FILE NAME : I:\73176\WO17\C3D\11762335\SHEETSPLAN\010101-TI.DWG

SEPTEMBER 2025 FEDERAL PROJECT STATE PROJECT STATE OF WISCONSIN CONTRACT ORDER OF SHEETS 1176-23-65 WISC 2025607 **DEPARTMENT OF TRANSPORTATION** Section No. Typical Sections and Details Section No. Estimate of Quantities Section No. Miscellaneous Quantities PLAN OF PROPOSED IMPROVEMENT Section No. Plan and Profile Section No. Standard Detail Drawings Section No. **TOMAHAWK - MINOCQUA** Computer Earthwork Data **STRUCTURE B-35-0059 USH 51** TOTAL SHEETS = 116 LINCOLN COUNTY STATE PROJECT NUMBER 1176-23-65 HENRIÇH Bass L. Clark L. Tomahawk DESIGN DESIGNATION **END PROJECT** ORIGINAL PLANS PREPARED BY **BEGIN PROJECT** STA 102+28.45 STA 96+20.44 AADT (2027) = 4710A.A.D.T. (2047)= 4,710 Y = 228.382.548 D.H.V. SCONS D.D. = 59/41 = 7.8% DESIGN SPEED = 60 MPH 86 = 630,000 BAUMANN HILGY LN CONVENTIONAL SYMBOLS Twin GRADE LINE ONAL CORPORATE LIMITS ORIGINAL GROUND PROPERTY LINE MARSH OR ROCK PROFILE Beaver L. 4/8/2025 LOTLINE (To be noted as such) LIMITED HIGHWAY EASEMENT SPECIAL DITCH STATE OF WISCONSIN EXISTING RIGHT OF WAY GRADE ELEVATION PROPOSED OR NEW R/W LINE DEPARTMENT OF TRANSPORTATION Kaise L KOTH SLOPE INTERCEPT CULVERT (Profile View) PREPARED BY UTILITIES KAPUR AND ASSOCIATES REFERENCE LINE Surveyor ELECTRIC Road L. Designer EXISTING CULVERT KYES RD FIBER OPTIC Project Manage PROPOSED CULVERT (Box or Pipe) SANITARY SEWER COMBUSTIBLE FLUIDS STORM SEWER 0.5 MI HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN TELEPHONE SCALE I COORDINATE REFERENCE SYSTEM (WISCRS), LINCOLN COUNTY, NAD83 (2011). IN U.S. SURVEY FEET, POSITIONS SHOWN ARE GRID MARSH AREA COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES UTILITY PEDESTAL TOTAL NET LENGTH OF CENTERLINE = 0.115 MI ARE THE SAME AS GROUND DISTANCES. POWER POLE ₫ ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED Ø WOODED OR SHRUB AREA TELEPHONE POLE **ELEVATIONS ARE BASED ON GEOID 12A**

4/2/2025 7:13 AM

DAN BAUMANN

1

GENERAL NOTES

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA

RUNOFF COEFFICIENT TABLE

		HYDROLOGIC SOIL GROUP										
			A		В			С		D		
	SLOP	E RANGE	(PERCENT)	s	SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)		GE (PERCENT)	SLOPE RANGE (PERCENT)		(PERCENT)
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP- TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE- TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:	•		•	•			•	•		•		•
ASPHALT						.7095						
CONCRETE						.8095						
BRICK		.7080										
DRIVES, WALKS		.7585										
ROOFS						.7595						
GRAVEL ROADS, SHO	ULDERS			·		.4060	·			·		

TOTAL PROJECT AREA = 0.52 ACRES TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.44 ACRES

STANDARD ABBREVIATIONS

AGG AGGREGATE ASPH ASPHALTIC BASELINE BL BM BENCHMARK C/L CONC CENTERLINE CONCRETE COUNTY CO CRUSHED AGGREGATE BASE COURSE CABC CY CUBIC YARD C&G CURB AND GUTTER DIAMETER DIA EB EASTBOUND ELEV ELEVATION EW ENDWALL FP FENCE POST FG FINISHED GRADE FL FLOW LINE FO FIBER OPTIC FT FOOT INV INVERT LT LEFT LF LINEAR FOOT MP MARKER POST MB MESSAGE BOARD NOM NOMINAL NORTHBOUND NB PAVT PAVEMENT PERM PERMANENT PORTLAND CEMENT CONCRETE PCC PROJECT PROJ PROPERTY LINE PL R/L REFERENCE LINE RT RIGHT RIGHT OF WAY R/W RDWY ROADWAY SHLDR SHOULDER SB SOUTHBOUND TELEPHONE TEL TEMP **TEMPORARY** TV **TELEVISION** UG UNDERGROUND VOL VOLUME W WATER WB WESTBOUND

ORDER OF SECTION 2 SHEETS

GENERAL NOTES PROJECT OVERVIEW TYPICAL SECTIONS **EROSION CONTROL** DETOUR PLAN TRAFFIC CONTROL

STATE AGENCIES

WISCONSIN DEPARTMENT OF NATURAL RESOURCES WENDY HENNIGES 107 SUTLIFF AVENUE RHINELANDER, WI 54501 PHONE: (715) 365-8916 WENDY.HENNIGES@DOT.WI.GOV

UTILITY CONTACTS

ANR PIPELINE CO - GAS/PETROLEUM CHAD KLATT 6650 SANDY BLUFF ROAD SANDWICH, IL 60545 PHONE: (815) 786-3443 CELL: (815) 826-0987 EMAIL: KLÁTT@TCENERGY.COM

ATC MANAGEMENT, INC - ELECTRICITY TONY MARCINIAK 801 O'KEEFE ROAD DE PERE, WI 54115 PHONE:(262) 506-6814 EMAIL: TMARCINIAK@ATCLLC.COM

FRONTIER COMMUNICATIONS OF WILLC - COMMUNICATION LINE CHRISTOPHER POLLACK 521 N. 4TH STREET WAUSAU, WI 54403 PHONE: (715) 847-1240 CELL: (715) 297-4773

EMAIL: CHRISTOPHER.POLLACK@FTR.COM

SPECTRUM - COMMUNICATION LINE JASON GOERTZ 853 MCINTOSH STREET WAUSAU, WI 54403 PHONE: (715) 527-0183 EMAIL: JASON.GOERTZ@CHARTER.COM

WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRICITY DON LUTZOW P.O. BOX 1166

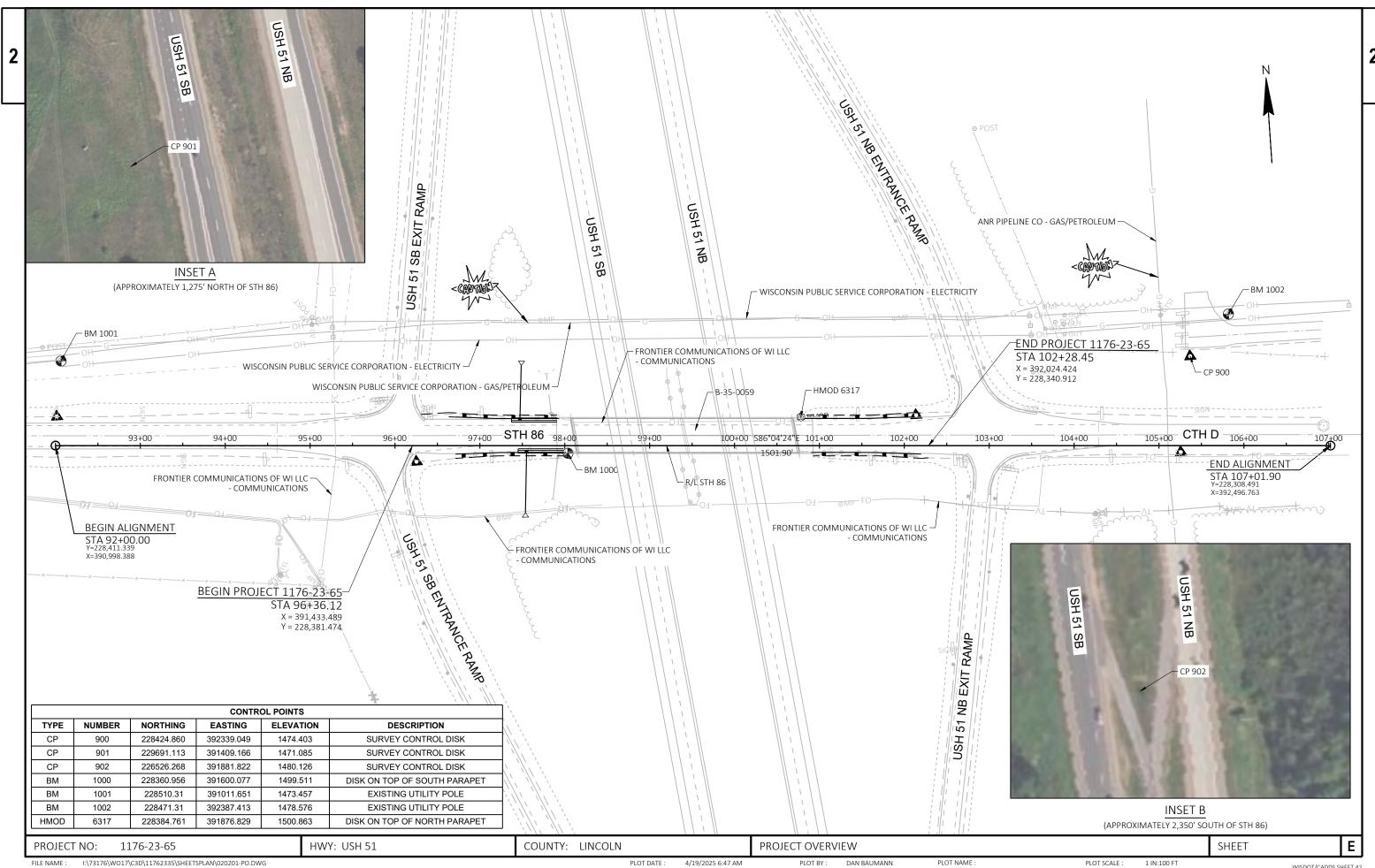
WAUSAU, WI 54402 PHONE: (715) 848-7487 CELL: (507) 848-4211

EMAIL: DONALD.LUTZOW@WISCONSINPUBLICSERVICE.COM

WISCONSIN PUBLIC SERVICE CORPORATION - GAS/PETROLEUM SHANE SARKKINEN 2027 NAVAJO STREET RHINELANDER, WI 54501 PHONE: (715) 369-7133 CELL: (715) 966-1040 EMAIL: SHANE.SARKKINEN@WISCONSINPUBLICSERVICE.COM

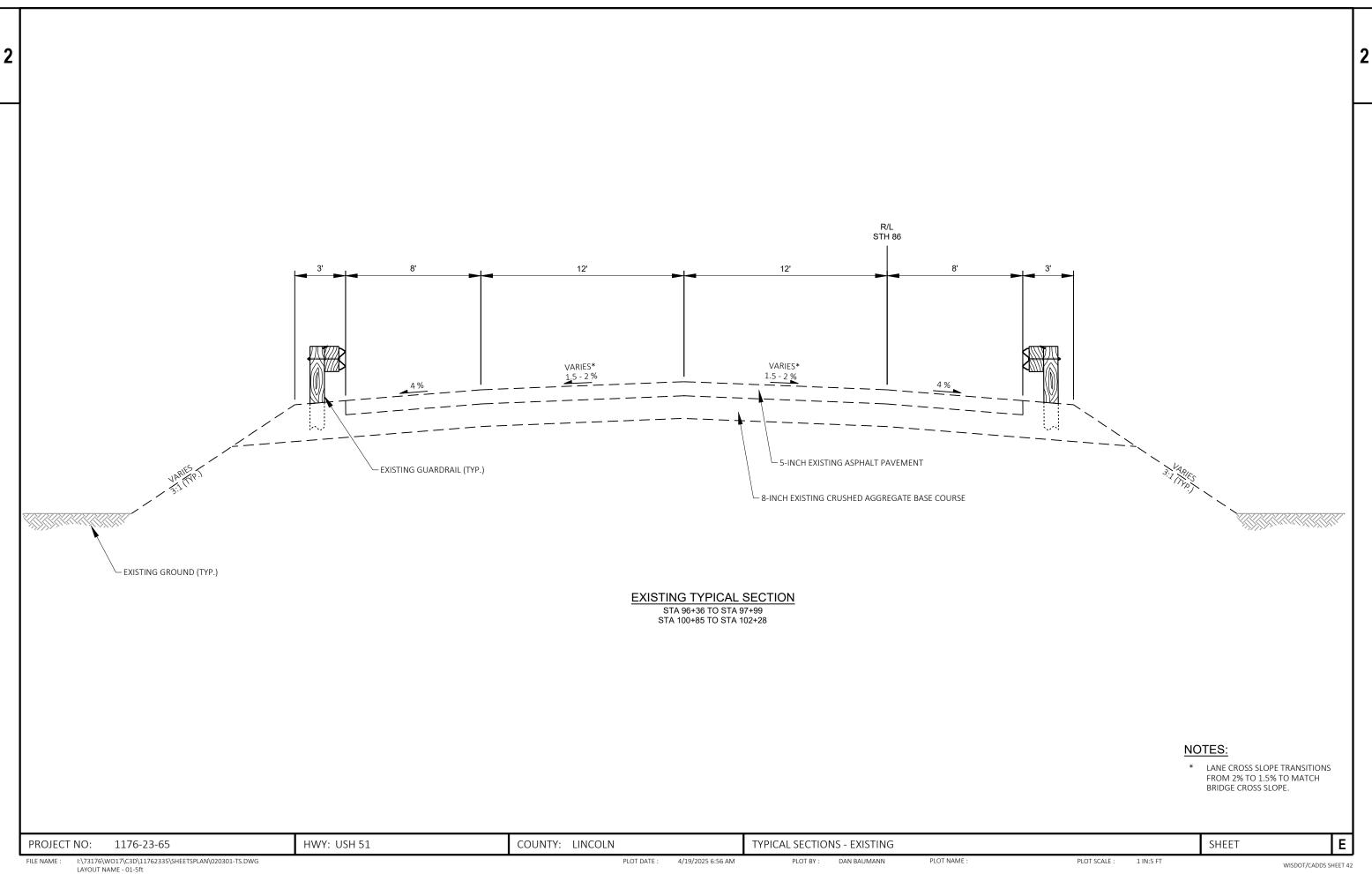


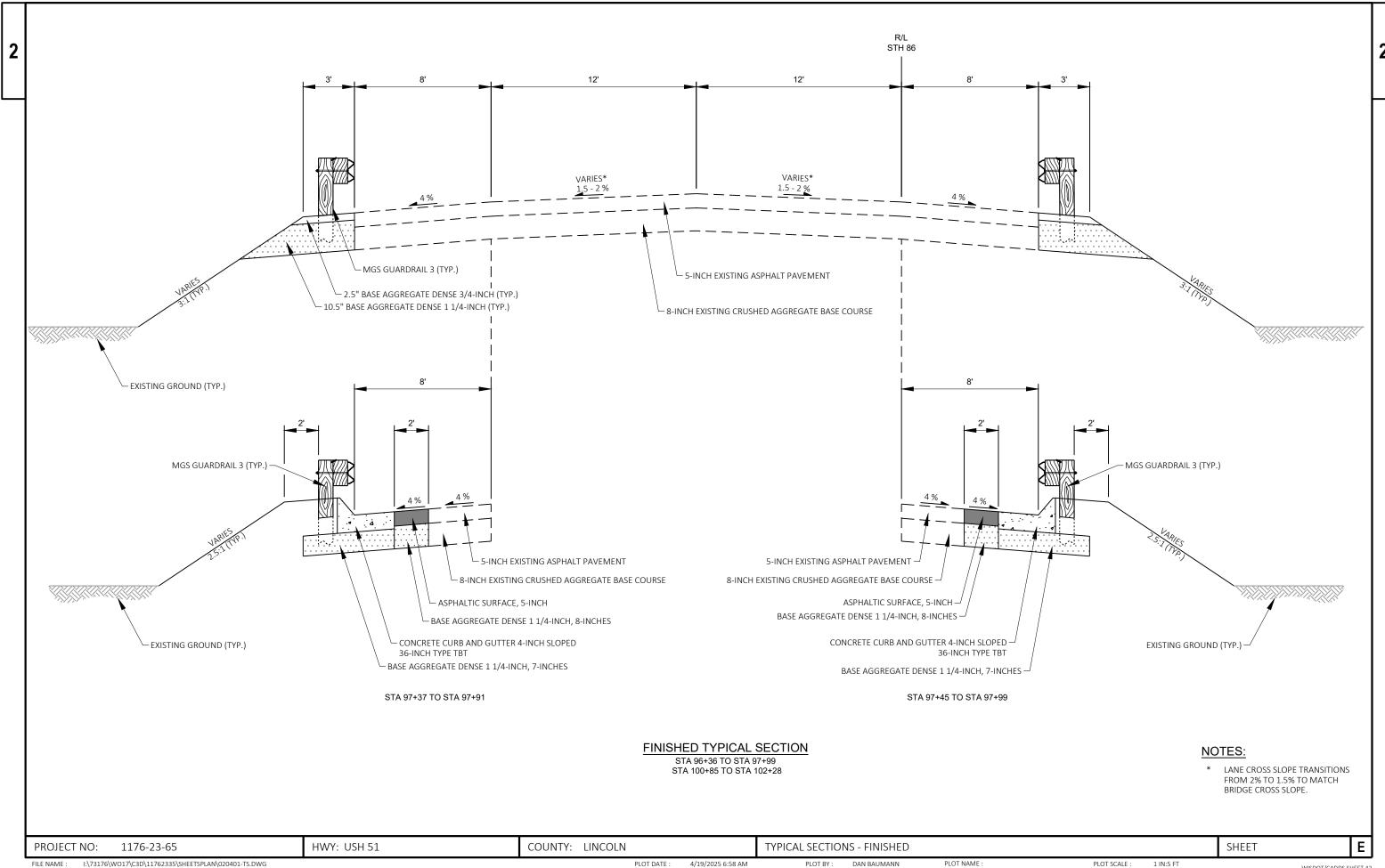
HWY: USH 51 Ε PROJECT NO: 1176-23-65 COUNTY: LINCOLN **GENERAL NOTES** SHEET I:\73176\WO17\C3D\11762335\SHEETSPLAN\020101-GN.DWG PLOT DATE : PLOT BY: DAN BAUMANN PLOT NAME PLOT SCALE : 1 IN:100 FT FILE NAME : 7/21/2025 2:02 PM WISDOT/CADDS SHEET 42



LAYOUT NAME - 01

WISDOT/CADDS SHEET 42



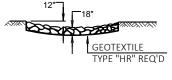


LAYOUT NAME - 01-5ft

WISDOT/CADDS SHEET 42

2

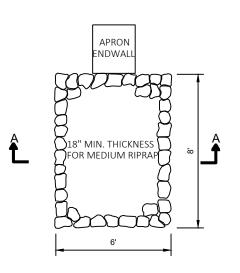
FILE NAME :



SECTION A-A

<u>NOTE</u>S

VERIFY PROPOSED GUARDRAIL POST LOCATIONS PRIOR TO INSTALLING CONCRETE SURFACE DRAIN.

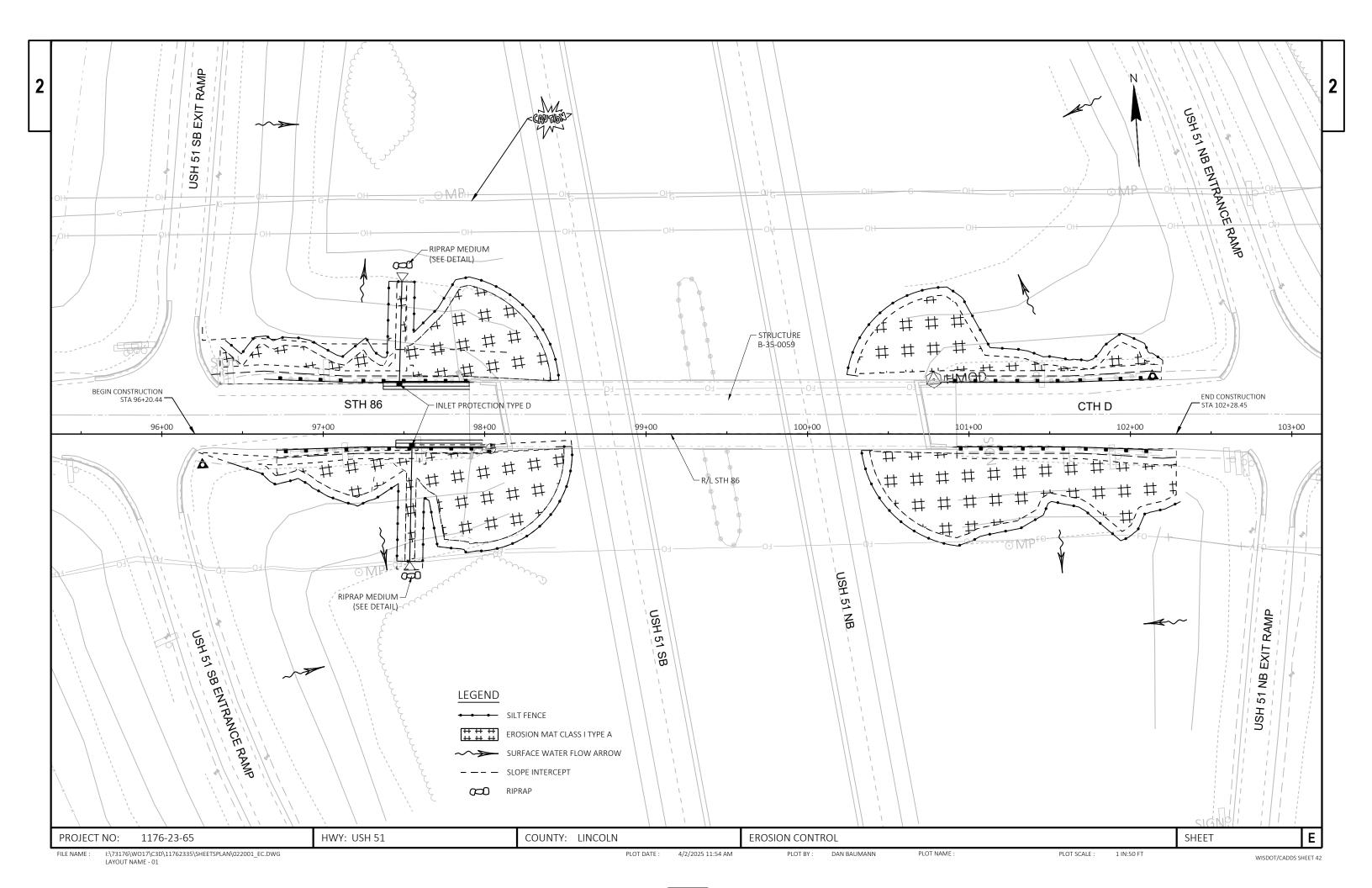


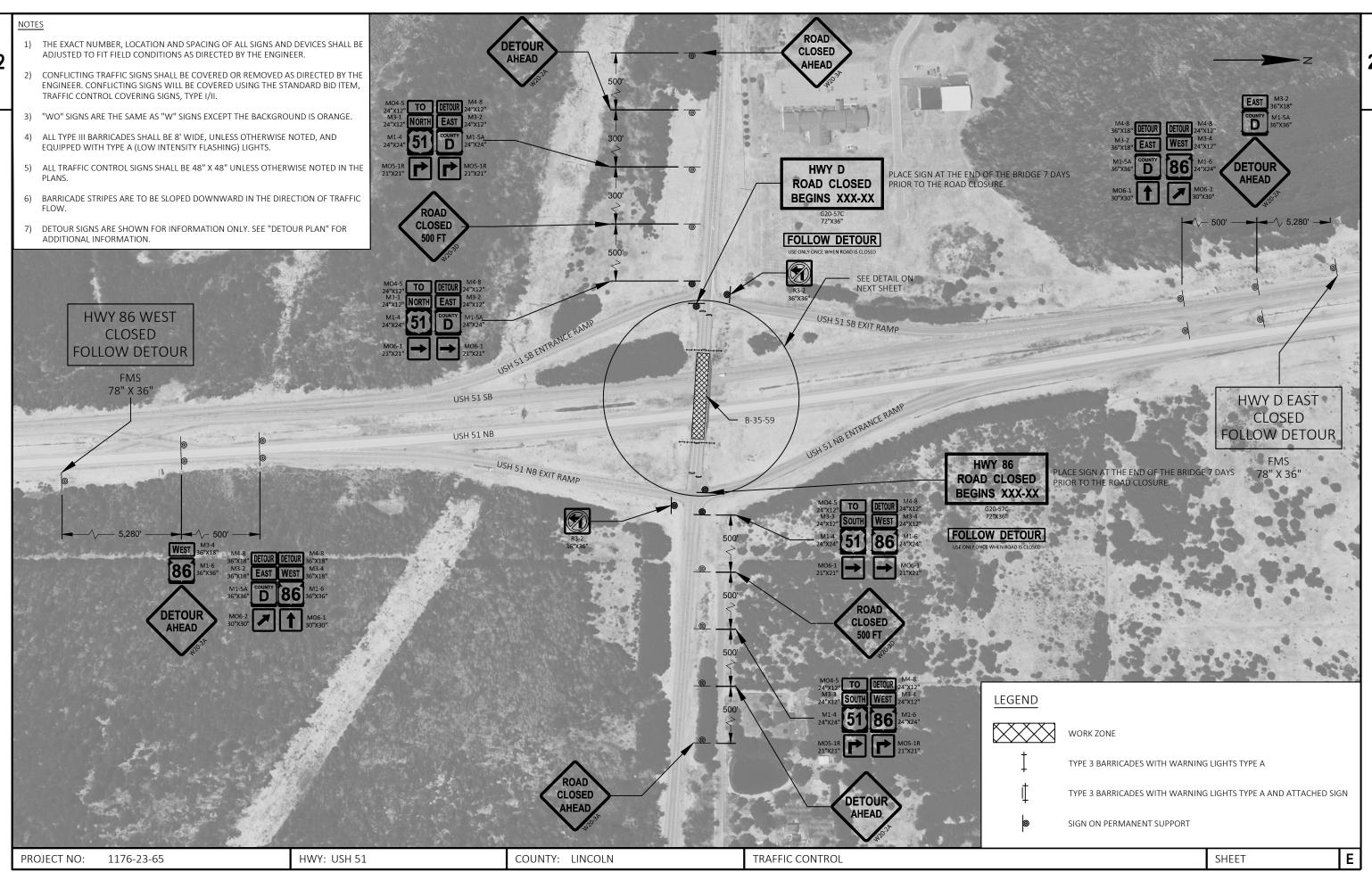
RIPRAP MEDIUM TREATMENT DETAIL AT CONCRETE SURFACE DRAINS

STA 97+49, LT STA 97+54, RT

PROJECT NO: 1176-23-65 HWY: USH 51 COUNTY: LINCOLN CONSTRUCTION DETAILS SHEET **E**

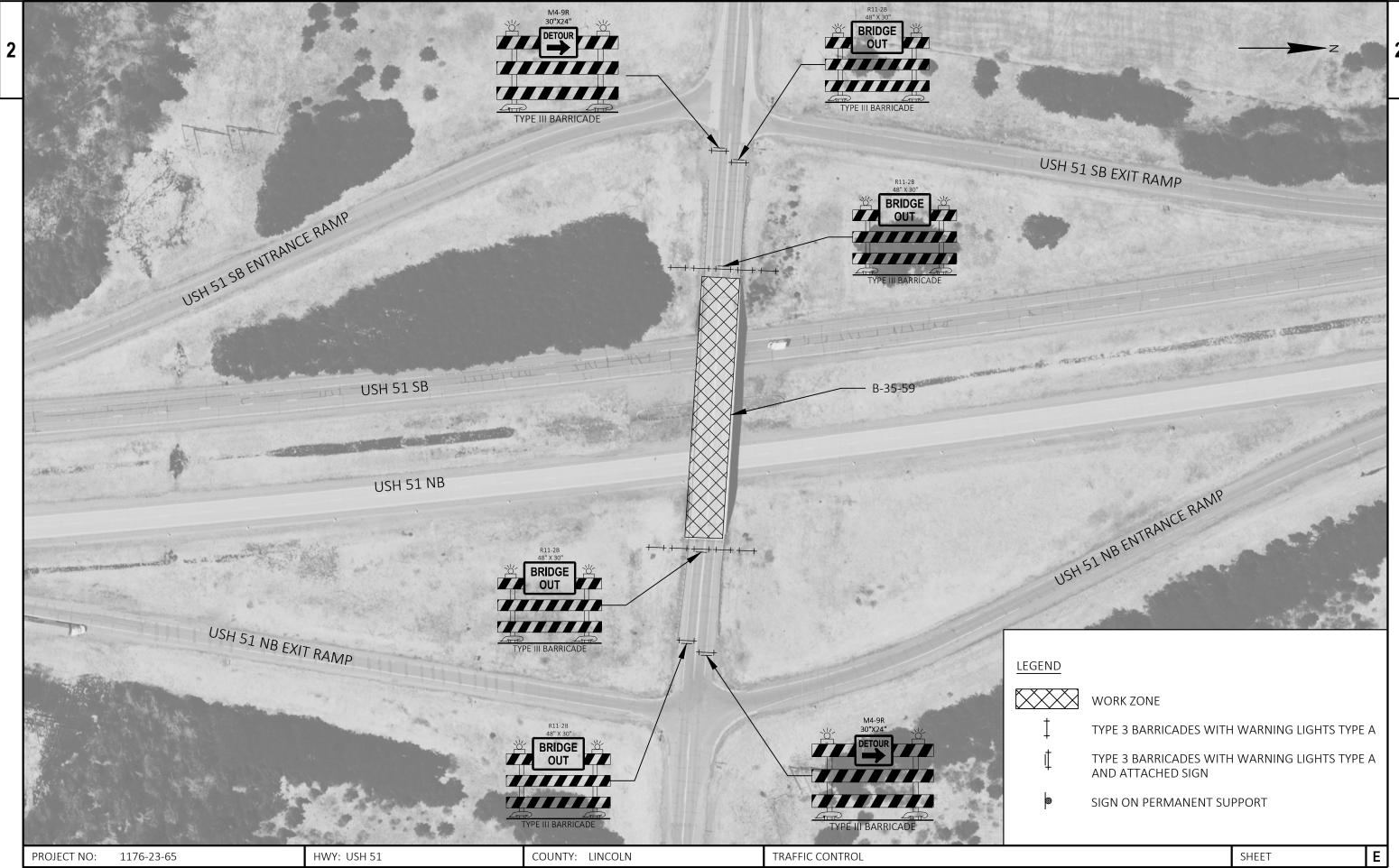
I:\73176\W017\C3D\\11762335\SHEETSPLAN\021001-CD.DWG PLOT DATE : 4/2/2025 7:20 AM PLOT BY : DAN BAUMANN PLOT NAME : PLOT SCALE : 1 IN:5 FT WISDOT/CADDS SHEET 42 LAYOUT NAME - 01-5ft



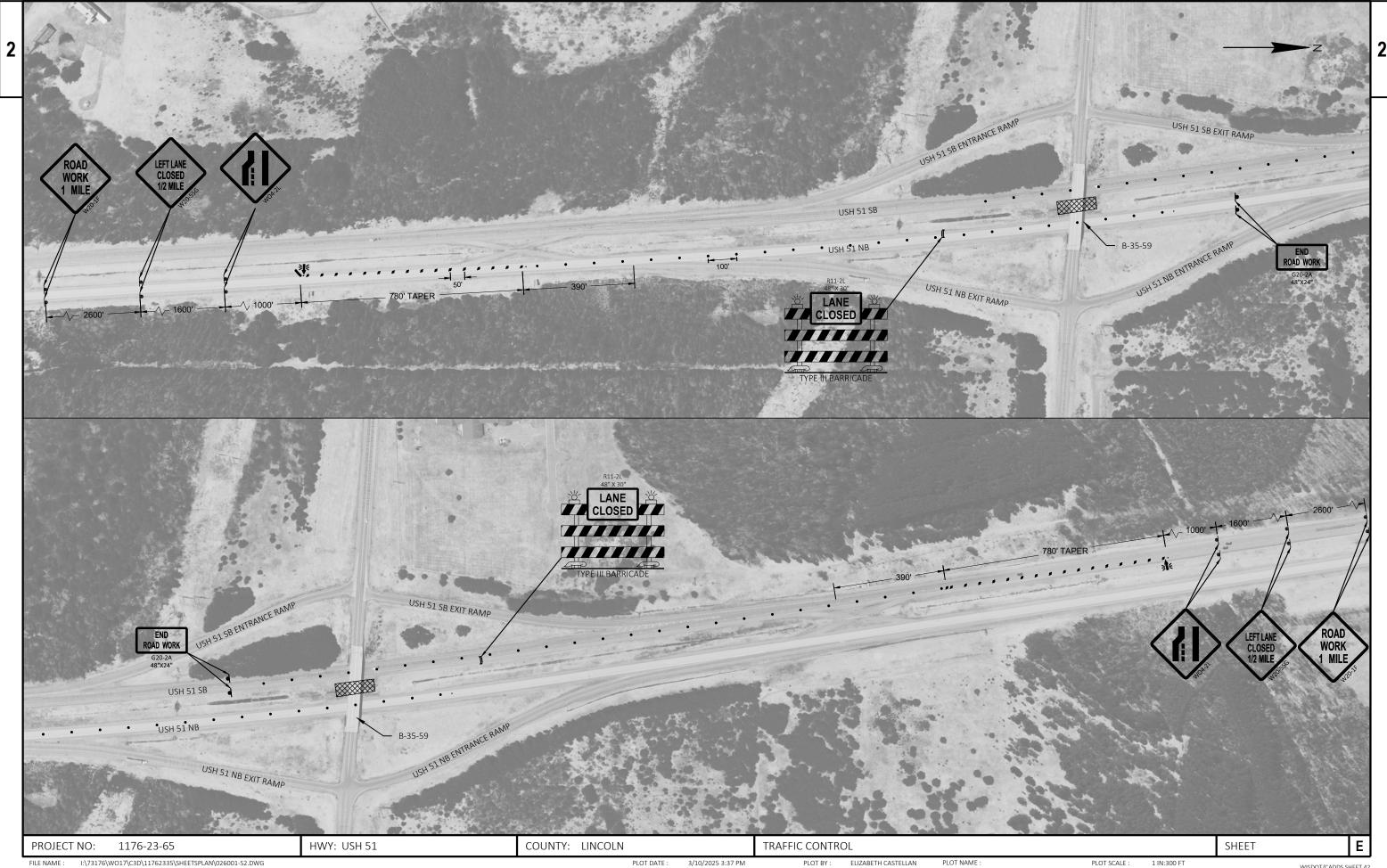


FILE NAME: I-\73176\WO17\C3D\\11762335\SHEETSPLAN\\026001-S1.DWG PLOT DATE: 4/30/2025 10:44 AM PLOT BY: DAN BAUMANN PLOT NAME: 1 IN:300 FT WISDOT/CADDS SHEET 42

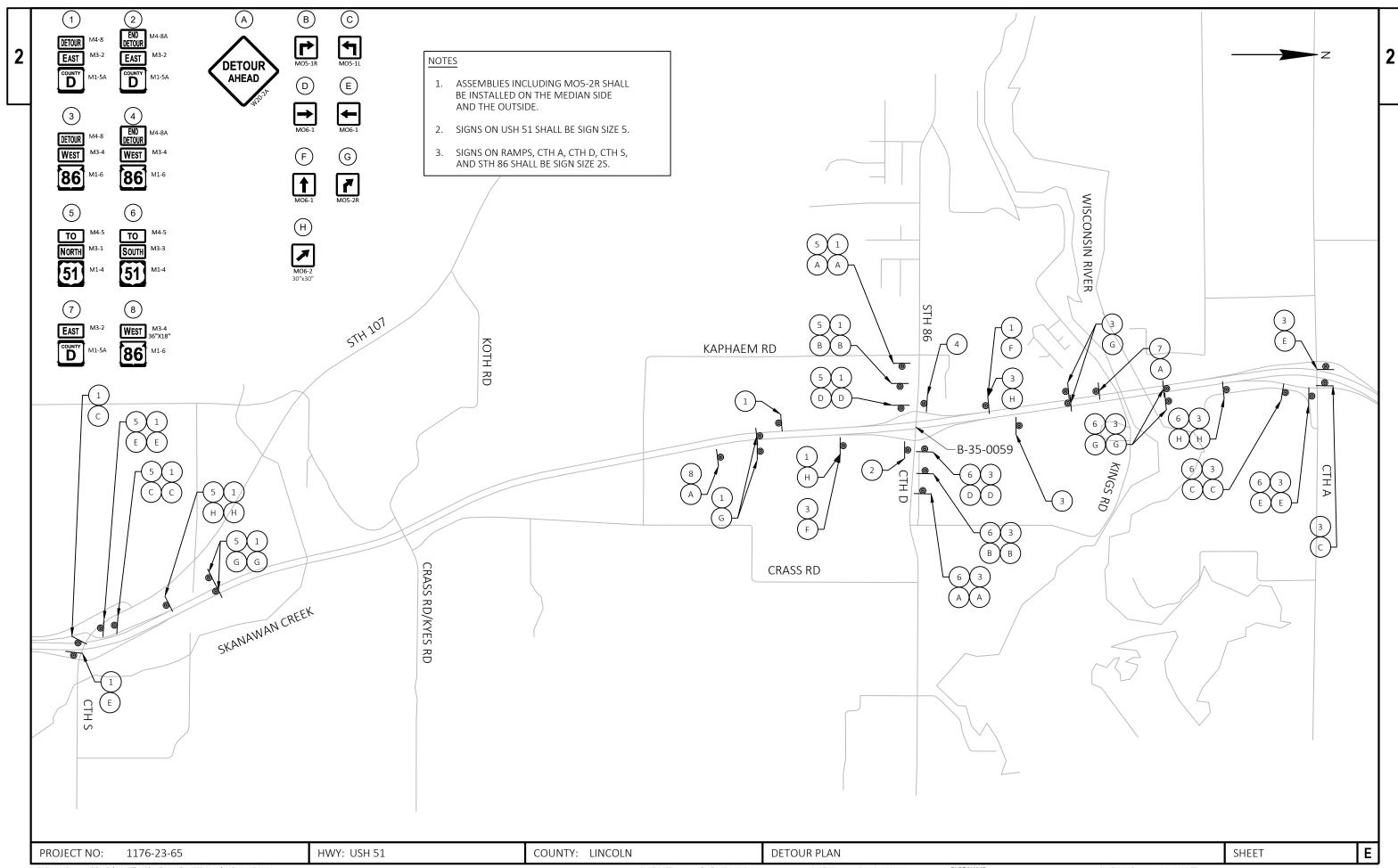
WISDOT/CADDS SHEET 42



FILE NAME: I:\73176\W017\C3D\11762335\SHEETSPLAN\026001-S1.DWG PLOT DATE: 4/30/2025 10:43 AM PLOT BY: DAN BAUMANN PLOT NAME: PLOT NAME: 1 IN:100 FT WISDOT/CADDS SHEET 42 LAYOUT NAME - 02



l:\73176\WO17\C3D\11762335\SHEETSPLAN\026001-52.DWG LAYOUT NAME - 01



FILE NAME: I:\73176\W017\C3D\11762335\SHEETSPLAN\027001-DT.DWG PLOT DATE: 4/21/2025 9:28 PM PLOT BY: DAN BAUMANN PLOT NAME: PLOT SCALE: 1 IN:200 FT WISDOT/CADDS SHEET 42 LAYOUT NAME - 03

