LAX

JANUARY 2021

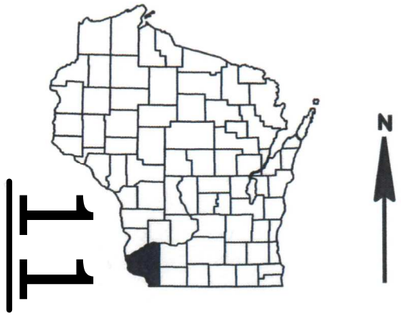
PROJECT ID: 5721-00-75

WITH: N/A

COUNTY: GRANT

ORDER OF SHEETS

TOTAL SHEETS = 62



DESIGN DESIGNATION

A.A.D.T.	(2018)	=	320
A.A.D.T.	(2041)	=	402
D.H.V.		=	N/A
D.D.		=	60/40
T.		=	5%
DESIGN SPEED		=	55 MPH
ESALS		=	58,400

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

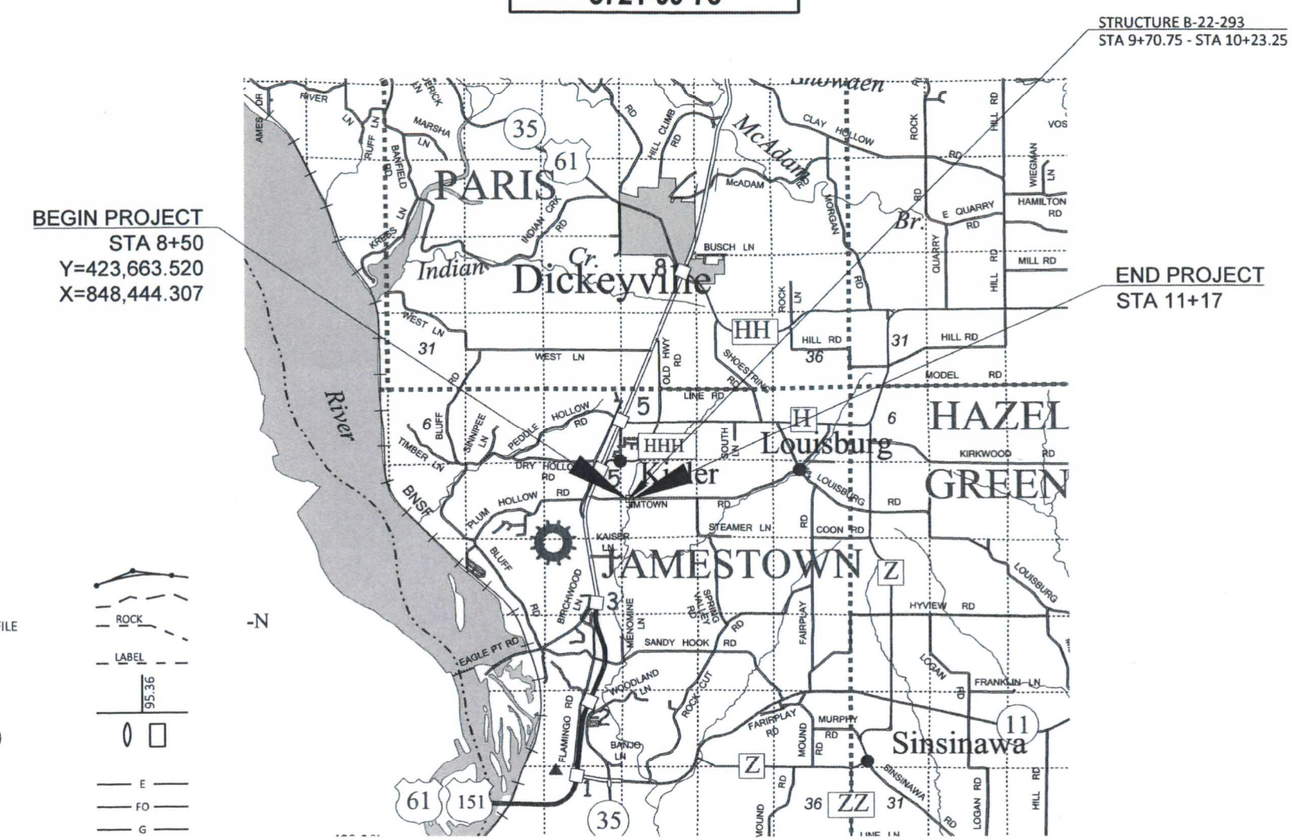
TOWN OF JAMESTOWN, JIMTOWN ROAD

(KIELER CREEK BRIDGE B-22-0293)

LOCAL STREET
GRANT COUNTY

STATE PROJECT NUMBER
5721-00-75

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5721-00-75		



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.051 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), GRANT COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88, 2012)

ACCEPTED FOR

TOWN OF JAMESTOWN

7-13-2020 Date — Town Chairperson

ACCEPTED FOR

GRANT COUNTY

7/13/2020 Date — David L. Lambert, County Highway Commissioner

IIW, P.C.

iiw

800-556-4491
www.iiwengr.com

WISCONSIN
NOAH J. HOFRICHTER
E-46240
DUBUQUE, IOWA
PROFESSIONAL ENGINEER

7/21/2020 Noah J. Hofrichter

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	IIW, P.C.
Designer	IIW, P.C.
Project Manager	ALEIGHA BURG, P.E.
Regional Examiner	SW REGION
Regional Supervisor	IAN WINGER

APPROVED FOR THE DEPARTMENT

DATE: 7/22/2020 Aleigha Burg, P.E. Digitally signed by Aleigha Burg, P.E. Date: 2020.07.22 09:06:27-05'00' (Signature)

E

GENERAL NOTES

SEE TITLE SHEET FOR COORDINATE AND ELEVATION REFERENCES.

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 COORDINATE ALL UTILITY ADJUSTMENTS WITH THE UTILITY.

SCENIC RIVERS ENERGY COOPERATIVE (SERC) HAS A OVERHEAD ELECTRIC LINE WHICH IS LOCATED ALONG THE SOUTH SIDE OF THE JIMTOWN ROAD RIGHT OF WAY FOR THE ENTIRE LENGTH OF THE PROJECT. AN OVERHEAD SUPPORT GUY WIRE ALSO CROSSES JIMTOWN ROAD NEAR STA 11+26. SERC WILL NOT BE ABLE TO DEENERGIZE THEIR LINE DURING CONSTRUCTION. CONTRACTOR CAN CONTACT SREC TO REQUEST THAT THE LINE BE COVERED DURING CONSTRUCTION.

DETAILS OF CONSTRUCTION NOT SHOWN IN THE PLANS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

ACCESS SHALL BE MAINTAINED TO ALL ADJACENT PROPERTIES.

TREES TO BE REMOVED WITHIN THE PROJECT LIMITS SHALL BE FELLED BY THE CONTRACTOR AND MOVED TO THE EDGE OF THE TEMPORARY LIMITED EASEMENT LIMITS OUTSIDE THE SLOPE LIMITS FOR REMOVAL BY THE ADJACENT PROPERTY OWNERS. NO TREES BEYOND THE SLOPE LIMITS MAY BE REMOVED WITHOUT PRIOR APPROVAL OF THE ENGINEER OR OWNER.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT ASPHALTIC SURFACE LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, BIKE OR PARKING LANE.

ASPHALTIC SURFACE WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

THE 4" ASPHALTIC SURFACE ITEMS SHALL BE PLACED WITH A 1 $\frac{3}{4}$ -INCH UPPER LAYER AND A 2 $\frac{1}{4}$ -INCH LOWER LAYER.

APPLY TACK COAT BETWEEN LAYERS OF ASPHALTIC SURFACE AT A RATE OF 0.05 GAL/SY.

DISTURBED AREAS WITHIN THE RIGHT OF WAY OUTSIDE OF THE FINISHED SHOULDER POINT OR REVETMENT SHALL BE SEEDED AND STABILIZED WITH EROSION MAT AS DIRECTED BY THE ENGINEER.

THE QUANTITY OF THE ITEMS FOR EROSION PROTECTION INCLUDES AN UNDISTRIBUTED AMOUNT FOR PROTECTION, CONTROL AND ABATEMENT OF WATER POLLUTION RESULTING FROM SOIL EROSION. THE DISTRIBUTION AND LOCATION OF THESE MATERIALS ARE TO BE DETERMINED BY THE ENGINEER.

THE CONTRACTOR SHALL PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKERS IS TO BE WITH THE APPROVAL OF THE ENGINEER.

WETLANDS ARE PRESENT IN THE PROJECT LIMITS. THE CONTRACTOR SHALL NOT OPERATE EQUIPMENT OR STORE MATERIALS BEYOND THE TOE OF SLOPE IN THE WETLAND AREAS INDICATED ON THE JIMTOWN ROAD PLAN AND PROFILE SHEET.

BOTH BARRICADE SIGNS, "ROAD CLOSED AHEAD, LOCAL TRAFFIC ONLY" AND "BRIDGE OUT AHEAD" SHALL BE POSTED ON JIMTOWN ROAD AT THE INTERSECTION WITH USH 151 WHERE VISIBLE TO TRAFFIC IN THE TURN LANES OF USH 151.

ABBREVIATIONS

AC	ACRE
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ASPH	ASPHALTIC
AEW	APRON END WALL
BEG	BEGINNING
BM	BENCHMARK
BR	BRIDGE
CL	CENTERLINE
CE	COMMERCIAL ENTRANCE
CEN	CENTER
CONC	CONCRETE
CMCP	CORRUGATED METAL CULVERT PIPE
CTH	COUNTY TRUNK HIGHWAY
CR	CREEK
CABC	CRUSHED AGGREGATE BASE COURSE
CY	CUBIC YARD
CULV	CULVERT
CPRC	CULVERT PIPE REINFORCE CONCRETE
D	DEGREE OF CURVE
DHV	DESIGN HOURLY VOLUME
DIA	DIAMETER
DD	DIRECTIONAL DISTRIBUTION
DWY	DRIVEWAY
ELEC	ELECTRIC
EL OR ELV	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXIST	EXISTING
FE	FIELD ENTRANCE
FL	FLOW LINE
CWT	HUNDREDWEIGHT
HE	HORIZONTAL ELLIPTICAL
INL	INLET
INV	INVERT
LT	LEFT
L	LENGTH OF CURVE
LF	LINEAR FOOT
PLE	PERMANENT LIMITED EASEMENT
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PE	PRIVATE ENTRANCE
R/RAD	RADIUS
RL	REFERENCE LINE
REQ'D	REQUIRED
STH	STATE TRUNK HIGHWAY
STA	STATION
SF	SQUARE FEET
SY	SQYARE YARD
SDD	STANDARD DETAIL DRAWINGS
SE	SUPERELEVATION
TLE	TEMPORARY LIMITED EASEMENT
T	TON
VPC	VERTICAL POINT OF CURVE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
VCL	VERTICAL CURVE LENGTH
W	WALL

DESIGN CONSULTANT

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KIELER, WI 53812
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DLAMBERT@CO.GRANT.WI.GOV

WISCONSIN DNR LIASON

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UTILITIES

ELECTRICAL
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CHAD OLMSTEAD
231 NORTH SHERIDAN ST.
LANCASTER, WI 53813
608-723-2121 EXT 561
COLMSTEAD@SREC.NET

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

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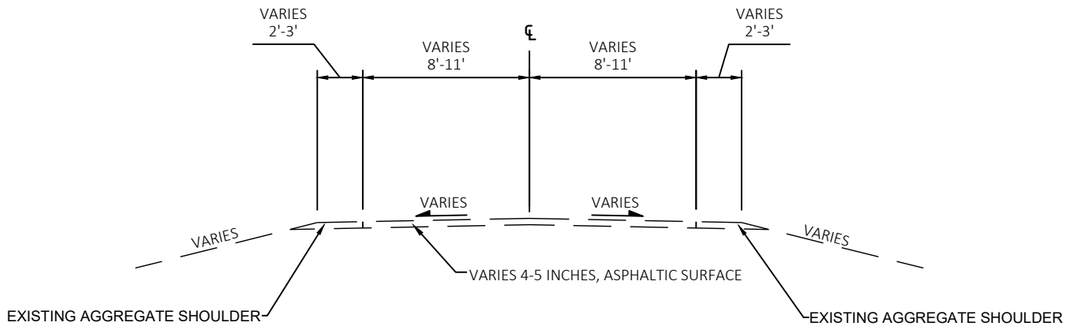
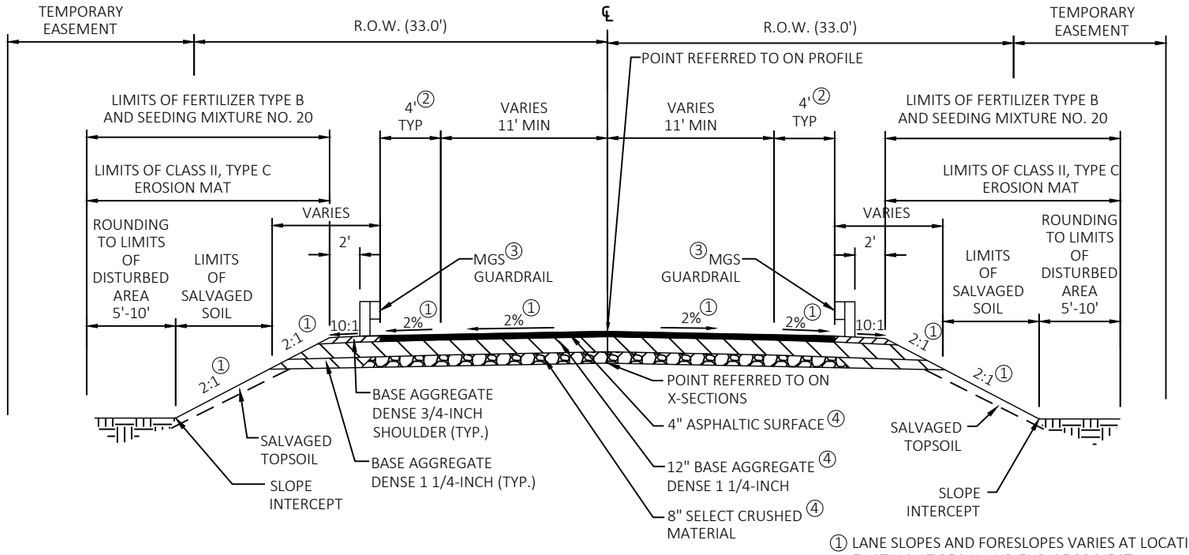


EXISTING TYPICAL SECTION

STA 8+45 - STA 11+50



LEGEND

- ASPHALTIC SURFACE
- BASE AGGREGATE DENSE ¾"
- BASE AGGREGATE DENSE 1-¼"
- SELECT CRUSHED MATERIAL

PROPOSED TYPICAL SECTION

JIMTOWN ROAD

STA 8+45 TO STA 9+70.75
STA 10+23.25 TO STA 11+50

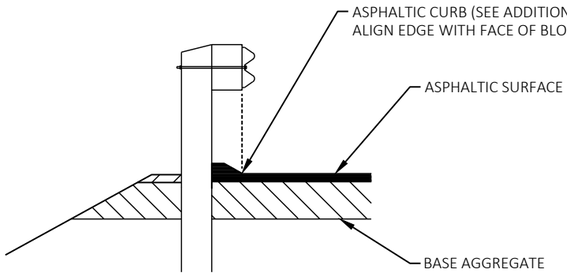
① LANE SLOPES AND FORESLOPES VARIES AT LOCATION OF MATCH TO EXISTING AT BEGIN AND END OF PROJECT.

② TAPER PAVEMENT TO FACE OF GUARD RAIL. WIDTH VARIES AT GUARDRAIL FLARES AS WELL AS TO MATCH TO EXISTING AT BEGIN AND END OF PROJECT.

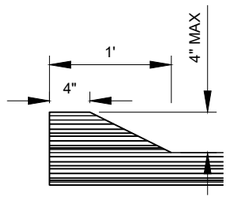
③ GUARDRAIL NOT PRESENT AT ALL LOCATIONS. SEE PLAN AND PROFILE SHEET FOR LIMITS OF GUARDRAIL.

④ PAVEMENT STRUCTURE ONLY REQUIRED FROM STA 8+50 TO 9+70.75 AND STA 10+23.25 TO STA 11+17.30. USE EXISTING PAVEMENT OUTSIDE OF THESE LIMITS. SEE PLAN AND PROFILE SHEET.

PROJECT NO: 5721-00-75	HWY: LOCAL STREET	COUNTY: GRANT	TYPICAL SECTIONS	SHEET 3	E

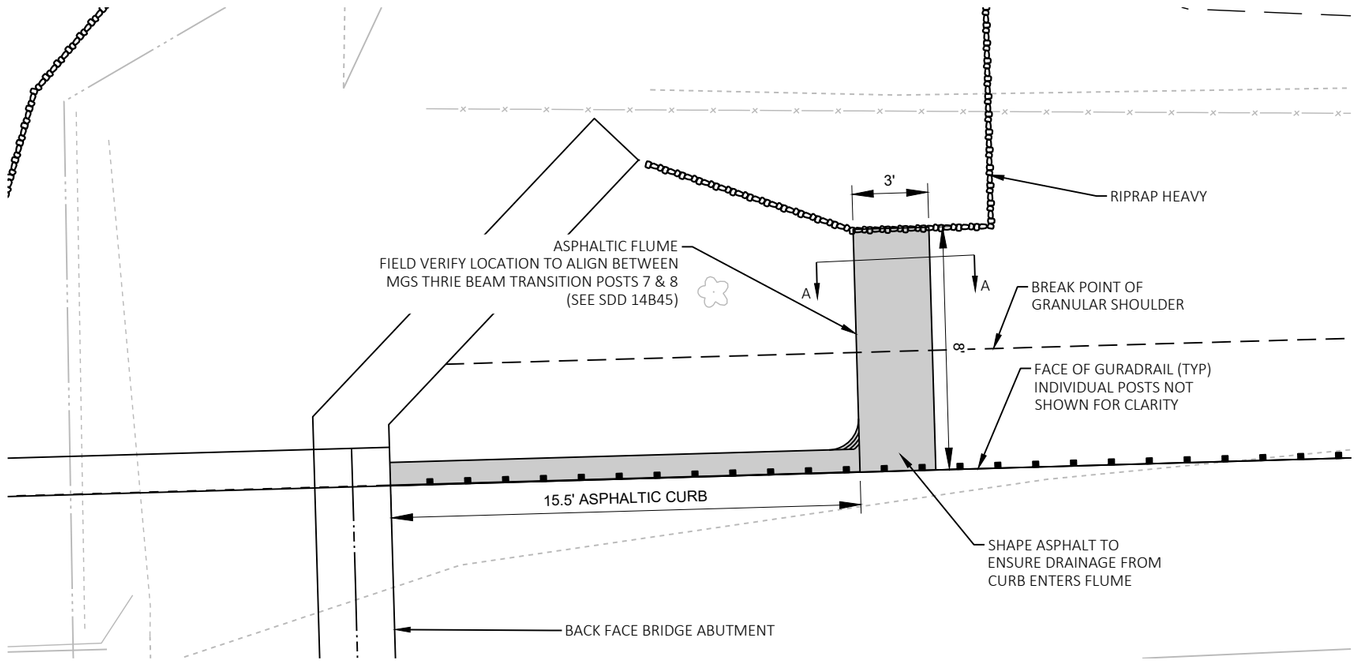


NOTE: SEE TYPICAL SECTIONS FOR ADDITIONAL INFORMATION ON SLOPES, BASE AND ASPHALT LAYER THICKNESS, AND GUARDRAIL SDD FOR GUARDRAIL DETAILS.



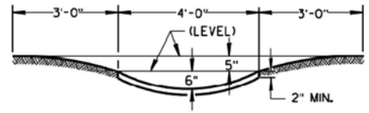
SLOPED ASPHALTIC CURB DETAIL

ASPHALTIC CURB DETAILS

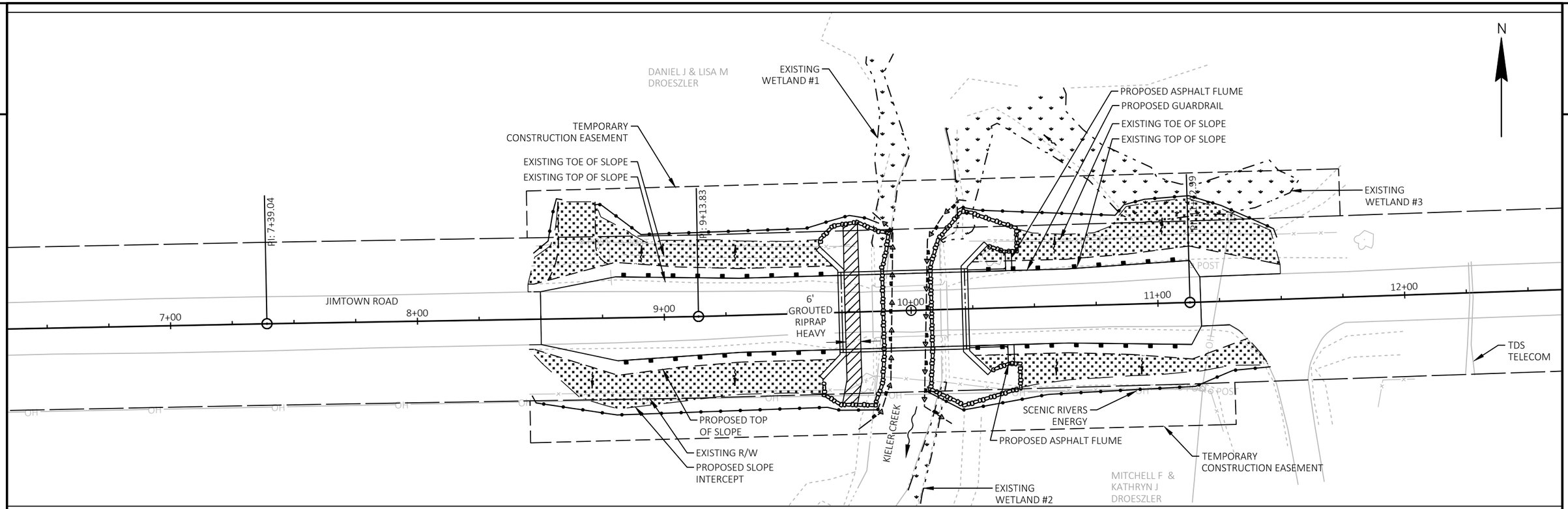


TYPICAL ASPHALTIC CURB & FLUME LAYOUT DETAIL

NOTE:DETAIL SHOWN IS TYPICAL AT NORTHEAST AND SOUTHEAST CORNERS OF BRIDGE



ASPHALT FLUME SECTION A-A



RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 0.76 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.5 ACRES

LEGEND

- EROSION MAT CLASS II TYPE C
- SILT FENCE
- RIPRAP HEAVY
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- TURBIDITY BARRIER

PROJECT NO:	HWY: LOCAL STREET	COUNTY: GRANT	EROSION CONTROL	SHEET 5	E

FILE NAME : P:\18\207\DRAWINGS\57210005\SHEETSPLAN\022001-EC1.DWG PLOT DATE : 7/8/2020 4:16 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : ########## WISDOT/CADDS SHEET 42

5721-00-75

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	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 10+00	LS	1.000	1.000
0008	205.0100	Excavation Common	CY	392.000	392.000
0010	206.1000	Excavation for Structures Bridges (structure) 01. B-22-0293	LS	1.000	1.000
0012	210.1500	Backfill Structure Type A	TON	760.000	760.000
0014	213.0100	Finishing Roadway (project) 01. 5721-00-75	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	80.000	80.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	700.000	700.000
0020	312.0110	Select Crushed Material	TON	460.000	460.000
0022	455.0605	Tack Coat	GAL	52.000	52.000
0024	465.0105	Asphaltic Surface	TON	185.000	185.000
0026	465.0310	Asphaltic Curb	LF	32.000	32.000
0028	465.0315	Asphaltic Flumes	SY	6.000	6.000
0030	502.0100	Concrete Masonry Bridges	CY	267.000	267.000
0032	502.3200	Protective Surface Treatment	SY	190.000	190.000
0034	502.3210	Pigmented Surface Sealer	SY	52.000	52.000
0036	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	40,030.000	40,030.000
0038	516.0500	Rubberized Membrane Waterproofing	SY	14.000	14.000
0040	550.0020	Pre-Boring Rock or Consolidated Materials	LF	105.000	105.000
0042	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	179.000	179.000
0044	606.0300	Riprap Heavy	CY	250.000	250.000
0046	606.0700	Grouted Riprap Heavy	CY	35.000	35.000
0048	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	130.000	130.000
0050	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0052	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
0054	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0056	619.1000	Mobilization	EACH	1.000	1.000
0058	624.0100	Water	MGAL	12.000	12.000
0060	625.0500	Salvaged Topsoil	SY	650.000	650.000
0062	628.1504	Silt Fence	LF	730.000	730.000
0064	628.1520	Silt Fence Maintenance	LF	730.000	730.000
0066	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0068	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0070	628.2027	Erosion Mat Class II Type C	SY	710.000	710.000
0072	628.6005	Turbidity Barriers	SY	230.000	230.000
0074	629.0210	Fertilizer Type B	CWT	0.400	0.400
0076	630.0120	Seeding Mixture No. 20	LB	18.000	18.000

5721-00-75

Line	Item	Item Description	Unit	Total	Qty
0078	630.0200	Seeding Temporary	LB	18.000	18.000
0080	630.0500	Seed Water	MGAL	15.000	15.000
0082	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0084	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0086	638.2602	Removing Signs Type II	EACH	6.000	6.000
0088	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0090	642.5001	Field Office Type B	EACH	1.000	1.000
0092	643.0420	Traffic Control Barricades Type III	DAY	1,840.000	1,840.000
0094	643.0705	Traffic Control Warning Lights Type A	DAY	2,944.000	2,944.000
0096	643.0900	Traffic Control Signs	DAY	1,564.000	1,564.000
0098	643.5000	Traffic Control	EACH	1.000	1.000
0100	645.0120	Geotextile Type HR	SY	346.000	346.000
0102	650.4500	Construction Staking Subgrade	LF	220.000	220.000
0104	650.5000	Construction Staking Base	LF	220.000	220.000
0106	650.6500	Construction Staking Structure Layout (structure) 01. B-22-0293	LS	1.000	1.000
0108	650.9910	Construction Staking Supplemental Control (project) 01. 5721-00-75	LS	1.000	1.000
0110	650.9920	Construction Staking Slope Stakes	LF	255.000	255.000
0112	690.0150	Sawing Asphalt	LF	42.000	42.000
0114	715.0502	Incentive Strength Concrete Structures	DOL	1,602.000	1,602.000

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

3

CLEARING AND GRUBBING

STATION	STATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
8+45	11+50	3	3
TOTALS		3	3

FROM/TO STATION	205.0100 COMMON EXCAVATION Cut (2)	UNEXPANDED FILL Fill	EXPANDED FILL (3) Factor 1.30	MASS ORDINATE +/- (4)	COMMENT:
8+50 TO 9+70.75 - MAINLINE	214	194	253	-39	SEE NOTE (1) BELOW
10+23.25 TO 11+50 - MAINLINE	178	162	211	-33	
TOTALS	392	356	464	-72	

1) Additional Cut material is available from Excavation for Structures which will compensate for the fill shortage shortage within the roadway category. See the Earthwork Summary Sheet for detailed additional information.
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) Expanded Fill = Unexpanded Fill*1.3
4) The Mass Ordinate + or - Quantity calculated for the division. Plus quantity indicates an excess of material within the category. Minus indicates a shortage of material within the category

BASE AGREGATE DENSE, SELECT CRUSHED MATERIAL, WATER

CATEGORY	STATION	–	STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4 INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	624.0100 WATER MGAL
0010	8+50		9+71	40	265	173	
0010	10+23		11+50	40	265	172	
0010	UNDISTRIBUTED						7
TOTAL CATEGORY 0010				610	875	352	7
0030	8+50		9+21		105	72	
0030	10+73		11+17		65	43	
0030	UNDISTRIBUTED						5
TOTAL CATEGORY 0030				0	170	115	5
PROJECT TOTALS				610	1045	467	12

ASPHALT ITEMS

CATEGORY	STATION	–	STATION		455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	465.0310 ASPHALTIC CURB LF	465.0315 ASPHALTIC FLUMES SY
0010	8+45		9+71	LT/RT	18	64	-	-
0010	10+23		10+39	LT	-	-	16	-
0010	10+23		10+39	RT	-	-	16	-
0010	10+23		11+50	LT/RT	16	61	-	-
0010	10+40			LT	-	-	-	3
0010	10+40			RT	-	-	-	3
TOTAL CATEGORY 0010					34	125	32	6
0030	8+45		9+21		11	38	-	-
0030	10+73		11+17		7	22	-	-
TOTAL CATEGORY 0030					18	60	0	0
PROJECT TOTALS					52	185	32	6

GUARDRAIL

GROUP	STATION TO STATION		LOCATION	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
	8+81	9+72	RT	39.4	1
	8+81	9+72	LT	39.4	1
	10+22	11+13	RT	39.4	1
	10+22	11+13	LT	39.4	1
	TOTALS			157.6	4

EROSION CONTROL MOBILIZATIONS

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
EROSION CONTROL ITEMS	4	2
TOTALS	4	2

EROSION CONTROL

STA	–	STA	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.6005 TURBIDITY BARRIER SY	628.2027 EROSION MAT CLASS II TYPE C SY
8+45		8+58	LT	-	-	-	15
8+73		9+69	LT	-	-	-	117
8+45		9+69	RT	-	-	-	167
8+46		9+89	RT	152	152	-	-
8+47		8+60	LT	28	28	-	-
8+72		9+93	LT	131	131	-	-
9+90			RT/LT	-	-	115	-
10+06			RT/LT	-	-	115	-
10+06		11+45	RT	145	145	-	-
10+08		10+43	RT/LT	-	-	-	-
10+11		11+49	LT	151	151	-	-
10+25		11+44	RT	-	-	-	107
10+25		11+50	LT	-	-	-	184
11+50			RT/LT	-	-	-	-
			UNDISTRIBUTED	123	123		120
PROJECT TOTALS				730	730	230	710

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

FINISHING ITEMS

STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
8+45		9+69	LT	134	0.08	3.6	3.6	-
8+45		9+69	RT	164	0.10	4.4	4.4	-
10+25		11+50	LT	184	0.12	5.0	5.0	-
10+25		11+44	RT	107	0.07	2.9	2.9	-
UNDISTRIBUTED				61	0.04	1.6	1.6	15
TOTALS				**650**	**0.4**	**18**	**18**	**15**

PERMANENT SIGNING

STATION	SIDE	SIGN CODE	W X H IN X IN	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
9+71	RT	--	--	--	--	1	1	WEIGHT LIMIT POSTING
9+71	RT	WR-52R	12"X36"	1	3	--	--	OBJECT MARKER
9+71	LT	W5-52L	12"X36"	1	3	--	--	OBJECT MARKER
9+85	RT	--	--	--	--	1	1	EXISTING OBJECT MARKER
9+85	LT	--	--	--	--	1	1	EXISTING OBJECT MARKER
10+15	RT	--	--	--	--	1	1	EXISTING OBJECT MARKER
10+15	LT	--	--	--	--	1	1	EXISTING OBJECT MARKER
10+23	RT	WR-52R	12"X36"	1	3	--	--	OBJECT MARKER
10+23	LT	W5-52L	12"X36"	1	3	--	--	OBJECT MARKER
10+25	LT	--	--	--	--	1	1	WEIGHT LIMIT POSTING
			PROJECT TOTALS	4	12	6	6	

TRAFFIC CONTROL ITEMS

	DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAYS
USH 151 / JIMTOWN ROAD INTERSECTION	92	2	184	4	368	3	276
BEGINNING OF PROJECT	92	7	644	10	920	4	368
END OF PROJECT	92	7	644	10	920	4	368
JIMTOWN ROAD / SPRING VALLEY ROAD INTERSECTION	92	2	184	4	368	3	276
JIMTOWN ROAD / LOUISBURG ROAD INTERSECTION	92	2	184	4	368	3	276
TOTALS			1840		2944		1564

CONSTRUCTION STAKING

STATION	-	STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.6500 STRUCTURE LAYOUT LS	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF
8+45		11+50	MAINLINE					255
8+45		9+71	MAINLINE	126	126			
10+23		11+17	MAINLINE	94	94			
-		-	MAINLINE			1	1	
PROJECT TOTAL				220	220	1	1	255

SAWING

STATION	STATION	LOCATION	DESCRIPTION	690.0150 SAWING ASPHALT LF
8+50		RT/LT	BEGINNING OF PROJECT	22
11+17		RT/LT	END OF PROJECT	20
			TOTAL	42

PROJECT NO: 5721-00-75	HWY: LOCAL STREET	COUNTY: GRANT	MISCELLANEOUS QUANTITIES	SHEET 9	E

FILE NAME : P:\18\207\DRAWINGS\57210005\SHEETSPLAN\030201_MQ.DWG
LAYOUT NAME - MISC QUANTITIES 2
PLOT DATE : 7/9/2020 5:23 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1" = 1'
WISDOT/CADDS SHEET 42

R/W PROJECT NUMBER: 5721-00-05	SHEET NUMBER: 1

TLE ACQUISITION EXHIBIT
TOWN OF JAMESTOWN, JIMTOWN ROAD
KIELER CREEK BRIDGE B-22-0293

JIMTOWN RD — GRANT COUNTY

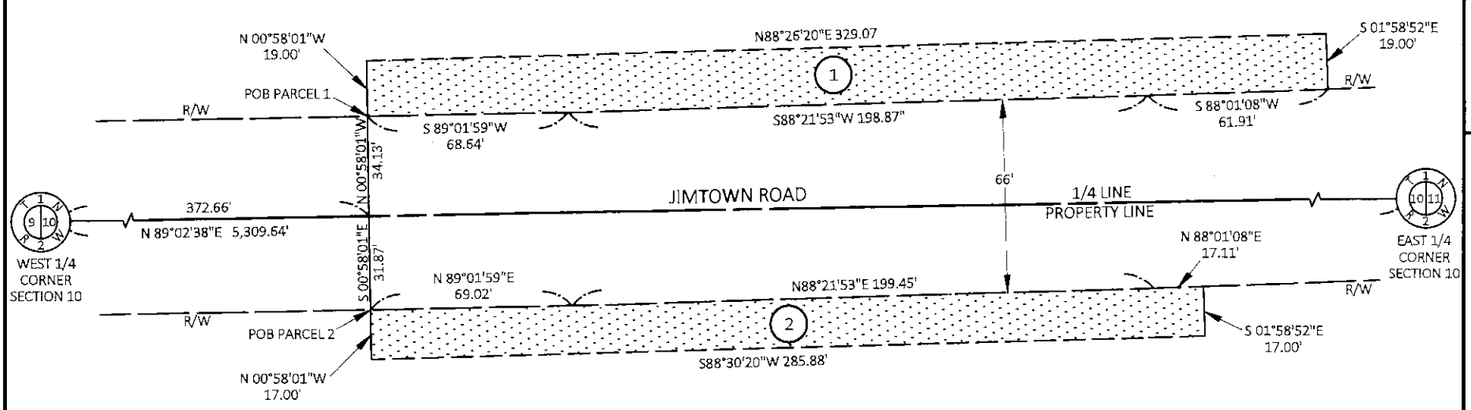
PART OF THE SW 1/4 OF THE NW 1/4 AND PART OF THE NW 1/4 OF THE SW 1/4 OF SECTION 10, T1N R2W, JAMESTOWN TOWNSHIP, GRANT COUNTY, WISCONSIN

