

GRE

PROJECT ID: 3821-01-71

WTH: N/A

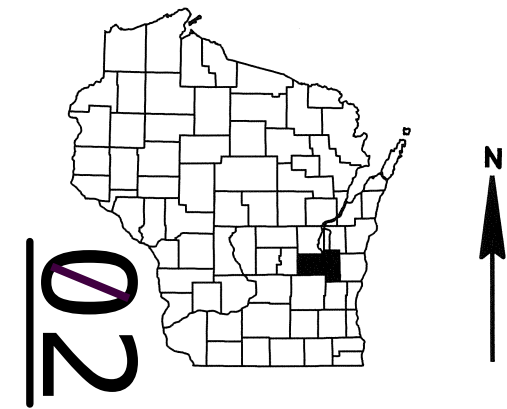
COUNTY: FOND DU LAC

JULY 2021

ORDER OF SHEETS

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

TOTAL SHEETS = 62



DESIGN DESIGNATION

A.A.D.T. (2021)	=	260 VPD
A.A.D.T. (2041)	=	320 VPD
D.H.V.	=	40
D.D.	=	60/40
T.	=	6%
DESIGN SPEED	=	55 MPH
ESALS	=	44,000 (HMA)

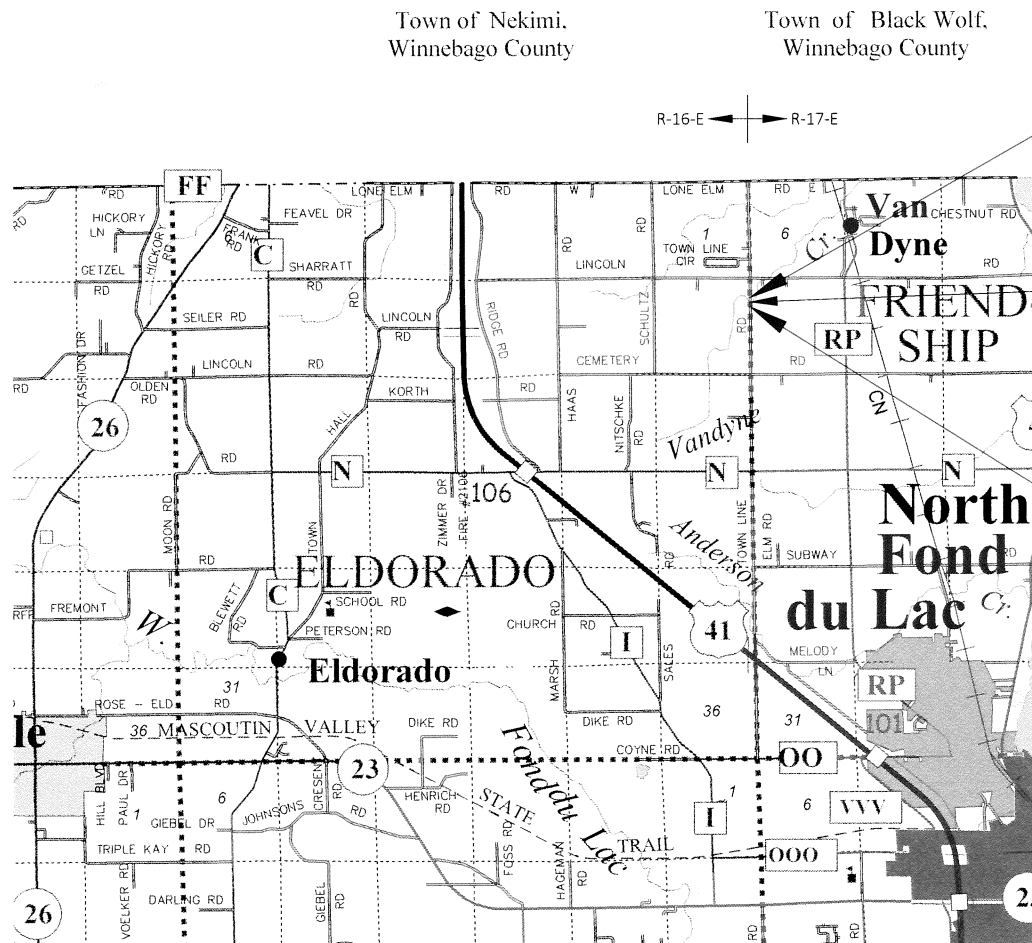
CONVENTIONAL SYMBOLS

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

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
T ELDORADO, TOWN LINE ROAD
VAN DYNE CREEK BRIDGE
LOCAL STREET
FOND DU LAC COUNTY

STATE PROJECT NUMBER
3821-01-71



END PROJECT
STATION 10+66.25
Y= 421515.570
X= 796688.984

STRUCTURE B-20-0244
STA 10+00

BEGIN PROJECT
STATION 9+33.75
Y= 421383.086
X= 796686.881

LAYOUT
SCALE 0 2 MI
TOTAL NET LENGTH OF CENTERLINE = 0.025 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), FOND DU LAC COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3821-01-71		

ACCEPTED FOR
TOWN OF ELDORADO
Date: 1/20/21 Gary Miller
TOWN CHAIRPERSON

ORIGINAL PLANS PREPARED BY
GREMMER & ASSOCIATES, INC.
CONSULTING ENGINEERS
Stevens Point • Fond du Lac
95 South Pioneer Road, Suite 300 • Fond du Lac, WI 54605
(920) 924-5720 • fax (920) 924-5725

WISCONSIN
ANDREW L. KLEMP
E-33645
FOND DU LAC, WI
PROFESSIONAL ENGINEER

DATE: 1/20/2021 Anna J. Klempe
ANDREW L. KLEMP, PE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor GREMMER & ASSOCIATES, INC.
Designer GREMMER & ASSOCIATES, INC.
Project Manager BRIAN EDWARDS
Regional Examiner NORTHEAST REGION
Regional Supervisor JAMES THOMPSON

APPROVED FOR THE DEPARTMENT
DATE: 1/25/21 Brian O. Edwards
(Signature)

E

GENERAL NOTES

ALL DISTANCES AND STATIONING SHOWN ON THIS PLAN ARE GROUND VALUES.

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.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

A VERTICAL SAW CUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS, SIDEWALKS AND PAVEMENTS AT THE REMOVAL LIMITS, AND WHERE NEW ASPHALT ABUTS EXISTING PAVEMENT TO CREATE A SMOOTH CONTINUOUS VERTICAL FACE. SAWCUT SLURRY SHALL BE ACTIVELY MANAGED TO PREVENT RELEASE OF SLURRY INTO WATERWAY AND WETLANDS.

SAWCUT LOCATIONS SHOWN ON THE PLANS ARE SUBJECT TO ADJUSTMENT BY THE ENGINEER IN THE FIELD.

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

TOPSOIL, SEED AND EROSION MAT AS SHOWN IN PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE PLACED ON ALL DISTURBED AREAS, EXCLUSIVE OF THE AREA OCCUPIED BY THE NEW PAVEMENTS, SIDEWALKS, ENTRANCES, AND RELATED STRUCTURES.

NO FERTILIZER SHALL BE APPLIED WITHIN 20 FEET OF A BODY OF WATER OR WETLAND.

SECTIONS AS SHOWN ON THE CROSS-SECTIONS INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED.

EROSION CONTROL ITEMS SHOWN ARE APPROXIMATE, THE EXACT LOCATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. EROSION CONTROL ITEMS TO BE INSTALLED PRIOR TO UPSLOPE WORK. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THAT THE MEASURE IS NO LONGER NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING EROSION CONTROL MEASURE AS DIRECTED BY THE ENGINEER.

INSTALL SAFETY EDGE ON ASPHALTIC SURFACE PAVEMENTS WITH ASPHALTIC SURFACE PAVED SHOULDER OF 3 FEET OR LESS.

PLACE 4.0" ASPHALTIC SURFACE IN TWO LAYERS OF THE FOLLOWING THICKNESSES:
UPPER LAYER THICKNESS = 1.75" NOMINAL GRADATION SIZE = 12.5 MM
LOWER LAYER THICKNESS = 2.25" NOMINAL GRADATION SIZE = 19.0 MM

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SDD "LONGITUDINAL MARKING (MAINLINE)" AND SDD "SIGNING AND MARKING FOR TWO LANE BRIDGES."

ABBREVIATIONS

A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC
A.D.T.	AVERAGE DAILY TRAFFIC
AE, AEW	APRON ENDWALL
AGG	AGGREGATE
ASPH	ASPHALT
BAD	BASE AGGREGATE DENSE
BM	BENCHMARK
CABC	CRUSHED AGGREGATE BASE COURSE
CC	CENTER OF CURVATURE
CE	COMMERCIAL ENTRANCE
C/L	CENTER LINE
CONC	CONCRETE
CMCP	CORRUGATED METAL CULVERT PIPE
CMP	CORRUGATED METAL PIPE
D	DEGREE OF CURVE
Δ	DELTA
D.H.V.	DESIGN HOURLY VOLUME
E	EXTERNAL DISTANCE FROM MIDPOINT OF CIRCULAR CURVE FROM ANGLE INTERSECTION
EL, ELEV	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
FE	FIELD ENTRANCE
F/L, FL	FLOW LINE
HT	HEIGHT
INTER	INTERSECTION
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
MP	MARKER POST
NC	NORMAL CROWN
NOM	NOMINAL
NOR, NORM	NORMAL
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
P.L.	PROPERTY LINE
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
RO	RUN OFF LENGTH
SALV	SALVAGED
SDD	STANDARD DETAIL DRAWING(S)
SE	SUPERELEVATION
SEG	SEGMENT
SHLD	SHOULDER
S/L	SURVEY LINE
T.	PERCENT TRUCKS
T	TANGENT LENGTH
TEMP	TEMPORARY
TER	TERRACE
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
V	VELOCITY OR DESIGN SPEED
VAR	VARIABLE
VC	VERTICAL CURVE
VCL	VERTICAL CURVE LENGTH
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPRC	VERTICAL POINT OF REVERSE CURVATURE
VPT	VERTICAL POINT OF TANGENCY

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
TYPICAL SECTIONS
CONSTRUCTION DETAILS
EROSION CONTROL PLAN
SIGNING PLAN

UTILITIES

COMMUNICATIONS

AT&T
70 EAST DIVISION STREET
FOND DU LAC, WI 54935
ATTN: CHUCK BARTELT
PHONE: (920) 929-1013
MOBILE: (920) 410-5104
EMAIL: cb1461@att.com

COMMUNICATIONS

WINDSTREAM COMMUNICATIONS
314 NORTH DANZ AVENUE
GREEN BAY, WI 54302-3526
ATTN: ERIC BECKER
MOBILE: (920) 461-9825
EMAIL: Eric.Becker@windstream.com

DNR AREA LIAISON

WISCONSIN DEPT. OF NATURAL RESOURCES
NORTHEAST REGION HQ
2984 SHAWANO AVENUE
GREEN BAY, WI 54313-6727
ATTN: JEREMIAH SCHIEFELBEIN
PHONE: (920)-360-3784
EMAIL: Jeremiah.Schiefelbein@wisconsin.gov



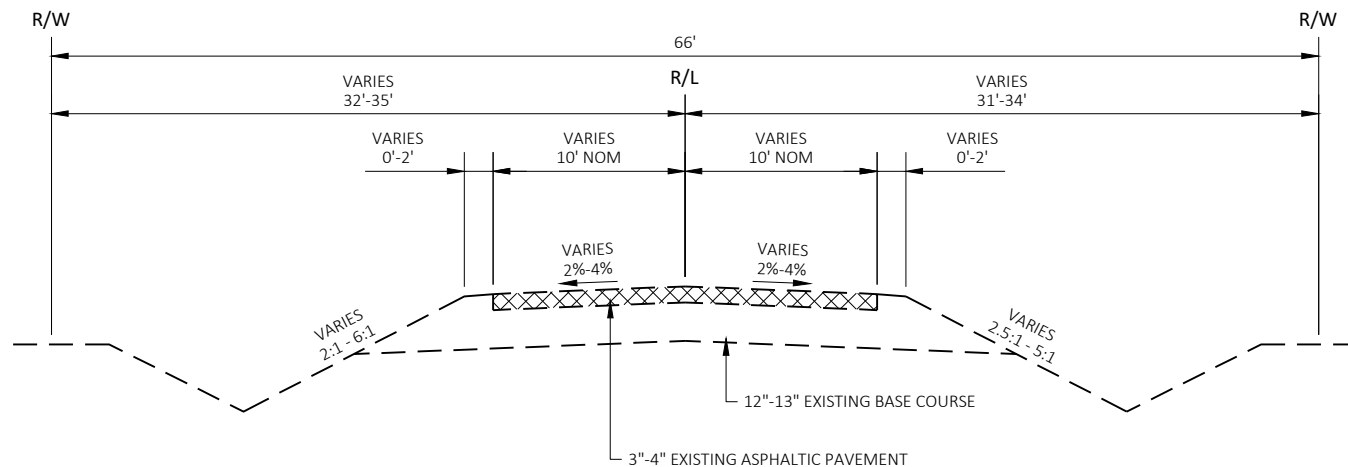
Dial  or (800)242-8511

www.DiggersHotline.com

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP- TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE- TURF			.25			.27			.28			.25
			.32			.34			.36			.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 = 1.229 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.786 ACRES



TYPICAL EXISTING SECTION

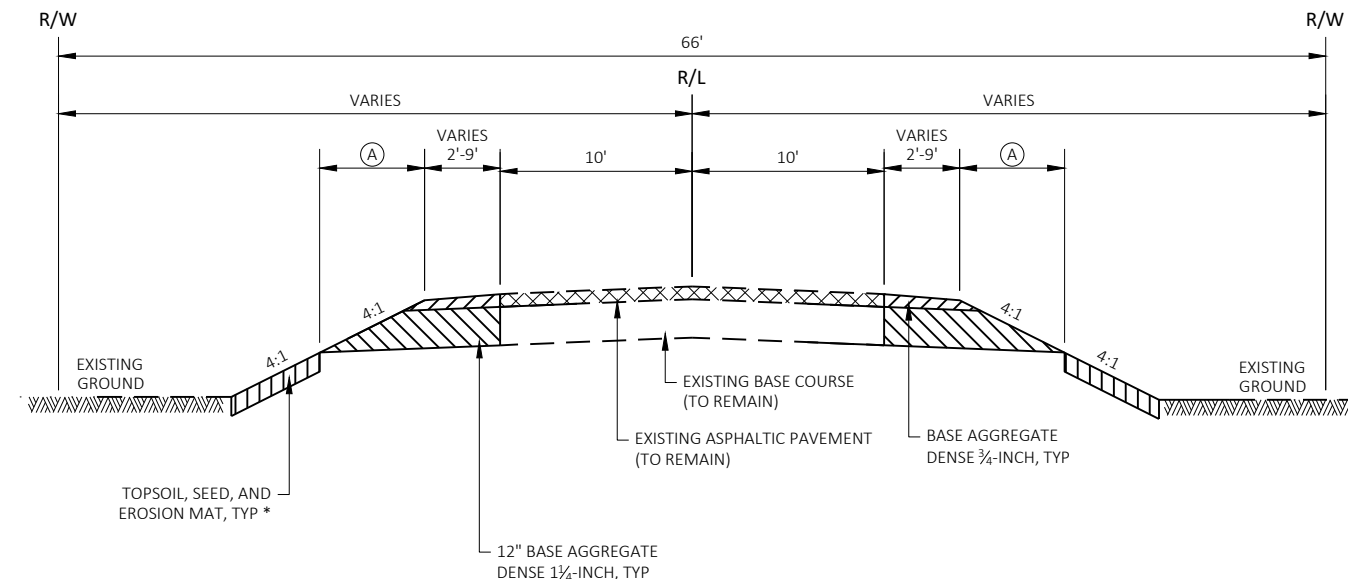
TOWN LINE ROAD
STA 7+50 - STA 9+87.75
STA 10+12.25 - STA 13+00

NOTES:

(A) SEEDING

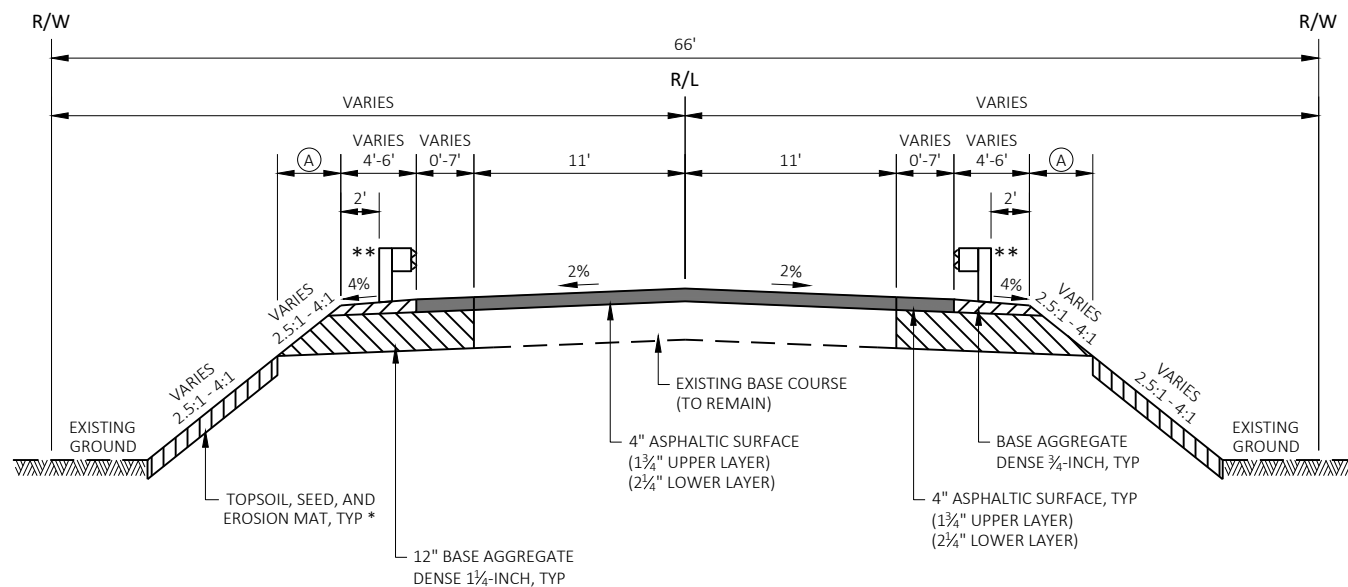
* SEE MISCELLANEOUS QUANTITIES
AND EROSION CONTROL PLANS
FOR LOCATIONS AND TYPES.

** SEE CONSTRUCTION DETAILS FOR
BEAM GUARD LOCATIONS.



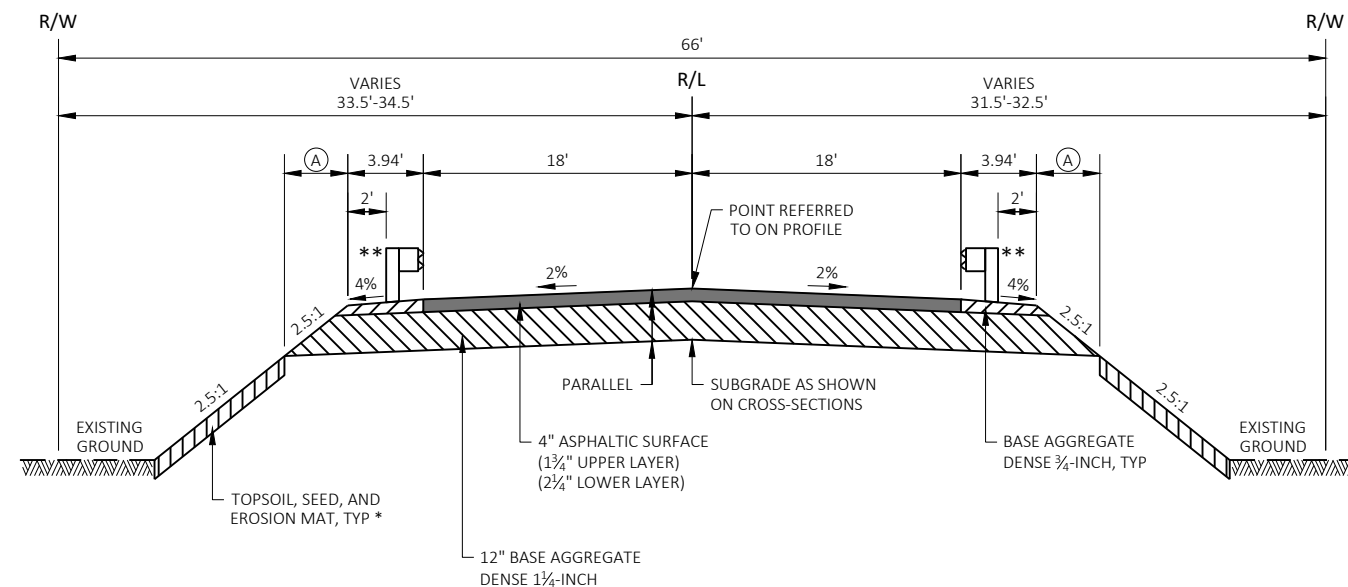
TYPICAL FINISHED SECTION

TOWN LINE ROAD
STA 7+50 - STA 8+05
STA 11+95 - STA 13+00



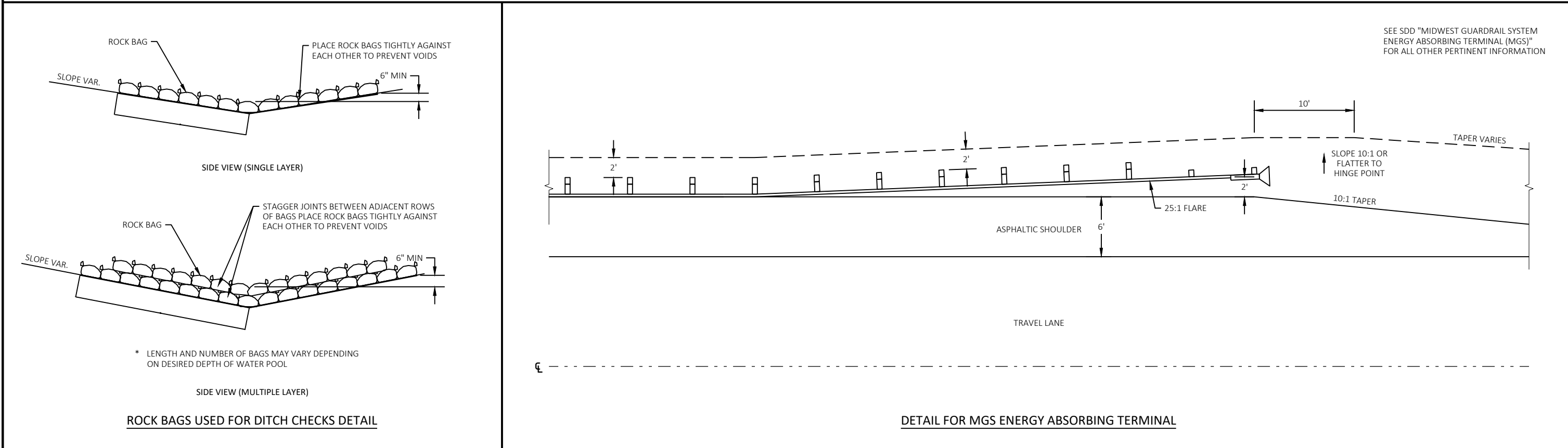
TYPICAL FINISHED SECTION

TOWN LINE ROAD
STA 8+05 - STA 9+33.75
STA 10+66.25 - STA 11+95



TYPICAL FINISHED SECTION

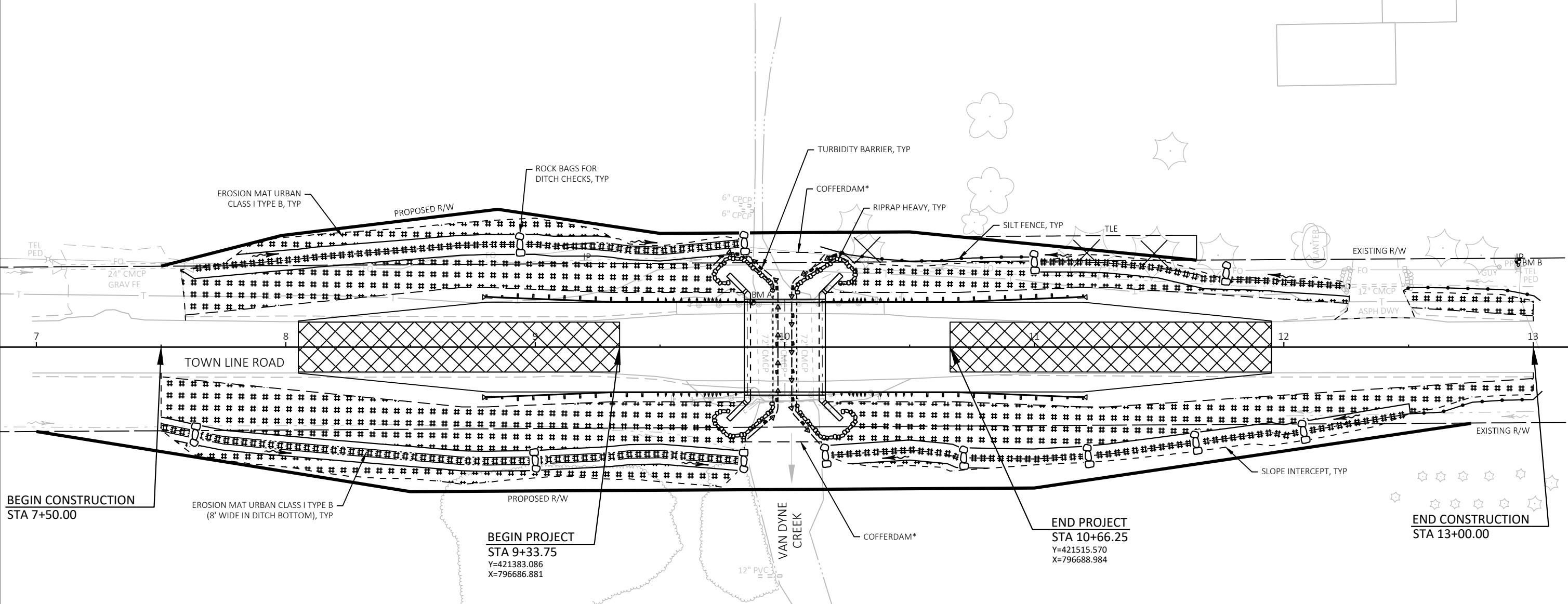
TOWN LINE ROAD
STA 9+33.75 - STA 9+83.75
STA 10+16.25 - STA 10+66.25



BENCH MARKS

BM	STATION	DESCRIPTION	ELEVATION
A	9+87, 18' LT	"X" AND PAINT MARK ON TOP OF T-POST RAIL, SW CORNER OF TOWN LINE ROAD BRIDGE	817.30
B	12+86, 32' LT	60d SPIKE IN WEST FACE OF PP #L109, W. SIDE OF TOWN LINE ROAD, 300' N. OF BRIDGE	820.57

**VERTICAL DATUM REFERENCED TO NAVD88 (2012).



* TWO COFFERDAMS AT DIFFERENT TIMES REQUIRED. ONE BARREL OF PIPE MUST REMAIN OPEN FOR ACTIVE STREAM FLOW. NO SIMULTANEOUS CLOSURE OF ALL BARRELS.

LEGEND

SLOPE INTERCEPT

—●—

SILT FENCE

—◆—◆—

TURBIDITY BARRIER

COFFERDAM

ROCK BAGS FOR DITCH CHECK

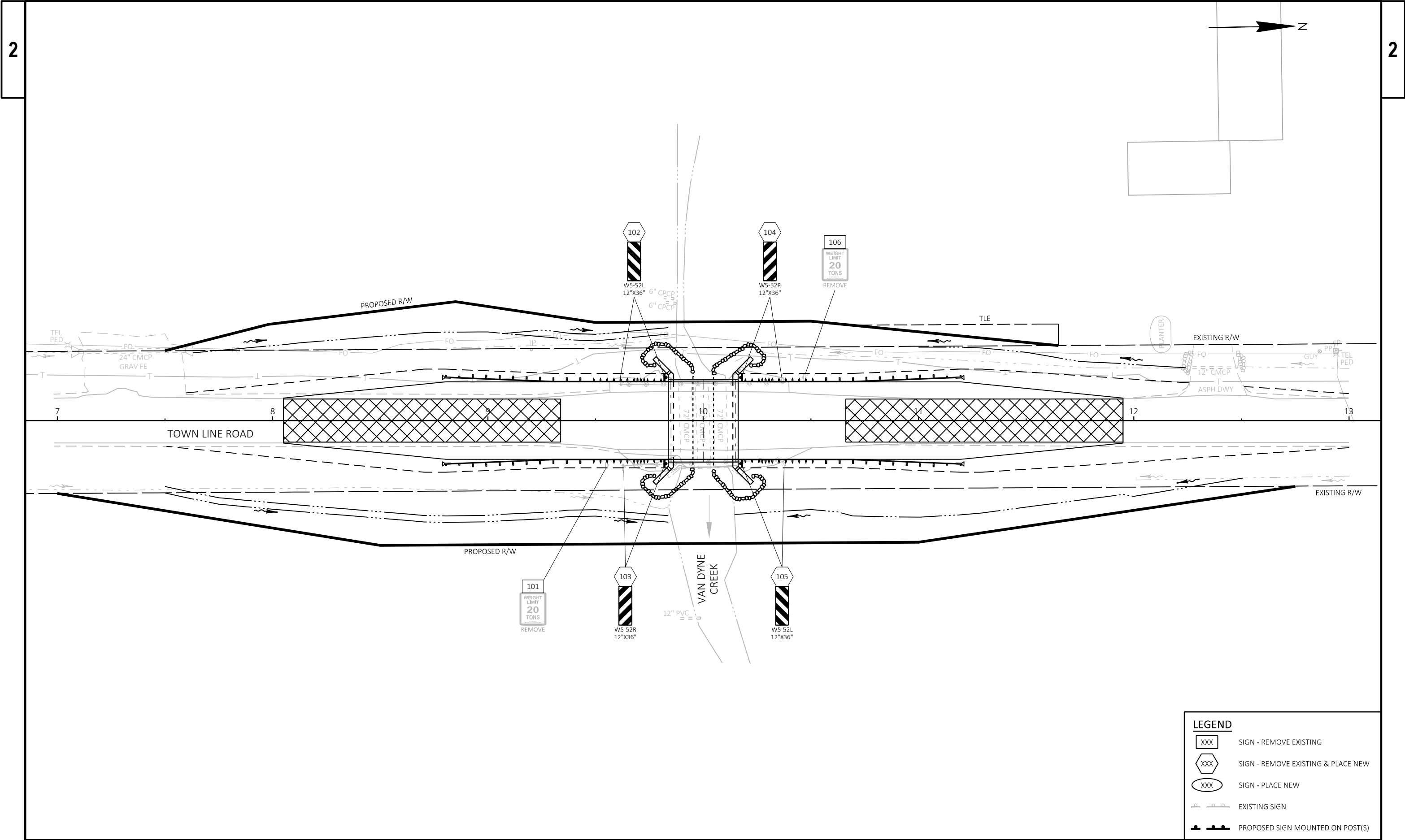
EROSION MAT URBAN CLASS I TYPE B

RIPRAP HEAVY

SURFACE WATER FLOW EXISTING

SURFACE WATER FLOW PROPOSED

FINISHING ITEMS FOR TOPSOIL, SEED MIX #30, FERTILIZER TYPE B AND EROSION MAT URBAN CLASS I TYPE B ARE SHOWN ON TYPICAL SECTIONS AND MISCELLANEOUS QUANTITIES.



LEGEND

XXX

SIGN - REMOVE EXISTING

XXX

SIGN - REMOVE EXISTING & PLACE NEW

XXX

SIGN - PLACE NEW

EXISTING SIGN

PROPOSED SIGN MOUNTED ON POST(S)

Estimate Of Quantities

3821-01-71

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	203.0200	Removing Old Structure (station) 01. STA 10+00	LS	1.000	1.000
0008	204.0110	Removing Asphaltic Surface	SY	590.000	590.000
0010	204.0165	Removing Guardrail	LF	156.000	156.000
0012	205.0100	Excavation Common	CY	665.000	665.000
0014	206.1000	Excavation for Structures Bridges (structure) 01. B-20-244	LS	1.000	1.000
0016	206.5000	Cofferdams (structure) 01. P-20-0910 Upstream	LS	1.000	1.000
0018	206.5000	Cofferdams (structure) 02. P-20-0910 Downstream	LS	1.000	1.000
0020	208.0100	Borrow	CY	480.000	480.000
0022	210.1500	Backfill Structure Type A	TON	420.000	420.000
0024	213.0100	Finishing Roadway (project) 01. 3821-01-71	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	180.000	180.000
0028	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,090.000	1,090.000
0030	455.0605	Tack Coat	GAL	68.000	68.000
0032	465.0105	Asphaltic Surface	TON	308.000	308.000
0034	502.0100	Concrete Masonry Bridges	CY	146.000	146.000
0036	502.3200	Protective Surface Treatment	SY	130.000	130.000
0038	502.3210	Pigmented Surface Sealer	SY	32.000	32.000
0040	505.0400	Bar Steel Reinforcement HS Structures	LB	5,090.000	5,090.000
0042	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	21,870.000	21,870.000
0044	516.0500	Rubberized Membrane Waterproofing	SY	23.000	23.000
0046	550.0500	Pile Points	EACH	16.000	16.000
0048	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	560.000	560.000
0050	606.0300	Riprap Heavy	CY	132.000	132.000
0052	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	150.000	150.000
0054	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0056	614.2300	MGS Guardrail 3	LF	50.000	50.000
0058	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
0060	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0062	619.1000	Mobilization	EACH	1.000	1.000
0064	624.0100	Water	MGAL	18.000	18.000
0066	625.0100	Topsoil	SY	2,180.000	2,180.000
0068	628.1504	Silt Fence	LF	245.000	245.000
0070	628.1520	Silt Fence Maintenance	LF	245.000	245.000
0072	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0074	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0076	628.2008	Erosion Mat Urban Class I Type B	SY	2,180.000	2,180.000
0078	628.6005	Turbidity Barriers	SY	165.000	165.000

Estimate Of Quantities

3821-01-71

Line	Item	Item Description	Unit	Total	Qty
0080	628.7560	Tracking Pads	EACH	2.000	2.000
0082	628.7570	Rock Bags	EACH	225.000	225.000
0084	629.0210	Fertilizer Type B	CWT	1.600	1.600
0086	630.0130	Seeding Mixture No. 30	LB	50.000	50.000
0088	630.0500	Seed Water	MGAL	64.000	64.000
0090	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0092	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0094	638.2602	Removing Signs Type II	EACH	6.000	6.000
0096	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0098	642.5001	Field Office Type B	EACH	1.000	1.000
0100	643.0420	Traffic Control Barricades Type III	DAY	1,050.000	1,050.000
0102	643.0705	Traffic Control Warning Lights Type A	DAY	1,800.000	1,800.000
0104	643.0900	Traffic Control Signs	DAY	1,050.000	1,050.000
0106	643.5000	Traffic Control	EACH	1.000	1.000
0108	645.0111	Geotextile Type DF Schedule A	SY	120.000	120.000
0110	645.0120	Geotextile Type HR	SY	210.000	210.000
0112	646.1020	Marking Line Epoxy 4-Inch	LF	2,530.000	2,530.000
0114	650.4500	Construction Staking Subgrade	LF	518.000	518.000
0116	650.5000	Construction Staking Base	LF	518.000	518.000
0118	650.6500	Construction Staking Structure Layout (structure) 01. B-20-244	LS	1.000	1.000
0120	650.9910	Construction Staking Supplemental Control (project) 01. 3821-01-71	LS	1.000	1.000
0122	650.9920	Construction Staking Slope Stakes	LF	518.000	518.000
0124	690.0150	Sawing Asphalt	LF	40.000	40.000
0126	715.0502	Incentive Strength Concrete Structures	DOL	876.000	876.000

<div>CLEARING AND GRUBBING ITEMS</div>			
		201.0105 CLEARING	201.0205 GRUBBING
STATION - STATION	LOCATION	STA	STA
CATEGORY CODE 0010			
9+00 - 12+00	RT	3	3
TOTALS		3	3

<div>REMOVING ASPHALTIC SURFACE</div>		
		204.0110
STATION - STATION	LOCATION	SY
CATEGORY CODE 0010		
8+05 - 9+34	LT & RT	292
10+66 - 11+95	LT & RT	298
TOTAL		590

<div>REMOVING GUARDRAIL</div>		
		204.0165
STATION - STATION	LOCATION	LF
CATEGORY CODE 0010		
9+61 - 10+38	LT	78
9+62 - 10+38	RT	78
TOTAL		156

<div>COFFERDAMS</div>		206.5000
LOCATION		LS
CATEGORY CODE 0010		
01. P-20-0910 UPSTREAM		1
02. P-20-0910 DOWNSTREAM		1
TOTAL		2

EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	LOCATION	EXCAVATION COMMON (1) ITEM #205.0100		SALVAGED/ UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5)	MASS ORDINATE +/- (6)	BORROW ITEM #208.0100	COMMENT:
			CUT (2)	EBS EXCAVATION				FACTOR 1.30			
DIVISION 1											
	7+00 - 13+00	TOWN LINE	665	0	43	622	847	1101	-480	480	
	DIVISION 1 SUBTOTAL		665	0	43	622	847	1101	-480	480	
GRAND TOTAL			665	0	43	622	847	1101	-480	480	
TOTAL EXCAVATION COMMON			665								

NOTES:

