EAU

NOVEMBER 2021

PROJECT ID: 8925-03-71

WITH: N/A

COUNTY: DUNN

ORDER OF SHEETS

TOTAL SHEETS = 60

PROJECT LOCATION

44

DESIGN DESIGNATION 8925-03-01

A.A.D.T.	2022	=	210
A.A.D.T.	2042	=	232
D.H.V.		=	29
D.D.		=	50/50
T.		=	8%
DESIGN SPEED		=	55 MPH
ESALS		=	44,000

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

KNAPP - DOWNING

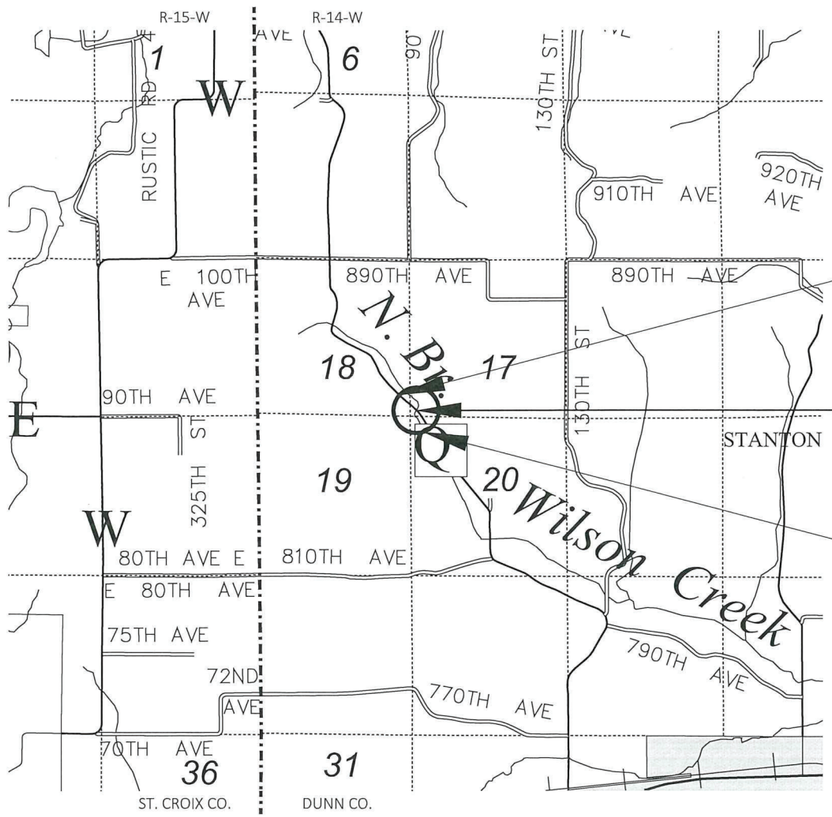
WILSON CREEK BRIDGE B-17-0232

CTH Q

DUNN COUNTY

STATE PROJECT NUMBER
8925-03-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8925-03-71		



LAYOUT

SCALE 0 1.0 MI

TOTAL NET LENGTH OF CENTERLINE = 0.079 MI

BEGIN PROJECT
STA 8+32.00
Y = 211835.1247
X = 112674.8440

STRUCTURE B-17-0232
STA 10+00.00

END PROJECT
STA 12+50.00
Y = 211544.1332
X = 112974.4908

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), DUNN COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (1991). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ACCEPTED FOR
COUNTY OF
DUNN

DATE: 7/26/21 (Signature)

HIGHWAY COMMISSIONER (Title)

ORIGINAL PLANS PREPARED BY

Cedar corporation

MENOMONIE - MADISON - GREEN BAY - CEDARBURG
www.cedarcorp.com
800-472-7372

WISCONSIN PROFESSIONAL ENGINEER
TROY L. PETERSON
E-31102
MENOMONIE
WI

7-16-21

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CEDAR CORPORATION
Designer	CEDAR CORPORATION
Project Manager	MATTHEW J. THORNSEN, PE
Regional Examiner	TOU YANG, PE
Regional Supervisor	TYLER RONGSTAD, PE

APPROVED FOR THE DEPARTMENT

DATE: 7/27/2021 Matthew Thornsen P.E. Digitally signed by Matthew Thornsen P.E. Date: 2021.07.27 08:00:45-05'00' (Signature)

E

GENERAL NOTES

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.

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

THE 4" OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 2.25" LOWER LAYER (3LT 58-28S) AND A 1.75" UPPER LAYER (4LT 58-28S).

DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE SALVAGED TOPSOIL, FERTILIZED, SEEDED, AND COVERED WITH EROSION MAT.

WETLANDS ARE PRESENT WITHIN THE PROJECT LIMITS. DO NOT OPERATE EQUIPMENT OUTSIDE OF THE SLOPE INTERCEPTS. DO NOT STORE OR STOCKPILE MATERIALS IN WETLANDS

WHEN THE QUANTITY OF ITEM BASE LAYER OR SURFACE LAYER IS MEASURED FOR PAYMENT BY THE TON, THE THICKNESS OF THE MATERIAL THAT IS SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIAL AS DIRECTED BY THE ENGINEER.

THE WISCONSIN DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR A MONUMENT WHICH SHALL BE SET IN THE STRUCTURE AS DESIGNATED BY ENGINEER.

DNR CONTACT

DNR WEST CENTRAL REGION HEADQUARTERS
1300 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54701-5108
ATTN: AMY L. LESIK
PH: (715) 836-6571
EMAIL: AmyL.Lesik@wisconsin.gov

DESIGN CONSULTANT CONTACT

CEDAR CORPORATION
604 WILSON AVENUE
MENOMONIE, WI 54751
ATTN: TROY L. PETERSON, P.E.
PH: (715) 235-9081
EMAIL: troy.peterson@cedarcorp.com

MUNICIPALITY

DUNN COUNTY PUBLIC WORKS
3303 HIGHWAY 12 EAST
MENOMONIE, WI 54751-5575
ATTN: JOHN J. SWORSKI, HIGHWAY COMMISSIONER
PH: (715) 232-2181
EMAIL: jsworski@co.dunn.wi.us

UTILITY CONTACTS

COMMUNICATION
LUMEN (CENTURYLINK)
20 SOUTH WILSON AVENUE
RICE LAKE, WI 54868
ATTN: KYLE SCHLAMPP, CONSTRUCTION DETAILER
PH: (715) 475 2029
EMAIL: kyle.schlampp@lumen.com

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com
**DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS.

STANDARD ABBREVIATIONS

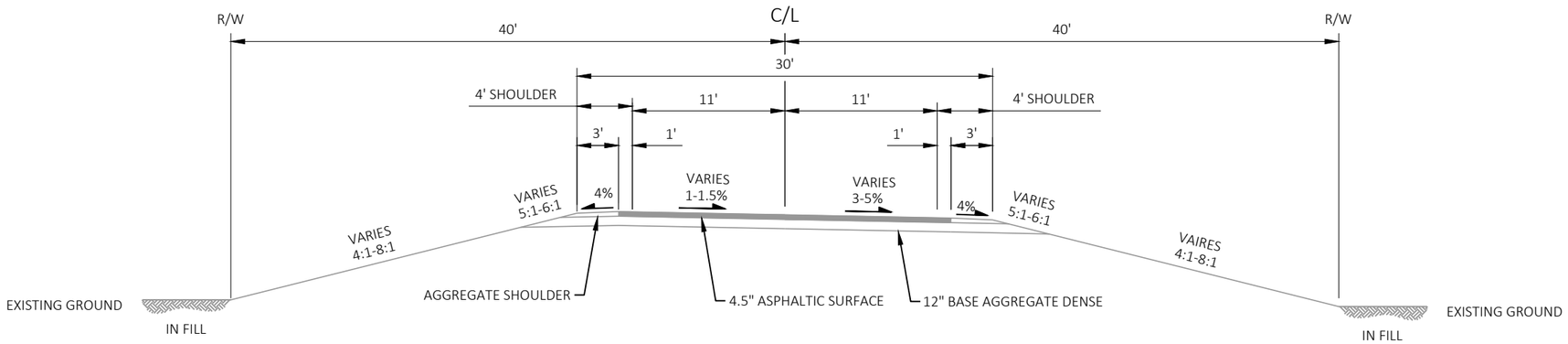
ABUT	ABUTMENT	OFF	OFFSET
AGG	AGGREGATE	PC	POINT OF CURVATURE
ET AL	AND OTHERS	PI	POINT OF INTERSECTION
AADT	ANNUAL AVERAGE DAILY TRAFFIC	PT	POINT OF TANGENCY
BF	BACK FACE	POL	POINT ON LINE
BM	BENCHMARK	PE	PRIVATE ENTRANCE
C/L OR ℄	CENTERLINE	PL	PROPERTY LINE
Δ	CENTRAL ANGLE OR DELTA	PSI	POUNDS/SQUARE INCH
CLR	CLEAR	PROP	PROPOSED
CONC	CONCRETE	R	RADIUS
CONST	CONSTRUCTION	RR	RAILROAD
COR	CORNER	REBAR	REINFORCEMENT BAR
CMP	CORRUGATED METAL PIPE	REQ'D	REQUIRED
CTH	COUNTY TRUNK HIGHWAY	RT	RIGHT
CR	CREEK	RHF	RIGHT-HAND FORWARD
CFS	CUBIC FEET/SECOND	R/W	RIGHT-OF-WAY
CULV	CULVERT	RD	ROAD
D	DEGREE OF CURVE	SEC	SECTION
DHV	DESIGN HOUR VOLUME	S	SOUTH
DIA	DIAMETER	SE	SOUTHEAST
E	EAST	SW	SOUTHWEST
EL	ELEVATION	STH	STATE TRUNK HIGHWAY
EST	ESTIMATED	STA	STATION
FPS	FEET PER SECOND	SE	SUPER ELEVATION
FE	FIELD ENTRANCE	T	TANGENT
FT	FOOT (FEET)	TEL	TELEPHONE
FTG	FOOTING	TEMP	TEMPORARY
FDN	FOUNDATION	TI	TEMPORARY INTEREST
FF	FRONT FACE	TLE	TEMPORARY LIMITED EASEMENT
IP	IRON PIN	TL OR T/L	TRANSIT LINE
LT	LEFT	T	TRUCKS
LHF	LEFT-HAND FORWARD	TYP	TYPICAL
L	LENGTH OF CURVE	U/G	UNDERGROUND
LF	LINEAR FOOT	USH	UNITED STATES HIGHWAY
MAX	MAXIMUM	VAR	VARIABLE
MI	MILE	V	VELOCITY
MIN	MINIMUM	VPC	VERTICAL POINT OF CURVATURE
NC	NORMAL CROWN	VPI	VERTICAL POINT OF INTERSECTION
N	NORTH	VPT	VERTICAL POINT OF TANGENCY
NE	NORTHEAST	W	WEST
NW	NORTHWEST	YB	YARD
NO	NUMBER		

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
PAYMENT:												
ASPHALT:	.70 - .95											
CONCRETE:	.80 - .95											
BRICK:	.70 - .80											
DRIVES, WALKS:	.75 - .85											
ROOFS:	.75 - .95											
GRAVEL ROADS, SHOULDERS:	.40 - .60											

TOTAL PROJECT AREA = 0.81 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.50 ACRES

2



EXISTING TYPICAL SECTION - CTH Q

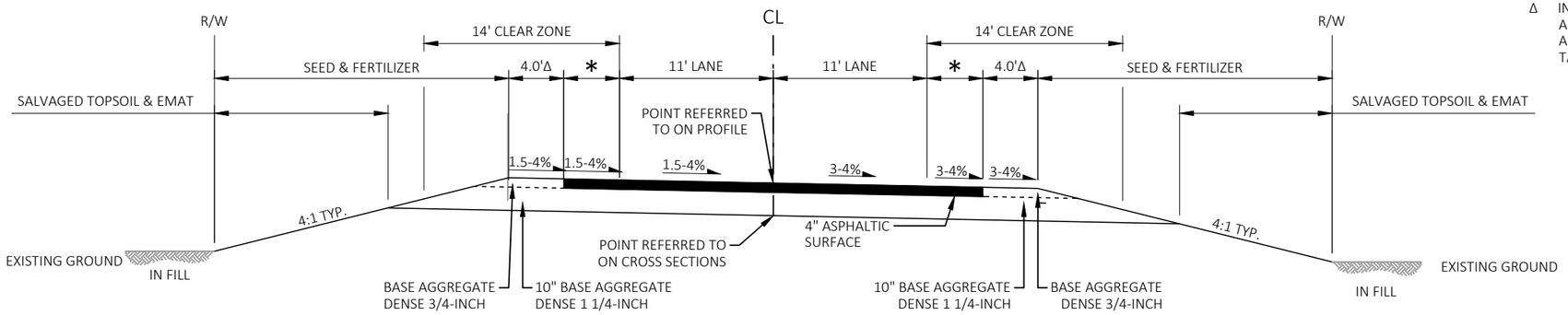
STA 8+32 TO STA 12+50

PROJECT NO: 8925-03-71	HWY: CTH Q	COUNTY: DUNN	TYPICAL SECTIONS - EXISTING	SHEET 3	E

2

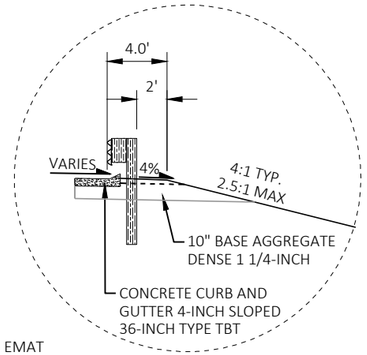
* PAVED SHOULDER WIDTH VARIES
- 8+32 - 8+84 RT (1' TO 4')
- 11+16 - 12+50 RT (4' TO 1')
- 8+32 - 8+85 LT (1' TO 4')
- 11+15 - 12+50 LT (4' TO 1')

Δ INCREASE TO 8' AT POST NO. 1 OF ENERGY ABSORBING TERMINAL. DECREASE IN WIDTH AFTER ENERGY ABSORBING TERMINAL AT A 15:1 TAPER UNTIL SHOULDER MATCHES EXISTING.



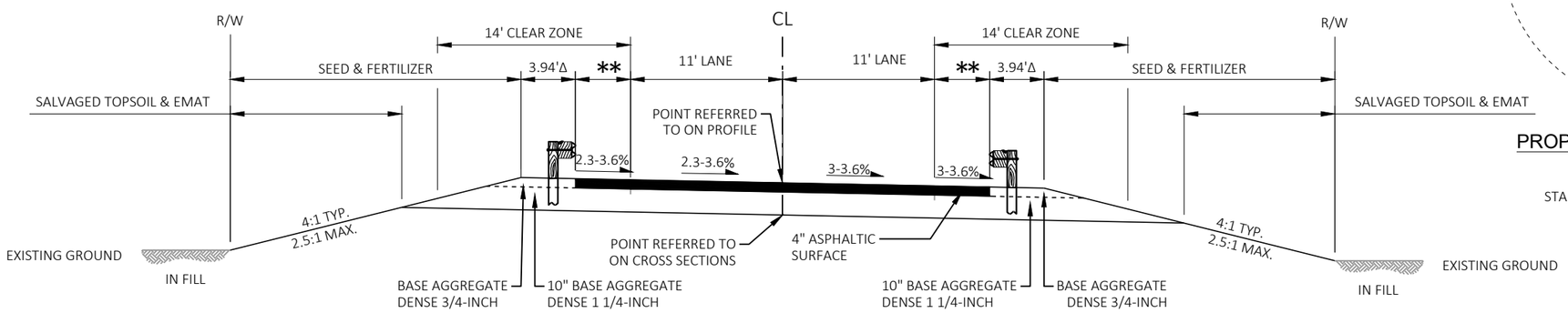
PROPOSED TYPICAL SECTION - CTH Q

STA 8+32.00 RT TO STA 8+84.34 RT
STA 8+32.00 LT TO STA 8+84.53 LT
STA 11+15.88 RT TO STA 12+50.00 RT
STA 11+15.23 LT TO STA 12+50.00 LT



PROPOSED TYPICAL SECTION AT BEAM GUARD

STA 10+25.40 RT TO STA 10+65.12 RT



PROPOSED TYPICAL SECTION AT BEAM GUARD

STA 8+84.34 RT TO STA 9+74.64 RT
STA 8+84.53 LT TO STA 9+74.85 LT
STA 10+25.40 RT TO STA 11+15.88 RT
STA 10+25.09 LT TO STA 11+15.23 LT

** PAVED SHOULDER WIDTH VARIES
- 8+84 - 9+34 RT (4' TO 2')
- 9+34 - 9+75 RT (2')
- 10+25 - 10+66 RT (2')
- 10+66 - 11+16 RT (2' TO 4')
- 8+85 - 9+35 LT (4' TO 2')
- 9+35 - 9+75 LT (2')
- 10+25 - 10+65 LT (2')
- 10+65 -11+15 LT (2' TO 4')

2

2

LEGEND

- SURFACE WATER FLOW
- SLOPE INTERCEPT
- SILT FENCE
- TURBIDITY BARRIER
- RIPRAP BOUNDARY
- SALVAGED TOPSOIL, SEED, FERTILIZER, AND EROSION URBAN MAT CLASS 1, TYPE B
- WETLAND IMPACTS

NOTE: USE SEED MIX NO. 20

N

EDGE OF WATER

EDGE OF WATER

WOODED

FIELD

GRASS

PRIVATE ENTRANCE

GRAVEL

BEGIN PROJECT
STA 8+32.00
Y = 211835.1707
X = 112674.8854
MATCH EXISTING
SAWCUT REQ'D

R/W

S.I.

RIPRAP HEAVY

S.I.

R/W

S.I.

POST

8+00

CTH Q
ASPHALT

9+00

10+00

80.00'

11+00

12+00

END CONSTRUCTION
STA 12+50.00

96.58'

BEGIN CONSTRUCTION
STA 8+32.00

POST

PROPOSED STRUCTURE B-17-0232 STA 10+00

EXISTING STRUCTURE P-17-0800 TO BE REMOVED

WILSON CREEK

RIPRAP HEAVY

ASPHALTIC FLUME

8.0'

S.I.

CULVERT PIPE
CORRUGATED STEEL
18-INCH TO REMAIN

R/W

S.I.

RIPRAP MEDIUM

PRIVATE ENTRANCE

GRAVEL

PROPERTY LINE

WOODED

WOODED

R/W

END PROJECT
STA 12+50.00
Y = 211544.1332
X = 112974.4908
MATCH EXISTING
SAWCUT REQ'D

CULVERT PIPE
CORRUGATED STEEL
24-INCH TO REMAIN

EDGE OF WATER

EDGE OF WATER

PROJECT NO: 8925-03-71	HWY: CTH Q	COUNTY: DUNN	EROSION CONTROL	SHEET 5	E

FILE NAME : I:\CLIENTS-MENO\W\W3900 WDOT NW REGION - EAU CLAIRE\023 8925-03-01 KNAPP - DOWNING WILSON CREEK BRIDGE B-17-0232 CTH Q DUNN COUNTY\89250301\SHEETSPLAN\022001-EC.DWG PLOT DATE : 7/13/2021 11:53 AM PLOT BY : MIKE LAPEAN PLOT NAME : PLOT SCALE : 1 IN:40 FT
LAYOUT NAME - 022001-ec

WISDOT/CADDS SHEET 42

2

ASHLEY A. KRUEGER

ASHLEY A. KRUEGER

PROPOSED
STRUCTURE
B-17-0232
STA 10+00

1 W5-52L 12"X36"

2R REMOVE

4R REMOVE

6R WEIGHT LIMIT 35 TONS REMOVE

3 W5-52R 12"X36"

R/W

PC: 9+12.92

PT: 11+26.73

PC: 12+04.06

R/W

8+00

9+00

10+00

11+00

12+00

13+00

BEGIN PROJECT
STA 8+32.00

CTH Q

END PROJECT
STA 12+50.00

B

A

POST

POST

R/W

2 W5-52R 12"X36"

1R WEIGHT LIMIT 35 TONS REMOVE

3R REMOVE

WILSON CREEK

5R REMOVE

4 W5-52L 12"X36"

R/W

OH

MICHAIL & HILLARY
BIGNELL

SCREENHOUSE

LEGEND

A MARKING LINE EPOXY 4-INCH, WHITE

B MARKING LINE EPOXY 4-INCH, YELLOW

NOTE: REMOVE EXISTING SIGNS & RETURN TO COUNTY.

ASHLEY A. KRUEGER

PROJECT NO: 8925-03-71	HWY: CTH Q	COUNTY: DUNN	PERMANENT MARKING AND SIGNING	SHEET 6	E

FILE NAME : I:\CLIENTS-MENO\W\W3900 WDOT NW REGION - EAU CLAIRE\023 8925-03-01 KNAPP - DOWNING WILSON CREEK BRIDGE B-17-0232 CTH Q DUNN COUNTY\89250301\SHEETSPLAN\024501.PLT.DWG
LAYOUT NAME - 024501

PLOT DATE : 7/13/2021 11:54 AM PLOT BY : MIKE LAPEAN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

Estimate Of Quantities

8925-03-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-17-0800	EACH	1.000	1.000
0004	204.0165	Removing Guardrail	LF	180.000	180.000
0006	205.0100	Excavation Common	CY	515.000	515.000
0008	206.1000	Excavation for Structures Bridges (structure) 01. B-17-232	LS	1.000	1.000
0010	210.1500	Backfill Structure Type A	TON	274.000	274.000
0012	213.0100	Finishing Roadway (project) 01. 8925-03-71	EACH	1.000	1.000
0014	305.0110	Base Aggregate Dense 3/4-Inch	TON	127.000	127.000
0016	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,058.000	1,058.000
0018	455.0605	Tack Coat	GAL	78.000	78.000
0020	465.0105	Asphaltic Surface	TON	256.000	256.000
0022	465.0315	Asphaltic Flumes	SY	8.000	8.000
0024	502.0100	Concrete Masonry Bridges	CY	126.000	126.000
0026	502.3200	Protective Surface Treatment	SY	88.000	88.000
0028	502.3210	Pigmented Surface Sealer	SY	50.000	50.000
0030	505.0400	Bar Steel Reinforcement HS Structures	LB	3,380.000	3,380.000
0032	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	14,690.000	14,690.000
0034	516.0500	Rubberized Membrane Waterproofing	SY	18.000	18.000
0036	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	140.000	140.000
0038	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	40.000	40.000
0040	606.0200	Riprap Medium	CY	2.000	2.000
0042	606.0300	Riprap Heavy	CY	105.000	105.000
0044	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	180.000	180.000
0046	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0048	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
0050	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0052	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8925-03-71	EACH	1.000	1.000
0054	619.1000	Mobilization	EACH	1.000	1.000
0056	624.0100	Water	MGAL	18.000	18.000
0058	625.0500	Salvaged Topsoil	SY	228.000	228.000
0060	628.1504	Silt Fence	LF	1,010.000	1,010.000
0062	628.1520	Silt Fence Maintenance	LF	1,010.000	1,010.000
0064	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0066	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0068	628.2008	Erosion Mat Urban Class I Type B	SY	228.000	228.000
0070	628.6005	Turbidity Barriers	SY	148.000	148.000
0072	629.0210	Fertilizer Type B	CWT	0.400	0.400
0074	630.0120	Seeding Mixture No. 20	LB	17.000	17.000
0076	630.0200	Seeding Temporary	LB	17.000	17.000
0078	630.0500	Seed Water	MGAL	7.000	7.000
0080	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0082	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0084	638.2602	Removing Signs Type II	EACH	6.000	6.000
0086	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0088	642.5001	Field Office Type B	EACH	1.000	1.000
0090	643.0300	Traffic Control Drums	DAY	70.000	70.000
0092	643.0420	Traffic Control Barricades Type III	DAY	1,260.000	1,260.000
0094	643.0705	Traffic Control Warning Lights Type A	DAY	1,960.000	1,960.000
0096	643.0900	Traffic Control Signs	DAY	980.000	980.000
0098	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000

8925-03-71

Line	Item	Item Description	Unit	Total	Qty
0100	643.5000	Traffic Control	EACH	1.000	1.000
0102	645.0111	Geotextile Type DF Schedule A	SY	42.000	42.000
0104	645.0120	Geotextile Type HR	SY	206.000	206.000
0106	646.1020	Marking Line Epoxy 4-Inch	LF	1,675.000	1,675.000
0108	650.4500	Construction Staking Subgrade	LF	388.000	388.000
0110	650.5000	Construction Staking Base	LF	388.000	388.000
0112	650.6500	Construction Staking Structure Layout (structure) 01. B-17-232	LS	1.000	1.000
0114	650.9910	Construction Staking Supplemental Control (project) 01. 8925-03-71	LS	1.000	1.000
0116	650.9920	Construction Staking Slope Stakes	LF	388.000	388.000
0118	690.0150	Sawing Asphalt	LF	47.000	47.000
0120	715.0502	Incentive Strength Concrete Structures	DOL	760.000	760.000
0122	999.2000.S	Installing and Maintaining Bird Deterrent System (Station) 01. 10+00	EACH	1.000	1.000

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.35	MASS ORDINATE +/- (14)	WASTE
DIVISION 1										
CTH Q	08+32/12+50		515	0	124	391	62	84	307	307
DIVISION 1 SUBTOTAL			515	0	124	391	62	84	307	307
GRAND TOTAL			515	0	124	391	62	84	307	307
TOTAL COMMON EXC			515							

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) EBS EXCAVATION TO BE BACKFILLED WITH BASE AGGREGATE DENSE 1 1/4-INCH.

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL

(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL

(13) EXPANDED FILL FACTOR = 1.35

DEPENDING ON SELECTIONS: EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH - REDUCED EBS) * FILL FACTOR

OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED EBS) * FILL FACTOR

OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH) * FILL FACTOR

OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK) * FILL FACTOR

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

(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

REMOVING GUARD RAIL

CATEGORY	STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF
0010	9+53	-	10+43	RT	90
0010	9+66	-	10+55	LT	90
				TOTAL 0010	180

EXCAVATION

CATEGORY	STATION	TO	STATION	LOCATION	205.0100 EXCAVATION COMMON CY	REMARKS
0010	8+32		9+74.75	RT	50	
0010	8+54.51	-	9+74.75	LT	37	
0010	9+34.75	-	9+84.75	MAINLINE	35	
0010	10+15.25	-	10+65.25	MAINLINE	35	
0010	10+25.25	-	11+45.86	RT	41	
0010	10+25.25	-	12+04.61	LT	62	
				TOTAL 0010	260	
0030	8+32		8+54.51	LT	8	
0030	8+32		9+34.75	MAINLINE	71	
0030	10+65.25		12+50	MAINLINE	126	
0030	11+45.86	-	12+50	RT	35	
0030	12+04.61	-	12+50	LT	15	
				TOTAL 0030	255	
				PROJECT TOTAL	515	

3

BASE AGGREGATES

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
0010	8+32	-	9+74.75	RT	25	107	2
0010	8+54.51	-	9+74.75	LT	17	78	1
0010	9+34.75	-	9+84.75	MAINLINE	0	68	1
0010	10+15.25	-	10+65.25	MAINLINE	0	68	1
0010	10+25.25		11+45.86	RT	17	88	2
0010	10+25.25	-	12+04.61	LT	33	135	3
				TOTAL 0010	92	544	10
0030	8+32	-	9+34.75	MAINLINE	0	140	2
0030	8+32		8+54.51	LT	5	16	0
0030	10+65.25	-	12+50	MAINLINE	0	251	4
0030	11+45.86		12+50	RT	20	74	1
0030	12+04.61	-	12+50	LT	10	33	1
				TOTAL 0030	35	514	8
				PROJECT TOTAL	127	1058	18

CONCRETE CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	601.0588 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBT LF
0010	10+25.40	-	10+65.12	RT	40
				TOTAL 0010	40

BEAM GUARD

CATEGORY	STATION	TO	STATION	LOCATION	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
0010	8+84	-	9+77	RT	39.4	1
0010	8+85	-	9+77	LT	39.4	1
0010	10+23	-	11+16	RT	39.4	1
0010	10+23	-	11+15	LT	39.4	1
				TOTAL 0010	157.6	4

RIPRAP

CATEGORY	STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	REMARKS
0010	10+62.50	RT	2	END OF ASPHALT FLUME
		TOTAL 0010	2	

ASPHALTIC ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	465.0315 ASPHALTIC FLUMES SY	REMARKS
0010	8+32		9+34.75	LT & RT	4	13	-	PAVED SHOULDERS
0010	9+34.75	-	9+84.75	MAINLINE	10	33	-	ROADWAY & PAVED SHOULDERS
0010	10+15.25	-	10+65.25	MAINLINE	9	31	-	ROADWAY & PAVED SHOULDERS
0010	10+60			RT	-	-	8	ASPHALT FLUME
0010	10+65.25	-	12+04.61	LT & RT	4	14	-	PAVED SHOULDERS
				TOTAL 0010	27	91	8	
0030	8+32	-	9+34.75	MAINLINE	18	58	-	ROADWAY
0030	10+65.25	-	12+50	MAINLINE	33	107	-	ROADWAY
				TOTAL 0030	51	165	0	
				PROJECT TOTAL	78	256	8	

EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.6005 TURBIDITY BARRIERS SY
0010	8+32	-	9+75	RT	167	167	1	1	-
0010	8+55	-	9+75	LT	128	128	-	-	-
0010	10+25	-	11+46	RT	136	136	1	1	-
0010	10+25	-	12+05	LT	185	185	-	-	-
0010				UNDISTRIBUTED	154	154	1	1	-
0010				WEST ABUTMENT	-	-	-	-	79
0010				EAST ABUTMENT	-	-	-	-	69
				TOTAL 0010	770	770	3	3	148
0030	8+32	-	8+55	LT	28	28	-	-	-
0030	11+46	-	12+50	RT	110	110	-	-	-
0030	12+05	-	12+50	LT	54	54	-	-	-
0030				UNDISTRIBUTED	48	48	-	-	-
				TOTAL 0030	240	240	0	0	0
				PROJECT TOTAL	1010	1010	3	3	148

3

PROJECT NO: 8925-03-71	HWY: CTH Q	COUNTY: DUNN	MISCELLANEOUS QUANTITIES	SHEET 10	E

3

RESTORATION

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
0010	8+32	-	9+75	RT	84	84	0.10	4	4	2
0010	8+55	-	9+75	LT	44	44	0.06	3	3	1
0010	10+25	-	11+46	RT	25	25	0.07	3	3	1
0010	10+25	-	12+05	LT	62	62	0.09	4	4	2
				TOTAL 0010	215	215	0.32	14	14	6
0030	8+32	-	8+55	LT	4	4	0.01	0	0	0
0030	11+46	-	12+50	RT	2	2	0.05	2	2	1
0030	12+05	-	12+50	LT	7	7	0.02	1	1	0
				TOTAL 0030	13	13	0.08	3	3	1
				PROJECT TOTAL	228	228	0.40	17	17	7

TYPE II SIGNS

CATEGORY	STATION	LOCATION	SIGN NUMBER	SIGN CODE	SIZE	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	REMARKS
0010	9+74	LT	1	W5-52L	12X36	1	3.0	BRIDGE HASH MARKS
0010	9+74	RT	2	W5-52R	12X36	1	3.0	BRIDGE HASH MARKS
0010	10+26	LT	3	W5-52R	12X36	1	3.0	BRIDGE HASH MARKS
0010	10+26	RT	4	W5-52L	12X36	1	3.0	BRIDGE HASH MARKS
					TOTAL 0010	4	12.0	

REMOVING SIGN ITEMS

CATEGORY	STATION	LOCATION	SIGN NUMBER	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	9+87	RT	1R	1	1	WEIGHT LIMIT 35 TONS
0010	9+90	LT	2R	1	1	BRIDGE HASH MARKS
0010	9+91	RT	3R	1	1	BRIDGE HASH MARKS
0010	10+16	LT	4R	1	1	BRIDGE HASH MARKS
0010	10+18	RT	5R	1	1	BRIDGE HASH MARKS
0010	10+22	LT	6R	1	1	WEIGHT LIMIT 35 TONS
		TOTAL 0010		6	6	

PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF
0010	9+34.75	-	10+65.25	LT EDGE LINE	-	131
0010	9+34.75	-	10+65.25	CENTERLINE	261	-
0010	9+34.75	-	10+65.25	RT EDGELINE	-	131
				SUBTOTAL 0010	261	262
				TOTAL 0010	523	
0030	8+32	-	9+34.75	LT EDGE LINE	-	103
0030	8+32	-	9+34.75	CENTERLINE	206	-
0030	8+32	-	9+34.75	RT EDGELINE	-	103
0030	10+65.25	-	12+50	LT EDGE LINE	-	185
0030	10+65.25	-	12+50	CENTERLINE	370	-
0030	10+65.25	-	12+50	RT EDGELINE	-	185
				SUBTOTAL 0030	576	576
				TOTAL 0030	1,152	
				PROJECT TOTAL	1675	

TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.5000 TRAFFIC CONTROL EACH
0010	7-DAY ADVANCED WARNING	70	-	-	-	14	-
0010	PROJECT	-	1,260	1,960	980	-	1
	TOTAL 0010	70	1,260	1,960	980	14	1

3

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 8925-03-71) LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	8+32	-	9+84.75	MAINLINE	-	-	-	153
0010	9+34.75	-	9+84.75	MAINLINE	50	50	-	-
0010	10+15.25	-	10+65.25	MAINLINE	50	50	-	-
0010	10+15.25	-	12+04.61	MAINLINE	-	-	-	189
0010				PROJECT	-	-	1	-
				TOTAL 0010	100	100	1	342
0030	8+32	-	9+34.75	MAINLINE	103	103	-	-
0030	10+65.25	-	12+50	MAINLINE	185	185	-	-
0030	12+04.61	-	12+50	MAINLINE	-	-	-	46
				TOTAL 0030	288	288	0	46
				PROJECT TOTAL	388	388	1	388

SAWCUT

CATEGORY	STATION	LOCATION	690.0150 SAWING ASPHALT LF
0010	8+32.00	CTH Q	24
0010	12+50.00	CTH Q	23
		TOTAL 0010	47

PI STA = 10+19.89
Y = 211711.106
X = 112815.991
DELTA = 4°54'00"
D = 2°17'31"
T = 106.97'
L = 213.81'
R = 2500.00'
PC STA = 9+12.92
Y = 211781.712
X = 112735.634
PT STA = 11+26.73
Y = 211633.895
X = 112890.024
BK = S48°41'45.4"E
AH = S43°47'44.9"E
S.E.= 3.2%

PI STA = 13+04.46
Y = 211505.745
X = 113013.168
DELTA = 13°29'39"
D = 6°45'05"
T = 100.40'
L = 199.87'
R = 848.65'
PC STA = 12+04.06
Y = 211578.080
X = 112943.540
PT STA = 14+03.93
Y = 211419.159
X = 113063.995
BK = S43°54'28.0"E
AH = S30°24'48.7"E
S.E.= 4.0%

ASHLEY A. KRUEGER
FIELD
EDGE OF WATER
EDGE OF WATER
WOODED
ASHLEY A. KRUEGER
GRASS
PRIVATE ENTRANCE
GRAVEL
EXISTING R/W
CENTURYLINK
CP100 (MAG SPIKE)
STA. 8+25.71, 18.8' LT.
Y = 211853.4091
X = 112682.5401
CENTURYLINK
EXISTING R/W
CP102 (MAG SPIKE)
STA. 9+93.15, 10.9' LT.
Y = 211735.7738
X = 112802.5205
PROPOSED STRUCTURE B-17-0232
STA 10+00
CP101 (MAG SPIKE)
STA. 11+37.52, 26.7' LT.
Y = 211644.6063
X = 112916.7811
8+84.53, 15.0' LT, MGS EAT POST 1
9+09.51, -14.00' LT, MGS EAT POST 5
9+34.38, -13.09' LT, MGS EAT POST 9
10+65.54, -13.13' LT, MGS EAT POST 9
10+90.39, -13.94' LT, MGS EAT POST 5
11+15.23, -15.00' LT, MGS EAT POST 1
S.I.
BM3
AG01
10:1 TAPER
AP04
CONSTRUCTION LIMITS
STA 8+32.00
8+00
CULVERT PIPE CORRUGATED STEEL 18-INCH TO REMAIN
S48° 41' 45"E
PC: 9+12.92
9+00
CTH Q
W. END OF DECK
STA. 9+84.75
SKEW = 0°
10+00
SKEW = 0°
Mid: 10+19.89
E. END OF DECK
STA 10+15.25
CCG01
80.00'
11+00
PT: 11+26.73
S43° 47' 45"E
12+00
CONSTRUCTION LIMITS
STA 12+50.00
PC: 12+04.06
96.58'
BM2
8+84.34, 19.00' RT, MGS EAT POST 1
9+09.32, 14.12' RT, MGS EAT POST 5
9+34.42, 13.14' RT, MGS EAT POST 9
10+65.63, 13.17' RT, MGS EAT POST 9
10+90.75, 14.21' RT, MGS EAT POST 5
11+15.88, 15.00' RT, MGS EAT POST 1
MICHAEL & HILLARY BIGNELL
GRAVEL
PRIVATE ENTRANCE
DUNN ENERGY COOPERATIVE
OH
POST
BEGIN PROJECT
STA 8+32.00
Y = 211835.1247
X = 112674.8440
MATCH EXISTING
SAWCUT REQ'D
EXISTING STRUCTURE P-17-0800 TO BE REMOVED
WILSON CREEK
EXISTING R/W
WOODED
EDGE OF WATER
ASHLEY A. KRUEGER
8.0'
ASPHALTIC FLUME
RIPRAP MEDIUM
EDGE OF WATER
WOODED
EXISTING R/W
S.I.
END PROJECT
STA 12+50.00
Y = 211544.1332
X = 112974.4908
MATCH EXISTING
SAWCUT REQ'D
CULVERT PIPE CORRUGATED STEEL 24-INCH TO REMAIN

LEGEND

- AP04 4-INCH ASPHALTIC SURFACE
- AG01 BASE AGGREGATE DENSE 3/4-INCH
- CCG01 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBT, SEE SDD

STA 8+32.00
EL 986.11
VCL = 290.80
K = 199.95
STA 11+22.80
EL 982.55
STA 12+50.00
EL 981.92
-0.50%

FINISHED ℄ PROFILE
EXISTING ℄ PROFILE
HIGH WATER100
EL 983.69
PROPOSED STRUCTURE B-17-0232 STA 10+00
OBSERVED WATER
EL 976.73±
(10-23-19)
STREAMBED
EL 976.08±
EXISTING ℄ ELEVATION
FINISHED ℄ ELEVATION

BENCHMARKS			
NO	STA	DESCRIPTION	ELEV
1	7+46±	COTTON SPINDLE IN POWER POLE (@ 38.62' RT)	984.69'
2	9+93±	CHISELED MARK ON EAST CORNER/WINGWALL (@ 14.81' RT)	981.65'
3	10+15±	CHISELED MARK ON WEST CORNER/WINGWALL (@ 16.02' LT)	981.74'

STATION 10+03.79
REMOVE STRUCTURE P-17-0800
TWO SPAN CONCRETE FLAT SLAB BRIDGE
24.2' OVERALL LENGTH
26.4' OVERALL WIDTH
SKEW 0°

STATION 10+00
STRUCTURE B-17-0232 REQUIRED
SINGLE SPAN CONCRETE FLAT SLAB BRIDGE
30.5' OVERALL LENGTH
28.5' OVERALL WIDTH
SKEW 0°

1000 995 990 985 980 975 970

986.59 985.75 985.77 984.92 984.90 984.20 984.16 976.20 983.54 982.96 983.05 982.63 982.68 982.42 982.42 982.22 982.17 981.92 981.92

8+02 8+50 9+00 9+50 10+00 10+50 11+00 11+50 12+00 12+50 12+54

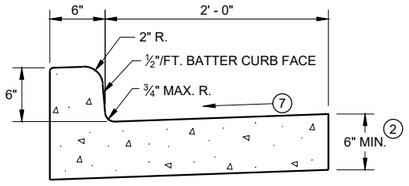
PROJECT NO: 8925-03-71	HWY: CTH Q	COUNTY: DUNN	PLAN AND PROFILE:	SHEET 13	E

FILE NAME : I:\CLIENTS-MENO\W\W3900 WDOT NW REGION - EAU CLAIRE\023 8925-03-01 KNAPP - DOWNING WILSON CREEK BRIDGE B-17-0232 CTH Q DUNN COUNTY\89250301\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050101-pp
PLOT DATE : 7/13/2021 1:45 PM PLOT BY : MIKE LAPEAN PLOT NAME : PLOT SCALE : ##########

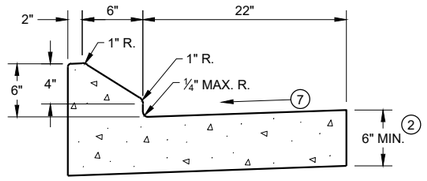
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

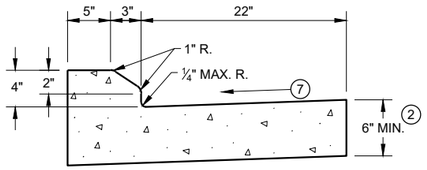
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



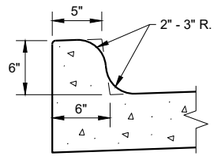
TYPES A (1) & D



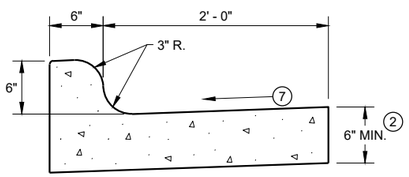
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

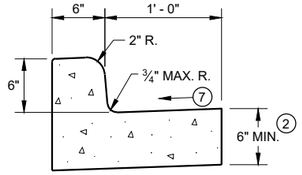


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



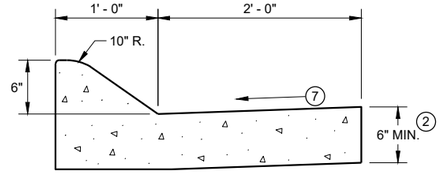
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

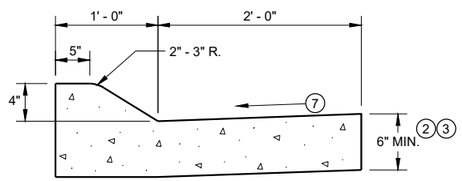


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

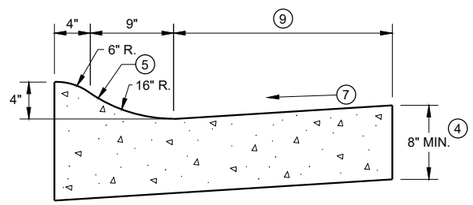


6" SLOPED CURB TYPES A (1) & D



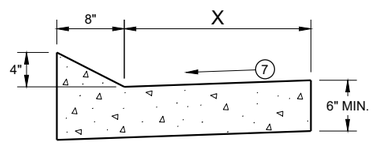
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

TBT & TBTT	X
30"	22"
36"	28"

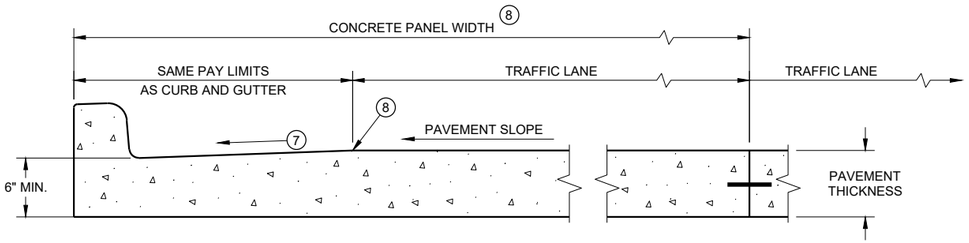


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

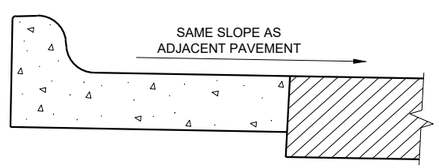
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

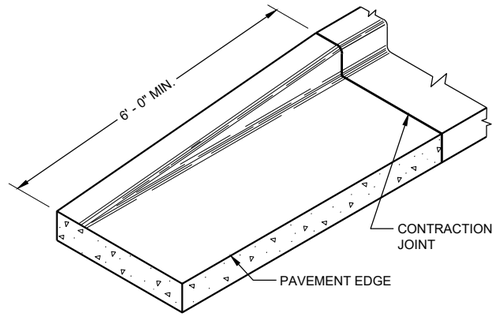
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

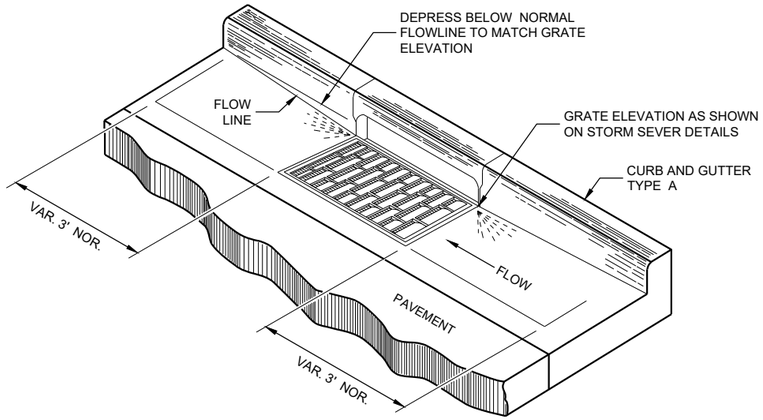
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 22a
SDD 08D01 - 22a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS
(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

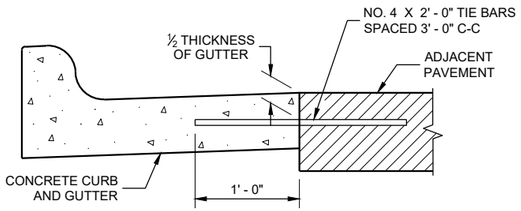
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

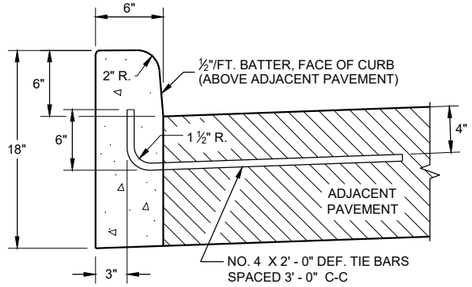
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

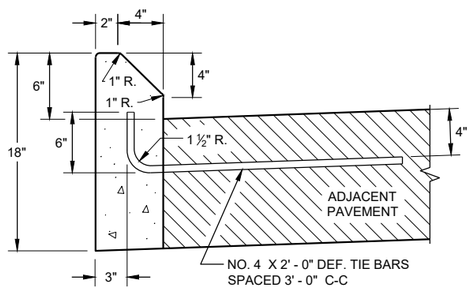
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

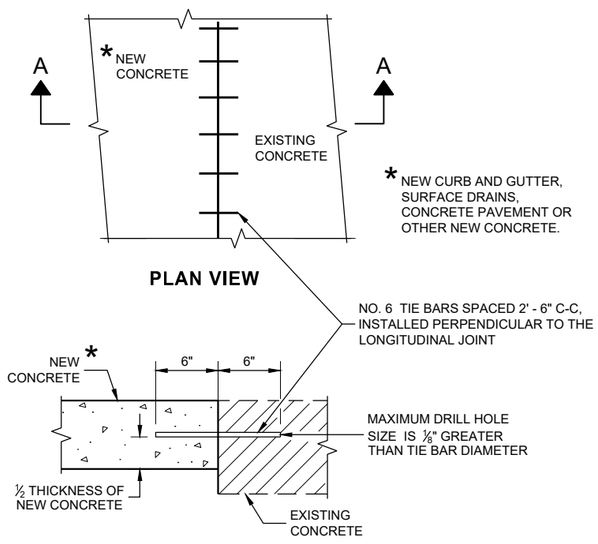


TYPES A (1) & D



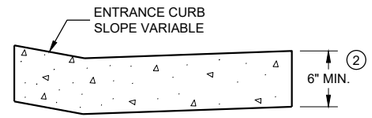
TYPES G (1) & J

CONCRETE CURB



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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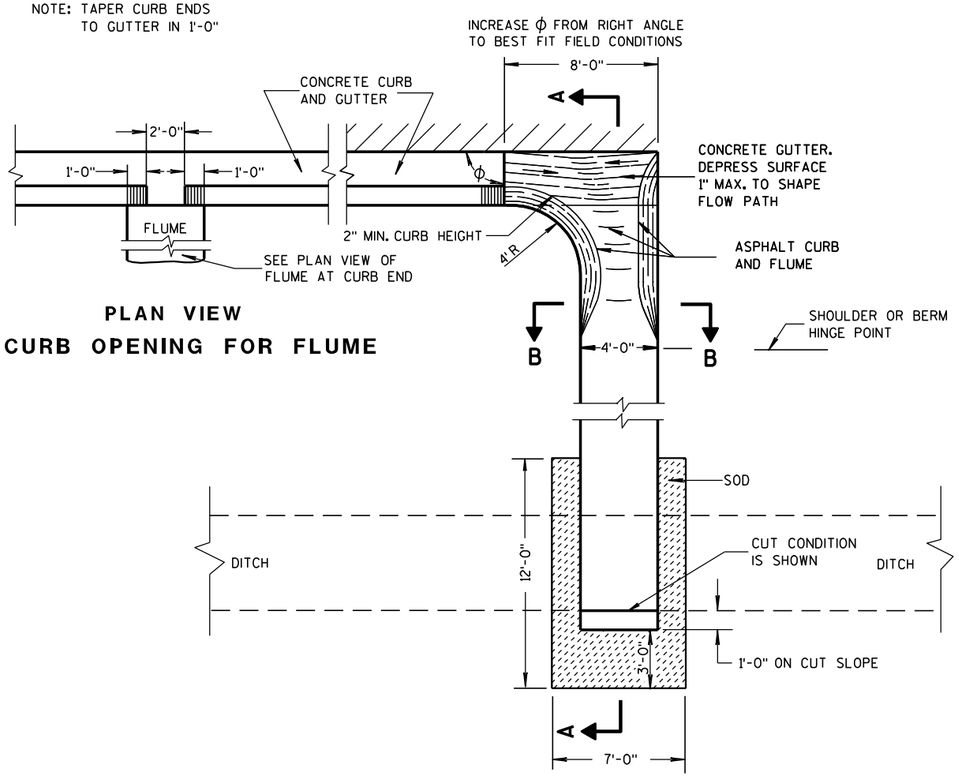
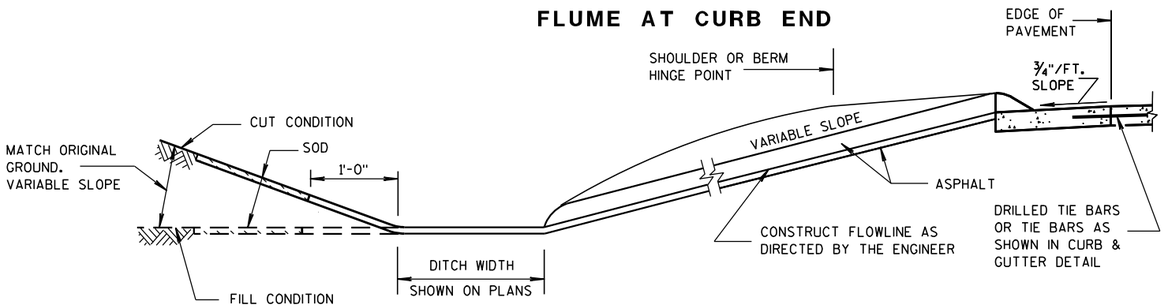
SDD08D01 - 22b

ASPHALTIC FLUME

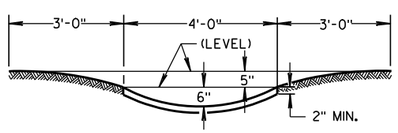


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

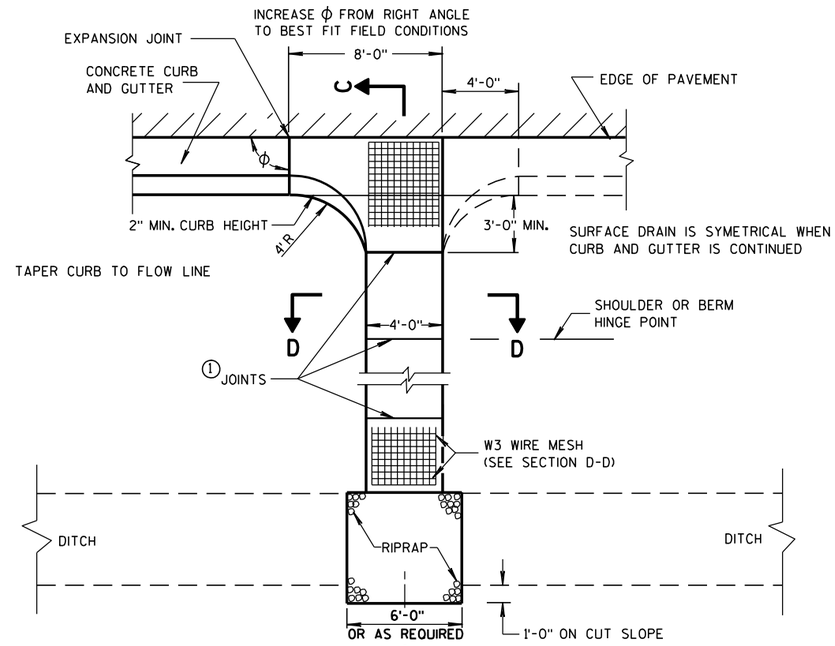
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

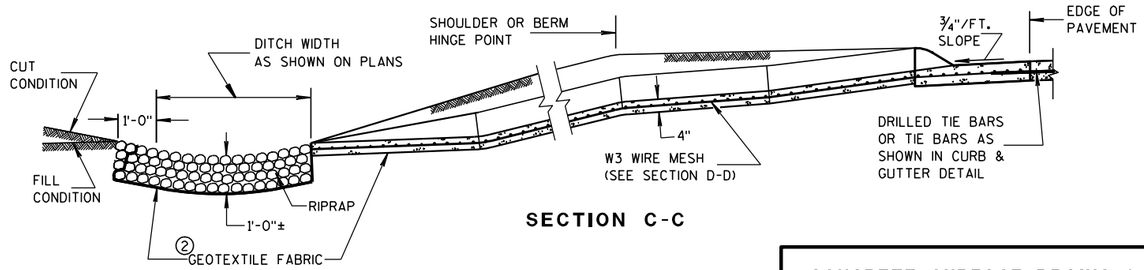
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

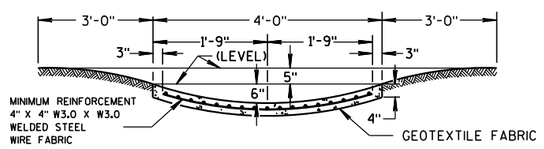
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT
FHWA

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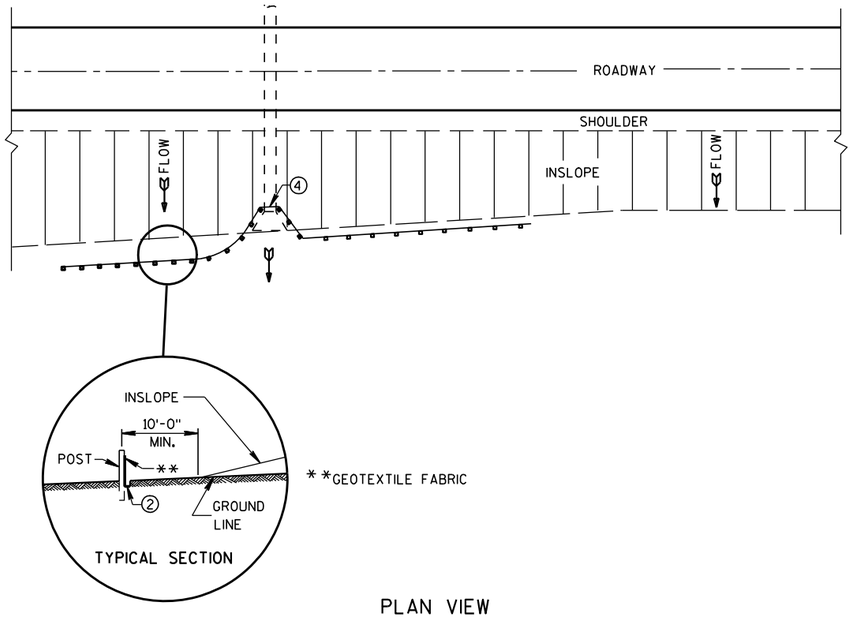
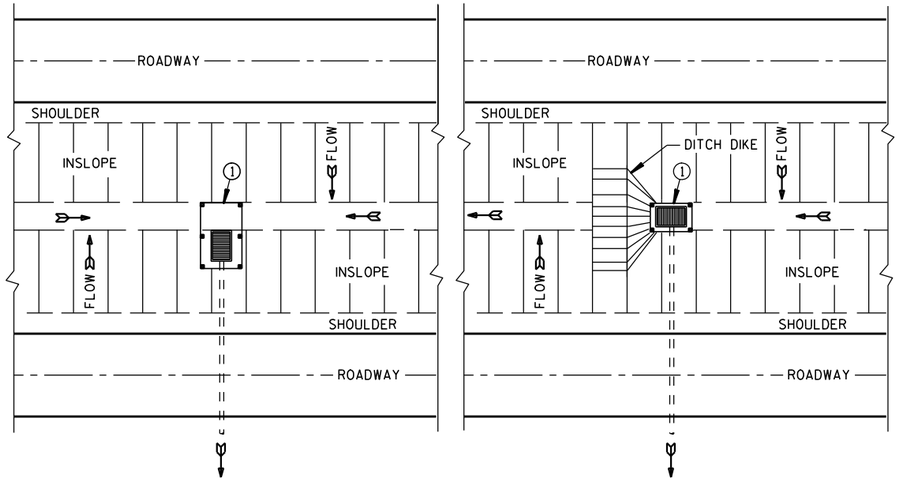
S.D.D. 8 D 4-5



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



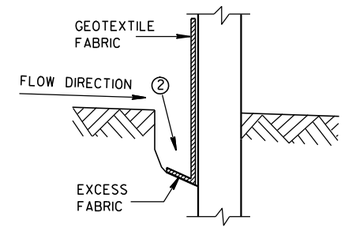
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

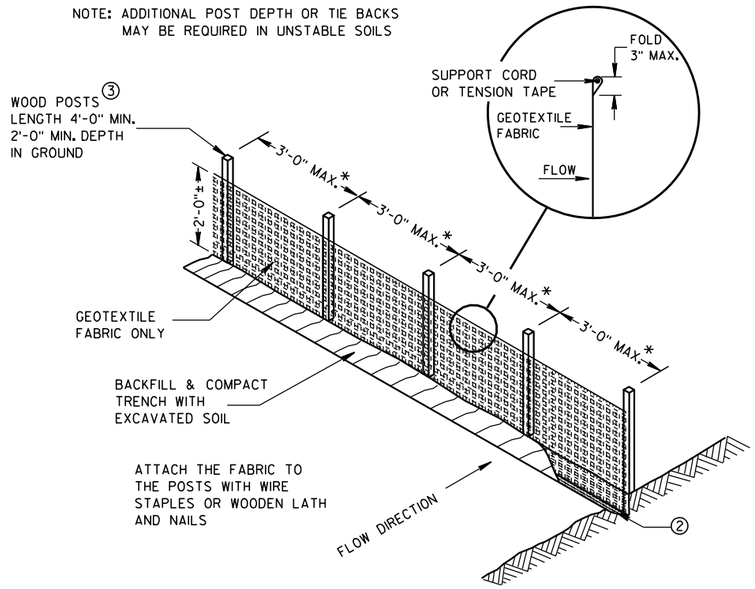
GENERAL NOTES

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

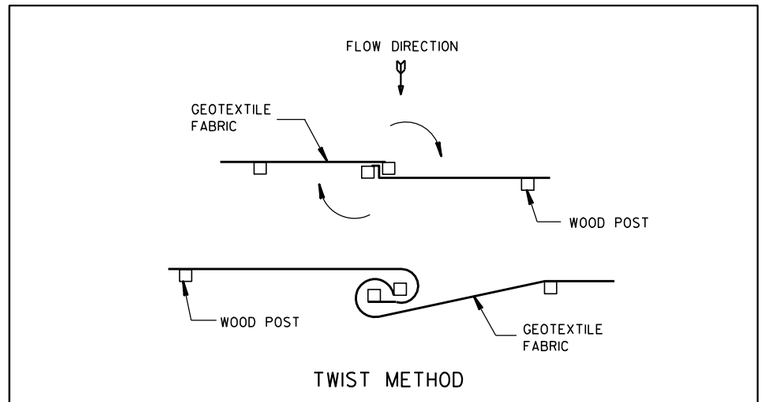
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



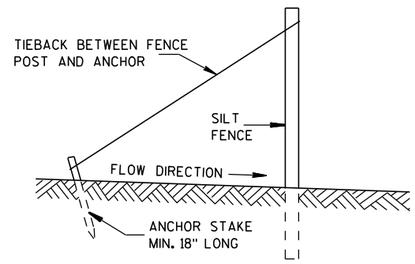
TRENCH DETAIL



SILT FENCE



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

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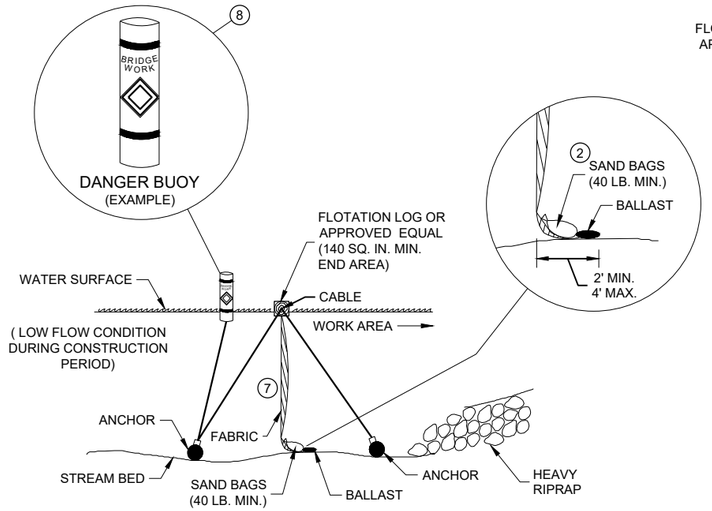
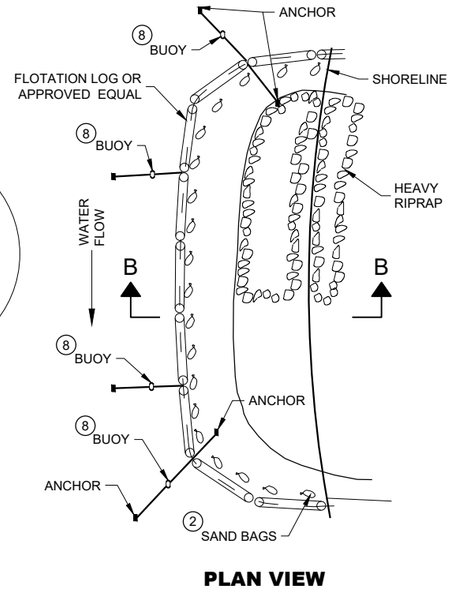
S.D.D. 8 E 9-6

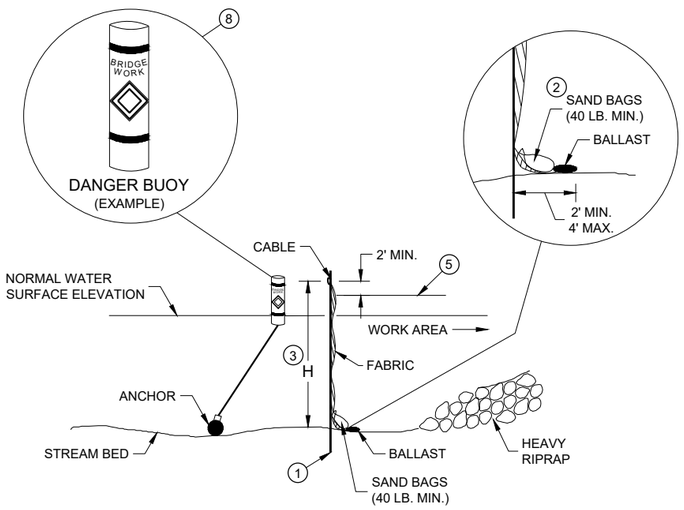


SECTION B - B

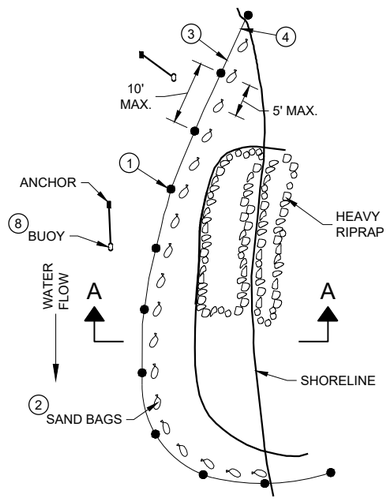


PLAN VIEW

TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A - A



PLAN VIEW

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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

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

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

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

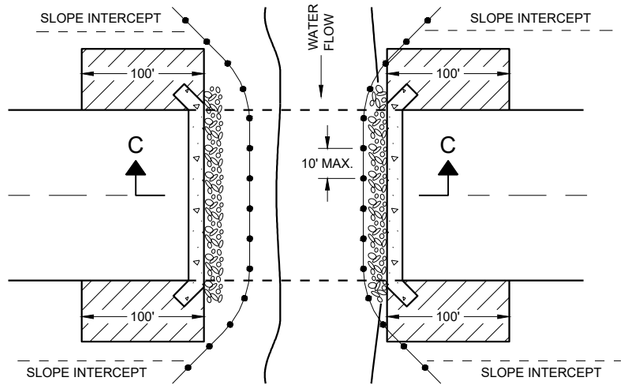
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

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

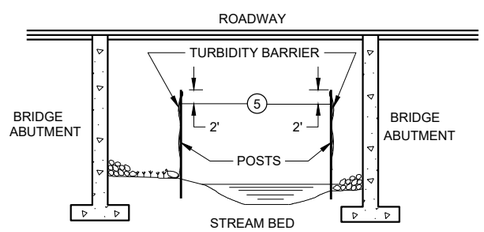
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

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

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



PLAN VIEW



SECTION C - C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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SDD 08E11 - 02

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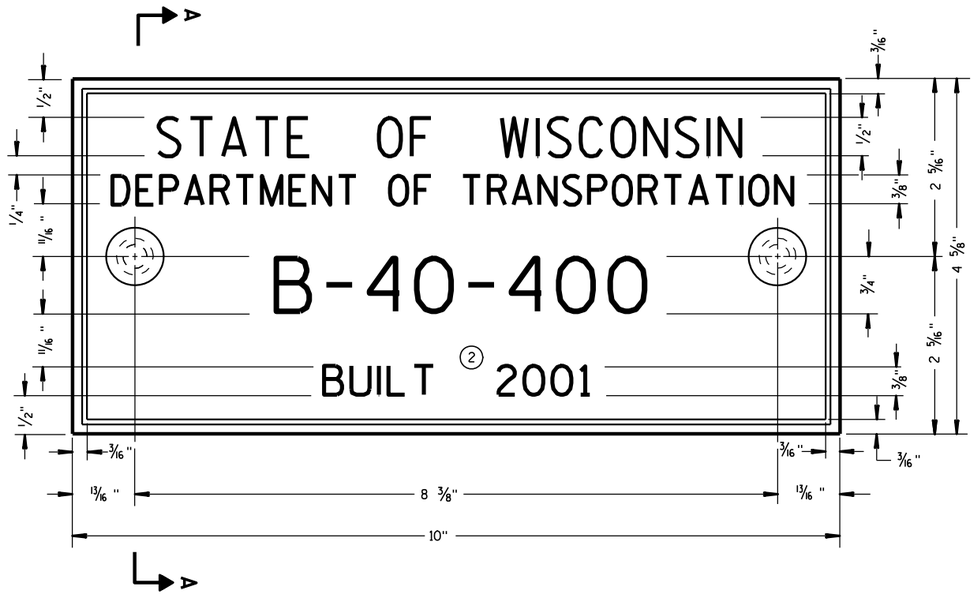
SDD 08E11 - 02



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

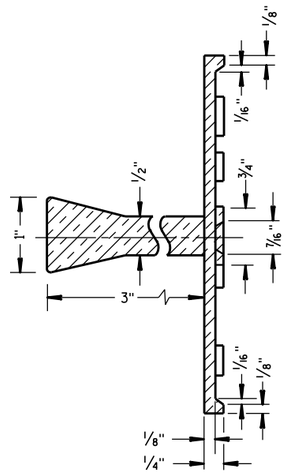
GENERAL NOTES

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

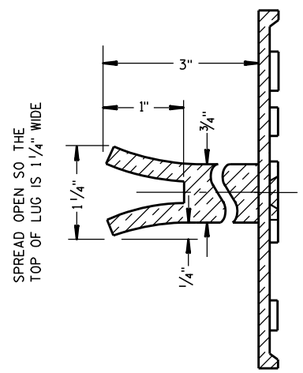
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

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



SECTION A-A



ALTERNATE LUG

FOR MULTI-UNIT STRUCTURES LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

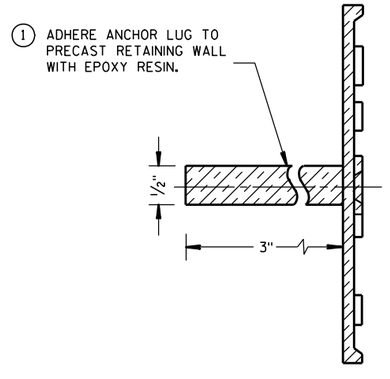
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

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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.