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

THE PURPOSE OF BOTH TLES IS FOR GRADING DURING BRIDGE RECONSTRUCTION

SW-NW

TAX PARCEL NUMBER:
026-00504-0000



TAX PARCEL NUMBER:
026-00507-0000

NW-SW

GN

SCALE, FEET
0 25 50

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TLE S.F.
1	DANIEL J. AND LISA M. DROESZLER	TLE	6,410
2	MITCHELL F. AND KATHRYN J. DROESZLER	TLE	4,756

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
N/A	N/A	N/A

THIS MAP IS APPROVED FOR THE TOWN OF JAMESTOWN

SIGNATURE: Jake Brandt DATE: 5-5-20

PRINT NAME:

FILE NAME : TLE EXHIBITS.DWG PLOT DATE : 2/13/2020 3:42 PM R/W PROJECT: 521-00-05

4

10

BENCHMARKS/HORIZONTAL CONTROL					
NO.	STA, OFF	Y	X	DESCRIPTION	ELEV
1	11+86.78, 37.10 RT	423635.75	848782.24	CONTROL POINT REBAR 5/8	830.34
2	10+22.19, 12.09 RT	423655.61	848616.79	CONTROL POINT REBAR 5/8	830.02
3	8+43.6, 12.14 RT	423651.27	848438.12	CONTROL POINT REBAR 5/8	833.56
4	8+43.7, -0.56' LT	423663.97	848438.00	MISC CONTROL MAG NAIL TIE	834.45

ALIGNMENT DATA

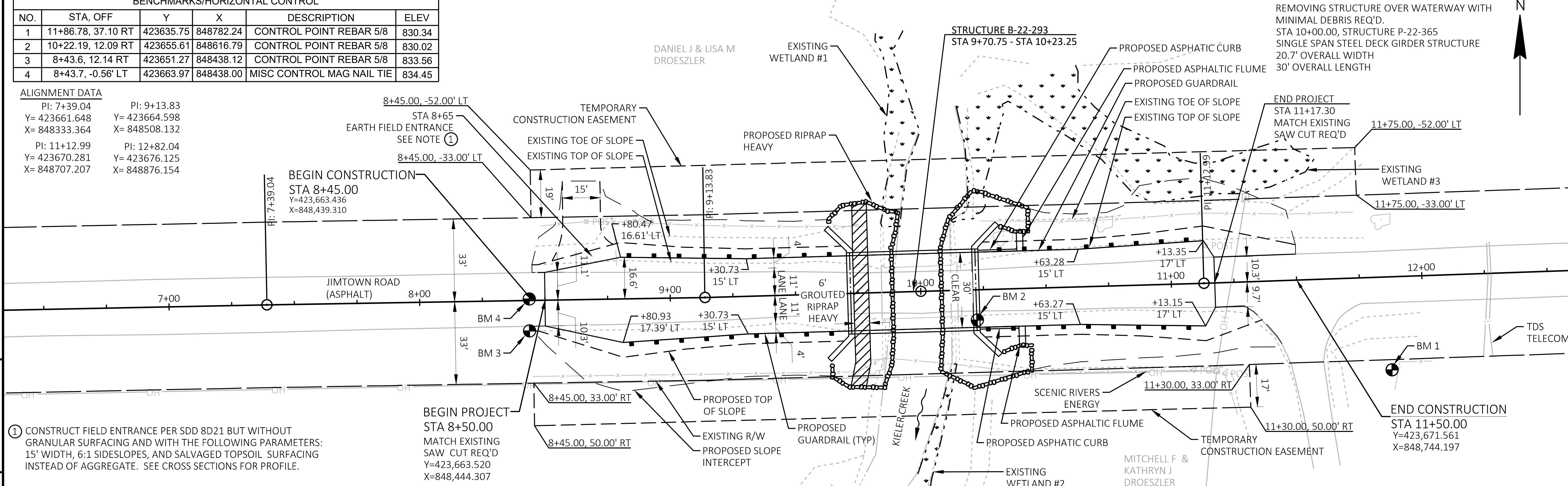
PI: 7+39.04
Y= 423661.648
X= 848333.364

PI: 9+13.83
Y= 423664.598
X= 848508.132

PI: 11+12.99
Y= 423670.281
X= 848707.207

PI: 12+82.04
Y= 423676.125
X= 848876.154

REMOVING STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS REQ'D.
STA 10+00.00, STRUCTURE P-22-365
SINGLE SPAN STEEL DECK GIRDER STRUCTURE
20.7' OVERALL WIDTH
30' OVERALL LENGTH

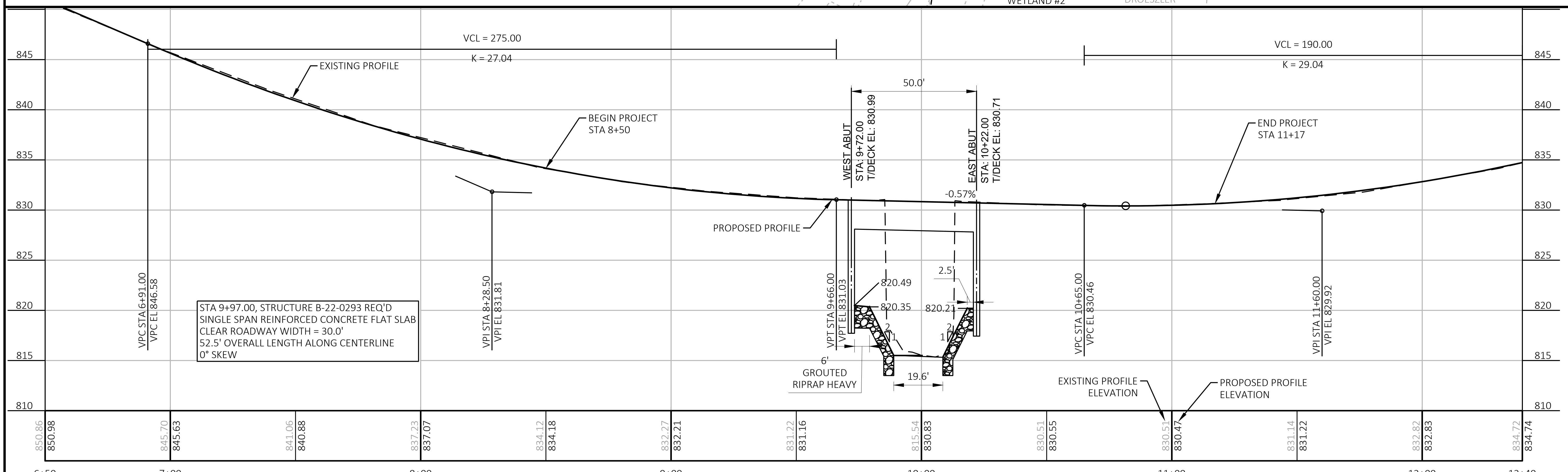


5

(1) CONSTRUCT FIELD ENTRANCE PER SDD 8D21 BUT WITHOUT GRANULAR SURFACING AND WITH THE FOLLOWING PARAMETERS: 15' WIDTH, 6:1 SIDESLOPES, AND SALVAGED TOPSOIL SURFACING INSTEAD OF AGGREGATE. SEE CROSS SECTIONS FOR PROFILE.

5

STA 9+97.00, STRUCTURE B-22-0293 REQ'D
SINGLE SPAN REINFORCED CONCRETE FLAT SLAB
CLEAR ROADWAY WIDTH = 30.0'
52.5' OVERALL LENGTH ALONG CENTERLINE
0° SKEW

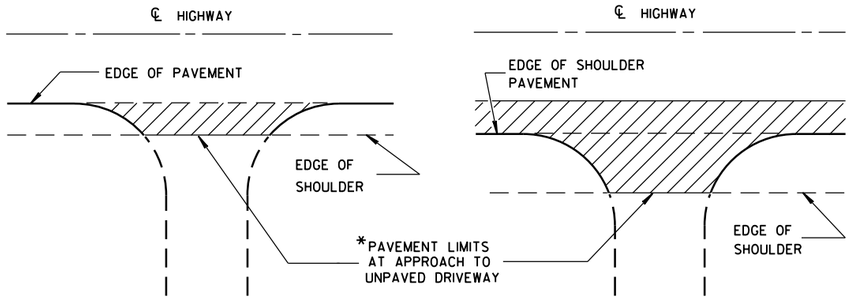


PROJECT NO: 5721-00-75	HWY: LOCAL STREET	COUNTY: GRANT	PLAN AND PROFILE: JIMTOWN RD	SHEET 11	E

FILE NAME : P:\18\207\DRAWINGS\57210005\SHEETSPLAN\050101-PP_50 FT BRIDGE.DWG
LAYOUT NAME - 01
PLOT DATE : 7/9/2020 5:26 PM
PLOT BY : NOAH HOFRICHTER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
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)
14B45-05J	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
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

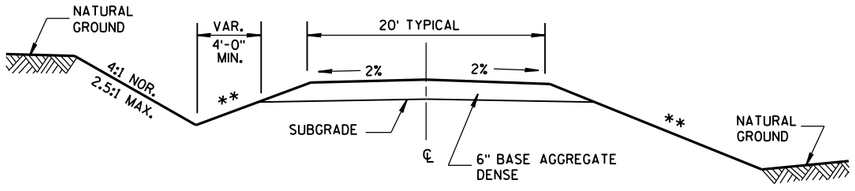


*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

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

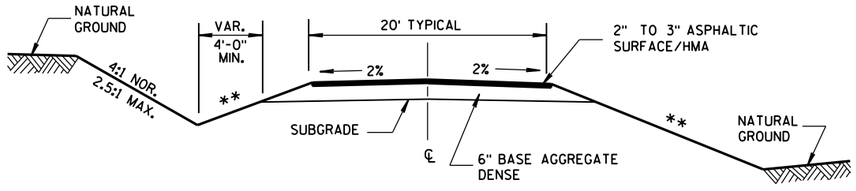


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

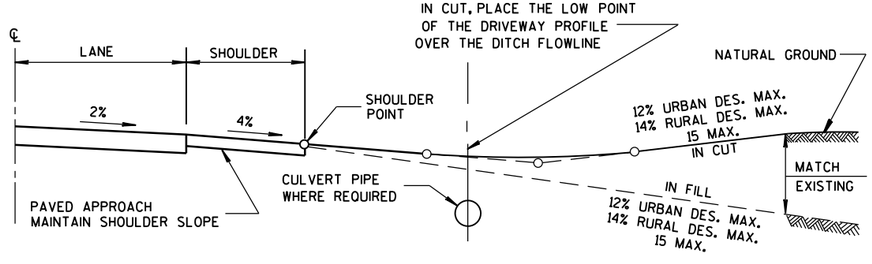
** SLOPE CAN VARY WITH SPEED. SEE 11-45-2.6.2.

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



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE



TYPICAL DRIVEWAY PROFILES

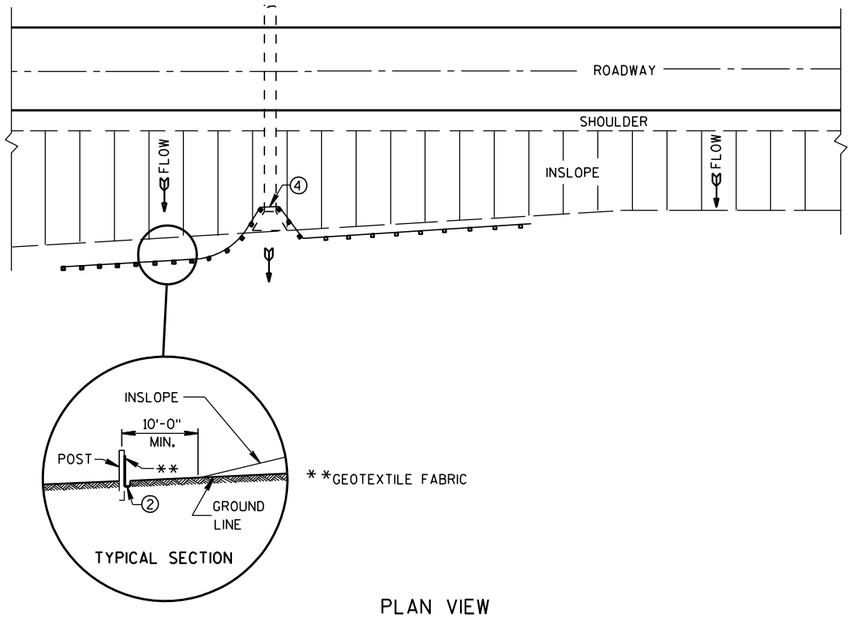
DRIVEWAYS WITHOUT CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERV ENT
FHWA

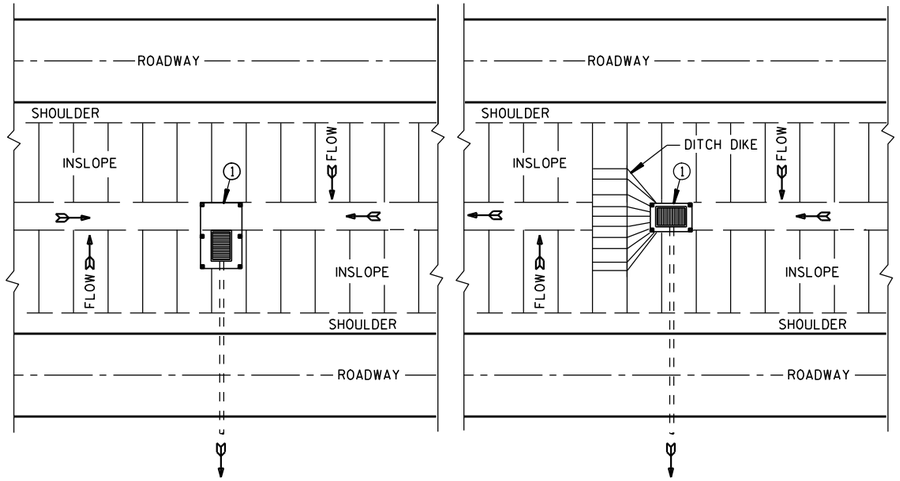
6

S.D.D. 8 D 21-1



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



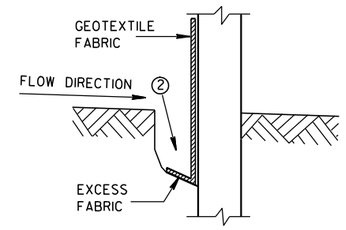
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

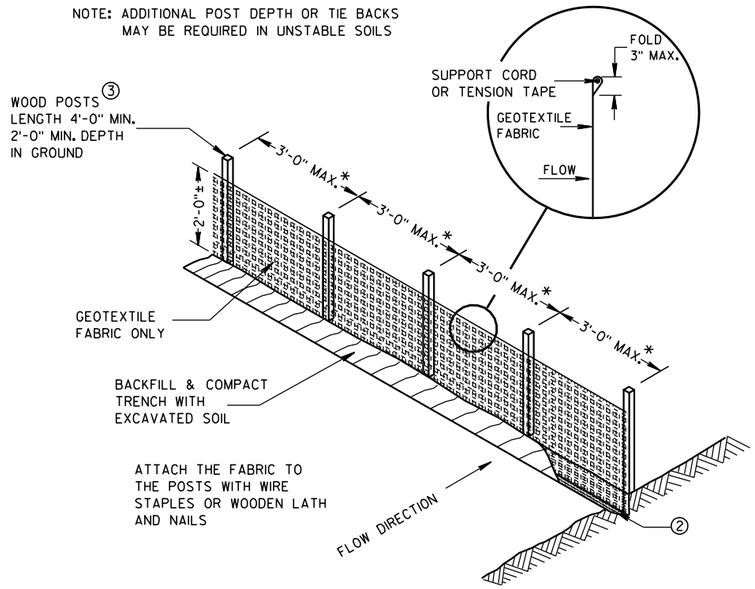
GENERAL NOTES

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

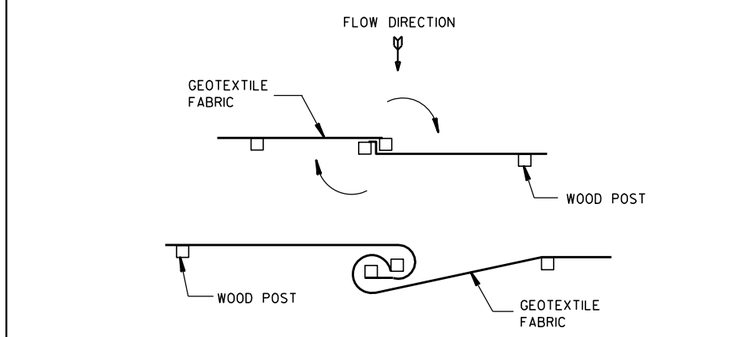
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



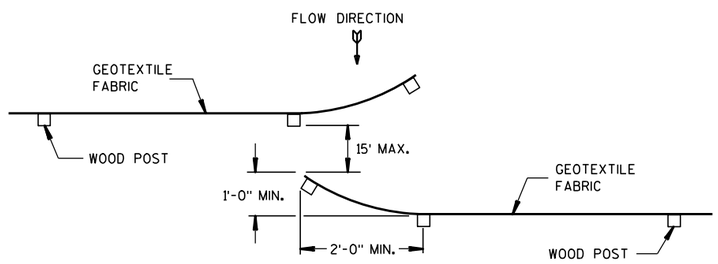
TRENCH DETAIL



SILT FENCE

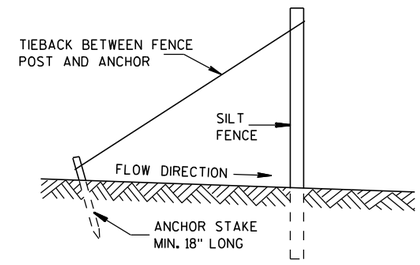


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

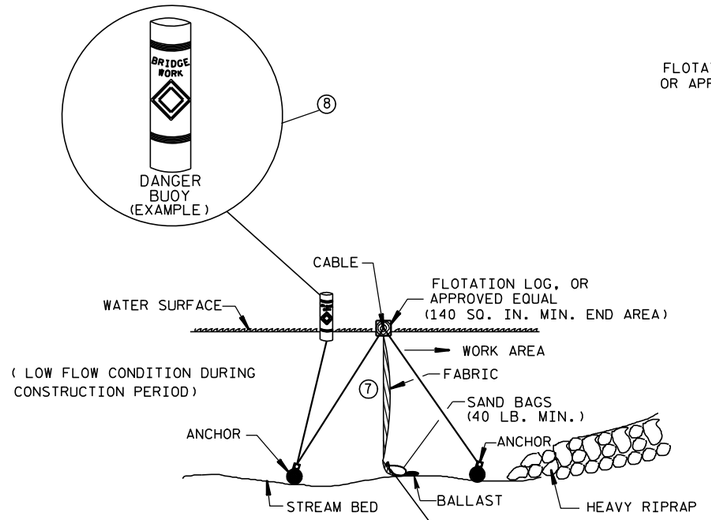
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

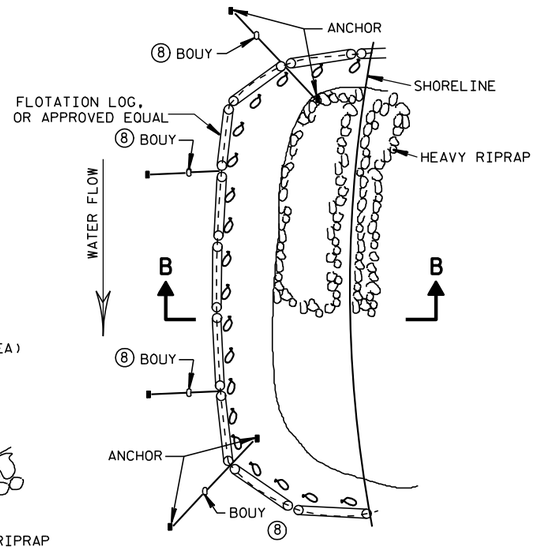
S.D.D. 8 E 9-6

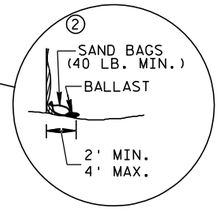
6

S.D.D. 8 E 9-6

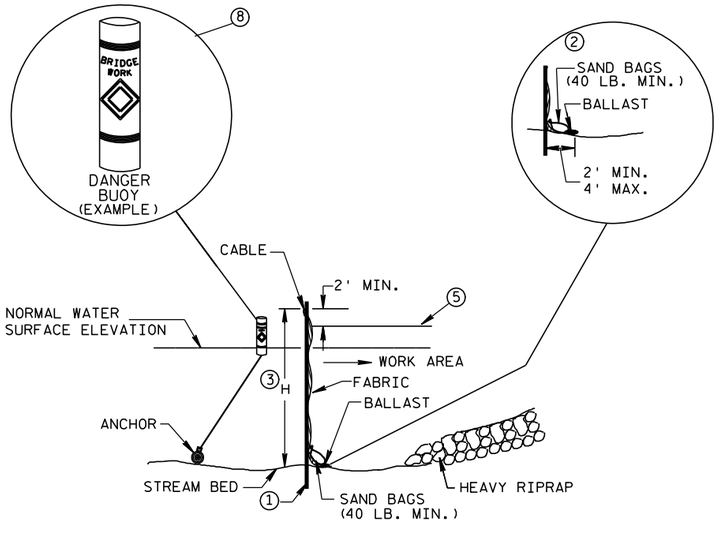


SECTION B-B

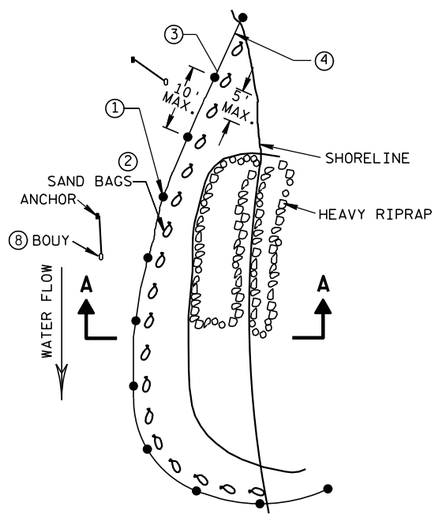




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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

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

② 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.

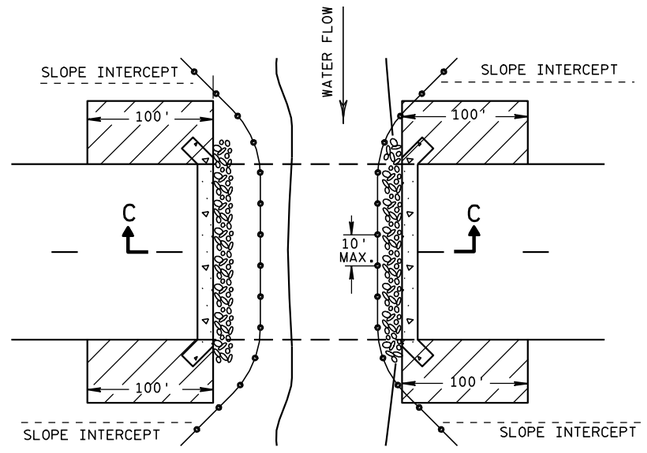
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

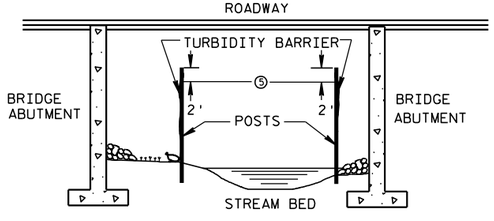
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

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.



PLAN VIEW



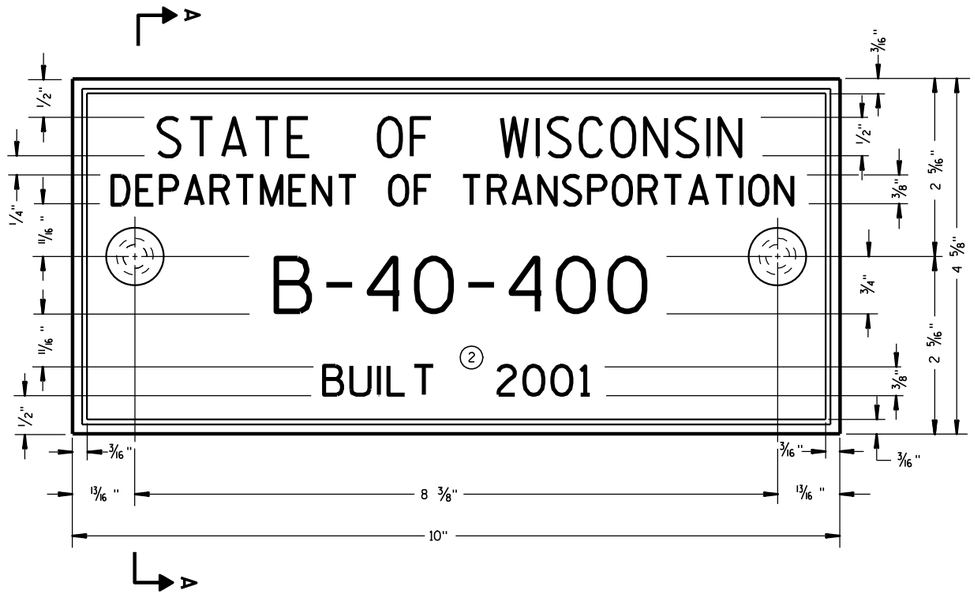
SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
6/04/02 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

6

S.D.D. 8 E 11-2



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

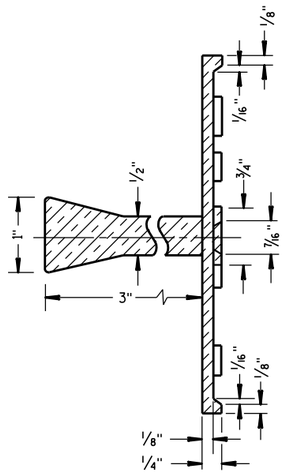
GENERAL NOTES

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

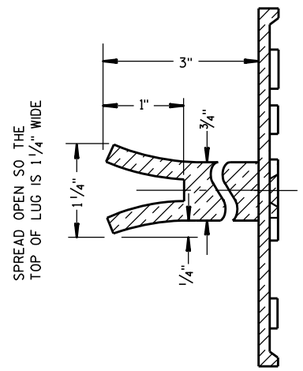
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

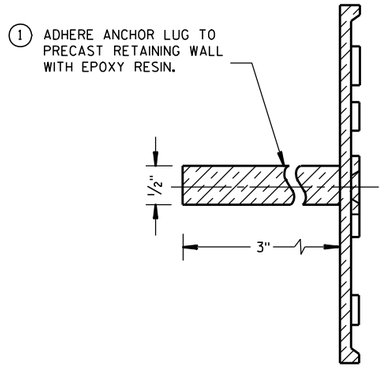
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

6

S.D.D. 12 A 3-10

6

S.D.D. 12 A 3-10

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

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

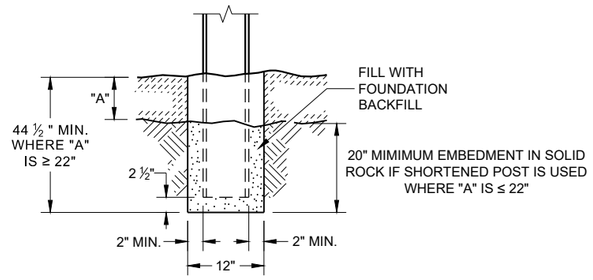
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

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

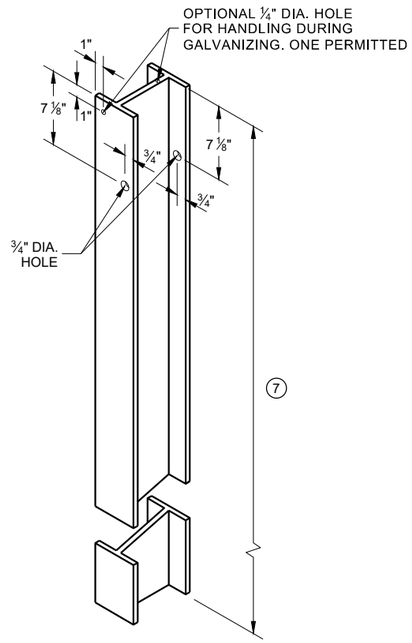
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

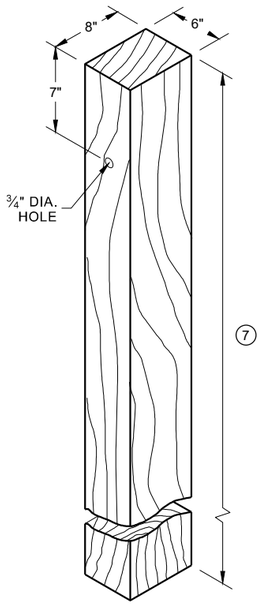
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



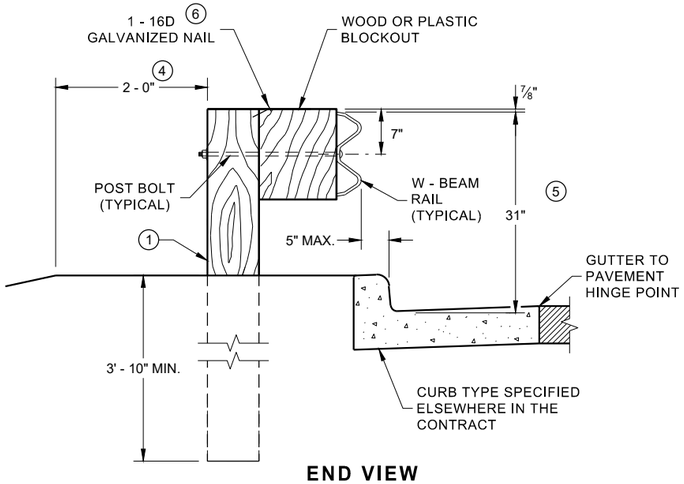
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



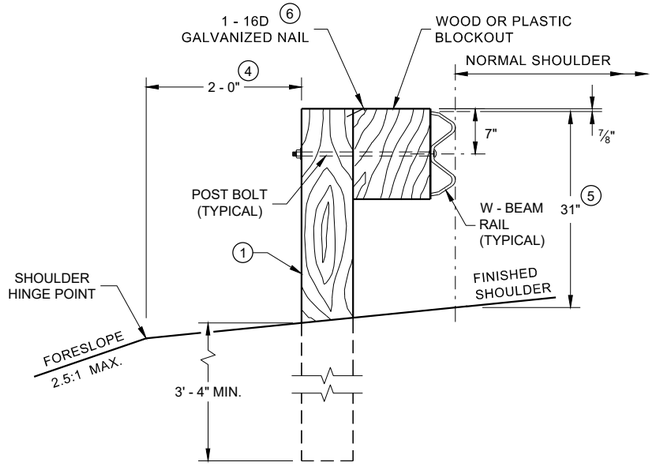
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



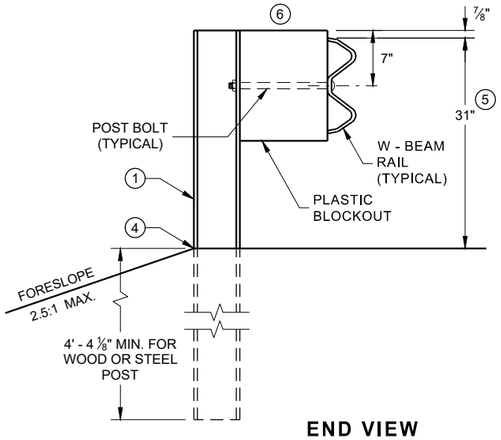
WOOD POST (6" X 8") NOMINAL (1)



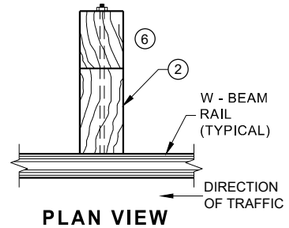
END VIEW
LOCATED ALONG A CURBED ROADWAY



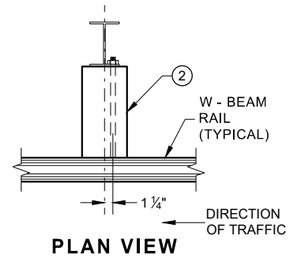
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



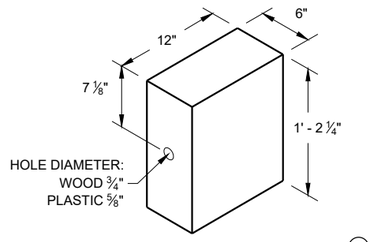
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

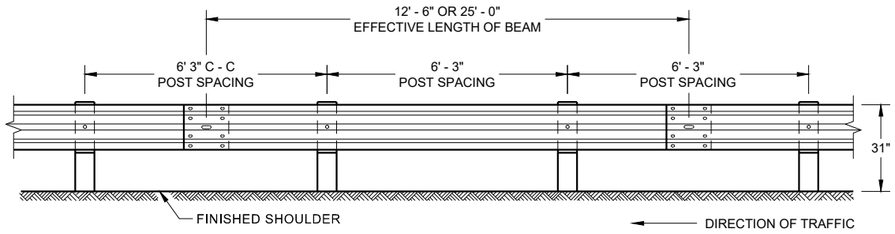
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

