WIS | MARCH 2019

PROJECT ID: 6597-00-70

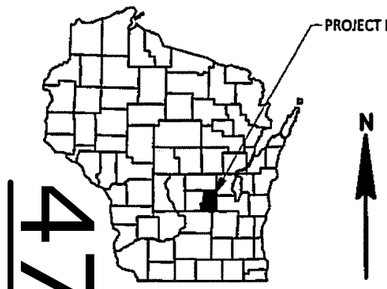
WITH: N/A

COUNTY: GREEN LAKE

ORDER OF SHEETS

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

TOTAL SHEETS = 44



47

DESIGN DESIGNATION

A.A.D.T.	2019	=	84
A.A.D.T.	2039	=	93
D.H.V.		=	134
D.D.		=	60/40
T.		=	7.7%
DESIGN SPEED		=	60 MPH
ESALS		=	7300

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE			
SLOPE INTERCEPT		CULVERT (Profile View)	
REFERENCE LINE	SCALE	UTILITIES	
EXISTING CULVERT		ELECTRIC	E
PROPOSED CULVERT (Box or Pipe)		FIBER OPTIC	FO
COMBUSTIBLE FLUIDS	CAUTION	GAS	G
		SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CTH A - CTH Q

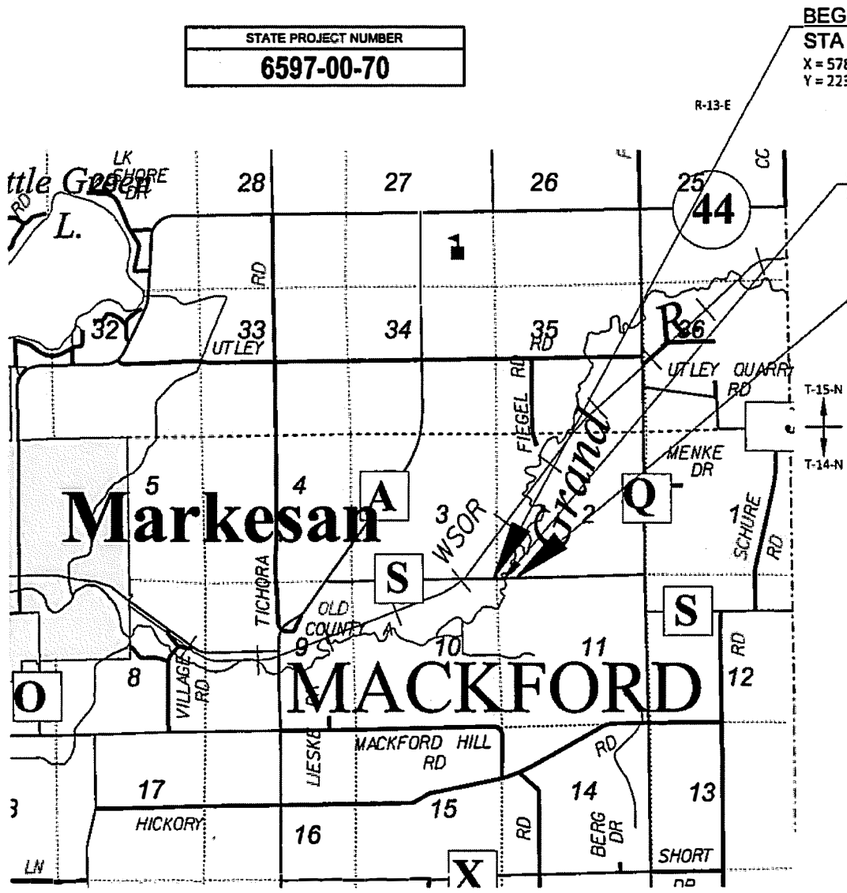
GRAND RIVER BRIDGE B-24-0044

CTH S

GREEN LAKE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
PROJECT ID		
6597-00-70		

STATE PROJECT NUMBER
6597-00-70



LAYOUT

SCALE 0 — 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.057 MI

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

ELEVATIONS SHOWN ON THE PLANS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (2012).

ACCEPTED FOR GREEN LAKE COUNTY

DATE: 10-31-18 Tyrone Z [illegible] (Signature)

Highway Commissioner (Title of Official)

ORIGINAL PLANS PREPARED BY

CORRE ENGINEERING
175 E. WISCONSIN AVE
SUITE 27
OCONOMOWOC, WI 53066
(608)828-1011
www.correinc.com

WISCONSIN PROFESSIONAL ENGINEER
ERIC T. PRICE
E-38027
MADISON
WI

DATE: 10/9/18 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CORRE, INC.
Designer	CORRE, INC.
Manager Consultant	CEDAR CORPORATION

APPROVED FOR THE DEPARTMENT

DATE: 11-1-2018 [illegible] (Management Consultant Signature)

E

GENERAL NOTES

BEARINGS SHOWN ON THE PLANS ARE GRID/GROUND/PROJECT BEARINGS TO THE NEAREST SECOND.

BEARINGS SHOWN ON THE PLAN ARE REFERENCED TO THE EXISTING ROADWAY CENTERLINE AND ARE ASSUMED.

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

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

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

SILT FENCE IS TO BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IN PLACE PRIOR TO BRIDGE REMOVAL. THE EXACT LOCATION OF OTHER EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOILED, FERTILIZED, AND SEEDED AND EROSION MATTED

ALL PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING PAVEMENT AT REMOVAL LIMITS.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON OR ROCK EXCAVATION.

3-INCH PAVEMENT TO BE PLACED IN TWO 1.5-INCH LAYERS

UTILITY CONTACTS

* ELECTRICITY-TRANSMISSION

ATC MANAGEMENT, INC.
MIKE OLSEN
801 O'KEEFE RD
P.O. BOX 6113
DE PERE, WI 54115-6113
PHONE: (920) 338-6582
EMAIL: MOLSEN@ATCLLC.COM

* ELECTRIC

ALLIANT ENERGY
DONNA HILBERT
PHONE: (920) 748-4013
EMAIL: DONNAHILBERT@ALLIANTENERGY.COM

* COMMUNICATION

CENTURYLINK
TIM KROEZE
PHONE: (920) 219-0112
EMAIL: TIM.KROEZE@CENTURYLINK.COM

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 0.38 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.35 ACRES

* DENOTES DIGGERS HOTLINE MEMBER

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

CONSULTANT CONTACT

CORRE, INC.
175 E. WISCONSIN AVE.
SUITE 27
OCONOMOWOC, WI 53066

JESSICA LEWIS, P.E.
(608)-828-1011
JLEWIS@CORREINC.COM

DNR CONTACT

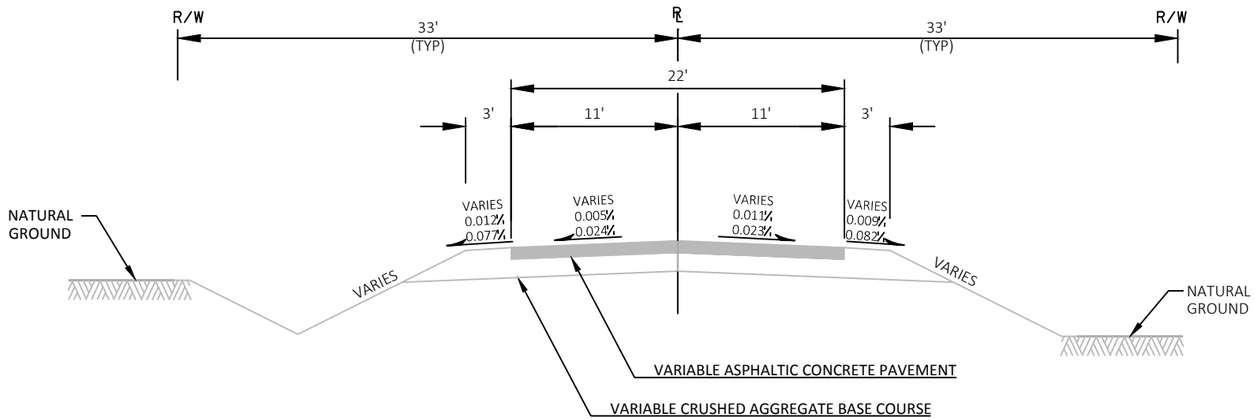
DEPARTMENT OF NATURAL RESOURCES
DNR NORTHEAST REGIONAL HQ
2984 SHAWNO AVE.
GREEN BAY, WI 54313

JAY SCHIEFELBEIN
(920) 360-3784
JEREMIAH.SCHIEFELBEING@WI.GOV

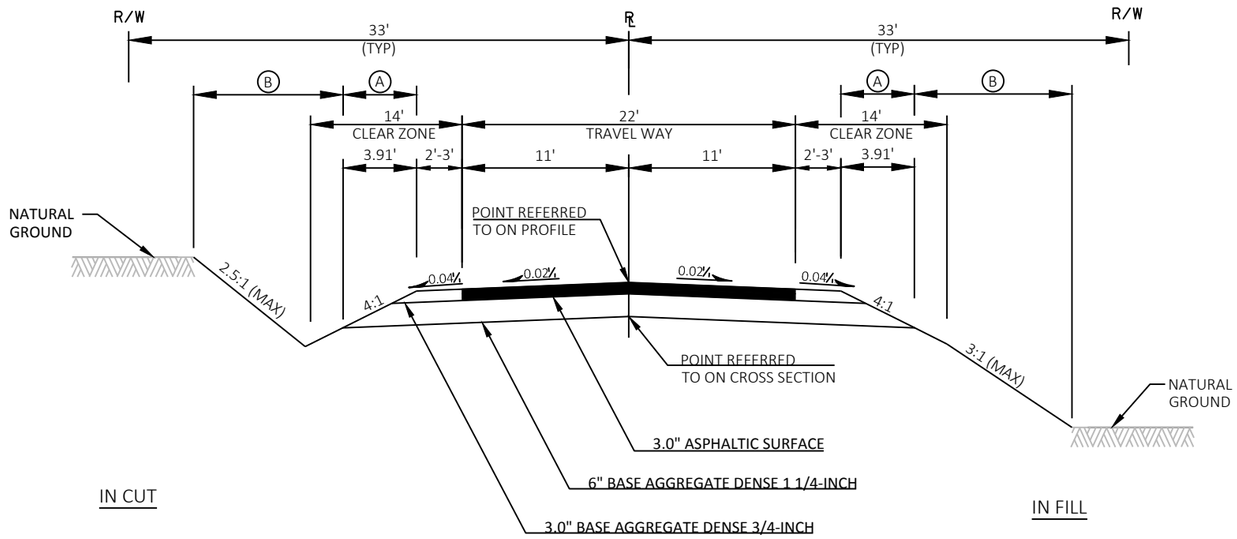
SPONSOR CONTACT

GREEN LAKE COUNTY HIGHWAY DEPT.
570 SOUTH STREET
PO BOX 159
GREEN LAKE, WI 54941

TYRONE JOHNSON
(920) 294-4065
TJOHNSON@CO.GREEN-LAKE.WI.US



TYPICAL EXISTING SECTION
CTH S
STA 8+50.00 - STA 11+50.00



TYPICAL FINISHED SECTION
CTH S
STA 8+50.00 - STA 9+80.00
STA 10+20.00 - STA 11+50.00

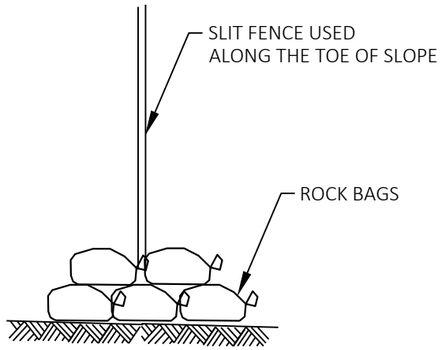
(A) FERTILIZER TYPE B; SEEDING MIXTURE NO. 60; SEEDING TEMPORARY

(B) SALVAGED TOPSOIL;FERTILIZER TYPE B; SEEDING MIXTURE NO. 60; SEEDING TEMPORARY

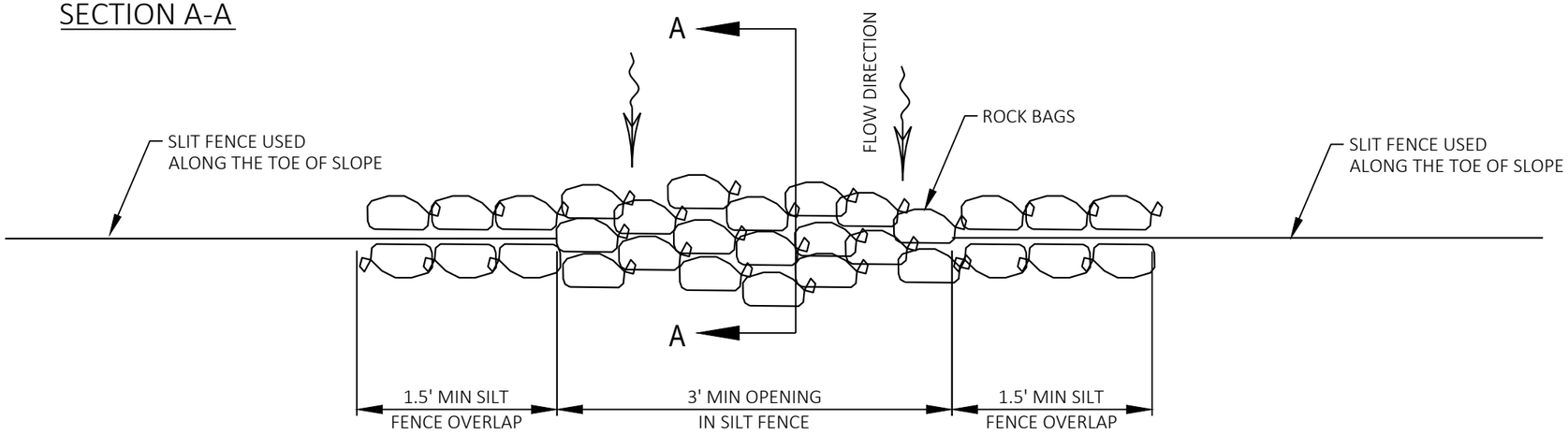
INSTALL EROSION MAT CLASS I TYPE B ON ALL SLOPES.

PROJECT NO: 6597-00-70	HWY: CTH S	COUNTY: GREEN LAKE	PLAN: TYPICAL SECTION	SHEET 3	E

2



SECTION A-A



SILT FENCE CONSTRUCTION DETAIL

PAID AS ROCK BAGS

2

2

LEGEND

- (A) MARKING LINE EPOXY 4-INCH (WHITE)
- (B) MARKING LINE EPOXY 4-INCH (YELLOW) DASH 37.5' 12.5' LINE

N

W5-52L 12"X36"
REMOVE
1
1R
GRAND RIVER
REMOVE
W5-52R 12"X36"
2R
2

A
B

7+00
8+00
CTH S
9+00
10+00
11+00
CTH S
12+00
13+00

BEGIN PROJECT
STA 8+50

BEGIN PROJECT
STA 11+50

4
4R
W5-52R 12"X36"
REMOVE
3R
3
REMOVE
W5-52L 12"X36"

PROJECT NO: 6597-00-70	HWY: CTH S	COUNTY: GREEN LAKE	PERMANENT SIGNING AND MARKING	SHEET 5	E

FILE NAME : I:\WI - NC REGION\6597-00-00_CTH S_GREEN LAKE CO\500_CADD\501_C3D_2016\65970000\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024501-pm
PLOT DATE : 9/25/2018 5:14 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : ##########

6597-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	203.0500.S	Removing Old Structure Over Waterway (station) 01. 10+00	LS	1.000	1.000
0004	205.0100	Excavation Common	CY	167.000	167.000
0006	206.1000	Excavation for Structures Bridges (structure) 01. B-24-44	LS	1.000	1.000
0008	206.5000	Cofferdams (structure) 01. B-24-44	LS	1.000	1.000
0010	208.0100	Borrow	CY	309.000	309.000
0012	210.1500	Backfill Structure Type A	TON	240.000	240.000
0014	213.0100	Finishing Roadway (project) 01. 6597-00-70	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	26.000	26.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	298.000	298.000
0020	455.0605	Tack Coat	GAL	88.000	88.000
0022	465.0105	Asphaltic Surface	TON	110.000	110.000
0024	502.0100	Concrete Masonry Bridges	CY	105.000	105.000
0026	502.3200	Protective Surface Treatment	SY	132.000	132.000
0028	502.3210	Pigmented Surface Sealer	SY	62.000	62.000
0030	505.0400	Bar Steel Reinforcement HS Structures	LB	3,620.000	3,620.000
0032	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	9,130.000	9,130.000
0034	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	14.000	14.000
0036	516.0500	Rubberized Membrane Waterproofing	SY	18.000	18.000
0038	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	600.000	600.000
0040	606.0300	Riprap Heavy	CY	130.000	130.000
0042	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	190.000	190.000
0044	618.0100	Maintenance And Repair of Haul Roads (project) 01. 6597-00-70	EACH	1.000	1.000
0046	619.1000	Mobilization	EACH	1.000	1.000
0048	624.0100	Water	MGAL	4.600	4.600
0050	625.0500	Salvaged Topsoil	SY	840.000	840.000
0052	628.1504	Silt Fence	LF	650.000	650.000
0054	628.1520	Silt Fence Maintenance	LF	650.000	650.000
0056	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0058	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0060	628.2004	Erosion Mat Class I Type B	SY	839.000	839.000
0062	628.6005	Turbidity Barriers	SY	157.000	157.000
0064	628.7570	Rock Bags	EACH	150.000	150.000
0066	629.0210	Fertilizer Type B	CWT	0.500	0.500
0068	630.0160	Seeding Mixture No. 60	LB	11.000	11.000
0070	630.0200	Seeding Temporary	LB	23.000	23.000
0072	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0074	637.2230	Signs Type II Reflective F	SF	12.000	12.000

6597-00-70

Line	Item	Item Description	Unit	Total	Qty
0076	638.2602	Removing Signs Type II	EACH	4.000	4.000
0078	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0080	642.5201	Field Office Type C	EACH	1.000	1.000
0082	643.0420	Traffic Control Barricades Type III	DAY	1,800.000	1,800.000
0084	643.0705	Traffic Control Warning Lights Type A	DAY	2,160.000	2,160.000
0086	643.0900	Traffic Control Signs	DAY	360.000	360.000
0088	643.5000	Traffic Control	EACH	1.000	1.000
0090	645.0111	Geotextile Type DF Schedule A	SY	54.000	54.000
0092	645.0120	Geotextile Type HR	SY	165.000	165.000
0094	646.1020	Marking Line Epoxy 4-Inch	LF	1,200.000	1,200.000
0096	650.4500	Construction Staking Subgrade	LF	260.000	260.000
0098	650.5000	Construction Staking Base	LF	260.000	260.000
0100	650.6500	Construction Staking Structure Layout (structure) 01. B-24-44	LS	1.000	1.000
0102	650.9910	Construction Staking Supplemental Control (project) 01. 6597-00-70	LS	1.000	1.000
0104	650.9920	Construction Staking Slope Stakes	LF	260.000	260.000
0106	690.0150	Sawing Asphalt	LF	44.000	44.000
0108	715.0502	Incentive Strength Concrete Structures	DOL	630.000	630.000
0110	SPV.0090	Special 01. Prestressed Girder Box Type 17-Inch	LF	285.000	285.000

Division	From/To Station	Location	205.0100 Common Excavation (1) Cut (2)	Salvaged/Unusable Pavement Material (3)	Available Material (4)	Unexpanded Fill	Expanded Fill (5) Factor 1.25	Mass Ordinate +/- (6)	Waste	208.0100 Borrow	Comment:
CTH S	8+50 to 9+80	West of Structure	89	23	66	106	132	-66	0	66	
	10+20 to 11+50	East of Structure	78	20	57	240	300	-243	0	243	
Total			167	44	123	346	432	-309	0	309	
Total Common Exc			167								

Notes:

(1) Item number 205.0100

(2) Salvaged/Unsuable Pavement Material is included in Cut.

(3) Salvaged/Unsuable Pavement Material

(4) Available Material = Cut - Salvaged/Unusuable Pavement Material

(5) Expanded Fill Factor = 1.25

Expanded Fill = (Unexpanded Fill) * Fill Factor

(6) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
CATEGORY CODE 0010			
8+50 - 9+80	Mainline	13	149
10+20 - 11+50	Mainline	13	149
	TOTALS:	**26**	**298**

ASPHALTIC ITEMS

STATION - STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
CATEGORY CODE 0010			
8+50 - 9+80	Mainline	44	55
10+20 - 11+50	Mainline	44	55
	TOTALS	**88**	**110**

WATER

LOCATION	624.0100 MGAL
CATEGORY CODE 0010	
BASE COMPACTION	4.6
TOTALS	**4.6**

3

LANDSCAPING ITEMS

STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0160 SEEDING MIXTURE NO. 60 LB	630.0200 SEEDING TEMPORARY LB
8+50	-	9+80	LT & RT	307	0.2	4	8
7+68	-	8+00	RT	365	0.2	5	10
UNDISTRIBUTED (25%)				168	0.1	2	5
			TOTALS:	**840**	**0.5**	**11**	**23**

SIGNING ITEMS

STATION	LOCATION	SIGN NUMBER	SIGN CODE	SIZE	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	SIGN MESSAGE
9+65	LT	1	W5-52L	12 X 36	1	3.00	BRIDGE HASH MARKS
9+69	RT	4	W5-52R	12 X 36	1	3.00	BRIDGE HASH MARKS
10+31	LT	2	W5-52L	12 X 36	1	3.00	BRIDGE HASH MARKS
10+34	RT	3	W5-52R	12 X 36	1	3.00	BRIDGE HASH MARKS
			TOTALS		**4**	**12**	

TRAFFIC CONTROL ITEMS

STATION	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.0900 SIGNS DAY
8+50	900	1,080	180
11+50	900	1,080	180
TOTALS	**1,800**	**2,160**	**360**

CONSTRUCTION STAKING ITEMS

STATION	-	STATION	LOCATION	650.4500 STAKING SUBGRADE LF	650.5000 STAKING BASE LF	650.6500* STRUCTURE LAYOUT LS	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF
CATEGORY CODE 0010								
8+50	-	9+80	MAINLINE	130	130	1	1	130
10+20	-	11+50	MAINLINE	130	130	---	---	130
			TOTALS	**260**	**260**	**1**	**1**	**260**

* ALL STAKING ITEMS PART OF CATERGORY CODE 0010 OTHER THAN 650.6500 WHICH IS CATEGORY 0020

EROSION CONTROL

STATION	TO	STATION	O/S	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EA	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EA	628.2004 EROSION MAT CLASS I TYPE B SY	628.6005 TURBIDITY BARRIERS SY	628.7570 ROCK BAGS EA
CATEGORY 0010										
8+50	-	9+80	MAINLINE	260	260	5	2	308	73	60
10+20	-	11+50	MAINLINE	260	260	--	--	363	52	60
UNDISTRIBUTED (25%)				130	130	1	1	168	31	30
			TOTALS:	**650**	**650**	**6**	**3**	**839**	**157**	**150**

REMOVING SIGN ITEMS

STATION	LOCATION	SIGN NUMBER	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SIGN MESSAGE
9+84	LT	1R	1	1	BRIDGE HASH MARKS
9+84	RT	4R	1	1	BRIDGE HASH MARKS
10+16	RT	3R	1	1	BRIDGE HASH MARKS
10+18	LT	2R	1	1	BRIDGE HASH MARKS
		TOTALS	**4**	**4**	

