GRE

PROJECT ID: 9236-03-73

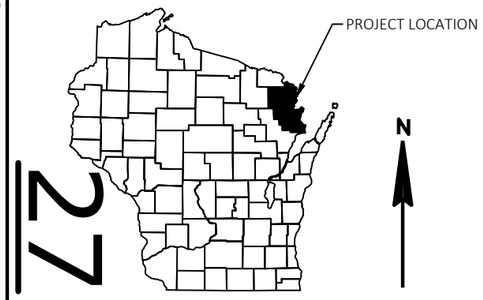
WITH: N/A

COUNTY: MARINETTE

MAY 2025

ORDER OF SHEETS

TOTAL SHEETS = 60



DESIGN DESIGNATION

A.A.D.T.	2025	=	<100
A.A.D.T.	2045	=	<100
D.H.V.		=	-
D.D.		=	50/50
T.		=	3.5%
DESIGN SPEED		=	35 MPH
ESALS		=	-

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T WAUSAUKEE, GLENDALE ROAD

WAUSAUKEE RIVER BRIDGE

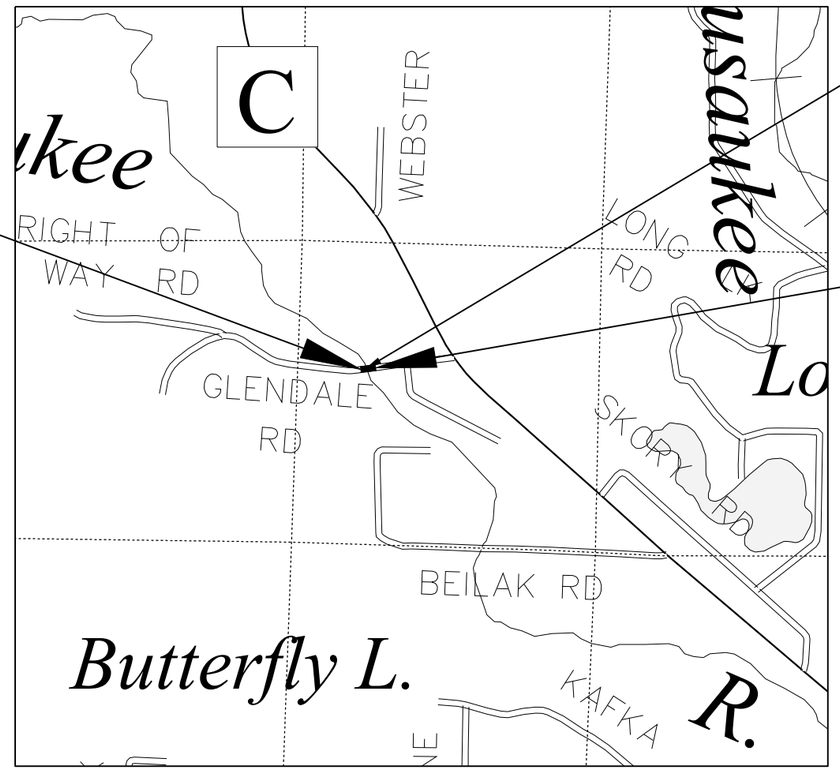
LOC STR

MARINETTE COUNTY

STATE PROJECT NUMBER
9236-03-73

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9236-03-73	WISC 2025479	1

R20E



LAYOUT

SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.027 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MARINETTE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ACCEPTED FOR
TOWN OF WAUSAUKEE

1/15/25 (DATE) Jeff Engelmann (CHAIRMAN)

ORIGINAL PLANS PREPARED BY

AYRES

WISCONSIN KRISTOFER R. OLSON E-35236 APPLETON, WI PROFESSIONAL ENGINEER

3/14/2025
(Date)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES
Designer	AYRES
Project Manager	KATIE SCHWARTZ
Regional Supervisor	KIMBERLY SLEZAK

APPROVED FOR THE DEPARTMENT

DATE: 1/16/2025 (Signature)

E

FILE NAME : I:\42\42-1411.00 - MARINETTE CO, TN WAUSAUKEE, GLENDALE RD\C3D\SHEETS\010101-TI.DWG PLOT DATE : 1/13/2025 11:19 AM PLOT BY : HOSPER, JAN PLOT NAME :

UTILITIES CONTACTS

WISCONSIN PUBLIC SERVICE
ELECTRIC UTILITY
SCOTT ZELLNER
2850 S ASHLAND AVE
GREEN BAY, WI 54304
PHONE: 920-617-5068
EMAIL: scott.zellner@wisconsinpublicservice.com

BRIGHTSPEED COMMUNICATIONS
COMMUNICATION UTILITY
SCOTT HEINZELMAN
144 N PEARL ST
BERLIN, WI 54923
PHONE: 920-757-4802
EMAIL: scott.heinzelman@brightspeed.com

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
TYPICAL SECTIONS
CONSTRUCTION DETAILS

WISCONSIN DNR LIAISON

JAMES DOPERALSKI
NORTHEAST REGION
2984 SHAWANO AVE
GREEN BAY, WI 54313
PHONE: 920-412-0165
EMAIL: james.doperalski@wisconsin.gov

WIS. DEPT OF TRANSPORTATION

KATIE SCHWARTZ
NORTHEAST REGION
944 VANDERPERREN WAY
GREEN BAY, WI 54304
PHONE: 920-492-5652
EMAIL: katiea.schwartz@dot.wi.gov

TOWN OF WAUSAUKEE

JEFF ENGELMANN
CHAIRMAN
N13013 BETTS ROAD
WAUSAUKEE, WI 54177
PHONE: 715-923-5669
EMAIL: engelmann@merrilldistributing.com

COUNTY HIGHWAY COMMISSIONER

ERIC BURMEISTER
MARINETTE COUNTY
501 PINE STREET
PESHTIGO, WI 54157
PHONE: 715-582-3771
EMAIL: eburmeister@marinettecounty.com

AYRES ASSOCIATES

ATTN: KRISTOFER OLSON, PE
STRUCTURAL ENGINEER
700 PILGRIM WAY, SUITE 1480
GREEN BAY, WI 54304
PHONE: 920-498-1200
EMAIL: olsonk@ayresassociates.com

GENERAL NOTES

THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

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

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

THE PROPOSED SHOULDER WIDTH SHOWN IN THE TYPICAL SECTIONS ARE MINIMUM WIDTH. PERPETUATE EXISTING SHOULDERS THAT ARE WIDER THAN WHAT IS SHOWN IN THE TYPICAL SECTIONS.

SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

WISDOT WILL FURNISH A BENCHMARK MONUMENT TO BE SET BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER IN THE FIELD.

PROPERTY LINES AS SHOWN ARE APPROXIMATE.

BEARINGS SHOWN ON THIS PLAN ARE TRUE BEARINGS TO THE NEAREST SECOND.

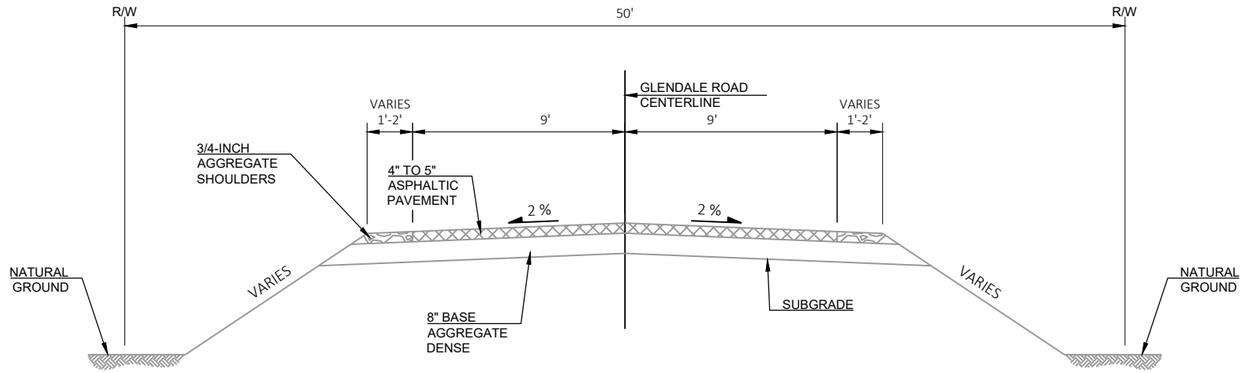
ALL TIES ON THIS PLAN ARE HORIZONTAL UNLESS DESCRIBED OTHERWISE.

DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS, OR WATERWAYS.

RUNOFF COEFFICIENT TABLE

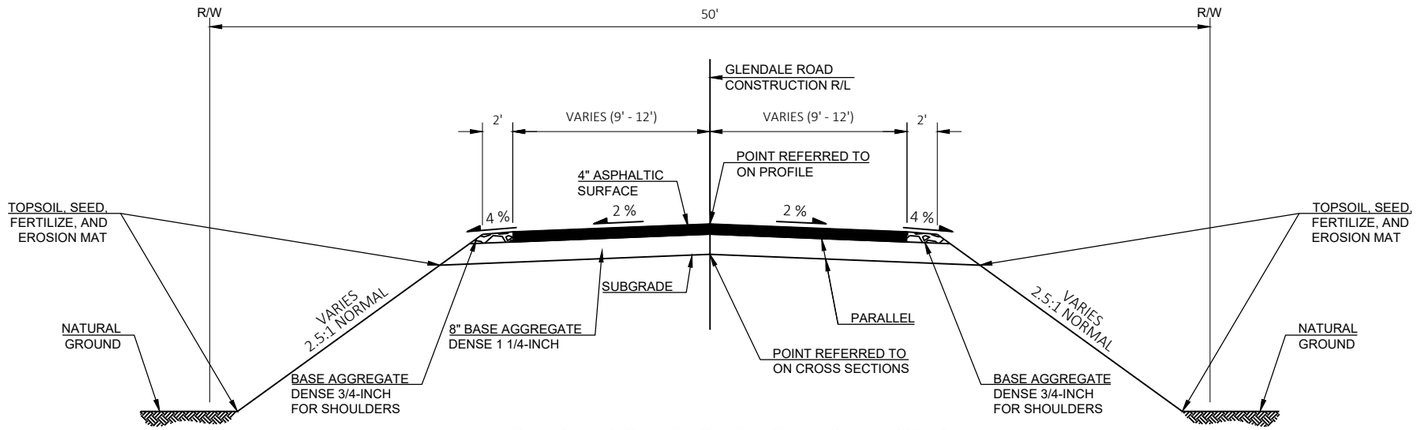
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 0.66 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.56 ACRES



EXISTING TYPICAL SECTION FOR GLENDALE ROAD

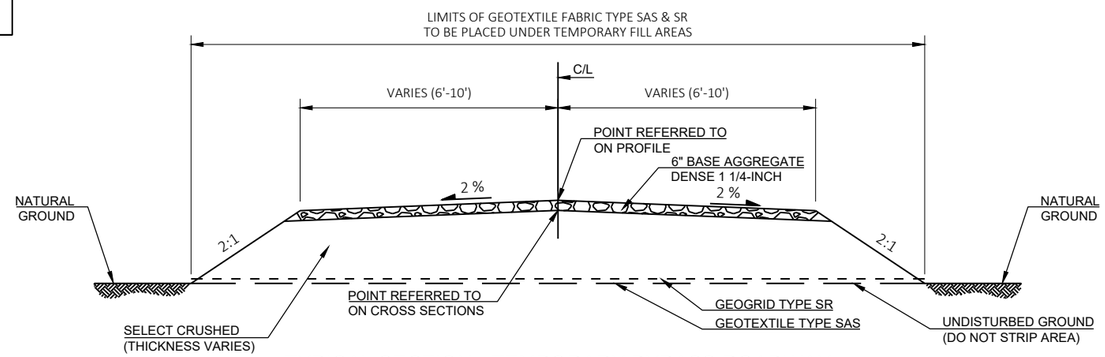
STA 9+40 - STA 10+80



FINISHED TYPICAL SECTION GLENDALE ROAD

STA 9+40 - STA 10+80

PAVEMENT LAYERS	
4" ASPHALTIC SURFACE	1.75" UPPER LAYER 2.25" LOWER LAYER

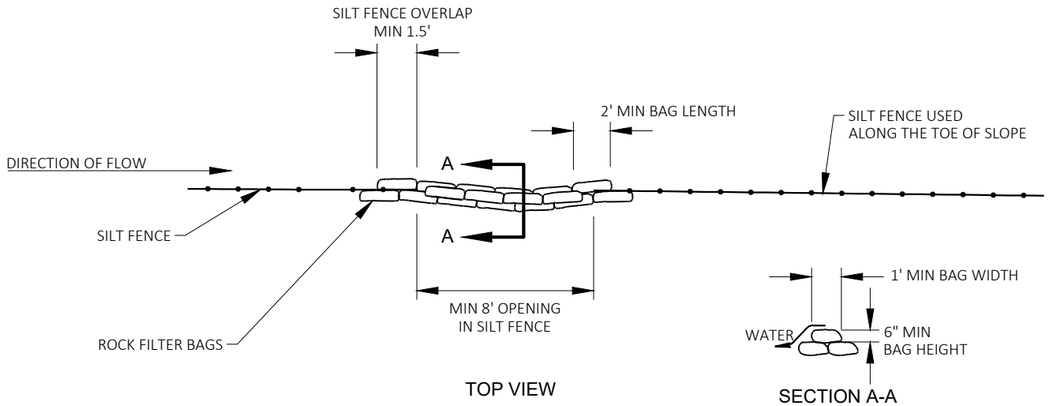


TYPICAL SECTION - TEMPORARY BYPASS ROADWAY

STA 38+44.85 - STA 41+59.67

PROJECT NO: 9236-03-73	HWY: GLENDALE RD	COUNTY: MARINETTE	TYPICAL SECTIONS	SHEET 3	E

2



ROCK BAGS USED FOR SILT FENCE RELIEF

PROJECT NO: 9236-03-73	HWY: GLENDALE RD	COUNTY: MARINETTE	CONSTRUCTION DETAILS	SHEET 4	E

2

LEGEND

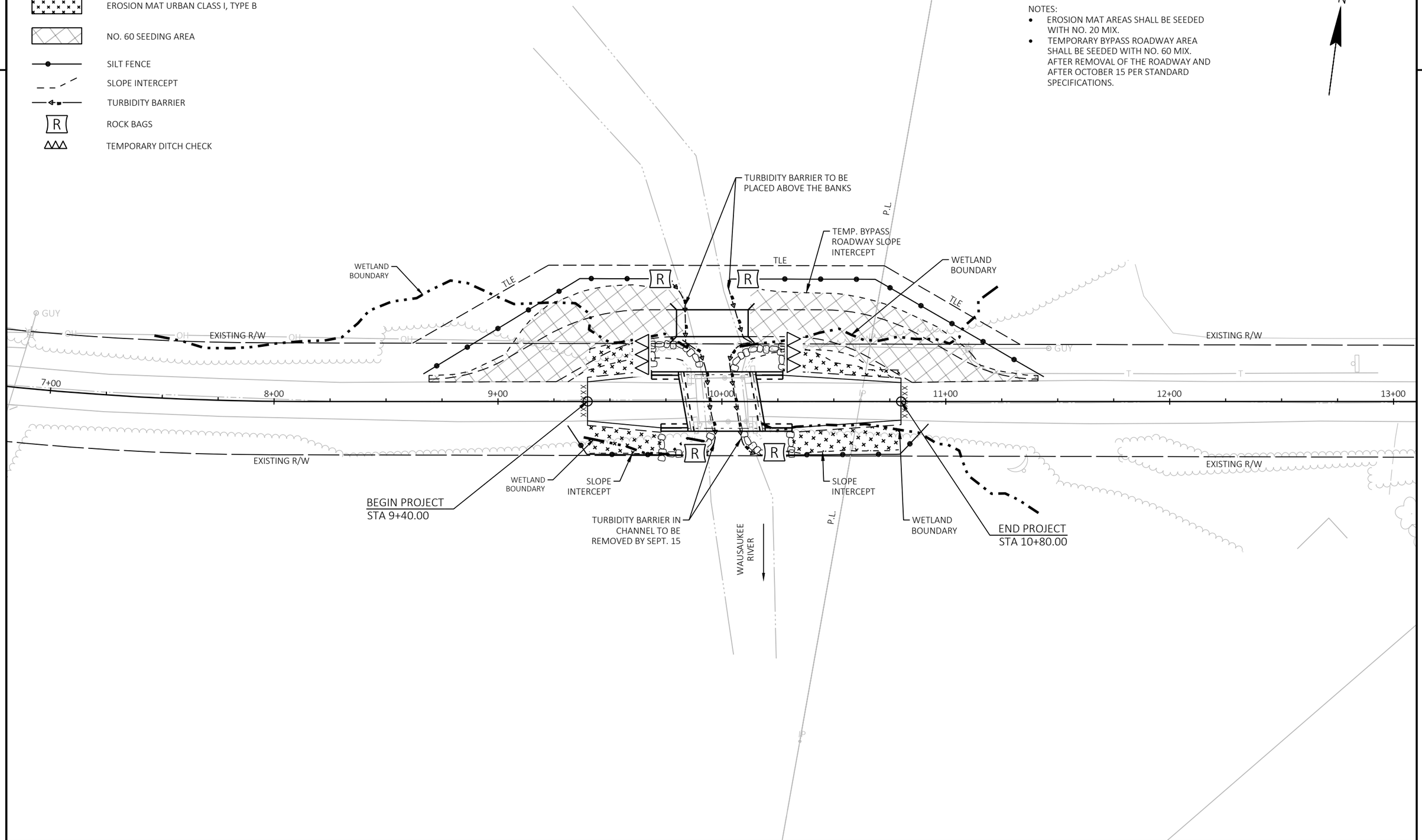
- EROSION MAT URBAN CLASS I, TYPE B
- NO. 60 SEEDING AREA
- SILT FENCE
- SLOPE INTERCEPT
- TURBIDITY BARRIER
- R — ROCK BAGS
- TEMPORARY DITCH CHECK

NOTES:

- EROSION MAT AREAS SHALL BE SEEDED WITH NO. 20 MIX.
- TEMPORARY BYPASS ROADWAY AREA SHALL BE SEEDED WITH NO. 60 MIX. AFTER REMOVAL OF THE ROADWAY AND AFTER OCTOBER 15 PER STANDARD SPECIFICATIONS.

N

2



PROJECT NO: 9236-03-73	HWY: GLENDALE RD	COUNTY: MARINETTE	EROSION CONTROL	SHEET 5	E

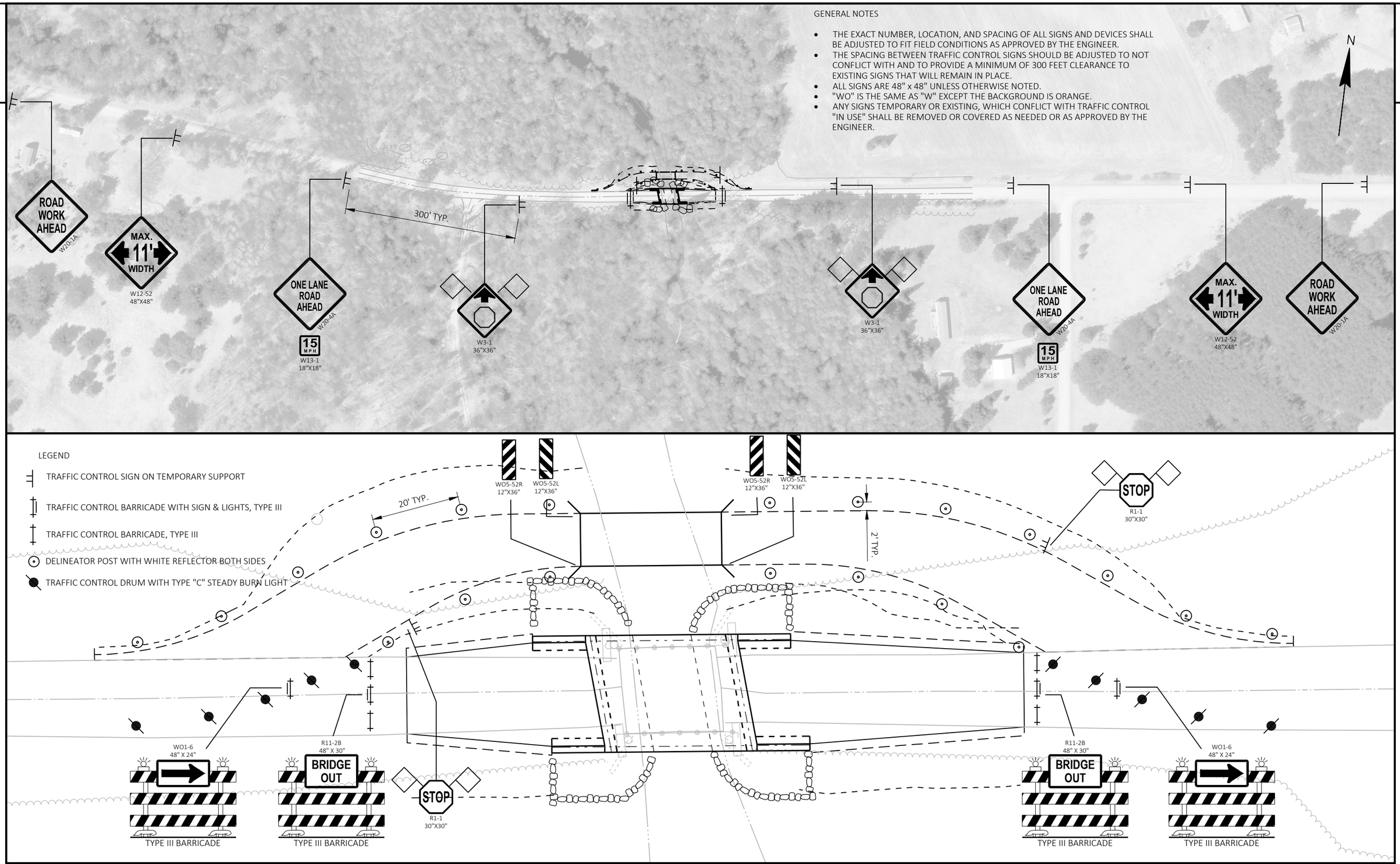
FILE NAME : I:\42\42-1411.00 - MARINETTE CO, TN WAUSAUKEE, GLENDALE RD\C3D\SHEETS\022001-EC.DWG
LAYOUT NAME - 022001-ec

PLOT DATE : 3/13/2025 4:07 PM PLOT BY : HOSPER, JAN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

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 TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 300 FEET 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.
- 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.



PROJECT NO: 9236-03-73	HWY: GLENDALE RD	COUNTY: MARINETTE	TRAFFIC CONTROL	SHEET 6	E

Estimate Of Quantities

9236-03-73

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	4.000	4.000
0004	203.0270	Removing Structure Over Waterway Debris Capture (structure) P-38-0919	EACH	1.000	1.000
0006	204.0165	Removing Guardrail	LF	56.000	56.000
0008	205.0100	Excavation Common	CY	603.000	603.000
0010	206.1001	Excavation for Structures Bridges (structure) B-38-0152	EACH	1.000	1.000
0012	208.0100	Borrow	CY	19.000	19.000
0014	210.1500	Backfill Structure Type A	TON	260.000	260.000
0016	213.0100	Finishing Roadway (project) 01. 9236-03-73	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	10.000	10.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	200.000	200.000
0022	312.0110	Select Crushed Material	TON	550.000	550.000
0024	455.0605	Tack Coat	GAL	19.000	19.000
0026	465.0105	Asphaltic Surface	TON	56.000	56.000
0028	502.0100	Concrete Masonry Bridges	CY	129.000	129.000
0030	502.3200	Protective Surface Treatment	SY	143.000	143.000
0032	505.0400	Bar Steel Reinforcement HS Structures	LB	3,800.000	3,800.000
0034	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	13,780.000	13,780.000
0036	513.4061	Railing Tubular Type M	LF	123.000	123.000
0038	516.0500	Rubberized Membrane Waterproofing	SY	18.000	18.000
0040	526.0101	Temporary Structure (station) 01. 40+00	EACH	1.000	1.000
0042	550.0020	Pre-Boring Rock or Consolidated Materials	LF	32.000	32.000
0044	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	40.000	40.000
0046	606.0300	Riprap Heavy	CY	125.000	125.000
0048	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	150.000	150.000
0050	619.1000	Mobilization	EACH	1.000	1.000
0052	624.0100	Water	MGAL	3.000	3.000
0054	625.0100	Topsoil	SY	200.000	200.000
0056	628.1504	Silt Fence	LF	500.000	500.000
0058	628.1520	Silt Fence Maintenance	LF	1,000.000	1,000.000
0060	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0062	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0064	628.2008	Erosion Mat Urban Class I Type B	SY	200.000	200.000
0066	628.6005	Turbidity Barriers	SY	195.000	195.000
0068	628.7504	Temporary Ditch Checks	LF	40.000	40.000
0070	628.7570	Rock Bags	EACH	75.000	75.000
0072	629.0210	Fertilizer Type B	CWT	1.000	1.000
0074	630.0120	Seeding Mixture No. 20	LB	10.000	10.000
0076	630.0160	Seeding Mixture No. 60	LB	10.000	10.000
0078	630.0500	Seed Water	MGAL	18.000	18.000
0080	633.1100	Delineators Temporary	EACH	20.000	20.000
0082	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0084	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0086	638.2602	Removing Signs Type II	EACH	6.000	6.000
0088	638.3000	Removing Small Sign Supports	EACH	5.000	5.000
0090	642.5001	Field Office Type B	EACH	1.000	1.000
0092	643.0300	Traffic Control Drums	DAY	780.000	780.000
0094	643.0420	Traffic Control Barricades Type III	DAY	624.000	624.000
0096	643.0705	Traffic Control Warning Lights Type A	DAY	624.000	624.000
0098	643.0715	Traffic Control Warning Lights Type C	DAY	780.000	780.000

9236-03-73

Line	Item	Item Description	Unit	Total	Qty
0100	643.0900	Traffic Control Signs	DAY	1,560.000	1,560.000
0102	645.0111	Geotextile Type DF Schedule A	SY	40.000	40.000
0104	645.0120	Geotextile Type HR	SY	240.000	240.000
0106	645.0140	Geotextile Type SAS	SY	730.000	730.000
0108	645.0220	Geogrid Type SR	SY	730.000	730.000
0110	650.4500	Construction Staking Subgrade	LF	287.000	287.000
0112	650.5000	Construction Staking Base	LF	287.000	287.000
0114	650.6501	Construction Staking Structure Layout (structure) 01. B-38-0152	EACH	1.000	1.000
0116	650.9911	Construction Staking Supplemental Control (project) 01. 9236-03-73	EACH	1.000	1.000
0118	650.9920	Construction Staking Slope Stakes	LF	287.000	287.000
0120	690.0150	Sawing Asphalt	LF	35.000	35.000
0122	715.0502	Incentive Strength Concrete Structures	DOL	1.000	1.000
0124	999.2005.S	Maintaining Bird Deterrent System (station) 01. 10+00	EACH	1.000	1.000
0126	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	600.000	600.000
0128	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000

EARTHWORK SUMMARY

Division	From/To Station	Location	Common Excavation (item #205.0100) Cut (1)	Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (13) Factor 1.25	Mass Ordinate +/- (14)	208.0100 Borrow	Waste
1	9+40 - 10+80	GLENDALE RD	62	18	44	50	63	-19	19	-
1	39+02 - 41+12	TEMP. BYPASS REMOVAL	541	0	0	0	0	541	-	541
Division 1 Totals			603	18	44	50	63	523	19	541

1) Unsuable Pavement Material is included in Cut

4) Unusable Pavement Material = Existing Asphaltic Pavement. Backfill any areas below subgrade with borrow.

5) Available Material = Cut - Unusable Pavement Material

13) Expanded Fill. Factor = 1.3 Expanded Fill = Unexpanded Fill * Fill Factor

14) 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 with the Division.

GRUBBING

STATION	TO	STATION	LOCATION	201.0205 GRUBBING STA
8+62	-	11+33	GLENDALE RD	4
			TOTAL 0010	4

REMOVING GUARDRAIL

STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF
9+85	-	10+13	GLENDALE RD LT	28
9+87	-	10+15	GLENDALE RD RT	28
			TOTAL 0010	56

TEMPORARY STRUCTURE

CATEGORY	LOCATION	526.0101.01 TEMPORARY STRUCTURE (40+00) EACH
0020	TEMP. BYPASS 40+00	1
	TOTAL 0020	1

ROADWAY & AGGREGATES

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	624.0100 WATER MGAL	645.0140 GEOTEXTILE TYPE SAS SY	645.0220 GEOGRID TYPE SR SY
9+40	-	9+83	GLENDALE RD	5	50	-	8	23	1	-	-
10+17	-	10+80	GLENDALE RD	5	75	-	11	33	2	-	-
39+02	-	39+85	TEMP. BYPASS	-	35	337	-	-	-	360	360
40+15	-	41+13	TEMP. BYPASS	-	40	213	-	-	-	370	370
			TOTAL 0010	10	200	550	19	56	3	730	730

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

EROSION CONTROL ITEMS

STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	628.7504 TEMPORARY DITCH CHECKS LF	630.0160 SEEDING MIXTURE NO. 60 LB	630.0120 SEEDING MIXTURE NO. 20 LB	630.0500 SEED WATER MGAL
9+40	-	9+69	GLENDALE RD LT	41	118	236	41	0.1	10	-	2	0.9
9+40	-	9+73	GLENDALE RD RT	40	62	124	40	0.1	-	-	2	0.9
10+27	-	10+80	GLENDALE RD LT	37	151	302	37	0.1	10	-	2	0.8
10+31	-	10+80	GLENDALE RD RT	54	81	162	54	0.1	-	-	3	1.2
39+02	-	41+13	GLENDALRE RD BYPASS	-	-	-	-	0.1	-	8	-	12.7
UNDISTRIBUTED				28	88	176	28	0.5	20	2	1	1.5
			TOTAL 0010	200	500	1,000	200	1	40	10	10	18

EROSION CONTROL MOBILIZATION

STATION	TO	STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
8+62	-	11+33	GLENDALE RD	5	3
			TOTAL 0010	5	3

TURBIDITY BARRIERS

LOCATION	628.6005 TURBIDITY BARRIERS SY	REMARKS
GLENDALE RD	100	WEST ABUTMENT
GLENDALE RD	95	EAST ABUTMENT
TOTAL 0010	195	

ROCK BAGS

STATION	LOCATION	628.7570 ROCK BAGS EACH	REMARKS
9+74	GLENDALE RD LT	15	FOR SILT FENCE RELIEF
9+88	GLENDALE RD RT	15	FOR SILT FENCE RELIEF
10+03	GLENDALE RD LT	15	FOR SILT FENCE RELIEF
10+20	GLENDALE RD RT	15	FOR SILT FENCE RELIEF
UNDISTRIBUTED	GLENDALE RD	15	
	TOTAL 0010	75	

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

SIGNS

STATION	LOCATION	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
9+78	GLENDALE RD LT	1	3	-	-	OM3-L
9+83	GLENDALE RD RT	1	3	-	-	OM3-R
10+17	GLENDALE RD LT	1	3	-	-	OM3-L
10+22	GLENDALE RD RT	1	3	-	-	OM3-R
9+87	GLENDALE RD LT	-	-	1	1	OM3-L
9+90	GLENDALE RD RT	-	-	1	1	OM3-R
10+12	GLENDALE RD LT	-	-	1	1	OM3-L
10+13	GLENDALE RD RT	-	-	1	1	OM3-R
12+82	GLENDALE RD LT	-	-	1	-	WEIGHT LIMIT
14+90	GLENDALE RD LT	-	-	1	1	ONE LANE BRIDGE
	TOTAL 0010	4	12	6	5	

TRAFFIC CONTROL SIGNS

LOCATION	APPROX. SERVICES DAYS	633.1100 DELINEATORS TEMPORARY EACH	643.0300 TRAFFIC CONTROL DRUMS NO. IN SERVICE	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO. IN SERVICE	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO. IN SERVICE	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C NO. IN SERVICE	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0900 TRAFFIC CONTROL SIGNS NO. IN SERVICE	643.0900 TRAFFIC CONTROL SIGNS DAY	REMARKS
WEST TEMP. BYPASS	86	9	-	-	-	-	-	-	-	-	3	258	WO5-52 L/R & R1-1
EAST TEMP. BYPASS	86	11	-	-	-	-	-	-	-	-	3	258	WO5-52 L/R & R1-1
WEST WORK ZONE LIMITS	86	-	5	430	4	344	4	344	5	430	2	172	TYPE III BARRICADE W/ SIGN & LIGHTS
EAST WORK ZONE LIMITS	86	-	5	430	4	344	4	344	5	430	2	172	TYPE III BARRICADE W/ SIGN & LIGHTS
WEST OF WORK ZONE LIMITS	86	-	-	-	-	-	-	-	-	-	5	430	W20-1A, W12-52, W20-4A, W13-1 & W3-1
EAST OF WORK ZONE LIMITS	86	-	-	-	-	-	-	-	-	-	5	430	W20-1A, W12-52, W20-4A, W13-1 & W3-1
UNDER TEMPORARY BRIDGE	86	-	-	-	-	-	-	-	4	344	-	-	HUNG UNDER TEMPORARY BYPASS BRIDGE
TOTAL 0010		20		860		688		688		1,204		1,720	