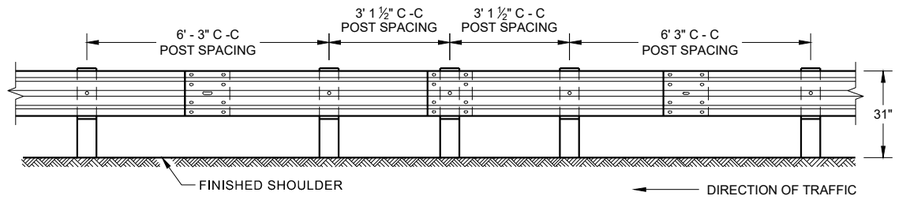
SDD 14B42 - 06a

6

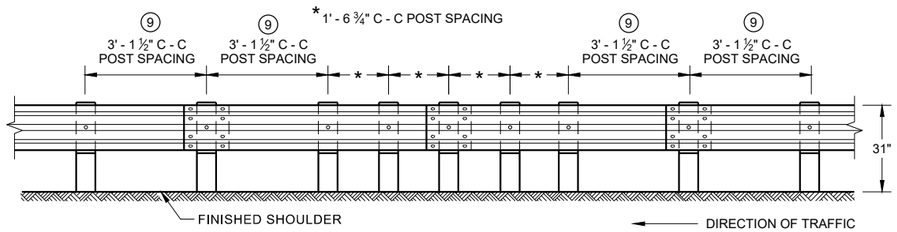
SDD 14B42 - 06a



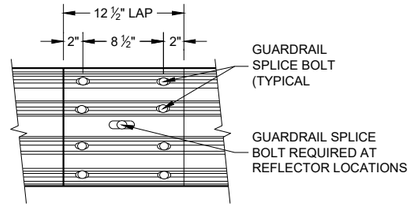
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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

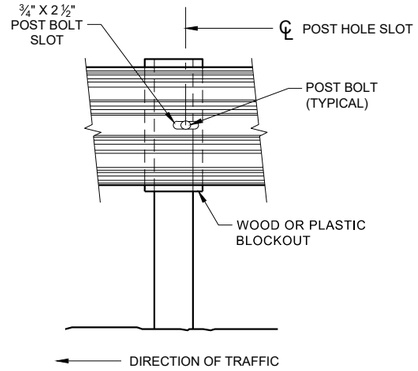
GENERAL NOTES

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

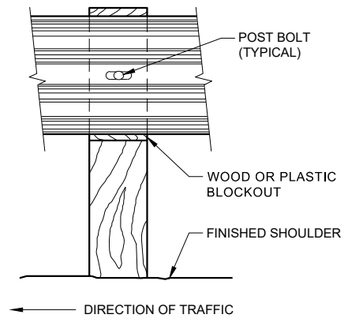
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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

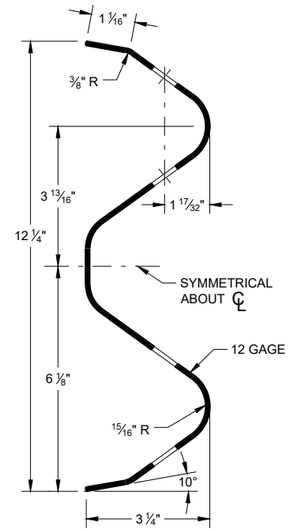
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



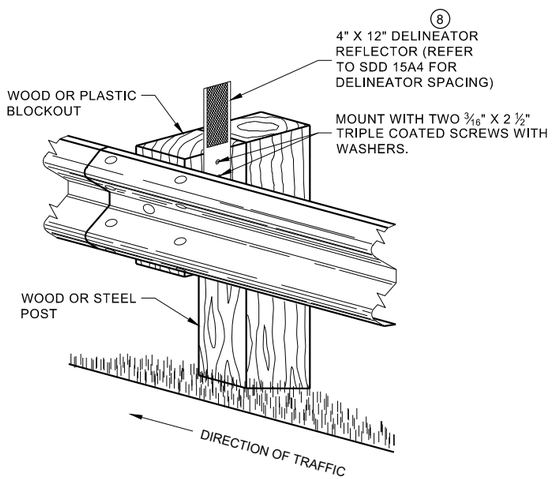
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL

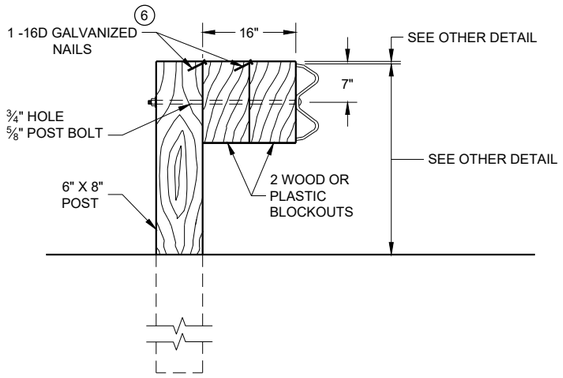


ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 06b

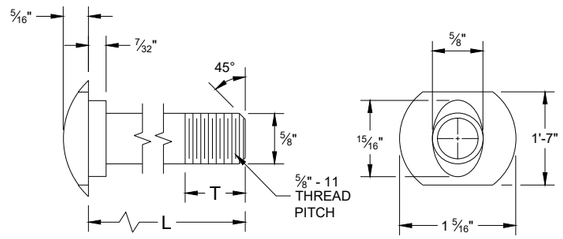


DETAIL FOR 16" BLOCKOUT DEPTH

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

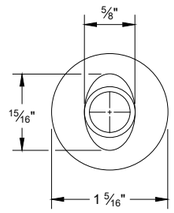
NOTE:

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

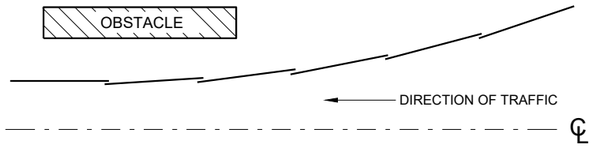


POST BOLT TABLE

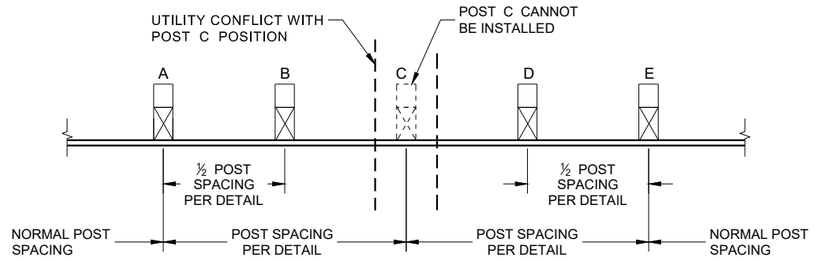
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



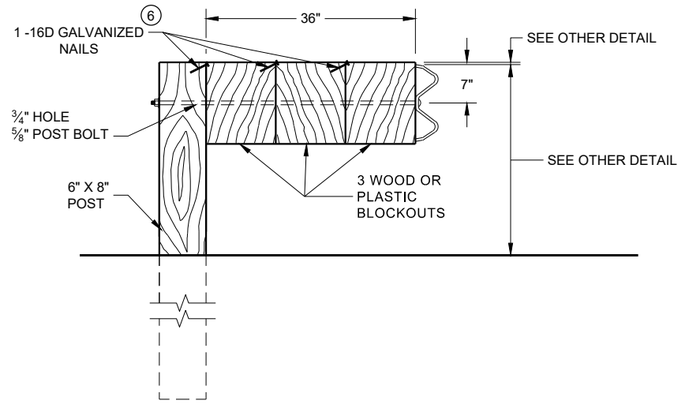
ALTERNATE BOLT HEAD



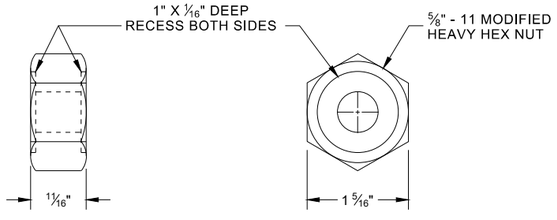
PLAN VIEW
BEAM LAPPING DETAIL



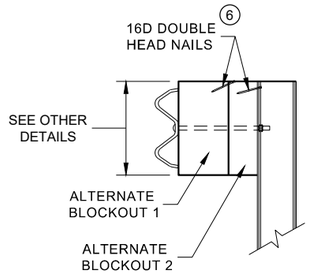
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



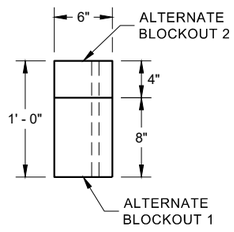
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

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

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

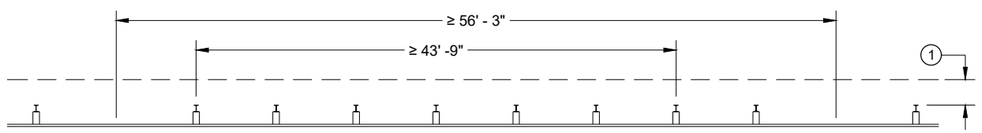
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

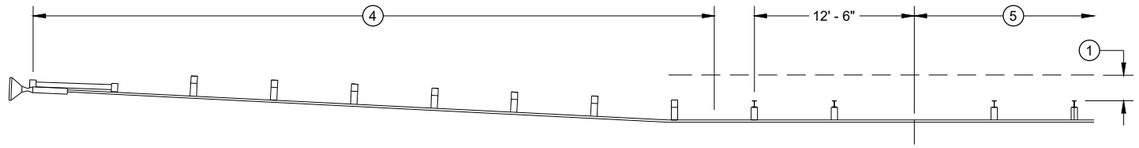
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

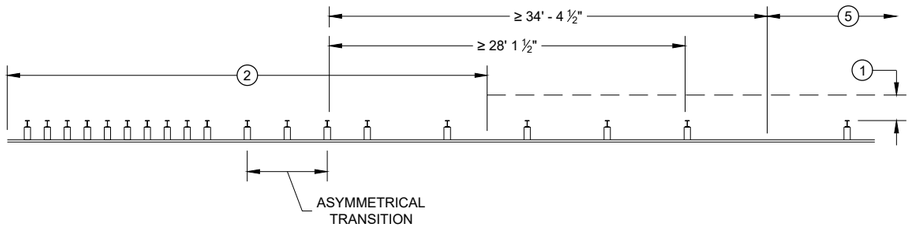
SDD 14B42 - 06c



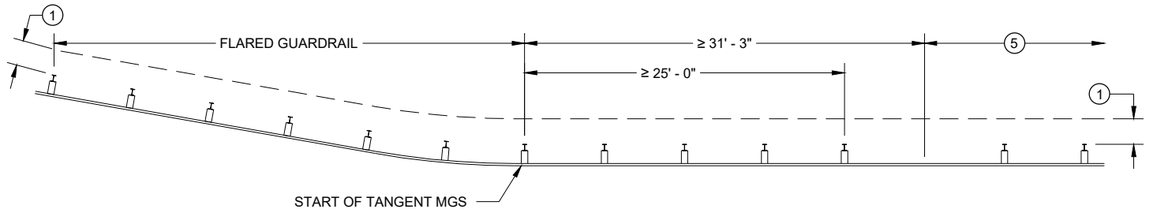
MISSING POST IN NORMAL BEAM GUARD RUN



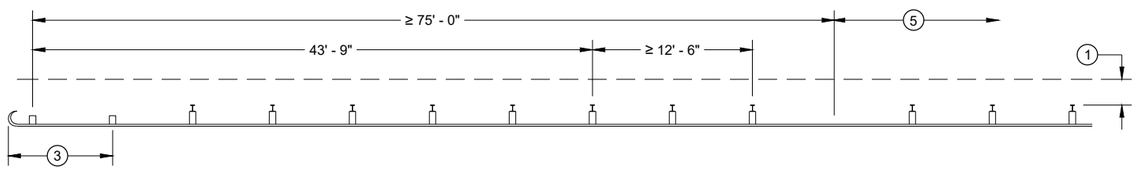
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



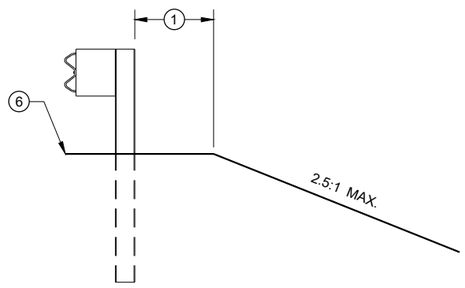
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



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 DEVE UNIT SUPERVISOR
FHWA

6

SDD 14B42 - 06d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

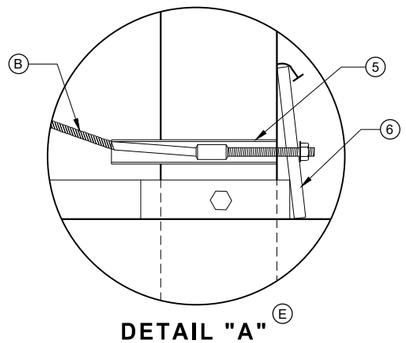
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

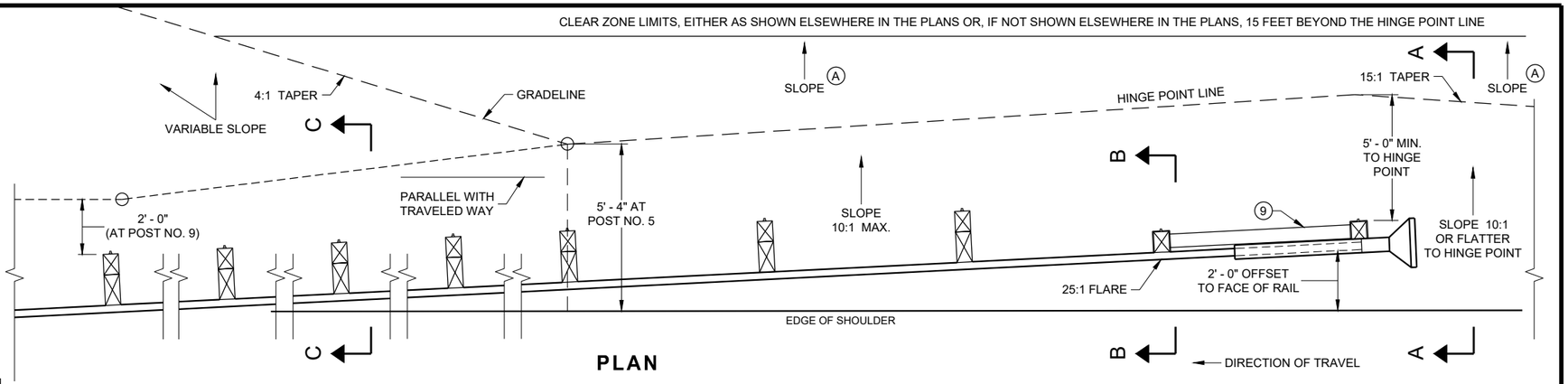
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

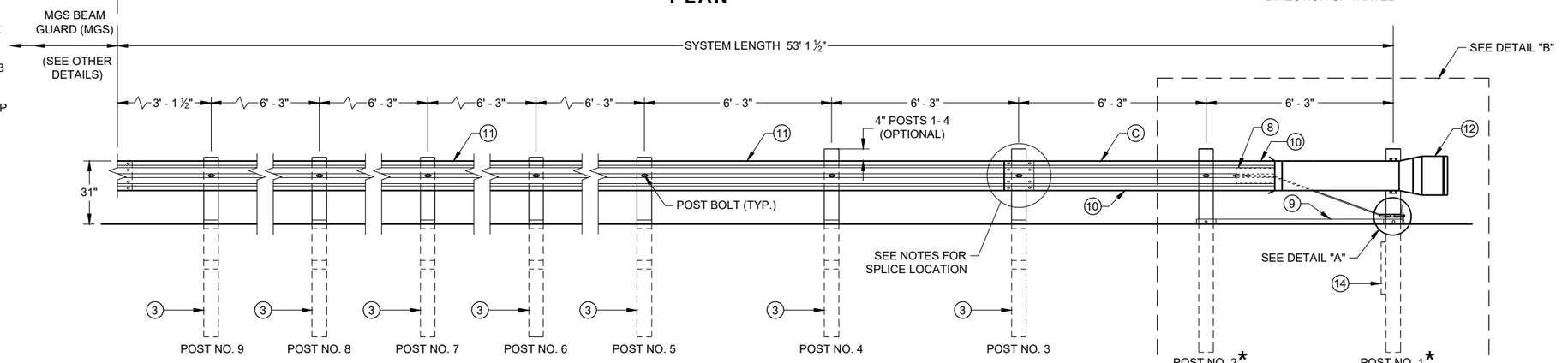
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



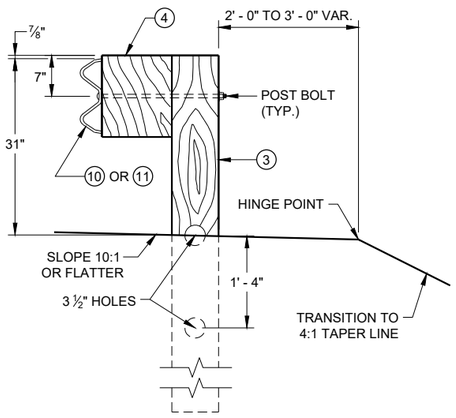
DETAIL "A" (E)



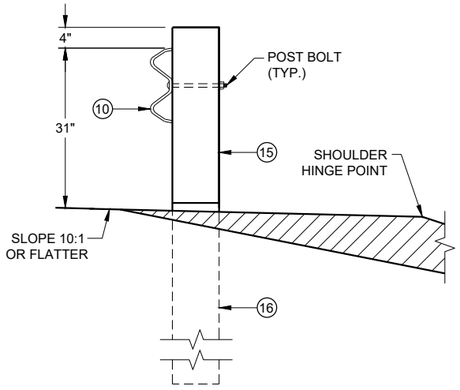
PLAN



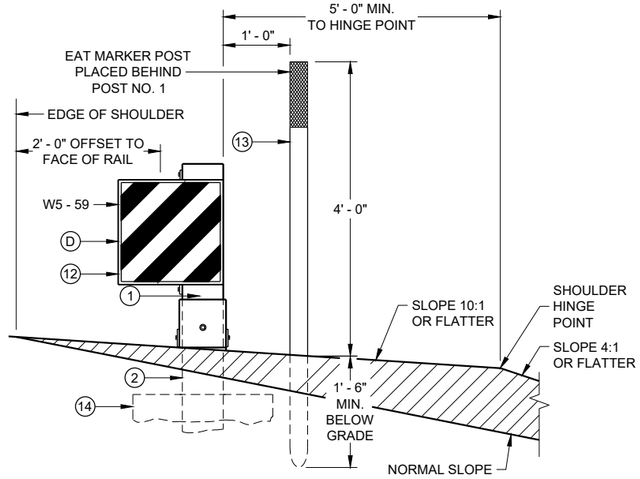
ELEVATION



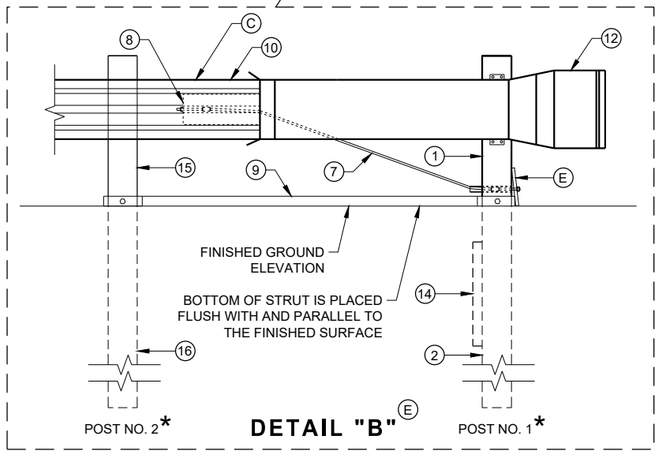
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



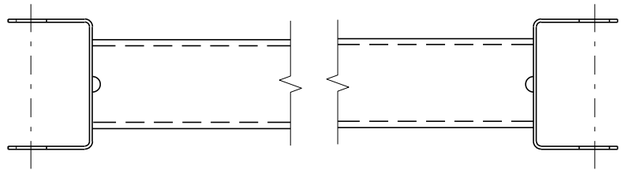
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

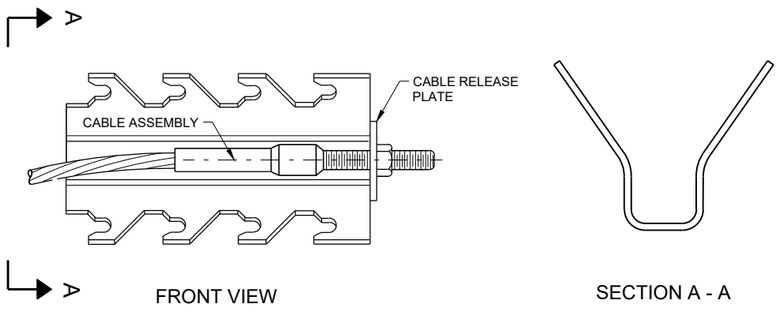
SDD 14B44 - 04a



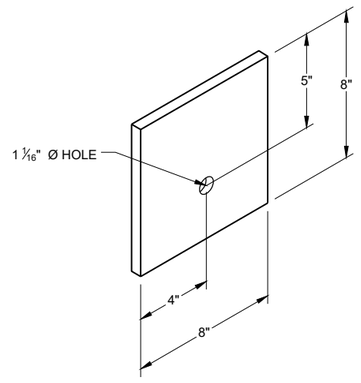
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



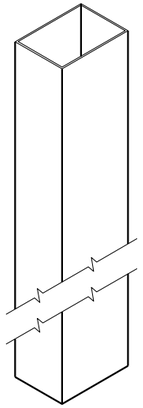
BEARING PLATE ⑥ Ⓔ

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

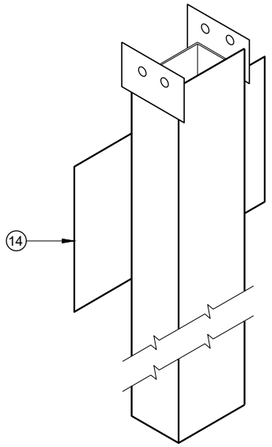
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

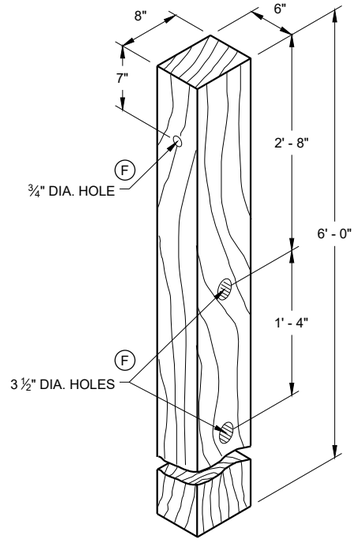
SDD 14B44 - 04b



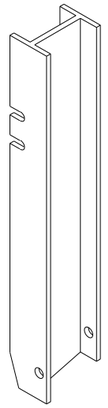
UPPER POST NO. 1 (1) (E)



LOWER POST NO. 1 (2) (E)



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



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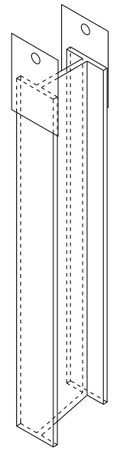

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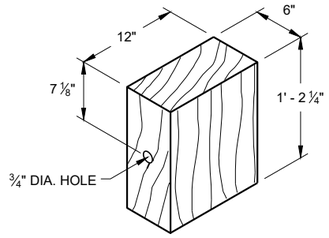
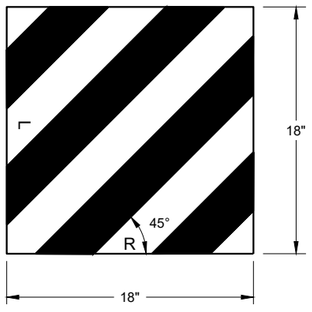
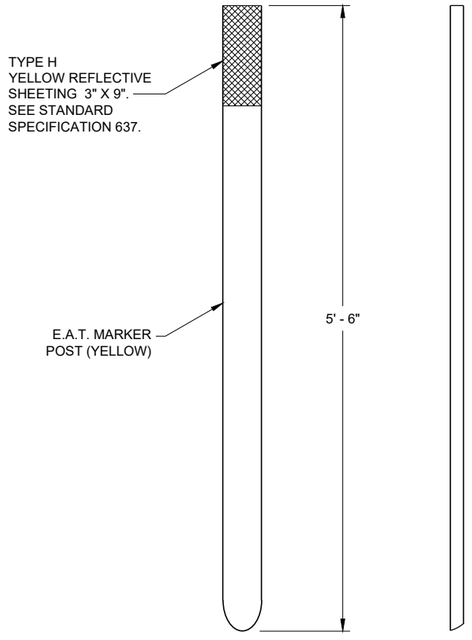


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



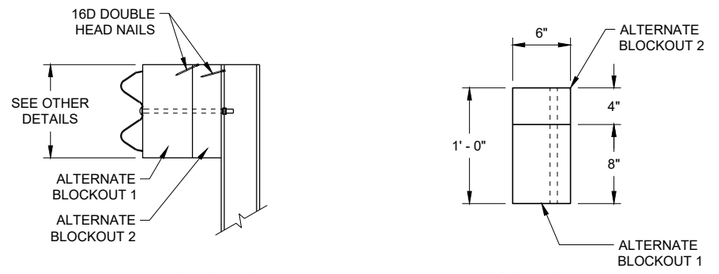
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

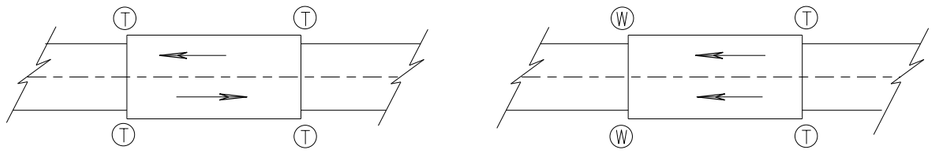
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

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

TRANSITION USES STEEL POSTS ONLY.

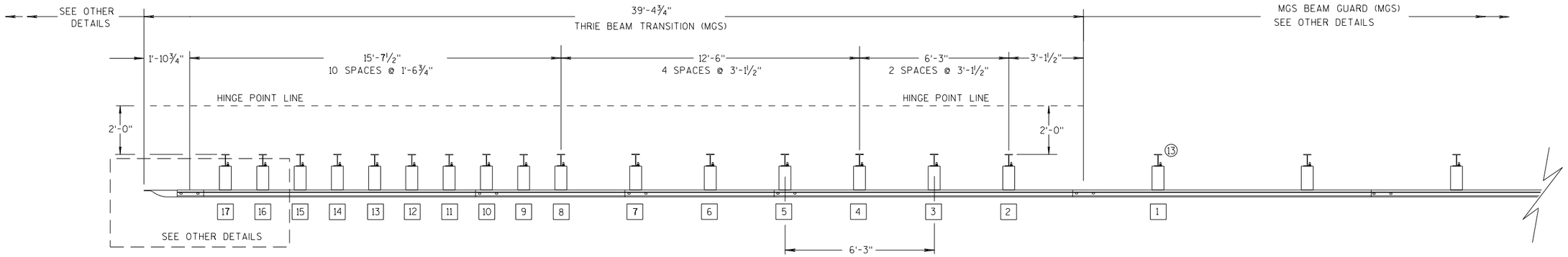
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

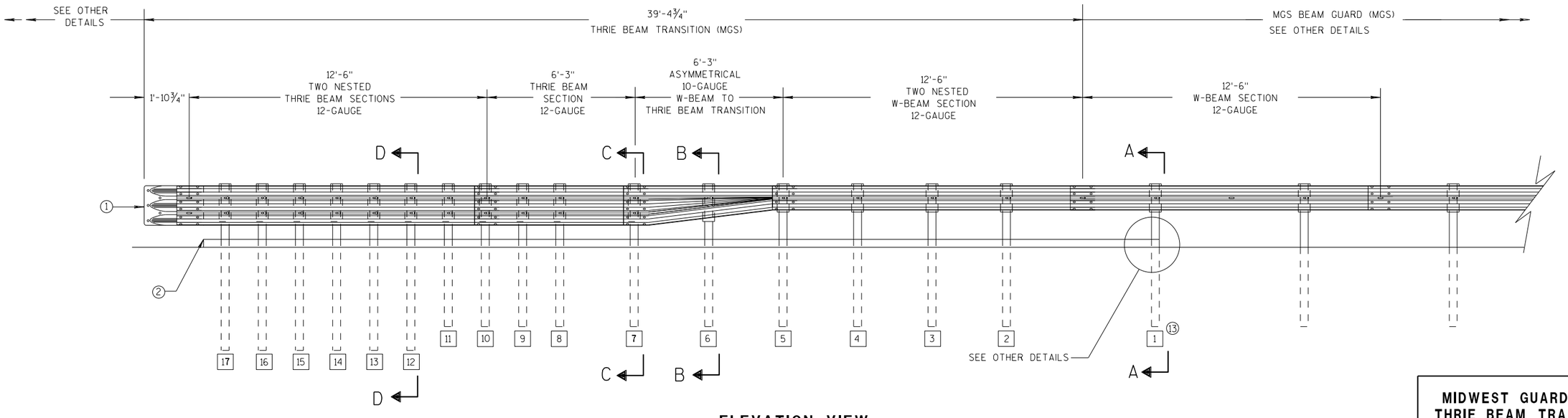
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 45-5a

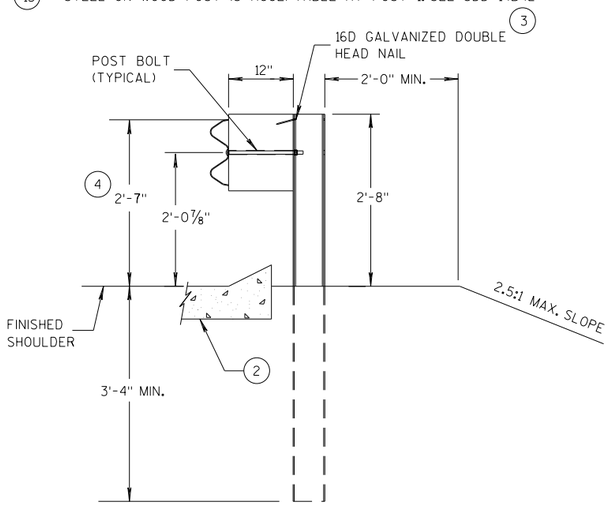
GENERAL NOTES

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

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

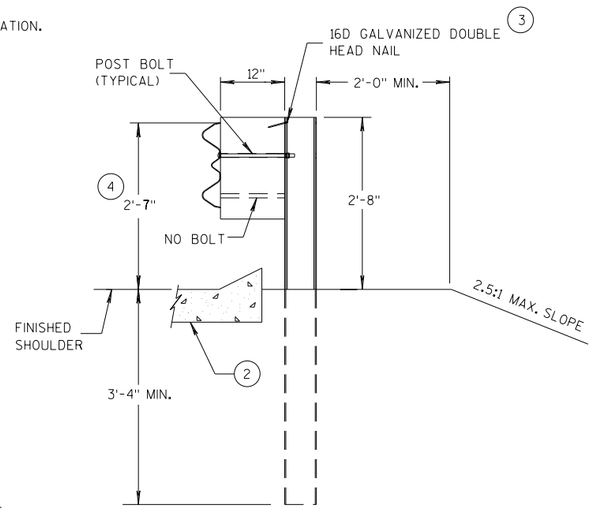
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



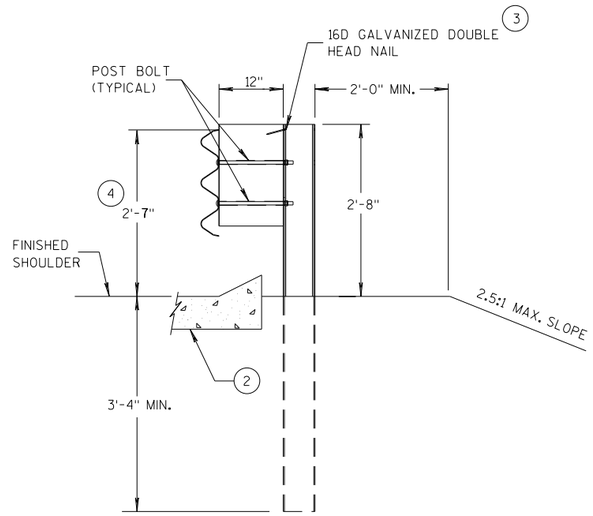
SECTION A-A (13)