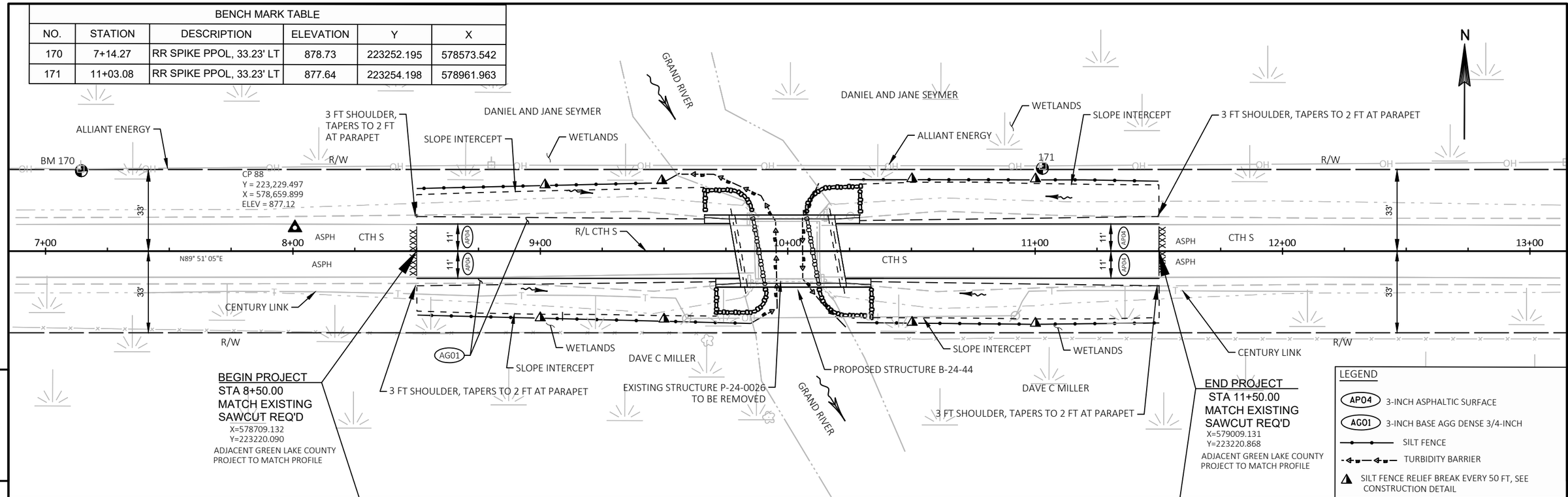
MARKING LINE EPOXY 4-INCH

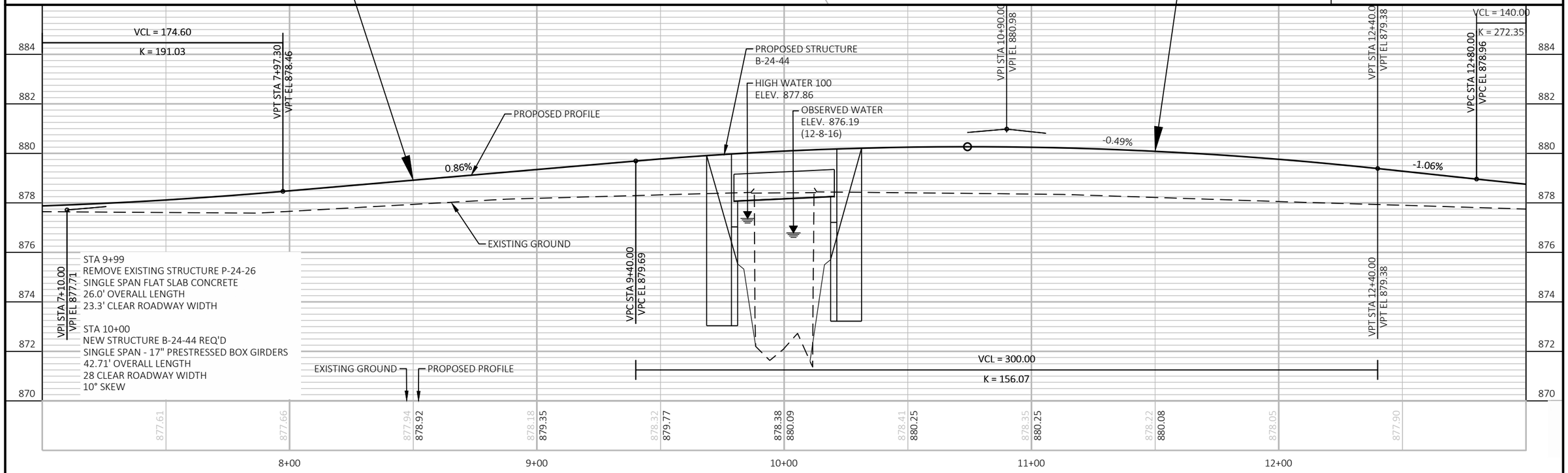
STATION	-	STATION	LOCATION	646.1020 (YELLOW) LF	646.1020 (WHITE) LF
8+50	-	11+50	MAINLINE	600	600
			TOTALS:	**1200**	

SAWING PAVEMENT ITEMS

STATION	LOCATION	690.0150 ASPHALT LF
CATEGORY CODE 0010		
8+50	Mainline	22
11+50	Mainline	22
	TOTALS	**44**

BENCH MARK TABLE					
NO.	STATION	DESCRIPTION	ELEVATION	Y	X
170	7+14.27	RR SPIKE PPOL, 33.23' LT	878.73	223252.195	578573.542
171	11+03.08	RR SPIKE PPOL, 33.23' LT	877.64	223254.198	578961.963

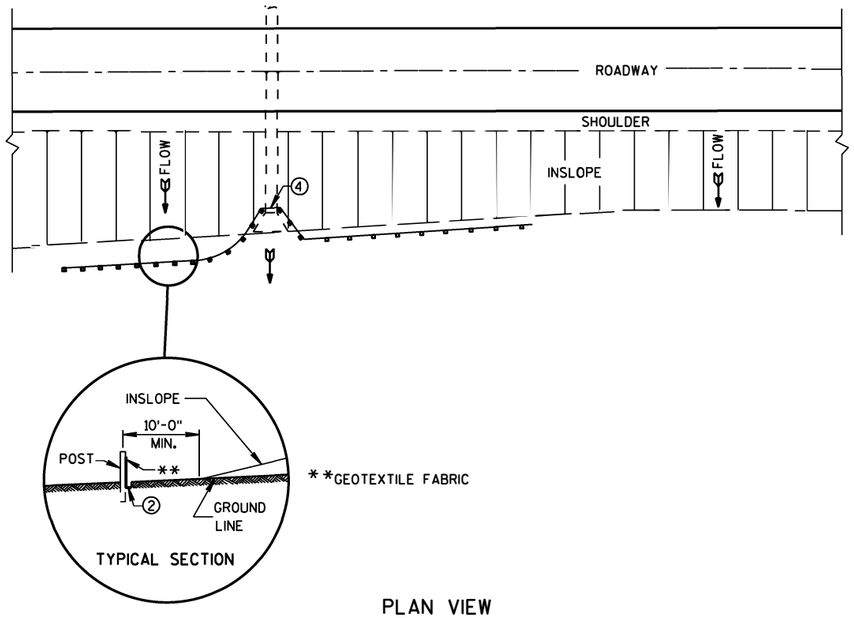




PROJECT NO: 6597-00-70	HWY: CTH S	COUNTY: GREEN LAKE	PLAN AND PROFILE: MAINLINE	SHEET 10	E

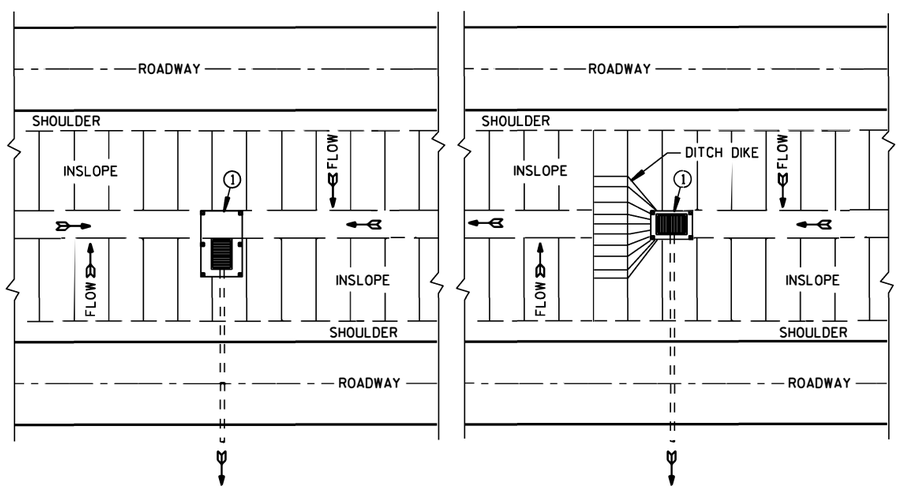
Standard Detail Drawing List

08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



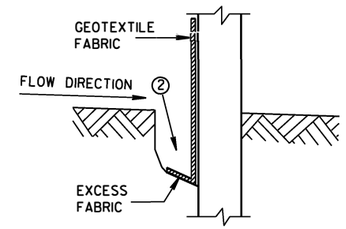
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

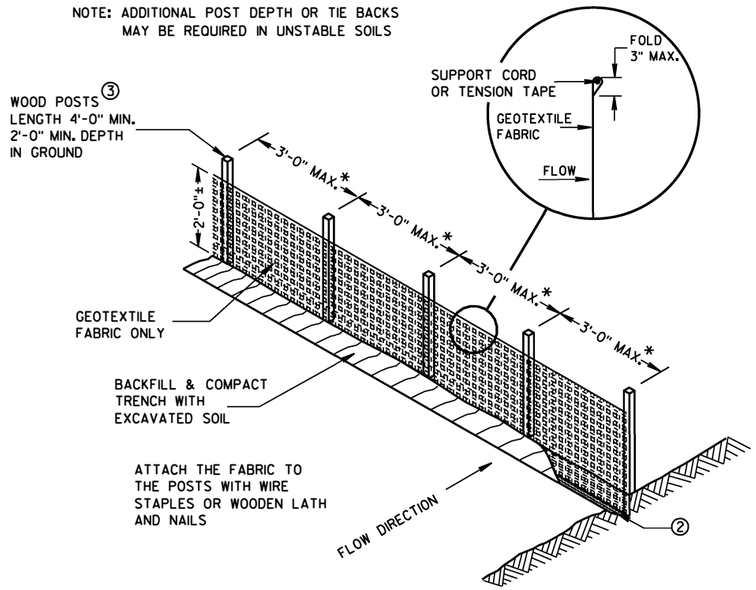
GENERAL NOTES

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

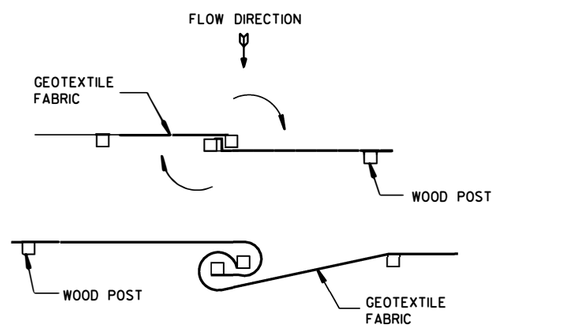
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



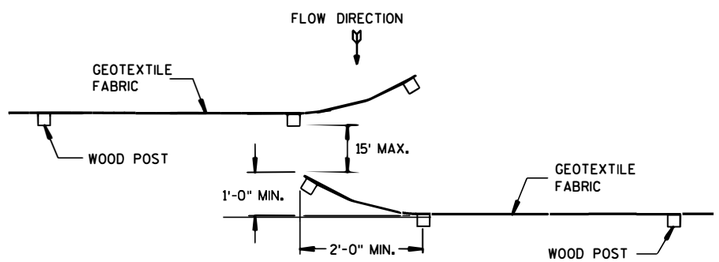
TRENCH DETAIL



SILT FENCE

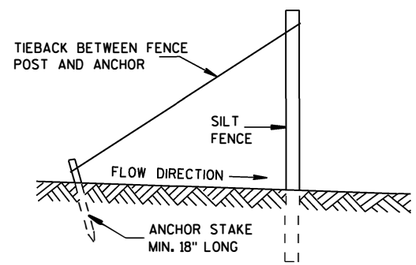


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

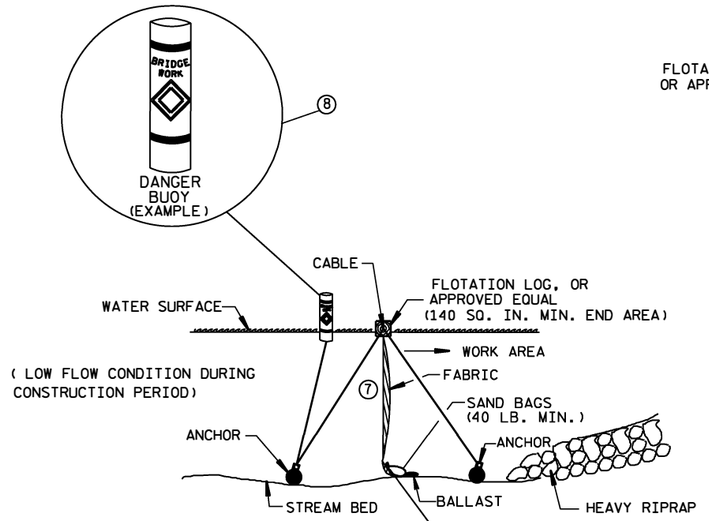
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

6

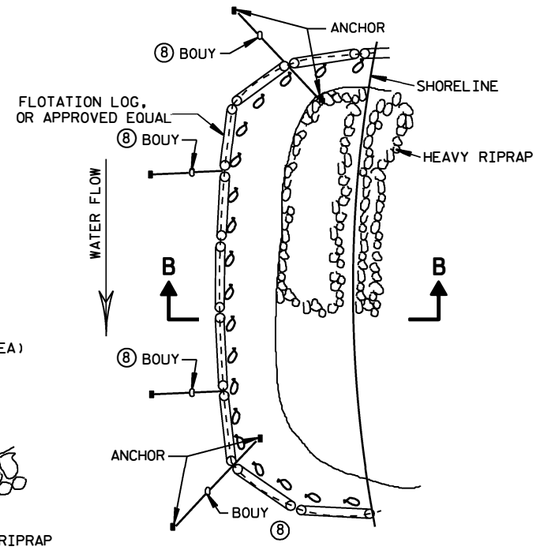
S.D.D. 8 E 9-6

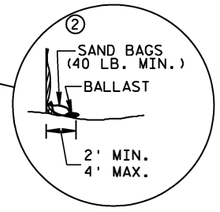
6

S.D.D. 8 E 9-6

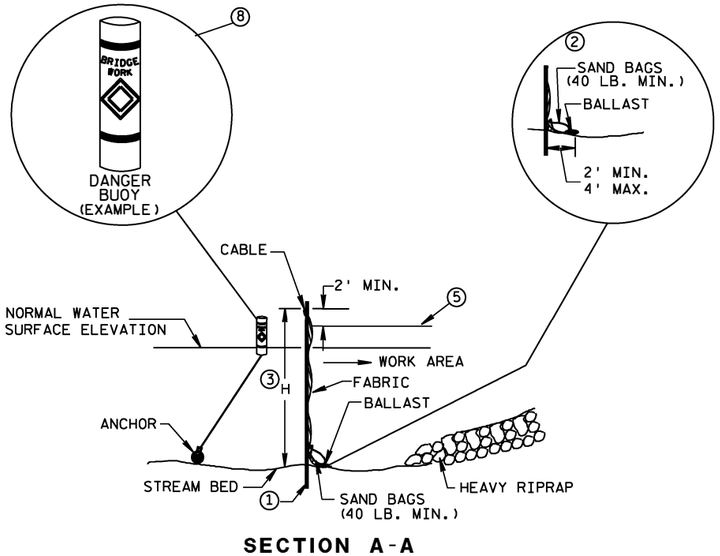


SECTION B-B

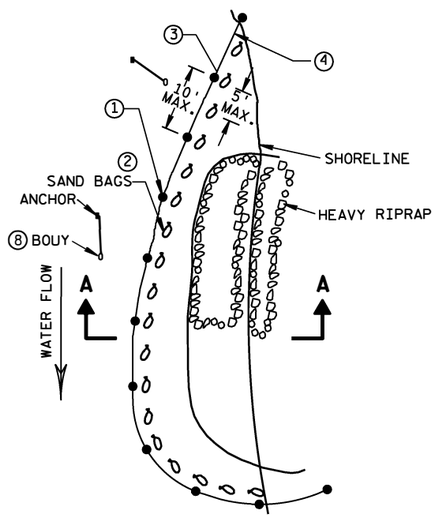




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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

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

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

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

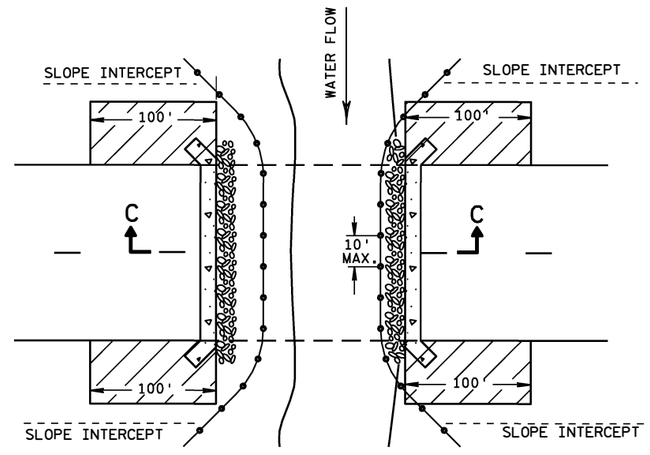
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

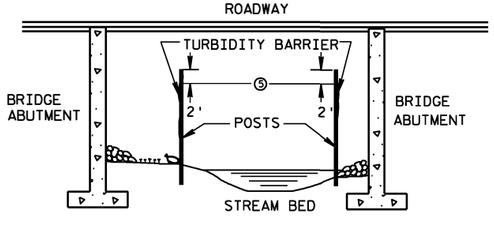
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

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

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



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

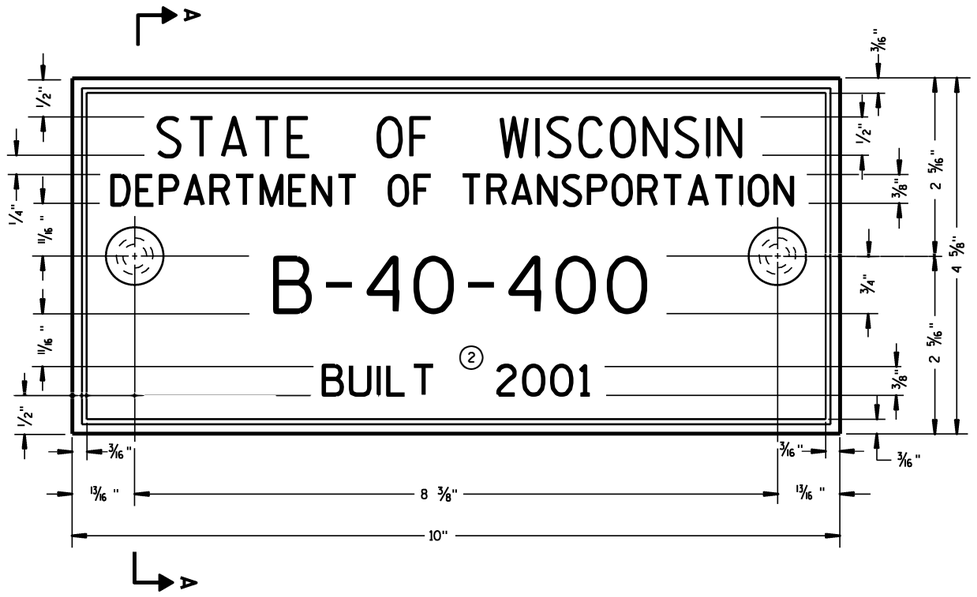
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

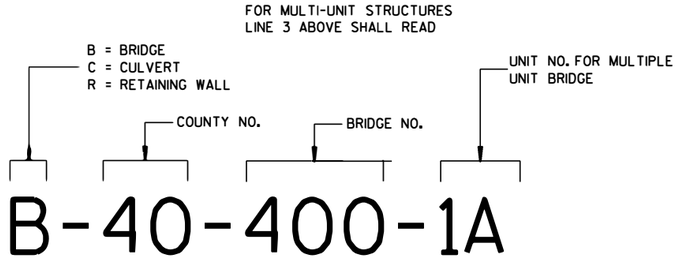
APPROVED
6/04/02 /S/ Beth Cannestra
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 11-2



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



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

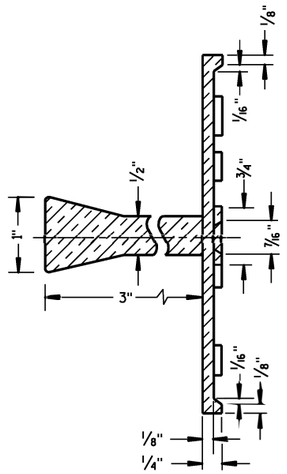
GENERAL NOTES

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

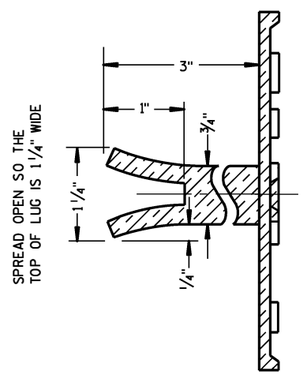
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

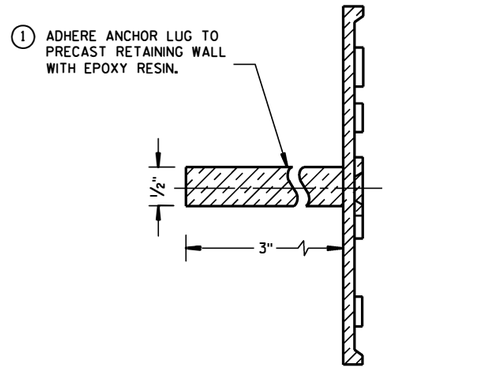
② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE — /S/ Scot Beck CHIEF STRUCTURAL DEVELOP — ENGR

FHWA

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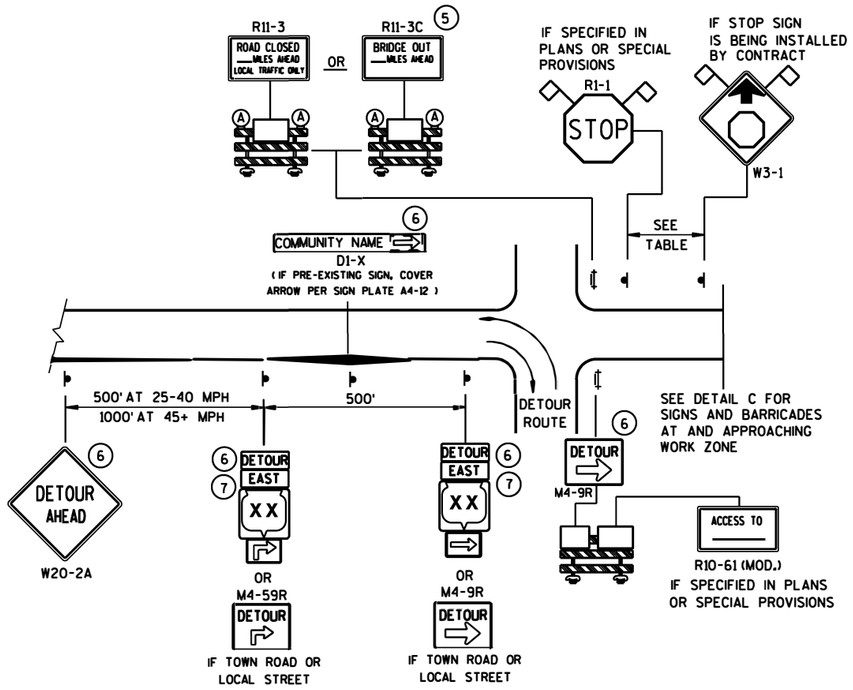
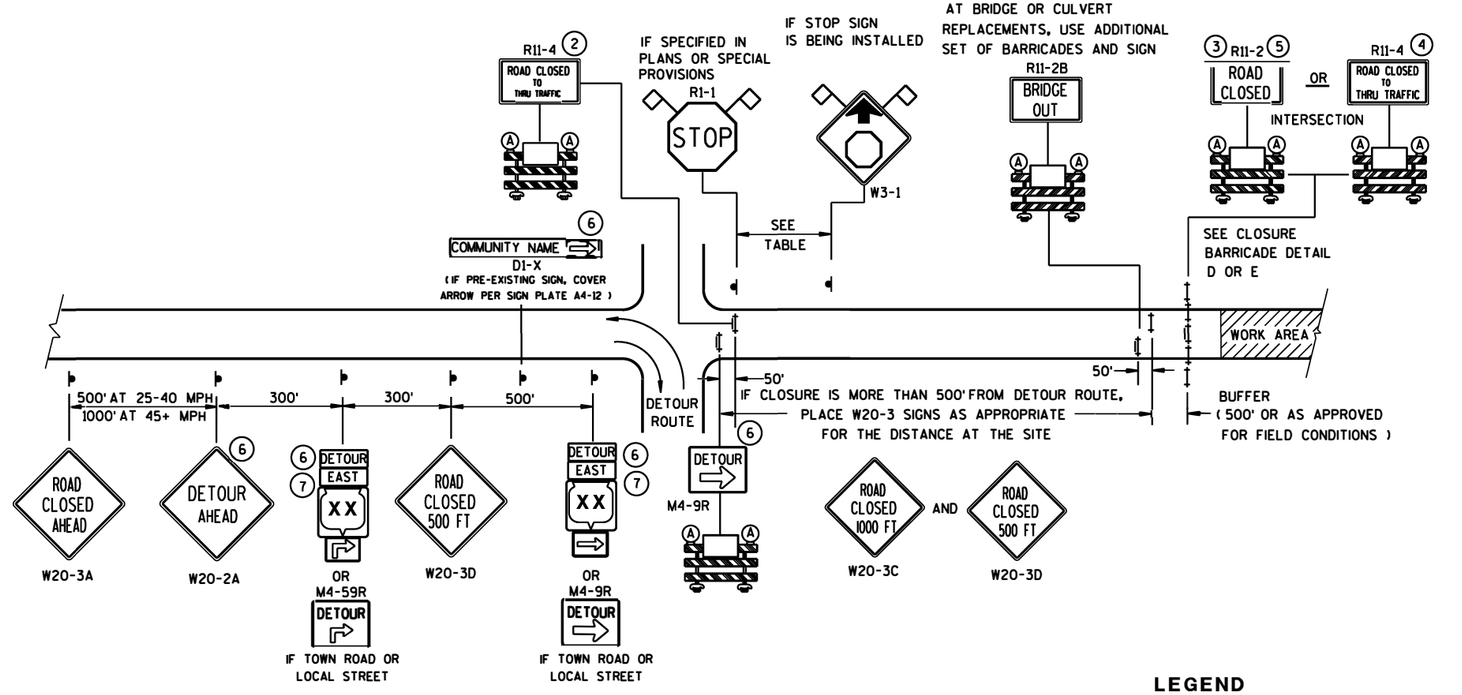
S.D.D. 12 A 3-10



