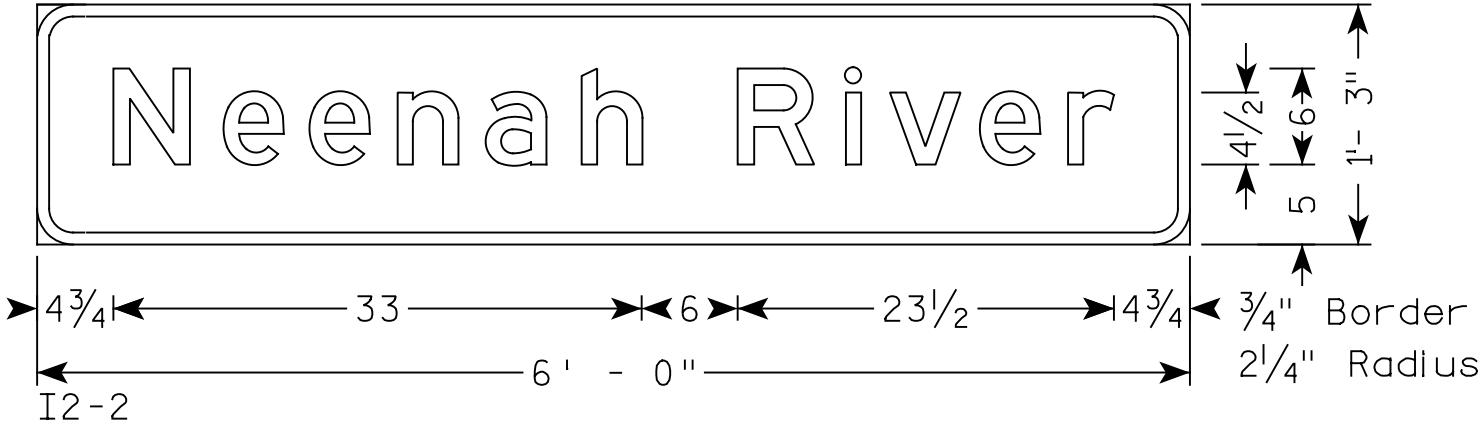
APPROVED
9/5/06
DATE

/S/ Thomas N. Neuhelm
STATE TRAFFIC ENGINE 61
DESIGN

FHWA

NOTES

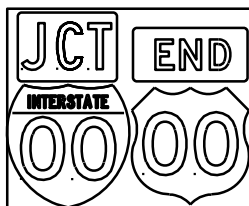
- 1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Green
Message - White
- 3. Message Series - E except as noted



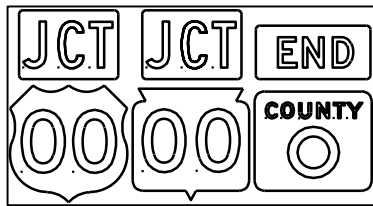
TYPICAL ASSEMBLIES



J1-1



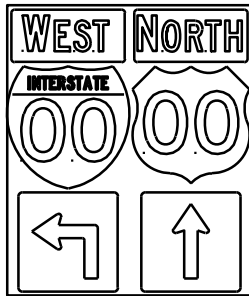
J1-2



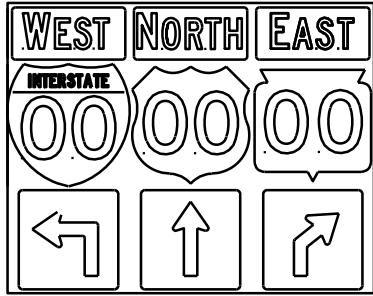
J1-3



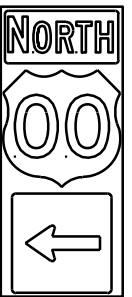
J2-1



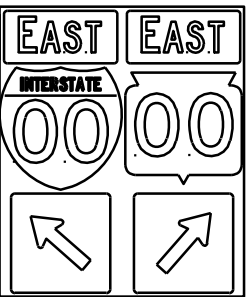
J2-2



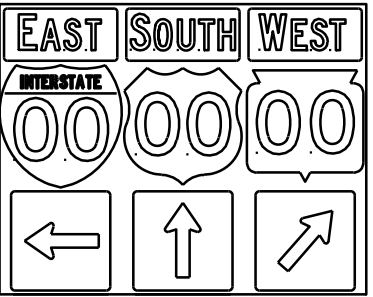
J2-3



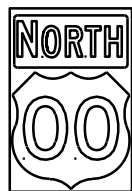
J3-1



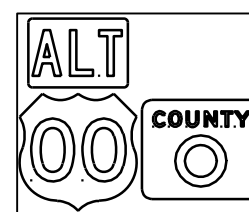
J3-2



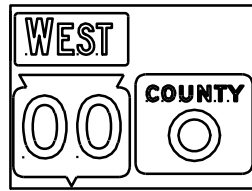
J3-3



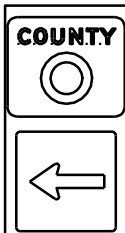
J4-1



J4-2



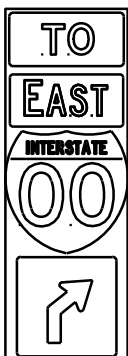
J4-2



J13-1



J12-1



J32-1



J33-1



J23-1



J22-1



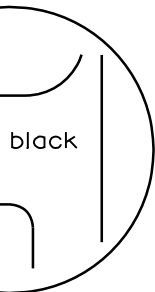
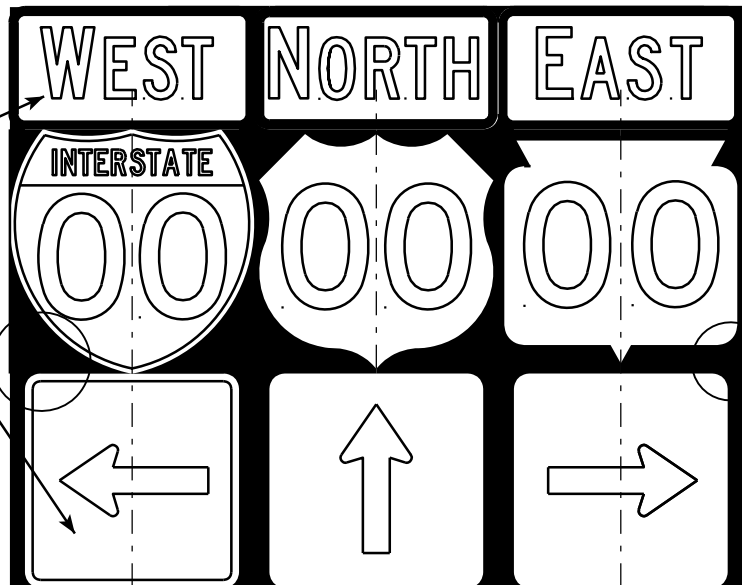
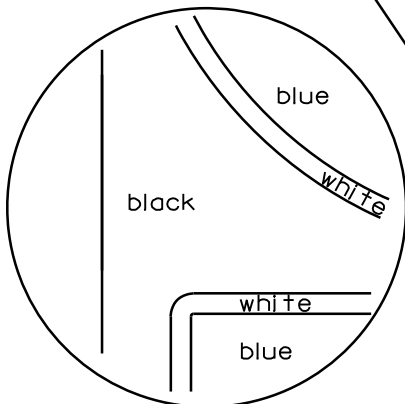
JV

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

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Black Non-reflective
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. 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.
7. 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.
8. 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.
9. 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.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/25/13	PLATE NO. A2-1S.7

PROJECT NO:

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

PLOT DATE : 25-MAR-2013 11:33

PLOT BY : mscsja

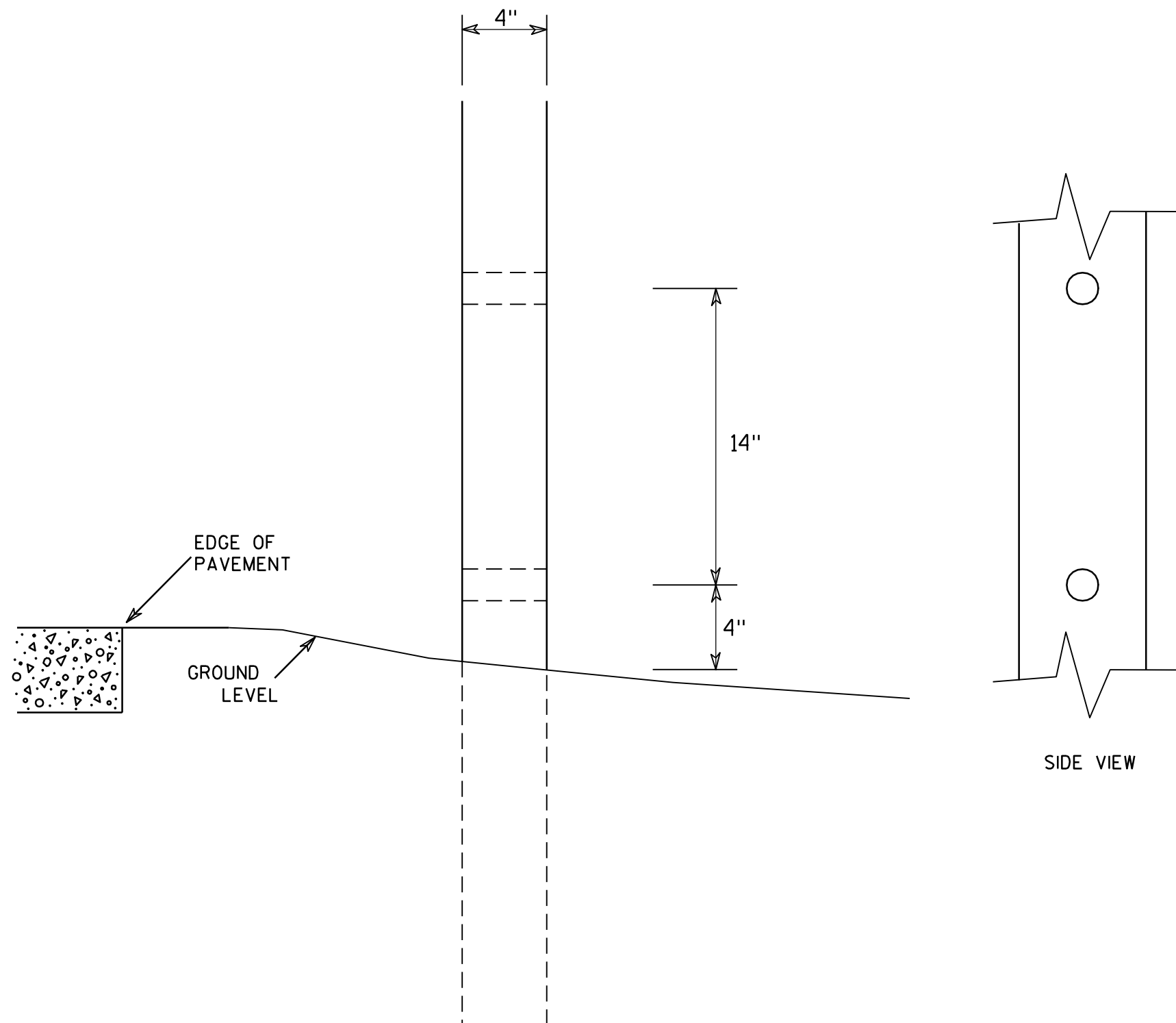
PLOT NAME :

SHEET NO: 63

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:

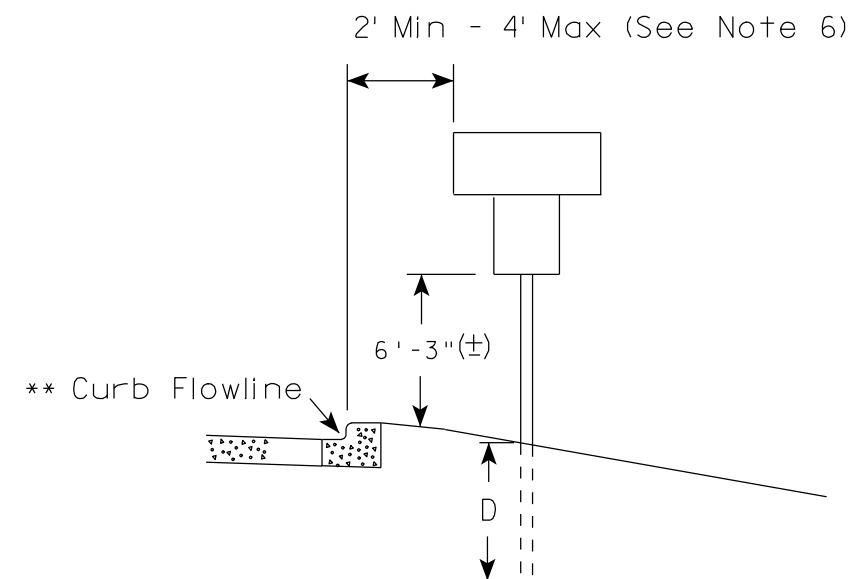
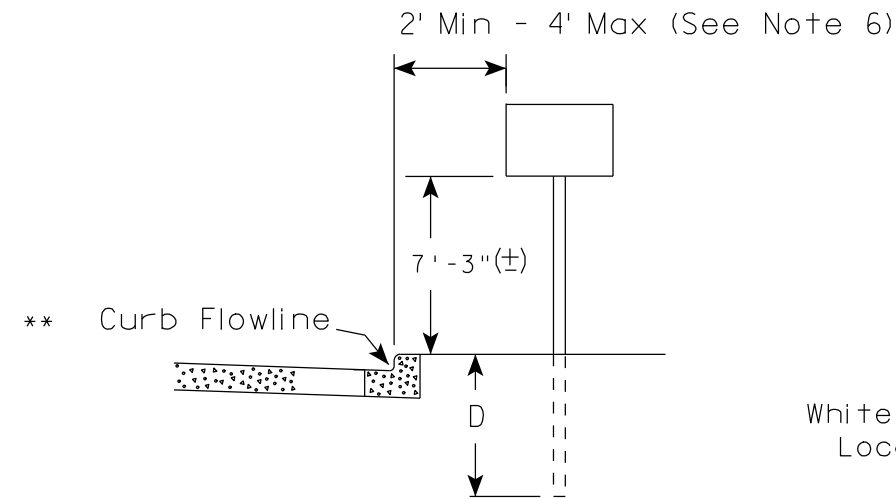
HWY:

COUNTY:

SHEET NO: 64

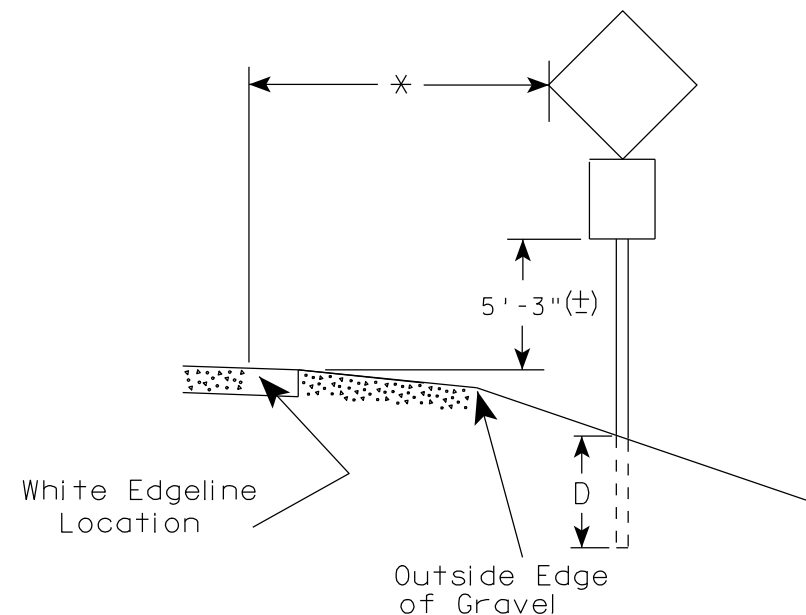
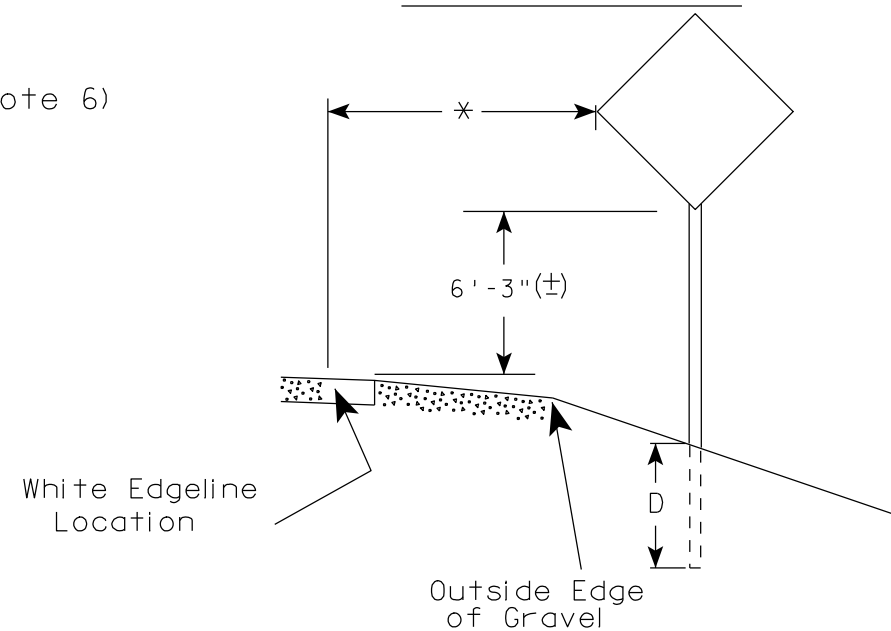
E

URBAN AREA



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

RURAL AREA (See Note 2)



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

GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. 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 Road 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'

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/24/2013 PLATE NO. A4-3.17

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 65

E

GENERAL NOTES

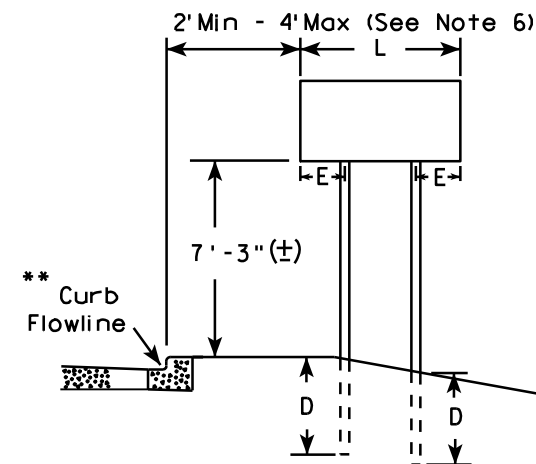
- For multiple post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- 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.

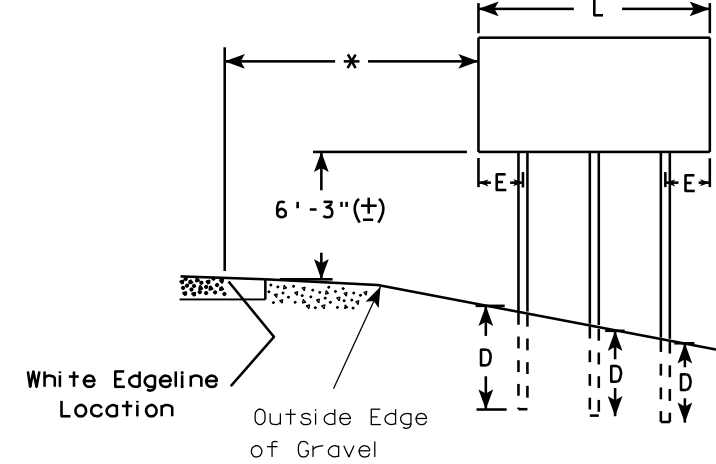
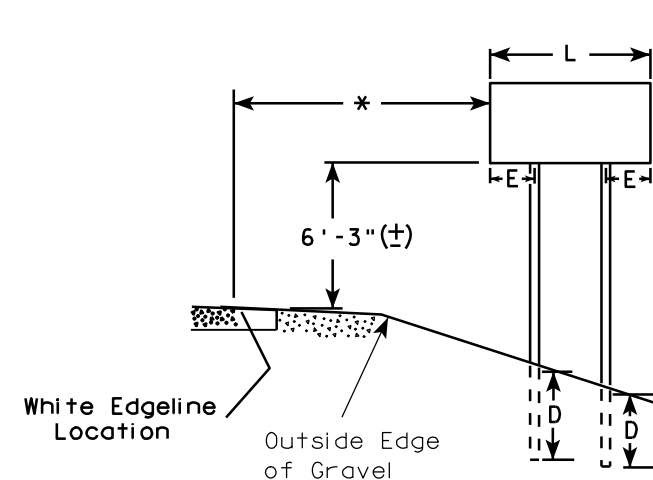
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

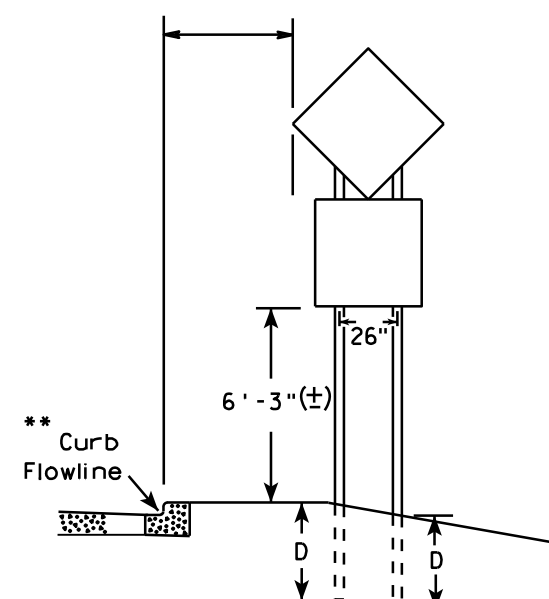
URBAN AREA



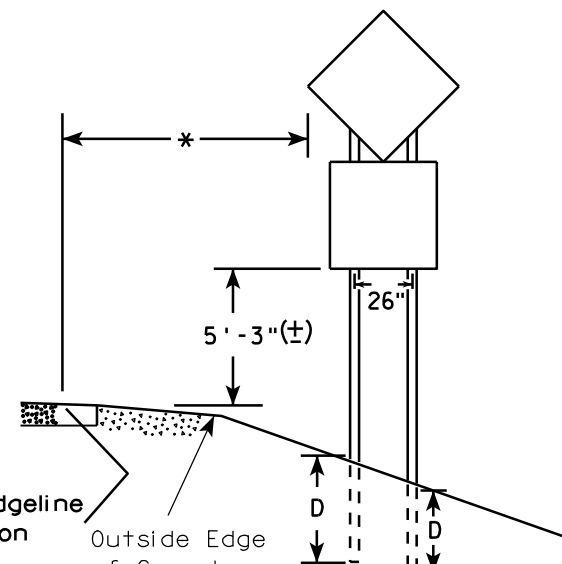
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 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 9/21/2011 PLATE NO. A4-4.11

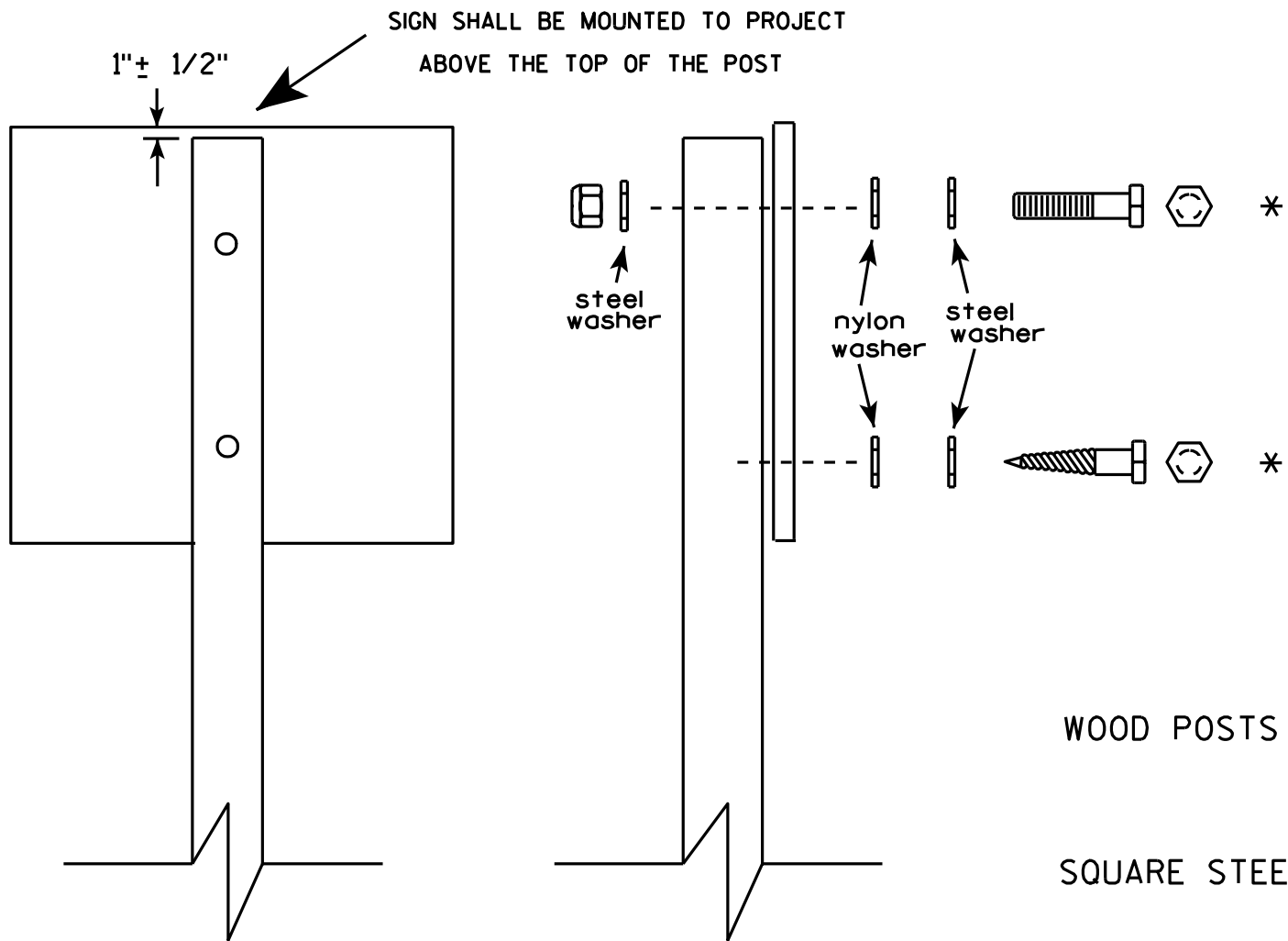
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 66

E

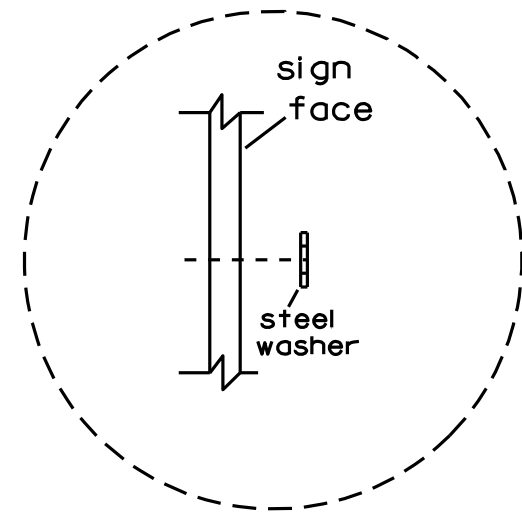


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

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

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



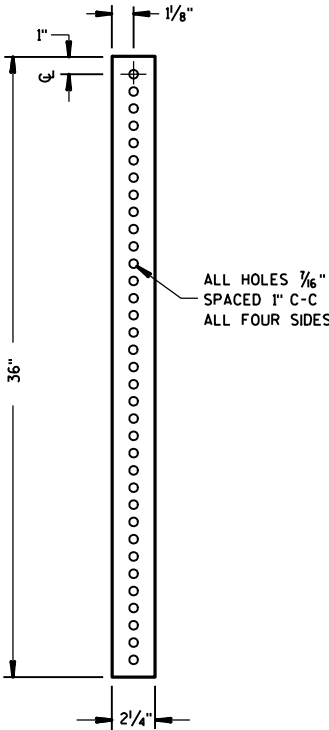
Washer Placement when Sign Has Other Than Type H or Type F Face

* 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.