POSTS 1-5



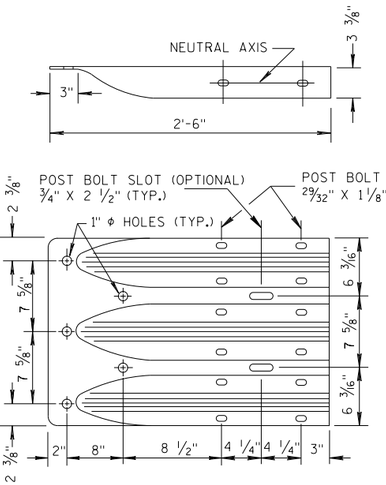
SECTION B-B

POST 6

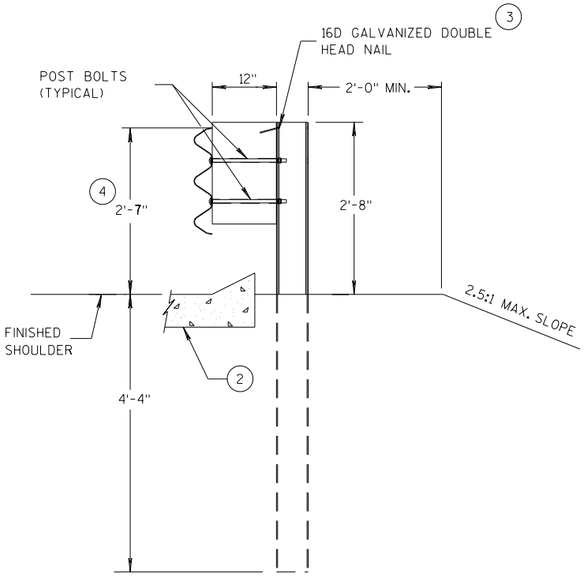


SECTION C-C

POSTS 7-11

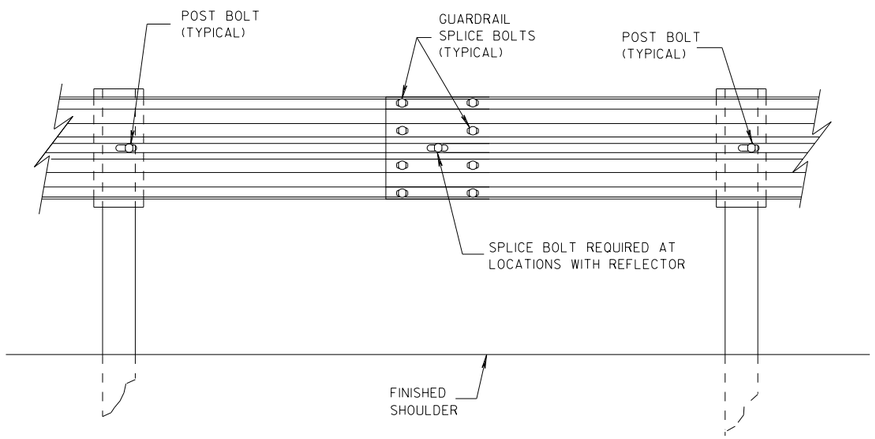


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

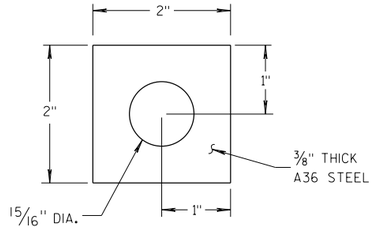
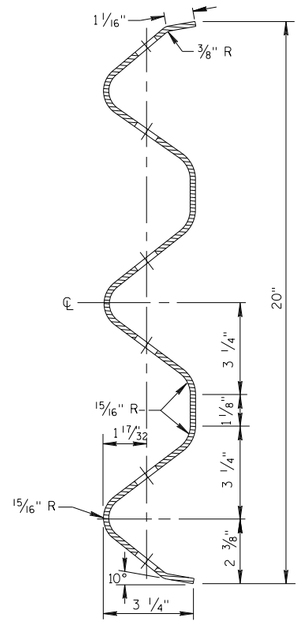


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

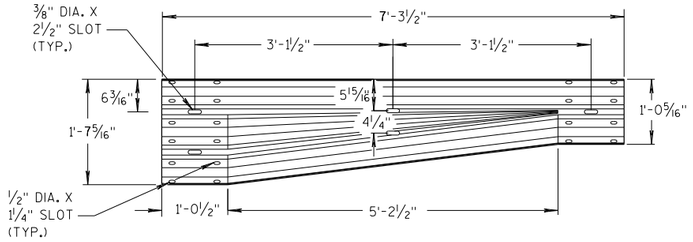
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 25

6

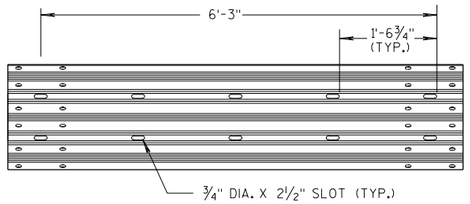
S.D.D. 14 B 45-5b

6

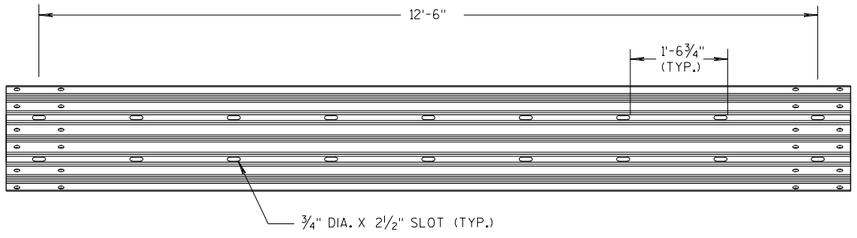
S.D.D. 14 B 45-5b



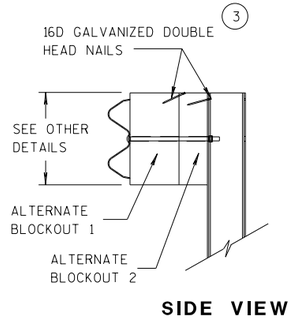
W-BEAM TO THRIE BEAM TRANSITION SECTION



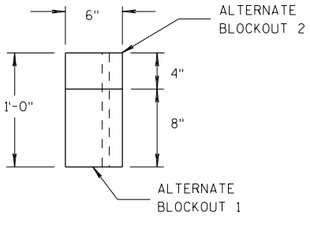
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

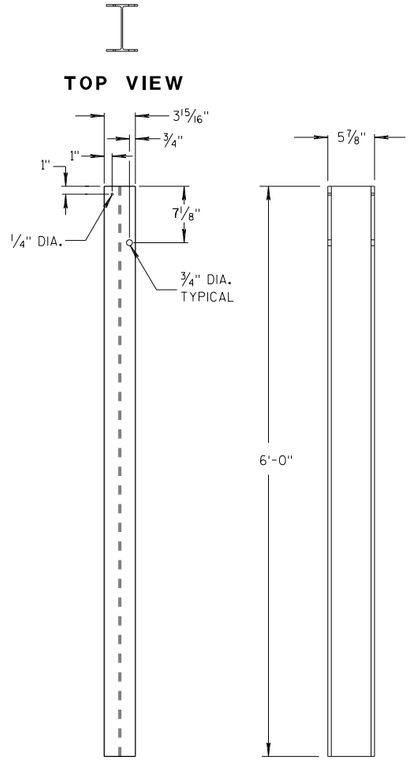


SIDE VIEW



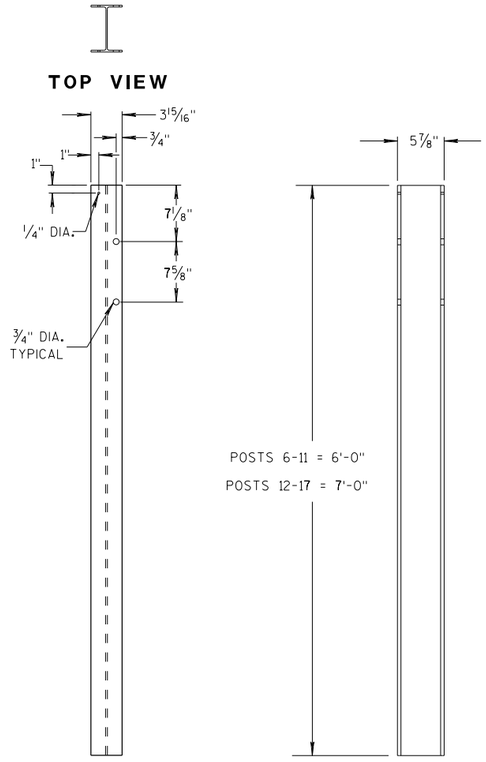
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



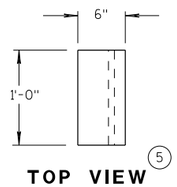
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

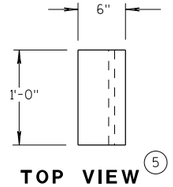


FRONT VIEW SIDE VIEW

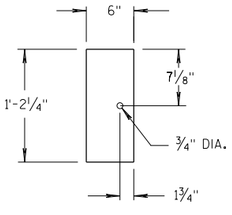
STEEL POSTS 6-17



TOP VIEW (5)

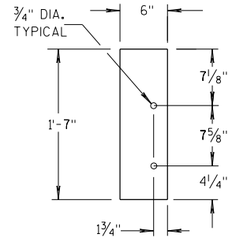


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

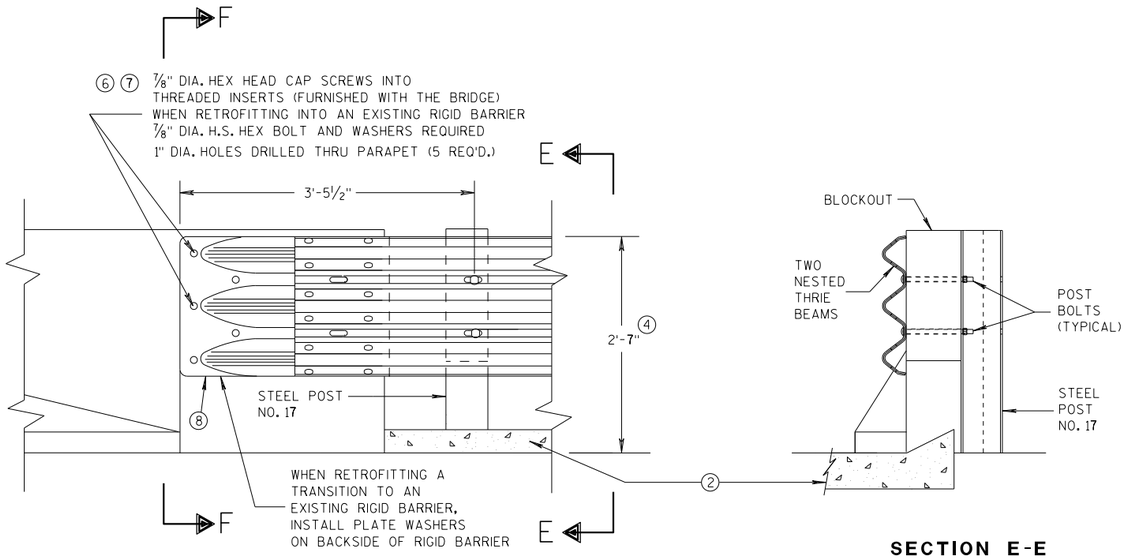
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

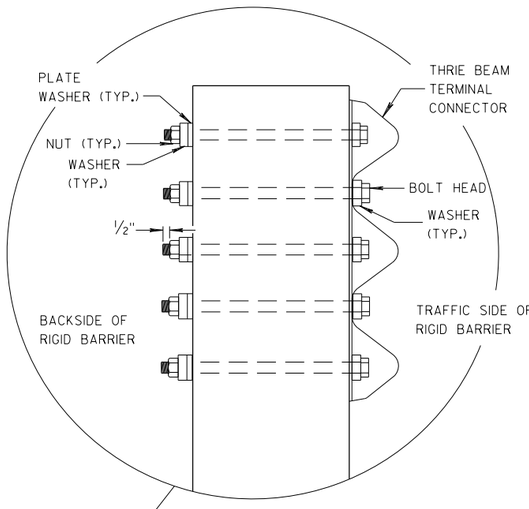
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

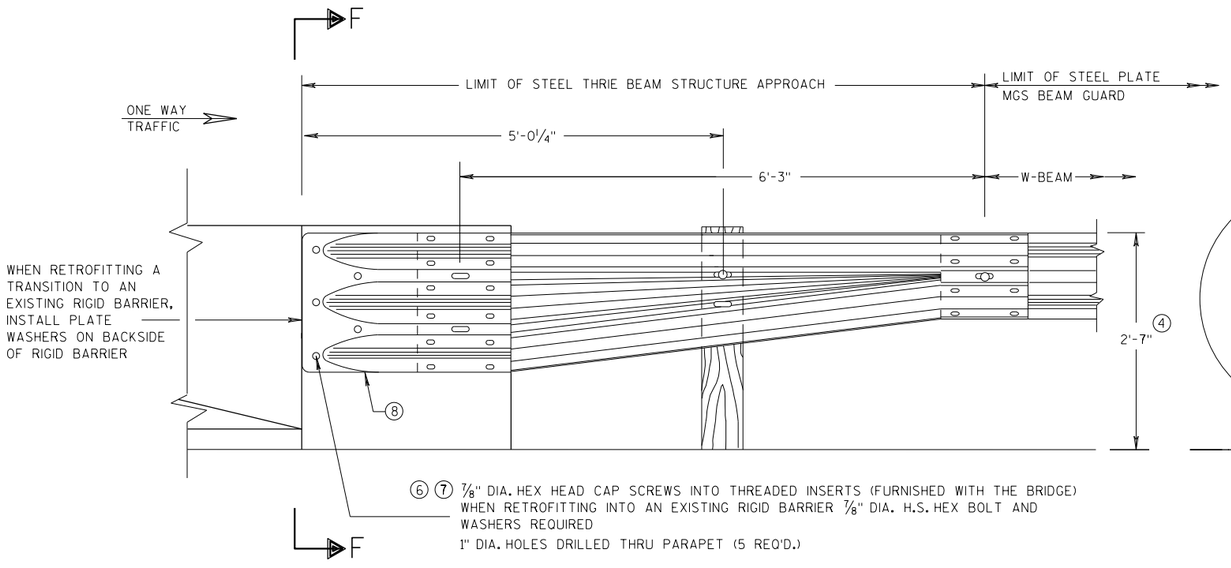
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

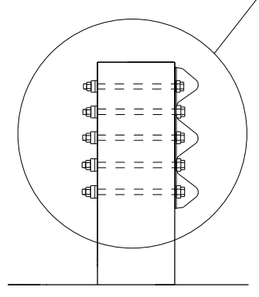
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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".

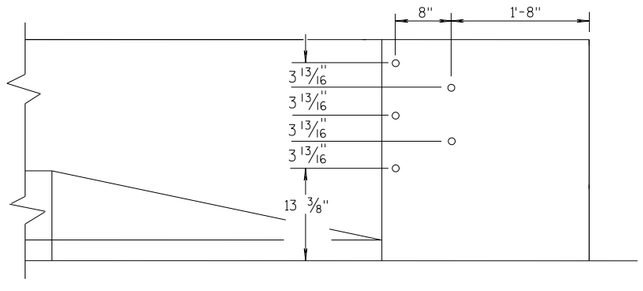




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVIS
NT
FHWA

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

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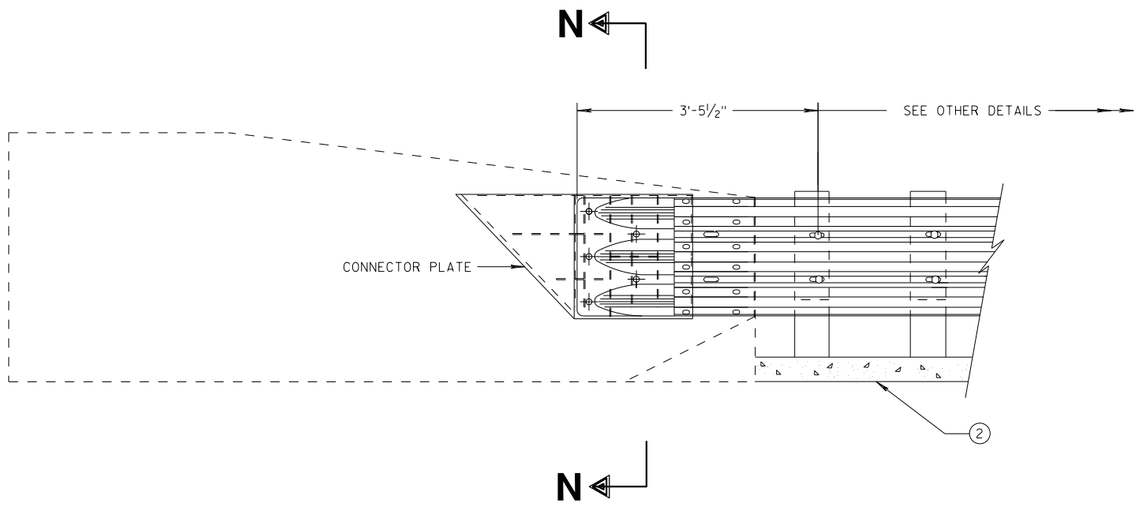
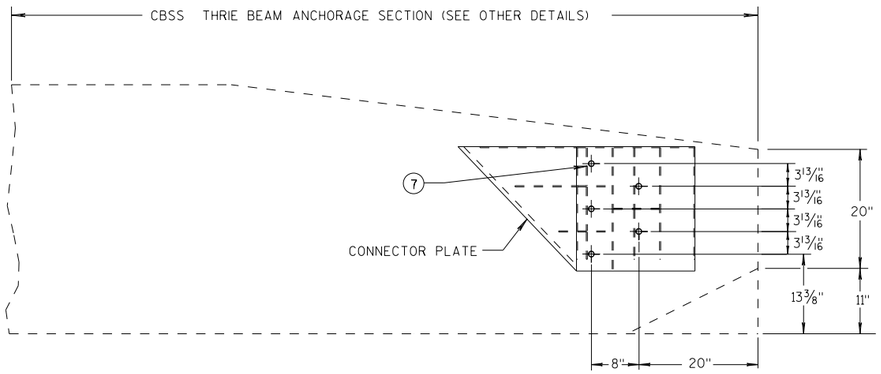
S.D.D. 14 B 45-5d



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



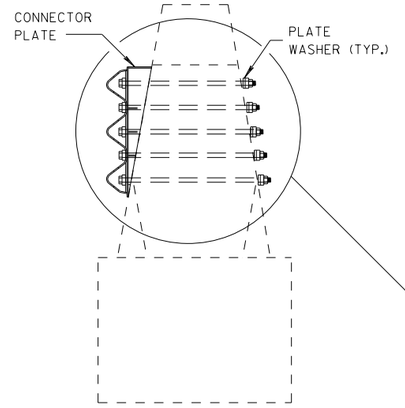
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

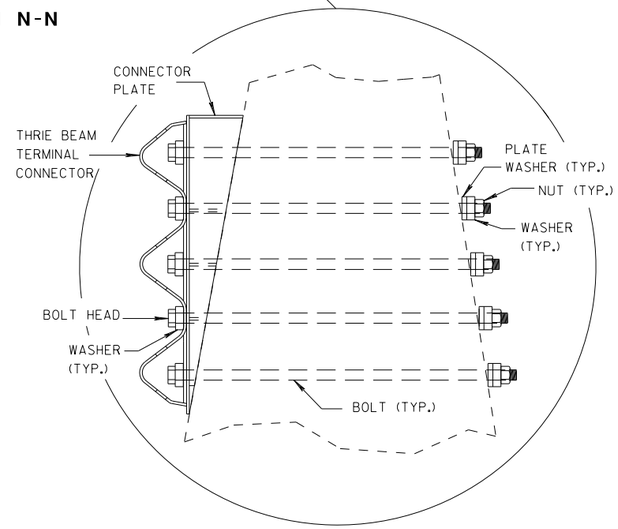
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

(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.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DI UNIT SUPERVIS
NT
FHWA

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

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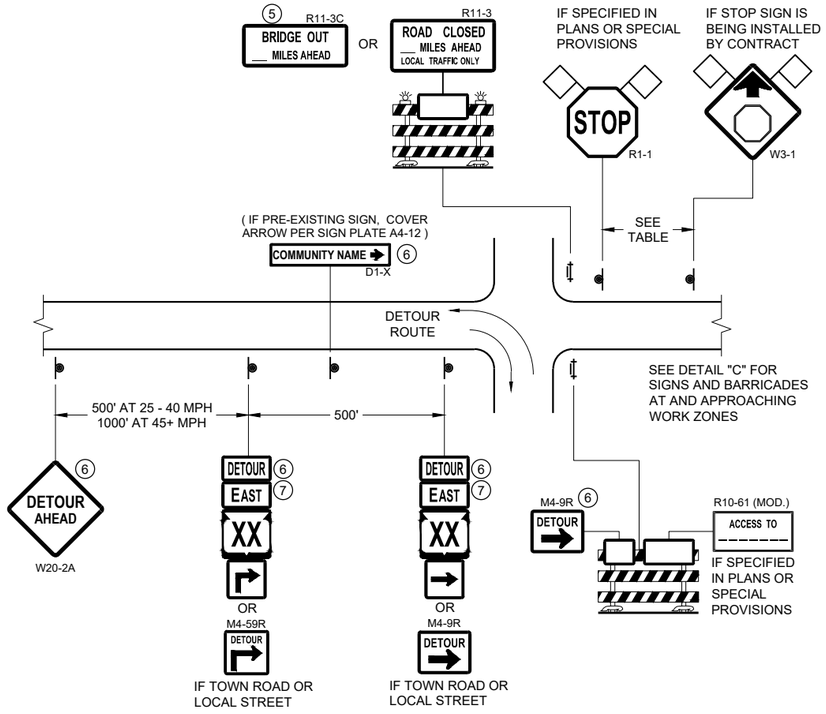
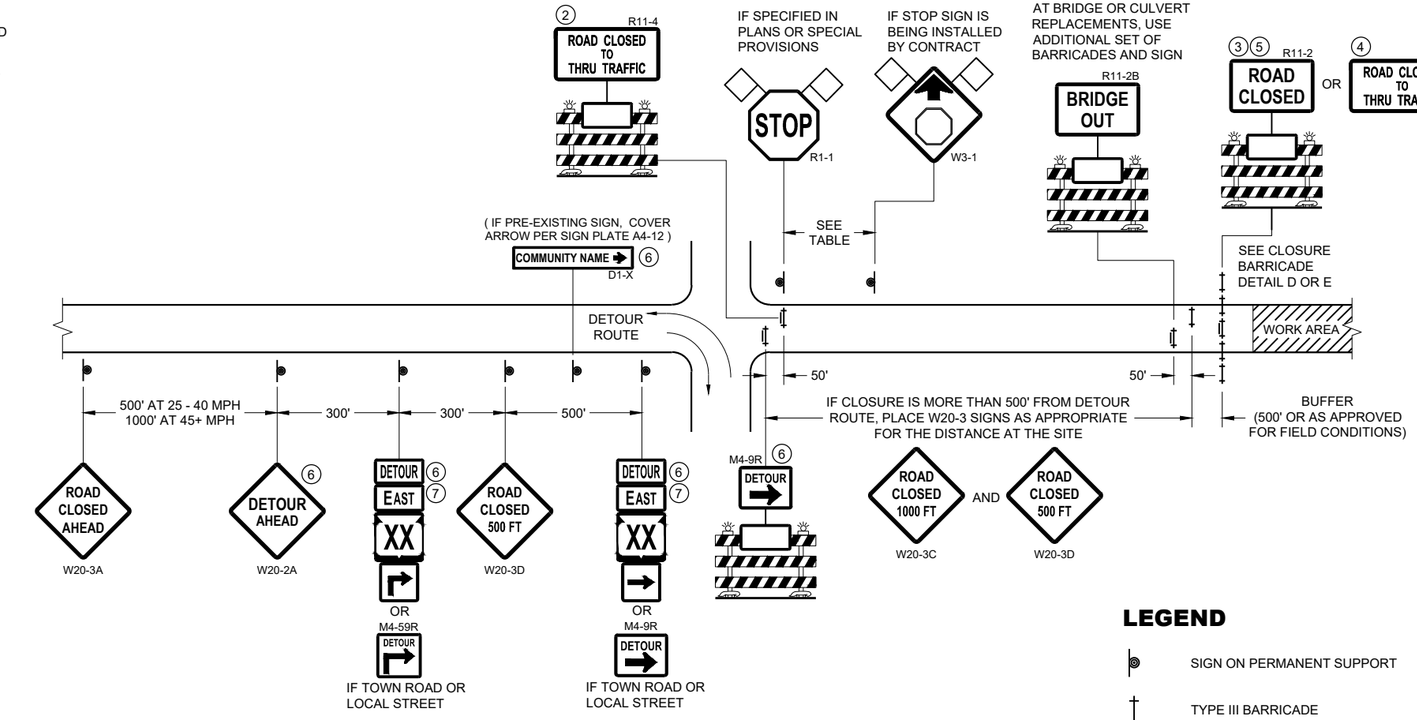
S.D.D. 14 B 45-5j



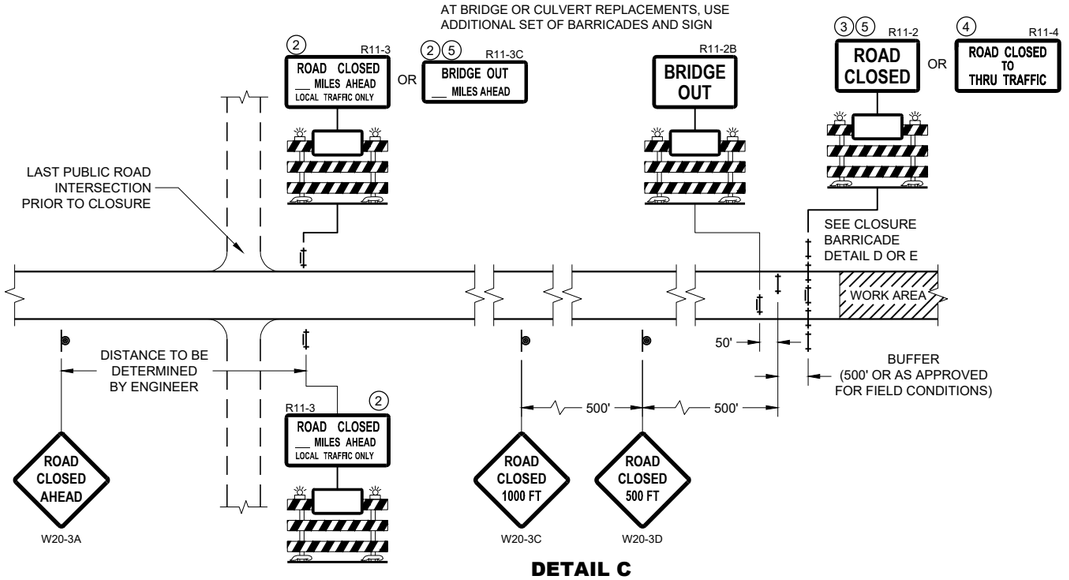
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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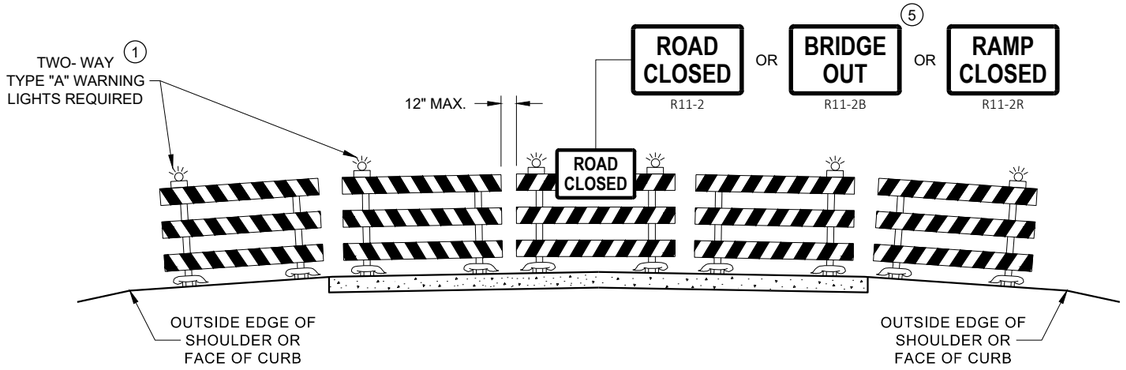
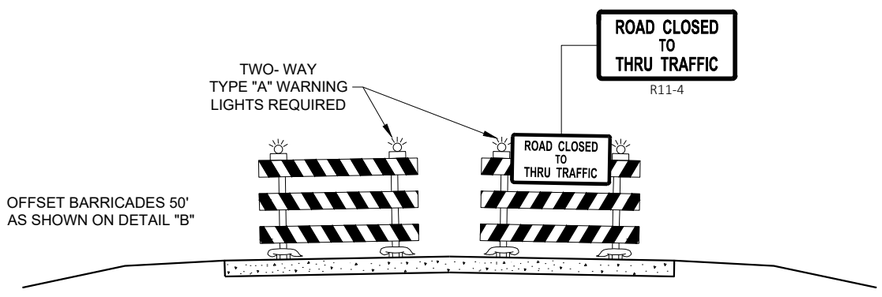
SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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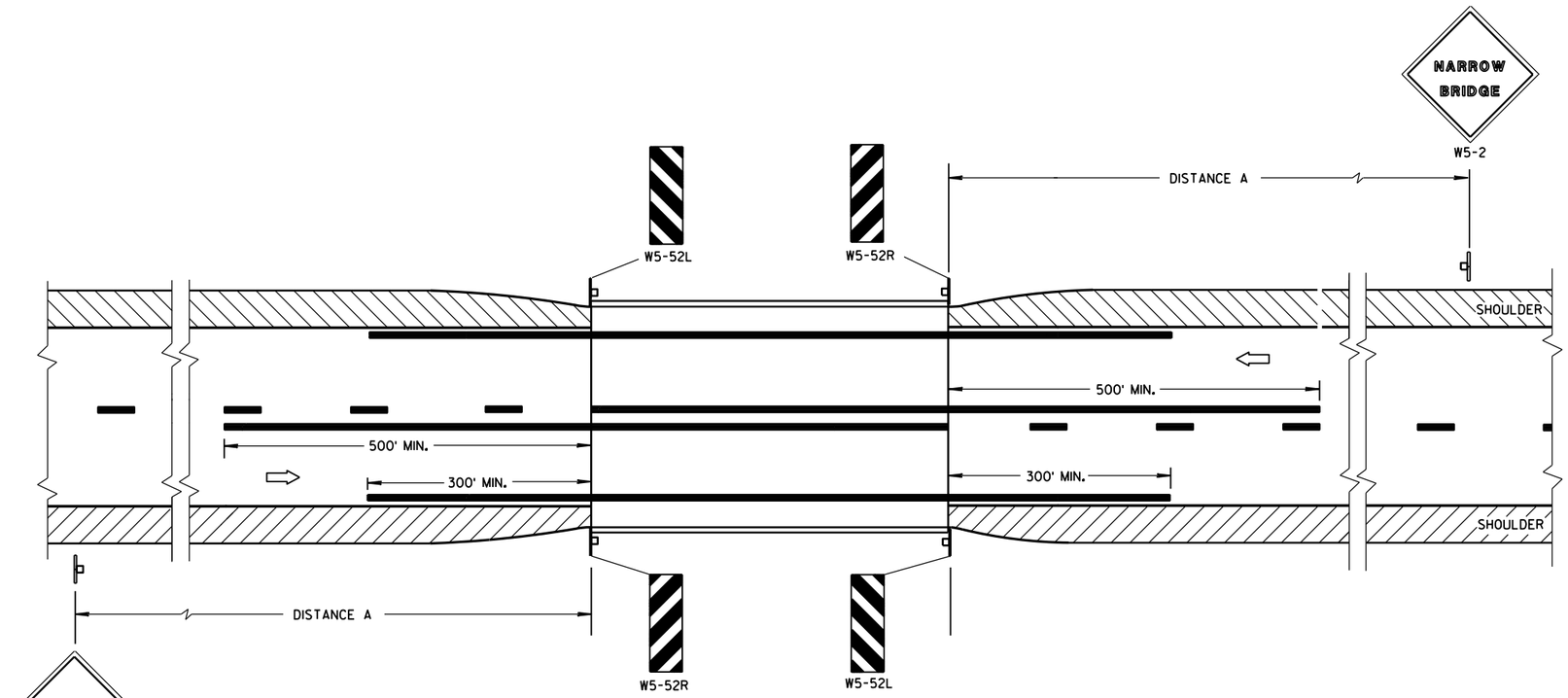
SDD 15C02 - 08b



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

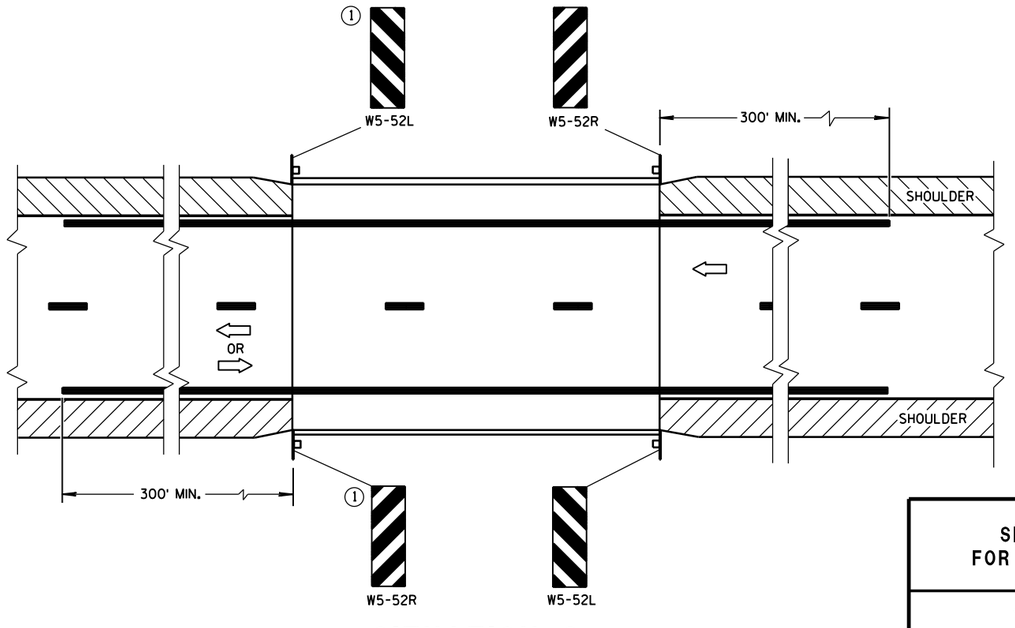
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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S.D.D. 15 C 6-9