CONSTRUCTION STAKING

STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.6501.01 CONSTRUCTION STAKING STRUCTURE LAYOUT EACH	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
9+40	-	9+83	GLENDALE RD	43	43	-	1	43
10+17	-	10+80	GLENDALE RD	63	63	-	-	63
39+02	-	39+85	TEMP. BYPASS	83	83	-	-	83
40+15	-	41+13	TEMP. BYPASS	98	98	-	-	98
			TOTAL 0010	287	287	0	1	287
	10+00		B-38-0152	-	-	1	-	-
			TOTAL 0020	0	0	1	0	0
			PROJECT TOTALS	287	287	1	1	287

SAWING ASPHALT

STATION	LOCATION	690.0150 SAWING ASPHALT LF
9+40	GLENDALE RD	18
10+80	GLENDALE RD	17
	TOTAL 0010	35

BIRD DETERRENT SYSTEM

999.2005.S.01 MAINTAINING BIRD DETERRENT SYSTEM (10+00)(01. B-38-0152)

STATION	EACH	LOCATION
10+00	1	GLENDALE RD
TOTAL 0010	1	

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

CURVE 1
PI STA = 6+59.31
Y = 260238.458
X = 705198.229
DELTA = 13°36'39" LT
D = 4°24'27"
T = 155.14'
L = 308.82'
R = 1300.00'
PC STA = 5+04.17
Y = 260254.862
X = 705043.957
PT STA = 8+13.00
Y = 260258.819
X = 705352.029
DB = S83°55'49"E
DA = N82°27'32"E

LEGEND

XXXXX SAW CUTS

BROOK TROUT 1924 LLC

CP #4
5/8" REBAR WITH CAP
STA 9+26.88 - 13.28'LT
Y = 260286.938
X = 705463.185

TEMPORARY BYPASS ROADWAY SLOPE INTERCEPT

TEMPORARY BRIDGE (32' MIN. CLEARSPAN, 12' MIN. CLEAR WIDTH)

CP #3
5/8" REBAR WITH CAP
STA 10+54.51 - 17.18'LT
Y = 260307.542
X = 705589.202

WILLIAM R & DAWN M HESPRICH

N

CP #2
5/8" REBAR WITH CAP
STA 14+19.52 - 13.06'LT
Y = 260351.369
X = 705951.594

WETLAND BOUNDARY
EXISTING OVERHEAD WIRE
TLE
SLOPE INTERCEPT
APPROXIMATE LOCATION OF UNDERGROUND TELEPHONE LINE
EXISTING R/W
GUY
PT: 8+13.00
50'
7+00
8+00
N82°27'32"E
9+00
10+00
11+00
12+00
13+00
CP #4
CP #3
P.I.
GLENDALE ROAD
CURVE 1
CP #5
5/8" REBAR WITH CAP
STA 6+26.81 - 17.27'RT
Y = 260230.397
X = 705166.138
STRUCTURE B-38-0152 REQ'D
BEGIN PROJECT
STA 9+40.00
Y=260,275.487
X=705,477.934
END PROJECT
STA 10+80.00
Y=260293.860
X=705616.723
PAULETTE J FUGATE TRST
WAUSAUKEE RIVER
ROBBEN C & JODY A CAMPBELL

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
CP2	14+20	815.11	5/8" REBAR WITH CAP, NE OF BRIDGE BY PPOL
CP3	10+55	808.06	5/8" REBAR WITH CAP, NE OF BRIDGE IN SHOULDER
CP4	9+27	809.58	5/8" REBAR WITH CAP, NW OF BRIDGE IN SHOULDER
CP5	6+27	812.02	5/8" REBAR WITH CAP, SW OF BRIDGE W OF DWY

VCL = 120.00
K = 48.86
STA 9+40.00
EL 809.76
-1.19%
LP STA 10+18.14
LP EL 809.18
VPI STA 10+20.00
VPI EL 808.81
STA 10+80.00
EL 809.57
EXISTING GRADE
FINISHED GRADE
VPC STA 9+60.00
VPC EL 809.52
VPT STA 10+80.00
VPT EL 809.57
WATER EL. 801.43
10/27/2023

STA 10+00
REMOVE STRUCTURE P-38-0919
SINGLE SPAN STEEL GIRDER BRIDGE
24 FEET LONG
19.1 FOOT CLEAR ROADWAY

STA 10+00
STRUCTURE B-38-0152
SINGLE SPAN CONCRETE FLAT SLAB BRIDGE
34.54 FEET LONG
24 FOOT CLEAR ROADWAY
10° SKEW RHF

811.09	810.46	810.34	810.78	810.58	809.63	809.64	799.03	809.21	809.16	809.28	809.96	811.82	813.32	813.93	814.09

7 8 9 10 11 12 13

PROJECT NO: 9236-03-73	HWY: GLENDALE RD	COUNTY: MARINETTE	PLAN & PROFILE	SHEET 12	E

FILE NAME : I:\42\42-1411.00 - MARINETTE CO, TN WAUSAUKEE, GLENDALE RD\C3D\SHEETS\050101-PP.DWG
LAYOUT NAME - 050101-pp
PLOT DATE : 1/21/2025 7:54 AM
PLOT BY : HOSPER, JAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

LEGEND

XXXXX SAW CUTS

* NAVIGATIONAL LIGHTS HUNG UNDER BRIDGE (USE TRAFFIC CONTROL WARNING LIGHTS TYPE C OR ENGINEER ALLOWED EQUIVALENT)

CURVE 1	CURVE 2
PI STA = 39+03.99	PI STA = 39+54.55
Y = 260280.860	Y = 260311.667
X = 705444.464	X = 705484.550
DELTA = 2°51'09" LT	DELTA = 30°00'03" RT
D = 71°37'11"	D = 71°37'11"
T = 1.99'	T = 21.44'
L = 3.98'	L = 41.89'
R = 80.00'	R = 80.00'
PC STA = 39+02.00	PC STA = 39+33.11
Y = 260279.726	Y = 260298.604
X = 705442.826	X = 705467.553
PT STA = 39+05.98	PT STA = 39+75.00
Y = 260282.073	Y = 260314.480
X = 705446.043	X = 705505.801
DB = N55°18'34"E	DB = N52°27'25"E
DA = N52°27'25"E	DA = N82°27'28"E

CP #5
5/8" REBAR WITH CAP
STA 6+26.81 - 17.27'RT
Y = 260230.397
X = 705166.138

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
CP2	14+20	815.11	5/8" REBAR WITH CAP, NE OF BRIDGE BY PPOL
CP3	10+55	808.06	5/8" REBAR WITH CAP, NE OF BRIDGE IN SHOULDER
CP4	9+27	809.58	5/8" REBAR WITH CAP, NW OF BRIDGE IN SHOULDER
CP5	6+27	812.02	5/8" REBAR WITH CAP, SW OF BRIDGE W OF DWY

BROOK TROUT 1924 LLC

CP #4
5/8" REBAR WITH CAP
STA 9+26.88 - 13.28'LT
Y = 260286.938
X = 705463.185

TEMPORARY BYPASS ROADWAY SLOPE INTERCEPT

TEMPORARY BRIDGE (32' MIN. CLEARSPAN, 12' MIN. CLEAR WIDTH)

CP #3
5/8" REBAR WITH CAP
STA 10+54.51 - 17.18'LT
Y = 260307.542
X = 705589.202

WILLIAM R & DAWN M HESPRICH

TEMPORARY BYPASS ADVISORY SPEED 15 MPH

N

CP #2
5/8" REBAR WITH CAP
STA 14+19.52 - 13.06'LT
Y = 260351.369
X = 705951.594

WETLAND BOUNDARY

EXISTING OVERHEAD WIRE

APPROXIMATE LOCATION OF UNDERGROUND TELEPHONE LINE

EXISTING R/W

PT: 39+05.98
BP: 39+02.00
TLE
PC: 39+33.11
CURVE 2
PT: 39+75.00
PC: 40+40.00
CURVE 3
TLE
PT: 40+81.89
TLE
PC: 41+09.02
EP: 41+12.93

40+00
N82°27'28"E
12'
20'
41+00
S67°32'28"E
20'

CP-4
CP-3

CURVE 1
CURVE 4

GLENDALE ROAD

80' RADIUS TYP.

CURVE 3	CURVE 4
PI STA = 40+61.44	PI STA = 41+10.97
Y = 260325.825	Y = 260306.525
X = 705591.490	X = 705638.179
DELTA = 30°00'03" RT	DELTA = 2°48'09" LT
D = 71°37'11"	D = 71°37'11"
T = 21.44'	T = 1.96'
L = 41.89'	L = 3.91'
R = 80.00'	R = 80.00'
PC STA = 40+40.00	PC STA = 41+09.02
Y = 260323.012	Y = 260307.273
X = 705570.239	X = 705636.371
PT STA = 40+81.89	PT STA = 41+12.93
Y = 260317.636	Y = 260305.867
X = 705611.300	X = 705640.022
DB = N82°27'28"E	DB = S67°32'28"E
DA = S67°32'28"E	DA = S70°20'37"E

WETLAND BOUNDARY
SLOPE INTERCEPT
STRUCTURE B-38-0152 REQ'D

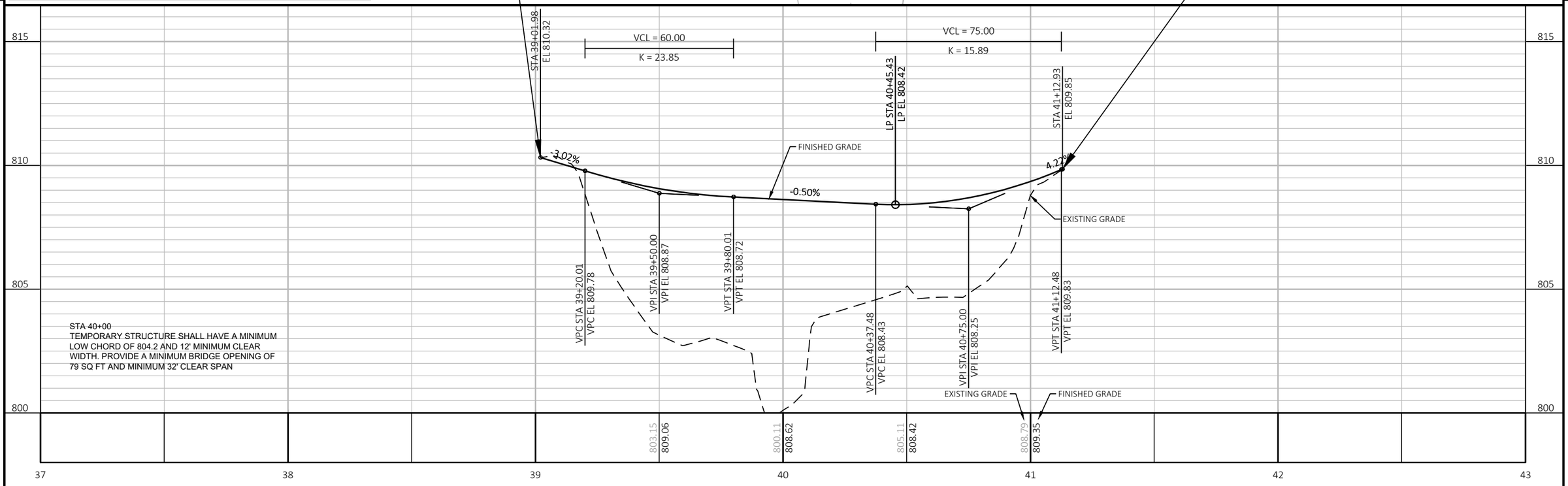
BEGIN BYPASS ROADWAY
STA 39+01.98
Y = 260279.726
X = 705442.826
(STA 9+05.75 MAINLINE)

PAULETTE J FUGATE TRST

WAUSAUKEE RIVER

ROBBEN C & JODY A CAMPBELL

END BYPASS ROADWAY
STA 41+12.93
Y = 260305.867
X = 705640.022
(STA 11+04.67 MAINLINE)



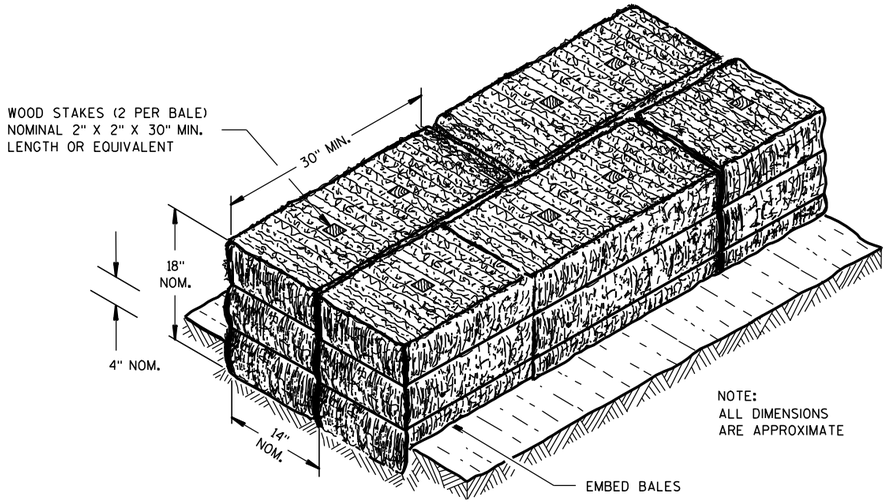
STA 40+00
TEMPORARY STRUCTURE SHALL HAVE A MINIMUM LOW CHORD OF 804.2 AND 12' MINIMUM CLEAR WIDTH. PROVIDE A MINIMUM BRIDGE OPENING OF 79 SQ FT AND MINIMUM 32' CLEAR SPAN

PROJECT NO: 9236-03-73	HWY: GLENDALE RD	COUNTY: MARINETTE	PLAN & PROFILE - TEMPORARY BRIDGE	SHEET 13	E

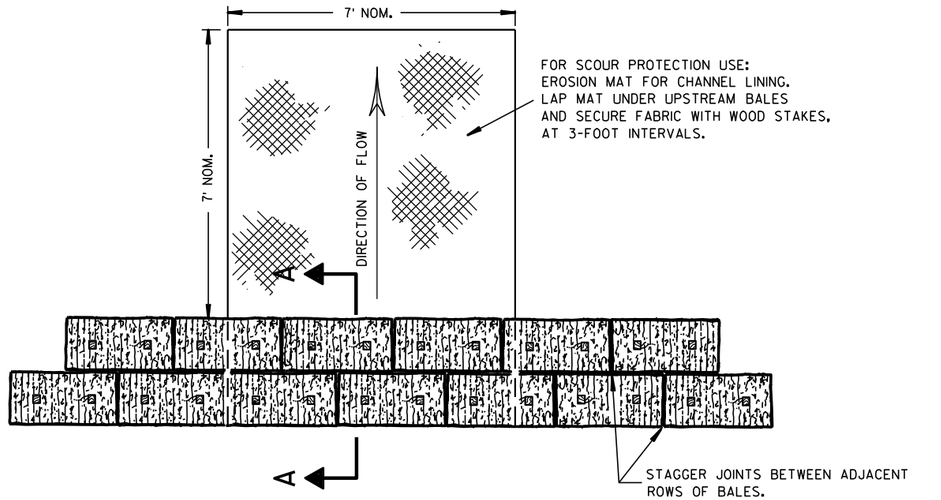
FILE NAME : I:\42\42-1411.00 - MARINETTE CO, TN WAUSAUKEE, GLENDALE RD\C3D\SHEETS\050101-PP.DWG
LAYOUT NAME - 050102-pp
PLOT DATE : 1/22/2025 10:48 AM PLOT BY : HOSPER, JAN PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

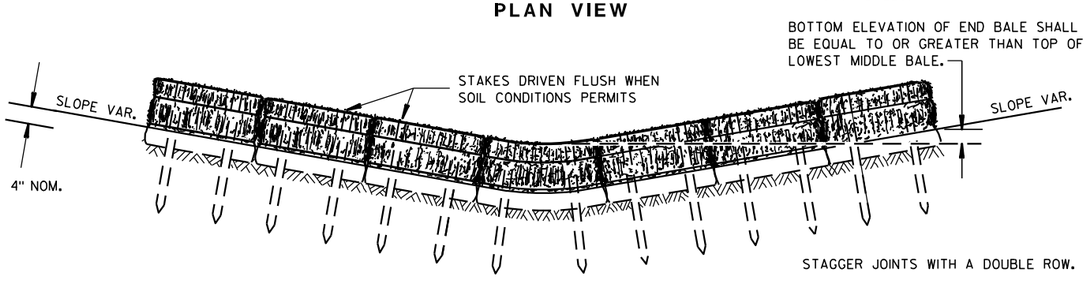
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15A04-08C	DELINEATOR POST WITH REFLECTIVE SHEETING
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS



SECTION A-A



PLAN VIEW



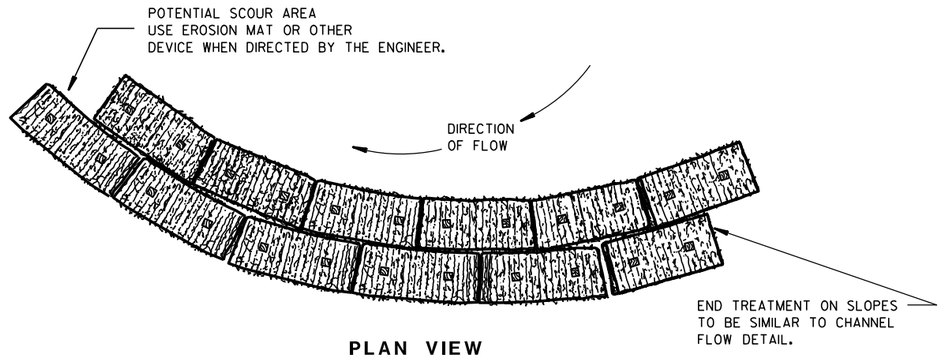
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

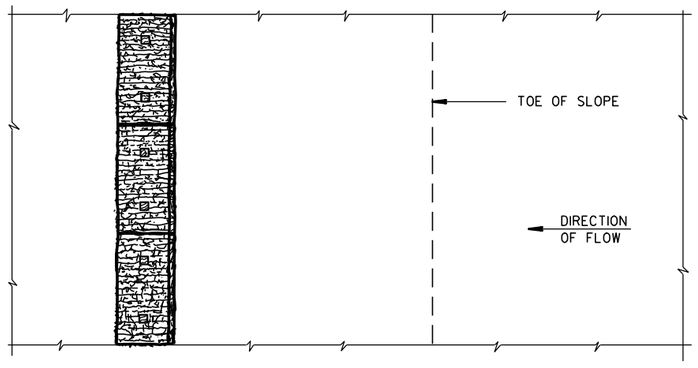
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

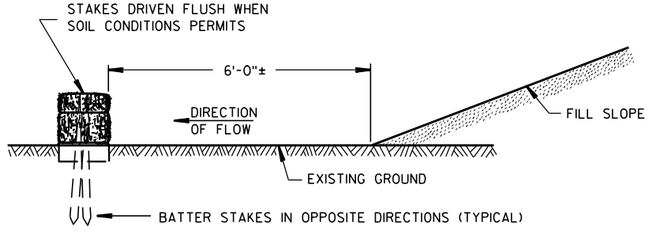


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

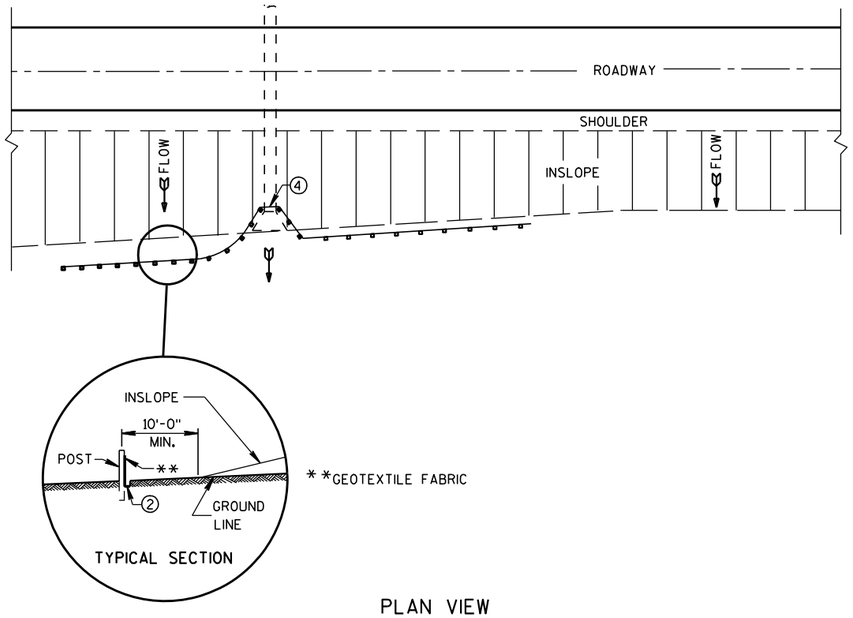
FHWA

6

S.D.D. 8 E 8-3

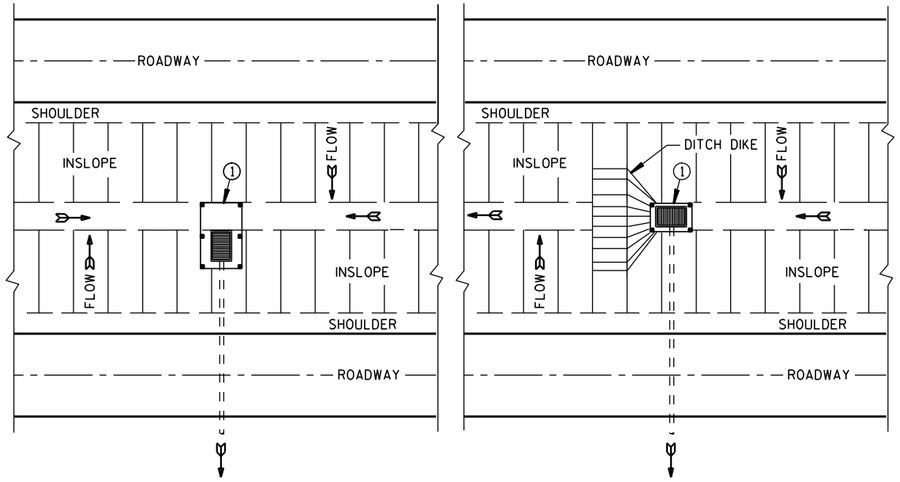
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

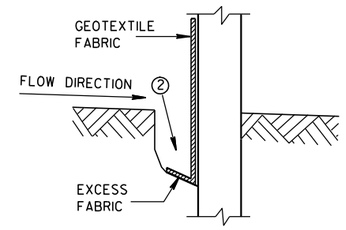
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

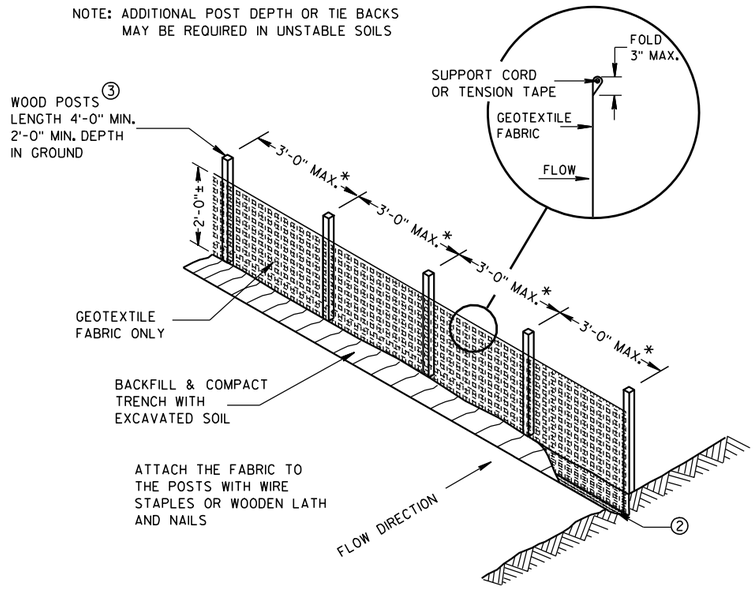
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

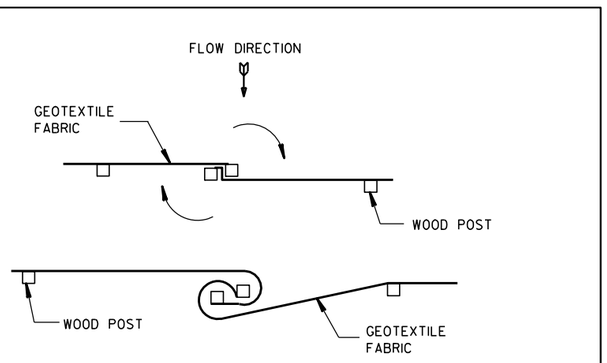
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



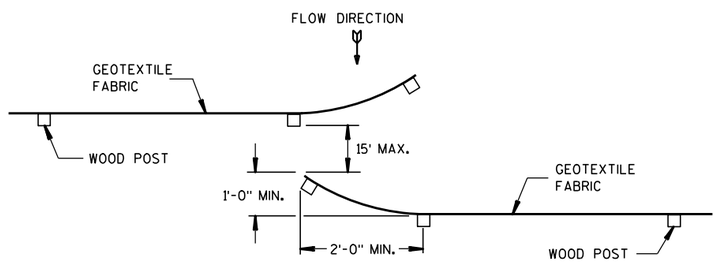
TRENCH DETAIL



SILT FENCE

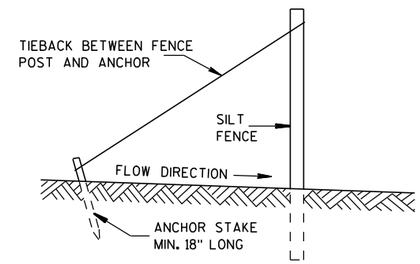


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

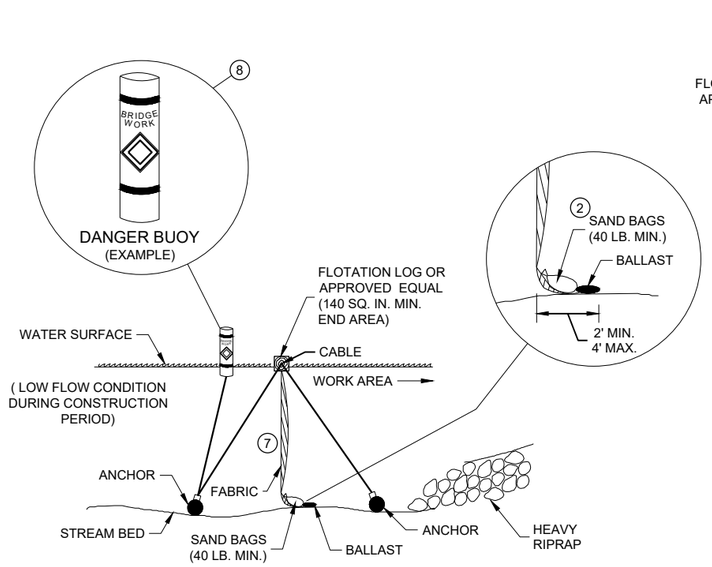
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

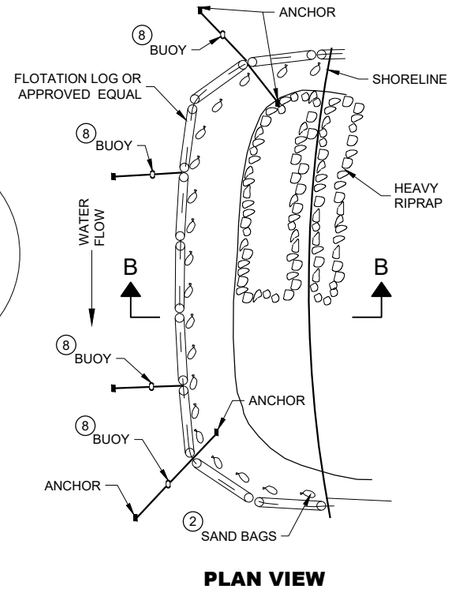
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

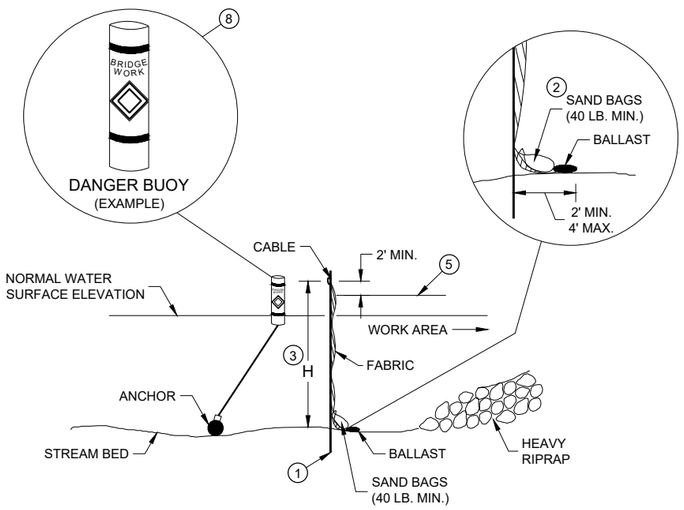


SECTION B - B

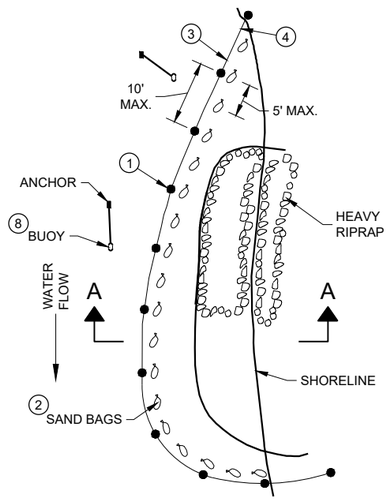


PLAN VIEW

TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A - A



PLAN VIEW

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

(1) DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

(2) SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

(3) WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.

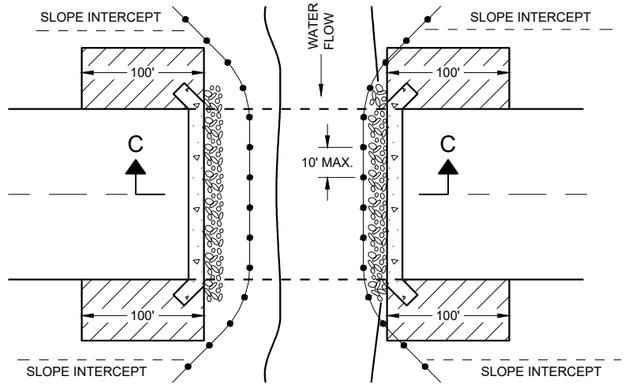
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

(5) ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.

