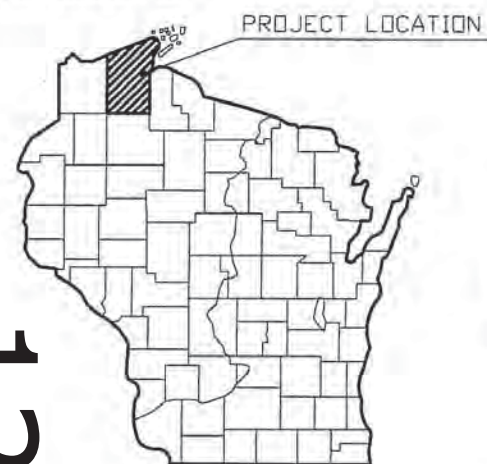


ORDER OF SHEETS

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

TOTAL SHEETS = 108



DESIGN DESIGNATION

	USH 2	USH 63
AADT (2009)	= 5100	2200
AADT (2013)	= 5300	2300
AADT (2033)	= 6500	2900
D (%)	= 63/37	62/38
T (% OF ADT)	= 19.5	12.7
DESIGN SPEED	= 60	60
ESALS	= 2,321,400	664,300

CONVENTIONAL SYMBOLS

PLAN	
REMOVE ASPHALTIC SURFACE	
REMOVE ASPHALTIC SURFACE BUTT JOINTS	
CORPORATE LIMITS	
REFERENCE LINE	
COMBUSTIBLE FLUIDS	
UTILITIES	
ELECTRIC	— E —
FIBER OPTIC	— FO —
GAS	— G —
SANITARY SEWER	— SAN —
STORM SEWER	— SS —
TELEPHONE	— T —
WATER	— W —
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

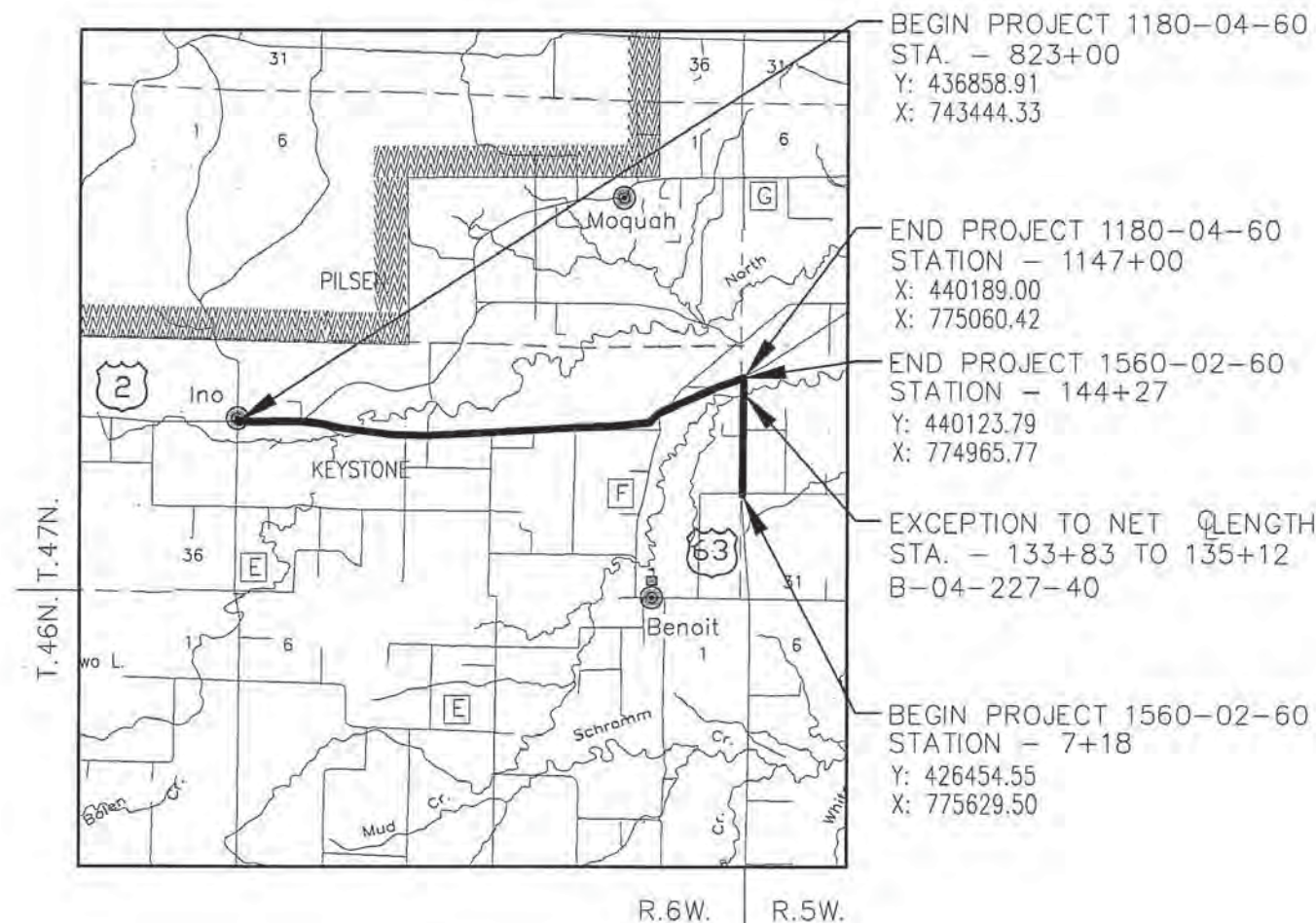
STATE HIGHWAY REHABILITATION – MAINTENANCE PROJECT

INO – ASHLAND
(CTH E – USH 63)
USH 2
BAYFIELD COUNTY

STATE PROJECT NUMBER
1180-04-60

DRUMMOND – USH 2
(STH 118 – USH 2)
USH 63
BAYFIELD COUNTY

STATE PROJECT NUMBER
1560-02-60



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = USH 2 – 6.136 MI
USH 63 – 2.572 MI

COORDINATES ON THIS PLAN ARE REFERENCED TO THE
WISCONSIN COUNTY COORDINATE SYSTEM (WCCS),
BAYFIELD COUNTY.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1180-04-60	—	—
1560-02-60	—	—

ORIGINAL PLANS PREPARED BY:

KRECH OJARD Engineers & Architects
& ASSOCIATES, P.A.

DATE

MAIN OFFICE	REGIONAL OFFICE
227 WEST FIRST STREET, SUITE 200 DULUTH, MINNESOTA 55802 Ph: 218.727.3282 Fax: 218.727.1216	916 HAMMOND AVENUE SUPERIOR, WI 54880 Ph: 715.392.4474 Fax: 715.392.3338



10/23/12
DATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	MIKAGE, LLC
Surveyor	KRECH OJARD & ASSOCIATES, PA
Designer	PHILIP KEPPERS
Project Manager	DANIEL OJBWAY
Regional Examiner	DAVID OSTROWSKI
Regional Supervisor	
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 10/23/12

(Signature)

E

STANDARD ABBREVIATIONS	
ABUT	ABUTMENT
AC	ACRE
AGG	AGGREGATE
AECPRC	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
ASPH	ASPHALTIC
AVG	AVERAGE
ADT	AVERAGE DAILY TRAFFIC
BF	BACK FACE
BM	BENCH MARK
BR	BRIDGE
CE	COMMERCIAL ENTRANCE
CL OR C/L	CENTER LINE
CONC	CONCRETE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CR	CREEK
CY	CUBIC YARD
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DISCH	DISCHARGE
DG	DITCH GRADE
DWY	DRIVEWAY
X	EAST GRID COORDINATE
EAT	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
EDR	END POINT OF RADIUS
EL	ELEVATION
ENT	ENTRANCE
ESALS	ENTRANCE EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FC	FACE OF CURB
FF	FACE TO FACE
FERT	FERTILIZE
FE	FIELD ENTRANCE
FL	FLOW LINE
FO	FIBER OPTIC
CWT	HUNDREDWEIGHT
HYD	HYDRANT
ID	INSIDE DIAMETER
INV	INVERT
IP	IRON PIPE ON PIN
LHF	LEFT-HAND FORWARD
L	LENGTH OF CURVE
LF	LINEAR FOOT
LC	LONG CHORD OF CURVE
LS	LUMP SUM
MH	MANHOLE
MDR	MID POINT OF RADIUS
NC	NORMAL CROWN
NO	NUMBER
OBLIT	OBLITERATE
PAVT	PAVEMENT
PE	PRIVATE ENTRANCE
PVRC	POINT OF VERTICAL REVERSE CURVE
QOR	QUARTER POINT OF RADIUS
R	RADIUS
REQ'D	REQUIRED
RES	RESIDENCE OR RESIDENTIAL
RHF	RIGHT-HAND FORWARD
R/W	RIGHT-OF-WAY
R	RIVER
RDWY	ROADWAY
R/L	REFERENCE LINE
SALV	SALVAGED
SAN	SANITARY SEWER
SF	SQUARE FEET
SY	SQUARE YARD
SDD	STANDARD DETAIL DRAWINGS
STA	STATION
SS	STORM SEWER
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SE	SUPERELEVATION RATE
TC	TOP OF CURB
T OR TN	TOWN
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
VAR	VARIABLE
VC	VERTICAL CURVE
Y	NORTH GRID COORDINATE
YD	YARD

GENERAL NOTES

WHEN THE QUANTITY OF BASE AGGREGATE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE PRIOR TO THE START OF WORK.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

CURVE DATA IS BASED ON THE ARC DEFINITION.

THE LOCATION OF ALL DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.

ALL RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

NO EQUIPMENT OR MATERIAL SHALL BE STORED IN WETLAND AREAS.

PRIOR TO THE PLACEMENT OF STEEL PLATE BEAM GUARD, THE SHOULDERS SHALL BE IN PLACE, SHAPED, AND COMPACTED UNLESS SHOWN OTHERWISE.

HMA PAVEMENT TYPE E-3 SPECIAL WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.

HMA PAVEMENT TYPE E-10 SPECIAL WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.

STATIONING, DISTANCES AND OFFSETS FOR PROPOSED SIGNS SHOWN ON THE PLANS ARE APPROXIMATE AND THE LOCATIONS OF SIGNS ARE TO BE COORDINATED IN THE FIELD WITH THE ENGINEER.

UNDISTRIBUTED QUANTITIES SHALL BE ADMINISTERED BY THE ENGINEER.

THE EXACT LOCATIONS OF THE SIGNS ARE TO BE COORDINATED IN THE FIELD WITH THE ENGINEER

ACTUAL BEGIN AND END STATIONS FOR PAVEMENT MARKINGS TO BE DETERMINED IN THE FIELD AFTER SPOTTING.

PAVEMENT THICKNESS (IN)	LOWER (IN)	UPPER (IN)
2	—	2
4	2.25	1.75

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
TYPICAL SECTIONS
CONSTRUCTION DETAILS

UTILITY CONTACTS

BAYFIELD ELECTRIC COOPERATIVE INC.
P.O. BOX 68
IRON RIVER, WI 54847
TELEPHONE: 715-372-4287
ATTENTION: GARY TARASEWICZ

CHEQUAMEGON COMMUNICATIONS
COOPERATIVE INC.
43750 USH 63
P.O. BOX 67
CABLE, WI 54821
TELEPHONE: 715-798-3303
ATTENTION: STEVEN FORSMAN

COUNTY

BAYFIELD CO. HWY COMMISSIONER
THOMAS R. TOEPFER
311 S. 1ST AVE. E.
WASHBURN, WI 54891
TELEPHONE: 715-373-6115

NW REGION CONTACT

PHILIP KEPPERS
1701 N. 4TH ST.
SUPERIOR, WI 54880
TELEPHONE: 715-395-3027

WisDNR CONTACT

WDNR – NORTHWEST
DISTRICT HEADQUARTERS
810 WEST MAPLE STREET
SPOONER, WI 54801
TELEPHONE: 715-635-4228
ATTENTION: SHAWN HASELEU
E-MAIL:
SHAWN.HASELEU@WISCONSIN.GOV

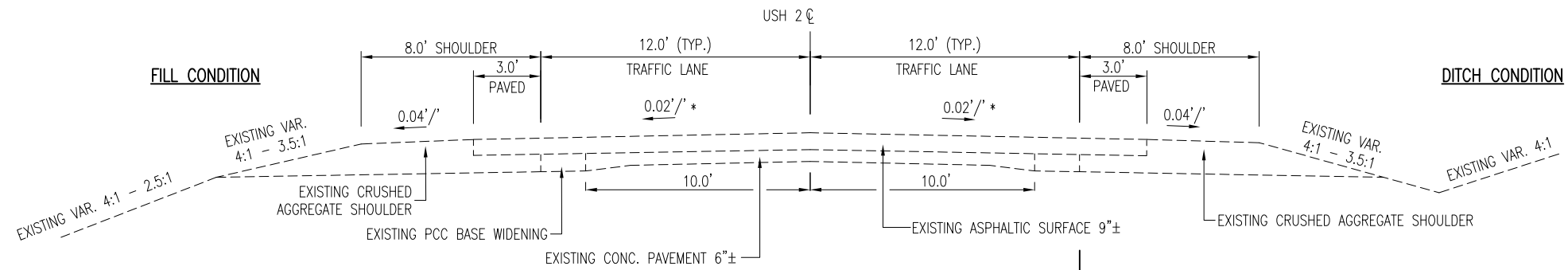
DESIGN CONTACT

SCOTT STEMPHIAR
KRECH OJARD & ASSOCIATES
227 WEST 1ST STREET, SUITE 200
DULUTH, MN 55802
TELEPHONE: 218-727-3282
E-MAIL: SCOTT.STEMPIHAR@KRECHOJARD.COM



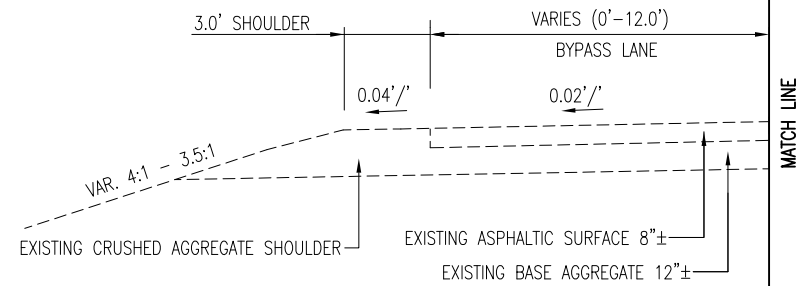
Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

** NOT MEMBERS OF DIGGERS HOTLINE

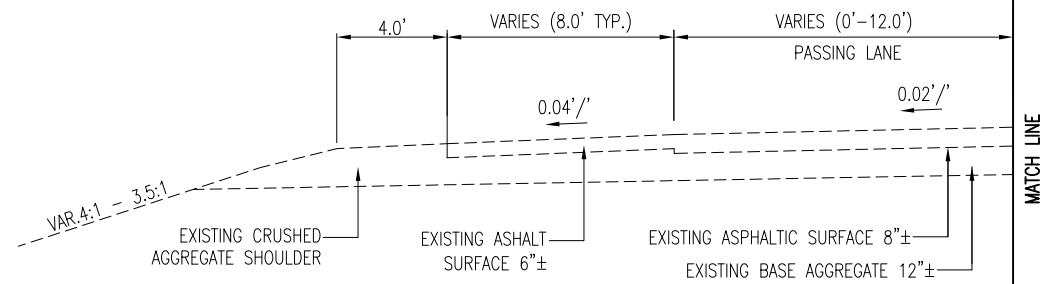


TYPICAL EXISTING SECTION USH 2
STA - 823+00 TO STA - 1147+00

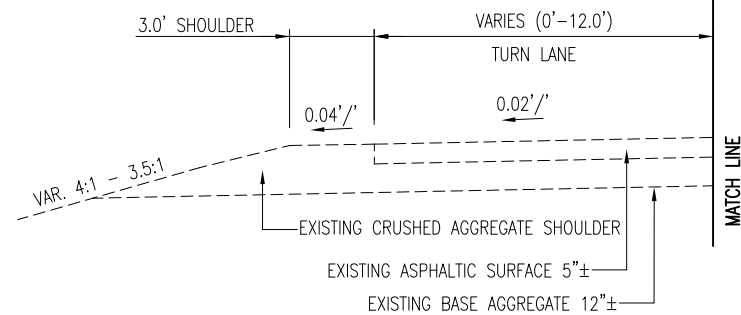
* SEE CURVE DATA ON PLAN SHEETS FOR SUPER ELEVATION RATES.



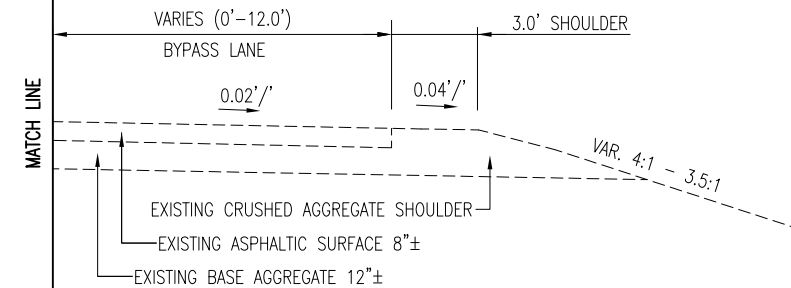
TYPICAL EXISTING SECTION FOR USH 2 BYPASS LANE (WESTBOUND)
STA - 1142+42 TO STA - 1147+00 (USH 63)



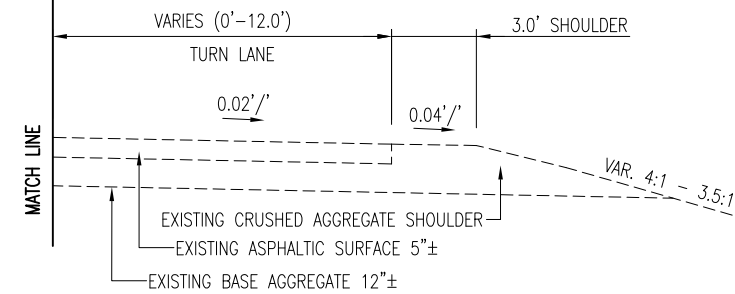
TYPICAL EXISTING SECTION FOR USH 2 PASSING LANE
STA - 1012+47 TO STA - 1071+78



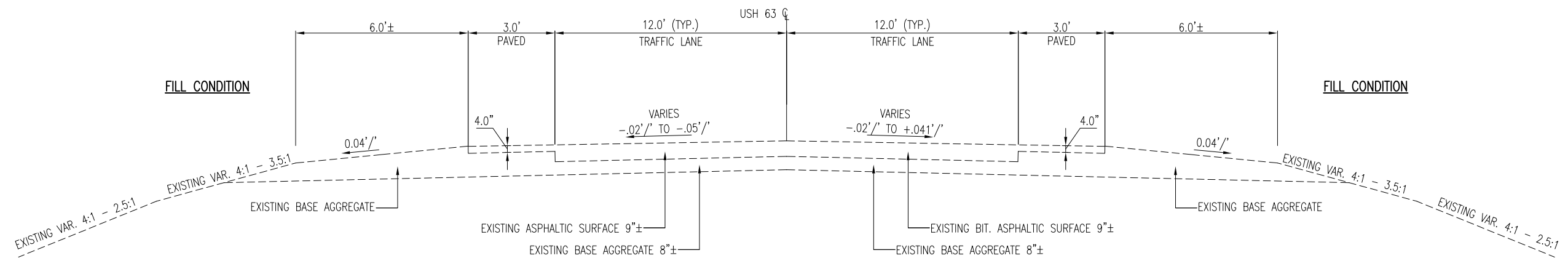
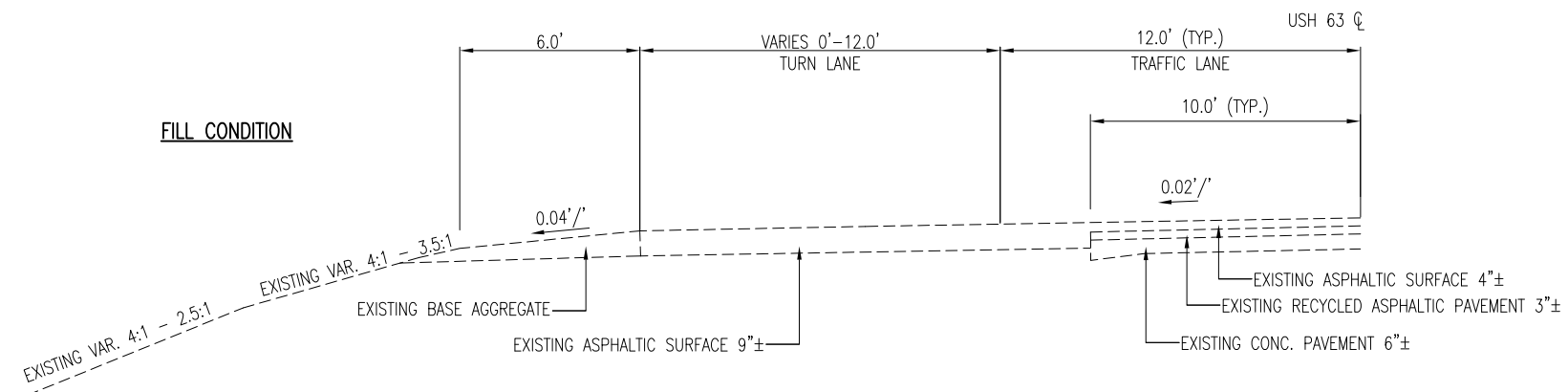
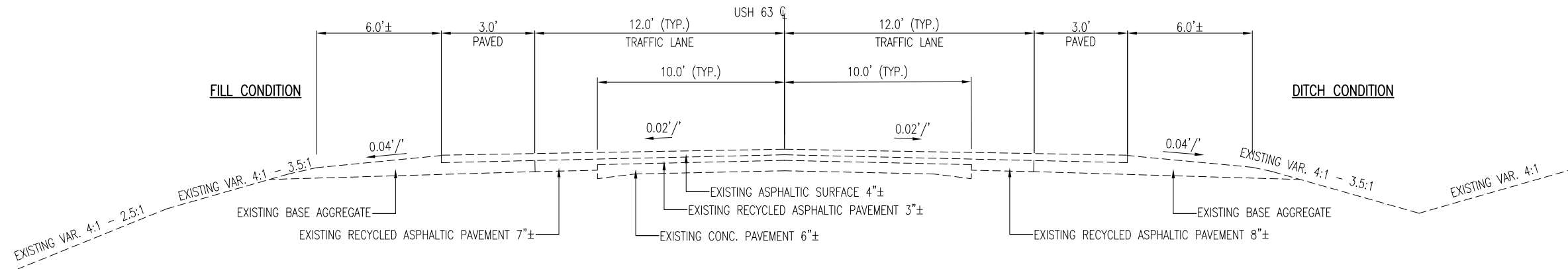
TYPICAL EXISTING SECTION FOR USH 2 RIGHT TURN LANE (WESTBOUND)
STA - 1089+40 TO STA - 1092+80 (JANECEK RD.)

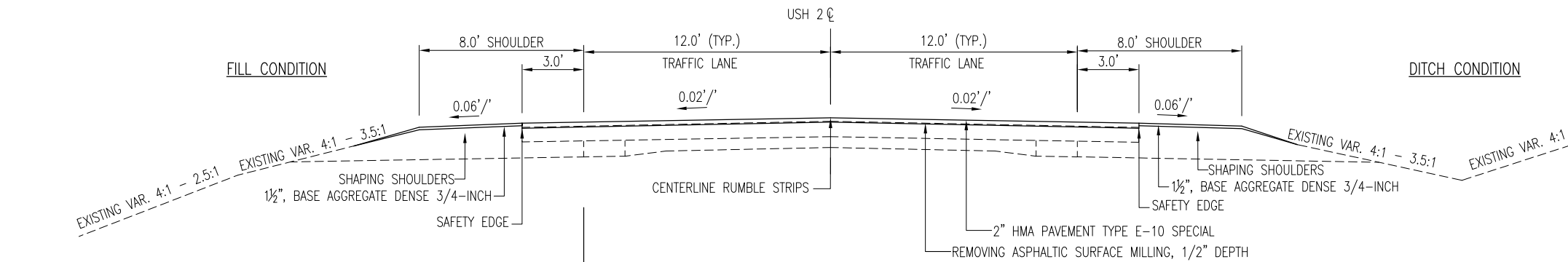


TYPICAL EXISTING SECTION FOR USH 2 BYPASS LANE (EASTBOUND)
STA - 859+91 TO STA - 868+78 (CTH G)

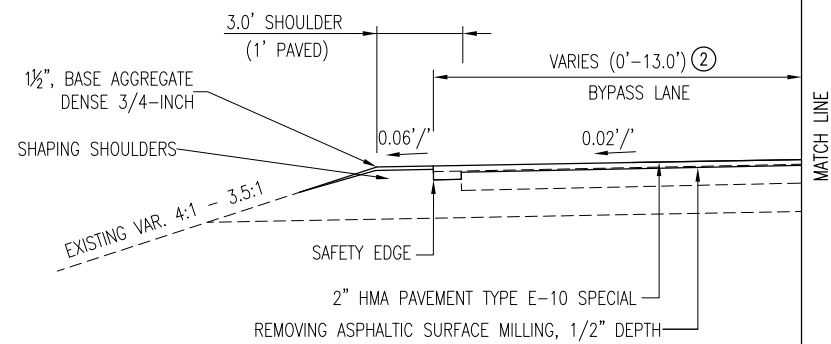


TYPICAL EXISTING SECTION FOR USH 2 RIGHT TURN LANE (EASTBOUND)
STA - 1005+00 TO STA - 1009+28 (KINNEY RD.)
STA - 1031+44 TO STA - 1034+64 (DENNIS RD.)
STA - 1084+30 TO STA - 1087+50 (CTH F)
STA - 1140+36 TO STA - 1145+20 (USH 63)

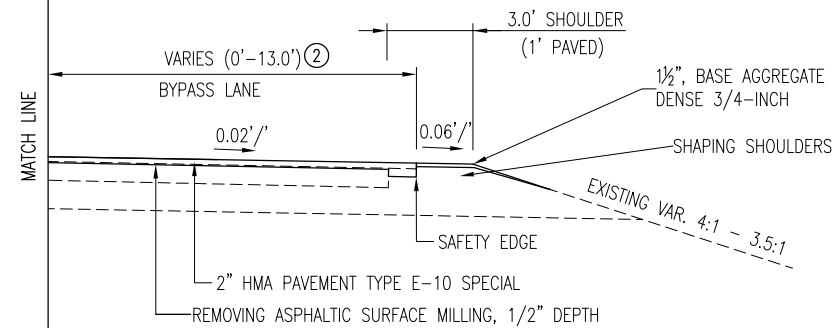




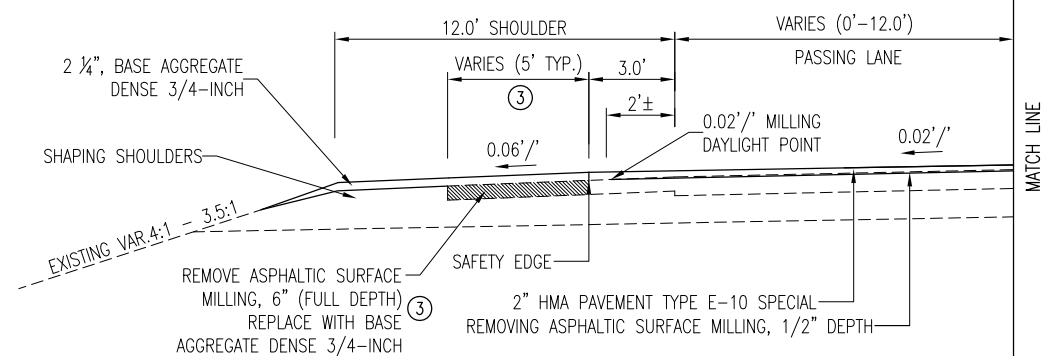
TYPICAL FINISHED SECTION USH 2
STA - 823+00 TO STA - 1147+00 ①



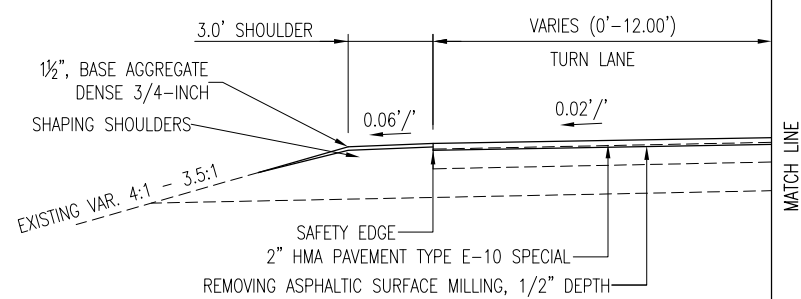
TYPICAL FINISHED SECTION FOR USH 2 BYPASS LANE (WESTBOUND)
STA - 1142+42 TO STA - 1147+00 (USH 63)



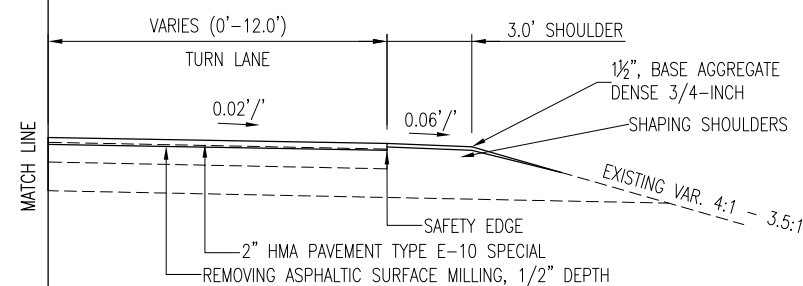
TYPICAL FINISHED SECTION FOR USH 2 BYPASS LANE (EASTBOUND)
STA - 859+91 TO STA - 868+78 (CTH G)



TYPICAL FINISHED SECTION FOR USH 2 PASSING LANE (WESTBOUND)
STA - 1012+47 TO STA - 1071+78



FINISHED SECTION FOR USH 2 RIGHT TURN LANE (WESTBOUND)
STA - 1089+40 TO STA - 1092+80 (JANECEK RD)



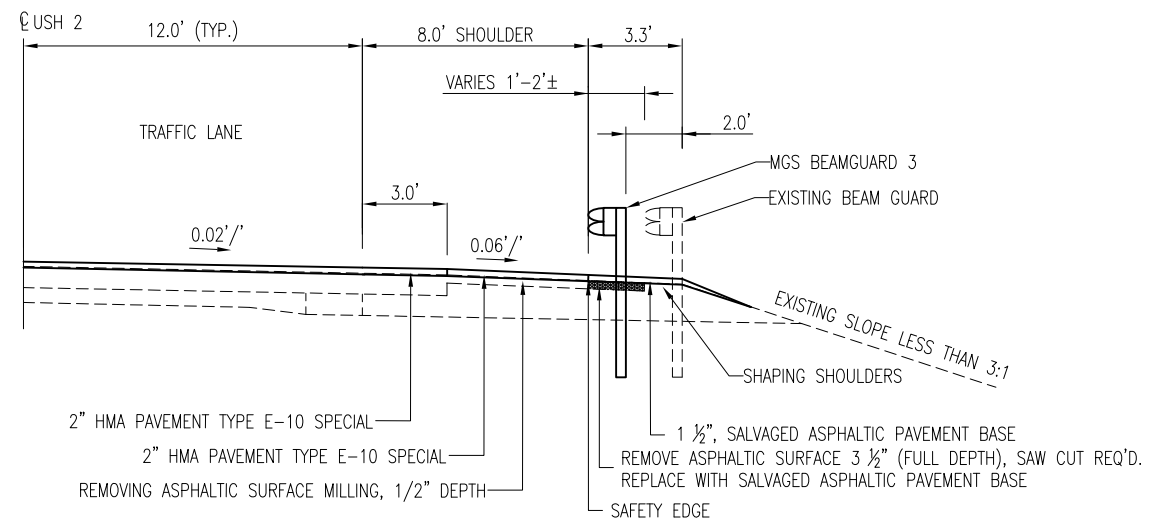
TYPICAL FINISHED SECTION FOR USH 2 RIGHT TURN LANE (EASTBOUND)
STA - 1005+00 TO STA - 1009+28 (KINNEY RD.) STA - 1031+44 TO STA - 1034+64 (DENNIS RD.)
STA - 1084+30 TO STA - 1087+50 (CTH. F) STA - 1140+36 - 1145+20 (USH 63)

NOTES

- ① SEE BELOW FOR LOCATIONS WHICH DIFFER FROM TYPICAL SECTION.
- ② IN AREAS OF THE BYPASS LANE WHERE THE EXISTING PAVEMENT AT FULL WIDTH IS NOT 13 FEET, BLADE AWAY SHOULDER GRAVEL 3 INCHES DEEP FROM MILLED SURFACE AND PAVE 5 INCHES THICK IN ONE LIFT FOR THE ADDITIONAL WIDTH NECESSARY TO ACHIEVE 13 FEET AS SHOWN ON SDD 9A 1-13A.
- ③ EXISTING ASPHALT SHOULDER TO BE REMOVED VARIES 0'-11'± IN TAPER AREAS. REMOVAL TO INCLUDE SHOULDER AREAS PRIOR TO PASSING LANE FROM STA. 1006+54 TO 1012+47 SEE PLAN AND PROFILE.

NOTES

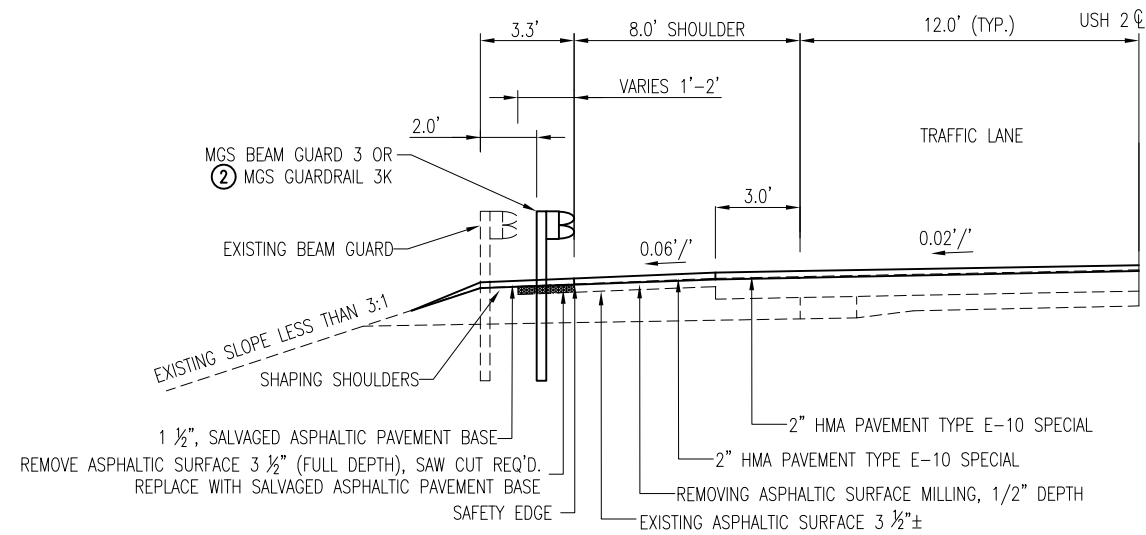
- ① SEE ASPHALTIC PAVING ALONG BEAM GUARD DETAIL AND PLAN SHEETS FOR TAPER DETAIL AND MORE INFORMATION.



TYPICAL FINISHED SECTION FOR USH 2 RIGHT BEAM GUARD ①

STA - 898+67.98 TO STA - 901+92.98

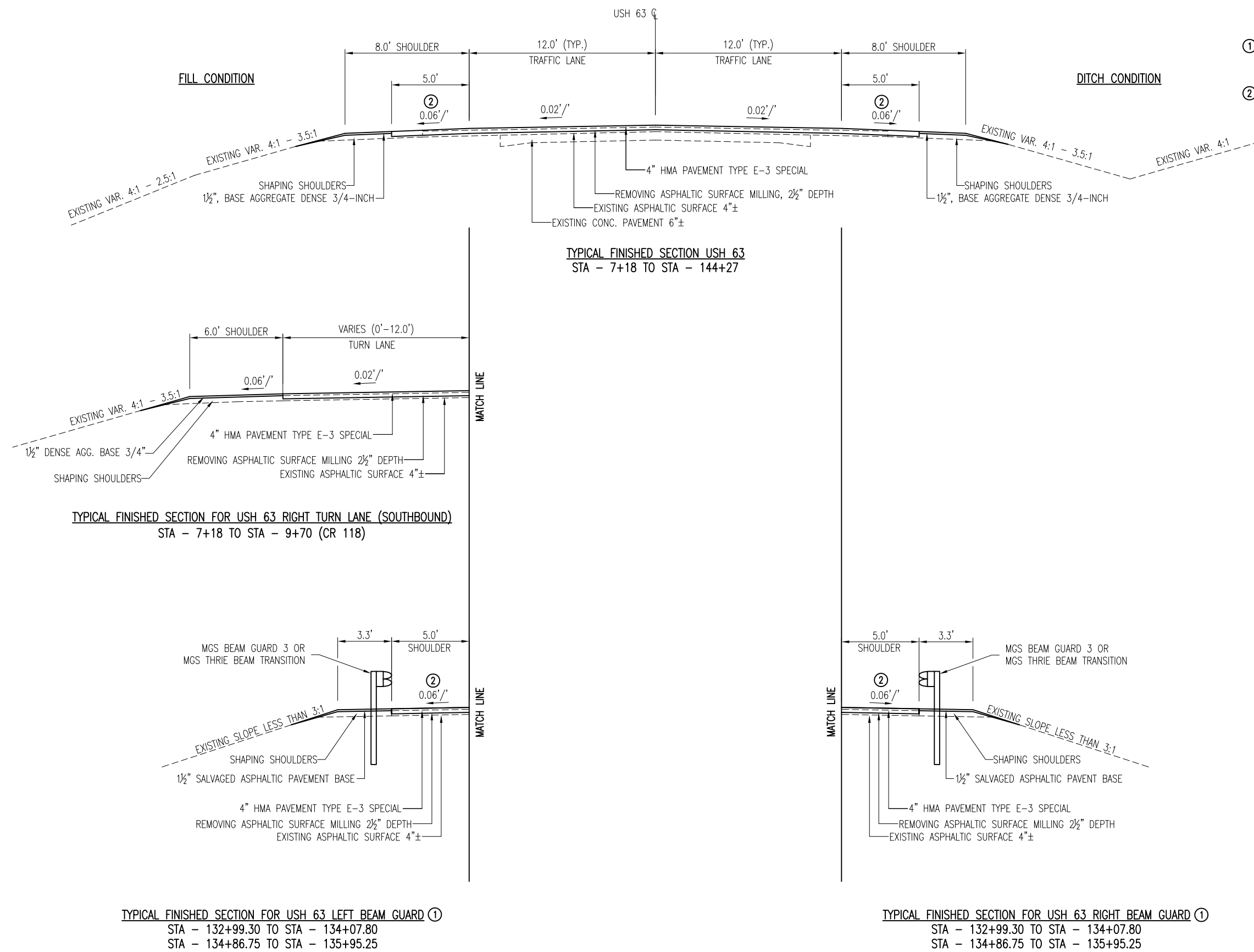
STA - 965+21.94 TO STA - 968+71.94

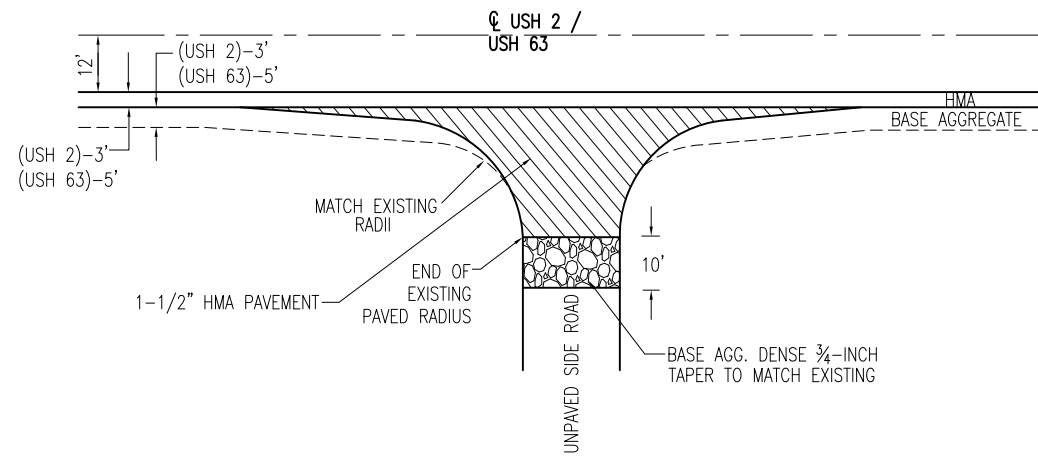


FINISHED SECTION FOR USH 2 LEFT BEAM GUARD ①

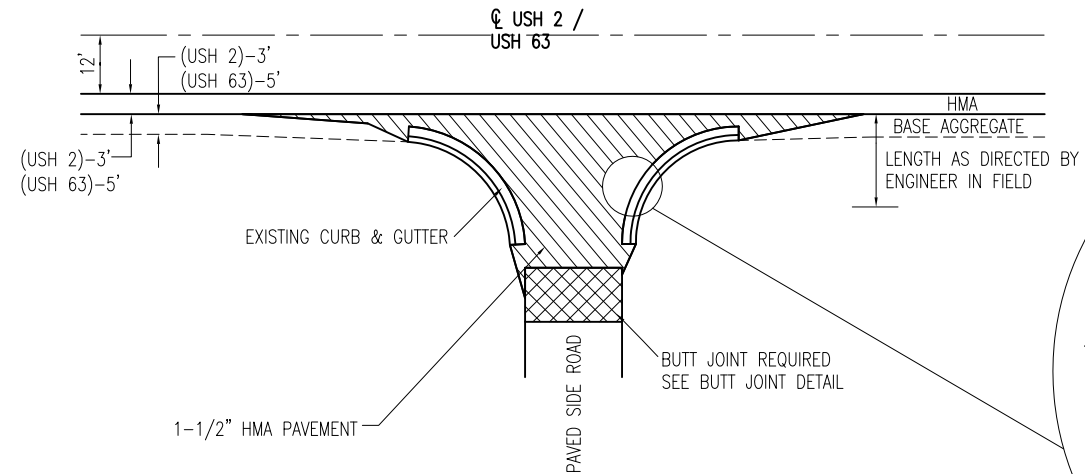
STA - 899+75.82 TO STA - 905+13.32

② STA - 934+54.37 TO STA - 938+29.37

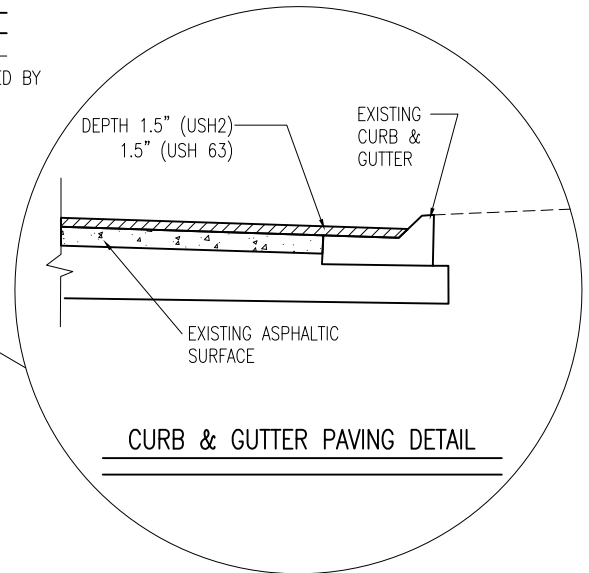




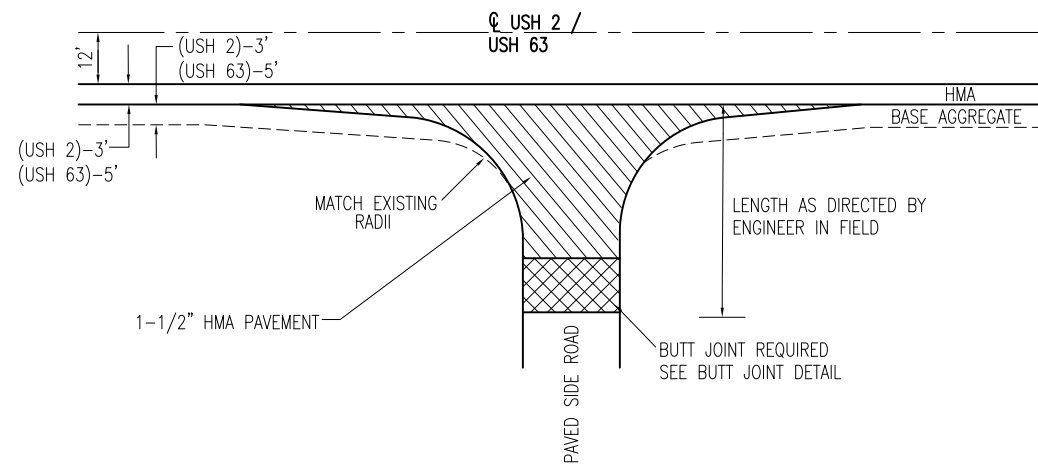
PAVING DETAIL
SIDEROADS WITH EXISTING PAVED APRON



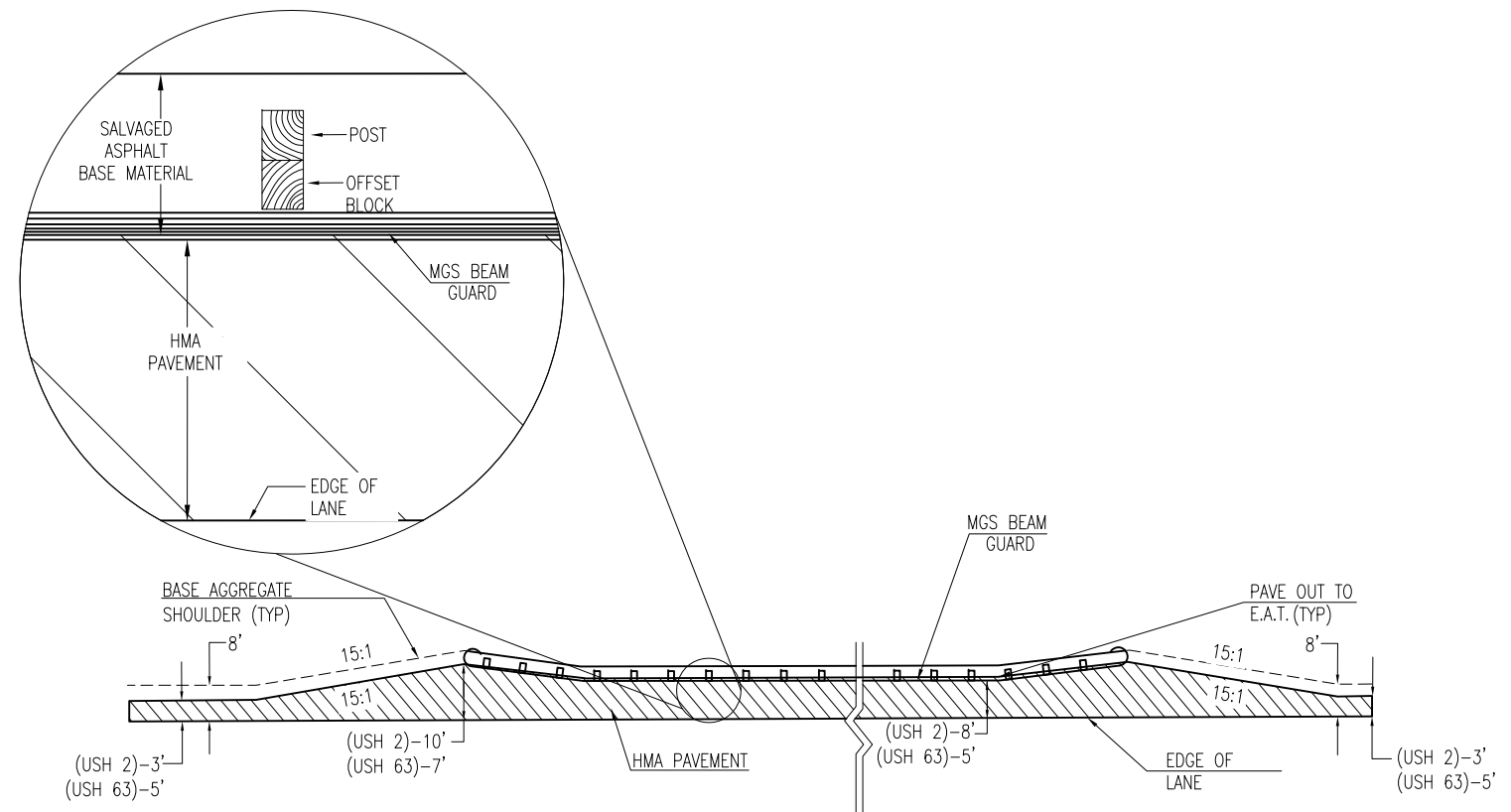
PAVING DETAIL
SIDEROADS WITH EXISTING CURB & GUTTER



CURB & GUTTER PAVING DETAIL

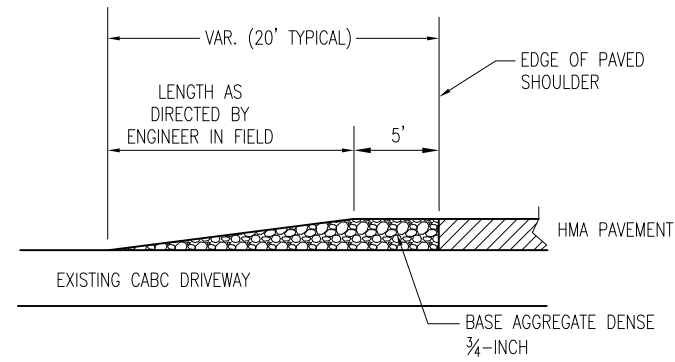


PAVING DETAIL
SIDEROADS WITH PAVED SURFACE WITHOUT CURB & GUTTER

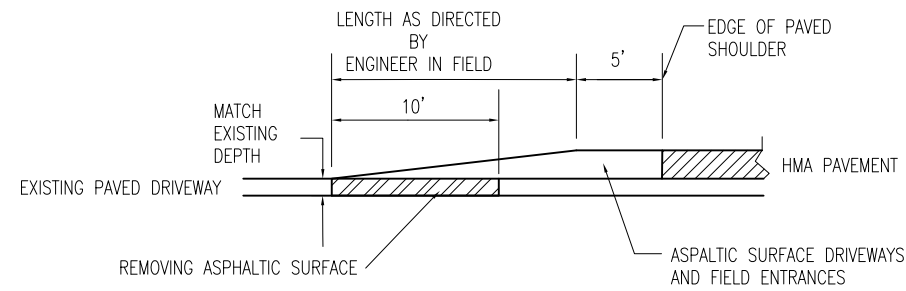


ASPHALTIC PAVING ALONG BEAMGUARD

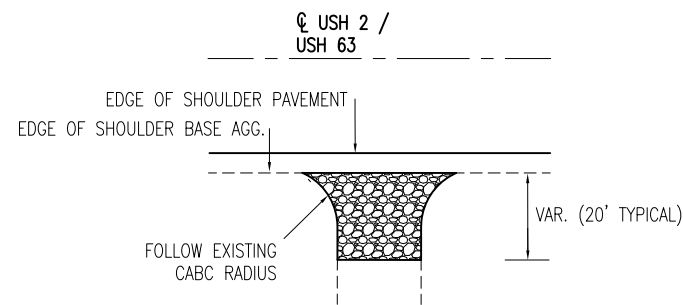
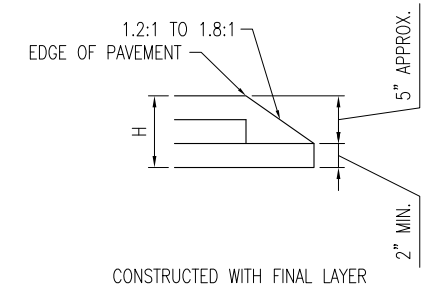
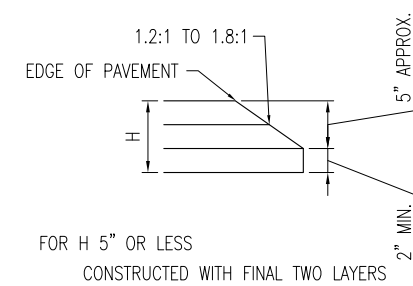
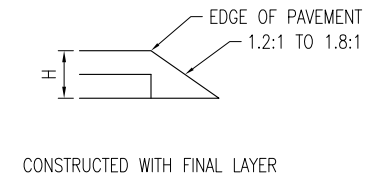
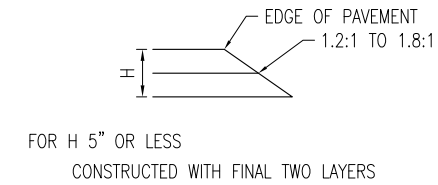
SEE PLAN SHEETS FOR LOCATIONS.



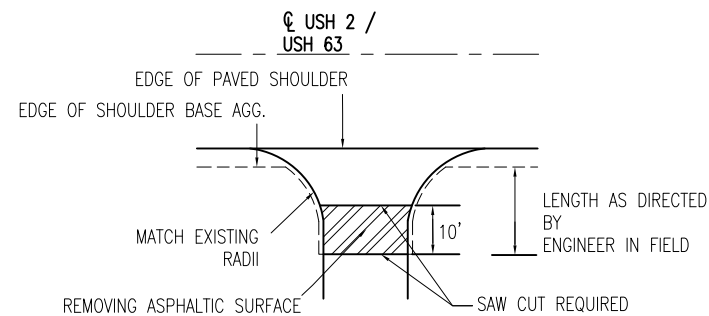
BASE AGGREGATE PRIVATE ENTRANCE DETAIL
PROFILE VIEW



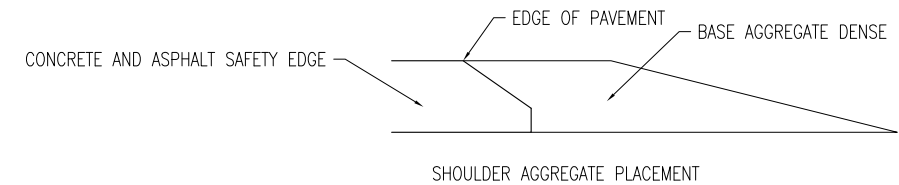
PAVED PRIVATE ENTRANCE DETAIL
PROFILE VIEW



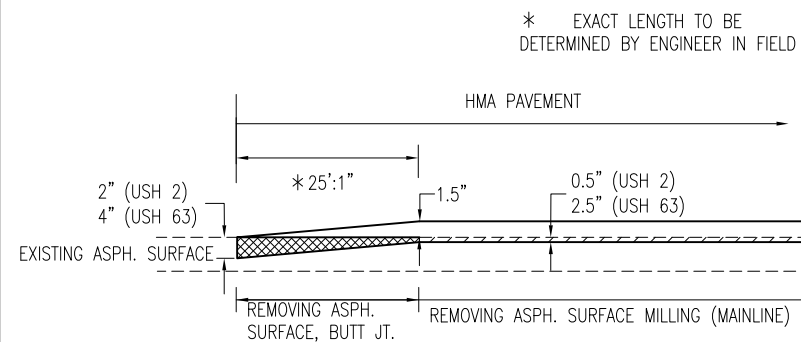
BASE AGGREGATE PRIVATE ENTRANCE DETAIL
PLAN VIEW



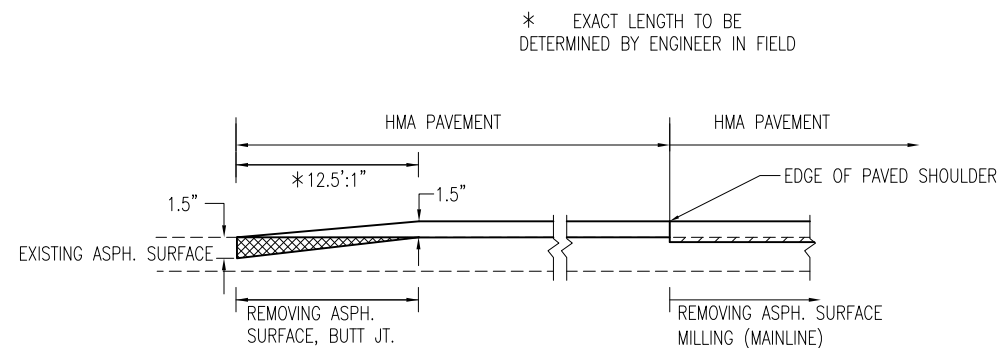
PAVED PRIVATE ENTRANCE DETAIL
PLAN VIEW



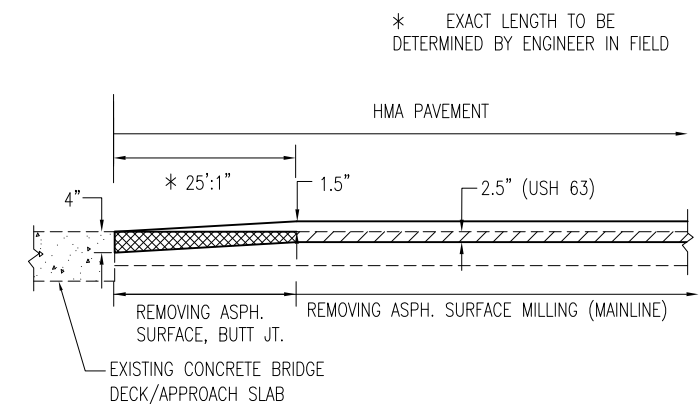
HMA PAVEMENT AND HMA OVERLAYS



MAINLINE BUTT JOINT



SIDEROAD BUTT JOINT

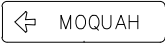


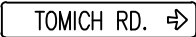



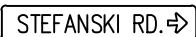
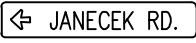



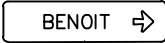


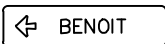


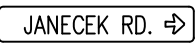




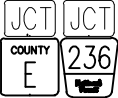

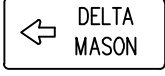






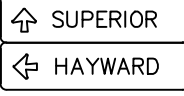



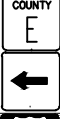
















BUTT JOINT BRIDGE APPROACH

3

3

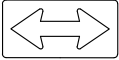


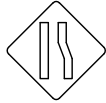

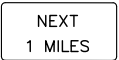
BILL OF MATERIALS

ESTIMATE OF QUANTITIES FOR PERMANENT SIGNING USH 2 PROJ. # 1180-04-60															
SIGN	SIGN CODE	SIZE	NO. REQ'D.	SIGN	SIGN CODE	SIZE	NO. REQ'D.	SIGN	SIGN CODE	SIZE	NO. REQ'D.	SIGN	SIGN CODE	SIZE	NO. REQ'D.
	D1-1	60" X 15"	1		I55-56	30" X 36"	2		J13-1	24" X 45"	1		D1-1	72" X 15"	1
	D1-1	60" X 15"	1		I55-56	30" X 36"	1		J13-1	24" X 45"	1		D1-1	84" X 15"	1
	D1-1	78" X 15"	1		J1-1	24" X 39"	2		J2-2	48" X 57"	1		D1-1	72" X 15"	1
	D1-1	54" X 15"	1		J1-1	24" X 39"	2						D1-1	72" X 15"	1
	D1-1	54" X 15"	1		J1-1	24" X 39"	2						R1-1	30" X 30"	10
	D1-1	78" X 15"	1		J1-2	48" X 39"	1		J2-2	48" X 57"	1		R1-1	36" X 36"	4
	D1-2	54" X 24"	1		J1-2	48" X 39"	1						R2-1	24" X 30"	1
	D1-2	54" X 24"	1		J13-1	24" X 45"	1						R3-20R	24" X 36"	5
	D1-2	66" X 30"	1		J13-1	24" X 45"	1		J2-2	48" X 57"	1		R3-72	24" X 36"	1
	D1-2	66" X 30"	1		J13-1	24" X 45"	1						R4-3	36" X 48"	1
	D2-1	66" X 15"	1		J13-1	24" X 45"	1		J4-1	24" X 36"	4		R4-51A	36" X 48"	2
	D2-2	84" X 24"	1		J13-1	24" X 45"	2		J4-1	24" X 36"	3		W11-3	30" X 30"	1
	I2-3	54" X 24"	2		J13-1	24" X 45"	1		M1-86	18" X 36"	1		W11-6	30" X 30"	1
	I55-56	30" X 36"	2		J13-1	24" X 45"	1		M1-88A	12" X 12"	1		W14-3	48" X 36"	15


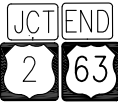





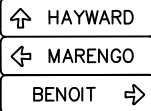
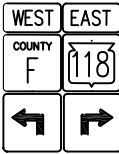




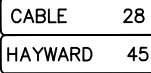



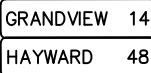




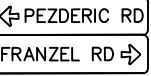


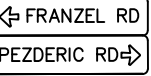


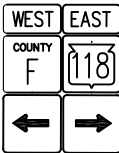


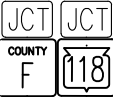


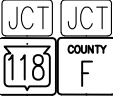

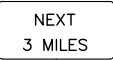
3

3

BILL OF MATERIALS

ESTIMATE OF QUANTITIES FOR PERMANENT SIGNING USH 2 (CONT.) PROJ. # 1180-04-60															
SIGN	SIGN CODE	SIZE	NO. REQ'D.	SIGN	SIGN CODE	SIZE	NO. REQ'D.	SIGN	SIGN CODE	SIZE	NO. REQ'D.	SIGN	SIGN CODE	SIZE	NO. REQ'D.
	W1-7	60" X 30"	1		W9-1R	36" X 36"	1		W57-51	30" X 15"	2				
	W4-2R	36" X 36"	2		W8-70	36" X 36"	4		W57-51	30" X 15"	2				

BILL OF MATERIALS

ESTIMATE OF QUANTITIES FOR PERMANENT SIGNING USH 63 PROJ. # 1560-02-60															
SIGN	SIGN CODE	SIZE	NO. REQ'D.	SIGN	SIGN CODE	SIZE	NO. REQ'D.	SIGN	SIGN CODE	SIZE	NO. REQ'D.	SIGN	SIGN CODE	SIZE	NO. REQ'D.
	D1-2	66" X 30"	1		J1-2	48" X 45"	1		J3-2	48" X 57"	1		R2-1	24" X 30"	1
	D1-3	66" X 42"	1		J13-1	24" X 45"	1						R3-20R	24" X 36"	1
	D1-3	66" X 42"	1		J2-2	48" X 57"	1		J3-2	48" X 57"	1		R4-7	24" X 30"	1
	D2-1	72" X 15"	1										R5-1	36" X 36"	1
	D2-2	72" X 24"	1		J2-2	48" X 57"	1		J4-1	24" X 36"	2		W14-3	48" X 36"	5
	D2-2	84" X 24"	1						J4-1	24" X 36"	1		W3-1	48" X 48"	1
	I3-1	60" X 15"	2		J2-2	48" X 57"	1		M1-94	84" X 30"	1		W5-52L	12" X 36"	2
	I55-56	30" X 36"	1						M1-94	84" X 30"	1		W5-52R	12" X 36"	2
	I55-56	30" X 36"	2		J3-2	48" X 57"	2		R1-1	30" X 30"	4		W12-1D	24" X 36"	1
	J1-2	48" X 39"	1						R1-1	36" X 36"	2		W8-70	36" X 36"	2
	J1-2	48" X 39"	1						R1-1	48" X 48"	2		W57-51	30" X 15"	2

Apr 08, 2013 - 8:57am
Y:\2010 Projects\101123 USH 2 - USH 63 Resurficing\Drawings\101123-QTY\$2.dwg

DATE 17APR13		E S T I M A T E O F Q U A N T I T I E S				
LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1180-04-60 QUANTITY	1560-02-60 QUANTITY
0010	204.0110	REMOVING ASPHALTIC SURFACE	SY	1,000.000	880.000	120.000
0020	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	1,675.000	1,140.000	535.000
0030	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	172,060.000	126,125.000	45,935.000
0040	211.0100	PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) 01. 1180-04-60	LS	1.000	1.000	
0050	211.0100	PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) 02. 1560-02-60	LS	1.000		1.000
0060	213.0100	FINISHING ROADWAY (PROJECT) 01. 1180-04-60	EACH	1.000	1.000	
0070	213.0100	FINISHING ROADWAY (PROJECT) 02. 1560-02-60	EACH	1.000		1.000
0080	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	11,400.000	9,000.000	2,400.000
0090	305.0500	SHAPING SHOULDERS	STA	922.000	648.000	274.000
0100	306.0110	SALVAGED ASPHALTIC PAVEMENT BASE	TON	210.000	150.000	60.000
0110	440.4410.S	INCENTIVE IRI RIDE	DOL	35,050.000	24,550.000	10,500.000
0120	455.0605	TACK COAT	GAL	4,690.000	3,415.000	1,275.000
0130	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	16,030.000	9,300.000	6,730.000
0140	465.0105	ASPHALTIC SURFACE	TON	850.000	550.000	300.000
0150	465.0110	ASPHALTIC SURFACE PATCHING	TON	300.000	150.000	150.000
0160	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	127.000	92.000	35.000
0170	465.0450	ASPHALTIC INTERSECTION RUMBLE STRIP	SY	78.000		78.000
0180	465.0475.S	ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	LF	45,978.000	32,398.000	13,580.000
0190	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	8.000	8.000	
0200	614.0920	SALVAGED RAIL	LF	2,332.000	1,732.000	600.000
0210	614.2300	MGS GUARDRAIL 3	LF	1,562.500	1,212.500	350.000
0220	614.2330	MGS GUARDRAIL 3 K	LF	375.000	375.000	
0230	614.2500	MGS THRIE BEAM TRANSITION	LF	84.000		84.000
0240	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	12.000	8.000	4.000
0250	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1180-04-60	EACH	1.000	1.000	
0260	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 02. 1560-02-60	EACH	1.000		1.000
0270	619.1000	MOBILIZATION	EACH	1.000	0.600	0.400
0280	628.1504	SILT FENCE	LF	940.000	940.000	
0290	628.1520	SILT FENCE MAINTENANCE	LF	940.000	940.000	
0300	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	176.000	117.000	59.000
0310	637.0202	SIGNS REFLECTIVE TYPE II	SF	1,375.030	844.380	530.650
0320	638.2602	REMOVING SIGNS TYPE II	EACH	240.000	143.000	97.000
0330	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	172.000	116.000	56.000
0340	642.5001	FIELD OFFICE TYPE B	EACH	1.000	0.500	0.500
0350	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 01. 1180-04-60	DAY	30.000	30.000	
0360	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 02. 1560-02-60	DAY	22.000		22.000
0370	643.0300	TRAFFIC CONTROL DRUMS	DAY	6,660.000	6,000.000	660.000
0380	643.0900	TRAFFIC CONTROL SIGNS	DAY	954.000	690.000	264.000
0390	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	93,078.000	65,660.000	27,418.000
0400	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	1,390.000	1,175.000	215.000
0410	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	60,778.000	52,613.000	8,165.000
0420	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	40.000		40.000
0430	648.0100	LOCATING NO-PASSING ZONES	MI	8.700	6.100	2.600
0440	649.0200	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	LF	68,943.000	52,613.000	16,330.000

DATE 17APR13			E S T I M A T E O F Q U A N T I T I E S				
LINE	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1180-04-60	1560-02-60	
0450	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	46,109.000	QUANTITY 32,400.000	QUANTITY 13,709.000	
0460	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 1180-04-60	LS	1.000	1.000		
0470	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 02. 1560-02-60	LS	1.000		1.000	
0480	690.0150	SAWING ASPHALT	LF	3,018.000	2,878.000	140.000	
0490	SPV.0195	SPECIAL 01. HMA PAVEMENT TYPE E-3	TON	10,505.000		10,505.000	
0500	SPV.0195	SPECIAL 02. HMA PAVEMENT TYPE E-10	TON	14,530.000	14,530.000		
		SPECIAL					

REMOVING ASPHALTIC SURFACE SUMMARY										
CATEGORY	STATION	-	STATION	LOCATION	REMOVING	REMOVING	REMOVING	SAWING	REMARKS	
					ASPHALTIC SURFACE	ASPHALTIC SURFACE	ASPHALTIC SURFACE	ASPHALT		
					204.0110	204.0115	204.0120	690.0150		
					SY	SY	SY	LF		
0010	PROJECT 1180-04-60									
	823+00	-	823+38	MAINLINE	---	125	---	--	MAINLINE	
	823+38	-	1146+62	MAINLINE	---	---	107,750	--	MAINLINE	
	824+14			LT	---	105	---	--	INO RD	
	824+14			RT	---	65	---	--	CTH E	
	826+21			LT	80	---	---	75	PRIVATE ENTRANCE	
	856+41	-	861+44	RT	275	---	---	503	WIDENED SHOULDER	
	859+91	-	868+78	RT	---	---	800	--	CTH G BYPASS LN	
	863+97			LT	---	55	---	--	CTH G	
	898+18	-	902+43	RT	70	---	425	463	BEAMGUARD SHOULDER	
	899+26	-	905+03	LT	130	---	490	637	BEAMGUARD SHOULDER	
	929+50			RT	---	55	---	--	TOMICH RD	
	934+04	-	938+79	LT	80	---	355	425	BEAMGUARD SHOULDER	
	939+25			RT	30	---	---	50	PRIVATE ENTRANCE	
	941+25			RT	20	---	---	40	PRIVATE ENTRANCE	
	943+02			RT	---	45	---	--	NORDIN RD	
	943+09			LT	---	55	---	--	NORTH FORK RD	
	963+32	-	969+22	RT	140	---	400	590	BEAMGUARD SHOULDER	
	982+78			RT	---	55	---	--	STEFANSKI RD	
	1005+00	-	1009+28	RT	---	---	245	--	KINNY RD TURN LANE	
	1006+42	-	1072+64	LT	---	---	10,455	--	PASSING LN	
	1006+54	-	1071+78	LT	---	---	3,465	--	WIDENED SHLDR. FULL DEPTH	
	1008+95			RT	---	65	---	--	KINNY RD	
	1031+44	-	1034+64	RT	---	---	305	--	DENNIS RD TURN LANE	
	1035+38			RT	---	65	---	--	DENNIS ROAD	
	1040+27			RT	---	85	---	--	KLOBUCHER ROAD	
	1080+23			LT	15	---	---	25	PRIVATE ENTRANCE	
	1083+09			RT	25	---	---	40	PRIVATE ENTRANCE	
	1084+30	-	1087+50	RT	---	---	275	--	CTH F TURN LN	
	1085+67			LT	15	---	---	30	PRIVATE ENTRANCE	
	1088+44			RT	---	60	---	--	CTH F	
	1088+73			LT	---	60	---	--	JANECEK RD	
	1089+38	-	1092+81	LT	---	---	250	--	WIDENED SHOULDER	
	1130+50			LT	---	45	---	--	JOE PAJAC ROAD	
	1140+36	-	1145+20	RT	---	---	585	--	USH 63 TURN LN	
	1142+42	-	1146+62	LT	---	---	325	--	USH 63 BYPASS LN	
	1146+62	-	1147+00	MAINLINE	---	200	---	--	MAINLINE	
	0010	PROJECT 1180-04-60				880	1,140	126,125	2,878	
	0010	PROJECT 1560-02-60								
		7+18	-	7+57	MAINLINE	---	175	---	--	MAINLINE
7+57		-	144+27	MAINLINE	---	---	44,720	--	MAINLINE	
7+18		-	9+70	LT	---	---	515	--	CTH F TURN LN	
34+51				LT	10	---	---	20	PRIVATE ENTRANCE	
53+36				RT	40	---	---	70	PRIVATE ENTRANCE	
71+89				LT	---	45	---	--	PEZDERIC RD	
78+55				RT	15	---	---	25	PRIVATE ENTRANCE	
78+59				LT	15	---	---	25	PRIVATE ENTRANCE	
107+91				LT	---	45	---	--	STROMEYER LN	
133+45		-	133+83	MAINLINE	---	135	---	--	FISH CREEK BRIDGE	
135+12		-	135+50	MAINLINE	---	135	---	--	FISH CREEK BRIDGE	
133+87		-	134+03	LT	10	---	---	--	APPROACH SHOULDER	
133+87		-	134+03	RT	10	---	---	--	APPROACH SHOULDER	
134+92		-	135+12	LT	10	---	---	--	APPROACH SHOULDER	
134+92		-	135+12	RT	10	---	---	--	APPROACH SHOULDER	
141+79		-	144+27	RT	---	---	410	--	RIGHT TURN LN	
141+97		-	144+27	LT	---	---	290	--	TAPER	
0010	PROJECT 1560-02-60				120	535	45,935	140		
TOTAL					1,000	1,675	172,060	3,018		

GRADING SHAPING & FINISHING FOR BARRIER TERMINALS SUMMARY														
					BARRIER SYSTEM									
					GRADING SHAPING		SILT FENCE							
					FINISHING	SILT FENCE	MAINTENANCE	SALVAGED	SEED	FERTILIZER	EROSION MAT			
					614.0010	628.1504	628.1520	TOPSOIL	MIX #20	TYPE B	TYPE II CLASS B		FILL	
CATEGORY	STATION	-	STATION	LOCATION	EACH	LF	LF	SY*	LBS*	LBS*	SY*	CY*	REMARKS	
0010	PROJECT 1180-04-60													
	896+98	-	898+68	RT	1	140	140	220	4	14	220	115	---	
	898+05	-	899+75	LT	1	140	140	240	5	16	240	70	---	
	901+93	-	903+63	RT	1	120	120	265	5	17	265	70	---	
	905+13	-	906+83	LT	1	120	120	205	4	13	205	75	---	
	933+03	-	934+62	LT	1	120	120	145	3	10	145	40	---	
	938+25	-	939+95	LT	1	100	100	170	4	11	170	70	---	
	963+51	-	965+21	RT	1	100	100	170	4	11	170	50	---	
	968+71	-	970+41	RT	1	100	100	185	4	12	185	30	---	
0010	PROJECT 1180-04-60			SUBTOTAL	8	940	940	1,600	33	104	1,600	520		
0010	PROJECT 1560-02-60			SUBTOTAL	0									
TOTALS					8	940	940							

* ESTIMATED QUANTITIES PER TERMINAL (INFORMATIONAL PURPOSES ONLY)
CONTRACTOR SHALL VERIFY QUANTITIES IN THE FIELD

BASE AGGREGATE SHOULDER SUMMARY								
CATEGORY	STATION	-	STATION	LOCATION	BASE	SHAPING	SALVAGED ASPHALTIC	REMARKS
					AGGREGATE	SHOULDERS	PAVEMENT BASE	
					DENSE 3/4-INCH			
					305,0110	305,0500	306,0110	
					TON	STA	TON	
0010	PROJECT 1180-04-60							
	823+00	-	1147+00	LT	4300	324	80	---
	823+00	-	1147+00	RT	4300	324	70	---
				PE's & FE's	400	---		---
0010	PROJECT 1180-04-60			SUBTOTAL	9000	648	150	
0010	PROJECT 1560-02-60							
	7+18	-	144+27	LT	1150	137	30	---
	7+18	-	144+27	RT	1150	137	30	---
				PE's & FE's	100	---		---
0010	PROJECT 1560-02-60			SUBTOTAL	2400	274	60	
TOTAL					11400	922	210	

Oct 26, 2012 - 10:06am
Y:\2010 Projects\01123 USH 2 - USH 63 Resurficing\Drawings\01123-QTY\$2.dwg