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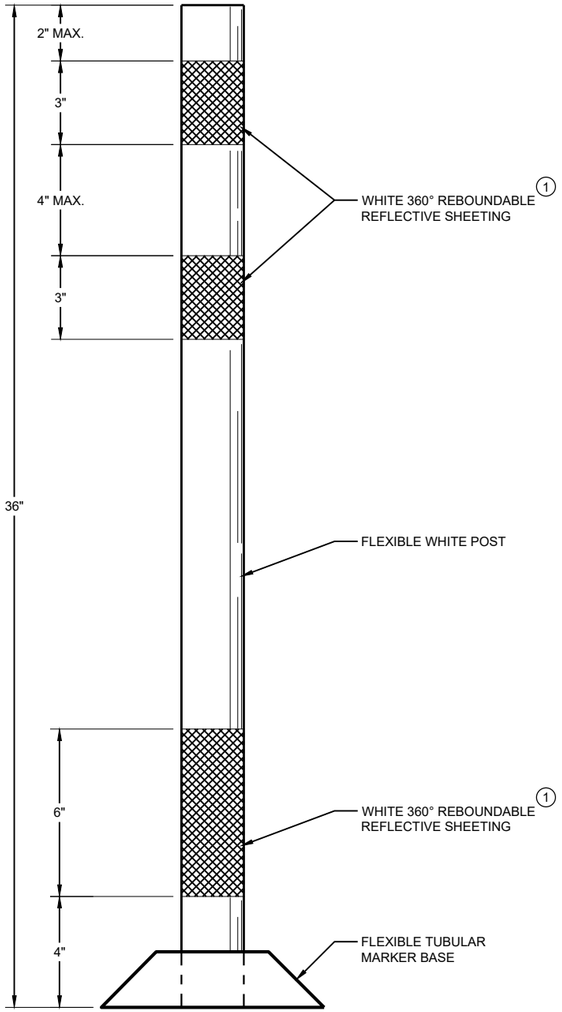
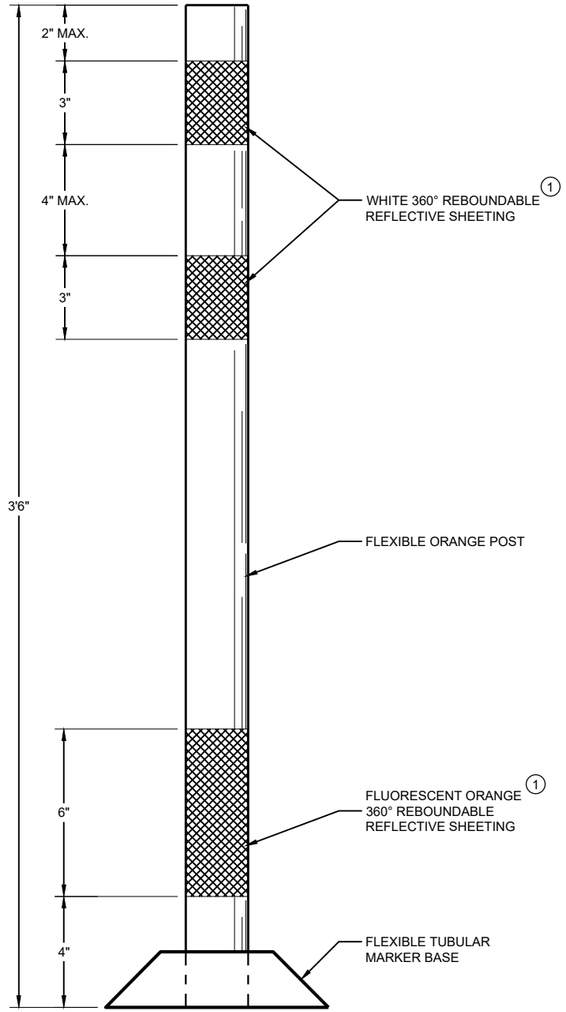
S.D.D. 15 C 6-9



FLEXIBLE TUBULAR MARKER POST PERMANENT CROSSOVER



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

SDD 15C11 - 07a

CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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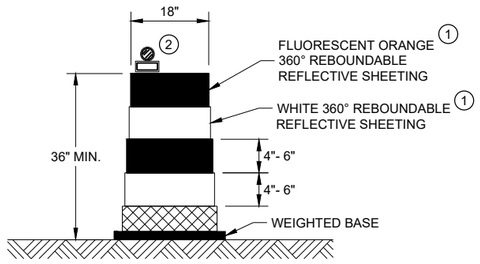
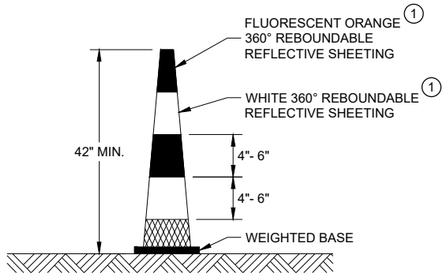
SDD 15C11 - 07a

GENERAL NOTES

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

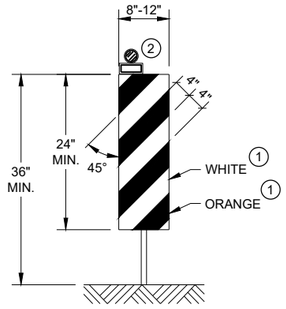


DRUM



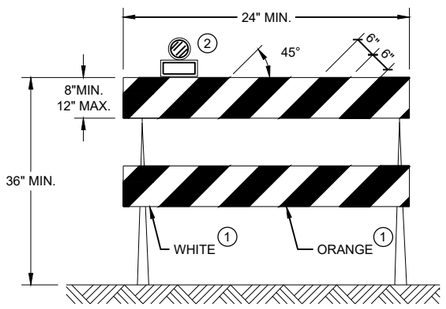
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



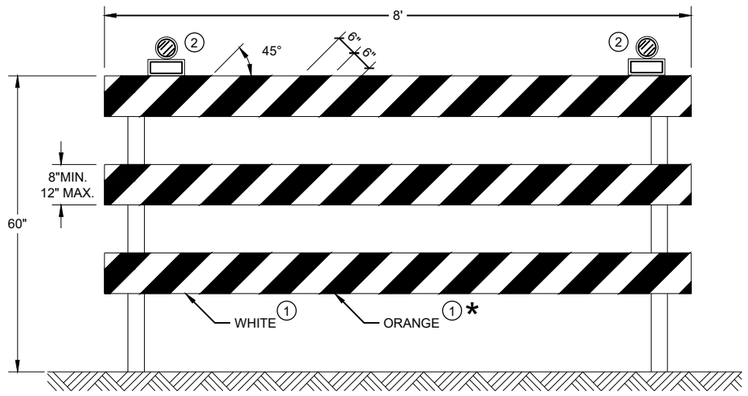
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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SDD 15C11 - 07b

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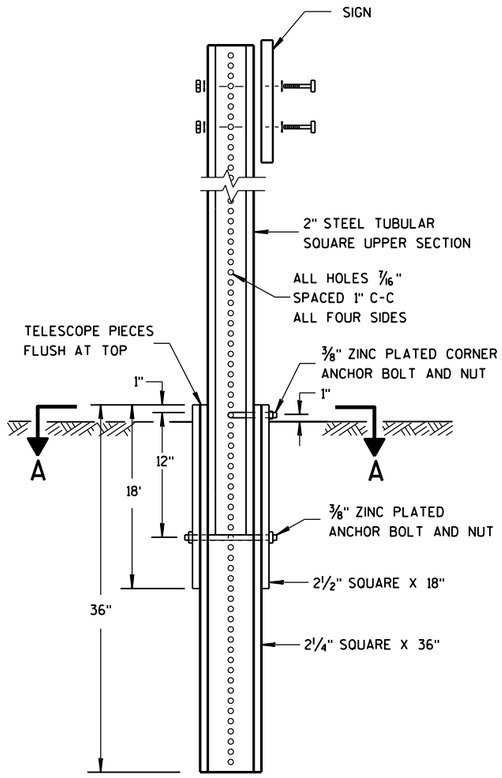
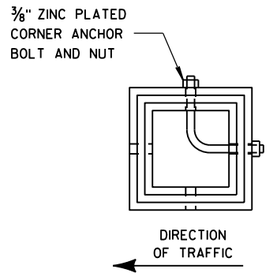
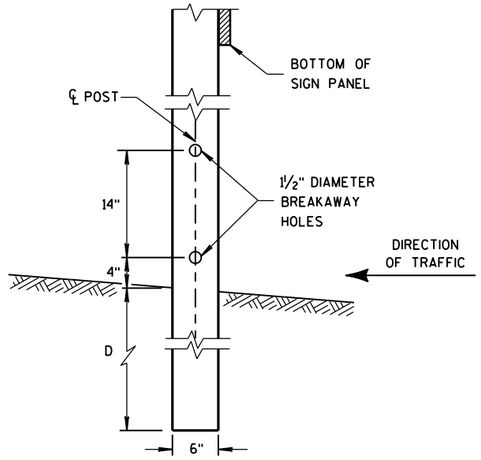
SDD 15C11 - 07b



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



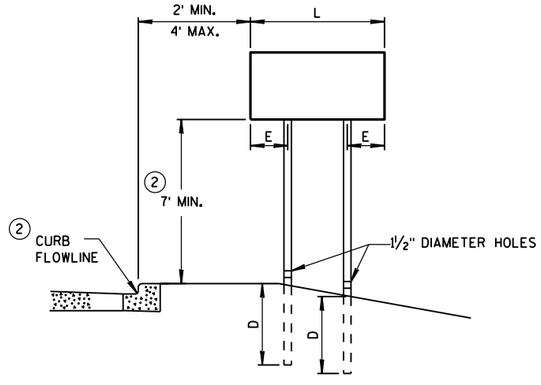
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

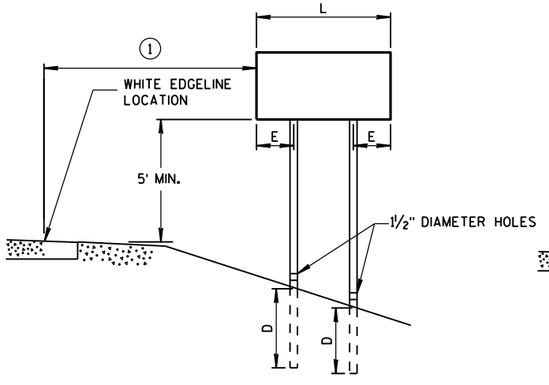
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

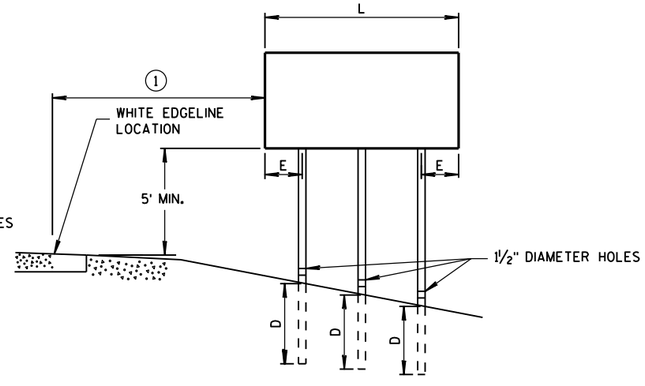
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK 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.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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.

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

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)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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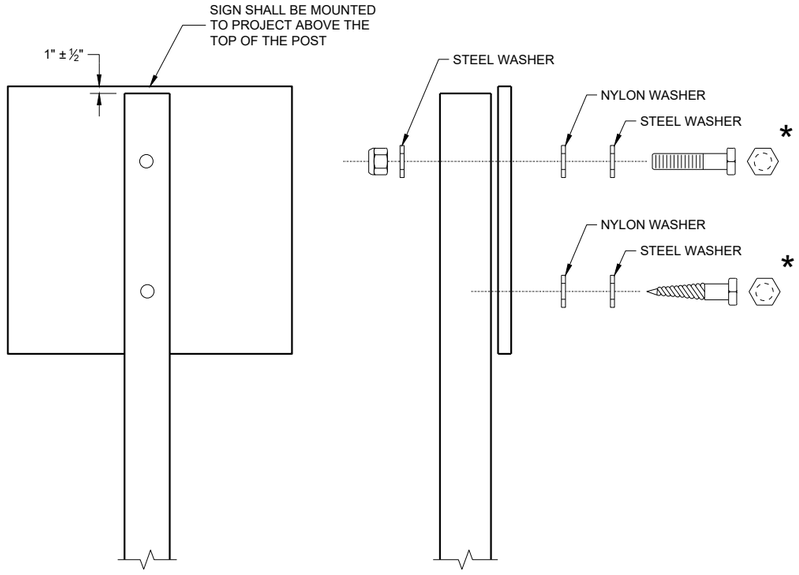
S.D.D. 15 D 38-2a



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 - ⅜" x 3"
MACHINE BOLTS - 5/16" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (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 1/16" 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.

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SDD 15D38 - 02b

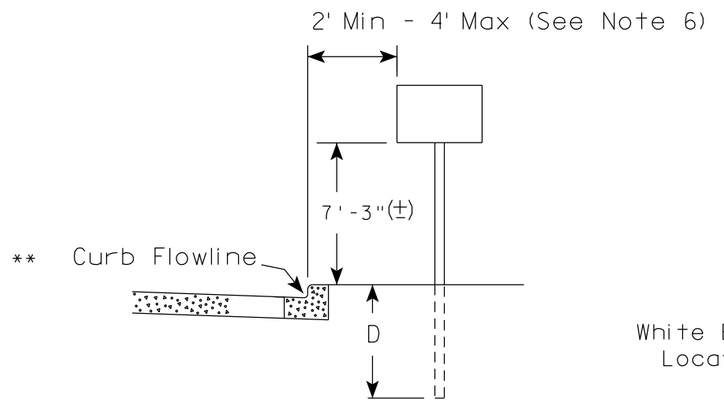
SDD 15D38 - 02b

ATTACHMENT OF SIGNS TO POSTS

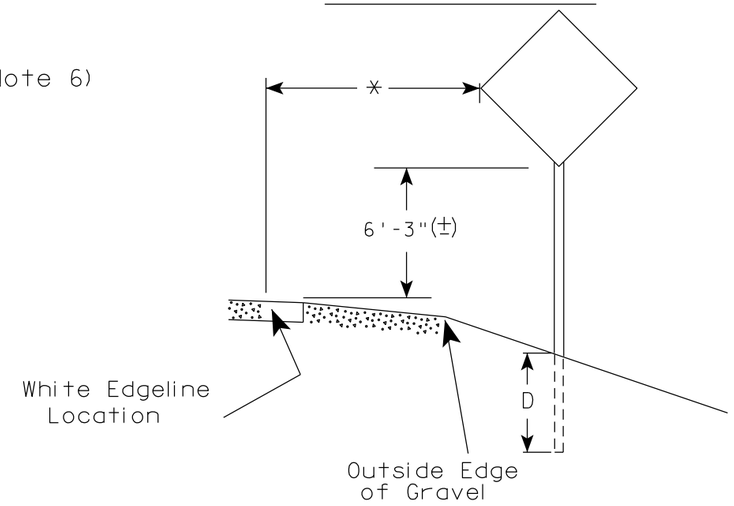
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

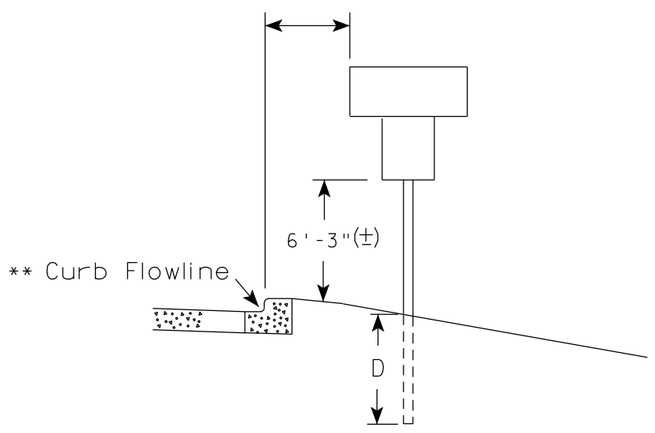
APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

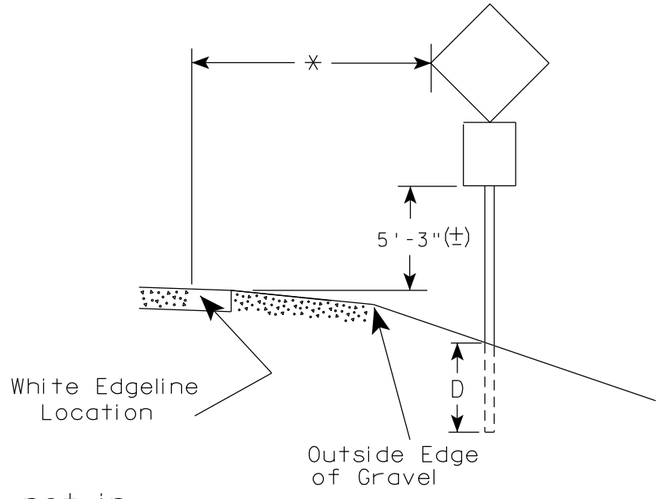
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

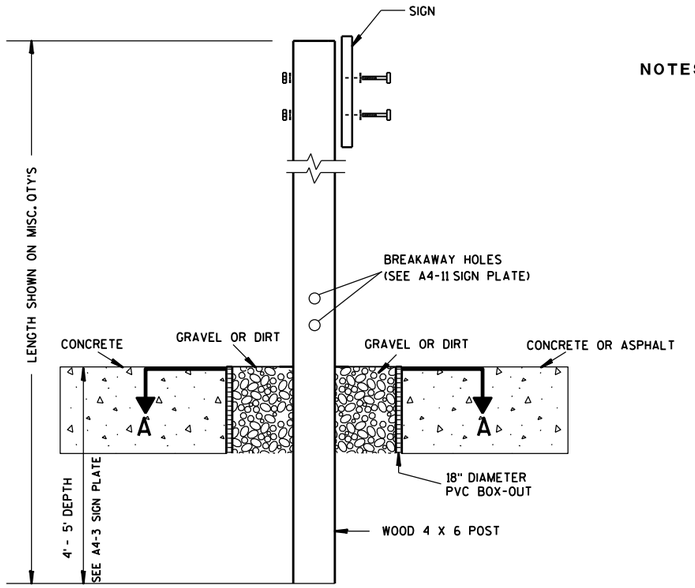
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

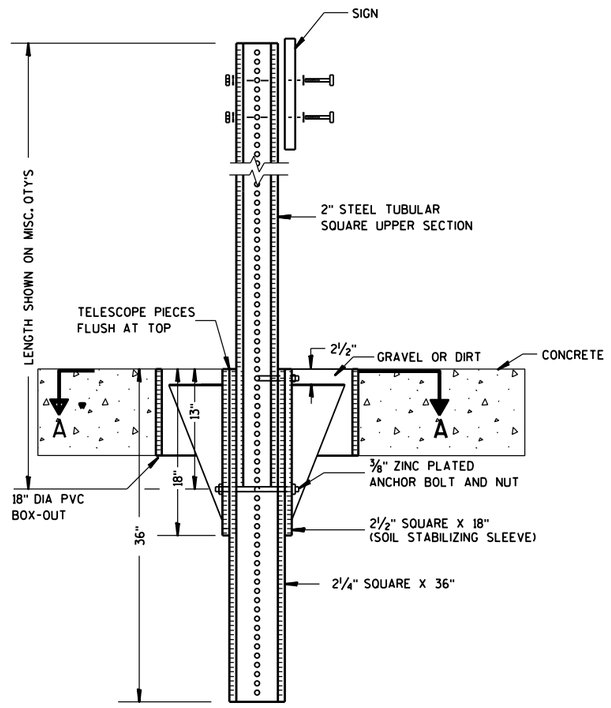
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 36	E



ELEVATION VIEW

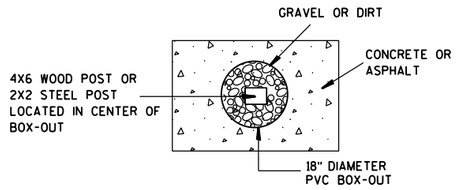
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

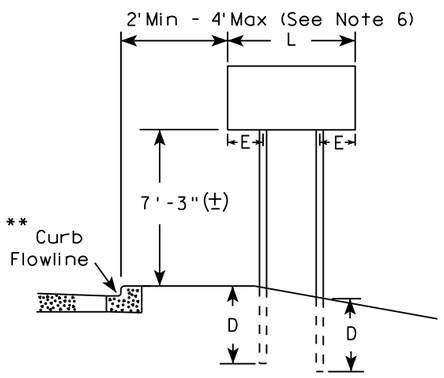
APPROVED Matthew R Rauch
for State Traffic Engineer

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

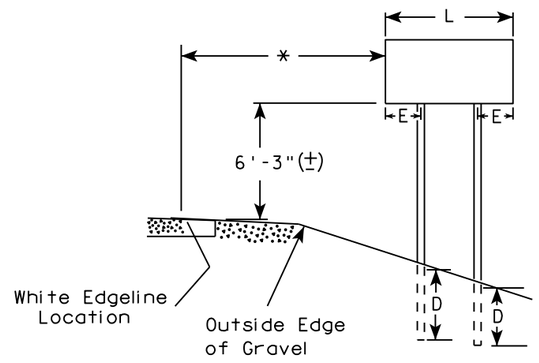
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

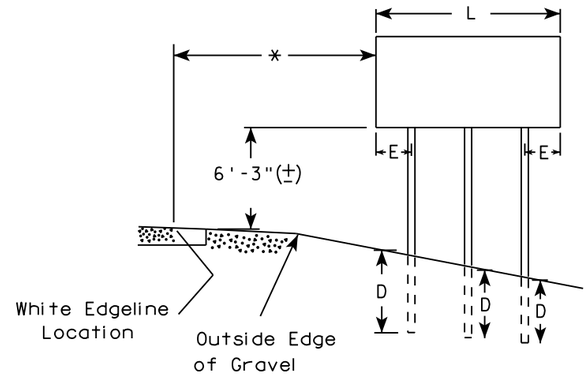
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

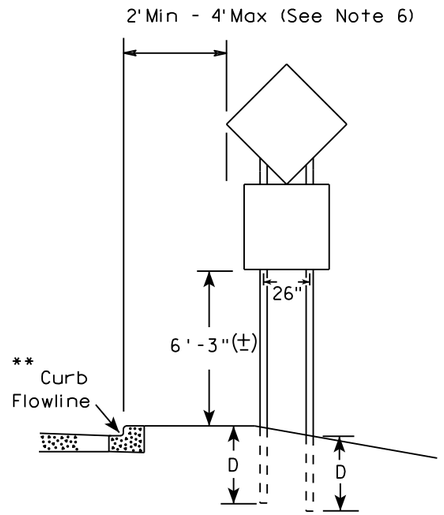
URBAN AREA



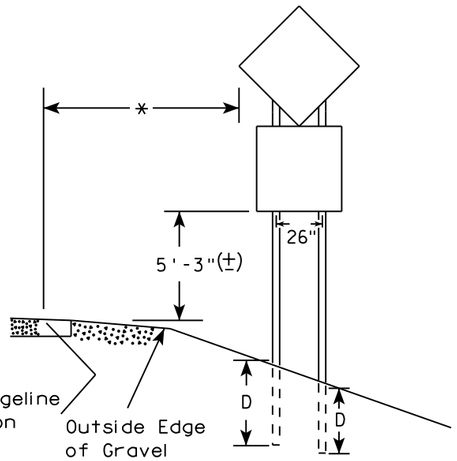
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

POST EMBEDMENT DEPTH

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

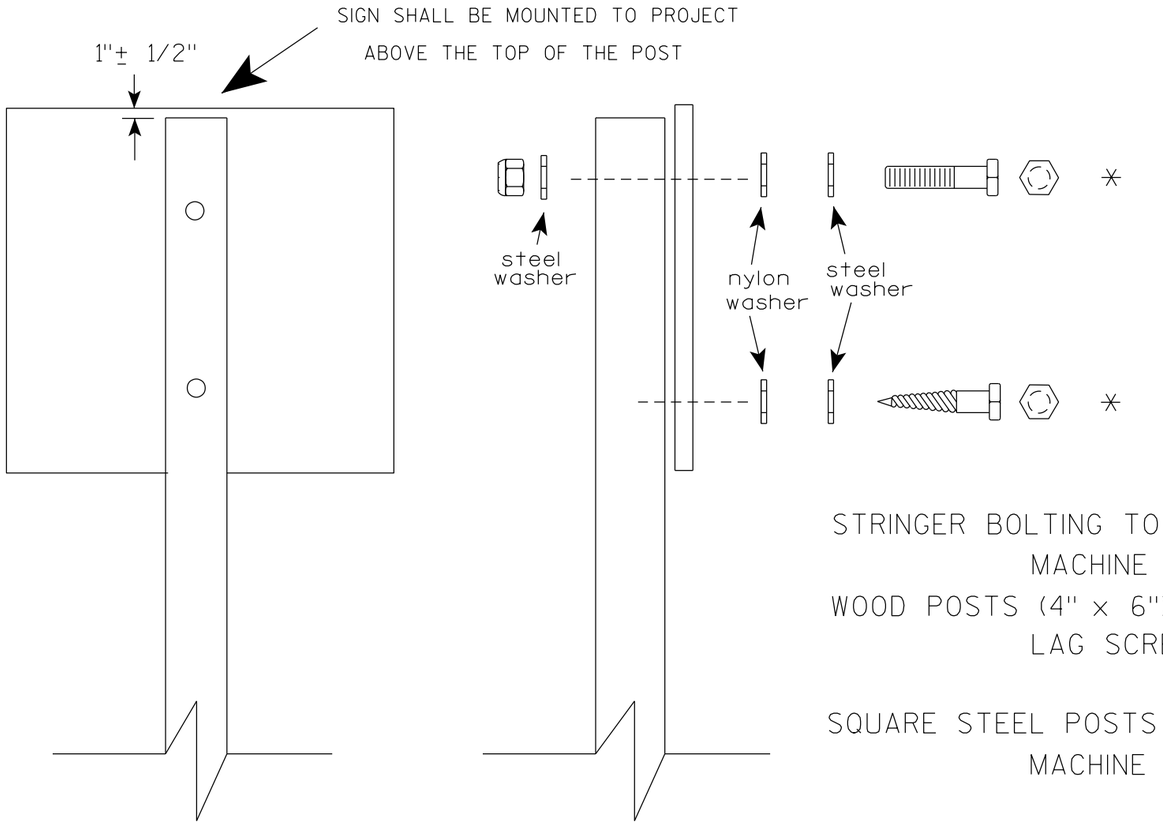
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 38	E



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

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

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

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

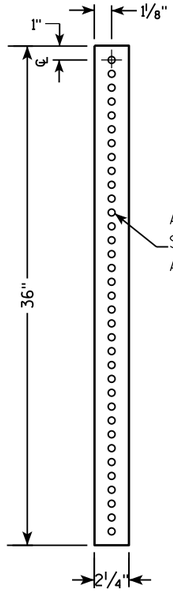
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

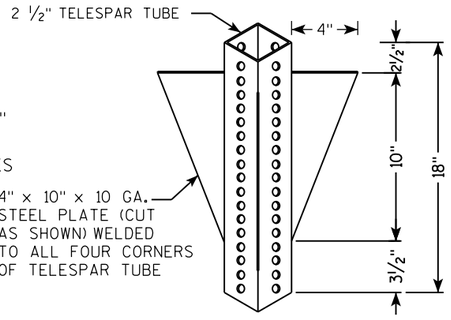
SHEET NO: 39 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

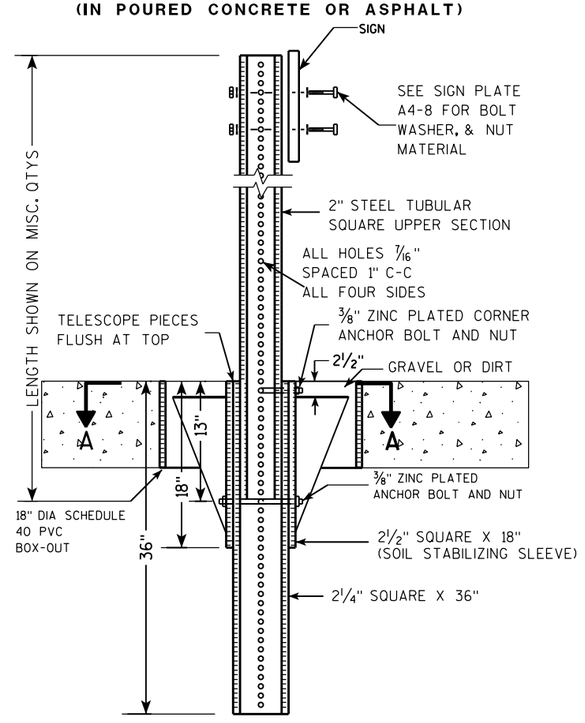
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



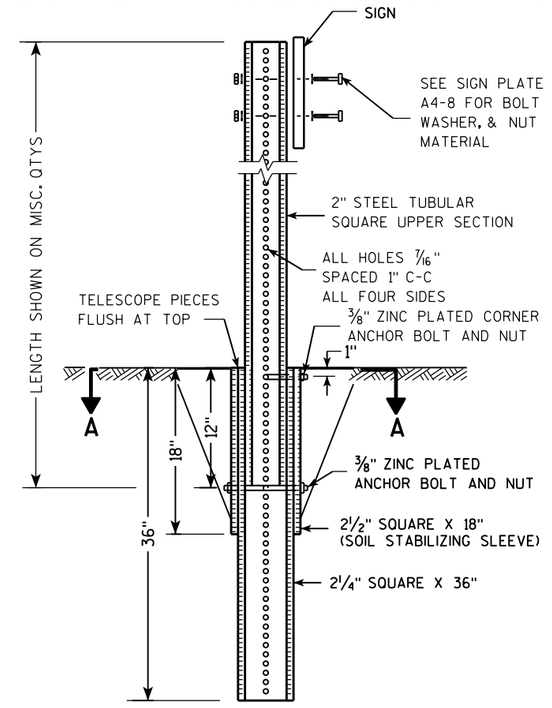
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

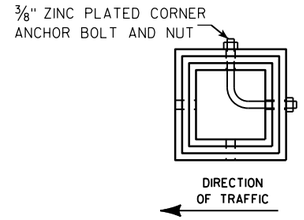


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

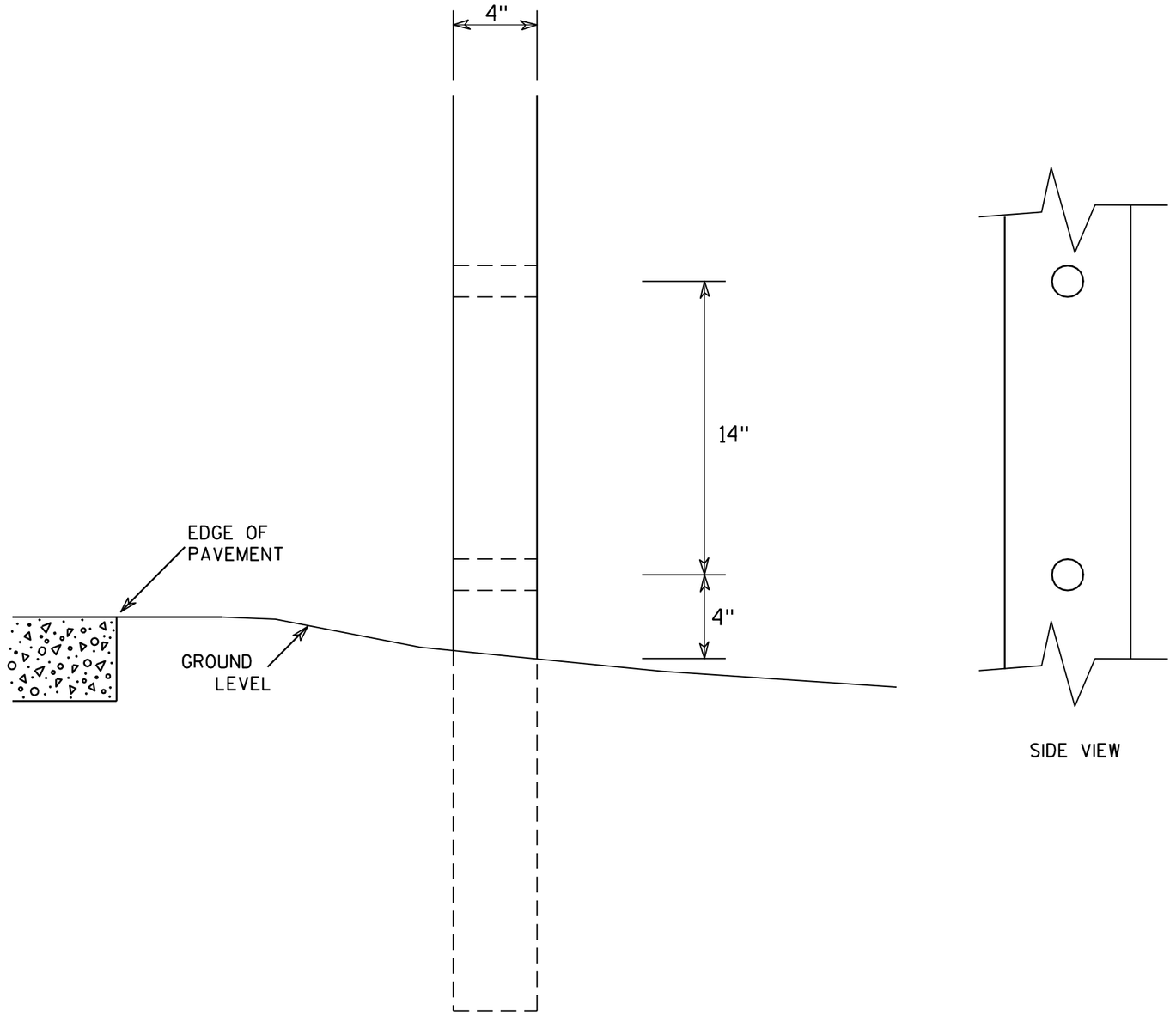
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 40 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

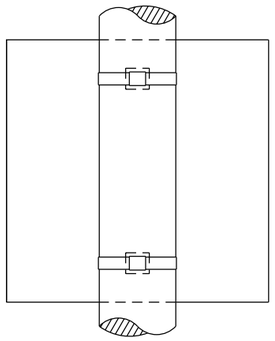
APPROVED Chester J Spang
for State Traffic Engineer

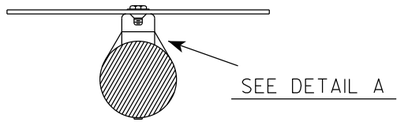
DATE 3/27/97 PLATE NO. A4-11.2

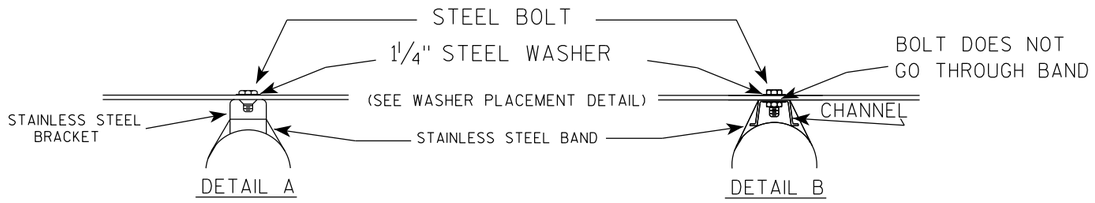
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 41	E