1 - COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS

2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

3 - SALVAGED/UNUSABLE PAVEMENT MATERIAL = LENGH * TYPICAL WIDTH * TYPICAL DEPTH

4 - AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL

5 - EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR







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

<div><div><div>BASE AGGREGATE DENSE AND WATER ITEMS</div><table><tr><th></th><th>305.0110 BASE AGGREGATE DENSE 3/4-INCH</th><th>305.0120 BASE AGGREGATE DENSE 1 1/4-INCH</th><th>624.0100 WATER</th></tr><tr><th>STATION - STATION</th><th>LOCATION</th><th>TON</th><th>TON</th><th>MGAL</th></tr><tr><th colspan="5">CATEGORY CODE 0010</th></tr><tr><td>7+50 - 9+84</td><td>LT & RT</td><td>85</td><td>525</td><td>9</td></tr><tr><td>10+16 - 13+00</td><td>LT & RT</td><td>95</td><td>565</td><td>9</td></tr><tr><td>TOTALS</td><td>180</td><td>1,090</td><td>18</td><td></td></tr></table><div>BASE AGGREGATE DENSE 3/4-INCH WEIGHT CALCULATIONS BASED ON 2.1 TONS/CY. BASE AGGREGATE DENSE 1 1/4-INCH WEIGHT CALCULATIONS BASED ON 2.0 TONS/CY.</div></div></div>						305.0110 BASE AGGREGATE DENSE 3/4-INCH	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	624.0100 WATER	STATION - STATION	LOCATION	TON	TON	MGAL	CATEGORY CODE 0010					7+50 - 9+84	LT & RT	85	525	9	10+16 - 13+00	LT & RT	95	565	9	TOTALS	180	1,090	18		<div><div><div>ASPHALTIC ITEMS</div><table><tr><th></th><th>455.0605 TACK COAT</th><th>465.0105 ASPHALTIC SURFACE</th></tr><tr><th>STATION - STATION</th><th>LOCATION</th><th>GAL</th><th>TON</th></tr><tr><th colspan="4">CATEGORY CODE 0010</th></tr><tr><td>8+05 - 9+84</td><td>LT & RT</td><td>34</td><td>154</td></tr><tr><td>10+16 - 11+95</td><td>LT & RT</td><td>34</td><td>154</td></tr><tr><td>TOTALS</td><td>68</td><td>308</td><td></td></tr></table><div>TACK COAT CALCULATIONS BASED ON 0.050 GAL/SY ASPHALTIC SURFACE WEIGHT CALCULATIONS BASED ON 112 LB/SY/IN.</div></div></div>					455.0605 TACK COAT	465.0105 ASPHALTIC SURFACE	STATION - STATION	LOCATION	GAL	TON	CATEGORY CODE 0010				8+05 - 9+84	LT & RT	34	154	10+16 - 11+95	LT & RT	34	154	TOTALS	68	308		<div><div><div>MGS GUARDRAIL ITEMS</div><table><tr><th></th><th>614.2300 MGS GUARDRAIL 3</th><th>614.2500 MGS THRIE BEAM TRANSITION</th><th>614.2610 MGS GUARDRAIL TERMINAL EAT</th></tr><tr><th>STATION - STATION</th><th>LOCATION</th><th>LF</th><th>LF</th><th>EACH</th></tr><tr><th colspan="5">CATEGORY CODE 0010</th></tr><tr><td>8+80 - 9+85</td><td>LT & RT</td><td>25.0</td><td>78.8</td><td>2.0</td></tr><tr><td>10+15 - 11+20</td><td>LT & RT</td><td>25.0</td><td>78.8</td><td>2.0</td></tr><tr><td>TOTALS</td><td>50.0</td><td>157.6</td><td>4.0</td><td></td></tr></table></div><div>ALL ITEMS ARE CATEGORY CODE 0010 UNLESS OTHERWISE NOTED</div></div>						614.2300 MGS GUARDRAIL 3	614.2500 MGS THRIE BEAM TRANSITION	614.2610 MGS GUARDRAIL TERMINAL EAT	STATION - STATION	LOCATION	LF	LF	EACH	CATEGORY CODE 0010					8+80 - 9+85	LT & RT	25.0	78.8	2.0	10+15 - 11+20	LT & RT	25.0	78.8	2.0	TOTALS	50.0	157.6	4.0	
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PROJECT NO: 3821-01-71		HWY: TOWN LINE ROAD		COUNTY: FOND DU LAC		MISCELLANEOUS QUANTITIES			SHEET		E																																																																																			

<div><div>RESTORATION ITEMS</div><table><tr><th colspan="2"></th><th>625.0100</th><th>628.2008</th><th>629.0210</th><th>630.0130</th><th>630.0500</th></tr><tr><th colspan="2"></th><th>TOPSOIL</th><th>EROSION MAT</th><th>FERTILIZER</th><th>SEED</th><th>SEED</th></tr><tr><th colspan="2"></th><th></th><th>URBAN CLASS I</th><th>TYPE B</th><th>MIX</th><th>WATER</th></tr><tr><th colspan="2"></th><th>TYPE B</th><th></th><th></th><th>NO. 30</th><th></th></tr><tr><th>STATION - STATION</th><th>LOCATION</th><th>SY</th><th>SY</th><th>CWT</th><th>LB</th><th>MGAL</th></tr><tr><td colspan="7">CATEGORY CODE 0010</td></tr><tr><td>7+50 - 9+84</td><td>LT & RT</td><td>1,152</td><td>1,152</td><td>0.8</td><td>25</td><td>31</td></tr><tr><td>10+16 - 13+00</td><td>LT & RT</td><td>590</td><td>590</td><td>0.5</td><td>16</td><td>20</td></tr><tr><td>UNDISTRIBUTED</td><td></td><td>438</td><td>438</td><td>0.3</td><td>9</td><td>13</td></tr><tr><td colspan="2">TOTALS</td><td>2,180</td><td>2,180</td><td>1.6</td><td>50</td><td>64</td></tr></table><div>NOTES: DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A BODY OF WATER OR WETLAND</div></div>													625.0100	628.2008	629.0210	630.0130	630.0500			TOPSOIL	EROSION MAT	FERTILIZER	SEED	SEED				URBAN CLASS I	TYPE B	MIX	WATER			TYPE B			NO. 30		STATION - STATION	LOCATION	SY	SY	CWT	LB	MGAL	CATEGORY CODE 0010							7+50 - 9+84	LT & RT	1,152	1,152	0.8	25	31	10+16 - 13+00	LT & RT	590	590	0.5	16	20	UNDISTRIBUTED		438	438	0.3	9	13	TOTALS		2,180	2,180	1.6	50	64	<div><div>EROSION CONTROL ITEMS</div><table><tr><th colspan="2"></th><th>628.1504</th><th>628.1520</th><th>628.1905</th><th>628.1910</th><th>628.6005</th><th>628.7560</th><th>628.7570</th></tr><tr><th colspan="2"></th><th>SILT</th><th>SILT</th><th>MOBILIZATIONS</th><th>MOBILIZATIONS</th><th>TURBIDITY</th><th>TRACKING</th><th>ROCK</th></tr><tr><th colspan="2"></th><th>FENCE</th><th>FENCE</th><th>EROSION</th><th>EMERGENCY EROSION</th><th>BARRIERS</th><th>PADS</th><th>BAGS</th></tr><tr><th colspan="2"></th><th>MAINTENANCE</th><th></th><th>CONTROL</th><th>CONTROL</th><th></th><th></th><th></th></tr><tr><th>STATION</th><th>LOCATION</th><th>LF</th><th>LF</th><th>EACH</th><th>EACH</th><th>SY</th><th>EACH</th><th>EACH</th></tr><tr><td colspan="9">CATEGORY CODE 0010</td></tr><tr><td colspan="2">PROJECT 3821-01-71</td><td>--</td><td>--</td><td>5</td><td>3</td><td>--</td><td>2</td><td>--</td></tr><tr><td>7+64 - 9+84</td><td>RT</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td><td>45</td></tr><tr><td>8+94 - 9+84</td><td>LT</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td><td>30</td></tr><tr><td>9+71 - 9+97</td><td>LT & RT</td><td>--</td><td>--</td><td>--</td><td>--</td><td>67</td><td>--</td><td>--</td></tr><tr><td>10+03 - 10+28</td><td>LT & RT</td><td>--</td><td>--</td><td>--</td><td>--</td><td>66</td><td>--</td><td>--</td></tr><tr><td>10+14 - 13+00</td><td>LT</td><td>143</td><td>143</td><td>--</td><td>--</td><td>--</td><td>--</td><td>30</td></tr><tr><td>10+14 - 13+00</td><td>RT</td><td>55</td><td>55</td><td>--</td><td>--</td><td>--</td><td>--</td><td>75</td></tr><tr><td>UNDISTRIBUTED</td><td></td><td>47</td><td>47</td><td>--</td><td>--</td><td>32</td><td>--</td><td>45</td></tr><tr><td colspan="2">TOTALS</td><td>245</td><td>245</td><td>5</td><td>3</td><td>165</td><td>2</td><td>225</td></tr></table></div>													628.1504	628.1520	628.1905	628.1910	628.6005	628.7560	628.7570			SILT	SILT	MOBILIZATIONS	MOBILIZATIONS	TURBIDITY	TRACKING	ROCK			FENCE	FENCE	EROSION	EMERGENCY EROSION	BARRIERS	PADS	BAGS			MAINTENANCE		CONTROL	CONTROL				STATION	LOCATION	LF	LF	EACH	EACH	SY	EACH	EACH	CATEGORY CODE 0010									PROJECT 3821-01-71		--	--	5	3	--	2	--	7+64 - 9+84	RT	--	--	--	--	--	--	45	8+94 - 9+84	LT	--	--	--	--	--	--	30	9+71 - 9+97	LT & RT	--	--	--	--	67	--	--	10+03 - 10+28	LT & RT	--	--	--	--	66	--	--	10+14 - 13+00	LT	143	143	--	--	--	--	30	10+14 - 13+00	RT	55	55	--	--	--	--	75	UNDISTRIBUTED		47	47	--	--	32	--	45	TOTALS		245	245	5	3	165	2	225																																							
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LOCATION	NUMBER OF DAYS IN SERVICE	NO. REQ'D	TOTAL DAY	NO. REQ'D	TOTAL DAY	NO. REQ'D	TOTAL DAY	EACH																																																																																																																																																																																																																																																																	
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TOWN LINE ROAD / CEMETERY ROAD		75	2	150	4	300	3	225																																																																																																																																																																																																																																																																	
SOUTH PROJECT LIMITS		75	5	375	8	600	4	300																																																																																																																																																																																																																																																																	
NORTH PROJECT LIMITS		75	5	375	8	600	4	300																																																																																																																																																																																																																																																																	
TOWN LINE ROAD / LINCOLN ROAD		75	2	150	4	300	3	225																																																																																																																																																																																																																																																																	
TOTALS			1,050		1,800		1,050	1																																																																																																																																																																																																																																																																	
<div><div>MARKING LINE EPOXY 4-INCH</div><table><tr><th colspan="2"></th><th colspan="2">646.1020</th></tr><tr><th colspan="2"></th><th>WHITE</th><th>YELLOW</th></tr><tr><th>STATION - STATION</th><th>LOCATION</th><th>LF</th><th>LF</th></tr><tr><td colspan="4">CATEGORY CODE 0010</td></tr><tr><td>6+84 - 13+16</td><td>LT & RT</td><td>1,265</td><td>1,265</td></tr><tr><td colspan="2"></td><td>1,265</td><td>1,265</td></tr><tr><td colspan="2">TOTAL</td><td colspan="2">2,530</td></tr></table></div>						646.1020				WHITE	YELLOW	STATION - STATION	LOCATION	LF	LF	CATEGORY CODE 0010				6+84 - 13+16	LT & RT	1,265	1,265			1,265	1,265	TOTAL		2,530		<div><div>CONSTRUCTION STAKING ITEMS</div><table><tr><th colspan="2"></th><th>650.4500</th><th>650.5000</th><th>650.6500</th><th>650.9910</th><th>650.9920</th></tr><tr><th colspan="2"></th><th>SUBGRADE</th><th>BASE</th><th>STRUCTURE</th><th>SUPPLEMENTAL</th><th>SLOPE</th></tr><tr><th colspan="2"></th><th></th><th></th><th>LAYOUT</th><th>CONTROL</th><th>STAKES</th></tr><tr><th>STATION - STATION</th><th>LOCATION</th><th>LF</th><th>LF</th><th>LS</th><th>LS</th><th>LF</th></tr><tr><td colspan="7">CATEGORY CODE 0010</td></tr><tr><td colspan="2">PROJECT 3821-01-71</td><td>--</td><td>--</td><td>--</td><td>1</td><td>--</td></tr><tr><td>7+50 - 9+84</td><td>LT & RT</td><td>234</td><td>234</td><td>--</td><td>--</td><td>234</td></tr><tr><td>10+16 - 13+00</td><td>LT & RT</td><td>284</td><td>284</td><td>--</td><td>--</td><td>284</td></tr><tr><td colspan="2">CATEGORY CODE 0010 SUBTOTALS</td><td>518</td><td>518</td><td>--</td><td>1</td><td>518</td></tr><tr><td colspan="7">CATEGORY CODE 0020</td></tr><tr><td colspan="2">B-20-244</td><td>--</td><td>--</td><td>1</td><td>--</td><td>--</td></tr><tr><td colspan="2">CATEGORY CODE 0020 SUBTOTALS</td><td>--</td><td>--</td><td>1</td><td>--</td><td>--</td></tr><tr><td colspan="2">TOTALS</td><td>518</td><td>518</td><td>1</td><td>1</td><td>518</td></tr></table></div>									650.4500	650.5000	650.6500	650.9910	650.9920			SUBGRADE	BASE	STRUCTURE	SUPPLEMENTAL	SLOPE					LAYOUT	CONTROL	STAKES	STATION - STATION	LOCATION	LF	LF	LS	LS	LF	CATEGORY CODE 0010							PROJECT 3821-01-71		--	--	--	1	--	7+50 - 9+84	LT & RT	234	234	--	--	234	10+16 - 13+00	LT & RT	284	284	--	--	284	CATEGORY CODE 0010 SUBTOTALS		518	518	--	1	518	CATEGORY CODE 0020							B-20-244		--	--	1	--	--	CATEGORY CODE 0020 SUBTOTALS		--	--	1	--	--	TOTALS		518	518	1	1	518	<div><div>SAWING ASPHALT</div><table><tr><th colspan="2"></th><th>690.0150</th></tr><tr><th>STATION</th><th>LOCATION</th><th>LF</th></tr><tr><td colspan="3">CATEGORY CODE 0010</td></tr><tr><td>8+05</td><td>LT & RT</td><td>20</td></tr><tr><td>11+95</td><td>LT & RT</td><td>20</td></tr><tr><td colspan="2">TOTAL</td><td>40</td></tr></table></div> <div>ALL ITEMS ARE CATEGORY CODE 0010 UNLESS OTHERWISE NOTED</div>						690.0150	STATION	LOCATION	LF	CATEGORY CODE 0010			8+05	LT & RT	20	11+95	LT & RT	20	TOTAL		40																																																																																																																		
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PROJECT NO: 3821-01-71				HWY: TOWN LINE ROAD			COUNTY: FOND DU LAC			MISCELLANEOUS QUANTITIES				SHEET		E																																																																																																																																																																																																																																																									

SECTION LINE		PARCEL NUMBER		UTILITY NUMBER	
QUARTER LINE					
SIXTEENTH LINE					
NEW REFERENCE LINE		SECTION CORNER		R/W MONUMENT	
NEW R/W LINE				NON-MONUMENTED R/W POINT	
EXISTING R/W LINE		NOTATION FOR COMBUSTIBLE FLUIDS		FOUND IRON PIN	IP
PROPERTY LINE				VALVE (GAS, WATER, ETC.)	
LOT, TIE, AND OTHER MINOR LINES		NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES		SIGN	
SLOPE INTERCEPT				OFF-PREMISE SIGN	
CORPORATE LIMITS					
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)					
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)					
TEMP. LIMITED EASEMENT AREA		ACCESS CONTROLLED BY ACQUISITION			
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)		NO ACCESS (BY STATUTORY AUTHORITY)			
TRANSMISSION STRUCTURES		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)			
BUILDING		NO ACCESS (NEW HIGHWAY)			
BUILDING (TO BE REMOVED)		NATIONAL GEODETIC SURVEY MONUMENT			
BRIDGE		SIXTEENTH CORNER MONUMENT			
		PARALLEL OFFSETS			

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	<input checked="" type="checkbox"/>

	NON- COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		

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

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

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), FOND DU LAC 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.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 MONUMENTS (TYPICALLY 1" I.D. X 24" IRON PIPES), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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".

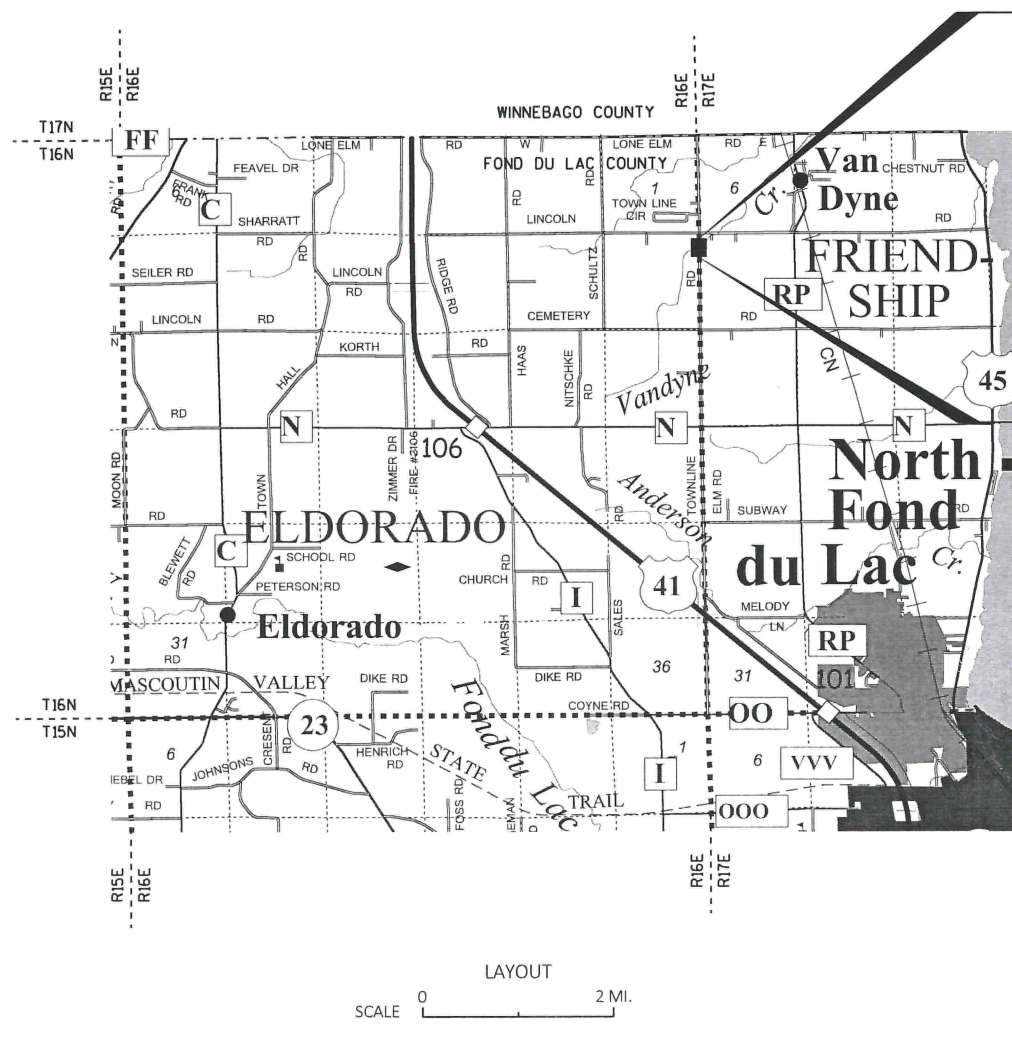
DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

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.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON DETAIL SHEETS.

THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY.
DEEDS MUST BE CHECKED TO DETERMINE
PROPERTY BOUNDARIES.



TOTAL NET LENGTH OF CENTERLINE = 0.109 MI.

12+75.00
Y 421724.21
X 796692.29
952.41' SOUTH AND 6.93' WEST OF THE
NORTHEAST CORNER OF SECTION 12, T16N, R16E

7+00.00
Y 421149.37
X 796683.17
1108.32' NORTH AND 10.22' EAST OF THE
EAST QUARTER CORNER OF SECTION 12, T16N, R16E

R/W PROJECT NUMBER 3821-01-00	SHEET NUMBER	TOTAL SHEETS
R/W PROJECT NUMBER	4.01	4

PLAT OF RIGHT OF WAY REQUIRED FOR
T ELDORADO, TOWN LINE ROAD
VAN DYNE CREEK BRIDGE

LOCAL STREET	FOND DU LAC COUNTY
CONSTRUCTION PROJECT NUMBER 3821-01-71	

TOWN OF FRIENDSHIP

Date 6-16-2017 JEFF MEISENBURG
TOWN CHAIRPERSON

TOWN OF ELDORADO

Date 5/29/20 Gary L Miller
GARY MILLER
TOWN CHAIRPERSON



GREMMER
& ASSOCIATES, INC.
 CONSULTING ENGINEERS
 Stevens Point • Fond du Lac

93 South Pioneer Road, Suite 300 • Fond du Lac, WI 54935
(920) 924-5720 • fax (920) 924-5725

5/26/20 
DATE JAY W. PANETTI, PLS



REVISION DATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR THE DEPARTMENT

DATE: _____ (Signature) _____

SCHEDULE OF LANDS & INTERESTS REQUIRED


AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED. OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED			T.L.E. ACRES TEMP.
				NEW	EXISTING	TOTAL	
1	4.04	CHRIS J. SCHUMACHER AND SHARON K. SCHUMACHER, GLORIA J. SCHUMACHER THE RIGHT TO OCCUPY THE RESIDENCE UPON THE PREMISES FOR AS LONG AS SHE LIVES	FEE	0.106	0.249	0.355	0
2	4.04	CHRIS J. SCHUMACHER AND SHARON K. SCHUMACHER	FEE	0.004	0.008	0.012	0
3	4.04	BLAIR N. TILLEMAN	FEE, TLE	0.053	0	0.053	0.011
4	4.04	GREGORY A. STREAN AND JULIE A. TEICHMILLER	FEE	0.183	0	0.183	0
101	4.04	WINDSTREAM COMMUNICATIONS, LLC	RELEASE OF RIGHTS				

4

4

SHEET 2 OF 4 SHEETS

REVISION DATE	DATE 5/26/2020	SCALE, FEET	HWY: TOWN LINE ROAD	STATE R/W PROJECT NUMBER 3821-01-00	PLAT SHEET 4.02	
	GRID FACTOR		COUNTY: FOND DU LAC	CONSTRUCTION PROJECT NUMBER 3821-01-71	PS&E SHEET	E

REVISED: 12/21/2020

TOWN OF ELDORADO



PARCELS 1, 2 & 3 - FEE

FROM POINT	TO POINT	BEARING	DISTANCE
102	307	N00°34'16"E	1158.37'
307	308	N89°05'27"W	33.00'
308	309	N13°25'16"W	49.63'
309	310	N05°59'16"W	87.55'
310	311	N09°19'30"E	65.71'
311	312	N00°34'16"E	100.00'
312	313	N06°31'55"E	115.56'
313	314	S89°05'27"E	33.00'
314	307	S00°34'16"W	415.01'

BASIS OF EXISTING R/W

ROUTE	BASIS
TOWN LINE ROAD	CSM #1063, CSM #6585

PARCEL 3 - TLE

FROM POINT	TO POINT	BEARING	DISTANCE
102	314	N00°34'16"E	1573.37'
314	313	N89°05'27"W	33.00'
313	401	S06°31'55"W	96.30'
401	402	N00°34'16"E	95.84'
402	313	S89°05'27"E	10.00'

SE-NE

NE-NE

FRAC.
SW-NW

FRAC.
NW-NW

TOWN OF FRIENDSHIP

BEGIN RELOCATION ORDER

7+00.00
Y 421149.37
X 796683.17
1108.32' NORTH AND 10.22' EAST OF THE
EAST QUARTER CORNER OF SECTION 12, T16N, R16E

END RELOCATION ORDER

12+75.00
Y 421724.21
X 796692.29
952.41' SOUTH AND 6.93' WEST OF THE
NORTHEAST CORNER OF SECTION 12, T16N, R16E

BLANKET WP&L UTILITY EASEMENT
DOC. #7223

BLANKET WP&L UTILITY EASEMENT
DOC. #7222

COORDINATE TABLE

POINT	Y	X
102	420041.0430	796672.9510
108	422676.6230	796699.2260
301	421149.3527	796684.0001
302	421724.2422	796689.7314
303	421723.8101	796722.7287
304	421548.4195	796745.9814
305	421298.4275	796743.4892
306	421148.8291	796716.9965
307	421199.3511	796684.4986
308	421199.8748	796651.5022
309	421248.1493	796639.9828
310	421335.2195	796630.8504
311	421400.0587	796641.4973
312	421500.0555	796642.4942
313	421614.8614	796655.6393
314	421614.3377	796688.6357
401	421519.1898	796644.6850
402	421615.0201	796645.6404

SHEET 4 OF 4 SHEETS

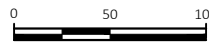
REVISED: 12/21/2020

REVISION DATE			

DATE 5/26/2020

GRID FACTOR

SCALE, FEET



HWY: TOWN LINE ROAD

COUNTY: FOND DU LAC

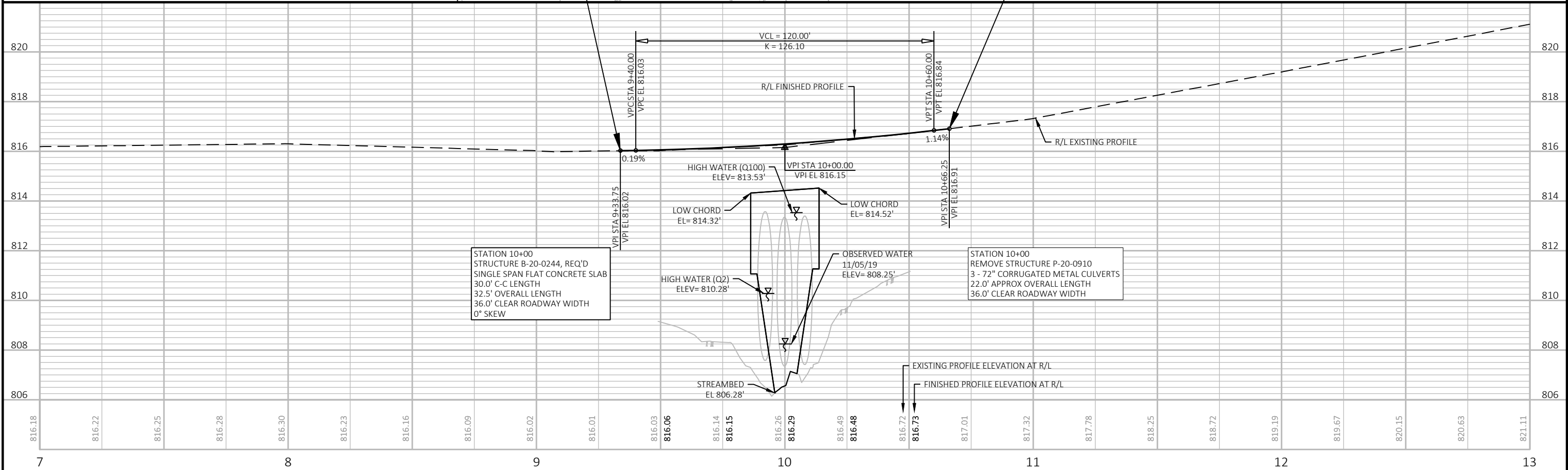
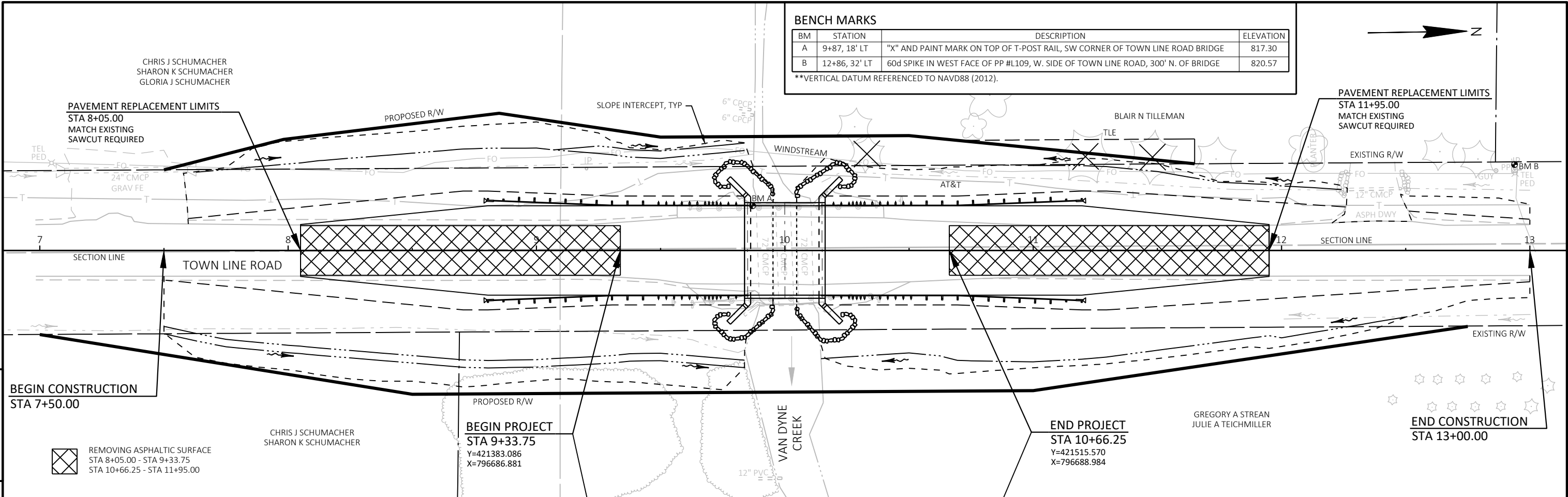
STATE R/W PROJECT NUMBER 3821-01-00

CONSTRUCTION PROJECT NUMBER 3821-01-71

PLAT SHEET 4.04

PS&E SHEET

E



PROJECT NO:	3821-01-71	HWY:	TOWN LINE ROAD	COUNTY:	FOND DU LAC	PLAN AND PROFILE:	TOWN LINE ROAD	SHEET	E
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Standard Detail Drawing List

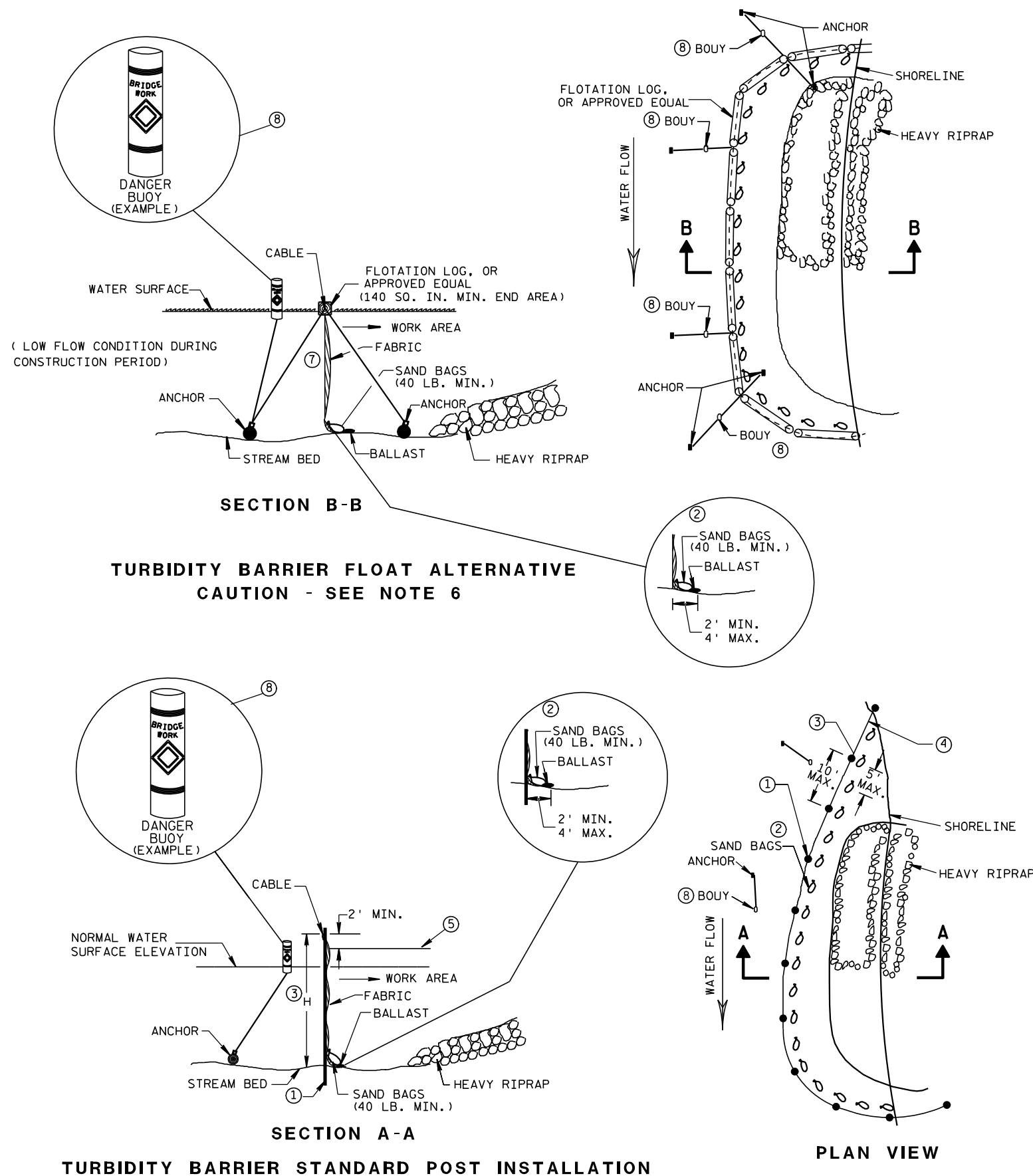
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
08E14-01	TRACKING PAD
12A03-10	NAME PLATE (STRUCTURES)
14B29-01	SAFETY EDGE
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



- 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 1½" X 1½" 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.



SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 _____ DATE	/S/ Beth Canestra _____ CHIEF ROADWAY DEVELOPMENT ENGINEER

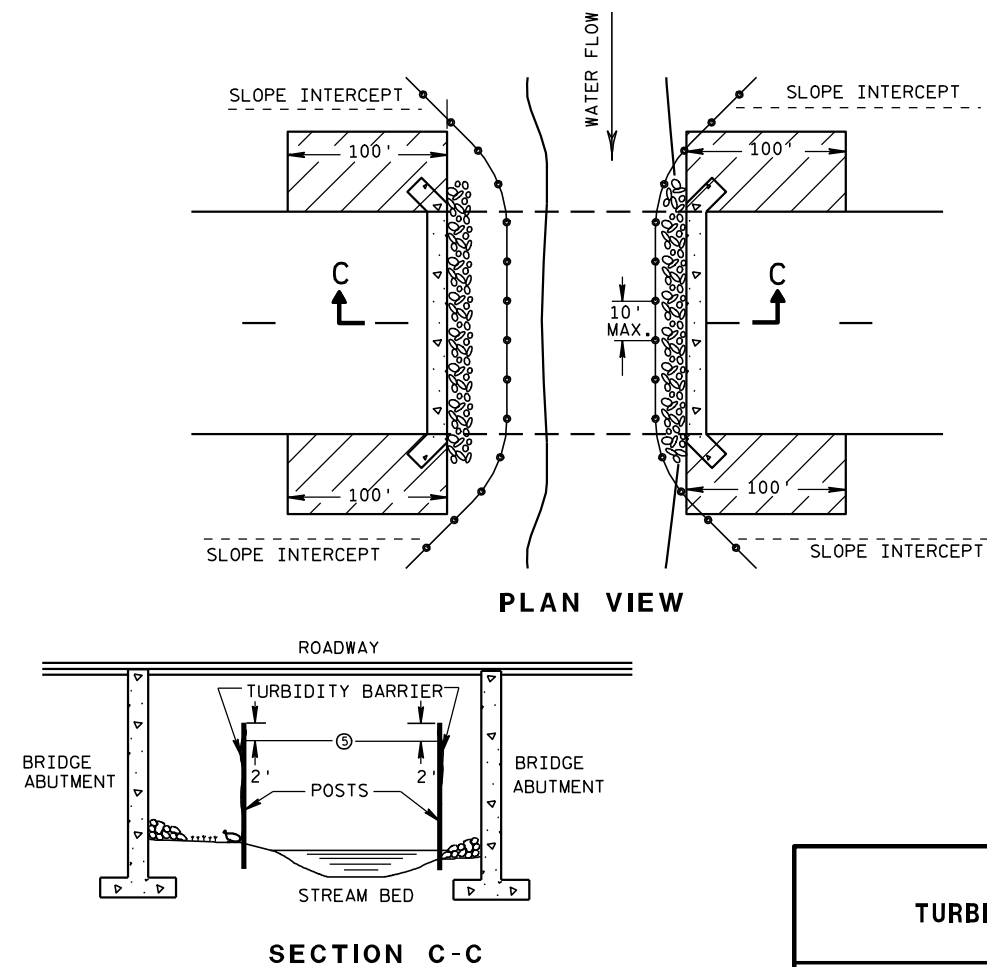


GENERAL NOTES

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

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

- ① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- ② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
- ③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.
- ④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
- ⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
- ⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.
- ⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
- ⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

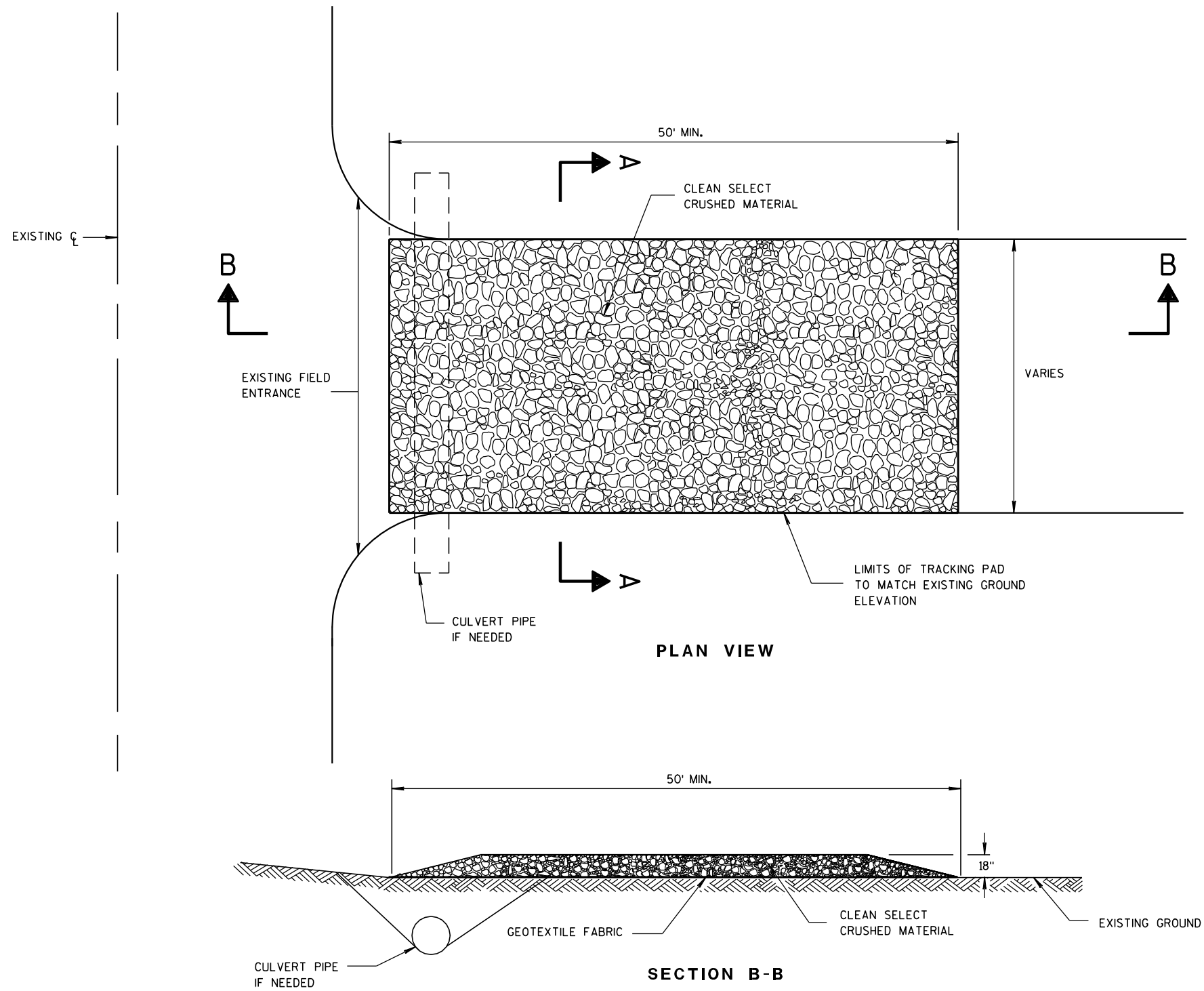
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

FHWA

/S/ Beth Connestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



TRACKING PAD

GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

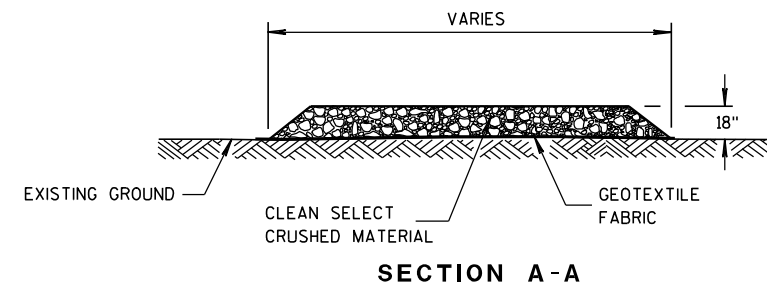
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.

