RHI | NOVEMBER 2024

PROJECT ID: 6685-03-72
WITH: N/A
COUNTY: MARATHON

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6685-03-72	WISC 2025055	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T SPENCER, PLEASANT ROAD

E BR YELLOW RIVER BRIDGE B-37-0477

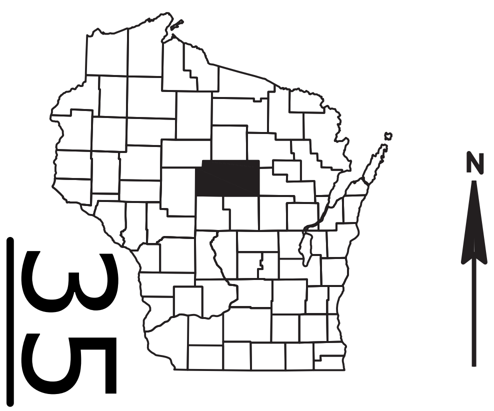
LOC STR
MARATHON COUNTY

STATE PROJECT NUMBER
6685-03-72

ORDER OF SHEETS

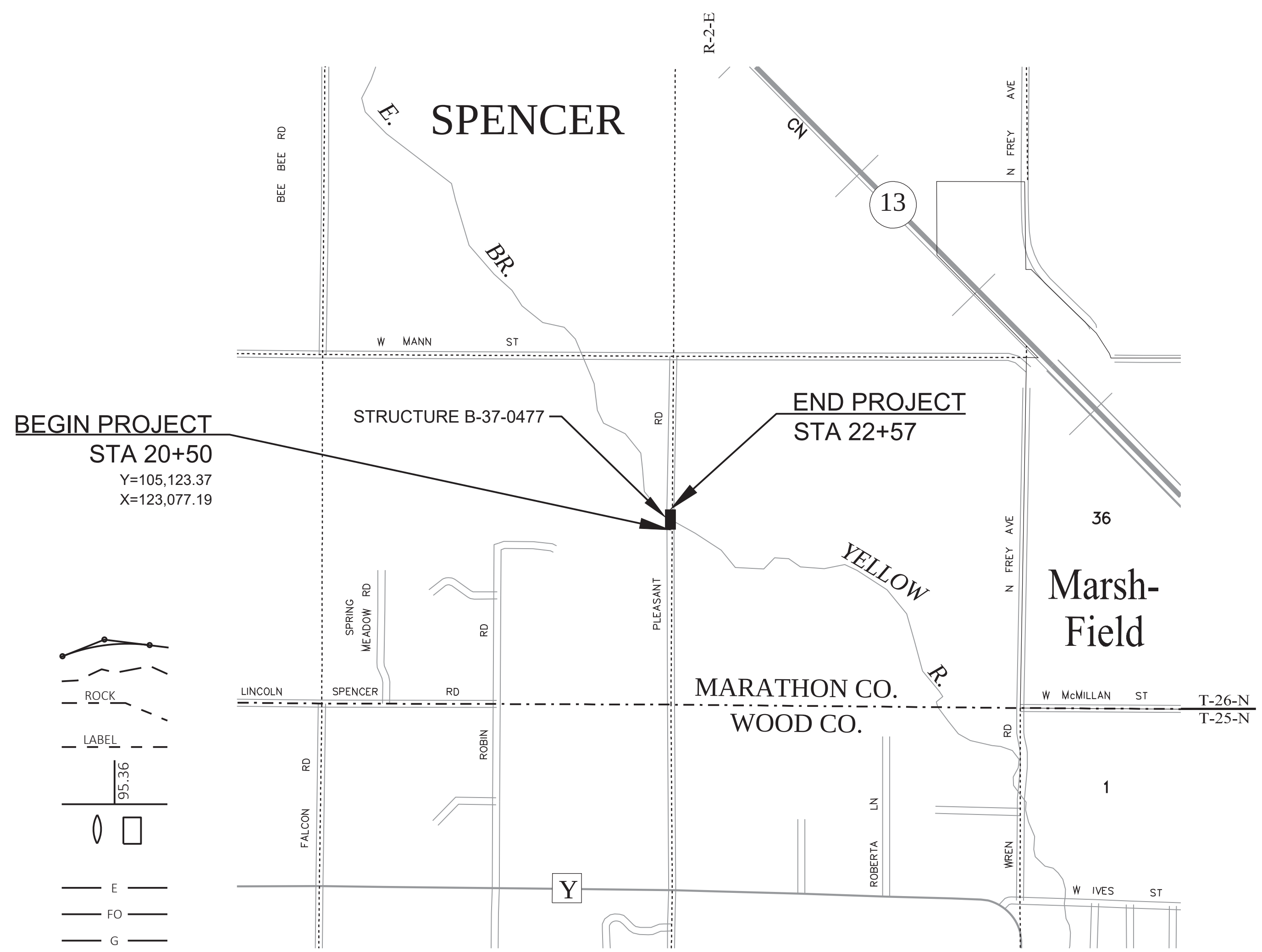
Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control)
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section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

TOTAL SHEETS = 56



DESIGN DESIGNATION

A.A.D.T.	2025	=	50
A.A.D.T.	2045	=	50
D.H.V.		=	10
D.D.		=	50/50
T.		=	5%
DESIGN SPEED		=	55 MPH (STATUTORY)
ESALS		=	22,000



LAYOUT

SCALE 0 — 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.039 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MARATHON 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 18.

CONVENTIONAL SYMBOLS

PLAN	PROFILE
CORPORATE LIMITS	GRADE LINE
PROPERTY LINE	ORIGINAL GROUND
LOT LINE	MARSH OR ROCK PROFILE (To be noted as such) — ROCK
LIMITED HIGHWAY EASEMENT	SPECIAL DITCH — LABEL
EXISTING RIGHT OF WAY	GRADE ELEVATION — 95.36
PROPOSED OR NEW R/W LINE	CULVERT (Profile View)
SLOPE INTERCEPT	**UTILITIES**
REFERENCE LINE — 300'EB'	ELECTRIC — E
EXISTING CULVERT	FIBER OPTIC — FO
PROPOSED CULVERT (Box or Pipe)	GAS — G
COMBUSTIBLE FLUIDS — CAUTION	SANITARY SEWER — SAN
	STORM SEWER — SS
	TELEPHONE — T
MARSH AREA	WATER — W
	UTILITY PEDESTAL
	POWER POLE
WOODED OR SHRUB AREA	TELEPHONE POLE

ACCEPTED FOR
TOWN OF SPENCER
6/20/24 Date — [signature] HIGHWAY COMMISSIONER (Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

emcs
500 North 17th Avenue
Wausau, WI 54401
715.845.1081 Fax 715.845.1099

WISCONSIN PROFESSIONAL ENGINEER
STEPHANIE G. CHRISTENSEN
E-35808
WAUSAU, WI

6/20/24 (Date) — Stephanie G. Christensen (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	MICHAEL GRAGE
Regional Examiner	MICHAEL GRAGE
Regional Supervisor	DANIEL ERVA

APPROVED FOR THE DEPARTMENT
DATE: 6/20/2024 — [signature] (Signature)

E

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GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON 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.

ORDER OF SECTION 2 SHEETS

TYPICAL SECTIONS

EROSION CONTROL

UTILITIES

COMMUNICATIONS

FRONTIER COMMUNICATIONS OF WI LLC
CHRIS POLLACK
521 N 4TH STREET
WAUSAU, WI 54403
PHONE: (715) 847-1240
EMAIL: CHRISTOPHER.POLLACK@FTR.COM

ELECTRIC - DISTRIBUTION

MARSHFIELD ELECTRIC AND WATER DEPT
TONY NELSON
20000 S. CENTRAL AVENUE
MARSHFIELD, WI 54449
PHONE: (715) 898-2140
EMAIL: TONY.NELSON@MARSHFIELDUTILITIES.ORG

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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 STRIP-TURF	.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 SLOPE-TURF			.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 = 0.38 ACRE
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.20 ACRE

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

OTHER CONTACTS

DNR LIAISON

JAY SCHIEFELBEIN
DNR NORTHEAST REGIONAL HEADQUARTERS
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
(920) 360-3784
JEREMIAH.SCHIEFELBEIN@WISCONSIN.GOV

DESIGNER CONTACT

EMCS, INC.
500 NORTH 17TH AVENUE
WAUSAU, WI 54401
OFFICE: 715-845-1081

MARATHON COUNTY COMMISSIONER

JAMES GRIESBACH
MARATHON COUNTY HIGHWAY DEPARTMENT
500 FOREST STREET
WAUSAU, WI 54403
(715) 261-1801
JAMES.GRIESBACH@CO.MARATHON.WI.US

TOWN OF SPENCER

DENNIS GONNERING, CLERK
105205 KARAU AVENUE
MARSHFIELD, WI 54449
(715) 659-4054
DGONNERING@HOTMAIL.COM

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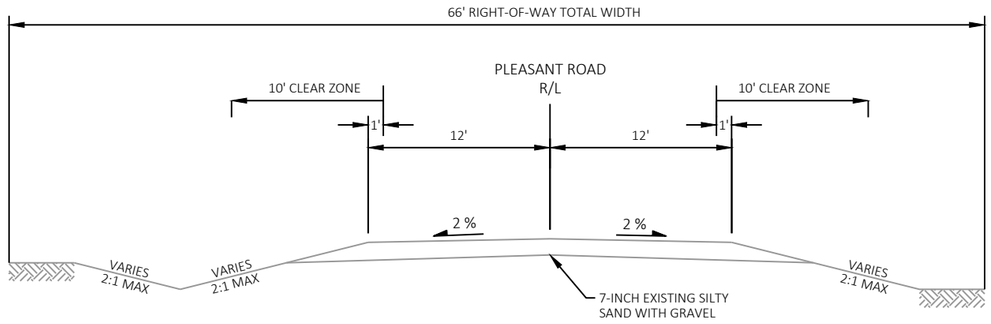
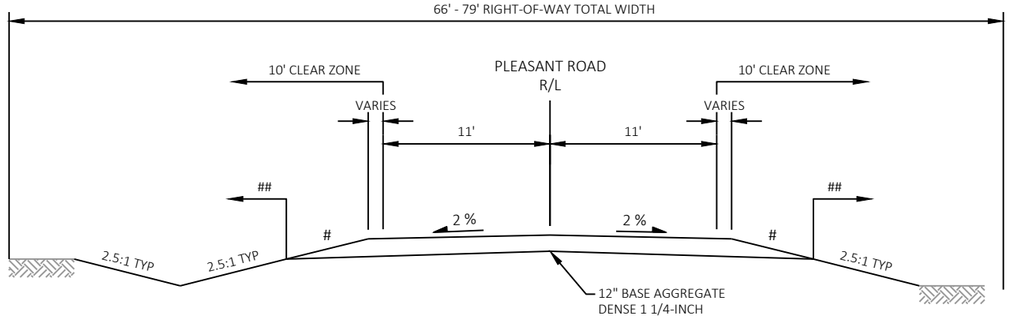


TYPICAL EXISTING SECTION

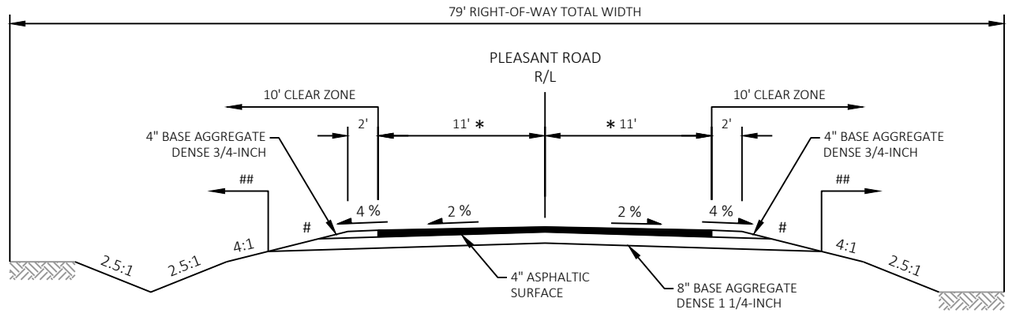
STA 20+50 - STA 21+62(P-37-0916)
STA 21+89(P-37-0916) - STA 23+00

PROJECT NO: 6685-03-72	HWY: PLEASANT ROAD	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 3	E



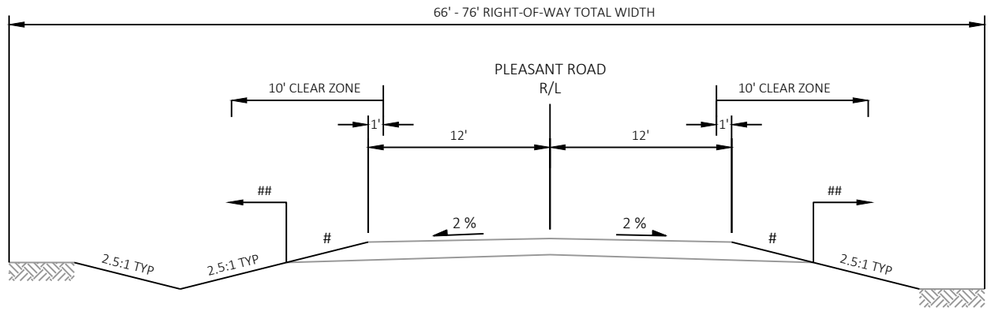
TYPICAL FINISHED SECTION

STA 20+50 - STA 21+00
STA 22+51 - STA 22+57



TYPICAL FINISHED SECTION

STA 21+00 - STA 21+50(B-37-0477)
STA 22+01(B-37-0477) - STA 22+51



TYPICAL FINISHED SECTION

STA 22+57 - STA 22+75, LT
STA 22+57 - STA 23+00, RT

NOTES

\# FERTILIZER AND SEEDING

TOPSOIL, FERTILIZER, SEEDING, AND EROSION MAT

* ASPHALTIC SURFACE SHALL BE PLACED 26.5' WIDE AT ENDS OF BRIDGE AND TAPER TO 22' WIDE AT 50' FROM THE ENDS OF THE BRIDGE.

PROJECT NO: 6685-03-72	HWY: PLEASANT ROAD	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 4	E

LEGEND

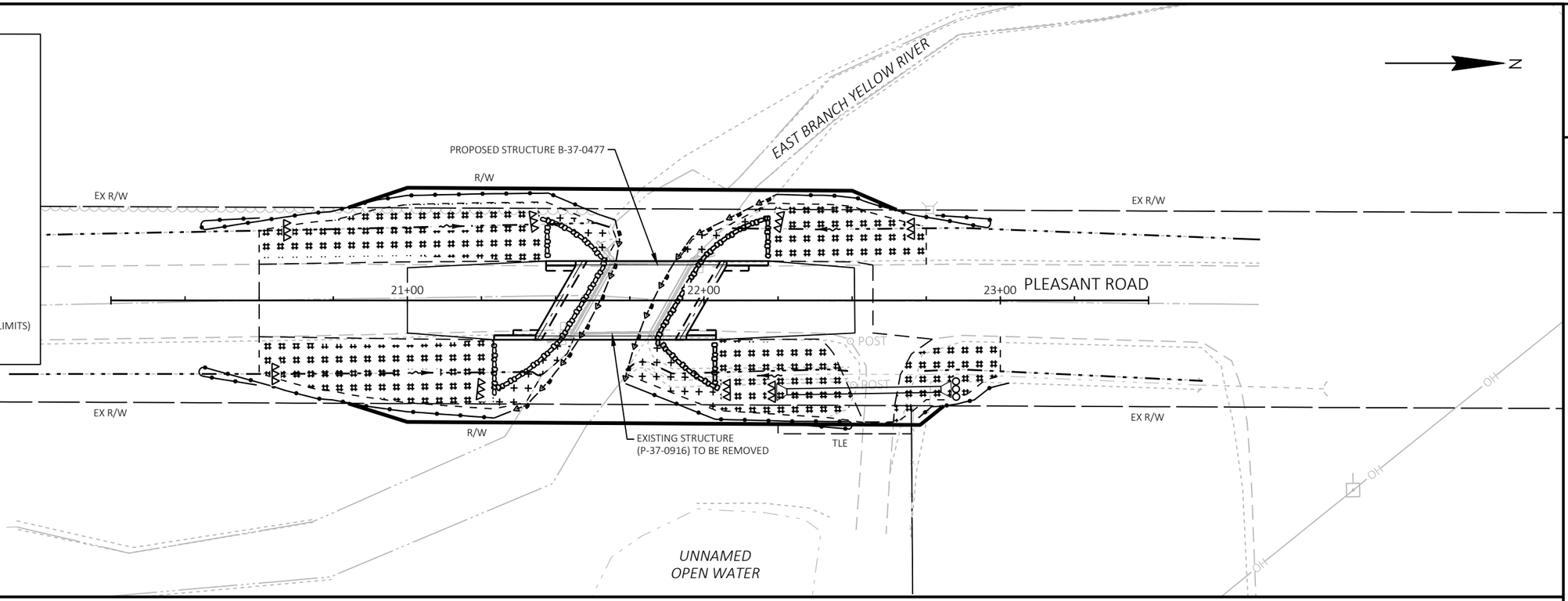
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- SMALL ANIMAL TURN AROUND
- DITCH CHECK
- CULVERT PIPE CHECK
- TURBIDITY BARRIER
- RIPRAP HEAVY
- SURFACE WATER FLOW
- SLOPE INTERCEPT (CONSTRUCTION LIMITS)
- DELINEATED WETLAND BOUNDARY

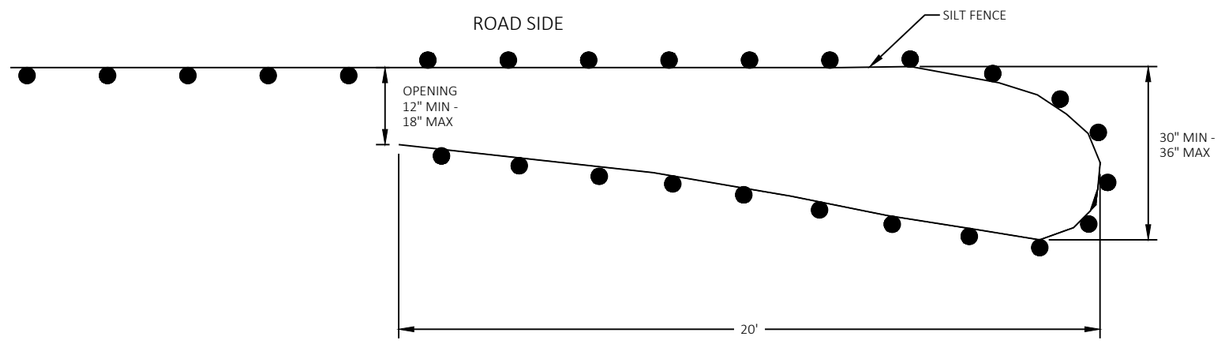
NOTES

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, TOPSOILED AND COVERED WITH EROSION MAT.

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

SEE STRUCTURE PLANS FOR RIPRAP HEAVY AREAS AND ADDITIONAL DETAILS.





PLAN VIEW

TEMPORARY SMALL ANIMAL TURN-AROUND

NOTES

SILT FENCE POSTS FOR THE TURN-AROUND SHOULD BE ON THE OUTSIDE OF THE TURN-AROUND AND TRENCHED IN ACCORDING TO SILT FENCE REQUIREMENTS.

PROJECT NO: 6685-03-72	HWY: PLEASANT ROAD	COUNTY: MARATHON	EROSION CONTROL	SHEET 5	E

Estimate Of Quantities

6685-03-72

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0205	Grubbing	STA	2.000	2.000
0006	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0008	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-37-0916	EACH	1.000	1.000
0010	205.0100	Excavation Common	CY	279.000	279.000
0012	206.1001	Excavation for Structures Bridges (structure) 01. B-37-0477	EACH	1.000	1.000
0014	208.0100	Borrow	CY	40.000	40.000
0016	210.1500	Backfill Structure Type A	TON	280.000	280.000
0018	213.0100	Finishing Roadway (project) 01. 6685-03-72	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	20.000	20.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	340.000	340.000
0024	455.0605	Tack Coat	GAL	20.000	20.000
0026	465.0105	Asphaltic Surface	TON	60.000	60.000
0028	502.0100	Concrete Masonry Bridges	CY	173.000	173.000
0030	502.3200	Protective Surface Treatment	SY	208.000	208.000
0032	505.0400	Bar Steel Reinforcement HS Structures	LB	9,015.000	9,015.000
0034	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	25,660.000	25,660.000
0036	506.0105	Structural Steel Carbon	LB	510.000	510.000
0038	513.4061	Railing Tubular Type M	LF	150.000	150.000
0040	516.0500	Rubberized Membrane Waterproofing	SY	22.000	22.000
0042	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	2.000	2.000
0044	521.3124	Culvert Pipe Corrugated Steel 24-Inch	LF	52.000	52.000
0046	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	190.000	190.000
0048	606.0300	Riprap Heavy	CY	90.000	90.000
0050	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	180.000	180.000
0052	618.0100	Maintenance and Repair of Haul Roads (project) 01. 6685-03-72	EACH	1.000	1.000
0054	619.1000	Mobilization	EACH	1.000	1.000
0056	624.0100	Water	MGAL	6.000	6.000
0058	625.0100	Topsoil	SY	855.000	855.000
0060	628.1504	Silt Fence	LF	630.000	630.000
0062	628.1520	Silt Fence Maintenance	LF	630.000	630.000
0064	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0066	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0068	628.2004	Erosion Mat Class I Type B	SY	755.000	755.000
0070	628.2027	Erosion Mat Class II Type C	SY	100.000	100.000
0072	628.6005	Turbidity Barriers	SY	365.000	365.000
0074	628.7504	Temporary Ditch Checks	LF	125.000	125.000
0076	628.7555	Culvert Pipe Checks	EACH	4.000	4.000
0078	629.0210	Fertilizer Type B	CWT	0.600	0.600
0080	630.0120	Seeding Mixture No. 20	LB	24.000	24.000
0082	630.0500	Seed Water	MGAL	20.000	20.000
0084	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0086	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0088	638.2602	Removing Signs Type II	EACH	4.000	4.000
0090	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0092	642.5001	Field Office Type B	EACH	1.000	1.000
0094	643.0420	Traffic Control Barricades Type III	DAY	1,080.000	1,080.000
0096	643.0705	Traffic Control Warning Lights Type A	DAY	1,560.000	1,560.000
0098	643.0900	Traffic Control Signs	DAY	780.000	780.000

Estimate Of Quantities

6685-03-72

Line	Item	Item Description	Unit	Total	Qty
0100	643.5000	Traffic Control	EACH	1.000	1.000
0102	645.0111	Geotextile Type DF Schedule A	SY	100.000	100.000
0104	645.0120	Geotextile Type HR	SY	130.000	130.000
0106	650.4500	Construction Staking Subgrade	LF	170.000	170.000
0108	650.5000	Construction Staking Base	LF	170.000	170.000
0110	650.6501	Construction Staking Structure Layout (structure) 01. B-37-0477	EACH	1.000	1.000
0112	650.9911	Construction Staking Supplemental Control (project) 01. 6685-03-72	EACH	1.000	1.000
0114	650.9920	Construction Staking Slope Stakes	LF	213.000	213.000
0116	715.0502	Incentive Strength Concrete Structures	DOL	1,038.000	1,038.000
0118	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. STA 21+75	EACH	1.000	1.000
0120	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	300.000	300.000
0122	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000

3

CLEARING AND GRUBBING ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010						
	20+00	-	22+00	LT	2	2
TOTALS					2	2

BASE AGGREGATE ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
0010						
	20+50	-	21+57	LT & RT	10	215
	21+94	-	22+77	LT & RT	10	125
TOTALS					20	340

ASPHALTIC ITEMS

CATEGORY	STATION	TO	STATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
0010					
	21+00	-	21+57	10	30
	21+94	-	22+51	10	30
TOTALS				20	60

3

EARTHWORK SUMMARY

DIVISION	STATION	TO	STATION	LOCATION	205.0100 EXCAVATION COMMON (CY)	AVAILABLE MATERIAL	UNEXPANDED FILL	EXPANDED FILL (NOTE 1) FACTOR 1.25	MASS ORDINATE +/- (NOTE 2)	208.0100 BORROW
1	20+50	-	21+57	PLEASANT ROAD SOUTH	115	115	122	155	-40	40
2	21+94	-	23+00	PLEASANT ROAD NORTH	164	164	90	117	47	--
TOTALS					279	279	212	272	7	40

NOTES
1) EXPANDED MATERIAL/FILL = (UNEXPANDED MATERIAL/FILL) * (FILL FACTOR)
2) MASS ORDINATE = AVAILABLE MATERIAL - (EXPANDED FILL); PLUS INDICATES AN EXCESS OF MATERIAL (BORROW)

3

CULVERT PIPE ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE	MINIMUM THICKNESS INCHES	203.0100 REMOVING SMALL PIPE CULVERTS EACH	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH EACH	521.3124 CULVERT PIPE CORRUGATED STEEL 24-INCH LF	COMMENTS
0010												
	22+28	-	22+80	RT	1254.96	1254.44	1.00%	0.064	1	2	52	EXISTING RCCP (SIZE UNKNOWN)
TOTALS									1	2	52	

RESTORATION ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0500 SEED WATER MGAL
0010								
	20+30	-	21+71	LT & RT	365	0.23	9.8	8
	21+72	-	23+03	LT & RT	320	0.20	9.5	8
	UNDISTRUBUTED				170	0.17	4.7	4
TOTALS					855	0.60	24.0	20

3

EROSION CONTROL ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.6005 TURBIDITY BARRIERS SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH
0010											
	20+30	-	21+71	LT & RT	285	285	330	35	140	50	--
	21+72	-	23+03	LT & RT	220	220	275	45	150	50	3
	UNDISTRUBUTED				125	125	150	20	75	25	1
TOTALS					630	630	755	100	365	125	4

EROSION CONTROL MOBILIZATION

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010			
	PROJECT	5	3
TOTALS		5	3

PROJECT NO: 6685-03-72	HWY: PLEASANT ROAD	COUNTY: MARATHON	MISCELLANEOUS QUANTITIES	SHEET 9	E

3

REMOVING SIGNS

CATEGORY	STATION	OFFSET	SIGN NUMBER	SIGN MESSAGE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
0010						
	21+54	RT	1-1	BRIDGE HASH MARKS	1	1
	21+69	LT	1-2	BRIDGE HASH MARKS	1	1
	21+84	RT	1-3	BRIDGE HASH MARKS	1	1
	21+97	LT	1-4	BRIDGE HASH MARKS	1	1
TOTALS					4	4

TYPE II SIGNS AND SUPPORTS

CATEGORY	SIGN NUMBER	SIGN CODE	SIGN SIZE	SIGN TYPE	SIGN DIMENSION W X H IN	X	IN	DESCRIPTION	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF
0010										
	1-1	W5-52R	2S	II	12	X	36	BRIDGE HASH MARKS	1	3.00
	1-2	W5-52L	2S	II	12	X	36	BRIDGE HASH MARKS	1	3.00
	1-3	W5-52L	2S	II	12	X	36	BRIDGE HASH MARKS	1	3.00
	1-4	W5-52R	2S	II	12	X	36	BRIDGE HASH MARKS	1	3.00
TOTALS									4	12

3

TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	STAGE DURATION DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO.	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS DAY
0010	1	PROJECT	60	18	1,080	26	1,560	13	780
TOTALS					1,080		1,560		780

WATER

CATEGORY	LOCATION	624.0100 MGAL
0010		
	PROJECT - BASE COMPACTION	4
	PROJECT - COMMON EXCAVATION	2
TOTAL		6

STAKING ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.6501.01 CONSTRCTION STAKING STRUCTURE LAYOUT (B-37-0477) EACH	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (6685-03-72) EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010									
	20+50	-	21+57	LT & RT	107	107	--	--	107
	21+94	-	23+00	LT & RT	63	63	--	--	106
	PROJECT				--	--	1	1	--
TOTALS					170	170	1	1	213

COMPOSITE DRAWING, ORIGINAL ON FILE AT THE COUNTY REGISTER OF DEED OFFICE

TRANSPORTATION PROJECT PLAT NO: 6685-03-02 - 4.01

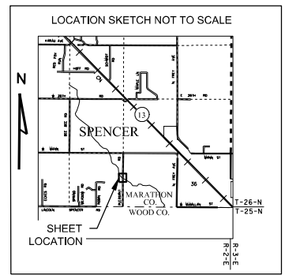
THAT PART OF LOT 1 OF CSM 10641 AND PART OF OUTLOT 1 OF CSM 11872 LOCATED IN THE SW1/4 OF THE NW1/4 OF SECTION 35, AND PART OF THE SW1/4 OF THE NW1/4 OF SECTION 35, ALSO PART OF THE SE1/4 OF THE NE1/4 OF SECTION 34, ALL LOCATED IN TOWNSHIP 26 NORTH, RANGE 2 EAST, TOWN OF SPENCER, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER - LOC STR, T SPENCER, PLEASANT ROAD (E BR YELLOW RIVER BRIDGE B-37-0477), MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE TOWN OF SPENCER DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 60.10 (2)(E), WISCONSIN STATUTES, THE TOWN OF SPENCER HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE TOWN FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE TOWN OF SPENCER, PURSUANT TO THE PROVISIONS OF SECTION 60.10 (2)(E), WISCONSIN STATUTES.