BANDING

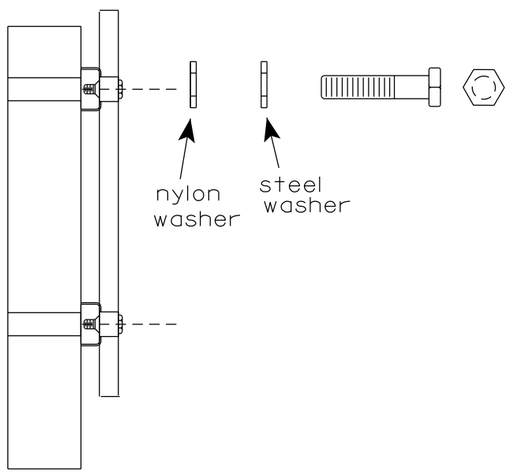
SINGLE SIGN







WASHER PLACEMENT

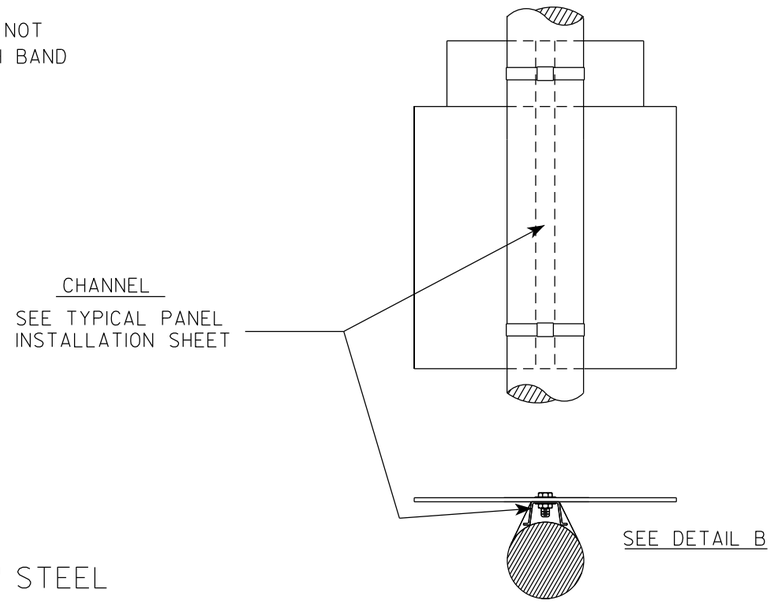


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

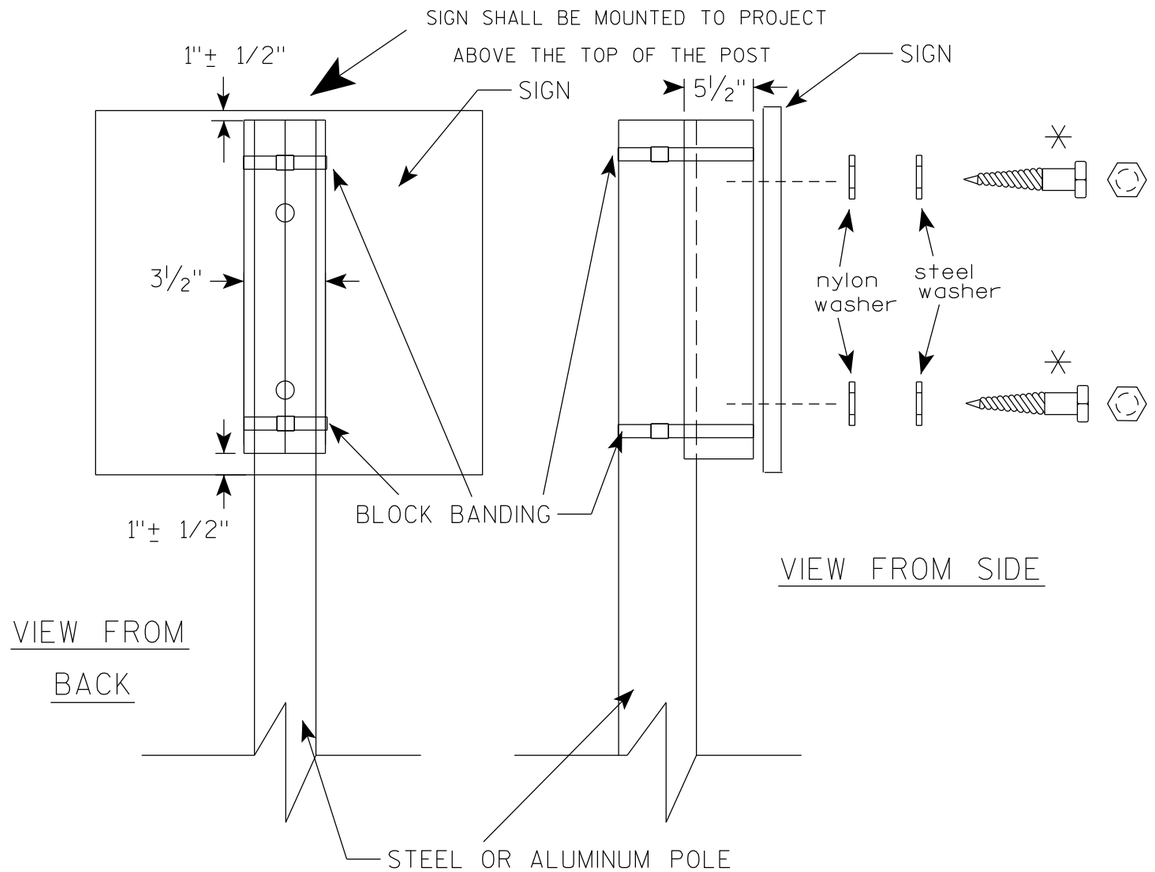
DATE 6/10/19 PLATE NO. A5-9.4

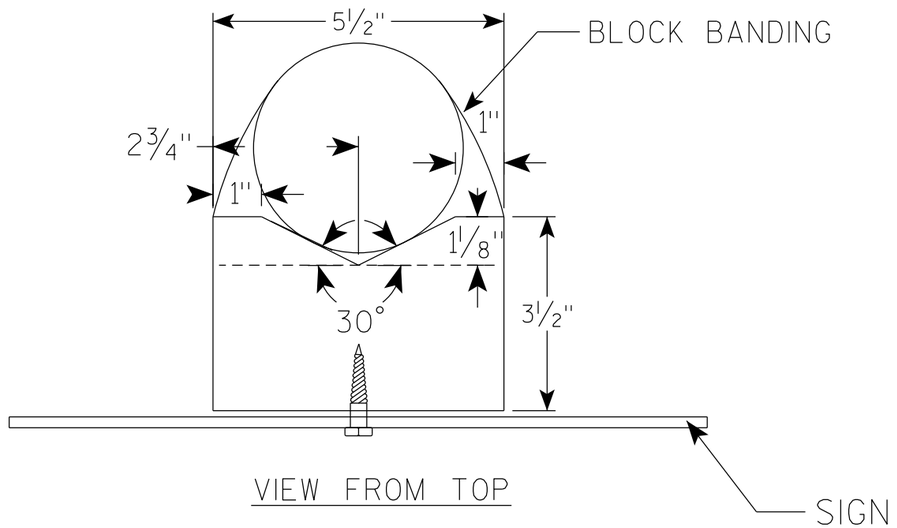
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 42	E

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

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

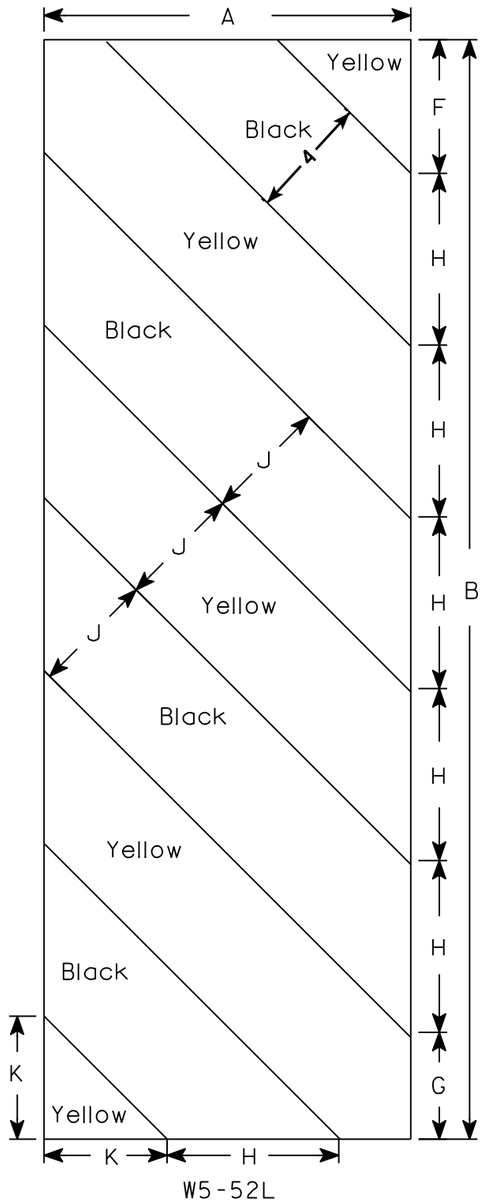
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

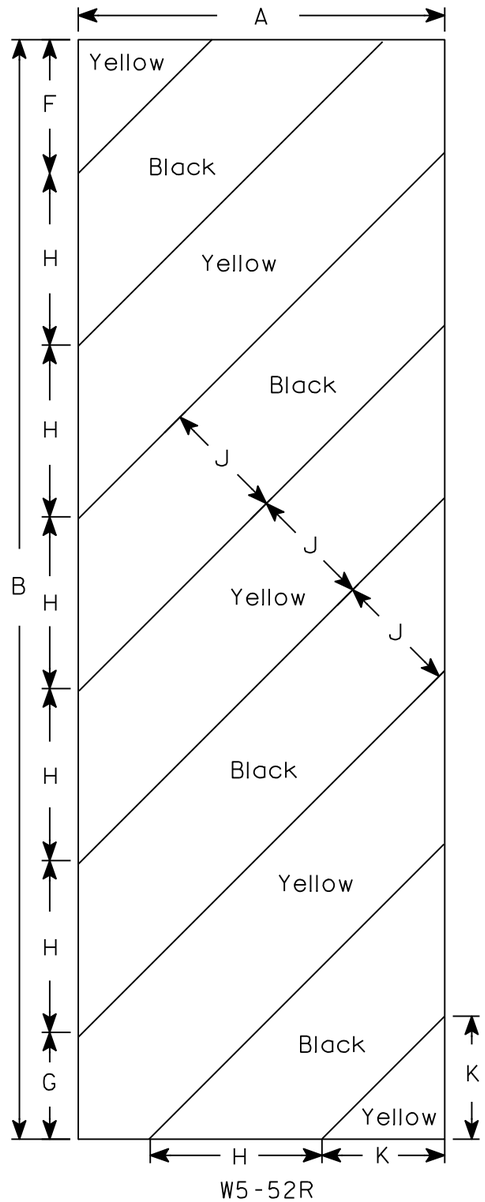
DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:

SHEET NO: 43 E



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

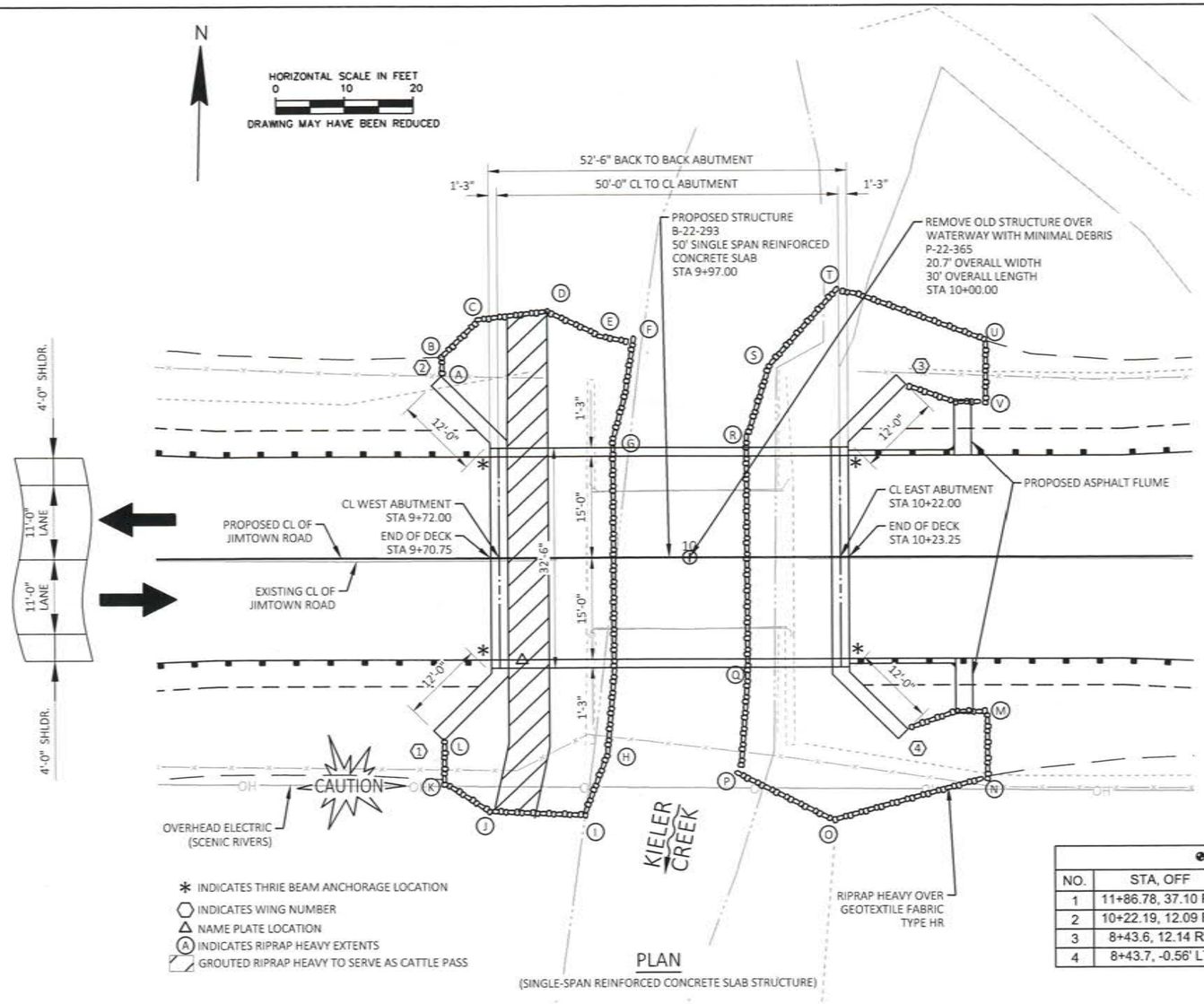
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 44	E

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

7

STATE PROJECT NUMBER

5721-00-75



PLAN

(SINGLE-SPAN REINFORCED CONCRETE SLAB STRUCTURE)

RIPRAP HEAVY LAYOUT TABLE

POINT	STATION	OFFSET	POINT	STATION	OFFSET
A	9+64	26.9L	L	9+64	26.7R
B	9+64	29.9L	M	10+43	23.0R
C	9+69	35.4L	N	10+43	32.5R
D	9+79	36.5L	O	10+21	38.7R
E	9+87	32.7L	P	10+07	21.1R
F	9+92	32.9L	Q	10+08	17.3R
G	9+88	17.3L	R	10+08	17.2L
H	9+87	29.1R	S	10+12	28.3L
I	9+84	38.2R	T	10+22	39.2L
J	9+70	37.5R	U	10+43	32.0L
K	9+64	33.2R	V	10+43	23.0L

BENCHMARKS/HORIZONTAL CONTROL

NO.	STA, OFF	Y	X	DESCRIPTION	ELEV
1	11+86.78, 37.10 RT	423635.75	848782.24	CONTROL POINT REBAR 5/8	830.34
2	10+22.19, 12.09 RT	423655.61	848616.79	CONTROL POINT REBAR 5/8	830.02
3	8+43.6, 12.14 RT	423651.27	848438.12	CONTROL POINT REBAR 5/8	833.56
4	8+43.7, -0.56' LT	423663.97	848438.00	MISC CONTROL MAG NAIL TIE	834.45

DESIGN DATA

LIVE LOAD:

DESIGN RATING	HL-93
INVENTORY RATING FACTOR	RF=1.249
OPERATING RATING FACTOR	RF=1.619
MAXIMUM STANDARD PERMIT VEHICLE (WiS-SPV)	250 KIPS

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

MATERIAL PROPERTIES:

CONCRETE MASONRY, SLAB	f'c = 4,000 P.S.I.
ALL OTHER	f'c = 3,500 P.S.I.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	Fy = 60,000 P.S.I.
PILING STEEL	Fy = 50,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH x 42 LB. TO BE FIRMLY SEATED ON ROCK AFTER PLACEMENT IN PREBORED HOLES. ESTIMATE 15' W. ABUT. AND 14' E. ABUT. BODY PILE LENGTHS AND 9' W. ABUT. AND 8' E. ABUT. WING PILE LENGTHS. PREBORE TO EXTEND A MINIMUM OF 3' INTO SOLID ROCK AND WITH A MINIMUM OF 5' PENETRATION THROUGH MATERIALS WITH A BLOW COUNT OF AT LEAST 7 BPF.

HYDRAULIC DATA

100 YEAR FREQUENCY

DRAINAGE AREA	4.0 SQ. MI.
Q_{100} TOTAL	4300 C.F.S.
THROUGH STRUCTURE	4300 C.F.S.
OVERTOPPING ROADWAY	0 C.F.S.
VELOCITY - THROUGH STRUCTURE	10.58 F.P.S.
WATERWAY AREA - THROUGH STRUCTURE	407 SQ.FT.
HIGH WATER$_{100}$ ELEVATION	827.91
OVERFLOW FREQUENCY	>100 YEAR
SCOUR CRITICAL CODE	8

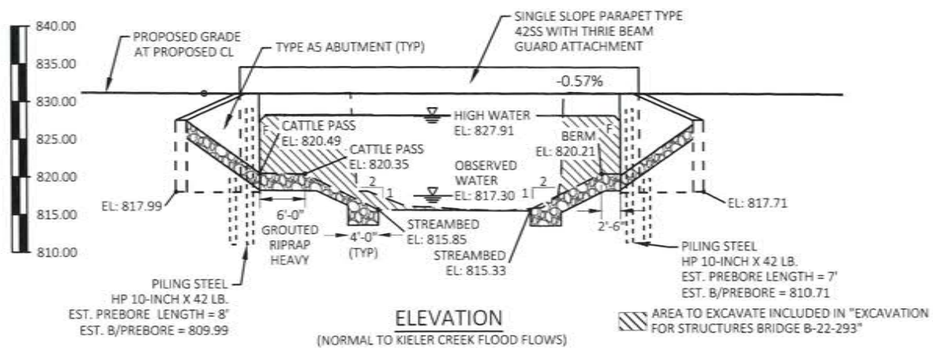
EROSION CONTROL

Q_2 TOTAL	410 C.F.S.
HIGH WATER$_2$ ELEVATION	820.83
VELOCITY$_2$	2.6 F.P.S.

TRAFFIC DATA

A.D.T. (2018)	320
A.D.T. (2041)	402
DESIGN SPEED	55 M.P.H.

LIST OF DRAWINGS



ELEVATION

(NORMAL TO KIELER CREEK FLOOD FLOWS)

BRIDGE OFFICE CONTACT

AARON BONK, P.E.
(608) 261-0261

DESIGN CONSULTANT

COURTNEY WAND, PE
(563) 556-2464

WISCONSIN
COURTNEY WAND
45088
DUBUQUE
IOWA
PROFESSIONAL ENGINEER

7-23-2020

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 08/05/20

CHIEF STRUCTURES DESIGN ENGINEER — DATE

B-22-293

JIMTOWN ROAD OVER KIELER CREEK

COUNTY	TOWN
GRANT	JAMESTOWN

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	CEW	DESIGN CK'D.	MDW	DRAWN BY	MDW	PLANS CK'D.	CEW

GENERAL PLAN

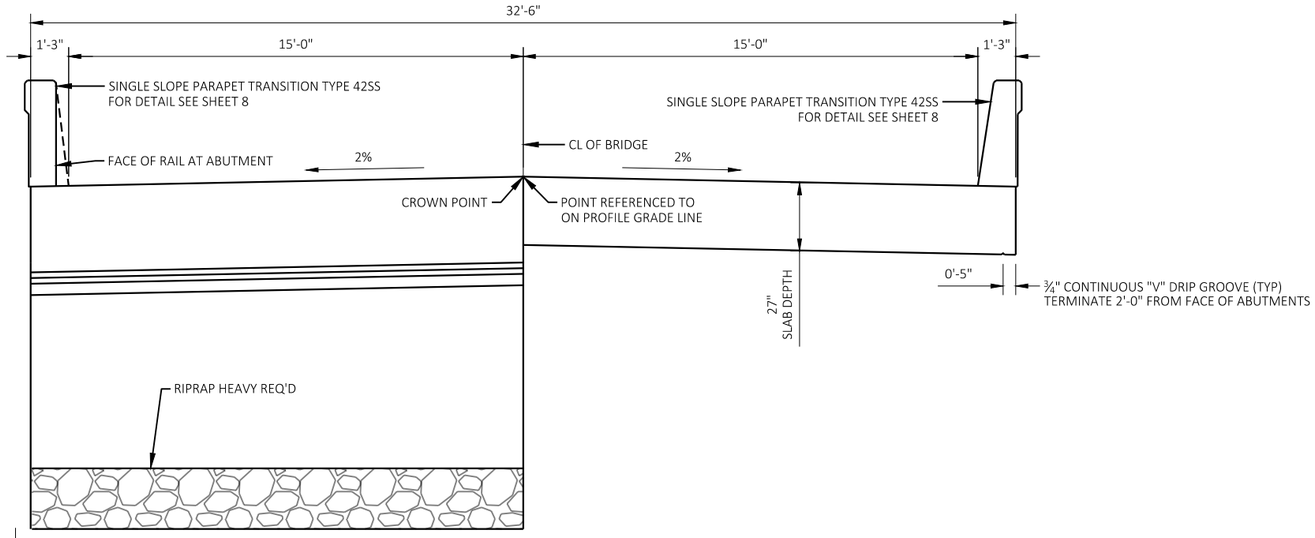
SHEET 1 OF 8

45

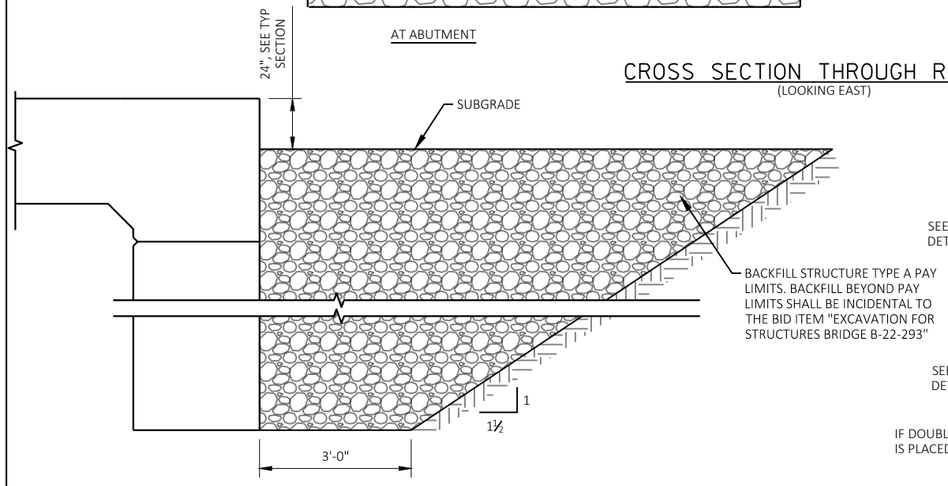
8

8

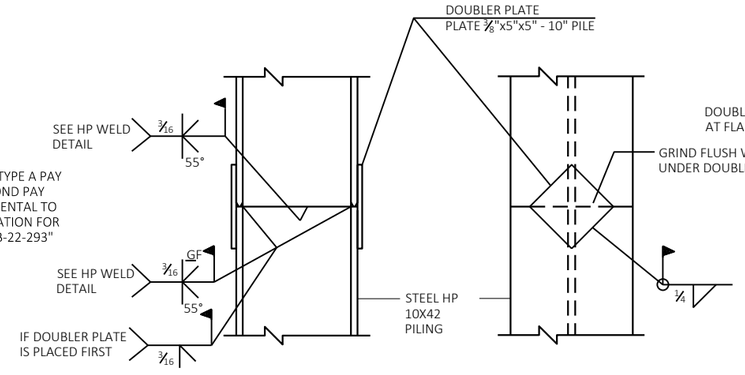
STATE PROJECT NUMBER
5721-00-75



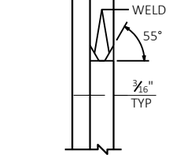
CROSS SECTION THROUGH ROADWAY
(LOOKING EAST)



BACKFILL STRUCTURE TYPE A DETAIL
(TYPICAL AT BOTH ABUTMENTS)



STEEL 'HP' SHAPES



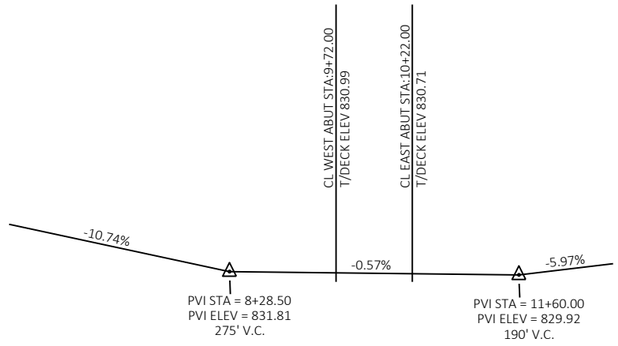
HP WELD DETAIL
FLANGE SHOWN, WEB SIMILAR

GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY OR GROUTED RIPRAP HEAVY AND GEOTEXTILE FABRIC - TYPE "HR" TO THE EXTENT SHOWN ON SHEET 1, THIS SHEET, AND IN THE ABUTMENT DETAILS.
- AT THE BACKFACE OF ABUTMENTS ALL VOLUME WHICH CAN NOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.
- THE EXISTING STRUCTURE (P-22-365) IS A SINGLE-SPAN STEEL DECK GIRDER STRUCTURE SUPPORTED ON CONCRETE FULL RETAINING ABUTMENTS 30' OVERALL LENGTH BY 20.7' OVERALL STRUCTURE WIDTH WHICH SHALL BE REMOVED. CAREFULLY SALVAGE THE EXISTING METAL RAILINGS ONLY AND PLACE WITHIN THE TLE AREA OUTSIDE THE SLOPE LIMITS FOR REMOVAL BY THE TOWN OF JAMESTOWN. DISPOSAL OF ALL OTHER COMPONENTS OF THE BRIDGE IS THE RESPONSIBILITY OF THE CONTRACTOR. REMOVE EXISTING ABUTMENTS TO AN ELEVATION OF AT LEAST THE TOP OF RIPRAP SLOPE AND AT ANY LOCATIONS IN CONFLICT WITH THE PROPOSED STRUCTURE CONSTRUCTION. PORTIONS OF THE ABUTMENT FOUNDATIONS AND BODY BELOW THE REVETMENT FORESLOPES WHICH DO NOT CONFLICT WITH THE PROPOSED STRUCTURE MAY REMAIN TO PROVIDE ADDITIONAL STREAM SCOUR PROTECTION.
- SLAB FALSEWORK SHALL BE SUPPORTED ON THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.
- PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP OF THE DECK.
- PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE FRONT FACE AND TOP SURFACES OF PARAPETS.
- ALL STATIONS & ELEVATIONS SHOWN ARE IN FEET.
- THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURE BRIDGES B-22-293" SHALL BE THE EXISTING GROUNDLINE AT THE ABUTMENTS.
- THE FIRST DIGIT OF A THREE DIGIT MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT MARK SIGNIFY THE BAR SIZE.
- THE QUANTITY FOR BACKFILL STRUCTURE, TYPE A, IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	E. ABUT	SUPER.	W. ABUT.	TOTAL
203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (STA 10+00)	LS				1
206.1000	Excavation for Structures Bridges B-22-293	LS				1
210.1500	Backfill Structure Type A	TON	380		380	760
502.0100	Concrete Masonry Bridges	CY	53	161	53	267
502.3200	Protective Surface Treatment	SY		190		190
502.3210	Pigmented Surface Sealer	SY		52		52
505.0600	Bar Steel Reinforcement HS Coated Structures	LB	4450	31130	4450	40030
516.0500	Rubberized Membrane Waterproofing	SY	7		7	14
550.0020	Pre-Boring Rock or Consolidated Materials	LF	49	56		105
550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	86		93	179
606.0300	Riprap Heavy	CY	145		105	250
606.0700	Grouted Riprap Heavy	CY			35	35
612.0406	Pipe Underdrain Wrapped 6-Inch	LF	65		65	130
614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH		4		4
645.0120	Geotextile Fabric Type HR	SY	173		173	346
	Non Bid-items					
	Filler	SIZE	-	-	-	1/2" & 3/4"
	Name Plate	EACH	-	-	-	1



PROPOSED GRADE ON JIMTOWN ROAD
NOT TO SCALE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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B-22-293

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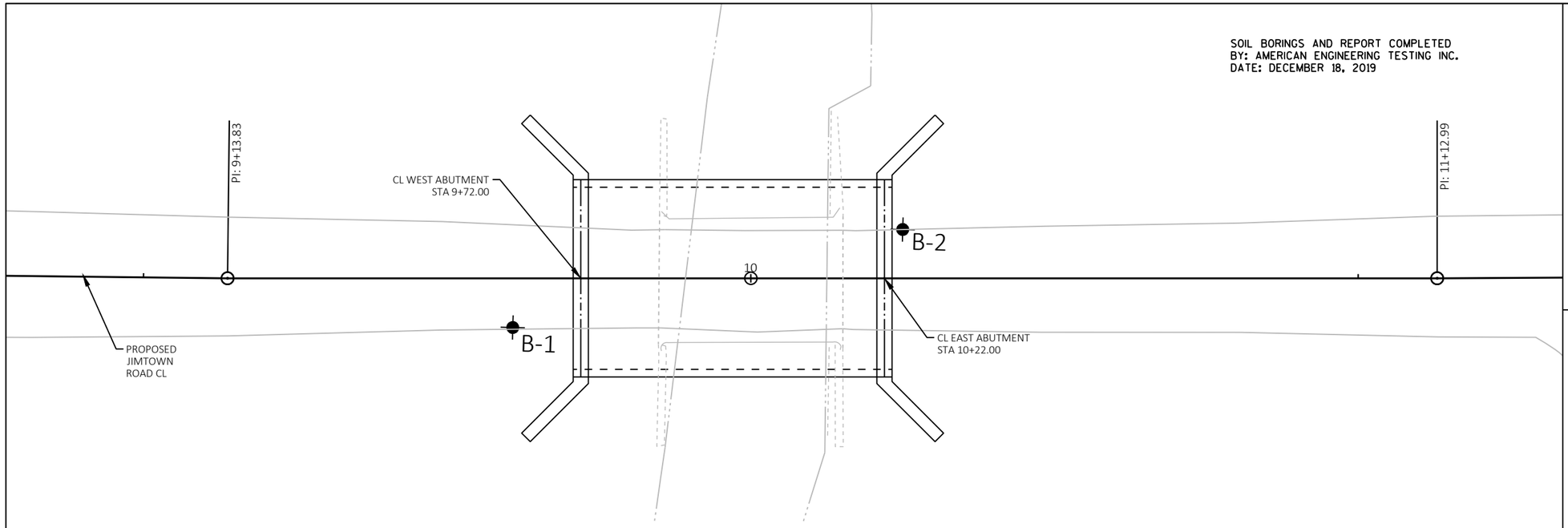
CROSS SECTION AND QUANTITIES