**TRACKING PAD**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

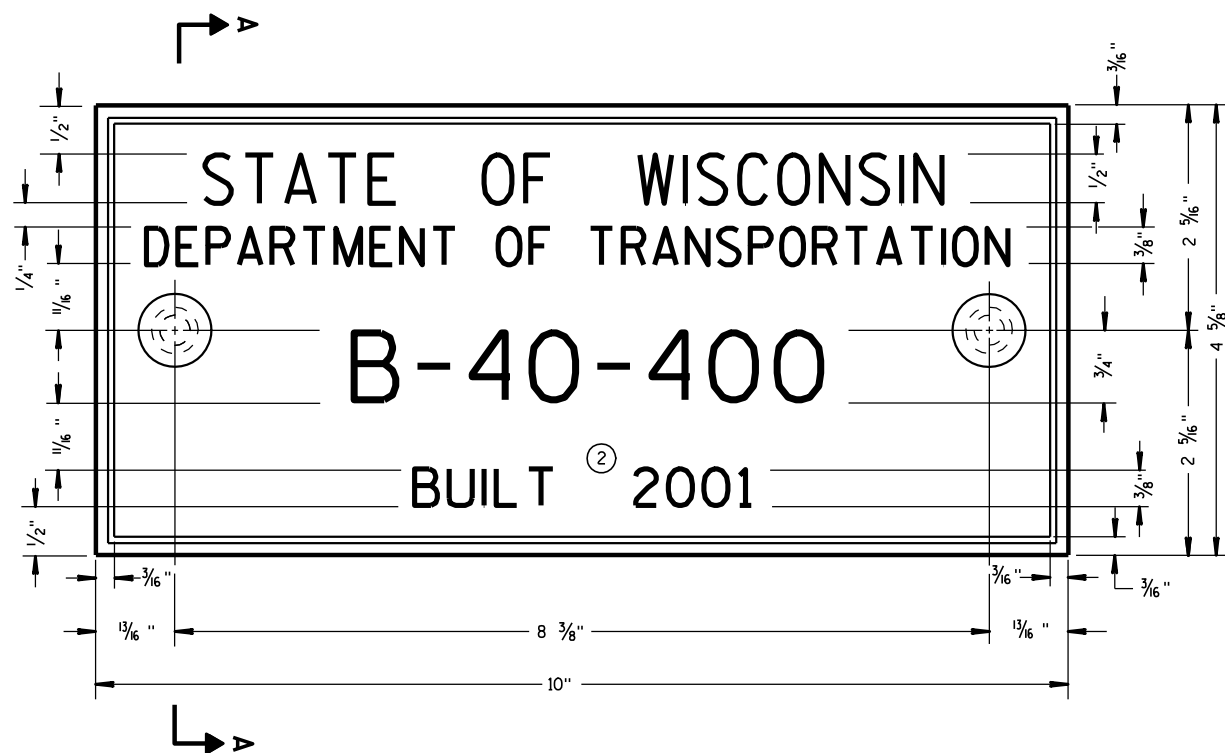
APPROVED
3/24/2011

DATE

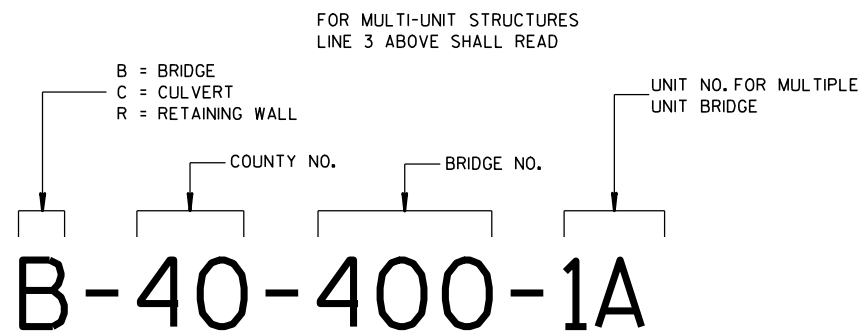
FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT
ENGINEER



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



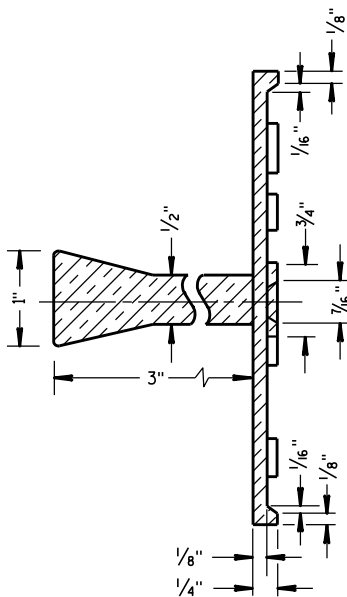
NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

GENERAL NOTES

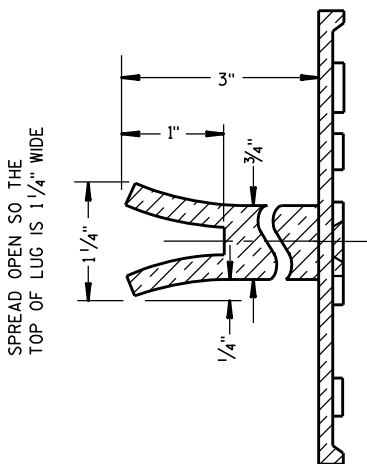
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

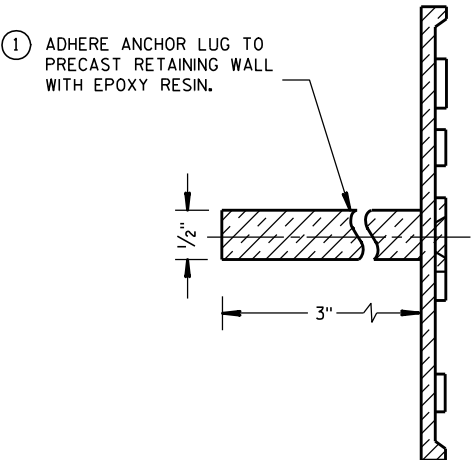
- 1 EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- 2 REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A

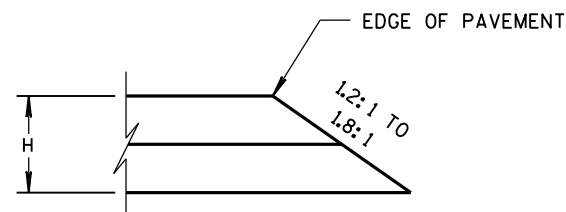


ALTERNATE LUG

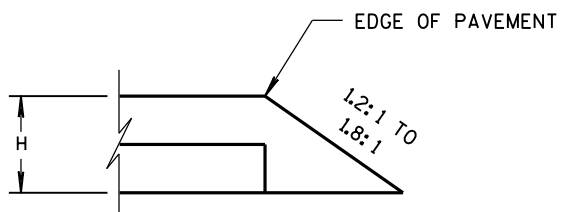


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

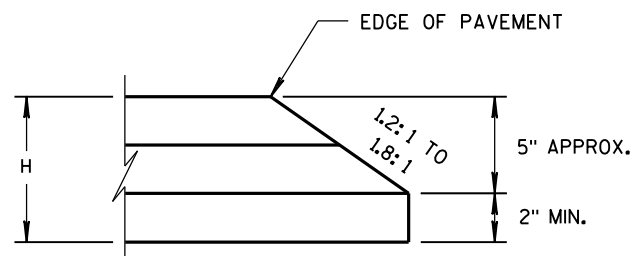
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/26/10 DATE	/S/ Scot Becker CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA	



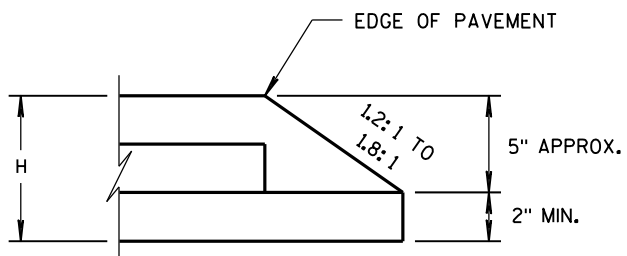
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

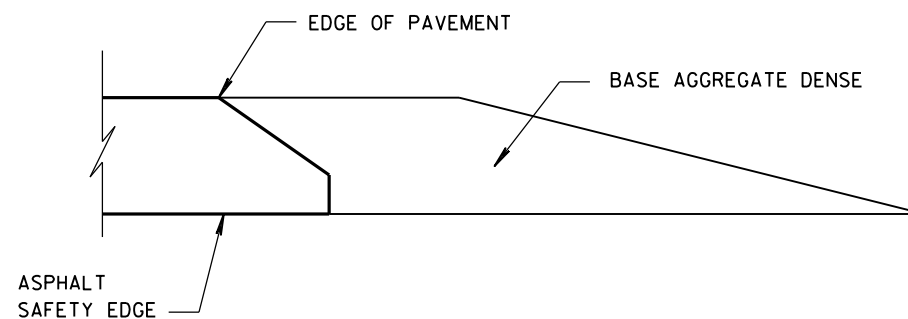


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

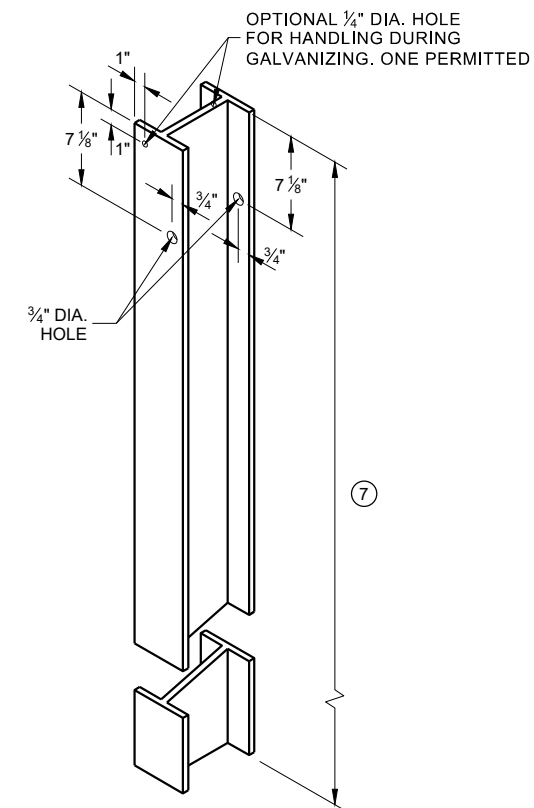
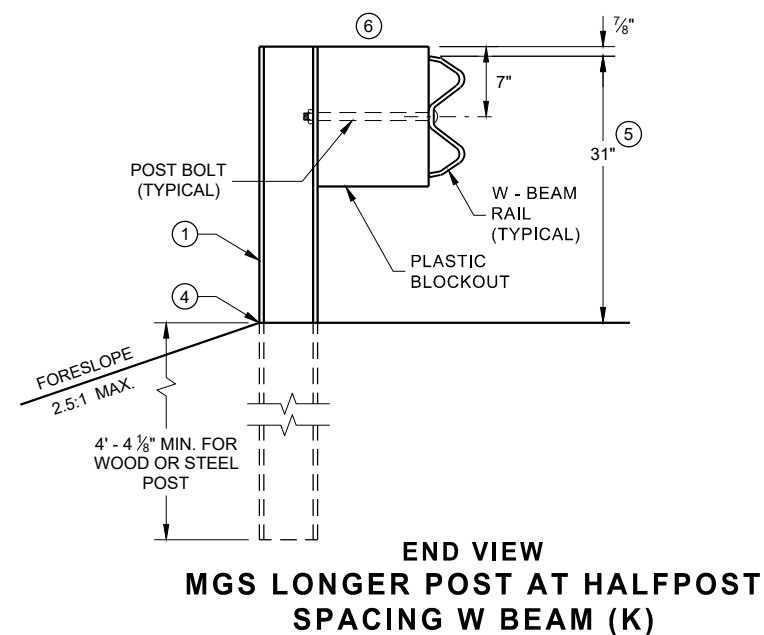
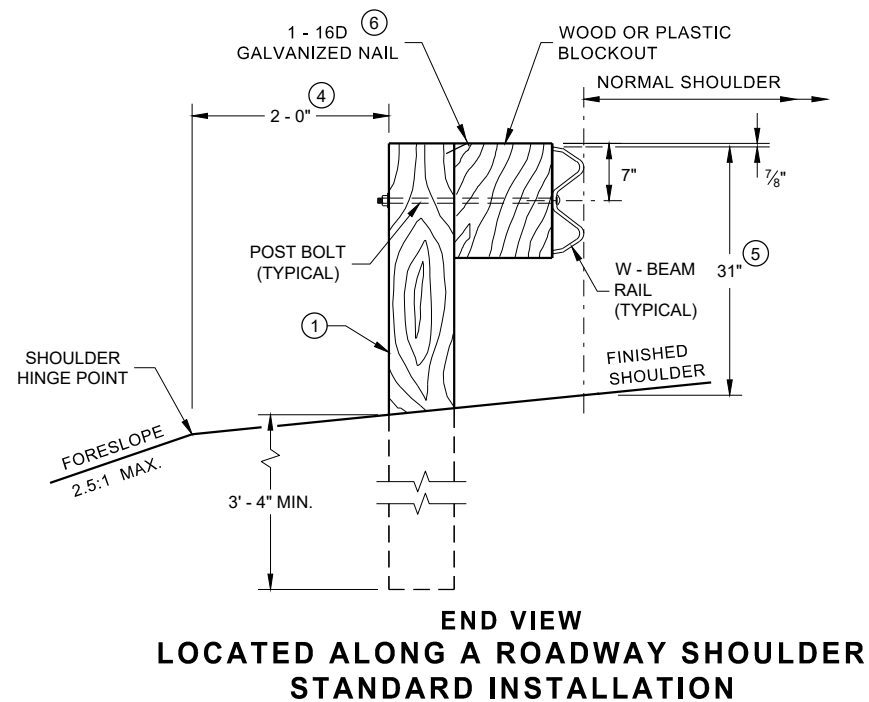
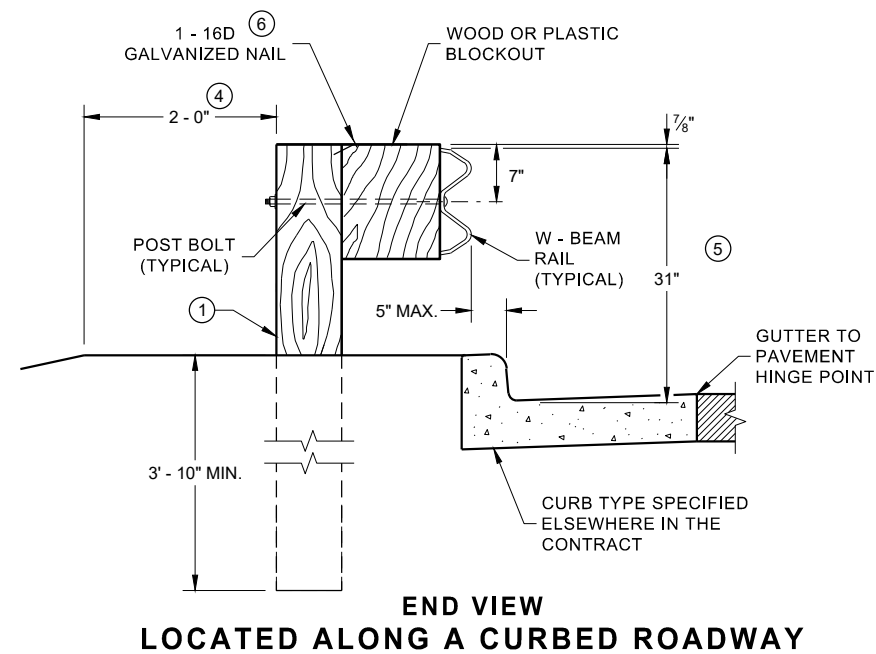
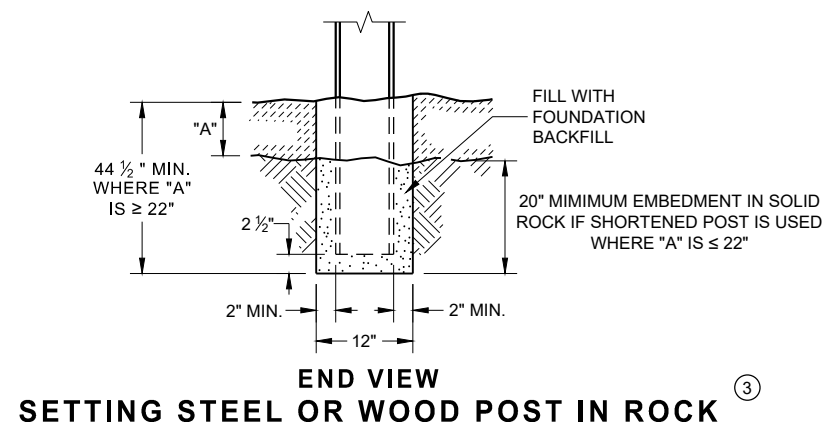
SAFETY EDGE_{SM}

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

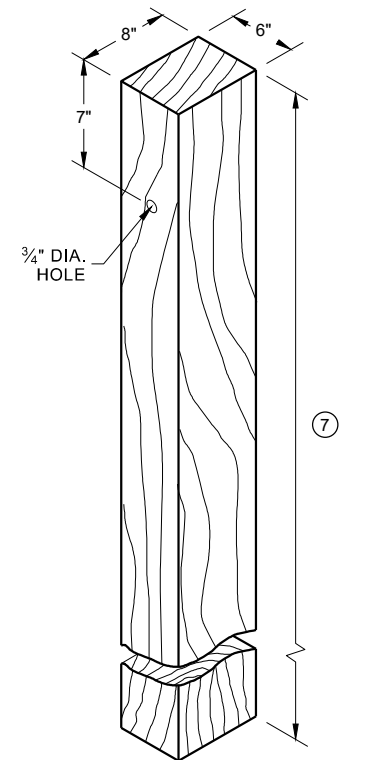
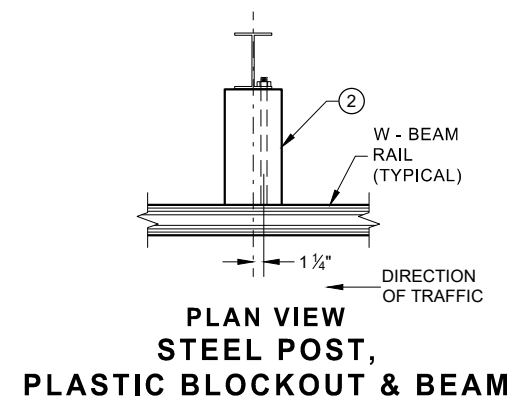
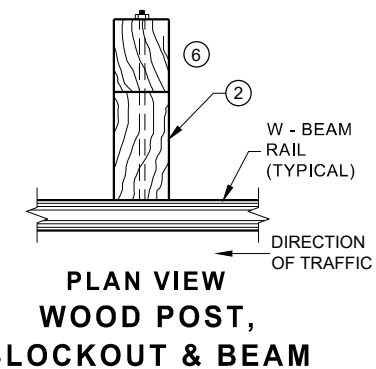
APPROVED
11/30/2012
DATE
FHWA

/s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

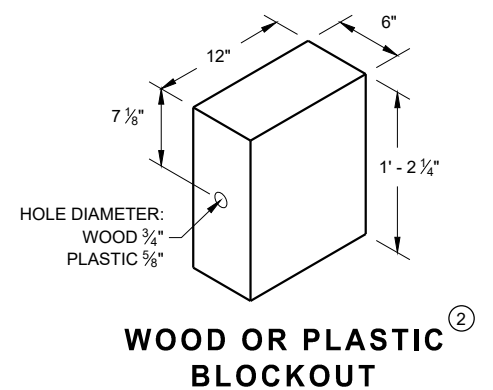
- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 30 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS TO LENGTH AND 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 3/4" 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".

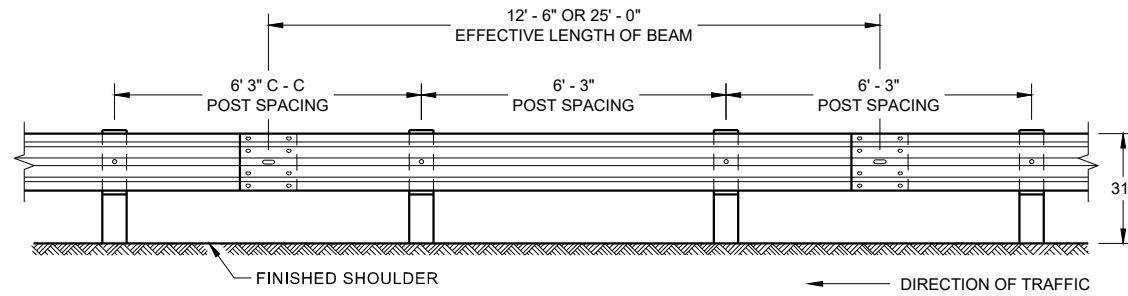


**STEEL POST & HOLE
PUNCHING DETAIL
(W 6 X 9) ①**

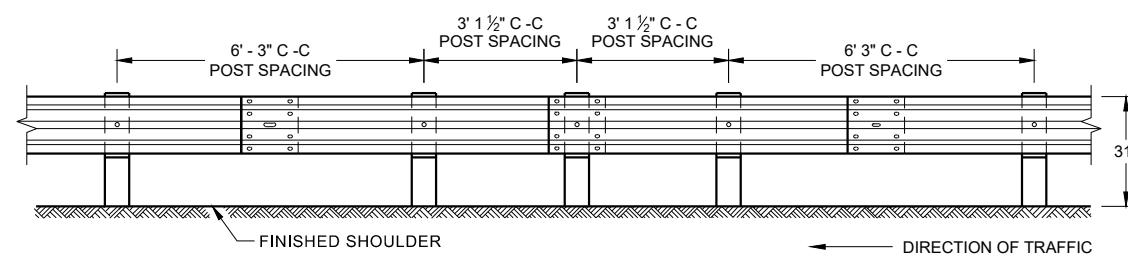


WOOD POST (6" X 8") NOMINAL ⁽¹⁾

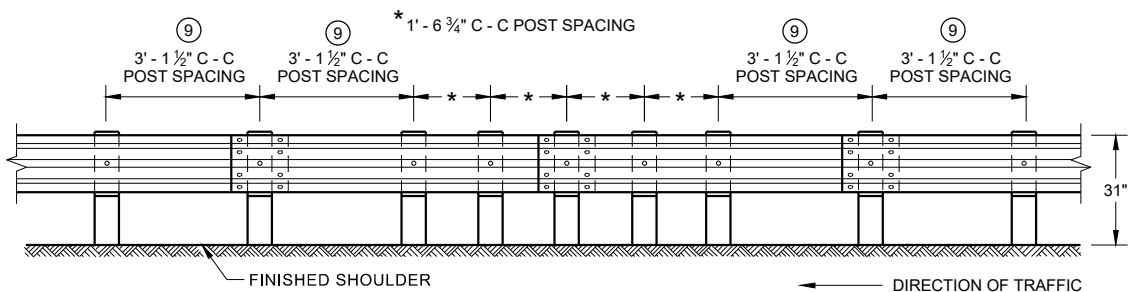




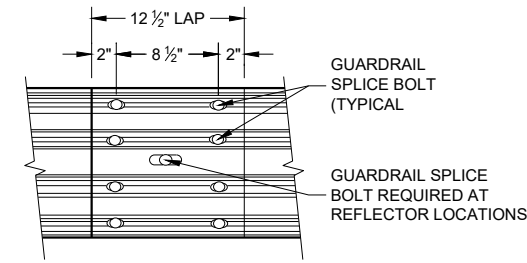
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



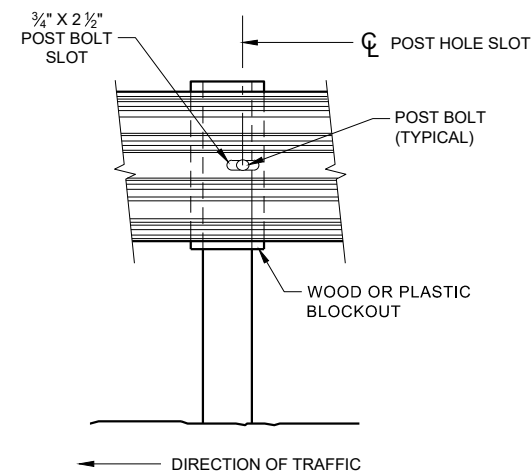
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



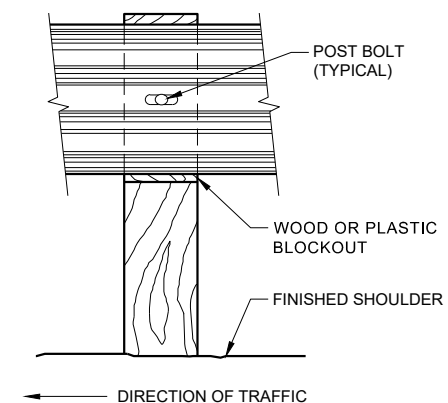
**FRONT VIEW
QUARTER POST SPACING (QS)**



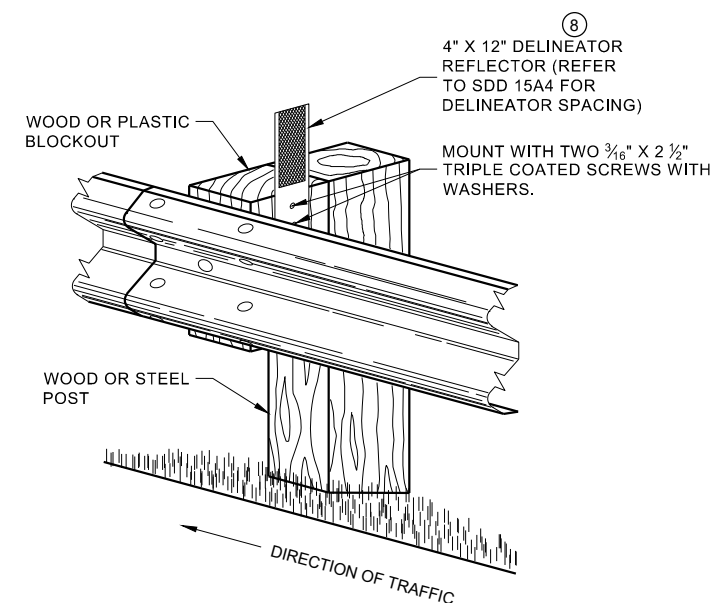
**FRONT VIEW
MID-SPAN BEAM SPLICE**



FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



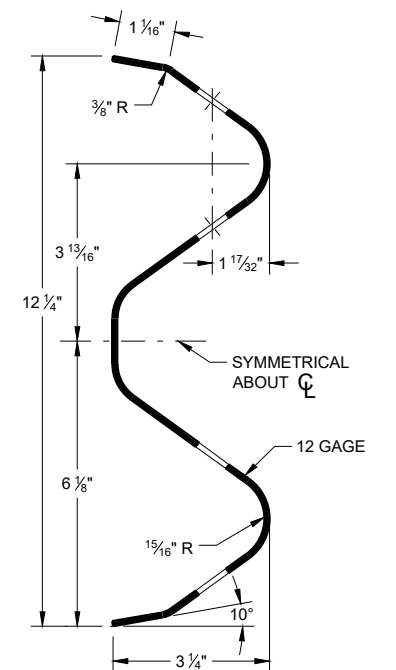
**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

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 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

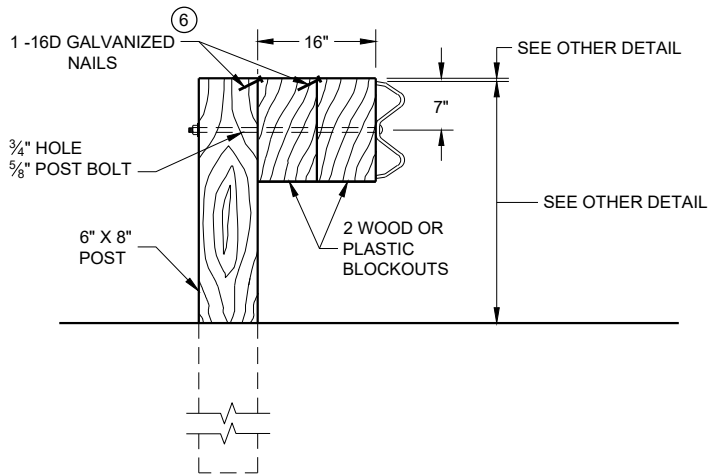
GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



SECTION THRU W-BEAM RAIL

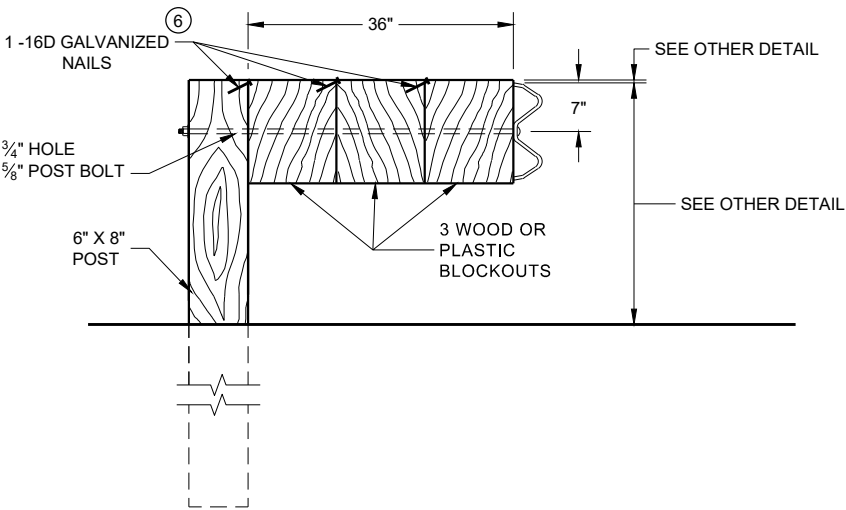
**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

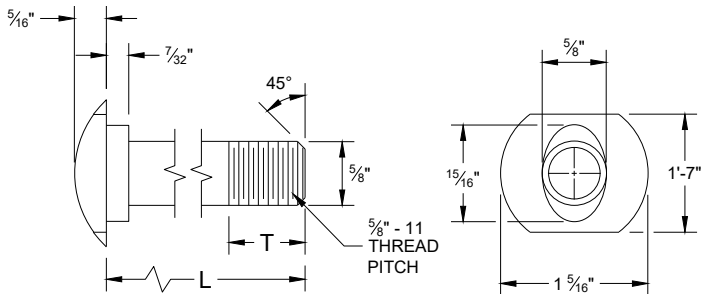
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



DETAIL FOR 36" BLOCKOUT DEPTH

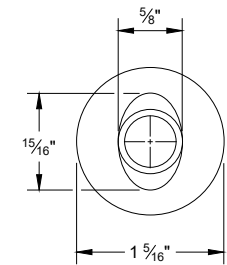
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

- NOTE:
- 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
 - 2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

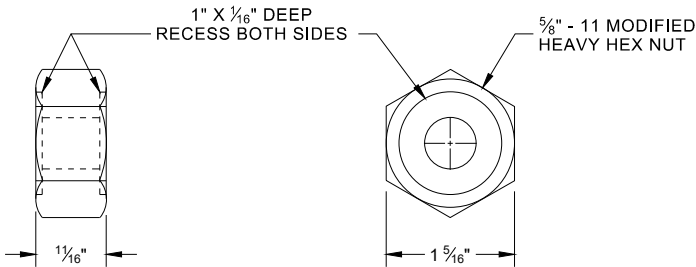


POST BOLT TABLE

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

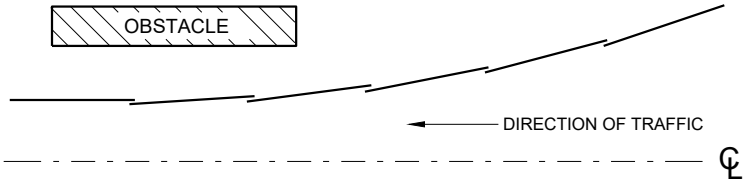


ALTERNATE BOLT HEAD

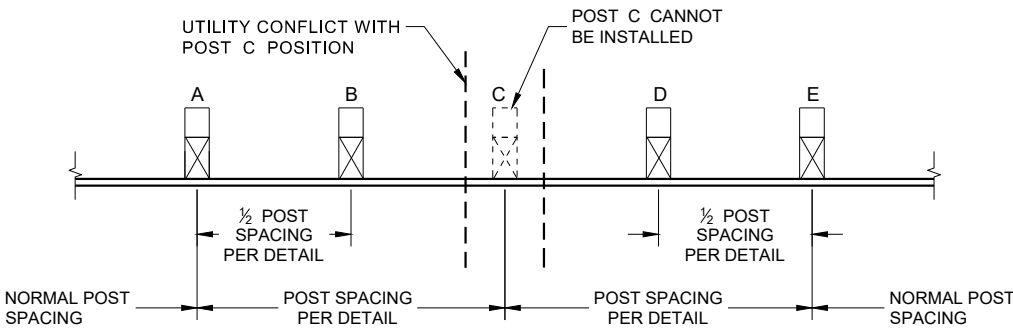


POST BOLT, SPLICE BOLT
AND RECESS NUT

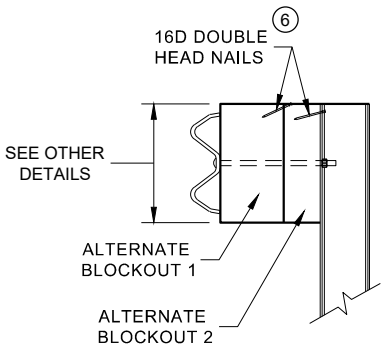
- 6 WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



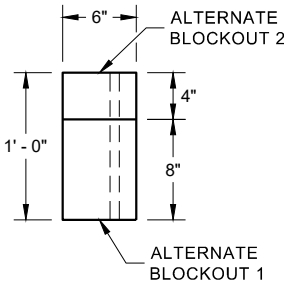
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION



SIDE VIEW

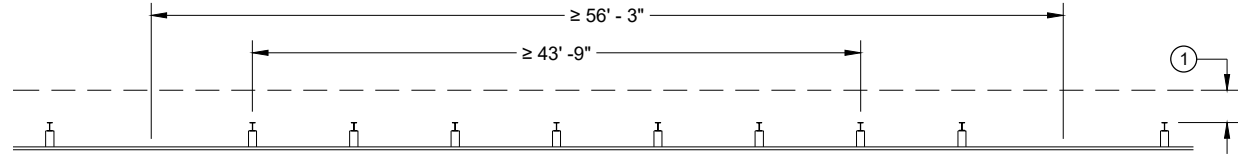


PLAN VIEW

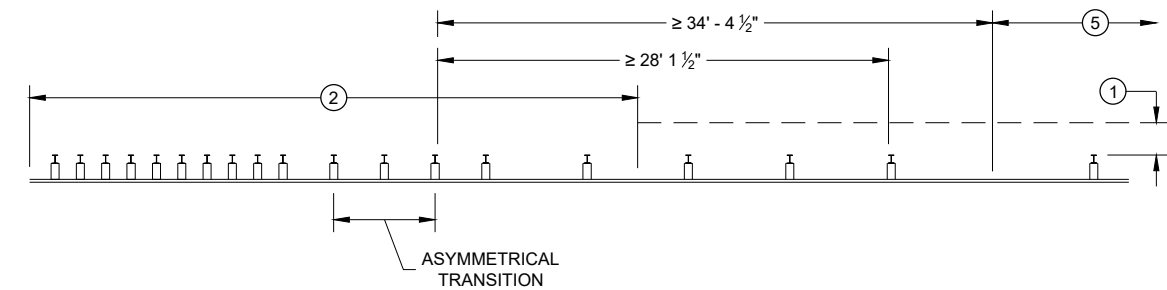
ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

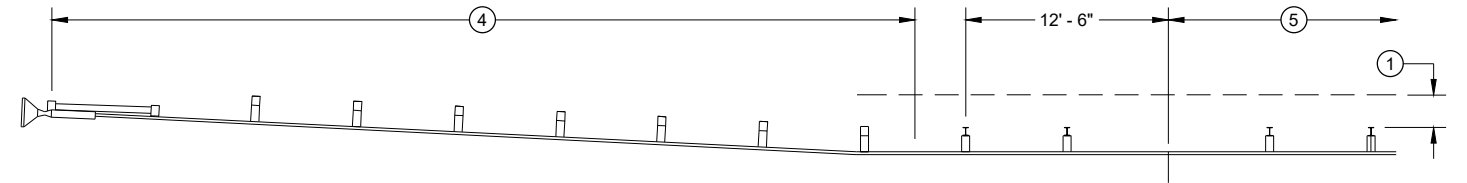
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



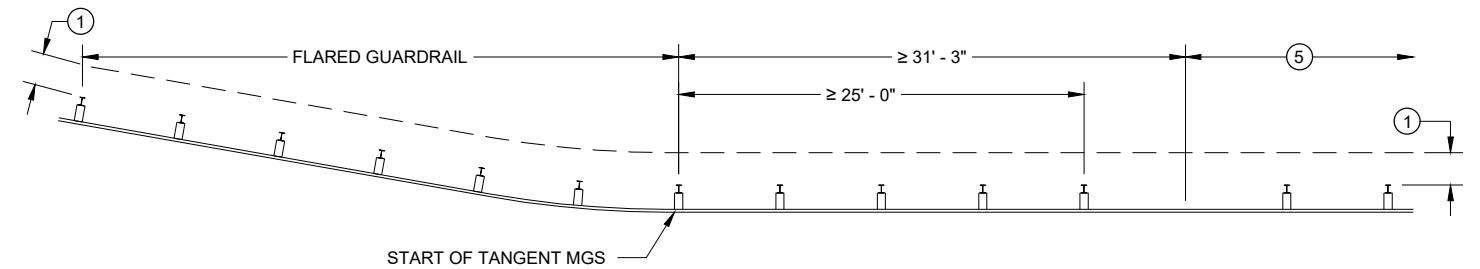
MISSING POST IN NORMAL BEAM GUARD RUN



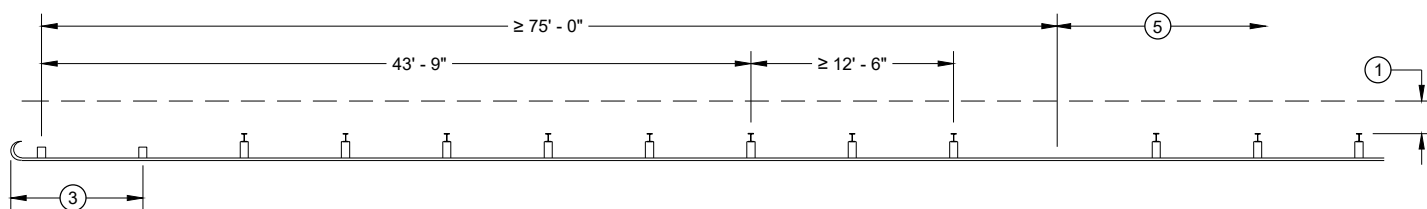
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



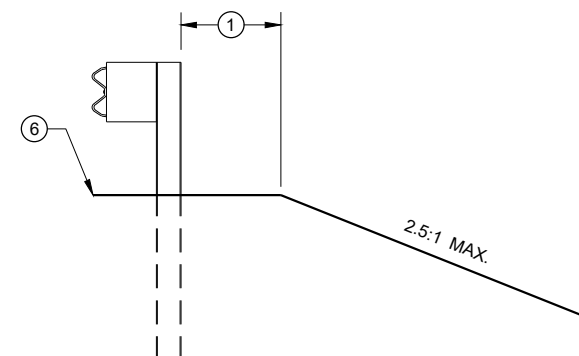
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



MISSING POST IN NORMAL BEAM GUARD RUN
NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN
NEAR TYPE 2 TERMINAL



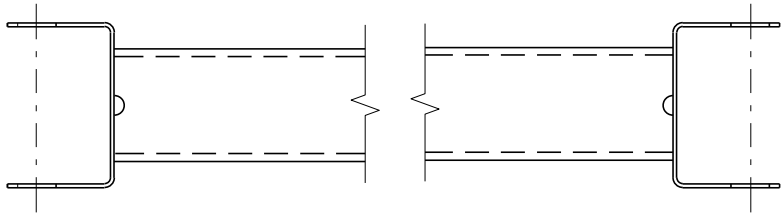
CROSS SECTION VIEW

- (1) MINIMUM OF 2 FEET OF GRADING BEHIND POST.
- (2) SEE SDD 14B45 FOR MORE DETAILS.
- (3) SEE SDD 14B47 FOR MORE DETAILS.
- (4) SEE SDD 14B44 FOR MORE DETAILS.
- (5) SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
- (6) SEE PLAN FOR SHOULDER DESIGN.

