EAU

PROJECT ID: 7146-00-72

COUNTY: TREMPEALEAU

MARCH 2022
ORDER OF SHEETS

TOTAL SHEETS = 78

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7146-00-72		

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

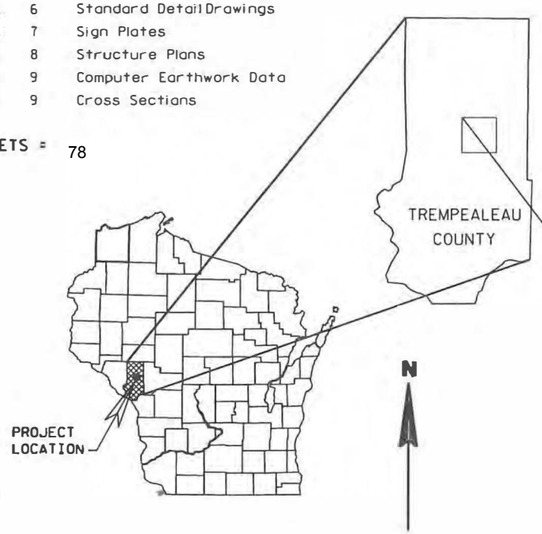
PLAN OF PROPOSED IMPROVEMENT

ETTRICK - WHITEHALL

IRVIN CREEK BRIDGE B-61-0247

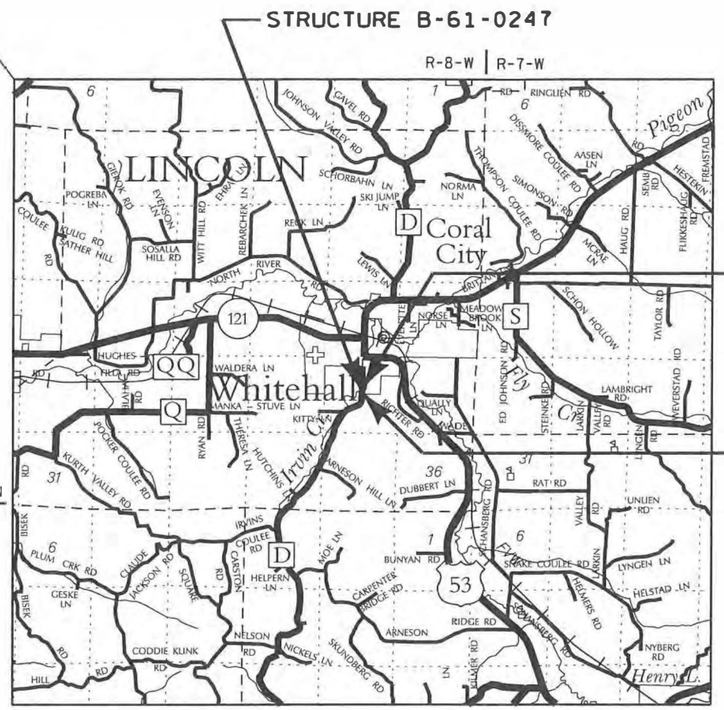
CTH D
TREMPEALEAU COUNTY

STATE PROJECT NUMBER
7146-00-72



38

STRUCTURE B-61-0247



END PROJECT
STA. 10+80.25
Y = 436095.15
X = 855995.04

BEGIN PROJECT
STA. 9+19.75
Y = 435934.65
X = 855994.67

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.030 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), TREMPEALEAU 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 NAVD88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

DESIGN DESIGNATION

A.A.D.T. (2022)	=	620
A.A.D.T. (2042)	=	835
D.H.V.	=	60
D.	=	50/50
T.	=	5%
DESIGN SPEED	=	55 MPH
ESALS	=	73,000

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE (PL + 58.1)
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- HIGH VOLTAGE (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

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

UTILITIES

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

ACCEPTED FOR
County of Trempealeau
10/11/21 (Date)
Highway Commissioner

ORIGINAL PLANS PREPARED BY
AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

DANIEL N. SYDOW E-38363 WI PROFESSIONAL ENGINEER
10/12/2021
DATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES ASSOCIATES INC
Designer	AYRES ASSOCIATES INC
Project Manager	MATTHEW THORNSEN, PE
Regional Examiner	TOU YANG, PE
Regional Supervisor	TYLER RONGSTAD, PE

APPROVED FOR THE DEPARTMENT
DATE: 10/28/2021 (Signature)

E

I:\42\42-1203.00 - Trempealeau Co, CTH D\Roadway\421203 title.dgn PENTABLE:Wisdot_shd.tbl walderak 1:200

WISDOT/CADDS SHEET 10

2

GENERAL NOTES

EROSION CONTROL ITEMS TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

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

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCLUSIVE OF THE ROADBED, SHALL BE FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.

ASPHALTIC REMOVAL IS INCLUDED IN THE ITEM EXCAVATION COMMON.

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH A MONUMENT TO BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD 88).

ASPHALT SURFACE SHALL USE ½" (12.5 mm) NOMINAL AGGREGATE SIZE.

WETLANDS EXIST IN THE PROJECT AREA. NO DISTURBANCE IS ALLOWED OUTSIDE THE SLOPE INTERCEPTS.

UTILITIES

TRI-COUNTY COMMUNICATIONS COOPERATIVE
23451 WHITEHALL ROAD
PO BOX 727
INDEPENDENCE, WI 54747
ATTN: BUCK WEBB
715-695-2691
bwebb@tccpro.net

LUMEN TECHNOLOGIES
333 NORTH FRONT STREET
LA CROSSE, WI 54601
PO BOX 6256
ATTN: BRIAN STELPLUGH
608-615-4136
brian.stelplugh@lumen.com

XCEL ENERGY - TRANSMISSION
414 NICOLLET MALL, 5TH FLOOR
MINNEAPOLIS, MN 55401
ATTN: MITCHELL DIENGER
612-321-3109
608-386-2233 (cell)
mitchell.a.dienger@xcelenergy.com

CITY OF WHITEHALL
18620 HOBSON STREET
PO BOX 155
WHITEHALL, WI 54773
ATTN: NEAL WOZNEY, ELECTRIC SUPERINTENDENT
608-863-1108 (cell)
nwozney@wppienergy.org
ATTN: MARK JOHNSON, DPW
715-538-4353
mjohnson@wppienergy.org
ATTN: ASHLEY SLABY, ADMINISTRATOR
715-538-4353
aslaby@wppienergy.org

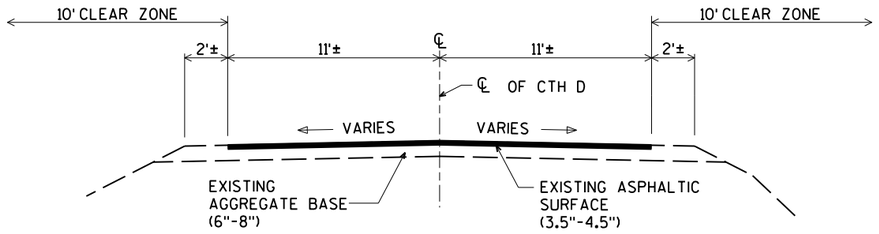
XCEL ENERGY - DISTRIBUTION
3215 COMMERCE STREET
LA CROSSE, WI 54603
ATTN: JASON McROBERTS
608-789-3689
715-577-1132 (cell)
jason.l.mcroberts@xcelenergy.com
ATTN: CORISSA SEELY
715-737-4097
corissa.e.seely@xcelenergy.com

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

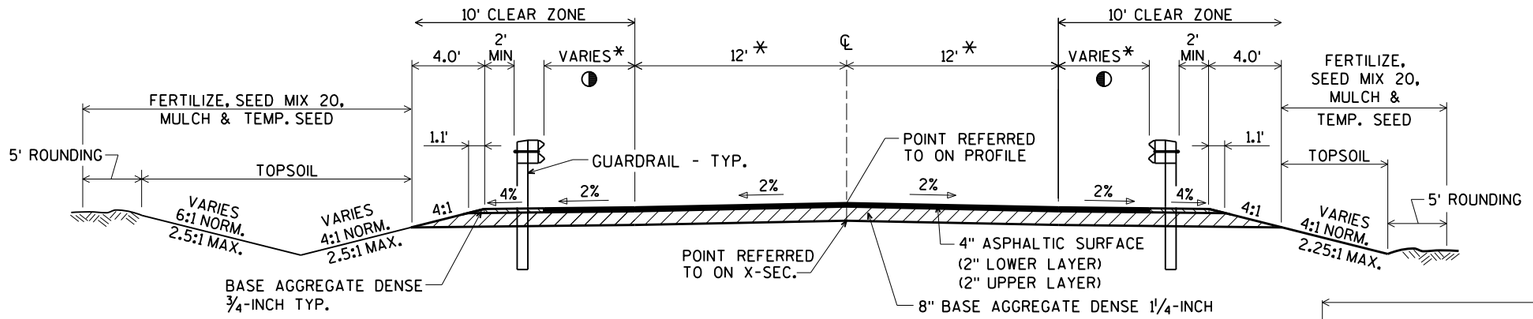
WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONTACT:
AMY LESIK
1300 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
715-836-6571
715-495-1903
amyl.lesik@wisconsin.gov

DESIGNER
AYRES ASSOCIATES
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
ATTN: DANIEL N. SYDOW
715-834-3161
sydowd@AyresAssociates.com

COUNTY CONTACT:
TREMPEALEAU COUNTY, HIGHWAY COMMISSIONER
N36258 CTH OO
P.O. BOX 97
WHITEHALL, WI 54773
ATTN: AL RINKA
715-538-9402
al.rinka@co.trempealeau.wi.us



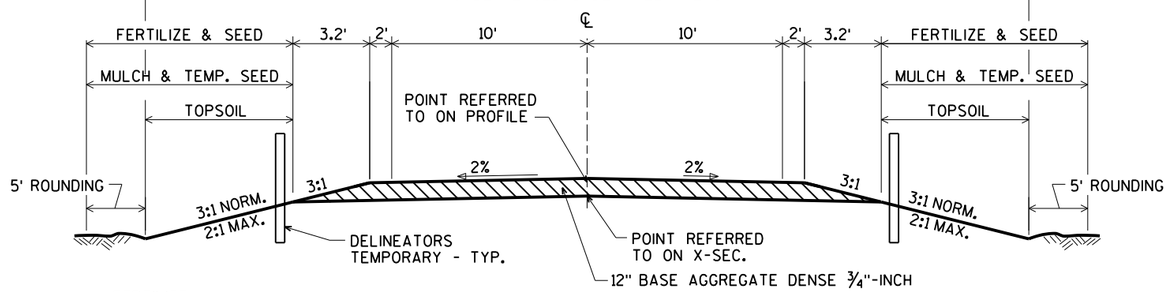
EXISTING TYPICAL SECTION
STA. 9+19.75 TO STA. 10+80.25



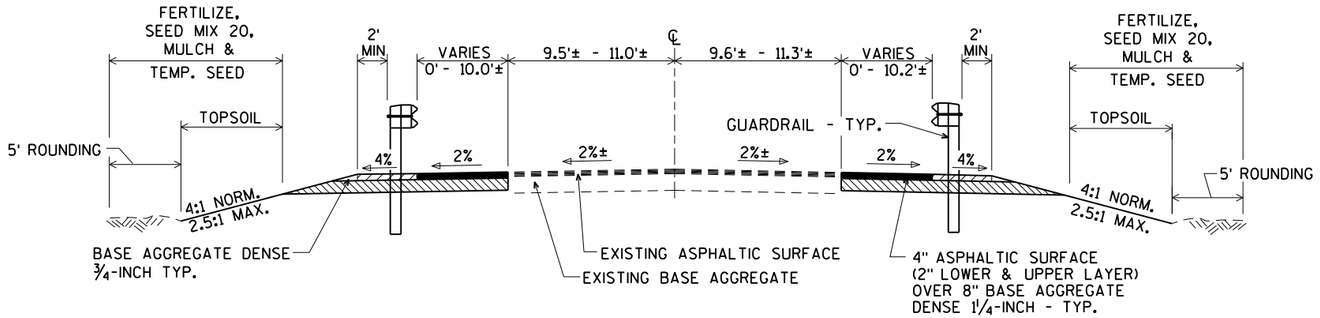
TYPICAL FINISHED SECTION
STA 9+19.75 - STA 9+68.75
STA 10+31.25 - STA 10+80.25

* THE ASPHALTIC SURFACE SHALL BE PLACED 36 FEET WIDE AT THE ENDS OF THE BRIDGE AND FOLLOW THE FACE OF GUARDRAIL, AND TAPER TO MATCH EXISTING AT THE ENDS OF THE PROJECT.

◑ 6' NORMAL
6' MIN. (AT END OF BRIDGE)
8' MAX. (AT END TERMINAL)



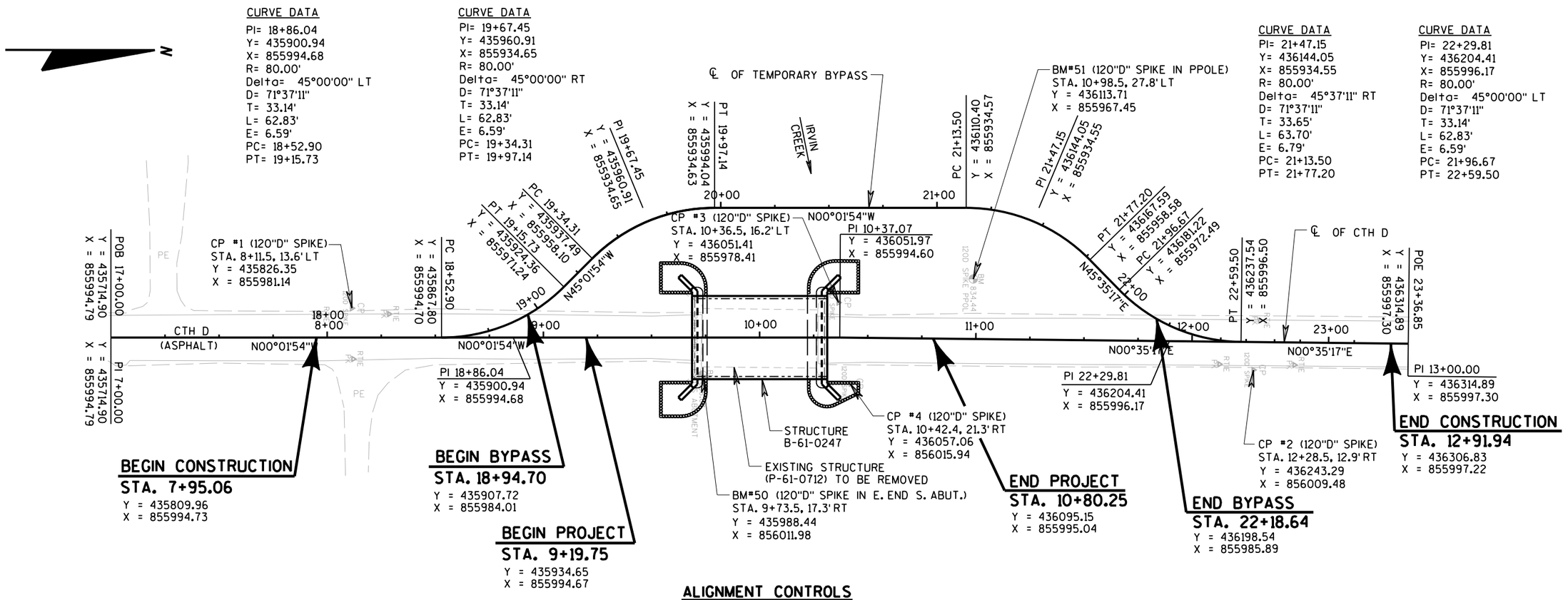
TYPICAL SECTION - TEMPORARY BYPASS
STA. 18+94.70 TO STA. 22+18.64



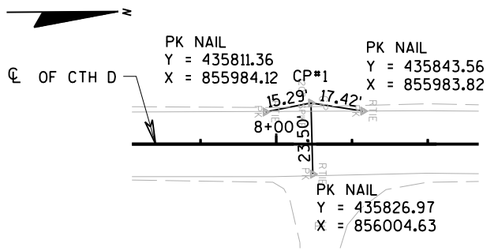
TYPICAL FINISHED SECTION - SHOULDER WIDENING
STA 7+95.06 - STA 9+19.75, LT.
STA 8+27.04 - STA 9+19.75, RT.
STA 10+80.25 - STA 12+84.69, LT.
STA 10+80.25 - STA 12+91.94, RT.

PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	TYPICAL SECTIONS	SHEET 3	E

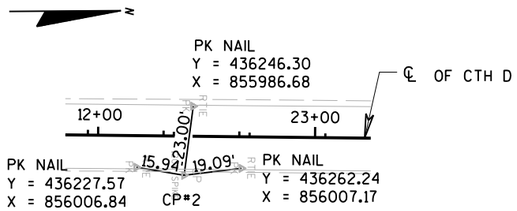
2



ALIGNMENT CONTROLS



CP #1 (120"D" SPIKE)
Y = 435826.35
X = 855981.14

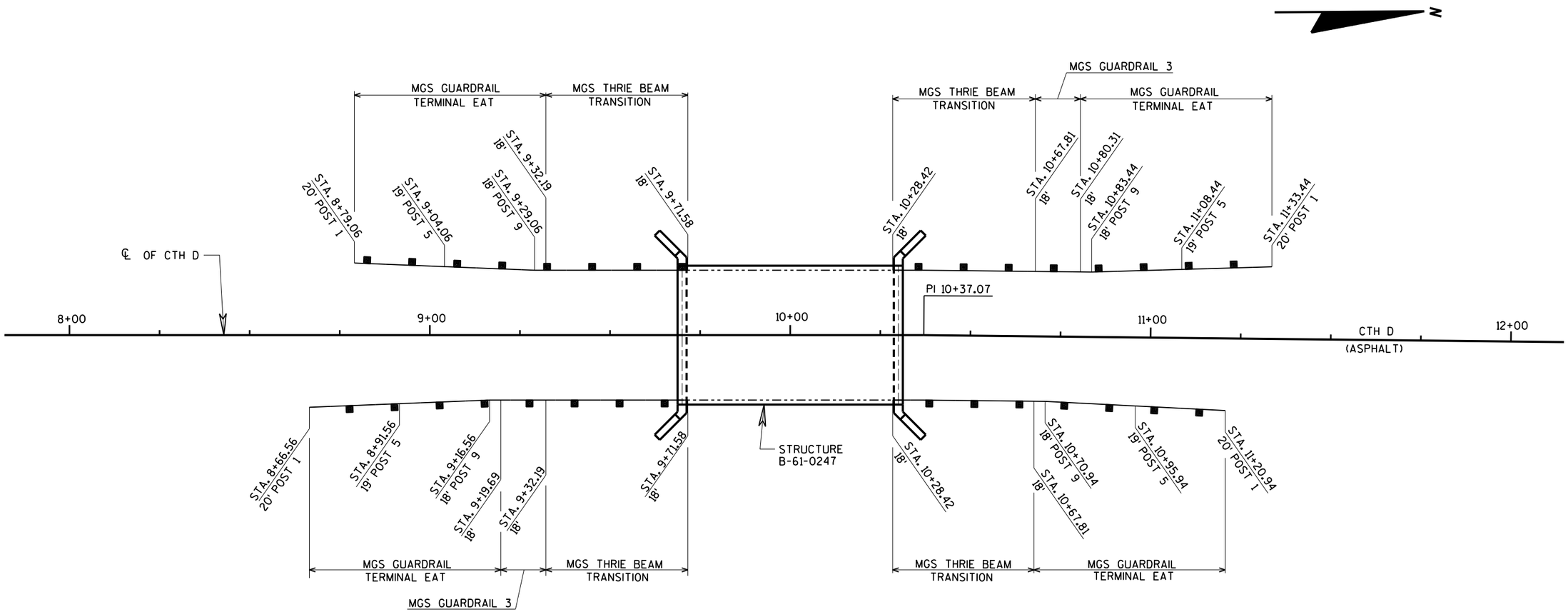


CP #2 (120"D" SPIKE)
Y = 436243.29
X = 856009.48

CONTROL POINT TIES

PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	ALIGNMENT CONTROLS	SCALE, FEET 0 25 50	SHEET 4	E

2



GUARDRAIL LAYOUT

PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	CONSTRUCTION DETAILS	SHEET 5	E

2

N

TLE

℄ OF TEMPORARY BYPASS

TEMPORARY STRUCTURE

IRVIN CREEK

BYPASS SLOPE INTERCEPT

BYPASS SLOPE INTERCEPT

TRI-COUNTY COMMUNICATIONS

XCEL ENERGY (DISTRIBUTION)

TRI-COUNTY COMMUNICATIONS

20+00

21+00

PLE

PI 20+97.13

66'

EXISTING R/W

19+00

22+00

18+00

8+00

9+00

10+00

11+00

12+00

CTH D
(ASPHALT)

PI 13+00.00

℄ OF CTH D

EXISTING R/W

LUMEN TECHNOLOGIES

PLE

XCEL ENERGY (DISTRIBUTION)

XCEL ENERGY (TRANSMISSION)

EXISTING STRUCTURE
(P-61-0712) TO BE REMOVED

STRUCTURE B-61-0247

WHITEHALL ELECTRIC &
TRI-COUNTY COMMUNICATIONS

LUMEN TECHNOLOGIES

BEGIN BYPASS
STA. 18+94.70
Y = 435907.72
X = 855984.01

END BYPASS
STA. 22+18.64
Y = 436198.54
X = 855985.89

HIGH WATER $_2$ EL. 826.37

NOTES:
MULCH TO BE PLACED ON SIDES SLOPES NOT PROTECTED BY EROSION MAT.

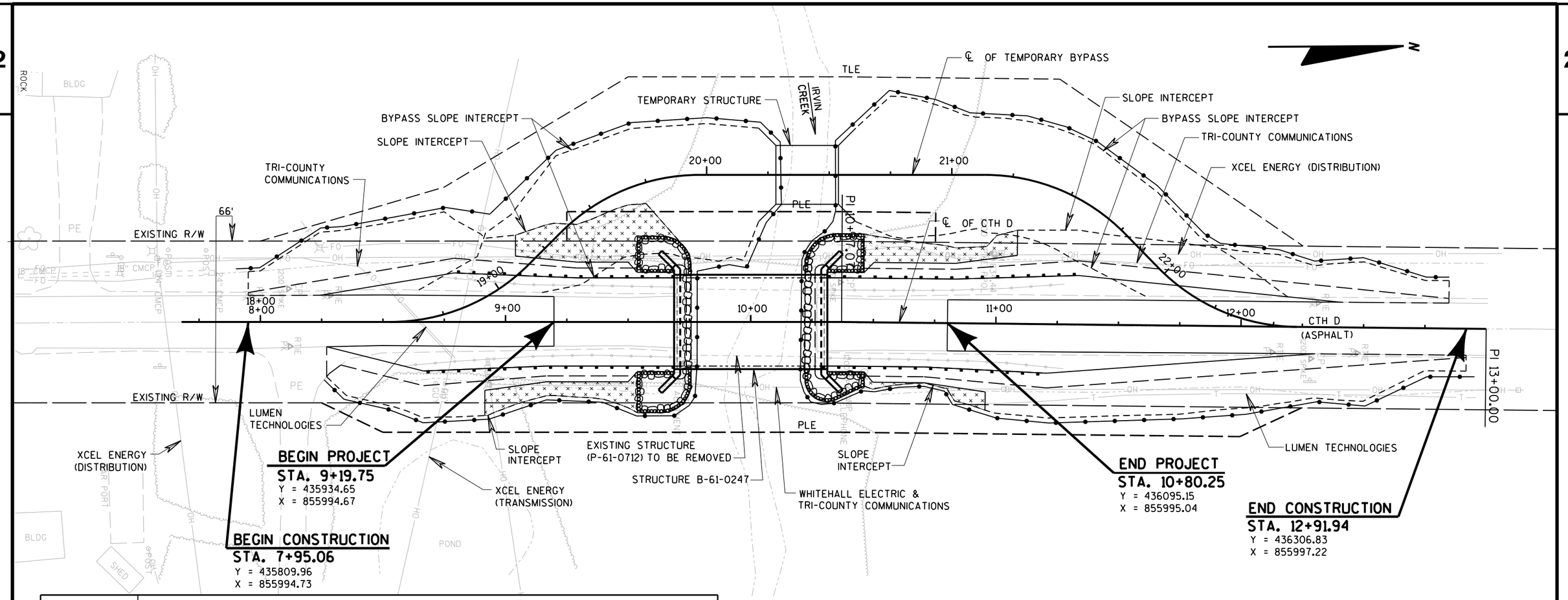
GEOTEXTILE TYPE SAS TO BE PLACED UNDER THE FILL FOR TEMPORARY BYPASS.

NO GRUBBING TO BE DONE ALONG THE TEMPORARY BYPASS

LEGEND

- EROSION MAT CLASS II TYPE C
- SILT FENCE
- RIPRAP HEAVY

PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	EROSION CONTROL - BYPASS	SCALE, FEET 0 20 40	SHEET 6	E



	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 = 1.30 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.78 ACRES

HIGH WATER $_2$ EL. 826.37

NOTES:
MULCH TO BE PLACED ON SIDES SLOPES NOT PROTECTED BY EROSION MAT.

LEGEND

- EROSION MAT CLASS II TYPE C
- SILT FENCE
- RIPRAP HEAVY

PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	EROSION CONTROL - MAINLINE	SCALE, FEET 0 20 40	SHEET 7	E

7146-00-72

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	3.000	3.000
0004	201.0205	Grubbing	STA	3.000	3.000
0006	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-61-0712	EACH	1.000	1.000
0008	204.0165	Removing Guardrail	LF	422.000	422.000
0010	205.0100	Excavation Common	CY	1,833.000	1,833.000
0012	206.1000	Excavation for Structures Bridges (structure) 01. B-61-0247	LS	1.000	1.000
0014	208.0100	Borrow	CY	1,308.000	1,308.000
0016	210.1500	Backfill Structure Type A	TON	610.000	610.000
0018	213.0100	Finishing Roadway (project) 01. 7146-00-72	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	640.000	640.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	595.000	595.000
0024	455.0605	Tack Coat	GAL	52.000	52.000
0026	465.0105	Asphaltic Surface	TON	170.000	170.000
0028	502.0100	Concrete Masonry Bridges	CY	165.000	165.000
0030	502.3200	Protective Surface Treatment	SY	295.000	295.000
0032	503.0137	Prestressed Girder Type I 36W-Inch	LF	244.000	244.000
0034	505.0400	Bar Steel Reinforcement HS Structures	LB	5,540.000	5,540.000
0036	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	20,000.000	20,000.000
0038	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	8.000	8.000
0040	506.4000	Steel Diaphragms (structure) 01. B-61-0247	EACH	3.000	3.000
0042	513.4061	Railing Tubular Type M	LF	129.000	129.000
0044	516.0500	Rubberized Membrane Waterproofing	SY	16.000	16.000
0046	526.0100	Temporary Structure (station) 01. 20+41	LS	1.000	1.000
0048	550.0500	Pile Points	EACH	16.000	16.000
0050	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	1,520.000	1,520.000
0052	606.0300	Riprap Heavy	CY	145.000	145.000
0054	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	170.000	170.000
0056	614.2300	MGS Guardrail 3	LF	25.000	25.000
0058	614.2500	MGS Thrie Beam Transition	LF	160.000	160.000
0060	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0062	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7146-00-72	EACH	1.000	1.000
0064	619.1000	Mobilization	EACH	1.000	1.000
0066	623.0200	Dust Control Surface Treatment	SY	1,940.000	1,940.000
0068	624.0100	Water	MGAL	12.000	12.000
0070	625.0100	Topsoil	SY	1,460.000	1,460.000
0072	627.0200	Mulching	SY	3,805.000	3,805.000
0074	628.1504	Silt Fence	LF	1,515.000	1,515.000
0076	628.1520	Silt Fence Maintenance	LF	4,545.000	4,545.000
0078	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0080	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0082	628.2027	Erosion Mat Class II Type C	SY	480.000	480.000
0084	629.0210	Fertilizer Type B	CWT	2.500	2.500
0086	630.0120	Seeding Mixture No. 20	LB	124.000	124.000
0088	630.0200	Seeding Temporary	LB	84.000	84.000
0090	630.0300	Seeding Borrow Pit	LB	8.000	8.000
0092	630.0500	Seed Water	MGAL	96.000	96.000
0094	633.1100	Delineators Temporary	EACH	32.000	32.000
0096	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0098	637.2230	Signs Type II Reflective F	SF	12.000	12.000

7146-00-72

Line	Item	Item Description	Unit	Total	Qty
0100	638.2102	Moving Signs Type II	EACH	1.000	1.000
0102	638.2602	Removing Signs Type II	EACH	4.000	4.000
0104	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0106	638.4000	Moving Small Sign Supports	EACH	1.000	1.000
0108	642.5001	Field Office Type B	EACH	1.000	1.000
0110	643.0300	Traffic Control Drums	DAY	2,600.000	2,600.000
0112	643.0420	Traffic Control Barricades Type III	DAY	2,000.000	2,000.000
0114	643.0705	Traffic Control Warning Lights Type A	DAY	800.000	800.000
0116	643.0715	Traffic Control Warning Lights Type C	DAY	1,200.000	1,200.000
0118	643.0900	Traffic Control Signs	DAY	3,800.000	3,800.000
0120	643.5000	Traffic Control	EACH	1.000	1.000
0122	645.0111	Geotextile Type DF Schedule A	SY	110.000	110.000
0124	645.0120	Geotextile Type HR	SY	285.000	285.000
0126	645.0140	Geotextile Type SAS	SY	1,780.000	1,780.000
0128	646.1005	Marking Line Paint 4-Inch	LF	533.000	533.000
0130	650.4500	Construction Staking Subgrade	LF	719.000	719.000
0132	650.5000	Construction Staking Base	LF	435.000	435.000
0134	650.6500	Construction Staking Structure Layout (structure) 01. B-61-0247	LS	1.000	1.000
0136	650.9910	Construction Staking Supplemental Control (project) 01. 7146-00-72	LS	1.000	1.000
0138	650.9920	Construction Staking Slope Stakes	LF	719.000	719.000
0140	690.0150	Sawing Asphalt	LF	539.000	539.000
0142	715.0502	Incentive Strength Concrete Structures	DOL	990.000	990.000
0144	999.2005.S	Maintaining Bird Deterrent System (station) 01. 10+00	EACH	1.000	1.000
0146	SPV.0090	Special 01. Flashing Stainless Steel	LF	115.000	115.000

3

CLEARING AND GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	8+00	-	11+00	LT/RT	3	3
				TOTAL 0010	3	3

REMOVING GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF
0010	8+57	-	9+73	RT	116
0010	8+70	-	9+73	LT	104
0010	10+27	-	11+28	LT	101
0010	10+27	-	11+28	RT	101
				TOTAL 0010	422

3

CTH D EARTHWORK SUMMARY

From/To Station	Location	Common Excavation (1) (Item 205.0100) Cut	Unexpanded Fill	Expanded Fill (2) Factor 1.30	Mass Ordinate +/- (3)	Waste	Borrow (Item 208.0100)	Comment:
7+95.06 to 9+68.75	MAINLINE	187	140	182	5	5	0	
10+31.25 to 12+91.94	MAINLINE	150	273	355	-205	-205	200	
18+94.70 to 22+18.64	TEMP. BAYPASS	104	932	1212	-1108	-1108	1108	
18+94.70 to 22+18.64	TEMP. BAYPASS REMOVAL	1392	104	135	1257	1257	0	
	TOTAL	**1833**	**1449**	**1884**			**1308**	

1) Common Excavation is the Cut. Item number 205.0100.

2) Expanded Fill. Factor = 1.30; Expanded Fill = Unexpanded Fill * Fill Factor

3) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material on the project.

4) All quantities shown in CY.

BASE AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL	REMARKS
0010	18+94.70	-	22+18.64	LT/RT	530	-	5	TEMP. BYPASS
0010	7+95.06	-	9+68.75	LT/RT	40	250	3	SOUTH APPROACH
0010	10+31.25	-	12+91.94	LT/RT	70	345	4	NORTH APPROACH
				TOTAL 0010	640	595	12	

ASPHALT

CATEGORY	STATION	TO	STATION	LOCATION	* 455.0605 TACK COAT GAL	** 465.0105 ASPHALTIC SURFACE TON	REMARKS
0010	8+24.43	-	9+68.75	MAINLINE	24	80	50' SOUTH APPROACH PLUS SHLDS
0010	10+31.25	-	12+40.62	MAINLINE	28	90	50' NORTH APPROACH PLUS SHLDS
				TOTAL 0010	52	170	

NOTES:

* TACK COAT APPLICATION RATE = 0.07 GAL/SY

** ASSUMED HMA AT 112 LBS/SY/IN

GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
0010	8+79.06	-	9+71.58	LT	-	40	1
0010	8+66.56	-	9+71.58	RT	12.5	40	1
0010	10+28.42	-	11+33.40	LT	12.5	40	1
0010	10+28.42	-	11+20.94	RT	-	40	1
				TOTAL 0010	25	160	4

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	LOCATION	618.0100.01 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) (01. 7146-00-72) EACH
0030	CTH D	1
	TOTAL 0030	1

623.0200 DUST CONTRTOL SURFACE TREATMENT

CATEGORY	LOCATION	623.0200 DUST CONTROL SURFACE TREATMENT SY
0010	UNDISTRIBUTED	1,940
	TOTAL 0010	1,940

EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2027 EROSION MAT CLASS II TYPE C SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB	630.0500 SEED WATER MGAL	645.0140 GEOTEXTILE TYPE SAS SY
0010	18+94.70	-	20+28.25	TEMP. BYPASS-LT	205	285	0	0	10	0.2	8	8		7	460
0010	18+94.70	-	20+28.25	TEMP. BYPASS-RT	130	100	0	0	75	0.1	5	5	5	4	
0010	20+53.75	-	22+18.64	TEMP. BYPASS-LT	205	290	0	0	35	0.2	9	9		7	965
0010	20+53.75	-	22+18.64	TEMP. BYPASS-RT	120	175	0	0	15	0.1	6	6		4	
0010	18+94.70		22+18.64	TEMP. BYPASS REMOVAL	-	1,160	-	-	-	0.7	32	-	-	26	-
0010	7+95.06	-	9+68.75	CTH D-LT	240	230	340	1,020	115	0.2	10	10		8	-
0010	7+95.06	-	9+68.75	CTH D-RT	110	130	195	585	55	0.1	6	6	1	4	-
0010	10+31.25	-	12+91.94	CTH D-LT	215	310	360	1,080	65	0.2	11	11		8	-
0010	10+31.25	-	12+91.94	CTH D-RT	235	365	315	945	15	0.2	11	11		9	-
0010			UNDISTRIBUTED		-	760	305	915	95	0.5	26	18	2	19	355
				TOTAL 0010	1,460	3,805	1,515	4,545	480	2.5	124	84	8	96	1,780

3

3

SIGNS

CATEGORY	STATION	LOCATION	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	9+67	LT	1	3	-	1	1	-	W5-52L (BRIDGE HASH MARKS)
0010	9+67	RT	1	3	-	1	1	-	W5-52R (BRIDGE HASH MARKS)
0010	10+33	LT	1	3	-	1	1	-	W5-52R (BRIDGE HASH MARKS)
0010	10+33	RT	1	3	-	1	1	-	W5-52L (BRIDGE HASH MARKS)
0010	12+28	RT	-	-	1	-	-	1	W3-5 (SPEED REDUCTION AHEAD 30 MPH)
		TOTAL 0010	4	12	1	4	4	1	

TRAFFIC CONTROL

CATEGORY	LOCATION	DURATION DAYS	633.1100 DELINEATORS TEMPORARY EACH	NO.	643.0300 TRAFFIC CONTROL DRUMS DAY	NO.	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	NO.	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	NO.	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	NO.	643.0900 TRAFFIC CONTROL SIGNS DAY	643.5000 TRAFFIC CONTROL EACH
0010	PER SDD 15D31	100	32	26	2,600	20	2,000	8	800	12	1,200	32	3,200	-
0010	PER SDD 15D45	100	-	-	-	-	-	-	-	-	-	6	600	-
0010	CTH D	-	-	-	-	-	-	-	-	-	-	-	-	1
	TOTAL 0010		32		2,600		2,000		800		1,200		3,800	1

PAVEMENT MARKING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	646.1005 MARKING LINE PAINT 4-INCH WHITE LF	646.1005 MARKING LINE PAINT 4-INCH YELLOW LF
0010	9+19.75	-	10+80.25	WHITE EDGE LINE	161	-
0010	9+19.75	-	10+80.25	CENTERLINE SOLID	-	161
0010	9+19.75	-	10+80.25	CENTERLINE DASHES	-	50
0010	9+19.75	-	10+80.25	WHITE EDGE LINE	161	-
					322	211
				TOTAL 0010	533	

3

3

STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.6500.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) (01. B-61-0247) LS	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 7146-00-72) LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	9+19.75	-	10+80.25	MAINLINE	435	435	-	-	435
0010	18+94.70	-	22+18.64	TEMPORARY BYPASS	284	-	-	-	284
0010	7+95.06	-	12+91.94	PROJECT 7146-00-72	-	-	-	1	-
				TOTAL 0010	719	435	0	1	719
0020	9+68.75	-	10+31.25	B-61-0247	-	-	1	-	-
				TOTAL 0020	0	0	1	0	0
				PROJECT TOTAL	719	435	1	1	719

SAWING ASHALT

CATEGORY	STATION	-	STATION	LOCATION	690.0150 SAWING ASPHALT LF
0010	8+24.43	-	9+19.75	LT SHLDR	95
0010	8+27.04	-	9+19.75	RT SHLDR	93
0010		-	9+19.75	MAINLINE	20
0010		-	10+80.25	MAINLINE	21
0010	10+80.25	-	12+40.62	LT SHLDR	160
0010	10+80.25	-	12+29.92	RT SHLDR	150
				TOTAL 0010	539

MAINTAINING BIRD DETERRENT SYSTEM

CATEGORY	LOCATION	999.2005.S MAINTAINING BIRD DETERRENT SYSTEM EACH
0010	10+00	1
	TOTAL 0010	1

CONVENTIONAL SYMBOLS

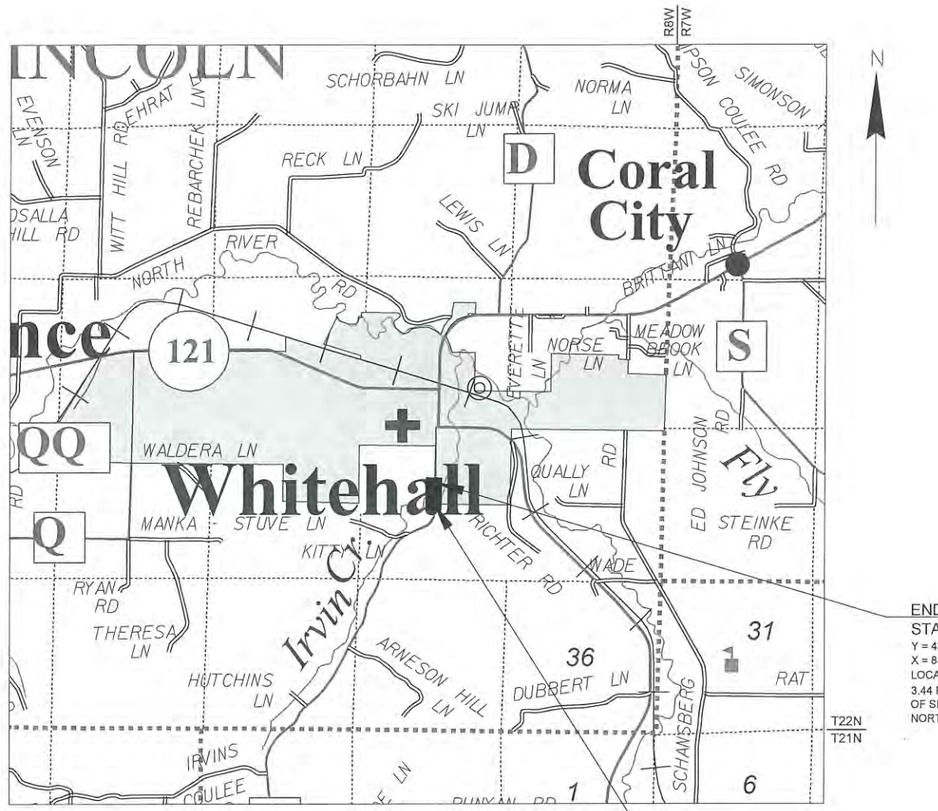
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA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

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

	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
PRW POINT NUMBER 100
TLE POINT NUMBER T150
PARALLEL OFFSETS



LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.085 MILES

END RELOCATION ORDER
STA 12+50.00
Y = 436264.890
X = 855996.786
LOCATED 2151.66 FEET SOUTH AND 3.44 FEET WEST OF THE NORTH ¼ CORNER OF SECTION 26, TOWNSHIP 22 NORTH, RANGE 8 WEST.

BEGIN RELOCATION ORDER
STA 8+00.00
Y = 435814.901
X = 855994.732
LOCATED 2601.65 FEET SOUTH AND 5.50 FEET WEST OF THE NORTH ¼ CORNER OF SECTION 26, TOWNSHIP 22 NORTH, RANGE 8 WEST.