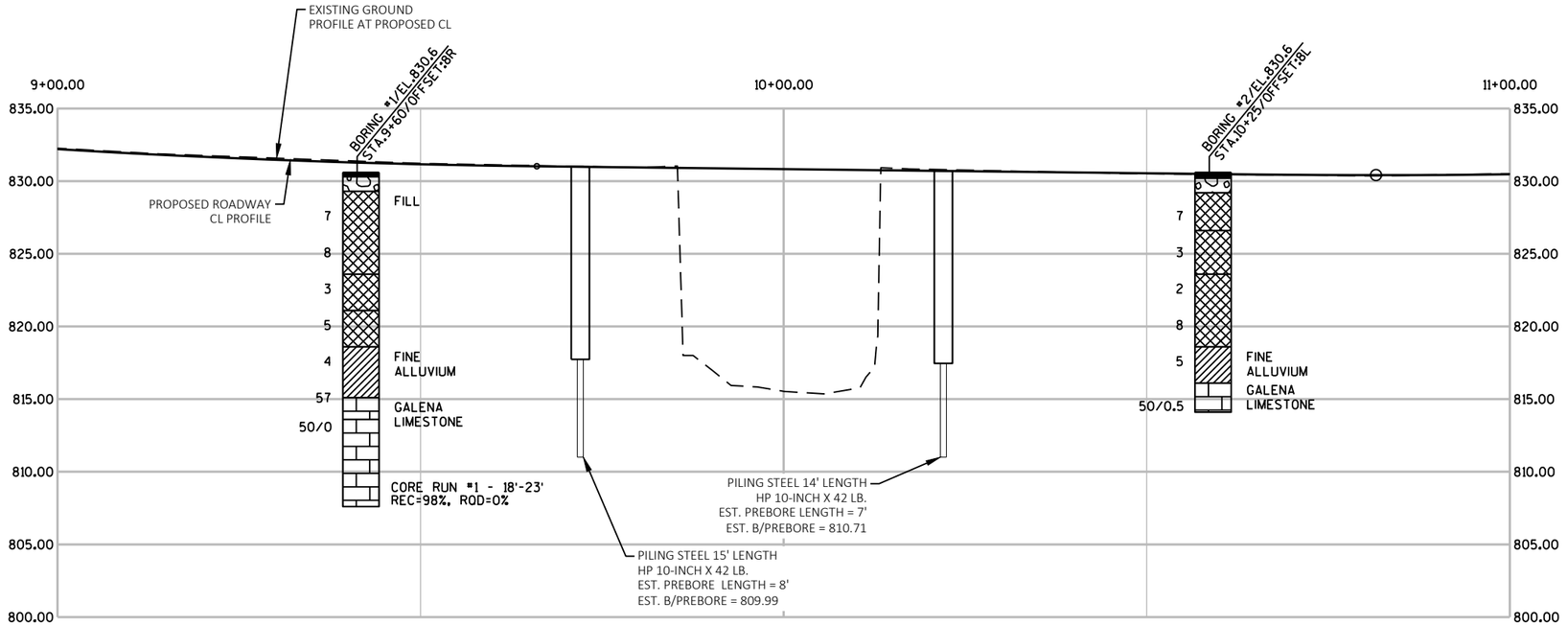
SHEET 2 OF 8
46

8

8

SOIL BORINGS AND REPORT COMPLETED
BY: AMERICAN ENGINEERING TESTING INC.
DATE: DECEMBER 18, 2019





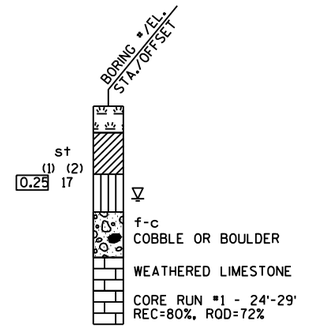
STATE PROJECT NUMBER

5721-00-75

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

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

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

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B-22-293

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SUBSURFACE EXPLORATION

SHEET 3 OF 8

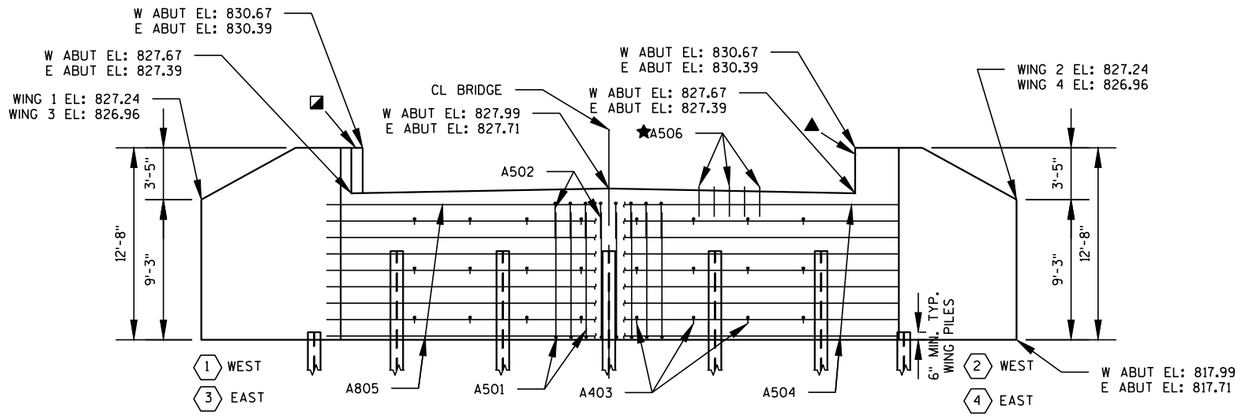
47

8

8

STATE PROJECT NUMBER

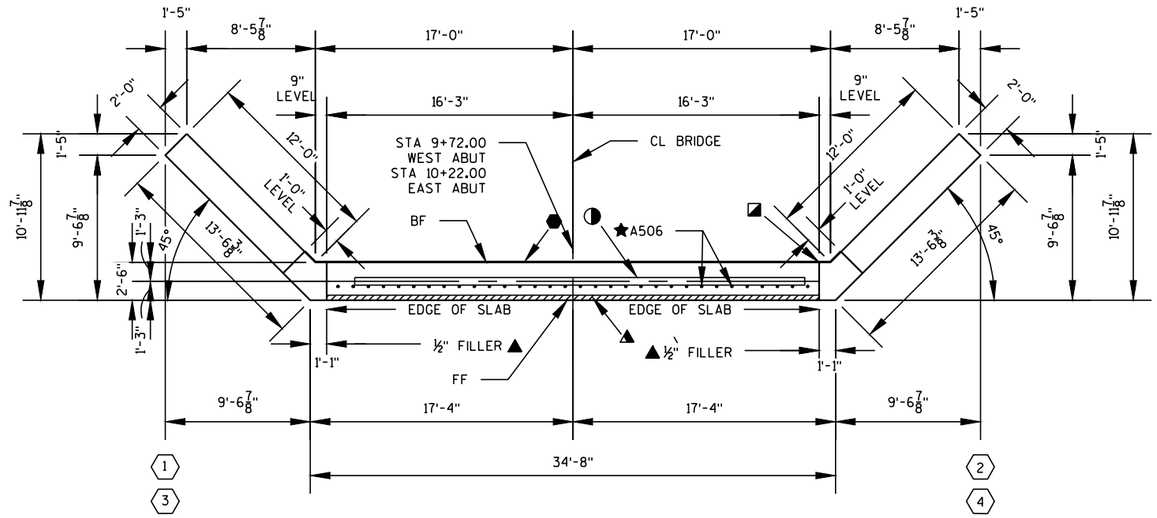
5721-00-75



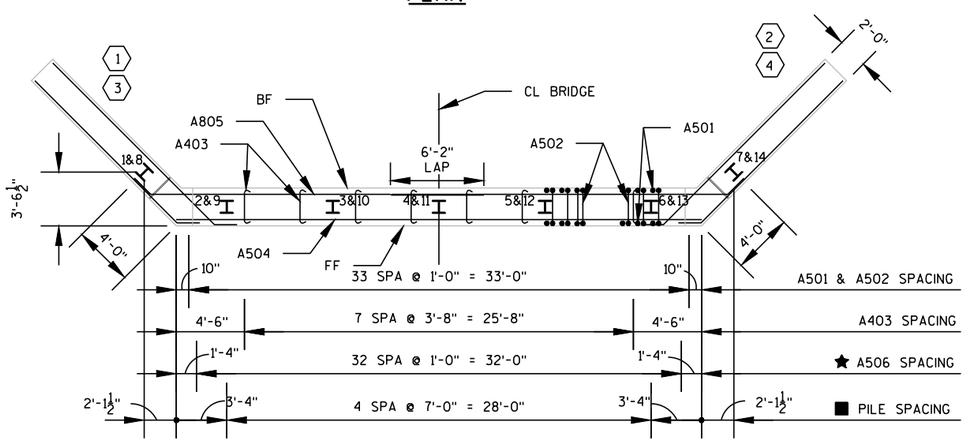
BACK FACE BAR STEEL REINF.

FRONT FACE BAR STEEL REINF.

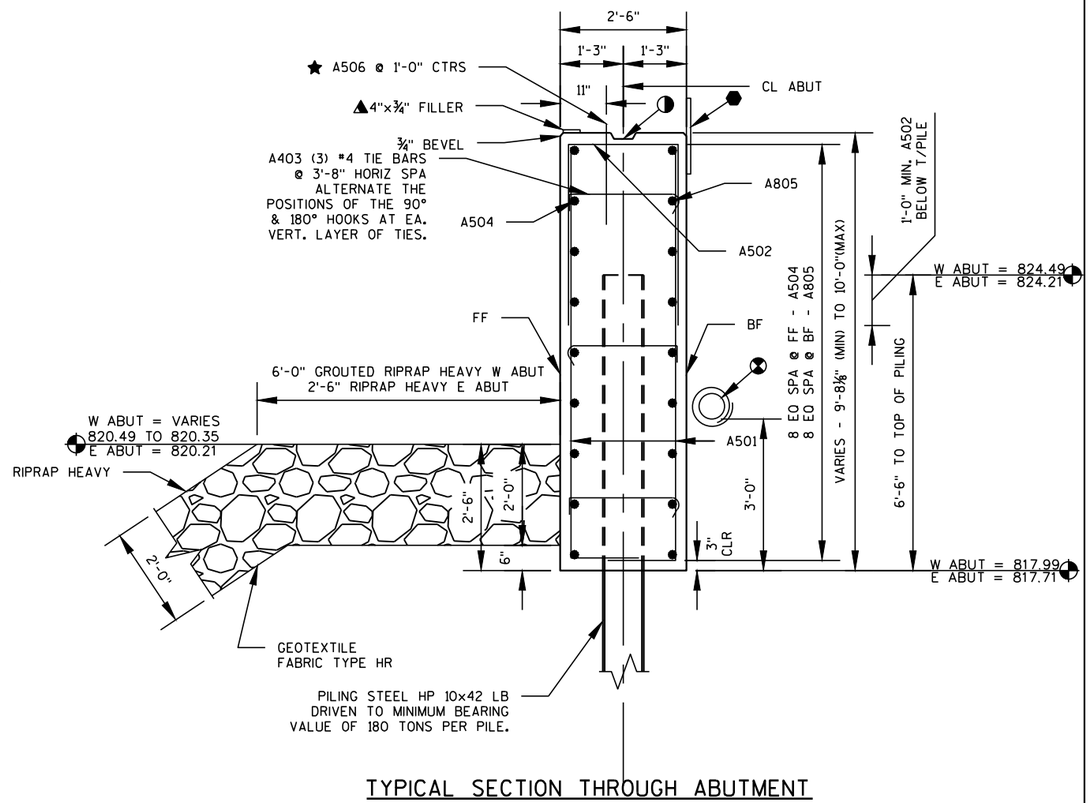
ELEVATION



PLAN



PILE PLAN

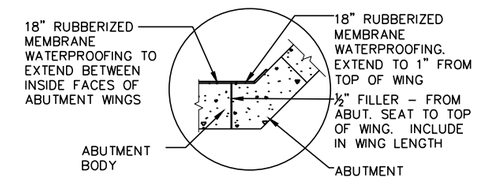


TYPICAL SECTION THROUGH ABUTMENT

NOTES

1. SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 6 FOR BILL OF BARS.
2. DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.
3. SPACE A403 BARS TO MISS PILING.
4. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

F.F. = FRONT FACE
B.F. = BACK FACE



R.M.W. DETAIL

LEGEND

◑ KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2×6

◪ VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING, EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.

⬣ 18" RUBBERIZED MEMBRANE WATERPROOFING (HORIZONTAL)

▲ ½" FILLER EXTEND AS SHOWN, SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)

▲ 4"×¾" FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.

★ A506 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE . EMBED BAR 1'-0".

⊗ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL ON ABUTMENT DETAIL SHEET.

■ PILE SPACING MEASURED AT BASE OF SHAFT.

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STATE OF WISCONSIN
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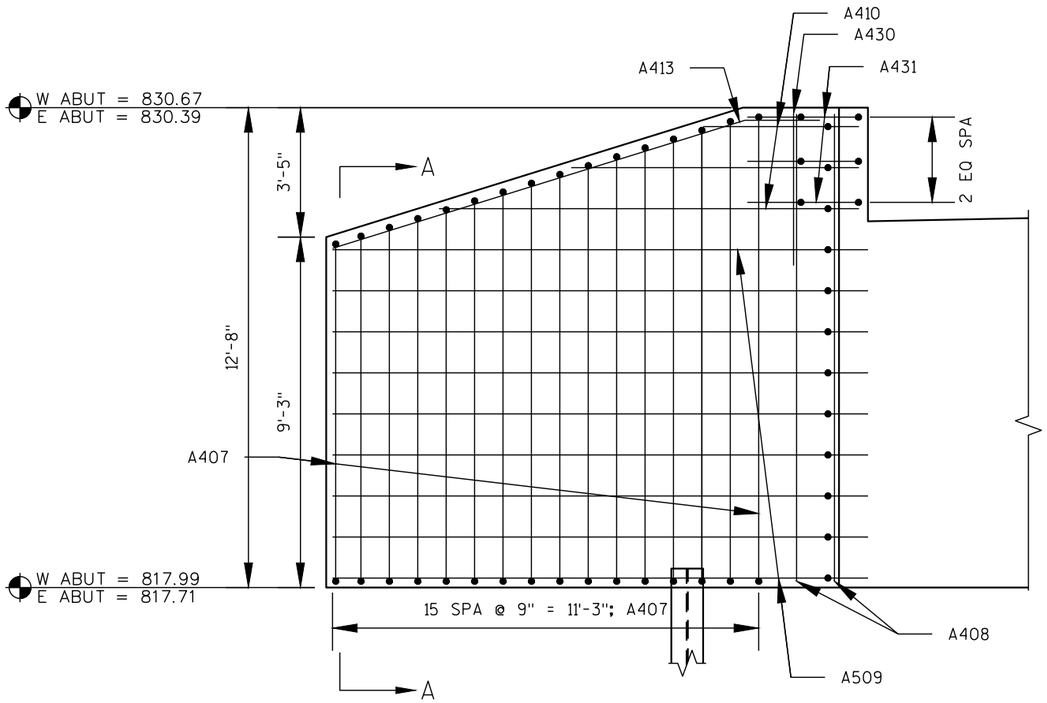
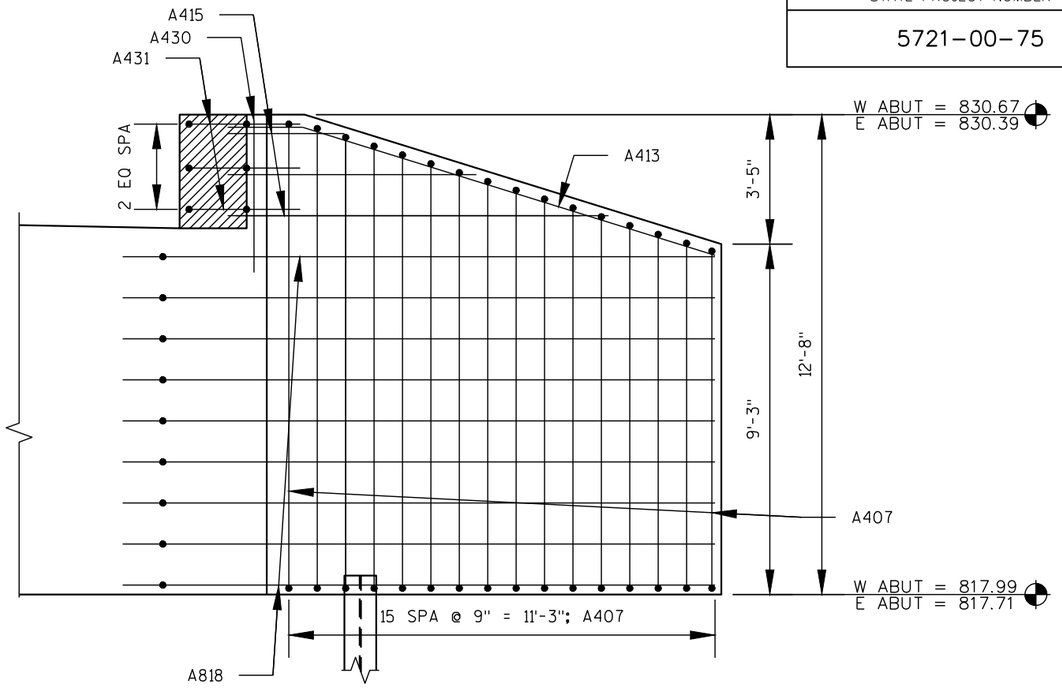
STRUCTURE B-22-293

DRAWN BY: MDW — PLANS CK'D: CEW

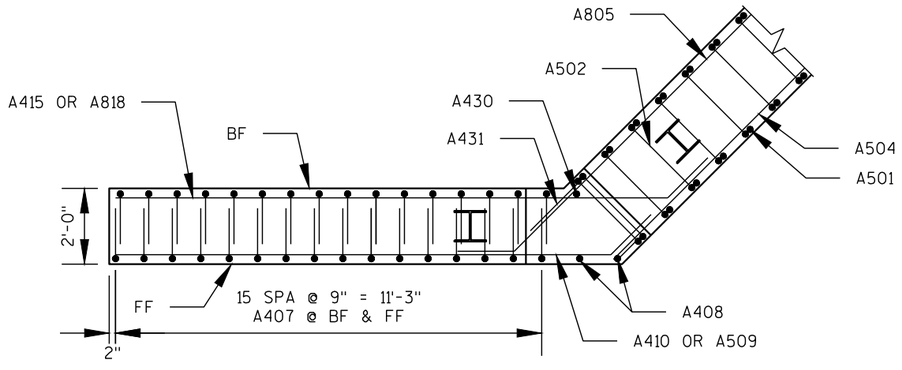
ABUTMENT



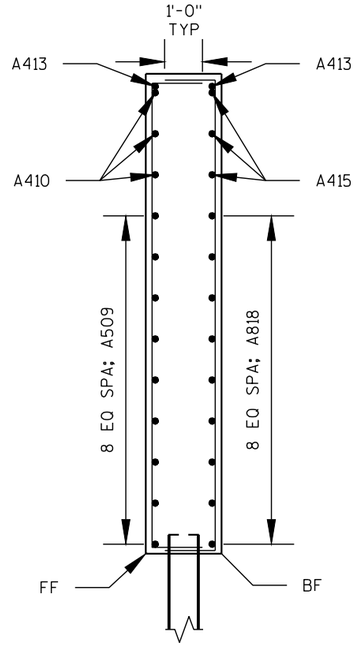
FF ELEVATION - WING 1 & WING 3 SHOWN
(WING 2 & WING 4 SIMILAR)



BF ELEVATION - WING 1 & WING 3 SHOWN
(WING 2 & WING 4 SIMILAR)



PLAN VIEW - WING 1 & WING 3 SHOWN
(WING 2 & WING 4 SIMILAR)



SECTION A-A

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STRUCTURE B-22-293

DRAWN BY: MDW | PLANS CK'D.: CEW

ABUTMENT

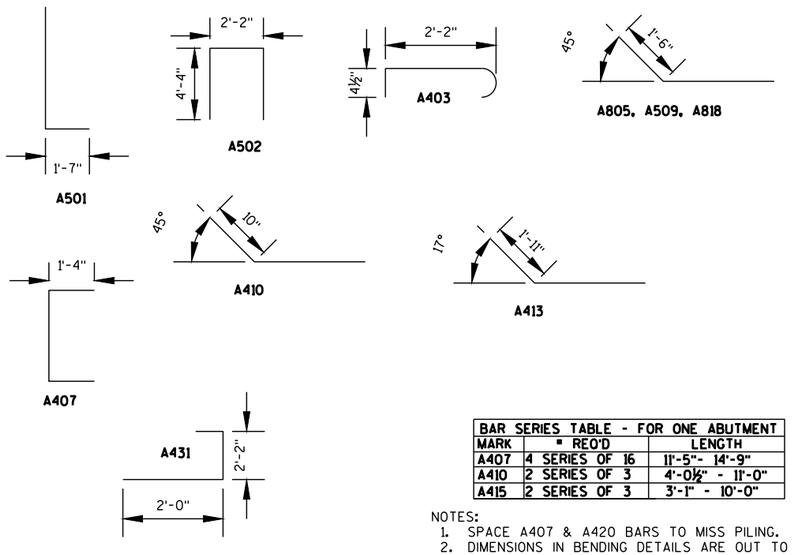
STATE PROJECT NUMBER

5721-00-75

BILL OF BARS - ONE ABUTMENT

MARK	COAT	NO. REQ'D	LENGTH	SERIES	BENT	LOCATION
A501	X	68	10'-8		X	BODY, VERT., F.F. & B.F.
A502	X	34	10'-7		X	BODY, TOP
A403	X	24	3'-0		X	BODY - TIE
A504	X	9	34'-6			BODY, HORIZ., F.F.
A805	X	18	23'-10		X	BODY, HORIZ., B.F.
A506	X	33	2'-0			BODY, VERT., DOWELS
A407	X	64	13'-1	*	X	WING, VERT.
A408	X	4	12'-3			WING, VERT.
A509	X	18	14'-7		X	WING HORIZ., F.F., LOWER
A410	X	6	7'-6	*	X	WING HORIZ., F.F., TOP
A413	X	4	13'-3		X	WING, TOP
A415	X	6	6'-7	*		WING HORIZ., B.F., TOP
A818	X	18	16'-1		X	WING HORIZ., B.F., LOWER
A430	X	2	4'-0			WING VERT., TOP
A431	X	6	4'-9		X	WING HORIZ., TOP

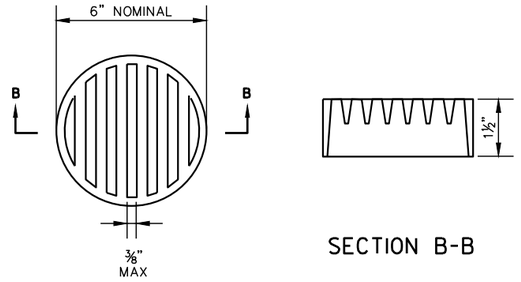
* THE LENGTH SHOWN FOR BARS IN SERIES IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE 'BAR SERIES TABLE' FOR ACTUAL LENGTHS.



BAR SERIES TABLE - FOR ONE ABUTMENT		
MARK	* REQ'D	LENGTH
A407	4 SERIES OF 16	11'-5"- 14'-9"
A410	2 SERIES OF 3	4'-0½" - 11'-0"
A415	2 SERIES OF 3	3'-1" - 10'-0"

NOTES:
1. SPACE A407 & A420 BARS TO MISS PILING.
2. DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
3. BUNDLE AND TAG EACH SERIES SEPARATELY.

NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.



SECTION B-B

NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

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

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

RODENT SHIELD

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STRUCTURE B-22-293

DRAWN BY MDW | PLANS CK'D. CEW

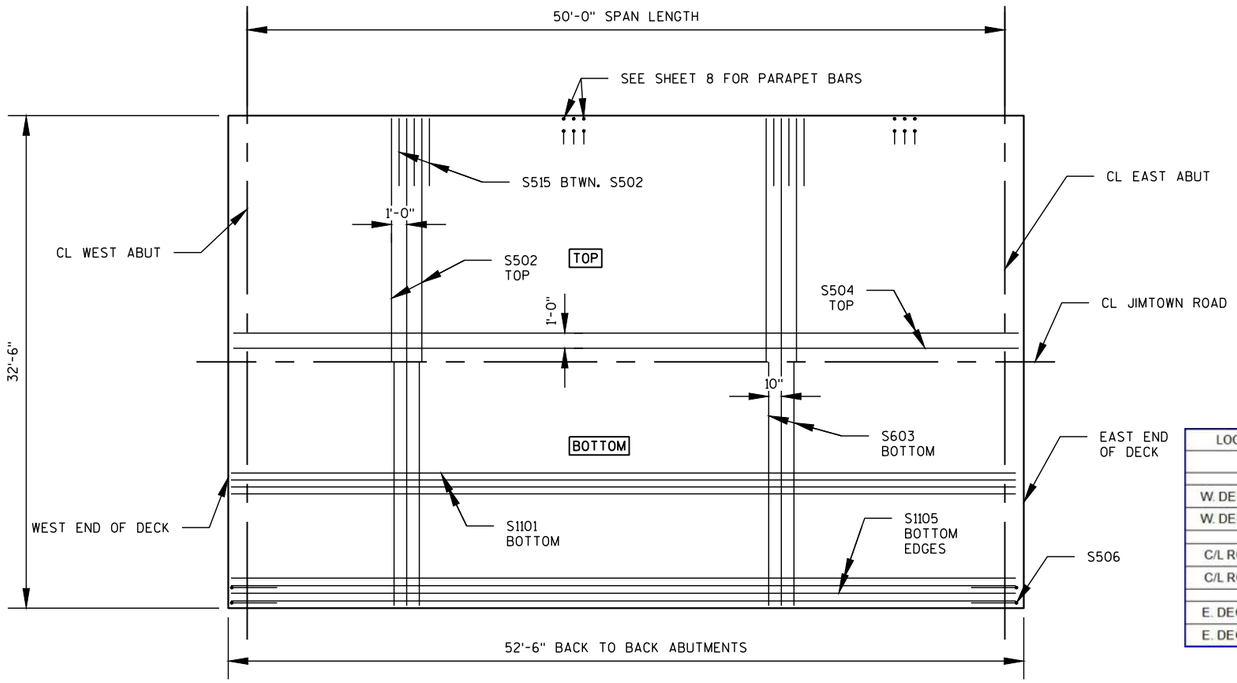
ABUTMENT DETAILS

SHEET 6 OF 8

50

STATE PROJECT NUMBER

5721-00-75



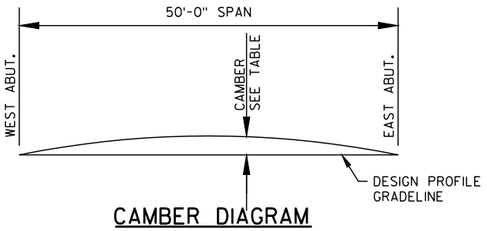
BILL OF BARS - SUPERSTRUCTURE

MARK	COAT	NO. REQ'D	LENGTH	BENT	LOCATION
S1101	X	47	52 ' - 2		SLAB, LONG., BOTTOM
S502	X	58	32 ' - 2		SLAB, TRANS., TOP
S603	X	63	32 ' - 2		SLAB, TRANS., BOTTOM
S504	X	33	52 ' - 2		SLAB, LONG., TOP
S1105	X	26	52 ' - 2		SLAB, LONG., BOTTOM, EDGES
S506	X	66	7 ' - 10	X	SLAB, LONG., ENDS
S515	X	102	5 ' - 0		SLAB, TRANS., TOP, AT PARAPETS

LOCATION			W. ABUT	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	E. ABUT
	CAMBER (IN)		0.0	0.7	1.4	1.9	2.2	2.3	2.2	1.9	1.4	0.7	0.0
W. DECK EDGE	STATION		9+72.00	9+77.00	9+82.00	9+87.00	9+92.00	9+97.00	10+02.00	10+07.00	10+12.00	10+17.00	10+22.00
W. DECK EDGE	TOP OF SLAB		830.67	830.64	830.61	830.58	830.55	830.53	830.50	830.47	830.44	830.41	830.39
C/L ROADWAY	STATION		9+72.00	9+77.00	9+82.00	9+87.00	9+92.00	9+97.00	10+02.00	10+07.00	10+12.00	10+17.00	10+22.00
C/L ROADWAY	TOP OF SLAB		830.99	830.96	830.93	830.91	830.88	830.85	830.82	830.79	830.77	830.74	830.71
E. DECK EDGE	STATION		9+72.00	9+77.00	9+82.00	9+87.00	9+92.00	9+97.00	10+02.00	10+07.00	10+12.00	10+17.00	10+22.00
E. DECK EDGE	TOP OF SLAB		830.67	830.64	830.61	830.58	830.55	830.53	830.50	830.47	830.44	830.41	830.39

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

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



CAMBER DIAGRAM

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. DEAD LOAD DEFLECTION APPROXIMATES ⅓ OF CAMBER VALUES SHOWN

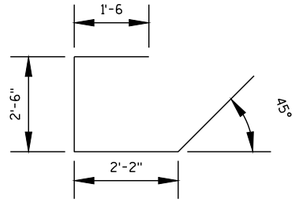
NORTH

PLAN

NOTES

1. 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.
2. ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).
3. PARAPETS, SIDEWALKS AND MEDIANS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED. EXCEPT FOR STAGED CONSTRUCTION.
4. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LEAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

** SEE SHEET 4 FOR PLACEMENT OF A506.



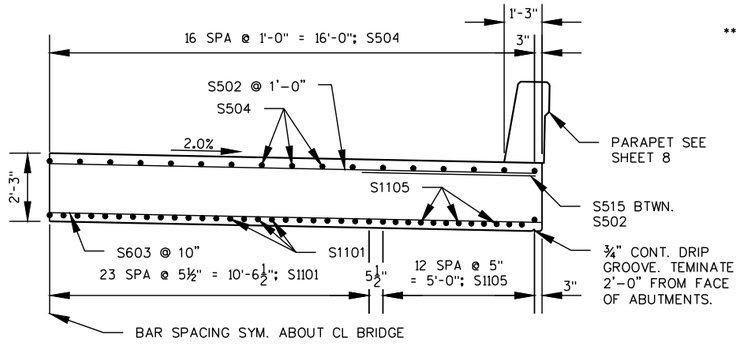
S506

SEE SHEET 8 FOR PARAPET BENT BARS

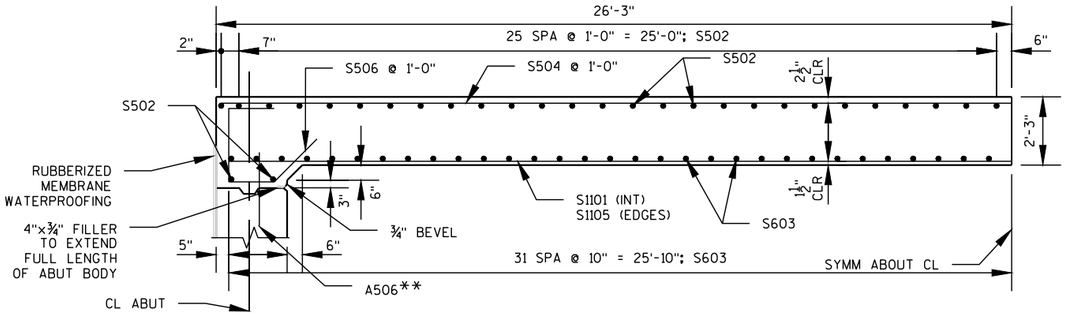
SURVEY TOP OF SLAB ELEVATIONS

	WEST ABUTMENT	5/10 PT.	EAST ABUTMENT
DECK EDGE			
CROWN OR ℄			
DECK EDGE			

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



CROSS SECTION THROUGH ROADWAY



PARTIAL LONGIT. SECTION THROUGH ROADWAY

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DUBUQUE, IA — 4155 PENNSYLVANIA AVE. — DUBUQUE, IA 52002
HAZEL GREEN, WI — 1151 BADGER RD. — HAZEL GREEN, WI 53811
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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

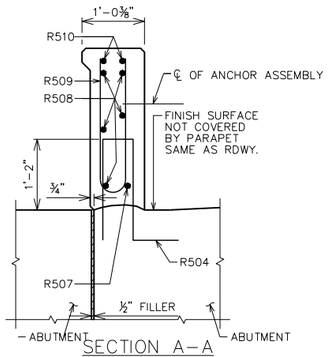
STRUCTURE B-22-293

DRAWN BY: MDW | PLANS CK'D.: CEW

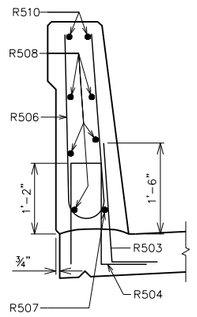
SUPERSTRUCTURE

STATE PROJECT NUMBER

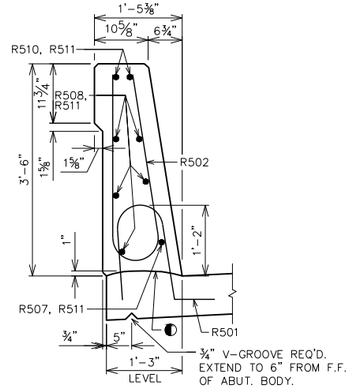
5721-00-75



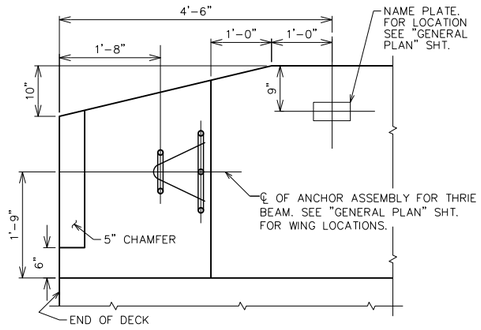
SECTION A-A



SECTION B-B



SECTION C-C

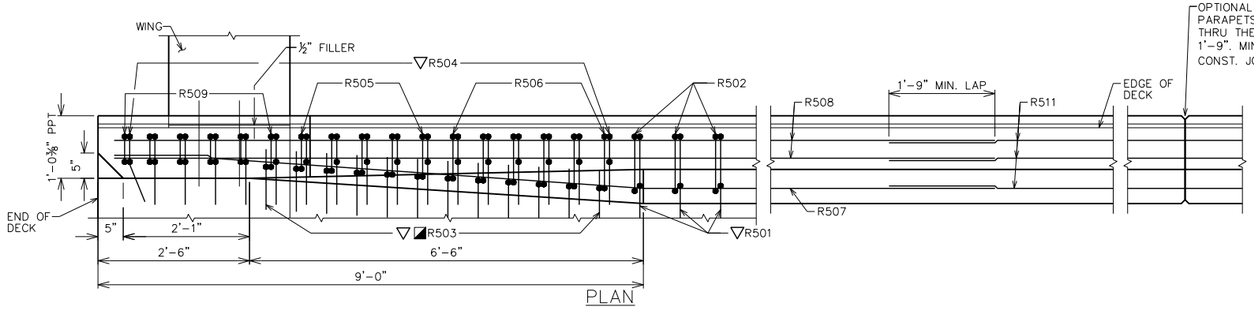


PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET

BILL OF BARS - ONE PARAPET

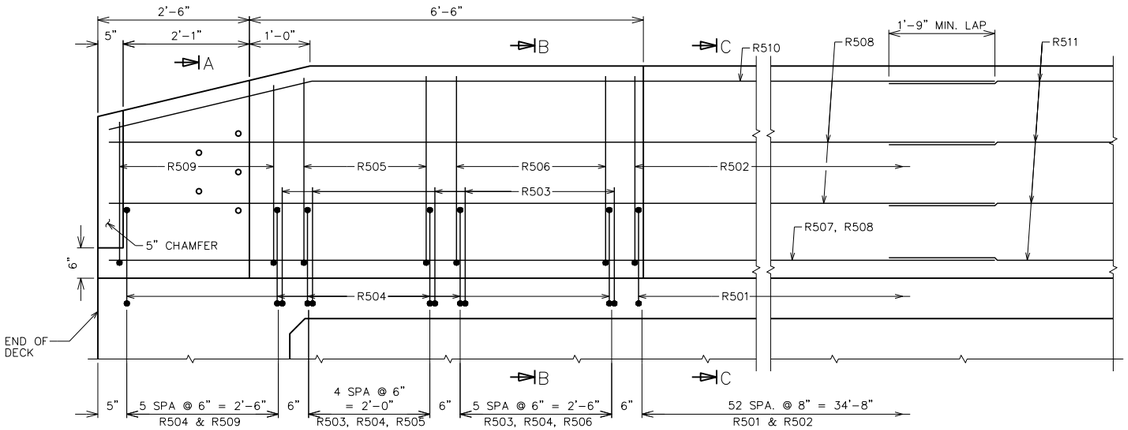
MARK	COAT	NO. REQ'D	LENGTH	BENT	LOCATION
R501	X	53	4 '- 5	X	PARAPET, VERT.
R502	X	53	6 '- 8	X	PARAPET, VERT.
R503	X	24	2 '- 9	X	PARAPET, VERT., END
R504	X	34	4 '- 4	X	PARAPET, VERT., END
R505	X	10	6 '- 5	X	PARAPET, VERT., END
R506	X	12	6 '- 6	X	PARAPET, VERT., END
R507	X	2	13 '- 0	X	PARAPET, HORIZ., END
R508	X	10	13 '- 0		PARAPET, HORIZ., END
▲ R509	X	12	5 '- 5	X	PARAPET, VERT., END
R510	X	4	13 '- 0	X	PARAPET, HORIZ., END
R511	X	8	30 '- 0		PARAPET, HORIZ.