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

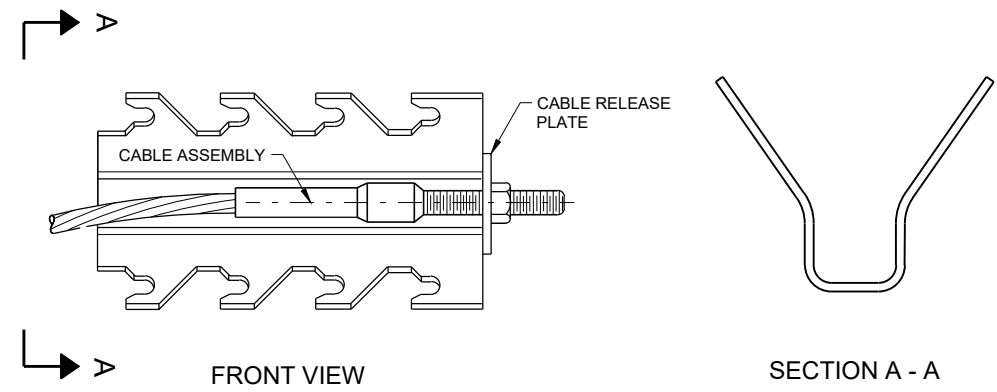
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA

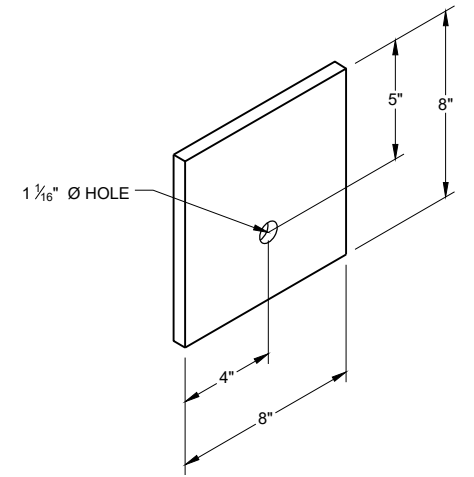


GENERIC GROUND STRUT ⁹ ^E

BILL OF MATERIALS	
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'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



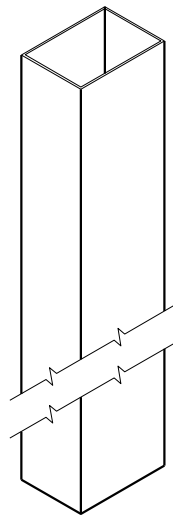
GENERIC ANCHOR CABLE BOX ⁹ ^E



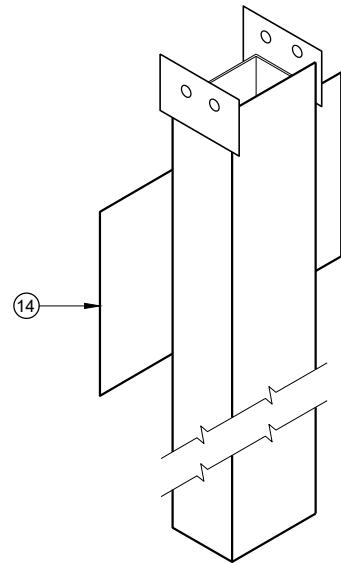
BEARING PLATE ⁶ ^E

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

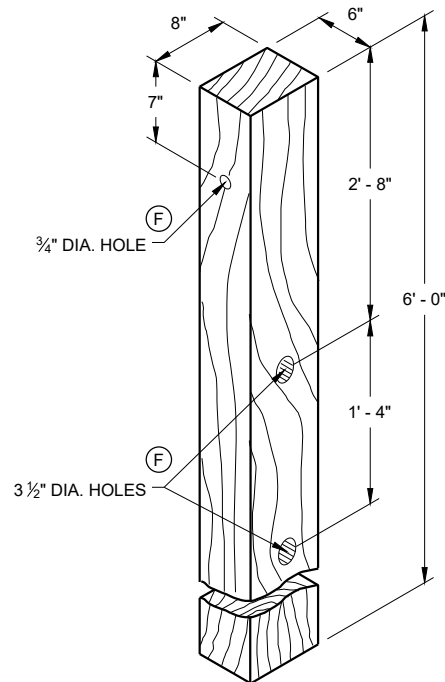
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



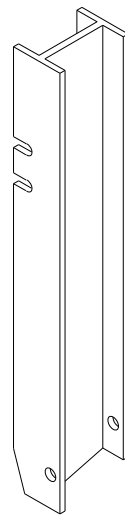
UPPER POST NO. 1 ⁽¹⁾ (E)



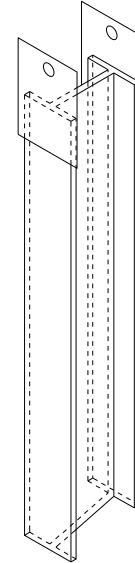
LOWER POST NO. 1 ⁽²⁾ (E)



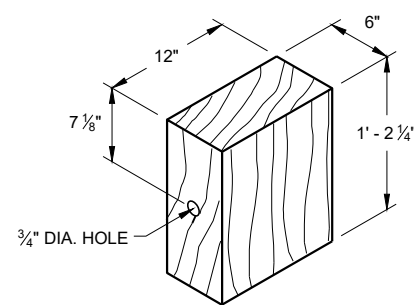
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



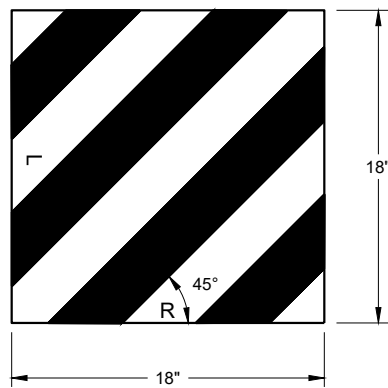
UPPER POST NO. 2 ⁽¹⁵⁾ (E)



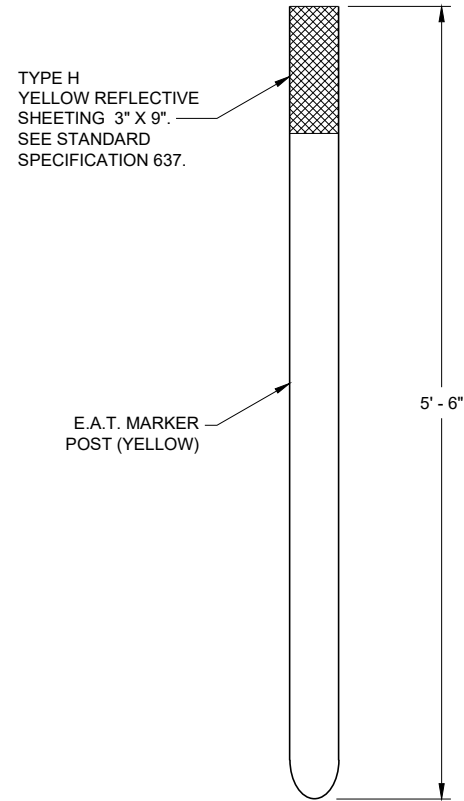
LOWER POST NO. 2 ⁽¹⁶⁾ (E)



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

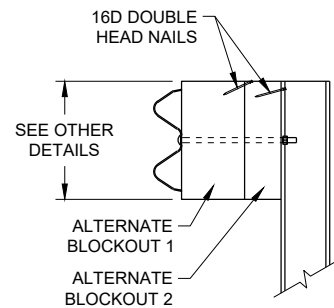


REFLECTIVE SHEETING DETAIL ^(E)

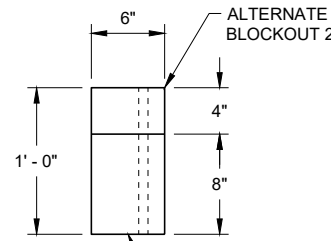


FRONT VIEW SIDE VIEW

E.A.T. MARKER POST ⁽¹³⁾



SIDE VIEW



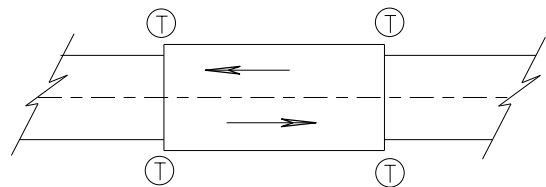
TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

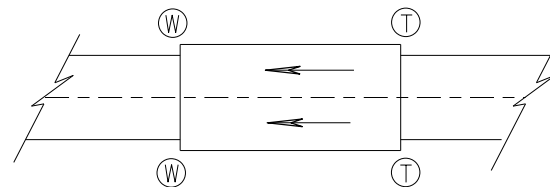
**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA



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 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

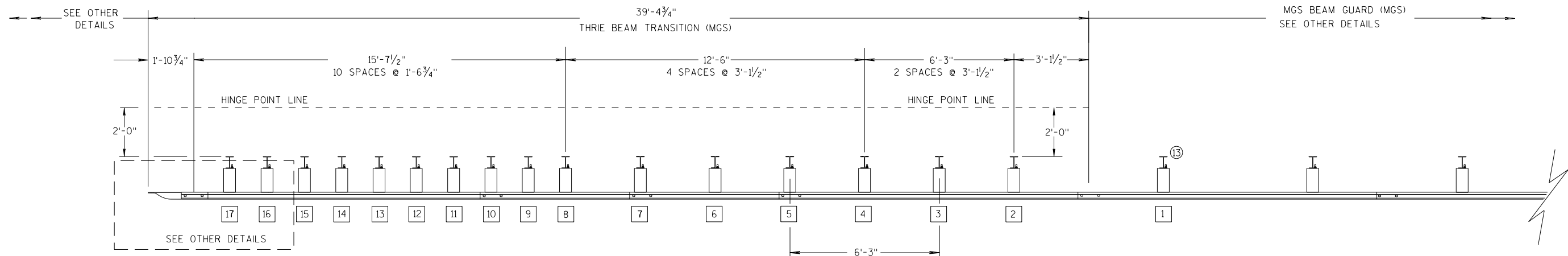
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

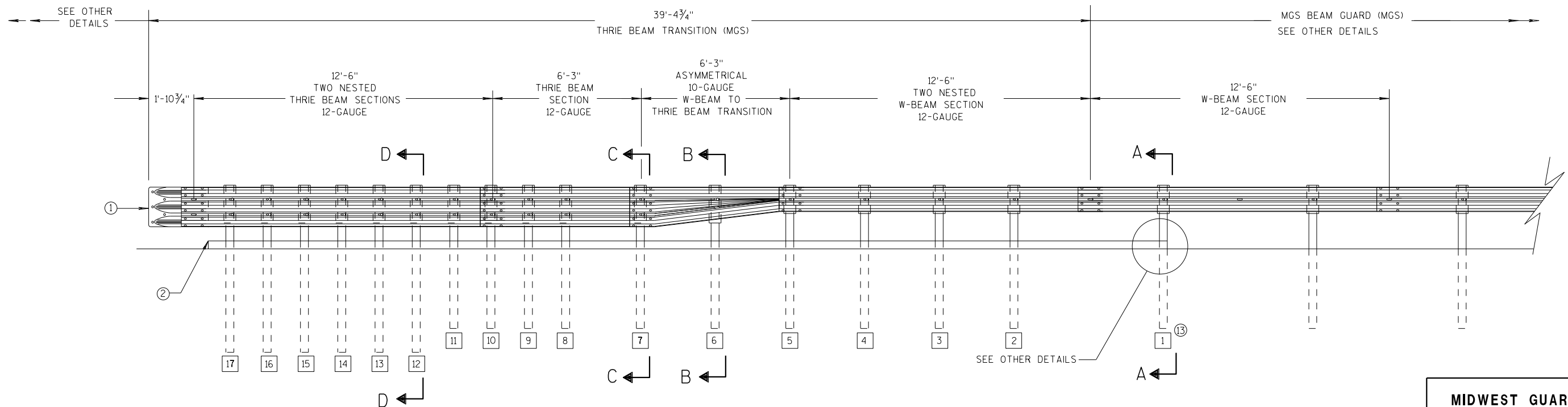
① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

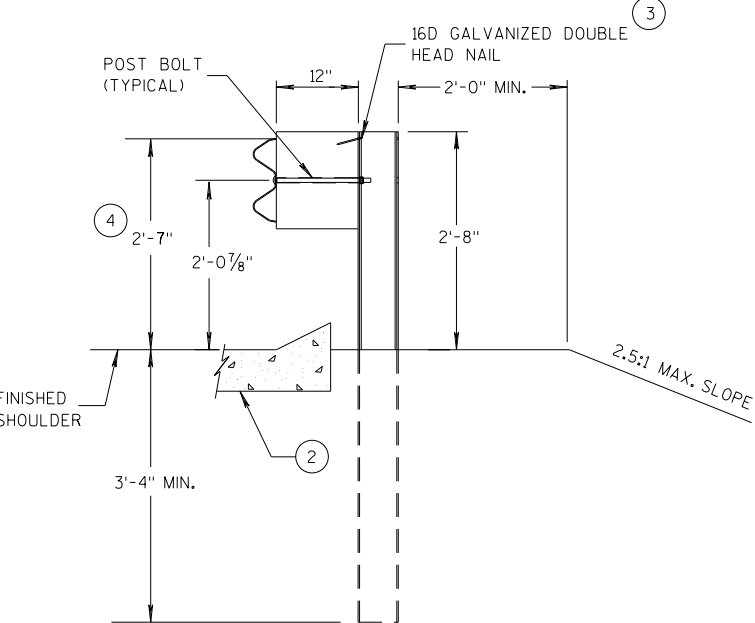
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

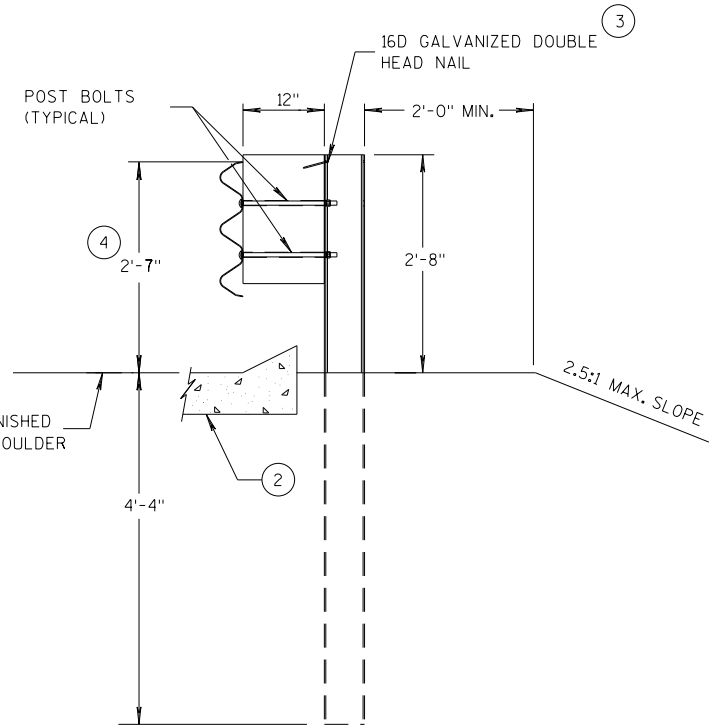
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

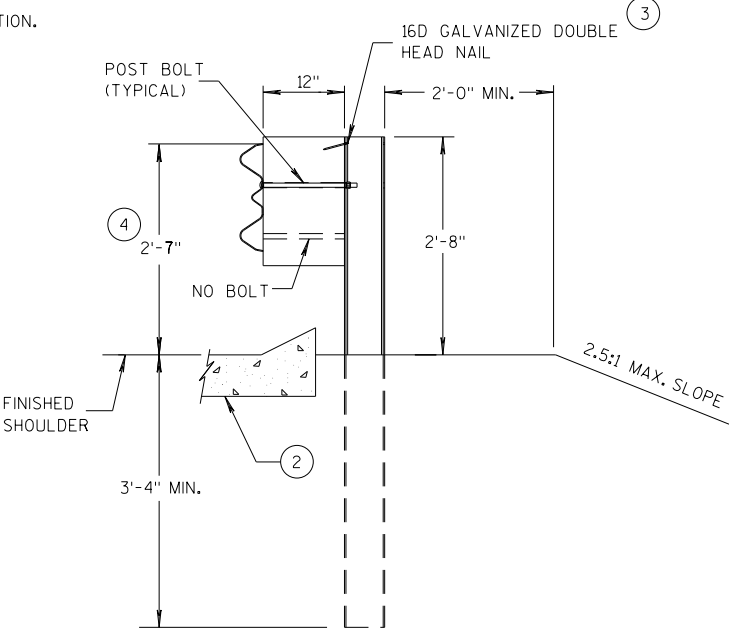
- 2 OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- 3 WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- 4 TOLERANCE FOR TOP OF W-BEAM RAIL IS $\pm 1"$.
- 13 STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



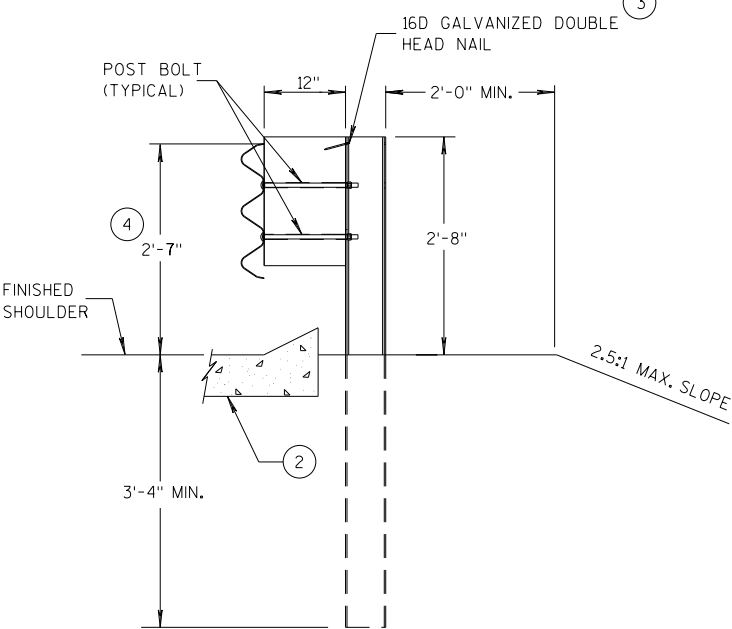
SECTION A-A
POSTS 1-5



SECTION D-D
POSTS 12-17



SECTION B-B
POST 6



SECTION C-C
POSTS 7-11

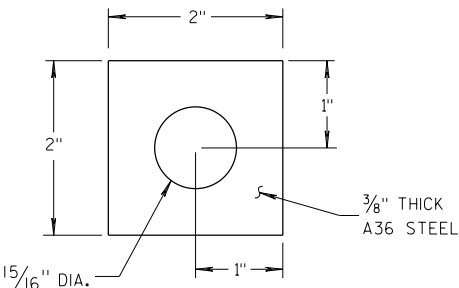
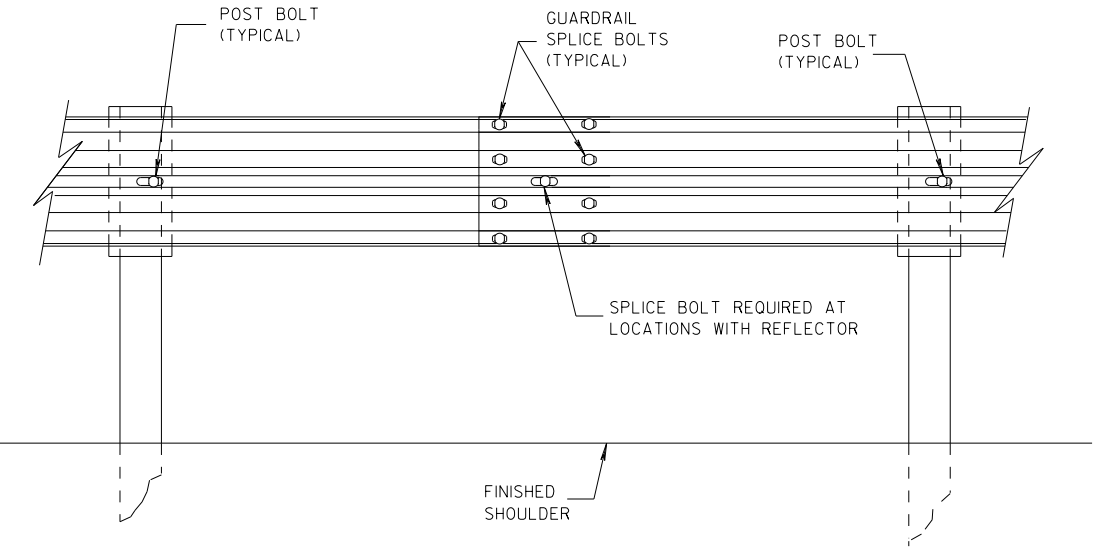
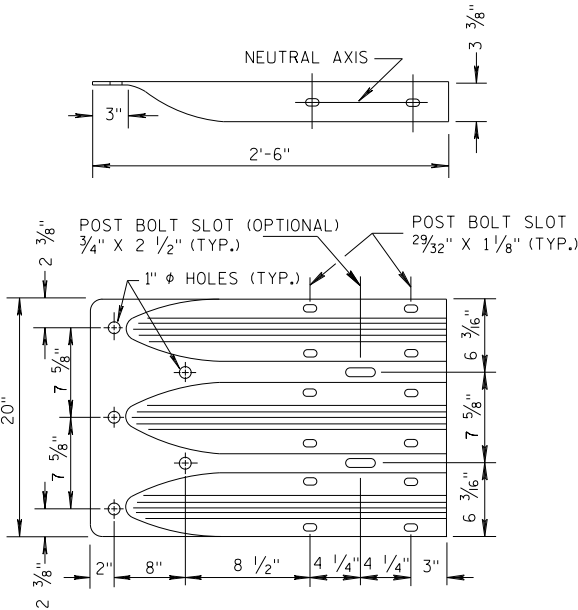


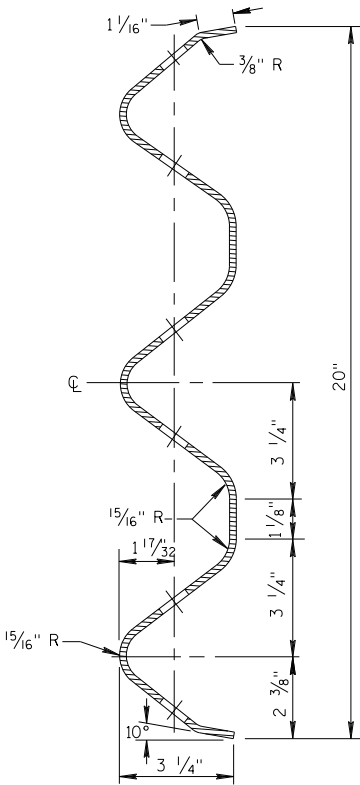
PLATE WASHER DETAIL



SPLICE DETAIL



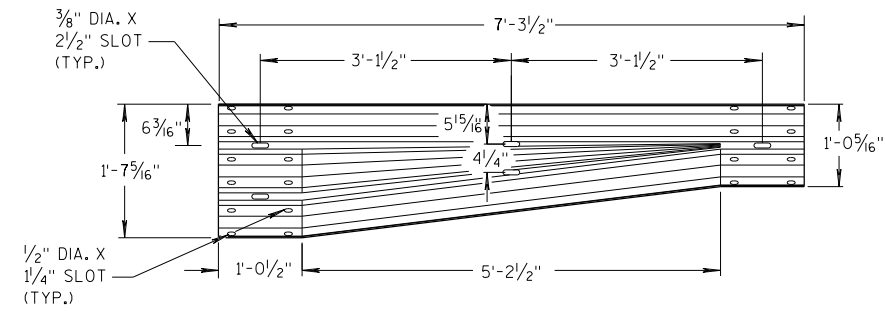
THRIE BEAM
TERMINAL CONNECTOR



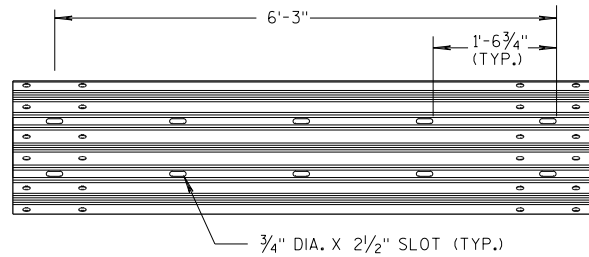
SECTION THRU THRIE
BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

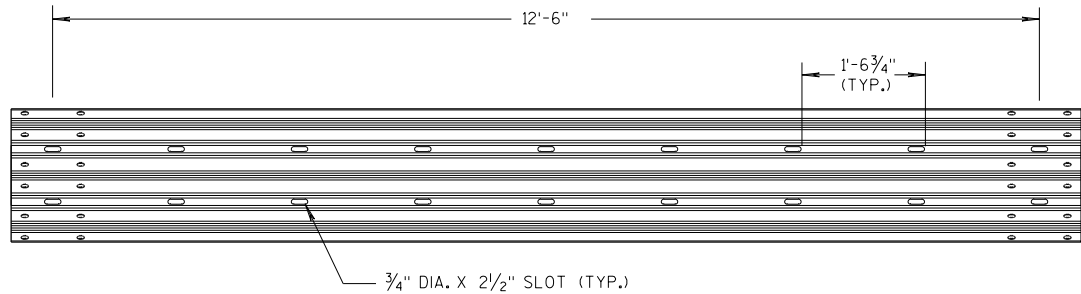
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



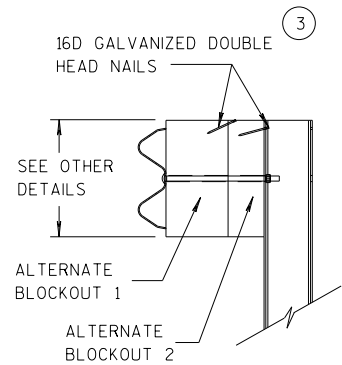
W-BEAM TO THRIE BEAM TRANSITION SECTION



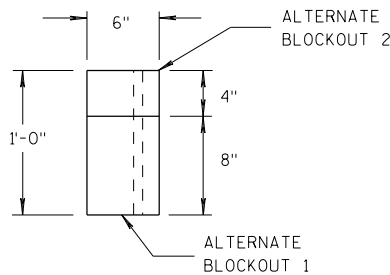
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

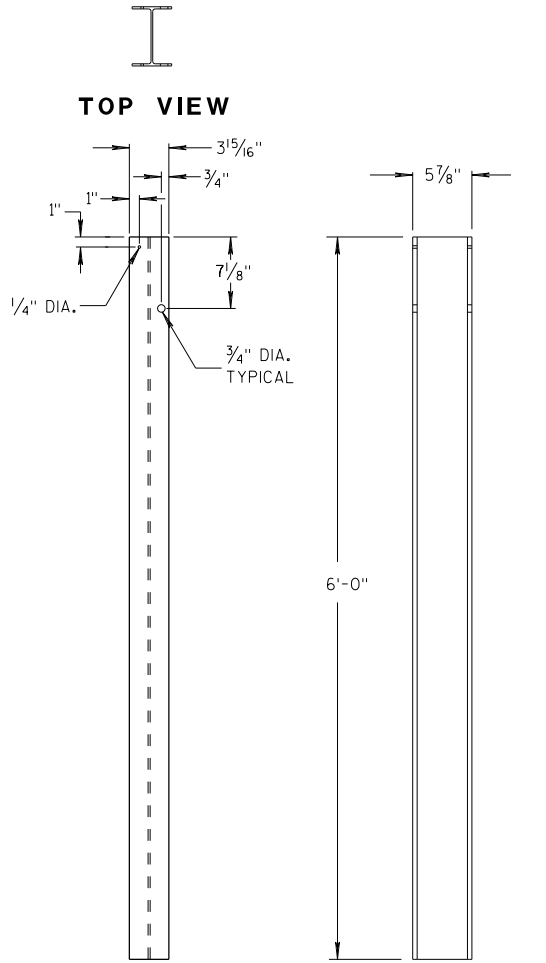


SIDE VIEW



TOP VIEW

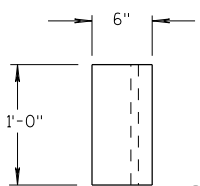
ALTERNATE WOOD BLOCKOUT DETAIL



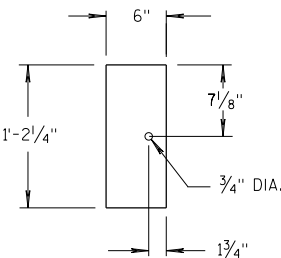
FRONT VIEW

SIDE VIEW

STEEL POSTS 1-5

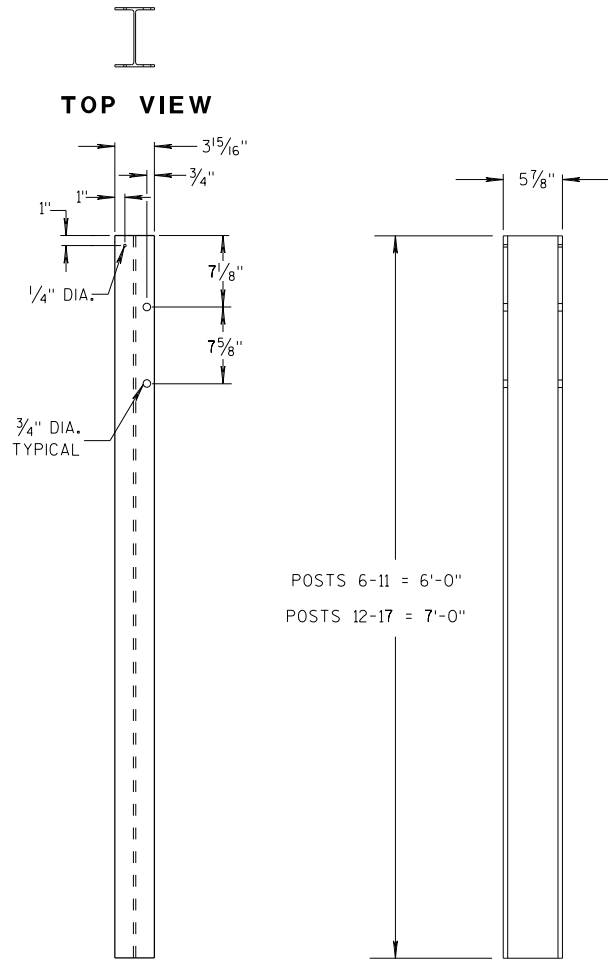


TOP VIEW



FRONT VIEW

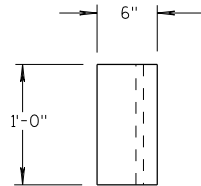
BLOCKOUT POSTS 1-5



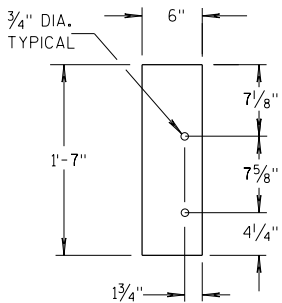
FRONT VIEW

SIDE VIEW

STEEL POSTS 6-17



TOP VIEW



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.

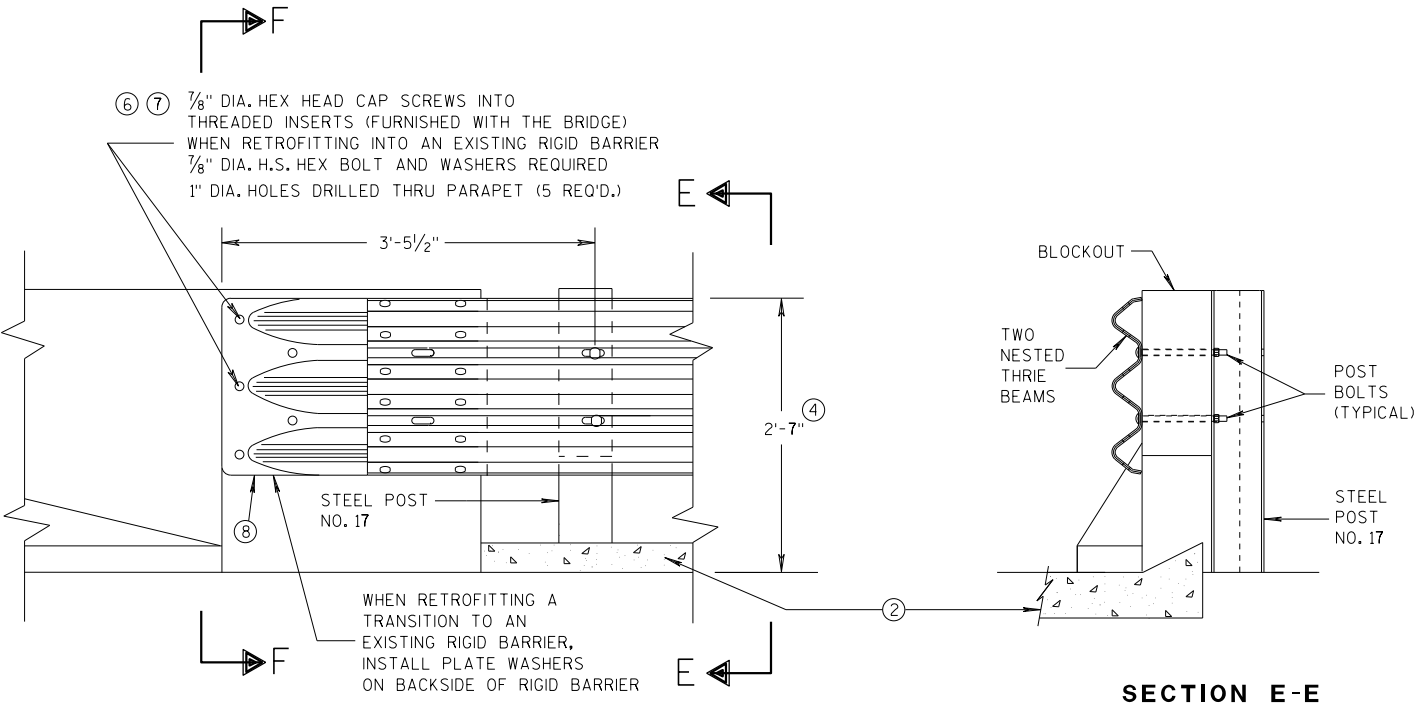
③ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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.