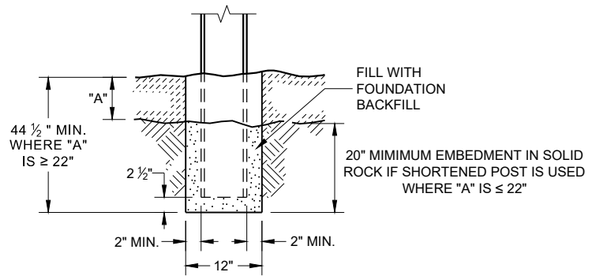
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

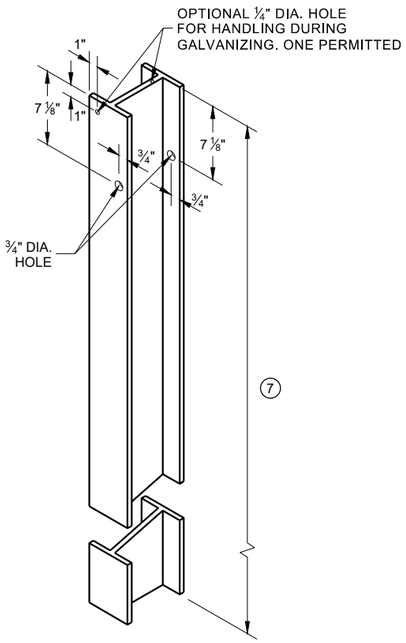
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

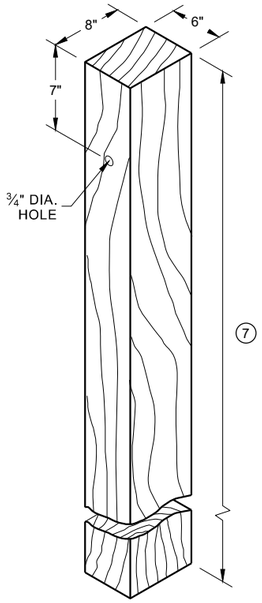
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



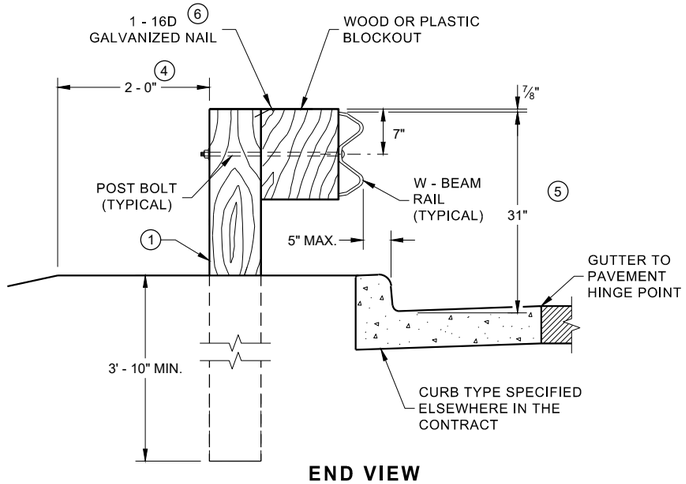
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



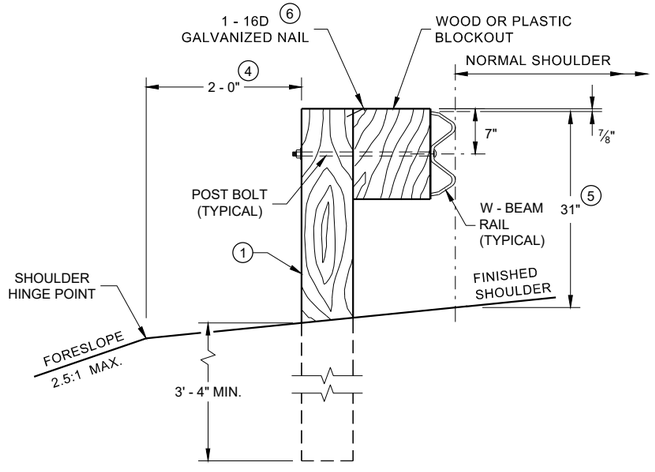
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



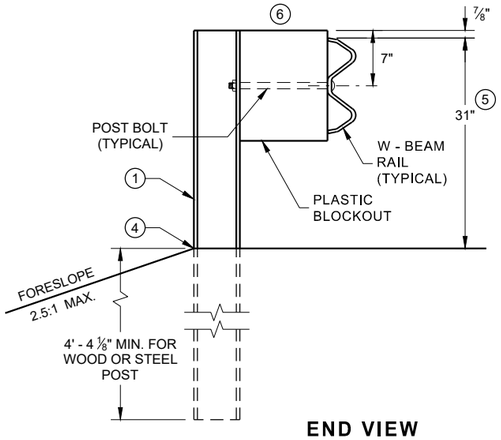
WOOD POST (6" X 8") NOMINAL (1)



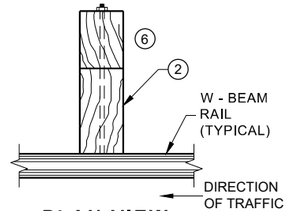
END VIEW
LOCATED ALONG A CURBED ROADWAY



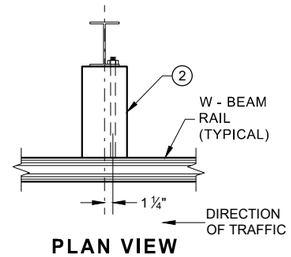
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



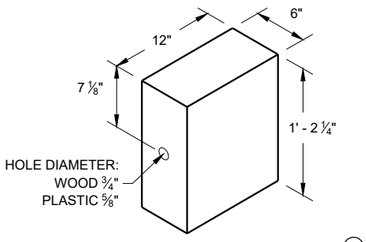
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



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

6

SDD 14B42 - 07a

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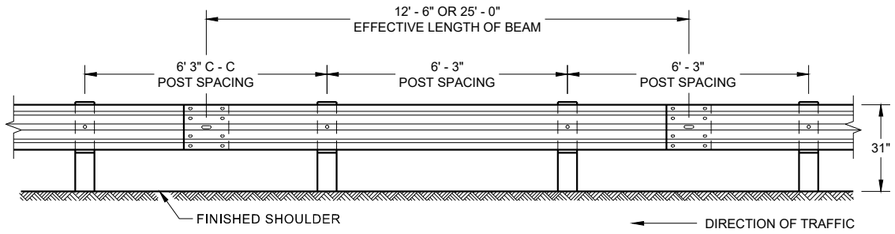
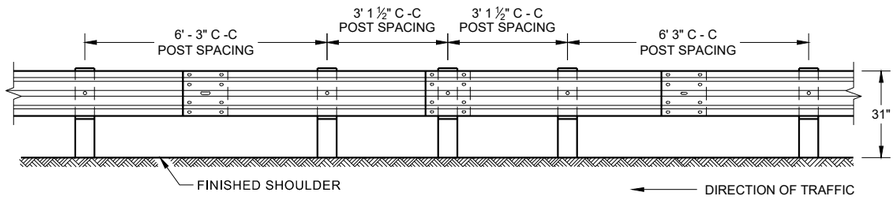
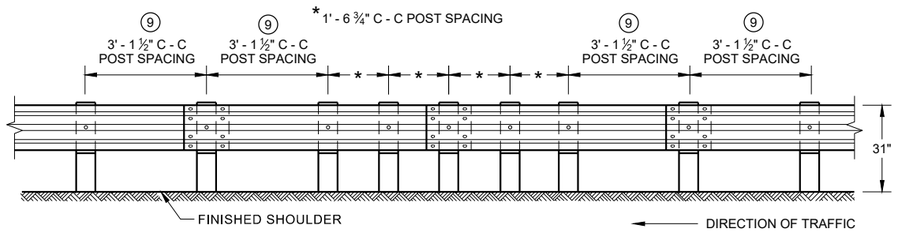


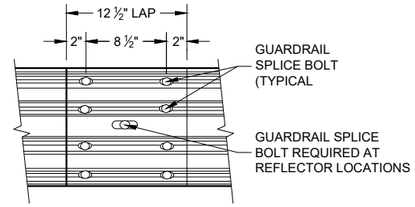
FRONT VIEW
POST SPACING STANDARD INSTALLATION



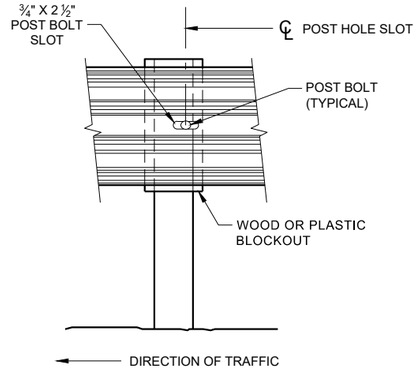
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



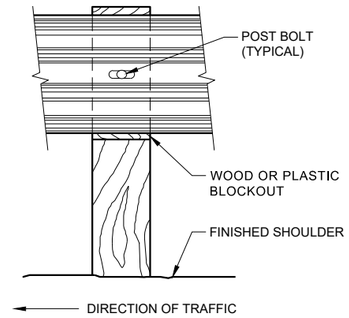
FRONT VIEW
QUARTER POST SPACING (QS)



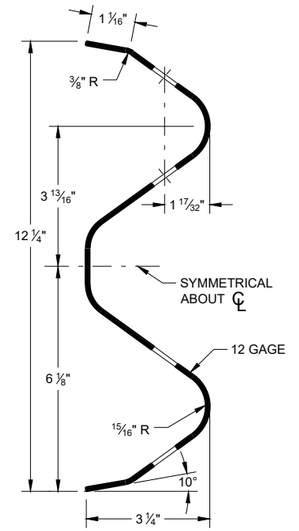
FRONT VIEW
MID-SPAN BEAM SPLICE



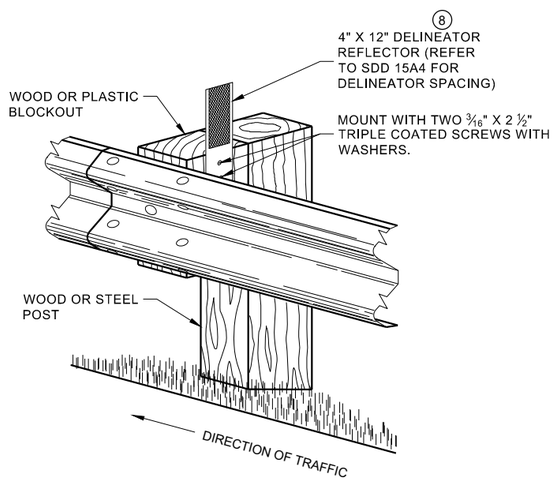
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

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

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

POST BOLTS ARE A 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.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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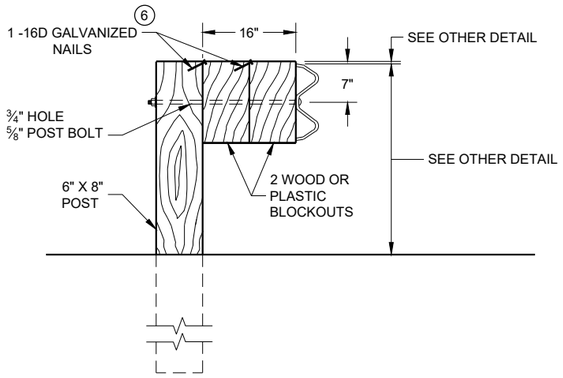
SDD 14B42 - 07b
SDD 14B42 - 07b

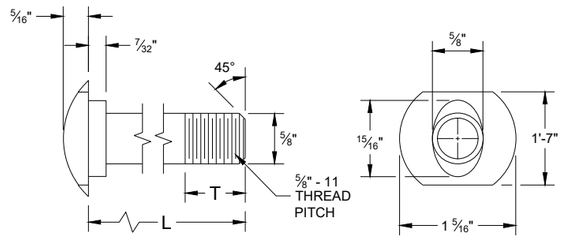


DETAIL FOR 16" BLOCKOUT DEPTH

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

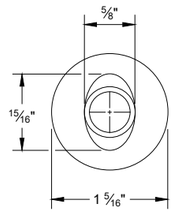
NOTE:

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

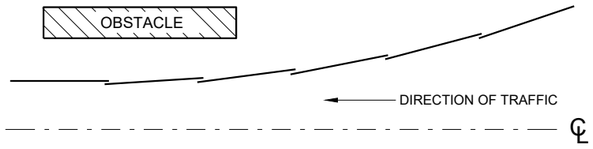


POST BOLT TABLE

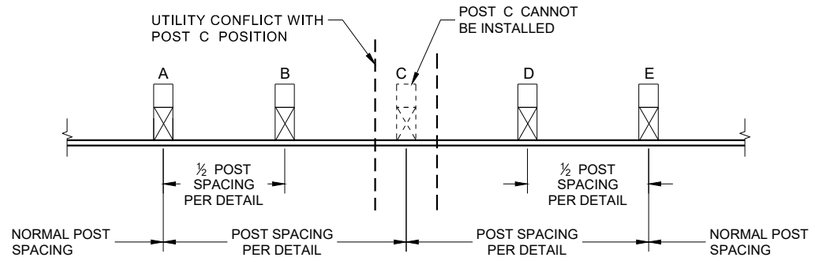
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



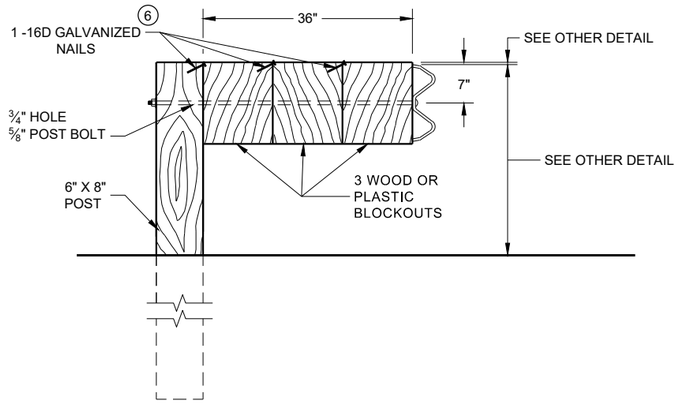
ALTERNATE BOLT HEAD



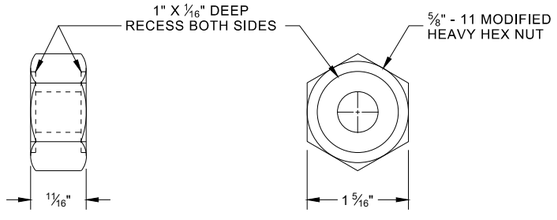
PLAN VIEW
BEAM LAPPING DETAIL



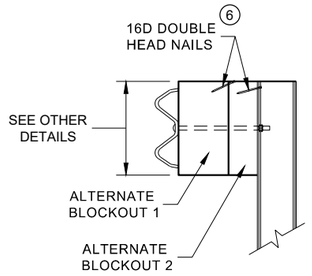
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



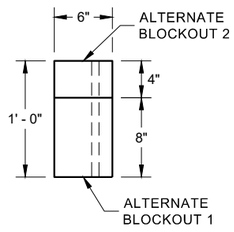
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

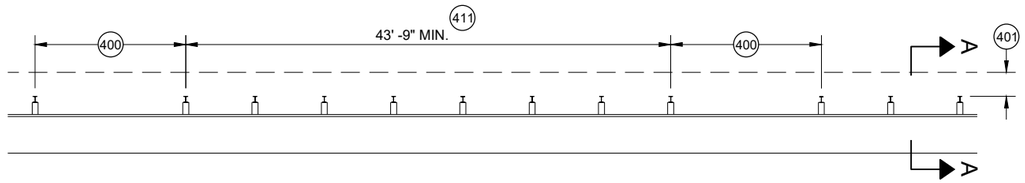
ALTERNATE WOOD BLOCKOUT DETAIL

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

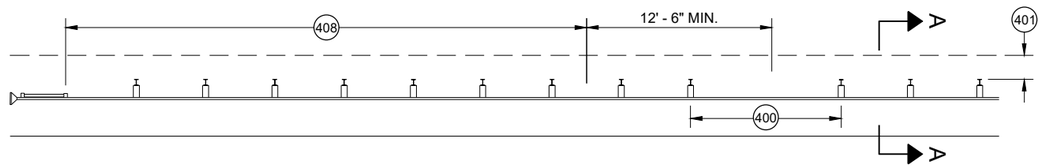
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

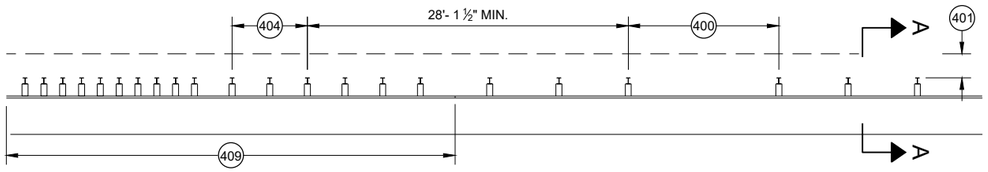
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



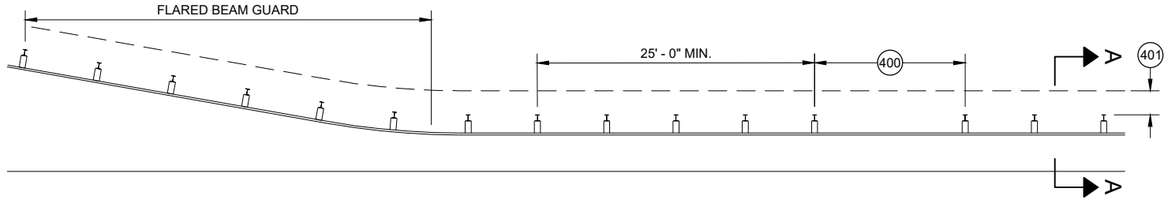
MISSING POST IN MGS GUARDRAIL



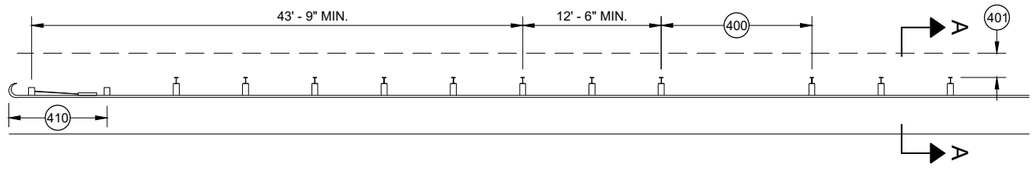
MISSING POST IN MGS GUARDRAIL NEAR EAT



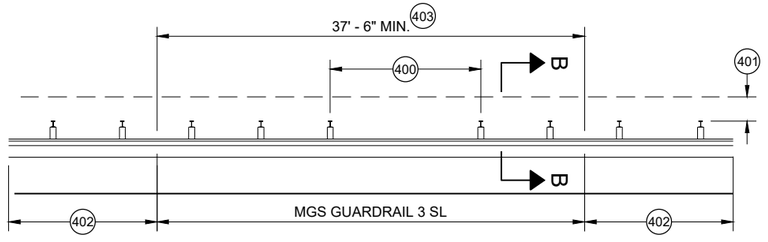
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

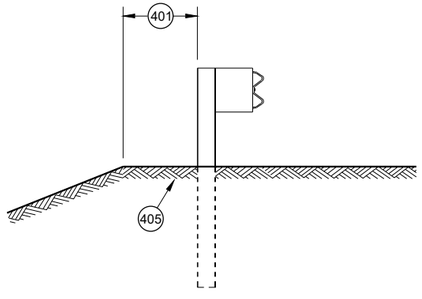


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

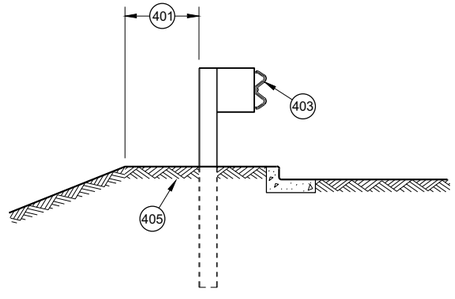


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B42 - 07d

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.

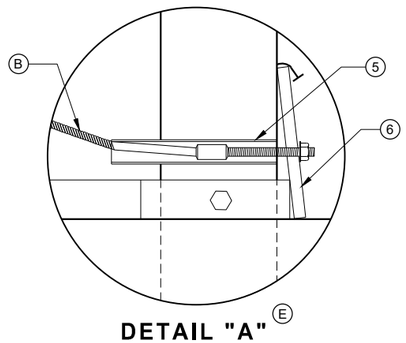
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

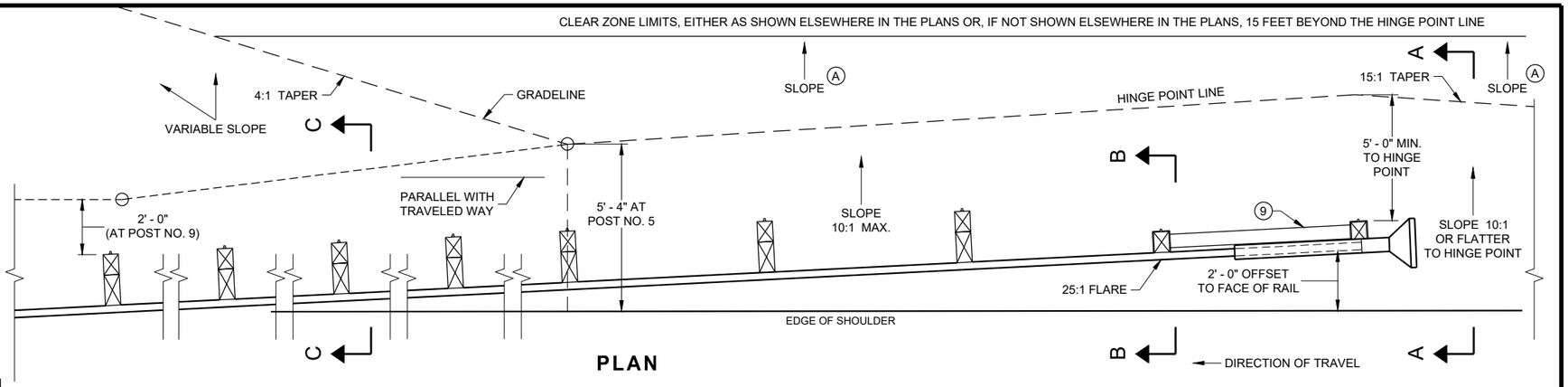
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

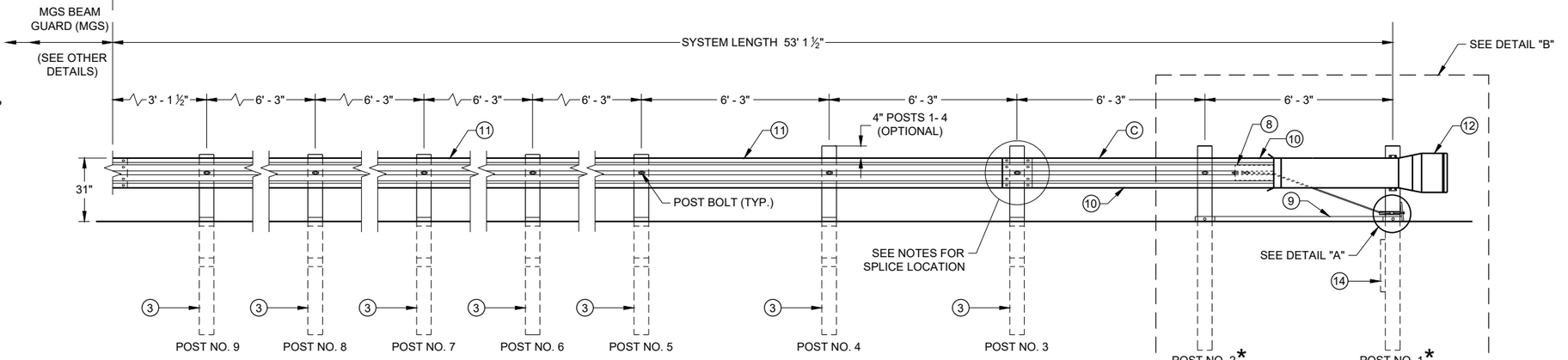
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

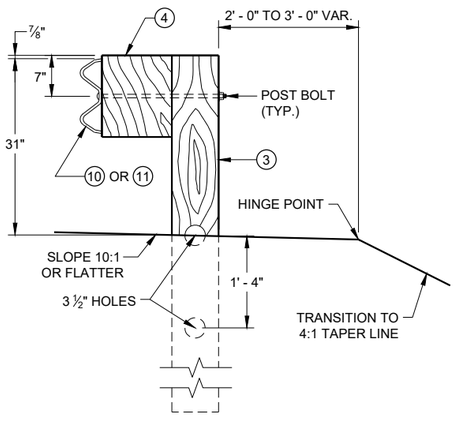
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



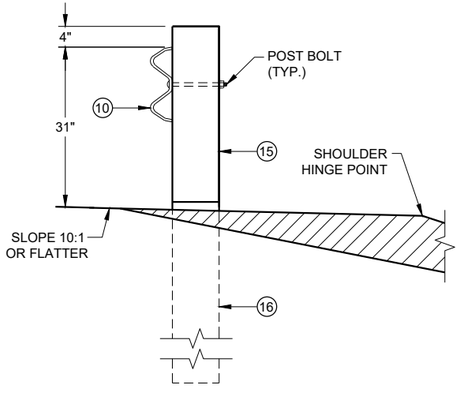
DETAIL "A" (E)



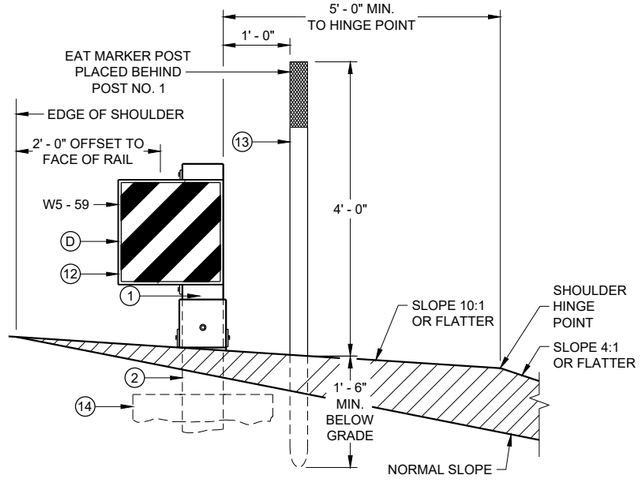




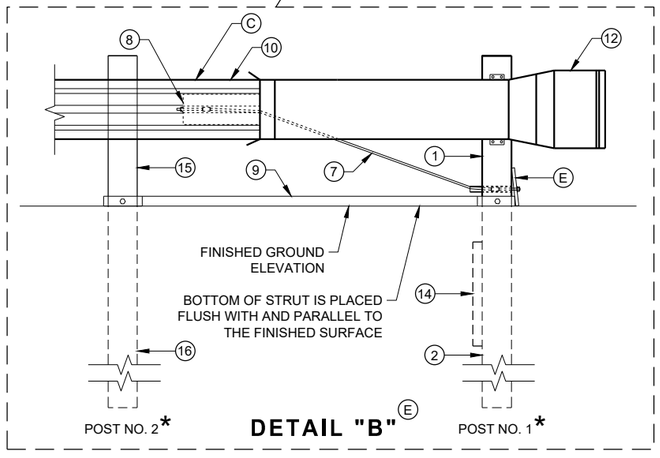
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*