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
7146-00-02		
CONSTRUCTION PROJECT NUMBER 7146-00-72	4.01	2

PLAT OF RIGHT OF WAY REQUIRED FOR

ETTRICK - WHITEHALL

IRVIN CREEK BRIDGE B-61-0247

CTH D	TREMPEALEAU COUNTY

CONVENTIONAL ABBREVIATIONS

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

NOTES:

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

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.

PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE THE NECESSARY EQUIPMENT THEREON AND 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 NECESSARY OR DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSE ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (¾"x24" CAPPED IRON REBAR WEIGHING 1.50 LBS.LIN. FT.) AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

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.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINT OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH "D" SHOWN HEREIN IS PRESUMED TO BE 66 FEET IN WIDTH CENTERED ON THE EXISTING CENTERLINE OF THE TRAVELED WAY PER STATE STATUTE 82.31(2).

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	SS
ELECTRIC TOWER	⊠

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

REVISION DATE
10/08/2021

APPROVED
FOR
TREMPEALEAU COUNTY HIGHWAY DEPARTMENT

10/18/21
DATE

HIGHWAY COMMISSIONER

PLAT PREPARED BY
AYRES

THE SURVEY IS PREPARED AT THE REQUEST OF THE TREMPEALEAU COUNTY HIGHWAY DEPARTMENT.

THE FIELD SURVEY WAS PERFORMED IN DECEMBER 2019.

THIS SURVEY IS ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

WISCONSIN
CHRISTOPHER R. BADTKE
S-3150
EAU CLAIRE
WI
LAND SURVEYOR

05/19/2021
DATE

CHRISTOPHER R. BADTKE, P.L.S.
S-3150

FILE NAME : I:\74\EC\421203.00 TREMPEALEAU CTH D OVER IRVIN CREEK\CADD\C3D\RW\71460002_0401.DWG
PLOT DATE : 10/8/2021 10:17 AM
PLOT BY : BADTKE, CHRISTOPHER
PLOT NAME :

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NO.	OWNER(S)	INTEREST REQUIRED	R/W (ACRES)	
			PLE	TLE
1	MICHAEL C. BURKART AND MURIEL C. MULLEN-BURKART	PLE & TLE	0.026	0.179
2	JOHN A. SPEERSTRA AND MARY S. SPEERSTRA	PLE & TLE	0.016	0.223
3	JEROME PUCHALLA	PLE	0.101	- - - -
4	NORTHERN STATES POWER COMPANY	PLE	0.002	- - - -

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

UTILITY INTERESTS REQUIRED

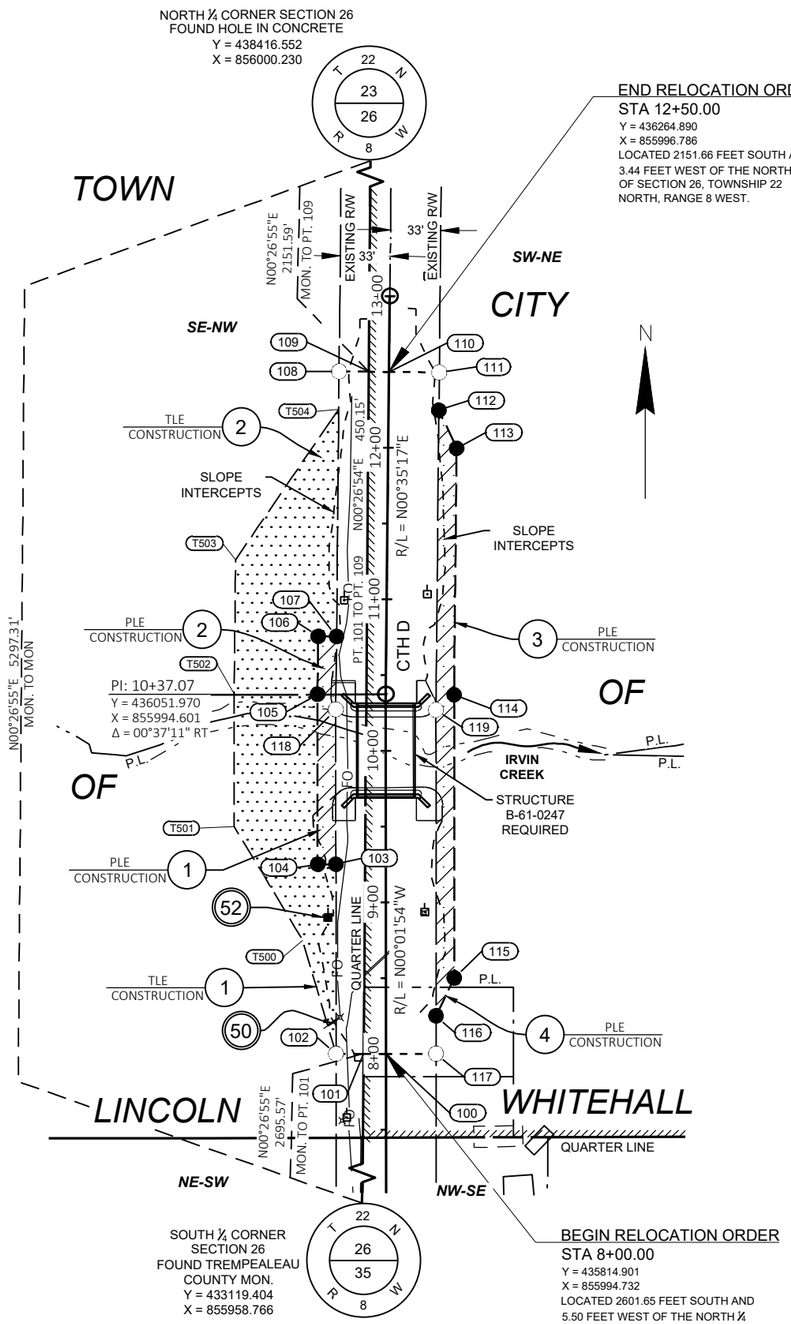
UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED	EASEMENTS
50	TRI-COUNTY COMMUNICATIONS	RELEASE OF RIGHTS	NO EASEMENT OF RECORD
51	XCEL ENERGY-ELECTRIC	RELEASE OF RIGHTS	V. 69, P. 372, DOC. 89944 V. 155, P. 548, DOC. 186539 V. 155, P. 550, DOC. 186540 V. 897, P. 47, DOC. 409942
52	XCEL ENERGY-TRANSMISSION	RELEASE OF RIGHTS	V. 106, P. 510, DOC. 144896 V. 106, P. 571, DOC. 144943 V. 106, P. 571, DOC. 145680
53	WHITEHALL ELECTRIC UTILITY	RELEASE OF RIGHTS	V. 135, P. 4, DOC. 178915 V. 213, P. 401, DOC. 208415

TLE STATION & OFFSET TABLE		
POINT	STATION	OFFSET
T500	8+75.00	55.00' LT
T501	9+50.00	100.00' LT
T502	10+37.61	100.00' LT
T503	11+25.00	100.00' LT
T504	12+25.00	32.97' LT

TLE COURSE TABLE		
COURSE	BEARING	DISTANCE
102-T500	N16°22'47"W	78.16'
T500-T501	N30°59'44"W	87.46'
T501-T502	N00°01'54"W	87.61'
T502-T503	N00°35'17"E	88.47'
T503-T504	N34°25'18"E	120.39'
T504-107	S00°33'54"W	150.00'
107-106	N89°24'43"W	12.09'
106-105	S00°35'17"W	38.17'
105-104	S00°01'54"E	112.31'
104-103	N89°58'06"E	12.00'
103-102	S00°01'54"E	125.00'

PLE STATION & OFFSET TABLE		
POINT	STATION	OFFSET
103	9+25.00	33.00' LT
104	9+25.00	45.00' LT
105	10+37.31	45.00' LT
106	10+75.00	45.00' LT
113	12+00.00	45.00 RT
114	10+37.31	45.00 RT
115	8+50.00	45.00 RT

PLE COURSE TABLE		
COURSE	BEARING	DISTANCE
103-104	S89°58'06"W	12.00'
104-105	N00°01'54"W	112.31'
105-106	N00°35'17"E	38.17'
106-107	S89°24'43"E	12.09'
107-118	S00°33'54"W	48.12'
118-103	S00°01'54"E	102.24'



R/W STATION & OFFSET TABLE					
POINT	STATION	OFFSET	POINT	STATION	OFFSET
100	8+00.00	0.00	111	12+50.00	33.02 RT
101	8+00.00	14.87 LT	112	12+25.00	33.03 RT
102	8+00.00	33.00 LT	116	8+25.00	33.00 RT
107	12+25.00	32.97 LT	117	8+00.00	33.00 RT
108	12+50.00	32.98 LT	118	10+27.24	33.00 LT
109	12+50.00	13.40 LT	119	10+26.90	33.00 RT
110	12+50.00	0.00			

PLE COURSE TABLE		
COURSE	BEARING	DISTANCE
112-113	S24°59'55"E	27.72'
113-114	S00°35'17"W	162.69'
114-115	S00°01'54"E	186.83'
115-116	S25°36'34"W	27.73'
116-119	N00°01'54"W	201.90'
119-112	N00°33'54"E	197.75'

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
100-101	S89°58'06"W	14.87'
101-102	S89°58'06"W	18.13'
102-103	N00°01'54"W	125.00'
103-118	N00°01'54"W	102.24'
118-107	N00°33'54"E	48.12'
107-108	N00°33'54"E	175.00'
108-109	S89°24'43"E	19.58'
109-110	S89°24'43"E	13.40'
110-111	S89°24'43"E	33.02'
111-112	S00°33'54"W	25.00'
112-119	S00°33'54"W	197.75'
119-116	S00°01'54"E	201.90'
116-117	S00°01'54"E	25.00'
117-100	S89°58'06"W	33.00'

REVISION DATE 10/08/2021	DATE 05/19/2021	SCALE, FEET 0 50 100	HWY: COUNTY HIGHWAY D	STATE R/W PROJECT NUMBER 7146-00-02	PLAT SHEET 4.02
	GRID FACTOR		COUNTY: TREMPEALEAU	CONSTRUCTION PROJECT NUMBER 7146-00-72	PS&E SHEET 15 E

FILE NAME : 71460002_0401.DWG
LAYOUT NAME - 4.02

PLOT DATE : 10/8/2021 10:17 AM PLOT BY : BADTKE, CHRISTOPHER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 75

NO.	STA.	BENCH MARKS ⊕ DESCRIPTION	ELEV.
50	9+74	120'D' SPK IN E. END OF S. ABUT., 17.3' RT.	836.67
51	10+99	120'D' SPK IN PPOLE, 27.8' LT.	834.44

NOTE:
FOR ALIGNMENT CONTROL POINTS, TIES, BEARINGS, AND COORDINATES, SEE "ALIGNMENT CONTROLS" SHEET.

TEMPORARY BYPASS ADVISORY SPEED 15 MPH

℄ OF TEMPORARY BYPASS
TLE
TEMPORARY STRUCTURE
BYPASS SLOPE INTERCEPTS
BYPASS SLOPE INTERCEPT
TRI-COUNTY COMMUNICATIONS
XCEL ENERGY (DISTRIBUTION)
66'
EXISTING R/W
CP*1
PLE
BM*51
CP*3
CTH D
(ASPHALT)
LUMEN TECHNOLOGIES
CP*4
℄ OF CTH D
CP*2
BM*50
EXISTING STRUCTURE (P-61-0712) TO BE REMOVED
WHITEHALL ELECTRIC & TRI-COUNTY COMMUNICATIONS
XCEL ENERGY (TRANSMISSION)
IRVIN CREEK

BEGIN BYPASS
STA. 18+94.70
Y = 435907.72
X = 855984.01

END BYPASS
STA. 22+18.64
Y = 436198.54
X = 855985.89

18+00
8+00
19+00
9+00
20+00
10+00
21+00
11+00
22+00
12+00

EARTHWORK SUMMARY - TEMP. BYPASS

EXC. COMMON	104 C.Y.
FILL	932 C.Y.
SHR. = 30%	
BORROW	1108 C.Y.

EARTHWORK SUMMARY - TEMP. BYPASS REMOVAL

EXC. COMMON	1392 C.Y.*
FILL	104 C.Y.
WASTE	1257 C.Y.

*INCLUDES 284 CY OF BASE AGGREGATE DENSE 3/4 -INCH

STA. 20+41
TEMPORARY STRUCTURE SHALL HAVE
A MINIMUM LOW CHORD OF 833.96
AND A 24.0' MIN. CLEAR ROADWAY WIDTH
PROVIDE A MINIMUM BRIDGE OPENING OF 69.0 SQ FT
MINIMUM 25.5' CLEAR SPAN

EXISTING ℄ PROFILE
@ TEMPORARY BYPASS
TEMPORARY BYPASS PROFILE
WATER EL. 824.44 (12-4-19)
-0.16%
PI STA 18+94.70
PI EL 837.49
PI STA 22+18.64
PI EL 836.96
STREAM BED EL. 823.5±
EXISTING ELEVATION
PROPOSED ELEVATION

838.55	838.32	838.11	837.76	837.40	**837.48**	837.35	**837.40**	835.00	**837.32**	826.30	**837.23**	832.85	**837.15**	833.23	**837.07**	834.63	**836.99**	837.30	837.51				
17+00	17+50	18+00	18+50	19+00		19+50		20+00		20+50		21+00		21+50		22+00		22+50		23+00			

PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	PLAN AND PROFILE - TEMPORARY BYPASS	SCALE, FEET 0 25 50	SHEET 16	E

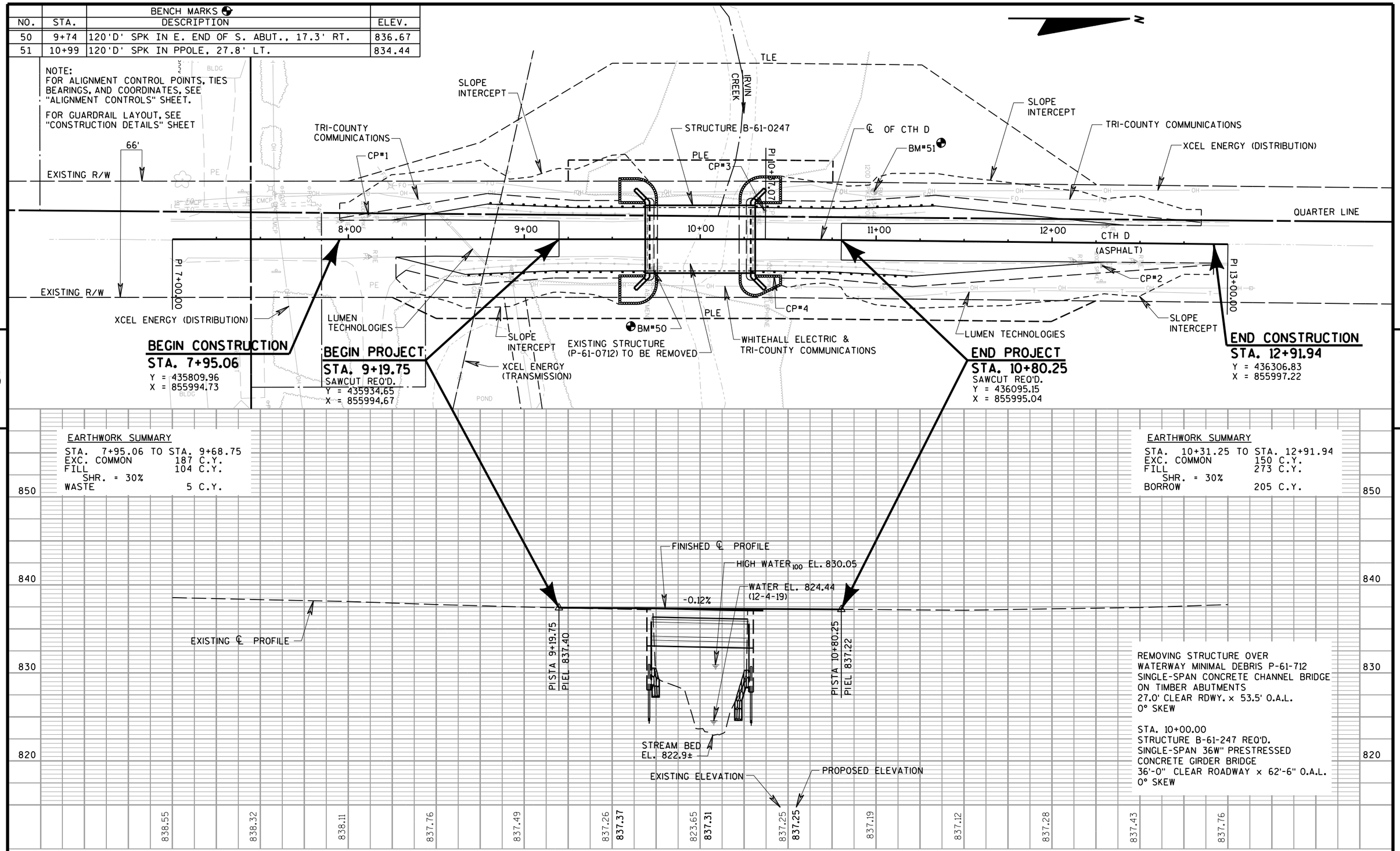
I:\42\42-1203.00 - Trempealeau Co, CTH D\Roadway\421203 pp byp.dgn 10/8/2021 PENTABLE:Wisdot_shd.tbl walderak 1:50

WISDOT/CADDS SHEET 40

NO.	STA.	BENCH MARKS DESCRIPTION	ELEV.
50	9+74	120'D' SPK IN E. END OF S. ABUT., 17.3' RT.	836.67
51	10+99	120'D' SPK IN PPOLE, 27.8' LT.	834.44

NOTE:
FOR ALIGNMENT CONTROL POINTS, TIES BEARINGS, AND COORDINATES, SEE "ALIGNMENT CONTROLS" SHEET.

FOR GUARDRAIL LAYOUT, SEE "CONSTRUCTION DETAILS" SHEET



EARTHWORK SUMMARY

STA. 7+95.06 TO STA. 9+68.75
EXC. COMMON 187 C.Y.
FILL 104 C.Y.
SHR. = 30%
WASTE 5 C.Y.

EARTHWORK SUMMARY

STA. 10+31.25 TO STA. 12+91.94
EXC. COMMON 150 C.Y.
FILL 273 C.Y.
SHR. = 30%
BORROW 205 C.Y.

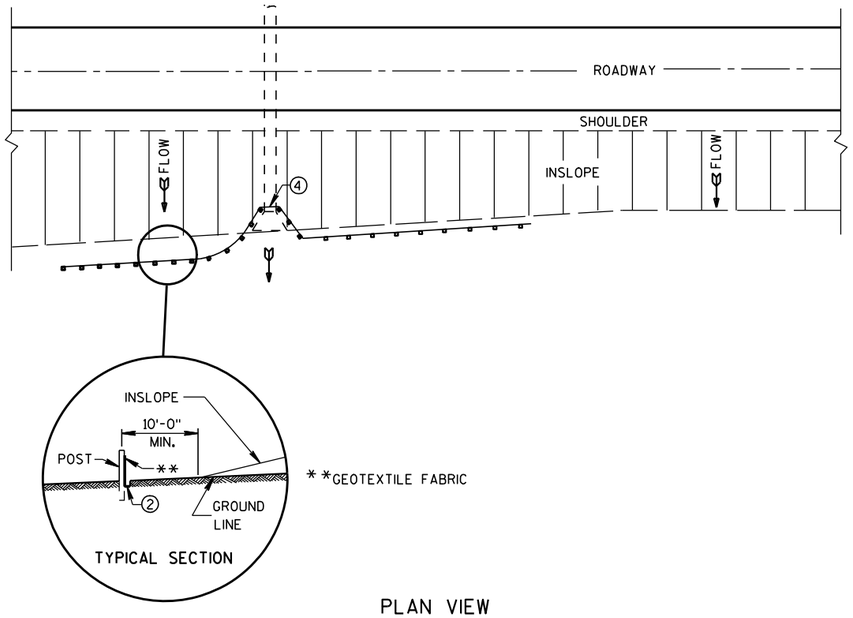
REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-61-712
SINGLE-SPAN CONCRETE CHANNEL BRIDGE
ON TIMBER ABUTMENTS
27.0' CLEAR RDWY. x 53.5' O.A.L.
0° SKEW

STA. 10+00.00
STRUCTURE B-61-247 REQ'D.
SINGLE-SPAN 36W" PRESTRESSED CONCRETE GIRDER BRIDGE
36'-0" CLEAR ROADWAY x 62'-6" O.A.L.
0° SKEW

PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	PLAN AND PROFILE - MAINLINE	SCALE, FEET 0 25 50	SHEET 17	E

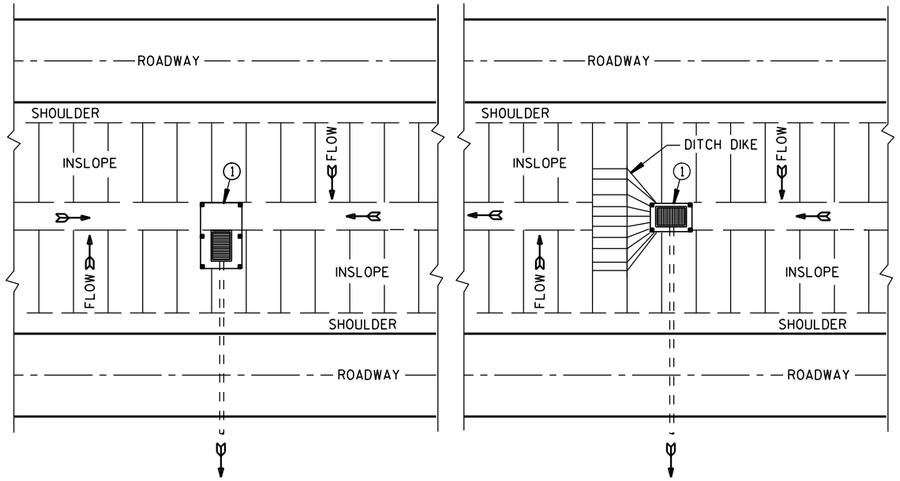
Standard Detail Drawing List

08E09-06	SILT FENCE
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A04-06A	PERMANENT FLEXIBLE DELINEATOR POST
15A04-06C	DELINEATOR POST WITH REFLECTIVE SHEETING
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D31-03	TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



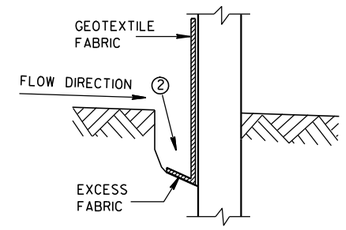
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

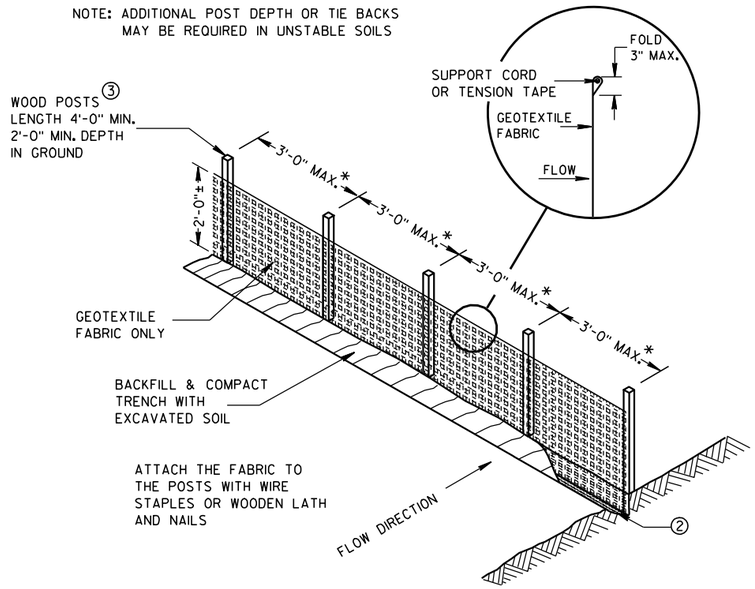
GENERAL NOTES

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

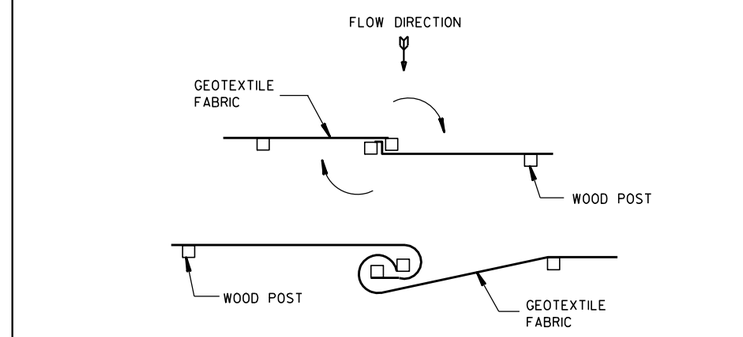
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



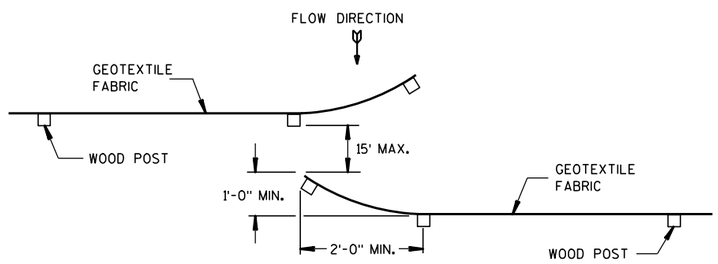
TRENCH DETAIL



SILT FENCE

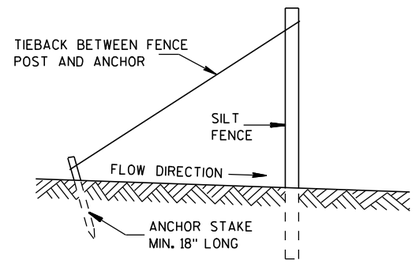


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

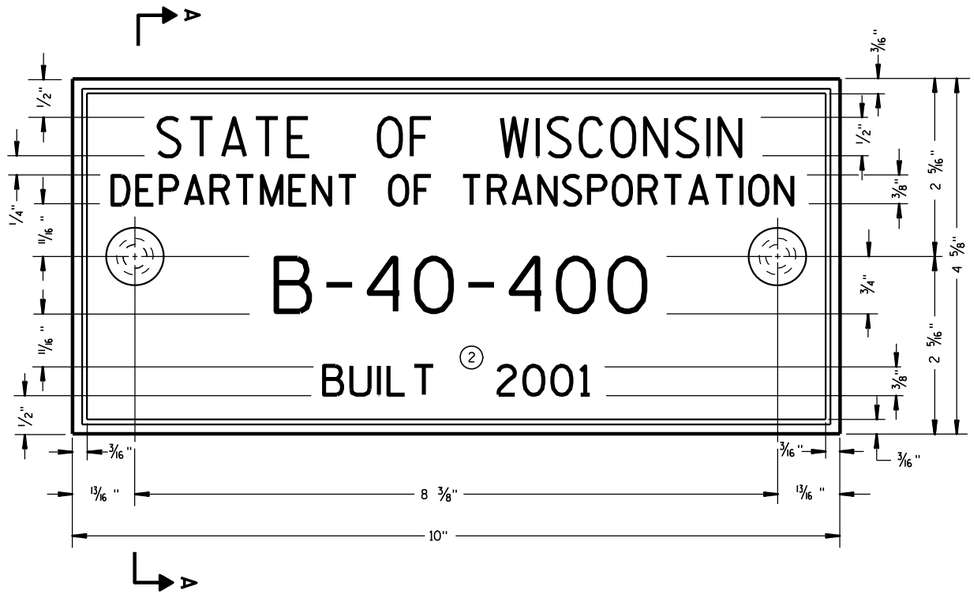
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

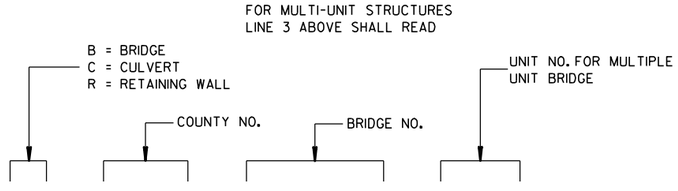
6

S.D.D. 8 E 9-6



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

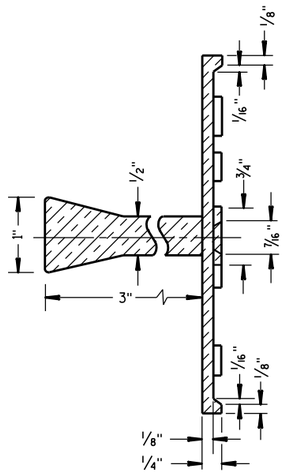
GENERAL NOTES

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

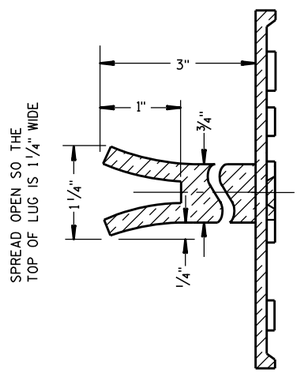
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

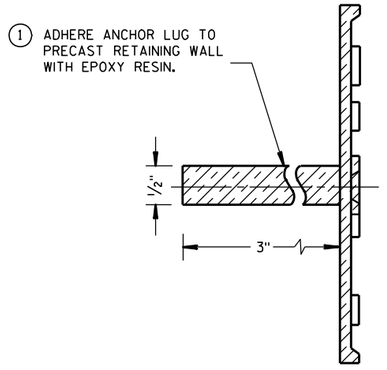
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

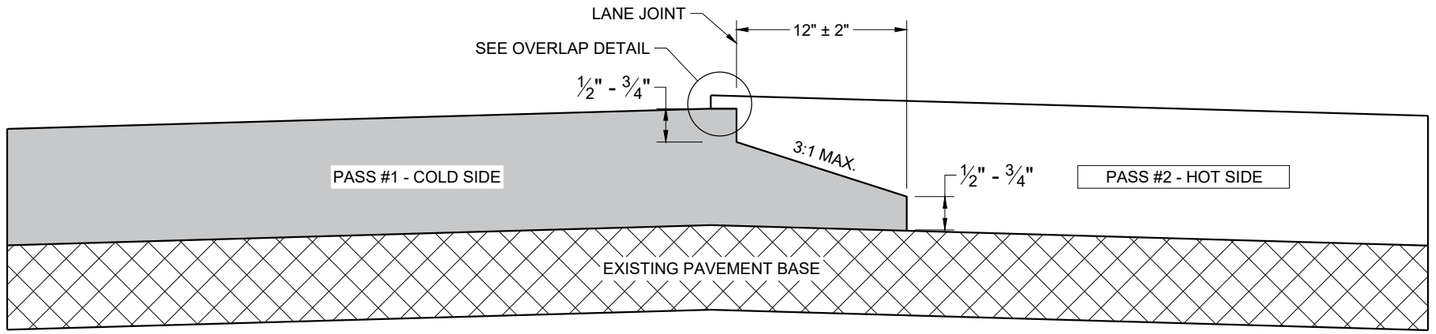
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP 20 ENGINEER
FHWA	

6

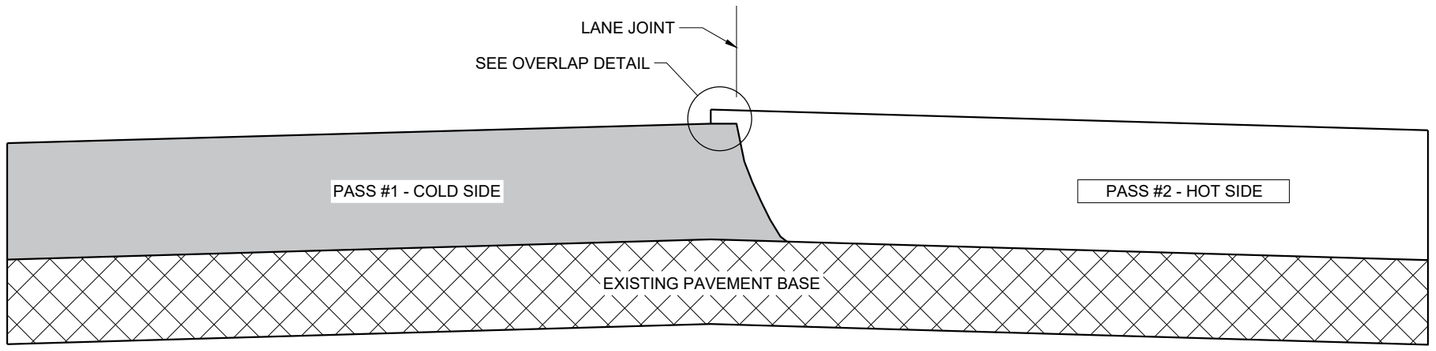
S.D.D. 12 A 3-10

6

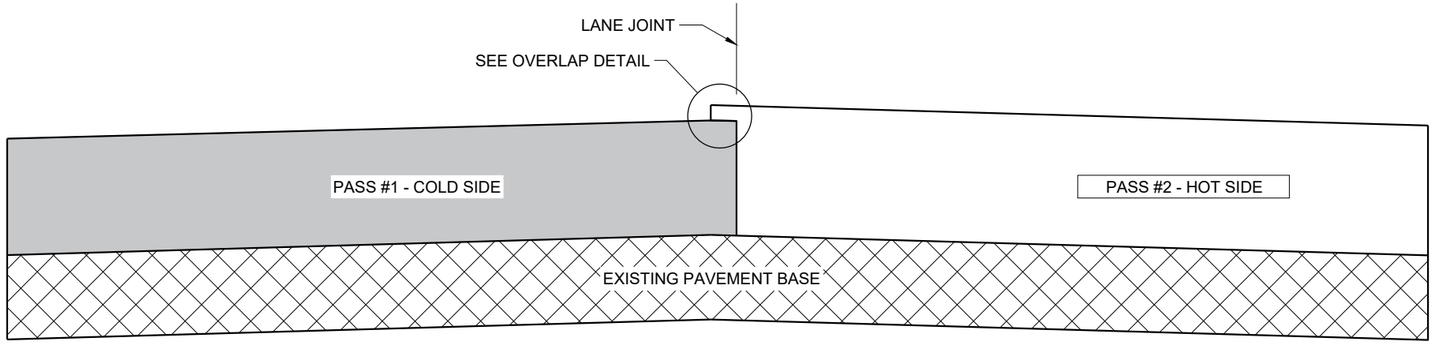
S.D.D. 12 A 3-10



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

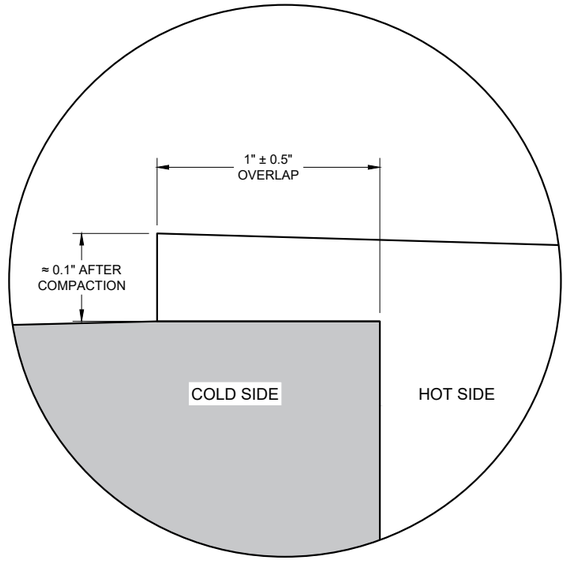
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

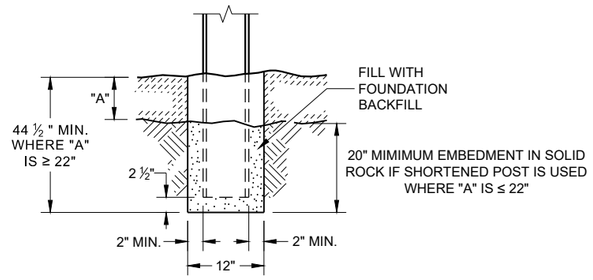
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

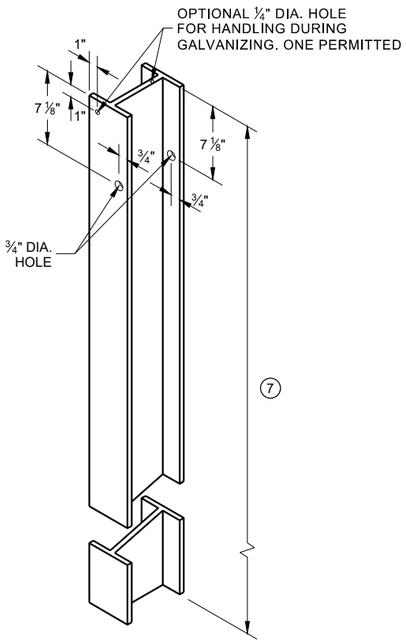
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

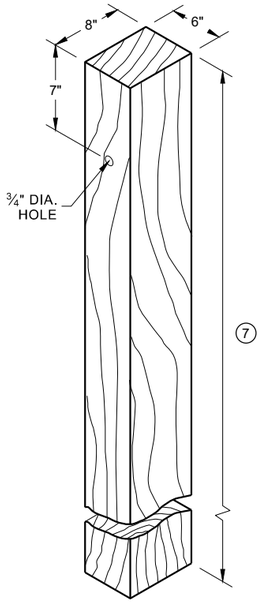
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



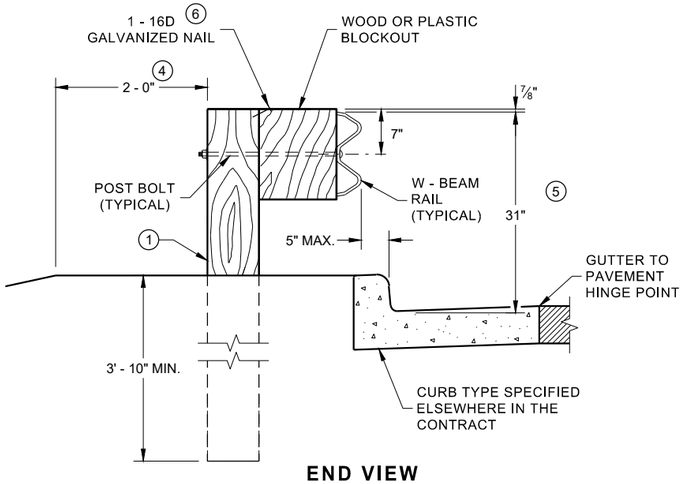
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



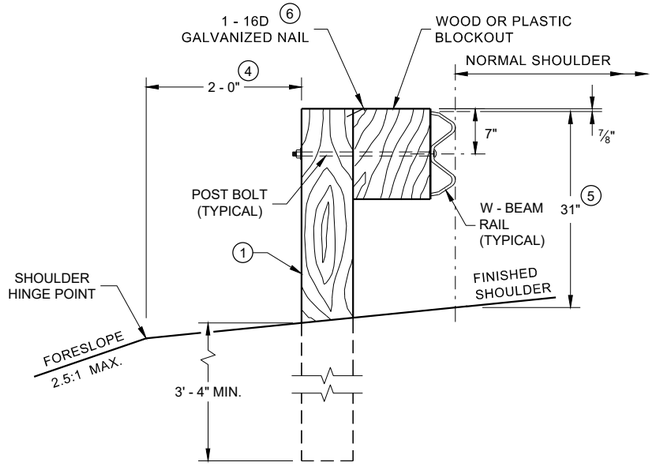
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



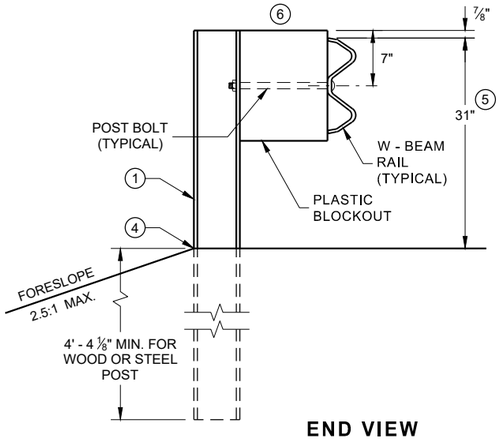
WOOD POST (6" X 8") NOMINAL (1)



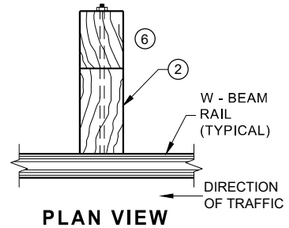
END VIEW
LOCATED ALONG A CURBED ROADWAY



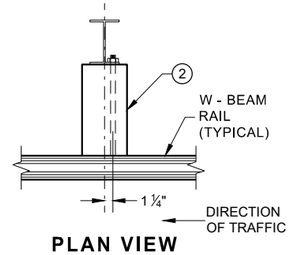
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



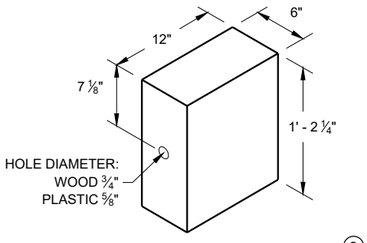
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