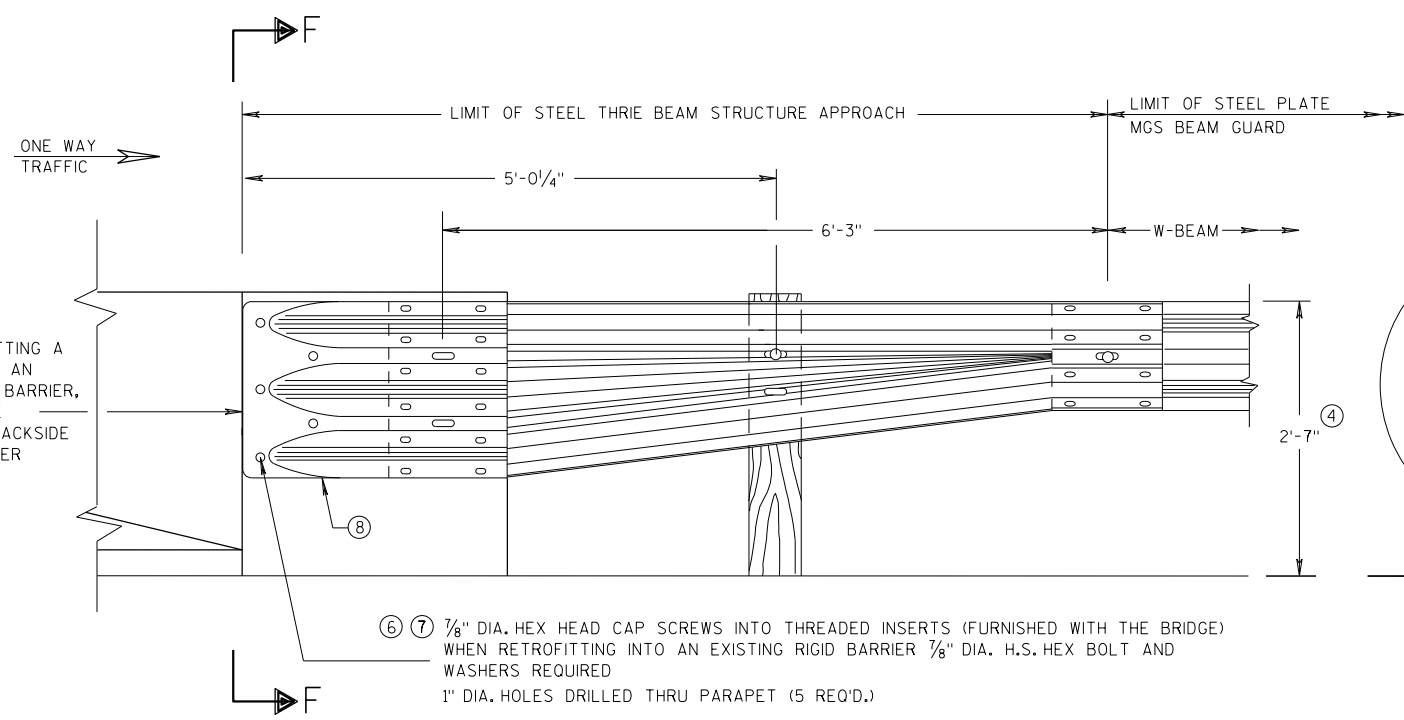
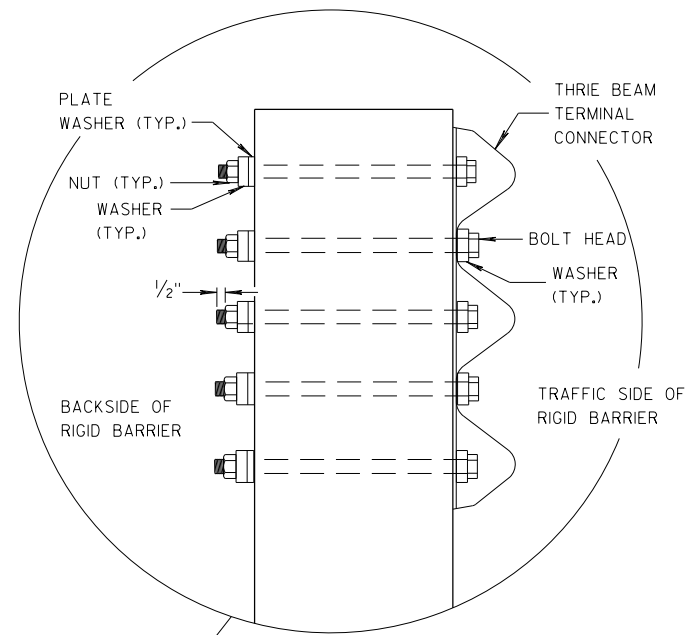
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

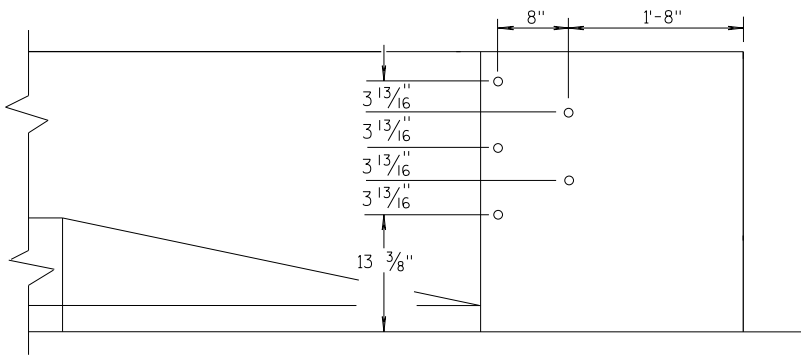


GENERAL NOTES

- THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".



SECTION F-F

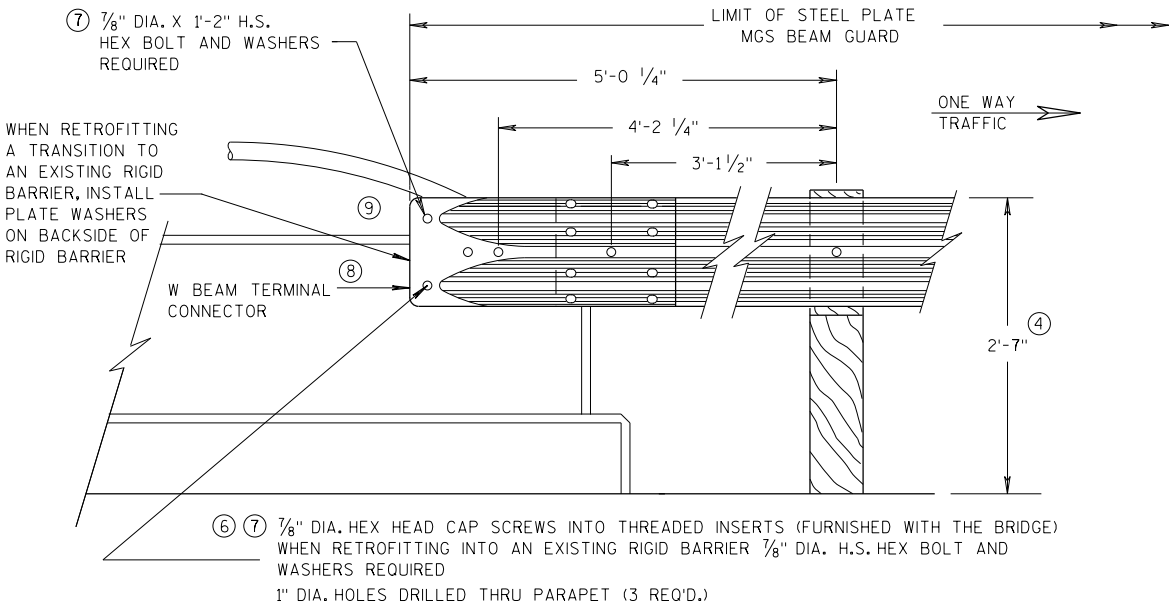


MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 07/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	

GENERAL NOTES

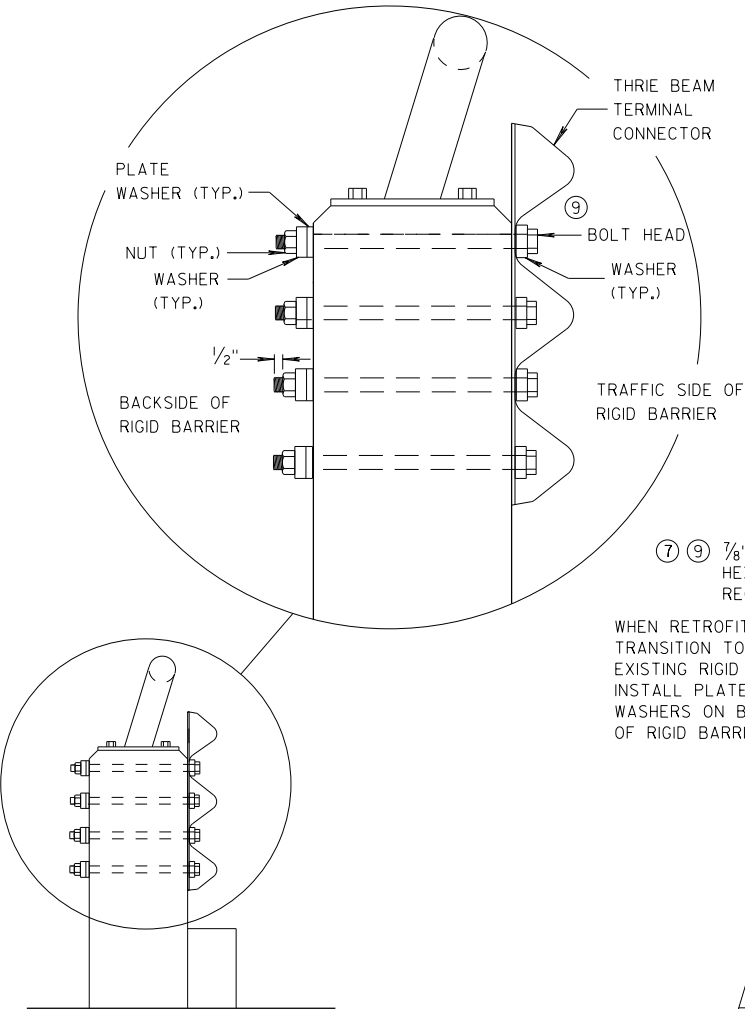
THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

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

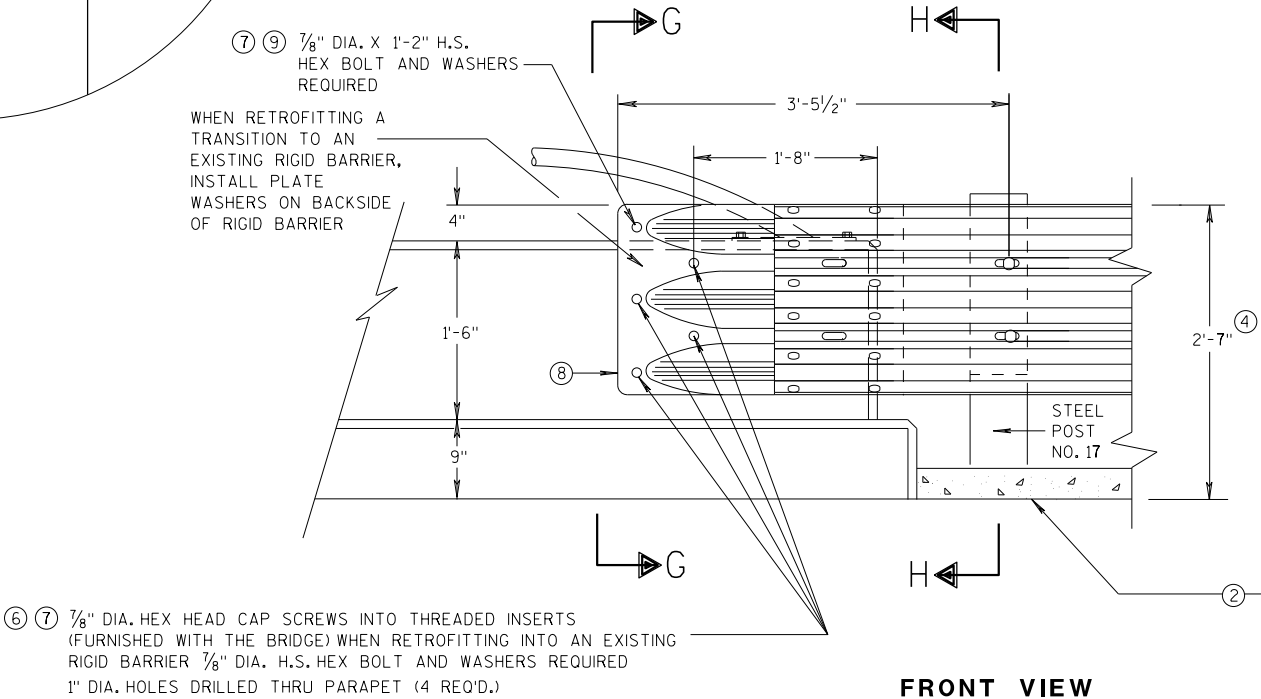


FRONT VIEW

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

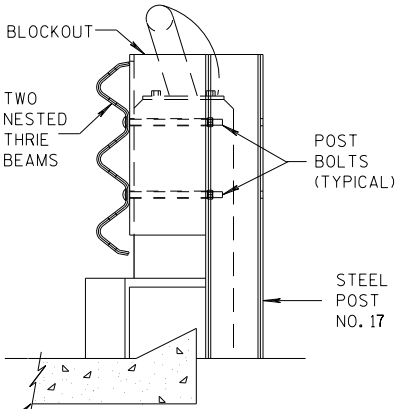


SECTION G-G



FRONT VIEW

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

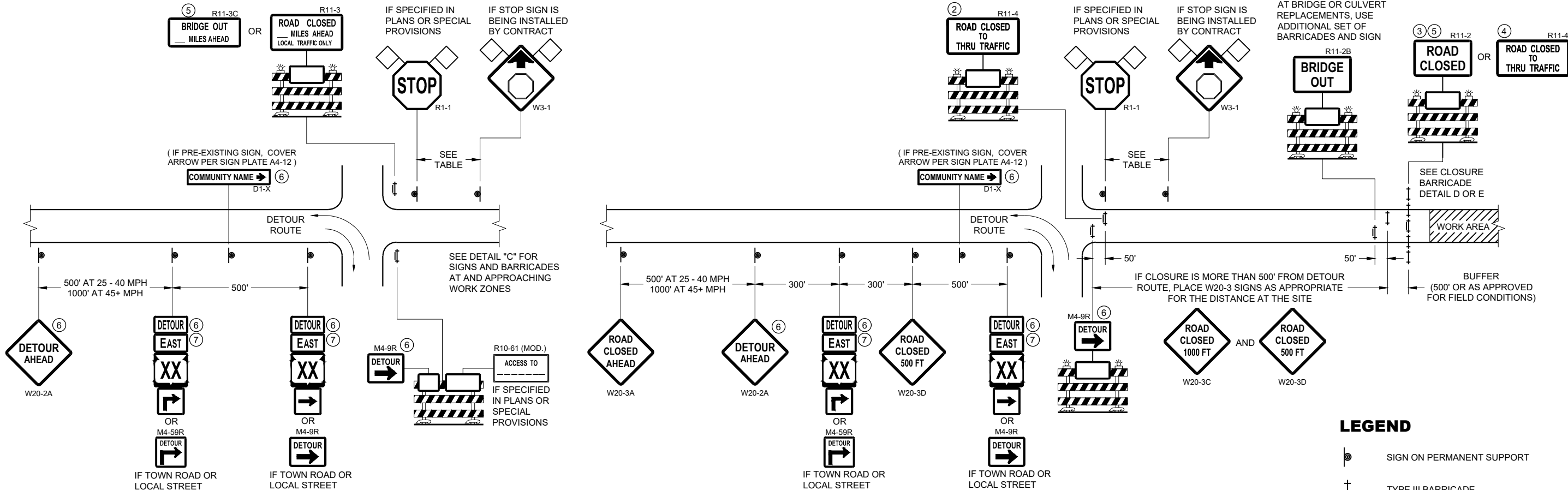


SECTION H-H

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

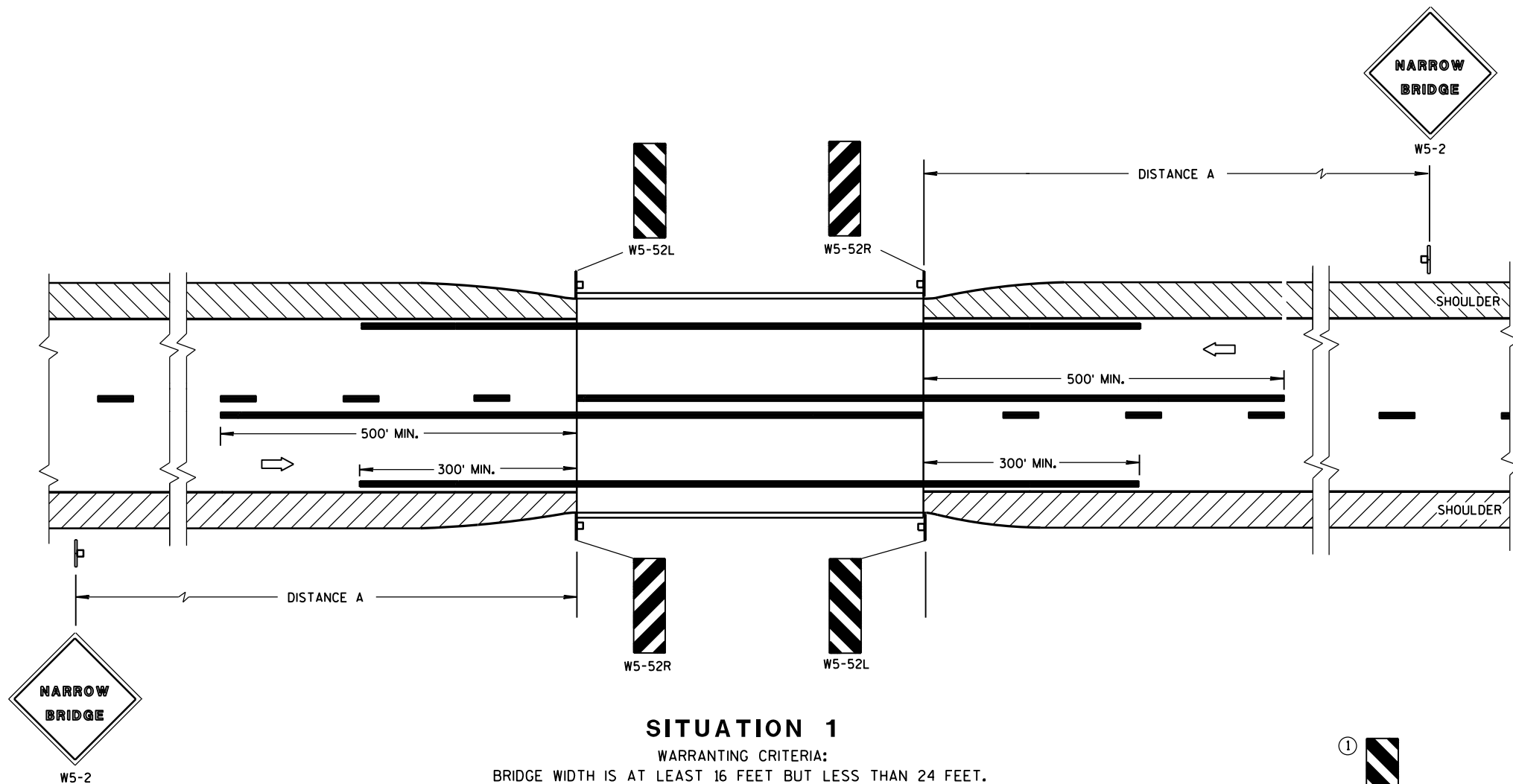
FHWA



GENERAL NOTES

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

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.



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

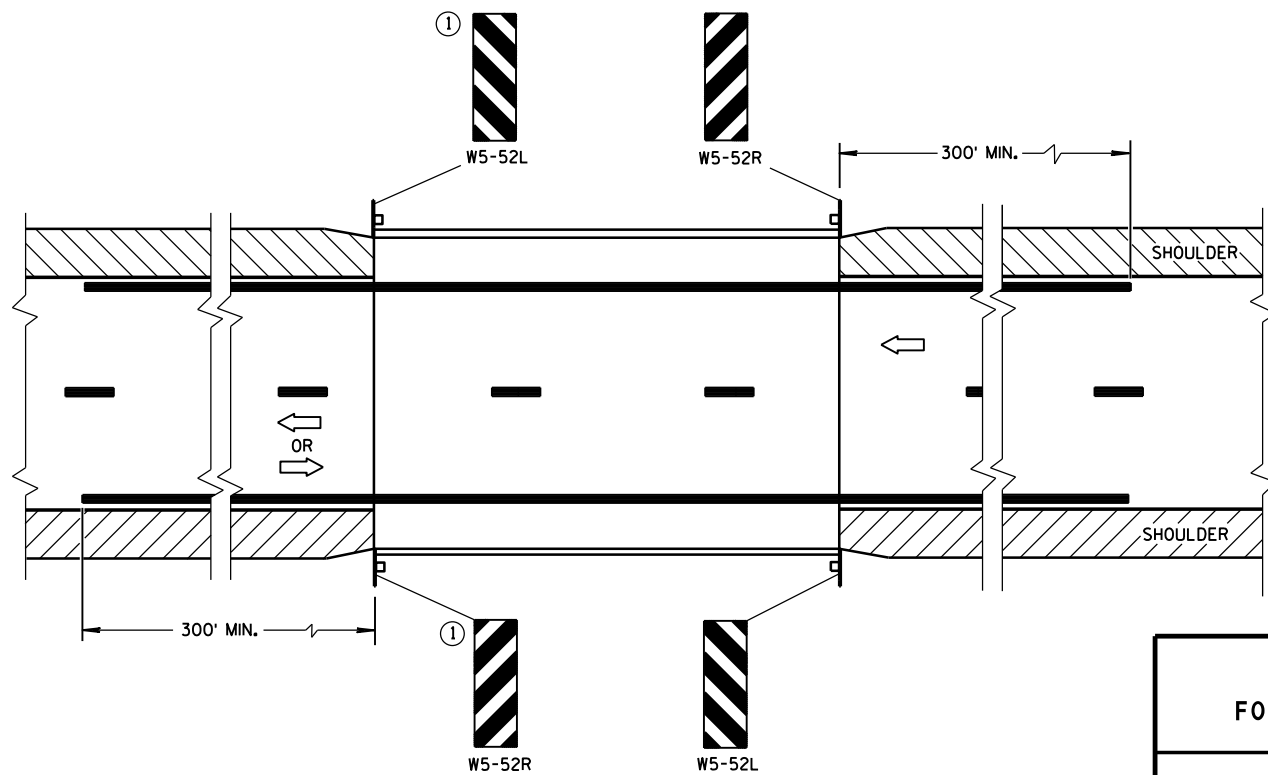
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

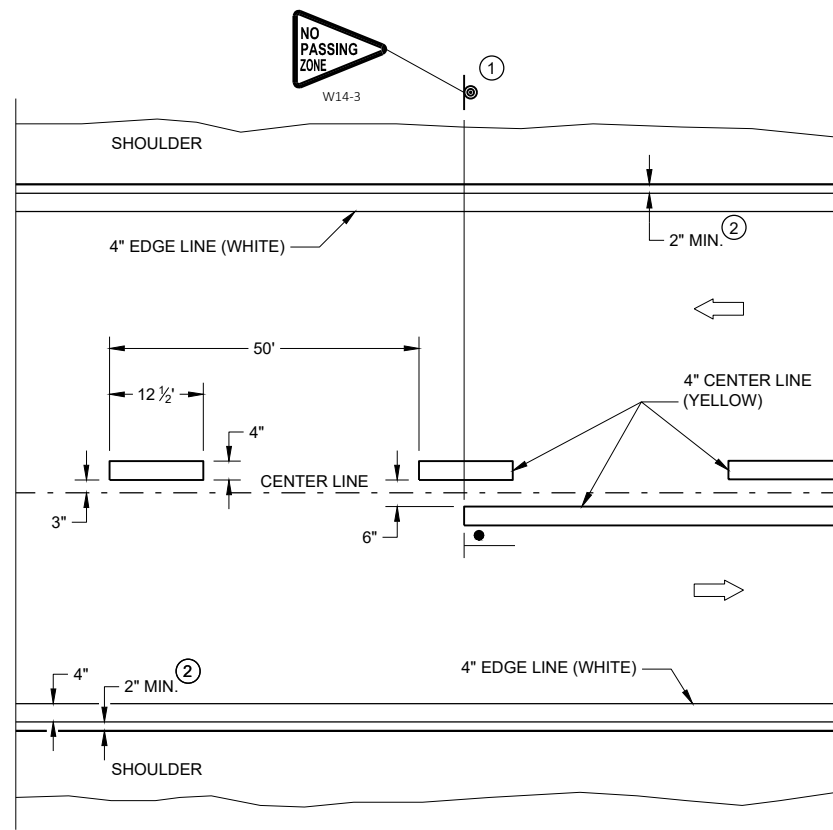
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

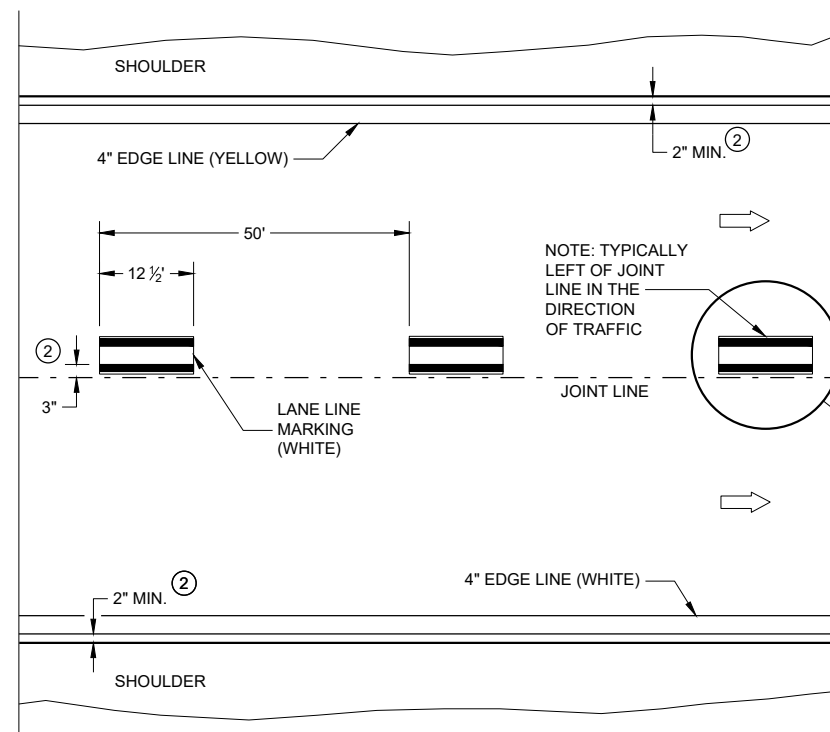
June 2017
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA

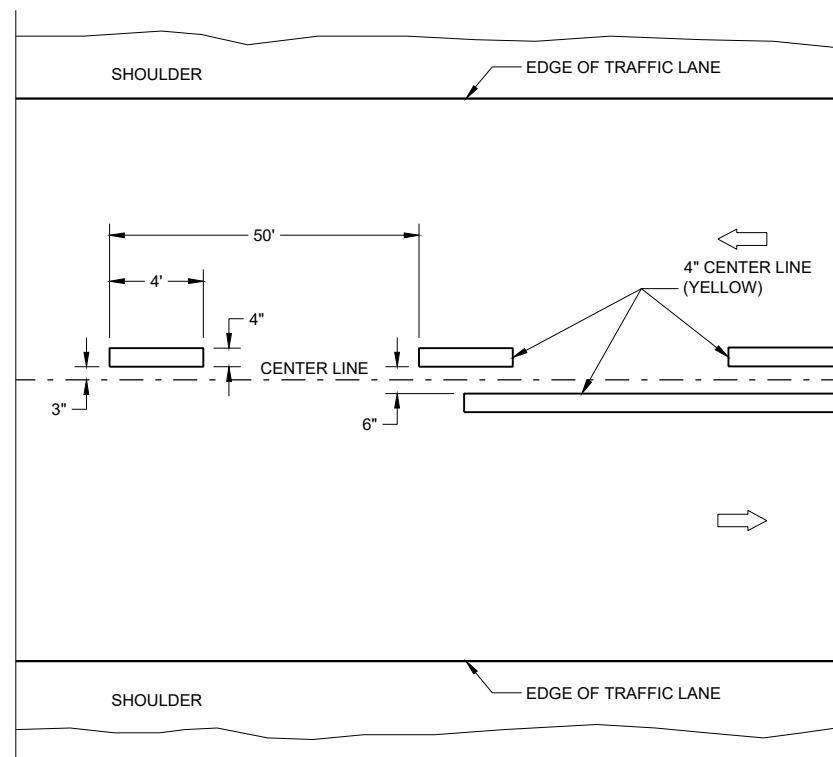


TWO WAY TRAFFIC

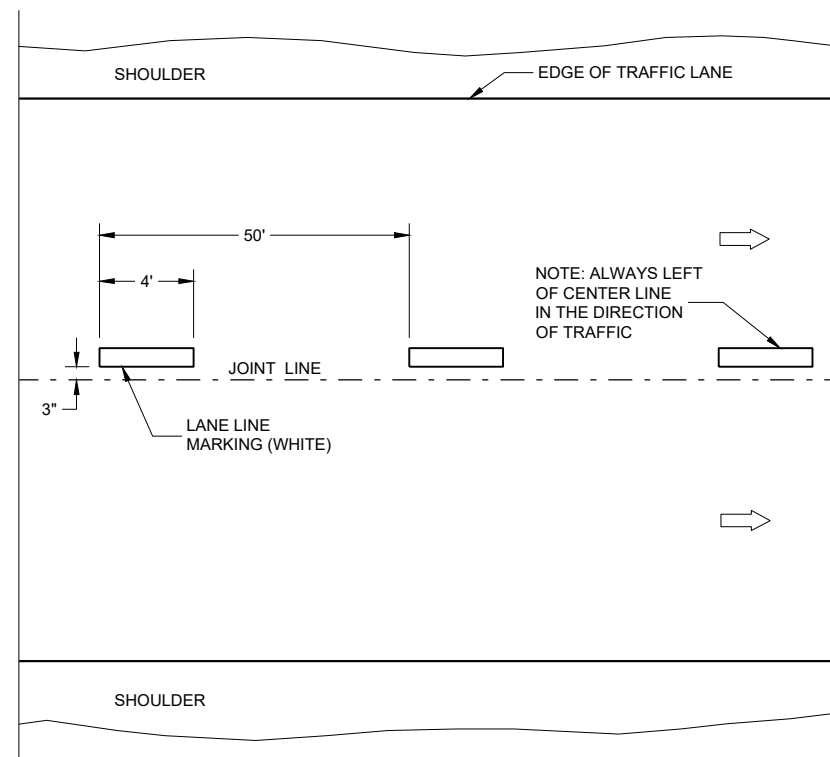


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC




TEMPORARY PAVEMENT MARKING

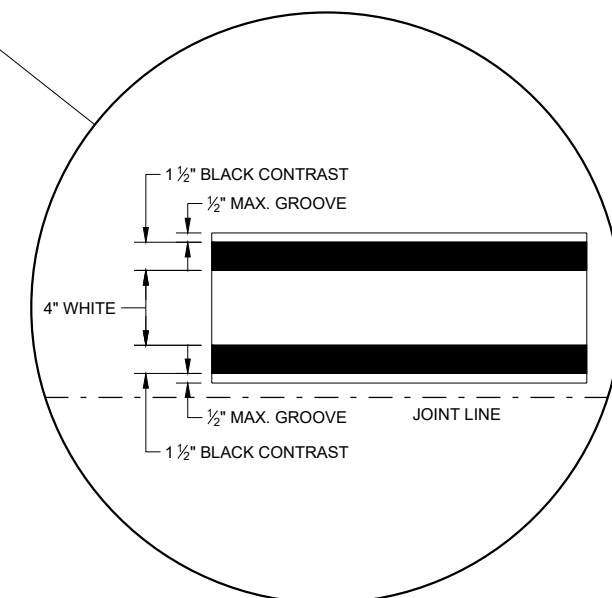
GENERAL NOTES

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 WITH 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

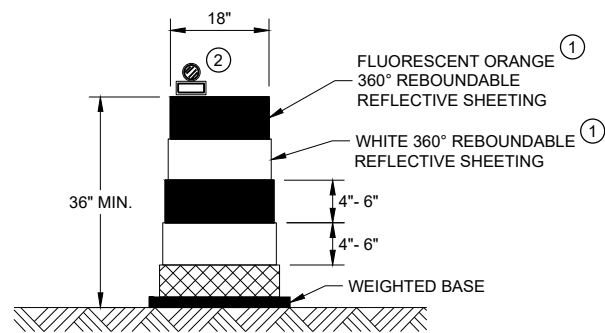


LONGITUDINAL MARKING (MAINLINE)

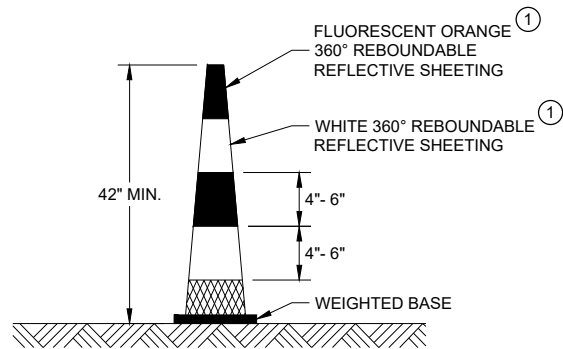
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Matthew Rauch
STATEWIDE SIGNING AND MARKING
ENGINEER

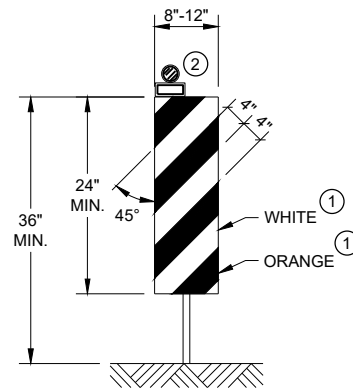


DRUM



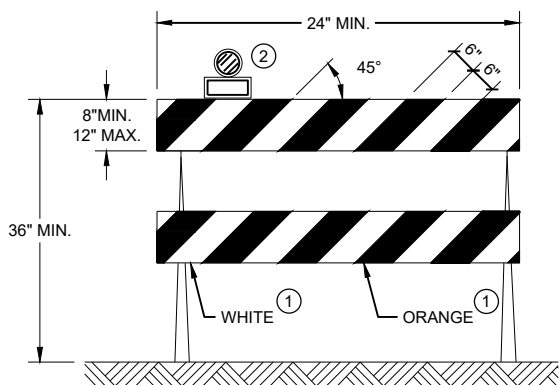
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



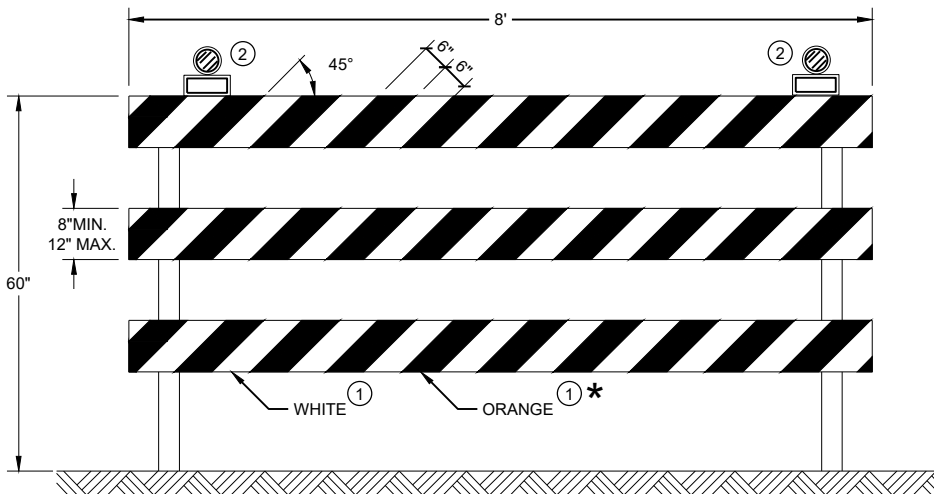
VERTICAL PANEL

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.