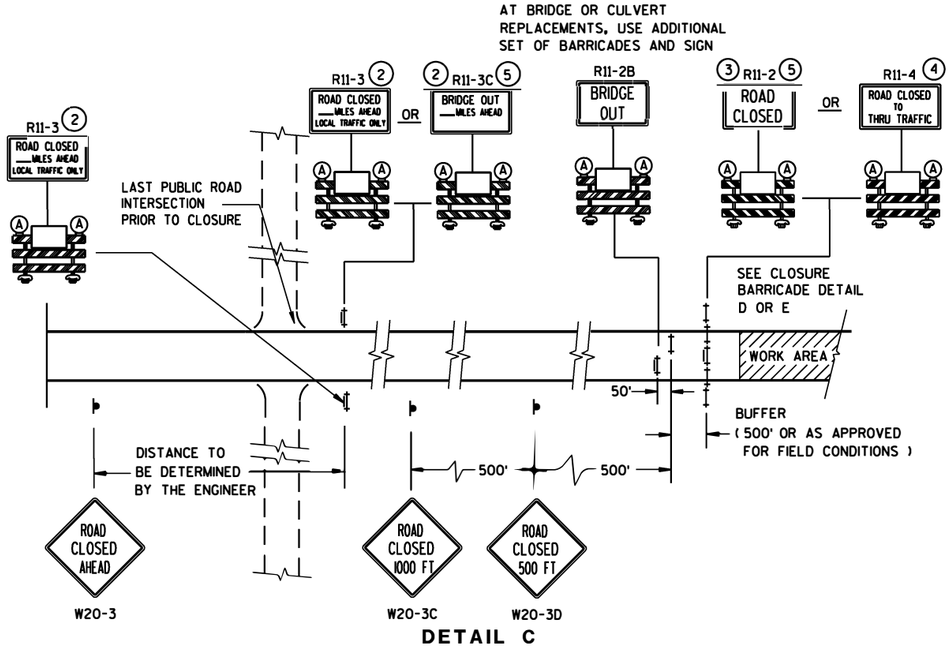
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN 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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

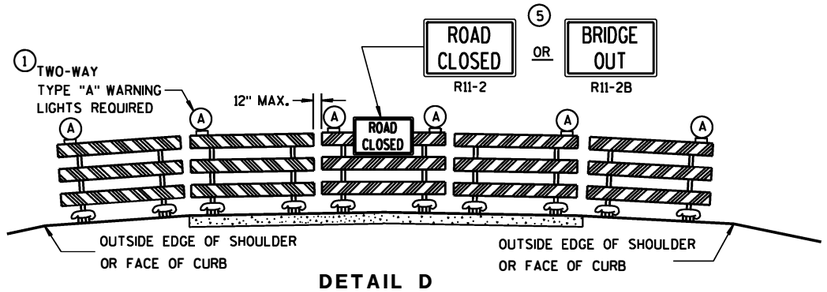
SEE SDD 15C2-SHEET "**b**" FOR GENERAL NOTES AND FOOTNOTES (1) THROUGH (7)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

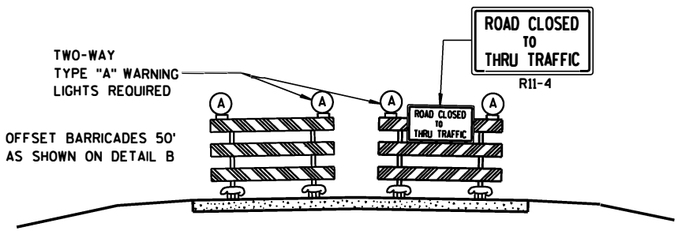
S.D.D. 15 C 2-6a



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 BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE 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, 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". (30" X 15" 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.)
- M05-1 AND M06-1 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 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 LANE 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 MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

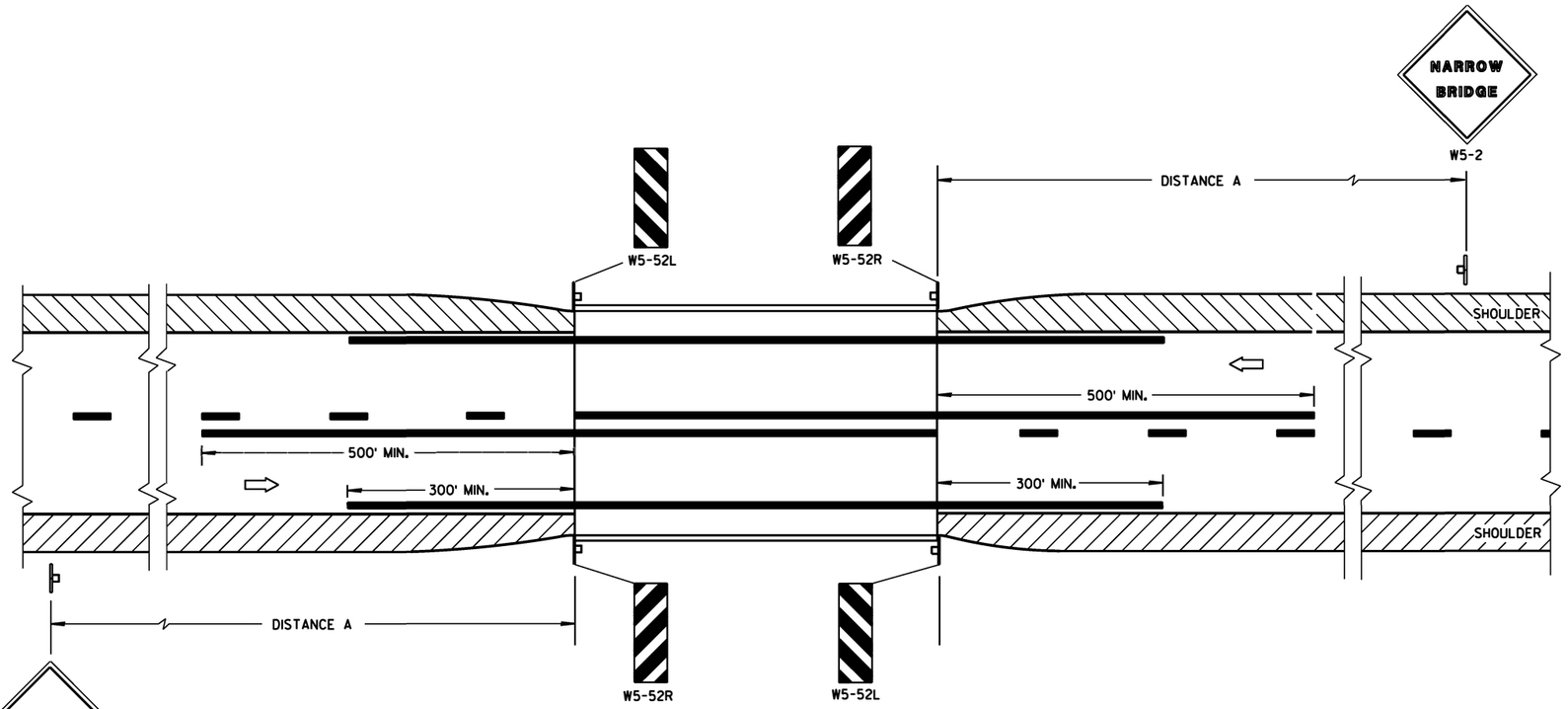
FHWA

6

S.D.D. 15 C 2-6b

6

S.D.D. 15 C 2-6b



SITUATION 1

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

DISTANCE TABLE

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

GENERAL NOTES

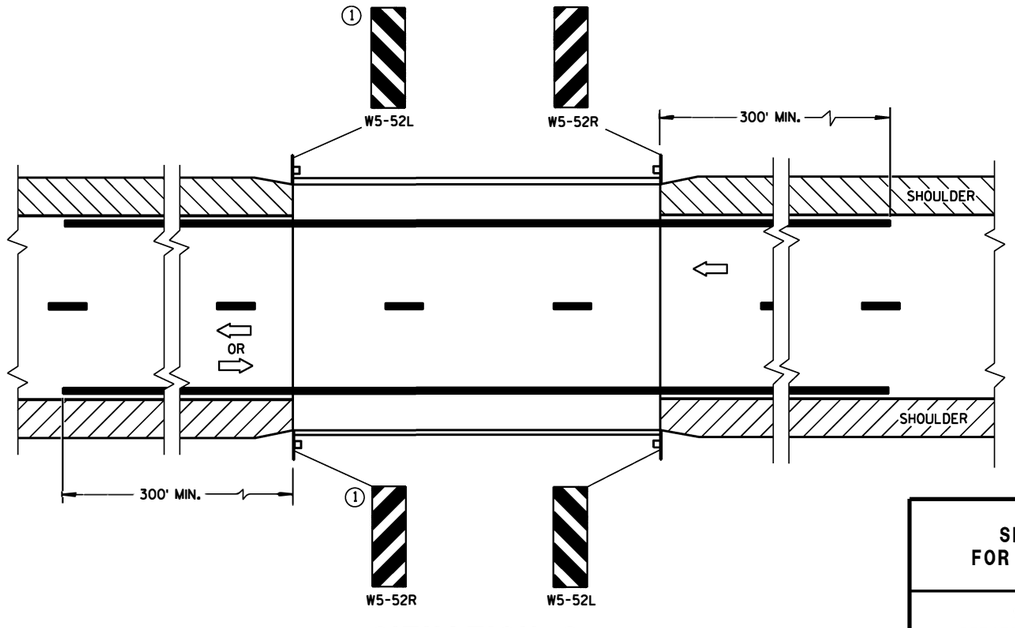
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

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

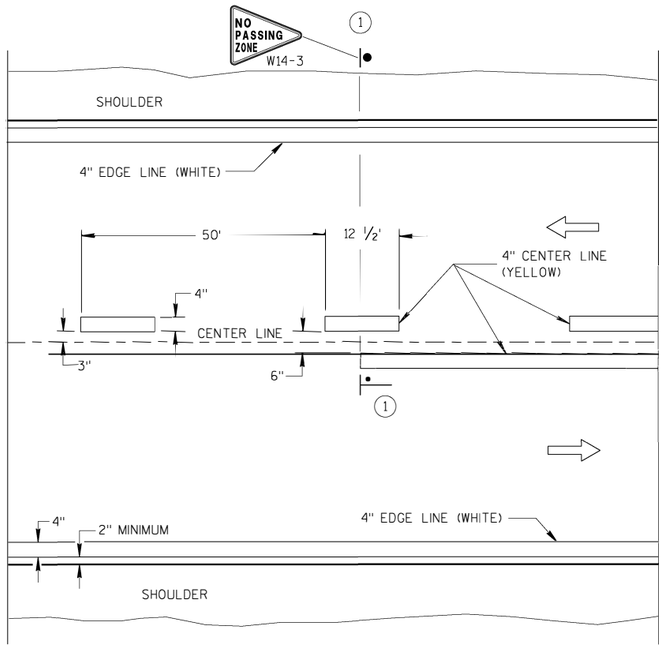
SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

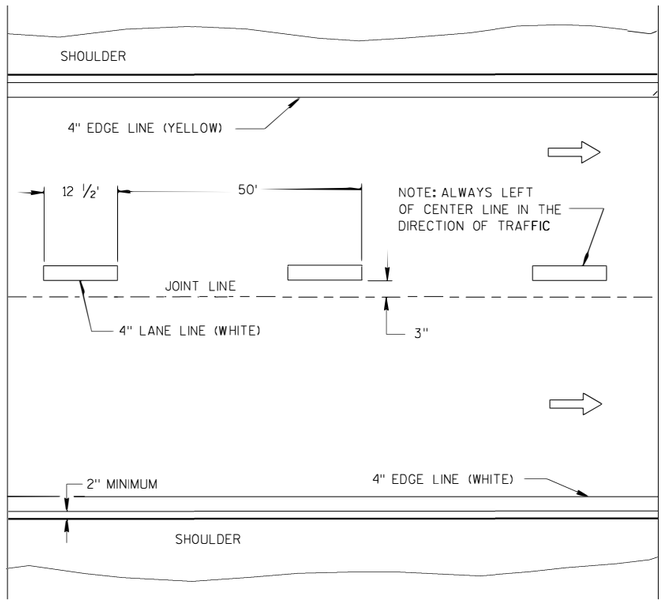
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

6

S.D.D. 15 C 6-9



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT 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.

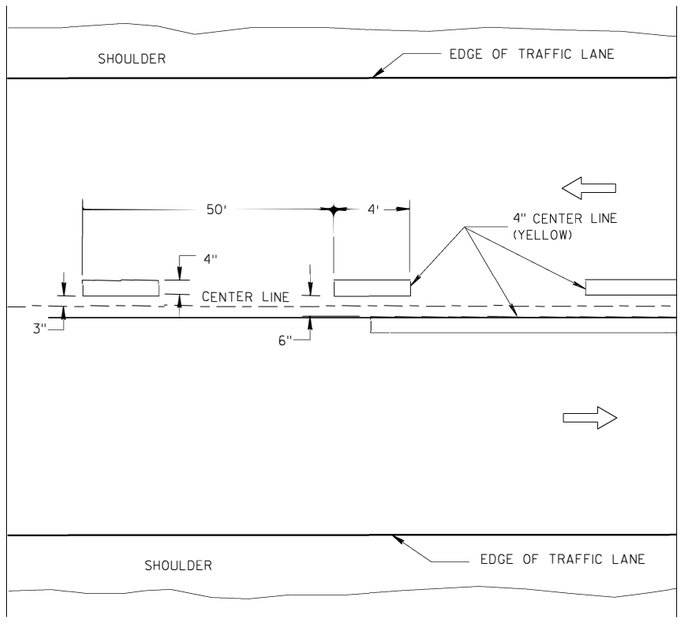
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

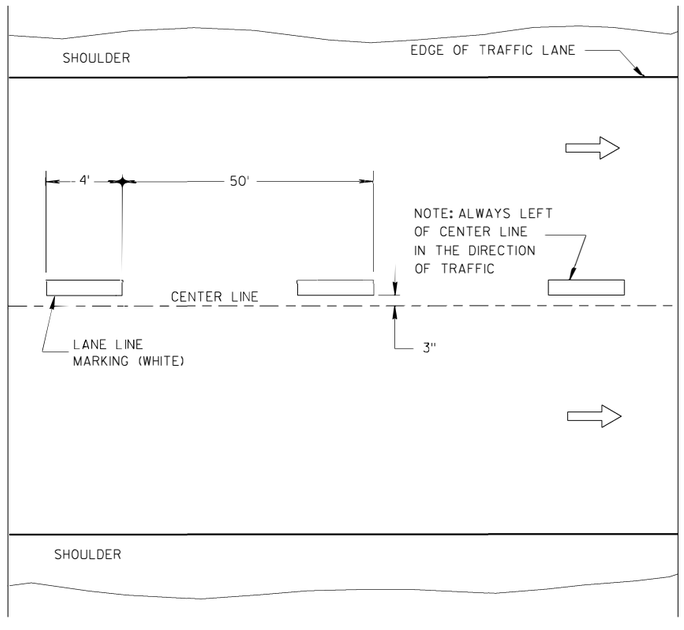
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 DATE

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

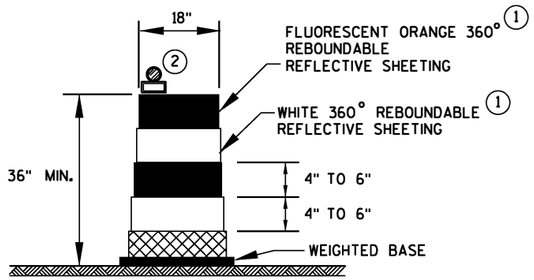
FHWA

6

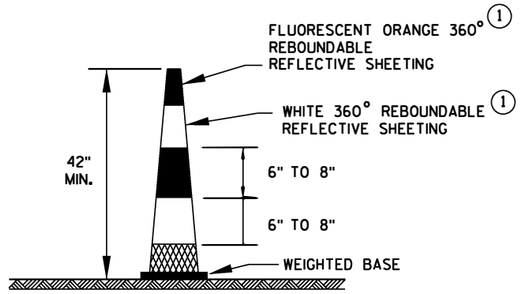
S.D.D. 15 C 8-19a

6

S.D.D. 15 C 8-19a



DRUM

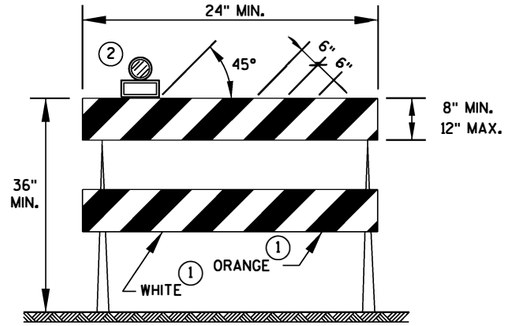


42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS

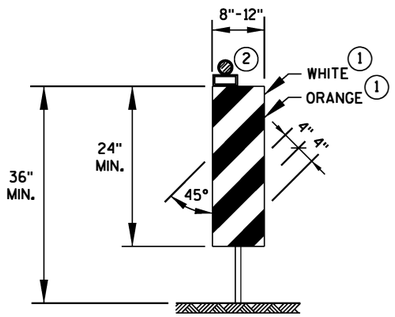
GENERAL NOTES

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



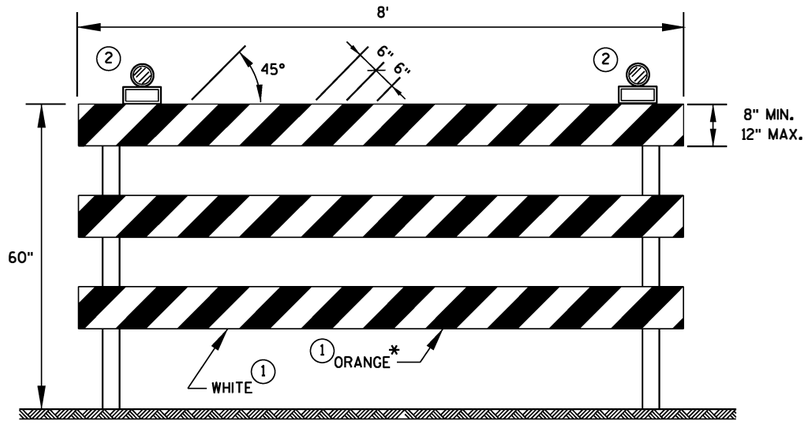
TYPE 2 BARRICADE

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



VERTICAL PANEL

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



TYPE 3 BARRICADE

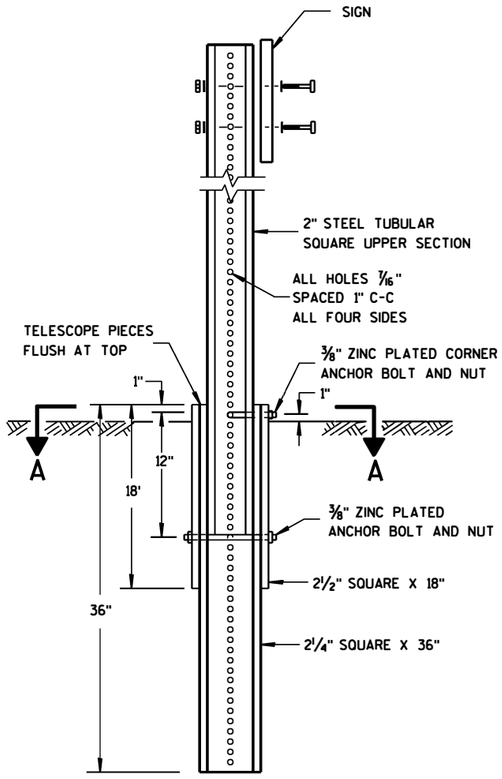
IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

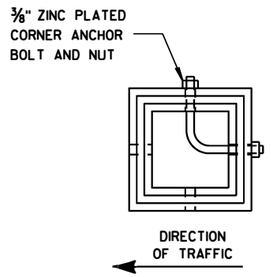
CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
June 2017 DATE	/S/ Andrew Heldtke WORK ZONE ENG
FHWA	

6

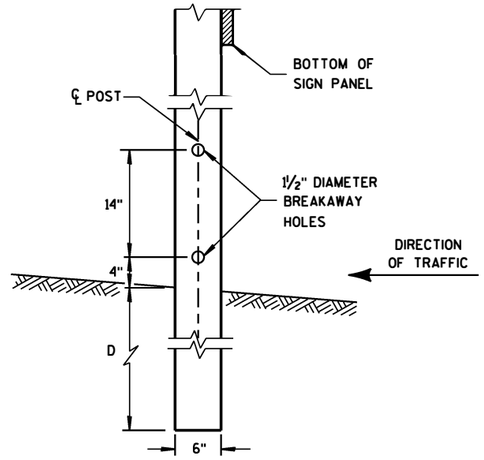
S.D.D. 15 C 11-7b



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



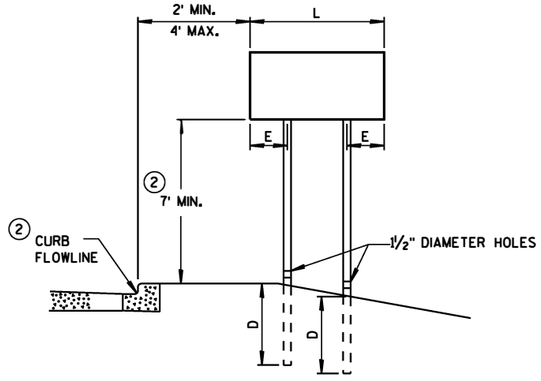
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

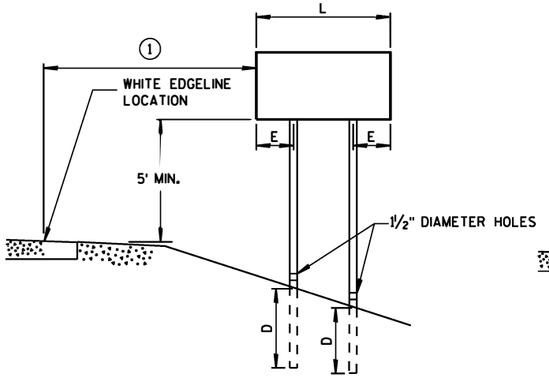
1. 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

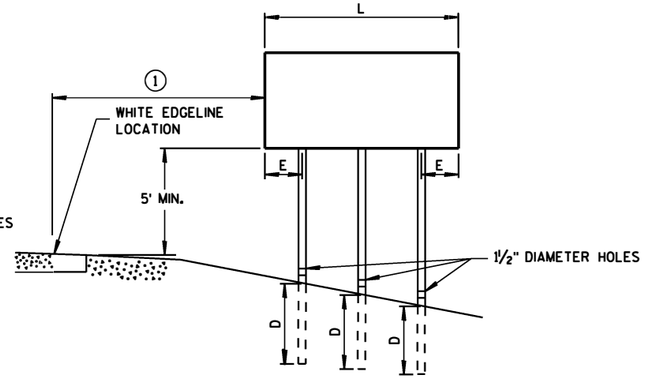
2. THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK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