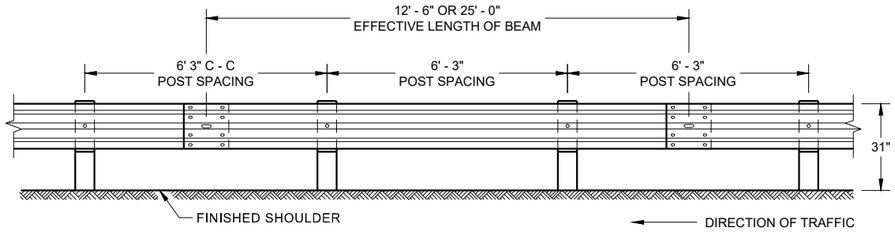
WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

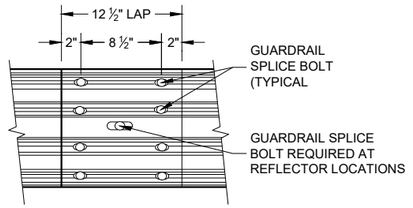
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 07a

SDD 14B42 - 07a



FRONT VIEW
POST SPACING STANDARD INSTALLATION



FRONT VIEW
MID-SPAN BEAM SPLICE

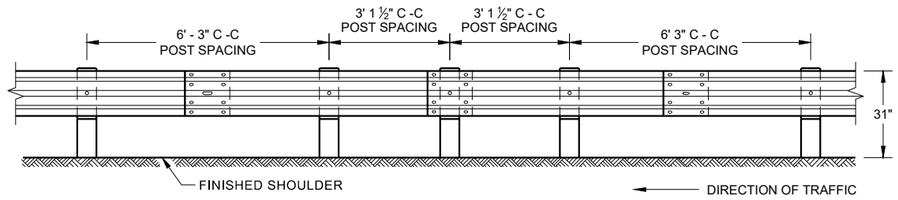
GENERAL NOTES

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

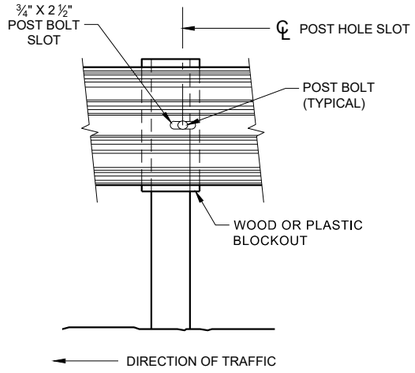
(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

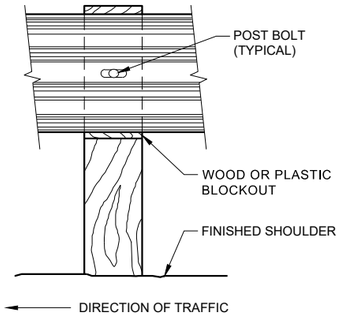
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



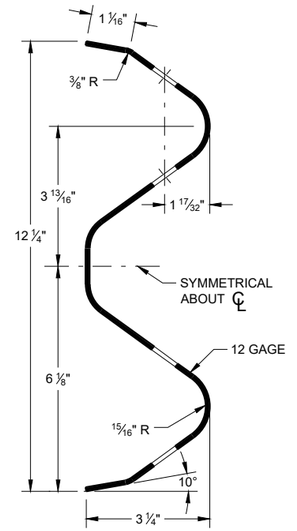
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



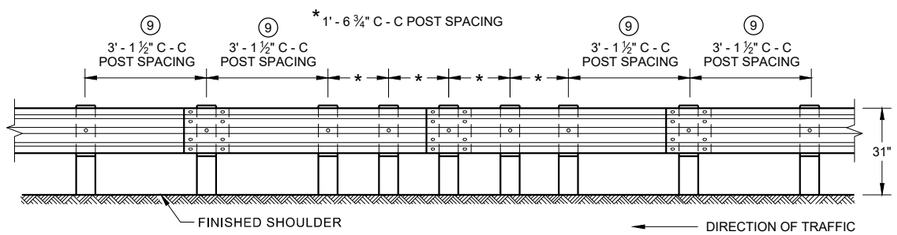
FRONT VIEW AT STEEL POST



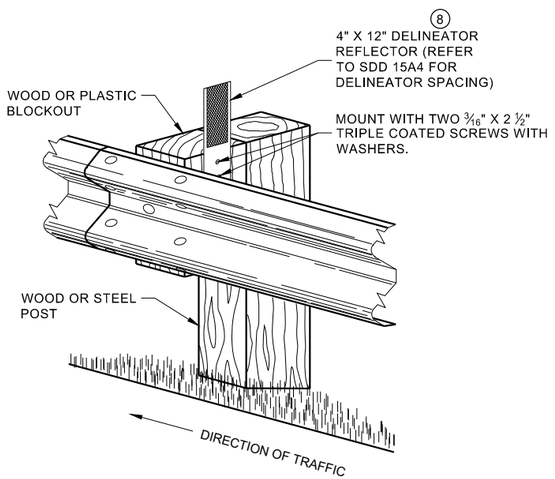
FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



FRONT VIEW
QUARTER POST SPACING (QS)

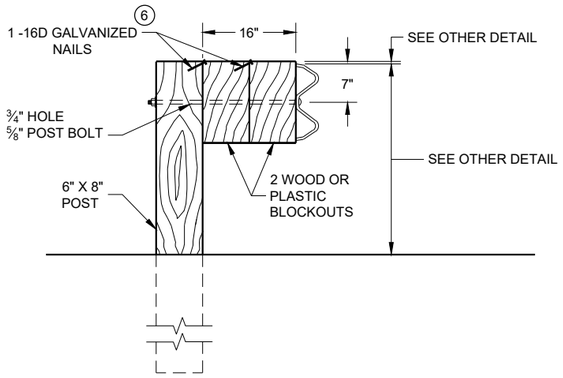


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 07b

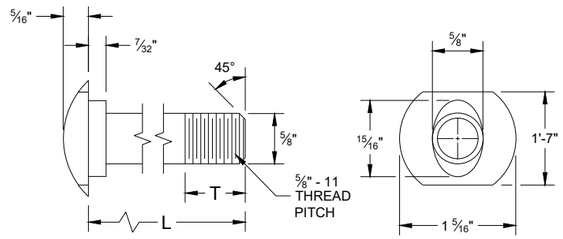


DETAIL FOR 16" BLOCKOUT DEPTH

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

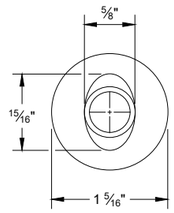
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

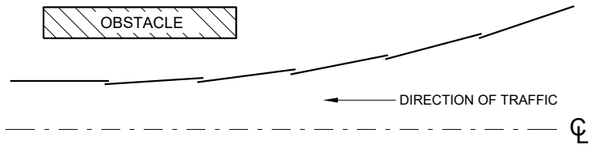


POST BOLT TABLE

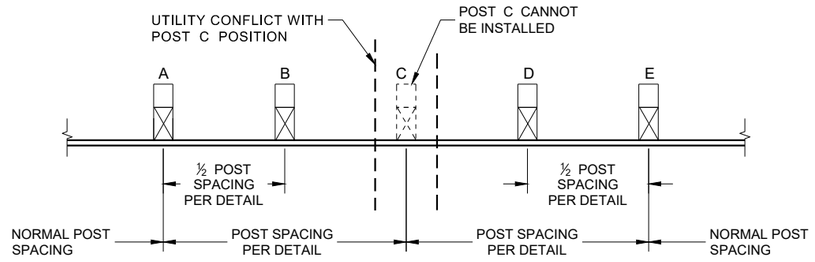
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



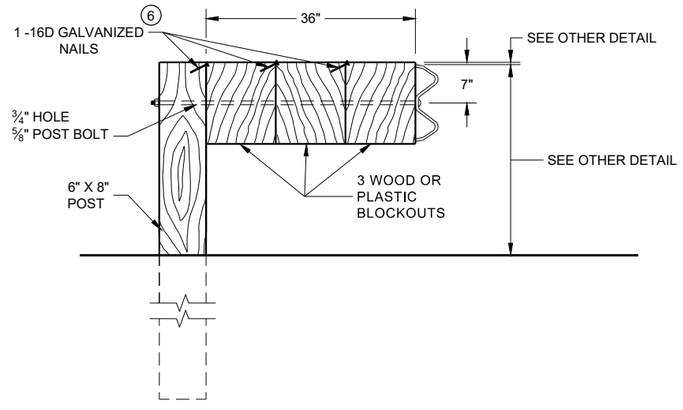
ALTERNATE BOLT HEAD



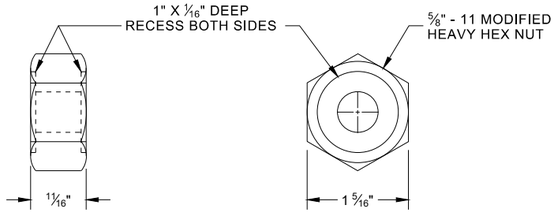
PLAN VIEW
BEAM LAPPING DETAIL



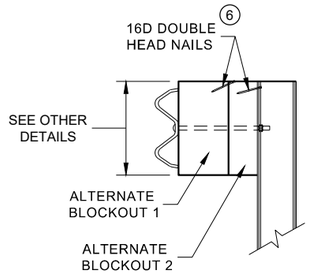
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



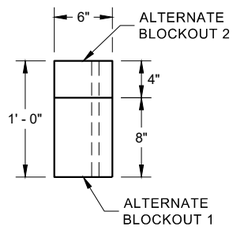
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

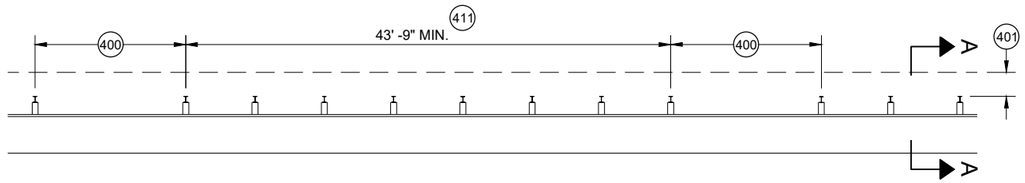
ALTERNATE WOOD BLOCKOUT DETAIL

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

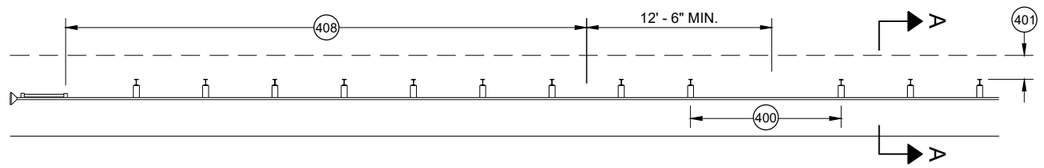
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

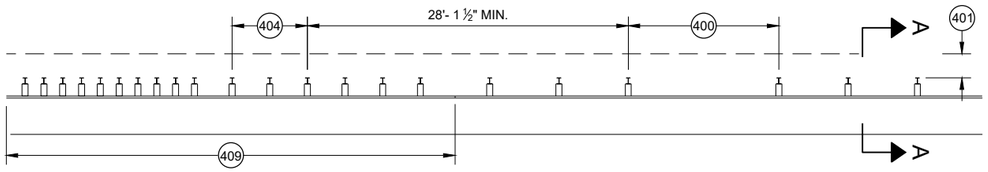
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



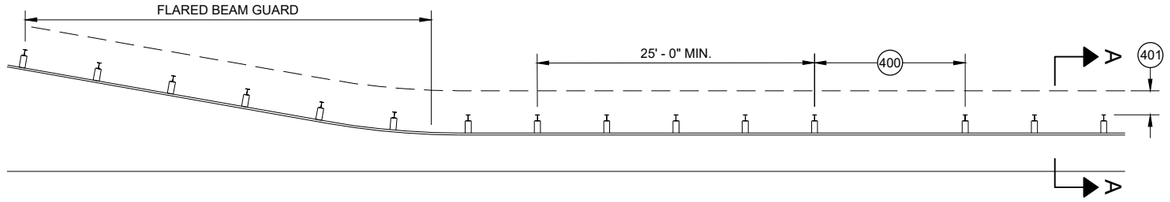
MISSING POST IN MGS GUARDRAIL



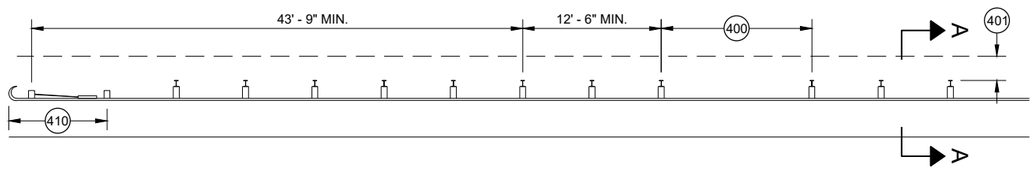
MISSING POST IN MGS GUARDRAIL NEAR EAT



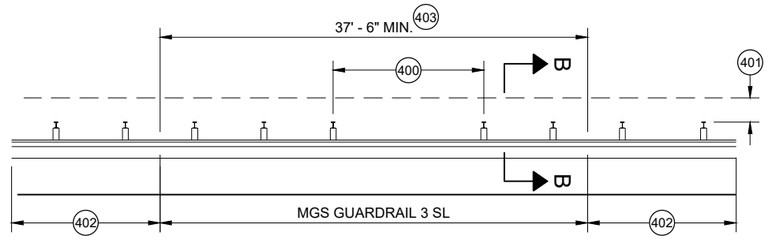
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

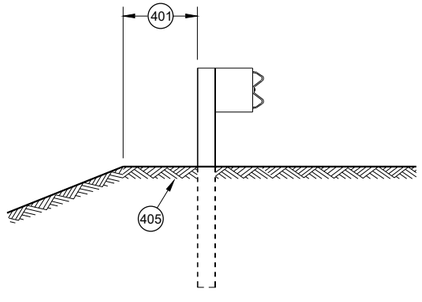


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

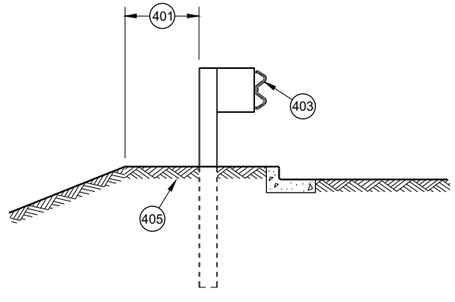


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(400) MAX SPAN 12' - 6"
(401) 2' MIN.
(402) MGS GUARDRAIL 3
(403) NESTING BEAM GUARD
(404) ASYMMETRIC TRANSITION
(405) SOIL WELL DRAINED AND COMPACTED
(406) SEE OTHER DRAWINGS IN THIS SDD
(407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
(408) SEE SDD 14B44
(409) SEE SDD 14B45
(410) SEE SDD 14B47
(411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 07d

6

SDD 14B42 - 07d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

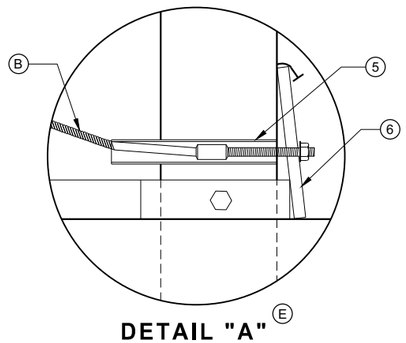
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

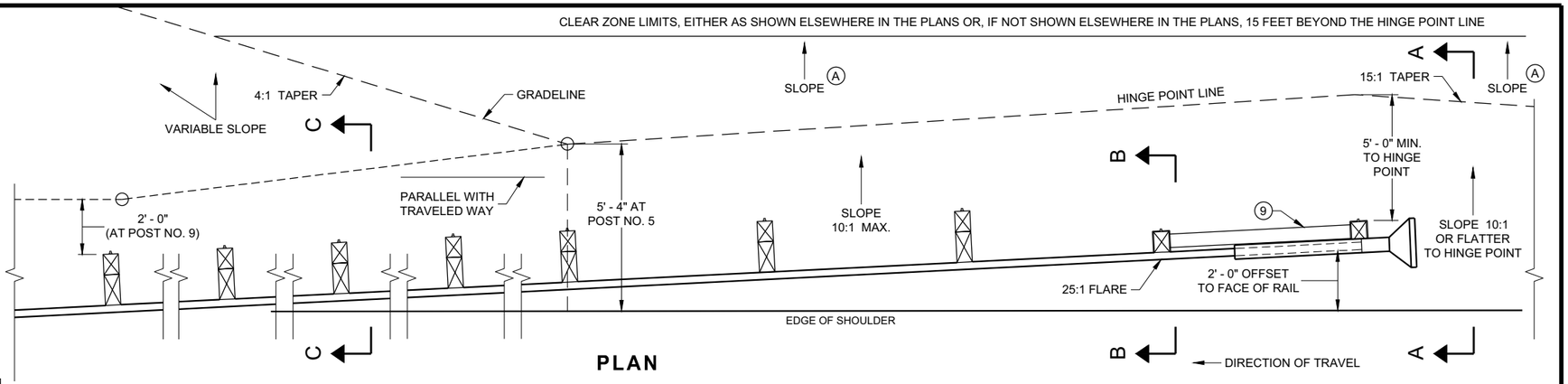
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

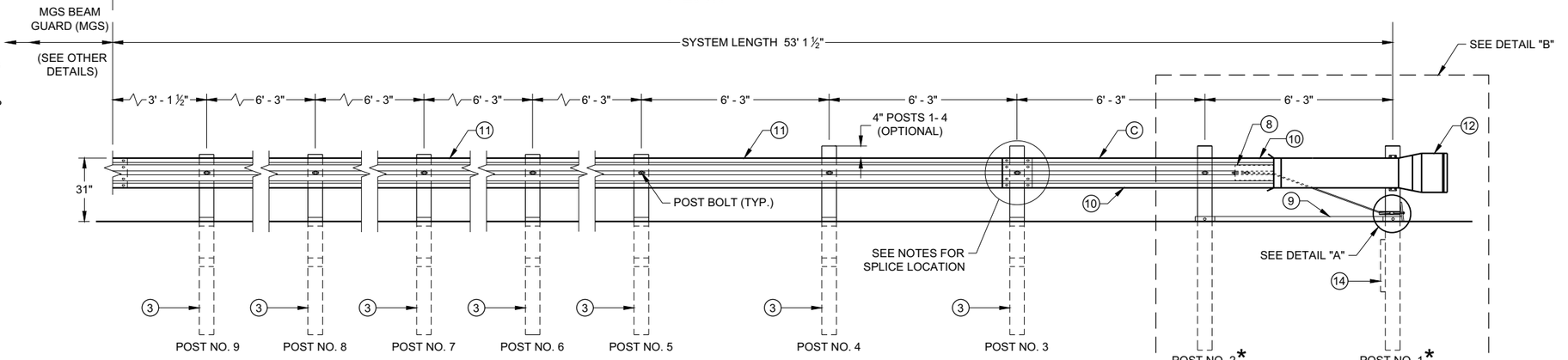
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



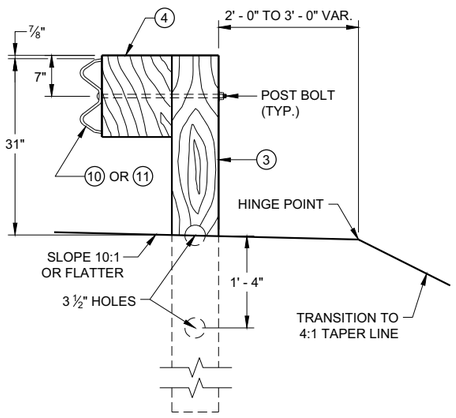
DETAIL "A" (E)



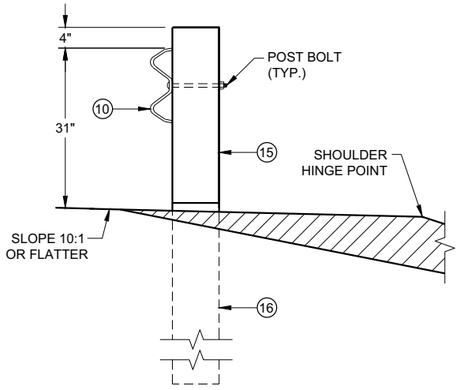
PLAN



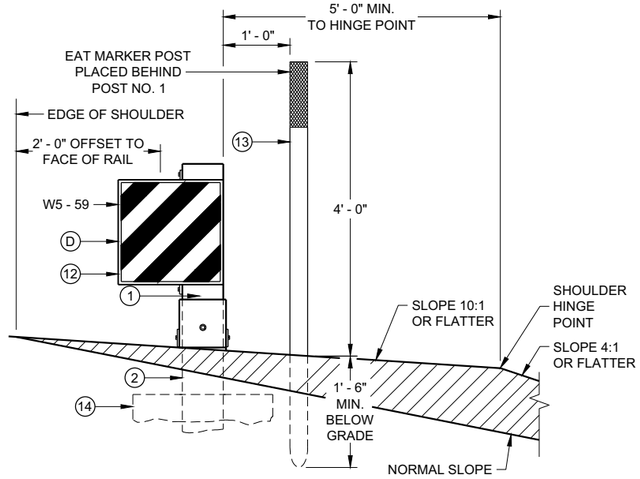
ELEVATION



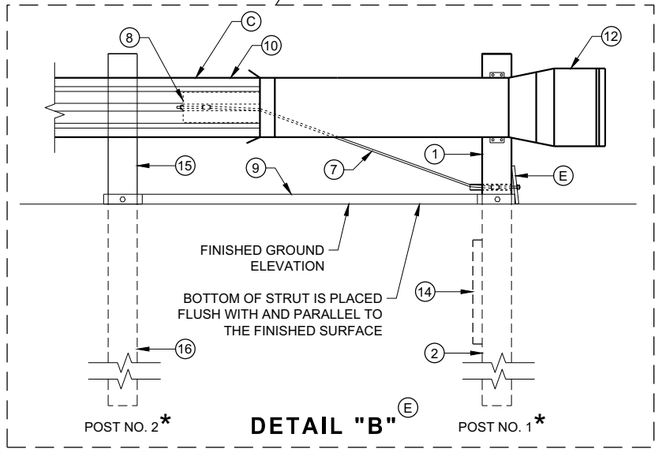
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



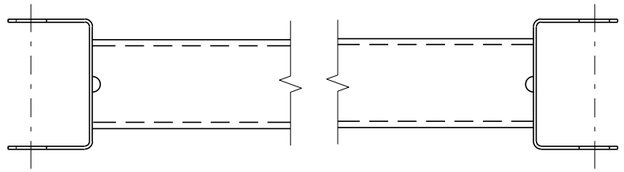
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

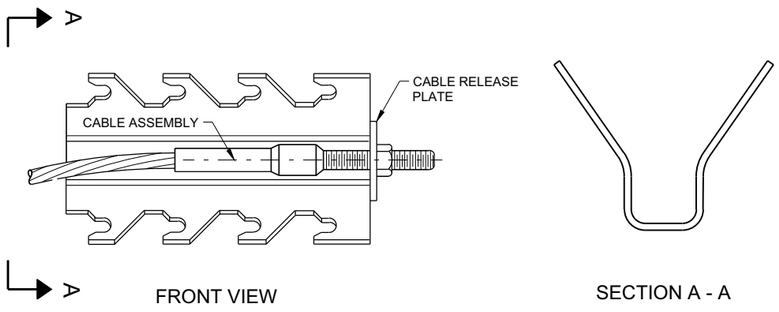
SDD 14B44 - 04a



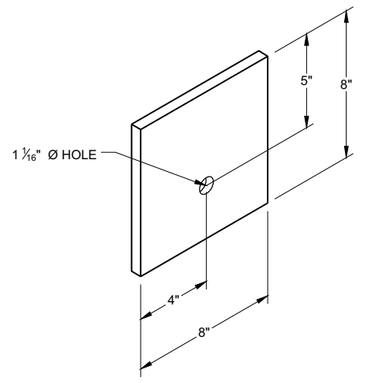
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

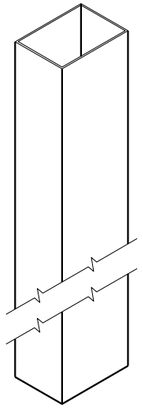
6

SDD 14B44 - 04b

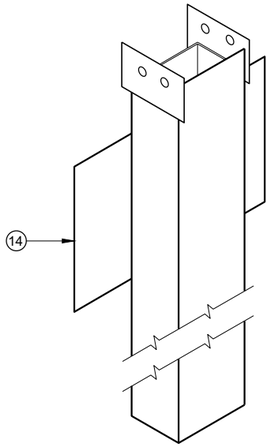
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

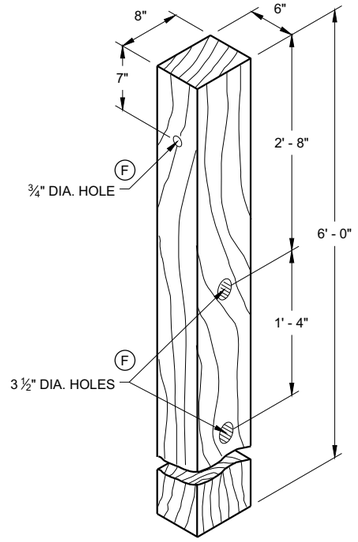
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



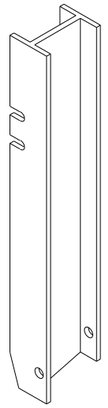
UPPER POST NO. 1 (1) (E)



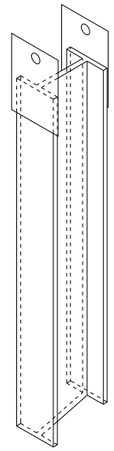
LOWER POST NO. 1 (2) (E)



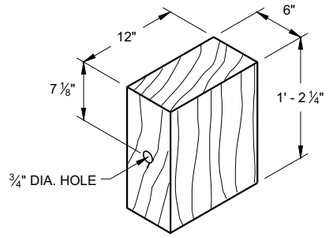
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



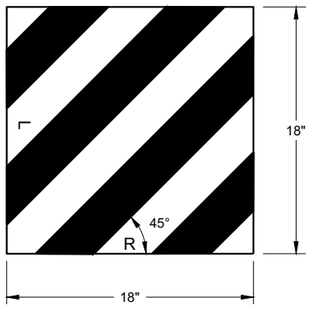
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

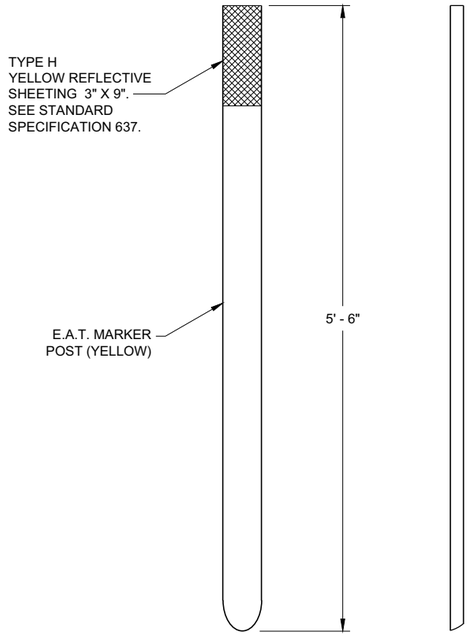


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



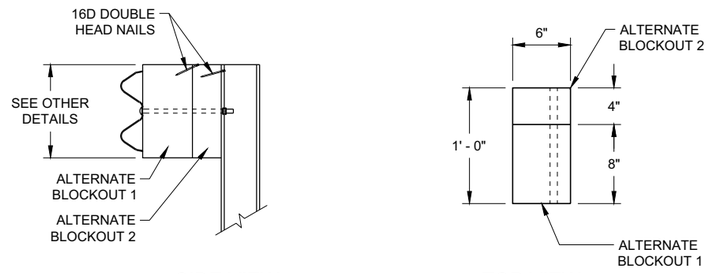
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

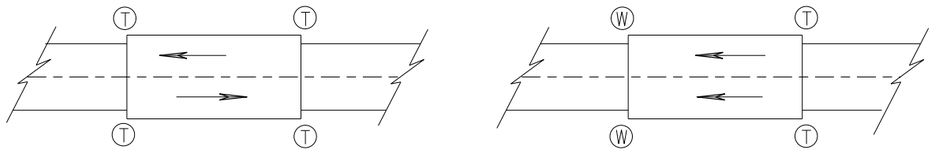
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

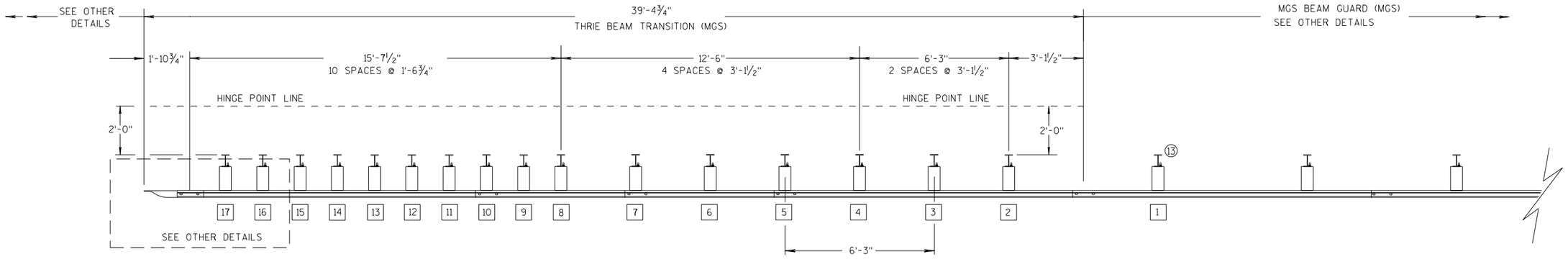
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

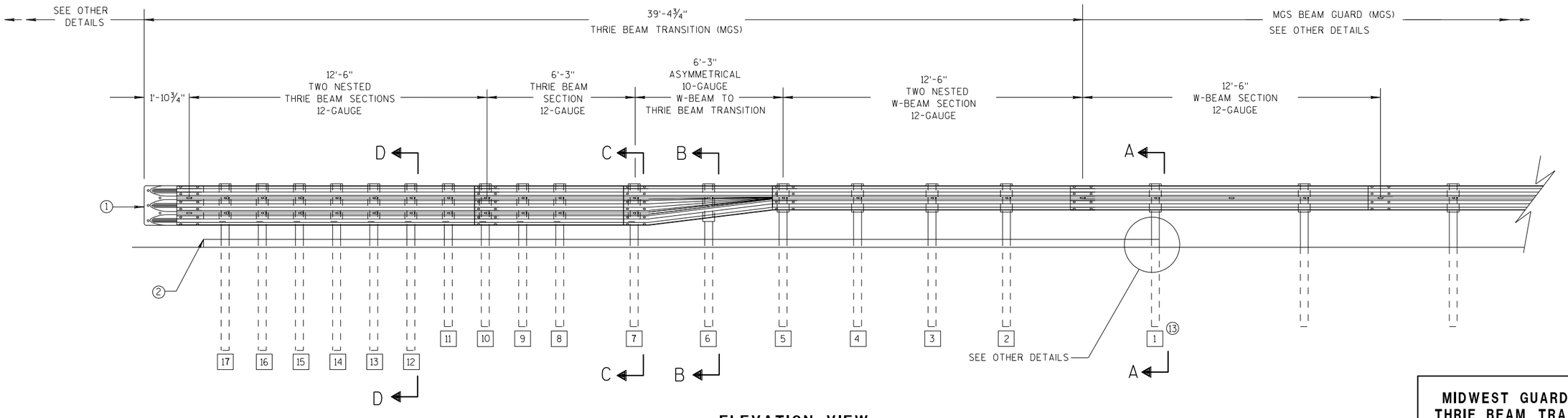
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-5a

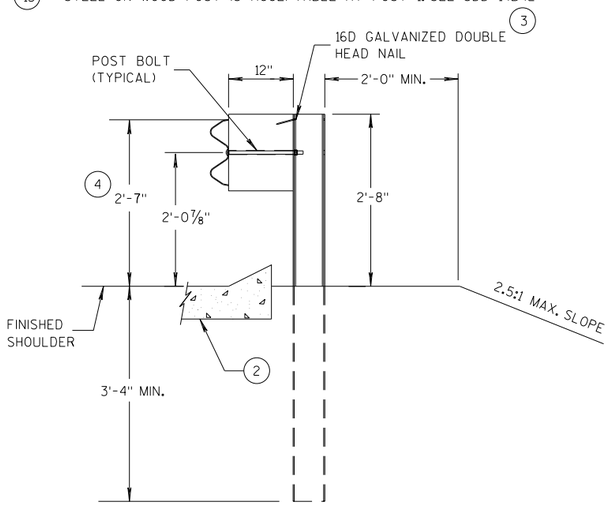
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

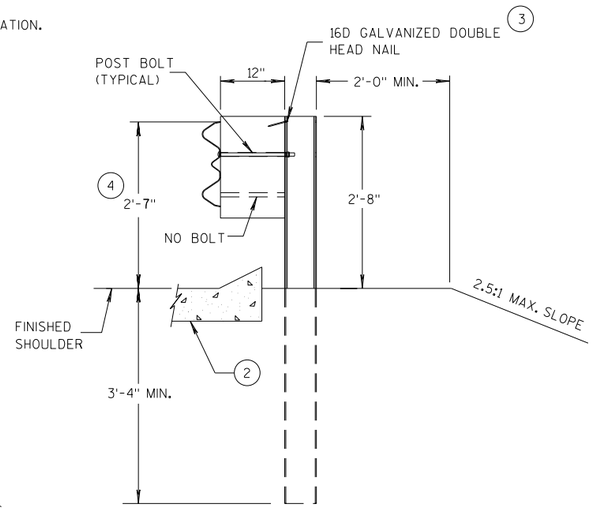
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



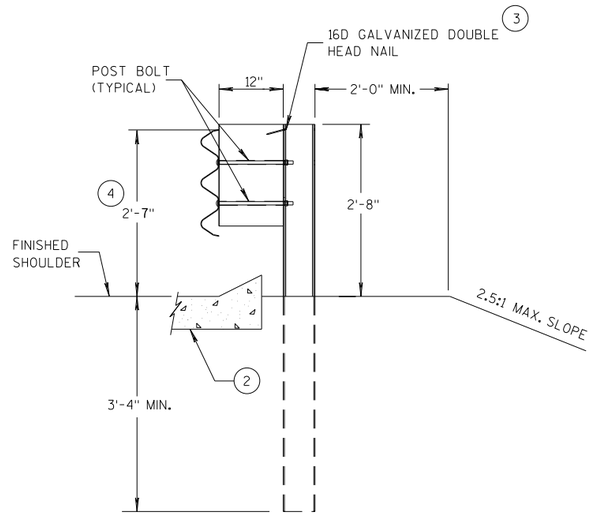
SECTION A-A (13)

POSTS 1-5



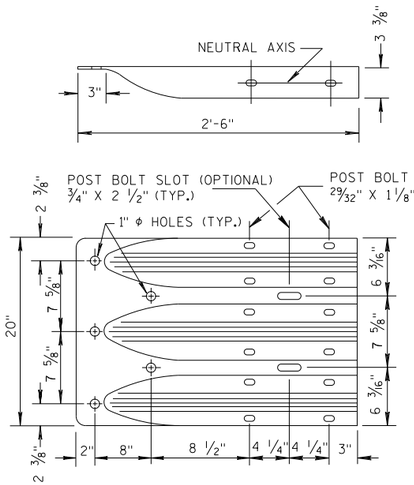
SECTION B-B

POST 6

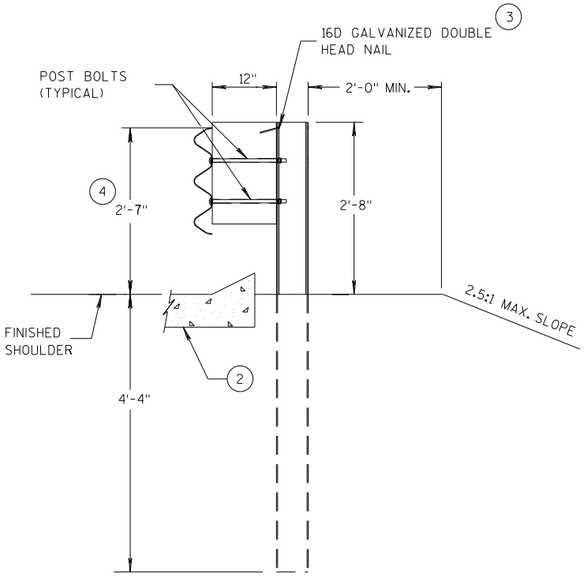


SECTION C-C

POSTS 7-11

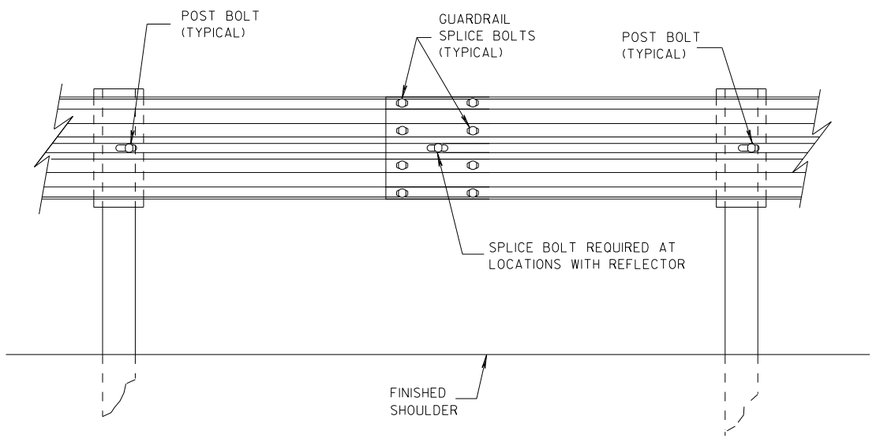


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

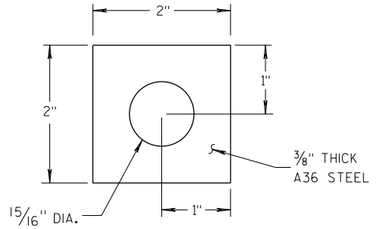
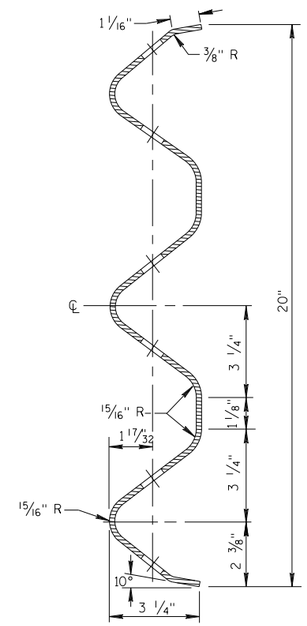


PLATE WASHER DETAIL



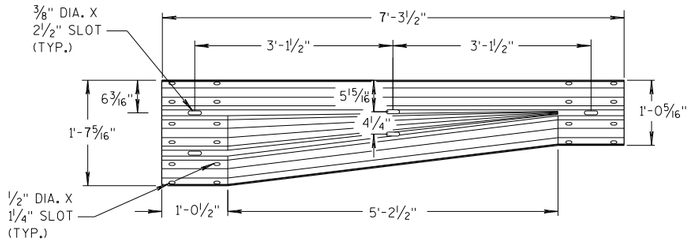
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

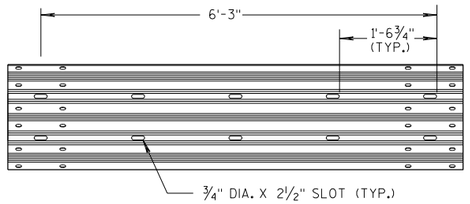
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

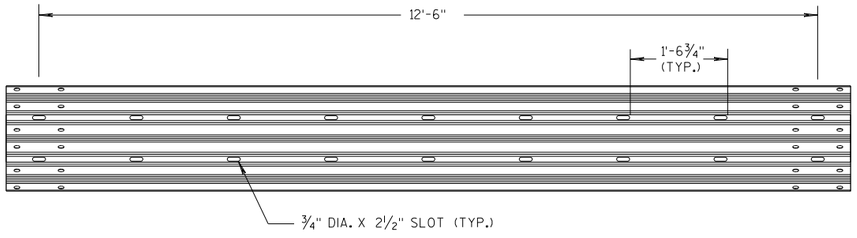
S.D.D. 14 B 45-5b



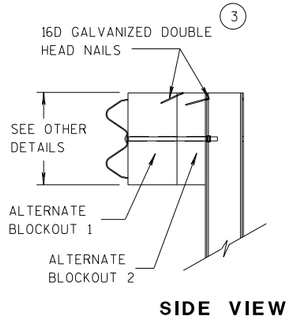
W-BEAM TO THRIE BEAM TRANSITION SECTION



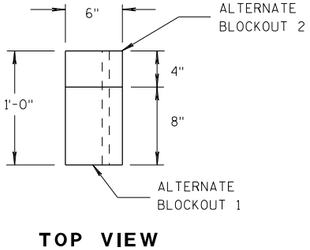
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