GENERAL NOTES

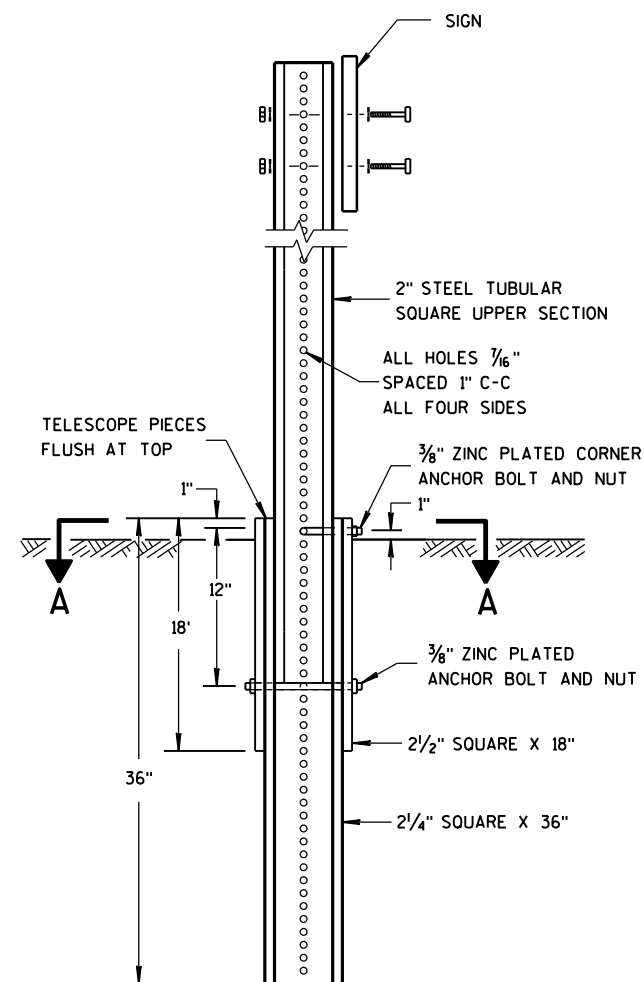
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



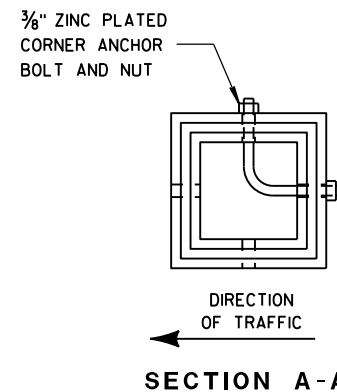
DETAIL OF TUBULAR
STEEL SIGN POST

TUBULAR STEEL POSTS

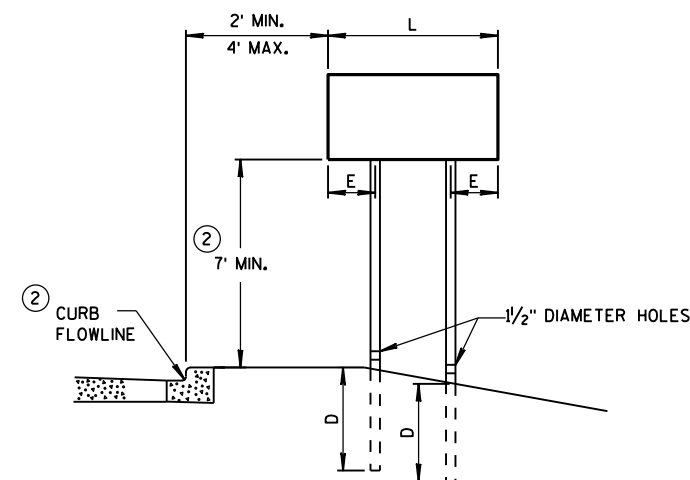
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL
BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED
ON TUBULAR STEEL POSTS.



SECTION A-A

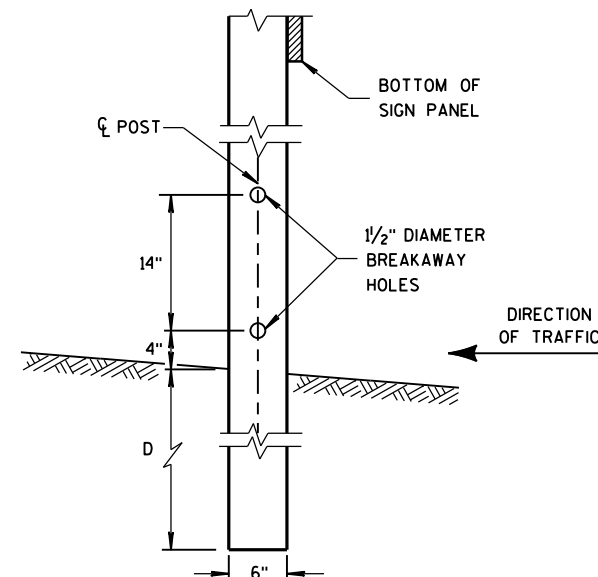


URBAN AREA

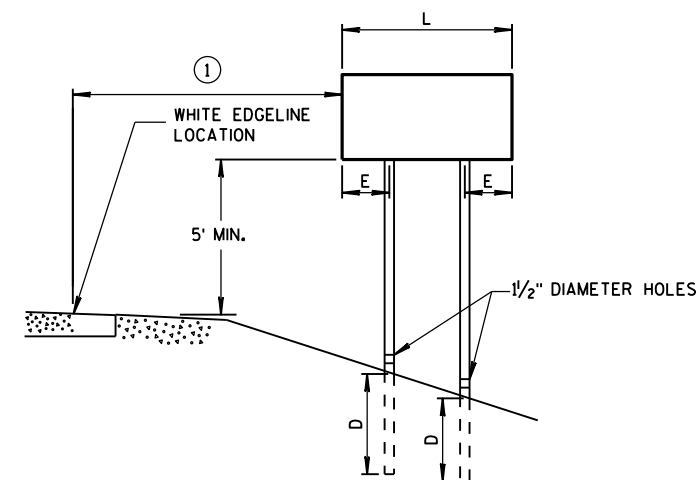
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST
EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4" X 6" WOOD POST
MODIFICATION



RURAL AREA

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

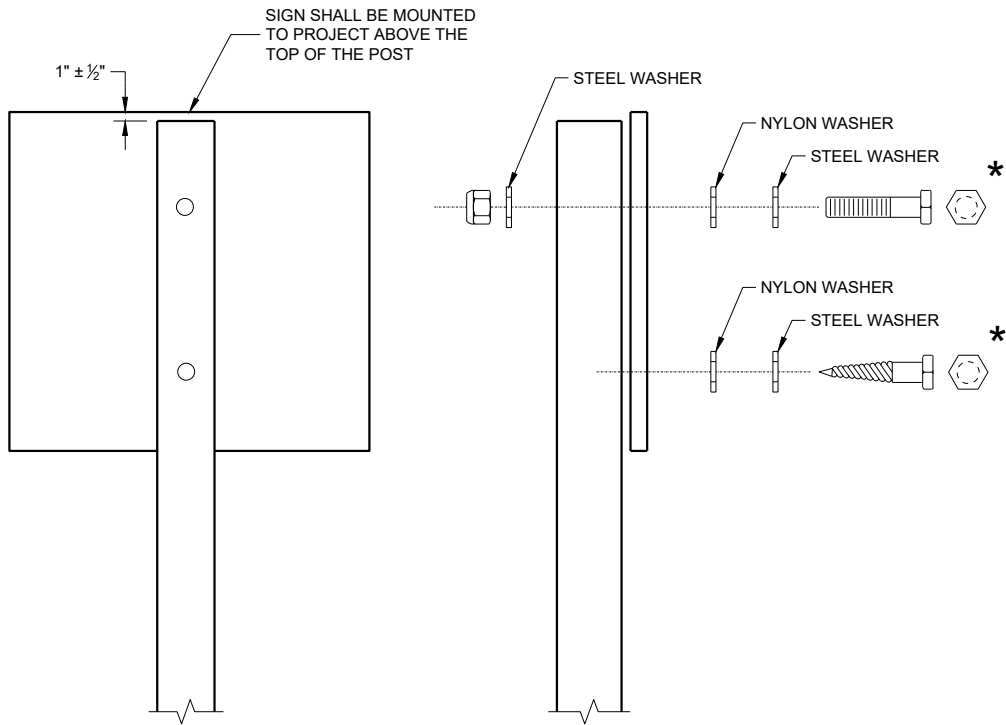
SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- 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. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL
SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POST (4" x 6")
LAG SCREWS - ¾" x 3"
MACHINE BOLTS - ⅝" x 6 ½" OR 7" LENGTH W/NUTS

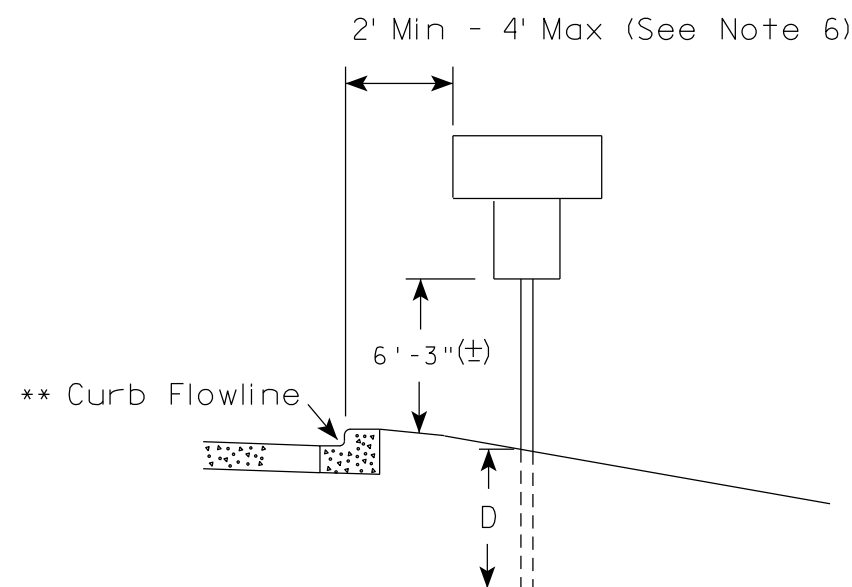
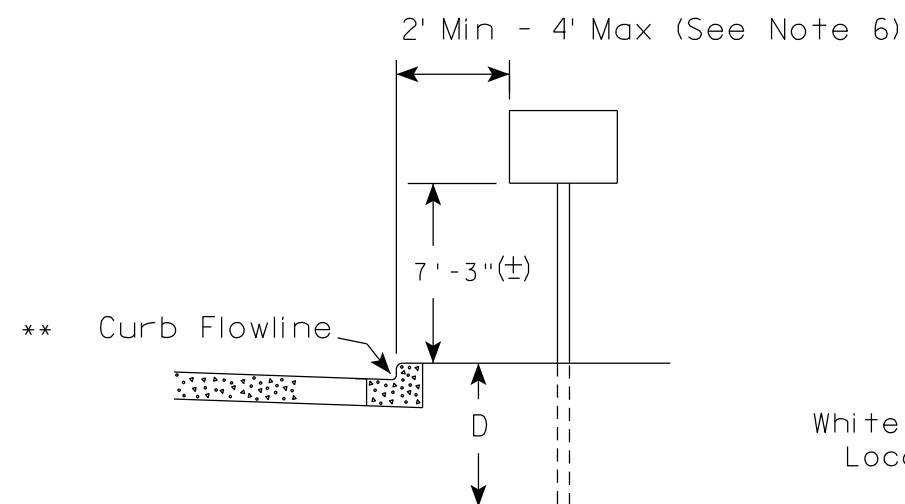
SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ¾" x 3 ¼" LENGTH W/NUTS
RIVETS - ⅝" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x ⅛" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

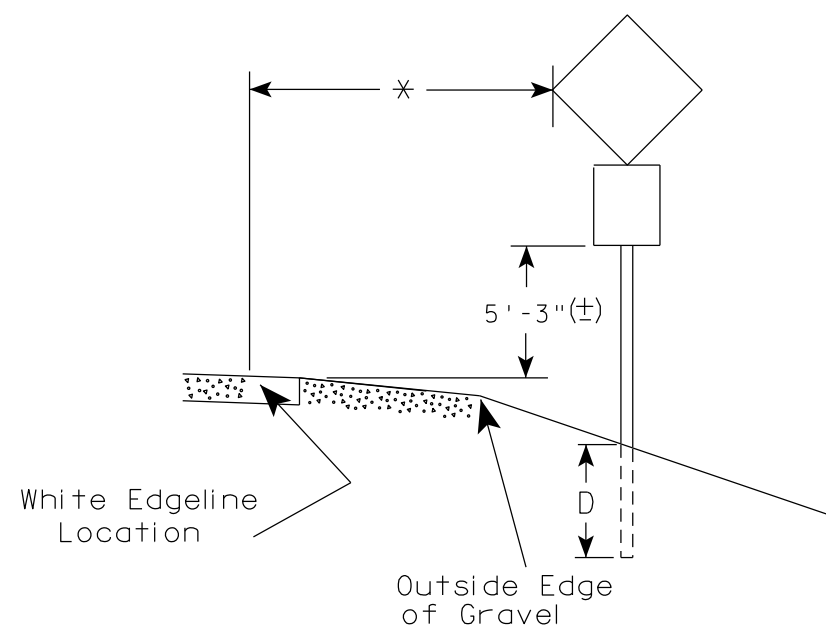
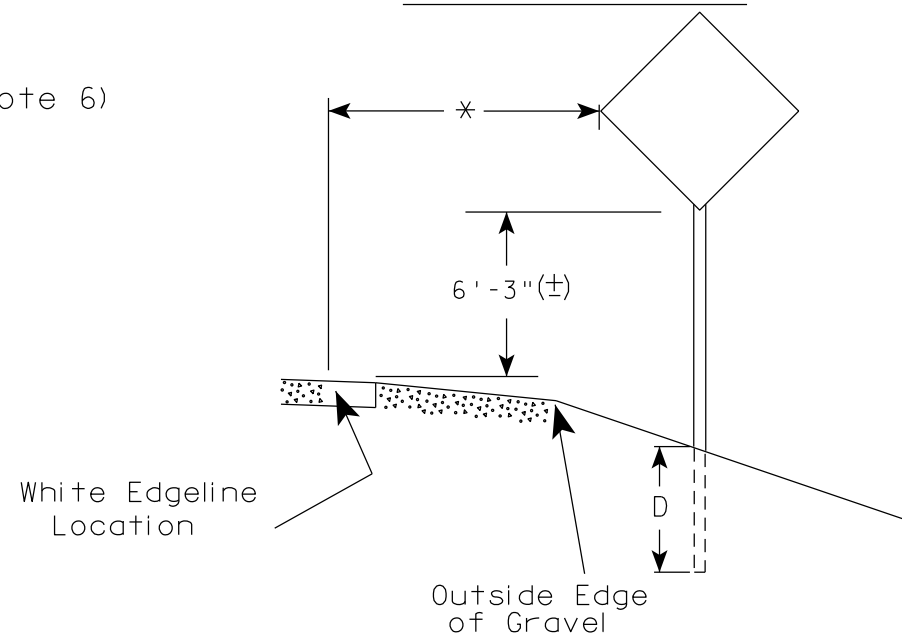
ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

URBAN AREA



✱✱ 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.

RURAL AREA (See Note 2)



✱ 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

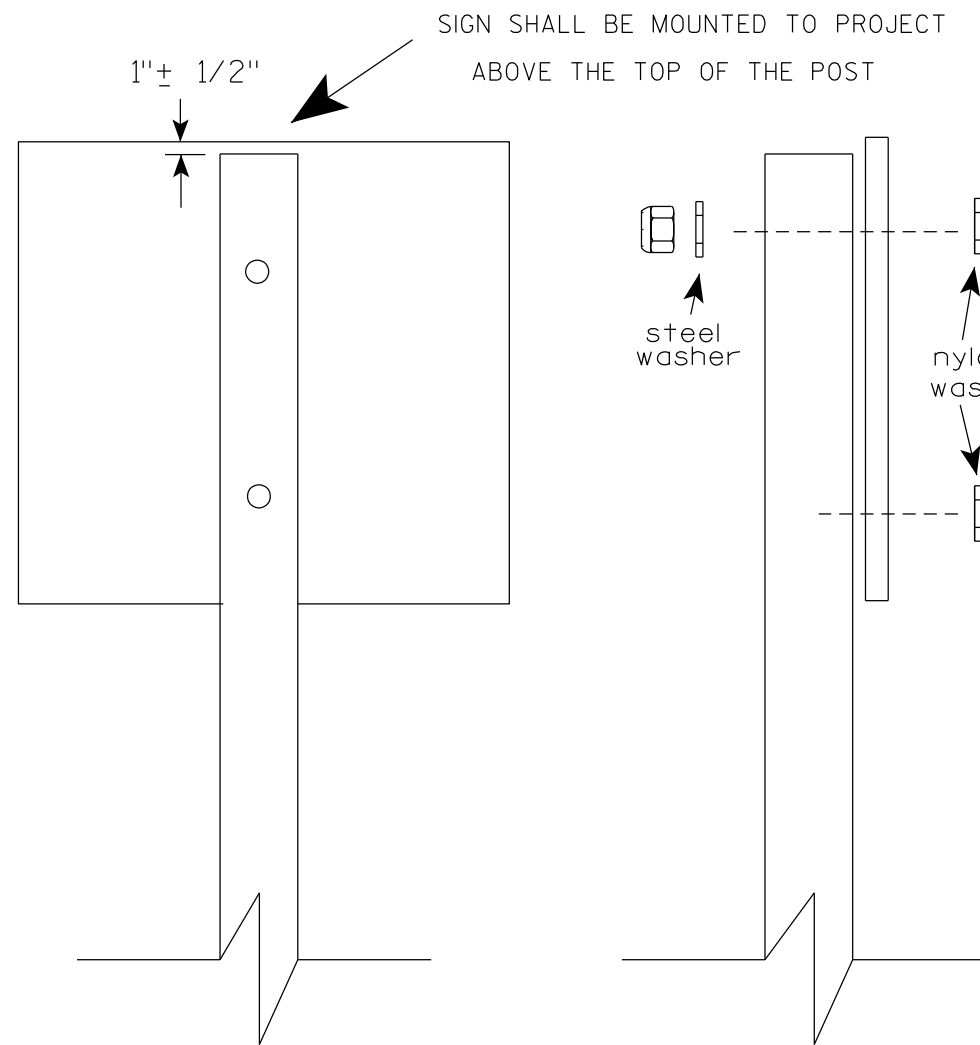
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (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 directed 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



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

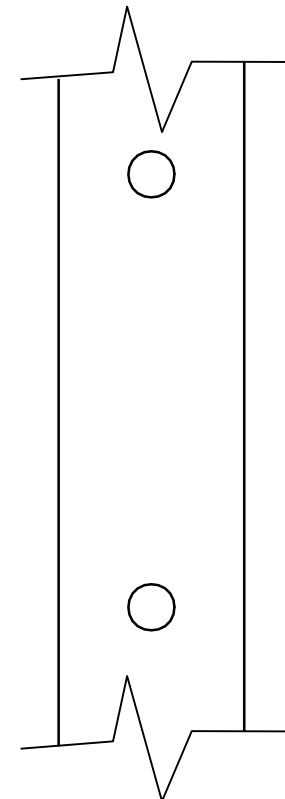
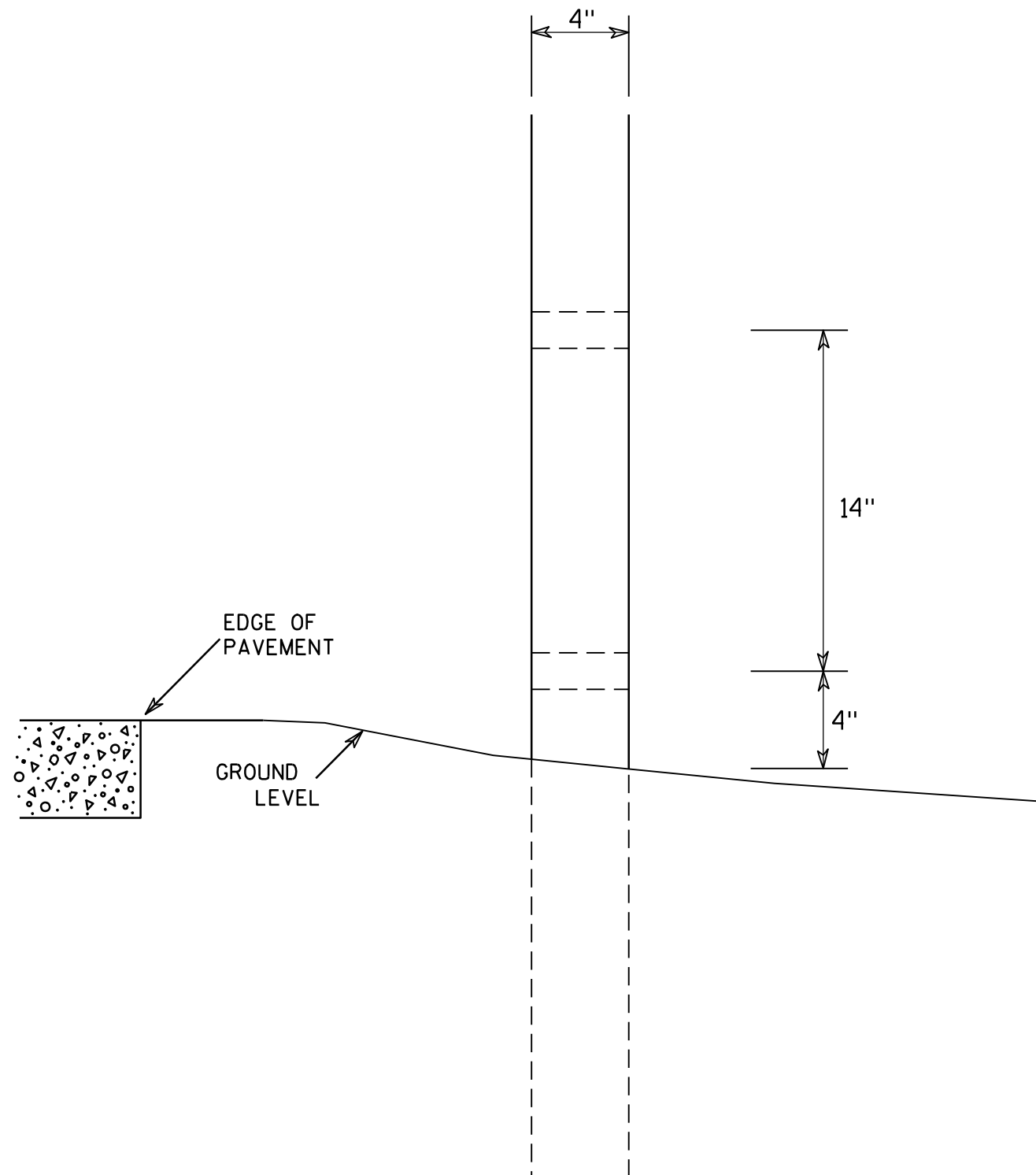
- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
- $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
- $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

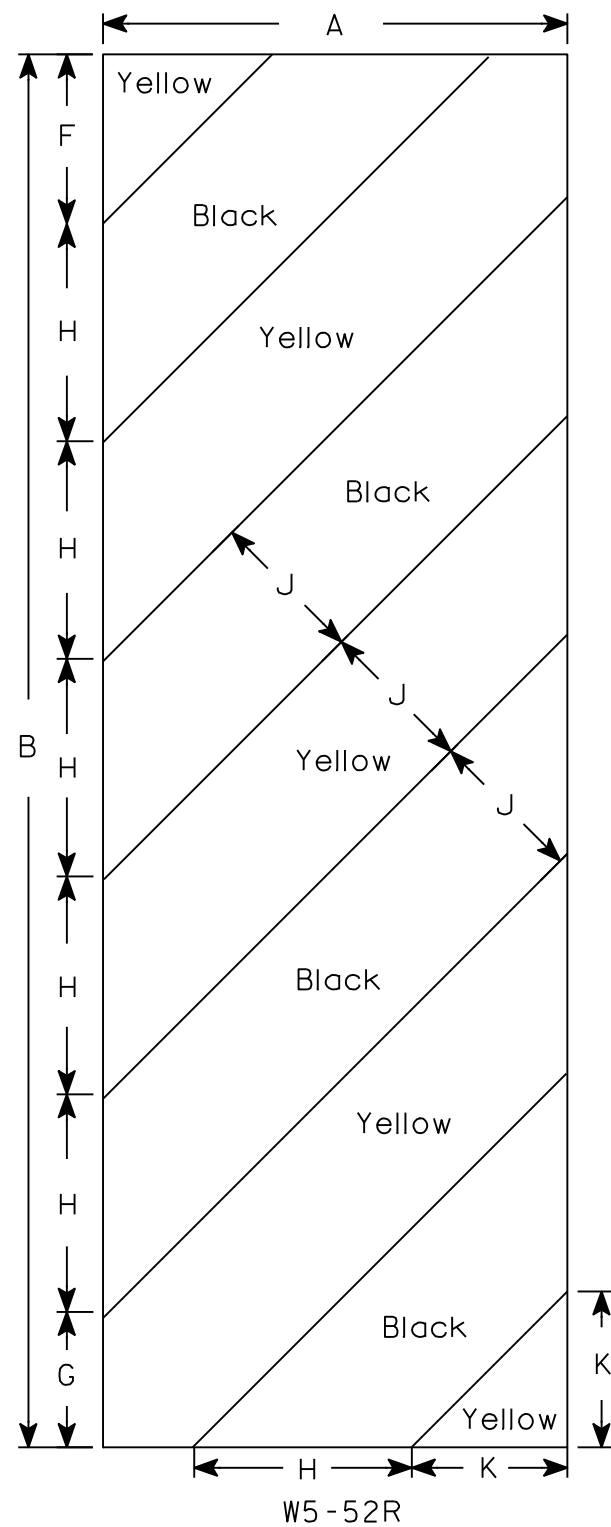
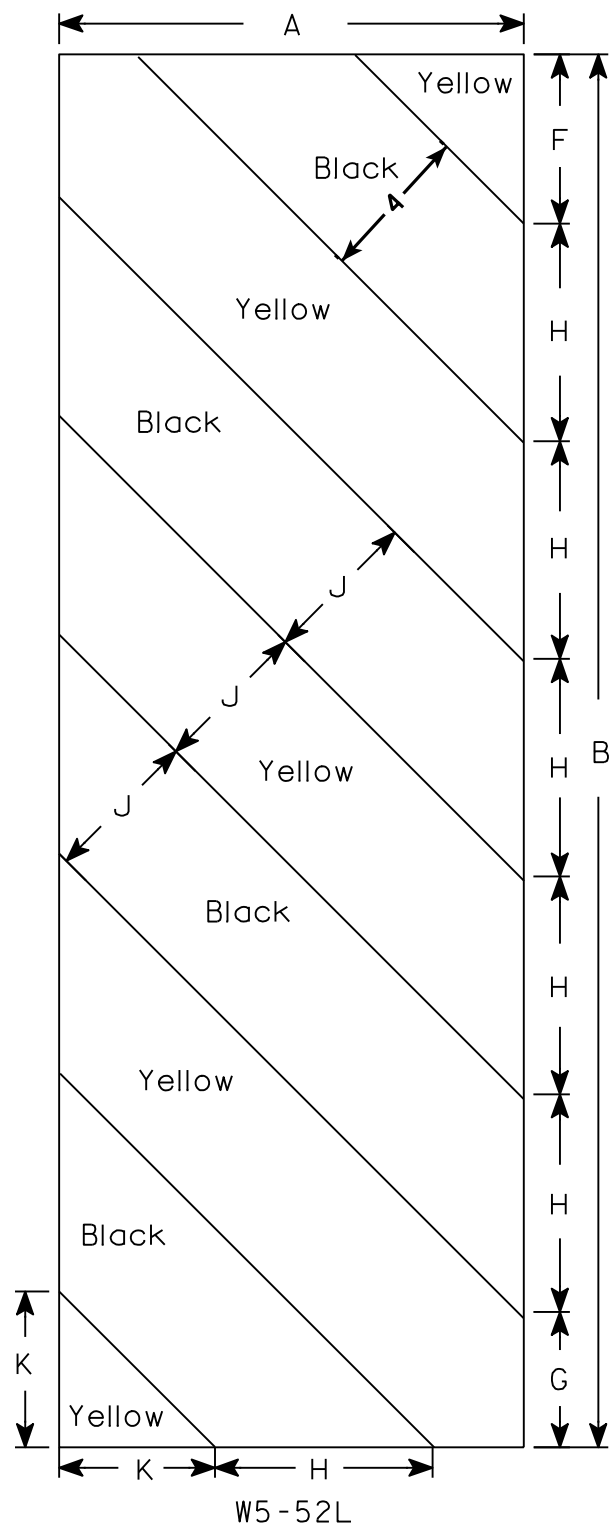
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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 5⁄16																6.75
4																											
5																											

STANDARD SIGN
W5-52L & W5-52R

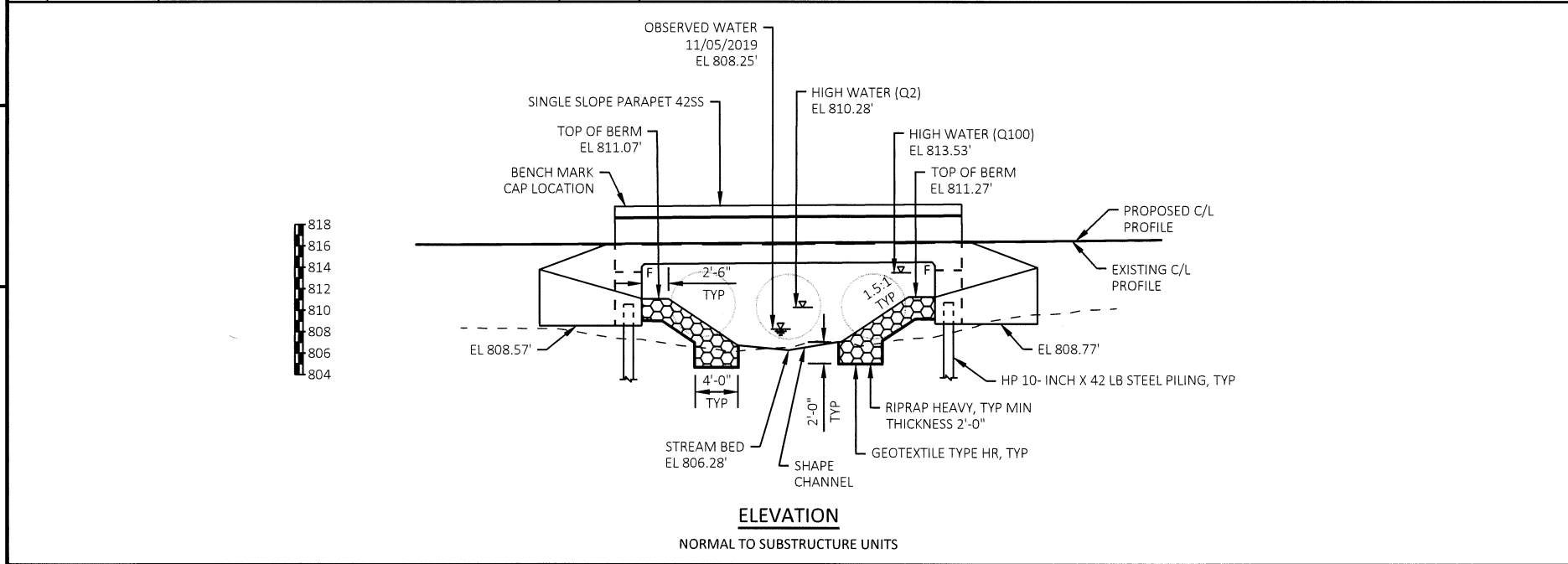
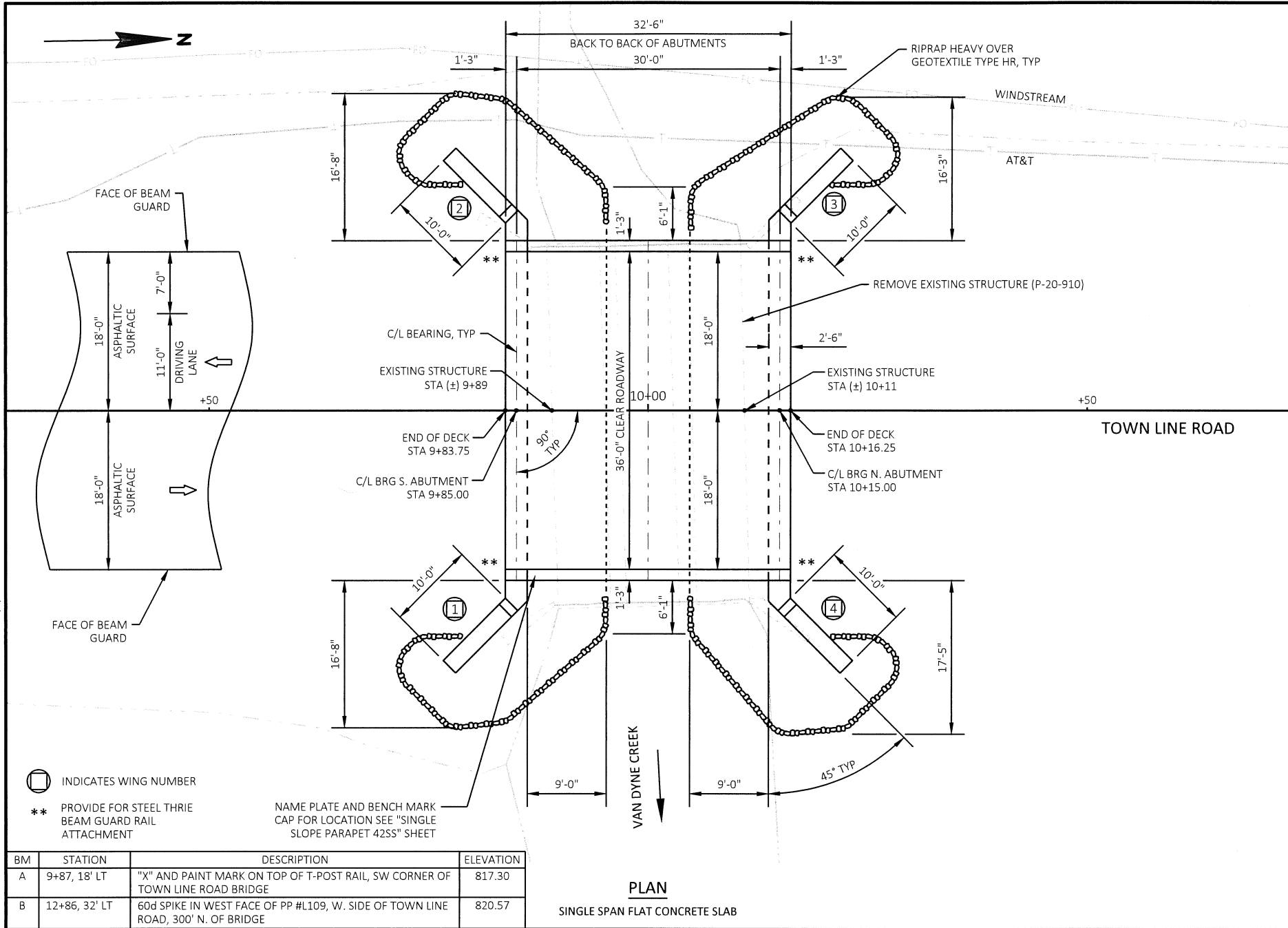
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

FILE NAME : S:\CURRPRO\FONDUDUC\ELDORADO, TOWN OF\TOWNLINE ROAD BRIDGE\CIVIL3D\TOWNLINERD\SHEETS\PLAN\38210100-080101-BR.DWG
PLOT BY : AARON SARAUER
PLOT DATE : 1/6/2021 11:04 AM
LAYOUT NAME - SHEET-01

8



GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL DIMENSIONS ARE IN INCHES (IN) EXCEPT AS NOTED.

ALL STATIONS AND ALL ELEVATIONS ARE IN FEET (FT).

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO NAVD88 (2012).

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

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

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 THIS SHEET AND ABUTMENT SHEETS.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION: M153, TYPE I, II OR III; OR M213.

THE EXISTING GROUND LINE AT THE ABUTMENTS SHALL BE THE UPPER LIMIT OF EXCAVATION FOR STRUCTURE.

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

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

THIS STRUCTURE WILL REPLACE (3) 72-INCH CORRUGATE METAL PIPE CULVERTS (P-20-910).

ALL REINFORCING BARS ARE ENGLISH AND THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE.

REMOVING EXISTING MASONRY HEADWALLS ARE INCIDENTAL TO BID ITEM "REMOVING OLD STRUCTURE STA 10+00".

SHAPING CHANNEL BOTTOM IS INCIDENTAL TO BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-20-244".

DESIGN DATA

DESIGN LOAD HL-93
INVENTORY RATING FACTOR RF=1.40
OPERATING RATING FACTOR RF=1.82
MAX STD PERMIT VEHICLE (WIS SPV) 250 KIPS

STRUCTURE WILL BE DESIGNED FOR A FUTURE WEARING SURFACE OF 20 LBS PER SQ FT

MATERIAL PROPERTIES

CONCRETE: SLAB $f'_c = 4,000$ psi
ALL OTHER $f'_c = 3,500$ psi

REINFORCING STEEL GRADE 60 $f_y = 60,000$ psi
STRUCTURAL STEEL GRADE 36 $f_y = 36,000$ psi

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10-INCH X 42 LB STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 110 TONS* PER PILE. AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED PILE LENGTH FOR SOUTH ABUTMENT IS 35 FT. ESTIMATED PILE LENGTH FOR NORTH ABUTMENT IS 35 FT.