ASPHALTIC PAVEMENT SUMMARY												
CATEGORY	STATION	-	STATION	LOCATION	DEPTH (IN)	HMA PAVEMENT	HMA PAVEMENT	ASPHALTIC	TACK	ASPHALTIC	ASPHALTIC DRIVEWAYS	REMARKS
						TYPE E-3 SPECIAL	TYPE E-10 SPECIAL	SURFACE	COAT	SURFACE	AND FIELD	
						SPV.0195.01	SPV.0195.02	465.0105	455.0605	PATCHING	ENTRANCES	
						TON	TON	TON	GAL.	TON	TON	
0010	PROJECT 1180-04-60											
	823+00	-	1147+00	MAINLINE	2.0	---	12,205	---	2700	---	---	MAINLINE/SAFETY EDGE
	824+14			LT	1.5	---	46	---	14	---	---	INO RD
	824+14			RT	1.5	---	45	---	13	---	---	CTH E
	824+74	-	825+81	LT	1.5	---	8	---	2	---	---	WIDENED SHOULDER
	826+21			LT	1.5	---	---	---	11	---	37	PRIVATE ENTRANCE
	856+35	-	868+10	RT	2.0	---	90	---	20	---	---	CTH G BYPASS LN
	863+97			LT	1.5	---	76	---	23	---	---	CTH G
	897+14	-	903+49	RT	2.0	---	40	---	9	---	---	BEAM GUARD SHOULDER/TAPERS
	898+21	-	906+68	LT	2.0	---	55	---	12	---	---	BEAM GUARD SHOULDER/TAPERS
	929+50			RT	1.5	---	26	---	8	---	---	TOMICH RD
	932+99	-	939+85	LT	2.0	---	40	---	9	---	---	BEAM GUARD SHOULDER/TAPERS
	937+00	-	938+50	LT	---	---	---	50	15	---	---	SHOULDER LEVELING/WEDGING
	939+25			RT	1.5	---	16	---	5	---	16	PRIVATE ENTRANCE
	941+25			RT	1.5	---	10	---	3	---	10	PRIVATE ENTRANCE
	943+02			RT	1.5	---	18	---	5	---	---	NORDIN RD
	943+09			LT	1.5	---	17	---	5	---	---	NORTH FORK RD
	963+67	-	970+27	RT	2.0	---	45	---	10	---	---	BEAM GUARD SHOULDER/TAPERS
	982+78			RT	1.5	---	27	---	8	---	---	STEFANSKI RD
	1005+00	-	1009+28	RT	2.0	---	28	---	6	---	---	KINNY RD TURN LN
	1008+95			RT	1.5	---	52	---	15	---	---	KINNY RD
	1012+47	-	1071+78	LT	2.0	---	1,170	---	261	---	---	PASSING LN
	1031+44	-	1034+64	RT	2.0	---	35	---	8	---	---	DENNIS RD TURN LN
	1035+38			RT	1.5	---	58	---	17	---	---	DENNIS RD
	1040+27			RT	1.5	---	41	---	12	---	---	KLOBUCHER RD
	1080+23			LT	1.5	---	8	---	2	---	8	PRIVATE ENTRANCE
	1083+09			RT	1.5	---	11	---	3	---	11	PRIVATE ENTRANCE
	1084+30	-	1087+50	RT	2.0	---	31	---	7	---	---	CTH F TURN LN
	1085+67			LT	1.5	---	10	---	3	---	10	PRIVATE ENTRANCE
	1088+44			RT	1.5	---	64	---	19	---	---	CTH F
	1088+73			LT	1.5	---	57	---	17	---	---	JANECEK RD
	1089+38	-	1092+81	LT	2.0	---	28	---	6	---	---	WIDENED SHOULDER
	1130+50			LT	1.5	---	30	---	9	---	---	JOE PAJAC RD
	1140+36	-	1145+20	RT	2.0	---	66	---	15	---	---	USH 63 TURN LN
	1142+42	-	1147+00	LT	2.0	---	40	---	8	---	---	USH 63 BYPASS LN
	UNDISTRIBUTED					---	---	500	120	---	---	LEVELING/WEDGING
	UNDISTRIBUTED					---	---	---	15	150	---	MINOR REPAIRS
0010	PROJECT 1180-04-60			SUBTOTAL		---	14,530	550	3415	150	92	
0010	PROJECT 1560-02-60											
	7+18	-	144+27	MAINLINE	4.0	10,100	---	---	1122	---	---	MAINLINE
	7+18	-	9+70	LT	4.0	54	---	---	6	---	---	CTH F TURN LN
	34+51			LT	1.5	7	---	---	2	---	7	PRIVATE ENTRANCE
	53+36			RT	1.5	17	---	---	5	---	17	PRIVATE ENTRANCE
	71+89			LT	1.5	23	---	---	7	---	---	PEZDERIC RD
	71+89			RT	1.5	25	---	---	7	---	---	FRANZEL RD
	78+55			RT	1.5	5	---	---	1	---	5	PRIVATE ENTRANCE
	78+59			LT	1.5	6	---	---	2	---	6	PRIVATE ENTRANCE
	107+91			LT	1.5	27	---	---	8	---	---	STROMEYER LN
	111+38			RT	1.5	11	---	---	3	---	---	ZEPCZYK RD
	132+29	-	132+99	LT	2.0	2	---	---	1	---	---	BEAM GUARD TAPER
	132+29	-	132+99	RT	2.0	2	---	---	1	---	---	BEAM GUARD TAPER
	133+45	-	133+83	MAINLINE	4.0	31	---	---	3	---	---	50 FT. FROM BRIDGE
	135+12	-	135+50	MAINLINE	4.0	31	---	---	3	---	---	50 FT. FROM BRIDGE
	135+99	-	136+69	LT	2.0	2	---	---	1	---	---	BEAM GUARD TAPER
	135+99	-	136+69	RT	2.0	2	---	---	1	---	---	BEAM GUARD TAPER
	141+79	-	144+27	RT	4.0	95	---	---	11	---	---	RIGHT TURN LN
	141+97	-	144+27	LT	4.0	65	---	---	7	---	---	TAPER
	UNDISTRIBUTED					---	---	300	69	---	---	LEVELING/WEDGING
	UNDISTRIBUTED					---	---	---	15	150	---	MINOR REPAIRS
0010	PROJECT 1560-02-60			SUBTOTAL		10,505	---	300	1275	150	35	
TOTAL						25,035	14,530	850	4690	300	127	

ASPHALTIC RUMBLE STRIP SUMMARY							
CATEGORY	STATION	-	STATION	LOCATION	ASPHALTIC INTERSECTION RUMBLE STRIP	ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL	REMARKS
					465.0450	465.0475	
					SY	LF	
0010	PROJECT 1180-04-60						
	823+00	-	1147+00	CL	---	32,398	MAINLINE
0010	PROJECT 1180-04-60			SUBTOTAL	---	32,398	
0010	PROJECT 1560-02-60						
	7+18	-	144+27	CL	---	13,580	MAINLINE
	127+60	-	127+85	RT	26	---	RUMBLE STRIP
	137+77	-	138+02	RT	26	---	RUMBLE STRIP
	140+02	-	140+27	RT	26	---	RUMBLE STRIP
0010	PROJECT 1560-02-60			SUBTOTAL	78	13,580	
TOTAL					78	45978	

BEAM GUARD SUMMARY											
					MGS	MGS	MGS	MGS			
					SALVAGED RAIL 614.0920	THRIE BEAM TRANSITION 614.2500	GUARDRAIL 3 614.2300	GUARD RAIL TERMINAL E.A.T 614.2610	GUARDRAIL 3 K 614.2330		
CATEGORY	STATION	-	STATION	LOCATION	LF	LF	LF	EACH	LF	REMARKS	
0010	PROJECT 1180-04-60										
	898+17.98	-	898+67.98	RT	---	---	---	1	---	---	
	898+36.00	-	902+24.00	RT	388	---	---	---	---	---	
	898+67.98	-	901+92.98	RT	---	---	325	---	---	---	
	899+25.82	-	899+75.82	LT	---	---	---	1	---	---	
	899+38.00	-	905+12.00	LT	574	---	---	---	---	---	
	899+75.82	-	905+13.32	LT	---	---	537.5	---	---	---	
	901+92.98	-	902+42.98	RT	---	---	---	1	---	---	
	905+13.32	-	905+63.32	LT	---	---	---	1	---	---	
	934+04.37	-	934+54.37	LT	---	---	---	1	---	---	
	934+54.37	-	938+29.37	LT	---	---	---	---	375	---	
	935+09.00	-	938+73.00	LT	364	---	---	---	---	---	
	938+29.37	-	938+79.37	LT	---	---	---	1	---	---	
	964+71.94	-	965+21.94	RT	---	---	---	1	---	---	
	964+81.00	-	968+87.00	RT	406	---	---	---	---	---	
	965+21.94	-	968+71.94	RT	---	---	350	---	---	---	
	968+71.00	-	969+21.00	RT	---	---	---	1	---	---	
	0010	PROJECT 1180-04-60			SUBTOTAL	1,732	0	1,212.5	8	375	
0010	PROJECT 1560-02-60										
	132+49.30	-	132+99.30	LT	---	---	---	1	---	---	
	132+49.30	-	132+99.30	RT	---	---	---	1	---	---	
	132+58.00	-	134+08.00	LT	150	---	---	---	---	---	
	132+58.00	-	134+08.00	RT	150	---	---	---	---	---	
	132+99.30	-	133+86.80	LT	---	---	87.5	---	---	---	
	132+99.30	-	133+86.80	RT	---	---	87.5	---	---	---	
	133+86.80	-	134+07.80	LT	---	21	---	---	---	---	
	133+86.80	-	134+07.80	RT	---	21	---	---	---	---	
	134+86.75	-	135+07.75	LT	---	21	---	---	---	---	
	134+86.75	-	135+07.75	RT	---	21	---	---	---	---	
	134+87.00	-	136+39.00	LT	150	---	---	---	---	---	
	134+87.00	-	136+39.00	RT	150	---	---	---	---	---	
	135+07.75	-	135+95.25	LT	---	---	87.5	---	---	---	
	135+07.75	-	135+95.25	RT	---	---	87.5	---	---	---	
	135+95.25	-	136+45.25	LT	---	---	---	1	---	---	
	135+95.25	-	136+45.25	RT	---	---	---	1	---	---	
0010	PROJECT 1560-02-60			SUBTOTAL	600	84	350	4	0		
TOTAL					2,332	84	1,562.5	12	375		

Oct 26, 2012 - 8:39am
Y:\2010 Projects\01123 USH 2 - USH 63 Resurficing\Drawings\01123-QTY\$2.dwg

PERMANENT SIGNING SUMMARY													
CATEGORY			LOCATION	SIGN CODE	SIGN MESSAGE	SIZE (INCH)			REM. SIGNS	REM. SMALL	POSTS WOOD	SIGNS	REMARKS
						W	x	H	TYPE II	SIGN SUPPORTS	4X6-INCH X 16-FT	REFLECTIVE TYPE II	
									638.2602	638.3000	634.0616	637.0202	
0010	PROJECT 1180-04-60								EACH	EACH	EACH	SF	
	A-1	812+90	RT	J1-2	JCT / JCT / NF 236 / COUNTY E	48	x	39	1	1	1	13.00	---
	A-2	814+30	RT	w14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	A-3	816+60	RT	I2-3	INO UNINCORPORATED	54	x	24	1	1	1	9.00	---
	A-4	817+63	LT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	A-5	819+20	RT	D1-2	DELTA MASON / RIGHT ARROW	54	x	24	1	1	1	9.00	---
	A-6	821+25	LT	J4-1	WEST / 2	24	x	36	2	1	1	6.00	---
	A-7	821+84	RT	M1-86	WILDLIFE VIEWING AREA	18	x	36	1	1	1	4.50	---
	A-8	821+84	RT	M1-88A	LEFT ARROW	12	x	12	1	---	---	1.00	FOR SIGN M1-86
	1-1	823+44	LT	J13-1	NATIONAL FOREST 236 / LEFT ARROW	24	x	45	2	1	1	7.50	---
	1-2	823+44	LT	J13-1	NATIONAL FOREST 236 / RIGHT ARROW	24	x	45	2	---	---	7.50	---
	1-3	823+44	RT	J13-1	COUNTY E / RIGHT ARROW	24	x	45	2	1	1	7.50	---
	1-4	823+44	RT	J13-1	COUNTY E / LEFT ARROW	24	x	45	2	---	---	7.50	---
	1-5	823+89	CROSSROAD	R1-1	STOP	30	x	30	1	1	1	5.18	INO ROAD
	1-6	824+55	CROSSROAD	R1-1	STOP	36	x	36	1	1	1	7.46	COUNTY HWY E
	1-7	824+55	RT	J13-1	2 / DOUBLE ARROW	24	x	45	---	---	1	7.50	---
	1-8	826+00	RT	J4-1	EAST / 2	24	x	36	2	1	1	6.00	---
	1-9	830+00	RT	I-55-56	ADOPT-A-HIGHWAY (Sons of Norway Birkebeiner)	30	x	36	1	1	1	7.50	---
	1-10	828+00	RT	W11-3	DEER CROSSING SYMBOL	30	x	30	1	1	---	---	REMOVE SIGN AND POST
	1-11	829+20	LT	D1-2	DELTA MASON / LEFT ARROW	54	x	24	1	1	2	9.00	---
	1-12	831+84	LT	I2-3	INO UNINCORPORATED	54	x	24	1	1	2	9.00	---
	1-13	833+95	LT	J1-2	JCT / JCT / COUNTY E / NF 236	48	x	39	1	1	1	13.00	---
	1-14	851+15	RT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	1-15	851+90	RT	J1-1	JCT / COUNTY G	24	x	39	1	1	1	6.50	---
	1-16	826+00	RT	W8-70	CENTERLINE RUMBLE STRIPS	36	x	36	---	---	1	9.00	---
	1-17	826+00	RT	W57-51	NEXT 6 MILES	30	x	15	---	---	---	3.13	SAME POST AS 1-16
	2-1	854+00	RT	R4-51A	PASSING LANE AHEAD 3 MILES	36	x	48	---	---	1	12.00	---
	2-2	857+29	RT	D1-1	MOQUAH / LEFT ARROW	60	x	15	1	1	2	6.25	---
	2-3	858+76	LT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	2-4	858+76	LT	J4-1	WEST / 2	24	x	36	2	---	---	6.00	---
	2-5	862+04	RT	J13-1	COUNTY G / LEFT ARROW	24	x	45	2	1	1	7.50	---
	2-6	863+42	CROSSROAD	R1-1	STOP	36	x	36	1	1	1	7.46	COUNTY HWY G
	2-7	863+42	CROSSROAD	J13-1	2 / DOUBLE ARROW	24	x	45	---	---	1	7.50	COUNTY HWY G
	2-8	864+57	CROSSROAD	R1-1	STOP	36	x	36	1	1	1	7.46	COUNTY HWY G
	2-9	865+10	LT	J13-1	COUNTY G / RIGHT ARROW	24	x	45	2	1	1	7.50	---
	2-10	868+27	LT	D1-1	MOQUAH / RIGHT ARROW	60	x	15	1	2	2	6.25	---
	2-11	874+60	LT	J1-1	JCT / COUNTY G	24	x	39	2	1	1	6.50	---
	2-12	880+00	LT	W8-70	CENTERLINE RUMBLE STRIPS	36	x	36	---	---	1	9.00	---
	2-13	880+00	LT	W57-51	NEXT 1 MILES	30	x	15	---	---	---	3.13	SAME POST AS 2-12
	3-1	893+08	RT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	3-2	895+20	LT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	4-1	918+85	LT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	4-2	921+71	RT	M1-94	TOMICH RD	60	x	15	1	2	2	6.25	---
	4-3	925+82	RT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	4-4	929+85	CROSSROAD	R1-1	STOP	30	x	30	1	1	1	5.18	TOMICH RD
	4-5	930+57	LT	I55-56	ADOPT-A-HIGHWAY (Sons of Norway Birkebeiner)	30	x	36	1	1	1	7.50	---
	4-6	933+75	LT	M1-94	TOMICH RD	60	x	15	1	2	2	6.25	---
	4-7	938+49	LT	R4-51A	PASSING LANE 3 MILES AHEAD	36	x	48	1	1	1	12.00	---
	5-1	942+60	CROSSROAD	R1-1	STOP	30	x	30	1	1	1	5.18	NORTH FORK RD
	5-2	943+45	CROSSROAD	R1-1	STOP	30	x	30	1	1	1	5.18	NORDIN RD
	5-3	945+60	RT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	5-4	946+00	LT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	6-1	975+04	RT	M1-94	STEFANSKI RD	72	x	15	1	2	2	7.50	---
	6-2	983+10	CROSSROAD	R1-1	STOP	30	x	30	1	1	1	5.18	STEFANSKI RD
	6-3	984+15	RT	I-55-56	ADOPT-A-HIGHWAY (Bayfield County 4H Junior Leaders)	30	x	36	1	1	1	7.50	---
	6-4	986+10	RT	R4-51	PASSING LANE AHEAD 1/2 MILE	36	x	48	---	---	1	12.00	---
	6-5	989+71	LT	M1-94	STEFANSKI RD	72	x	15	1	2	2	7.50	---
	6-6	990+35	RT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	6-7	1000+38	LT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	7-1	1004+50	RT	R3-20R	BEGIN RIGHT TURN LANE w/DOWN LEFT ARROW	24	x	36	1	1	---	6.00	---
	7-2	1005+32	RT	R3-55R	RIGHT TURN LANE w/DOWN LEFT ARROW	24	x	30	1	1	---	---	REMOVE SIGN AND POST
	7-3	1009+55	CROSSROAD	R1-1	STOP	30	x	30	1	1	1	6.25	KINNY RD
	7-4	1012+47	RT	R3-72	ONCOMING TRAFFIC USES CENTER LANE	30	x	36	---	---	1	7.50	---
	7-5	1024+22	LT	W4-2R	LANE REDUCTION TRANSITION SYMBOL - RIGHT	36	x	36	1	1	1	9.00	---
	7-6	1024+22	RT	W4-2R	LANE REDUCTION TRANSITION SYMBOL - RIGHT	36	x	36	1	1	1	9.00	---

Oct 26, 2012 - 8:32am
Y:\2010 Projects\101123 USH 2 - USH 63 Resurficing\Drawings\101123-QTY \$2.dwg

PERMANENT SIGNING SUMMARY (CONTINUED)														
CATEGORY	SIGN NO.	STATION*	LOCATION	SIGN CODE	SIGN MESSAGE	SIZE (INCH)			REM. SIGNS	REM. SMALL	POSTS WOOD	SIGNS	REMARKS	
						W	x	H	TYPE II	SIGN SUPPORTS	4X6-INCH X 16-FT	REFLECTIVE TYPE II		
									638.2602	638.3000	634.0616	637.0202		
									EACH	EACH	EACH	SF		
0010	PROJECT 1180-04-60													
	7-7	1027+84	RT	M1-94	DENNIS RD	60	x	15	1	2	2	6.25	--	
	7-8	1028+97	LT	W9-1R	RIGHT LANE ENDS	36	x	36	1	1	1	9.00	--	
	7-9	1031+00	RT	R3-20R	BEGIN RIGHT TURN LANE w/DOWN LEFT ARROW	24	x	36	1	1	---	6.00	--	
	7-10	1031+65	RT	R3-55R	RIGHT TURN LANE w/DOWN LEFT ARROW	24	x	30	1	1	---	---	REMOVE SIGN AND POST	
	8-1	1035+70	CROSSROAD	R1-1	STOP	30	x	30	1	1	1	5.18	DENNIS RD	
	8-2	1040+75	CROSSROAD	R1-1	STOP	30	x	30	1	1	1	5.18	KLOBUCHER RD	
	8-3	1040+92	LT	M1-94	DENNIS RD	60	x	15	1	2	2	6.25	--	
	8-4	1044+62	LT	R4-3	SLOWER TRAFFIC KEEP RIGHT		x		1	1	---	---	REMOVE SIGN AND POST	
	9-1	1071+78	LT	R4-3	SLOWER TRAFFIC KEEP RIGHT	36	x	48	1	1	1	12.00	--	
	9-2	1076+41	RT	J1-1	JCT / COUNTY F	24	x	39	2	1	1	6.50	--	
	9-3	1079+58	RT	D1-1	LEFT ARROW JANECEK RD	78	x	15	1	2	2	8.13	--	
	9-4	1082+22	RT	D1-1	BENOIT RIGHT ARROW	54	x	15	1	1	2	5.63	--	
	9-5	1084+20	RT	R3-20R	BEGIN RIGHT TURN LANE w/DOWN LEFT ARROW	24	x	36	1	1	---	6.00	--	
	9-6	1085+80	RT	R3-55R	RIGHT TURN LANE w/DOWN LEFT ARROW	24	x	30	1	1	---	---	REMOVE SIGN AND POST	
	9-7	1087+39	LT	J4-1	WEST / 2	24	x	36	2	1	1	6.00	--	
	9-8	1087+34	LT	I55-56	ADOPT-A-HIGHWAY (Bayfield County 4H Junior Leaders)	30	x	36	1	1	1	7.50	--	
	9-9	1087+50	RT	J13-1	COUNTY F / RIGHT ARROW	24	x	45	2	1	1	7.50	--	
	9-10	1088+25	CROSSROAD	R1-1	STOP	30	x	30	1	1	1	5.18	JANECEK RD	
	9-11	1088+80	CROSSROAD	R1-1	STOP	36	x	36	1	1	1	7.46	COUNTY HWY F	
	9-12	1088+80	CROSSROAD	J13-1	2 / DOUBLE ARROW	24	x	45	---	---	1	7.50	COUNTY HWY F	
	9-13	1089+60	LT	J13-1	COUNTY F / LEFT ARROW	24	x	45	2	1	1	7.50	--	
	9-14	1090+00	RT	J4-1	EAST / 2	24	x	36	2	1	1	6.00	--	
	9-15	1090+00	RT	I55-56	ADOPT-A-HIGHWAY (Ashland Health & Rehabilitation Center)	30	x	36	1	1	1	7.50	--	
	9-16	1091+75	LT	R3-55R	RIGHT TURN LANE w/DOWN LEFT ARROW	24	x	30	1	1	---	---	REMOVE SIGN AND POST	
	9-17	1091+00	RT	W8-70	CENTERLINE RUMBLE STRIPS	36	x	36	---	---	1	9.00	--	
	9-18	1091+00	RT	W57-51	NEXT 1 MILES	30	x	15	---	---	---	3.13	SAME POST AS 9-17	
	10-1	1093+25	LT	R3-20R	BEGIN RIGHT TURN LANE w/DOWN LEFT ARROW	24	x	36	1	1	---	6.00	--	
	10-2	1094+25	LT	D1-1	LEFT ARROW / BENOIT	54	x	15	1	1	2	5.63	--	
	10-3	1096+36	LT	D1-1	JANECEK RD RIGHT ARROW	78	x	15	1	2	2	8.13	--	
	10-4	1098+18	LT	R4-51	PASSING LANE AHEAD 1/2 MILE	36	x	48	---	---	1	12.00	--	
	10-5	1100+06	LT	J1-1	JCT / COUNTY F	24	x	39	2	1	1	6.50	--	
	10-6	1104+28	LT	W11-6	SNOWMOBILE CROSSING SYMBOL	30	x	30	1	1	1	6.25	--	
	10-7	1104+92	RT	W21-62	COMBO OF GIVE 'EM A BRAKE SLOW DOWN and FINES DOUBLE		x		1	1	---	---	REMOVE SIGN AND POST	
	11-1	1122+40	RT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	--	
	11-2	1128+16	RT	J1-1	JCT / 63	24	x	45	2	1	1	7.50	--	
	11-3	1128+50	LT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	--	
	11-4	1129+40	LT	R2-1	SPEED LIMIT 55 MPH	24	x	30	1	1	1	5.00	--	
	11-5	1129+85	CROSSROAD	R1-1	STOP	30	x	30	1	1	1	5.18	JOE PAJAC RD	
	11-6	1133+96	RT	J2-2	EAST/SOUTH/2/63/AHEAD ARROW/ADVANCE ARROW RIGHT TURN	48	x	57	6	2	1	19.00	--	
	11-7	1139+24	RT	D1-2	AHEAD ARROW AHSLAND, HAYWARD RIGHT ARROW	66	x	30	1	2	2	13.75	--	
	11-8	1139+92	RT	R3-20R	BEGIN RIGHT TURN LANE w/DOWN LEFT ARROW	24	x	36	1	1	---	6.00	--	
	11-9	1140+72	LT	D2-2	IRON RIVER 18 / SUPERIOR 56	84	x	24	1	2	2	14.00	--	
	11-10	1141+25	RT	R3-55R	RIGHT TURN LANE w/DOWN LEFT ARROW	24	x	30	1	1	---	---	REMOVE SIGN AND POST	
	11-11	1043+50	LT	J4-1	WEST / 2	24	x	36	2	1	1	6.00	--	
	11-12	1144+52	RT	J3-2	EAST/SOUTH/2/63/AHEAD ARROW/RIGHT ARROW	48	x	57	6	2	1	19.00	--	
	11-13	1145+95	LT	W1-7	TWO DIRECTION LARGE ARROW	60	x	30	1	2	2	12.50	--	
	11-14	1147+05	LT	J3-2	SOUTH/WEST/63/2/LEFT ARROW/AHEAD ARROW	48	x	57	6	2	1	19.00	--	
	11-15	1149+00	RT	J4-1	EAST / 2	24	x	36	2	1	1	6.00	--	
	11-16	1151+00	RT	D2-1	ASHLAND 9	66	x	15	1	---	2	6.88	--	
	11-17	1043+50	LT	W8-70	CENTERLINE RUMBLE STRIPS	36	x	36	---	---	1	9.00	--	
	11-18	1043+50	LT	W57-51	NEXT 6 MILES	30	x	15	---	---	---	3.13	SAME POST AS 11-17	
	B-1	1153+90	RT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	--	
	B-2	1154+40	LT	D1-2	AHEAD ARROW SUPERIOR / LEFT ARROW HAYWARD	66	x	30	1	2	2	13.75	--	
	B-3	1158+90	LT	J2-2	SOUTH / WEST / 63 / 2 / ADVANCED LEFT ARROW / AHEAD ARROW	48	x	57	6	2	1	19.00	--	
	B-4	1161+50	LT	J1-1	JCT / 63	24	x	45	1	1	1	7.50	--	
0010	PROJECT 1180-04-60					SUBTOTAL			143.00	116.00	117.00	844.38		
0010	PROJECT 1560-02-60													
	C-1	-3+90	RT	J1-2	JCT / JCT / COUNTY F / 118	48	x	39	4	1	1	13.00	--	
	C-2	-2+40	RT	J2-2	WEST/ EAST/ COUNTY F/ 118/ ADVANCED ARROW LEFT/ ADVANCED ARROW RIGHT	48	x	57	6	1	1	19.00	--	
	C-3	-1+40	LT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	--	
	C-4	0+70	RT	D1-3	ASHLAND AHEAD ARROW / BENOIT LEFT ARROW / MARENGO RIGHT ARROW	66	x	42	1	2	2	19.25	--	
	C-5	1+10	LT	D2-2	CABLE 28 / HAYWARD 45	72	x	24	1	2	2	12.00	--	

PERMANENT SIGNING SUMMARY (CONTINUED)													
CATEGORY	SIGN NO.	STATION*	LOCATION	SIGN CODE	SIGN MESSAGE	SIZE (INCH)			REM. SIGNS	REM. SMALL	POSTS WOOD	SIGNS	REMARKS
						W	x	H	TYPE II	SIGN SUPPORTS	4X6-INCH X 16-FT	REFLECTIVE TYPE II	
									638.2602	638.3000	634.0616	637.0202	
								EACH	EACH	EACH	SF		
0010	PROJECT 1560-02-60												
	C-6	2+00	RT	R3-20R	BEGIN RIGHT TURN LANE w/DOWN LEFT ARROW	24	x	36	1	1	---	6.00	---
	C-7	2+80	RT	R3-55R	RIGHT TURN LANE w/DOWN LEFT ARROW	24	x	30	1	1	---	---	REMOVE SIGN AND POST
	C-8	3+10	LT	J4-1	SOUTH / 63	24	x	36	2	---	1	6.00	---
	C-9	4+75	LT	I55-56	ADOPT-A-HIGHWAY (GREEN ACRES 4-H CLUB)	30	x	36	1	1	1	7.50	---
	12-1	5+10	RT	J3-2	WEST/EAST/F/118/LEFT ARROW/RIGHT ARROW	48	x	57	6	1	1	19.00	---
	12-2	5+20	CROSSROAD	J13-1	63/ DOUBLE ARROW	24	x	45	---	---	1	7.50	COUNTY HWY F
	12-3	5+20	CROSSROAD	R1-1	STOP	36	x	36	1	1	1	7.46	COUNTY HWY F
	12-4	6+25	CROSSROAD	R1-1	STOP	36	x	36	1	1	1	7.46	STATE HWY 118
	12-5	6+25	LT	J3-2	WEST/EAST/F/118/LEFT ARROW/RIGHT ARROW	48	x	57	6	1	1	19.00	---
	12-6	6+25	CROSSROAD	J3-2	SOUTH/NORTH/63/63/LEFT ARROW/RIGHT ARROW	48	x	57	6	1	1	19.00	STATE HWY 118
	12-7	7+65	RT	J4-1	NORTH / 63	24	x	36	2	---	1	6.00	---
	12-8	9+75	RT	D2-1	ASHLAND 12	72	x	15	1	2	2	7.50	---
	12-9	10+10	RT	I55-56	ADOPT-A-HIGHWAY (Ondossagon Jr. Agriculturists)	30	x	36	1	2	1	7.50	---
	12-10	11+65	RT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	12-11	11+75	LT	D1-3	AHEAD ARROW HAYWARD/LEFT ARROW MARENGO/BENOIT RIGHT ARROW	66	x	42	1	2	2	19.25	---
	12-12	14+39	LT	J2-2	EAST/WEST/118/F/AHEAD LEFT ARROW/AHEAD RIGHT ARROW	48	x	57	6	1	1	19.00	---
	12-13	16+50	LT	J1-2	JCT/JCT/118/F	48	x	39	4	1	1	13.00	---
	12-14	8+00	RT	W8-70	CENTERLINE RUMBLE STRIPS	36	x	36	---	---	1	9.00	---
	12-15	8+00	RT	W57-51	NEXT 3 MILES	30	x	15	---	---	---	3.13	SAME POST AS 12-14
	13-1	44+25	LT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	14-1	65+61	RT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	14-2	67+63	RT	M1-94	LEFT ARROW PEZDERIC RD / FRANZEL RD RIGHT ARROW	84	x	30	1	2	2	17.50	---
	14-3	71+65	CROSSROAD	R1-1	STOP	30	x	30	1	1	1	5.18	PEZDERIC RD
	14-4	72+15	CROSSROAD	R1-1	STOP	30	x	30	1	1	1	5.18	FRANZEL RD
	14-5	80+00	LT	M1-94	LEFT ARROW FRANZEL RD/PEZDERIC RD RIGHT ARROW	84	x	30	1	2	2	17.50	---
	15-1	107+75	CROSSROAD	R1-1	STOP	30	x	30	1	1	1	5.18	STROMEYER LANE
	15-2	111+80	CROSSROAD	R1-1	STOP	30	x	30	1	1	1	5.18	ZEPCZYK RD
	16-1	126+40	RT	J1-2	JCT/END/2/63	48	x	45	4	2	1	15.00	---
	16-2	128+05	LT	W14-3	NO PASSING ZONE	48	x	36	1	1	1	6.00	---
	16-3	128+05	LT	R2-1	SPEED LIMIT 55 MPH	24	x	30	1	---	---	5.00	---
	16-4	129+00	RT	W3-1	STOP AHEAD	48	x	48	1	1	1	16.00	---
	16-5	131+00	RT	J2-2	WEST/EAST/2/2/AHEAD LEFT ARROW/AHEAD RIGHT ARROW	48	x	57	6	2	1	19.00	---
	16-6	133+00	LT	I3-1	FISH CREEK	60	x	15	1	1	2	6.25	---
	16-7	133+90	RT	W5-52L	BRIDGE HASH MARKS	12	x	36	1	1	1	3.00	---
	16-8	133+90	LT	W5-52R	BRIDGE HASH MARKS	12	x	36	1	1	1	3.00	---
	16-9	135+05	LT	W5-52R	BRIDGE HASH MARKS	12	x	36	1	1	1	3.00	---
	16-10	135+05	RT	W5-52L	BRIDGE HASH MARKS	12	x	36	1	1	1	3.00	---
	16-11	136+00	LT	I3-1	FISH CREEK	60	x	15	1	---	2	6.25	---
	16-12	138+38	RT	D1-2	LEFT ARROW SUPERIOR / ASHLAND RIGHT ARROW	66	x	30	1	2	2	13.75	---
	16-13	140+20	LT	I55-56	ADOPT-A-HIGHWAY (Ondossagon Jr. Agriculturists)	30	x	36	1	2	1	7.50	---
	16-14	141+00	LT	D2-2	GRANDVIEW 14 / HAYWARD 48	84	x	24	2	2	2	14.00	---
	16-15	142+70	RT	J3-2	WEST/EAST/2/2/LEFT ARROW/RIGHT ARROW	48	x	57	6	2	1	19.00	---
	16-16	142+50	LT	J4-1	SOUTH / 63	24	x	36	2	---	1	6.00	---
	16-17	144+00	RT	R1-1	STOP	48	x	48	1	1	1	13.25	---
	16-18	144+00	ISLAND	W12-1D	DOUBLE ARROW	24	x	36	---	---	1	6.00	---
	16-19	144+00	RT	R5-1	DO NOT ENTER	36	x	36	1	1	1	9.00	---
	16-20	144+10	ISLAND	R1-1	STOP	48	x	48	1	1	1	13.25	---
	16-21	144+10	ISLAND	R4-7	KEEP RIGHT SYMBOL	24	x	30	1	---	---	5.00	---
	16-22	142+50	LT	W8-70	CENTERLINE RUMBLE STRIPS	36	x	36	---	---	1	9.00	---
	16-23	142+50	LT	W57-51	NEXT 3 MILES	30	x	15	---	---	---	3.13	SAME POST AS 16-22
0010	PROJECT 1560-02-60					SUBTOTAL			97.00	56.00	59.00	530.65	
						TOTAL			240	172	176	1375.03	

* STATIONING FOR PROPOSED SIGNS ARE APPROXIMATE AND THE LOCATIONS OF THE SIGNS ARE TO BE COORDINATED IN THE FIELD WITH THE ENGINEER.

Oct 25, 2012 - 10:45am
Y:\2010 Projects\01123 USH 2 - USH 63 Resurfacing\Drawings\01123-QTYS-2.dwg

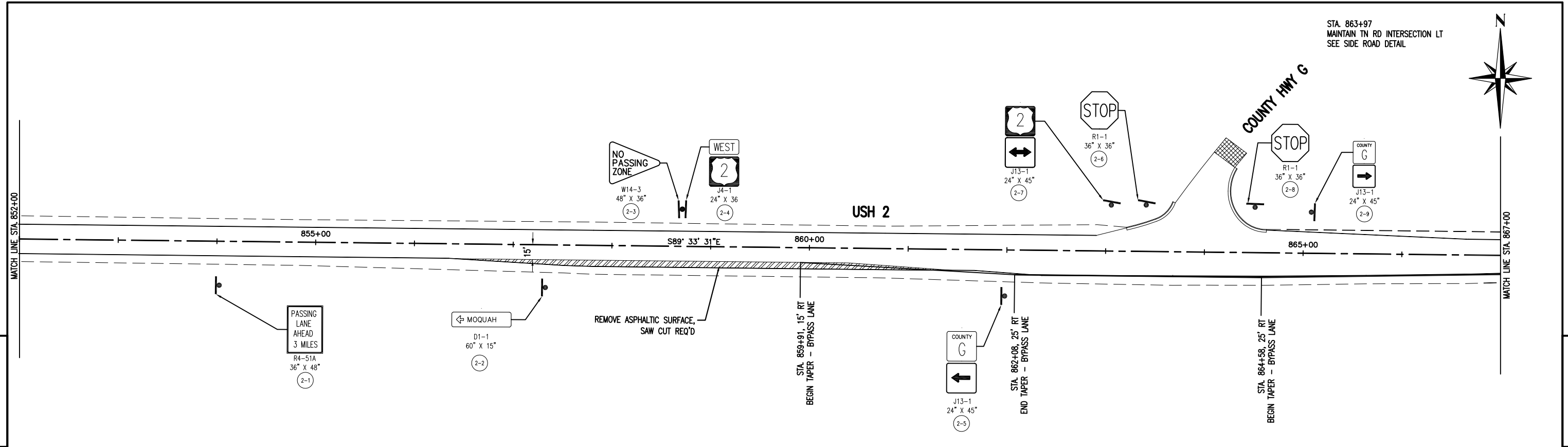
PAVEMENT MARKING SUMMARY											
CATEGORY	STATION *	-	STATION *	LOCATION	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT	LOCATING	PAVEMENT MARKING	
					MARKING	MARKING	MARKING SAME	MARKING STOP	NO-PASSING	TEMPORARY PAINT	
					EPOXY 4 - INCH	EPOXY 8 - INCH	DAY EPOXY 4 - INCH	LINE EPOXY 18-INCH	ZONES	4 - INCH REFLECTIVE	
					646.0106	646.0126	646.0406	647.0566	648.0100	649.0200	
					LF	LF	LF	LF	MI	LF	
										REMARKS	
0010	PROJECT 1180-02-60										
	823+00	-	1147+00	USH 2	---	---	---	---	6.1	---	
	823+00	-	1147+00	LT	32,400	---	---	---	---	EDGELINE, WHITE	
	823+00	-	1147+00	RT	32,400	---	---	---	---	EDGELINE, WHITE	
	823+00	-	842+37	CL	---	---	3,874	---	---	DOUBLE SOLID, YELLOW	
	824+14			RT	200	---	---	---	---	CTH E CENTER & EDGELINES	
	842+37	-	851+13	CL	---	---	1,095	---	---	SOLID/12.5' SKIP, YELLOW	
	851+13	-	858+65	CL	---	---	188	---	---	12.5' SKIPS, YELLOW	
	858+65	-	864+64	CL	---	---	749	---	---	SOLID/12.5' SKIP, YELLOW	
	863+97			LT	360	---	---	---	---	CTH G CENTER & EDGELINES	
	864+64	-	878+50	CL	---	---	2,772	---	---	DOUBLE SOLID, YELLOW	
	878+50	-	893+03	CL	---	---	1,816	---	---	SOLID/12.5' SKIP YELLOW	
	893+03	-	895+19	CL	---	---	54	---	---	12.5' SKIPS, YELLOW	
	895+19	-	912+27	CL	---	---	2,135	---	---	SOLID/12.5' SKIP, YELLOW	
	912+27	-	918+92	CL	---	---	831	---	---	SOLID/12.5' SKIP, YELLOW	
	918+92	-	925+85	CL	---	---	1,386	---	---	DOUBLE YELLOW	
	925+85	-	930+65	CL	---	---	600	---	---	SOLID/12.5' SKIP, YELLOW	
	930+65	-	934+07	CL	---	---	86	---	---	12.5' SKIPS YELLOW	
	934+07	-	945+72	CL	---	---	1,456	---	---	SOLID/12.5' SKIP, YELLOW	
	945+72	-	956+48	CL	---	---	1,345	---	---	SOLID/12.5' SKIP, YELLOW	
	956+48	-	973+30	CL	---	---	3,364	---	---	DOUBLE YELLOW	
	973+30	-	990+37	CL	---	---	3,841	---	---	SOLID/12.5' SKIP, YELLOW	
	990+37	-	1000+42	CL	---	---	251	---	---	12.5' SKIPS, YELLOW	
	1000+42	-	1008+87	CL	---	---	1,056	---	---	SOLID/12.5' SKIP, YELLOW	
	1006+69	-	1008+34	RT	---	165	---	---	---	KINNY RD TURN LN	
	1008+87	-	1018+03	CL	---	---	1,835	---	---	DOUBLE SOLID, YELLOW	
	1018+03	-	1107+88	CL	---	---	17,880	---	---	DOUBLE SOLID, YELLOW	
	1021+84	-	1064+78	LT	---	---	1,174	---	---	PASSING LANE CL	
	1107+88	-	1122+25	CL	---	---	1,796	---	---	SOLID/12.5' SKIP, YELLOW	
	1122+25	-	1128+50	CL	---	---	156	---	---	12.5' SKIPS, YELLOW	
	1128+50	-	1141+86	CL	---	---	1,670	---	---	SOLID/12.5' SKIP, YELLOW	
	1032+44	-	1034+69	RT	---	225	---	---	---	DENNIS RD TURN LN	
	1064+78	-	1071+78	LT	---	---	175	---	---	DOTTED TAPER LINE	
	1141+86	-	1147+00	CL	---	---	1,028	---	---	DOUBLE SOLID, YELLOW	
	1085+82	-	1087+52	RT	---	170	---	---	---	CTH F TURN LN	
	1088+44			RT	300	---	---	---	---	CTH F CENTER & EDGELINES	
	1089+37	-	1091+37	LT	---	200	---	---	---	JANECEK RD TURN LN	
	1141+06	-	1145+21	RT	---	415	---	---	---	USH 63 TURN LN	
	0010	PROJECT 1180-02-60				SUBTOTAL	65,660	1,175	52,613	0	6.1
	0010	PROJECT 1560-02-60									
7+18		-	144+22	USH 63	---	---	---	---	2.6	---	
7+18		-	144+27	LT	13,709	---	---	---	---	EDGELINE, WHITE	
7+18		-	144+27	RT	13,709	---	---	---	---	EDGELINE, WHITE	
7+18		-	11+64	CL	-	---	861	---	---	SOLID/12.5' SKIP, YELLOW	
7+18		-	8+73	LT	---	155	---	---	---	CTH F TURN LN	
11+64		-	44+27	CL	---	---	816	---	---	12.5' SKIPS, YELLOW	
44+27		-	53+08	CL	---	---	1101	---	---	SOLID/12.5' SKIP, YELLOW	
53+08		-	58+13	CL	---	---	126	---	---	12.5' SKIPS, YELLOW	
58+13		-	65+34	CL	---	---	901	---	---	SOLID/12.5' SKIP, YELLOW	
65+34		-	128+02	CL	---	---	1567	---	---	12.5' SKIPS, YELLOW	
128+02		-	134+12	CL	---	---	763	---	---	SOLID/12.5' SKIP, YELLOW	
134+12		-	144+27	CL	---	---	2030	---	---	DOUBLE SOLID, YELLOW	
143+62		-	143+91	ISLAND	---	60	---	---	---	CHANNELIZING LINE, WHITE	
144+06				RT	---	---	---	20	---	WHITE	
144+08				RT	---	---	---	20	---	WHITE	
0010	PROJECT 1560-02-60				SUBTOTAL	27,418	215	8,165	40	2.6	
TOTAL					93,078	1,390	60,778	40	8.7	68,943	

* ACTUAL BEGIN AND END STATIONS FOR PAVEMENT MARKINGS TO BE DETERMINED IN THE FIELD AFTER SPOTTING.

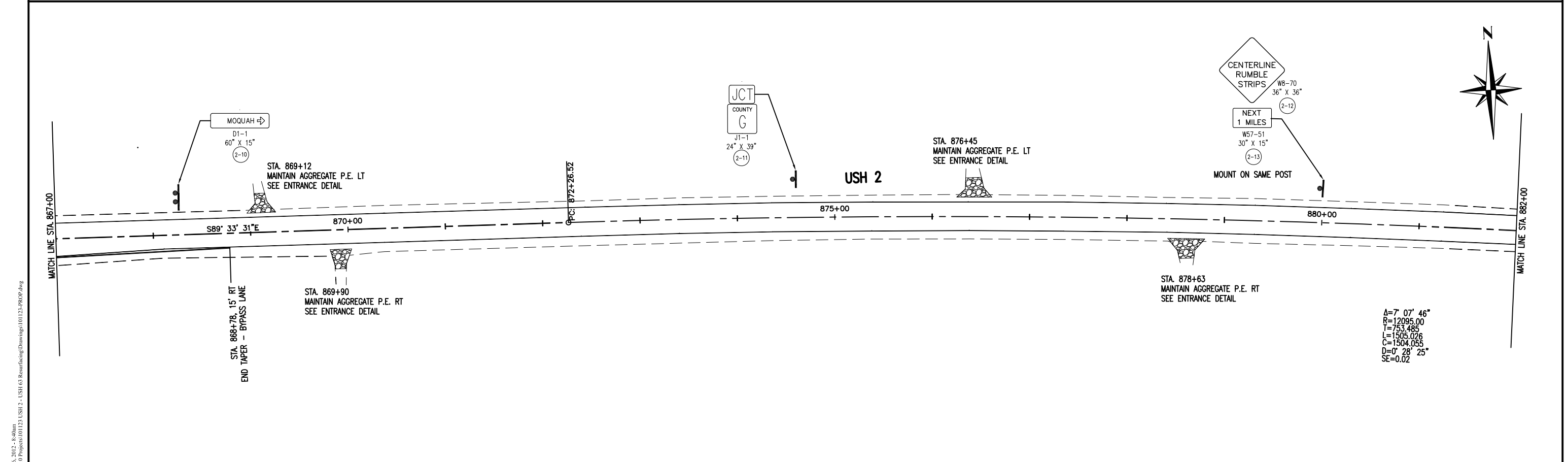
COSTRUCTION STAKING SUMMARY

CATEGORY	STATION	-	STATION	LOCATION	RESURFACE	SUPPLEMENTAL	REMARKS
					REFERENCE	CONTROL	
					650.8000	650.9910	
0010	PROJECT 1180-02-60						
	823+00	-	1147+00	MAINLINE	32,400	---	---
	PROJECT 1180-02-60				---	1	---
0010	PROJECT 1180-02-60			SUBTOTAL	32,400	1	
0010	PROJECT 1560-02-60						
	7+18	-	144+27	MAINLINE	13,709	---	---
	PROJECT 1560-02-60				---	1	---
0010	PROJECT 1560-02-60			SUBTOTAL	13,709	1	
TOTAL					46,109	2	

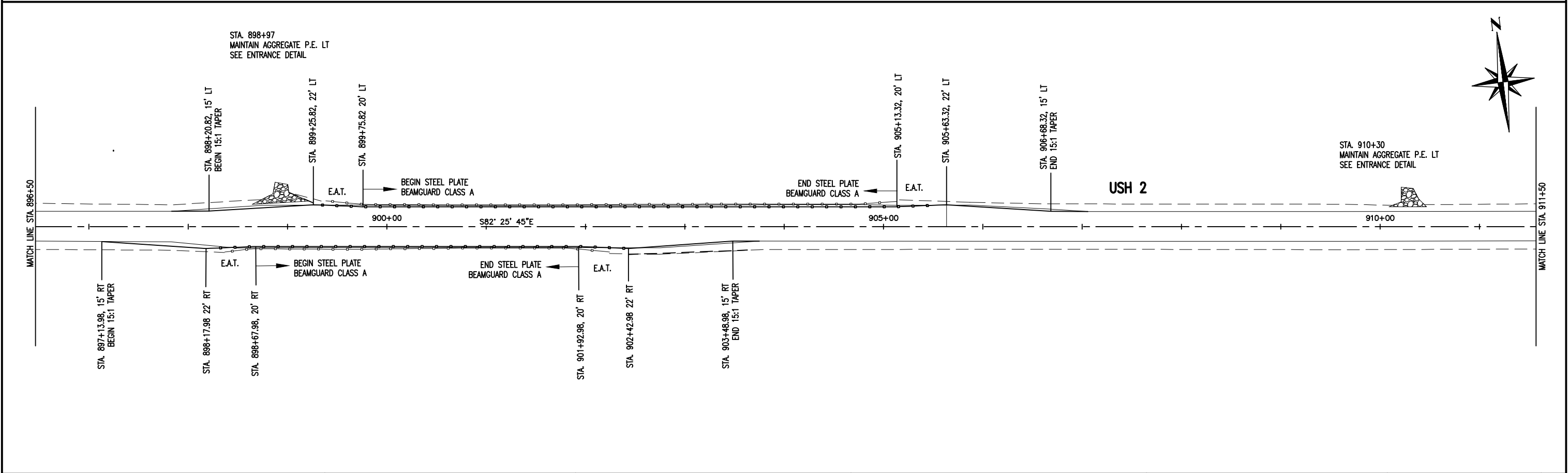
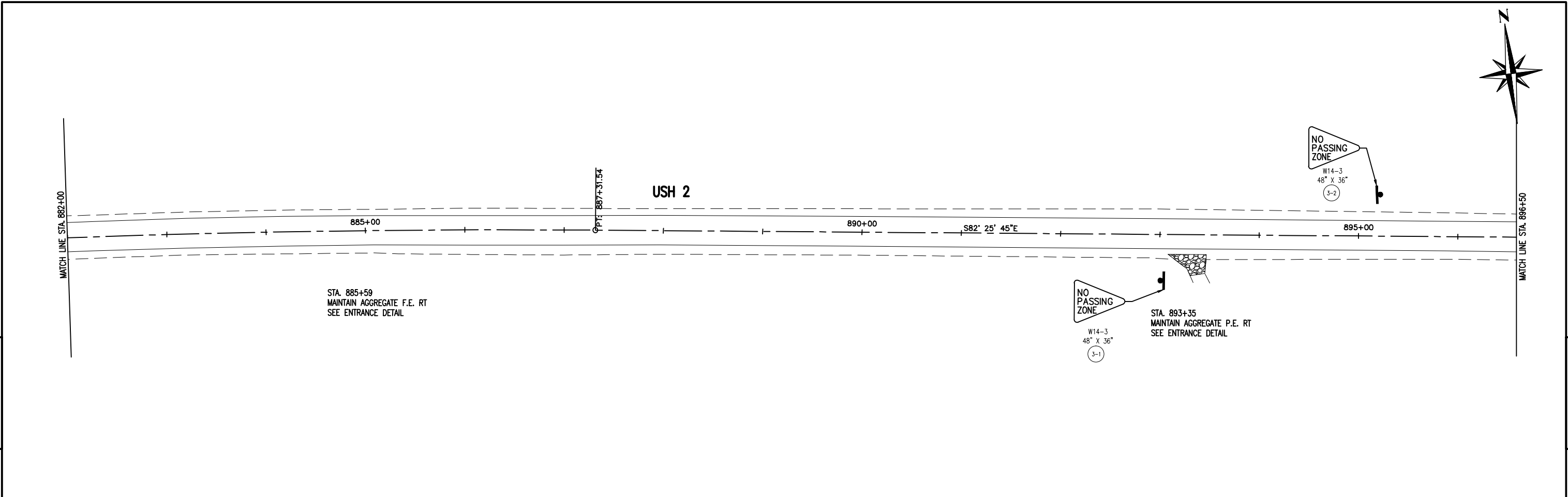
5



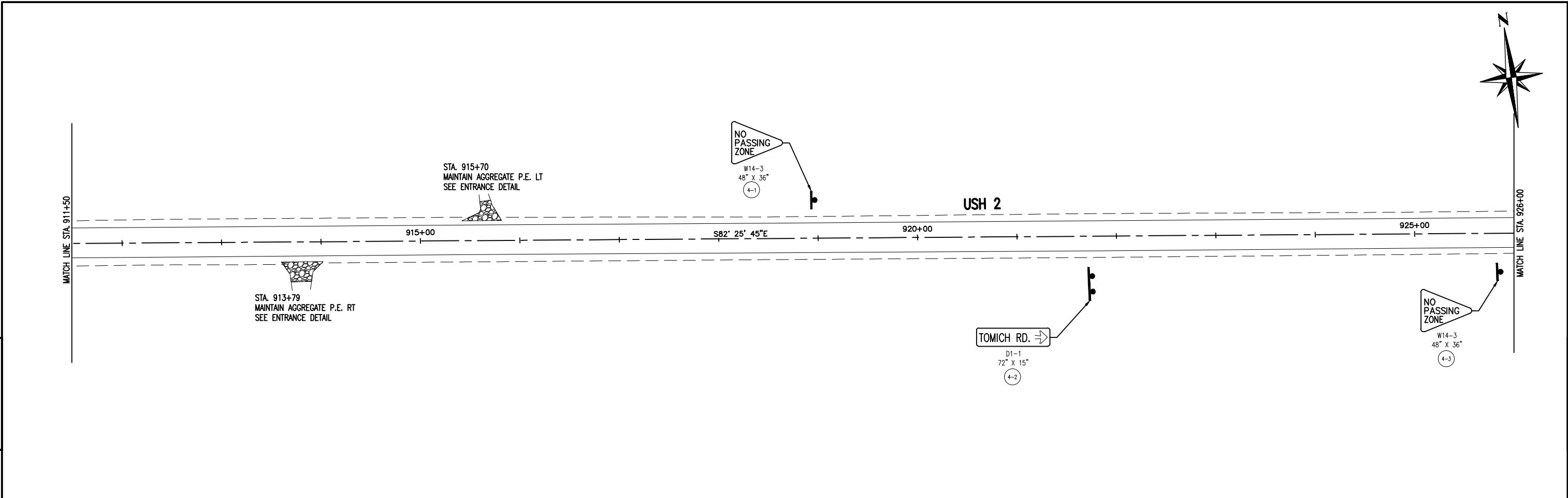
5



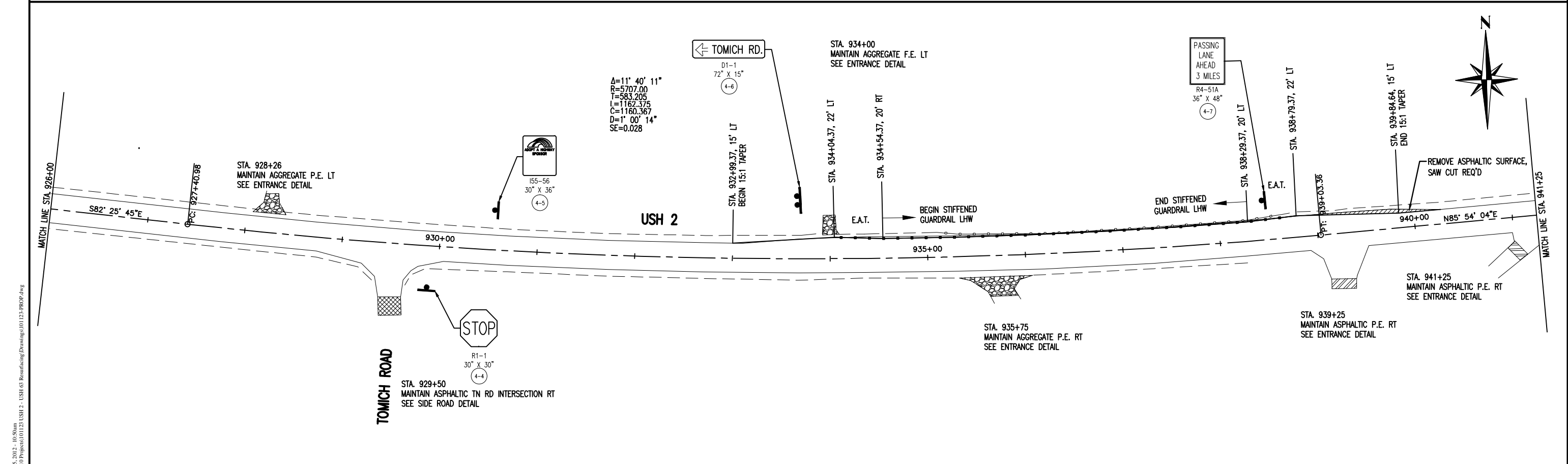
PROJECT NO: 1180-04-60	HWY: USH 2	COUNTY: BAYFIELD	PLAN	SCALE, FEET	0 50 100	SHEET	E
------------------------	------------	------------------	------	-------------	----------	-------	---



5



5

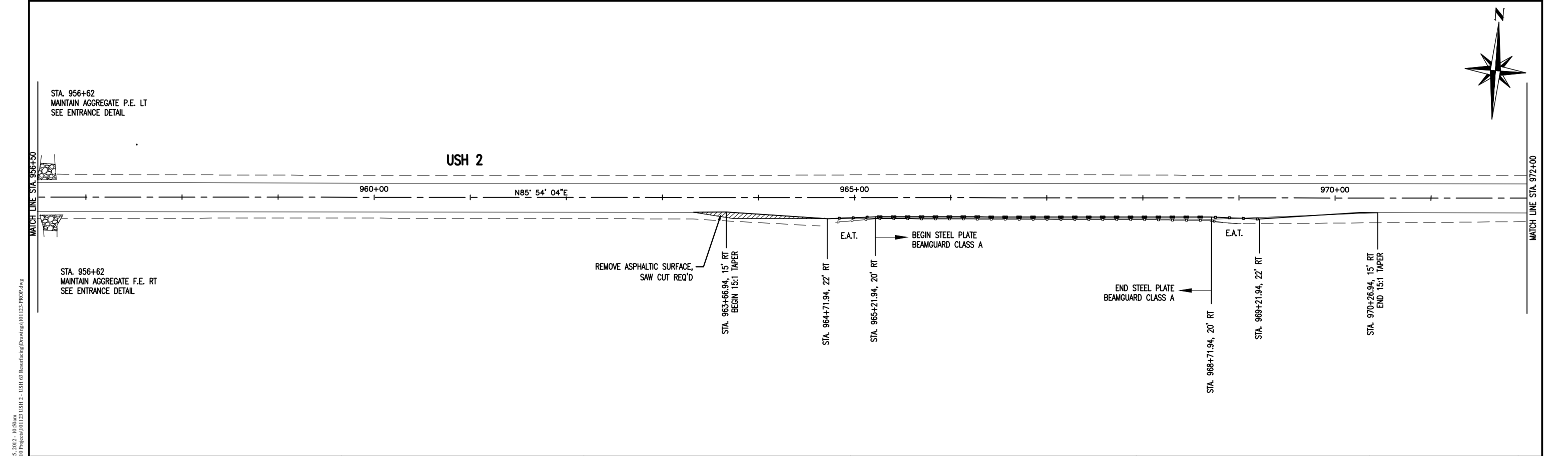
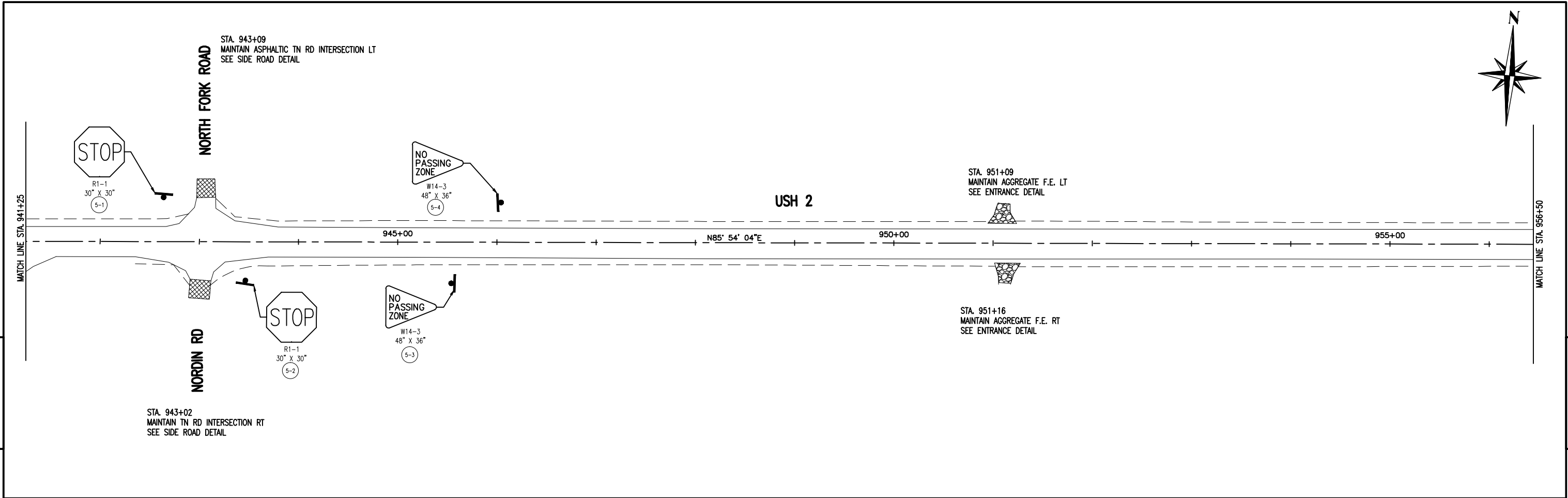


PROJECT NO: 1180-04-60	HWY: USH 2	COUNTY: BAYFIELD	PLAN	SCALE, FEET	SHEET	E
------------------------	------------	------------------	------	-------------	-------	---

Oct 25, 2012 - 10:50am
Y:\2010 Projects\101123 USH 2 - USH 65 Resurfacing\Drawings\101123-PROF.dwg

5

5

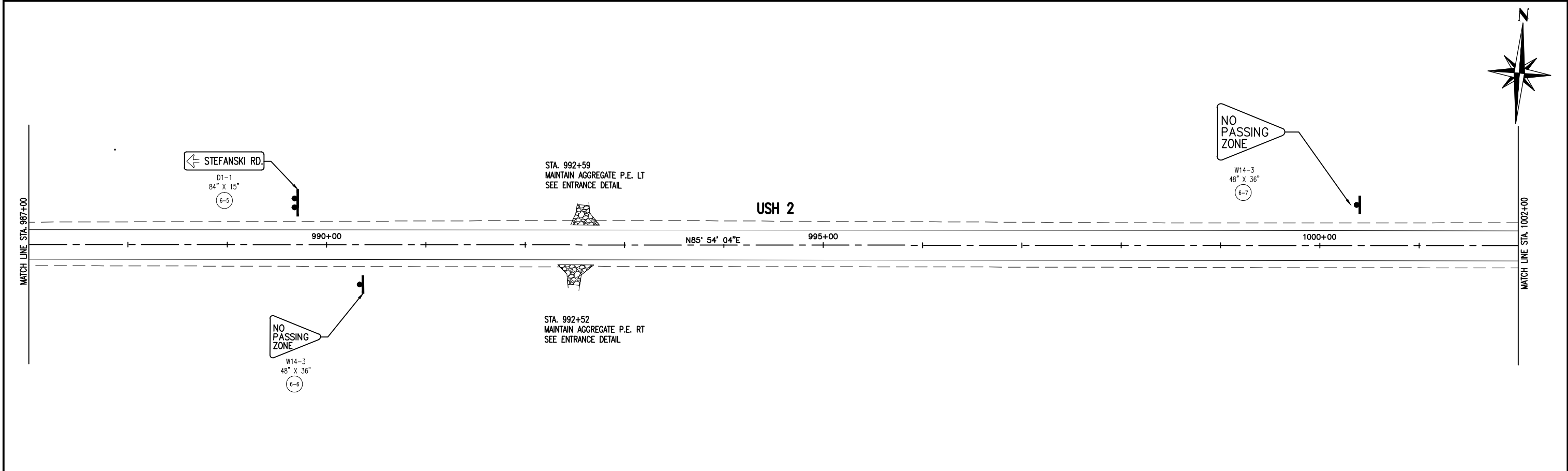
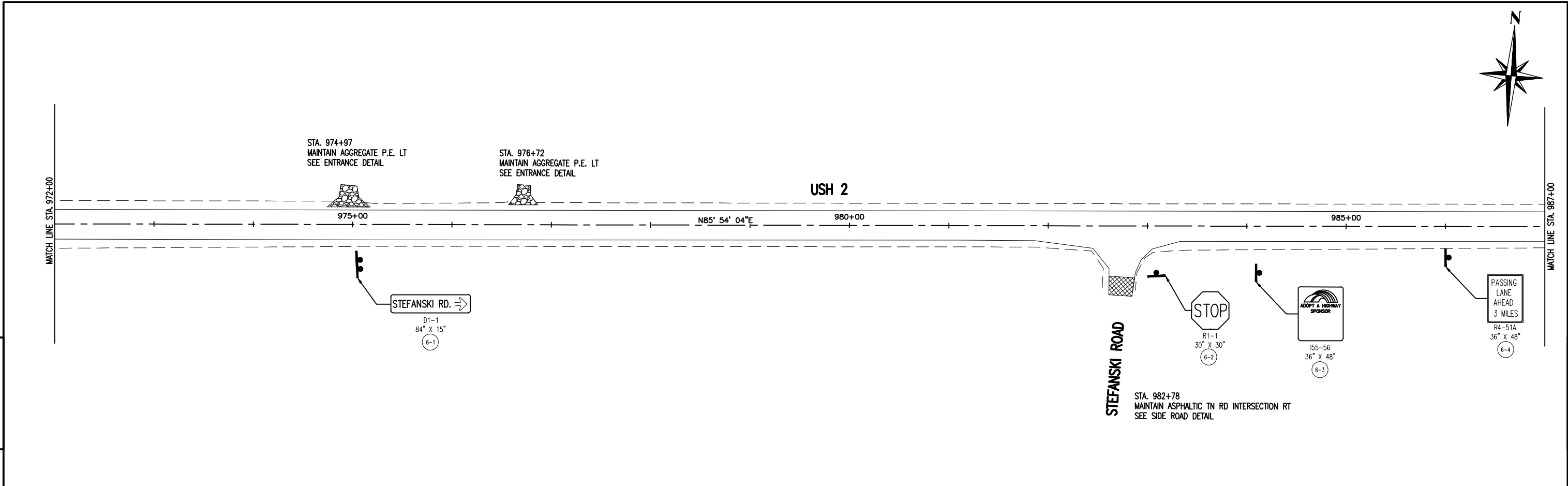


Oct 25, 2012 - 10:50am
Y:\2010 Projects\01123 USH 2 - USH 65 Resurfacing\Drawings\01123-PROJ.dwg

PROJECT NO: 1180-04-60	HWY: USH 2	COUNTY: BAYFIELD	PLAN	SCALE, FEET	SHEET	E
------------------------	------------	------------------	------	-------------	-------	---

5

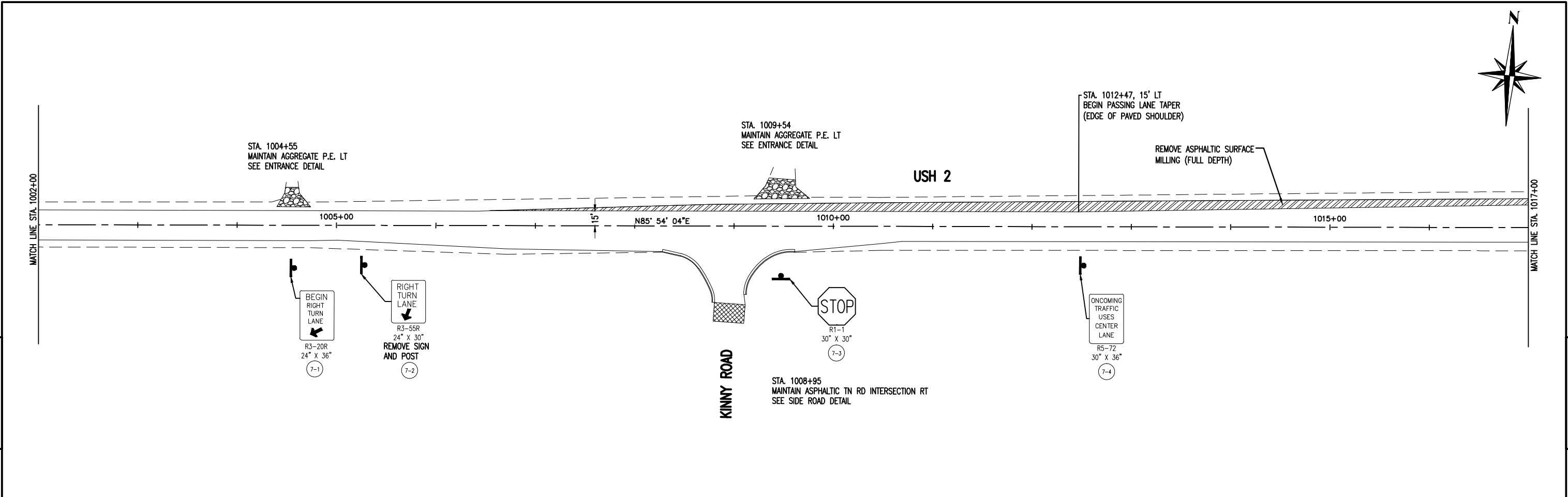
5



Oct 25, 2012 - 10:51am
Y:\2010 Projects\01123 USH 2 - USH 65 Resurfacing\Drawings\01123-PROP.dwg

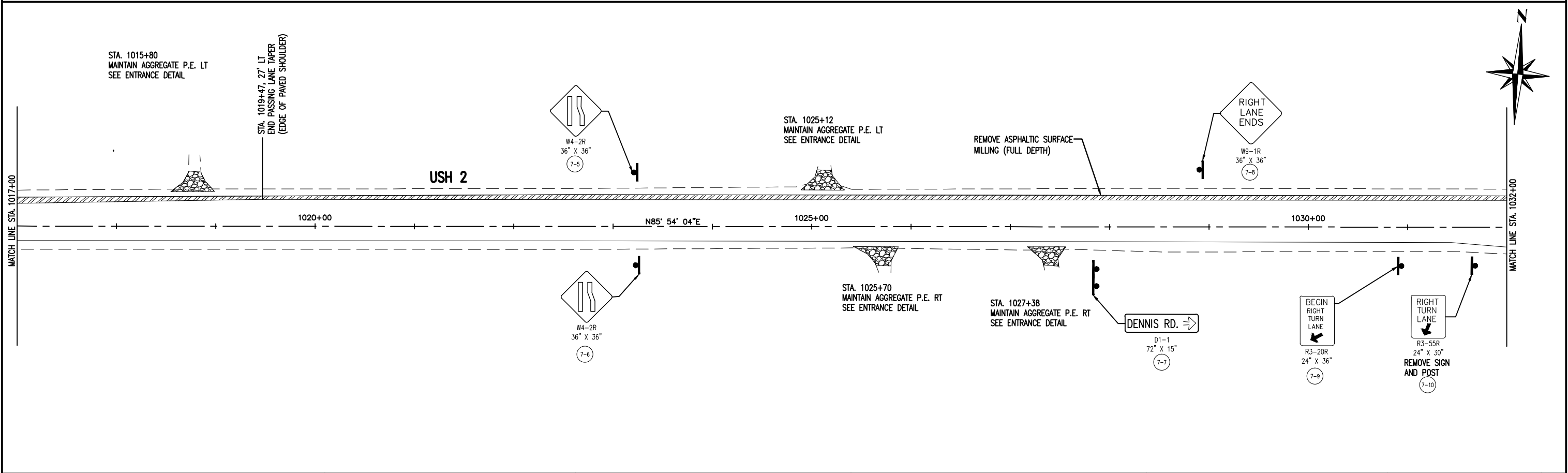
PROJECT NO: 1180-04-60	HWY: USH 2	COUNTY: BAYFIELD	PLAN	SCALE, FEET 	SHEET	E
------------------------	------------	------------------	------	---	-------	---

5



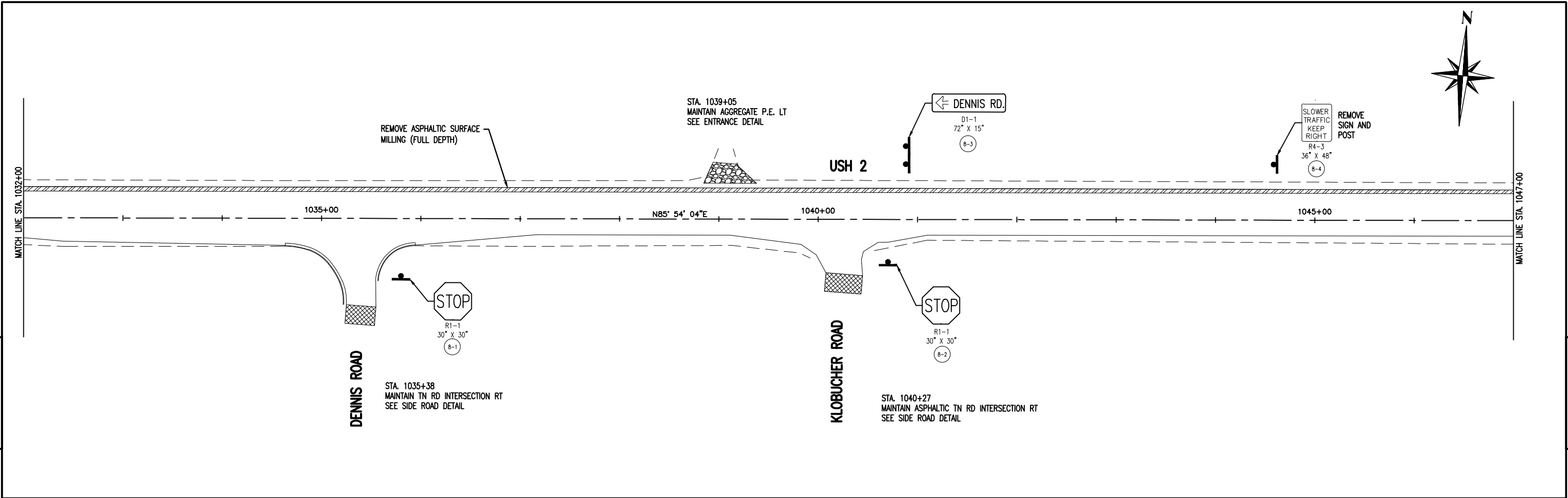
5

Oct 25, 2012 - 10:51am
Y:\2010 Projects\101123 USH 2 - USH 65 Resurficing\Drawings\101123-PROJ.dwg



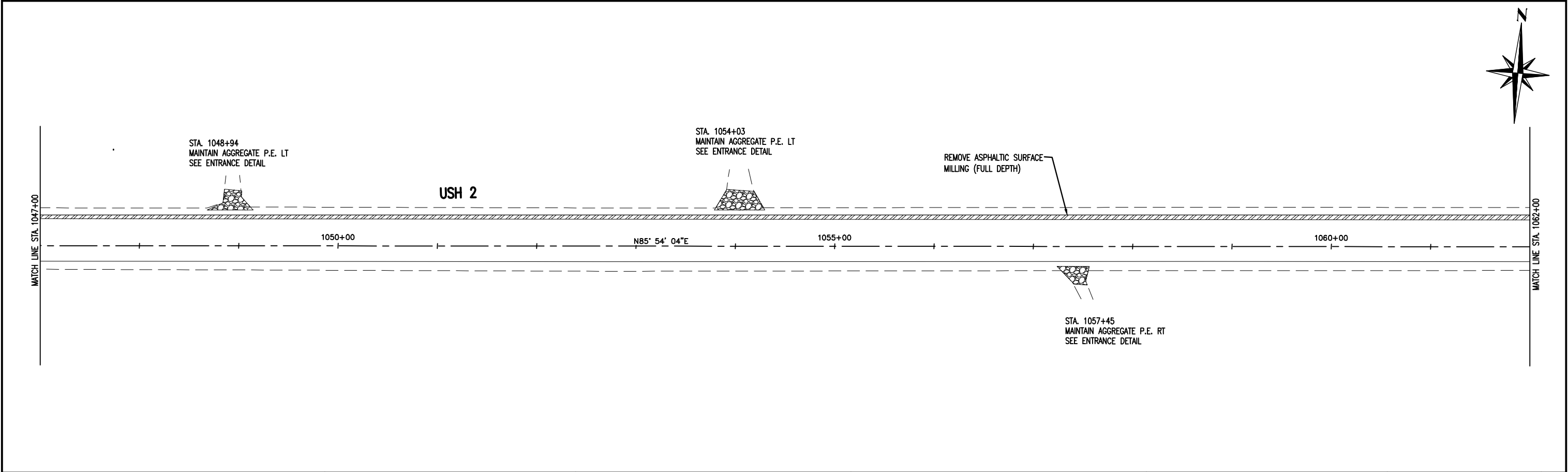
PROJECT NO: 1180-04-60	HWY: USH 2	COUNTY: BAYFIELD	PLAN	SCALE, FEET	SHEET	E
------------------------	------------	------------------	------	-------------	-------	---