LOCATION SKETCH NOT TO SCALE



STATE OF WISCONSIN - MARATHON COUNTY
RECORDED
02-28-2024 at 2:08 PM
DEAN J. STRATZ, REGISTER OF DEEDS
DOC#: **1895017**
Pages: 2

REGISTER OF DEEDS
MARATHON COUNTY, WI
Received for Record this 28 day of Feb
A.D., 20 24 at 2:08 O'clock P.M.
In Plat Cabinet No. 3 on page 5977A
REGISTAR
Dean J. Stratz

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6685-03-02-4.01
AMENDMENT NO:___

GN

SCALE, FEET
0 20 40

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MARATHON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, CENTERLINE OF EXISTING PAVEMENTS AND/OR EXISTING OCCUPATIONAL LINES.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR PLEASANT RD: CSM 10641, CSM 11872, AND EXISTING CENTERLINE.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT FOR THE TOWN OF SPENCER.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) W (TYPE)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING TO BE REMOVED
BRIDGE CULVERT

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) IP
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN SGN
OFF-PREMISE SIGN SGN

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER 25 UTILITY NUMBER 40
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CERTIFIED SURVEY MAP	CSM	RIGHT	RT
CONCRETE	CONC	RIGHT OF WAY	R/W
COUNTY	CO	SECTION	SEC
COUNTY TRUNK HIGHWAY	CTH	SEPTIC VENT	SEPV
DISTANCE	DIST	SQUARE FEET	SF
CORNER	COR	STATE TRUNK HIGHWAY	STH
DOCUMENT NUMBER	DOC	STATION	STA
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV	TRANSPORTATION PROJECT PLAT	TPP
GRID NORTH	GN	UNITED STATES HIGHWAY	USH
HIGHWAY EASEMENT	HE	VOLUME	V
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

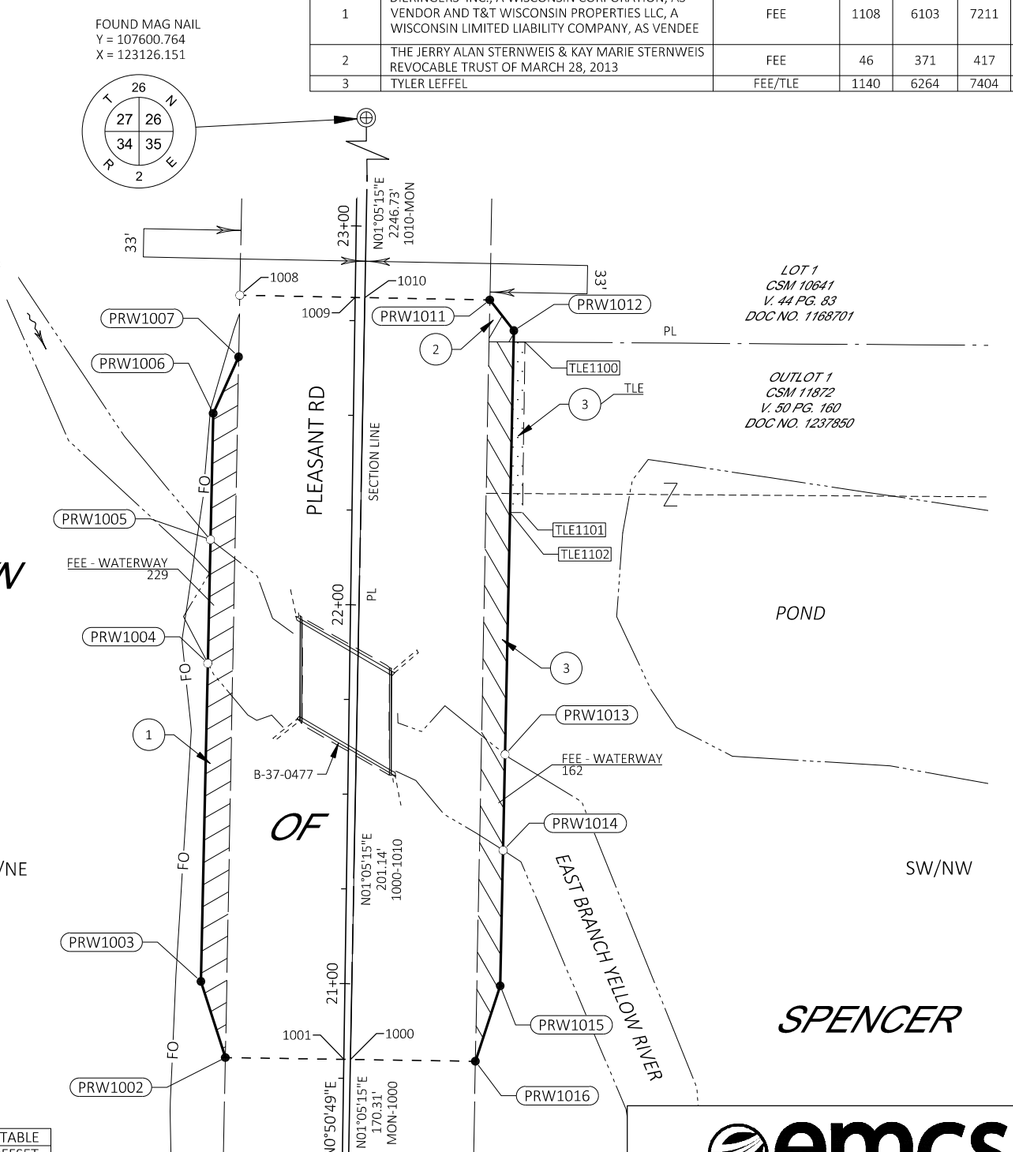
CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE TOWN.

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	R/W SF REQUIRED NEW	EXISTING	TOTAL	TLE SF
1	DIERINGERS' INC., A WISCONSIN CORPORATION, AS VENDOR AND T&T WISCONSIN PROPERTIES LLC, A WISCONSIN LIMITED LIABILITY COMPANY, AS VENDEE	FEE	1108	6103	7211	---
2	THE JERRY ALAN STERNWEIS & KAY MARIE STERNWEIS REVOCABLE TRUST OF MARCH 28, 2013	FEE	46	371	417	---
3	TYLER LEFFEL	FEE/TLE	1140	6264	7404	141



ALL TLES ARE FOR SLOPE GRADING PURPOSES

CONVENTIONAL UTILITY SYMBOLS

WATER W
GAS G
TELEPHONE T
OVERHEAD TRANSMISSION LINES OH
ELECTRIC E
CABLE TELEVISION TV
FIBER OPTIC FO
SANITARY SEWER SAN
STORM SEWER ST
ELECTRIC TOWER

COURSE TABLE		
COURSE	BEARING	DISTANCE
1000-1001	N89° 09' 11"W	1.71'
1001-PRW1002	N89° 09' 11"W	31.29'
PRW1002-PRW1003	N17° 42' 32"W	21.10'
PRW1003-PRW1004	N01° 13' 44"E	84.01'
PRW1004-PRW1005	N01° 13' 44"E	32.63'
PRW1005-PRW1006	N01° 13' 44"E	33.37'
PRW1006-PRW1007	N24° 14' 38"E	16.34'
PRW1007-1008	N01° 05' 15"E	16.27'
1008-1009	S88° 54' 45"E	30.44'
1009-1010	S88° 54' 45"E	2.56'
1010-PRW1011	S88° 54' 45"E	33.00'
PRW1011-PRW1012	S38° 05' 05"E	10.28'
PRW1012-PRW1013	S01° 11' 02"W	111.90'
PRW1013-PRW1014	S01° 11' 02"W	25.30'
PRW1014-PRW1015	S01° 11' 02"W	35.80'
PRW1015-PRW1016	S18° 17' 40"W	20.96'
PRW1016-1000	N89° 09' 11"W	33.00'

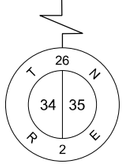
STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
1000	20+80.00	1.71'
1001	20+80.00	0.00'
PRW1002	20+80.00	-31.29'
PRW1003	21+00.00	-38.00'
PRW1004	21+84.01	-37.44'
PRW1005	22+16.63	-37.22'
PRW1006	22+50.00	-37.00'
PRW1007	22+65.00	-30.51'
1008	22+81.27	-30.44'
1009	22+81.15	0.00'
1010	22+81.14	2.56'
PRW1011	22+81.00	35.56'
PRW1012	22+73.00	42.02'
PRW1013	21+61.10	41.36'
PRW1014	21+35.80	41.21'
PRW1015	21+00.00	41.00'
PRW1016	20+80.00	34.71'

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE1100	22+70.00	45.00'
TLE1101	22+25.00	45.00'
TLE1102	22+25.00	41.74'

201 FRONTIER COMMUNICATIONS OF WI LLC (COMMUNICATION)
V. 87 P. 217 DOC. 613829 - PAR. 1

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
201	FRONTIER COMMUNICATIONS OF WI LLC (COMMUNICATION)	RELEASE OF RIGHTS



FOUND BROKEN SURVEY NAIL
Y = 104983.059
X = 123076.462

emcs

I, KEVIN C. BOYER PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 60.10 (2)(E) OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE TOWN OF SPENCER I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

SIGNATURE: Kevin C. Boyer DATE: 2/28/2024
PRINT NAME: KEVIN C. BOYER
REGISTRATION NUMBER: S - 2675

THIS PLAT AND RELOCATION ORDER ARE APPRIVED FOR THE TOWN OF SPENCER BY THE MARATHON COUNTY HIGHWAY DEPARTMENT

SIGNATURE: DATE: 2/28/2024
PRINT NAME: JAMES M. GRIESBACH

6685-03-02-4.01 11
PLOT SCALE :
PLOT NAME :
PLOT BY : Todd Copiskey
PLOT DATE : 2/22/2024 12:47 PM
PLOT DATE :
PLOT DATE :
FILE NAME : P:\5SX\5590.DP.23.PLEASANT.MAR\CADD\6685037\2\SHEETS\TPP\040101-RP.DWG
APPRAISAL PLAT DATE : 02/21/2024

LEGEND

- SLOPE INTERCEPT
- DELINEATED WETLAND BOUNDARY
- PERMITTED WETLAND IMPACT
- X — CLEARING AND GRUBBING
- RIPRAP HEAVY (SEE STRUCTURE PLANS)
- 4-INCH ASPHALTIC SURFACE
- X — SIGN - REMOVE AND REPLACE

BENCH MARKS			
NO.	Y, X	DESCRIPTION	ELEV.
600	Y = 105,491.71 X = 123,146.05	BM BENCHTIE IN PPOL	1260.47
601	Y = 105,610.14 X = 123,054.51	BM BENCHTIE IN PPOL	1259.72

FRONTIER COMMUNICATIONS OF WI LLC (COMMUNICATION)

W5-52L 12"X36" 1-2

T&T WISCONSIN PROPERTIES LLC DIERINGERS' INC

EAST BRANCH YELLOW RIVER

W5-52R 12"X36" 1-4

EXISTING STRUCTURE (P-37-0916) TO BE REMOVED

FO — FO — FO — R/W — FO — FO

EX R/W

BEGIN PROJECT.
STA 20+50
Y=105,123.37
X=123,077.19
MATCH EXISTING

N0°50'49"E

21+00 +00

22+00 +51

+75

END PROJECT.
STA 22+57
MATCH EXISTING

23+00 PLEASANT ROAD

EP: 23+50.00

Y = 105,423.33
X = 123,081.97

66' RIGHT-OF-WAY

EX R/W

BM 601

Y = 105,073.37
X = 123,076.80

BP: 20+00.00

EX R/W

CP #500
Y = 105,037.99
X = 123,062.72
ELEV = 1260.40
3/4" IRON ROD W/BLUE EMCS CAP SET

1-1

W5-52R 12"X36"

R/W

B-37-0477
(SEE STRUCTURE PLANS)

TLE

BASE AGG PE

1-3

W5-52L 12"X36"

STA 22+60
REMOVE 1-RCCP (SIZE UNKNOWN)
1-24" CPCS REQ'D
2-AEW REQ'D

BASE AGG FE

9 POST

9 POST

+00

+00

OH

OH

OH

BM 600

CP #501
Y = 105,601.65
X = 123,102.12
ELEV = 1260.16
3/4" IRON ROD W/BLUE EMCS CAP SET

EX R/W

MARSHFIELD ELECTRIC AND WATER DEPT
(ELECTRIC)

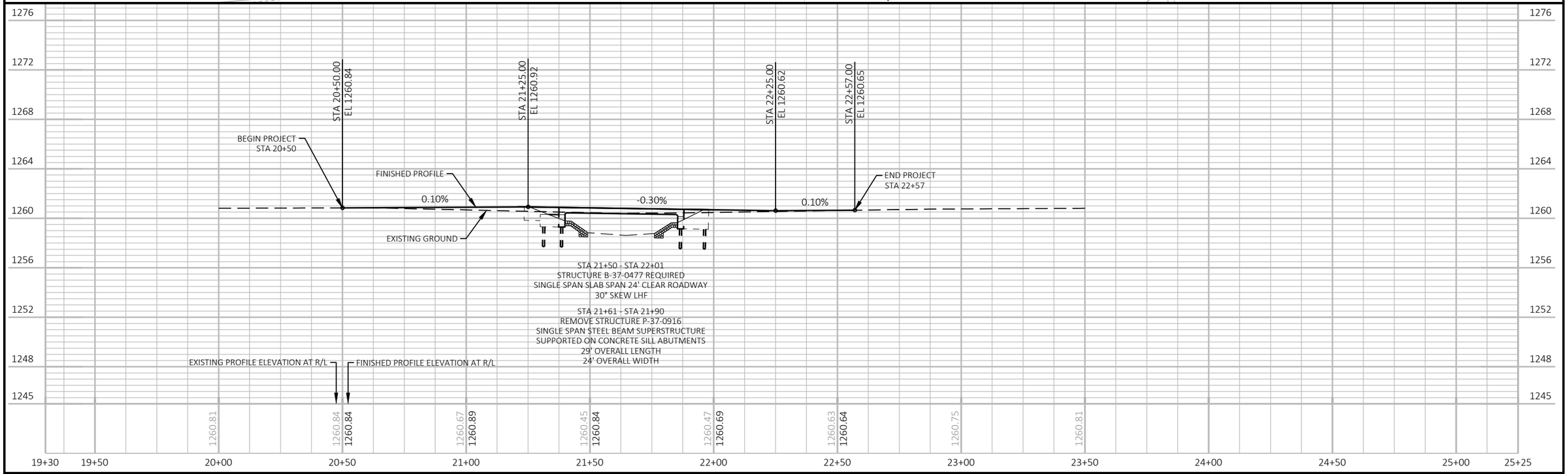
TYLER LEFFEL

UNNAMED OPEN WATER

JERRY ALAN STERNWEIS & KAY MARIE STERNWEIS REVOCABLE TRUST

5

5



PROJECT NO: 6685-03-72	HWY: PLEASANT ROAD	COUNTY: MARATHON	PLAN AND PROFILE	SHEET 12	E

FILE NAME : P:\55XX\5590.DP.23.PLEASANT.MAR\CADDS\66850372\SHEETS\050101-PP.DWG
LAYOUT NAME - 01

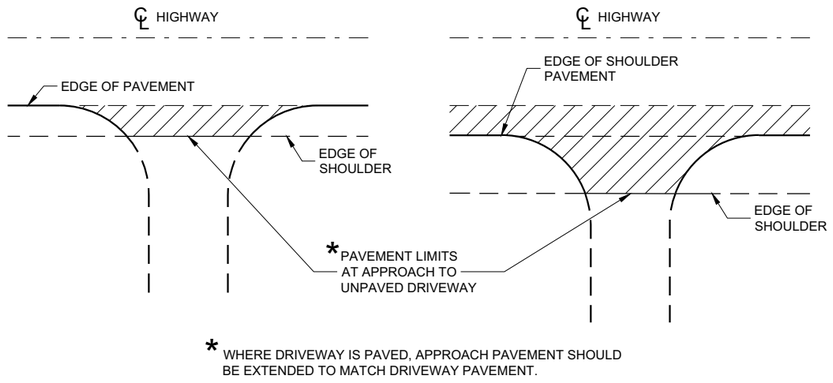
PLOT DATE : 6/20/2024 10:36 AM PLOT BY : AUSTIN STRAHL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

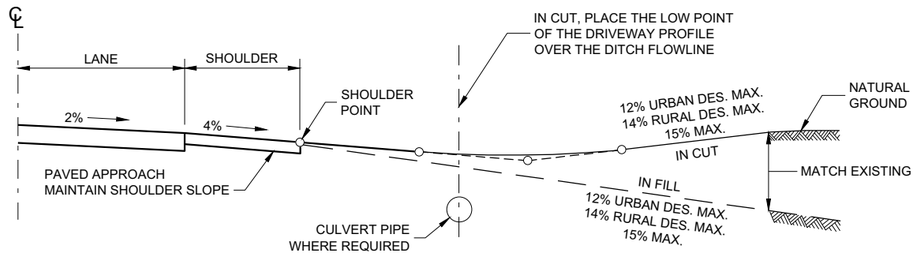
6



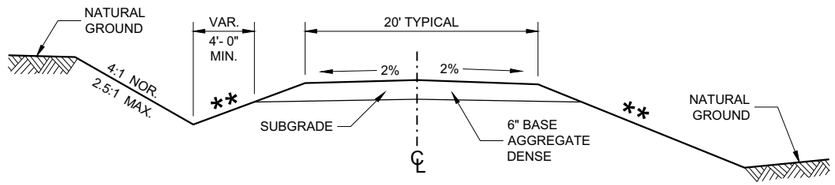
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

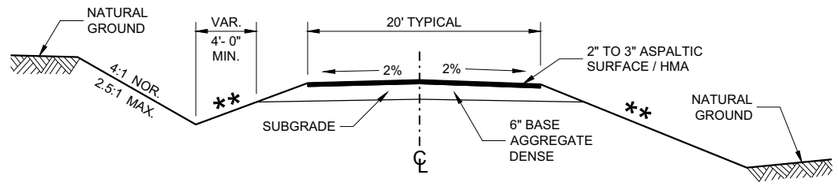


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

6

SDD 08D21 - 01

DRIVEWAYS WITHOUT CURB AND GUTTER

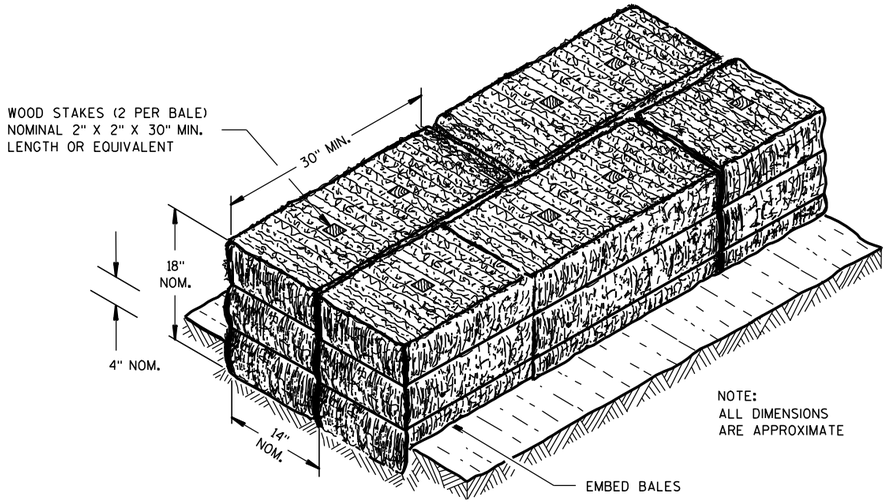
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

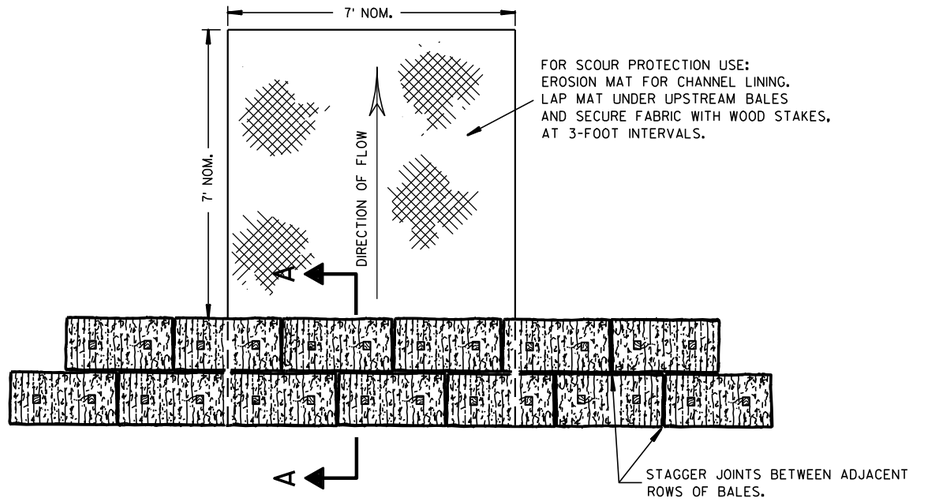
FHWA

6

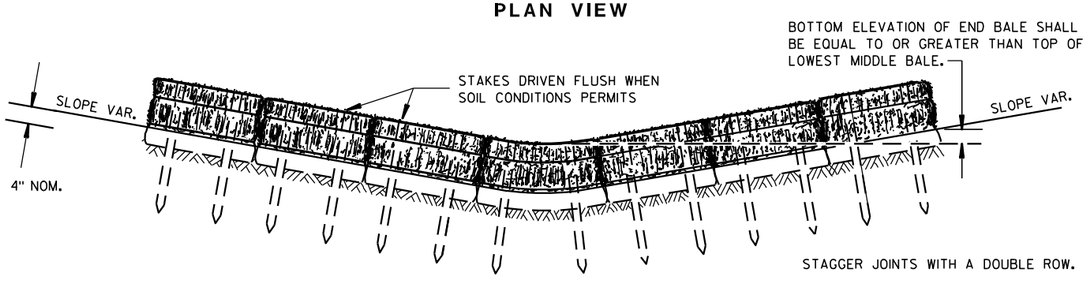
SDD 08D21 - 01



SECTION A-A



PLAN VIEW



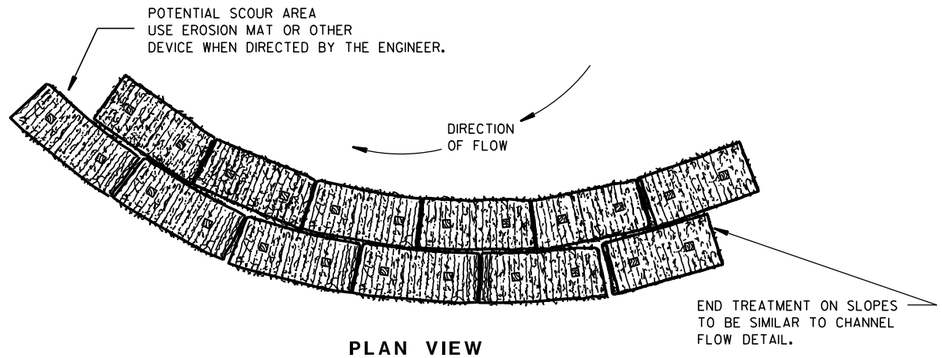
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

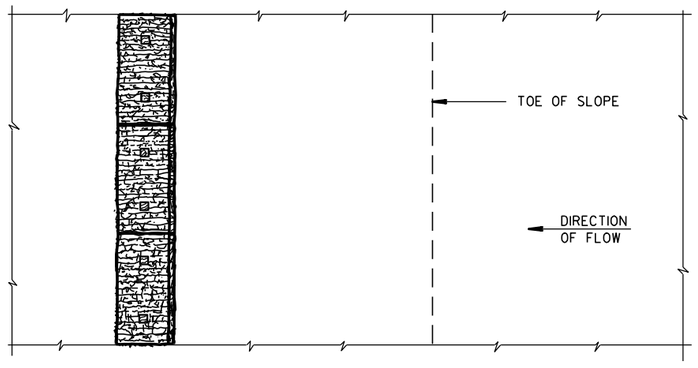
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

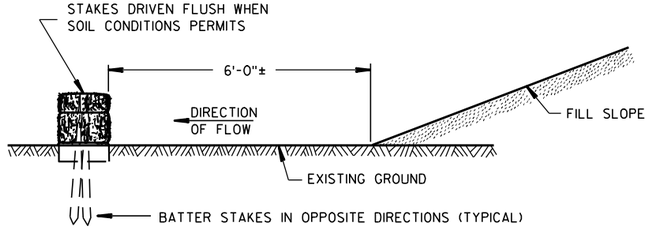


PLAN VIEW

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

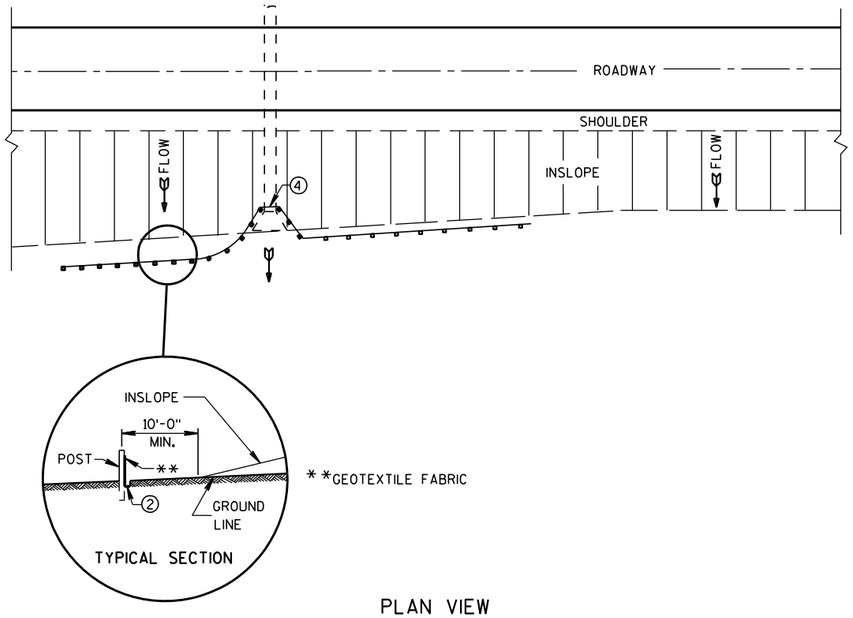
FHWA

6

S.D.D. 8 E 8-3

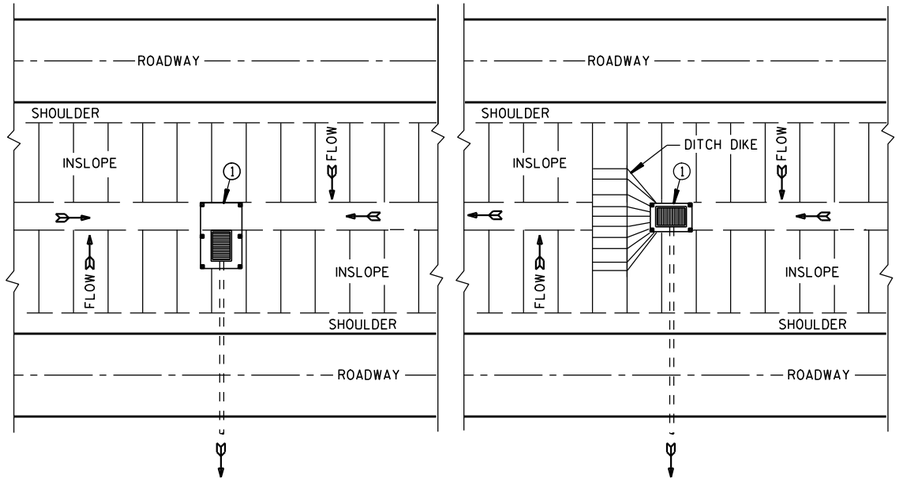
6

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.

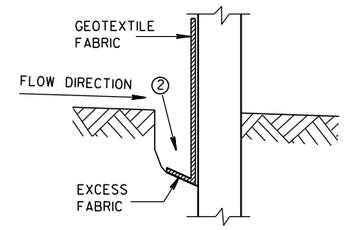
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

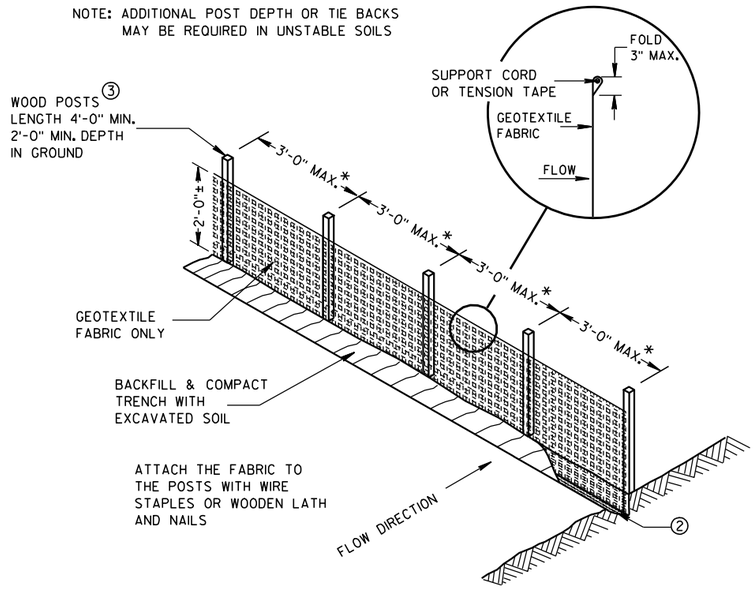
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

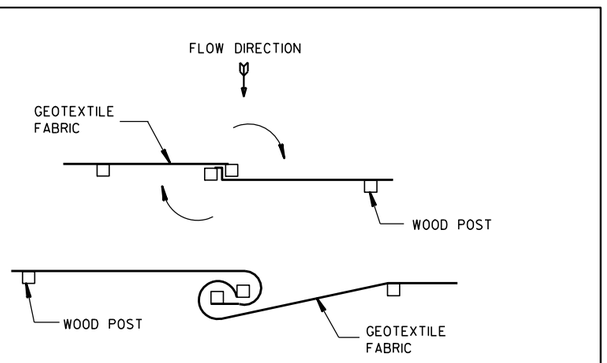
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



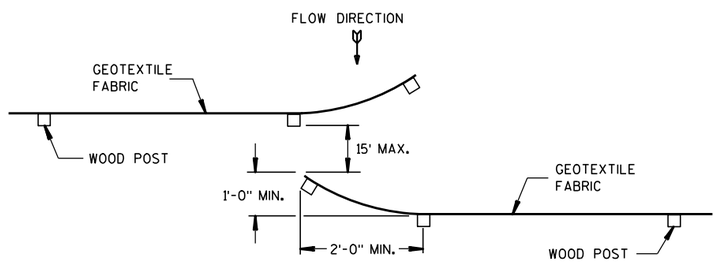
TRENCH DETAIL



SILT FENCE

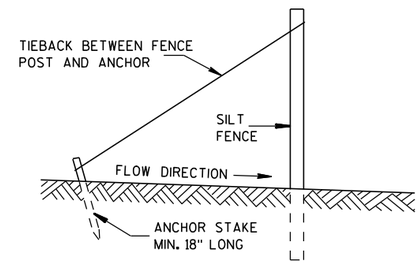


TWIST METHOD



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

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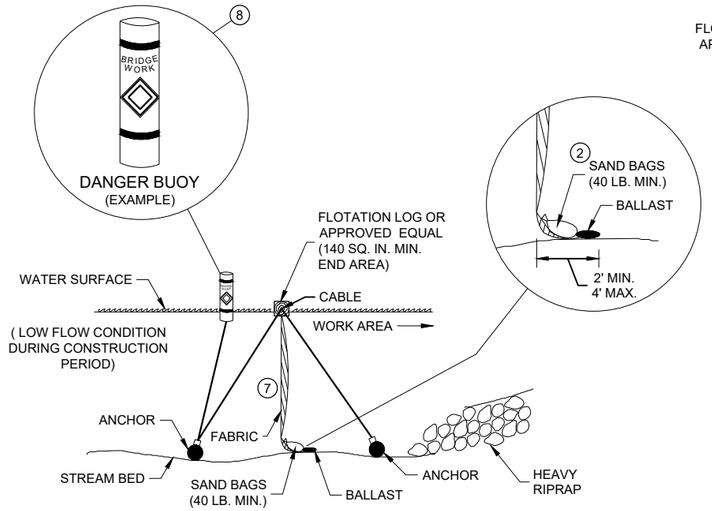
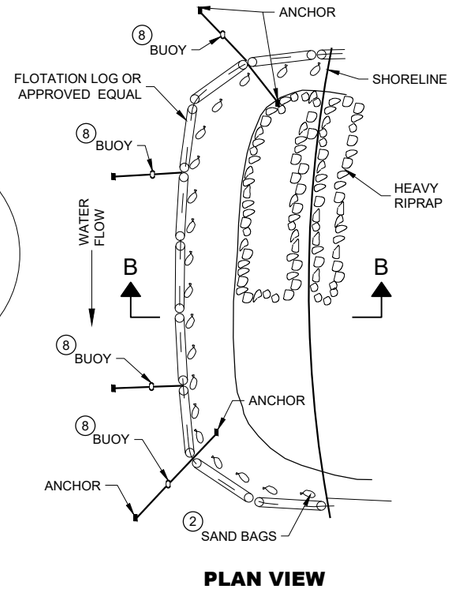
S.D.D. 8 E 9-6

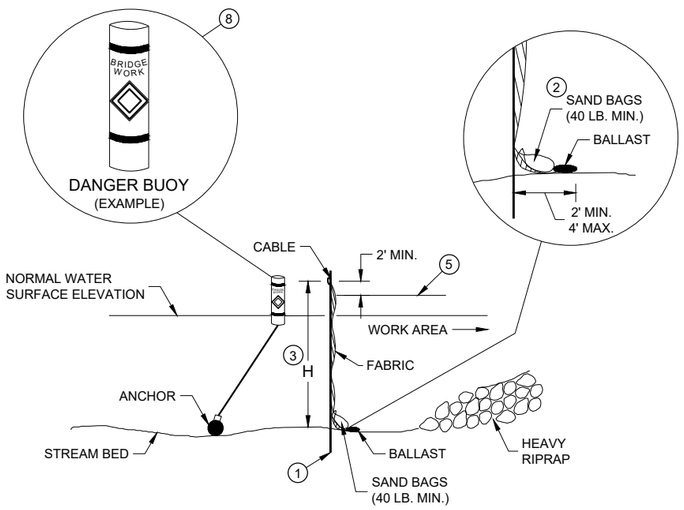


SECTION B - B

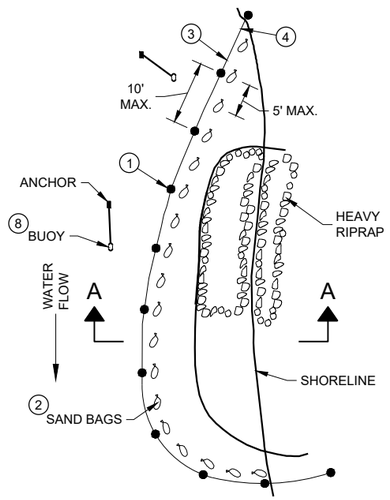


PLAN VIEW

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.