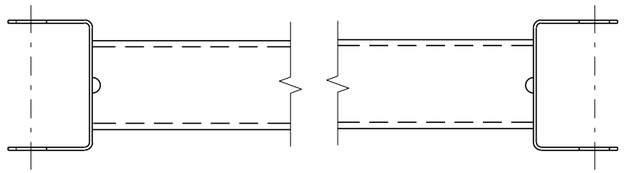


MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

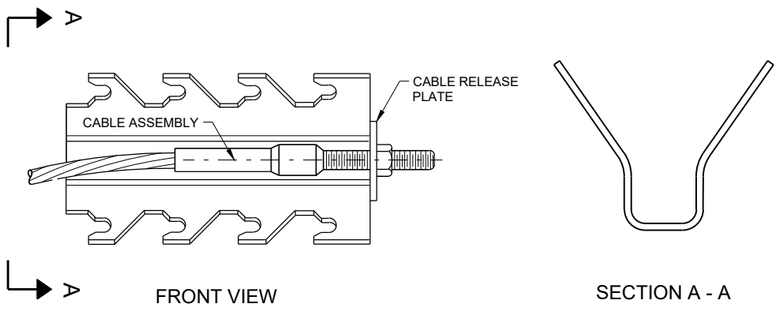
SDD 14B44 - 04a



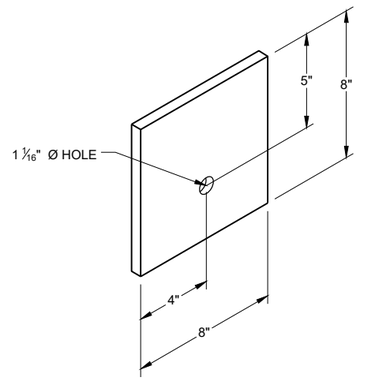
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

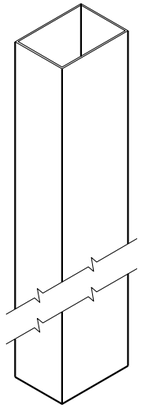
6

SDD 14B44 - 04b

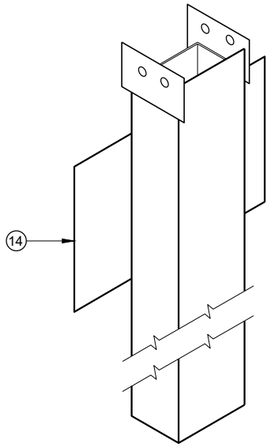
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

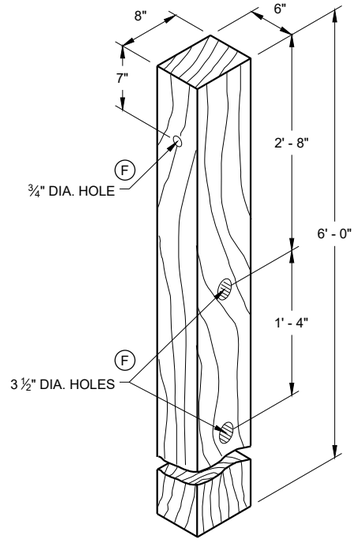
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



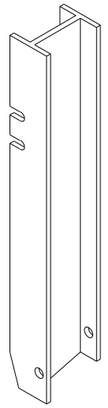
UPPER POST NO. 1 (1) (E)



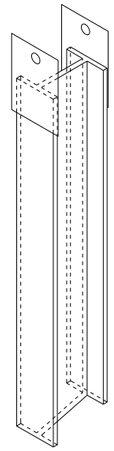
LOWER POST NO. 1 (2) (E)



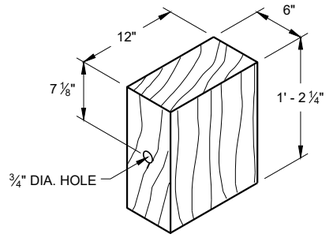
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



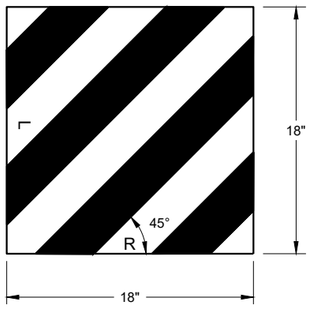
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

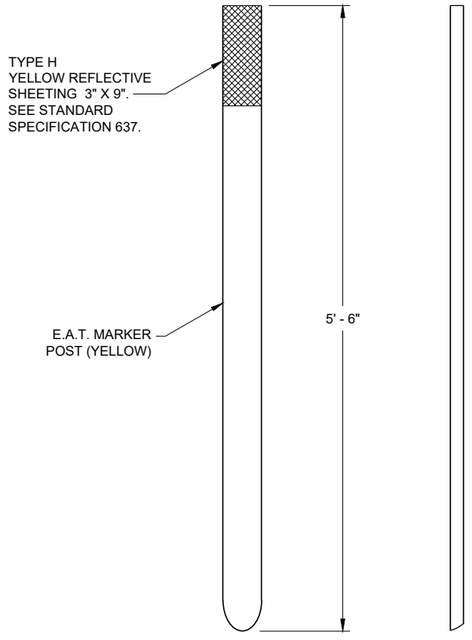


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



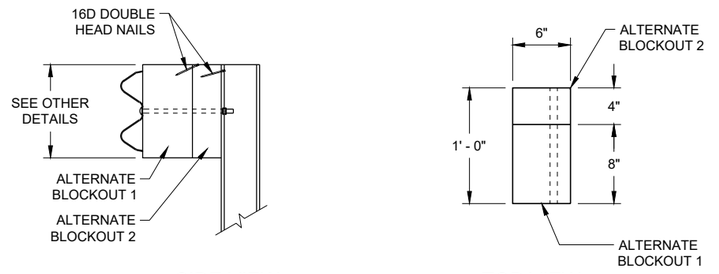
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

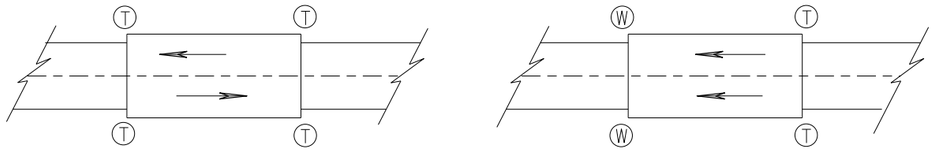
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

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

TRANSITION USES STEEL POSTS ONLY.

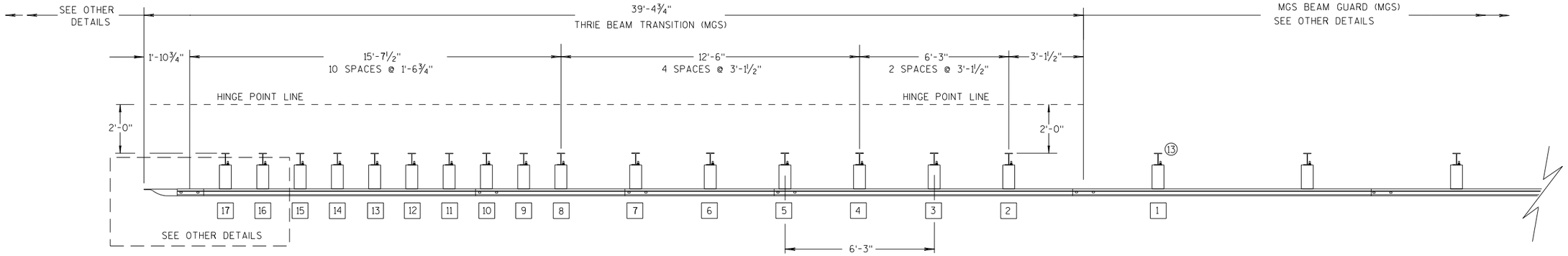
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

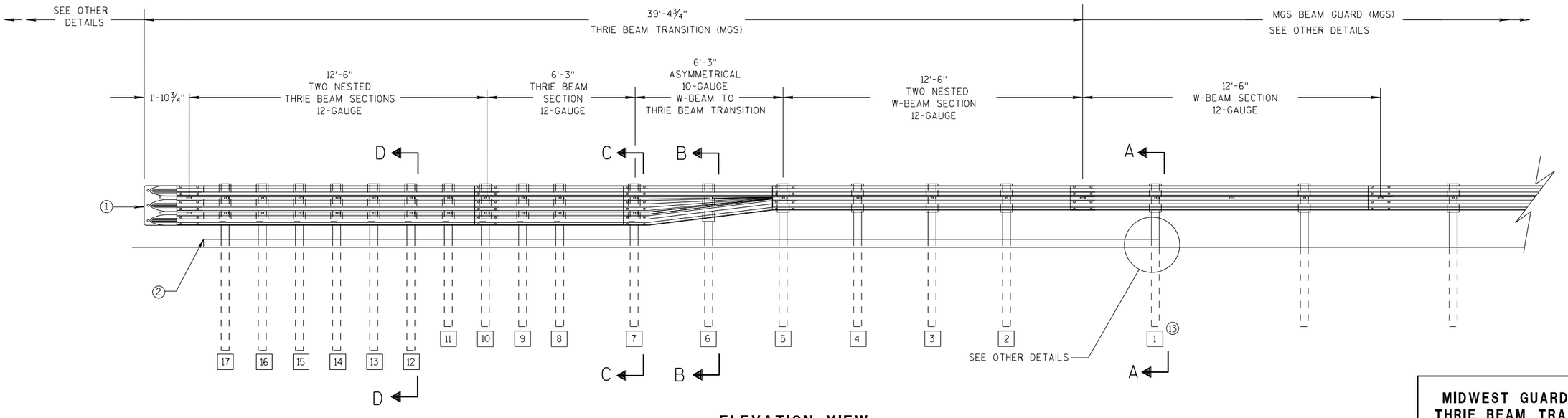
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

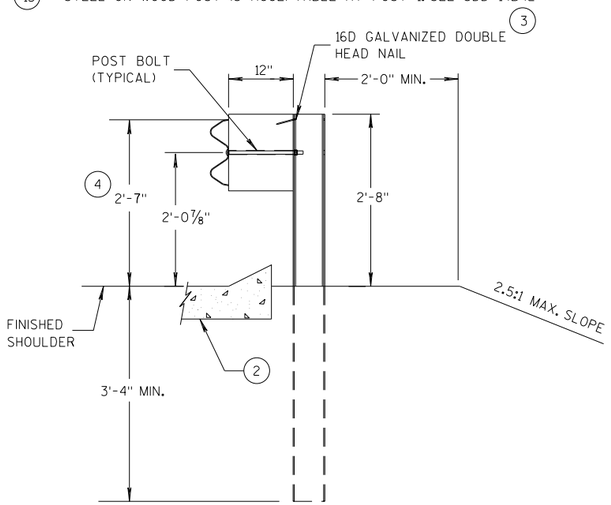
GENERAL NOTES

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

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

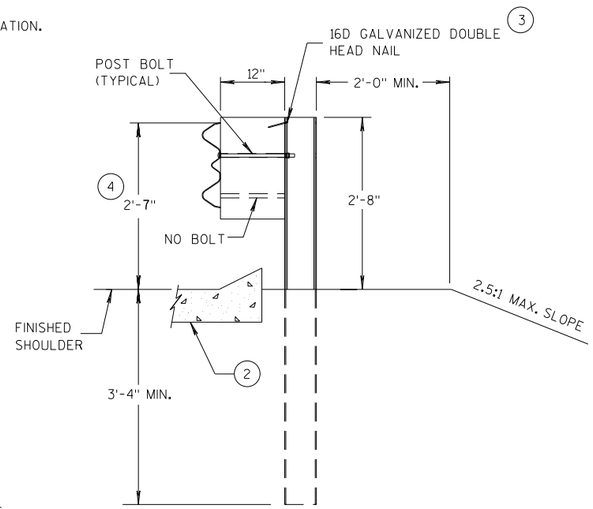
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



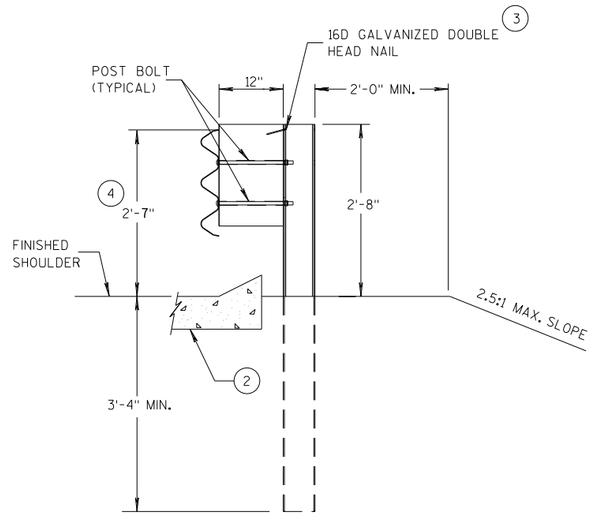
SECTION A-A (13)

POSTS 1-5



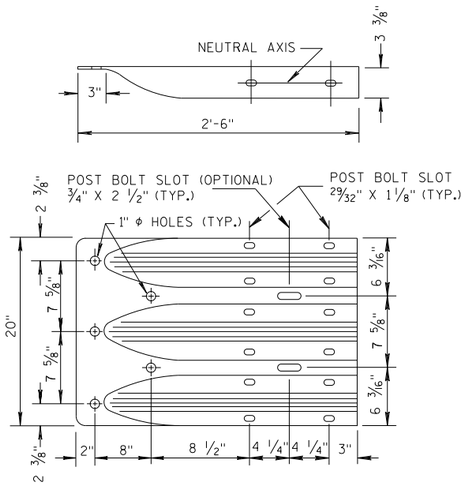
SECTION B-B

POST 6

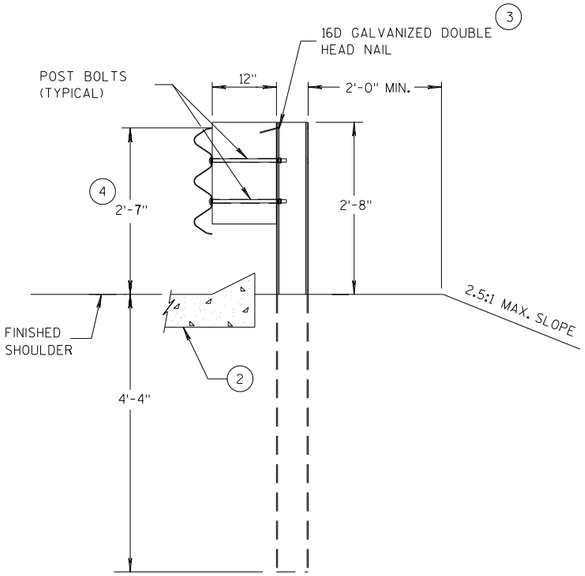


SECTION C-C

POSTS 7-11

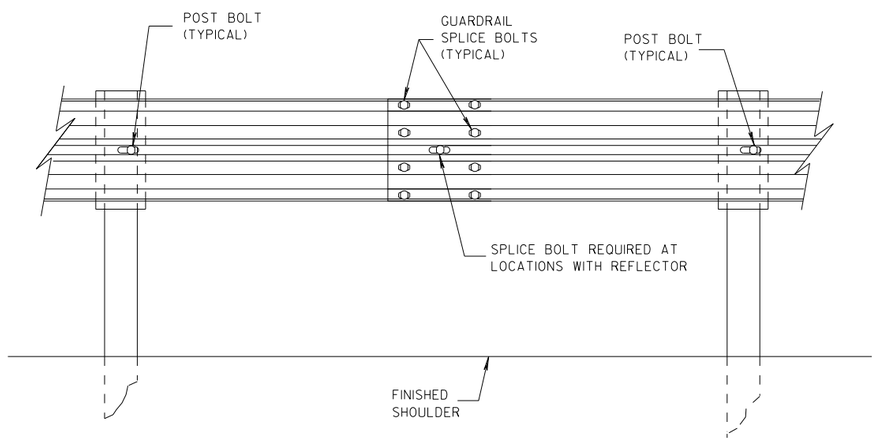


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

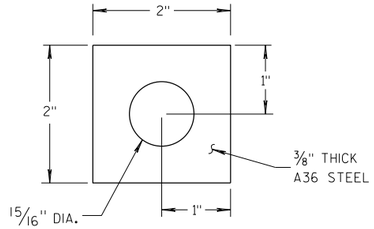
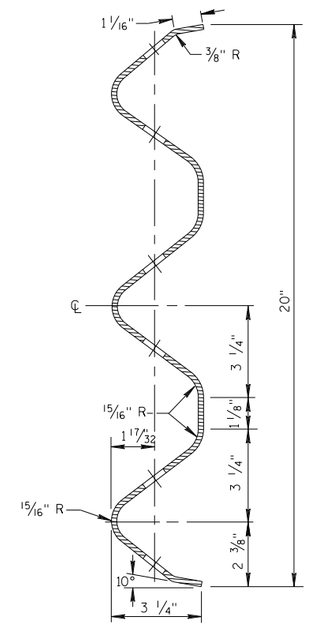


PLATE WASHER DETAIL



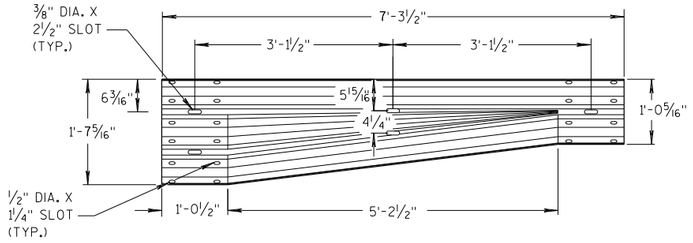
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

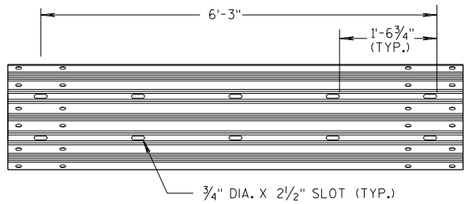
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

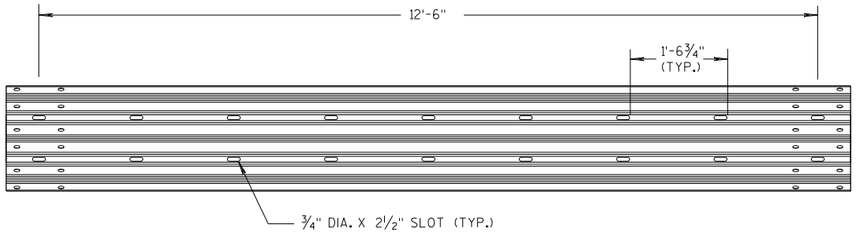
S.D.D. 14 B 45-5b



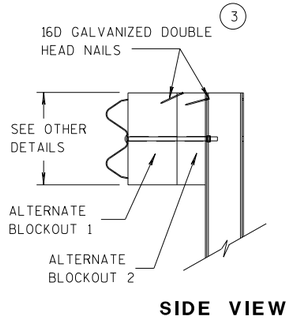
W-BEAM TO THRIE BEAM TRANSITION SECTION



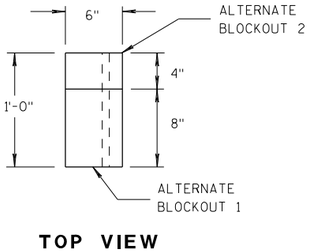
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

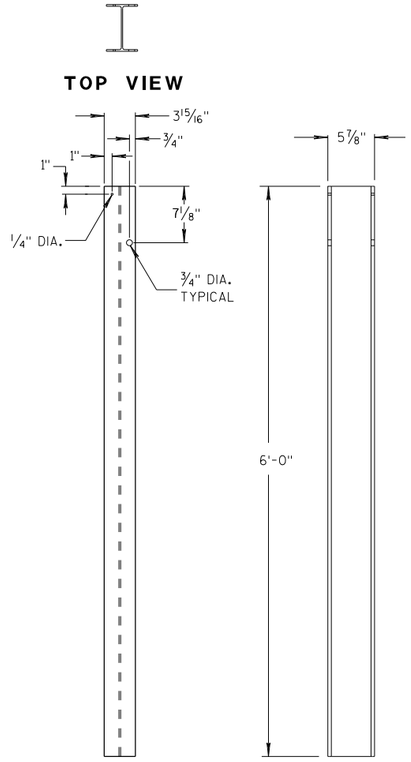


SIDE VIEW



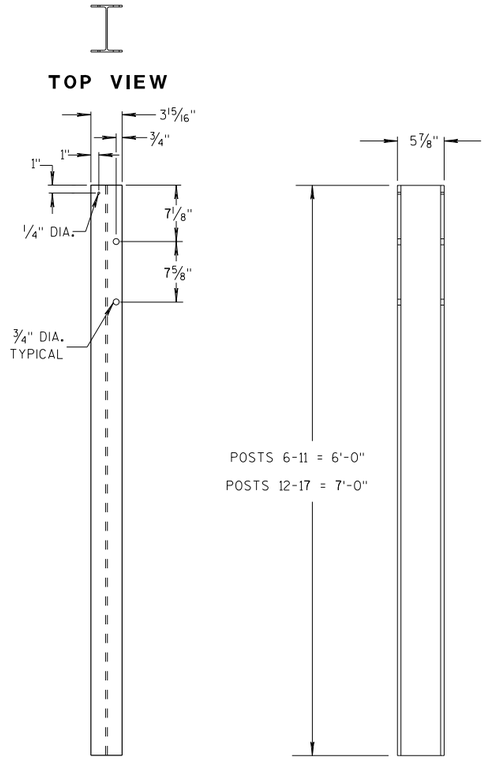
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



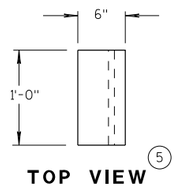
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

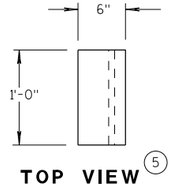


FRONT VIEW SIDE VIEW

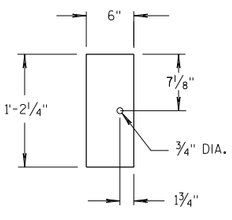
STEEL POSTS 6-17



TOP VIEW (5)

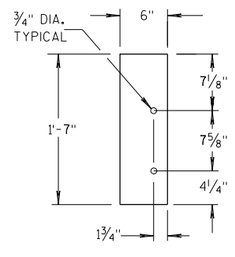


TOP VIEW (5)



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.

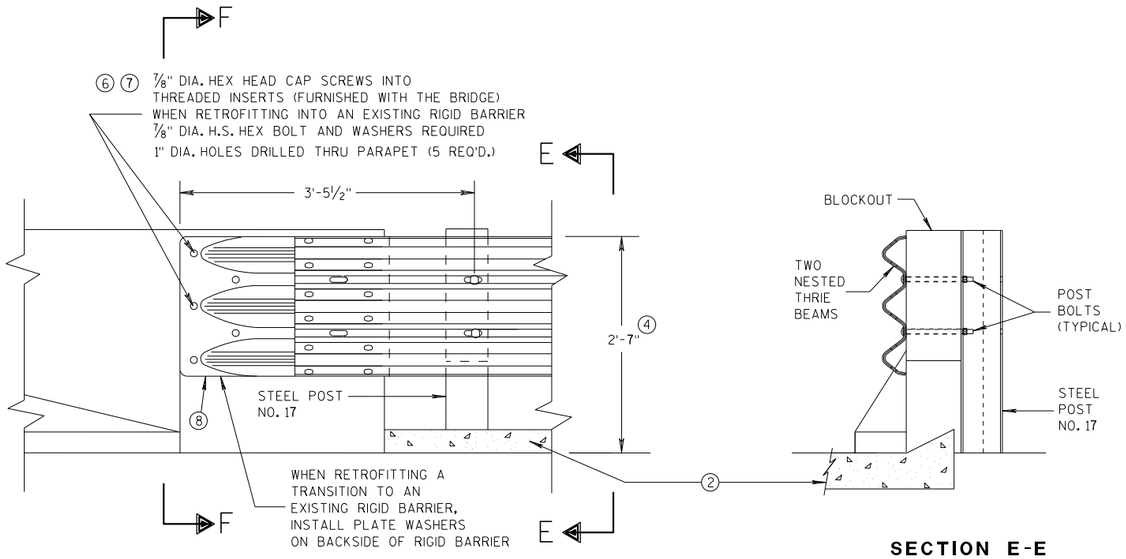
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

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.

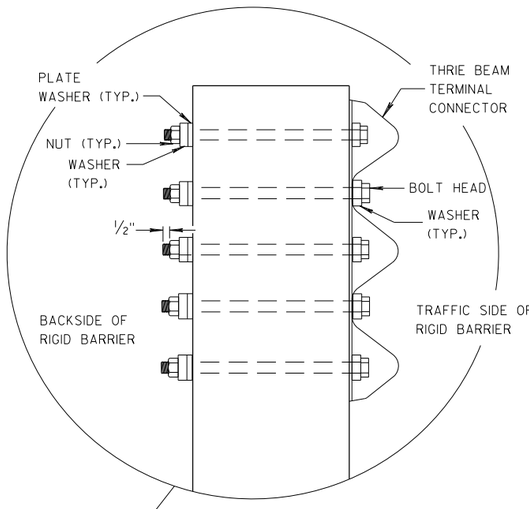
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

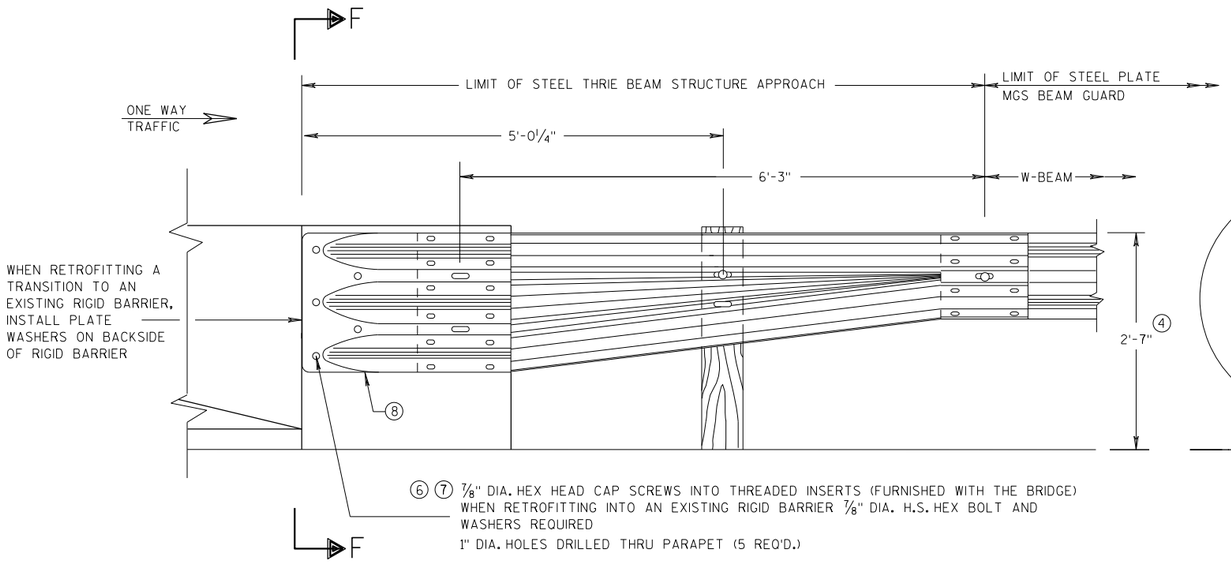
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

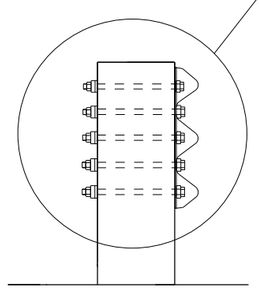
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE.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

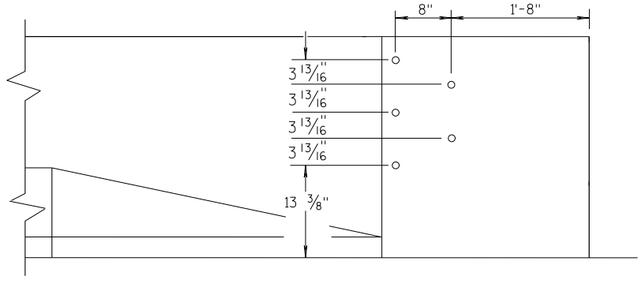




FRONT VIEW



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 SUPERVI
NT
FHWA

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

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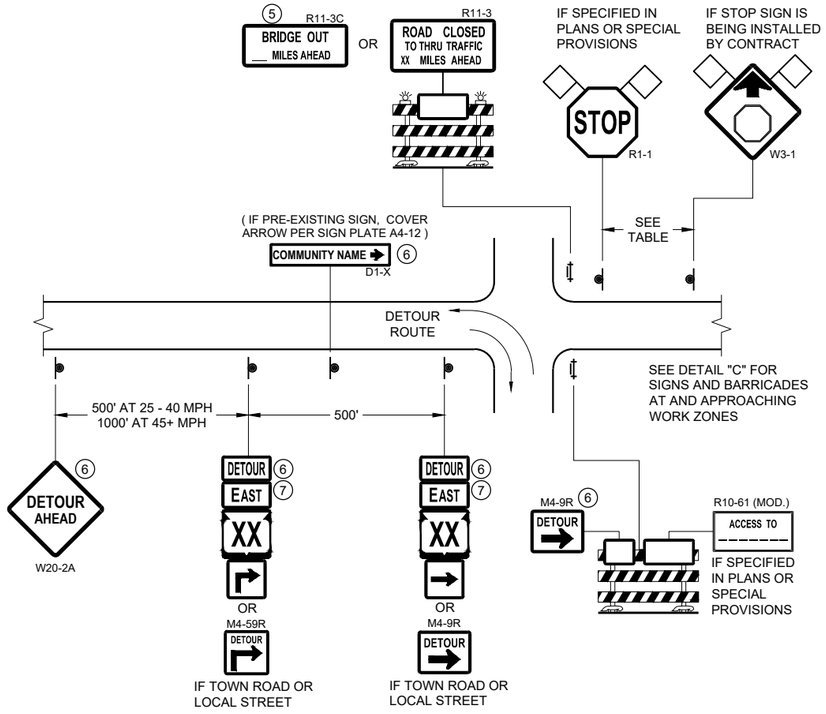
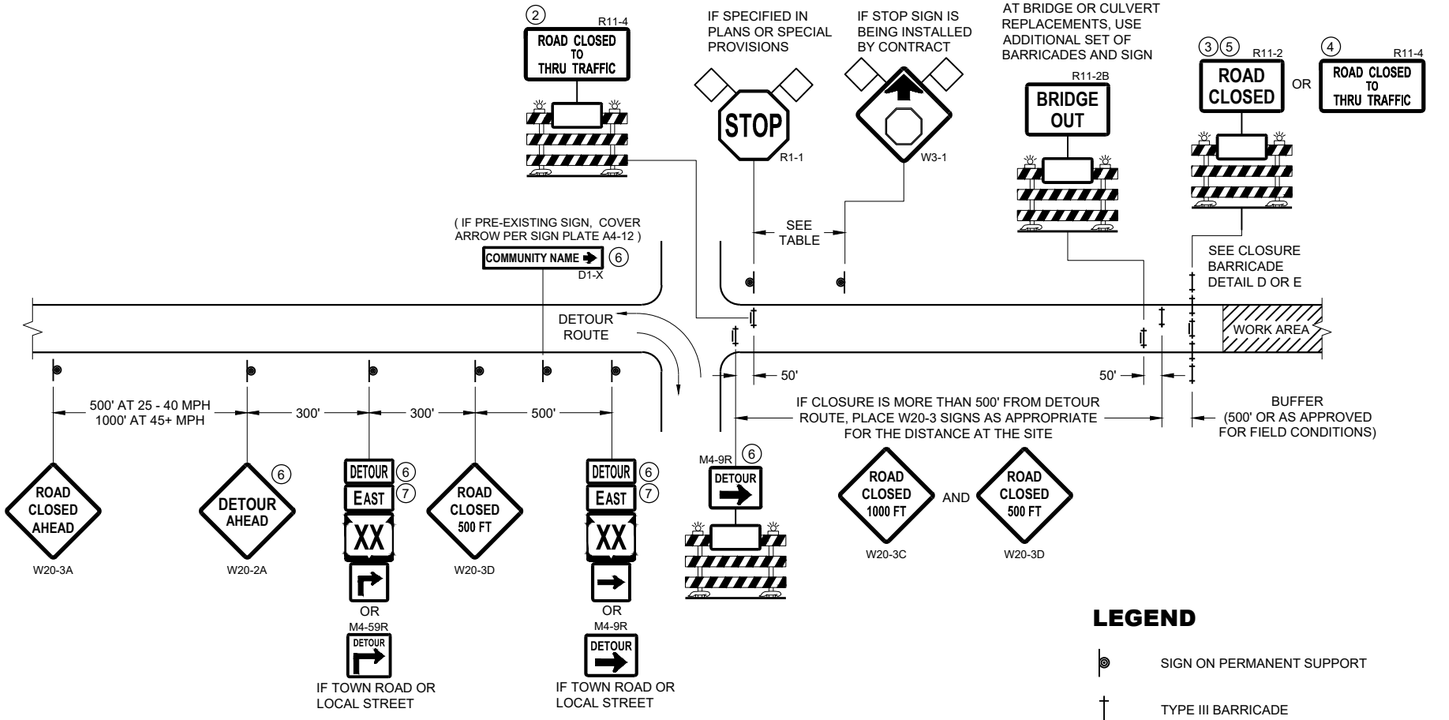
S.D.D. 14 B 45-5d



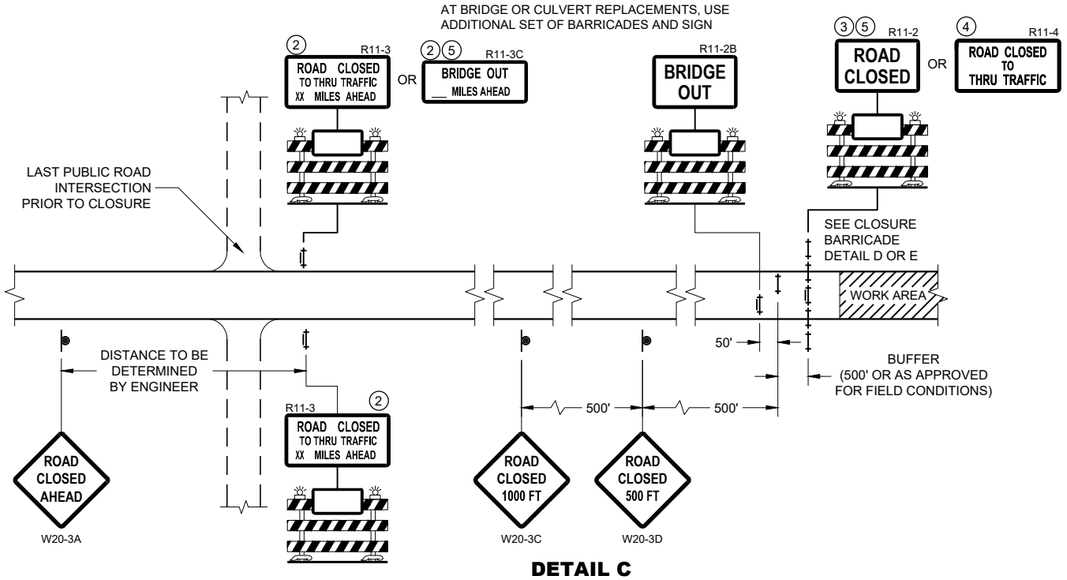
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

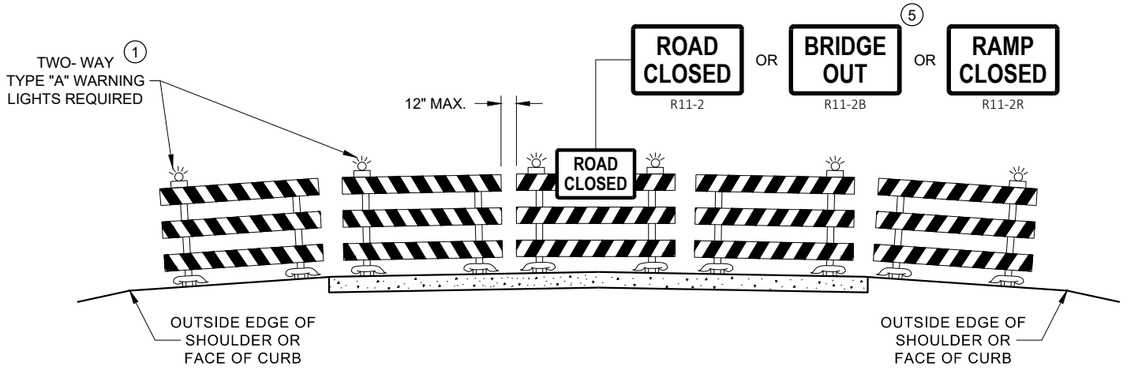
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

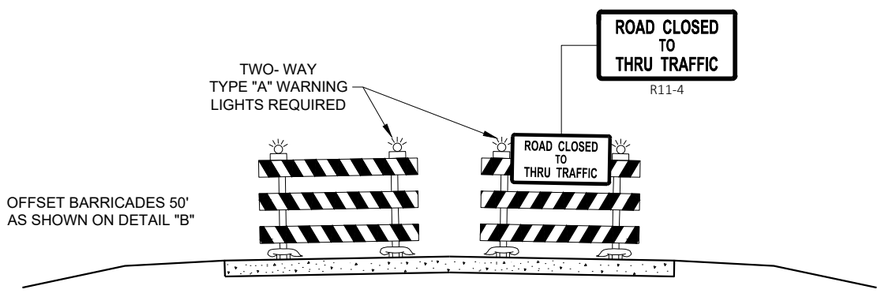
6

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 ENGINEE
FHWA

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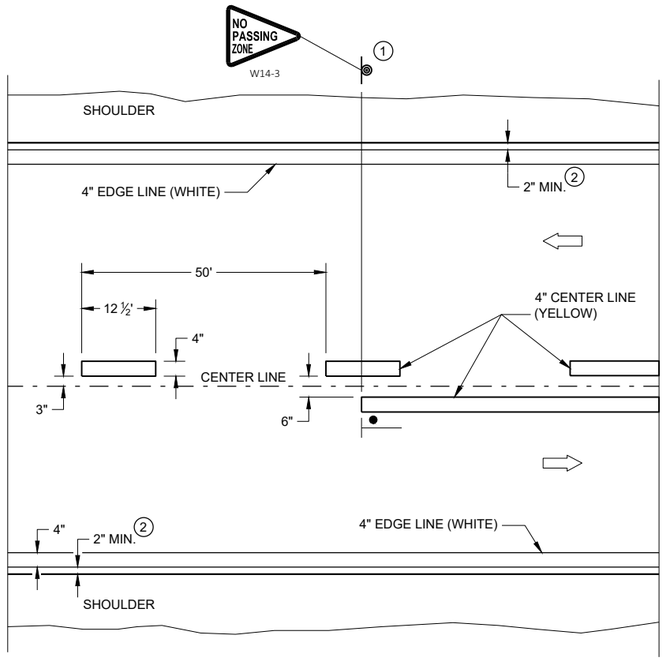
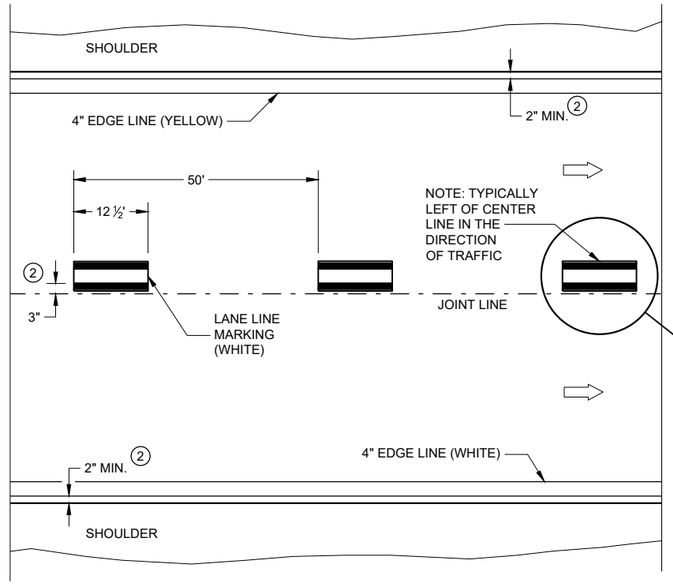
SDD 15C02 - 08b

6

SDD 15C02 - 08b

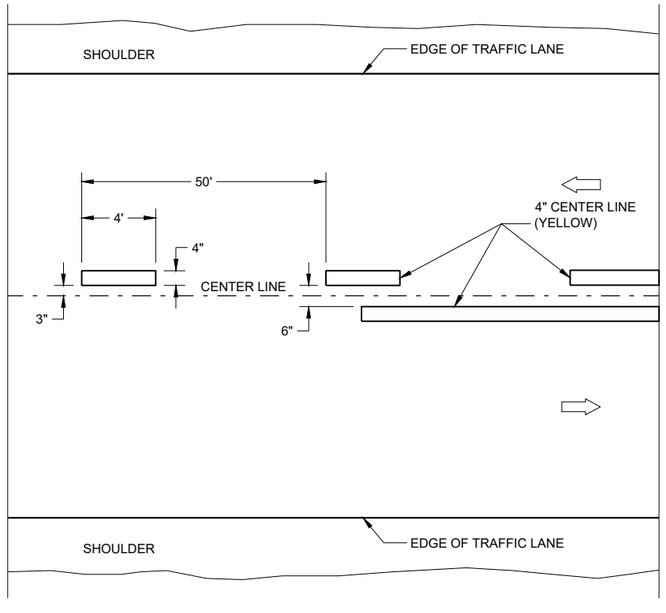


TWO WAY TRAFFIC

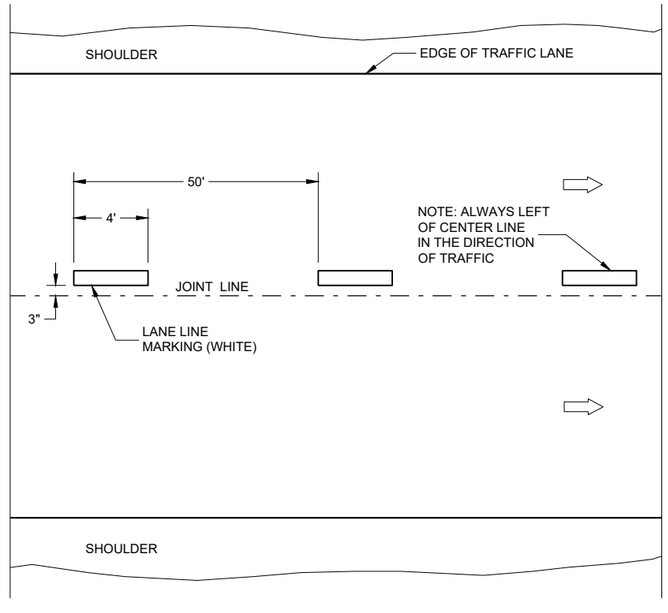


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

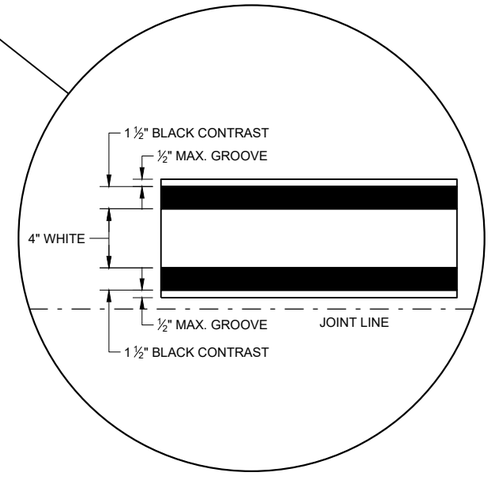
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

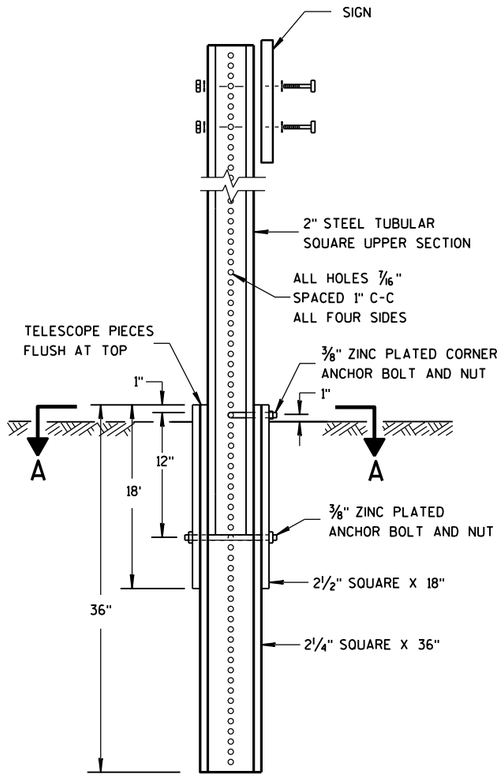
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

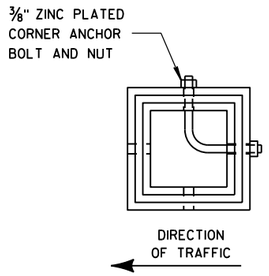
FHWA

SDD 15C08 - 20a

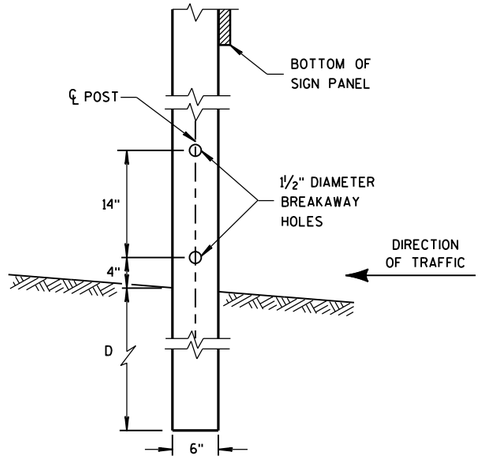
SDD 15C08 - 20a



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



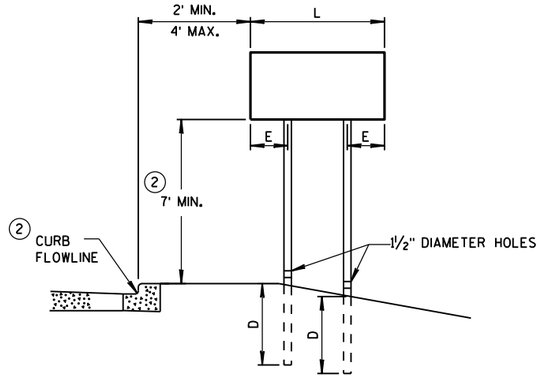
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

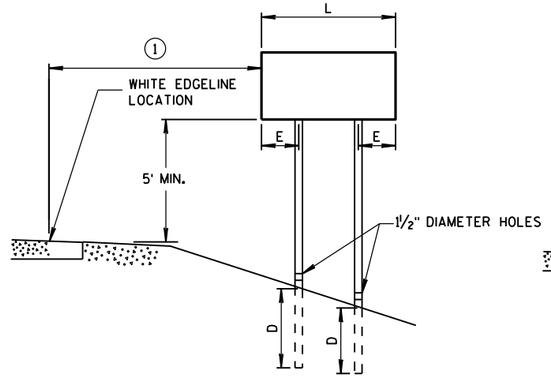
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

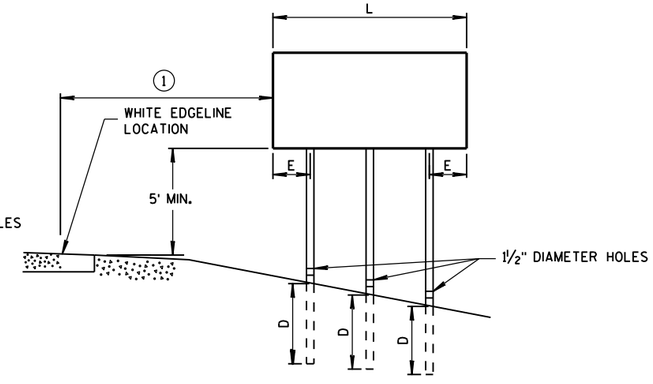
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK 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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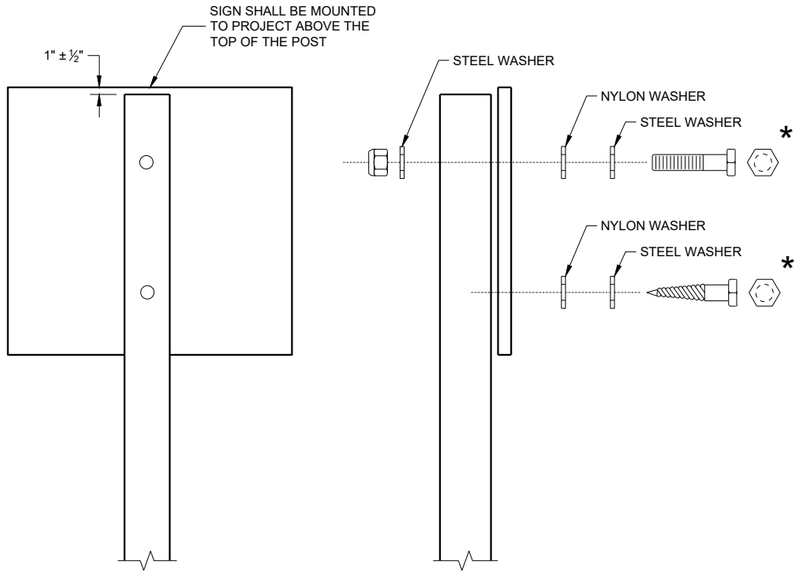
S.D.D. 15 D 38-2a
S.D.D. 15 D 38-2a



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.

6

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SDD 15D38 - 02b

SDD 15D38 - 02b

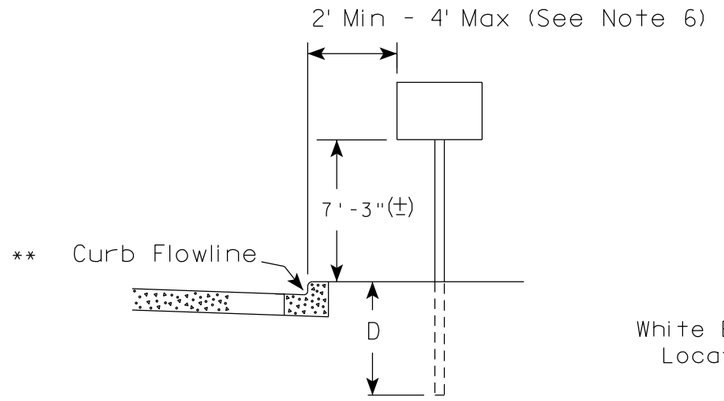
ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

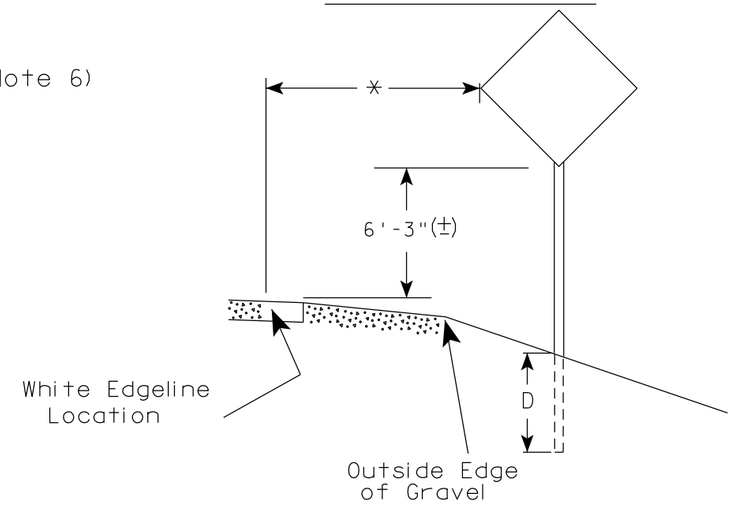
APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

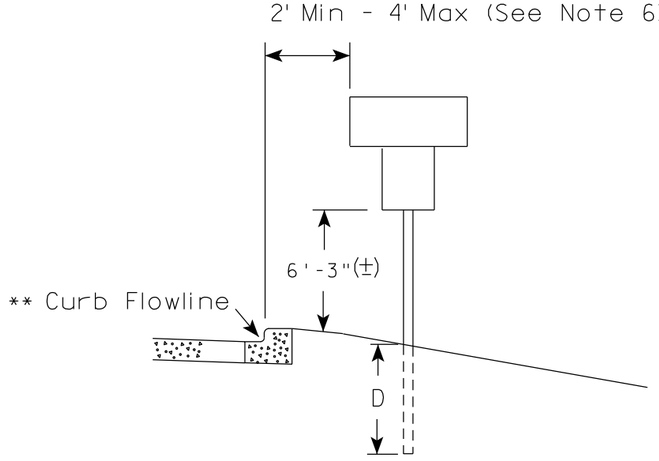
FHWA

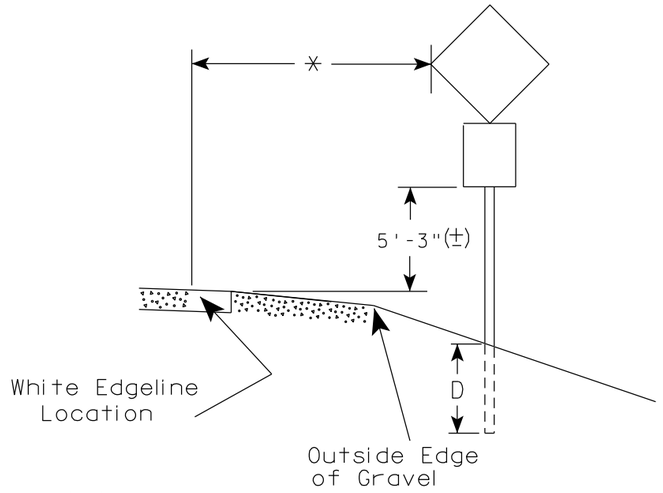
URBAN AREA



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.

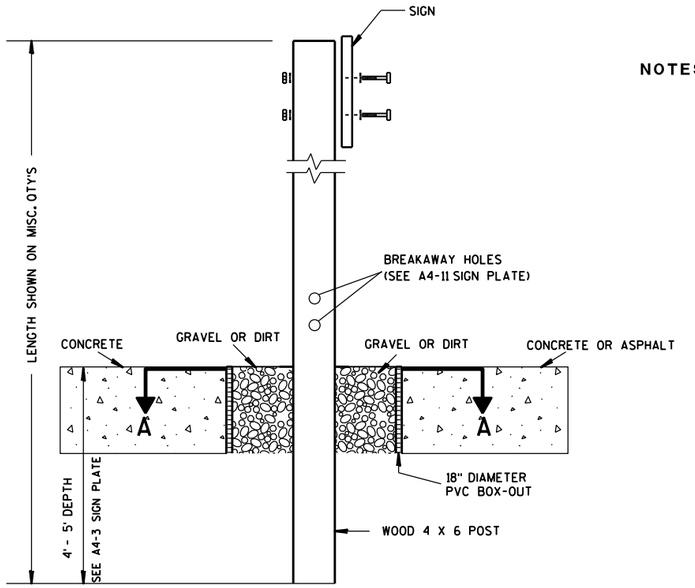
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

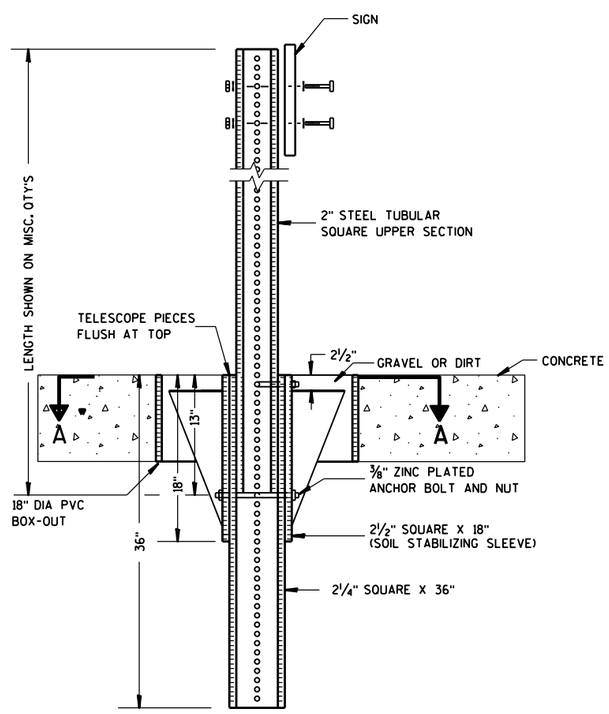
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 37	E



ELEVATION VIEW

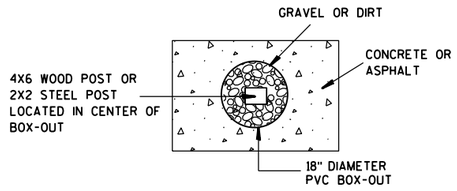
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

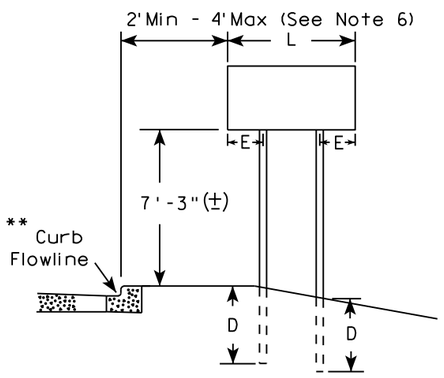
APPROVED Matthew R Rauch
for State Traffic Engineer

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

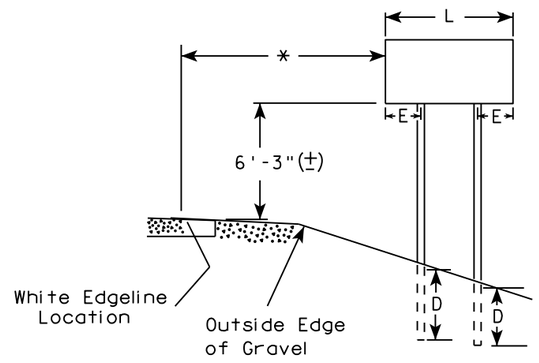
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

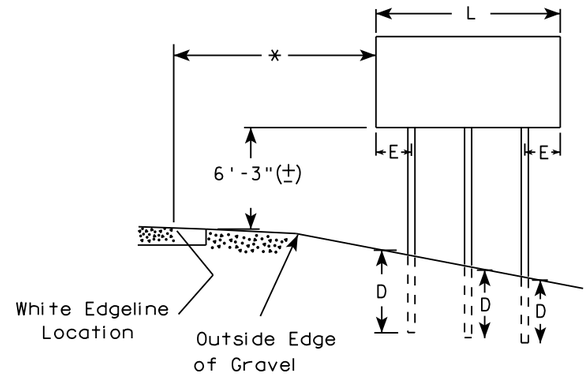
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

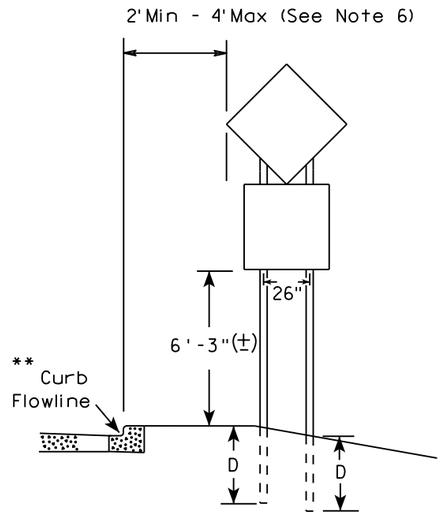
URBAN AREA



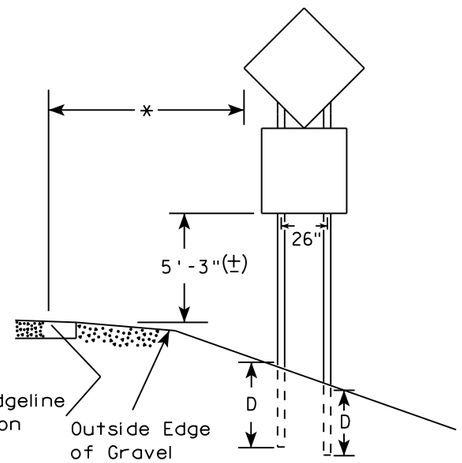
RURAL AREA (See Note 3)







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'

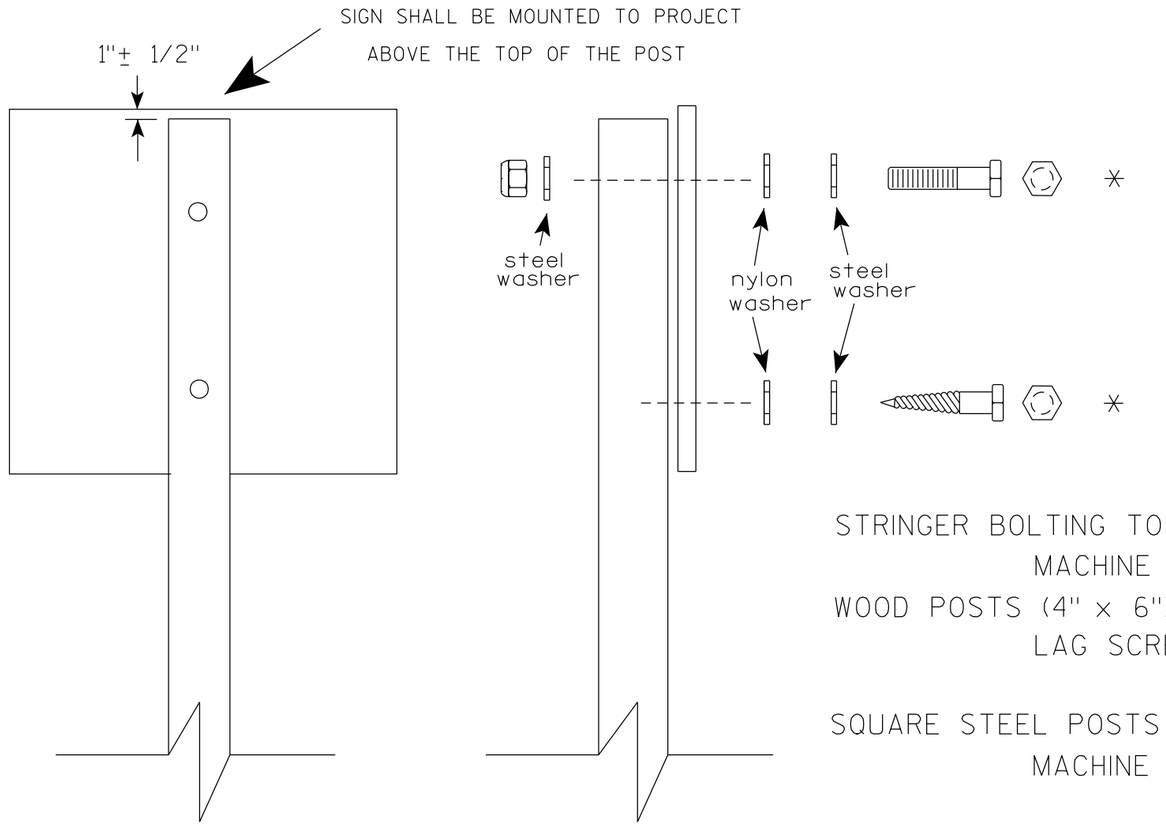
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 39	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

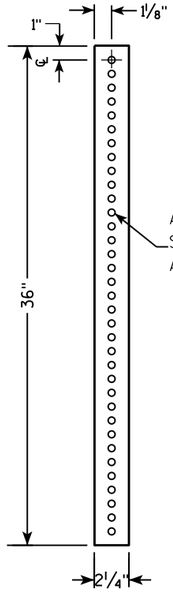
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

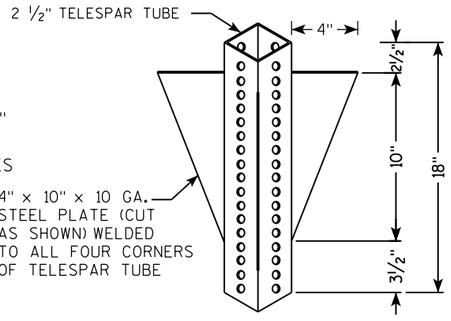
SHEET NO: 40 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

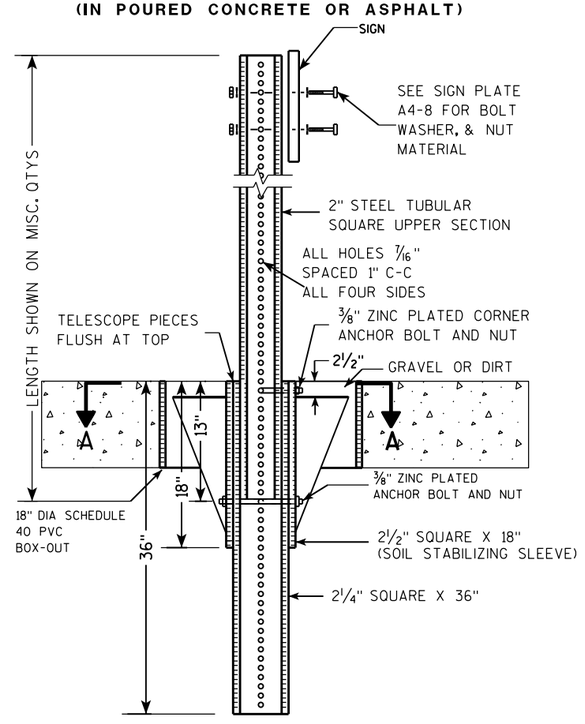
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



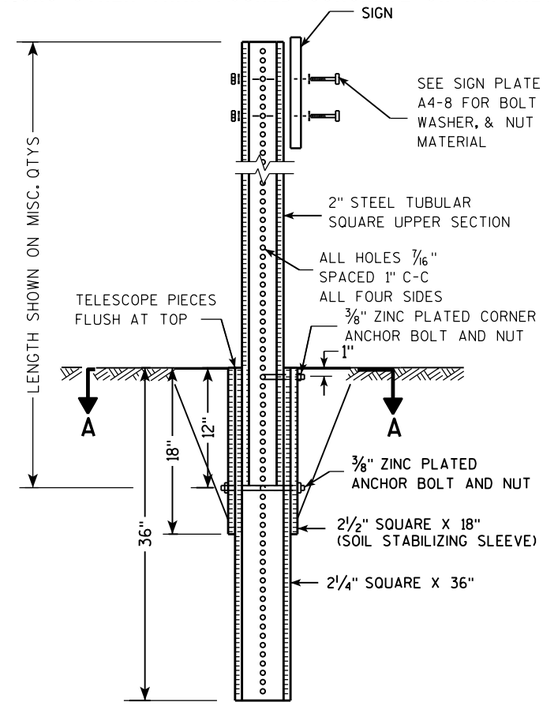
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

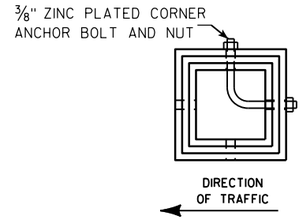


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

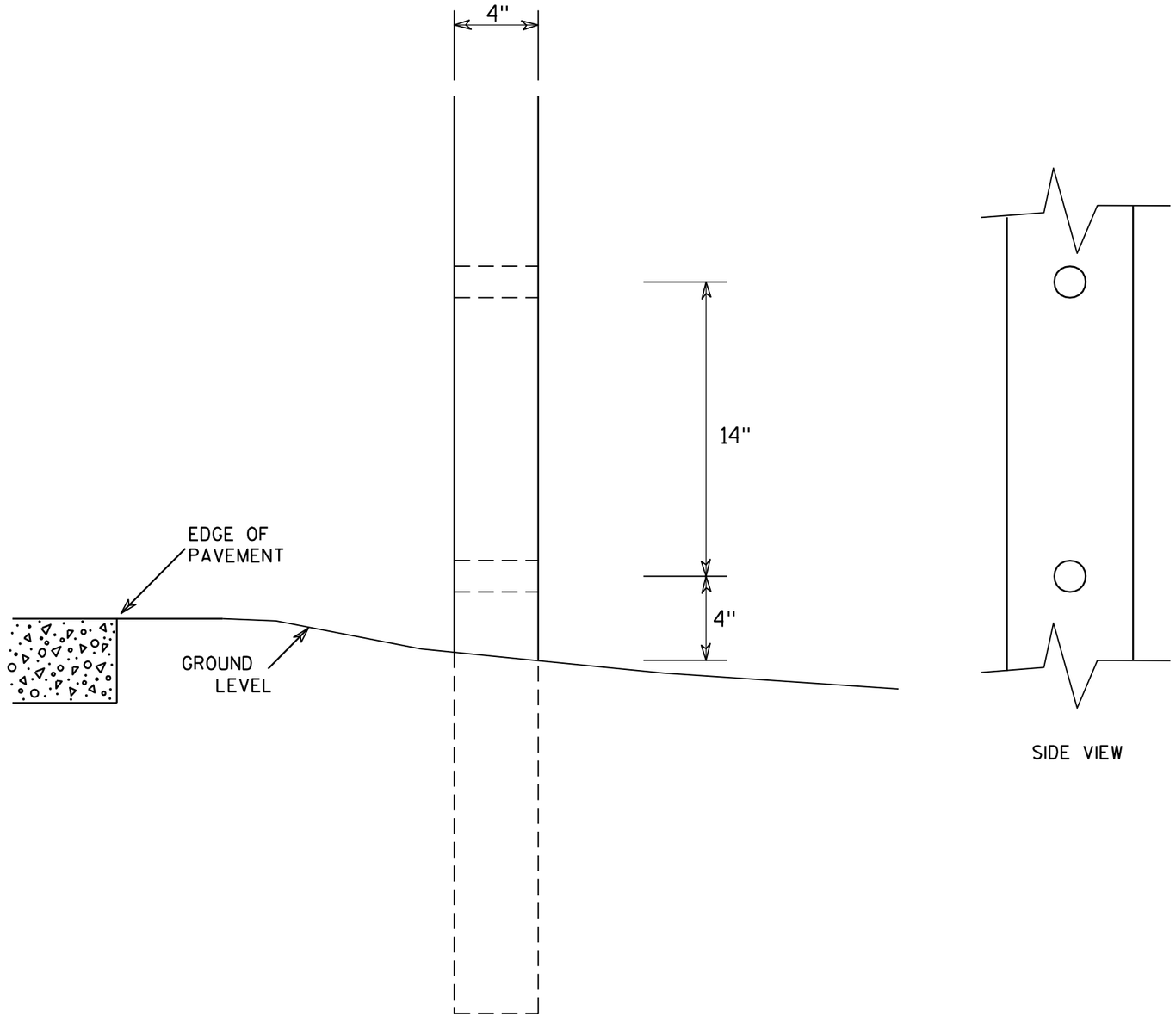
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

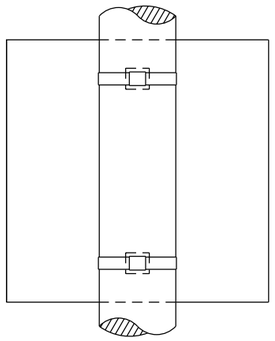
APPROVED Chester J Spang for State Traffic Engineer

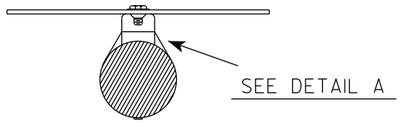
DATE 3/27/97 PLATE NO. A4-11.2

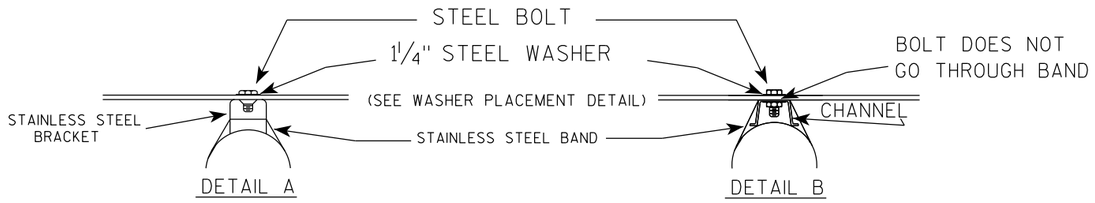
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 42	E

BANDING

SINGLE SIGN



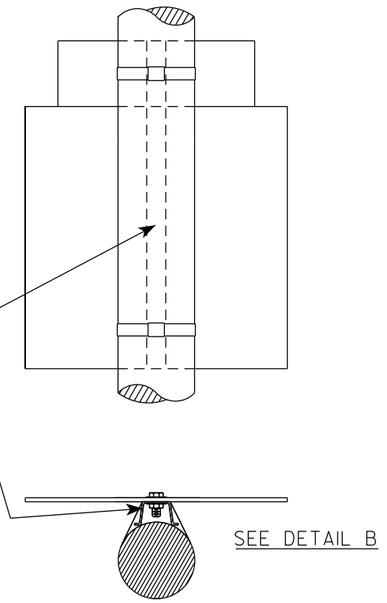




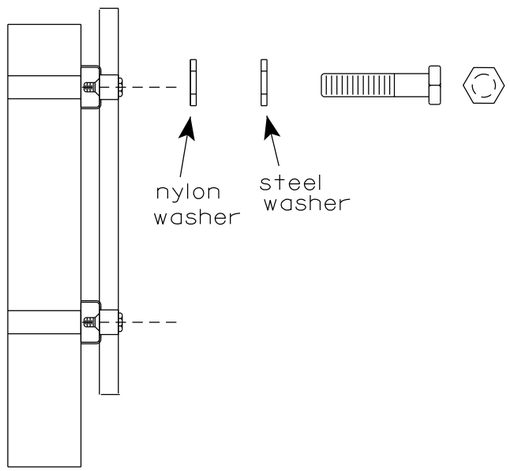
GENERAL NOTES

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

"J" ASSEMBLY



WASHER PLACEMENT



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

STANDARD SIGN
SIGN BANDING DETAILS

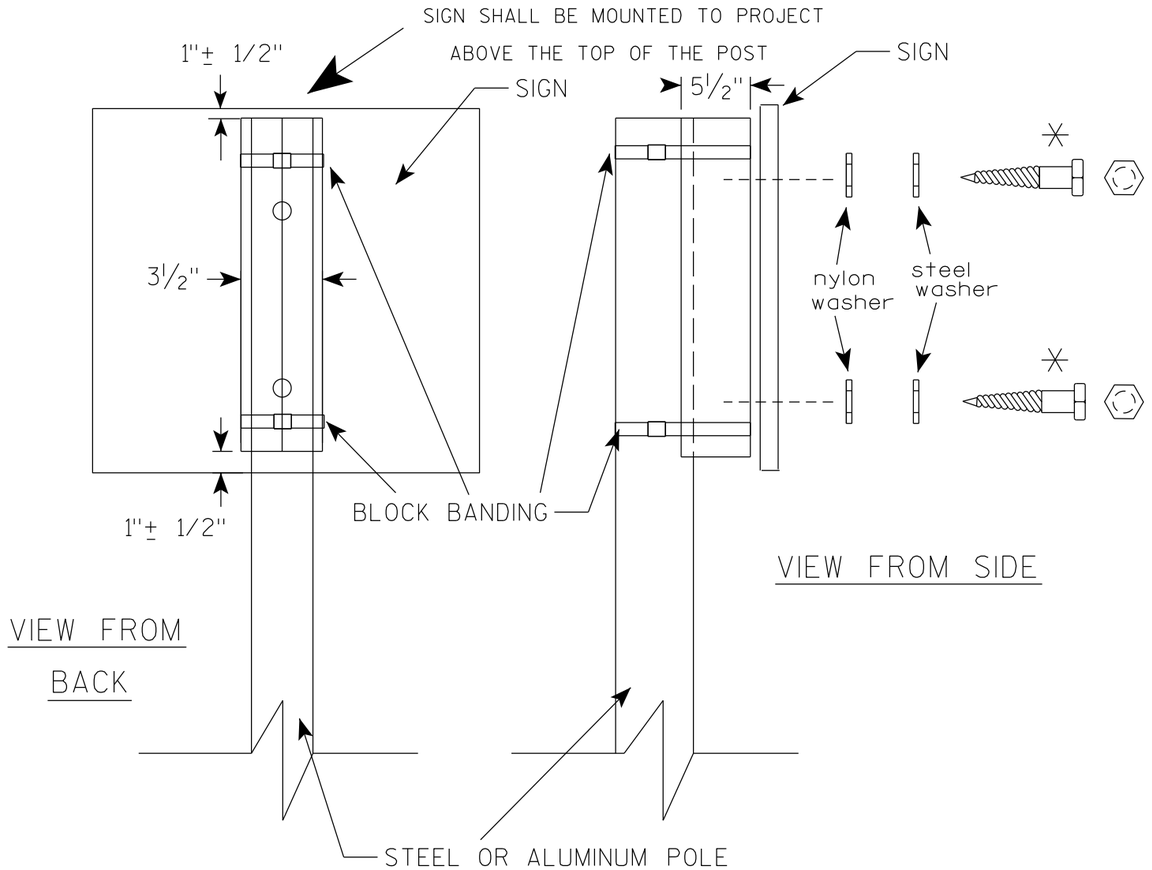
WISCONSIN DEPT OF TRANSPORTATION

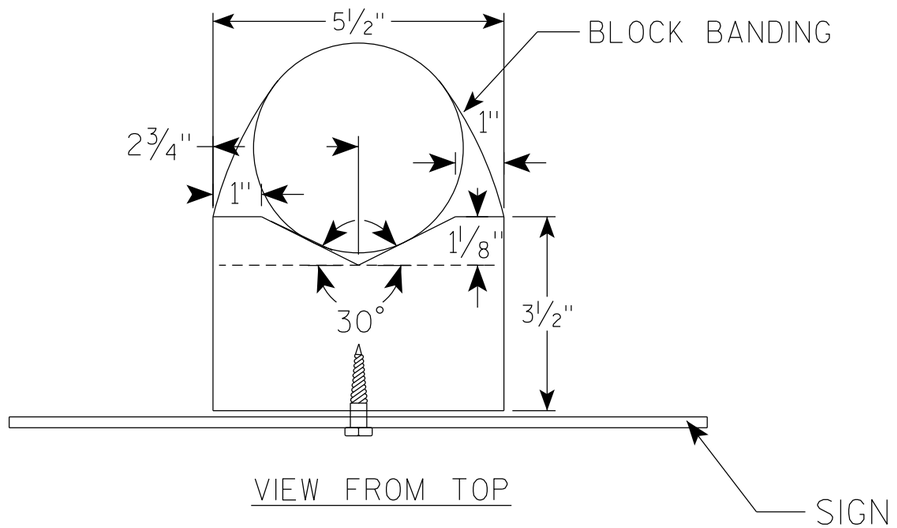
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 43	E

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





GENERAL NOTES

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

✳ LAG BOLTS SHALL BE ⅜" X 2½"

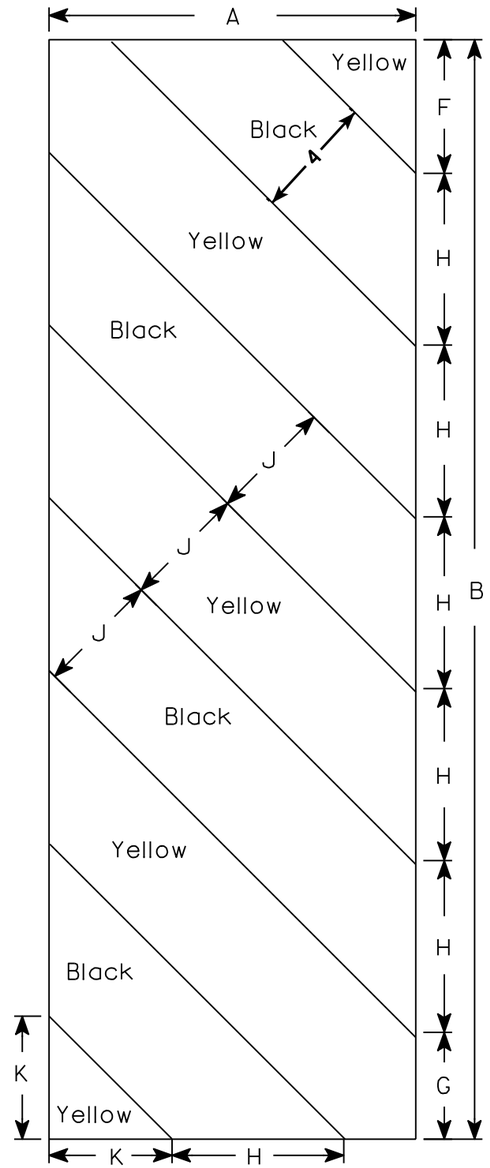
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

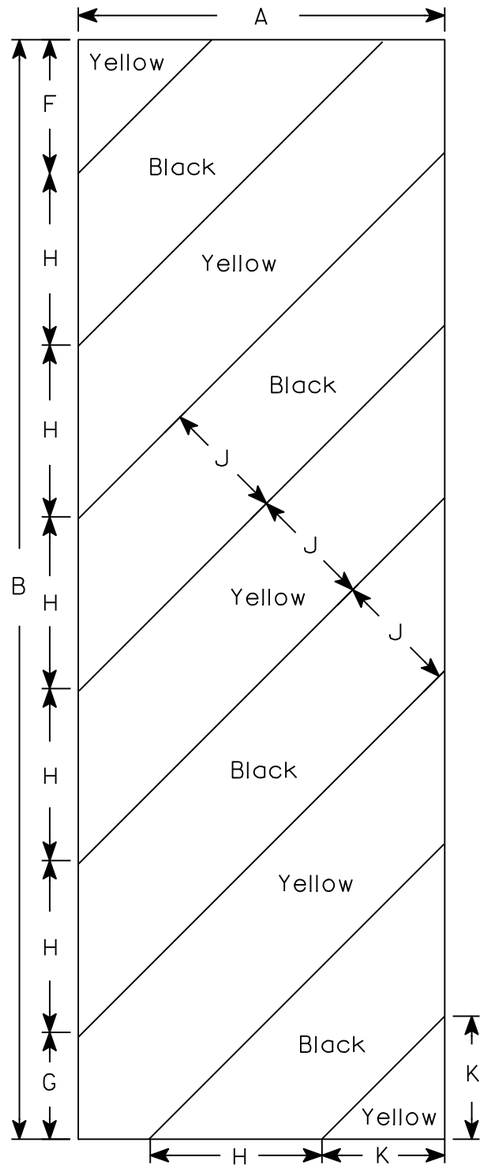
APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:				SHEET NO: 44	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

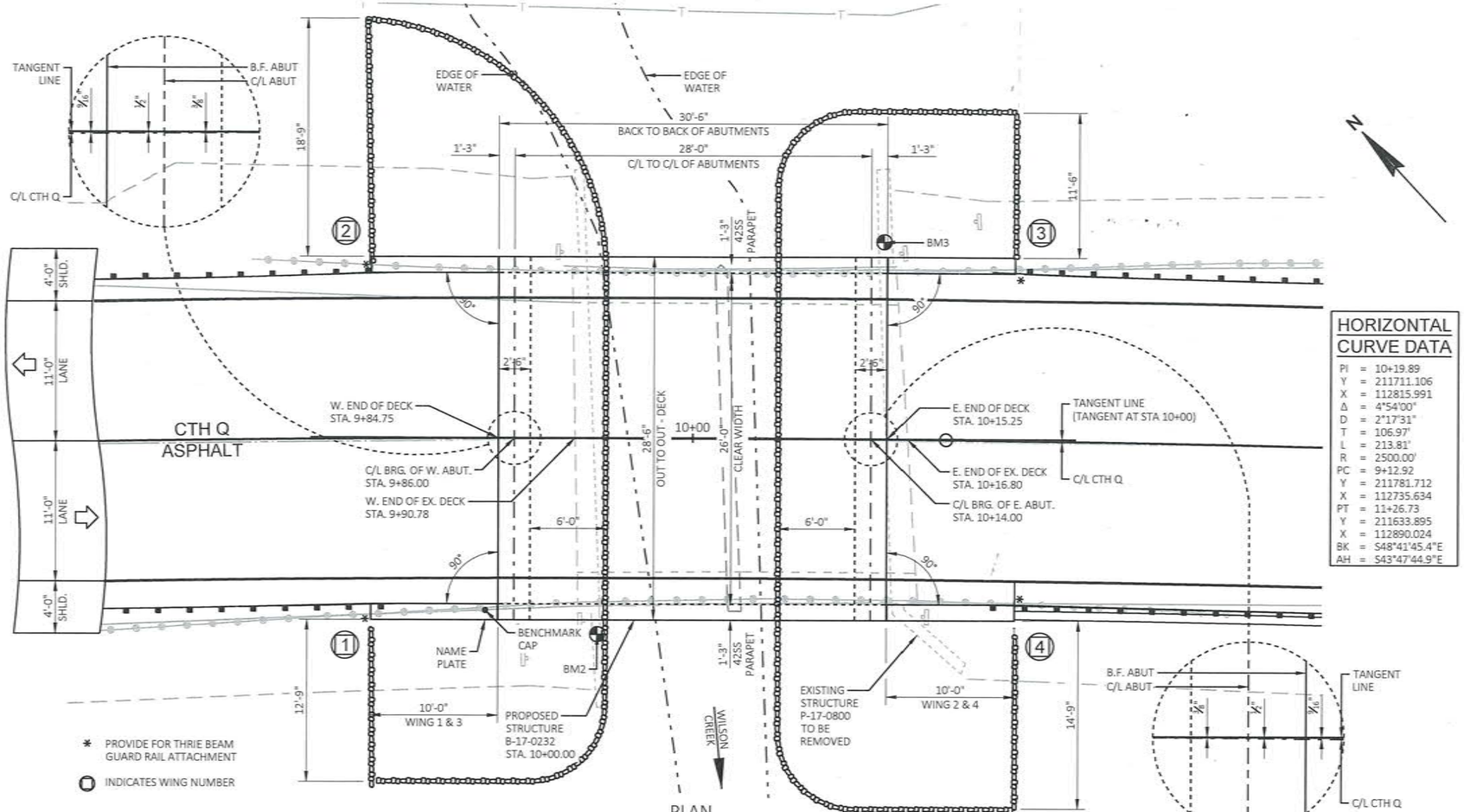
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 45	E

STATE PROJECT NUMBER

8925-03-71



* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT

INDICATES WING NUMBER

PLAN

SINGLE SPAN - CONCRETE FLAT SLAB

HORIZONTAL CURVE DATA

PI	=	10+19.89
Y	=	211711.106
X	=	112815.991
Δ	=	4°54'00"
D	=	2°17'31"
T	=	106.97'
L	=	213.81'
R	=	2500.00'
PC	=	9+12.92
Y	=	211781.712
X	=	112735.634
PT	=	11+26.73
Y	=	211633.895
X	=	112890.024
BK	=	S48°41'45.4"E
AH	=	S43°47'44.9"E

DESIGN DATA

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

LIVE LOAD:

- DESIGN LOADING — HL - 93
- INVENTORY RATING FACTOR — RF = 1.13
- OPERATING RATING FACTOR — RF = 1.46
- WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) — 250 KIPS

MATERIAL PROPERTIES:

- CONCRETE MASONRY
  - SLAB — f'c = 4,000 PSI
  - ALL OTHER — f'c = 3,500 PSI
- BAR STEEL REINFORCEMENT, GRADE 60 (INCLUDES STAINLESS STEEL REINFORCEMENT) — fy = 60,000 PSI

HYDRAULIC DATA

100 YEAR FREQUENCY

- Q_{100} — 910 C.F.S.
- Q_{BRIDGE} — 867.7 C.F.S.
- VEL. — 7.4 F.P.S.
- HW_{100} — EL. 983.69
- WATERWAY AREA — 117.84 SQ. FT.
- DRAINAGE AREA — 2.66 SQ. MI.
- SCOUR CRITICAL CODE — 8

2 YEAR FREQUENCY

- Q_2 TOTAL — 150 C.F.S.
- VEL. — 2.3 F.P.S.
- HW_2 — EL. 980.77

ROADWAY OVERTOPPING FREQUENCY

- FREQUENCY — 52 YEARS
- Q52 — 742 CFS
- HW52 — 983.32

TRAFFIC DATA

- AADT [2022] — 210
- AADT [2042] — 232
- DESIGN SPEED — 55 MPH

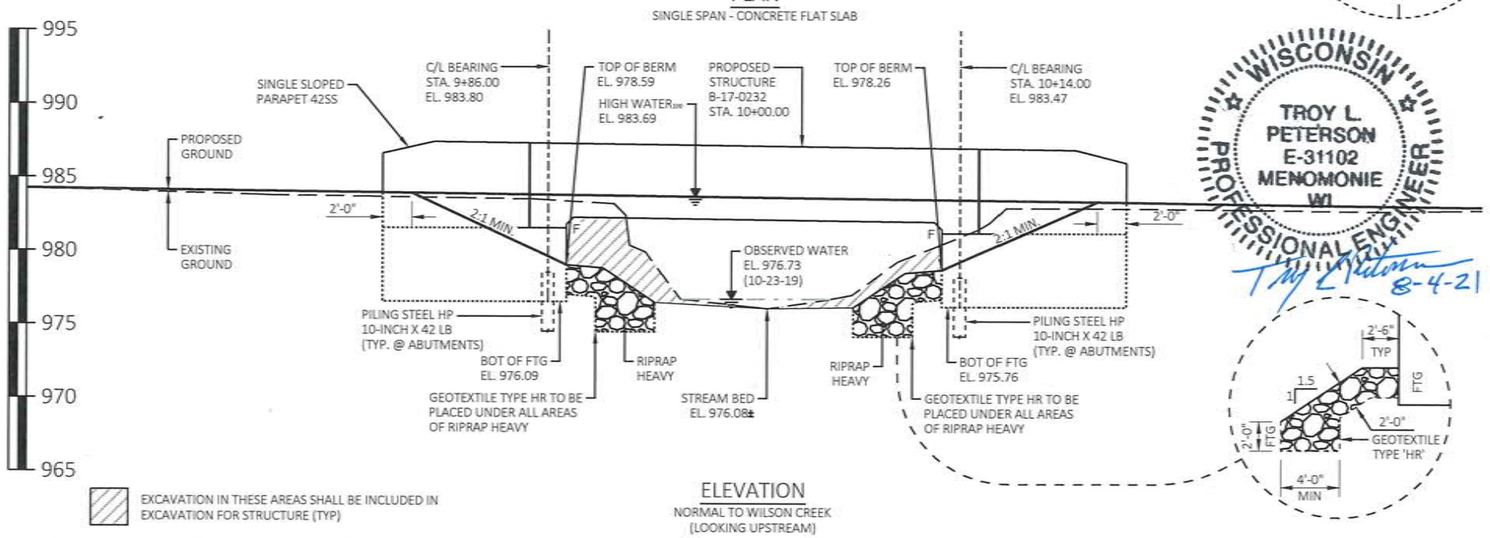
FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10x42, WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION.

ESTIMATED LENGTH 20'-0" WEST ABUTMENT
ESTIMATED LENGTH 15'-0" EAST ABUTMENT

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

BENCHMARKS			
NO	STA	DESCRIPTION	ELEV
1	7+46±	COTTON SPINDLE IN POWER POLE (@ 38.62' RT)	984.69'
2	9+93±	CHISELED MARK ON EAST CORNER/WINGWALL (@ 14.81' RT)	981.65'
3	10+15±	CHISELED MARK ON WEST CORNER/WINGWALL (@ 16.02' LT)	981.74'



EXCAVATION IN THESE AREAS SHALL BE INCLUDED IN EXCAVATION FOR STRUCTURE (TYP)

ELEVATION

NORMAL TO WILSON CREEK
(LOOKING UPSTREAM)

WISCONSIN
TROY L. PETERSON
E-31102
MENOMONIE
WI
PROFESSIONAL ENGINEER

8-4-21

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT

AARON M. BONK
(608) 261-0261

CONSULTANT CONTACT

TROY L. PETERSON
(715) 235-9081

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

Cedar corporation
www.cedarcorp.com 800-472-7372

ACCEPTED SDR 08/05/21
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-17-0232

CTH Q BRIDGE OVER WILSON CREEK

COUNTY	TOWN/~~CITY/VILLAGE~~
DUNN	STANTON

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED	DESIGN	DRAWN	PLANS
BY TLP	CK'D. DWM	BY NJT	CK'D. TLP

GENERAL PLAN

SHEET 1 OF 9

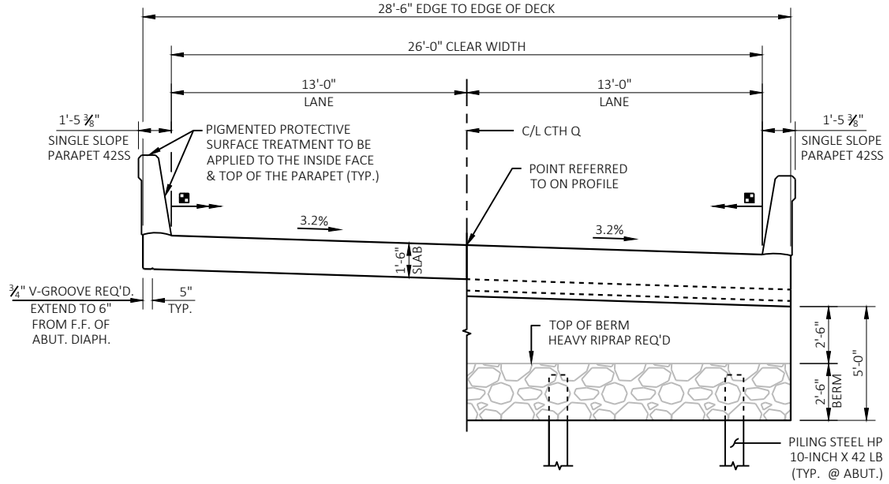
I.D. 8925-03-71

DATE: August 2021

SCALE = 1:1

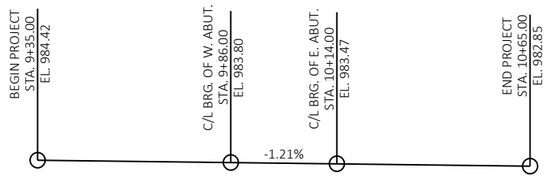
8

8

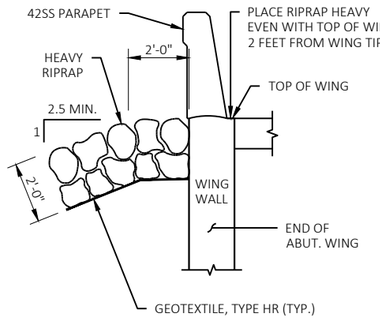


CROSS SECTION THRU STRUCTURE

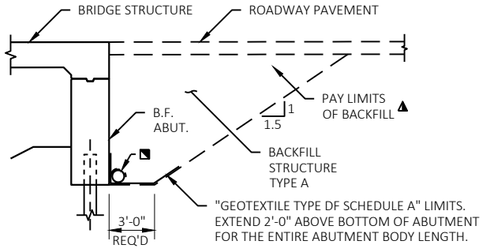
(LOOKING EAST)



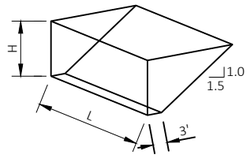
PROPOSED GRADE ON CTH Q



TYPICAL FILL SECTION AT WING TIPS

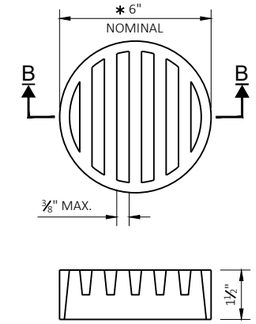


STRUCTURE BACKFILL & LIMITS



ABUTMENT BACKFILL DIAGRAM FOR WINGS PARALLEL TO ROADWAY

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

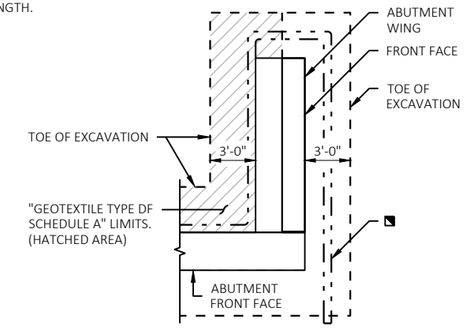


RODENT SHIELD DETAIL

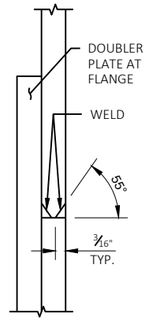
* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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

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

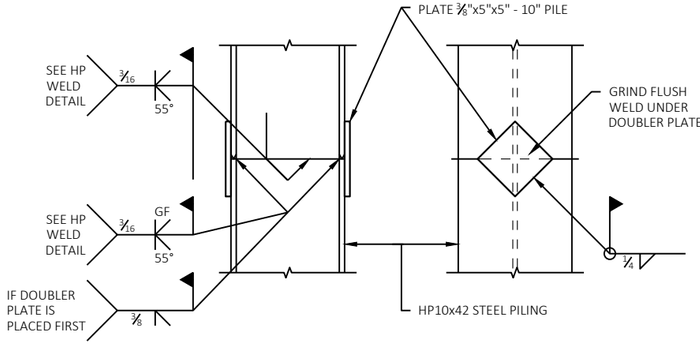


ABUTMENT PLAN WITH WING



HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR



PILE SPLICE DETAILS

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEMS	UNIT	WEST ABUT.	EAST ABUT.	SUPER.	TOTALS
203.0260.01	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS (P-17-0800)	EACH	-	-	-	1
206.1000.01	EXCAVATION FOR STRUCTURES BRIDGES B-17-0232	LS	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	137.0	137.0	-	274
502.0100	CONCRETE MASONRY BRIDGES	CY	32.5	32.5	61.0	126
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	88.0	88
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	50.0	50
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1690	1690	-	3380
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1280	1270	12140	14690
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	9.0	9.0	-	18
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	80	60	-	140
606.0300	RIPRAP HEAVY	CY	53	52	-	105
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	90	90	-	180
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	-	-	4	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	21.0	21.0	-	42
645.0120	GEOTEXTILE TYPE HR	SY	103	103	-	206
	NON-BID ITEMS					
	FILLER	SIZE	-	-	-	1/2" X 3/4"

STATE PROJECT NUMBER

8925-03-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ALL ELEVATIONS ARE IN FEET.

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

ALL REINFORCING BARS ARE ENGLISH. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

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

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE 'HR' TO THE EXTENT SHOWN ON SHEETS 1 AND 2 AND IN THE ABUTMENT DETAILS.

THE EXISTING STRUCTURE (P-17-0800) IS A 24.2' LONG BY 26.4' WIDTH TWO SPAN CONCRETE FLAT SLAB BRIDGE.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-17-0232" SHALL BE THE EXISTING GRADE LINE.

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

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

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

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

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

◪ PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE BRIDGE DECK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-17-0232

DRAWN BY NJT | PLANS CK'D. TLP

CROSS SECTION, QUANTITIES, & NOTES

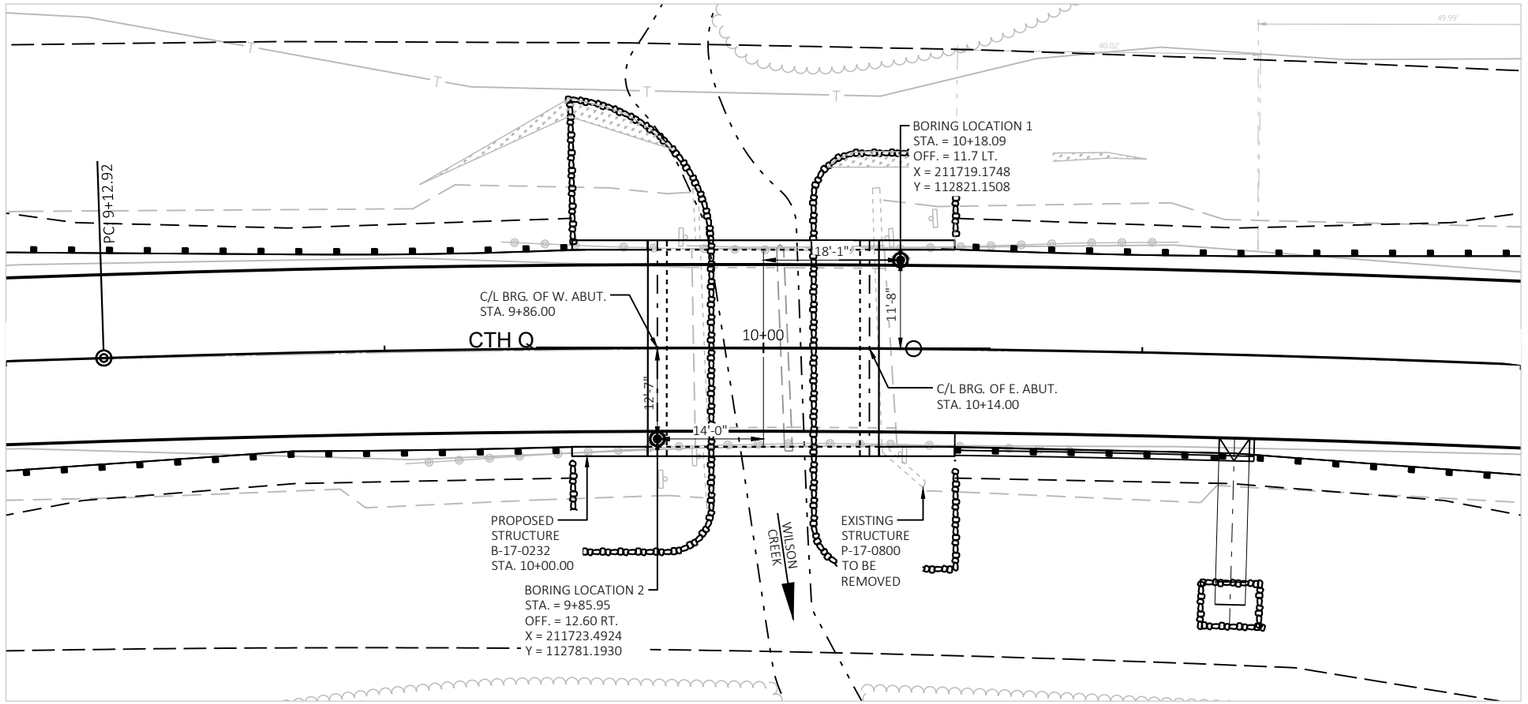
SHEET 2 OF 9

47

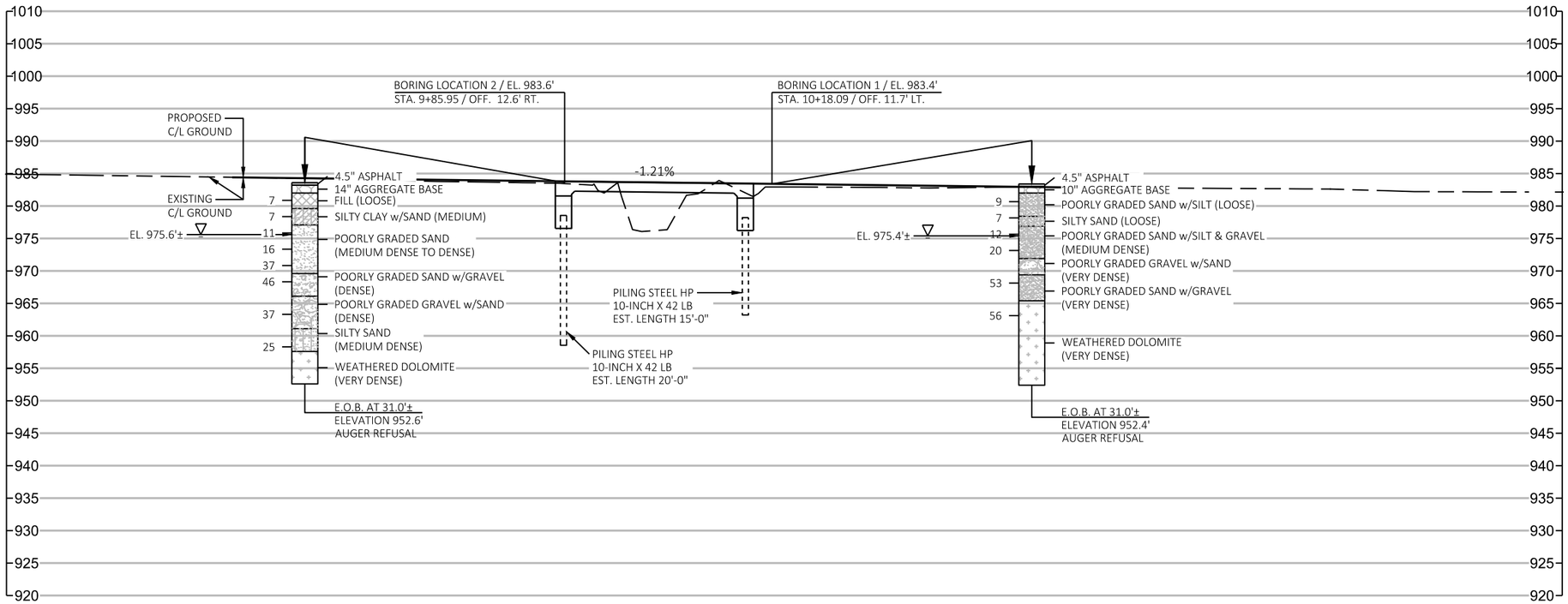
SCALE = 1:1

8

8



PLAN



ELEVATION

SUBSURFACE NOTES

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

BORINGS & REPORT COMPLETED BY:

CHOSEN VALLEY TESTING, INC.
1019 SECOND AVENUE SW
ONALASKA, WI 54650
(608) 782-5505

BORINGS PERFORMED ON:
4/15/2020 - B1
4/15/2020 - B2

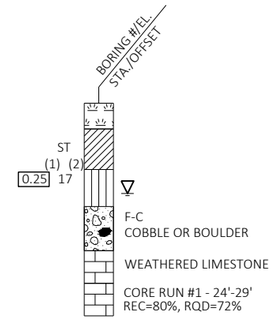
STATE PROJECT NUMBER

8925-03-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

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

ABBREVIATIONS

F-Fine M-Medium C-Coarse st-shelby tube

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-17-0232

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SUBSURFACE EXPLORATION

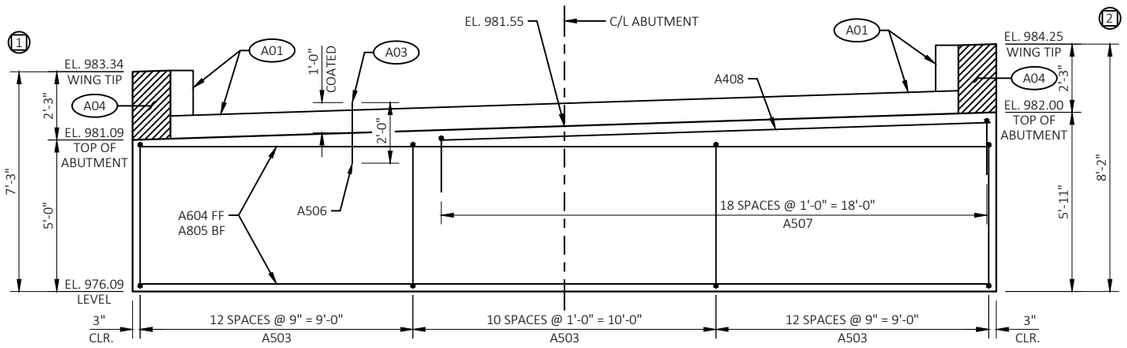
SHEET 3 OF 9

48

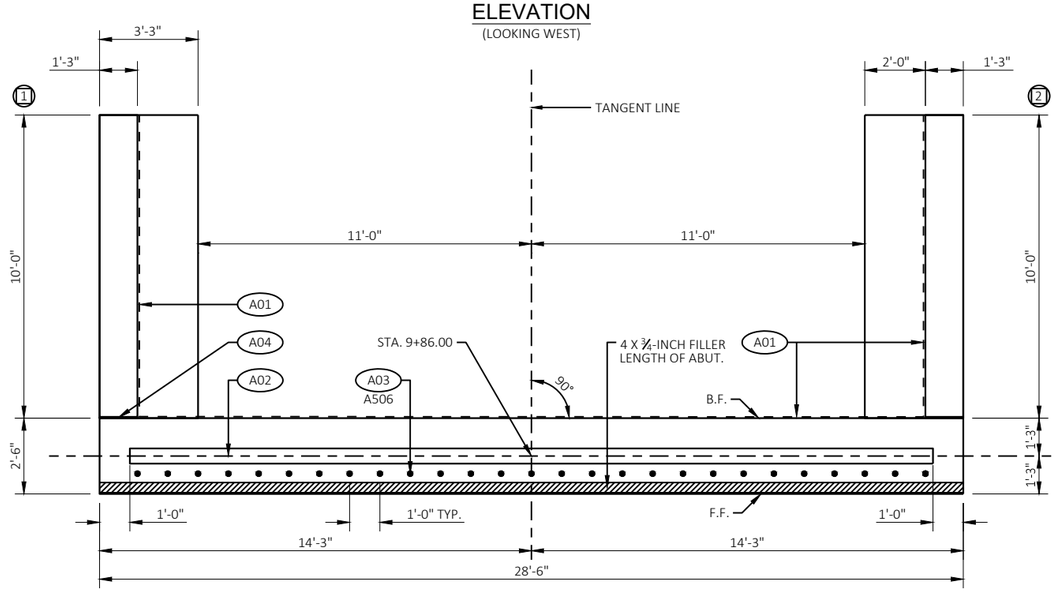
SCALE = 1:1

8

8



ELEVATION
(LOOKING WEST)



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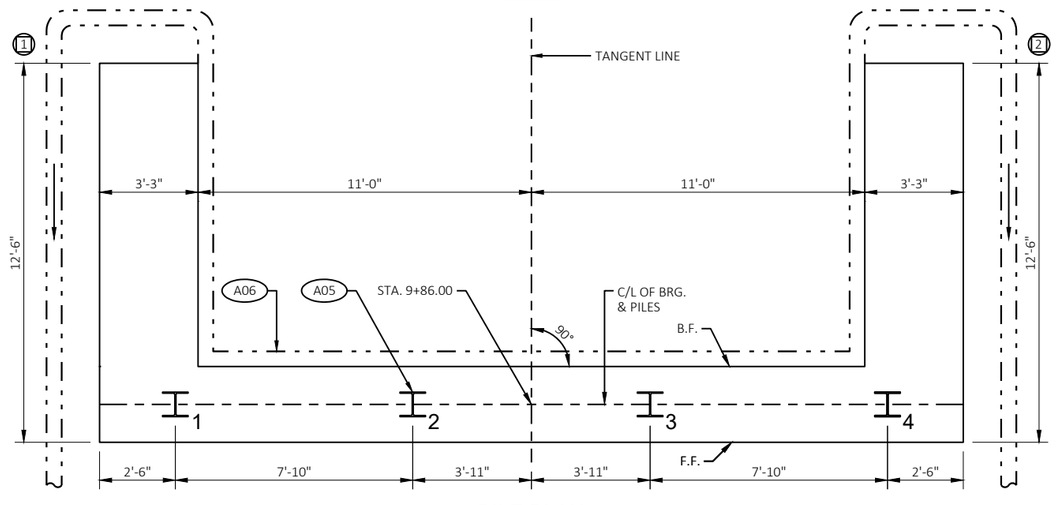
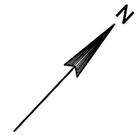


PILE PLAN

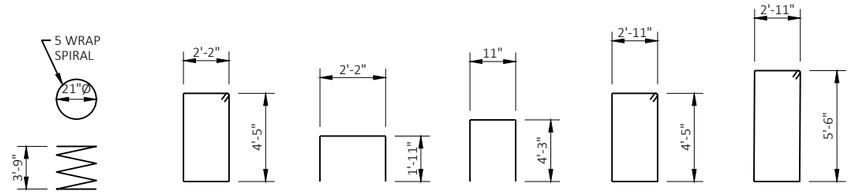


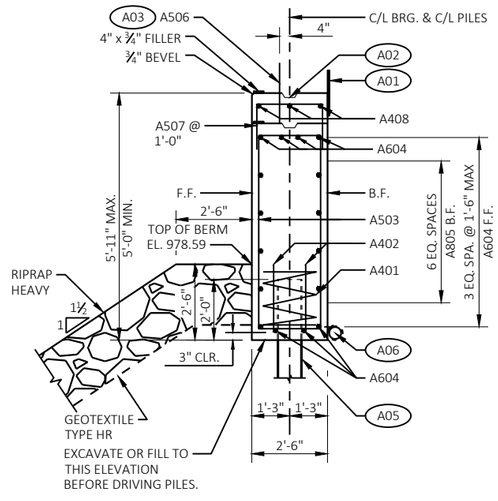
BILL OF BARS

1690# UNCOATED 1280# COATED

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A401		4	28-0	X		BODY - ONE PER PILE
A402		8	2-3			BODY - TWO PER PILE
A503		35	13-10	X		BODY - STIRRUPS
A604		10	28-2			BODY - HORIZONTAL
A805		7	28-2			BODY - HORIZONTAL B.F.
A506	X	27	2-0			BODY - VERTICAL DOWELS
A507		19	5-9	X		BODY - VERTICAL
A408		3	18-0			BODY - HORIZONTAL TOP
A609	X	4	9-7			WING 1 & 2 - HORIZ. TOP
A410	X	10	9-7			WING 1 & 2 - HORIZ. B.F. & F.F.
A511	X	28	9-2	X		WING 1 & 2 - VERT. TOP
A512	X	11	15-4	X		WING 1 - VERT. BASE
A513	X	11	17-6	X		WING 2 - VERT. BASE
A614	X	16	11-11			WING 1 & 2 BASE HORIZ. B.F. & TOP
A515	X	14	11-7			WING 1 & 2 BASE HORIZ. F.F.

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.





SECTION THRU BODY
ALL HORIZONTAL BARS ARE A604 UNLESS OTHERWISE SPECIFIED

LEGEND

- (1) INDICATES WING NUMBER
- A01 — 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- A02 — KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2 X 6.
- A03 — BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.
- A04 — SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- A05 — STEEL PILING HP 10 X 42 WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. FORMULA ESTIMATED LENGTH 20'-0".
- A06 — PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-17-0232

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WEST ABUTMENT

SHEET 4 OF 9

49

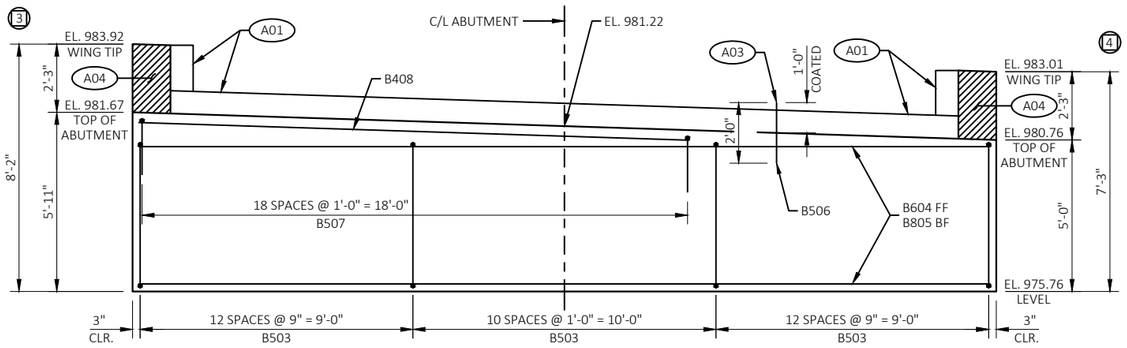
STATE PROJECT NUMBER

8925-03-71

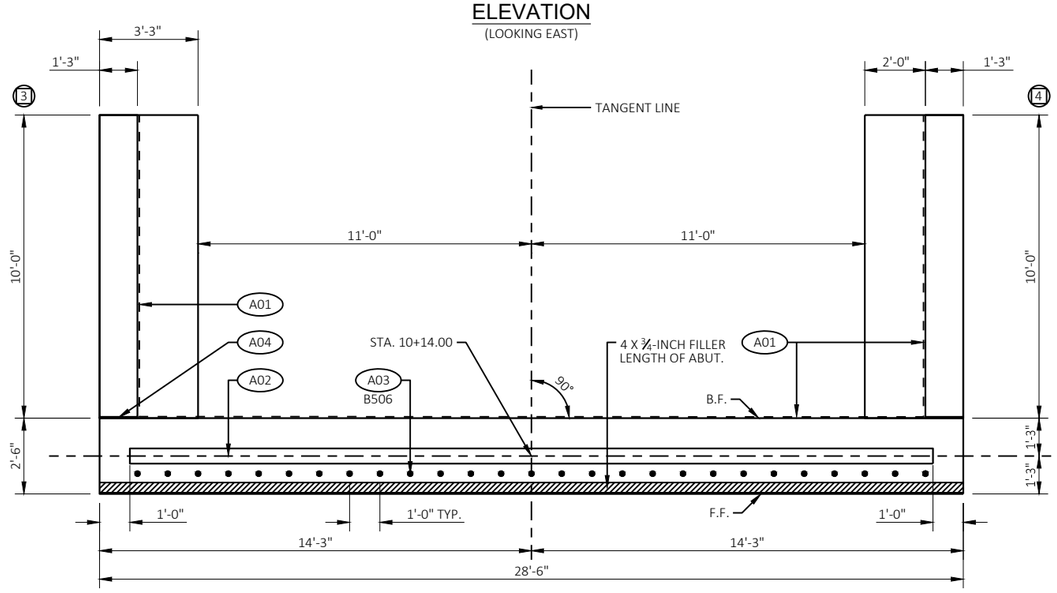
8

8

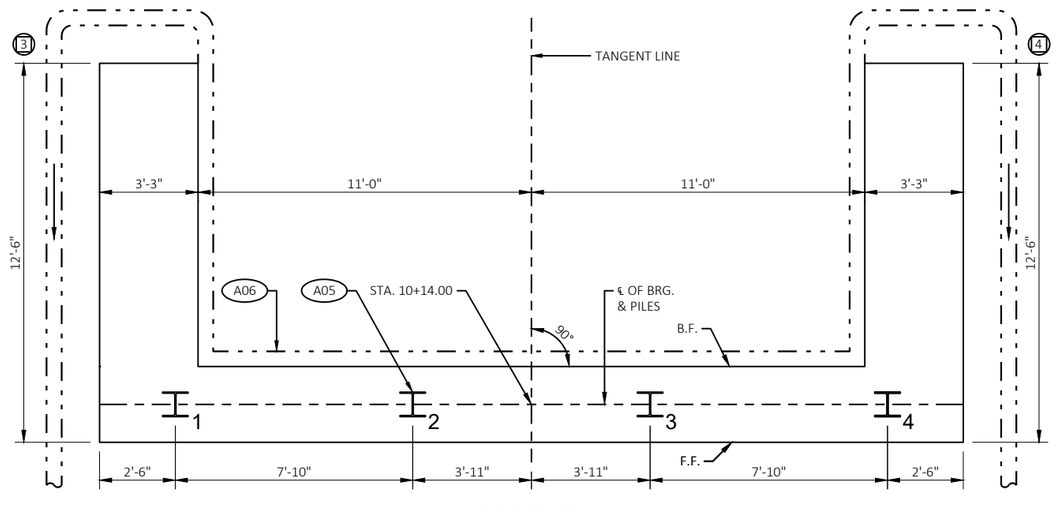
SCALE = 1:1



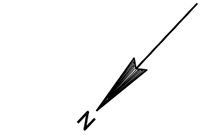
ELEVATION
(LOOKING EAST)

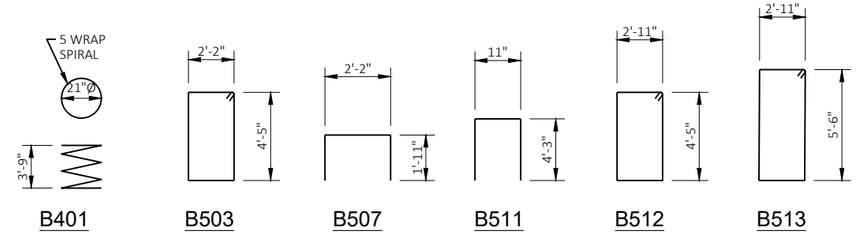


PLAN



PILE PLAN



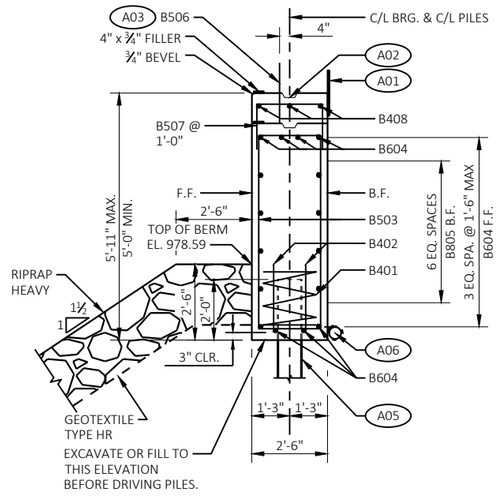


BILL OF BARS

1690# UNCOATED 1270# COATED

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B401		4	28-0	X		BODY - ONE PER PILE
B402		8	2-3			BODY - TWO PER PILE
B503		35	13-10	X		BODY - STIRRUPS
B604		10	28-2			BODY - HORIZONTAL
B805		7	28-2			BODY - HORIZONTAL B.F.
B506	X	27	2-0			BODY - VERTICAL DOWELS
B507		19	5-9	X		BODY - VERTICAL
B408		3	18-0			BODY - HORIZONTAL
B609	X	4	9-7			WING 3 & 4 - HORIZ. TOP
B410	X	10	9-7			WING 3 & 4 - HORIZ. B.F. & F.F.
B511	X	28	8-10	X		WING 3 & 4 - VERT. TOP
B512	X	11	15-4	X		WING 4 - VERT. BASE
B513	X	11	17-6	X		WING 3 - VERT. BASE
B614	X	16	11-11			WING 3 & 4 BASE HORIZ. B.F. & TOP
B515	X	14	11-7			WING 3 & 4 BASE HORIZ. F.F.

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.



SECTION THRU BODY

ALL HORIZONTAL BARS ARE B604
UNLESS OTHERWISE SPECIFIED

LEGEND

- ◇ INDICATES WING NUMBER
- (A01) 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- (A02) KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2 X 6.
- (A03) BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.
- (A04) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A05) STEEL PILING HP 10 X 42 WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. FORMULA ESTIMATED LENGTH 15'-0".
- (A06) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STATE PROJECT NUMBER
8925-03-71

STRUCTURE B-17-0232

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EAST ABUTMENT

SHEET 5 OF 9

50

SCALE = 1:1

8

8

STATE PROJECT NUMBER

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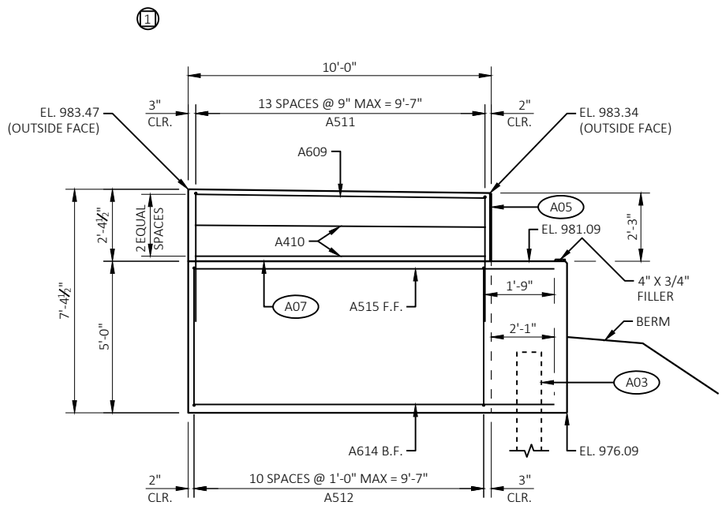
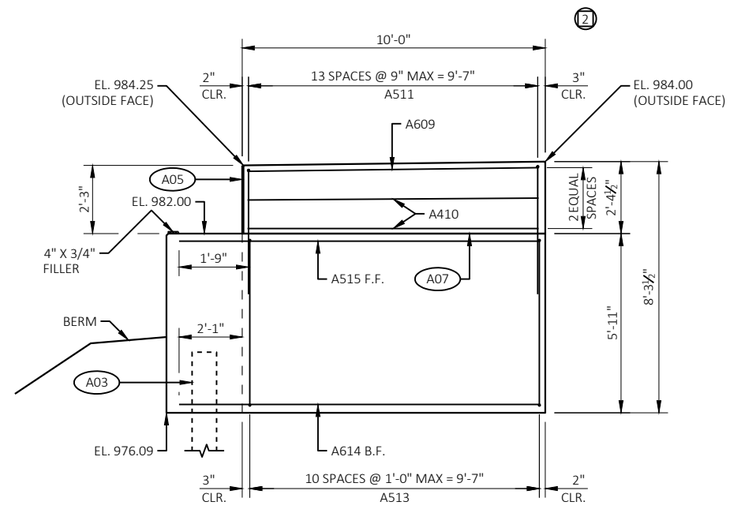
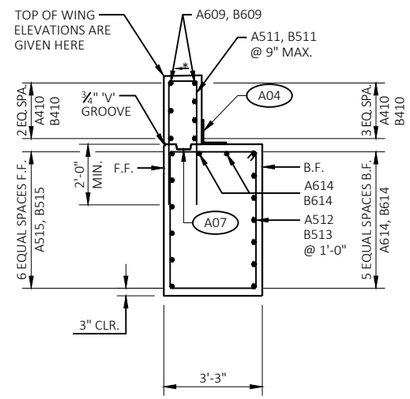
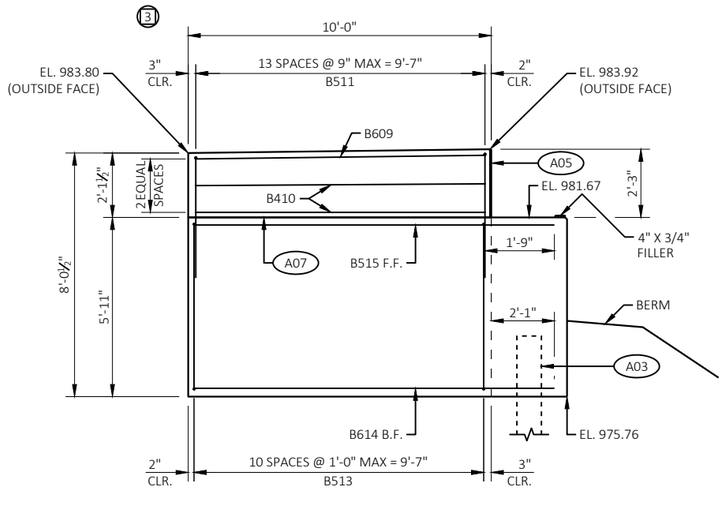


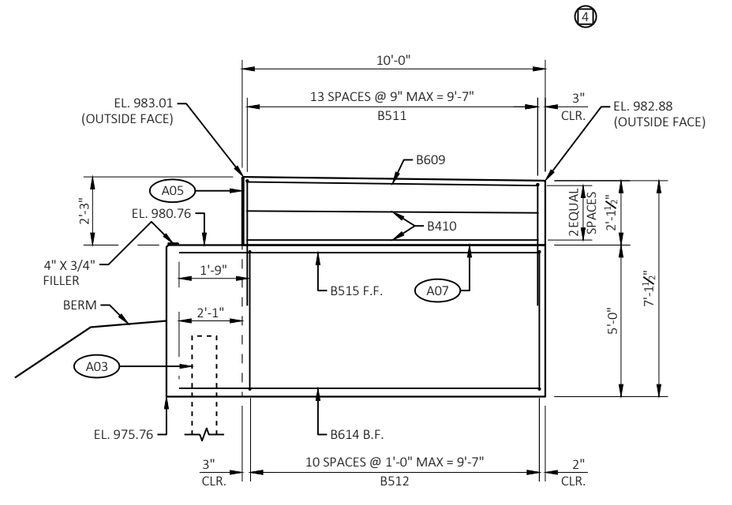


WEST ABUTMENT WINGS



TYPICAL SECTION THRU WING





EAST ABUTMENT WINGS

NOTE: B.F. = BACK FACE
F.F. = FRONT FACE

LEGEND

⬡	INDICATES WING NUMBER
A01	KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2 X 6.
A03	STEEL PILING HP 10X42 WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
A04	18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
A05	SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
A07	OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2 X 6. (18" R.M.W. AT B.F. AND 3/4" 'V' GROOVE AT F.F. OF WING WALL IF JOINT IS USED).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-17-0232

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ABUTMENT DETAILS

SHEET 6 OF 9

51

SCALE = 1:1

8

8

STATE PROJECT NUMBER
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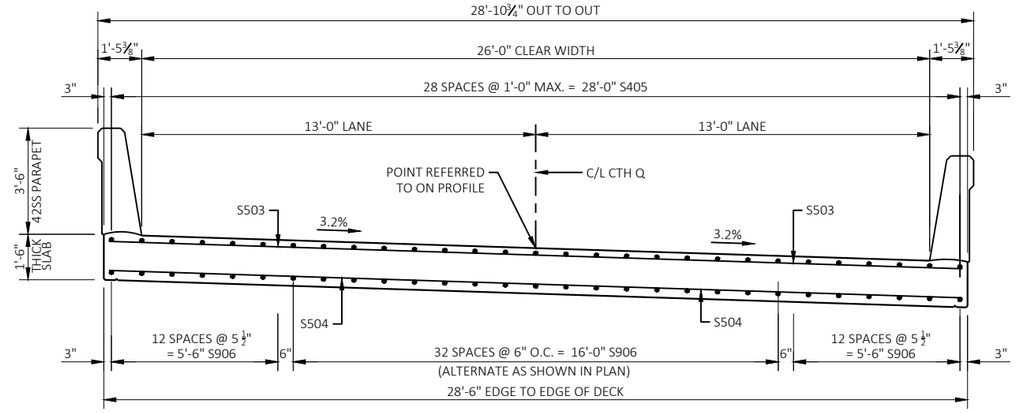


CROSS SECTION THRU RDWY

(LOOKING EAST)

BILL OF BARS

12140# COATED

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	58	4-5	X		AT END OF DECK
S502	X	58	3-3	X		AT END OF DECK
S503	X	37	28-2			SLAB, TOP, TRANSVERSE
S504	X	39	28-2			SLAB BOTTOM, TRANSVERSE
S405	X	29	30-2			SLAB, TOP, LONGITUDINAL
S906	X	59	27-7			SLAB, BOTTOM, LONGITUDINAL
S507	X	60	5-0			TRANS EDGE OF DECK
S508	X	92	4-5	X		PARAPET VERT
S509	X	92	6-8	X		PARAPET VERT
S510	X	16	30-2			PARAPET HORIZ

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

GENERAL NOTES

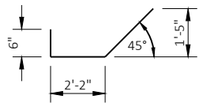
TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS TO BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

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

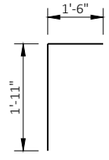
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS(+).