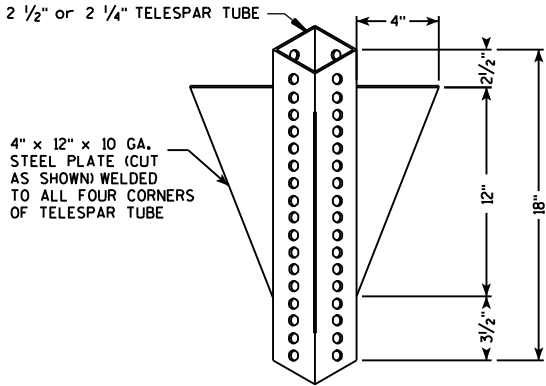
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

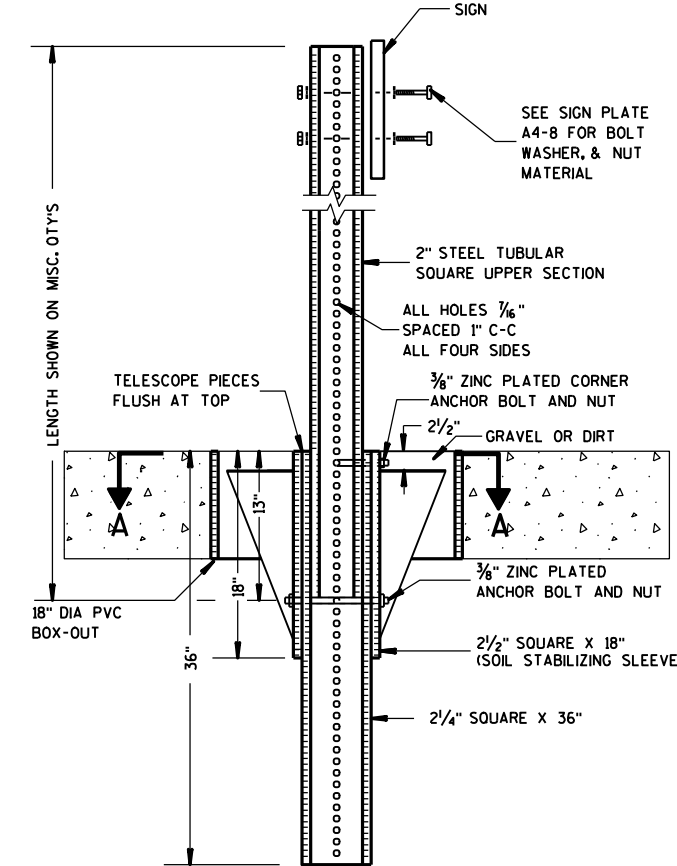
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



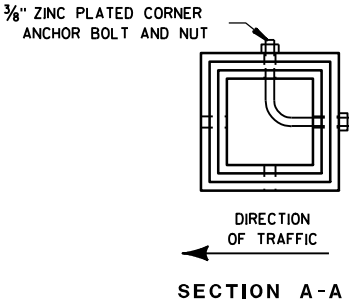
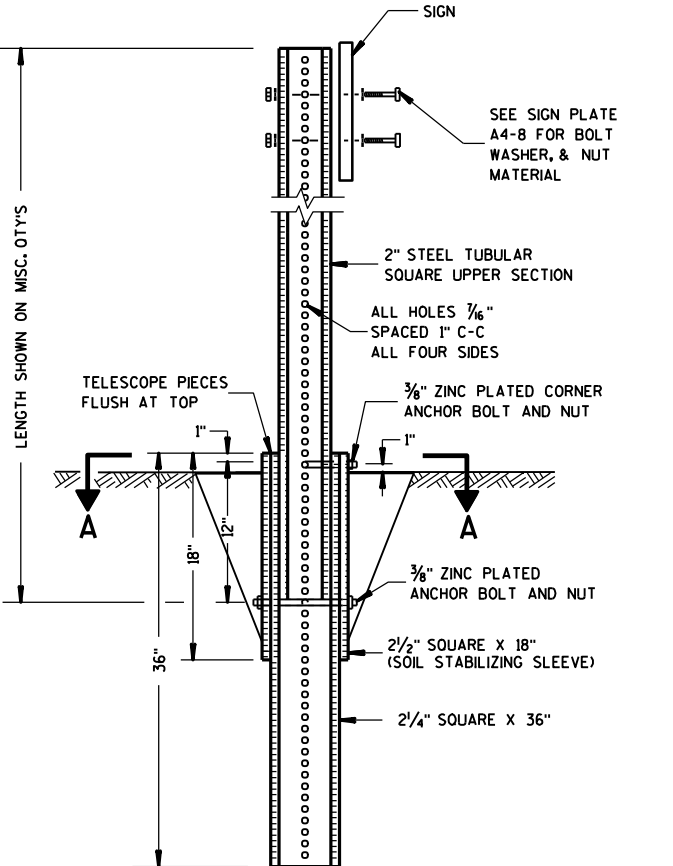
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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

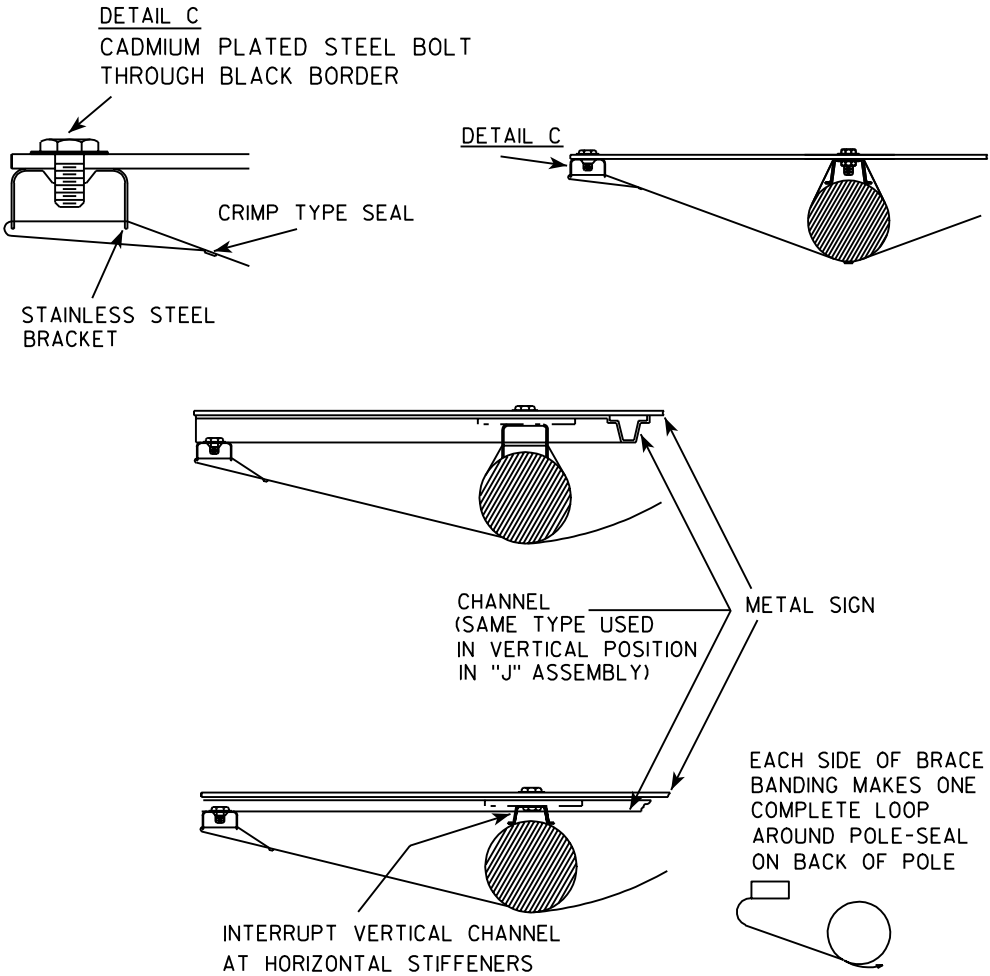


Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

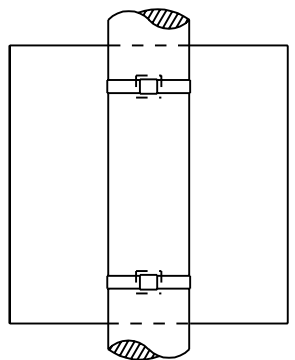
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL SIGN POST A4-9	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 5/30/12	PLATE NO. A4-9.7

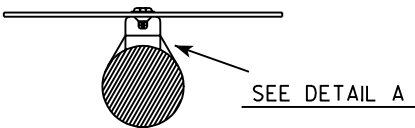
BRACE BANDING



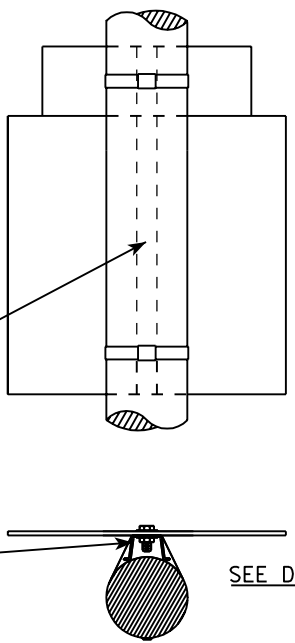
SINGLE SIGN



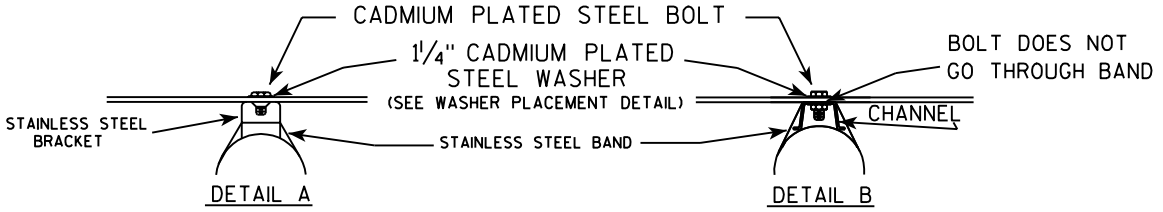
BRACKET BANDING



"J" ASSEMBLY



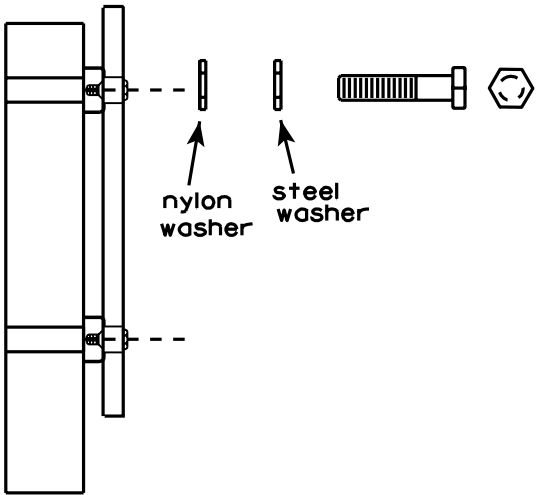
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

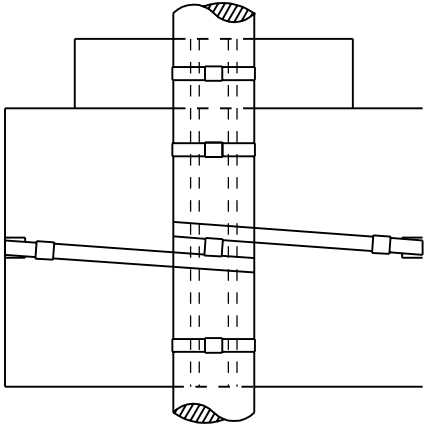
WASHER PLACEMENT



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

BRACE BANDING

BRACE BANDING SHALL BE TIGHTENED FIRMLY
BUT NOT SO TIGHT AS TO APPRECIABLY
CURVE FACE OF SIGN.

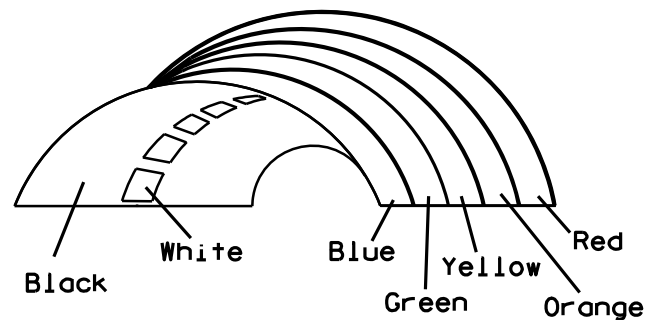


STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 11/08/05 PLATE NO. A5-9.2



Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

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 - (See Note 5)
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. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 70
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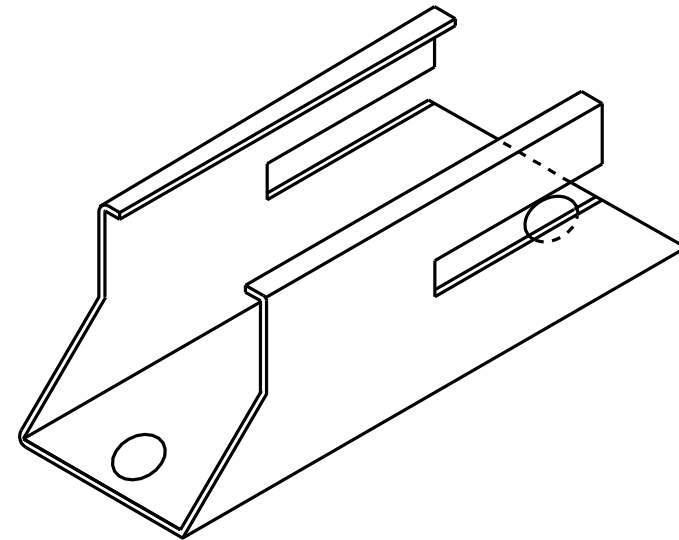
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

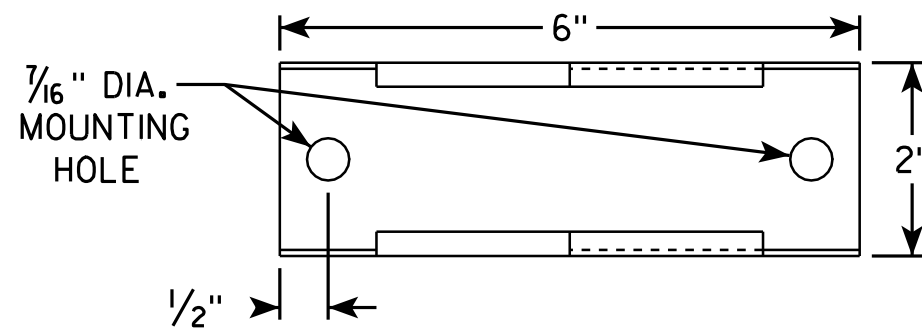
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/27/11 PLATE NO. I55-56.3

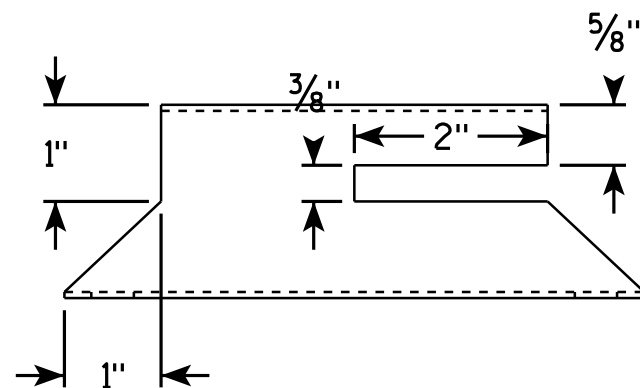
ISOMETRIC VIEW



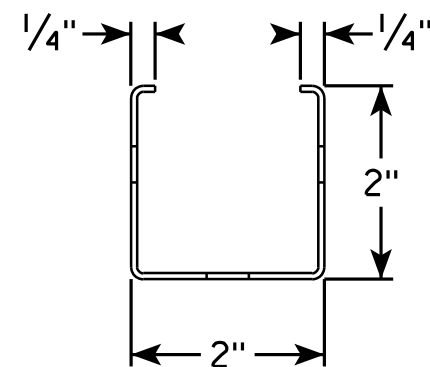
TOP VIEW



SIDE VIEW



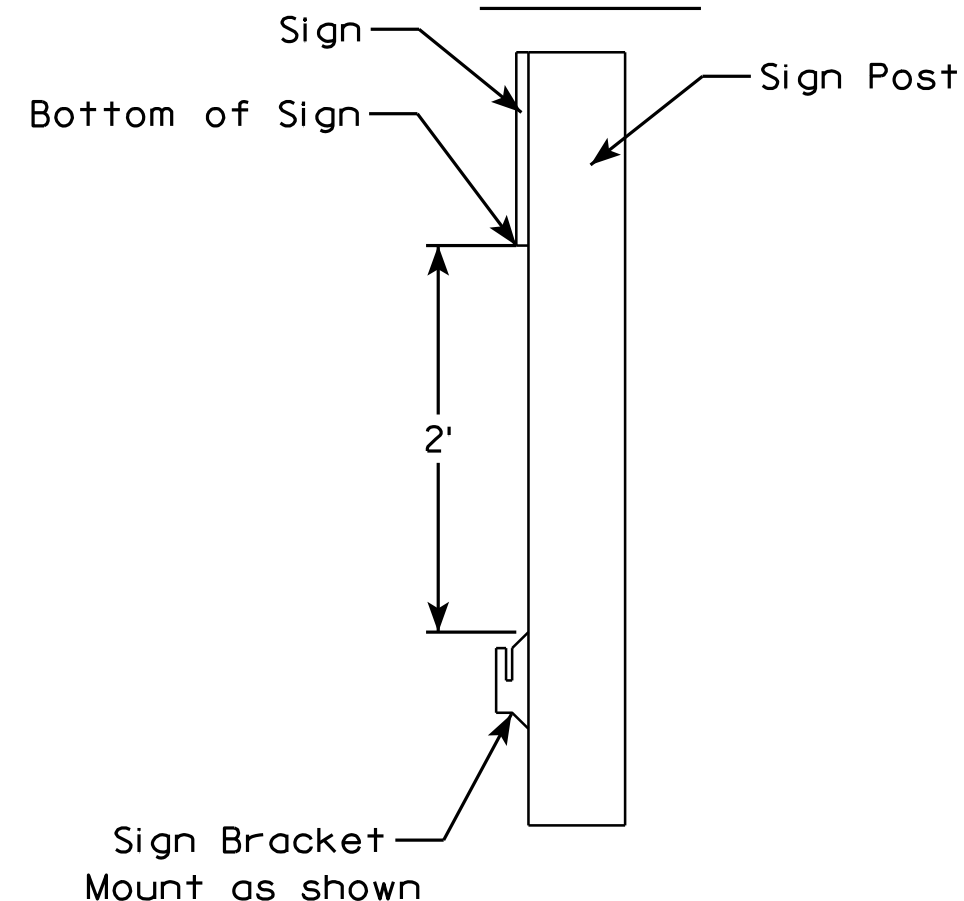
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/5/10 PLATE NO. I55-56B.1

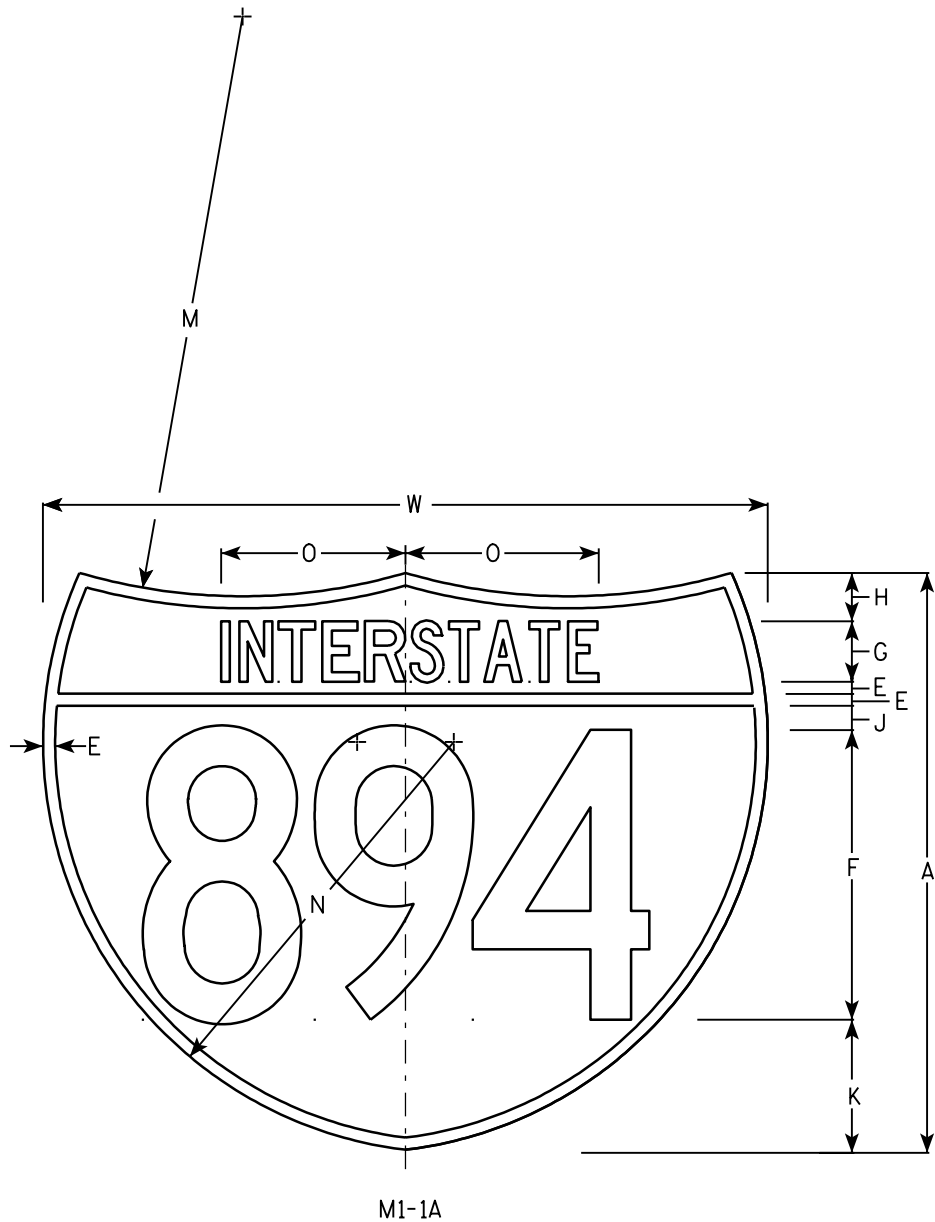
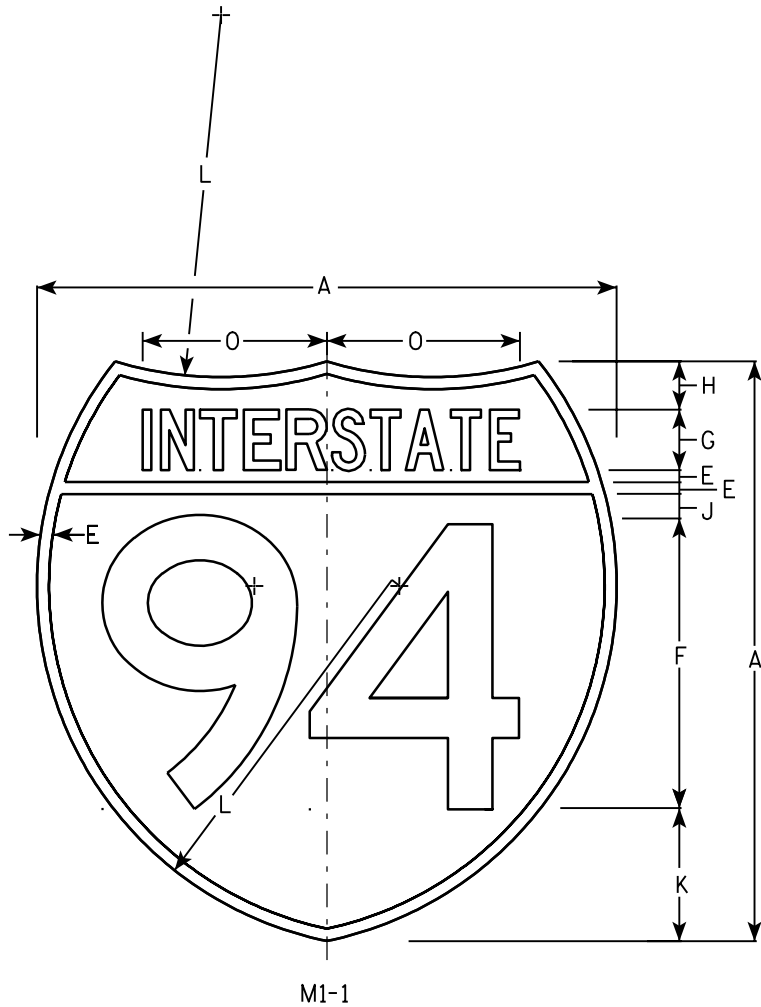
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 71

E



NOTES

- 1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Top Red - Bottom Blue (See Note 6)
Message - White - See Note 6
- 3. Message Series - See note 5
- 4. Substitute appropriate numerals & adjust spacing as per plate A10-1.
- 5. M1-1 - Numerals - D
Interstate - C
M1-1A - All copy - C
- 6. Permanent Signs
Message - Type H Reflective
Detour or other temporary signs
Background - Reflective
Message - Reflective

Metric equivalent for these signs are:

SIZE	M1 - 1	SIZE	M1 - 1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

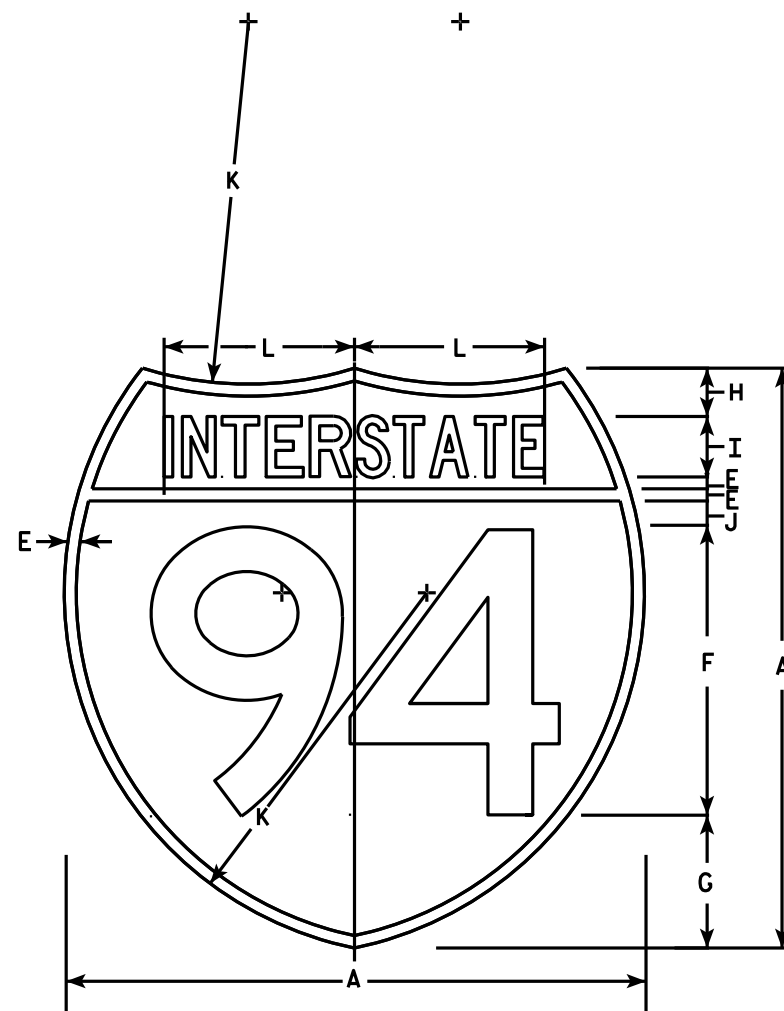
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Area sq. ft.	Area sq. ft.	Area m ²	Area m ²
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

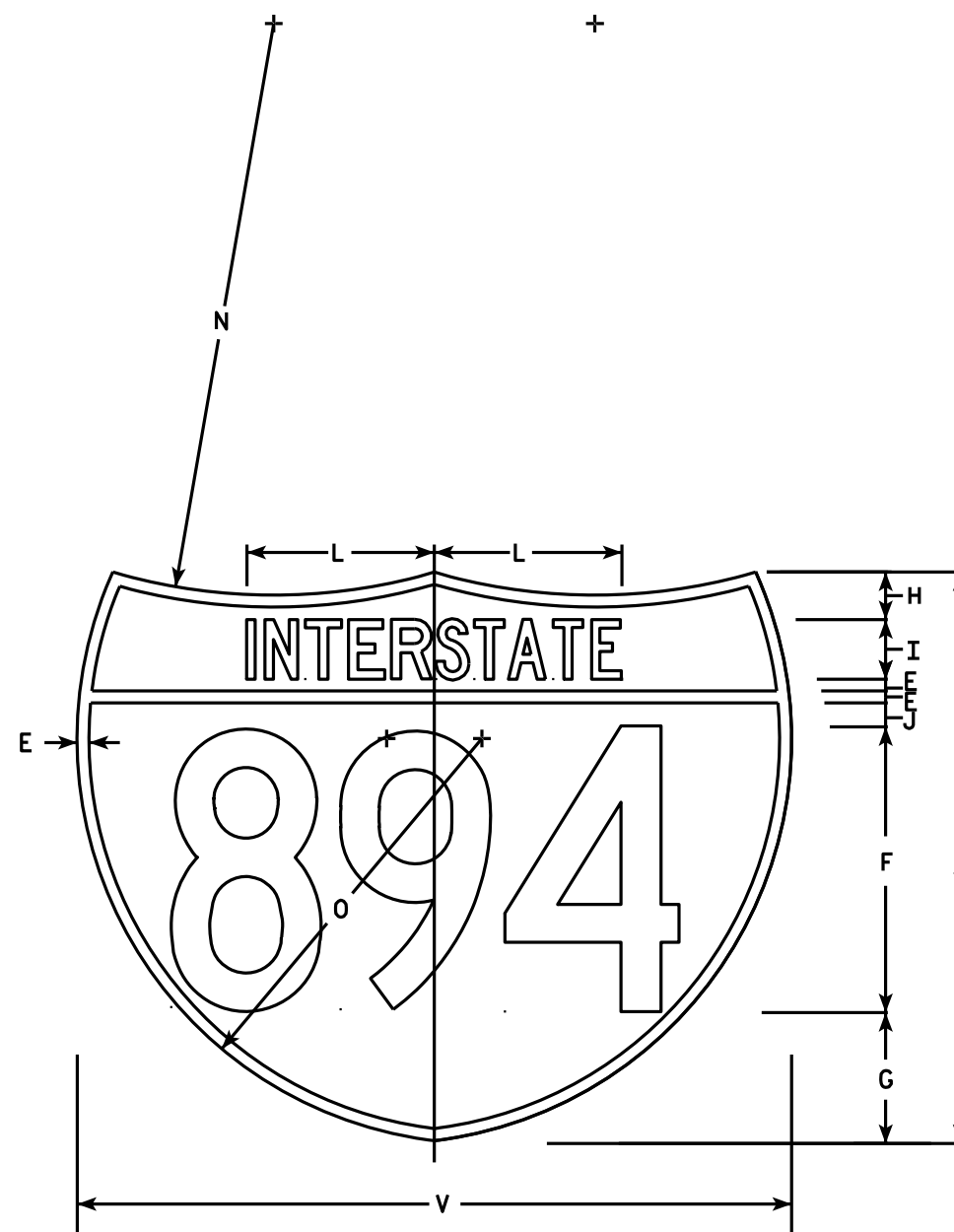
WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 08/23/05 PLATE NO. M1-1.8

NOTES

1. Sign is Type II - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Top Red - Bottom Blue
Message - White - Type H Reflective
3. Message Series - See note 5
4. The marker shall consist of a non-corrosive metal plate, 0.040 minimum thickness of the size and shape of the outermost outline.
M1-51 - Numerals - D
Interstate - C
M1-51A - All copy - C
6. Substitute appropriate numbers and adjust spacing as per plate A10-1.