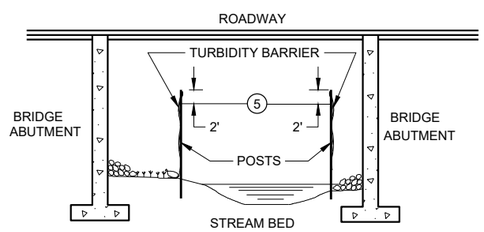
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

(7) ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

(8) USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C - C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

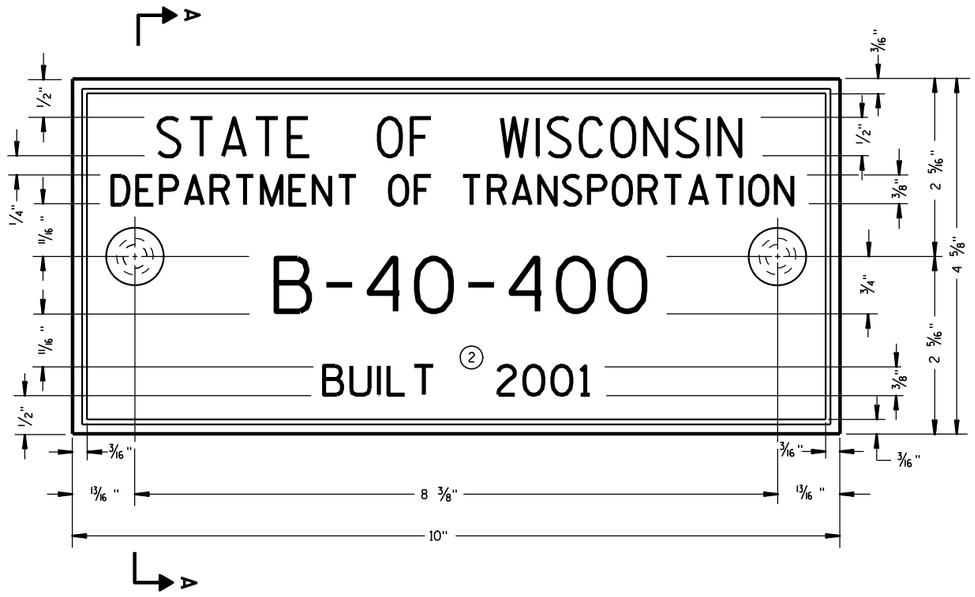
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

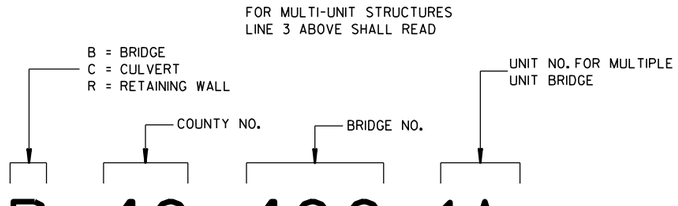
APPROVED
6/4/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOI
ENGINEER

FHWA

6
SDD 08E11 - 02



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

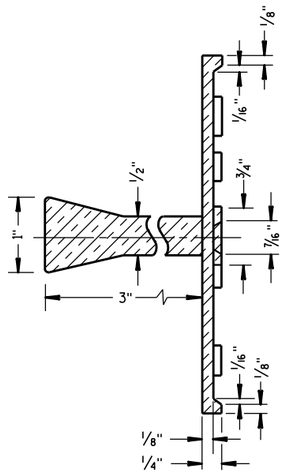
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

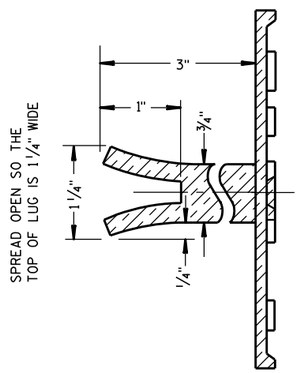
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

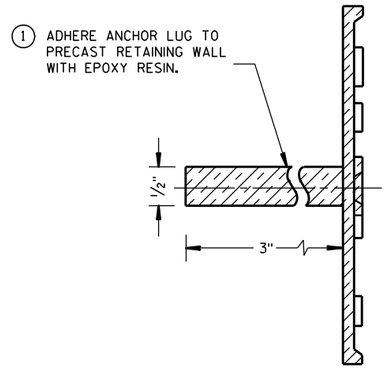
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

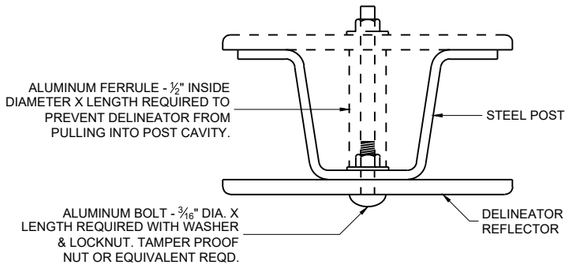
APPROVED

3/26/10 DATE — /S/ Scot Beck-- CHIEF STRUCTURAL DEVELOP ENGINEER

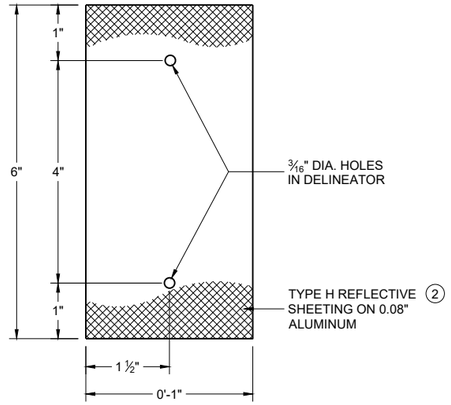
FHWA

6

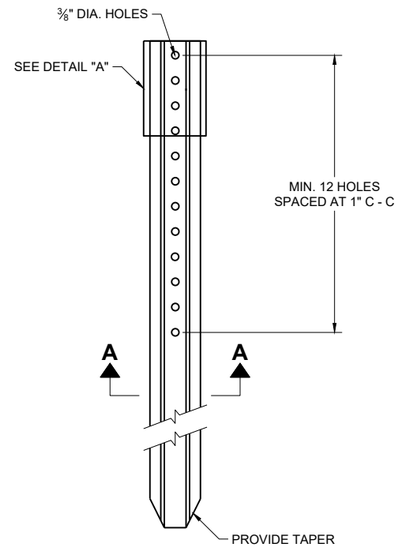
S.D.D. 12 A 3-10



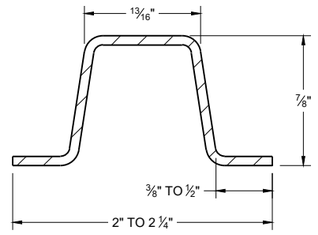
MOUNTING DETAIL FOR DELINEATOR REFLECTOR



DETAIL "A" 3" X 6" DELINEATOR REFLECTOR



DELINEATOR POST



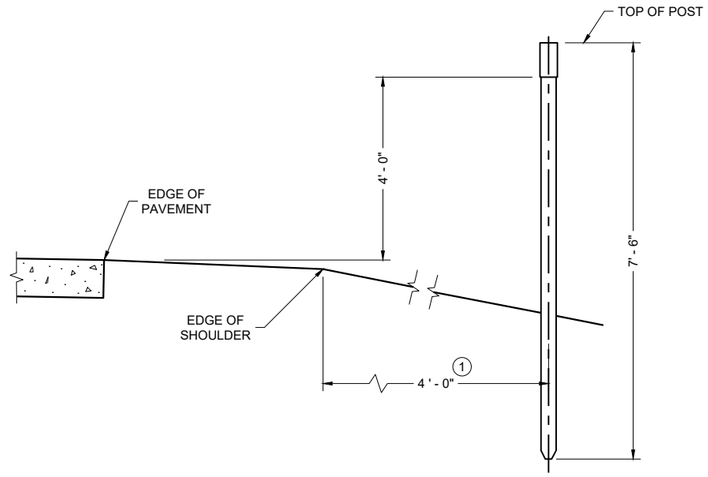
SECTION A - A

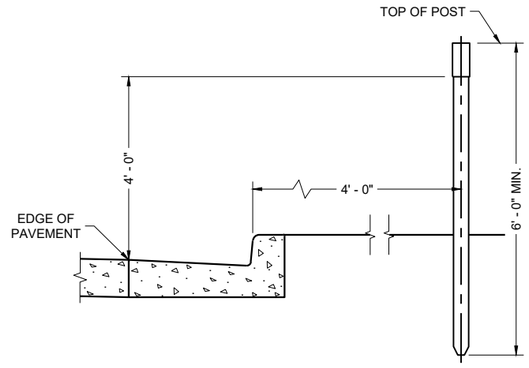
WEIGHT 1.12 LBS PER FT. \ 0.1 LB.

REFLECTOR SPACING TABLE

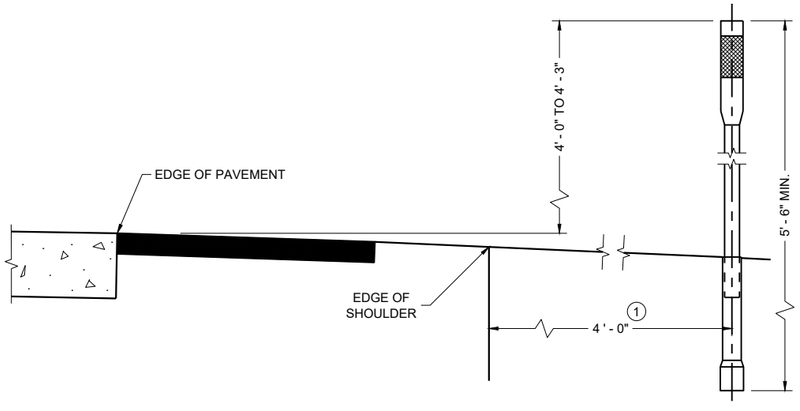
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

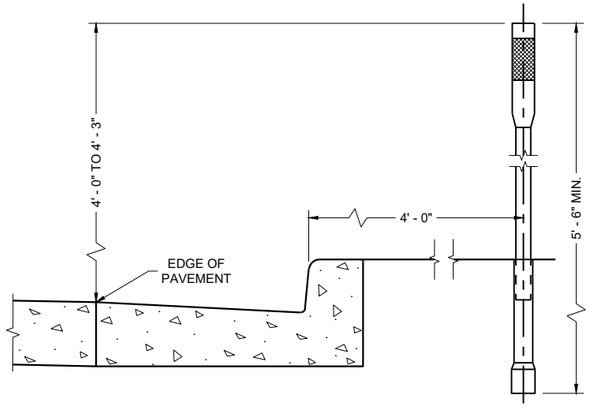
* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER





TYPICAL INSTALLATIONS OF DELINEATOR POSTS





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

GENERAL NOTES

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

(1) DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.

(2) FURNISH TYPE H SHEETING FROM THE APPROVED PRODUCTS LIST.

DELINEATOR POST WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

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SDD 15A04-08c

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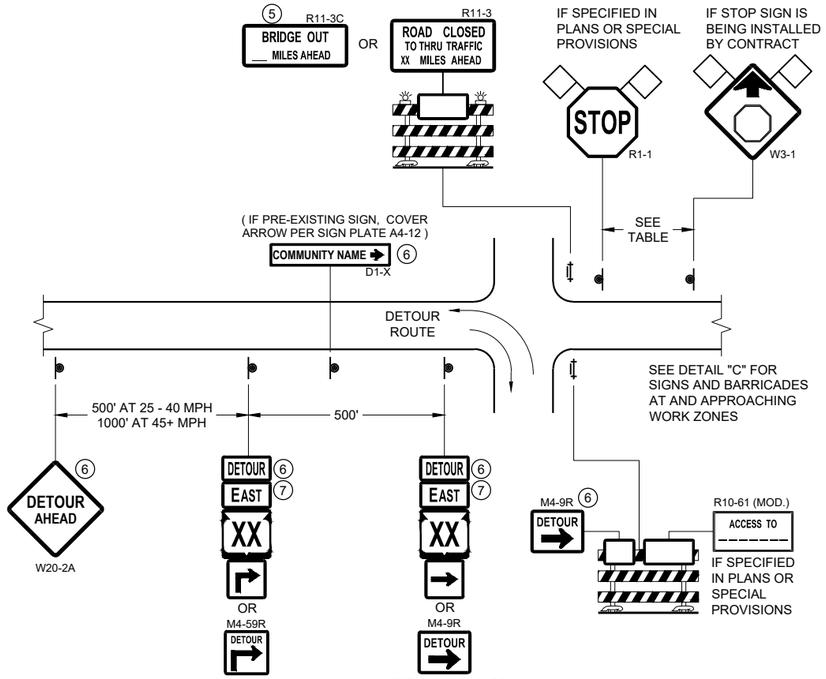
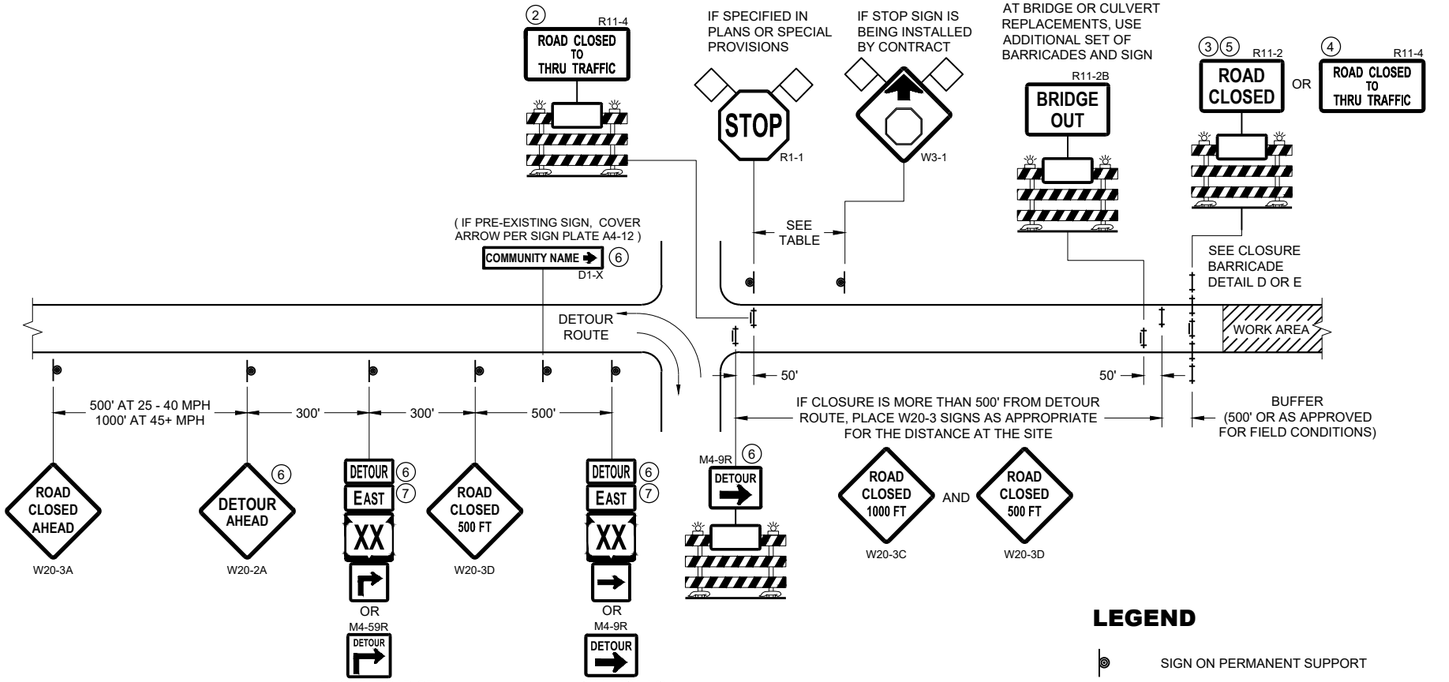
SDD 15A04-08c





DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

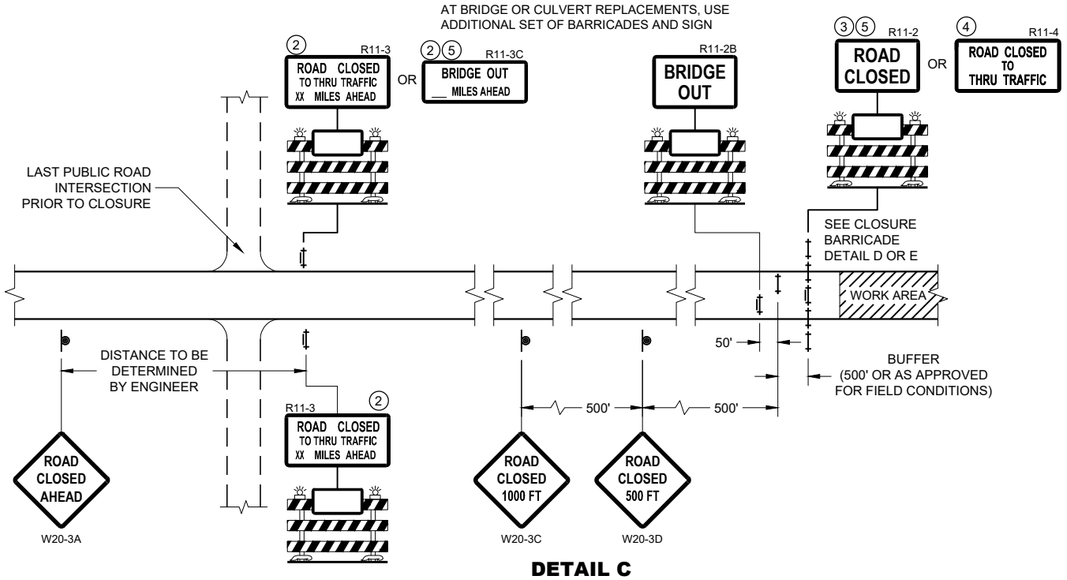
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

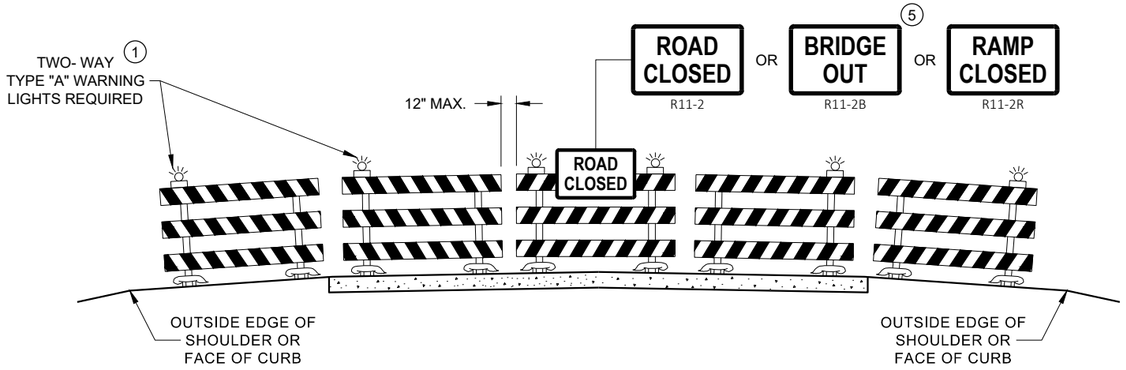
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

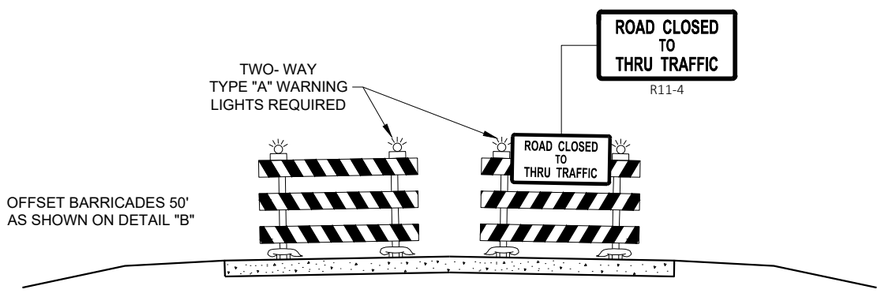
6

SDD 15C02 - 09a

SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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SDD 15C02 - 09b

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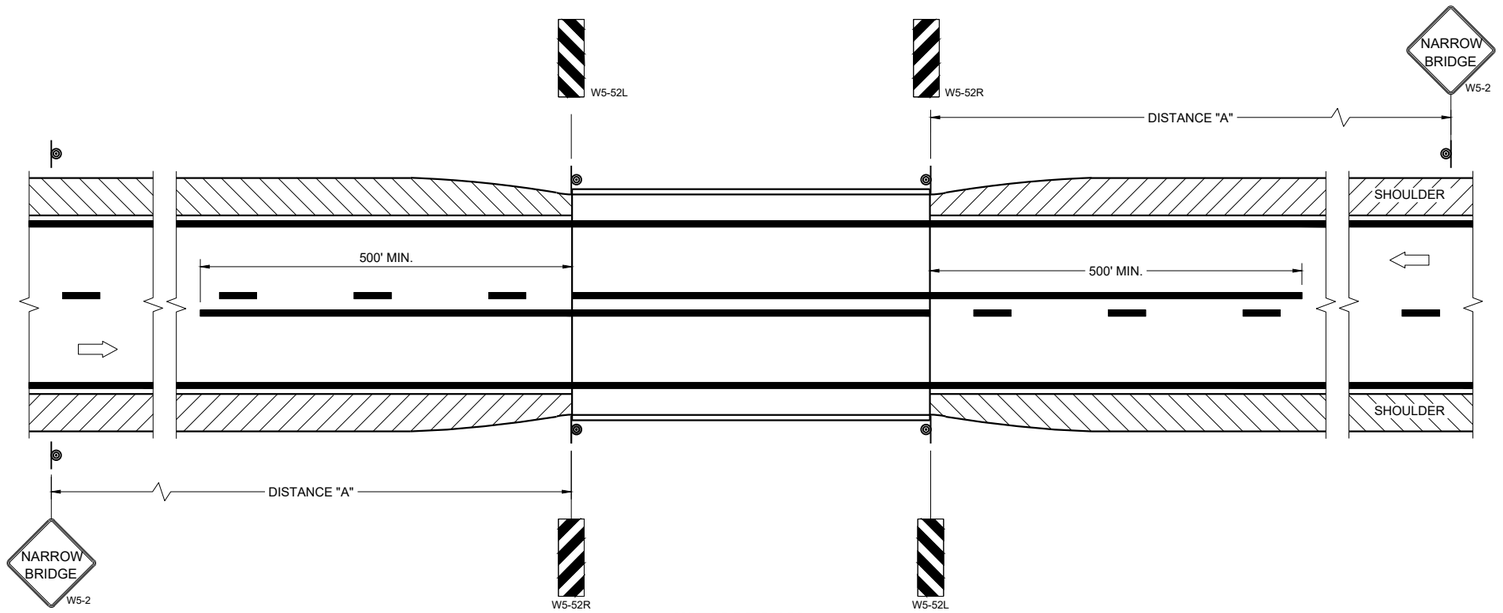
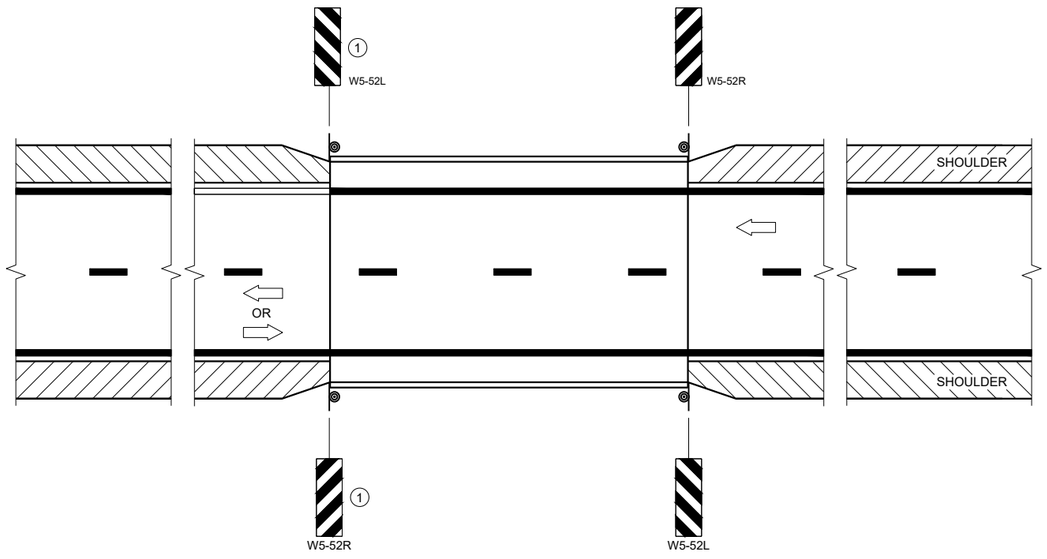
SDD 15C02 - 09b



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



SITUATION 2

WARRANTING CRITERIA:
1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET

GENERAL NOTES

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

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

(1) OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

SIGNING AND MARKING FOR TWO LANE BRIDGES

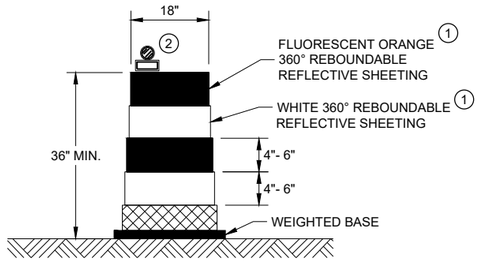
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer
FHWA

6
SDD 15C06-12

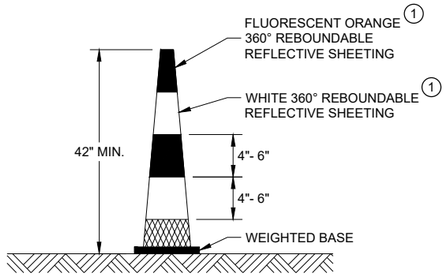
GENERAL NOTES

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.



DRUM

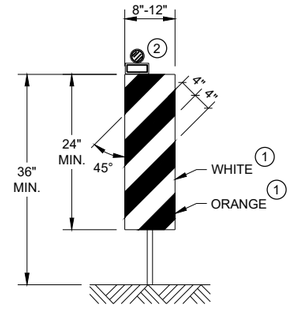
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

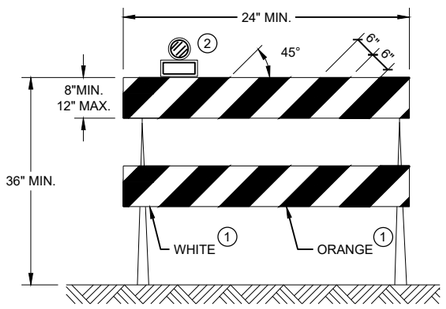
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



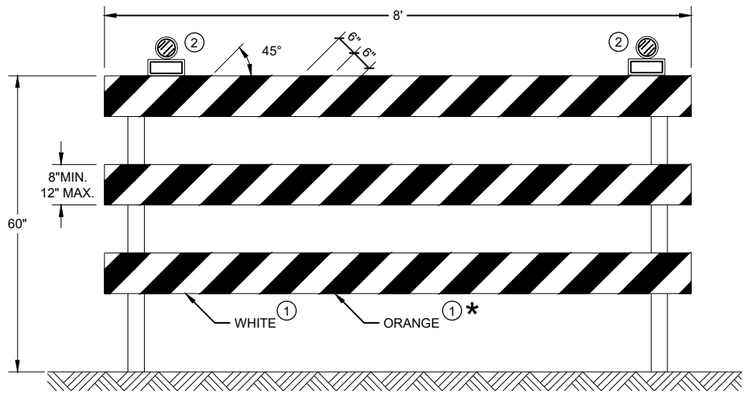
VERTICAL PANEL

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



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

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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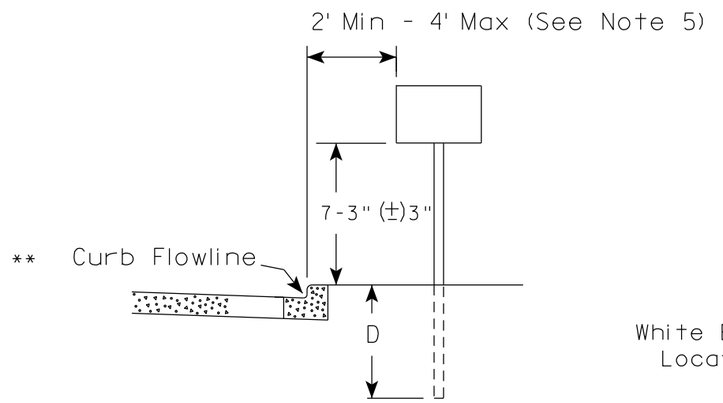
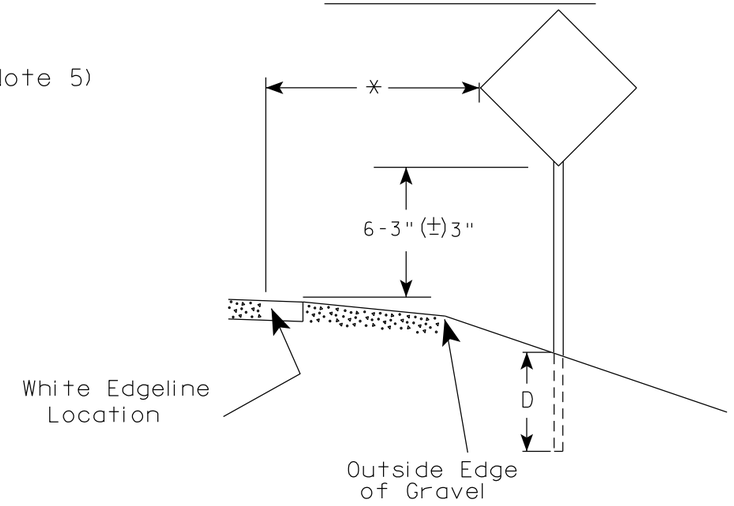
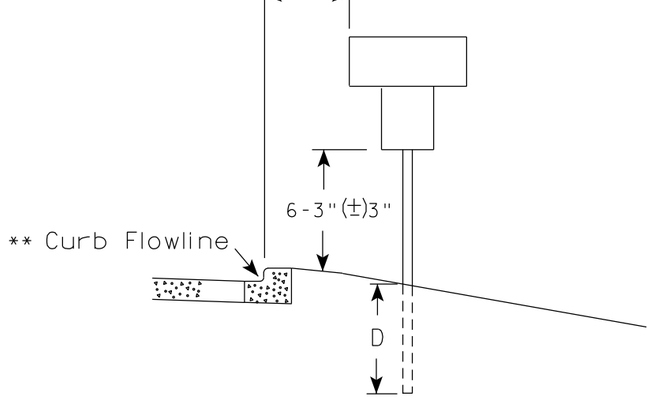
SDD 15C11 - 10b
SDD 15C11 - 10b

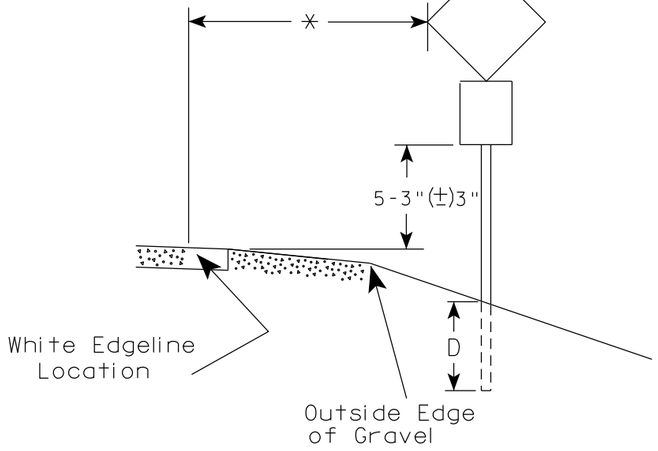
URBAN AREA



RURAL AREA (See Note 2)







** 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.

POST EMBEDMENT DEPTH

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

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" (±) 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" (±) 3".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 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" (±) 3" or as directd by the Engineer.