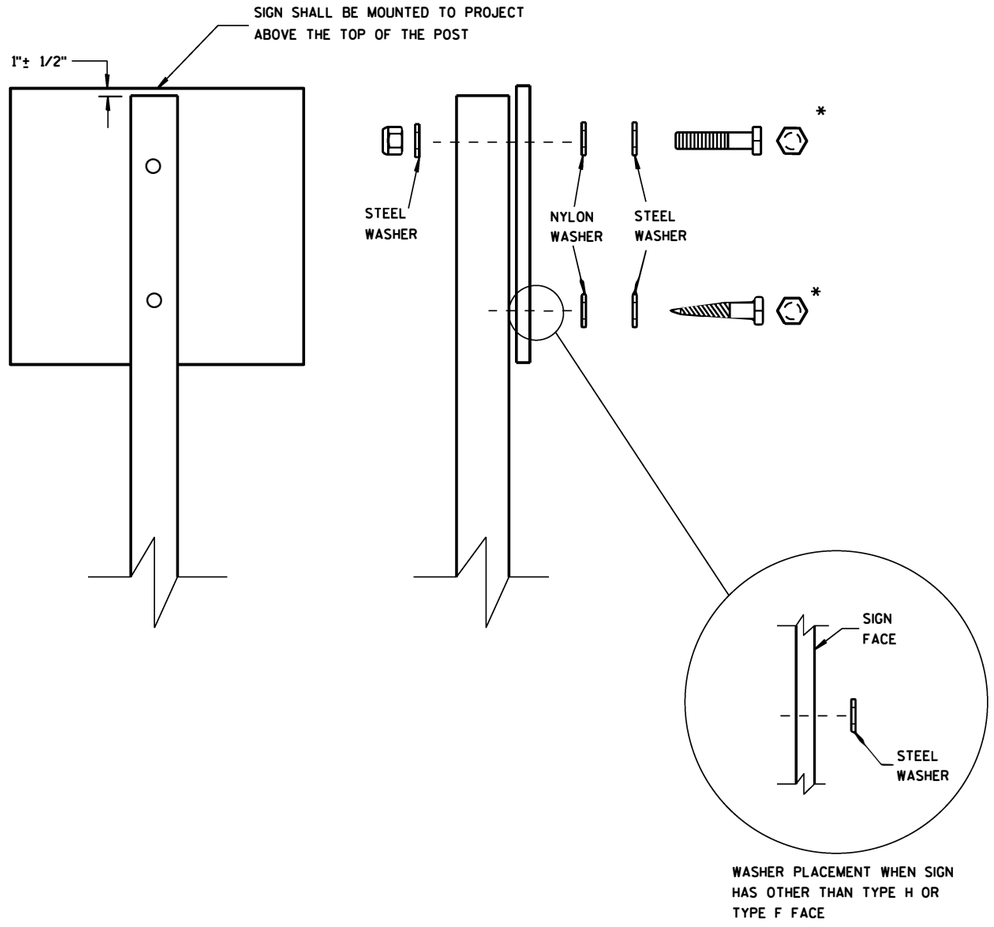
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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

6

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



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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 POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

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 FOR ALL TYPE H SIGNS

* 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

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

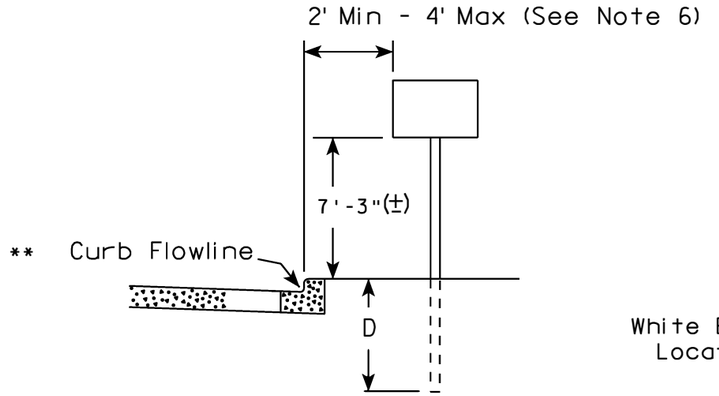
APPROVED

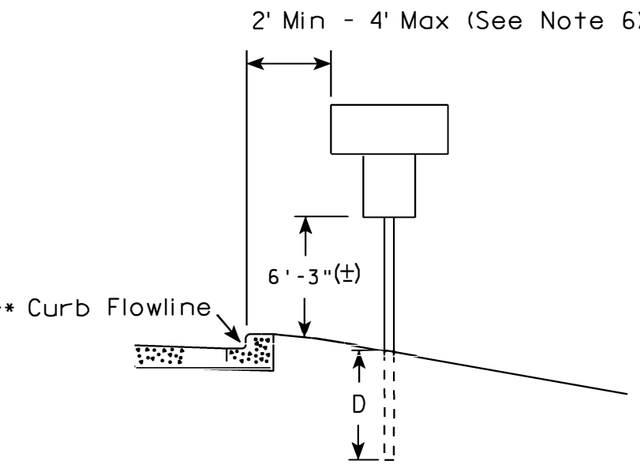
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

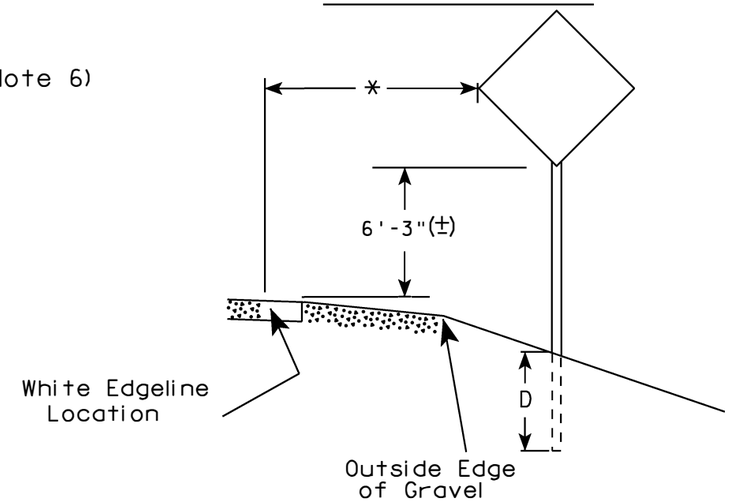
FHWA

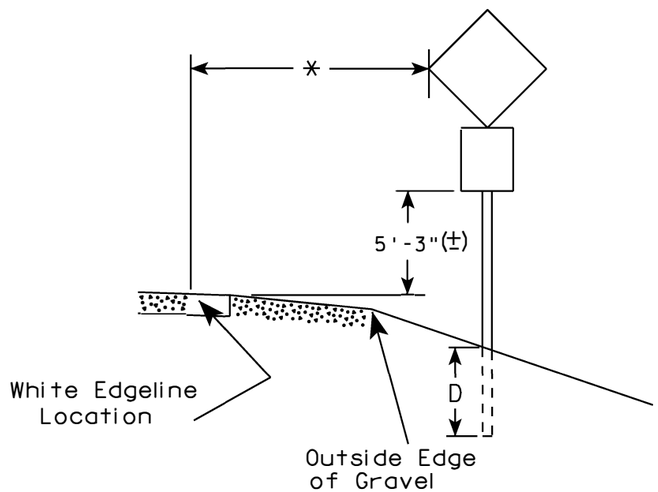
URBAN AREA





RURAL AREA (See Note 2)





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 barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. 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), 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" (±).

POST EMBEDMENT DEPTH

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

** 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.

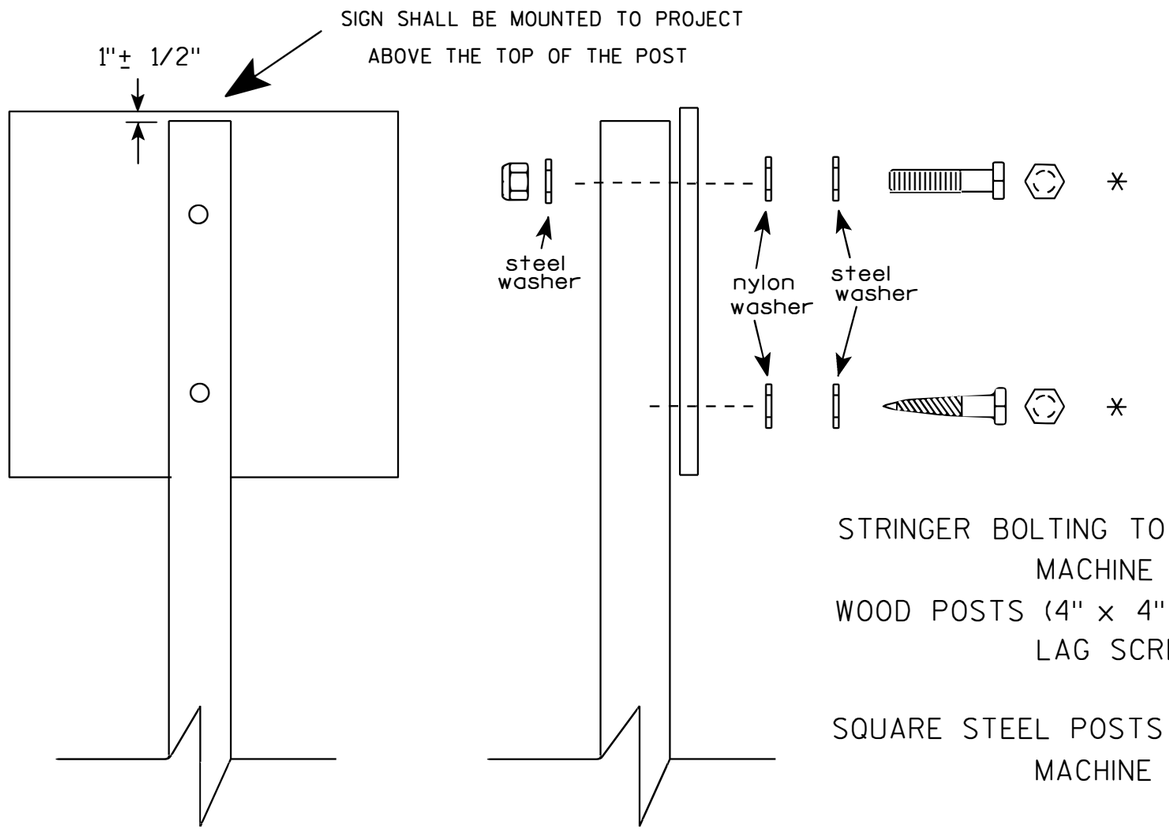
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 22	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 4" or 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.

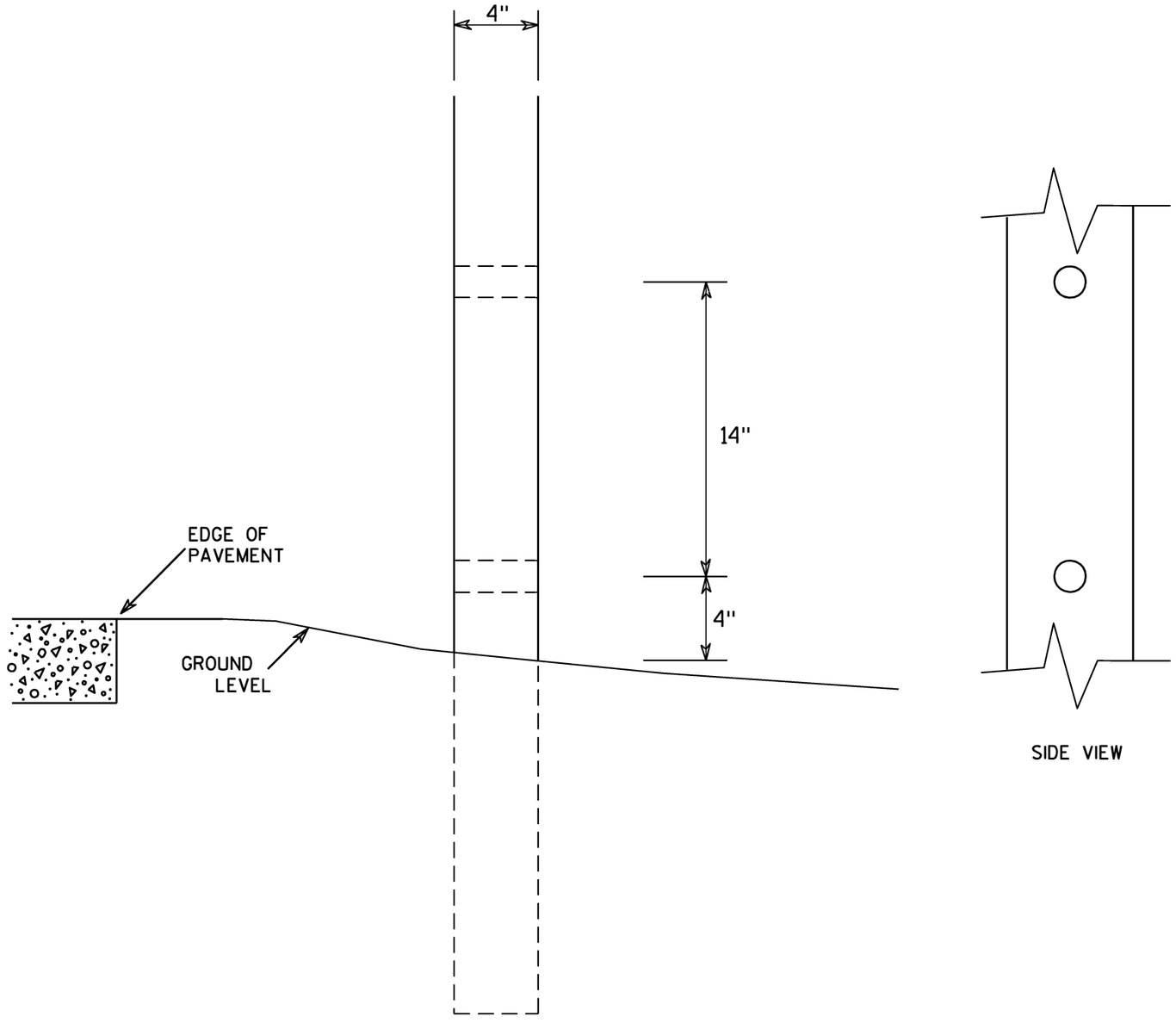
ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: | SHEET NO: E



SIDE VIEW

GENERAL NOTES

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

7

7

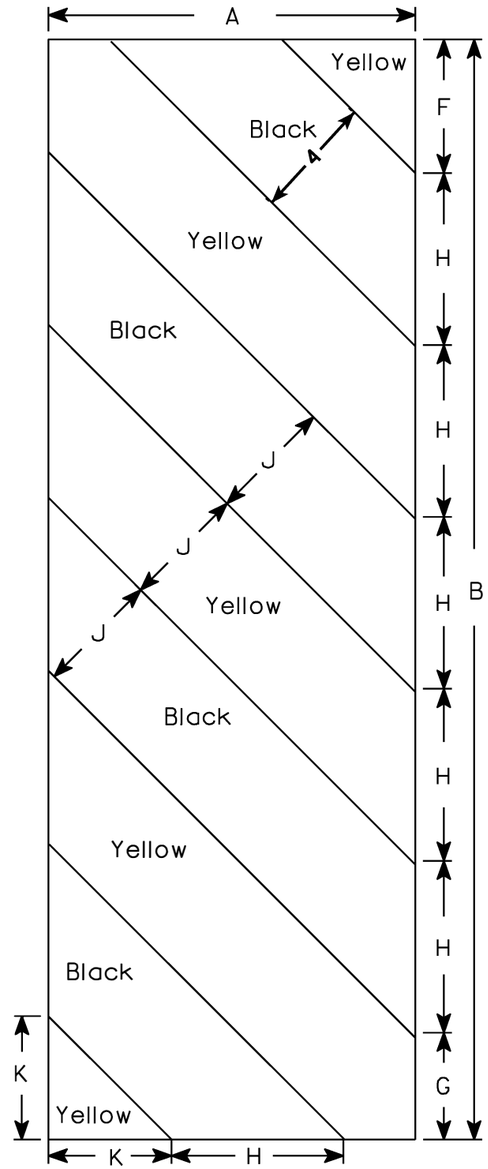
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

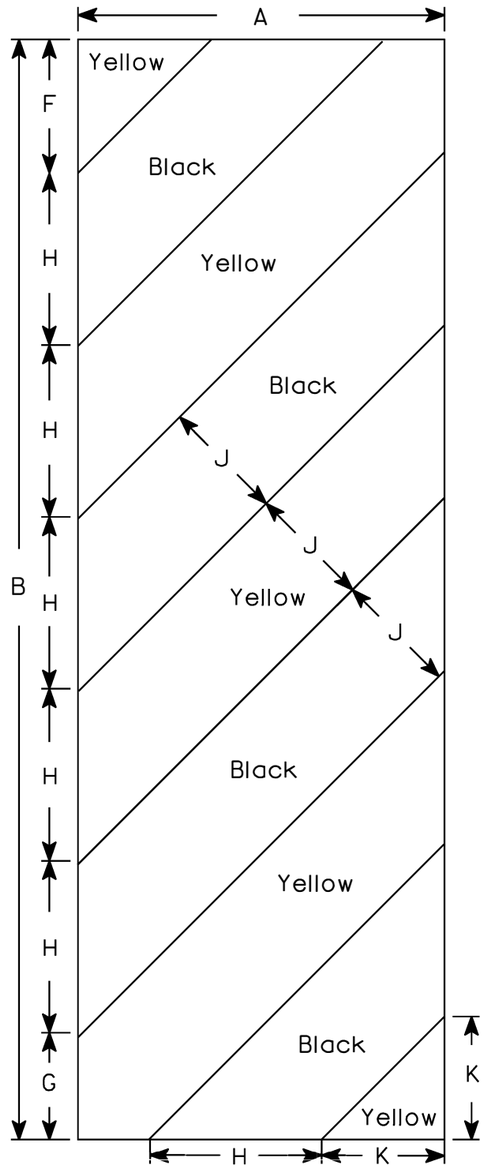
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 24	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

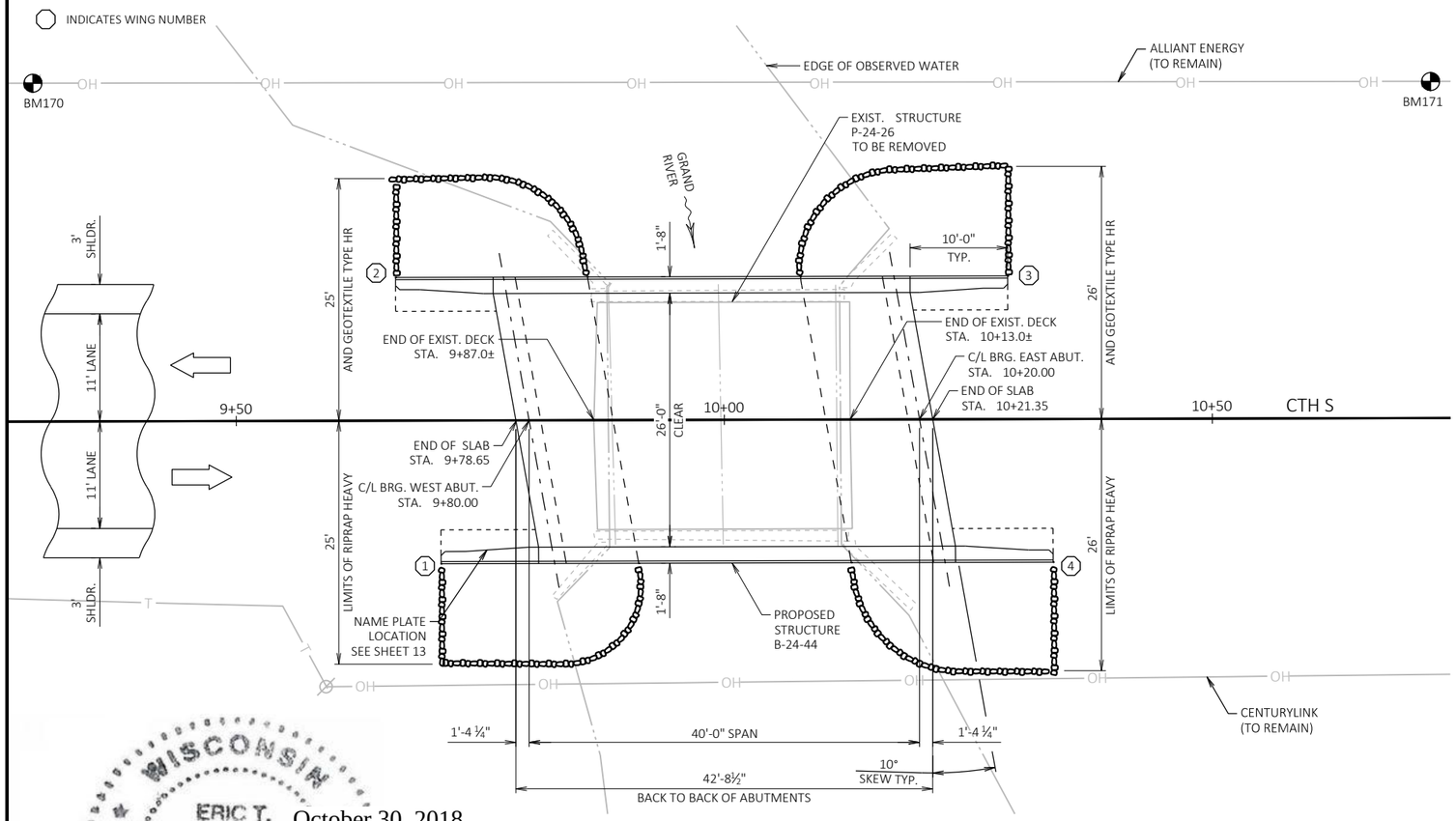
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

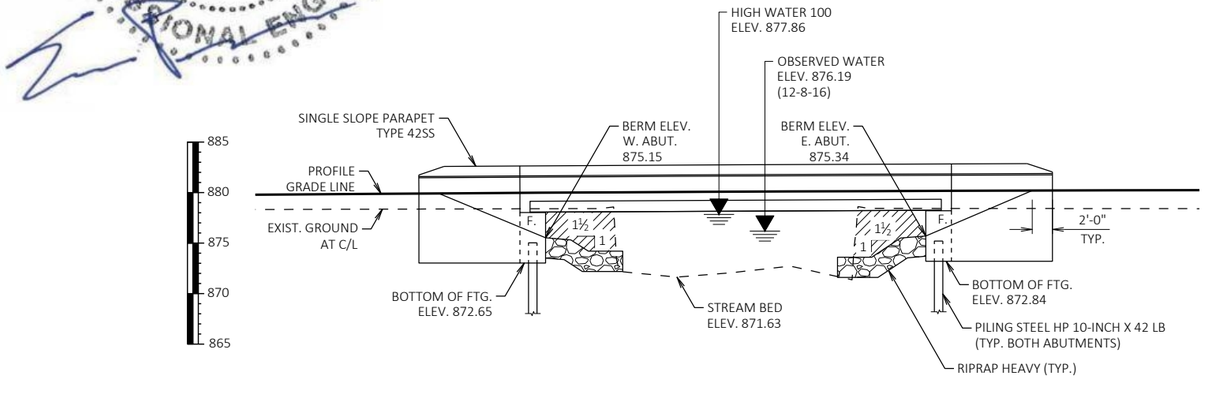
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 25 | E



PLAN

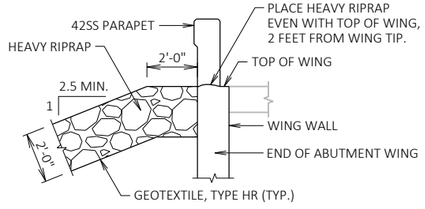
(SINGLE SPAN - 17" PRESTRESSED BOX GIRDERS)



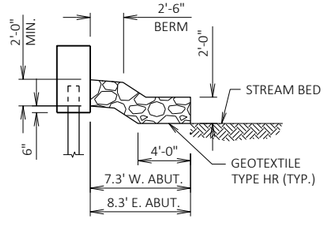
ELEVATION

(LOOKING NORTH)

AREA TO EXCAVATE INCLUDED IN
"EXCAVATION FOR STRUCTURES BRIDGES B-24-44"



TYPICAL FILL SECTION AT WING TIPS



RIPRAP DETAIL

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
170	7+14.49	RR SPIKE PPOL, 32.46' LT.	878.73
171	11+02.92	RR SPIKE PPOL, 33.45' LT.	877.64

WISCONSIN
ERIC T. PRICE
E-39027
MADISON
WI
PROFESSIONAL ENGINEER

October 30, 2018

STATE PROJECT NUMBER

6597-00-70

DESIGN DATA

DESIGN LOADING — HL-93
INVENTORY RATING FACTOR — 1.08
OPERATIONAL RATING FACTOR — 1.52
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) — 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF.

MATERIAL PROPERTIES

CONCRETE MASONRY, SUPERSTRUCTURE — f'c = 4,000 PSI
ALL OTHER — f'c = 3,500 PSI
BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 PSI
17" PRESTRESSED BOX GIRDERS, CONCRETE MASONRY — f'c = 5,000 PSI
STRANDS-0.5" DIA. ULTIMATE TENSILE STRENGTH — fy = 270,000 PSI

TRAFFIC DATA

ADT (2019) = 84
ADT (2039) = 93
DESIGN SPEED = 60 MPH

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10-INCH X 42 LB STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180* TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 65' LONG AT THE WEST ABUTMENT AND 55' LONG AT THE 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.