1	1	76	3-2	2-	65

					1176-23-65	
Line	Item	Item Description	Unit	Total	Qty	
0002	204.0165	Removing Guardrail	LF	488.000	488.000	
0004	204.0190	Removing Surface Drains	EACH	2.000	2.000	
0006	205.0100	Excavation Common	CY	108.000	108.000	
8000	208.0100	Borrow	CY	126.000	126.000	
0010	211.0500	Prepare Foundation for Base Aggregate	STA	6.200	6.200	
0012	213.0100	Finishing Roadway (project) 01. 1176-23-65	EACH	1.000	1.000	
0014	305.0110	Base Aggregate Dense 3/4-Inch	TON	31.000	31.000	
0016	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	246.000	246.000	
0018	455.0605	Tack Coat	GAL	2.000	2.000	
0020	465.0105	Asphaltic Surface	TON	6.000	6.000	
0022	502.3200	Protective Surface Treatment	SY	1,166.000	1,166.000	
0024	502.3205	Pigmented Surface Sealer Reseal	SY	236.000	236.000	
0026	509.0301	Preparation Decks Type 1	SY	120.000	120.000	
0028	509.0302	Preparation Decks Type 2	SY	50.000	50.000	
0030	509.0500	Cleaning Decks	SY	1,166.000	1,166.000	
0032	509.0600	Cleaning Approaches	SY	177.000	177.000	
0034	509.1500	Concrete Surface Repair	SF	50.000	50.000	
0036	509.2000	Full-Depth Deck Repair	SY	5.000	5.000	
0038	509.2500	Concrete Masonry Overlay Decks	CY	74.000	74.000	
0040	509.2600	Concrete Masonry Overlay Approaches	CY	10.000	10.000	
0042	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	2.000	2.000	
0044	530.0112	Culvert Pipe Corrugated Polyethylene 12-Inch	LF	140.000	140.000	
0046	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	108.000	108.000	
0048	606.0200	Riprap Medium	CY	8.000	8.000	
0050	611.0654	Inlet Covers Type V	EACH	2.000	2.000	
0052	611.3220	Inlets 2x2-FT	EACH	2.000	2.000	
0054	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	204.000	204.000	
0056	614.2300	MGS Guardrail 3	LF	150.000	150.000	
0058	614.2500	MGS Thrie Beam Transition	LF	156.000	156.000	
0060	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000	
0062	618.0100	Maintenance and Repair of Haul Roads (project) 01. 1176-23-65	EACH	1.000	1.000	
0064	619.1000	Mobilization	EACH	1.000	1.000	
0066	624.0100	Water	MGAL	5.200	5.200	
0068	625.0100	Topsoil	SY	2,453.000	2,453.000	
0070	628.1504	Silt Fence	LF	1,410.000	1,410.000	
0072	628.1520	Silt Fence Maintenance	LF	1,410.000	1,410.000	
0074	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000	
0076	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000	
0078	628.2002	Erosion Mat Class I Type A	SY	2,453.000	2,453.000	
0080	628.7020	Inlet Protection Type D	EACH	2.000	2.000	
0082	628.7570	Rock Bags	EACH	20.000	20.000	
0084	629.0210	Fertilizer Type B	CWT	2.000	2.000	
0086	630.0130	Seeding Mixture No. 30	LB	44.000	44.000	
0088	630.0500	Seed Water	MGAL	55.000	55.000	
0090	633.5200	Markers Culvert End	EACH	2.000	2.000	
0090	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	7.000	7.000	
0092	637.2210	Signs Type II Reflective H	SF	88.500	88.500	
0094	638.2602	Removing Signs Type II	EACH	6.000	6.000	
			EACH			
0098	638.3000	Removing Small Sign Supports	EACH	6.000	6.000	

Estimate Of Quantities

Page 2

1	1/	6-2	23-6	55

Line	Item	Item Description	Unit	Total	Qty
0100	642.5001	Field Office Type B	EACH	1.000	1.000
0102	643.0300	Traffic Control Drums	DAY	630.000	630.000
0104	643.0420	Traffic Control Barricades Type III	DAY	434.000	434.000
0106	643.0705	Traffic Control Warning Lights Type A	DAY	868.000	868.000
0108	643.0715	Traffic Control Warning Lights Type C	DAY	224.000	224.000
0110	643.0800	Traffic Control Arrow Boards	DAY	14.000	14.000
0112	643.0900	Traffic Control Signs	DAY	7,776.000	7,776.000
0114	643.0920	Traffic Control Covering Signs Type II	EACH	18.000	18.000
0116	643.1000	Traffic Control Signs Fixed Message	SF	39.000	39.000
0118	643.5000	Traffic Control	EACH	1.000	1.000
0120	645.0120	Geotextile Type HR	SY	20.000	20.000
0122	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	1,208.000	1,208.000
0124	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	1,208.000	1,208.000
0126	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	108.000	108.000
0128	650.9911	Construction Staking Supplemental Control (project) 01. 1176-23-65	EACH	1.000	1.000
0130	690.0150	Sawing Asphalt	LF	116.000	116.000
0132	690.0250	Sawing Concrete	LF	80.000	80.000
0134	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 99+44	EACH	1.000	1.000
0136	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0138	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000

REMOVALS

				204.0165	204.0190	690.0150	690.0250
				REMOVING	REMOVING	SAWING	SAWING
				GUARDRAIL	SURFACE DRAINS	ASPHALT	CONCRETE
CATEGORY	ROADWAY	STATION - STATION		LF	EACH	LF	LF
0010	STH 86/CTH D	96+72 - 97+94	LT	122			
		96+80 - 98+01	RT	122			
		97+52 - 97+91	LT			58	
		97+60 - 97+99	RT			58	
		97+84	32' LT		1		
		97+91	RT/LT				40
		97+92	8' RT		1		
		100+82 - 102+03	LT	122			
		100+89 - 102+11	RT	122			
		100+92	RT/LT				40
_	TOTALS		•	488	2	116	80

BASE AGGREGATE DENSE

				211.0500	305.0110	305.0120
				PREPARE	BASE	BASE
				FOUNDATION	AGGREGATE	AGGREGATE
				FOR	DENSE	DENSE
				BASE AGGREGATE	3/4-INCH	1 1/4-INCH
CATEGORY	ROADWAY	STATION - STATION	1	STA	TON	TON
'						
0010	STH 86/CTH D	96+20 - 97+99	RT	1.8	8	59
		96+30 - 97+91	LT	1.6	6	66
		100+84 - 102+19	LT	1.4	7	47
		100+92 - 102+28	RT	1.4	7	52
	UNDISTRIBUTED				3	22
_	TOTALS			6.2	31	246

ASPHALT PAVEMENT

				455.0605 TACK COAT	465.0105 ASPHALTIC SURFACE
CATEGORY	ROADWAY	STATION	STATION OFF	SET GAL	TON
0010	STH 86/CTH D	97+37 <i>-</i> 97+45 <i>-</i>	97+91 L 97+99 R	•	3 3
=	TOTALS			2	6

2	
-5	
•	

				5.0100 N EXCAVATION (1)	SALVAGED/UNUSABLE	AVAILABLE		EXPANDED FILL (5)				
DIVISION	FROM/TO STATION	LOCATION	CUT (2)	EBS EXCAVATION	PAVEMENT MATERIAL (3)	MATERIAL (4)	UNEXPANDED FILL	FACTOR 1.00	MASS ORDINATE +/- (6)	WASTE	208.0100 BORROW	COMMENT
DIVISION 1												
NW	96+36.22/97+90.39	STH 86 NW	37	0	0	37	44	44	-7			
SW	96+71.14/97+98.51	STH 86 SW	23	0	0	23	82	82	-59			
NE	100+84.87/102+19.13	STH 86 NE	22	0	0	22	28	28	-6			
SE	100+92.60/102+28.36	STH 86 SE	26	0	0	26	80	80	-54			
DIVISION 1 SUBTOTAL			108	0	0	108	234	234	-126	0	126	
GRAND TOTAL			108	0	0	108	234	234	-126	0	126	
	TOTAL COM	MMON EXC		108								

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) SALVAGED/UNUSABLE PAVEMENT MATERIAL

(4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL

(5) EXPANDED FILL FACTOR = 1.00

DEPENDING ON SELECTIONS:

EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH - REDUCED EBS) * FILL FACTOR

OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED EBS) * FILL FACTOR
OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH) * FILL FACTOR

OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK) * FILL FACTOR

(6) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

(7) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

	SURFACE DRAINS										
			521.1012	530.0112	601.0588	611.0654	611.3220	645.0120	606.0200	633.5200	
				CULVERT PIPE	CONCRETE						
			APRON ENDWALLS	CORRUGATED	CURB & GUTTER	INLET				MARKERS	
			FOR CULVERT PIPE	POLYETHYLENE	4-INCH SLOPED 36-INCH	COVERS	INLETS	GEOTEXTILE	RIPRAP	CULVERT	
			STEEL 12-INCH	12-INCH	TYPE TBT	TYPE V	2x2-FT	TYPE HR	MEDIUM	END	
CATEGORY	ROADWAY	STATION OFFSET	EACH	LF	LF	EACH	EACH	SY	CY	EACH	
0010	STH 86/CTH D	97+48.68 94.4' LT	1	65	54	1	1	10	4	1	
		97+53.58 78.8' RT	1	75	54	1	1	10	4	1	
=	TOTALS		2	140	108	2	2	20	8	2	

WATER

		624.0100
		WATER
CATEGORY	LOCATION	MGAL
0010	BASE AGGREGATE	4.2
	EARTHWORK COMPACTION	0.5
	UNDISTRIBUTED	0.5
•	TOTALS	5.2

MGS GUARDRAIL

				614.0397	614.2300	614.2500	614.2610
				GUARDRAIL		MGS	MGS
				MOW STRIP	MGS	THRIE BEAM	GUARDRAIL TERMINAL
				EMULSIFIED ASPHALT	GUARDRAIL 3	TRANSITION	EAT
CATEGORY	ROADWAY	STATION - STATION	1	SY	LF	LF	EACH
0010	STH 86/CTH D	96+63 - 97+93	LT	51	37.5	39	1
		96+71 - 98+01	RT	51	37.5	39	1
		100+82 - 102+12	LT	51	37.5	39	1
		100+90 - 102+20	RT	51	37.5	39	1
_							
=	TOTALS			204	150	156	4

SILT FENCE ITEMS

						628.1520
					628.1504	SILT FENCE
					SILT FENCE	MAINTENANCE
LOCATION	STATION	-	STATION	-	LF	LF
						_
STH 86/CTH D	96+63	-	97+93	LT	365	365
	97+41	-	98+01	RT	385	385
	100+82	-	102+12	LT	267	267
	100+90	-	102+20	RT	263	263
UNDISTRIBUTED)				128	128
TOTALS					1,410	1,410
	STH 86/CTH D UNDISTRIBUTED	STH 86/CTH D 96+63 97+41 100+82 100+90 UNDISTRIBUTED	STH 86/CTH D 96+63 - 97+41 - 100+82 - 100+90 - UNDISTRIBUTED	STH 86/CTH D 96+63 - 97+93 97+41 - 98+01 100+82 - 102+12 100+90 - 102+20 UNDISTRIBUTED	STH 86/CTH D 96+63 - 97+93 LT 97+41 - 98+01 RT 100+82 - 102+12 LT 100+90 - 102+20 RT UNDISTRIBUTED	SILT FENCE LOCATION STATION - STATION LF

EROSION CONTROL MOBILIZATIONS

		628.1905	628.1910
			EMERGENCY
		MOBILIZATION	MOBILIZATION
CATEGORY	LOCATION	EACH	EACH
0010	<u>PROJECT</u>	3	2
_	TOTALS	3	2

EROSION CONTROL ITEMS

				628.2002 EROSION	628.7020 INLET	628.7570
				MAT	PROTECTION	ROCK
				CLASS I TYPE A	TYPE D	BAGS
CATEGORY	LOCATION	STATION - STATION	1	SY	EACH	EACH
0010	STH 86/CTH D	96+63 - 97+93	LT	525	1	
		96+41 - 98+01	RT	608	1	
		100+82 - 102+12	LT	373		
		100+90 - 102+20	RT	723		
	UNDISTRIBUTED			224		20
	TOTALS			2,453	2	20

RESTORATION ITEMS

					625.0100	629.0210	630.0130	630.0500
CATEGORY	LOCATION	STATION -	STATION	I	TOPSOIL SY	FERTILIZER TYPE B CWT	SEEDING MIX NO. 30 LB	SEED WATER MGAL
0010	STH 86/CTH D	96+63 -	97+93	LT	525	0.3	9	12
		967+41 -	98+01	RT	608	0.4	11	14
		100+82 -	102+12	LT	373	0.2	7	8
		100+90 -	102+20	RT	723	0.5	13	16
_	UNDISTRIBUTED				224	0.6	4	5
_	TOTALS				2,453	2.0	44	55

PERMANENT SIGNING ITEMS

3	
J	

								637.2210				634.0616
								SIGNS			SIGN MOUNTED	
							SIGN SIZE	TYPE II			ON SAME	POSTS WOOD
				MESSAGE	MESSAGE	MESSAGE		REFLECTIVE H			POST AS	4X6-INCH X 16-FT
CATEGORY	SIGN NUMBER	SIGN CODE	SIGN MESSAGE	LINE 1	LINE 2	LINE 3	INCH X INCH	SF	STATION	LOCATION	SIGN#	EACH
0010	001	R3-1	NO RIGHT TURN				36 X 36	9.0	96+99	LT		1
00.0	002	J4-1	DIRECTIONAL ASSEMBLY	NORTH	USH 51	[ADVANCE LEFT ARROW]	36 X 84	21.0	97+17	RT		1
	003	M1-94	(ARROW) / MINOCQUA				72 X 15	7.5	101+13	RT		2
	004	J4-1	DIRECTIONAL ASSEMBLY	SOUTH	USH 51	[ADVANCE LEFT ARROW]	36 X 84	21.0	101+42	LT		1
	005	R3-1	NO RIGHT TURN				36 X 36	9.0	101+64	RT		1
	006	J4-1	DIRECTIONAL ASSEMBLY	NORTH	USH 51	[LEFT ARROW]	36 X 84	21.0	101+92	RT		1
_												
Т	OTALS							88.5				7

SIGN REMOVAL ITEMS

CATEGORY	STATION	LOCATION	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SIGN MOUNTED ON SAME POST AS SIGN #	REMARKS
0010	96+99 97+17 101+13 101+42 101+64 101+92	38.5' LT 12.7' RT 10.8' RT 36.6' LT 15.2' RT 14.0' RT	1 1 1 1 1	1 1 1 1 1	 	NO RIGHT TURNS NORTH / USH 51 / (ARROW) MINOCQUA SOUTH / USH 51 / (ARROW) NO RIGHT TURNS NORTH / USH 51 / (ARROW)
_	TOTALS		6	6		

PAVEMENT MARKING

646.2040 646.6466 MARKING LINE GROOVED WET REFLECTIVE COLD WEATHER **EPOXY 6-INCH MARKING** (SOLID) **EPOXY** YELLOW WHITE 6-INCH ROADWAY STATION - STATION LF LF LF 604 604 1,208 STH 86/CTH D 97+90 - 100+92 RT/LT 1,208 1,208

CONSTRUCTION STAKING

650.5500 CONSTRUCTION STAKING **CURB GUTTER & CURB & GUTTER** CATEGORY ROADWAY LF 0010 STH 86/CTH D 108 TOTALS 108

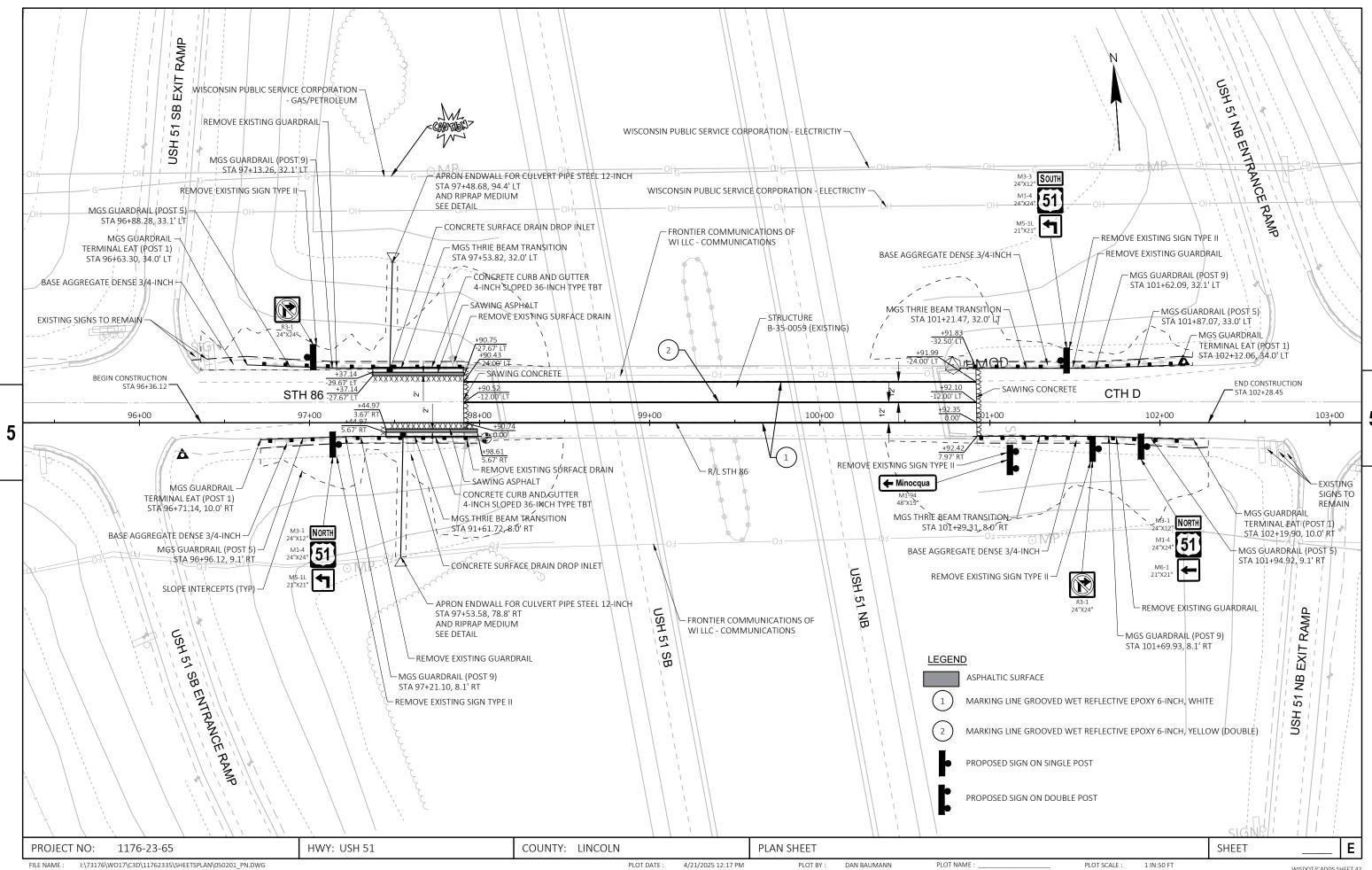
Ε PROJECT NO: 1176-23-65 HWY: USH 51 COUNTY: LINCOLN MISCELLANEOUS QUANTITIES SHEET:

TOTALS

CATEGORY

0010

^{**} FOR INFORMATION ONLY



WISDOT/CADDS SHEET 42

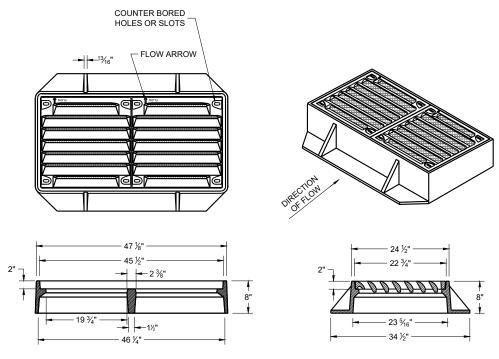
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Standard Detail Drawing List

00405 045	INJET COVERS TYPE V. V.R. 6 MV.R.
08A05-21D	INLET COVERS TYPE V, V-B, & VV-B
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D03-09A	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D03-09B	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
	GUARDRAIL MOW STRIP
14B28-04A	
14B28-04B	GUARDRAIL MOW STRIP
14B42-07A	MI DWEST GUARDRALL SYSTEM (MGS) GUARDRALL
14B42-07B	MI DWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07A	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-07D	ON RAMP LANE CLOSURE
15C02-07B	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C02-0411 15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C11-10B	
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
Error 2023	TRAFFIC CONTROL LATERCECTION WITHIN CINCIP LANE OLOCUPE
15D12-14B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D15-07B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D43-02	TRAFFIC CONTROL, SHORT DURATION MOBILE OPERATIONS
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

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

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

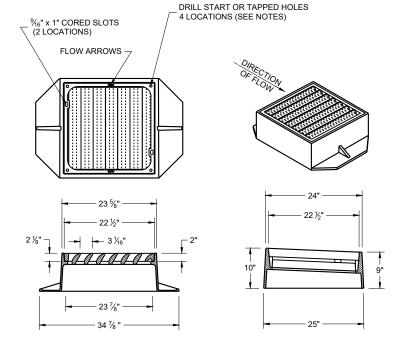


TYPE "VV-B"

ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER ALL DRILLING AND TAPPING GRATES AND FRAMES BY

CASTING MANUFACTURER

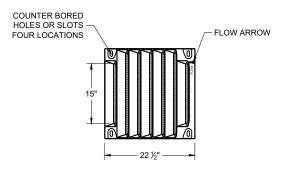
FRAME - CAST GRAY IRON ASTM A48 CLASS 35B %" DIA. $X\%_6$ " DRILL START IN 8 LOCATIONS GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



TYPE "V"

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER ALL DRILLING AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

TYPE V FRAME - CAST GRAY IRON ASTM A48 CLASS 40A ¾" DIA. X №" DRILL START IN 4 LOCATIONS GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



BOLT DOWN GRATE FOR TYPE "V" AND "VV-B" COVER

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER NOTED AS TYPE "V-B" OR "VV-B" (FOR DOUBLE GRATE) ON DRAINAGE TABLE

TAP $\c X_2$ " -13 HOLES IN FOUR LOCATIONS PER GRATE IN FRAME TO BOLT GRATE(S).

FRAME - CAST GRAY IRON ASTM A48 CLASS 40A

GRATE - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD BOLTS - ½" -13 STAINLESS STEEL BOLTS WITH WASHERS TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT OVERTIGHTEN.

INLET COVERS TYPES V, V-B, AND VV-B

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

December 2023 /S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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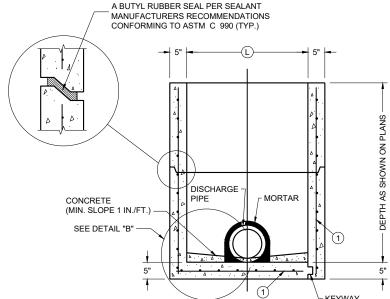
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08C07-03

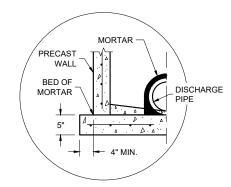


PRECAST REINFORCED

CONCRETE WITH CONCRETE WITH MONOLITHIC BASE INTEGRAL BASE

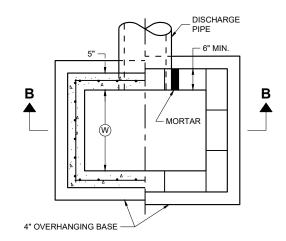
PRECAST REINFORCED

SECTION A - A

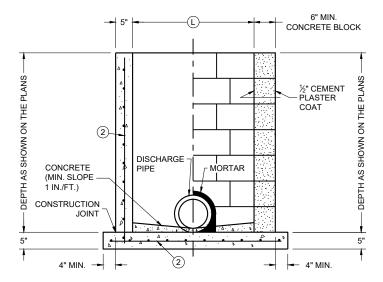


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "B"

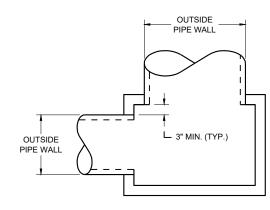


PLAN VIEW



CAST IN PLACE REINFORCED CONCRETE CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE 1

SECTION B - B



DETAIL "A"

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2X3.5-FT

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

- (1) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 043
- (2) CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

CATCH BASIN COVER MATRIX

Γ	INLET	WIDTH	LENGTH	INLET COVER TYPE										
	SIZE	W (FT.)	(FT.)	ALL A'S	ALL B'S	BW	F	ALL H'S	s	Т	٧	WM	V V-B	
Γ	2 X 2-FT	2	2	х	Х				х					
Γ	2 X 2.5-FT	2	2.5			х			х	х	Х	х		
Г	2 X 3-FT	2	3					Х						
Г	2.5 X 3-FT	2.5	3				Х							
Г	2 X 3.5-FT	2	3.5										Х	

PIPE MATRIX

	=	
CATCH BASIN		E PIPE DIAMETER O PIPES
SIZE	WIDTH (IN)	LENGTH (IN)
2 X 2-FT	12	12
2 X 2.5-FT	12	18
2 X 3-FT	12	24
2.5 X 3-FT	18	24
2 X 3.5-FT	12	30

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2 X 3.5-FT

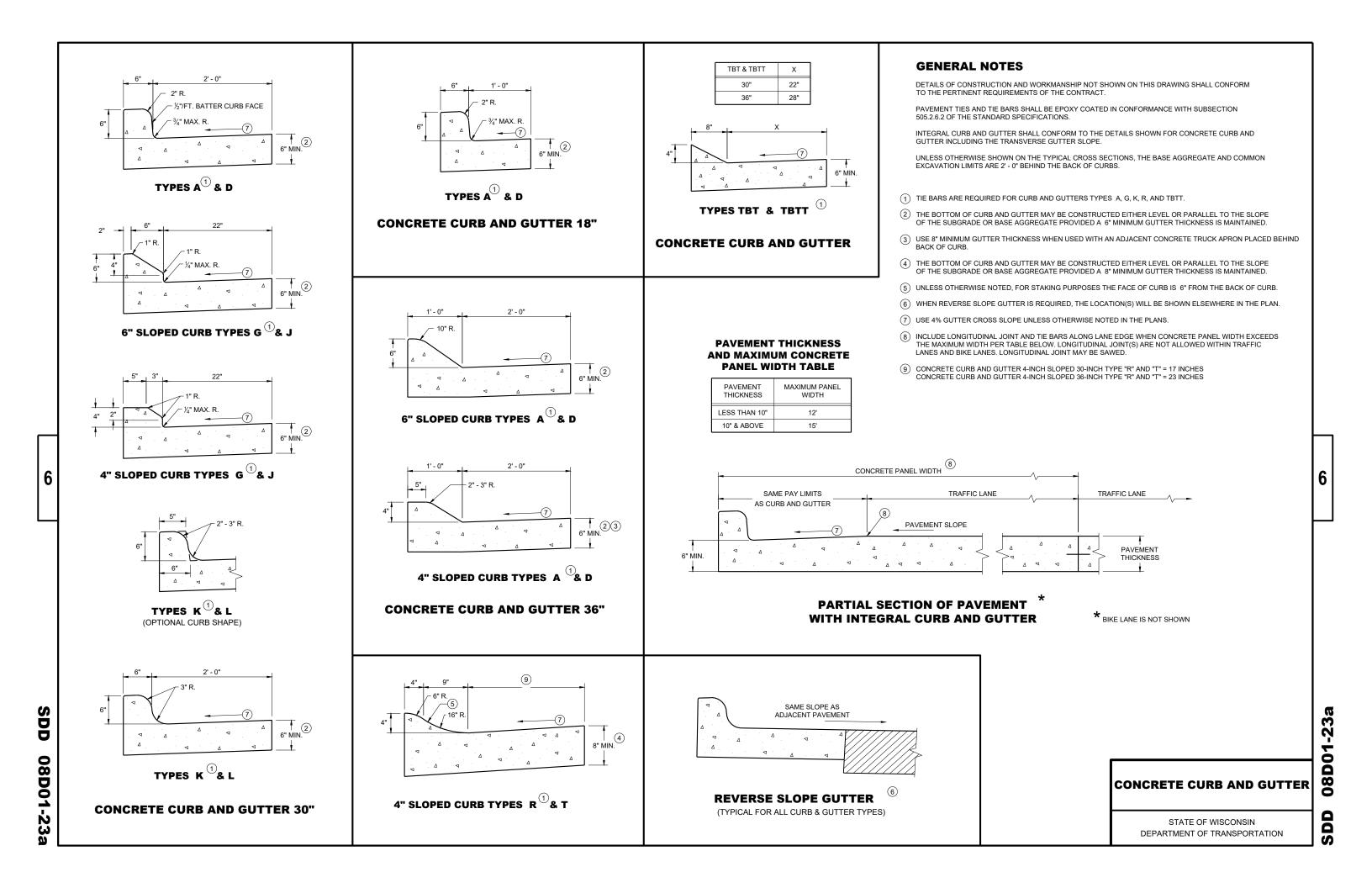
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

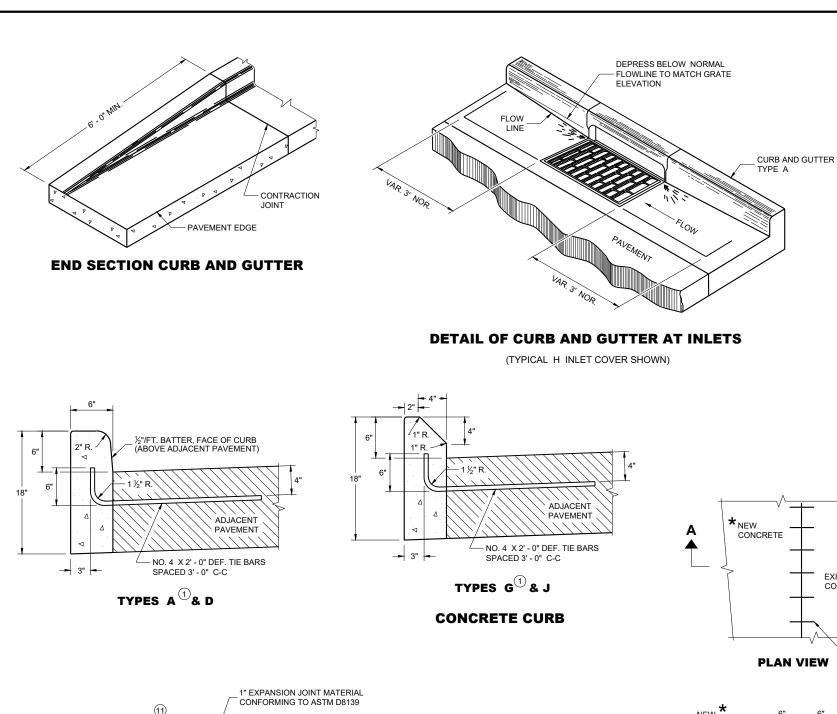
APPROVED

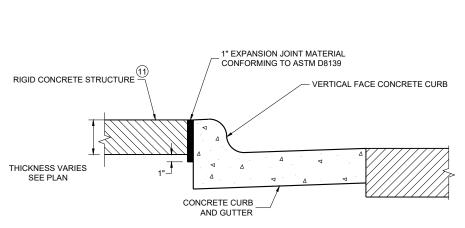
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT

UNIT SUPERVISOR

3DD 08C07-0



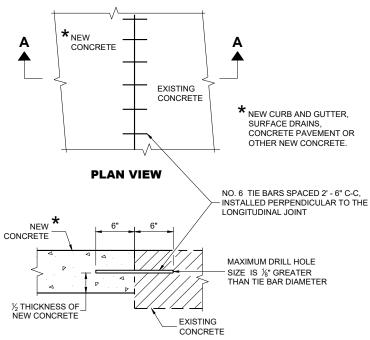




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08D01-23b

EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE 119



SECTION A - A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

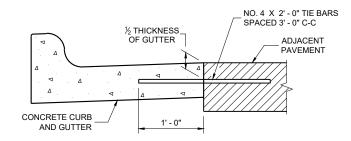
GENERAL NOTES

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

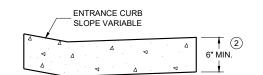
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

- 1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- (2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- 10 REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.
- (1) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.



TYPICAL TIE BAR LOCATION



DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)

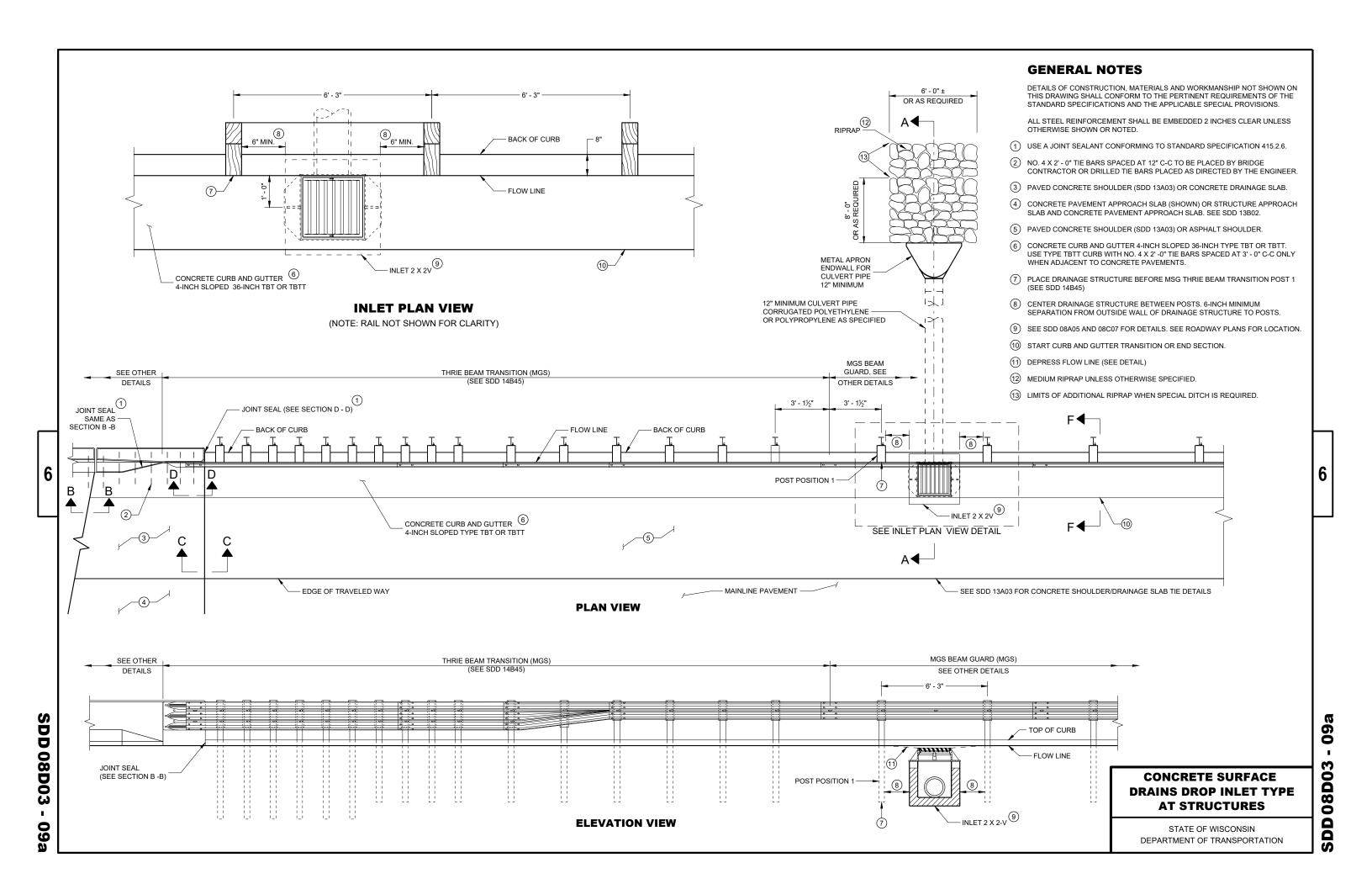
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

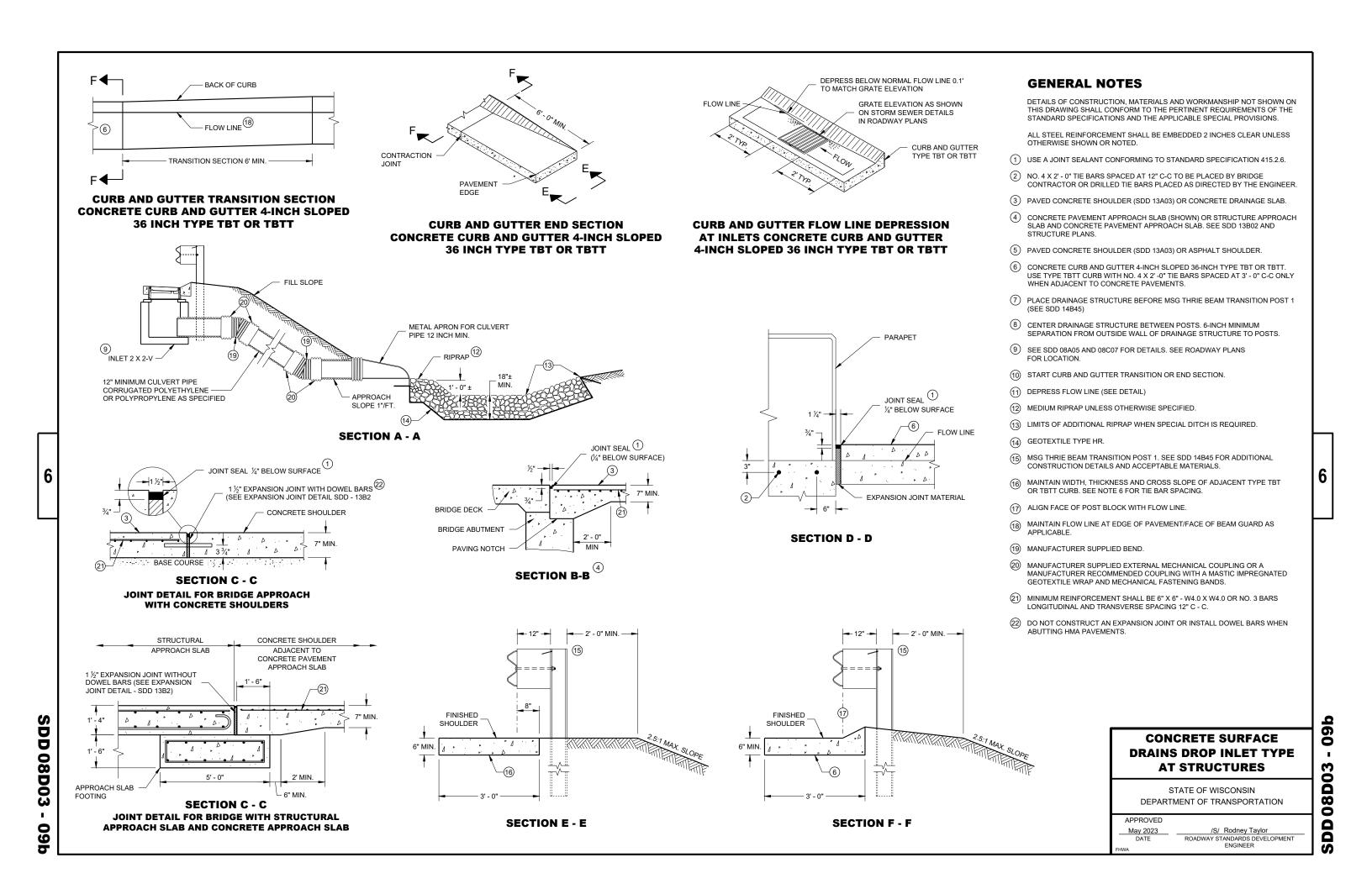
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