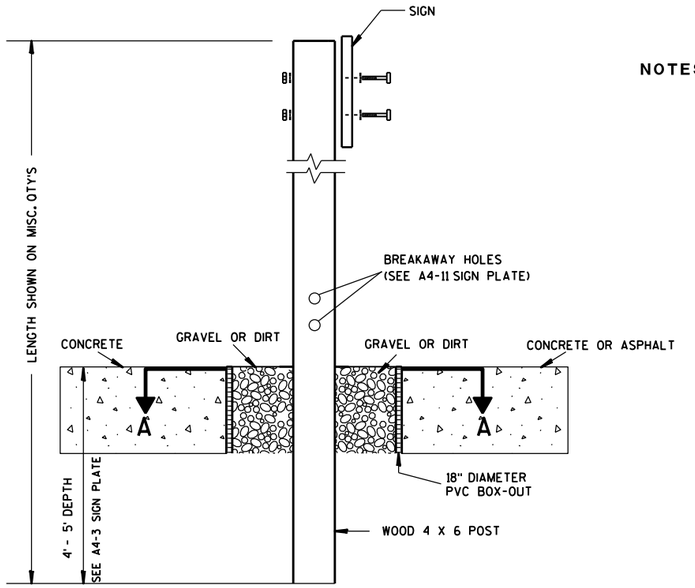
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

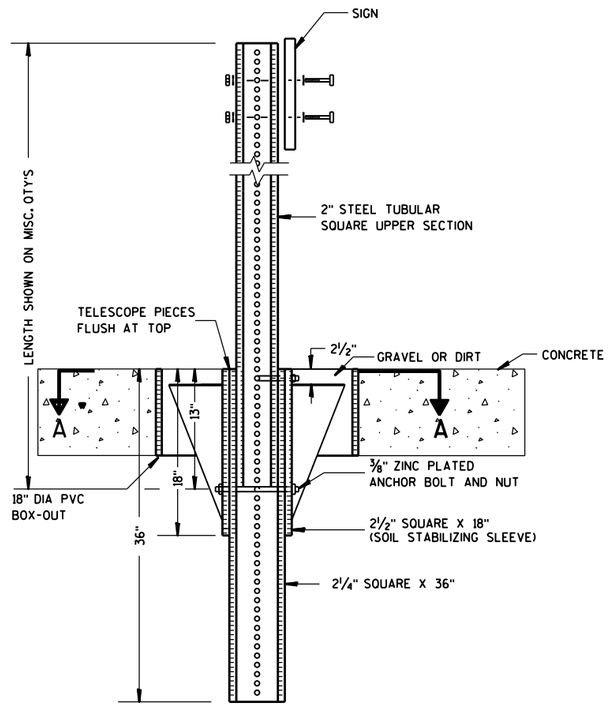
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 24	E



ELEVATION VIEW

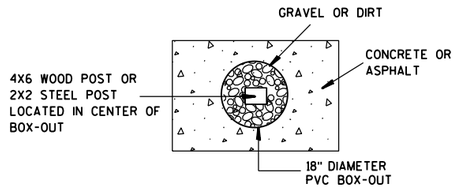
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

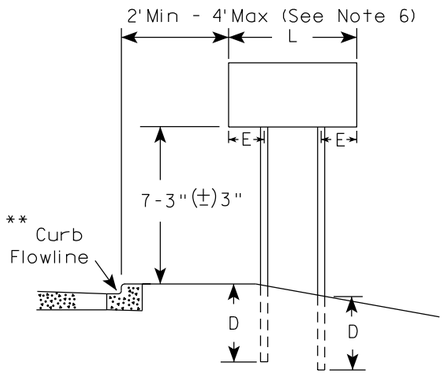
APPROVED Matthew R Rauch
for State Traffic Engineer

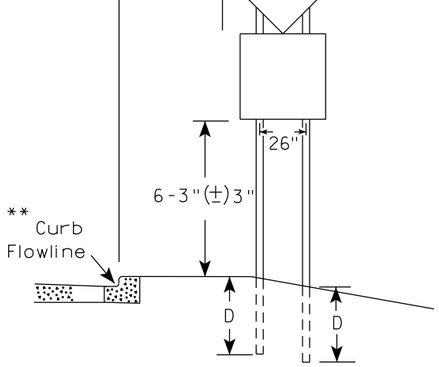
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

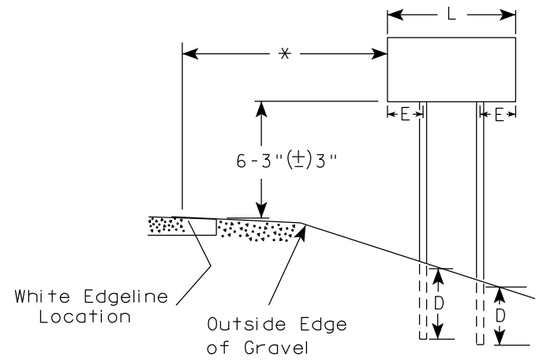
URBAN AREA

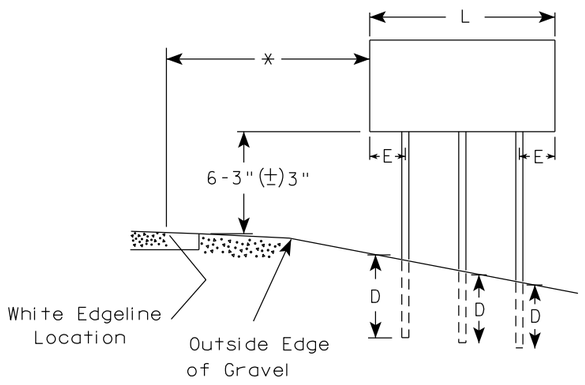


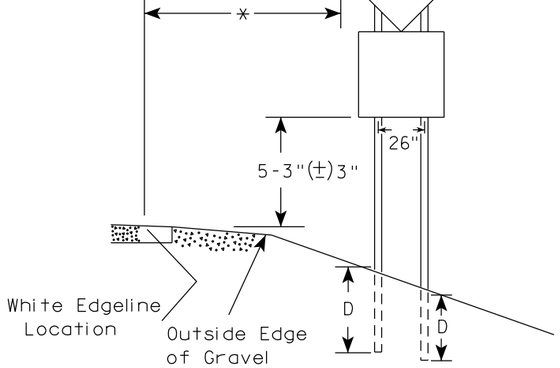


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN

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

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
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" (±) 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.

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

POST EMBEDMENT DEPTH

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

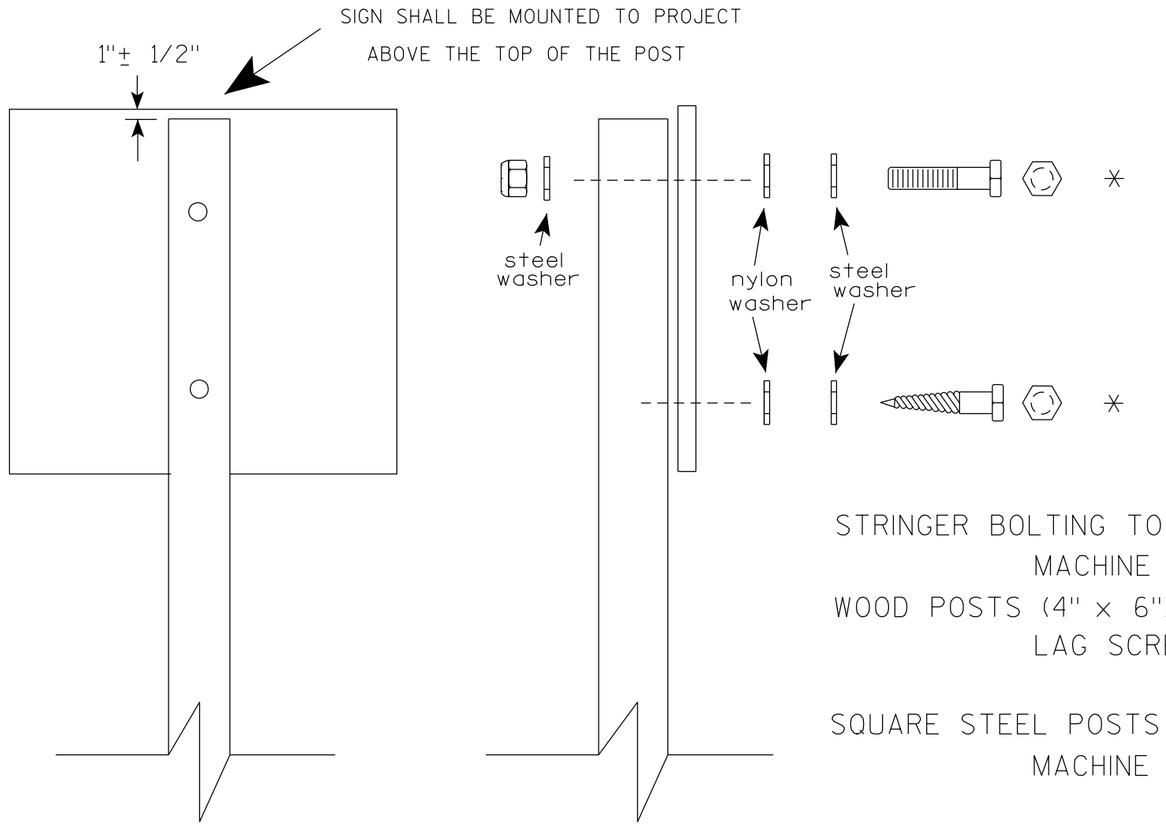
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 26	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 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 - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

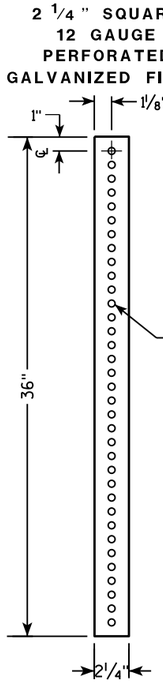
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

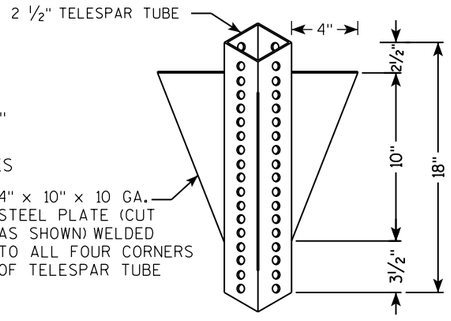
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

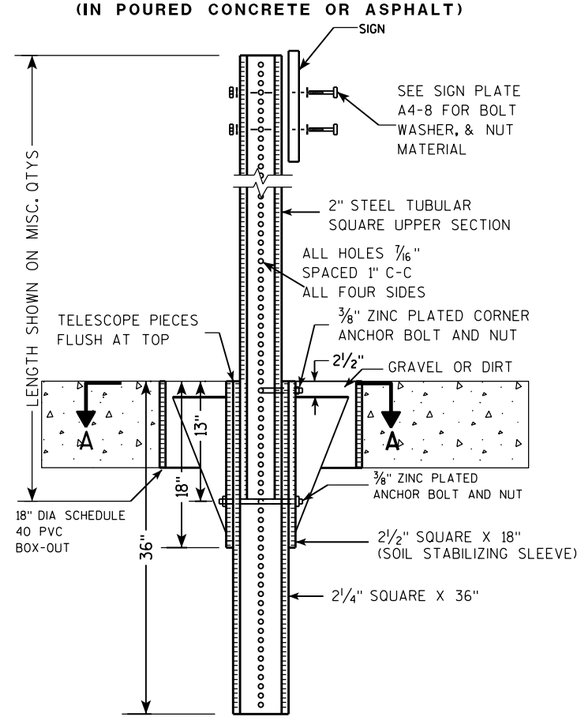
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



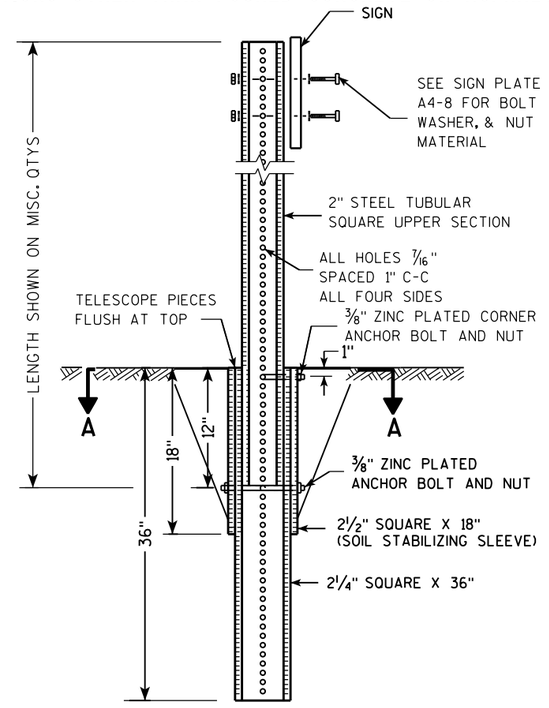
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

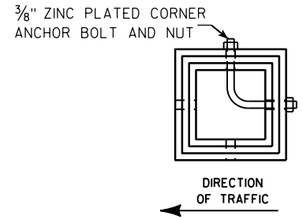


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

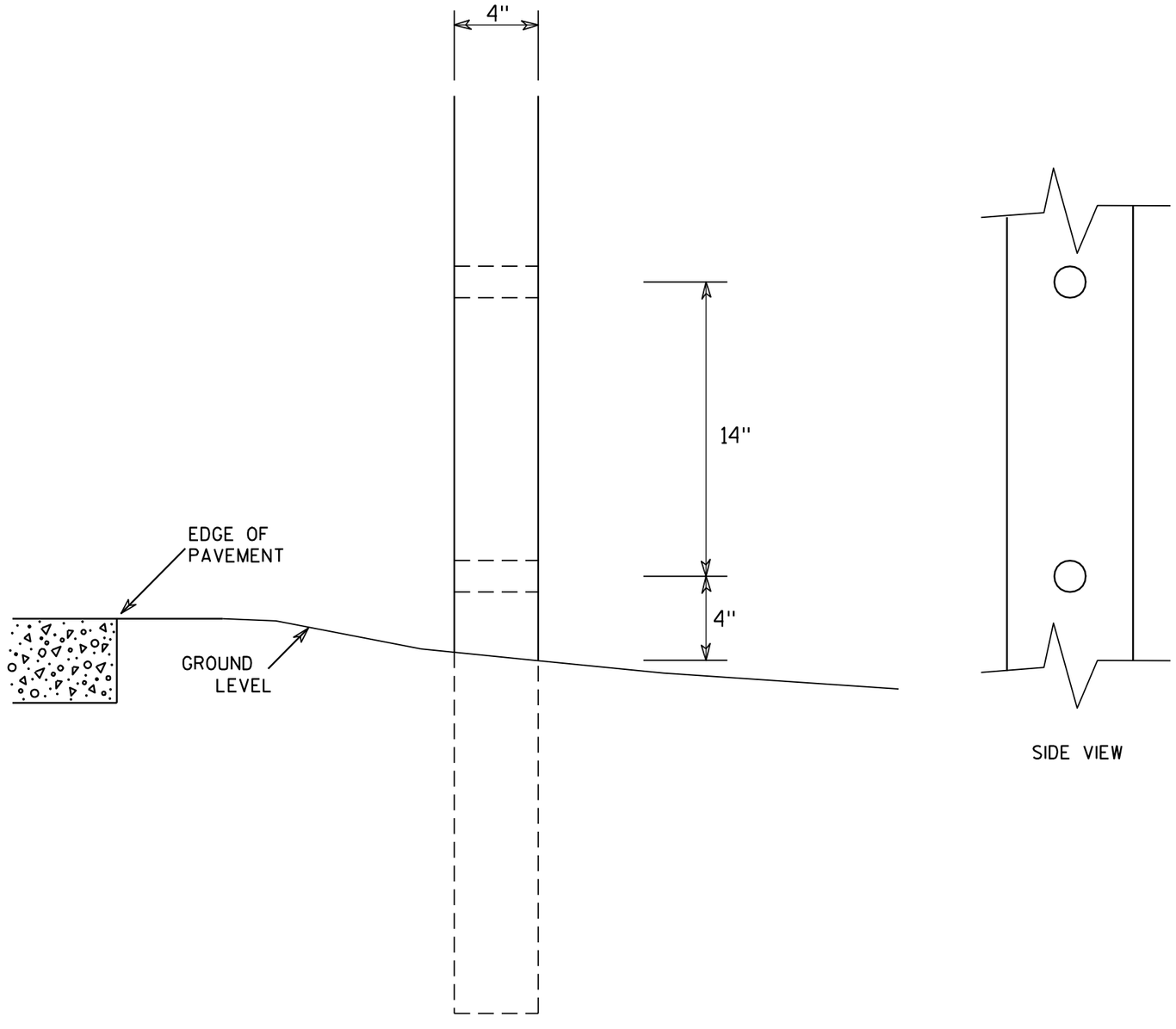
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000
WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

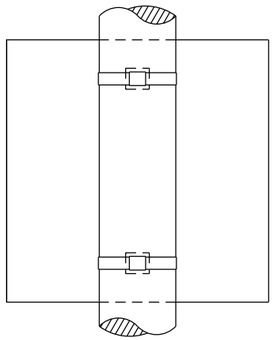
APPROVED Chester J Spang
for State Traffic Engineer

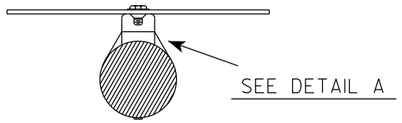
DATE 3/27/97 PLATE NO. A4-11.2

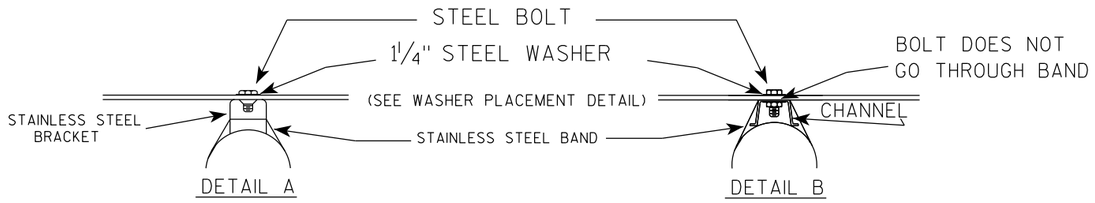
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 29	E

BANDING

SINGLE SIGN



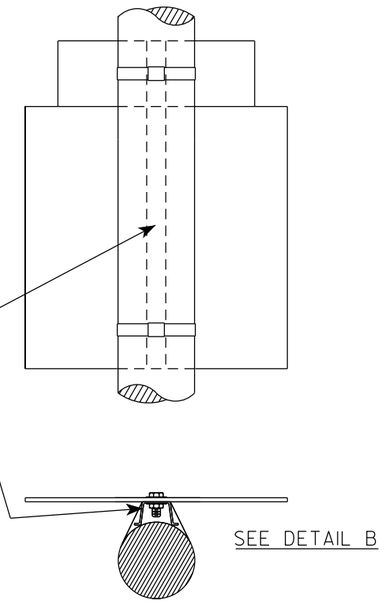




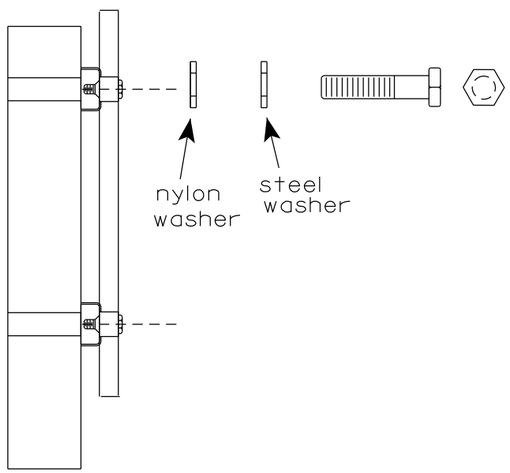
GENERAL NOTES

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 ¾" 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



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

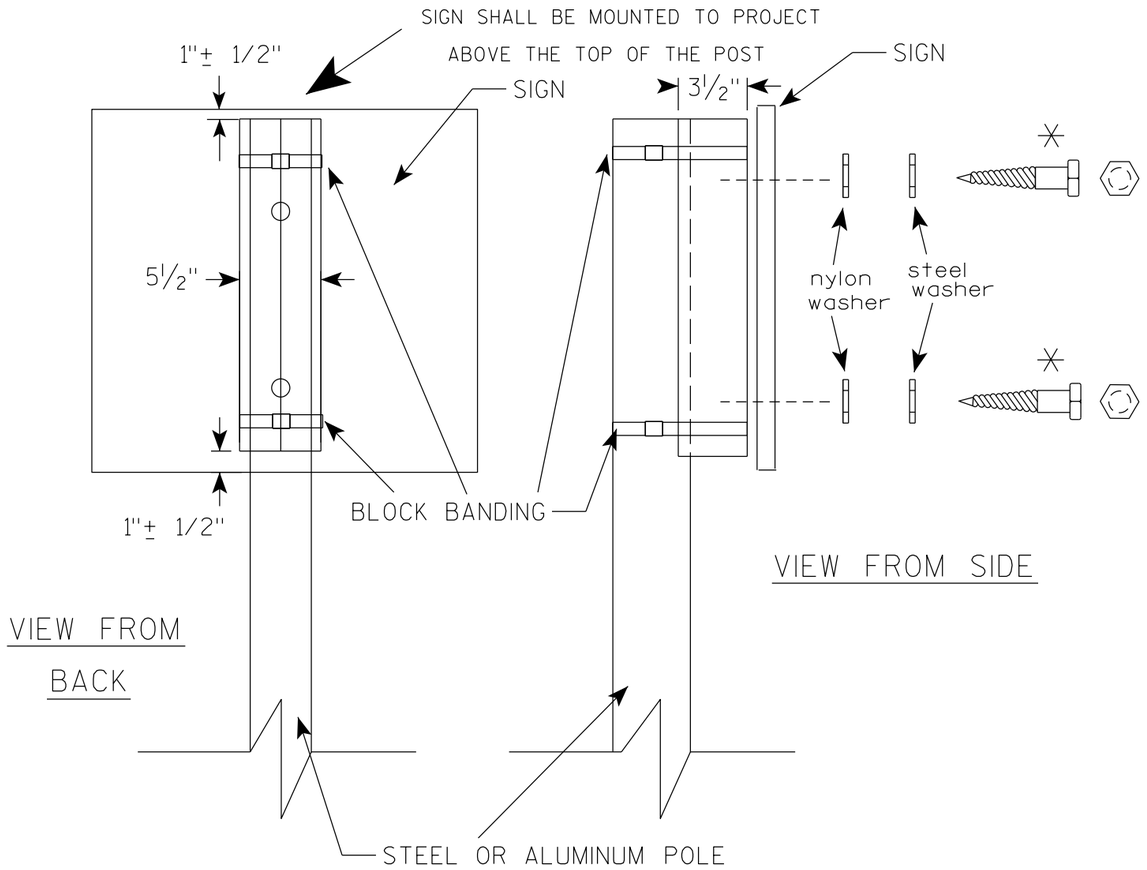
WISCONSIN DEPT OF TRANSPORTATION

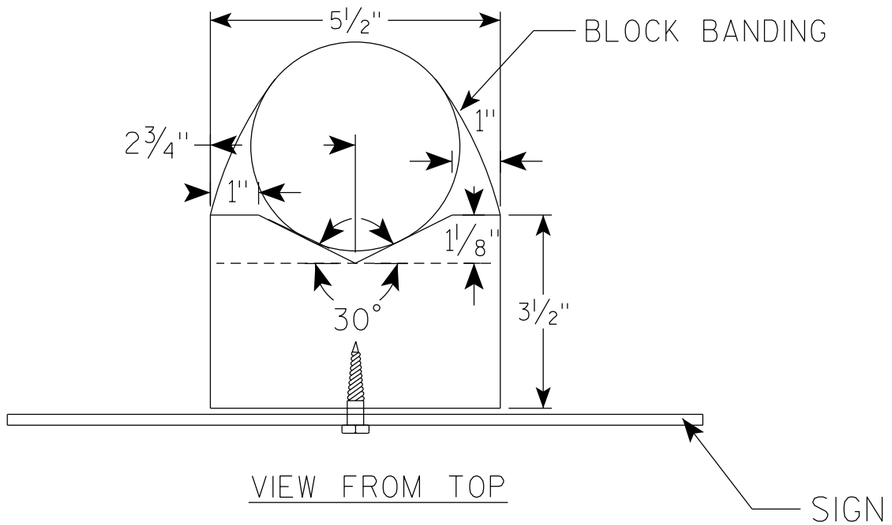
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 30	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





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, ¾" 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 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

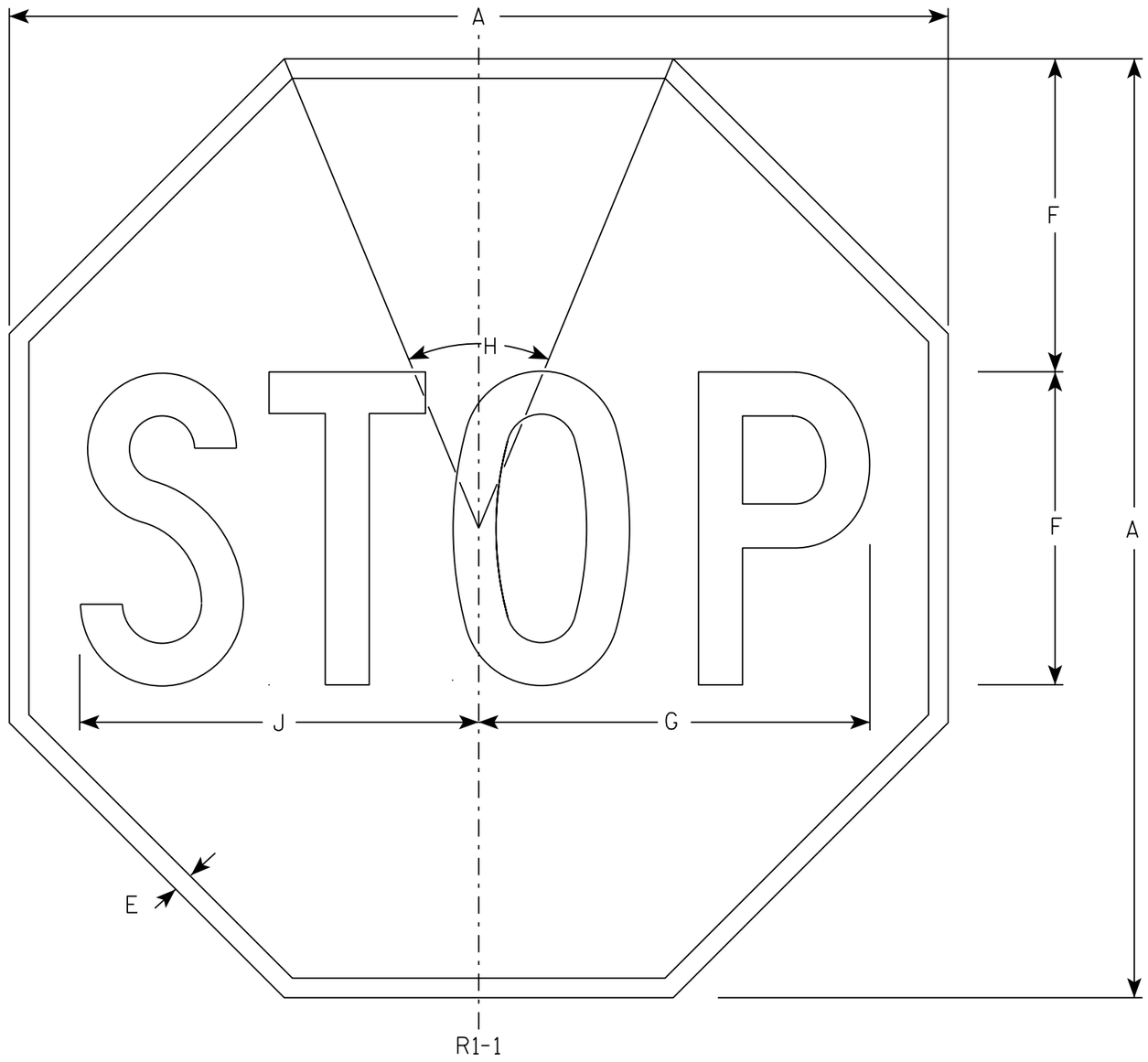
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 31 E



NOTES

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

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

STANDARD SIGN

R1-1

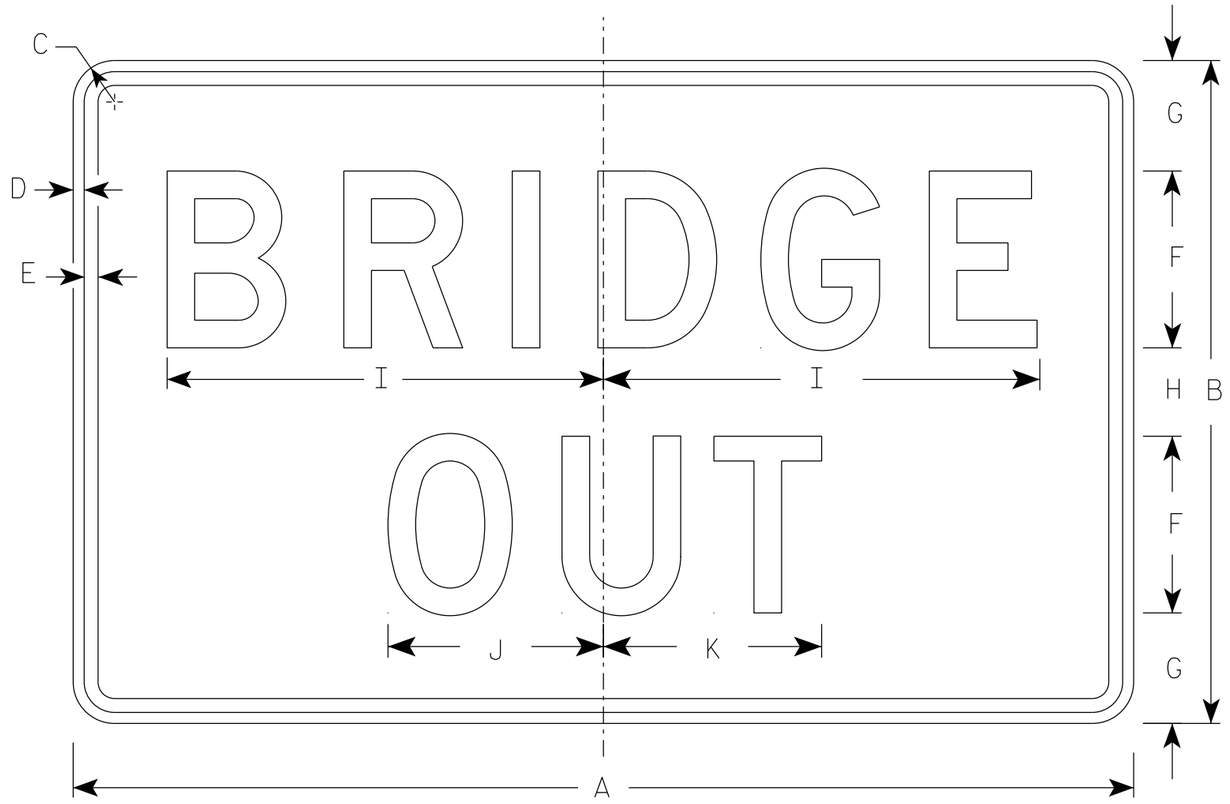
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 32	E



R11-2B

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.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

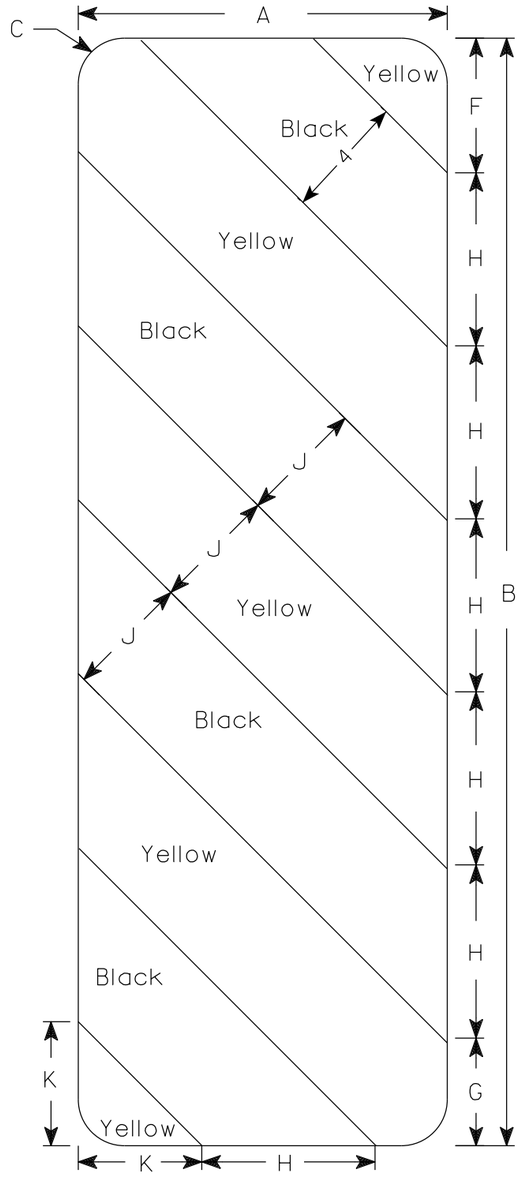
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

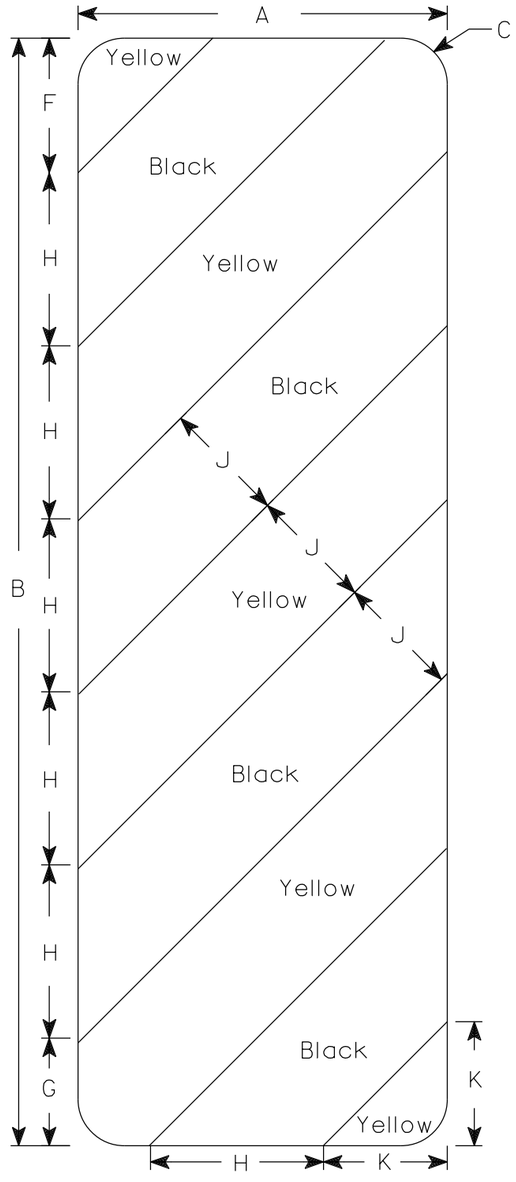
DATE 2/5/24 PLATE NO. R11-2B.3

PROJECT NO:

SHEET NO: 33 E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Alternate colors of stripes as shown.