5



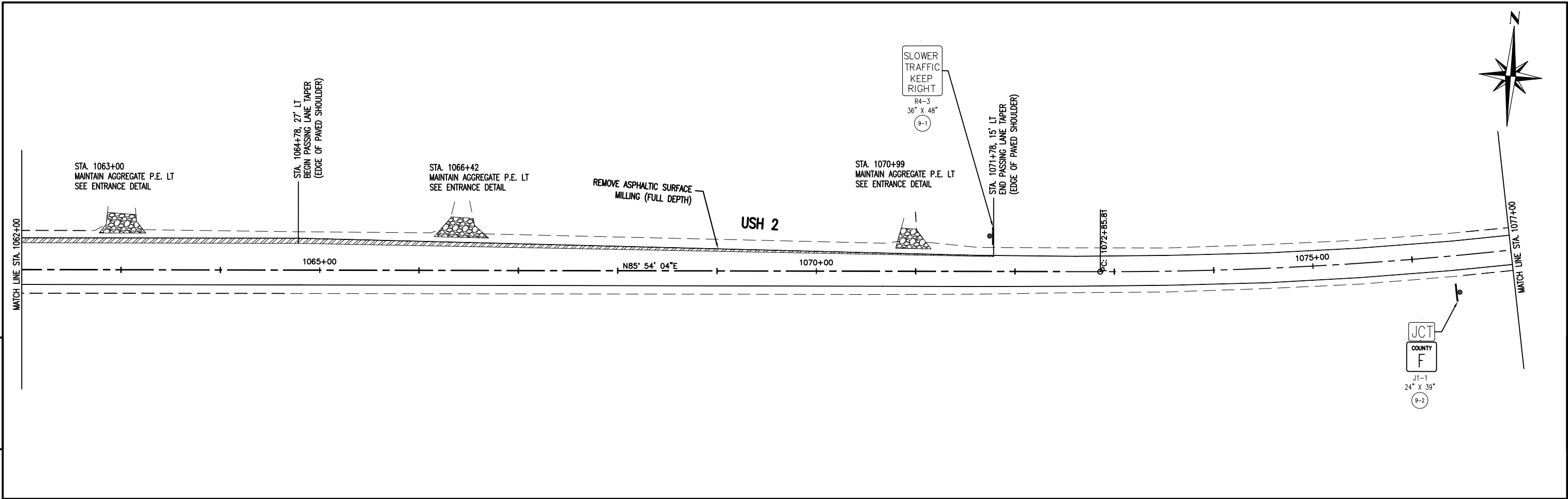
5

Oct 25, 2012 - 10:51am
Y:\2010 Projects\01123 USH 2 - USH 65 Resurficing\Drawings\01123-PROJ.dwg



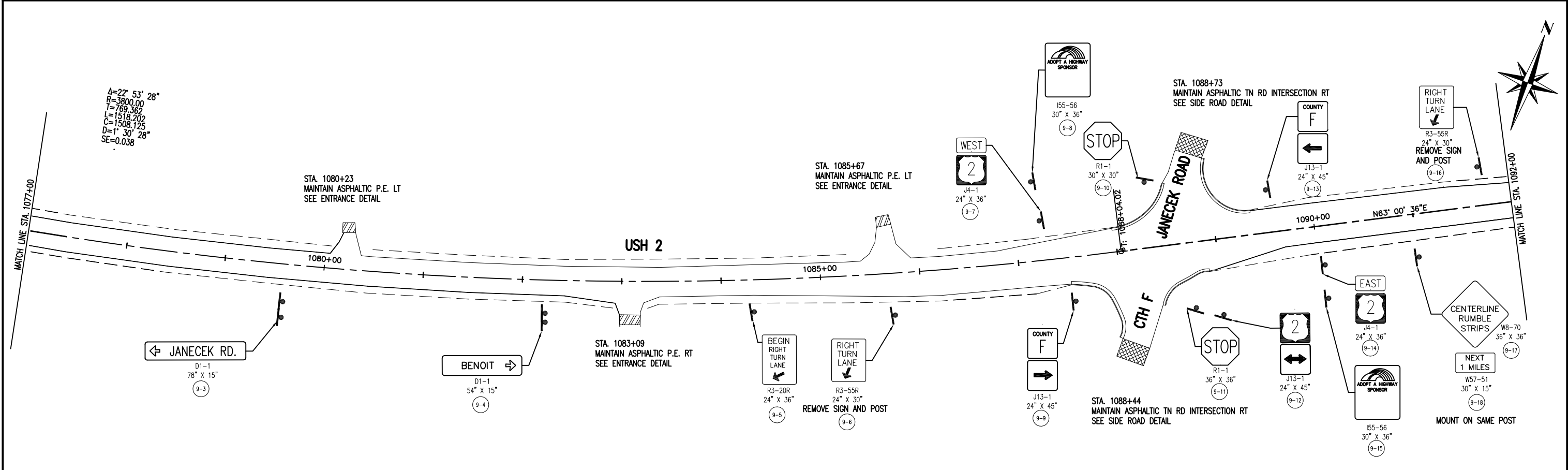
PROJECT NO: 1180-04-60	HWY: USH 2	COUNTY: BAYFIELD	PLAN	SCALE, FEET	SHEET	E
------------------------	------------	------------------	------	-------------	-------	---

5



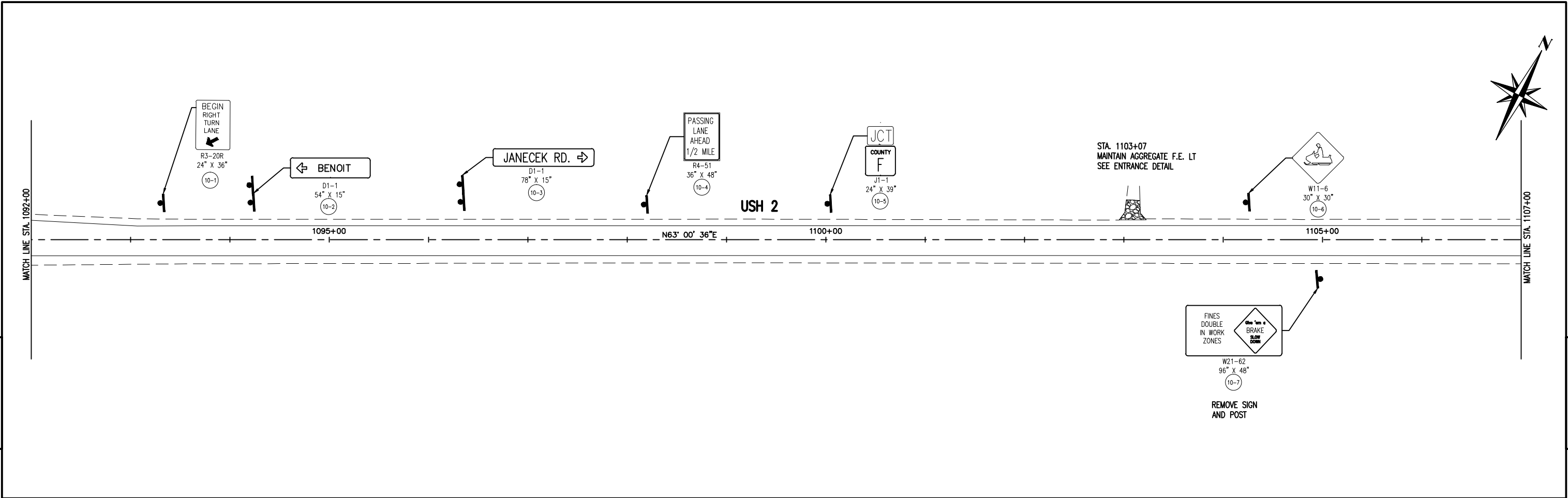
5

Oct 26, 2012 2:44:11 am
Y:\2010 Projects\101123 USH 2 - USH 63 Resurficing Drawings\101123-PR04.dwg

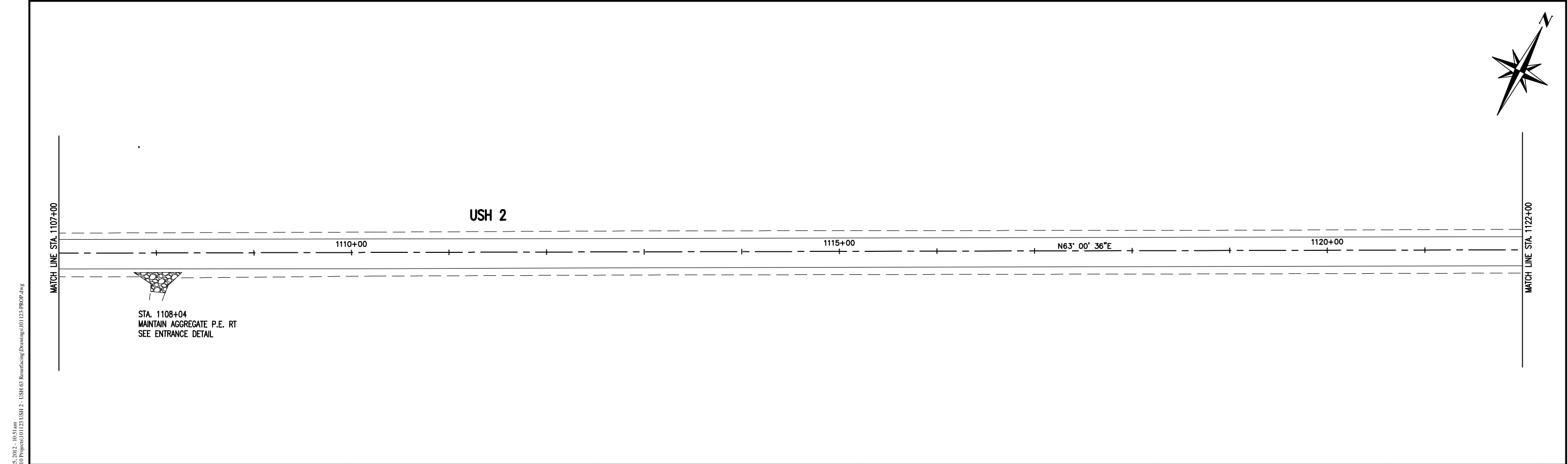


PROJECT NO: 1180-04-60	HWY: USH 2	COUNTY: BAYFIELD	PLAN	SCALE, FEET	0 50 100	SHEET	E
------------------------	------------	------------------	------	-------------	----------	-------	---

5



5

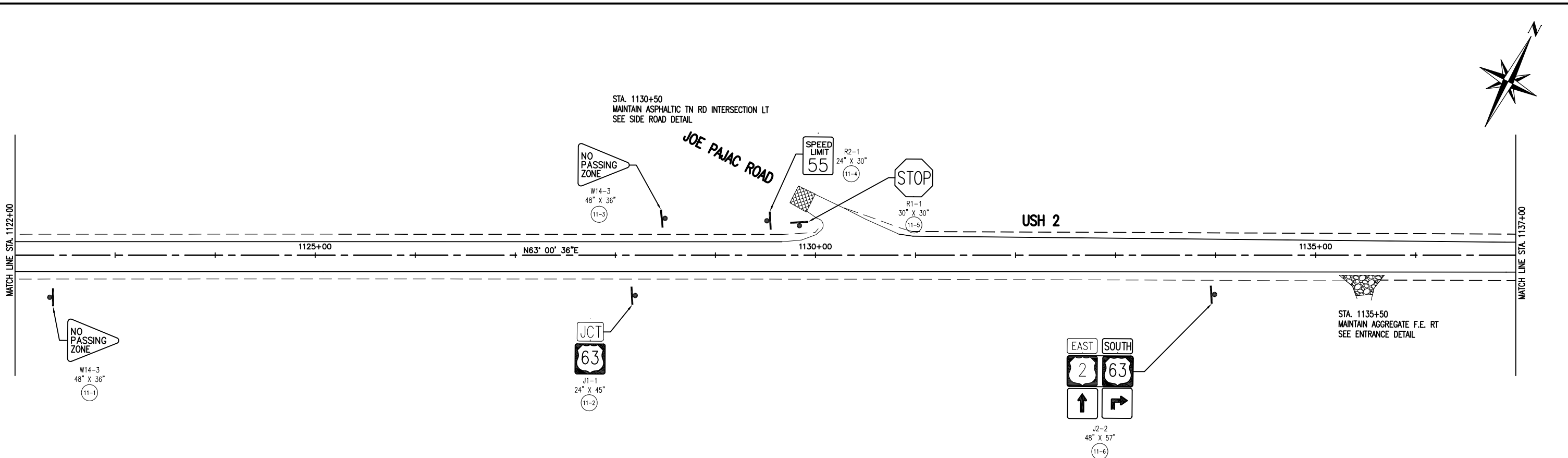


Oct 25, 2012 - 10:51am
Y:\2010 Projects\01123 USH 2 - USH 65 Resurficing\Drawings\01123-PROP.dwg

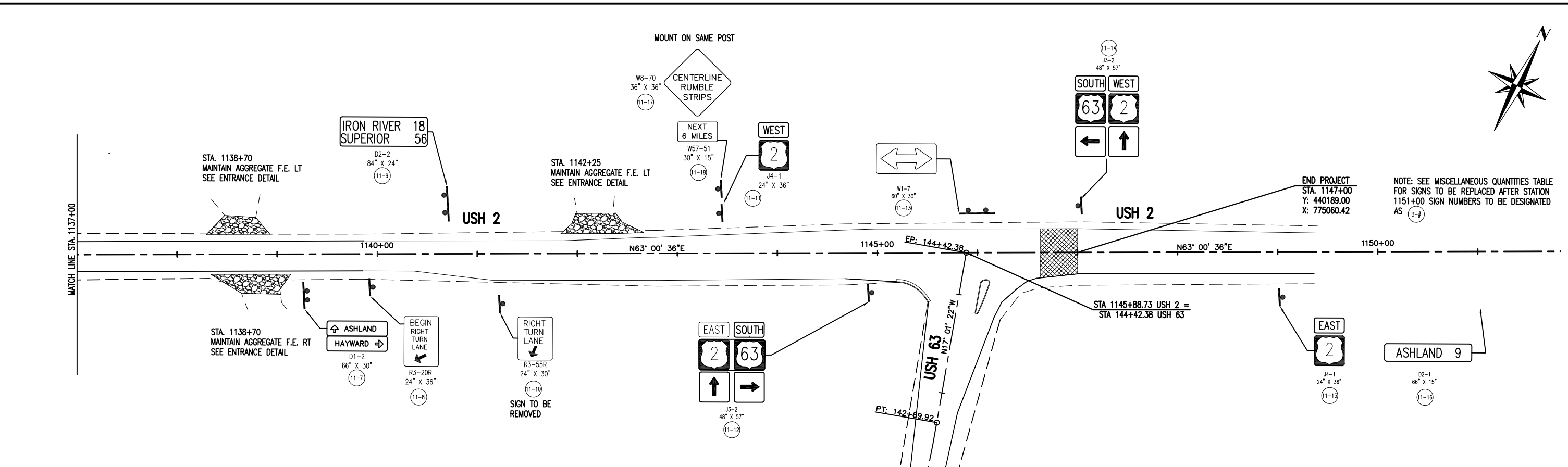
PROJECT NO: 1180-04-60	HWY: USH 2	COUNTY: BAYFIELD	PLAN	SCALE, FEET	SHEET	E
------------------------	------------	------------------	------	-------------	-------	---

5

5



Oct 26, 2012 - 8:42am
V:\2010 Projects\01123 USH 2 - USH 63 Resurficing Drawings\01123-PR01.dwg



PROJECT NO: 1180-04-60

HWY: USH 2

COUNTY: BAYFIELD

PLAN

SCALE, FEET 0 50 100

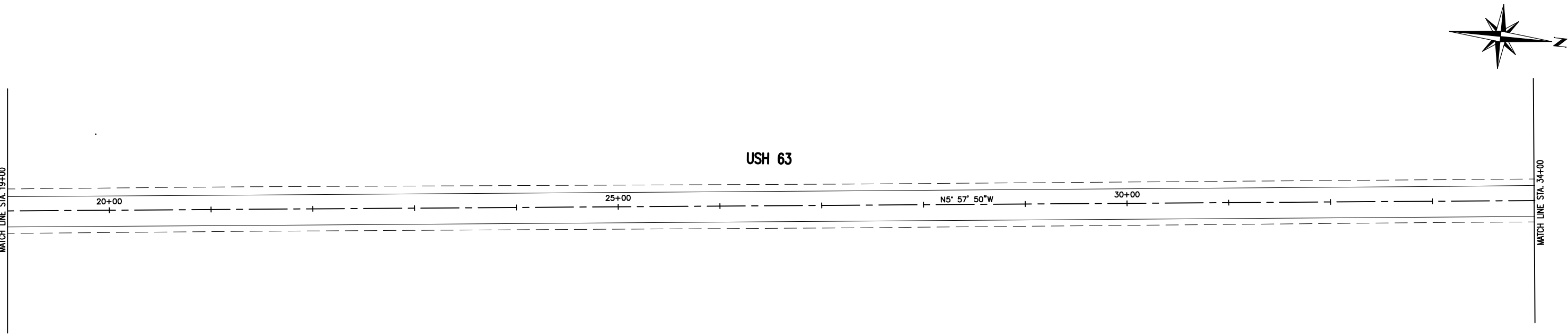
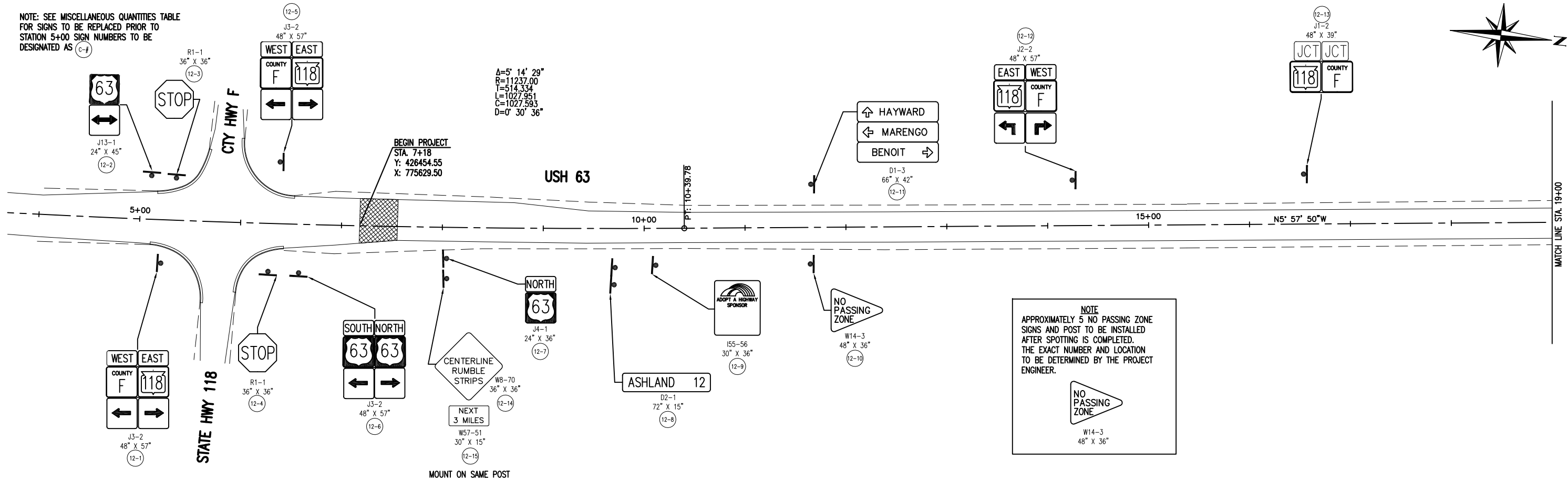
SHEET

E

5

5

NOTE: SEE MISCELLANEOUS QUANTITIES TABLE
FOR SIGNS TO BE REPLACED PRIOR TO
STATION 5+00 SIGN NUMBERS TO BE
DESIGNATED AS (C-#)



Oct 26, 2012 2:45:11 am
V:\2010 Projects\101123 USH 2 - USH 63 Resurficing Drawings\101123-PR01.dwg

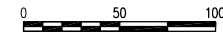
PROJECT NO: 1560-02-60

HWY: USH 63

COUNTY: BAYFIELD

PLAN

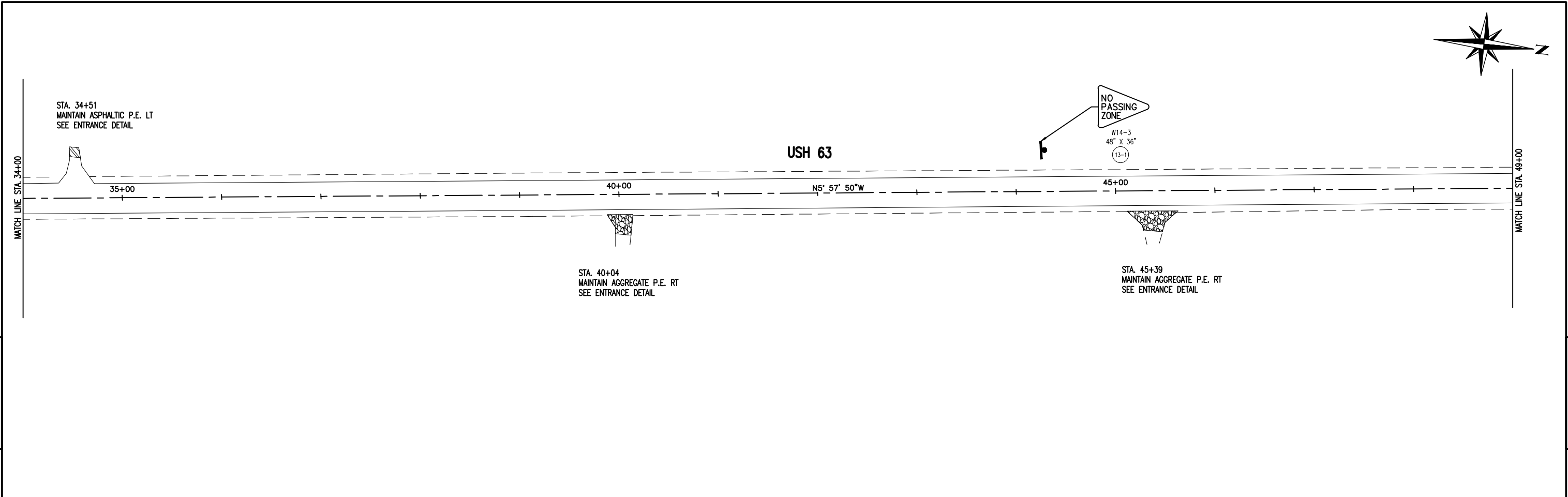
SCALE, FEET



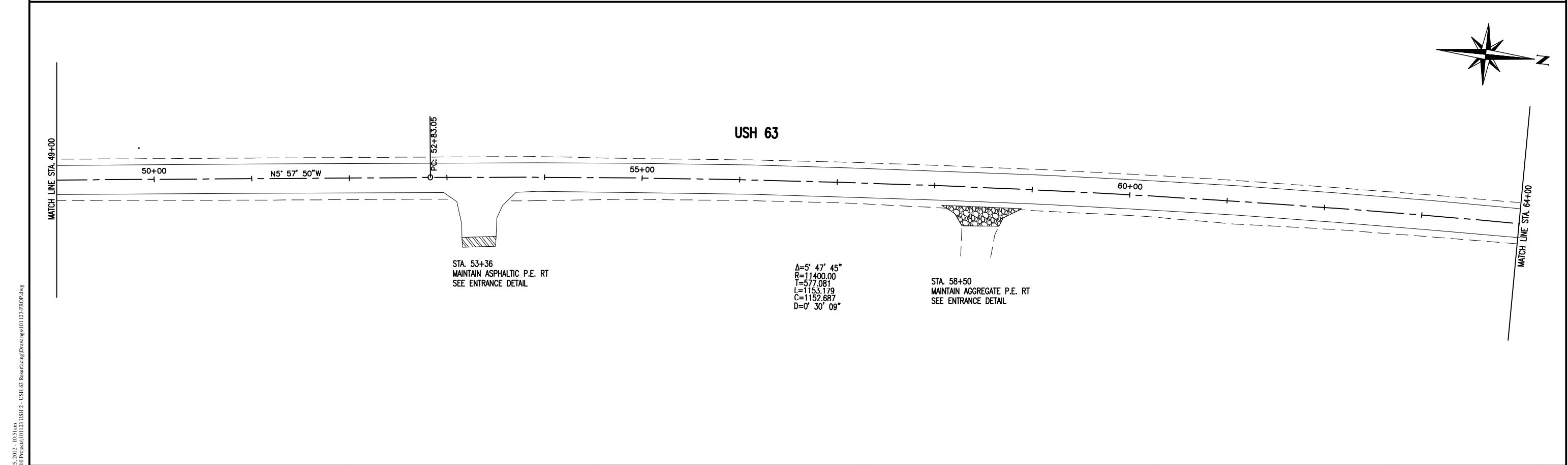
SHEET

E

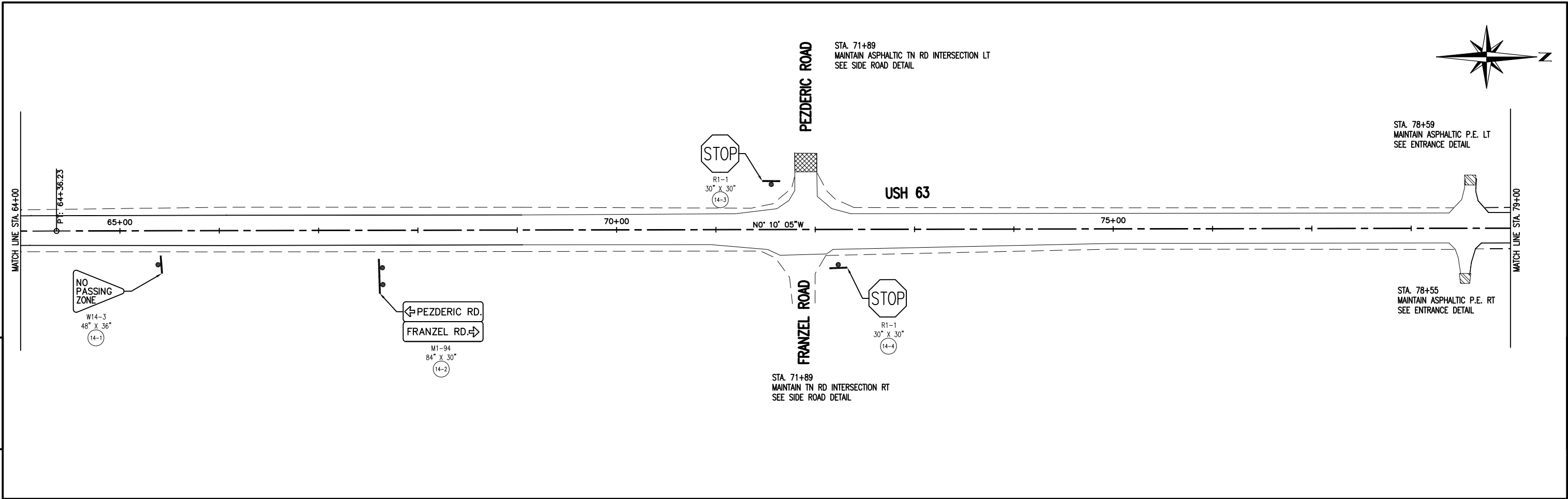
5



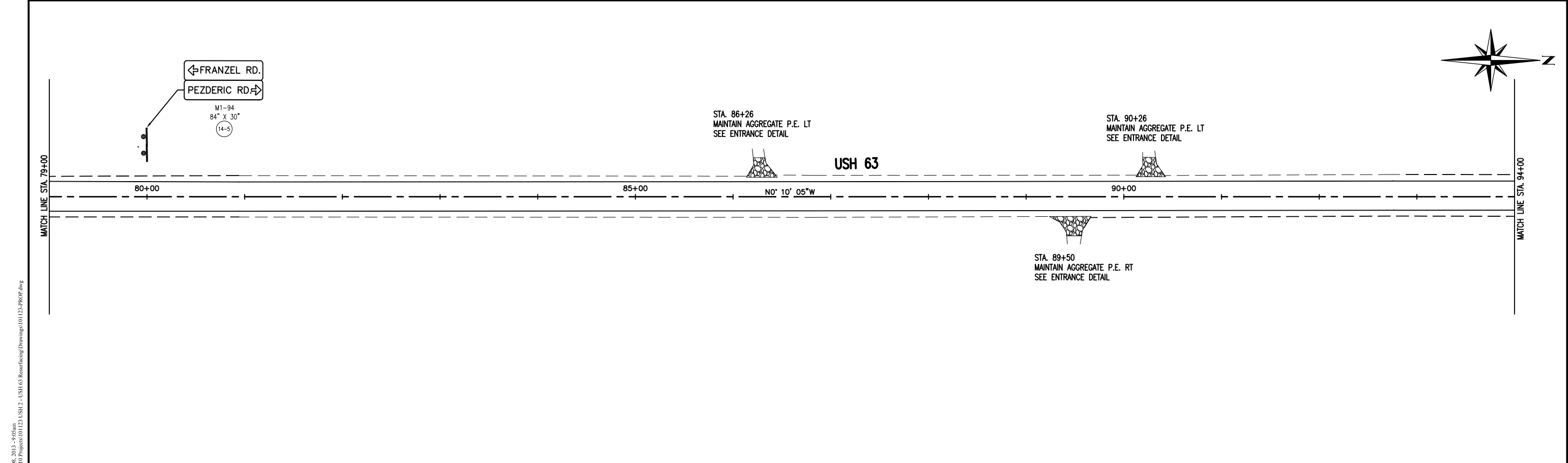
5



5



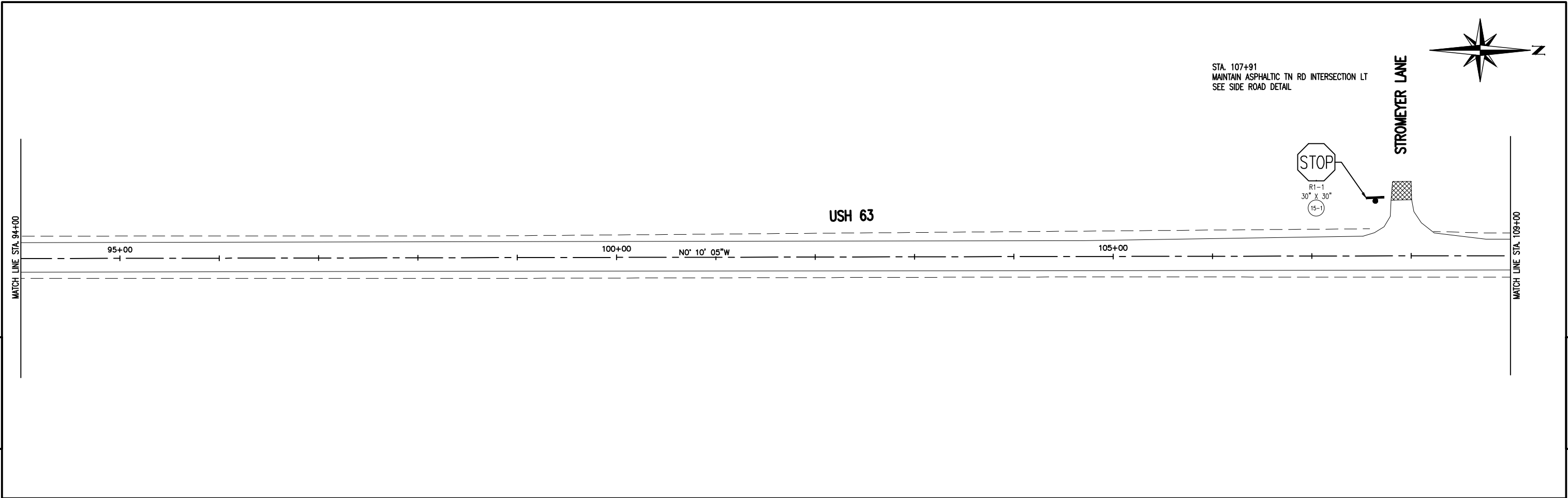
5



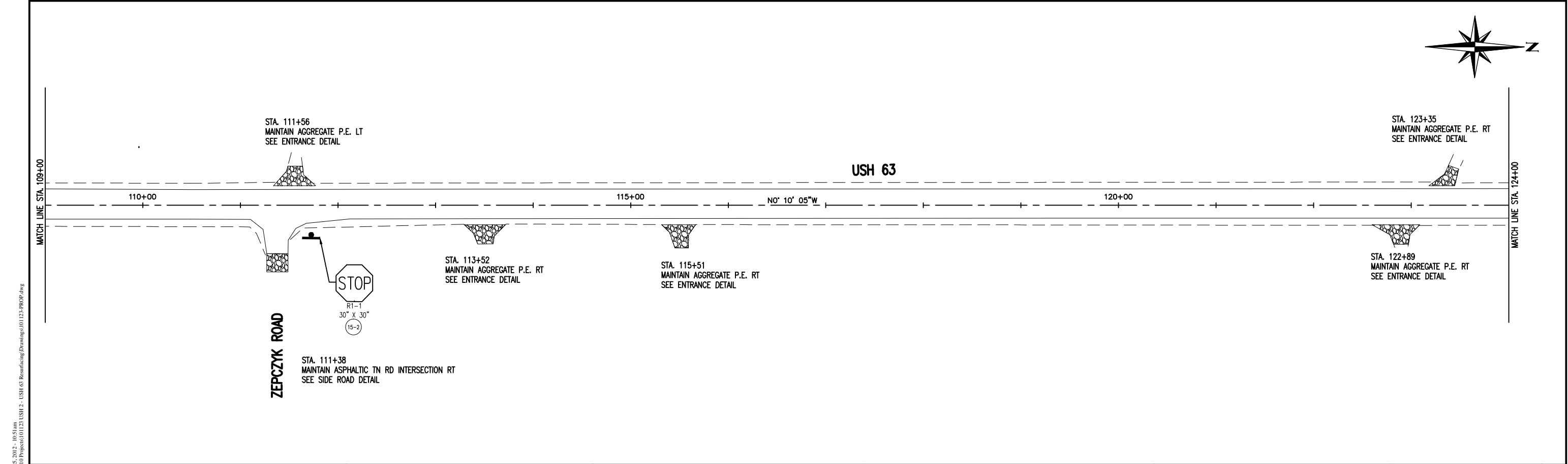
Apr 08, 2013 - 9:05am
V:\2010 Projects\01123 USH 2 - USH 63 Resurficing Drawings\01123-PR01.dwg

PROJECT NO: 1560-02-60	HWY: USH 63	COUNTY: BAYFIELD	PLAN	SCALE, FEET	SHEET	E
------------------------	-------------	------------------	------	-------------	-------	---

5



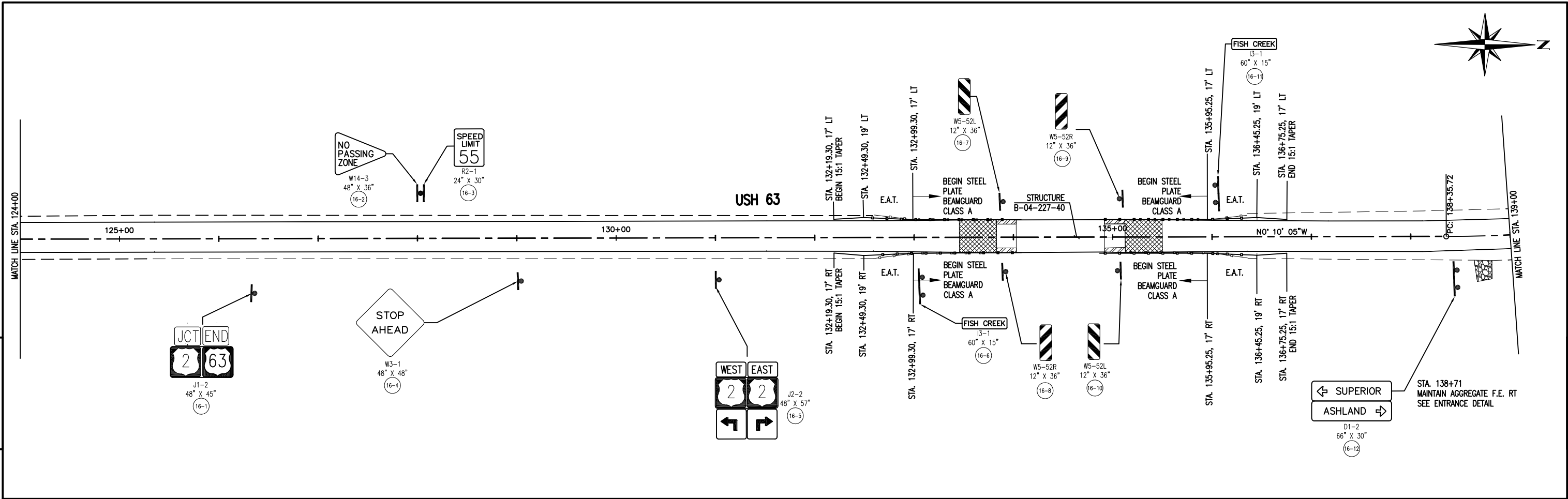
5



PROJECT NO: 1560-02-60	HWY: USH 63	COUNTY: BAYFIELD	PLAN	SCALE, FEET	SHEET	E
------------------------	-------------	------------------	------	-------------	-------	---

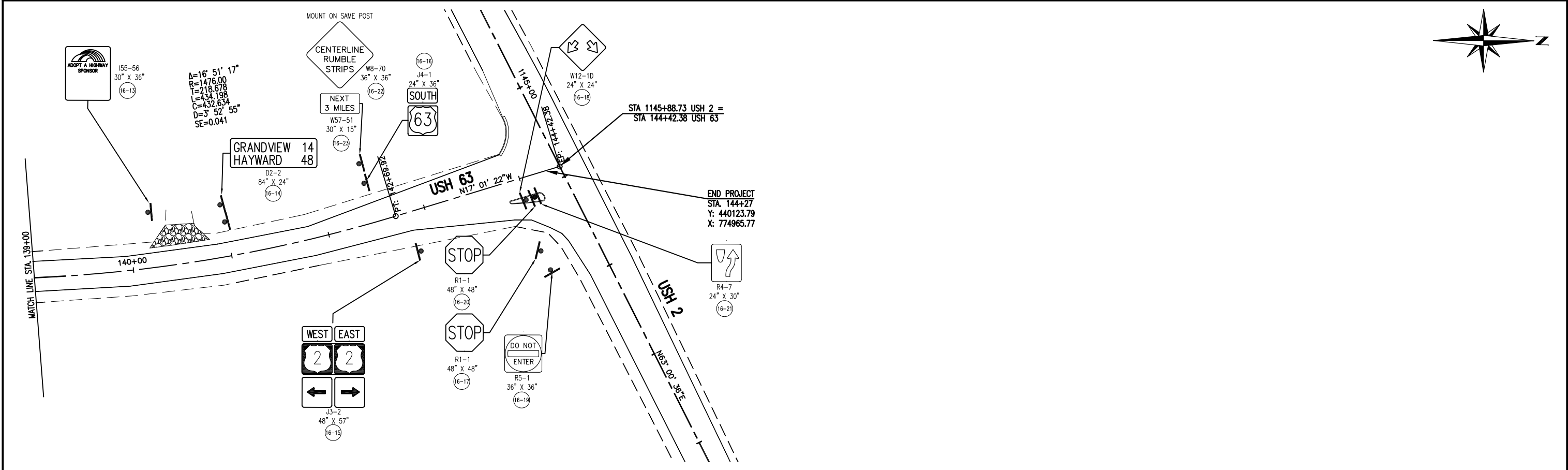
Oct 25, 2012 - 10:51am
Y:\2010 Projects\01125 USH 2 - USH 63 Resurficing\Drawings\01125-PROP.dwg

5



5

Oct 26, 2012 - 8:44am
V:\2010 Projects\01123 USH 2 - USH 63 Resurficing Drawings\01123-PR01.dwg



Standard Detail Drawing List

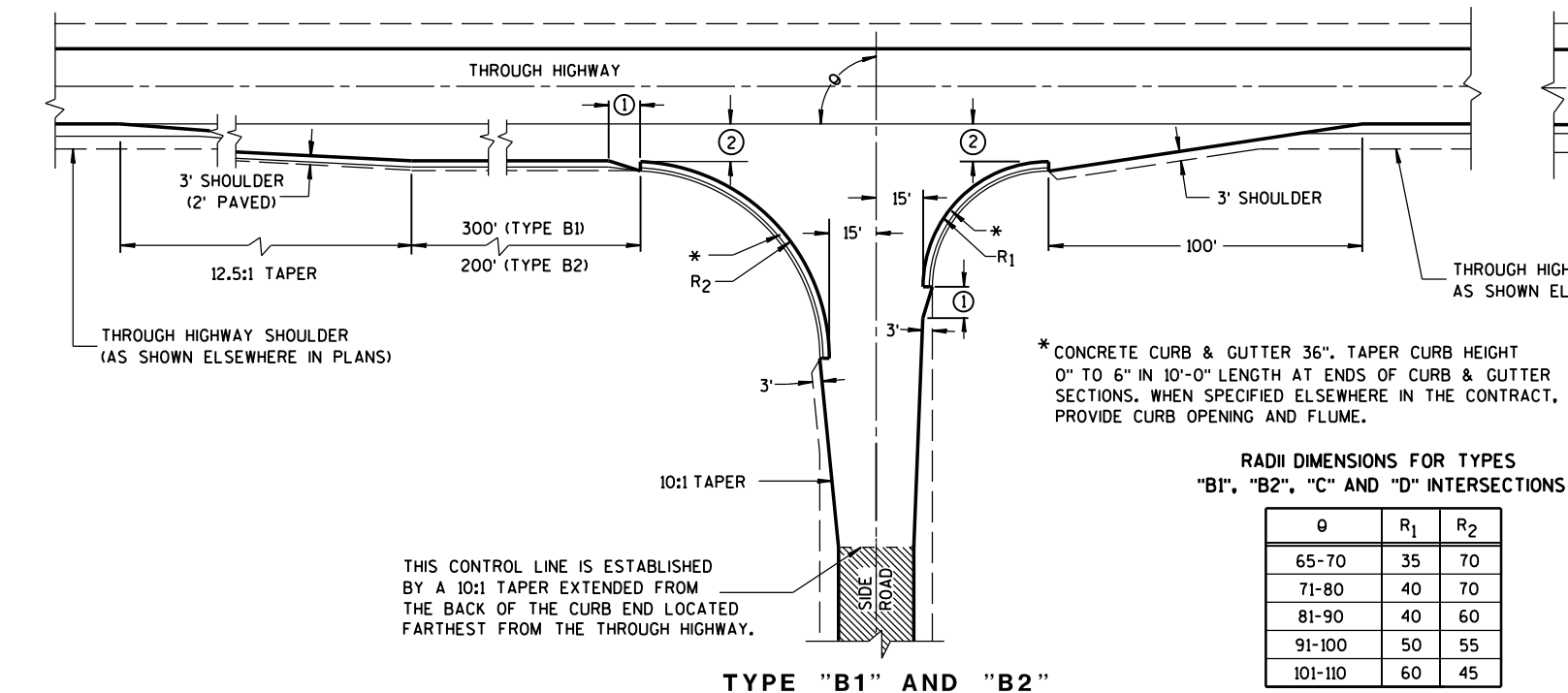
08E09-06	SILT FENCE
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
13A08-01	ASPHALTIC RUMBLE STRIPS AT INTERSECTION
13A11-01A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-01B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C06-05	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15B	PAVEMENT MARKING (INTERSECTIONS)
15C08-15C	PAVEMENT MARKING (CLIMBING LANE & PASSING LANE)
15C08-15D	PAVEMENT MARKING (CLIMBING LANE & PASSING LANE)
15C08-15F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C27-01	DOUBLE ARROW WARNING SIGN PLACEMENT
15D06-02	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION



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



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



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

θ	R ₁	R ₂
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

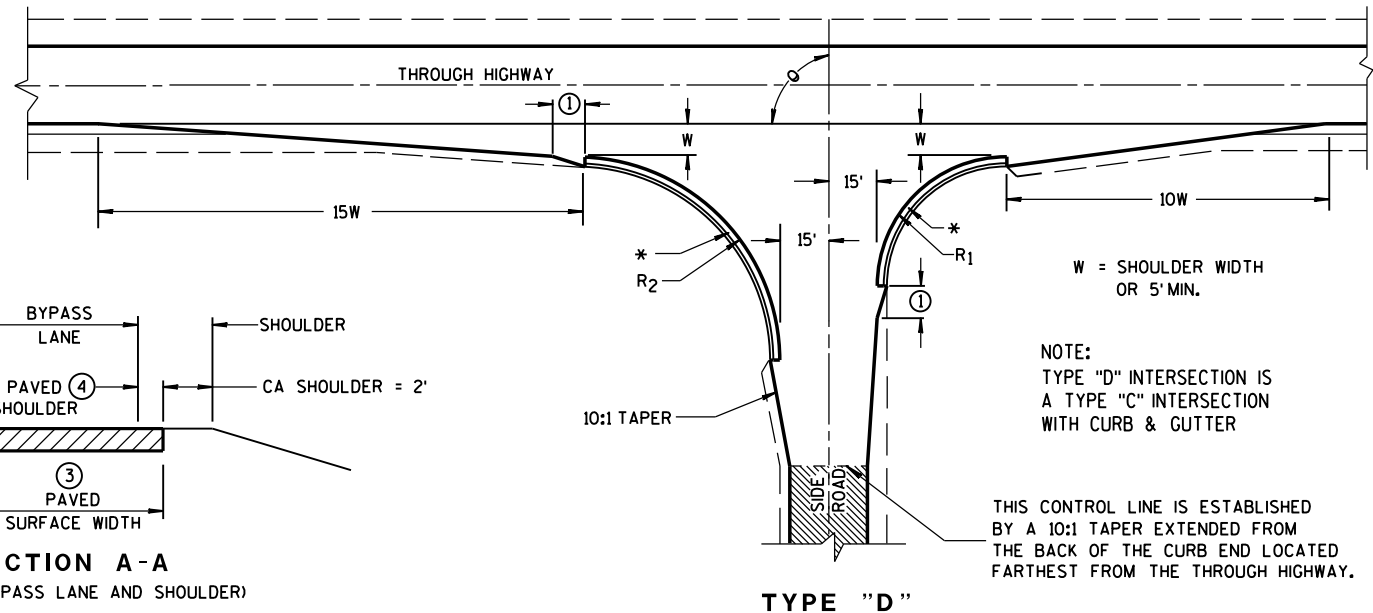
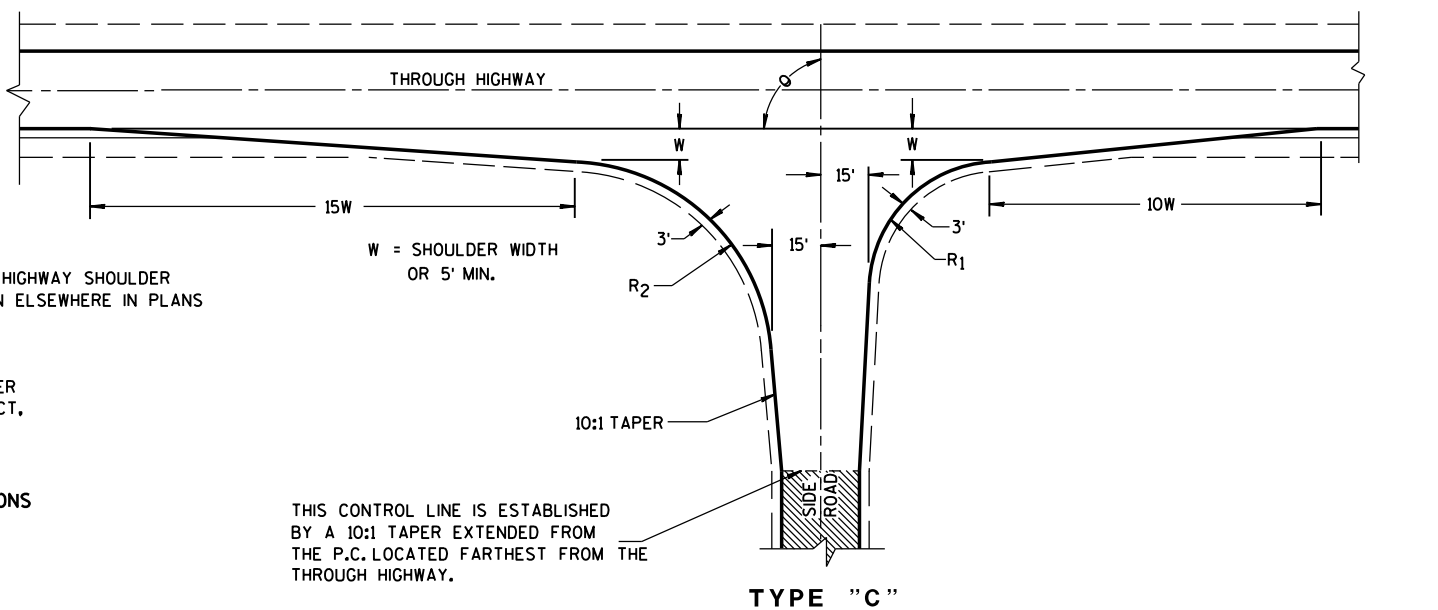
WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

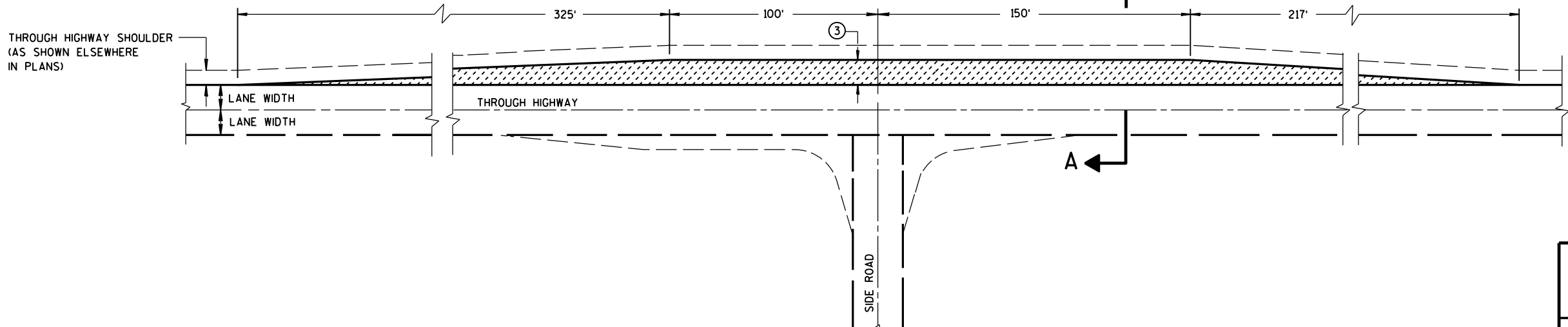
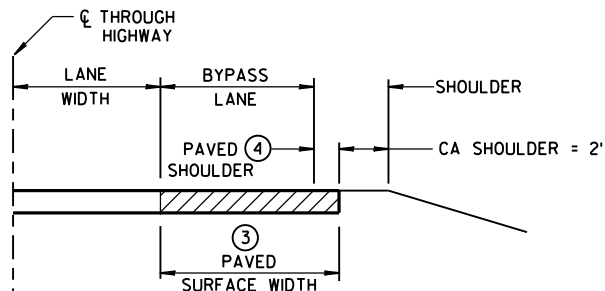
BYPASS LANE

- 10-FT TYPICAL.
- 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.
- BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



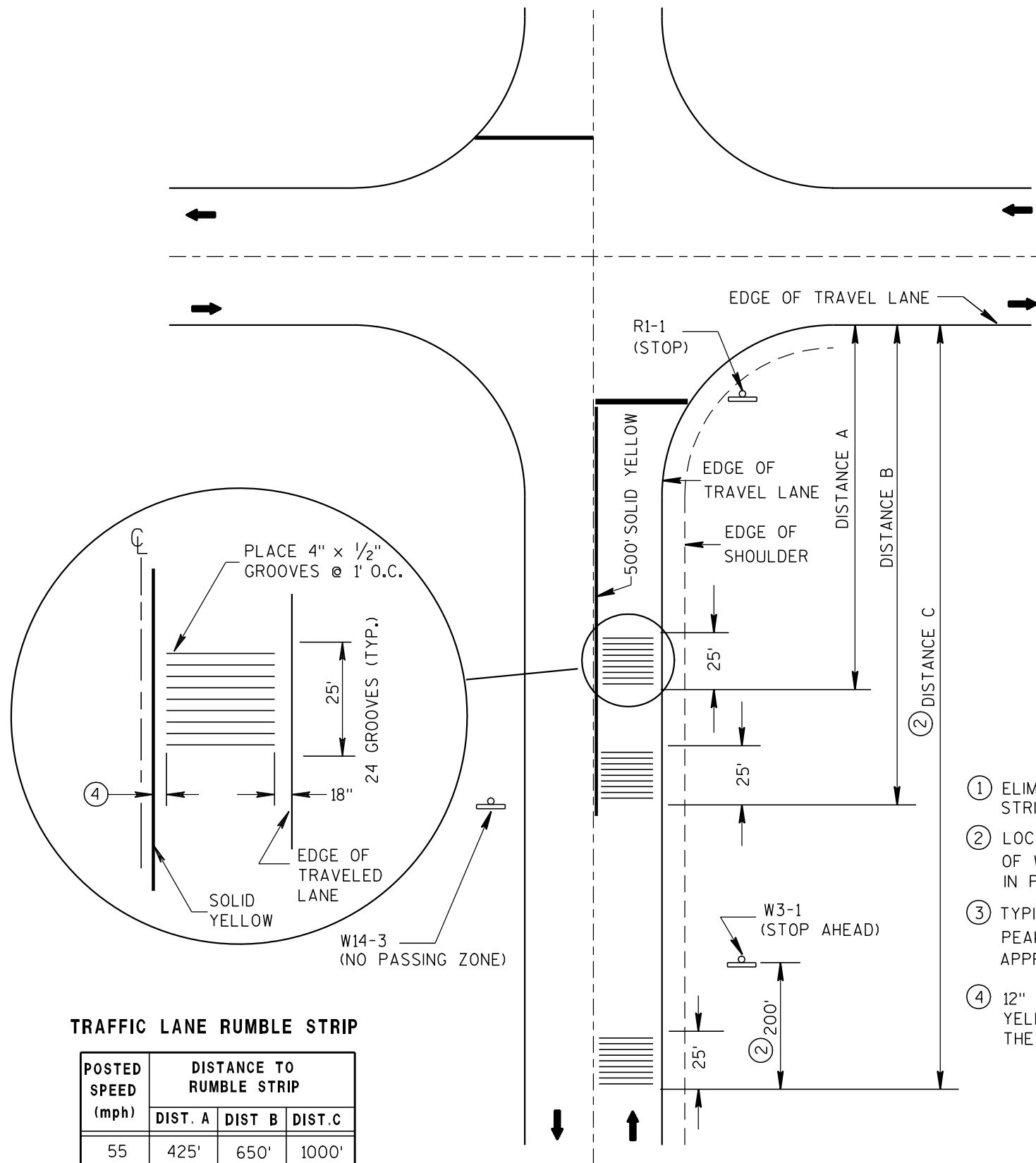
NOTE: TYPE "D" INTERSECTION IS A TYPE "C" INTERSECTION WITH CURB & GUTTER



TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TRAFFIC LANE RUMBLE STRIP

POSTED SPEED (mph)	DISTANCE TO RUMBLE STRIP		
	DIST. A	DIST. B	DIST. C
55	425'	650'	1000'
50	325'	450'	800'
45	275'	400'	650'
40	225'	①	550'
35	175'	①	475'
≤ 30	125'	①	425'

ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL

PLAN VIEW RUMBLE STRIP LOCATION

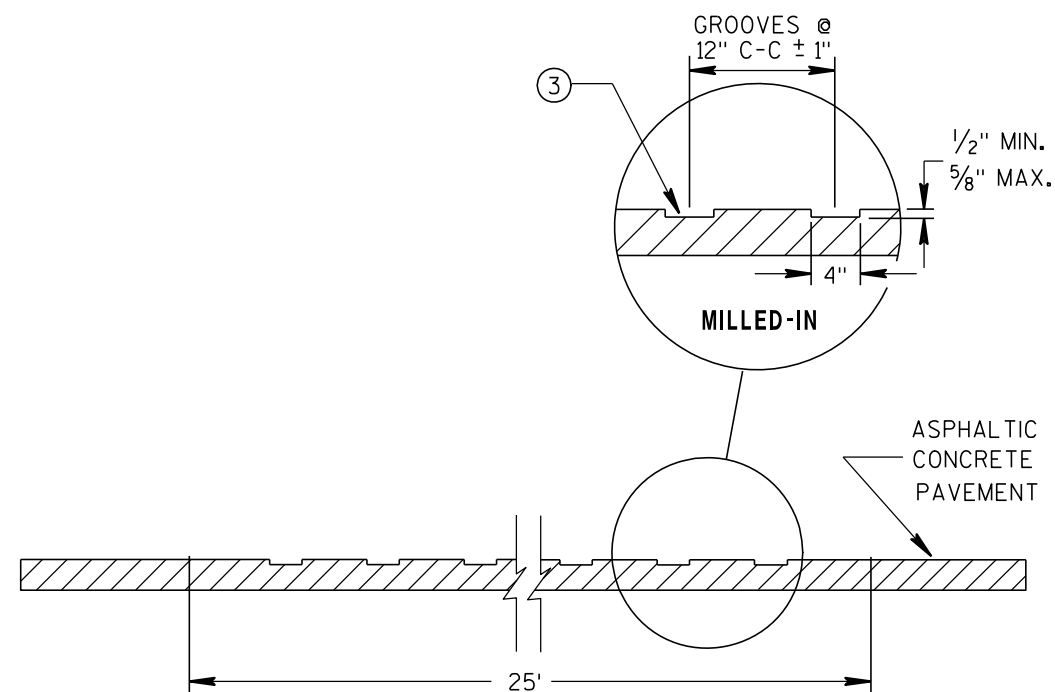
- ① ELIMINATE THE MIDDLE SET OF RUMBLE STRIPS.
- ② LOCATE RUMBLE STRIP 200' IN ADVANCE OF W3-1 SIGN AS SHOWN. IF W3-1 IS NOT IN PLACE, USE DISTANCE C.
- ③ TYPICAL VERTICAL VARIATION BETWEEN PEAKS AND VALLEYS WITHIN THE CUT APPROXIMATELY $\frac{1}{16}$ "
- ④ 12" CLEAR BETWEEN THE SOLID YELLOW LINE AND THE EDGE OF THE RUMBLE.

GENERAL NOTES

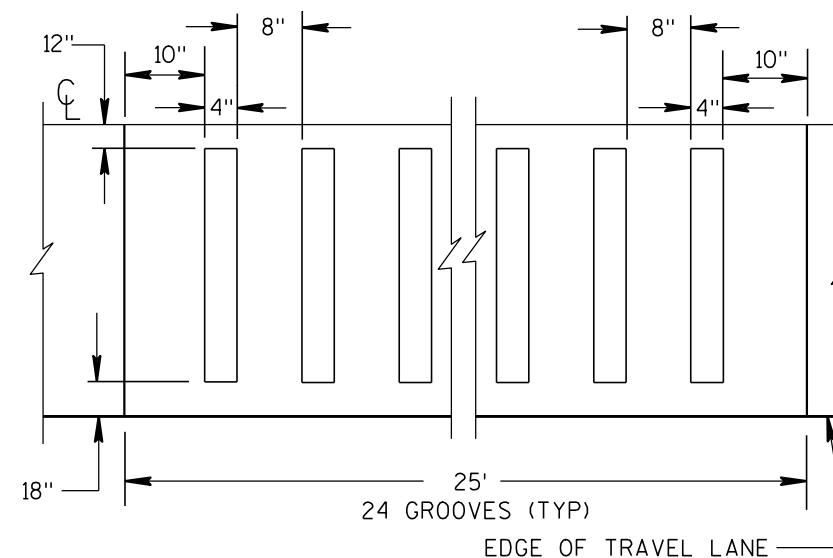
CONTRACTOR SHALL CONFIRM RUMBLE STRIP LOCATION WITH THE ENGINEER PRIOR TO INSTALLATION. THE ENGINEER MAY MODIFY THE RUMBLE STRIP LOCATION AS FIELD CONDITIONS DICTATE.

WHEN ASPHALTIC PAVEMENT IS NEW IN THE RUMBLE AREA THE CONTRACTOR SHALL ALLOW THE PAVEMENT TO CURE A MINIMUM OF 7 DAYS PRIOR TO RUMBLE INSTALLATION.

PAVEMENT MARKING AND SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.



ELEVATION VIEW



PLAN VIEW
ASPHALTIC PAVEMENT
MILLED-IN

ASPHALTIC RUMBLE STRIPS AT INTERSECTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

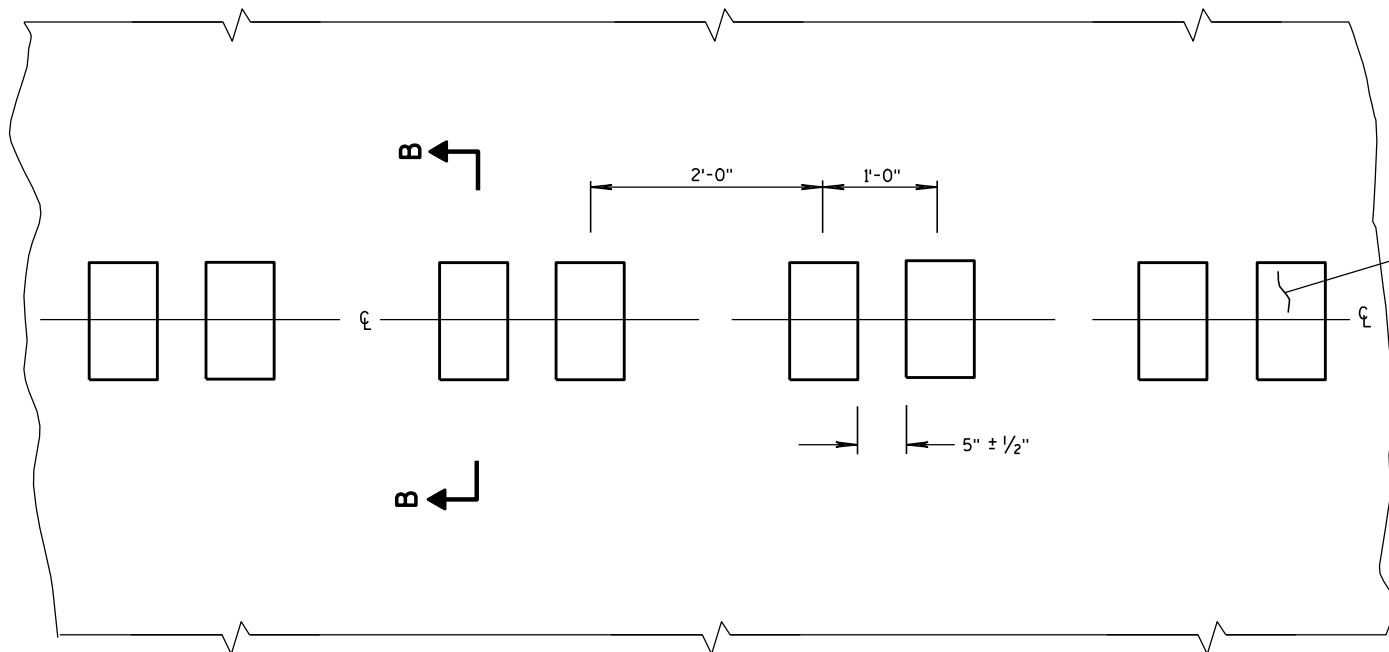
APPROVED

8/17/2011

DATE

FHWA

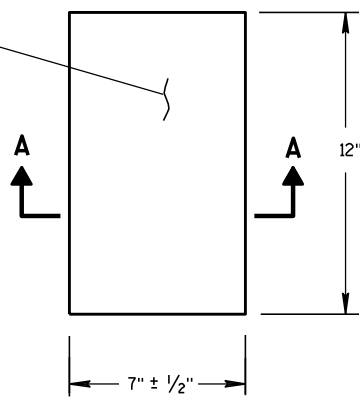
/s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



PLAN VIEW
CENTER LINE WITH GROOVES

6

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

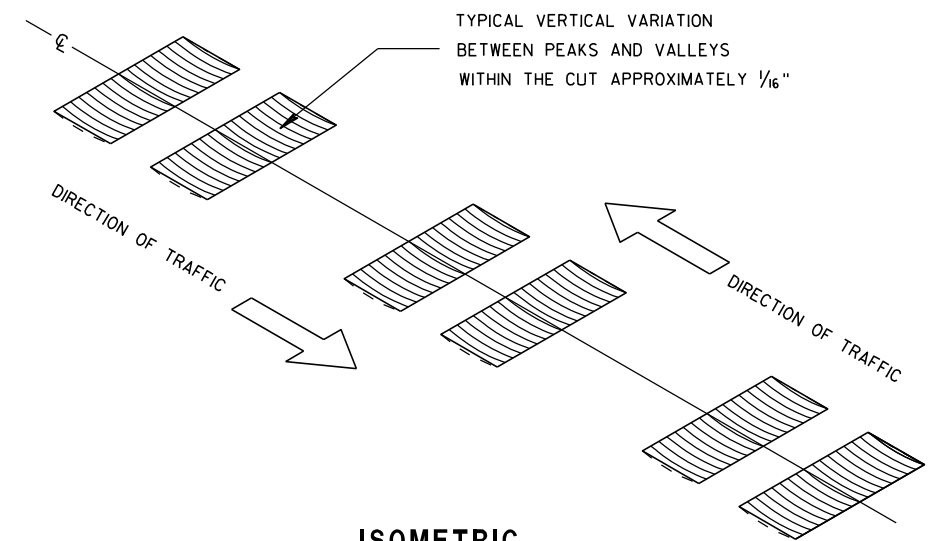
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

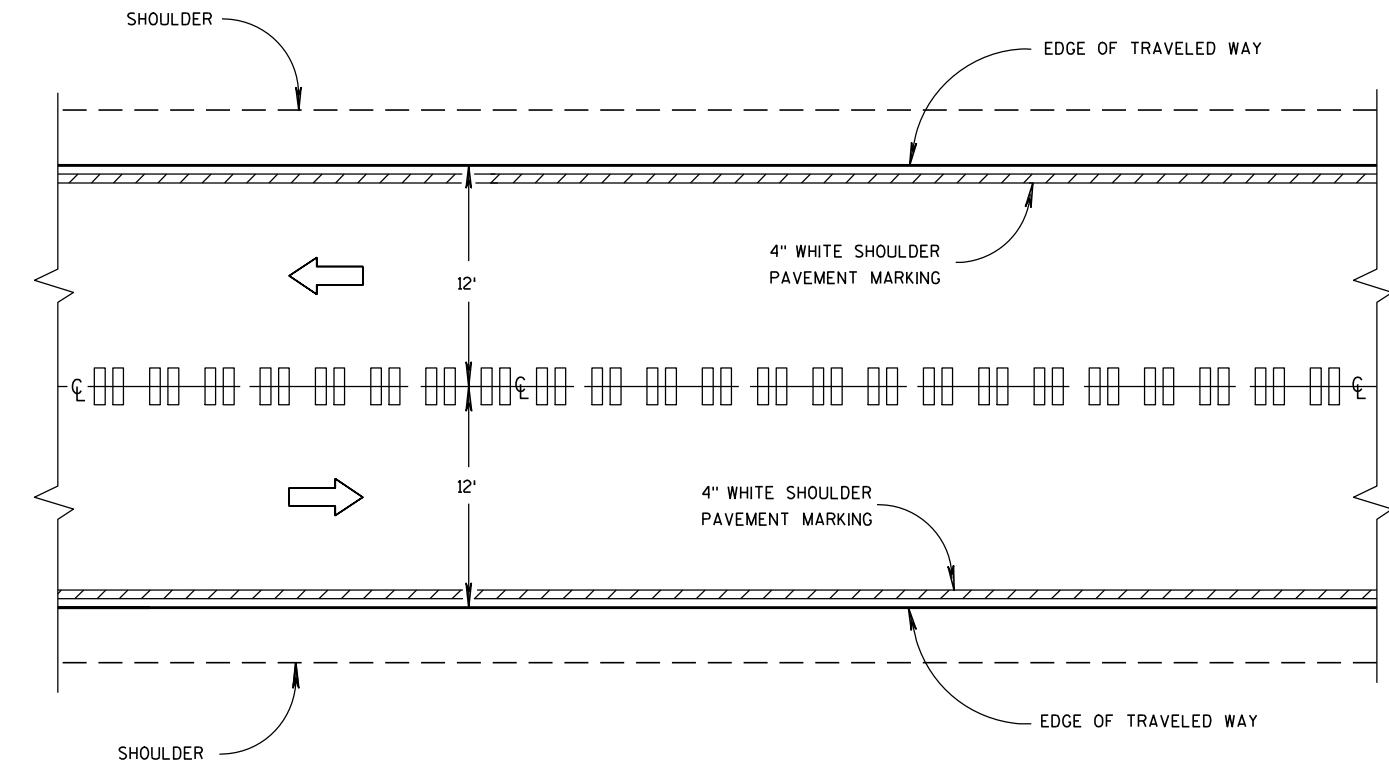
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

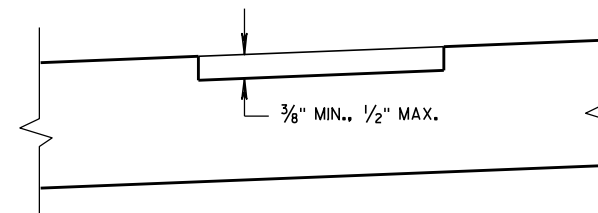
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



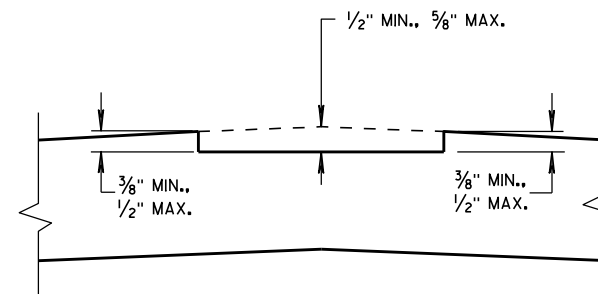
ISOMETRIC



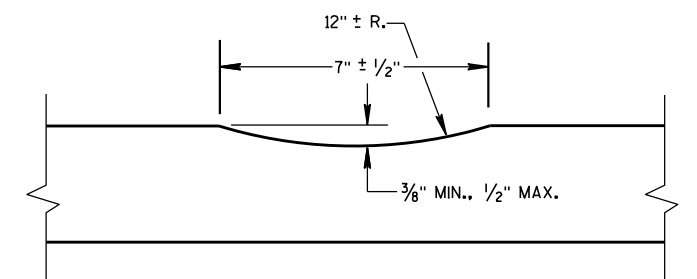
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



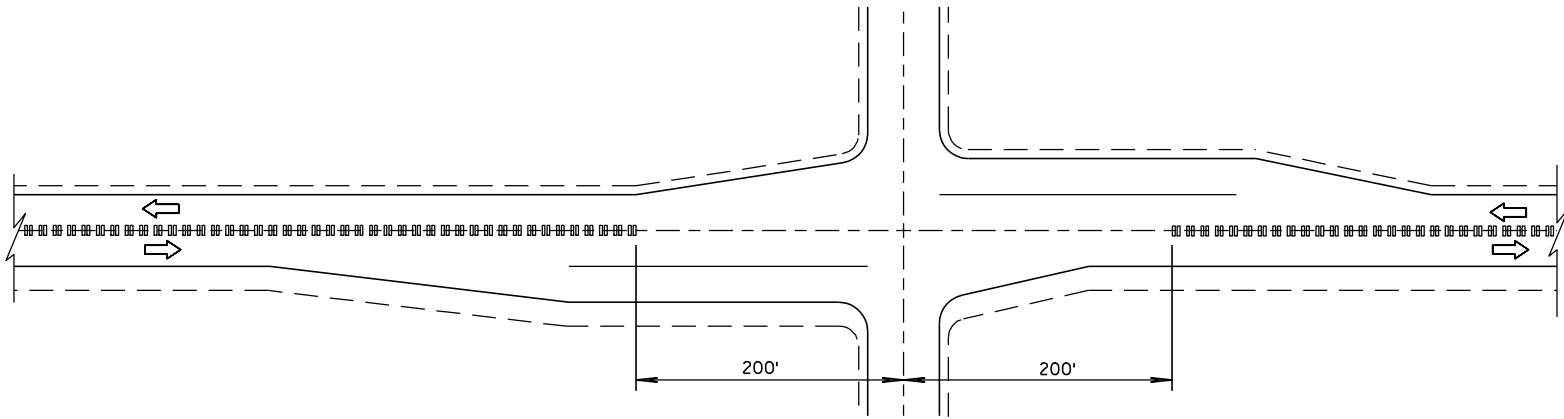
SECTION B-B
CROWNED ROADWAY



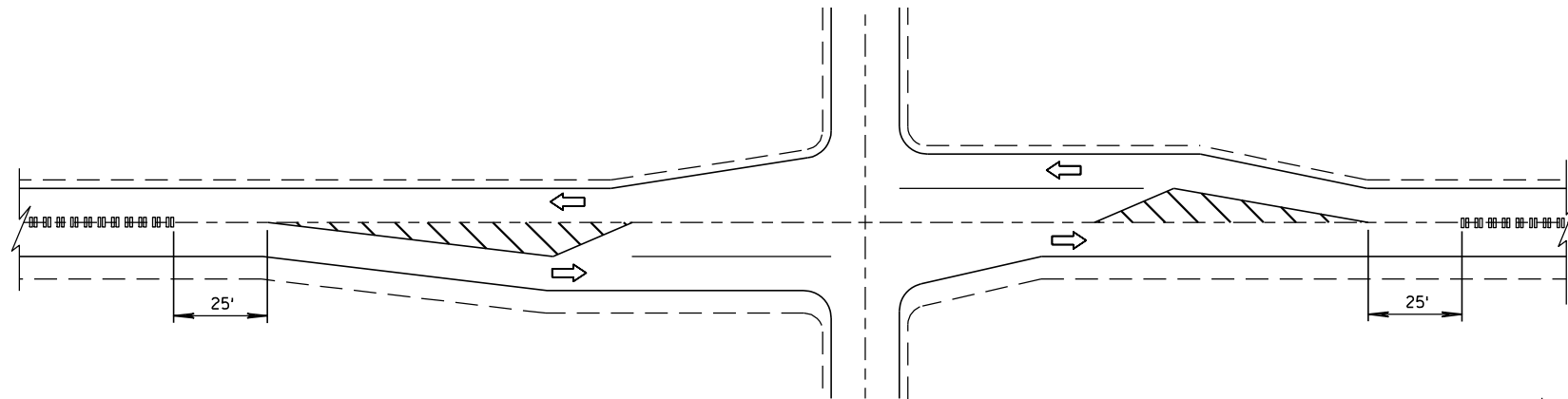
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

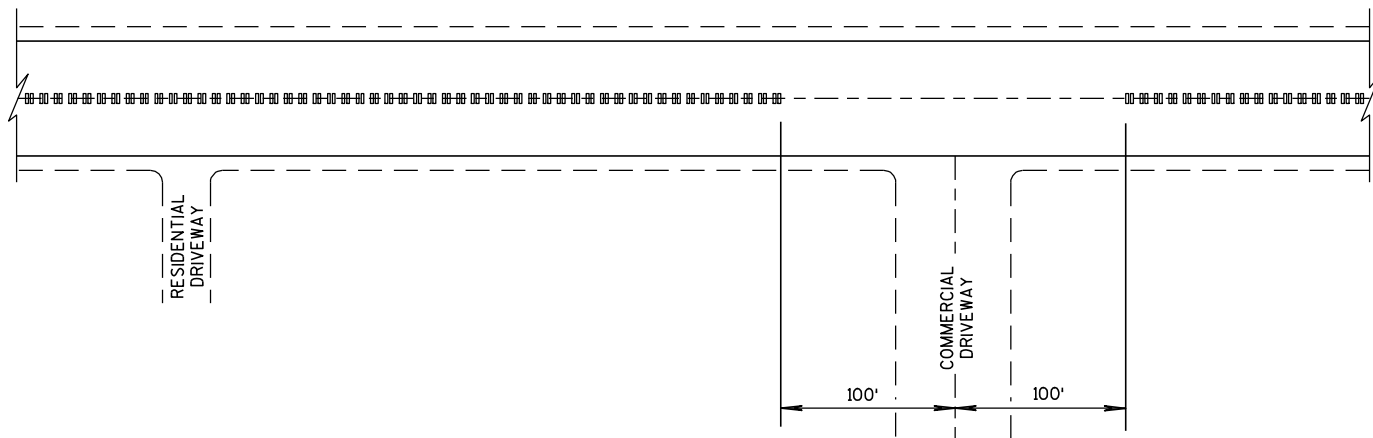
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