PLAN

NW CORNER SHOWN, OTHERS SIMILAR

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - V GROOVE



INSIDE ELEVATION

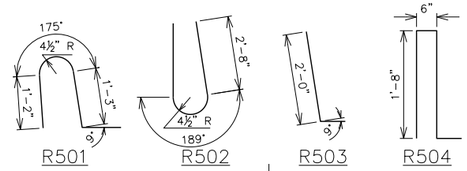
NW CORNER SHOWN, OTHERS SIMILAR

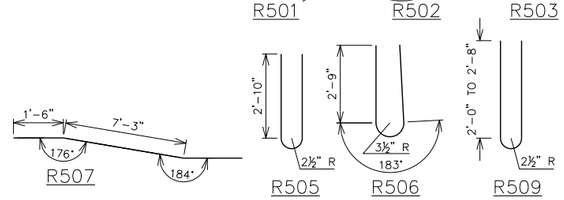
▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS

BAR SERIES TABLE - FOR ONE PARAPET

BAR MARK	NO. REQ'D	LENGTH
R509	2 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY

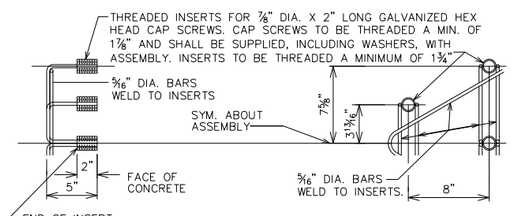




◐ CONST. JOINT - STRIKE OFF AS SHOWN

◪ USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501, R503, AND R504 BARS TO BE TIED TO SUPERSTRUCTURE STEEL BEFORE SUPERSTRUCTURE IS POURED.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

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4155 PENNSYLVANIA AVE.
DUBUQUE, IA 52002
HAZEL GREEN, WI
1151 BADGER RD.
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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-22-293

DRAWN BY MDW | PLANS CK'D. CEW

SINGLE SLOPE PARAPET 42SS

SHEET 8 OF 8

52

8

8

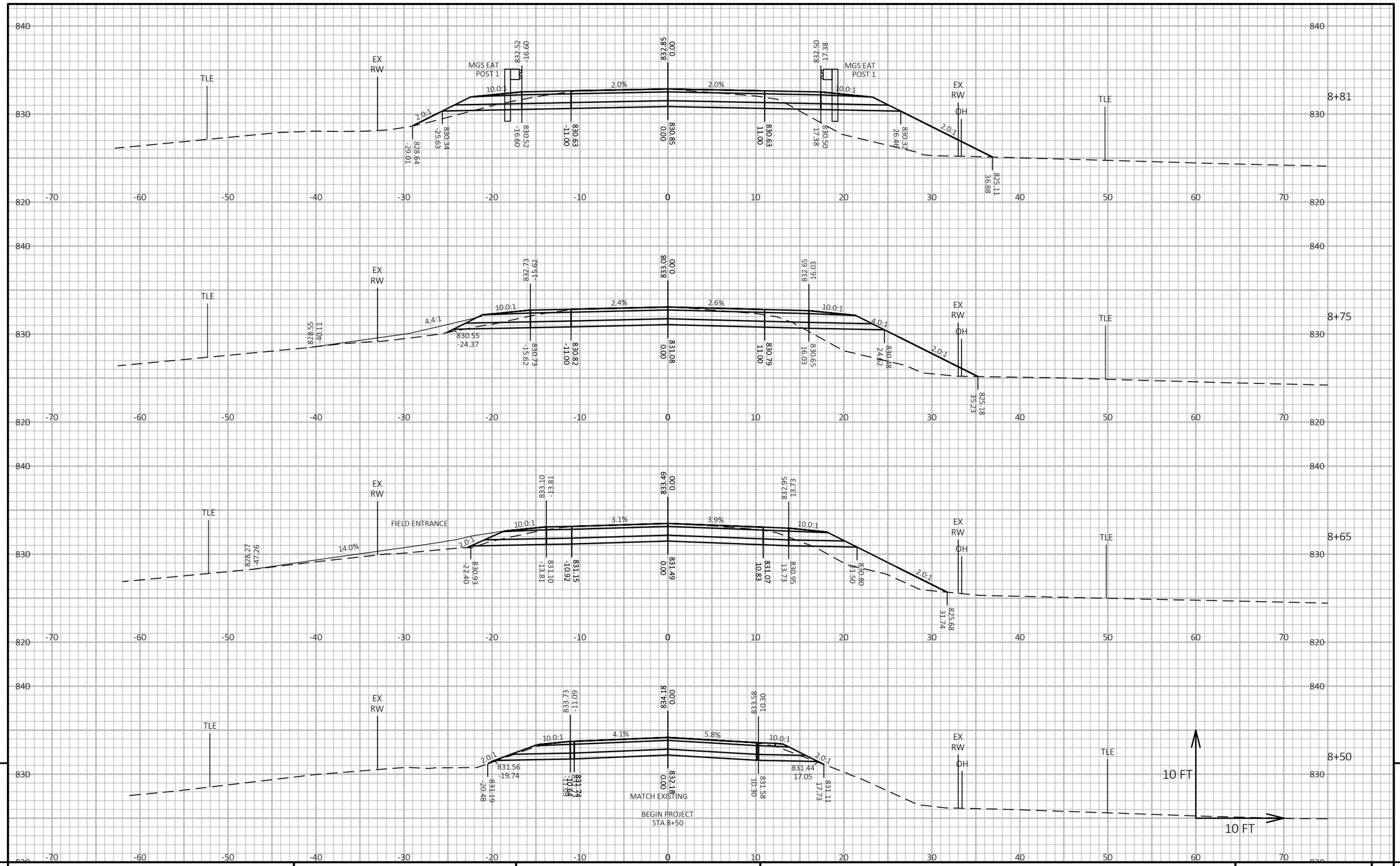
JIMTOWN ROAD EARTHWORK VOLUMES											
		Area (SF)			Incremental Volume (CY) (Unadjusted)			Cumulative Volume (CY) (Adjusted)			
Station	Distance (ft)	Cut	Fill	Rock Exc.	Cut (1.0)	Fill (1.0)	Rock Exc.	Cut (1.0) EXCAVATION COMMON	Expanded Fill (1.3)	Rock Exc. (unexpanded)	Net Earthwork
8+50.00	-	27	1	0	0	0	0	0	0	0	0
8+65.00	15.00	53	35	0	22	10	0	22	13	0	9
8+75.00	10.00	52	53	0	19	16	0	42	34	0	7
8+80.93	5.93	55	60	0	12	12	0	53	51	0	3
9+00.00	19.07	53	57	0	38	41	0	91	104	0	-13
9+13.83	13.83	50	58	0	26	29	0	118	142	0	-24
9+30.72	16.89	53	47	0	32	33	0	150	185	0	-35
9+50.00	19.28	52	42	0	37	32	0	187	226	0	-39
9+63.68	13.68	53	40	0	27	21	0	214	253	0	-39
WEST APPROACH SUBTOTALS:								214	253	0	-39
STRUCTURE B-22-293 (SEE ADDITIONAL TABLE BELOW)											
10+30.32	-	53	79	0	0	0	0	0	0	0	0
10+50.00	19.68	53	27	0	39	39	0	39	50	0	-11
10+63.28	13.28	54	22	0	26	12	0	65	66	0	-1
10+88.28	25.00	56	46	0	51	31	0	116	107	0	9
11+00.00	11.72	59	56	0	25	22	0	141	136	0	6
11+13.15	13.15	41	53	0	24	26	0	165	170	0	-4
11+17.35	4.21	19	41	0	5	7	0	170	179	0	-9
11+28.79	11.43	7	26	0	6	14	0	176	198	0	-22
11+46.67	17.88	0	3	0	2	10	0	178	211	0	-33
EAST APPROACH SUBTOTALS:								178	211	0	-33
PROJECT TOTALS								**392**	464		-72
								205.0100 EXCAVATION COMMON			

NOTES ON EARTHWORK QUANTITIES:

- ROADWAY VOLUMES INDICATE A NET FILL NEED OF 72 CY. HOWEVER, SIGNIFICANT ADDITIONAL CUT VOLUME WILL BE GENERATED AS PART OF THE STRUCTURE EXCAVATION WHICH IS EXPECTED TO INCLUDE SUFFICIENT SUITABLE MATERIAL TO PROVIDE THE NEEDED ROADWAY FILL WITHOUT THE NEED FOR OFF-SITE BORROW. THE STRUCTURE TABLE BELOW IS INCLUDED FOR INFORMATION ONLY TO HELP CONVEY THAT THIS VOLUME IS AVAILABLE ON THE PROJECT. PAY QUANTITY IN THE PLANS FOR COMMON EXCAVATION REFLECTS THE TOTAL ROADWAY CUT VOLUME IN BOLD ABOVE. ALL EXCAVATION RELATED TO THE STRUCTURE, INCLUDING THAT NOT INDICATED IN THE TABLE BELOW IS INCLUDED IN THE LUMP SUM ITEM "EXCAVATION FOR STRUCTURES (BRIDGE) B-22-293"
- CUMULATIVE EXPANDED FILL VOLUMES REFLECT AN EXPANSION FACTOR OF 1.3
- EXISTING ASPHALTIC PAVEMENT IS INCLUDED IN COMMON EXCAVATION TOTALS

STRUCTURE B-22-293			
	Cut (CY)	Fill (1.3 Factor) (CY)	Net Earthwork (CY)
WEST ABUTMENT GRADING	140	13	127
EAST ABUTMENT GRADING	280	3	277

NOTE: THESE VALUES ARE NOT A PAY ITEM AND ARE FOR INFORMATION ONLY. VALUES ABOVE REPRESENT CUT AND FILLS FROM EXISTING GROUND TO FINISHED SLOPES IN FRONT OF ABUTMENT AND WINGS. THEY DO NOT REFLECT CUT DUE TO ABUTMENT ITSELF AND EXCAVATION BEHIND ABUTMENT, WHICH IS EXPECTED TO GENERATE ADDITIONAL CUT VOLUME AND IS INCLUDED IN THE EXCAVATION FOR STRUCTURES BID ITEM.



9

9

PROJECT NO: 5721-00-75	HWY: LOCAL STREET	COUNTY: GRANT	CROSS SECTIONS: JIMTOWN RD	SHEET 54	E

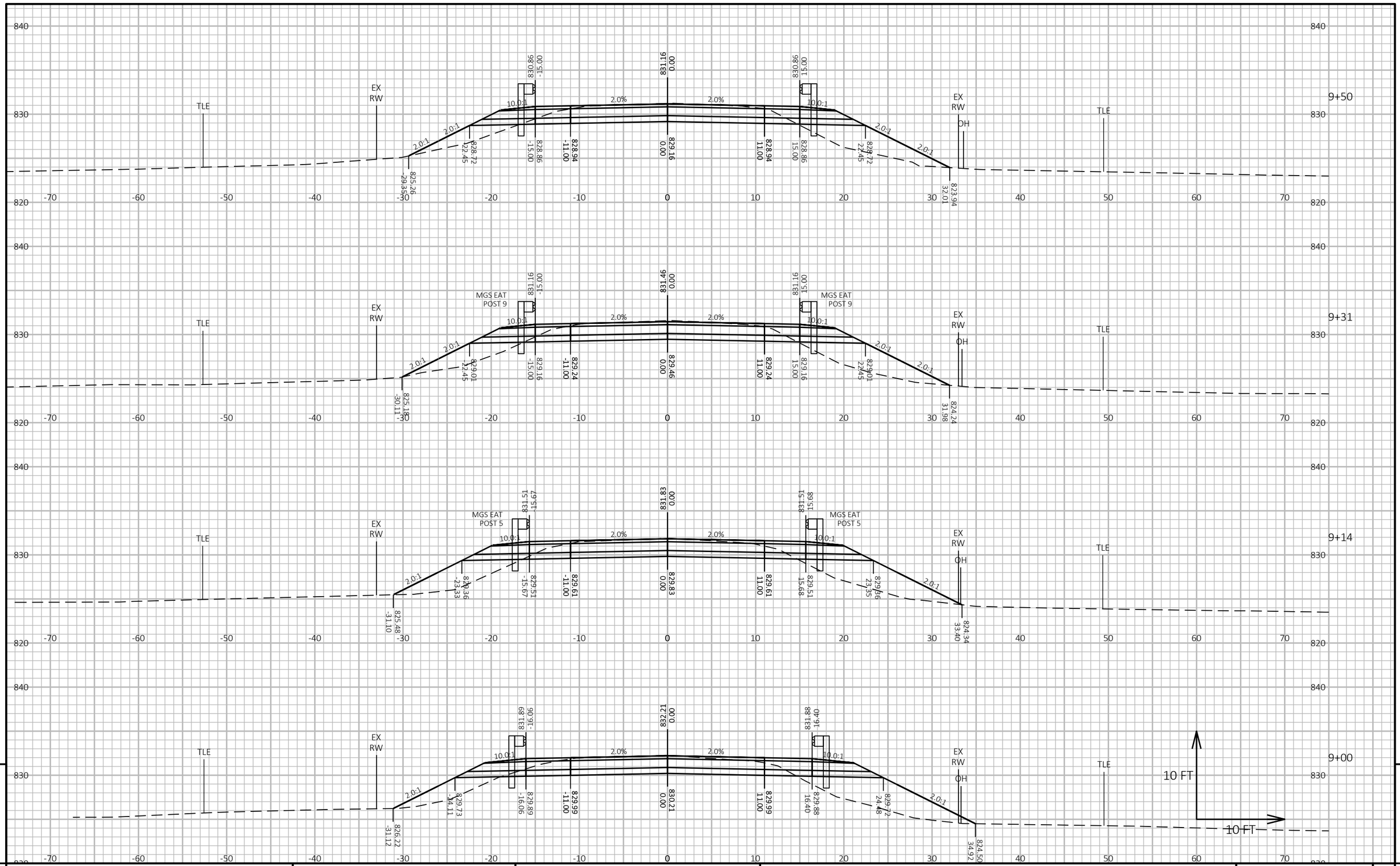
FILE NAME : P:\18\207\DRAWINGS\57210005\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 7/8/2020 4:17 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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



9

9

PROJECT NO: 5721-00-75	HWY: LOCAL STREET	COUNTY: GRANT	CROSS SECTIONS: JIMTOWN RD	SHEET 55	E

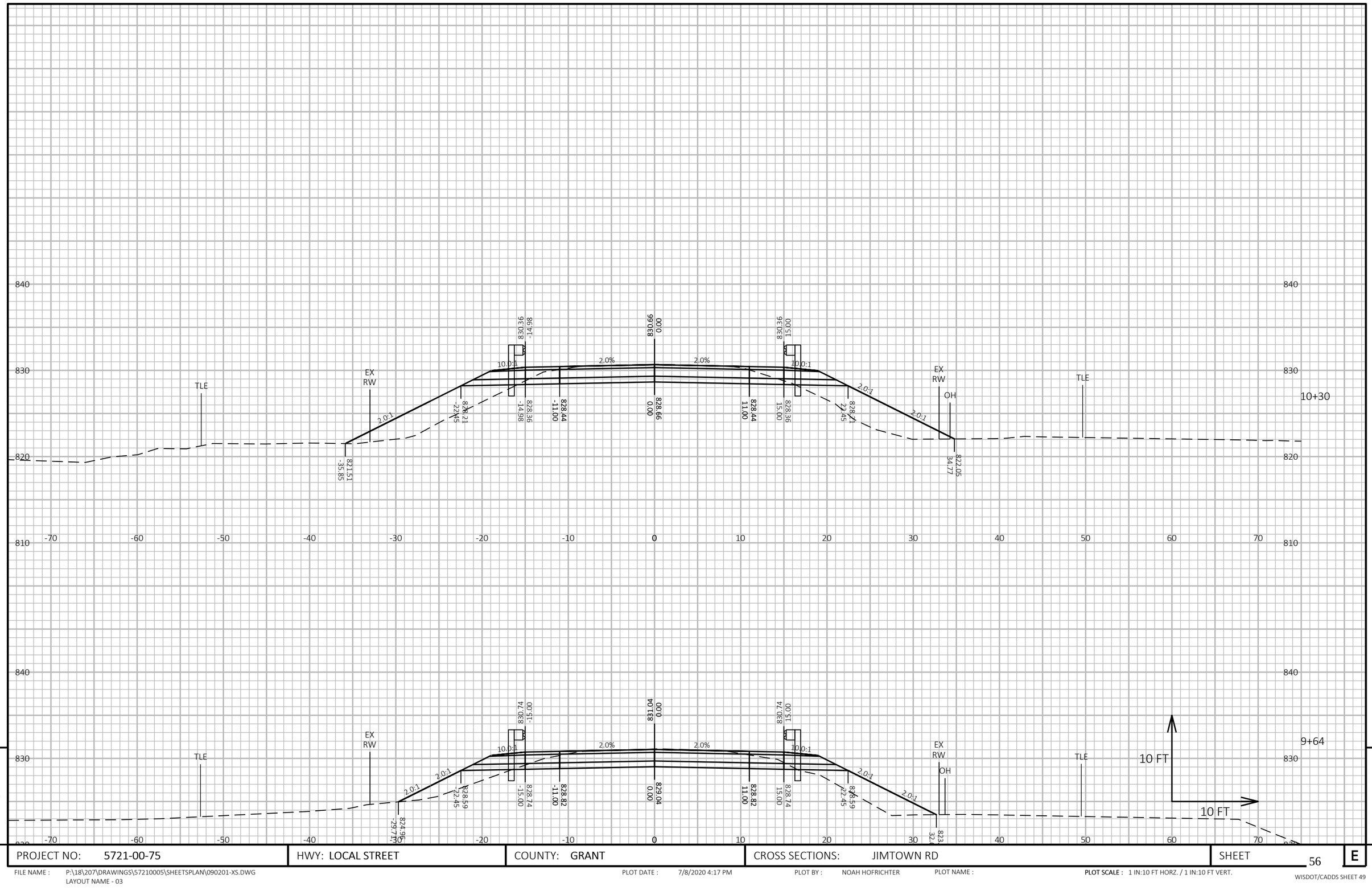
FILE NAME : P:\18\207\DRAWINGS\57210005\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 7/8/2020 4:17 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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



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9

PROJECT NO: 5721-00-75	HWY: LOCAL STREET	COUNTY: GRANT	CROSS SECTIONS: JIMTOWN RD	SHEET 56	E

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LAYOUT NAME - 03

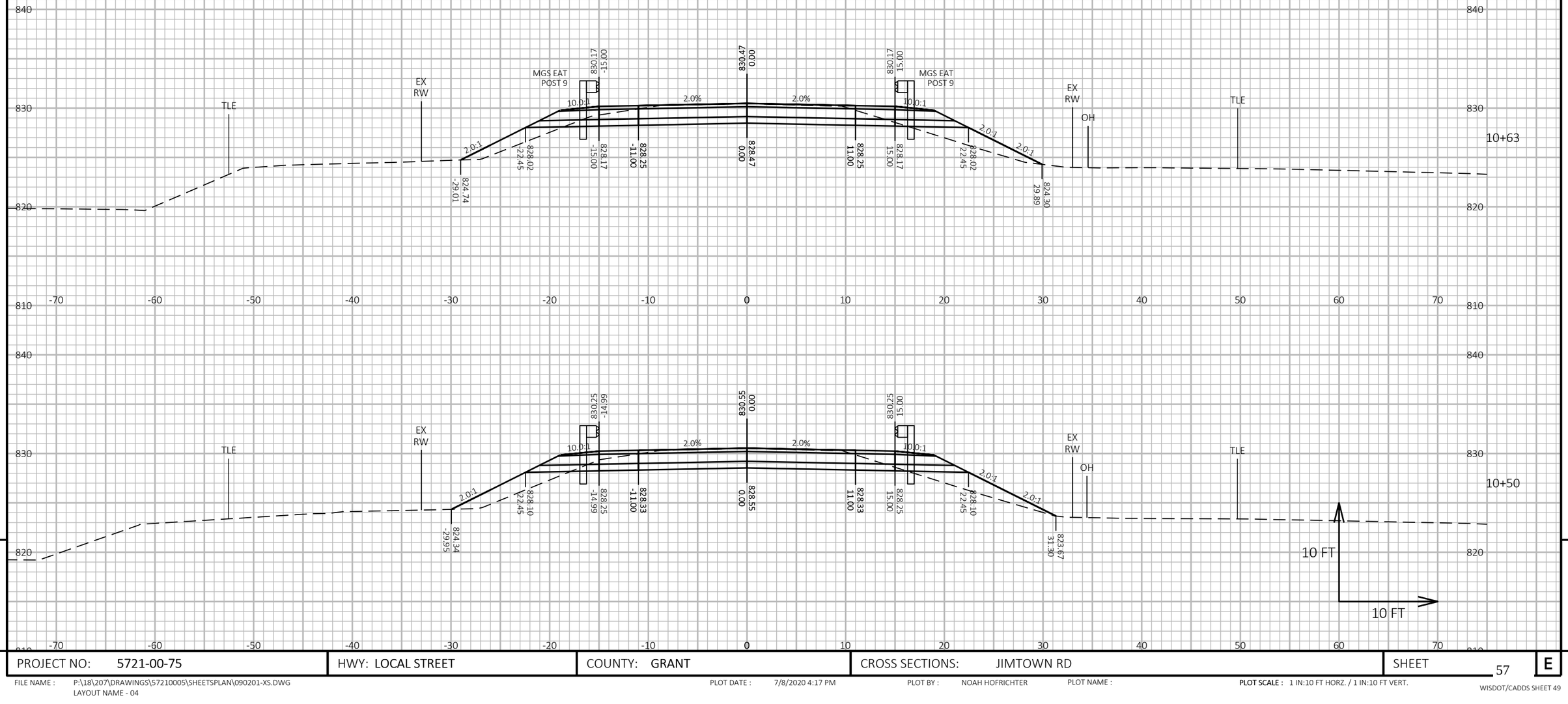
PLOT DATE : 7/8/2020 4:17 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49

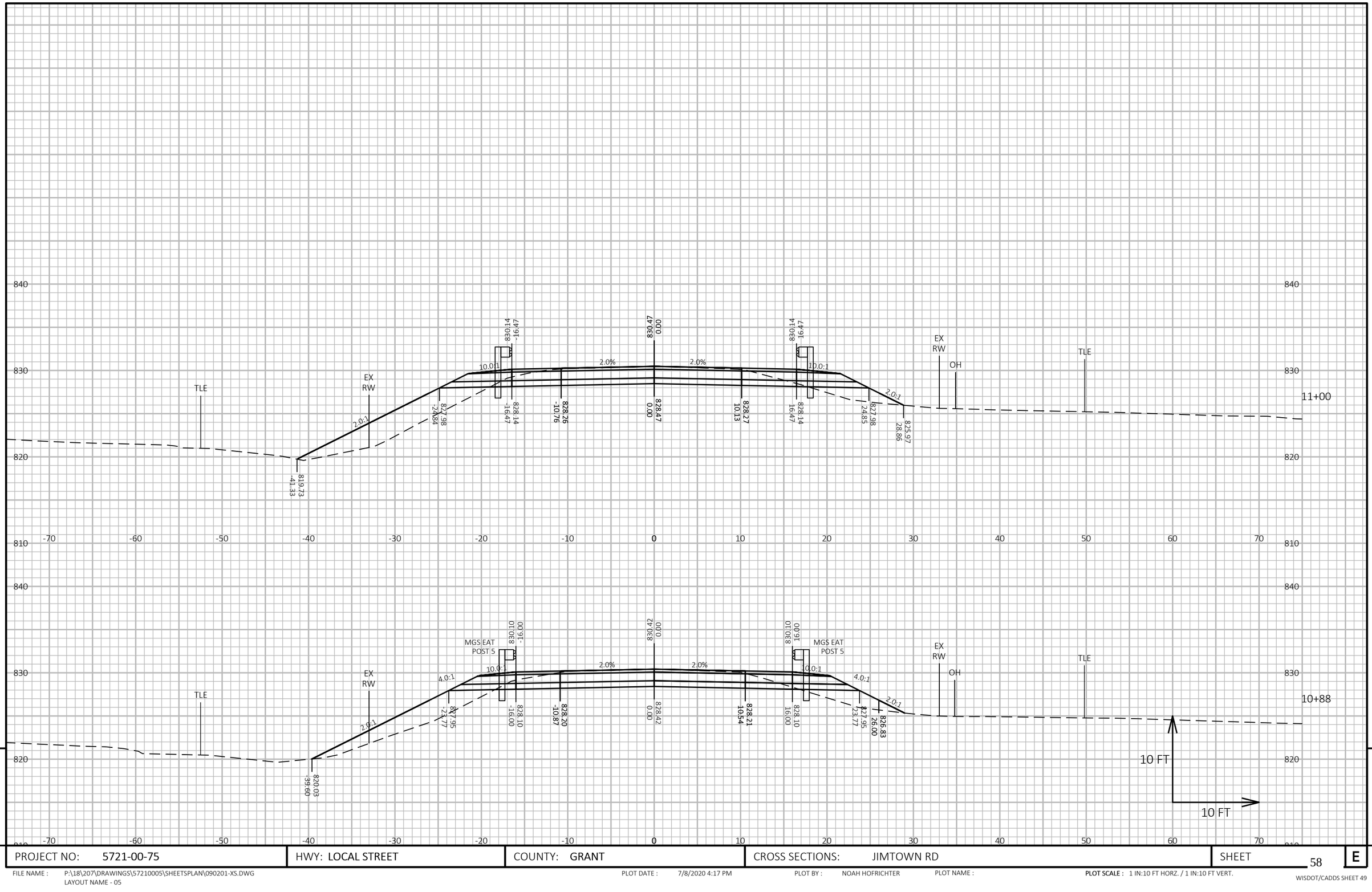


PROJECT NO: 5721-00-75	HWY: LOCAL STREET	COUNTY: GRANT	CROSS SECTIONS: JIMTOWN RD	SHEET 57	E

FILE NAME : P:\18\207\DRAWINGS\57210005\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 7/8/2020 4:17 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5721-00-75	HWY: LOCAL STREET	COUNTY: GRANT	CROSS SECTIONS: JIMTOWN RD	SHEET 58	E

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LAYOUT NAME - 05

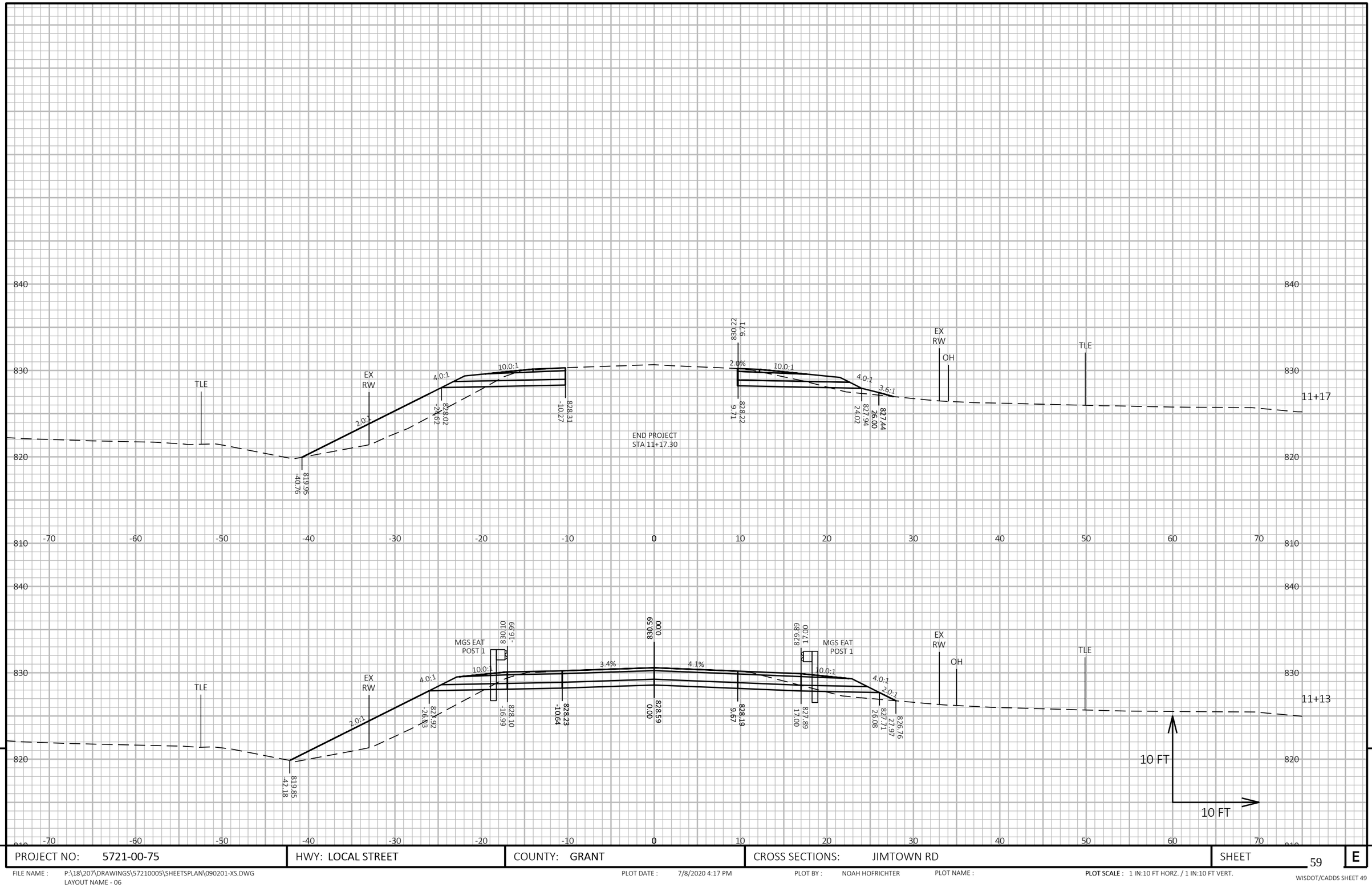
PLOT DATE : 7/8/2020 4:17 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5721-00-75	HWY: LOCAL STREET	COUNTY: GRANT	CROSS SECTIONS: JIMTOWN RD	SHEET 59	E

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LAYOUT NAME - 06

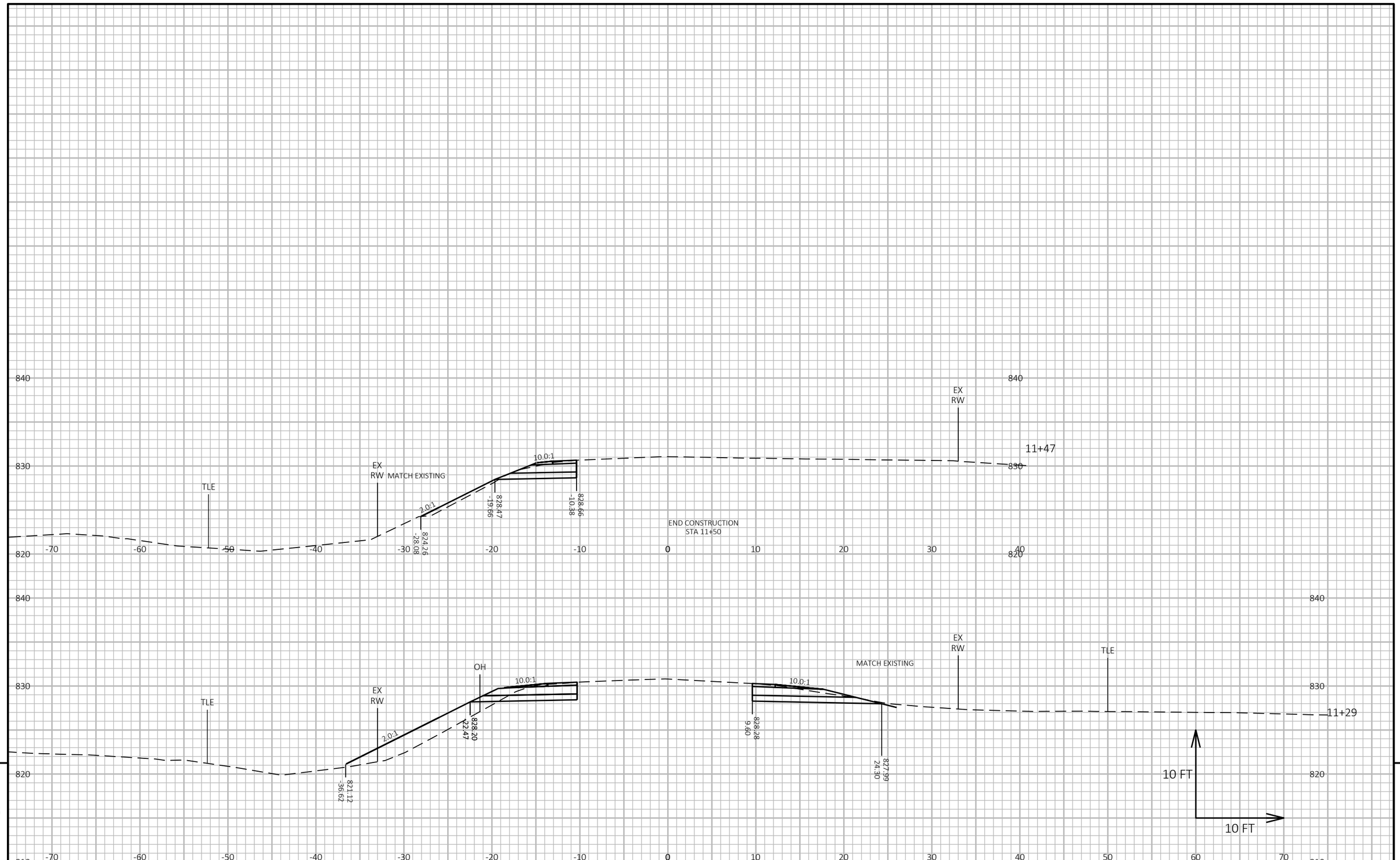
PLOT DATE : 7/8/2020 4:17 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5721-00-75	HWY: LOCAL STREET	COUNTY: GRANT	CROSS SECTIONS: JIMTOWN RD	SHEET 60	E

FILE NAME : P:\18\207\DRAWINGS\57210005\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 7/8/2020 4:17 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49

Notes

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