SDD 08D01-23





TYPICAL APPLICATION OF SILT FENCE

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PLAN VIEW SILT FENCE AT MEDIAN SURFACE DRAINS



GENERAL NOTES

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

- \bigcirc 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 11/8" X 11/8" OF OAK OR HICKORY.
- 4) SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- (5) CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK

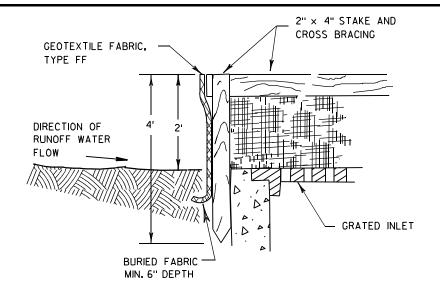
(WHEN REQUIRED BY THE ENGINEER)

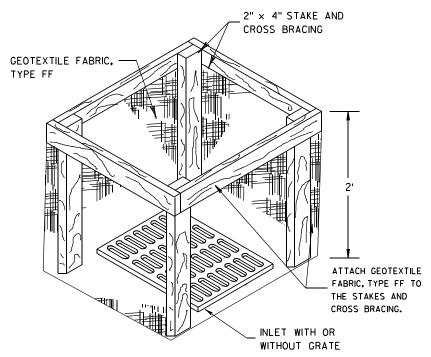


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INLET PROTECTION, TYPE A

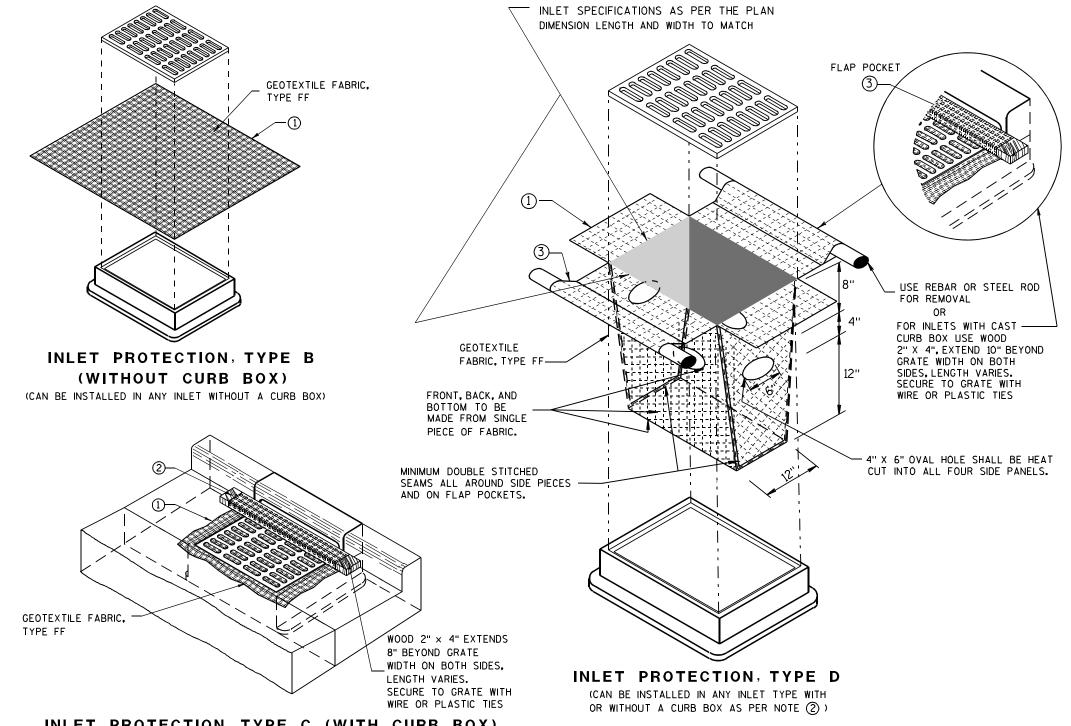
GENERAL NOTES

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

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

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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION TYPE A, B, C, AND D

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER

10/16/02

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END CORNER

1/16" DIA. HOLES FOR

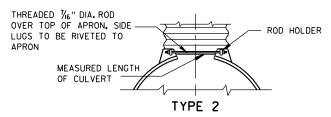
BOLTS OR RIVETS -

12" C-C MAX. SPACING

	METAL APRON ENDWALLS										
PIPE	MIN. T	HICK.				APPROX.					
DIA. (IN.)	(Inch		A (±]")	B (MAX.)	H (±]")	L (±1 ½")	<u>1</u> 0	L 2	₩ (±2")	SLOPE	BODY
12	.064	.060	6	6	6	21	12	171/2	24	2½+o 1	1Pc.
15	.064	.060	7	8	6	26	14	213/4	30	21/2+o 1	1 Pc.
18	.064	.060	8	10	6	31	15	281/4	36	$2\frac{1}{2}$ to 1	1Pc.
21	.064	.060	9	12	6	36	18	29%	42	$2\frac{1}{2}$ to 1	1Pc.
24	.064	.075	10	13	6	41	18	371/4	48	21/2+0 1	1Pc.
30	.079	.075	12	16	8	51	18	521/4	60	2½+o 1	1Pc.
36	.079	. 105	14	19	9	60	24	59¾	72	2½+o 1	2 Pc.
42	.109	. 105	16	22	11	69	24	75%	84	21/2+o 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 ¹ / ₄ †o 1	3 Pc.
54	.109	.105	18	30	12	84	30	851/2	102	2 ¹ / ₄ †o 1	3 Pc.
60	.109×	.105×	18	33	12	87	_	_	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	_	_	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	_	_	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	_	_	132	11/2+0 1	3 Pc.
84	.109×	.105×	18	45	12	87	_	_	138	1½+o 1	3 Pc.
90	.109×	.105×	18	37	12	87	_	_	144	11/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	ı	ı	150	1½+0 1	3 Pc.

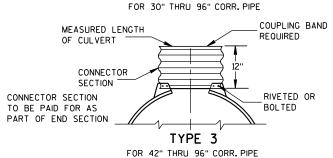
	REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX.	
	T	A	В	С	D	E	G	SLOPE	
12	2	4	24	48 1/8	721/8	24	2	3 to 1	
15	21/4	6	27	46	73	30	21/4	3 to 1	
18	$2\frac{1}{2}$	9	27	46	73	36	21/2	3 to 1	
21	23/4	9	36	371/2	731/2	42	23/4	3 to 1	
24	3	91/2	431/2	30	731/2	48	3	3 to 1	
27	31/4	101/2	$49^{1}/_{2}$	24	731/2	54	31/4	3 to 1	
30	$3\frac{1}{2}$	12	54	193⁄4	731/2	60	31/2	3 to 1	
36	4	15	63	34¾	97¾	72	4	3 to 1	
42	$4\frac{1}{2}$	21	63	35	98	78	41/2	3 to 1	
48	5	24	72	26	98	84	5	3 to 1	
54	51/2		65	**************************************	98 ¹ /4- 100	90	51/2	2% to 1	
60	6	* ** 30-35	60	39	99	96	5	2 to 1	
66	61/2		* ** 72-78	* * * 21-27	99	102	51/2	2 to 1	
72	7	* ** 24-36	78	21	99	108	6	2 to 1	
78	71/2	* ** 24-36	78	21	99	114	61/2	2 to 1	
84	8	36	901/2	21	1111/2	120	61/2	11/2+0 1	
90	81/2	41	871/2	24	1111/2	132	61/2	11/2+0 1	

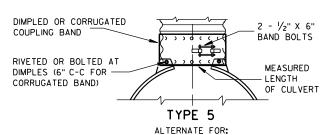
END SECTION CONNECTOR STRAP THREADED 76" DIA. ROD AROUND CULVERT & THROUGH CONNECTOR TANK TYPE CONNECTOR LUG LUG OR ALTERNATE CONNECTOR STRAP (SEE DETAIL) MEASURED LENGTH OF CULVERT



TYPE 1

FOR 12" THRU 24" CORR. PIPE





ALL SIZES CORRUGATED CIRCULAR PIPE

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

> FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5

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

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

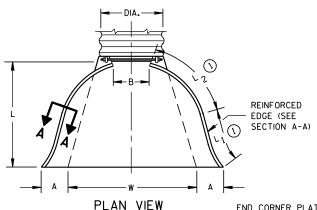
CONNECTION DETAILS

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

*MINIMUM **MAXIMUM

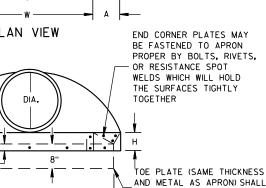
OPTIONAL

DESIGN



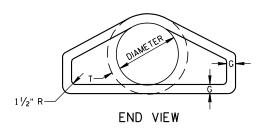
* EXCEPT CENTER PANEL

SEE GENERAL NOTES

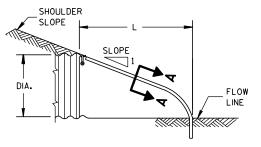


BE FURNISHED WHEN CALLED

FOR ON THE PLANS

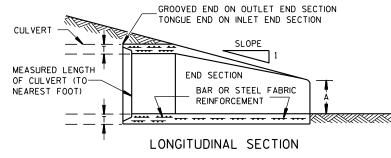


PLAN

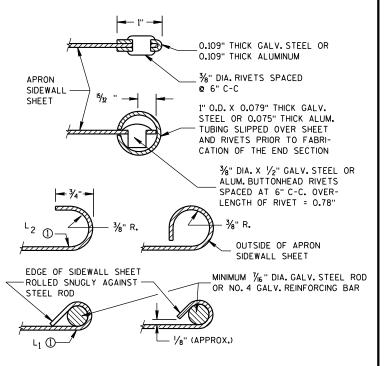


END VIEW





CONCRETE ENDWALLS



SECTION A-A

GENERAL NOTES

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

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

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

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

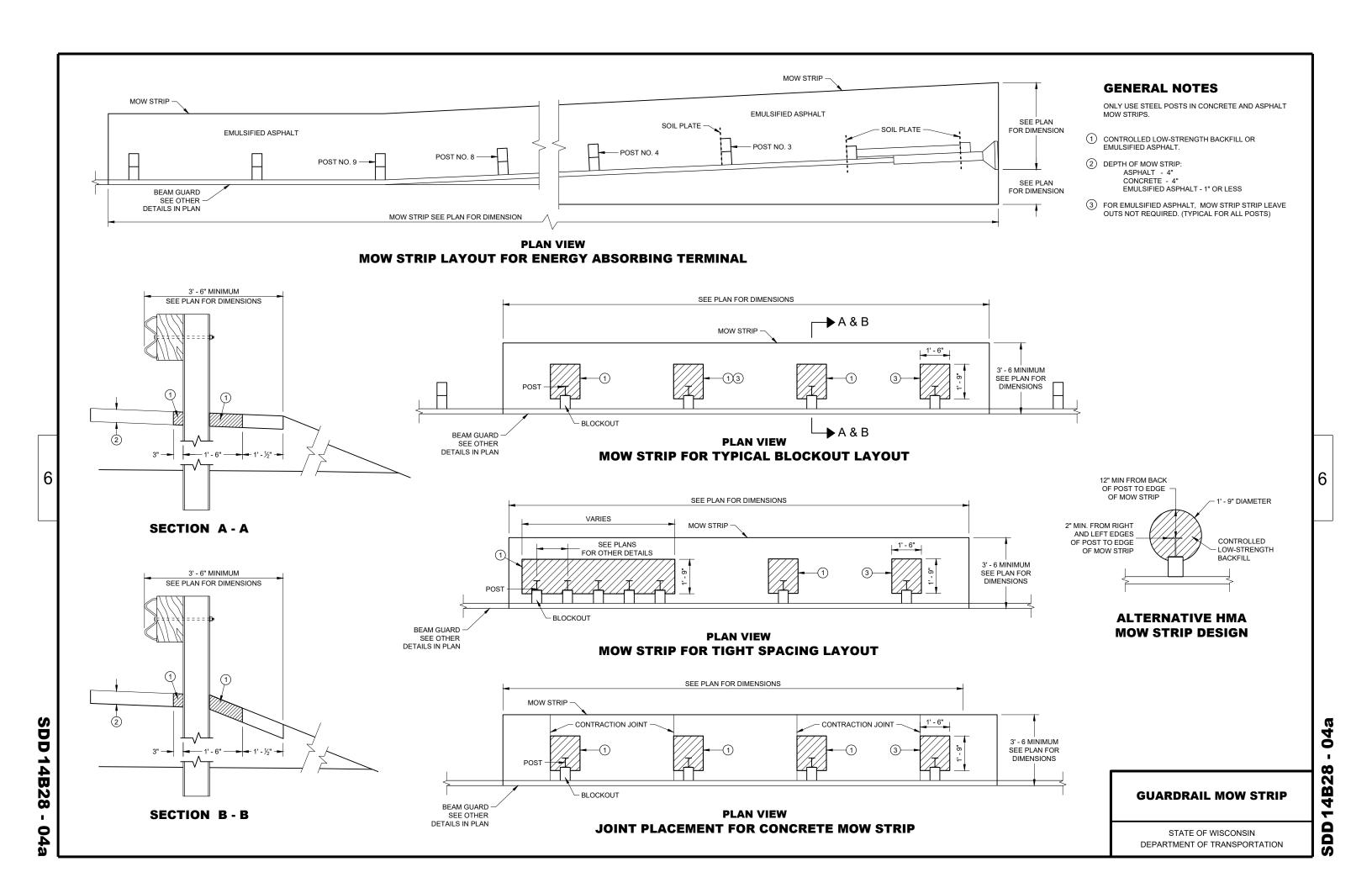
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

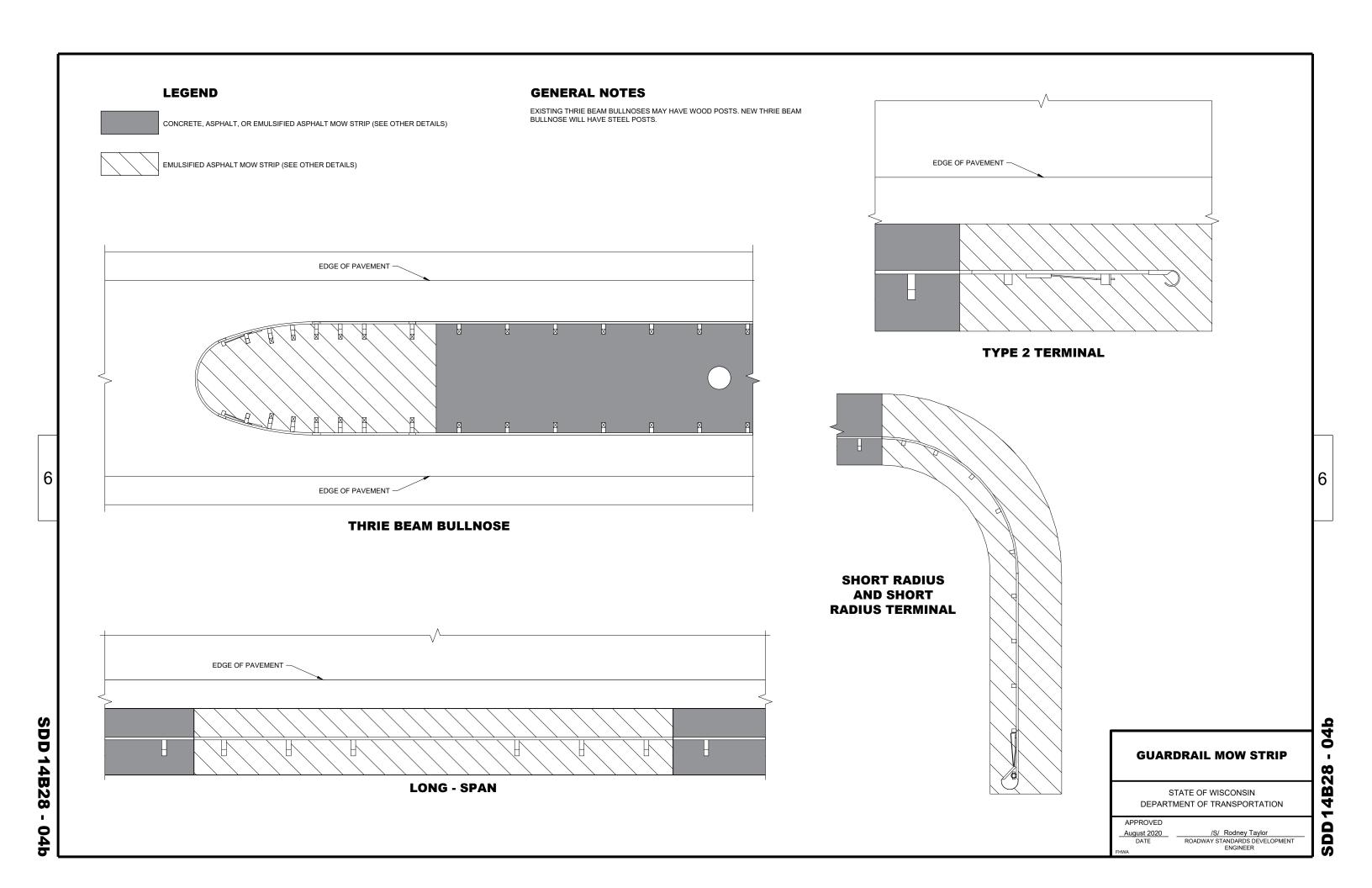
(1) FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.



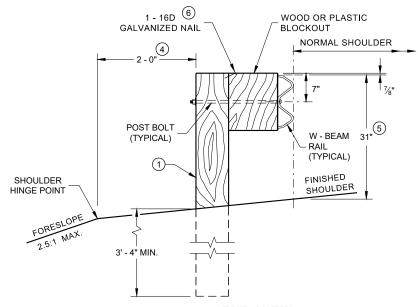
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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

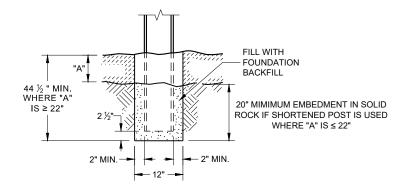




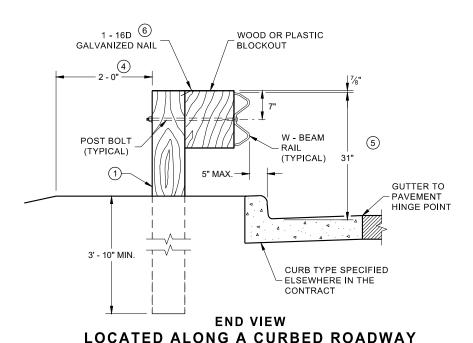
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- (3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- 4 WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- $\fill \ensuremath{\texttt{5}}$ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS \$\pm 1"\$. FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 \%" TO 32".
- (6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- \bigcirc TOTAL POST LENGTH FOR TYPE K IS 7' 0". TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' 0".

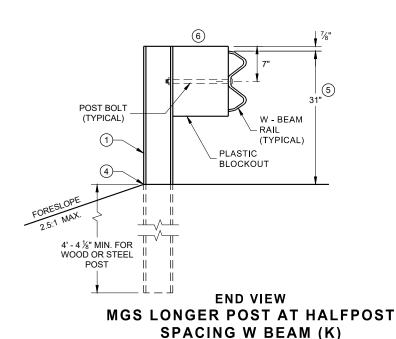


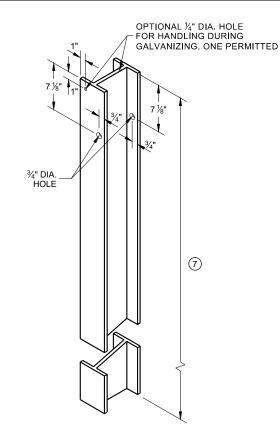
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



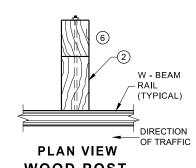
SETTING STEEL OR WOOD POST IN ROCK



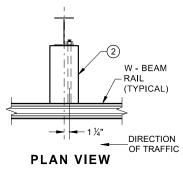




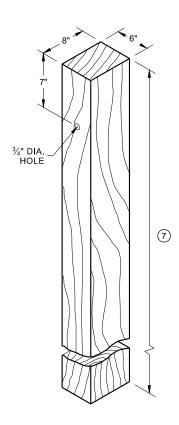
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



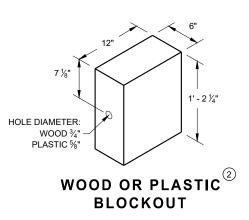
PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM



WOOD POST (6" X 8") NOMINAL



MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42

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

3' 1½" C -C 3' 1½" C - C POST SPACING POST SPACING

6' 3" C - C

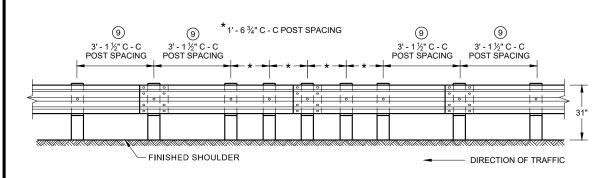
POST SPACING

DIRECTION OF TRAFFIC

6' - 3" C -C

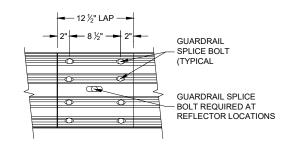
POST SPACING

FINISHED SHOULDER



FRONT VIEW

QUARTER POST SPACING (QS)



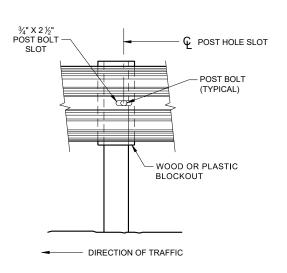
FRONT VIEW
MID-SPAN BEAM SPLICE

GENERAL NOTES

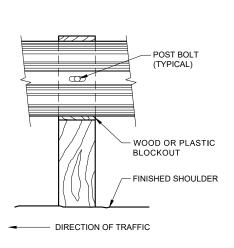
- 8 DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- (9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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

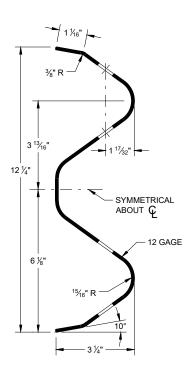
GUARD RAIL SPLICE BOLTS ARE A %" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES %" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



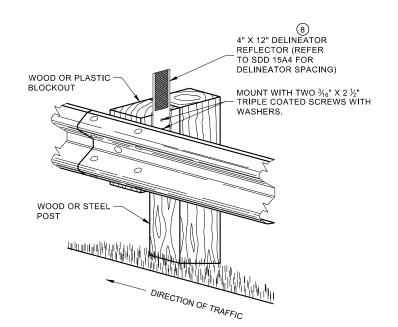
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL

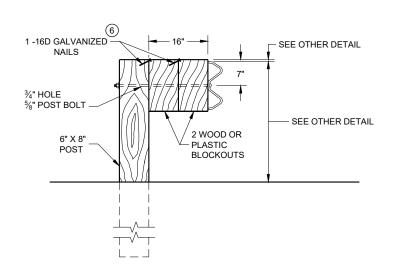


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

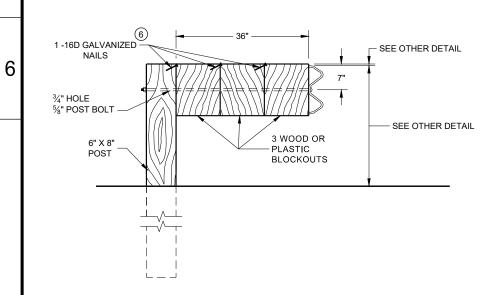
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 07b



DETAIL FOR 16" BLOCKOUT DEPTH

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



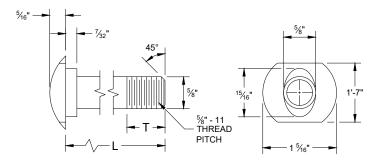
DETAIL FOR 36" BLOCKOUT DEPTH

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

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

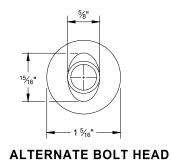
NOTE:

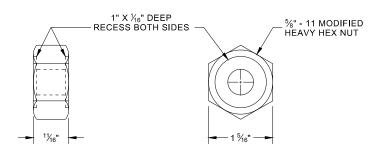
- 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF $\frac{3}{16}$ ".
- 2. IF THE BOLT EXTENDS MORE THAN $\mbox{\ensuremath{\mbox{\sc M}}}\mbox{\sc "}\mbox{\sc FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.}$



POST BOLT TABLE

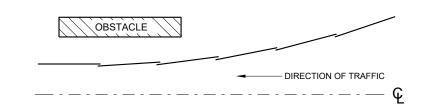
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



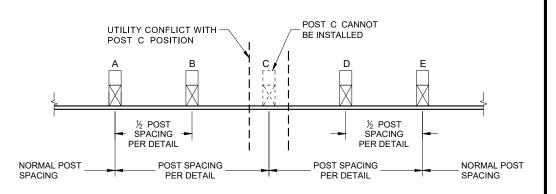


POST BOLT, SPLICE BOLT **AND RECESS NUT**

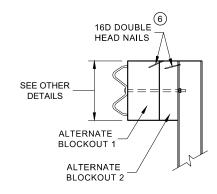
WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D (6) GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

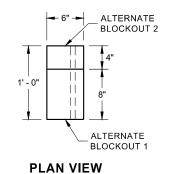


PLAN VIEW BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION





SIDE VIEW

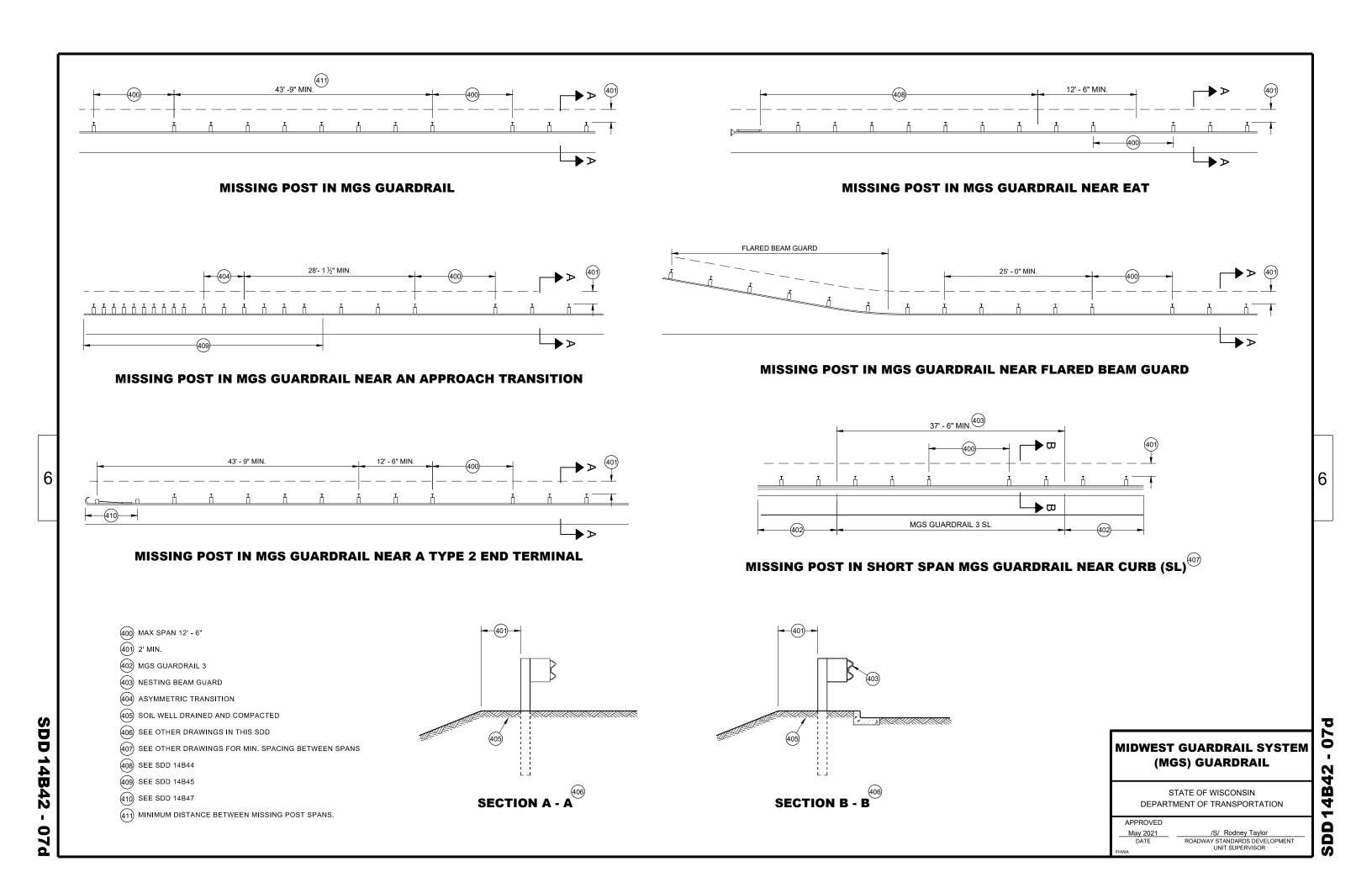
ALTERNATE WOOD BLOCKOUT DETAIL

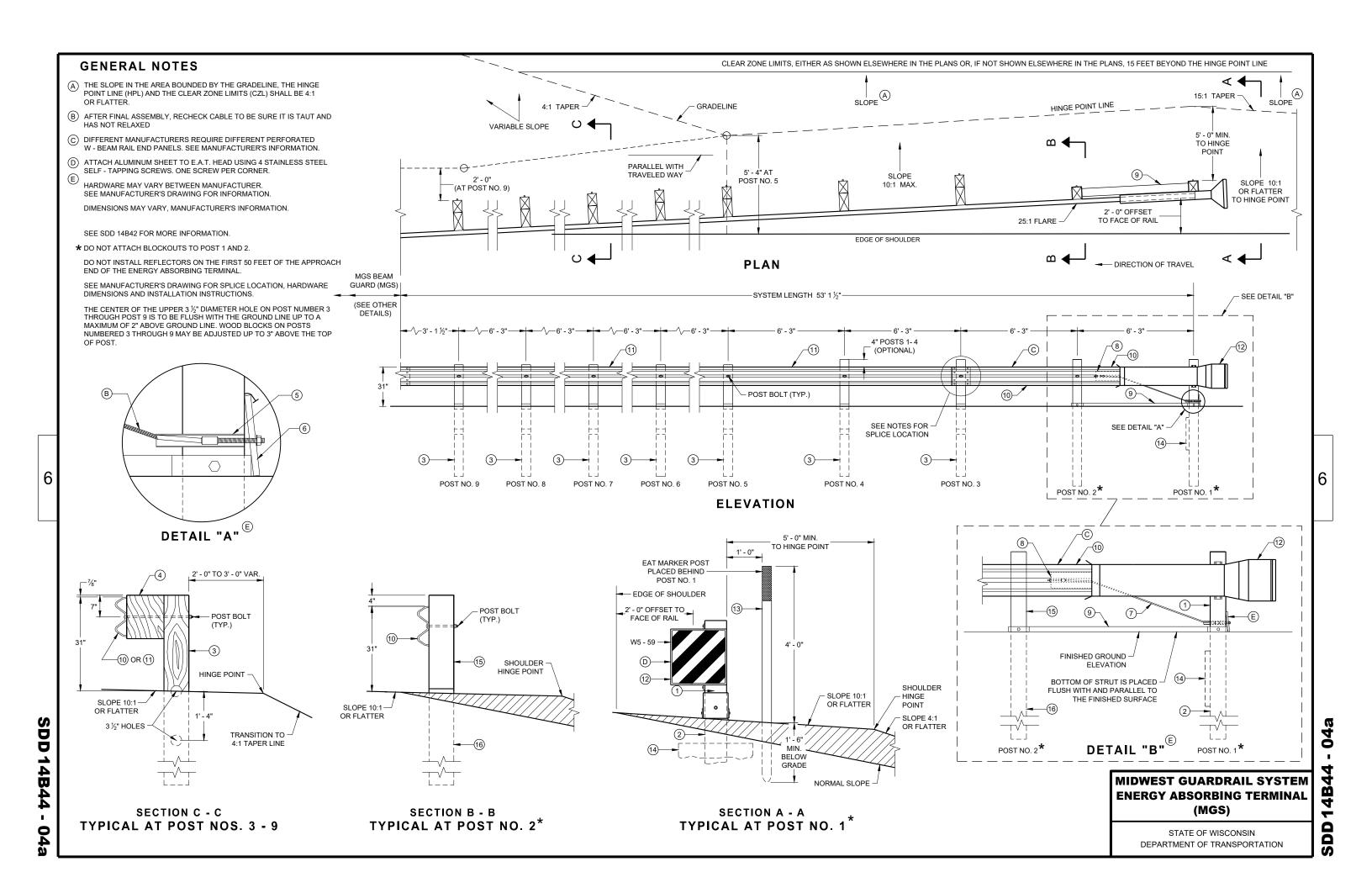
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

07

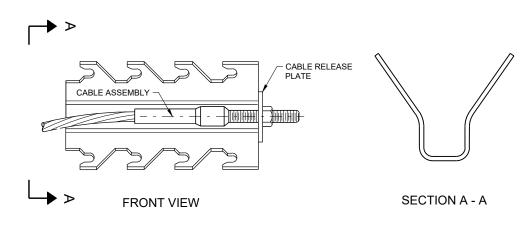
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