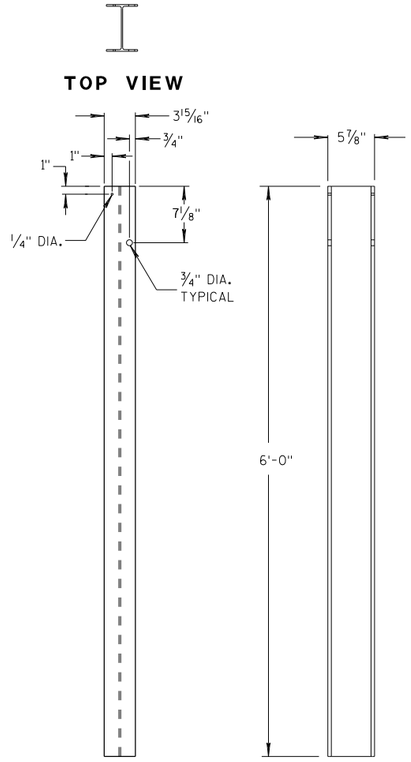


SIDE VIEW



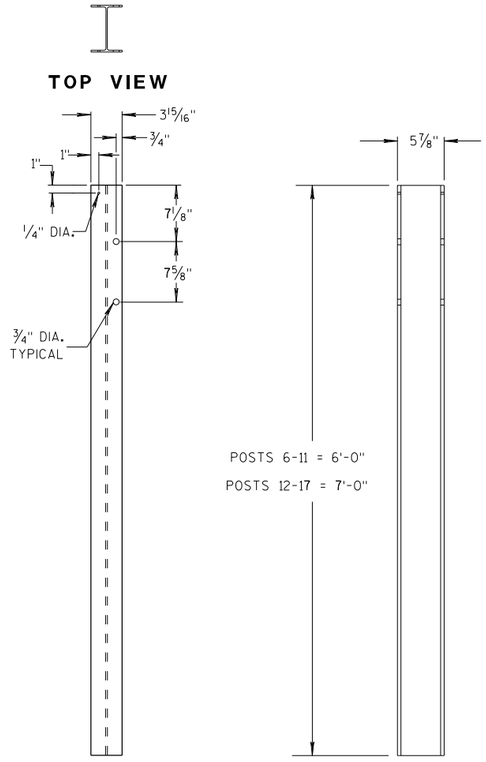
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



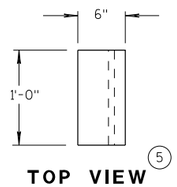
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

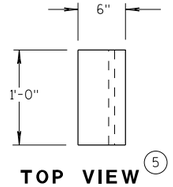


FRONT VIEW SIDE VIEW

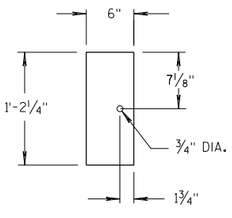
STEEL POSTS 6-17



TOP VIEW (5)

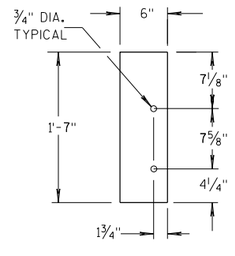


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

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

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

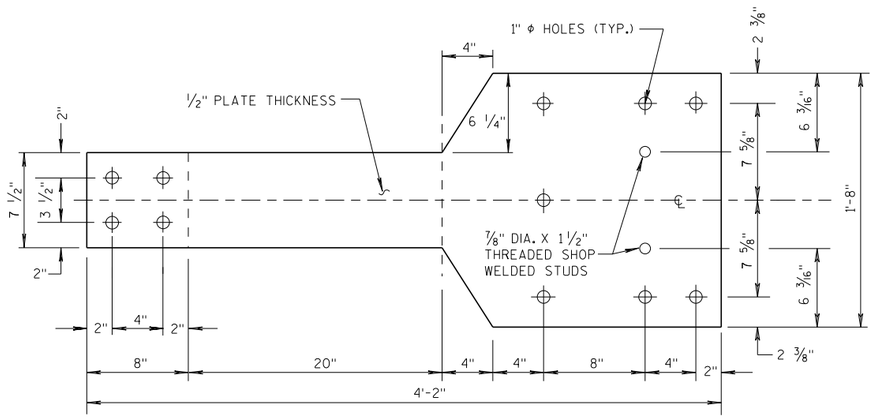
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

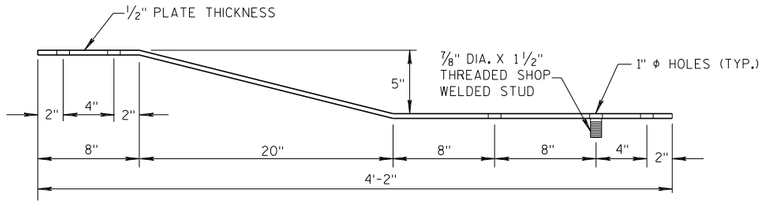
S.D.D. 14 B 45-5c

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

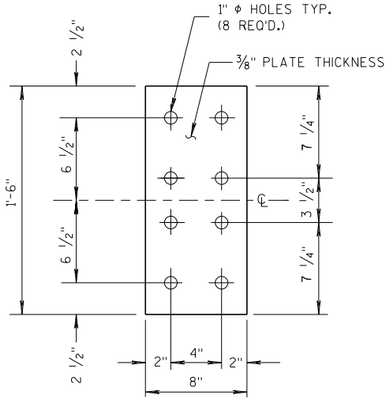


FRONT VIEW



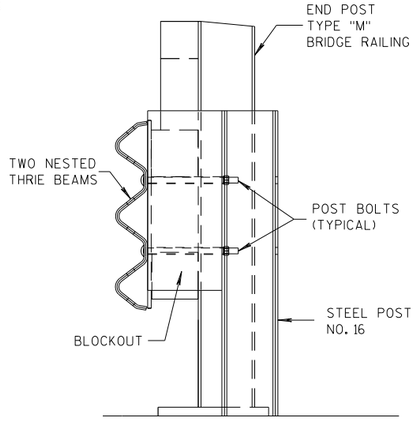
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

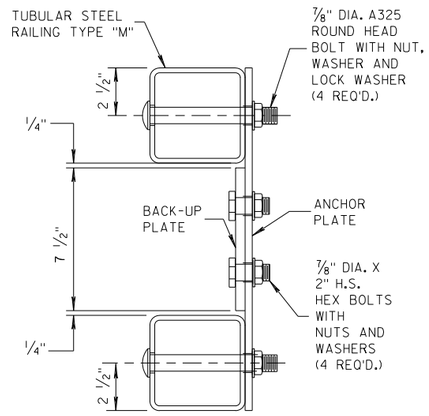


FRONT VIEW

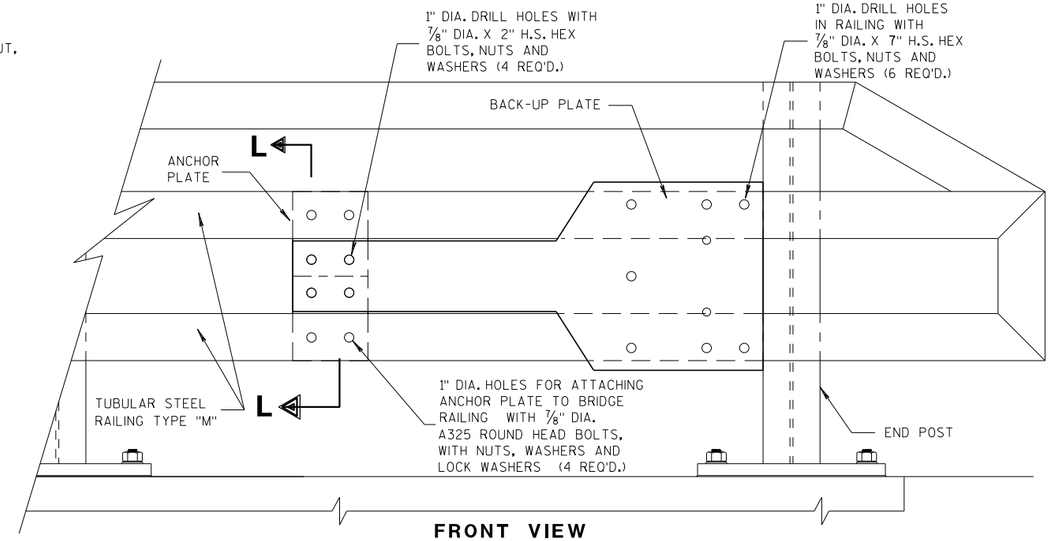
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

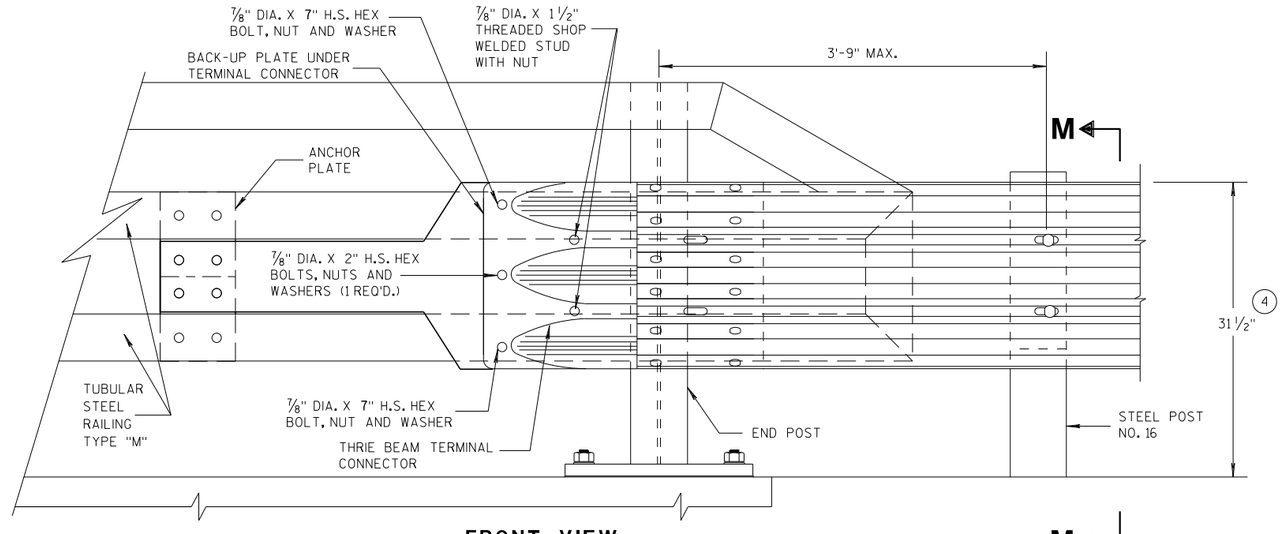


SECTION L-L

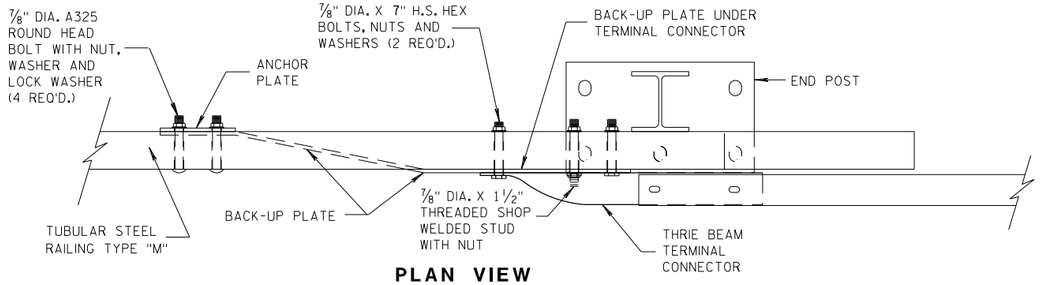


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6

S.D.D. 14 B 45-5h

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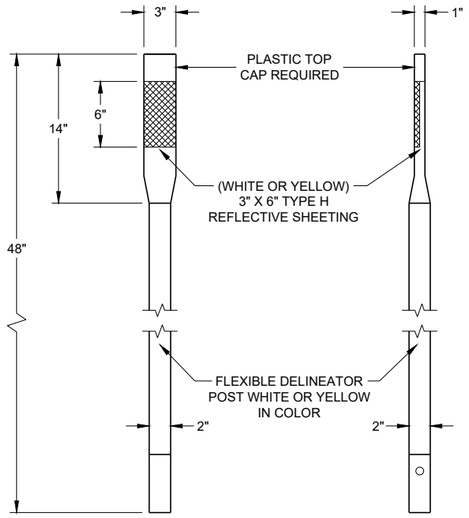
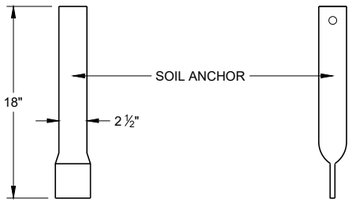
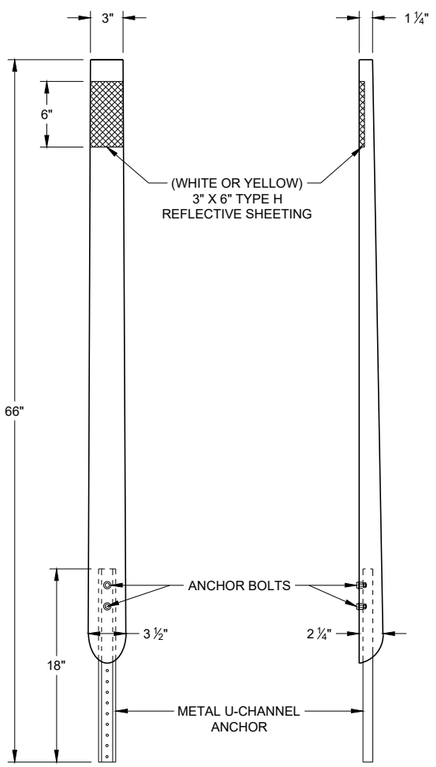
S.D.D. 14 B 45-5h





FRONT VIEW SIDE VIEW

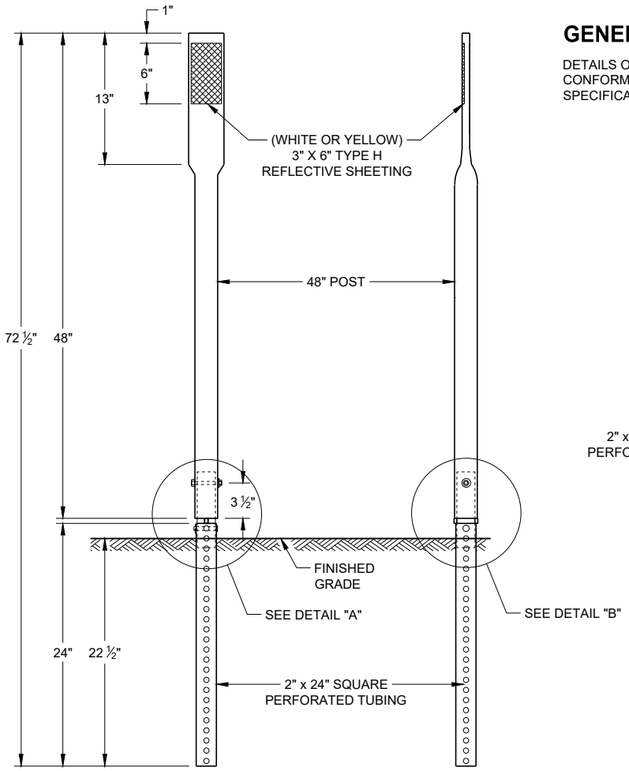
ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2

FLEXIBLE DELINEATOR POSTS

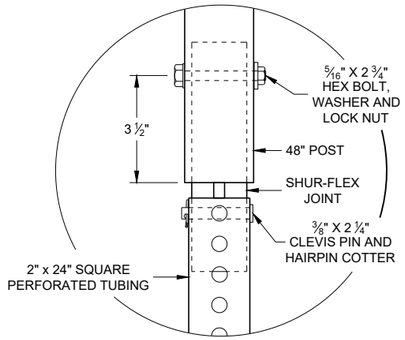


FRONT VIEW SIDE VIEW

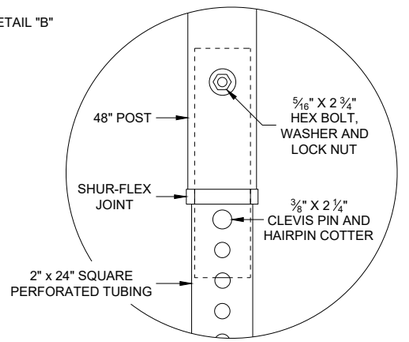
ALTERNATE 3

GENERAL NOTES

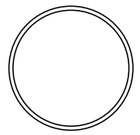
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



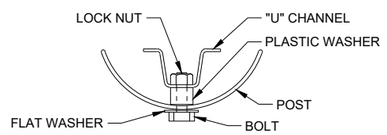
DETAIL A



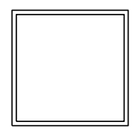
DETAIL B



SECTION A - A



SECTION B - B

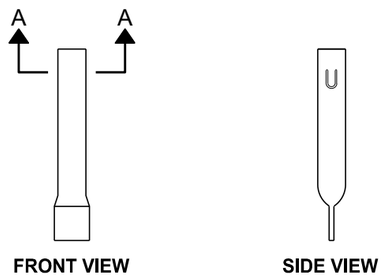


SECTION C - C

REFLECTOR SPACING TABLE

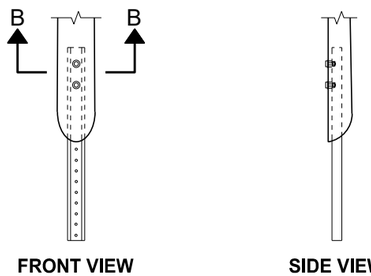
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

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



FRONT VIEW SIDE VIEW

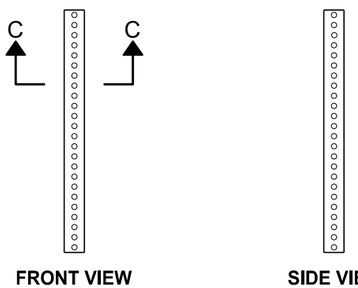
ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2

FLEXIBLE MARKER POST ANCHORS



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

FHWA

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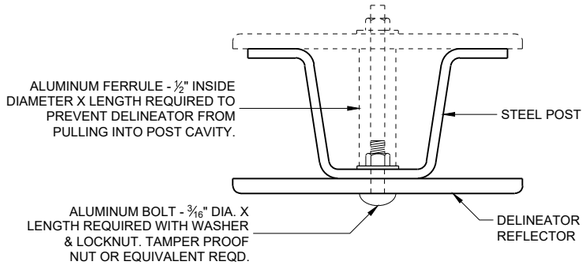
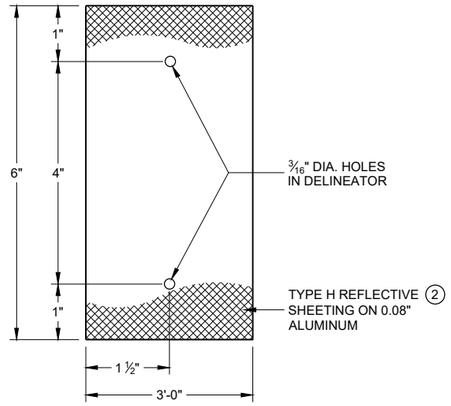
SDD 15A04 - 06a

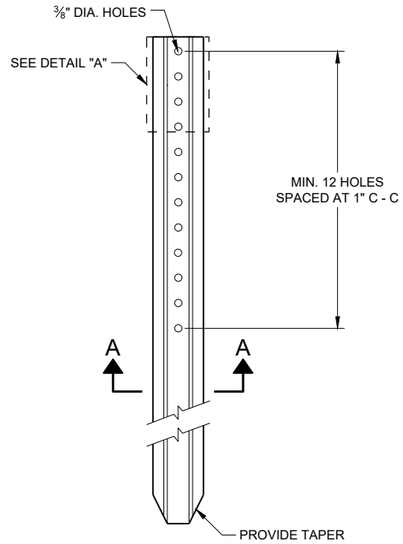
SDD 15A04 - 06a



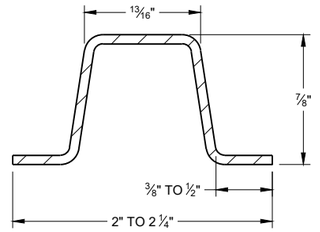
MOUNTING DETAIL FOR DELINEATOR REFLECTOR



DETAIL "A" 3" X 6" DELINEATOR REFLECTOR



DELINEATOR POST



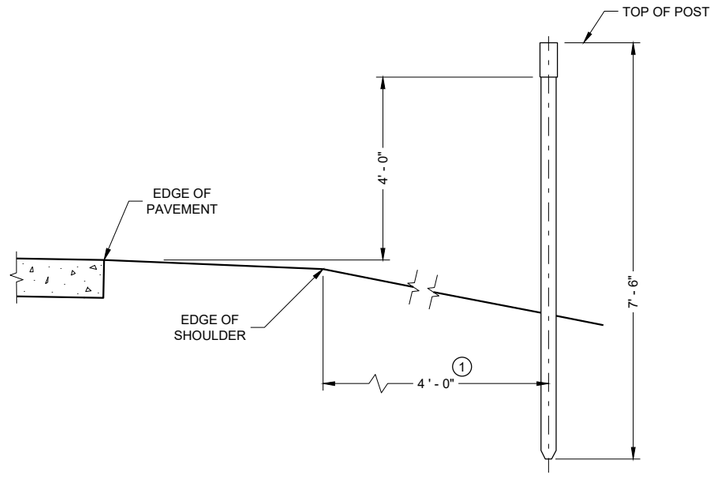
SECTION A - A

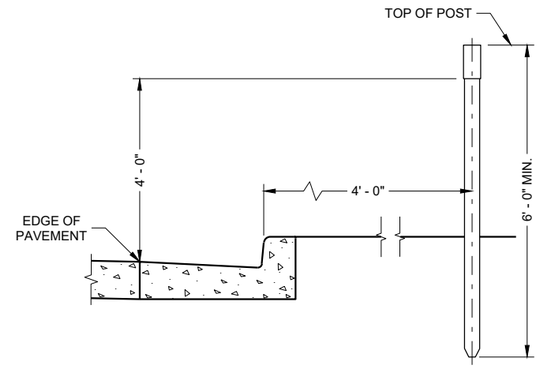
WEIGHT 1.12 LBS PER FT. \ 0.1 LB.

REFLECTOR SPACING TABLE

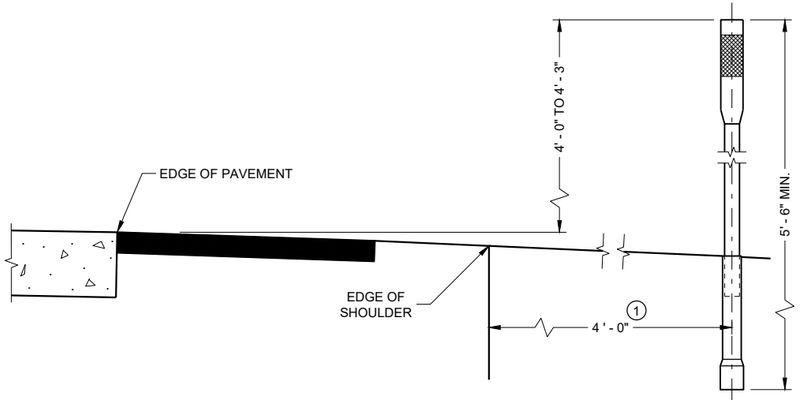
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

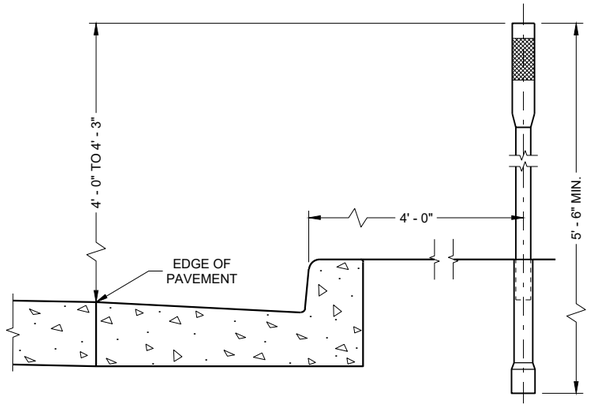
* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER





TYPICAL INSTALLATIONS OF DELINEATOR POSTS





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

GENERAL NOTES

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

1. DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.
2. FURNISH TYPE H SHEETING FROM THE APPROVED PRODUCTS LIST.

DELINEATOR POST WITH REFLECTIVE SHEETING

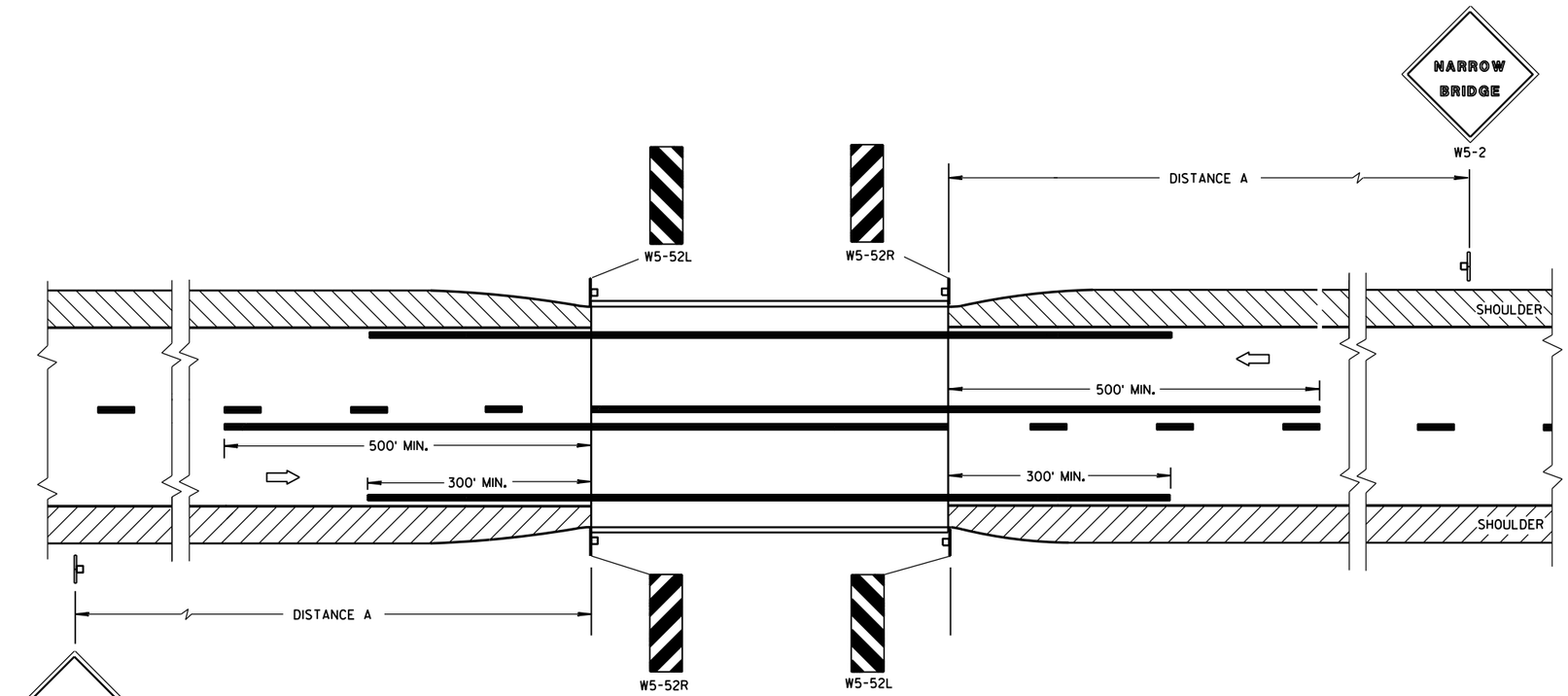
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

FHWA

SDD 15A04 - 06c

SDD 15A04 - 06c



SITUATION 1

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

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

GENERAL NOTES

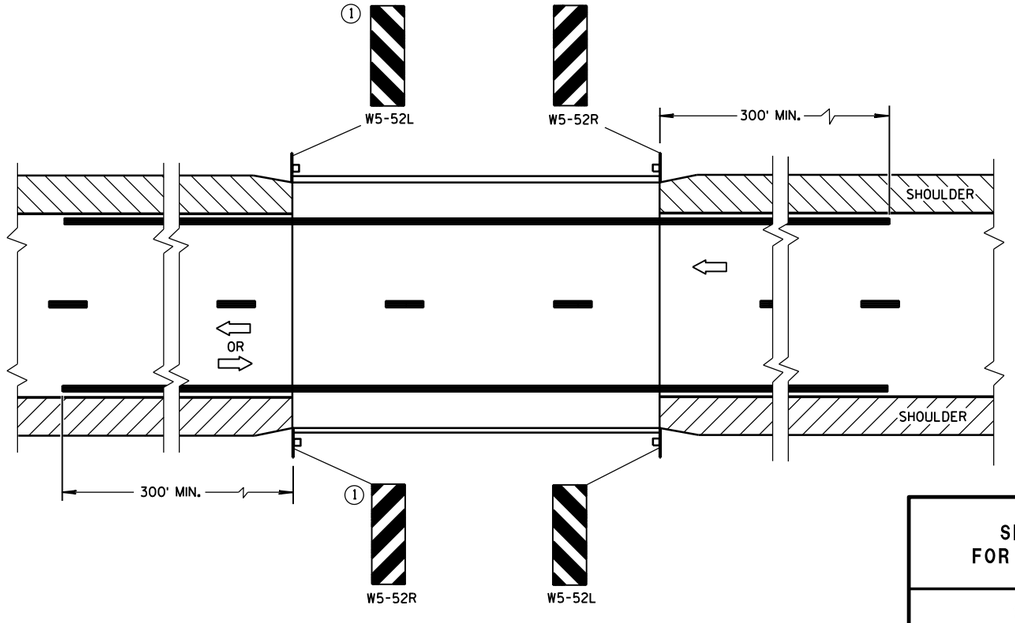
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

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

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

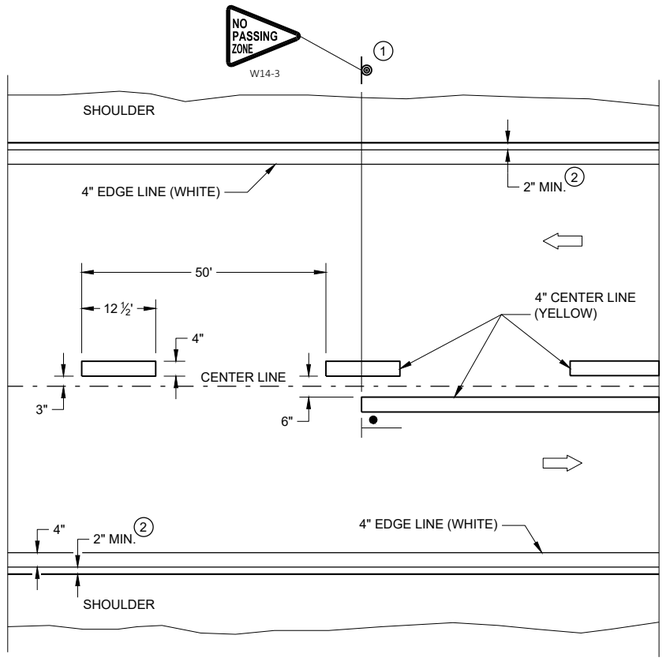
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

6

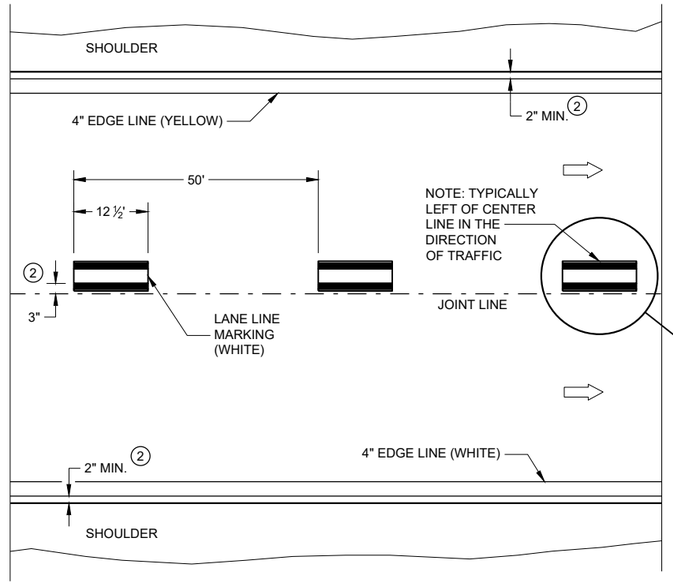
S.D.D. 15 C 6-9

6

S.D.D. 15 C 6-9

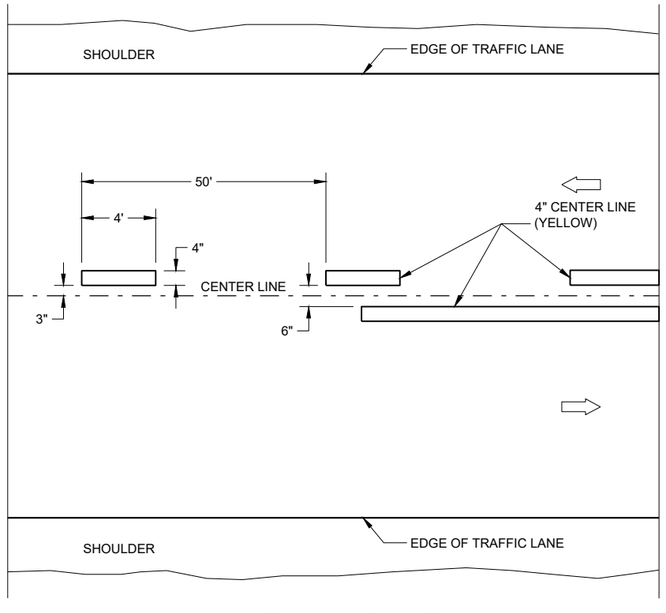


TWO WAY TRAFFIC

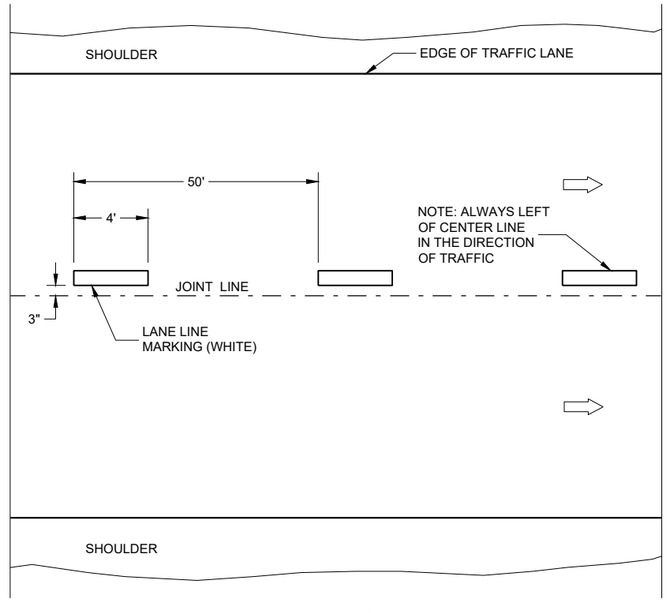


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

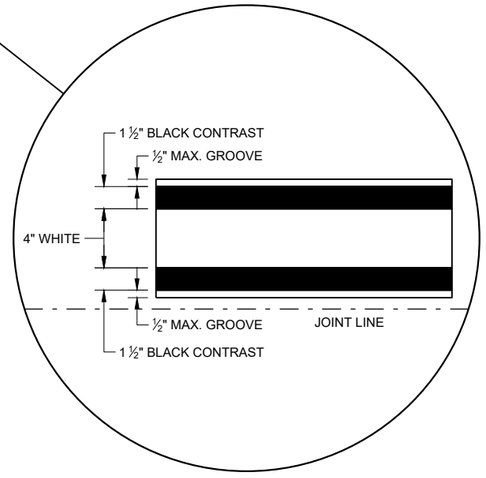
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Matthew Rauch
STATEWIDE SIGNING AND M ENGINEER

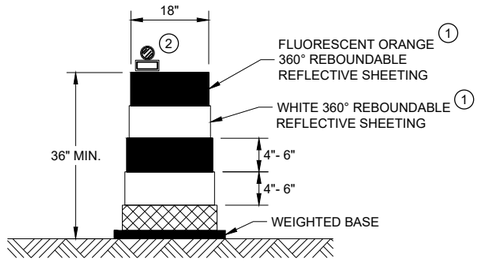
FHWA

SDD 15C08 - 20a

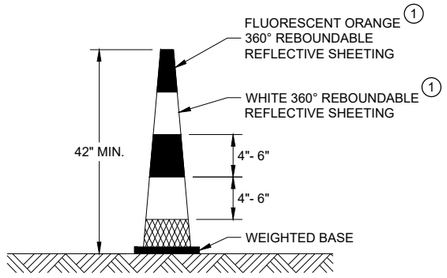
SDD 15C08 - 20a

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.

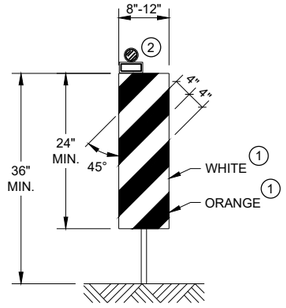


DRUM



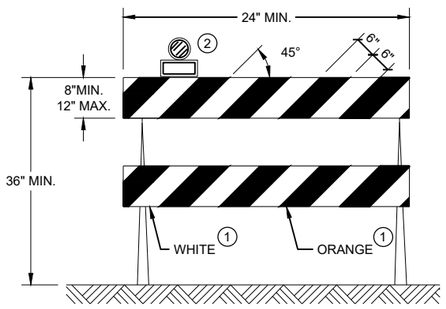
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



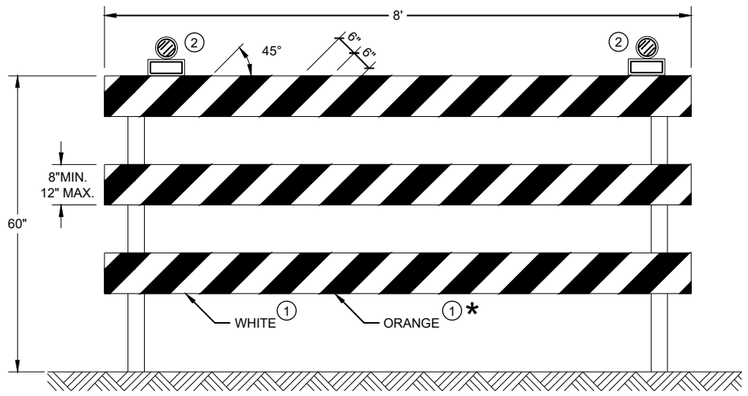
VERTICAL PANEL

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
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD15C11 - 09b

6

SDD15C11 - 09b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

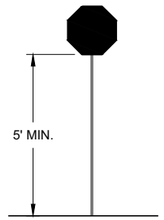
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



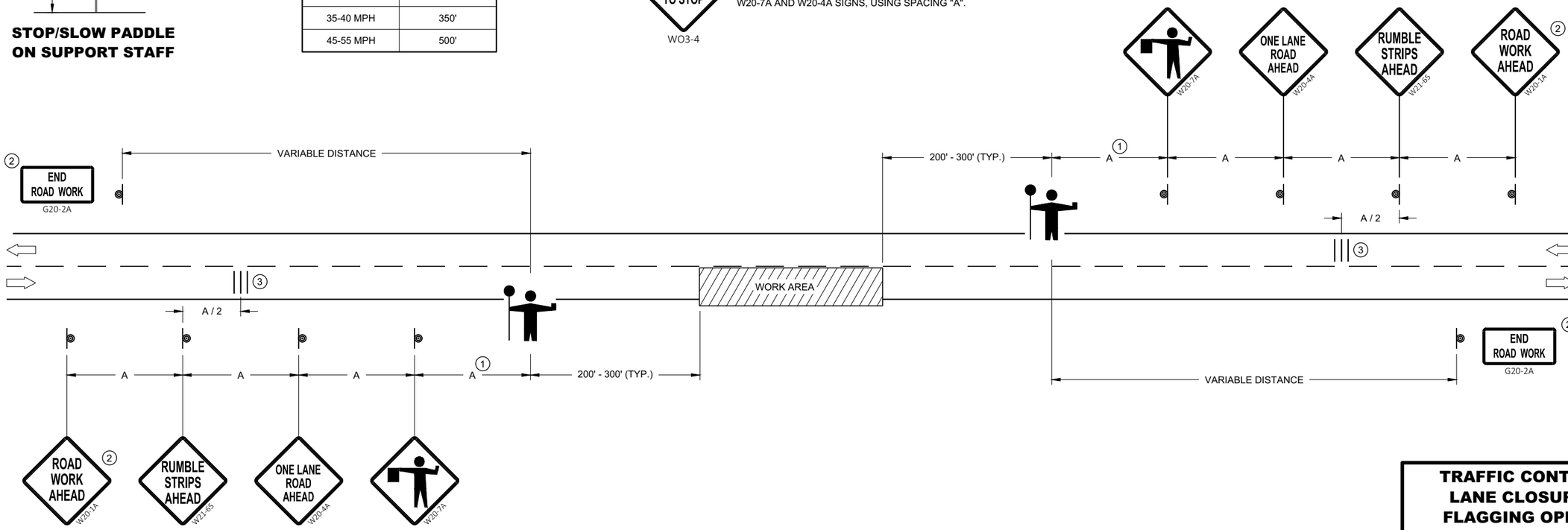
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6
SDD 15C12 - 07

S	BUFFER SPACE (DESIRABLE)
25	55'
30	85'
35	120'
40	170'
45	220'
50	280'
55	335'

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

END ROAD WORK
G20-2A
48"x24"

NO PASSING ZONE
W14-3
48"x36"

BEGIN TEMPORARY PAVEMENT MARKING, 4-INCH SOLID YELLOW CENTERLINE ✳✳

1000'
500'
400'
500'
200'
50'
50'
25' TYP.