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100} (TOTAL) = 1,180 C.F.S.
Q_{100} (BRIDGE) = 691 C.F.S.
Q_{100} (RDWY.) = 489 C.F.S.
VEL. = 4.8 F.P.S.
HW_{100} = EL. 877.86
WATERWAY AREA = 163 SQ. FT.
DRAINAGE AREA = 30 SQ. MI.
SCOUR CRITICAL CODE = 5

2 YEAR FREQUENCY

Q_2 = 405 C.F.S.
VEL. = 3.4 F.P.S.
HW_2 = EL. 876.94

ROADWAY OVERTOPPING FREQUENCY

FREQUENCY = 5 YEARS
Q_5 = 625 C.F.S.
HW_5 = EL. 877.51

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT
BILL DREHER, P.E.
TELEPHONE: (608) 266-8489

CONSULTANT CONTACT
ERIC PRICE, P.E.
TELEPHONE: (608) 826-6146

NO.	DATE	REVISION	BY

CORRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 11/01/18
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-24-44

CTH S OVER GRAND RIVER

COUNTY: GREEN LAKE
TOWN/~~CITY/VILLAGE~~: MACKFORD
DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	ETP	DESIGN CK'D.	BH	DRAWN BY	PKF	PLANS CK'D.	ETP

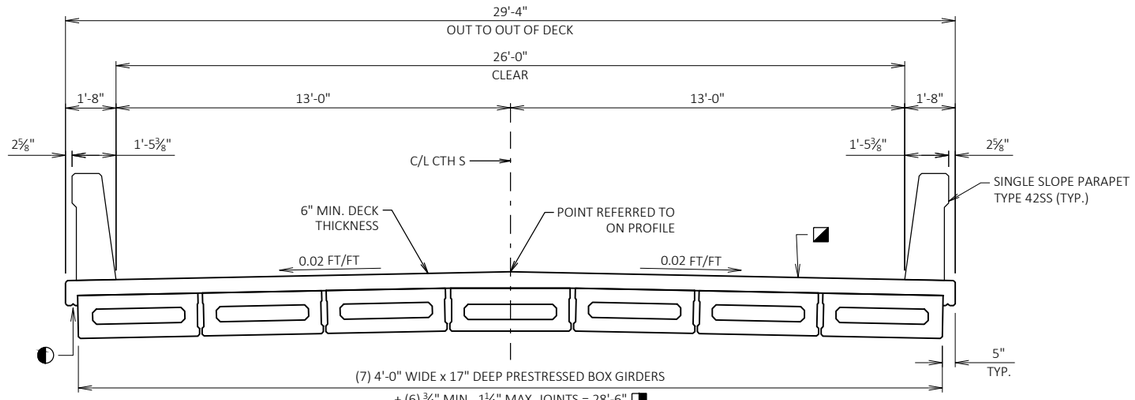
GENERAL PLAN

SHEET 1 OF 13

26

8

8

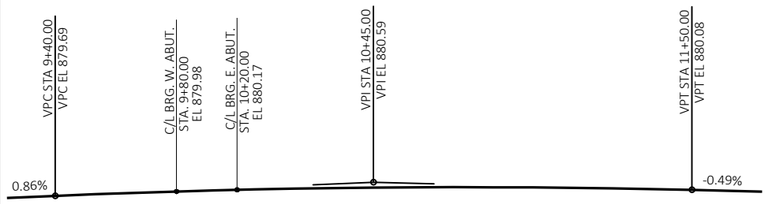


CROSS SECTION THRU BRIDGE

(LOOKING EAST)

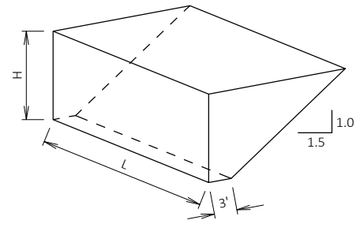
LEGEND

- 3/4" V-GROOVE REQ'D. EXTEND 6" FROM F.F. OF ABUTMENT DIAPHRAGM.
- COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS.
- DIMENSION ASSUMES 1" JOINT WIDTH. JOINT WIDTH DIMENSIONS MAY VARY DUE TO ± ¼" JOINT TOLERANCES.



PROFILE GRADE LINE

(CTH S)



ABUTMENT BACKFILL QUANTITY DIAGRAM

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

TOTAL ESTIMATED QUANTITIES

BID NUMBER	BID ITEM	UNIT	WEST ABUT.	EAST ABUT.	SUPER	TOTALS
203.0500.S	REMOVING OLD STRUCTURE OVER WATERWAY STA. 10+00	LS	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-24-44	LS	-----	-----	-----	1
206.5000	COFFERDAMS B-24-44	LS	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	120	120	-----	240
502.0100	CONCRETE MASONRY BRIDGES	CY	32	32	41	105
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	132	132
502.3210	PIGMENTED SURFACE SEALER	SY	10	10	42	62
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1,810	1,810	-----	3,620
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,920	1,920	5,290	9,130
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	7	7	-----	14
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	9	9	-----	18
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	325	275	-----	600
606.0300	RIPRAP HEAVY	CY	60	70	-----	130
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	95	95	-----	190
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	27	27	-----	54
645.0120	GEOTEXTILE TYPE HR	SY	95	70	-----	165
SPV.0090	PRESTRESSED GIRDER BOX TYPE 17-INCH	LF	-----	-----	285	285
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	½" & ¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPE I, II OR III OR AASHTO DESIGNATION M213.

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

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-24-44" SHALL BE THE EXISTING GROUNDLINE.

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

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE ENTIRE INSIDE FACE AND TOP SURFACE OF THE PARAPETS ON THE WINGS AND SUPERSTRUCTURE.

THE EXISTING STRUCTURE P-24-26, TO BE REMOVED, IS A SINGLE SPAN CONCRETE FLAT SLAB BRIDGE, 26.0 FT. LONG WITH A 23.0 FT. CLEAR ROADWAY WIDTH.

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

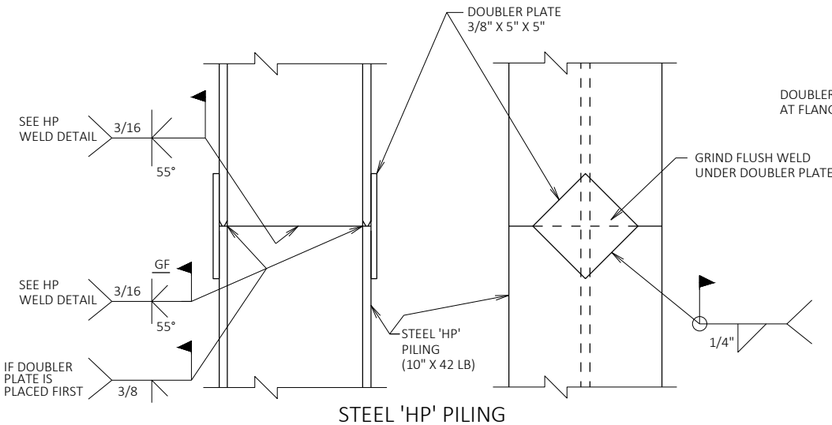
EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

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

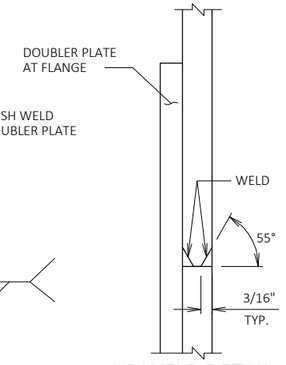
SUPERSTRUCTURE DIMENSIONS SHOWN ARE BASED ON 1" JOINTS BETWEEN GIRDERS. JOINTS ARE ALLOWED TO VARY FROM ¾" TO 1 ¼". CLEAR DISTANCE BETWEEN PARAPETS AND OUT TO OUT WIDTH OF SUPERSTRUCTURE TO BE DETERMINED AFTER POST-TENSIONING OF GIRDERS. ABUTMENT AND WING DIMENSIONS SHALL NOT VARY FROM THOSE SHOWN ON THE PLANS.

AN AVERAGE DECK THICKNESS OF 6 ½" WAS USED FOR COMPUTING THE QUANTITY FOR "CONCRETE MASONRY BRIDGES".

VARIATIONS TO THE GRADE LINE OVER ¼" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.



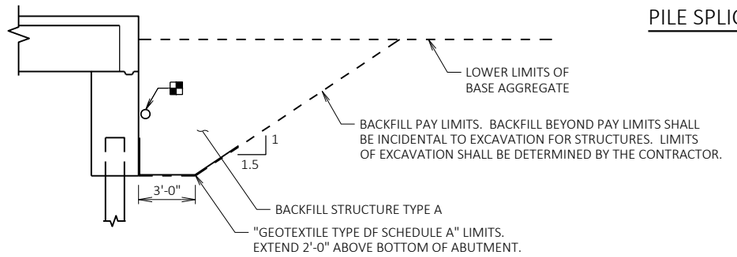
STEEL 'HP' PILING



HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAILS



STRUCTURE BACKFILL LIMITS

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-24-44

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

CROSS SECTION & QUANTITIES

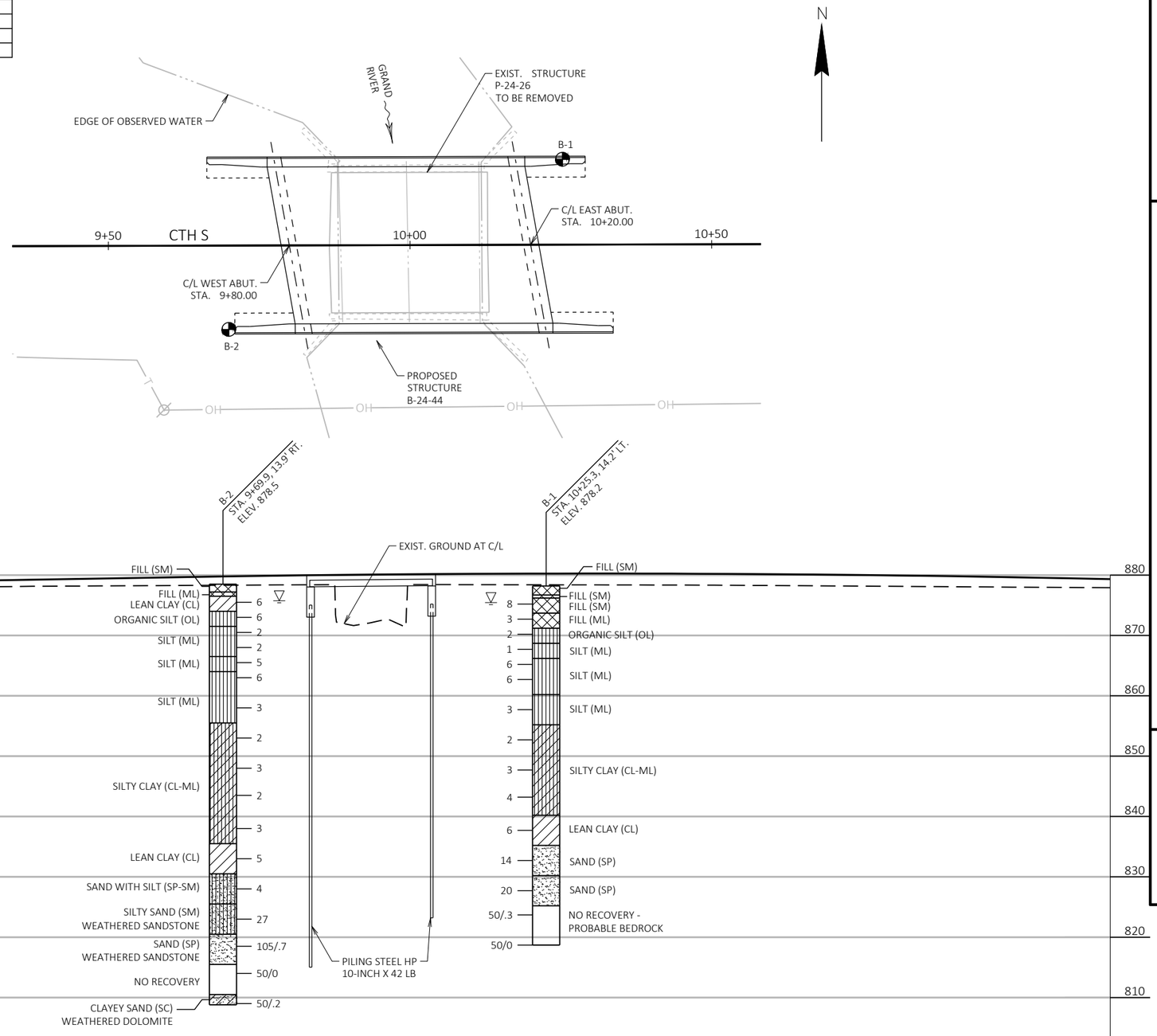
SHEET 2 OF 13

27

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	DECEMBER 28, 2016	223234.7	578884.4
2	DECEMBER 29, 2016	223206.5	578829.1
BORINGS COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.			
REPORT COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) GREEN LAKE COUNTY			



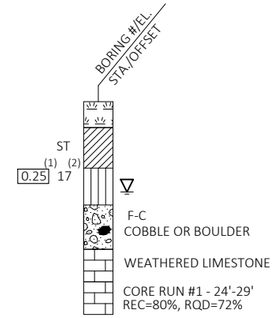
STATE PROJECT NUMBER

6597-00-70

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-24-44

DRAWN BY PKF | PLANS CK'D. ETP

SUBSURFACE EXPLORATION

SHEET 3 OF 13

28

8

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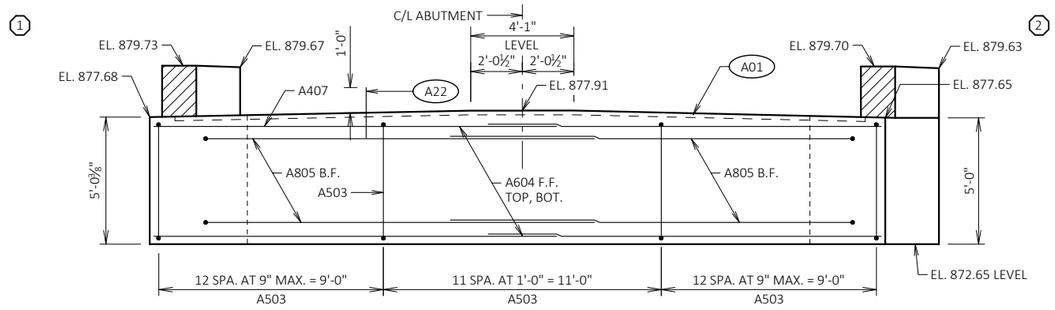
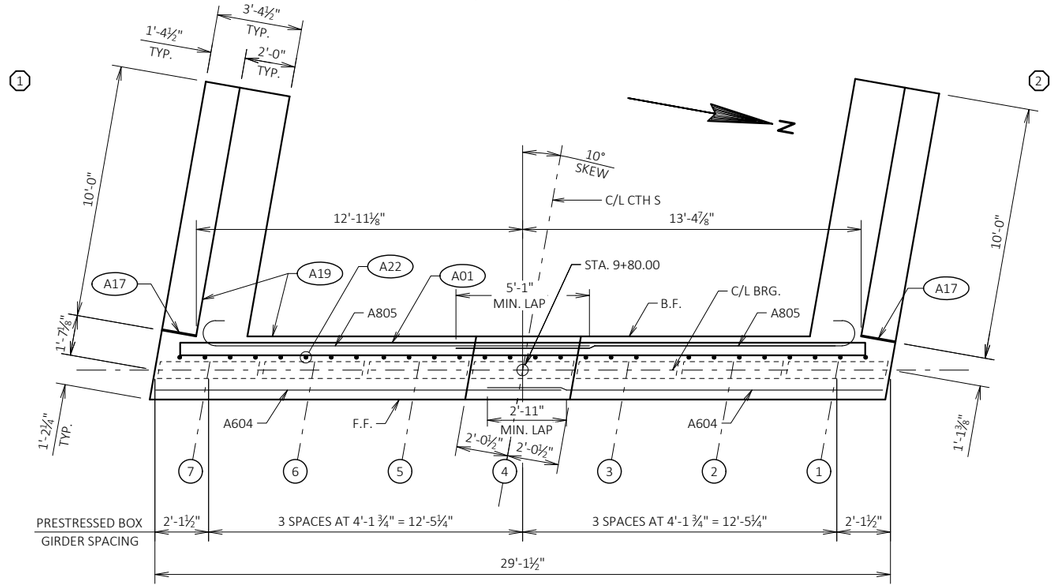
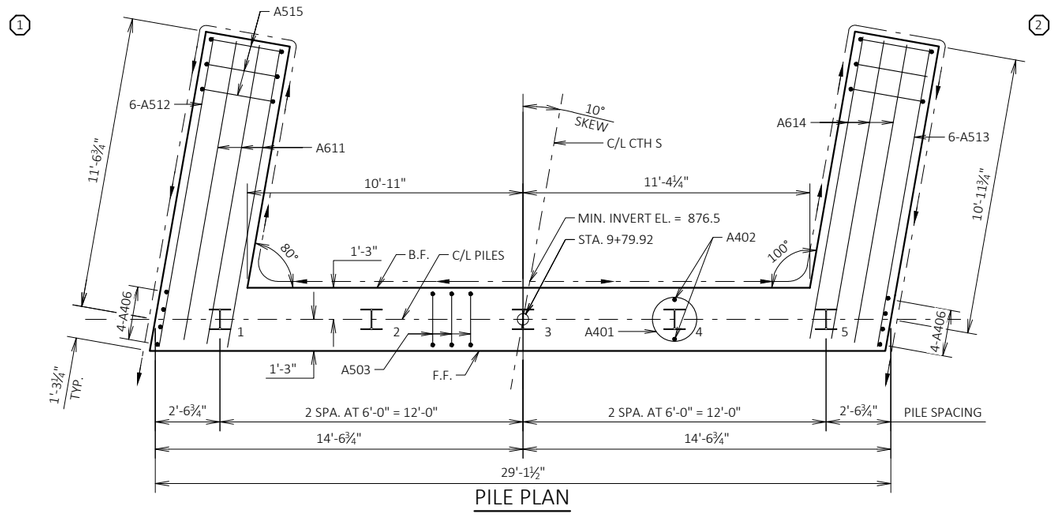


ELEVATION
(LOOKING WEST)



PLAN



PILE PLAN

LEGEND

- ◯ INDICATES GIRDER NUMBER
- ⬡ INDICATES WING NUMBER

(A01) KEYED CONST. JOINT FORMED BY BEVELED 2" x 6".

(A09) SUPPORT ABUTMENT ON PILING STEEL HP 10-INCH x 42 LB, ESTIMATED 65 FEET LONG, DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. SEE ADDITIONAL FOUNDATION DATA ON SHEET 1 AND PILE SPLICE DETAILS ON SHEET 2.

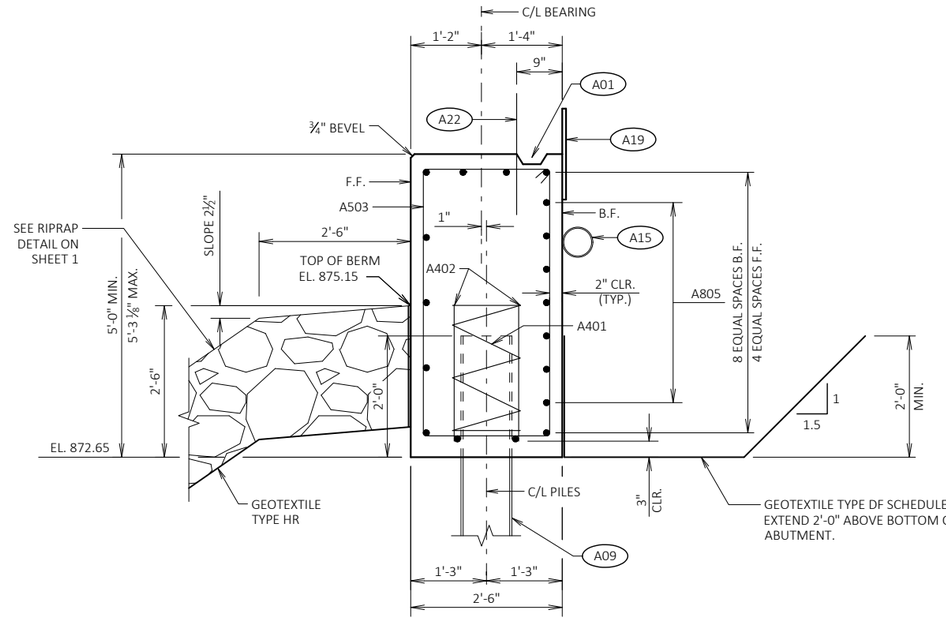
(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A22) A510 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE

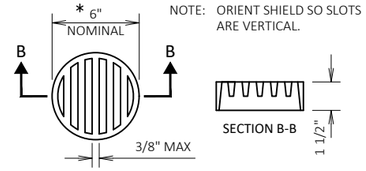


SECTION THRU BODY

HORIZONTAL BARS NOT OTHERWISE IDENTIFIED ARE A604 BARS

STATE PROJECT NUMBER

6597-00-70



NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.

* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

RODENT SHIELD DETAIL

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 OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-24-44

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

WEST ABUTMENT

SHEET 4 OF 13

29

8

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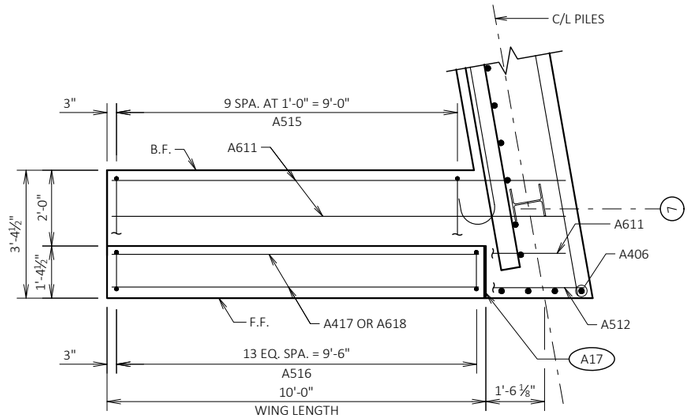
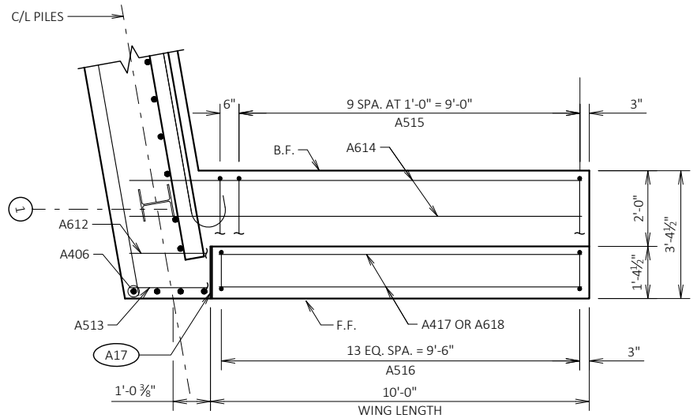
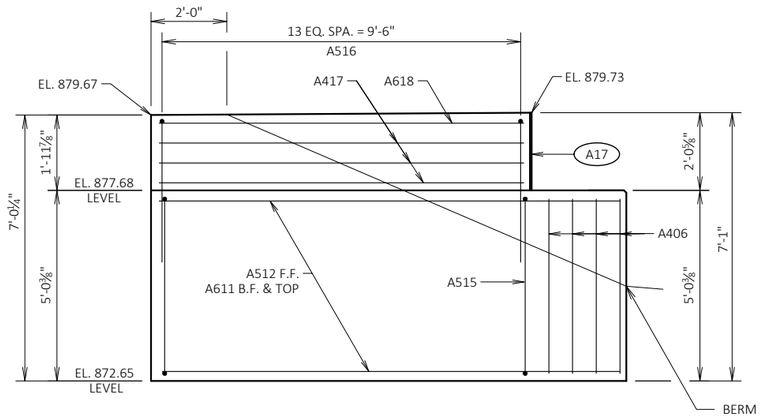