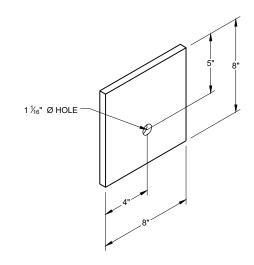




GENERIC GROUND STRUT



GENERIC ANCHOR CABLE BOX ^{(9) (E)}



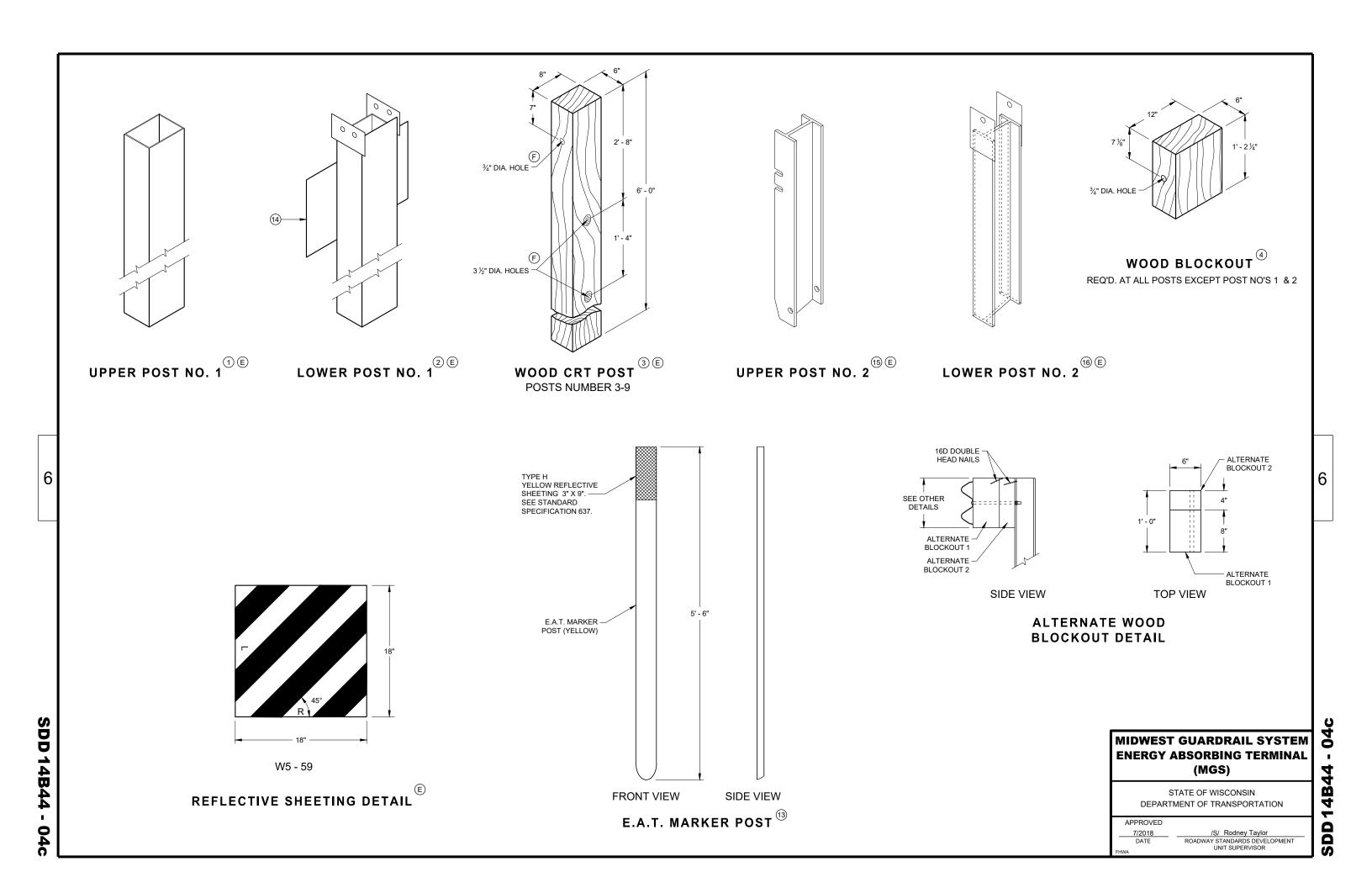
BEARING PLATE

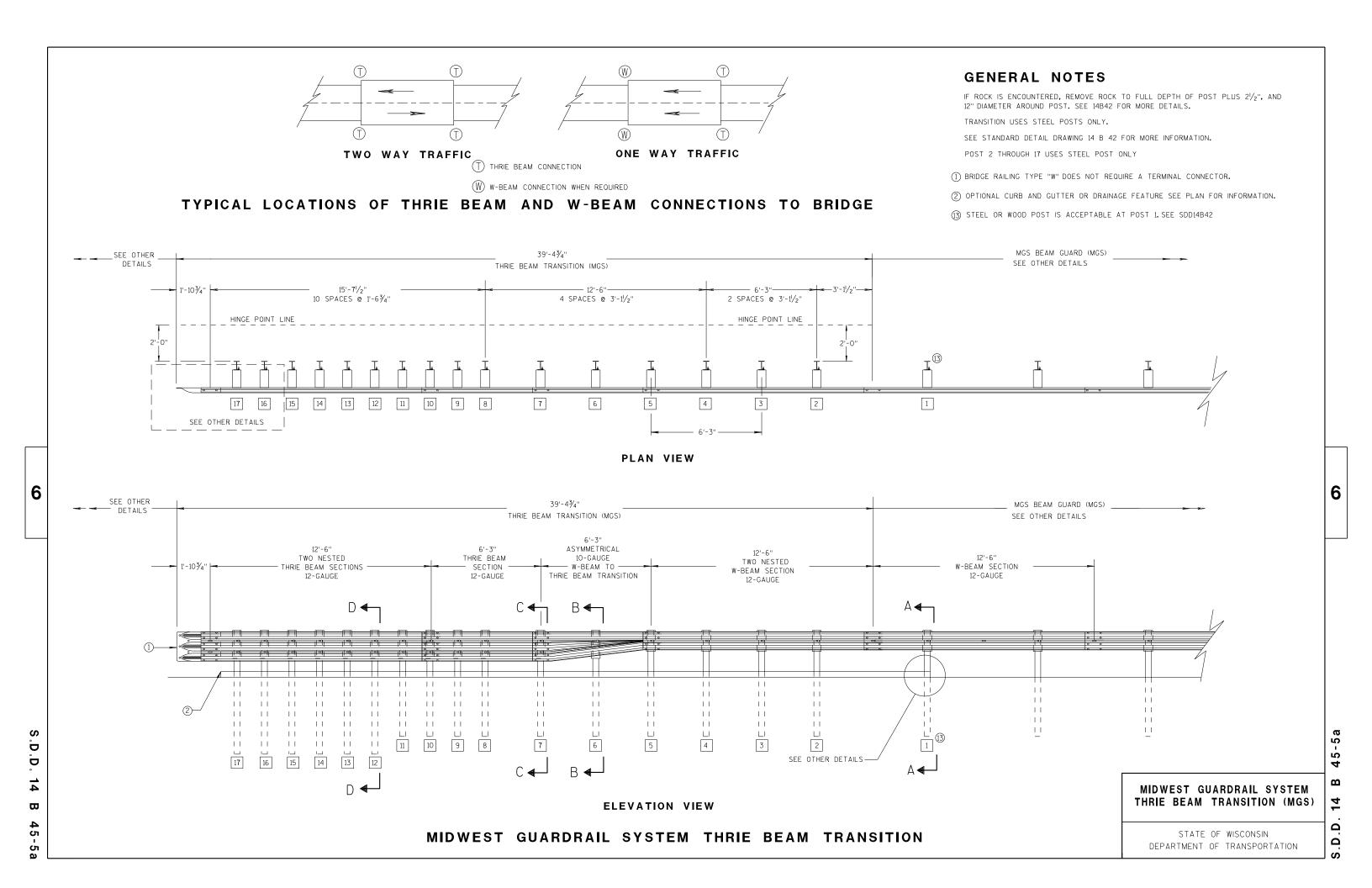
MIDWEST GUARDRAIL SYSTEM **ENERGY ABSORBING TERMINAL** (MGS)

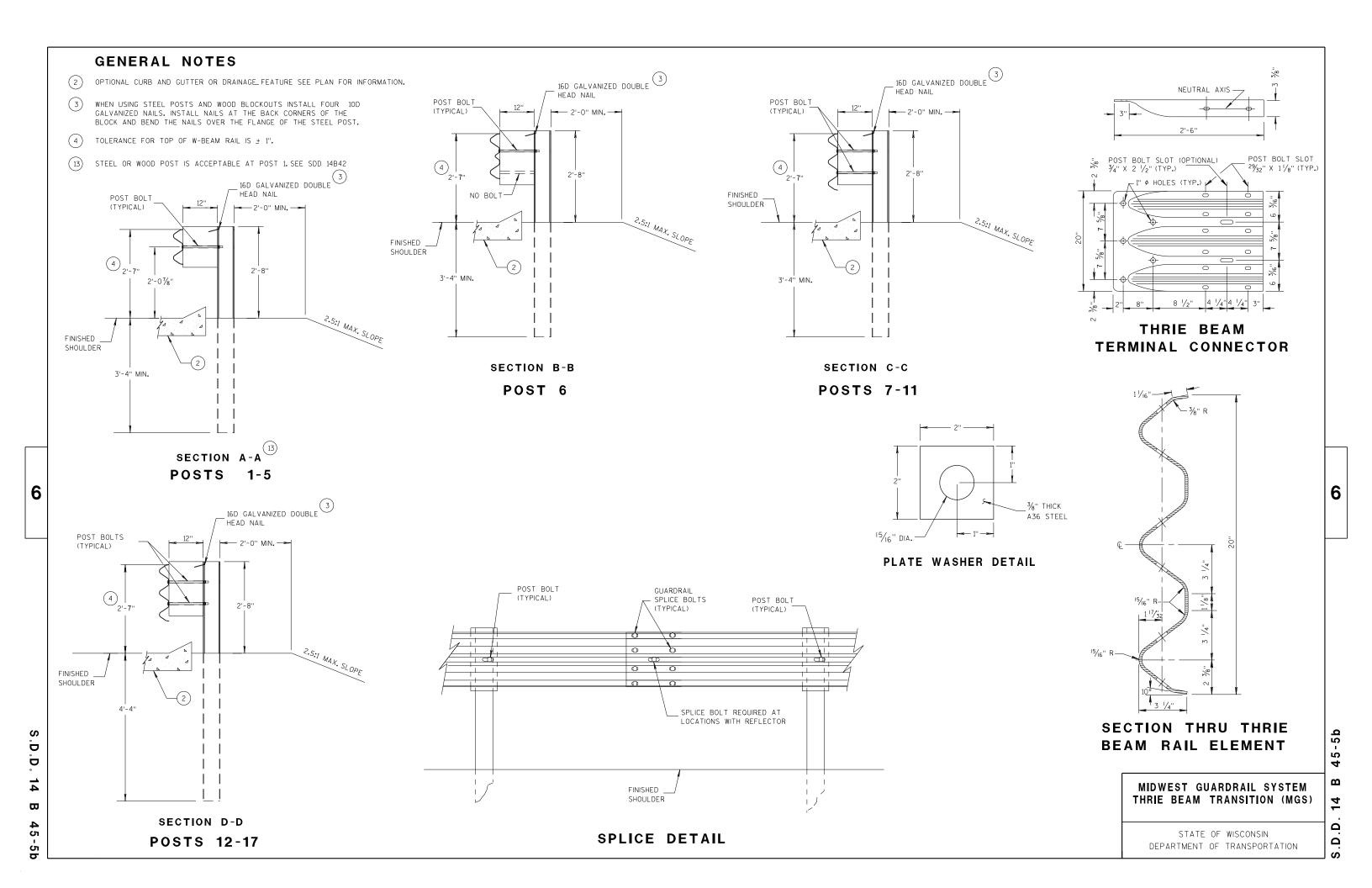
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

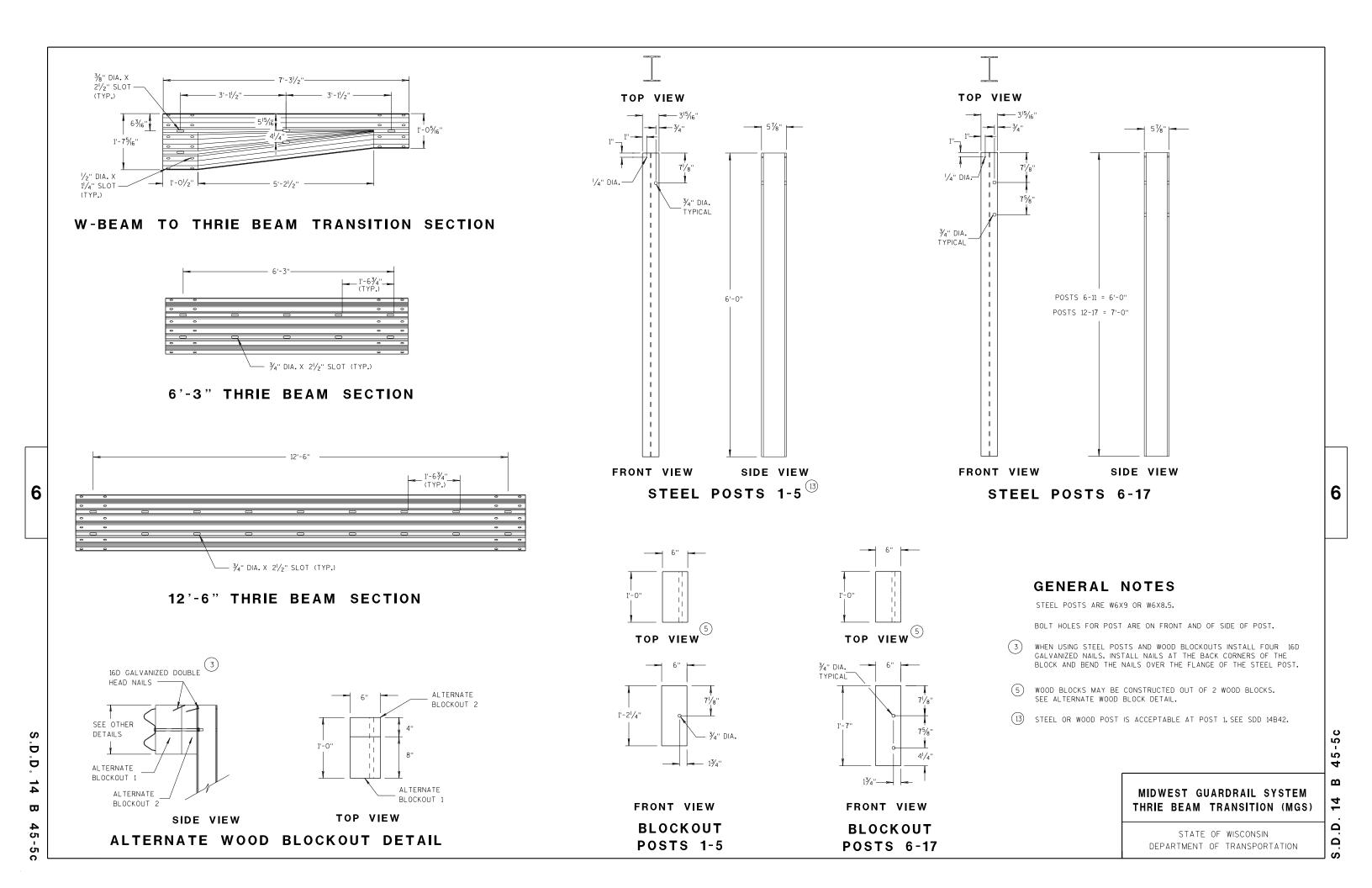
SDD 14B44

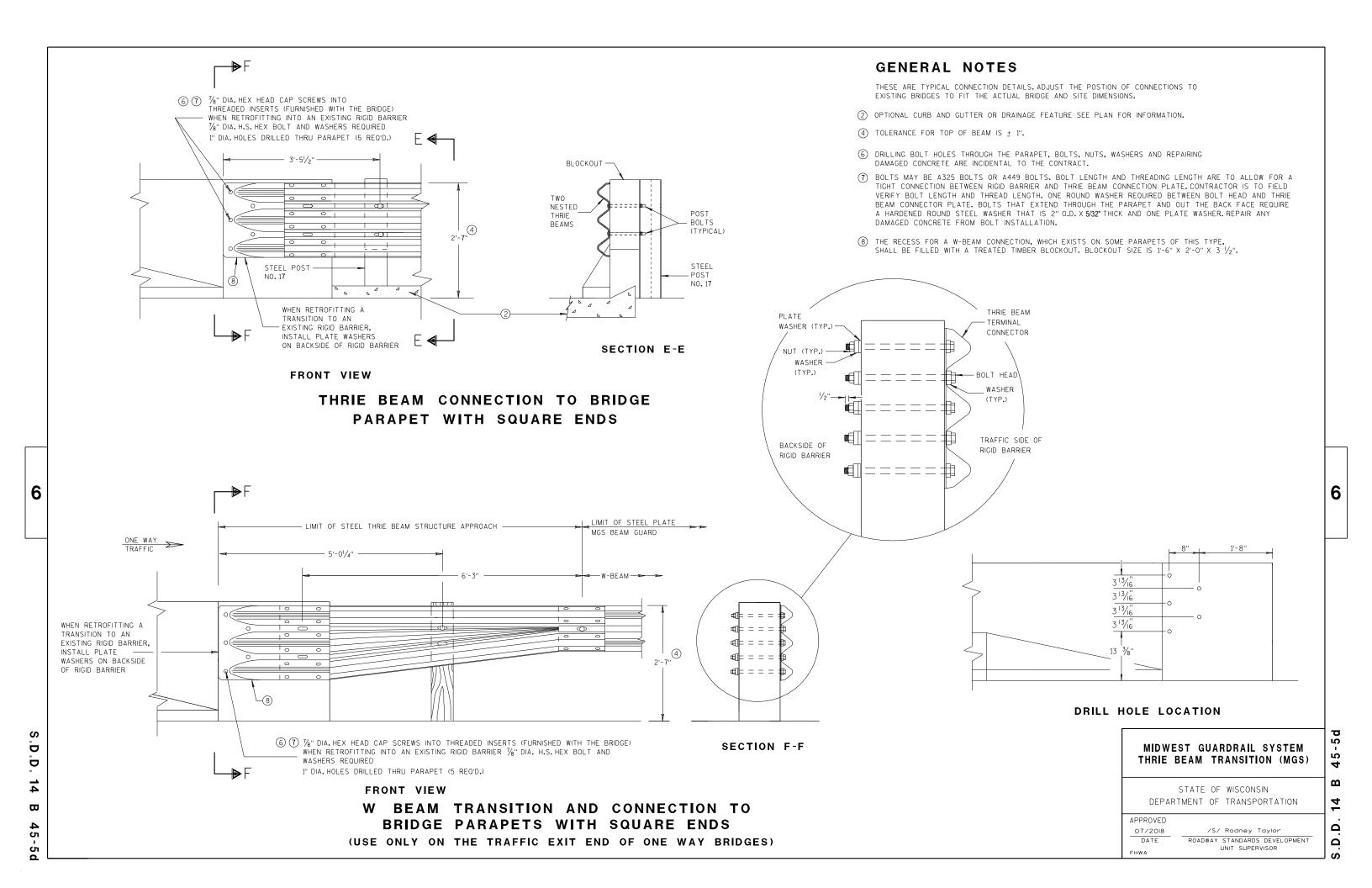
SDD



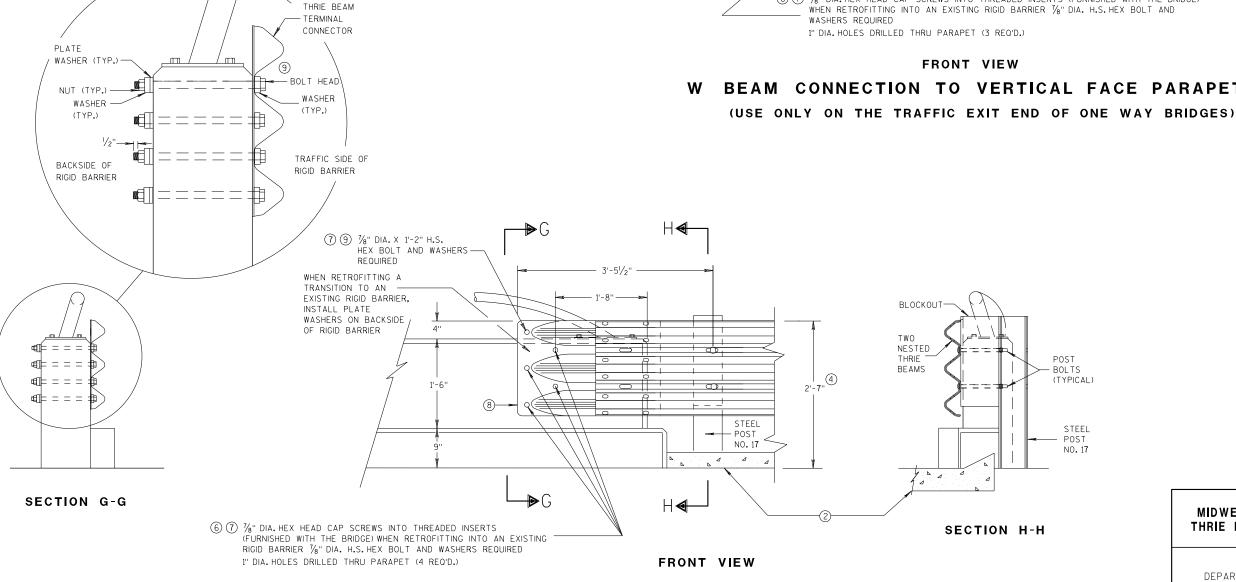








- (2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- (4) TOLERANCE FOR TOP OF BEAM IS ± 1".
- 6 DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- 7 BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE, BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- (8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".
- (9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.



THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

LIMIT OF STEEL PLATE 7 7/8" DIA. X 1'-2" H.S. MGS BEAM GUARD HEX BOLT AND WASHERS REQUIRED 5'-0 1/4" ONE WAY
TRAFFIC WHEN RETROFITTING A TRANSITION TO AN EXISTING RIGID BARRIER, INSTALL 9 PLATE WASHERS ON BACKSIDE OF RIGID BARRIER W BEAM TERMINAL 8 CONNECTOR (4) 2'-7' 6 7 %" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER 1/8" DIA. H.S. HEX BOLT AND

BEAM CONNECTION TO VERTICAL FACE PARAPET

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 DATE

/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

6

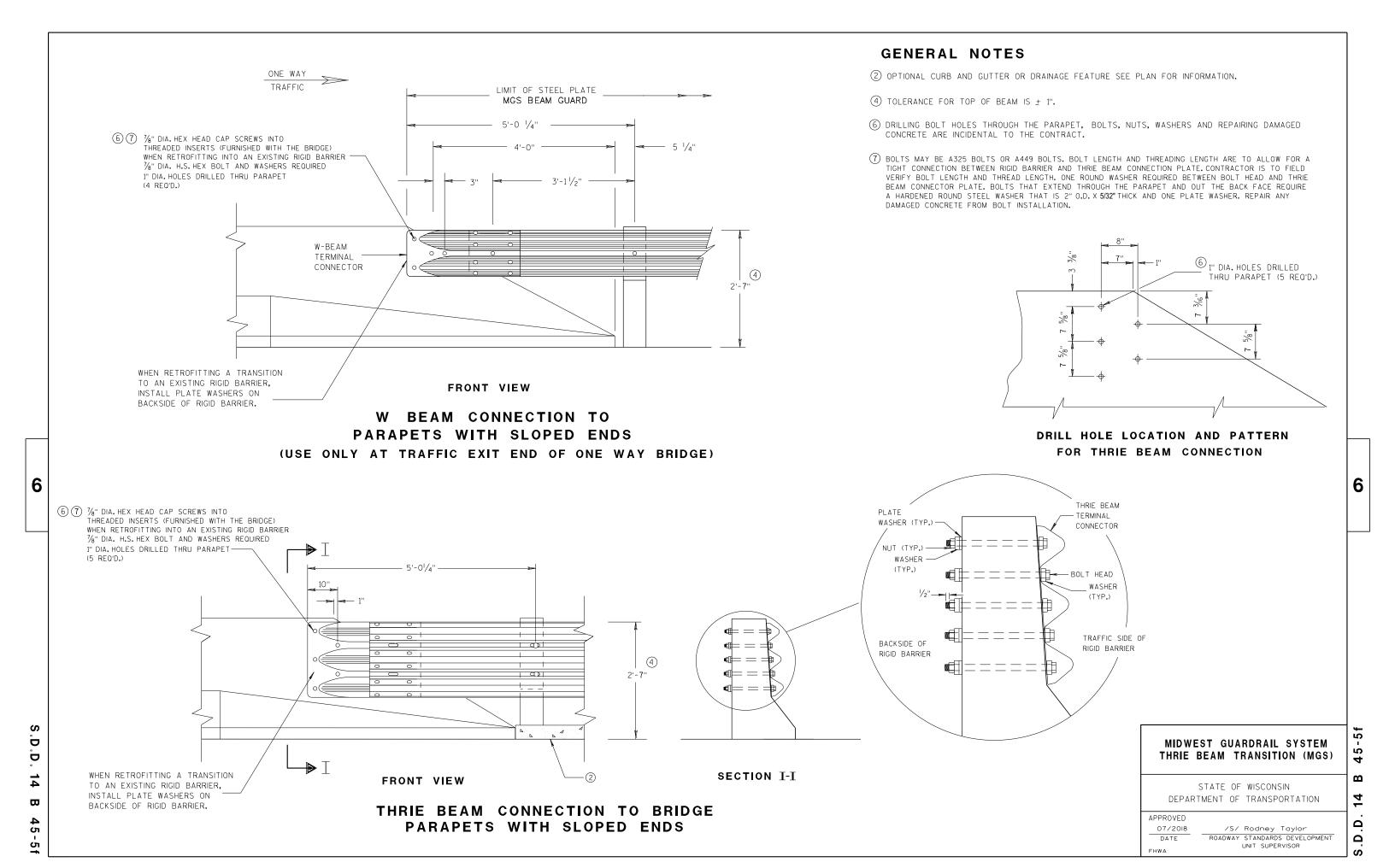
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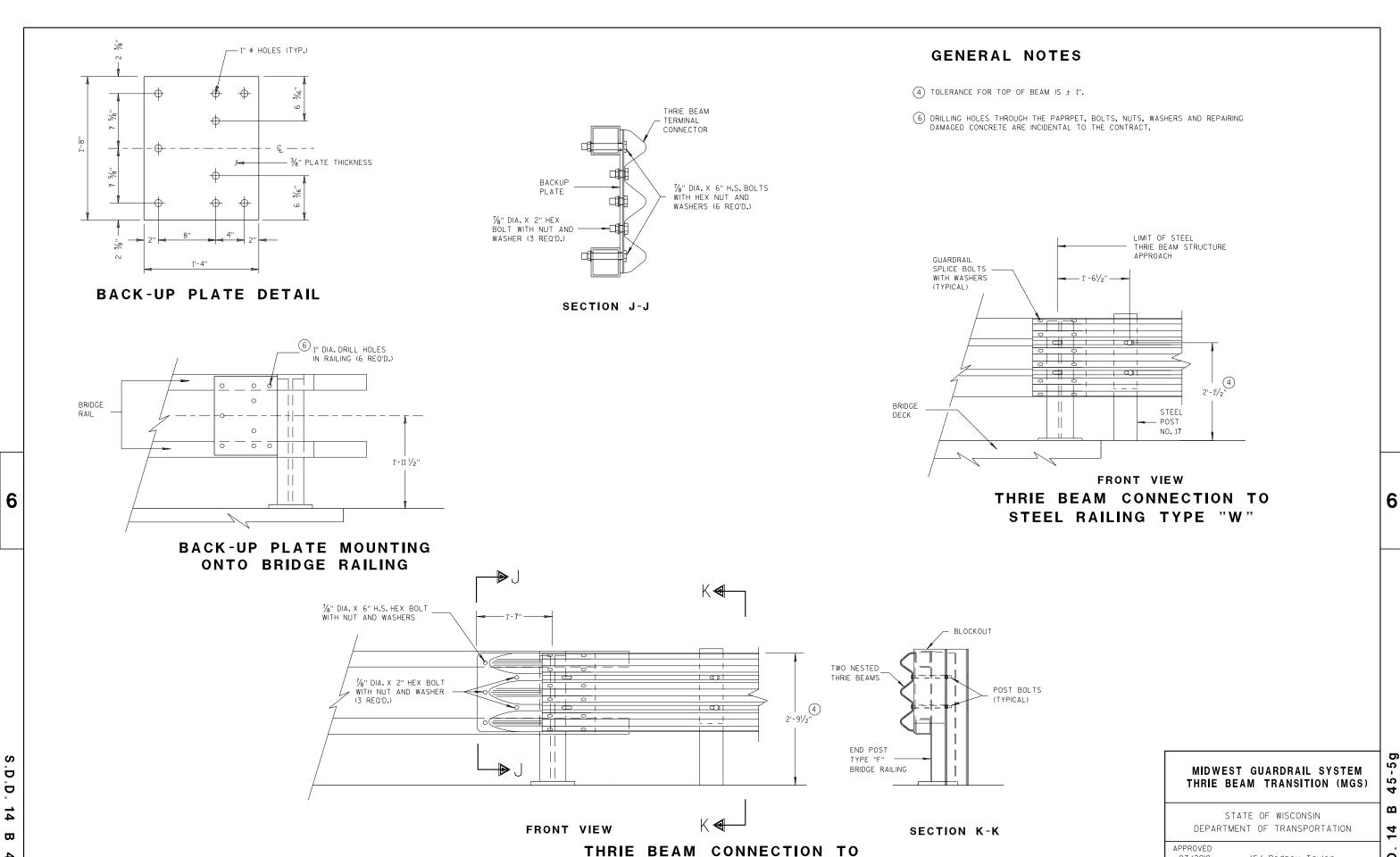
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TUBULAR RAILING TYPE "F"

45

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S.D.D. 14 B 45-5

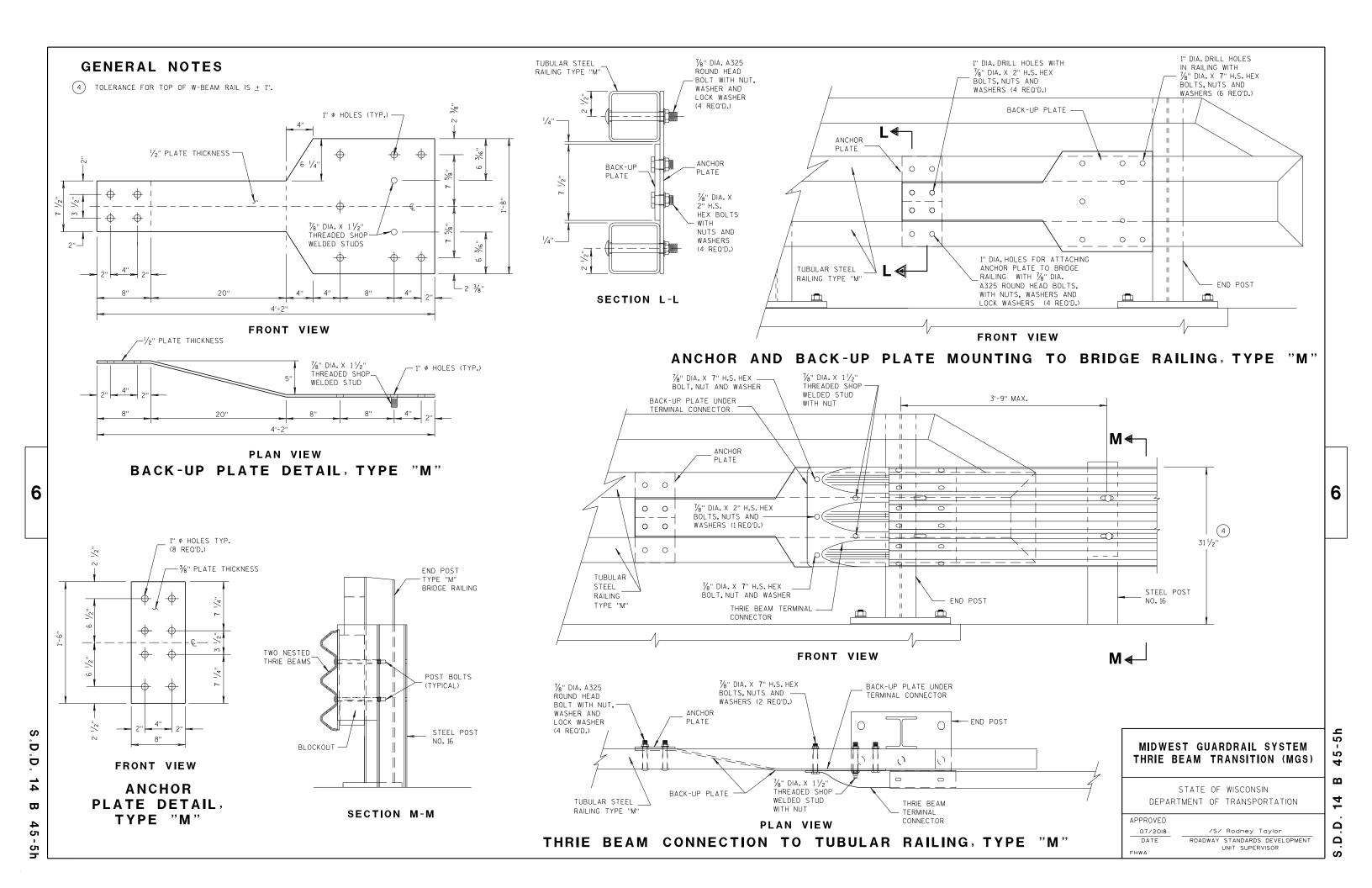
07/2018

DATE

/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT

UNIT SUPERVISOR



WELDING INSTRUCTION

21/2"

101/2"

(VIEWED FROM BACK SIDE OF PLATE)

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)							
PLATE	QUANTITY	SHAPE	SIZE (A × B × C × D)	THICKNESS			
P1	1	ВЁ	20" × 20"	3/16"			
P2	1	B₽€	20" × 20" × 28%6"	3/16"			
Р3	1	B A C D	39" × 35/8" × 20" × 195//6"	3/16"			
S1	4	B A	187/6" × 35/8" × 183/4"	1/4"			
S2	1	B O	$10^{1}/_{4}$ " × $2\frac{7}{16}$ " × $10\frac{3}{8}$ " × $\frac{1}{2}$ "	1/4"			
S3	1	B₽D	3" × 1½6" × 3½" × ½"	1/4"			
S4	1	В□	61/8" × 27/16"	1/4"			
S5	1	в∟	6½" × ½'6"	1/4"			
S6	1	вФ	7¾" × 1¾"	1/4"			
S7	1	ABC	2%6" × 6" × 3%" × 5%"	1/4"			
S8	1	ABC	1 ⁵ / ₃₂ " × 7 ¹ / ₂ " × 2 ¹ / ₂ " × 7 ³ / ₈ "	1/4"			
S9	1	CLA B	$6\frac{1}{16}$ " × $6\frac{3}{16}$ " × $1\frac{3}{32}$ "	1/4"			
S10	1	ABC	1%" × 9%" × 3%" × 9"/ ₁₆ "	1/4"			
S11	1	C A	8½" × 8¾" × 1 ¹³ / ₁₆ "	1/4"			

BACK SIDE OF PLATE

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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GENERAL NOTES

COVER PLATE PANELS ARE 3/6" THICK.

BACK SIDE OF PLATE

7/2018 /S/ Rodney Taylor

DATE ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

S.D.D. 14 B 45-5

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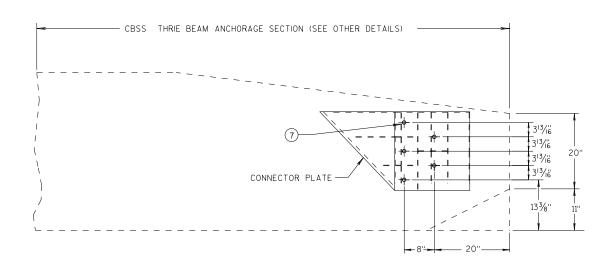
/S/ Rodney Taylo

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THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

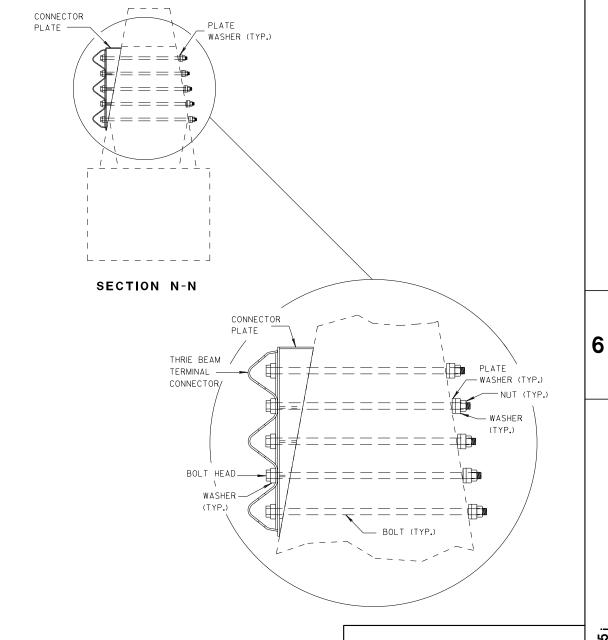


SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

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

- 2 OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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APPROVED

7/2018
DATE
ROADWAY

/S/ Rodney Taylor

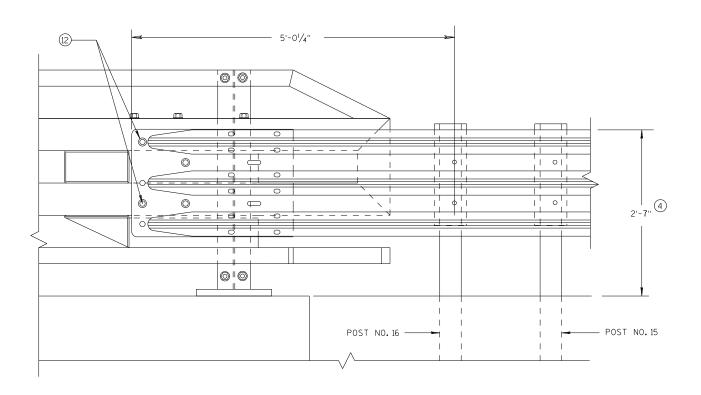
ROADWAY STANDARDS DEVELOPMENT

UNIT SUPERVISOR

D.D. 14 B

45

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

- 4) TOLERANCE FOR TOP OF BEAM IS ± 1".
- (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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 /S/ RODNEY Taylor

DATE ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

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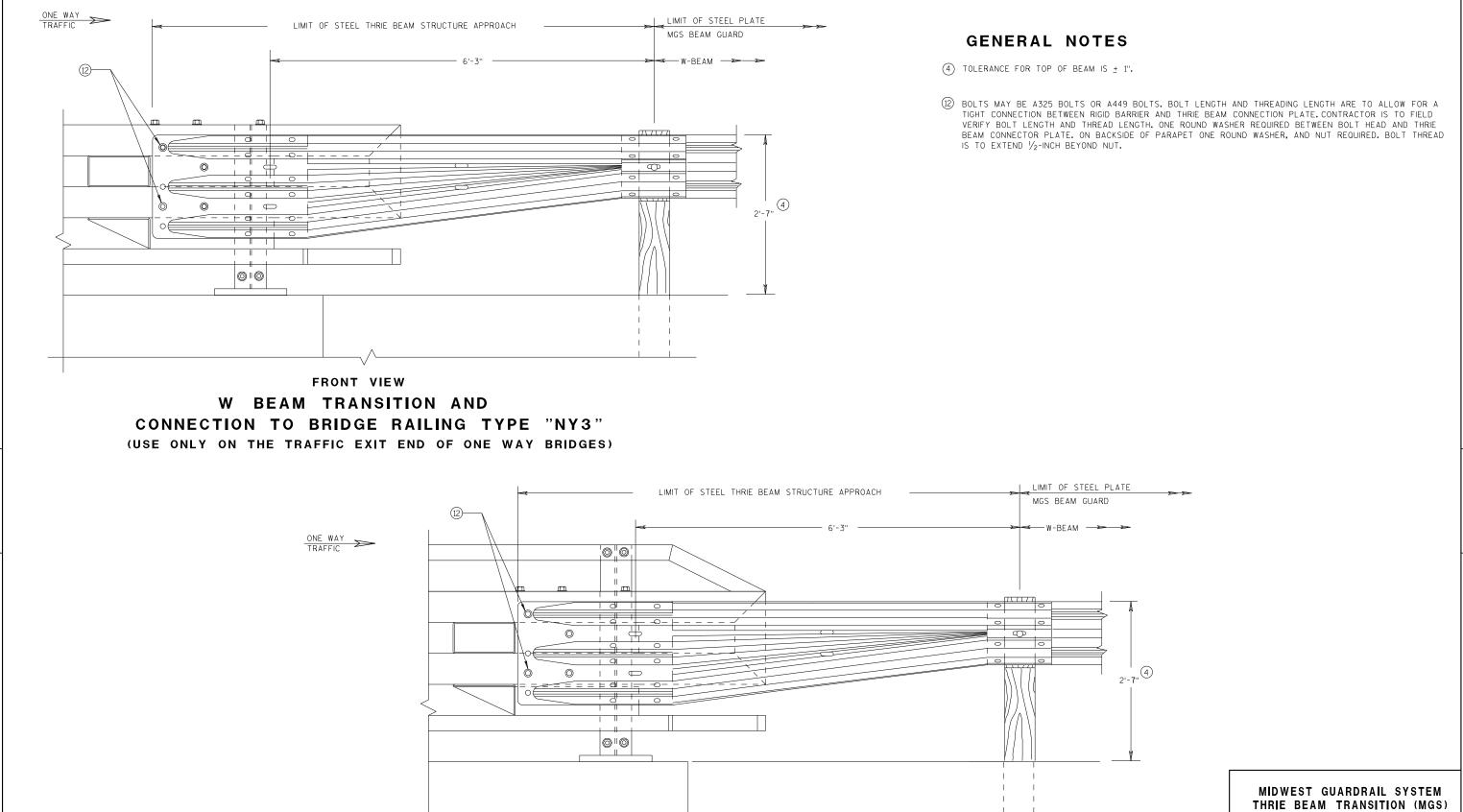
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FRONT VIEW

W BEAM TRANSITION AND

CONNECTION TO BRIDGE RAILING TYPE "NY4"