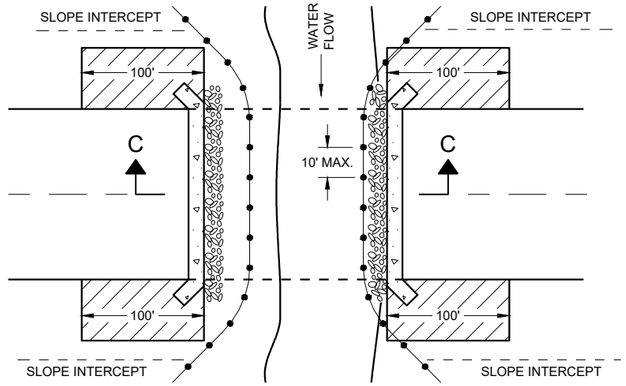
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

(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.

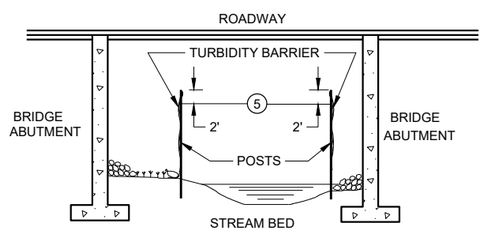
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

(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

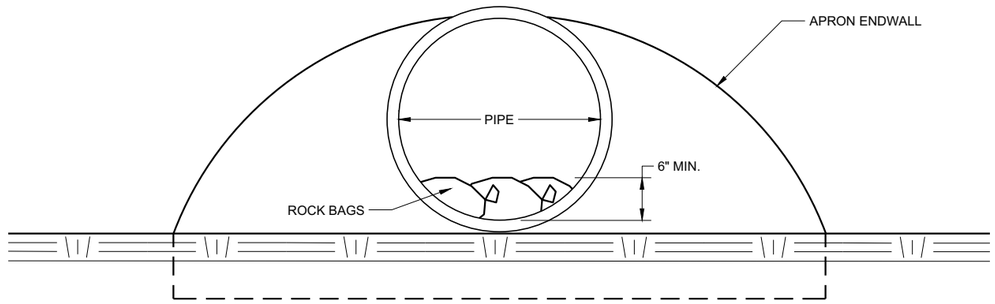
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

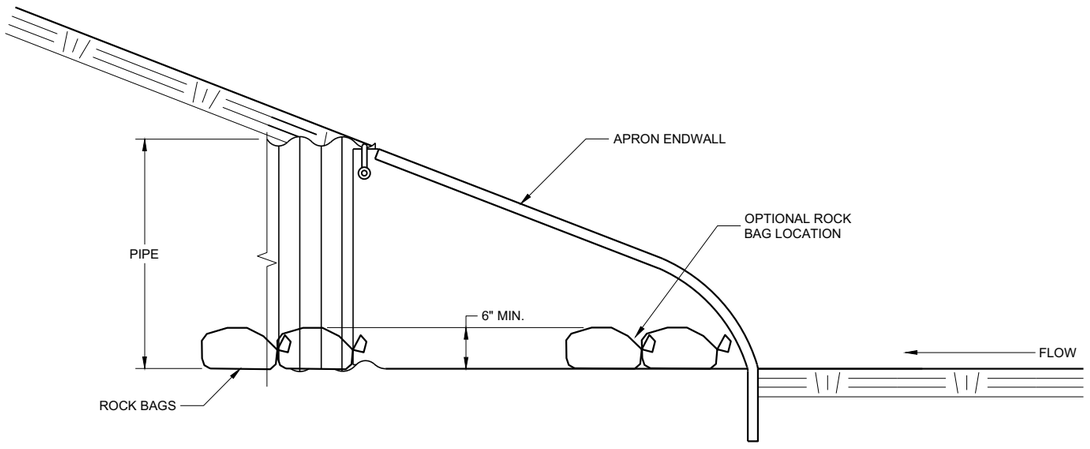
APPROVED
6/4/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOI
ENGINEER

FHWA

6
SDD 08E11 - 02



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

6
SDD 08E15 - 01

METAL APRON ENDWALLS

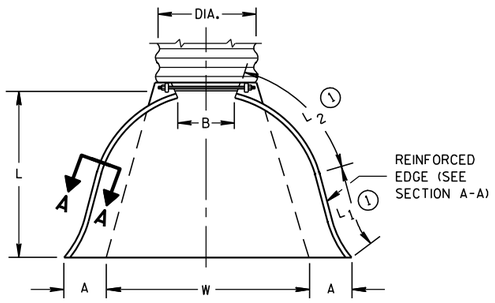
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

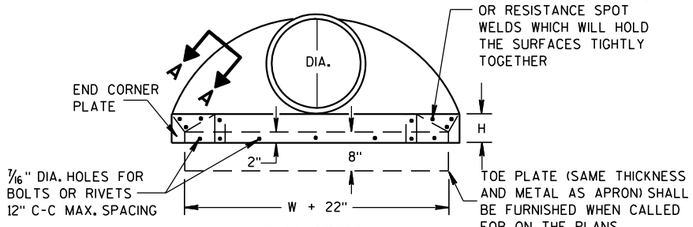
REINFORCED CONCRETE APRON ENDWALLS

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

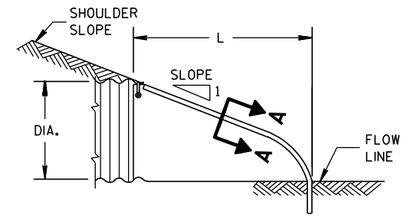
*MINIMUM
**MAXIMUM



PLAN VIEW

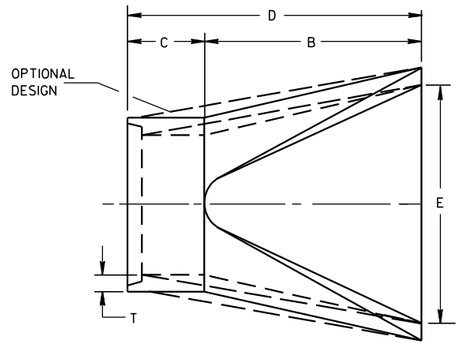


END VIEW

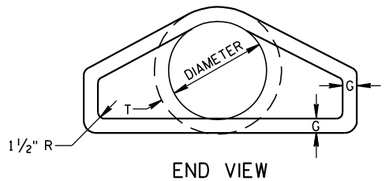


SIDE ELEVATION

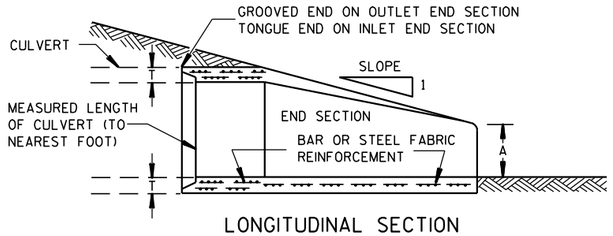
METAL ENDWALLS



PLAN

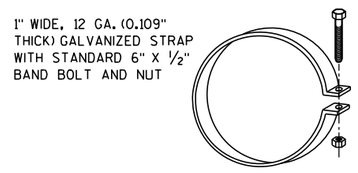


END VIEW



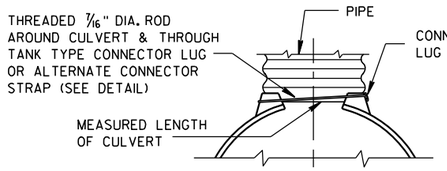
LONGITUDINAL SECTION

CONCRETE ENDWALLS

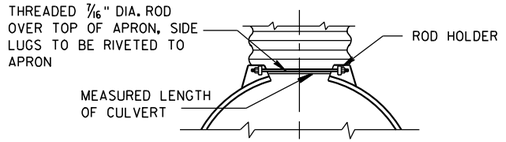


ALTERNATE FOR TYPE 1 CONNECTION

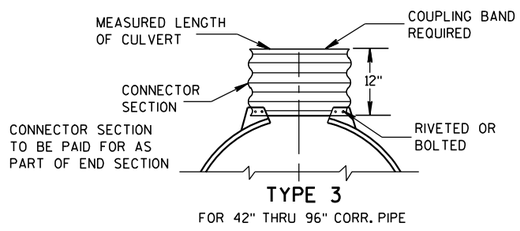
END SECTION CONNECTOR STRAP



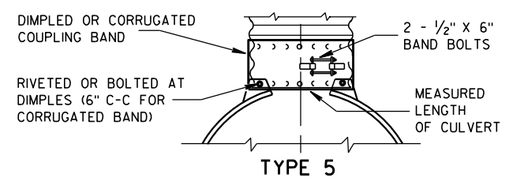
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

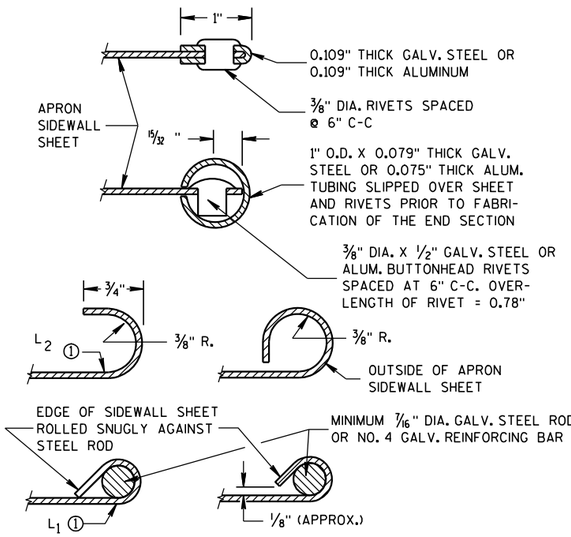
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

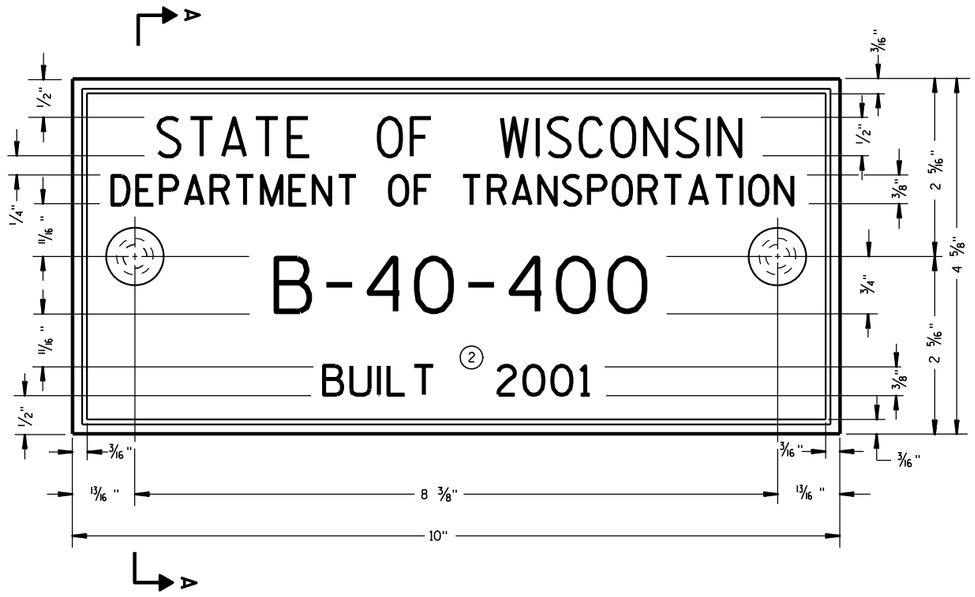
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 F 1-11



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

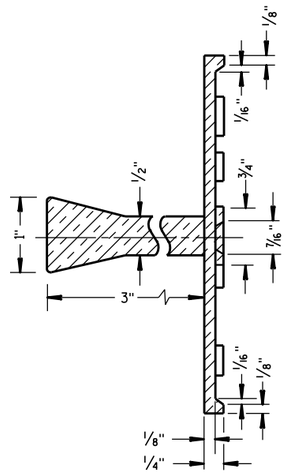
GENERAL NOTES

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.

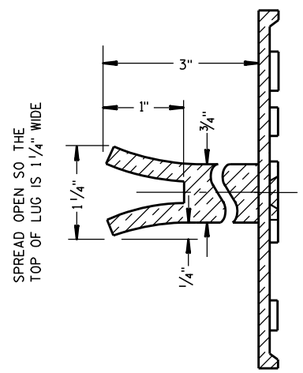
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(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

FOR MULTI-UNIT STRUCTURES LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

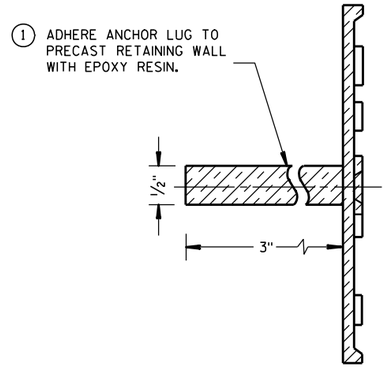
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

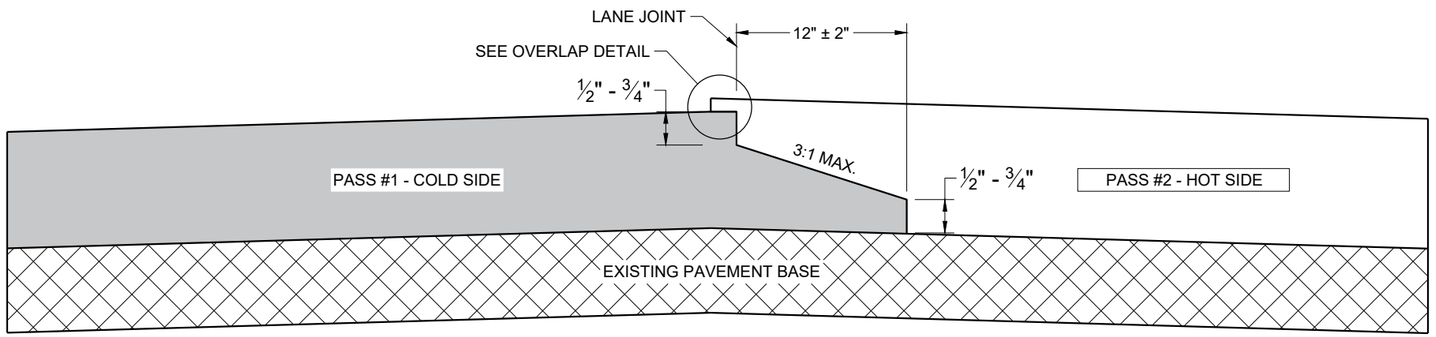
3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

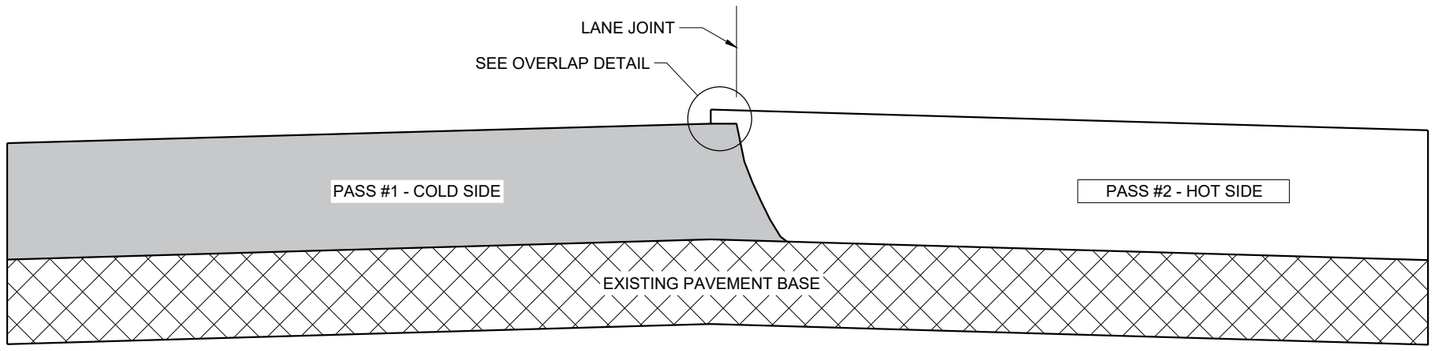
FHWA

6

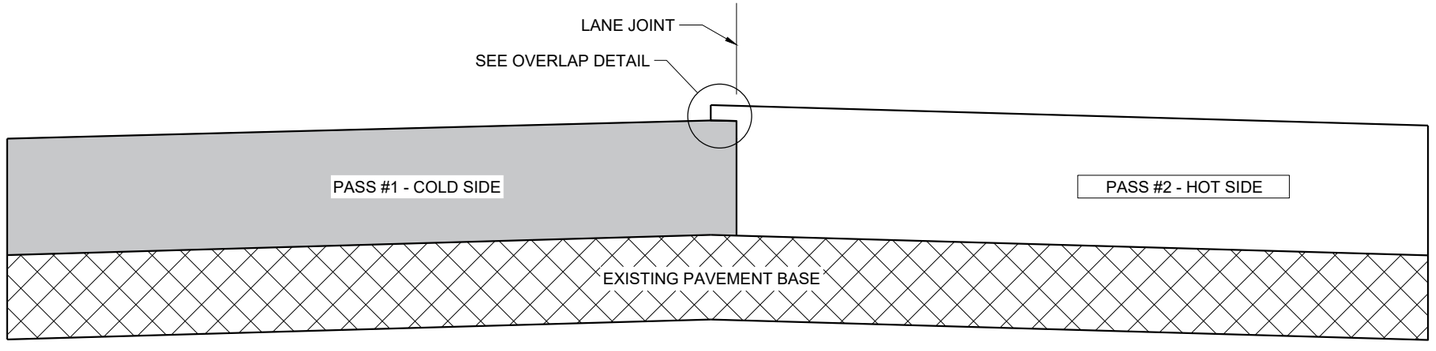
S.D.D. 12 A 3-10



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

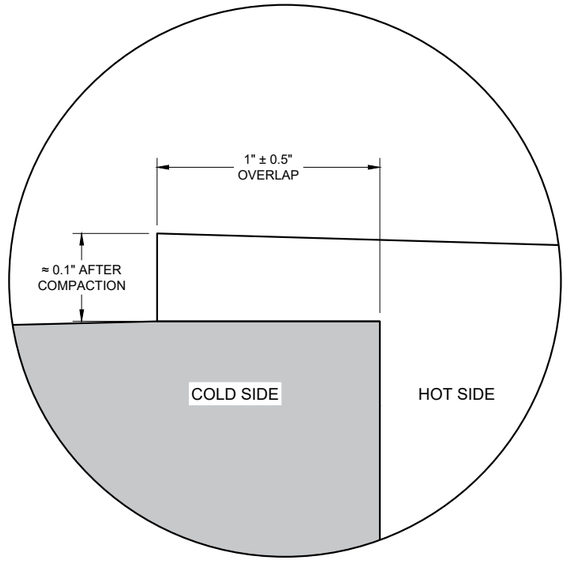
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

6

SDD 13C19 - 03

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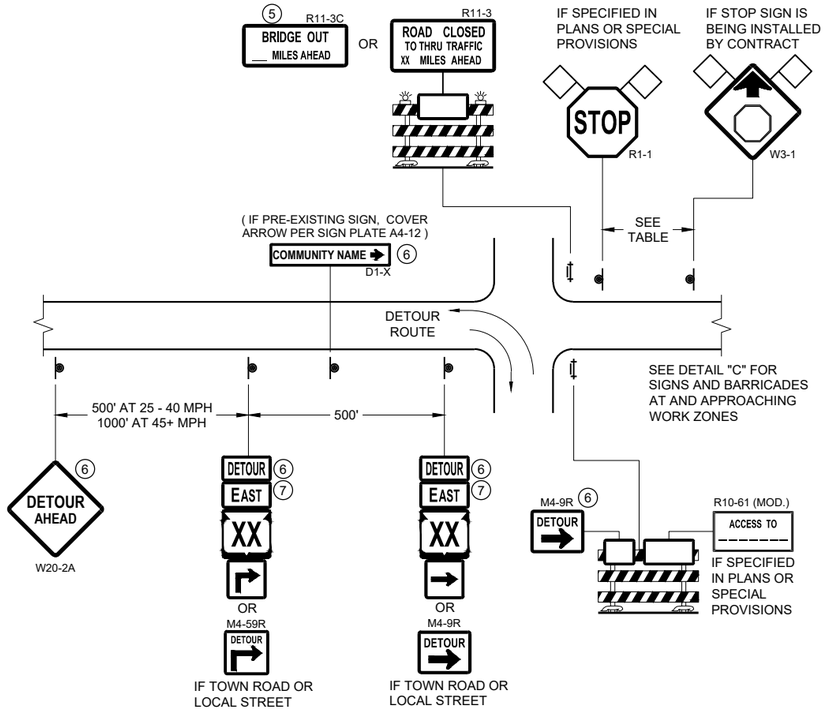
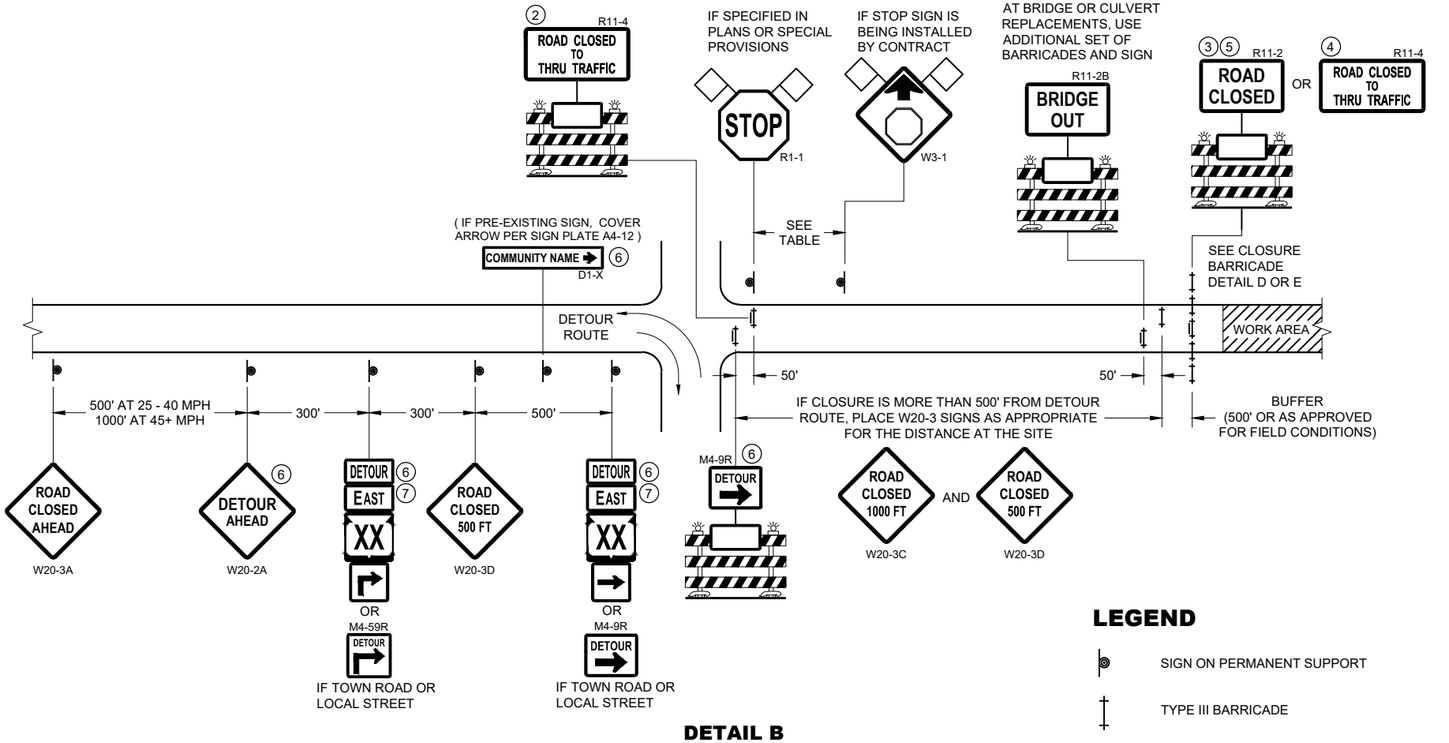
SDD 13C19 - 03



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

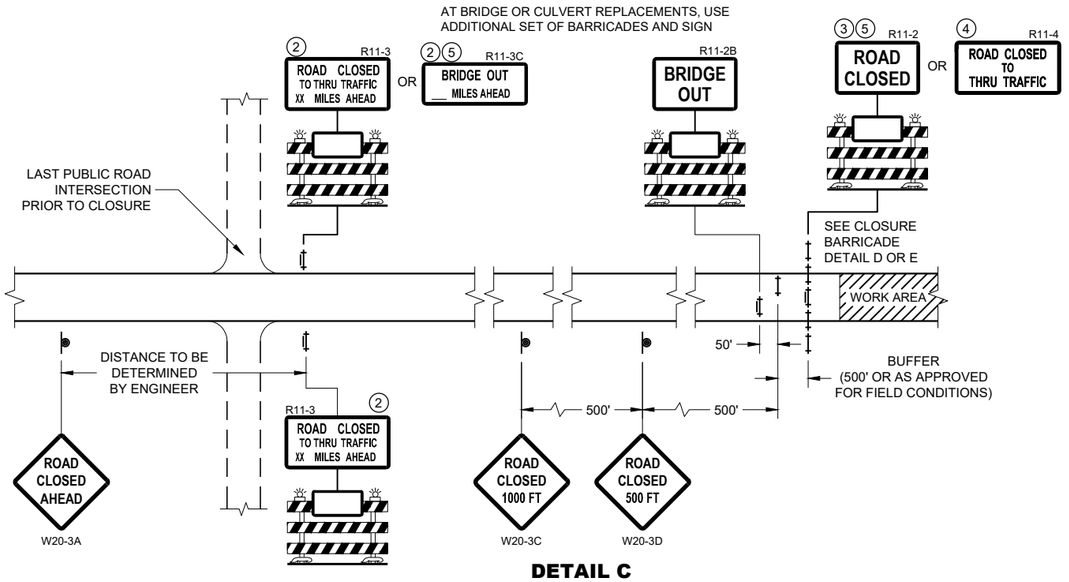


DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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

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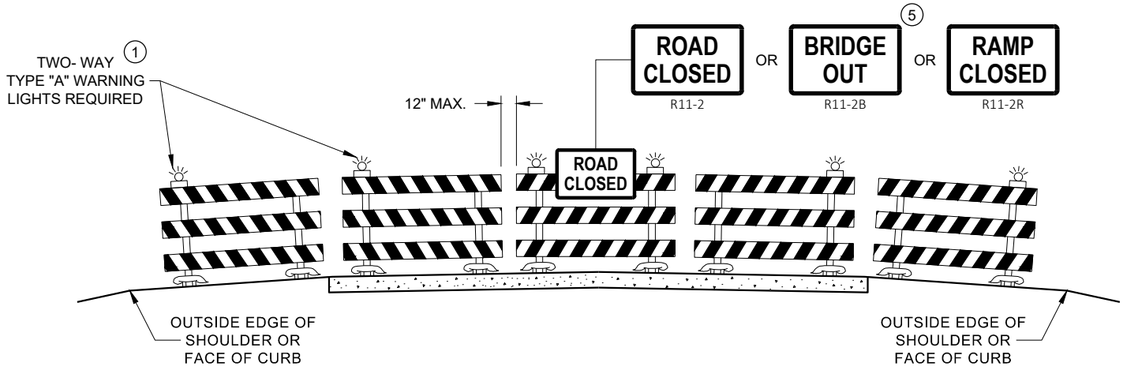
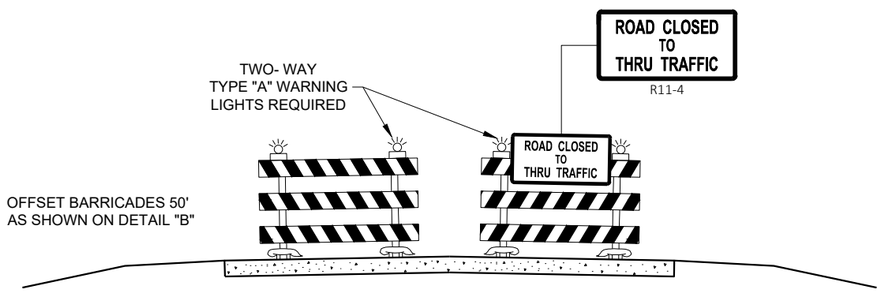
SDD 15C02 - 09a

6

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.