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

STANDARD SIGN

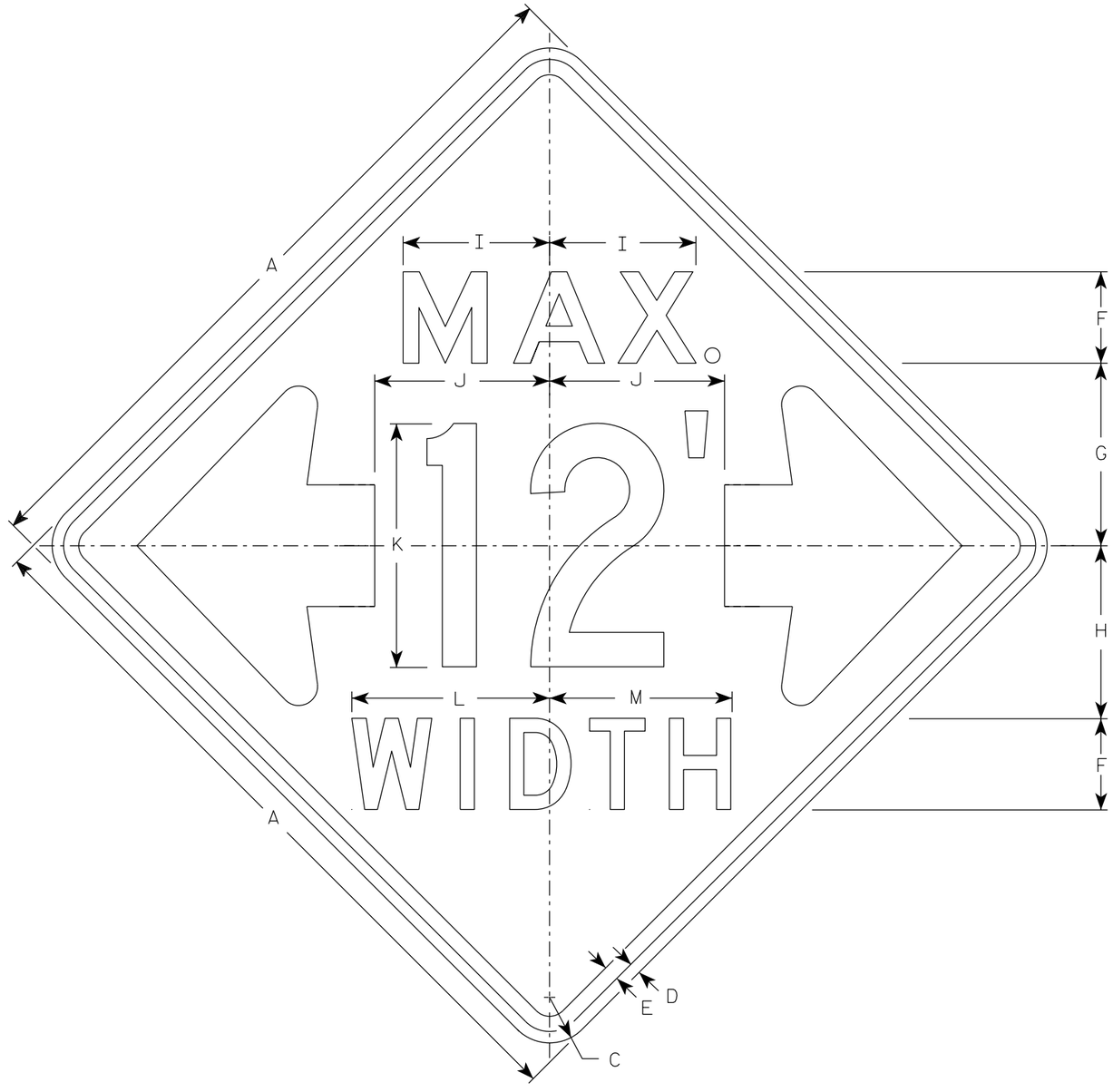
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 3/4/2024 PLATE NO. W5-52.10

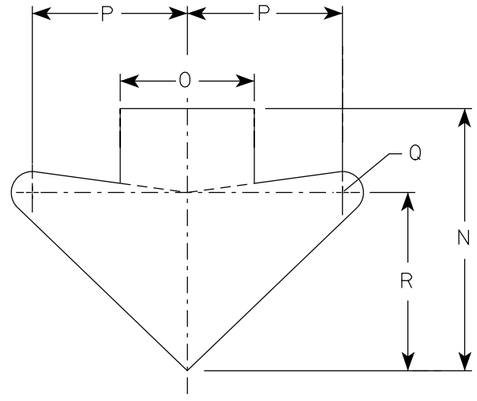
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 34 E



W12-52

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. The top line is series E, the numerals are series C, and the bottom line is series D.
5. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		3	¾	1	6	12	11 ⅜	9 ⅝	11 ½	16	13	12	15 ⅝	8	9 ¼	1 ¼	10 ⅝									16.0
2M	48		3	¾	1	6	12	11 ⅜	9 ⅝	11 ½	16	13	12	15 ⅝	8	9 ¼	1 ¼	10 ⅝									16.0
3																											
4																											
5																											

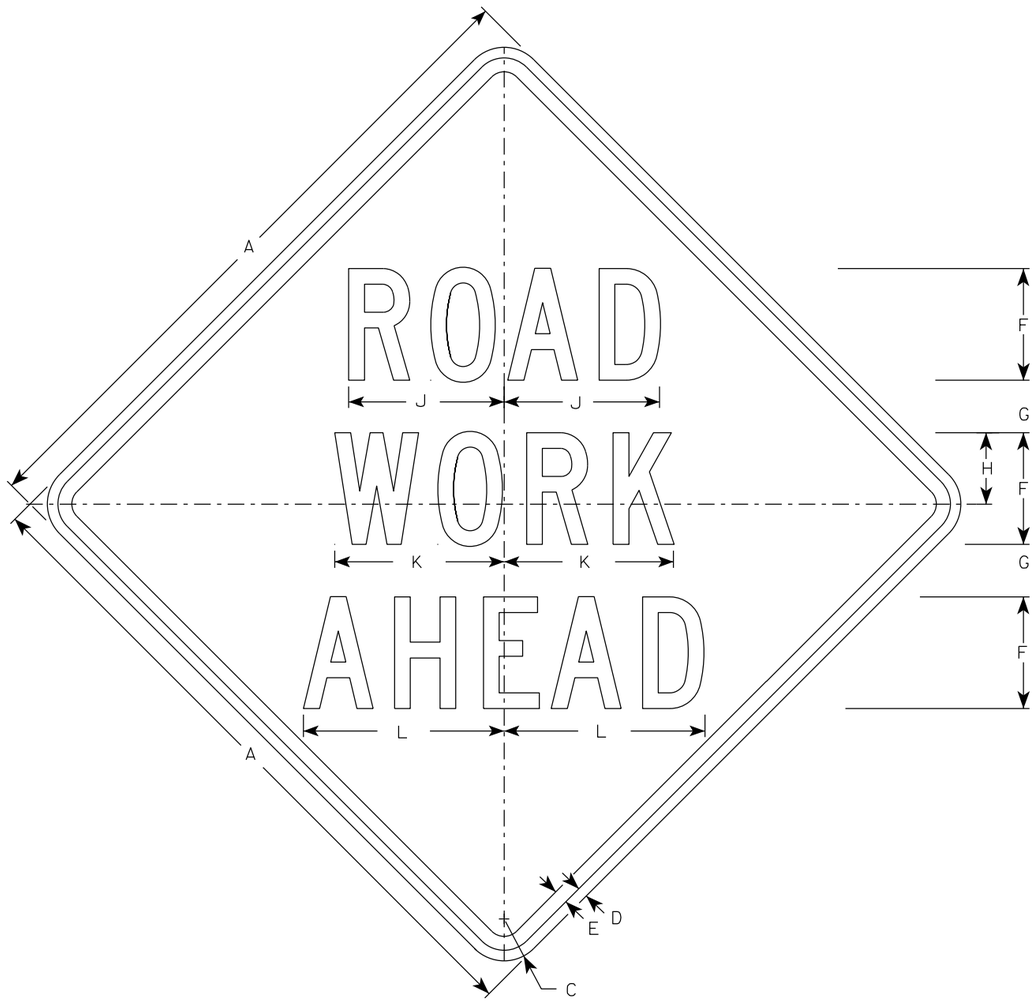
STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

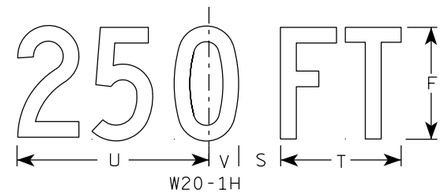
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/10/2024 PLATE NO. W12-52.8

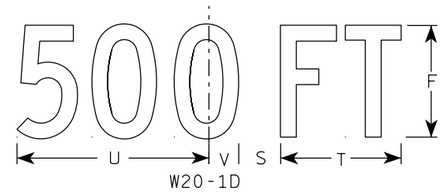
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 35 | E



W20-1A



W20-1H



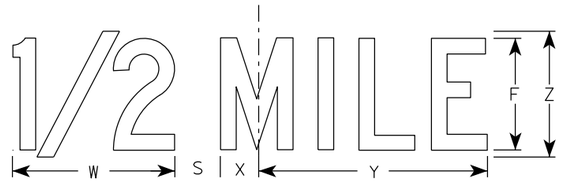
W20-1D

W20-1C

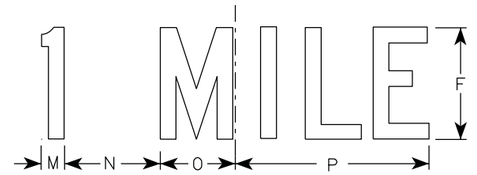
W20-1B

NOTES

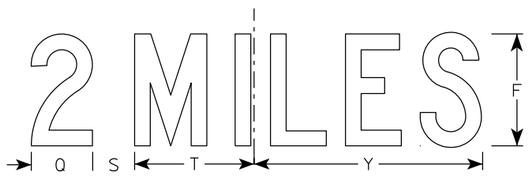
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	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 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	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 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	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 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	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 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	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 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	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 R Rauch
for State Traffic Engineer

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

PROJECT NO:

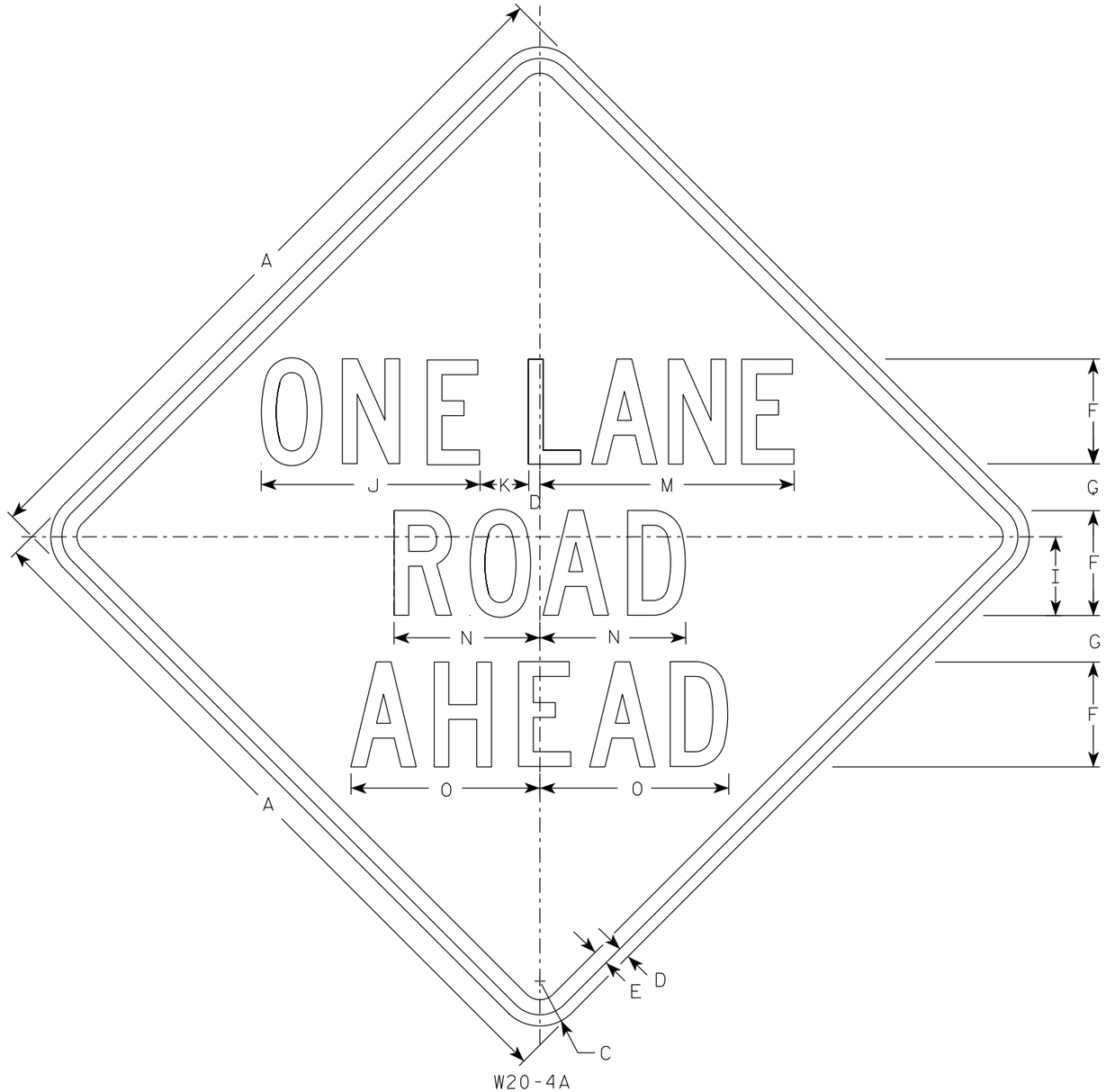
SHEET NO: 36 E

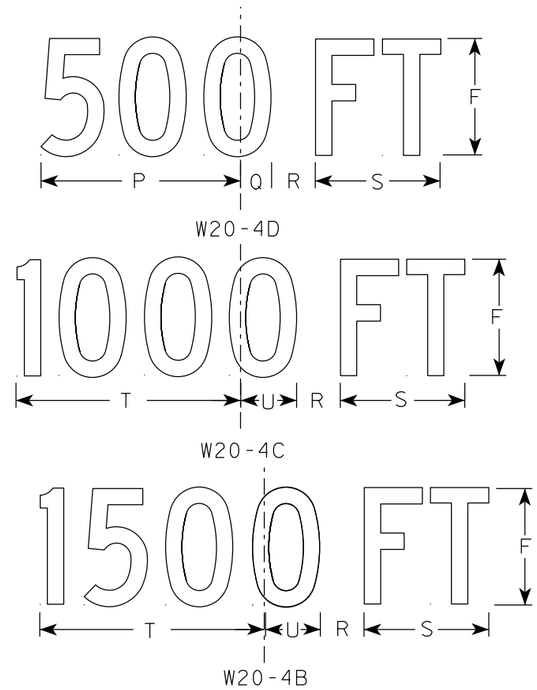
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 10-JAN 2024 11:16 PLOT BY : dotc4c

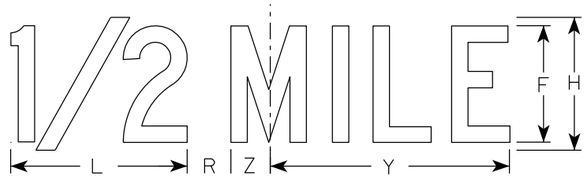
WISDOT/CADDS SHEET 42

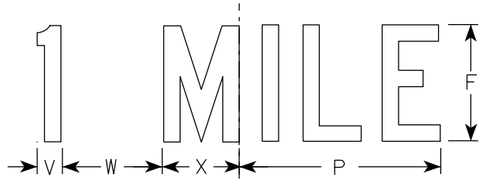
7

7









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

STANDARD SIGN
W20-4A, B, C, D, F & G

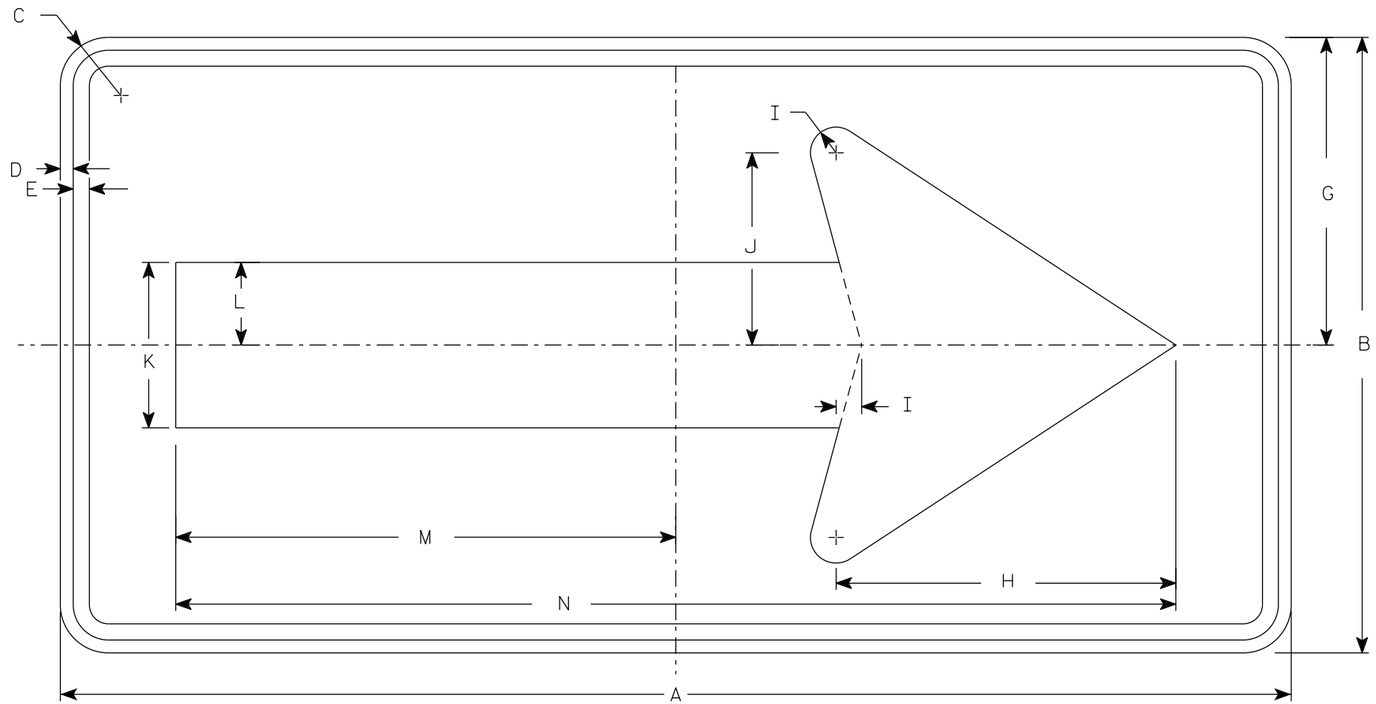
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-4.10

PROJECT NO:

SHEET NO: 37 E



WO1-6

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

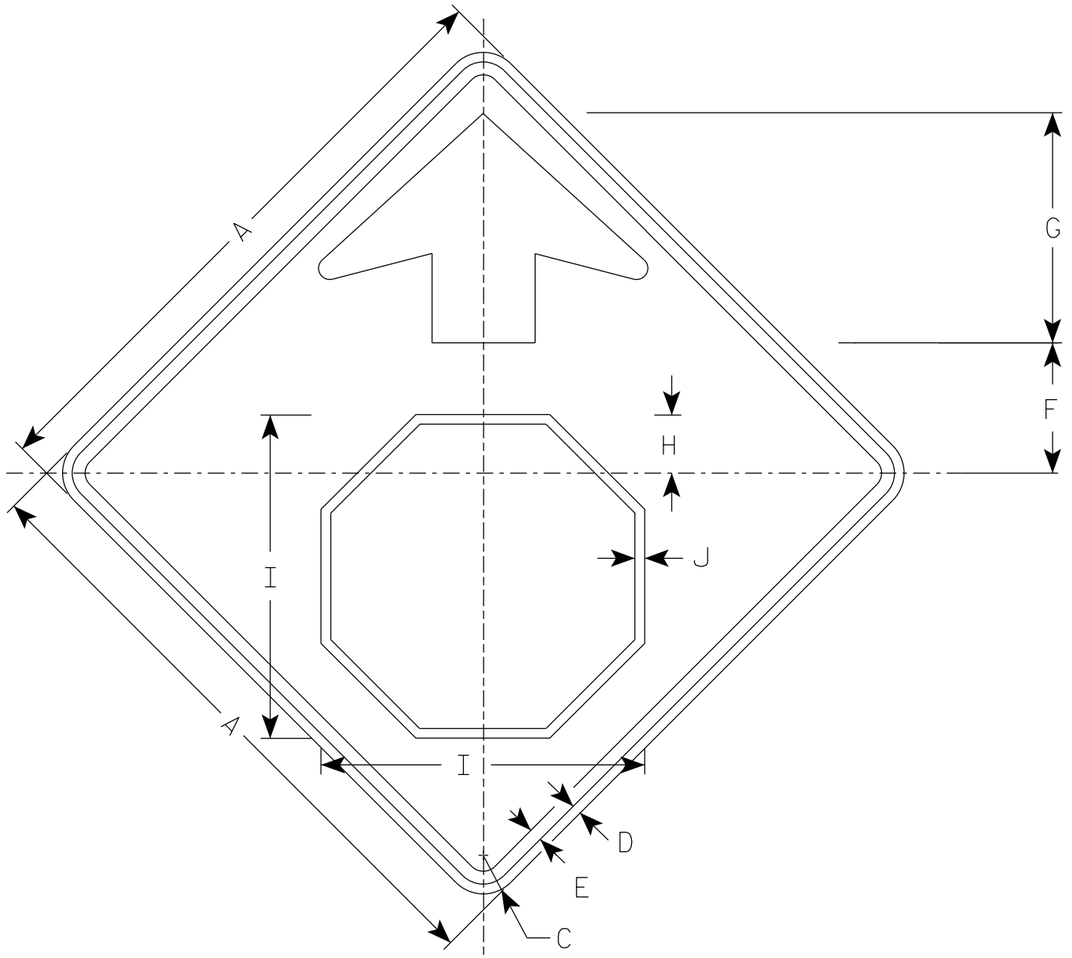
STANDARD SIGN
WO1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. WO1-6.2

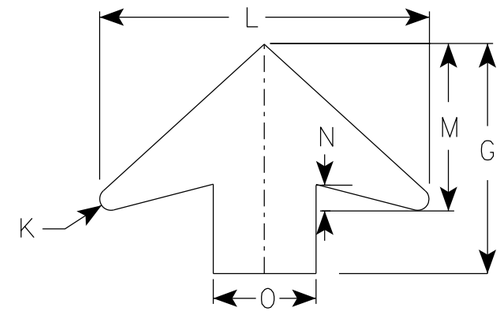
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W03-1

NOTES

1. All Signs Type II - Type F Reflective
2. Color:
   Background - ORANGE
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

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

STANDARD SIGN
W03-1

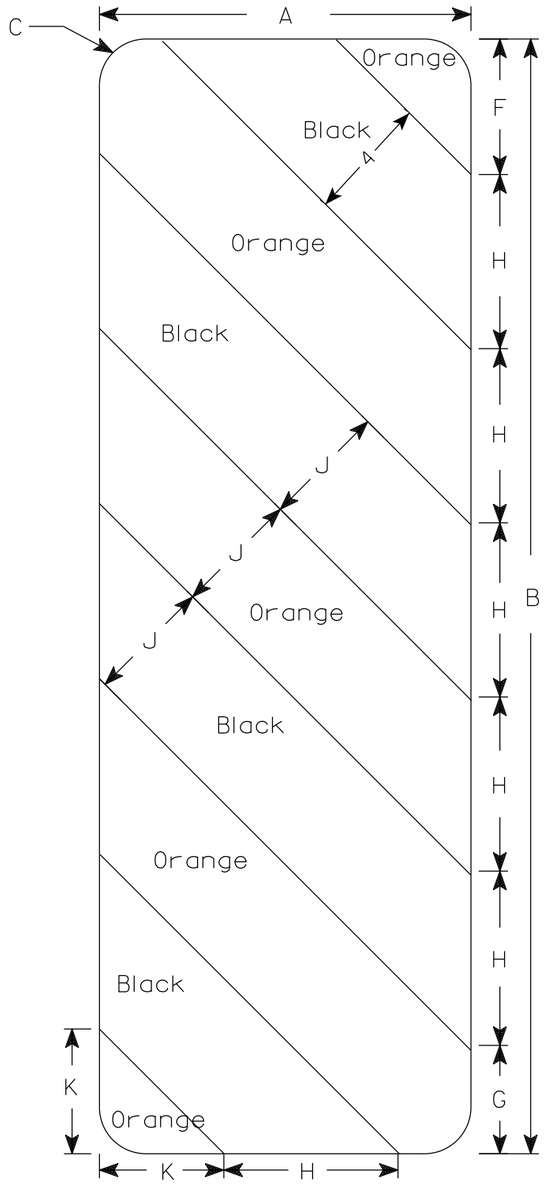
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

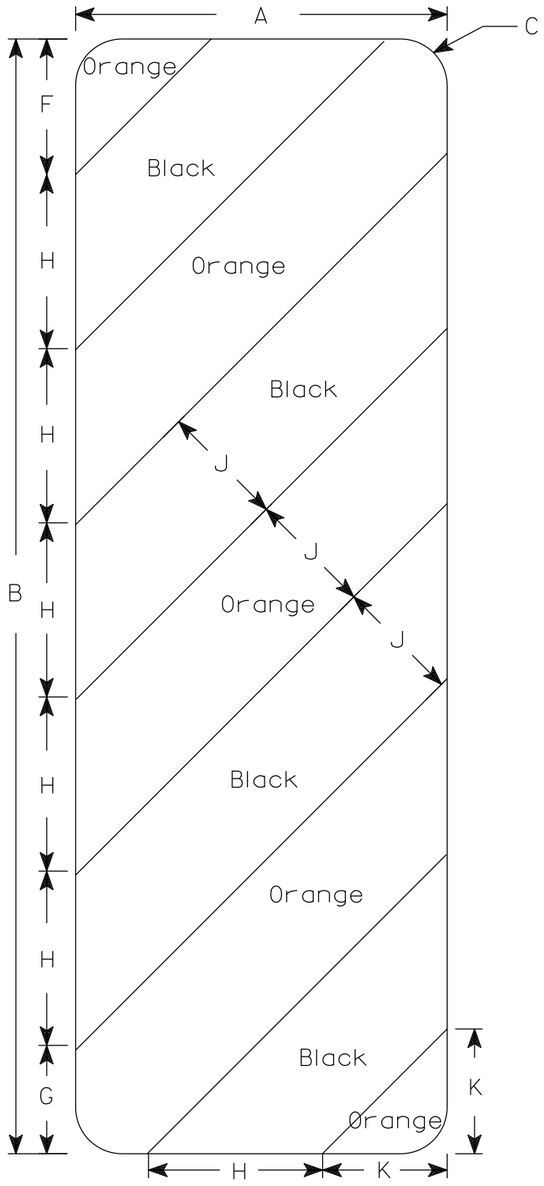
DATE 1/24/2024 PLATE NO. W03-1.2

PROJECT NO:

SHEET NO: 39 E



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 ½			4 ⅜	3 ½	5 ⅝	45°	4	4																3.0
2M	12	36	1 ½			4 ⅜	3 ½	5 ⅝	45°	4	4																3.0
3	18	54	1 ½			6	5 ½	8 ½	45°	6	6 9/16																6.75
4																											
5																											

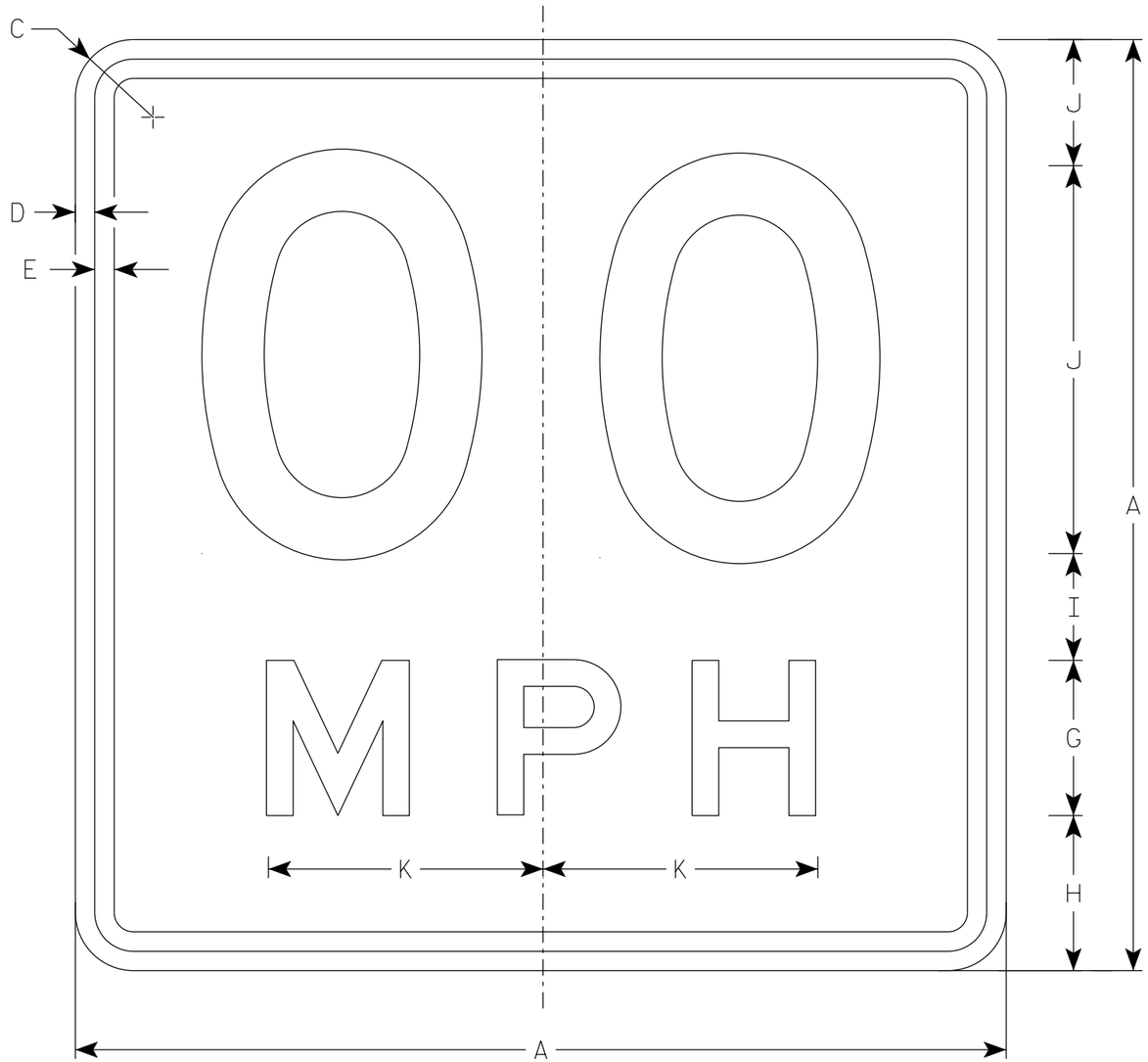
STANDARD SIGN
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/2024 PLATE NO. W05-52.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 40 | E



W013-1

NOTES

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

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

STANDARD SIGN

W013-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W013-1.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W0131.dgn PLOT DATE : 1-FEB 2024 9:56 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