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

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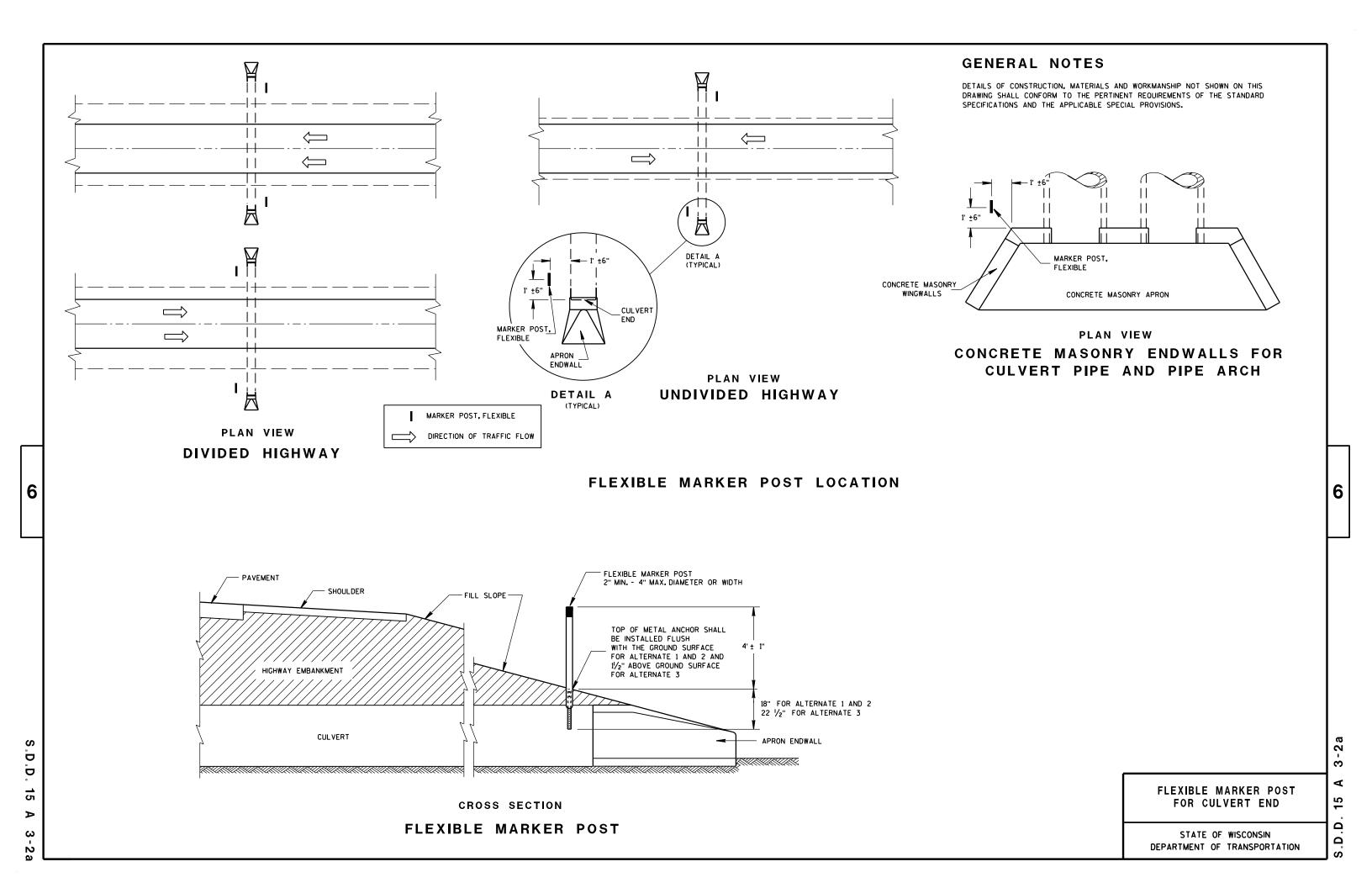
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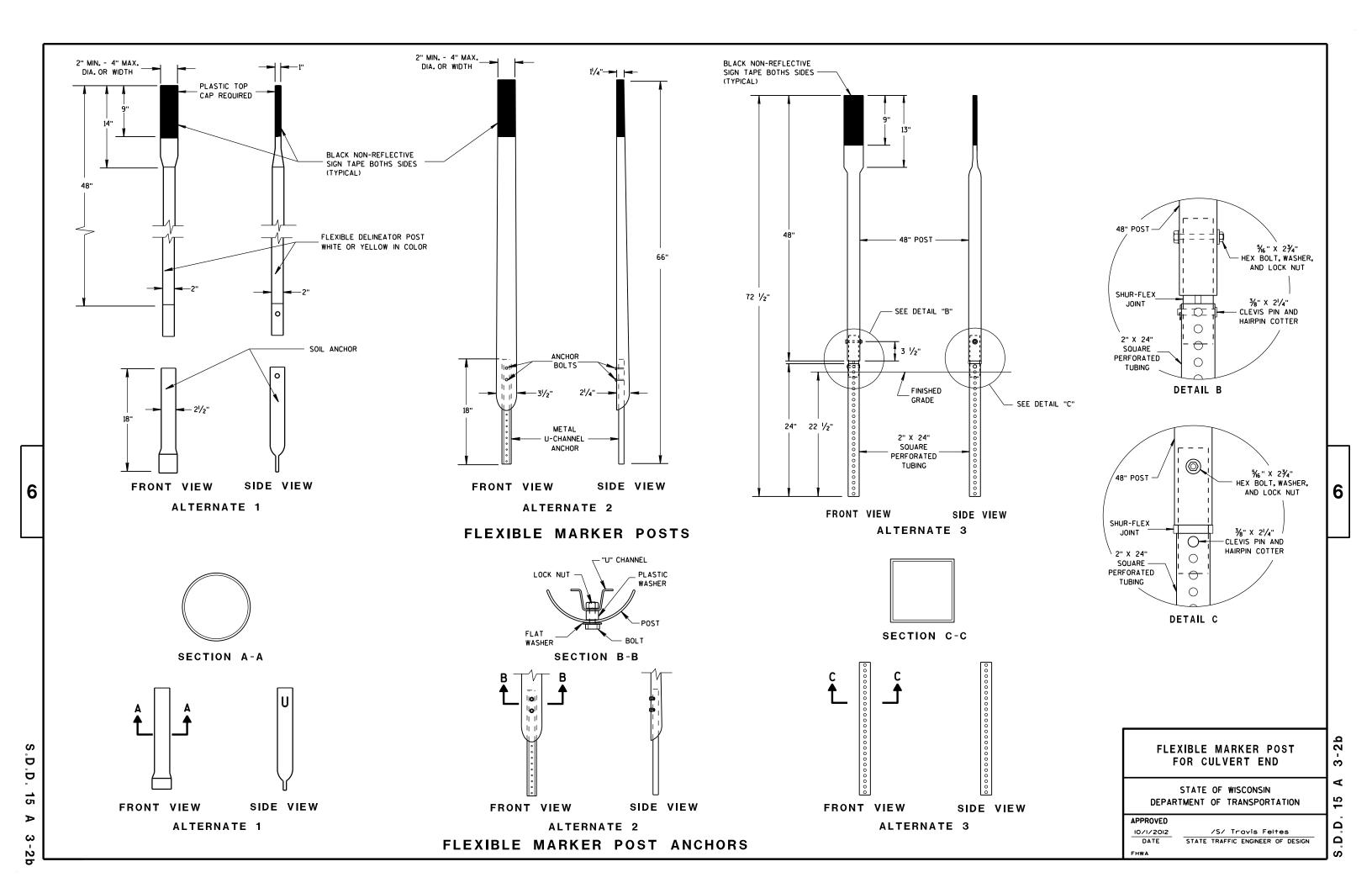
/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

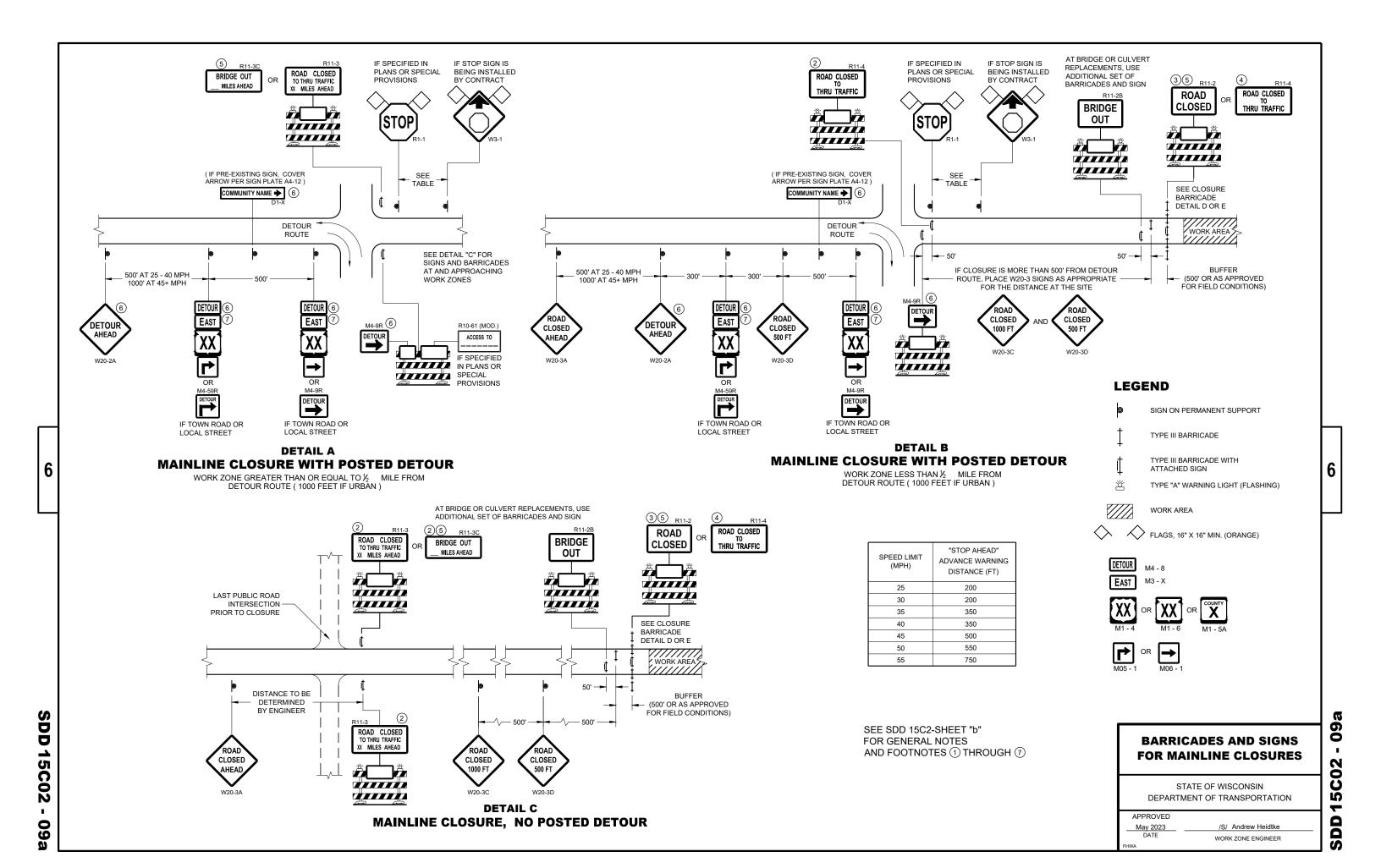
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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DATE







TWO- WAY

TYPE "A" WARNING

ROAD CLOSED THRU TRAFFIC TWO- WAY TYPE "A" WARNING LIGHTS REQUIRED ROAD CLOSED THRU TRAFFIC OFFSET BARRICADES 50' AS SHOWN ON DETAIL "B"

BRIDGE

OUT

ROAD

CLOSED

RAMP

CLOSED

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

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

R11 - 2 SHALL BE 48" X 30"

R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"

M4 - 9 SHALL BE 30" X 24"

M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)

M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)

M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)

MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)

D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

R1 - 1 SHALL BE 36" X 36"

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

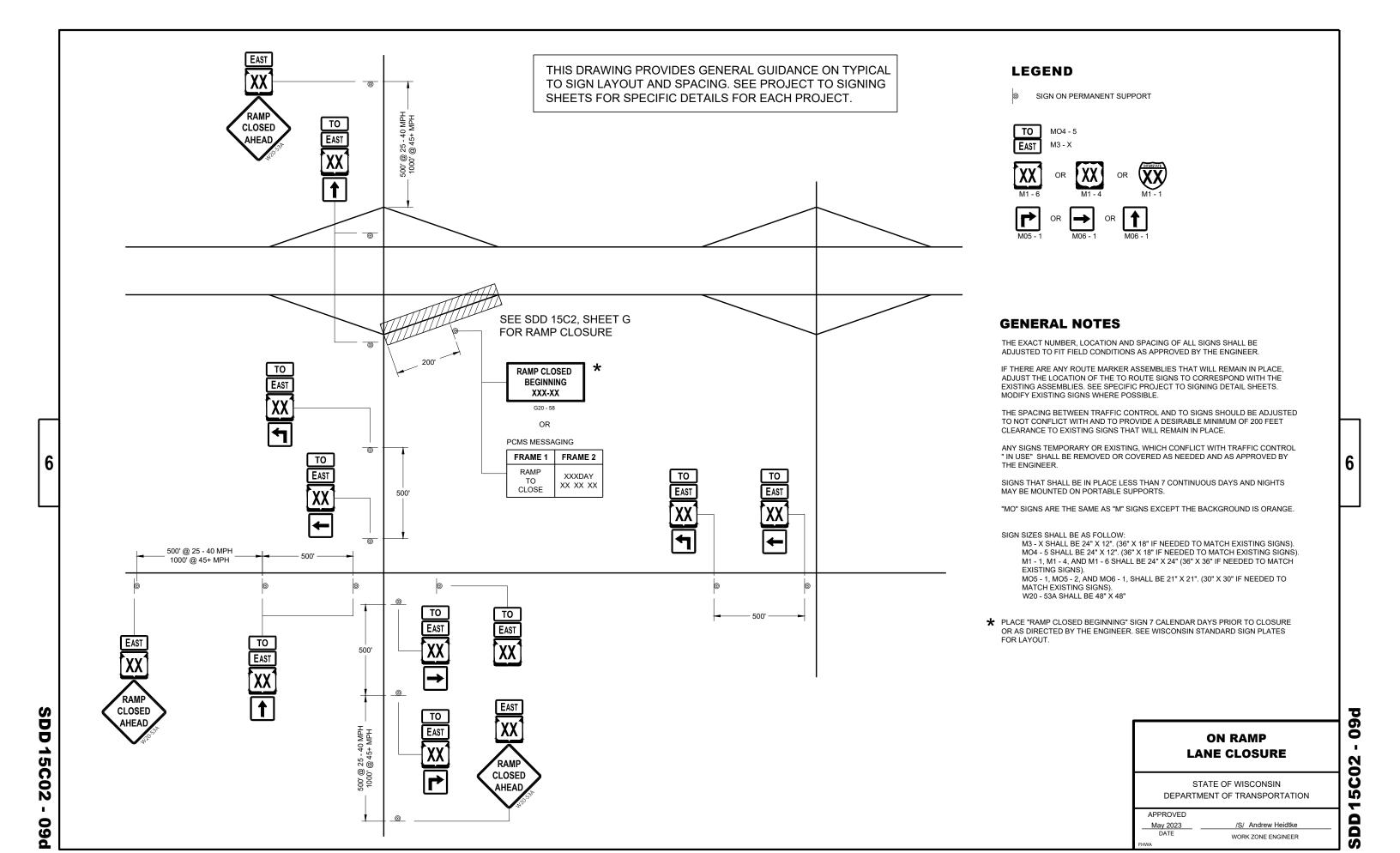
BARRICADES AND SIGNS FOR **VARIOUS CLOSURES**

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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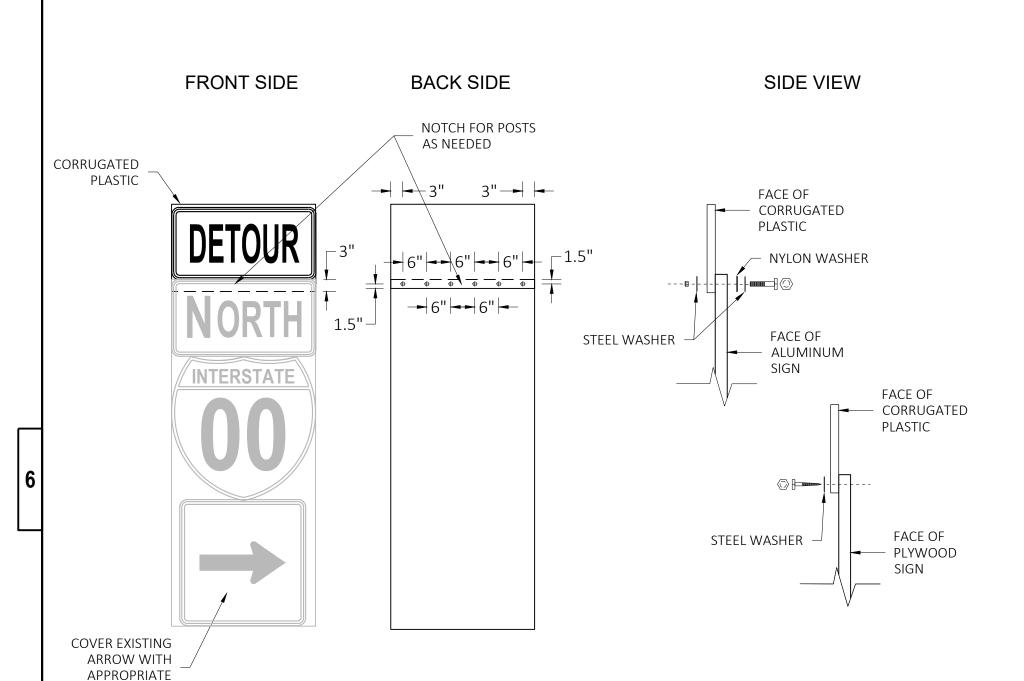
May 2023 DATE WORK ZONE ENGINEER

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SDD 15C02-09h



GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.

FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.

FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.

METAL WASHERS, NUTS, BOLTS AND LAGS 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, SC3

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.

PLYWOOD SIGNS:

LAG SCREWS - 5/16" x 1"

ALUMINUM SIGNS:

MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS

WASHERS:

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

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

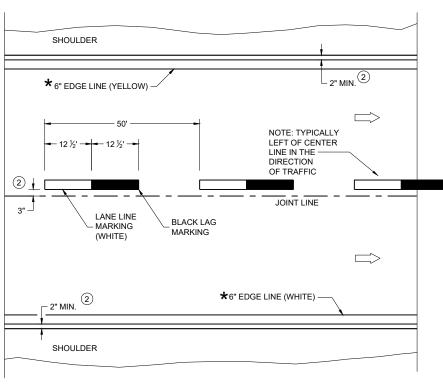
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

ROADWAY STANDARDS DEVELOPMENT ENGINEER

15C02-09h

DETOUR ARROW



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

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

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

PERMANENT LONGITUDINAL **PAVEMENT MARKINGS**

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

> /S/ Jeannie Silver Statewide Pavement Marking Engineer

C08-23 Ŋ SD

SDD 15C08-23a

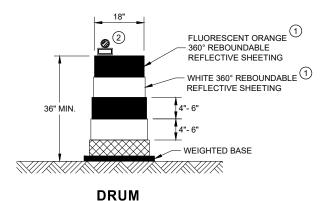
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May 2023 DATE

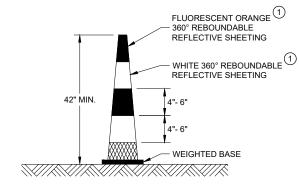
SDD 15C11

GENERAL NOTES

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

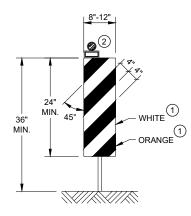


BALLAST WIDTHS RANGE FROM 24"-36"



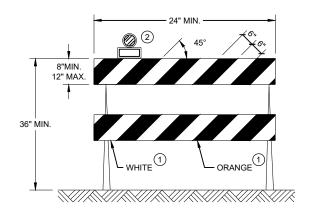
42" CONE

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



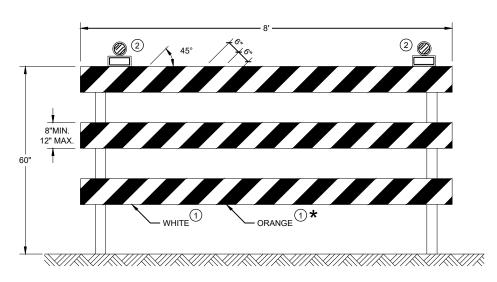
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 15C

APPROVED	
November 2022	/S/ Andrew Heidtke
DATE	WORK ZONE ENGINEER
FHWA	

RUMBLE

STRIPS

ROAD

WORK

GENERAL NOTES FLAGGING LEGEND FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY 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 SIGN ON PORTABLE OR PERMANENT SUPPORT UNIFORM TRAFFIC CONTROL DEVICES. PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING. ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. TEMPORARY PORTABLE RUMBLE WORK OPERATION OR AS APPROVED BY THE ENGINEER. STRIP ARRAY "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE. (2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE DIRECTION OF TRAFFIC ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER. WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED. THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP WORK AREA **TEMPORARY PORTABLE RUMBLE STRIPS** WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS. TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED FLAGGER, EQUIPPED WITH STOP/SLOW ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT PADDLE FASTENED ON SUPPORT STAFF THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST. INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS. PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS. DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS. SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE 5' MIN BE SPACING "A" SPEED LIMIT USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, PREPARED THIS SIGN SHALL BE LOCATED BETWEEN THE 25-30 MPH TO STOP W20-7A AND W20-4A SIGNS, USING SPACING "A". 35-40 MPH 350' STOP/SLOW PADDLE ŔUMBLĖ 45-55 MPH 500' WO3-4 WORK **ON SUPPORT STAFF** ROAD STRIPS 1 VARIABLE DISTANCE - 200' - 300' (TYP.) END ROAD WORK |||3 WORK AREA A/2 END ROAD WORK 200' - 300' (TYP.) VARIABLE DISTANCE

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

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022 DATE /S/ Andrew Heidtke WORK ZONE ENGINEER



GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

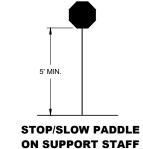
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

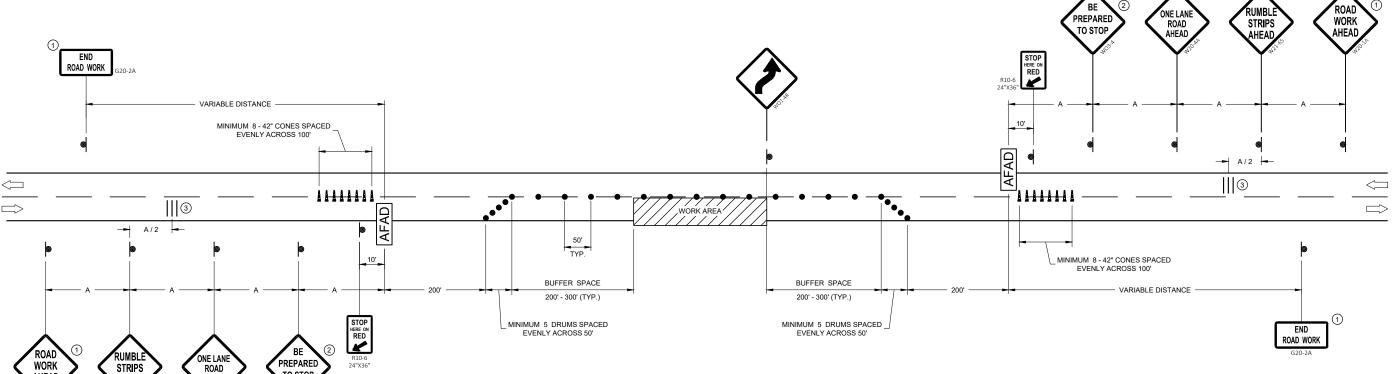
DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

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



SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO $50\,\mathrm{FEET}$.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

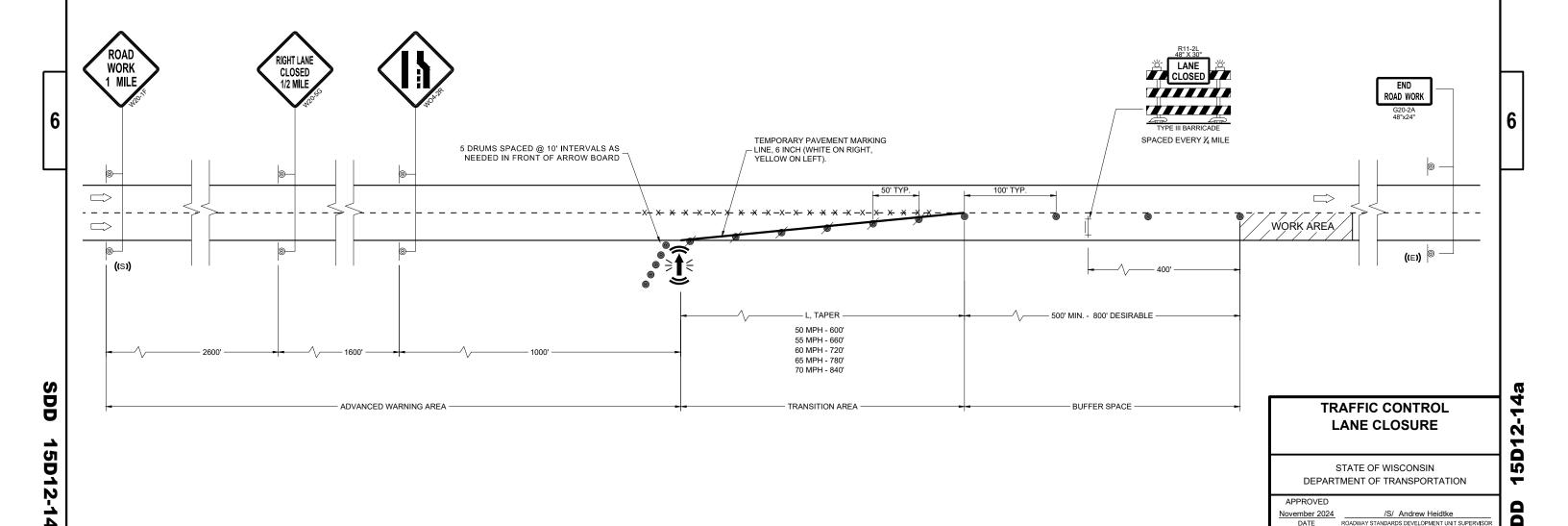
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SLICH AS A CROSSOVER MANELIVER.

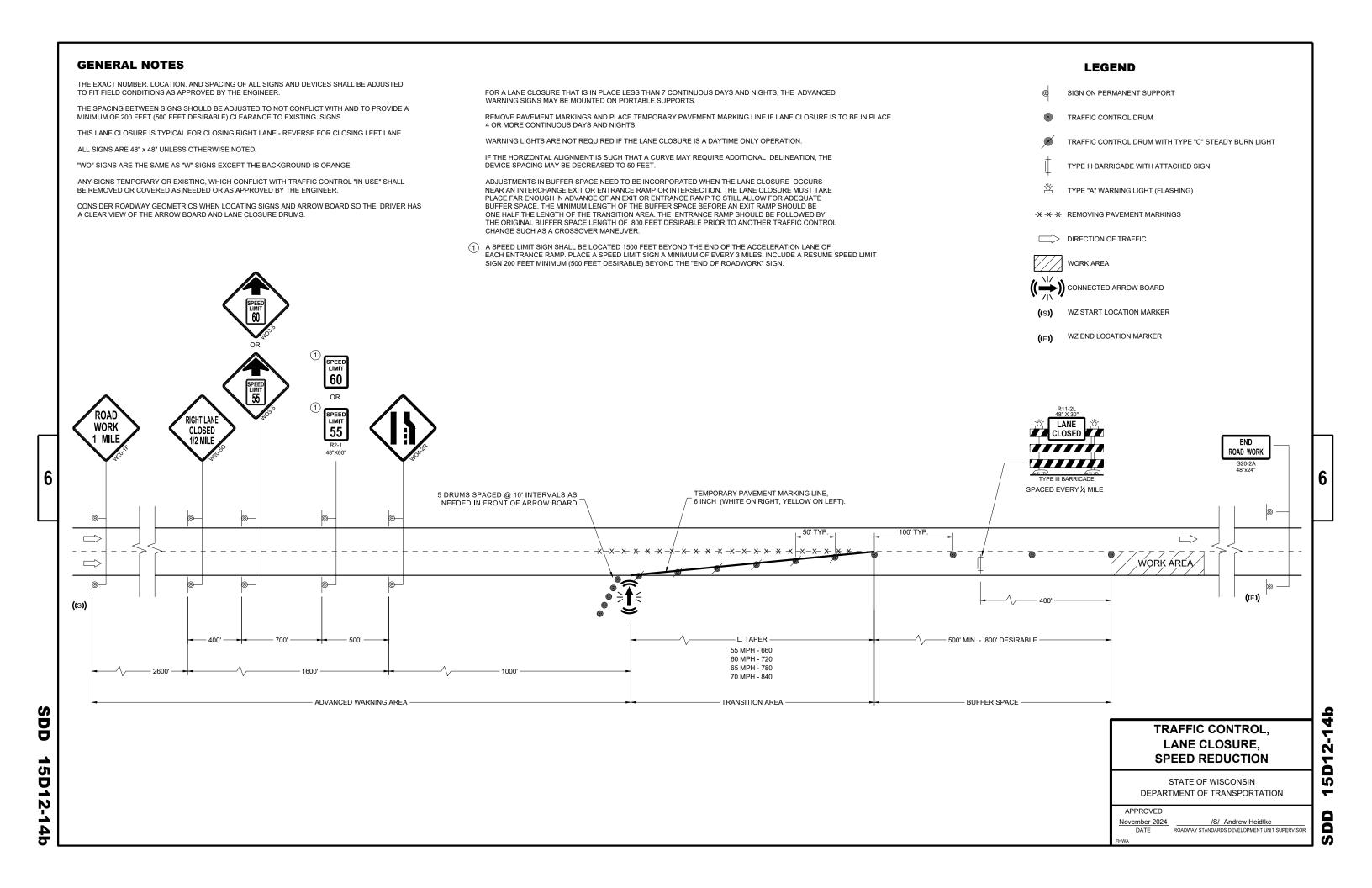
CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

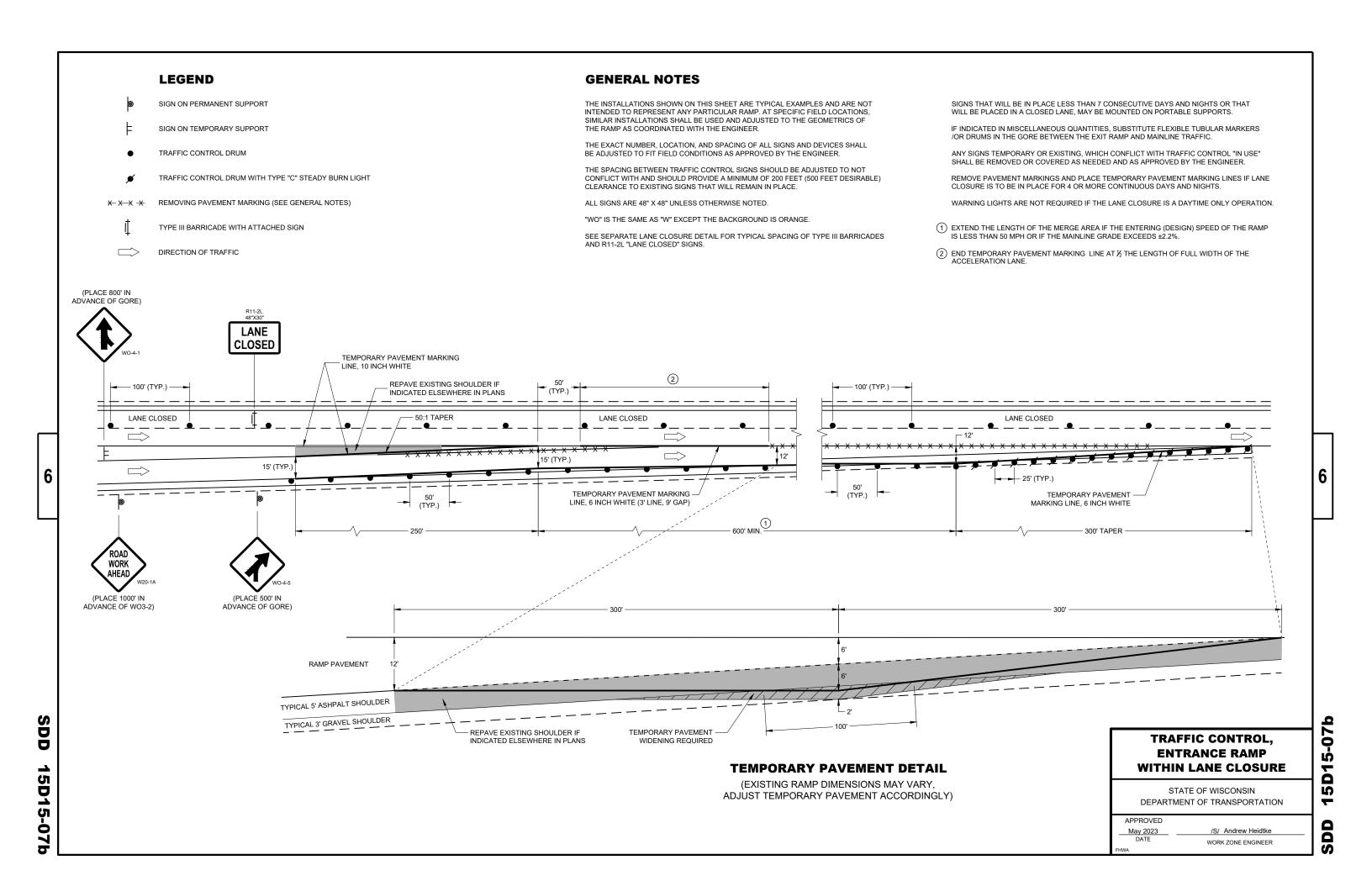
SIGN ON PERMANENT SUPPORT TRAFFIC CONTROL DRUM TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT TYPE III BARRICADE WITH ATTACHED SIGN TYPE "A" WARNING LIGHT (FLASHING) -X -X -X REMOVING PAVEMENT MARKINGS DIRECTION OF TRAFFIC WORK AREA (11/4) CONNECTED ARROW BOARD

WZ START LOCATION MARKER

WZ END LOCATION MARKER







(PLACE 500' IN

ADVANCE OF YIELD SIGN, R1-2)

AHEAD

(PLACE 500' IN

ADVANCE OF WO3-2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023

DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

D 15D15-07c

15D15-07

ADVANCE OF WO3-2)

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE)

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

TRAFFIC CONTROL, **TAPERED ENTRANCE RAMP** WITHIN LANE CLOSURE

> STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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

Ö Ŋ D

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

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

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

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

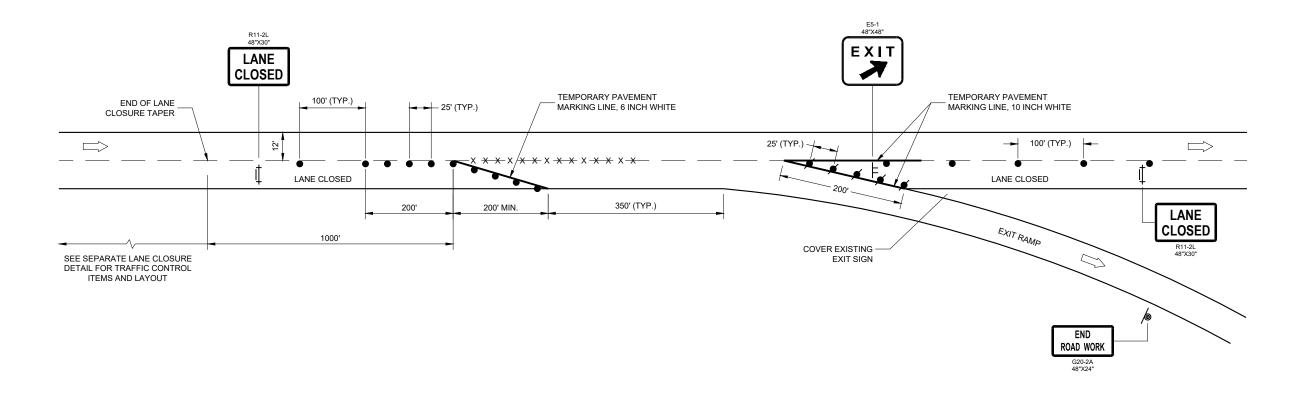
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.



TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE

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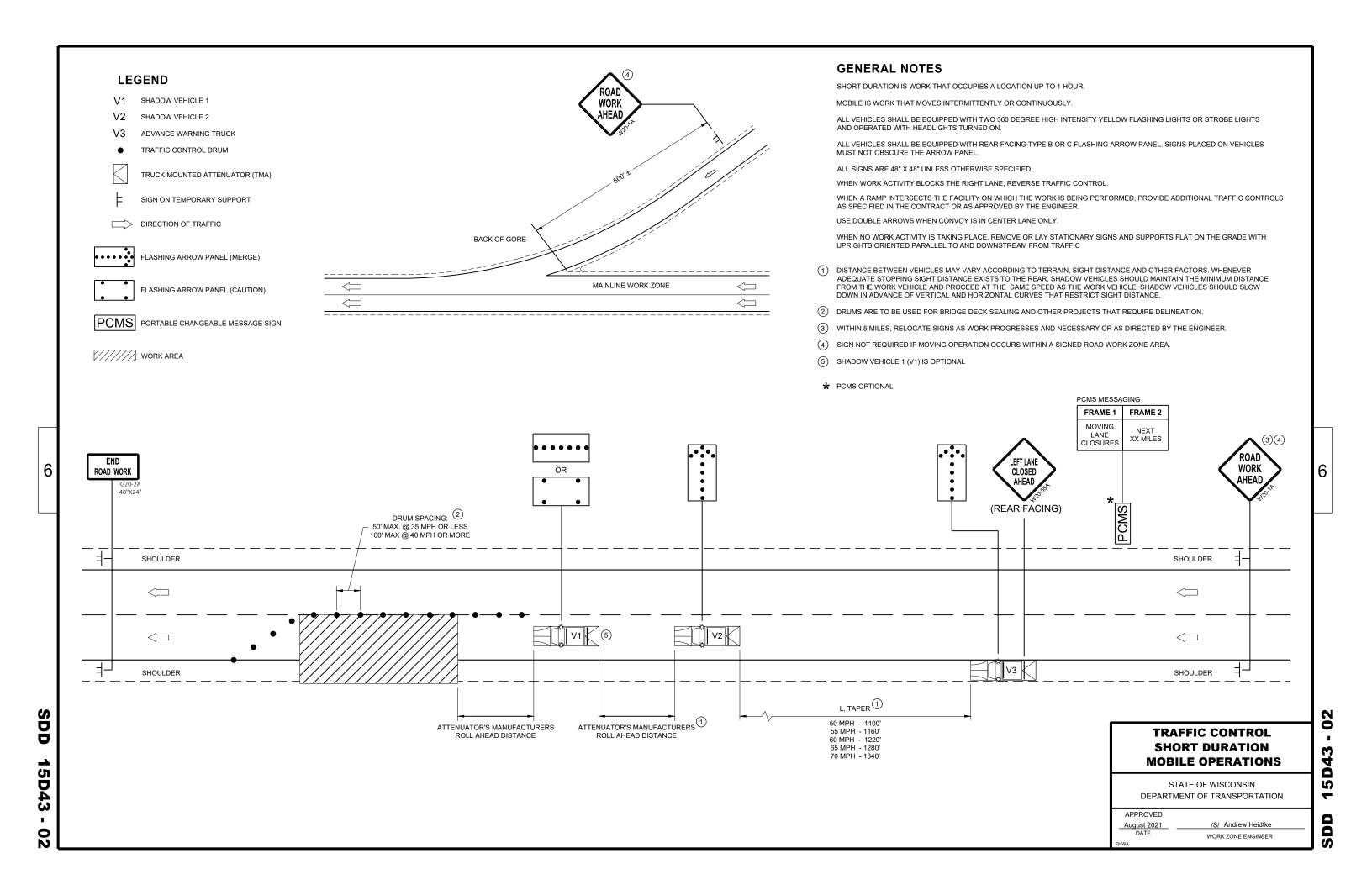
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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

SDD

15D15-0



V1 WORK VEHICLE

V2 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

FLASHING ARROW PANEL (CAUTION)

WORK AREA

DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION

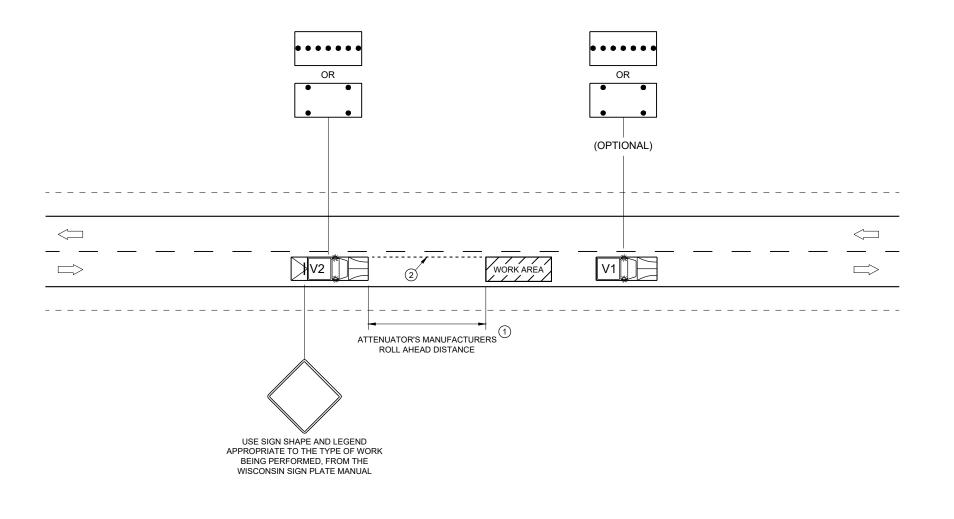
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF

DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

2) ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



POSTED SPEED PRIOR TO DECISION SIGHT

DISTANCE (D)

550'

700'

700'

900'

900'

1200'

WORK STARTING (MPH)

30

35

40

45

50

55

TRAFFIC CONTROL, **MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY**

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

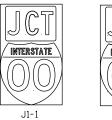
February 2021 DATE

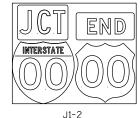
/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

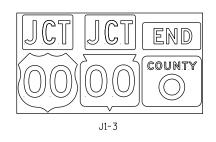
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TYPICAL ASSEMBLIES









MISTIC

ROAD

JR99-1

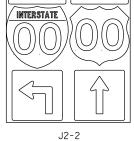


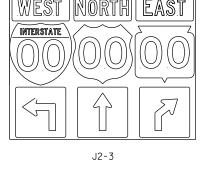
(Typical Vertical J-Assembly See Note 10 and 11)

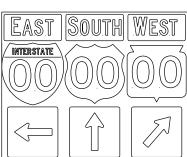




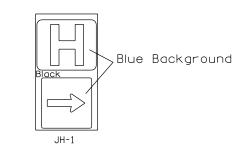
INTERSTATE



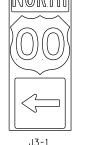




J3-3





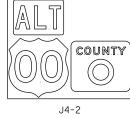




J4-1

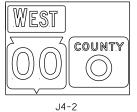
COUNTY

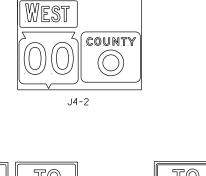
J13-1

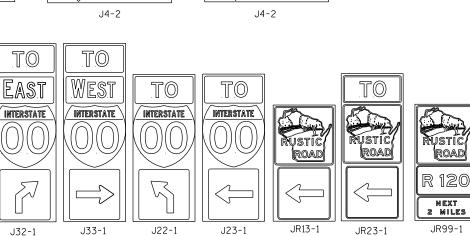


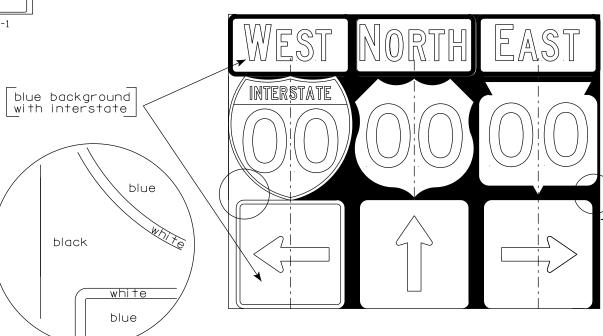
J3-2











NOTES

1. Signs are Type II - Type H Reflective

2. Color:

Background - Black Non-reflective Message - see Note 4

- 3. Message Series See Note 4
- 4. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- 5. 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.
- 6. 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.
- 7. 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.
- 8. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (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.
- 9. All Vertical J Assemblies are given a Sign Code of JV
- 10. For JV Assemblies that have a mixture of Interstate and Non-Interstate shields, arrows and cardinals shall be white on blue.
- 11. For JV Assemblies that have a mixture of Non-Interstate and Auto-Tour shields, arrows and cardinals shall be black on white.

black white black background

ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED For State Traffic Engineer

DATE 6/7/23

PLATE NO. <u>A2-1S.10</u> Ε SHFFT NO:

PROJECT NO:

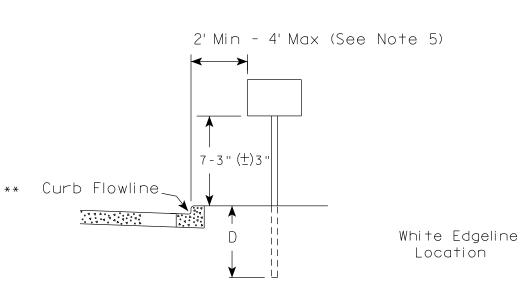
FRONTAGE

ROAD

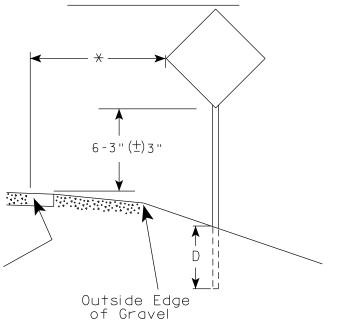
J12-1

PLOT NAME :





RURAL AREA (See Note 2)



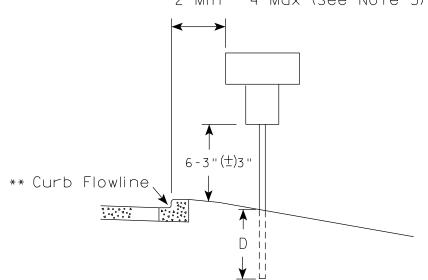
GENERAL NOTES

- 1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- 2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.

The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (\pm) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (\pm) 3".

- 3. For expressways and freeways, mounting height is 7'- 3" (\pm) 3" or 6'-3" (\pm) 3" depending upon existence of a sub-sign.
- 4. Minimum mounting height for signs mounted on traffic signal poles is 5' 3'' ($\frac{+}{-}$) 3''.
- 5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
- 6. Folding signs shall be mounted at a height of 5'-3'' (\pm) 3'' or as directd by the Engineer.

2' Min - 4' Max (See Note 5)



White Edgeline
Location

Outside Edge
of Gravel

POST EMBEDMENT DEPTH

Area of Sign	
Installation	D
(Sq.Ft.)	(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.

PLOT BY : mscj9h

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R Rawh

For State Traffic Engineer

DATE 12/6/23 PLATE NO. _A4-3.23

Ε

PROJECT NO: HWY: COUNTY: SHEET NO:



NOTES: 1. ALL MATERIAL TO BE APPROVED

BY ENGINEER PRIOR TO INSTALLATION

- 2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
- 3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

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



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

HWY:



PLAN VIEW

COUNTY:

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

For State Traffic Engineer

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

SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN

PROJECT NO:

PLOT DATE: 27-JAN-2014 09:48

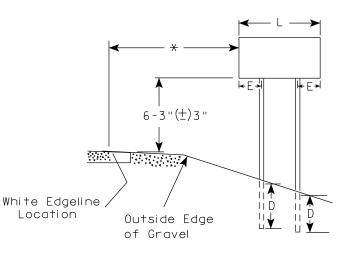
PLOT NAME :

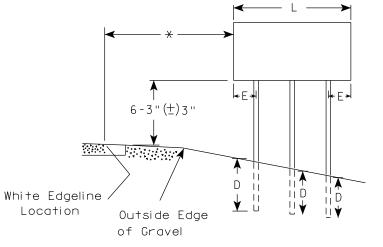
PLOT BY: mscsja

PLOT SCALE: 13.659812:1.000000

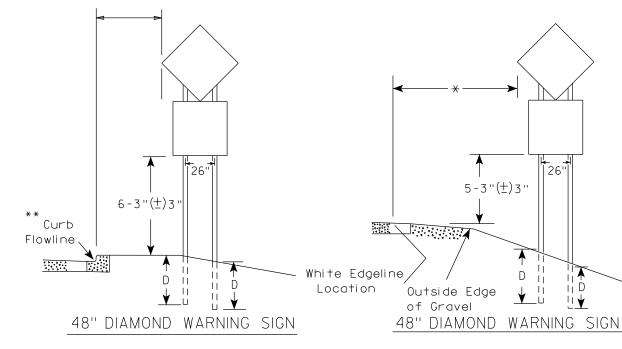
APPROVED

WISDOT/CADDS SHEET 42





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



	SIGN SHAPE OTHER THAN (TWO POSTS REQUIRE)	
	L	E
***	Greater than 48" Less than 60"	12''
	60" to 108"	L/5

HWY:

SIGN SHAPE OTHER THAN	DIAMOND
(THREE POSTS REQUIR	RED)
L	Е
Greater than 108" to 144"	12''

GENERAL NOTES

- 1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- 2. See tables below for required number of posts.
- 3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
- 4. The (±) tolerance for mounting height is 3 inches.
- 5. J-Assemblies are considered to be one sign for mounting height.
- 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
- 7. Folding signs shall be mounted at a height of 5'-3'' (\pm) 3'' or as directed by the engineer.
- 8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±) 3".
- * 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.
- ** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.
- $\times \times \times$ See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matther R Rauch
For State Traffic Engineer

DATE 12/6/23

PLATE NO. <u>A4-4.16</u>

Ε

CUEET NO.

SHEET NO:

FILE NAME : C:\CAEfiles\Project\tr_stdplate\A44.dgn

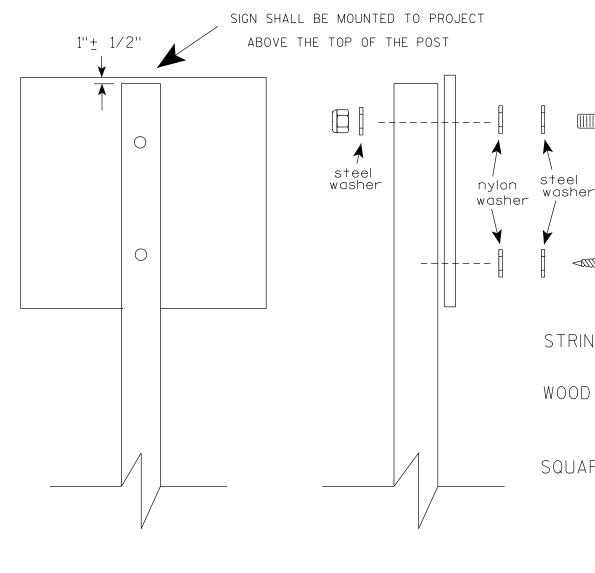
PROJECT NO:

COUNTY:

PLOT DATE: 6-DEC 2023 11:31

PLOT NAME :

PLOT BY : mscj9h



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

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

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts

WOOD POSTS $(4'' \times 6'')$

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN) 3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN) 3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 3/32 " (6605-9-6) BULB-TITE. TRI-FOLD. ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

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

APPROVED

DATE 4/1/2020

PLATE NO. <u>A4-8.9</u>

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A48.DGN

PROJECT NO:

PLOT DATE: 01-APRIL-2020

PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

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WISCONSIN DEPT OF TRANSPORTATION

Matther ≠or State Traffic Engineer

SHEET NO:



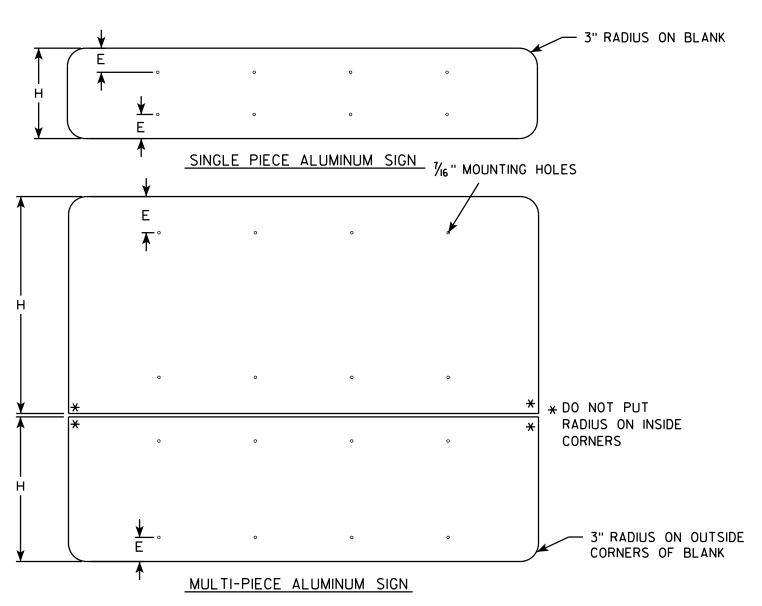
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DATE 2/05/15

PLATE NO. <u>A4-9.9</u>

For State Traffic Engineer

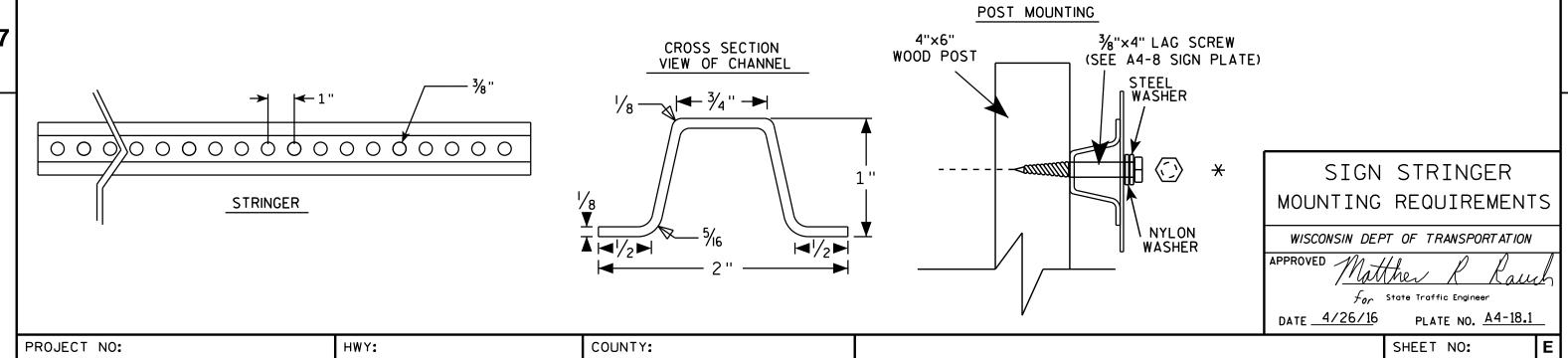




GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE $\frac{7}{16}$ " DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING				NTING OLES			
7 8''	7 2"	2	16''	15''	31''	47''	63''			
84''	72"	2	17''	161/2"	331/2"	501/2"	6 7 1/2	1		
90"	72"	2	18''	18''	36''	54''	72"			
96"	90''	2	19''	191/2"	381/2''	57½"	761/2			
102"	90''	2	20"	21''	41''	61''	81''			
108''	90"	2	21''	221/21	' 43 ^l / ₂ ''	641/2"	851/2			
114''	108''	3	15''	12''	2 7 ''	42''	57''	72"	87''	102''
120''	108''	3	16''	12''	28''	44''	60"	76"	92"	108''
126"	108''	3	17''	12''	29"	46''	63''	80"	97''	114''
132"	126''	3	18''	12''	30"	48''	66''	84"	102"	120''
138''	126''	3	19"	12''	31''	50"	69"	88"	107''	126"
144''	126"	3	20"	12''	32"	52"	72"	92"	112''	132"



PLOT BY: mscj9h

BANDING



SINGLE SIGN





WASHER PLACEMENT



HWY:

WASHERS (ALL POSTS) -

1-1/4" O.D. X³/₈" I.D. X¹/₁₆" STEEL 1-1/4" O.D. $\times \frac{3}{8}$ " I.D. \times .080 NYLON FOR ALL TYPE H SIGNS

CHANNEL

GENERAL NOTES

- 1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
- 2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
- 3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " in width and 0.025" thickness.
- 4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

SHEET NO:

APPROVED

DATE 6/10/19

PLATE NO. A5-9.4

Ε

State Traffic Engineer

COUNTY:

PLOT NAME :

PLOT SCALE: \$\$.....plotscale.....\$\$ WISDOT/CADDS SHEET 42

PROJECT NO:

31/2"

VIEW FROM TOP

GENERAL NOTES

- 1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
- 2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
- 3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
- 4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
- 5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation: B 633, TYPE III, SC 3
- 6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
- 7. STEEL WASHERS SHALL BE $1^{1}/_{4}$ " O.D. X $3/_{16}$ " I.D. X $1/_{16}$ "
- 8. NYLON WASHERS SHALL BE $1^{1}/_{4}$ " O.D. X $3/_{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

 \times LAG BOLTS SHALL BE $\frac{3}{8}$ " X $\frac{2}{2}$ "

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

DATE 4/19/2022 PLATE NO. A5-10.3

SHEET NO:

APPROVED

PROJECT NO:

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A510.dgr

PLOT DATE: 19-APRIL 2022 11:55

PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

Ε

SIGN

NOTES

- 1. Sign is Type II Type F Reflective
- 2. Color:

Background - Orange Message - Black

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

C —		
		H
		F H B
		F G
←		
I	G20-2A	I

SIZE	А	В	С	D	E	F	G	Н	I	J	К	L	М	N	0	Р	Q	R	S	Т	V	W	X	Υ	Z	Area sq. ft.
1	36	18	1 1/2	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8												4.5
2	48	24	1 1/8	1/2	5/8	6	4 1/2	3 3/4	5 %	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2												8.0
2M	48	24	1 1/8	1/2	5/8	6	4 1/2	3 3/4	5 1/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2												8.0
3	48	24	1 1/8	1/2	5/8	6	4 1/2	3 3/4	5 1/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2												8.0
4	48	24	1 1/8	1/2	5/8	6	4 1/2	3 3/4	5 %	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2												8.0
5	48	24	1 1/8	1/2	5/8	6	4 1/2	3 3/4	5 1/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2												8.0

COUNTY:

STANDARD SIGN G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew & Rauch

For State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-2A.10

SHEET NO:

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\G202A.dgn

PROJECT NO:

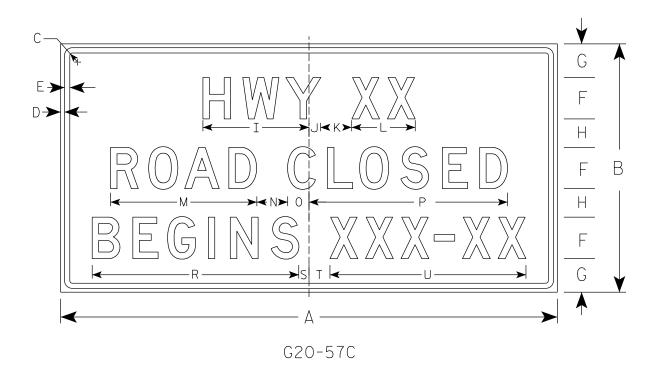
HWY:

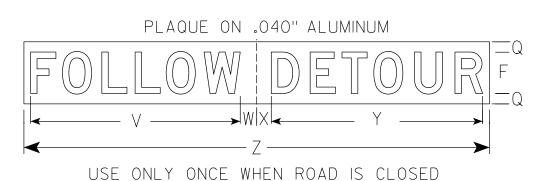
PLOT DATE: 26-JAN 2023 8:27

PLOT BY : dotc4c

PLOT NAME :

- 3. Message Series D
- 4. Substitute appropriate numeral and adjust spacing to achieve proper balance.





SIZE	А	В	С	D	Е	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/8	5	2 1/8	29	2	30	1 3/4	3 1/4	28	40 1/2	2	2	29 ¾	66	18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 %	2 1/4	6	12 1/4	28 1/4	6	4 1/8	38 %	2	39 7/8	2	4	37 1/8	29 ¾	3 1/8	2 1/8	40 1/8	90	32.0
5																											

COUNTY:

STANDARD SIGN G20-57C

WISCONSIN DEPT OF TRANSPORTATION

SHEET NO:

APPROVED

DATE <u>9/25/19</u>

PLATE NO. G20-57C.1

Ε

PLOT DATE: 25-SEPT-2019 PLOT BY : dotctc

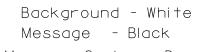
HWY:

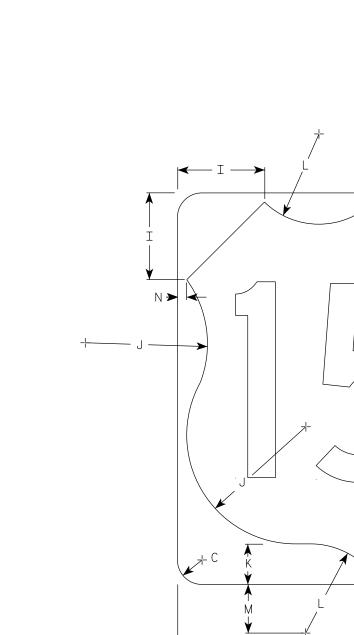
PROJECT NO:



- 1. Sign is Type II Type H Reflective
- 2. Color:

3. Message Series - D except 3 number signs Series C





C K BLACK
—————————————————————————————————————

HWY:

7 1/2 2 1/2 1/2 1 1/2 24 24 5 1/2 5 1/2 6 1/2 4.0 2M 24 7 1/2 2 1/2 5 1/2 $1 \frac{1}{2}$ 12 5 1/2 4.0 5 1/2 6 1/2 3 7 1/4 11 1/4 3 3/4 8 1/4 4 1/2 36 36 2 1/4 8 1/4 9 1/4 3/4 9.0 7 1/4 11 1/4 3 3/4 8 1/4 4 1/2 36 36 2 1/4 18 8 1/4 9 1/4 9.0 7 1/4 11 1/4 3 3/4 8 1/4 4 1/2 3/4 5 18 8 1/4 9 1/4 36 36 2 1/4 9.0

COUNTY:

USH MARKER M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matther K Kawh
For State Traffic Engineer

SHEET NO:

DATE <u>12/20/22</u>

PLATE NO. <u>M1-4.11</u>

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M14.dgn

PROJECT NO:

N >

PLOT DATE : 20-DEC 2022 8:48

PLOT BY: mscj9h

M1-4

PLOT NAME :

BLACK

PLOT SCALE: \$\$.....plotscale.....\$\$ WISDOT/CADDS SHEET 42

- 1

Ε

NOTES

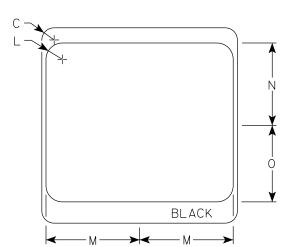
- 1. Sign is Type II Type H Reflective
- 2. Color:

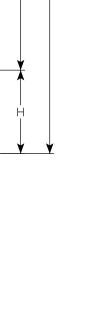
Background - White & Black Message - Black

- 3. Message Series see Note 4
- 4. 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.
- 5. Substitute appropriate letters & optically center to achieve proper balance.

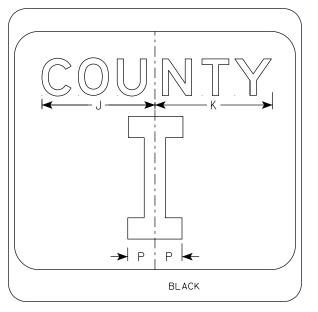


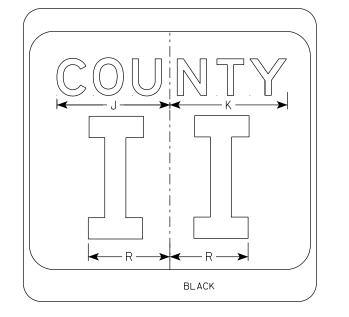


BLACK

HWY:

M1-5A





SIZE	А	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	W	Χ	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
2M	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 %	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 1/8	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 1/8	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 1/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

COUNTY:

CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

SHEET NO:

APPROVED

For State Traffic Engineer

DATE 11/8/2022

PLATE NO. <u>M1-5A.9</u>

FILE NAME: C:\CAEfiles\Projects\tr_stdplate\M15A.dgn

PROJECT NO:

PLOT DATE: 8-NOV 2022 8:26

PLOT BY : dotc4c

PLOT NAME :



- 1. Sign is Type II Type H Reflective
- 2. Color:

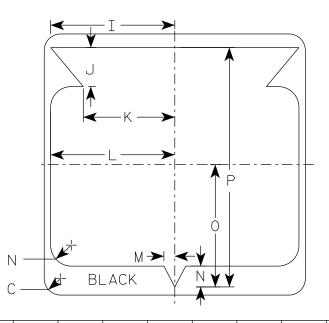
Background - White Message – Black

3. Message Series - D except 3 number signs Series C

	F A
	BLACK V
← A	————

M1-6

HWY:



SIZ	E A	4	ВС	D E		F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	T	U	٧	W	X	Υ	Z	Area sq. ft.
1																											
2	24	4	1 1/2		1	12	5 1/2	6 1/2	10 1/4	2 1/2	8 1/8	11 1/2	1	1 1/8	11 1/4	21 1/8											4.0
21	1 24	4	1 1/2		1	12	5 1/2	6 1/2	10 1/4	2 1/2	8 1/8	11 1/2	1	1 1/8	11 1/4	21 1/8											4.0
3	36	6	2 1/4		1	18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 1/8	16 1/8	33											9.0
4	36	6	2 1/4		1	18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 1/8	16 1/8	33											9.0
5	36	6	2 1/4		1	18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 1/8	16 7/8	33											9.0

COUNTY:

STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

SHEET NO:

APPROVED

₹or State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-6.11

Ε

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M16.dgn

PROJECT NO:

PLOT DATE: 8-NOV 2022 8:40

PLOT BY : dotc4c

PLOT NAME :

1. All Signs Type II - Type H Reflective

NOTES

2. Color:

Background - See note 5 Message - See note 5

- 3. Message Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. M3-1 thru M3-4 Background - White

Message - Black

MB3-1 thru MB3-4 Background - Blue

Message - White

MK3-1 thru MK3-4 Background - Green

Message - White

MM3-1 thru MM3-4 Background - White

Message - Green

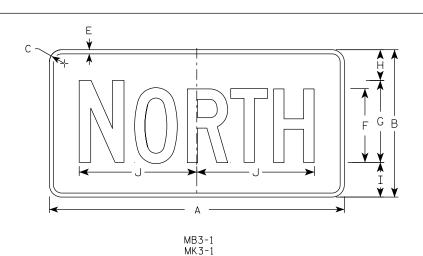
MN3-1 thru MN3-4 Background - Brown

Message - White

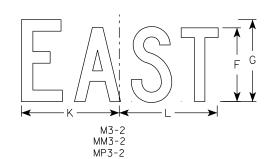
MP3-1 thru MP3-4 Background - White

Message - Blue

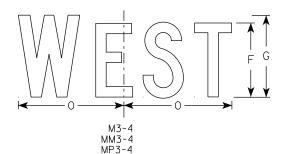
6. Note the first letter of each direction is larger than the remainder of the message.



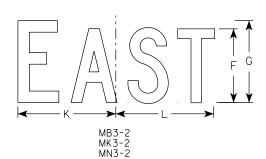
M3-1 MM3-1 MP3-1

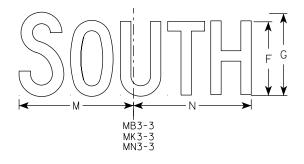


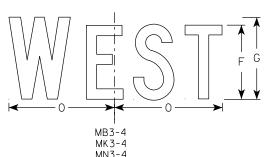
MM3-3



HWY:







SIZE	Α .	В	С	D	E	F	G	Н	I	J K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	X	Y	Z	Area sq. ft.
1																										
25	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4 7	8 8 3	8 10 1/2	9 3/4	8 3/4												2.00
2N	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4 7	8 8 3	8 10 1/2	9 3/4	8 3/4												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8 12	12	/8 14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8 12	12	/8 14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8 12	12	/8 14	14 1/8	13												4.5

STANDARD SIGNS M3-1 THRU M3-4 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

DATE 2/8/2023 PLATE NO. <u>M3-1.1</u>5

SHEET NO:

PROJECT NO: FILE NAME : C:\CAEfiles\Projects\tr_stdplate_M31.dgn COUNTY:

PLOT DATE: 8-FEB 2023 11:00

PLOT NAME :

PLOT BY : dotc4c

- 1. Sign is Type II Type H Reflective
- 2. Color:

Background - See note 5 Message - See note 5

- 3. Message Series E
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. M4-5 Background White

Message – Black

MB4-5 Background - Blue

Message - White

MK4-5 Background - Green

Message - White

MM4-5 Background - White

Message – Green

MN4-5 Background - Brown

Message - White

MP4-5 Background - White

Message - Blue

M04-5 Background - Orange Type F Reflective

Message - Black

~	Å	—
	M4-5	·
	MM4-5	
	MP4-5	
	MO4-5	
C — ¥	į	
	MB4-5 MK4-5 MN4-5	GYA B AGY F AGY AGY

HWY:

SIZE Χ Α Ε Q U 3/8 3/8 5 3/8 5 1/4 24 12 $1 \frac{1}{2}$ 1/26 2.00 2M 2.00 24 3/8 3/8 5 3/8 | 5 1/4 12 $1 \frac{1}{2}$ 6 1/2 4.5 36 18 $1 \frac{1}{2}$ 3/8 1/2 9 4 1/2 8 1/4 8 3/8 1/2 4 4.5 36 3/8 4 1/2 | 8 1/4 | 8 3/8 18 $1 \frac{1}{2}$ 1/2 9 1/2 5 4 1/2 8 1/4 8 3/8 4.5 36 18 $1 \frac{1}{2}$ 3/8 1/2 1/2

COUNTY:

STANDARD SIGN M4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M4-5.11

SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M45.DGN

PROJECT NO:

PLOT DATE: 8-FEB 2023 3:48

PLOT BY : dotc4c

PLOT NAME :

PLOT SCALE: \$\$.....plotscale.....\$\$ WISDOT/CADDS SHEET 42

I

Ε

- 1. Sign is Type II Type F Reflective
- 2. Color:

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

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
			- / 2	, ,	/ 2		, , ,	, , ,	- / 2																		<u> </u>

COUNTY:

STANDARD SIGN M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthe R Rauch

DATE 2/9/2023 PLATE NO. M4-8.4

SHEET NO:

PROJECT NO:

FILE NAME: C:\CAEfiles\Projects\tr_stdplate\M48.dgn

HWY:

PLOT DATE : 9-FEB 2023 7:38

PLOT BY : dotc4c

PLOT NAME :

1. Sign is Type II - Type F Reflective

2. Color:

Background - Orange Message - Black

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

C		
		G F F
		H B F G G
	Д	
·	M4 - 8 A	

SIZE	А	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	T	U	٧	W	Х	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
2M	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
5	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0

COUNTY:

STANDARD SIGN M4-8A

WISCONSIN DEPT OF TRANSPORTATION

for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4 SHEET NO:

HWY:

PROJECT NO:

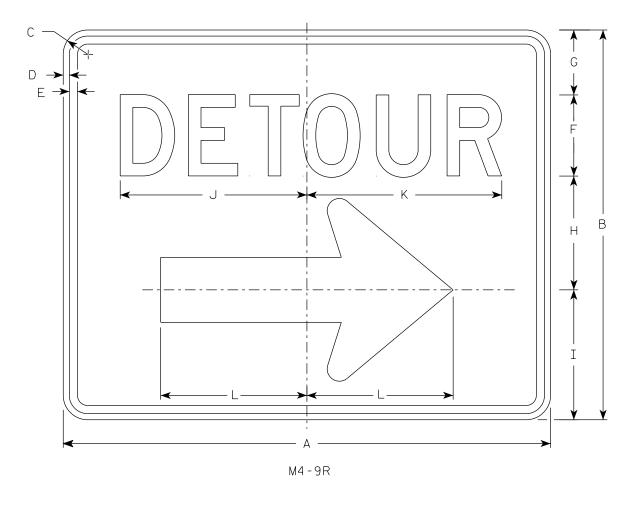
PLOT DATE: 9-FEB 2023 8:03

PLOT BY : dotc4c

PLOT NAME :

PLOT SCALE: \$\$.....plotscale.....\$\$ WISDOT/CADDS SHEET 42

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M48A.dgn

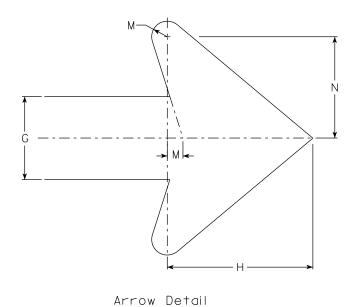


NOTES

- 1. Sign is Type II Type F Reflective
- 2. Color:

Background - Orange Message - Black

- 3. Message Series D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. M4-9L is the same as M4-9R except the arrow is reversed.



SIZE	Δ	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 1/8													5.00
2M	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 1/8													5.00
3	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 1//8													5.00
4	48	36	1 1/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8 2	0 1/2	13 1/4	1 1/8	6 1/8													12.0
5	48	36	1 1/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8 21	0 1/2	13 1/4	1 1/8	6 1/8													12.0

COUNTY:

STANDARD SIGN M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew

forState Traffic Engineer PLATE NO. M4-9R.6

DATE <u>2/9/2023</u>

SHEET NO:

Ε

FILE NAME: C:\CAEfiles\Projects\tr_stdplate\M49R.dgn

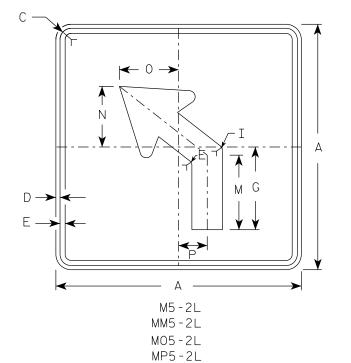
HWY:

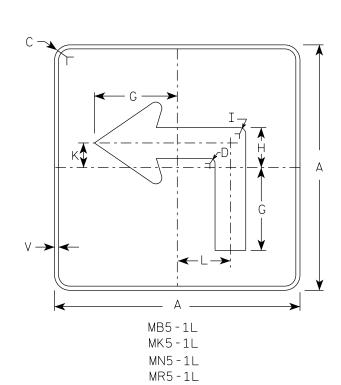
PROJECT NO:

PLOT BY : dotc4c

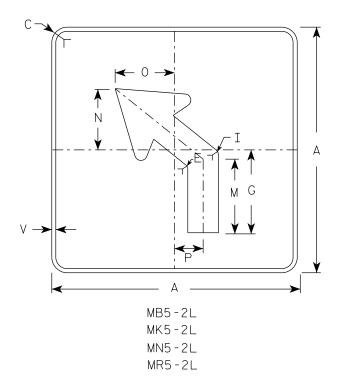
PLOT NAME :

M5-1L MM5-1L M05-1L MP5-1L





HWY:



NOTES

- 1. Signs are Type II Type H reflective except as shown

Background - See note 4 Message - See note 4

- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M5-1 and M5-2 Background White Message – Black

MB5-1 and MB5-2 Background - Blue

Message - White

MK5-1 and MK5-2 Background - Green

Message - White

MM5-1 and MM5-2 Background - White

Message - Green

MN5-1 and MN5-2 Background - Brown

Message - White

M05-1 and M05-2 Background - Orange - Type F Reflective

Message - Black

MP5-1 and MP5-2 Background - White

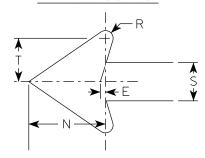
Message - Blue

MR5-1 and MR5-2 Background - Brown

Message - Yellow

- 5. M5-1R same as M5-1L except arrow points right.
- 6. M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL



1																										
SIZE	Α	В	С	D	E	F	G	Н	Ι	J	K	L	М	N	0	Р	Q	R	S	Т	V	W	Х	Y	Z	Area sq. ft.
1																										
25	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2	3	1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1/2					3.06
3	30		1 1/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1/2					6.25
4	30		1 1/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1/2					6.25
5	30		1 1/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1/2					6.25

COUNTY:

STANDARD SIGN M5 - 1 & M5 - 2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Forstate Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

SHEET NO:

FILE NAME : C:\CAEfiles\Projects\tr_stdplate_M51.dgn

PROJECT NO:

PLOT DATE: 13-FEB 2023 10:05

PLOT BY : dotc4c

PLOT NAME :

- 1. Signs are Type II Type H Reflective except as Shown
- 2. Color:

Background - See note 4 Message - See note 4

- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. M6-1 and M6-2 Background White Message - Black

MB6-1 and MB6-2 Background - Blue

Message - White

MK6-1 and MK6-2 Background - Green

Message - White

MM6-1 and MM6-2 Background - White

Message - Green

MN6-1 and MN6-2 Background - Brown

Message - White

M06-1 and M06-2 Background - Orange - Type F Reflective

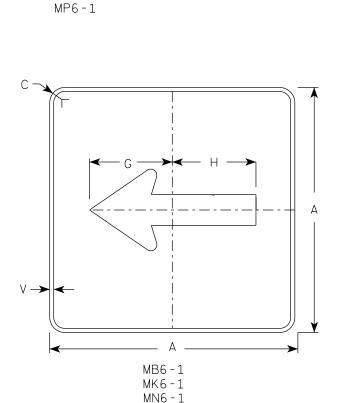
Message - Black

MP6-1 and MP6-2 Background - White

Message - Blue

MR6-1 and MR6-2 Background - Brown

Message - Yellow



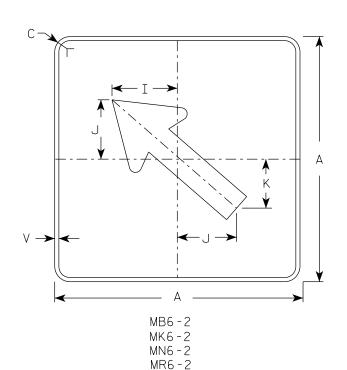
MR6-1

HWY:

M6 - 1

MM6 - 1

M06-1



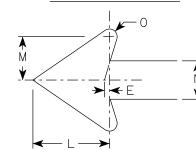
M6-2

MM6 - 2

MO6-2

MP6-2

ARROW DETAIL



SIZE	. Α	В	С	D	Е	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	W	Х	Y	Z	Area sq. ft.
1																											
25	1 21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 %	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 %	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
3	30)	1 1/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30)	1 1/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
5	30)	1 1/8	1/2	5/8		10 ¾	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25

COUNTY:

STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16 SHEET NO:

Ε

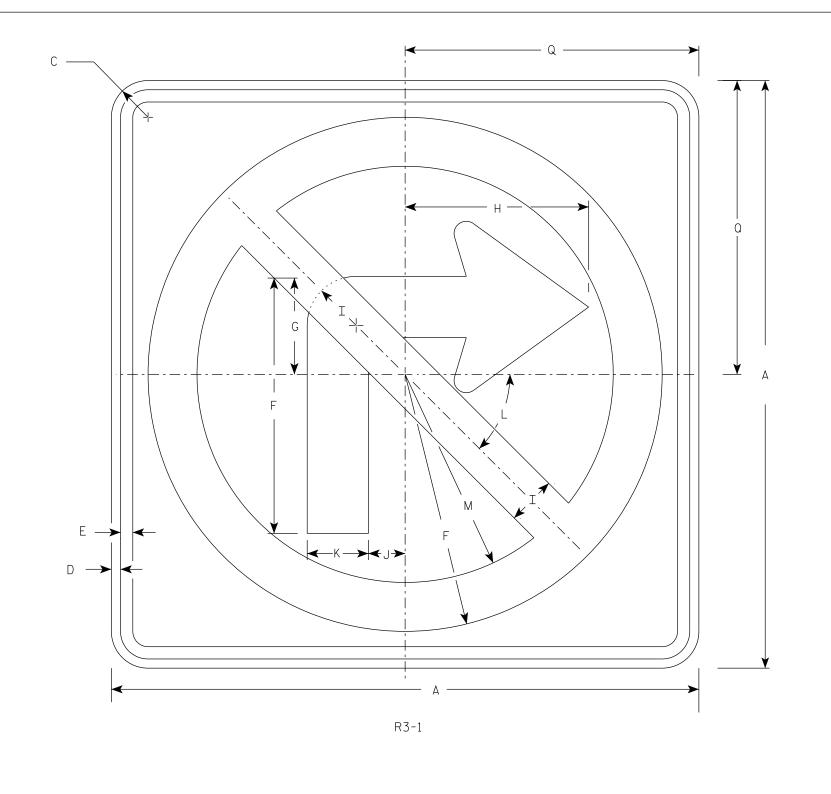
PLOT BY : dotc4c PLOT NAME :

PLOT SCALE: \$\$.....plo†scale.....\$\$ WISDOT/CADDS SHEET 42

FILE NAME: C:\CAEfiles\Projects\tr_stdplate_M61.dgn

PROJECT NO:

PLOT DATE: 13-FEB 2023 1:30

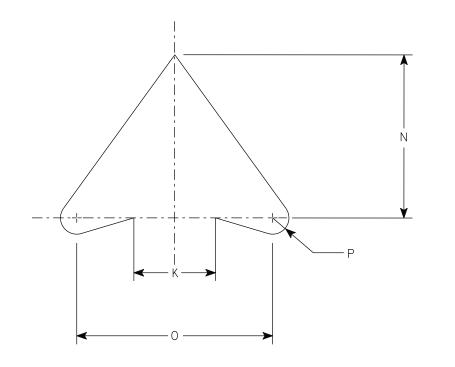


NOTES

- 1. Sign is Type II Type H Reflective
- 2. Color:

Background - White Message - See note 3

3. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	M N	0	Р	Q	R	S	Т	U	٧	W	X	Υ	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2 5	6	1/2	12										4.0
25	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45 °	8 1/2 5	6	1/2	12										4.0
2M	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4 7 1/2	9	3/4	18										9.0
3	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4 7 1/2	9	3/4	18										9.0
4	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4 7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17 10	12	1	24										16.0

COUNTY:

STANDARD SIGN R3-1

WISCONSIN DEPT OF TRANSPORTATION

SHEET NO:

PPROVED

Matthew R Laure

For State Traffic Engineer

DATE 2/2/23 PLATE NO. R3-1.6

FILE NAME : C:\CAEfiles\Projects\tr-stdplate\R31.dgn

HWY:

PROJECT NO:

PLOT DATE: 9-JULY 2024 1:51

PLOT BY : mscj9h

PLOT NAME :

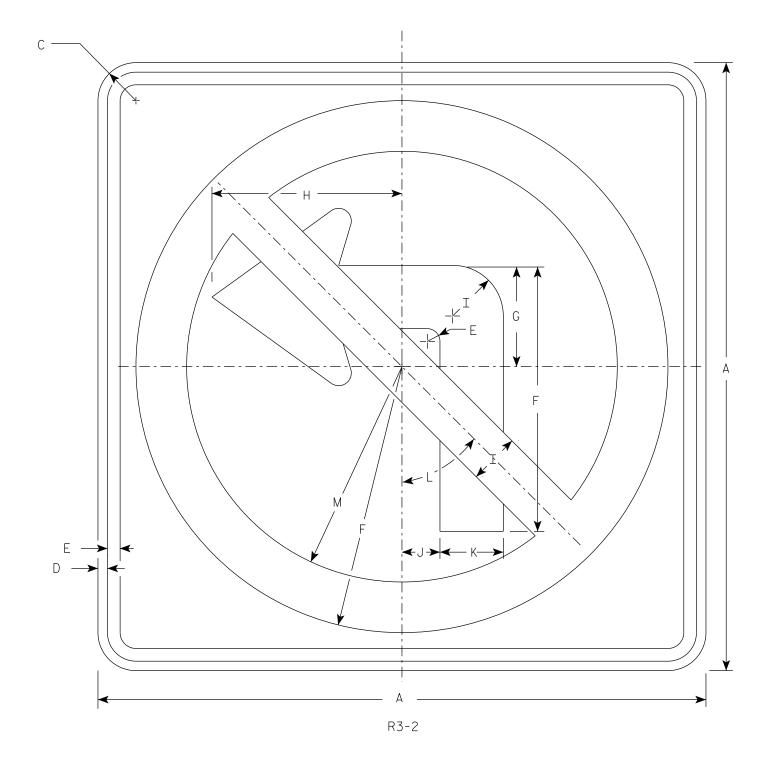


- 1. Sign is Type II Type H Reflective
- 2. Color:

Background - White

Message - See note 3

3. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



N N N N

ARROW DETAIL

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Х	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
25	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		2 1/4	5/8	3/4	15 ¾	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

COUNTY:

STANDARD SIGN R3-2

WISCONSIN DEPT OF TRANSPORTATION

SHEET NO:

APPROVED Matthew & & Forstate Traffic Engineer

DATE <u>2/2/23</u>

PLATE NO. <u>R3-2.11</u>

Ε

FILE NAME : C::CAEfiles\Projects\tr_stdpldate\R32.dgn

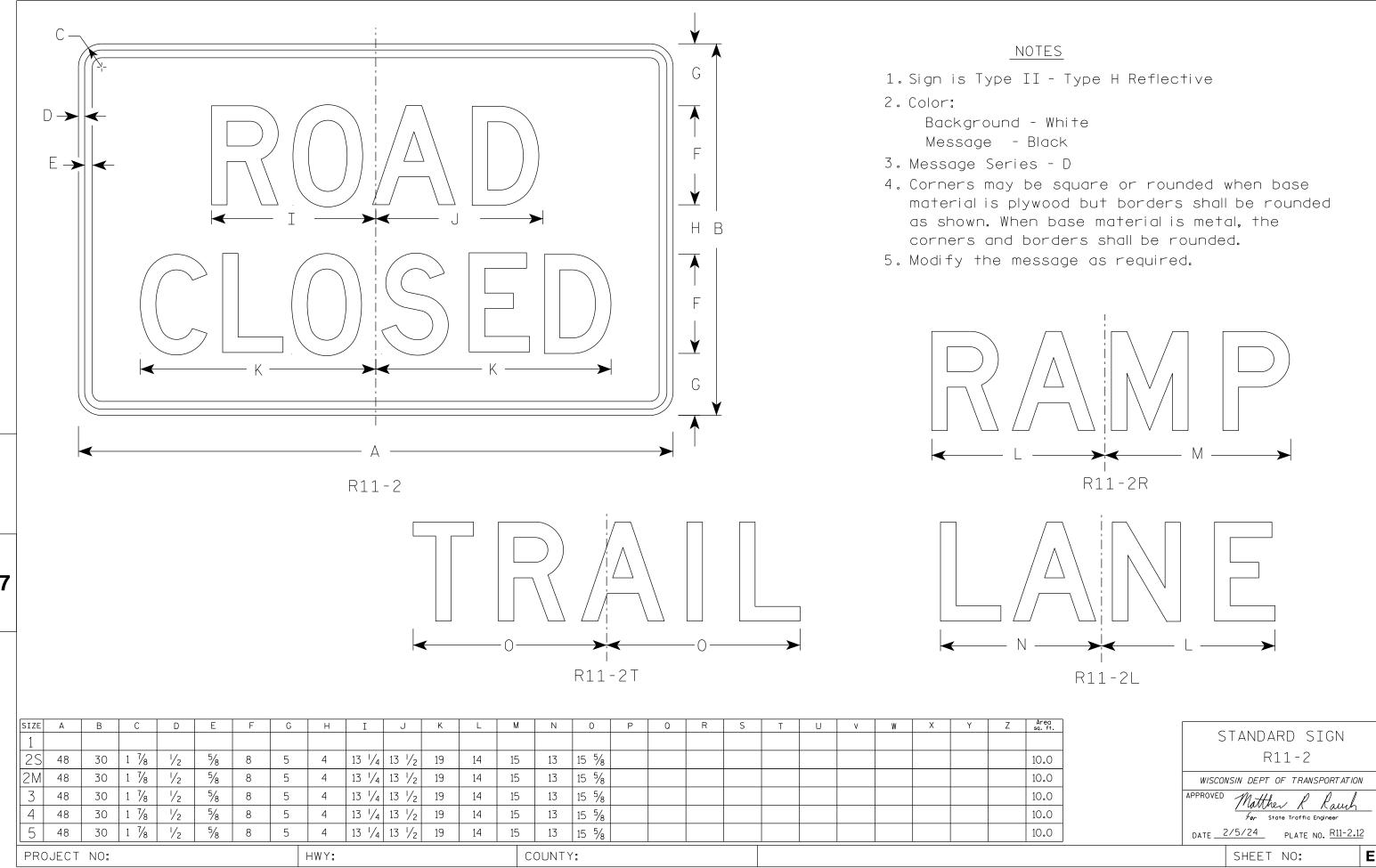
PROJECT NO:

HWY:

PLOT DATE: 9-JULY 2024 2:11

PLOT BY: mscj9h

PLOT NAME :



FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112.dgn

PLOT DATE: 5-FEB 2024 2:10

PLOT BY: mscj9h

PLOT NAME :

NOTES

- 1. Sign is Type II Type H Reflective
- 2. Color:

Background - White Message – Black

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

C —		
	G F H B F G G	
R	l1-2B	

SIZE	А	В	С	D	E	F	G	Н	I	J	К	L	М	N	0	Р	Q	R	S	Т	U	V	W	X	Y	Z	Area sq. ft.
1																											
25	48	30	1 1/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 1/8																10.0
2M	48	30	1 1/8	1/2	5/8	8	5	4	19 ¾	9 3/4	9 1/8																10.0
3	48	30	1 1/8	1/2	5/8	8	5	4	19 ¾	9 3/4	9 1/8																10.0
4	48	30	1 1/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 1/8																10.0
5	48	30	1 1/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 1/8																10.0

STANDARD SIGN R11-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For State Traffic Engineer

SHEET NO:

DATE 2/5/24 PLATE NO. R11-2B.3

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R112B.dgn

PROJECT NO:

PLOT DATE : 5-FEB 2024 2:20

PLOT BY : mscj9h

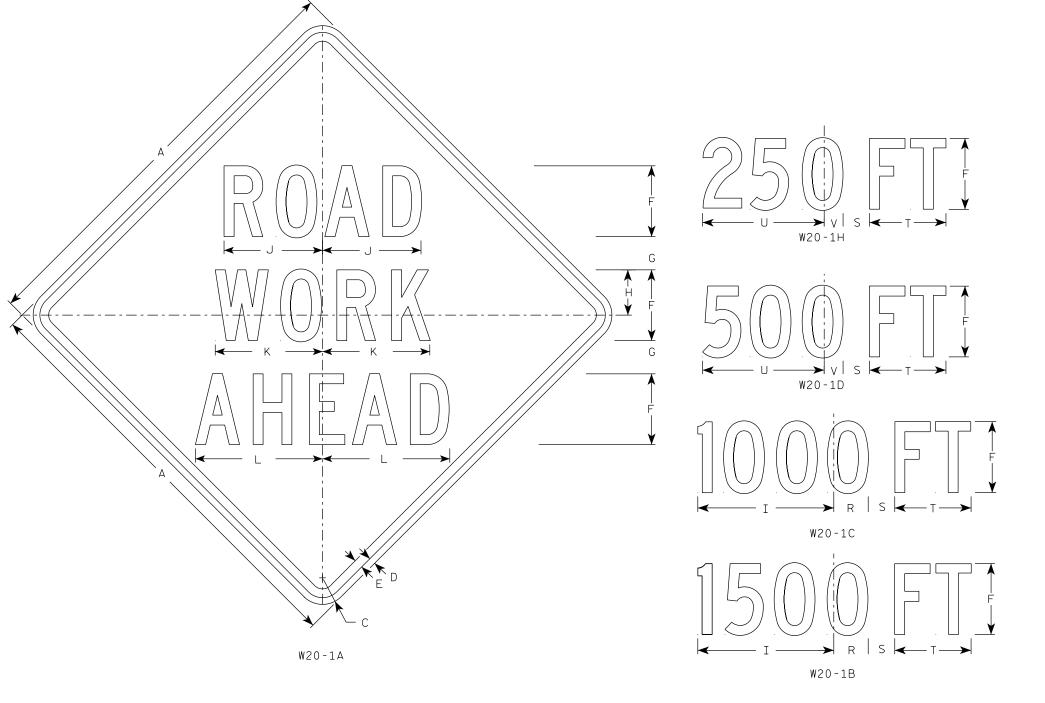
WISDOT/CADDS SHEET 42

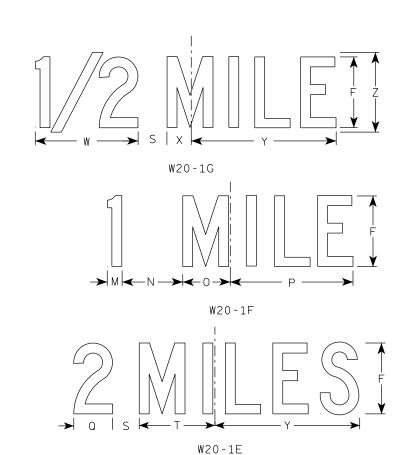
NOTES

- 1. Sign is Type II Type F Reflective
- 2. Color:

Background - Orange Message - Black

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





SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7	8 1/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5	9	1 3/8	8	1 3/4	10 3/4	6	9.0
25	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1	6 %	5 3/8	13 1/8	4 3/8	3 1/8	3	8	13 ¾	2 1/8	11 1/8	2 3/4	16 3/8	9	16.0
2M	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1	6 1/8	5 3/8	13 1/8	4 3/8	3 1/8	3	8	13 ¾	2 1/8	11 1/8	2 3/4	16 3/8	9	16.0
3	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1	6 %	5 3/8	13 1/8	4 3/8	3 1/8	3	8	13 ¾	2 1/8	11 1/8	2 3/4	16 3/8	9	16.0
4	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1	6 1/8	5 3/8	13 1/8	4 3/8	3 1/8	3	8	13 ¾	2 1/8	11 1/8	2 3/4	16 3/8	9	16.0
5	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 %	5 3/8	13 1/8	4 3/8	3 1/8	3	8 %	13 ¾	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew & Rauch
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-1.12

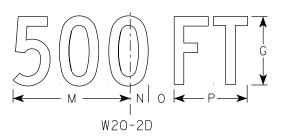
SHEET NO:

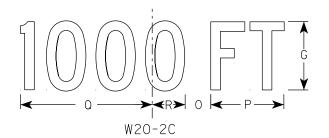
PROJECT NO:

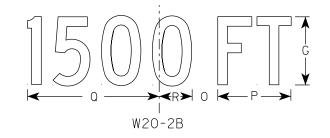


- 1. Sign is Type II Type F Reflective
- 2. Color:

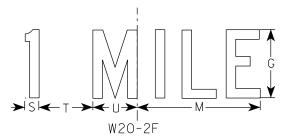
- 3. Message Series See note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Line 1 is Series D. Line 2 is Series D for AHEAD and Series C for all other distances.











SIZE	А	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Х	Υ	Z	Area sq. ft.
	36		2 1/4	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 1/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
25	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 1/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10	2 3/8	14 3/8			16.0
2M	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 1/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10	2 3/8	14 3/8			16.0
3	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 1/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10	2 3/8	14 3/8			16.0
4	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 1/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10	2 3/8	14 3/8			16.0
5	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 1/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10	2 3/8	14 3/8			16.0

COUNTY:

W20-2A

HWY:

STANDARD SIGN W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

DATE 1/10/2024 PLATE NO. W20-2.7

SHEET NO:

FILE NAME: C:\CAEfiles\Projects\tr_stdplate\W202.DGN

PROJECT NO:

PLOT DATE: 10-JAN 2024 11:36

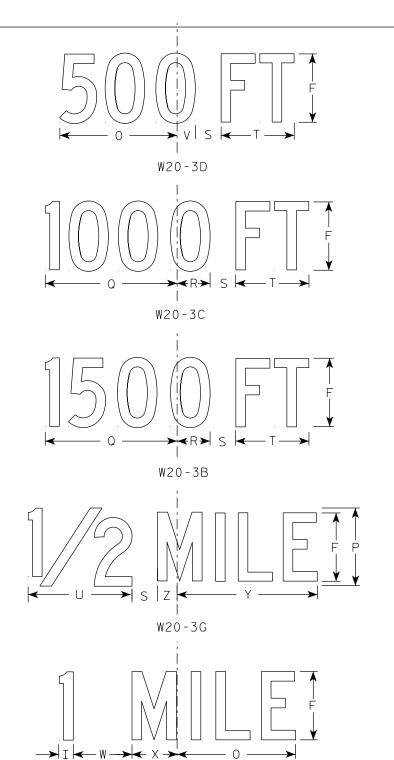
PLOT BY : dotc4c

PLOT NAME :



- 1. Sign is Type II Type F Reflective
- 2. Color:

- 3. Message Series see note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Lines 1 and 2 are Series D.
 Line 3 is Series D for AHEAD and
 Series C for all other distances.



W20-3F

A N	
C	

HWY:

W20-3A

SIZE	Α	В	С	D	E	F	G	Н	I	J	К	L	М	Z	0	Р	Q	R	S	Т	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 1/8	12 1/2	11	9	6	10 1/8	2 1/2	1 1/8	5 %	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
25	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 %	1 1/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10	1 1/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 1/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 1/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 1/8	6	4 5/8	14 3/8	2 3/8	16.0

COUNTY:

STANDARD SIGN W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

 $\frac{MMMeV}{For}$ State Traffic Engineer

SHEET NO:

DATE 1/10/2024 PLATE NO. W20-3.8

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W203.DGN

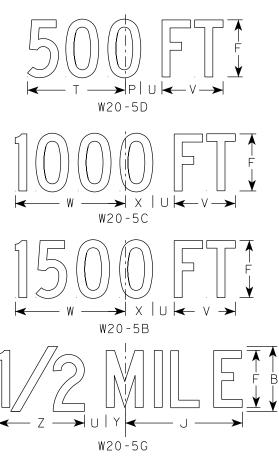
PROJECT NO:

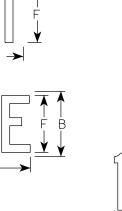
PLOT DATE: 10-JAN 2024 12:02 PLOT BY: dotc4c

PLOT NAME :

- 1. Sign is Type II Type F Reflective
- 2. Color:

- 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. " ____ LANE" is Series B. All other copy is Series C.





→ Q ← R → ← S → ← T →
W20-5E

W20-5F

SIZE	А	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	X	Y	Z	Area sq. ft.
1	36	6	2 1/4	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
25	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 1/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 1/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10	16.0
3	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 1/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 1/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 1/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10	16.0

COUNTY:

W20-5A

HWY:

STANDARD SIGN W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

For State Traffic Engineer

DATE 3/27/24 PLATE NO. <u>W20-5.12</u>

> Ε SHEET NO:

FILE NAME: C:\CAEfiles\Projects\tr_stdplate\W205.dgn

PROJECT NO:

W20-56A

W20-55A

PLOT DATE: 27-MAR 2024 4:01

PLOT BY: mscj9h

PLOT NAME :

- 1. Sign is Type II Type F Reflective
- 2. Color:

- 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. W04-2L is the same as W04-2R except the symbolis reversed along the vertical centerline.

D E	
← G →	
F F	
$A \longrightarrow K \longrightarrow $	
С	

W04-2R

SIZE	А	В	С	D	E	F	G	Н	I	J	К	L	М	Ν	0	Р	a	R	S	Т	U	V	W	X	Υ	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
25	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN WO4-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For State Traffic Engineer

DATE 1/25/2024 PLATE NO. W04-2.2

SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W042.dgn

PROJECT NO:

PLOT DATE: 25-JAN 2024 9:07

PLOT BY : dotc4c

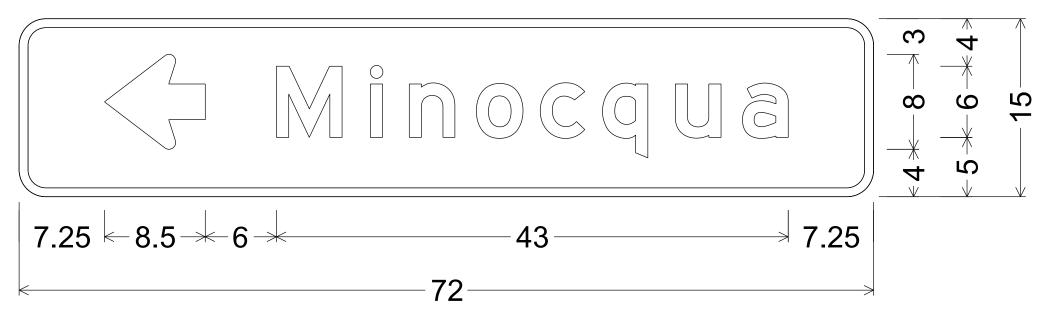
WISDOT/CADDS SHEET 42

NOTES

- 1. Sign is Type II Type H Reflective
- 2. Color:

Background - Green Message - White

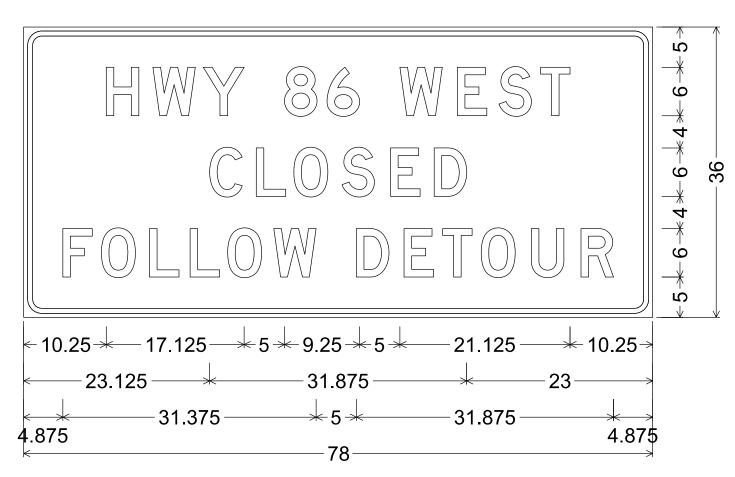
3. Message Series - E



D1-1; 2.250" Radius, 0.750" Border

PROJECT NO: 1176-23-65 HWY: USH 51 COUNTY: LINCOLN Ε PERMANENT SIGNING SHEET NO: PLOT SCALE: \$\$.....plo†scale.....\$\$ WISDOT/CADDS SHEET 42 PLOT BY : dotc4c PLOT DATE: 1-APR 2025 3:45 PLOT NAME :

FILE NAME : C:\CAEfiles\Projects\tr_d7\7351a425.dgn



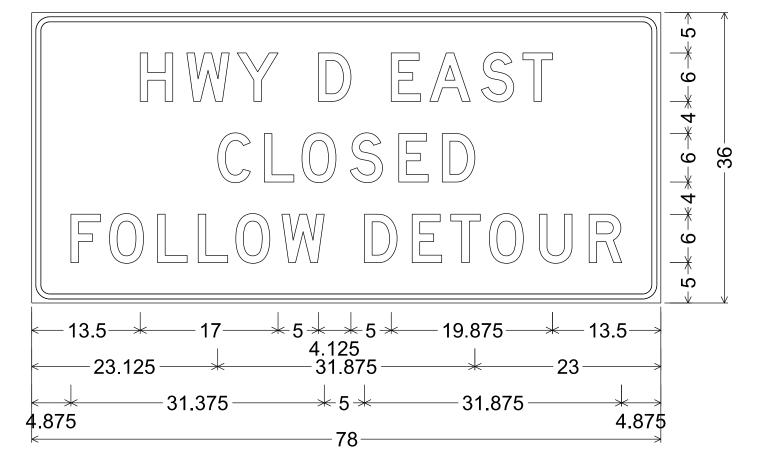
2.250" Radius, 0.625" Border, 0.500" Indent

NOTES

- 1. Fixed Message Signs Type II Type F Reflective
- 2. Color:

Background - Orange Message - Black

3. Message Series - D



2.250" Radius, 0.625" Border, 0.500" Indent

PROJECT NO: 1176-23-65

HWY: USH 51

COUNTY: LINCOLN

TEMPORARY SIGNING

PLOT BY : dotc4c

SHEET NO:

FILE NAME : C:\CAEfiles\Projects\tr_d7\7351a425.dgn

PLOT DATE: 1-APR 2025 3:45

PLOT NAME :

Ε

STATE PROJECT NUMBER 1176-23-65 DESIGN DATA 262'-21/2" END OF DECK TO END OF DECK, CONCRETE OVERLAY LIMITS LIVE LOAD: 130'-0" 130'-0" 1'-1'/4" 1'-1'/4' INVENTORY RATING: HS11
OPERATING RATING: HS19
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 200 KIPS SPAN 1 SPAN 2 10°32'00" SKEW, TYP. - CLEANING APPROACHES AND CONCRETE MASONRY OVERLAY APPROACHES, TYP. POINT OF MIN. VERT. CLR. MATERIAL PROPERTIES POINT OF MIN. VERT. CLEAR (CONCRETE MASONRY OVERLAY DECKS f'c = 4,000 psi 2 X CONCRETE MASONRY:

SUPERSTRUCTURE ...

ALL OTHERf'c = 4,000 psif'c = 3,500 psi OPTIONAL LONGITUDINAL CONSTRUCTION JOINT TRAFFIC DATA B-35-59 R USH 51 S.B. END OF DECK STA. 100+74.93--END OF DECK STA. 98+12.73 STH 86 A.D.T. = 4,710 (2027) A.D.T. = 4,710 (2047) R.D.S. = 55 MPH — ₹ USH 51 N.B. BRG. WEST ABUT. -€ PIER STA.99+43.83 € BRG. EAST ABUT. STA. 100+73.83 101+00 99+00 100+00 USH 51 -R STH 86 A.D.T. = 10,620 (2019) R.D.S. = 70 MPH $1 \times$ STA. 98+95.05 STH 86 = STA. 1480+09.32 USH 51 S.B. $\star \Phi$ -STA. 99+92.61 STH 86 = STA. 1479+48.22 USH 51 N.B. **PLAN** CONCRETE OVERLAY - 2-SPAN 70" PRESTRESSED CONC. GIRDERS (USH 51 REFERENCE LINES AND STATIONING PER ORIGINAL BRIDGE PLANS) --- 1510 STRUCTURES DESIGN CONTACTS WEST ABUT. - 11/2" MIN. CONCRETE OVERLAY - CONCRETE SURFACE REPAIR BRIDGE OFFICE: AARON BONK CONSULTANT: HEATHER ANDERS (608) 261-0261 - 1500 \= = = = = = = = |= = = = = = = = (414) 410-6899 -1490 2 MIN. 95%" O.D. OILFIELD PIPE, TYP. NO. DATE BY REVISION I I CONCRETE -1480 - FXISTING 11 SURFACE REPAIR GROUNDLINE ORIGINAL PLANS PREPARED BY CONCRETE 44 SURFACE REPAIR, TYP. AT ABUTS. -1470 -EXISTING CRUSHED AGGREGATE SLOPE 250 E. WISCONSIN AVE #2000 HNTB └─ ┢─∩╵ MILWAUKEE, WI 53202 (414) 359-2300 піп PAVING, TYP. USH 51 S.B USH 51 N.B - 1460 Π Π Π STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 8 8 - 1450 annunun, an H EMK **LEGEND** MISCONS **ELEVATION** CHIEF STRUCTURES DESIGN ENGINEER (LOOKING NORTH) TRAFFIC DIRECTION RICHARD J STRUCTURE B-35-59 MINIMUM CLEARANCE LOCATIONS PER ORIGINAL 1983 BRIDGE PLANS. MINIMUM CLEARANCE DIMENSIONS PER HSI. NB CLEARANCE MEASURED 7/18/2017. SB CLEARANCE MEASURED KORINEK STH 86 OVER USH 51 E-101608 NE I TOWN/CITY/VILLAGE MILWAUKEE, LINCOLN DESIGN SPEC. REHABILITATION N/A INDICATES WING NUMBERS X GUARDRAIL ATTACHMENT DESIGNED DESIGN DRAWN
BY RJK CK'D. HDA BY WAL LAND LIST OF DRAWINGS 2 - 4" DIA. PVC CONDUITS ON UNDERSIDE OF DECK. CONDUIT OWNERS AND STATUS UNKNOWN. CONDUITS TO REMAIN. SHEET 1 OF GENERAL PLAN & ELEVATION
TYPICAL SECTION, GENERAL NOTES, AND QUANTITIES GENERAL PLAN J. LIMITS OF APPROACH WORK - CLEANING APPROACHES AND CONCRETE MASONRY OVERLAY APPROACHES & ELEVATION 4/30/2025 FILE NAME: \\milw00\ingrproj\73176\W017\b1\B-35-59\cds\B59_080101_gp.dgn PLOT NAME : \$FILE\$ PLOT SCALE: 30:1

1176-23-65

STATE PROJECT NUMBER

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY.

APPLY "PIGMENTED SURFACE SEALER RESEAL" TO THE TOP AND INSIDE FACES OF EXISTING PARAPETS.

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" QUANTITIES ARE BASED ON THE LEVEL 2 INFRARED SCAN DATED 10/08/2021 AND ARE APPROXIMATE, EXACT AREAS OF REPAIR SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER, DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ALL CONCRETE REMOVAL NOT COVERED WITH CONCRETE OVERLAY SHALL BE DEFINED BY A 1" DEEP SAW CUT UNLESS SPECIFIED OTHERWISE.

"CONCRETE SURFACE REPAIR" AREAS SHOWN IN THE QUANTITIES TABLE ARE BASED ON THE BRIDGE INSPECTION REPORT AND ARE APPROXIMATE. REPAIRS EXPECTED AT THE ABUTMENTS, ABUTMENT DIAPHRAGMS, PIER DIAPHRAGMS, AND PARAPET. EXACT LOCATIONS AND LIMITS OF REPAIR SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE CONCRETE APPROACH PAVEMENT SUFACES UNDER THE BID ITEM "CLEANING APPROACHES".

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.10F THE STANDARD SPECIFICATIONS. CONST INCIDENTAL TO BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

THE AVERAGE OVERLAY THICKNESS IS BASED ON THE MINIMUM OVERLAY THICKNESS PLUS $1/\!\!/_2$ -INCH TO ACCOUNT FOR VARIATIONS IN THE DECK SURFACE.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

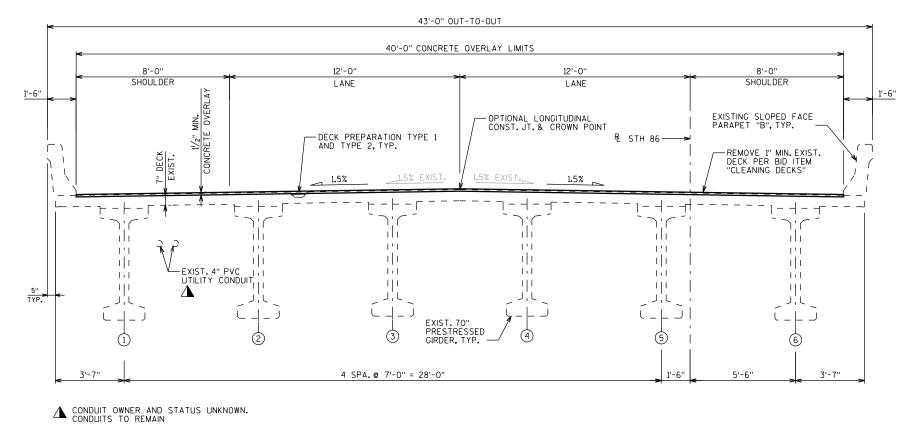
PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM CONCRETE OVERLAY THICKNESS OF 1/2" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION, THE EXPECTED AVERAGE CONCRETE OVERLAY THICKNESS IS 2° . IF THE EXPECTED AVERAGE CONCRETE OVERLAY THICKNESS IS EXCEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1,166
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	236
509.0301	PREPARATION DECKS TYPE 1	SY	120
509.0302	PREPARATION DECKS TYPE 2	SY	50
509.0500	CLEANING DECKS	SY	1,166
509.0600	CLEANING APPROACHES	SY	177
509.1500	CONCRETE SURFACE REPAIR	SF	50
509.2000	FULL-DEPTH DECK REPAIR	SY	5
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	74
509.2600	CONCRETE MASONRY OVERLAY APPROACHES	CY	10

2" AVERAGE OVERLAY THICKNESS



TYPICAL SECTION (LOOKING EAST)

CONCRETE APPROACH PAVEMENT DIMENSION VARIES 1½" CLEANING APPROACHES AND 1½" CONCRETE MASONRY OVERLAY APPROACHES -1½" CONCRETE MASONRY OVERLAY DECKS AND 1½" CONCRETE MASONRY OVERLAY APPROACHES TOP OF EXISTING BRIDGE DECK EXISTING ASPHALT PAVEMENT JOINT AT END OF CONCRETE APPROACH PAVEMENT 1" CLEANING DECKS AND

SECTION THRU APPROACHES

8 NO. DATE REVISION BY STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION STRUCTURE B-35-59 TYPICAL SECTION. SHEET 2

GENERAL NOTES & QUANTITIES

PLOT NAME : \$FILE\$

DIVISION 1 - STH 86 (NORTHWEST)

				AREA (SF)		INCREM	MENTAL VOL (CY) (UNAD	JUSTED		CUMULATIVE	VOL (CY)
STATION	REAL STATION	DISTANCE	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FIL	l MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1	-	NOTE 8
96+36.22	9636.22	0.00	23.94	0.00	0.00	0	0	0	0	0	0
96+50.00	9650.00	13.78	8.77	0.00	0.00	8	0	0	8	0	8
96+60.00	9660.00	10.00	7.82	0.00	4.44	3	0	1	11	1	10
96+63.30	9663.30	3.30	7.91	0.00	4.25	1	0	1	12	2	10
96+71.14	9671.14	7.84	8.06	0.00	2.34	2	0	1	14	3	11
96+88.28	9688.28	17.14	7.46	0.00	3.03	5	0	2	19	5	14
96+96.07	9696.07	7.79	6.99	0.00	1.65	2	0	1	21	6	15
97+00.00	9700.00	3.93	6.77	0.00	1.08	1	0	0	22	6	16
97+13.26	9713.26	13.26	6.15	0.00	0.23	3	0	0	25	6	19
97+21.10	9721.10	7.84	6.06	0.00	1.54	2	0	0	27	6	21
97+37.24	9737.24	16.14	4.71	0.00	2.37	3	0	1	30	7	23
97+45.00	9745.00	7.76	4.86	0.00	11.60	1	0	2	31	9	22
97+50.00	9750.00	5.00	4.48	0.00	16.16	1	0	3	32	12	20
97+75.00	9775.00	25.00	4.58	0.00	33.24	4	0	23	36	35	1
97+90.39	9790.39	15.39	0.00	0.00	0.00	1	0	9	37	44	-7
				<u>. </u>		37	<u> </u>	44		·	

DIVISION 1 - STH 86 (SOUTHWEST)

				AREA (SF)		INCREM	IENTAL VOL (CY) (UNAD	JUSTED		CUMULATIVE \	/OL (CY)
STATION	REAL STATION	DISTANCE	сит	SALVAGED/UNUSABLE	FILL	сит	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	сит	EXPANDED FILL	MASS ORDINATE
			COT	PAVEMENT MATERIAL	TILL				1.00	1.00	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8
96+71.14	9671.14	0.00	5.99	0.00	1.23	0	0	0	0	0	0
96+88.28	9688.28	17.14	5.61	0.00	0.67	4	0	1	4	1	3
96+96.07	9696.07	7.79	5.24	0.00	2.07	2	0	0	6	1	5
97+00.00	9700.00	3.93	4.86	0.00	3.09	1	0	0	7	1	6
97+13.26	9713.26	13.26	3.23	0.00	8.04	2	0	3	9	4	5
97+21.10	9721.10	7.84	3.61	0.00	9.76	1	0	3	10	7	3
97+37.24	9737.24	16.14	6.79	0.00	0.00	3	0	3	13	10	3
97+45.00	9745.00	7.76	4.71	0.00	2.47	2	0	0	15	10	5
97+50.00	9750.00	5.00	4.58	0.00	5.08	1	0	1	16	11	5
97+75.00	9775.00	25.00	3.90	0.00	14.32	4	0	9	20	20	0
97+90.39	9790.39	15.39	4.60	0.00	90.40	2	0	30	22	50	-28
97+98.51	9798.51	8.12	4.01	0.00	125.01	1	0	32	23	82	-59
						23		82			

HWY: USH 51 COUNTY: LINCOLN SHEET: EARTHWORK PROJECT NO: 1176-23-65 PLOT NAME : 090101_ew1

DIVISION 1 - STH 86 (NORTHEAST)

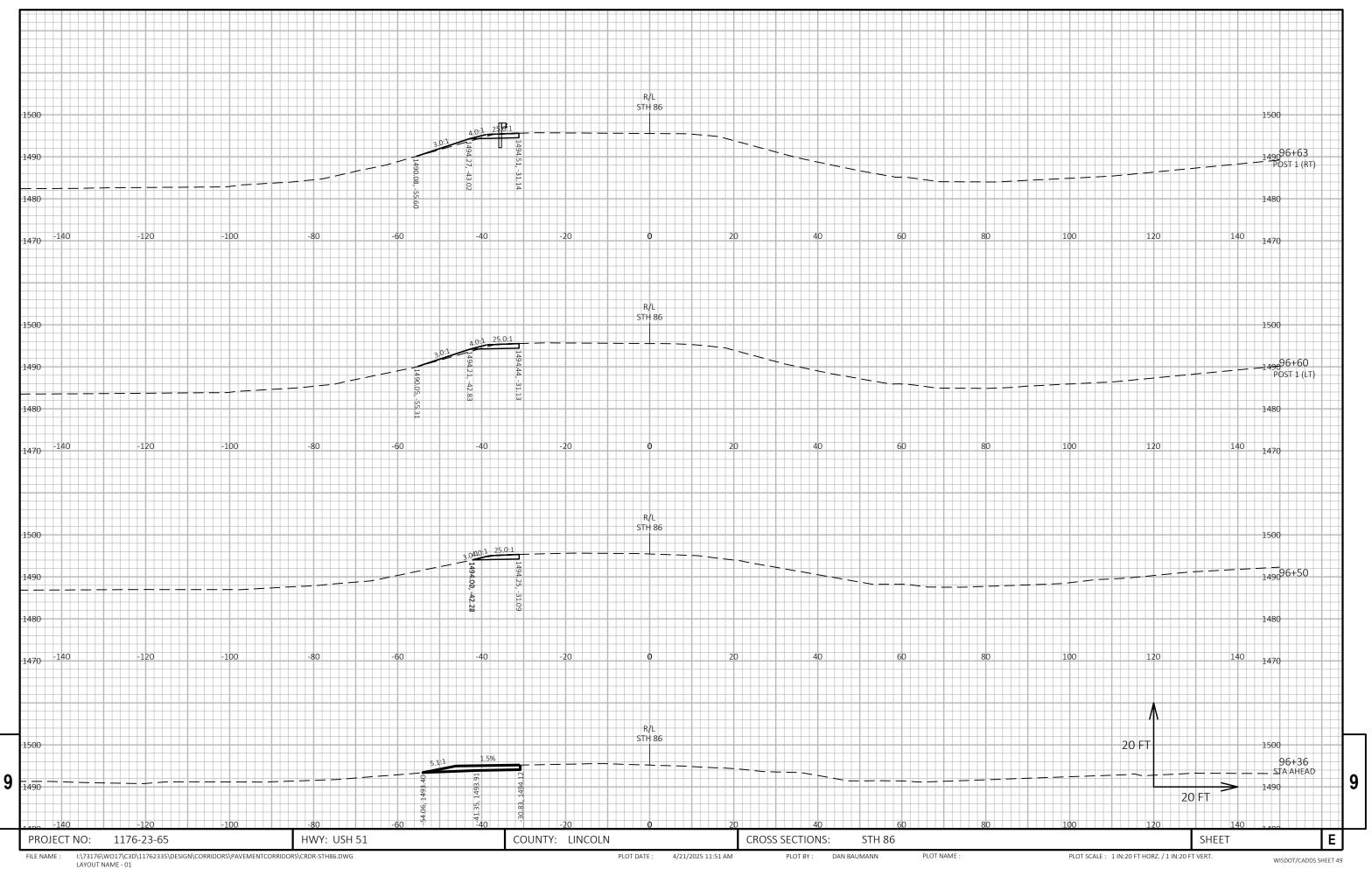
				AREA (SF)		INCREN	MENTAL VOL (CY) (UNADJ	USTED)		CUMULATIVE V	OL (CY)
STATION	REAL STATION	DISTANCE	СИТ	SALVAGED/UNUSABLE	FILL	сит	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	сит	EXPANDED FILL	MASS ORDINATE
				PAVEMENT MATERIAL					1.00	1.00	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8
100+84.87	10084.87	0.00	0.59	0.00	87.03	0	0	0	0	0	0
100+92.60	10092.60	7.73	4.80	0.00	36.98	1	0	18	1	18	-17
101+00.00	10100.00	7.40	2.90	0.00	0.45	1	0	5	2	23	-21
101+50.00	10150.00	50.00	3.21	0.00	1.12	6	0	1	8	24	-16
101+62.09	10162.09	12.09	4.40	0.00	0.07	2	0	0	10	24	-14
101+70.00	10170.00	7.91	5.19	0.00	0.03	1	0	0	11	24	-13
101+87.09	10187.09	17.09	5.58	0.00	1.70	3	0	1	14	25	-11
101+94.79	10194.79	7.70	5.59	0.00	4.10	2	0	1	16	26	-10
102+00.00	10200.00	5.21	5.28	0.00	3.72	1	0	1	17	27	-10
102+12.06	10212.06	12.06	6.61	0.00	0.09	3	0	1	20	28	-8
102+19.13	10219.13	7.07	6.54	0.00	0.00	2	0	0	22	28	-6
	·	·				2.2		20			

DIVISION 1 - STH 86 (SOUTHEAST)

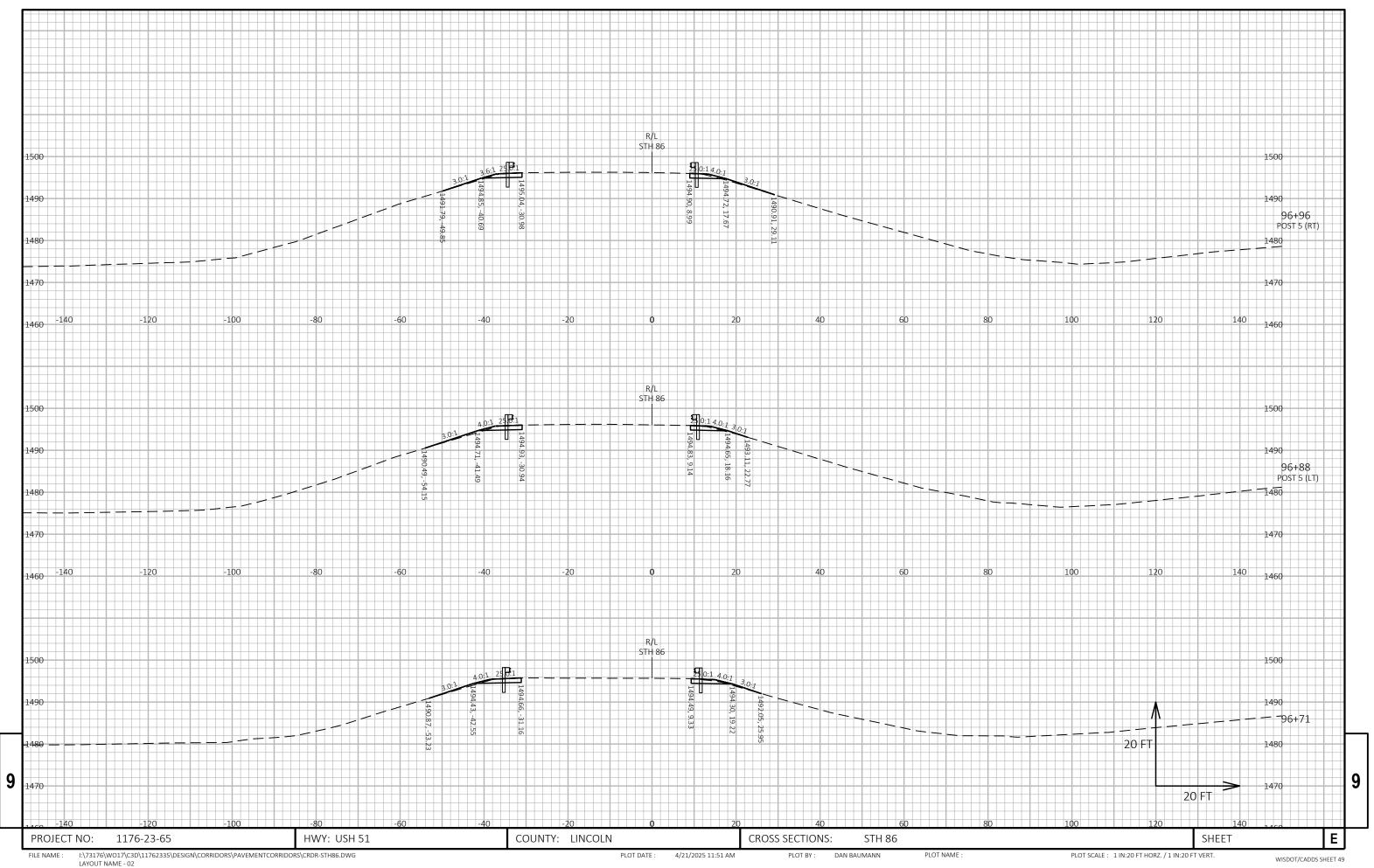
				AREA (SF)		INCREN	MENTAL VOL (CY) (UNADJ	USTED)		CUMULATIVE VO	DL (CY)
STATION	REAL STATION	DISTANCE	сит	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	СИТ	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8
100+92.60	10092.60	0.00	5.36	0.00	15.34	0	0	0	0	0	0
101+00.00	10100.00	7.40	4.63	0.00	23.94	1	0	5	1	5	-4
101+50.00	10150.00	50.00	3.84	0.00	14.60	8	0	36	9	41	-32
101+62.09	10162.09	12.09	2.99	0.00	13.04	2	0	6	11	47	-36
101+70.00	10170.00	7.91	4.49	0.00	8.73	1	0	3	12	50	-38
101+87.09	10187.09	17.09	7.87	0.00	0.00	4	0	3	16	53	-37
101+94.79	10194.79	7.70	6.58	0.00	37.60	2	0	5	18	58	-40
102+00.00	10200.00	5.21	5.99	0.00	29.44	1	0	6	19	64	-45
102+12.06	10212.06	12.06	5.77	0.00	16.18	3	0	10	22	74	-52
102+19.13	10219.13	7.07	5.88	0.00	10.91	2	0	4	24	78	-54
102+19.89	10219.89	0.76	5.87	0.00	10.46	0	0	0	24	78	-54
102+28.36	10228.36	8.47	5.87	0.00	2.93	2	0	2	26	80	-54
						26		80			

HWY: USH 51 COUNTY: LINCOLN SHEET: EARTHWORK PROJECT NO: 1176-23-65 PLOT BY : HNTB CORP.

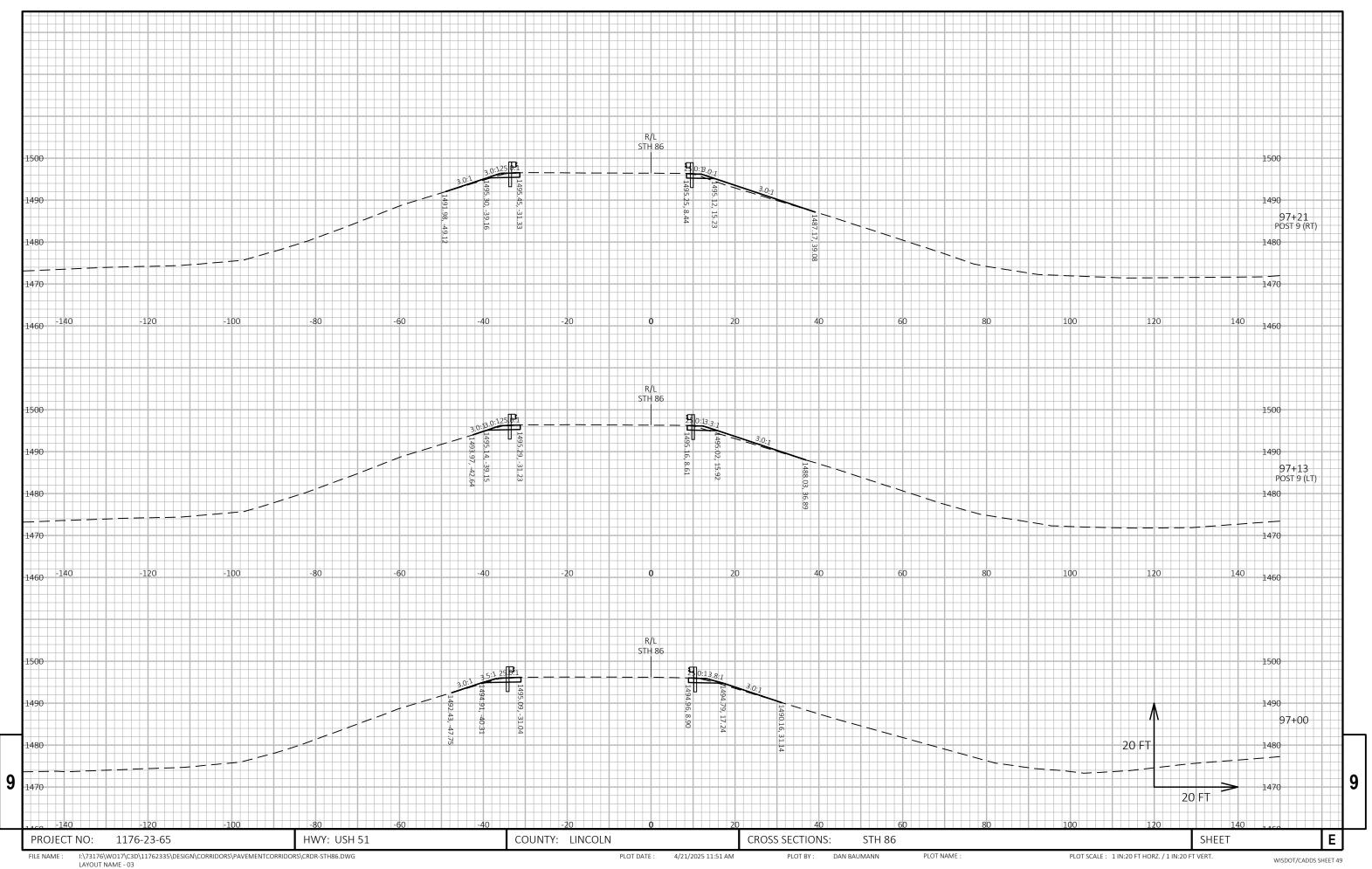
 $FILE \ NAME: \verb|\mil| w00\ | ngrproj| 73176 \ WO17 \ C3D \ 11762335 \ Sheets Plan \ 090101 \ _ew.ppt$



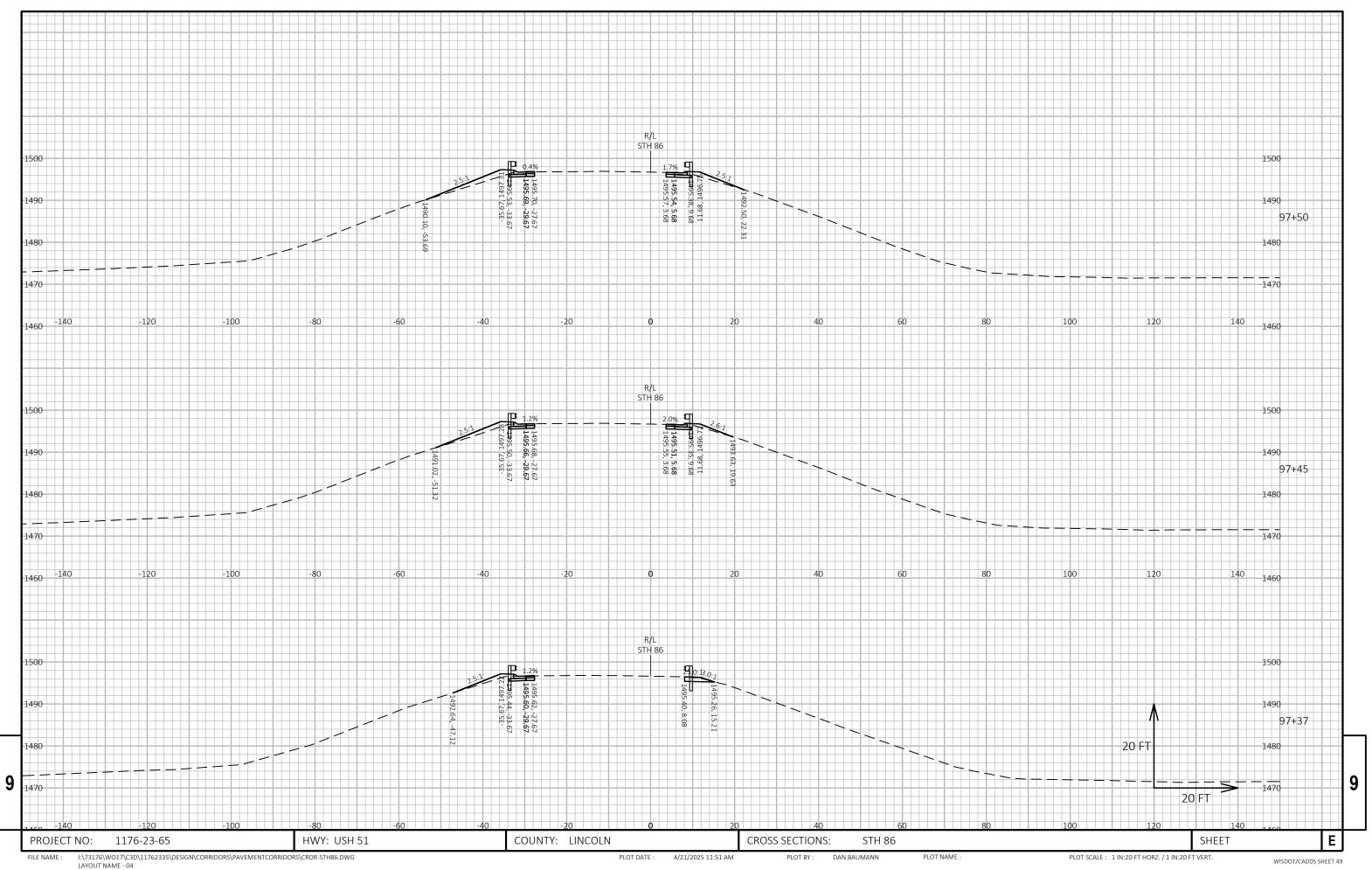
LATOUT NAIVIE - 01



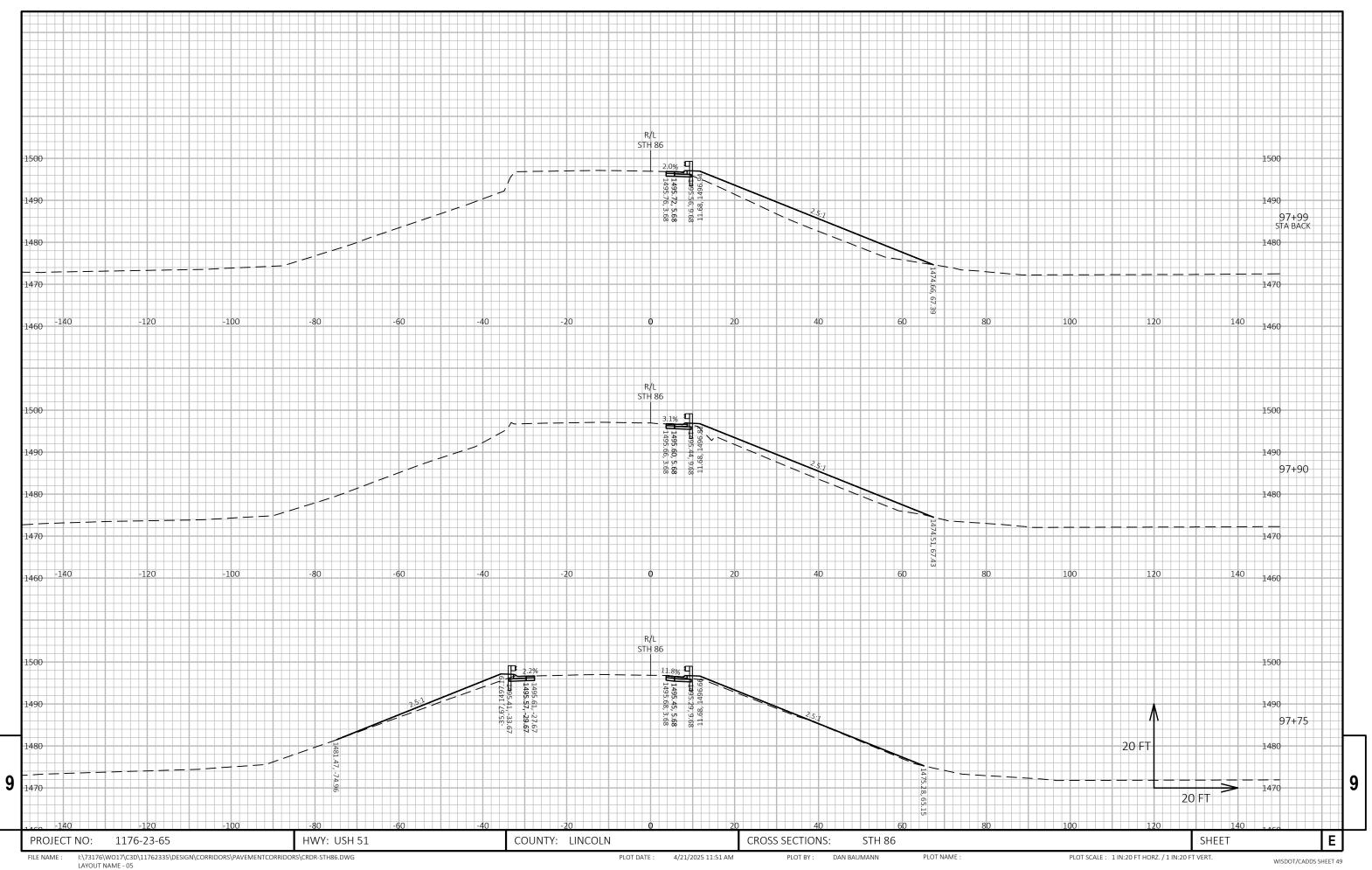
LATOUT INAIVIE - UZ



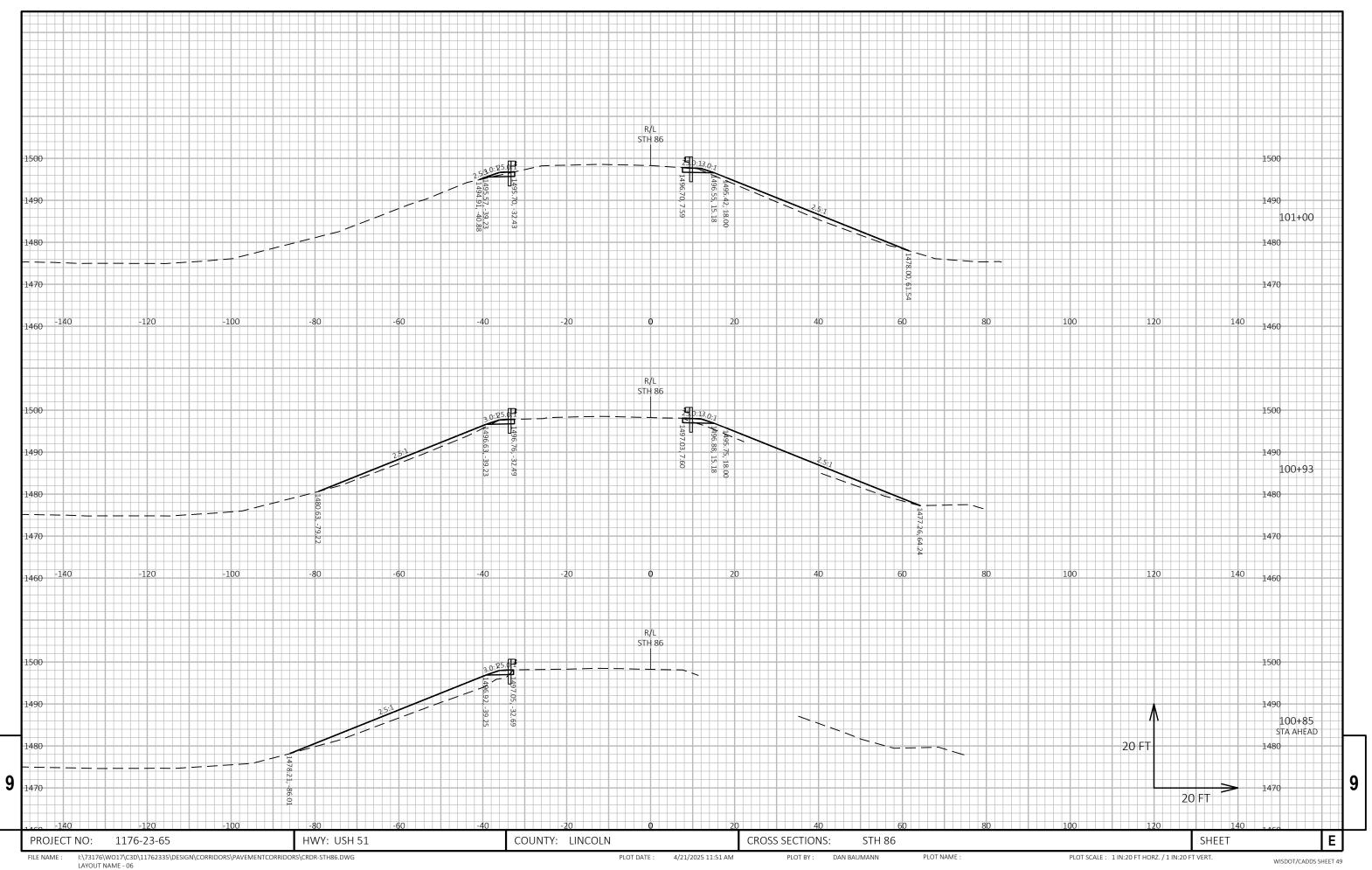
ENTO CHAMILE - US



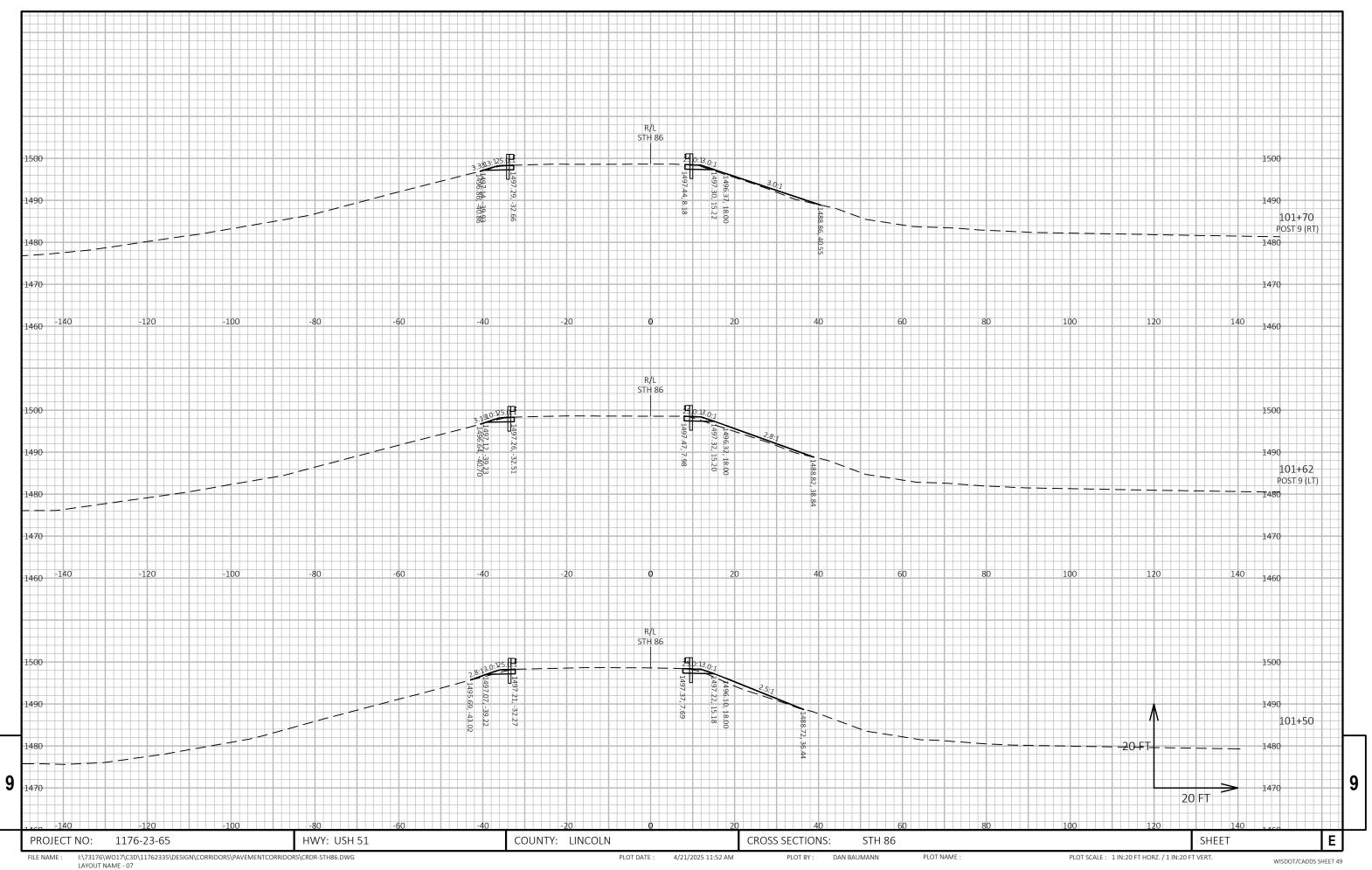
LATOUT INAIVIE - 04



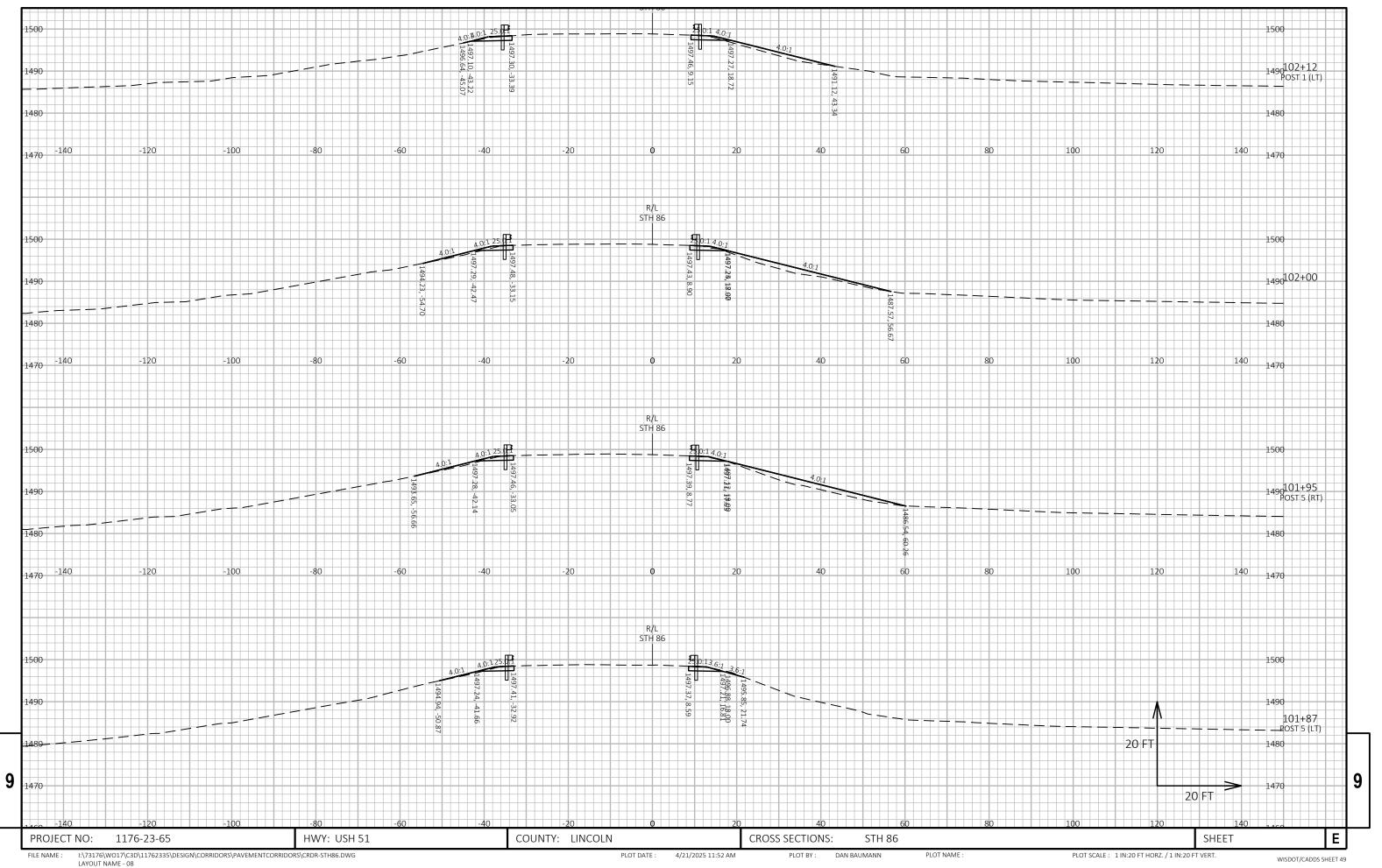
LATOUT NAIVIE - US

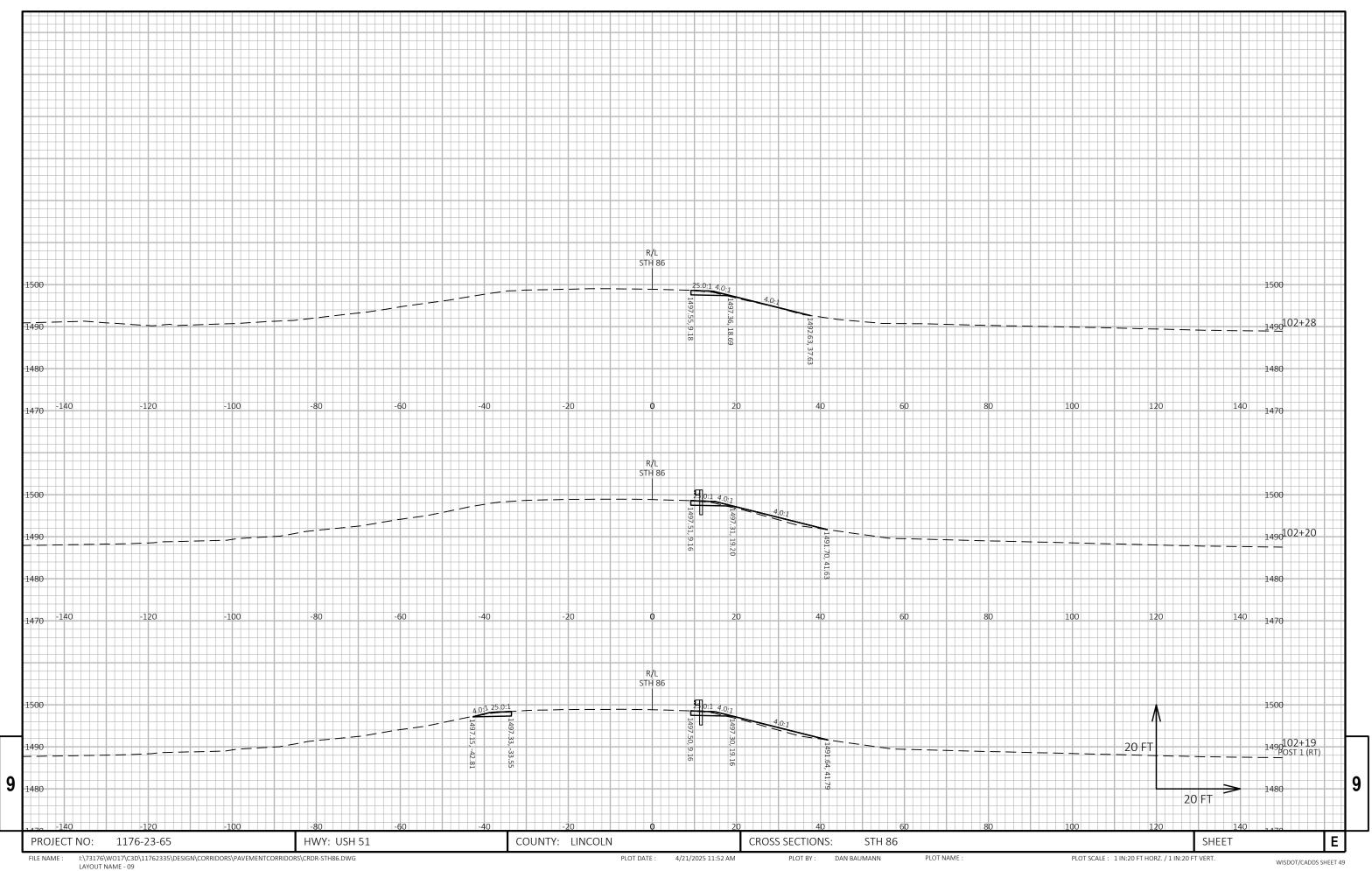


LATOUT NAIVIE - U6

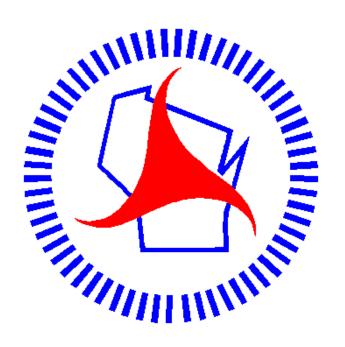


ENGOTIVAME - 07





LATOUT NAME - US



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

http://www.dot.wisconsin.gov