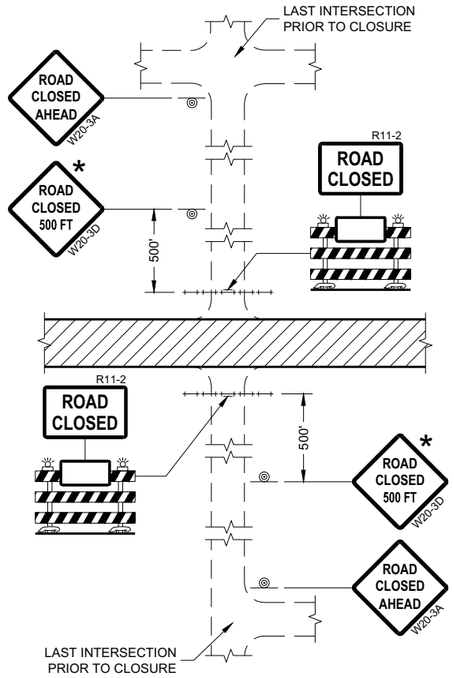
(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

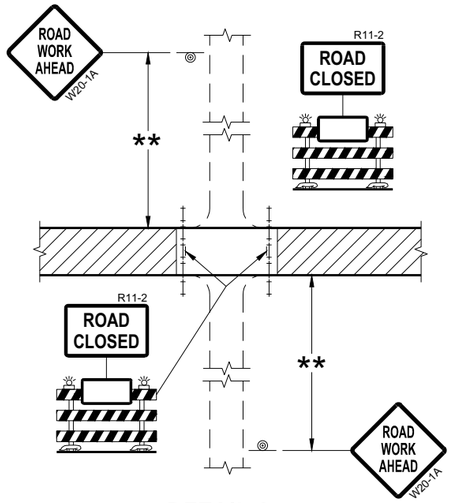
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE
FHWA

6
SDD 15C02 - 09b



DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)

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 (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN 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.

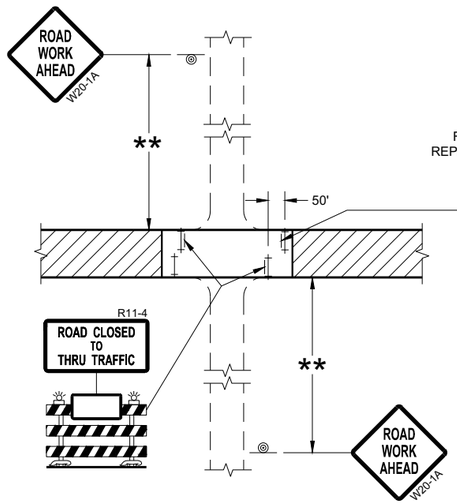
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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

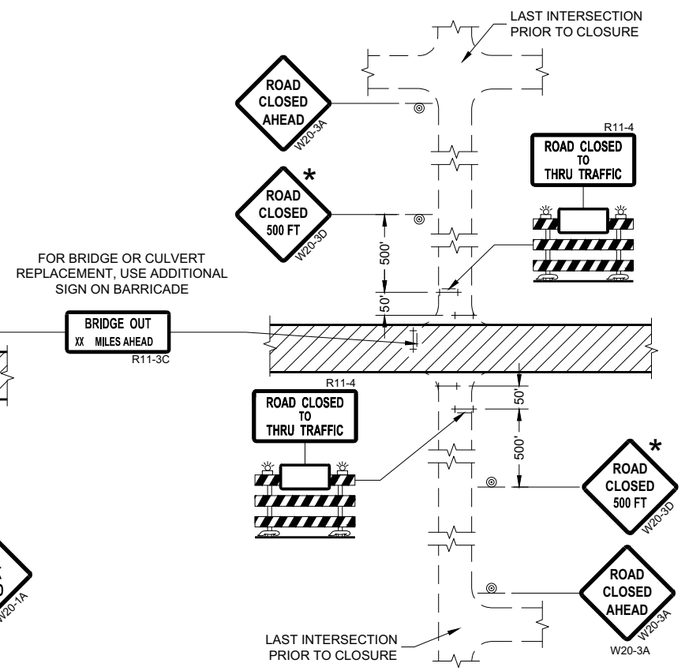
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

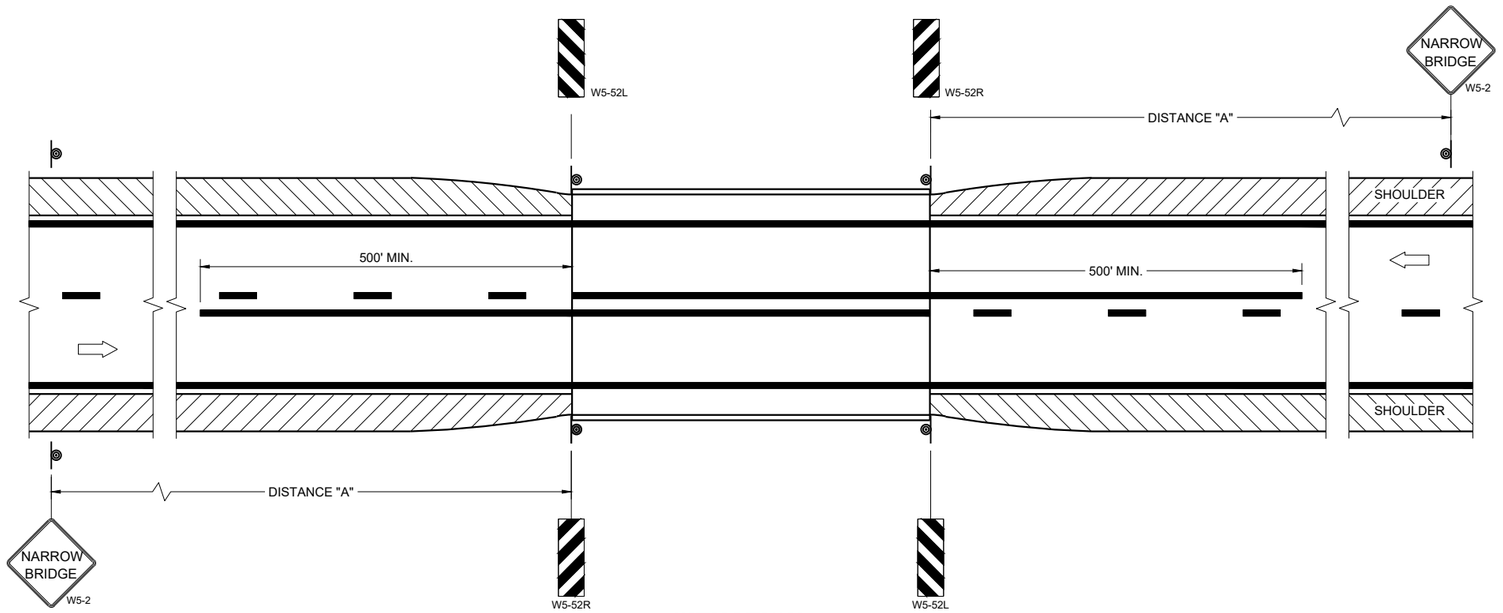
APPROVED
July 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

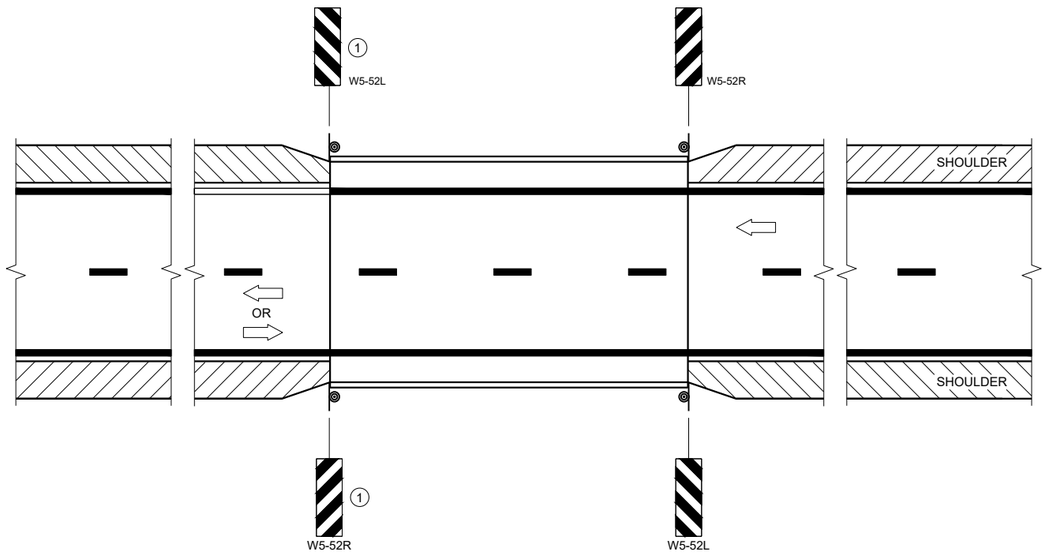
SDD 15C03 - 05

SDD 15C03 - 05



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

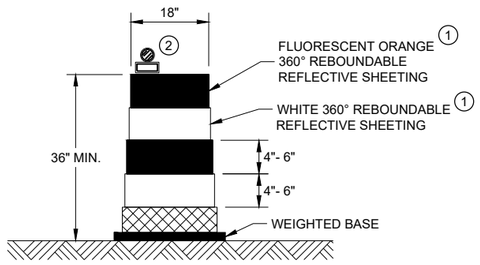
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
SDD 15C06-12

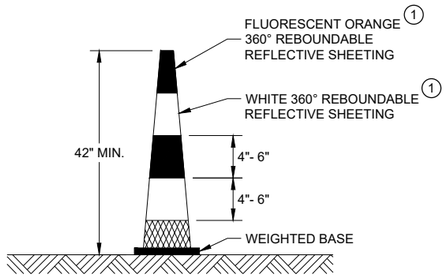
GENERAL NOTES

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

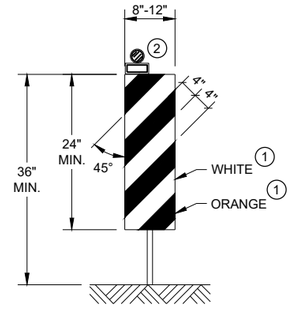
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

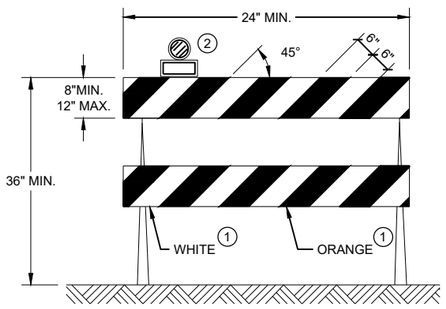
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



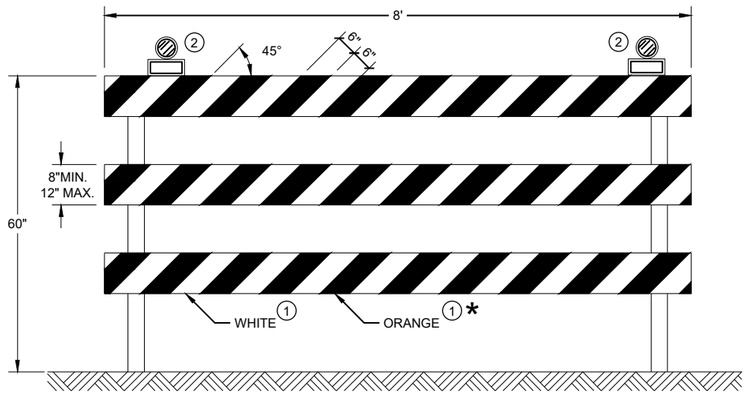
VERTICAL PANEL

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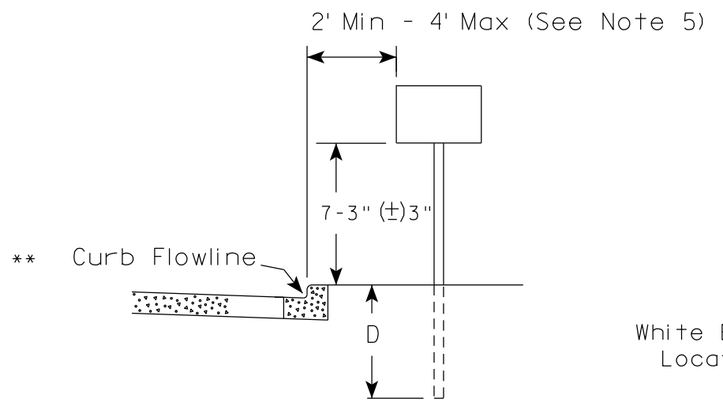
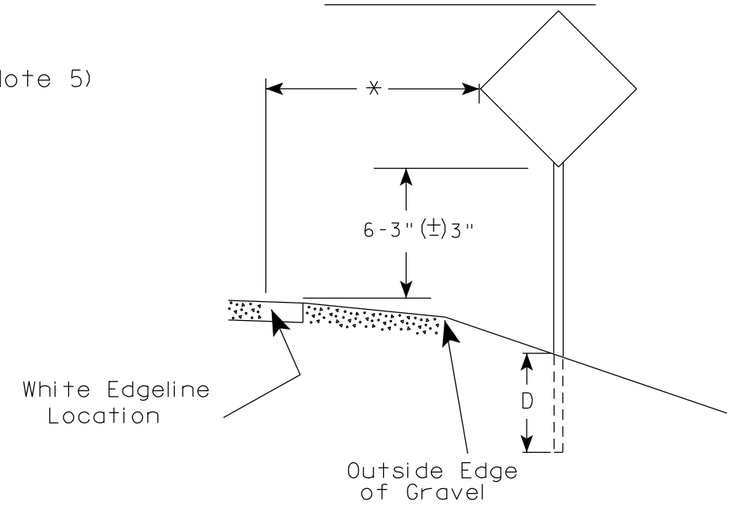
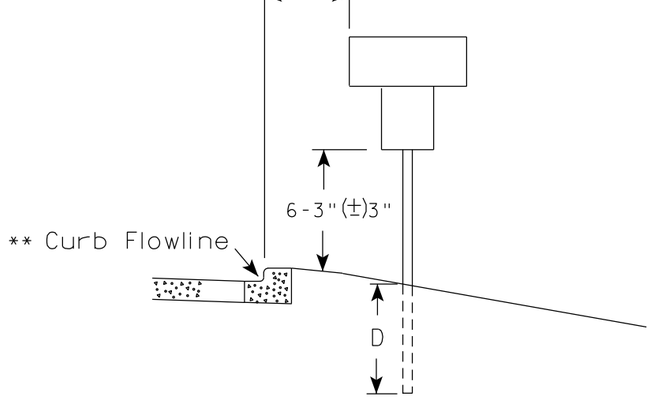
SDD 15C11 - 10b
SDD 15C11 - 10b

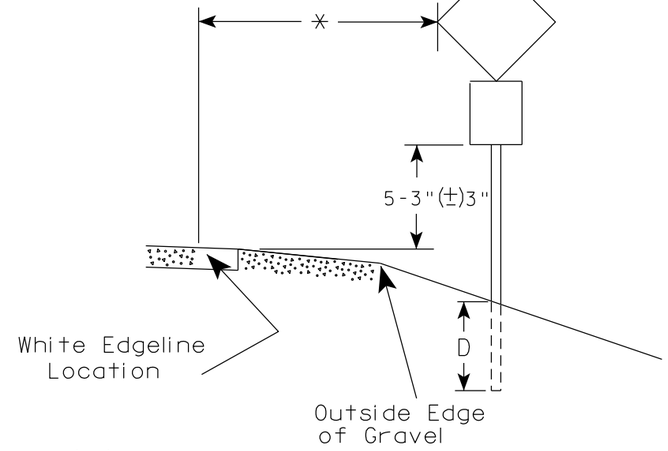
URBAN AREA



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.

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.

POST EMBEDMENT DEPTH

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

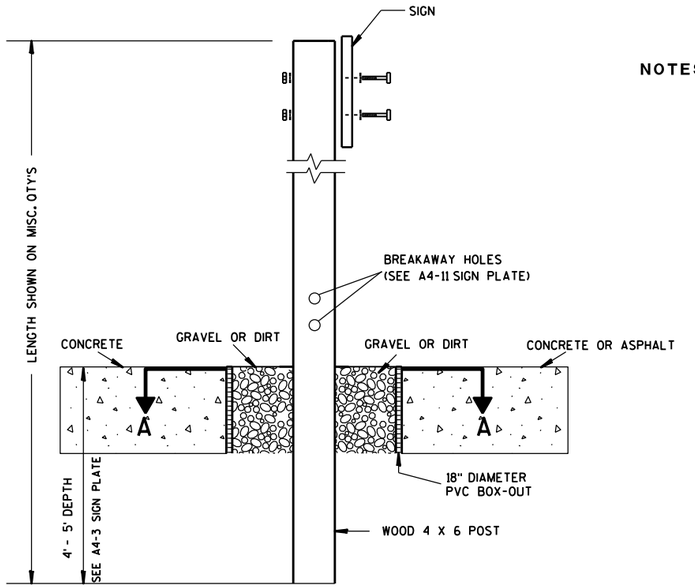
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

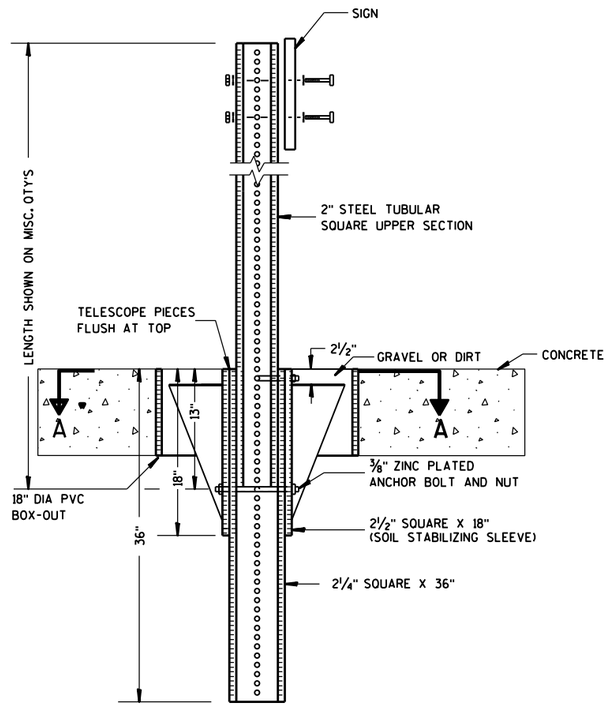
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 27	E



ELEVATION VIEW

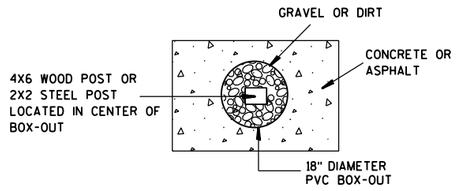
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

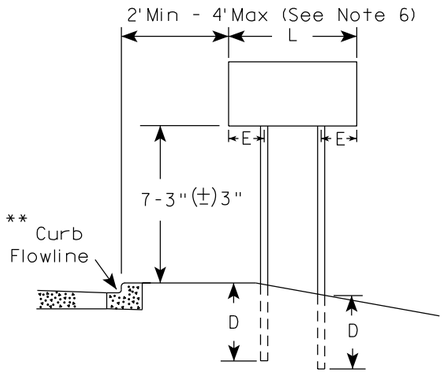
WISCONSIN DEPT OF TRANSPORTATION

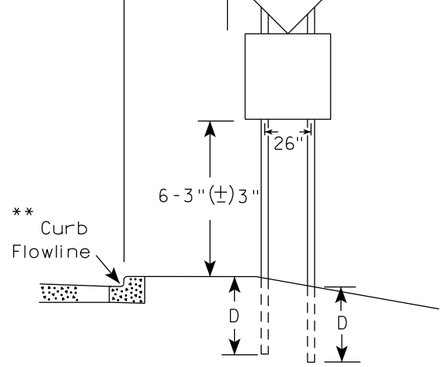
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

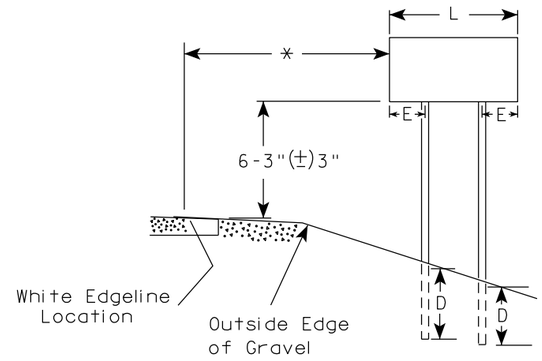
URBAN AREA

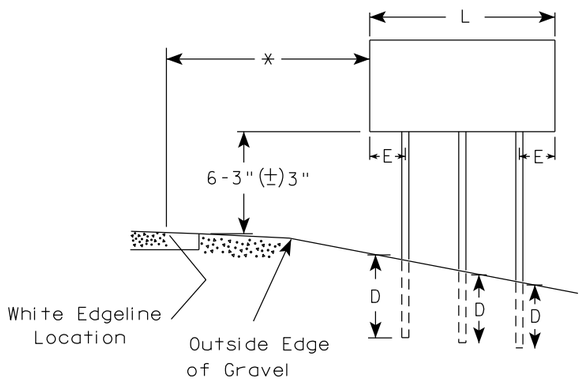


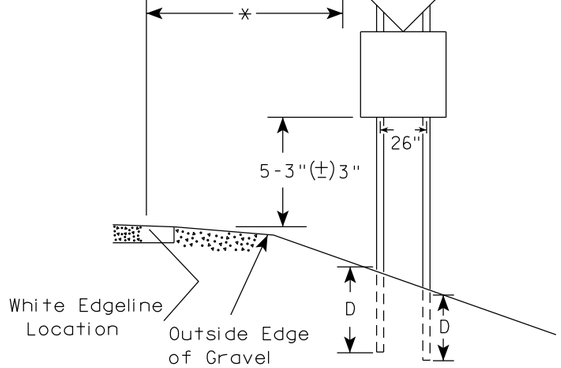


48" DIAMOND WARNING SIGN

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'

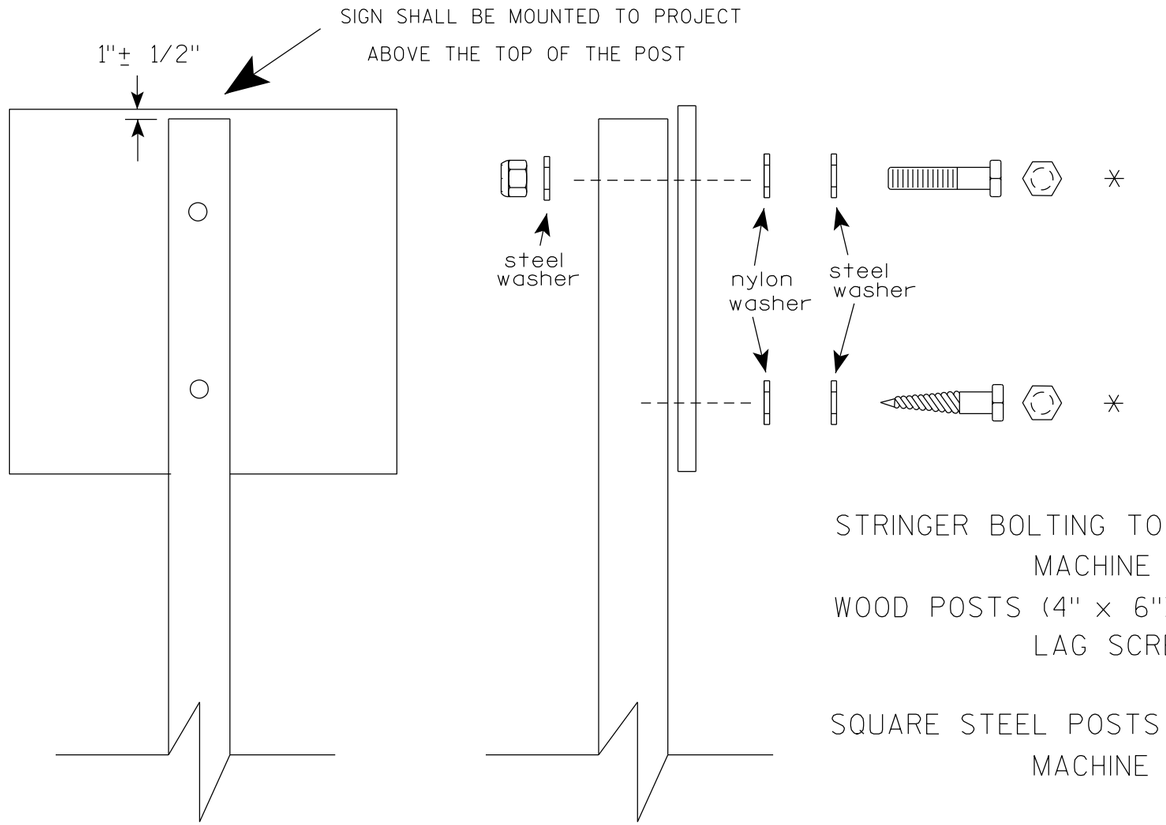
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 29	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

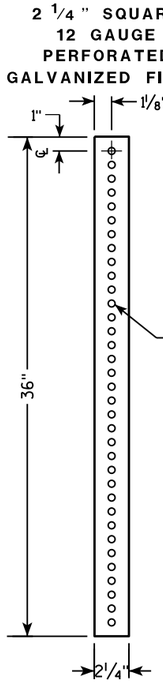
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

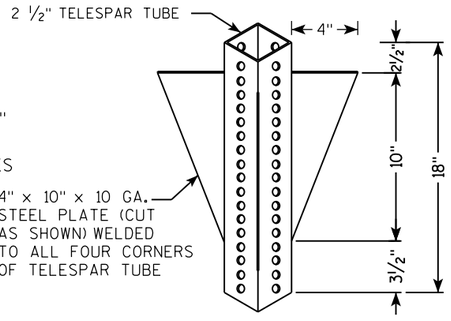
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

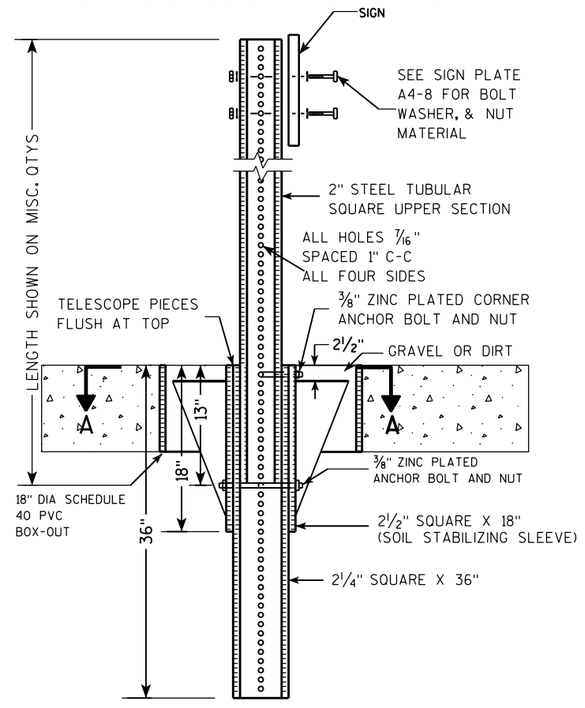
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



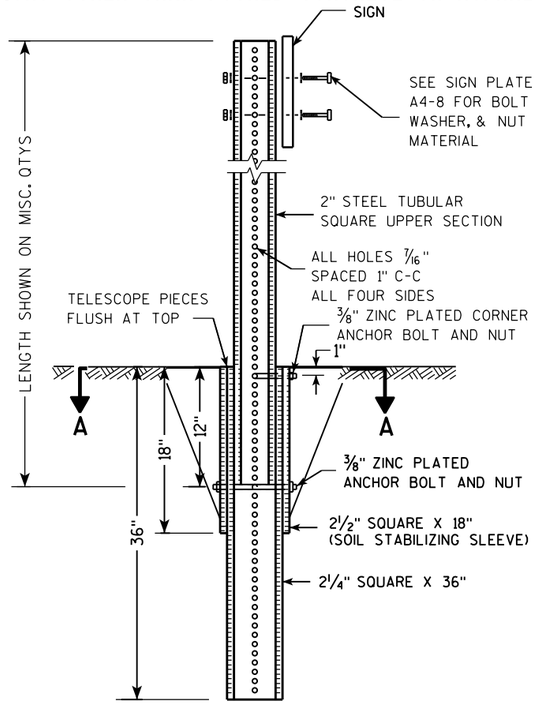
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