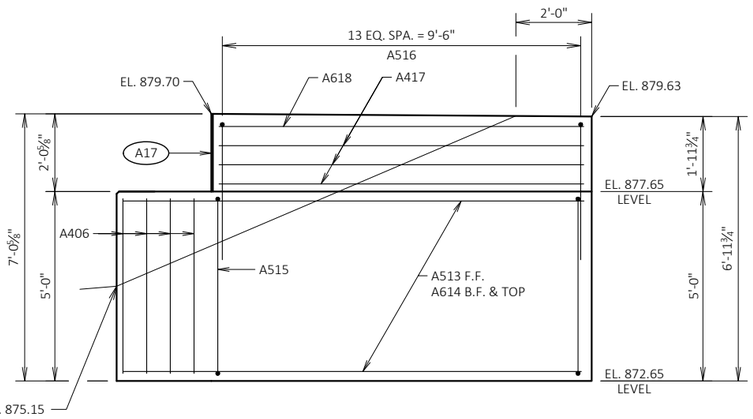
PLAN - WING 1



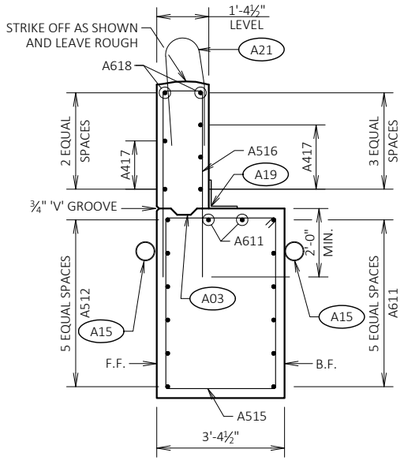
PLAN - WING 2



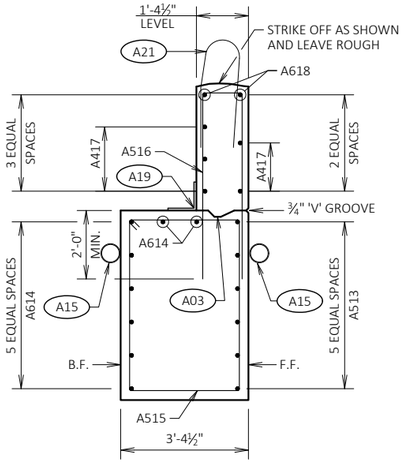
ELEVATION - WING 1



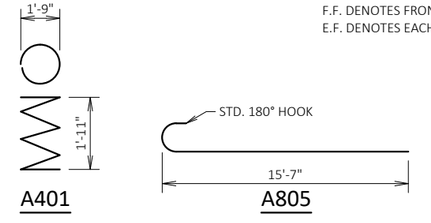
ELEVATION - WING 2



SECTION THRU WING 1

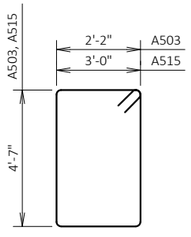


SECTION THRU WING 2

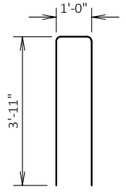


A401

A805



A503, A515



A516

STATE PROJECT NUMBER

6597-00-70

BILL OF BARS - WEST ABUTMENT

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS					TOTAL WEIGHT = 1,810 LBS	
A401	5	28'-0"	X		BODY - AT PILES - 1 PER PILE	VERT.
A402	10	2'-3"			BODY - AT PILES - 2 PER PILE	VERT.
A503	36	14'-2"	X		BODY - STIRRUPS	VERT.
A604	22	15'-11"			BODY - F.F. TOP, BOT.	HORIZ.
A805	14	16'-6"	X		BODY - B.F.	HORIZ.
A406	8	4'-7"			BODY - ABUT ENDS	VERT.
COATED BARS					TOTAL WEIGHT = 1,220 LBS	
A510	28	2'-0"			BODY - TOP	VERT.
A611	8	11'-10"			WING 1 - B.F. & TOP	HORIZ.
A512	6	12'-4"			WING 1 - F.F.	HORIZ.
A513	6	11'-10"			WING 2 - F.F.	HORIZ.
A614	8	12'-1"			WING 2 - B.F. & TOP	HORIZ.
A515	21	15'-10"	X		WINGS 1 & 2 - STIRRUPS	VERT.
A516	28	8'-7"	X		WINGS 1 & 2	VERT.
A417	10	9'-8"			WINGS 1 & 2 - B.F. & F.F.	HORIZ.
A618	4	9'-8"			WINGS 1 & 2 - TOP	HORIZ.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

LEGEND

A03 OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2" x 6" (18" RUBBERIZED MEMBRANE WATERPROOFING AT B.F. & ¾" "V" GROOVE AT F.F. IF JOINT IS USED).

A15 PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

A17 ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

A19 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

A21 FOR PPT. BARS & DIMENSIONS SEE SHEET NO. 13.

B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE
E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-24-44

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

WEST ABUTMENT DETAILS

SHEET 5 OF 13

30

8

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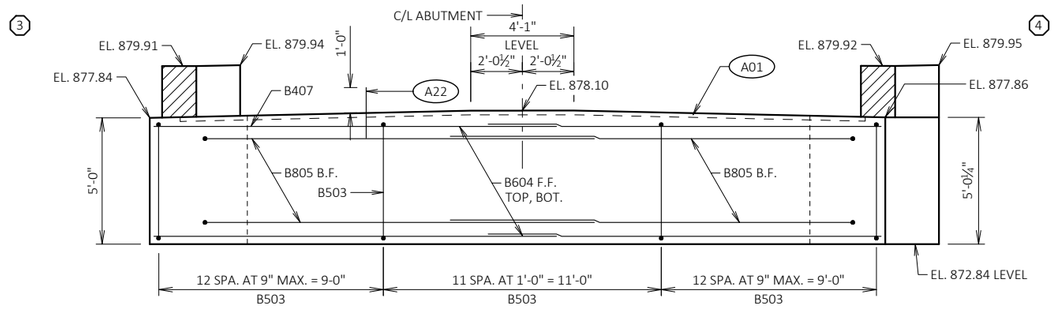
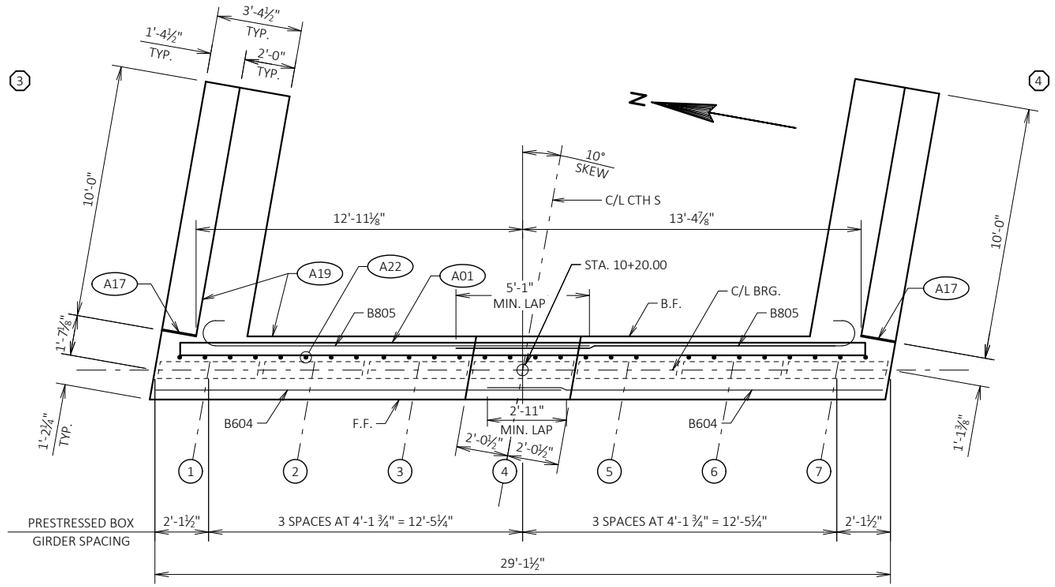
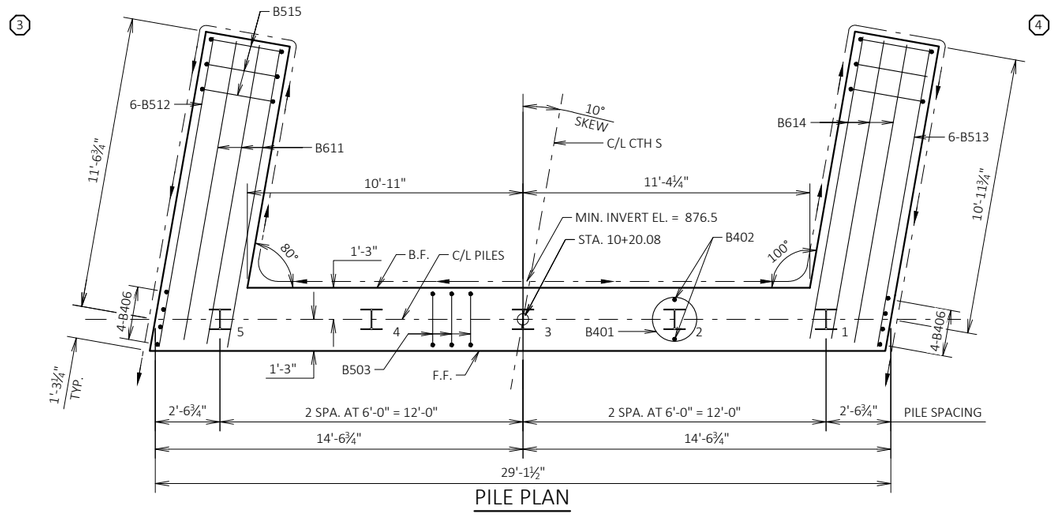


ELEVATION
(LOOKING EAST)



PLAN



PILE PLAN

LEGEND

- ◯ INDICATES GIRDER NUMBER
- ⬡ INDICATES WING NUMBER

(A01) KEYED CONST. JOINT FORMED BY BEVELED 2" x 6".

(A09) SUPPORT ABUTMENT ON PILING STEEL HP 10-INCH x 42 LB, ESTIMATED 55 FEET LONG, DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. SEE ADDITIONAL FOUNDATION DATA ON SHEET 1 AND PILE SPLICE DETAILS ON SHEET 2.

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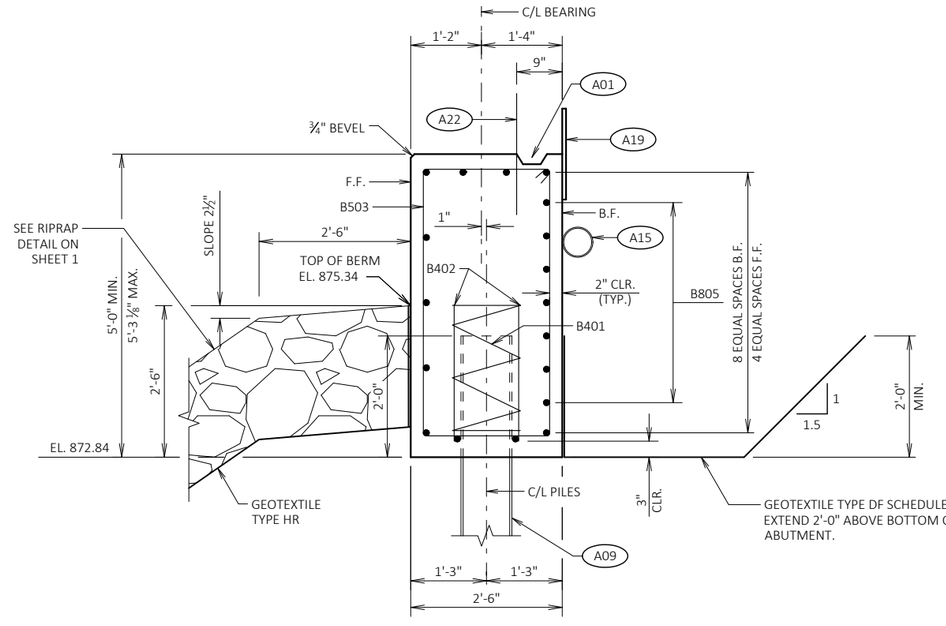
(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A22) B510 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE

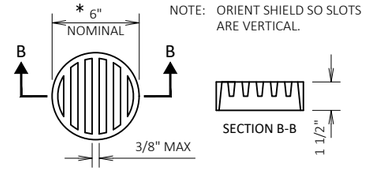


SECTION THRU BODY

HORIZONTAL BARS NOT OTHERWISE IDENTIFIED
ARE B604 BARS

STATE PROJECT NUMBER

6597-00-70



NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.

* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

RODENT SHIELD DETAIL

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 OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-24-44

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

EAST ABUTMENT

SHEET 6 OF 13

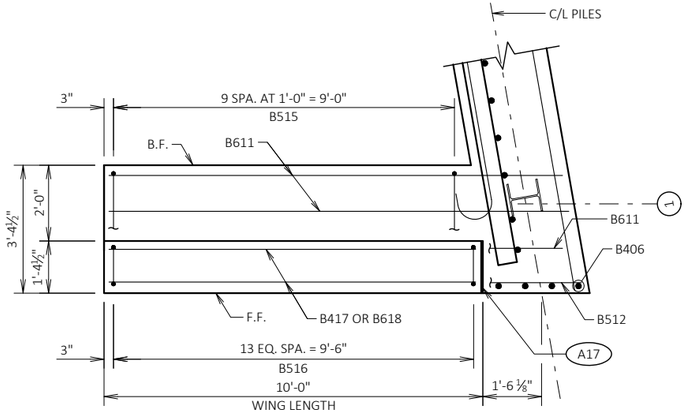
31

8

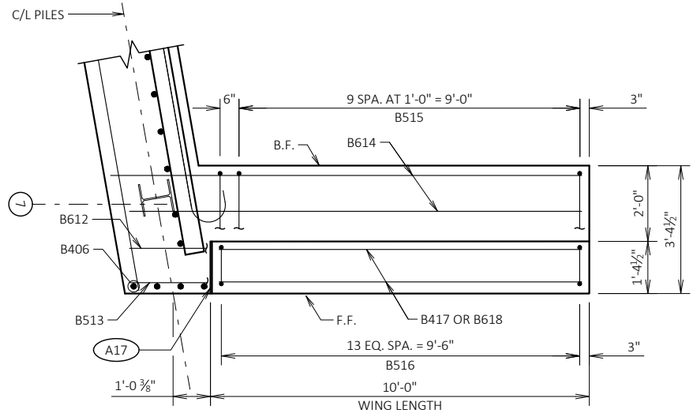
8

STATE PROJECT NUMBER

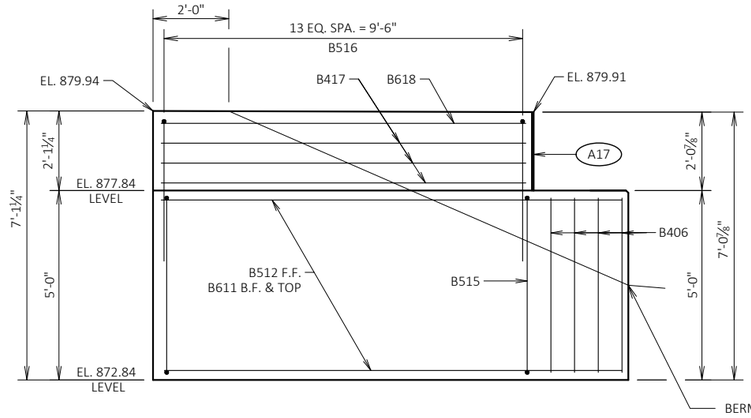
6597-00-70



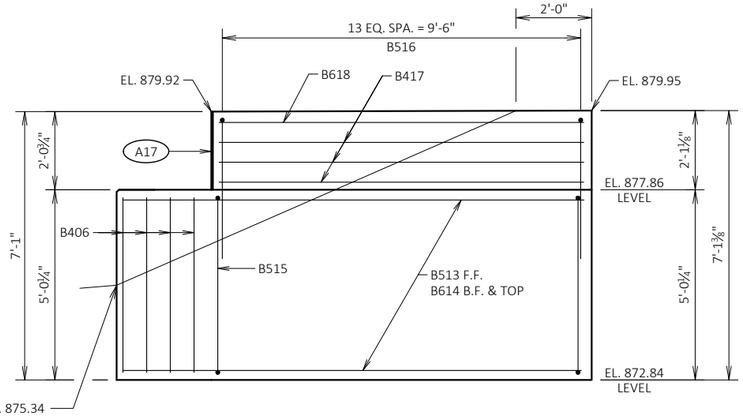
PLAN - WING 3



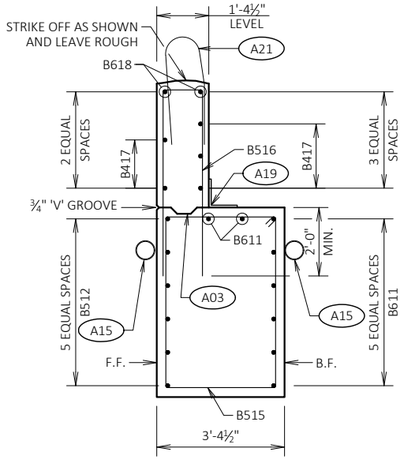
PLAN - WING 4



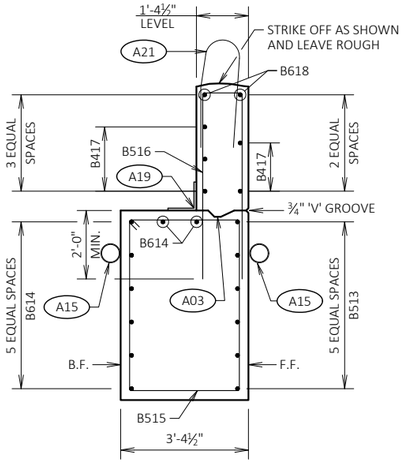
ELEVATION - WING 3



ELEVATION - WING 4



SECTION THRU WING 3



SECTION THRU WING 4

BILL OF BARS - EAST ABUTMENT

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS					TOTAL WEIGHT = 1,810 LBS	
B401	5	28'-0"	X		BODY - AT PILES - 1 PER PILE	VERT.
B402	10	2'-3"			BODY - AT PILES - 2 PER PILE	VERT.
B503	36	14'-2"	X		BODY - STIRRUPS	VERT.
B604	22	15'-11"			BODY - F.F. TOP, BOT.	HORIZ.
B805	14	16'-6"	X		BODY - B.F.	HORIZ.
B406	8	4'-7"			BODY - ABUT ENDS	VERT.
COATED BARS					TOTAL WEIGHT = 1,220 LBS	
B510	28	2'-0"			BODY - TOP	VERT.
B611	8	11'-10"			WING 1 - B.F. & TOP	HORIZ.
B512	6	12'-4"			WING 1 - F.F.	HORIZ.
B513	6	11'-10"			WING 2 - F.F.	HORIZ.
B614	8	12'-1"			WING 2 - B.F. & TOP	HORIZ.
B515	21	15'-10"	X		WINGS 1 & 2 - STIRRUPS	VERT.
B516	28	8'-7"	X		WINGS 1 & 2	VERT.
B417	10	9'-8"			WINGS 1 & 2 - B.F. & F.F.	HORIZ.
B618	4	9'-8"			WINGS 1 & 2 - TOP	HORIZ.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

LEGEND

A03 OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2" x 6" (18" RUBBERIZED MEMBRANE WATERPROOFING AT B.F. & ¾" "V" GROOVE AT F.F. IF JOINT IS USED).

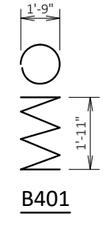
A15 PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

A17 ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

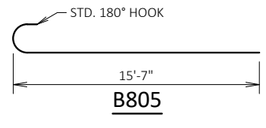
A19 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

A21 FOR PPT. BARS & DIMENSIONS SEE SHEET NO. 13.

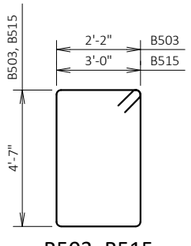
B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE
E.F. DENOTES EACH FACE



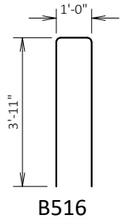
B401



B805



B503, B515



B516

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-24-44

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY CORRE

EAST ABUTMENT DETAILS

SHEET 7 OF 13

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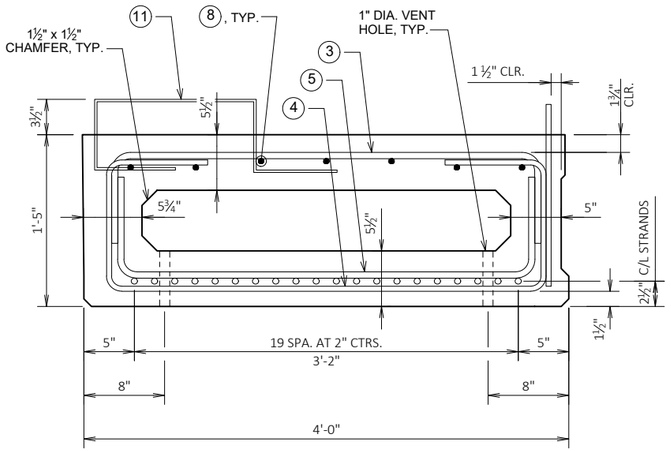
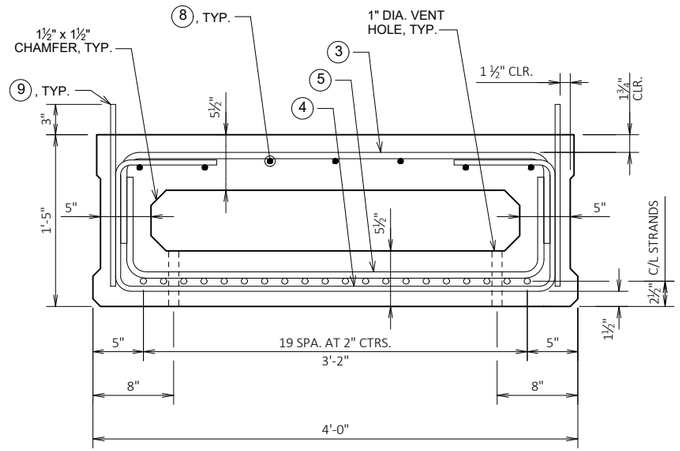


SECTION THRU EXTERIOR GIRDER



SECTION THRU INTERIOR GIRDER

NOTES

THE CONCRETE MIX FOR THE PRESTRESSED BOX GIRDERS SHALL CONFORM TO SECTION 503.2.2 OF THE STANDARD SPECIFICATIONS.

AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO THE BOTTOM OF THE GIRDERS AND THE EXTERIOR FACE OF EXTERIOR GIRDERS. DO NOT APPLY CONCRETE SEALER OR EPOXY TO THE SHEAR KEY OR THE TOP OF GIRDERS.

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

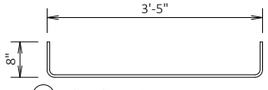
VOIDS SHALL BE VENTED AND DRAINED BY CASTING (2)-1" DIA. TUBES AT EACH END OF VOID SEGMENT. LOCATE TUBES AT BOTTOM EDGES OF THE CORNER FILLETS, AVOID STRAND LOCATIONS.

FOUR WAY SLING MUST BE USED TO ENGAGE ALL 4 LIFTING DEVICES ON BOTH ENDS OF UNITS.

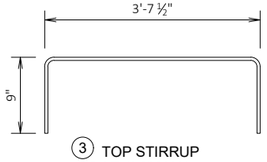
POST-TENSIONING OF THE TRANSVERSE TENDONS SHALL NOT BEGIN UNTIL THE GROUT BETWEEN THE PRECAST BOX GIRDERS HAS BEEN ALLOWED TO CURE FOR 48 HOURS AND GROUT HAS REACHED A COMPRESSIVE STRENGTH OF 3,000 PSI.

SEAL WASHER SHALL BE SPONGE NEOPRENE GASKET 31/4" MIN. THICK. STRESS POCKETS SHALL BE FILLED WITH CHLORIDE FREE NON-SHRINK GROUT AFTER POST-TENSIONING.

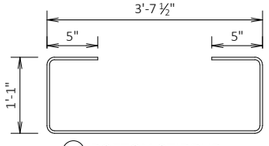
TRANSITION BETWEEN CHANGING SLOPES OF POST-TENSIONING DUCTS SHALL BE PROVIDED BY EITHER A CIRCULAR OR PARABOLIC CURVE WITH A MINIMUM LENGTH OF 3'-0".



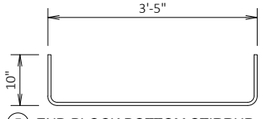
(1) BOTTOM ABUTMENT BAR
EPOXY COAT BARS
(5) #4 BARS



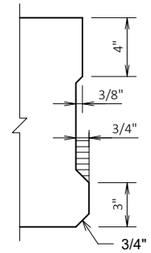
(3) TOP STIRRUP
#5 AT 1'-0" MAX.



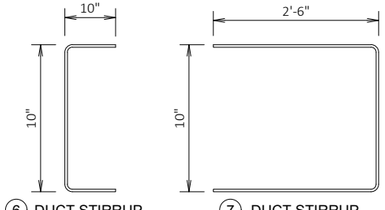
(4) BOTTOM STIRRUP
#4 AT 1'-0" MAX.



(5) END BLOCK BOTTOM STIRRUP
#4 AND #5 BARS
SEE ELEVATION FOR SPACING

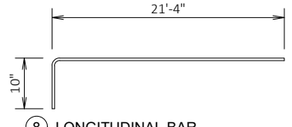


3/4" CHAMFER, TYP.