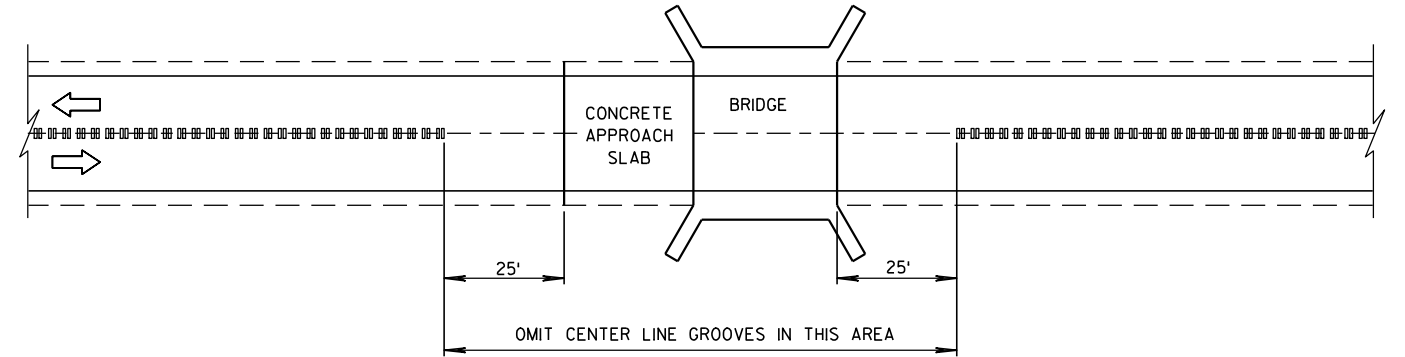


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

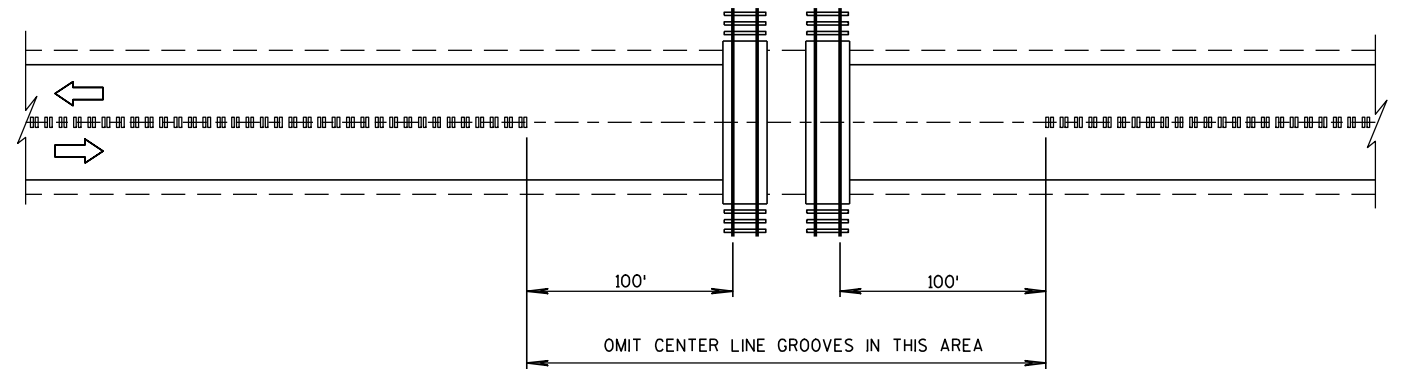


CENTER LINE GROOVES AT DRIVEWAYS ¹

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



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

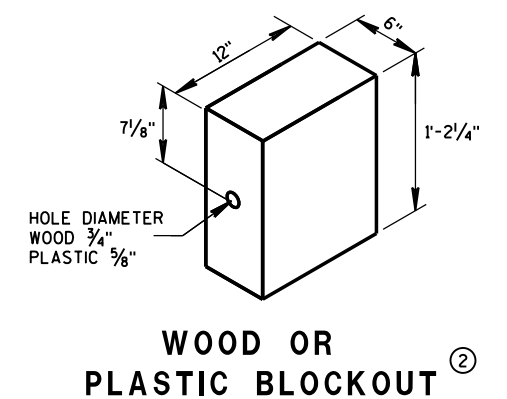
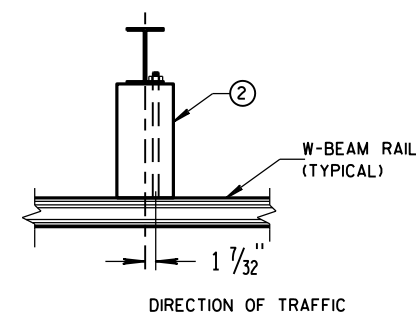
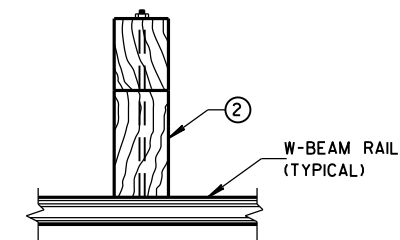
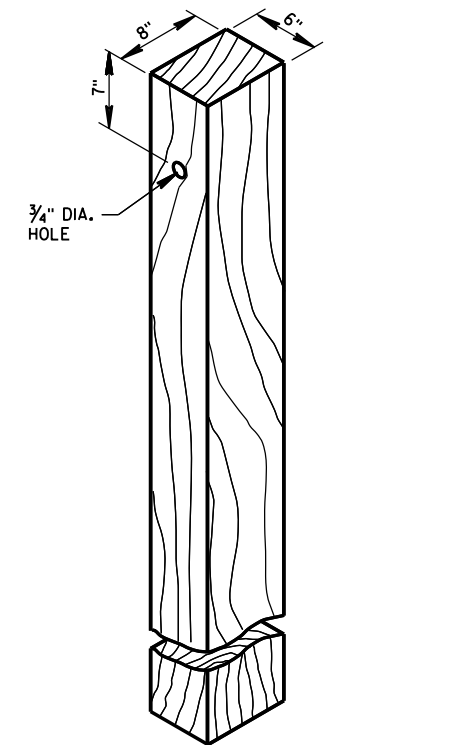
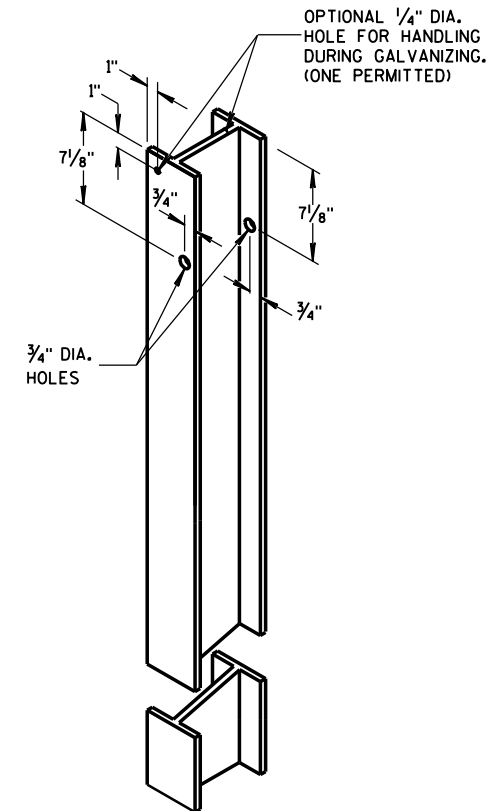
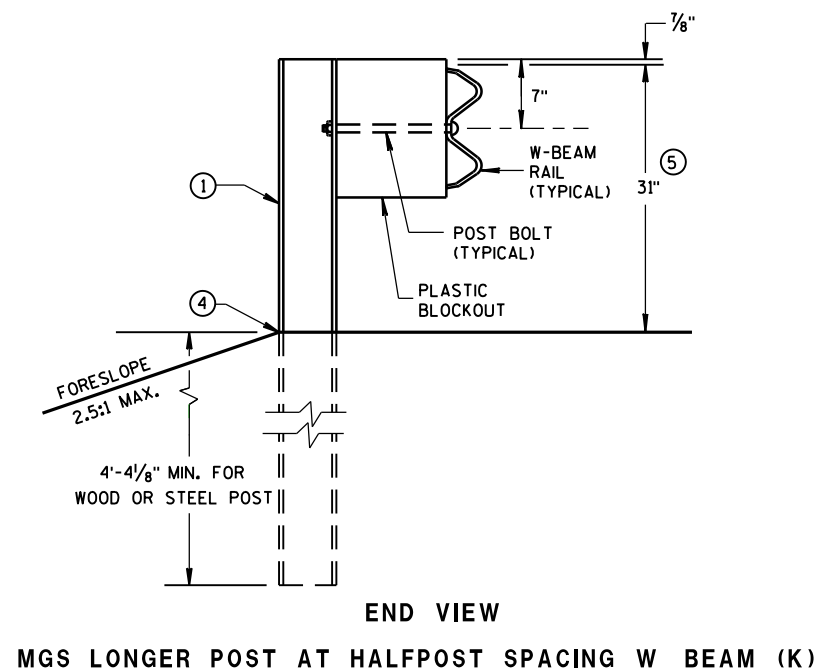
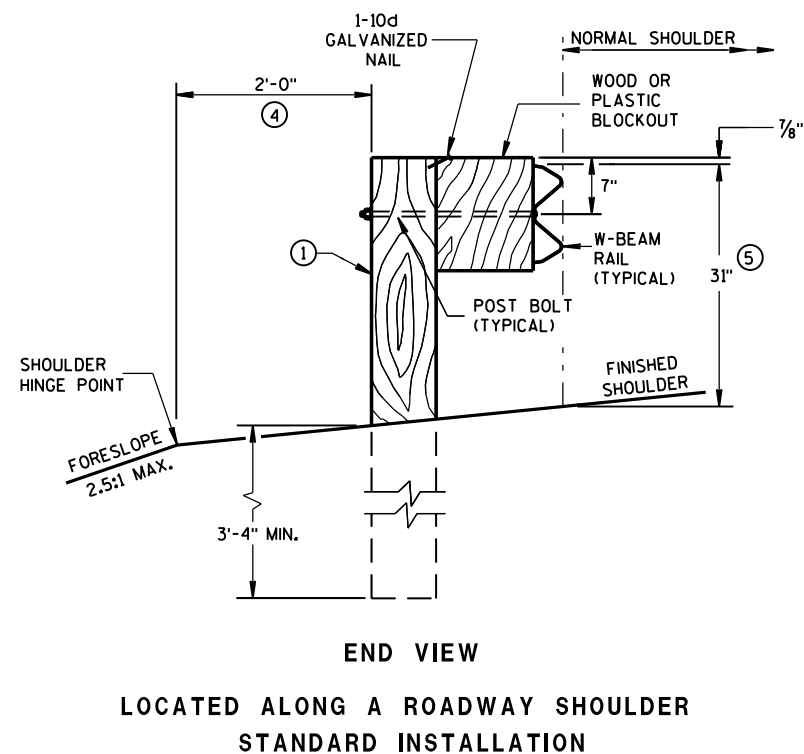
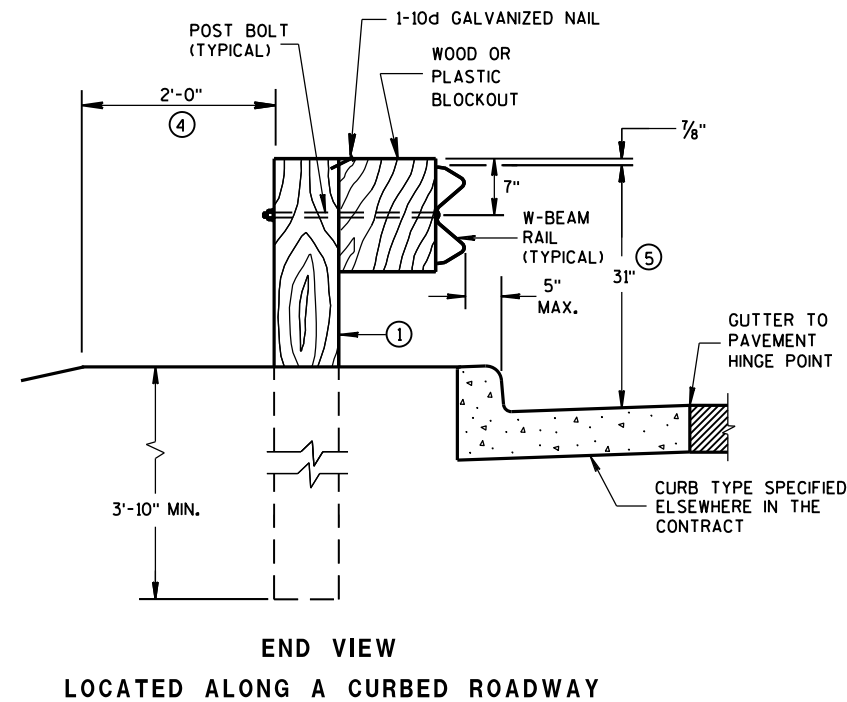
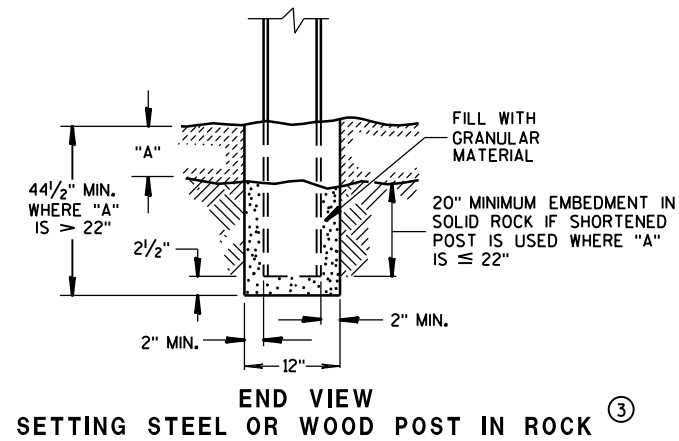
2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/28/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

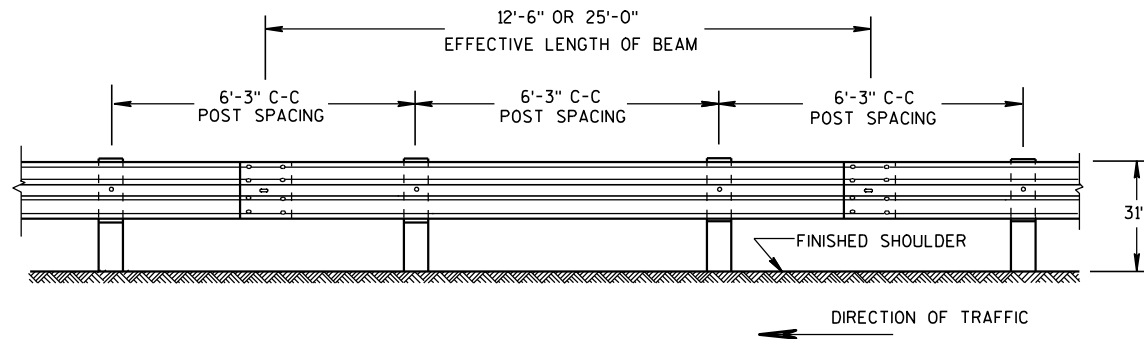
S.D.D. 14 B 42-2a

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



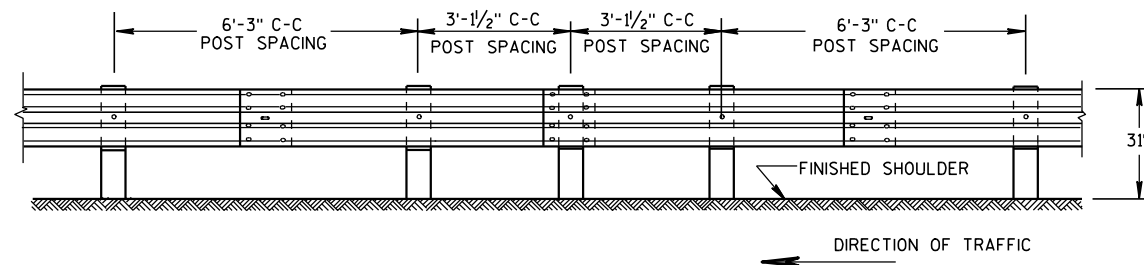
**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



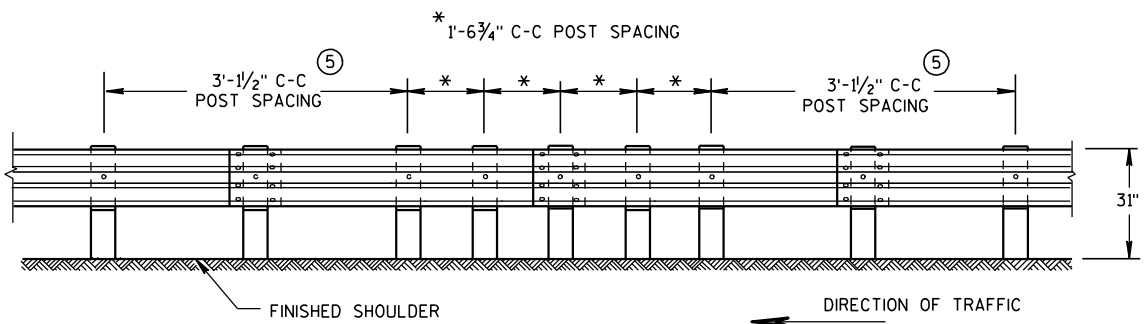
FRONT VIEW

POST SPACING STANDARD INSTALLATION



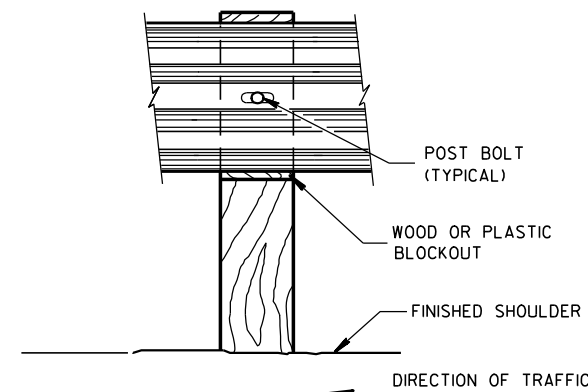
FRONT VIEW

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

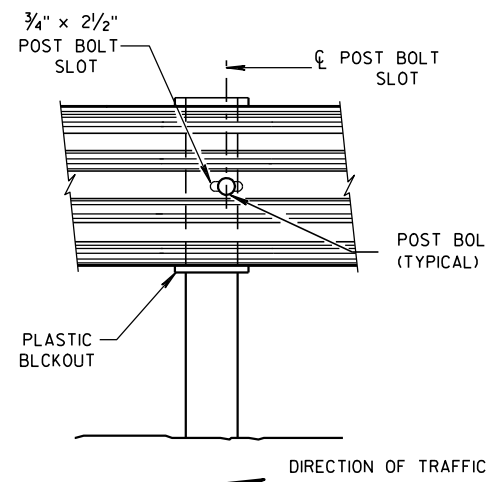


FRONT VIEW

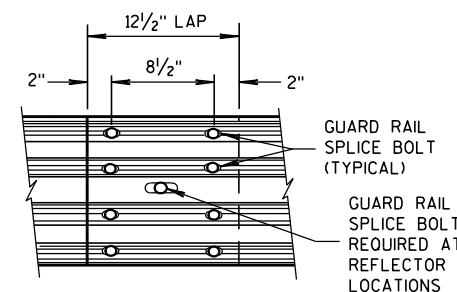
QUARTER POST SPACING (QS)



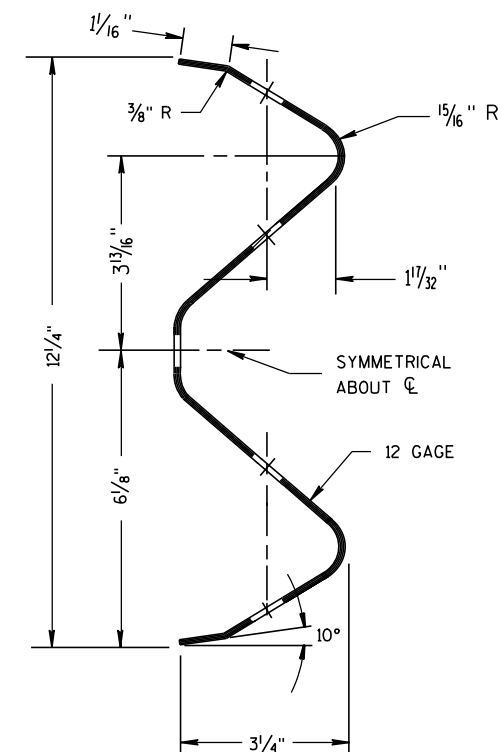
FRONT VIEW AT WOOD POST



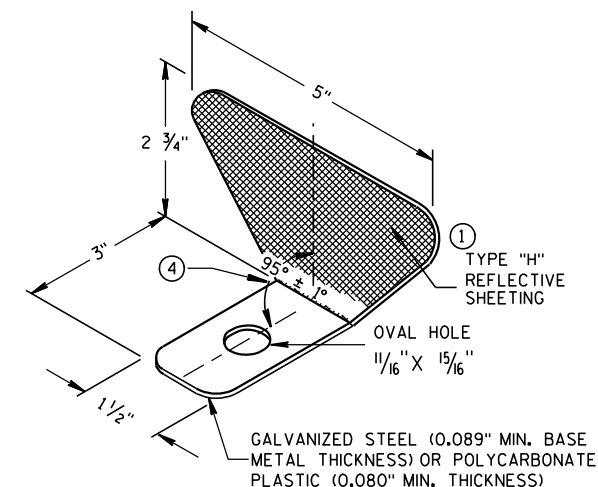
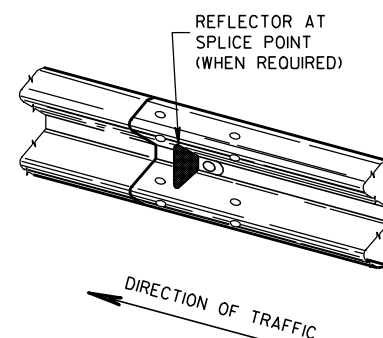
FRONT VIEW AT STEEL POST



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.

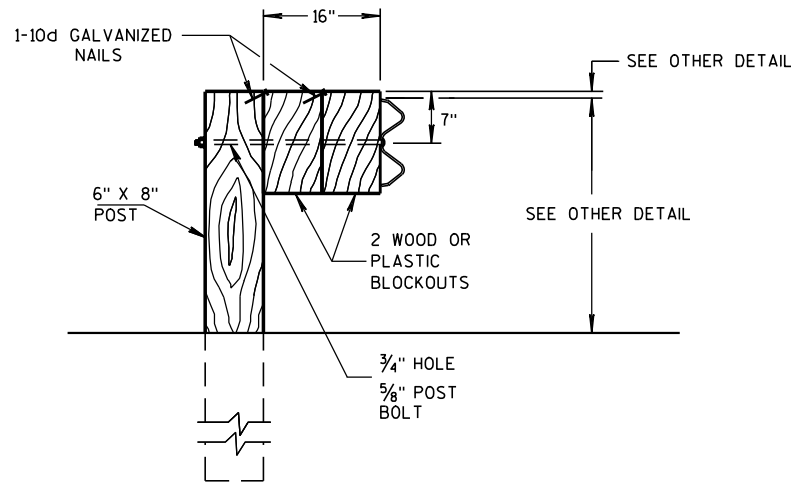
GUARD RAIL SPLICE BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

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	

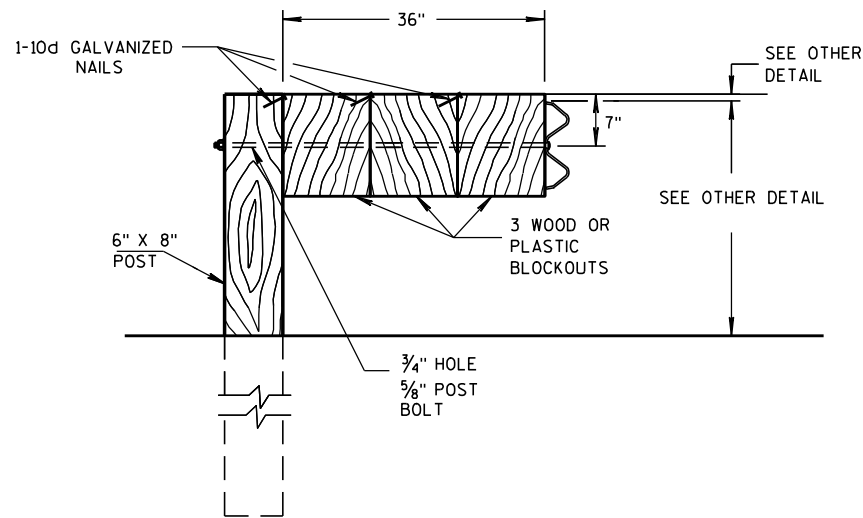
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

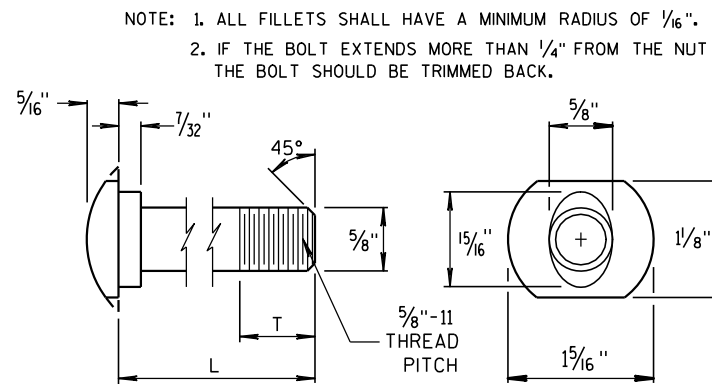
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



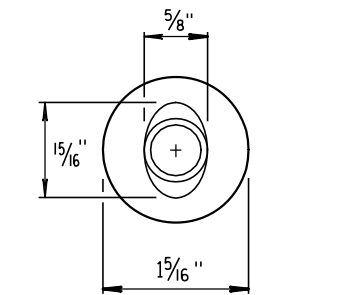
DETAIL FOR 36" BLOCKOUT DEPTH

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.

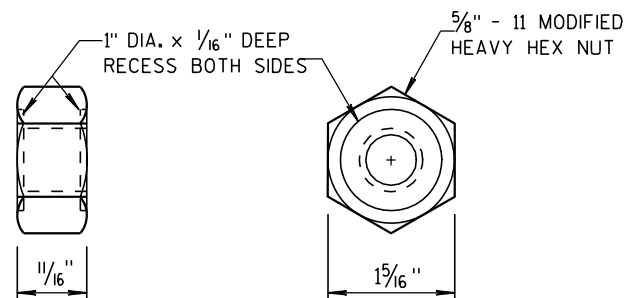
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



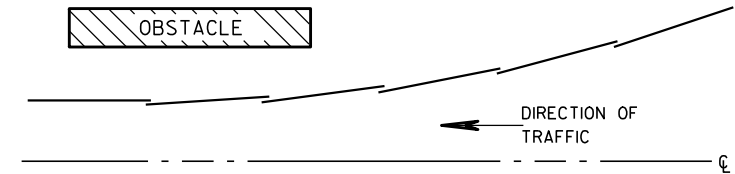
POST BOLT TABLE



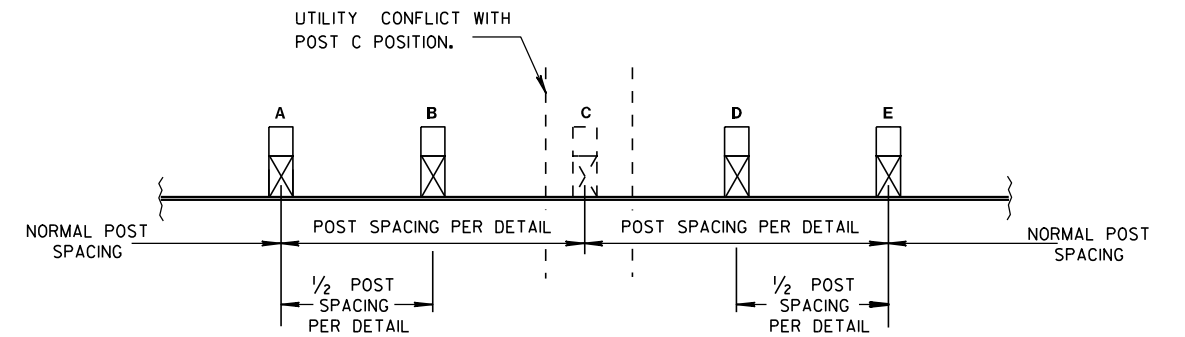
ALTERNATE BOLT HEAD



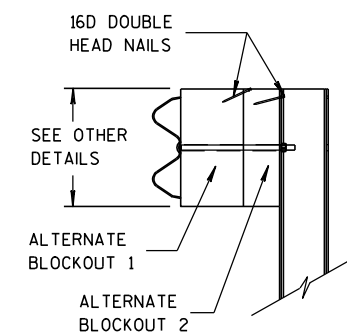
POST BOLT AND RECESS NUT



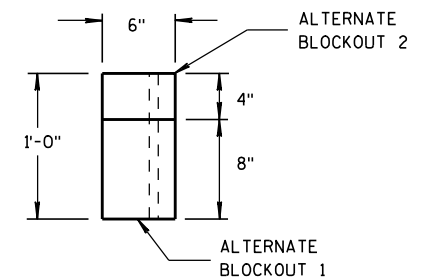
PLAN VIEW
BEAM LAPPING DETAIL



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

11/15/2011
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

GENERAL NOTES

- (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) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.
- (D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) 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.
- (F) 1/2" DIAMETER X 3" LONG LAG BOLT AND WASHER.
- (H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.
- (I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

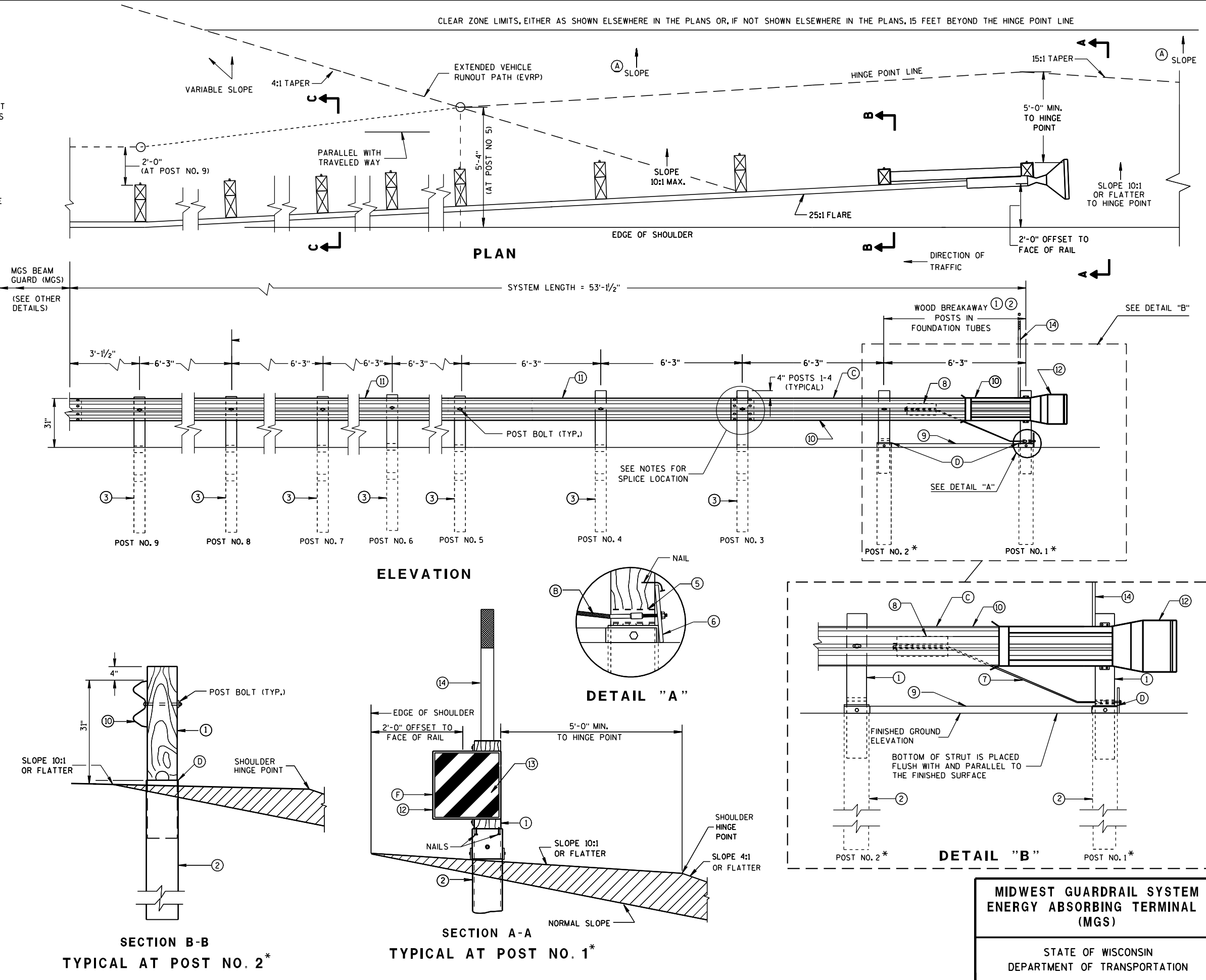
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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

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.

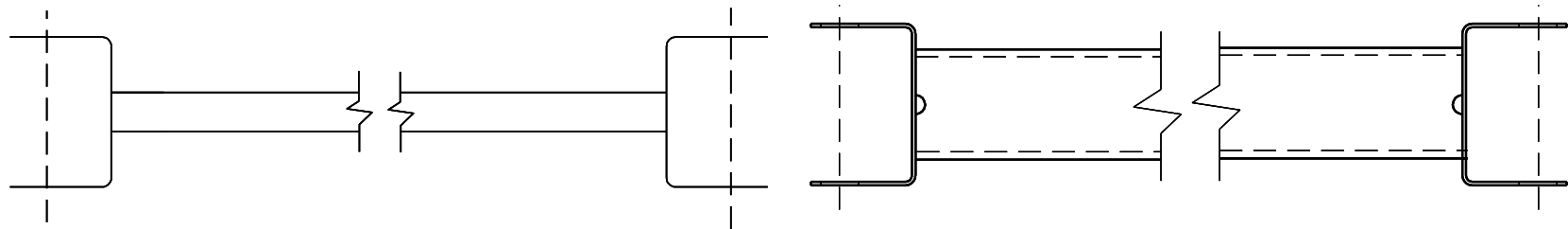
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE ($\pm \frac{3}{4}$ ")



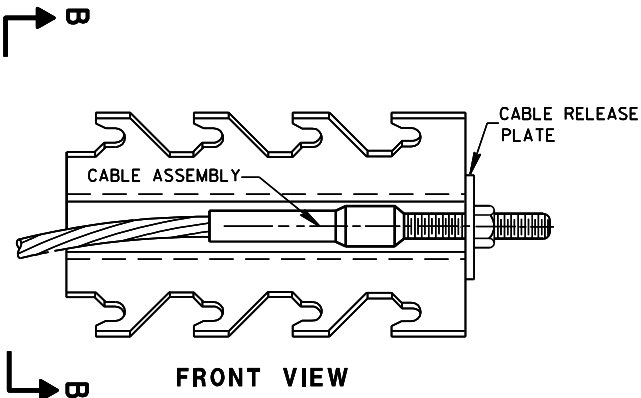
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

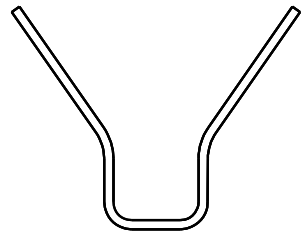


GENERIC GROUND STRUT

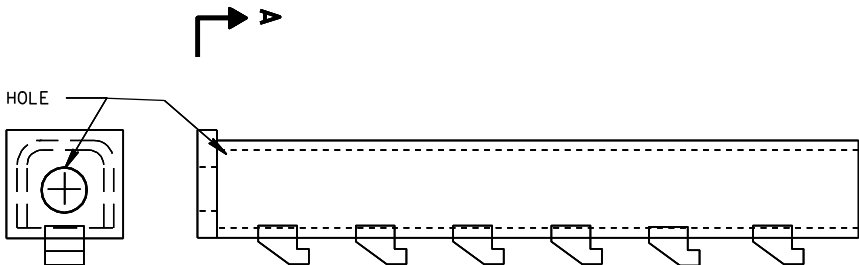
9 H



FRONT VIEW



SECTION B-B



SECTION A-A

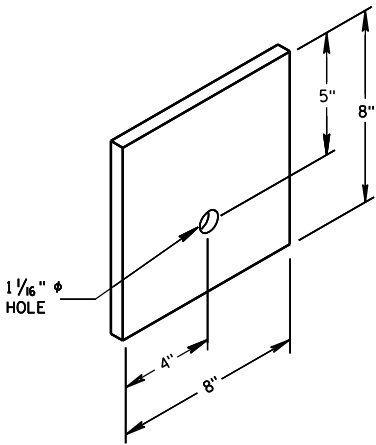
PLAN VIEW

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)

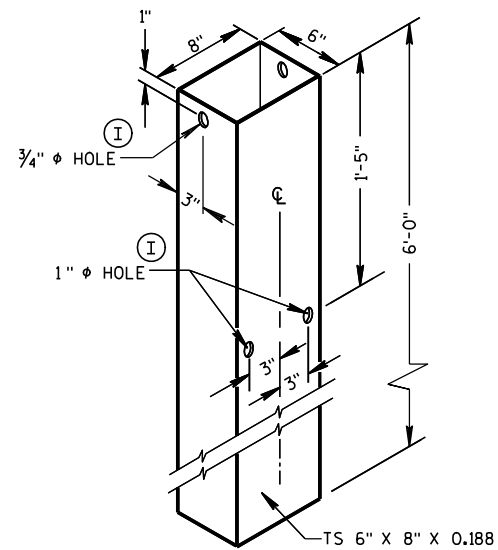


BEARING PLATE

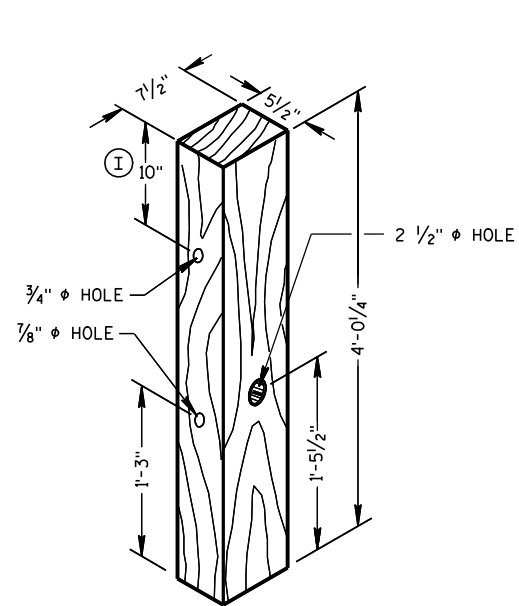
6

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

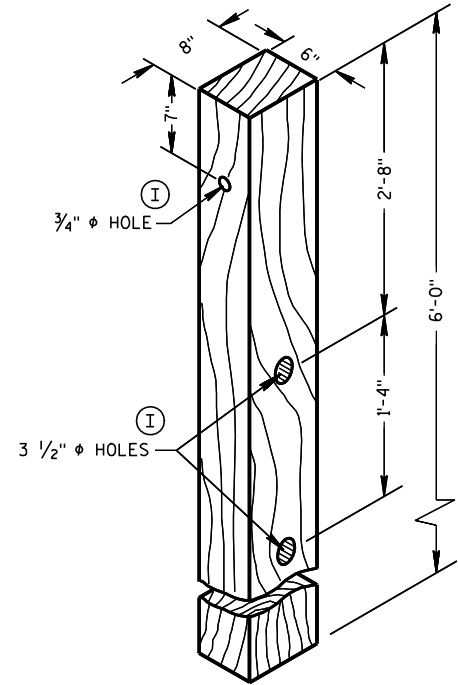
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



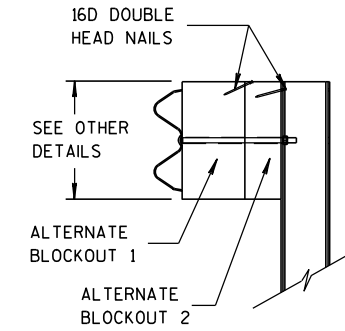
FOUNDATION TUBE ②



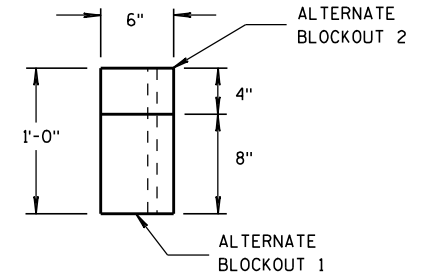
WOOD BREAKAWAY POST ①



WOOD CRT POST ③

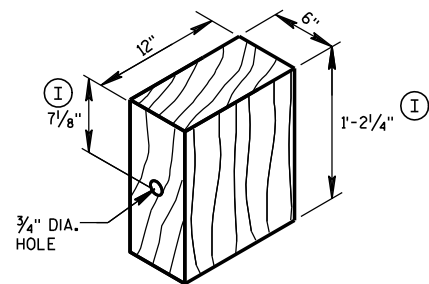


SIDE VIEW



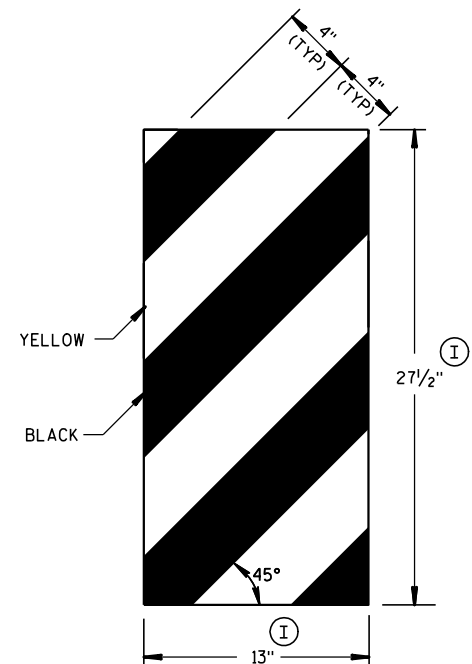
TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

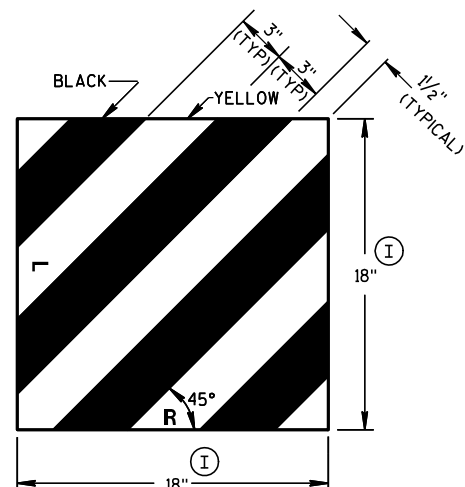


WOOD BLOCKOUT ④

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



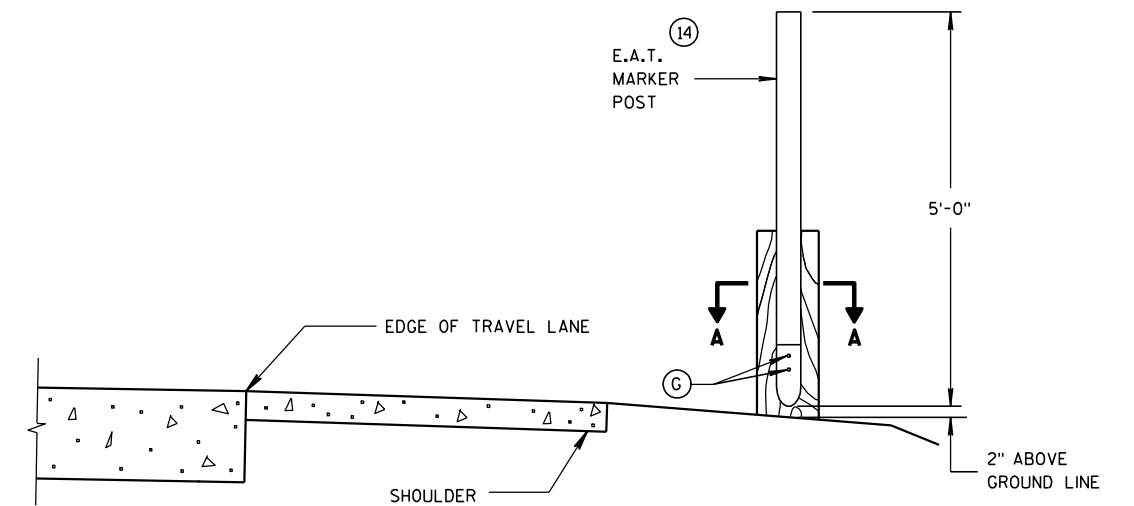
GENERIC REFLECTIVE SHEETING ⑬ ④



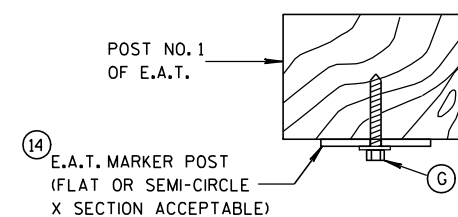
FRONT VIEW

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

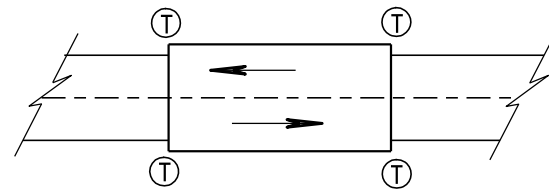
APPROVED

5/23/2011

DATE

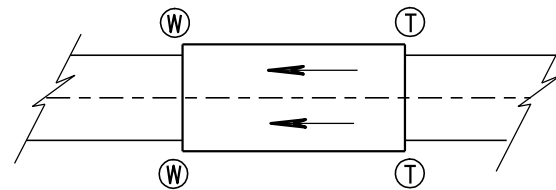
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



TWO WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION



ONE WAY TRAFFIC

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

GENERAL NOTES

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

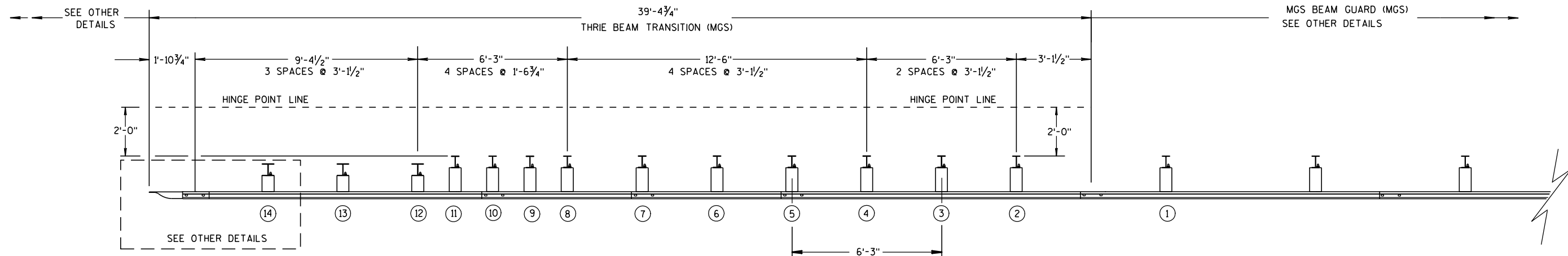
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

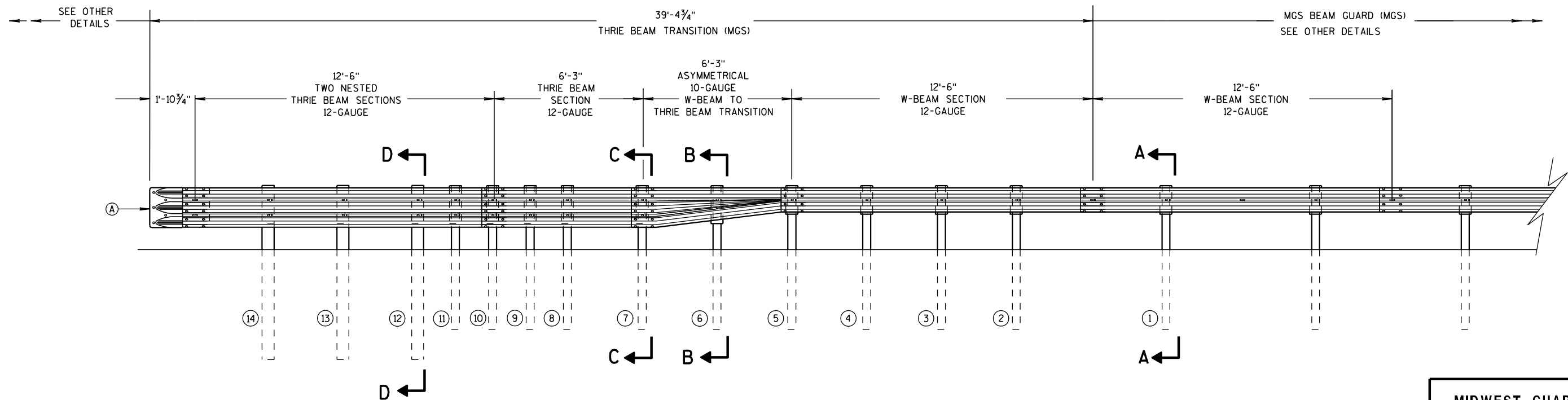
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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

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



PLAN VIEW



ELEVATION VIEW

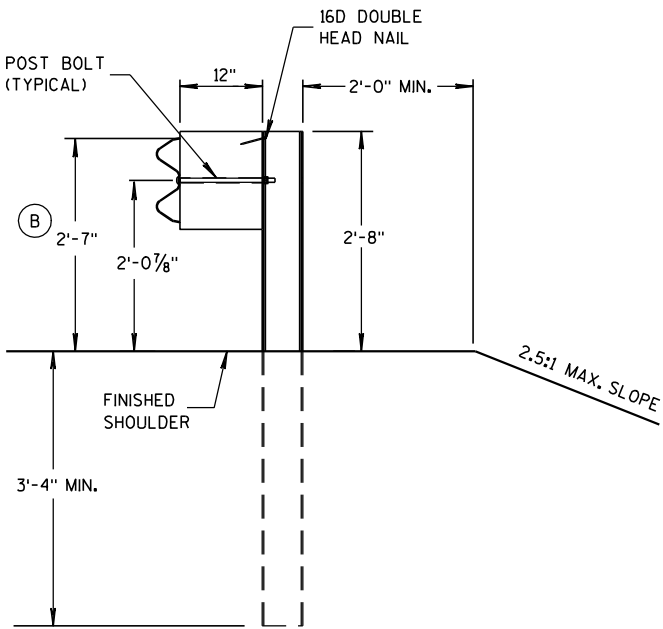
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

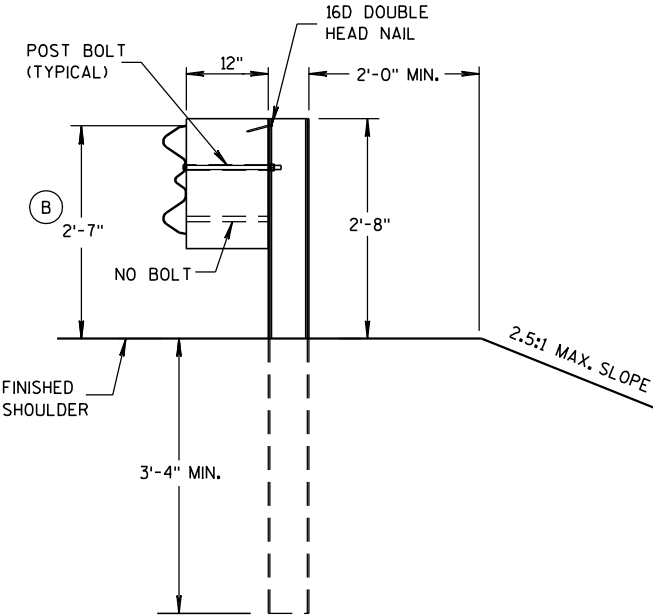
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

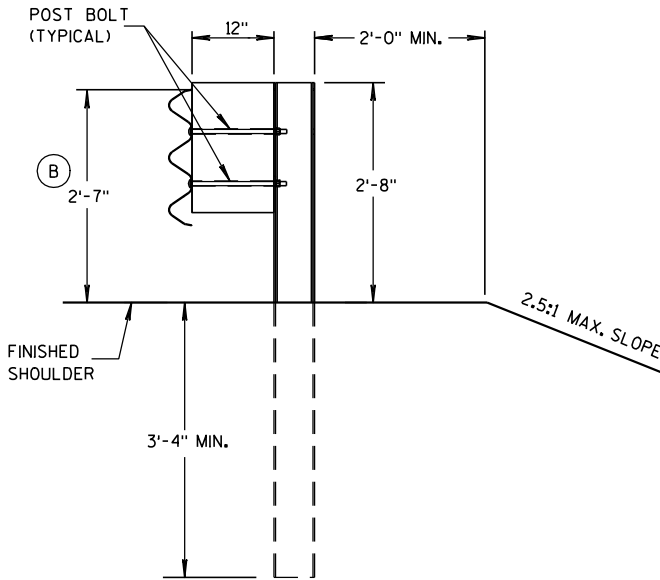
(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS $\pm 1"$.



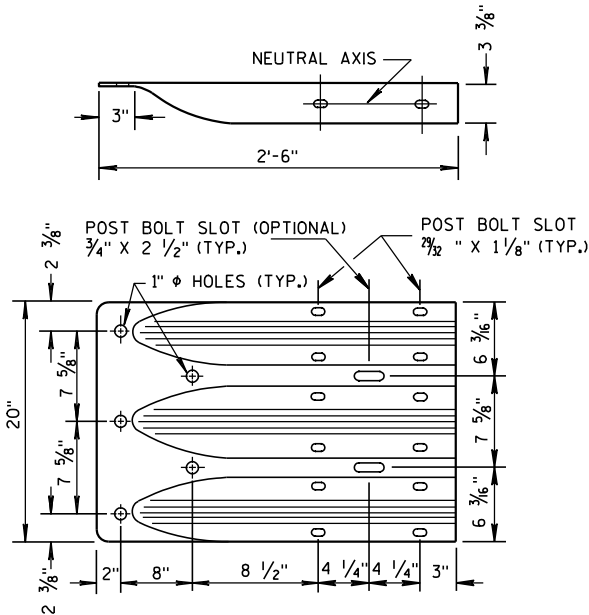
SECTION A-A
POSTS 1-5



SECTION B-B
POST 6



SECTION C-C
POSTS 7-11



THRIE BEAM
TERMINAL CONNECTOR

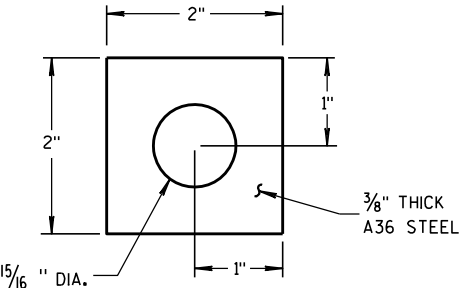
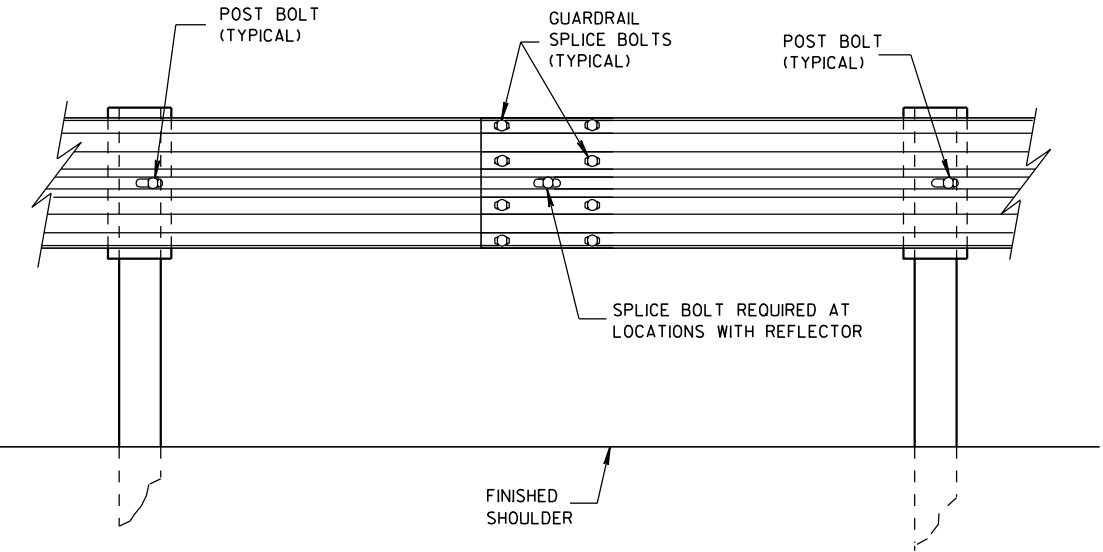
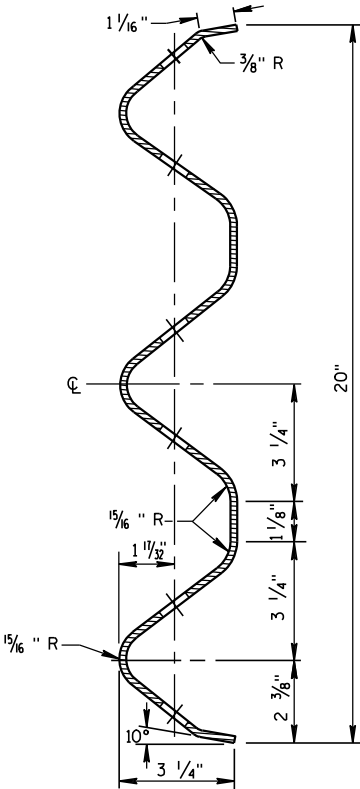


PLATE WASHER DETAIL



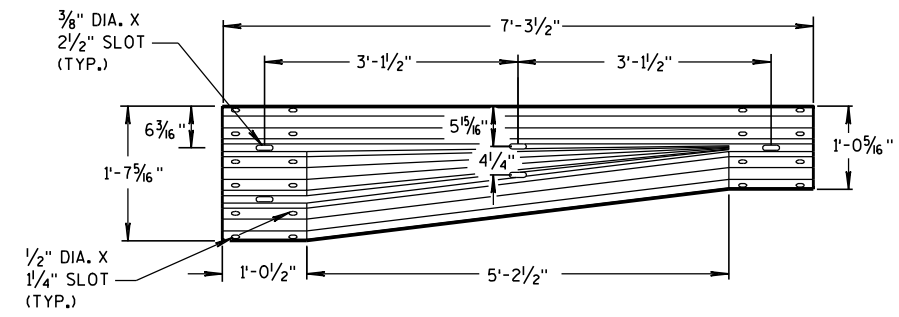
SPLICE DETAIL



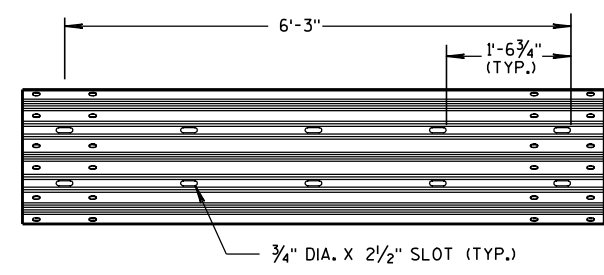
SECTION THRU THRIE
BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

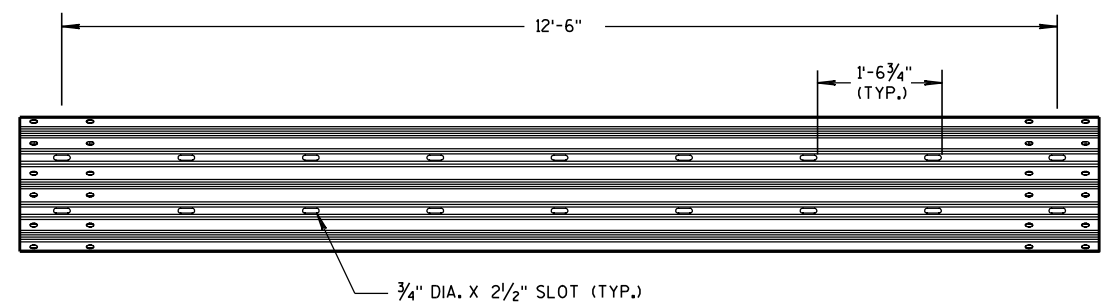
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



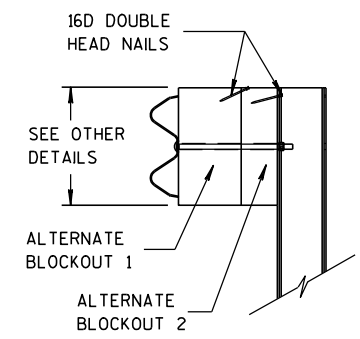
W-BEAM TO THRIE BEAM TRANSITION SECTION



6'-3" THRIE BEAM SECTION

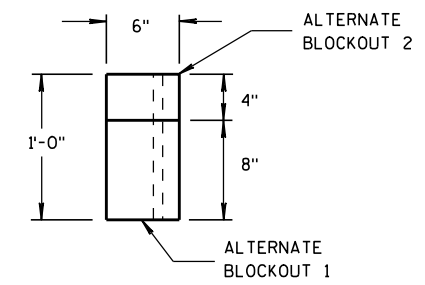


12'-6" THRIE BEAM SECTION

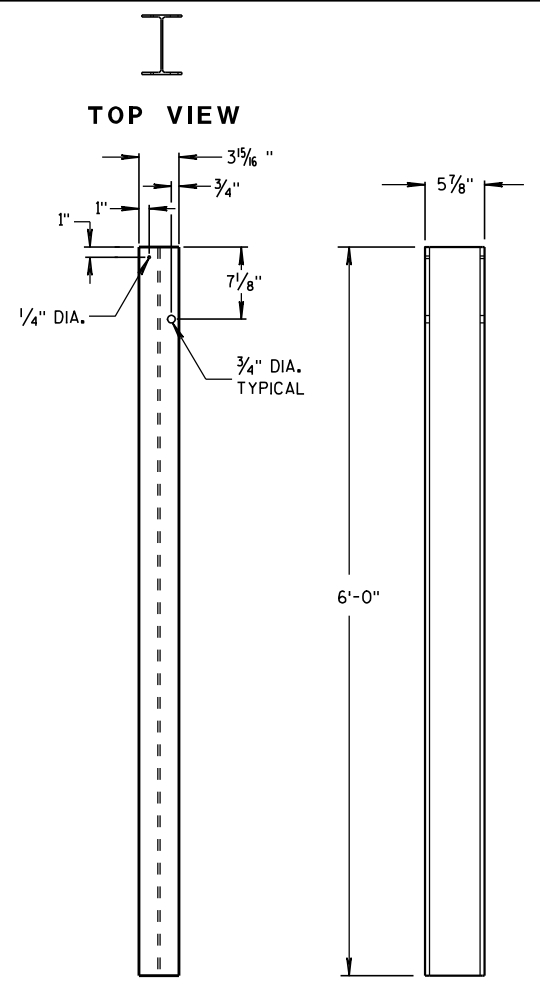


SIDE VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

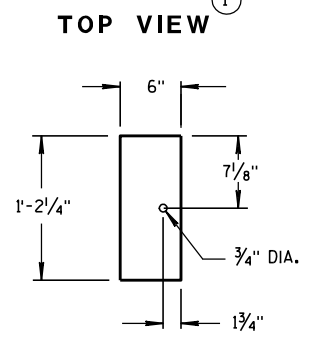
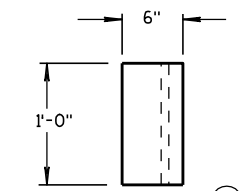


TOP VIEW

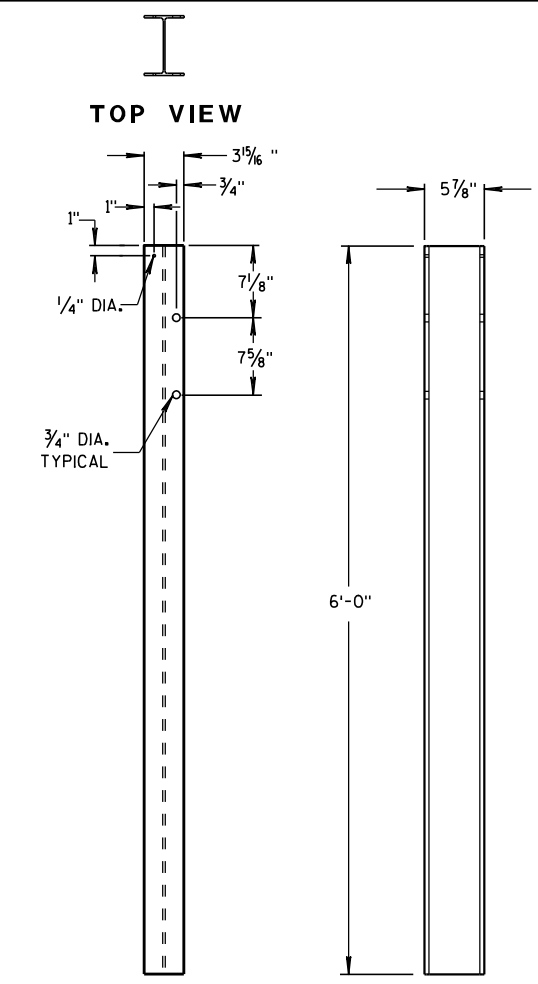


STEEL POSTS 1-5

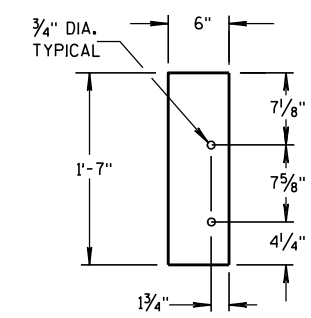
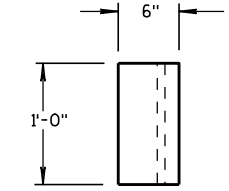
① WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



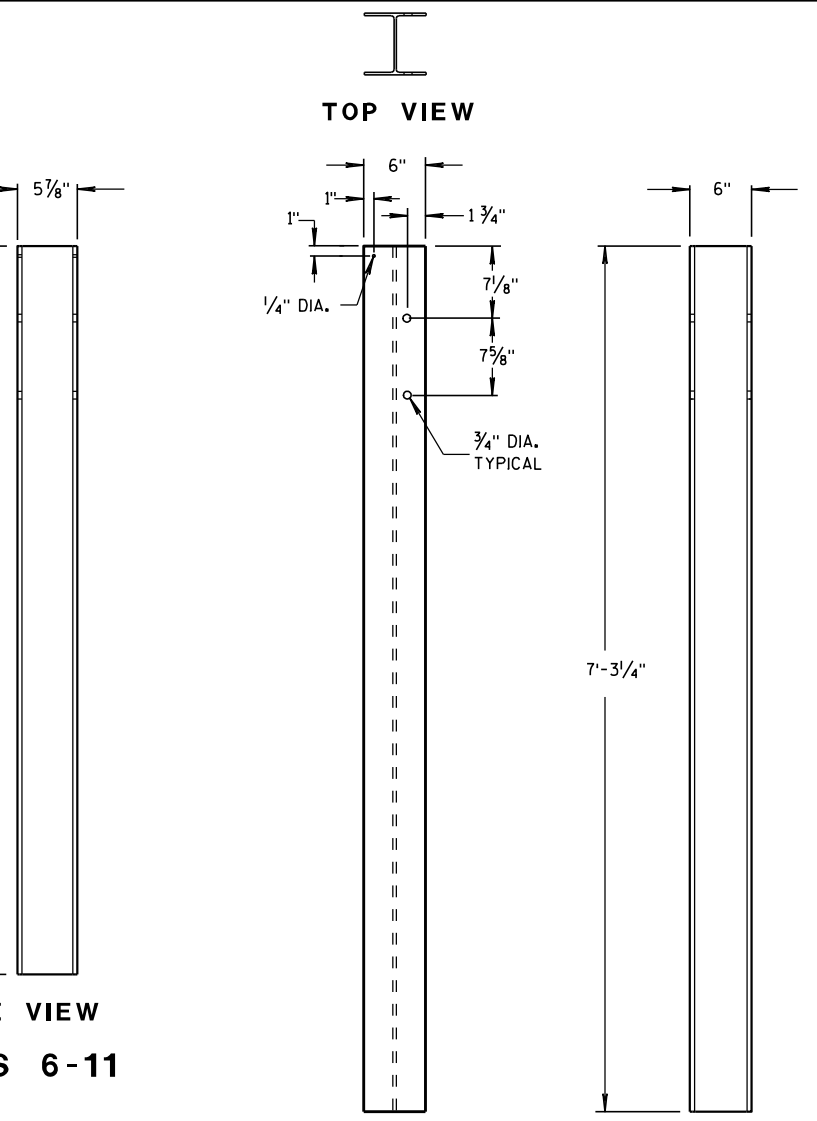
BLOCKOUT POSTS 1-5



STEEL POSTS 6-11



BLOCKOUT POSTS 6-11



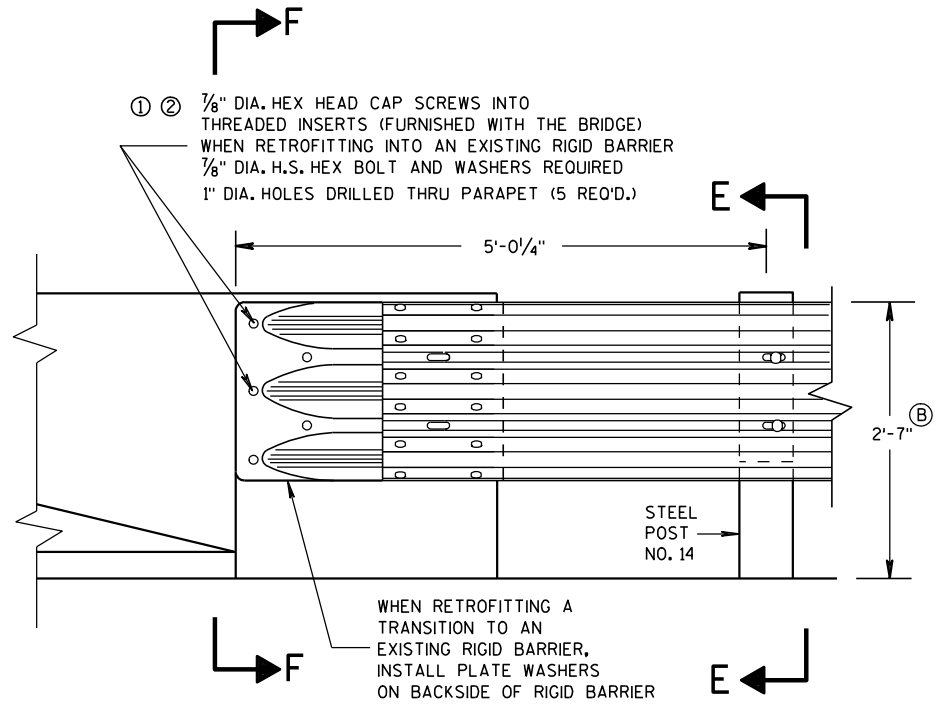
STEEL POSTS 12-14

STEEL POST SIZES

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

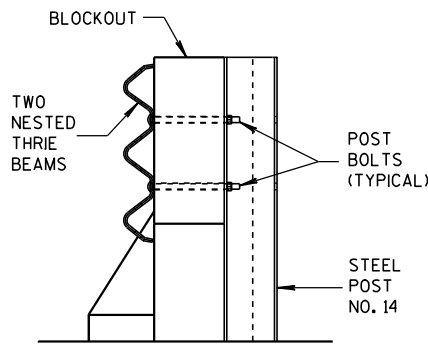
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



FRONT VIEW

THRIE BEAM CONNECTION TO BRIDGE
PARAPET WITH SQUARE ENDS

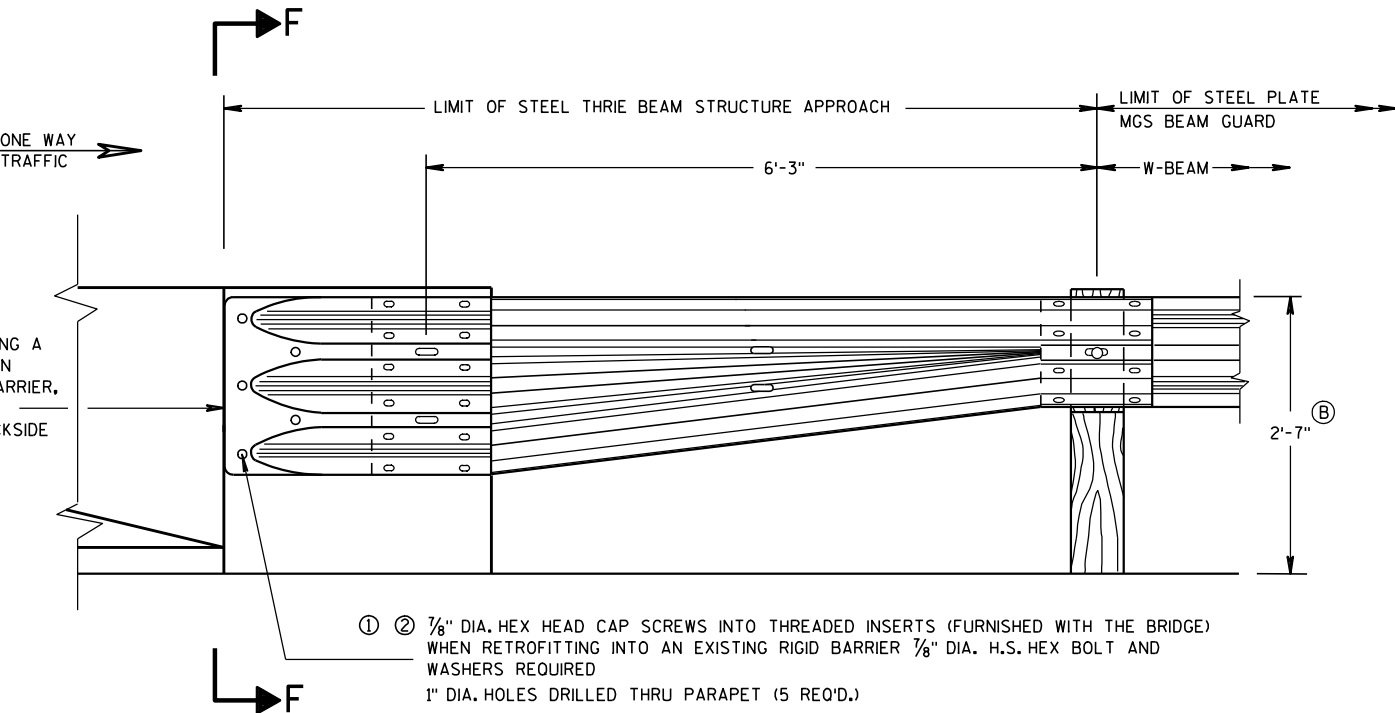


SECTION E-E

GENERAL NOTES

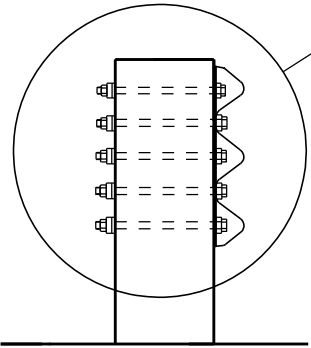
THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

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

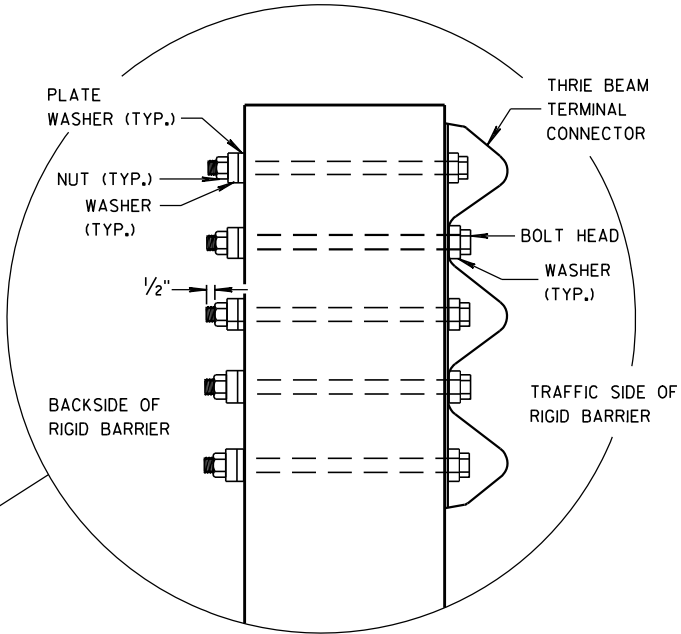


FRONT VIEW

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



SECTION F-F

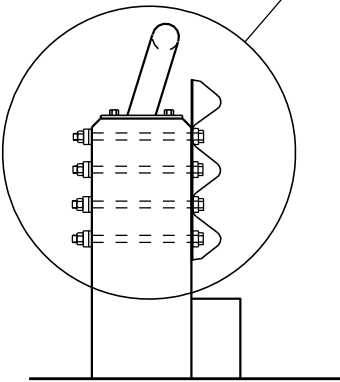
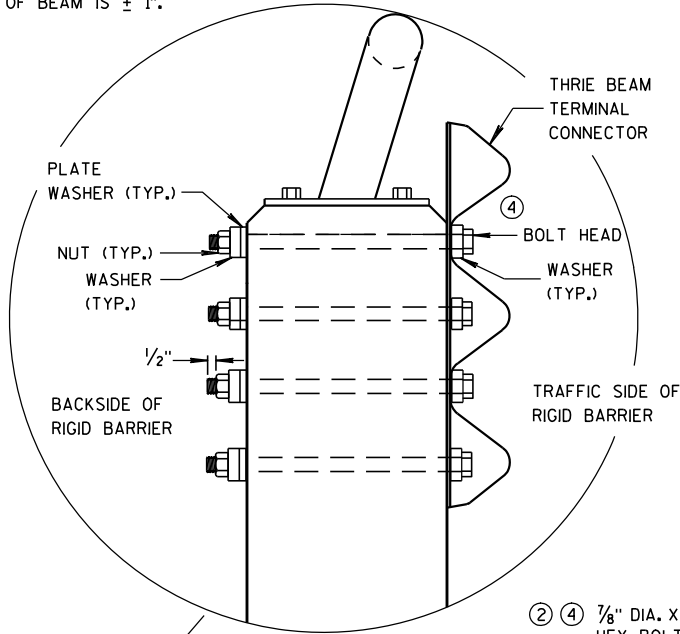


MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/31/2012 DATE FHWA	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER

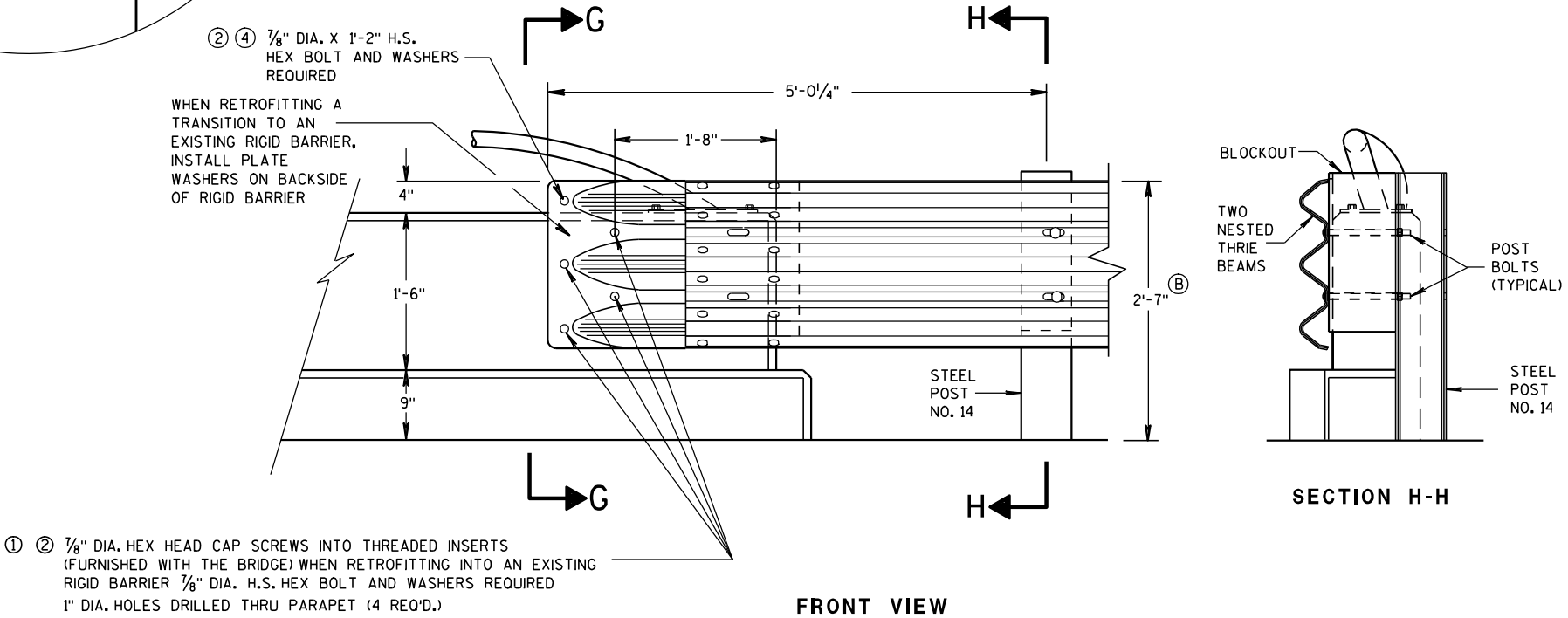
GENERAL NOTES

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

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X $\frac{5}{8}$ " THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 $\frac{1}{2}$ ". BLOCK IS INCIDENTAL TO THE CONTRACT.
- ④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.
- Ⓑ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.

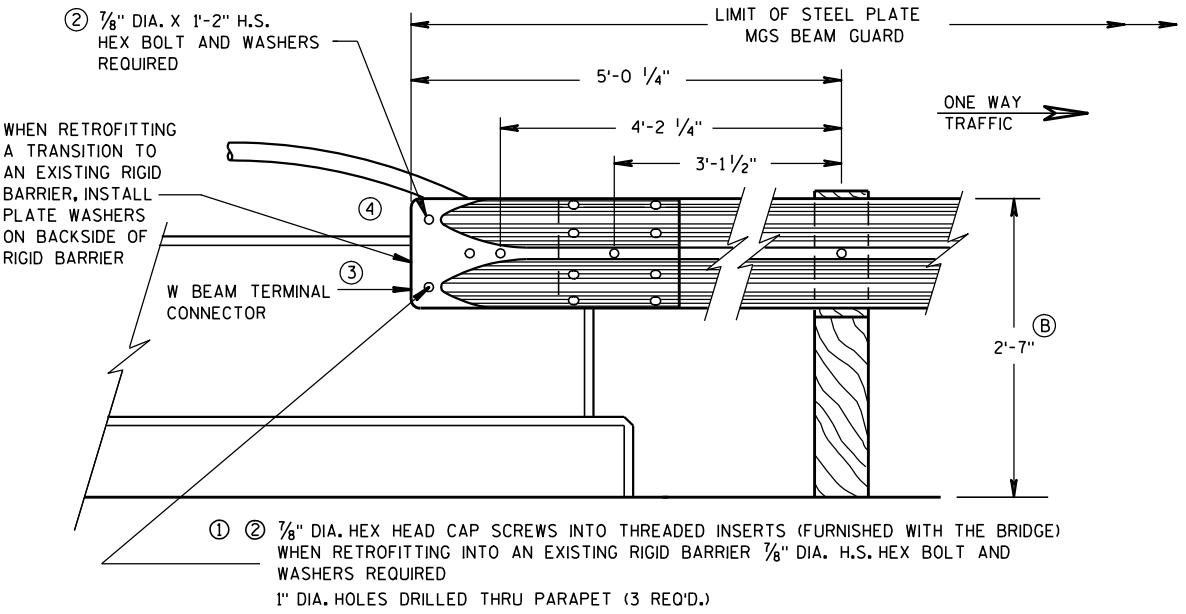


SECTION G-G



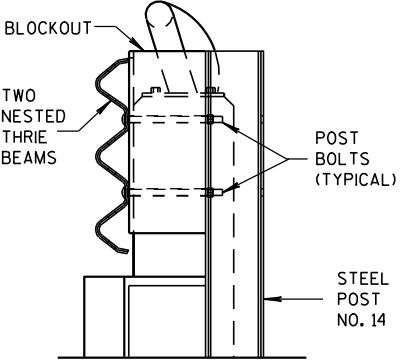
FRONT VIEW

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

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

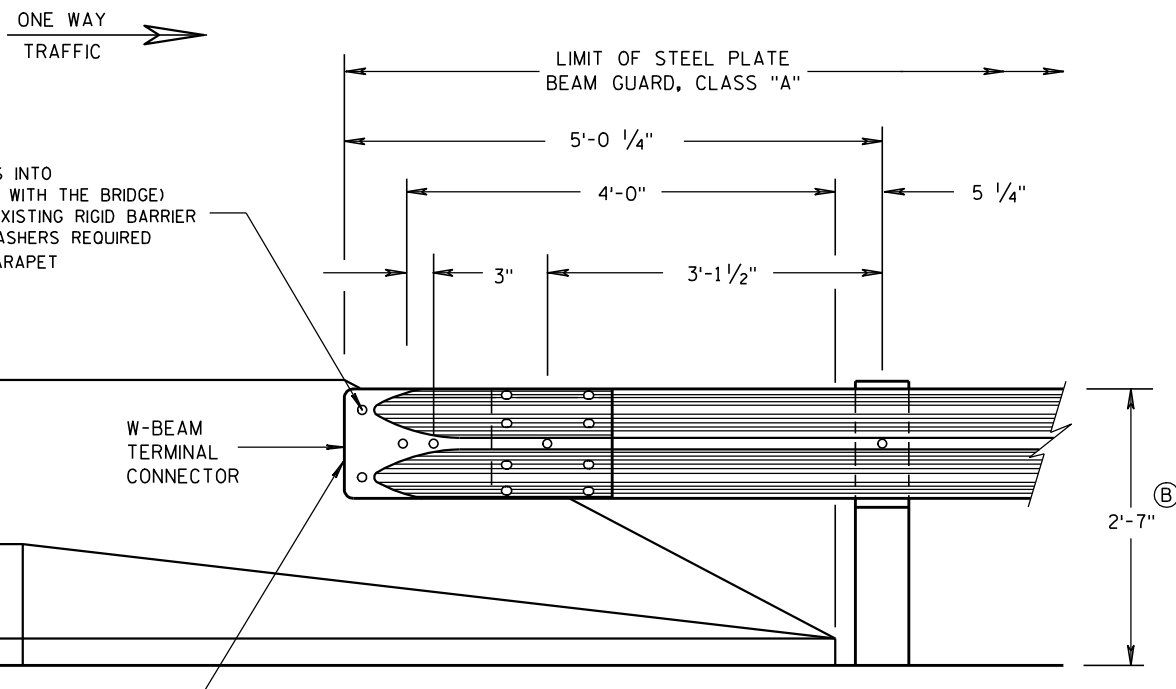


SECTION H-H

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



FRONT VIEW

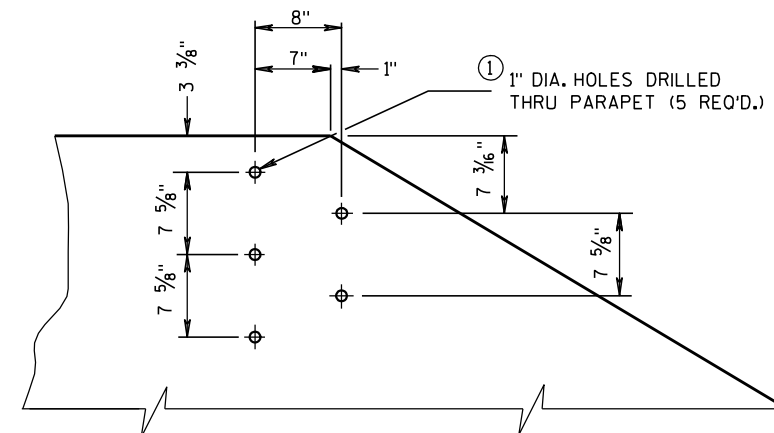
W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

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

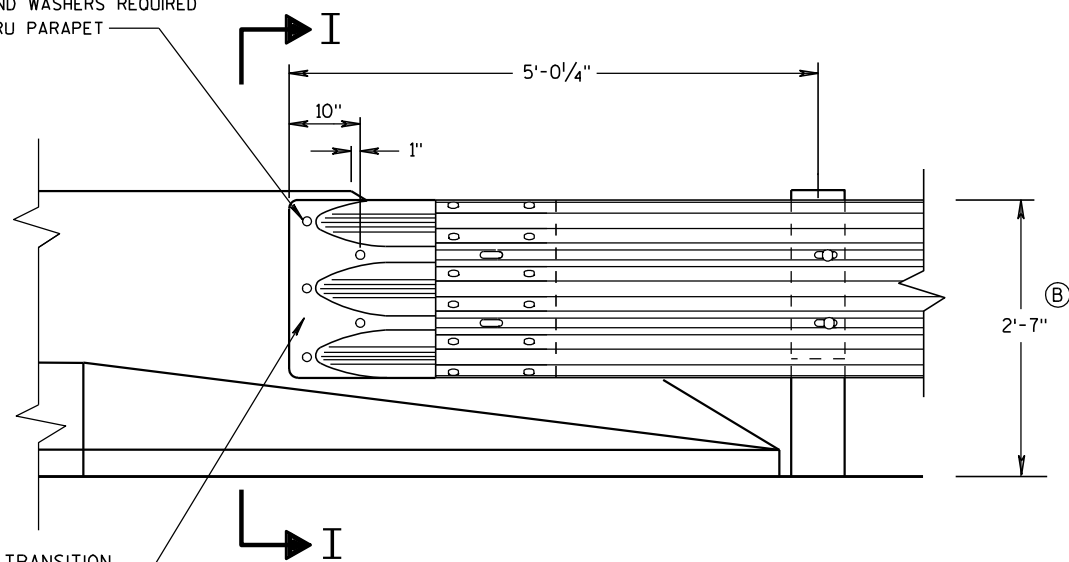
GENERAL NOTES

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ③ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.



DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION

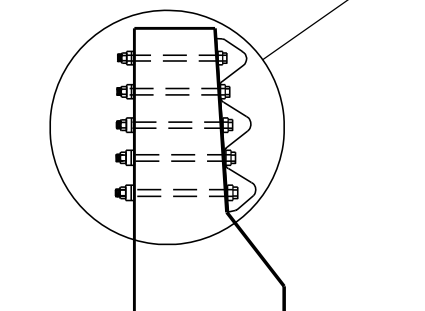
- ① ② 1/8" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER. 7/8" DIA. H.S. HEX BOLT AND WASHERS REQUIRED. 1" DIA. HOLES DRILLED THRU PARAPET (5 REQ'D.).



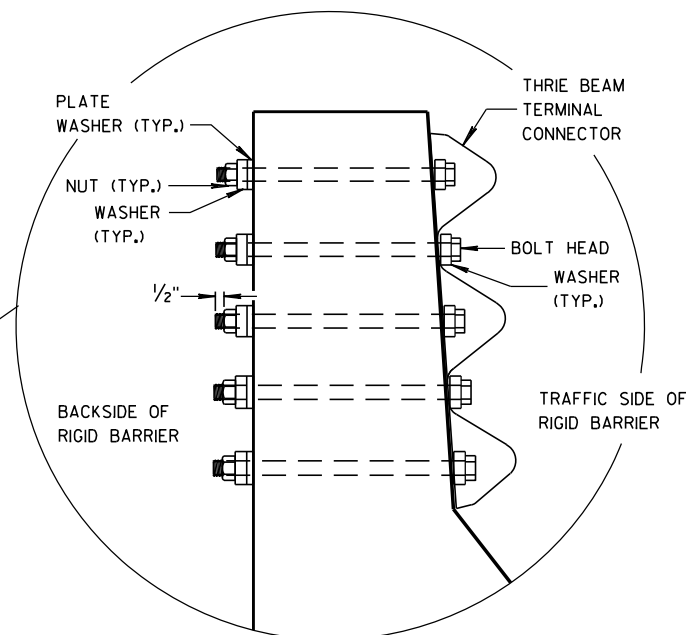
FRONT VIEW

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

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



SECTION I-I

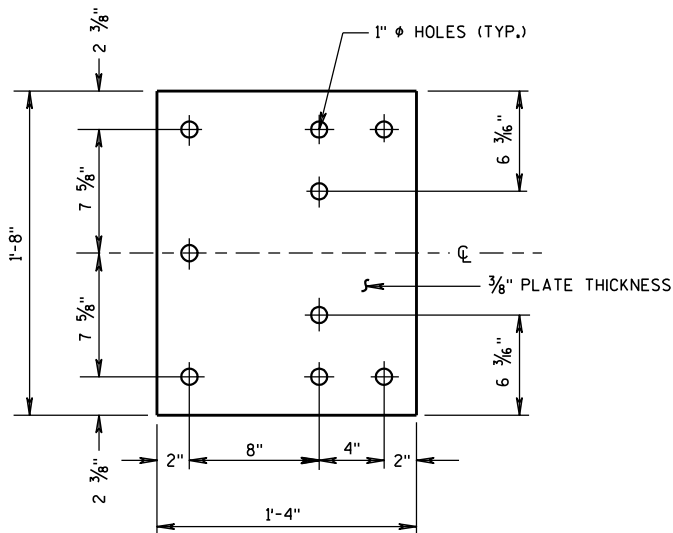


MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

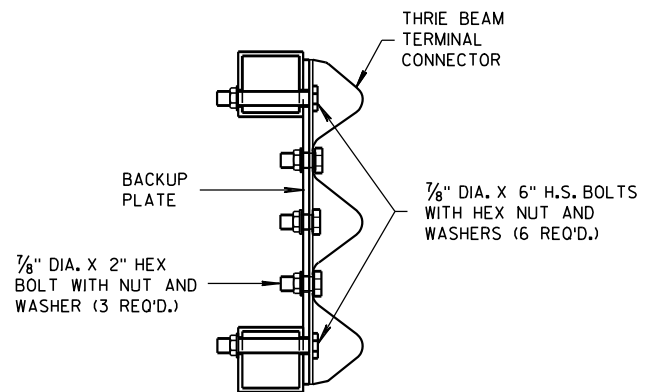
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
FHWA

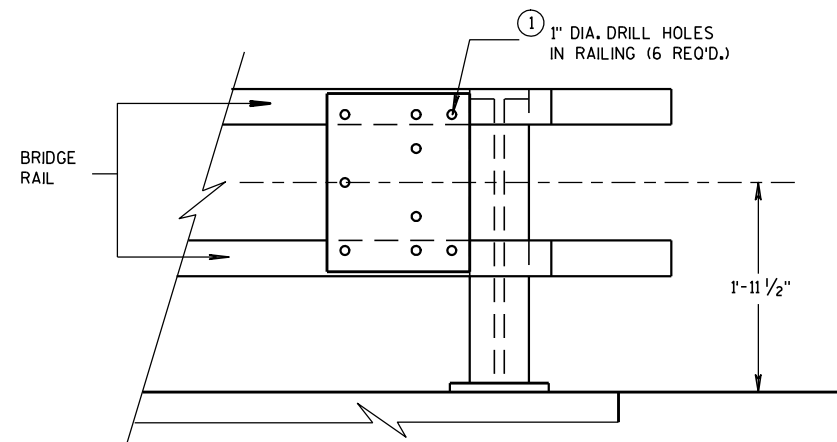
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



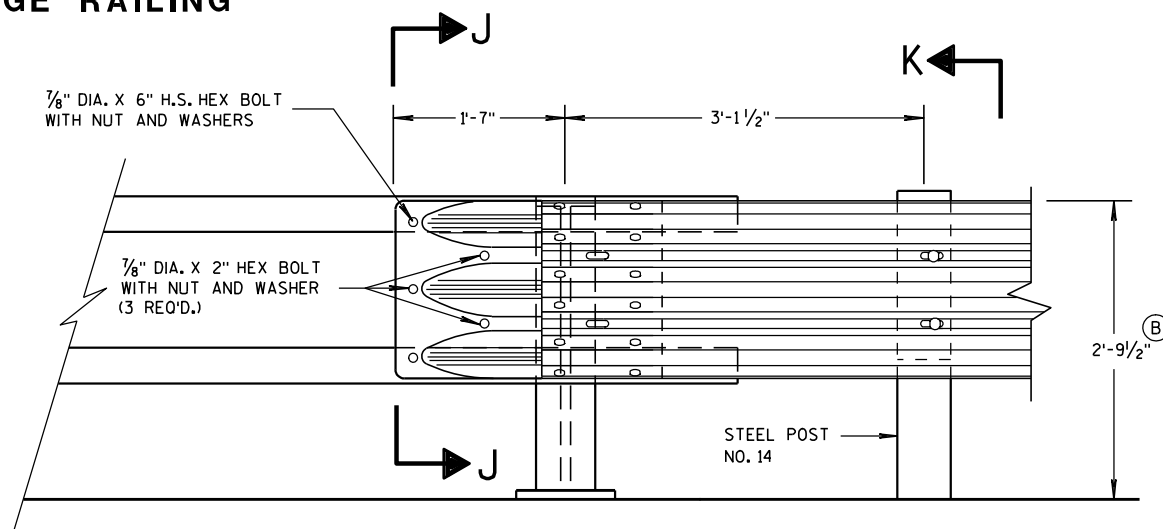
BACK-UP PLATE DETAIL



SECTION J-J

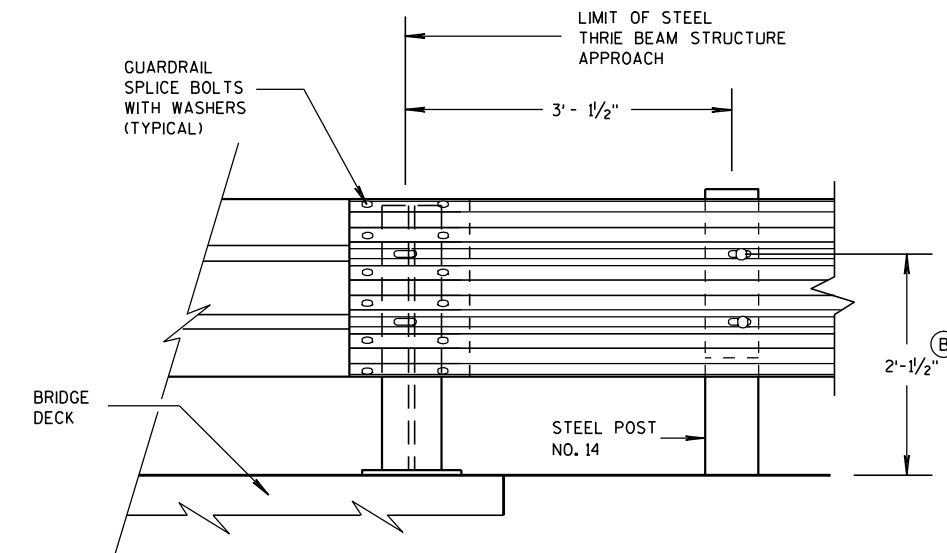


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



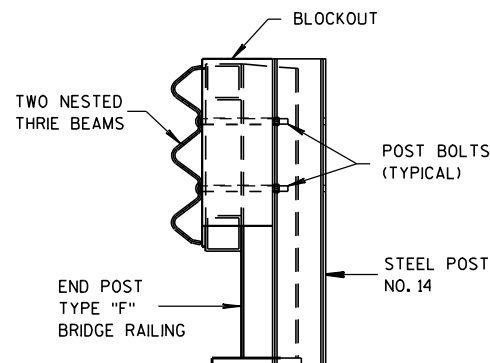
FRONT VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



SECTION K-K

GENERAL NOTES

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

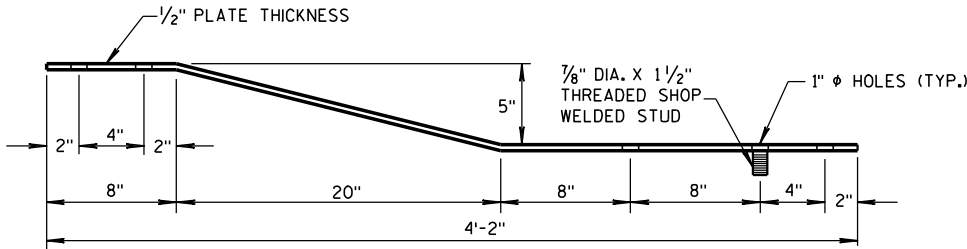
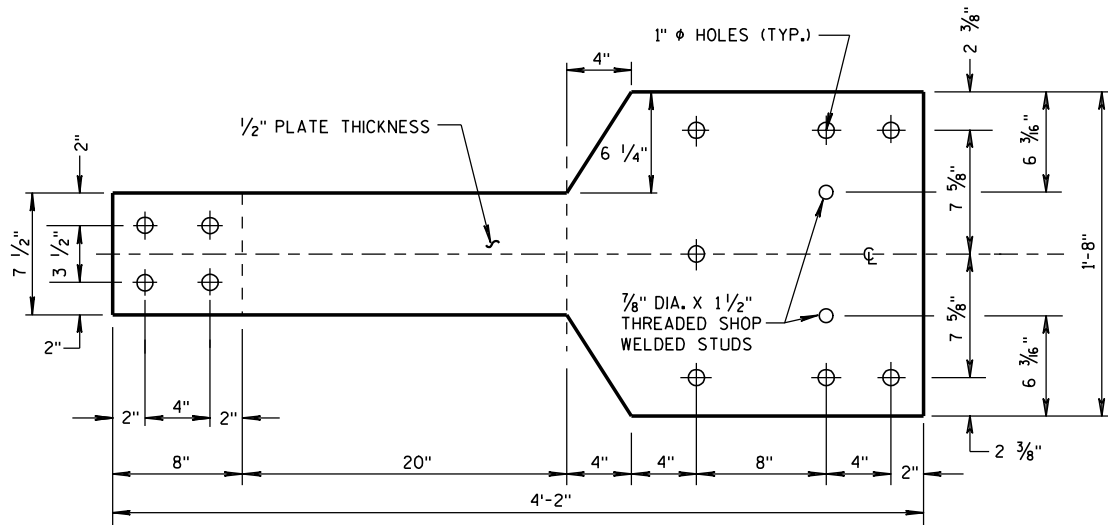
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
FHWA

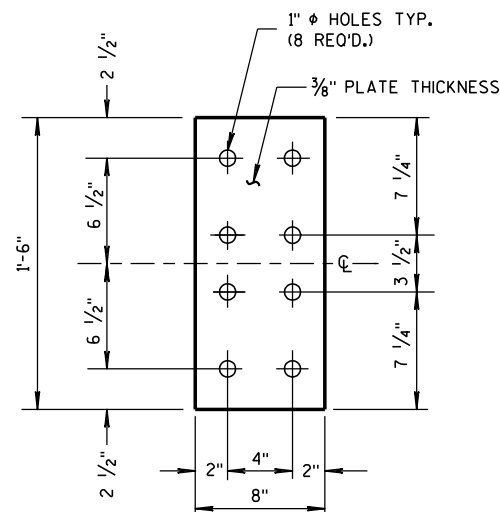
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

GENERAL NOTES

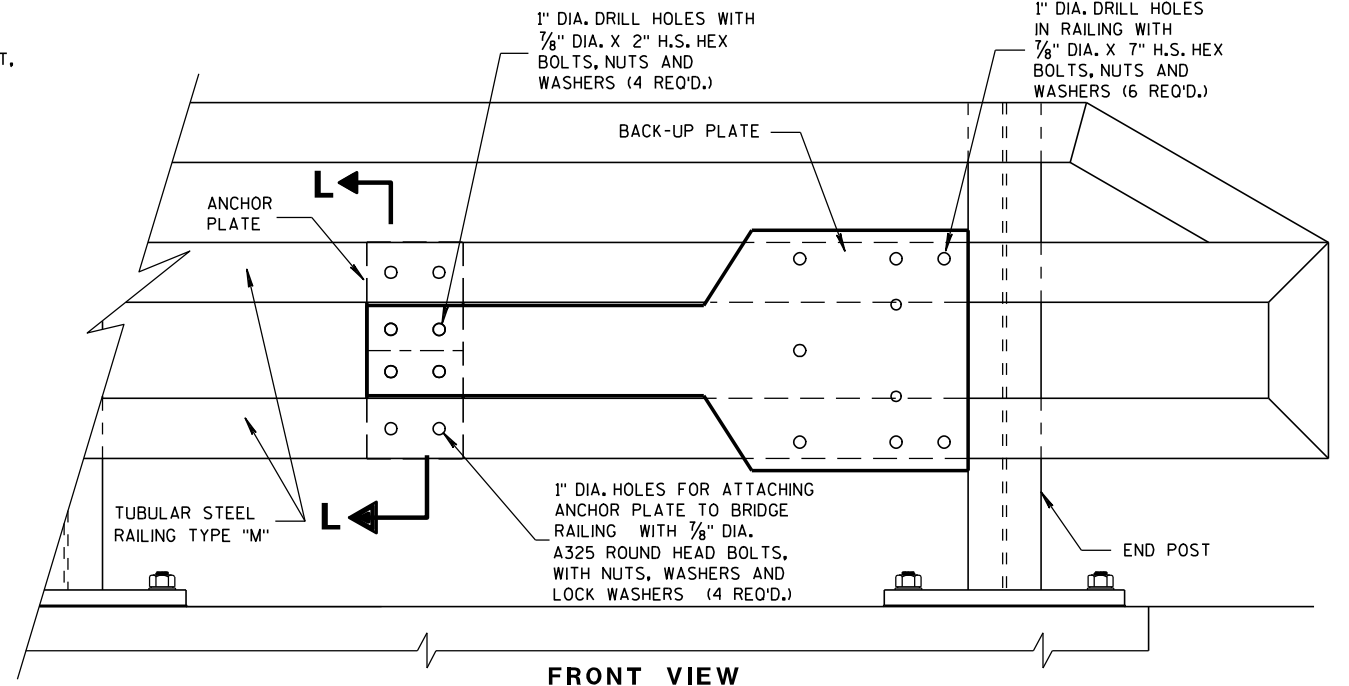
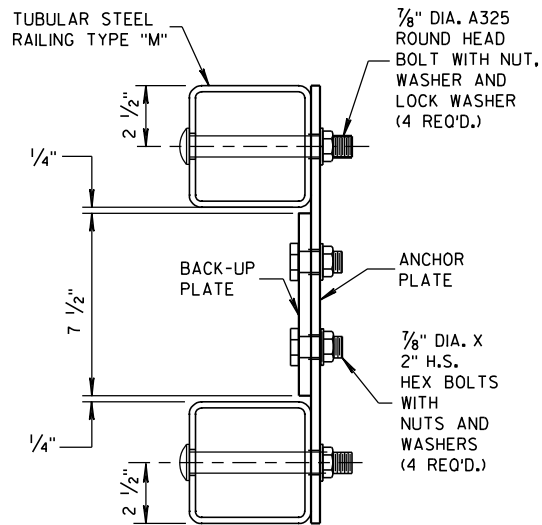
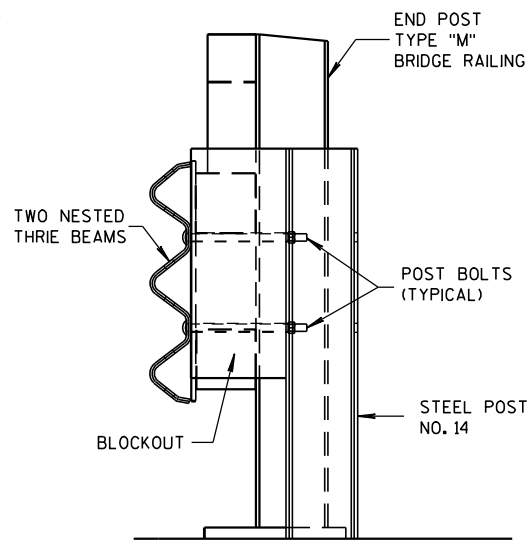
(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS $\pm 1"$.



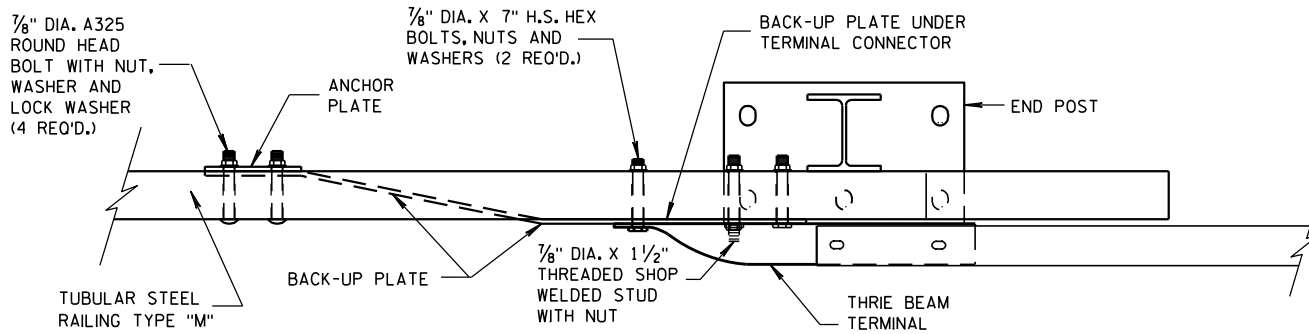
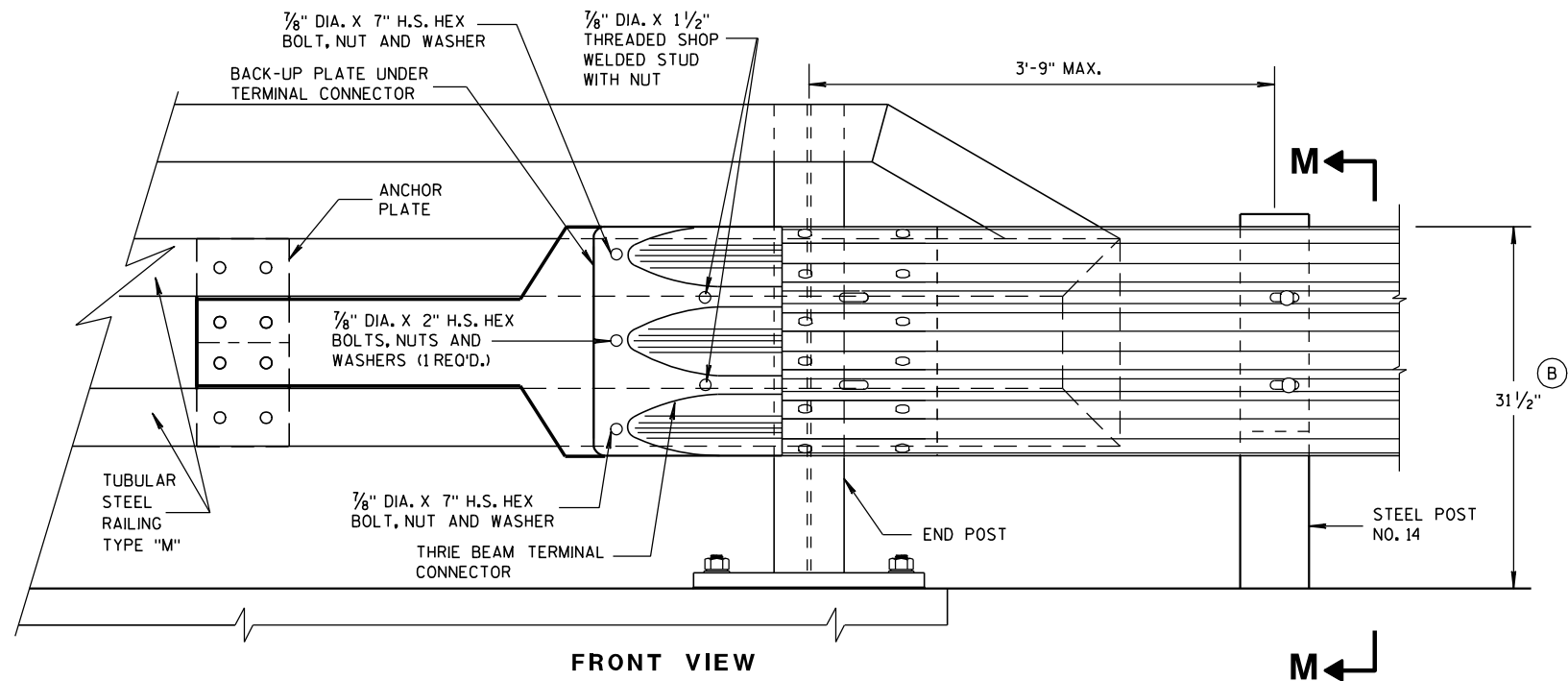
BACK-UP PLATE DETAIL, TYPE "M"



ANCHOR PLATE DETAIL, TYPE "M"



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



THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-31-2012

DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



SINGLE SLOPE CONNECTION PLATE

COVER PLATE PANELS ARE $\frac{3}{16}$ " THICK.

ALL STIFFENERS ARE $\frac{1}{4}$ " THICK.

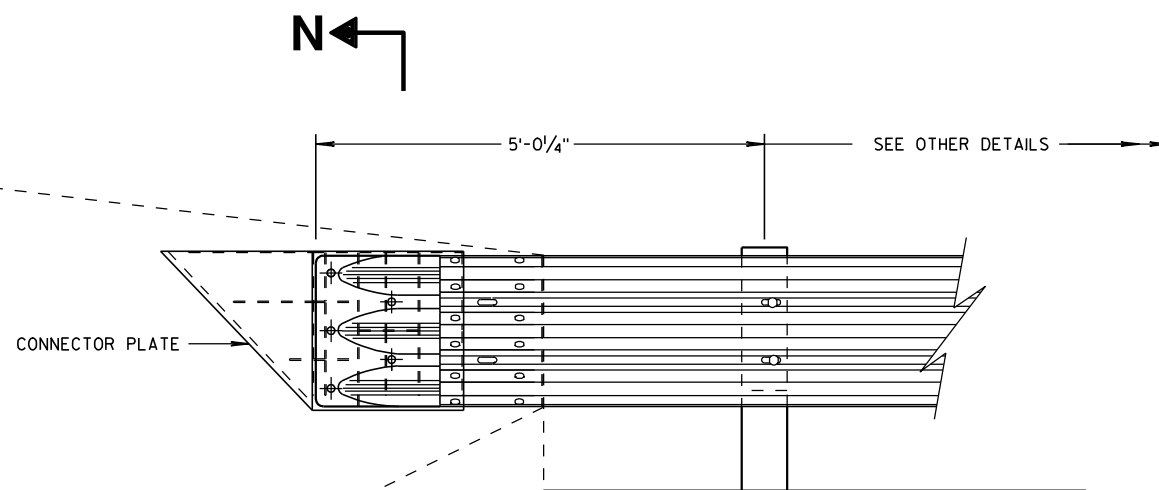
CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

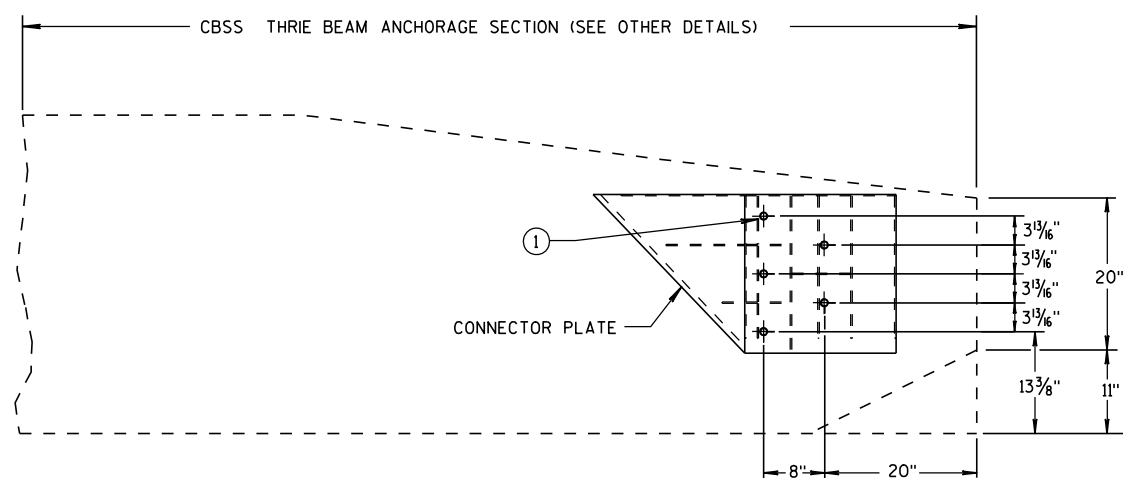
ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

- ① STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND $\frac{3}{8}$ " FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.
- ② STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
 $\frac{3}{8}$ " FILLET WELD BY 1" LONG SPACED AT 2".



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

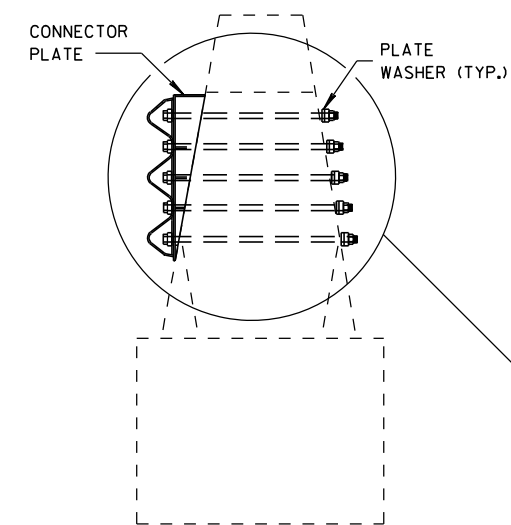


SINGLE SLOPE CONNECTION PLATE PLACEMENT

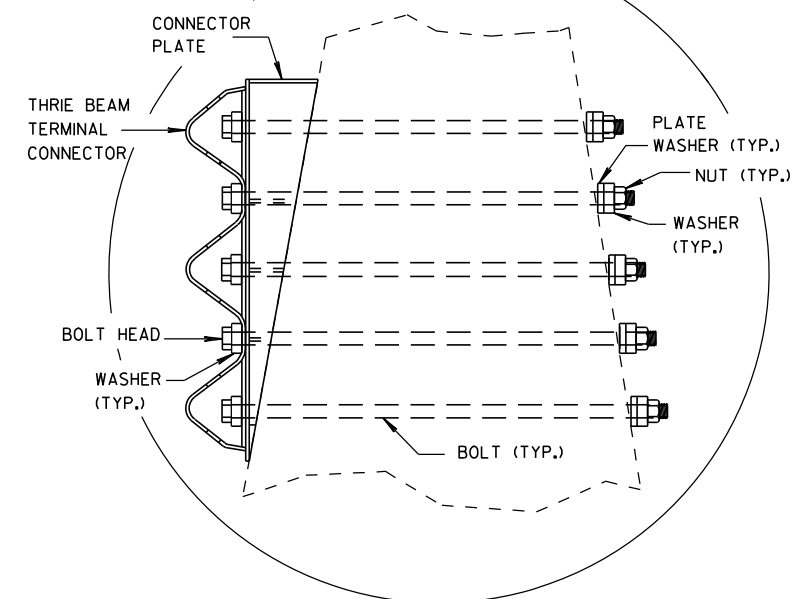
GENERAL NOTES

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

- ① BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



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

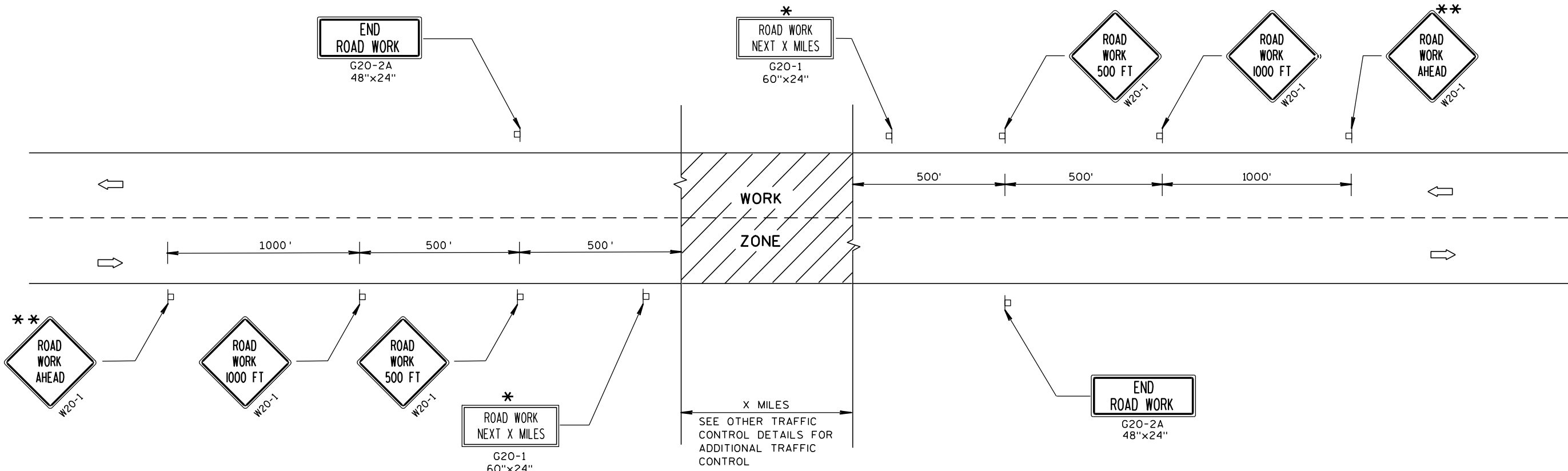
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



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.

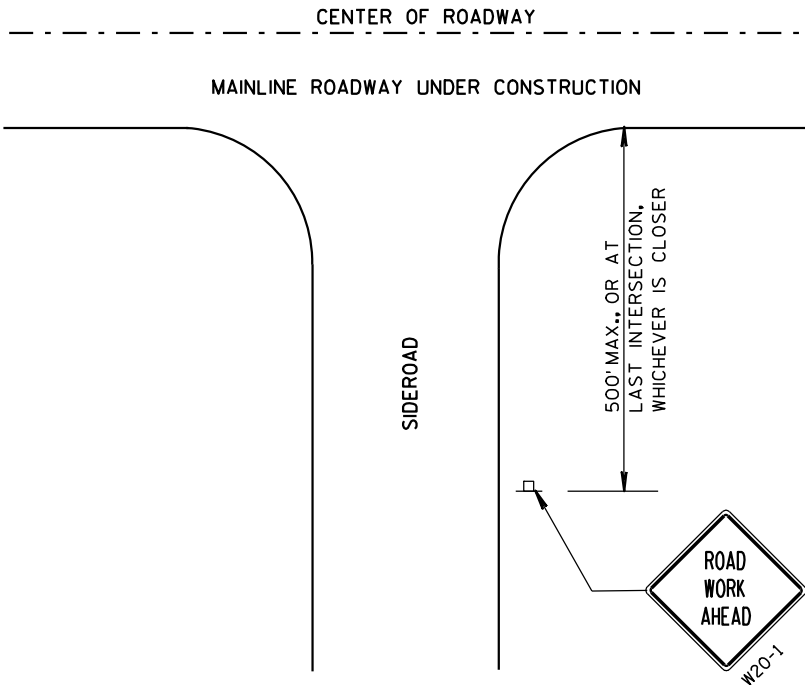
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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.



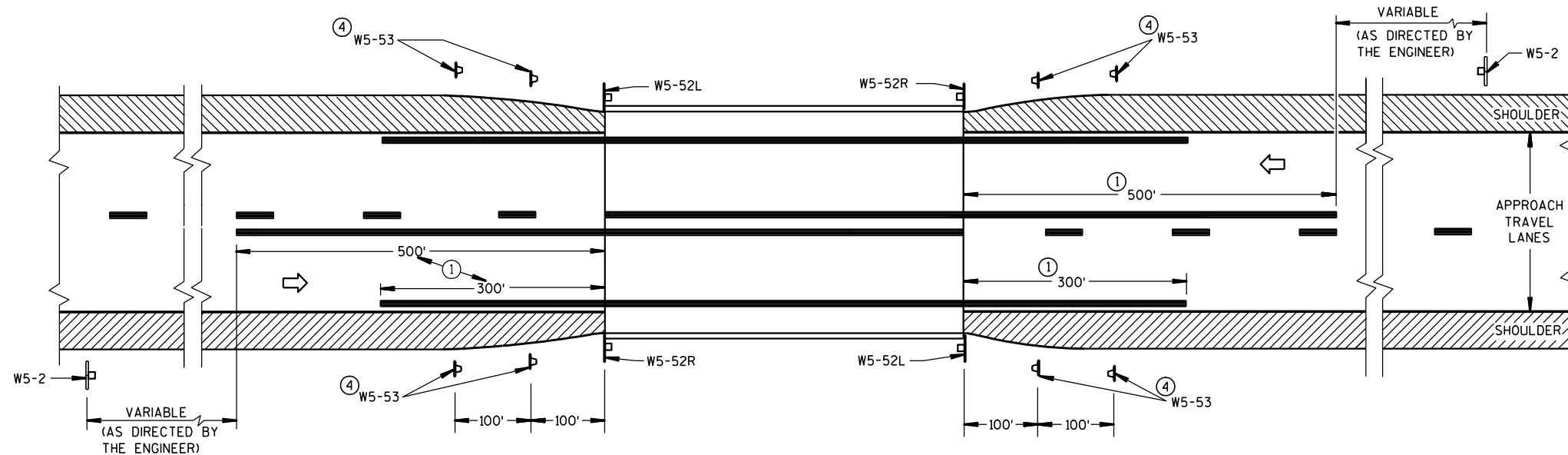
LEGEND

- 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

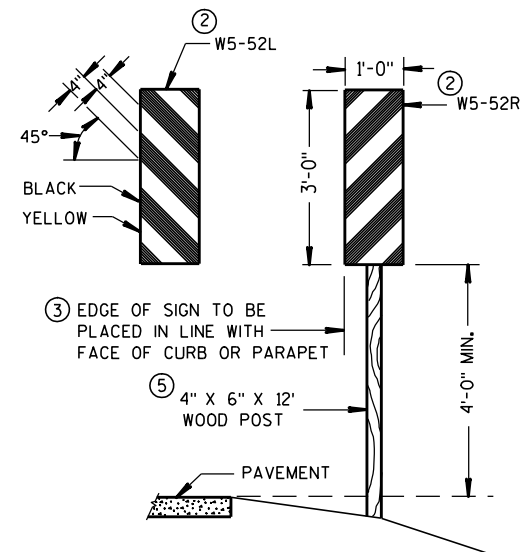
APPROVED
5/23/00 /S/ Chester J. Spang
DATE CHIEF SIGNS AND MARKING ENGINEER
FHWA



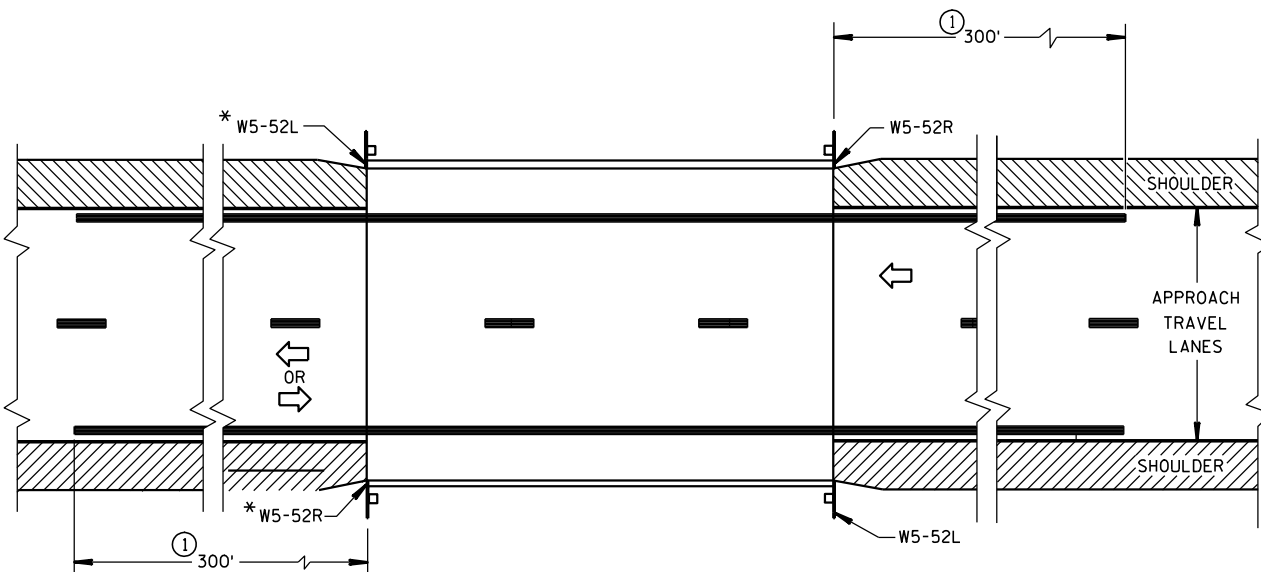
SITUATION 1

WARRANTING CRITERION:

BRIDGE WIDTH IS AT LEAST 18 FEET BUT LESS THAN 24 FEET



OBJECT MARKER PLACEMENT



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.

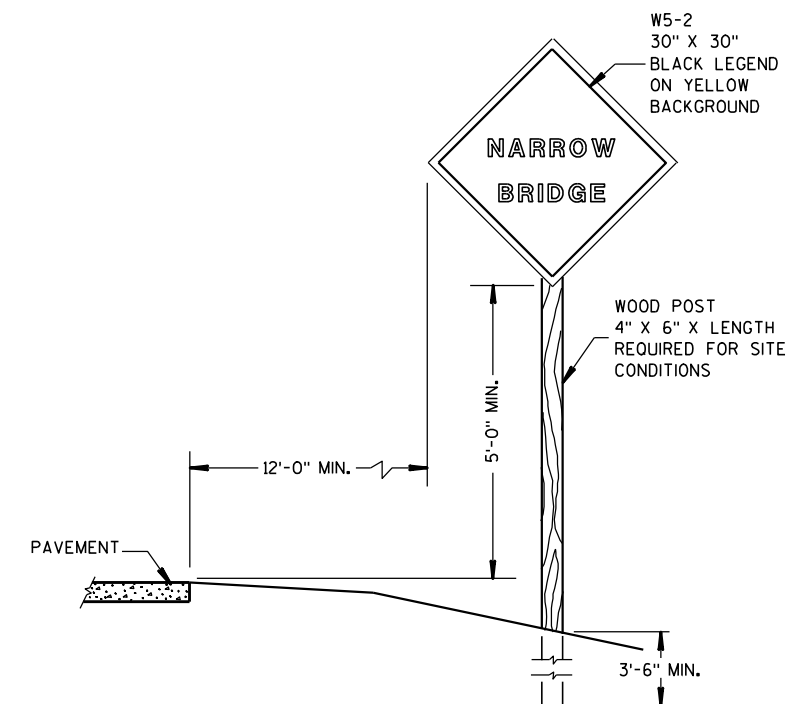
*OMIT ON ONE-WAY TRAVELLED WAYS

GENERAL NOTES

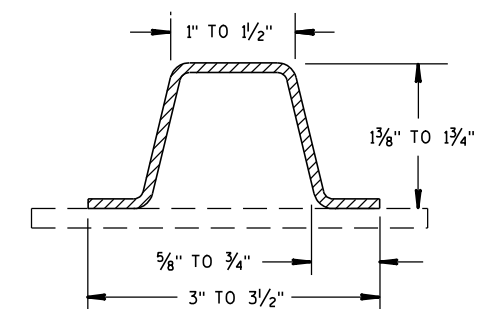
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

- ① MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.
- ② FACE OF OBJECT MARKERS W5-52R AND W5-52L SHALL BE COVERED WITH TYPE H REFLECTIVE SHEETING.
- ③ LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.
- ④ OBJECT MARKERS (W5-53) SHALL BE LOCATED ALONG A LINE FLARED AWAY FROM THE BRIDGE CORNER TO DELINEATE THE NARROWING OF THE SHOULDER OR BERM.
- ⑤ A 12 FOOT DELINEATOR POST MAY BE USED INSTEAD OF A WOOD POST.
- ⑥ NON-BID ITEM. INCIDENTAL TO OTHER ITEMS.



SIGN PLACEMENT



SECTION A-A

(MINIMUM WEIGHT 1.9 LBS. PER FT. AFTER GALVANIZING)

SIGNING & MARKING FOR TWO LANE BRIDGES

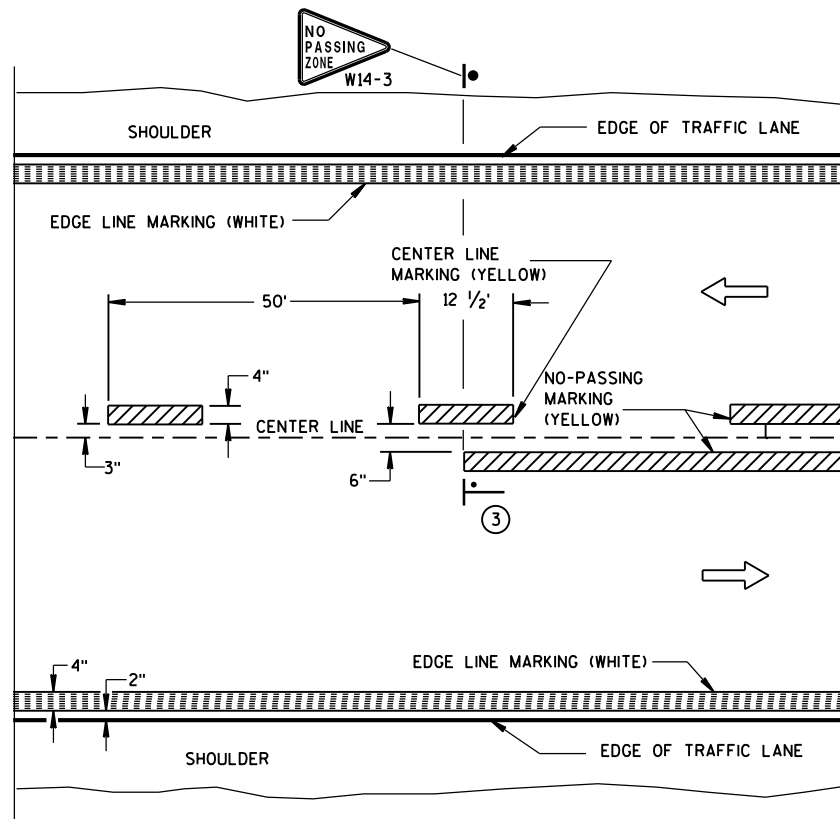
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

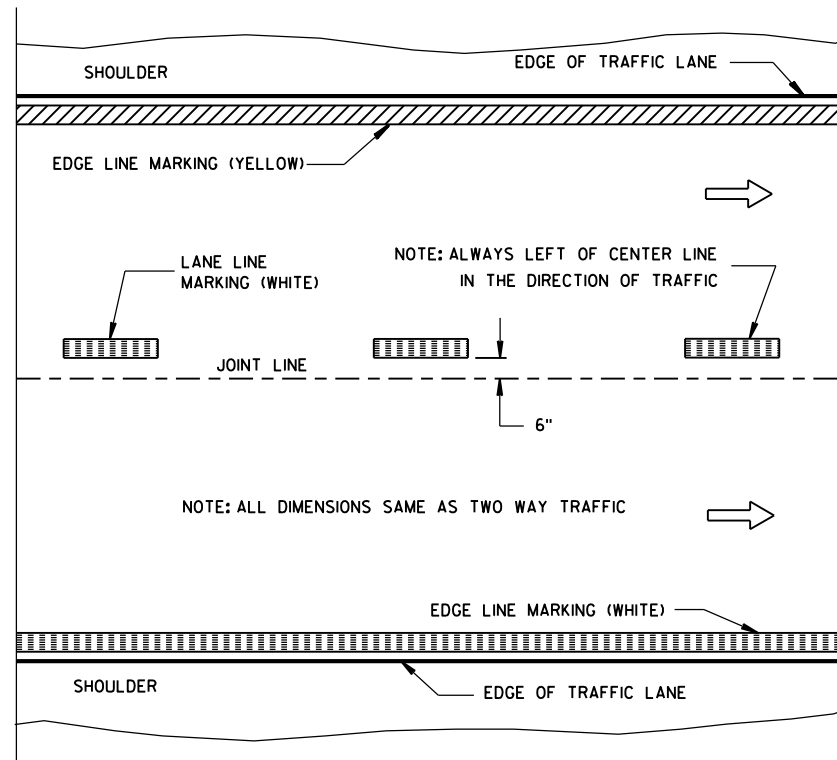
9/5/06
DATE

FHWA

/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN

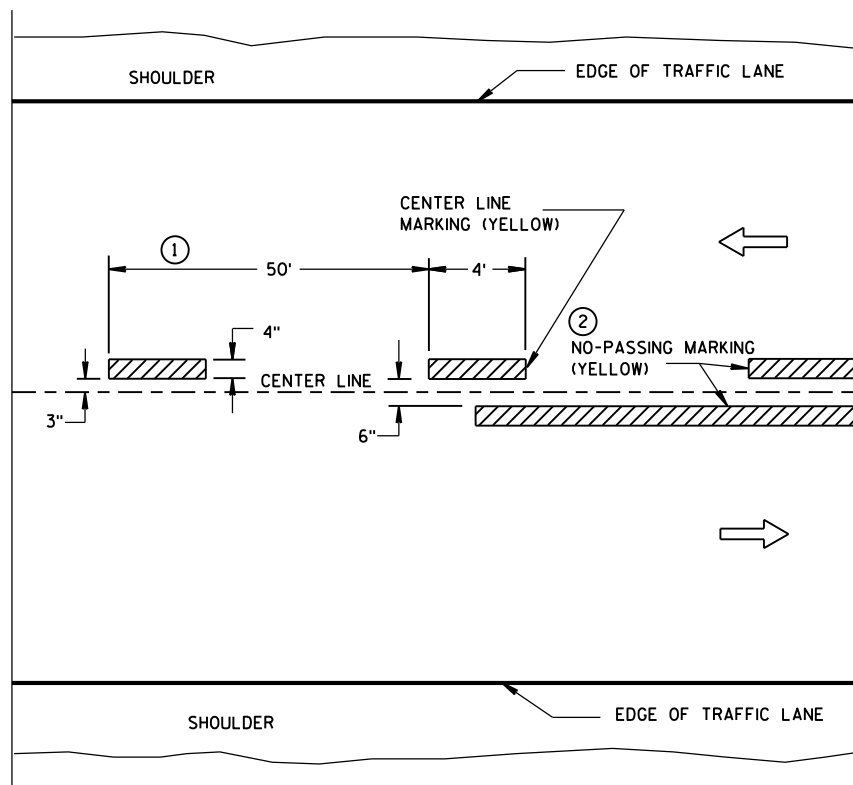


TWO WAY TRAFFIC

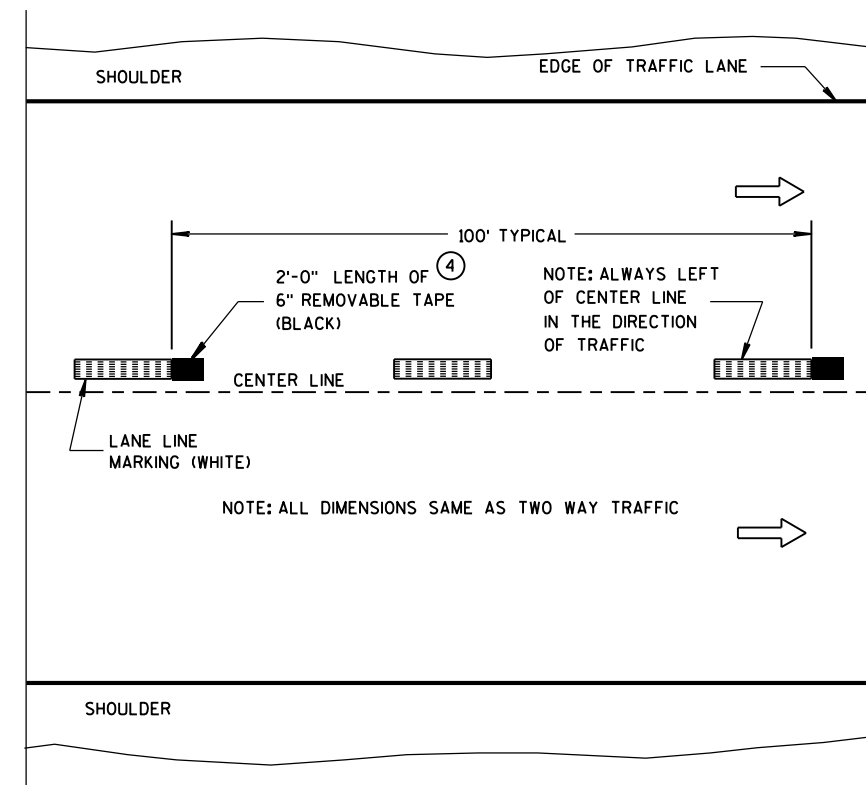


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

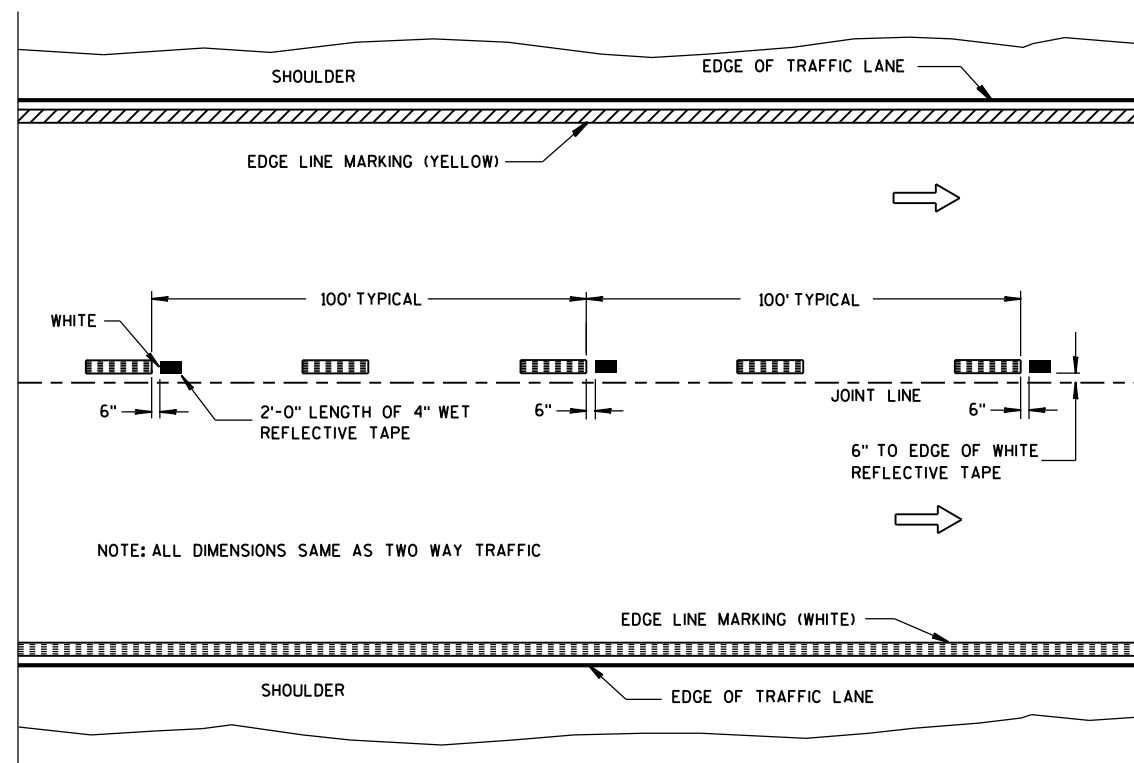
GENERAL NOTES

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

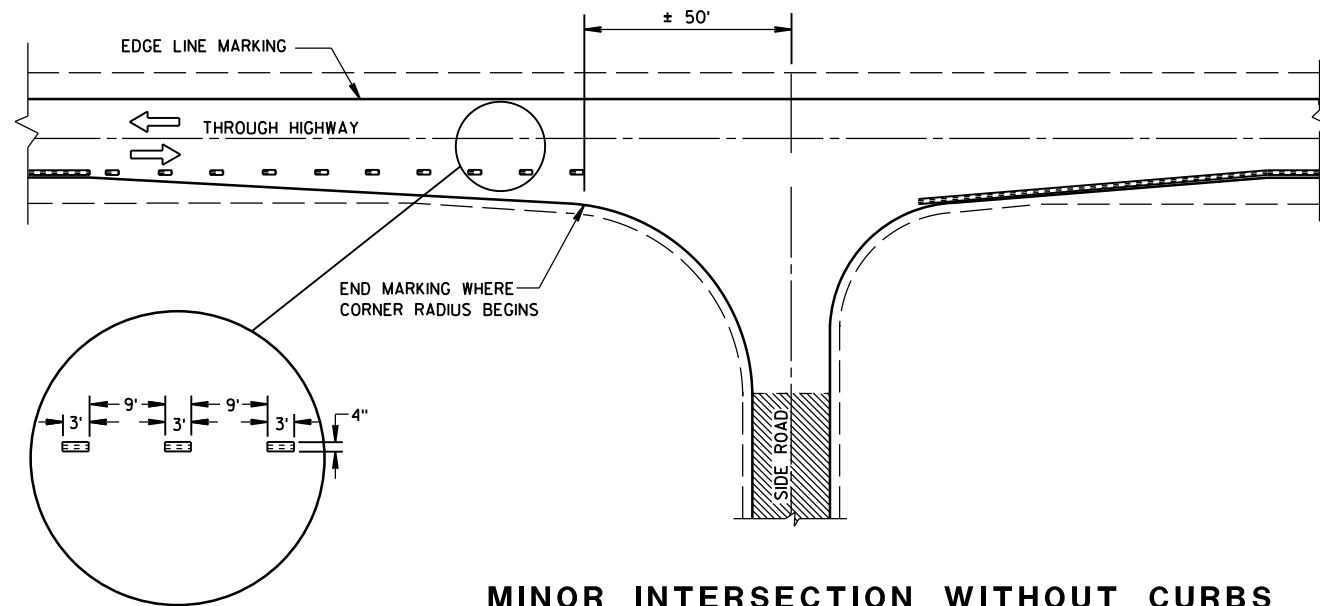
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

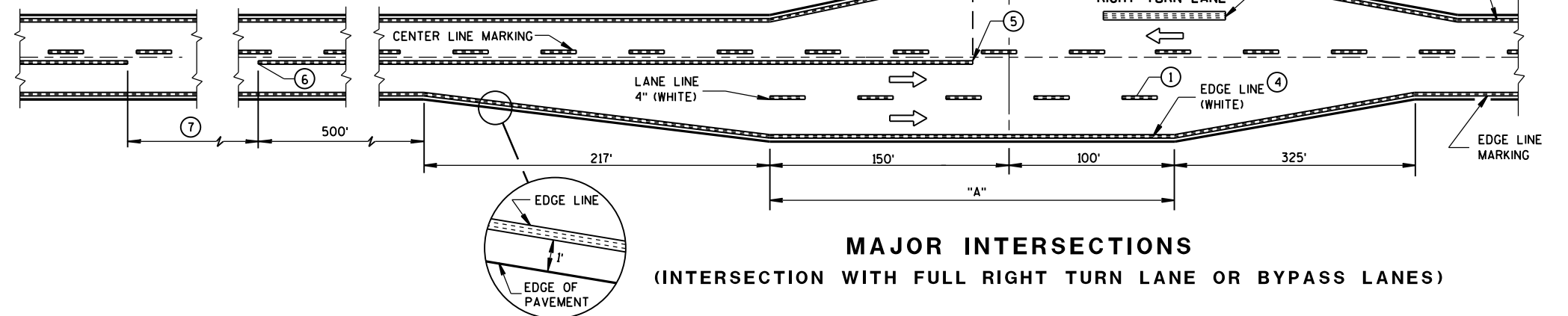
APPROVED
10-1-2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



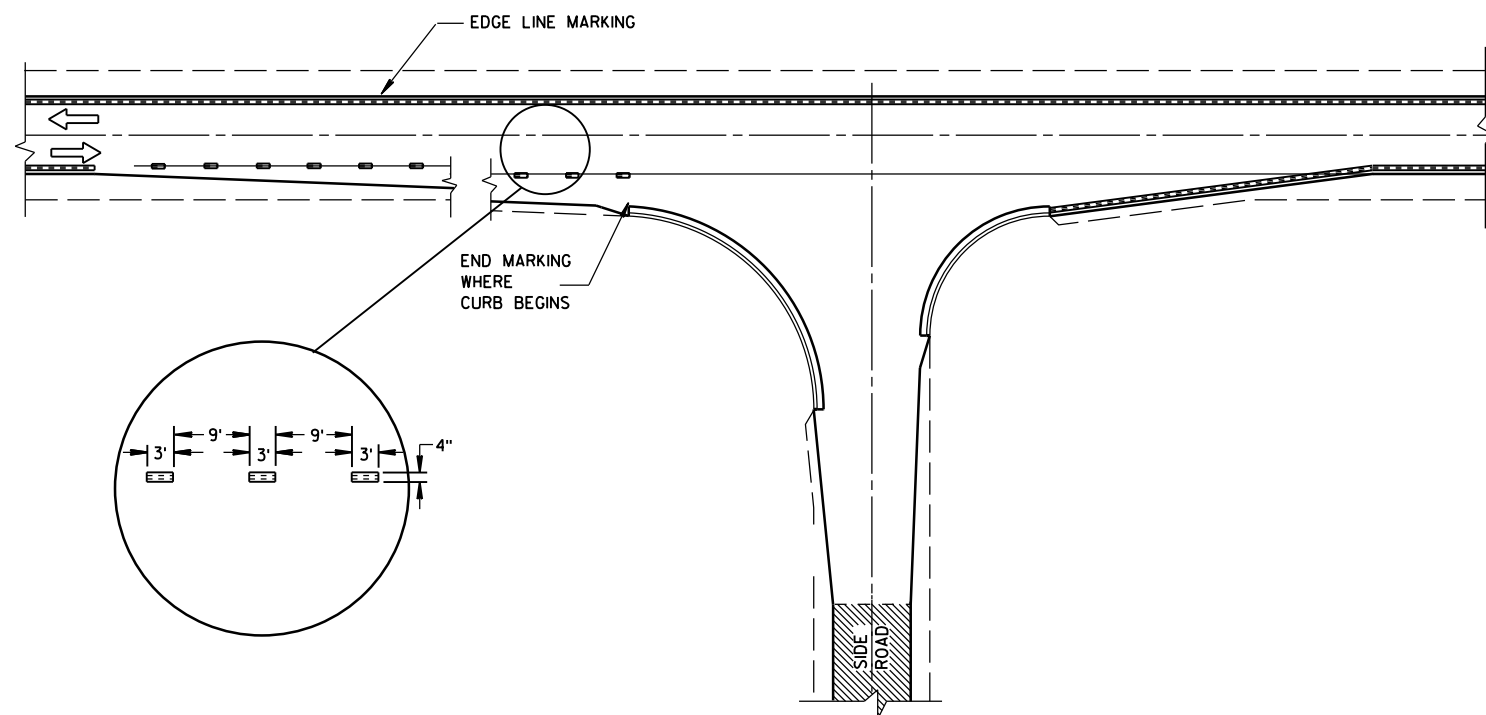
MINOR INTERSECTION WITHOUT CURBS

⑦

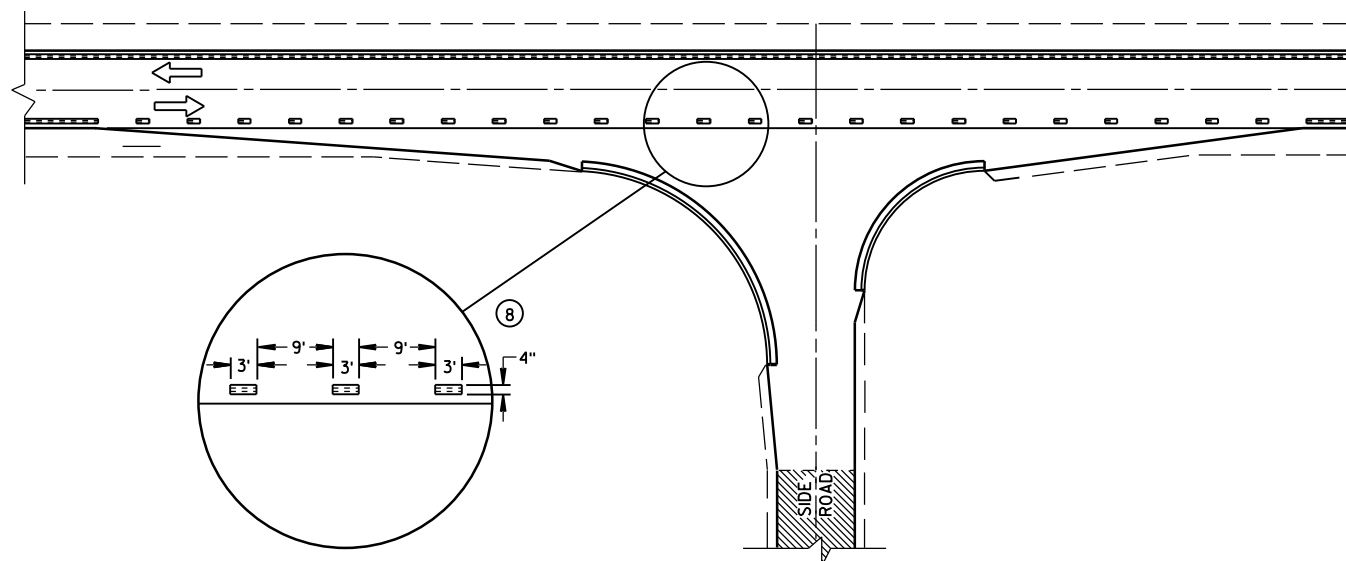
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



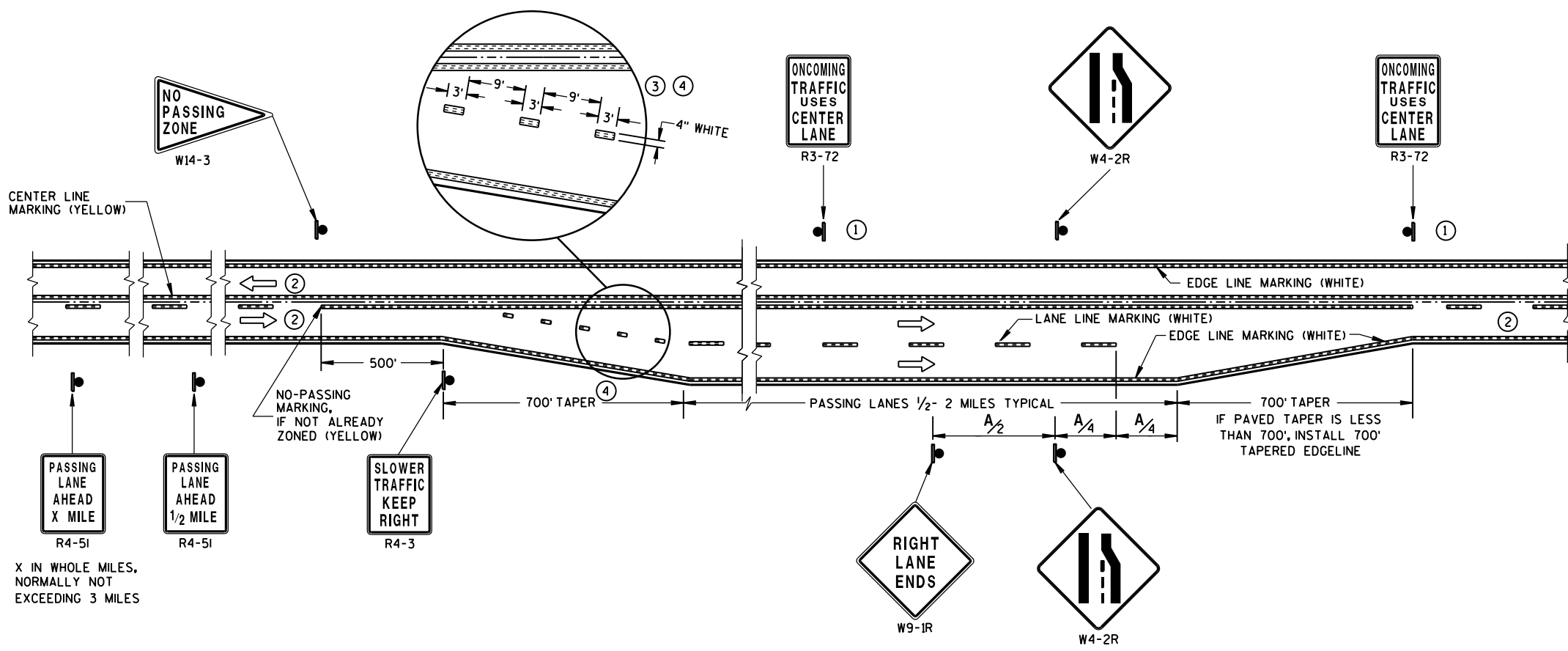
MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

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



**SOLID DOUBLE-YELLOW LINE
(THROUGHOUT ENTIRE PASSING/CLIMBING LANE)**

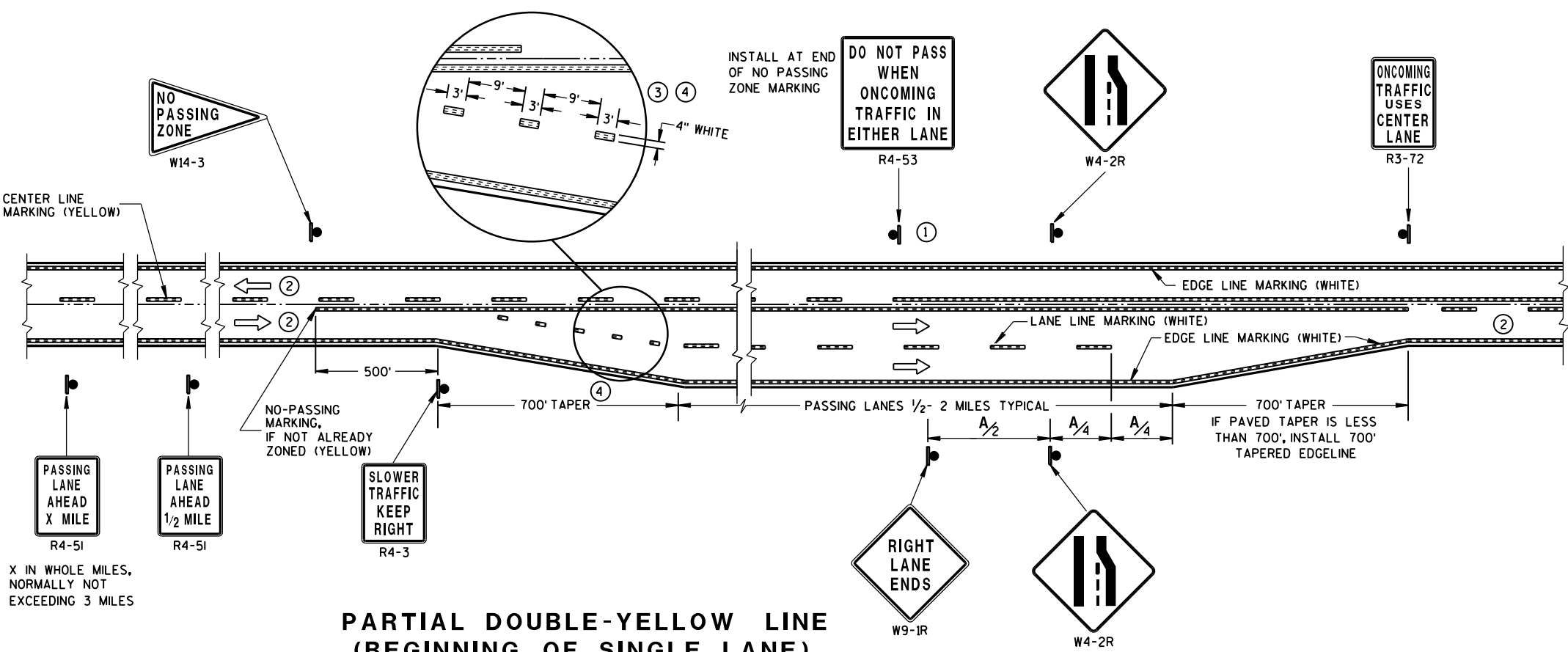
GENERAL NOTES

- ① SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
- ② THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
- ③ THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ④ WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING/CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.

ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

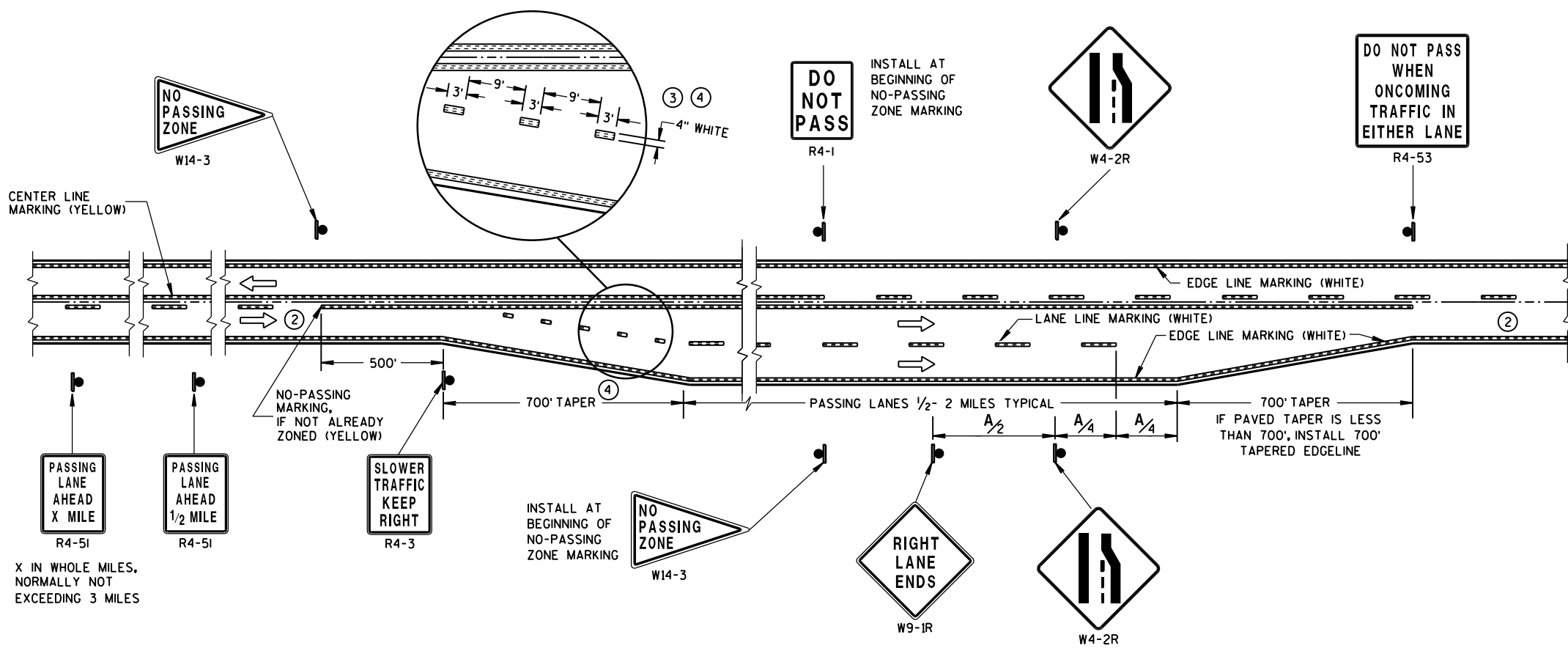
POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	750
50	850
55	950



**PARTIAL DOUBLE-YELLOW LINE
(BEGINNING OF SINGLE LANE)**

**PAVEMENT MARKING & SIGNING
(CLIMBING LANE & PASSING LANE)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**SOLID DOUBLE-YELLOW LINE
(END OF SINGLE LANE)**

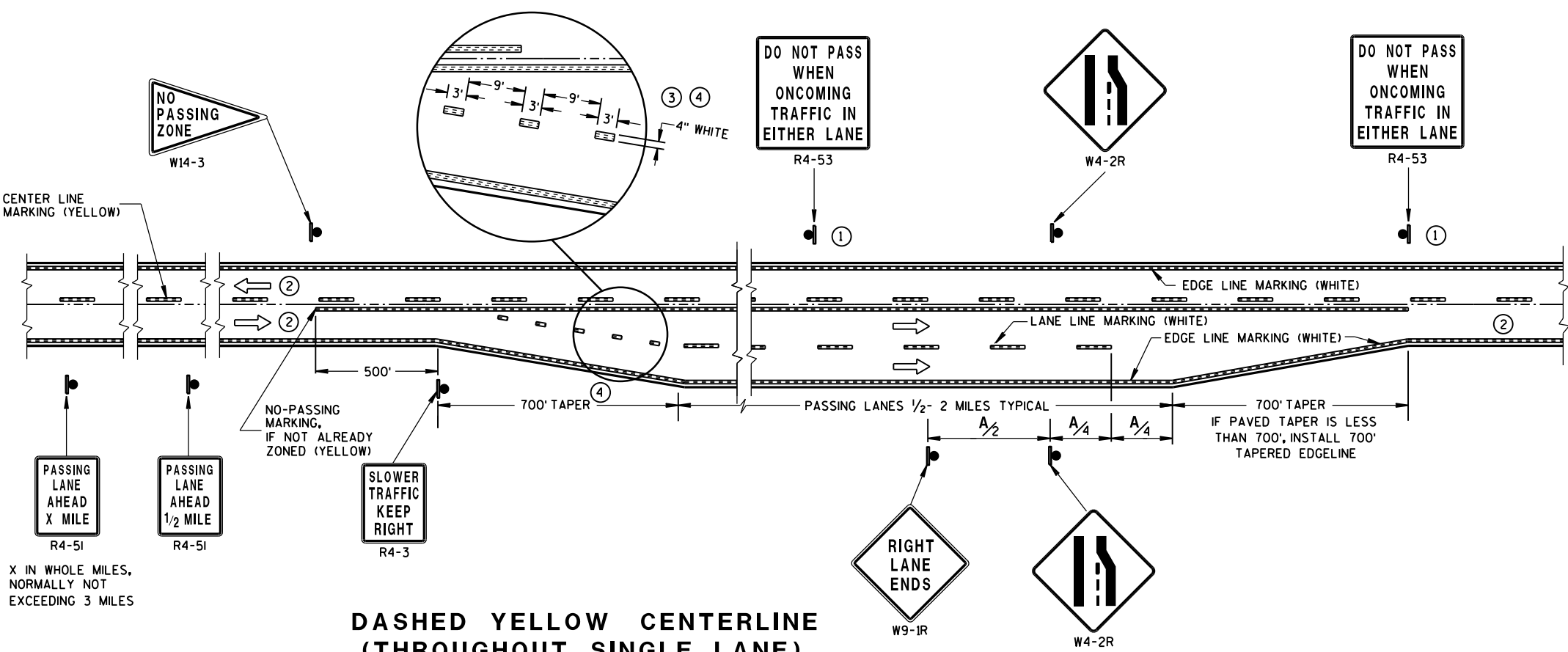
GENERAL NOTES

- ① SIGN SHALL BE REPEATED AT 1/2 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
- ② THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
- ③ THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ④ WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING/CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

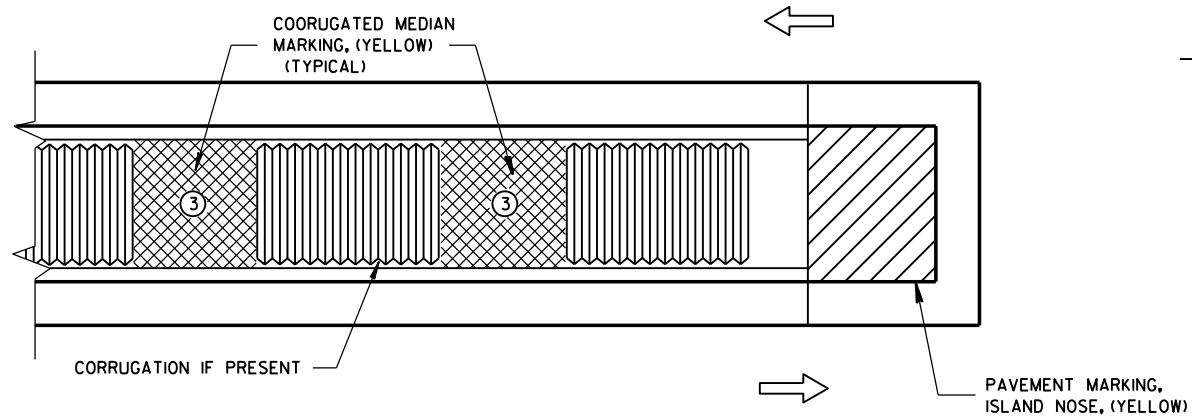
POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	750
50	850
55	950



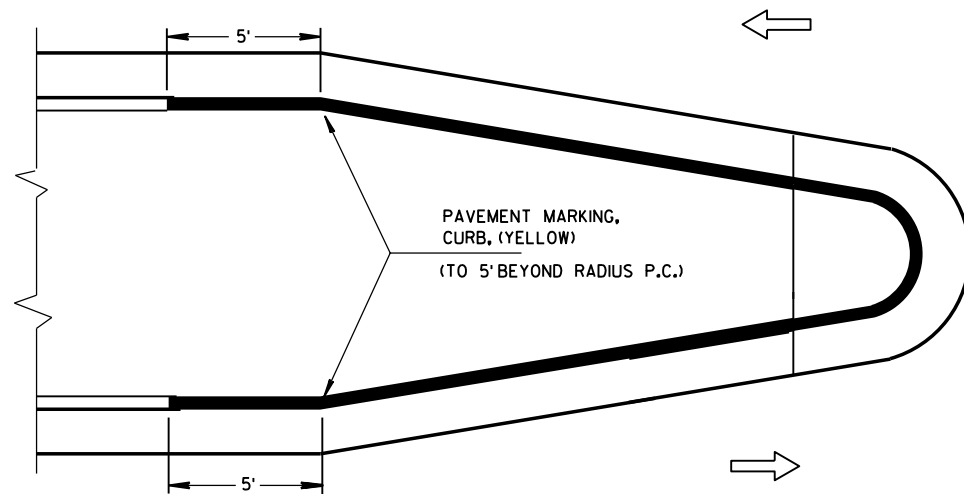
**DASHED YELLOW CENTERLINE
(THROUGHOUT SINGLE LANE)**

**PAVEMENT MARKING & SIGNING
(CLIMBING LANE &
PASSING LANE)**

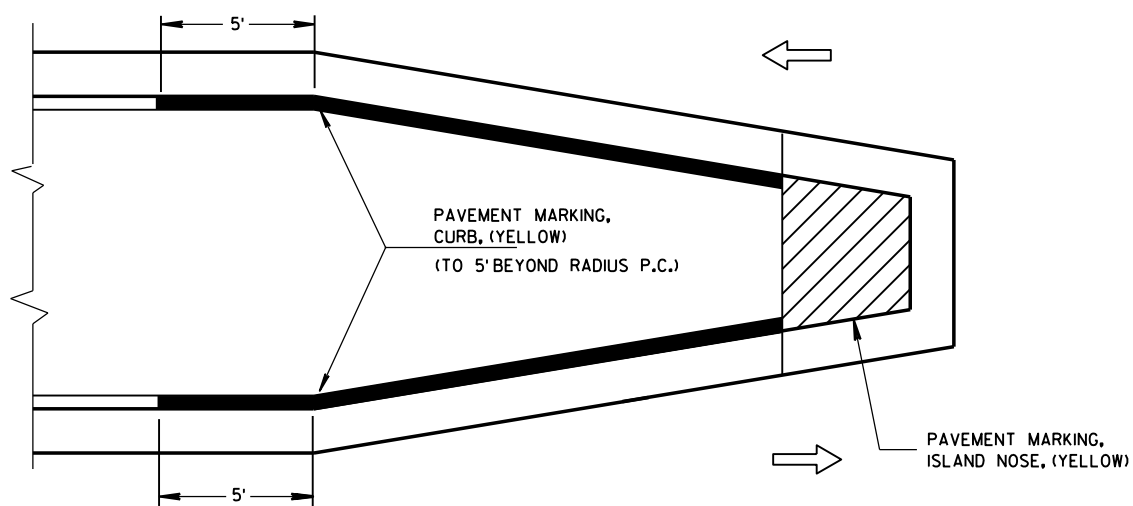
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

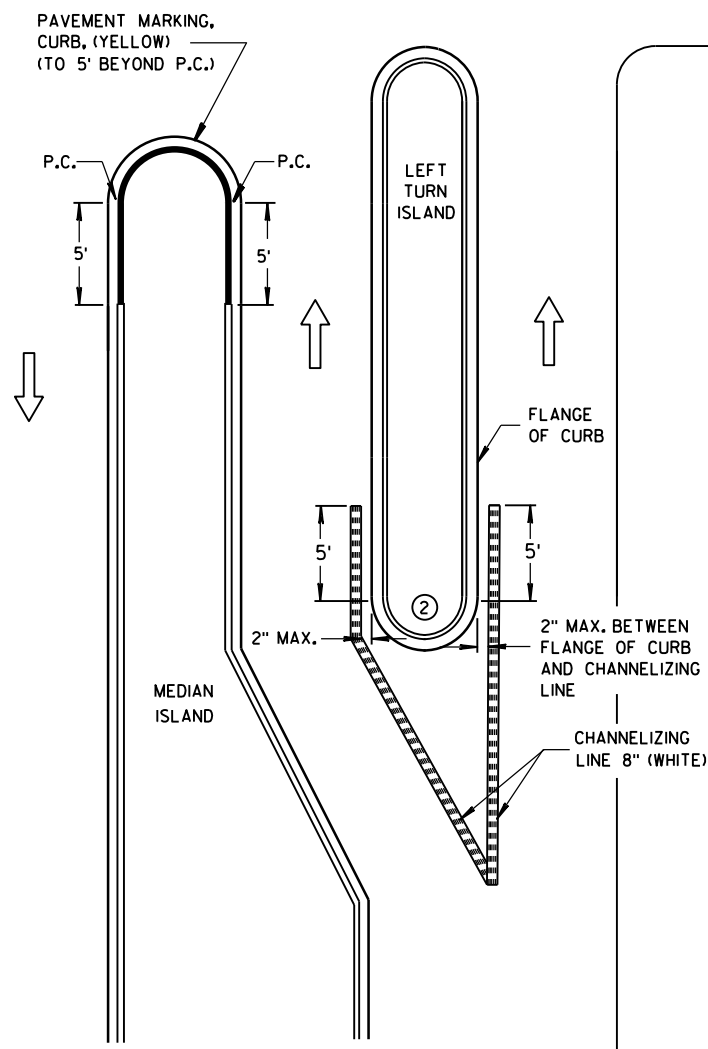


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

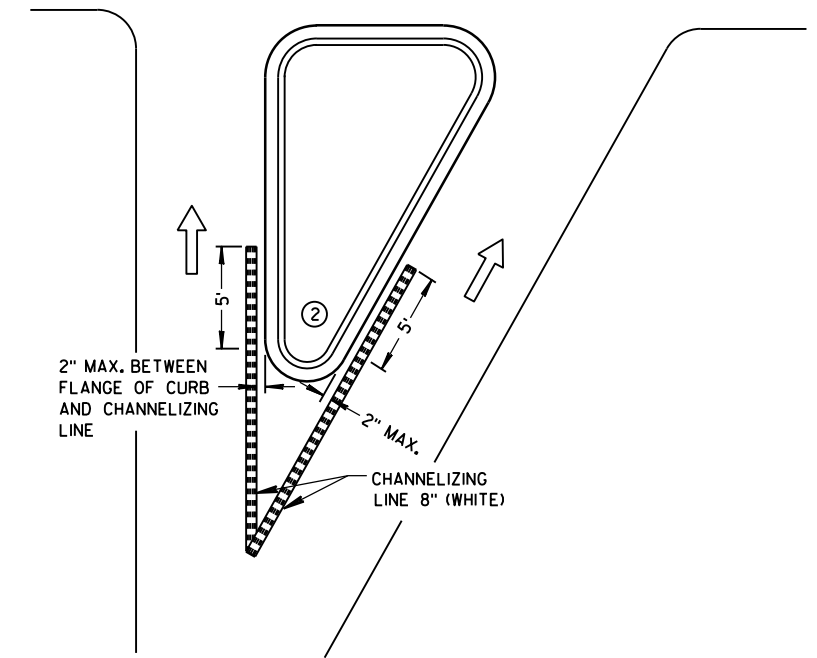
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

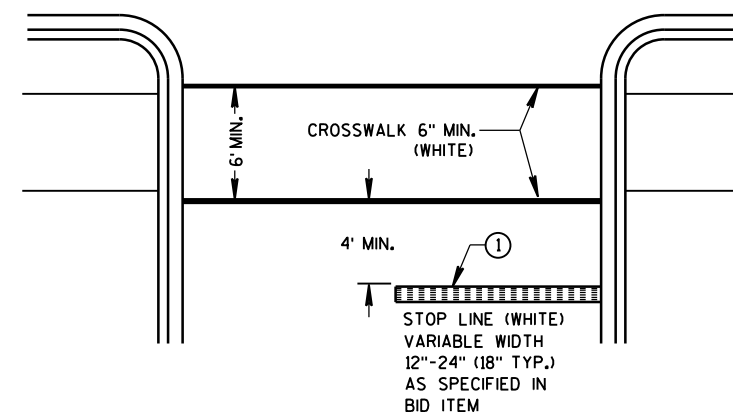
- ① STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
- ③ WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

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




STOP LINE AND CROSSWALK

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)


STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TWO-LANE ROADWAY


SYMBOLS



WORK AREA



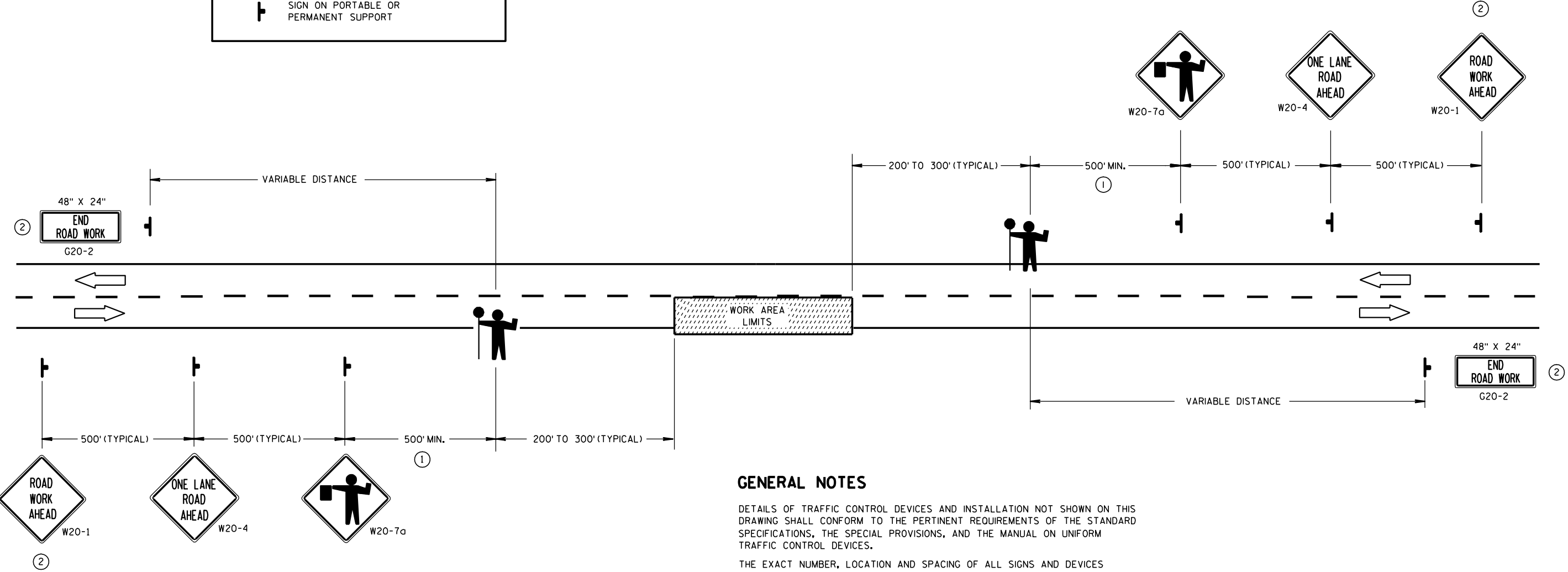
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



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.

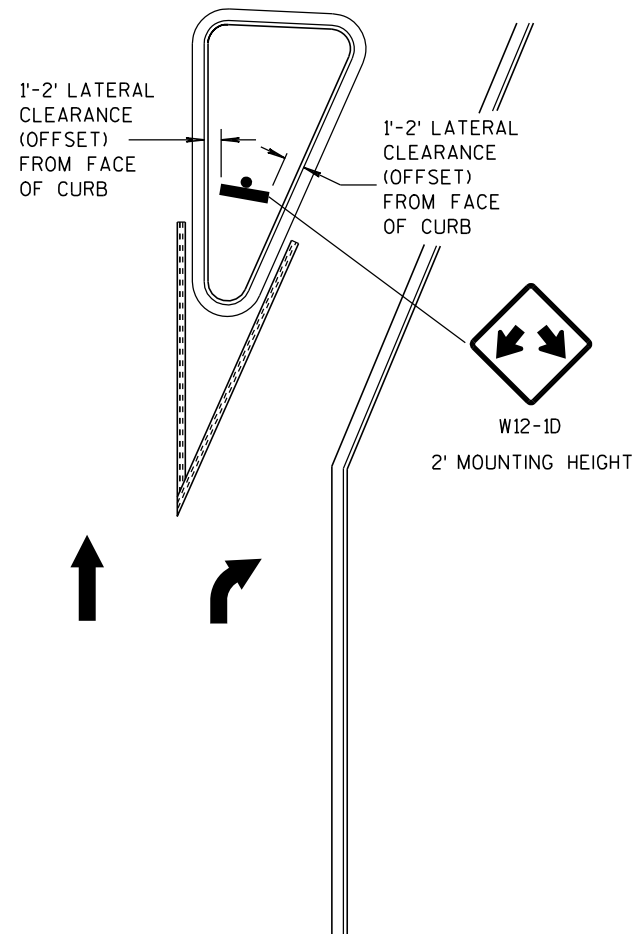
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

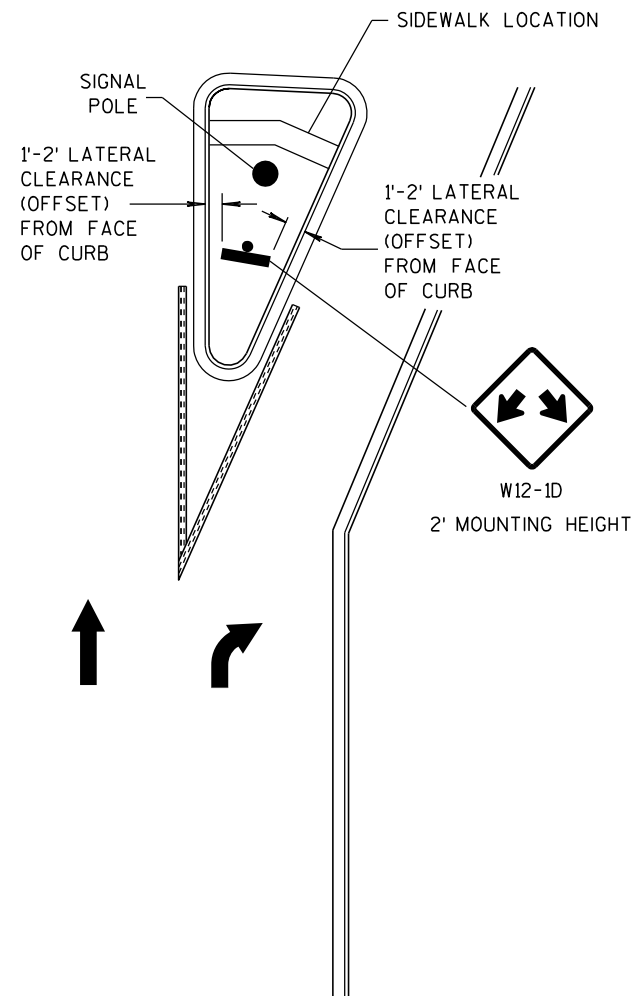
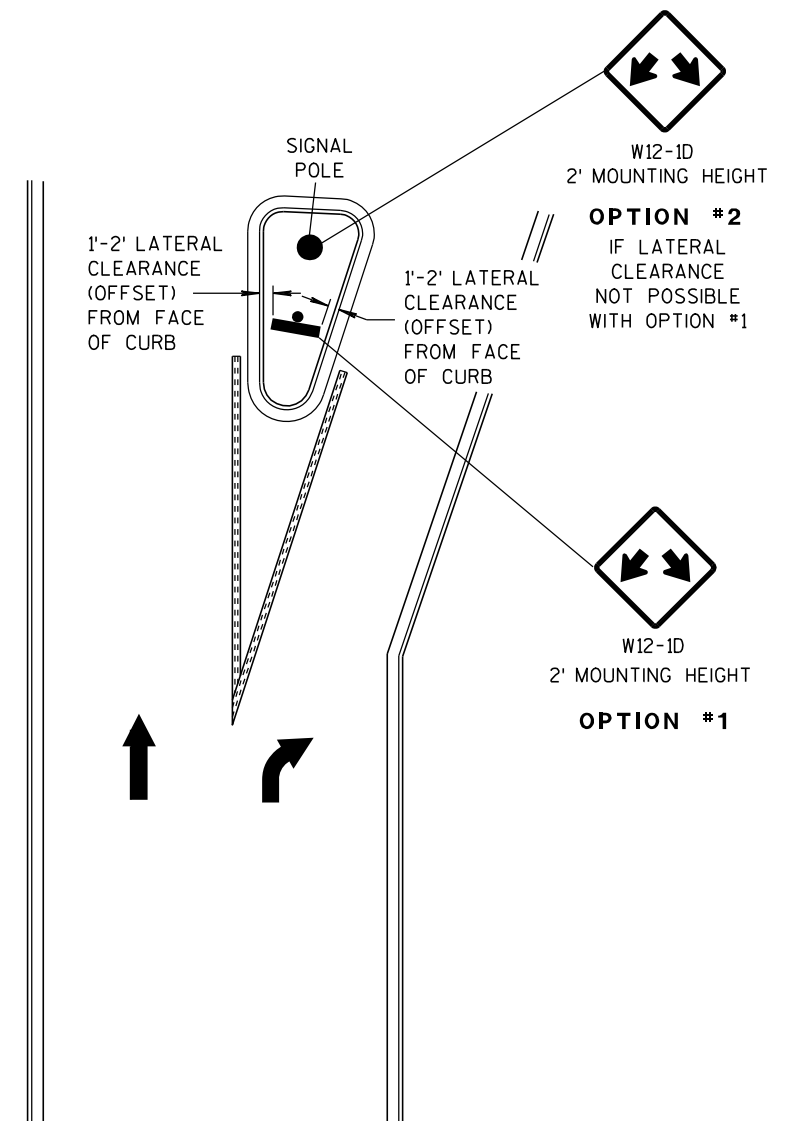
APPROVED
9/5/06
DATE

/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN

FHWA



LARGE RIGHT TURN ISLAND

LARGE RIGHT TURN ISLAND
WITH SIGNAL POLE

SMALL RIGHT TURN ISLAND

GENERAL NOTE

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

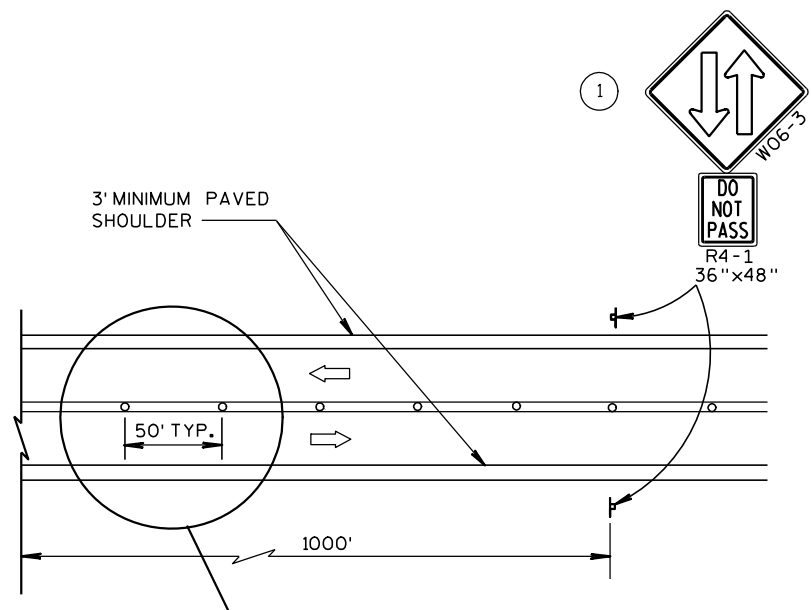
DOUBLE ARROW WARNING SIGN PLACEMENT**DOUBLE ARROW
WARNING SIGN PLACEMENT**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

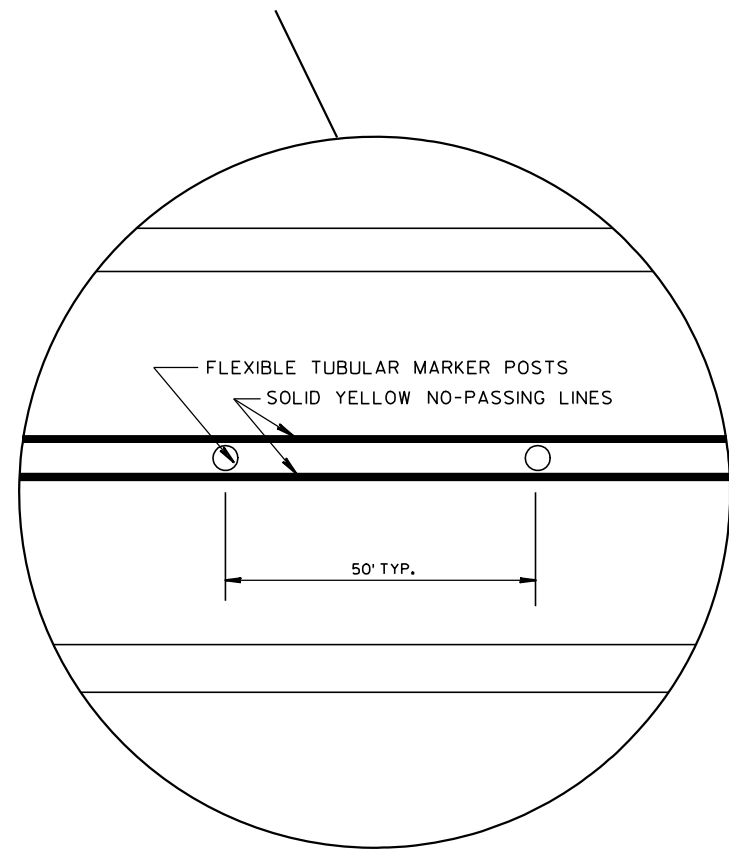
10-22-08
DATE

FHWA

/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN



TWO LANE, TWO WAY OPERATION



- LEGEND**
- POST WITH ATTACHED SIGN
 - FLEXIBLE TUBULAR MARKER AND BASE
 - DIRECTION OF TRAFFIC

GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERS NOTED.

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

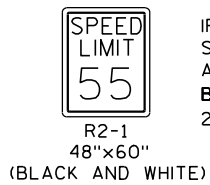
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

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

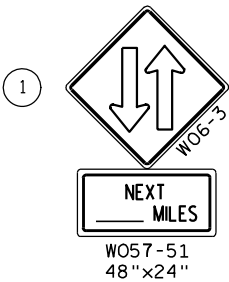
THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC @ 50' SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.



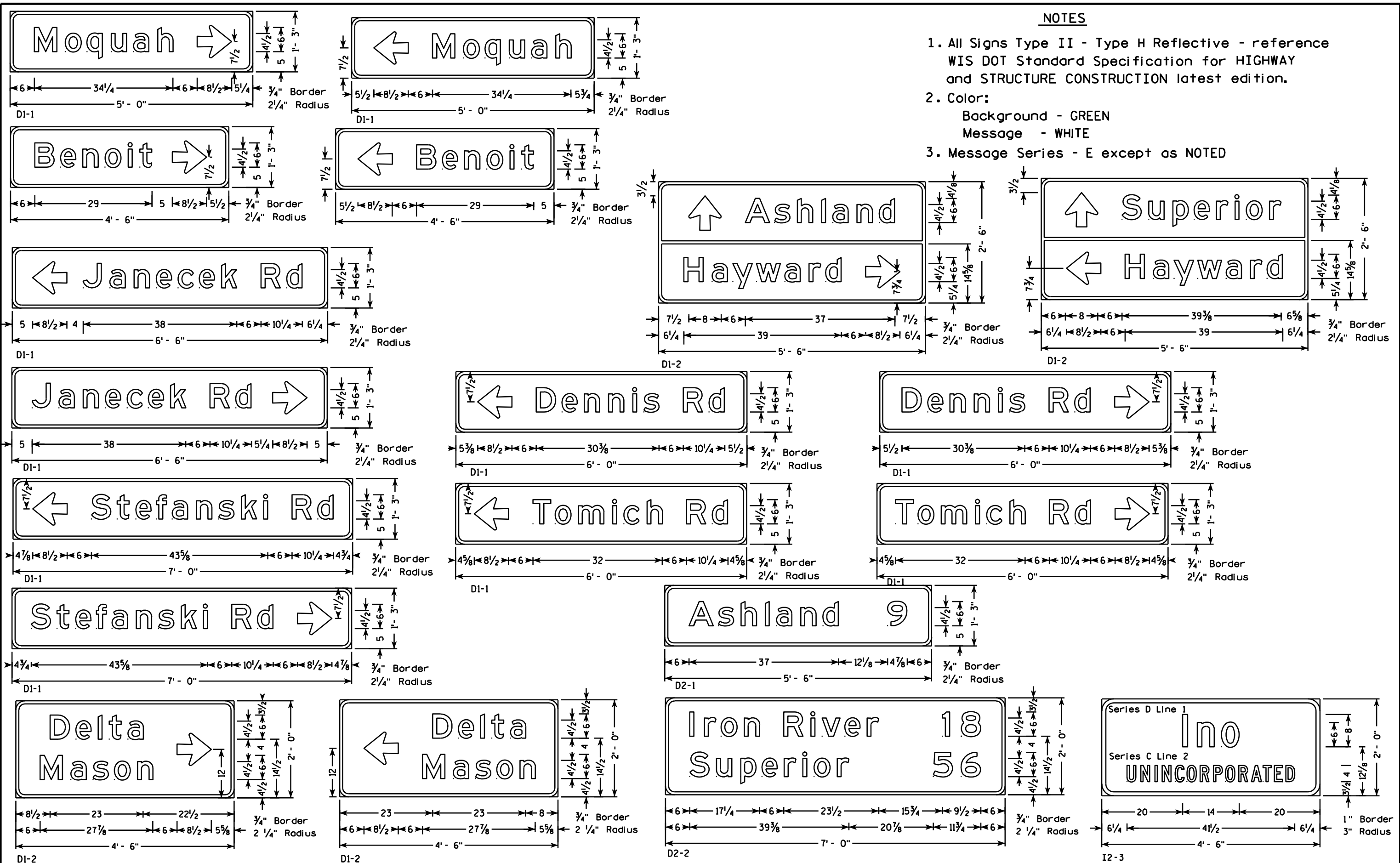
IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.

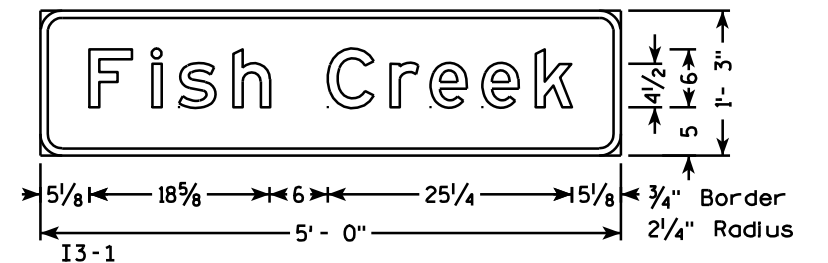
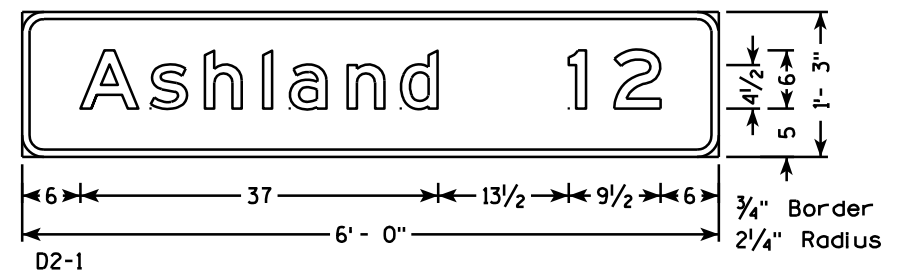
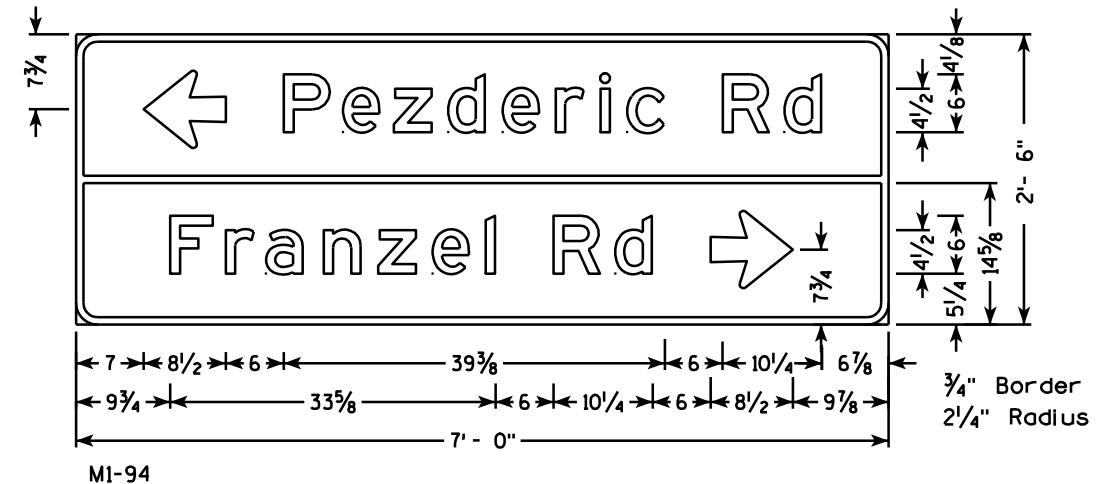
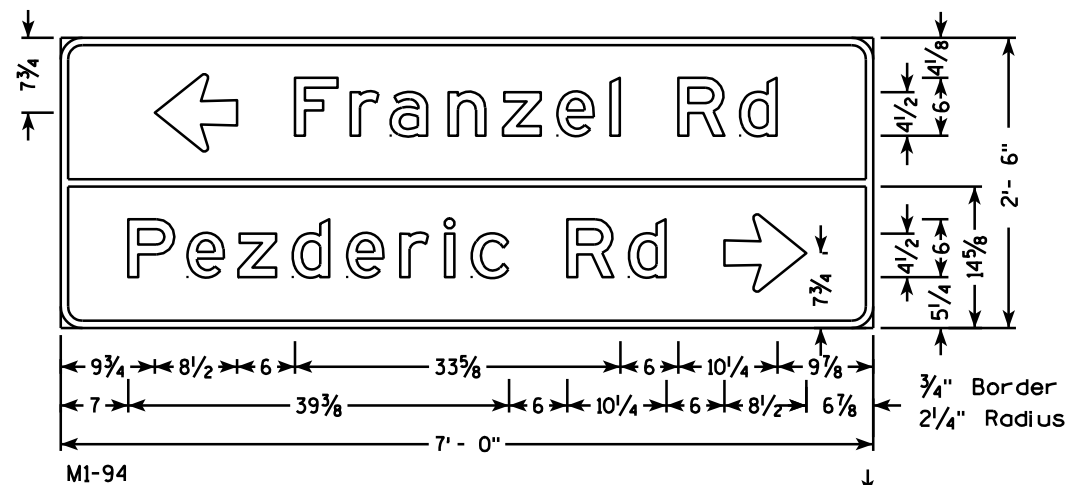
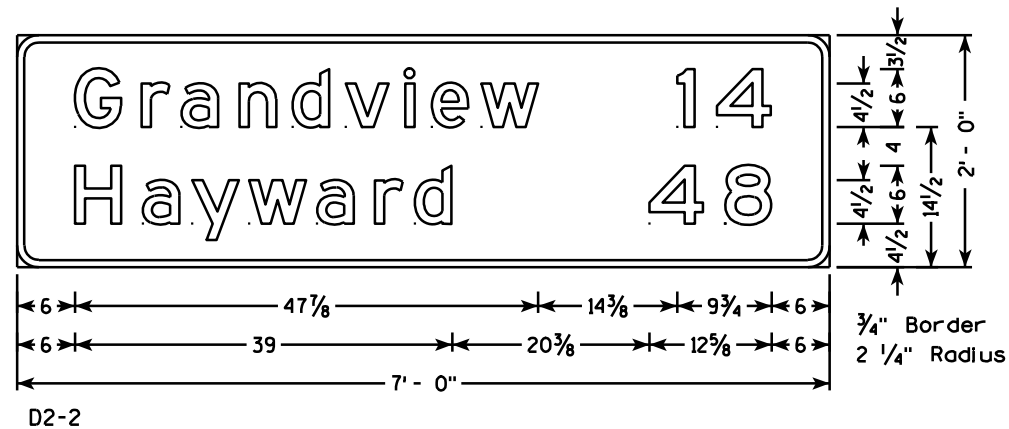
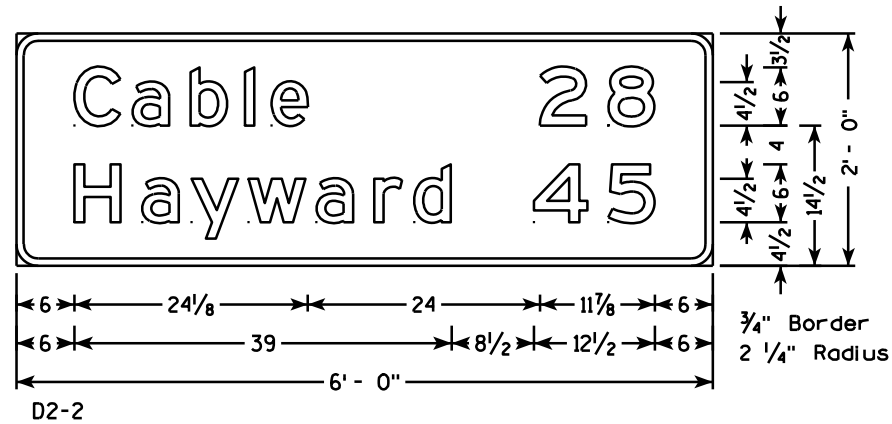
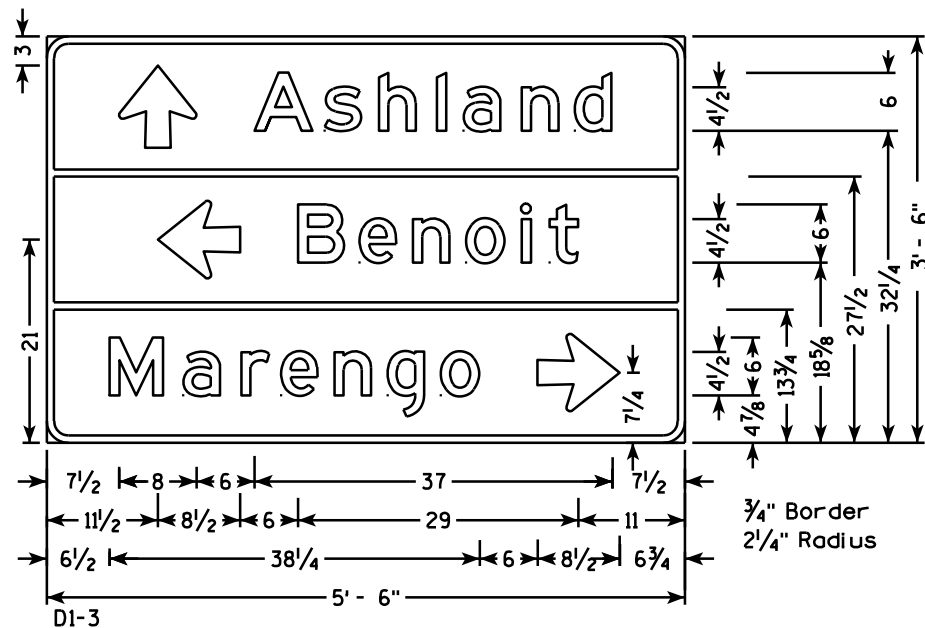
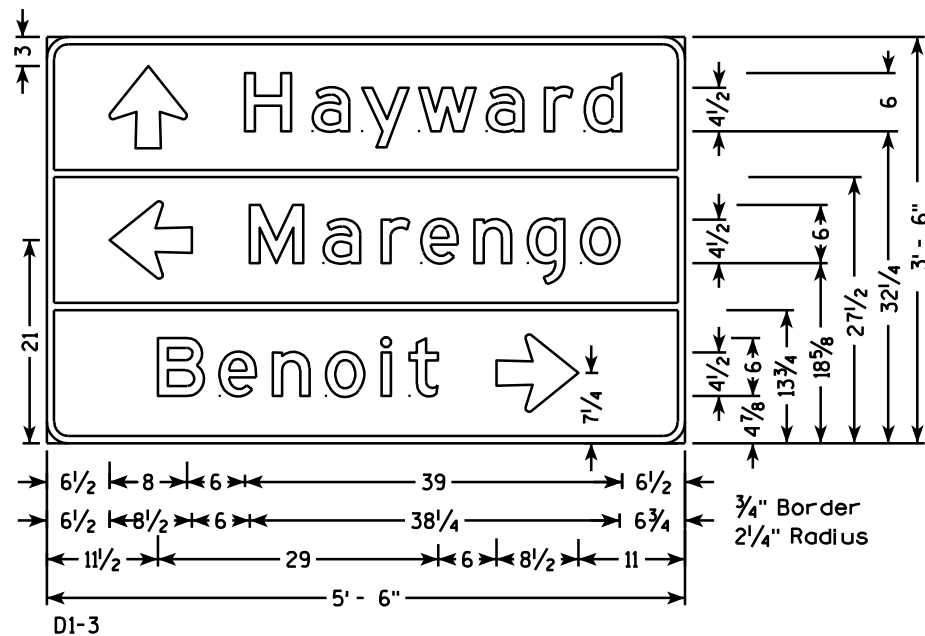
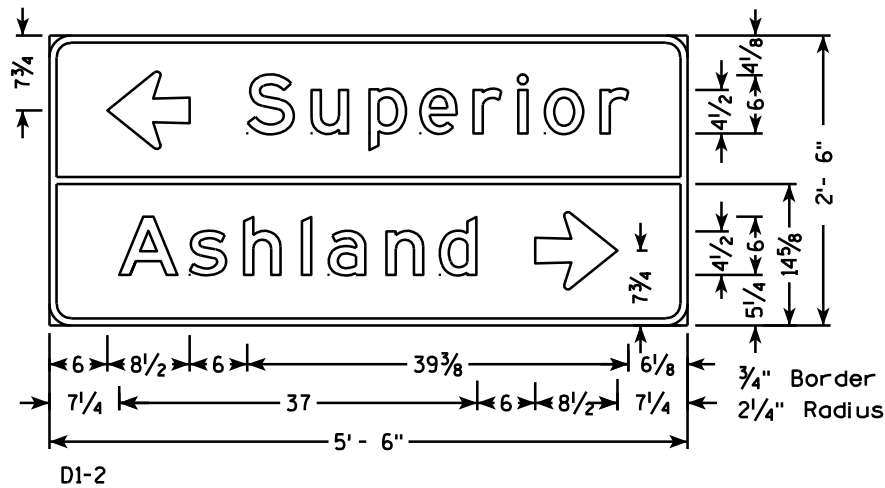


THE WO6-3 WITH THE W057-51 SHALL BE LOCATED 200' BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500' BEYOND ANY SIDEROAD. THE WO6-3 WITH THE R4-1 SHALL BE LOCATED 1000' BEYOND THE WO6-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN WO6-3 SIGNS.



TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12-4-95 DATE	/S/ Chester J. Spang DIRECTOR, OFFICE OF TRAFFIC
FHWA	

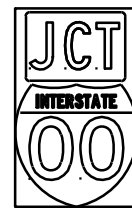




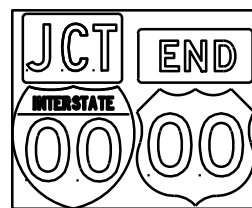
NOTES

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

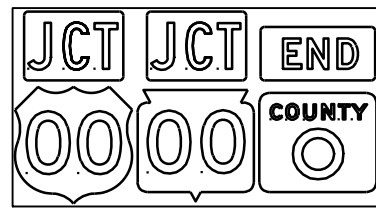
TYPICAL ASSEMBLIES



J1-1



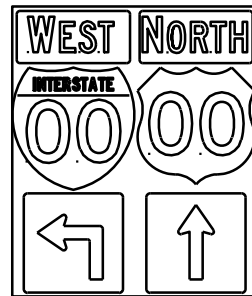
J1-2



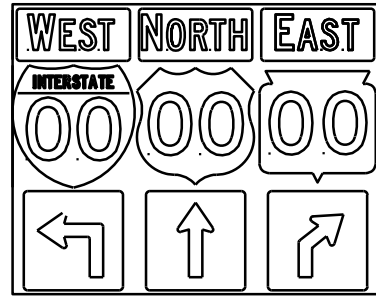
J1-3



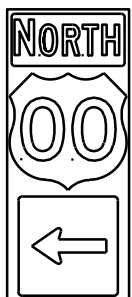
J2-1



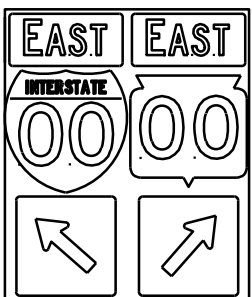
J2-2



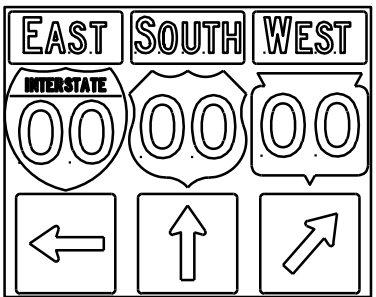
J2-3



J3-1



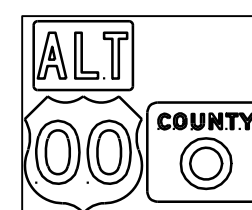
J3-2



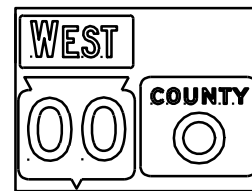
J3-3



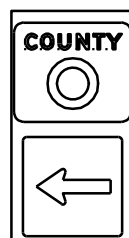
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1



J22-1

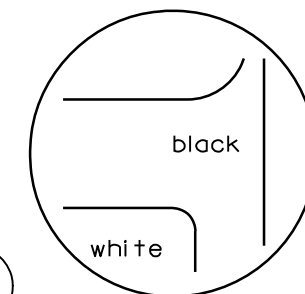
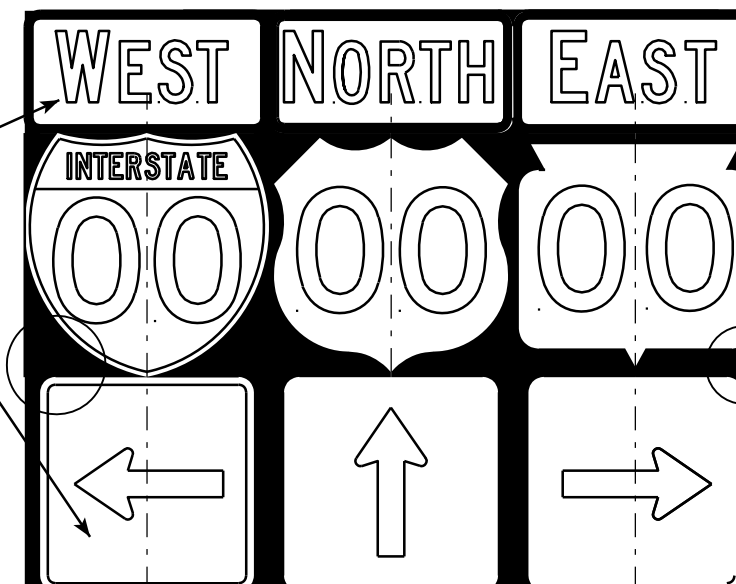
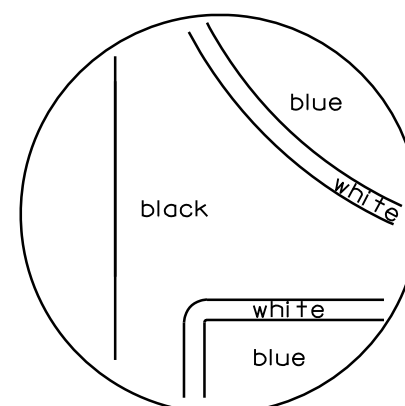


JV

NOTES

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

[blue background with interstate]



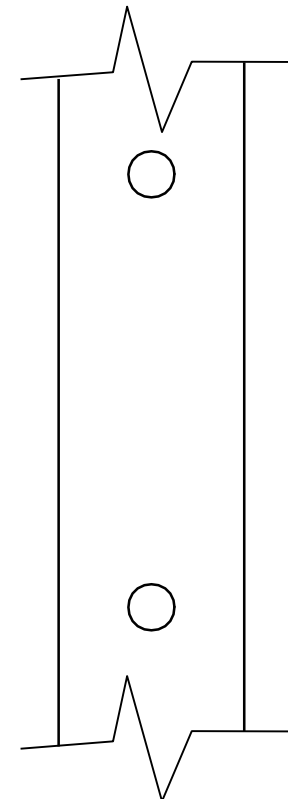
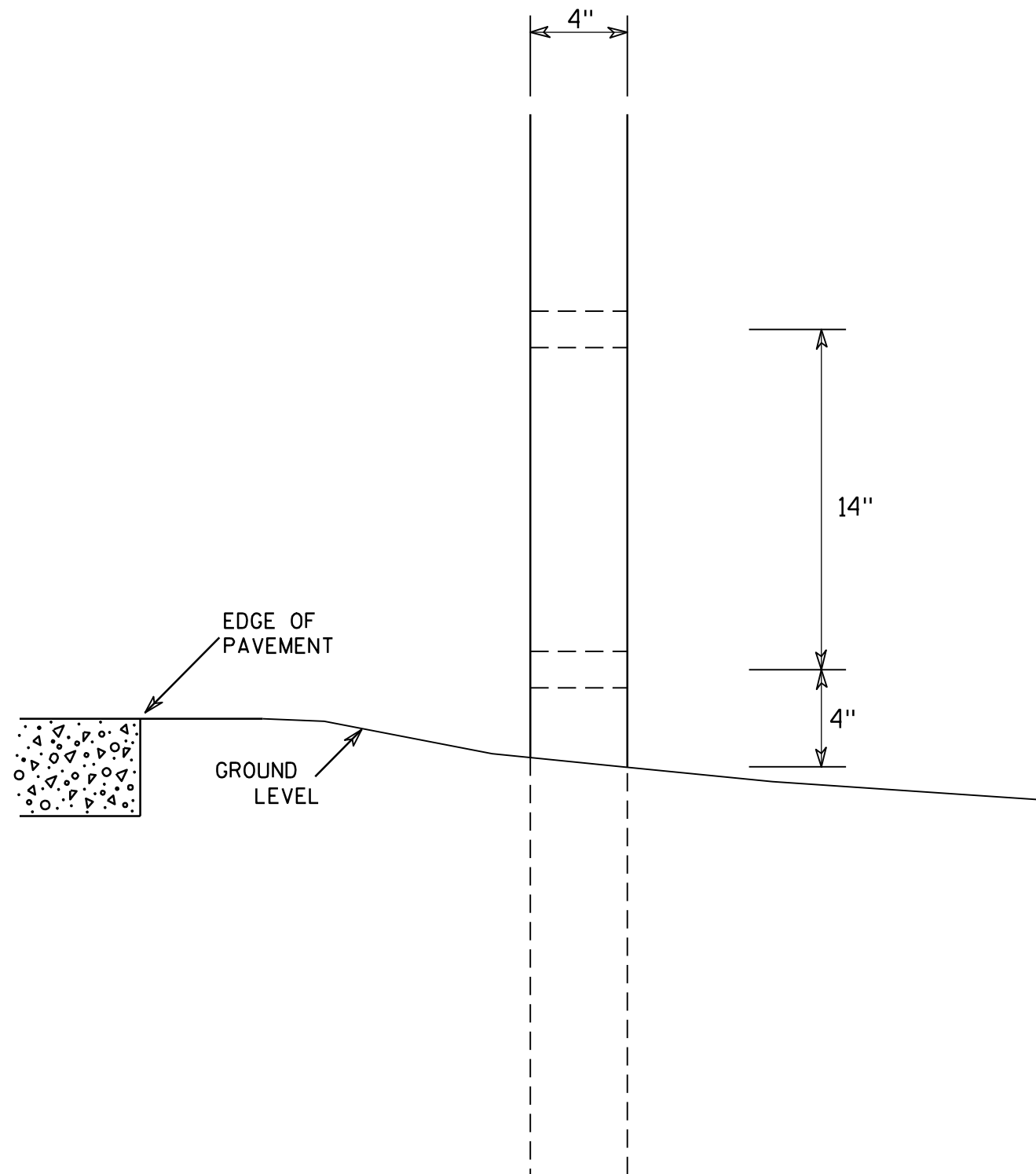
[black background]

ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 10/21/09	PLATE NO. A2-1S.6

PROJECT NO:

SHEET NO:

E



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

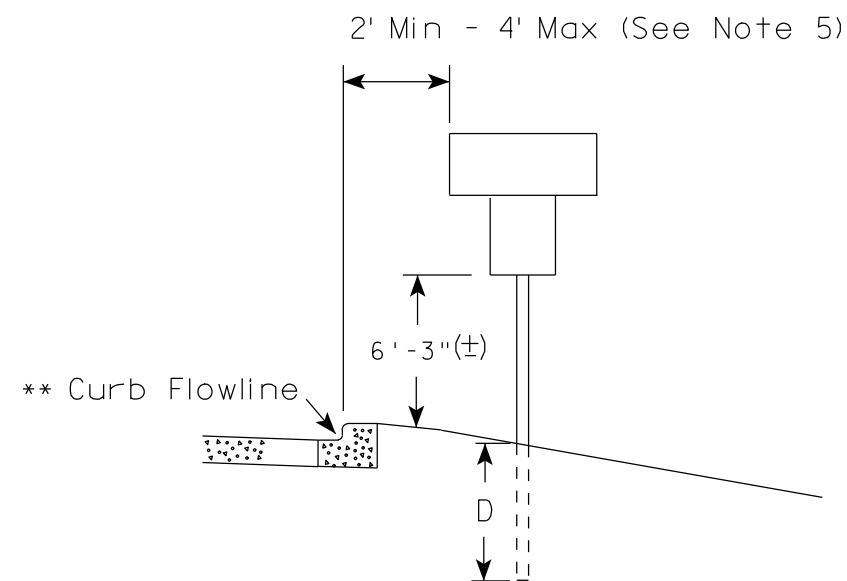
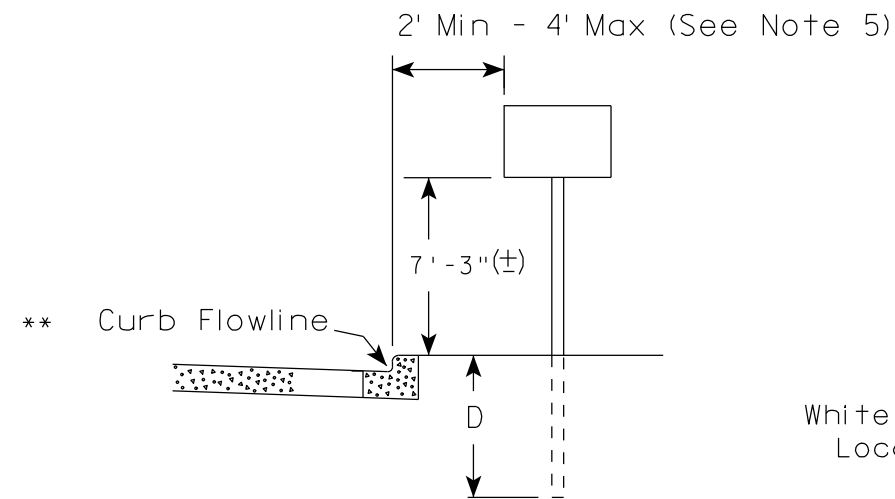
HWY:

COUNTY:

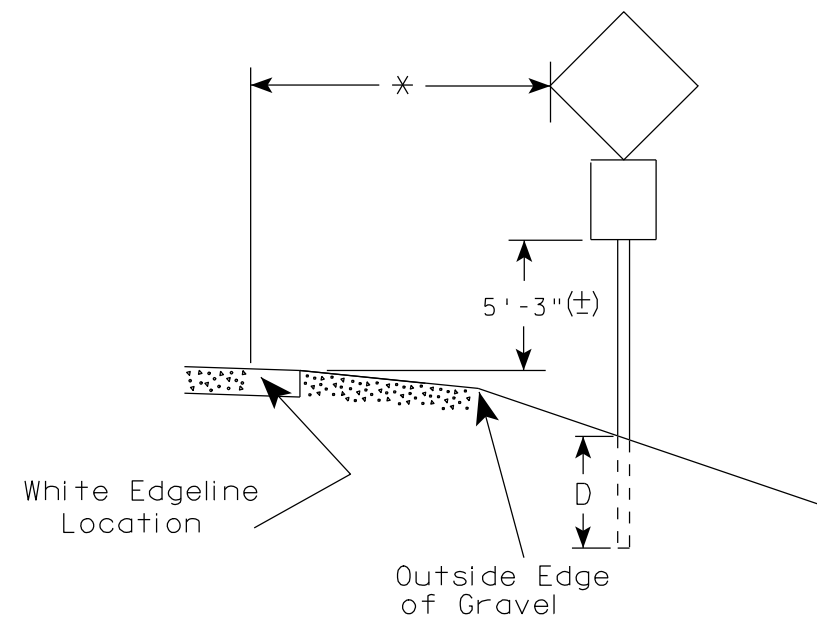
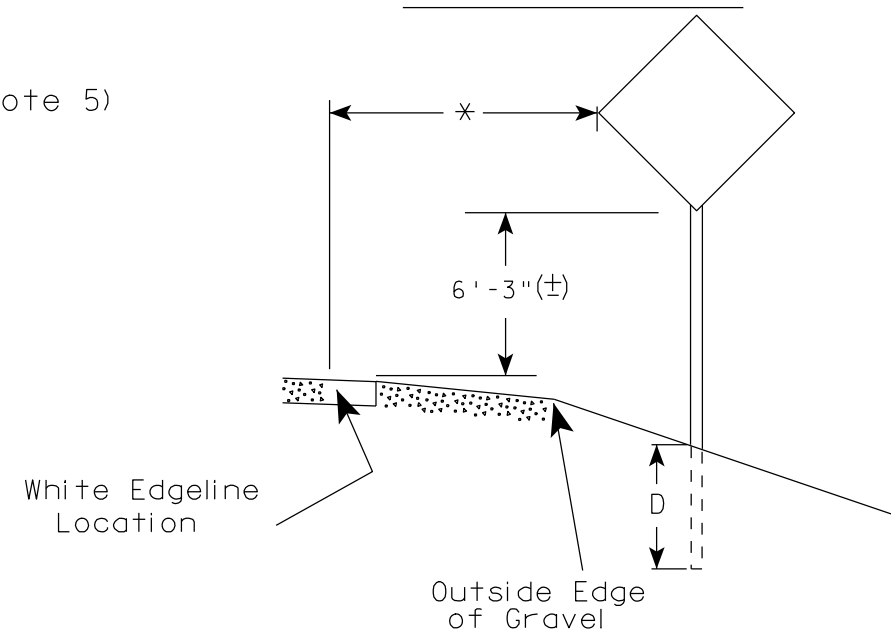
SHEET NO:

E

URBAN AREA



RURAL AREA (See Note 2)



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), 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'

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

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-3.16

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

GENERAL NOTES

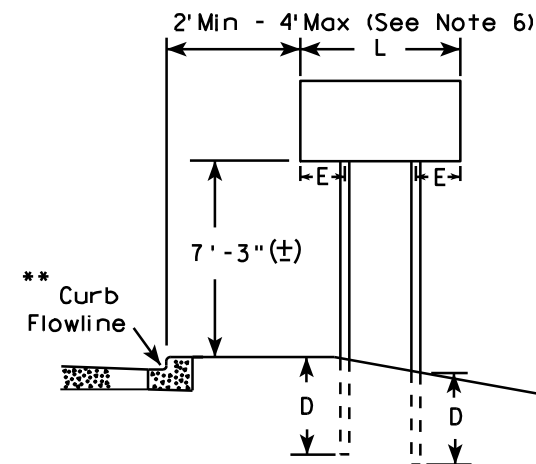
- For multiple post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.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

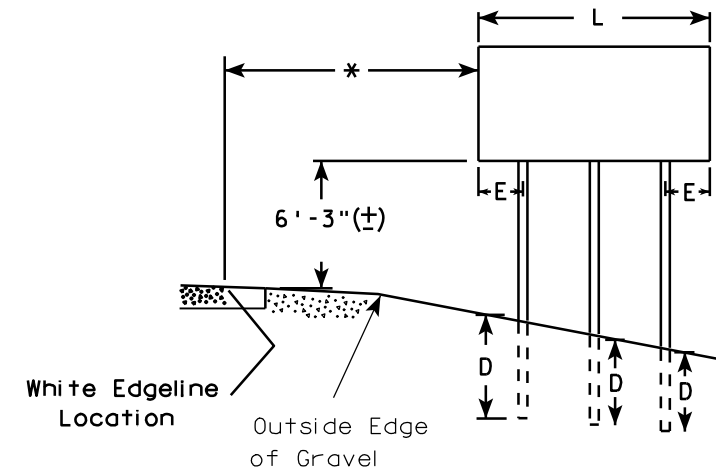
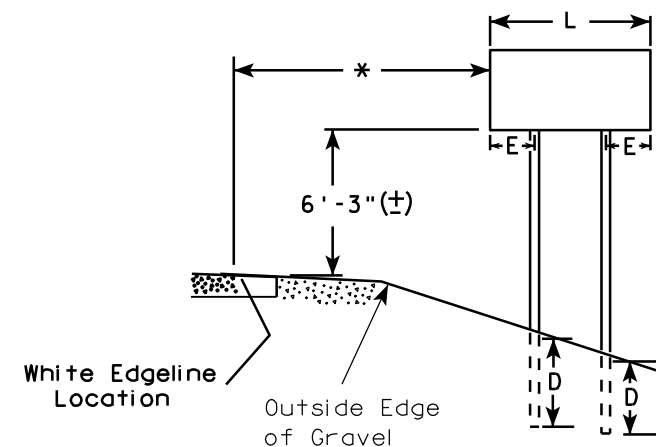
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

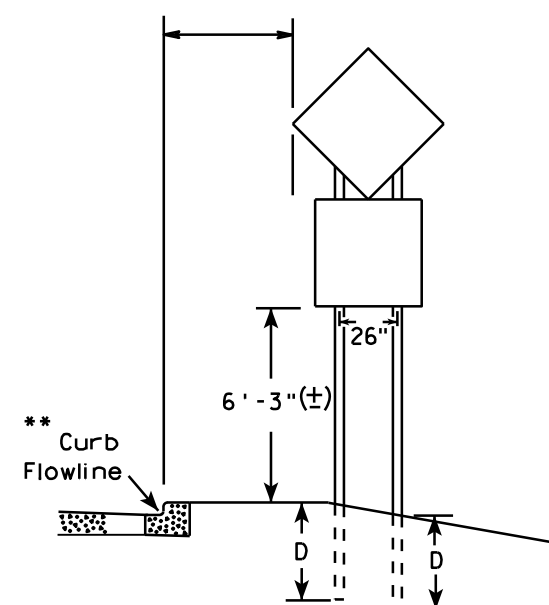
URBAN AREA



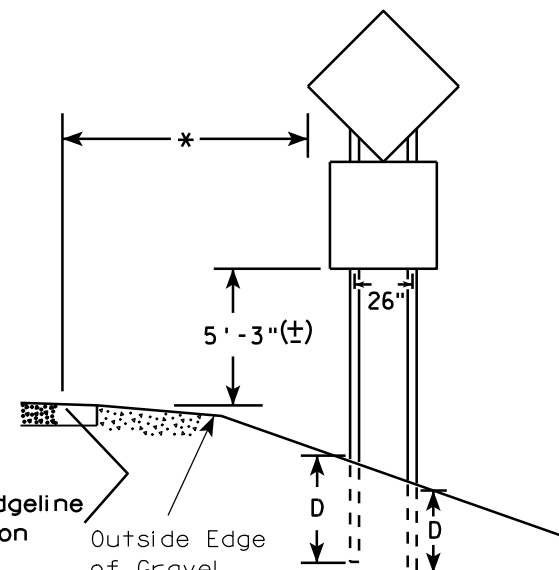
RURAL AREA (See Note 3)



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

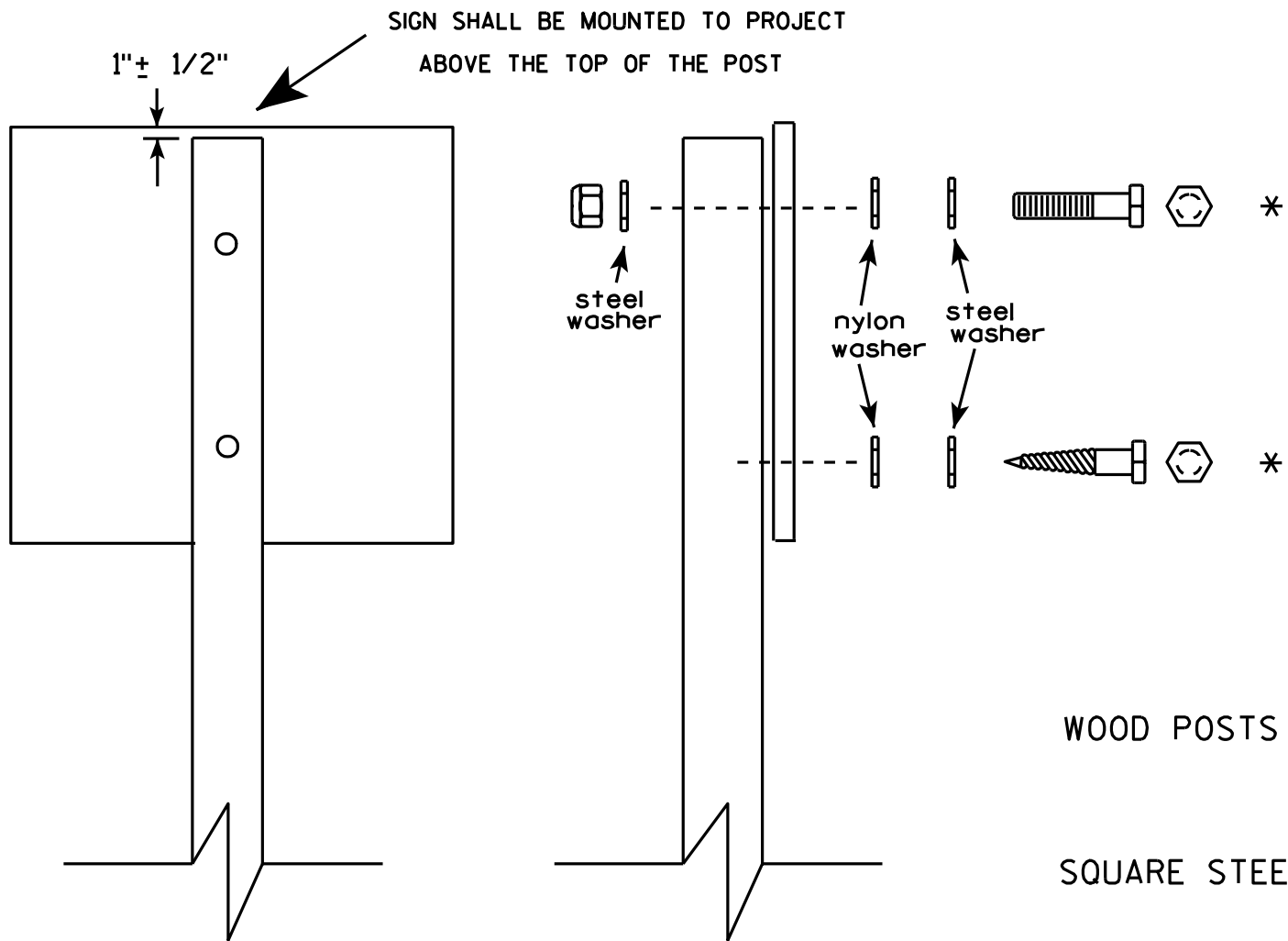
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

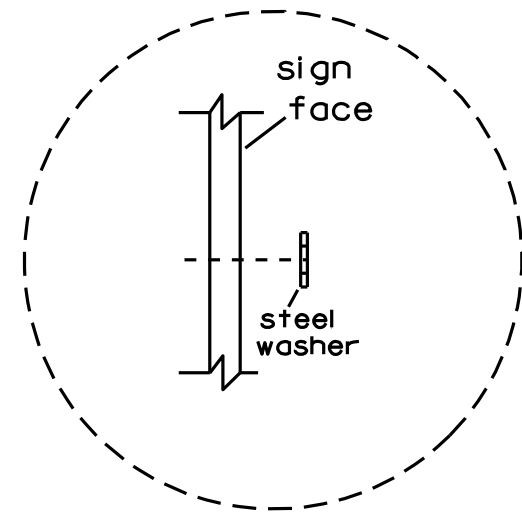


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

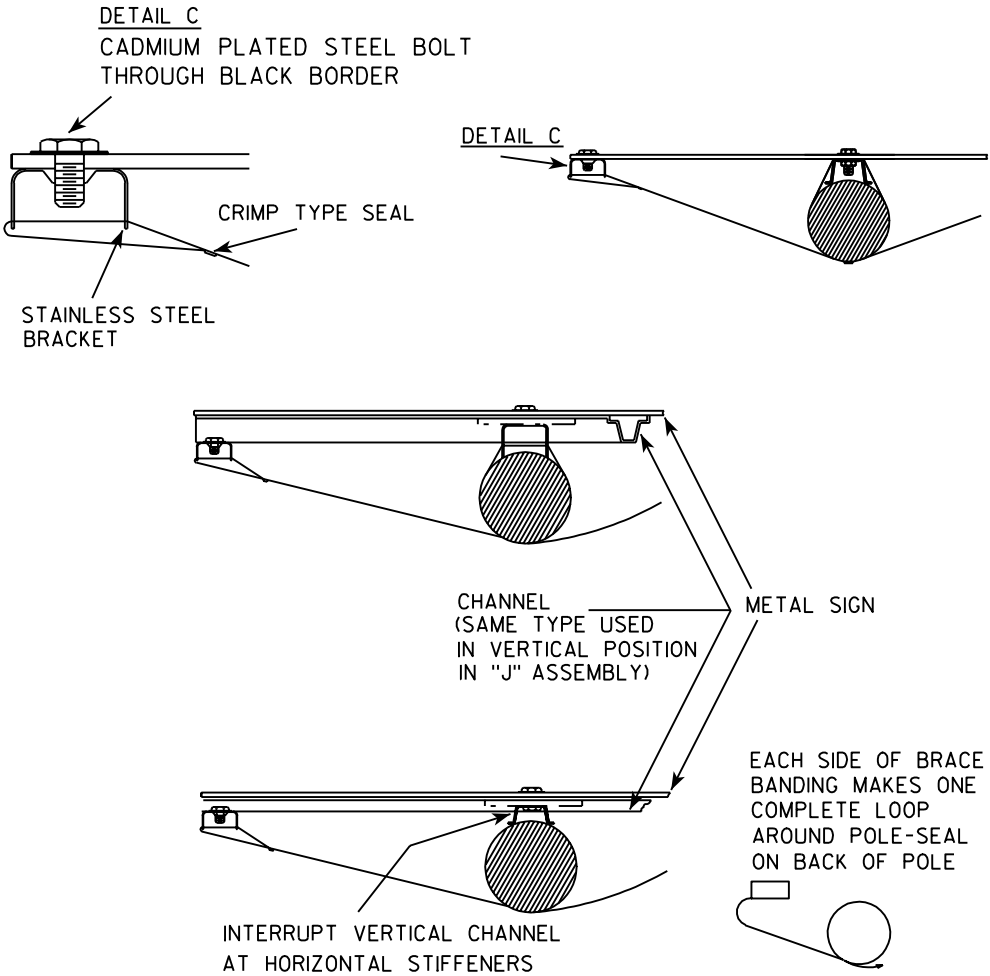


Washer Placement when Sign Has Other Than Type H or Type F Face

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

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

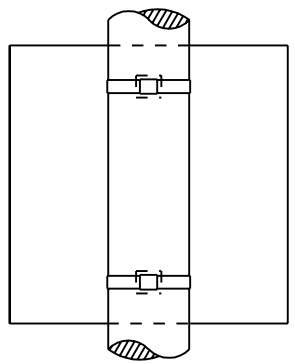
BRACE BANDING



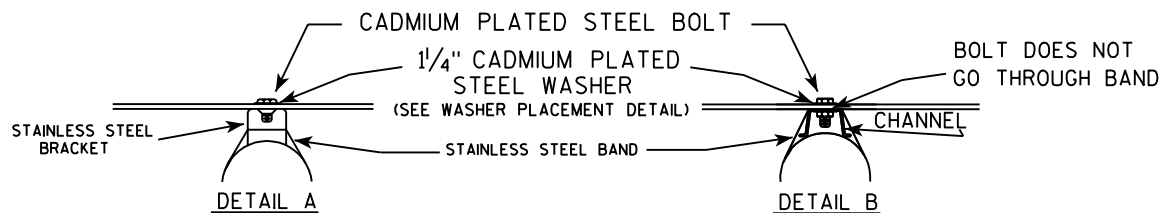
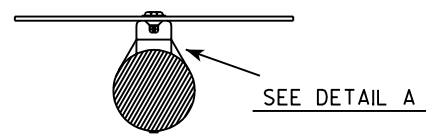
BRACE BANDING

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

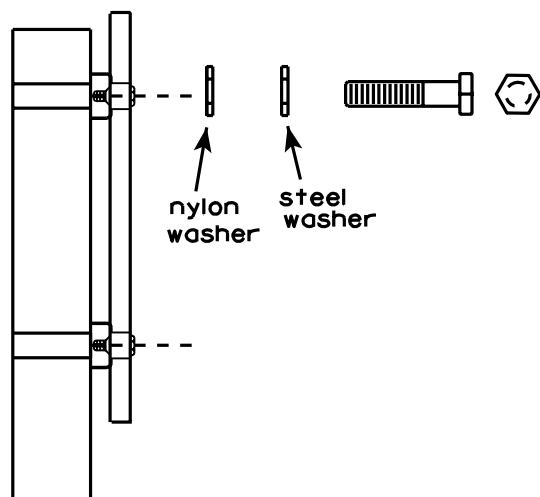
SINGLE SIGN



BRACKET BANDING

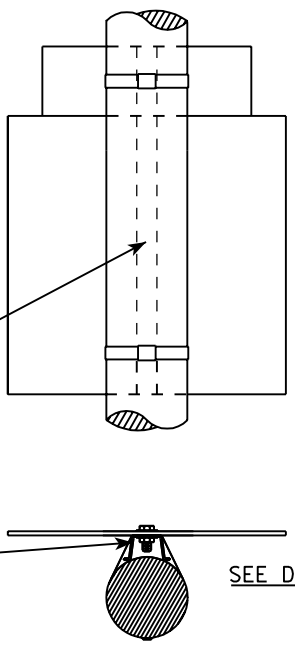


WASHER PLACEMENT



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

"J" ASSEMBLY



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.

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

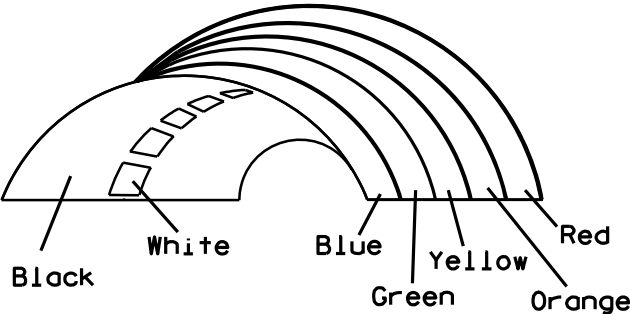
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 11/08/05 PLATE NO. A5-9.2



* VARIES

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:

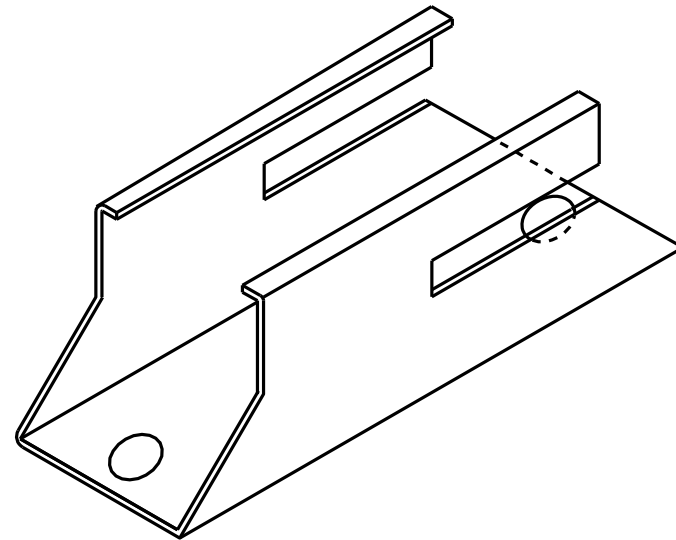
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

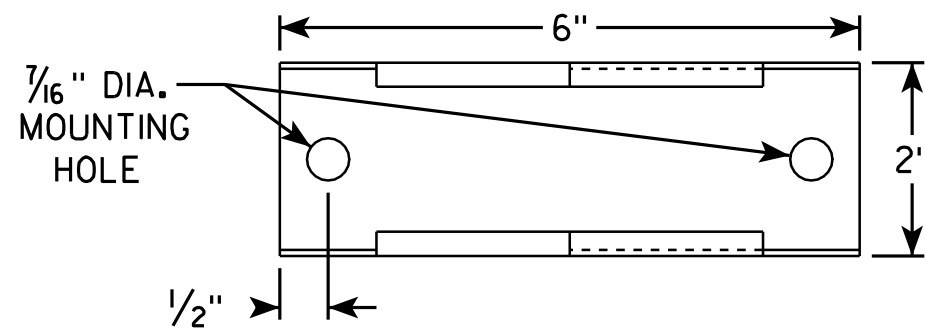
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

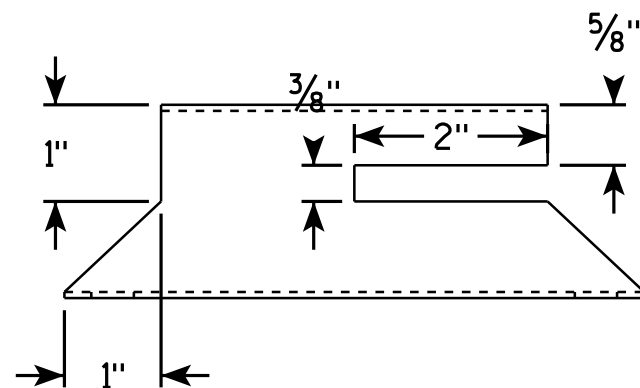
ISOMETRIC VIEW



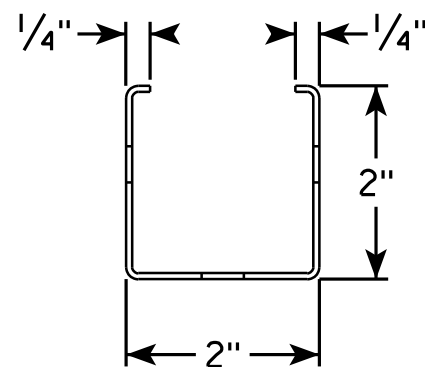
TOP VIEW



SIDE VIEW



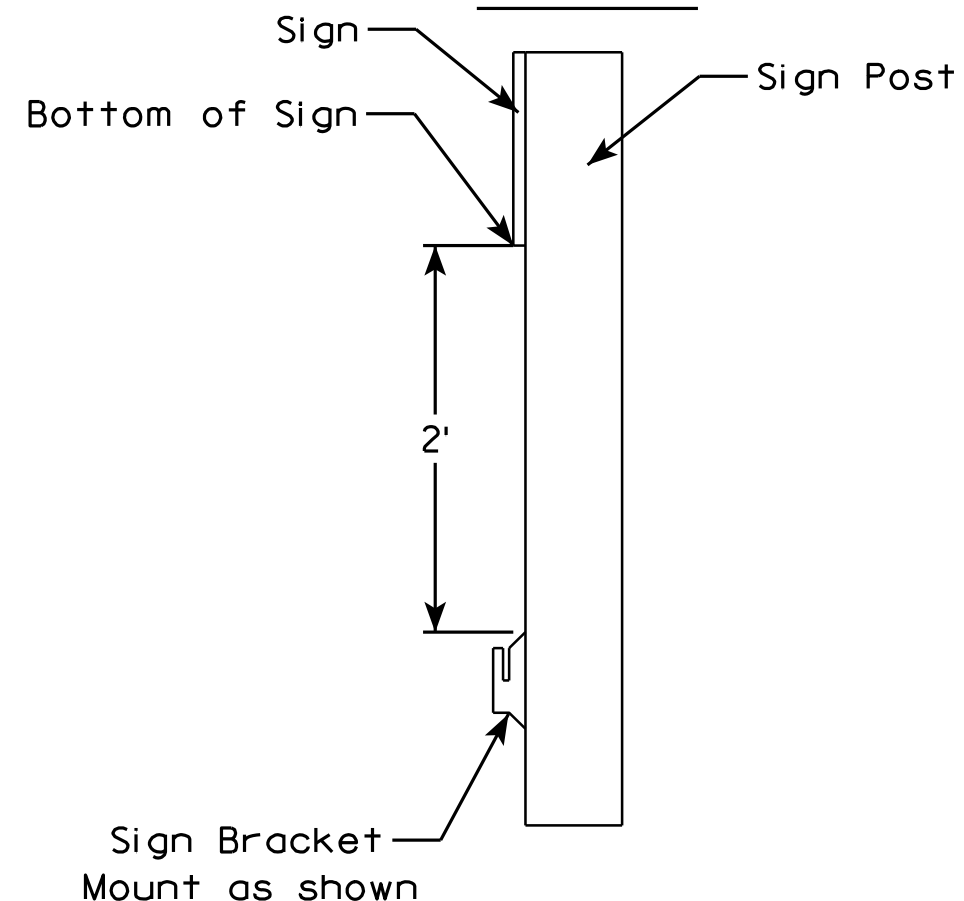
END VIEW



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:

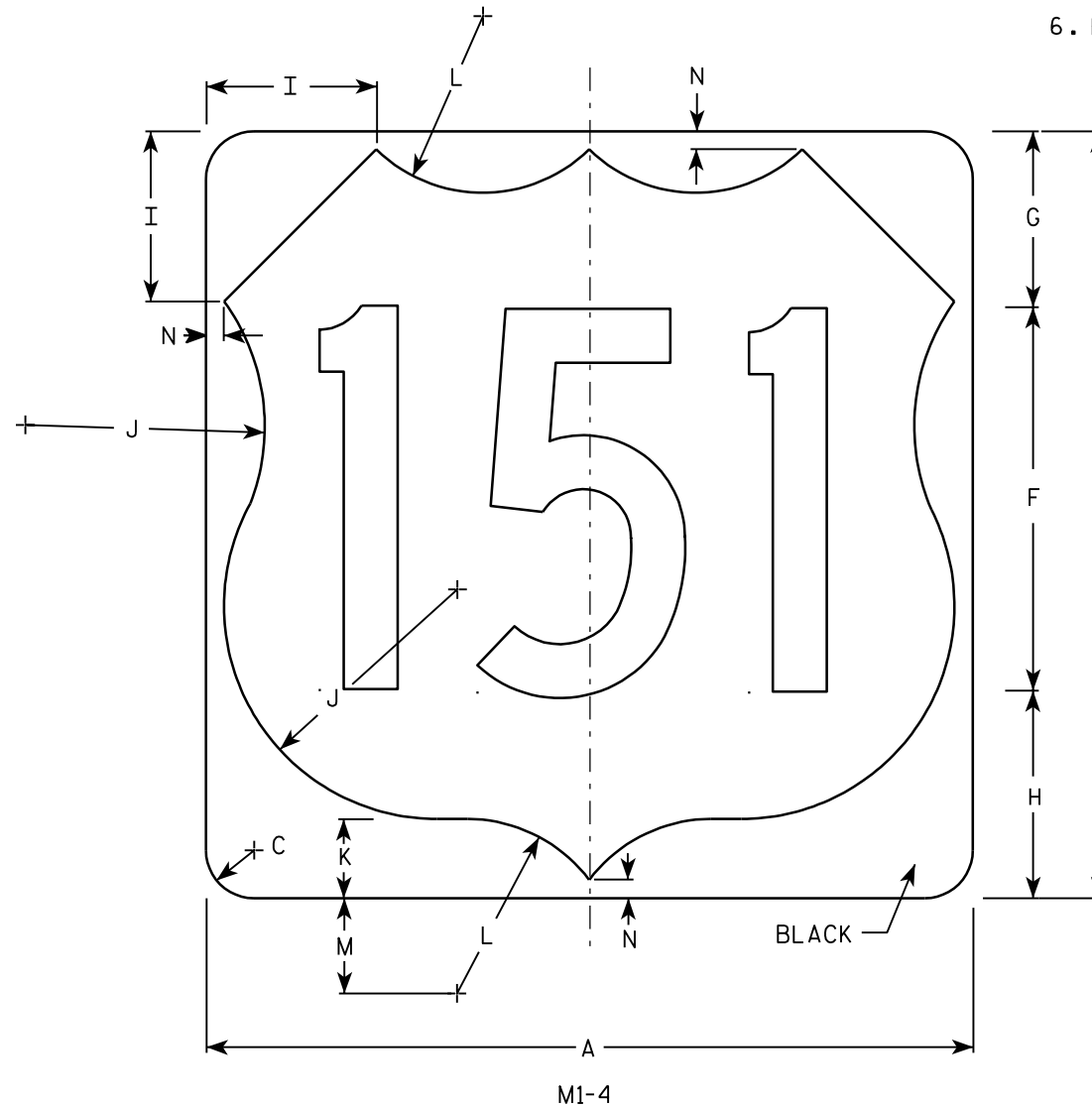
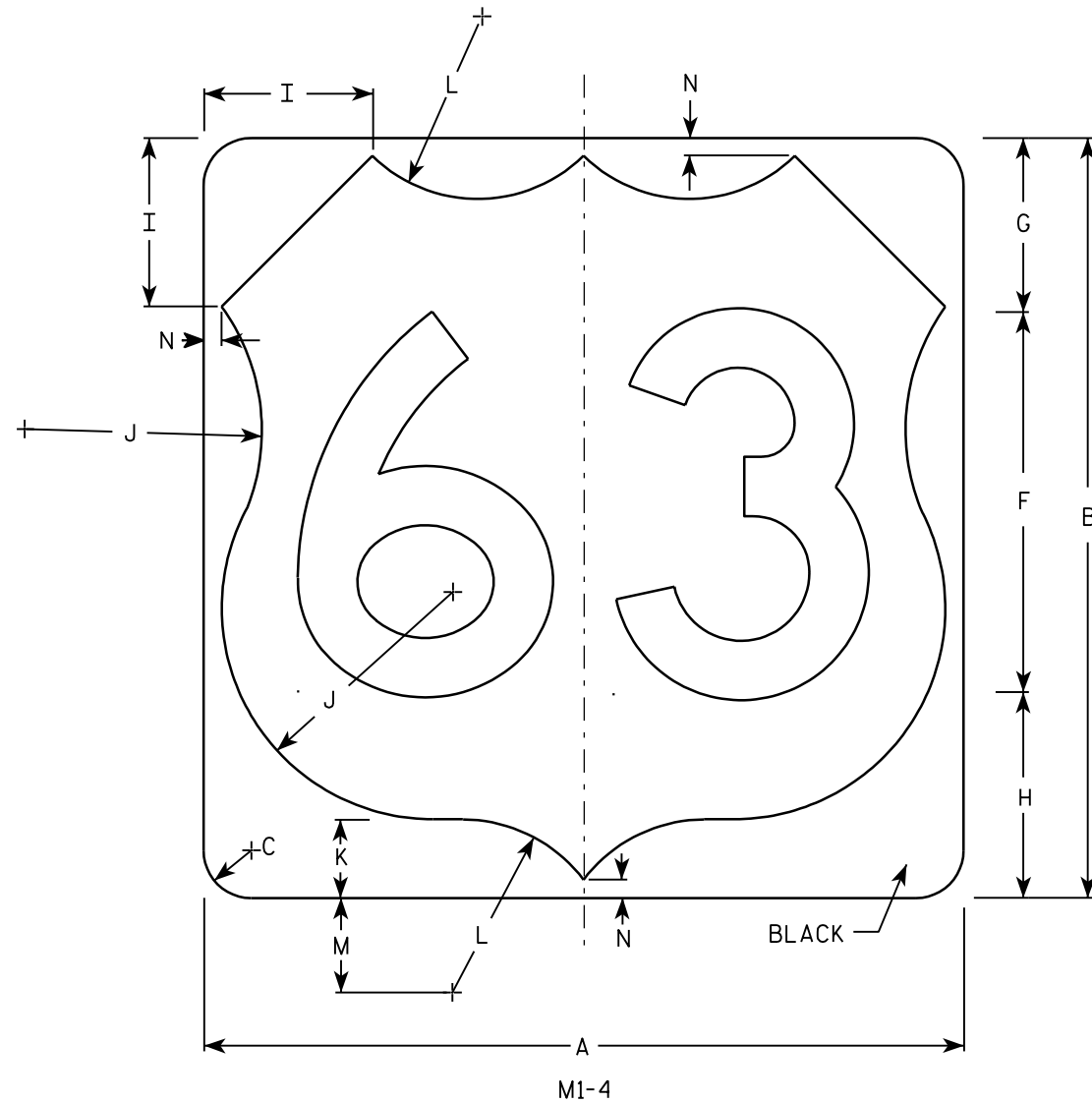
COUNTY:

SHEET NO:

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 - 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 numerals and adjust
spacing as per Plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or other temporary signs
Background - Reflective



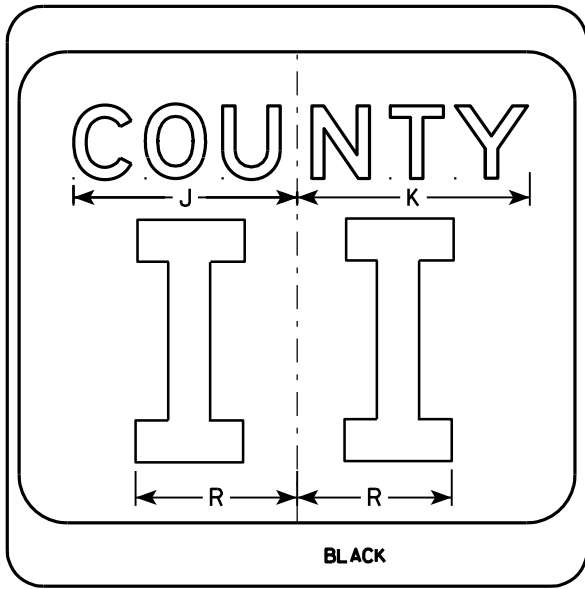
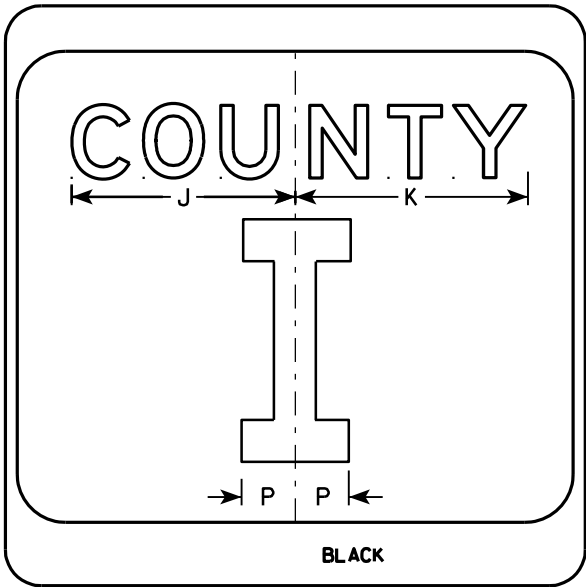
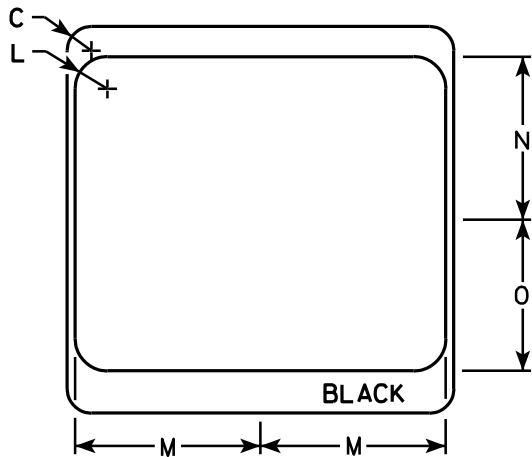
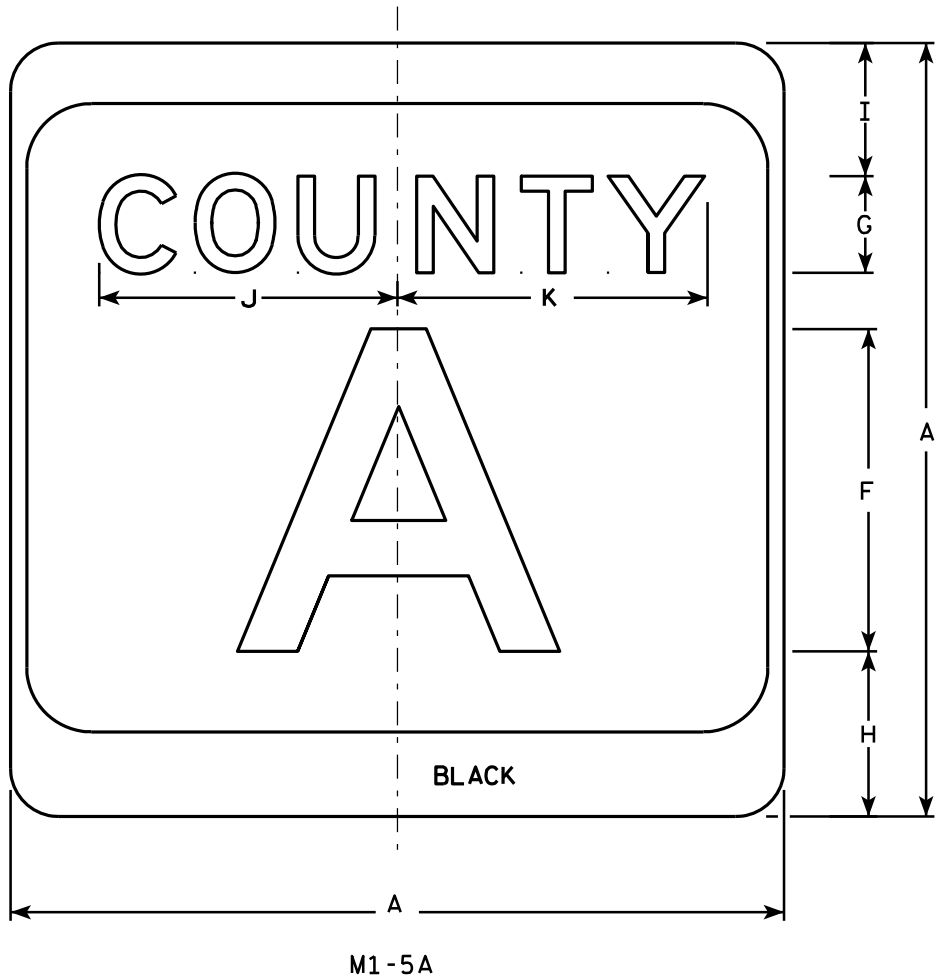
Metric equivalent
for this sign is:

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	Areq sq. ft.	Area m ²
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	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

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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

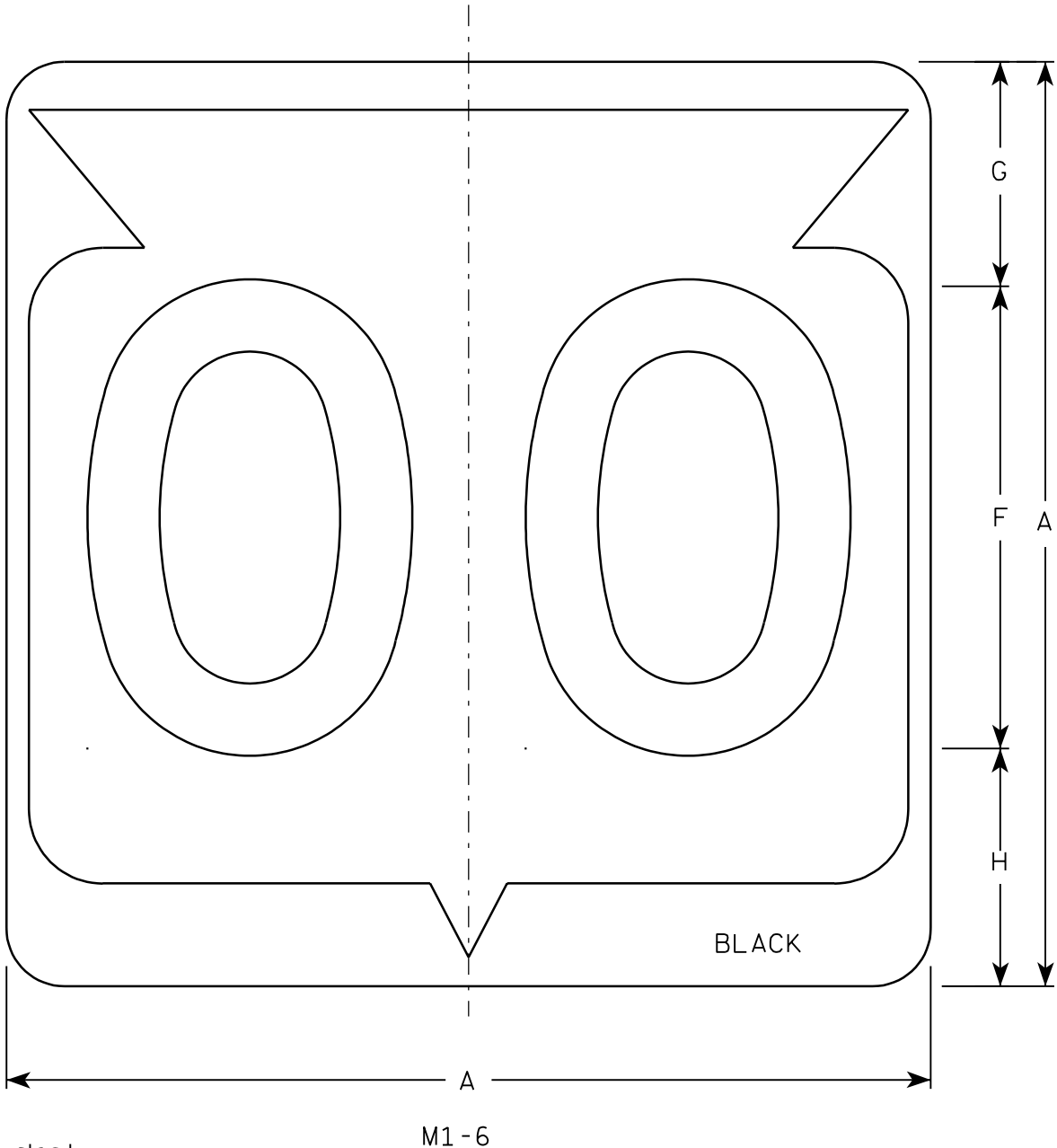
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

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

7



Metric equivalent
for this sign is:

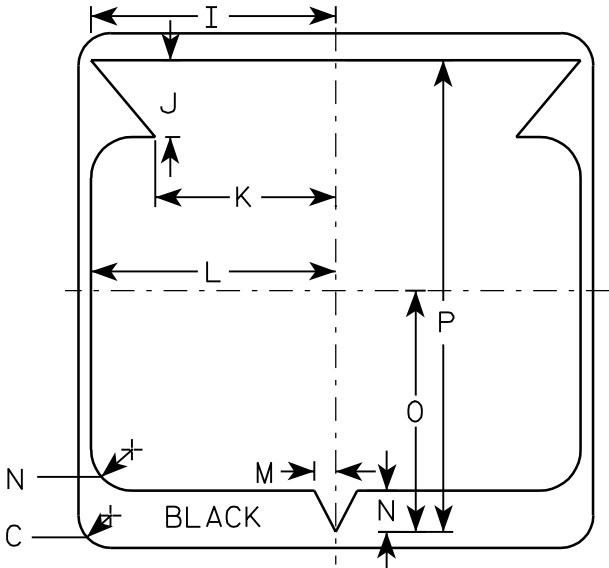
SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

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

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---

NOTES

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

7

Metric equivalent
for this sign is:

SIZE	
1	
2	450 mm X 900 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	18	36	1 1/8	3/8		4	2	13 3/4	2 1/2	1 5/8	7 1/4	7	4 3/8	1 3/4	2 5/8	7/8	1/4	3/4	5 1/8	2 1/8							4.5	.41
3																												
4																												
5																												

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

FILE NAME : C:\Users\Projects\tr_stdplate\M186.DGN

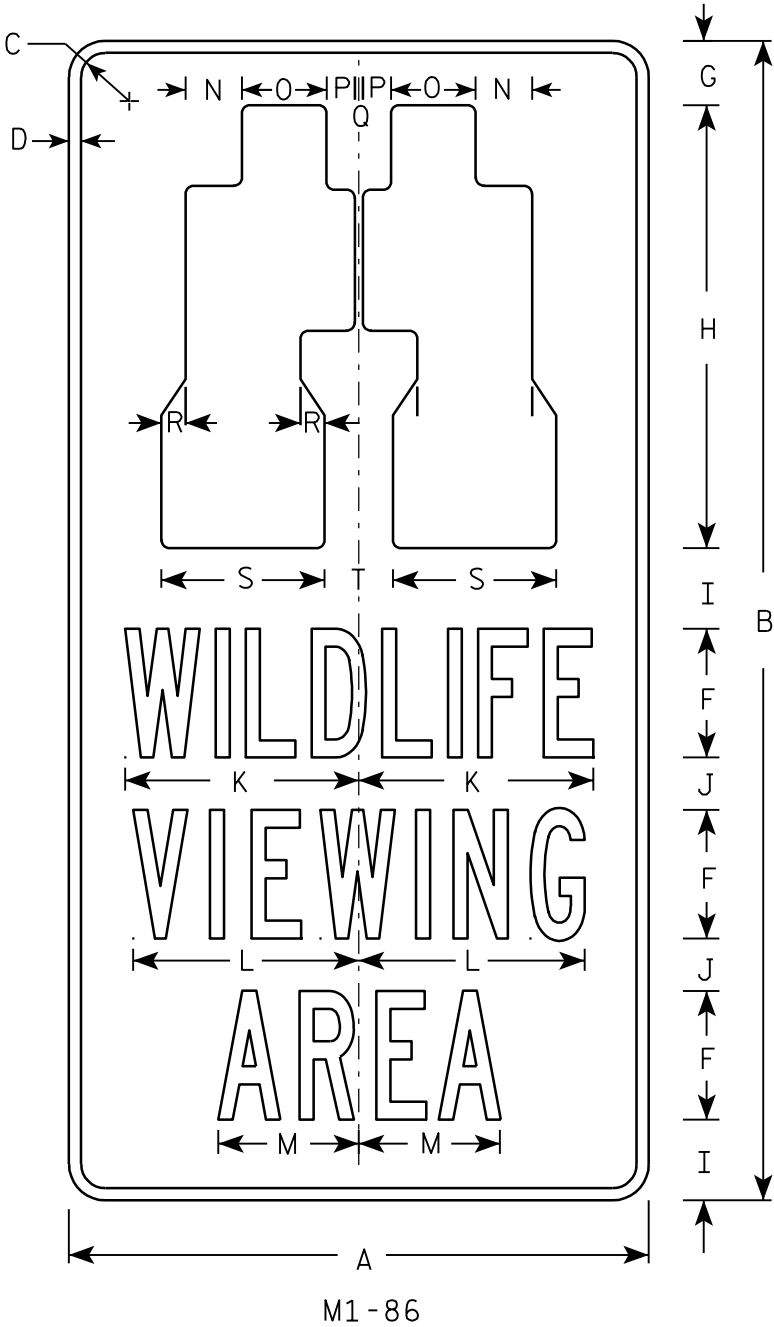
PLOT DATE : 13-OCT-2005 15:31

PLOT BY : DITJPH

PLOT NAME :

PLOT SCALE : 5.960833:1.000000

WISDOT/CADDs SHEET 42



NOTES

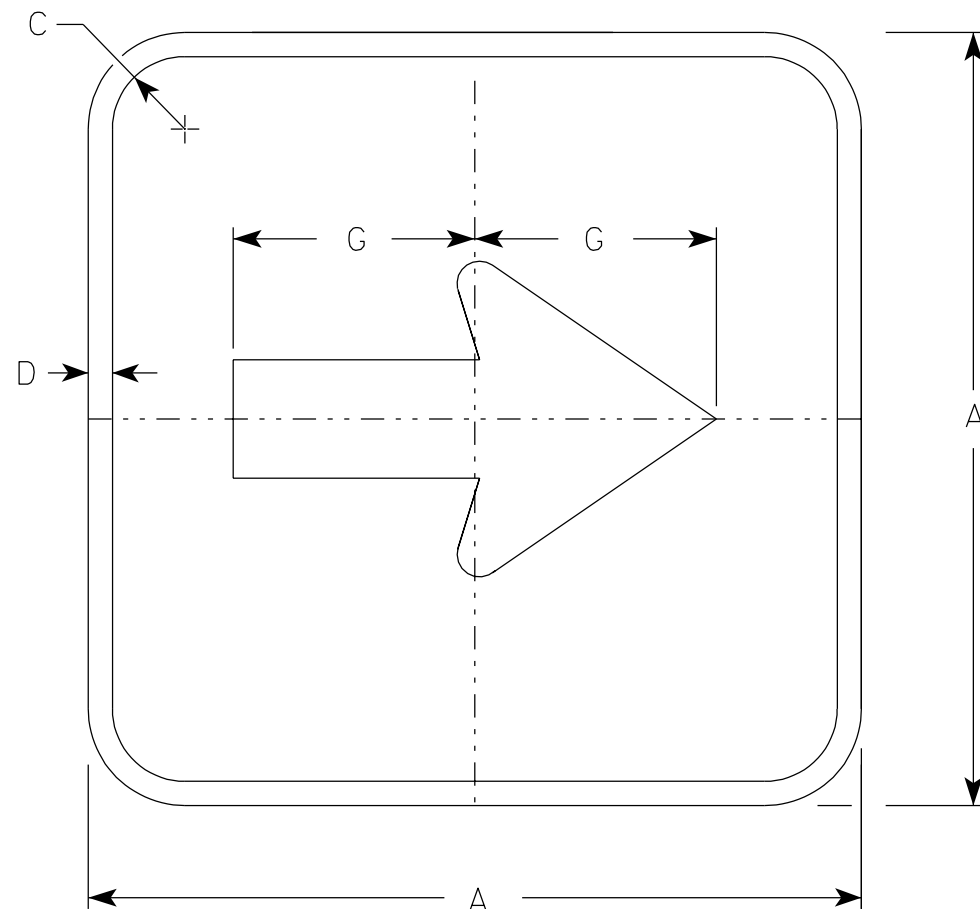
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Brown
Message - White - Type H Reflective
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders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

STANDARD SIGN
M1-86

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Chester J. Spang
for State Traffic Engineer

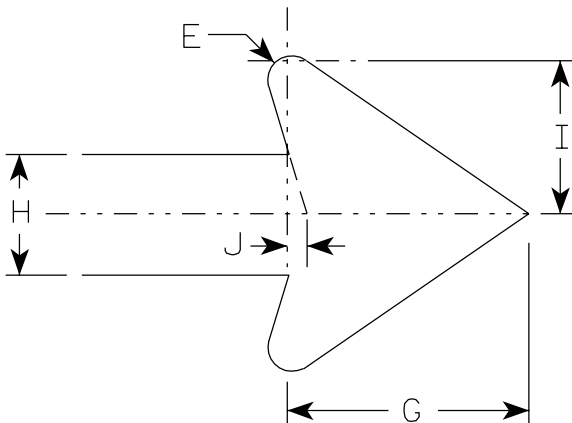
DATE 1/30/02 PLATE NO. M1-86.3



M1-88A

NOTES

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



Metric equivalent for this sign is:

SIZE	
1	
2	300 mm X 300 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	12		1 1/8				3 3/4	1 7/8	2 3/8	5/16																	1.0	.09
3																												
4																												
5																												

STANDARD SIGN
M1-88A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Christa J. Spang
for State Traffic Engineer

DATE 1/30/02 PLATE NO. M1-88A.2

PROJECT NO:

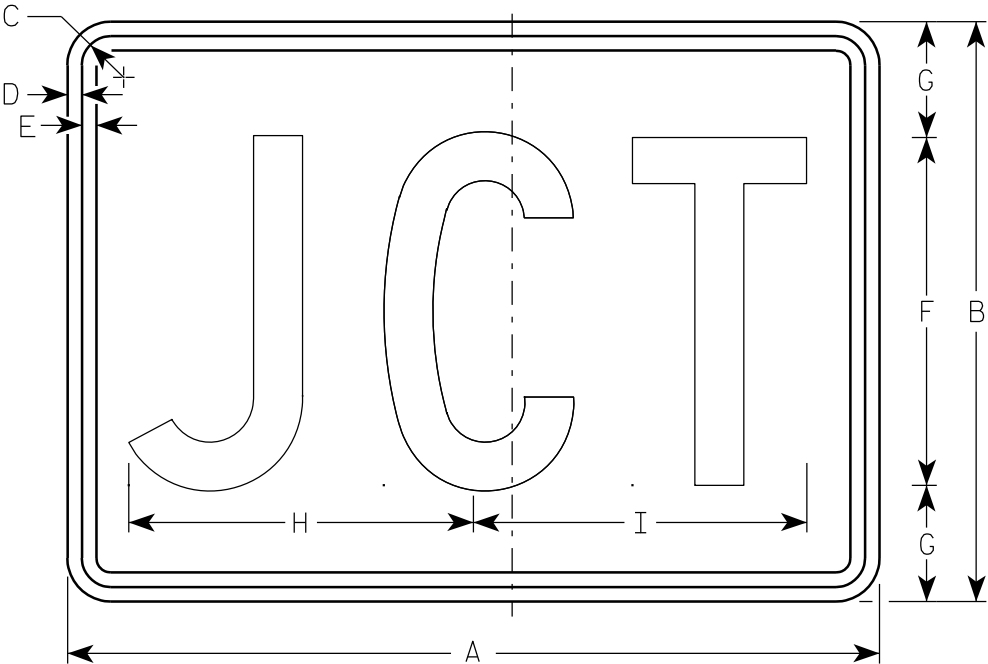
HWY:

COUNTY:

SHEET NO:

E

7



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

Metric equivalent
for this sign is:

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

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

PROJECT NO:

HWY:

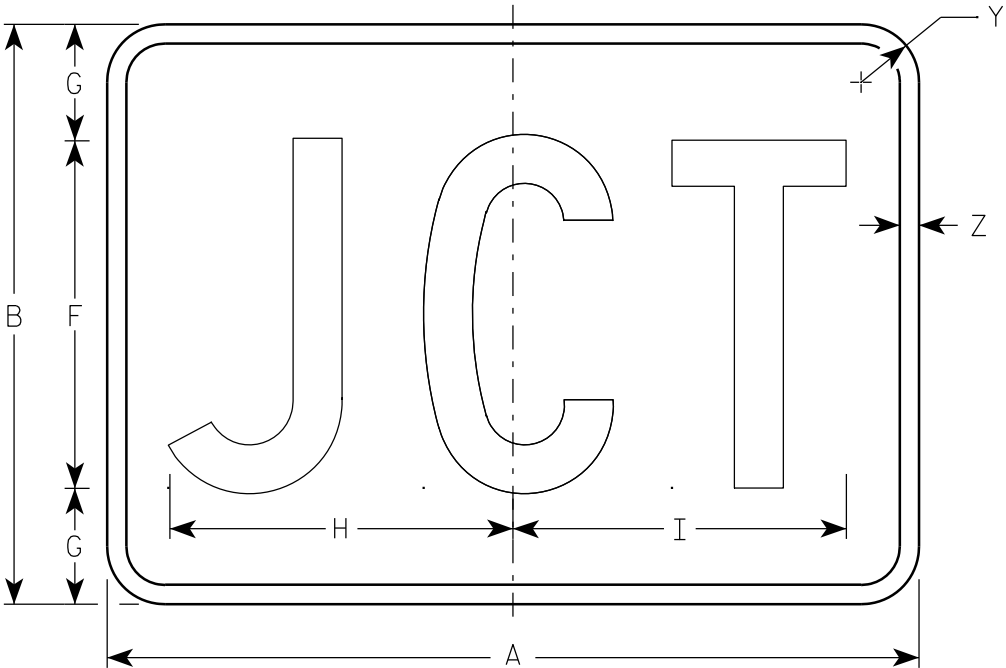
COUNTY:

SHEET NO:

E

NOTES

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



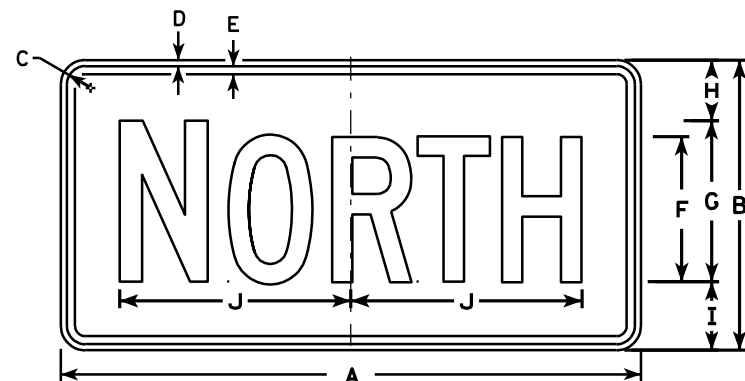
MB2-1
MG2-1
MN2-1

STANDARD SIGN
M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

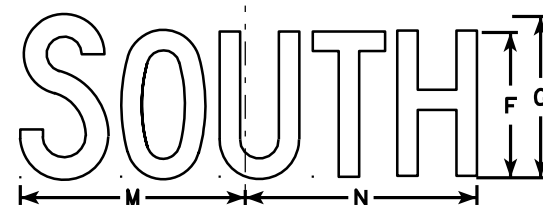
DATE 3/16/10 PLATE NO. M2-1.10



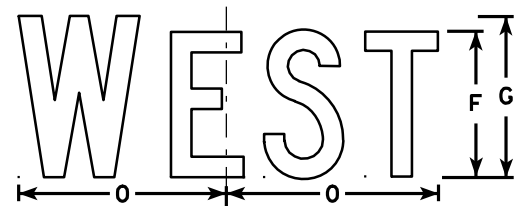
M3-1
MK3-1
M03-1



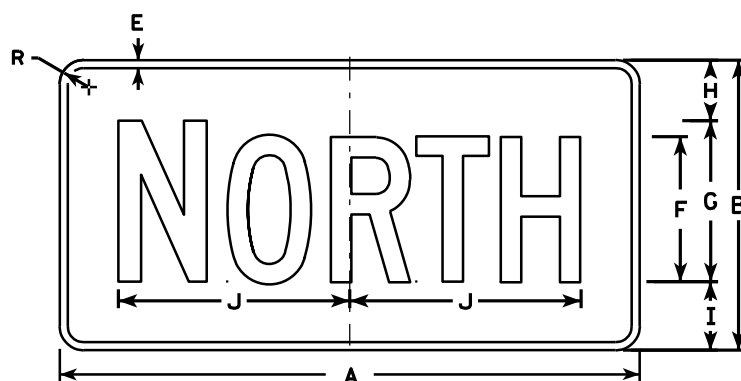
M3-2
MK3-2
M03-2



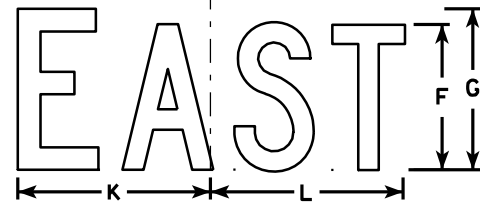
M3-3
MK3-3
M03-3



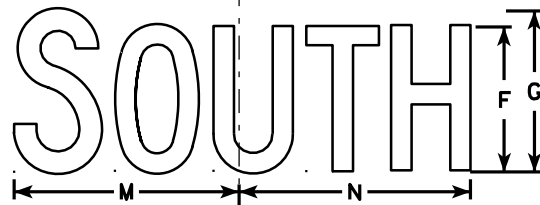
M3-4
MK3-4
M03-4



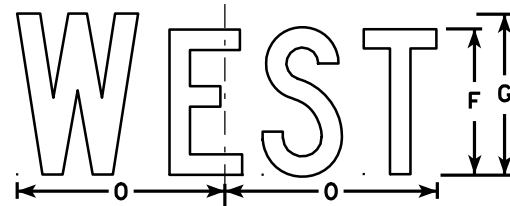
MB3-1
MG3-1
MM3-1
MN3-1



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

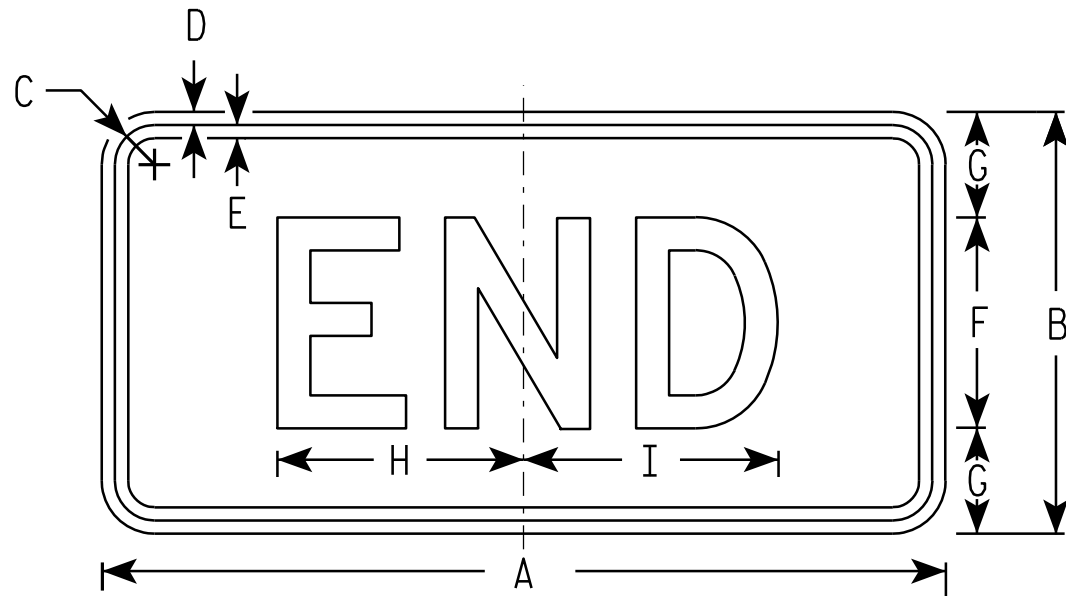
PROJECT NO: HWY: COUNTY: SHEET NO: E

STANDARD SIGNS M3-1 thru M3-4 SERIES

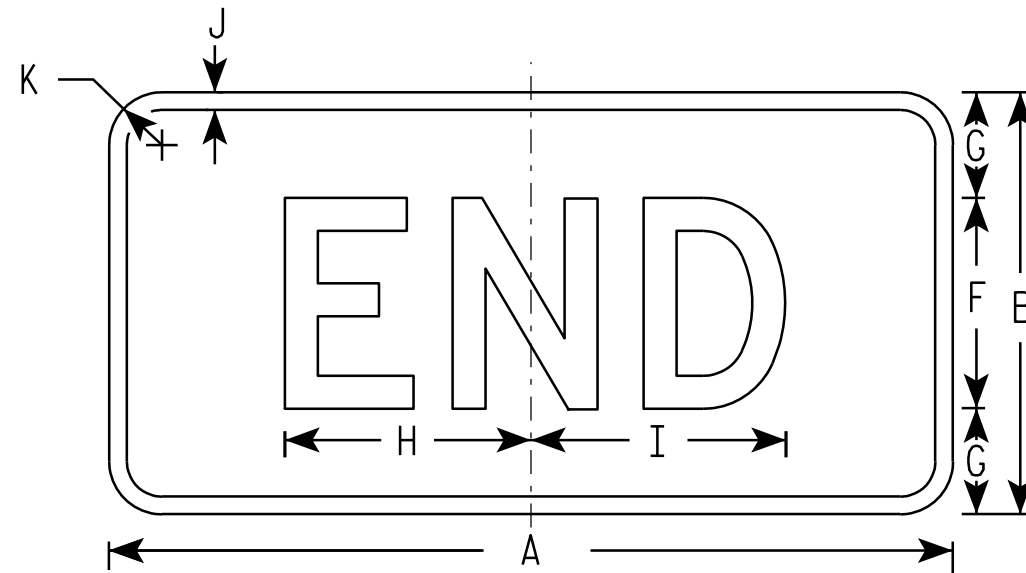
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



M4-6
MK4-6
MM4-6
MR4-6



MB4-6
MG4-6
MN4-6

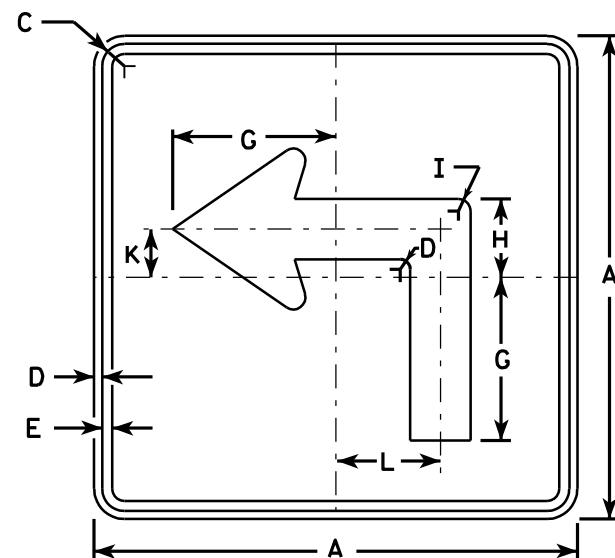
NOTES

- Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 5
Message - See note 5
- Message Series - D
- 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.
- M4-6 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB4-6 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG4-6 Background - Green
Message - White - Type H Reflective
MK4-6 Background - Green
Message - White - Type H Reflective
MM4-6 Background - White - Type H Reflective
Message - Green
MN4-6 Background - Brown
Message - White - Type H Reflective
MR4-6 Background - Brown
Message - Yellow - Type H Reflective

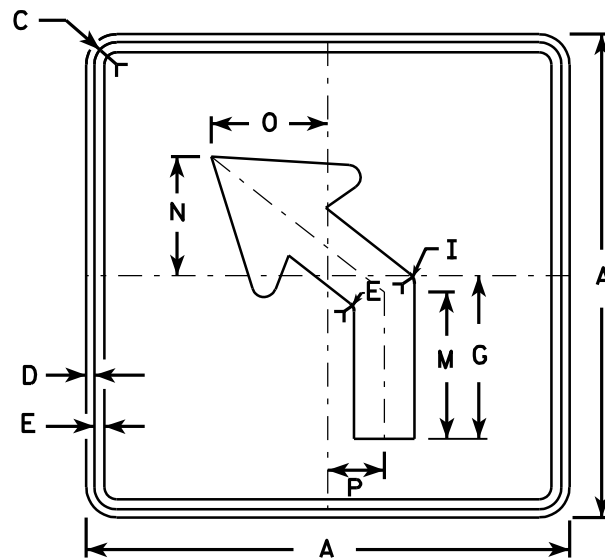
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

PROJECT NO: HWY: COUNTY: SHEET NO: E

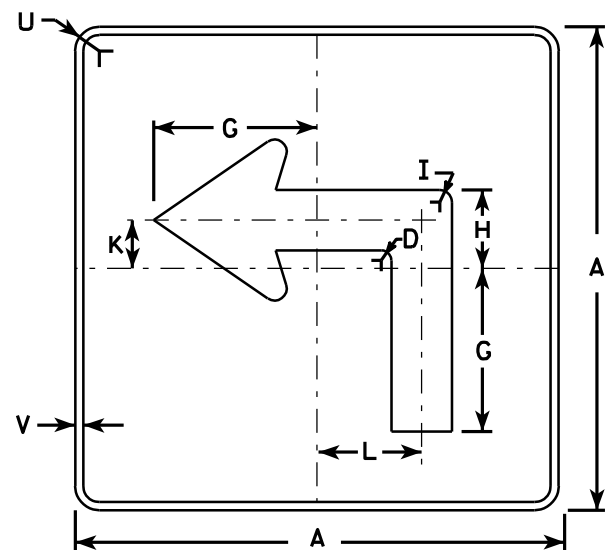
STANDARD SIGN M4 - 6	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 11/10/10	PLATE NO. M4-6.7



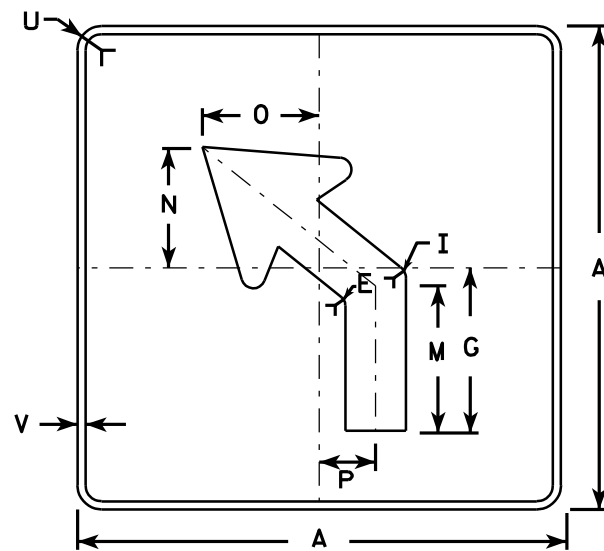
M5-1L
MK5-1L
MM5-1L
MO5-1L
MR5-1L



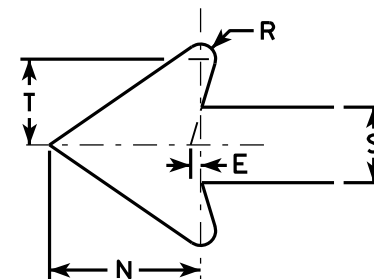
M5-2L
MK5-2L
MM5-2L
MO5-2L
MR5-2L



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



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



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 sq.
1																												
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---

NOTES

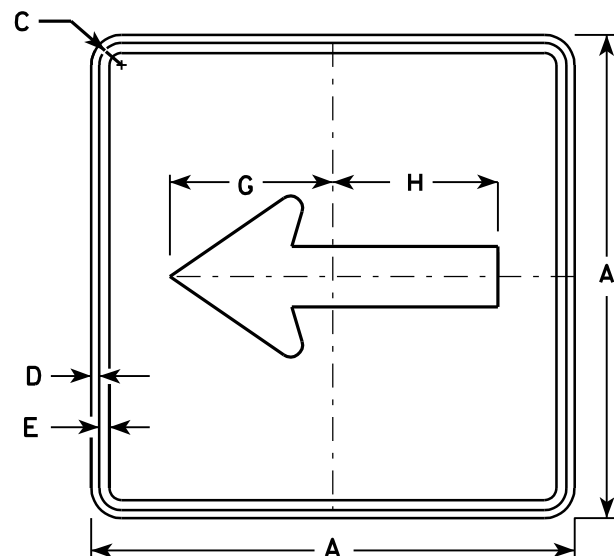
- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M5-1 and M5-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective)
Message - Black
MB5-1 and MB5-2 Background - Blue
Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
MG5-1 and MG5-2 Background - Green
Message - White - Type H Reflective
MK5-1 and MK5-2 Background - Green
Message - White Type H Reflective
MM5-1 and MM5-2 Background - White - Type H Reflective
Message - Green
MN5-1 and MN5-2 Background - Brown
Message - White - Type H Reflective
MO5-1 and MO5-2 Background - Orange - Reflective
Message - Black
MR5-1 and MR5-2 Background - Brown
Message - Yellow - Type H Reflective
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

STANDARD SIGN
M5-1 & M5-2

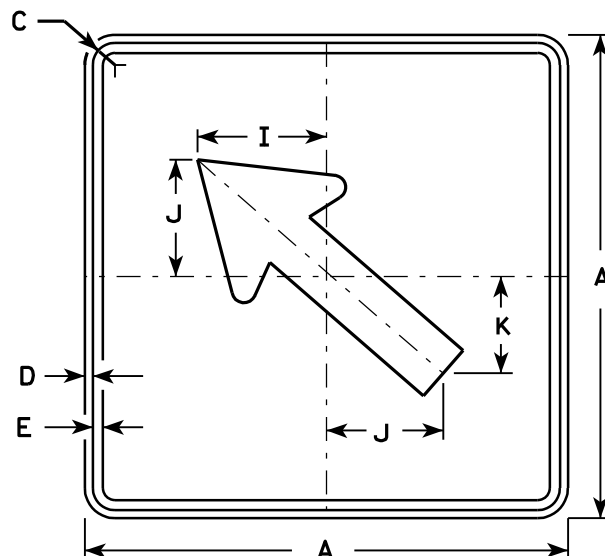
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

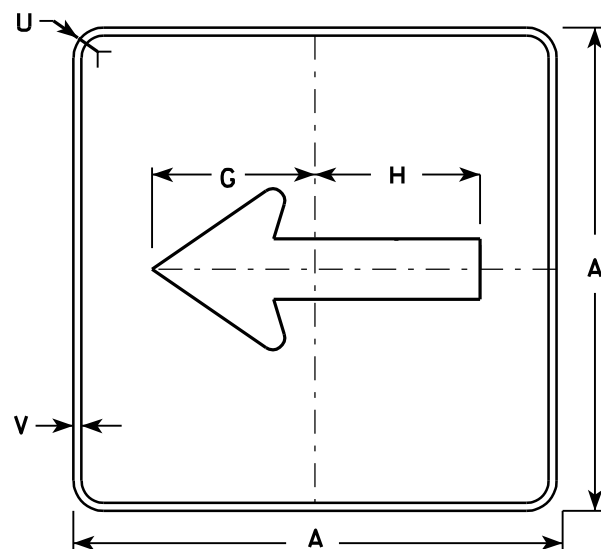
DATE 3/16/10 PLATE NO. M5-1.11



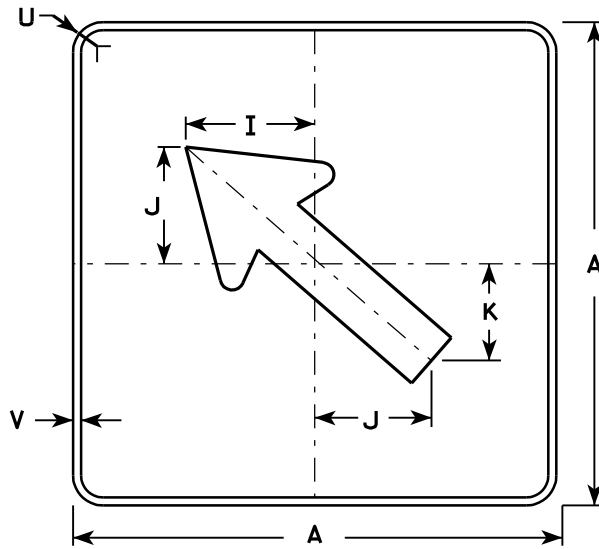
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



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



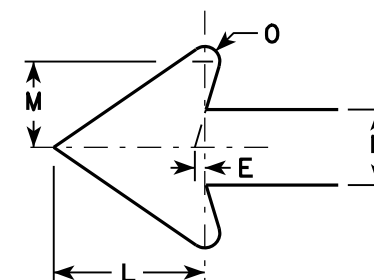
MB6-1
MG6-1
MN6-1



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:

SHEET NO:

E

STANDARD SIGN M6-1 & M6-2 SERIES

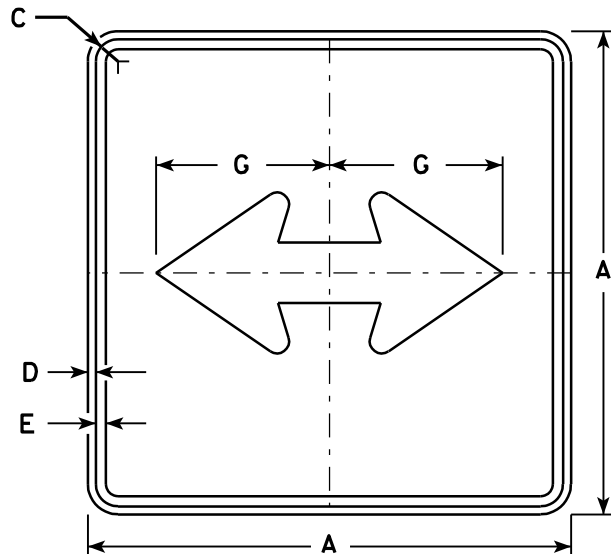
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

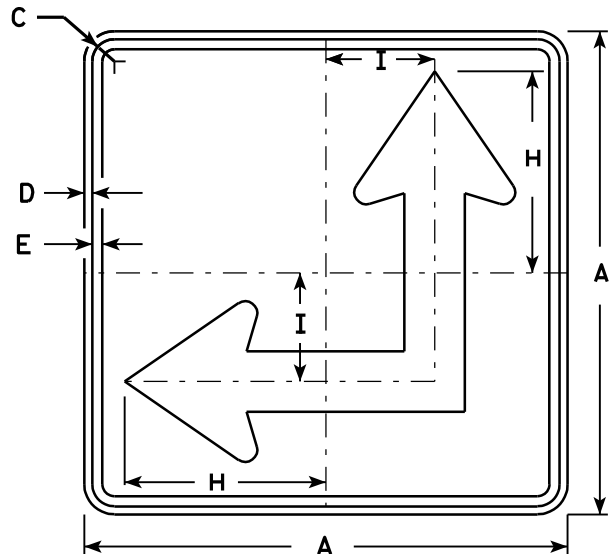
Matthew R. Rauch
for State Traffic Engineer

DATE 3/16/10

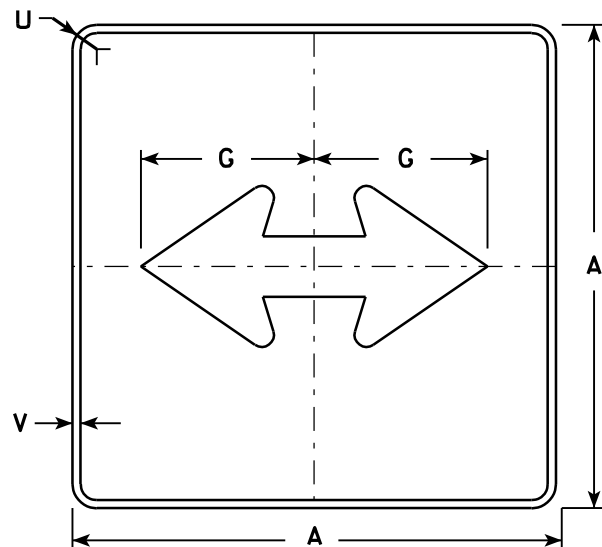
PLATE NO. M6-1.12



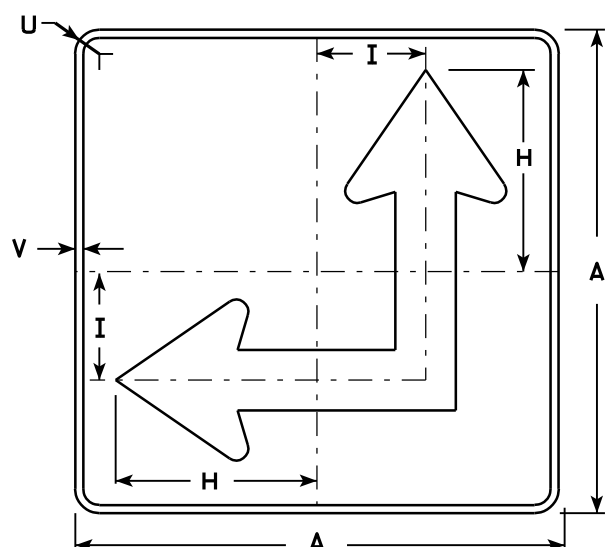
M6 - 4
MK6 - 4
MM6 - 4
MO6 - 4
MR6 - 4



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



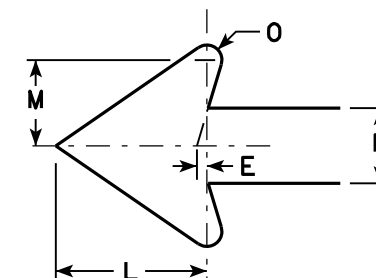
MB6 - 4
MG6 - 4
MN6 - 4



MB6 - 6
MG6 - 6
MN6 - 6

NOTES

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



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	8 3/4	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	12 1/2	6 3/4			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	12 1/2	6 3/4			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	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56

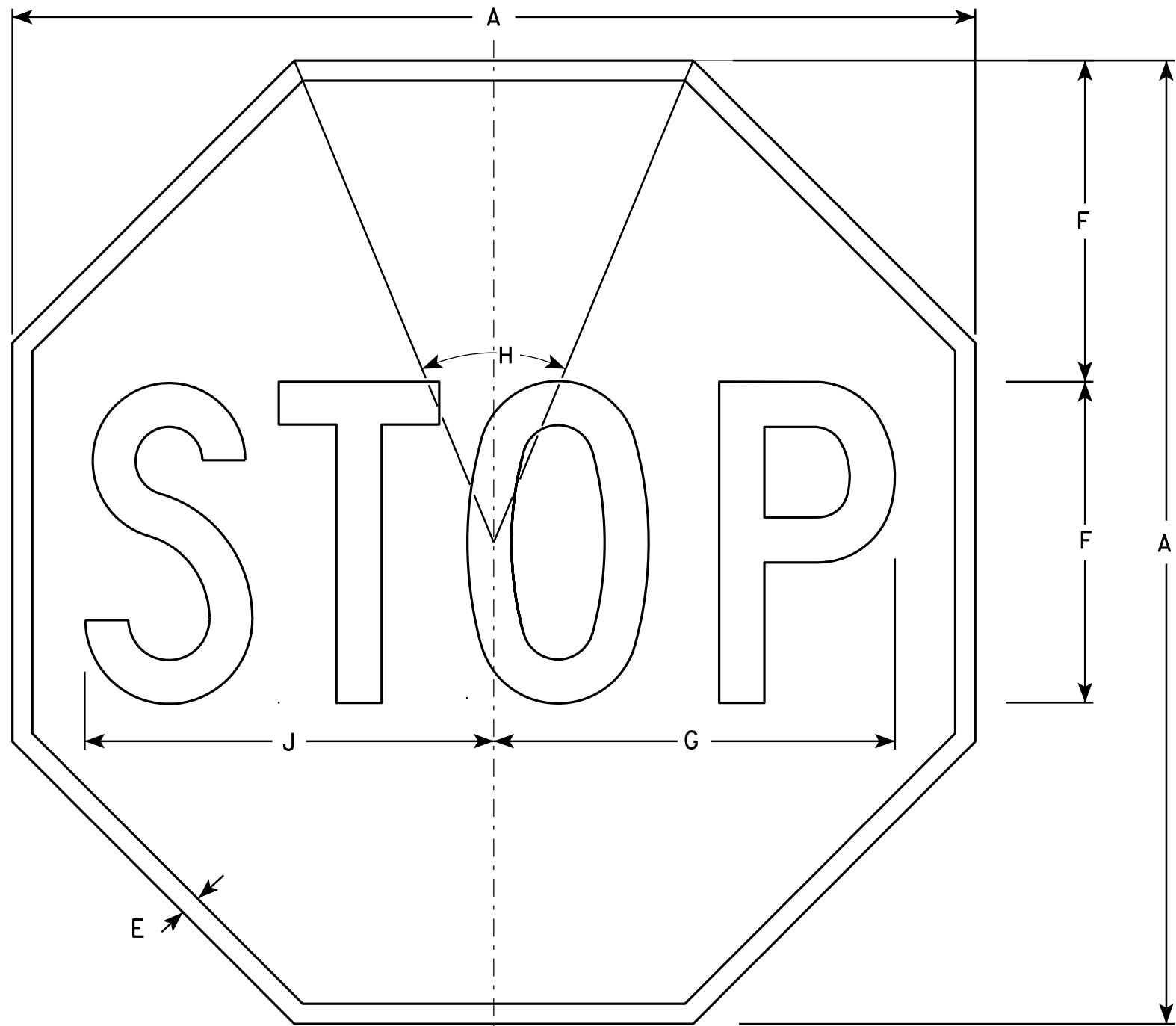
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---

STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M6-4.7



NOTES

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

R1-1

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

STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

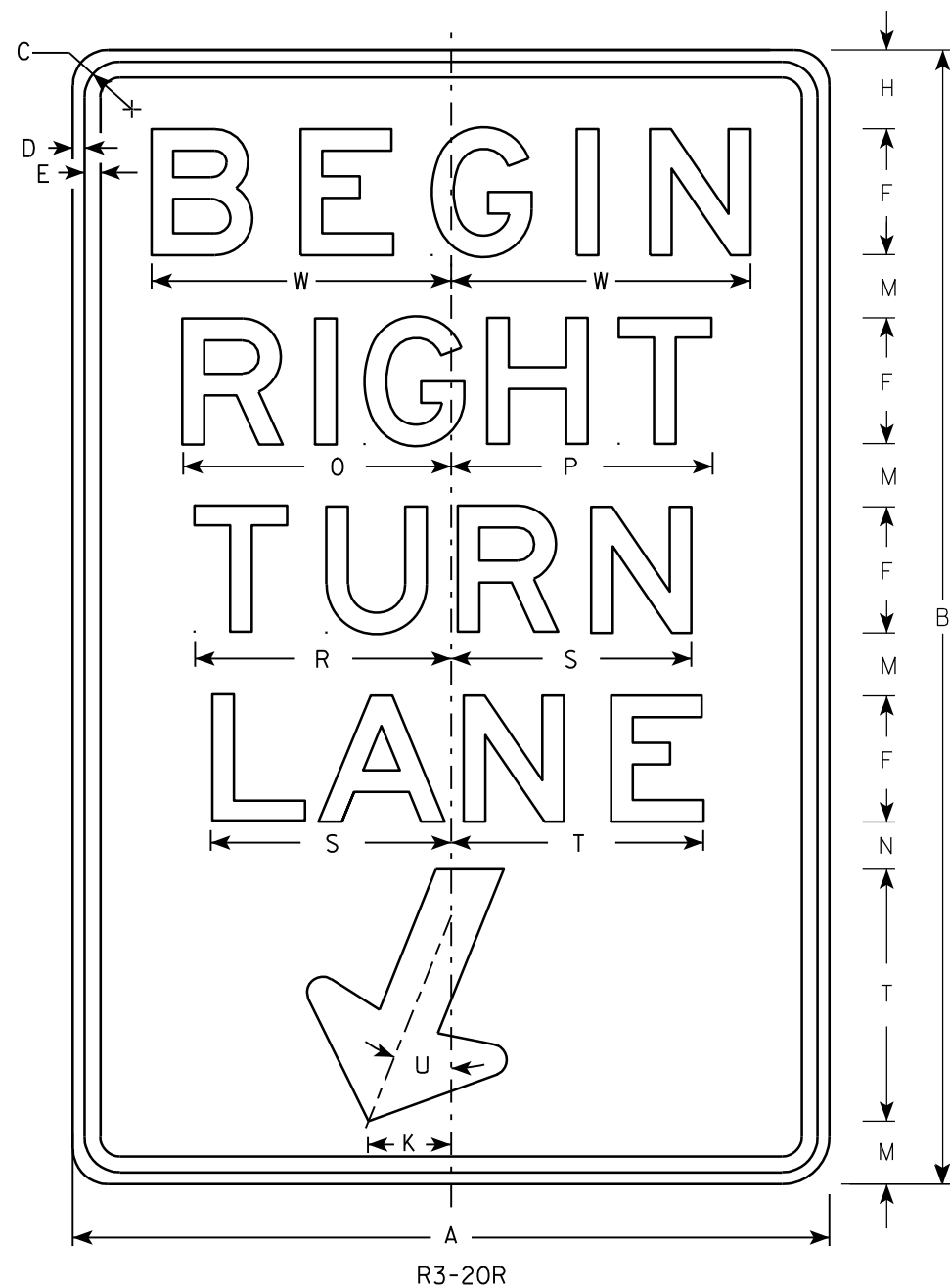
PROJECT NO:

HWY:

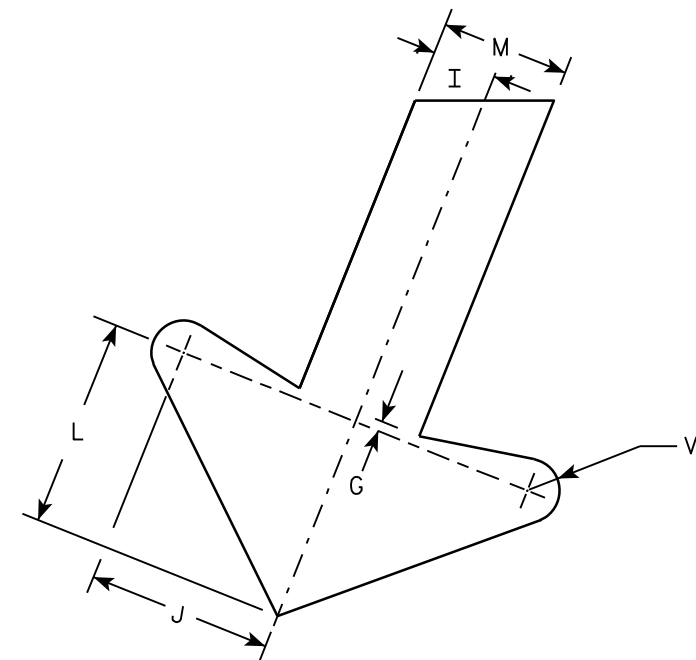
COUNTY:

SHEET NO:

E



- 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.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

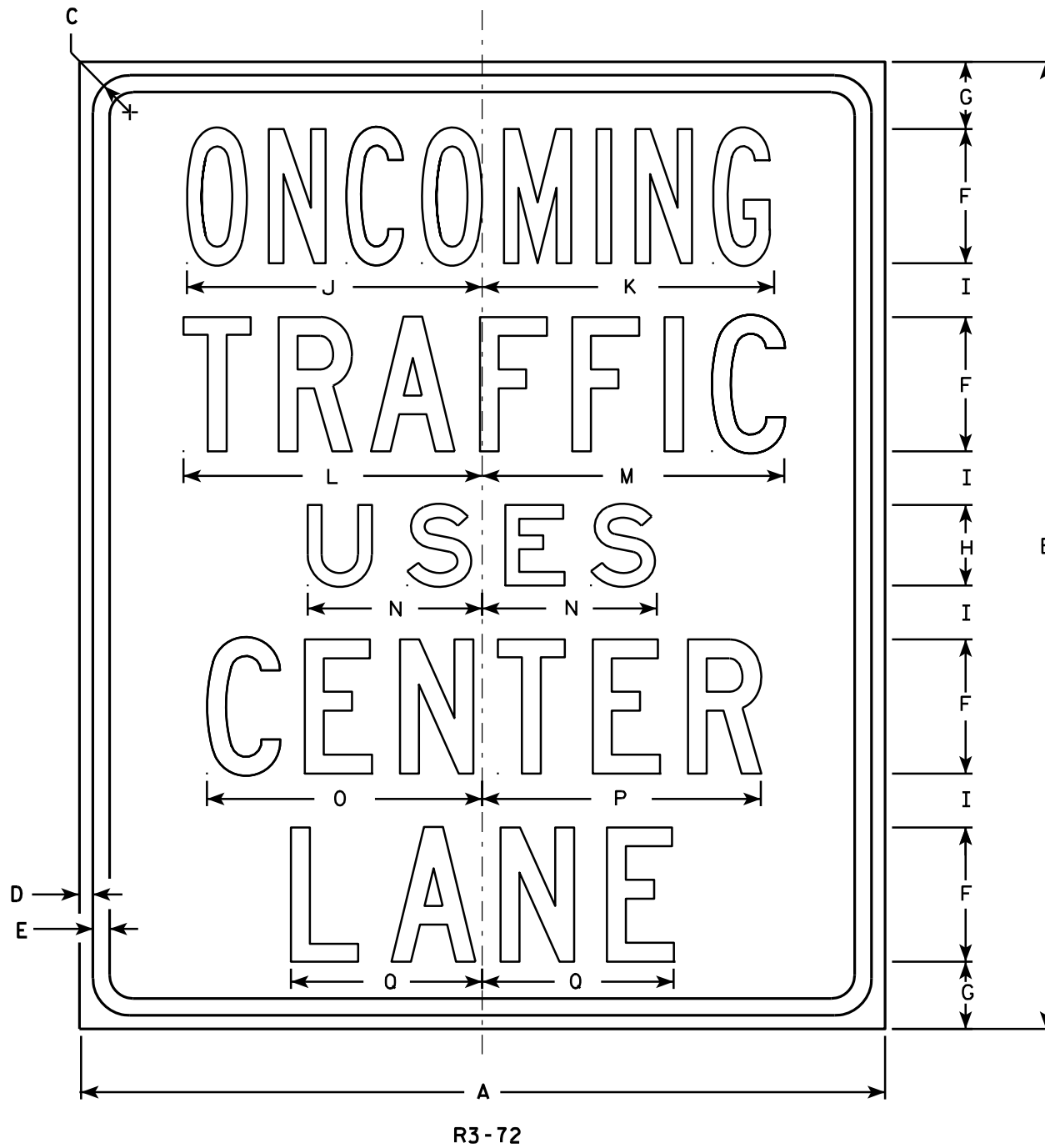
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---

STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.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 - White
Message - Black
3. Message Series - Line 1 is Series B, Lines 2, 4 and 5 are Series C, and Line 3 is 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.

R3-72

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	36	1 3/8	1/2	5/8	5	2 1/2	3	2	11	10 7/8	11 1/8	11 1/4	6 1/2	10 1/4	10 3/8	7 1/8										7.50
2S	30	36	1 3/8	1/2	5/8	5	2 1/2	3	2	11	10 7/8	11 1/8	11 1/4	6 1/2	10 1/4	10 3/8	7 1/8										7.50
2M	30	36	1 3/8	1/2	5/8	5	2 1/2	3	2	11	10 7/8	11 1/8	11 1/4	6 1/2	10 1/4	10 3/8	7 1/8										7.50
3																											
4																											
5																											

STANDARD SIGN R3-72

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R3-72.5

PROJECT NO: HWY: COUNTY: SHEET NO: E



R4-3

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	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
3	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
4	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/2	20	12 1/2	13 1/2	14 1/4	15 1/4													20.0

STANDARD SIGN

R4-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-3.8

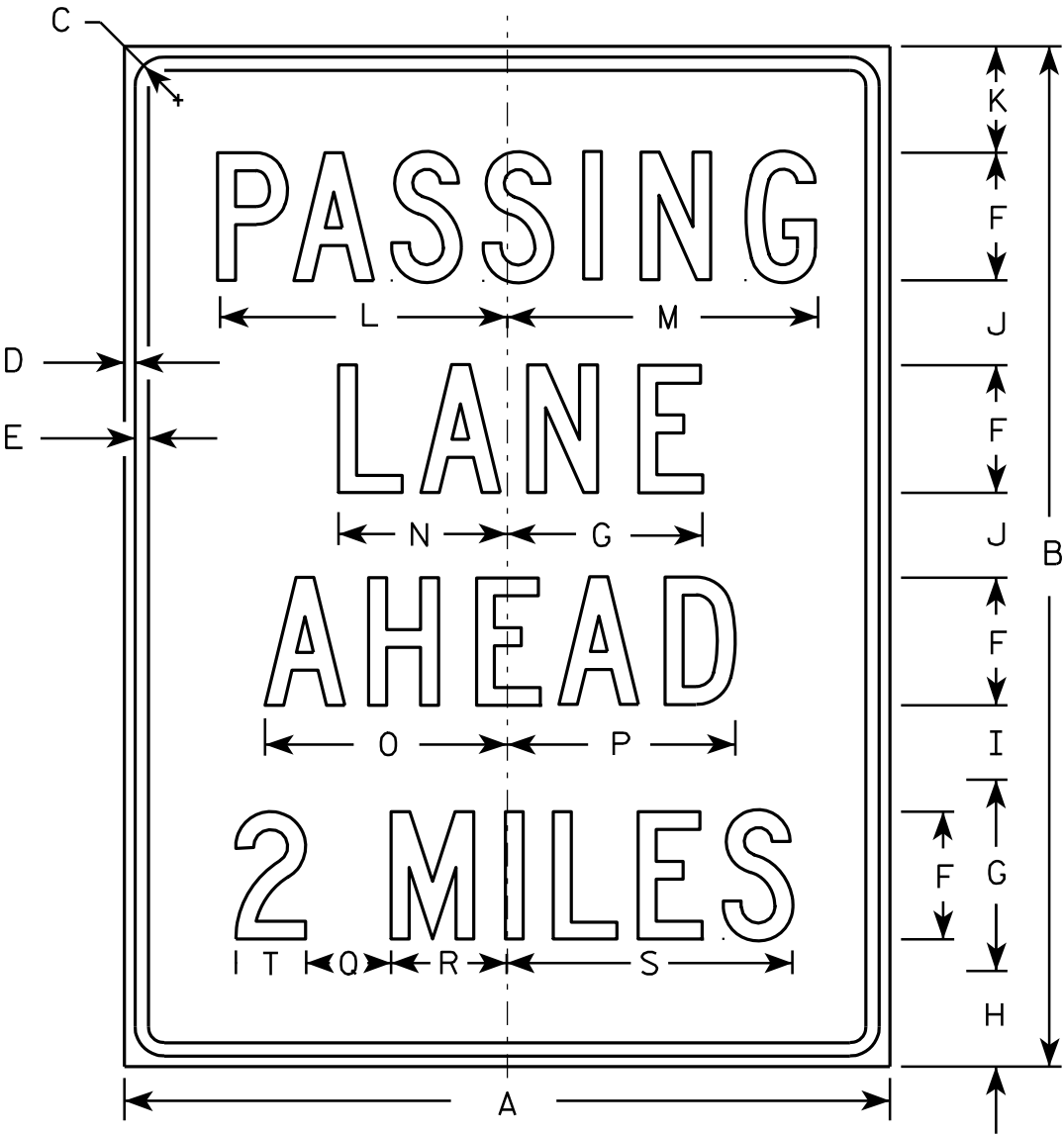
PROJECT NO:

SHEET NO:

E

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.



R4-51A

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	48	1 3⁄8	1⁄2	5⁄8	6	9 1⁄4	4 1⁄2	3 1⁄2	4	5	13 5⁄8	14 1⁄2	8	11 3⁄8	10 3⁄4	4	5 1⁄2	13 3⁄8	3 1⁄4							12.0
2M	36	48	1 3⁄8	1⁄2	5⁄8	6	9 1⁄4	4 1⁄2	3 1⁄2	4	5	13 5⁄8	14 1⁄2	8	11 3⁄8	10 3⁄4	4	5 1⁄2	13 3⁄8	3 1⁄4							12.0
3																											
4																											
5																											

STANDARD SIGN
R4-51A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R4-51A.2

PROJECT NO:

HWY:

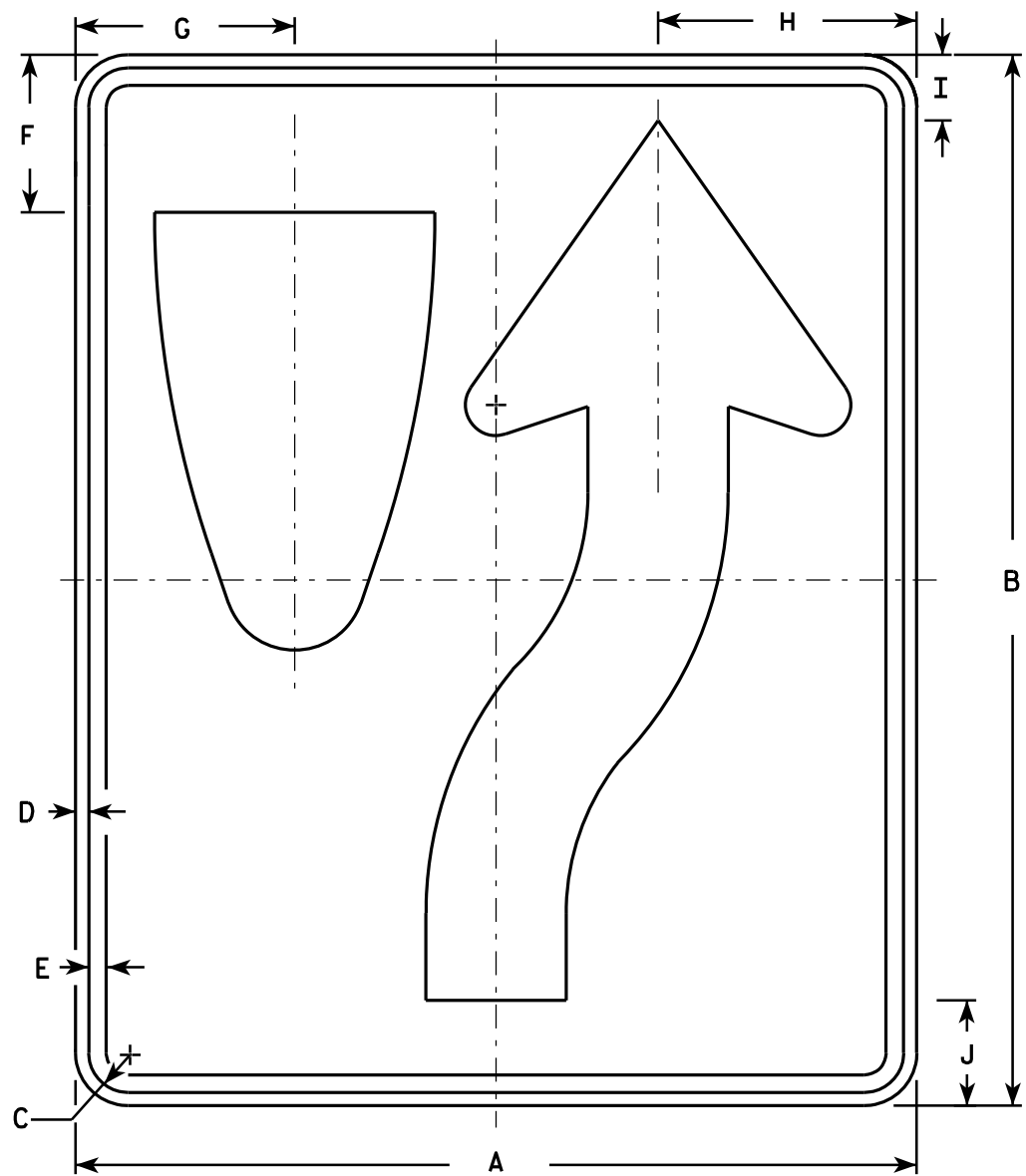
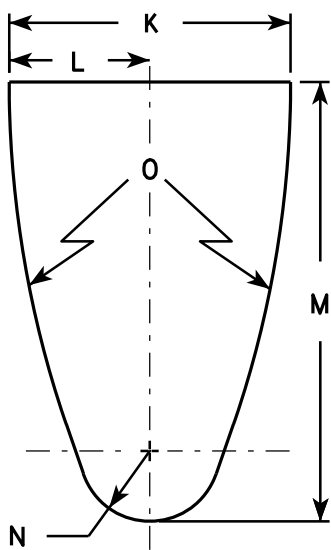
COUNTY:

SHEET NO:

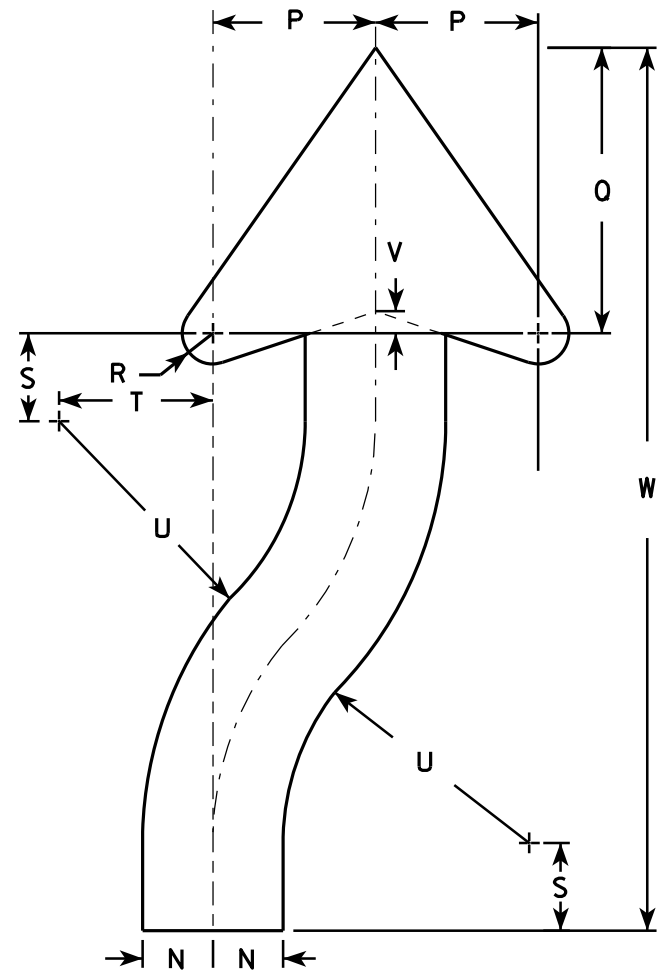
E

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
- 2. Color:
Background - White
Message - Black
- 3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
- 4. R4-8 is the same as R4-7 except Legend is reversed.



R4-7



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	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

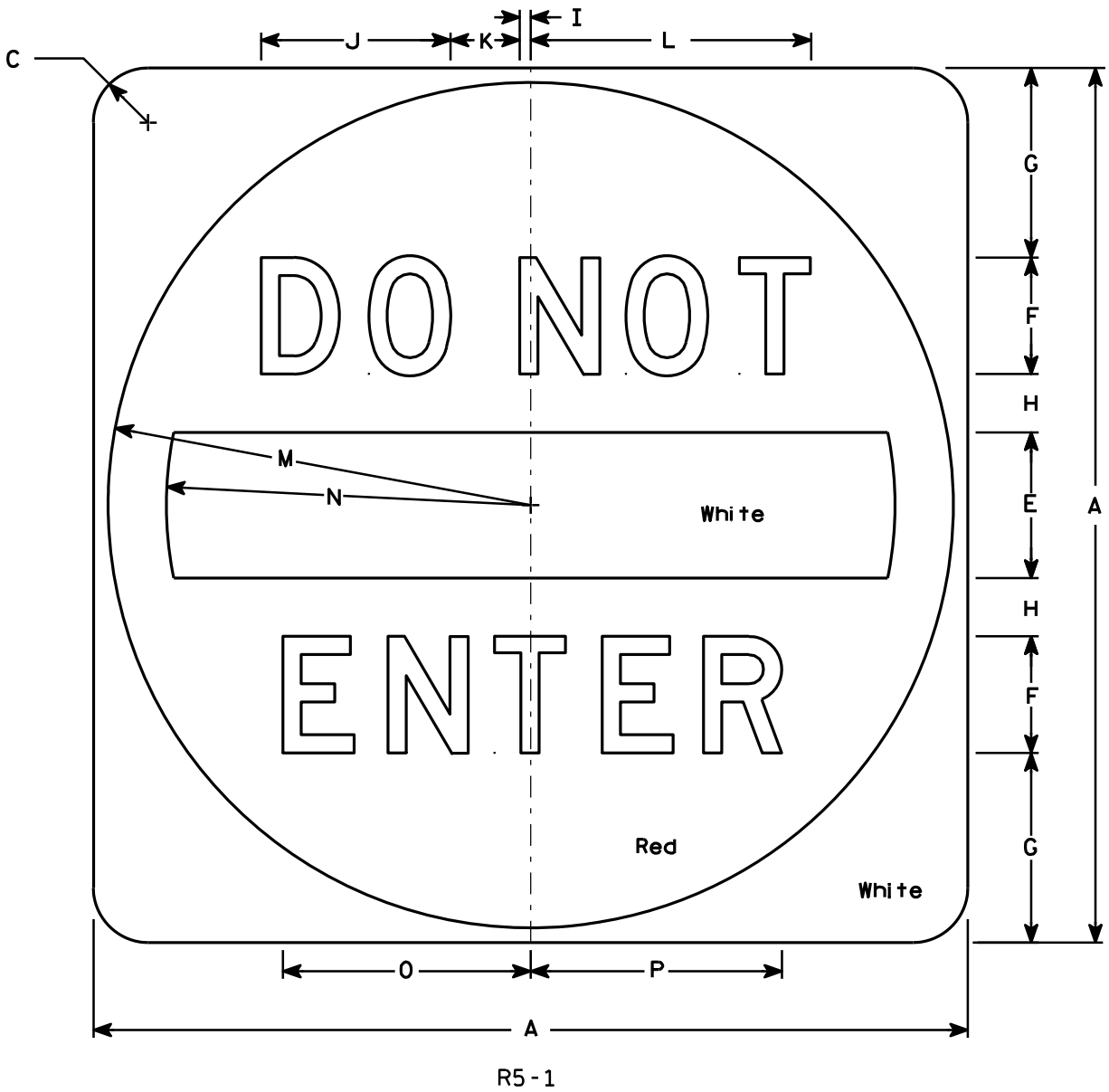
E

NOTES

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

Background - See detail

Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the corners shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7⁄8		5	4	6 1⁄2	2	3⁄8	6 1⁄2	2 3⁄8	9 5⁄8	14 1⁄2	12 1⁄2	8 1⁄2	8 5⁄8											6.26
2M	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
3	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
4	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
5	48		3		8	6	11	3	5⁄8	9 3⁄4	3 5⁄8	14 1⁄2	23 1⁄2	20	12 3⁄4	12 7⁄8											16.0

STANDARD SIGN

R5 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch

for State Traffic Engineer

DATE 12/17/10PLATE NO. R5-1.15

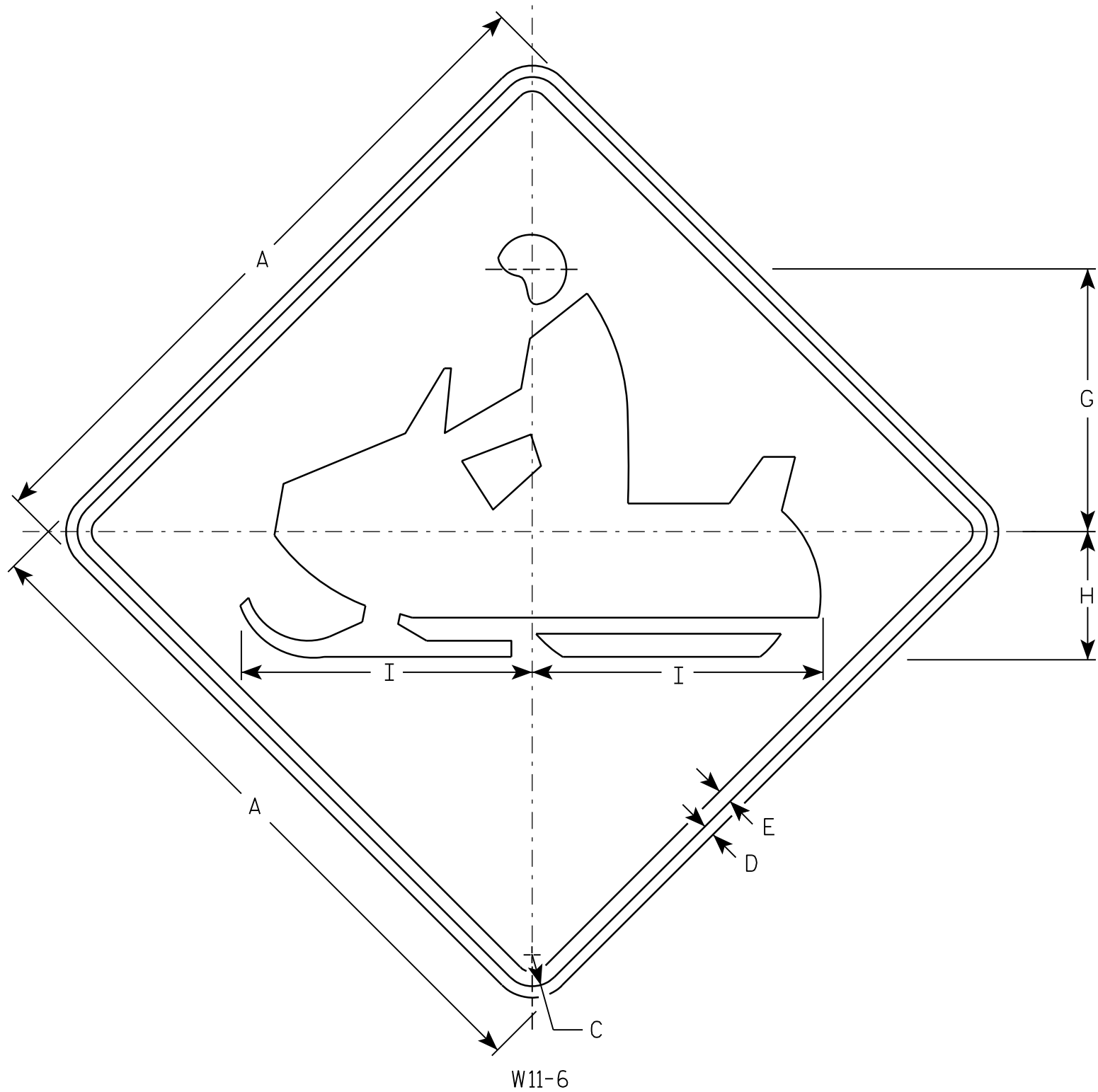
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

- 1. Sign is Type II - Type H 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																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

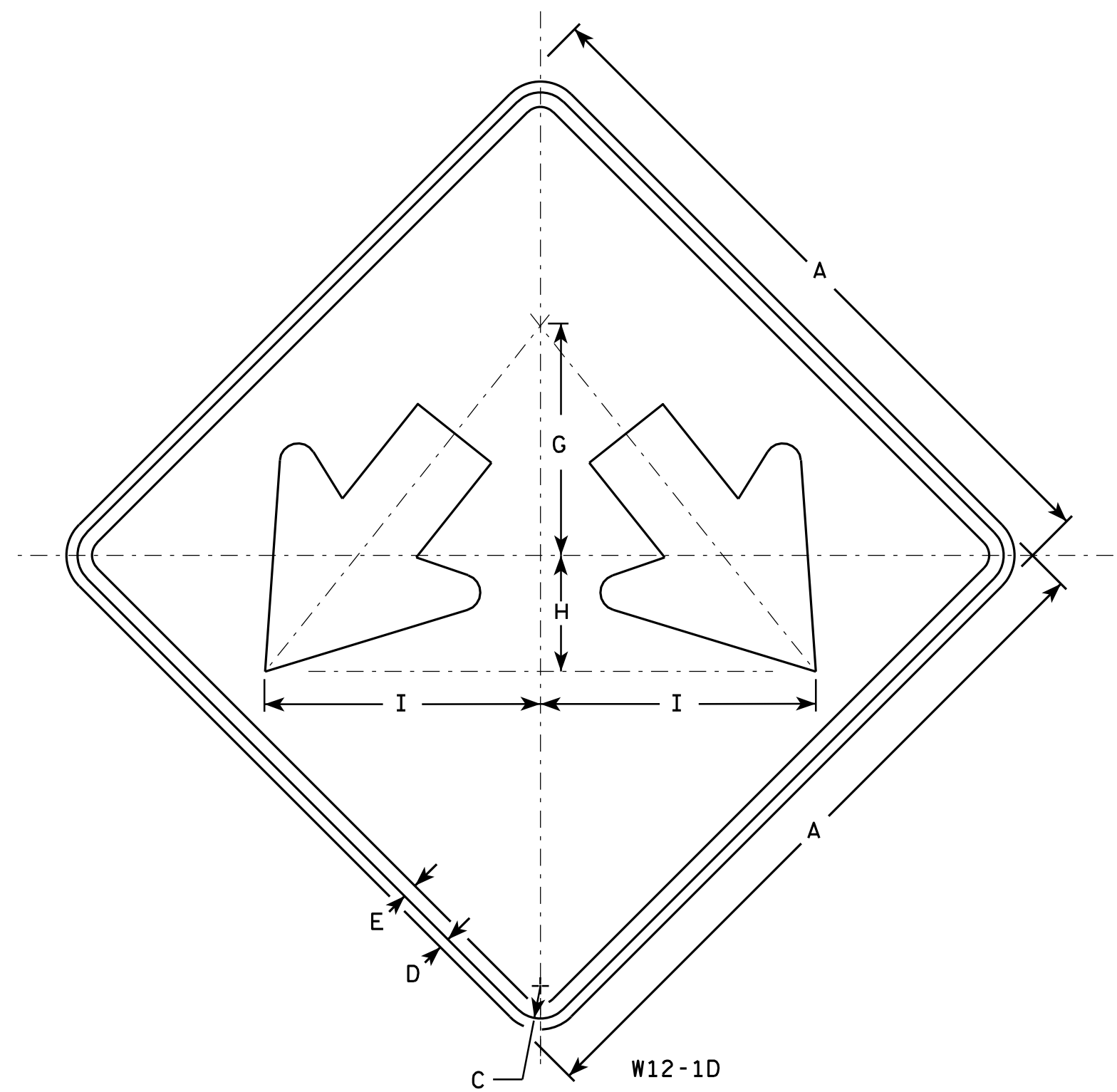
E

STANDARD SIGN
W11-6

WISCONSIN DEPT OF TRANSPORTATION

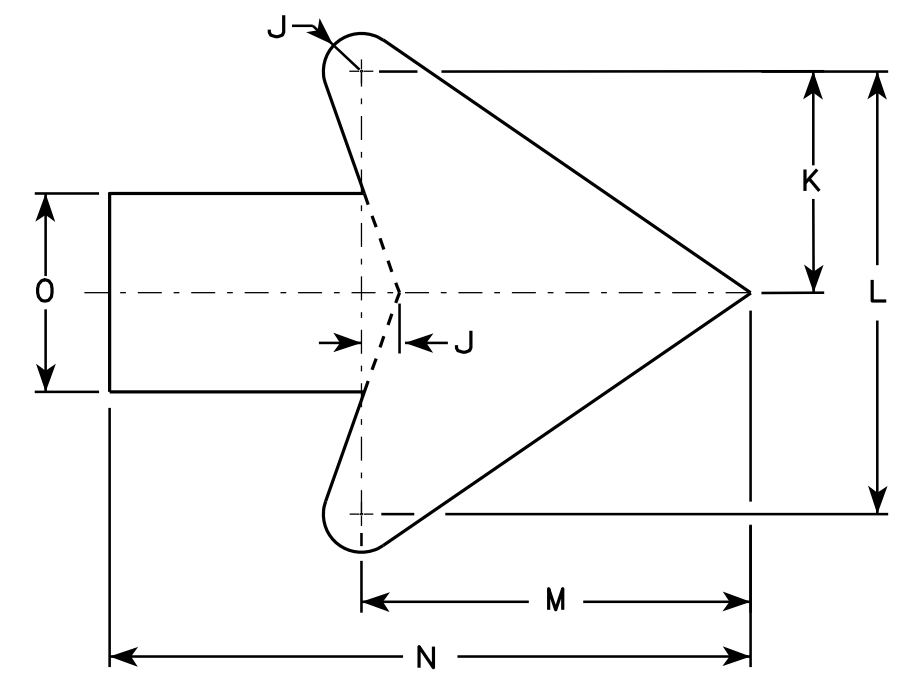
APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W11-6.7



NOTES

- Sign is Type II - Type H 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.



Arrow Detail

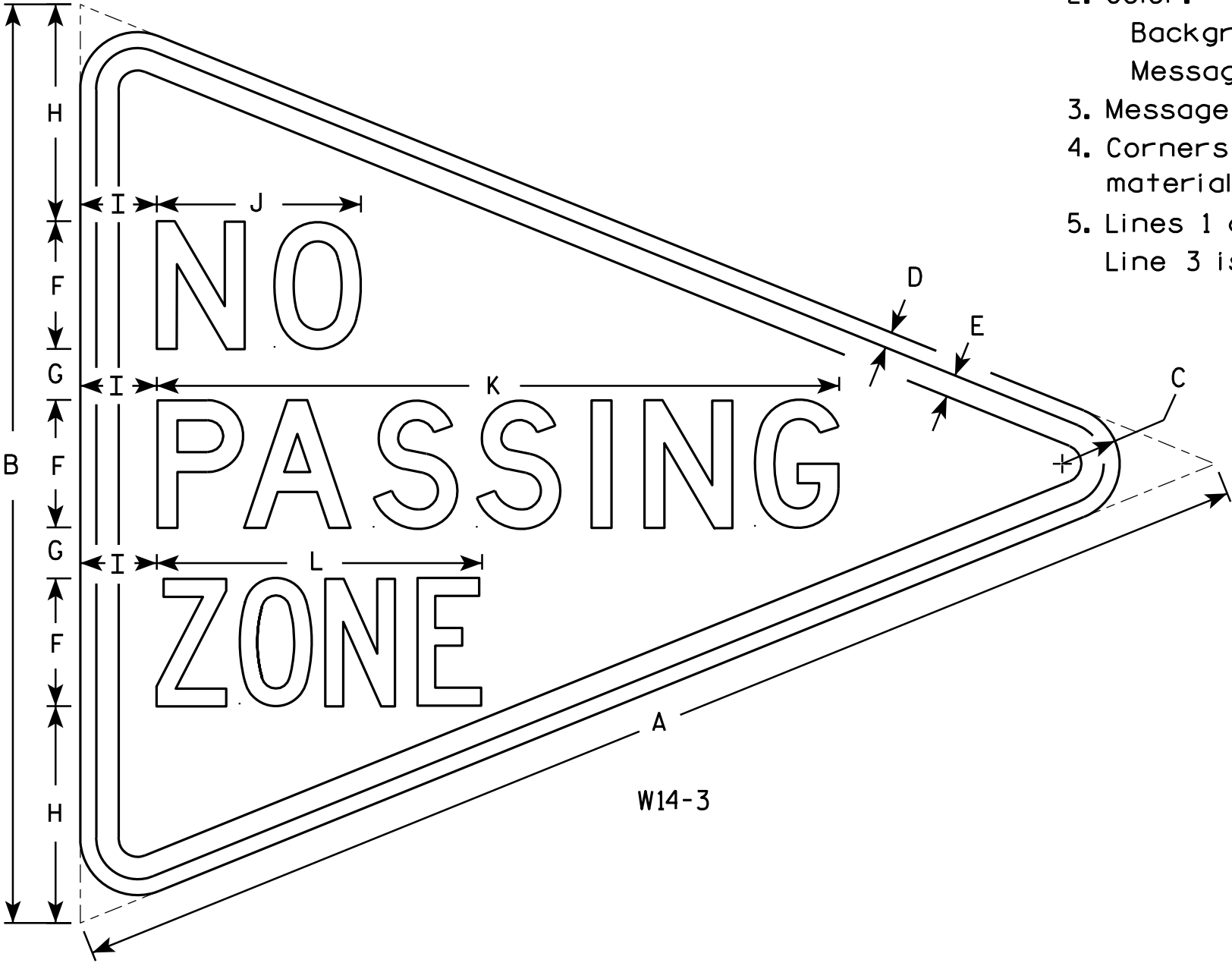
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN W12-1D	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/15/11	PLATE NO. W12-1D.14

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---

NOTES

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



W14-3

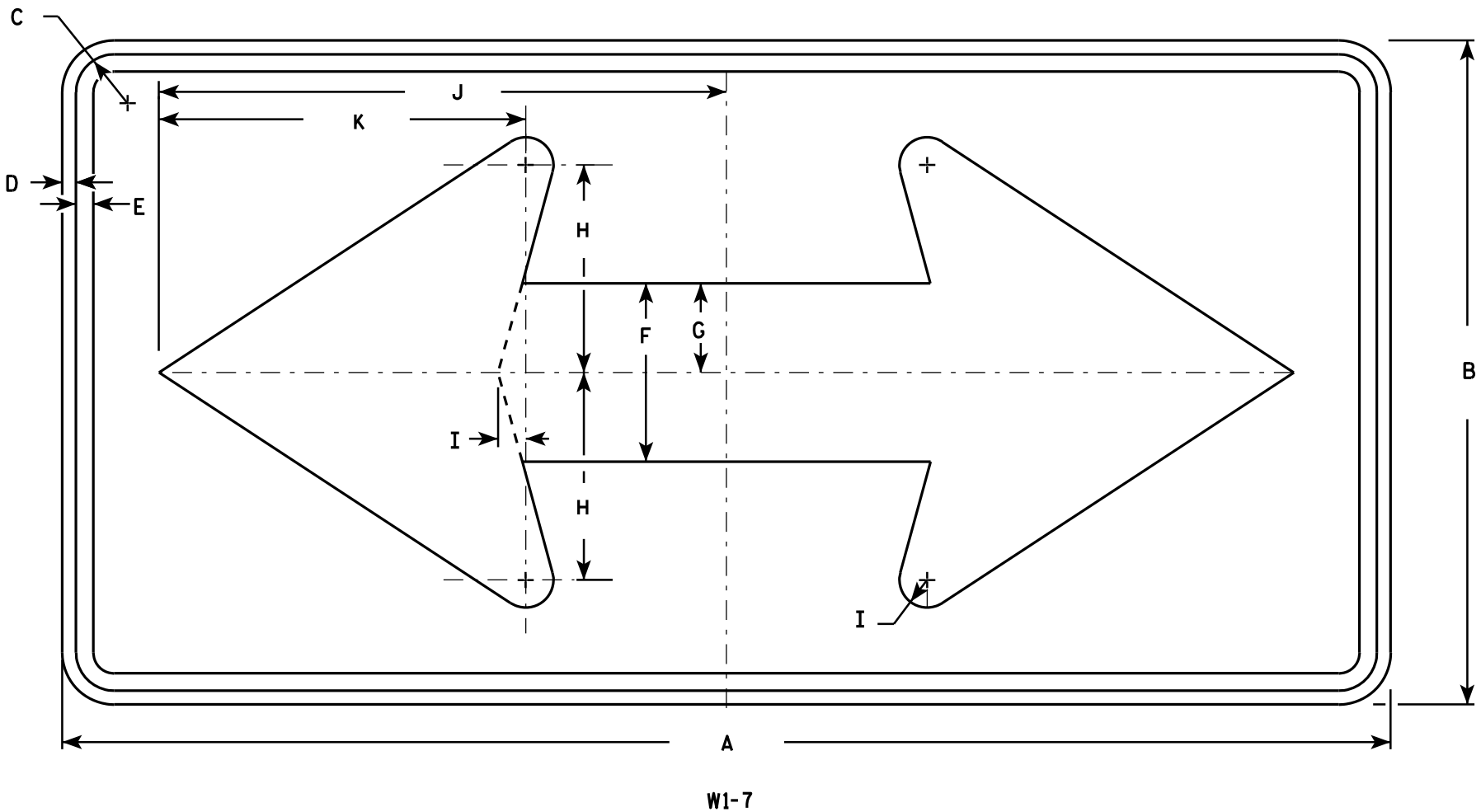
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2														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

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	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

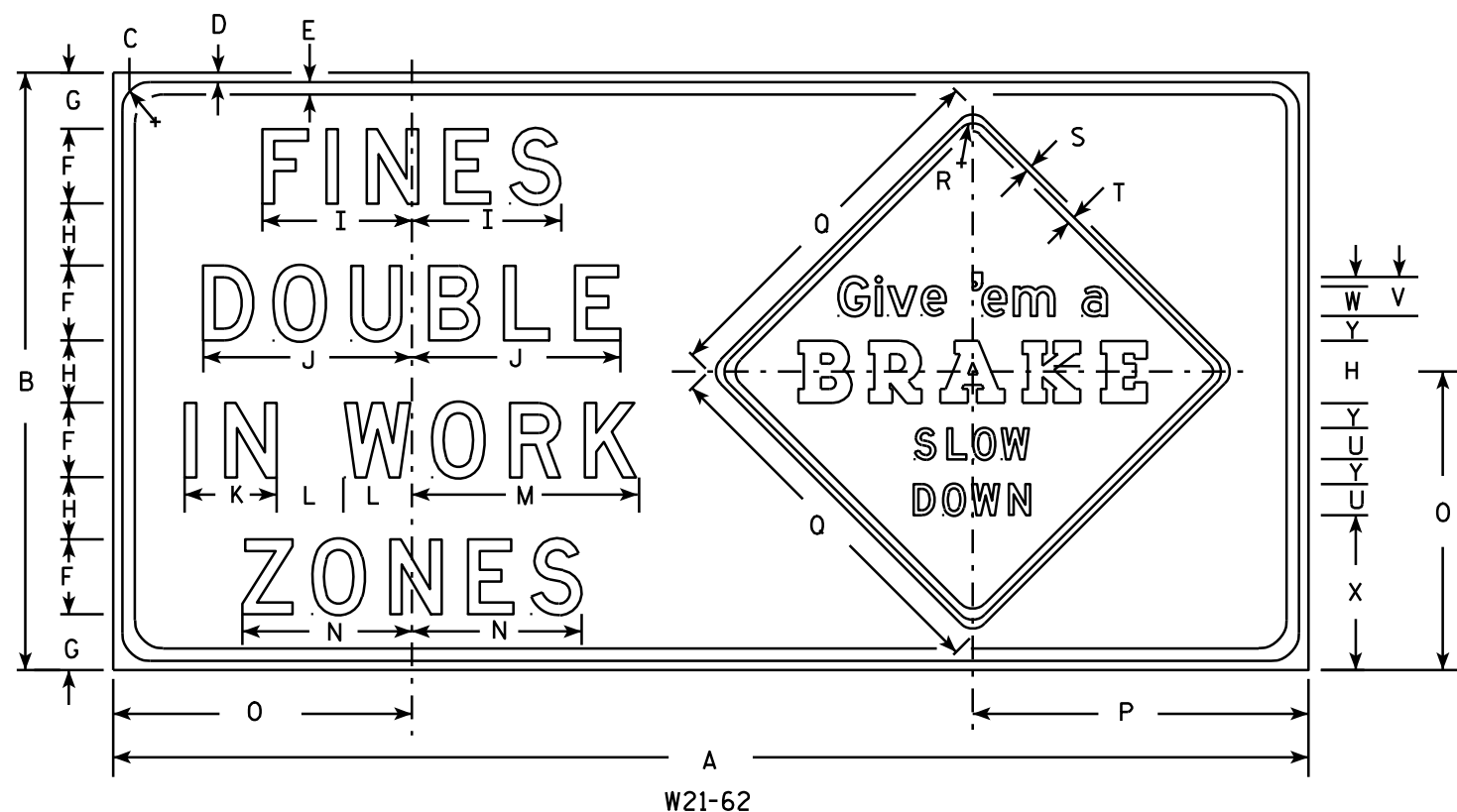
STANDARD SIGN

W1 - 7

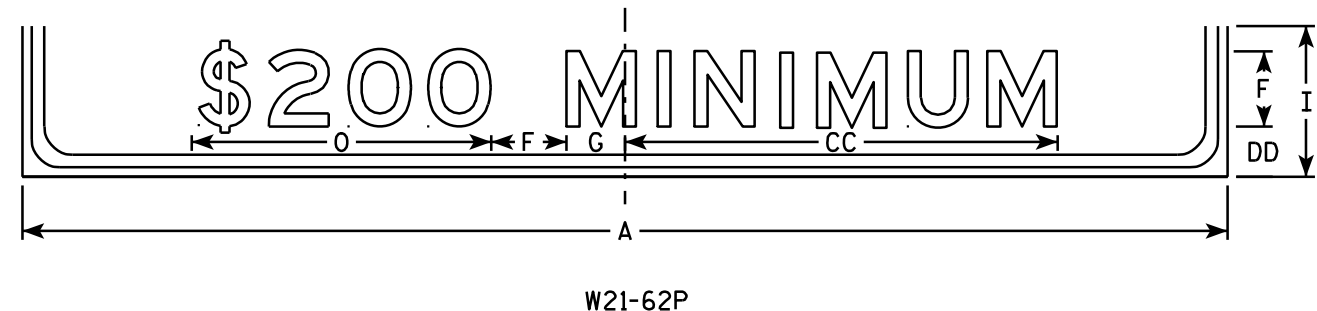
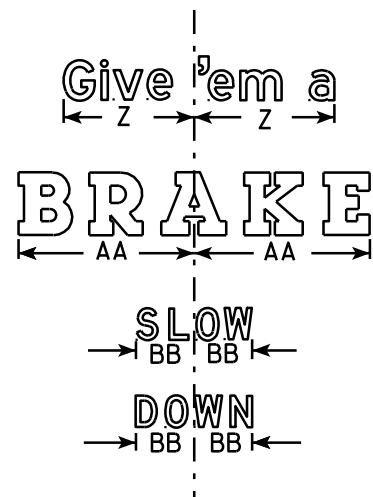
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7



- 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 - (See Note 5)
Message - Black
 3. Message Series -
Fines Double Message - All lines are Series D
Give 'em a Brake -
Line one is Series E, line two is a Special Graphic Series and lines three and four are Series D.
 4. The base material shall be plywood. Corners may be square or rounded, but borders shall be rounded as shown. The base material for Give 'em a Brake sign can be a separate sheet of aluminum with the corners and borders rounded as shown. This separate panel shall then be attached to the plywood with aluminum or stainless steel sheet metal screws.
 5. Background for the Give 'em a Brake sign shall be Type F reflective orange.



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	AA	BB	CC	DD	Area sq. ft.
1																															
2S																															
2M																															
3	96	48	2 1/4	3/4	1	6	4 1/2	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24	27	30	1 3/8	1/2	5/8	2 1/2	3 1/8	2 3/8	12 1/2	2	10 3/4	14	4 5/8	34 1/2	4	32.0
4																															
5																															

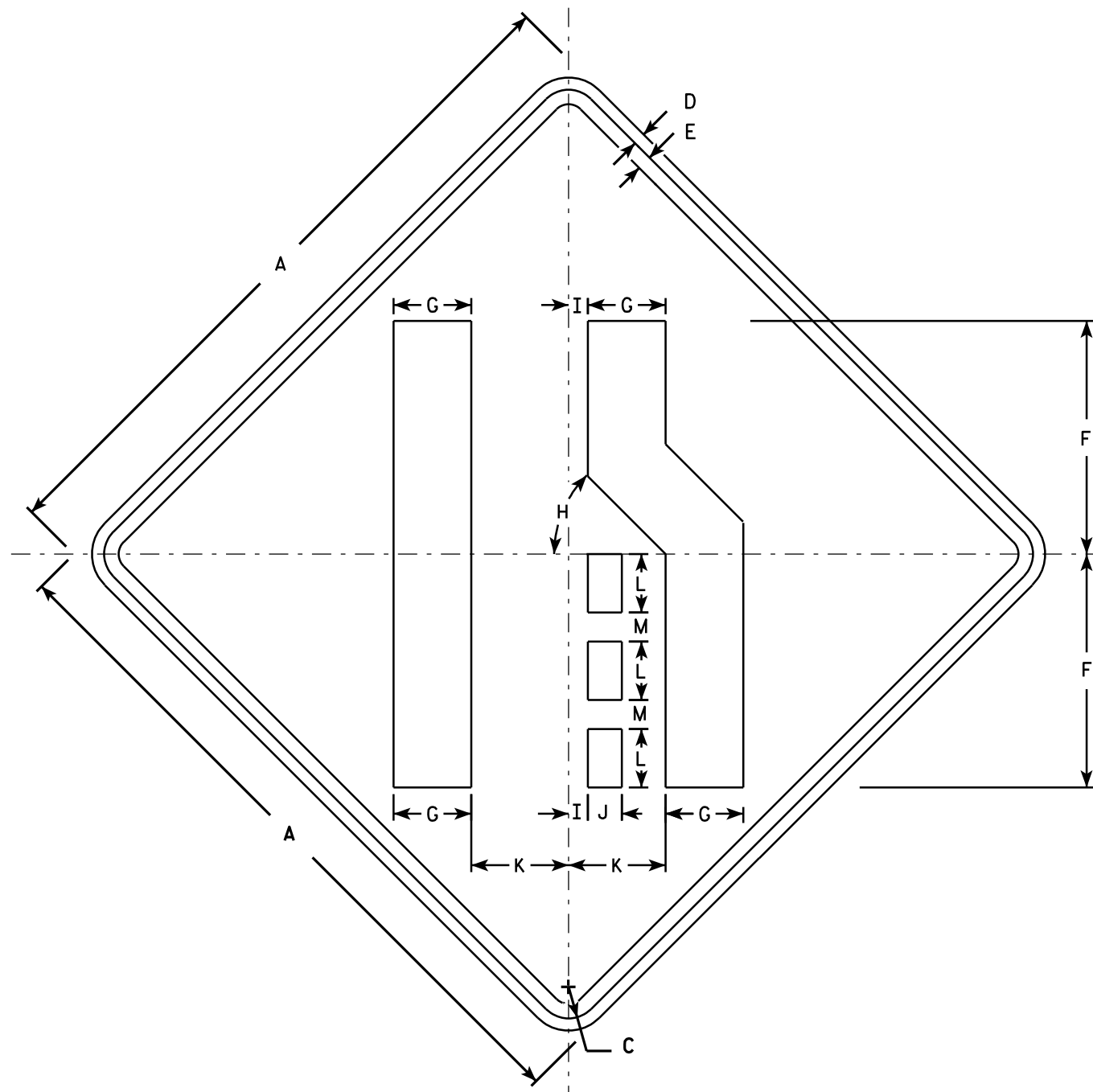
STANDARD SIGN

W21-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62.5



W4-2R

NOTES

1. Sign is Type II - Type H 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. W4-2L is the same as W4-2R except the symbol 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	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN W4-2

WISCONSIN DEPT OF TRANSPORTATION

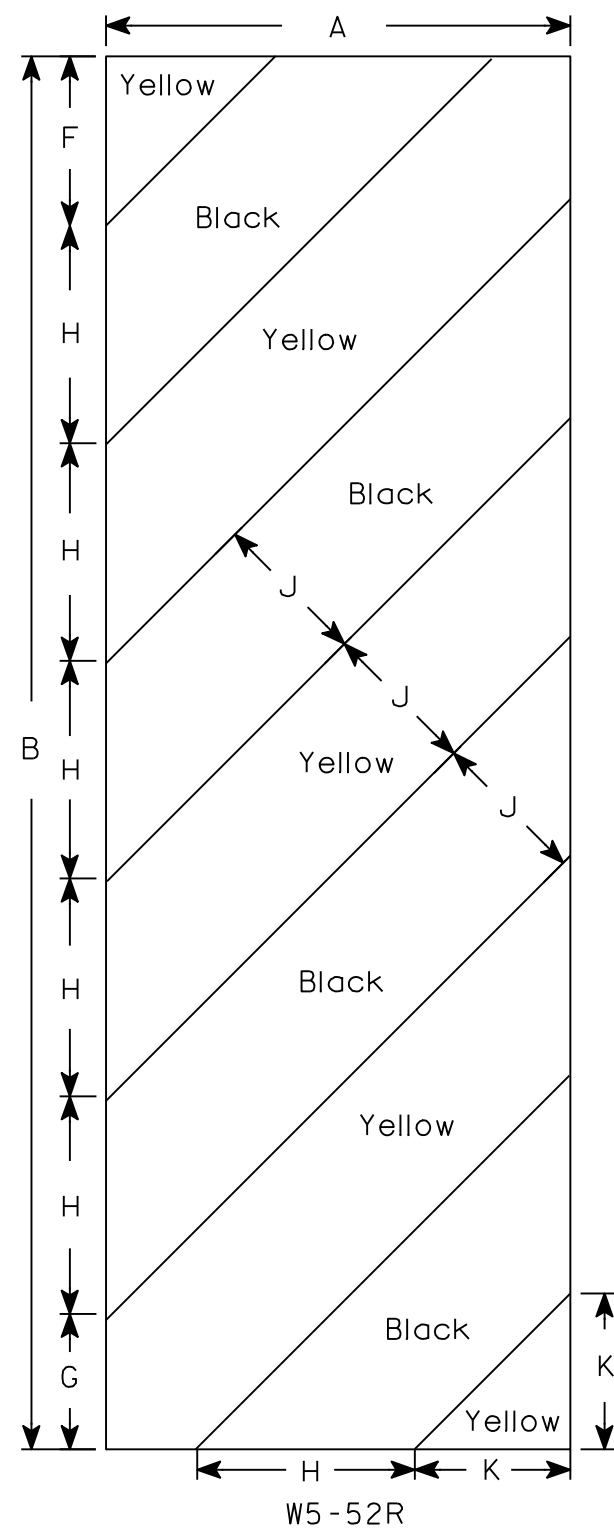
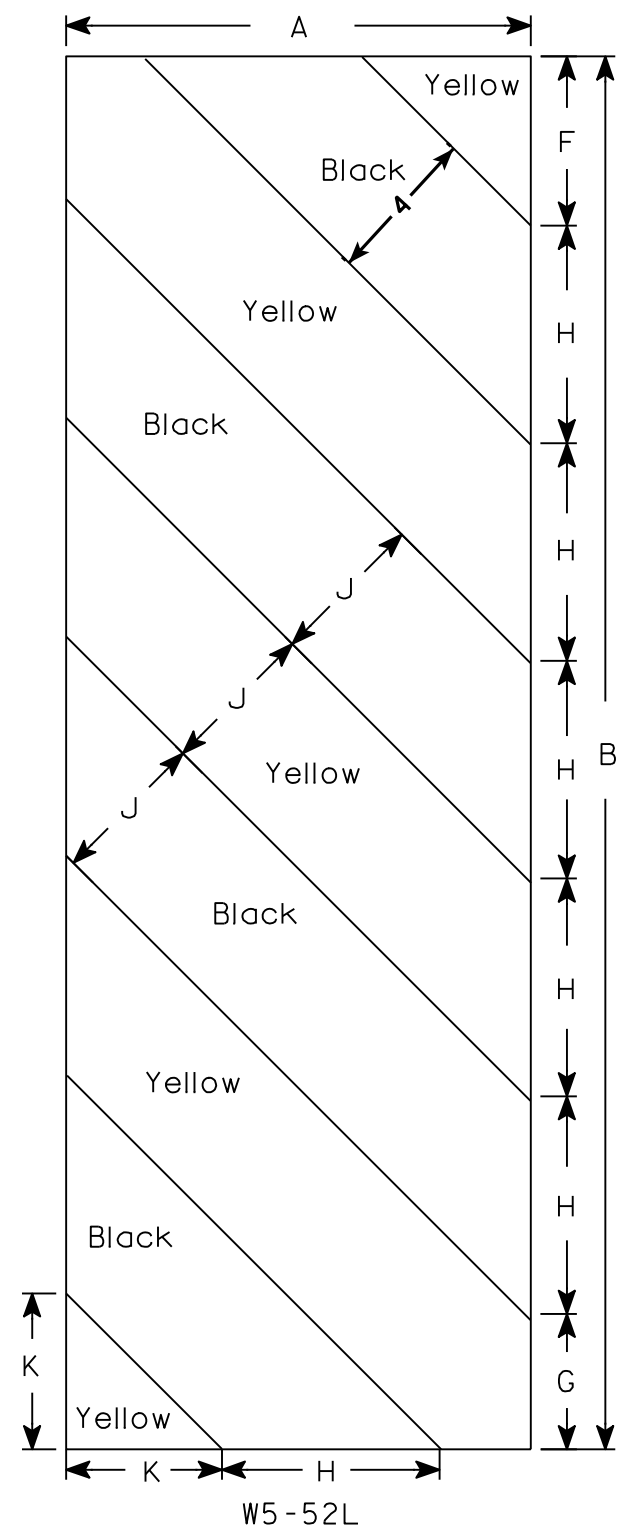
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/29/2012 PLATE NO. W4-2.13

PROJECT NO:

SHEET NO:

E



NOTES

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

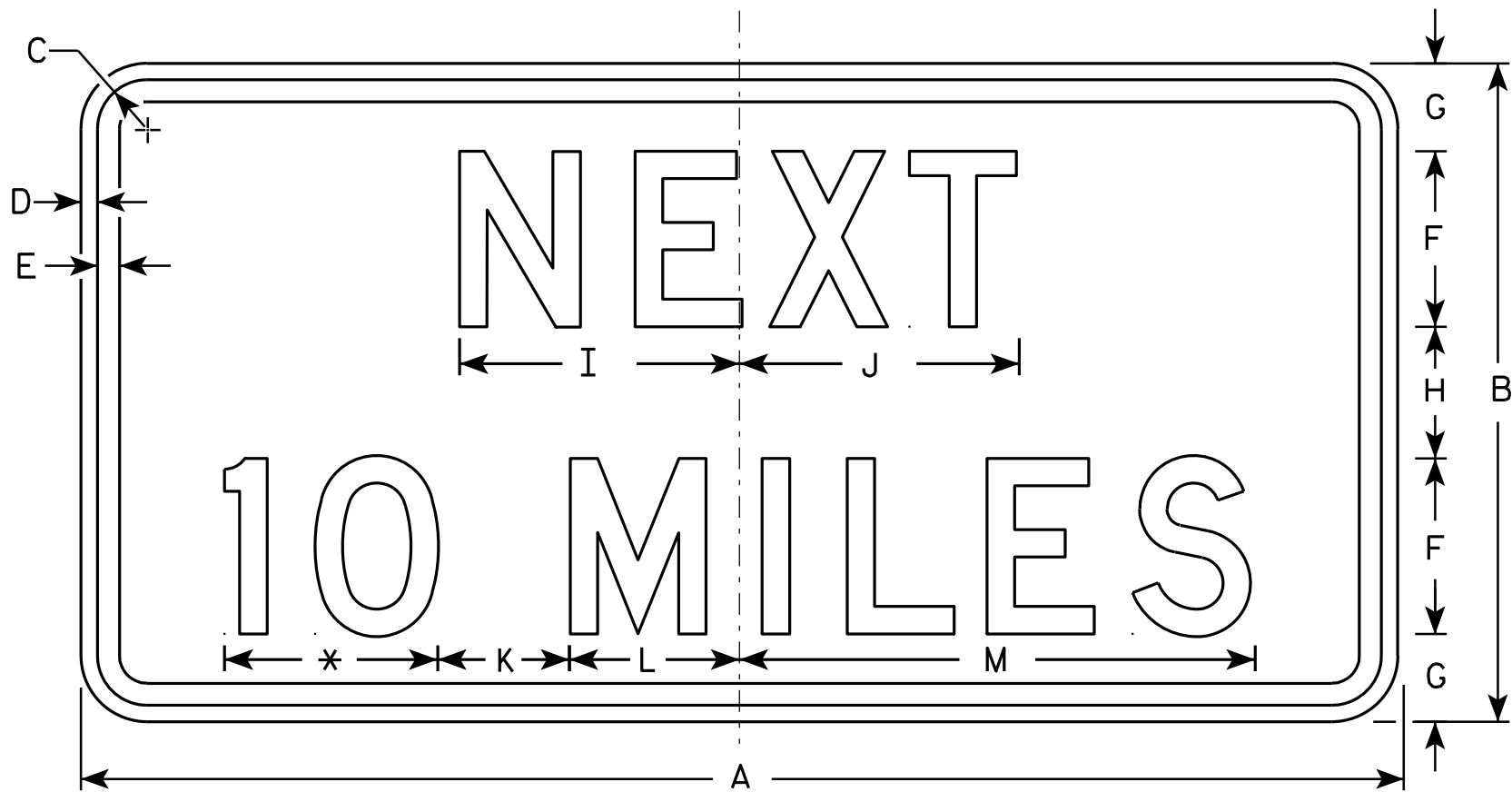
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
2M	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
3	18	54				6	5 1⁄2	8 1⁄2	45°	6	6 9⁄16																6.75
4																											
5																											

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



W57-51

- NOTES**
- 1. Sign is Type II - Type H 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

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

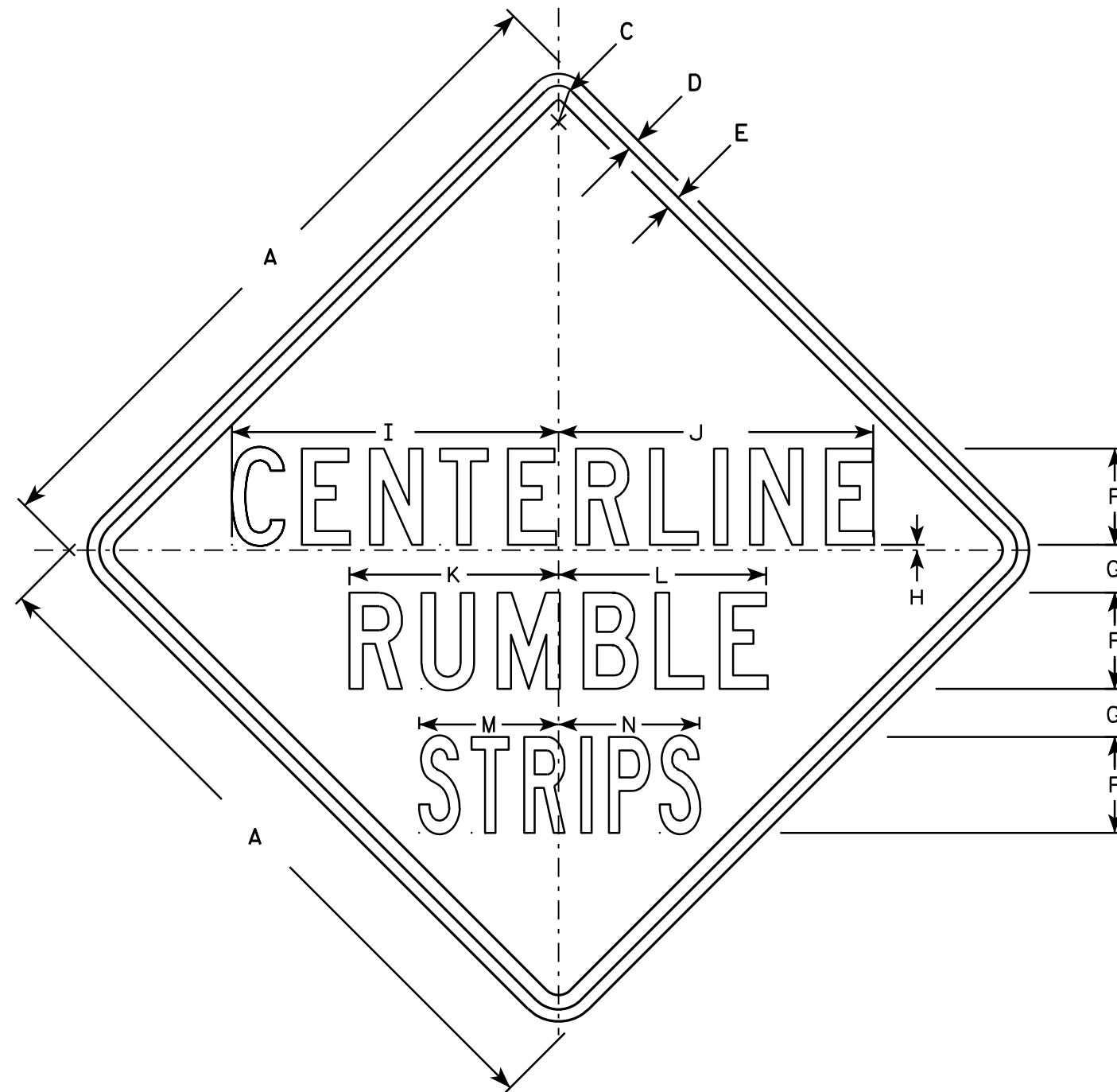
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---

STANDARD SIGN
W57-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/18/11 PLATE NO. W57-51.8



W8-70

NOTES

1. Sign is Type II - Type H 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.

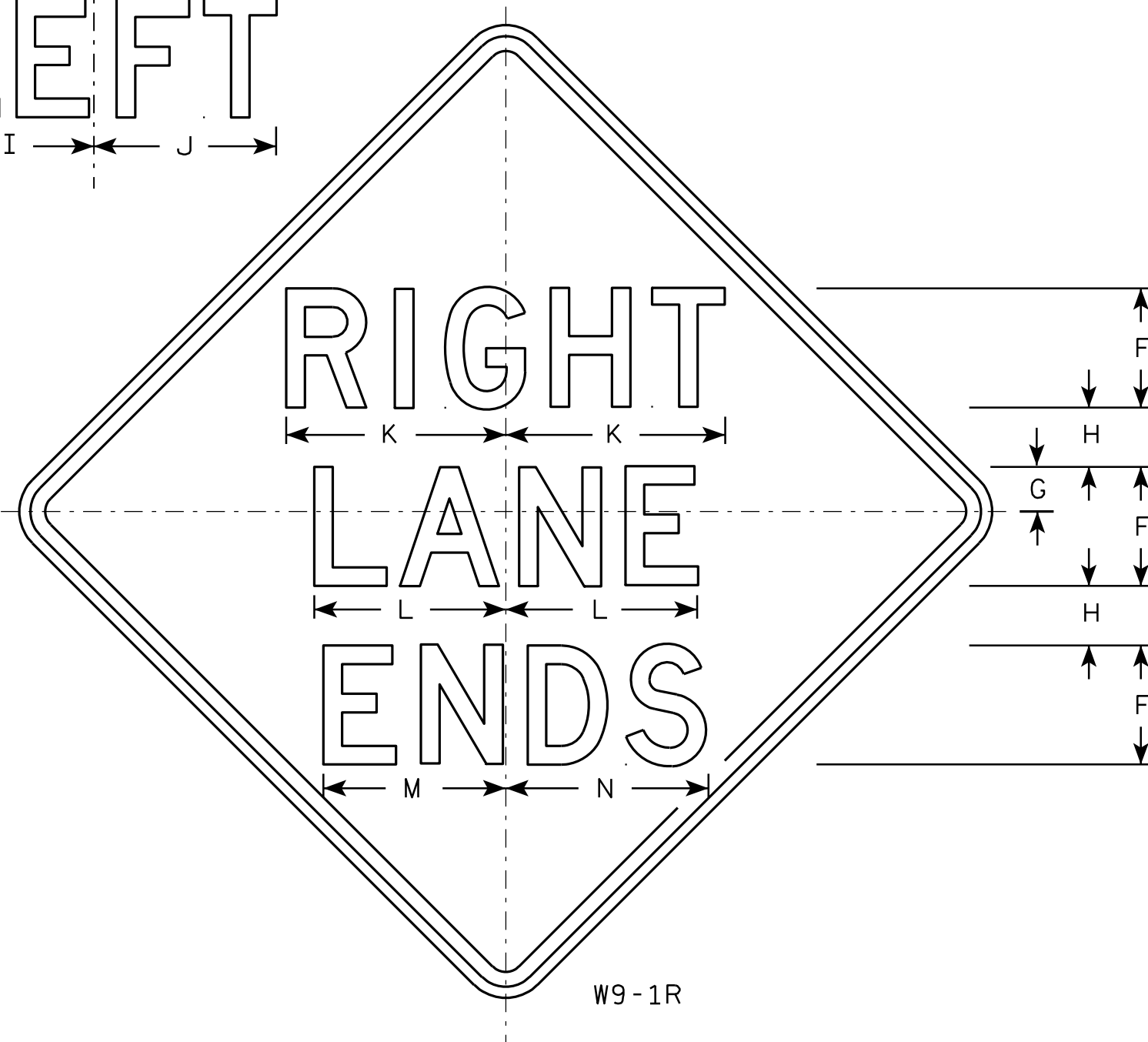
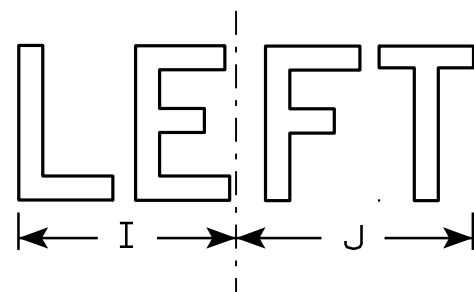
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5/8	5/8	3/4	5	2 1/2	1/4	17	16 3/8	10 7/8	10 3/4	7 1/4	7 3/8													9.0
2M	36		1 5/8	5/8	3/4	5	2 1/2	1/4	17	16 3/8	10 7/8	10 3/4	7 1/4	7 3/8													9.0
3	36		1 5/8	5/8	3/4	5	2 1/2	1/4	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 3/23/11 PLATE NO. W8-70.2



W9-1R

NOTES

1. Sign is Type II - Type H 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. W9-1L same as W9-1R except the word Left replaces Right.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3⁄8	1⁄2	5⁄8	5	1 1⁄2	2 1⁄2	7 1⁄8	7 5⁄8	9 1⁄4	8 1⁄8	7 5⁄8	8 5⁄8													6.25
2S	36		1 5⁄8	5⁄8	3⁄4	6	2	3	8 1⁄2	9 1⁄8	11	9 3⁄4	9	10 3⁄8													9.0
2M	36		1 5⁄8	5⁄8	3⁄4	6	2	3	8 1⁄2	9 1⁄8	11	9 3⁄4	9	10 3⁄8													9.0
3	36		1 5⁄8	5⁄8	3⁄4	6	2	3	8 1⁄2	9 1⁄8	11	9 3⁄4	9	10 3⁄8													9.0
4	36		1 5⁄8	5⁄8	3⁄4	6	2	3	8 1⁄2	9 1⁄8	11	9 3⁄4	9	10 3⁄8													9.0
5	48		2 1⁄4	3⁄4	1	8	3	4	11 1⁄4	12 1⁄4	14 3⁄4	12 7⁄8	12 1⁄4	13 5⁄8													16.0

PROJECT NO:

SHEET NO:

E

STANDARD SIGN

W9-1

WISCONSIN DEPT OF TRANSPORTATION

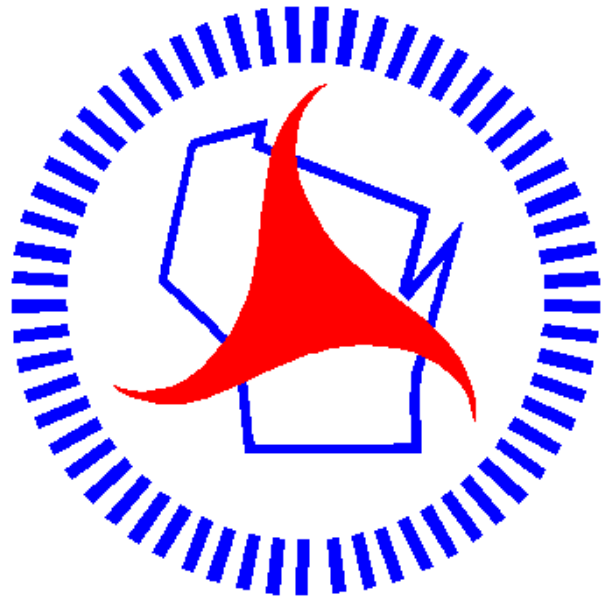
APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 12/20/10

PLATE NO. W9-1.7

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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