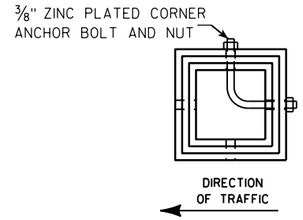


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

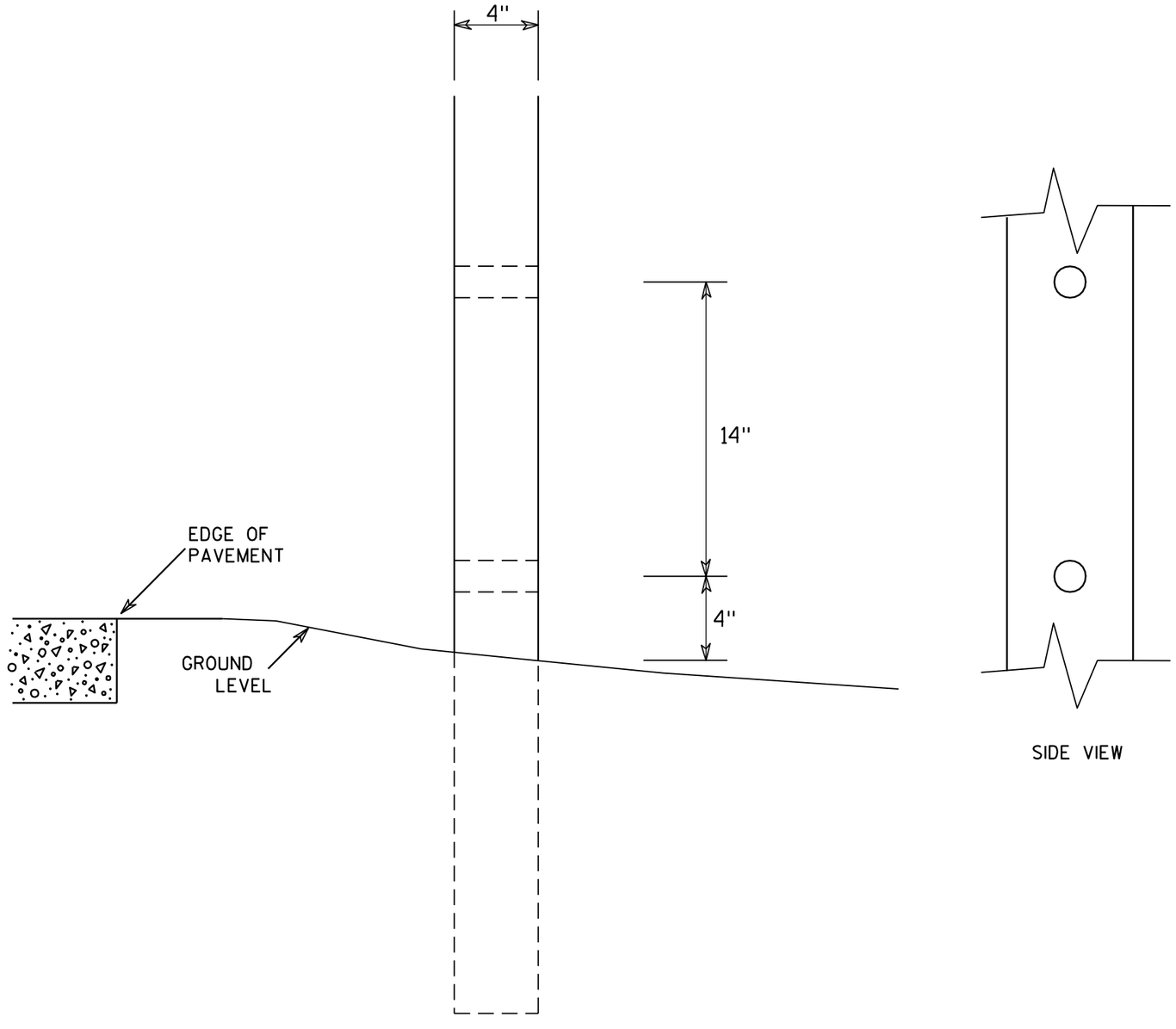
WISCONSIN DEPT OF TRANSPORTATION

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

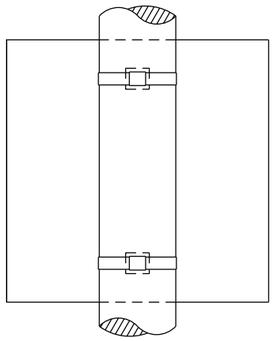
APPROVED Chester J Spang for State Traffic Engineer

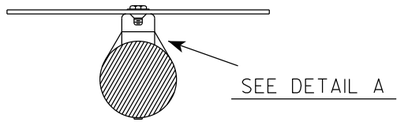
DATE 3/27/97 PLATE NO. A4-11.2

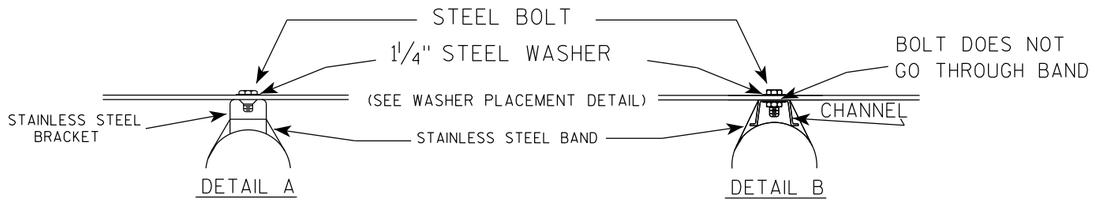
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 32	E

BANDING

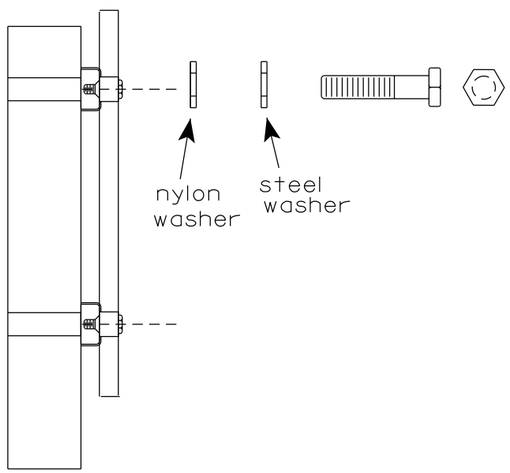
SINGLE SIGN







WASHER PLACEMENT

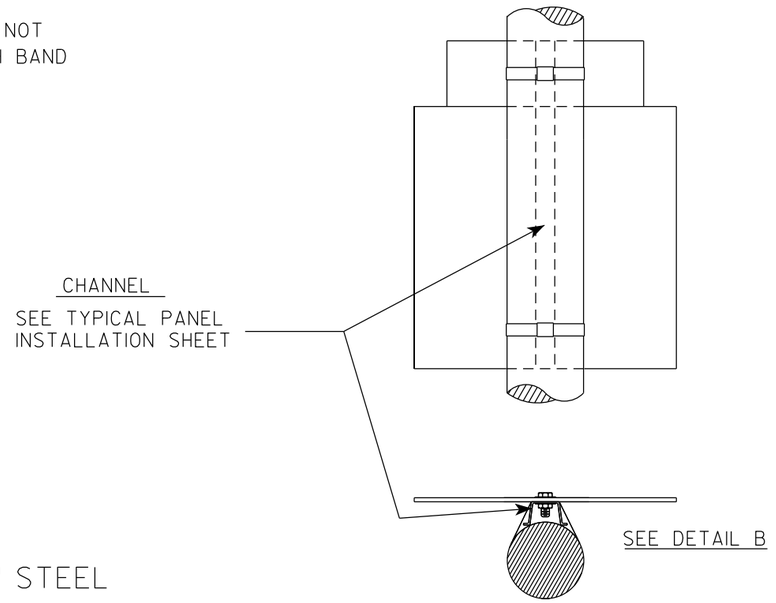


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

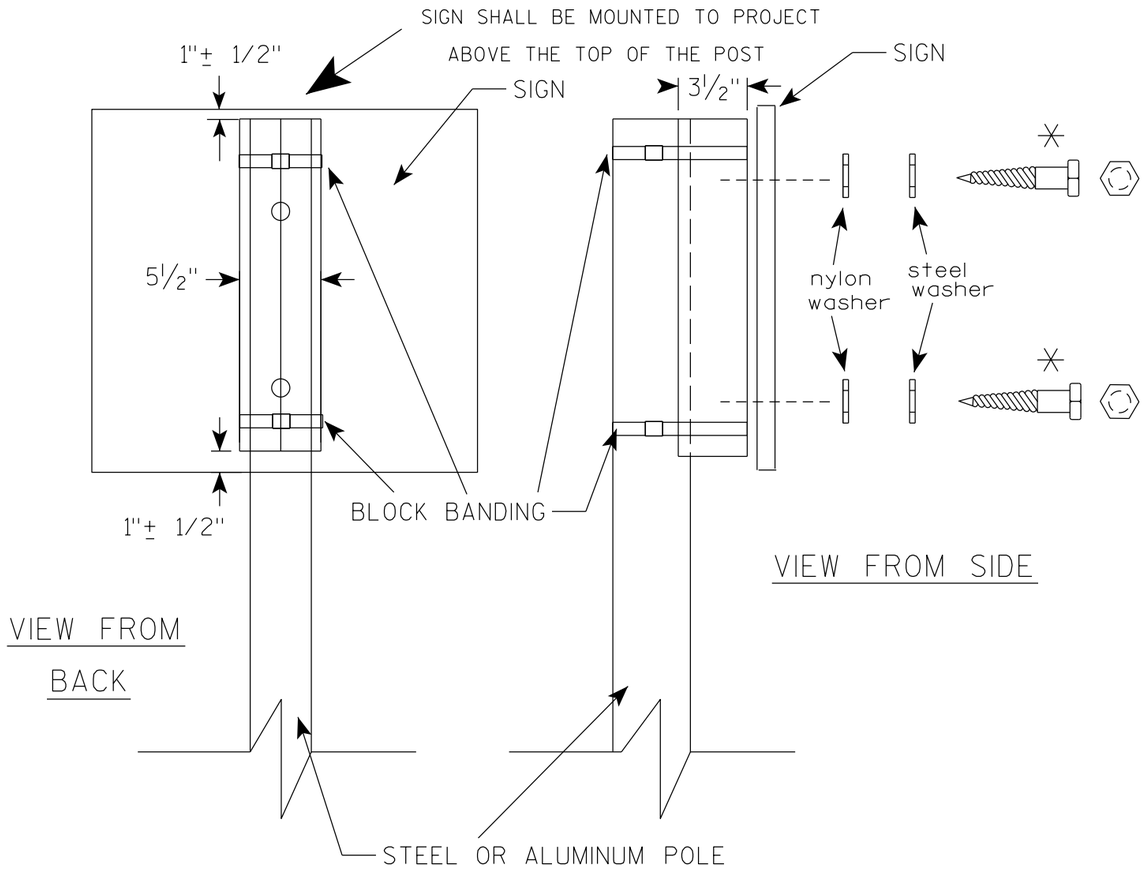
DATE 6/10/19 PLATE NO. A5-9.4

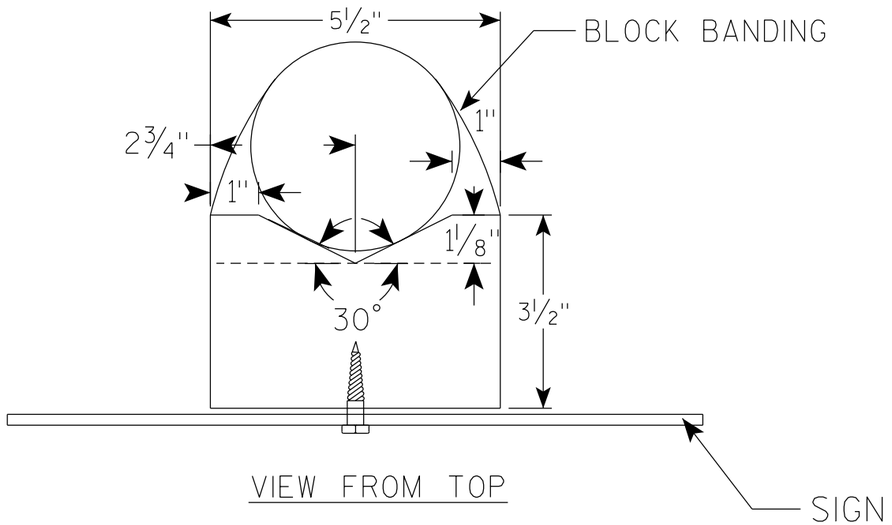
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 33	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





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)

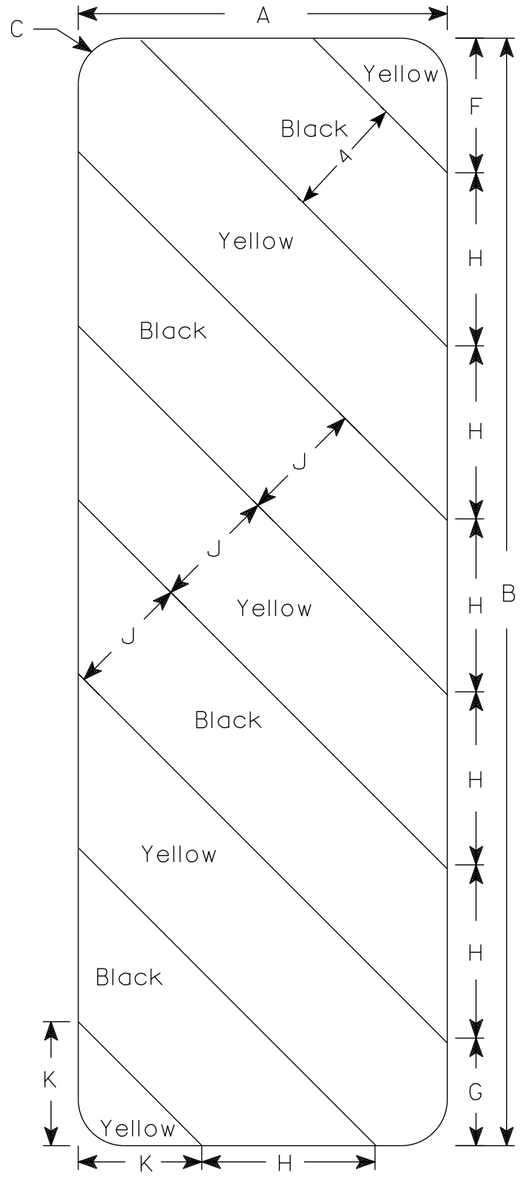
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

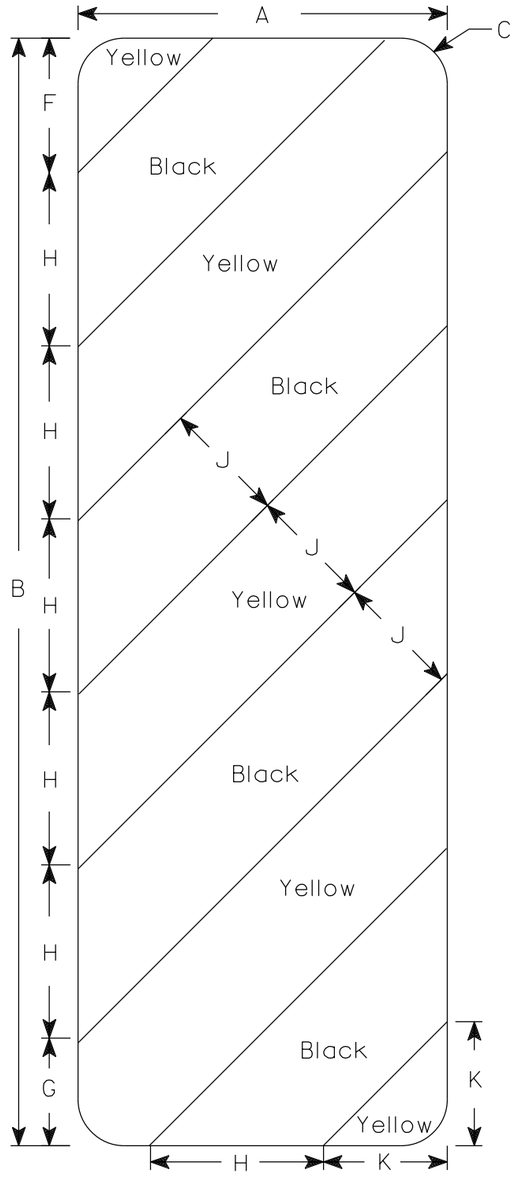
DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 34 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

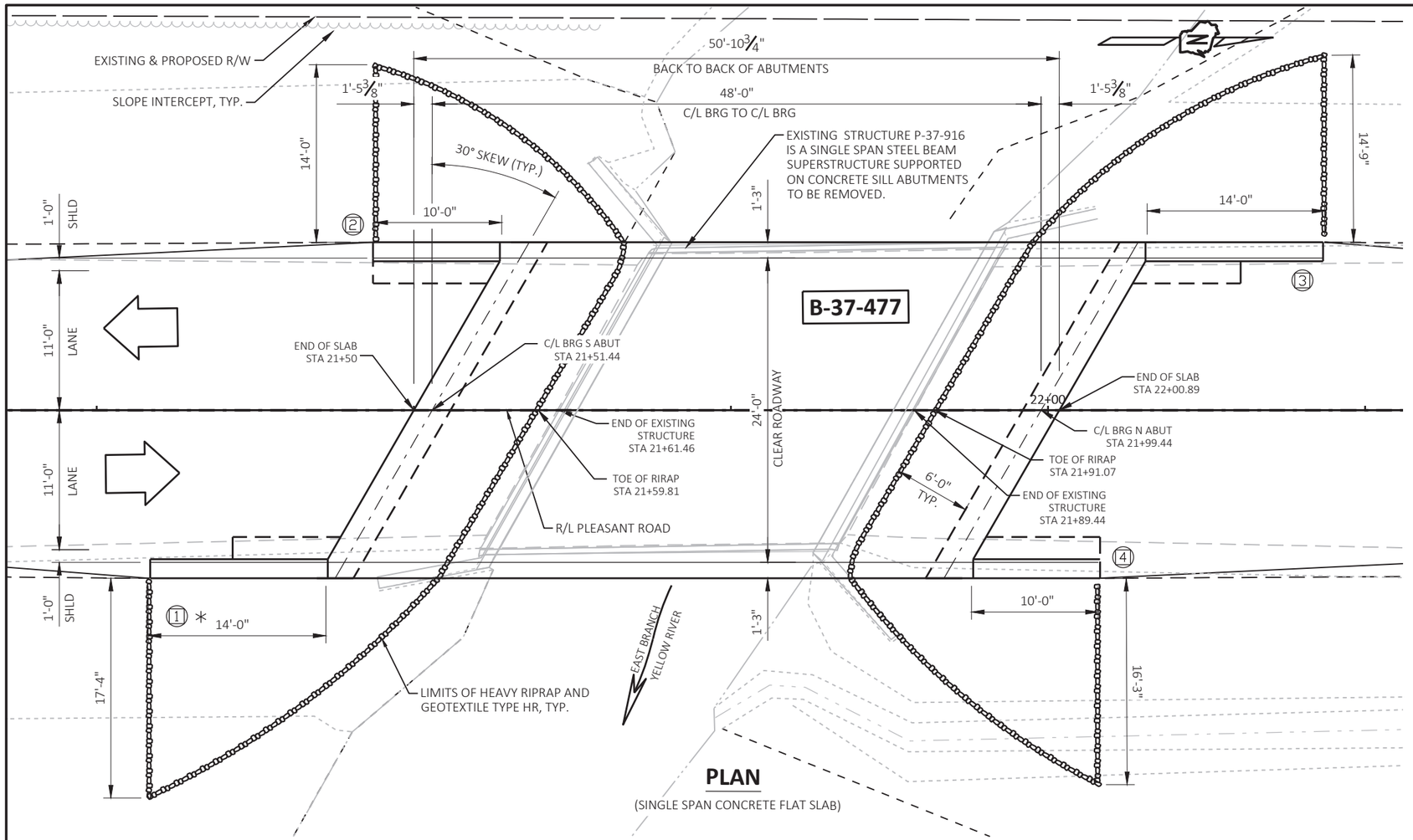
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

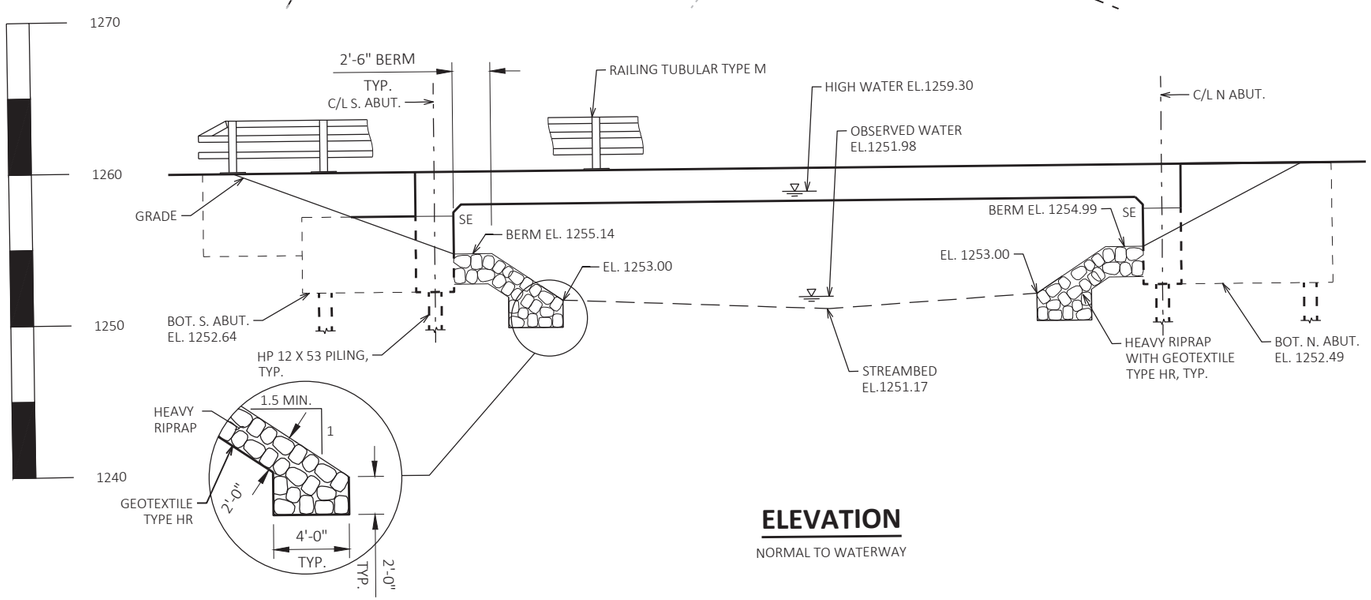
DATE 3/4/2024 PLATE NO. W5-52.10

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



PLAN

(SINGLE SPAN CONCRETE FLAT SLAB)



ELEVATION

NORMAL TO WATERWAY

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.007
OPERATING RATING: RF = 1.306
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

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10 X 42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 220 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED 15-'0" LONG AT ABUTMENTS.

**THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE PILE CAPACITY.

HYDRAULIC DATA

100-YEAR FREQUENCY:

Q_{100}= 1300 C.F.S.
V_{100}= 7.78 F.P.S.
HW_{100}= EL. 1259.30
WATERWAY AREA = 170 SQ. FT.
DRAINAGE AREA = 5.56 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 5

2-YEAR FREQUENCY:

Q_2= 300 C.F.S.
V_2= 2.77 F.P.S.
HW_2= EL 1256.02.

TRAFFIC DATA

PLEASANT ROAD:

ADT = 50 (2025)
ADT = 50 (2045)
R.D.S. = 55 MPH

LEGEND

(X) INDICATES WING NUMBER

* NAMEPLATE AND BENCHMARK LOCAITON

WISCONSIN
ANTHONY J. CASTLE E-43345 OAK CREEK WI
PROFESSIONAL ENGINEER
5/31/24

LIST OF DRAWINGS:

STRUCTURE DESIGN CONTACTS:

TONY CASTLE (EMCS) 414-935-5740
AARON BONK (WISDOT) 608-261-0261

STATE PROJECT NUMBER

6685-03-72

NO.	DATE	REVISION	BY

emcs
Transforming Challenges into Solutions

STATE OF WISCONSIN DEPARTMENT OF TRANSPORATION

ACCEPTED SDR 07/31/24
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-37-477

PLEASANT ROAD OVER E BR YELLOW RIVER

COUNTY	TOWN
MARATHON	SPENCER

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
JRM	AJC	JRM	AJC

GENERAL PLAN

SHEET 1 OF 11
36

I.D.
DATE:
SCALE =

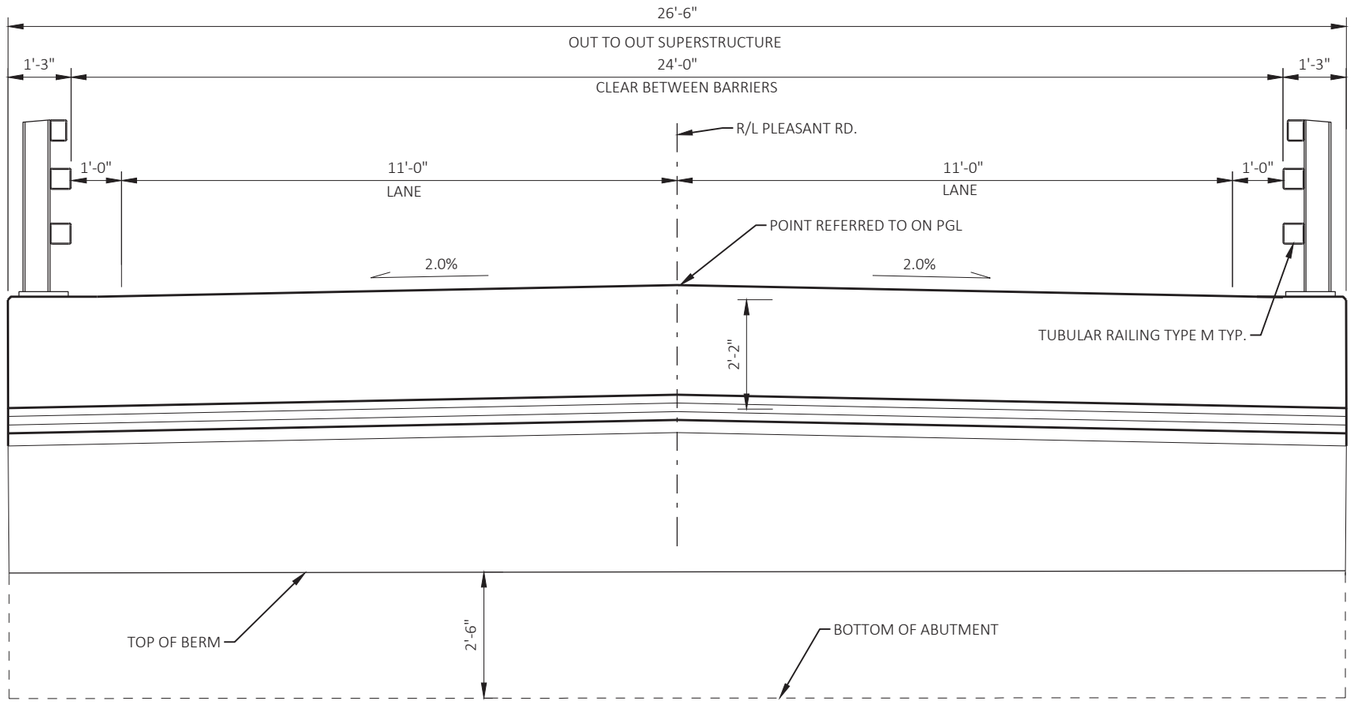
8

8

N:\55xx\5590.DP.23.PLEASANT.MAR\09 STRUCTURES\B-37-0477\Plan\080101_gpe.dwg, 5/30/2024 3:22:02 PM, WisDOT PDF.pc3

STATE PROJECT NUMBER

6685-03-72



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-37-477" SHALL BE THE EXISTING GROUNDLINE.

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.

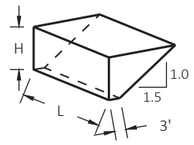
THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

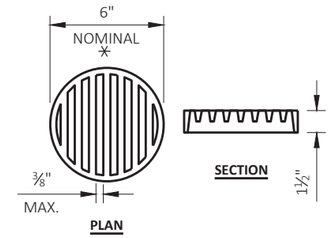
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON SHEET 1 AND THE ABUTMENT DETAILS.

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

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

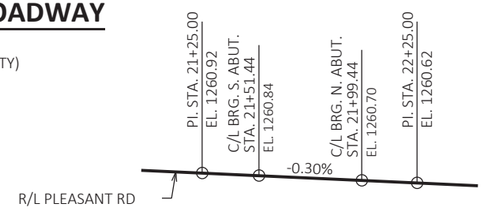
PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO ENTIRE TOP OF SLAB, INCLUDING THE SLAB EDGE AND 1'-0" UNDER THE SLAB, THE TOP AND EXTERIOR EXPOSED FACE OF WINGS AND FRONT FACE OF ABUTMENT TO 1'-0" PAST THE EDGE OF SLAB.





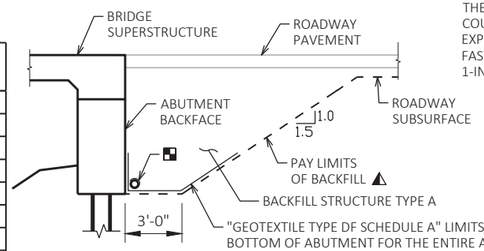
CROSS SECTION THRU ROADWAY

LOOKING UP STATION
(PILES OMITTED FOR CLARITY)



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)



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.

TOTAL ESTIMATED QUANTITIES

PROFILE GRADE LINE

BID ITEM NO.	BID ITEMS	UNIT	S ABUT.	N ABUT.	SUPER	TOTAL
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-37-916	EACH	-	-	-	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-37-477	EACH	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	140	140	-	280
502.0100	CONCRETE MASONRY BRIDGES	CY	30.1	30.0	112.8	173
502.3200	PROTECTIVE SURFACE TREATMENT	SY	11	11	186	208
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	4,515	4,500	-	9,015
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	3,010	3,010	19,640	25,660
506.0105	STRUCTURAL STEEL CARBON	LB	-	-	510	510
513.4061	RAILING TUBULAR TYPE M	LF	-	-	150	150
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	11	11	-	22
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	95	95	-	190
606.0300	RIPRAP HEAVY	CY	45	45	-	90
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	90	90	-	180
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	50	50	-	100
645.0120	GEOTEXTILE TYPE HR	SY	65	65	-	130
	NON-BID ITEMS					
	FILLER	SIZE	-	-	-	1/2", 3/4", 1 1/2"

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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-477

DRAWN BY JRM | PLANS CK'D AJC

TYPICAL SECTION & QUANTITIES

SHEET 2 OF 11
37

SCALE =

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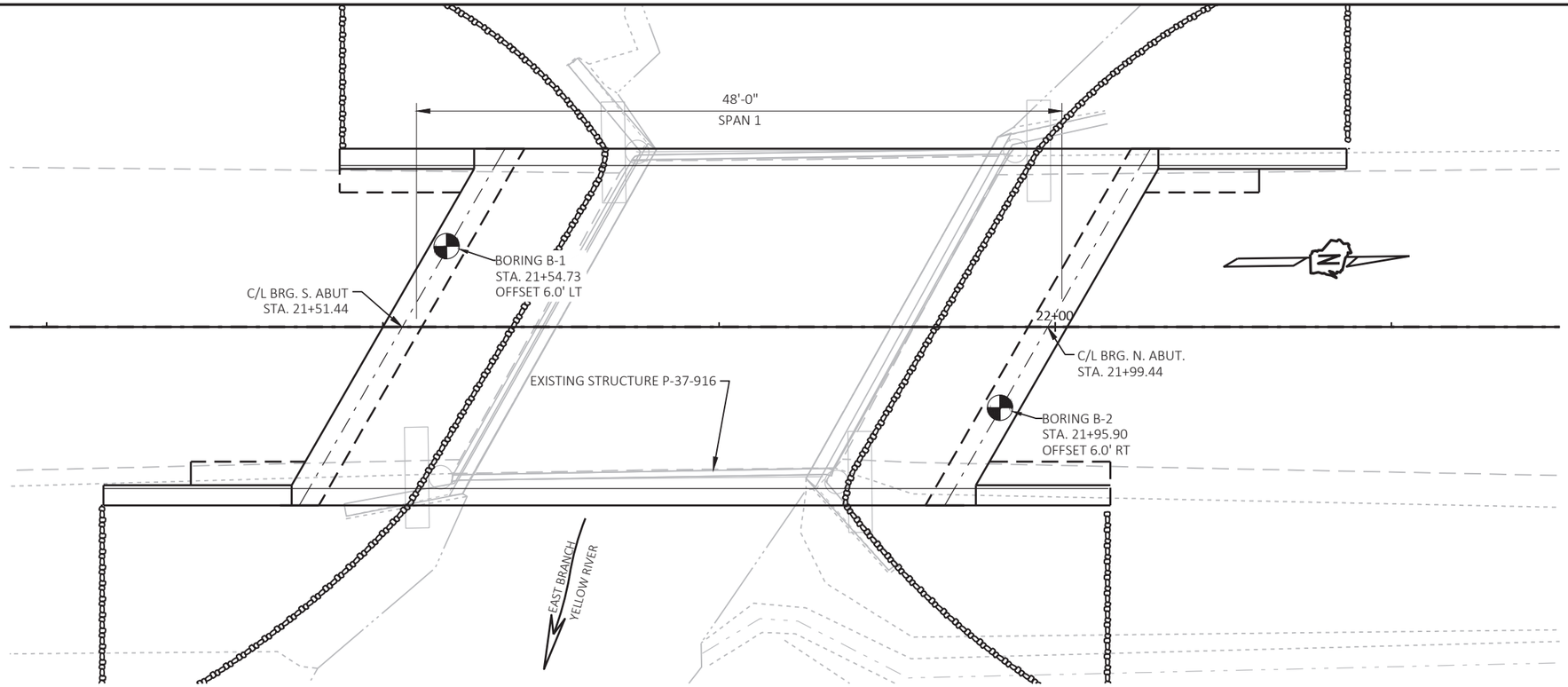

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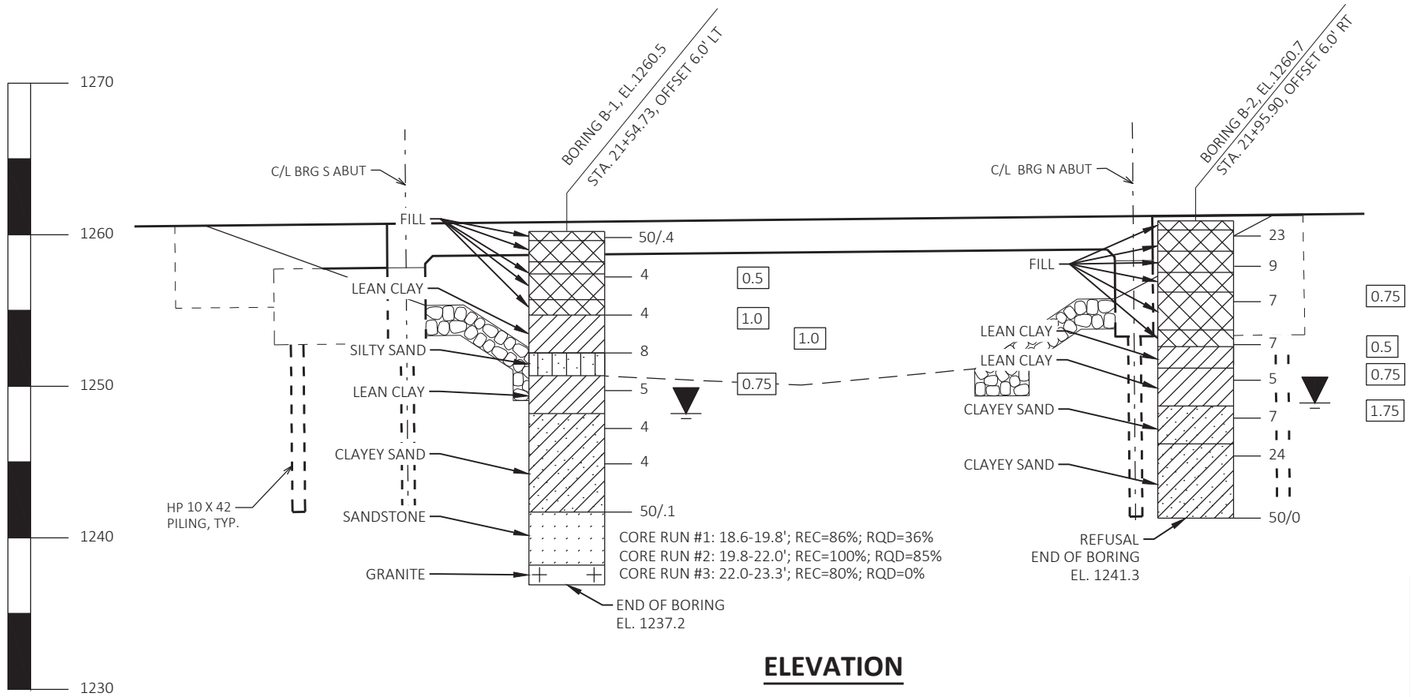


ELEVATION

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	8/15/2023	105228.17	123073.09
B-2	8/15/2023	105269.15	123085.69
BORINGS COMPLETED BY: AMERICAN ENGINEERING TESTING, SCHOFIELD, WI			
REPORT COMPLETED BY: AMERICAN ENGINEERING TESTING, SCHOFIELD, WI			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2011) MARATHON COUNTY			

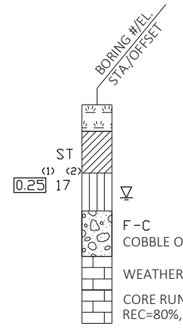
STATE PROJECT NUMBER

6685-03-72

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-37-477

DRAWN BY KRW | PLANS CK'D AJC

SUBSURFACE EXPLORATION

SHEET 3 of 11

38

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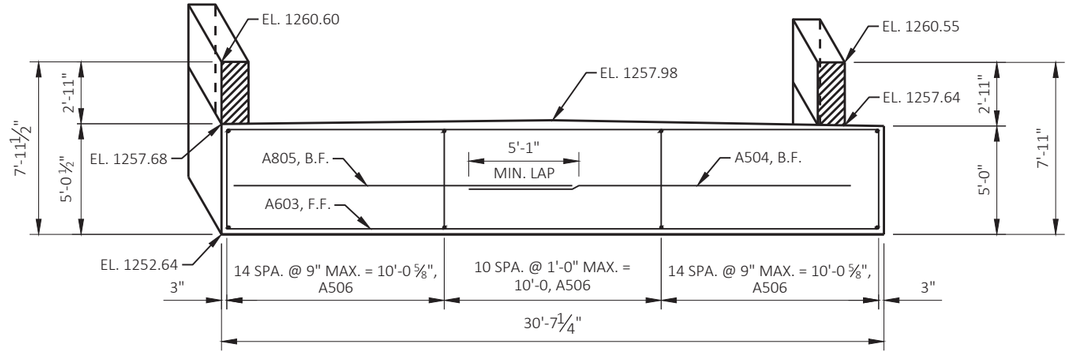
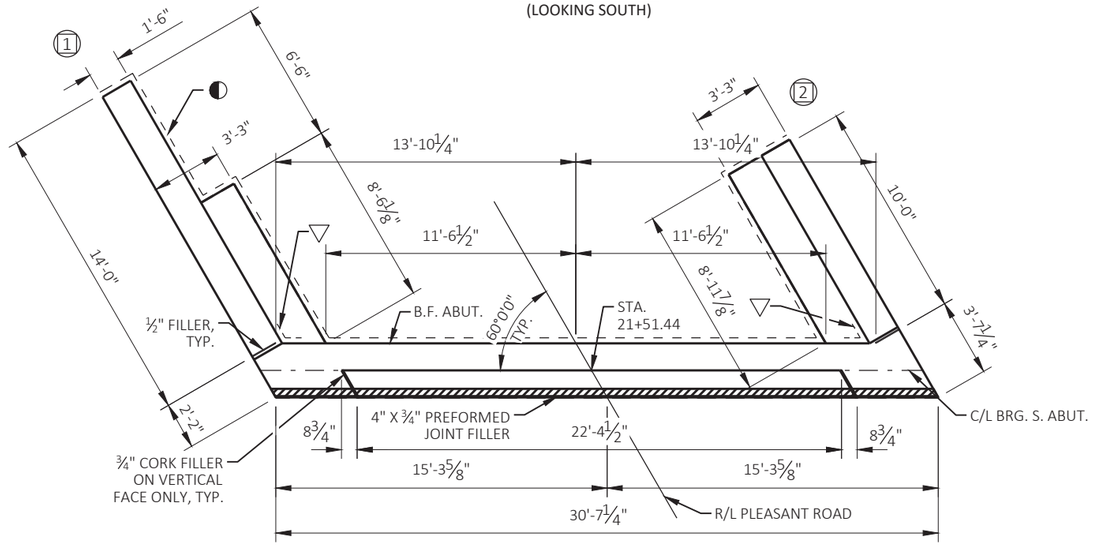
STATE PROJECT NUMBER

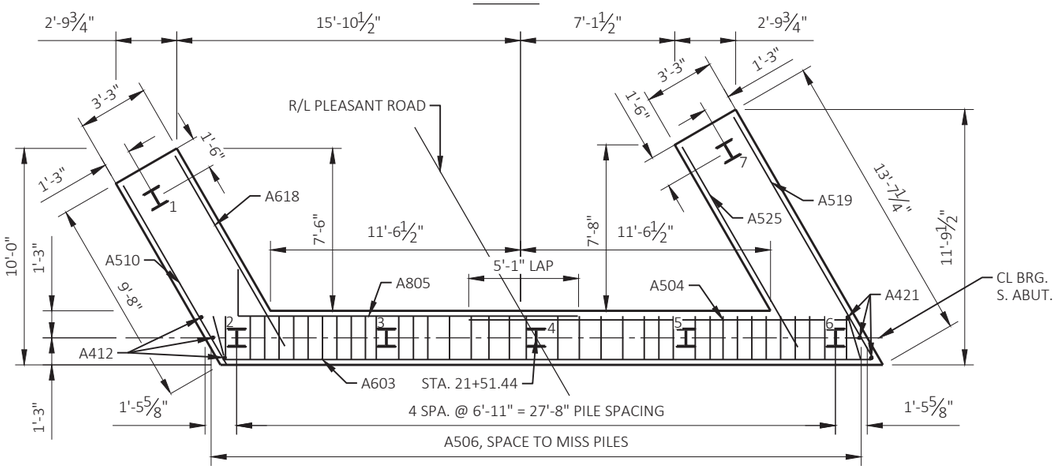
6685-03-72



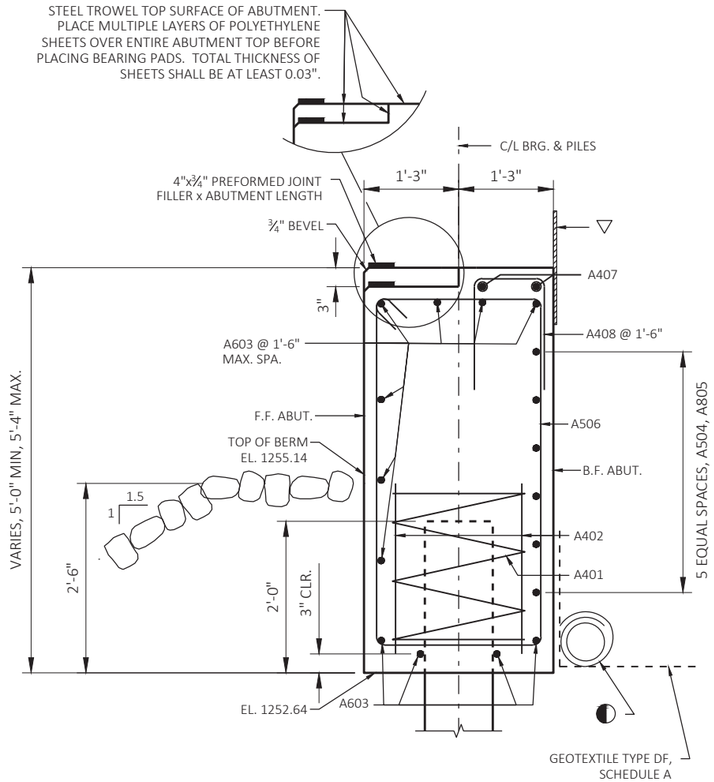
ELEVATION
(LOOKING SOUTH)



PLAN



PILE PLAN



SECTION THRU BODY

▽ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

◐ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON "CROSS SECTION & QUANTITIES" SHEET. RODENT SHIELD TO BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

(X) INDICATES WING NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-477

DRAWN BY AMR | PLANS CK'D AJC

SOUTH ABUTMENT

SHEET 4 OF 11

39

SCALE =

8

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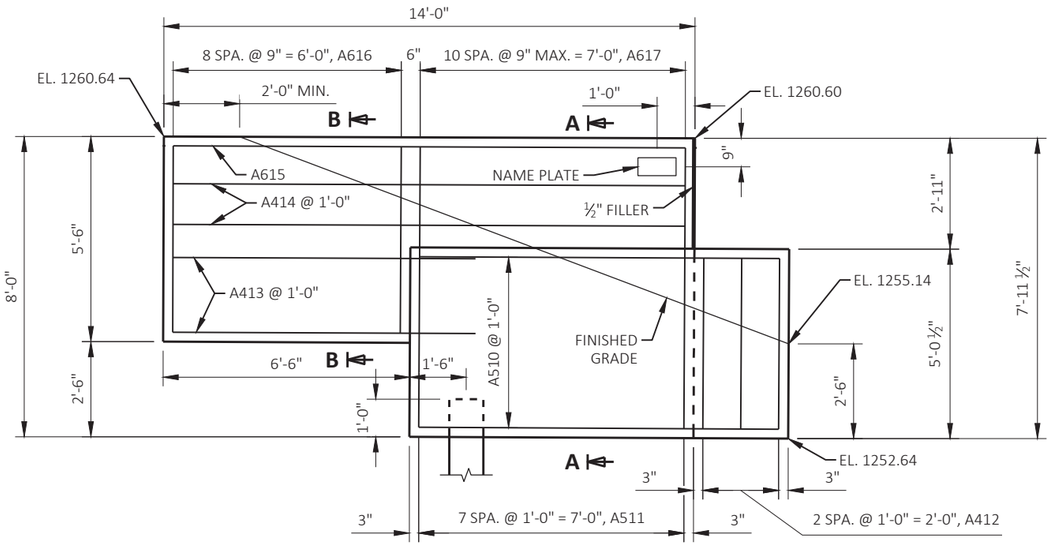
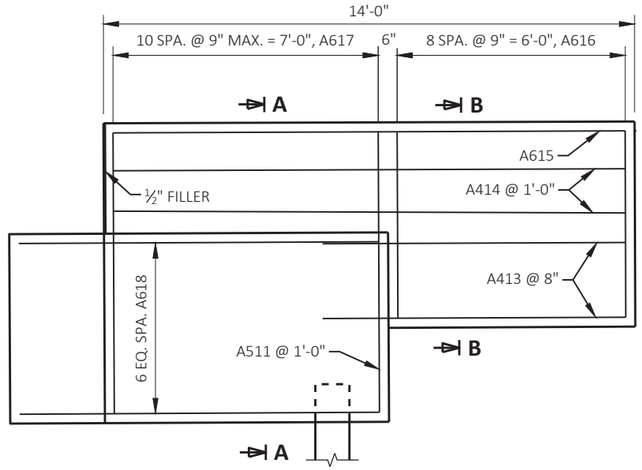
STATE PROJECT NUMBER

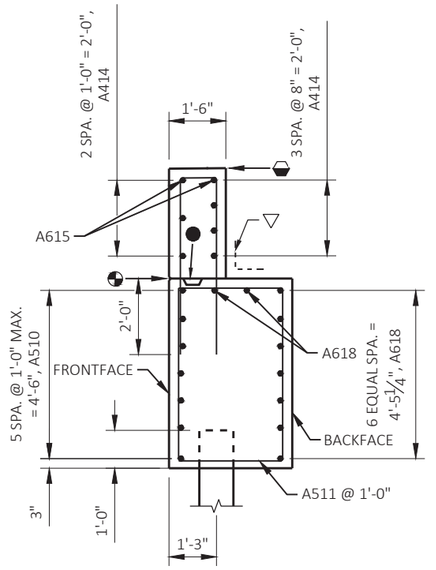
6685-03-72



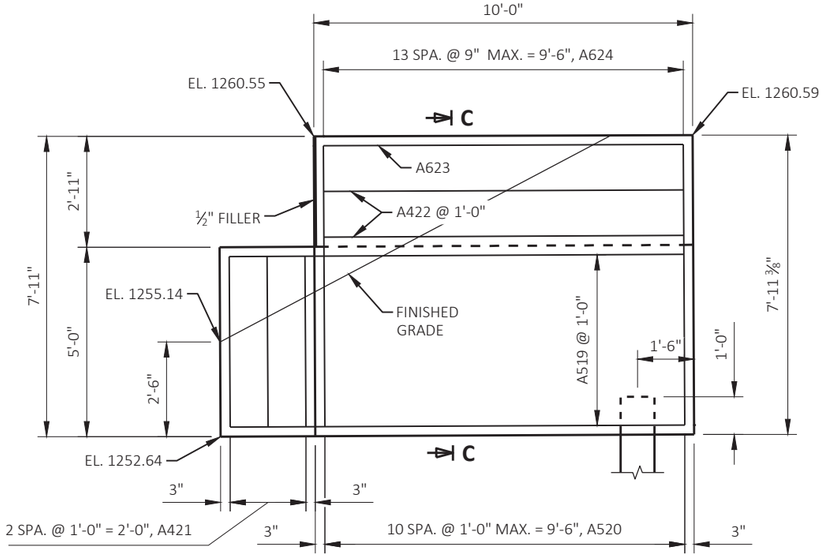
WING 1 ELEVATION
(FRONT FACE)



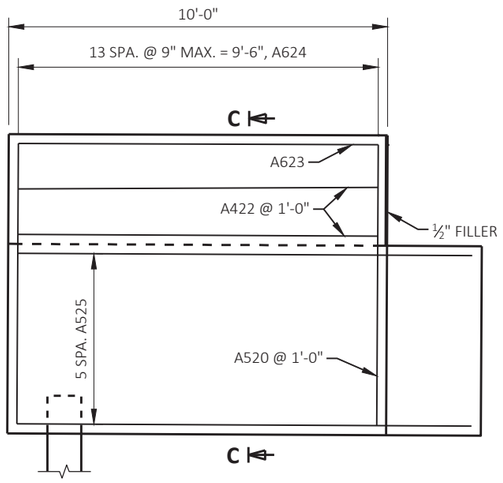
WING 1 ELEVATION
(BACK FACE)



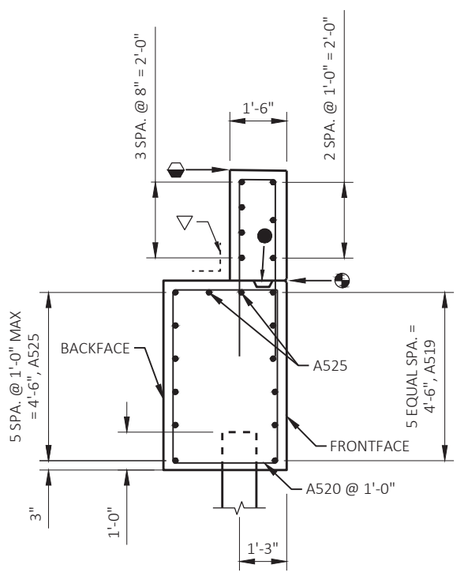
SECTION A-A



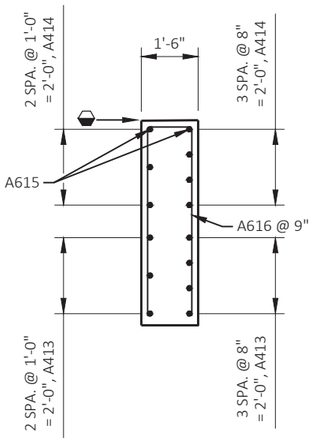
WING 2 ELEVATION
(FRONT FACE)



WING 2 ELEVATION
(BACK FACE)



SECTION C-C



SECTION B-B

- SLOPE SAME AS SUPERSTRUCTURE.
- ¾" "V" GROOVE ON FRONT FACE OF WINGWALL.
- OPT. KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 2" X 6".
- ▽ 18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.

FOR PILE SPLICE DETAIL SEE "ABUTMENT DETAILS" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-477

DRAWN BY AMR | PLANS CK'D AJC

SOUTH ABUTMENT DETAILS

SHEET 5 OF 11
40

SCALE =

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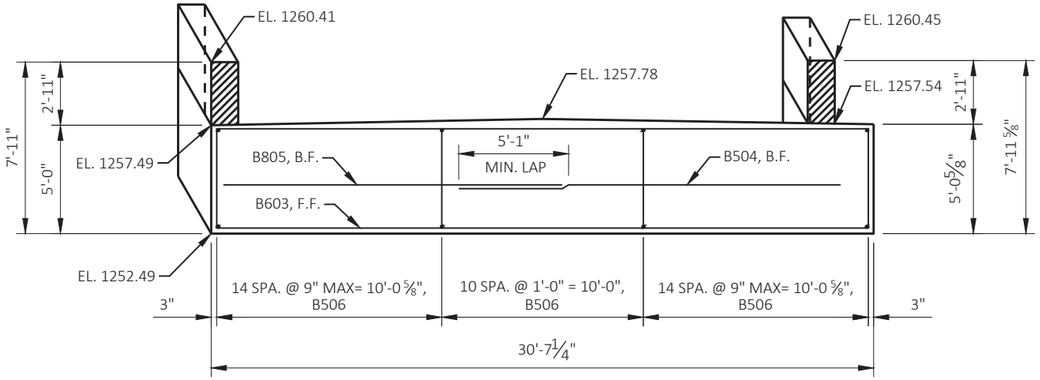
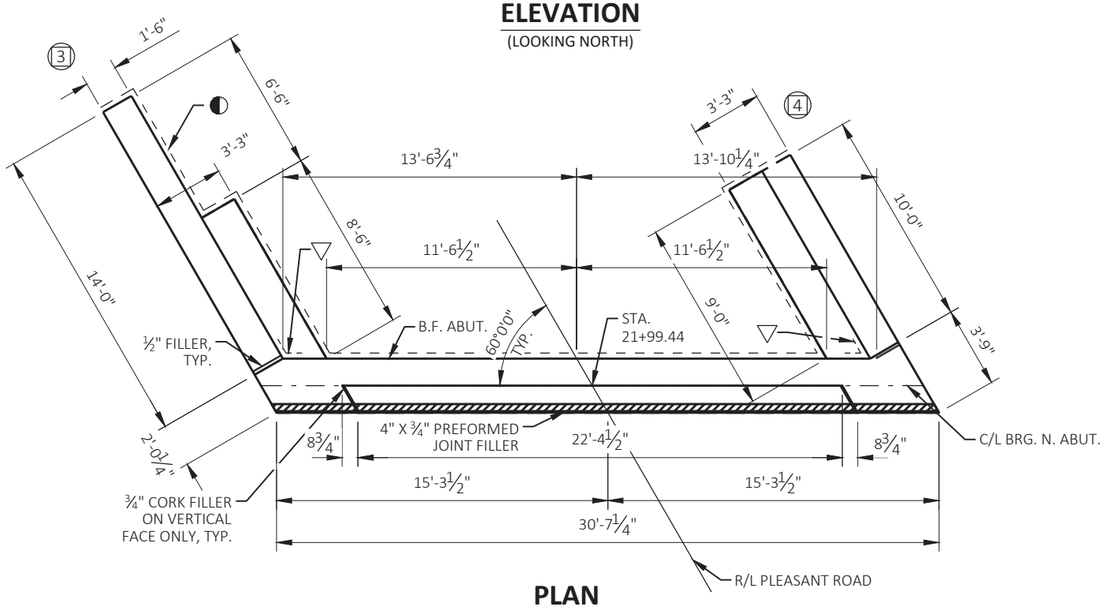
STATE PROJECT NUMBER

6685-03-72



ELEVATION
(LOOKING NORTH)



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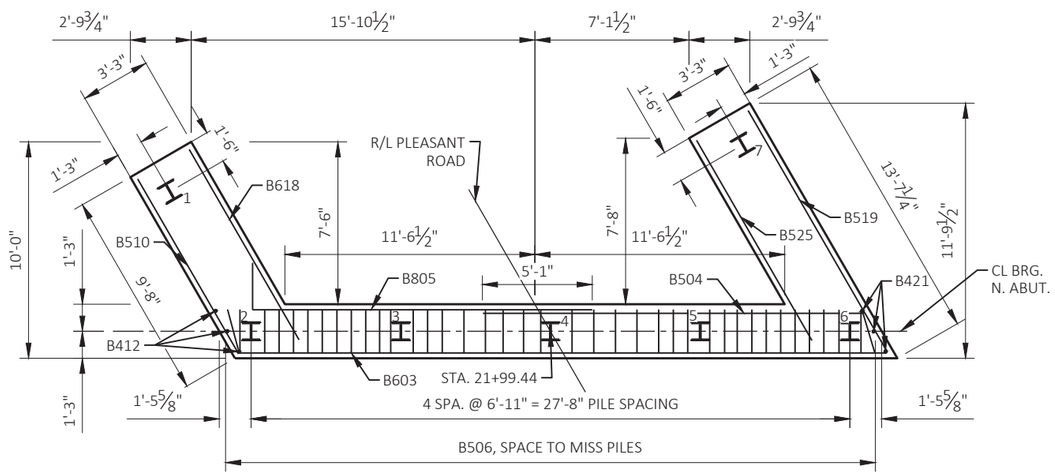
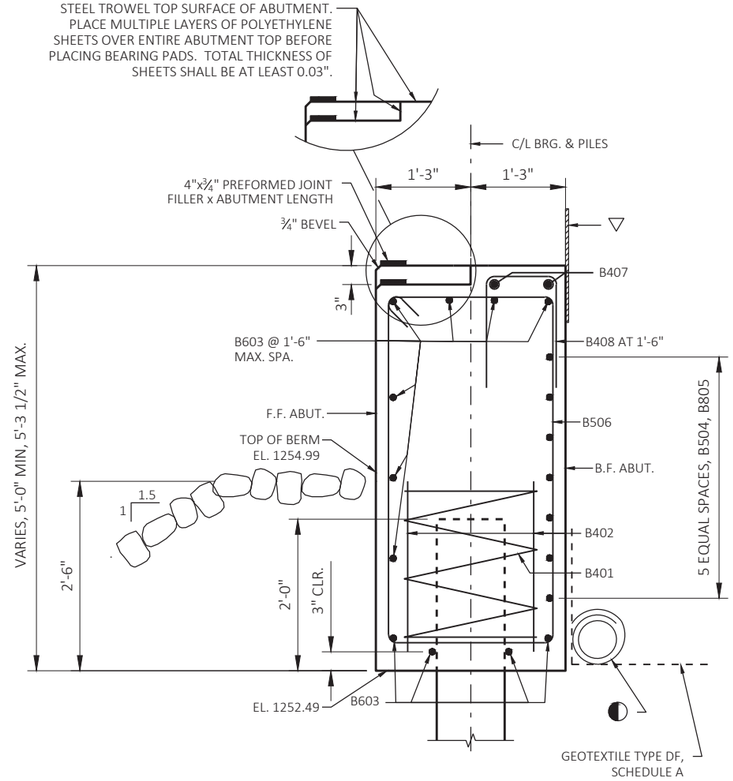


PILE PLAN



SECTION THRU BODY

▽ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

◐ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON "CROSS SECTION & QUANTITIES" SHEET. RODENT SHIELD TO BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

(X) INDICATES WING NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-477

DRAWN BY AMR | PLANS CK'D AJC

NORTH ABUTMENT

SHEET 6 OF 11
41

SCALE =

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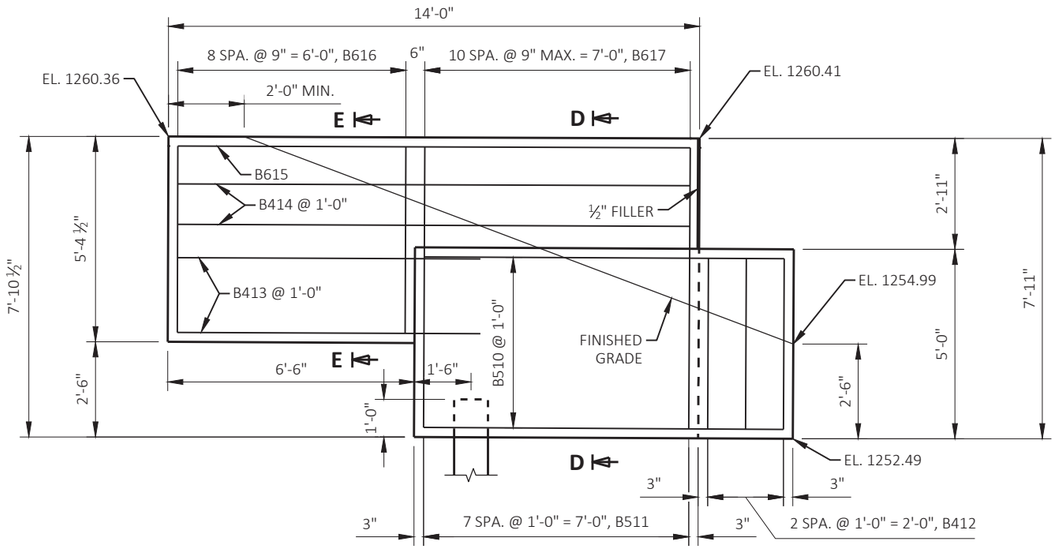
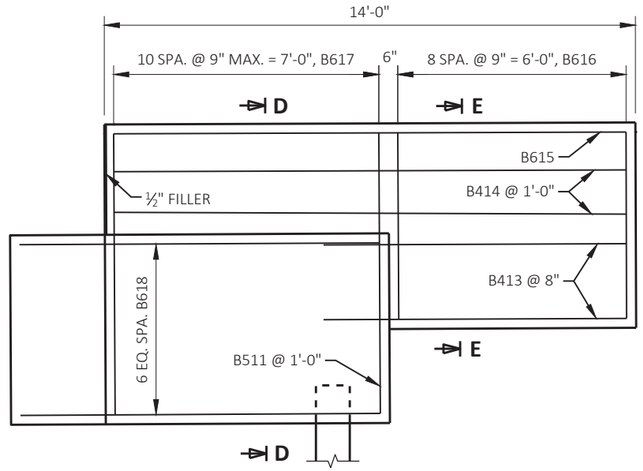
STATE PROJECT NUMBER

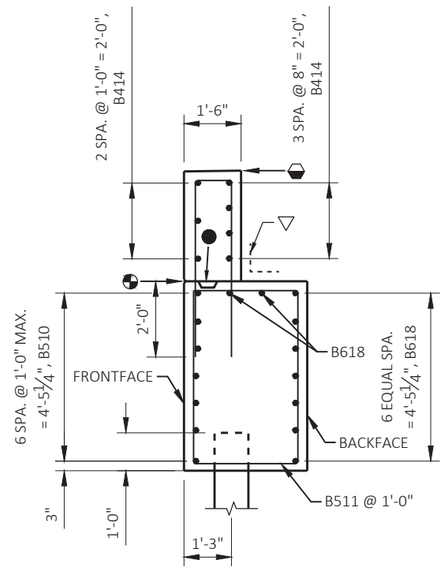
6685-03-72



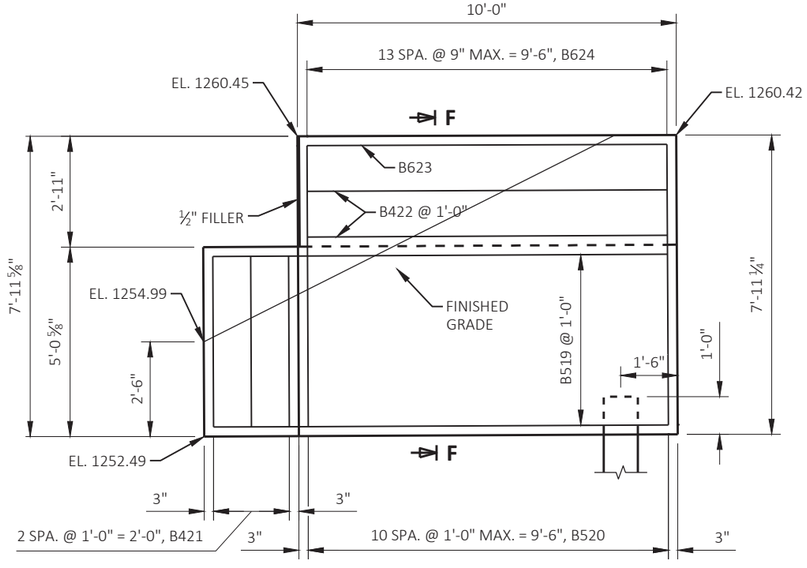
WING 3 ELEVATION
(FRONT FACE)



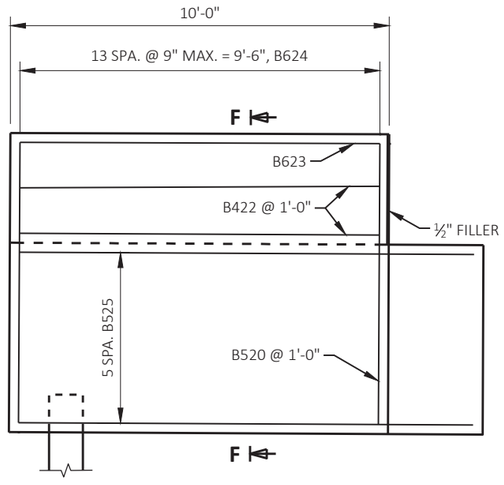
WING 3 ELEVATION
(BACK FACE)



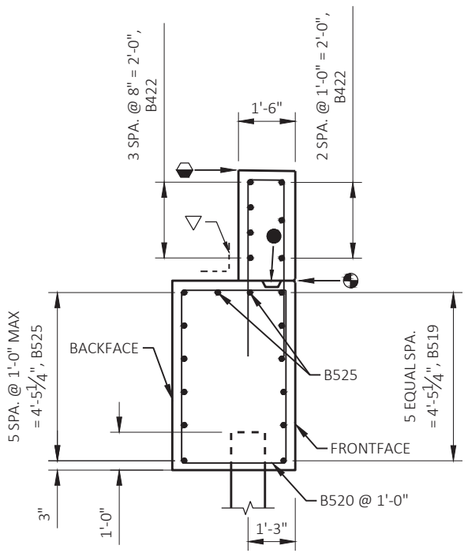
SECTION D-D



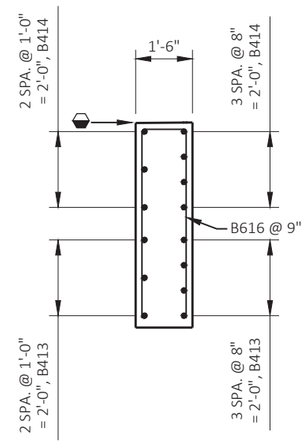
WING 4 ELEVATION
(FRONT FACE)



WING 4 ELEVATION
(BACK FACE)



SECTION F-F



SECTION E-E

- SLOPE SAME AS SUPERSTRUCTURE.
- ¾" "V" GROOVE ON FRONT FACE OF WINGWALL.
- OPT. KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 2" X 6".
- 18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.

FOR PILE SPLICE DETAIL SEE "ABUTMENT DETAILS" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-477

DRAWN BY AMR | PLANS CK'D AJC

NORTH ABUTMENT DETAILS

SHEET 7 OF 11
42

SCALE =

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STATE PROJECT NUMBER

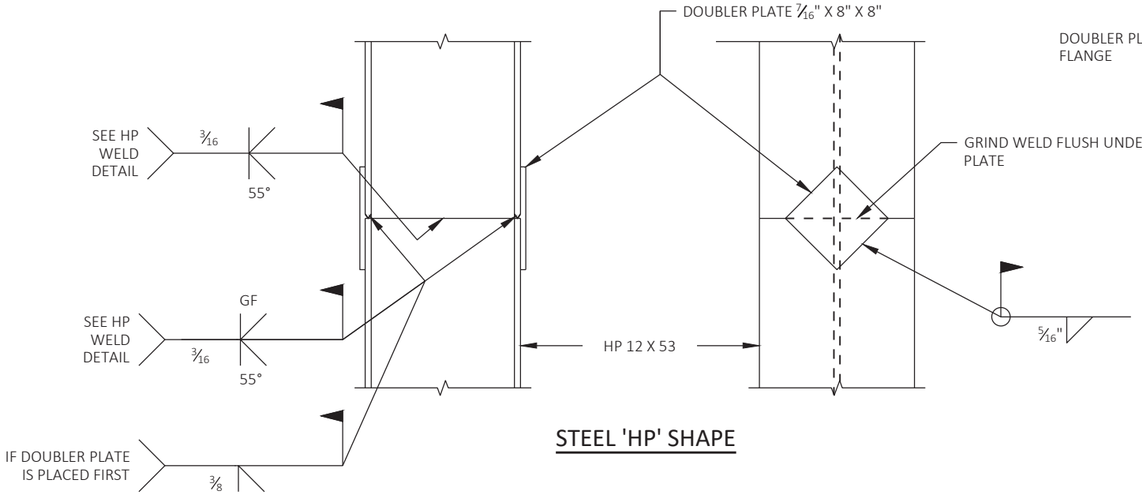
6685-03-72

SOUTH ABUTMENT BILL OF BARS

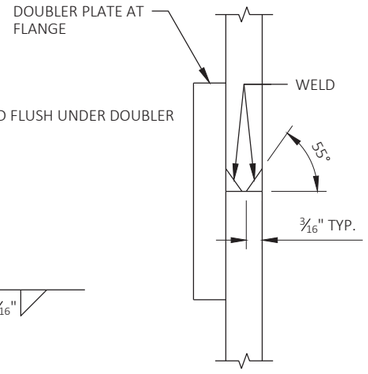
BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
A401	X	7	28'-0"	X	ABUT PILES - 1 PER PILE
A402	X	14	2'-3"		ABUT PILES - 2 PER PILE
A603	X	11	30'-2"		ABUT BODY - HORIZ
A504	X	6	15'-10"		ABUT BODY - HORZ BF
A805	X	6	16'-9"	X	ABUT BODY - HORZ BF
A506	X	39	13'-8"	X	ABUT BODY STIRRUPS
A407	X	2	30'-2"		ABUT. BODY HORIZ. TOP
A408	X	6	3'-9"	X	ABUT BODY STIRRUPS
A510	X	6	9'-4"		WING 1 LOWER HORIZ FF
A511	X	8	15'-8"	X	WING 1 LOWER STIRRUP
A412	X	3	4'-6"		ABUT FF - VERT
A413	X	7	7'-9"		WING 1 UPPER HORIZ
A414	X	5	13'-6"		WING 1 UPPER HORIZ FF
A615	X	2	13'-6"		WING 1 UPPER HORIZ FF
A616	X	9	10'-8"	X	WING 1 UPPER VERT.
A617	X	11	10'-4"	X	WING 1 UPPER VERT.
A618	X	7	9'-5"		WING 1 LOWER HORIZ BF
A519	X	6	13'-2"		WING 2 LOWER HORIZ FF
A520	X	11	15'-6"	X	WING 2 LOWER STIRRUP
A421	X	3	4'-6"		ABUT FF - VERT
A422	X	5	9'-6"		WING 2 UPPER HORIZ FF
A623	X	2	9'-6"		WING 2 UPPER HORIZ TOP
A624	X	14	10'-4"	X	WING 2 UPPER VERT.
A525	X	8	11'-2"		WING 2 LOWER HORIZ BF

NORTH ABUTMENT BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
B401	X	7	28'-0"	X	ABUT PILES - 1 PER PILE
B402	X	14	2'-3"		ABUT PILES - 2 PER PILE
B603	X	11	30'-2"		ABUT BODY - HORIZ
B504	X	6	15'-10"		ABUT BODY - HORZ BF
B805	X	6	16'-9"	X	ABUT BODY - HORZ BF
B506	X	39	13'-8"	X	ABUT BODY STIRRUPS
B407	X	2	30'-2"		ABUT. BODY HORIZ. TOP
B408	X	6	3'-9"	X	ABUT BODY STIRRUPS
B510	X	6	9'-4"		WING 3 LOWER HORIZ FF
B511	X	8	15'-8"	X	WING 3 LOWER STIRRUP
B412	X	3	4'-6"		ABUT FF - VERT
B413	X	7	7'-9"		WING 3 UPPER HORIZ
B414	X	5	13'-6"		WING 3 UPPER HORIZ FF
B615	X	2	13'-6"		WING 3 UPPER HORIZ FF
B616	X	9	10'-8"	X	WING 3 UPPER VERT.
B617	X	11	10'-4"	X	WING 3 UPPER VERT.
B618	X	7	9'-5"		WING 3 LOWER HORIZ BF
B519	X	6	13'-2"		WING 4 LOWER HORIZ FF
B520	X	11	15'-6"	X	WING 4 LOWER STIRRUP
B421	X	3	4'-6"		ABUT FF - VERT
B422	X	5	9'-6"		WING 4 UPPER HORIZ FF
B623	X	2	9'-6"		WING 4 UPPER HORIZ
B624	X	14	10'-4"	X	WING 4 UPPER VERT.
B525	X	8	11'-2"		WING 4 LOWER HORIZ BF

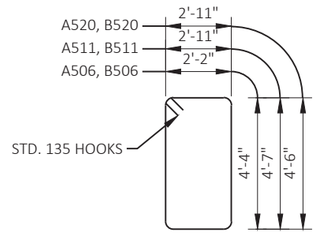


STEEL 'HP' SHAPE

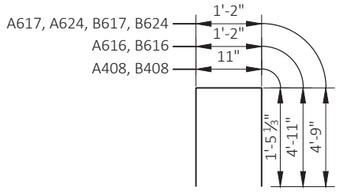


HP WELD DETAIL

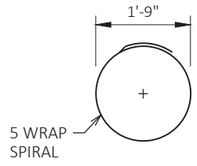
'HP' PILE DETAILS



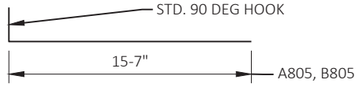
A506, B506, A511, B511, A520, B520



A408, B408, A616, B616, A617, B617, A624, B624



A401, B401



A805, B805

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-477

DRAWN BY AMR | PLANS CK'D AJC

ABUTMENT DETAILS

SHEET 8 OF 11

43

SCALE =

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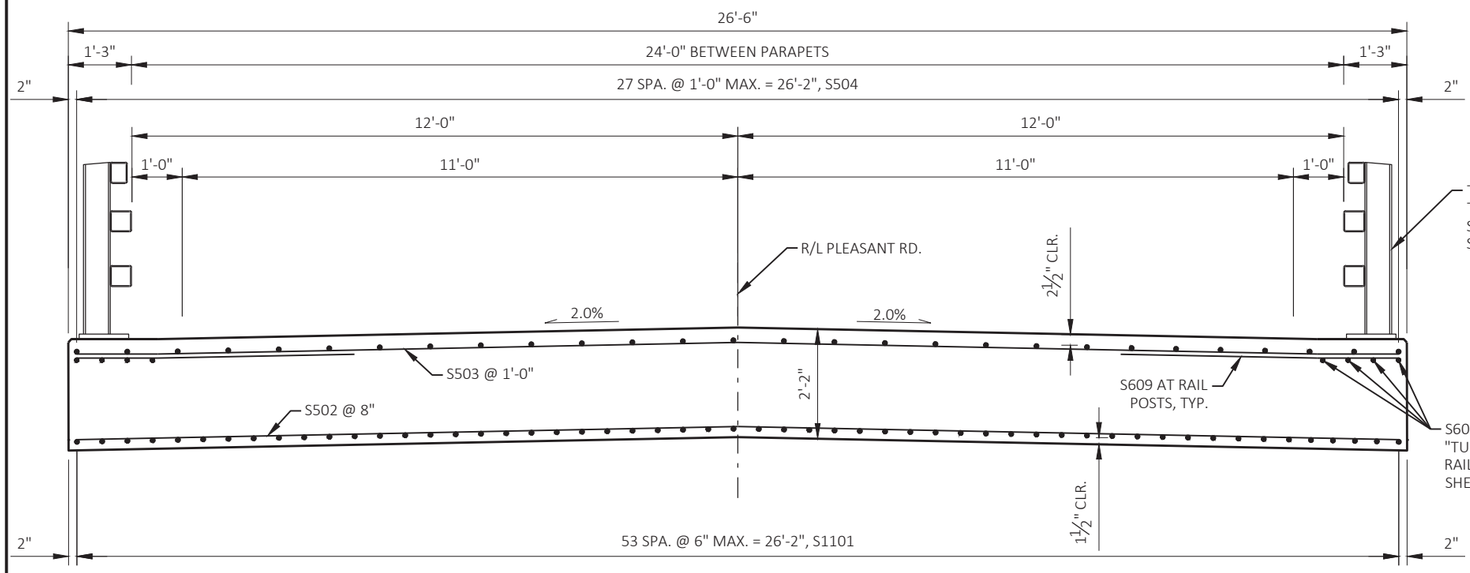
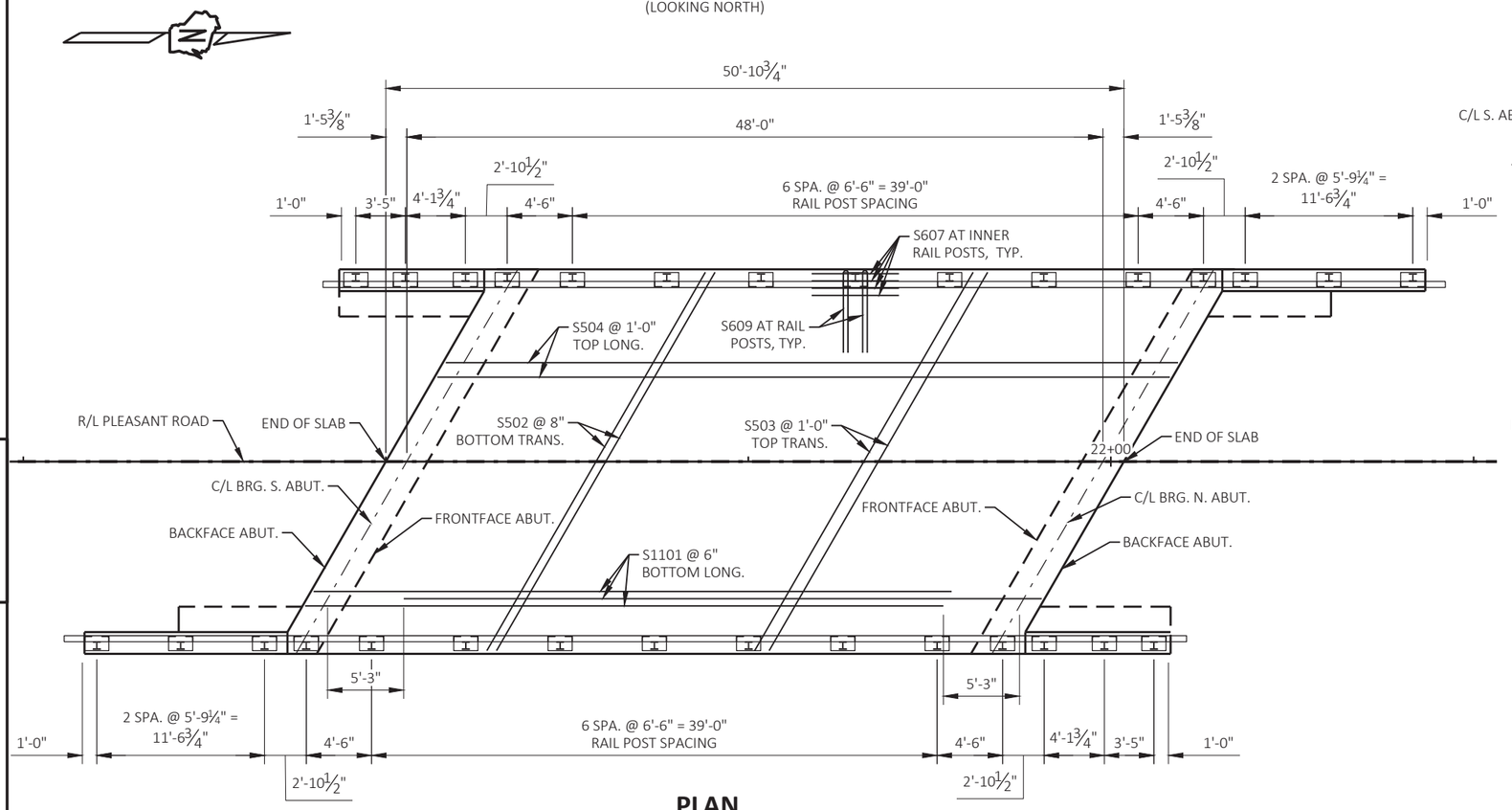
STATE PROJECT NUMBER

6685-03-72

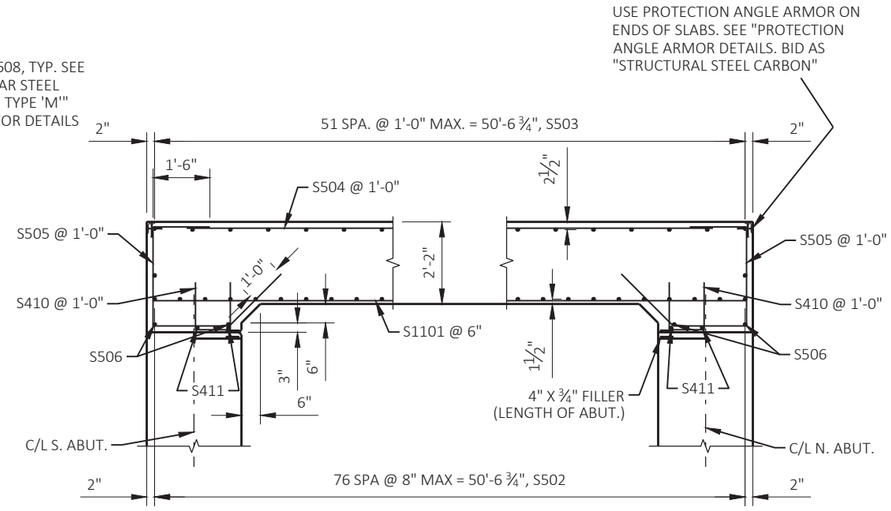


TYPICAL SECTION THRU BRIDGE

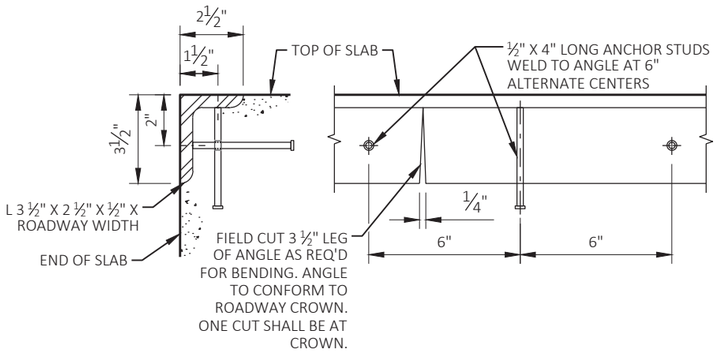
(LOOKING NORTH)



PLAN



LONGITUDINAL SECTION



PROTECTION ANGLE ARMOR

SANDPLAST PROTECTION ANGLE AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING" AFTER BLAST CLEANING, THE PROTECTION ANGLE SHALL BE HOT DIPPED GALVANIZED.

ANGLE AND STUDS TO BE PAID FOR AT THE UNIT PRICE BID FOR "STRUCTURAL STEEL CARBON". (NO PAINT REQ'D.)

NO SPLICE SHALL BE PERMITTED IN ANGLES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-477

DRAWN BY AMR | PLANS CK'D AJC

SUPERSTRUCTURE

SHEET 9 OF 11

44

SCALE =

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STATE PROJECT NUMBER

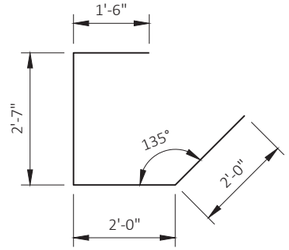
6685-03-72

BILL OF BARS

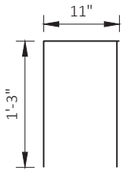
BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
S1101	X	54	44'-0"		SLAB LONG. BOT.
S502	X	77	26'-2"		SLAB TRANS. BOT.
S503	X	52	26'-2"		SLAB TRANS. TOP
S504	X	28	50'-6"		SLAB LONG. TOP
S505	X	56	7'-9"	X	END OF SLAB STIRRUP
S506	X	4	30'-0"		SLAB TRANS. BOT.
S607	X	56	6'-0"		RAIL POST LONG. INT.
S608	X	16	4'-7"	X	RAIL POST LONG. EXT.
S609	X	36	12'-0"	X	RAIL POST TRANS.
S410	X	48	3'-3"	X	ABUT DIA U-BAR
S411	X	4	26'-2"		ABUT DIA TRANS.

TOP OF SLAB ELEVATIONS

LOCATION	CL BRG. S. ABUT.	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	CL BRG. S. ABUT.
W. EDGE DECK	785.95	786.17	786.38	786.59	786.79	787.00	787.19	787.39	787.57	787.76	787.94
E. EDGE DECK	786.92	787.14	787.35	787.55	787.75	787.95	788.14	788.33	788.52	788.70	788.88



S505



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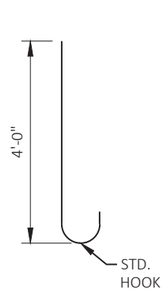

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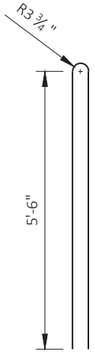
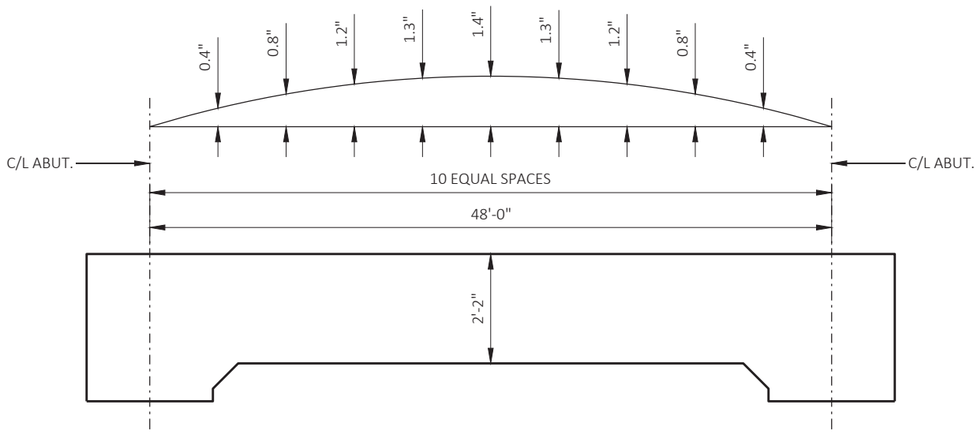


S609



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTION.

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

PARAPETS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN REMOVED.

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	CL N. ABUT.	5/10 PTS.	CL S. ABUT.
W. EDGE DECK			
E. EDGE DECK			
CROWN			

PRIOR TO RELEASING SLAB FALSEWORK, 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 CROWN OR C/L. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS-BUILT" PLANS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-477

DRAWN BY AMR | PLANS CK'D AJC

SUPERSTRUCTURE DETAILS

SHEET 10 OF 11

45

SCALE =

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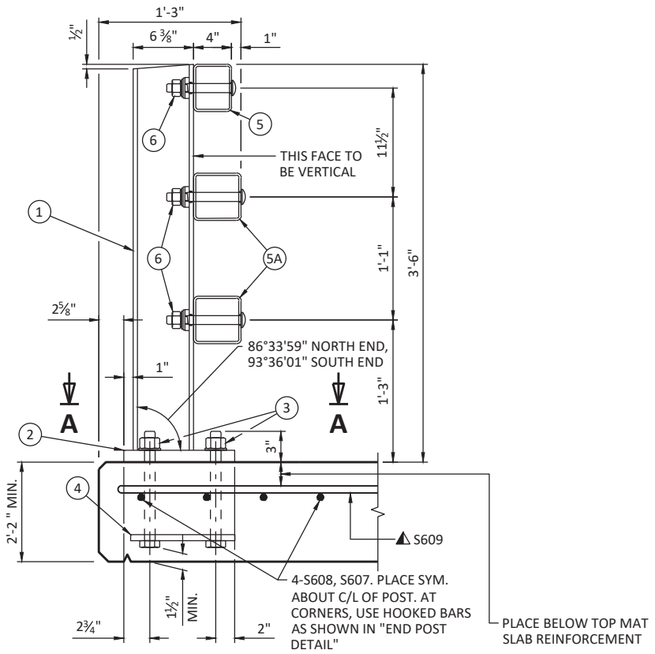
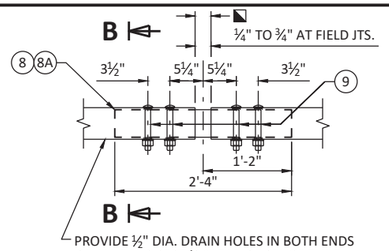
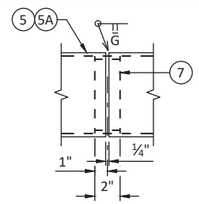


SECTION THRU RAILING ON DECK

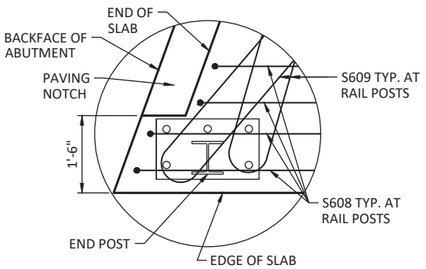


FIELD ERECTION JOINT DETAIL



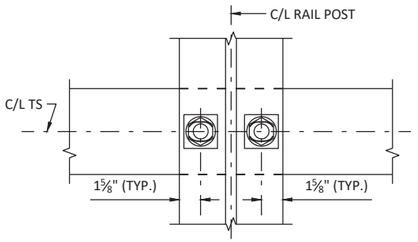
SHOP RAIL SPLICE DETAIL

LOCATION MUST BE SHOWN ON SHOP DRAWINGS

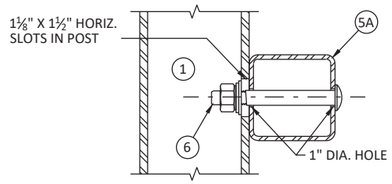


END POST DETAIL

REINFORCEMENT AT CORNERS



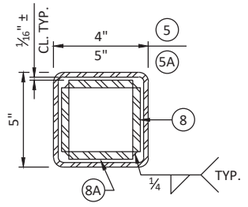
SECTION THRU POST WEB



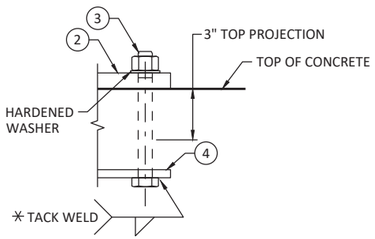
SECTION THRU RAIL

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

TYPICAL RAIL TO POST CONNECTIONS



SECTION B-B



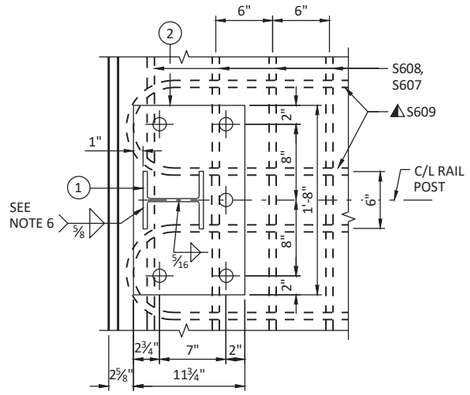
ANCHOR BOLTS

LEGEND

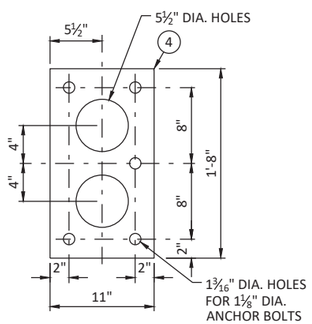
1. W6 X 25 WITH 1⅛" X 1½" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
2. PLATE 1¼" X 11¾" X 1'-8" WITH 1 7/16" DIA. OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
3. ASTM 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. (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 1 3/16" 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. SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".
8. ⅜" X 3⅝" X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
8A. 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.
9. ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15/16" X 1¼" LONGIT. SLOTTED HOLES AT FIELD JOINTS IN PLATE NO. 10A. PROVIDE 15/16" DIA. ROUND HOLES IN TUBES NO. 5 AND NO. 5A.

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.

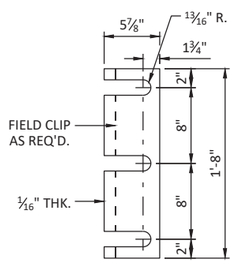


SECTION A-A



ANCHOR PLATE

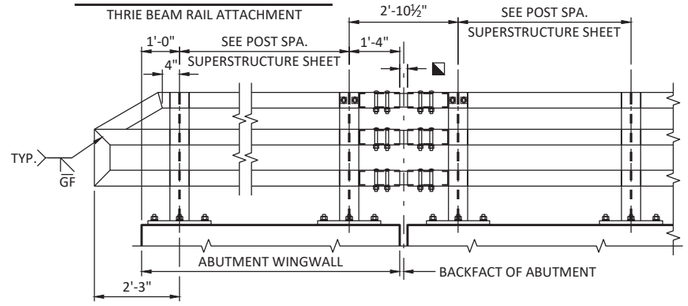
AT RAIL TO DECK CONNECTION



POST SHIM DETAIL

DETAIL AT END POST

THRIE BEAM RAIL 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.

◪ RDWY. OPENING (¼" TO ¾")

STATE PROJECT NUMBER

6685-03-72

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-477

DRAWN BY AMR | PLANS CK'D AJC

TUBULAR STEEL RAILING TYPE "M"

SHEET 11 OF 11

46

SCALE = 2.00

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PLEASANT ROAD - STA 20+50 TO STA 21+57 - DIVISION 1

STATION	DISTANCE	AREA (SF) CUT	AREA (SF) FILL	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL	CUMULATIVE VOLUME (CY) CUT 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL (NOTE 1) 1.25	MASS ORDINATE (NOTE 2)
20+50	0	32	2	0	0	0	0	0
20+70	20	26	15	22	7	22	9	13
21+00	30	25	47	29	35	51	53	-2
21+29	29	26	53	28	54	79	121	-42
21+43	14	48	21	20	20	99	146	-47
21+47	4	16	21	5	3	104	150	-46
21+50	3	21	2	3	2	107	153	-46
21+57	7	41	0	8	1	115	155	-40
				115	122			

PLEASANT ROAD - STA 21+94 TO STA 23+00 - DIVISION 2

STATION	DISTANCE	AREA (SF) CUT	AREA (SF) FILL	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL	CUMULATIVE VOLUME (CY) CUT 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL (NOTE 1) 1.25	MASS ORDINATE (NOTE 2)
21+94	0	35	7	0	0	0	0	0
22+01	7	19	4	7	2	7	3	4
22+04	3	24	30	3	2	10	6	4
22+08	4	66	29	7	5	17	13	4
22+22	14	42	48	29	20	46	38	8
22+28	6	44	45	10	11	56	52	4
22+50	22	70	18	47	26	103	85	18
22+51	1	78	18	3	1	106	87	19
22+57	6	95	11	20	4	126	92	34
22+75	18	8	14	35	9	161	104	57
22+80	5	2	17	1	3	162	108	54
23+00	20	3	1	2	7	164	117	47
				164	90			

NOTES:
1 - EXPANDED FILL : (UNEXPANDED FILL) * (FILL FACTOR)
2 - MASS ORDINATE : CUT - (EXPANDED FILL); PLUS INDICATES AN EXCESS OF MATERIAL (WASTE)

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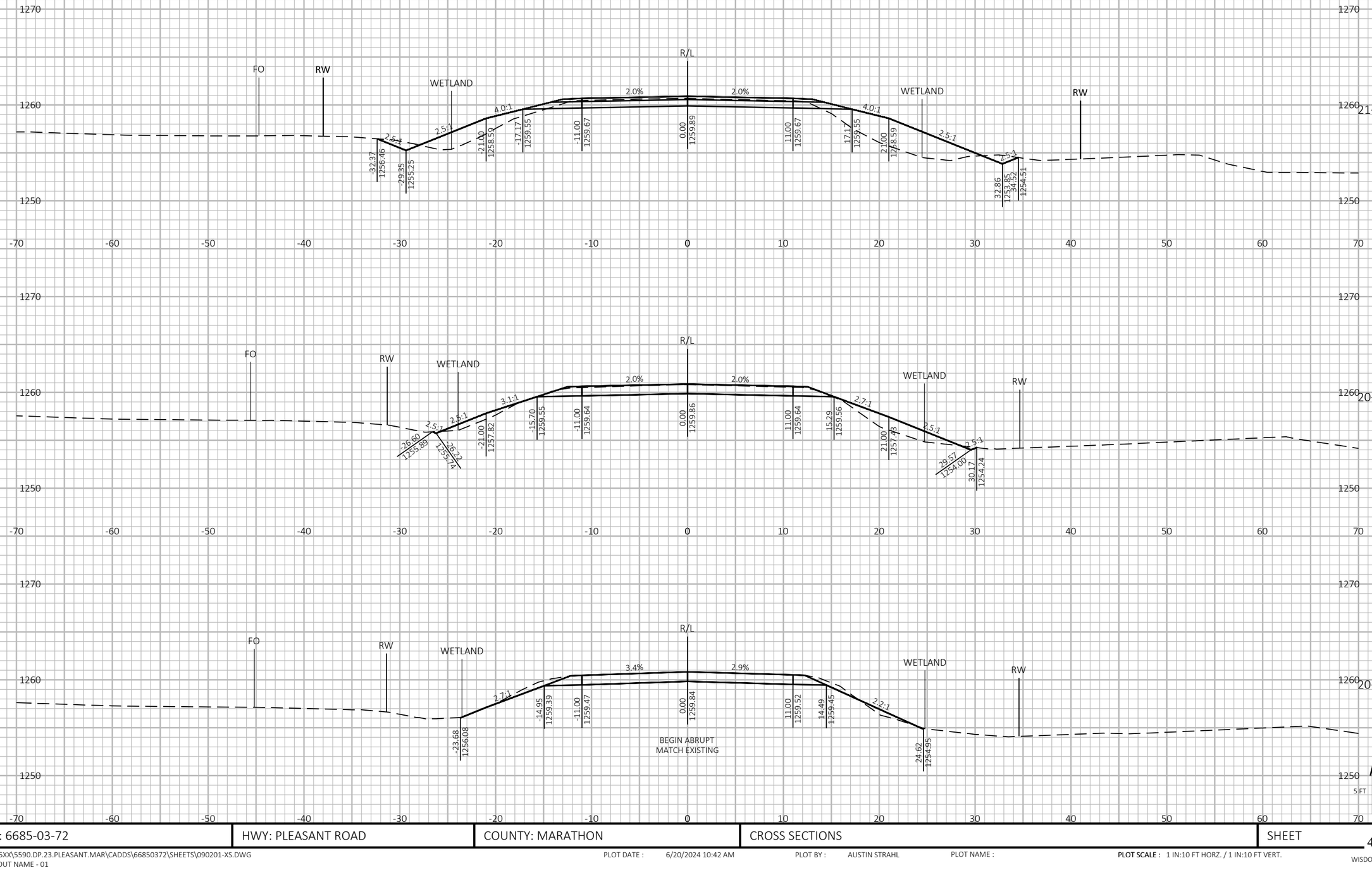

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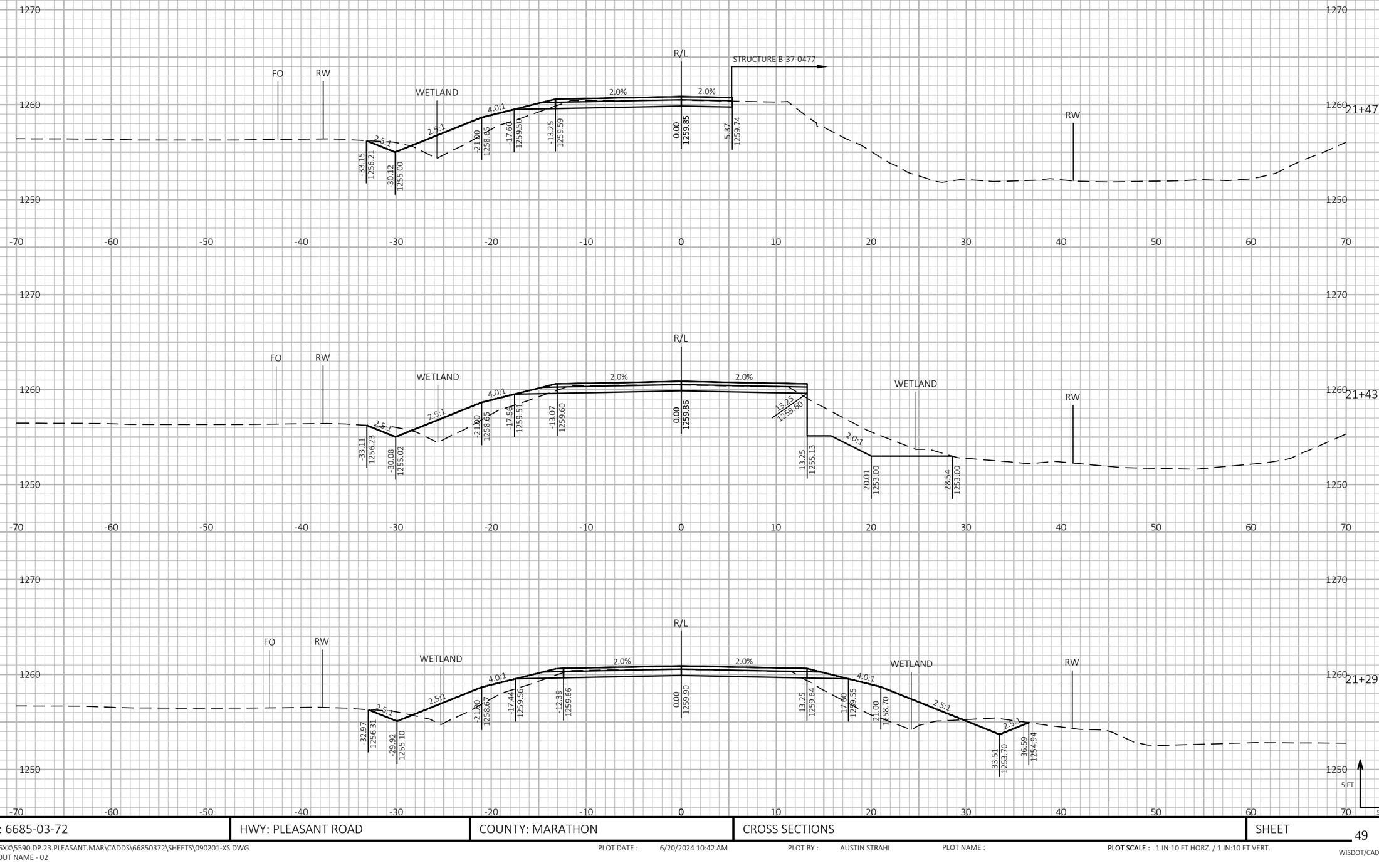
PROJECT NO: 6685-03-72	HWY: PLEASANT ROAD	COUNTY: MARATHON	CROSS SECTIONS	SHEET 48	E

FILE NAME : P:\55XX\5590.DP.23.PLEASANT.MAR\CADDS\66850372\SHEETS\090201-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 6/20/2024 10:42 AM PLOT BY : AUSTIN STRAHL PLOT NAME :

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



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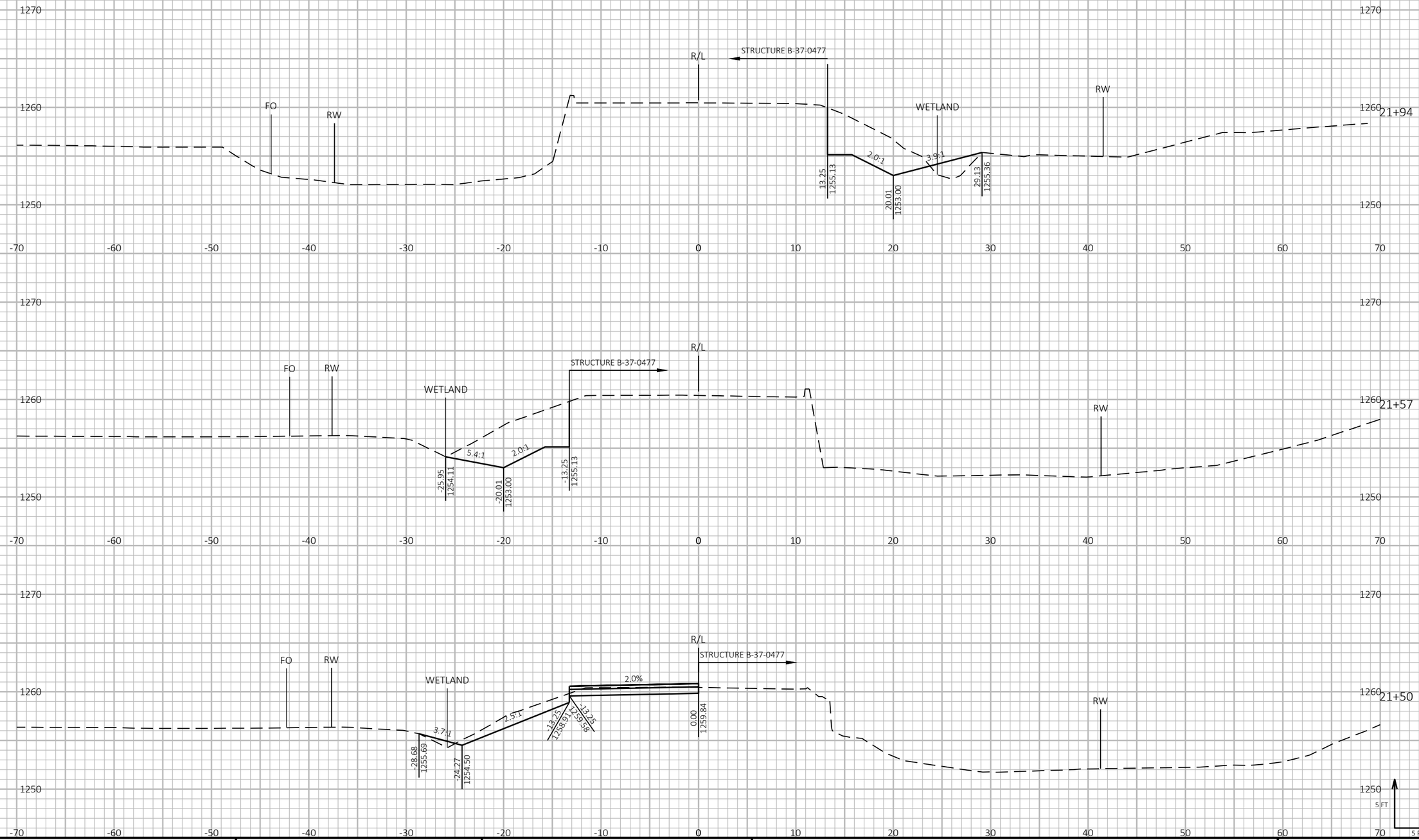
PROJECT NO: 6685-03-72	HWY: PLEASANT ROAD	COUNTY: MARATHON	CROSS SECTIONS	SHEET 49	E

FILE NAME : P:\55XX\5590.DP.23.PLEASANT.MAR\CADDS\66850372\SHEETS\090201-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 6/20/2024 10:42 AM PLOT BY : AUSTIN STRAHL PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 6685-03-72	HWY: PLEASANT ROAD	COUNTY: MARATHON	CROSS SECTIONS	SHEET 50	E

FILE NAME : P:\55XX\5590.DP.23.PLEASANT.MAR\CADDS\66850372\SHEETS\090201-XS.DWG
LAYOUT NAME - 03

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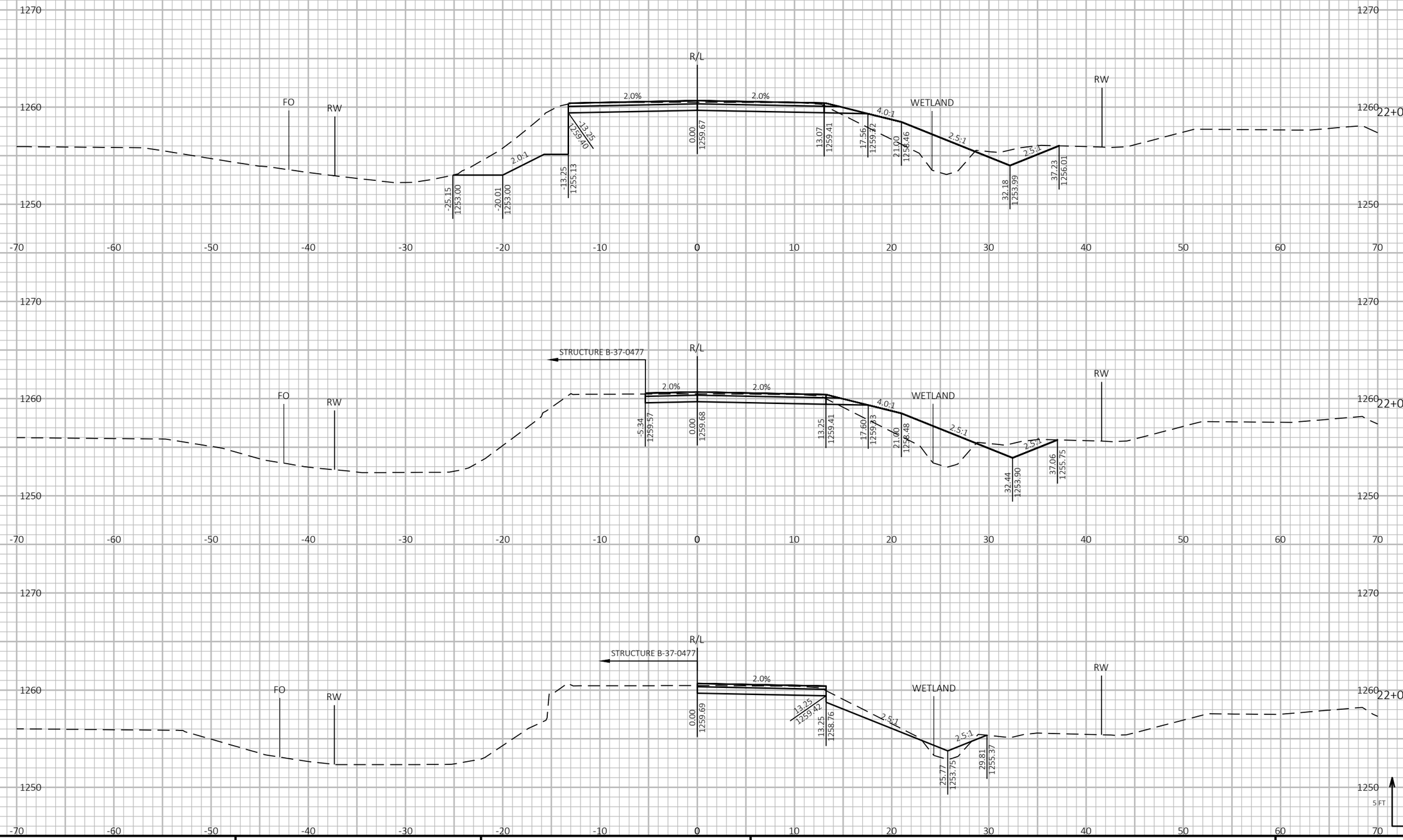
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

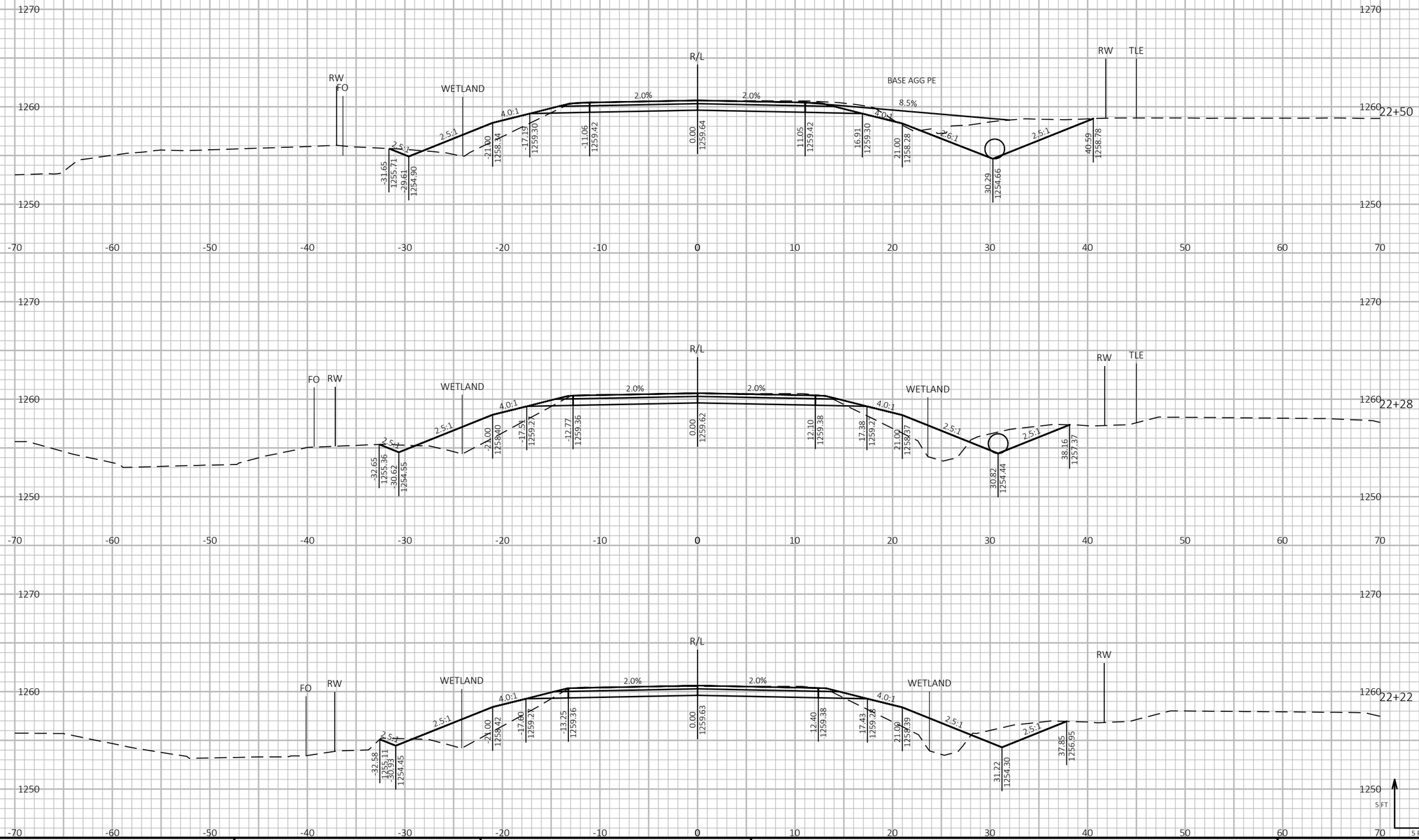


PROJECT NO: 6685-03-72	HWY: PLEASANT ROAD	COUNTY: MARATHON	CROSS SECTIONS	SHEET 51	E

FILE NAME : P:\55XX\5590.DP.23.PLEASANT.MAR\CADDS\66850372\SHEETS\090201-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 6/20/2024 10:42 AM PLOT BY : AUSTIN STRAHL PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 6685-03-72	HWY: PLEASANT ROAD	COUNTY: MARATHON	CROSS SECTIONS	SHEET 52	E

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LAYOUT NAME - 05

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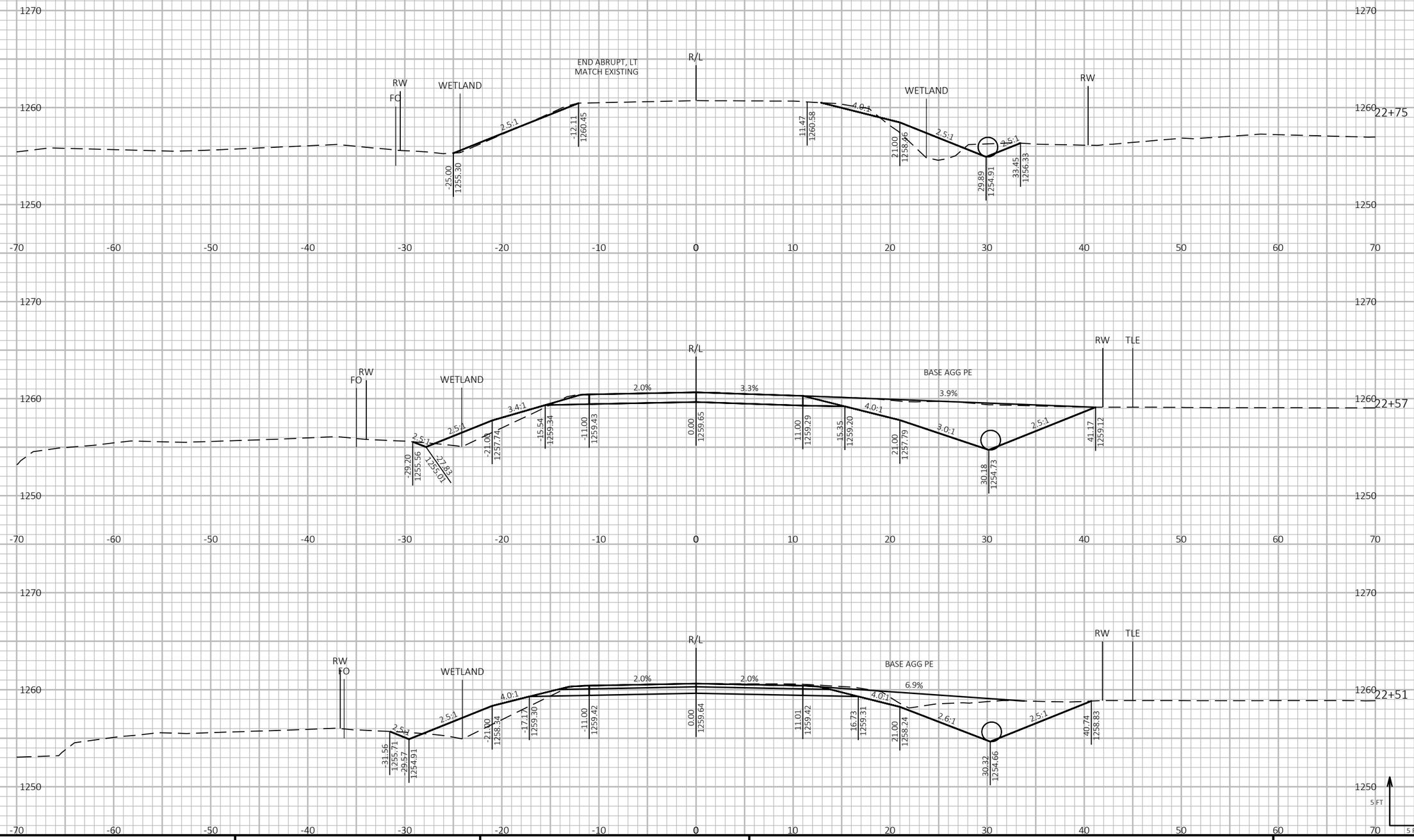
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 6685-03-72	HWY: PLEASANT ROAD	COUNTY: MARATHON	CROSS SECTIONS	SHEET 53	E

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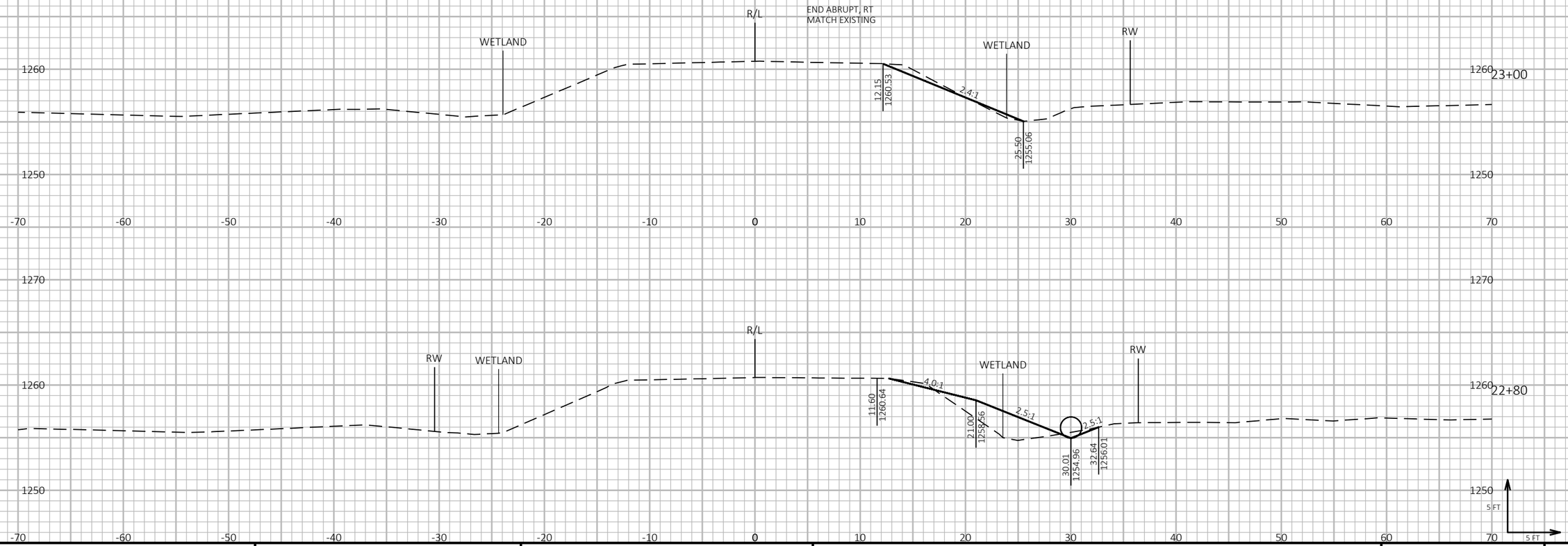
LAYOUT NAME - 06

PLOT DATE : 6/20/2024 10:43 AM PLOT BY : AUSTIN STRAHL PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 6685-03-72	HWY: PLEASANT ROAD	COUNTY: MARATHON	CROSS SECTIONS	SHEET 54	E

FILE NAME : P:\55XX\5590.DP.23.PLEASANT.MAR\CADDS\66850372\SHEETS\090201-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 6/20/2024 10:43 AM PLOT BY : AUSTIN STRAHL PLOT NAME :

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

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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