W01-6
48"x24"
✳✳✳

R11-2
48"x30"
ROAD CLOSED
TYPE III BARRICADE

FOR BRIDGE OR CULVERT REPLACEMENTS SUBSTITUTE
BRIDGE OUT
R11-2B
48"x30"

ROAD CLOSURE OR BRIDGE/CULVERT REPLACEMENT

BUFFER SPACE (SEE TABLE)

WORK AREA

BUFFER SPACE (SEE TABLE)

TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT WHEN INCLUDED IN THE CONTRACT. FOR LAYOUT, SEE DETAILS ELSEWHERE IN THE PLAN.

W05-52L
12"x36"

W05-52R
12"x36"

OR

W01-3L
W01-4L
W01-3R
W01-4R
W013-1
XX M.P.H.
24"x24"

ROAD WORK 1000 FT
W20-1C

ROAD WORK AHEAD
W20-1A

END TEMPORARY PAVEMENT MARKING, 4-INCH SOLID YELLOW CENTERLINE ✳✳

END TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINE

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINES. (USE REMOVABLE TAPE WHERE TEMPORARY MARKING CROSSES PERMANENT PAVEMENT)

TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW CENTERLINE AND 2-WAY YELLOW RAISED PAVEMENT MARKERS AT 25' SPACING. USE REMOVABLE TAPE WHERE TEMPORARY MARKING CROSSES PERMANENT PAVEMENT.

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

EQUIPMENT, VEHICLES, OR MATERIAL SHOULD NOT BE STORED IN BUFFER SPACE.

✳ IF ADVISORY SPEED IS GREATER THAN 30 MPH, USE THE W01-4 SIGN. IF ADVISORY SPEED IS 30 MPH OR LESS, USE THE W01-3 SIGN.

✳✳ WHEN THE DISTANCE TO/FROM THE NEXT CLOSEST NO-PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.

✳✳✳ OMIT THESE W01-6 SIGNS IF THE ADVISORY SPEED OF THE CURVE IS GREATER THAN 30 MPH.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY-BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY DELINEATOR, (WHITE) (SINGLE DELINEATOR)
- TEMPORARY RAISED PAVEMENT MARKERS (TWO-WAY YELLOW)
- XXX REMOVE PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT
- WORK AREA

TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

6

S.D.D. 15 D 31-3

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

(1) PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

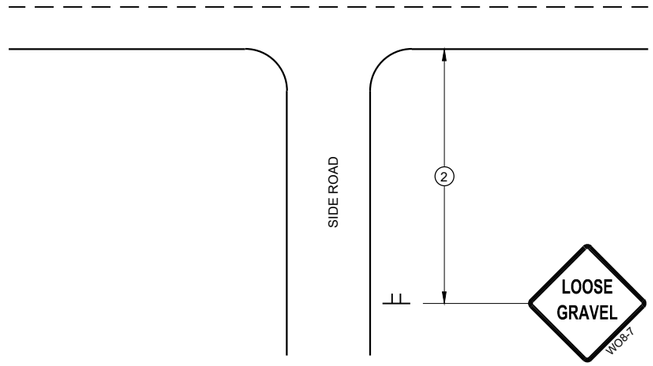
(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

(3) ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

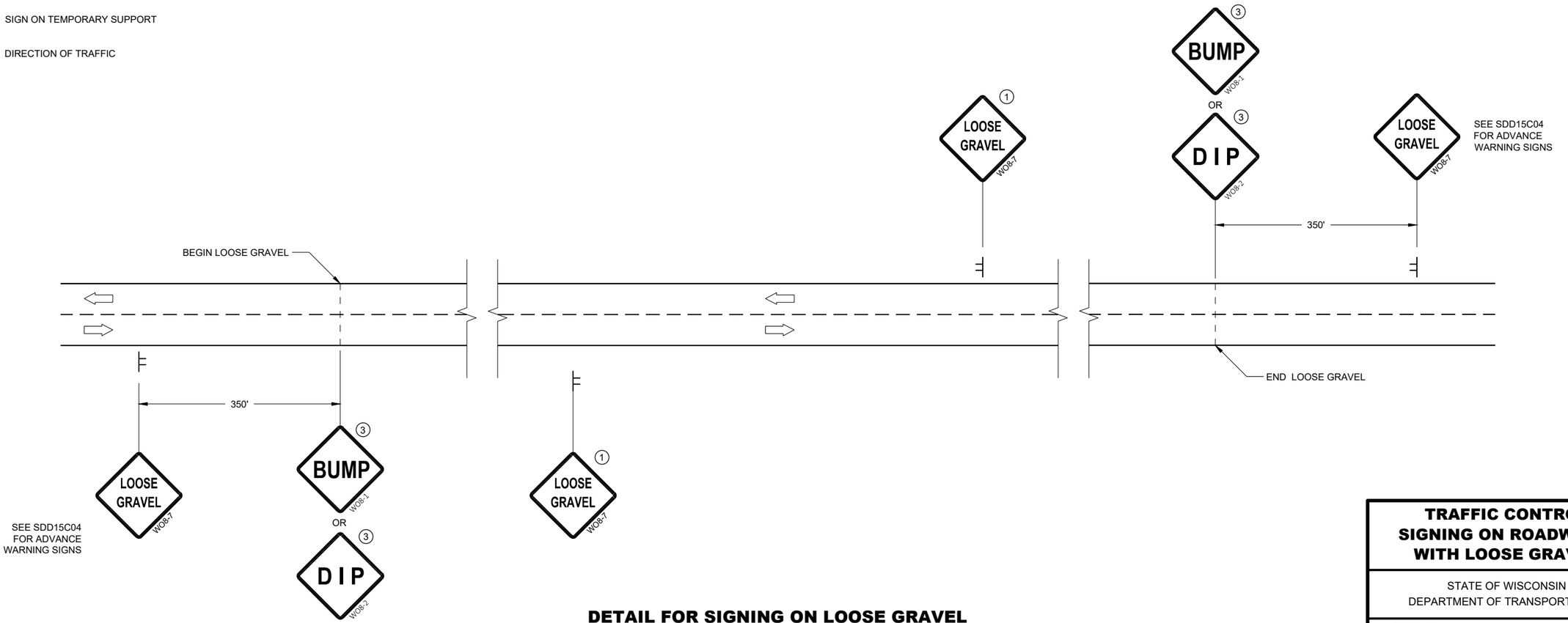
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

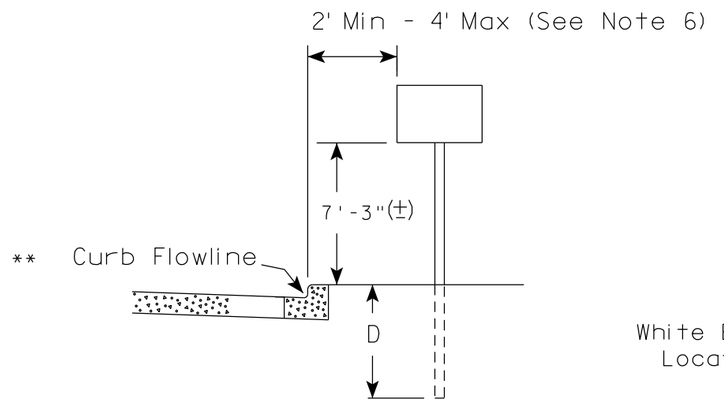
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

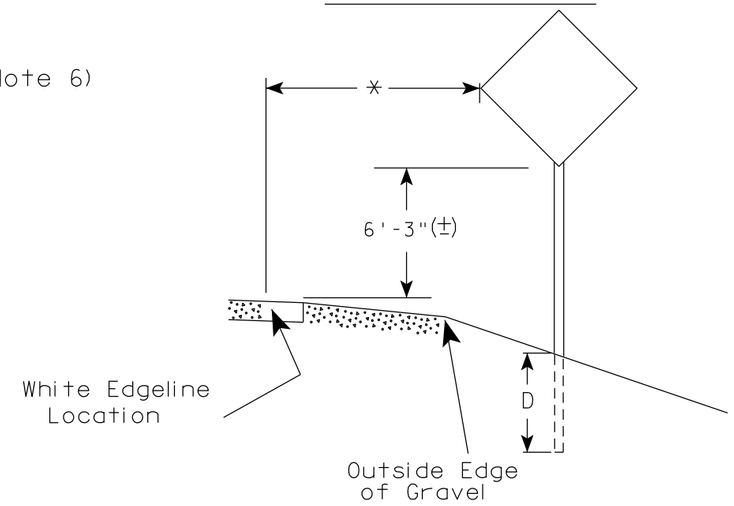
6

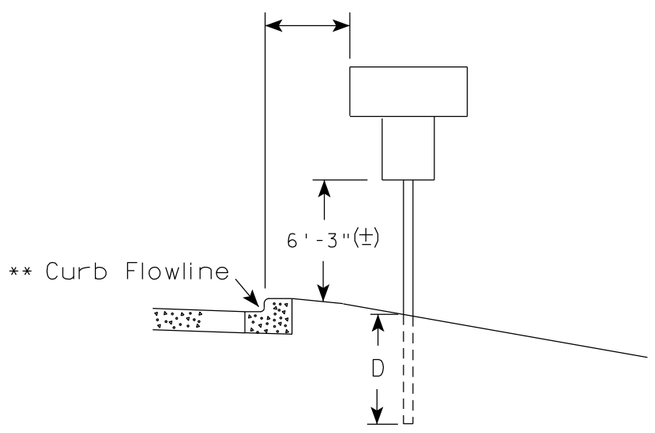
SDD 15D45 - 03

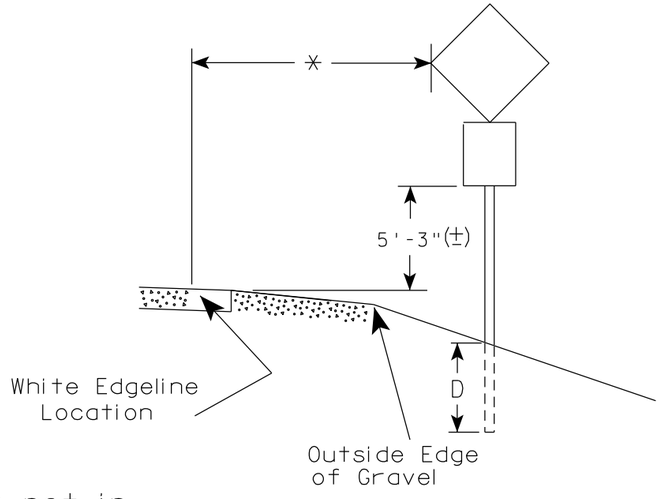
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). 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. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

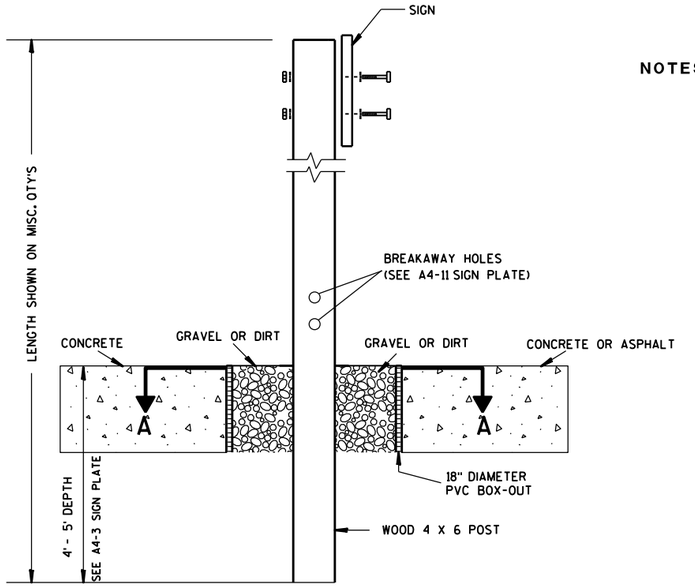
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

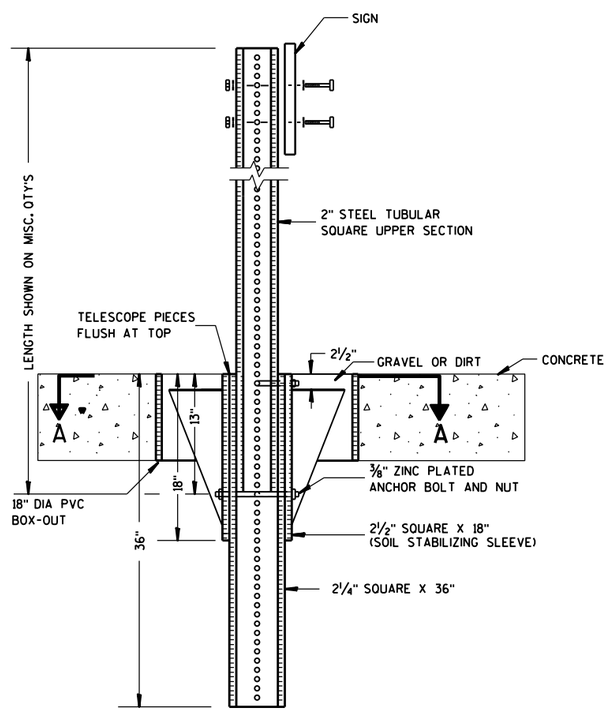
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 41	E



ELEVATION VIEW

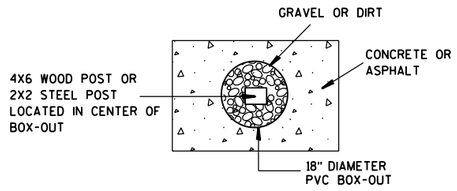
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

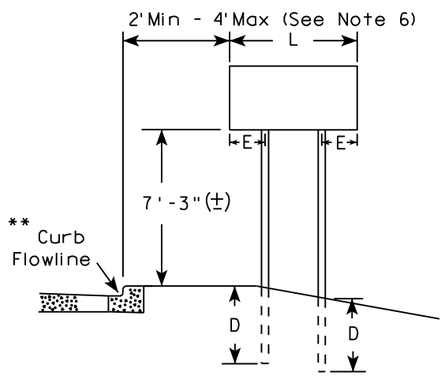
APPROVED Matthew R Rauch
for State Traffic Engineer

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

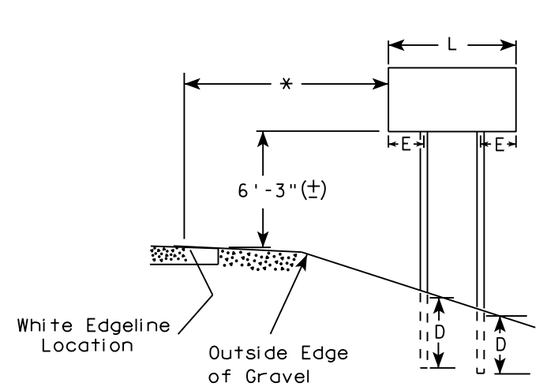
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

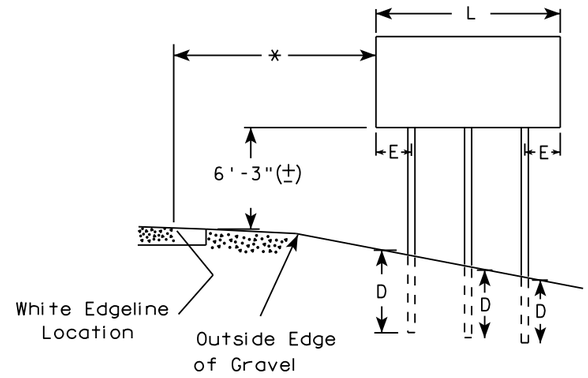
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

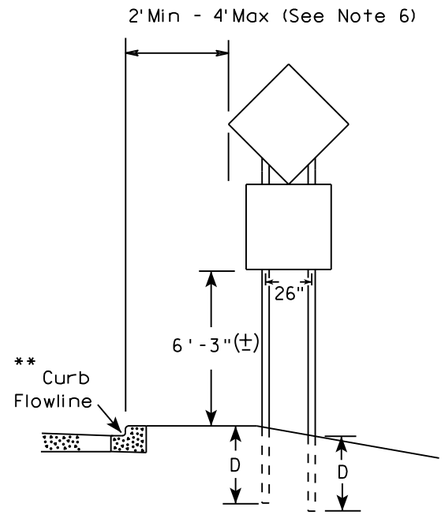
URBAN AREA



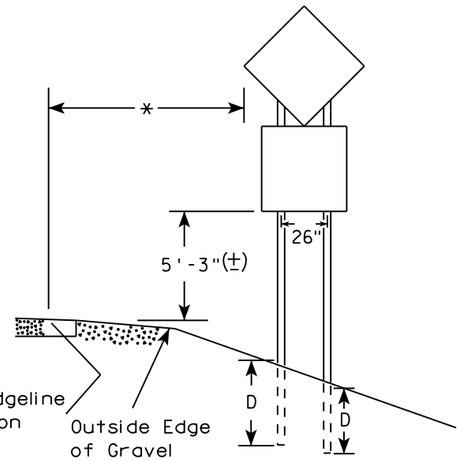
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 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" (±) or 6'-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" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

*** See A4-3 sign plate for signs 4' or less in width 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'

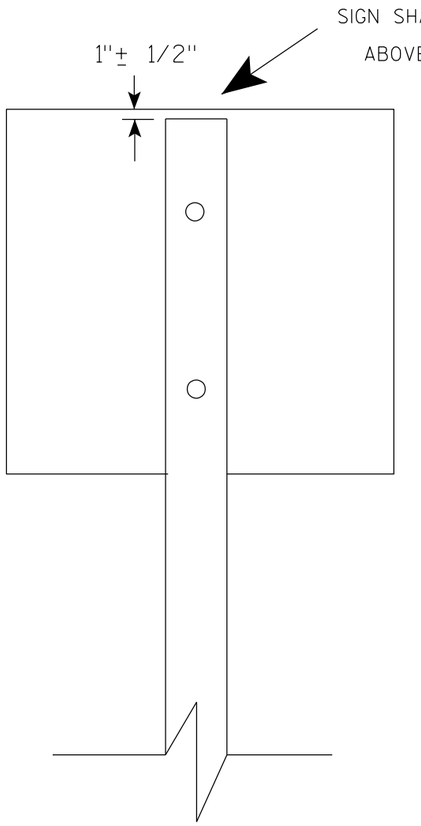
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

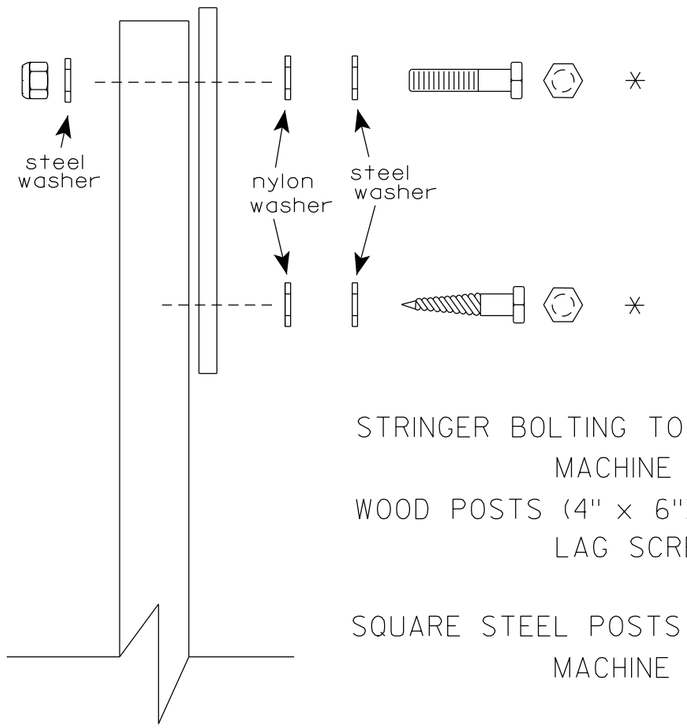
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 43	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

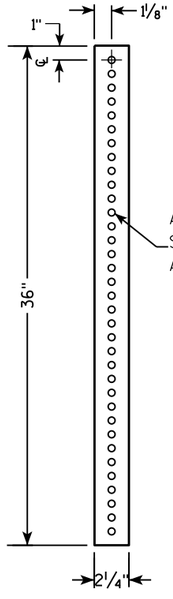
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

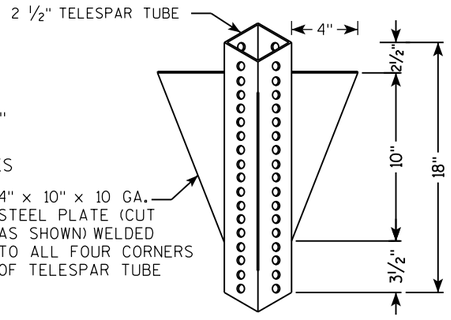
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

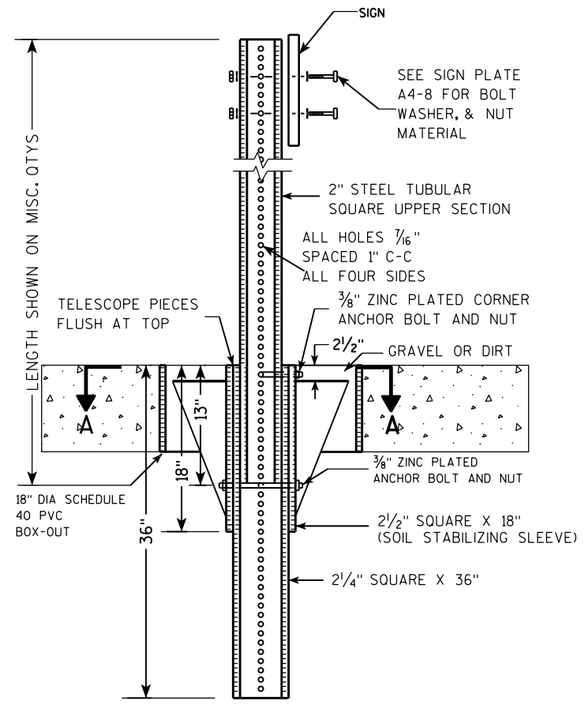
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



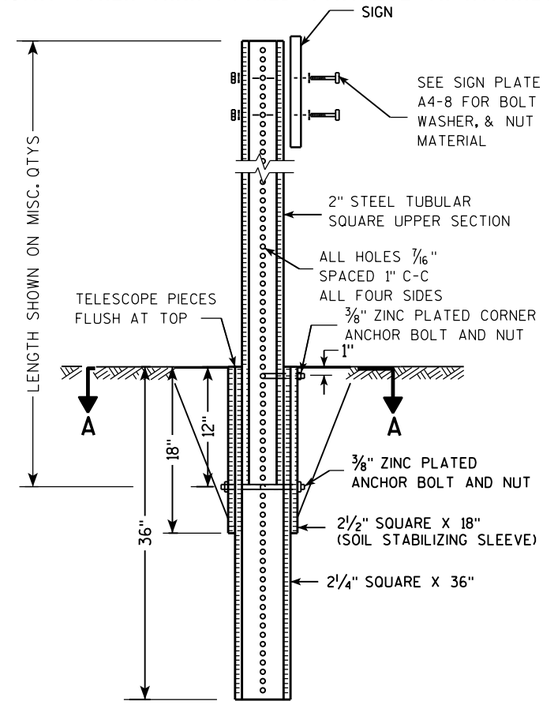
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

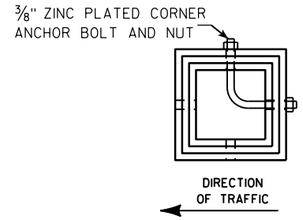


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

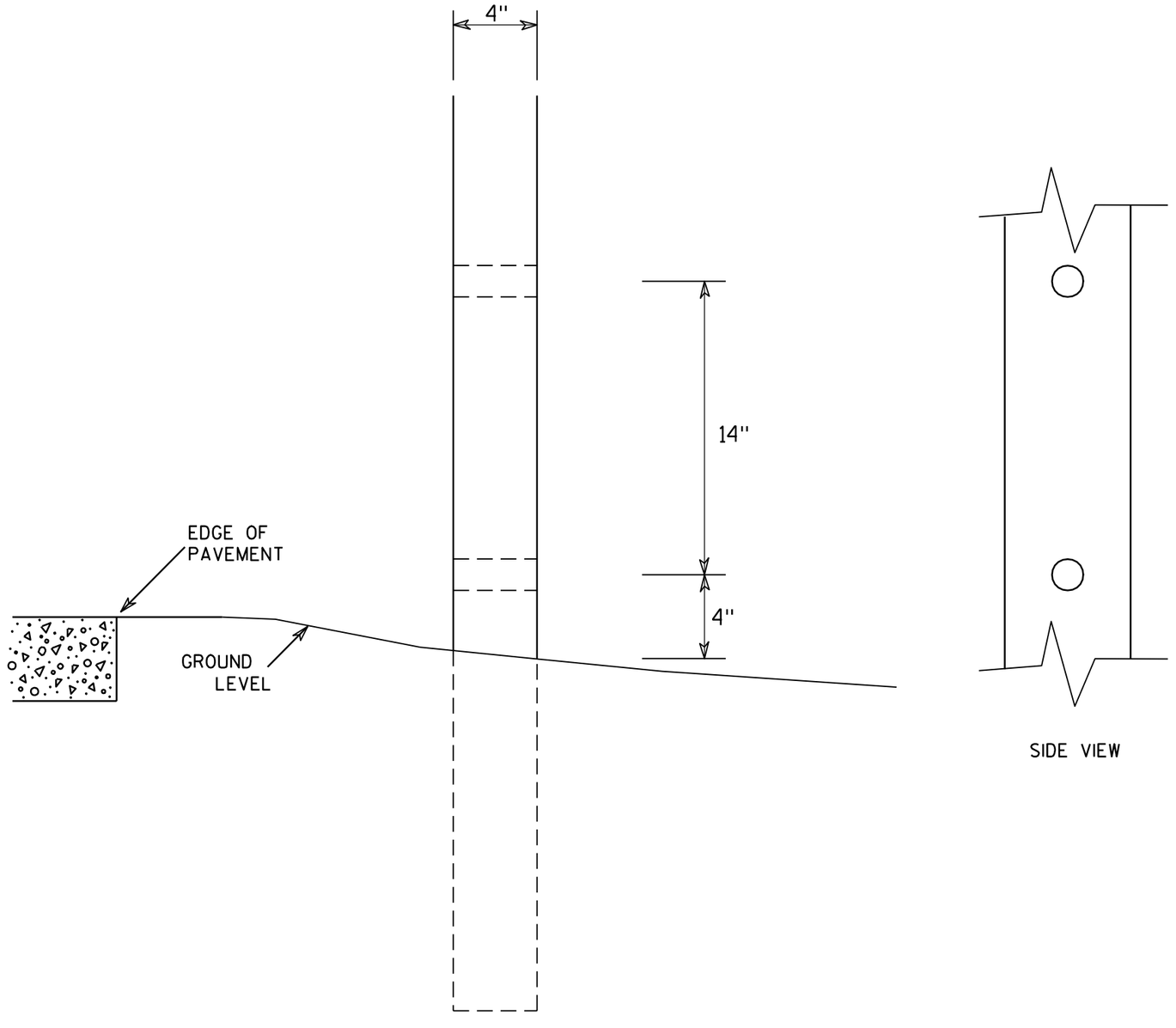
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 45 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

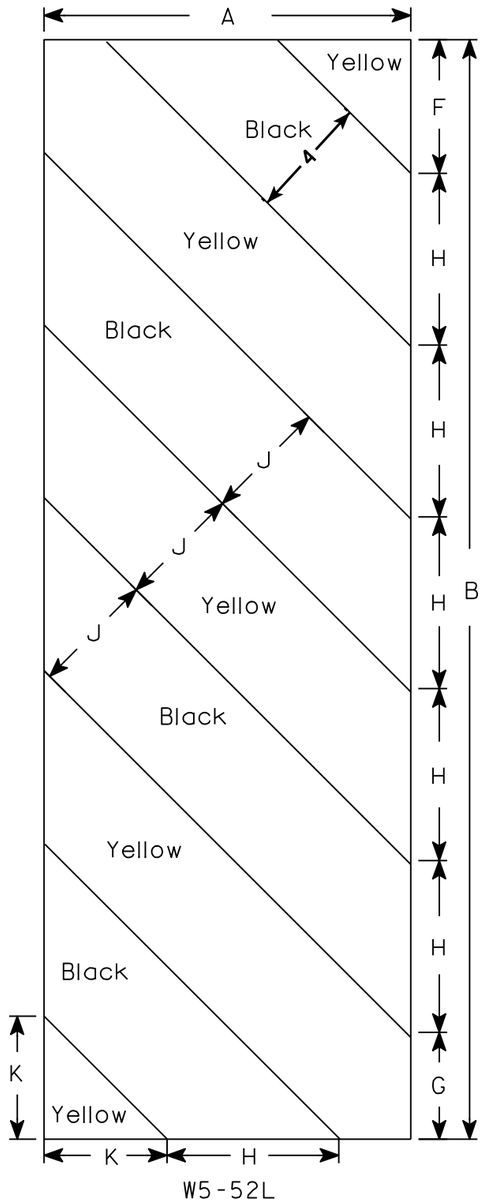
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

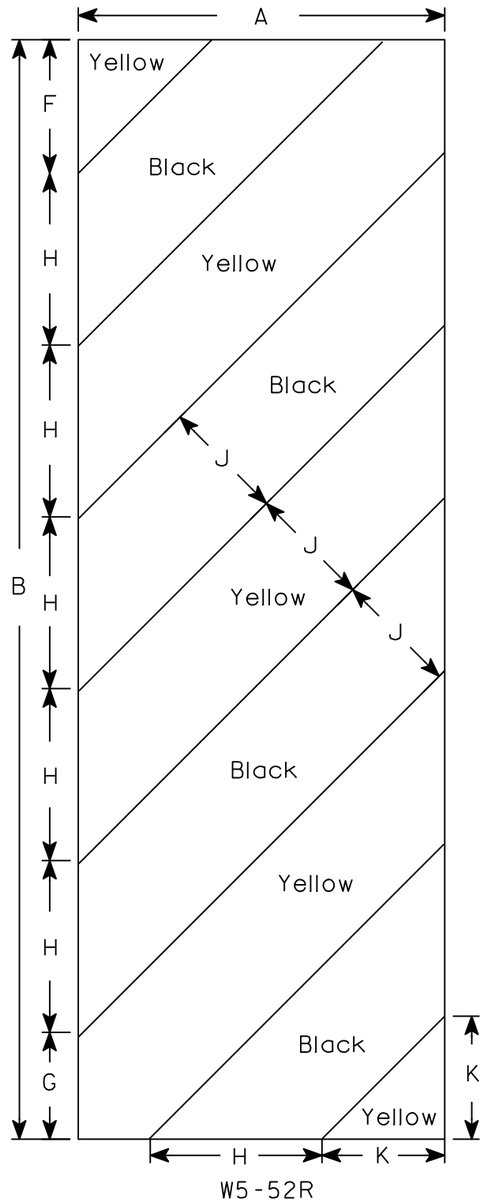
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 46	E



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

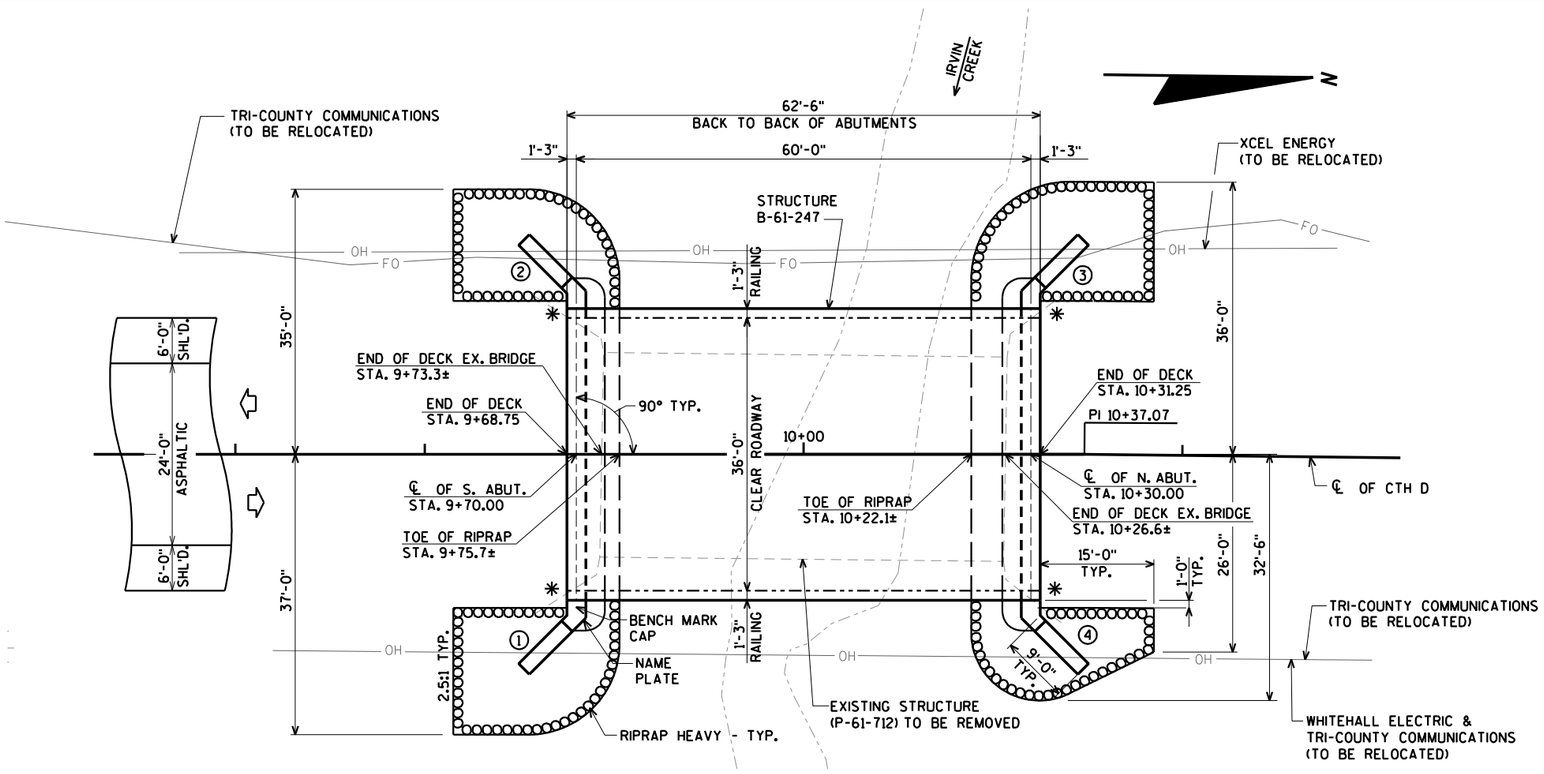
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 47	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W552.DGN PLOT DATE : 29-MAY-2012 13:03 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.961899:1.000000

7

STATE PROJECT NUMBER

7146-00-72



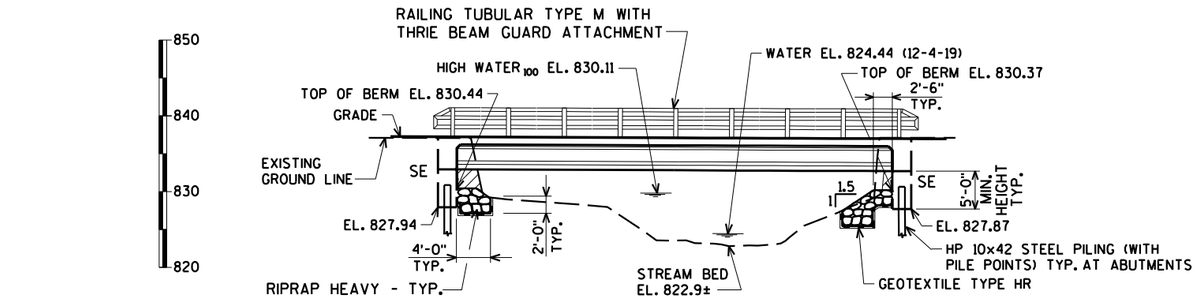
PLAN

SINGLE SPAN 36W" PRESTRESSED CONCRETE GIRDER BRIDGE

✱ ANCHOR ASSEMBLY FOR THRIE BEAM TYPE GUARDRAIL.

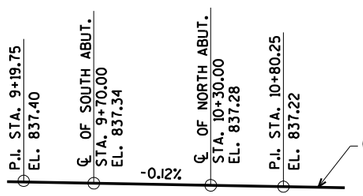
◯ DENOTES WING NUMBER.

COST OF EXCAVATION IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-61-247".



ELEVATION

REMOVE EXISTING SUBSTRUCTURE AS NEEDED. COST CONSIDERED INCIDENTAL TO "REMOVING STRUCTURE ITEM". TYPICAL AT ALL SUBSTRUCTURES.



PROFILE GRADE LINE

(CTH D)

BENCH MARK:
120'D' SPK IN E. END OF S. ABUT.
STA. 9+74. 17.3' RT.
EL. 836.67

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.25
OPERATING RATING FACTOR: 1.65
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 #/S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY	SUPERSTRUCTURE	f'_c =	4,000 p.s.i.
	ALL OTHER	f'_c =	3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60)		f_y =	60,000 p.s.i.

36W" PRESTRESSED GIRDER

CONCRETE MASONRY	f'_c =	8,000 p.s.i.
STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF	=	270,000 p.s.i.

HYDRAULIC DATA:

100 YEAR FREQUENCY

Q_{100} = 680 c.f.s.
VEL.= 4.1 f.p.s.
HW_{100} = EL. 830.11
WATERWAY AREA = 164 sq. ft.
DRAINAGE AREA = 4.4 sq. mi.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8
DATUM = NAVD88 (2012)

2 YEAR FREQUENCY

Q_2 = 170 c.f.s.
VEL.= 4.9 f.p.s.
HW_2 = EL. 826.37

TEMPORARY STRUCTURE

Q_5 = 340 c.f.s.
HW_5 = EL. 828.19
MIN. AREA = 69 sq. ft.

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON HP 10 x 42 STEEL PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS ‡ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 95'-0".

‡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 DRIVEN PILE CAPACITY.

TRAFFIC DATA:

A.A.D.T. = 620 (2022)
A.A.D.T. = 835 (2042)
R.D.S. = 55 M.P.H.

LIST OF DRAWINGS

FOR TYPICAL SECTION SEE SHEET 2

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/24/21
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-61-247

CTH D OVER IRVIN CREEK

COUNTY	TOWN/CITY/VILLAGE
TREMPEALEAU	WHITEHALL

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	ZSS	DESIGN CK'D.	JCK	DRAWN BY	CLP	PLANS CK'D.	DNS

GENERAL PLAN

SHEET 1 OF 16
48

08/31/2021

BRIDGE OFFICE CONTACT:
AARON BONK
(608)-261-0261

CONSULTANT CONTACT:
DAN SYDOW
(715)-834-3161

8/30/2021
PENTABLE:BReau_shd_util.tbl

DATE:
DATE:
DATE:

CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

8

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I.D.

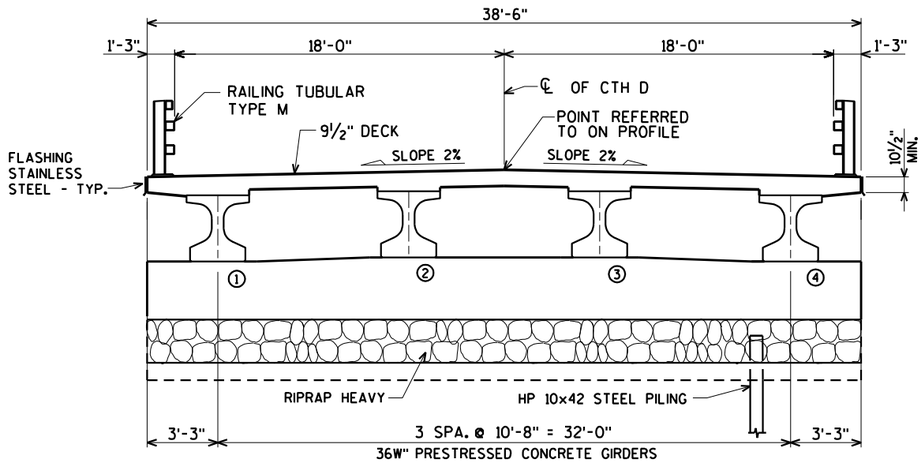
DATE:

STATE PROJECT NUMBER

7146-00-72

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL	CATEGORY 20	CATEGORY 30
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-61-712	EACH	-----	-----	-----	1	1	-----
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-61-247	LS	-----	-----	-----	1	1	-----
210.1500	BACKFILL STRUCTURE TYPE A	TON	305	305	-----	610	610	-----
502.0100	CONCRETE MASONRY BRIDGES	CY	33.5	33.5	97.8	165	130	35
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	295	295	295	-----
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	-----	-----	244	244	244	-----
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,770	2,770	-----	5,540	4,393	1,147
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,470	1,470	17,060	20,000	15,860	4,140
506.2605	BEARING PADS ELASOMERIC NON-LAMINATED	EACH	-----	-----	8	8	8	-----
506.4000	STEEL DIAPHRAGMS B-61-247	EACH	-----	-----	3	3	3	-----
513.4061	RAILING TUBULAR TYPE M	LF	-----	-----	129	129	129	-----
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	8	8	-----	16	16	-----
526.0100	TEMPORARY STRUCTURE STATION 20+41	LS	-----	-----	-----	1	1	-----
550.0500	PILE POINTS	EACH	8	8	-----	16	14	2
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	760	760	-----	1,520	1,330	190
606.0300	RIPRAP HEAVY	CY	70	75	-----	145	145	-----
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	85	85	-----	170	170	-----
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	55	55	-----	110	110	-----
645.0120	GEOTEXTILE TYPE HR	SY	140	145	-----	285	285	-----
SPV.0090.01	FLASHING STAINLESS STEEL	LF	-----	-----	115	115	115	-----
	NON-BID ITEMS							
	FILLER	SIZE	-----	-----	-----	½" & ¾"	-----	-----



TYPICAL SECTION THRU BRIDGE

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

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

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-61-247" SHALL BE THE EXISTING GROUNDLINE.

THE EXISTING STRUCTURE, P-61-712, TO BE REMOVED, IS A SINGLE-SPAN CONCRETE CHANNEL BRIDGE ON TIMBER ABUTMENTS, 53.5-FT. LONG WITH A 27-FT. CLEAR ROADWAY WIDTH.

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

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET.

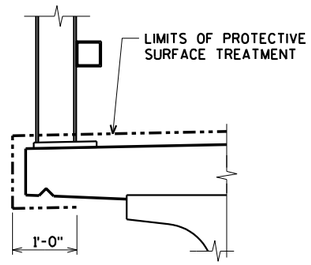
EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET, WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

EXTENT OF BELOW GRADE SUBSTRUCTURES ARE NOT KNOWN. REMOVE EXISTING SUBSTRUCTURES AS NEEDED TO BUILD NEW SUBSTRUCTURES. COST OF SUBSTRUCTURE REMOVAL IS CONSIDERED INCIDENTAL TO "REMOVING STRUCTURE" BID ITEM.



PROTECTIVE SURFACE TREATMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-247

DRAWN BY CLP | PLANS CK'D. ZSS

TYPICAL SECTION, QUANTITIES AND NOTES

SHEET 2 OF 16
49

ORIGINAL PLANS PREPARED BY
AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

8/27/2021
PENTABLE:BReau_shd_util.tbl

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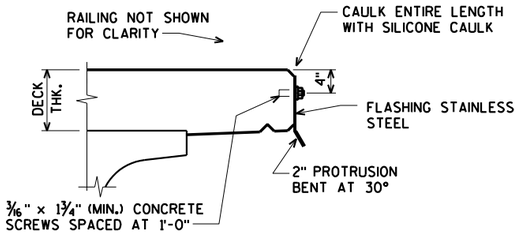
I:±42±42-1203.00 - Trempealeau Co. CTH D±Structures±CADD±Final±421203 gp.dgn



FLASHING DETAIL FOR NEW BRIDGES WITH OPEN RAILING

THE BID ITEM "FLASHING STAINLESS STEEL" SHALL INCLUDE PROVIDING AND INSTALLING THE STAINLESS STEEL FLASHING, SILICONE CAULK, 3/16" CONCRETE SCREWS AND CLEANING THE EDGE OF THE DECK PRIOR TO ATTACHMENT OF THE FLASHING.

FLASHING TO BE INSTALLED AFTER PROTECTIVE SURFACE TREATMENT APPLICATION.

CONCRETE SCREWS SHALL BE 410 STAINLESS STEEL.

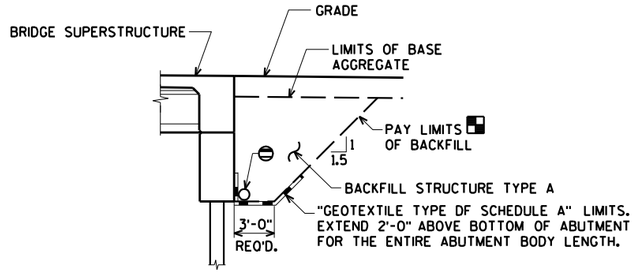
EXTEND FLASHING TO FRONT FACE OF ABUTMENT.

TOP OF FLASHING TO BEGIN APPROX. 1-INCH BELOW TOP OF DECK SURFACE.

THE FLASHING IS TO BE A CONSTANT HEIGHT BASED ON THE THINNEST DECK DEPTH OVER THE BRIDGE LENGTH.

PROVIDE 2" MINIMUM FLASHING OVERLAP. FASTEN WITH 3/16" x 2" (MIN.) CONCRETE SCREWS.

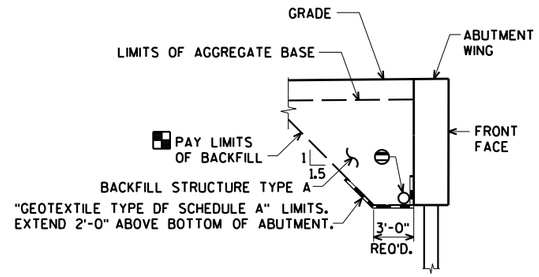
CAULK SHALL BE NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER.



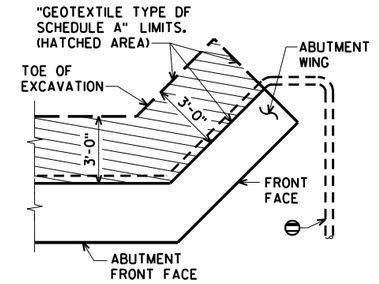
BACKFILL STRUCTURE LIMITS

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

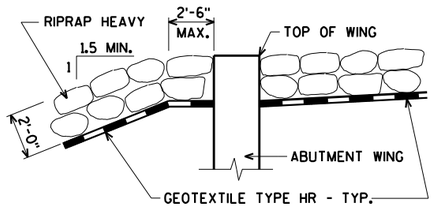
PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 9.



BACKFILL STRUCTURE LIMITS THRU WING

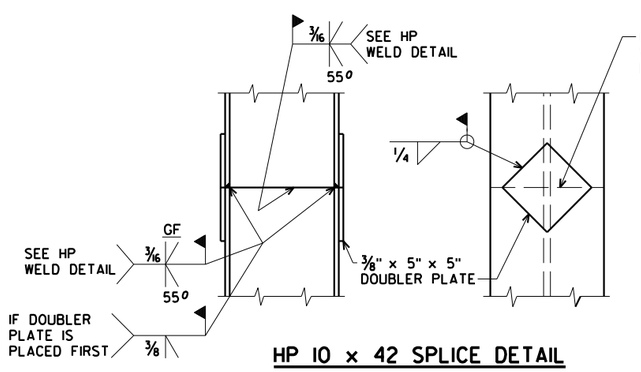


BACKFILL STRUCTURE LIMITS ABUTMENT PLAN WITH WING

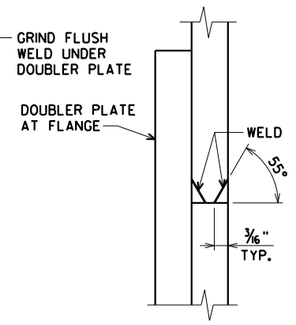


TYPICAL FILL SECTION AT WING

NOTE: PLACE RIPRAP HEAVY AS SHOWN ON GENERAL PLAN SHEET



HP 10 x 42 SPLICE DETAIL



HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-247

DRAWN BY CLP | PLANS CK'D. ZSS

STRUCTURE DETAILS

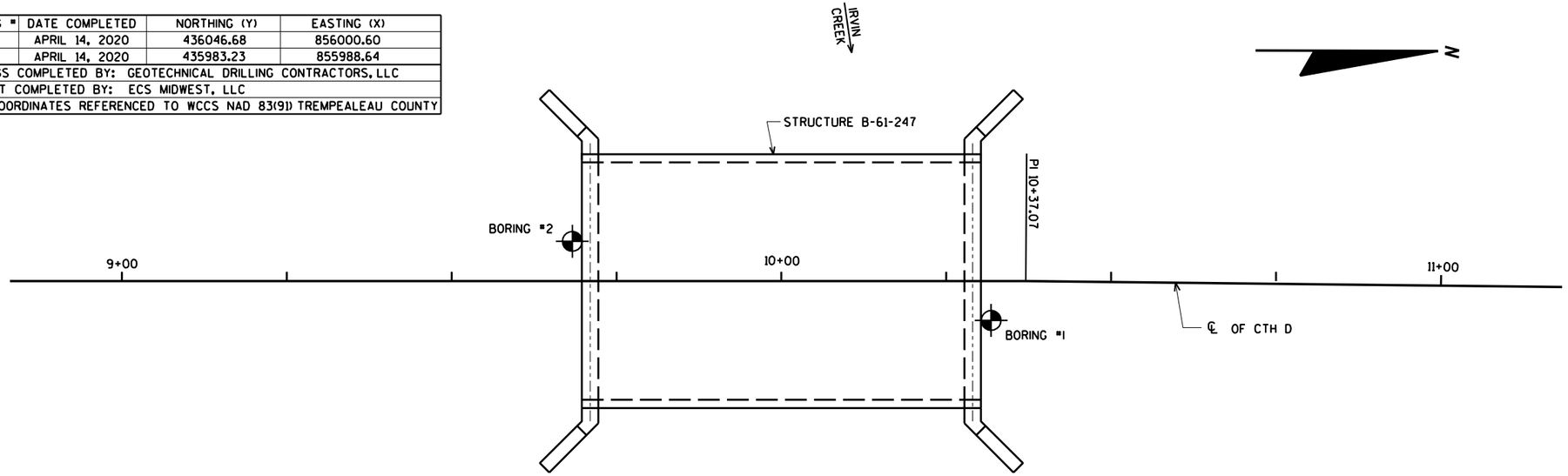
SHEET 3 OF 16
50

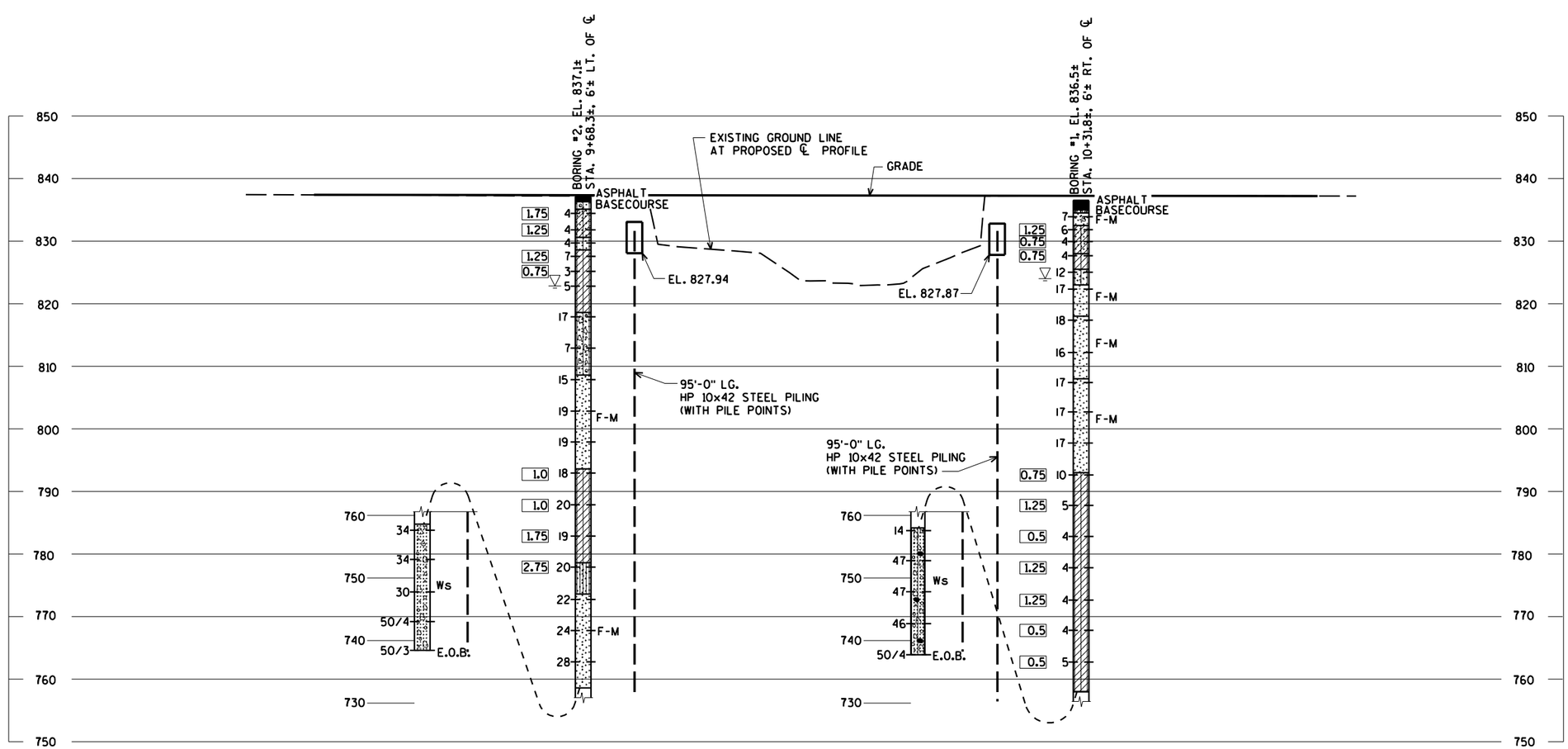
ORIGINAL PLANS PREPARED BY
AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	APRIL 14, 2020	436046.68	856000.60
2	APRIL 14, 2020	435983.23	855988.64
BORINGS COMPLETED BY: GEOTECHNICAL DRILLING CONTRACTORS, LLC			
REPORT COMPLETED BY: ECS MIDWEST, LLC			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) TREMPEALEAU COUNTY			





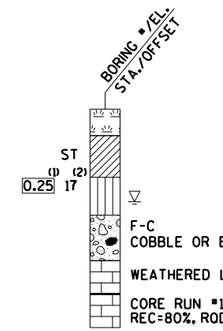
STATE PROJECT NUMBER

7146-00-72

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-61-247

DRAWN BY CLP | PLANS CK'D. ZSS

SUBSURFACE EXPLORATION

SHEET 4 OF 16
51

8/22/2021
PENTABLE:BReau_shd_util.tbl

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STATE PROJECT NUMBER

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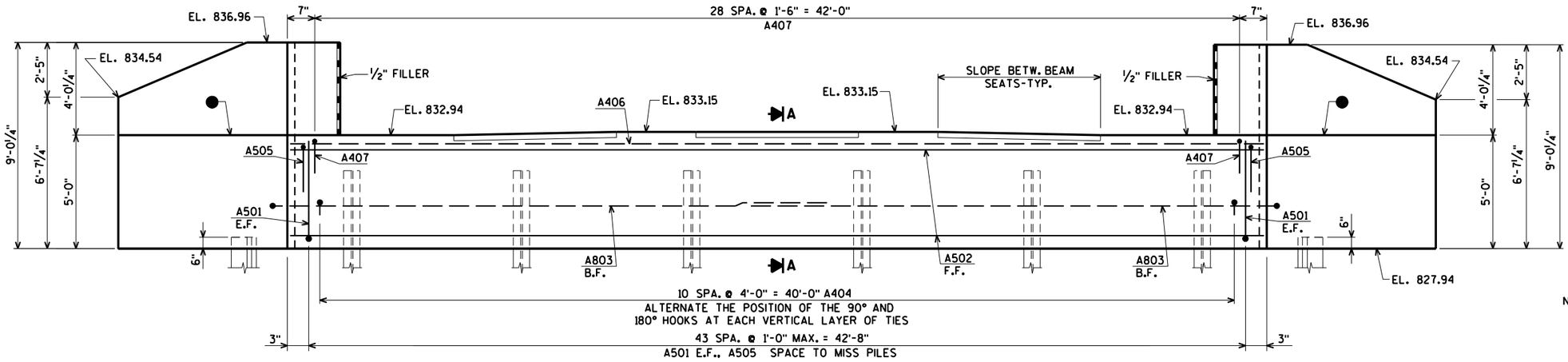
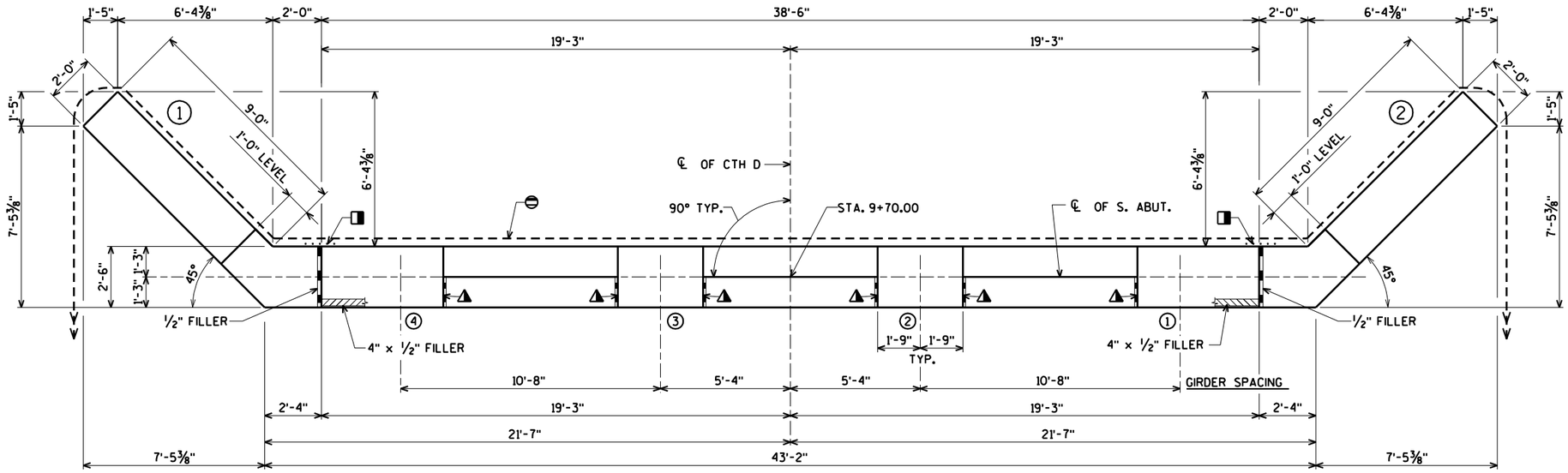
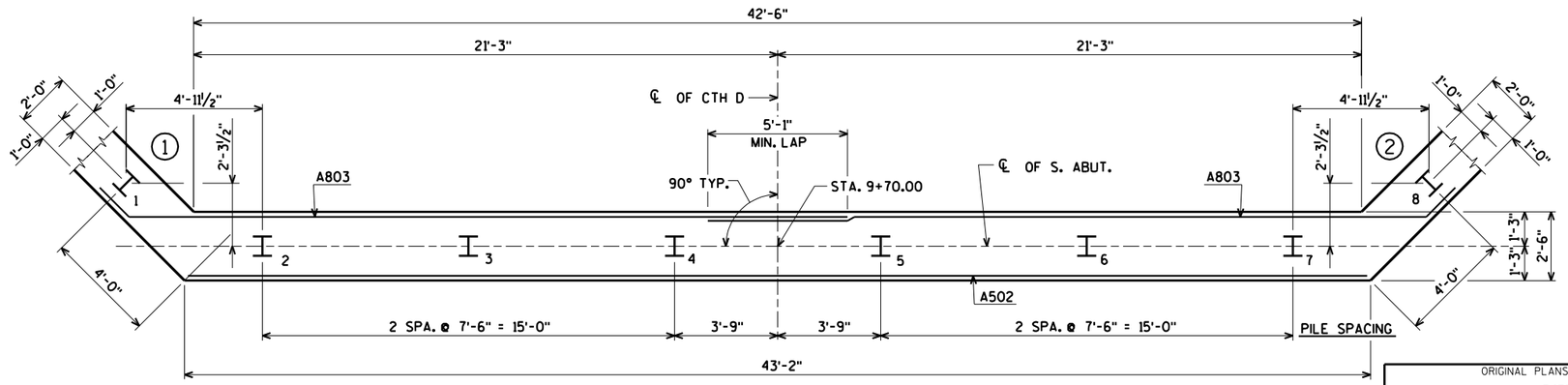


ELEVATION
(LOOKING SOUTH)



PLAN



PILE LAYOUT

N

NOTE:
SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

FOR SECTION A SEE SHEET 6.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 9. RODENT SHIELD TO BE INCIDENTAL TO BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

● OPT. KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F. (RUBBERIZED MEMBRANE WATERPROOFING INCIDENTAL TO BID ITEM "CONCRETE MANSONRY BRIDGES" IF CONST. JOINT IS USED).

◨ 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BEAM SEAT TO TOP OF WINGWALL.

▲ ¾" CORK FILLER ON VERTICAL FACE ONLY.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-247

DRAWN BY CLP | PLANS CK'D. ZSS

SOUTH ABUTMENT

SHEET 5 OF 16
52

ORIGINAL PLANS PREPARED BY
AYRES
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Eau Claire, WI 54701
www.AyresAssociates.com

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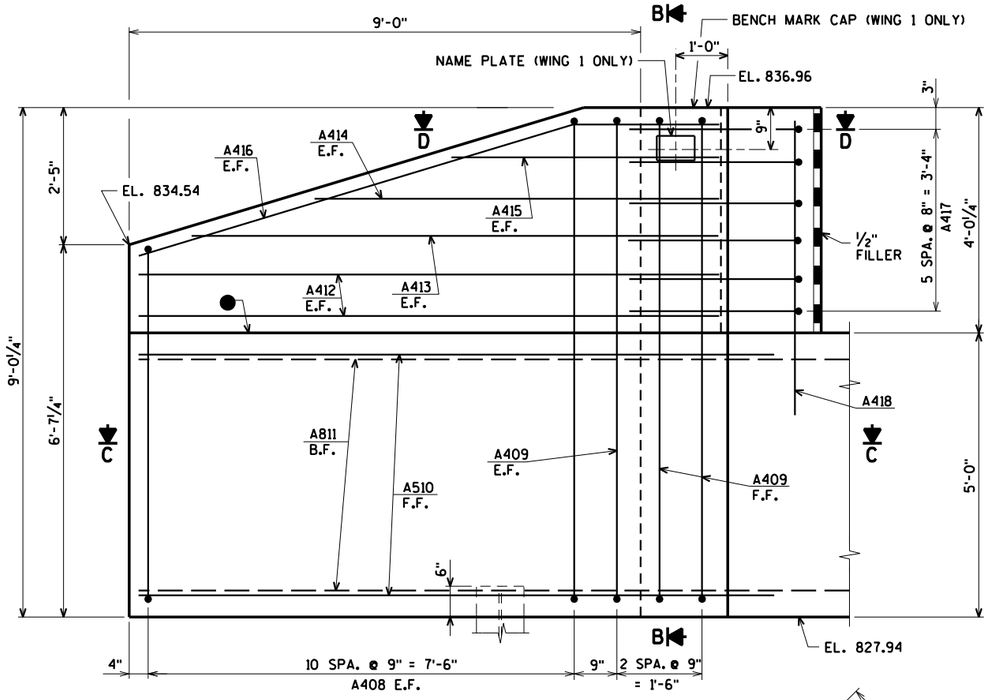
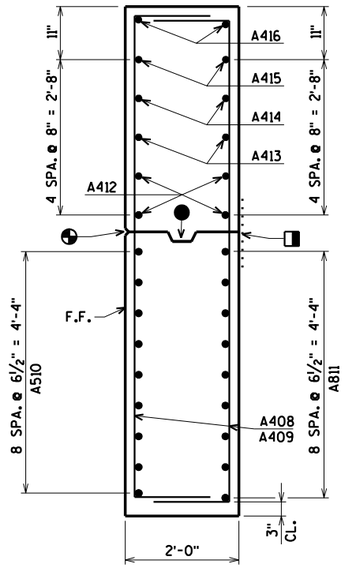


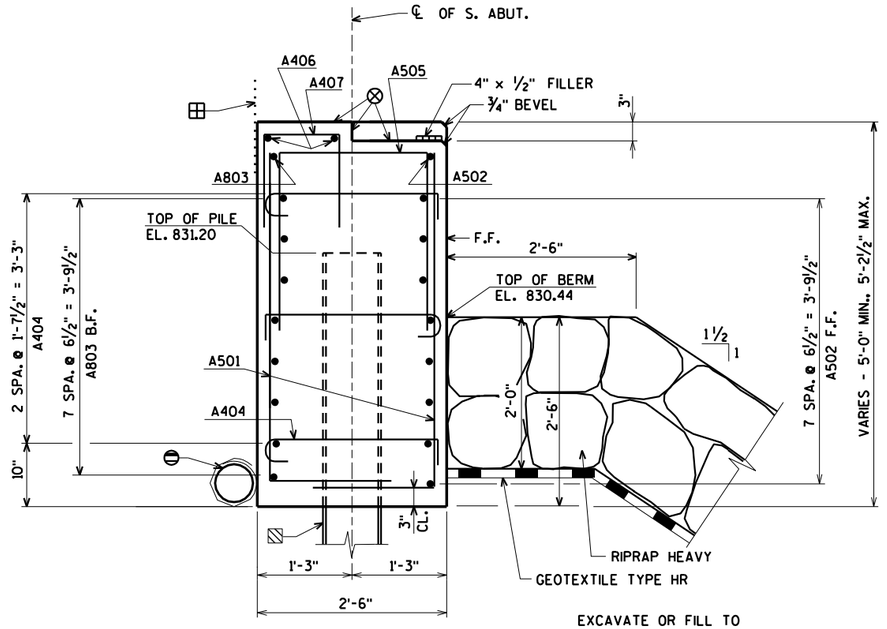
ELEVATION - WING 1

(WING 2 SIMILAR)



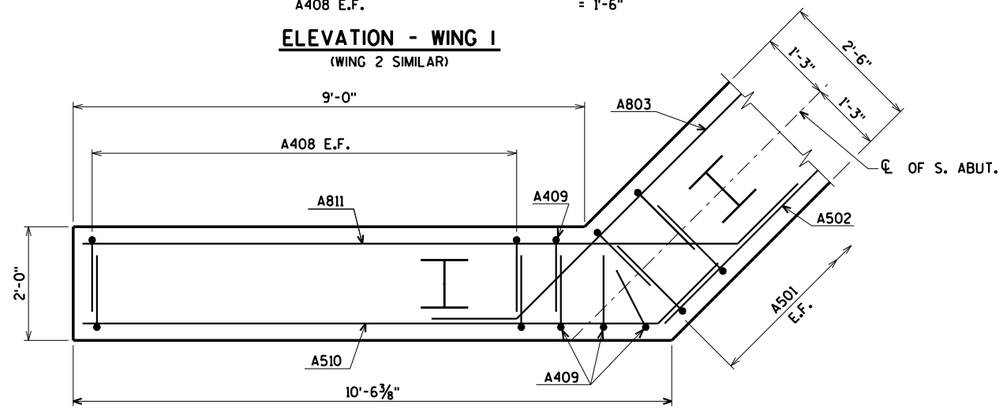
SECTION B

NOTE: DO NOT PLACE FILL ABOVE THREE FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

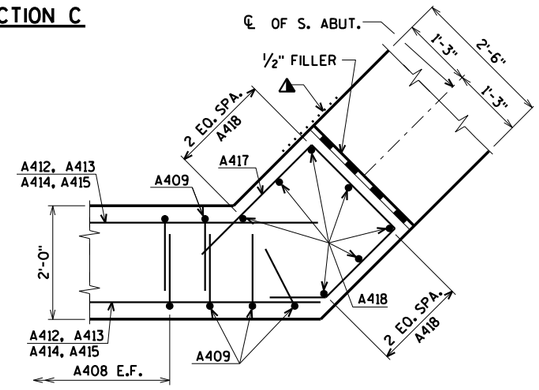


SECTION A

EXCAVATE OR FILL TO BOTTOM OF ABUTMENT BEFORE DRIVING PILES.



SECTION C



SECTION D

FOR LOCATION OF SECTION A SEE SHEET 5.

◨ RUBBERIZED MEMBRANE WATERPROOFING IF CONST. JOINT IS USED (COST INCIDENTAL TO BID ITEM "CONCRETE MANSONRY BRIDGES")

● OPT. KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F. (RUBBERIZED MEMBRANE WATERPROOFING INCIDENTAL TO BID ITEM "CONCRETE MANSONRY BRIDGES" IF CONST. JOINT IS USED).

◔ ¾" 'V' GROOVE ON F.F. OF WING WALL NOT REQUIRED IF CONST. JT. IS NOT USED.

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⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

FOR PILE SPLICE DETAIL SEE SHEET 3.

▨ ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE. ESTIMATED LENGTH 95'-0".

ORIGINAL PLANS PREPARED BY

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-247

DRAWN BY CLP | PLANS CK'D. ZSS

SOUTH ABUTMENT WING DETAILS

SHEET 6 OF 16
53

8/23/2021
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STATE PROJECT NUMBER

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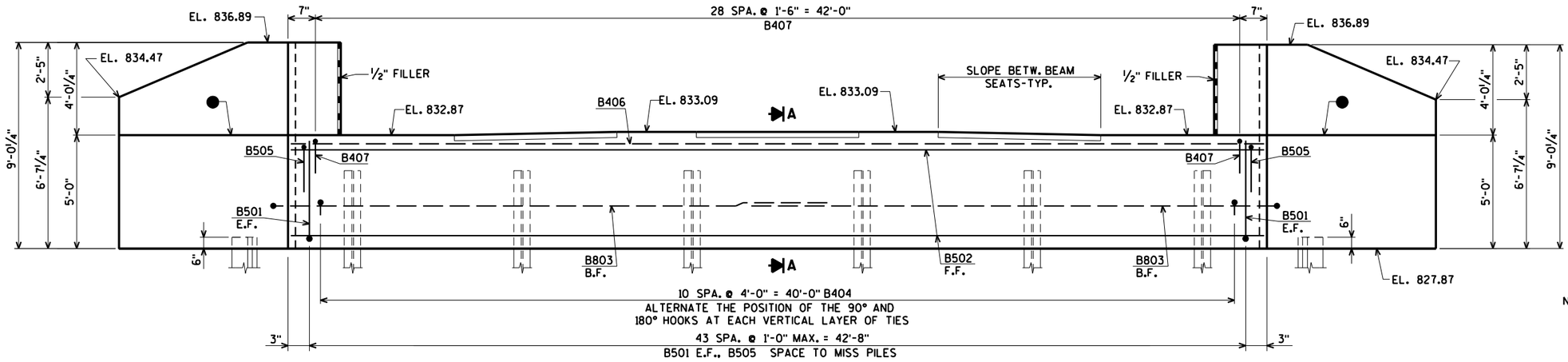
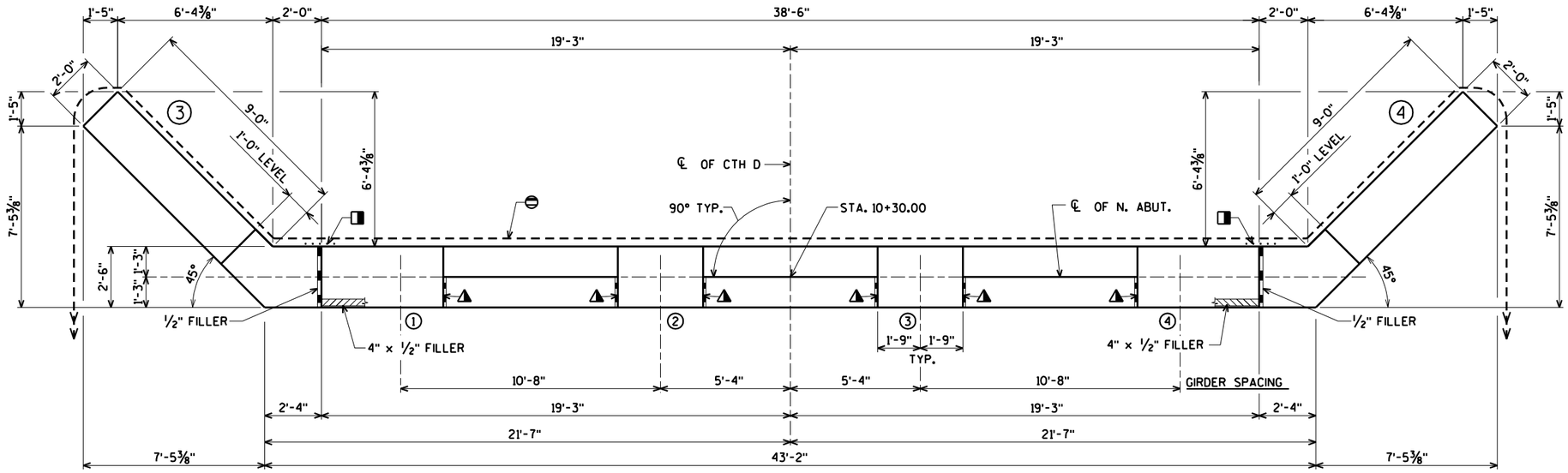
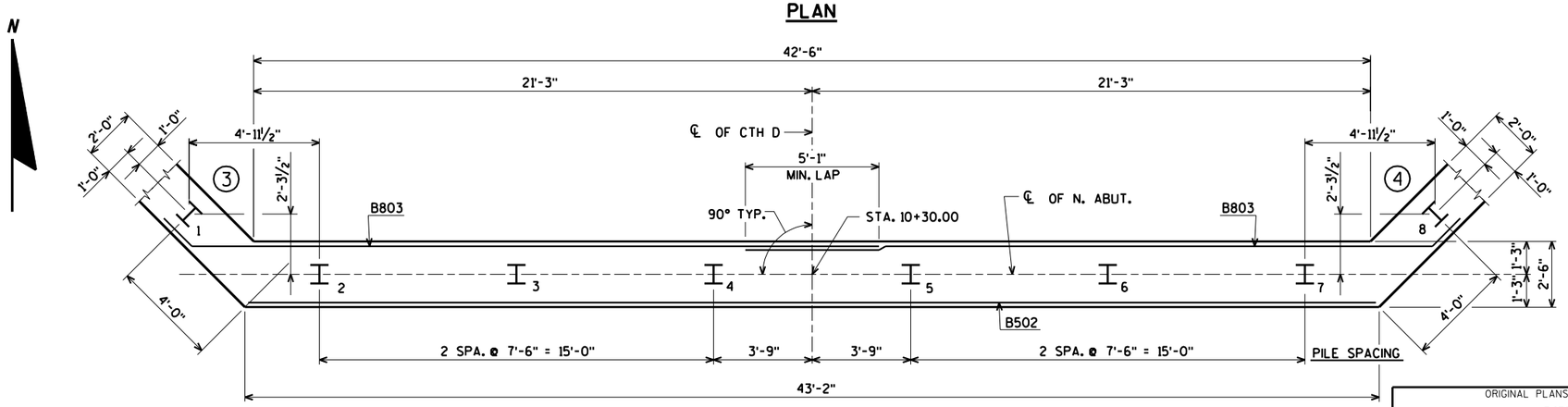


ELEVATION
(LOOKING NORTH)



PLAN



PILE LAYOUT

NOTE:
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STRUCTURE B-61-247

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NORTH ABUTMENT

SHEET 7 OF 16
54

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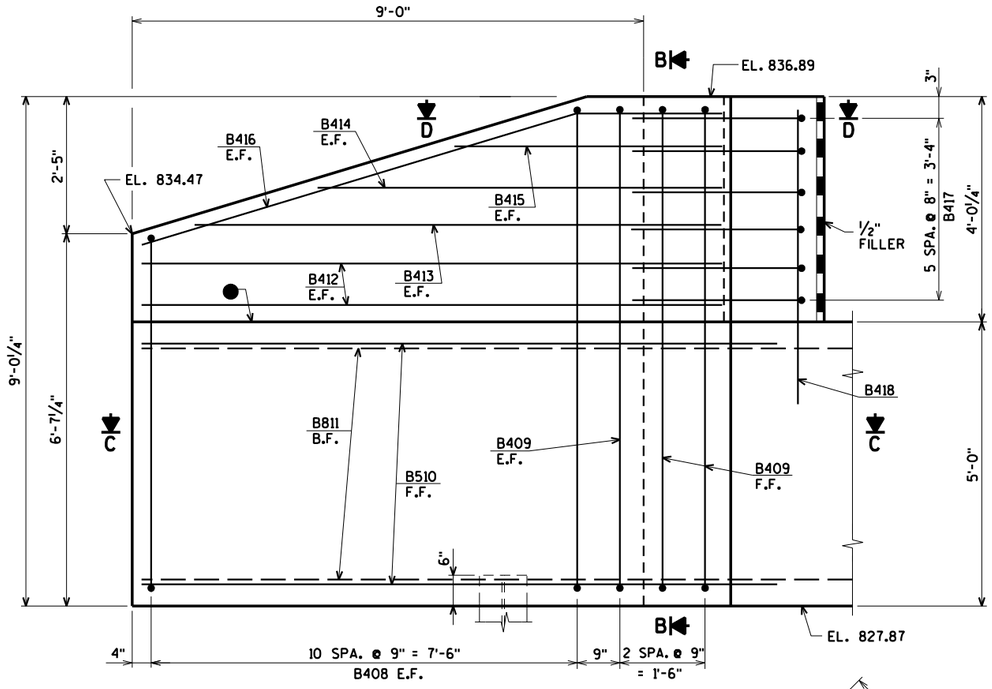
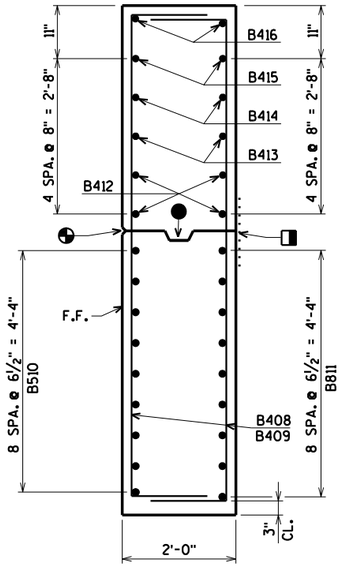


ELEVATION - WING 3
(WING 4 SIMILAR)



SECTION B

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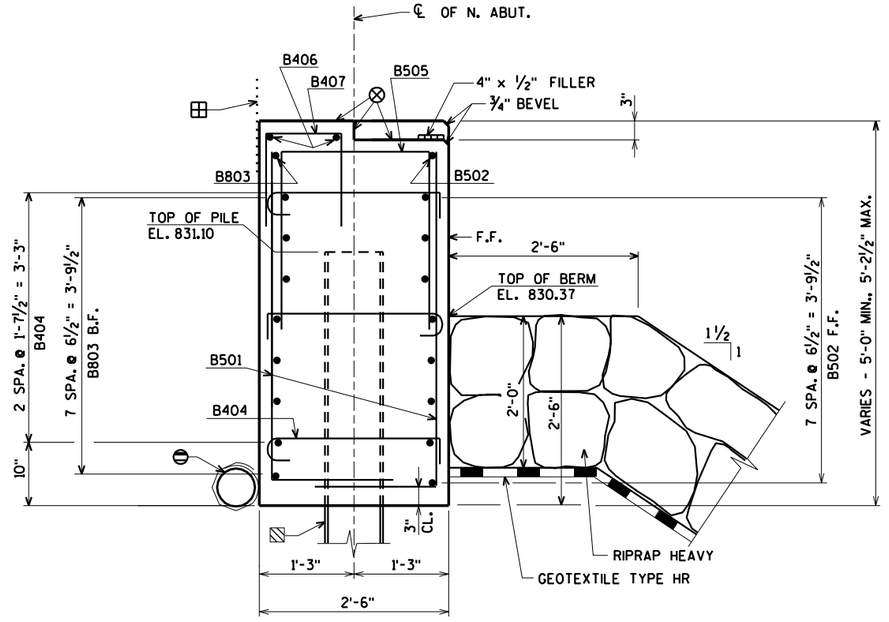

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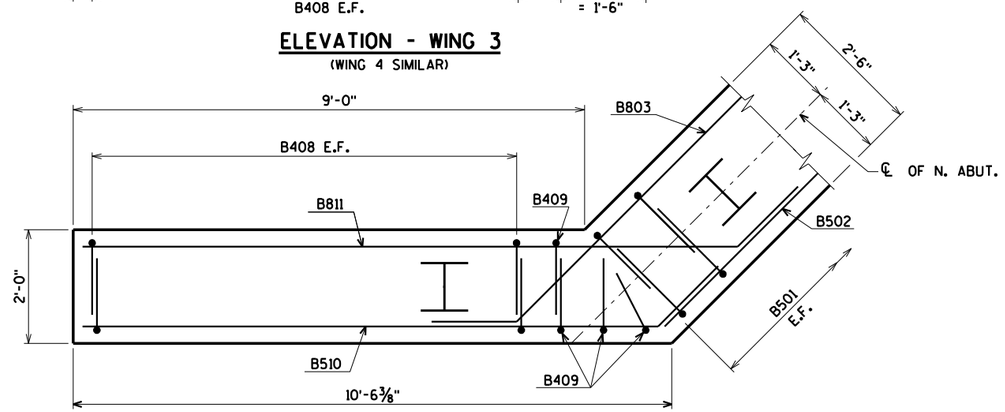
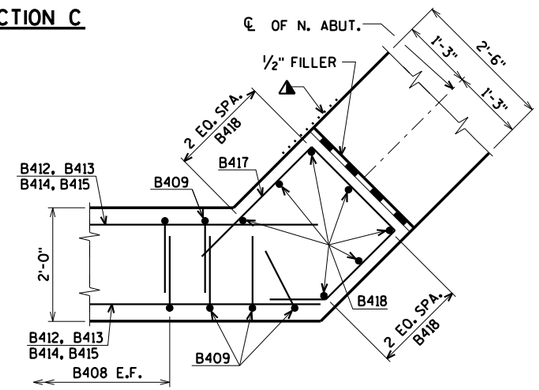


SECTION C



SECTION D

FOR LOCATION OF SECTION A SEE SHEET 7.