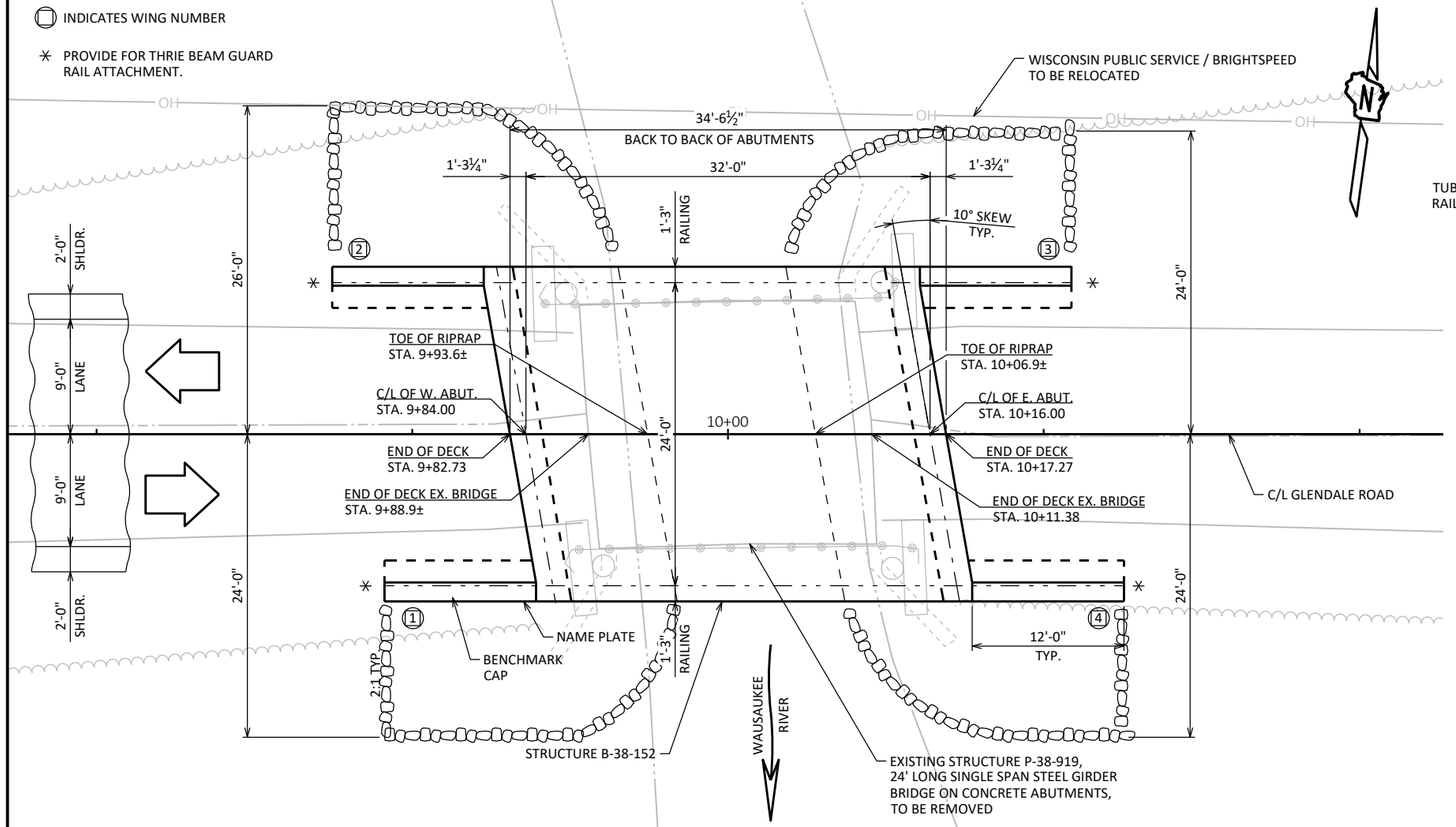
7

STATE PROJECT NUMBER

9236-03-73

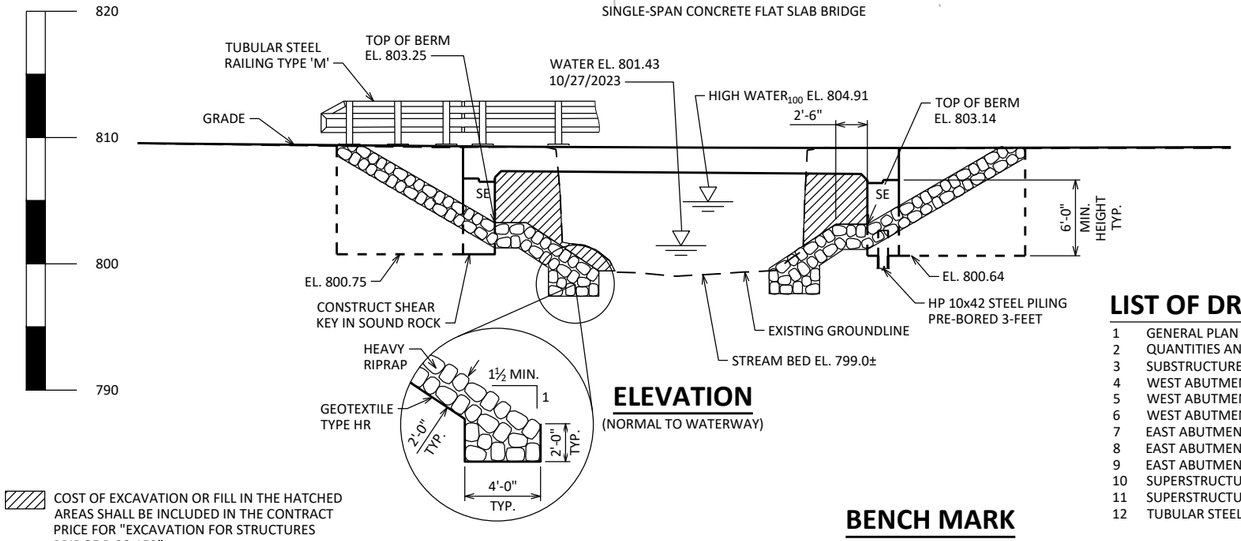
INDICATES WING NUMBER

✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT.



PLAN

SINGLE-SPAN CONCRETE FLAT SLAB BRIDGE

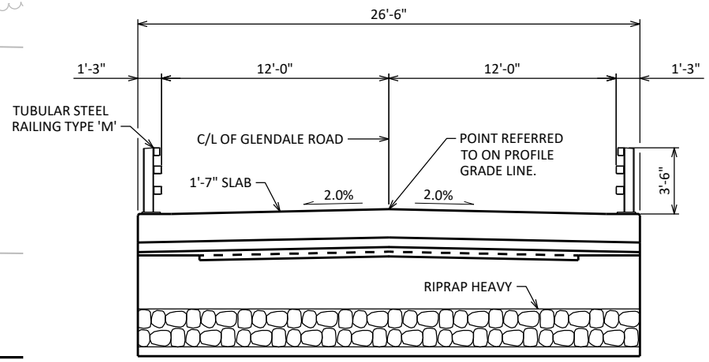


ELEVATION

(NORMAL TO WATERWAY)

COST OF EXCAVATION OR FILL IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGE B-38-152"

REMOVE EXISTING STRUCTURE AS NEEDED. COST INCLUDED IN "REMOVING STRUCTURE OVER WATERWAY DEBRIS CAPTURE" ITEM. TYPICAL AT ALL SUBSTRUCTURES.



TYPICAL SECTION THRU BRIDGE

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.11
OPERATING RATING: RF = 1.43
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
- SUPERSTRUCTURE — f'_c = 4,000 PSI
- ALL OTHER — f'_c = 3,500 PSI

BAR STEEL REINFORCEMENT
- GRADE 60 — f_y = 60,000 PSI

FOUNDATION DATA

WEST ABUTMENT WITH SHALLOW FOOTING TO BE SUPPORTED BY SOUND ROCK WITH A REQUIRED FACTORED BEARING RESISTANCE OF 10,000 PSF***. A GEOTECHNICAL ENGINEER WILL DETERMINE THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO CONSTRUCTION OF THE ABUTMENT FOOTING.

***THE FACTORED BEARING RESISTANCE IS THE VALUE USED FOR DESIGN.

EAST ABUTMENT TO BE SUPPORTED ON HP 10x42 PILING SEATED IN PRE-BORED HOLES CORED 3-FEET MINIMUM INTO ROCK. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF THE PIES IN COMPRESSION USED FOR DESIGN IS 180 TONS MULTIPLIED BY A RESISTANCE FACTOR OF 0.5. ESTIMATED 10'-0" LONG.

HYDRAULIC DATA

100-YEAR FREQUENCY:

Q_{100}= 530 C.F.S.
V_{100}= 4.6 F.P.S.
HW_{100}= EL. 804.91
WATERWAY AREA = 115 SQ. FT.
DRAINAGE AREA = 34.2 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 5

2-YEAR FREQUENCY:

Q_2= 207 C.F.S.
V_2= 3.1 F.P.S.
HW_2= EL. 803.08

5-YEAR FREQUENCY:

Q_5= 290 C.F.S.
HW_5= EL. 804.14
WATERWAY AREA = 79 SQ. FT.

TRAFFIC DATA

FEATURE ON: GLENDALE ROAD

ADT = <100 (2025)
ADT = <100 (2045)
R.D.S. = 35 MPH

LIST OF DRAWINGS

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
CP2	14+20	⅝" REBAR WITH CAP, NE OF BRIDGE BY PPOL.	815.11
CP3	10+55	⅝" REBAR WITH CAP, NE OF BRIDGE IN SHOULDER	808.06
CP4	9+27	⅝" REBAR WITH CAP, NW OF BRIDGE IN SHOULDER	809.58
CP5	6+27	⅝" REBAR WITH CAP, SW OF BRIDGE W OF DWY.	812.02

WISCONSIN
KRISTOFER R. OLSON
E-35236
APPLETON
WI
PROFESSIONAL ENGINEER

2/12/2025

STRUCTURE DESIGN CONTACTS:

AARON BONK 608-261-0261
KRISTOFER OLSON 920-498-1200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

AYRES
700 PILGRIM WAY, SUITE 180
GREEN BAY, WI 54304
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 02/20/25
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-38-152

GLENDALE ROAD OVER WAUSAUKEE RIVER

COUNTY: MARINETTE
TOWN: WAUSAUKEE
DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
JMC	ZSS	JMC	KRO

GENERAL PLAN

SHEET 1 OF 12
42

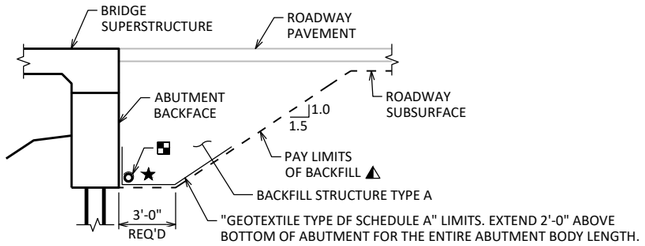
I.D.
DATE:

STATE PROJECT NUMBER

9236-03-73

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	W ABUT.	E ABUT.	TOTALS
203.0270	REMOVING STRUCTURE OVER WATERWAY DEBRIS CAPTURE P-38-919	EACH	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-38-152	EACH	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	---	130	130	260
502.0100	CONCRETE MASONRY BRIDGES	CY	58.5	35.5	35.4	129
502.3200	PROTECTIVE SURFACE TREATMENT	SY	119	12	12	143
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURE	LB	---	2,010	1,790	3,800
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	10,190	1,920	1,670	13,780
513.4061	RAILING TUBULAR TYPE M	LF	69	27	27	123
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	9	9	18
526.0101	TEMPORARY STRUCTURE (40+00)	EACH	---	---	---	1
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	---	---	32	32
550.1100	PILING STEEL HP 10-INCH X 42LB	LF	---	---	40	40
606.0300	RIPRAP HEAVY	CY	---	65	60	125
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	---	75	75	150
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	---	20	20	40
645.01200	GEOTEXTILE TYPE HR	SY	---	125	115	240
	NON-BID ITEMS					
	FILLER	SIZE	---	---	---	½", ¾"

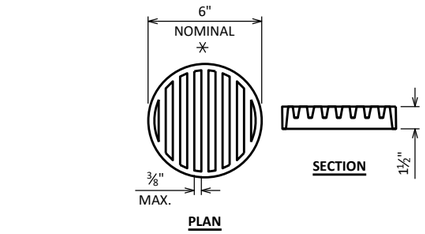


TYPICAL SECTION THRU ABUTMENT

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

▪ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

★ FOR BOTTOM OF ABUTMENTS LOCATED BELOW NORMAL WATER, PLACE DRAIN ABOVE NORMAL WATER. SEE BRIDGE MANUAL 12.6.1 FOR ADDITIONAL GUIDANCE.



RODENT SHIELD DETAIL

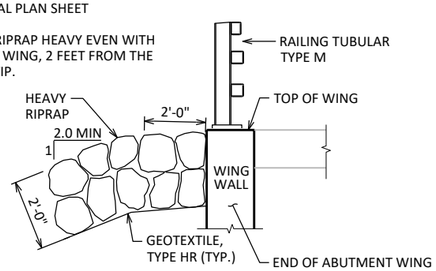
⚹ DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NOTE: PLACE RIPRAP HEAVY AS SHOWN ON GENERAL PLAN SHEET

PLACE RIPRAP HEAVY EVEN WITH TOP OF WING, 2 FEET FROM THE WING TIP.



TYPICAL FILL SECTION AT WING TIPS

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES B-38-152" SHALL BE THE EXISTING GROUNDLINE.

EXCAVATION OF ALL MATERIAL, INCLUDING ROCK, SHALL BE PAID FOR UNDER THE "EXCAVATION FOR STRUCTURES B-38-152" BID ITEM. ALL EXCAVATIONS SHALL BE CLEANED BY HAND AND INSPECTED TO VERIFY THE SURFACE IS FREE OF LOOSE RUBBLE AND SOIL PRIOR TO CONCRETE PLACEMENT.

THE SURFACE OF GRANITE BEDROCK IS EXPECTED TO BE IRREGULAR AT THE ABUTMENT LOCATIONS. ADJUSTMENT OF THE ABUTMENT HEIGHT WILL BE ALLOWED AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. REPORT ELEVATIONS OF THE BEDROCK TO THE ENGINEER ONCE IT IS EXPOSED.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET AND APPLY TO THE TOP AND EXTERIOR EXPOSED FACE OF WINGS AND THE END 1'-0" OF THE FRONT FACE OF ABUTMENTS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE "HR" TO THE EXTENT SHOWN ON SHEET 1 AND THE ABUTMENT DETAILS.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE, UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

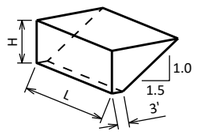
AT EAST ABUTMENT ONLY, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

EXISTING SUBSTRUCTURE LOCATIONS ARE BASED ON SURVEY. EXTENT OF BELOW GRADE SUBSTRUCTURE ARE NOT KNOW. REMOVE EXISTING SUBSTRUCTURE AS NEEDED TO BUILD NEW SUBSTRUCTURE. COST OF SUBSTRUCTURE REMOVAL IS CONSIDERED INCIDENTAL TO "REMOVING STRUCTURE OVER WATERWAY DEBRIS CAPTURE" BID ITEM.

AN OLD FOUNDATION WAS OBSERVED AT THE GROUND SURFACE BEHIND THE WEST ABUTMENT. THE AGE AND EXTENT OF THE FOUNDATION ARE UNKNOWN.

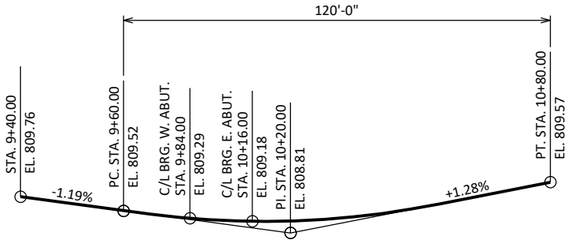
EXISTING ABUTMENTS TO BE LEFT IN PLACE AS COFFERDAMS DURING CONSTRUCTION OF NEW ABUTMENTS. PORTIONS OF THE EXISTING ABUTMENTS THAT INTERFERE WITH CONSTRUCTION MAY BE REMOVED.

SEE ROADWAY PLANS FOR LOCATION AND CLEAR WIDTH OF TEMPORARY STRUCTURE.

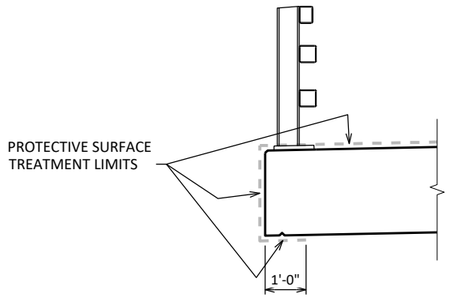


ABUTMENT BACKFILL DIAGRAM

L = OUT TO OUT OF ABUTMENT BODY INCLUDING WINGS (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)
V_{CY} = V_{CF}(EF)/27
V_{TON} = V_{CY}(2.0)



PROFILE GRADE LINE



PROTECTIVE SURFACE TREATMENT DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-152

DRAWN BY JMC | PLANS CK'D ZSS

QUANTITIES AND NOTES

SHEET 2 OF 12

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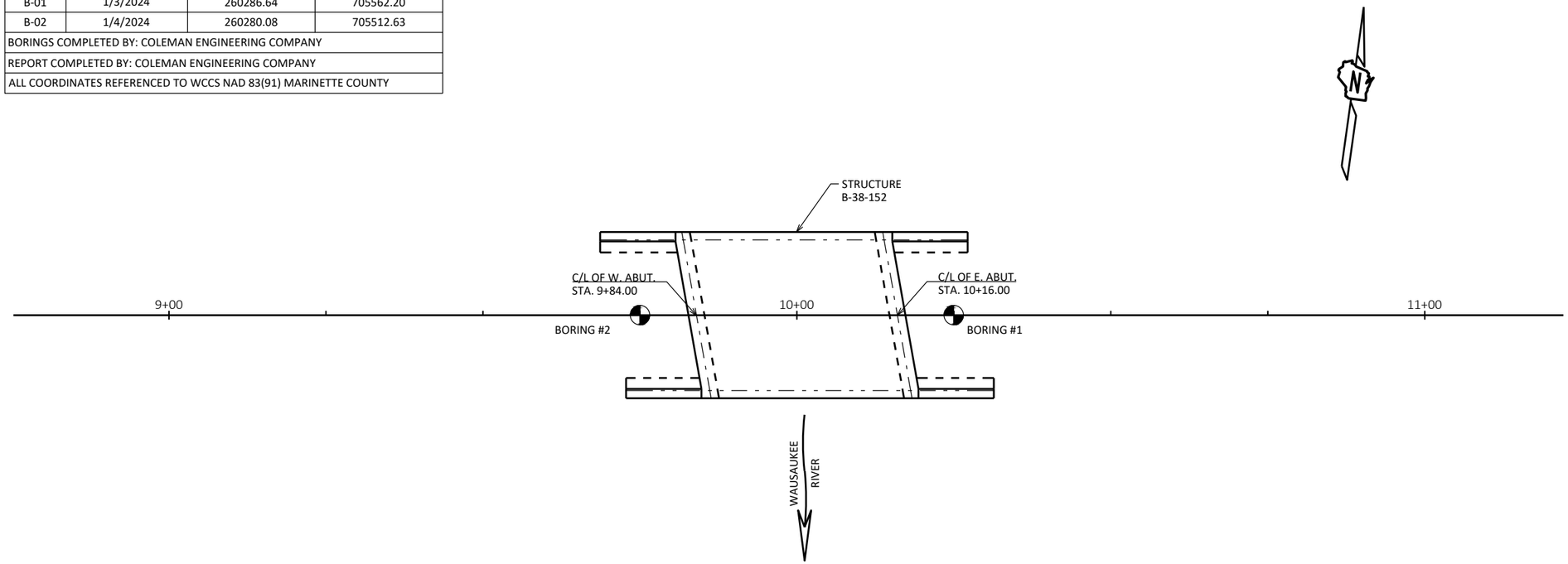
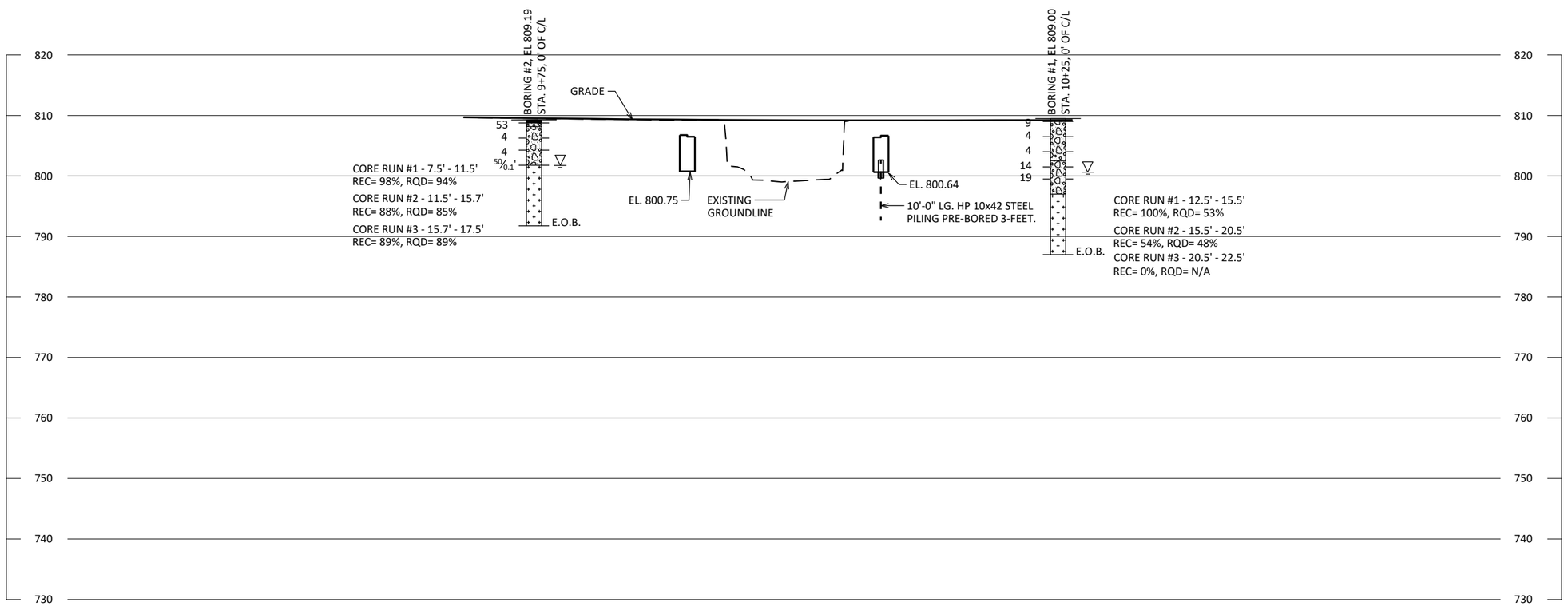
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-01	1/3/2024	260286.64	705562.20
B-02	1/4/2024	260280.08	705512.63
BORINGS COMPLETED BY: COLEMAN ENGINEERING COMPANY			
REPORT COMPLETED BY: COLEMAN ENGINEERING COMPANY			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MARINETTE COUNTY			





STATE PROJECT NUMBER

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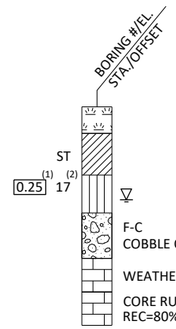
MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-152

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SUBSTRUCTURE EXPLORATION

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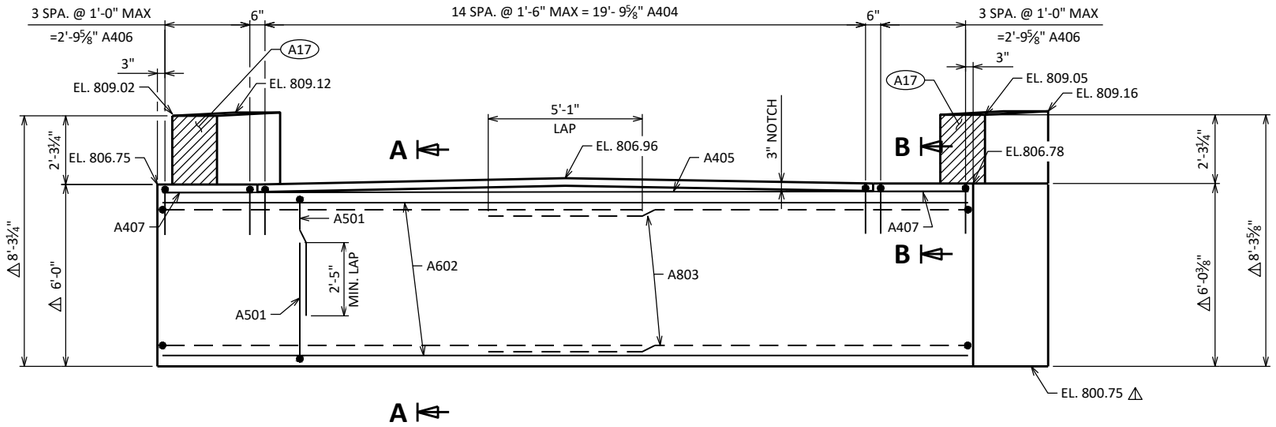
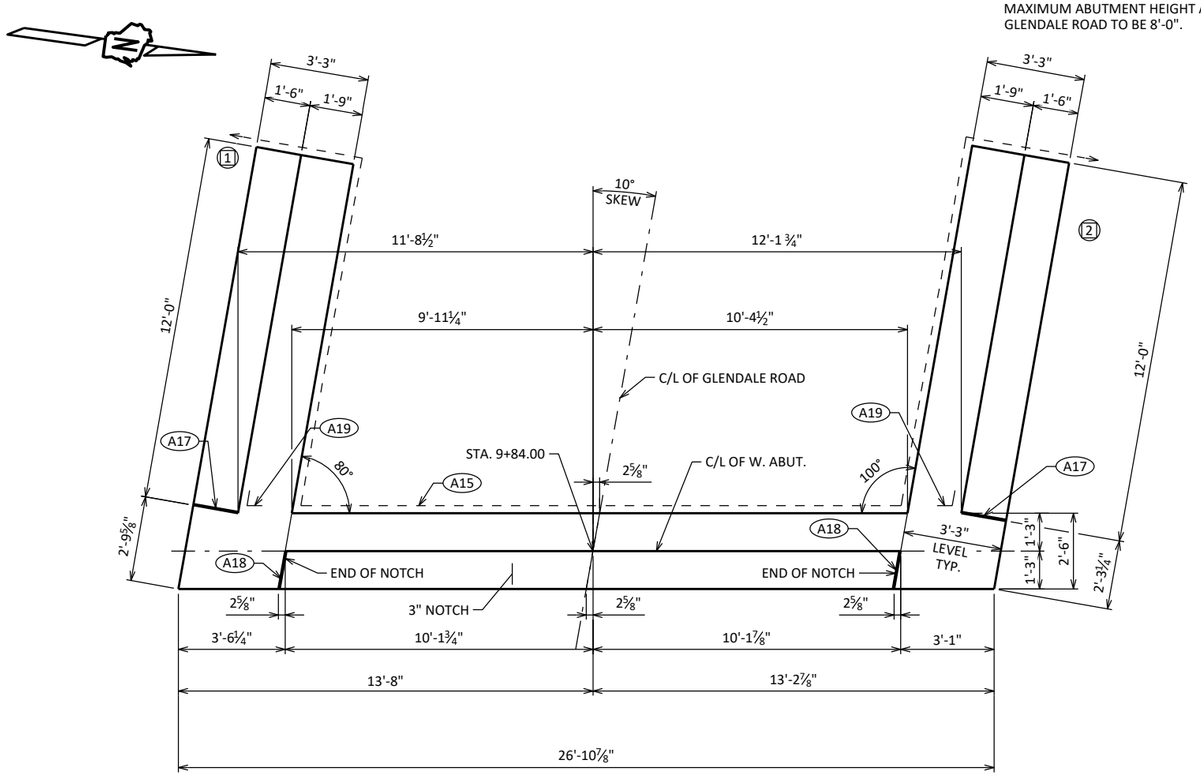


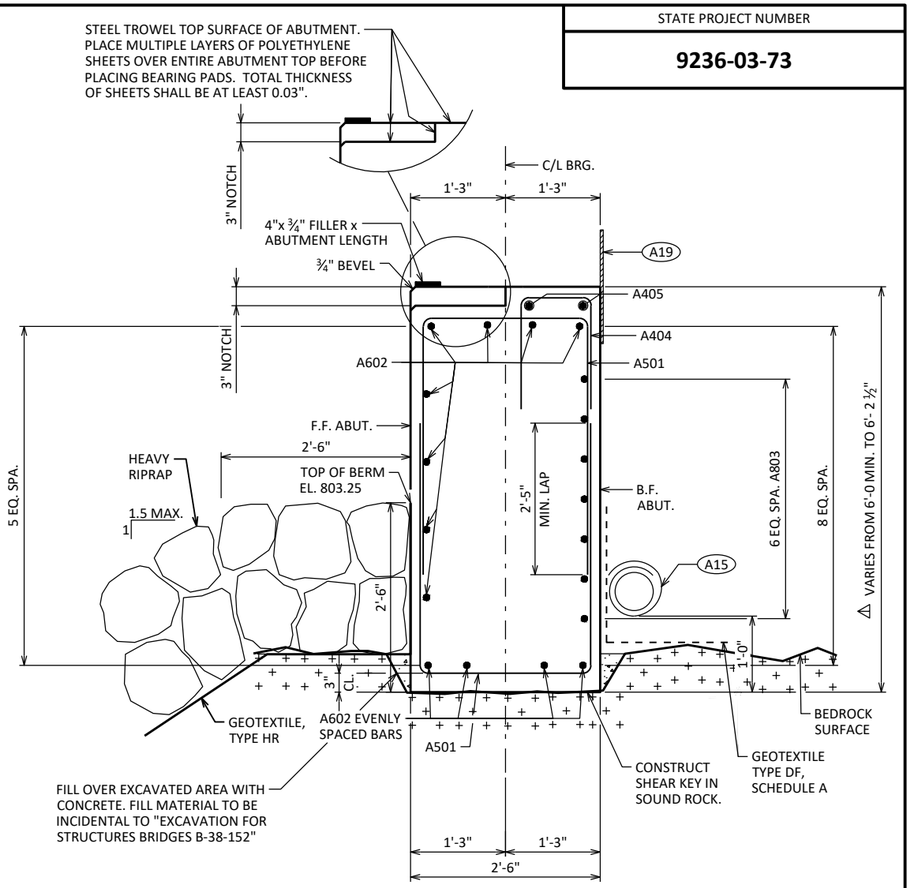
ELEVATION

(LOOKING WEST)

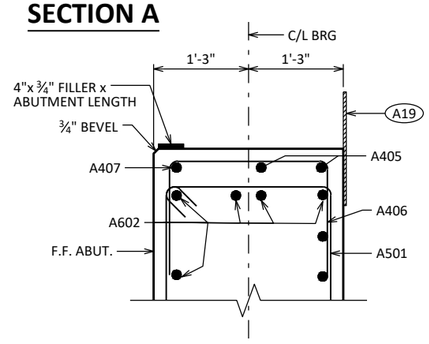
⚠ ELEVATION IS APPROXIMATE. CONSTRUCT ABUTMENT AND WINGS TO REACH SOLID ROCK, KEY IN A MINIMUM 6" INTO SOLID ROCK. BOTTOM OF ABUTMENT AND WINGS TO BE APPROXIMATELY LEVEL. MAXIMUM ABUTMENT HEIGHT AT C/L OF GLENDALE ROAD TO BE 8'-0".



PLAN



SECTION A



SECTION B

Ⓐ15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

Ⓐ17 ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

Ⓐ18 ¾" CORK FILLER UP VERT. FACE ONLY.

Ⓐ19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-152

DRAWN BY JMC | PLANS CK'D ZSS

WEST ABUTMENT

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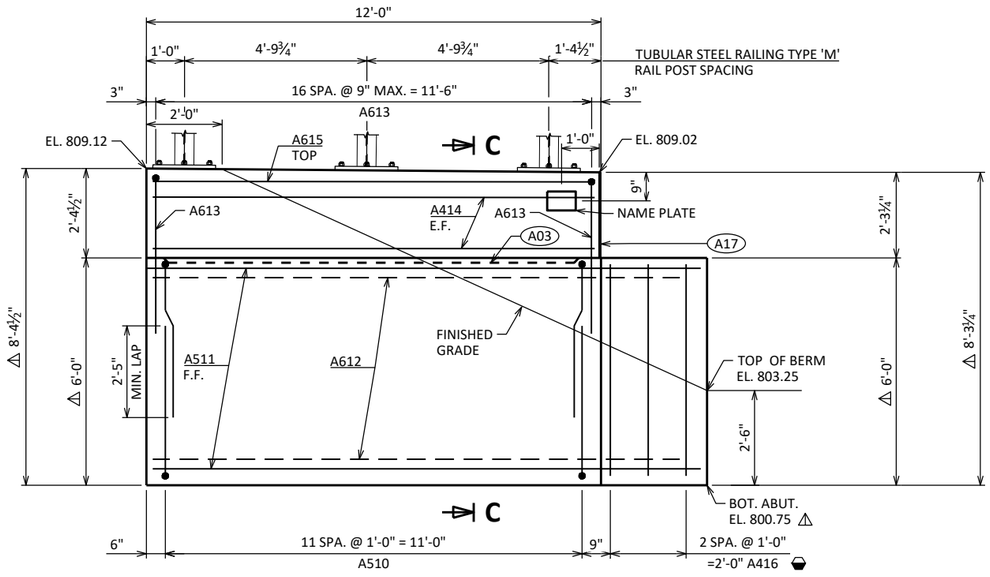
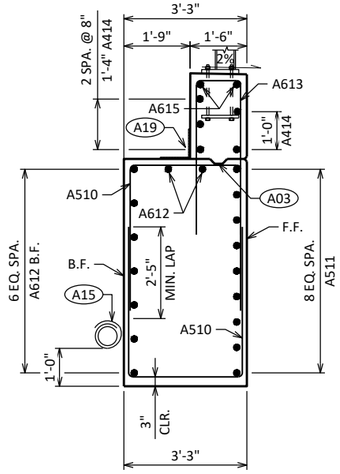
⚠ CONSTRUCT ABUTMENT AND WINGS TO REACH SOLID ROCK. MAXIMUM ABUTMENT HEIGHT AT C/L OF GLENDALE ROAD TO BE 8'-0".