CAMBER SPAN AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. DEAD LOAD DEFLECTIONS ONLY EQUAL APPROXIMATELY 1/3 OF CAMBER VALUES SHOWN.

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATION AT THE C/L OF ABUTMENTS, AND AT 5/10 PTS. TO VERIFY CAMBER, TAKE ELEVATIONS ALONG GUTTER LINES, AND CROWN OR C/L .



S501



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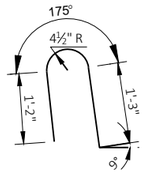

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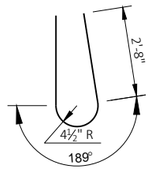
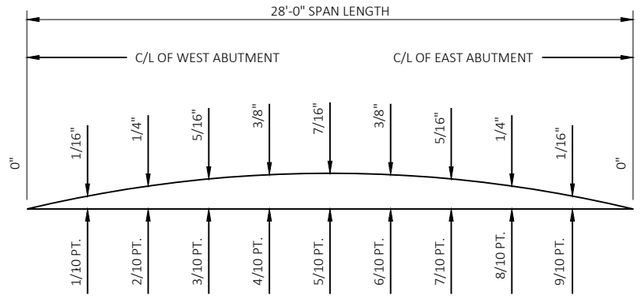


S509



CAMBER DIAGRAM

TOP OF DECK ELEVATIONS

LOCATION	WEST ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	EAST ABUT.
NORTH EDGE OF DECK	984.25	984.23	984.19	984.16	984.12	984.09	984.06	984.02	983.99	983.95	983.42
C/L OF BRIDGE DECK	983.80	983.77	983.73	983.70	983.67	983.64	983.60	983.57	983.54	983.50	983.47
SOUTH EDGE OF DECK	983.34	983.31	983.28	983.25	983.22	983.19	983.16	983.13	983.10	983.07	983.01

ELEVATIONS SHOWN ARE FINISHED DECK AND DO NOT INCLUDE ALLOWANCES OF DEAD LOAD DEFLECTION AND FUTURE CREEP.

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	WEST ABUT.	5/10 PT.	EAST ABUT.
NORTH GUTTER			
CENTERLINE			
SOUTH GUTTER			

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-17-0232

DRAWN BY NJT | PLANS CK'D. TLP

SUPERSTRUCTURE

SHEET 7 OF 9

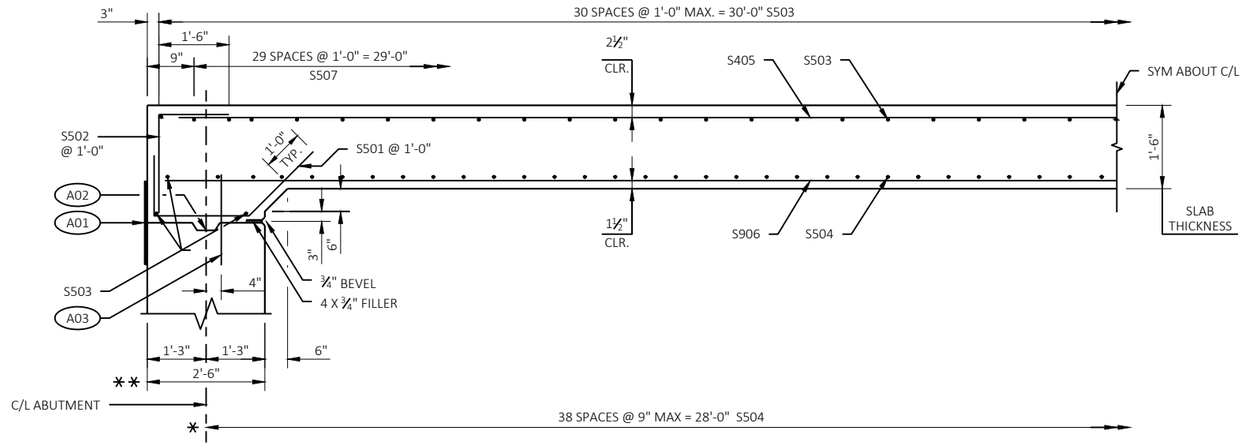
52

SCALE = 1:1

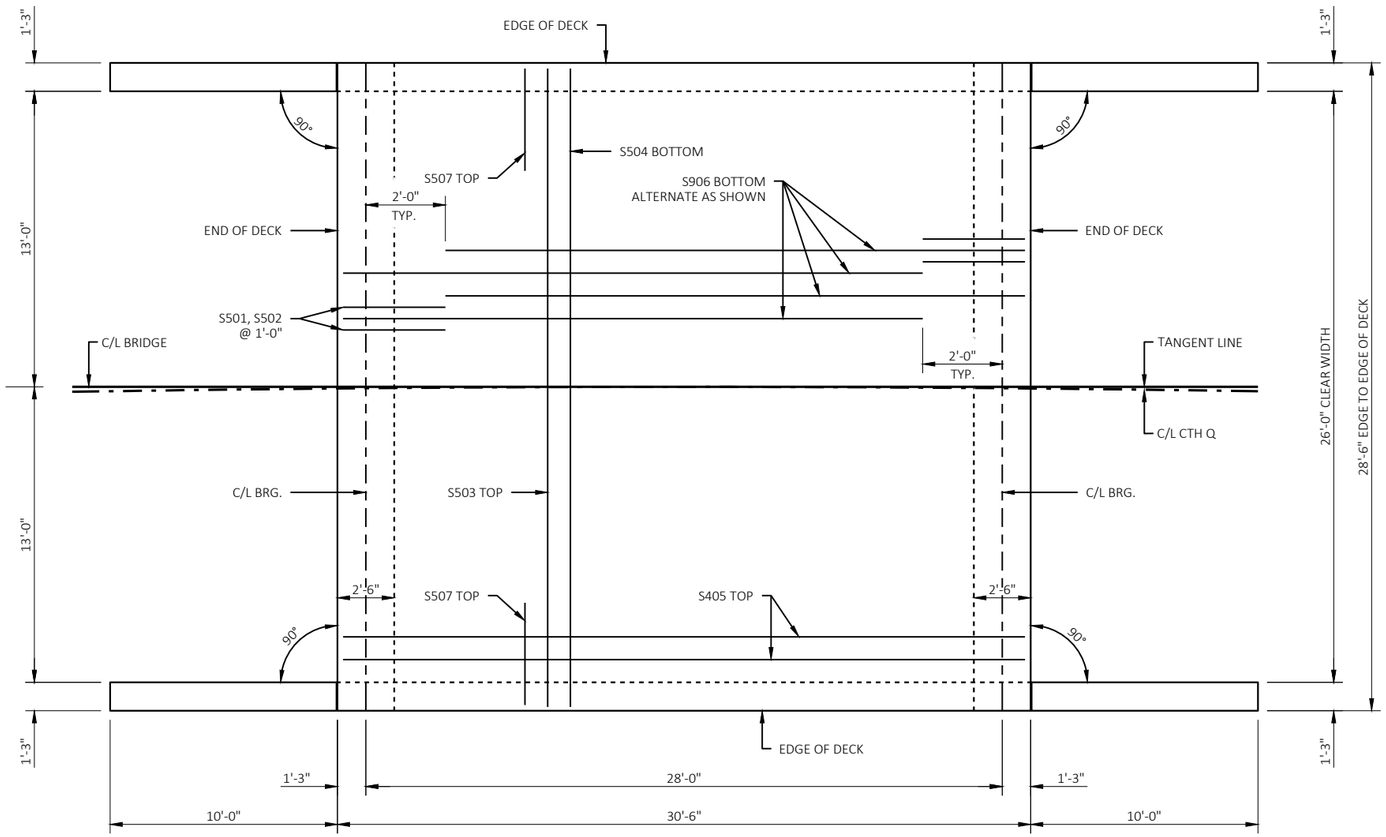
8

8

STATE PROJECT NUMBER
8925-03-71



PARTIAL LONGITUDINAL SECTION



PLAN

GENERAL NOTES

* DIMENSIONS MEASURED ALONG C/L OF BRIDGE

** DIMENSIONS MEASURED NORMAL TO C/L OF SUBSTRUCTURE

LEGEND

A01	18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
A02	KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2 X 6.
A03	BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-17-0232

DRAWN BY NJT | PLANS CK'D. TLP

SUPERSTRUCTURE DETAILS

SHEET 8 OF 9

53

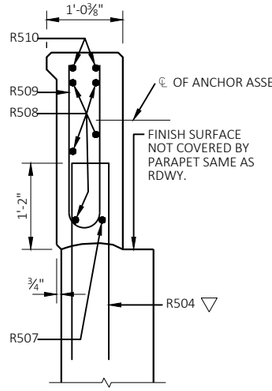
SCALE = 1:1

8

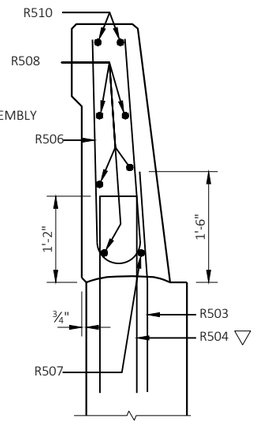
8

STATE PROJECT NUMBER

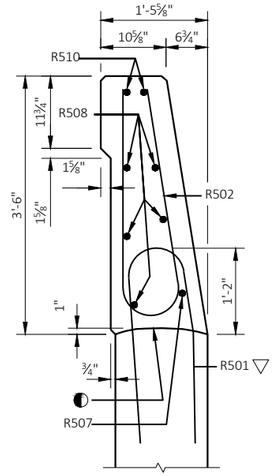
8925-03-71



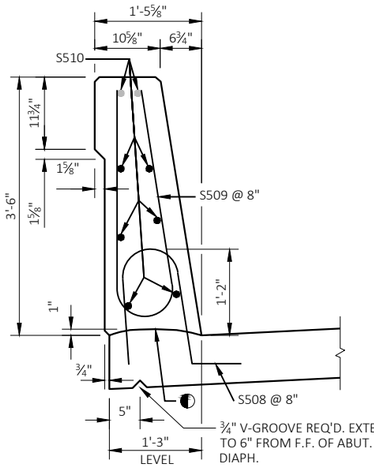
SECTION A-A



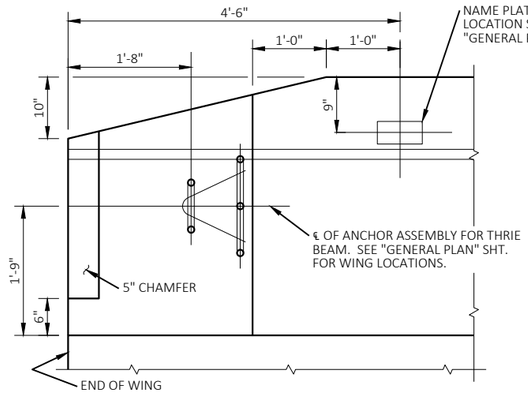
SECTION B-B



SECTION C-C



SECTION THRU PARAPET ON DECK



PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET

BILL OF BARS

FOR ABUTMENT PAPAPETS , WEIGHT INCLUDED IN SUPERSTRUCTURE TABLE

BAR MARK	COAT	E. ABUT.	W. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	6	6	5-10	X		PARAPET VERTICAL
R502	X	6	6	6-8	X		PARAPET VERTICAL
R503	X	22	22	3-0	X		PARAPET VERTICAL
R504	X	34	34	5-7	X		PARAPET VERTICAL
R505	X	10	10	6-5	X		PARAPET VERTICAL
R506	X	12	12	6-6	X		PARAPET VERTICAL
R507	X	2	2	9-6	X		PARAPET HORIZONTAL
R508	X	10	10	9-8			PARAPET HORIZONTAL
R509	X	12	12	5-5	X	⊠	PARAPET VERTICAL
R510	X	4	4	9-8	X		PARAPET HORIZONTAL

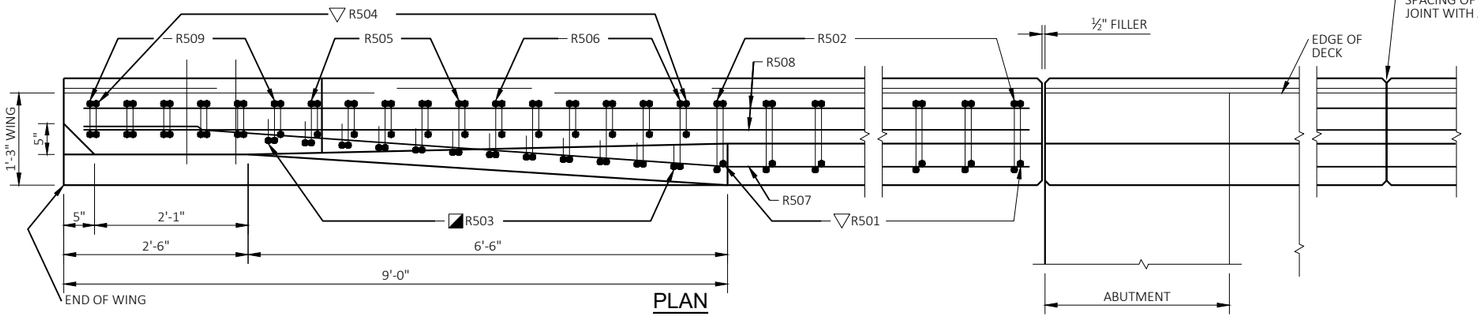
NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

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

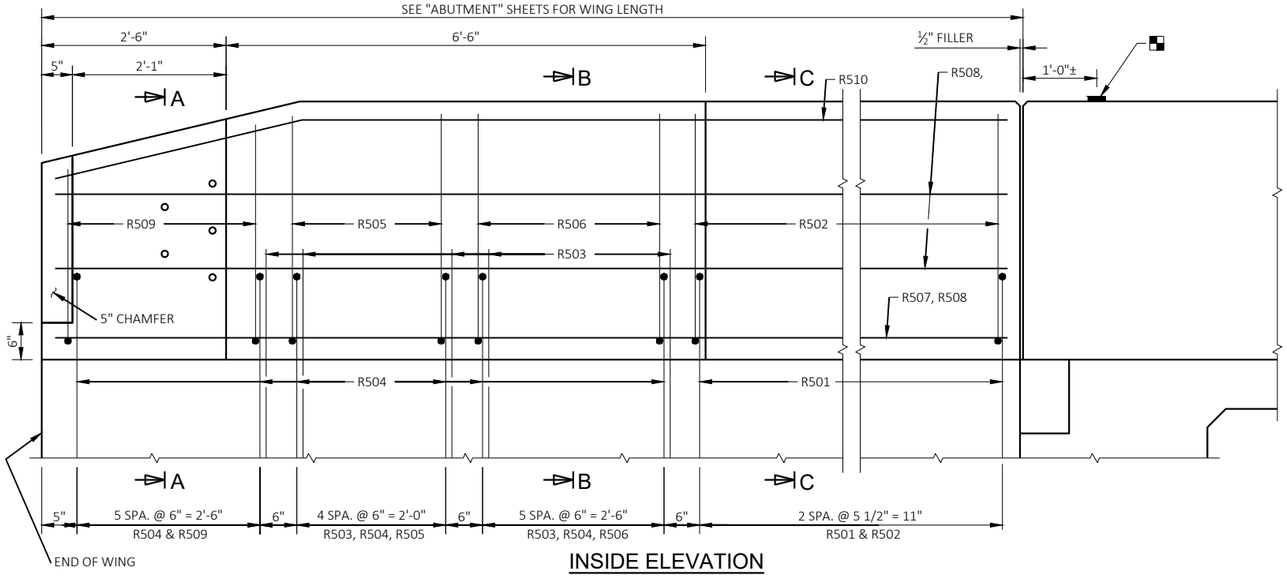
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY

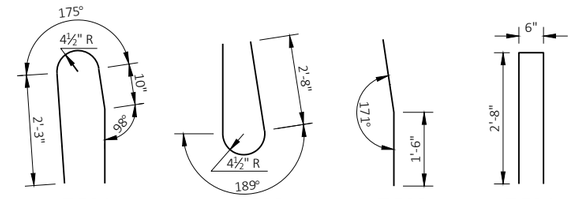
BAR MARK	NO. REQUIRED	LENGTH
R509	4 SERIES OF 6	4-9 TO 6-1

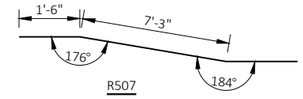


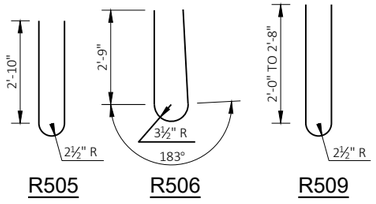
PLAN



INSIDE ELEVATION





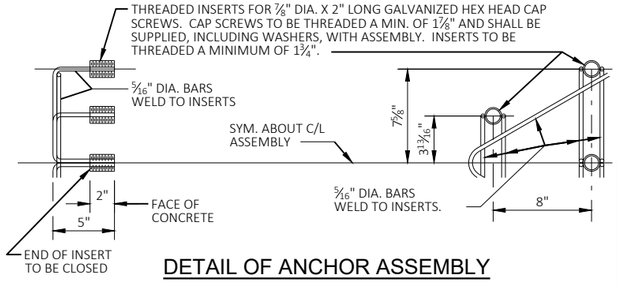


▣ BENCH MARK CAP (WHEN SUPPLIED). AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.

◐ CONST. JOINT - STRIKE OFF AS SHOWN

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING 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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-17-0232

DRAWN BY NJT | PLANS CK'D. TLP

SINGLE SLOPED PARAPET 42 SS

SHEET 9 OF 9

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SCALE = 1:1

8

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DIVISION 1 - CTH Q PROPOSED

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
									1.00	1.35	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8
08+32	832.00	0.00	42.63	9.00	2.97	0	0	0	0	0	0
08+50	850.00	18.00	41.06	9.00	15.92	28	6	6	28	8	14
09+00	900.00	50.00	41.01	9.00	6.14	76	17	20	104	35	46
09+50	950.00	50.00	38.29	9.00	0.12	73	17	6	177	43	94
09+74	974.00	24.00	24.11	9.00	16.15	28	8	7	205	53	104
09+75	975.00	1.00	23.81	9.00	17.14	1	0	1	206	54	104
10+25	1025.00	50.00	27.39	9.00	3.08	0	0	0	206	54	104
10+26	1026.00	1.00	27.44	9.00	15.83	1	0	0	207	54	105
10+50	1050.00	24.00	29.70	9.00	4.76	25	8	9	232	66	110
11+00	1100.00	50.00	34.92	9.00	2.98	60	17	7	292	76	143
11+50	1150.00	50.00	39.97	9.00	1.68	69	17	4	361	81	190
12+00	1200.00	50.00	41.35	9.00	0.45	75	17	2	436	84	245
12+50	1250.00	50.00	43.57	9.00	0.00	79	17	0	515	84	307
				COLUMN TOTALS		515	124	62			

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) EBS EXCAVATION TO BE BACKFILLED WITH BASE AGGREGATE DENSE 1 1/4-INCH.

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL

(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL

(13) EXPANDED FILL FACTOR = 1.35

DEPENDING ON SELECTIONS: EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH - REDUCED EBS) * FILL FACTOR

OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED EBS) * FILL FACTOR

OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH) * FILL FACTOR

OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK) * FILL FACTOR

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

(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

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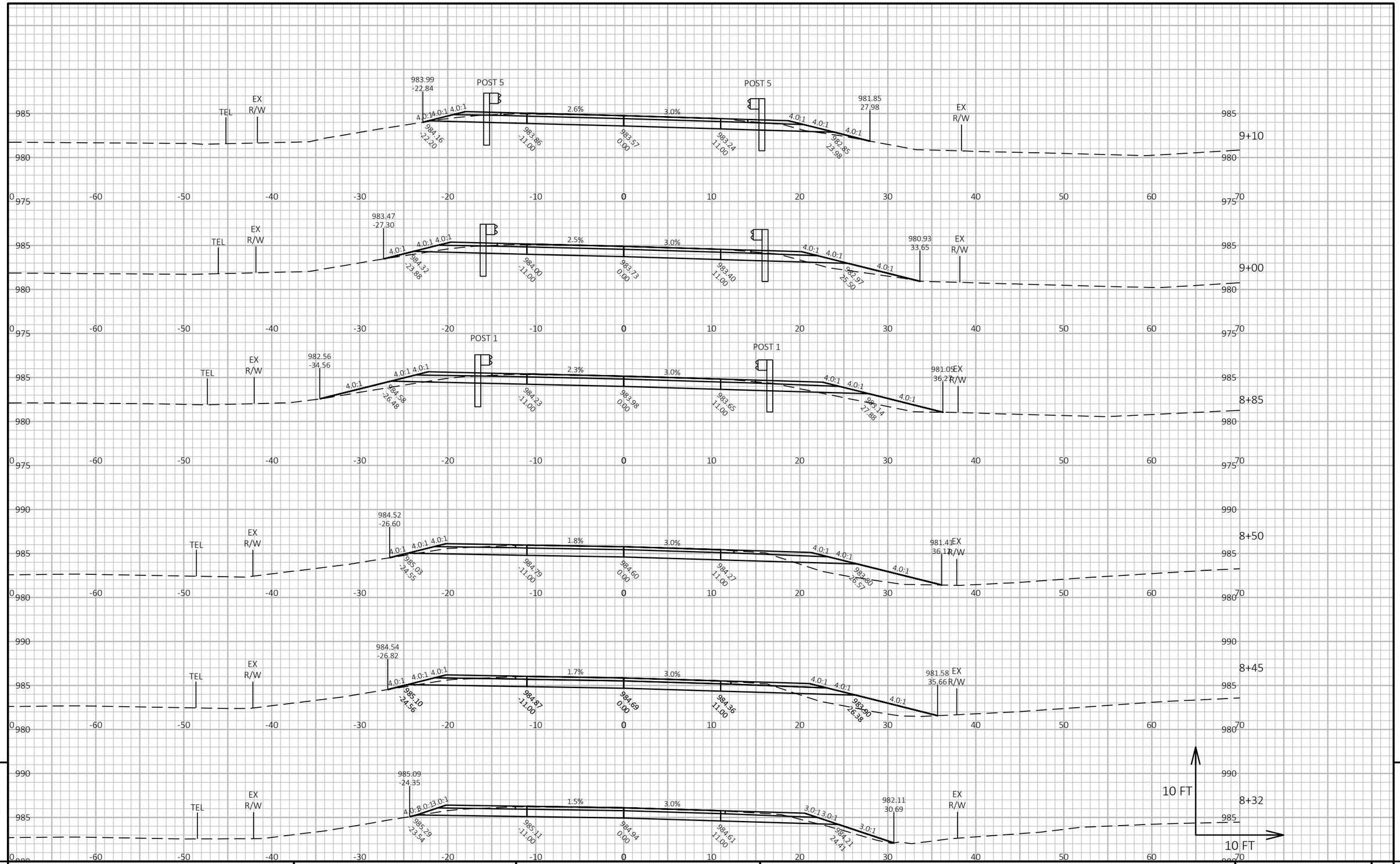
PROJECT NO: 8925-03-71	HWY: CTH Q	COUNTY: DUNN	EARTHWORK: CTH Q	SHEET 55	E

FILE NAME : I:\CLIENTS-MENO\W\W3900 WDOT NW REGION - EAU CLAIRE\023 8925-03-01 KNAPP - DOWNING WILSON CREEK BRIDGE B-17-0232 CTH Q DUNN COUNTY\89250301\SHEETSPLAN\09010EW.DWG LAYOUT NAME - 01 LAST SAVED : 7/14/2021 2:21 PM PLOT BY : MIKE LAPEAN PLOT NAME : PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 42



PROJECT NO: 8925-03-71	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 56 E

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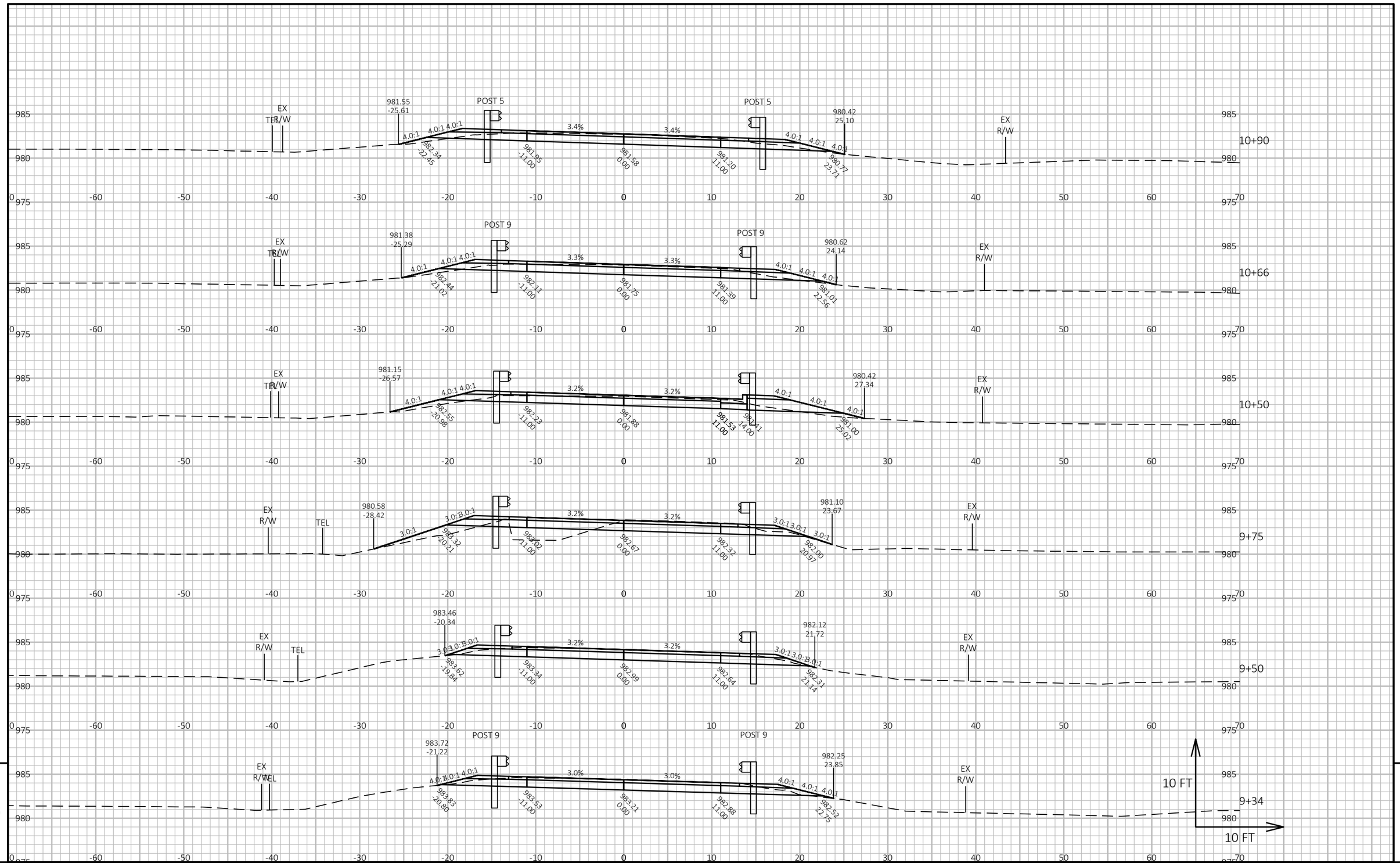
LAYOUT NAME - XS-1
LAST SAVE : 7/13/2021 6:43 PM
PLOT BY : MIKE LAPEAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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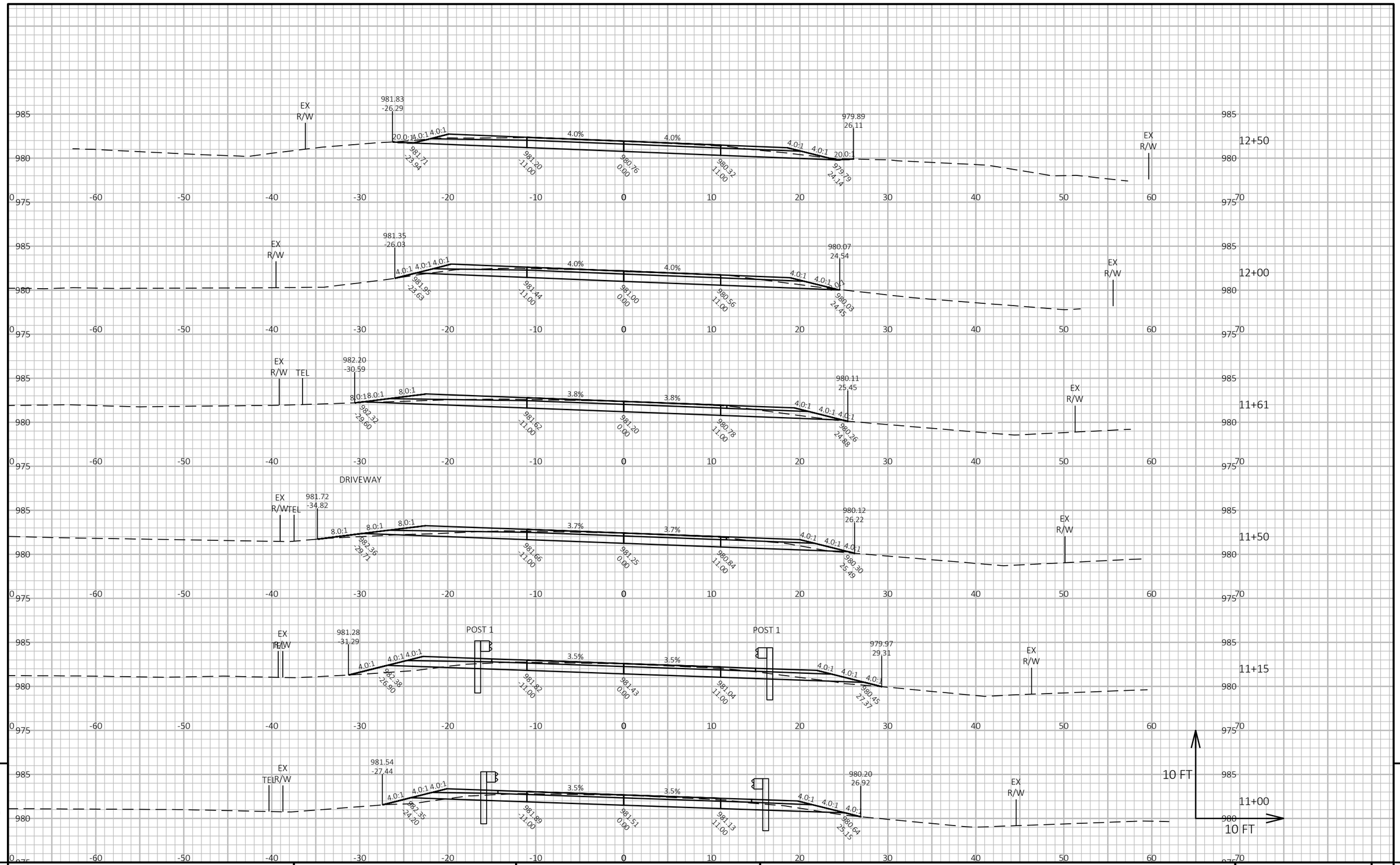
PROJECT NO: 8925-03-71	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 57	E

FILE NAME : I:\CLIENTS-MENO\W\W3900 WDOT NW REGION - EAU CLAIRE\023 8925-03-01 KNAPP - DOWNING WILSON CREEK BRIDGE B-17-0232 CTH Q DUNN COUNTY\89250301\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - XS-2
LAST SAVE : 7/13/2021 6:43 PM
PLOT BY : MIKE LAPEAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 8925-03-71	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 58	E

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LAYOUT NAME - xs-3
LAST SAVE : 7/13/2021 6:43 PM
PLOT BY : MIKE LAPEAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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