HYDRAULIC DATA

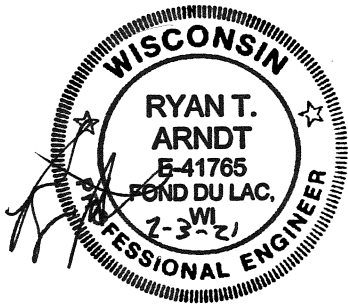
100 YEAR FREQUENCY
Q100 = 750 cfs
VELOCITY-THRU BRIDGE = 9.6 fps
HIGH WATER (Q100) = 813.53 ft
WATERWAY AREA-THRU BRIDGE = 78 ft²
DRAINAGE AREA = 4.9 mi²
OVERTOPPING FREQUENCY = N/A
SCOUR CRITICAL CODE = 5
2 YEAR FREQUENCY
Q2 = 200 cfs
VELOCITY-THRU BRIDGE = 7.5 fps
HIGH WATER (Q2) = 810.28 ft

TRAFFIC DATA

(TOWN LINE ROAD)
ADT (2021) 260 vpd
ADT (2041) 320 vpd
V 55 MPH

STATE PROJECT NUMBER

3821-01-71



LIST OF DRAWINGS

- GENERAL PLAN
- QUANTITIES AND CROSS SECTION
- SUBSURFACE EXPLORATION
- ABUTMENT
- ABUTMENT DETAILS
- SUPERSTRUCTURE
- SUPERSTRUCTURE DETAILS
- SINGLE SLOPE PARAPET 42SS

BRIDGE OFFICE CONTACT:

AARON BONK 608-261-0261

CONSULTANT CONTACT:

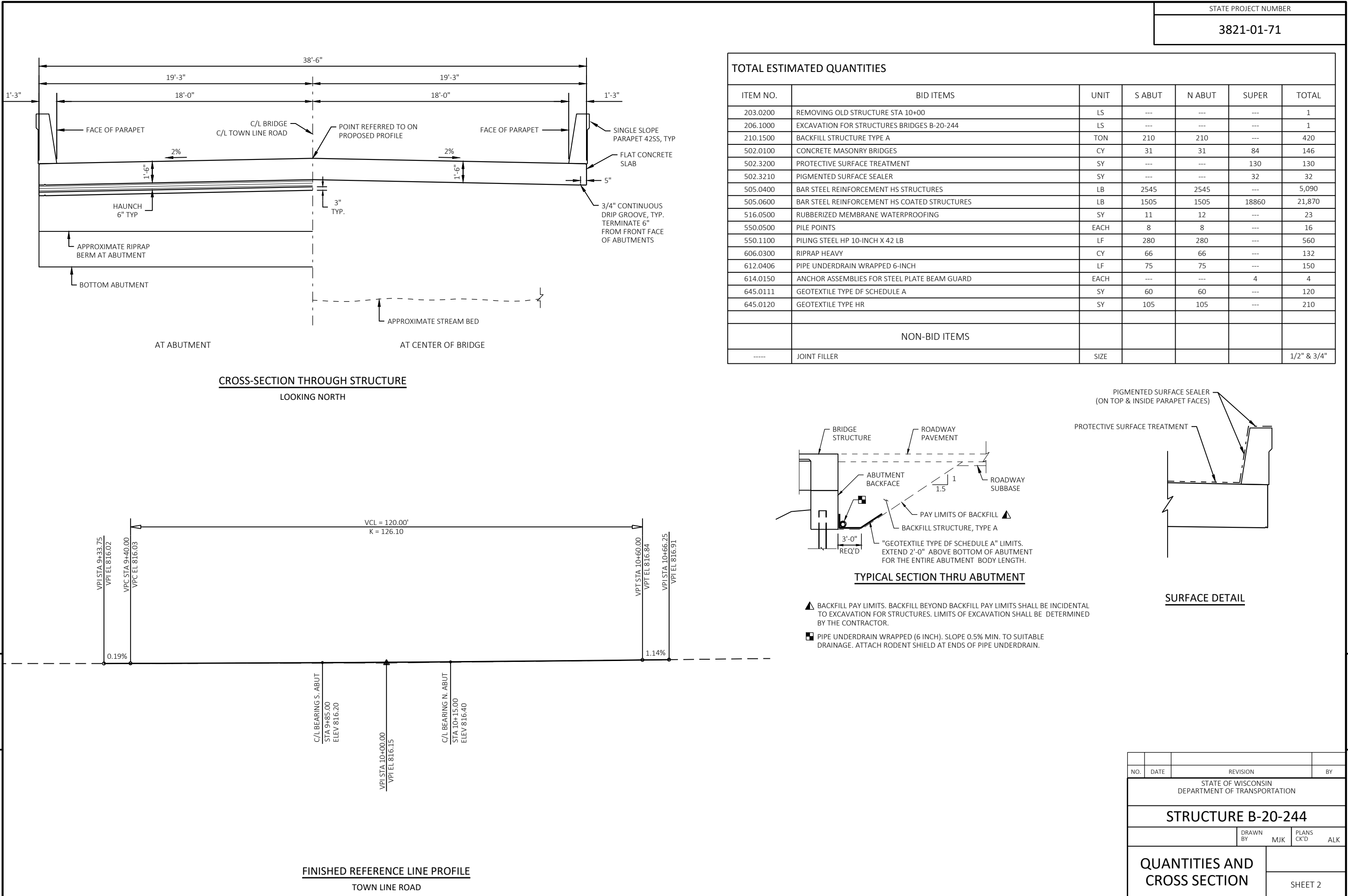
THOMAS LANSE 920-924-5720

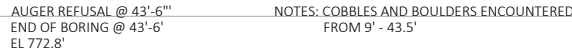
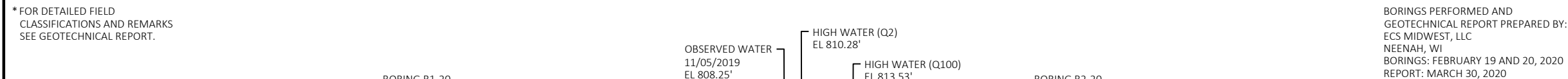
NO.	DATE	REVISION	BY
 Stevens Point • Fond du Lac			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED		SDR 02/09/21	DATE
STRUCTURE B-20-244			
TOWN LINE ROAD OVER VAN DYNE CREEK			
COUNTY	FOND DU LAC	TOWN/VILLAGE	ELDORADO
DESIGN SPEC AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	RTA	DESIGN CK'D	ALK
DRAWN BY	MIJ	PLANS CK'D	ALK
GENERAL PLAN			SHEET 1 OF 8

8

FILE NAME : S:\CURRPROJ\FONDDUCOE\ELDORADO, TOWN OF\TOWN LINE ROAD BRIDGE\CV\13D\TOWN LINE RD\38210100-080102-BR.DWG
PLOT BY : AARON SARAUER
PLOT DATE : 2/1/2021 11:26 AM
LAYOUT NAME - SHEET-02

8





BORING NO.
STA/OFFSET
ELEV

ST




(1) 3.50
(2) X

▽

F-C
COBBLE OR BOULDER

WEATHERED LIMESTONE

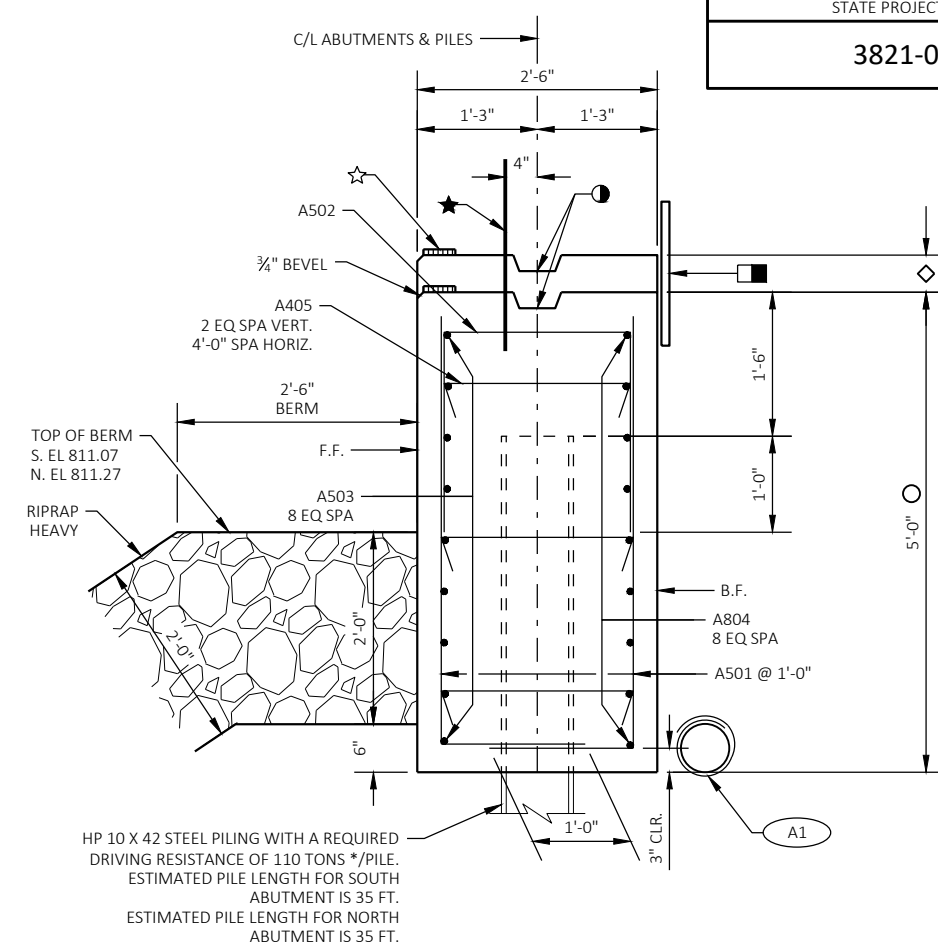
CORE RUN #1 - 24'-29"
REC=80%, RQD=72%

- ### GROUND WATER ELEVATION
- | | |
|---|---------------------|
|  | AT TIME OF DRILLING |
|  | END OF DRILLING |
|  | AFTER DRILLING |

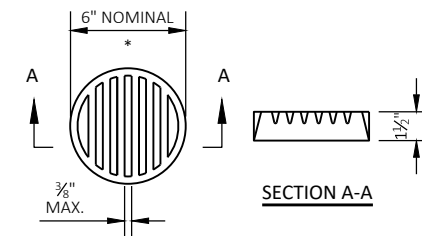
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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-20-244			
		DRAWN BY	PLANS CK'D
		MJK	ALK
SUBSURFACE EXPLORATION			
		SHEET 3	



TYPE A5 WITH
FIXED SEAT



* 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 UNPERFORATED".

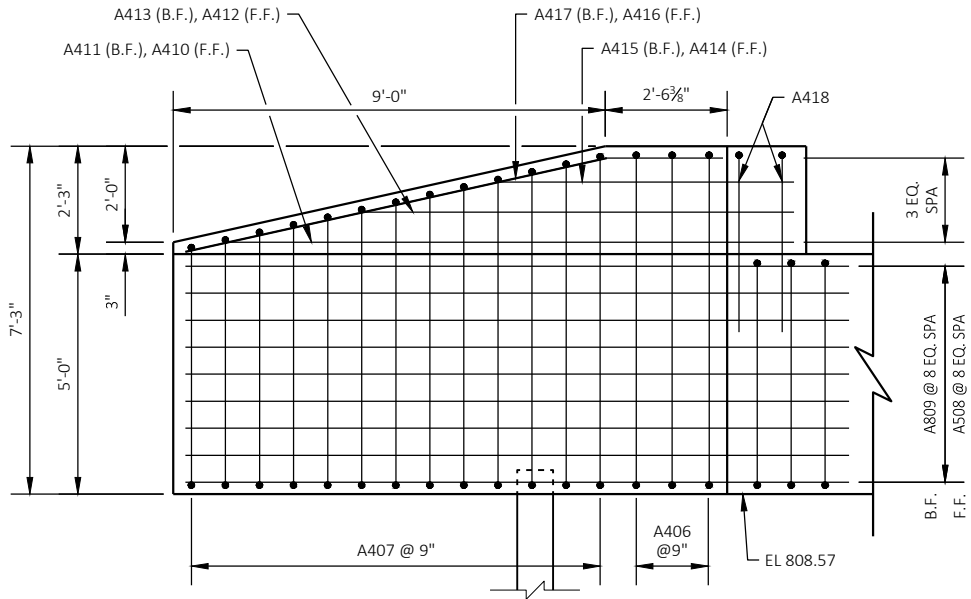
THE RODENT SHIELD SHALL BE PVC GRATE SIMILAR TO THIS
DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR
STRAINER. A PIPE COUPLING IS REQUIRED FOR THE
ATTACHMENT OF THIS SCREEN TO THE EXPOSED END OF THE
UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE
COUPLING WITH TWO OR MORE NO. 10 X 1-INCH SHEET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

RODENT SHIELD DETAIL

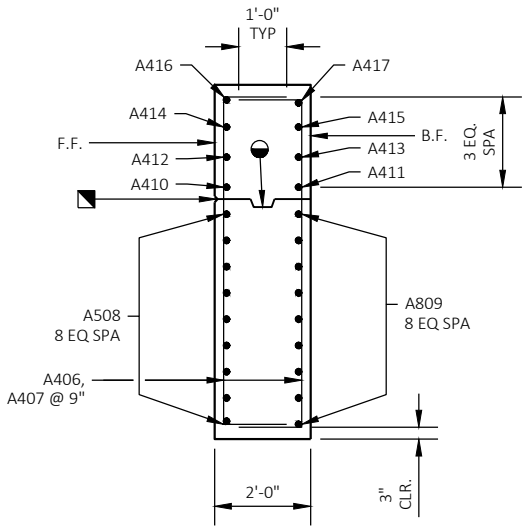
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-20-244			
	DRAWN BY	MJK	PLANS CK'D ALK
ABUTMENTS			
		SHEET 4	

LEGEND

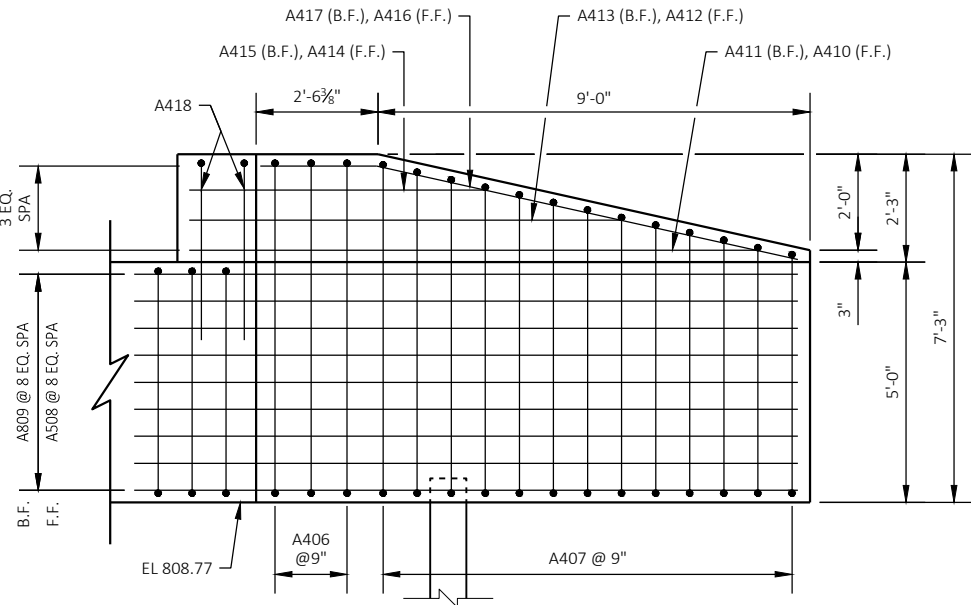
- ① INDICATES WING NUMBER
- ① INDICATES PILE NUMBER
- F.F. FRONT FACE
- B.F. BACK FACE
- RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND CONTINUOUS BETWEEN CORNERS AND FROM SEAT TO TOP OF WINGS, TO BE PLACED FLUSH WITH SURFACE OF CONCRETE.
- ▲ ½" FILLER TO EXTEND FROM TOP OF ABUTMENT BODY TO TOP OF WINGS, SEAL ALL EXPOSED SURFACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER (1" DEEP & HOLD ⅝" BELOW SURFACE OF CONC.).
- CONSTRUCTION JOINT KEYWAY FORMED WITH A SURFACED BEVELED 2"X6".
- ★ A519 BARS COATED AT 1'-0" (2'-0" LONG). THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.
- ☆ 4" X ¾" PREFORMED FILLER.
- DIMENSION IS FROM BOTTOM OF ABUTMENT TO LOW BEAM SEAT OR LOW SIDE OF SLAB TYPE SUPERSTRUCTURE.
- ◇ VARIES 0" - 4 ⅝" ADJUST HEIGHT OF A502 AND TOP A503, A804 BARS TO MATCH ABUTMENT SLOPE.
- A1 PIPE UNDERDRAIN WRAPPED, 6 INCH, SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH PERMANENT PLUG ON UPSTREAM END. ATTACH RODENT SHIELD AT OUTLET END AS DETAILED ON SHEET 6. RODENT SHIELD AND PERMANENT PLUG TO BE INCLUDED IN BID PRICE FOR "PIPE UNDERDRAIN WRAPPED 6-INCH"
- FOR PILE SPLICE DETAIL SEE SHEET 5.



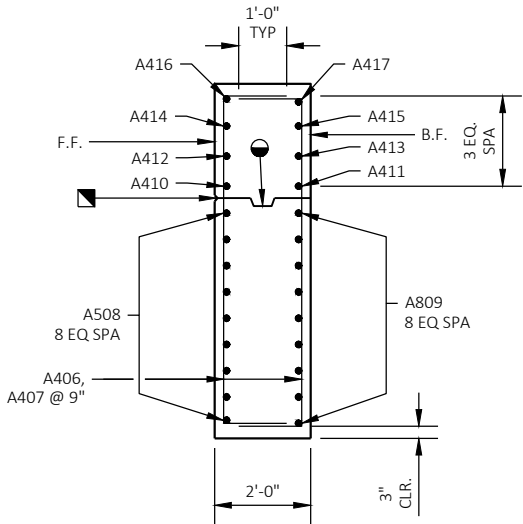
WINGS 1 & 2 ELEVATION



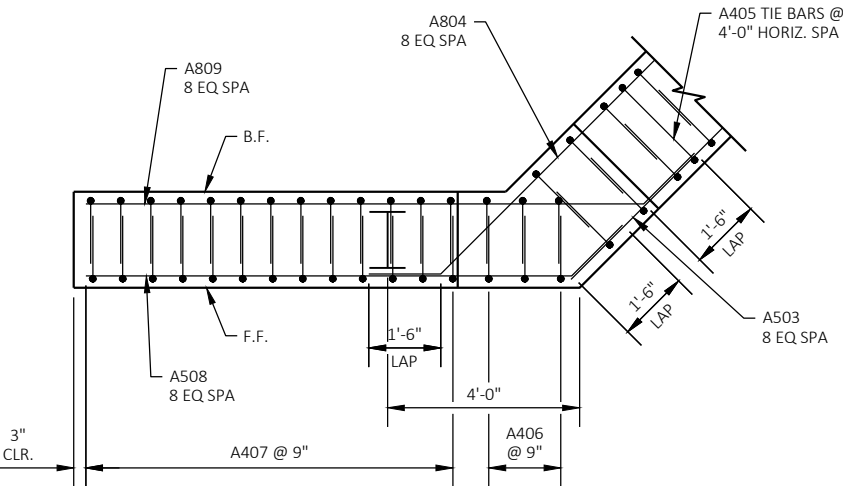
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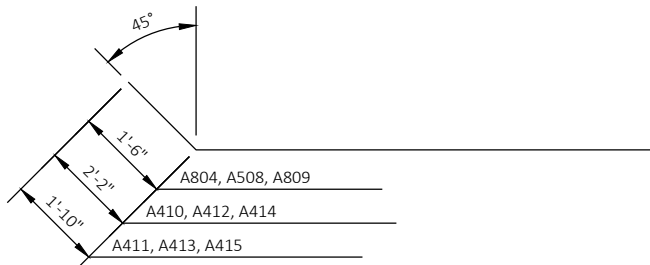
WINGS 3 & 4 ELEVATION



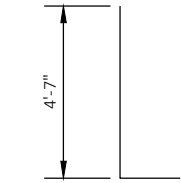
WINGS 3 & 4 SECTION



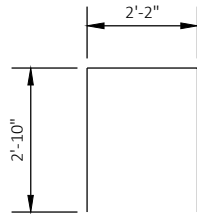
PLAN - WINGS



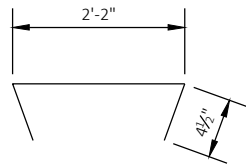
A804, A508, A809, A410, A411, A412, A413, A414, A415, A416, A417



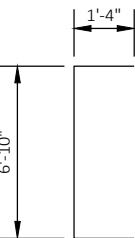
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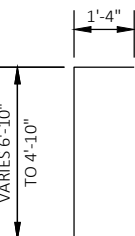
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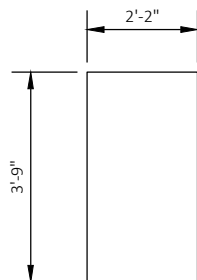
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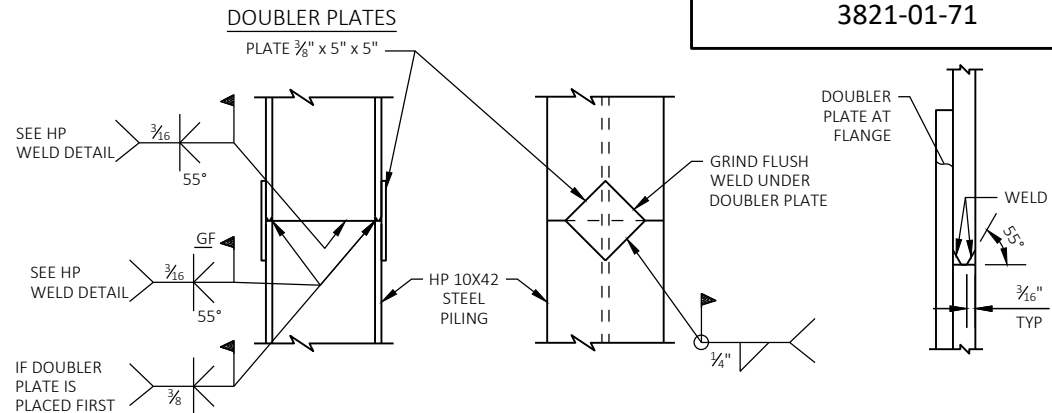
A406



A407



A418



STEEL 'HP' SHAPES

HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

BILL OF BARS - ABUTMENTS

BAR MARK	COAT	NUMBER REQUIRED	LENGTH	BENT	BAR SERIES	LOCATION
A501		172	6'-3"	X		BODY - VERTICAL - STIRRUPS
A502		86	7'-8"	X		BODY - VERTICAL - STIRRUPS - TOP
A503		36	22'-8"			BODY - HORIZONTAL - F.F.
A804		36	23'-10"			BODY - HORIZONTAL - B.F.
A405		72	2'-9"	X		BODY - TIES
A406	X	24	9'-4"	X		WINGS - VERTICAL AT BODY
A407	X	104	8'-4"	X	X	WINGS - VERTICAL - STIRRUPS
A508	X	36	12'-9"	X		LOWER WINGS - HORIZONTAL - F.F.
A809	X	36	14'-5"	X		LOWER WINGS - HORIZONTAL - B.F.
A410	X	4	13'-0"	X		UPPER WINGS - HORIZONTAL - F.F.
A411	X	4	11'-3"	X		UPPER WINGS - HORIZONTAL - B.F.
A412	X	4	10'-1"	X		UPPER WINGS - HORIZONTAL - F.F.
A413	X	4	8'-5"	X		UPPER WINGS - HORIZONTAL - B.F.
A414	X	4	7'-2"	X		UPPER WINGS - HORIZONTAL - F.F.
A415	X	4	5'-6"	X		UPPER WINGS - HORIZONTAL - B.F.
A416	X	4	11'-2"	*		UPPER WINGS - HORIZONTAL - TOP - F.F.
A417	X	4	9'-9"	*		UPPER WINGS - HORIZONTAL - TOP - B.F.
A418	X	8	9'-6"	X		UPPER WINGS - VERTICAL - OVER ABUT BODY
A519	X	76	2'-0"			BODY - DOWELS

* AN ADDITIONAL FIELD BEND WILL BE REQUIRED TO FIT THESE BARS IN THE WINGS, OVER THE ABUTMENT BODY

BAR SERIES -

BAR MARK	NUMBER REQUIRED	LENGTH
A407	8 SERIES OF 13	9'-4" TO 7'-4"

NOTES:

- THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.
- BAR DIMENSIONS ARE OUT TO OUT OF BAR.
- FILL/EXCAVATE TO BOTTOM OF FOOTING ELEVATION BEFORE DRIVING PILING.

LEGEND

- F.F. FRONT FACE
- B.F. BACK FACE
- 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND CONTINUOUS BETWEEN CORNERS AND FROM SEAT TO TOP OF WINGS, TO BE PLACED FLUSH WITH SURFACE OF CONCRETE.
- 1/2" FILLER TO EXTEND FROM TOP OF ABUTMENT BODY TO TOP OF WINGS, SEAL ALL EXPOSED SURFACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER (1" DEEP & HOLD 1/2" BELOW SURFACE OF CONC.).
- CONSTRUCTION JOINT KEYWAY FORMED WITH A SURFACED BEVELED 2"x6".
- 3/4" 'V' GROOVE ON F.F. OF WING WALL.
- LENGTH SHOWN FOR BARS IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTH.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-20-244			
DRAWN BY		MJK	PLANS CK'D ALK
ABUTMENT DETAILS			SHEET 5

FILE NAME : S:\CURRPROJ\FONDUCO\ELDORADO, TOWN OF\TOWNLINE ROAD BRIDGE\CIVIL3D\TOWNLINERD\SHEETS\PLAN\38210100-080104-BR.DWG
PLOT DATE : 2/1/2021 12:18 PM
PLOT BY : AARON SARAUER
LAYOUT NAME - SHEET-06

STATE PROJECT NUMBER

3821-01-71

GENERAL NOTES:

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

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE C/L OF THE SUBSTRUCTURE UNITS.

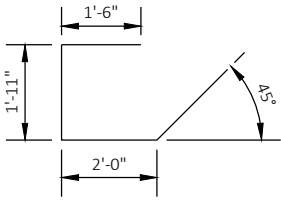
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

BILL OF BARS - SUPERSTRUCTURE

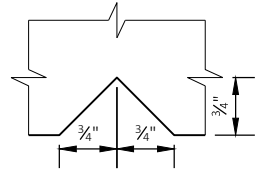
BAR MARK	COAT	NUMBER REQUIRED	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	78	7'-3"	X		AT END OF DECK
S902	X	92	32'-2"			DECK - BOTTOM - LONGITUDINAL
S603	X	41	38'-2"			DECK - BOTTOM - TRANSVERSE
S604	X	39	32'-2"			DECK - TOP - LONGITUDINAL
S605	X	33	38'-2"			DECK - TOP - TRANSVERSE
S506	X	66	5'-0"			DECK - TOP - PARAPET REINFORCEMENT

NOTES:

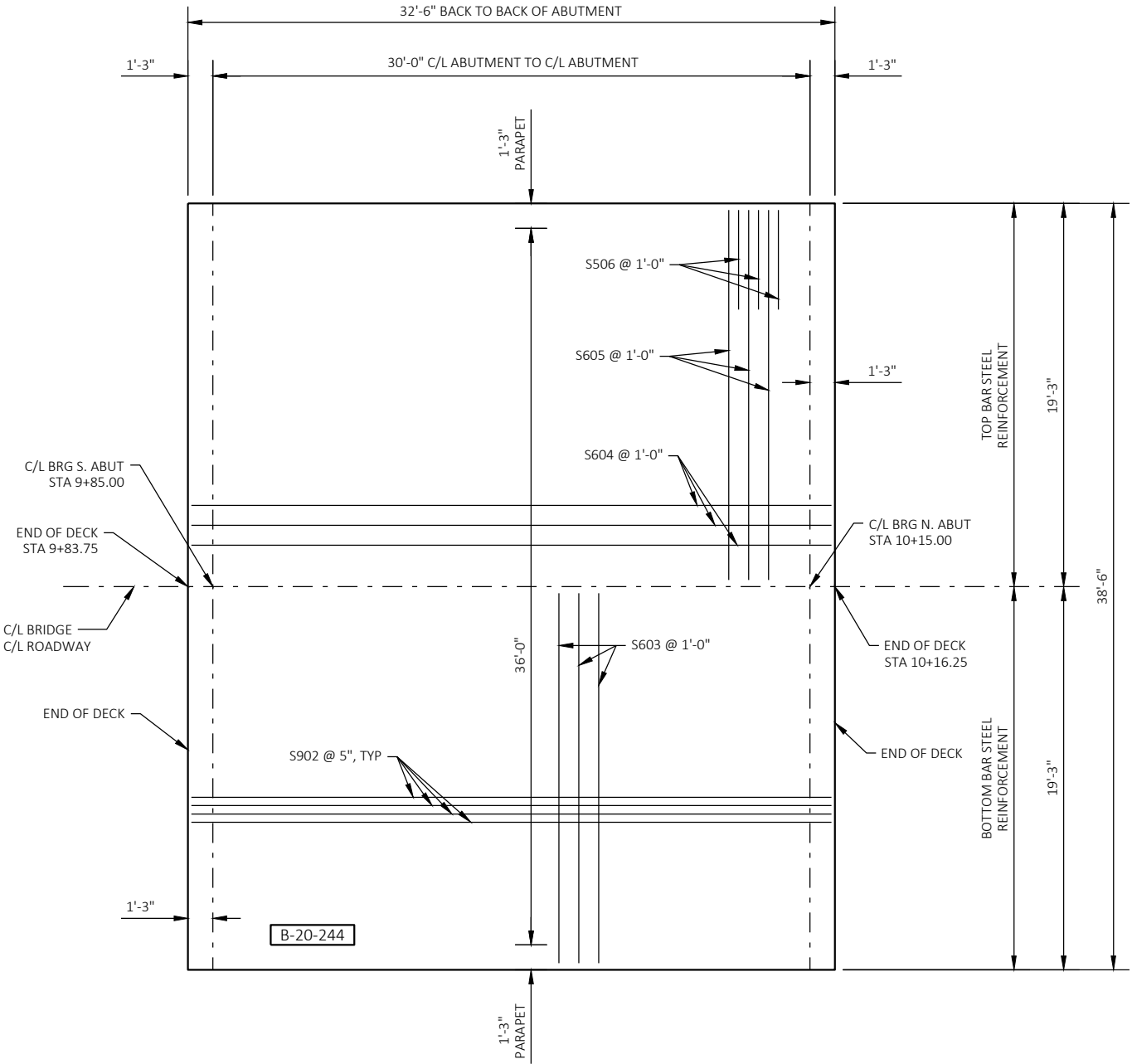
- THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.
- BAR DIMENSIONS ARE OUT TO OUT OF BAR.



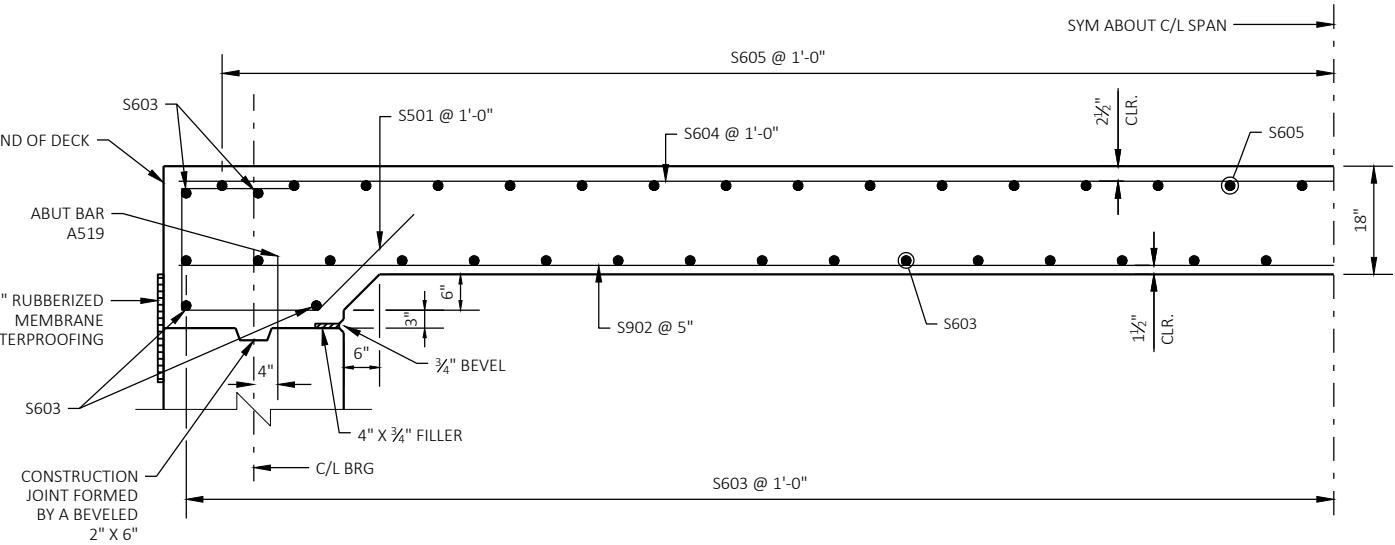
S501



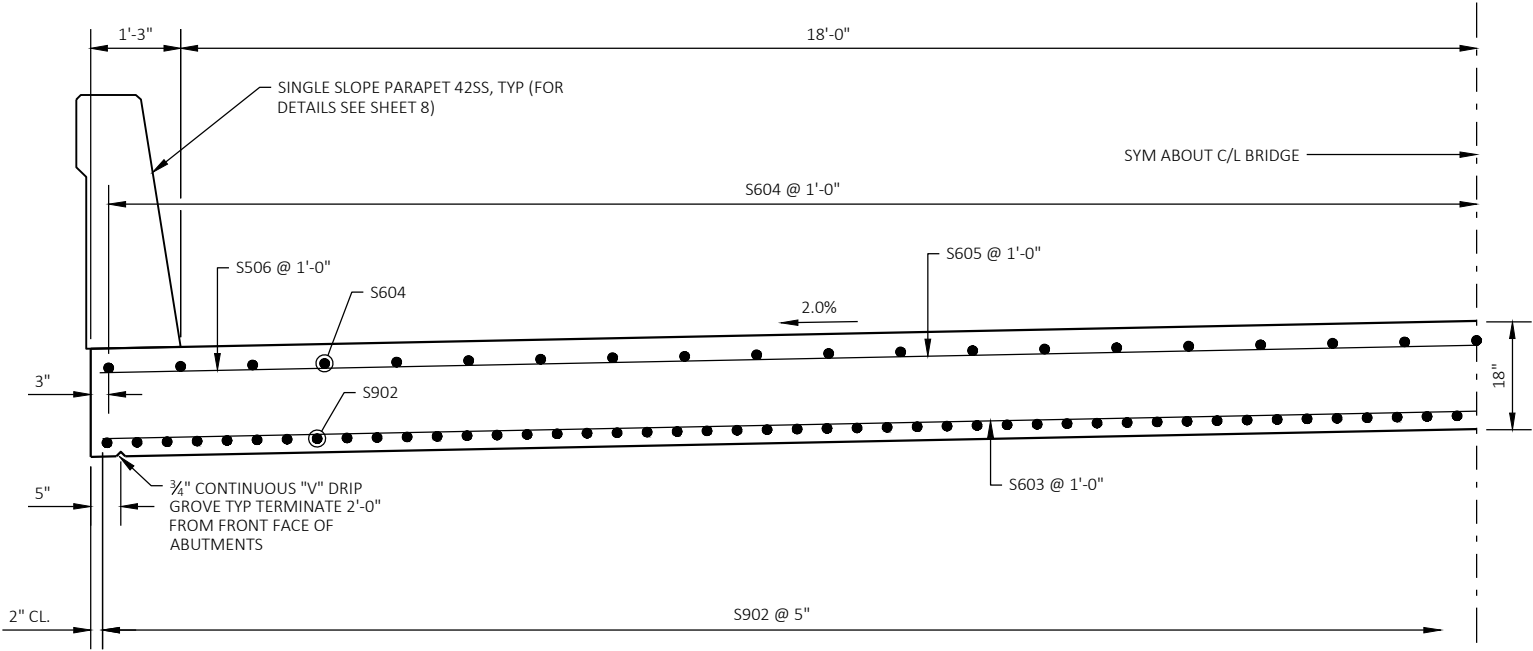
DRIP GROOVE DETAIL



PLAN



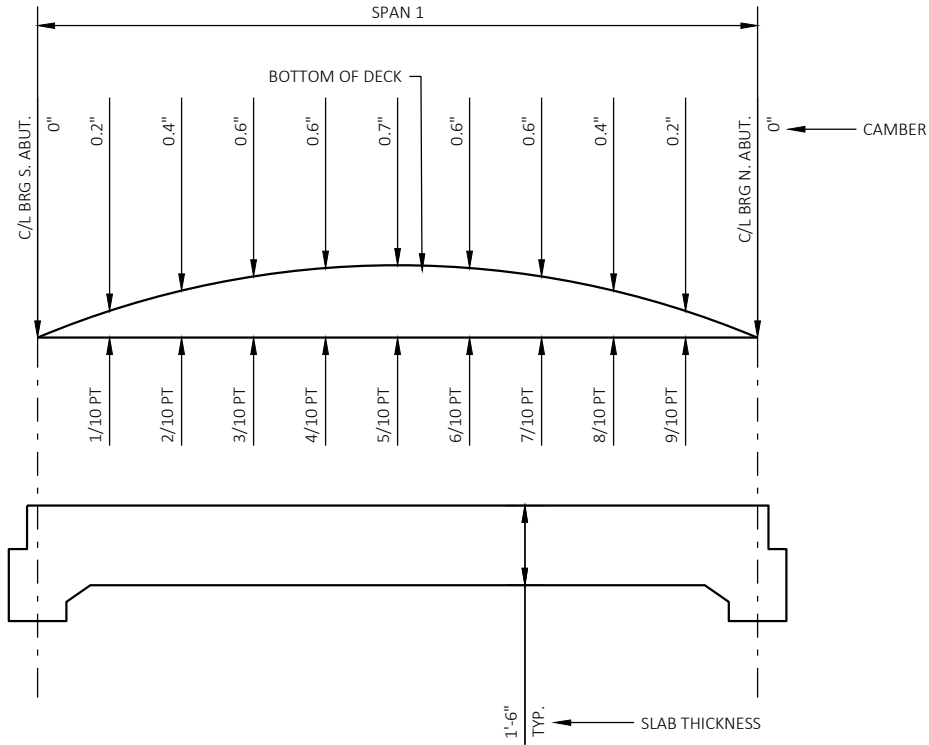
LONGITUDINAL SECTION



CROSS SECTION THROUGH ROADWAY

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-20-244			
DRAWN BY		MJK	PLANS CK'D ALK
SUPERSTRUCTURE		SHEET 6	

FILE NAME : S:\CURRPROJ\FONDDUCOC\ELDORADO, TOWN OF\TOWNLINE ROAD BRIDGE\CIVIL\3D\TOWNLINERD\SHEETS\PLAN\38210100-080104-BR.DWG
PLOT DATE : 2/1/2021 12:18 PM
PLOT BY : AARON SARAUER
LAYOUT NAME -SHEET-07



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS.
CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.
PARAPETS, SIDEWALKS AND MEDIANS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

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

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

TOP OF DECK ELEVATIONS AT FINAL GRADE											
	C/L BRG. S. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	C/L BRG. N. ABUT.
STATION	9+85.0	9+88.0	9+91.0	9+94.0	9+97.0	10+00.0	10+03.0	10+06.0	10+09.0	10+12.0	10+15.0
W. EDGE OF DECK	815.82	815.84	815.86	815.87	815.89	815.91	815.93	815.95	815.98	816.00	816.02
CROWN OR R/L	816.20	816.22	816.24	816.25	816.27	816.29	816.31	816.33	816.36	816.38	816.40
E. EDGE OF DECK	815.82	815.84	815.86	815.87	815.89	815.91	815.93	815.95	815.98	816.00	816.02