M1-51



M1-51A

Metric equivalent
for this sign is:

SIZE	
1	
2	
3	
4	600 mm X 600 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	2 Digit Area sq. ft.	2 Digit Area m ²	3 Digit Area sq. ft.	3 Digit Area m ²
1																														
2																														
3																														
4	24				1/2	12	5 1/2	2	2 1/2	1	15	7 7/8		24	17							30					3.13	3.91	3.91	3.91
5	36				3/4	18	8 1/4	3	3 3/4	1 1/2	22 1/2	11 3/4		36	25 1/2							45					7.03	8.79	3.91	3.91

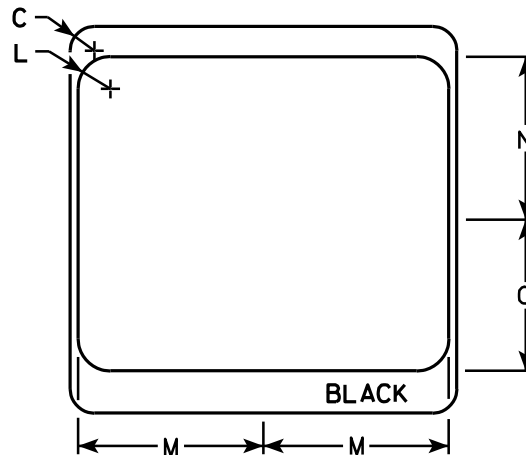
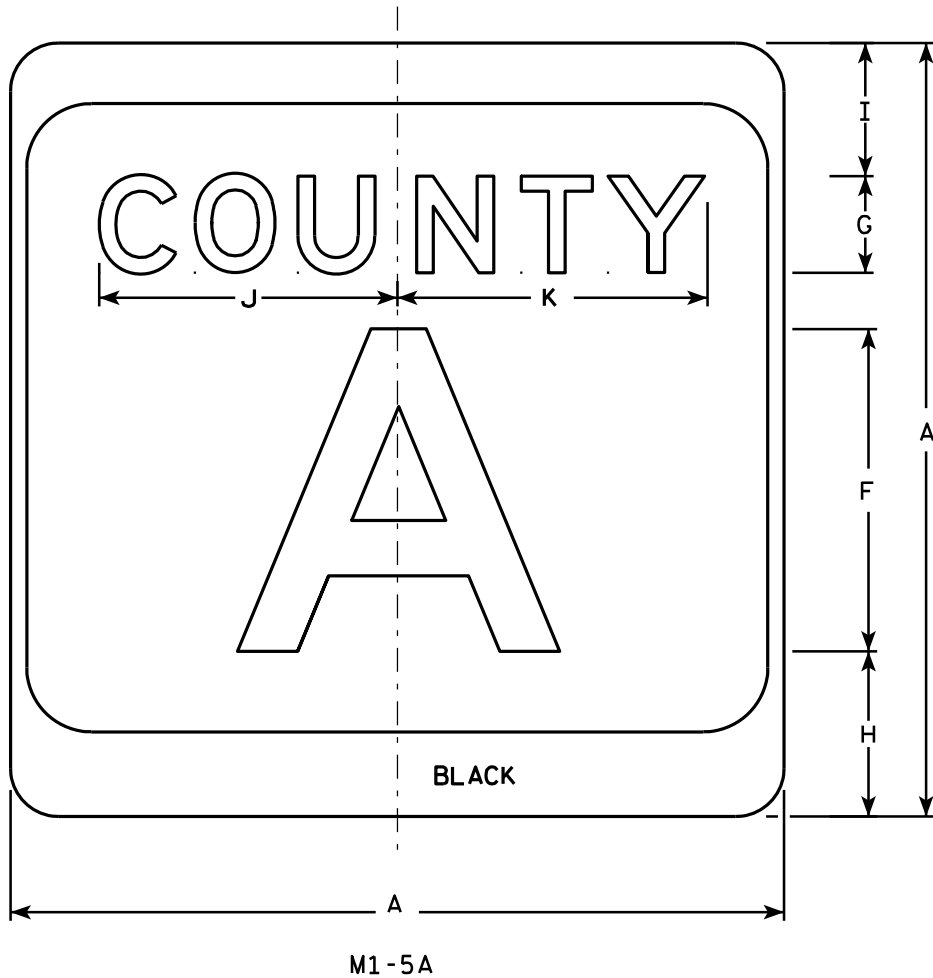
IH MARKER M1-51 & M1-51A
FOR LARGE GUIDE SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 9/30/09 PLATE NO. M1-51.6

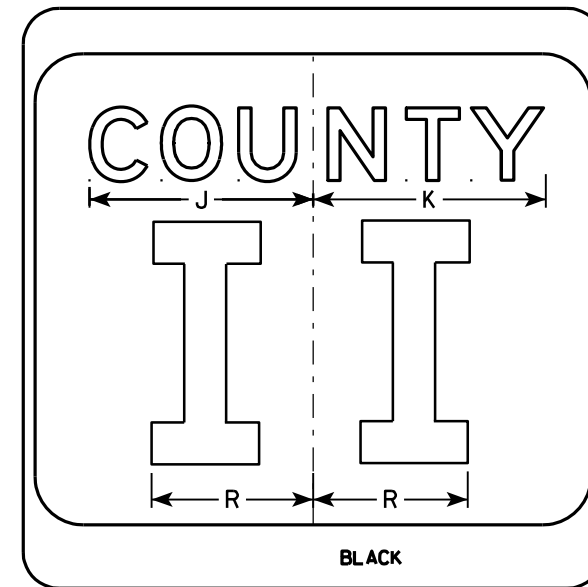
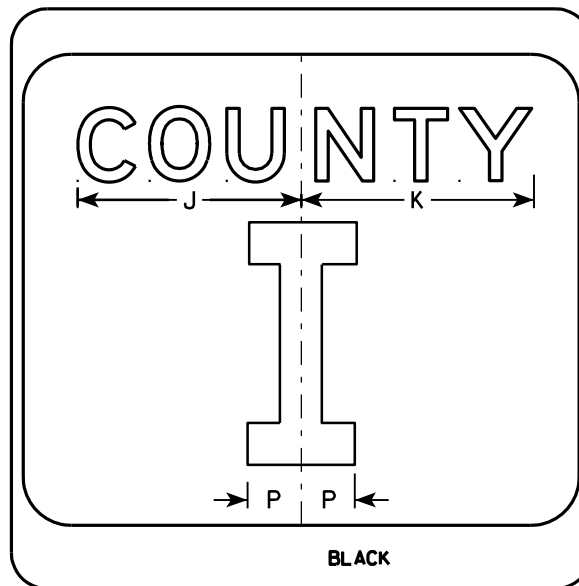
PROJECT NO: HWY: COUNTY: SHEET NO: 73 E

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



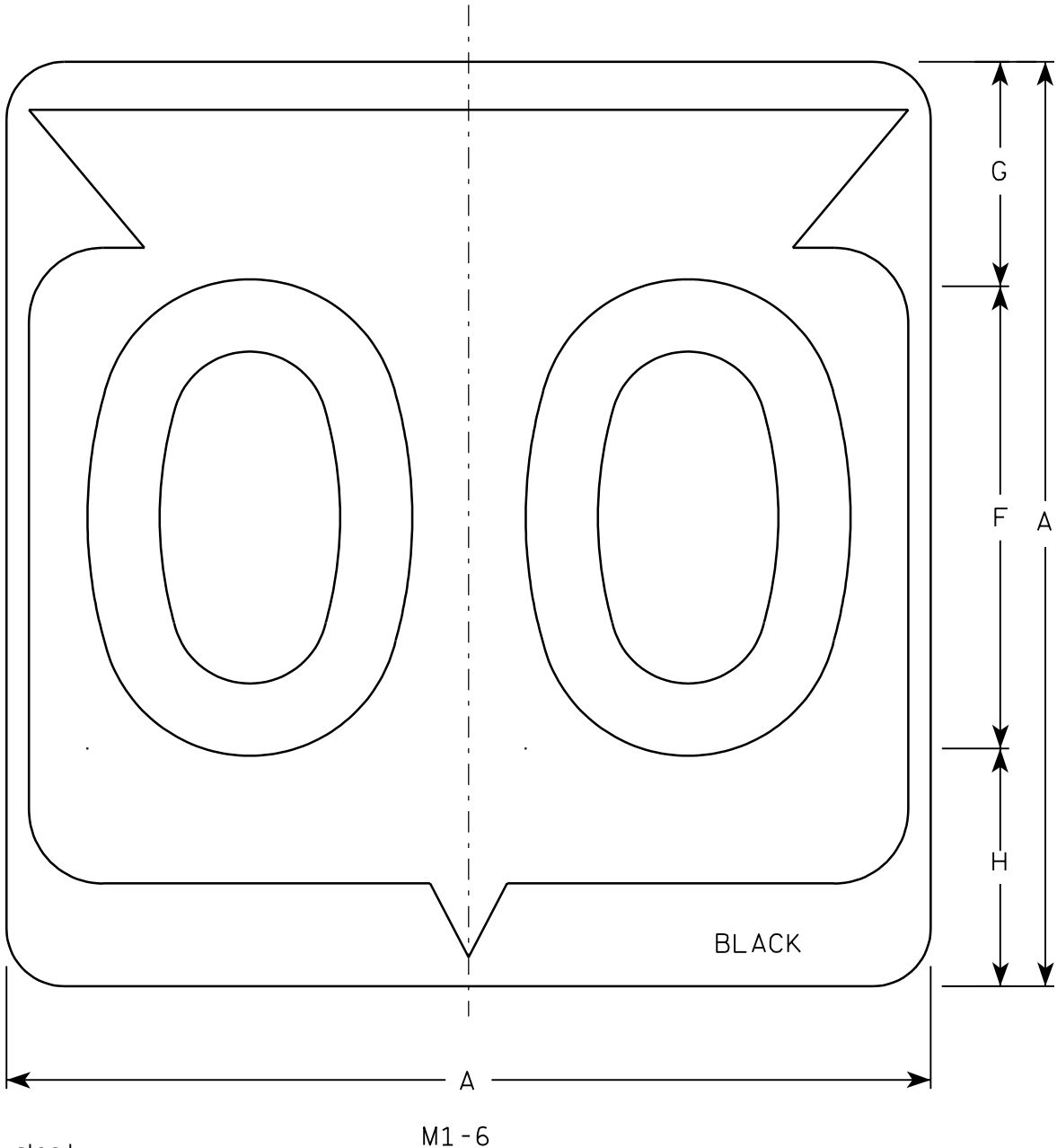
7

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

CTH MARKER	
M1-5A FOR ASSEMBLIES	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 9/27/11	PLATE NO. M1-5A.8

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 74	E
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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: 75

E

FILE NAME : C:\Users\Projects\tr_stdplate\M16.DGN

PLOT DATE : 13-OCT-2005 14:55

PLOT BY : DITJPH

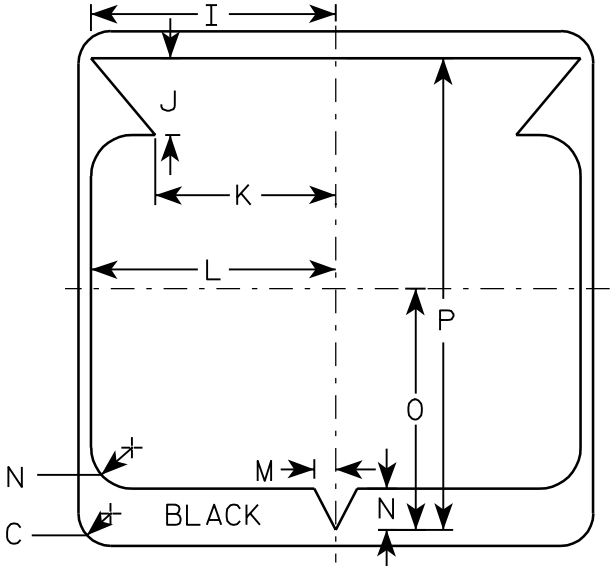
PLOT NAME :

PLOT SCALE : 6.715871:1.000000

WISDOT/CADDS SHEET 42

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



STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

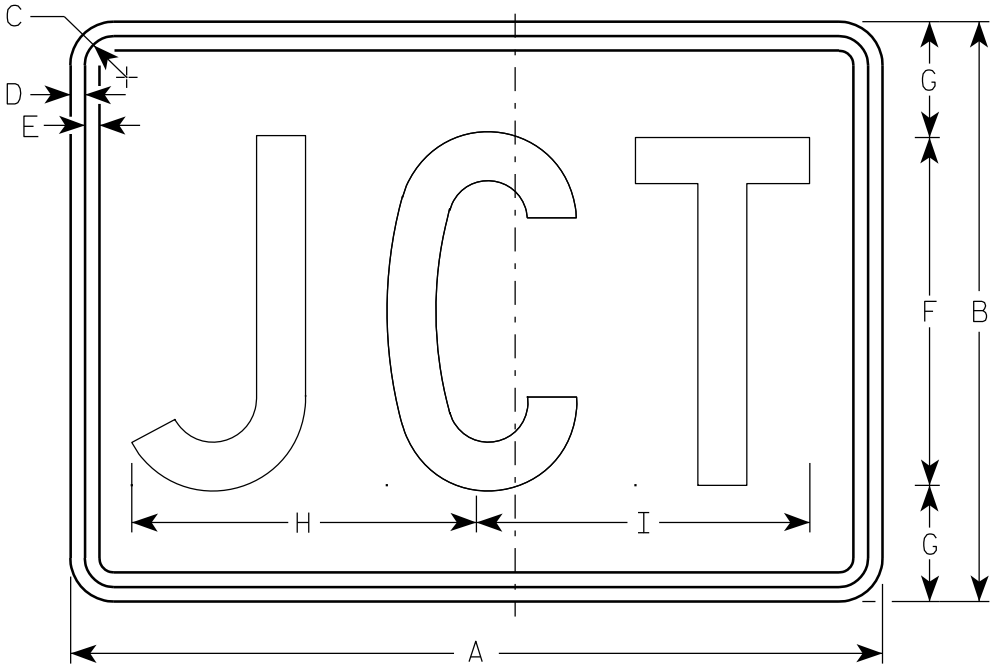
Chester J. Spang
for State Traffic Engineer

DATE 3/20/02

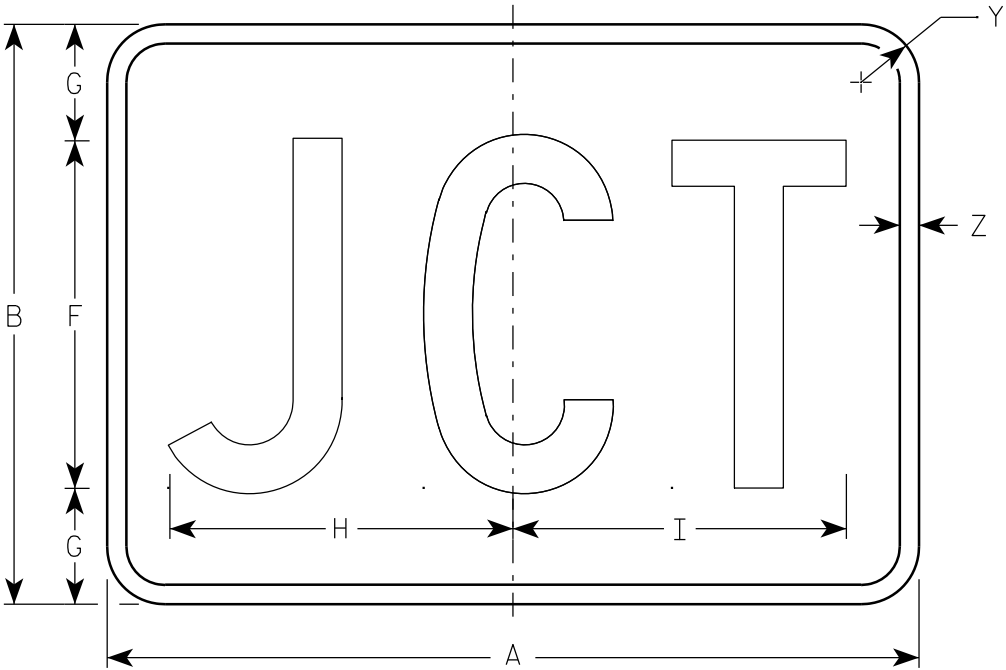
PLATE NO. M1-6.9

NOTES

1. Sign is 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. 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



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



MB2-1
MG2-1
MN2-1

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

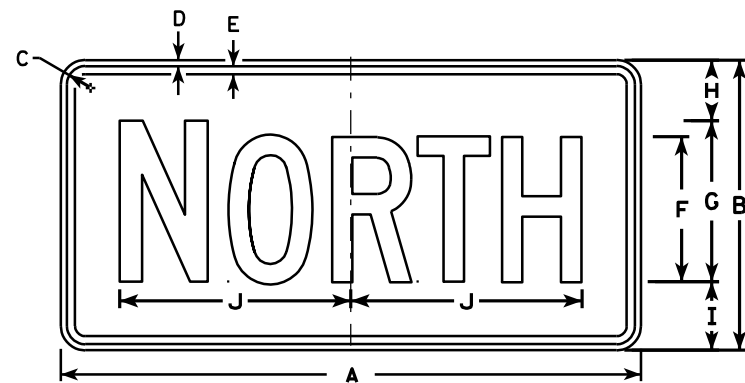
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8		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

STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

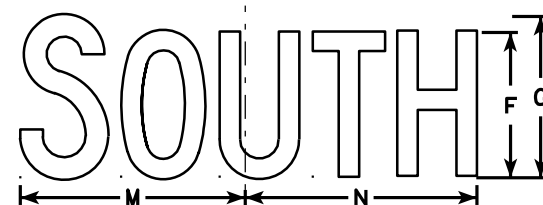
DATE 3/16/10 PLATE NO. M2-1.10



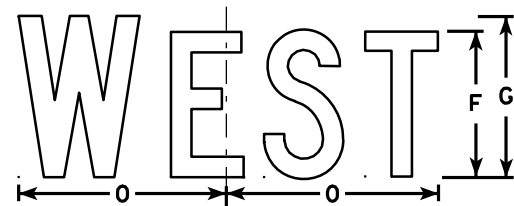
M3-1
MK3-1
M03-1



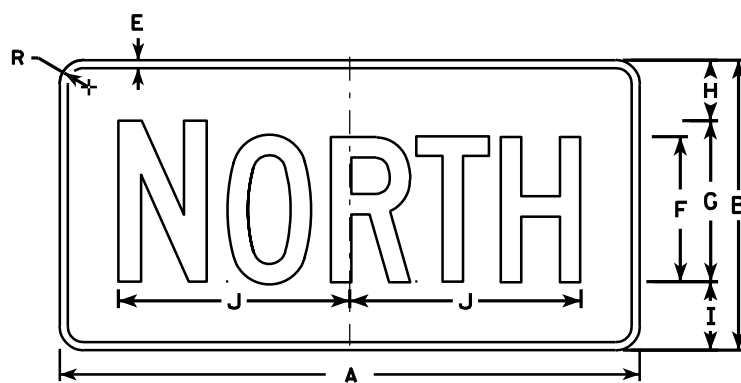
M3-2
MK3-2
M03-2



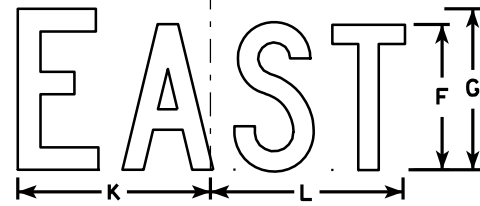
M3-3
MK3-3
M03-3



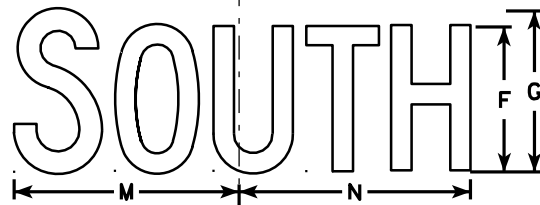
M3-4
MK3-4
M03-4



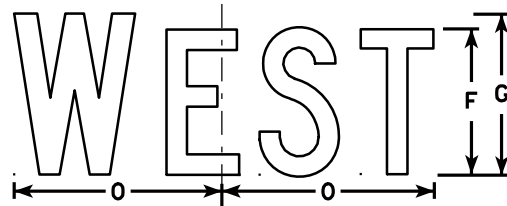
MB3-1
MG3-1
MM3-1
MN3-1



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: 77 E

STANDARD SIGNS M3-1 thru M3-4 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

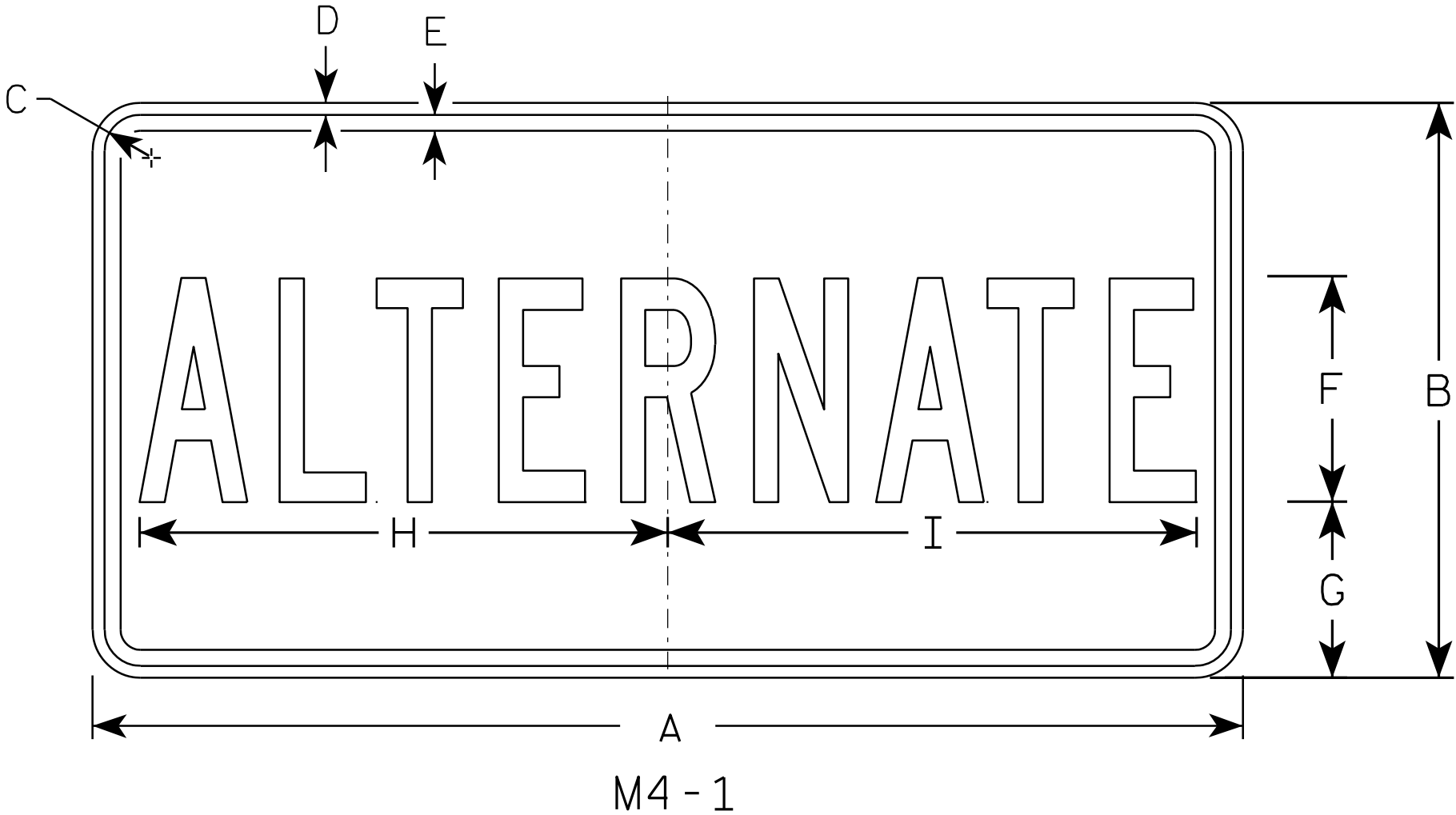
DATE 11/10/10 PLATE NO. M3-1.12

NOTES

1. Sign is 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 - B
4. Corners may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
5. M4-1 Background - White - Type H Reflective
Message - Black

MB4-1 Background - Blue
Message - White - Type H Reflective

M04-1 Background - Orange - Reflective
Message - Black



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/2	3/8	3/8	4	4	9 3/4	9 1/2																		2.00
3	36	18	1 1/2	3/8	1/2	7	5 1/2	16 3/8	16 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	7	5 1/2	16 3/8	16 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	7	5 1/2	16 3/8	16 1/2																		4.5

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 78

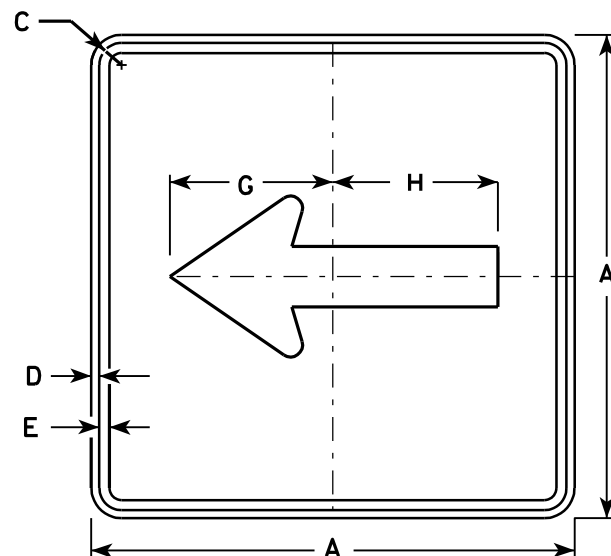
E

STANDARD SIGN
M4 - 1

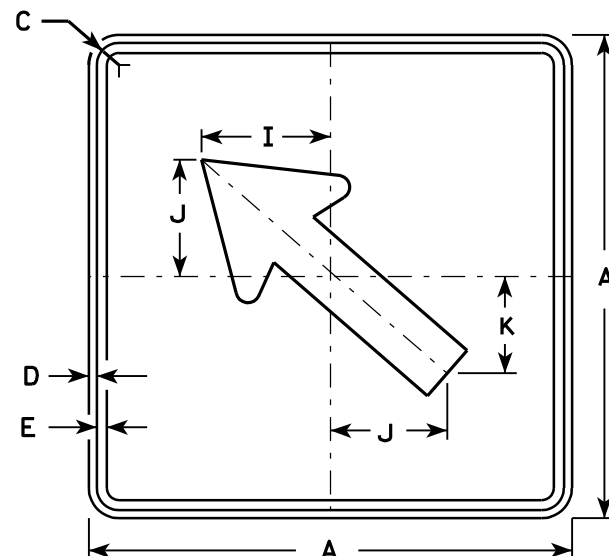
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