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FOR PILE SPLICE DETAIL SEE SHEET 3.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-247

DRAWN BY CLP | PLANS CK'D. ZSS

NORTH ABUTMENT WING DETAILS

SHEET 8 OF 16
55

ORIGINAL PLANS PREPARED BY
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STATE PROJECT NUMBER
7146-00-72

BILL OF BARS - SOUTH ABUTMENT

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	1,470# COATED 2,770# UNCOATED LOCATION
A501		88	5-9	X			BODY VERT. E.F.
A502		9	42-11				BODY HORIZ. F.F.
A803		18	27-8	X			BODY HORIZ. B.F.
A404		33	2-10	X			BODY TIES
A505		44	6-11	X			BODY VERT. TOP
A406		2	42-11				BODY HORIZ. TOP @ NOTCH
A407		29	3-9	X			BODY VERT. TOP @ NOTCH
A408	X	44	9-10	X		⊗	WINGS 1 & 2 VERT. E.F
A409	X	8	11-1	X			WINGS 1 & 2 VERT. E.F.
A510	X	18	11-7	X			WINGS 1 & 2 HORIZ. F.F.
A811	X	18	13-5	X			WINGS 1 & 2 HORIZ. B.F.
A412	X	8	10-3				WINGS 1 & 2 HORIZ. E.F.
A413	X	4	9-2				WINGS 1 & 2 HORIZ. E.F.
A414	X	4	7-0				WINGS 1 & 2 HORIZ. E.F.
A415	X	4	4-10				WINGS 1 & 2 HORIZ. E.F.
A416	X	4	10-4	X			WINGS 1 & 2 DIAG. E.F.
A417	X	12	8-8	X			WINGS 1 & 2 HORIZ.
A418	X	14	5-8				WINGS 1 & 2 VERT.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BILL OF BARS - NORTH ABUTMENT

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	1,470# COATED 2,770# UNCOATED LOCATION
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B505		44	6-11	X			BODY VERT. TOP
B406		2	42-11				BODY HORIZ. TOP @ NOTCH
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B408	X	44	9-10	X		⊗	WINGS 3 & 4 VERT. E.F
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B811	X	18	13-5	X			WINGS 3 & 4 HORIZ. B.F.
B412	X	8	10-3				WINGS 3 & 4 HORIZ. E.F.
B413	X	4	9-2				WINGS 3 & 4 HORIZ. E.F.
B414	X	4	7-0				WINGS 3 & 4 HORIZ. E.F.
B415	X	4	4-10				WINGS 3 & 4 HORIZ. E.F.
B416	X	4	10-4	X			WINGS 3 & 4 DIAG. E.F.
B417	X	12	8-8	X			WINGS 3 & 4 HORIZ.
B418	X	14	5-8				WINGS 3 & 4 VERT.

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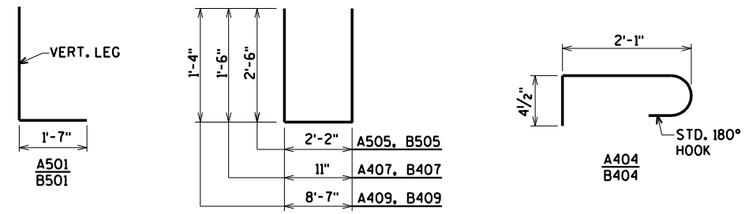
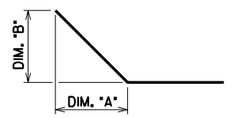
BAR SERIES TABLE

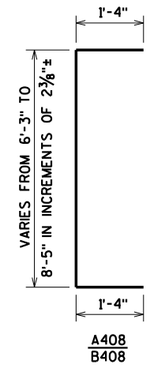
BAR MARK	NO. REQ'D.	LENGTH
A408	4 SERIES OF 11	8'-9" TO 10'-11"
B408	4 SERIES OF 11	8'-9" TO 10'-11"

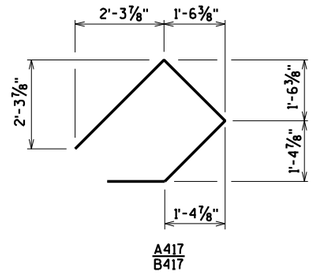
BUNDLE AND TAG EACH SERIES SEPARATELY.

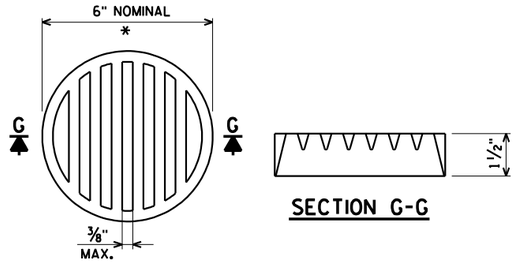




BAR NO.	DIM. "A"	DIM. "B"
B803	1'-0¾"	1'-0¾"
B510	1'-0¾"	1'-0¾"
A811	1'-0¾"	1'-0¾"
A416	7'-10"	2'-5"
B803	1'-0¾"	1'-0¾"
B510	1'-0¾"	1'-0¾"
B811	1'-0¾"	1'-0¾"
B416	7'-10"	2'-5"







SECTION G-G

* 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.

RODENT SHIELD DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-247

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ABUTMENT BILL OF BARS

SHEET 9 OF 16
56

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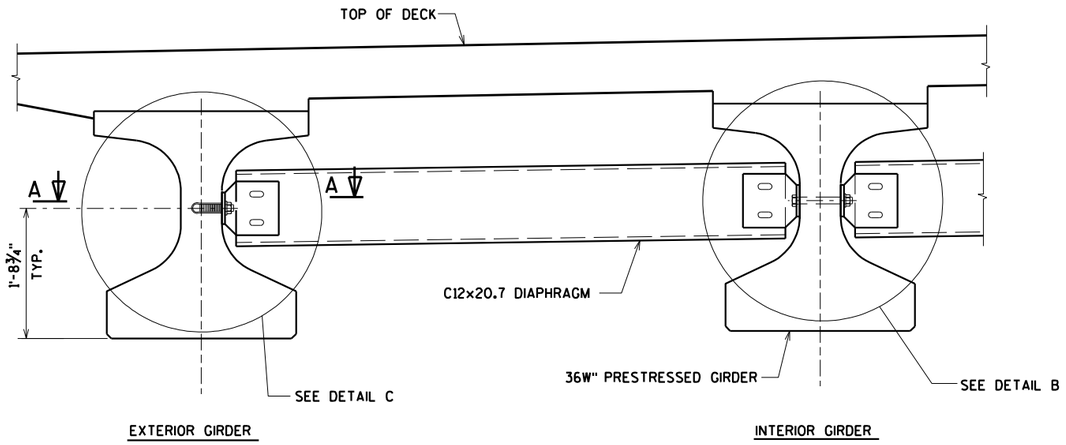
STATE PROJECT NUMBER

7146-00-72



NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-61-247", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

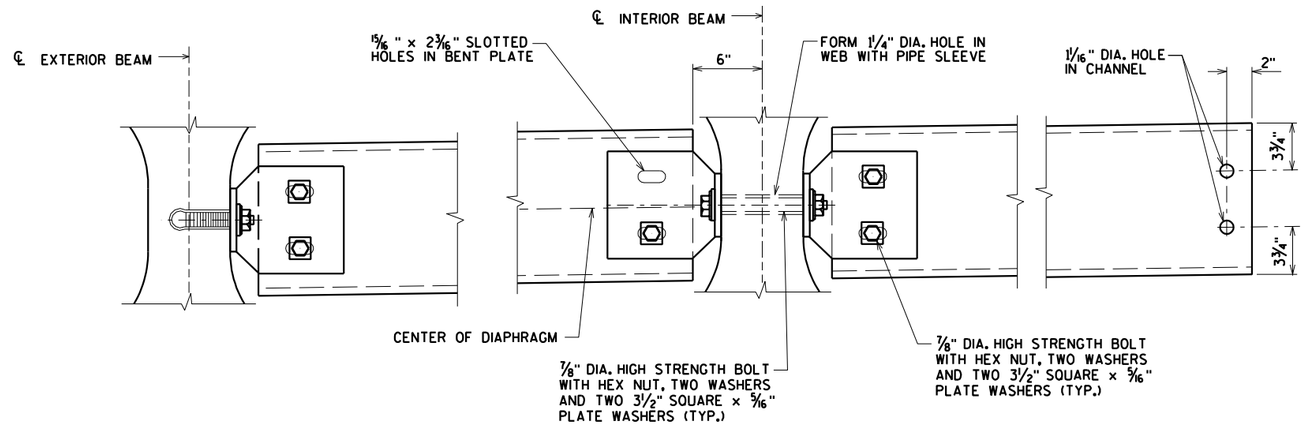
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

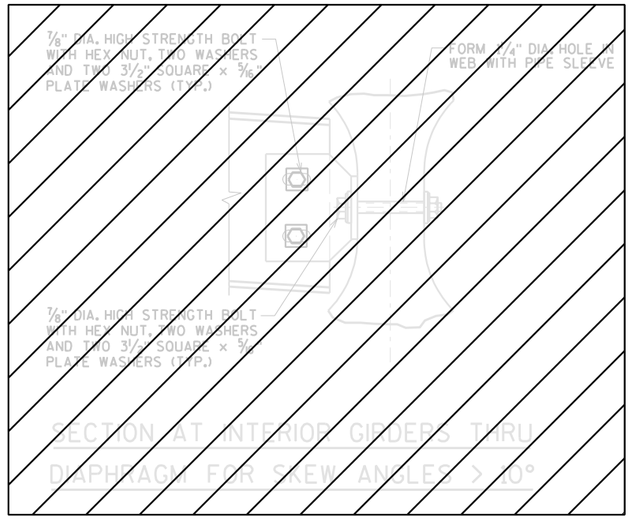
ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS ¼ TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

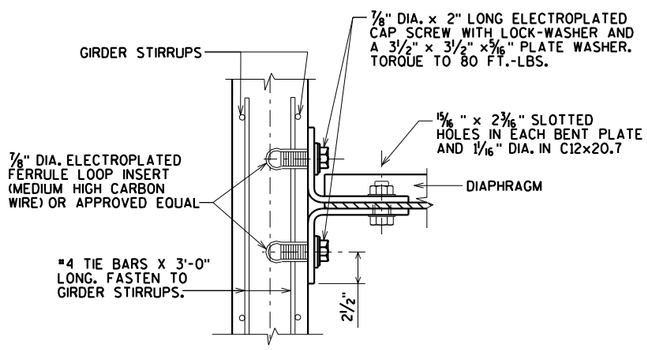
FOR DIAPHRAGM SPACING SEE SHEET 11.

PART TRANSVERSE SECTION AT DIAPHRAGM





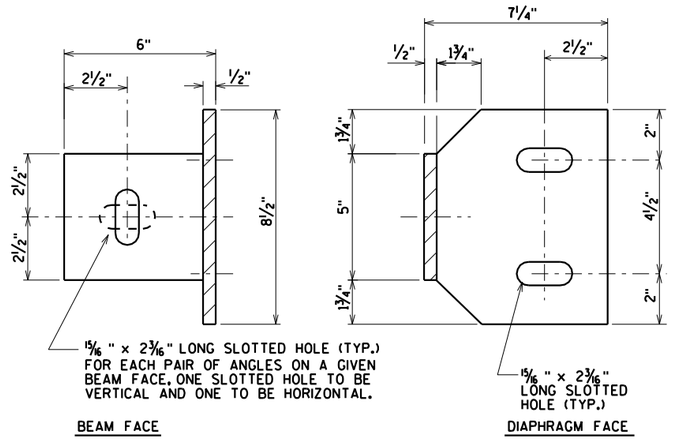
DETAIL C



SECTION A-A

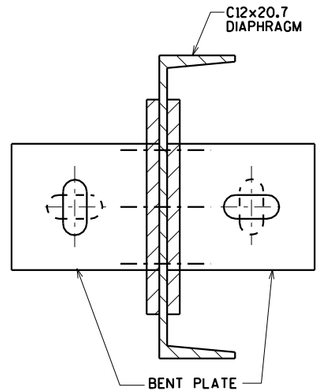
(FOR EXTERIOR ATTACHMENT)

DETAIL B



BEAM FACE

DIAPHRAGM FACE



ATTACHMENT TO CHANNEL

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STRUCTURE B-61-247

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STEEL DIAPHRAGM

SHEET 10 OF 16

57

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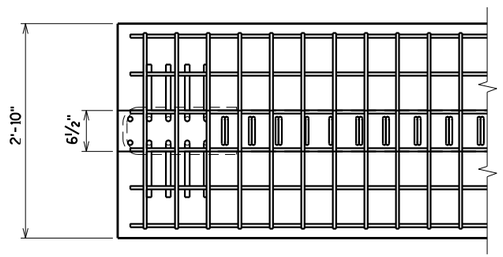
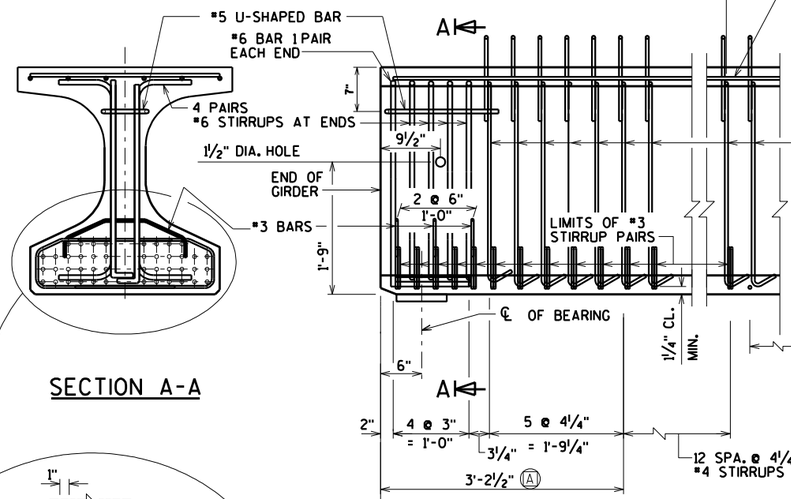
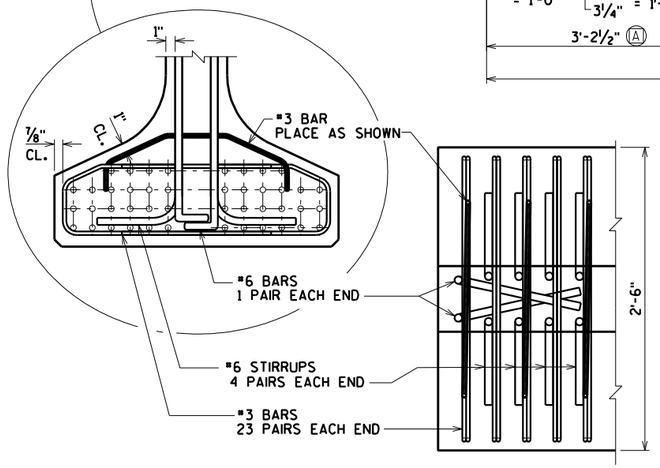


TOP FLANGE



SECTION A-A



DETAIL A
BOTTOM FLANGE

SIDE VIEW & TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 *4 BARS, FULL LENGTH, MIN. LAP = 2'-4"

GIRDER LENGTH = "L"

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECT. 503.3.3 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. ~~FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON PIGMENTED EPOXY CONFORMING TO AASHTO M 235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.~~

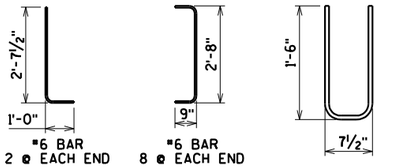
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

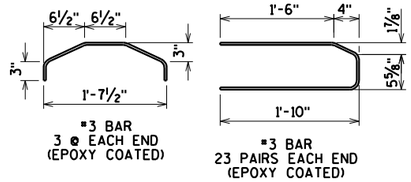
SPACING SHOWN FOR *4 AND *5 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON ACCEPTANCE OF THE STRUCTURES MAINTENANCE SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO SHOP DRAWING SUBMITTAL.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.





* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *
1	1 & 4	61'-0"	0.2	0.3	0.4	0.5	0.6	0.5	0.4	0.3	0.2	8,000	7½"	7"	7½"	0.60	18	6,400	32	11	14	4		
1	2 & 3	61'-0"	0.2	0.4	0.5	0.6	0.7	0.6	0.5	0.4	0.2	8,000	7½"	7"	7½"	0.60	18	6,400	32	11	14	4		

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-247

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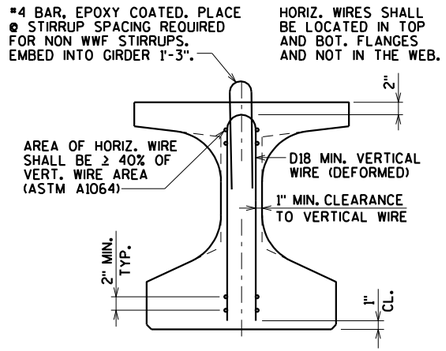
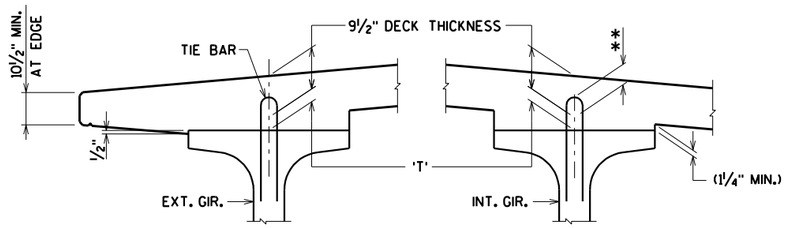
36W" PRESTRESSED GIRDER DETAILS



SECTION THRU GIRDER

SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS
ASTM A1064 (FY = 70 KSI)



DECK HAUNCH DETAIL

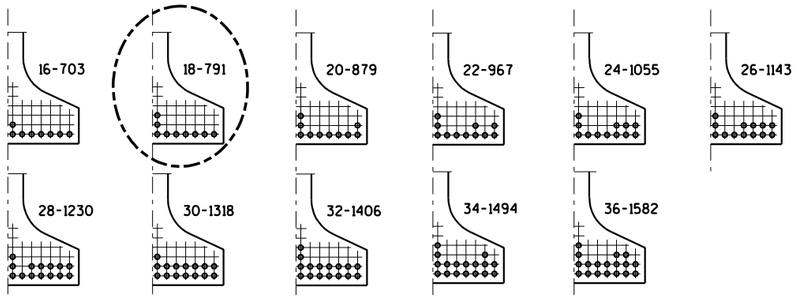
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

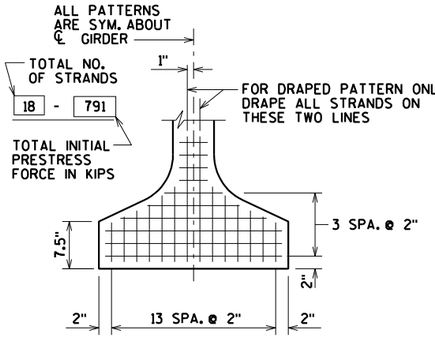
TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 2½" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

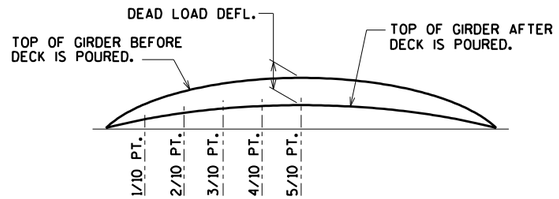


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

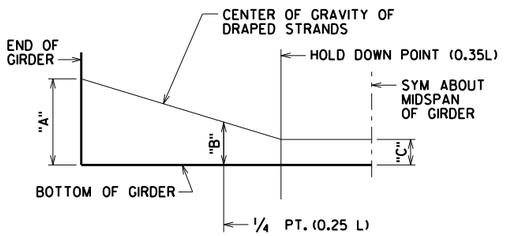
0.6"ø STRANDS



TYP. STRAND PATTERN



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	1.2

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-247

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36W" PRESTRESSED GIRDER DETAILS

SHEET 12 OF 16
59

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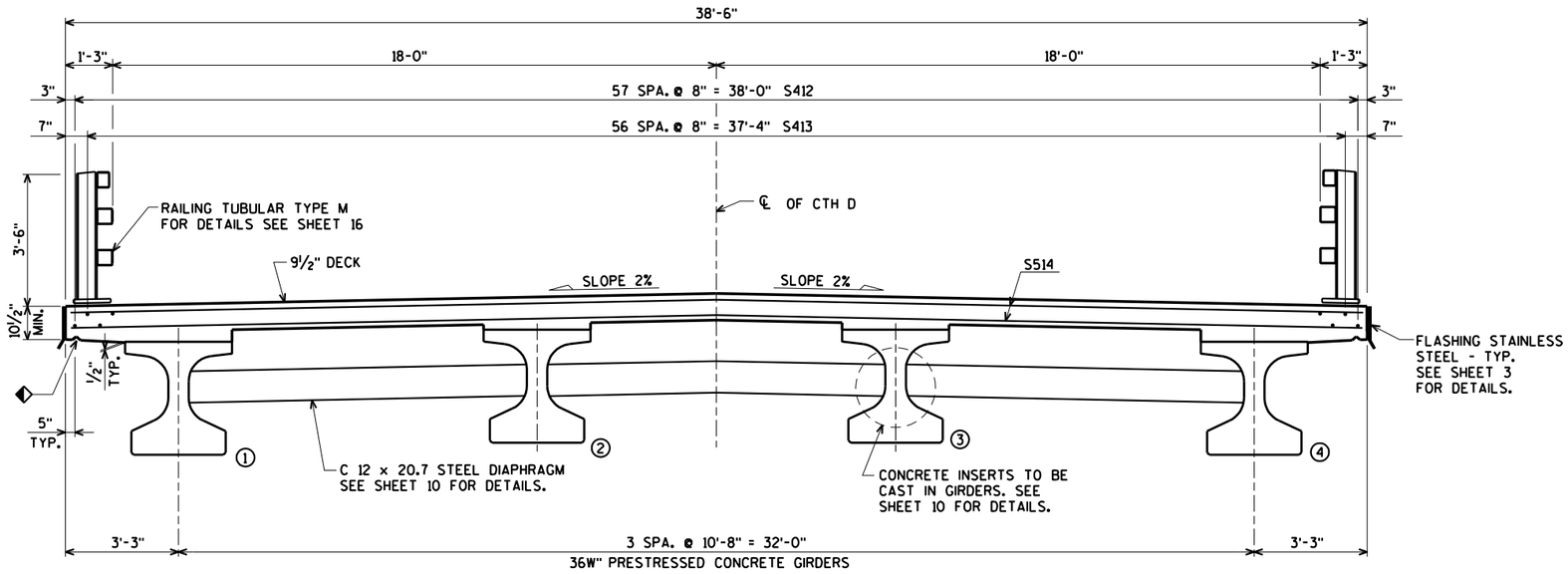


TYPICAL SECTION THRU BRIDGE

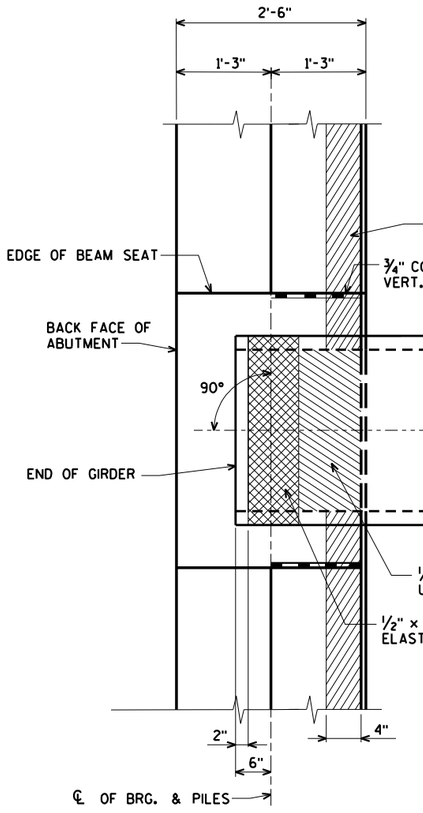
(LOOKING NORTH)

◆ ¾" V - GROOVE. EXTEND V - GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGMS - TYP.

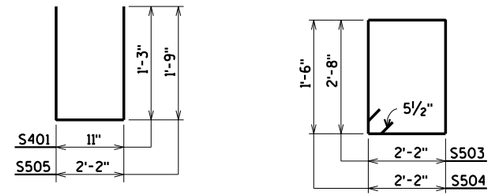
BILL OF BARS

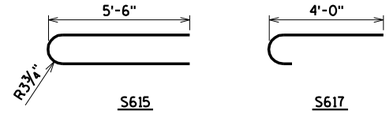
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	17,060# COATED LOCATION
S401	X	48	3-3	X		DIAPH. @ ABUT. VERT. @ NOTCH
S402	X	12	6-10			DIAPH. @ ABUT. HORIZ. @ NOTCH
S503	X	78	10-4	X		DIAPH. @ ABUT. VERT.
S504	X	16	8-0	X		DIAPH. @ ABUT. VERT. & GIRDERS
S505	X	78	5-5	X		DIAPH. @ ABUT. VERT.
S606	X	10	38-2			DIAPH. @ ABUT. HORIZ.
S607	X	24	5-11			DIAPH. @ ABUT. HORIZ. BETW. GDRS.
S608	X	6	7-10			DIAPH. @ ABUT. HORIZ. BETW. GDRS.
S609	X	4	1-8			DIAPH. @ ABUT. HORIZ. @ EXT. GDRS.
S610	X	8	2-8			DIAPH. @ ABUT. HORIZ. @ EXT. GDRS.
S511	X	16	6-0			DIAPH. @ ABUT. HORIZ. THRU GDRS.
S412	X	116	31-11			DECK LONG. BOT.
S413	X	114	31-11			DECK LONG. TOP
S514	X	201	38-2			DECK TRANS. TOP & BOTTOM
S615	X	44	12-0	X		DECK @ RAIL POSTS
S616	X	72	6-0			DECK @ INT. RAIL POSTS
S617	X	16	6-0	X		DECK @ END RAIL POSTS

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



BEARING PAD DETAIL





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SUPERSTRUCTURE

SHEET 13 OF 16
60

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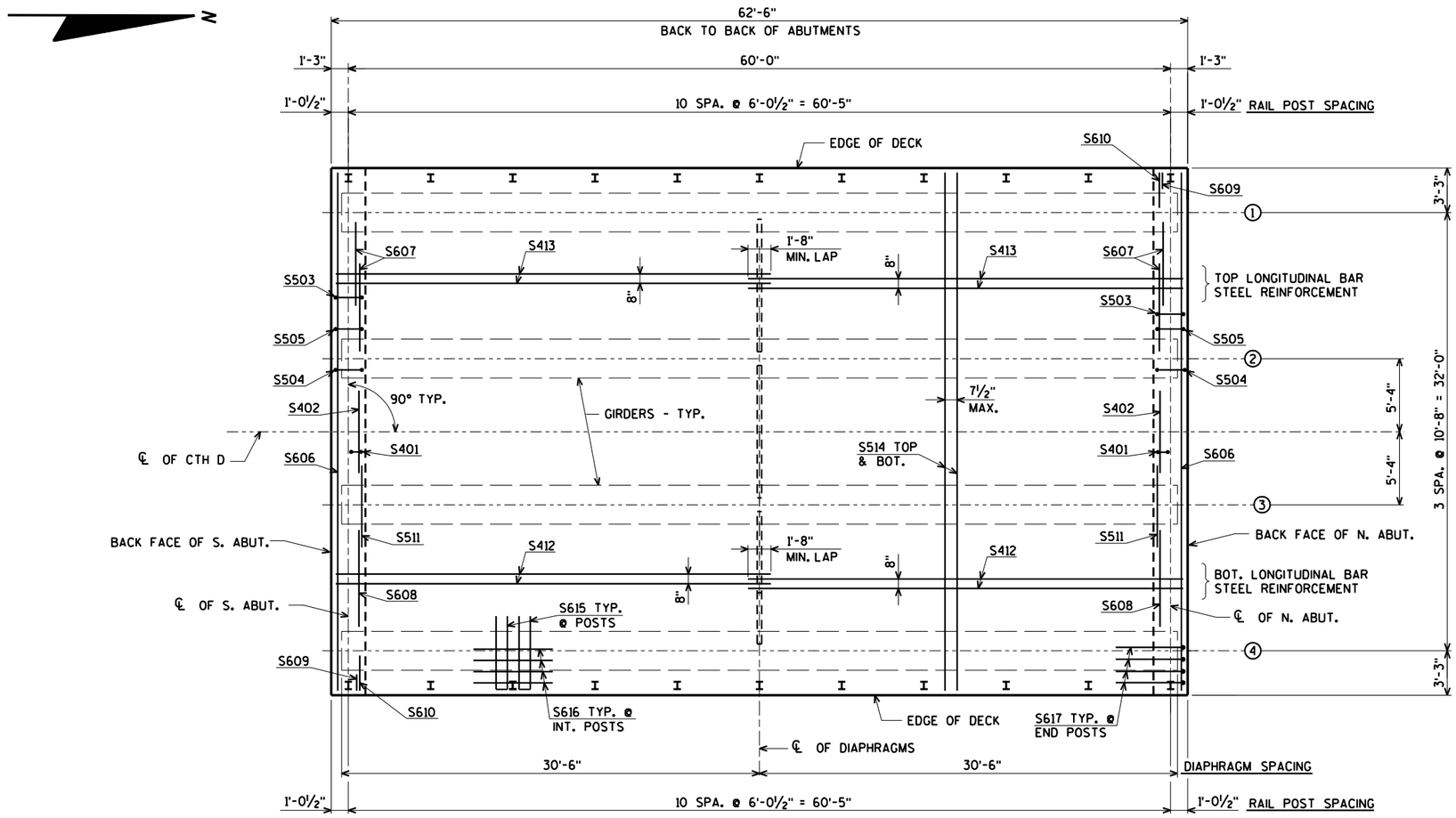

PLAN

TOP OF DECK ELEVATIONS

LOCATION	℄ OF 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.	℄ OF N. ABUT.
WEST EDGE OF DECK	836.96	836.95	836.95	836.94	836.93	836.93	836.92	836.91	836.90	836.90	836.89
GIRDER 1	837.02	837.02	837.01	837.00	837.00	836.99	836.98	836.98	836.97	836.96	836.96
GIRDER 2	837.24	837.23	837.22	837.22	837.21	837.20	837.20	837.19	837.18	837.18	837.17
℄ OF CTH D	837.34	837.34	837.33	837.32	837.32	837.31	837.30	837.30	837.29	837.28	837.28
GIRDER 3	837.24	837.23	837.22	837.22	837.21	837.20	837.20	837.19	837.18	837.18	837.17
GIRDER 4	837.02	837.02	837.01	837.00	837.00	836.99	836.98	836.98	836.97	836.96	836.96
EAST EDGE OF DECK	836.96	836.95	836.95	836.94	836.93	836.93	836.92	836.91	836.90	836.90	836.89

ELEVATIONS SHOWN ARE FINISHED DECK AND DO NOT INCLUDE ALLOWANCES FOR DEAD LOAD DEFLECTION.

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SUPERSTRUCTURE PLAN

SHEET 14 OF 16
61

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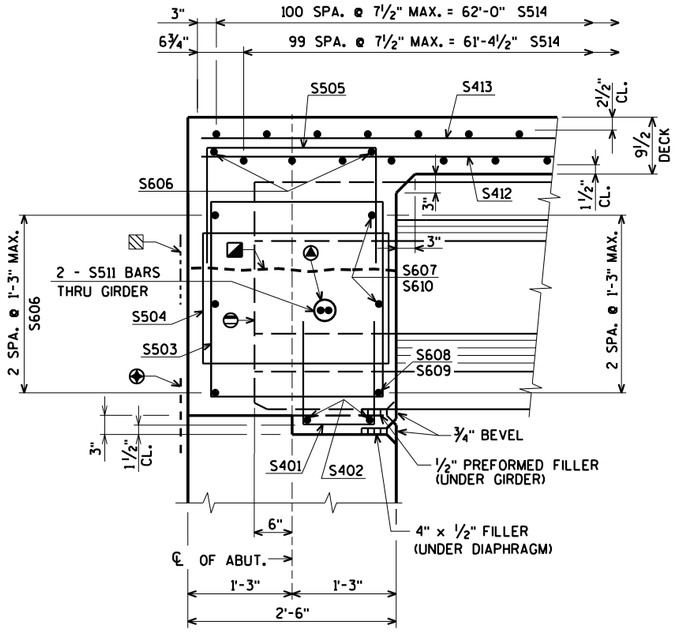
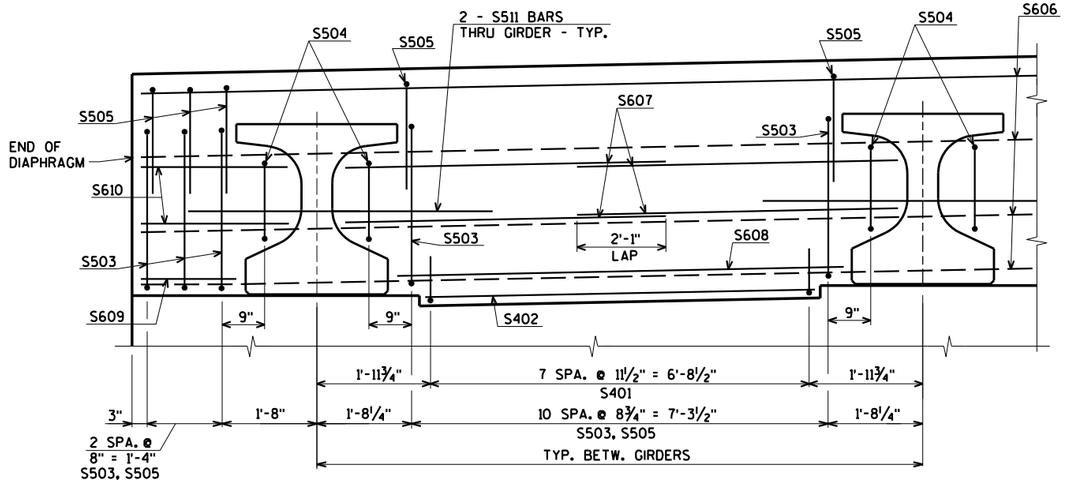


PART LONGITUDINAL SECTION



PART TRANSVERSE SECTION AT ABUTMENT DIAPHRAGM

⊖ END OF GIRDER

⊕ 18" RUBBERIZED MEMBRANE WATERPROOFING

◪ OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

▨ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONST. JT. IS USED. COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES"

⍋ 1½" DIA. HOLE IN WEB FOR S511 BARS. PLACE S511 BARS SYM. ABOUT ℄ OF GIRDERS. FIELD BEND ALONG SKEW.

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STRUCTURE B-61-247

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SUPERSTRUCTURE DETAILS

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62

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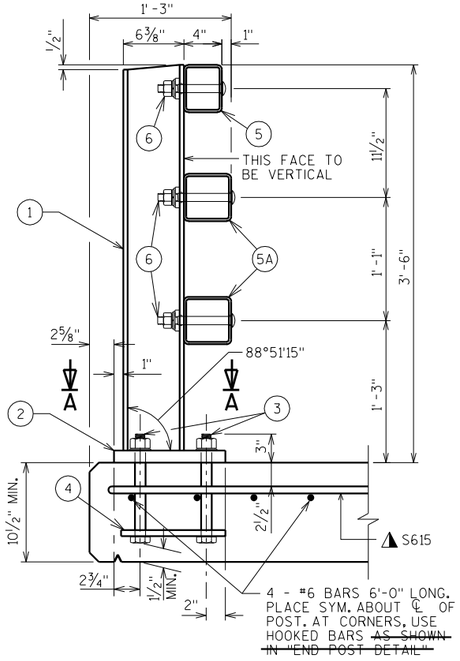
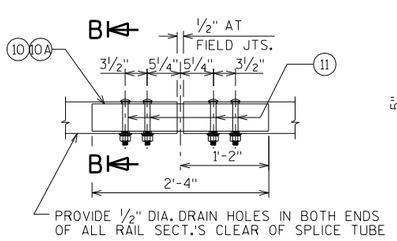
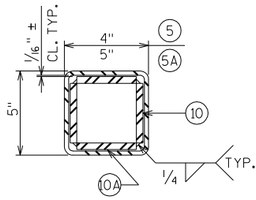


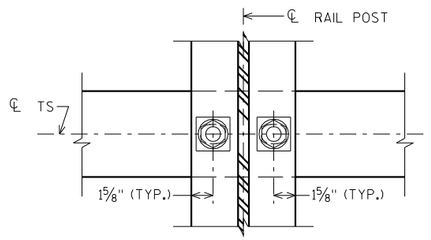
SECTION THRU RAILING ON DECK



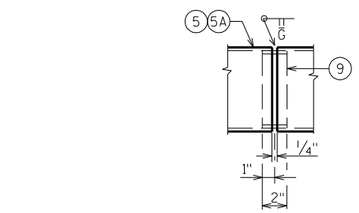
FIELD ERECTION JOINT DETAIL



SECTION B-B

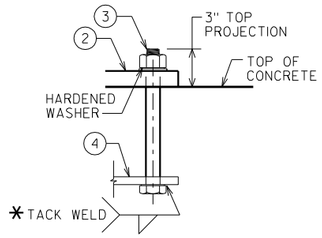


SECTION THRU POST WEB

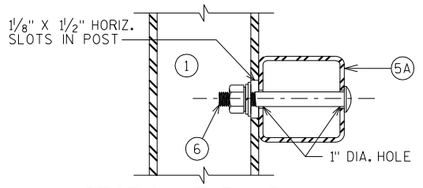


SHOP RAIL SPLICE DETAIL

LOCATION MUST BE SHOWN ON SHOP DRAWINGS



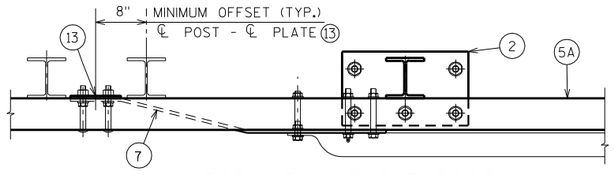
ANCHOR BOLTS



SECTION THRU RAIL

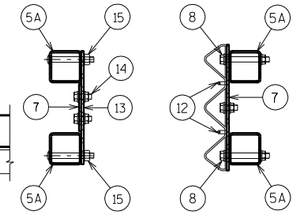
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS



TOP VIEW AT END POST

THRIE BEAM RAIL ATTACHMENT



SECTION C-C

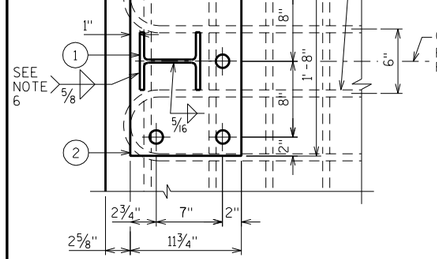
SECTION D-D

LEGEND

1. W6 x 25 WITH 1⅛" X 1½" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
2. PLATE 1¼" x 11¾" x 1'-8" WITH 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.~~ USE 10¾" LONG AT ALL OTHER LOCATIONS. ~~(AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTABILITY.)~~
4. ⅝" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 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. ½" THK. BACK-UP PLATE WITH 2 - ⅞" X 1½" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
8. 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
9. SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".
10. ⅜" X 3⅝" X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
10A. ⅜" X 2⅝" X 2'-4" PLATE USED IN NO. 5, ⅜" X 3⅝" X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
11. ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15⁄16" X 1¼" LONGIT. SLOTTED HOLES AT FIELD JOINTS ~~AND 15⁄16" X 2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS~~ IN PLATE NO. 10A.
12. ⅞" DIA. X 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
13. ⅜" X 8" X 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
14. ⅞" DIA. X 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
15. 1" DIA. HOLES IN TUBES NO. 5A FOR ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

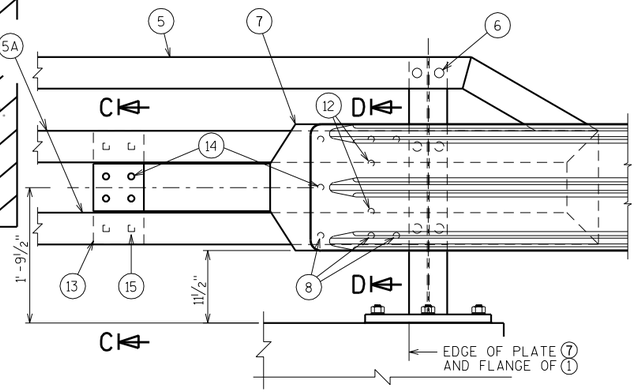
1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES,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



SECTION A-A

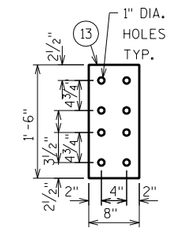
END POST DETAIL

REINFORCEMENT AT CORNERS



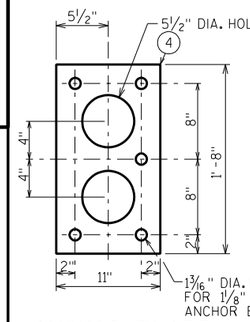
DETAIL AT END POST

THRIE BEAM RAIL ATTACHMENT



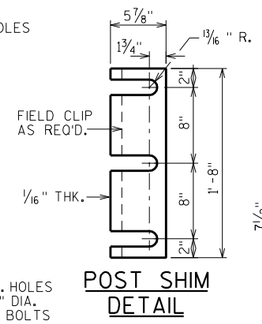
ANCHOR PLATE

AT BEAM GUARD ATTACHMENT

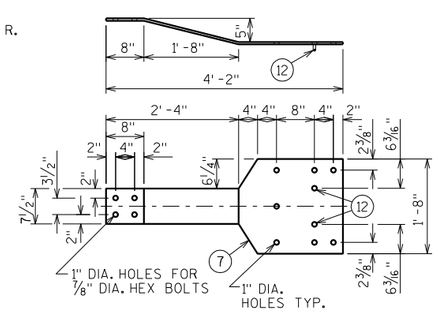


ANCHOR PLATE

AT RAIL TO DECK CONNECTION

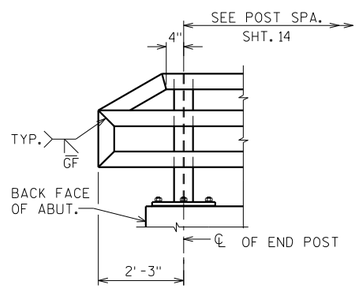


POST SHIM DETAIL



BACK-UP PLATE DETAIL

AT BEAM GUARD ATTACHMENT



PART ELEVATION OF RAILING

⚠ TIE TO TOP MAT OF STEEL.

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-247

DRAWN BY CLP | PLANS CK'D. ZSS

TUBULAR STEEL RAILING TYPE 'M'

SHEET 16 OF 16

63

ORIGINAL PLANS PREPARED BY

AYRES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com

8

8

CTH D TEMPORARY BYPASS COMPUTER EARTHWORK

Station	Distance	Area (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut	Expanded Fill	
						1.00	1.30	
				Note 1	Note 2	Note 1		Note 3
18+94.70	--	0.0	0.0	--	--			
19+00	5	3.5	6.9	0	1	0	1	-1
19+11	11	5.7	23.4	2	6	2	9	-7
19+25	14	26.8	23.9	8	12	11	25	-14
19+50	25	47.8	5.0	35	13	45	42	3
19+75	25	32.7	14.2	37	9	82	54	29
20+00	25	2.6	102.0	16	54	99	124	-25
20+28.25	28	2.6	102.0	3	107	102	263	-161
TEMP. STRUCTURE	--	--	--	--	--	--	--	--
20+53.75	--	0.0	244.8	--	--	--	--	--
20+75	21	0.0	244.8	0	193	102	513	-411
21+00	25	0.0	127.5	0	172	102	737	-636
21+25	25	0.0	112.4	0	111	102	881	-780
21+50	25	0.0	100.7	0	99	102	1010	-908
21+75	25	0.0	82.8	0	85	102	1120	-1019
22+00	25	2.6	39.7	1	57	103	1194	-1091
22+18.64	19	0.0	0.0	1	14	104	1212	-1108
				104	932			

CTH D REMOVAL OF TEMPORARY BYPASS COMPUTER EARTHWORK

Station	Distance	Area (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut	Expanded Fill	
						1.00	1.30	
				Note 1	Note 2	Note 1		Note 3
18+94.70	--	--	--					
22+18.64	324	--	--	1392	104	1392	135	1257
				1392	104			

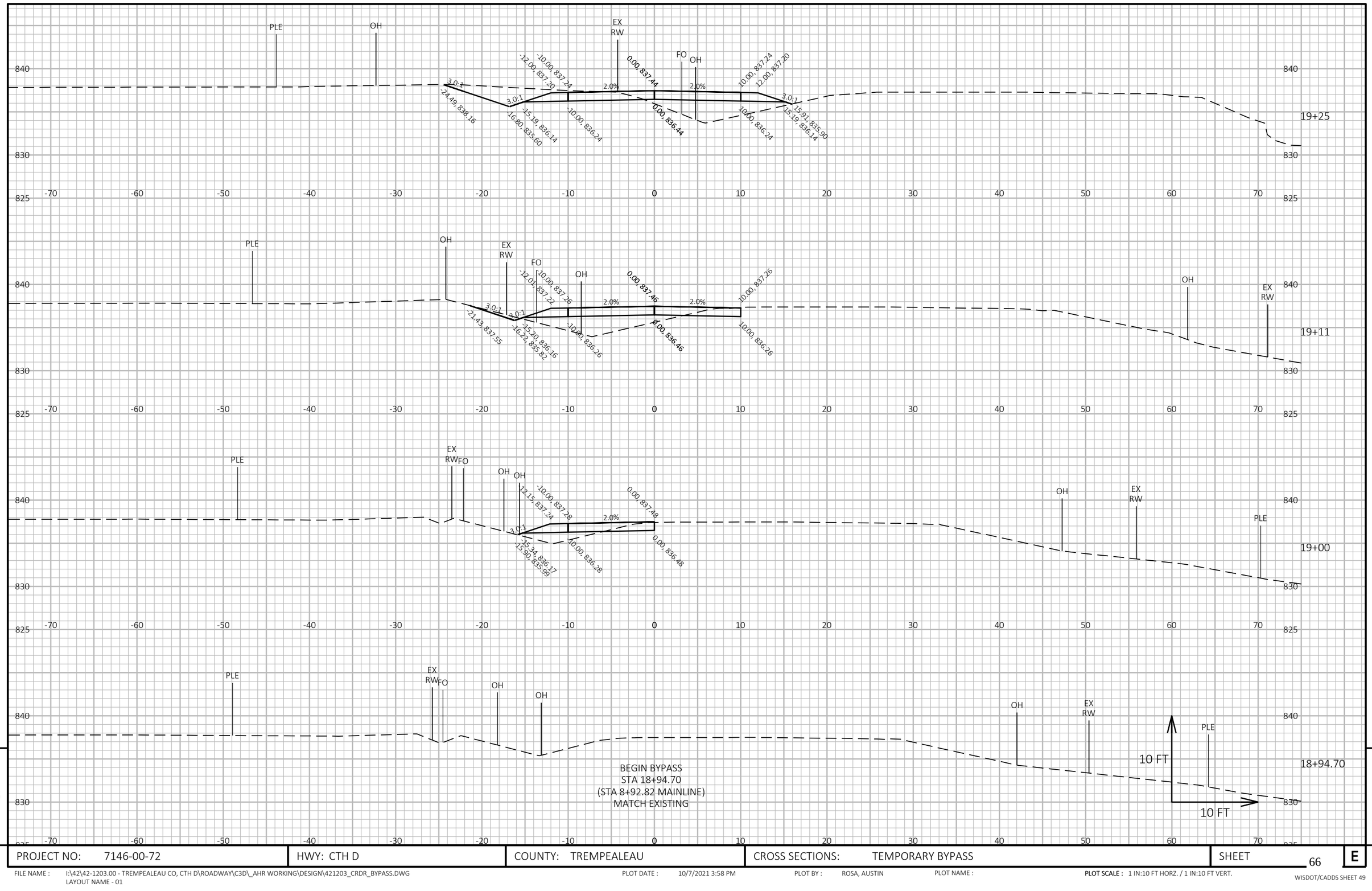
Base Aggregate Dense
284 CY

Note 1 - Cut	Cut includes existing asphalt pavement. Assumed to be reused as fill outside the 1:1 road core.
Note 2 - Fill	Volume needed to be filled.
Note 3 - Mass Ordinate	(Cut) - (Fill * 1.30)

CTH D COMPUTER EARTHWORK

Station	Distance	Area (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut	Expanded Fill	
						1.00	1.30	
				Note 1	Note 2	Note 1		Note 3
7+95.06	--	0.0	0.0					
8+00	5	4.7	0.0	0	0	0	0	0
8+24.43	24	12.7	2.7	8	1	8	2	7
8+27.04	3	22.4	2.9	2	0	10	2	8
8+50	23	26.0	12.7	21	7	31	11	20
8+66.56	17	28.4	29.0	17	13	47	27	20
8+75	8	33.1	21.6	10	8	57	37	19
8+79.06	4	29.4	20.9	5	3	62	42	20
8+89.96	11	16.5	30.3	9	10	71	55	16
8+91.56	2	14.5	30.9	1	2	72	57	14
8+92.82	1	13.9	29.9	1	1	72	59	13
9+04.06	11	13.8	26.5	6	12	78	74	4
9+16.56	13	24.1	21.4	9	11	87	89	-2
9+19.75	3	26.7	21.8	3	3	90	92	-2
9+19.75	--	47.0	21.8					
9+29.06	9	47.7	20.3	16	7	106	102	5
9+53.75	25	58.3	51.8	48	33	155	144	10
9+68.75	15	58.3	51.8	32	29	187	182	5
BRIDGE	--	--	--	--	--	--	--	--
10+31.25	--	33.7	50.6	--	--	--	--	--
10+46.03	15	33.7	50.6	18	28	206	218	-12
10+70.94	25	40.6	26.6	34	36	240	264	-24
10+80.25	9	35.5	25.8	13	9	253	276	-23
10+80.25	--	14.6	25.8					
10+83.44	3	13.8	24.8	2	3	255	280	-25
10+95.94	13	12.8	23.0	6	11	261	294	-33
11+08.44	13	15.2	43.5	6	15	267	314	-47
11+20.94	13	14.9	45.8	7	21	274	341	-67
11+33.44	13	13.7	45.2	7	21	281	369	-88
11+50	17	10.9	43.5	8	27	288	404	-115
11+75	25	10.0	41.6	10	39	298	455	-157
11+83.55	9	9.9	37.3	3	12	301	471	-170
12+00	16	9.8	27.8	6	20	307	497	-190
12+29.92	30	7.7	9.9	10	21	317	524	-207
12+40.62	11	6.5	10.9	3	4	320	530	-210
12+50	9	11.1	5.7	3	3	323	533	-210
12+75	25	11.5	0.0	10	3	333	537	-203
12+84.69	10	4.4	0.0	3	0	336	537	-201
12+91.94	7	0.0	0.0	1	0	337	537	-200
				337	413			

Note 1 - Cut	Cut includes existing asphalt pavement. Assumed to be reused as fill outside the 1:1 road core.
Note 2 - Fill	Volume needed to be filled.
Note 3 - Mass Ordinate	(Cut) - (Fill * 1.30)

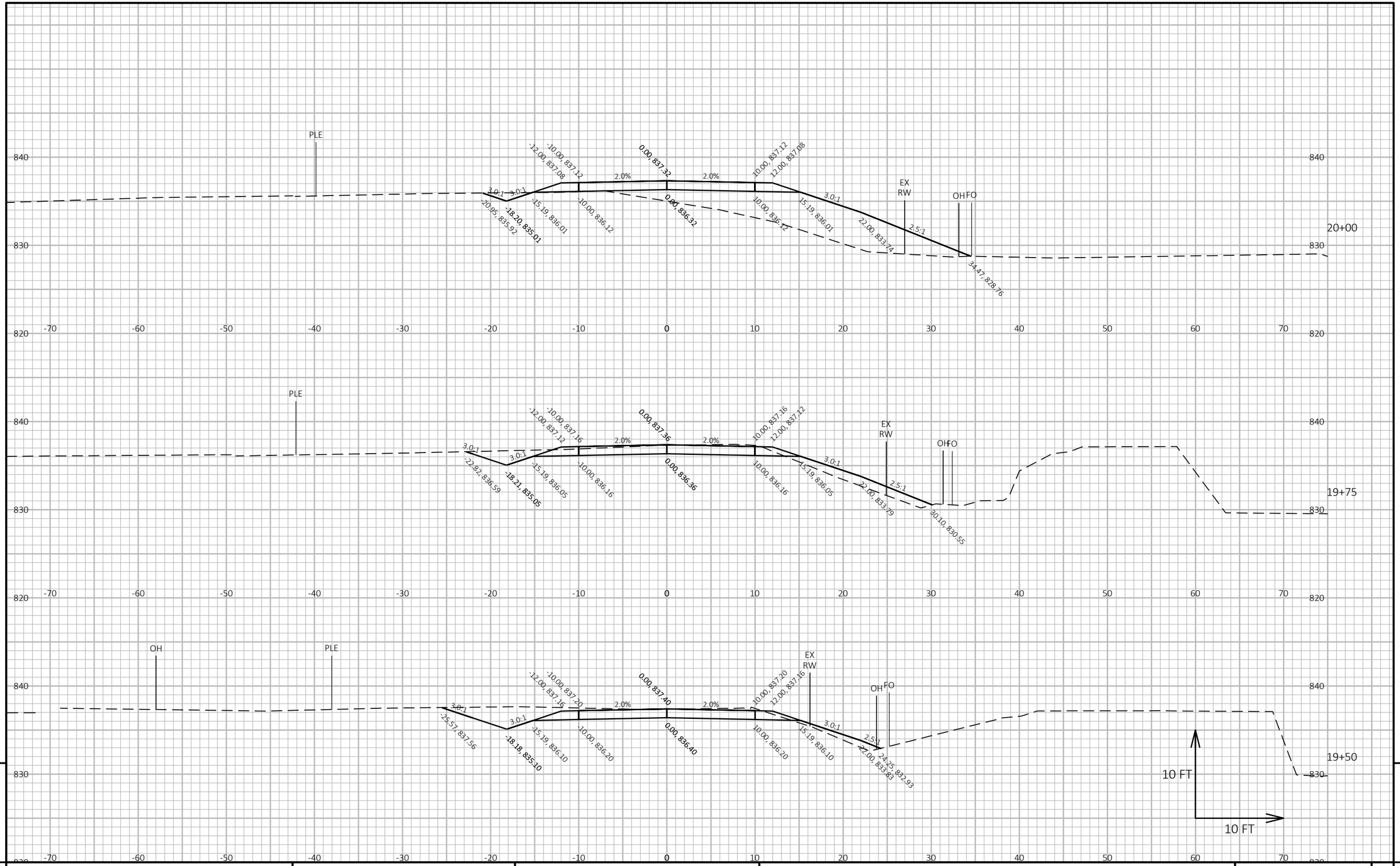


9 9

PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	CROSS SECTIONS: TEMPORARY BYPASS	SHEET 66	E

FILE NAME : I:\42\42-1203.00 - TREMPEALEAU CO, CTH D\ROADWAY\C3D_AHR WORKING\DESIGN\421203_CRDR_BYPASS.DWG
LAYOUT NAME - 01

PLOT DATE : 10/7/2021 3:58 PM PLOT BY : ROSA, AUSTIN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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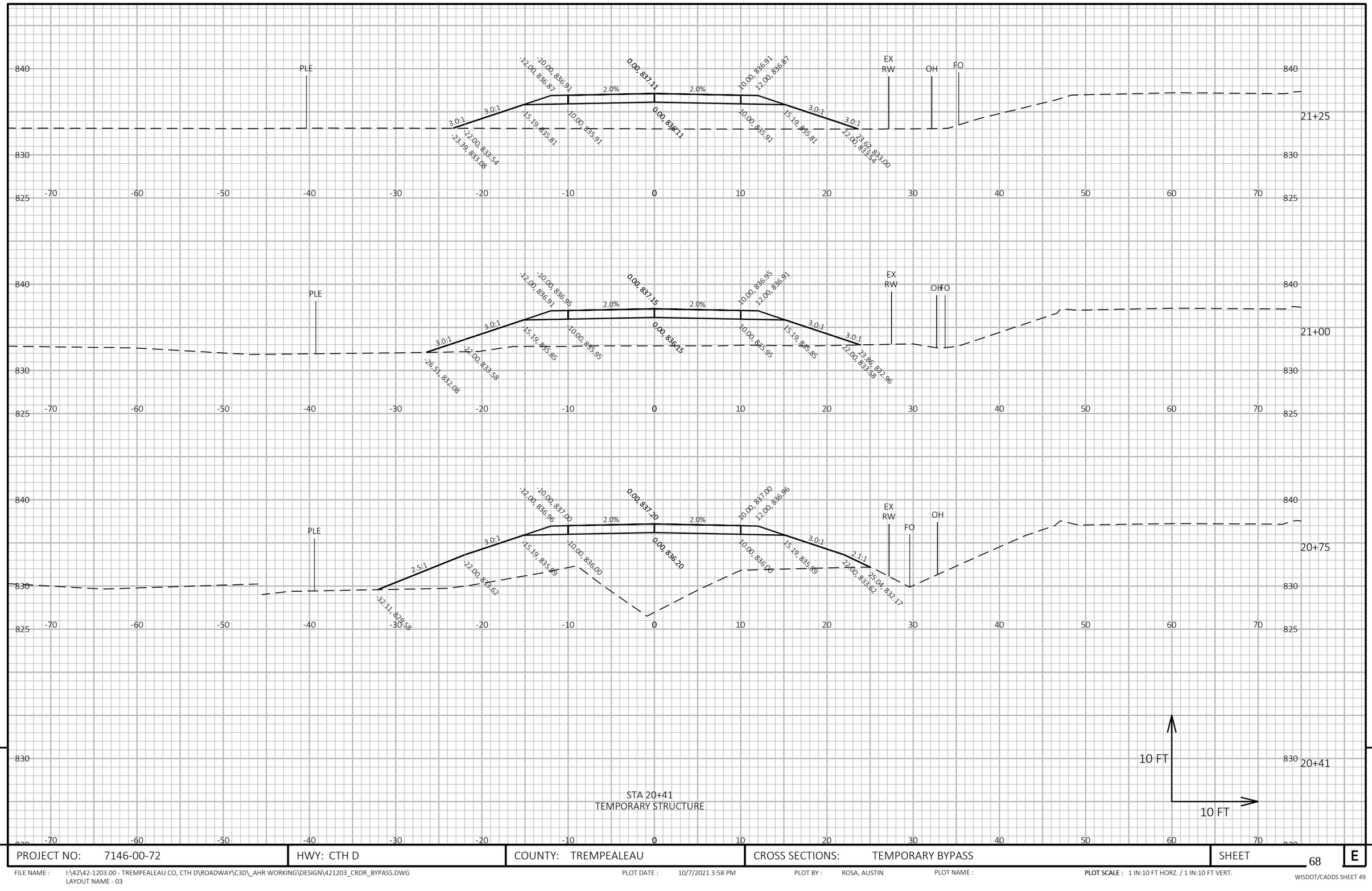
PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	CROSS SECTIONS: TEMPORARY BYPASS	SHEET 67	E

FILE NAME : I:\42\42-1203.00 - TREMPEALEAU CO, CTH D\ROADWAY\C3D_AHR WORKING\DESIGN\421203_CRDR_BYPASS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/7/2021 3:58 PM PLOT BY : ROSA, AUSTIN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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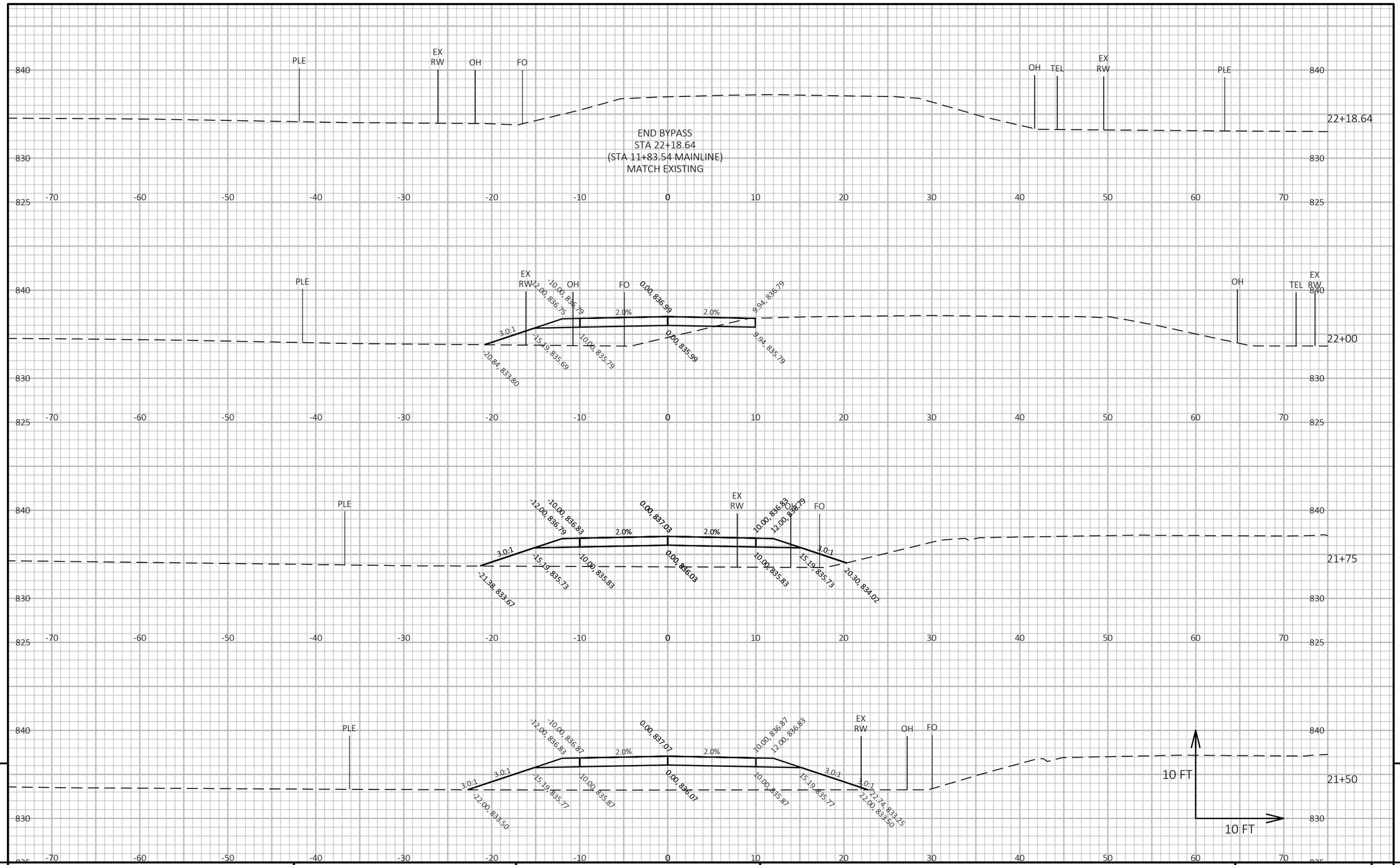
PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	CROSS SECTIONS: TEMPORARY BYPASS	SHEET 68	E

FILE NAME : I:\42\42-1203.00 - TREMPEALEAU CO, CTH D\ROADWAY\C3D_AHR WORKING\DESIGN\421203_CRDR_BYPASS.DWG
LAYOUT NAME - 03

PLOT DATE : 10/7/2021 3:58 PM PLOT BY : ROSA, AUSTIN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

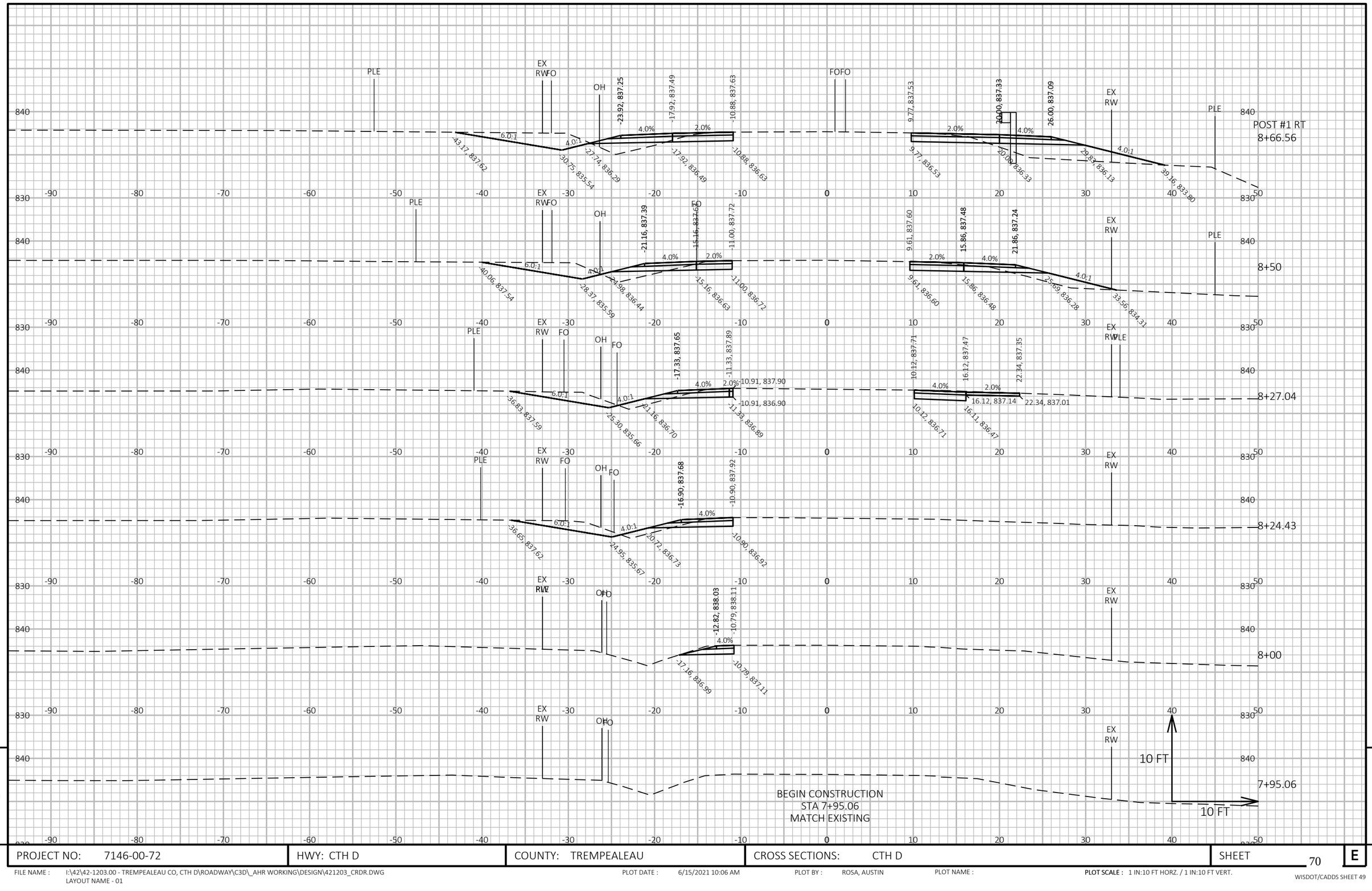


PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	CROSS SECTIONS: TEMPORARY BYPASS	SHEET 69	E

FILE NAME : I:\42\42-1203.00 - TREMPEALEAU CO, CTH D\ROADWAY\C3D_AHR WORKING\DESIGN\421203_CRDR_BYPASS.DWG
LAYOUT NAME - 04

PLOT DATE : 10/7/2021 3:58 PM PLOT BY : ROSA, AUSTIN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH D	SHEET 70	E

FILE NAME : I:\42\42-1203.00 - TREMPEALEAU CO, CTH D\ROADWAY\C3D_AHR WORKING\DESIGN\421203_CRDR.DWG
LAYOUT NAME - 01

PLOT DATE : 6/15/2021 10:06 AM PLOT BY : ROSA, AUSTIN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH D	SHEET 71 E

FILE NAME : I:\42\42-1203.00 - TREMPEALEAU CO, CTH D\ROADWAY\C3D_AHR WORKING\DESIGN\421203_CRDR.DWG
LAYOUT NAME - 02

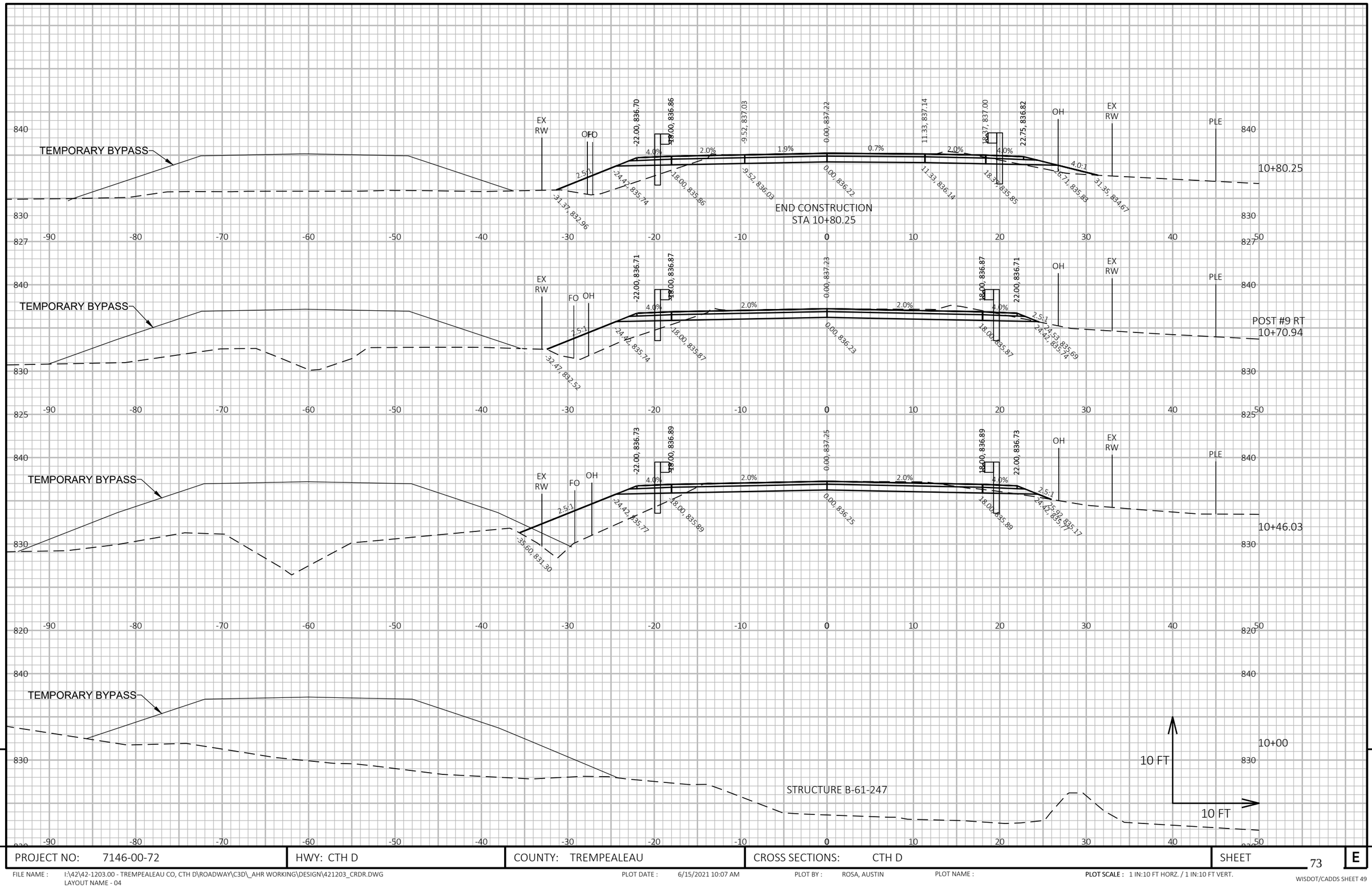
PLOT DATE : 6/15/2021 10:07 AM PLOT BY : ROSA, AUSTIN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH D	SHEET 72	E

FILE NAME : I:\42\42-1203.00 - TREMPEALEAU CO, CTH D\ROADWAY\C3D_AHR WORKING\DESIGN\421203_CRDR.DWG
LAYOUT NAME - 03

PLOT DATE : 6/15/2021 10:07 AM PLOT BY : ROSA, AUSTIN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH D	SHEET 73	E

FILE NAME : I:\42\42-1203.00 - TREMPEALEAU CO, CTH D\ROADWAY\C3D_AHR WORKING\DESIGN\421203_CRDR.DWG
LAYOUT NAME - 04

PLOT DATE : 6/15/2021 10:07 AM PLOT BY : ROSA, AUSTIN PLOT NAME :

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

WISDOT/CADDS SHEET 49

9

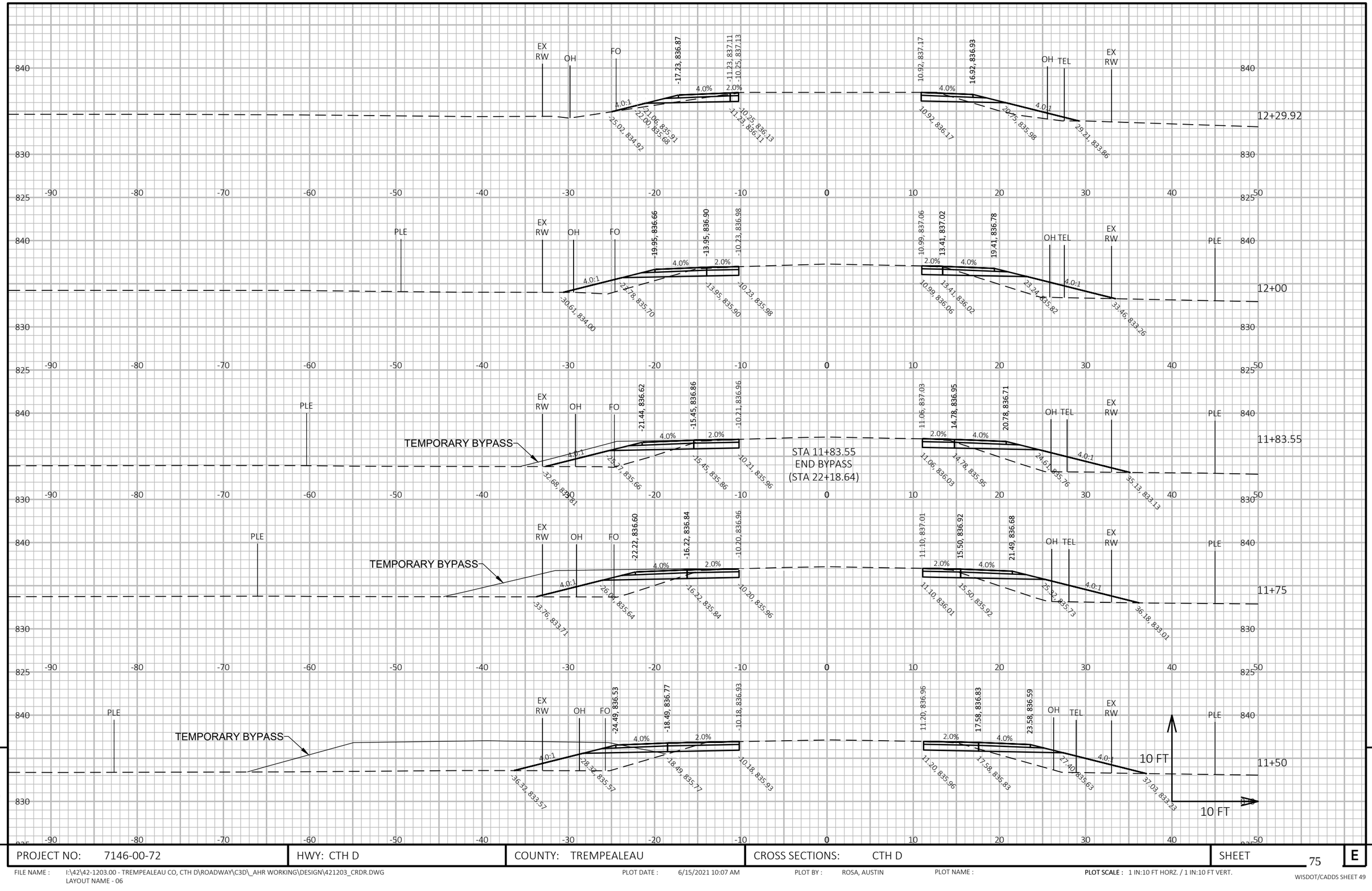
9

PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH D	SHEET 74	E

FILE NAME : I:\42\42-1203.00 - TREMPEALEAU CO, CTH D\ROADWAY\C3D_AHR WORKING\DESIGN\421203_CRDR.DWG
LAYOUT NAME - 05

PLOT DATE : 6/15/2021 10:07 AM PLOT BY : ROSA, AUSTIN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 7146-00-72	HWY: CTH D	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH D	SHEET 75	E

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LAYOUT NAME - 06

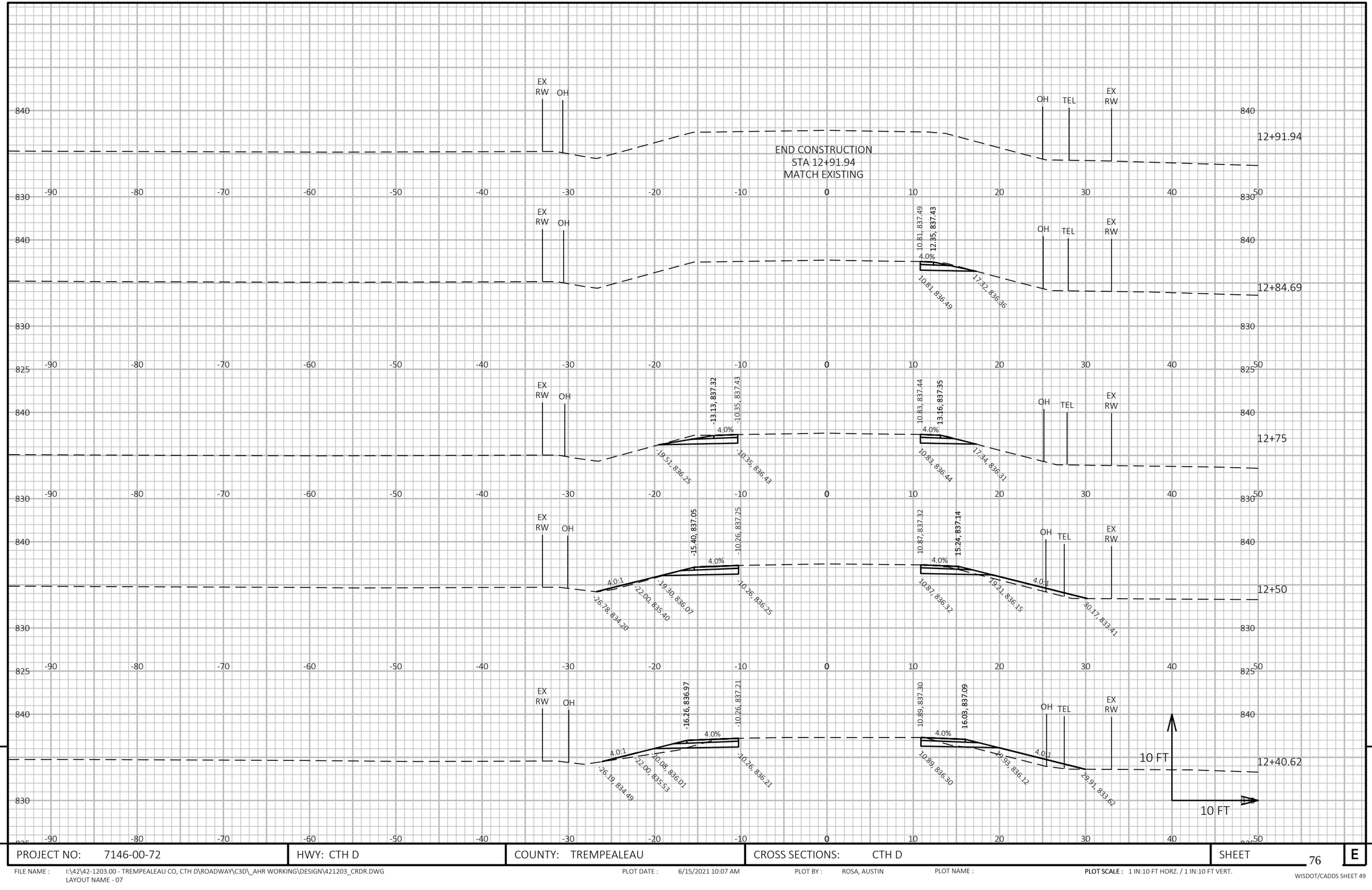
PLOT DATE : 6/15/2021 10:07 AM

PLOT BY : ROSA, AUSTIN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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LAYOUT NAME - 07

PLOT DATE : 6/15/2021 10:07 AM PLOT BY : ROSA, AUSTIN 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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