STATE PROJECT NUMBER

3821-01-71

SURVEY TOP OF SLAB ELEVATIONS

	ABUTMENT	5/10	ABUTMENT
N. EDGE			
CROWN OR R/L			
S. EDGE			

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

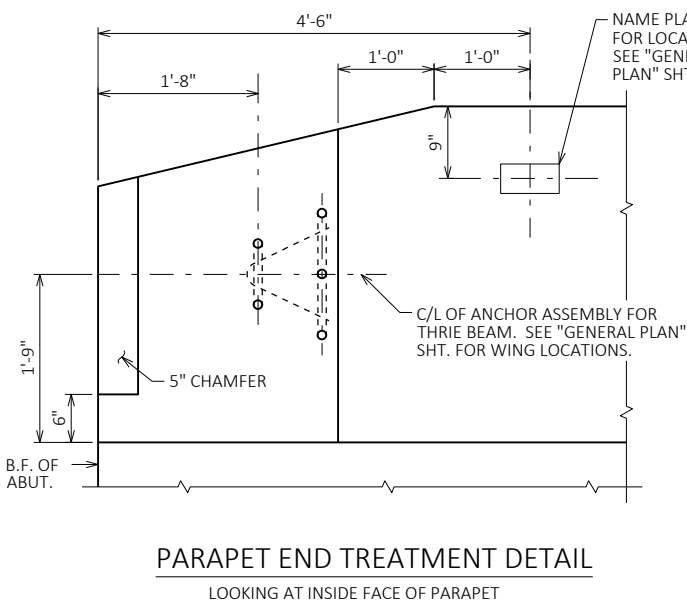
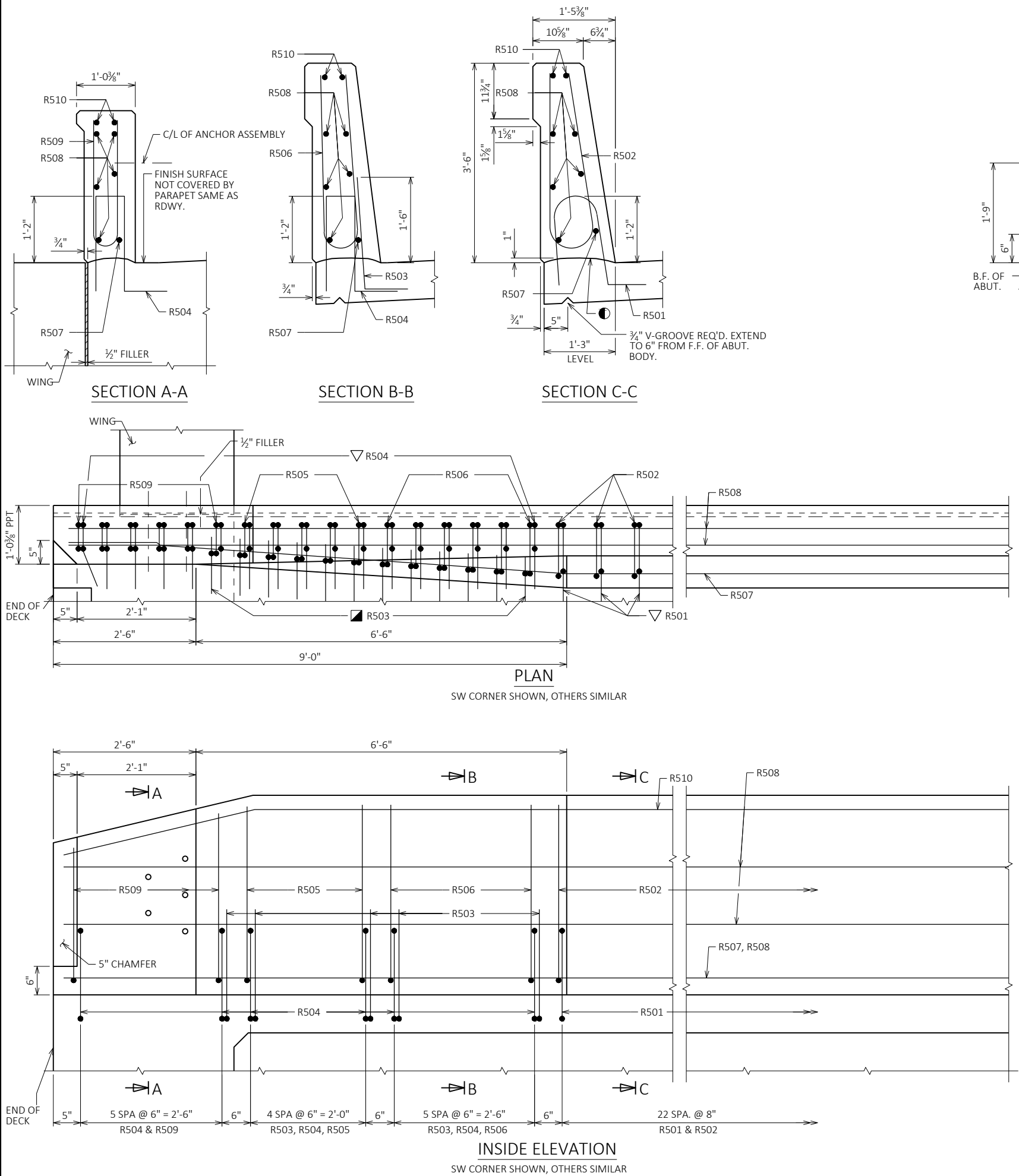
NOTES:

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

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

NO.	DATE	REVISION		BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION				
STRUCTURE B-20-244				
		DRAWN BY	MJK	PLANS CK'D ALK
SUPERSTRUCTURE DETAILS				
			SHEET 7	

FILE NAME : S:\CURRPROJ\FONDUCO\ELDORADO, TOWN OF\TOWNLINE ROAD BRIDGE\CIVIL3D\TOWNLINER\DWG SHEETS\PLAN\38210100-080104-BR.DWG
PLOT DATE : 11/18/2020 10:46 AM
PLOT BY : AARON SARAUER
LAYOUT NAME - SHEET-08



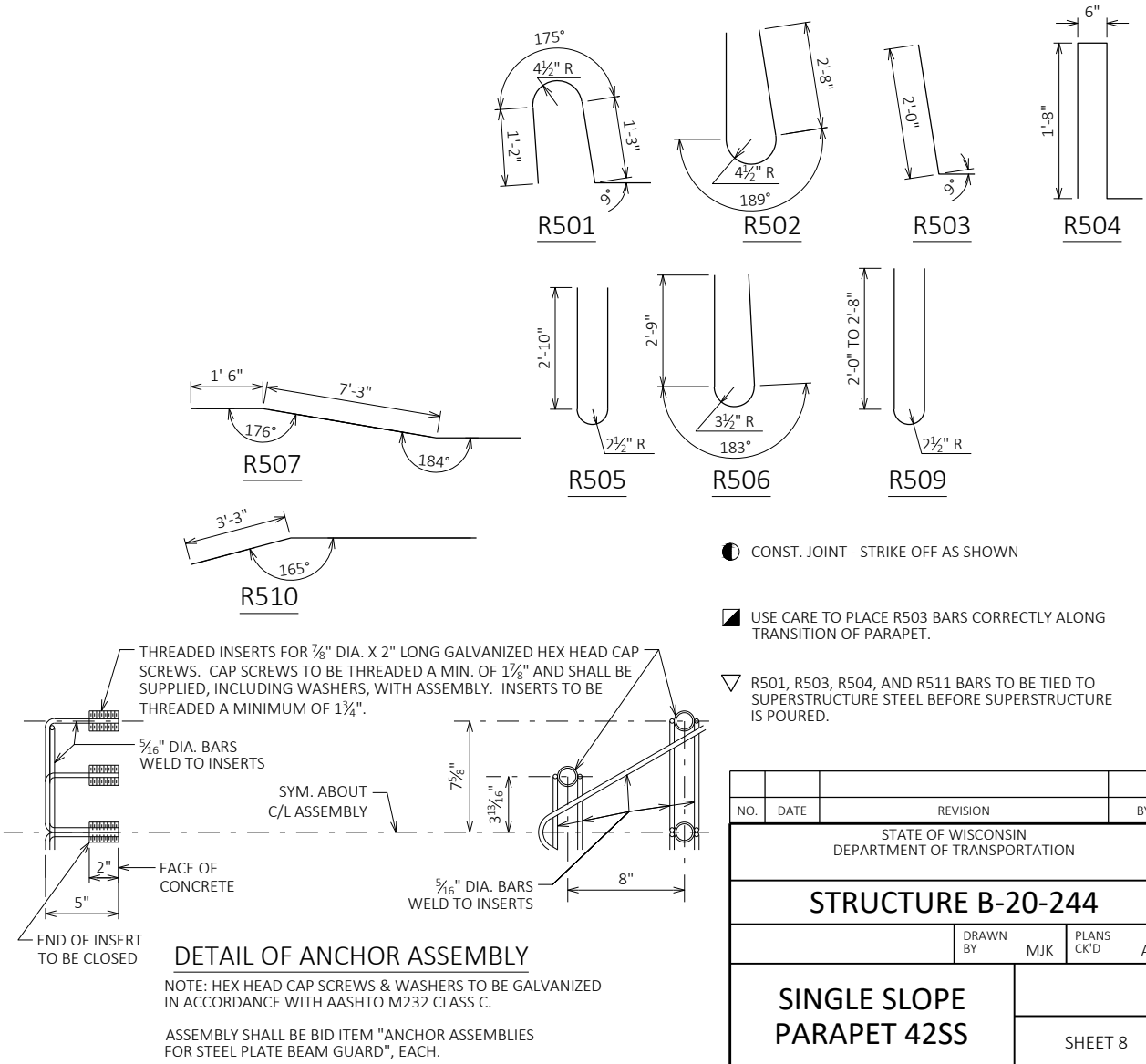
STATE PROJECT NUMBER							
3821-01-71							
BILL OF BARS							
FOR ABUTMENT PARAPETS							
BAR MARK	COAT	NORTH ABUT.	SOUTH ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	23	23	4'-5"	X		PARAPET VERT.
R502	X	23	23	6'-8"	X		PARAPET VERT.
R503	X	11	11	2'-9"	X		PARAPET VERT.
R504	X	17	17	4'-4"	X		PARAPET VERT.
R505	X	5	5	6'-5"	X		PARAPET VERT.
R506	X	6	6	6'-6"	X		PARAPET VERT.
R507	X	2	2	19'-6"	X		PARAPET HORIZ.
R508	X	10	10	19'-6"			PARAPET HORIZ.
R509	X	6	6	5'-5"	X	▲	PARAPET VERT.
R510	X	4	4	19'-6"	X		PARAPET HORIZ.

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

BAR SERIES TABLE

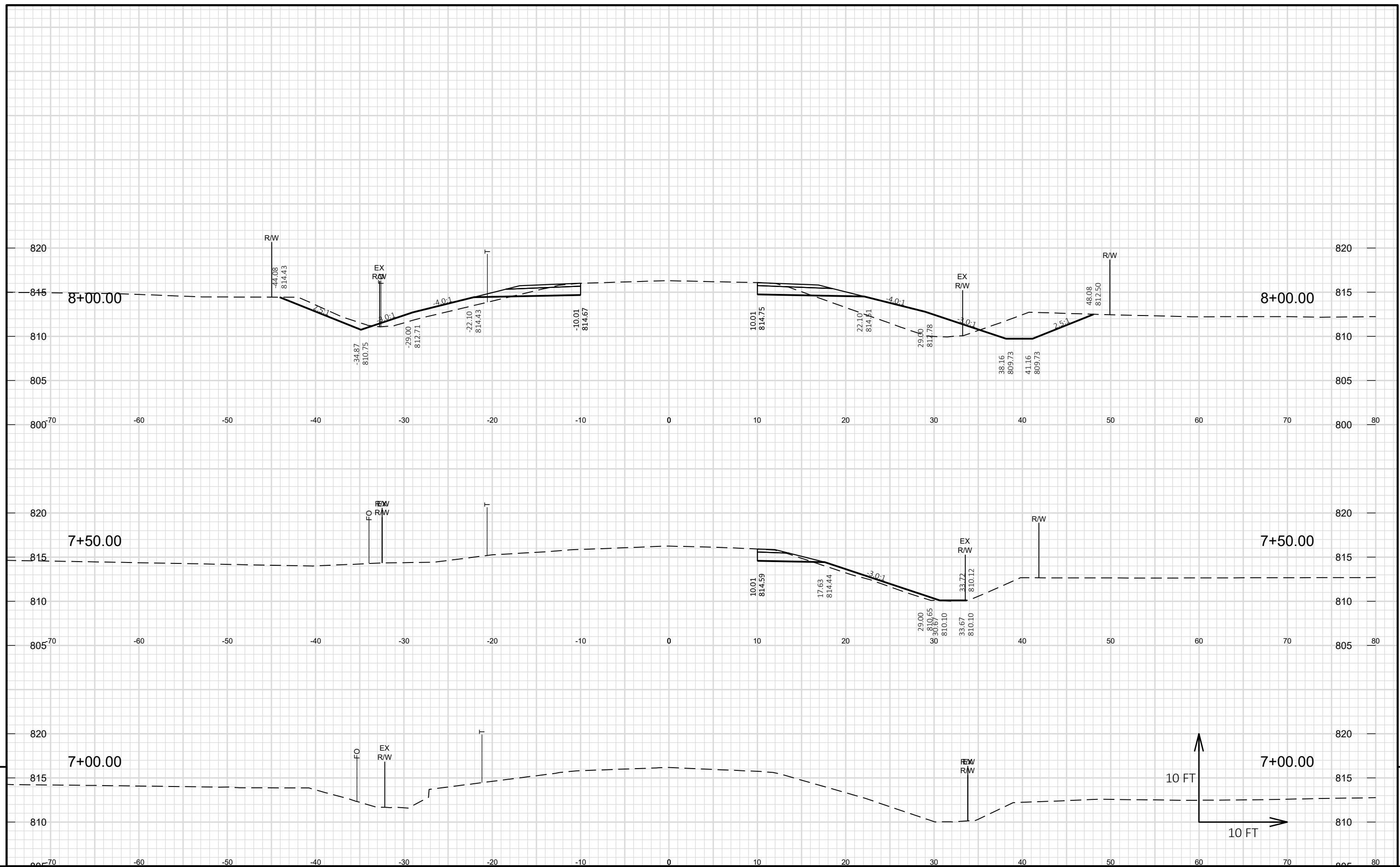
BAR MARK	NO. REQ'D	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.



STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		MASS ORDINATE
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.30	
07+00	700.00	0.00	0.00	0.00	0	0	0	0	0
07+50	750.00	50.00	5.31	4.95	5	5	5	6	-1
08+00	800.00	50.00	39.15	43.32	41	45	46	64	-18
08+05	805.00	5.00	58.14	45.97	9	8	55	75	-20
08+50	850.00	45.00	61.56	70.34	100	97	155	201	-46
08+70.401	870.40	20.40	55.21	83.52	44	58	199	276	-77
08+80.401	880.40	10.00	61.08	86.03	22	31	220	317	-97
09+00	900.00	19.60	31.72	91.01	34	64	254	401	-147
09+30.396	930.40	30.40	41.99	85.96	41	100	296	530	-235
09+50	950.00	19.60	63.88	63.48	38	54	334	601	-267
09+83.75	983.75	33.75	40.26	111.33	65	109	399	743	-344
09+83.85	983.85	0.10	0.00	0.00	0	0	399	743	-344
10+16.15	1016.15	32.30	0.00	0.00	0	0	399	743	-344
10+16.25	1016.25	0.10	33.03	121.24	0	0	399	743	-344
10+50	1050.00	33.75	49.24	30.85	51	95	451	867	-416
10+69.604	1069.60	19.60	28.21	37.05	28	25	479	899	-420
11+00	1100.00	30.40	21.90	45.79	28	47	507	960	-453
11+19.599	1119.60	19.60	24.93	39.19	17	31	524	1000	-476
11+29.599	1129.60	10.00	25.56	34.62	9	14	533	1017	-484
11+50	1150.00	20.40	26.99	23.92	20	22	553	1046	-493
11+75	1175.00	25.00	25.25	14.49	24	18	577	1069	-492
11+95	1195.00	20.00	26.06	10.90	19	9	596	1082	-485
12+00	1200.00	5.00	18.81	10.48	4	2	601	1084	-484
12+50	1250.00	50.00	17.33	1.85	33	11	634	1099	-465
13+00	1300.00	50.00	15.86	0.00	31	2	665	1101	-436
COLUMN TOTALS					665	847			

Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Fill	Does not include Unusable Pavement Excavation volume
3 - Mass Ordinate	Mass Ordinate = Cut - Expanded Fill



PROJECT NO:	3821-01-71
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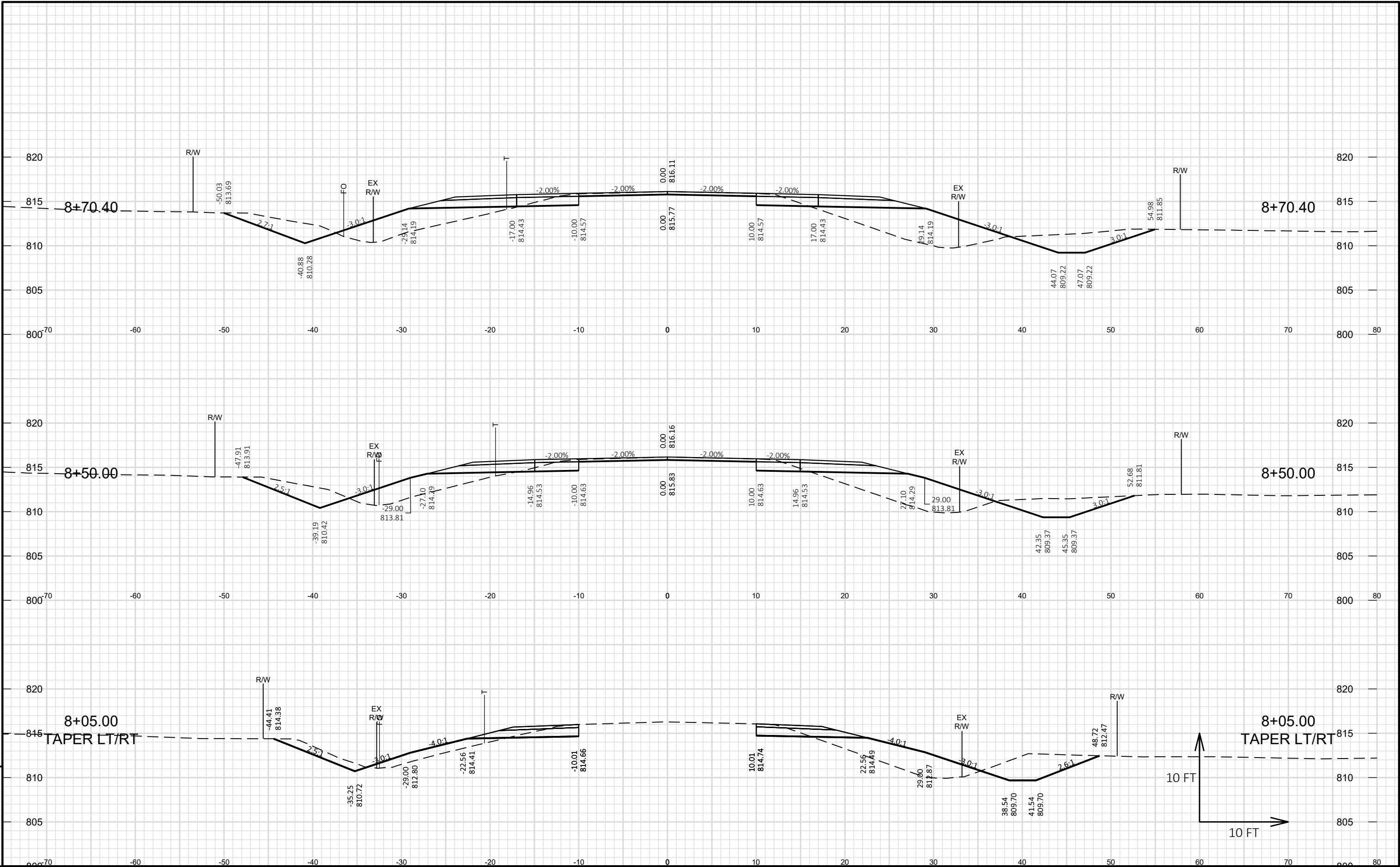
HWY: TOWN LINE ROAD

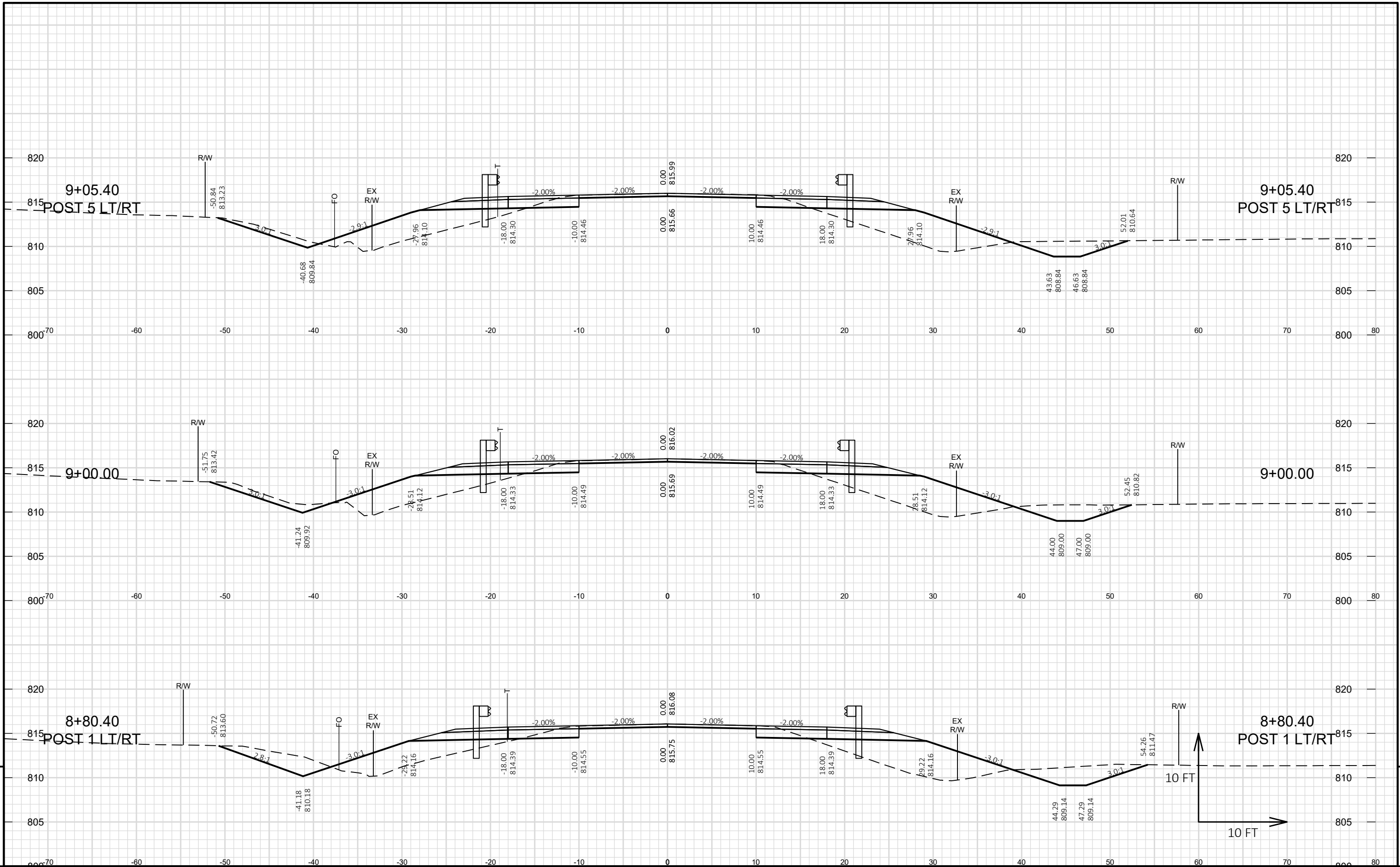
COUNTY: FOND DU LAC

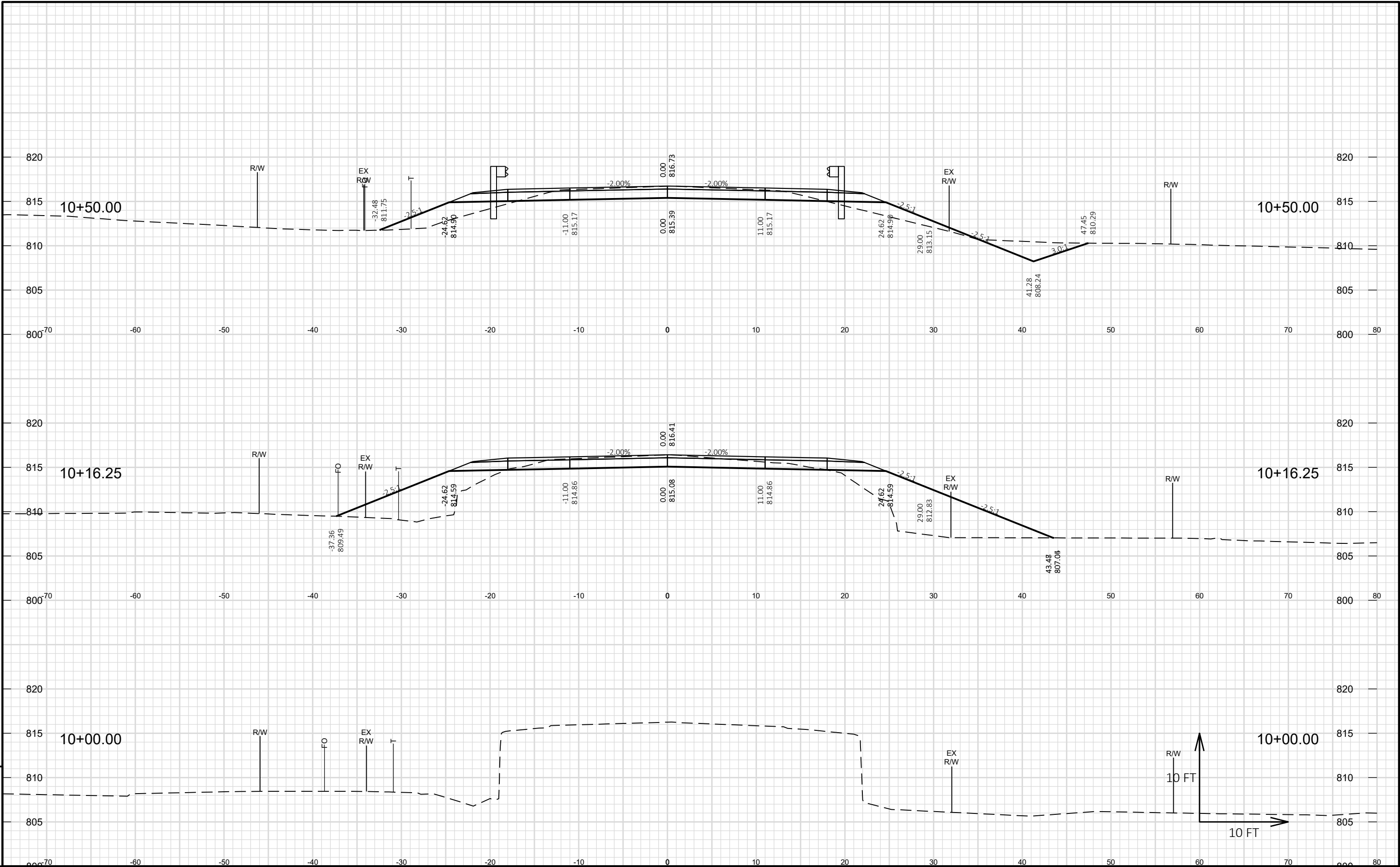
CROSS SECTIONS: TOWN LINE ROAD

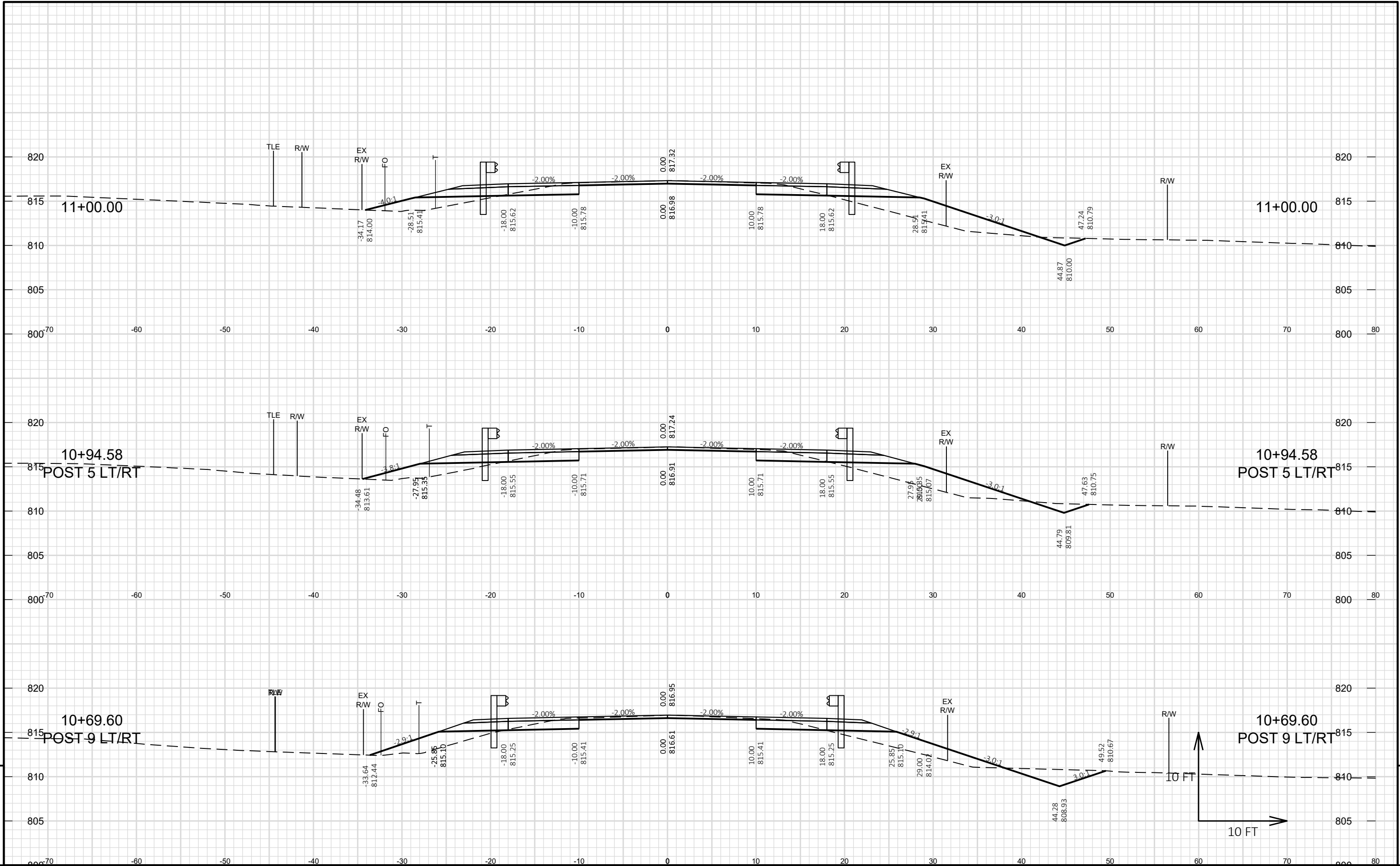
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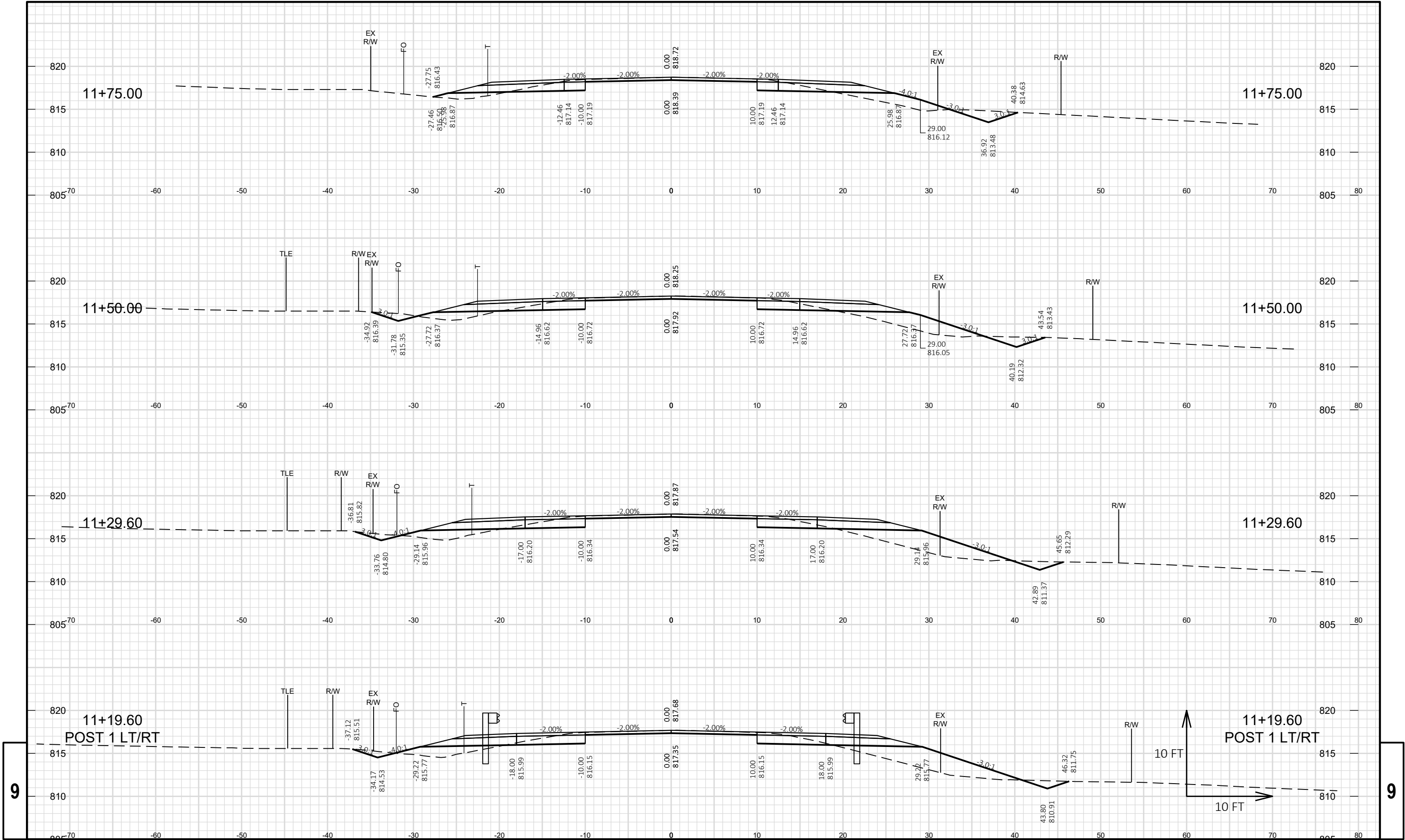
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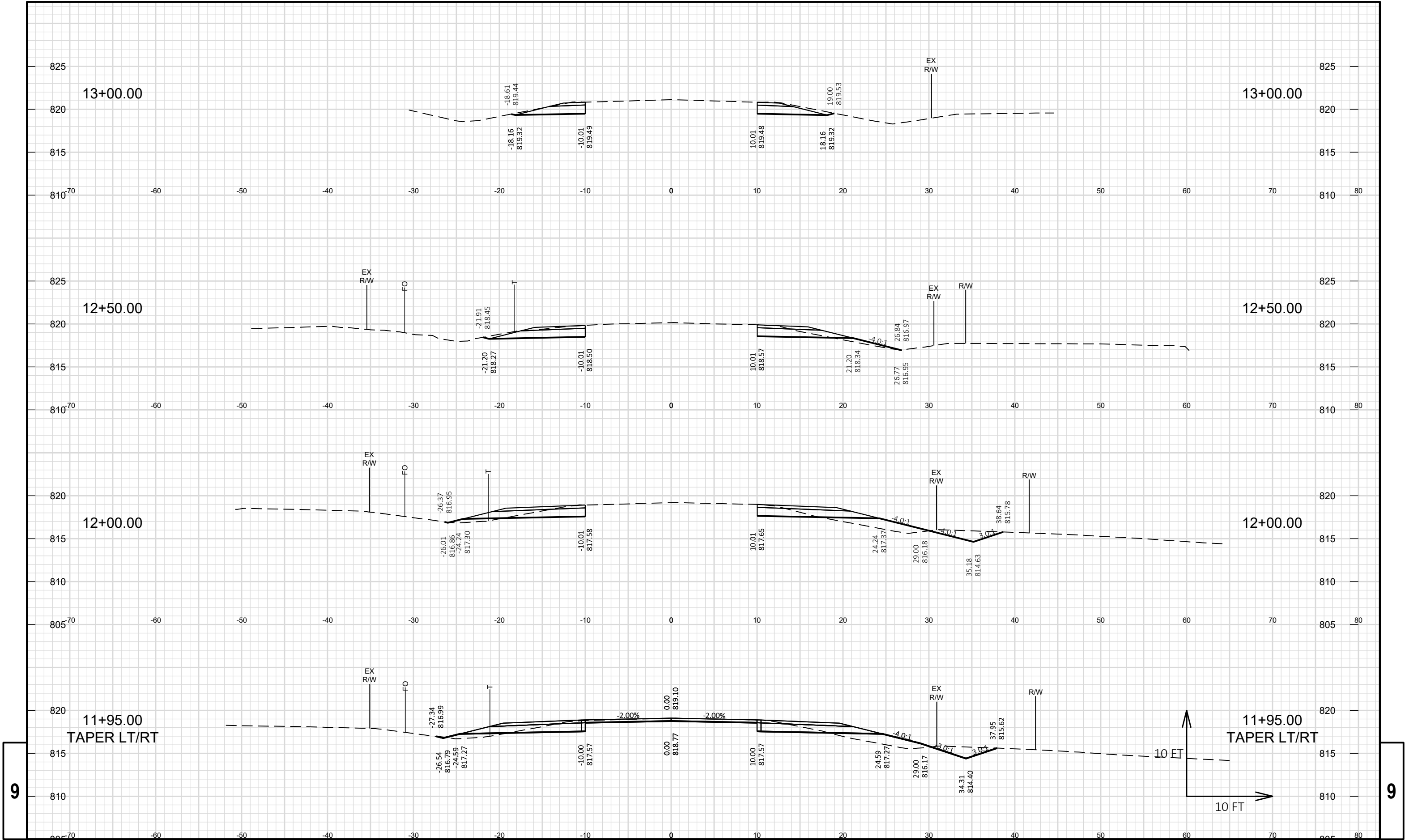












PROJECT NO: 3821-01-71

HWY: TOWN LINE ROAD

COUNTY: FOND DU LAC

CROSS SECTIONS: TOWN LINE ROAD

SHEET

E



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