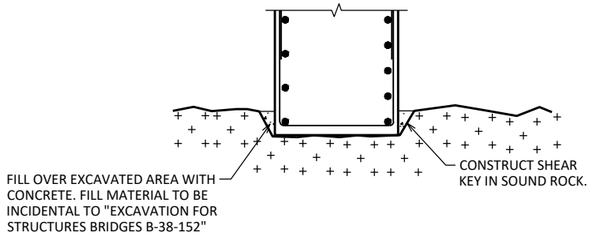
CUT BARS TO FIT IN ABUTMENT BODY.



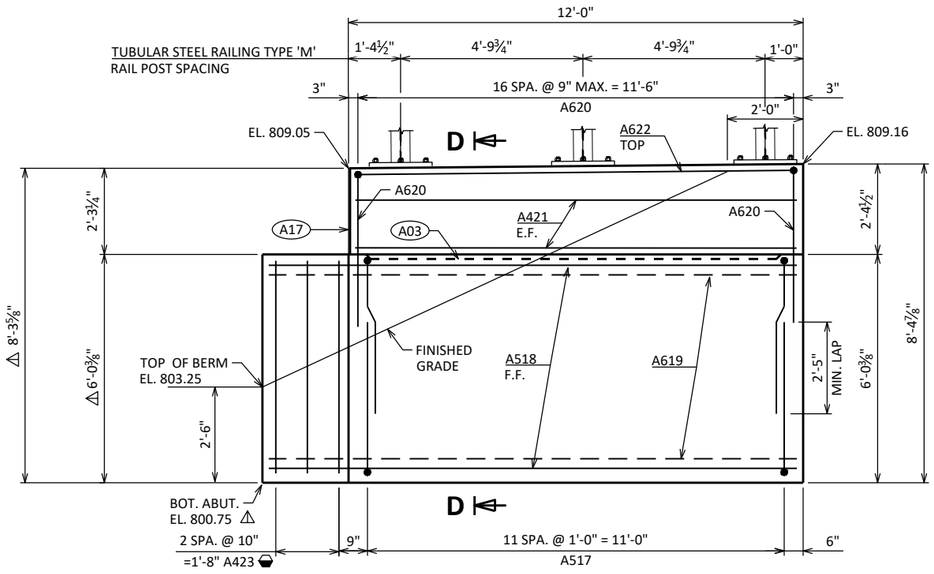
ELEVATION - WING 1



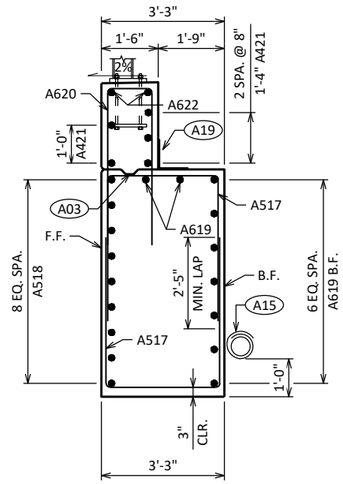
SECTION C



SECTION THRU WINGS



ELEVATION - WING 2



SECTION D

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

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WEST ABUTMENT WING DETAILS

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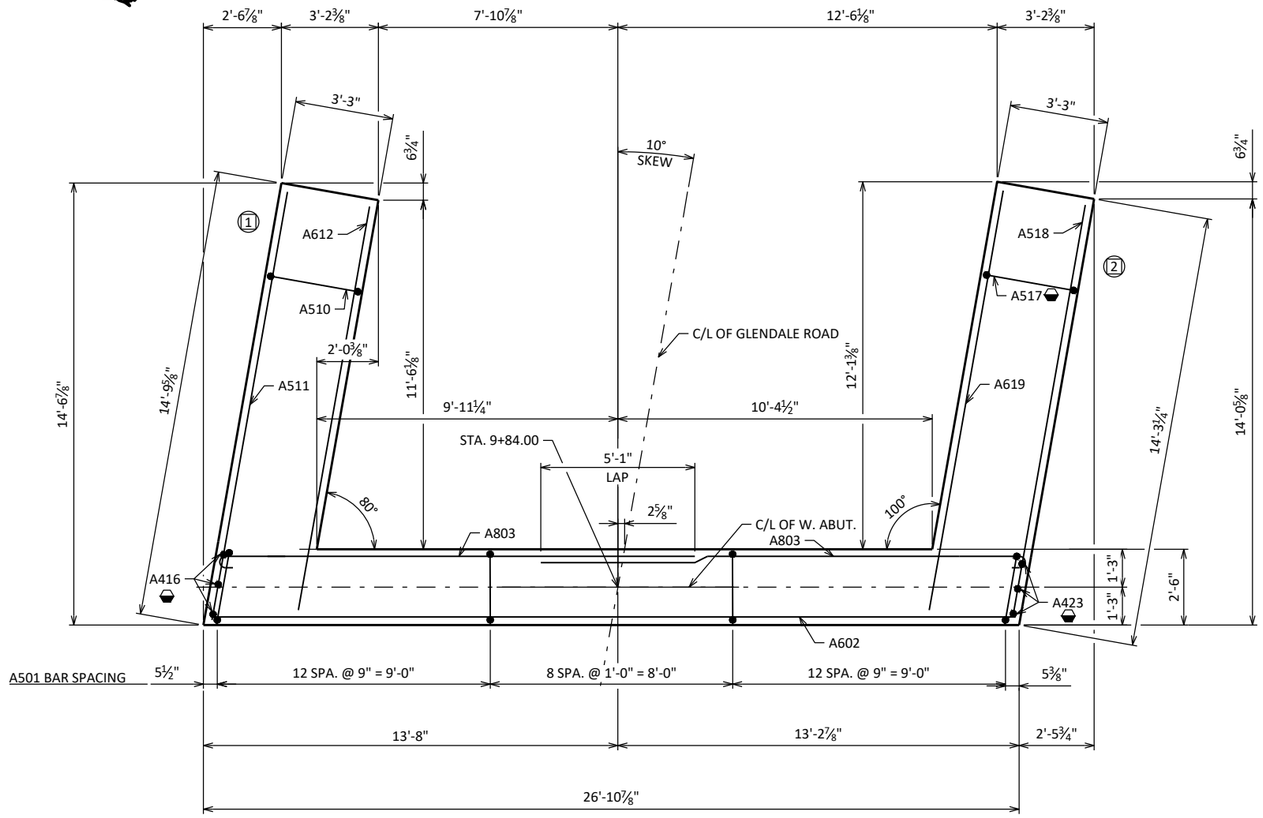


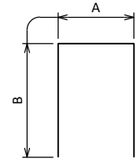
REINFORCING PLAN

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

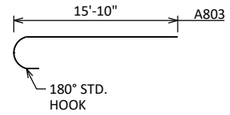
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		66	11'-9"	X		BODY VERT.
A602		12	26'-6"			BODY HORIZ.
A803		14	16'-9"	X		BODY HORIZ. B.F.
A404		15	3'-3"	X		BODY VERT. TOP
A405		2	26'-6"			BODY HORIZ. TOP
A406		8	4'-6"	X		BODY VERT. TOP
A407		2	2'-11"			BODY HORIZ. TOP
A510	X	24	12'-8"	X		WING 1 VERT.
A511	X	9	14'-4"			WING 1 HORIZ. F.F.
A612	X	9	13'-11"			WING 1 HORIZ. B.F. & TOP
A613	X	17	9'-2"	X		WING 1 VERT.
A414	X	5	11'-7"			WING 1 HORIZ
A615	X	2	11'-7"			WING 1 HORIZ. TOP E.F.
A416	X	3	7'-7"			BODY VERT. END @ WING 1
A517	X	24	12'-8"	X		WING 2 VERT.
A518	X	9	13'-10"			WING 2 HORIZ. F.F.
A619	X	9	13'-11"			WING 2 HORIZ. B.F. & TOP
A620	X	17	9'-2"	X		WING 2 VERT.
A421	X	5	11'-7"			WING 2 HORIZ E.F.
A622	X	2	11'-7"			WING 2 HORIZ. TOP
A423	X	3	7'-7"			BODY VERT. END @ WING 2

CUT BARS TO FIT IN ABUTMENT BODY.



A501, A404, A406, A510, A613, A517, A620

BAR MARK	A	B
A501	2'-2"	4'-11"
A404	11"	1'-3"
A406	2'-2"	1'-3"
A510	2'-11"	5'-0"
A613	1'-2"	4'-2"
A517	2'-11"	5'-0"
A620	1'-2"	4'-2"



A803

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-152

DRAWN BY JMC | PLANS CK'D ZSS

WEST ABUTMENT REINFORCING PLAN & BILL OF BARS

SHEET 6 OF 12

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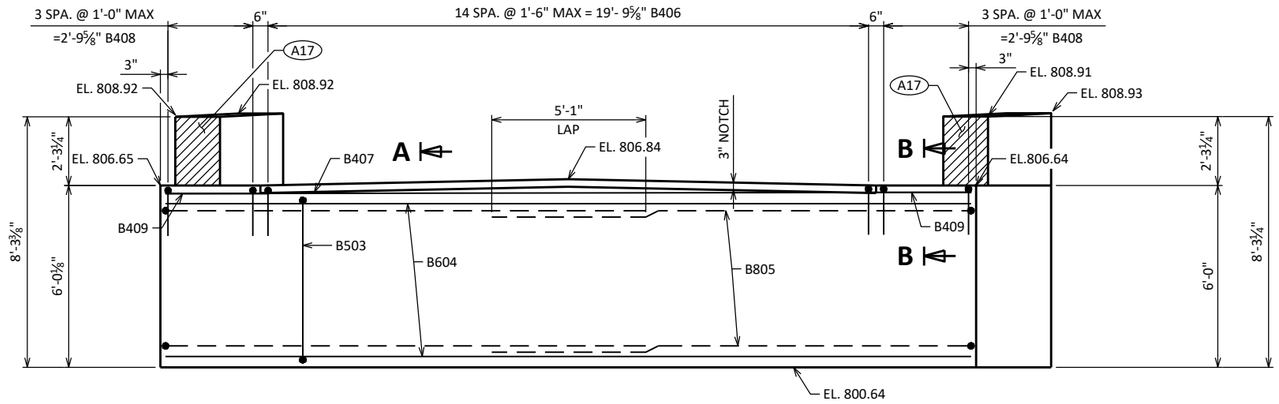
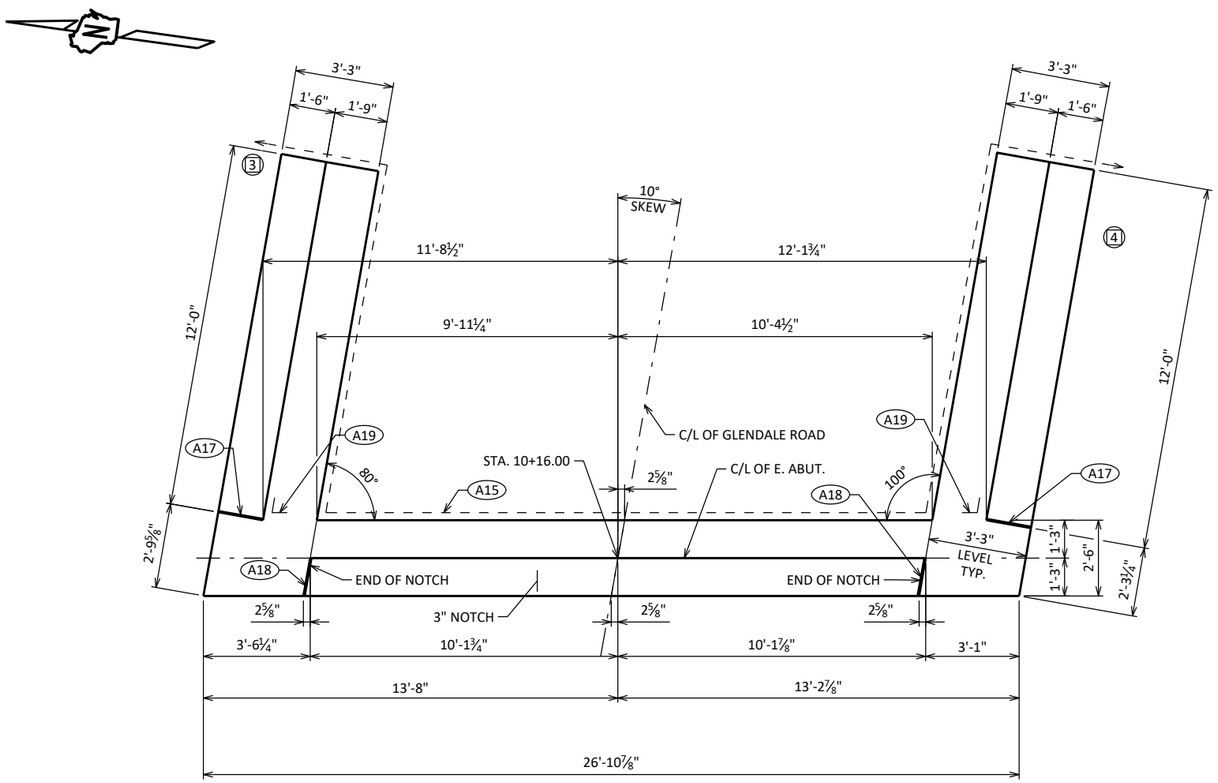


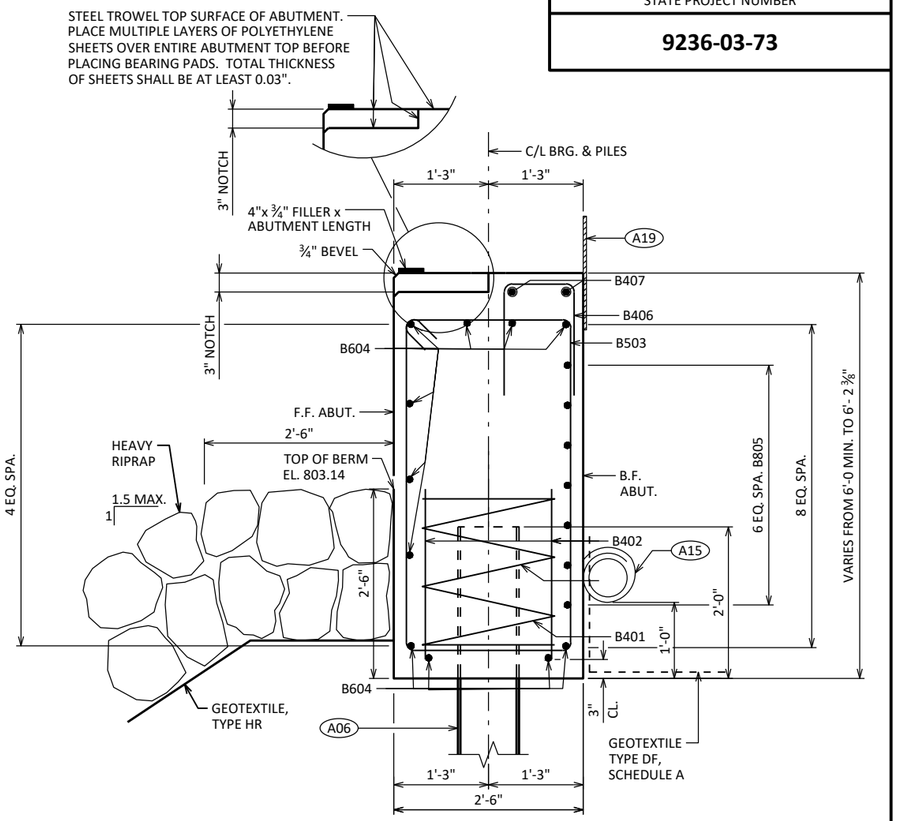
A

ELEVATION

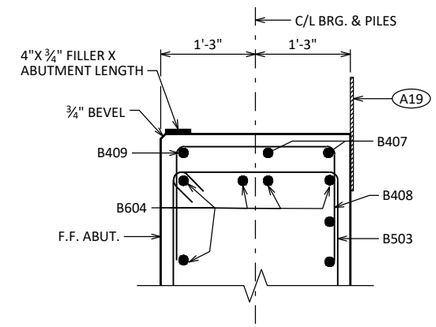
(LOOKING EAST)



PLAN



SECTION A



SECTION B

A06 SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, SEATED IN PRE-BORED HOLES CORED 3-FEET MINIMUM INTO ROCK. PILE DRIVING IS NOT REQUIRED.

A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

A17 ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

A18 ¾" CORK FILLER UP VERT. FACE ONLY.

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-152

DRAWN BY JMC | PLANS CK'D ZSS

EAST ABUTMENT

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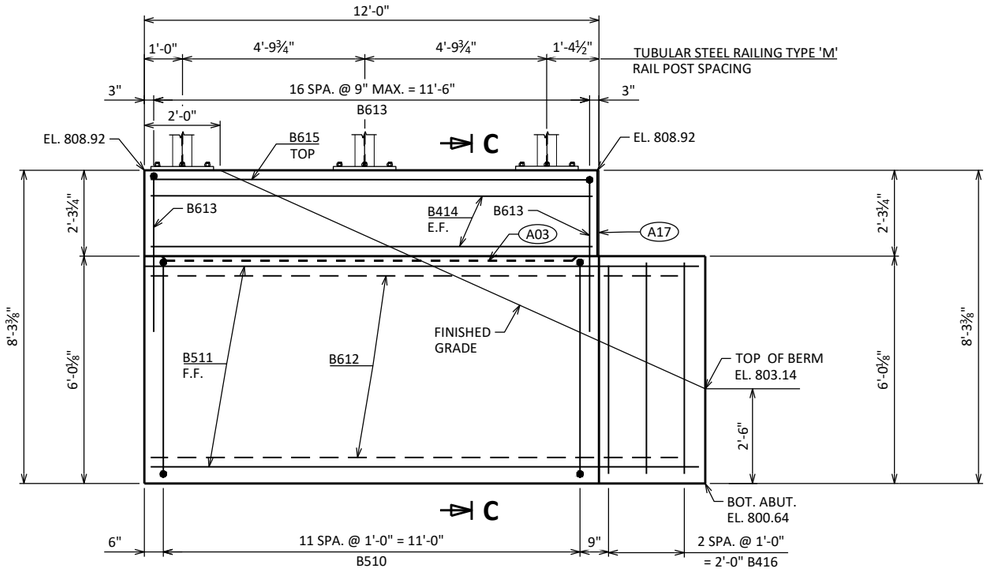
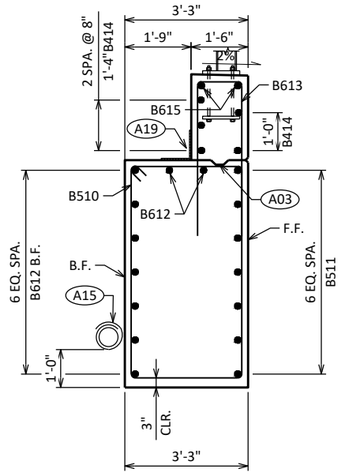
STATE PROJECT NUMBER

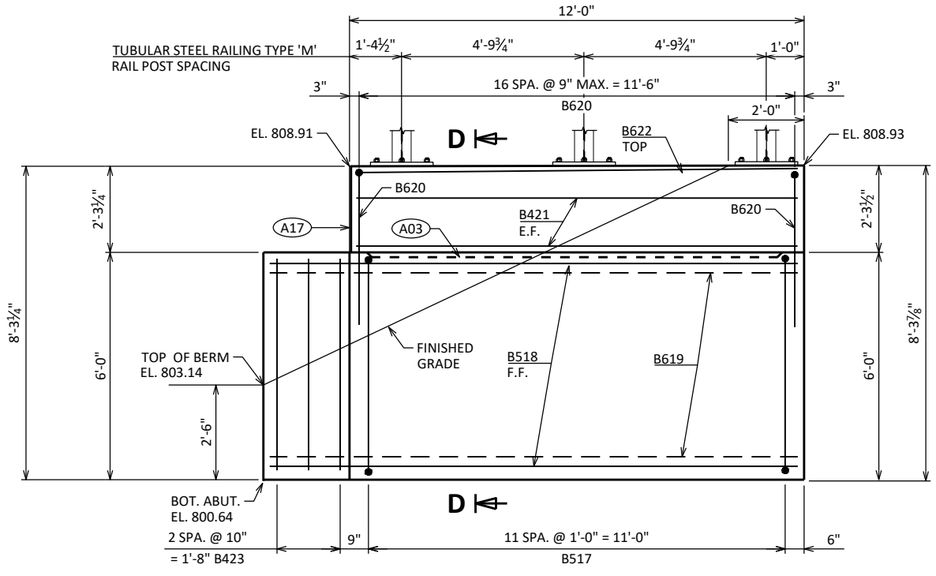
9236-03-73



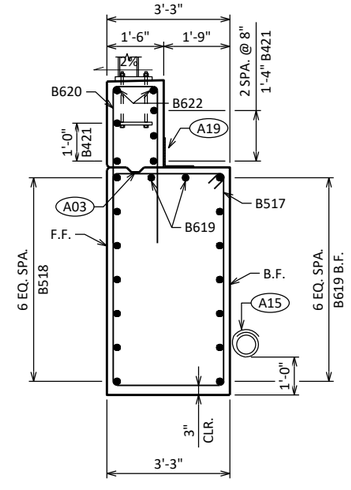
ELEVATION - WING 3



SECTION C



ELEVATION - WING 4



SECTION D

A03 OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).

A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

A17 ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

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STRUCTURE B-38-152

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EAST ABUTMENT WING DETAILS

SHEET 8 OF 12

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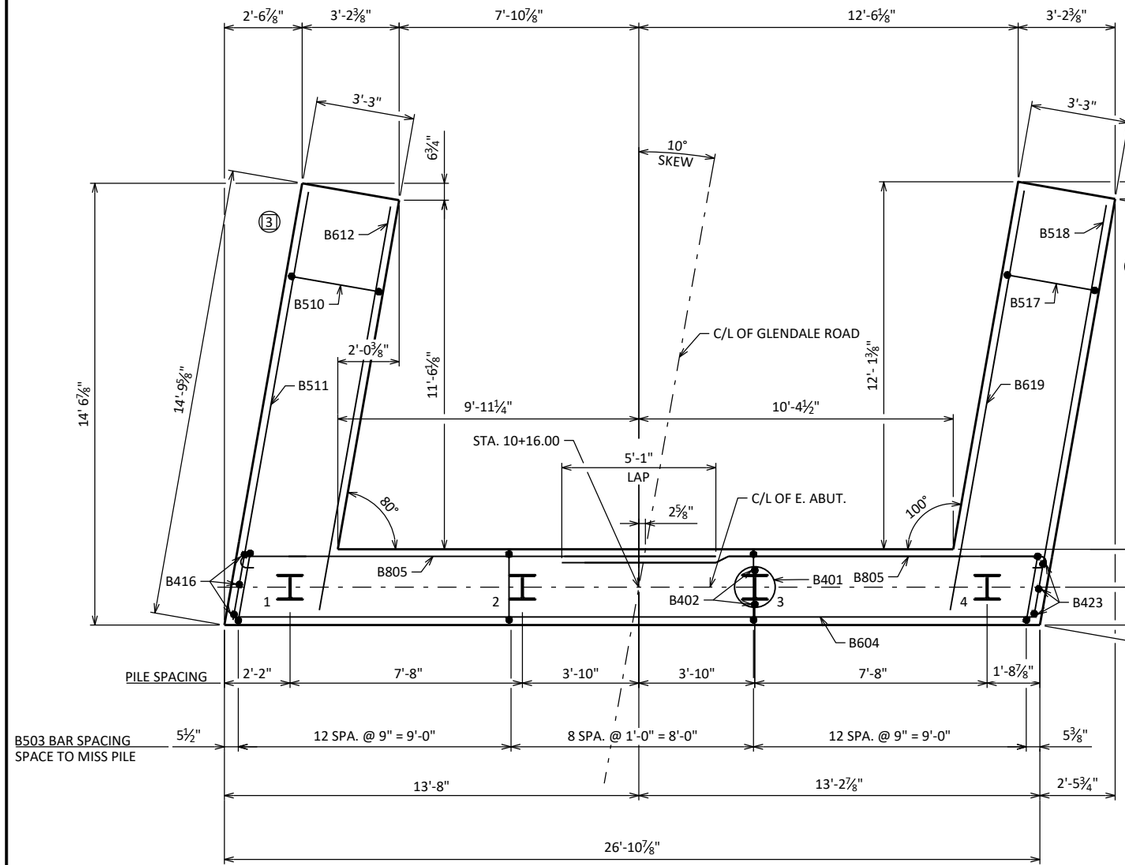
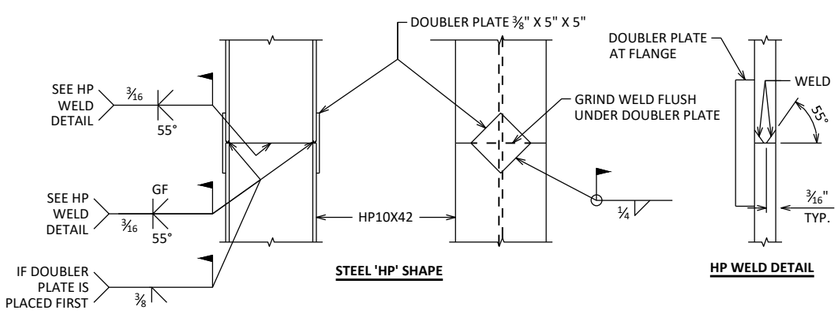


PILE LAYOUT



STEEL 'HP' SHAPE

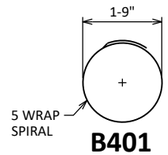
HP WELD DETAIL

'HP' PILE DETAILS

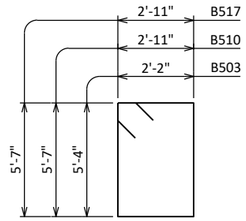
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

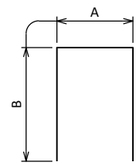
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B401		4	28'-0"	X		BODY @ PILES
B402		8	2'-3"			BODY @ PILES
B503		33	15'-8"	X		BODY VERT.
B604		11	26'-6"			BODY HORIZ.
B805		14	16'-9"	X		BODY HORIZ. B.F.
B406		15	3'-3"	X		BODY VERT. TOP
B407		2	26'-6"			BODY HORIZ. TOP
B408		8	4'-6"	X		BODY VERT. TOP
B409		2	2'-11"			BODY HORIZ. TOP
B510	X	12	17'-8"	X		WING 3 VERT.
B511	X	7	14'-4"			WING 3 HORIZ. F.F.
B612	X	9	13'-11"			WING 3 HORIZ. B.F. & TOP
B613	X	17	9'-2"	X		WING 3 VERT.
B414	X	5	11'-7"			WING 3 HORIZ E.F.
B615	X	2	11'-7"			WING 3 HORIZ. TOP E.F.
B416	X	3	5'-7"			BODY VERT. END @ WING 3
B517	X	12	17'-8"	X		WING 4 VERT.
B518	X	7	14'-4"			WING 4 HORIZ. F.F.
B619	X	9	13'-11"			WING 4 HORIZ. B.F. & TOP
B620	X	17	9'-2"	X		WING 4 VERT.
B421	X	5	11'-7"			WING 4 HORIZ E.F.
B622	X	2	11'-7"			WING 4 HORIZ. TOP
B423	X	3	5'-7"			BODY VERT. END @ WING 4



B401

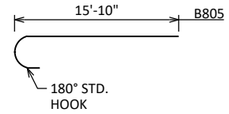


B503, B510, B517



B406, B408, B613, B620

BAR MARK	A	B
B406	11"	1'-3"
B408	2'-2"	1'-3"
B613	1'-2"	4'-2"
B620	1'-2"	4'-2"



B805

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STRUCTURE B-38-152

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EAST ABUTMENT PILE LAYOUT & BILL OF BARS

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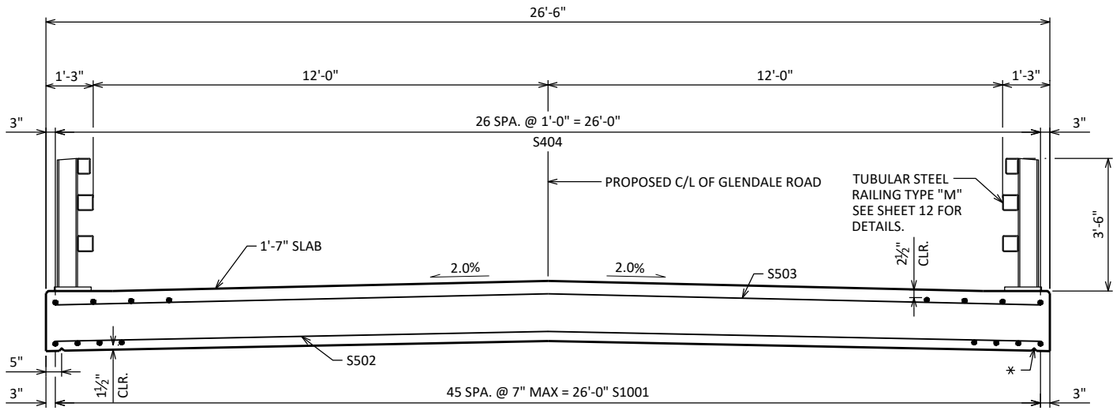


NOTES

* ¾" V-GROOVE REQ'D. EXTEND TO 6" FROM F.F. OF ABUT. BODY.

V-GROOVES ARE REQUIRED.

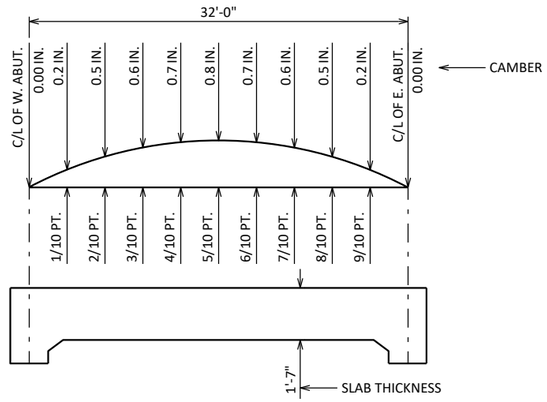
TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCE NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S1001	X	46	29'-6"			SLAB LONG. BOT.
S502	X	51	26'-6"			SLAB TRANS. BOT.
S503	X	35	26'-6"			SLAB TRANS. TOP
S404	X	27	34'-2"			SLAB LONG. TOP.
S505	X	54	7'-3"	X		SLAB @ ABUT. DIAPHRAGM STIRRUPS
S406	X	4	20'-0"			SLAB @ ABUT. NOTCH
S407	X	42	3'-3"	X		SLAB @ ABUT. NOTCH
S608	X	32	6'-0"			SLAB @ INT. RAIL POST
S609	X	16	4'-8"	X		SLAB @ END RAIL POST
S610	X	24	11'-3"	X		SLAB @ RAIL POST



CAMBER AND SLAB THICKNESS DIAGRAM

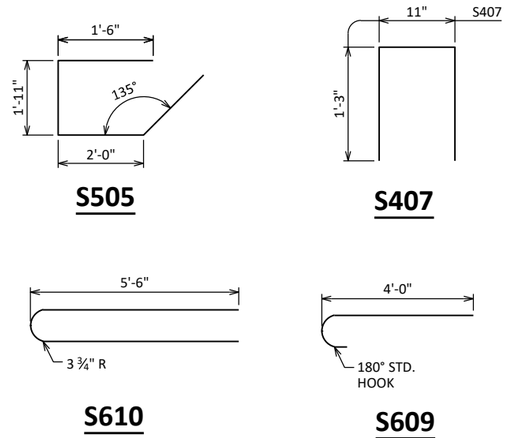
CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
LESS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS	TOP OF SLAB FALSEWORK ELEVATION

TOP OF SLAB ELEVATIONS

LOCATION	C/L W. ABUT	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	C/L E. ABUT.
N. EDGE OF SLAB	809.05	809.02	809.00	808.98	808.97	808.95	808.94	808.93	808.92	808.92	808.91
C/L OF GLENDALE ROAD	809.29	809.27	809.25	809.24	809.22	809.21	809.20	809.19	809.18	809.18	809.18
S. EDGE OF SLAB	809.01	808.99	808.98	808.96	808.95	808.94	808.93	808.92	808.92	808.91	808.91



SURVEY TOP OF SLAB ELEVATIONS

	W. ABUTMENT	5/10 PT.	E. ABUTMENT
N. EDGE OF SLAB			
C/L OF GLENDALE ROAD			
S. EDGE OF SLAB			

PRIOR TO RELEASING SLAB FORMWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF ABUTMENTS, AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND C/L.. RECORD ELEVATIONS IN THE TABLE ABOVE FOR THE "AS BUILT" PLANS.