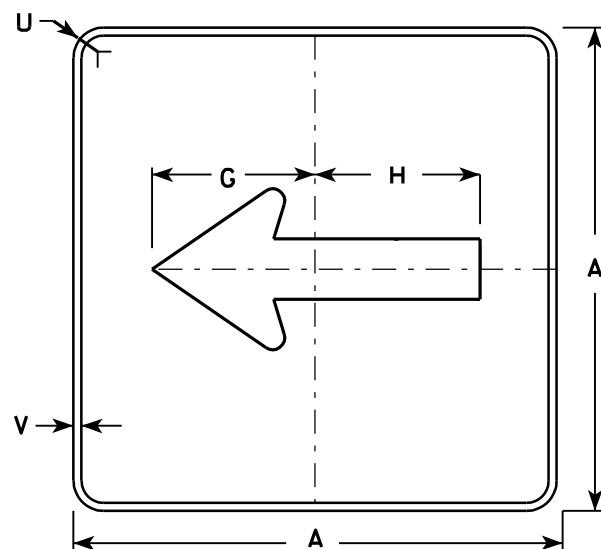
DATE 11/10/10 PLATE NO. M4-1.7



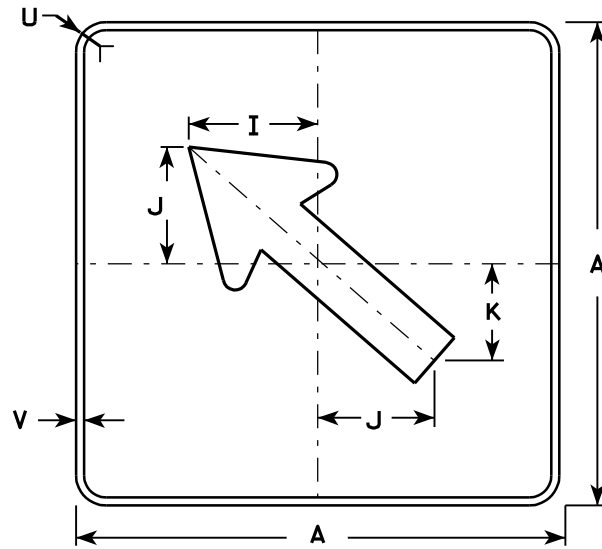
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



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



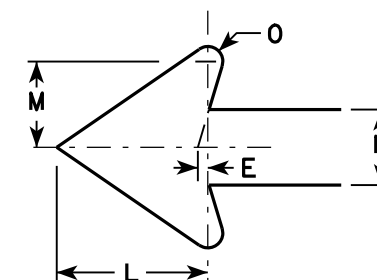
MB6-1
MG6-1
MN6-1



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
(Detour or temporary Signs - Reflective)
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - 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 - Reflective
Message - Black
MR6-1 and MR6-2 Background - Brown
Message - Yellow - Type H Reflective



Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 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 m2
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	0.28
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	0.56
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	0.56
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	0.56

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN M6-1 & M6-2 SERIES

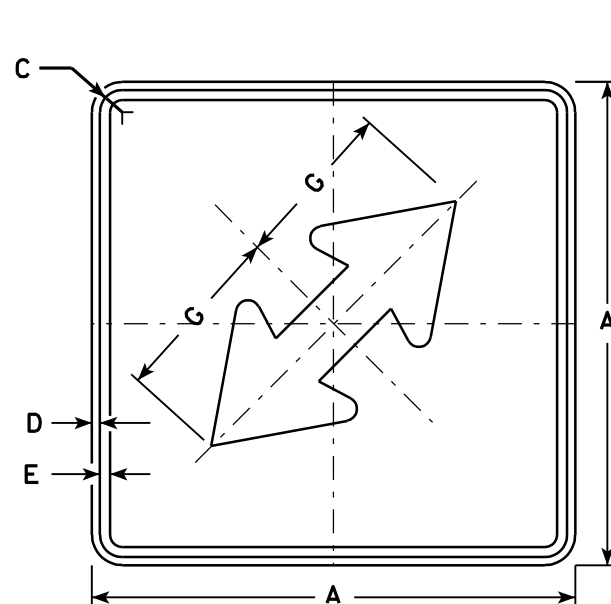
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

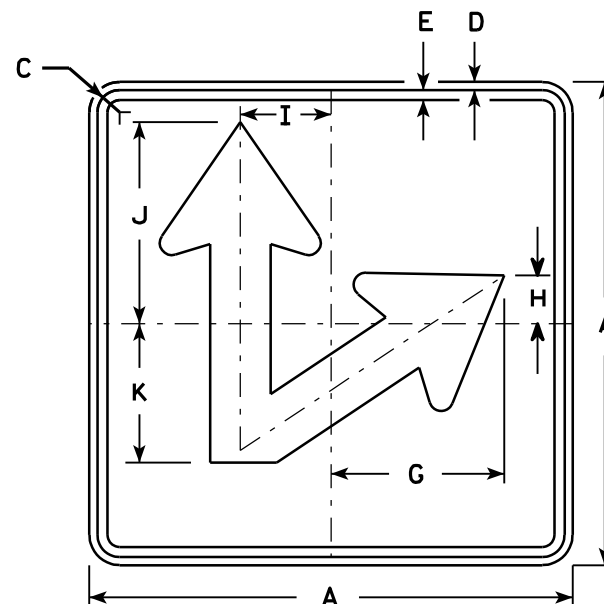
DATE 3/16/10 PLATE NO. M6-1.12

SHEET NO: 79

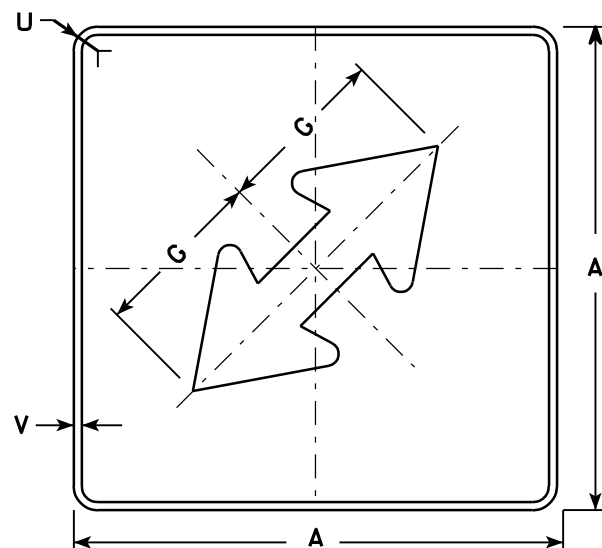
E



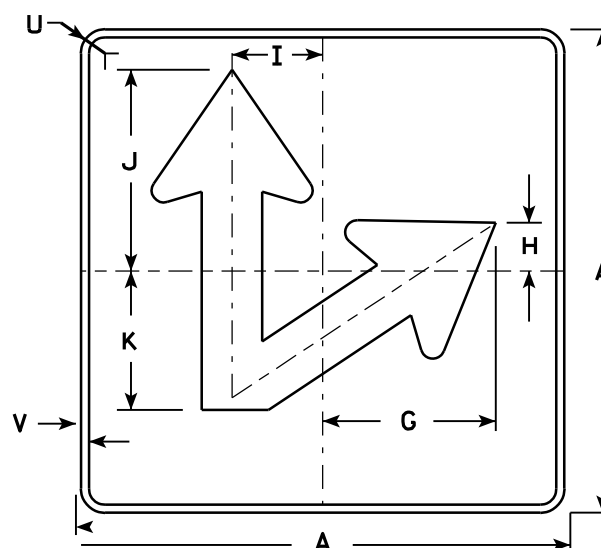
M6 - 5
MK6 - 5
MM6 - 5
MO6 - 5
MR6 - 5



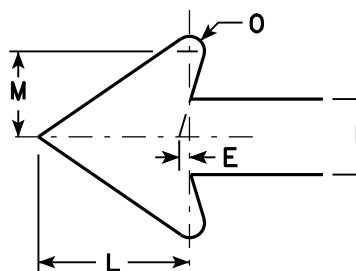
M6 - 7R
MK6 - 7R
MM6 - 7R
MO6 - 7R
MR6 - 7R



MB6 - 5
MG6 - 5
MN6 - 5



MB6 - 7R
MG6 - 7R
MN6 - 7R



NOTES

- Sign is 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.
- M6-5 and M6-7 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB6-5 and MB6-7 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG6-5 and MG6-7 Background - Green
Message - White - Type H Reflective
MK6-5 and MK6-7 Background - Green
Message - White - Type H Reflective
MM6-5 and MM6-7 Background - White - Type H Reflective
Message - Green
MN6-5 and MN6-7 Background - Brown
Message - White - Type H Reflective
MO6-5 and MO6-7 Background - Orange - Reflective
Message - Black
MR6-5 and MR6-7 Background - Brown
Message - Yellow - Type H Reflective
- M6-7L same as M6-7R except arrow points ahead and left.

Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 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		1 1/8	3/8	3/8		7 1/2	2 1/8	4 1/4	8 3/4	6	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	3	6 3/4	12 1/2	8 5/8	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	3	6 3/4	12 1/2	8 5/8	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	3	6 3/4	12 1/2	8 5/8	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 80

E

STANDARD SIGN
M6 - 5 & M6 - 7
SERIES

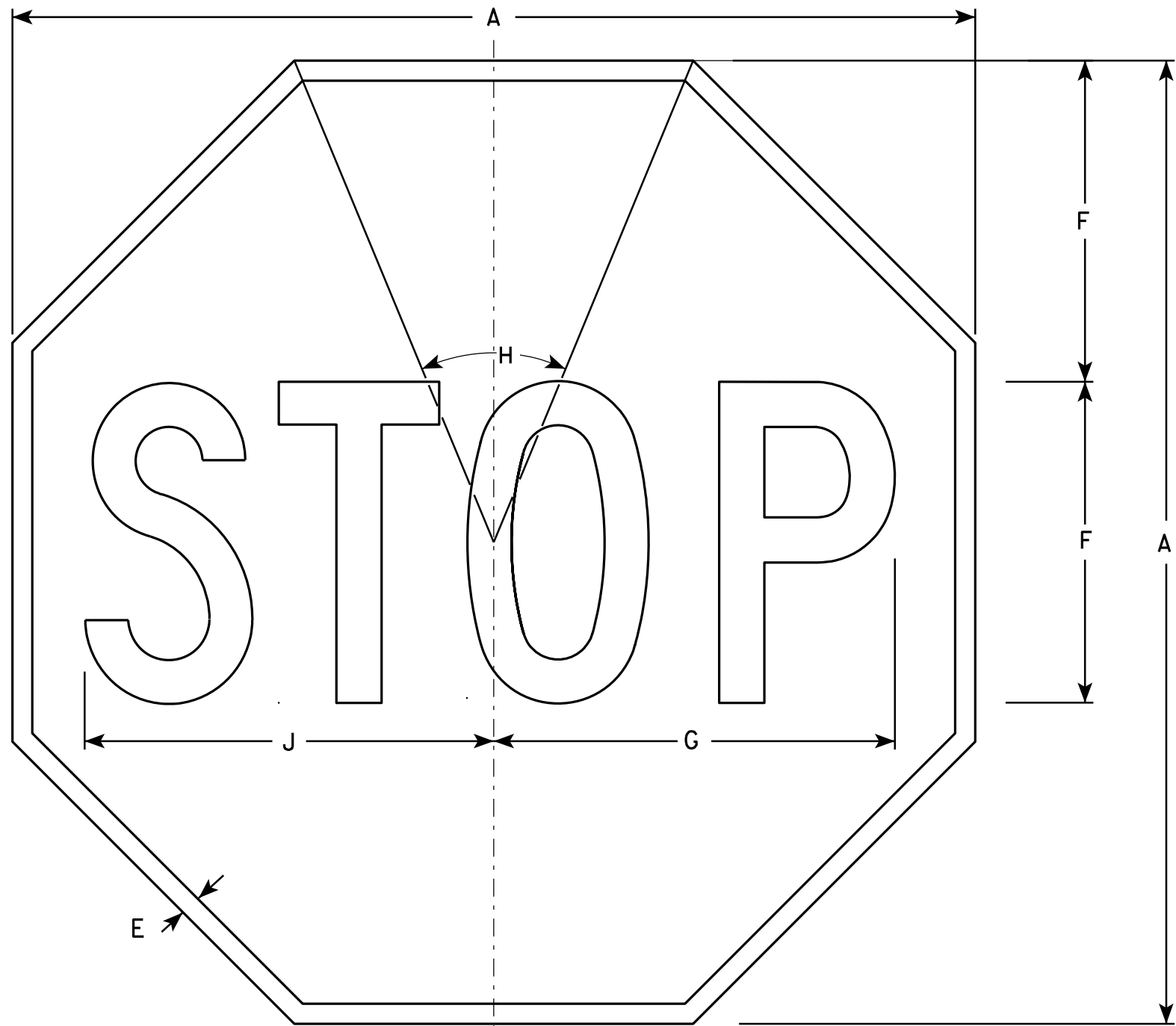
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 3/16/10

PLATE NO. M6-7.6



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

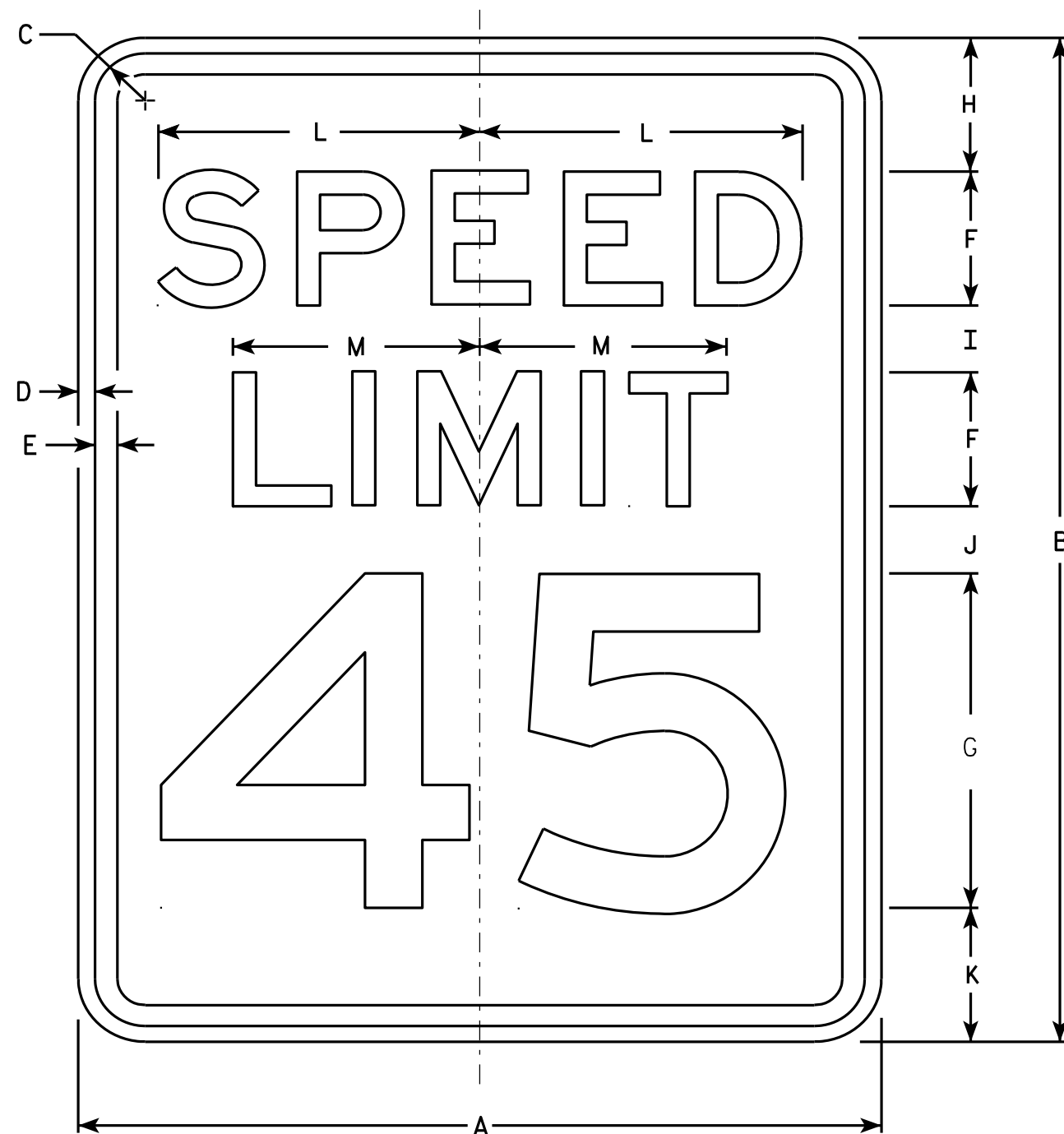
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20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



R2-1

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 - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: 82 E



R2-6P

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

STANDARD SIGN
R2-6P

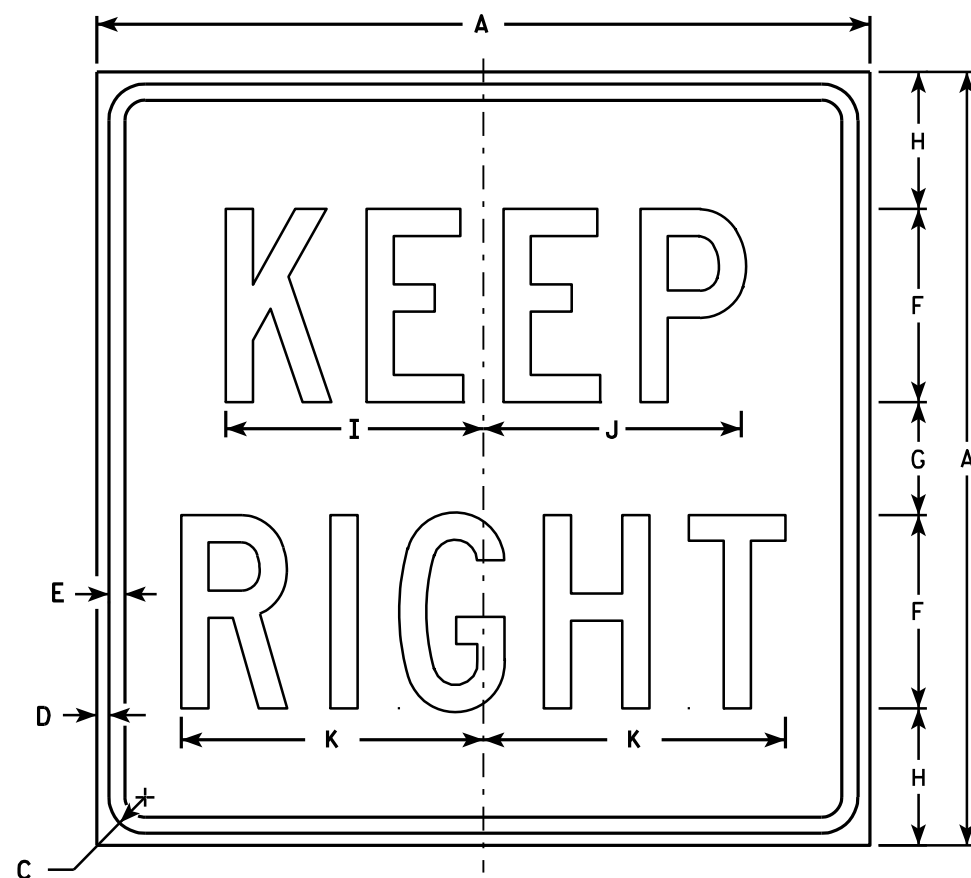
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

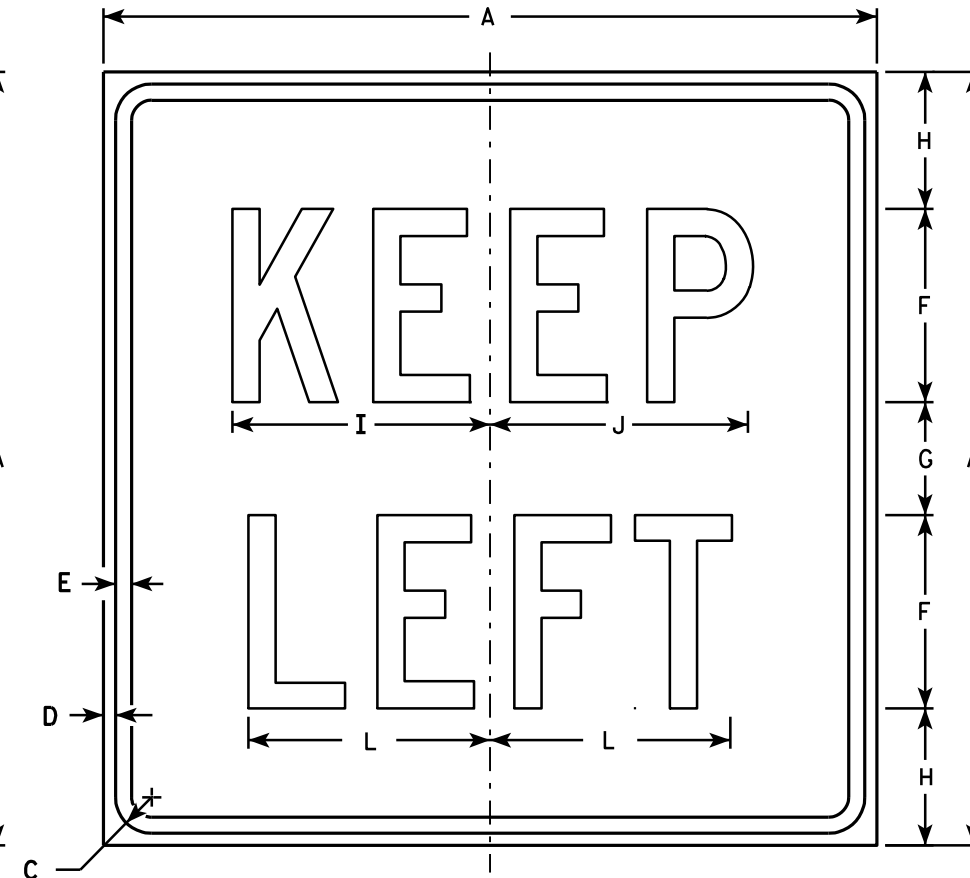
DATE 12/20/10 PLATE NO. R2-6P.2

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 - 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.



R4-52R



R4-52L

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	5	2	3	6 3/4	6 5/8	7 1/2	6 1/4															2.25
2S	24		1 1/8	3/8	1/2	6	3 1/2	4 1/4	8	8	9 3/8	7 1/2															4.0
2M	24		1 1/8	3/8	1/2	6	3 1/2	4 1/4	8	8	9 3/8	7 1/2															4.0
3	36		1 5/8	5/8	3/4	10	5	5 1/2	13 1/2	13 3/8	14 1/2	12 1/2															9.0
4																											
5																											

STANDARD SIGN
R4-52R & R4-52L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R4-52.6

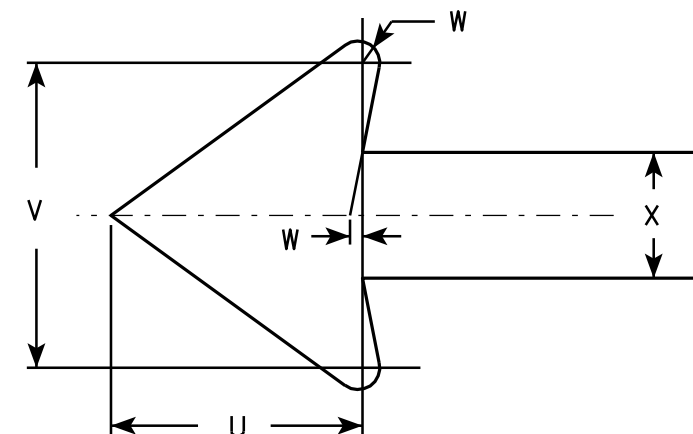
PROJECT NO: HWY: COUNTY: SHEET NO: 84 E



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																											

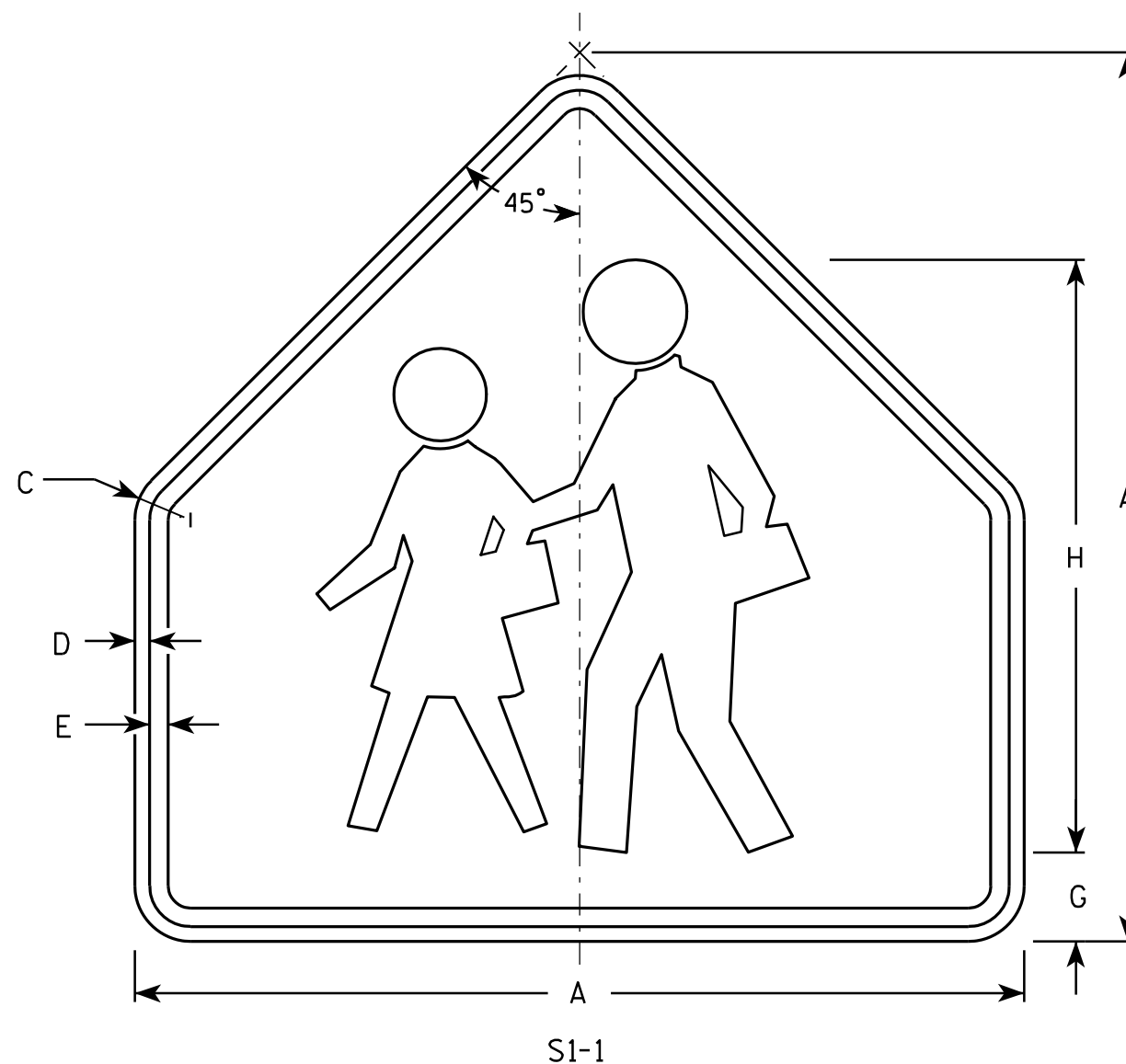
STANDARD SIGN R7-1

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: 85 E



NOTES

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

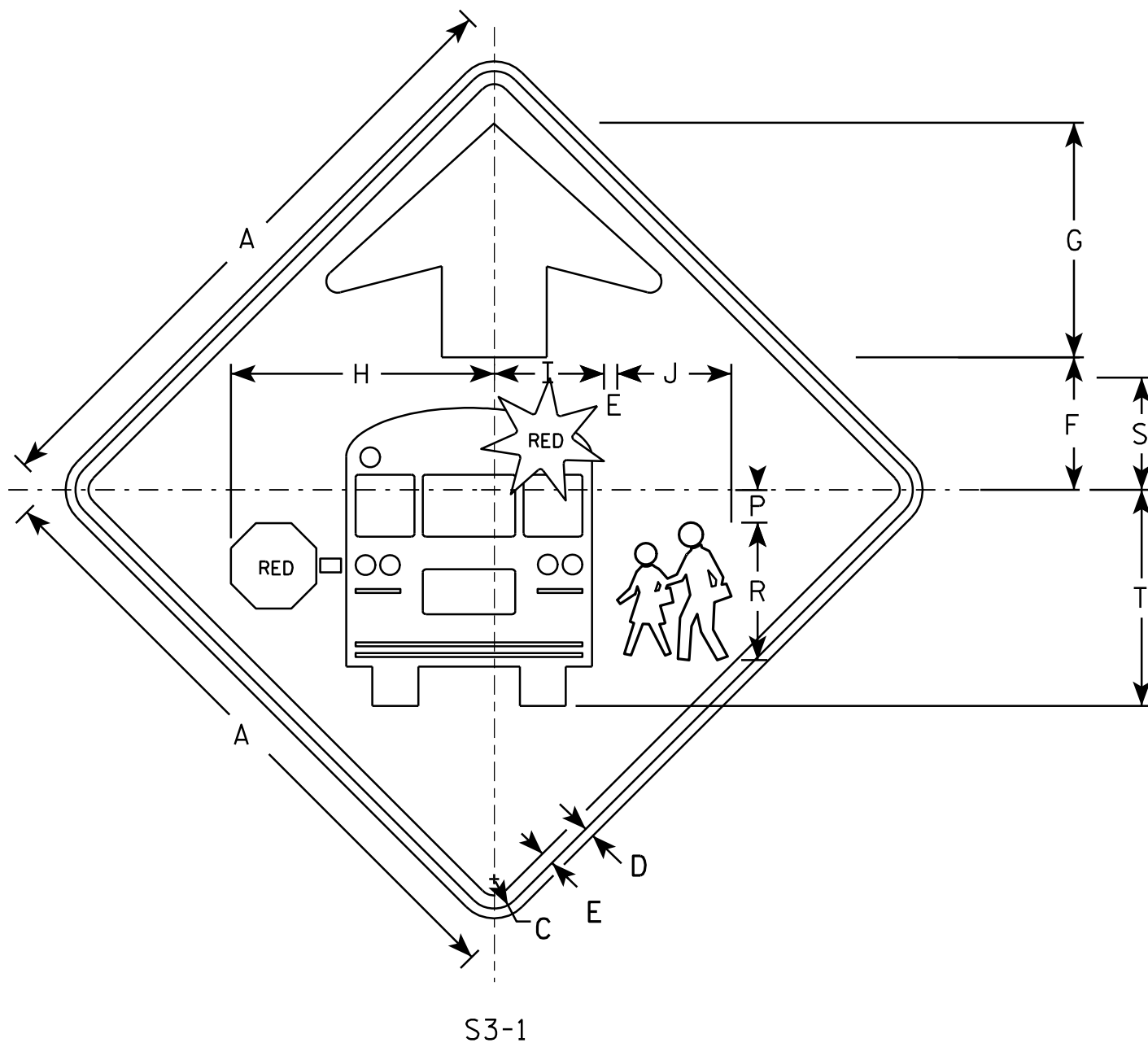
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

STANDARD SIGN S1-1

WISCONSIN DEPT OF TRANSPORTATION

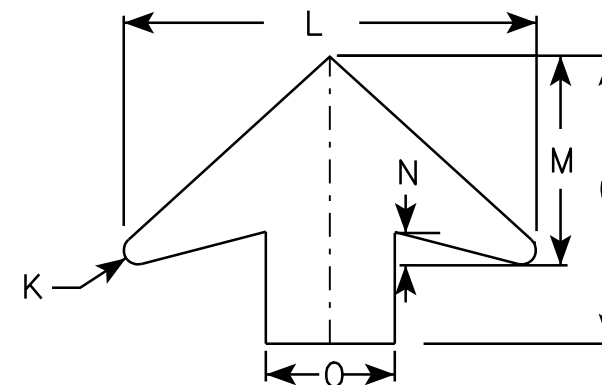
APPROVED Matthew R. Rauch
for State Traffic Engineer
DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 86 **E**



NOTES

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.

[illegible]

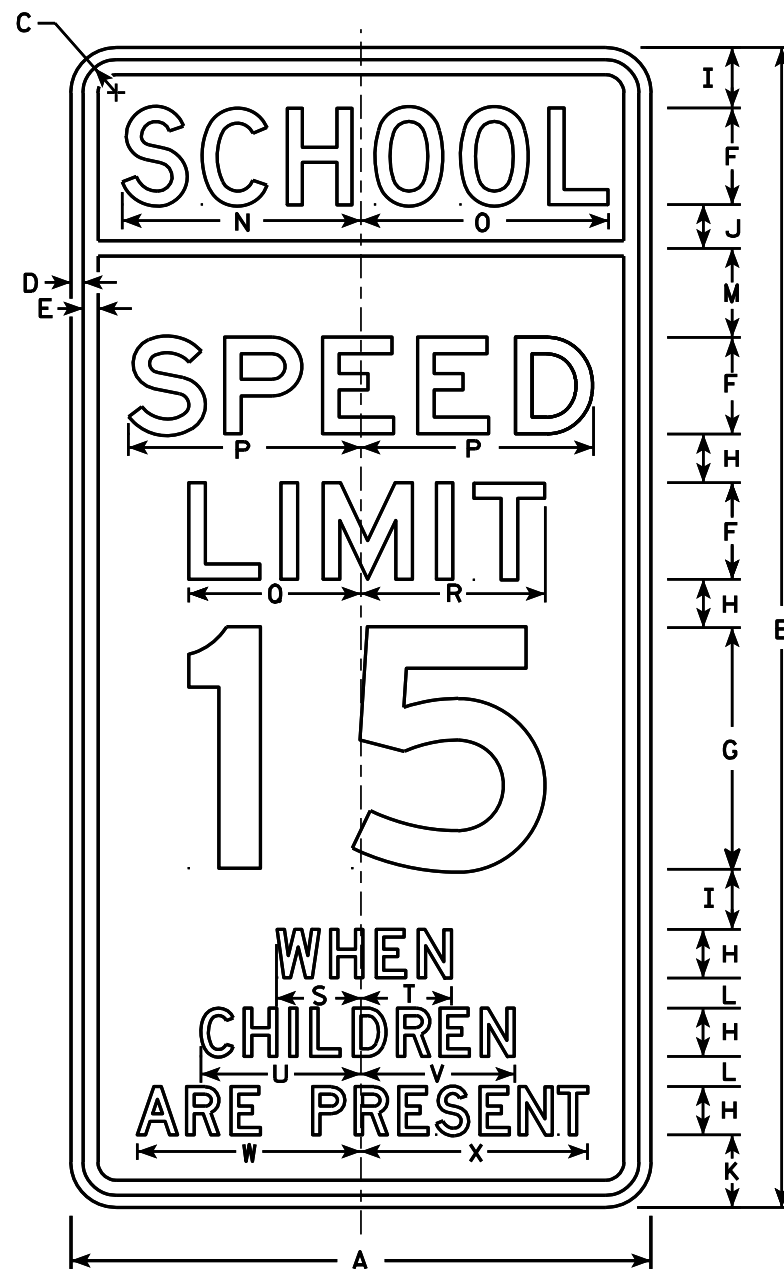
STANDARD SIGN	
S3-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<u>Matthew R. Rauch</u> for State Traffic Engineer
DATE <u>6/8/10</u>	PLATE NO. <u>S3-16</u>

Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 1200 mm
3	900 mm X 1800 mm
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 m ²
1																												
2	24	48	1 ⅜	½	⅝	4	10	2	2 ½	1 ¾	3	1 ¼	3 ¾	9 ⅞	10 ¼	9 ⅝	7 ⅛	7 ⅝	3 ½	3 ⅜	6 ⅝	6 ⅜	9 ¼	9 ⅜			8.00	0.72
3	36	72	2 ¼	¾	1	6	15	3	3 ¾	2 ¾	4 ½	1 ⅞	5 ½	15	15 ¼	14 ½	11 ¼	11 ½	5 ½	5 ¾	10	9 ¾	14	14 ⅛			18.00	1.62
4																												
5																												

PROJECT NO:			HWY:			COUNTY:													SHEET NO: 88			E
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S4-51

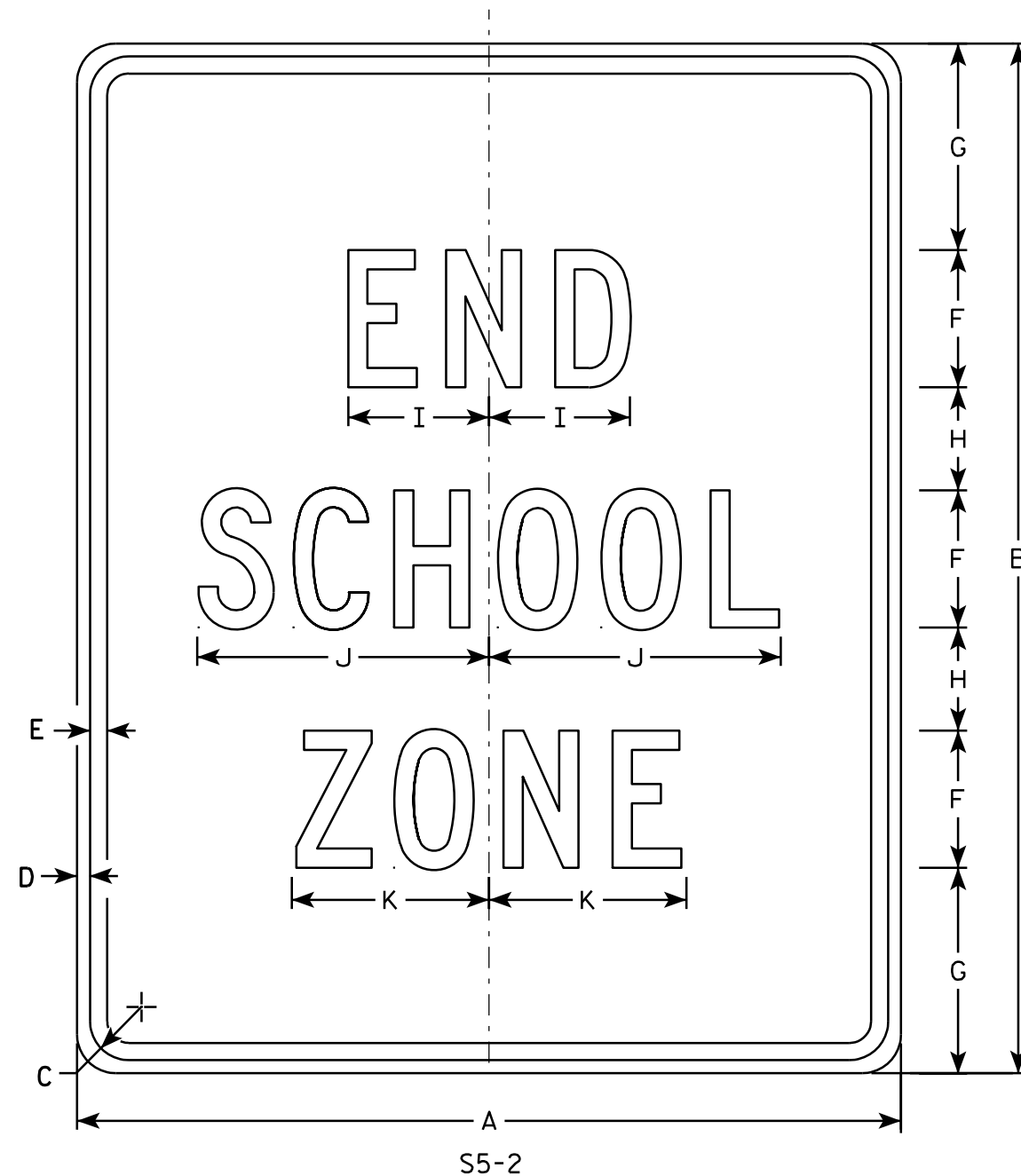
NOTES

- Sign is Type II - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition. (See note 5).
- Color:
Background - See note 5
Message - Black
- 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.
- Top panel (SCH00L) background - Yellow Green -Type F Reflective.
Lower panel background - White -Type H Reflective.
- From top to bottom:
Lines 1, 5, 6 & 7 are series D
Lines 2, 3 & 4 are series E
- Line 4 substitute appropriate numerals and
adjust spacing to achieve proper balance.

STANDARD SIGN
S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 4/26/10 PLATE NO. S4-51.9



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 - 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	O	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1																											
2	24	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

STANDARD SIGN
S5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/8/11 PLATE NO. S5-2.2

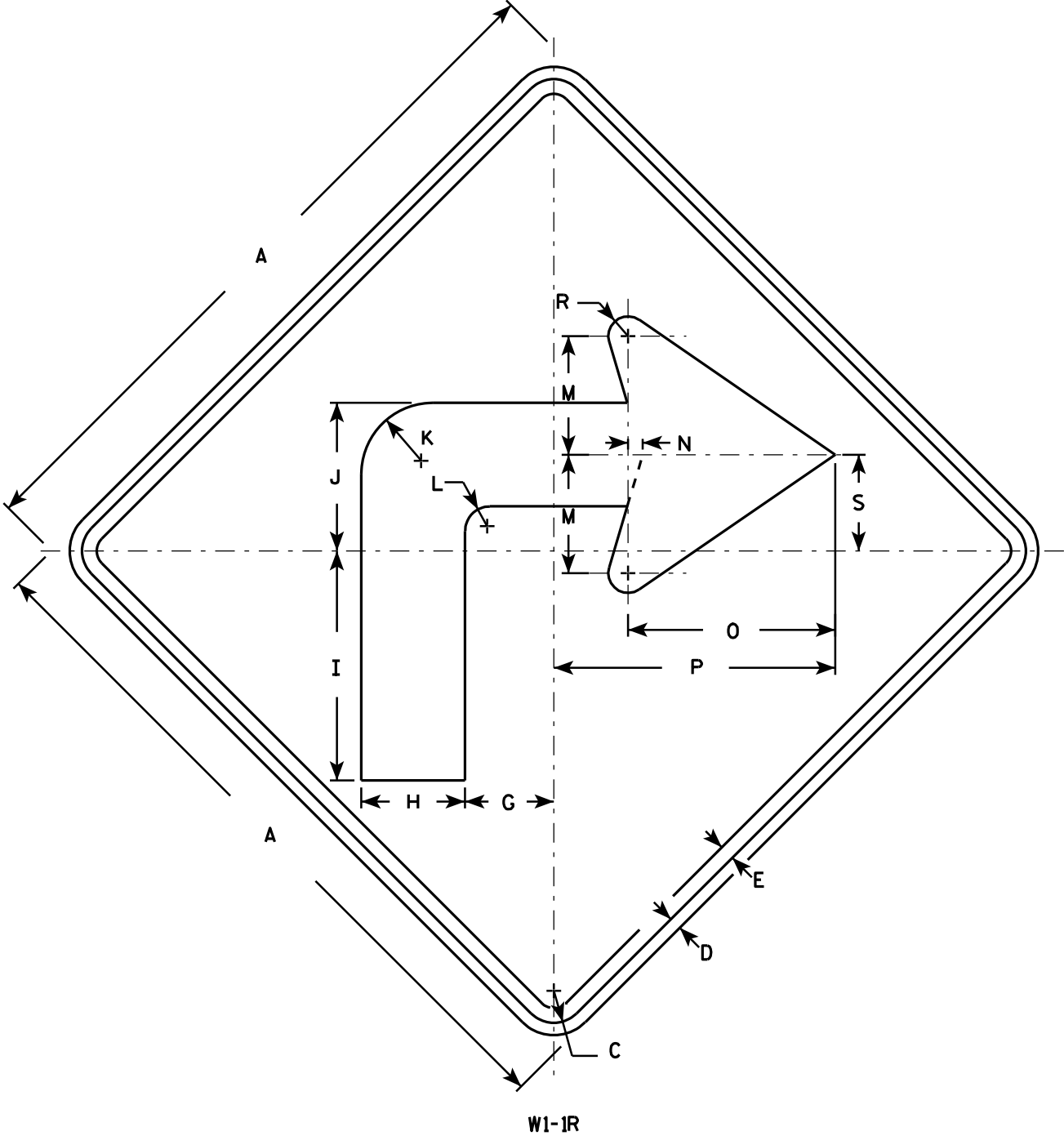
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 89

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. W1-1L is the same as W1-1R 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	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

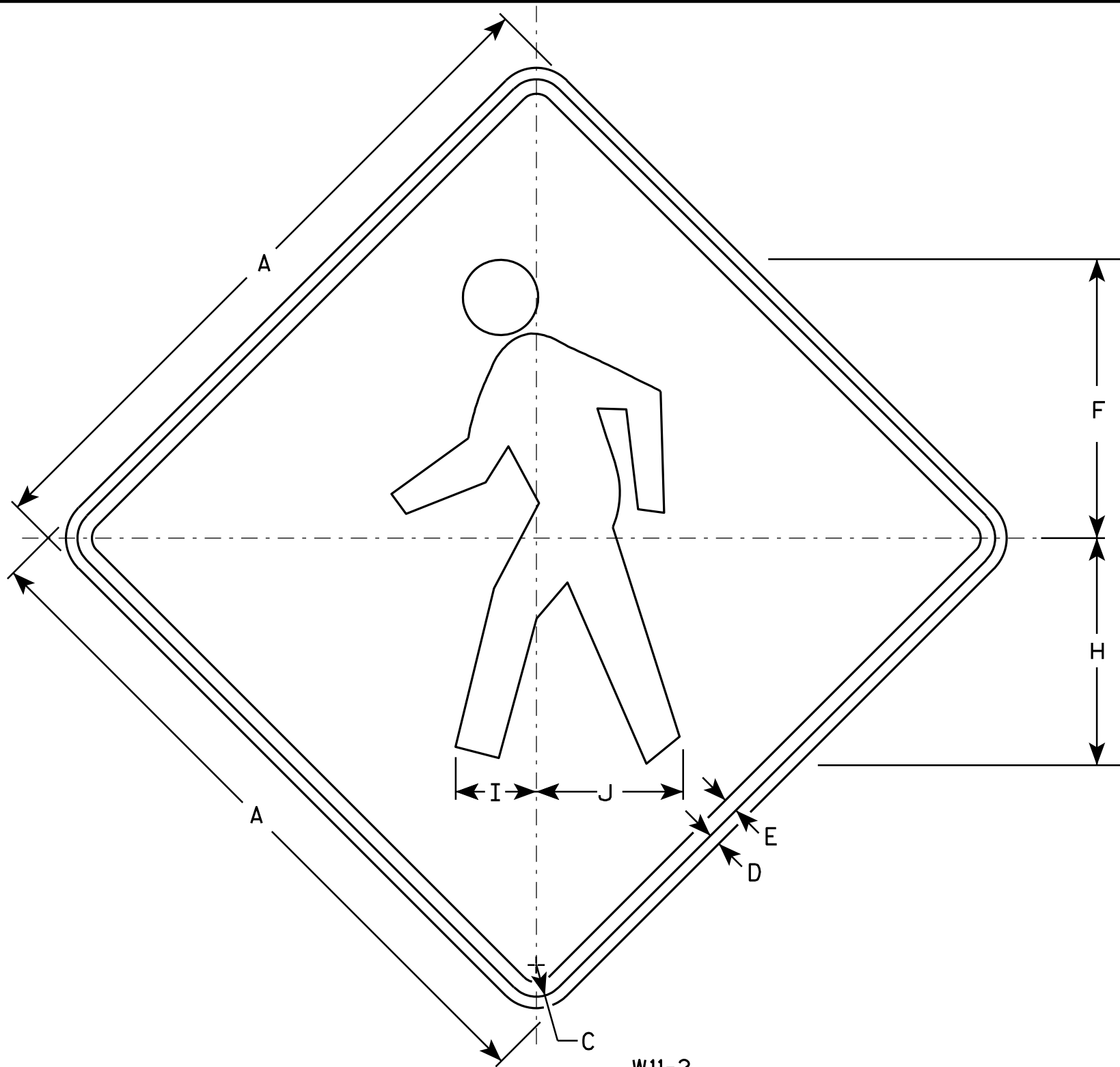
STANDARD SIGN

W1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-1.11



W11-2

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.

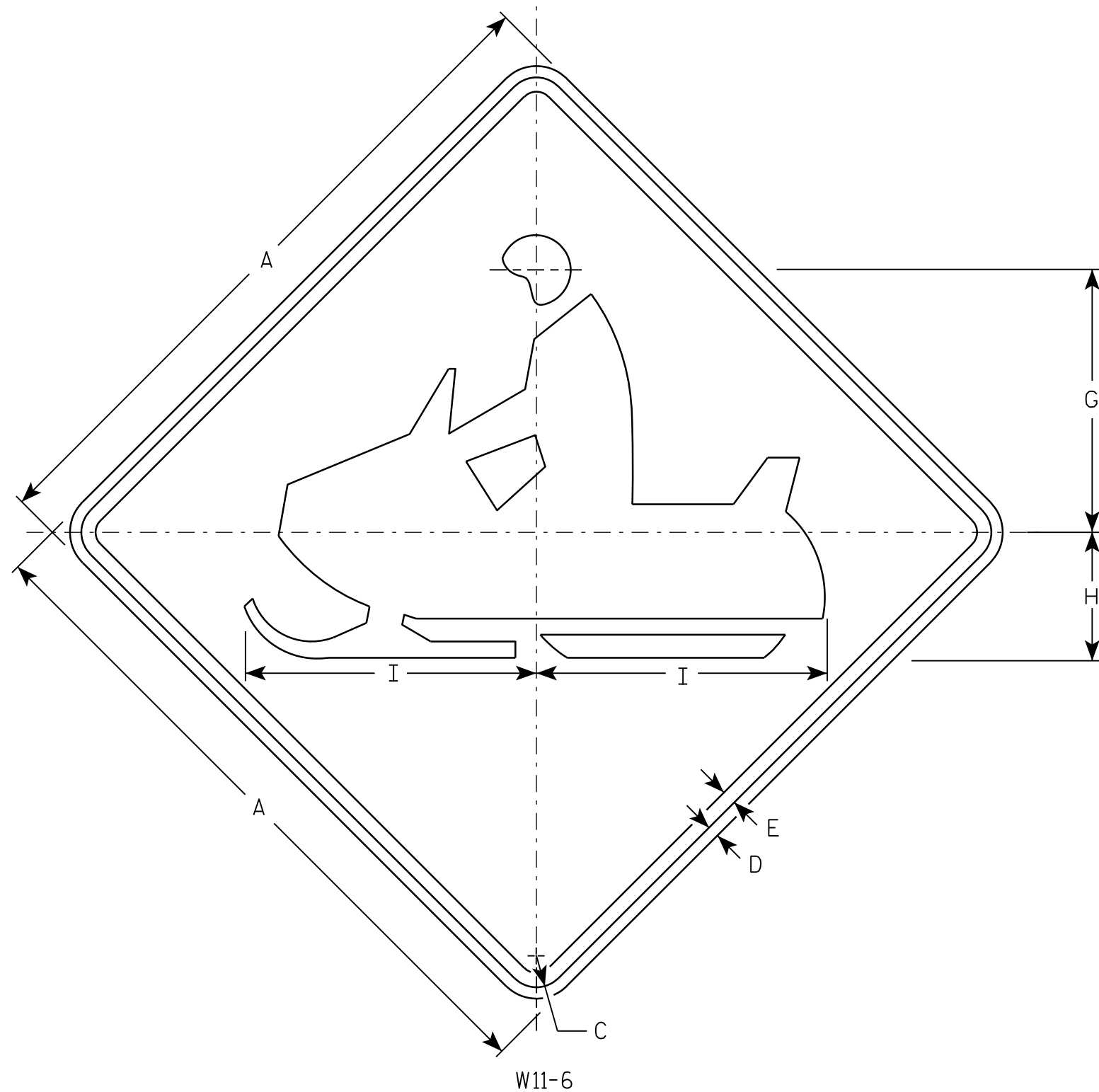
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W11-2.7



W11-6

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.

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		9 1/2	4 1/2	10 1/4																		4.0
2S	30		1 3/8	1/2	5/8		11 1/2	5 5/8	12 3/4																		6.25
2M	30		1 3/8	1/2	5/8		11 1/2	5 5/8	12 3/4																		6.25
3	36		1 5/8	5/8	3/4		14 1/8	6 3/4	15 1/4																		9.0
4	48		2 1/4	3/4	1		19	9	20 1/2																		16.0
5																											

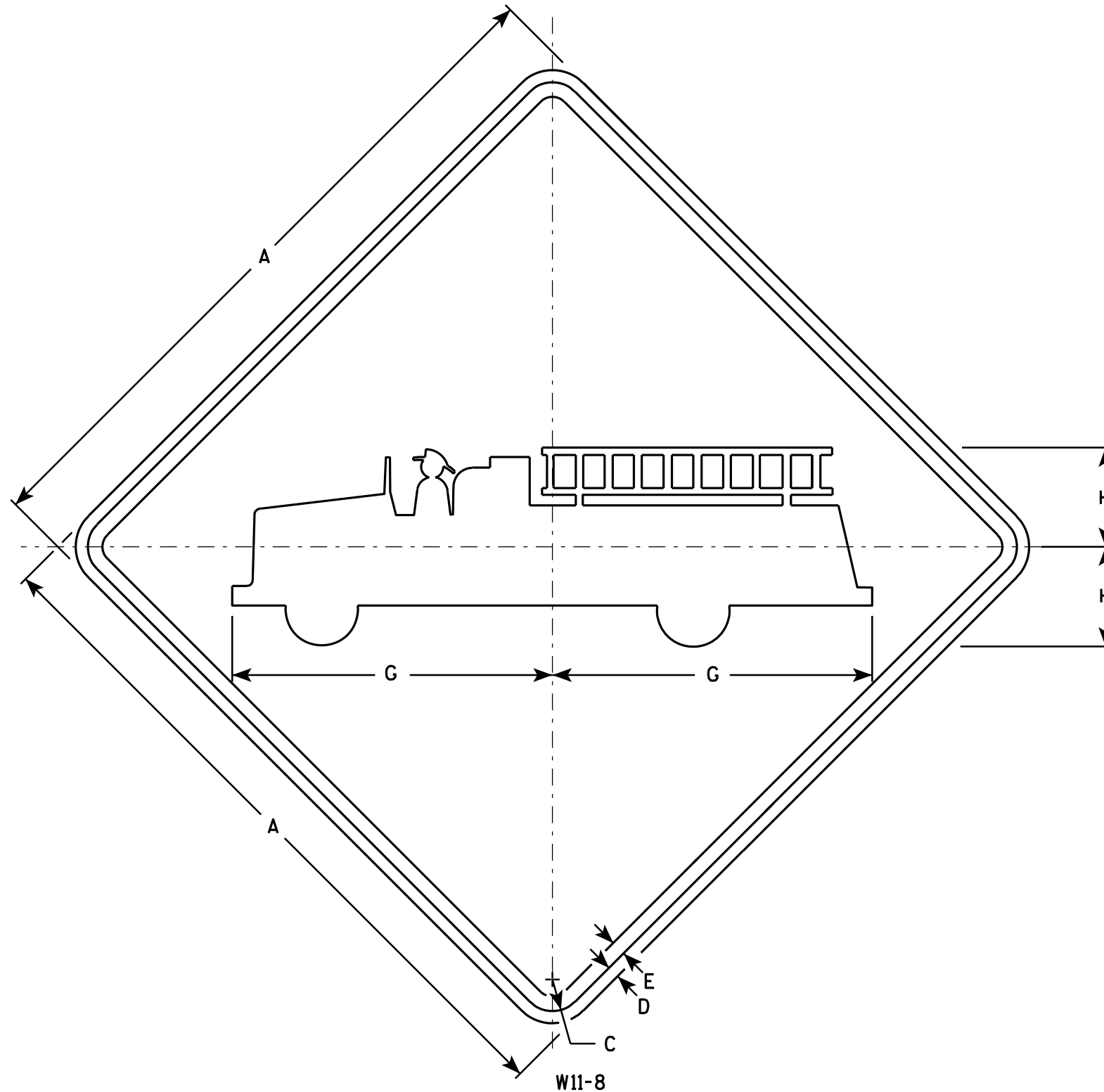
STANDARD SIGN
W11-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-6.8

PROJECT NO: HWY: COUNTY: SHEET NO: 92 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.

W11-8

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		11	3 3/8																			4.0
2S	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
2M	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
3	36		1 5/8	5/8	3/4		16 1/2	5 1/4																			9.0
4	48		2 1/4	3/4	1		22	7																			16.0
5																											

STANDARD SIGN W11-8

WISCONSIN DEPT OF TRANSPORTATION

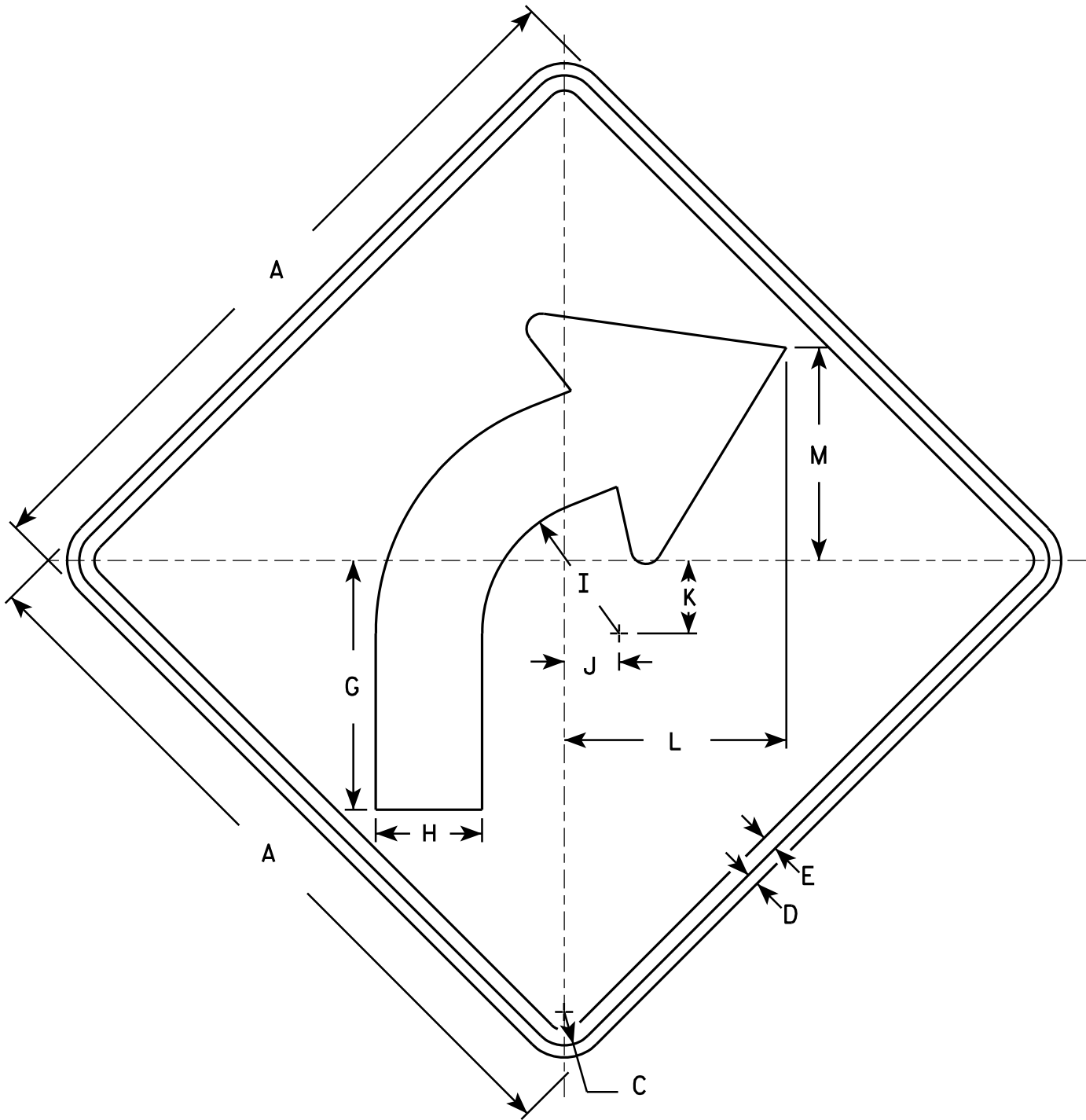
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/13/13 PLATE NO. W11-8.7

PROJECT NO:

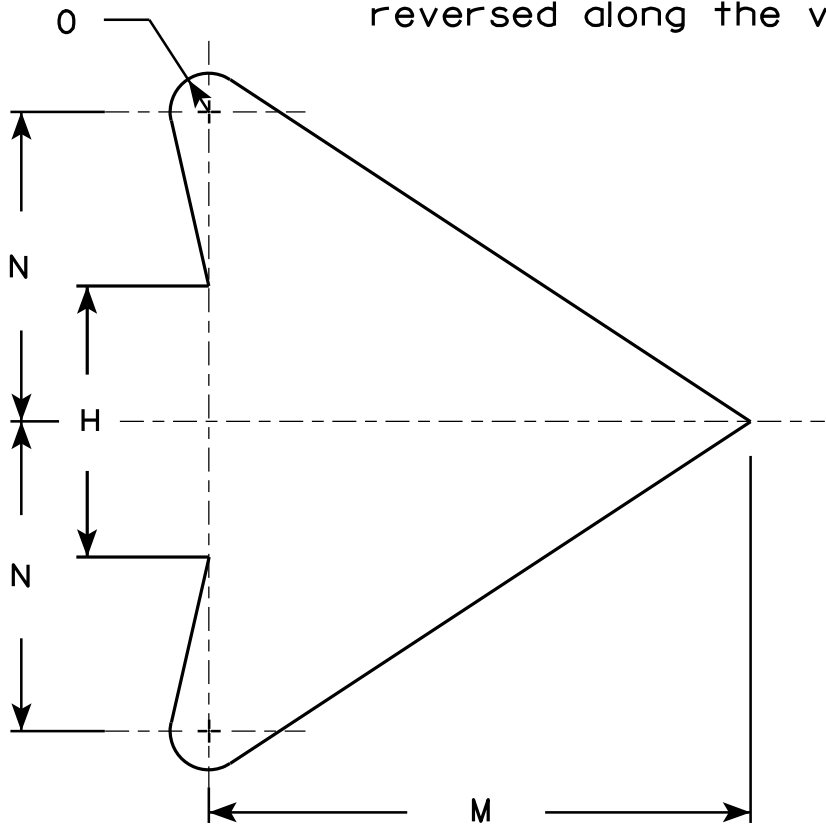
SHEET NO: 93

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

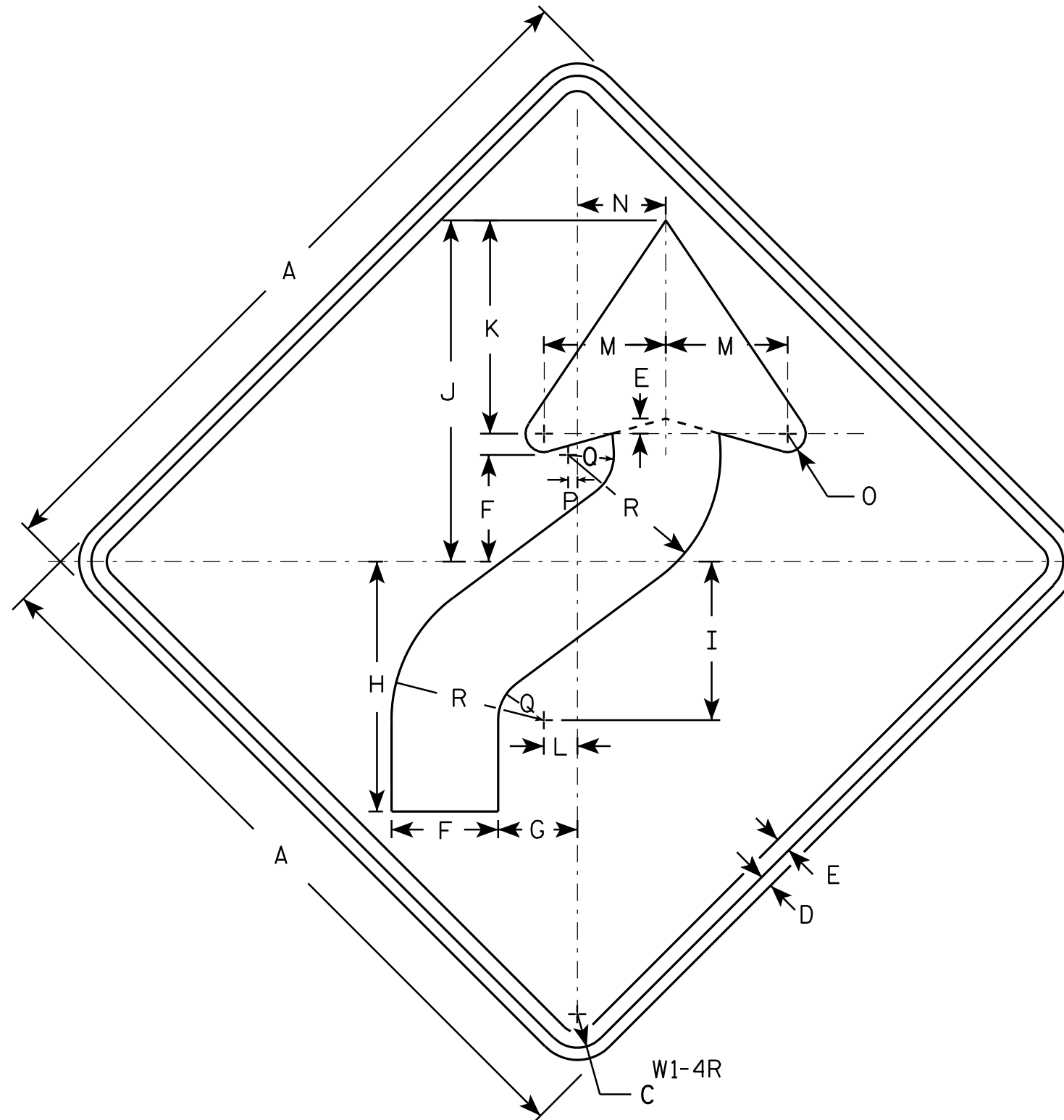
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6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



NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Yellow
Message - Black
- 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.
- W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
3	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
4	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN

W1 - 4

WISCONSIN DEPT OF TRANSPORTATION

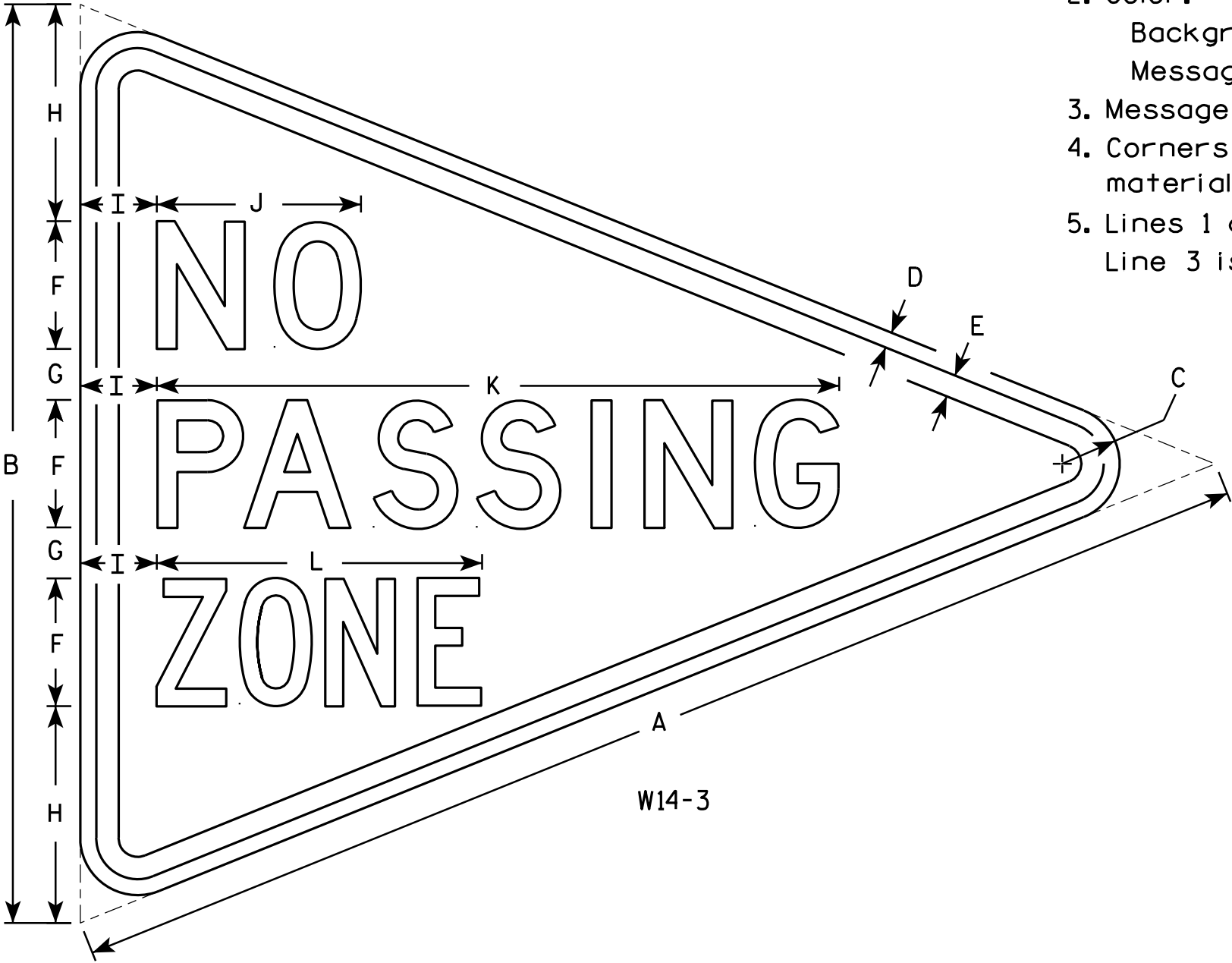
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

PROJECT NO: HWY: COUNTY: SHEET NO: 95 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.



W14-3

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

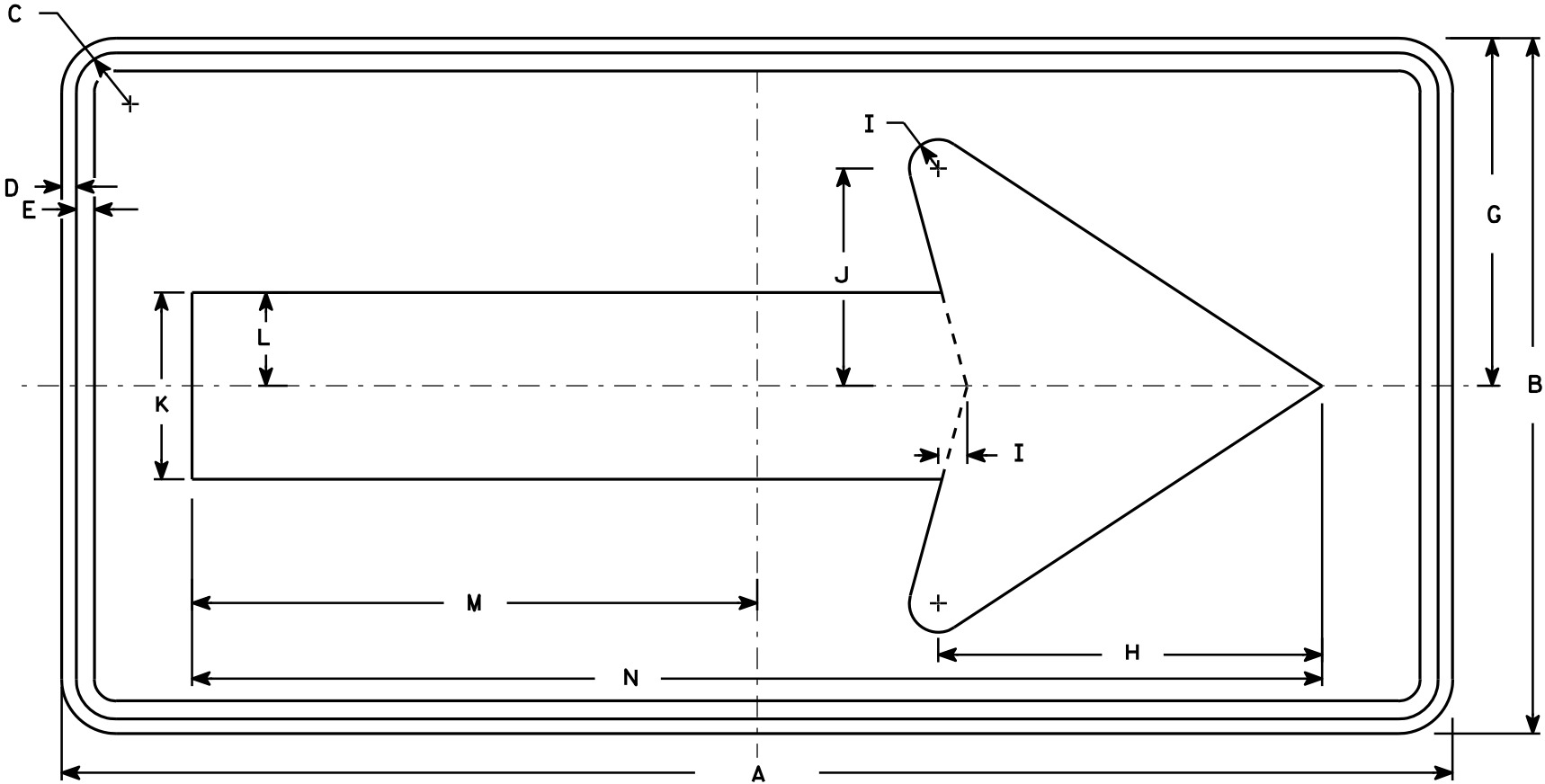
DATE 6/7/10 PLATE NO. W14-3.9

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

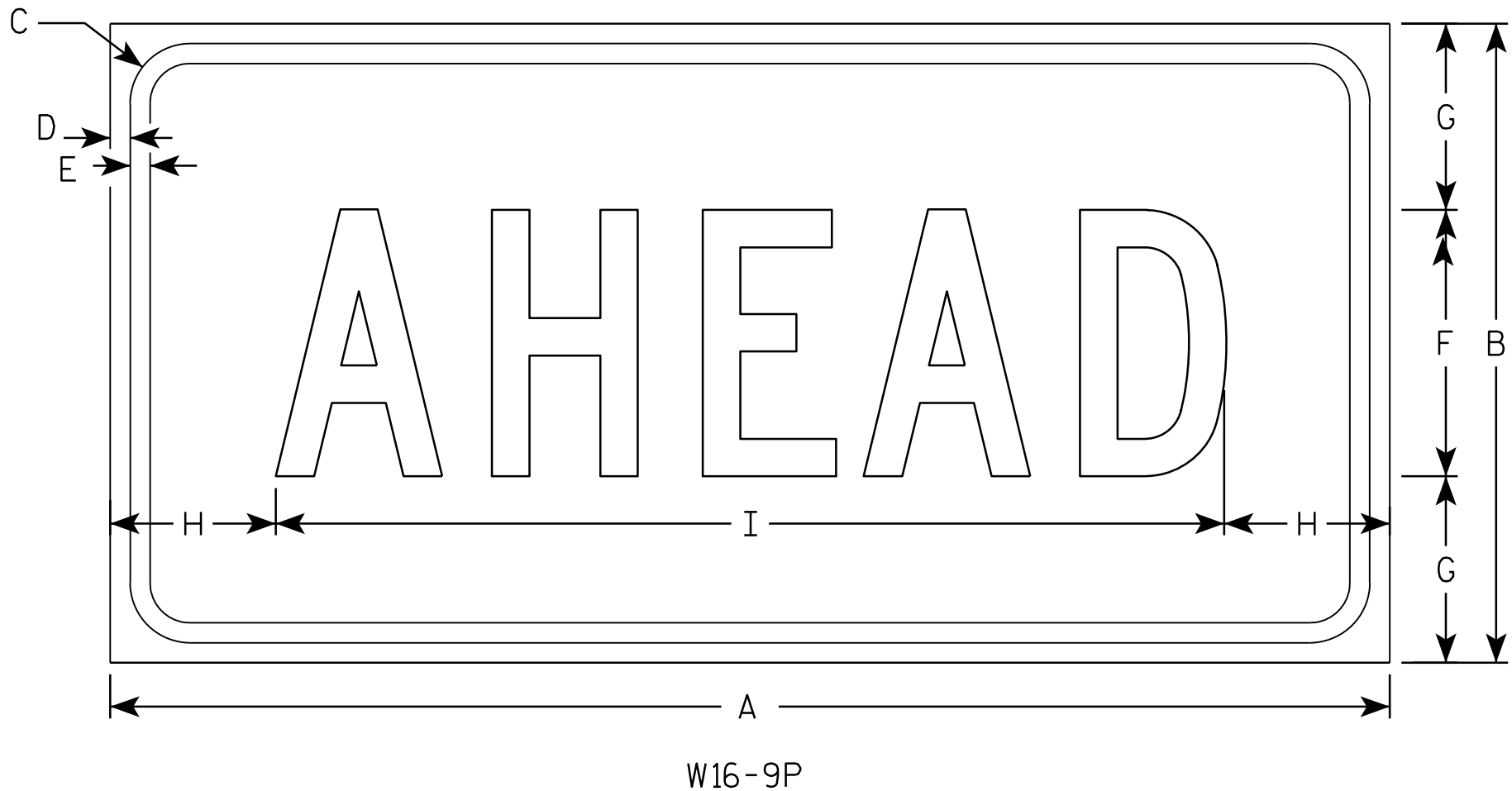
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39							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

7



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.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

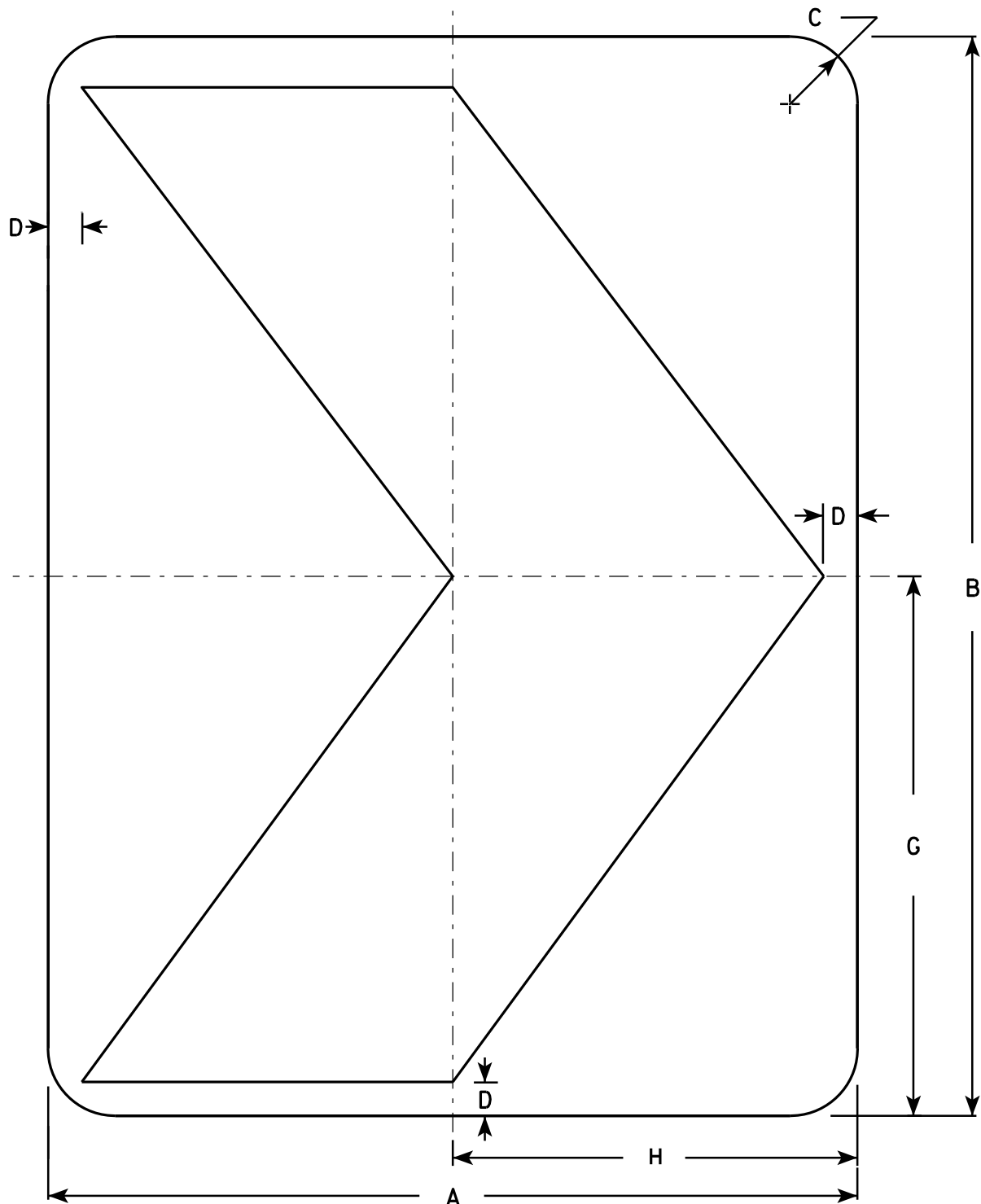
STANDARD SIGN

W16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/28/10 PLATE NO. W16-9P.6



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.

W1-8

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 1/2	1/2			9	6																			1.5
2S	18	24	1 1/2	3/4			12	9																			3.0
2M	18	24	1 1/2	3/4			12	9																			3.0
3	24	30	1 1/2	1			15	12																			5.0
4	30	36	1 7/8	1 1/4			18	15																			7.5
5	36	48	2 1/4	1 1/2			24	18																			12.0

STANDARD SIGN

W1-8

WISCONSIN DEPT OF TRANSPORTATION

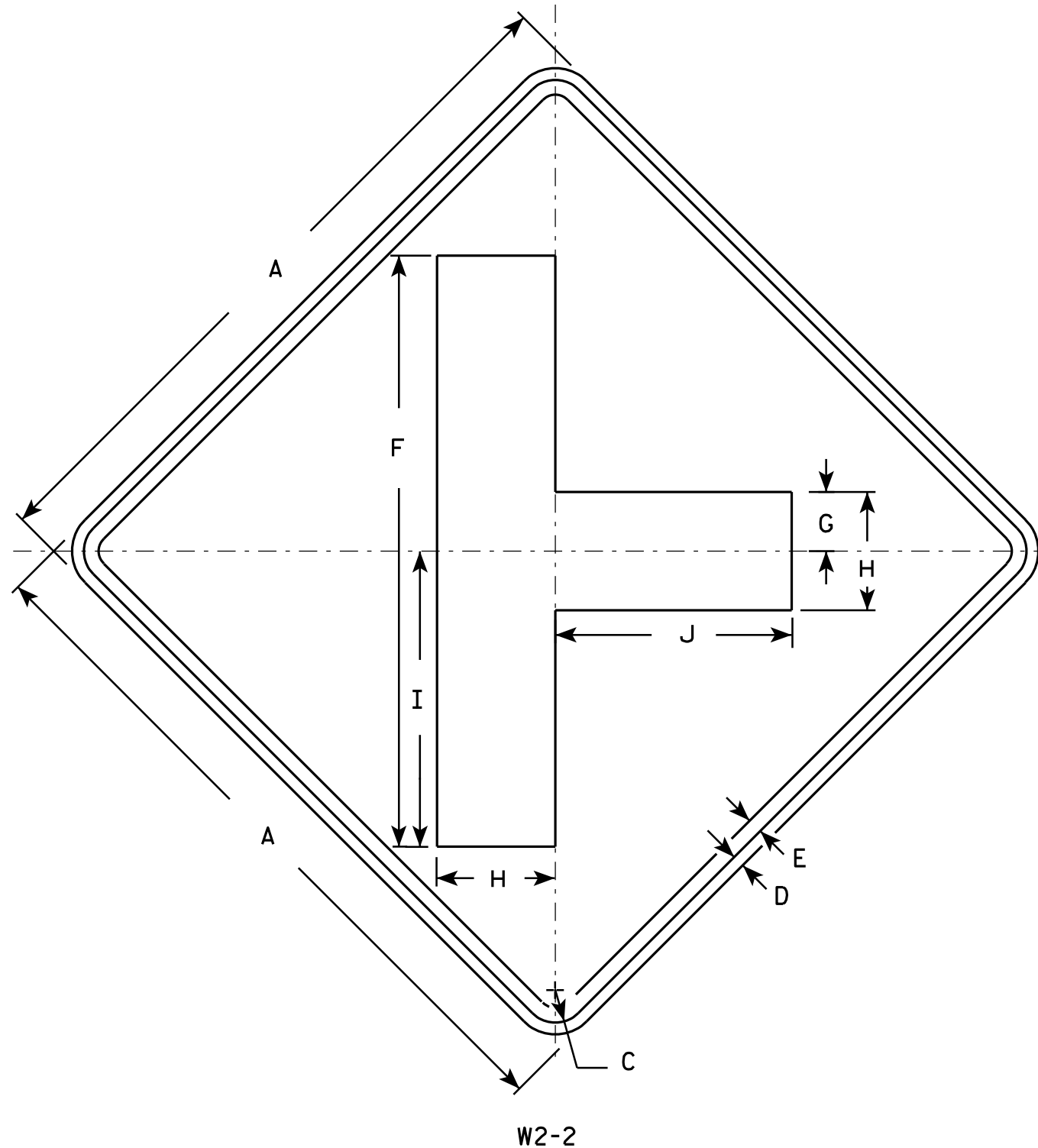
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

SHEET NO: 99

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.

W2-2

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	20	2	4	10	8																	4.0
2S	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
2M	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
3	36		1 5/8	5/8	3/4	30	3	6	15	12																	9.0
4	48		2 1/4	3/4	1	40	4	8	20	16																	16.0
5																											

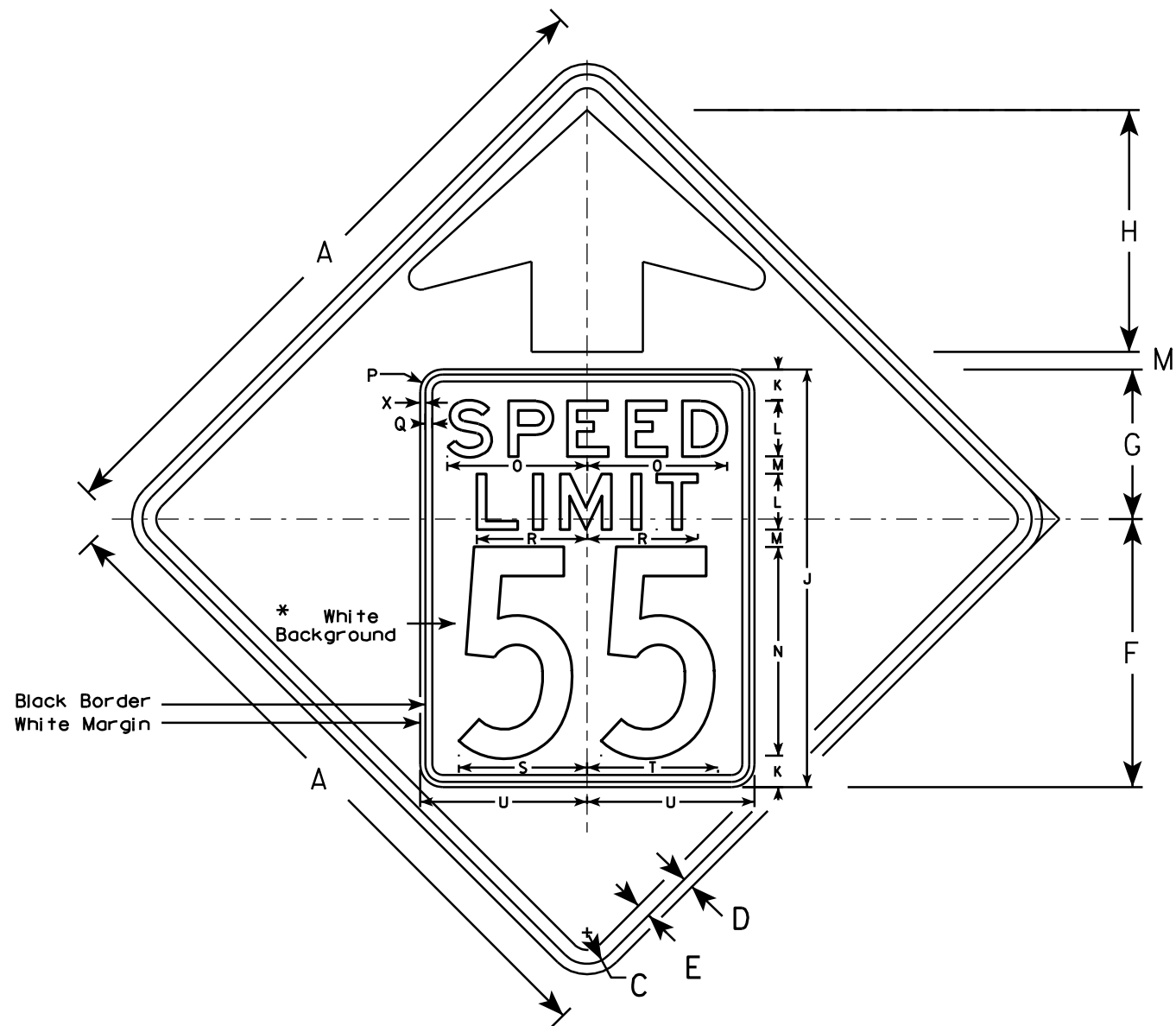
STANDARD SIGN W2-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-2.6

PROJECT NO: HWY: COUNTY: SHEET NO: 100 E

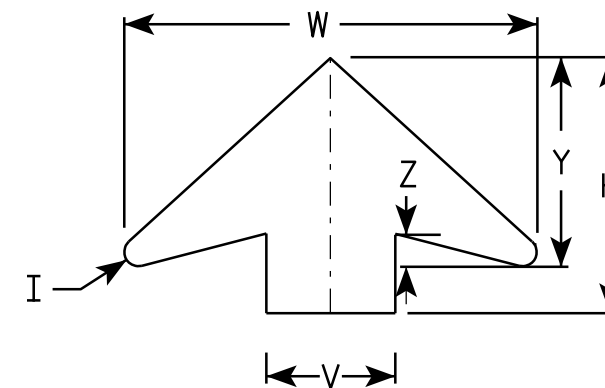


W3-5

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

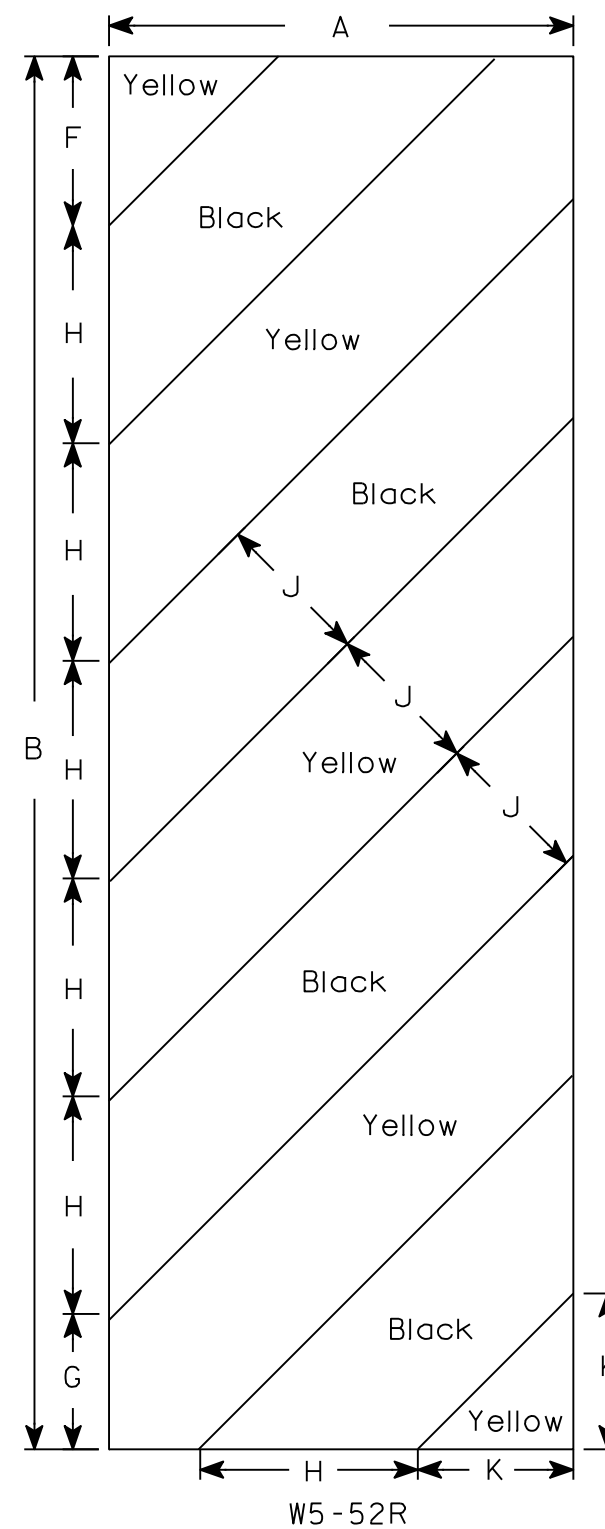
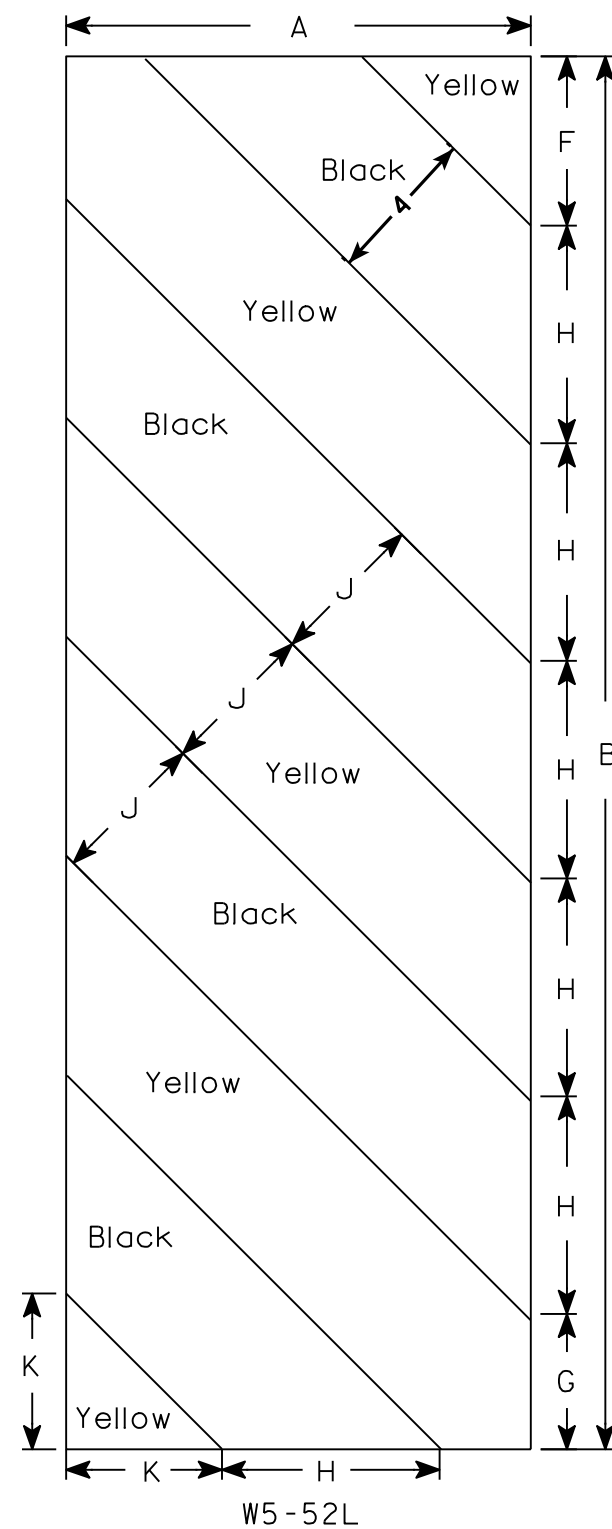
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 101

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. Alternate colors of stripes as shown.

[illegible]

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:

HWY:

COUNTY:

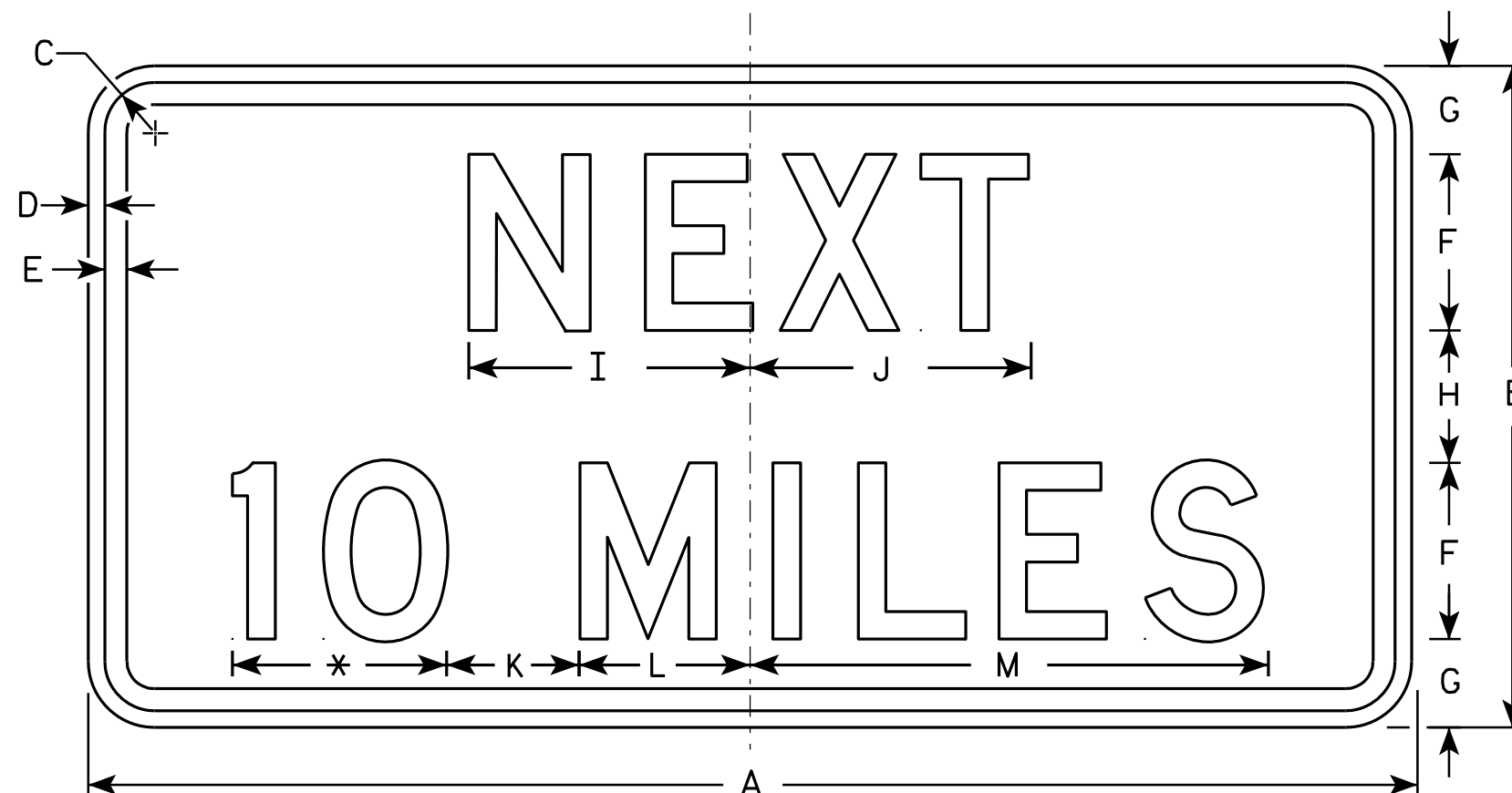
SHEET NO: 102

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 - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

* See note 5



W57-51

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	3	1 3/4	2 1/2	5	5 1/8	3	2 3/4	9 5/8														2.0
2S	30	15	1 1/8	3/8	1/2	4	2	3	6 3/8	6 3/8	3	3 7/8	11 3/4														3.13
2M	36	18	1 1/8	3/8	1/2	5	2 5/8	2 3/4	7 7/8	8	5	4 1/8	15 3/8														4.5
3	36	18	1 1/8	3/8	1/2	5	2 5/8	2 3/4	7 7/8	8	5	4 1/8	15 3/8														4.5
4	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
5	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0

STANDARD SIGN

W57-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W57-51.9

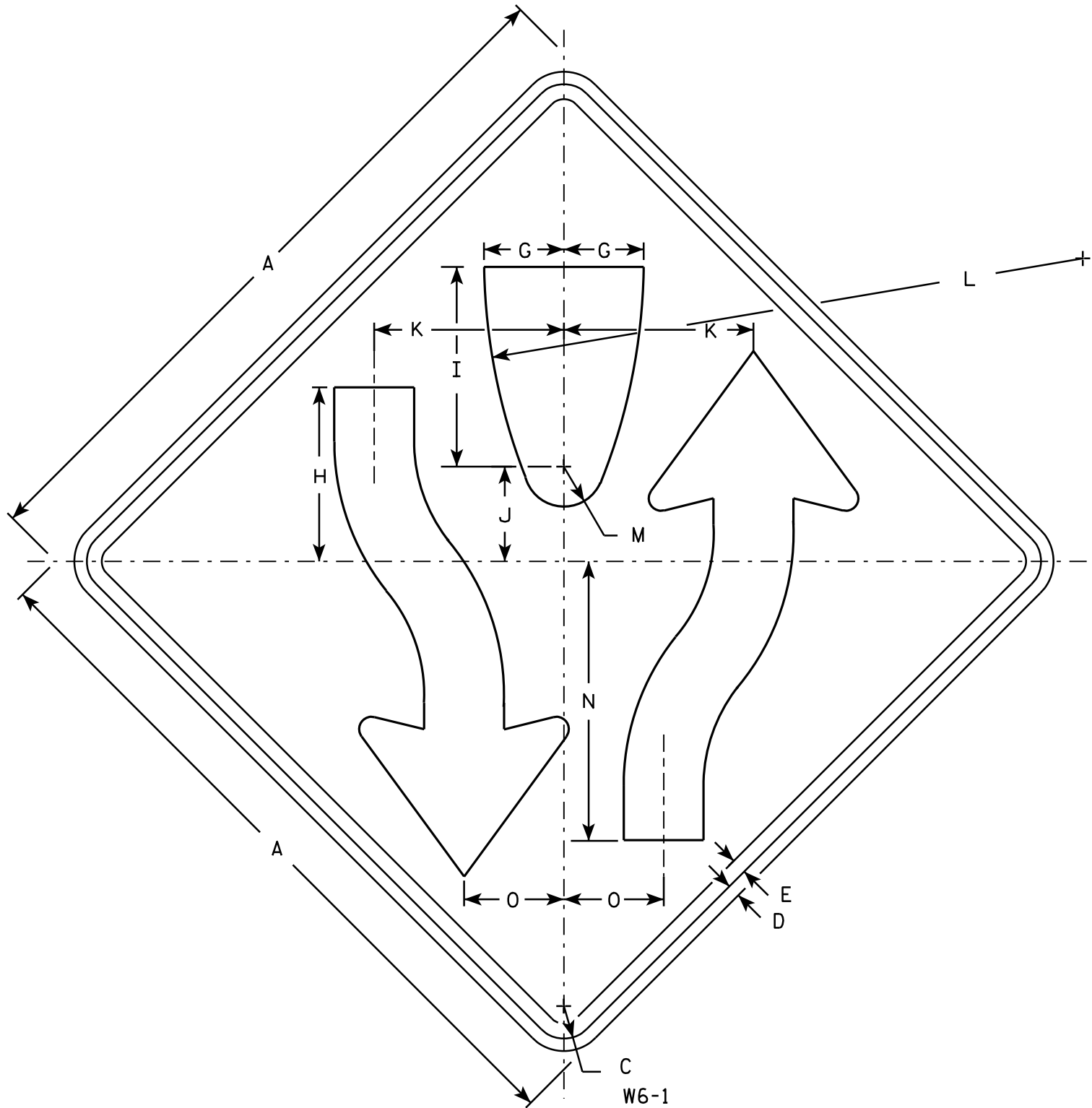
PROJECT NO:

HWY:

COUNTY:

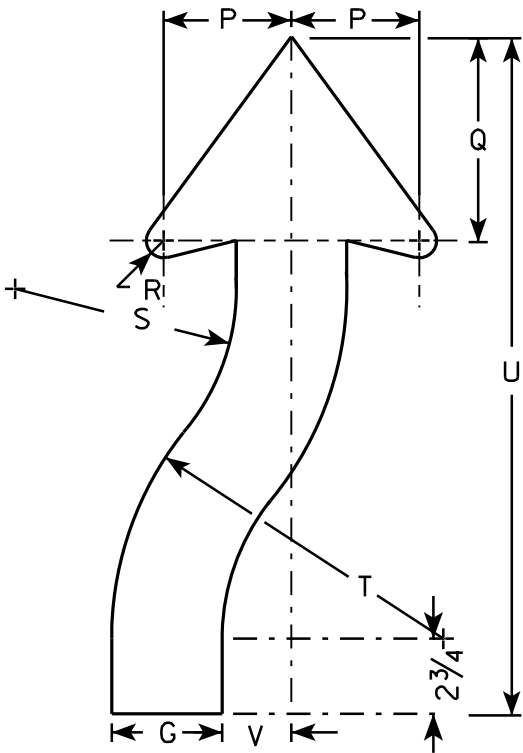
SHEET NO: 103

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. W6-2 same as W6-1 but is rotated 180° when mounted.



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	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

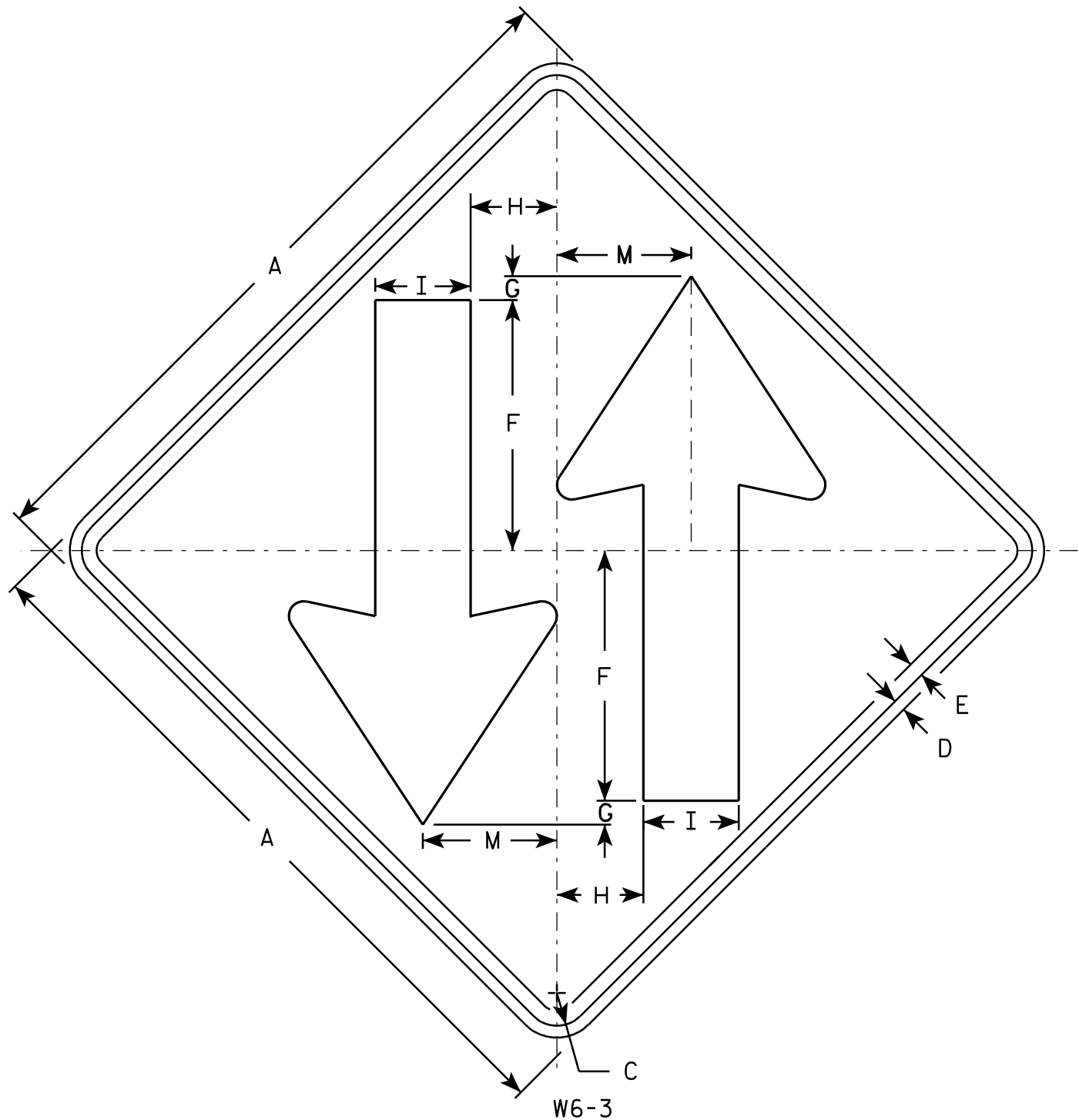
STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

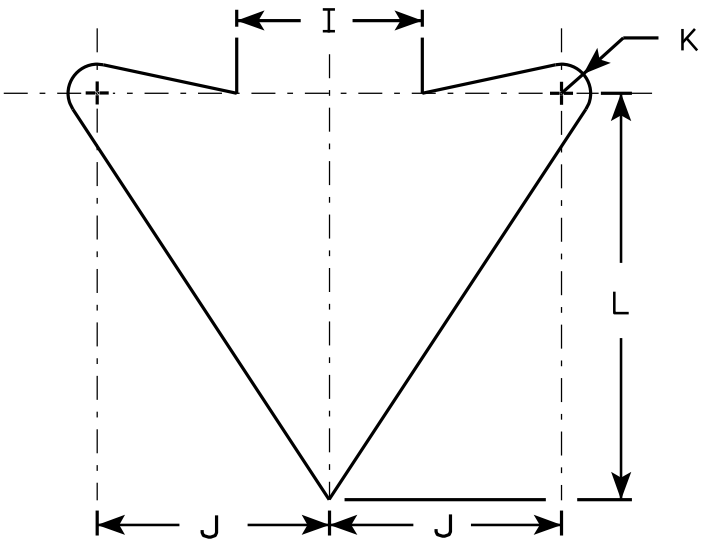
7



W6-3

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.



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	30		1 3/8	1/2	5/8	10 1/2	1	3 5/8	4	5	5/8	8 3/4	5 5/8														6.25
2S	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2M	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
3																											
4	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

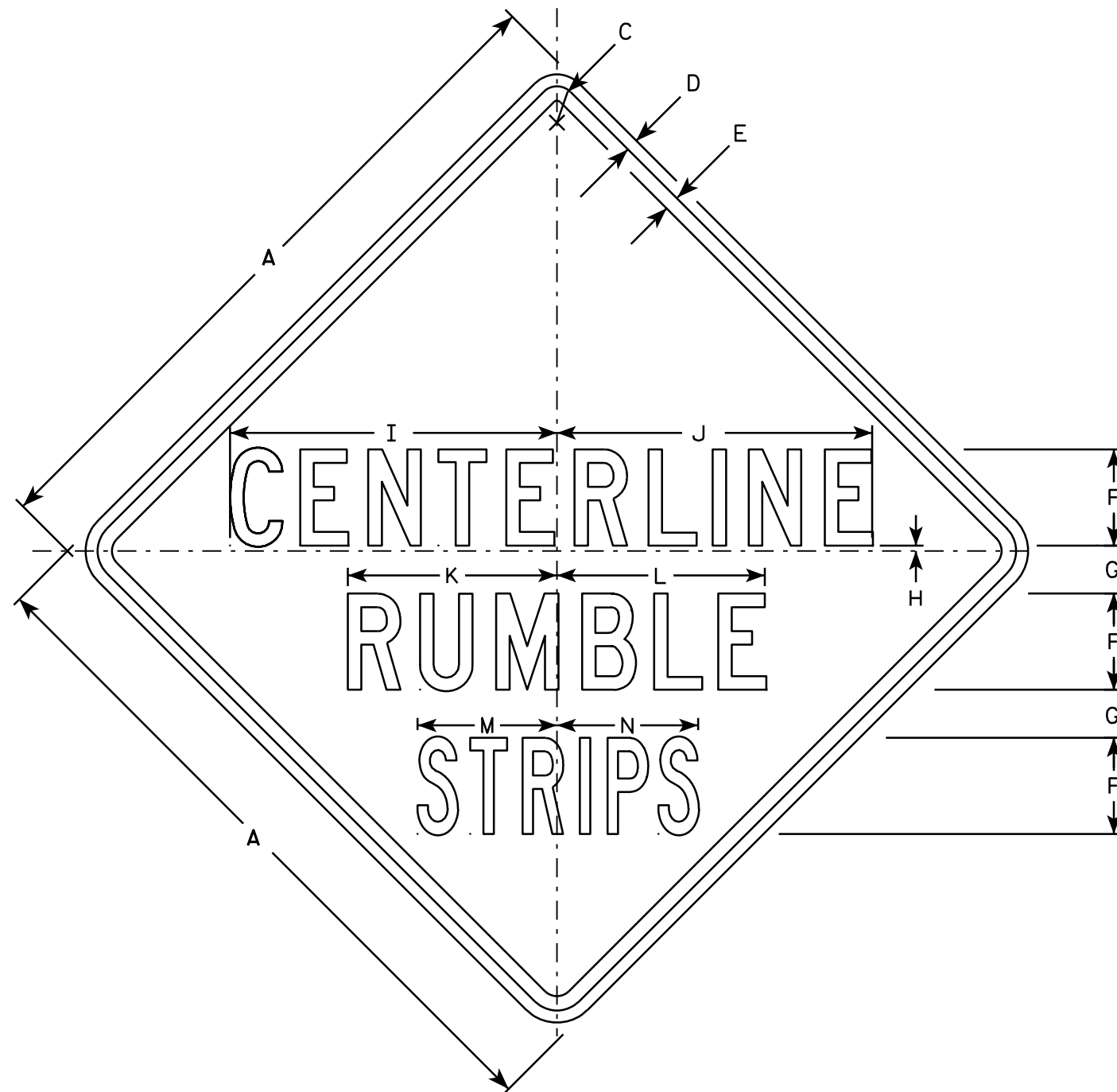
STANDARD SIGN
W6 - 3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-3.10

7



W8-70

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 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 and 2 are Series C.
Line 3 is Series B.

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	5	2 1⁄2	1⁄4	17	16 3⁄8	10 7⁄8	10 3⁄4	7 1⁄4	7 3⁄8													9.0
2M	36		1 5⁄8	5⁄8	3⁄4	5	2 1⁄2	1⁄4	17	16 3⁄8	10 7⁄8	10 3⁄4	7 1⁄4	7 3⁄8													9.0
3	36		1 5⁄8	5⁄8	3⁄4	5	2 1⁄2	1⁄4	17	16 3⁄8	10 7⁄8	10 3⁄4	7 1⁄4	7 3⁄8													9.0
4																											
5																											

STANDARD SIGN

W8-70

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 03/18/13 PLATE NO. W8-70.3

PROJECT NO:

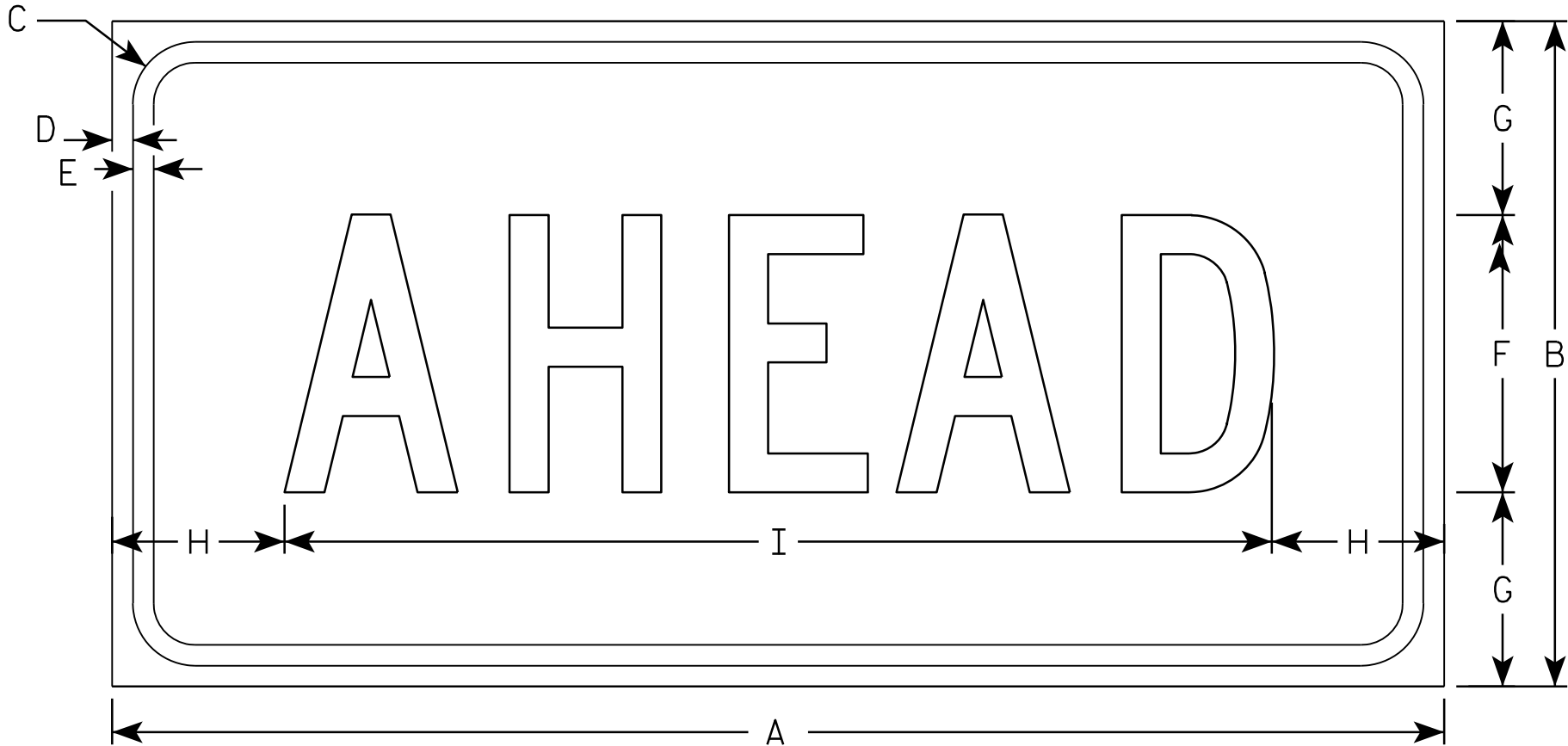
SHEET NO: 106

7

7

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-Green
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.



WF16-9P

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	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN

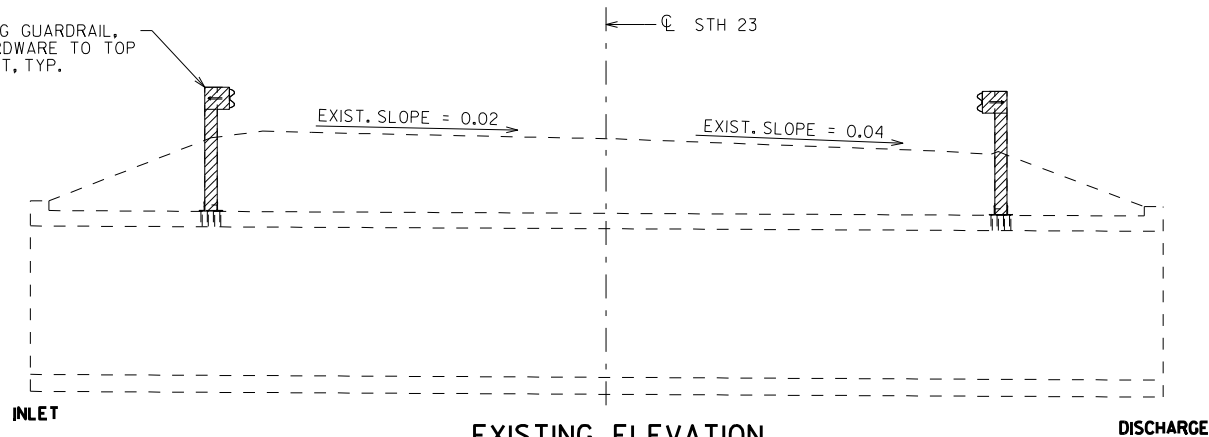
WF16-9P

WISCONSIN DEPT OF TRANSPORTATION

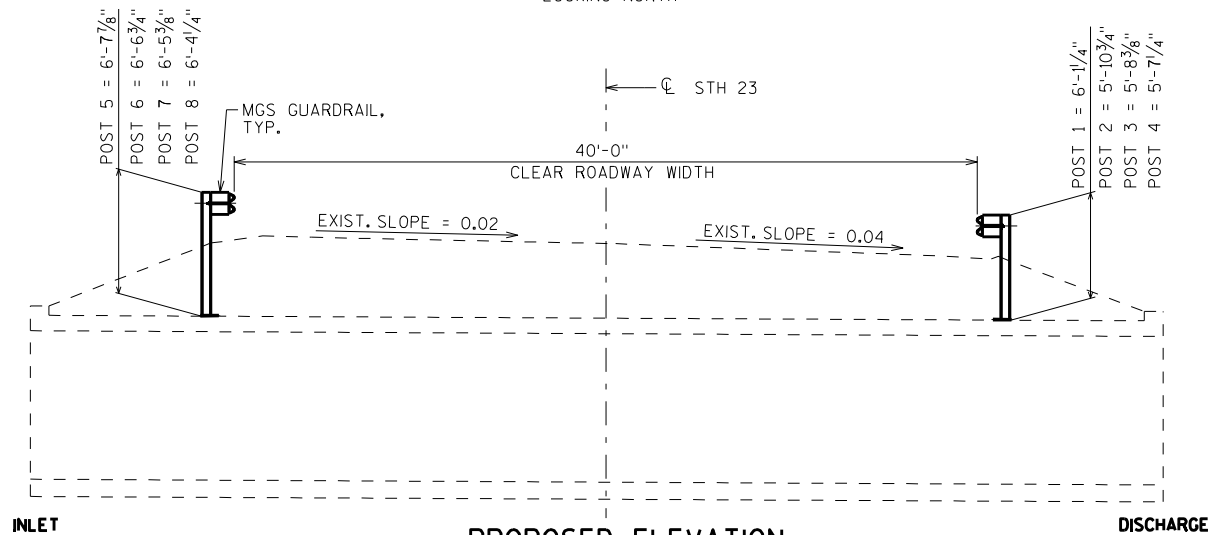
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/29/2012 PLATE NO. WF16-9P.4

REMOVE EXISTING GUARDRAIL,
POSTS AND HARDWARE TO TOP
OF BOX CULVERT, TYP.

**EXISTING ELEVATION**

LOOKING NORTH

**PROPOSED ELEVATION**

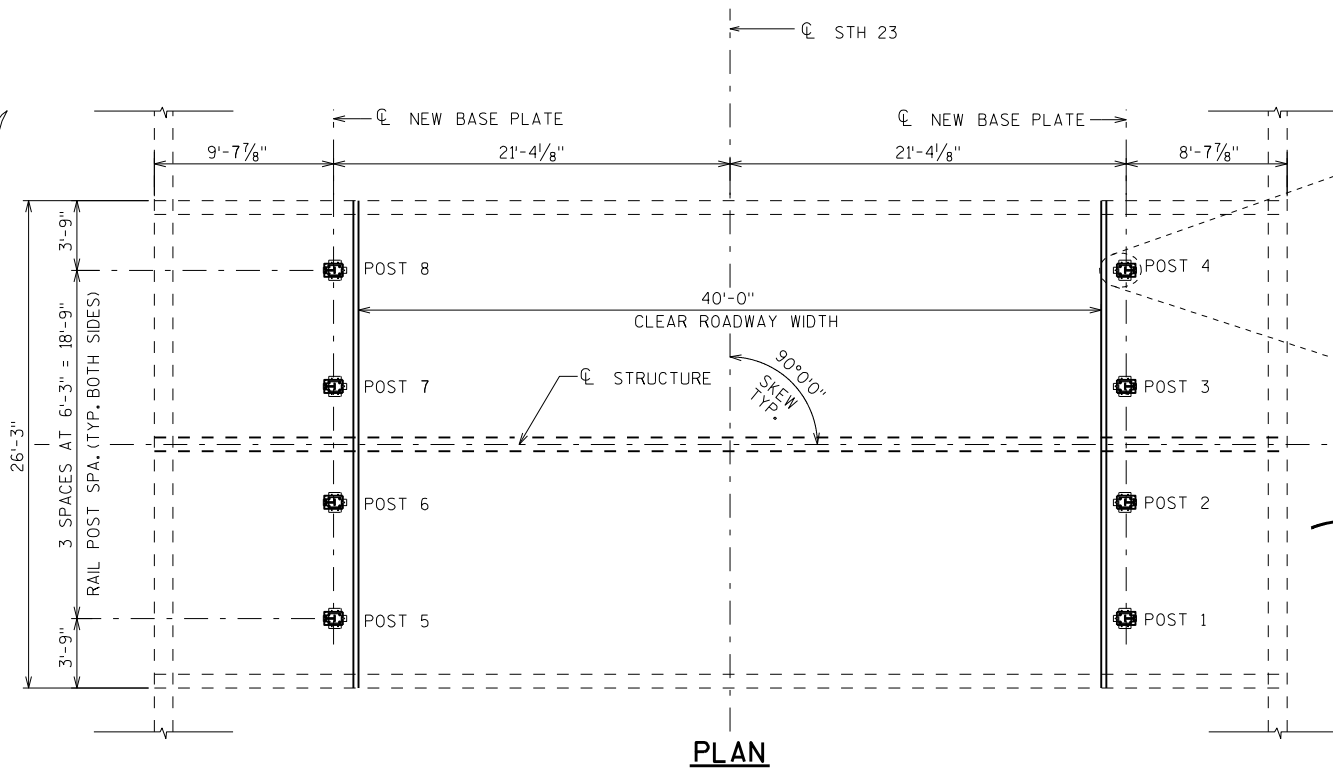
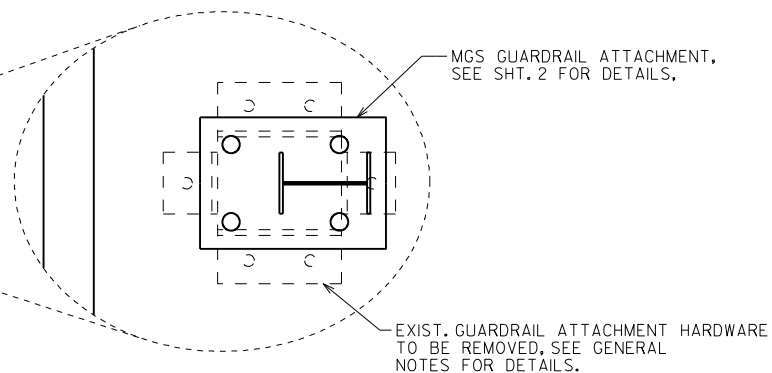
LOOKING NORTH

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL
STRUCTURE PLANS.USE CARE WHEN REMOVING EXISTING GUARDRAIL,
POSTS, AND ATTACHMENT HARDWARE TO AVOID
DAMAGING TOP SLAB OF CULVERT.ATTACH GUARDRAIL TO POSTS AS SHOWN IN THE
ROADWAY PLANS.**TOTAL ESTIMATED QUANTITIES**

SPV.0090 REMOVING AND REPLACING GUARDRAIL POSTS 1 LS

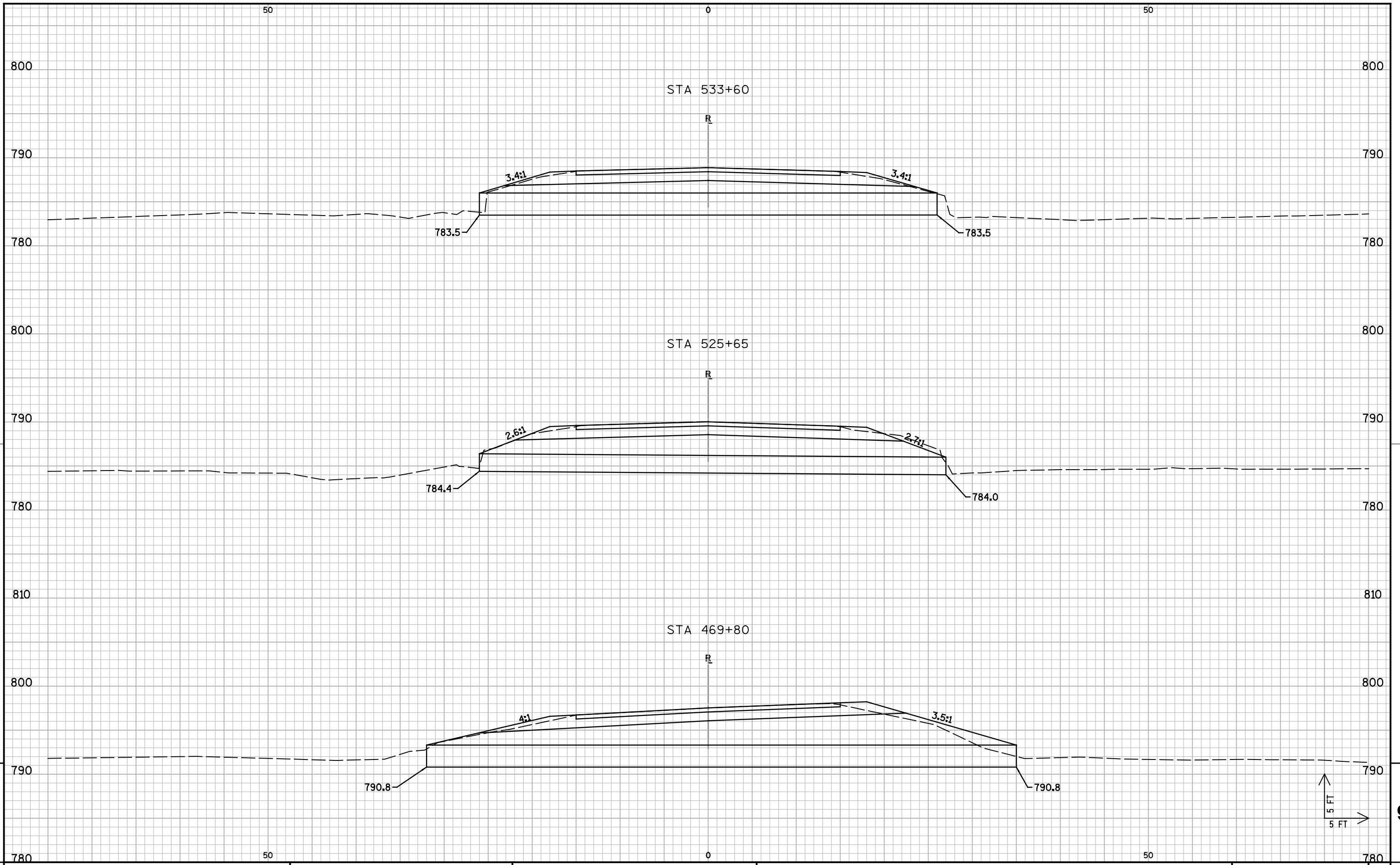
**PLAN**EXIST. GUARDRAIL ATTACHMENT HARDWARE
TO BE REMOVED, SEE GENERAL
NOTES FOR DETAILS.**LIST OF DRAWINGS**

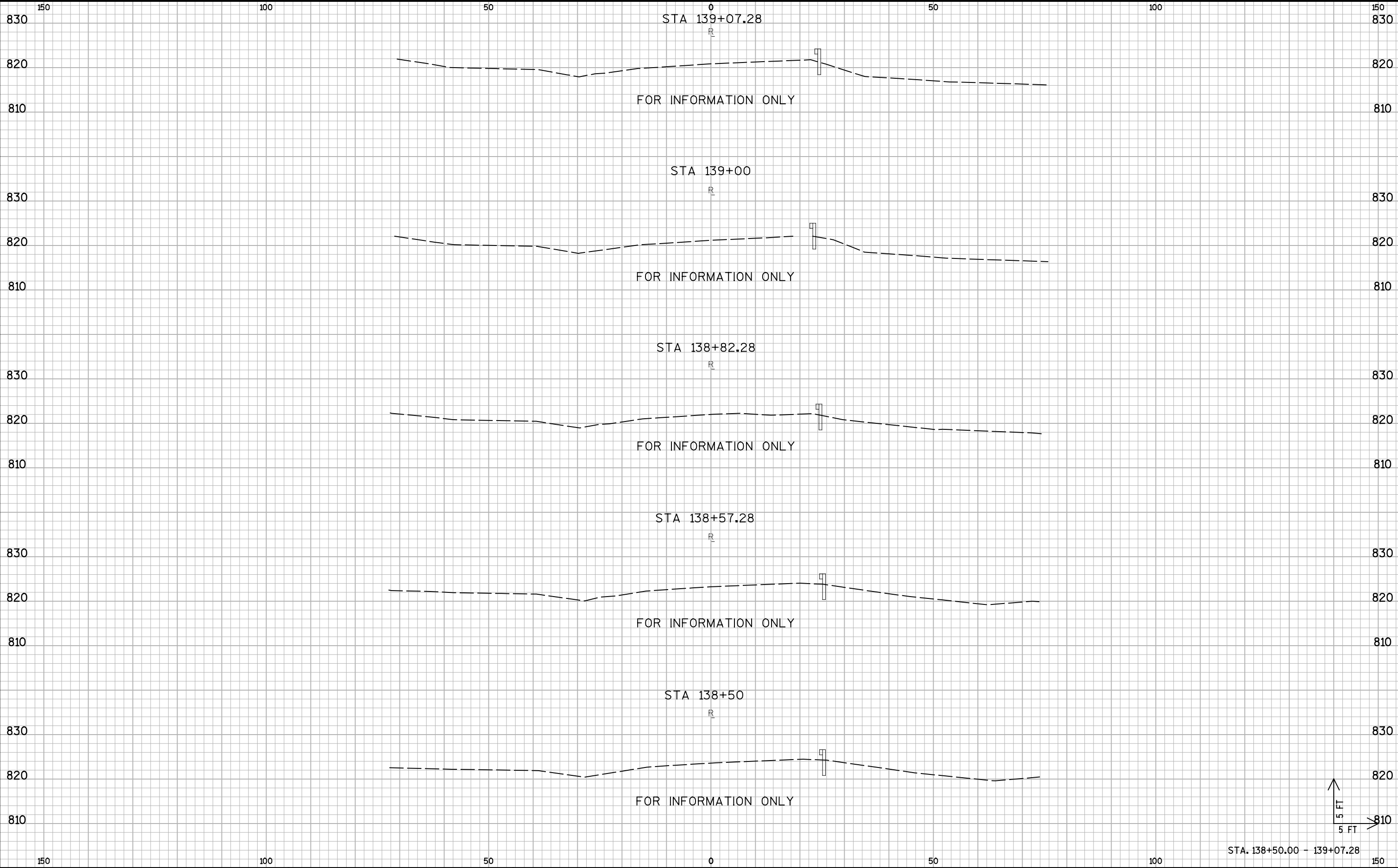
1. GUARDRAIL POST REPLACEMENT
2. GUARDRAIL POST DETAILS

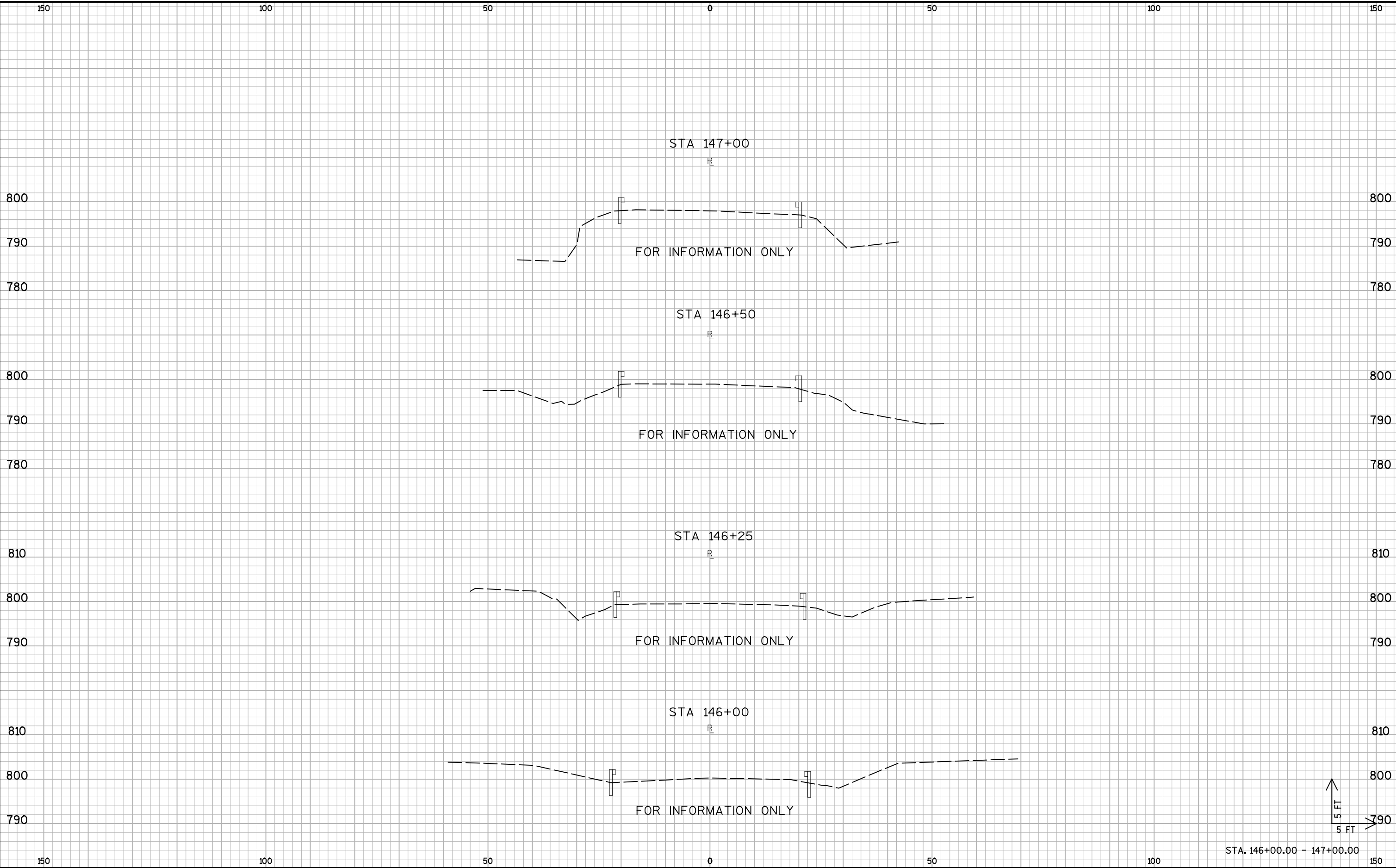
STRUCTURES DESIGN CONTACT:BRANDAN BURGER (608) 262-4019
DAVE KIEBUSCH (608) 266-5084

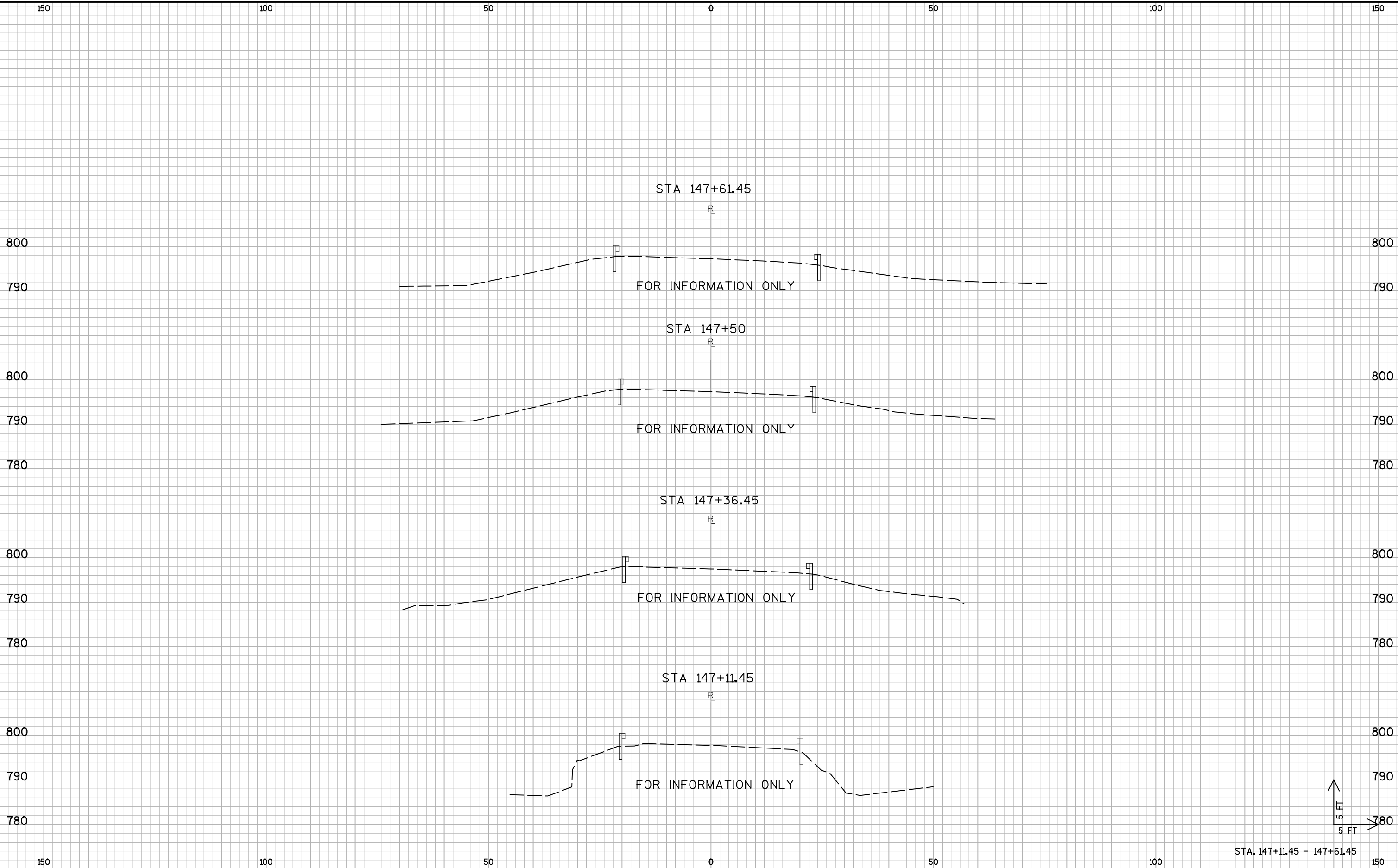
NO.	DATE	REVISION	BY
 Plans Prepared By WISDOT BUREAU OF STRUCTURES			
ACCEPTED	<i>William C. Diehn</i> SM		3/20/13
CHIEF STRUCTURES DESIGN ENGINEER			DATE
STRUCTURE B-39-37			
STH 23 OVER S BR NEENAH CREEK			
COUNTY	MARQUETTE	TOWN/CITY/VILLAGE	DOUGLAS
DESIGN SPEC.	REHABILITATION		N/A
DESIGNED BY	BLB	DESIGN CK'D.	EMK
DRAWN BY	EMK	PLANS CK'D.	BLB
GUARDRAIL POST REPLACEMENT			SHEET 1 OF 2
			108

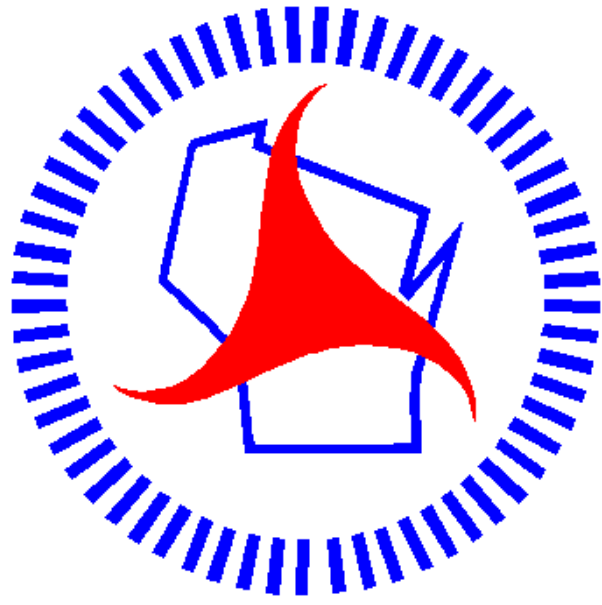
SCALE = 3.0











Wisconsin Department of Transportation

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