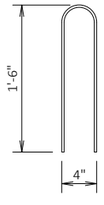


(6) DUCT STIRRUP
#4 AT 9" MAX.
(6) EACH GIRDER END
(12) EACH GIRDER DUCT

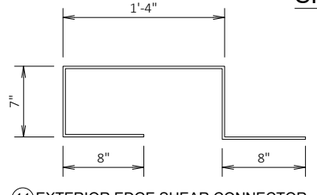
(7) DUCT STIRRUP
#4 AT 9" MAX.
(6) EACH GIRDER END



(8) LONGITUDINAL BAR
(7) #4 BARS MIN.



(9) SHEAR CONNECTOR
TIE ONE LEG OF BAR TO (3)
EPOXY COAT BARS
#4 AT 2'-0" MAX.



(11) EXTERIOR EDGE SHEAR CONNECTOR
#4 AT 2'-0" MAX.
EPOXY COAT BARS

SHEAR KEY RECESS DETAIL

OMIT SHEAR KEY ON EXTERIOR FACE OF EXTERIOR GIRDERS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-24-44

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

17" PRESTRESSED BOX GIRDER DETAILS 1

SHEET 8 OF 13

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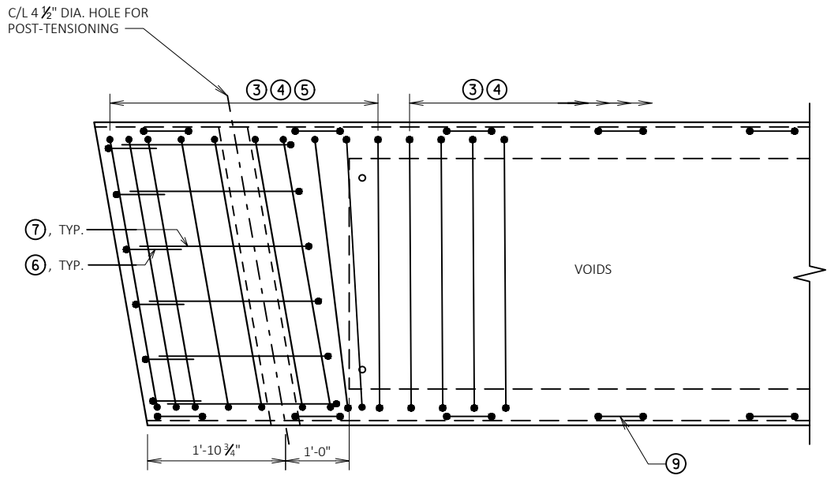
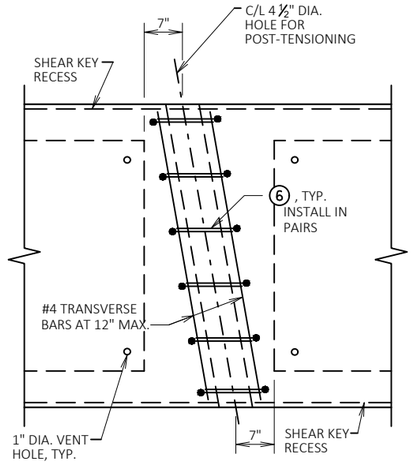
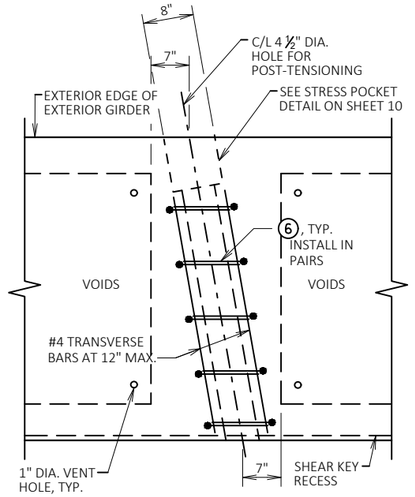


PART GIRDER PLAN

(1) & #4 TRANSVERSE BARS NOT SHOWN FOR CLARITY



INTERIOR GIRDER DUCT PLAN

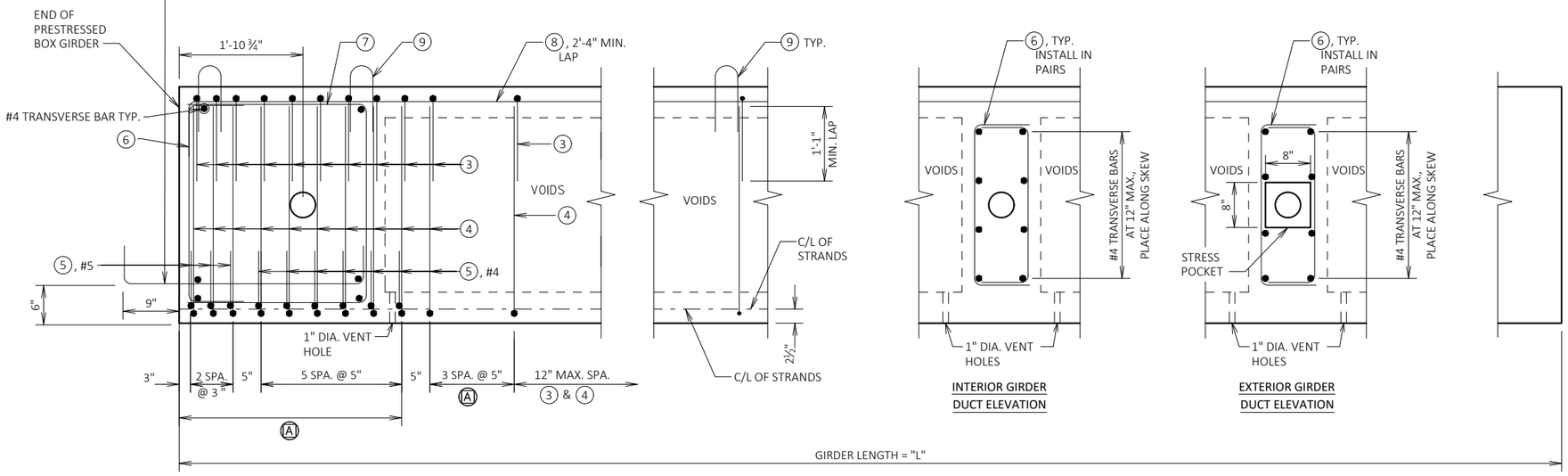


EXTERIOR GIRDER DUCT PLAN

NOTE

◆ BARS PLACED PARALLEL TO GIRDERS. SPACING IS PERPENDICULAR TO THE C/L OF THE GIRDERS.

(1) OR EQUIVALENT. WELDED PLATE DETAIL OR LOOP INSERT DETAIL MAY BE SUBSTITUTED PROVIDED THEIR PULLOUT CAPACITY IS APPROXIMATELY EQUAL TO THE YIELD STRENGTH OF THE #4 BARS. ◆

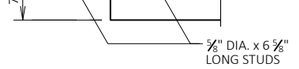


GIRDER ELEVATION

(A) DETAIL TYP. AT EACH END

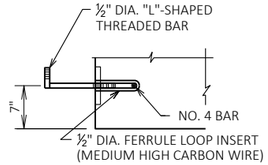
INTERIOR GIRDER DUCT ELEVATION

EXTERIOR GIRDER DUCT ELEVATION



WELDED PLATE DETAIL

(EQUIVALENT TO ONE #4 BAR)



LOOP INSERT DETAIL

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.)		CONC. STRGTH. f'c (p.s.i.)	DIA. OF STRAND (IN.)	UNDRAPED PATTERN		
			1/4 pt.	1/2 pt.			TOTAL NO. OF STRANDS	TOTAL INITIAL PRESTRESSED FORCE (KIPS)	f'ci (P.S.I.) *
1	1-7	40'-8"	0.2	0.3	5,000	0.5	20	620	4,250

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

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STRUCTURE B-24-44

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY CORRE

17" PRESTRESSED BOX GIRDER DETAILS 2

SHEET 9 OF 13

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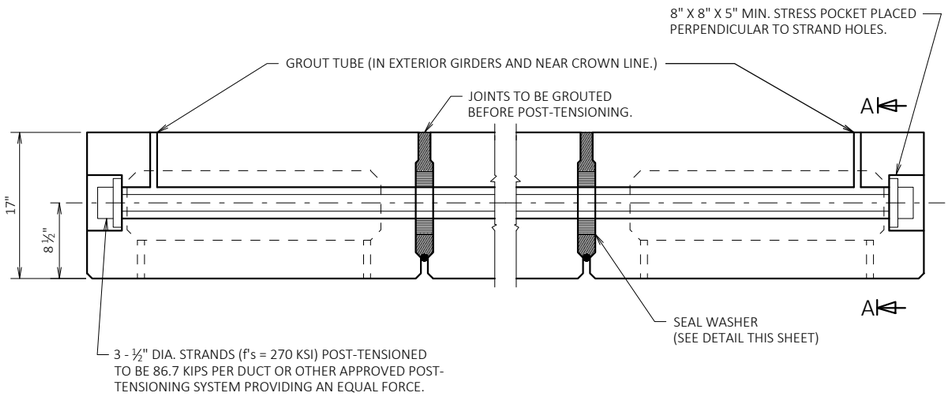
FILE NAME : P:±WI - NC REGION±6597-00-00_CTH S_GREEN LAKE CO±500_CADD±503_STRUCTURES±502.4_FINAL±080501-BG2_CTH S.DWG 10/24/2018 2:55 PM PLOT BY : PAULETTE FENSKE

STATE PROJECT NUMBER

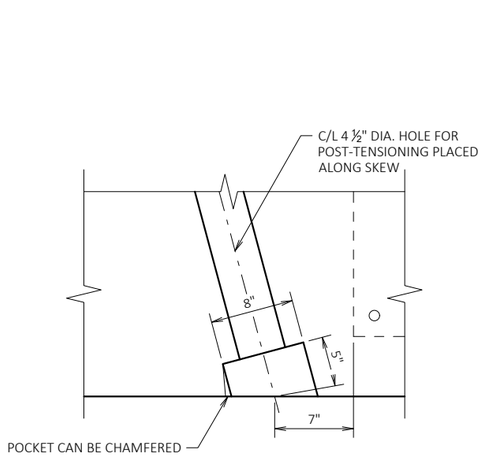
6597-00-70



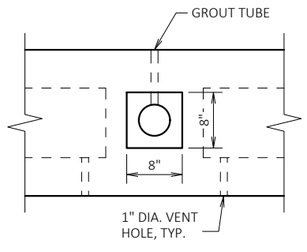
POST-TENSIONING DETAILS - ONE DUCT PER DIAPHRAGM

TOP OF DECK ELEVATIONS

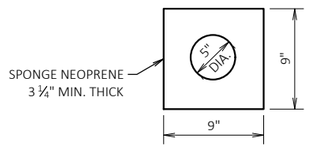
LOCATION	WEST ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	EAST ABUT.
N. FLOW LINE	879.71	879.73	879.76	879.78	879.80	879.82	879.84	879.86	879.87	879.89	879.90
CL BRIDGE	879.98	880.01	880.03	880.05	880.07	880.09	880.11	880.13	880.14	880.16	880.17
S. FLOW LINE	879.74	879.76	879.78	879.80	879.82	879.84	879.86	879.88	879.89	879.91	879.92



STRESS POCKET DETAIL

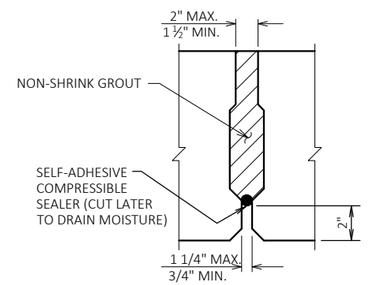


SECTION A-A

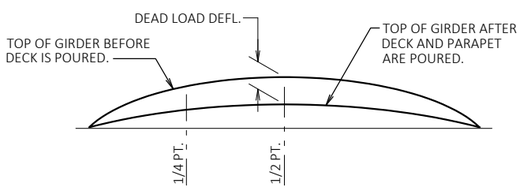


SEAL WASHER

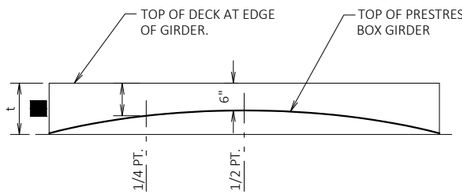
(MAY ALSO BE ROUND)



SHEAR KEY DETAIL



DEAD LOAD DEFLECTION DIAGRAM



DECK THICKNESS DIAGRAM

■ TO DETERMINE DECK THICKNESS AT GIRDER ENDS FOLLOW THIS PROCESS:

6" MIN. DECK SLAB THICKNESS
\+ FIELD MEASURED GIRDER CAMBER (AT MID SPAN)
\- DEADLOAD DEFLECTION (AT MIDSPAN)
= DECK THICKNESS, t

NOTE: PLAN DECK THICKNESS BASED ON THEORETICAL INITIAL CAMBER VALUE. ¼ PT. MAY BE INTERPOLATED. USE FIELD MEASURED GIRDER CAMBER FOR ACTUAL DECK THICKNESS. THE ¼ PT. IS INTERPOLATED BETWEEN DECK THICKNESS AT THE END OF DECK AND MIDSPAN.

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

SPAN	CAMBER (IN.) * *
1	1.4

THESE VALUES ARE NOT TO BE USED IN DETERMINING 't', USE FIELD MEASURED GIRDER CAMBER.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

DECK THICKNESS DIAGRAM

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-24-44

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
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17" PRESTRESSED BOX GIRDER DETAILS 3

SHEET 10 OF 13

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STATE PROJECT NUMBER

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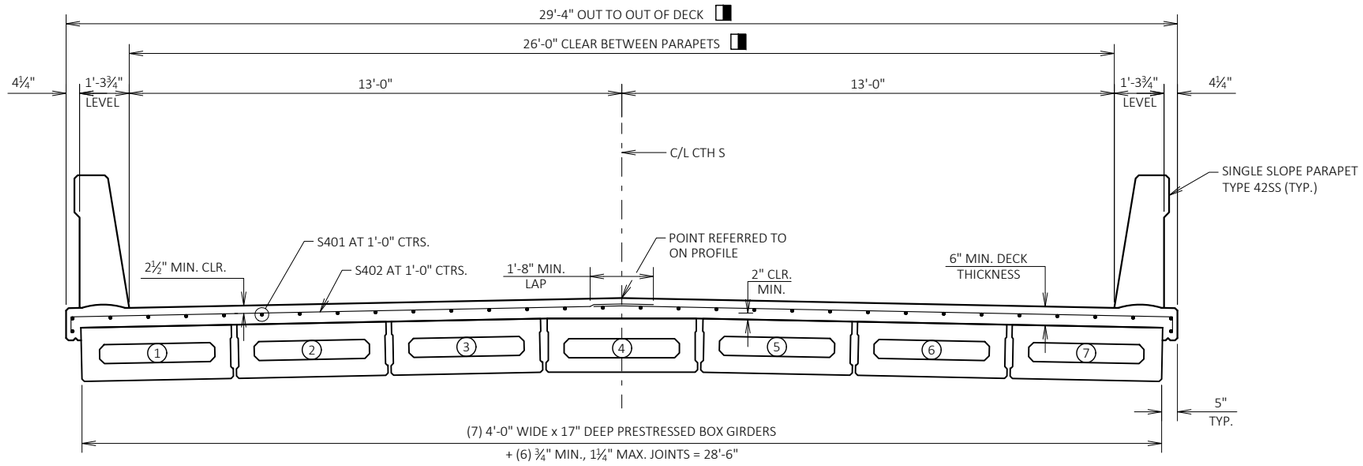
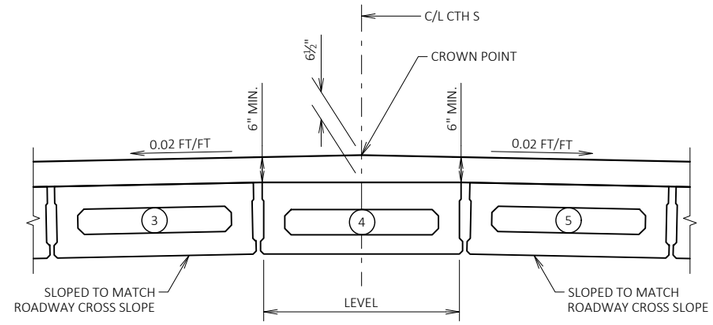
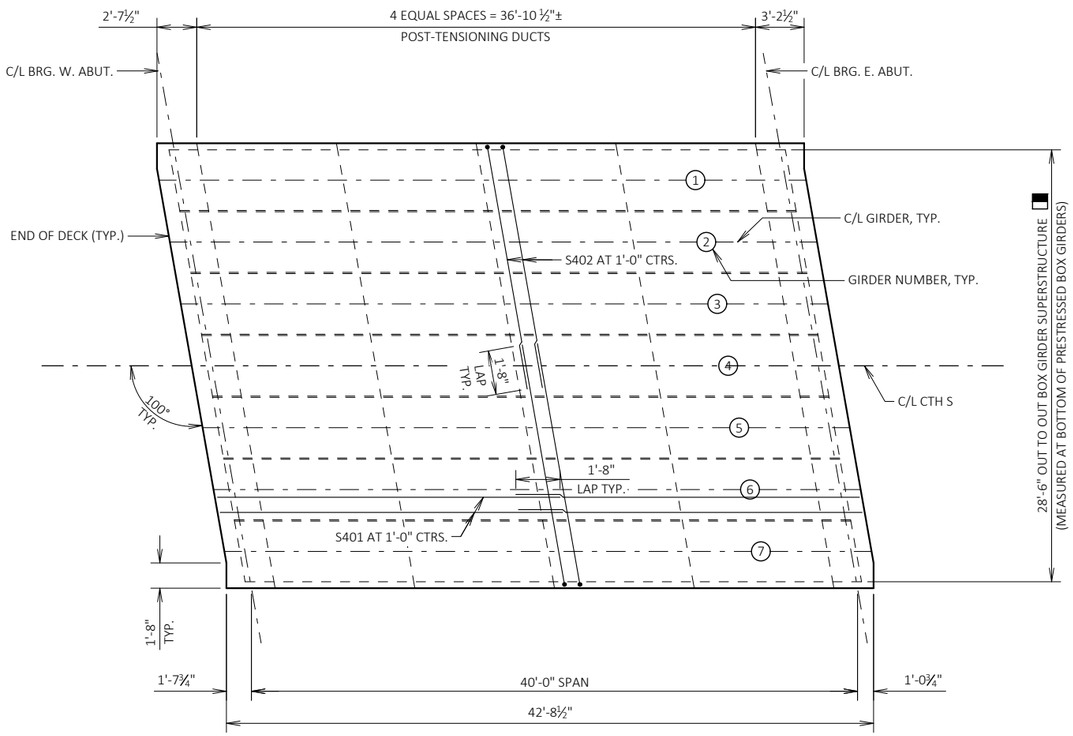


CROSS SECTION THRU BRIDGE

(LOOKING EAST)

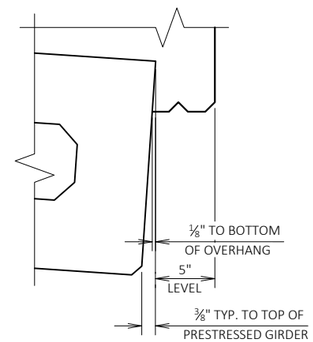


CROWN DETAIL AT LOCATION OF MIN. DECK THICKNESS



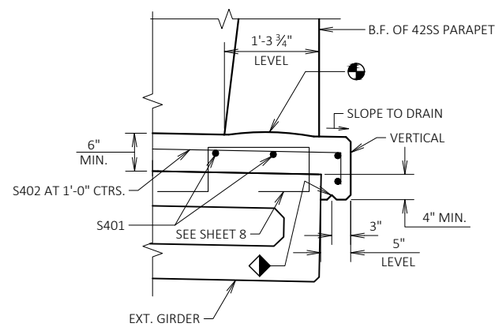
PLAN VIEW

N



GIRDER EDGE DETAIL

(LOOKING EAST)



OVERHANG DETAIL

PARAPET REIN. NOT SHOWN FOR CLARITY

LEGEND

- CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH
- ¾" DRIP GROOVE. EXTEND GROOVE TO 6" FROM FRONT FACE OF ABUT. DIAPHRAGM
- DIMENSION ASSUMES 1" JOINT WIDTH. JOINT DIMENSIONS MAY VARY DUE TO ±¼" JOINT TOLERANCES

B.F. DENOTES BACK FACE

F.F. DENOTES FRONT FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-24-44

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

SUPERSTRUCTURE

SHEET 11 OF 13

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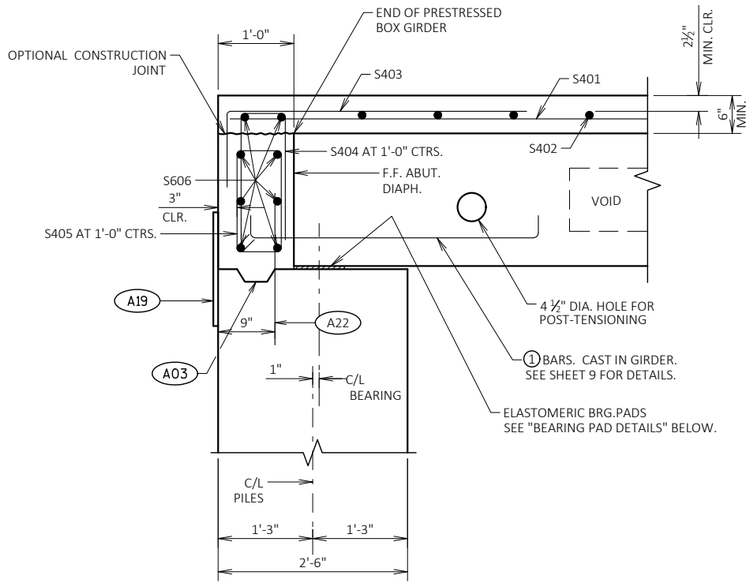
8

8



SECTION THRU SUPERSTRUCTURE

LEGEND

A03 KEYED CONST. JOINT FORMED BY BEVELED 2" x 6" (18" RUBBERIZED MEMBRANE WATERPROOFING AT B.F. & ¾" "V" GROOVE AT F.F.)

A19 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

A22 A510 OR B510 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH

¾" DRIP GROOVE. EXTEND GROOVE TO 6" FROM FRONT FACE OF ABUT. DIAPHRAGM

B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE

STATE PROJECT NUMBER

6597-00-70

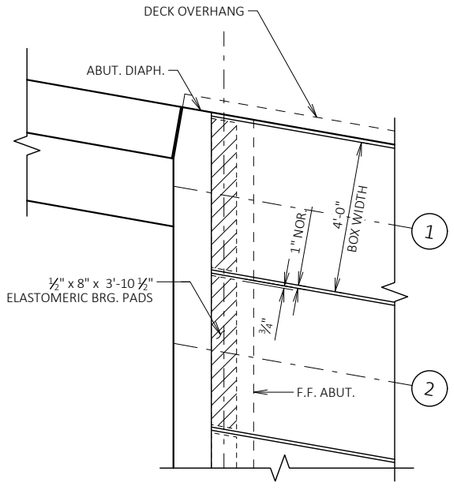
BILL OF BARS - SUPERSTRUCTURE

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR

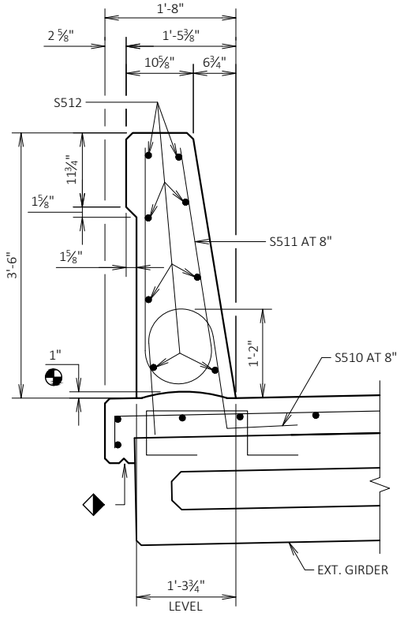
BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS					TOTAL WEIGHT = 5,290 LBS	
S401	64	22'-0"			DECK - TOP	LONGIT.
S402	86	16'-0"	X		DECK - TOP	TRANS.
S403	60	4'-1"	X		DECK - TOP - AT ABUTMENTS	LONGIT.
S404	60	3'-10"	X		ABUTMENT DIAPHRAGMS & DECK	VERT.
S405	60	4'-0"	X		ABUTMENT DIAPHRAGMS	VERT.
S606	16	29'-5"			ABUTMENT DIAPHRAGMS	HORIZ.
S510	130	4'-5"	X		PARAPETS	VERT.
S511	130	6'-8"	X		PARAPETS	VERT.
S512	32	22'-1"			PARAPETS	LONGIT.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

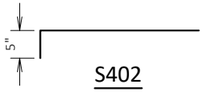
SEE SHEET 13 FOR PARAPET STEEL ON THE WINGS.