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STRUCTURE B-38-152

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SUPERSTRUCTURE

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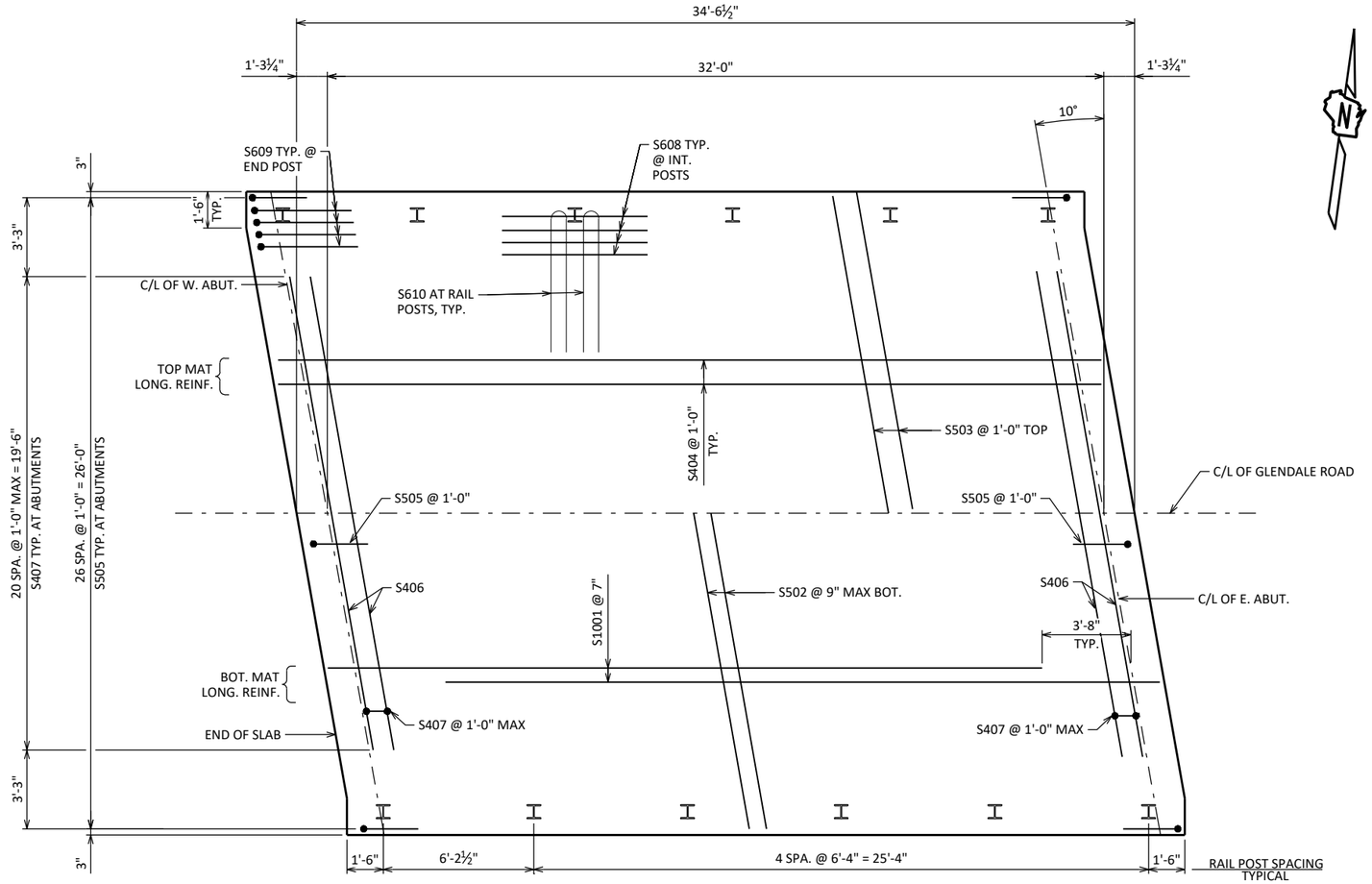
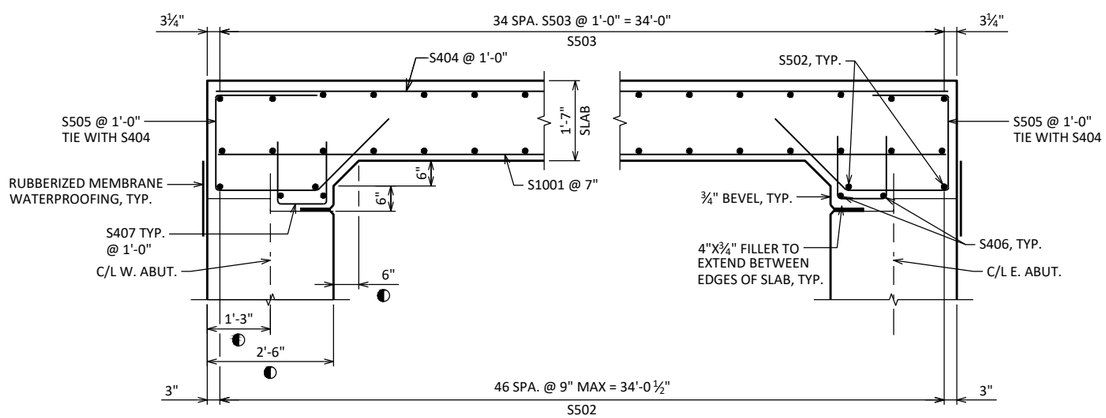


PLAN



LONGITUDINAL SECTION

DIMENSION ARE GIVEN PARALLEL TO C/L ROADWAY UNLESS OTHERWISE NOTED.

◐ MEASURED NORMAL TO C/L OF ABUTMENTS. DIMENSIONS ARE TYPICAL FOR BOTH ABUTMENTS.

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NO.	DATE	REVISION	BY

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SUPERSTRUCTURE PLAN

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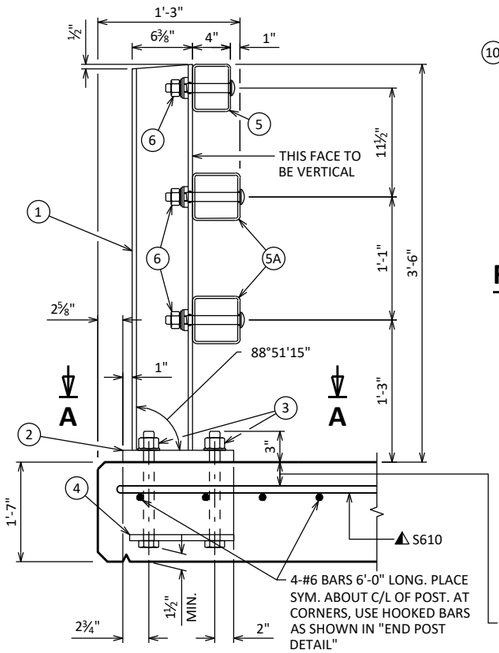
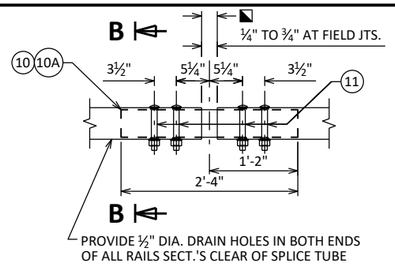
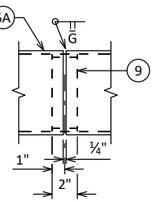


SECTION THRU RAILING ON DECK

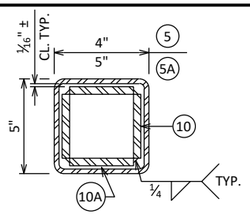


FIELD ERECTION JOINT DETAIL

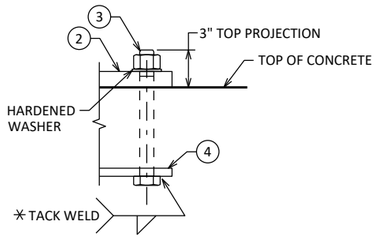


SHOP RAIL SPLICE DETAIL

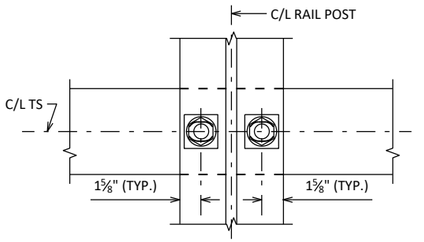
LOCATION MUST BE SHOWN ON SHOP DRAWINGS



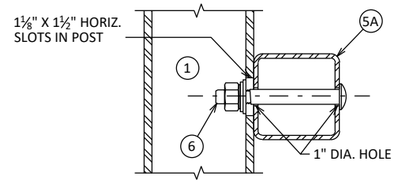
SECTION B-B



ANCHOR BOLTS



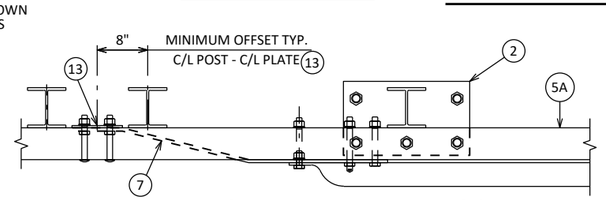
SECTION THRU POST WEB



SECTION THRU RAIL

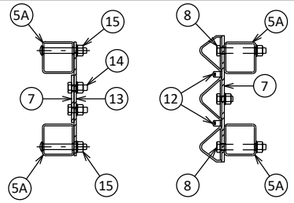
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS



TOP VIEW AT END POST

THRIE BEAM RAIL ATTACHMENT



SECTION C-C

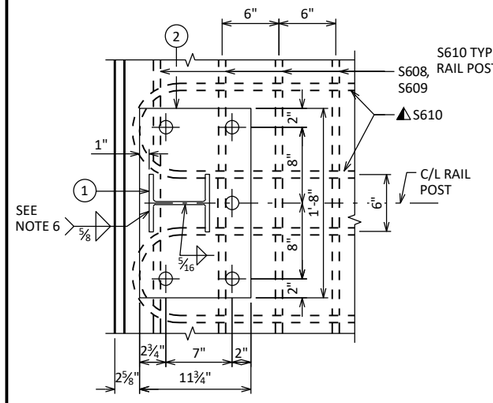
SECTION D-D

LEGEND

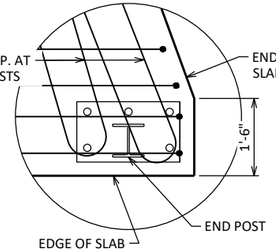
1. W6 X 25 WITH 1⅛" X 1½" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
2. PLATE 1¼" X 11¾" X 1'-8" WITH 1⁷⁄₁₆" DIA. OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
3. ASTM A449 - 1⅛" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10¼" LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTABILITY.)
4. ⅝" X 11" X 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1³⁄₁₆" DIA. HOLES FOR ANCHOR BOLTS NO. 3
5. TS 5 X 4 X 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
5A. TS 5 X 5 X 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
6. ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, ³⁄₁₆" X 1⅝" X 1⅝" MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
7. ½" THK. BACK-UP PLATE WITH 2 - ⅞" X 1½" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
8. 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
9. SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".
10. ⅜" X 3⅝" X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
10A. ⅜" X 2⅝" X 2'-4" PLATE USED IN NO. 5, ⅜" X 3⅝" X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
11. ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE ¹⁵⁄₁₆" X 1¼" LONGIT. SLOTTED HOLES IN PLATE NO. 10A. AT FIELD JOINTS AND ¹⁵⁄₁₆" X 2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A. PROVIDE ¹⁵⁄₁₆" DIA. ROUND HOLES IN TUBES NO. 5 AND NO. 5A.
12. ⅞" DIA. X 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
13. ⅜" X 8" X 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
14. ⅞" DIA. X 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
15. 1" DIA. HOLES IN TUBES NO. 5A FOR ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ⅛ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS.

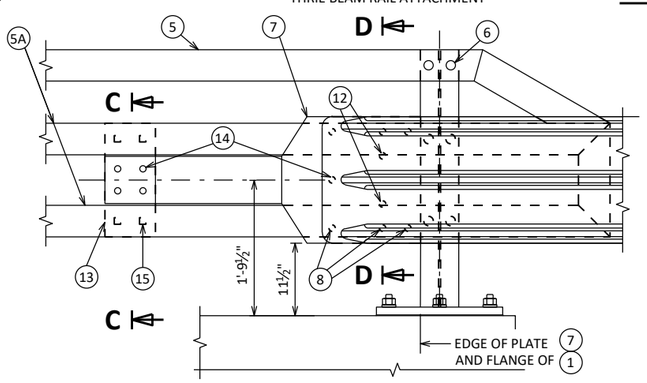


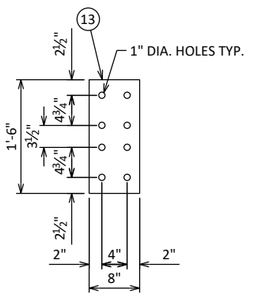
SECTION A-A



END POST DETAIL

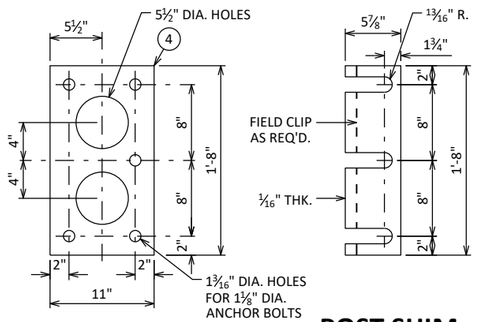
REINFORCEMENT AT CORNERS





ANCHOR PLATE

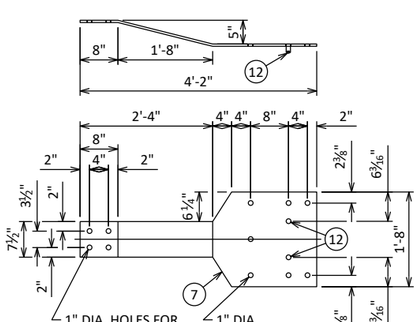
AT BEAM GUARD ATTACHMENT



ANCHOR PLATE

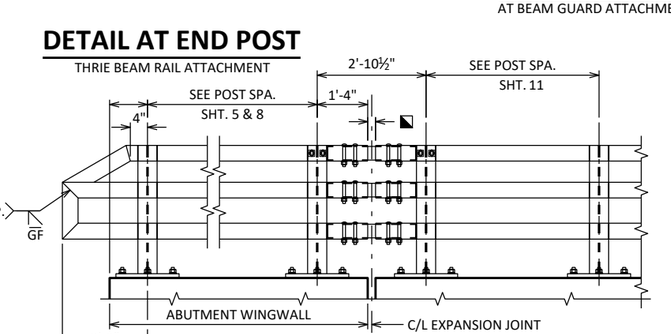
AT RAIL TO DECK CONNECTION

POST SHIM DETAIL



BACK-UP PLATE DETAIL

AT BEAM GUARD ATTACHMENT



PART ELEVATION OF RAILING

▲ TIE TO TOP MAT OF STEEL.

✳ ANCHOR BOLT ASSEMBLY MAY BE TACK WELDED, EITHER IN THE SHOP, OR IN THE FIELD AFTER THE ANCHOR PLATE IS PLACED.

◥ ¼" TO ¾" OPENING FOR A1 ABUTMENT.

STATE PROJECT NUMBER

9236-03-73

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-152

DRAWN BY JMC | PLANS CK'D ZSS

TUBULAR STEEL RAILING TYPE M

SHEET 12 OF 12

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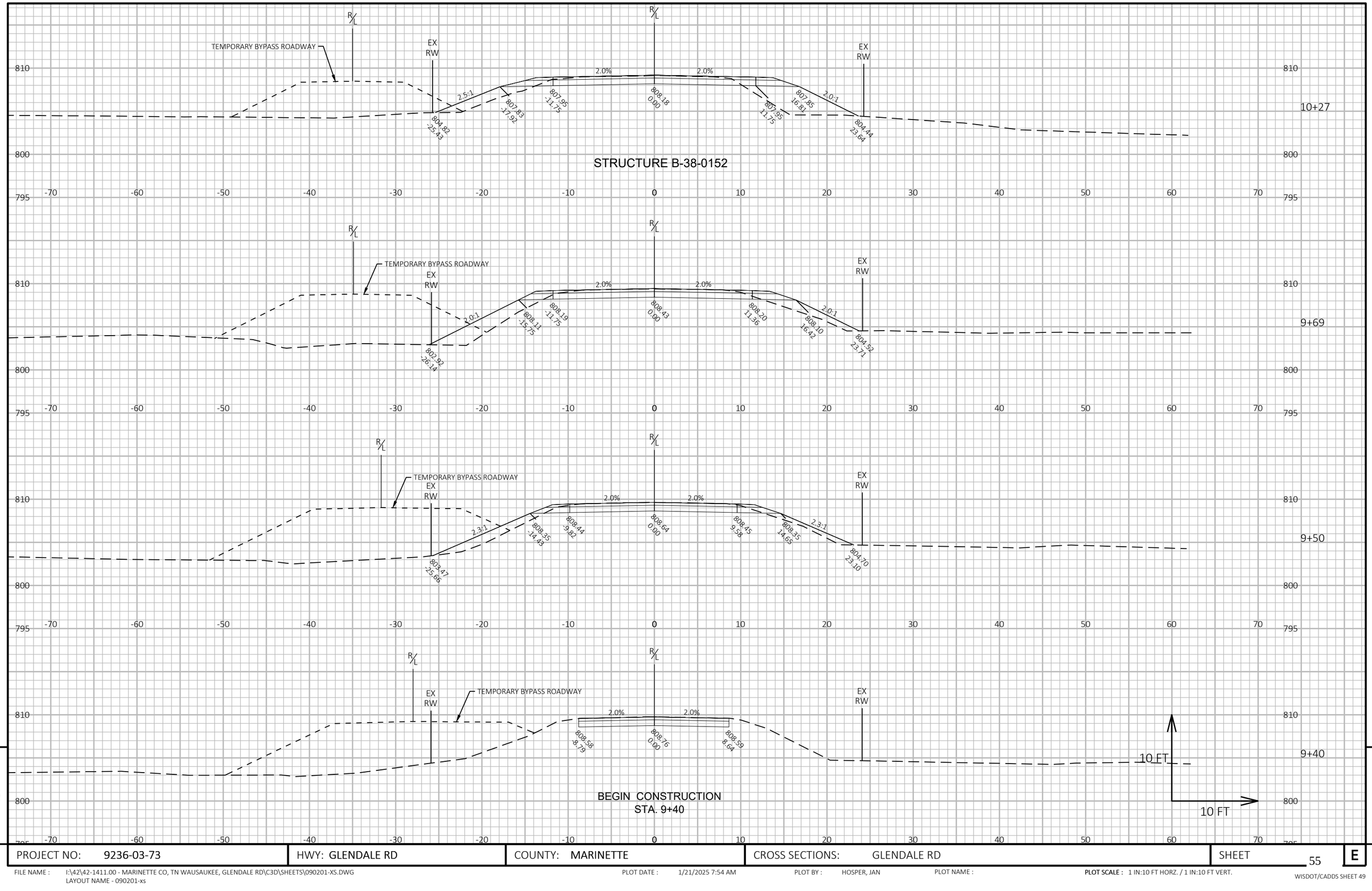
DIVISION 1 - GLENDALE RD										
STATION	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)			
	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	SALVAGED / UNUSABLE PAVEMENT	MASS ORDINATE
				NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.25	1.00	NOTE 8
9+40.00	17.56	6.00	0.00	0	0	0	0	0	0	0
9+50.00	22.46	6.00	15.07	7	2	3	7	4	2	1
9+68.66	21.88	6.00	25.95	15	4	14	22	21	6	-5
B-38-0152										
10+27.20	20.41	6.00	33.33	0	0	0	22	21	6	-5
10+50.00	19.40	6.00	15.76	17	5	21	39	48	11	-20
10+75.00	22.10	6.00	6.96	19	6	11	58	61	17	-20
10+80.00	16.85	6.00	0.00	4	1	1	62	63	18	-19

DIVISION 1 - GLENDALE RD BY-PASS							
STATION	AREA (SF)		ENTAL VOL (CY) (UNAD		CUMULATIVE VOL (CY)		
	CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
			NOTE 1	NOTE 3	1.00 NOTE 1	1.25	NOTE 8
39+02.40	2.39	0.00	0	0	0	0	0
39+50.00	0.00	149.17	2	131	2	164	-162
39+85.00	0.00	164.10	0	203	2	418	-416
TEMP. BYPASS BRIDGE							
40+15.00	0.00	107.50	0	0	2	418	-416
40+50.00	0.00	62.57	0	110	2	555	-553
41+00.00	0.00	32.26	0	88	2	665	-663
41+12.45	0.00	7.32	0	9	2	676	-674

Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections
3 - Fill	Does not include Unusable Pavement Exc volume
8 - Mass Ordinate	Cut - Unusable Pavement Material - (Fill * Fill Factor)



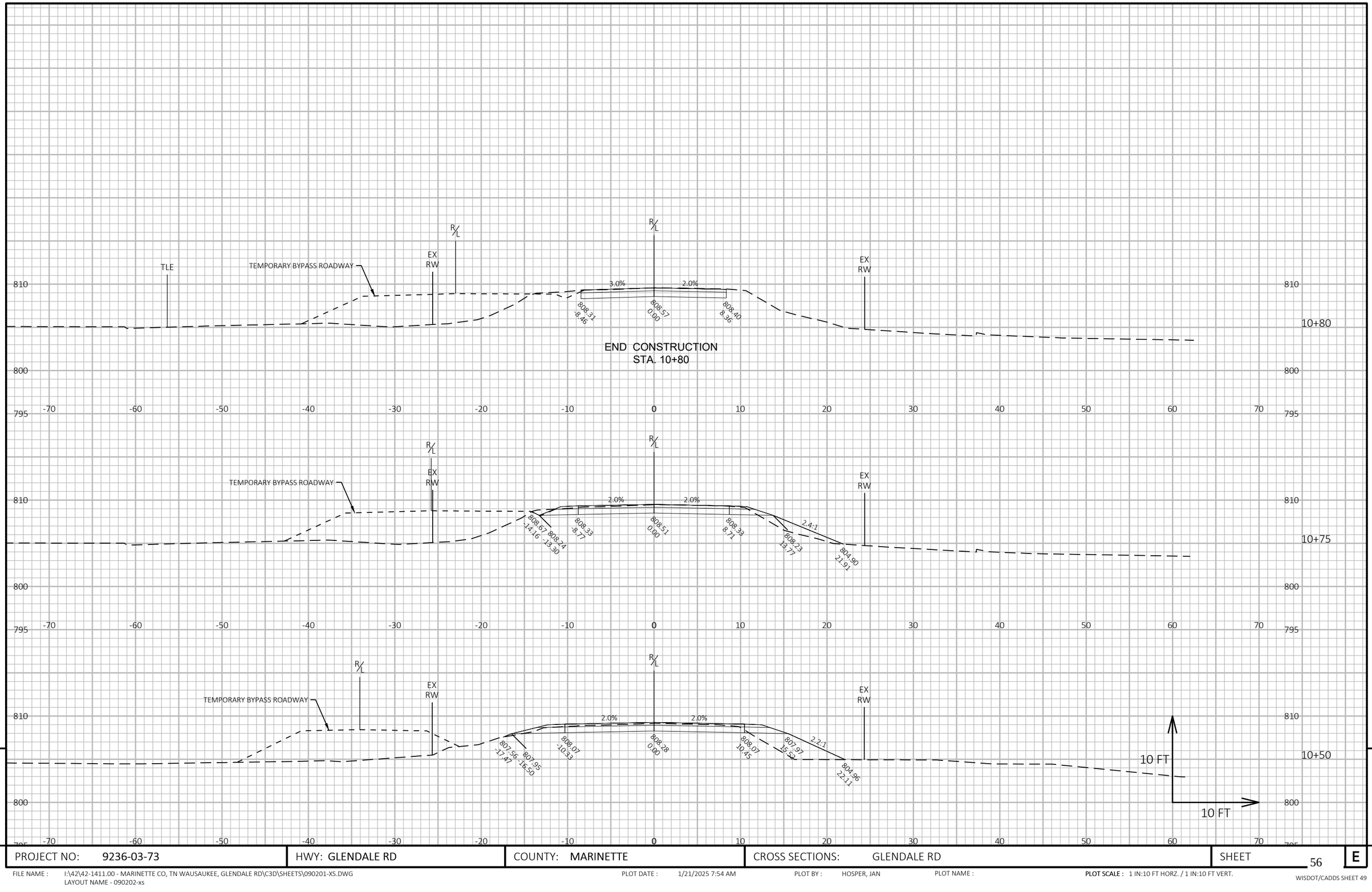
9 9

PROJECT NO: 9236-03-73	HWY: GLENDALE RD	COUNTY: MARINETTE	CROSS SECTIONS: GLENDALE RD	SHEET 55	E

FILE NAME : I:\42\42-1411.00 - MARINETTE CO, TN WAUSAUKEE, GLENDALE RD\C3D\SHEETS\090201-XS.DWG
LAYOUT NAME - 090201-xs

PLOT DATE : 1/21/2025 7:54 AM PLOT BY : HOSPER, JAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 9236-03-73	HWY: GLENDALE RD	COUNTY: MARINETTE	CROSS SECTIONS: GLENDALE RD	SHEET 56	E

FILE NAME : I:\42\42-1411.00 - MARINETTE CO, TN WAUSAUKEE, GLENDALE RD\C3D\SHEETS\090201-XS.DWG
LAYOUT NAME - 090202-xs

PLOT DATE : 1/21/2025 7:54 AM PLOT BY : HOSPER, JAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9

9

PROJECT NO: 9236-03-73	HWY: GLENDALE RD	COUNTY: MARINETTE	CROSS SECTIONS: GLENDALE RD BY-PASS ROADWAY	SHEET 57	E

FILE NAME : I:\42\42-1411.00 - MARINETTE CO, TN WAUSAUKEE, GLENDALE RD\C3D\SHEETS\090201-XS.DWG
LAYOUT NAME - 090203-xs

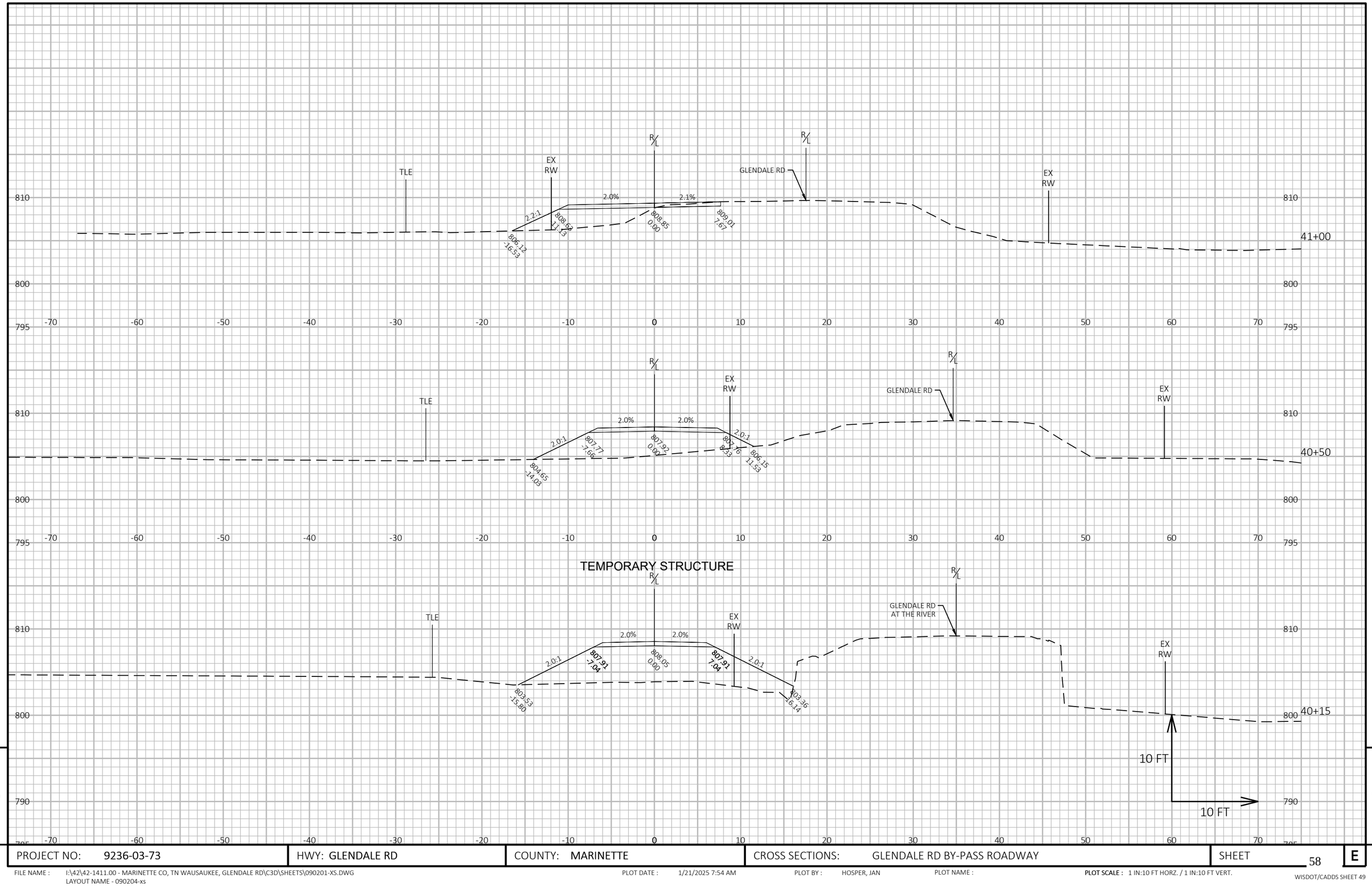
PLOT DATE : 1/21/2025 7:54 AM

PLOT BY : HOSPER, JAN

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



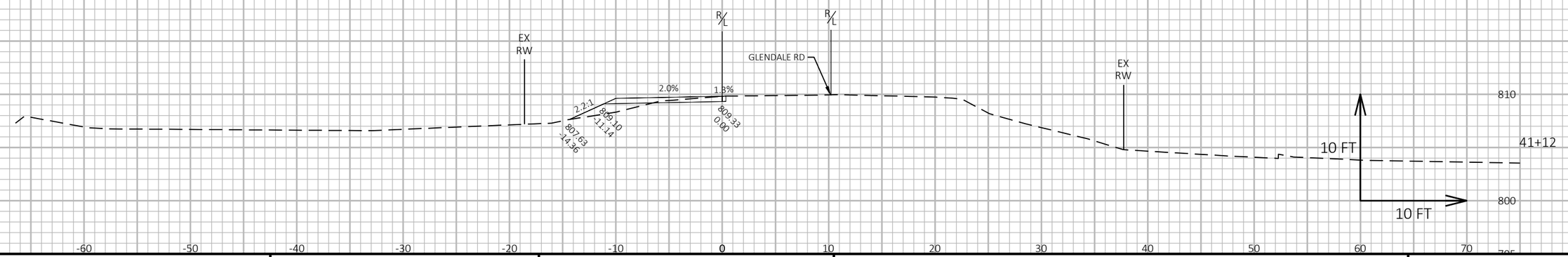
PROJECT NO: 9236-03-73	HWY: GLENDALE RD	COUNTY: MARINETTE	CROSS SECTIONS: GLENDALE RD BY-PASS ROADWAY	SHEET 58	E

FILE NAME : I:\42\42-1411.00 - MARINETTE CO, TN WAUSAUKEE, GLENDALE RD\C3D\SHEETS\090201-XS.DWG
LAYOUT NAME - 090204-xs

PLOT DATE : 1/21/2025 7:54 AM PLOT BY : HOSPER, JAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END TEMPORARY BY-PASS ROADWAY
STA. 41+13



PROJECT NO: 9236-03-73	HWY: GLENDALE RD	COUNTY: MARINETTE	CROSS SECTIONS: GLENDALE RD BY-PASS ROADWAY	SHEET 59	E

FILE NAME : I:\42\42-1411.00 - MARINETTE CO, TN WAUSAUKEE, GLENDALE RD\C3D\SHEETS\090201-XS.DWG
LAYOUT NAME - 090205-xs

PLOT DATE : 1/21/2025 7:54 AM PLOT BY : HOSPER, JAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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