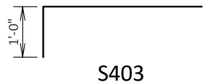
BEARING PAD DETAILS



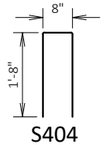
SECTION THRU PARAPET ON BRIDGE



S402



S403



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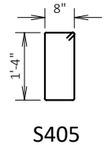

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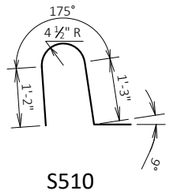
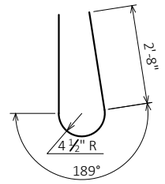


S510



S511

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-24-44

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY CORRE

SUPERSTRUCTURE DETAILS

SHEET 12 OF 13

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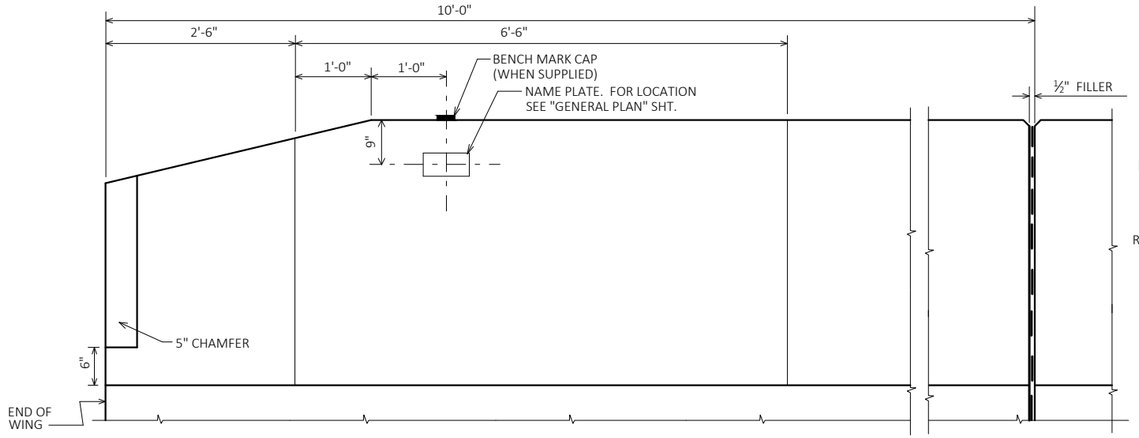
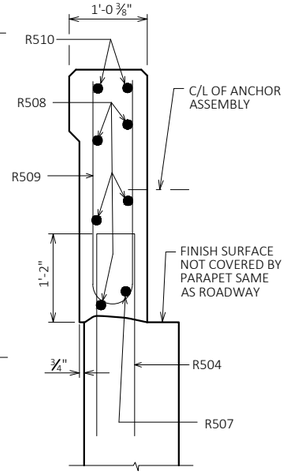
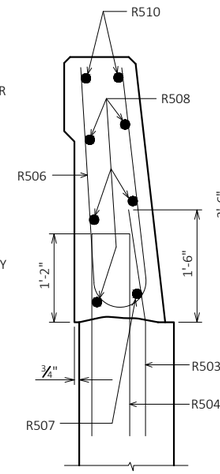
8



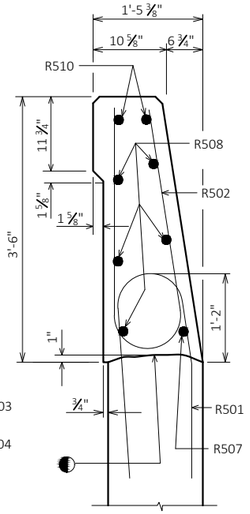
INSIDE ELEVATION



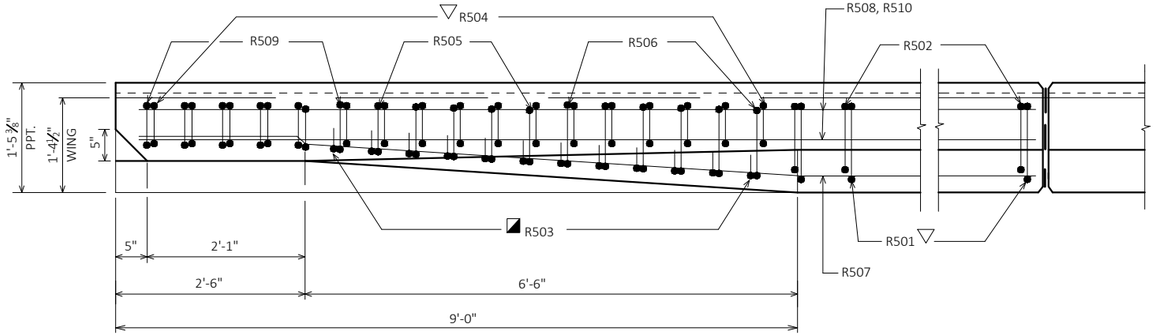
SECTION A



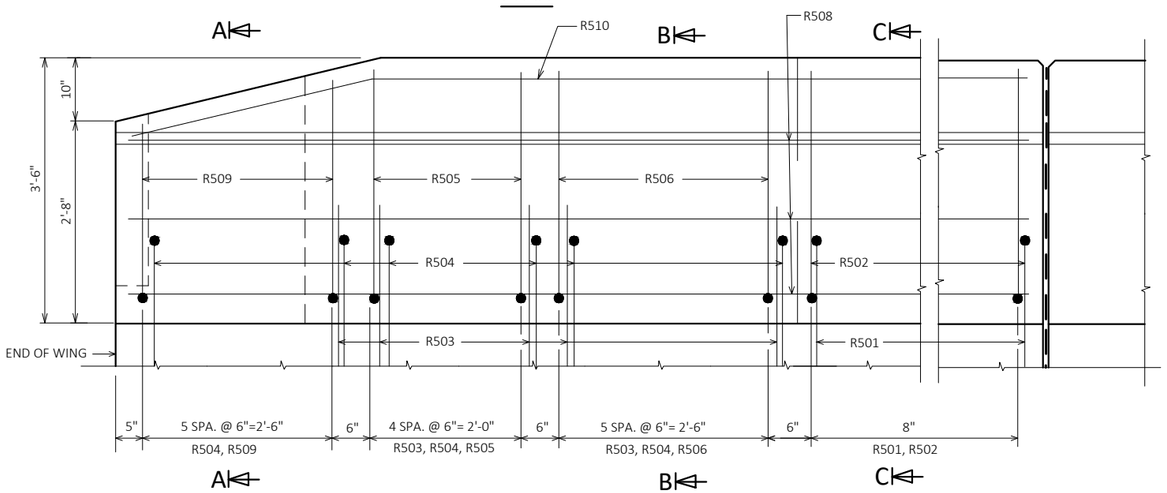
SECTION B



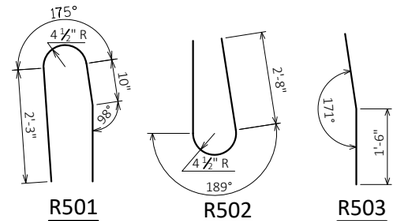
SECTION C



PLAN



OUTSIDE ELEVATION

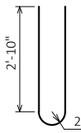


R501

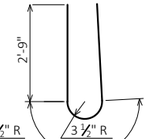
R502

R503

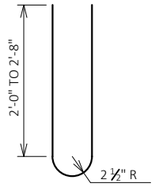
R504



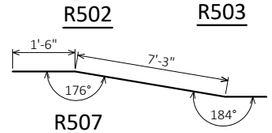
R505



R506



R509



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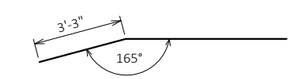

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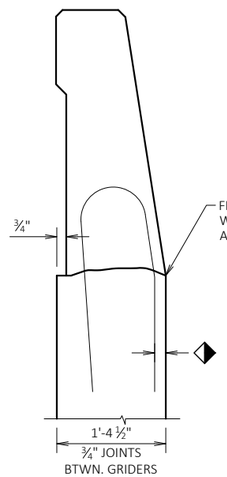

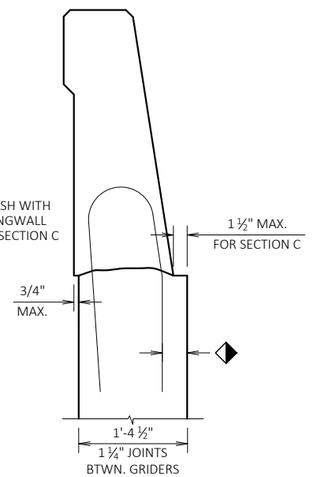

PARAPET LOCATION ON WING

◐ CONTRACTOR TO DETERMINE CLEAR DISTANCE TO REBAR BASED ON FINAL POST-TENSIONED SUPERSTRUCTURE WIDTH. MAINTAIN 2" MIN. CLR.

STATE PROJECT NUMBER

6597-00-70

BILL OF BARS - PARAPETS

BARS SHOWN ARE FOR 1 WING ONLY

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
COATED BARS					TOTAL WEIGHT = 350 LBS
R501	2	5'-10"	X		PARAPET VERT.
R502	2	6'-8"	X		PARAPET VERT.
R503	11	3'-0"	X		PARAPET VERT.
R504	17	5'-7"	X		PARAPET VERT.
R505	5	6'-5"	X		PARAPET VERT.
R506	6	6'-6"	X		PARAPET VERT.
R507	1	9'-5"	X		PARAPET HORIZ.
R508	5	9'-8"			PARAPET HORIZ.
R509	6	5'-5"	X	X	PARAPET VERT.
R510	2	9'-8"	X		PARAPET HORIZ.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR SERIES TABLE

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

LEGEND

◐ 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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-24-44

DRAWN BY PKF | PLANS CK'D. ETP

SINGLE SLOPE
PARAPET 42SS

SHEET 13 OF 13

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STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
		Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.00	Mass Ordinate
					Note 1	Note 2	Note 3	Note 1		Note 8
8+50.000	0.00	21.00	5.50	17.80	0	0	0	0	0	0
9+00.000	50.00	21.00	5.50	23.00	39	10	38	39	38	-9
9+50.000	50.00	21.00	5.50	29.53	39	10	49	78	86	-29
9+65.002	15.00	21.00	5.50	39.75	12	3	19	89	106	-40
					89	23	106			

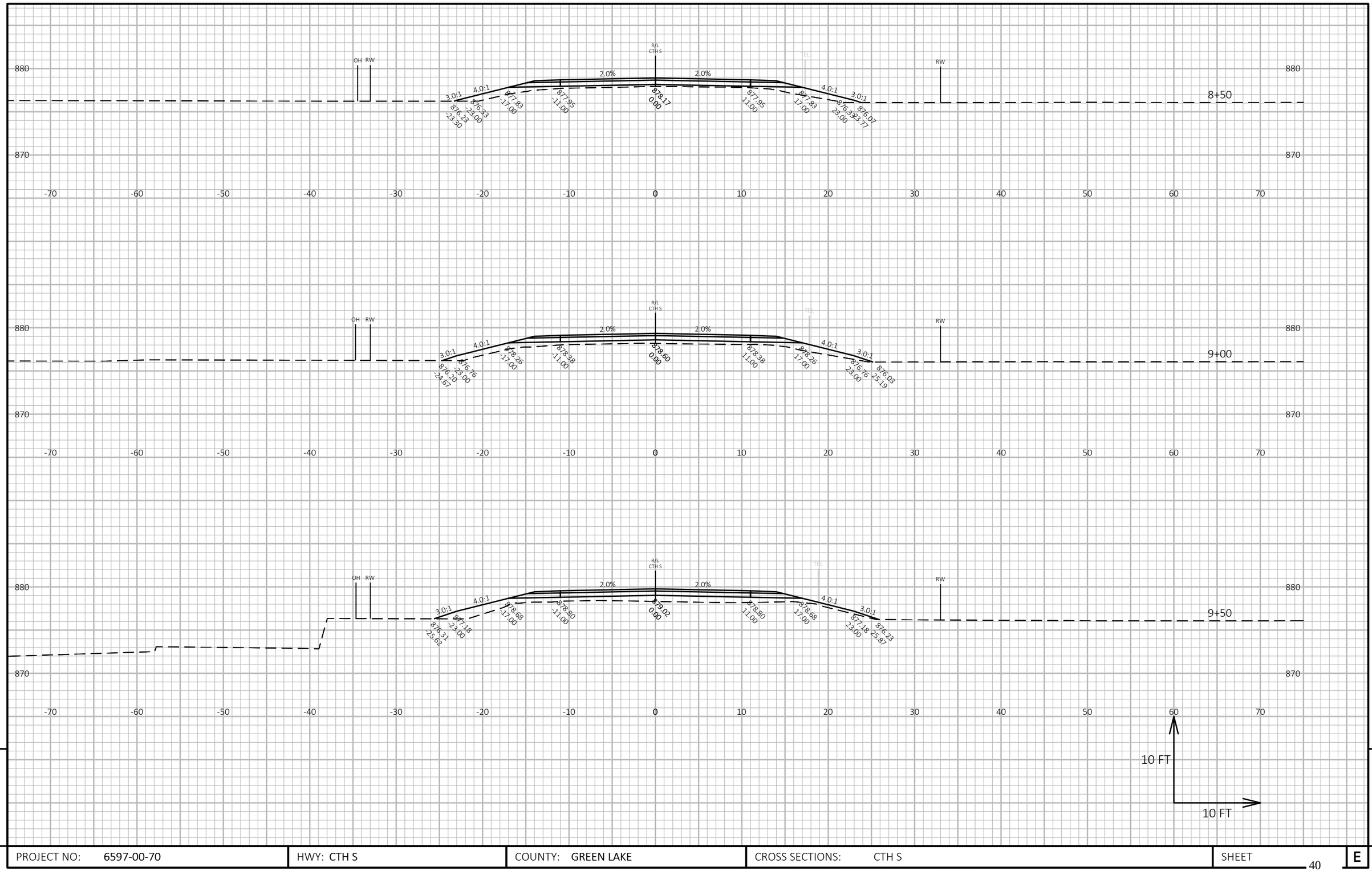
STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
		Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.00	Mass Ordinate
					Note 1	Note 2	Note 3	Note 1		Note 8
10+49.563	0.00	21.00	5.50	59.39	0	0	0	0	0	0
11+00.000	50.00	21.00	5.50	66.32	39	10	116	39	116	-88
11+50.000	50.00	21.00	5.50	67.11	39	10	124	78	240	-183
					78	20	240			

Notes:
(1) Item number 205.0100
(2) Salvaged/Unsuable Pavement Material is included in Cut.
(3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
(8) Available Material = Cut - Salvaged/Unusuable Pavement Material

9

9

FILE NAME : P:\WI - NC REGION\6597-00-00_CTH S_GREEN LAKE CO\500_CADD\501_C3D_2016\65970000\SHEETSPLAN\090101-EW.DWG
LAYOUT NAME - 090101-ew
PLOT DATE : 12/17/2018 8:18 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

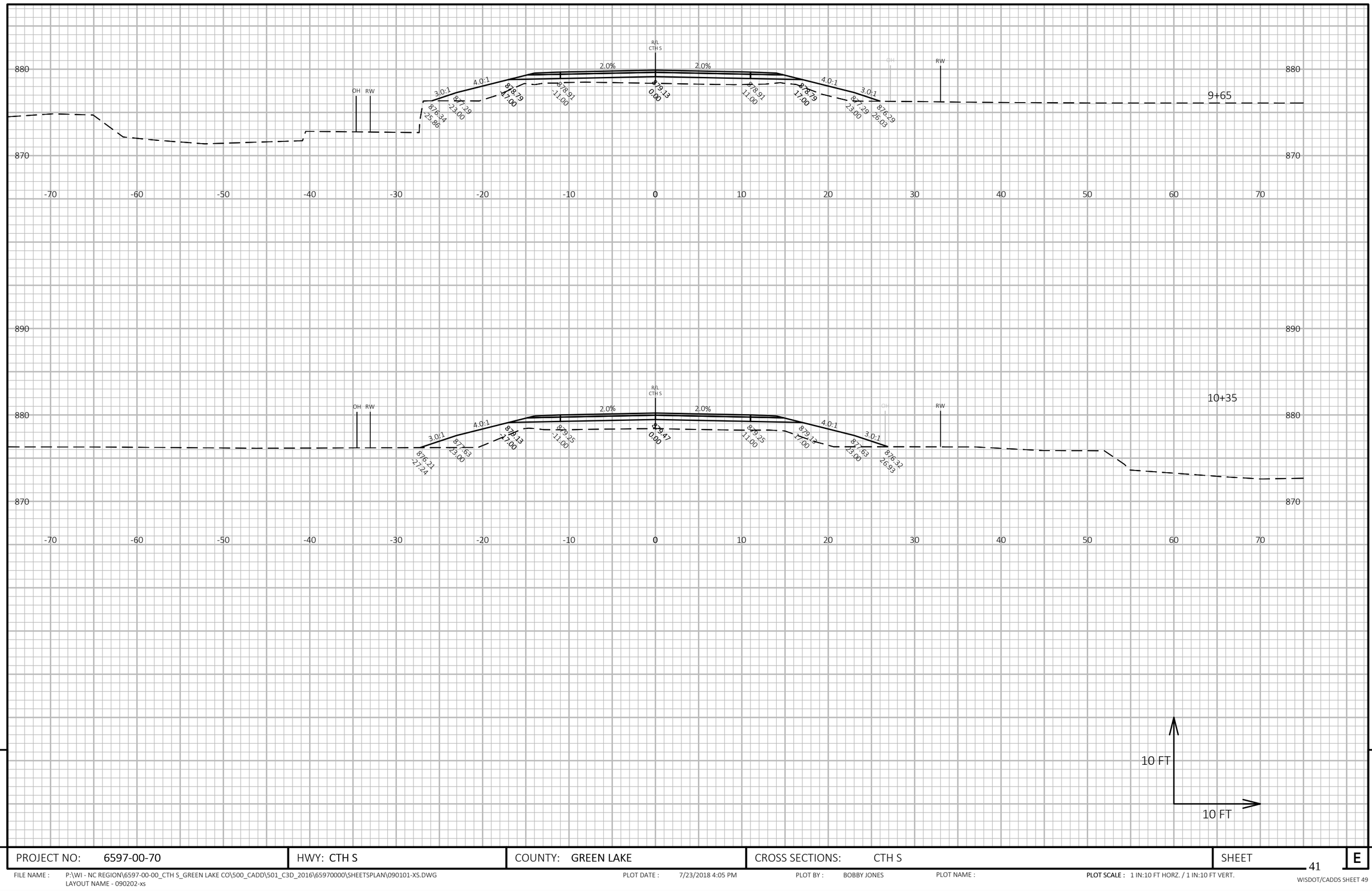


PROJECT NO: 6597-00-70	HWY: CTH S	COUNTY: GREEN LAKE	CROSS SECTIONS: CTH S	SHEET 40	E

FILE NAME : P:\WI - NC REGION\6597-00-00_CTH S_GREEN LAKE CO\500_CADD\501_C3D_2016\65970000\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - 090201-xs

PLOT DATE : 7/23/2018 4:05 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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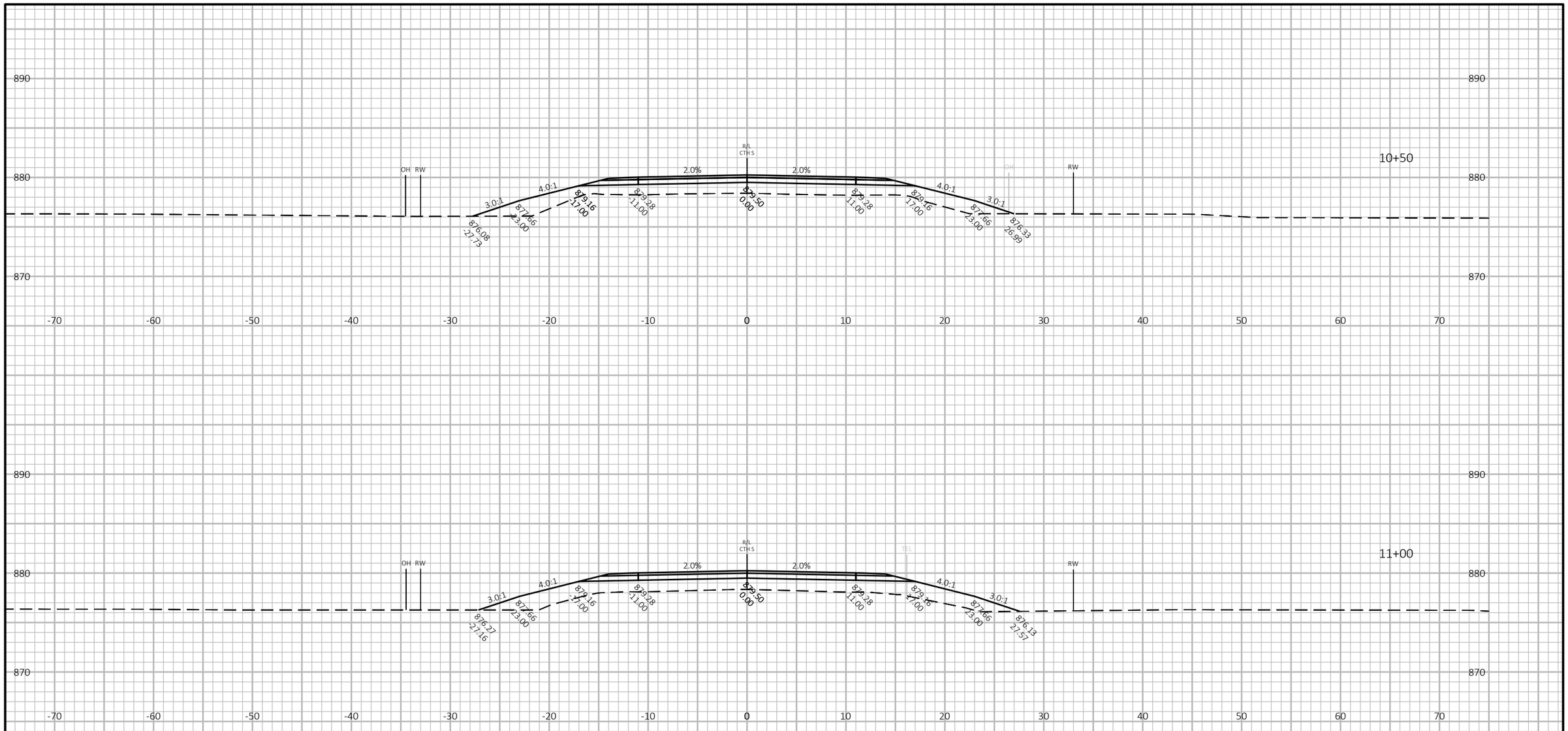
PROJECT NO: 6597-00-70	HWY: CTH S	COUNTY: GREEN LAKE	CROSS SECTIONS: CTH S	SHEET 41	E

FILE NAME : P:\WI - NC REGION\6597-00-00_CTH S_GREEN LAKE CO\500_CADD\501_C3D_2016\65970000\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - 090202-xs

PLOT DATE : 7/23/2018 4:05 PM PLOT BY : BOBBY JONES PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



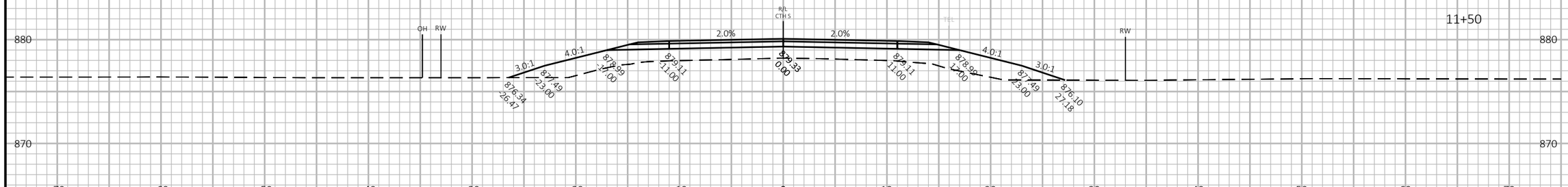
9

9

PROJECT NO: 6597-00-70	HWY: CTH S	COUNTY: GREEN LAKE	CROSS SECTIONS: CTH S	SHEET 42	E

FILE NAME : P:\WI - NC REGION\6597-00-00_CTH S_GREEN LAKE CO\500_CADD\501_C3D_2016\65970000\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - 090203-xs

PLOT DATE : 7/23/2018 4:05 PM PLOT BY : BOBBY JONES PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



10 FT

10 FT

9

9

PROJECT NO: 6597-00-70	HWY: CTH S	COUNTY: GREEN LAKE	CROSS SECTIONS: CTH S	SHEET 43	E

FILE NAME : P:\WI - NC REGION\6597-00-00_CTH S_GREEN LAKE CO\500_CADD\501_C3D_2016\65970000\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - 090204-xs

PLOT DATE : 7/23/2018 4:05 PM PLOT BY : BOBBY JONES PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov