

LAX

DECEMBER 2021

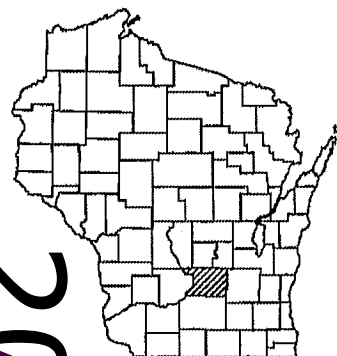
ORDER OF SHEETS

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

TOTAL SHEETS = 48

PROJECT ID: 6217-00-77

COUNTY: COLUMBIA



DESIGN DESIGNATION

A.A.D.T.	(2022)	=	130
A.A.D.T.	(2042)	=	195
D.H.V.		=	18
D.D.		=	60/40
T.		=	10% (ASSUMED)
DESIGN SPEED		=	40 M.P.H.
ESALS		=	44,000

CONVENTIONAL SYMBOLS

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

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

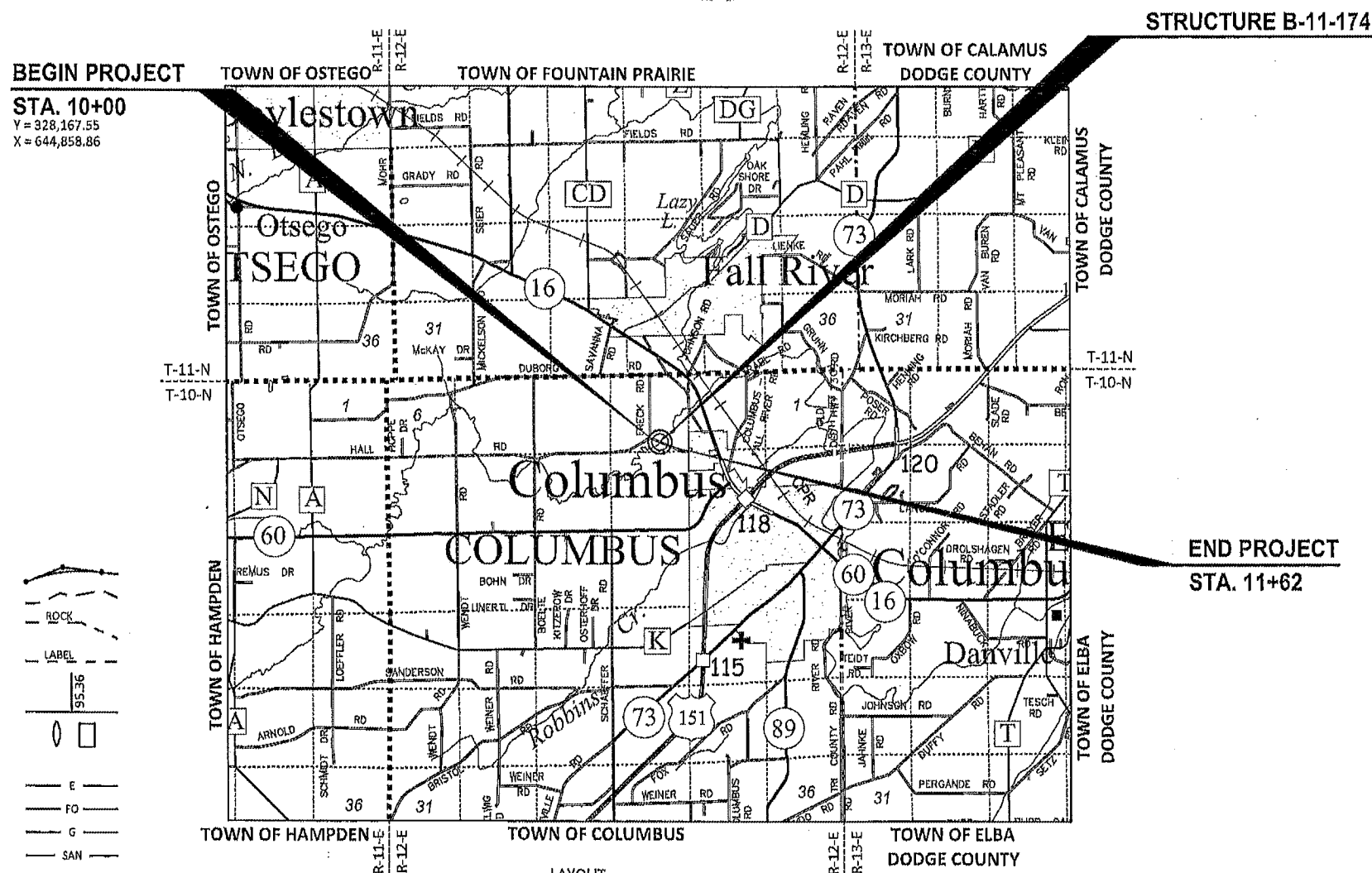
PLAN OF PROPOSED IMPROVEMENT

TOWN OF COLUMBUS, HALL ROAD

CRAWFISH RIVER BRIDGE (B-11-174)

LOCAL STREET COLUMBIA COUNTY

STATE PROJECT NUMBER
6217-00-77



TOTAL NET LENGTH OF CENTERLINE = 0.031 MILES

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

ELEVATION SHOWN ON THIS PLAN ARE REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD (2012).

STATE PROJECT		FEDERAL PROJECT	
6217-00-77		PROJECT	CONTRACT
		WISC-2022079	1

ACCEPTED FOR
COUNTY of COLUMBIA
7/14/2021
(Date) *[Signature]*
(Highway Commissioner)

ACCEPTED FOR
TOWN of COLUMBUS
7-13-21
(Date) *[Signature]*
(Town Chairman)

ORIGINAL PLANS PREPARED BY
JEWELL
associates engineers, inc
Engineers - Architects - Surveyors

WISCONSIN PROFESSIONAL ENGINEER
ELLERY A. SCHAFER
E-41742-6
SPRING GREEN, WI
7/19/2021

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PREPARED BY
Surveyor: JEWELL ASSOCIATES ENGINEERS, INC.
Designer: JEWELL ASSOCIATES ENGINEERS, INC.
Project Manager: ALEIGHA BURG, P.E.
Regional Examiner: SW REGION
Regional Supervisor: OSCAR WINGER, P.E.

APPROVED FOR THE DEPARTMENT
DATE: 7/15/2021
Aleigha Burg, P.E.
(Signature)

GENERAL NOTES

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

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

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 EXCAVATION. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

UNLESS SHOWN OTHERWISE, DISTURBED AREAS SHOWN WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS ARE TO BE FERTILIZED (TYPE B), SEEDED (USE SEED MIX NO. 20), AND MULCHED AS DIRECTED BY THE ENGINEER. ALL POST CONSTRUCTION WET AREAS SHALL BE SEEDED WITH SEEDING MIXTURE NO. 60. DO NOT FERTILIZE WETLAND AREAS.

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

SILT FENCE, TEMPORARY DITCH CHECKS, AND TURBIDITY BARRIER SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE AND TURBIDITY BARRIER SHALL BE PLACED PRIOR TO CONSTRUCTION AND SHALL BE IN PLACE PRIOR TO STRUCTURE REMOVAL.

FILL EXPANSION IS VARIABLE AND IS ESTIMATED AT 25%.

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

THE LOCATION OF ALL PERMANENT SIGNING SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD PRIOR TO PLACEMENT.

4-INCHES OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 2¼-INCH LOWER LAYER AND A 1¾-INCH UPPER LAYER.

ADJUST DITCH GRADING AS NECESSARY TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER IN THE FIELD.

ASPHALTIC SURFACE QUANTITIES WERE CALCULATED USING 115 LB/SY/IN.

WETLANDS ARE PRESENT IN THE PROJECT LIMITS. THE CONTRACTOR SHALL NOT OPERATE OR STOCKPILE EQUIPMENT BEYOND THE EXISTING TOE OF SLOPE, OR FINISHED SLOPE INTERCEPT AT STA 10+01 - STA 10+56, RT; STA 10+60 - STA 10+68, LT; STA 10+93 - STA 11+06, RT; STA 11+06 - STA 11+29, LT.

MULCH ALL MAINLINE SLOPES AS DIRECTED BY THE ENGINEER IN THE FIELD.

CONTACTS

COLUMBIA COUNTY HIGHWAY DEPARTMENT:

HIGHWAY DEPARTMENT COMMISSIONER
338 W OLD HIGHWAY 16
WYOCENA, WI 53969
ATTN: CHRIS HARDY, P.E.
PH: (608) 429-2136
EMAIL: chris.hardy@co.columbia.wi.us

DESIGN CONSULTANT:

JEWELL ASSOCIATES ENGINEERS, INC.
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
ATTN: ELLERY SCHAFFER, P.E.
PH: (608) 459-6027
CELL: (608) 341-8159
EMAIL: ellery.schaffer@jewellassoc.com

TOWN OF COLUMBUS:

TOWN OF COLUMBUS CHAIRPERSON
W1512 STATE ROAD 60
COLUMBUS, WI 53925
ATTN: DARREN SCHROEDER
PH: (920) 623-4616

WDNR LIAISON:

STATE OF WISCONSIN
DNR SOUTH CENTRAL REGION HQ
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
ATTN: ERIC HEGGELUND
PH: (608) 228-7927
EMAIL: eric.heggelund@wisconsin.gov

UTILITIES

COMMUNICATION LINE

AT&T
ATTN: CHUCK BARTELT
70 E. DIVISION STREET
FOND DU LAC, WI 54935
PH: (920) 929-1013
CELL: (920) 410-5104
EMAIL: cb1416@att.com

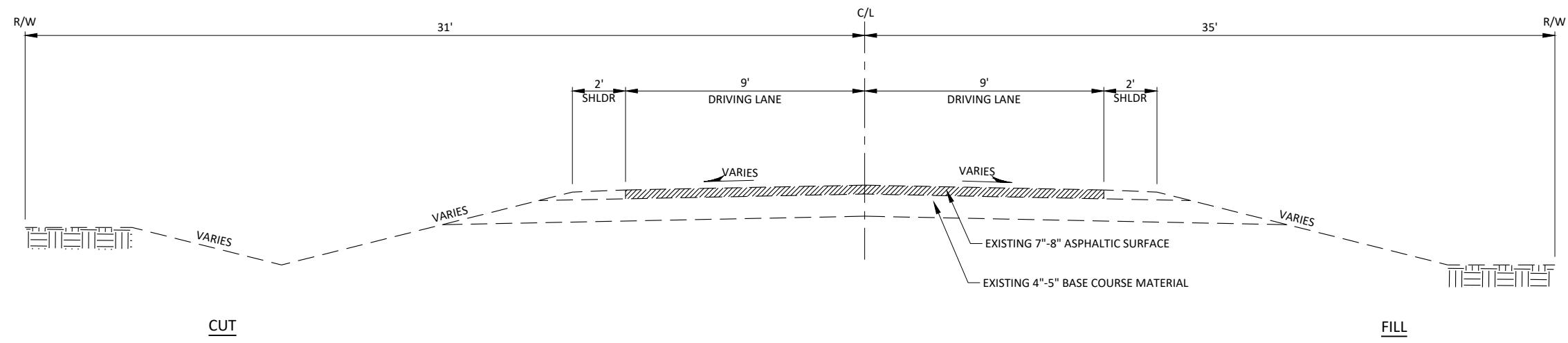
LIST OF STANDARD ABBREVIATIONS

Table with 6 columns of abbreviations and their corresponding full names, including terms like ABUT, AC, AGG, AH, <, ASPH, AVG, ADT, BAD, BK, BF, BM, BR, C or C/L, CC, C.E., CTH, CR, CR, CY or CU YD, CP, C & G, D, DHV, DIA, E, X, ELEC, EL or ELEV, ESALS, EBS, FF, F.E., F, FG, FL or F/L, FT, FTG, GN, HT, CWT, HYD, INL, ID, INV, IP, IRS, JT, JCT, LHF, L, LIN FT, or LF, LC, MH, MB, ML or M/L, N, Y, OD, PLE, PT, PC, PI, PRC, POC, POT, PVC, PCC, LB, PSI, P.E., R, RR, R, RL or R/L, RP, RCCP, REQD, RES, RW, RT, RHF, R/W, RD, R, INV, Invert, Iron Pipe or Pin, Iron Rod Set, Joint, Junction, Left-Hand Forward, Length of Curve, Linear Foot, Long Chord of Curve, Manhole, Mailbox, Match Line, North, North Grid Coordinate, Outside Diameter, Permanent Limited Easement, Point, Point of Curvature, Point of Intersection, Point of Reverse Curvature, Point of Tangency, Point On Curve, Point on Tangent, Polyvinyl Chloride, Portland Cement Concrete, Pound, Pounds Per Square Inch, Private Entrance, Radius, Railroad, Range, Reference Line, Reference Point, Reinforced Concrete Culvert Pipe, Required, Residence or Residential, Retaining Wall, Right, Right-Hand Forward, Right-of-Way, Road, River, RDWY, SALV, SAN S, SEC, SHLDR, SHR, SW, S, SQ, SF or SQ FT, SY or SQ YD, STD, SDD, STH, STA, SS, SG, SE, SL or S/L, SV, T, TEL, TEMP, TI, TLE, t, T or TN, TRANS, TL or T/L, T, TYP, UNCL, UG, UH, VAR, V, VERT, VC, VOL, WM, WV, W, WB, YD, Roadway, Salvaged, Sanitary Sewer, Section, Shoulder, Shrinkage, Sidewalk, South, Square, Square Feet, Square Yard, Standard, Standard Detail Drawings, State Trunk Highways, Station, Storm Sewer, Subgrade, Superelevation, Survey Line, Septic Vent, Tangent, Telephone, Temporary, Temporary Interest, Temporary Limited Easement, Ton, Town, Transition, Transit Line, Trucks (percent of), Typical, Unclassified, Underground Cable, United States Highway, Variable, Velocity or Design Speed, Vertical, Vertical Curve, Volume, Water Main, Water Valve, West, Westbound, Yard.

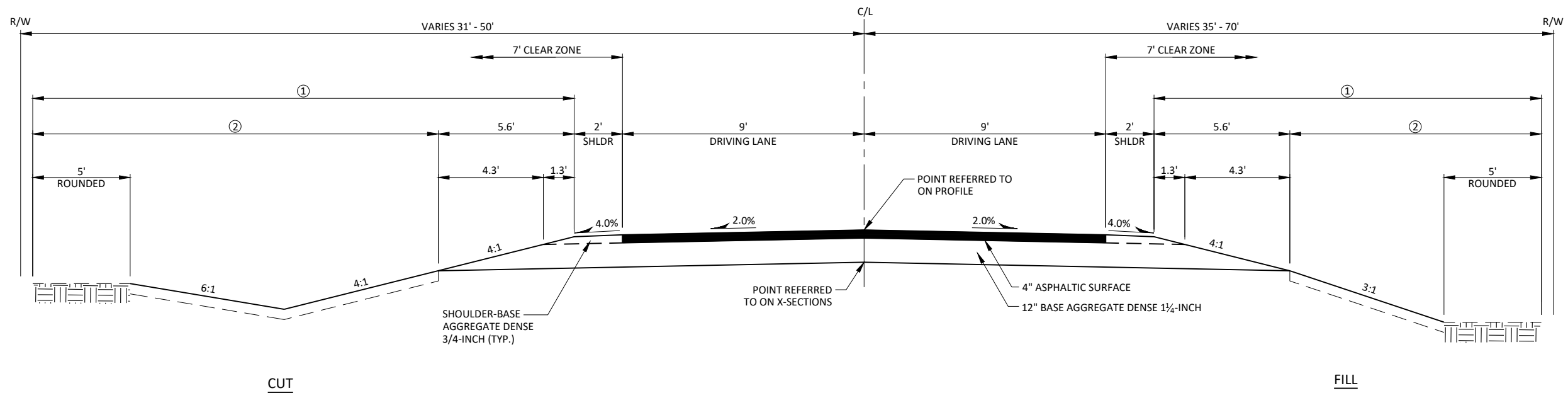
Table titled 'HYDROLOGIC SOIL GROUP' with columns for A, B, C, and D, and sub-columns for slope ranges (0-2, 2-6, 6 & OVER). Rows include LAND USE, ROW CROPS, MEDIAN STRIP TURF, SIDE SLOPE TURF, and PAVEMENT (ASPHALT, CONCRETE, BRICK, DRIVES, WALKS, ROOFS, GRAVEL ROADS, SHOULDERS).

TOTAL PROJECT AREA= 0.34 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.21 ACRES



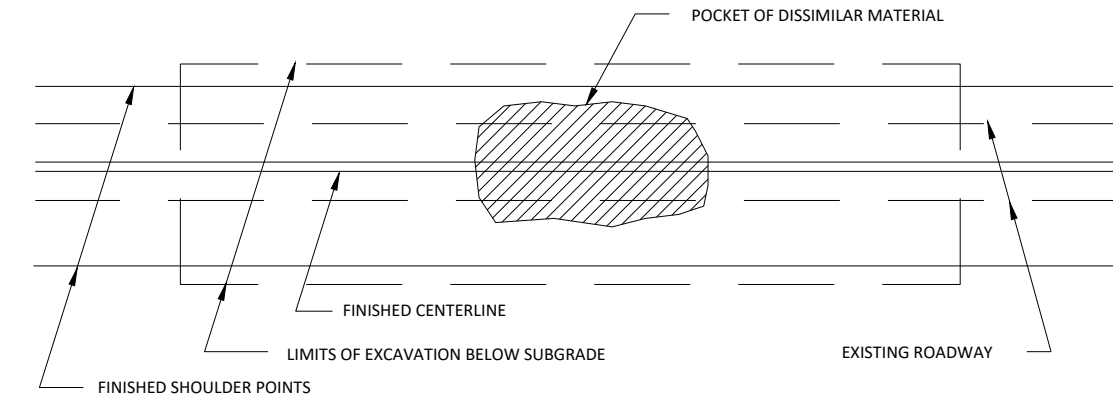


TYPICAL EXISTING SECTION
HALL ROAD

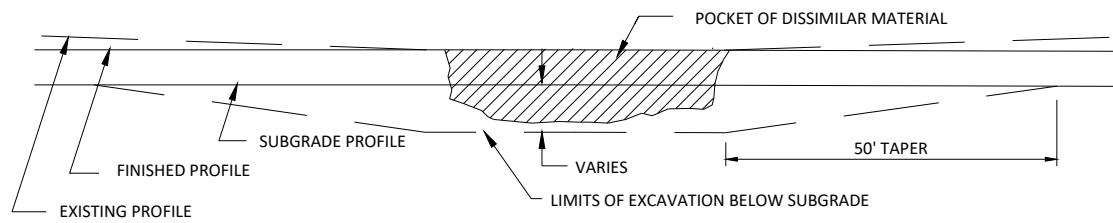


TYPICAL FINISHED SECTION
HALL ROAD

- ① LIMITS OF SEEDING MIXTURE NO. 20 OR SEEDING MIXTURE NO. 60 & FERTILIZER TYPE B (AS DIRECTED BY THE ENGINEER)
- ② LIMITS OF SALVAGED TOPSOIL & MULCH (AS DIRECTED BY THE ENGINEER)

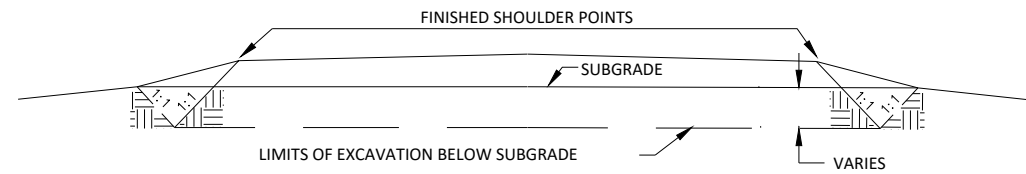


PLAN VIEW



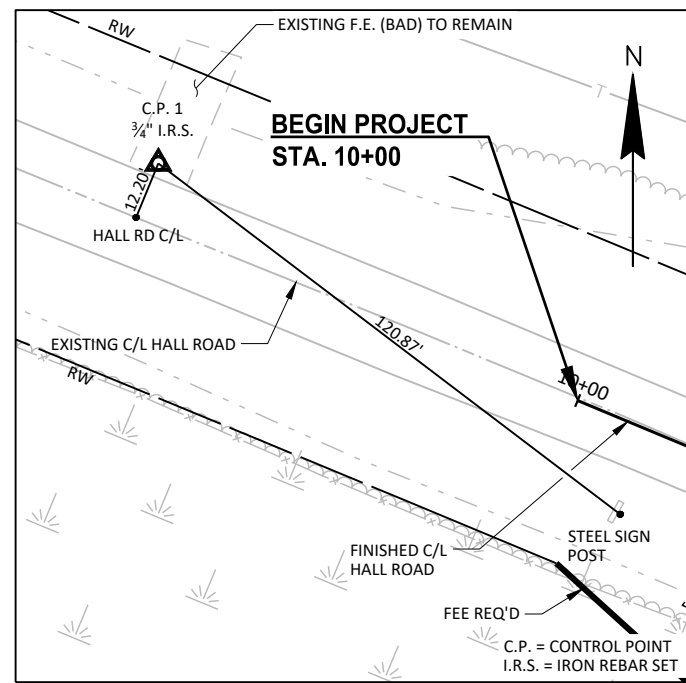
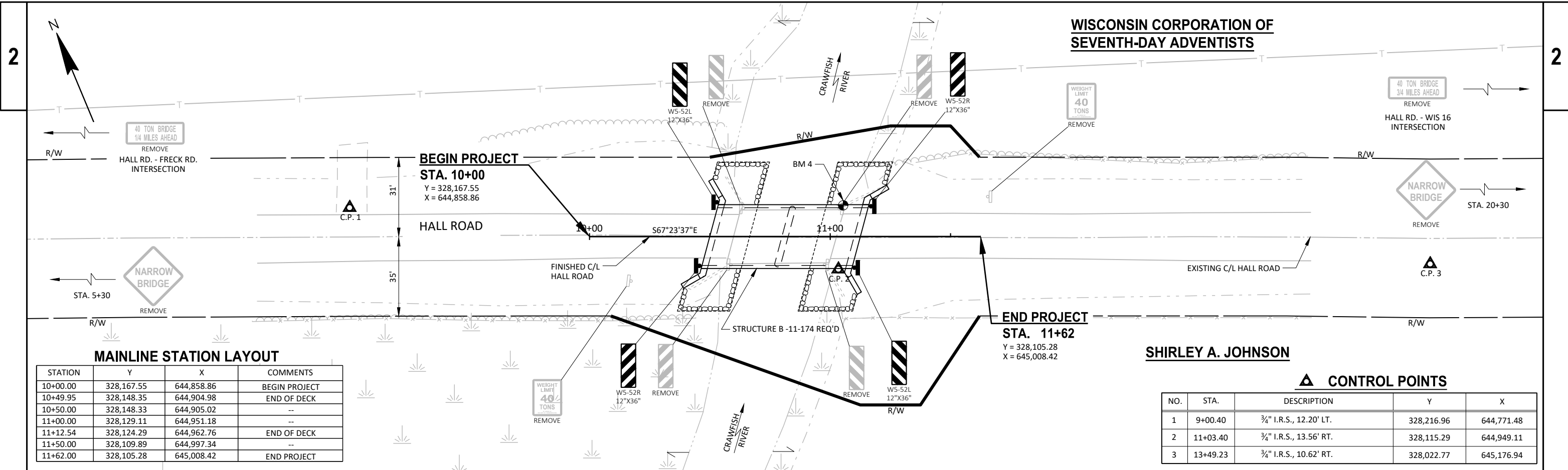
PROFILE VIEW

RURAL EXCAVATION BELOW SUBGRADE (E.B.S.)

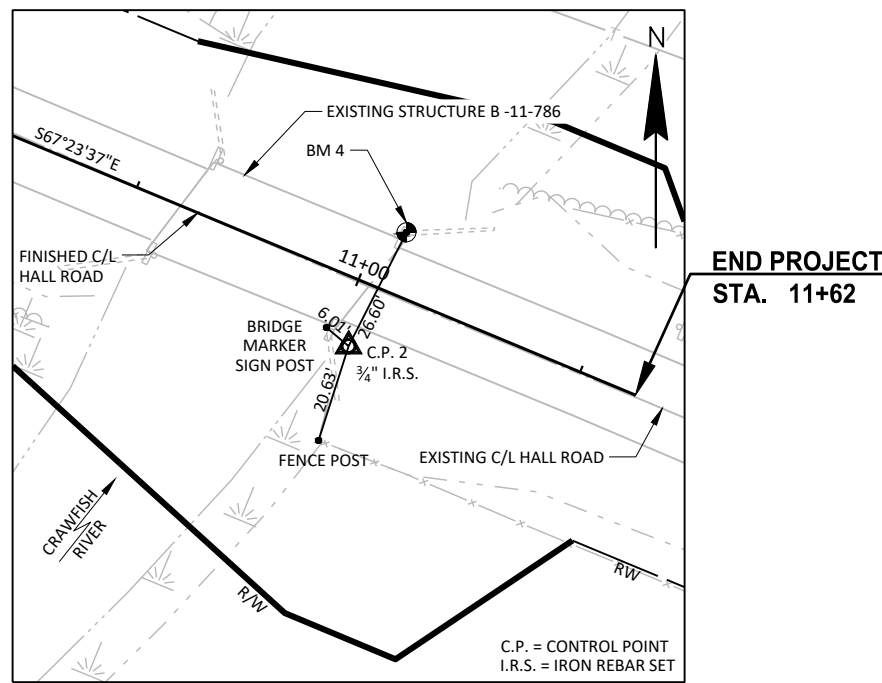


CROSS SECTION VIEW

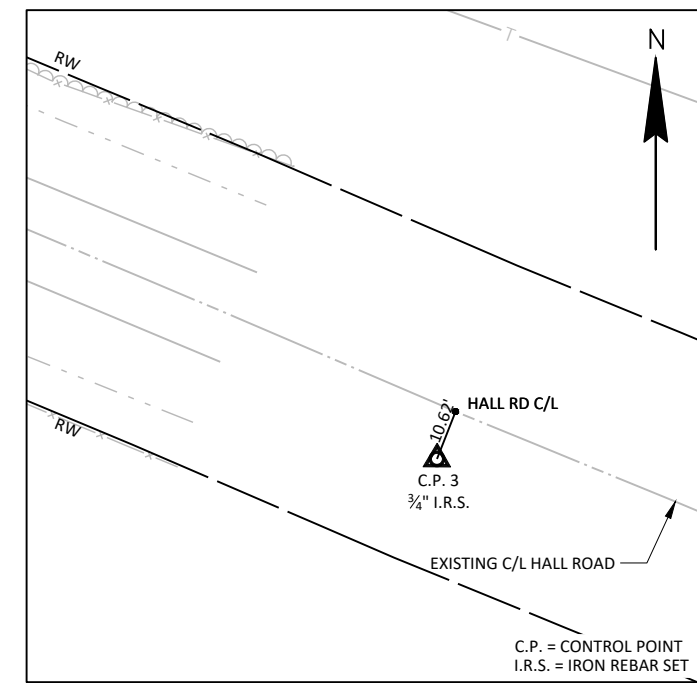
1. EXACT LOCATION OF E.B.S. (EXCAVATION BELOW SUBGRADE) SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. E.B.S. AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER. BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.
3. THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL E.B.S. IS COMPLETED. LATERAL LIMITS OF EXCAVATION SHALL BE THE SUBGRADE SHOULDER POINTS.



TIES TO C.P. #1
 STA. 9+00.40; 12.20' LT.
 Y = 328,216.96
 X = 644,771.48



TIES TO C.P. #2
 STA. 11+03.40; 13.56' RT.
 Y = 328,115.29
 X = 644,949.11



TIES TO C.P. #3
 STA. 13+49.23; 10.62' RT.
 Y = 328,022.77
 X = 645,176.94

Estimate Of Quantities By Plan Sets

6217-00-77

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0205	Grubbing	STA	2.000	2.000
0006	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. B-11-786	EACH	1.000	1.000
0012	205.0100	Excavation Common	CY	140.000	140.000
0014	206.1000	Excavation for Structures Bridges (structure) 01. B-11-174	LS	1.000	1.000
0018	208.0100	Borrow	CY	100.000	100.000
0020	210.1500	Backfill Structure Type A	TON	260.000	260.000
0022	213.0100	Finishing Roadway (project) 01. 6217-00-77	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	15.000	15.000
0028	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	245.000	245.000
0030	455.0605	Tack Coat	GAL	15.000	15.000
0032	465.0105	Asphaltic Surface	TON	55.000	55.000
0034	502.0100	Concrete Masonry Bridges	CY	170.000	170.000
0036	502.3200	Protective Surface Treatment	SY	220.000	220.000
0040	505.0400	Bar Steel Reinforcement HS Structures	LB	5,650.000	5,650.000
0042	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	23,520.000	23,520.000
0048	513.4061	Railing Tubular Type M	LF	129.000	129.000
0050	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0056	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	715.000	715.000
0058	606.0300	Riprap Heavy	CY	210.000	210.000
0060	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	140.000	140.000
0062	618.0100	Maintenance And Repair of Haul Roads (project) 01. 6217-00-77	EACH	1.000	1.000
0066	619.1000	Mobilization	EACH	0.460	0.460
0068	624.0100	Water	MGAL	4.000	4.000
0070	625.0500	Salvaged Topsoil	SY	690.000	690.000
0072	627.0200	Mulching	SY	790.000	790.000
0074	628.1504	Silt Fence	LF	210.000	210.000
0076	628.1520	Silt Fence Maintenance	LF	420.000	420.000
0078	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0080	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0082	628.6005	Turbidity Barriers	SY	310.000	310.000
0084	628.7504	Temporary Ditch Checks	LF	20.000	20.000
0086	629.0210	Fertilizer Type B	CWT	0.800	0.800
0088	630.0120	Seeding Mixture No. 20	LB	15.000	15.000
0090	630.0160	Seeding Mixture No. 60	LB	3.000	3.000
0092	630.0200	Seeding Temporary	LB	15.000	15.000
0094	630.0300	Seeding Borrow Pit	LB	2.000	2.000
0096	630.0500	Seed Water	MGAL	20.000	20.000
0098	633.5100	Markers Row	EACH	7.000	7.000
0100	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0102	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0104	638.2602	Removing Signs Type II	EACH	10.000	10.000
0106	638.3000	Removing Small Sign Supports	EACH	10.000	10.000
0108	642.5001	Field Office Type B	EACH	0.500	0.500
0110	643.0420	Traffic Control Barricades Type III	DAY	2,180.000	2,180.000
0112	643.0705	Traffic Control Warning Lights Type A	DAY	3,390.000	3,390.000
0114	643.0900	Traffic Control Signs	DAY	1,700.000	1,700.000
0116	643.5000	Traffic Control	EACH	0.500	0.500
0118	645.0111	Geotextile Type DF Schedule A	SY	100.000	100.000

Estimate Of Quantities By Plan Sets

6217-00-77

Line	Item	Item Description	Unit	Total	Qty
0120	645.0120	Geotextile Type HR	SY	350.000	350.000
0122	650.4500	Construction Staking Subgrade	LF	100.000	100.000
0124	650.5000	Construction Staking Base	LF	100.000	100.000
0126	650.6500	Construction Staking Structure Layout (structure) 01. B-11-174	LS	1.000	1.000
0130	650.9910	Construction Staking Supplemental Control (project) 01. 6217-00-77	LS	1.000	1.000
0134	650.9920	Construction Staking Slope Stakes	LF	100.000	100.000
0136	690.0150	Sawing Asphalt	LF	38.000	38.000
0138	715.0502	Incentive Strength Concrete Structures	DOL	1,020.000	1,020.000
0140	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 10+81	EACH	1.000	1.000
0142	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	700.000	700.000
0144	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	800.000	800.000
0148	SPV.0195	Special 01. Material For Travel Corridor	TON	92.000	92.000

CLEARING & GRUBBING

STATION	LOCATION	201.0105 CLEARING (STA)	201.0205 GRUBBING (STA)
10+00 - 11+62	MAINLINE	2	2
TOTALS =		2	2

EARTHWORK SUMMARY

FROM/TO STA	LOCATION	205.0100 EXCAVATION COMMON	AVAILABLE MATERIAL (CY) (1)	UNEXPANDED FILL (CY)	EXPANDED FILL (CY) FACTOR 1.25 (2)	MASS ORDINATE +/- (CY) (3)	208.0100 BORROW (CY)
		CUT (CY)					
STA. 10+00 - STA. 11+62	MAINLINE	140	140	195	240	-100	100
TOTALS =		140	140	195	240	-100	100

NOTES:
 1.) AVAILABLE MATERIAL = CUT
 2.) EXPANDED FILL FACTOR 1.25: EXPANDED FILL = (UNEXPANDED FILL)*1.25
 3.) THE MASS ORDINATE+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE CATEGORY. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE CATEGORY.

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)
10+00 - 11+62	MAINLINE	15	245
TOTALS =		15	245

FINISHING ITEMS

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0120 SEEDING MIXTURE NO. 20 (LB)	* 630.0160 SEEDING MIXTURE NO. 60 (LB)	630.0200 SEEDING TEMPORARY (LB)	630.0300 SEEDING BORROW PIT (LB)	630.0500 SEED WATER (MGAL)
10+00 - 11+62	MAINLINE	557	557	0.4	13	2	-	-	16
BORROW PIT	-	-	80	0.2	-	-	-	1	-
UNDISTRIBUTED	-	133	153	0.2	2	1	15	1	4
TOTALS =		690	790	0.8	15	3	15	2	20

* ADJACENT TO WETLAND AREAS (STA 10+01 - STA 10+56, RT; STA 10+60 - STA 10+68, LT; STA 10+93 - STA 11+06, RT; STA 11+06 - STA 11+29, LT.)

ASPHALTIC SURFACE

STATION - STATION	LOCATION	455.0605 TACK COAT (GAL)	465.0105 ASPHALTIC SURFACE (TON)
10+00 - 11+62	MAINLINE	15	55
TOTALS =		15	55

WATER

STATION-STATION	LOCATION	624.0100 (MGAL)
10+00 - 11+62	MAINLINE	4
TOTALS =		4

MOBILIZATION EROSION CONTROL

PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
6217-00-77	4	2
TOTALS =		4

SILT FENCE

STATION - STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
10+00 - 10+56	MAINLINE, RT	57	114
10+00 - 10+68	MAINLINE, LT	62	124
11+19 - 11+63	MAINLINE, LT	49	98
-	UNDISTRIBUTED	42	84
TOTALS =		210	420

TEMPORARY DITCH CHECKS

STATION	LOCATION	628.7504 (LF)
11+00	MAINLINE, RT.	10
UNDISTRIBUTED	-	10
TOTALS =		20

TURBIDITY BARRIERS

STATION-STATION	LOCATION	628.6005 (SY)
10+00 - 11+62	MAINLINE	245
UNDISTRIBUTED	-	65
TOTALS =		310

MARKERS ROW

PT. NO.	STATION	OFFSET FROM FINISHED C/L	633.5100 (EACH)
1	11+65.00	35.21' RT.	1
2	11+30.00	70.00' RT.	1
3	11+05.00	70.00' RT.	1
4	10+00.00	35.29' RT.	1
5	10+00.00	30.71' LT.	1
6	11+40.00	50.00' LT.	1
7	11+65.00	30.79' LT.	1
TOTALS =			7

PERMANENT SIGNING

APPROX. STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE	634.0612 POSTS WOOD 4X6- INCH X 12-FT (EACH)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)
5+30	MAINLINE, RT.	W5-2	NARROW BRIDGE		30X30	---	---	1	1
10+15	MAINLINE, RT	R12-1	BRIDGE WEIGHT LIMIT	40 TONS	24X30	---	---	1	1
10+40	MAINLINE, RT	W5-	BRIDGE HASH MARKS		12X36	1	3.00	---	---
10+50	MAINLINE, LT.	W5-52L	BRIDGE HASH MARKS		12X36	1	3.00	---	---
10+50	MAINLINE, RT.	52R	BRIDGE HASH MARKS		12X36	---	---	1	1
10+60	MAINLINE, LT.	W5-52L	BRIDGE HASH MARKS		12X36	---	---	1	1
11+00	MAINLINE, RT.	W5-52L	BRIDGE HASH MARKS		12X36	---	---	1	1
11+10	MAINLINE, RT.	W5-52L	BRIDGE HASH MARKS		12X36	1	3.00	---	---
11+10	MAINLINE, LT.	W5-52R	BRIDGE HASH MARKS		12X36	---	---	1	1
11+20	MAINLINE, LT.	W5-52R	BRIDGE HASH MARKS		12X36	1	3.00	---	---
11+20	MAINLINE, LT.	R12-1	BRIDGE WEIGHT LIMIT	40 TONS	24X30	---	---	1	1
20+30	MAINLINE, LT.	W5-2	NARROW BRIDGE		30X30	---	---	1	1
HALL RD - FRECK RD INTERSECTION		R12-55	XX TON BRIDGE XX MILES AHEAD	40 TON / 3/4 MILES	48X18	---	---	1	1
HALL RD - WIS 16 INTERSECTION		R12-55	XX TON BRIDGE XX MILES AHEAD	40 TON / 3/4 MILES	48X18	---	---	1	1
TOTALS =						4	12.00	10	10

TRAFFIC CONTROL

LOCATION PROJECT	643.0420 BARRICADES TYPE III (DAY)	643.0705 WARNING LIGHTS TYPE A (DAY)	643.0900 SIGNS (DAY)	643.5000 TRAFFIC CONTROL (EACH)
	2180	3390	1700	0.5
TOTALS =				
	2180	3390	1700	0.5

CONSTRUCTION STAKING

STATION-STATION	LOCATION	650.4500 SUBGRADE (LF)	650.5000 BASE (LF)	*650.6500 STRUCTURE LAYOUT (B-11-0169) (LS)	650.9910 SUPPLEMENTAL CONTROL (01.6217-00-77) (LS)	650.9920 SLOPES STAKES (LF)
10+00 - 11+62	MAINLINE PROJECT	100	100	-	-	100
-		-	-	1	1	-
TOTAL =		100	100	1	1	100

* CATEGORY 020

SAWING ASPHALT

STATION	LOCATION	690.0150 (L.F.)
10+00	MAINLINE	19
11+62	MAINLINE	19
TOTAL =		38

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	PROPERTY LINE	PL
ACCESS RIGHTS	AR	RECORDED AS	(100')
ACRES	AC.	REFERENCE LINE	R/L
AND OTHERS	ET.AL.	RELEASE OF RIGHTS	ROR
BARN	B.	REMAINING	REM.
CENTERLINE	C/L	RIGHT-OF-WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC.
CORNER	COR.	SHED	S.
CONVEYANCE OF RIGHTS	CR	STATION	STA.
DOCUMENT	DOC.	TEMPORARY LIMITED EASEMENT	TLE
EASEMENT	EASE.	VOLUME	V.
GARAGE	G.	CURVE DATA	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
HOUSE	H.	LONG CHORD BEARING	LCB
HOUSE TRAILER	H.T.	RADIUS	R
LAND CONTRACT	LC	DEGREE OF CURVE	D
MONUMENT	MON.	CENTRAL ANGLE OR DELTA	DELTA
PAGE	P.	LENGTH OF CURVE	L
PERMANENT LIMITED EASEMENT	PLE	TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND SURVEY MONUMENT (WITH POINT NUMBER)	○ 1040	PROPOSED R/W LINE	
R/W MONUMENT	○ ● (SET)	EXISTING H.E. LINE	
R/W STANDARD	△ ▲ (SET)	PROPERTY LINE	
SIGN	ISIGN	LOT & TIE LINES	
SECTION CORNER MONUMENT	⊕	SLOPE INTERCEPTS	
SECTION CORNER SYMBOL		CORPORATE LIMITS	
FEE (HATCH VARIES)		NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY ACQUISITION)	
PERMANENT LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
R/W BOUNDARY POINT	⊕	SECTION LINE	
PARCEL NUMBER	Ⓚ	QUARTER LINE	
UTILITY PARCEL NUMBER	Ⓚ	SIXTEENTH LINE	
SIGN NUMBER (OFF PREMISE)	Ⓚ	EXISTING CENTERLINE	
BUILDING		PROPOSED REFERENCE LINE	
		PARALLEL OFFSET	
		ENCROACHMENT	
		HIGHWAY EASEMENT	

CONVENTIONAL UTILITY SYMBOLS

WATER	—W—	SANITARY SEWER	—SAN—
GAS	—G—	STORM SEWER	—SS—
TELEPHONE	—T—		
OVERHEAD TRANSMISSION LINES	—OH—	NON COMPENSABLE	⊕
ELECTRIC	—E—	COMPENSABLE	⊕
CABLE TELEVISION	—TV—	POWER POLE	⊕
FIBER OPTIC	—FO—	TELEPHONE POLE	⊕
		TELEPHONE PEDESTAL	⊕
		ELECTRIC TOWER	⊕

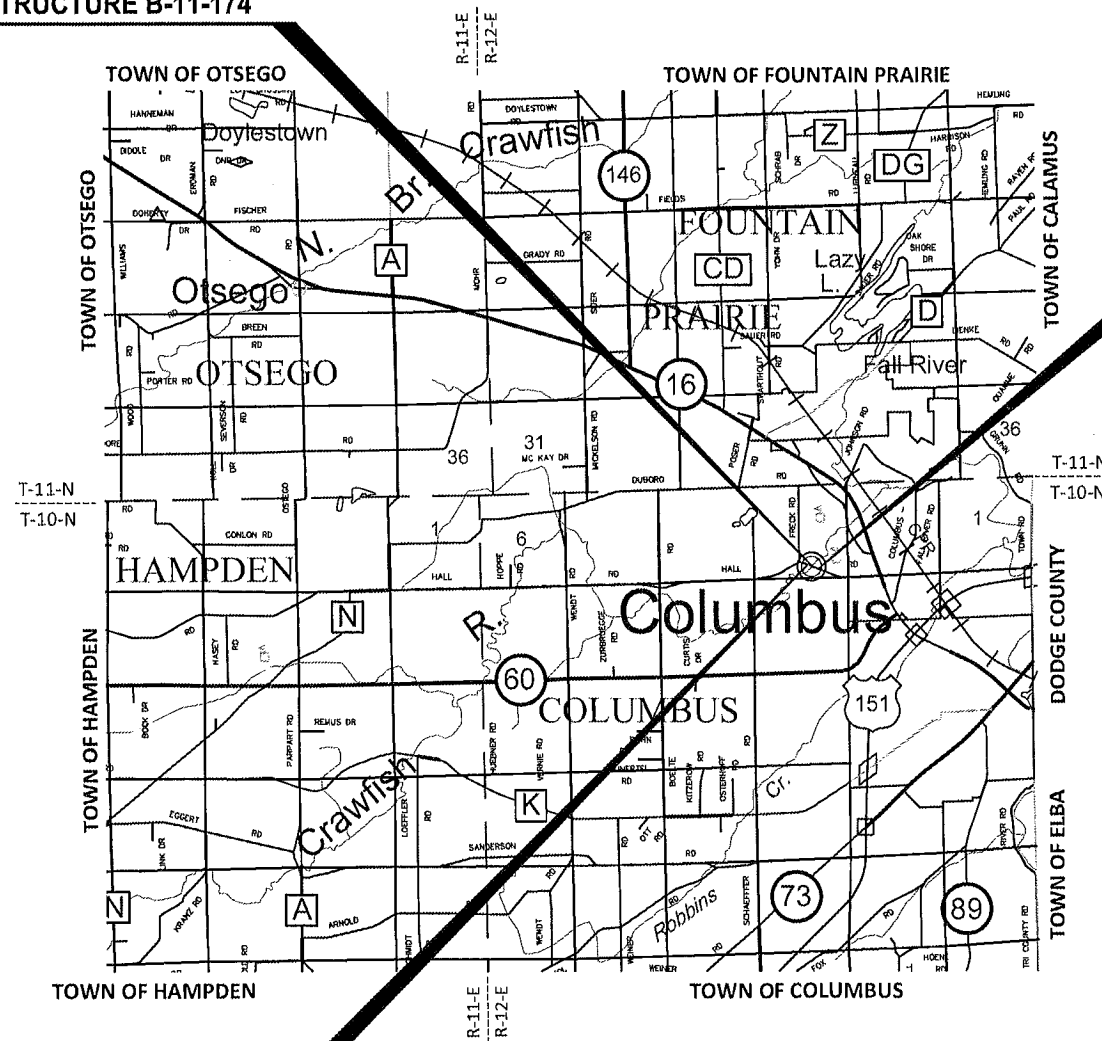
NOTES

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), COLUMBIA COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" X 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD."

STRUCTURE B-11-174



BEGIN RELOCATION ORDER

STA. 10+00.00

660.93' NORTH AND 2064.57' WEST OF THE S.E. CORNER OF SECTION 3, T.10N., R.12E., TOWN OF COLUMBUS, COLUMBIA COUNTY, WI
Y= 328167.55
X= 644858.86

N

LAYOUT

SCALE 0 2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.031 MI.

END RELOCATION ORDER

STA. 11+65.00

597.50' NORTH AND 1912.24' WEST OF THE S.E. CORNER OF SECTION 3, T.10N., R.12E., TOWN OF COLUMBUS, COLUMBIA COUNTY, WI
Y= 328104.13
X= 645011.19

R/W PROJECT NUMBER 6217-00-07	SHEET NUMBER 4.01	TOTAL SHEETS 2
FEDERAL PROJECT NUMBER		
PLAT OF RIGHT-OF-WAY REQUIRED FOR TOWN OF COLUMBUS, HALL ROAD (CRAWFISH RIVER BRIDGE, B-11-174)		
LOC STR	COLUMBIA COUNTY	
CONSTRUCTION PROJECT NUMBER 6217-00-77		

JEWELL
associates engineers, inc.

Engineers - Architects - Surveyors

560 SUNRISE DRIVE
SPRING GREEN, WI 53588
PHONE : 608.588.7484
www.jewellssoc.com

I HEREBY CERTIFY THAT THIS PLAT WAS MADE FOR TOWN OF COLUMBUS, WISCONSIN AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



REVISION DATE

APPROVED FOR TOWN OF COLUMBUS

DATE: 4-13-21 (NAME/TITLE)

Signature: Dan [unclear]

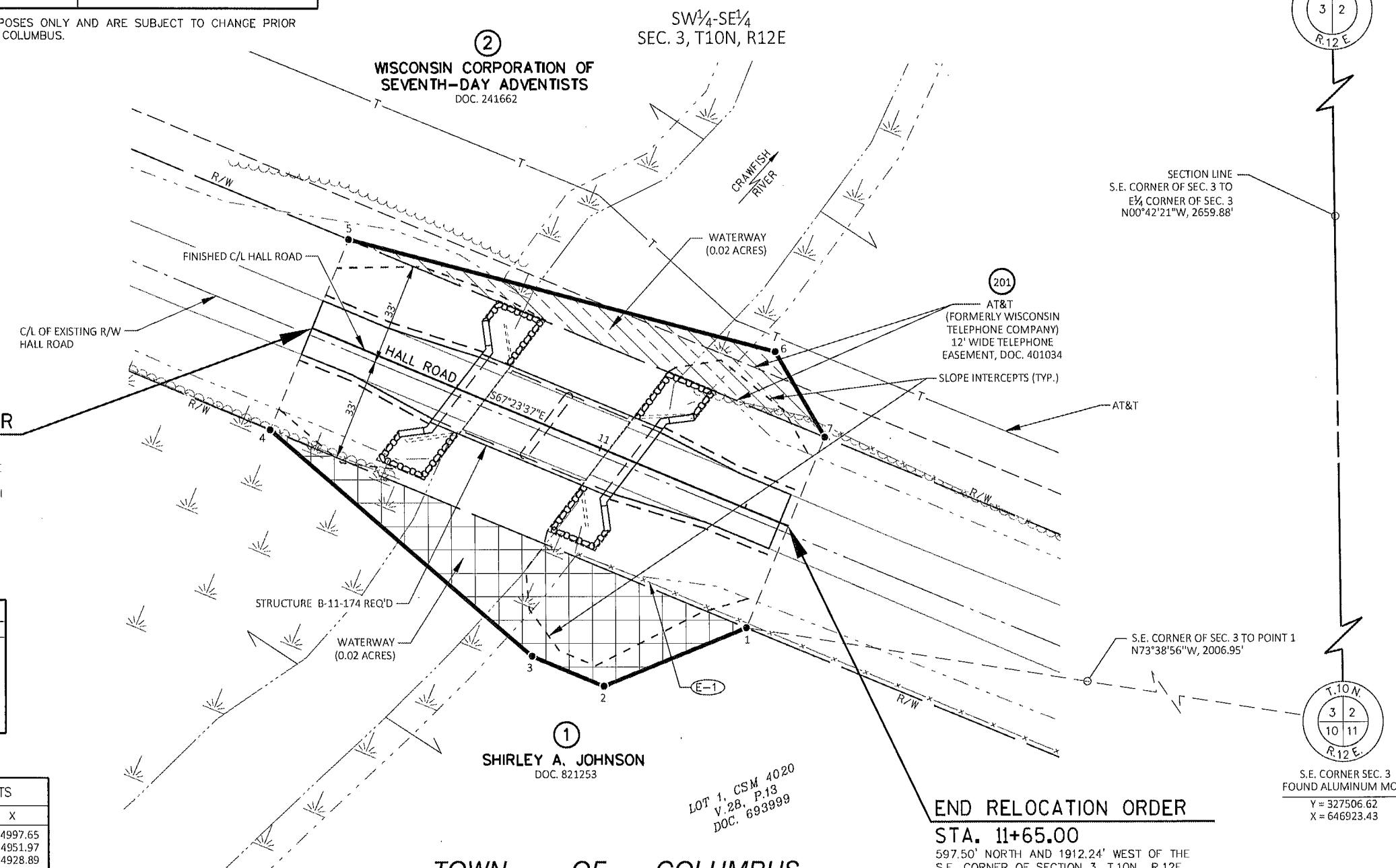
SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED		
			NEW	EXISTING	TOTAL
1	SHIRLEY A. JOHNSON	FEE	0.08	0.13	0.21
2	WISCONSIN CORPORATION OF SEVENTH-DAY ADVENTISTS	FEE	0.04	0.13	0.17
201	AT&T	RELEASE OF RIGHTS			

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

EASEMENT TABLE			
OWNER	RECORDING INFORMATION	LOCATED IN PARCEL NUMBER	REMARKS
AT&T (FORMERLY WISCONSIN TELEPHONE COMPANY)	DOC. 401034, VOL. 203, PG. 359	2	THE SOUTHWESTERLY 12' OF THAT PART OF THE SW¼-SE¼, SEC. 3, T10N, R12E LYING NORTHEASTERLY OF HALL ROAD

E¼ CORNER SEC. 3
FOUND ALUMINUM MON.
Y = 330166.30
X = 646890.66



BEGIN RELOCATION ORDER

STA. 10+00.00

660.93' NORTH AND 2064.57' WEST OF THE S.E. CORNER OF SECTION 3, T.10N., R.12E., TOWN OF COLUMBUS, COLUMBIA COUNTY, WI
Y = 328167.55
X = 644858.86

RIGHT OF WAY LINE TABLE		
POINT TO POINT	BEARING	DISTANCE
1 TO 2	S67°46'32"W	49.35'
2 TO 3	N67°23'37"W	25.00'
3 TO 4	N49°05'56"W	110.59'
4 TO 5	N22°36'23"E	66.00'
5 TO 6	S75°14'12"E	141.32'
6 TO 7	S29°51'38"E	31.53'
7 TO 1	S22°36'23"W	66.00'

COORDINATE TABLE - NEW R/W POINTS				
PT.#	STATION	OFFSET	Y	X
1	11+65.00	35.21' RT.	328071.62	644997.65
2	11+30.00	70.00' RT.	328052.96	644951.97
3	11+05.00	70.00' RT.	328062.57	644928.89
4	10+00.00	35.29' RT.	328134.98	644845.30
5	10+00.00	30.71' LT.	328195.91	644870.67
6	11+40.00	50.00' LT.	328159.89	645007.33
7	11+65.00	30.79' LT.	328132.55	645023.02

ENCROACHMENT TABLE			
ENCROACHMENT	PROPERTY OWNER	LOCATION (STATION/OFFSET)	ENCROACHMENT TYPE
E-1	SHIRLEY A. JOHNSON	STA. 11+05 - STA. 11+65, 34.1' RT. - 33.80' RT.	FENCE

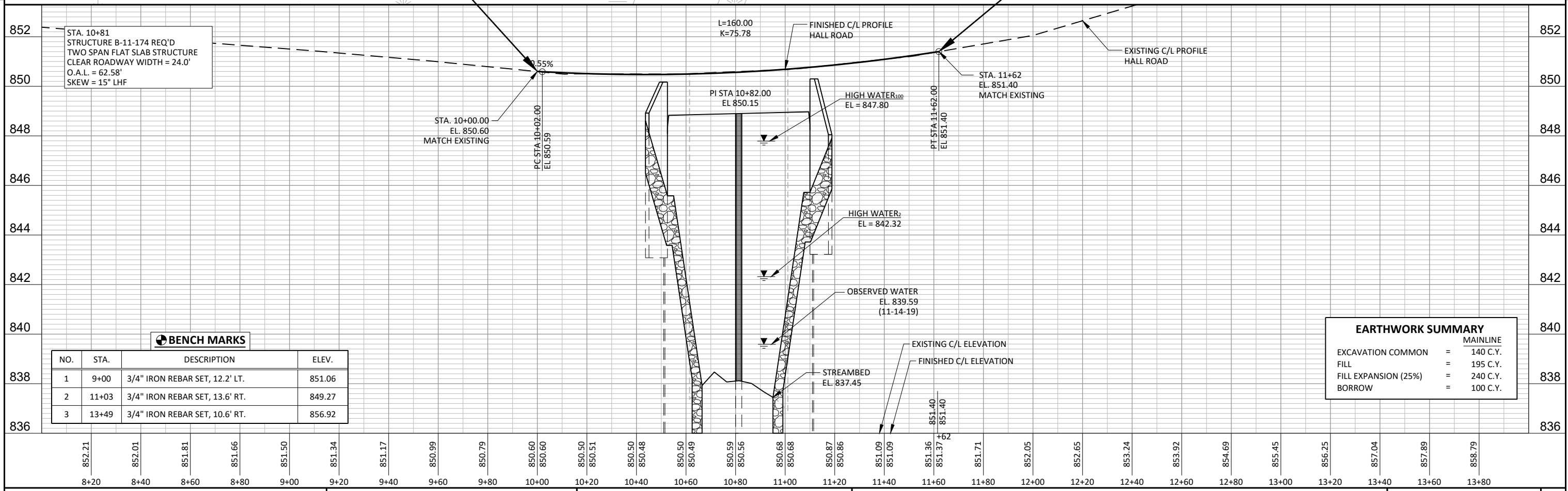
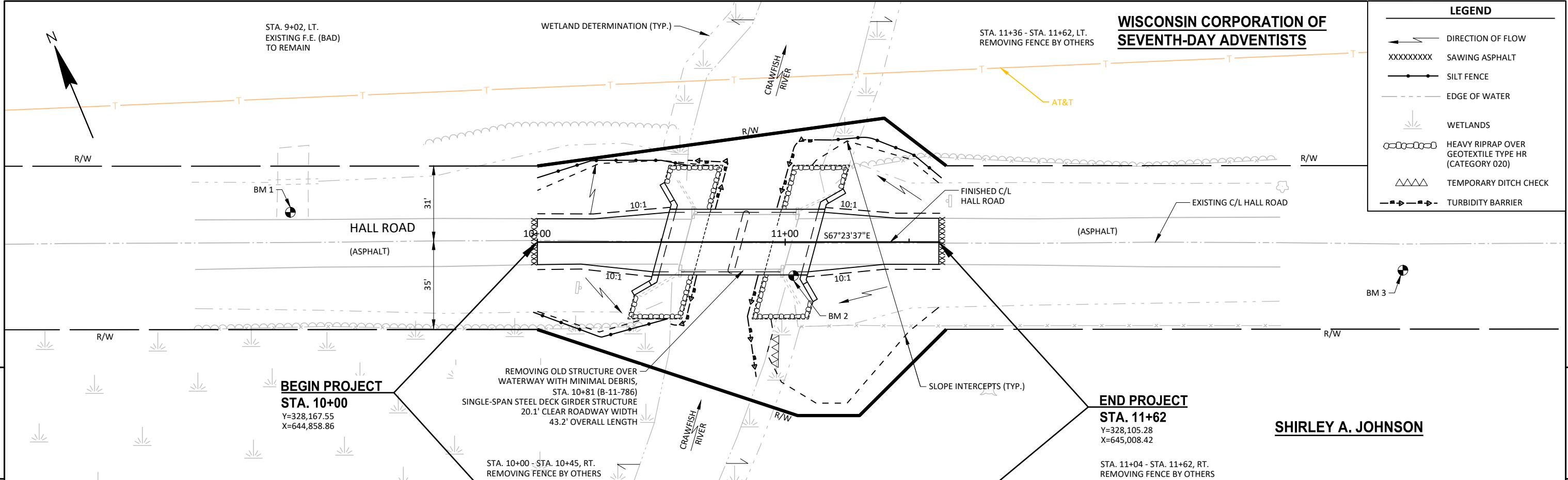
END RELOCATION ORDER

STA. 11+65.00

597.50' NORTH AND 1912.24' WEST OF THE S.E. CORNER OF SECTION 3, T.10N., R.12E., TOWN OF COLUMBUS, COLUMBIA COUNTY, WI
Y = 328104.13
X = 645011.19

NOTE: EXISTING C/L OF HALL ROAD WAS BASED ON C.S.M. NO. 4020
BASIS OF EXISTING RIGHT-OF-WAY FOR HALL ROAD WAS BASED ON C.S.M. NO. 4020 AND FOUND ASSOCIATED MONUMENTATION

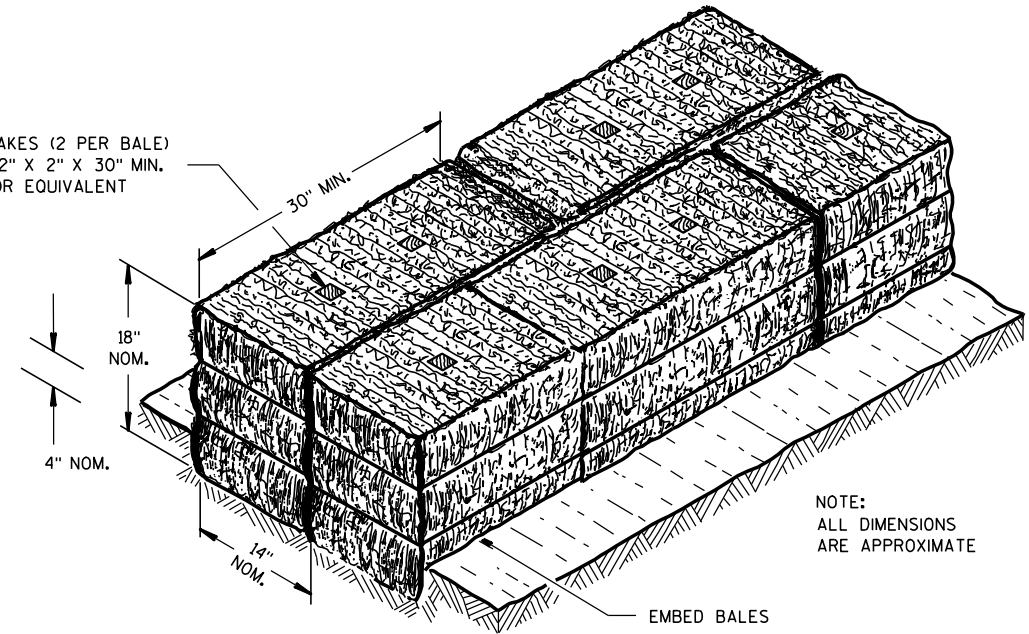
REVISION DATE	DATE: JANUARY 26, 2021	SCALE, FEET 0 20 40	HWY: HALL ROAD	R/W PROJECT NUMBER: 6217-00-07	PLAT SHEET 4.02
GRID FACTOR			COUNTY: COLUMBIA	CONSTRUCTION PROJECT NUMBER: 6217-00-77	PS&E SHEET E



Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

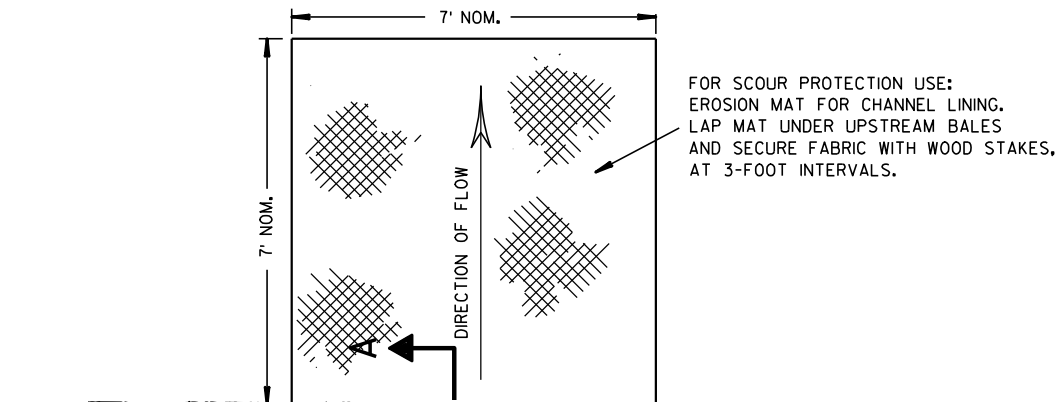
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

EMBED BALES

SECTION A-A

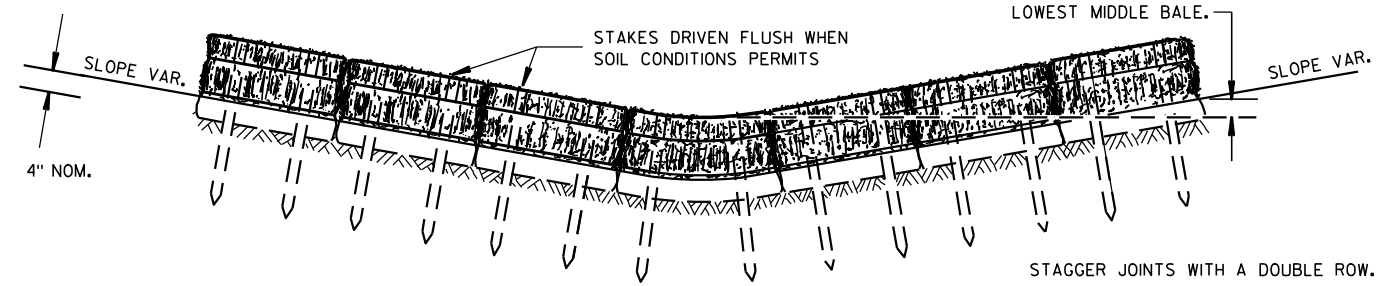


FOR SCOUR PROTECTION USE:
EROSION MAT FOR CHANNEL LINING.
LAP MAT UNDER UPSTREAM BALES
AND SECURE FABRIC WITH WOOD STAKES,
AT 3-FOOT INTERVALS.

PLAN VIEW

STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



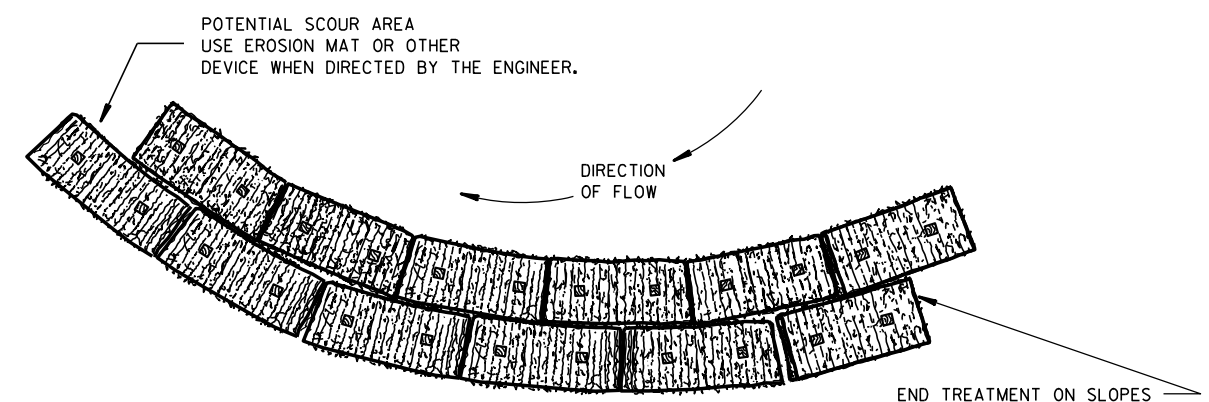
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

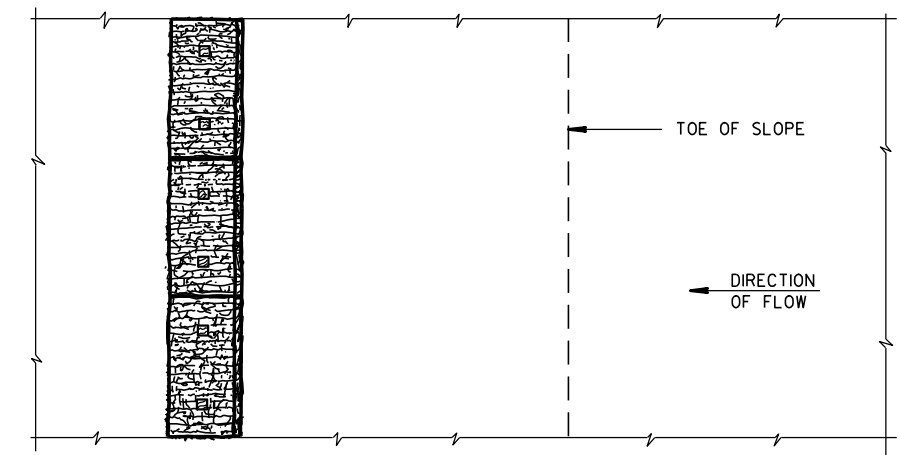
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

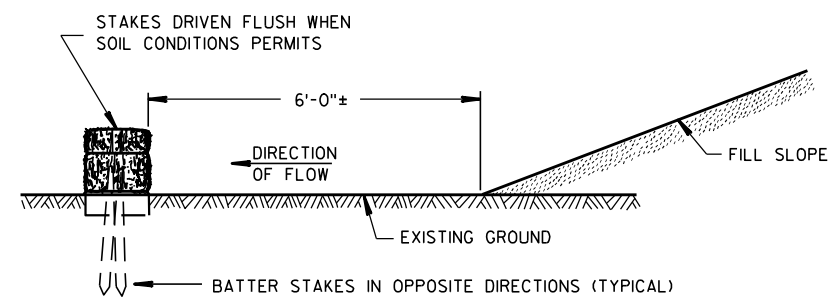


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

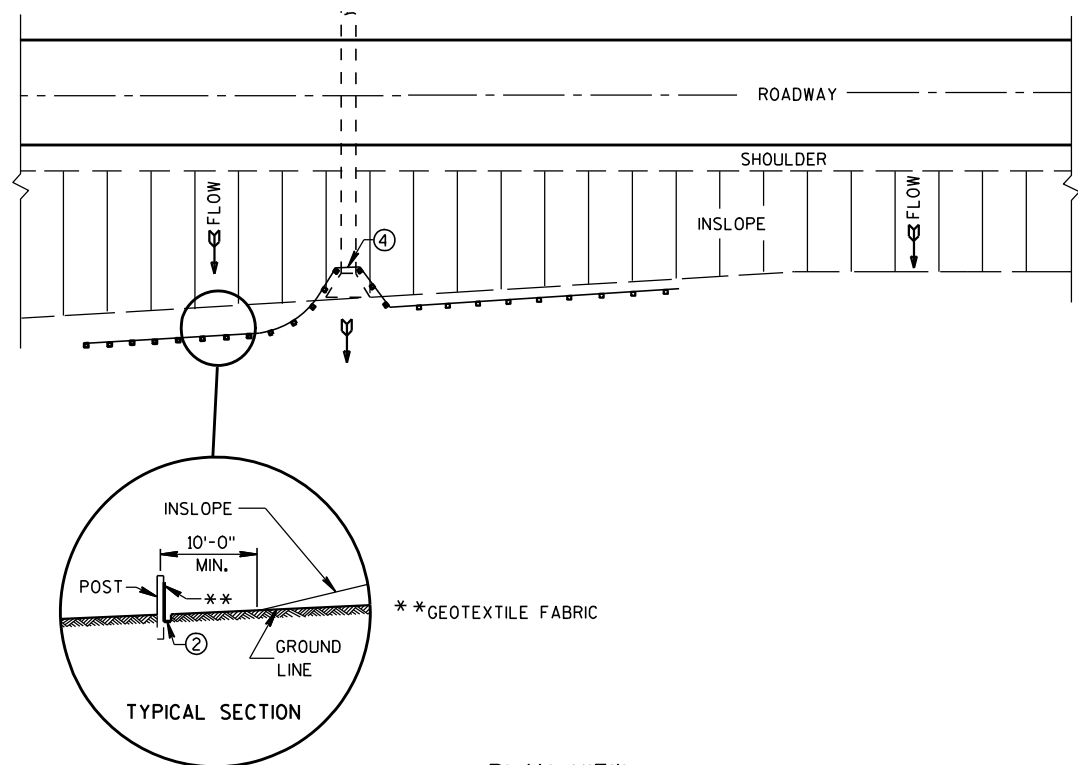
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

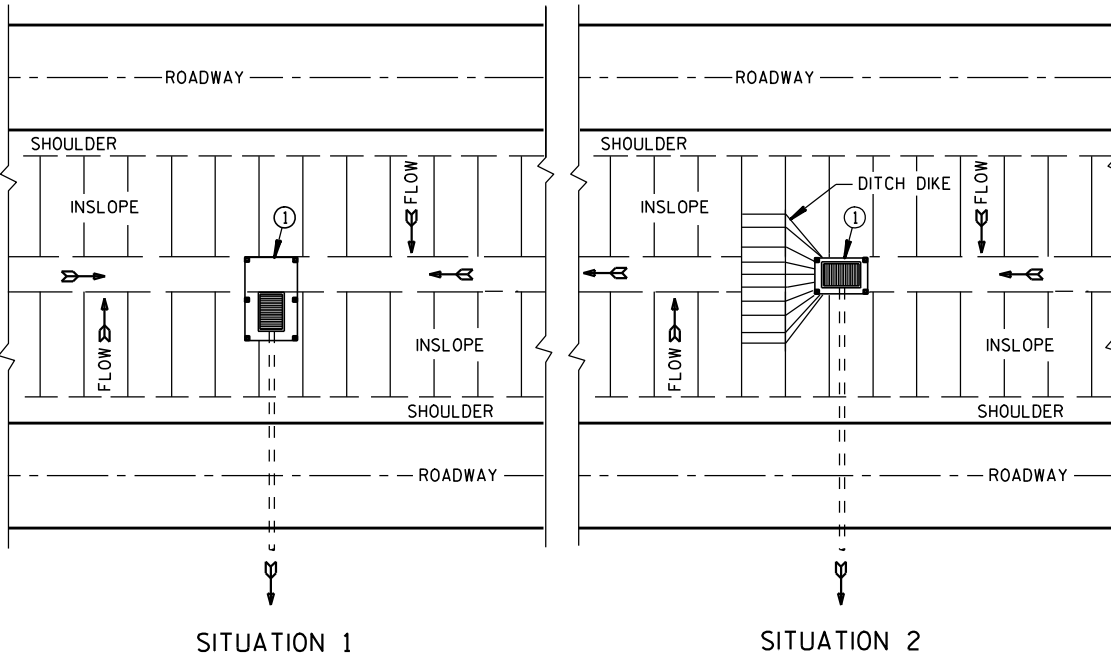
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

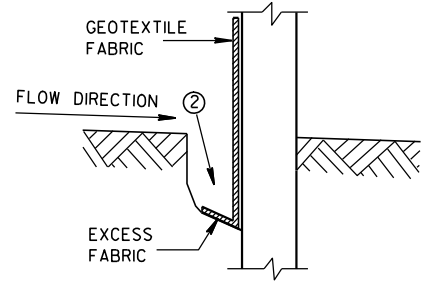


PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



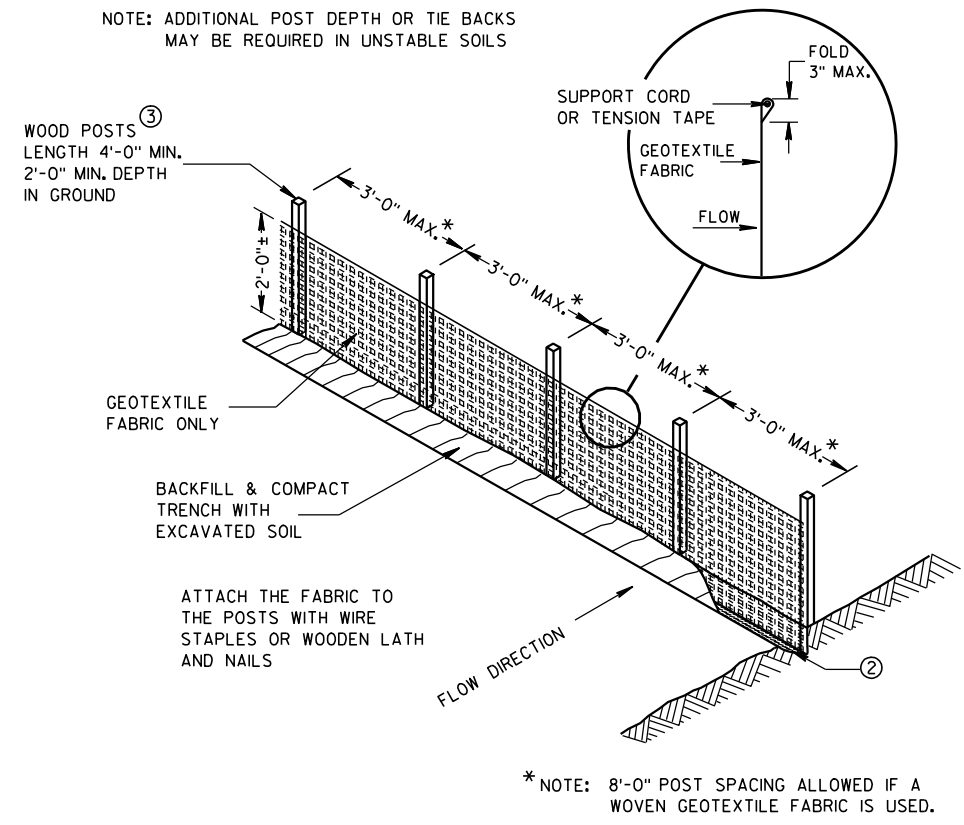
SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

- 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 1 1/8" X 1 1/8" 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.

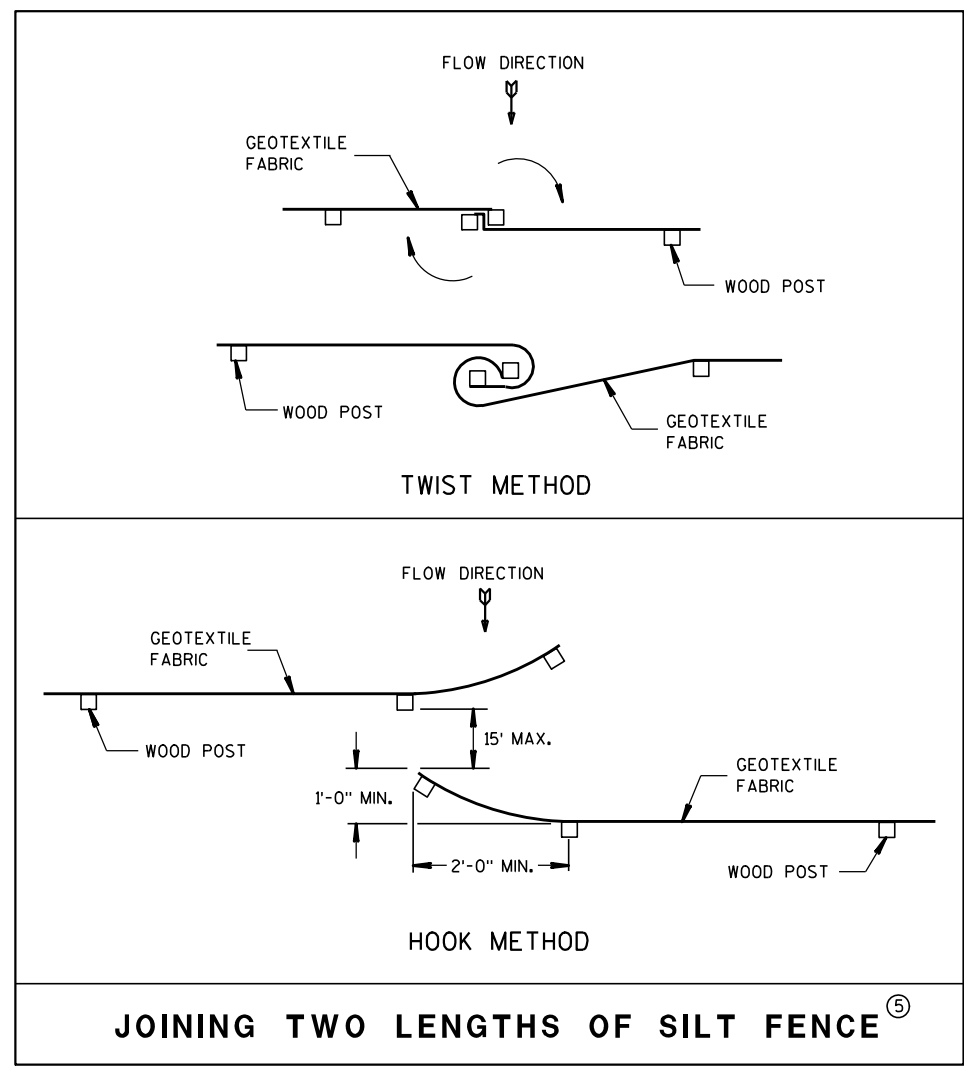


TRENCH DETAIL

6

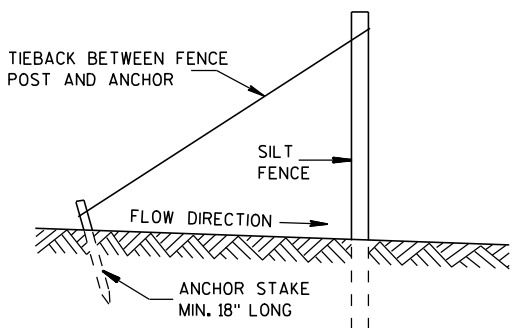


SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

6

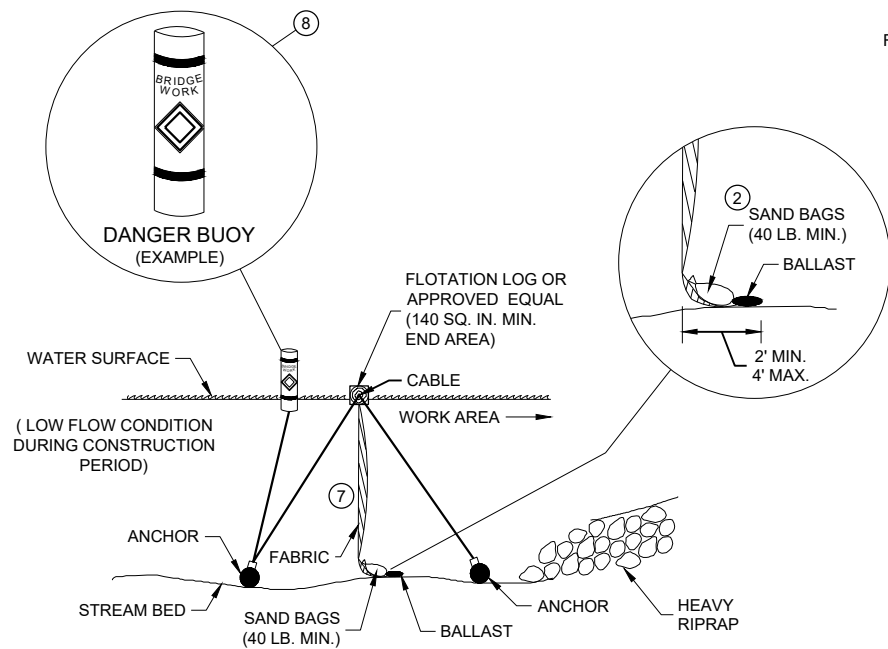


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

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

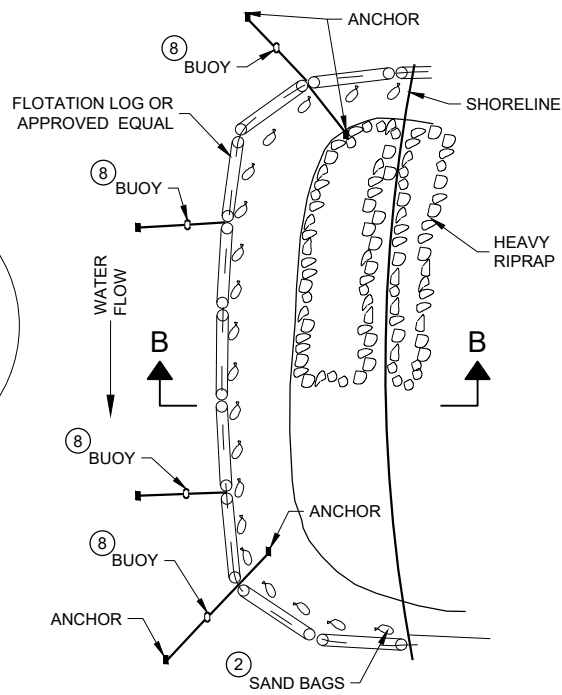
S.D.D. 8 E 9-6

S.D.D. 8 E 9-6

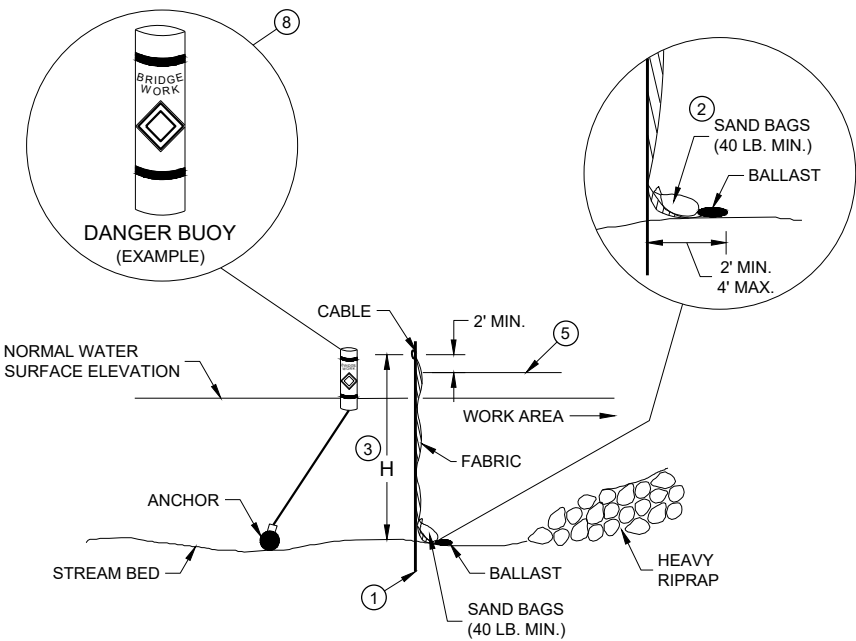


SECTION B - B

**TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6**

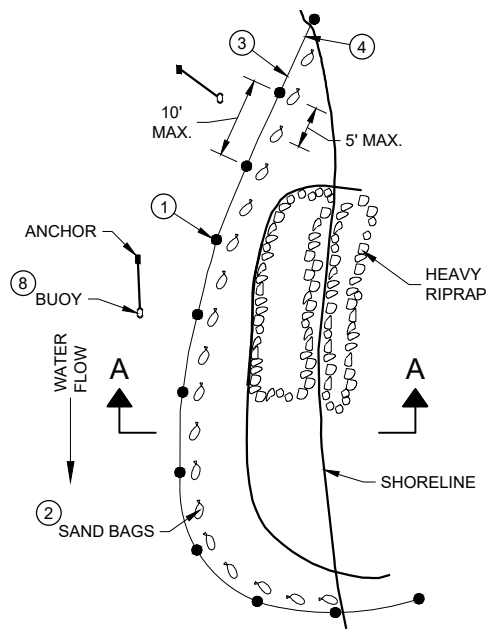


PLAN VIEW



SECTION A - A

TURBIDITY BARRIER - STANDARD POST INSTALLATION



PLAN VIEW

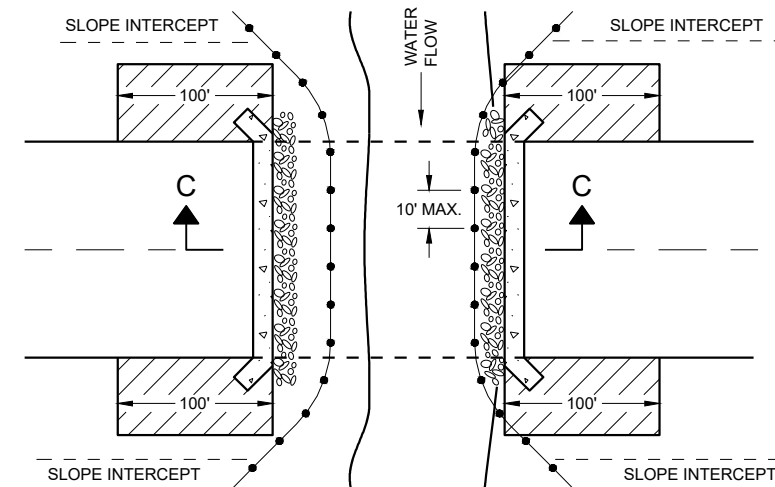
TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

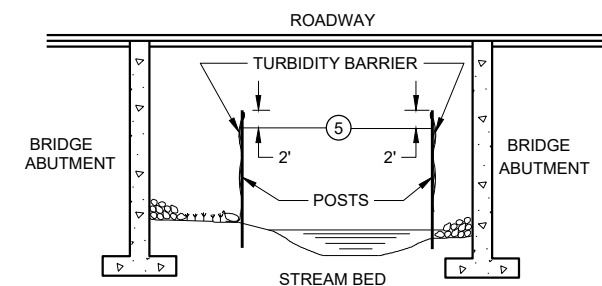
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

- ① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- ② SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
- ③ WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.
- ④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
- ⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
- ⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.
- ⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
- ⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C - C

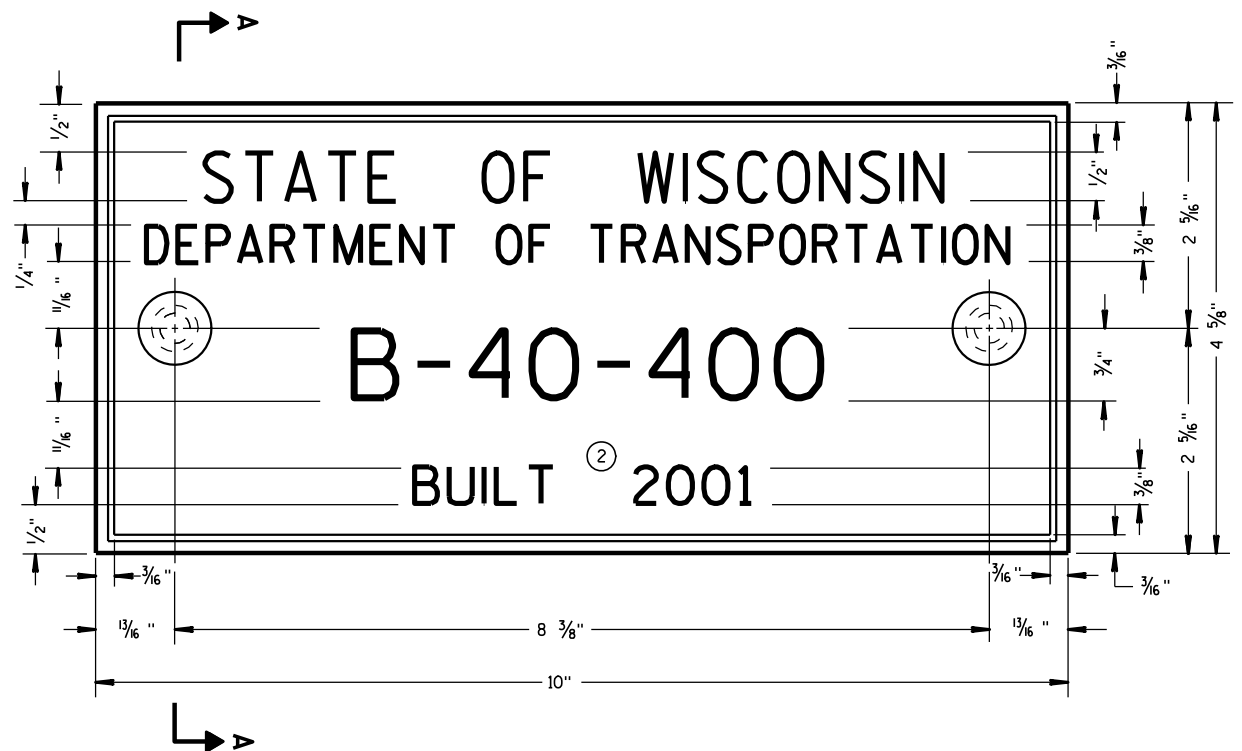
**TURBIDITY BARRIER DETAIL SHOWING
TYPICAL PLACEMENT AT STRUCTURES**

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



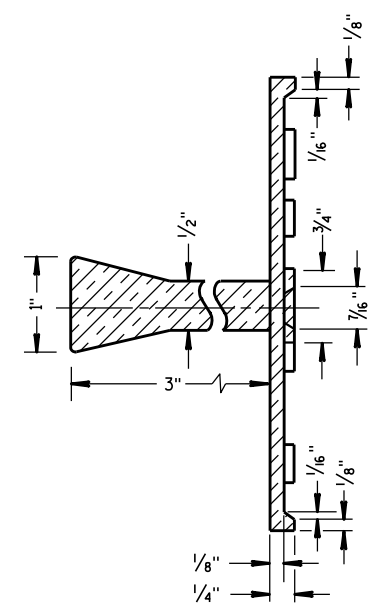
TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

GENERAL NOTES

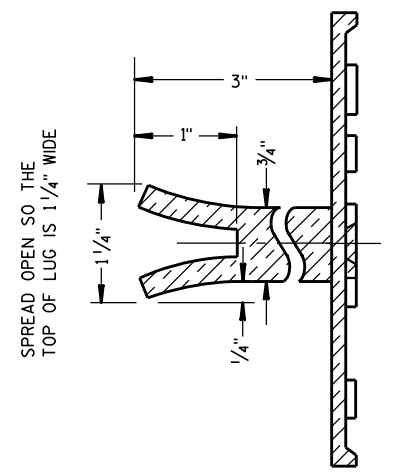
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

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

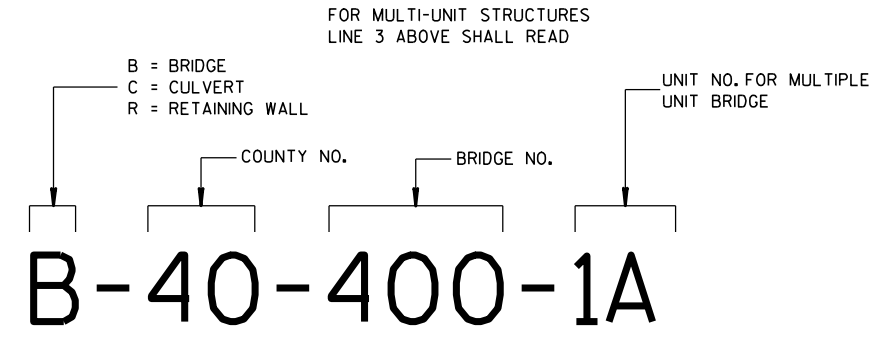


SECTION A-A



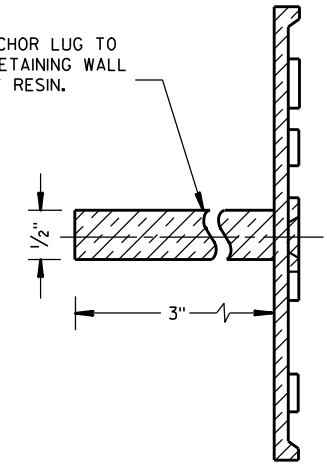
SPREAD OPEN SO THE TOP OF LUG IS 1 1/4" WIDE

ALTERNATE LUG



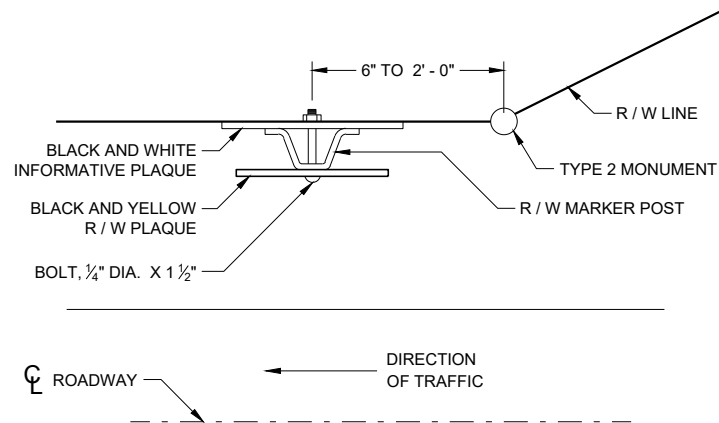
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.

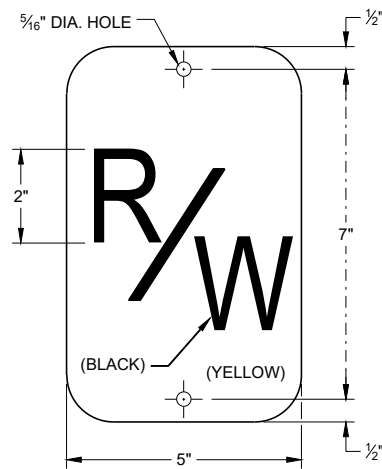


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

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

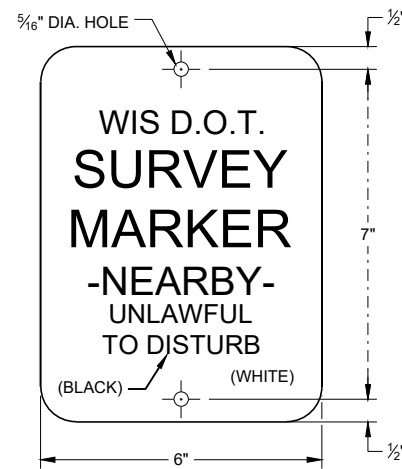


**PLAN VIEW
STEEL MARKER POST**



R / W PLAQUE

THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



INFORMATIVE PLAQUE

GENERAL NOTES

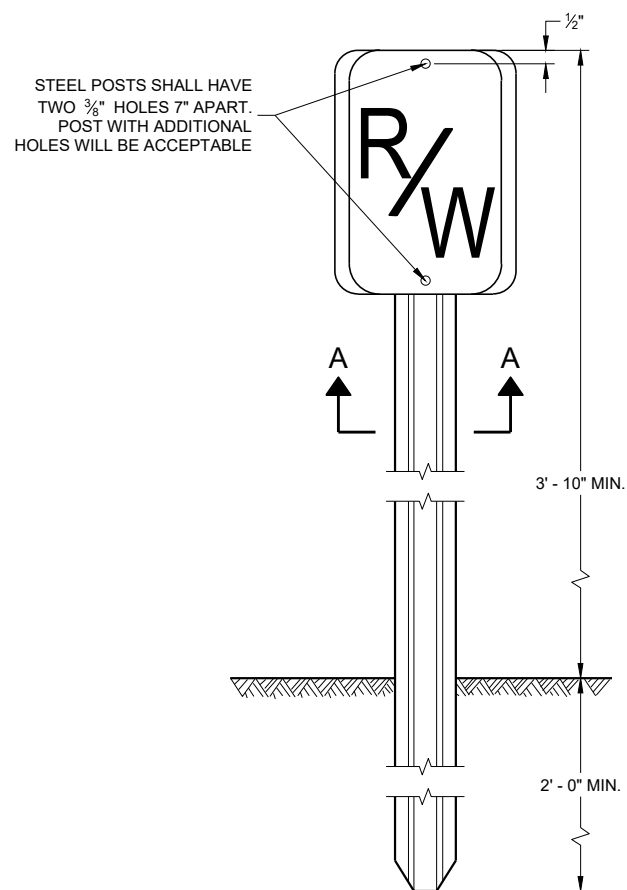
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT -OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

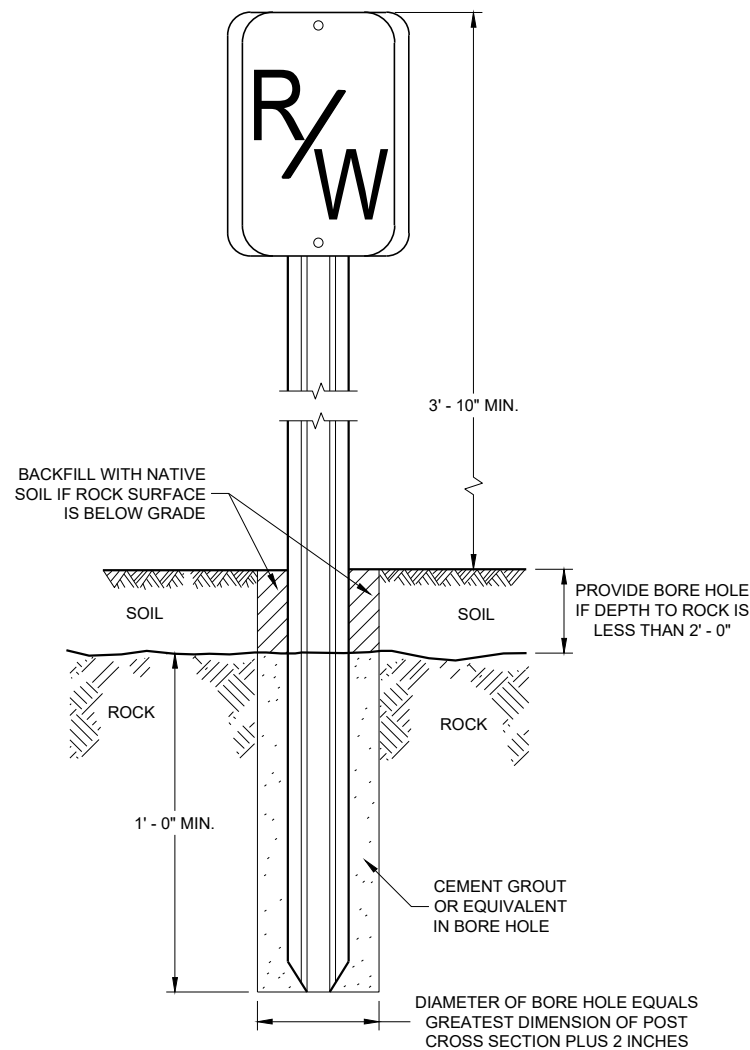
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

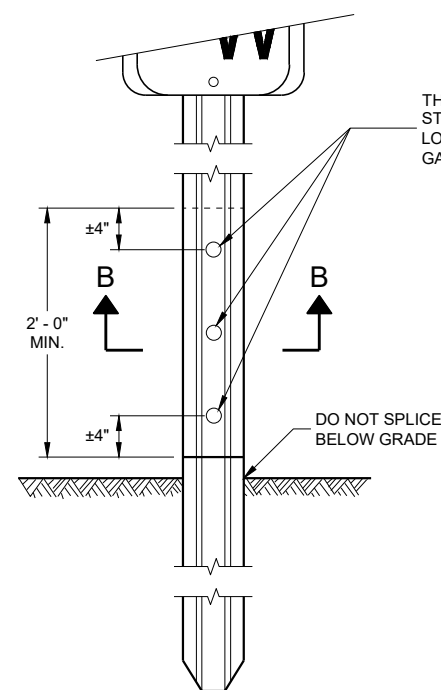
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



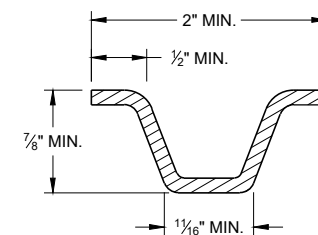
**FRONT VIEW
STEEL MARKER POST**



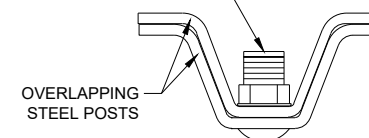
**FRONT VIEW
ROCK INSTALLATION** ①



**FRONT VIEW
SPLICE DETAIL**



MIN. WEIGHT 1.12 LB./FT.
SECTION A - A



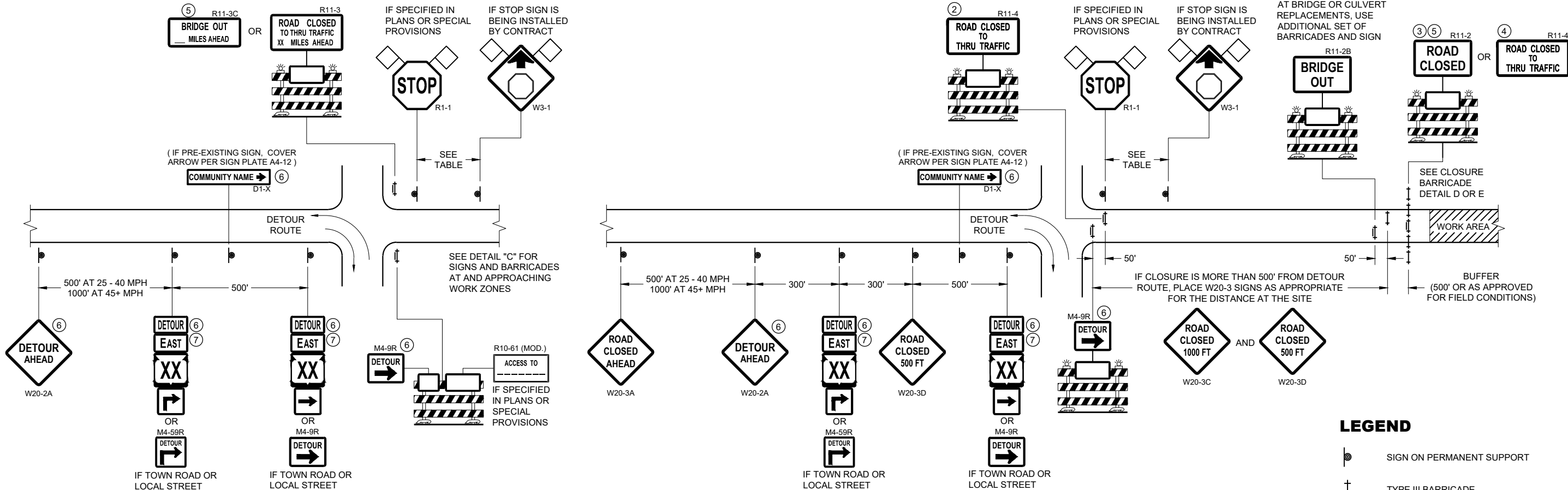
SECTION B - B

**MARKER POST
FOR RIGHT - OF - WAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/18/2016 DATE /S/ Ray Kumapayi
DATE CHIEF SURVEYING AND MAPPING ENGINEER

FHWA



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

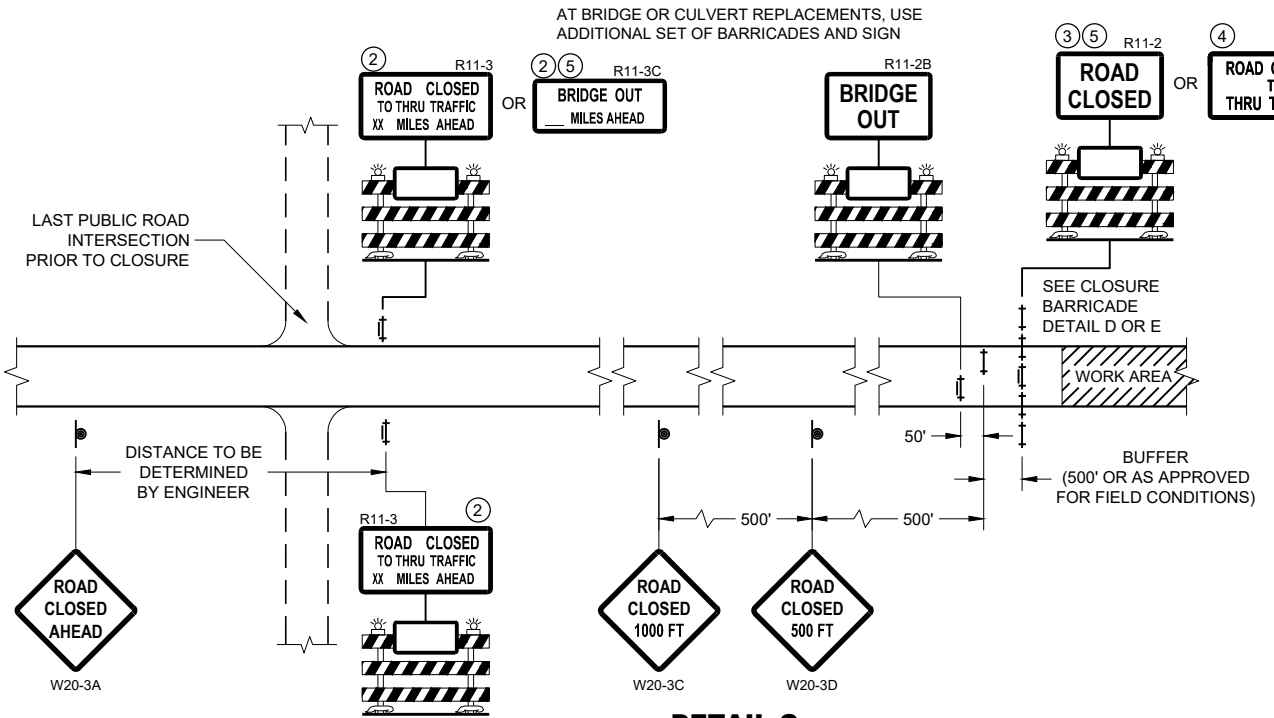
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

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

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

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



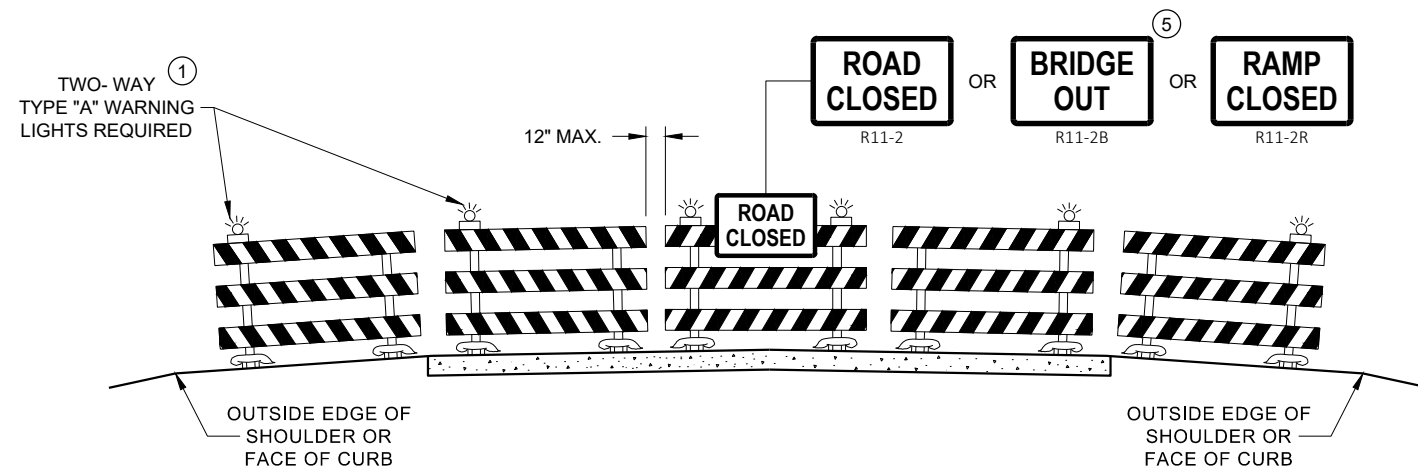
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

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

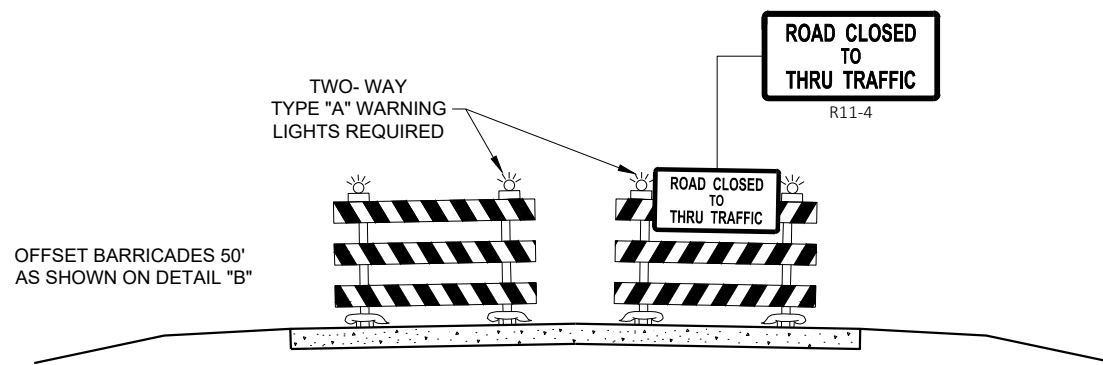
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

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

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

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

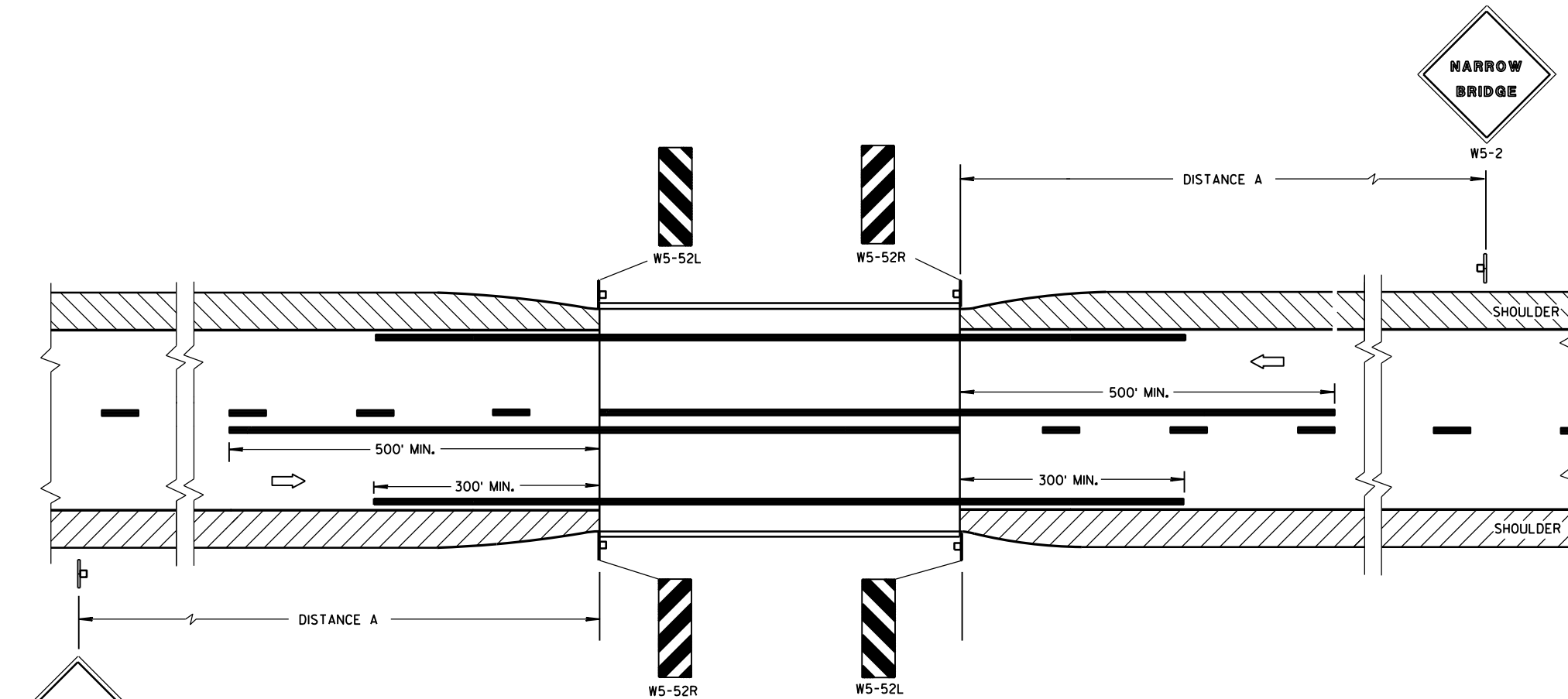
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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.

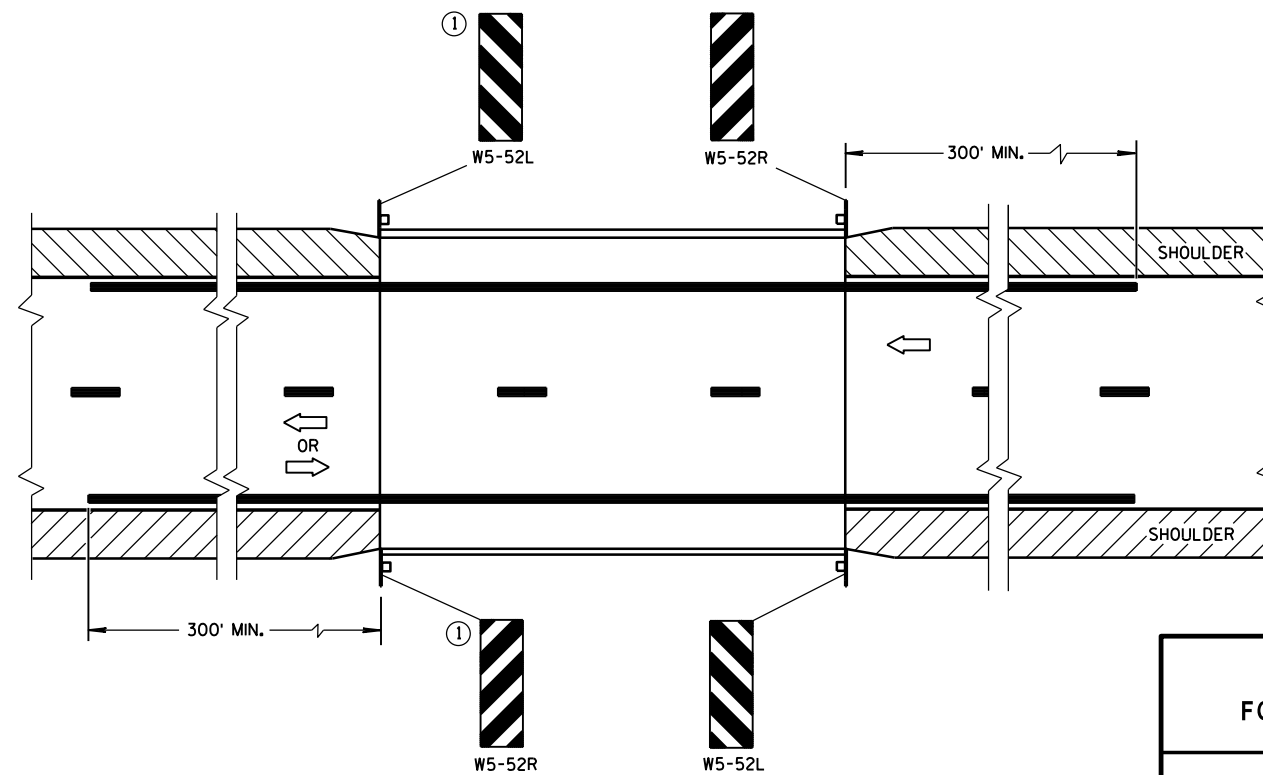
① OMIT ON ONE-WAY TRAVELLED WAYS.

➡ DIRECTION OF TRAFFIC



SITUATION 1

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



SITUATION 2

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

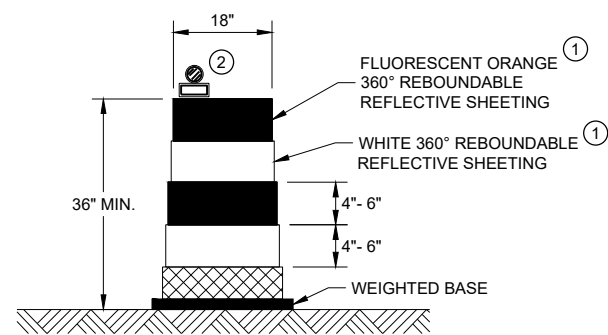
DISTANCE TABLE

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

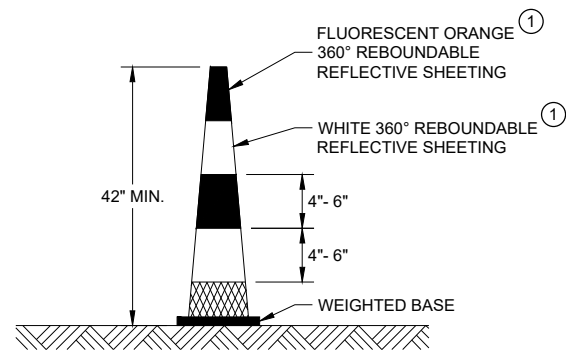
SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

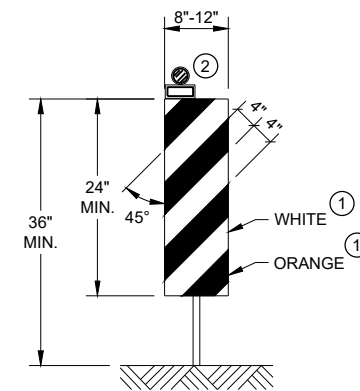


DRUM



42" CONE

DO NOT USE IN TAPERS
 1/2 SPACING OF DRUMS

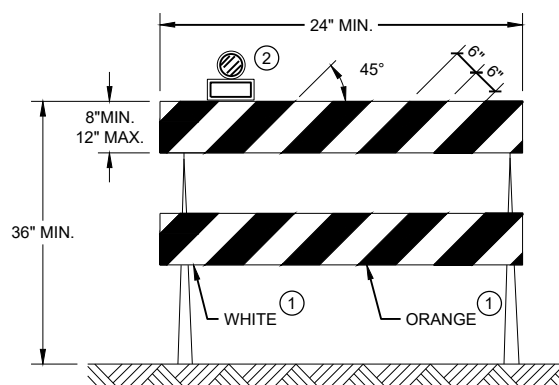


VERTICAL PANEL

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

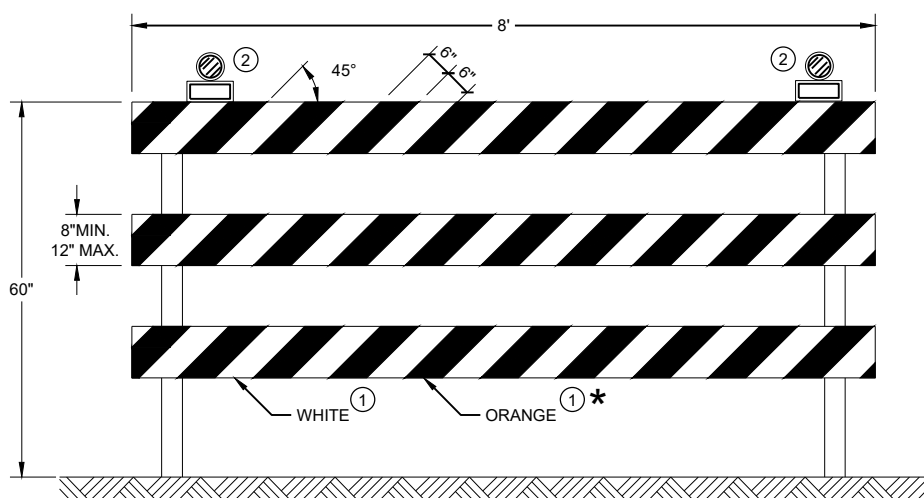
GENERAL NOTES

- 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 II BARRICADE

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

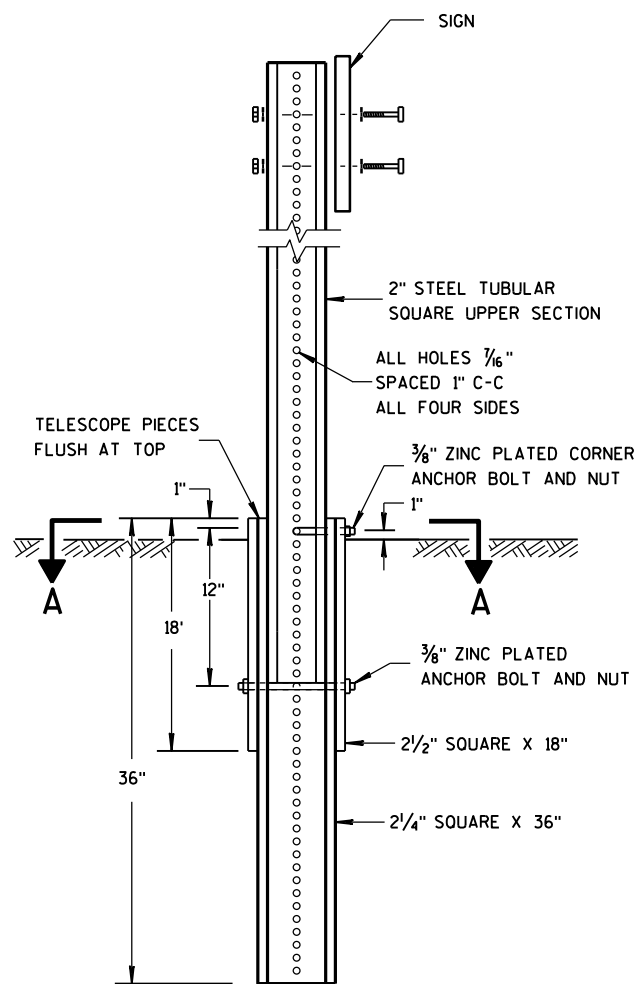


TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
<small>FHWA</small>	



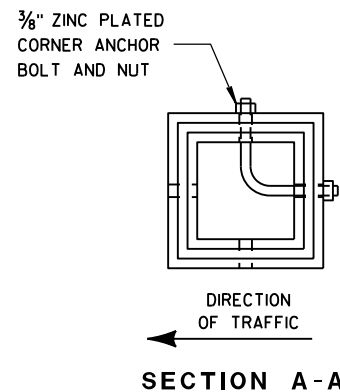
DETAIL OF TUBULAR STEEL SIGN POST

TUBULAR STEEL POSTS

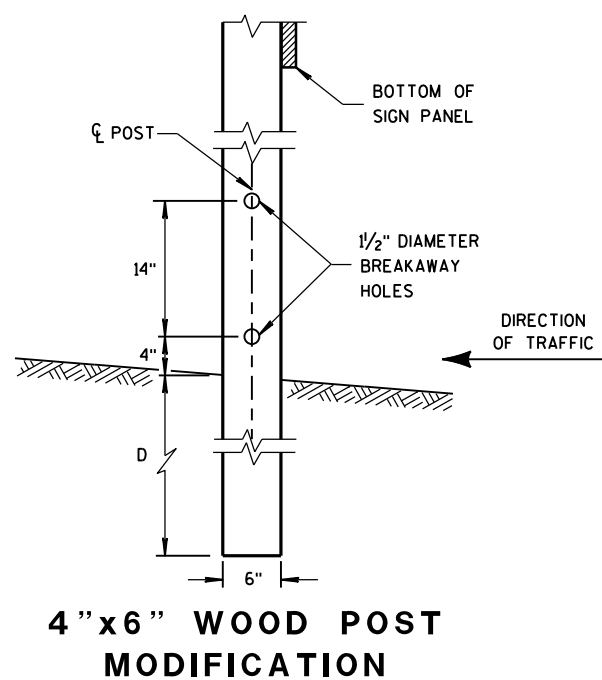
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

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

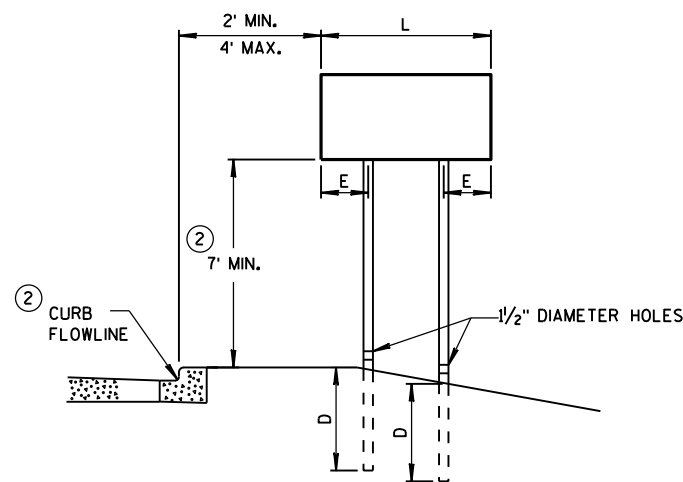
SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.



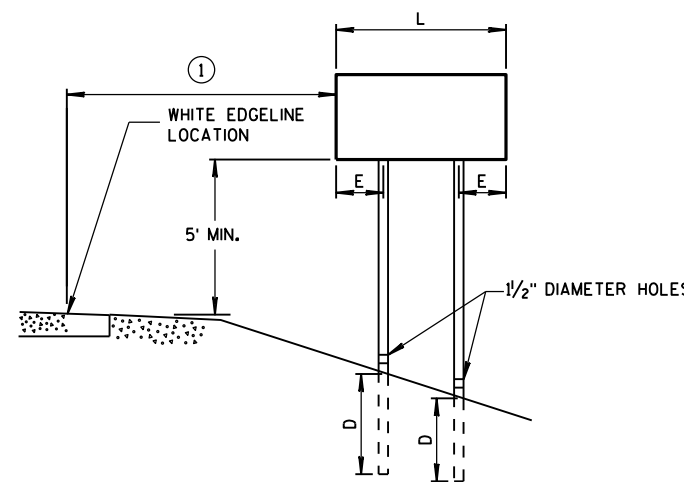
SECTION A-A



4" X 6" WOOD POST MODIFICATION



URBAN AREA



RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

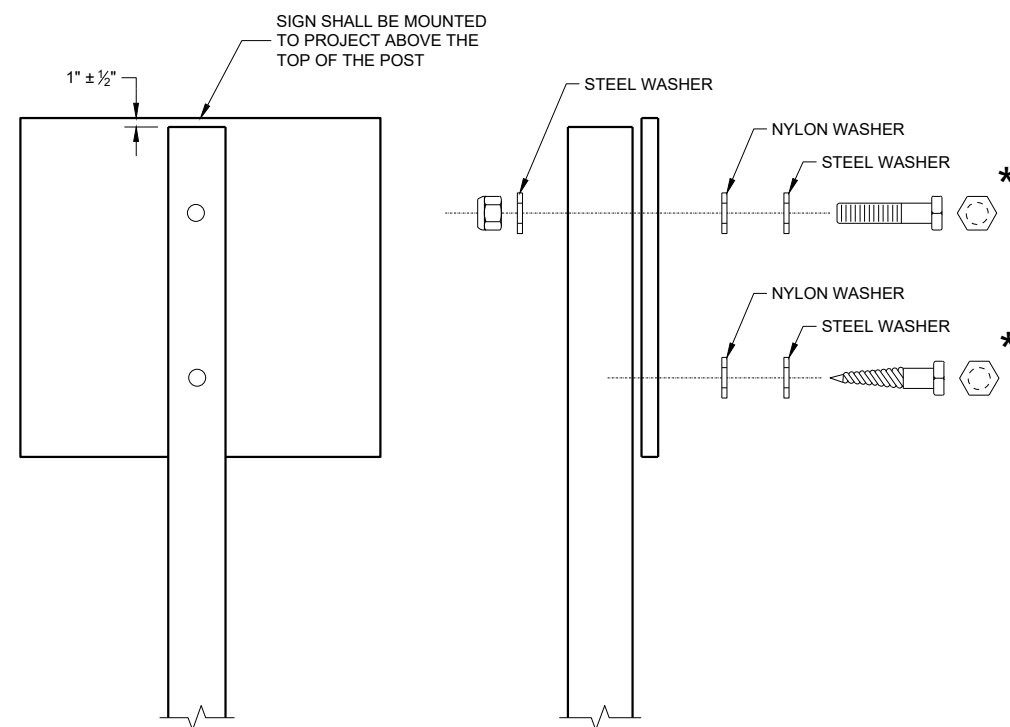
SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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

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

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

WOOD POST (4" x 6")

- LAG SCREWS - 3/8" x 3"
- MACHINE BOLTS - 5/16" x 6 1/2" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")

- MACHINE BOLTS - 3/8" x 3 1/4" LENGTH W/NUTS
- RIVETS - 3/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -

- 1 1/4" O.D. x 3/8" I.D. x 1/16" STEEL
- 1 1/4" O.D. x 3/8" I.D. x 0.080 NYLON

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS

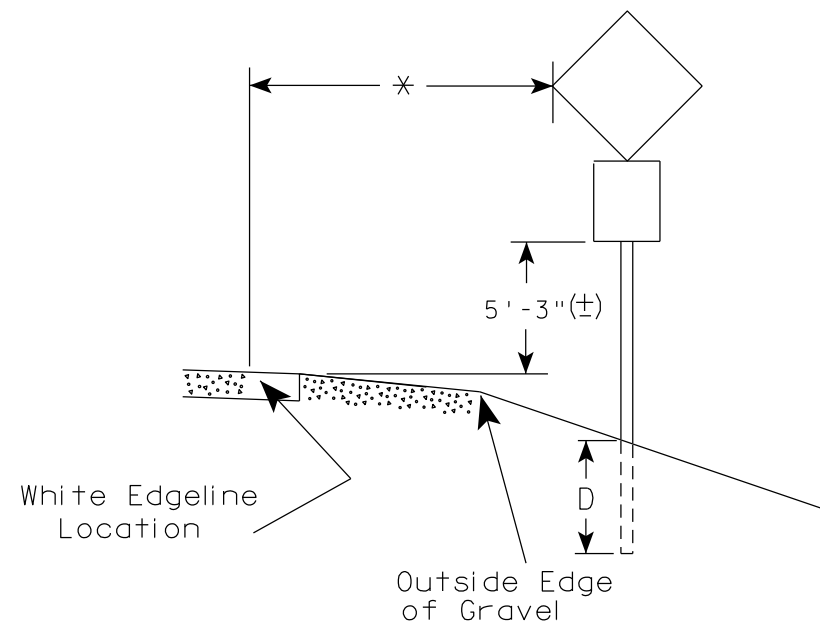
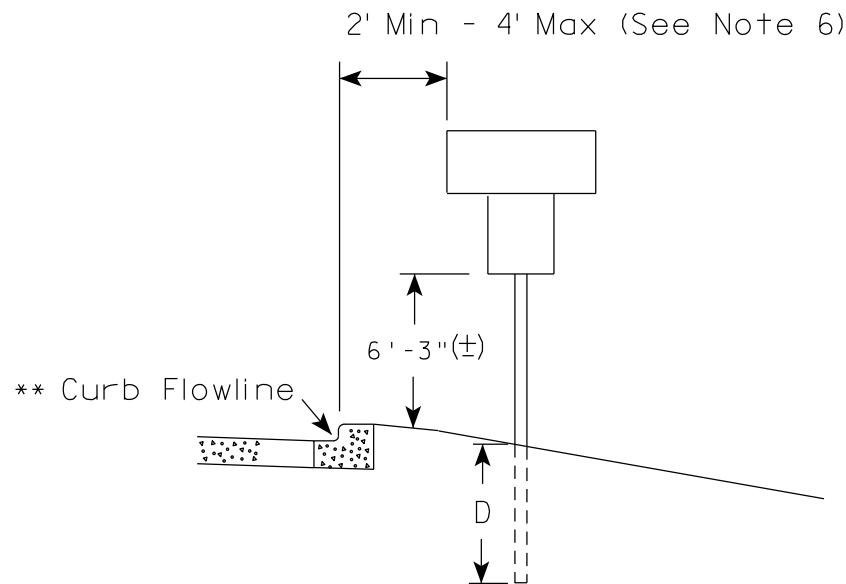
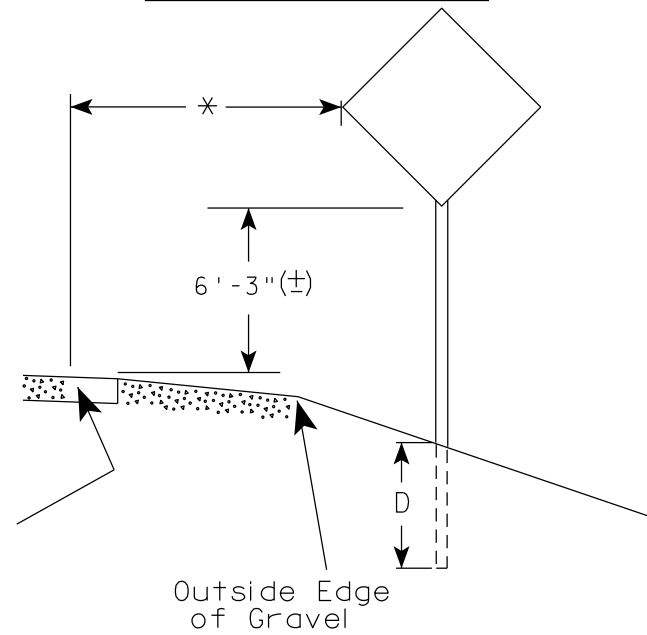
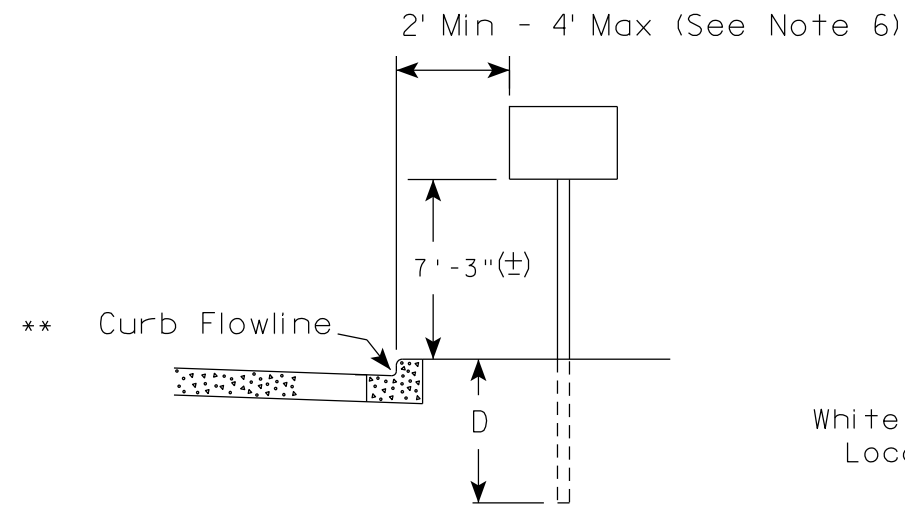
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

URBAN AREA

RURAL AREA (See Note 2)



POST EMBEDMENT DEPTH

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

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

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



ELEVATION VIEW

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

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



ELEVATION VIEW

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



PLAN VIEW

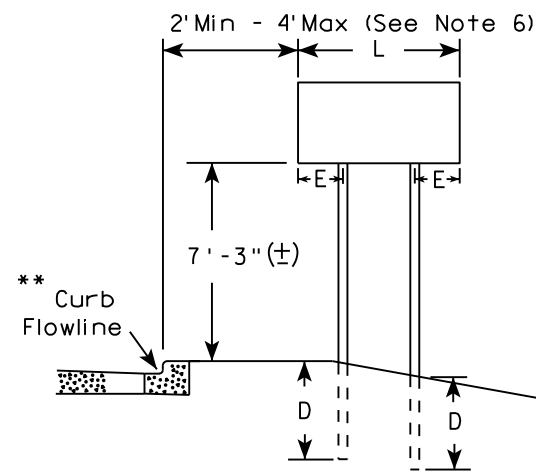
FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED <i>Matthew R. Rauch</i> for State Traffic Engineer	
DATE 1/27/14	PLATE NO. A4-3B.1

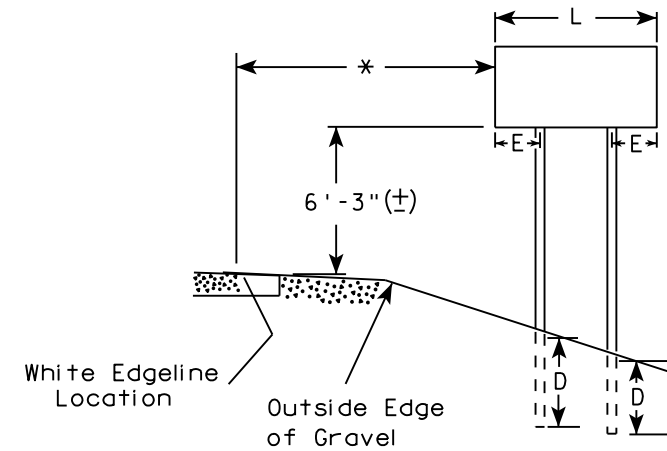
GENERAL NOTES

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

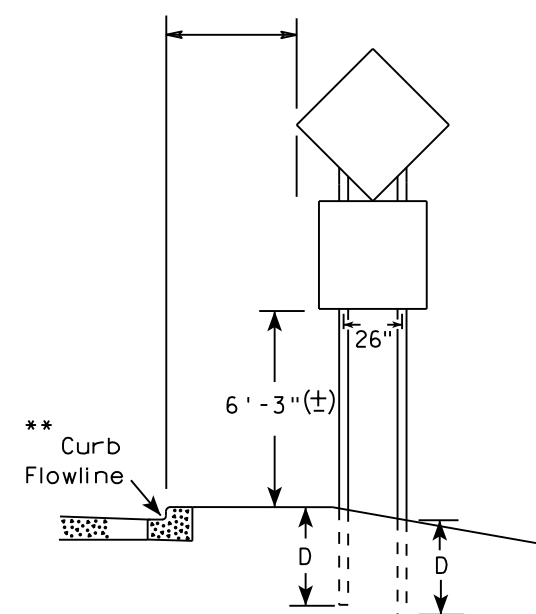
URBAN AREA



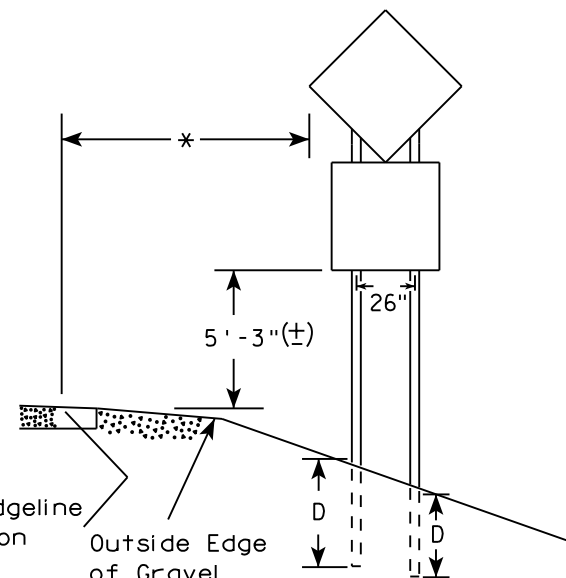
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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

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

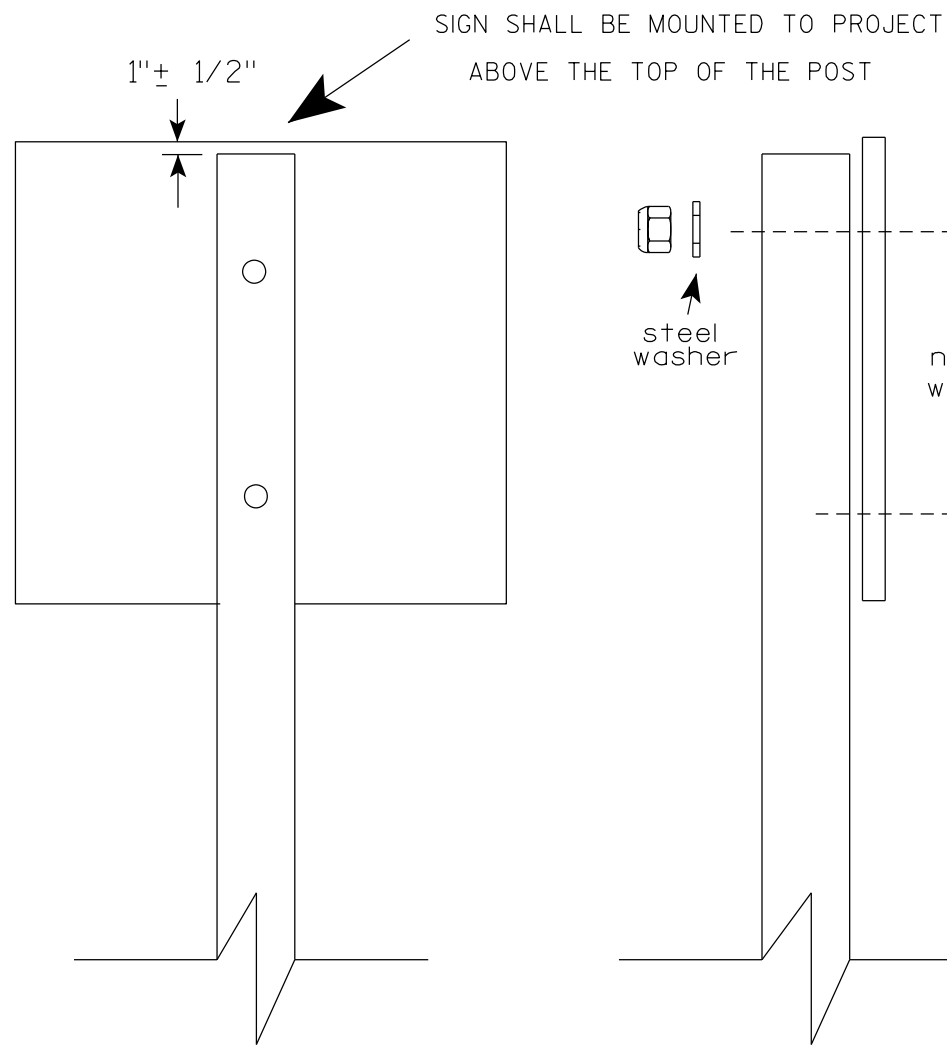
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 For State Traffic Engineer
 DATE 8/21/17 PLATE NO. A4-4.15



SIGN SHALL BE MOUNTED TO PROJECT ABOVE THE TOP OF THE POST

1"± 1/2"

steel washer

nylon washer

steel washer

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

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

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

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

ATTACHMENT OF SIGNS TO POSTS

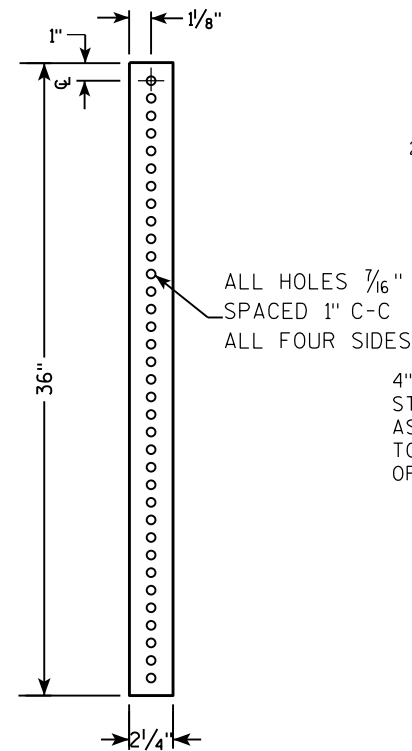
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

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

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

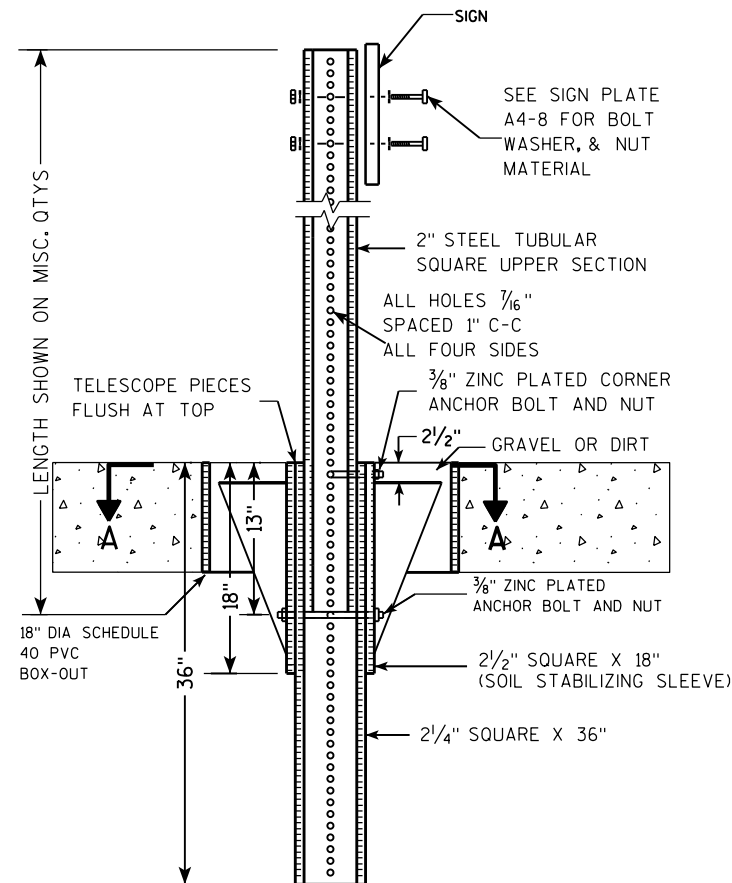
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



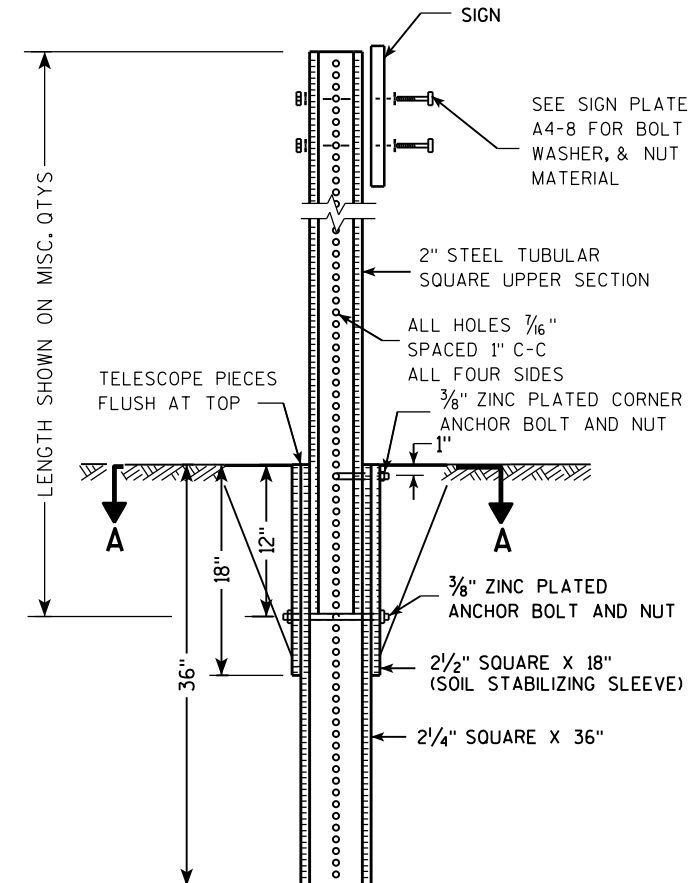
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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



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

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

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

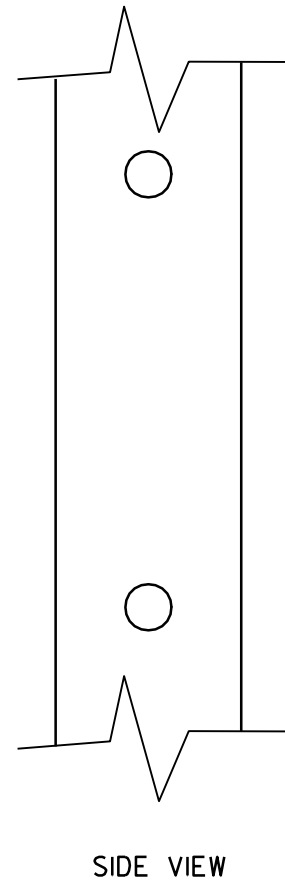
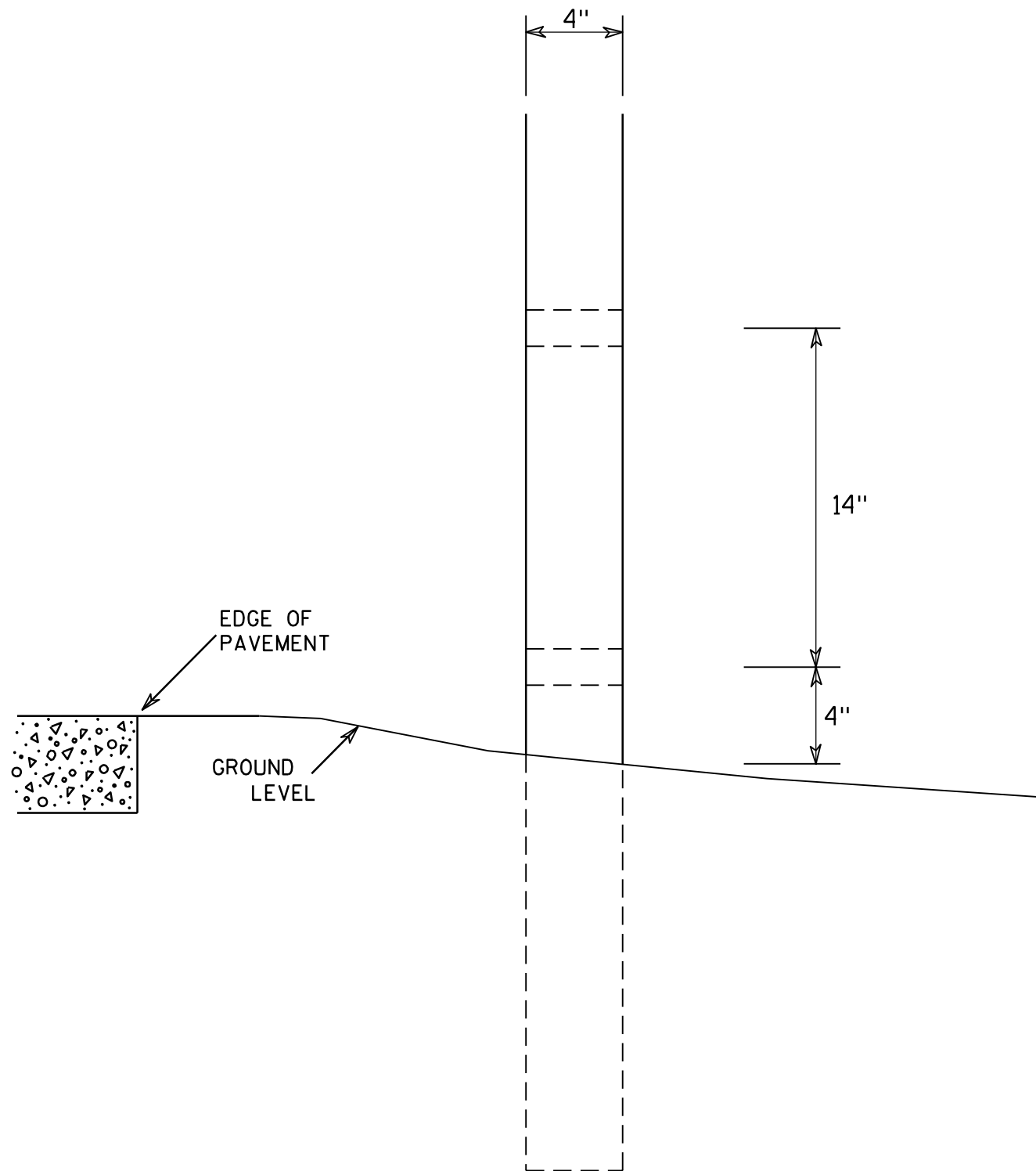
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

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

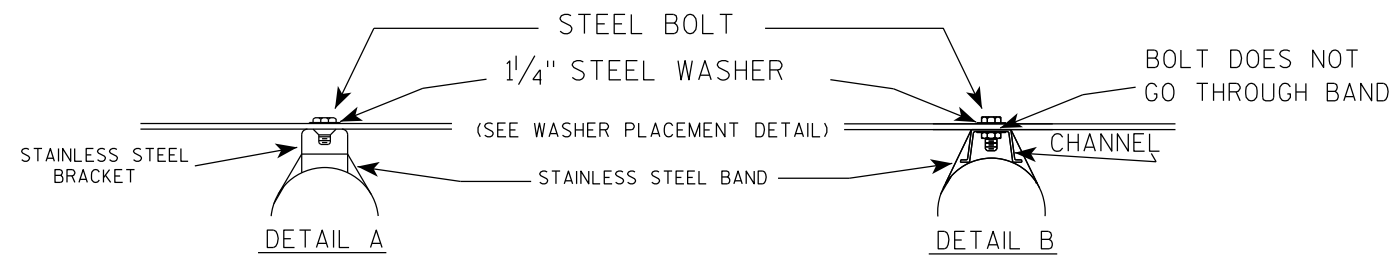
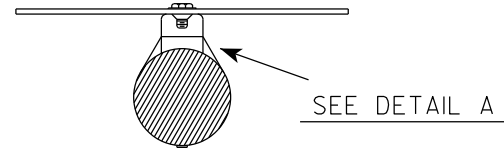
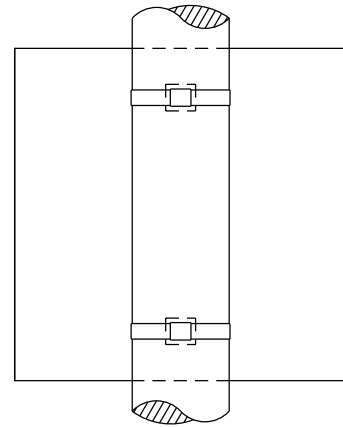
7

7

4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

BANDING

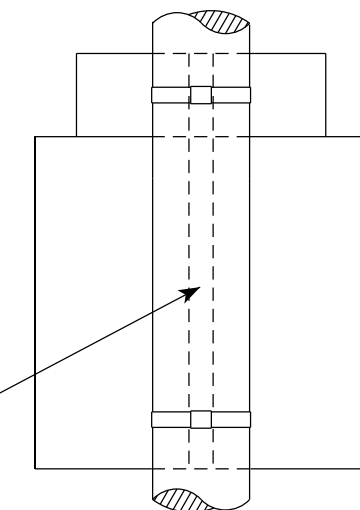
SINGLE SIGN



GENERAL NOTES

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

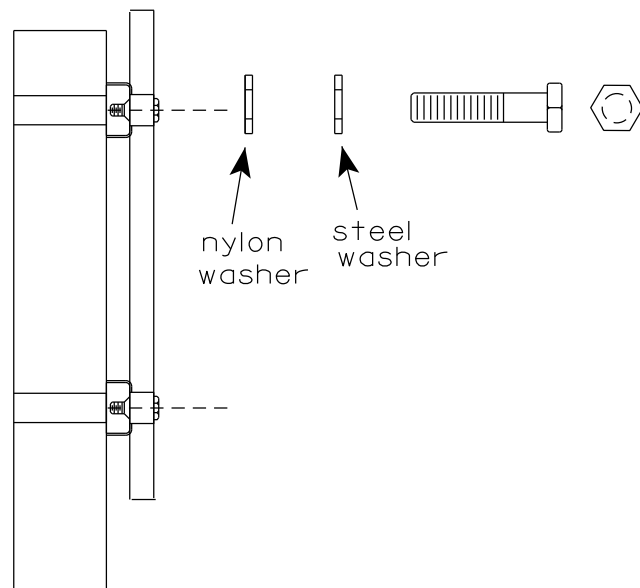
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



WASHER PLACEMENT



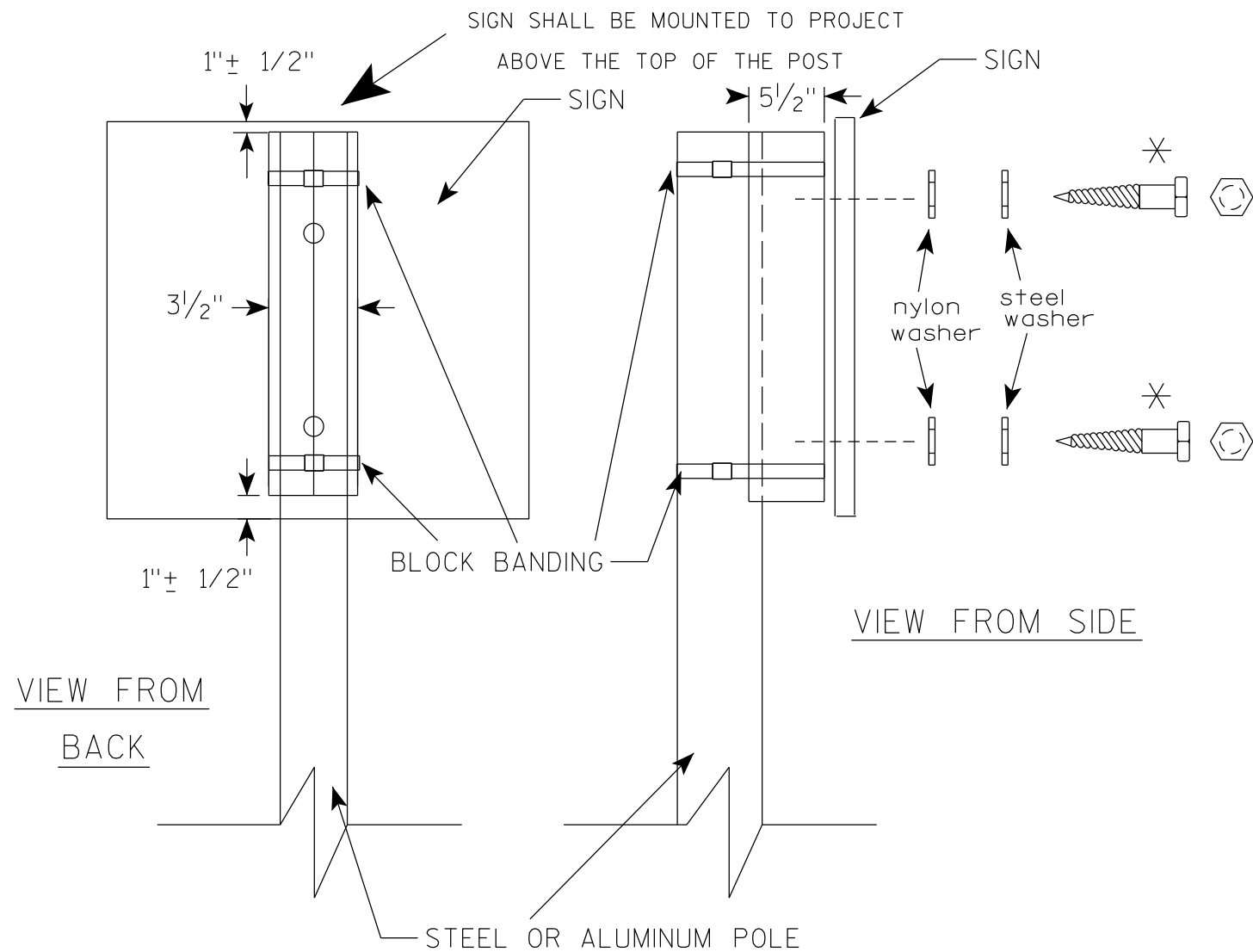
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

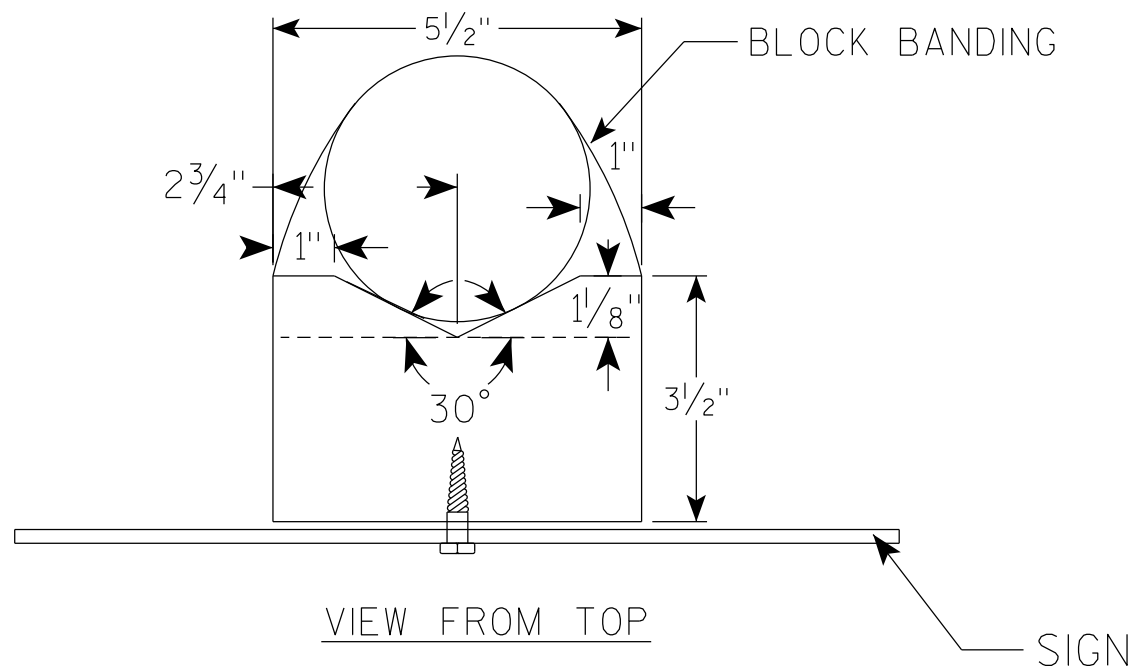
DATE 6/10/19 PLATE NO. A5-9.4



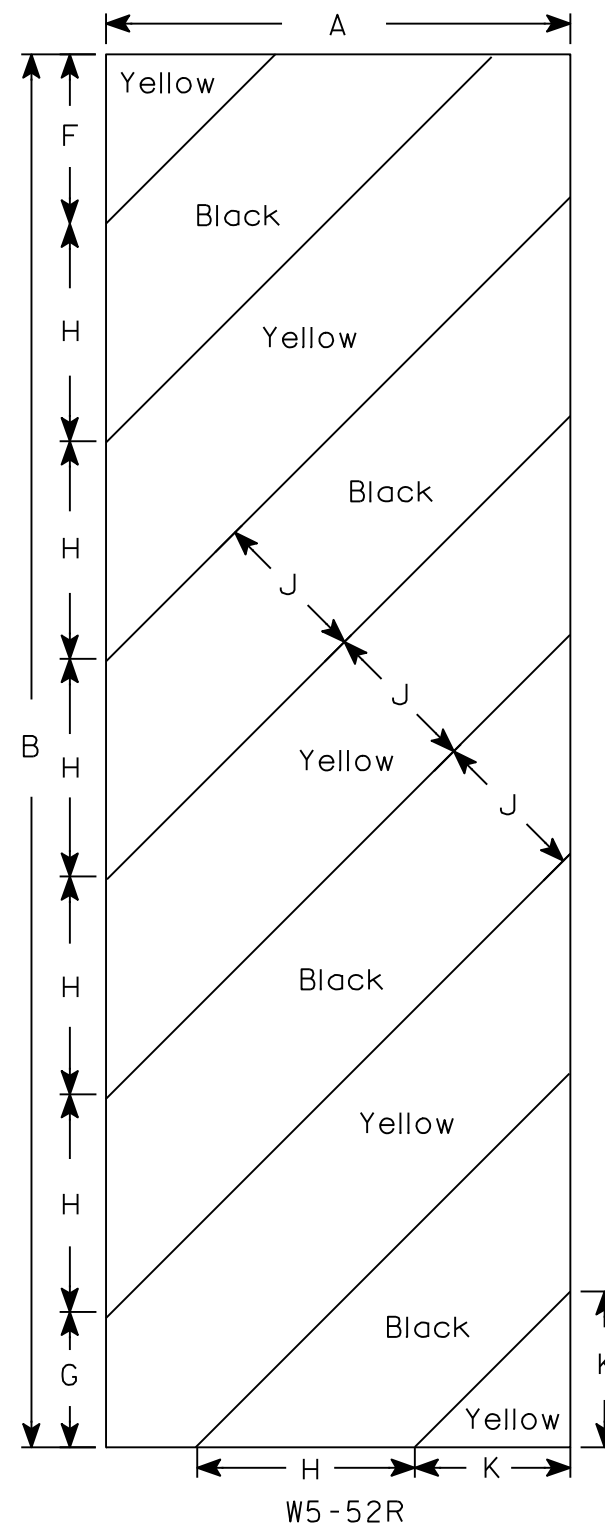
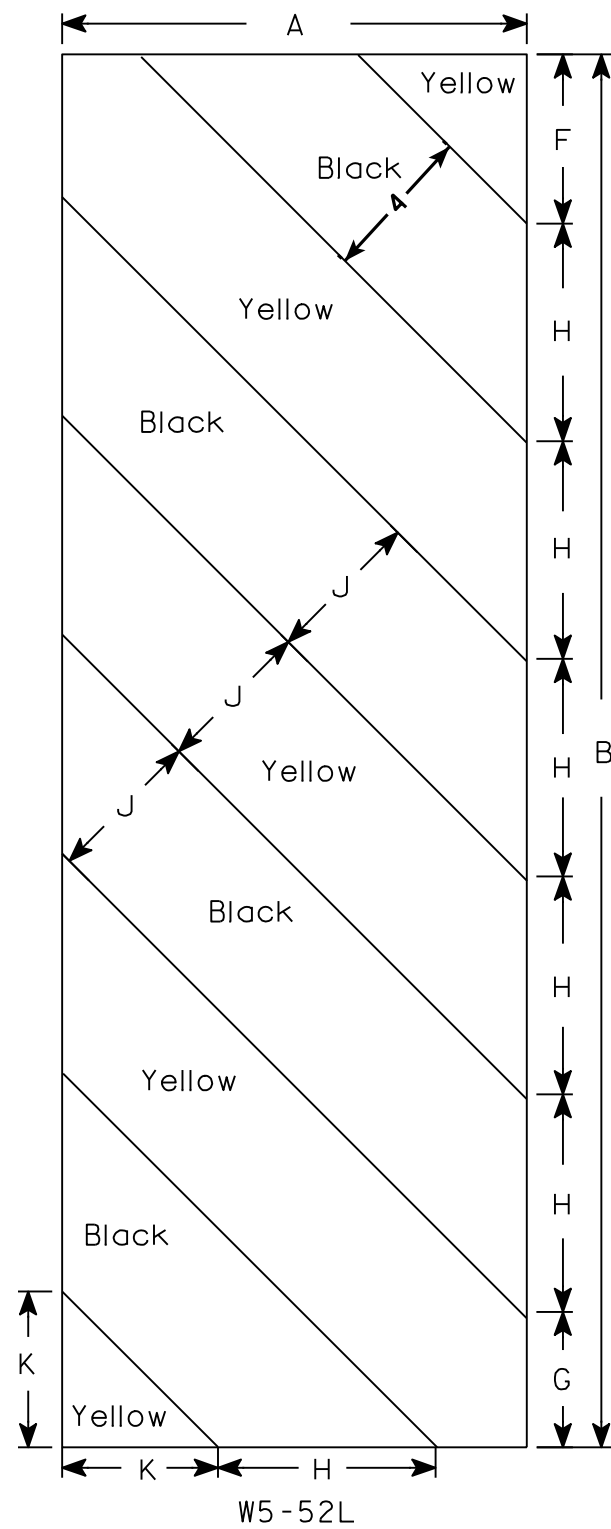
GENERAL NOTES

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

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"



BLOCK BANDING DETAIL (V-BLOCK OPTION)	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> for State Traffic Engineer
DATE 6/10/19	PLATE NO. A5-10.2



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.

7

7

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: _____ E

DESIGN DATA

LIVE LOAD:

DESIGN LOADING _____ HL-93
 INVENTORY RATING FACTOR _____ RF=1.33
 OPERATING RATING FACTOR _____ RF=1.72
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) _____ 250 KIPS

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

MATERIAL PROPERTIES:

CONCRETE MASONRY, SUPERSTRUCTURE _____ f'c = 4,000 P.S.I.
 ALL OTHER _____ f'c = 3,500 P.S.I.
 HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 _____ fy = 60,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH x 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 90 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 35 FT PILE LENGTHS AT BOTH ABUTMENTS. PIER TO BE SUPPORTED ON PILING STEEL HP 10-INCH x 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 45 FT PILE LENGTHS AT PIER.

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

TRAFFIC DATA

A.D.T. (2022) _____ 130
 A.D.T. (2042) _____ 195
 DESIGN SPEED _____ 40 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY _____
 DRAINAGE AREA _____ 55.2 SQ. MI.
 Q₁₀₀ TOTAL _____ 2,370 C.F.S.
 THROUGH STRUCTURE _____ 2,370 C.F.S.
 OVERTOPPING ROADWAY _____ N/A
 VELOCITY - THROUGH STRUCTURE _____ 7.3 F.P.S.
 WATERWAY AREA - THROUGH STRUCTURE _____ 325 SQ. FT.
 HIGH WATER₁₀₀ ELEVATION _____ 847.80
 SCOUR CRITICAL CODE _____ 5

EROSION CONTROL

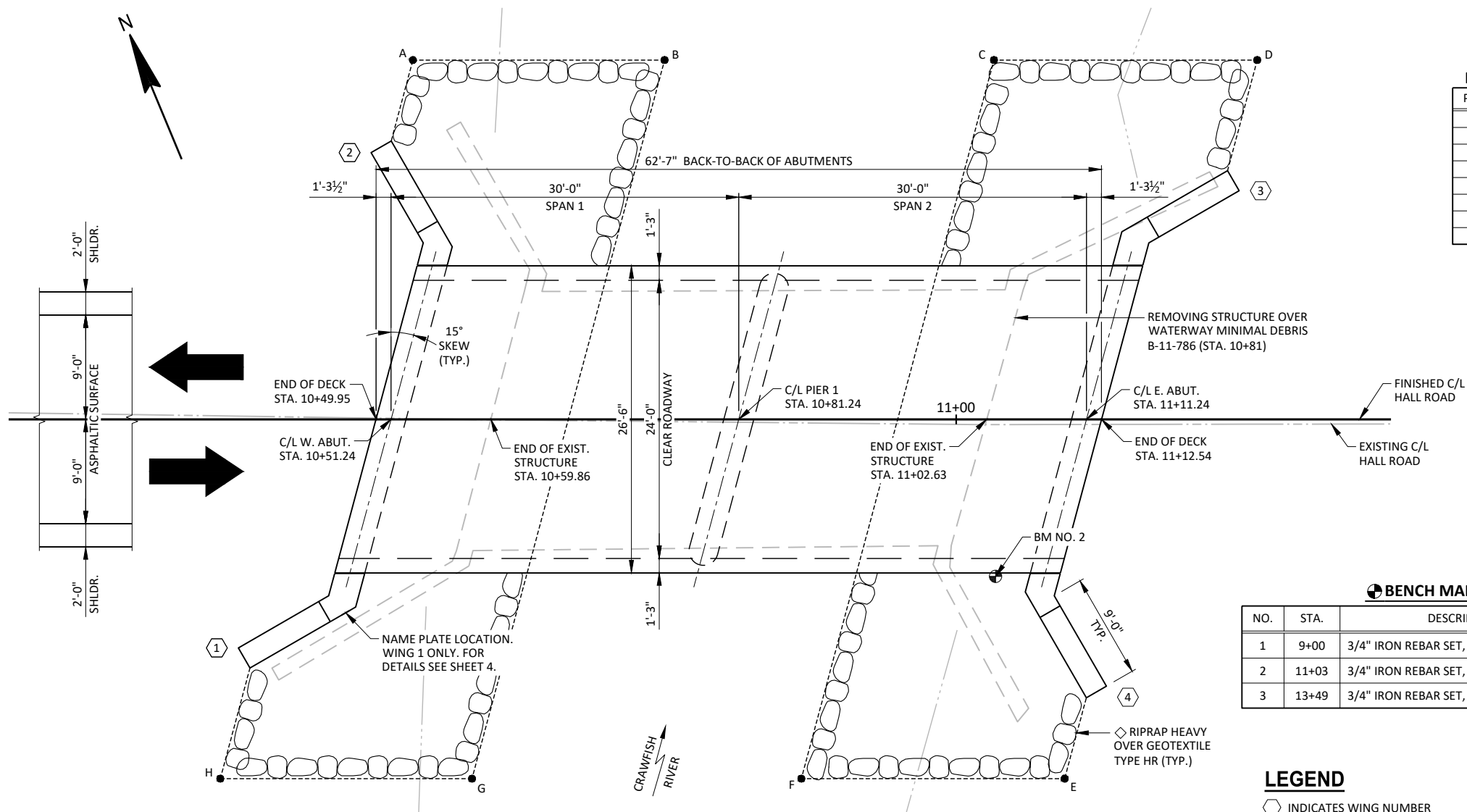
Q₂ _____ 290 C.F.S.
 VELOCITY₂ _____ 2.5 F.P.S.
 HIGH WATER₂ ELEVATION _____ 842.32

LIST OF DRAWINGS

- 1. GENERAL PLAN
- 2. CROSS SECTION AND QUANTITIES
- 3. SUBSURFACE EXPLORATION
- 4. ABUTMENTS
- 5. ABUTMENT DETAILS
- 6. PIER
- 7. SUPERSTRUCTURE
- 8. SUPERSTRUCTURE DETAILS
- 9. TUBULAR RAILING TYPE M

RIPRAP HEAVY LAYOUT

POINT	STATION	OFFSET
A	10+53	31' LT.
B	10+75	31' LT.
C	11+03	31' LT.
D	11+26	31' LT.
E	11+09	31' RT.
F	10+87	31' RT.
G	10+58	31' RT.
H	10+37	31' RT.



PLAN B-11-174

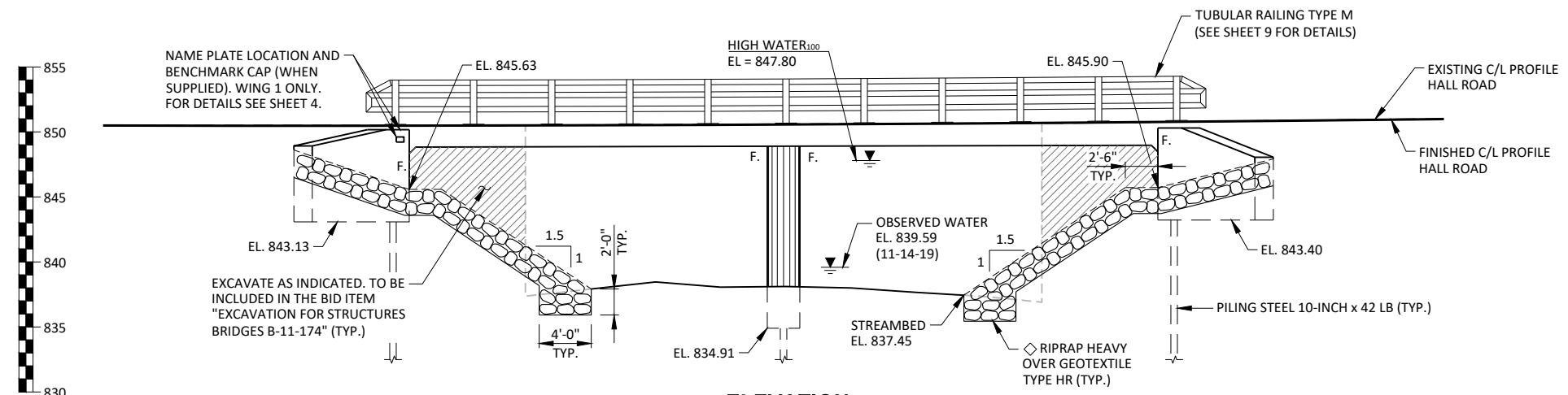
(TWO-SPAN REINFORCED CONCRETE FLAT SLAB)

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	9+00	3/4" IRON REBAR SET, 12.2' LT.	851.06
2	11+03	3/4" IRON REBAR SET, 13.6' RT.	849.27
3	13+49	3/4" IRON REBAR SET, 10.6' RT.	856.92

LEGEND

- ◊ INDICATES WING NUMBER
- ◇ VOIDS IN THE RIPRAP HEAVY SHALL BE FILLED WITH 6" STONE. COST OF THE 6-INCH STONE IS PAID FOR UNDER BID ITEM "MATERIAL FOR TRAVEL CORRIDOR". ENTIRE SURFACE OF RIPRAP HEAVY TO BE COVERED.



ELEVATION

(NORMAL TO CRAWFISH RIVER)



DESIGN CONSULTANT
 PATRICK BOLAND, PE
 (608) 588-7484

BRIDGE OFFICE CONTACT
 AARON BONK, PE
 (608) 261-0261

NO.	DATE	REVISION	BY

JEWELL
 associates engineers, inc.
 Engineers - Architects - Surveyors

560 SUNRISE DRIVE
 SPRING GREEN, WI 53588
 OFFICE: (608) 588-7484
 www.jewellassoc.com

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

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

STRUCTURE B-11-174

HALL ROAD OVER CRAWFISH RIVER

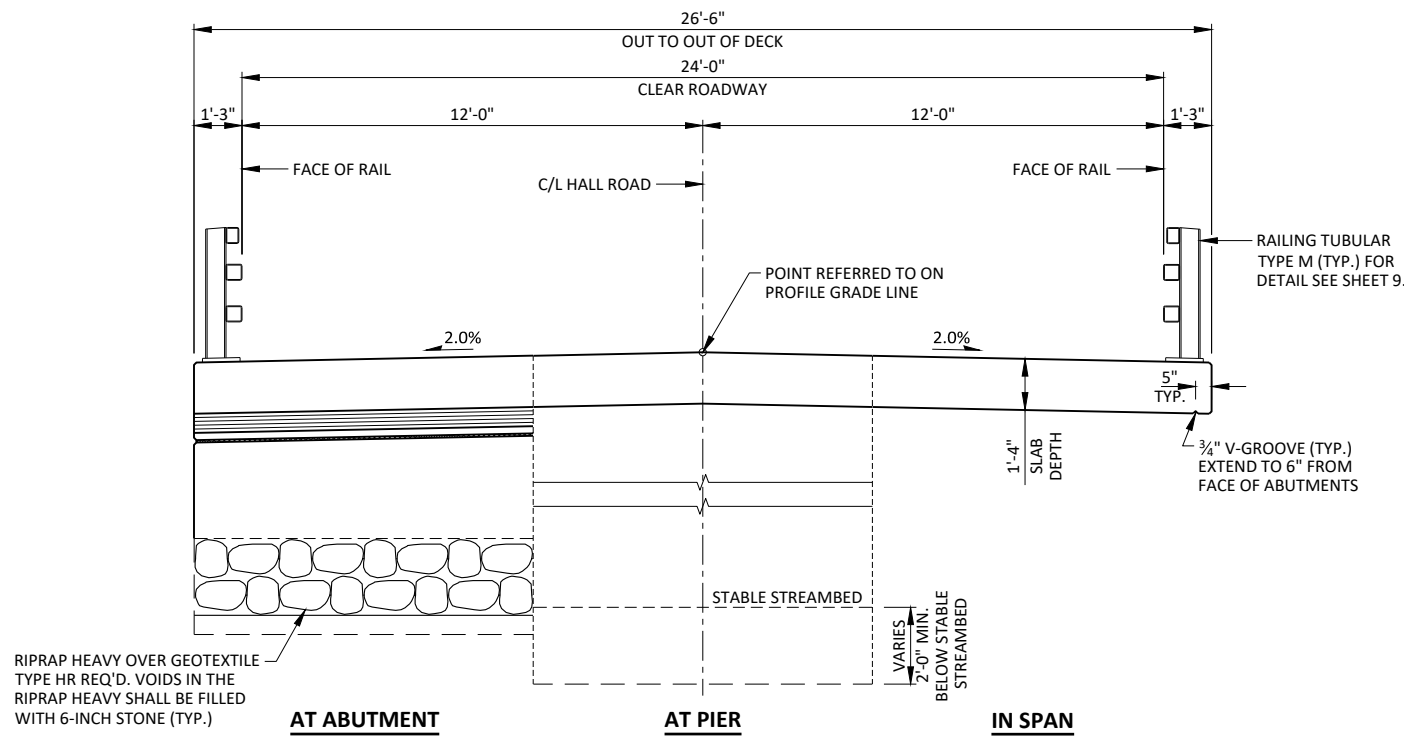
COUNTY COLUMBIA TOWN/CITY/VILLAGE COLUMBUS

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

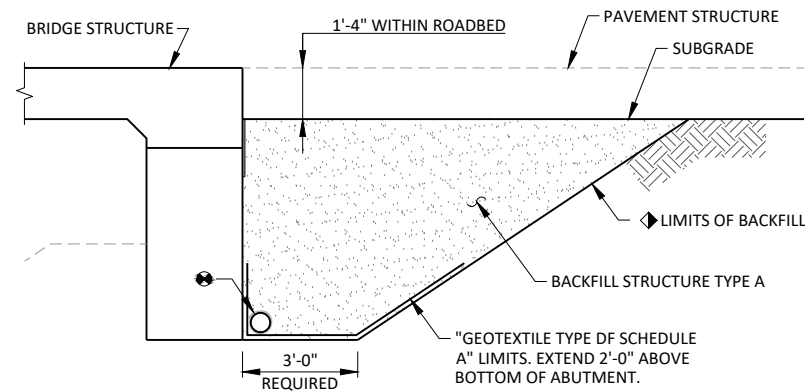
DESIGNED BY PMF DESIGN CK'D. PTB DRAWN BY PMF PLANS CK'D. PTB

GENERAL PLAN

SHEET 1 OF 9



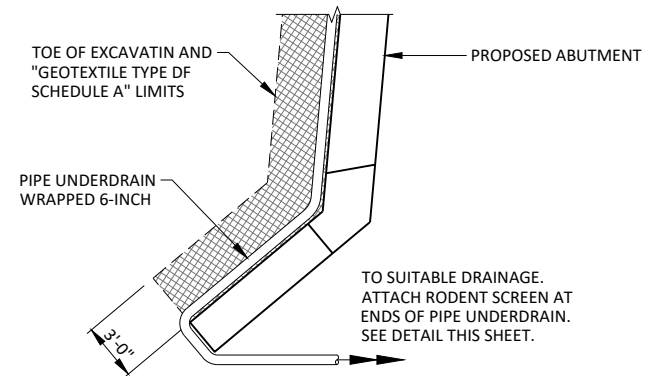
PROPOSED CROSS-SECTION THROUGH ROADWAY
LOOKING EAST



BACKFILL STRUCTURE DETAIL

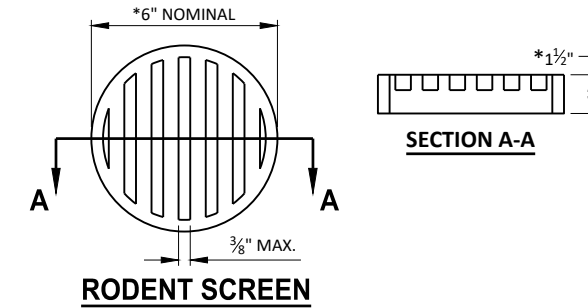
(TYPICAL AT ABUTMENTS. ABUTMENT BODY SHOWN - WING WALLS SIMILAR)

- ◆ BACKFILL STRUCTURE TYPE A PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO THE BID ITEM "EXCAVATION FOR STRUCTURES B-11-174". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- ◆ PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."



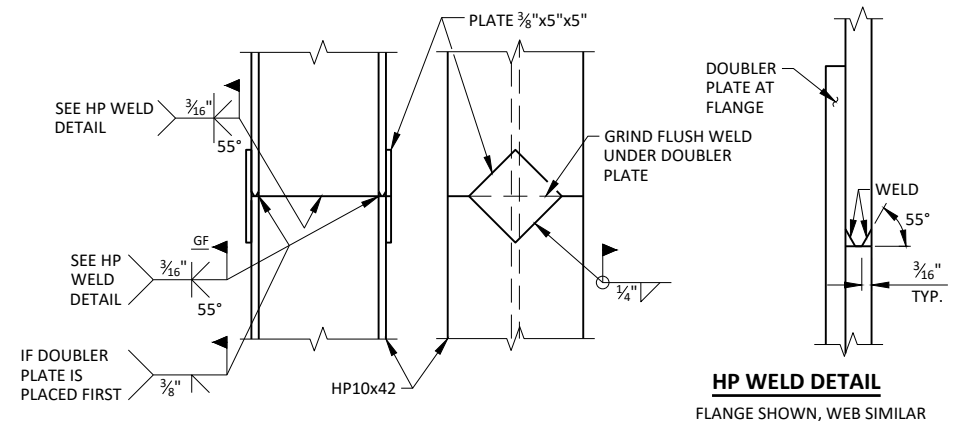
PIPE UNDERDRAIN DETAIL

- NOTES:
- * DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.
 - ORIENT SHIELD SO SLOTS ARE VERTICAL.
 - THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".
 - THE RODENT SCREEN SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED ENDS OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88).
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION MI53, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.
- THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER IN THE FIELD. VOIDS IN THE RIPRAP HEAVY SHALL BE FILLED WITH 6-INCH STONE. COST OF THE 6-INCH STONE IS PAID FOR UNDER BID ITEM "MATERIAL FOR TRAVEL CORRIDOR".
- AT THE BACK FACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A. SEE THIS SHEET FOR DETAIL.
- ANY EXCAVATION BELOW THE ABUTMENT AND ASSOCIATED ABUTMENT BEDDING MATERIALS REQUIRE THE APPROVAL OF THE ENGINEER IN THE FIELD.
- APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE DECK, THE SIDES OF THE DECK AND EXTERIOR 12" OF THE UNDERSIDE OF THE DECK (CONCRETE MATERIAL ONLY).
- THE EXISTING STRUCTURE (B-11-786) IS A STEEL DECK GIRDER STRUCTURE WITH A CONCRETE DECK SUPPORTED ON CONCRETE ABUTMENTS. THE STRUCTURE HAS A ROADWAY WIDTH BETWEEN RAILINGS OF 24.0 FEET AND SHALL BE REMOVED.
- ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.
- THE EXISTING GROUNDLINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENTS AND THE EXISTING STREAMBED SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIER.
- SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATIVE METHOD IS APPROVED BY THE ENGINEER IN THE FIELD.
- THE FIRST DIGIT OF AT BAR MARK SIGNIFIES THE BAR SIZE.

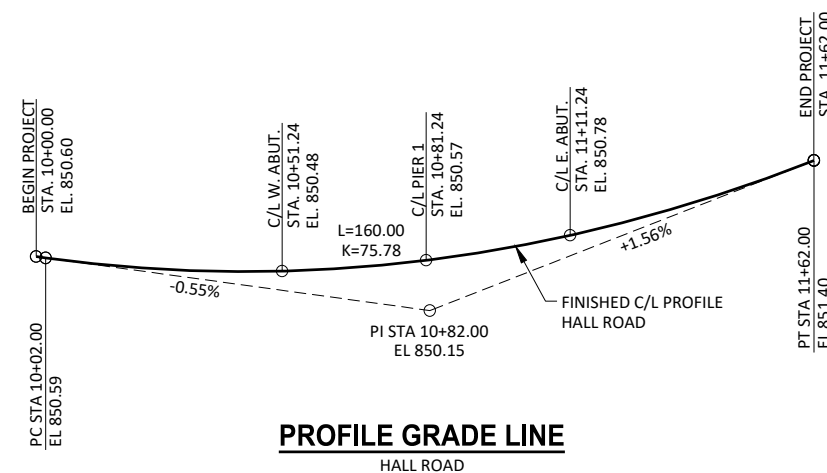


PILE SPLICE DETAIL

STEEL "HP" PILE MATERIAL SHALL BE ASTM A 572 GRADE 50.

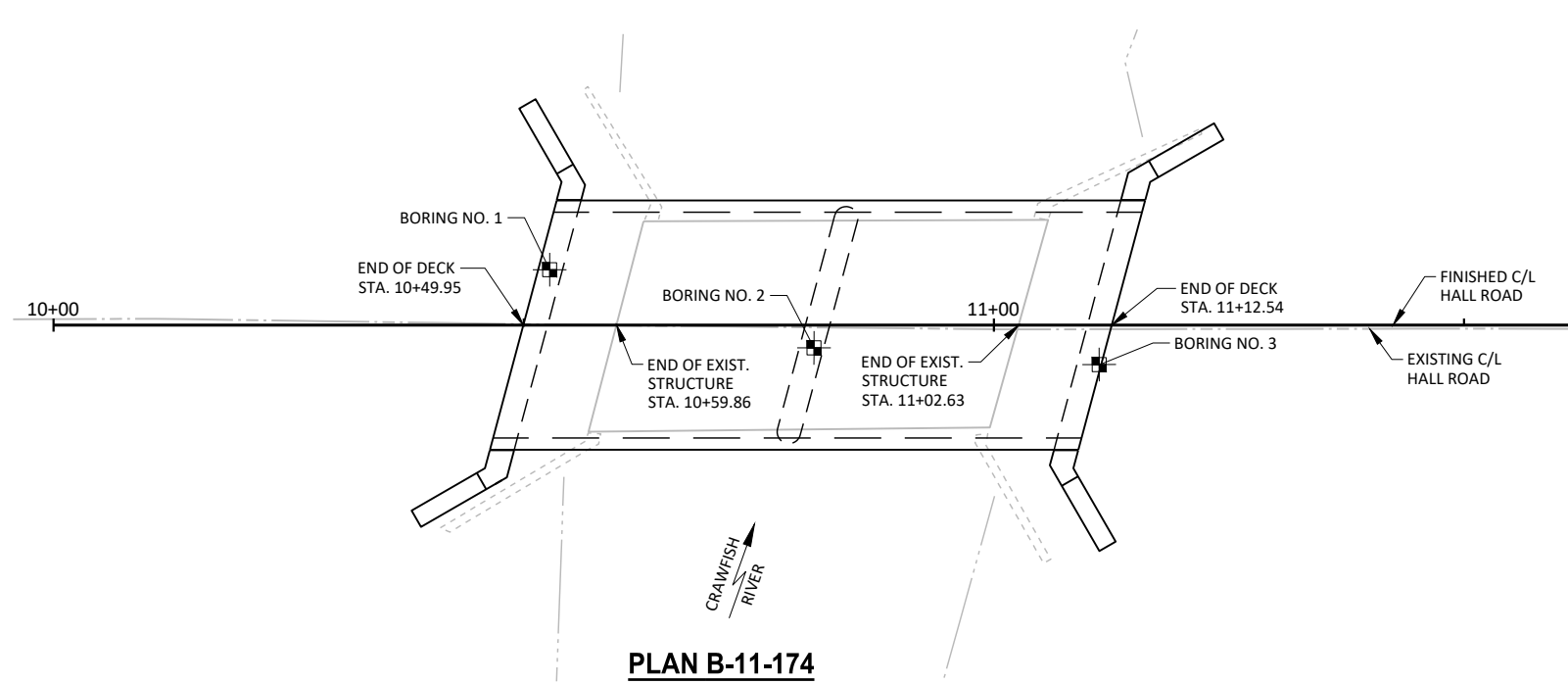
TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	W. ABUT.	PIER 1	E. ABUT.	SUPER	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-11-786	EACH	--	--	--	--	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-11-174	LS	--	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	130	--	130	--	260
502.0100	CONCRETE MASONRY BRIDGES	CY	25	34	25	86	170
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	--	--	220	220
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,050	1,550	2,050	--	5,650
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,375	50	1,375	20,720	23,520
513.4061	RAILING TUBULAR TYPE M	LF	--	--	--	129	129
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	6	--	6	--	12
550.1100	PILING STEEL HP 10-INCH x 42 LB	LF	245	225	245	--	715
606.0300	RIPRAP HEAVY	CY	100	--	110	--	210
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	70	--	70	--	140
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	50	--	50	--	100
645.0120	GEOTEXTILE TYPE HR	SY	170	--	180	--	350
SPV.0195.01	MATERIAL FOR TRAVEL CORRIDOR	TON	45	--	47	--	92
NON-BID ITEMS							
	FILLER	SIZE					1/2" & 3/4"
	NAME PLATE						



PROFILE GRADE LINE
HALL ROAD

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-174			
DRAWN BY		PMF	PLANS CKD. PTB
CROSS SECTION AND QUANTITIES			SHEET 2 OF 9



SOIL BORINGS			
BORING NUMBER	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	04/16/20	328,152.7	644,909.8
2	04/16/20	328,134.2	644,932.5
3	04/16/20	328,120.8	644,960.0

BORINGS & REPORT COMPLETED BY: AMERICAN ENGINEERING TESTING, INC. 4203 SCHOFIELD AVENUE, SUITE 1 SCHOFIELD, WI 54476

STATE PROJECT NUMBER
6217-00-77

MATERIAL SYMBOLS

Asphalt	Topsoil	Peat
Concrete	Fill	Gravel
Sand	Clay	Silt
Boulders or Cobbles	Limestone	Bedrock (unknown)
Shale	Sandstone	Igneous/meta

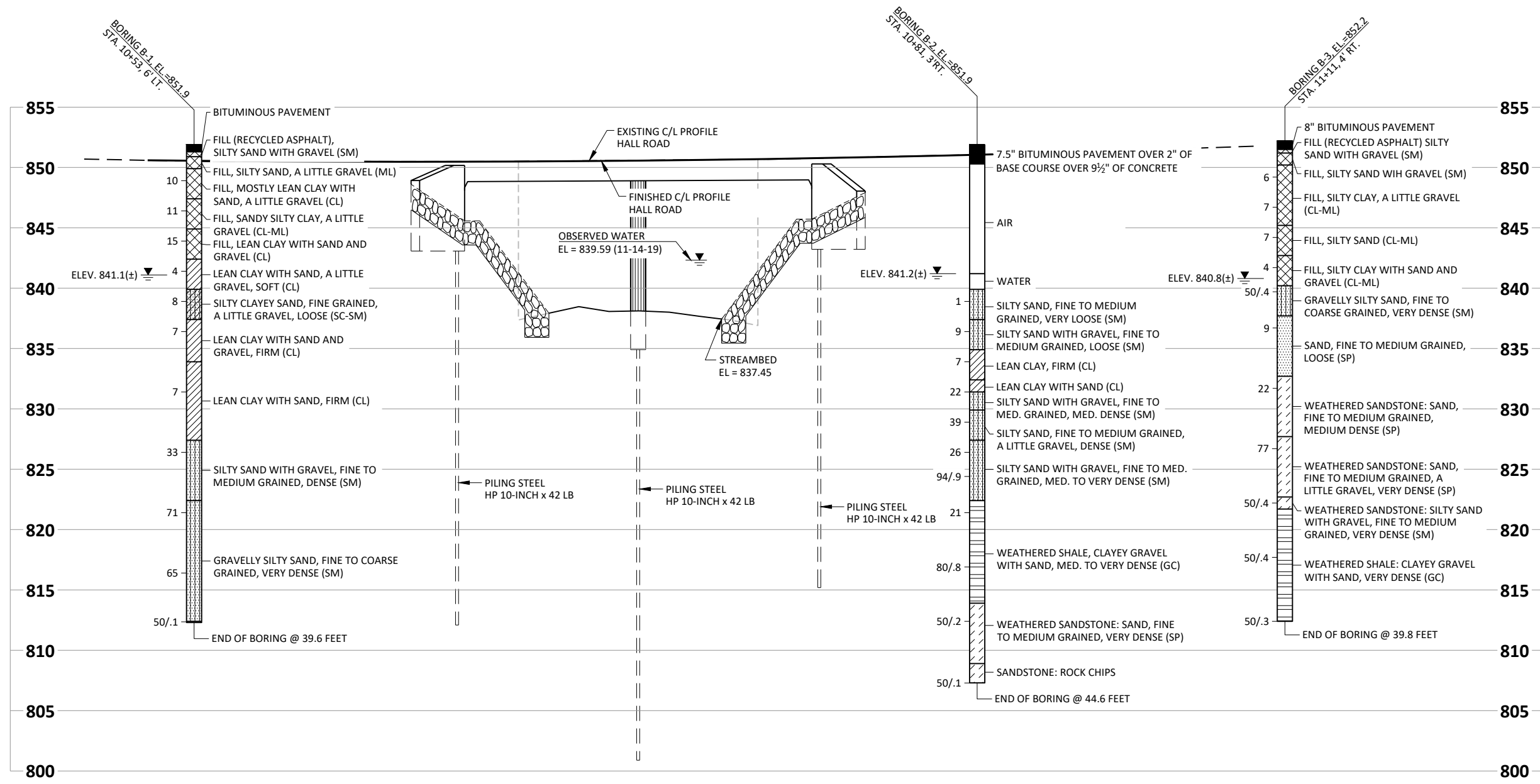
LEGEND OF BORING

(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 ELEVATIONS

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

ABBREVIATIONS
F-FINE M-MEDIUM C-COURSE 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-11-174			
DRAWN BY: PMF		PLANS CK'D: PTB	
SUBSURFACE EXPLORATION		SHEET 3 OF 9	

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 5 FOR BILL OF BARS.

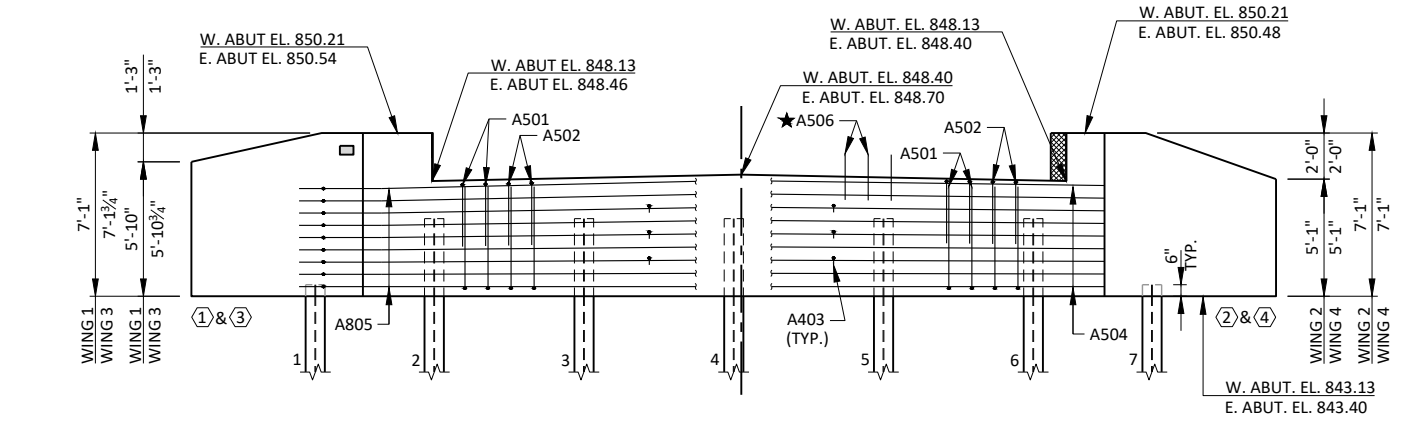
SEAT ELEVATIONS SHOWN IN THE ELEVATION VIEW ARE TAKEN AT THE C/L OF BEARING NEGLLECTING THE KEYED CONSTRUCTION JOINT.

DO NOT PLACE FILL HIGHER THAN 3 FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

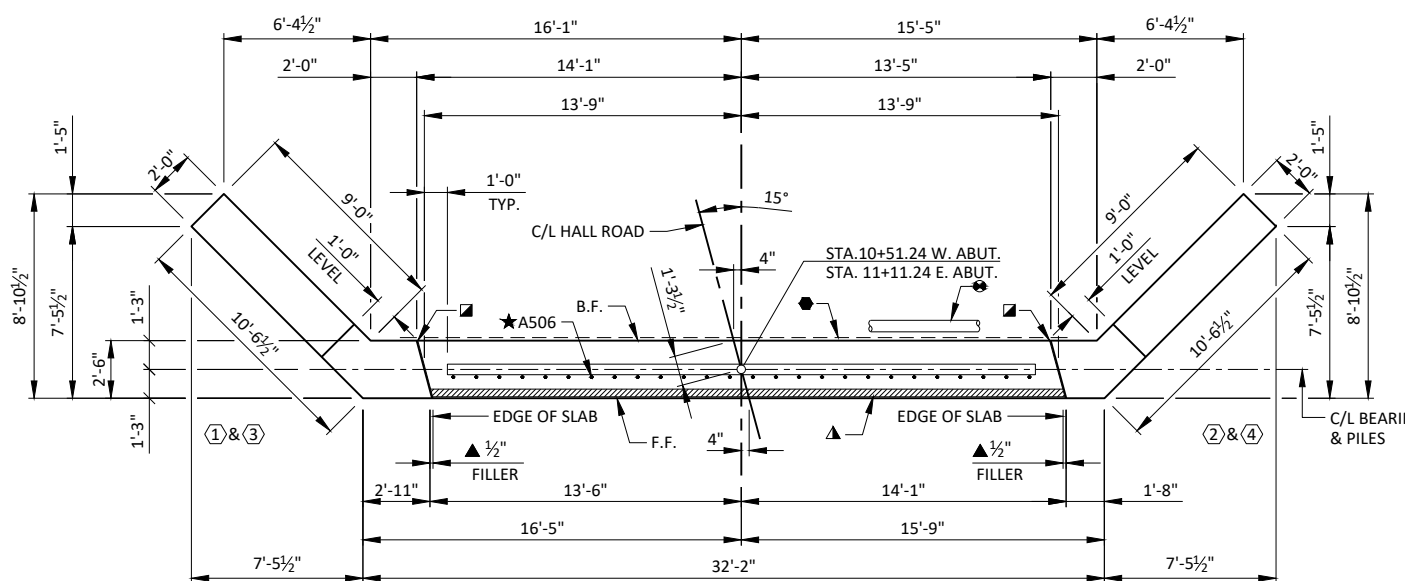
B.F. - BACK FACE



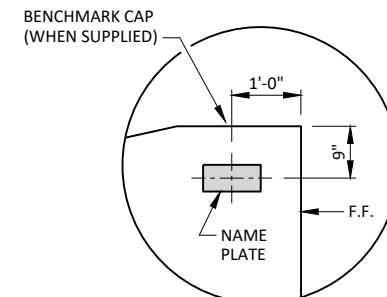
BACK FACE BAR STEEL REINF.

FRONT FACE BAR STEEL REINF.

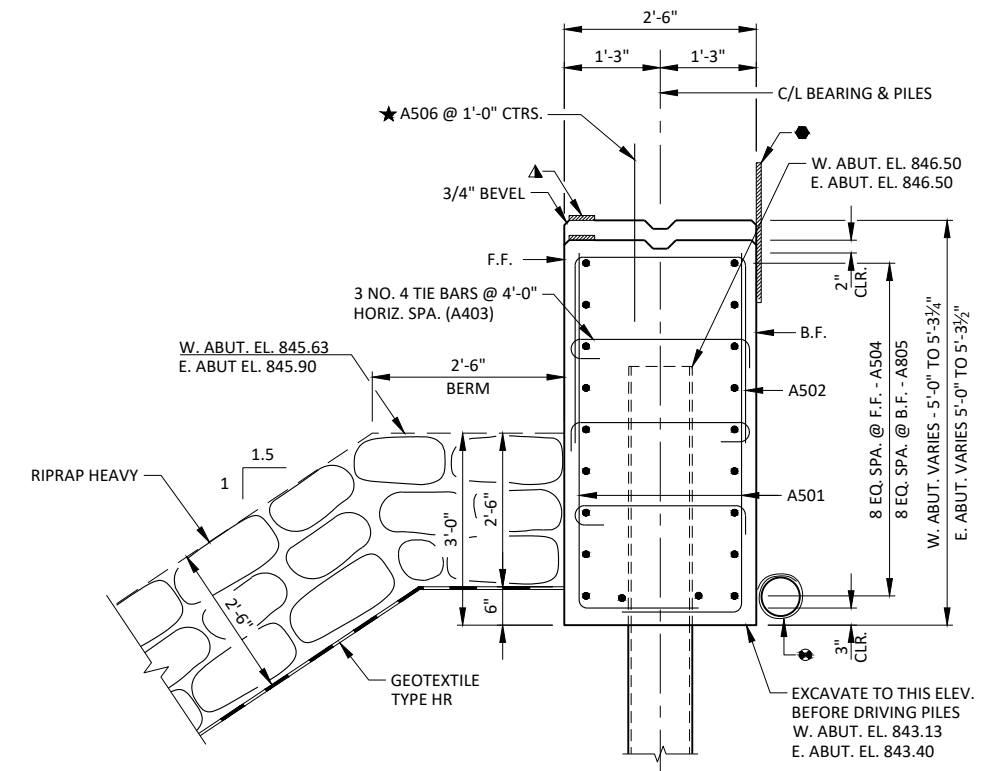
ELEVATION



PLAN



NAME PLATE AND BENCHMARK CAP DETAIL (WING 1 ONLY)

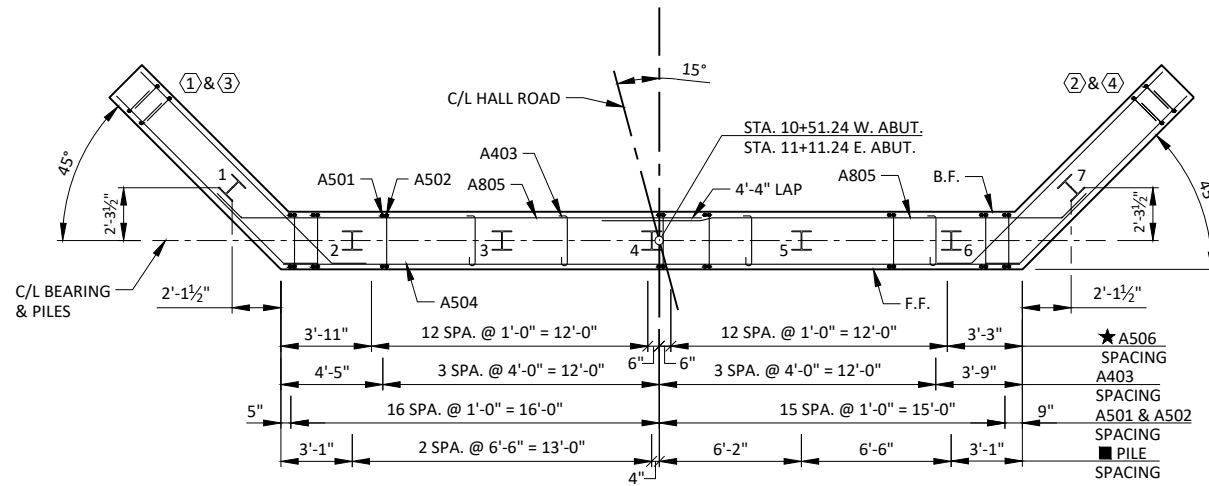


TYPICAL SECTION THROUGH ABUTMENT BODY

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH x 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 90 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 35 FT PILE LENGTHS AT BOTH ABUTMENTS.

LEGEND

- VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINIOUS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE)
- 3/4" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- A506 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".
- PILE SPACING MEASURED AT BASE OF ABUTMENT BODY.
- PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. SEE SHEET 2 FOR PIPE UNDERDRAIN DETAIL. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."



LAYOUT

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-174			
DRAWN BY: PMF		PLANS CK'D: PTB	
ABUTMENTS		SHEET 4 OF 9	

BILL OF BARS
TWO ABUTMENTS SHOWN

2,750 LB (COATED)
4,100 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
A501	128	6-0	X			BODY - VERT. - F.F. & B.F.
A502	64	7-11	X			BODY - VERT. - TOP
A403	42	2-8	X			TIE BARS
A504	18	32-0				BODY - HORIZ. - F.F.
A805	36	21-10	X			BODY - HORIZ. - B.F.
A506	52	2-0		X		BODY - VERT. - DOWELS
A407	44	8-6	X	X	*	WING 1 & 3 - VERT. - F.F. & B.F.
A408	20	6-8		X		WING 1 & 3 - VERT.
A409	2	2-6		X		WING 1 & 3 - VERT. - TOP
A510	18	11-9	X	X		WING 1 & 3 - HORIZ. - F.F.
A811	18	13-4	X	X		WING 1 & 3 - HORIZ. - B.F.
A412	4	8-10		X		WING 1 & 3 - HORIZ. - F.F. & B.F.
A413	4	7-4		X		WING 1 & 3 - HORIZ. - F.F. & B.F.
A414	4	2-6		X		WING 1 & 3 - HORIZ. - F.F. & B.F. - TOP
A415	4	8-11	X	X		WING 1 & 3 - HORIZ. - TOP
A416	8	10-2	X	X		WING 1 & 3 - HORIZ. - TOP
A417	44	8-2	X	X	*	WING 2 & 4 - VERT. - F.F. & B.F.
A518	14	6-8		X		WING 2 & 4 - VERT.
A419	2	2-6		X		WING 2 & 4 - VERT. - TOP
A520	18	11-9	X	X		WING 2 & 4 - HORIZ. - F.F.
A821	18	13-4	X	X		WING 2 & 4 - HORIZ. - B.F.
A422	4	7-11		X		WING 2 & 4 - HORIZ. - F.F. & B.F.
A423	4	4-11		X		WING 2 & 4 - HORIZ. - F.F. & B.F.
A424	4	1-11		X		WING 2 & 4 - HORIZ. - F.F. & B.F.
A425	4	9-1	X	X		WING 2 & 4 - HORIZ. - F.F. & B.F. - TOP
A426	8	8-10	X	X		WING 2 & 4 - HORIZ. - TOP

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

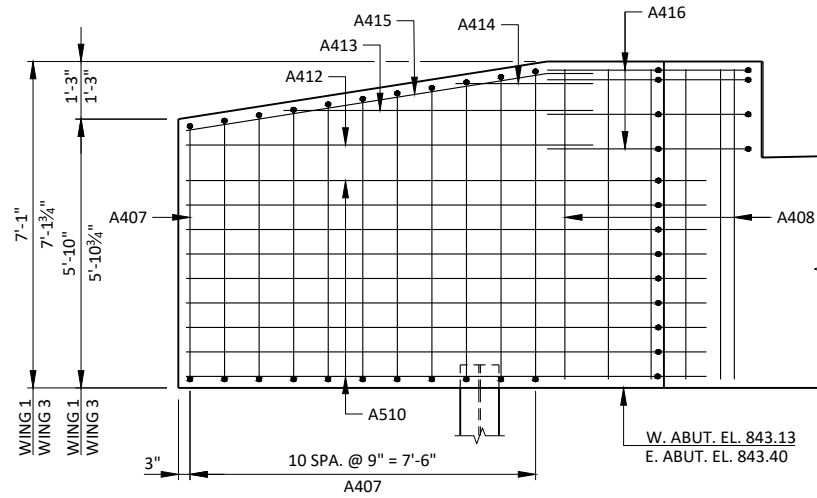
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

* LENGTH SHOWN IS AN AVERAGE LENGTH ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

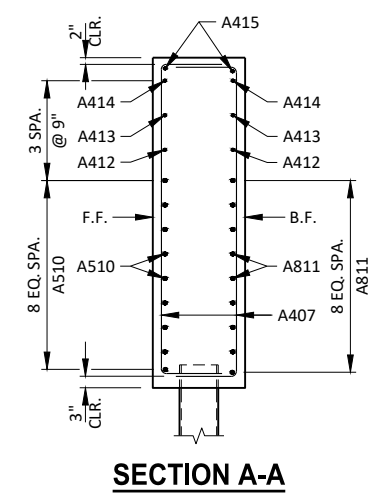
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
A407	4 SERIES OF 11	9-1 TO 7-11
A417	4 SERIES OF 11	9-1 TO 7-3

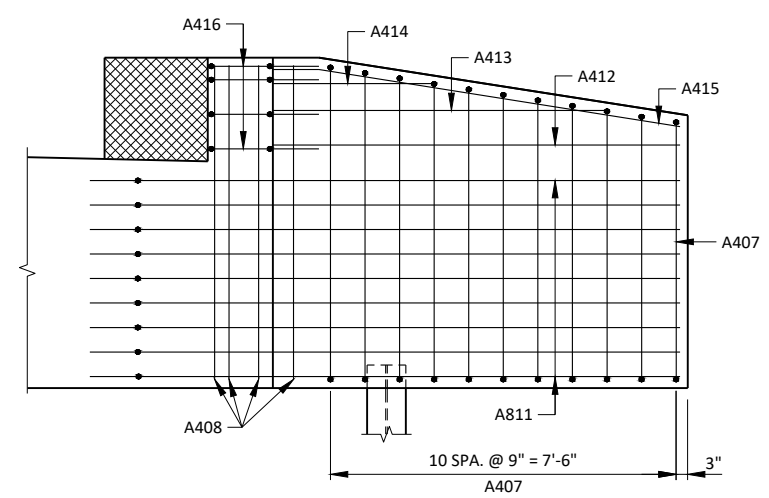
BUNDLE AND TAG EACH SERIES SEPARATELY.



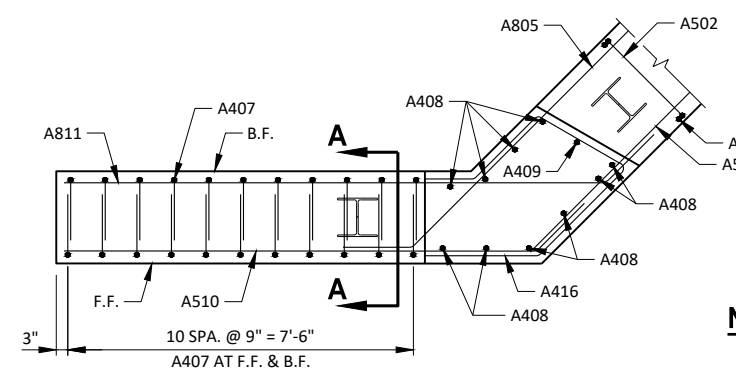
F.F. ELEVATION - WING 1 & 3



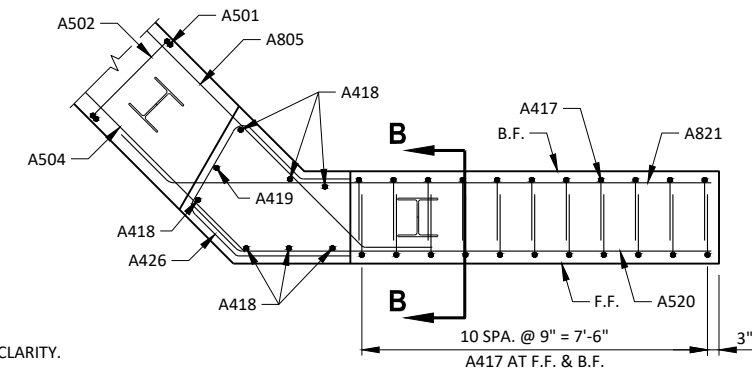
SECTION A-A



B.F. ELEVATION - WING 1 & 3



PLAN VIEW - WING 1 & 3



PLAN VIEW - WING 2 & 4

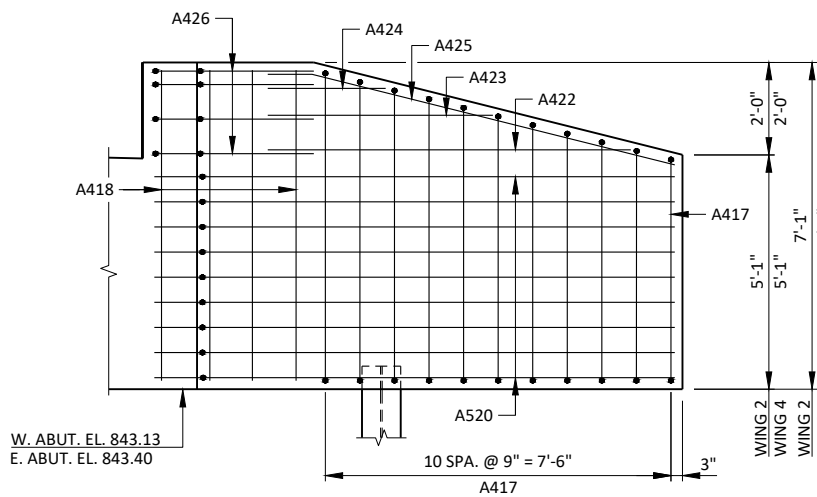
NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

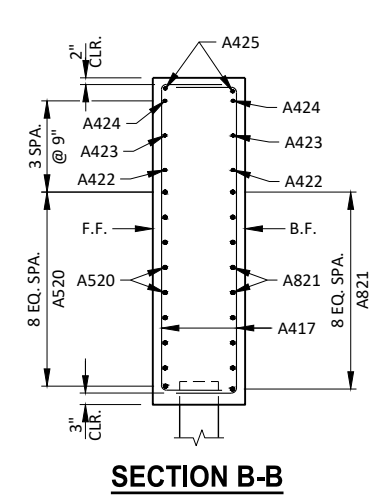
SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

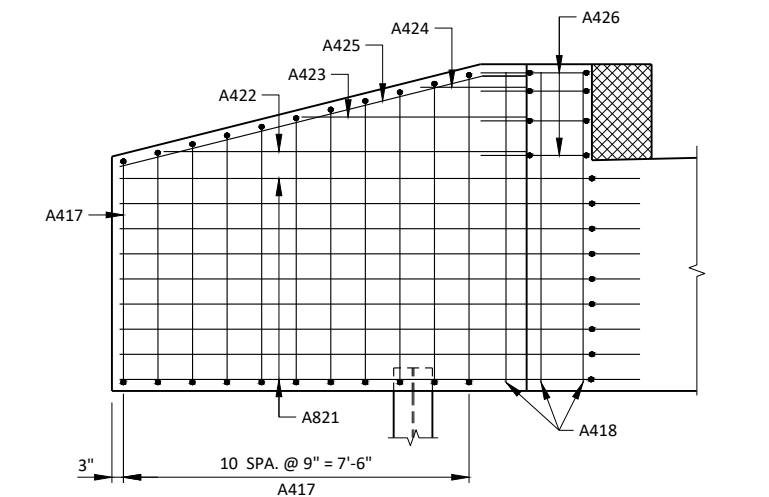
B.F. - BACK FACE



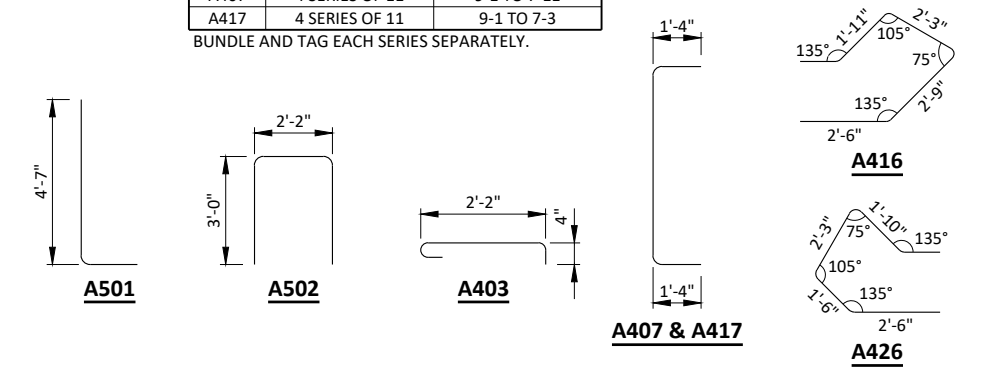
F.F. ELEVATION - WING 2 & 4



SECTION B-B

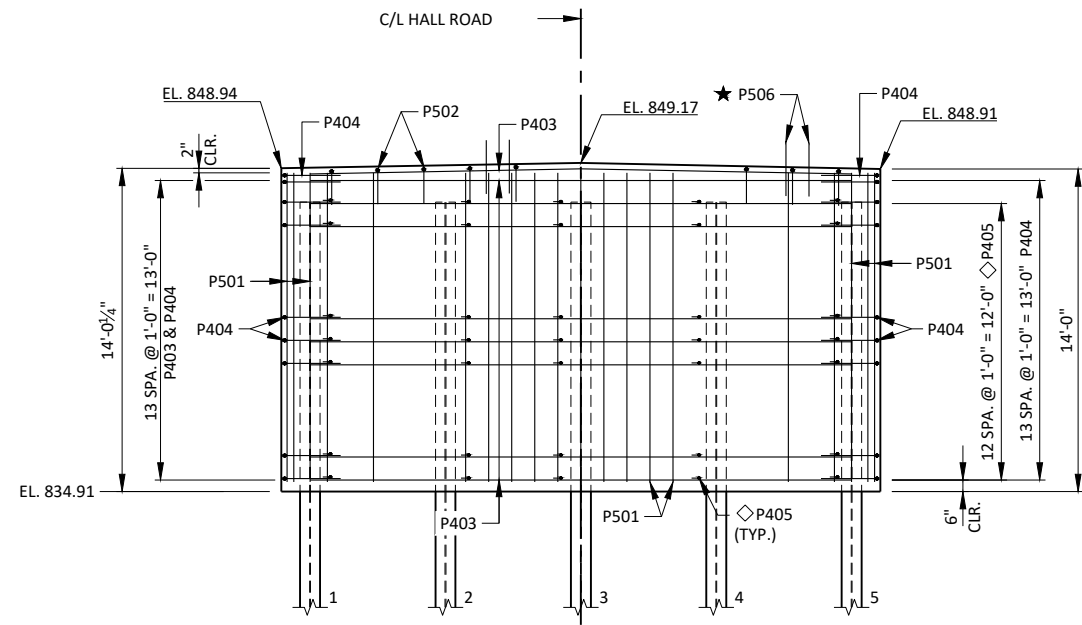


B.F. ELEVATION - WING 2 & 4

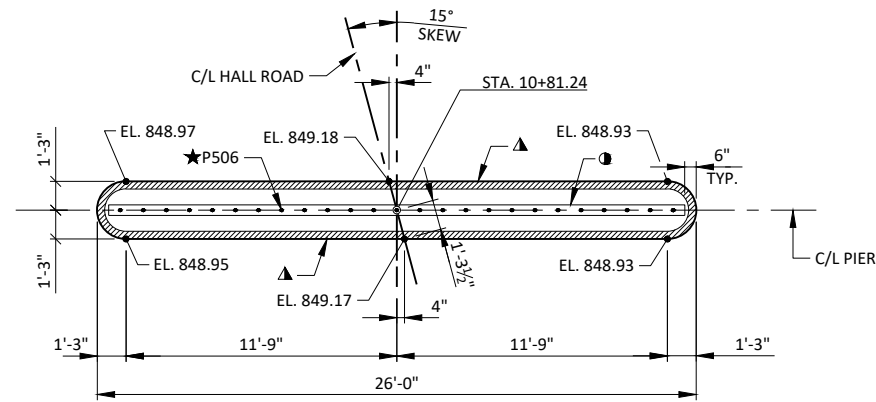


MARK	'A'
A415	171°07'
A425	165°58'

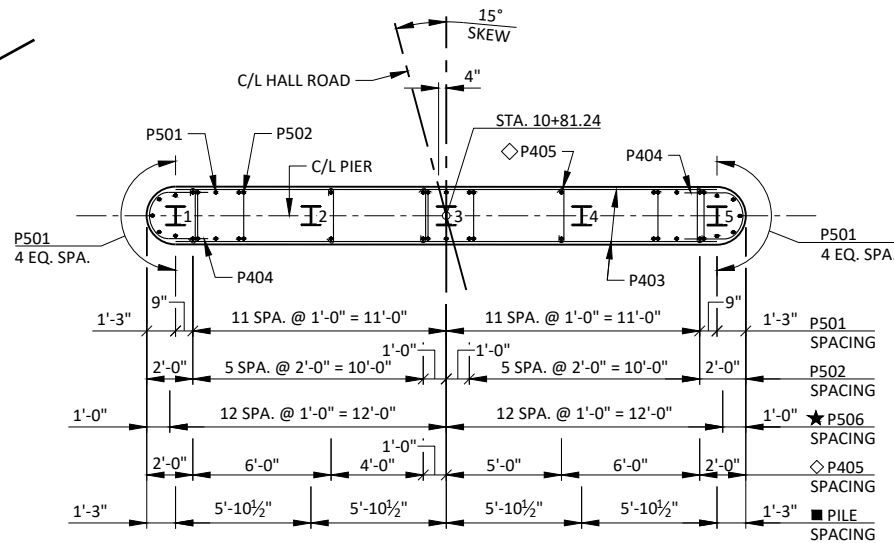
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-174			
DRAWN BY: PMF		PLANS CK'D: PTB	
ABUTMENT DETAILS			SHEET 5 OF 9



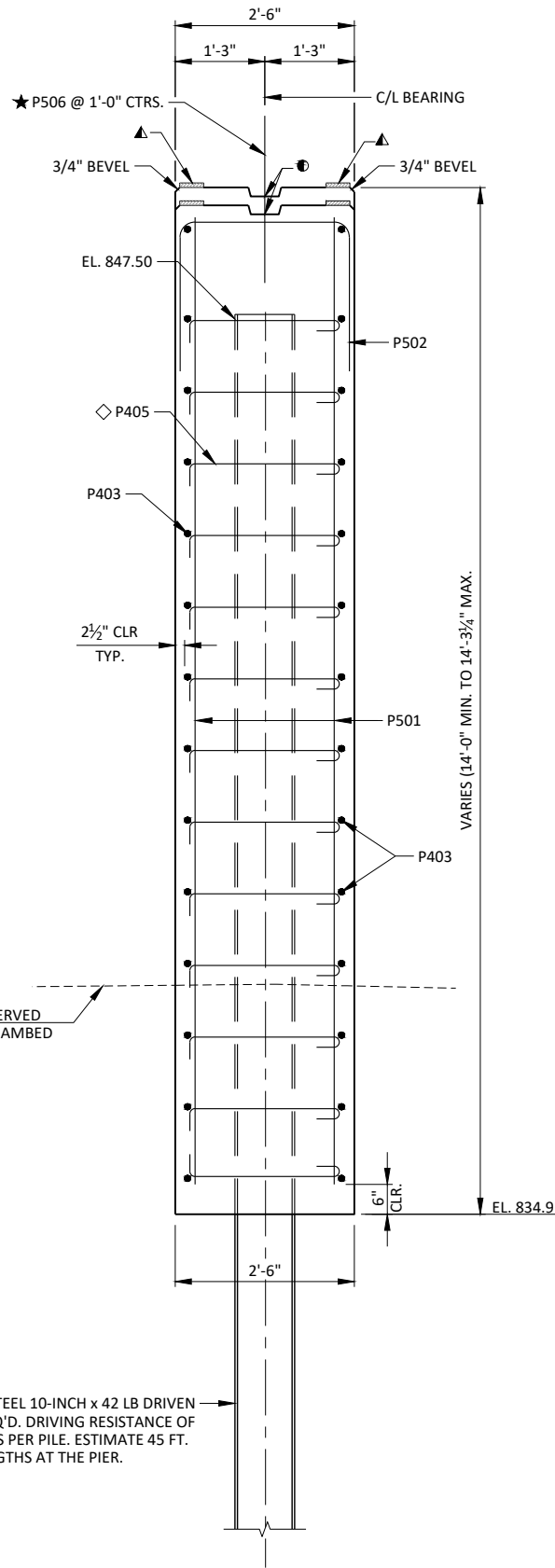
ELEVATION



PLAN



LAYOUT



TYPICAL SECTION THROUGH PIER

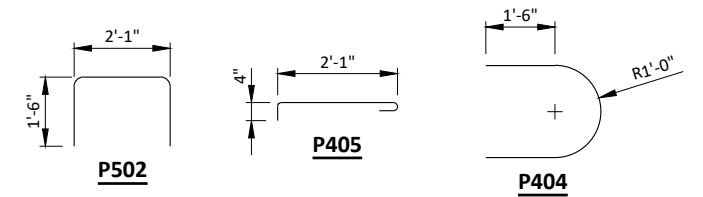
PILING STEEL 10-INCH x 42 LB DRIVEN TO A REQ'D. DRIVING RESISTANCE OF 150 TONS PER PILE. ESTIMATE 45 FT. PILE LENGTHS AT THE PIER.

**BILL OF BARS
PIER 1**

**50 LB (COATED)
1,550 LB (UNCOATED)**

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
P501	56	13-4			BODY - VERT. - E.F. & ENDS
P502	12	4-10	X		BODY - VERT. - TOP
P403	30	23-6			BODY - HORIZ. - E.F.
P404	30	6-2	X		BODY - HORIZ. - ENDS
P405	65	2-7	X		TIE BARS
P506	25	2-0		X	BODY - VERT. - DOWELS

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



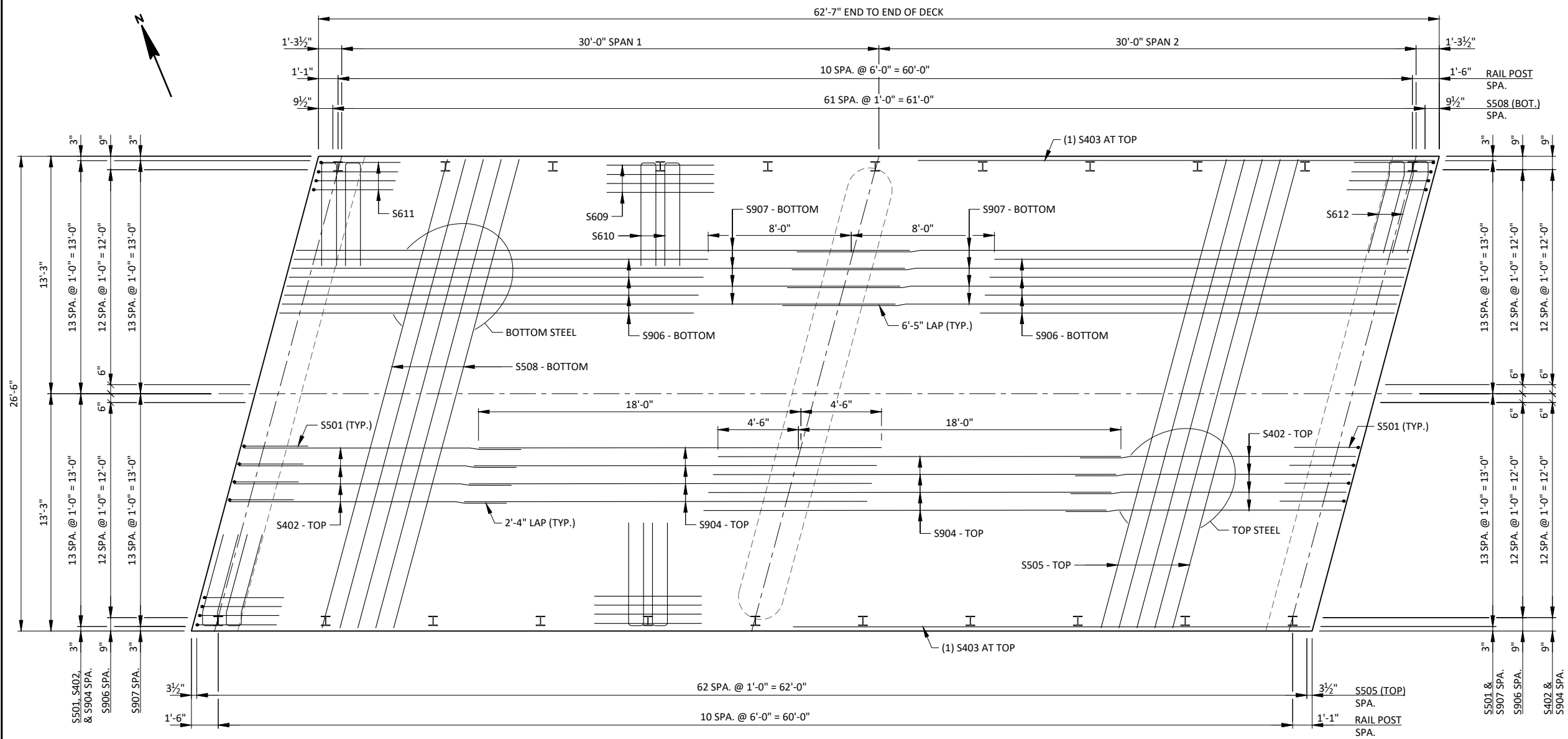
NOTES

- SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.
- SEAT ELEVATIONS SHOWN IN THE ELEVATION VIEW ARE TAKEN AT THE C/L OF BEARING, NEGLECTING THE KEVED CONSTRUCTION JOINT.
- TOP OF PIER ELEVATIONS ARE 3/4" BELOW BOTTOM OF DECK TO ALLOW FOR FILLER.
- E.F. - EACH FACE

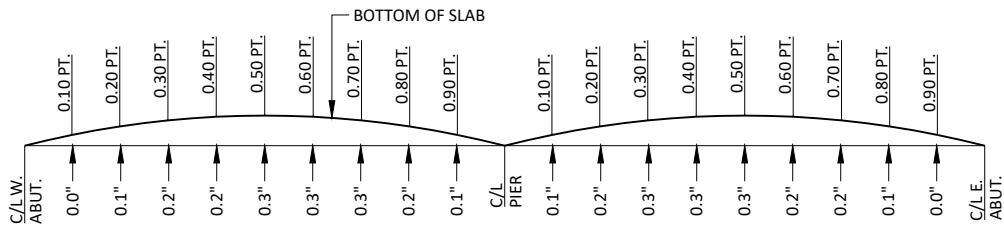
LEGEND

- KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.
- 3/4"x4" PREFORMED FILLER, EXTEND FULL PERIMETER OF PIER AS SHOWN.
- P506 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".
- PILE SPACING MEASURED AT BASE OF SHAFT.
- PLACE P405 BARS ADJACENT TO EACH PILE ONLY. TIE TO NEAREST VERTICAL NO. 5 BAR. VERTICAL SPACING @ 1'-0" TO MATCH NO. 4 OUTSIDE BARS FROM BASE OF SHAFT TO TOP OF PILING. ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-174			
DRAWN BY: PMF		PLANS CK'D: PTB	
PIER			SHEET 6 OF 9



PLAN



CAMBER DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPAN AS SHOWN TO PROVIDE FOR THEORETICAL DEADLOAD DEFLECTION AND FUTURE PLASTIC FLOW. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

TOP OF DECK ELEVATIONS

	C/L W. ABUT.	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L PIER	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L E. ABUT.
N. EDGE OF DECK	850.22	850.22	850.23	850.24	850.25	850.26	850.27	850.28	850.29	850.31	850.32	850.34	850.36	850.38	850.40	850.42	850.44	850.47	850.49	850.52	850.54
C/L	850.48	850.48	850.49	850.49	850.50	850.51	850.52	850.53	850.54	850.55	850.57	850.58	850.60	850.62	850.64	850.66	850.68	850.70	850.73	850.75	850.78
S. EDGE OF DECK	850.21	850.21	850.22	850.22	850.23	850.23	850.24	850.25	850.26	850.27	850.29	850.30	850.32	850.33	850.35	850.37	850.39	850.41	850.43	850.46	850.48

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 8 FOR BILL OF BARS.

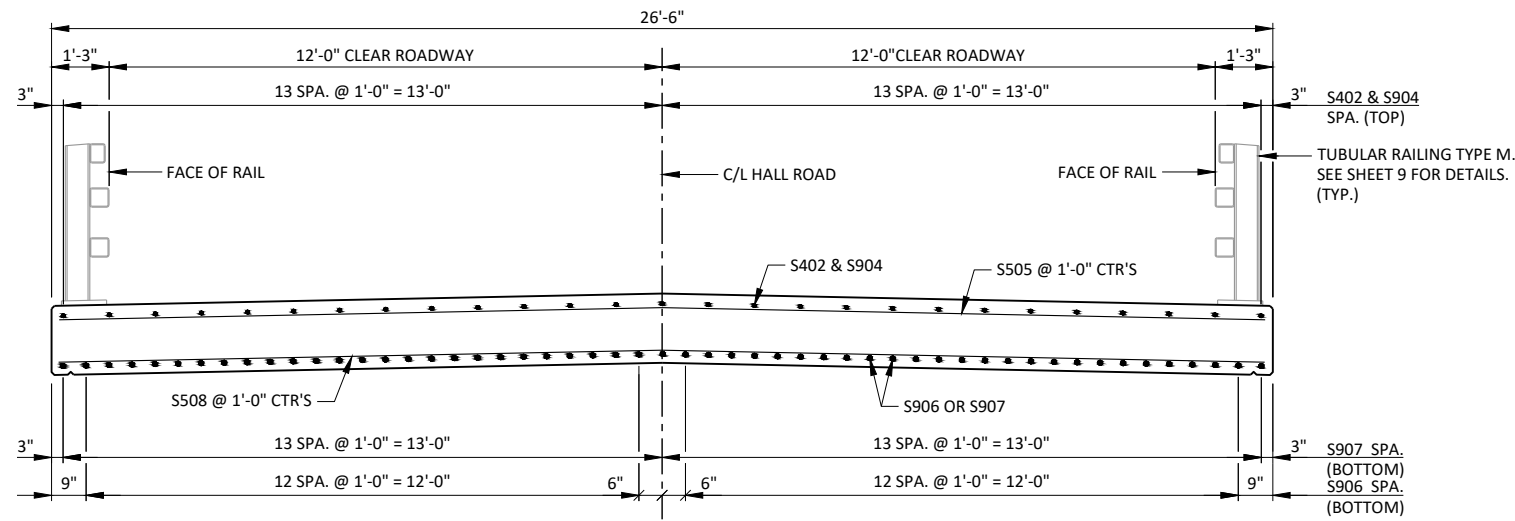
SEE SUPERSTRUCTURE DETAILS SHEET (SHEET 8) FOR BAR SPACINGS NOT SHOWN ON THIS SHEET.

SUPPORT ALTERNATE TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CENTERS. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CENTERS.

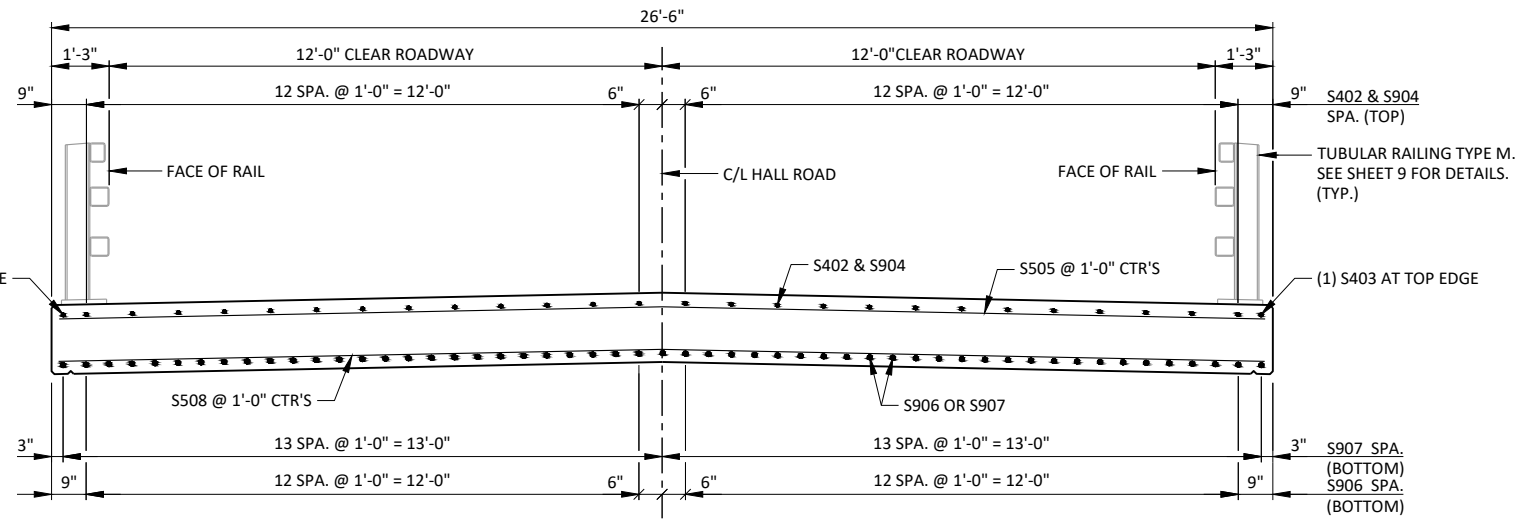
PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

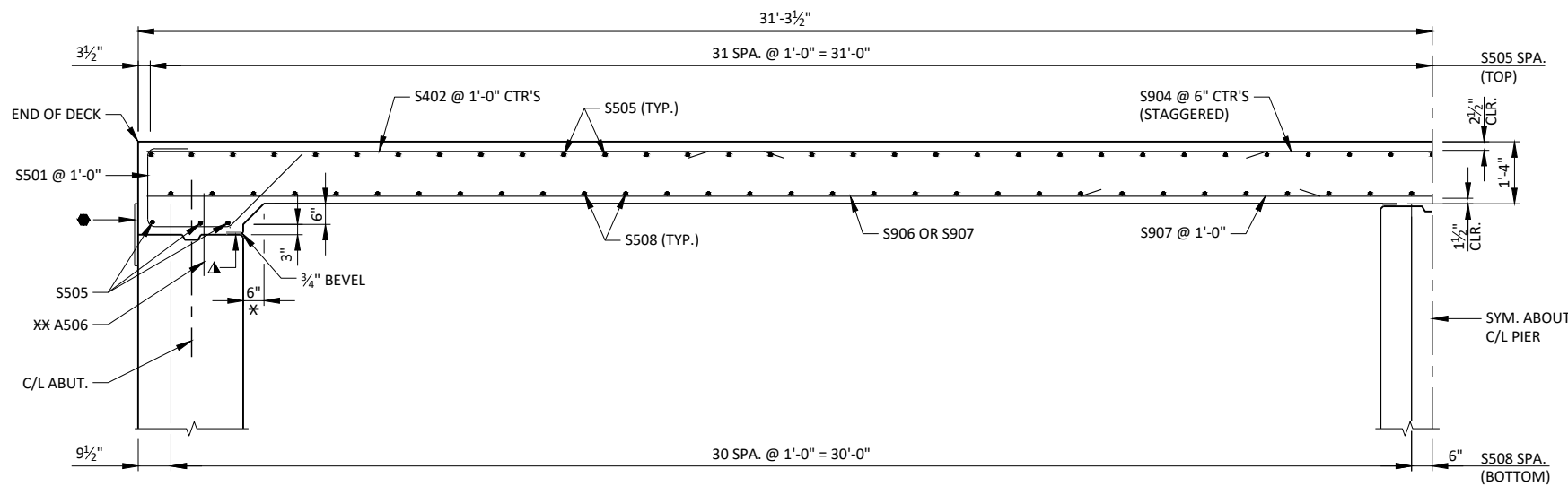
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-174			
DRAWN BY		PMF	PLANS CK'D. PTB
SUPERSTRUCTURE			SHEET 7 OF 9



CROSS SECTION THROUGH ROADWAY
AT SPAN 1 - LOOKING EAST



CROSS SECTION THROUGH ROADWAY
AT SPAN 2 - LOOKING EAST



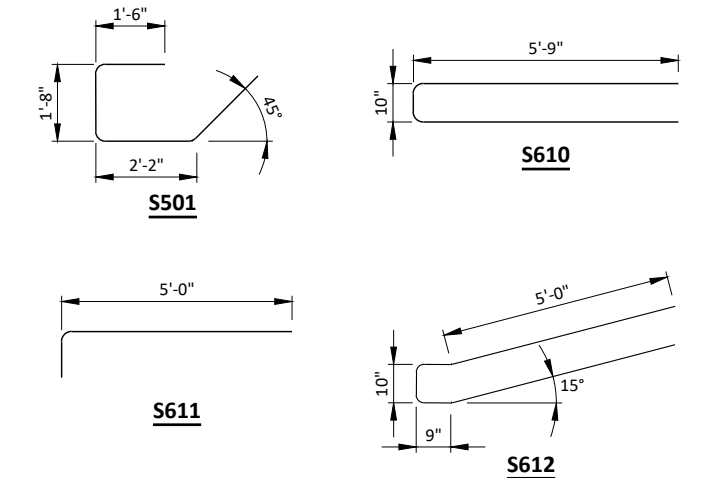
PARTIAL LONGITUDINAL SECTION THROUGH ROADWAY

BILL OF BARS SUPERSTRUCTURE **20,720 LB (COATED)**

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
S501	54	7-0	X	X	END OF DECK
S402	53	15-6		X	SLAB - TOP - LONG.
S403	2	29-0		X	SLAB - TOP - LONG. AT EDGES
S904	53	22-6		X	SLAB - TOP - LONG.
S505	69	27-1		X	SLAB - TOP - TRANS. & AT ABUTMENTS
S906	52	23-2		X	SLAB - BOTTOM - LONG.
S907	54	34-4		X	SLAB - BOTTOM - LONG.
S508	62	27-1		X	SLAB - BOTTOM - TRANS.
S609	72	6-0		X	RAIL POSTS - INTERIOR
S610	40	12-0	X	X	RAIL POSTS
S611	16	6-0	X	X	RAIL POSTS - ENDS
S612	4	12-0	X	X	RAIL POSTS - CORNERS

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



LEGEND

- 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ 3/4" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- * DIMENSION IS NORMAL TO THE C/L OF SUBSTRUCTURE UNITS.
- ** SEE SHEET 4 FOR PLACEMENT OF A506 BARS.

NOTES

SUPPORT ALTERNATE TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CENTERS. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CENTERS.

PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

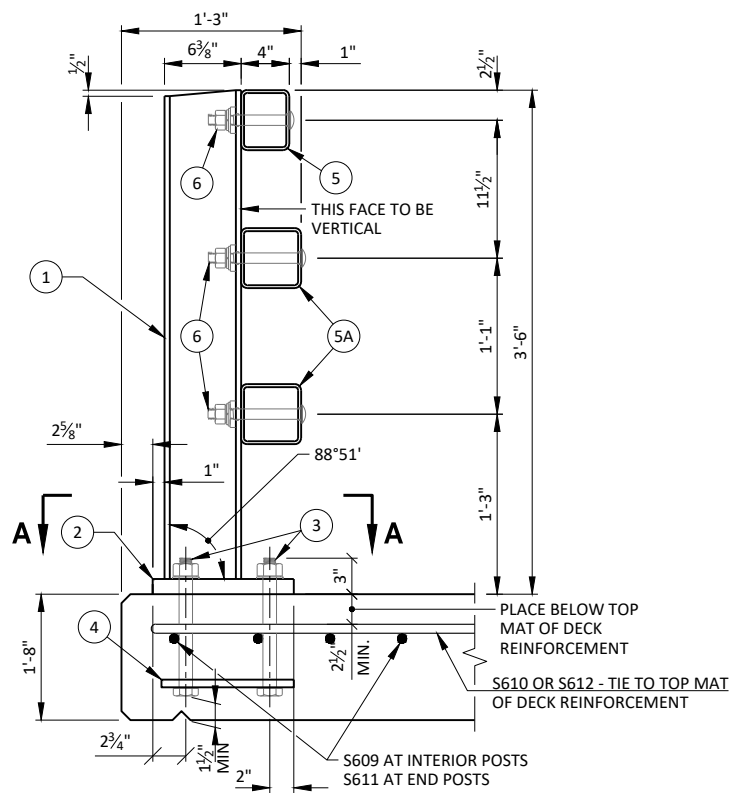
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-174			
DRAWN BY		PMF	PLANS CK'D. PTB
SUPERSTRUCTURE DETAILS			SHEET 8 OF 9

LEGEND

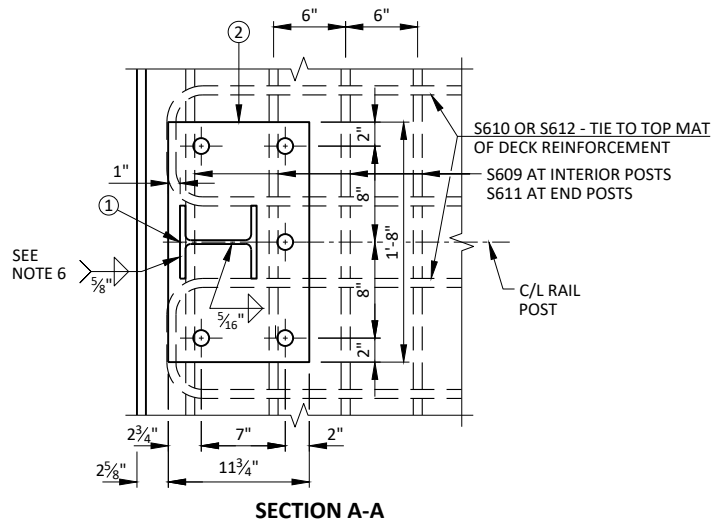
- ① W6x25 WITH 1 1/8" x 1 1/2" HORIZONTAL SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE 1 1/4"x11 3/4"x1'-8" WITH 1 1/16" DIA. OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
- ③ ASTM A449 - 1 1/8" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG.
- ④ 3/8"x11"x1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 1/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3.
- ⑤ TSS 5x4x0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑤A TSS 5x5x0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑥ 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16"x1 3/8"x1 3/8" MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION).
- ⑨ SPLICE SLEEVE FABRICATED FROM 3/4" PLATE. PROVIDE "SLIDING FIT".
- ⑩ 3/8"x3 3/8"x2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
- ⑩A 3/8"x2 3/8"x2'-4" PLATE USED IN NO. 5, 3/8"x3 3/8"x2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
- ⑪ 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 1 5/16"x1 1/2" LONGIT. SLOTTED HOLES IN PLATE NO. 10A. AT FIELD JOINTS AND 1 5/16"x2 3/4" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A. PROVIDE 1 5/16" DIA. ROUND HOLES IN TUBES NO. 5 AND NO. 5A.

GENERAL NOTES

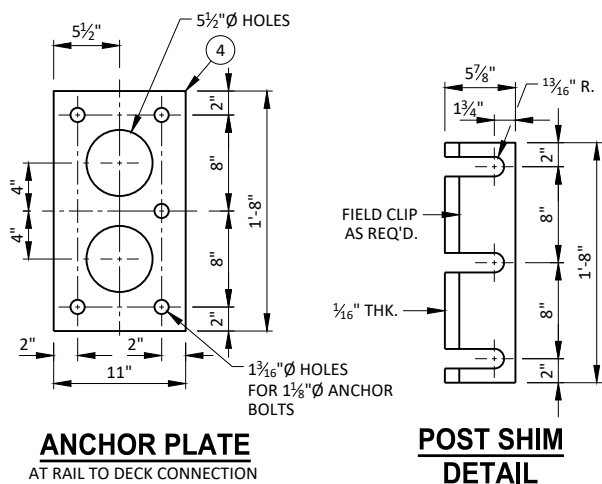
- 1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
- 2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY=50 KSI. ANCHOR PLATES AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
- 3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.
- 4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.
- 5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
- 6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
- 7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
- 8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
- 9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.
- 10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).



SECTION THROUGH RAILING ON DECK

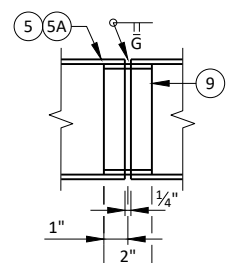


SECTION A-A

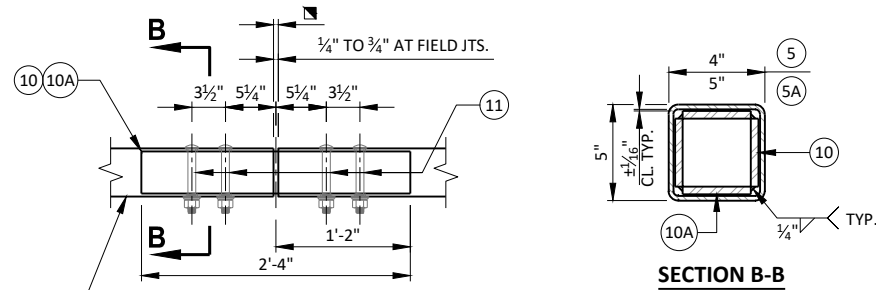


ANCHOR PLATE AT RAIL TO DECK CONNECTION

POST SHIM DETAIL



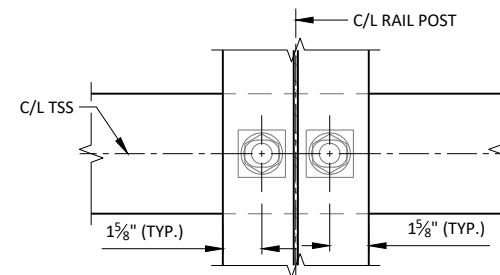
SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



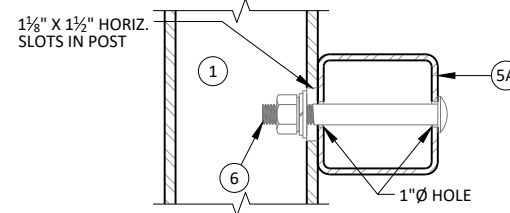
FIELD ERECTION JOINT DETAIL

PROVIDE 1/2" DIA. DRAIN HOLES IN BOTH ENDS OF ALL RAIL SECT.'S CLEAR OF SPLICE TUBES

RDWY. OPENING OR 2 1/2" MIN. FOR STRIP SEAL EXP. JOINT & (3/4" TO 3/4") OPENING FOR A1 ABUTMENT.



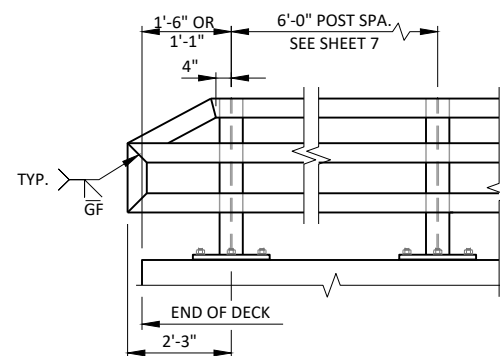
SECTION THROUGH POST WEB



SECTION THROUGH RAIL

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

TYPICAL RAIL TO POST CONNECTIONS



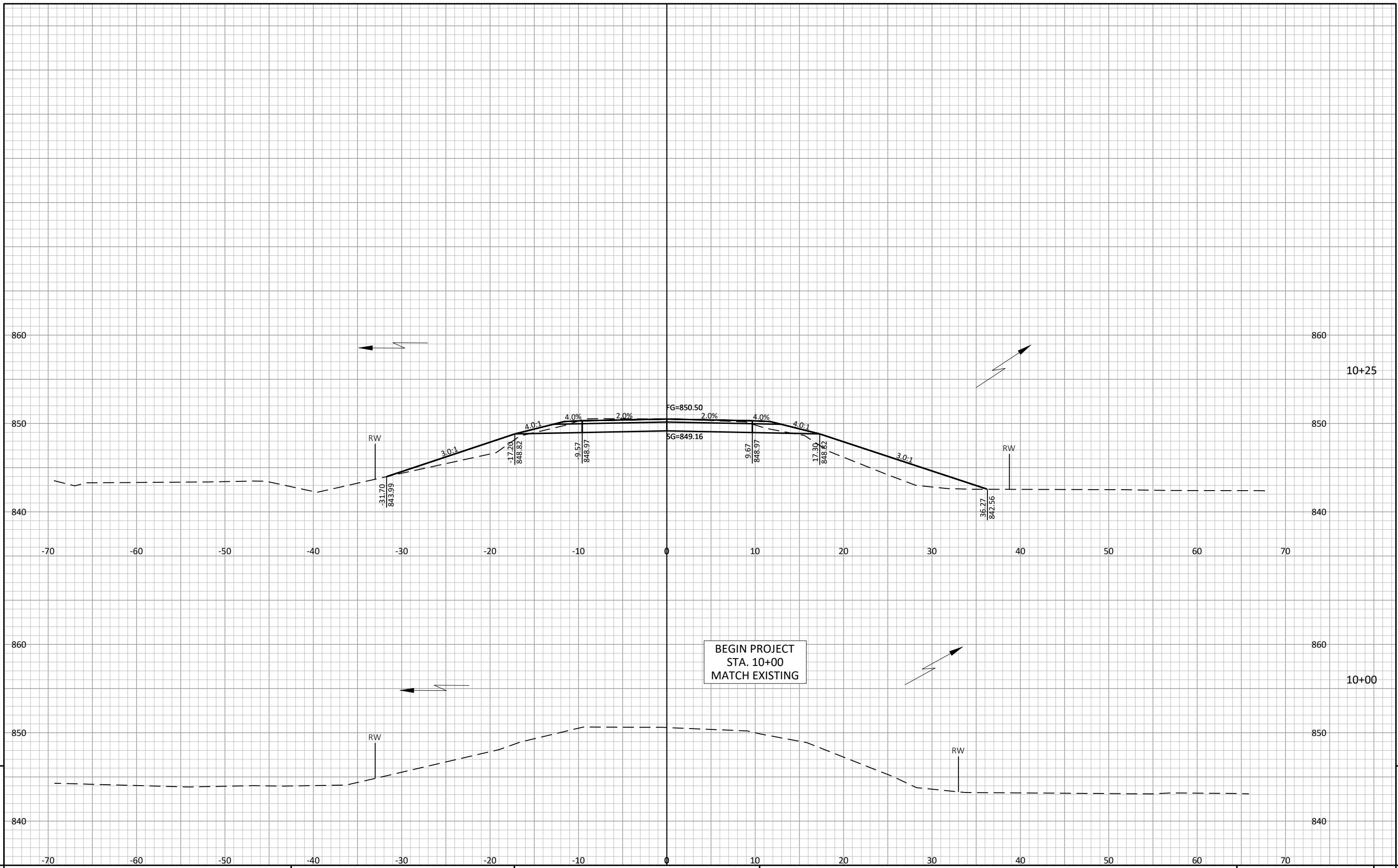
PART ELEVATION OF RAILING

NO.	DATE	REVISION	BY
STRUCTURE B-11-174			
DRAWN BY		PMF	PLANS CK'D. PTB
TUBULAR RAILING TYPE M		SHEET 9 OF 9	

EARTHWORK-HALL ROAD

STATION	AREA (SF)			INCREMENTAL VOL (CY)				CUMMULATIVE VOLUME (CY)			
	CUT	SALVAGED/ UNUSABLE PAVT MATERIAL	FILL	CUT NOTE 1	SALVAGED/ UNUSABLE PAVT MATERIAL NOTE 2	FILL NOTE 3	FILL (25%)	CUT 1.00 NOTE 1	FILL NOTE 4	FILL (25%) NOTE 4	MASS ORDINATE NOTE 5
10+00	34	0	0	0	0	0	0	0	0	0	0
10+25	32	0	43	30	0	20	25	30	20	25	5
10+50	32	0	43	30	0	40	49	60	60	74	-14
10+50	0	0	0	0	0	0	0	60	60	74	-14
10+75	0	0	0	0	0	0	0	60	60	74	-14
11+00	0	0	0	0	0	0	0	60	60	74	-14
11+12	0	0	0	0	0	0	0	60	60	74	-14
11+12	52	0	115	0	0	0	0	60	60	74	-14
11+25	52	0	115	25	0	55	68	85	115	142	-57
11+50	33	0	39	40	0	71	88	125	186	230	-105
11+62	32	0	0	15	0	9	10	140	195	240	-100
COLUMN TOTALS =				140	0	195	240				-100

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - FILL (25%)	FILL 25%: (UNEXPANDED FILL - (ROCK * ROCK FACTOR))*1.25
5 - MASS ORDINATE	(CUT - FILL (25%))



PROJECT NO: 6217-00-77

HWY: HALL ROAD

COUNTY: COLUMBIA

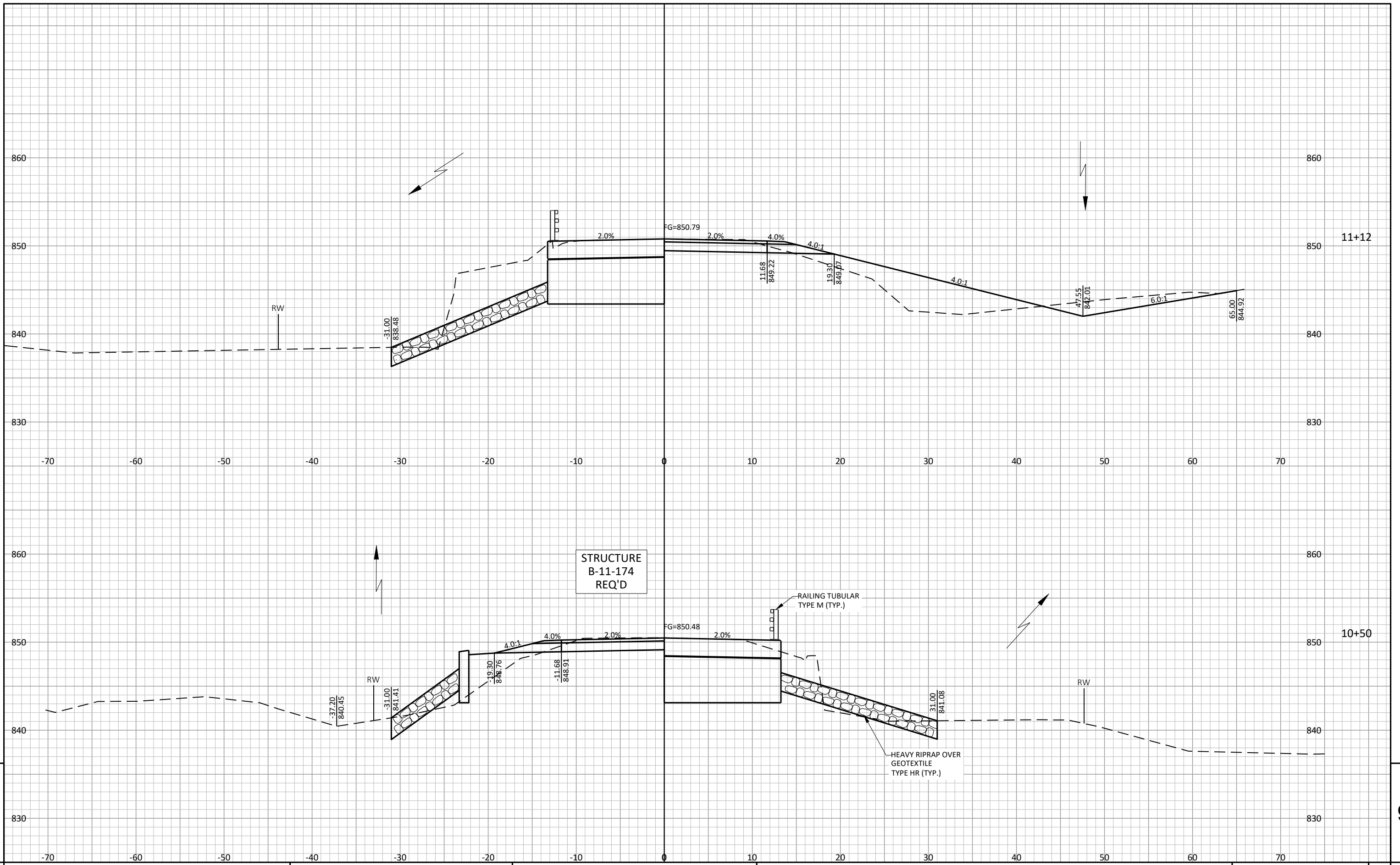
CROSS SECTIONS: MAINLINE

SHEET

E

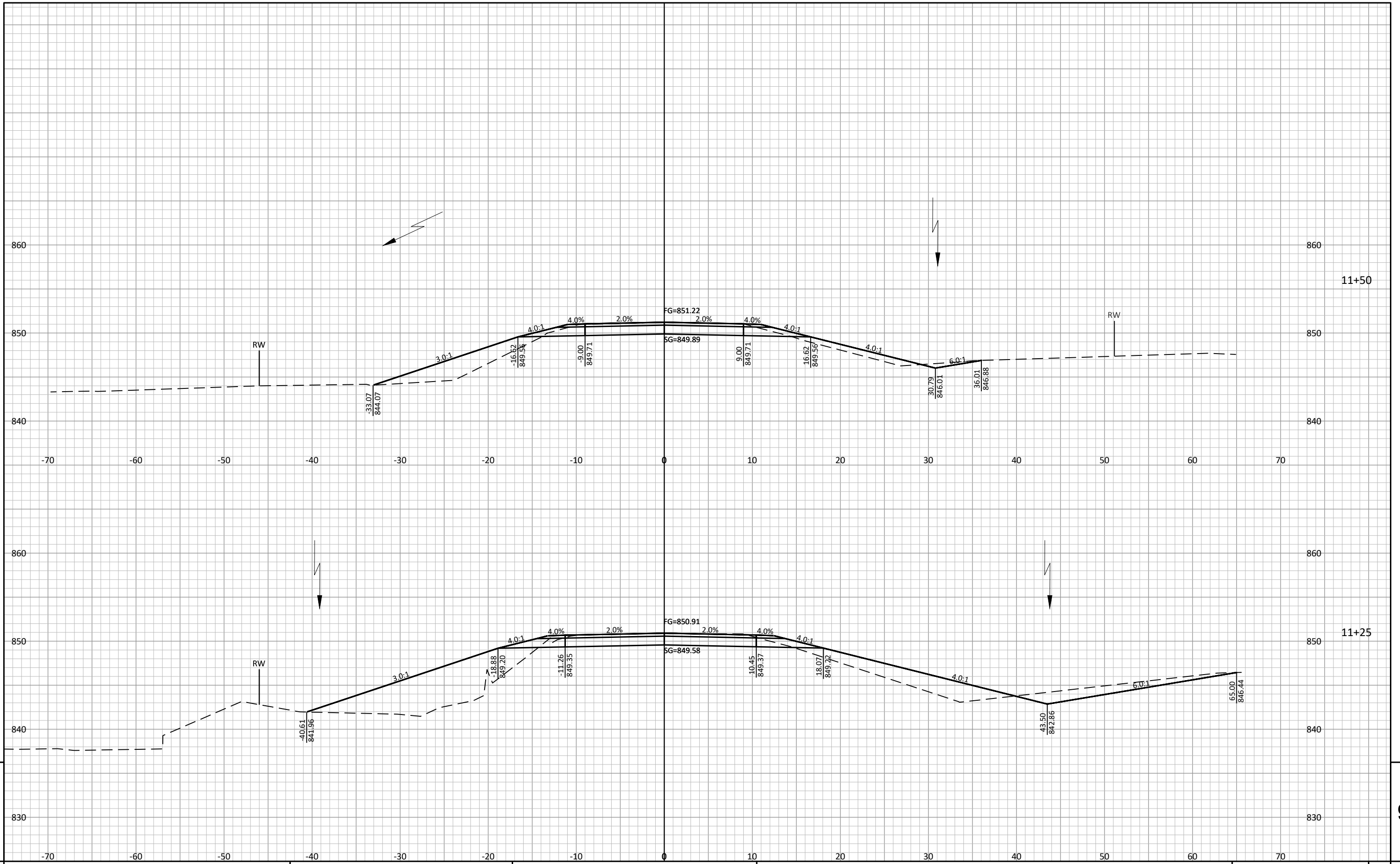
9

9



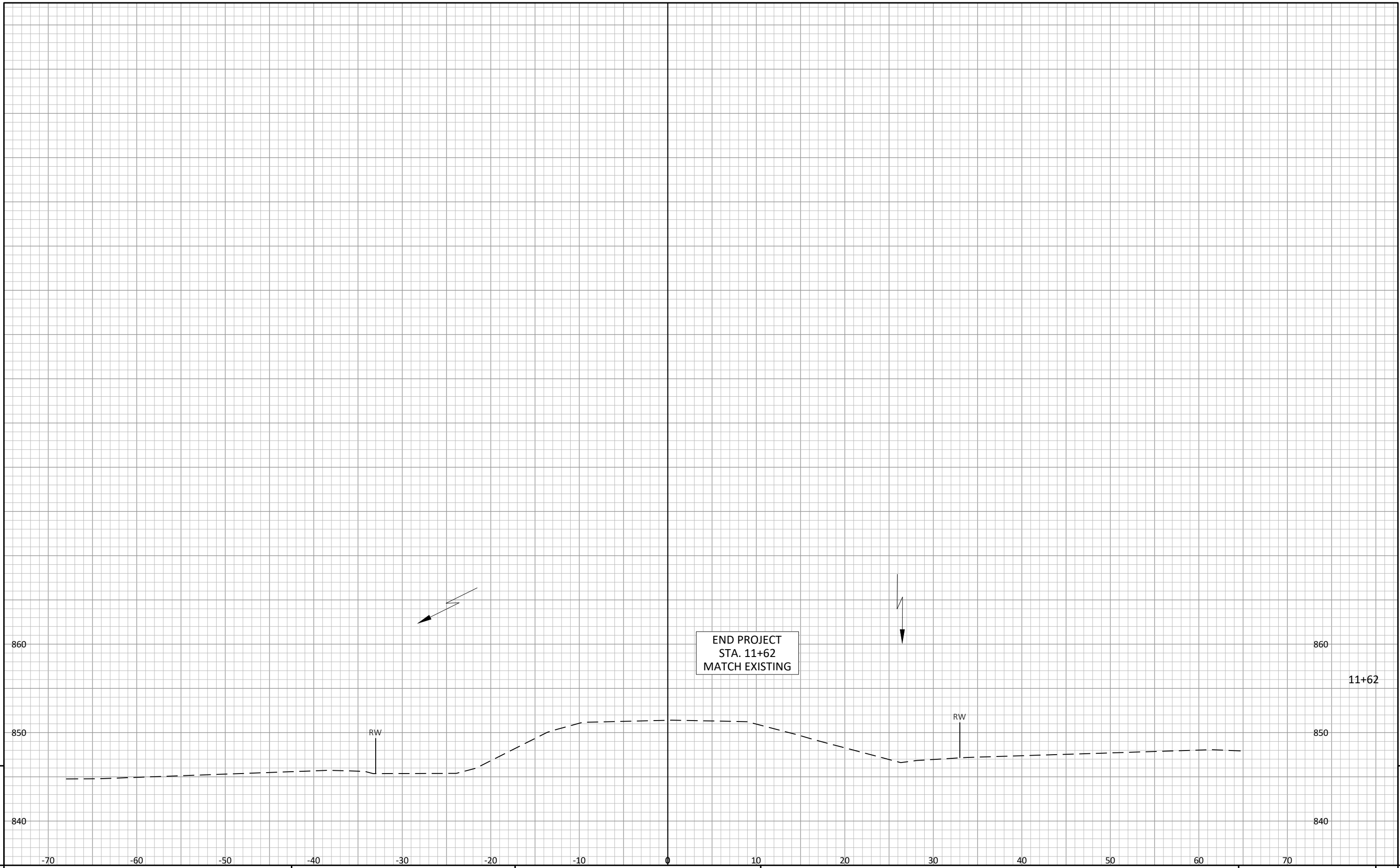
9

9



9

9



9

9

PROJECT NO: 6217-00-77 HWY: HALL ROAD COUNTY: COLUMBIA CROSS SECTIONS: MAINLINE SHEET E

FILE NAME : S:\PROJECTS\W11608 WISDOT - HALL ROAD, COLUMBIA CO\DESIGN\CORRIDORS\HALLRDCORRIDOR.DWG PLOT DATE : 7/30/2021 2:50:25 PM PLOT BY : CODY KINTZ PLOT SCALE : 1" = 1' LAYOUT : 7



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>

ORDER OF SHEETS

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

TOTAL SHEETS = 50



DESIGN DESIGNATION

A.A.D.T. (2022)	=	35
A.A.D.T. (2042)	=	55
D.H.V.	=	5
D.D.	=	60/40
T.	=	10% (ASSUMED)
DESIGN SPEED	=	40 M.P.H.
ESALS	=	16,425

CONVENTIONAL SYMBOLS

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

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

TOWN OF COLUMBUS, WENDT ROAD

CRAWFISH RIVER BRIDGE (B-11-176)

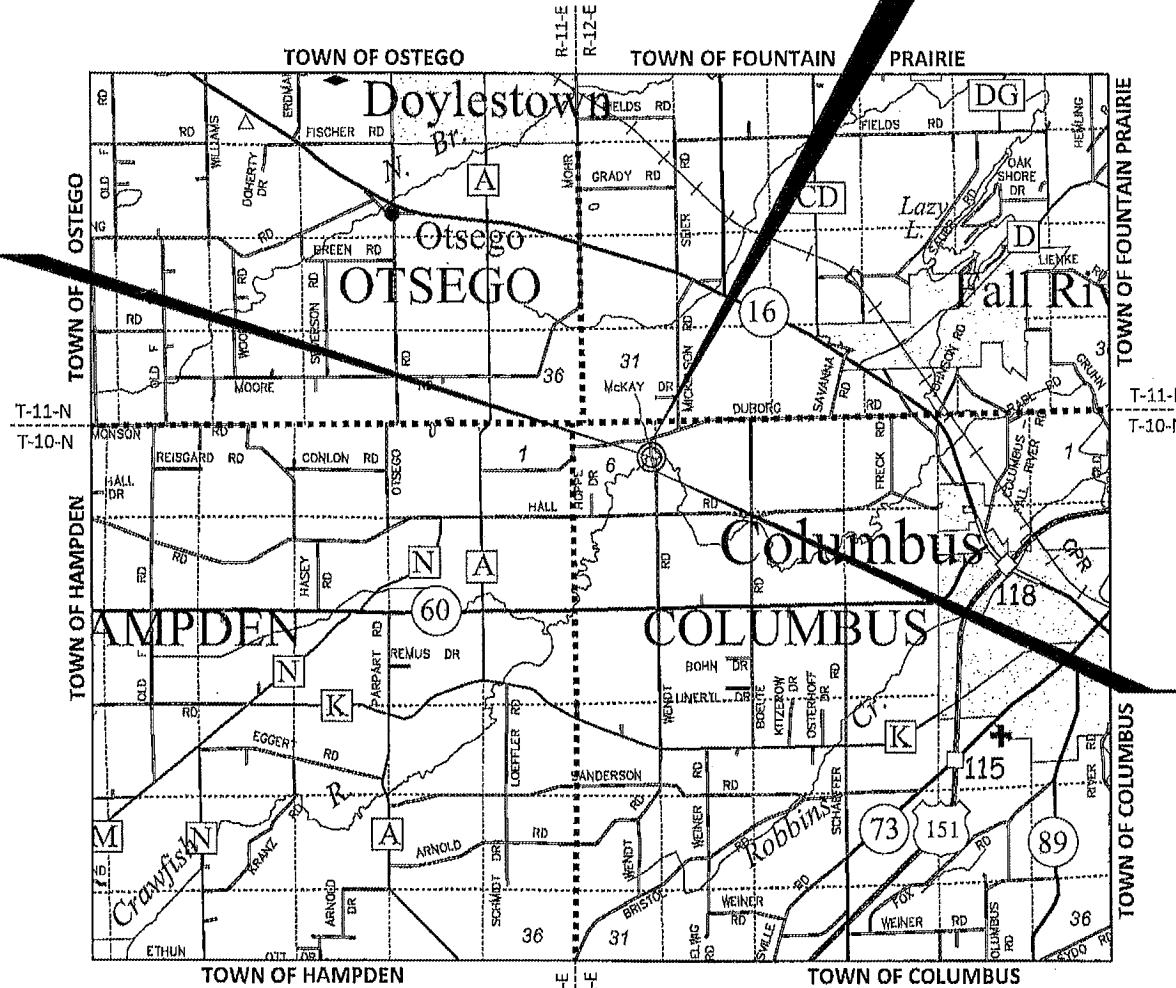
LOCAL STREET COLUMBIA COUNTY

STATE PROJECT NUMBER
6217-00-79

END PROJECT
STA. 11+50

STRUCTURE B-11-176

BEGIN PROJECT
STA. 10+00
Y = 330,311.29
X = 630,618.67



LAYOUT
SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.028

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

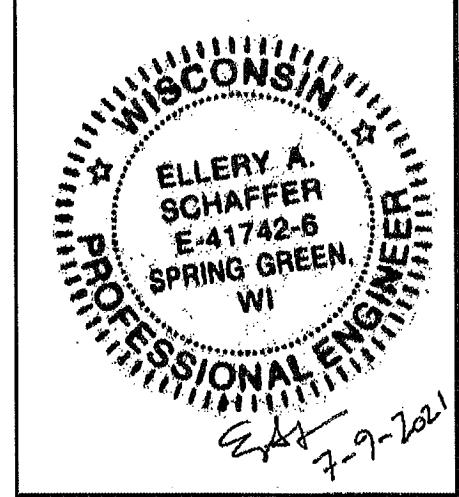
ELEVATION SHOWN ON THIS PLAN ARE REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD (2012).

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6217-00-79	WISC 2022080	1

ACCEPTED FOR
COUNTY of COLUMBIA
7/15/2021 (Date) [Signature] (Highway Commissioner)

ACCEPTED FOR
TOWN of COLUMBUS
7-13-21 (Date) [Signature] (Town Chairman)

ORIGINAL PLANS PREPARED BY
JEWELL
associates engineers, inc
Engineers - Architects - Surveyors



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor: JEWELL ASSOCIATES ENGINEERS, INC.
Designer: JEWELL ASSOCIATES ENGINEERS, INC.
Project Manager: ALEIGHA BURG, P.E.
Regional Examiner: SW REGION
Regional Supervisor: OSCAR WINGER, P.E.

APPROVED FOR THE DEPARTMENT
DATE: 7/15/2021 Aleigha Burg, P.E. (Signature)
Digitally signed by Aleigha Burg, P.E.
Date: 2021.07.15 10:34:33-0000'

GENERAL NOTES

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

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

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 EXCAVATION. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

UNLESS SHOWN OTHERWISE, DISTURBED AREAS SHOWN WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS ARE TO BE FERTILIZED (TYPE B), SEEDED (USE SEED MIX NO. 20), AND MULCHED AS DIRECTED BY THE ENGINEER. ALL POST CONSTRUCTION WET AREAS SHALL BE SEEDED WITH SEEDING MIXTURE NO. 60. DO NOT FERTILIZE WETLAND AREAS.

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

SILT FENCE, TEMPORARY DITCH CHECKS, AND TURBIDITY BARRIER SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE AND TURBIDITY BARRIER SHALL BE PLACED PRIOR TO CONSTRUCTION AND SHALL BE IN PLACE PRIOR TO STRUCTURE REMOVAL.

FILL EXPANSION IS VARIABLE AND IS ESTIMATED AT 25%.

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

THE LOCATION OF ALL PERMANENT SIGNING SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD PRIOR TO PLACEMENT.

4-INCHES OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 2¼-INCH LOWER LAYER AND A 1¾-INCH UPPER LAYER.

ADJUST DITCH GRADING AS NECESSARY TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER IN THE FIELD.

ASPHALTIC SURFACE QUANTITIES WERE CALCULATED USING 115 LB/SY/IN.

WETLANDS ARE PRESENT IN THE PROJECT LIMITS. THE CONTRACTOR SHALL NOT OPERATE OR STOCKPILE EQUIPMENT BEYOND THE EXISTING TOE OF SLOPE, OR FINISHED SLOPE INTERCEPT AT STA 9+98 - STA 10+58, RT; STA 10+00 - STA 10+58, LT; STA 10+93 - STA 11+10, RT; STA 10+93 - STA 11+19, LT.

MULCH ALL MAINLINE SLOPES AS DIRECTED BY THE ENGINEER IN THE FIELD.

CONTACTS

COLUMBIA COUNTY HIGHWAY DEPARTMENT:

HIGHWAY DEPARTMENT COMMISSIONER
338 W OLD HIGHWAY 16
WYOCENA, WI 53969
ATTN: CHRIS HARDY, P.E.
PH: (608) 429-2136
EMAIL: chris.hardy@co.columbia.wi.us

DESIGN CONSULTANT:

JEWELL ASSOCIATES ENGINEERS, INC.
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
ATTN: ELLERY SCHAFFER, P.E.
PH: (608) 459-6027
CELL: (608) 341-8159
EMAIL: ellery.schaffer@jewellassoc.com

TOWN OF COLUMBUS:

TOWN OF COLUMBUS CHAIRPERSON
W1512 STATE ROAD 60
COLUMBUS, WI 53925
ATTN: DARREN SCHROEDER
PH: (920) 623-4616

WDNR LIAISON:

STATE OF WISCONSIN
DNR SOUTH CENTRAL REGION HQ
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
ATTN: ERIC HEGGELUND
PH: (608) 228-7927
EMAIL: eric.heggelund@wisconsin.gov

UTILITIES

ELECTRICITY

ADAMS/COLUMBIA ELECTRIC COOPERATIVE
ATTN: SHAWN PIETRZAK
401 E. LAKE ST.
P.O. BOX 70
FRIENDSHIP, WI 53934-0070
OFFICE: (800) 831-8629 EXT: 323
EMAIL: spietrzak@acecwi.com

COMMUNICATION LINE

AT&T
ATTN: CHUCK BARTELT
70 E. DIVISION STREET
FOND DU LAC, WI 54935
OFFICE: (920) 929-1013
CELL: (920) 410-5104
EMAIL: cb1416@att.com

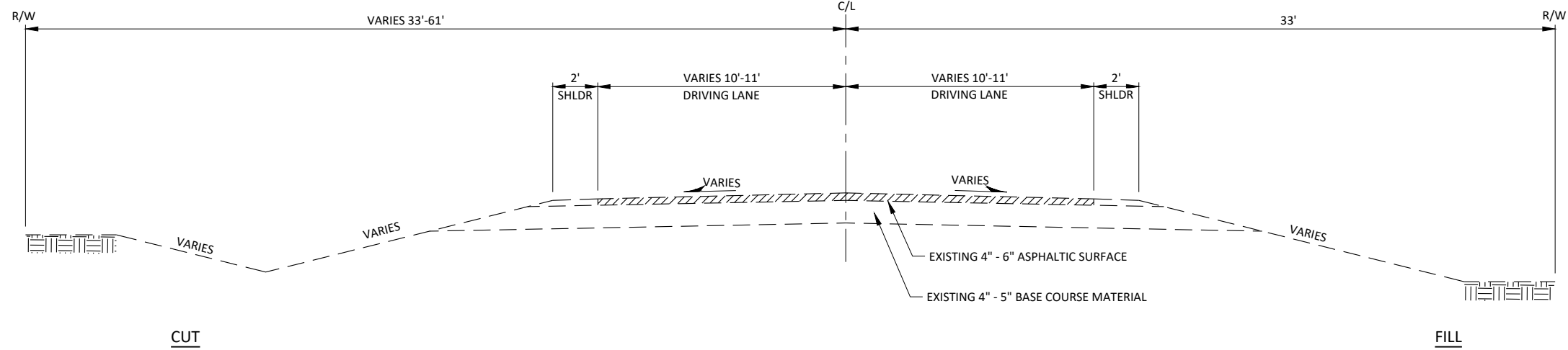
LIST OF STANDARD ABBREVIATIONS

Table with 6 columns of abbreviations and their corresponding full names, including terms like ABUT, AC, AGG, AH, <, ASPH, AVG, ADT, BAD, BK, BF, BM, BR, C or C/L, CC, C.E., CTH, CR, CR, CY or CU YD, CP, C & G, D, DHV, DIA, E, X, ELEC, EL or ELEV, ESALS, EBS, FF, F.E., F, FG, FL or F/L, FT, FTG, GN, HT, CWT, HYD, INL, ID, INV, IP, IRS, JT, JCT, LHF, L, LIN FT, or LF, LC, MH, MB, ML or M/L, N, Y, OD, PLE, PT, PC, PI, PRC, POC, POT, PVC, PCC, LB, PSI, P.E., R, RR, R, RL or R/L, RP, RCCP, REQD, RES, RW, RT, RHF, R/W, RD, R, INV, Invert, Iron Pipe or Pin, Iron Rod Set, Joint, Junction, Left-Hand Forward, Length of Curve, Linear Foot, Long Chord of Curve, Manhole, Mailbox, Match Line, North, North Grid Coordinate, Outside Diameter, Permanent Limited Easement, Point, Point of Curvature, Point of Intersection, Point of Reverse Curvature, Point of Tangency, Point On Curve, Point on Tangent, Polyvinyl Chloride, Portland Cement Concrete, Pound, Pounds Per Square Inch, Private Entrance, Radius, Railroad, Range, Reference Line, Reference Point, Reinforced Concrete Culvert Pipe, Required, Residence or Residential, Retaining Wall, Right, Right-Hand Forward, Right-of-Way, Road, River, RDWY, SALV, SAN S, SEC, SHLDR, SHR, SW, S, SQ, SF or SQ FT, SY or SQ YD, STD, SDD, STH, STA, SS, SG, SE, SL or S/L, SV, T, TEL, TEMP, TI, TLE, t, T or TN, TRANS, TL or T/L, T, TYP, UNCL, UG, USH, VAR, V, VERT, VC, VOL, WM, WV, W, WB, YD, Roadway, Salvaged, Sanitary Sewer, Section, Shoulder, Shrinkage, Sidewalk, South, Square, Square Feet, Square Yard, Standard, Standard Detail Drawings, State Trunk Highways, Station, Storm Sewer, Subgrade, Superelevation, Survey Line, Septic Vent, Tangent, Telephone, Temporary, Temporary Interest, Temporary Limited Easement, Ton, Town, Transition, Transit Line, Trucks (percent of), Typical, Unclassified, Underground Cable, United States Highway, Variable, Velocity or Design Speed, Vertical, Vertical Curve, Volume, Water Main, Water Valve, West, Westbound, Yard.

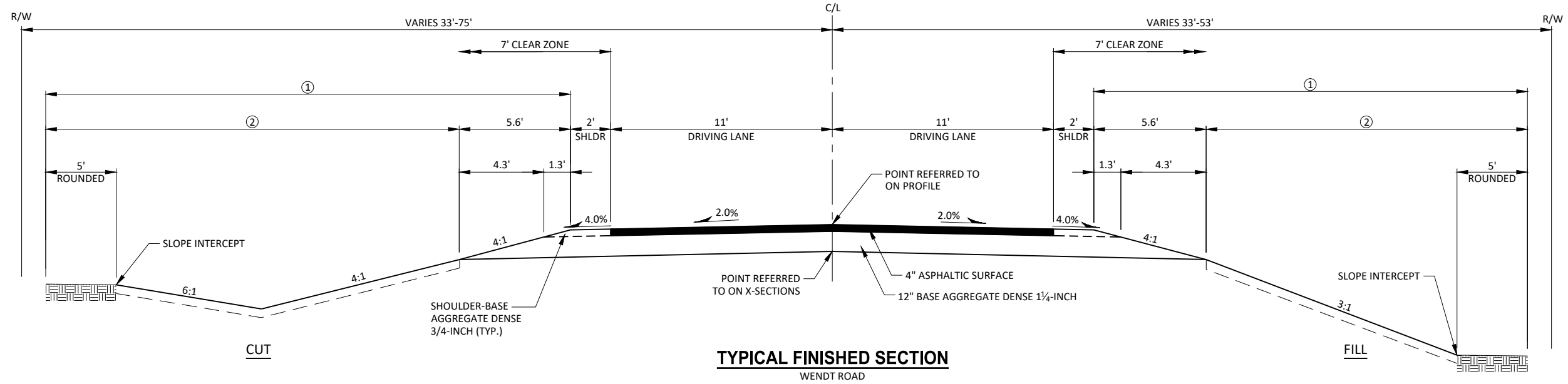
Table titled 'HYDROLOGIC SOIL GROUP' with columns for Slope Range (Percent) and rows for Land Use (ROW CROPS, MEDIAN STRIP TURF, SIDE SLOPE TURF) and Pavement (ASPHALT, CONCRETE, BRICK, DRIVES, WALKS, ROOFS, GRAVEL ROADS, SHOULDERS).

TOTAL PROJECT AREA= 0.39 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.27 ACRES



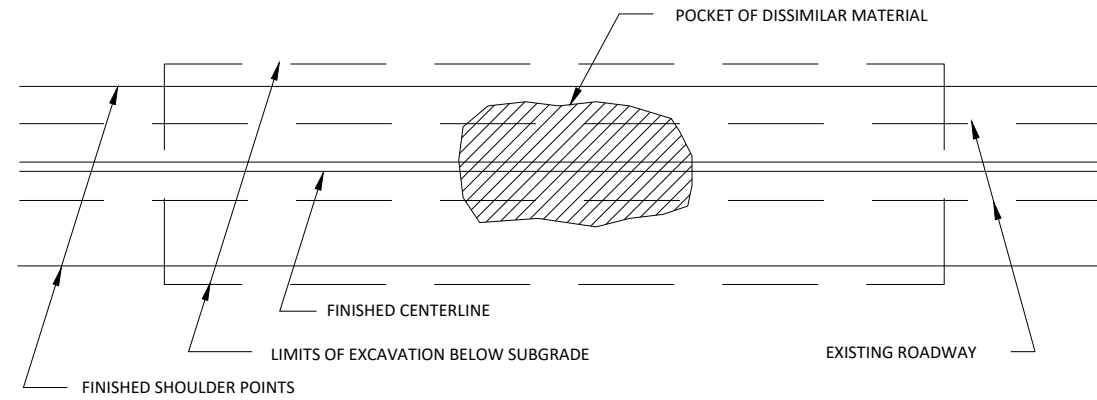


TYPICAL EXISTING SECTION
WENDT ROAD

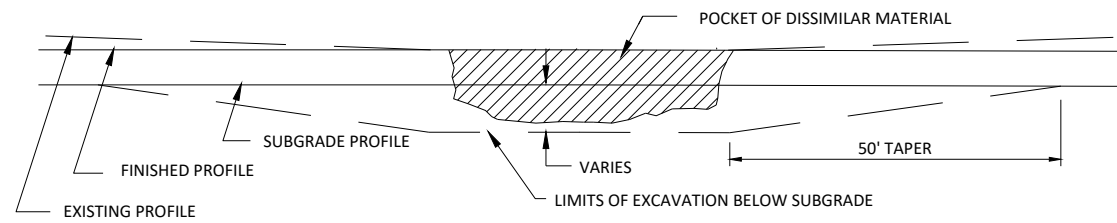


TYPICAL FINISHED SECTION
WENDT ROAD

- ① LIMITS OF SEEDING MIXTURE NO. 20 OR SEEDING MIXTURE NO. 60 & FERTILIZER TYPE B (AS DIRECTED BY THE ENGINEER)
- ② LIMITS OF SALVAGED TOPSOIL & MULCH (AS DIRECTED BY THE ENGINEER)

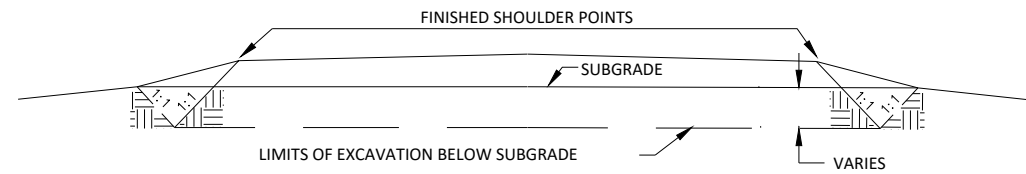


PLAN VIEW



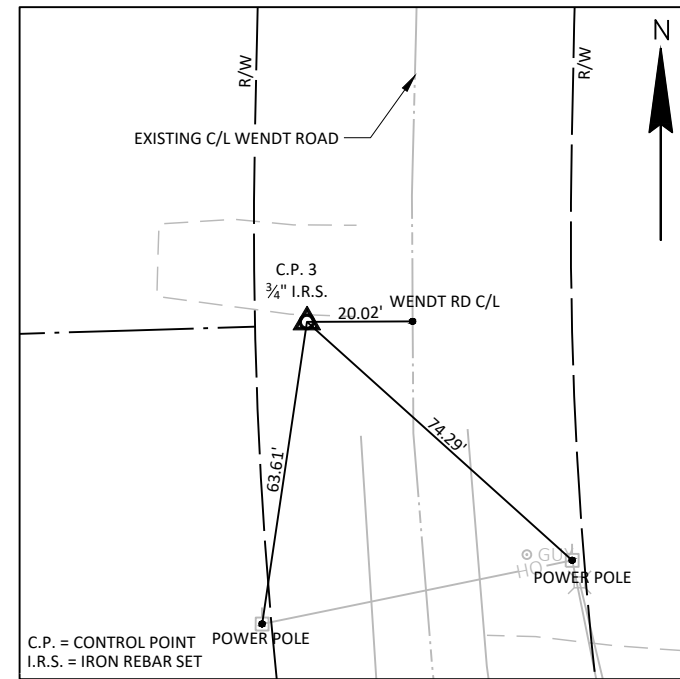
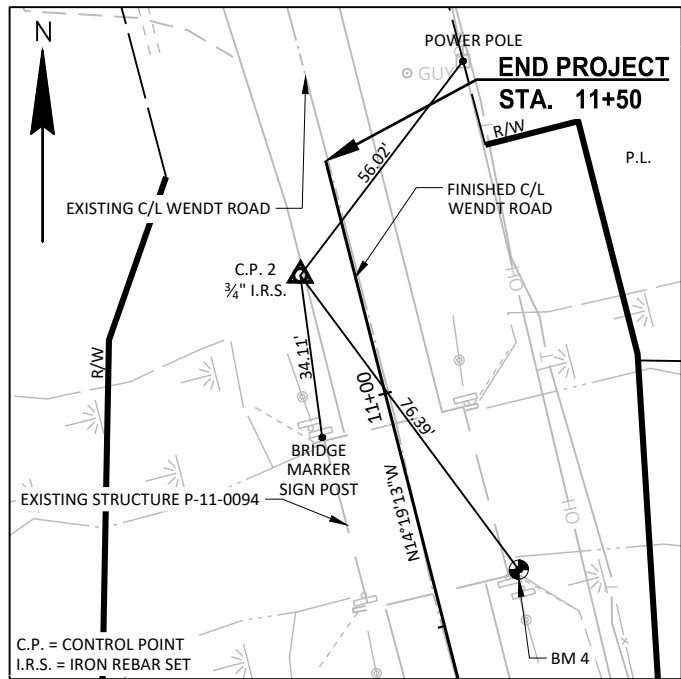
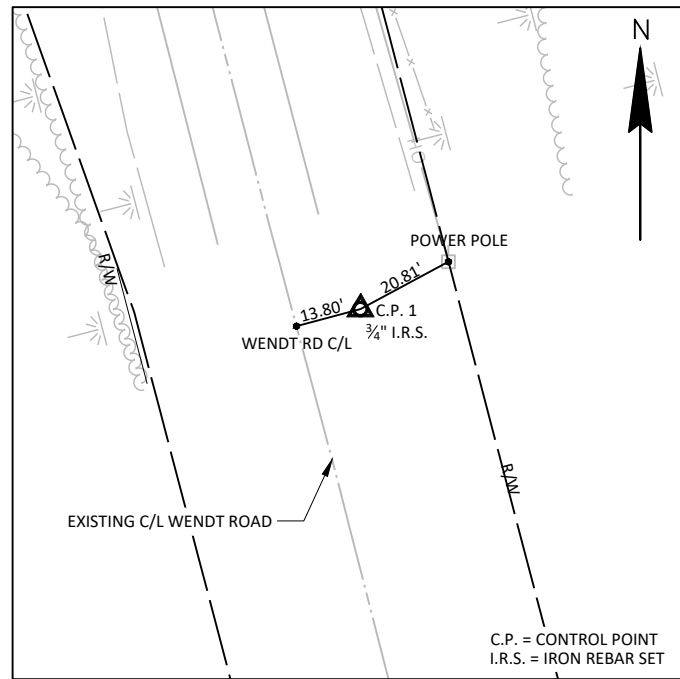
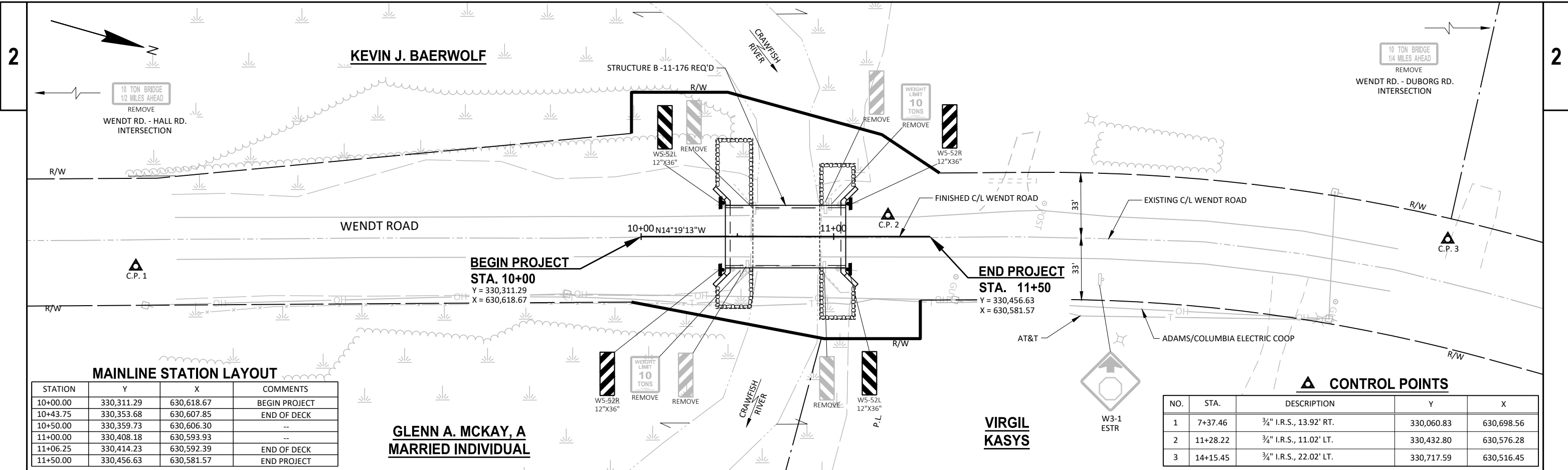
PROFILE VIEW

RURAL EXCAVATION BELOW SUBGRADE (E.B.S.)



CROSS SECTION VIEW

1. EXACT LOCATION OF E.B.S. (EXCAVATION BELOW SUBGRADE) SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. E.B.S. AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER. BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.
3. THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL E.B.S. IS COMPLETED. LATERAL LIMITS OF EXCAVATION SHALL BE THE SUBGRADE SHOULDER POINTS.



Estimate Of Quantities By Plan Sets

6217-00-79

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	1.000	1.000
0004	201.0205	Grubbing	STA	1.000	1.000
0008	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 02. P-11-094	EACH	1.000	1.000
0010	204.0165	Removing Guardrail	LF	60.000	60.000
0012	205.0100	Excavation Common	CY	220.000	220.000
0016	206.1000	Excavation for Structures Bridges (structure) 02. B-11-176	LS	1.000	1.000
0020	210.1500	Backfill Structure Type A	TON	480.000	480.000
0024	213.0100	Finishing Roadway (project) 02. 6217-00-79	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	15.000	15.000
0028	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	250.000	250.000
0030	455.0605	Tack Coat	GAL	15.000	15.000
0032	465.0105	Asphaltic Surface	TON	60.000	60.000
0034	502.0100	Concrete Masonry Bridges	CY	139.000	139.000
0036	502.3200	Protective Surface Treatment	SY	250.000	250.000
0038	503.0136	Prestressed Girder Type I 36-Inch	LF	244.000	244.000
0040	505.0400	Bar Steel Reinforcement HS Structures	LB	4,860.000	4,860.000
0042	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	18,230.000	18,230.000
0044	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	8.000	8.000
0046	506.4000	Steel Diaphragms (structure) 01. B-11-176	EACH	3.000	3.000
0048	513.4061	Railing Tubular Type M	LF	130.000	130.000
0050	516.0500	Rubberized Membrane Waterproofing	SY	14.000	14.000
0052	550.0020	Pre-Boring Rock or Consolidated Materials	LF	100.000	100.000
0054	550.0500	Pile Points	EACH	14.000	14.000
0056	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	490.000	490.000
0058	606.0300	Riprap Heavy	CY	250.000	250.000
0060	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	150.000	150.000
0064	618.0100	Maintenance And Repair of Haul Roads (project) 02. 6217-00-79	EACH	1.000	1.000
0066	619.1000	Mobilization	EACH	0.540	0.540
0068	624.0100	Water	MGAL	4.000	4.000
0070	625.0500	Salvaged Topsoil	SY	690.000	690.000
0072	627.0200	Mulching	SY	690.000	690.000
0074	628.1504	Silt Fence	LF	75.000	75.000
0076	628.1520	Silt Fence Maintenance	LF	150.000	150.000
0078	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0080	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0082	628.6005	Turbidity Barriers	SY	310.000	310.000
0084	628.7504	Temporary Ditch Checks	LF	40.000	40.000
0086	629.0210	Fertilizer Type B	CWT	0.500	0.500
0088	630.0120	Seeding Mixture No. 20	LB	20.000	20.000
0090	630.0160	Seeding Mixture No. 60	LB	3.000	3.000
0092	630.0200	Seeding Temporary	LB	20.000	20.000
0096	630.0500	Seed Water	MGAL	22.000	22.000
0098	633.5100	Markers Row	EACH	10.000	10.000
0100	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0102	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0104	638.2602	Removing Signs Type II	EACH	8.000	8.000
0106	638.3000	Removing Small Sign Supports	EACH	8.000	8.000
0108	642.5001	Field Office Type B	EACH	0.500	0.500
0110	643.0420	Traffic Control Barricades Type III	DAY	2,180.000	2,180.000

Estimate Of Quantities By Plan Sets

6217-00-79

Line	Item	Item Description	Unit	Total	Qty
0112	643.0705	Traffic Control Warning Lights Type A	DAY	3,390.000	3,390.000
0114	643.0900	Traffic Control Signs	DAY	1,700.000	1,700.000
0116	643.5000	Traffic Control	EACH	0.500	0.500
0118	645.0111	Geotextile Type DF Schedule A	SY	110.000	110.000
0120	645.0120	Geotextile Type HR	SY	410.000	410.000
0122	650.4500	Construction Staking Subgrade	LF	90.000	90.000
0124	650.5000	Construction Staking Base	LF	90.000	90.000
0128	650.6500	Construction Staking Structure Layout (structure) 02. B-11-176	LS	1.000	1.000
0132	650.9910	Construction Staking Supplemental Control (project) 02. 6217-00-79	LS	1.000	1.000
0134	650.9920	Construction Staking Slope Stakes	LF	90.000	90.000
0136	690.0150	Sawing Asphalt	LF	44.000	44.000
0138	715.0502	Incentive Strength Concrete Structures	DOL	834.000	834.000
0142	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	700.000	700.000
0144	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	800.000	800.000
0146	SPV.0035	Special 01. Excavation, Hauling, and Disposal of Creosote Contaminated Soil	CY	205.000	205.000
0148	SPV.0195	Special 01. Material For Travel Corridor	TON	100.000	100.000

CLEARING & GRUBBING

STATION	LOCATION	201.0105 CLEARING (STA)	201.0205 GRUBBING (STA)
10+00 - 11+00	MAINLINE	1	1
TOTALS =		1	1

EARTHWORK SUMMARY

FROM/TO STA	LOCATION	205.0100 EXCAVATION COMMON	AVAILABLE MATERIAL (CY) (1)	UNEXPANDED FILL (CY)	EXPANDED FILL (CY) FACTOR 1.25 (2)	MASS ORDINATE +/- (CY) (3)	WASTE (CY)
		CUT (CY)					
STA. 10+00 - STA. 11+50	MAINLINE	220	220	110	140	80	80
TOTALS =		220	220	110	140	80	80

NOTES:
 1.) AVAILABLE MATERIAL = CUT
 2.) EXPANDED FILL FACTOR 1.25: EXPANDED FILL = (UNEXPANDED FILL)*1.25
 3.) THE MASS ORDINATE+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE CATEGORY. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE CATEGORY.

REMOVING GUARDRAIL

STATION - STATION	LOCATION	204.0165 (LF)
10+38 - 10+52	MAINLINE, RT.	15
10+39 - 10+53	MAINLINE, LT.	15
10+98 - 11+12	MAINLINE, RT.	15
10+98 - 11+13	MAINLINE, LT.	15
TOTALS =		60

FINISHING ITEMS

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0120 SEEDING MIXTURE NO. 20 (LB)	*630.0160 SEEDING MIXTURE NO. 60 (LB)	630.0200 SEEDING TEMPORARY (LB)	630.0500 SEED WATER (MGAL)
10+00 - 11+50	MAINLINE	555	555	0.4	16	2	-	20
-	UNDISTRIBUTED	135	135	0.1	4	1	20	2
TOTALS =		690	690	0.5	20	3	20	22

*ADJACENT TO WELAND AREAS (STA 9+98 - STA 10+58, RT; STA 10+00 - STA 10+58, LT; STA 10+93 - STA 11+10, RT; STA 10+93 - STA 11+19, LT.)

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)
10+00 - 11+50	MAINLINE	15	250
TOTALS =		15	250

ASPHALTIC SURFACE

STATION - STATION	LOCATION	455.0605 TACK COAT (GAL)	465.0105 ASPHALTIC SURFACE (TON)
10+00 - 11+50	MAINLINE	15	60
TOTALS =		15	60

SILT FENCE

STATION - STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
9+98 - 10+57	MAINLINE, RT	61	122
-	UNDISTRIBUTED	14	28
TOTALS =		75	150

TURBIDITY BARRIERS

STATION-STATION	LOCATION	628.6005 (SY)
10+60 - 10+92	MAINLINE	250
-	UNDISTRIBUTED	60
TOTALS =		310

WATER

STATION-STATION	LOCATION	624.0100 (MGAL)
10+00 - 11+50	MAINLINE	4
TOTALS =		4

MOBILIZATION EROSION CONTROL

PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
6217-00-79	4	2
TOTALS =		2

TEMPORARY DITCH CHECKS

STATION	LOCATION	628.7534 (LF)
10+25	MAINLINE, LT.	3
11+15	MAINLINE, RT.	3
11+15	MAINLINE, LT.	3
-	UNDISTRIBUTED	3
TOTALS =		12

MARKERS ROW

PT. NO	STATION	OFFSET FROM FINISHED C/L	633.510C (EACH)
1	9+95.00	53.64' LT	1
2	9+95.00	75.00' LT.	1
3	10+45.00	75.00' LT.	1
4	11+25.00	53.00' LT.	1
5	11+55.00	33.06' LT.	1
6	11+55.00	32.94' RT.	1
7	11+45.00	33.01' RT.	1
8	11+45.00	53.00' RT.	1
9	10+95.00	53.00' RT.	1
10	9+95.00	34.00' RT	1
TOTALS =			10

PERMANENT SIGNING

APPROX. STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE	634.0612 POSTS WOOD 4X6- INCH X 12-FT (EACH)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)
10+40	MAINLINE, LT.	W5-52L	BRIDGE HASH MARKS		12X36	1	3.00	---	---
10+40	MAINLINE, RT	W5-	BRIDGE HASH MARKS		12X36	1	3.00	---	---
10+50	MAINLINE, RT	R12-1	WEIGHT LIMIT	10 TONS	24X30	---	---	1	1
10+60	MAINLINE, RT.	W5-	BRIDGE HASH MARKS		12X36	---	---	1	1
10+60	MAINLINE, LT.	W5-52L	BRIDGE HASH MARKS		12X36	---	---	1	1
10+90	MAINLINE, RT.	W5-52L	BRIDGE HASH MARKS		12X36	---	---	1	1
10+90	MAINLINE, LT.	W5-52R	BRIDGE HASH MARKS		12X36	---	---	1	1
11+00	MAINLINE, LT.	R12-1	WEIGHT LIMIT	10 TONS	24X30	---	---	1	1
11+10	MAINLINE, LT.	W5-52R	BRIDGE HASH MARKS		12X36	1	3.00	---	---
11+10	MAINLINE, RT.	W5-52L	BRIDGE HASH MARKS		12X36	1	3.00	---	---
WENDT RD - HALL ROAD INTERSECTION								1	1
WENDT RD - DUBORG RD INTERSECTION								1	1
TOTALS =						4	12.00	8	8

TRAFFIC CONTROL

LOCATION PROJECT	643.0420 BARRICADES TYPE III (DAY)	643.0705 WARNING LIGHTS TYPE A (DAY)	643.0900 SIGNS (DAY)	643.5000 TRAFFIC CONTROL (EACH)	
	PROJECT	2180	3390	1700	0.5
TOTALS =		2180	3390	1700	0.5

CONSTRUCTION STAKING

STATION -STATION	LOCATION PROJECT	650.4500 SUBGRADE (LF)	650.5000 BASE (LF)	*650.6500 STRUCTURE LAYOUT (B-11-0169) (LS)	650.9910 SUPPLEMENTAL CONTROL (01.6721-00-71) (LS)	650.9920 SLOPES STAKES (LF)
		10+00 - 11+50	MAINLINE PROJECT	90	90	-
TOTALS =		90	90	1	1	90

*CATEGORY 020

SAWING ASPHALT

STATION	LOCATION	690.0150 (L.F.)
10+00	MAINLINE	22
11+50	MAINLINE	22
TOTALS =		44

EXCAVATION, HAULING, AND DISPOSAL OF CREOSOTE CONTAMINATED SOIL

LOCATION	SPV.0035 0' (CY)	
N. ASLT	106	
S. ASLT	99	
TOTALS =		205

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	PROPERTY LINE	PL
ACCESS RIGHTS	AR	RECORDED AS	(100')
ACRES	AC.	REFERENCE LINE	R/L
AND OTHERS	ET.AL.	RELEASE OF RIGHTS	ROR
BARN	B.	REMAINING	REM.
CENTERLINE	C/L	RIGHT-OF-WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC.
CORNER	COR.	SHED	S.
CONVEYANCE OF RIGHTS	CR	STATION	STA.
DOCUMENT	DOC.	TEMPORARY LIMITED EASEMENT	TLE
EASEMENT	EASE.	VOLUME	V.
GARAGE	G.	CURVE DATA	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
HOUSE	H.	LONG CHORD BEARING	LCB
HOUSE TRAILER	H.T.	RADIUS	R
LAND CONTRACT	LC	DEGREE OF CURVE	D
MONUMENT	MON.	CENTRAL ANGLE OR DELTA	DELTA
PAGE	P.	LENGTH OF CURVE	L
PERMANENT LIMITED EASEMENT	PLE	TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND SURVEY MONUMENT (WITH POINT NUMBER)	○ 1040	PROPOSED R/W LINE	---
R/W MONUMENT	○ ● (SET)	EXISTING H.E. LINE	---
R/W STANDARD	△ ▲ (SET)	PROPERTY LINE	---
SIGN	ISIGN	LOT & TIE LINES	---
SECTION CORNER MONUMENT	⊕	SLOPE INTERCEPTS	---/---
SECTION CORNER SYMBOL	⊕	CORPORATE LIMITS	---/---
FEE (HATCH VARIES)	///	NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	---/---
TEMPORARY LIMITED EASEMENT	---/---	NO ACCESS (BY ACQUISITION)	---/---
PERMANENT LIMITED EASEMENT	---/---	NO ACCESS (BY STATUTORY AUTHORITY)	---/---
R/W BOUNDARY POINT	⊕	SECTION LINE	---
PARCEL NUMBER	Ⓚ	QUARTER LINE	---
UTILITY PARCEL NUMBER	Ⓚ	SIXTEENTH LINE	---
SIGN NUMBER (OFF PREMISE)	Ⓚ	EXISTING CENTERLINE	---
BUILDING	Ⓚ	PROPOSED REFERENCE LINE	---
		PARALLEL OFFSET	---
		ENCROACHMENT	---
		HIGHWAY EASEMENT	---

CONVENTIONAL UTILITY SYMBOLS

WATER	—W—	SANITARY SEWER	—SAN—
GAS	—G—	STORM SEWER	—SS—
TELEPHONE	—T—		
OVERHEAD TRANSMISSION LINES	—OH—	NON COMPENSABLE	⊕
ELECTRIC	—E—	COMPENSABLE	⊕
CABLE TELEVISION	—TV—	POWER POLE	⊕
FIBER OPTIC	—FO—	TELEPHONE POLE	⊕
		TELEPHONE PEDESTAL	⊕
		ELECTRIC TOWER	⊕

NOTES

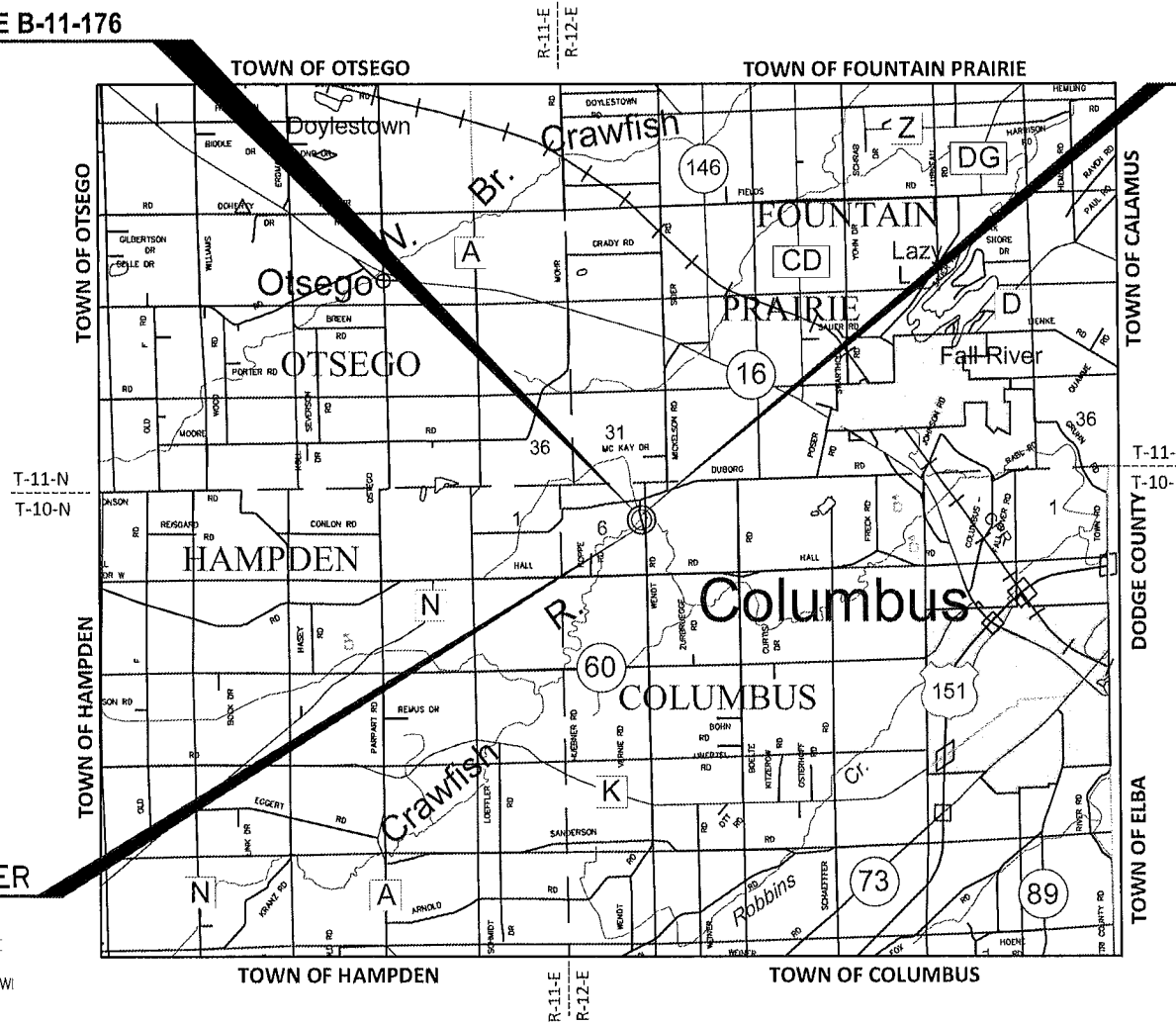
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), COLUMBIA COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" X 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD."

R/W PROJECT NUMBER 6217-00-02	SHEET NUMBER 4.01	TOTAL SHEETS 2
FEDERAL PROJECT NUMBER		
PLAT OF RIGHT-OF-WAY REQUIRED FOR TOWN OF COLUMBUS, WENDT ROAD (CRAWFISH RIVER BRIDGE B-11-176)		
LOC STR		COLUMBIA COUNTY
CONSTRUCTION PROJECT NUMBER 6217-00-79		

STRUCTURE B-11-176



END RELOCATION ORDER

STA. 11+55.00
660.85' NORTH AND 325.80' WEST OF THE
E 1/4 CORNER OF SECTION 6, T.10N., R.12E.,
TOWN OF COLUMBUS, COLUMBIA COUNTY, WI
Y= 330461.47
X= 630580.33

BEGIN RELOCATION ORDER

STA. 9+95.00
505.82' NORTH AND 286.22' WEST OF THE
E 1/4 CORNER OF SECTION 6, T.10N., R.12E.,
TOWN OF COLUMBUS, COLUMBIA COUNTY, WI
Y= 330306.44
X= 630619.90

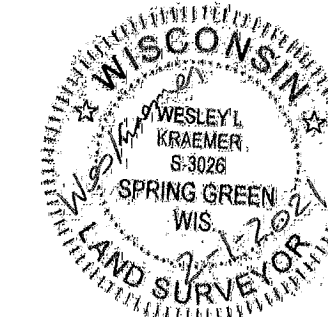
TOTAL NET LENGTH OF CENTERLINE = 0.030 MI.

JEWELL
associates engineers, inc.

Engineers - Architects - Surveyors

560 SUNRISE DRIVE
SPRING GREEN, WI 53588
PHONE : 608.588.7484
www.jewellassoc.com

I HEREBY CERTIFY THAT THIS PLAT WAS MADE FOR TOWN OF COLUMBUS, WISCONSIN AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



APPROVED FOR TOWN OF COLUMBUS

DATE: 4-13-21 *(Signature)*
(NAME/TITLE)

(Signature)

E

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED		
			NEW	EXISTING	TOTAL
1	GLENN A. MCKAY, A MARRIED INDIVIDUAL	FEE	0.02	0.08	0.10
2	VIRGIL KASYS	FEE	0.02	0.04	0.06
3	KEVIN J. BAERWOLF	FEE	0.07	0.16	0.23
201	AT&T	RELEASE OF RIGHTS			
202	ADAMS-COLUMBIA ELECTRIC COOPERATIVE	RELEASE OF RIGHTS			

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

EASEMENT TABLE			
OWNER	RECORDING INFORMATION	LOCATED IN PARCEL NUMBER	REMARKS
ADAMS-COLUMBIA ELECTRIC COOPERATIVE (FORMERLY COLUMBUS RURAL ELECTRIC COOPERATIVE)	DOC. 217640	1, 2, & 3	50' WIDE EASEMENT FOR ELECTRIC AND TELEPHONE UTILITIES WITHIN THE SE¼-NE¼ SEC. 6 T10N, R12E

END RELOCATION ORDER

STA. 11+55.00

660.85' NORTH AND 325.80' WEST OF THE E½ CORNER OF SECTION 6, T.10N., R.12E., TOWN OF COLUMBUS, COLUMBIA COUNTY, WI
Y= 330461.47
X= 630580.33

NE CORNER SEC. 6
FOUND ALUMINUM MON.

Y = 332425.60
X = 630913.26

TOWN OF COLUMBUS

SE¼-NE¼
SEC. 6, T10N, R12E

RIGHT OF WAY LINE TABLE		
POINT TO POINT	BEARING	DISTANCE
1 TO 2	S75°40'47"W	21.36'
2 TO 3	N14°19'13"W	50.00'
3 TO 4	N01°03'24"E	82.97'
4 TO 5	N19°17'31"E	36.02'
5 TO 6	N75°40'47"E	66.00'
6 TO 7	S14°42'01"E	10.00'
7 TO 8	N75°40'47"E	19.99'
8 TO 9	S14°19'13"E	50.00'
9 TO 10	S03°33'54"E	101.79'
10 TO 1	S75°40'47"W	87.65'

COORDINATE TABLE - NEW R/W POINTS				
PT.#	STATION	OFFSET	Y	X
1	9+95.00	53.64' LT	330293.17	630567.93
2	9+95.00	75.00' LT	330287.89	630547.23
3	10+45.00	75.00' LT	330336.34	630534.87
4	11+25.00	53.00' LT	330419.29	630536.40
5	11+55.00	33.06' LT	330453.29	630548.30
6	11+55.00	32.94' RT	330469.62	630612.25
7	11+45.00	33.01' RT	330459.95	630614.79
8	11+45.00	53.00' RT	330464.89	630634.16
9	10+95.00	53.00' RT	330416.44	630646.52
10	9+95.00	34.00' RT	330314.85	630652.85

COORDINATE TABLE - FOUND MONUMENTS				
PT.#	STATION	OFFSET	Y	X
110	10+98.85	33.31' RT	330415.31	630626.50

NOTE: EXISTING C/L OF WENDT ROAD WAS BASED ON C.S.M. NO. 3965

BASIS OF EXISTING RIGHT-OF-WAY FOR WENDT ROAD WAS BASED ON C.S.M. NO. 3965 AND FOUND ASSOCIATED MONUMENTATION.

③
KEVIN J. BAERWOLF
DOC. 890636

STRUCTURE B-11-176 REQ'D

BEGIN RELOCATION ORDER

STA. 9+95.00

505.82' NORTH AND 286.22' WEST OF THE E½ CORNER OF SECTION 6, T.10N., R.12E., TOWN OF COLUMBUS, COLUMBIA COUNTY, WI
Y= 330306.44
X= 630619.90

②
VIRGIL KASYS
DOC. 930919

LOT 1, CSM 3965
V.27, P.81-83
DOC. 685171

①
GLENN A. MCKAY, A MARRIED INDIVIDUAL
DOC. 896356

②02
ADAMS-COLUMBIA ELECTRIC COOPERATIVE
(FORMERLY COLUMBUS RURAL ELECTRIC COOPERATIVE) 50' WIDE ELECTRIC AND TELEPHONE LINE EASEMENT, DOC. 217640

SECTION LINE
N.E. CORNER OF SEC. 6
TO E½ CORNER OF SEC. 6
500°09'20"W, 2624.99'

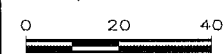
T.10 N.
31 32
6 5
R.12 E.

E½ CORNER SEC. 6
FOUND ALUMINUM MON.
Y = 329800.62
X = 630906.13

REVISION DATE

DATE: FEBRUARY 1, 2021

SCALE, FEET



HWY: WENDT ROAD

COUNTY: COLUMBIA

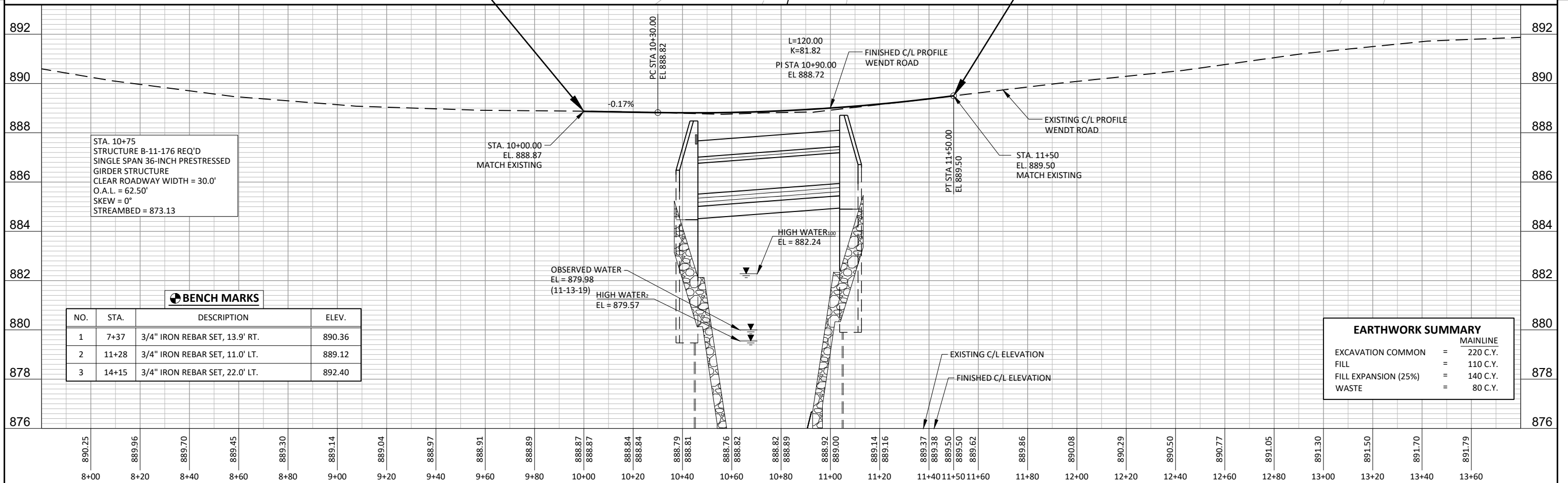
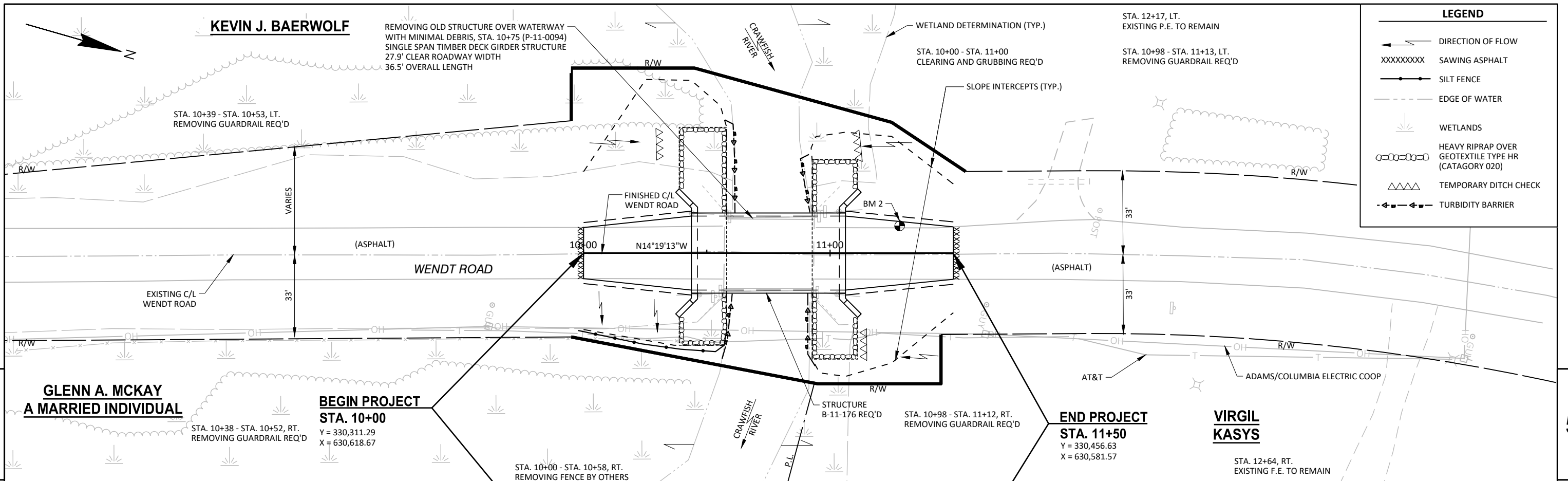
R/W PROJECT NUMBER: 6217-00-02

CONSTRUCTION PROJECT NUMBER: 6217-00-79

PLAT SHEET 4.02

PS&E SHEET

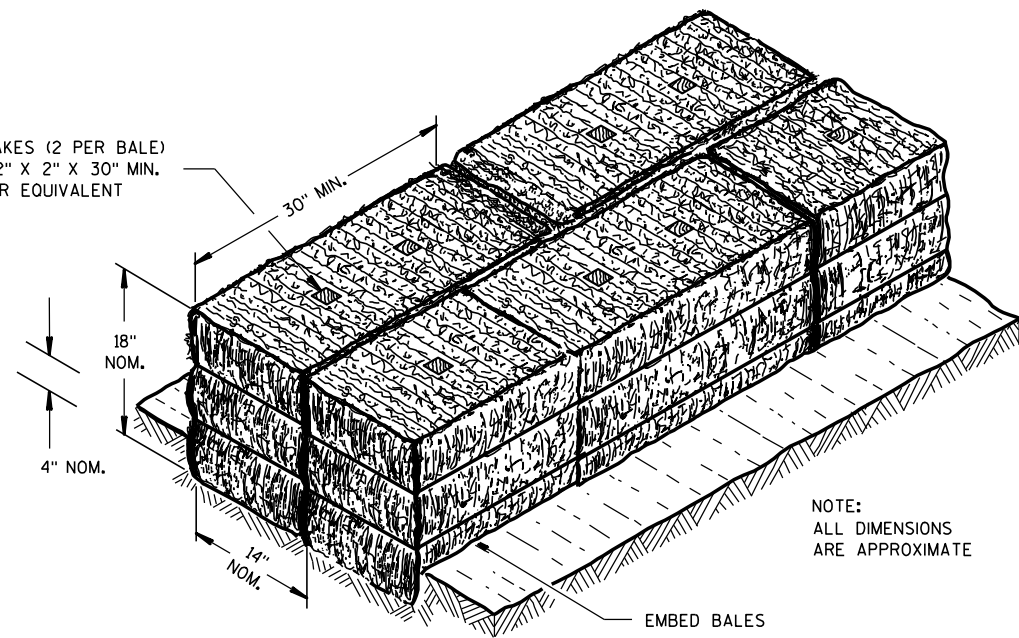
E



Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

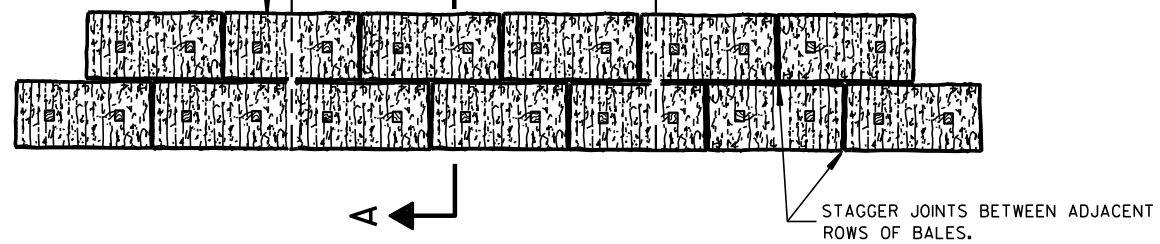
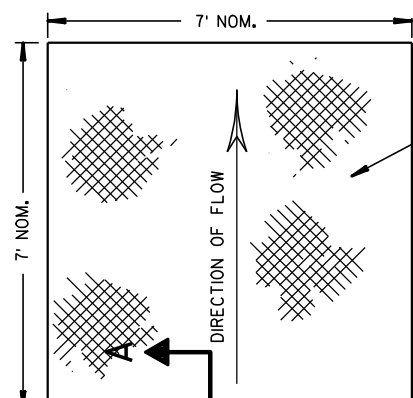
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

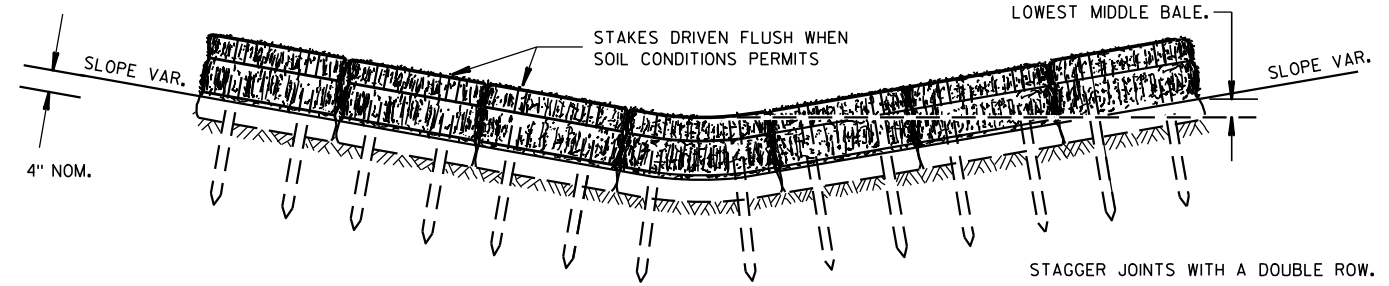
EMBED BALES

SECTION A-A



PLAN VIEW

BOTTOM ELEVATION OF END BALE SHALL BE EQUAL TO OR GREATER THAN TOP OF LOWEST MIDDLE BALE.



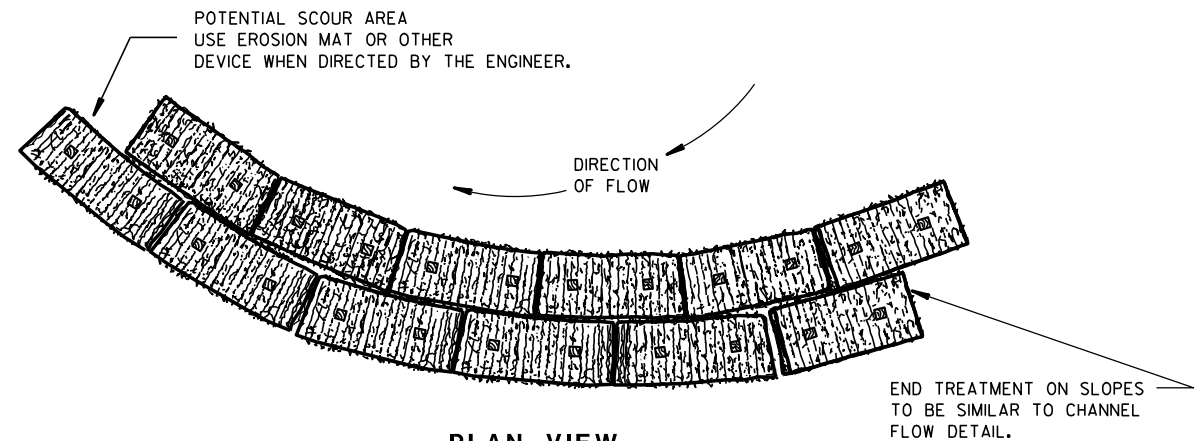
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

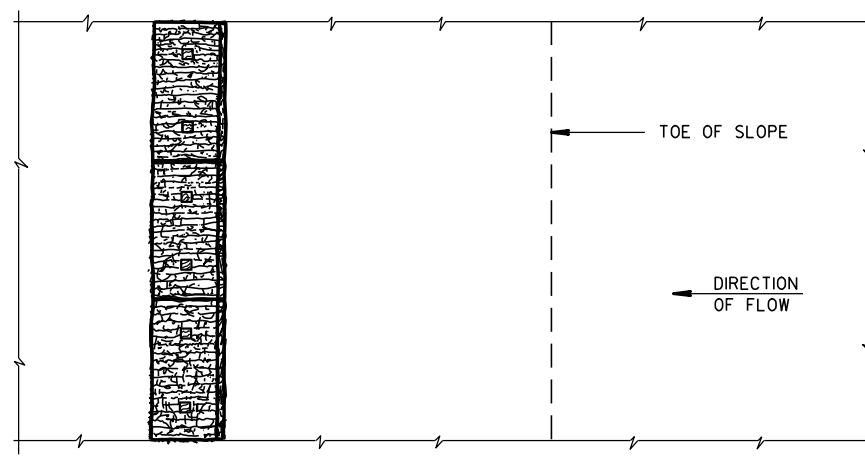
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

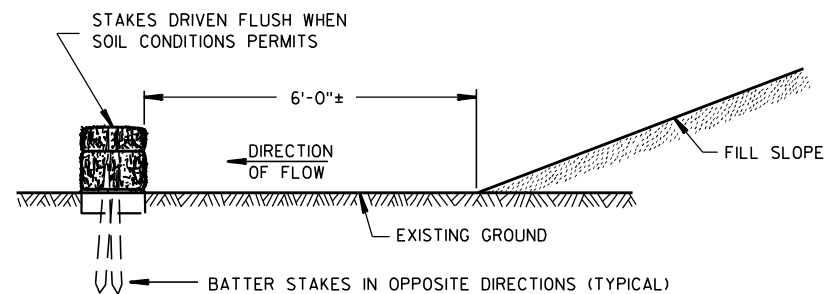


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

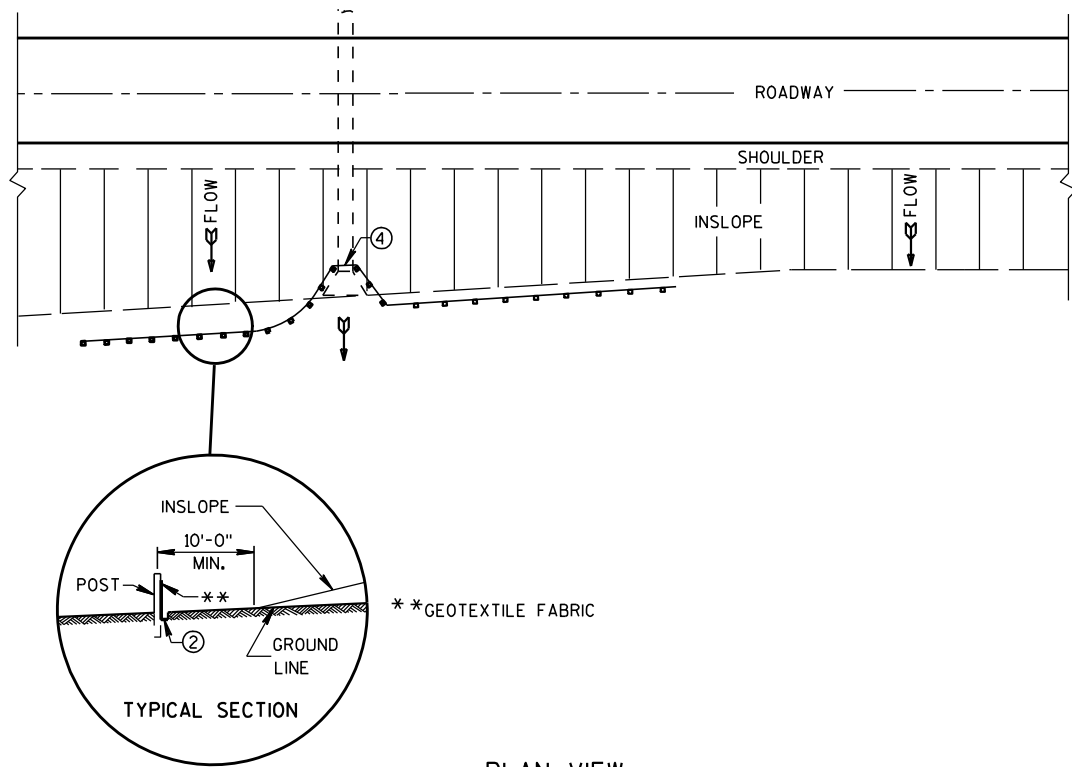
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

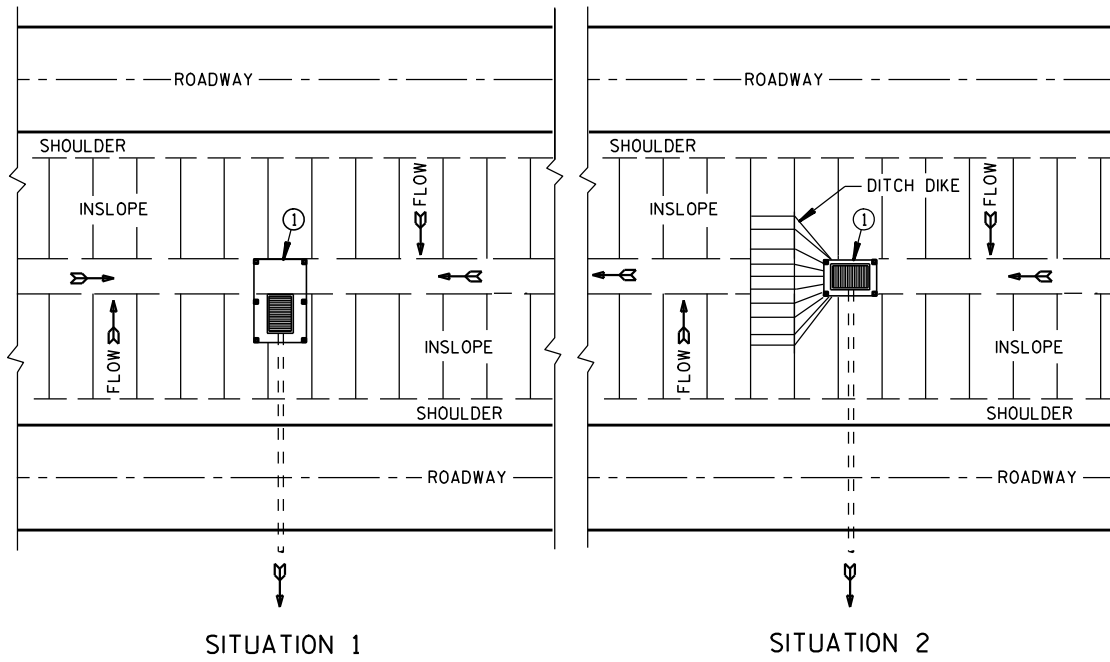
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

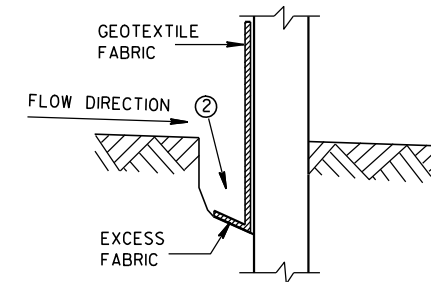


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

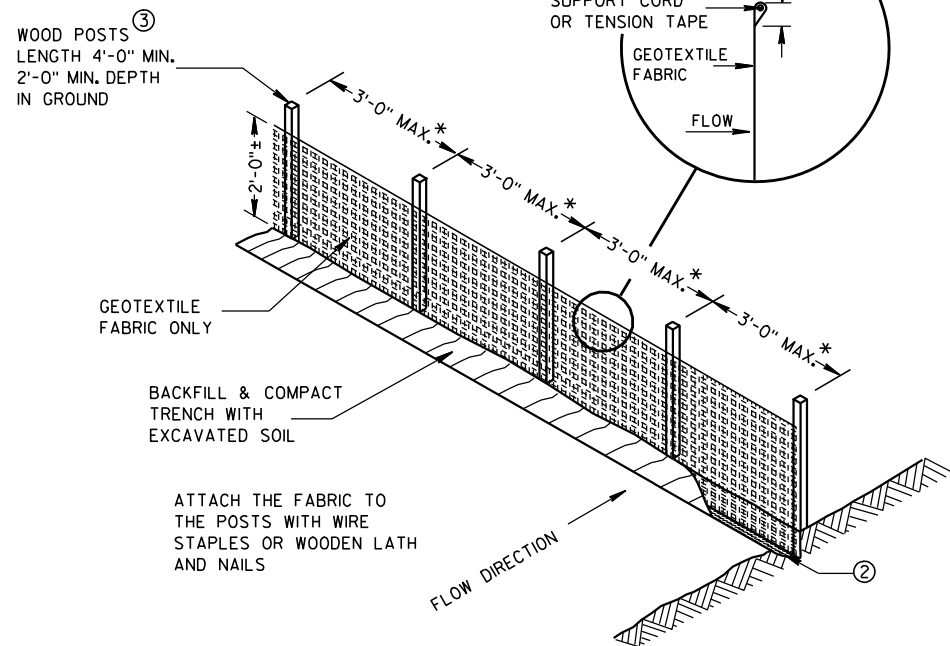
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- 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 1 1/8" X 1 1/8" 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.

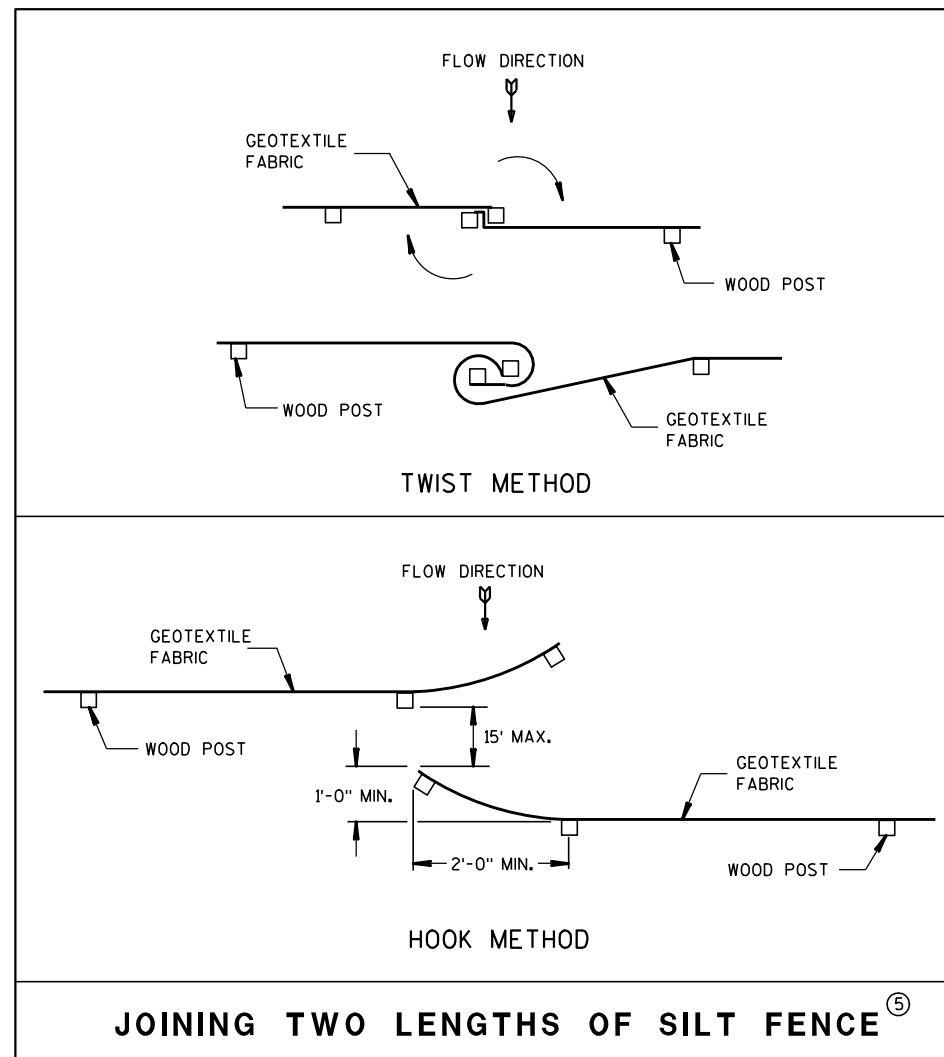


TRENCH DETAIL

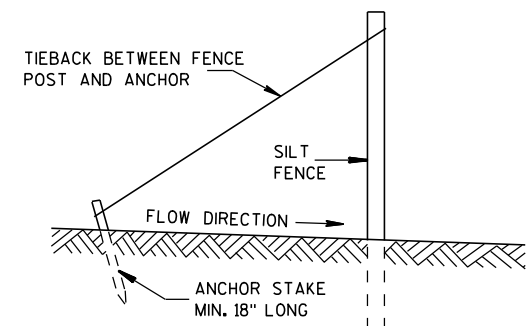
NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

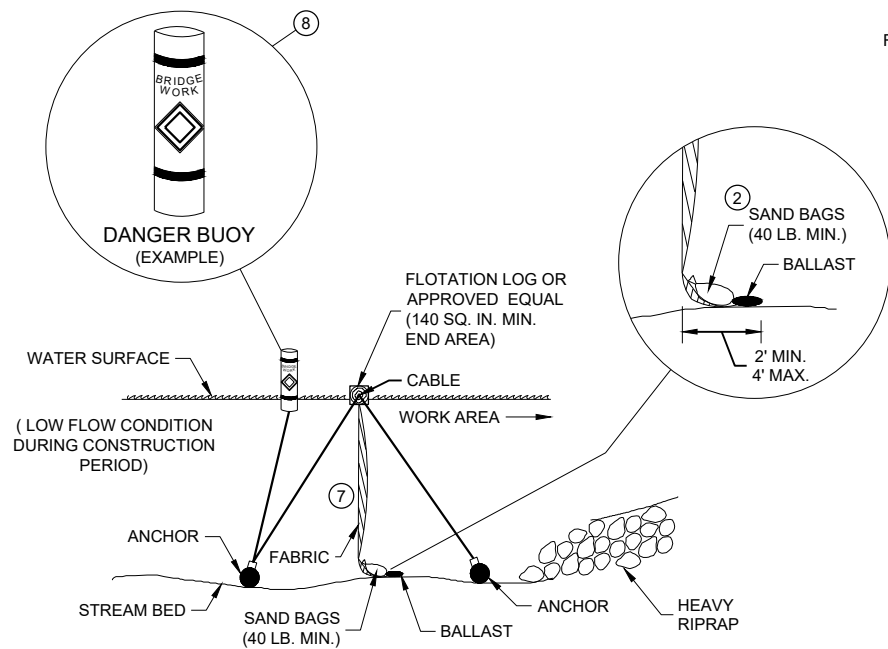


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

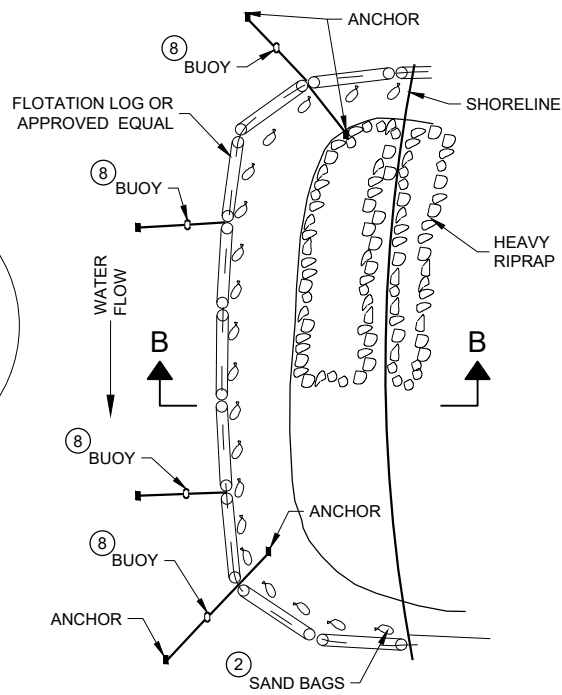
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

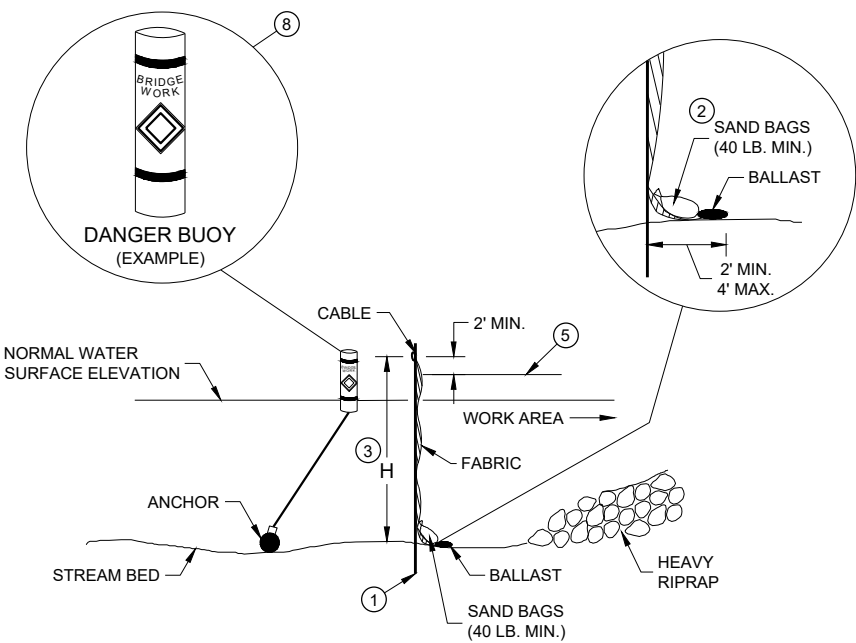


SECTION B - B

**TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6**

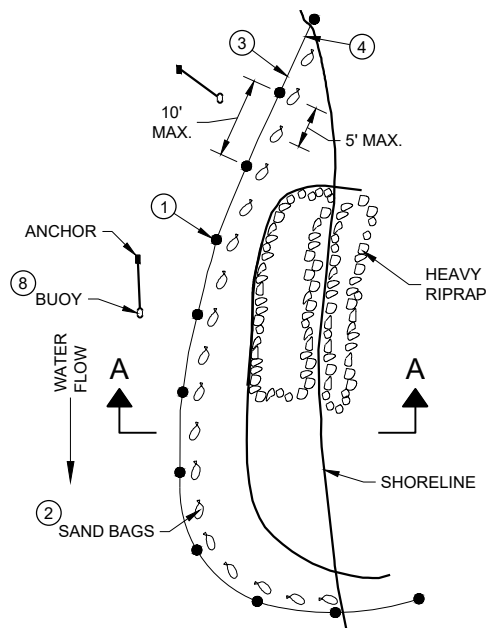


PLAN VIEW



SECTION A - A

TURBIDITY BARRIER - STANDARD POST INSTALLATION



PLAN VIEW

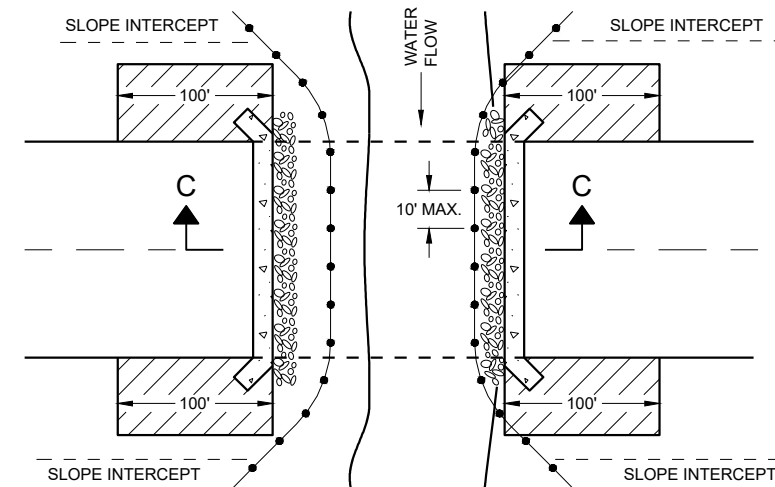
TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

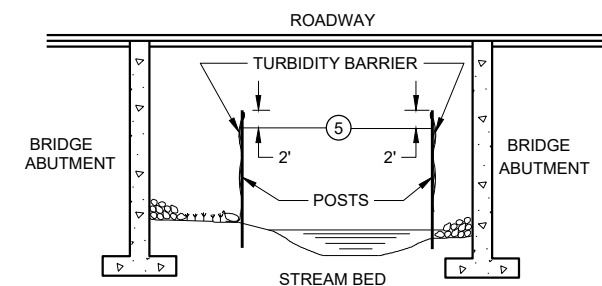
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

- ① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- ② SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
- ③ WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.
- ④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
- ⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
- ⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.
- ⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
- ⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C - C

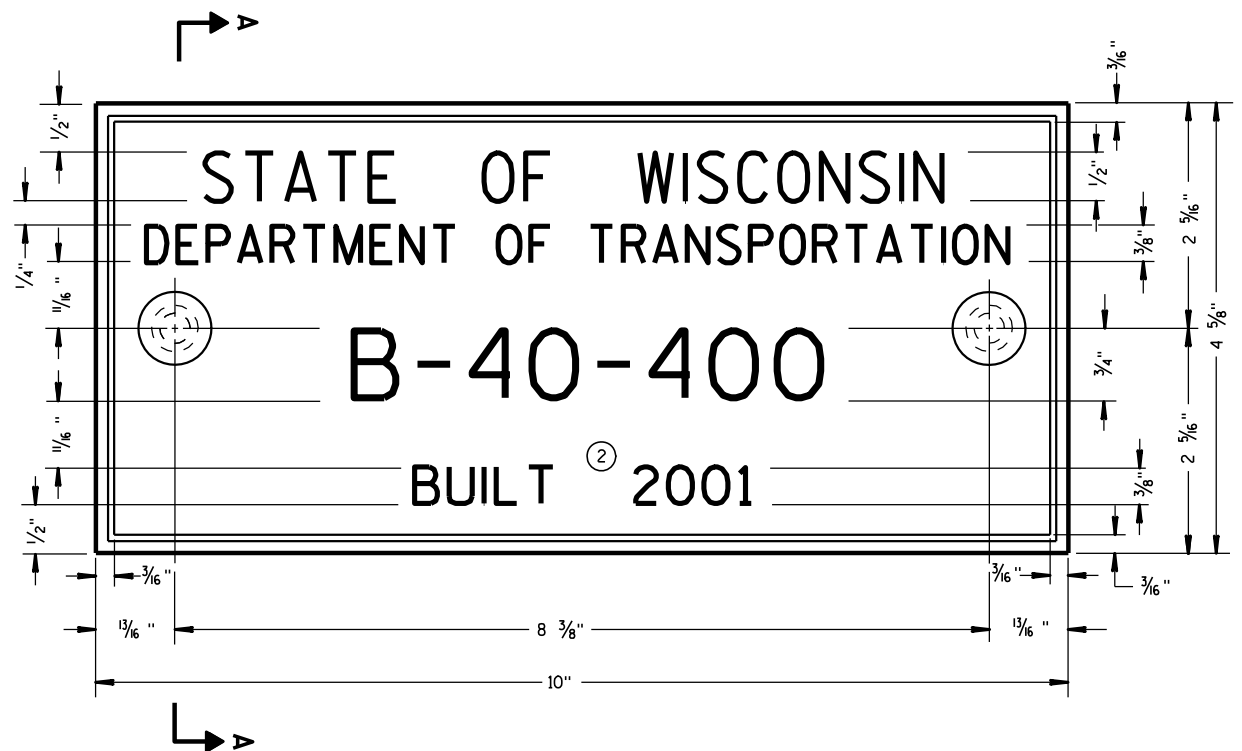
**TURBIDITY BARRIER DETAIL SHOWING
TYPICAL PLACEMENT AT STRUCTURES**

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



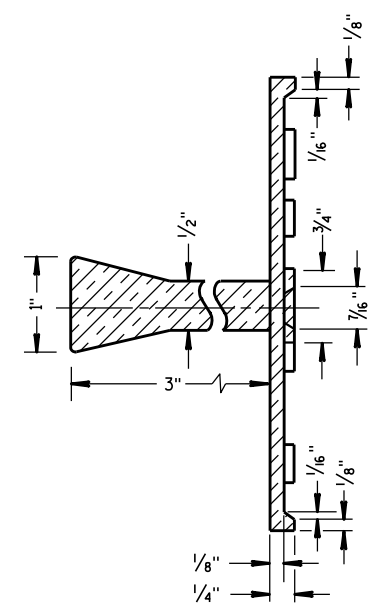
TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

GENERAL NOTES

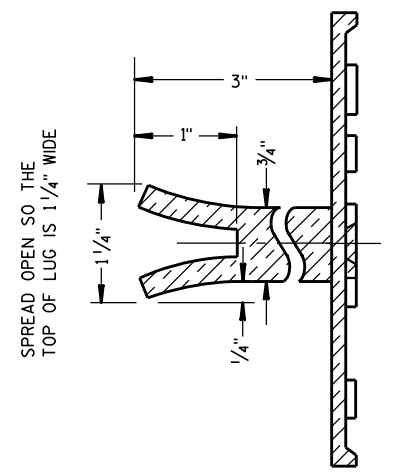
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

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



SECTION A-A



ALTERNATE LUG

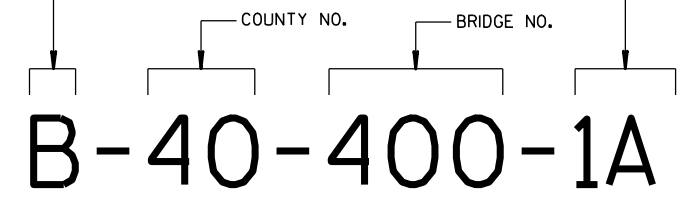
6

6

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

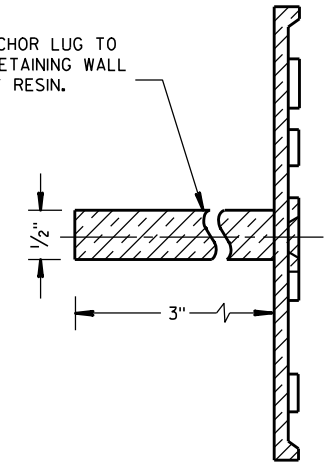
B = BRIDGE
C = CULVERT
R = RETAINING WALL

UNIT NO. FOR MULTIPLE
UNIT BRIDGE



**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.

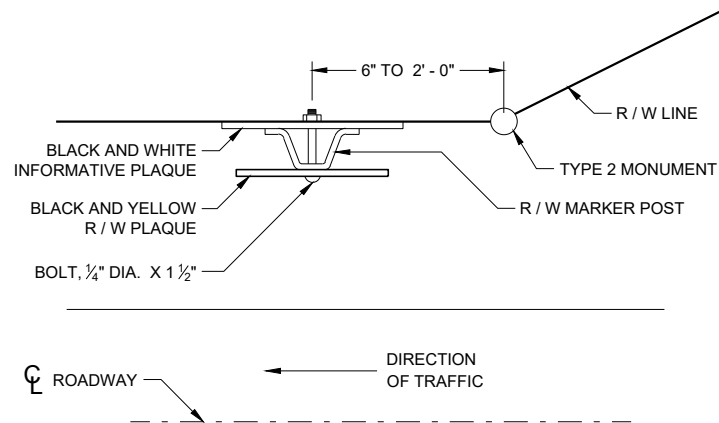


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

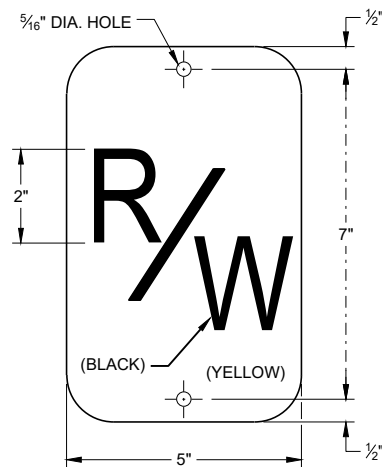
S.D.D. 12 A 3-10

S.D.D. 12 A 3-10

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

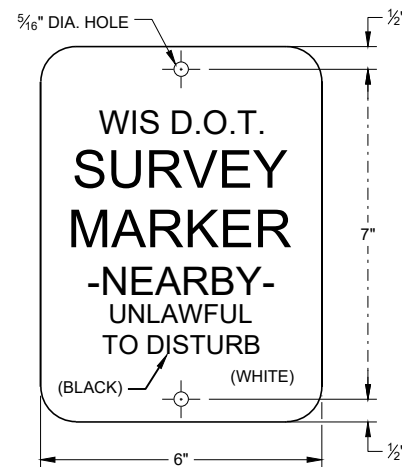


**PLAN VIEW
STEEL MARKER POST**



R / W PLAQUE

THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



INFORMATIVE PLAQUE

GENERAL NOTES

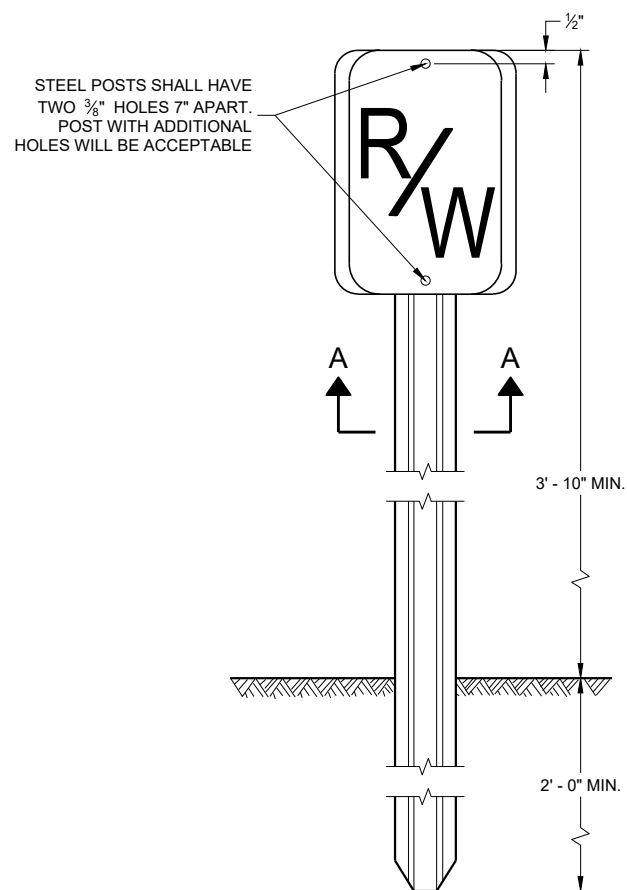
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT -OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

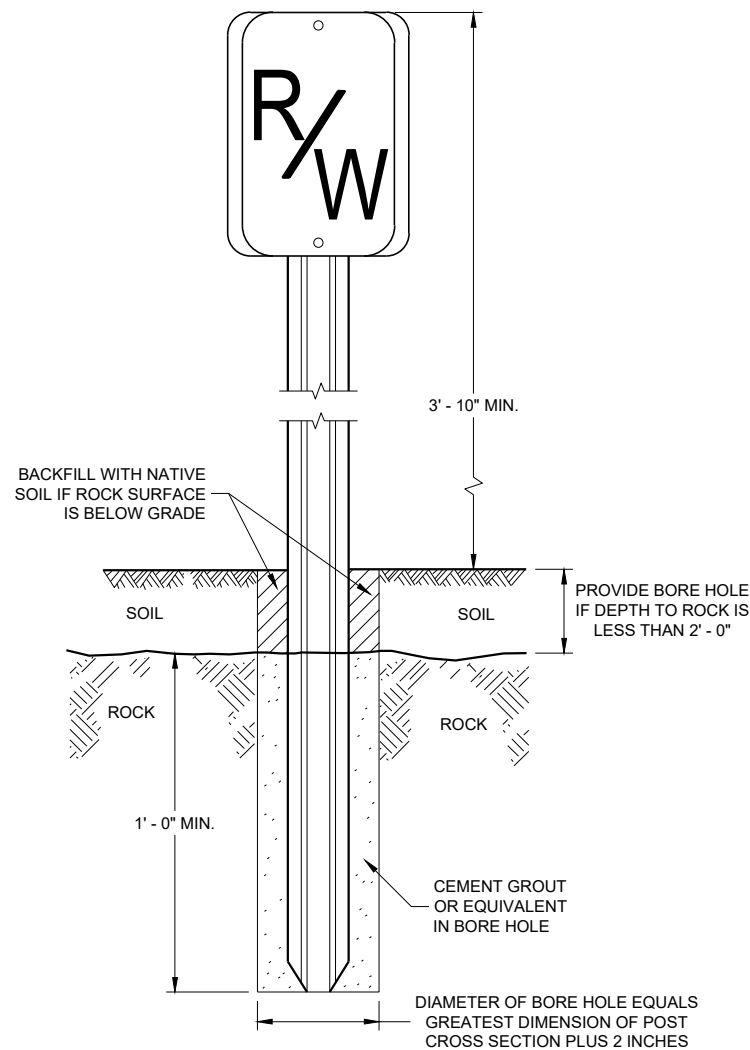
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

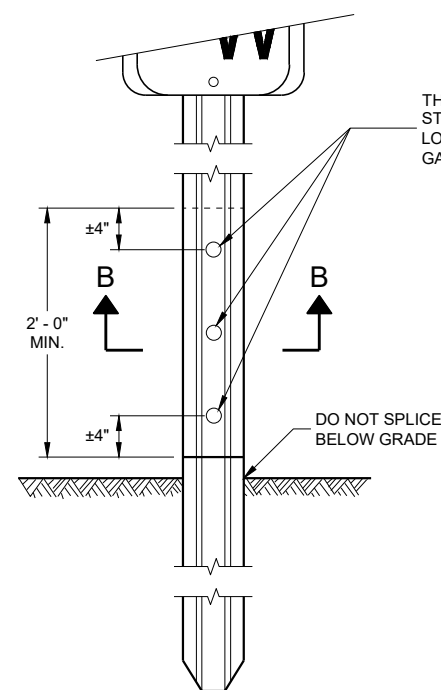
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



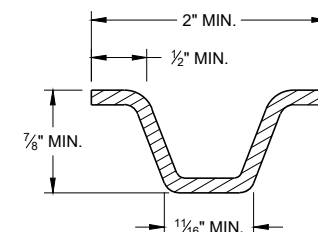
**FRONT VIEW
STEEL MARKER POST**



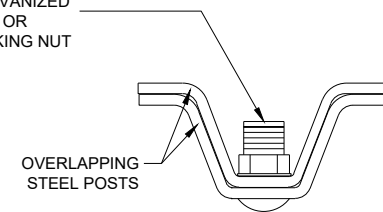
**FRONT VIEW
ROCK INSTALLATION** ①



**FRONT VIEW
SPLICE DETAIL**



MIN. WEIGHT 1.12 LB./FT.
SECTION A - A



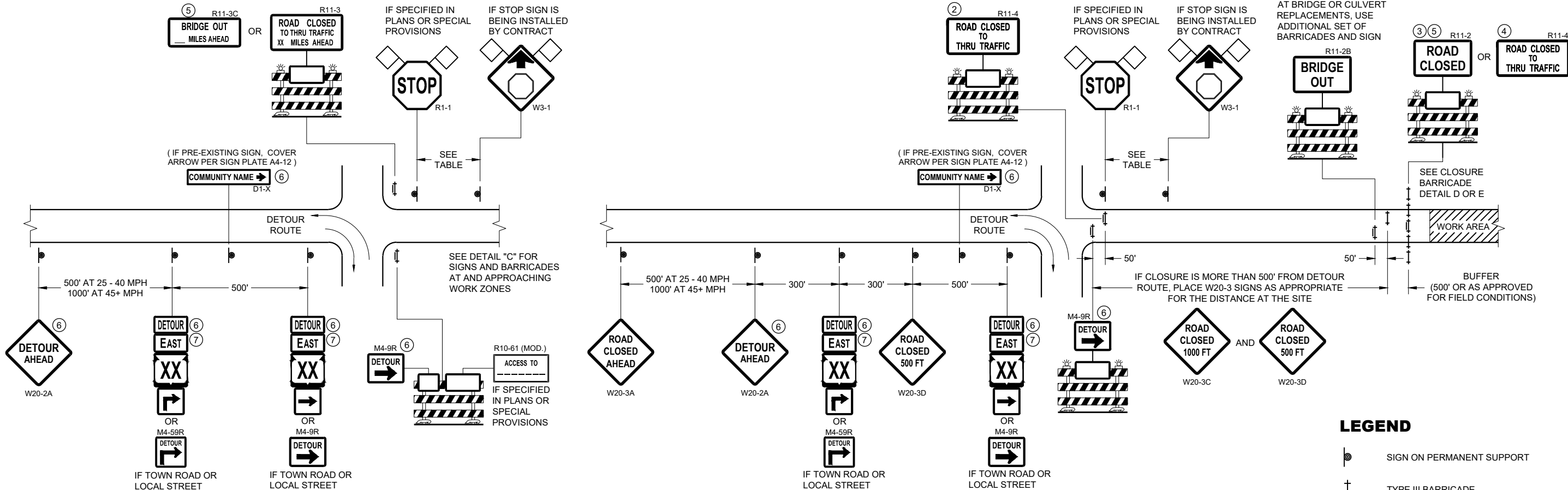
SECTION B - B

**MARKER POST
FOR RIGHT - OF - WAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/18/2016 DATE /S/ Ray Kumapayi
DATE CHIEF SURVEYING AND MAPPING ENGINEER

FHWA



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

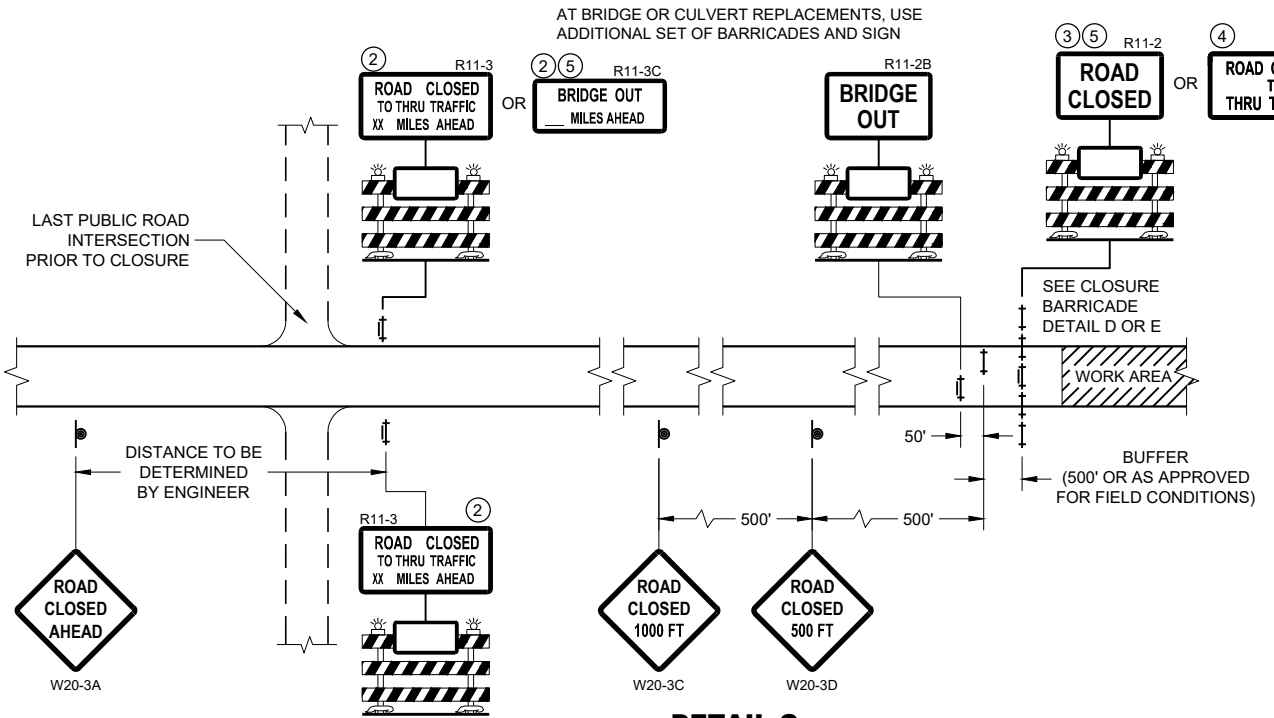
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

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

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

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



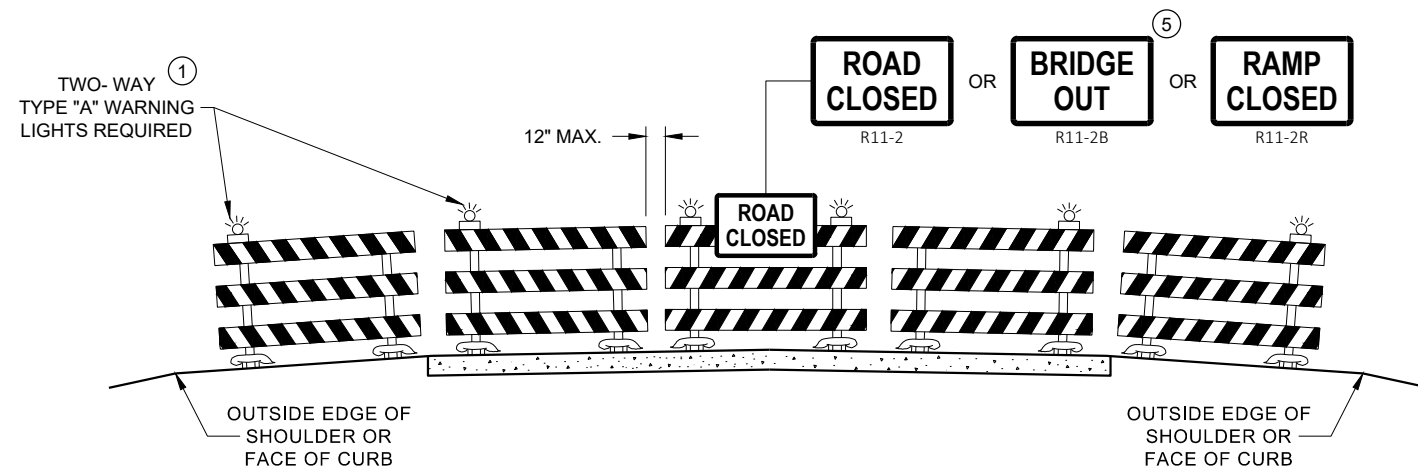
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

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

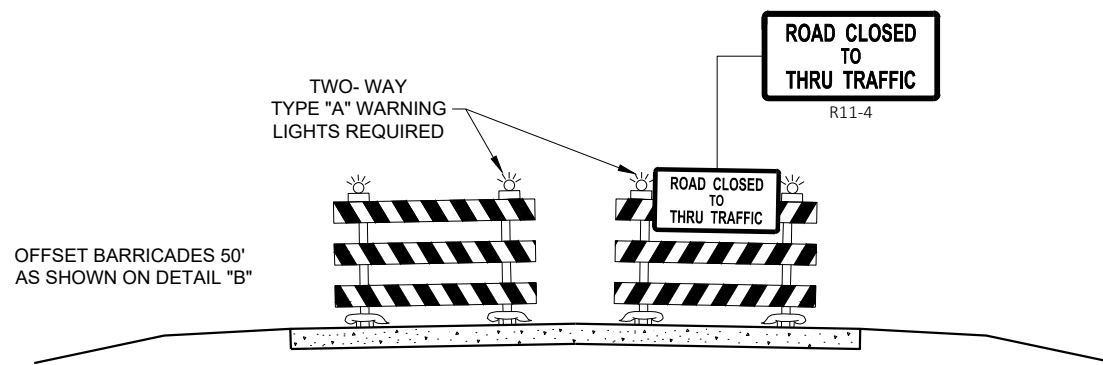
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

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

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

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

GENERAL NOTES

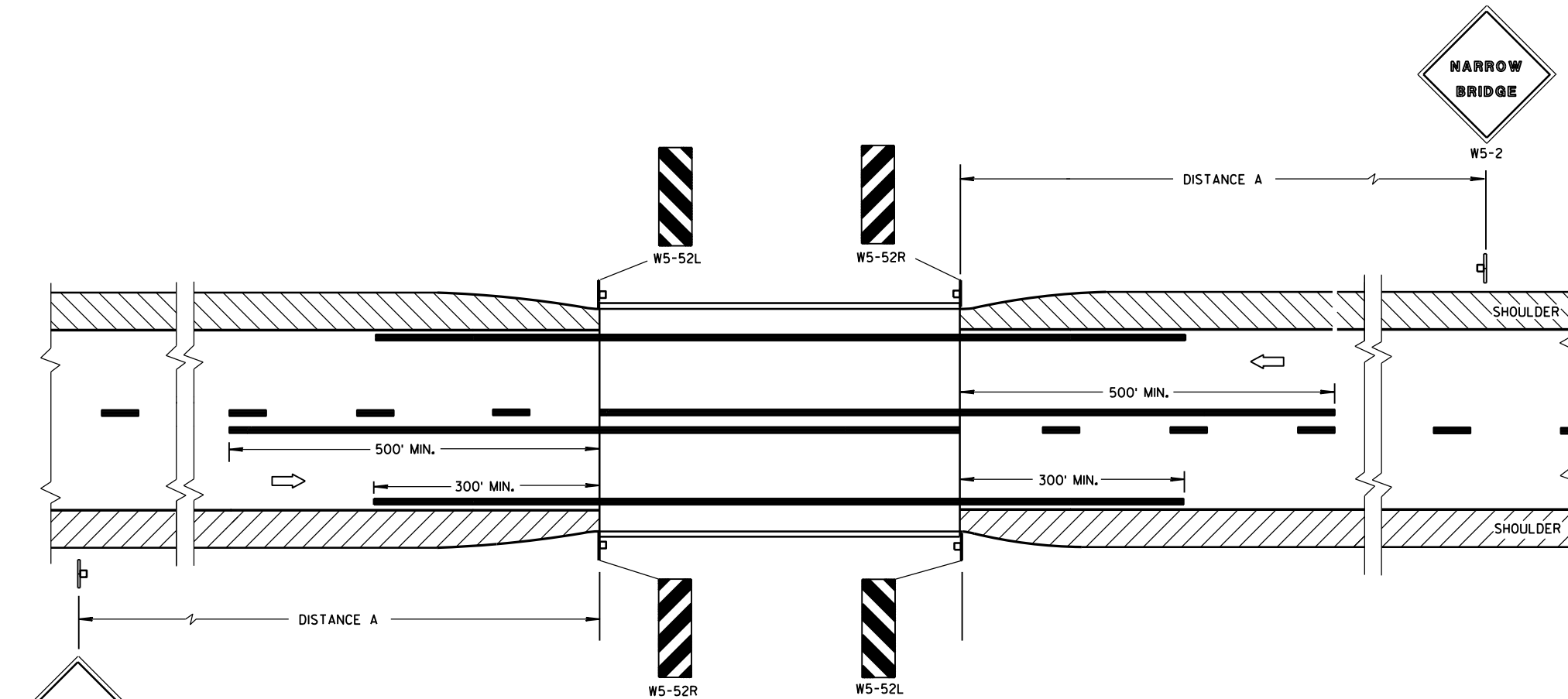
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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.

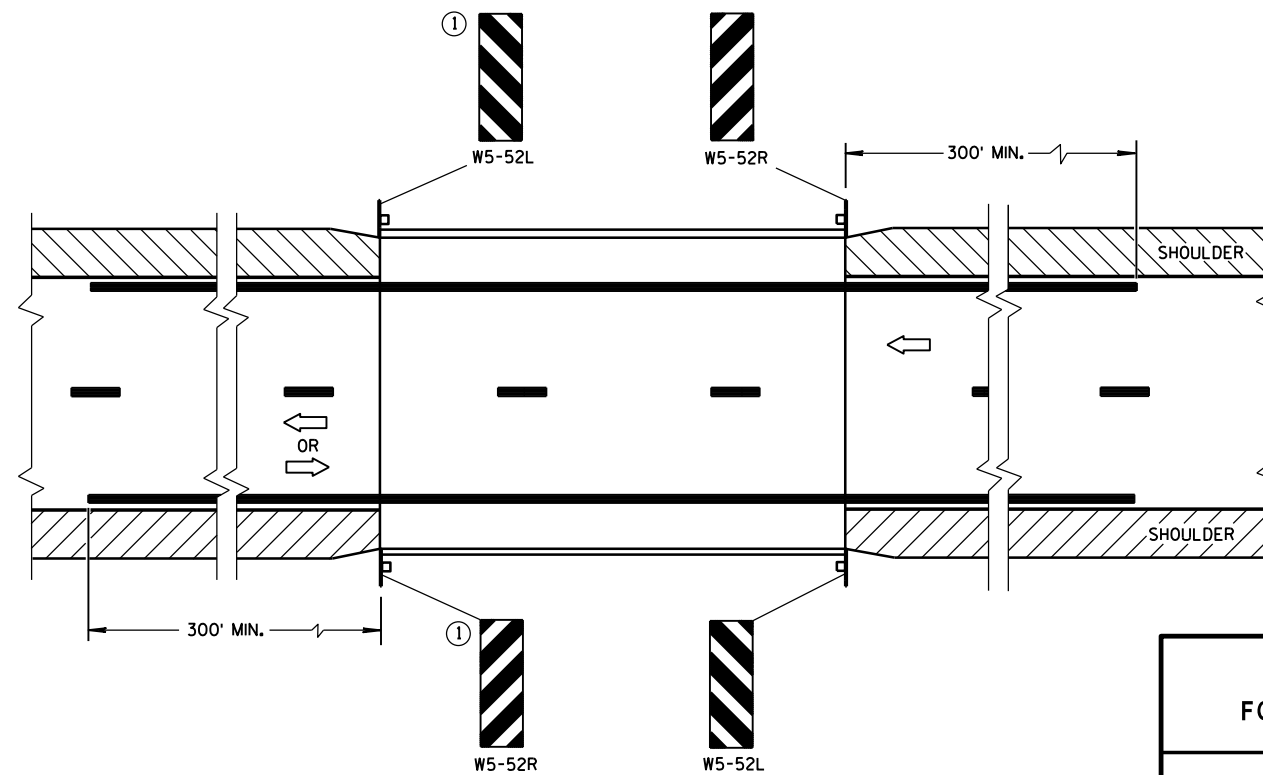
① OMIT ON ONE-WAY TRAVELLED WAYS.

➡ DIRECTION OF TRAFFIC



SITUATION 1

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



SITUATION 2

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

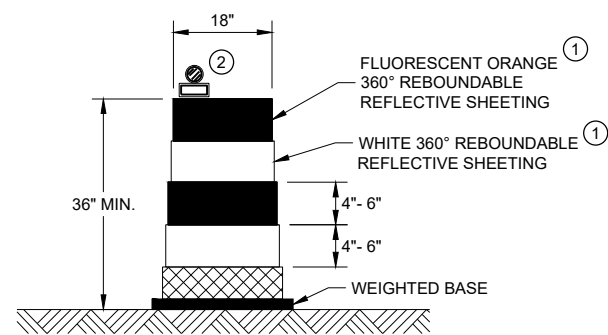
DISTANCE TABLE

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

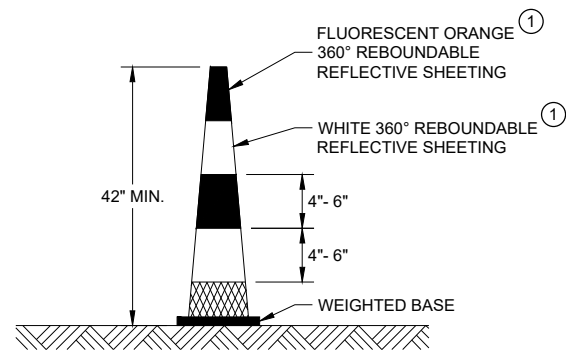
SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

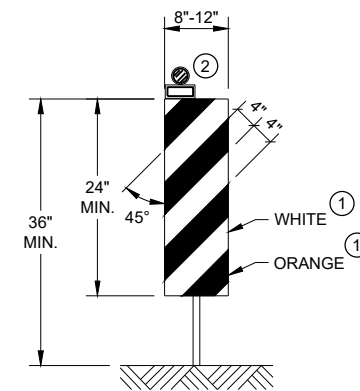


DRUM



42" CONE

DO NOT USE IN TAPERS
 1/2 SPACING OF DRUMS

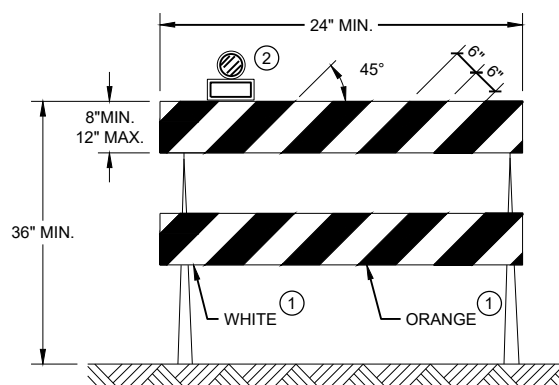


VERTICAL PANEL

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

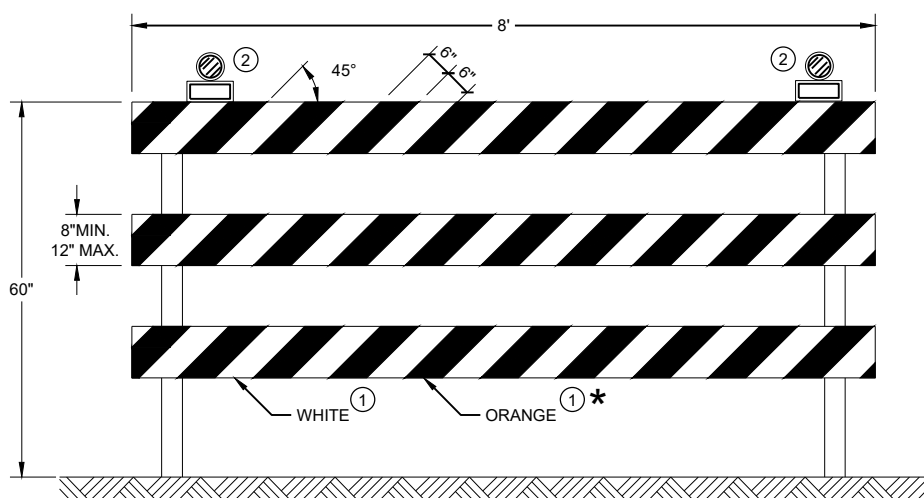
GENERAL NOTES

- 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 II BARRICADE

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

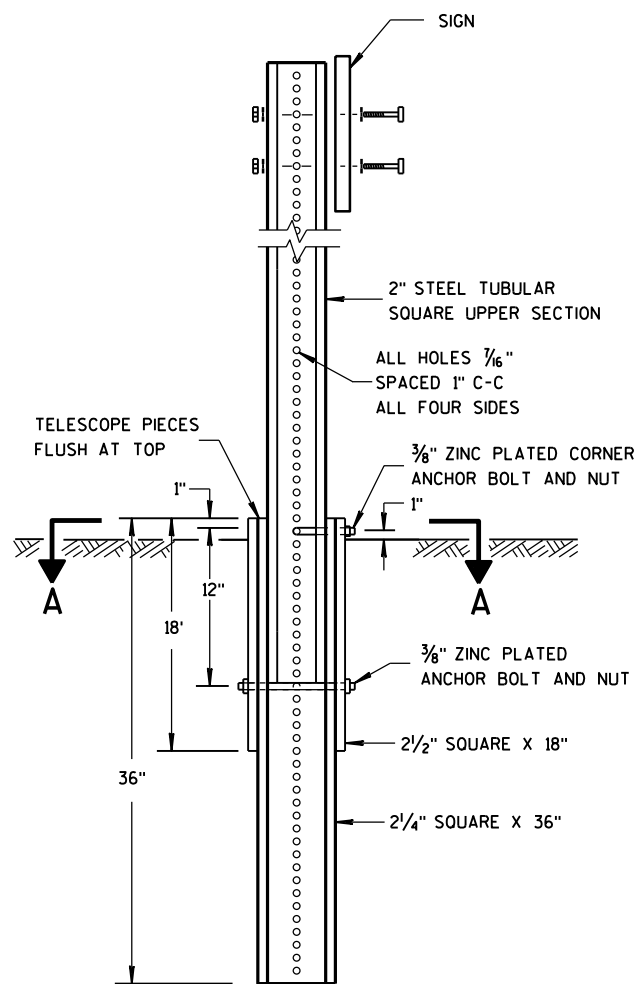


TYPE III BARRICADE

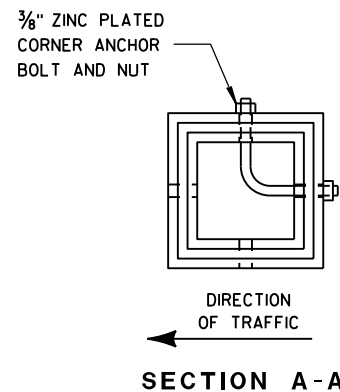
IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

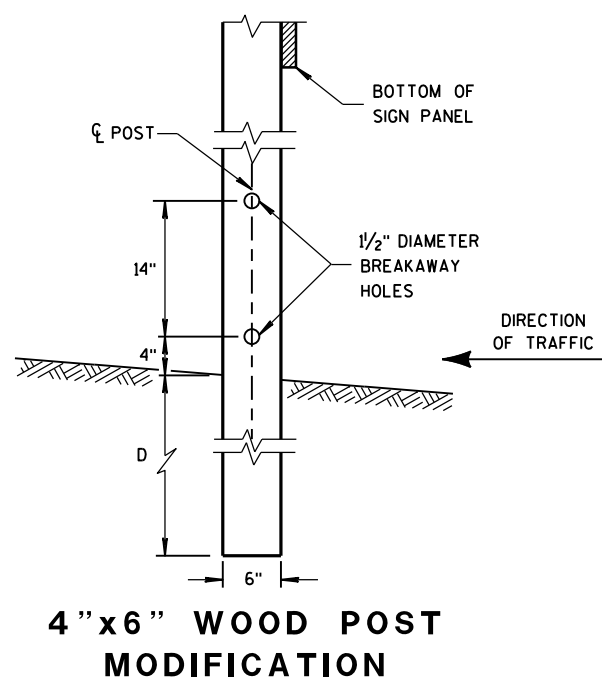
CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE May 2021	/S/ Andrew Heidtke WORK ZONE ENGINEER
<small>FHWA</small>	



DETAIL OF TUBULAR STEEL SIGN POST



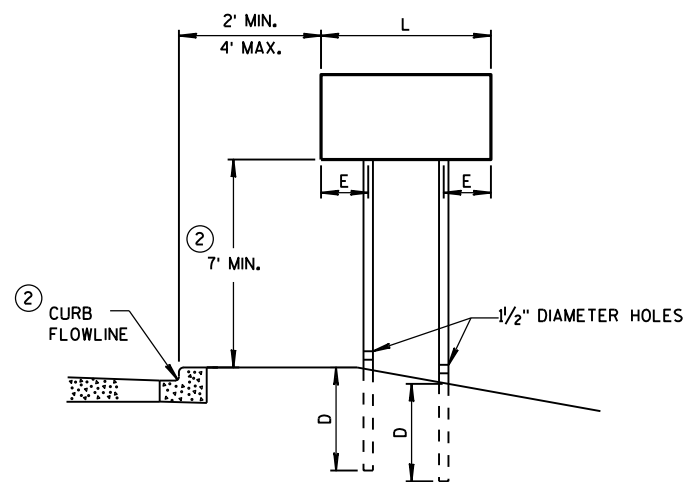
SECTION A-A



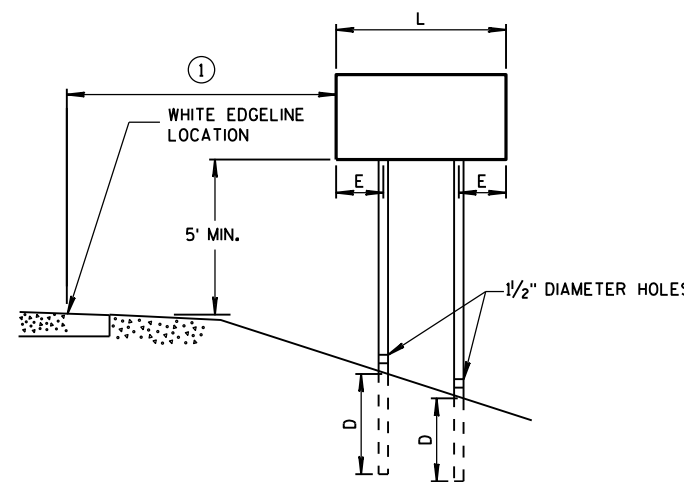
4" X 6" WOOD POST MODIFICATION

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'

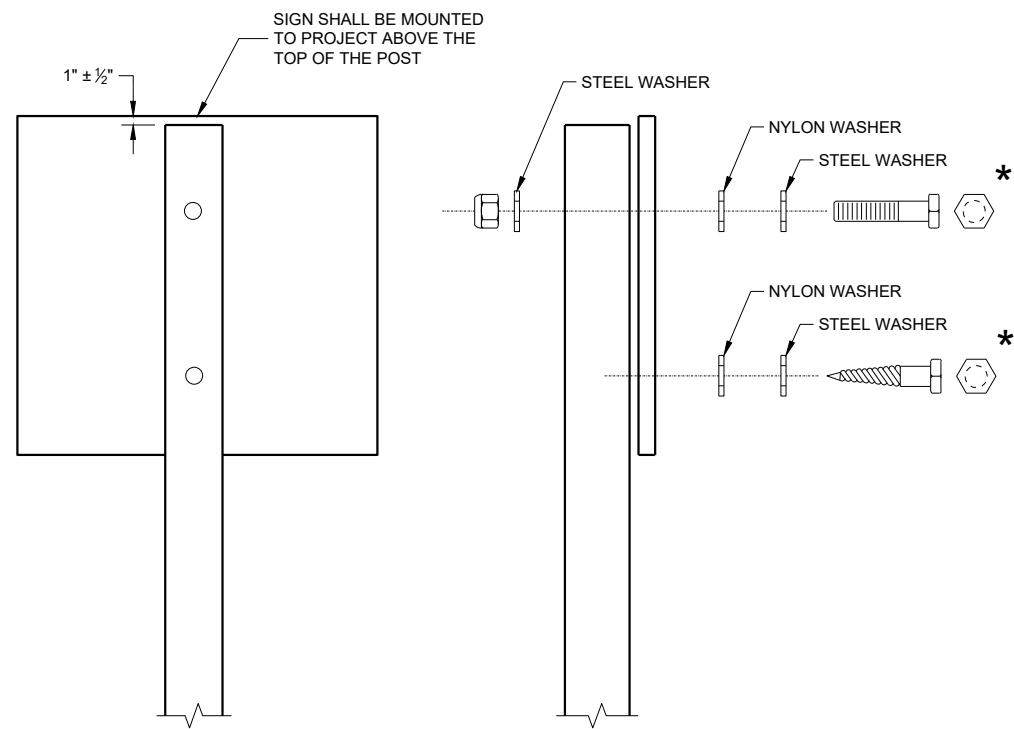
4" X 6" WOOD POST

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 TRANSPORTATION



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

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

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

WOOD POST (4" x 6")

- LAG SCREWS - 3/8" x 3"
- MACHINE BOLTS - 5/16" x 6 1/2" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")

- MACHINE BOLTS - 3/8" x 3 1/4" LENGTH W/NUTS
- RIVETS - 3/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 INCH

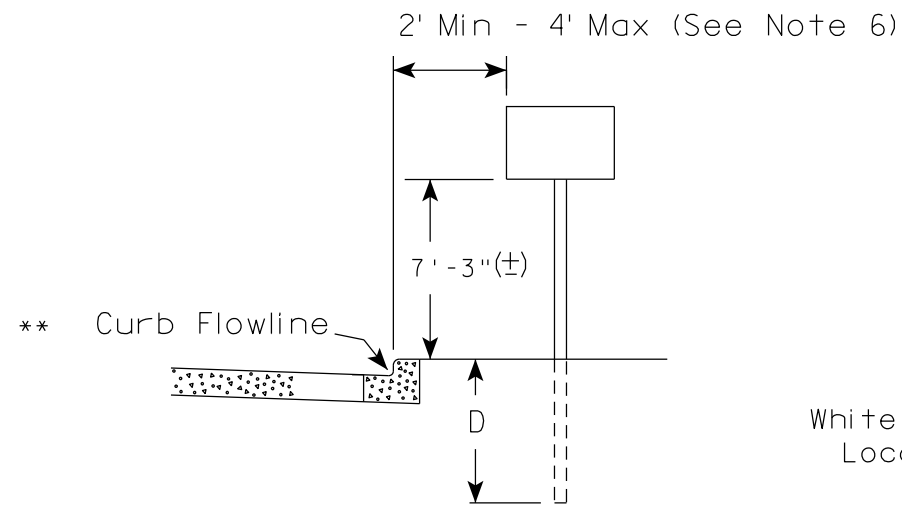
WASHERS (ALL POSTS) -

- 1 1/4" O.D. x 3/8" I.D. x 1/16" STEEL
- 1 1/4" O.D. x 3/8" I.D. x 0.080 NYLON

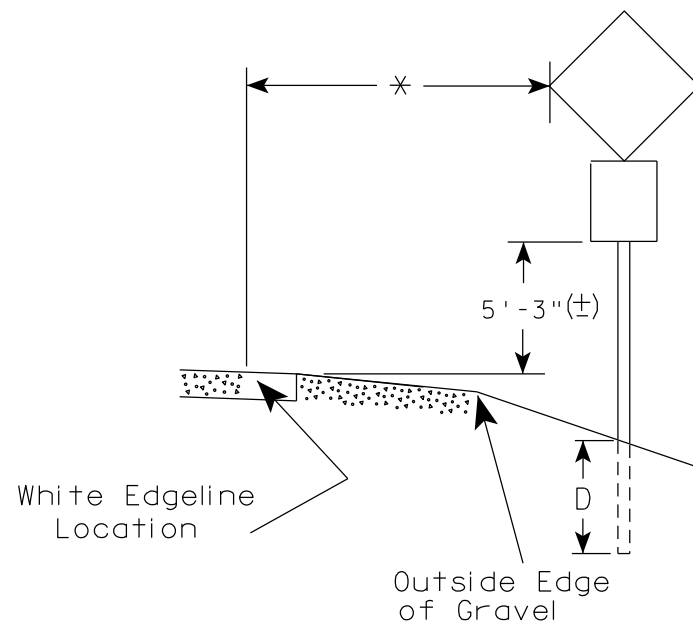
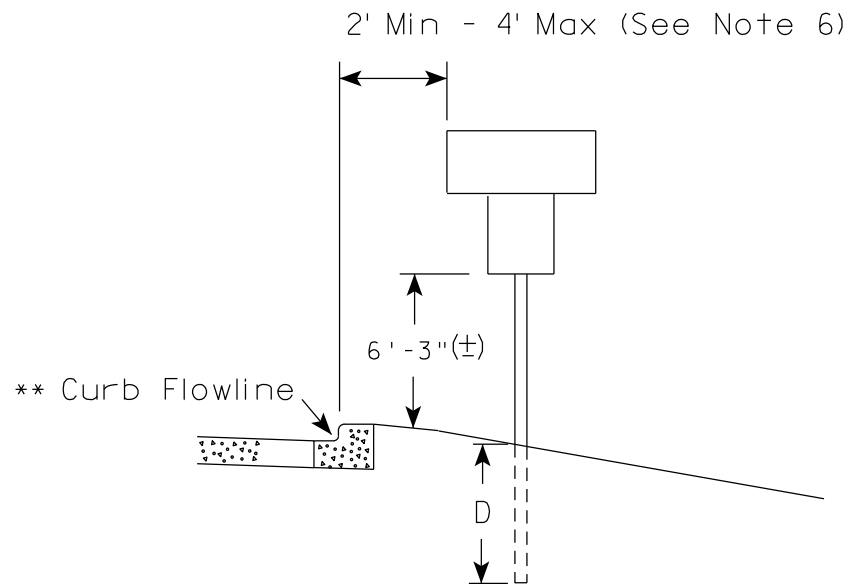
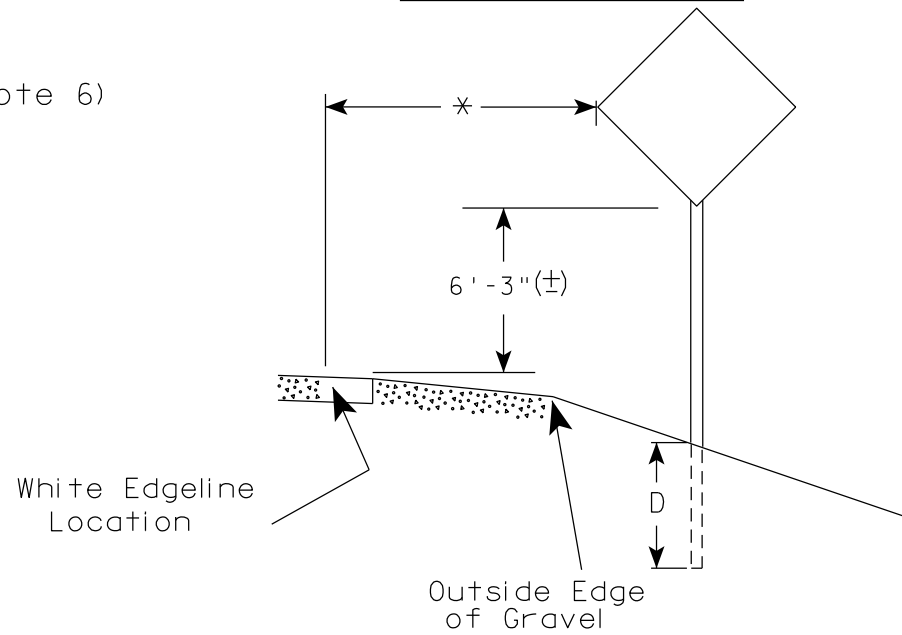
* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

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

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

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 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

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

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



ELEVATION VIEW

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



PLAN VIEW

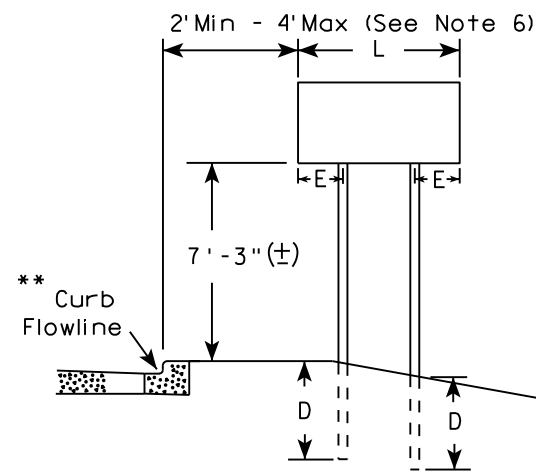
FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
<small>DATE 1/27/14</small>	<small>PLATE NO. A4-3B.1</small>

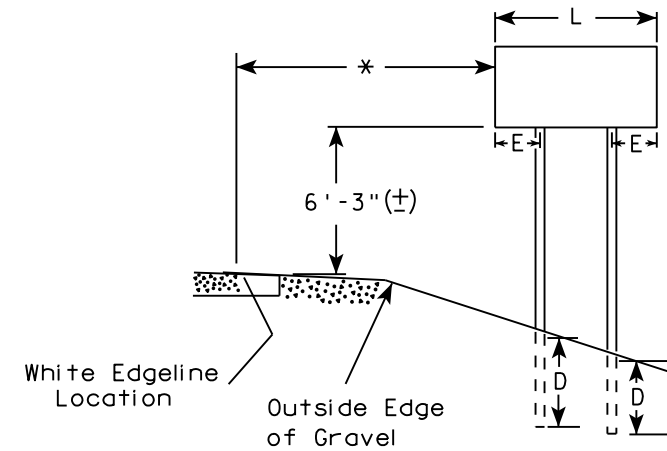
GENERAL NOTES

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

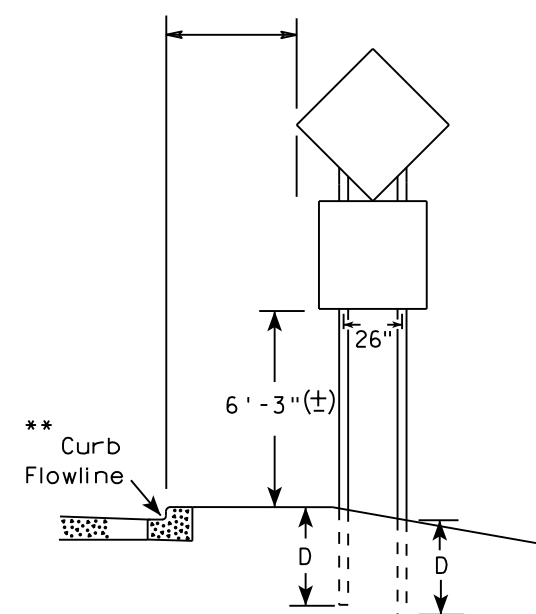
URBAN AREA



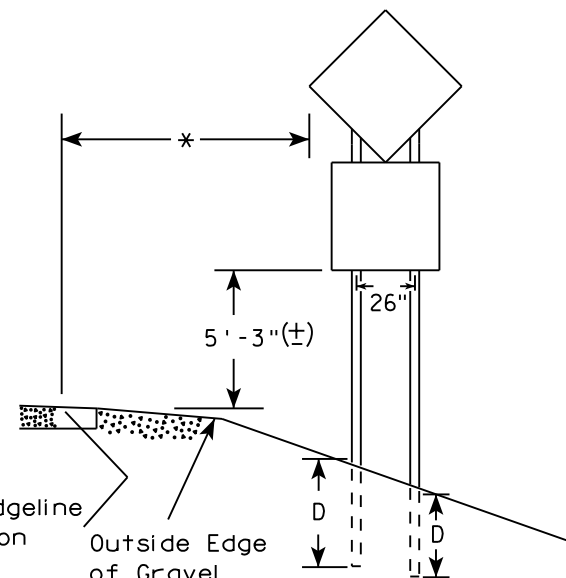
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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

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

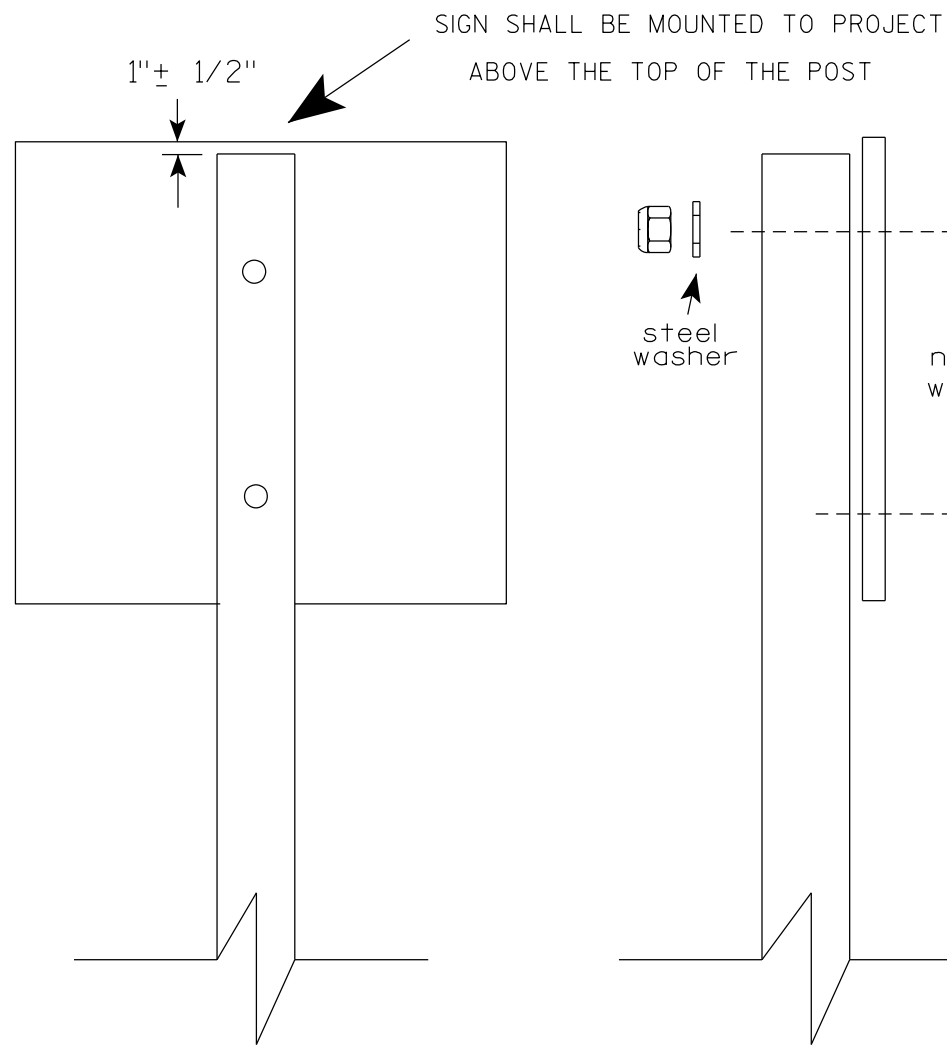
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 For State Traffic Engineer
 DATE 8/21/17 PLATE NO. A4-4.15



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

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

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

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

ATTACHMENT OF SIGNS
TO POSTS

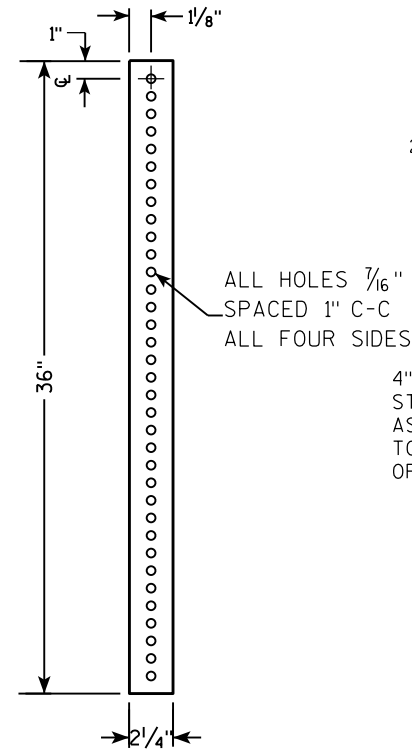
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

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

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

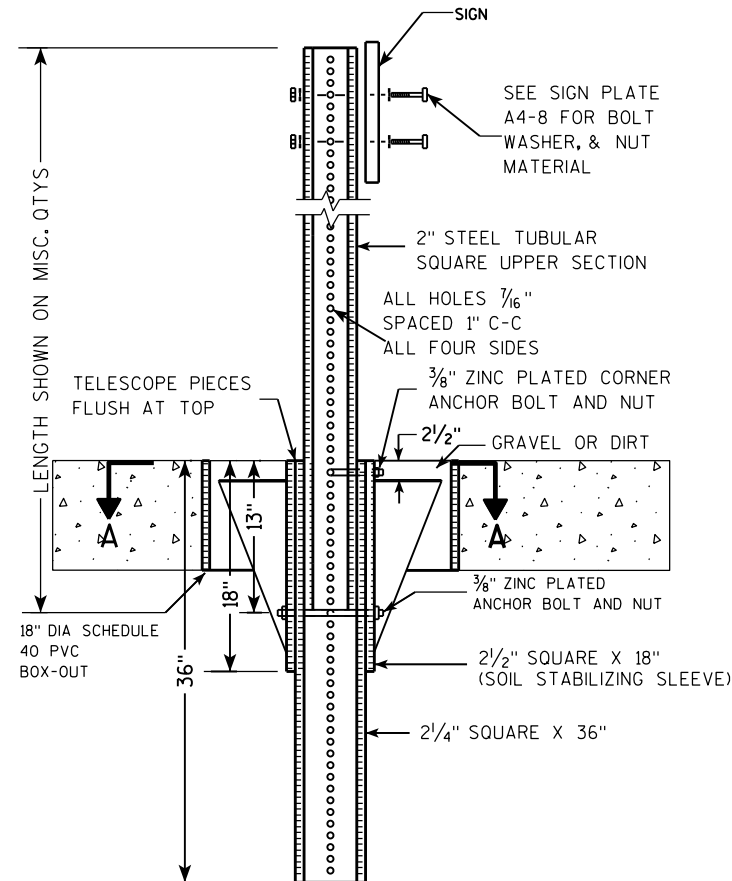
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



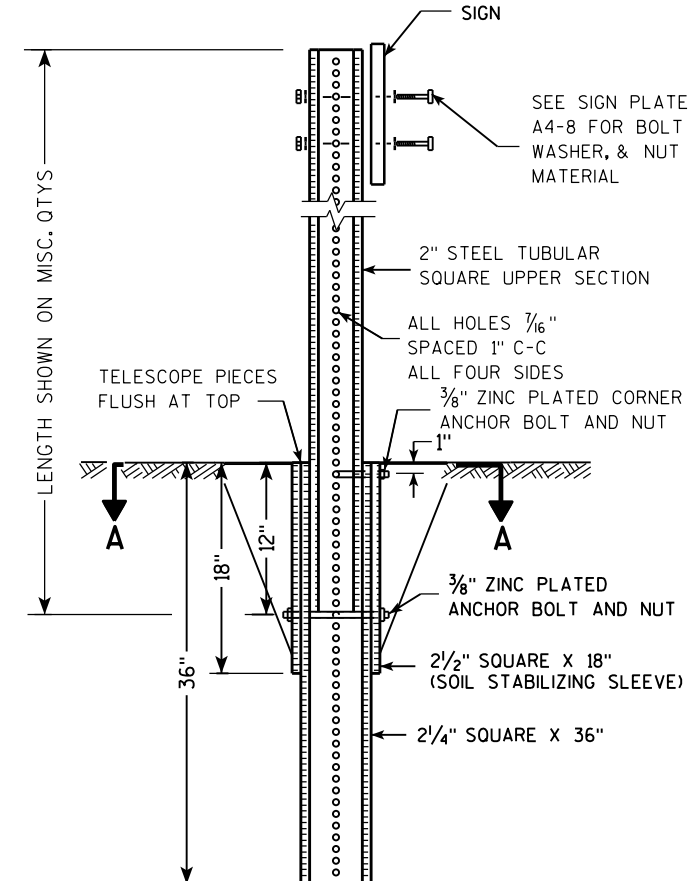
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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



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

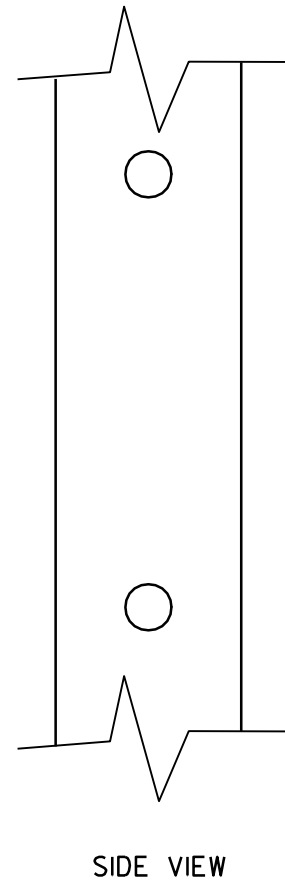
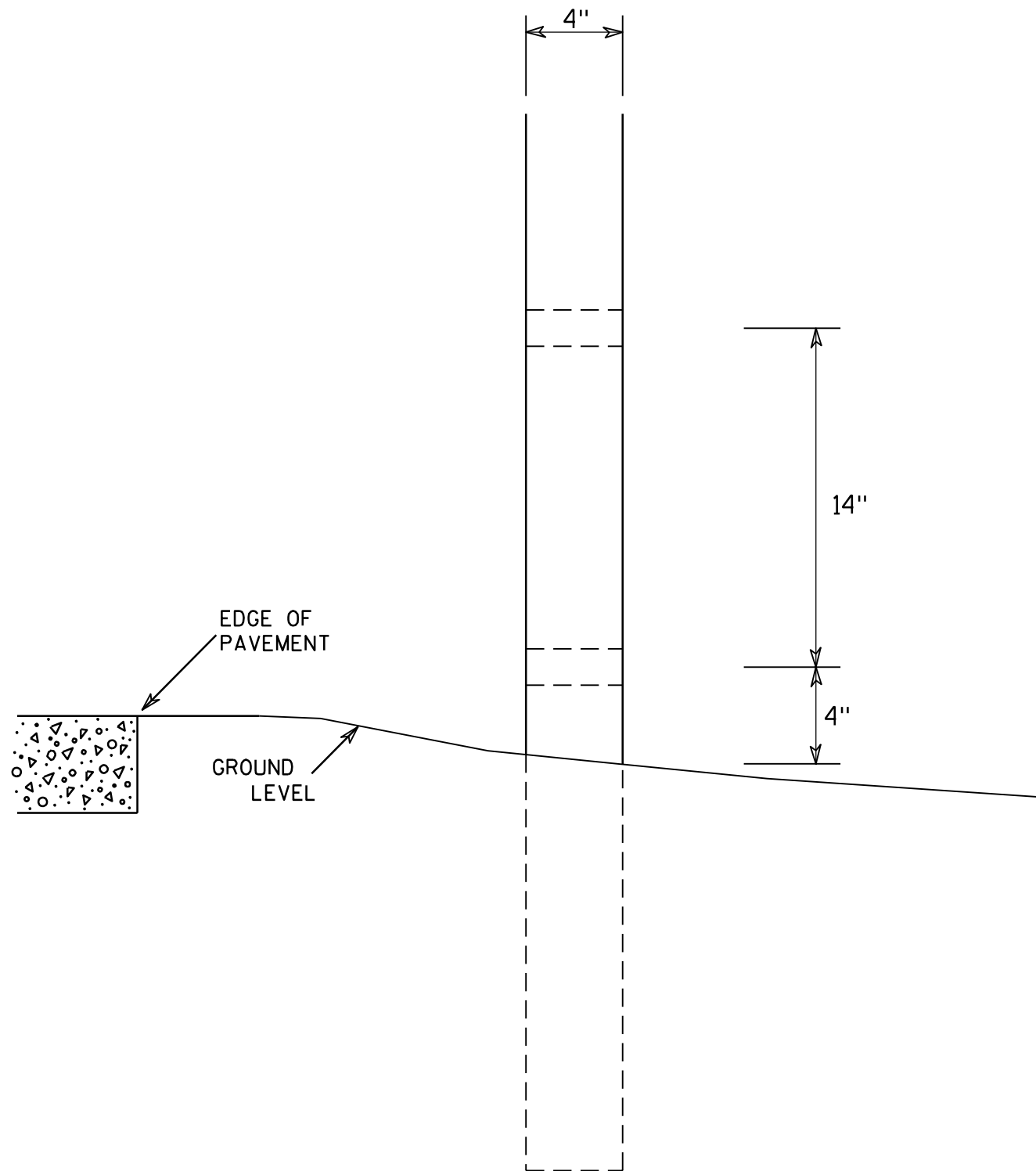
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9



GENERAL NOTES

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

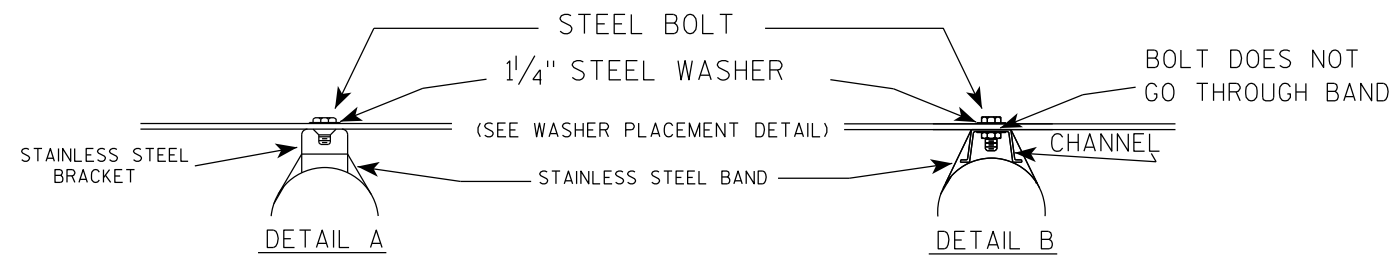
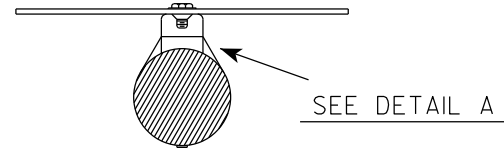
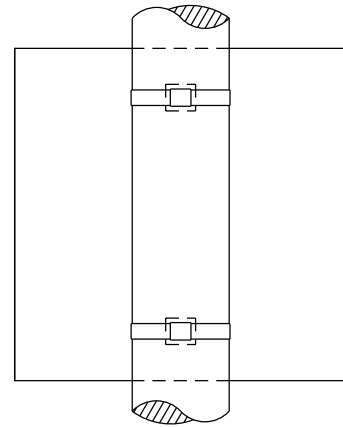
7

7

4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J. Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

BANDING

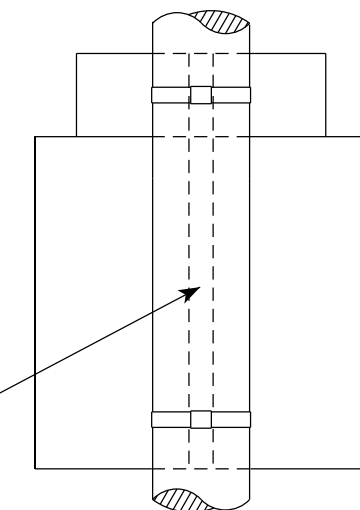
SINGLE SIGN



GENERAL NOTES

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

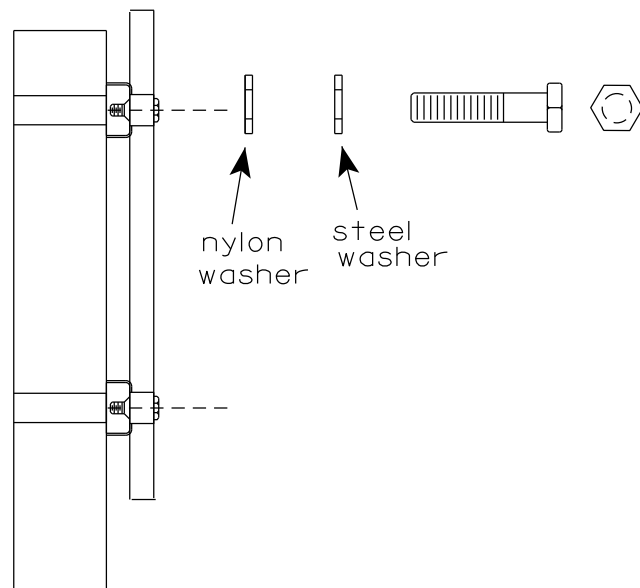
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



WASHER PLACEMENT



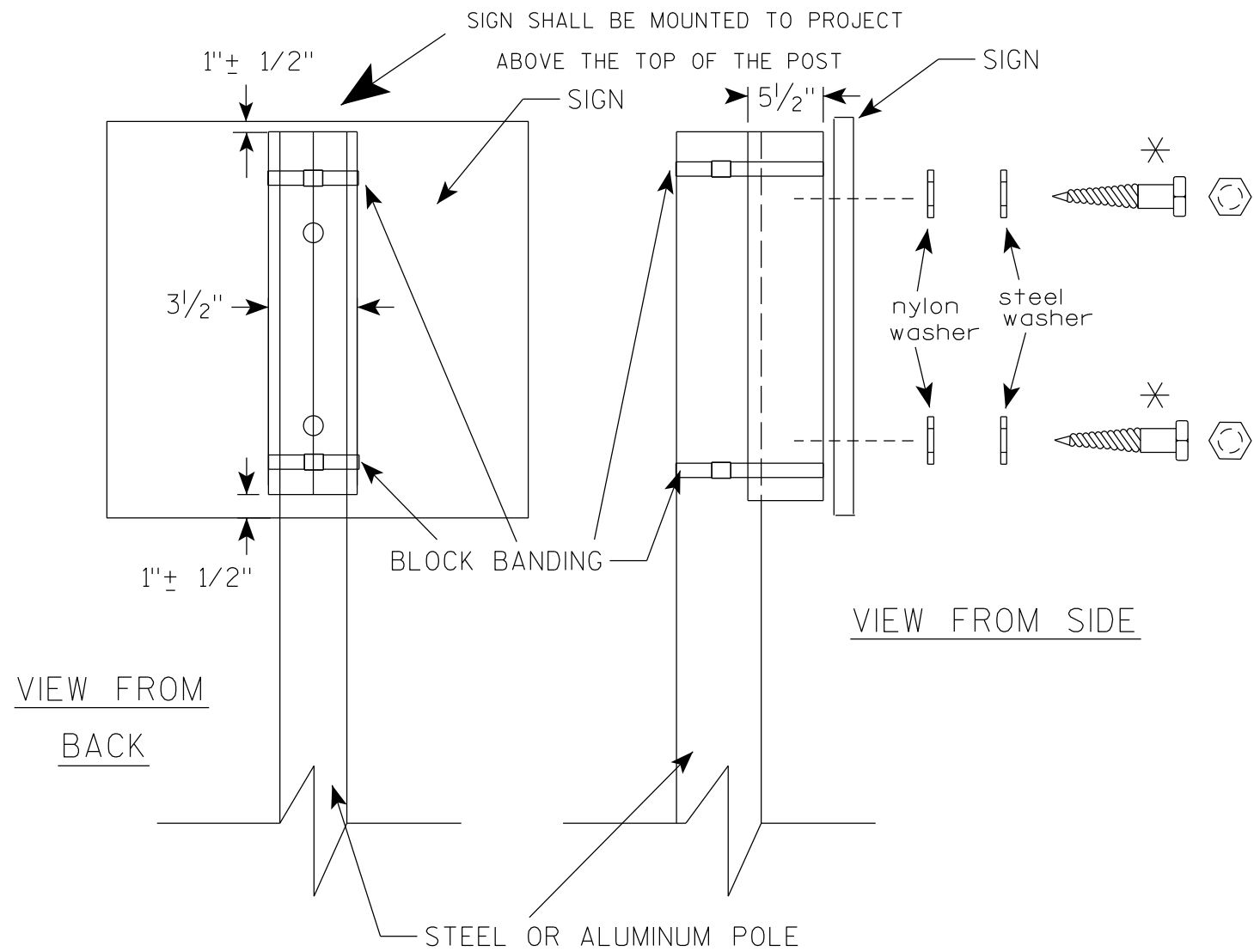
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

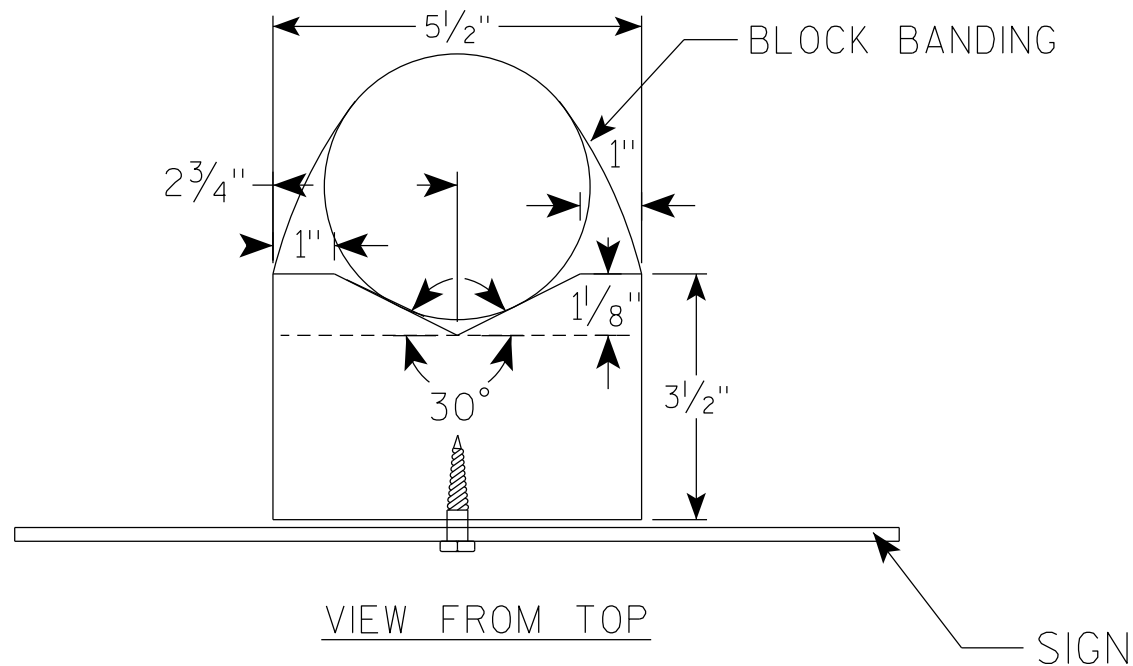
DATE 6/10/19 PLATE NO. A5-9.4



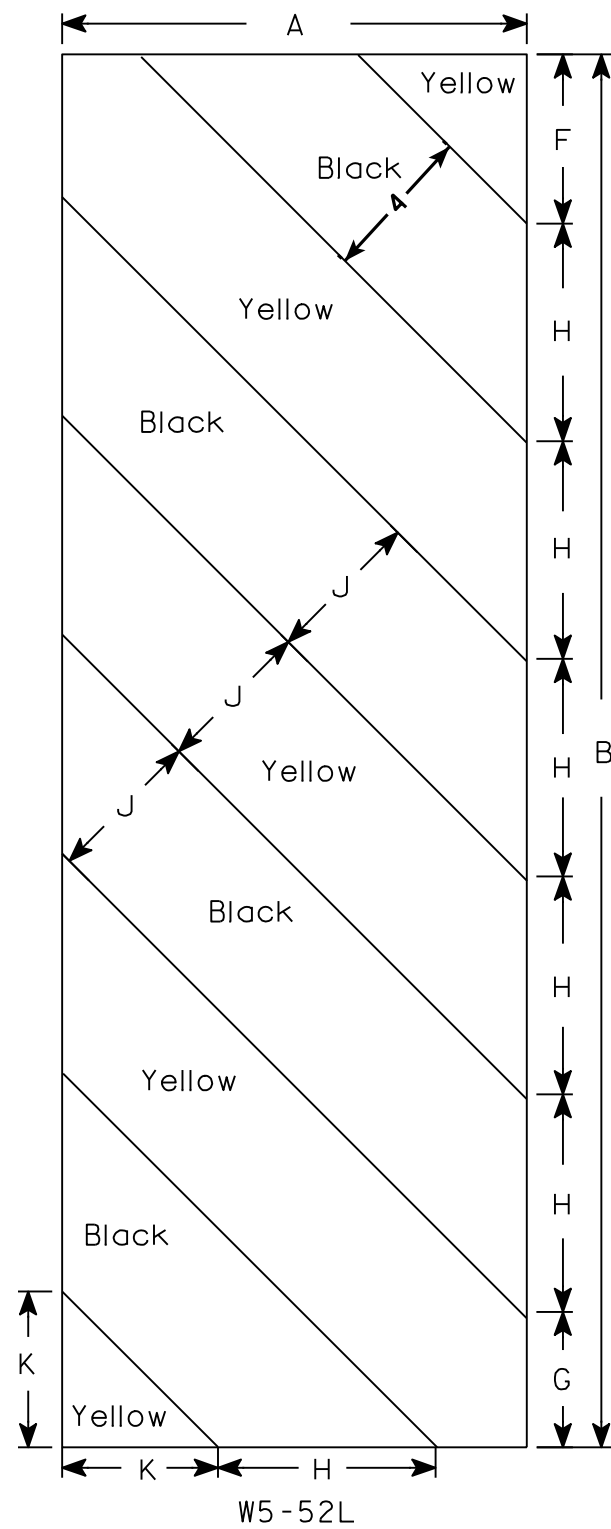
GENERAL NOTES

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

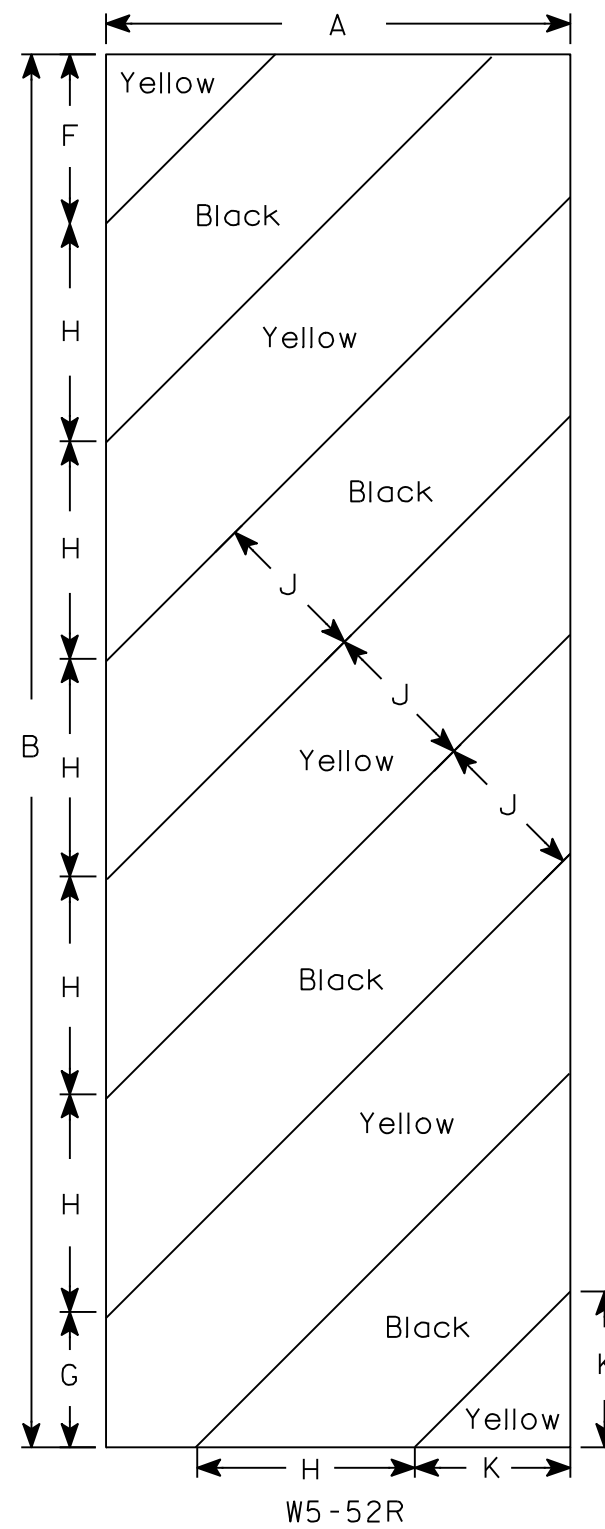
✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"



BLOCK BANDING DETAIL (V-BLOCK OPTION)	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> for State Traffic Engineer
DATE 6/10/19	PLATE NO. A5-10.2



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.

7

7

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: _____ E

DESIGN DATA

LIVE LOAD:

DESIGN LOADING _____ HL-93
 INVENTORY RATING FACTOR _____ RF=1.07
 OPERATING RATING FACTOR _____ RF=1.57
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) _____ 250 KIPS

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

MATERIAL PROPERTIES:

CONCRETE MASONRY, SUPERSTRUCTURE _____ f_c = 4,000 P.S.I.
 ALL OTHER _____ f_c = 3,500 P.S.I.
 HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 _____ f_y = 60,000 P.S.I.
 36-INCH PRESTRESSED GIRDER CONCRETE MASONRY _____ f_c = 8,000 P.S.I.
 STRANDS 0.5 INCH DIA. WITH ULTIMATE TENSILE STRENGTH _____ f_y = 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 35 FT PILE LENGTHS AT BOTH ABUTMENTS. PILE POINTS ARE REQ'D. AT ALL LOCATIONS. PREBORING REQ'D. AT THE NORTH 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.

TRAFFIC DATA

A.D.T. (2022) _____ 35
 A.D.T. (2042) _____ 55
 DESIGN SPEED _____ 40 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY _____
 DRAINAGE AREA _____ 43.10 SQ. MI.
 Q₁₀₀ TOTAL _____ 1,140 C.F.S.
 THROUGH STRUCTURE _____ 1,140 C.F.S.
 OVERTOPPING ROADWAY _____ N/A
 VELOCITY - THROUGH STRUCTURE _____ 3.64 F.P.S.
 WATERWAY AREA - THROUGH STRUCTURE _____ 313 SQ. FT.
 HIGH WATER₁₀₀ ELEVATION _____ 882.24
 SCOUR CRITICAL CODE _____ 5

EROSION CONTROL
 Q₂ _____ 535 C.F.S.
 VELOCITY₂ _____ 2.81 F.P.S.
 HIGH WATER₂ ELEVATION _____ 879.57

LIST OF DRAWINGS

GENERAL PLAN	1.
CROSS SECTION AND QUANTITIES	2.
SUBSURFACE EXPLORATION	3.
SOUTH ABUTMENT	4.
SOUTH ABUTMENT DETAILS	5.
NORTH ABUTMENT	6.
NORTH ABUTMENT DETAILS	7.
GIRDER LAYOUT	8.
36-INCH PRESTRESSED GIRDER DETAILS	9.
STEEL DIAPHRAGM	10.
SUPERSTRUCTURE	11.
SUPERSTRUCTURE DETAILS	12.
TUBULAR RAILING TYPE M	13.

RIPRAP HEAVY LAYOUT

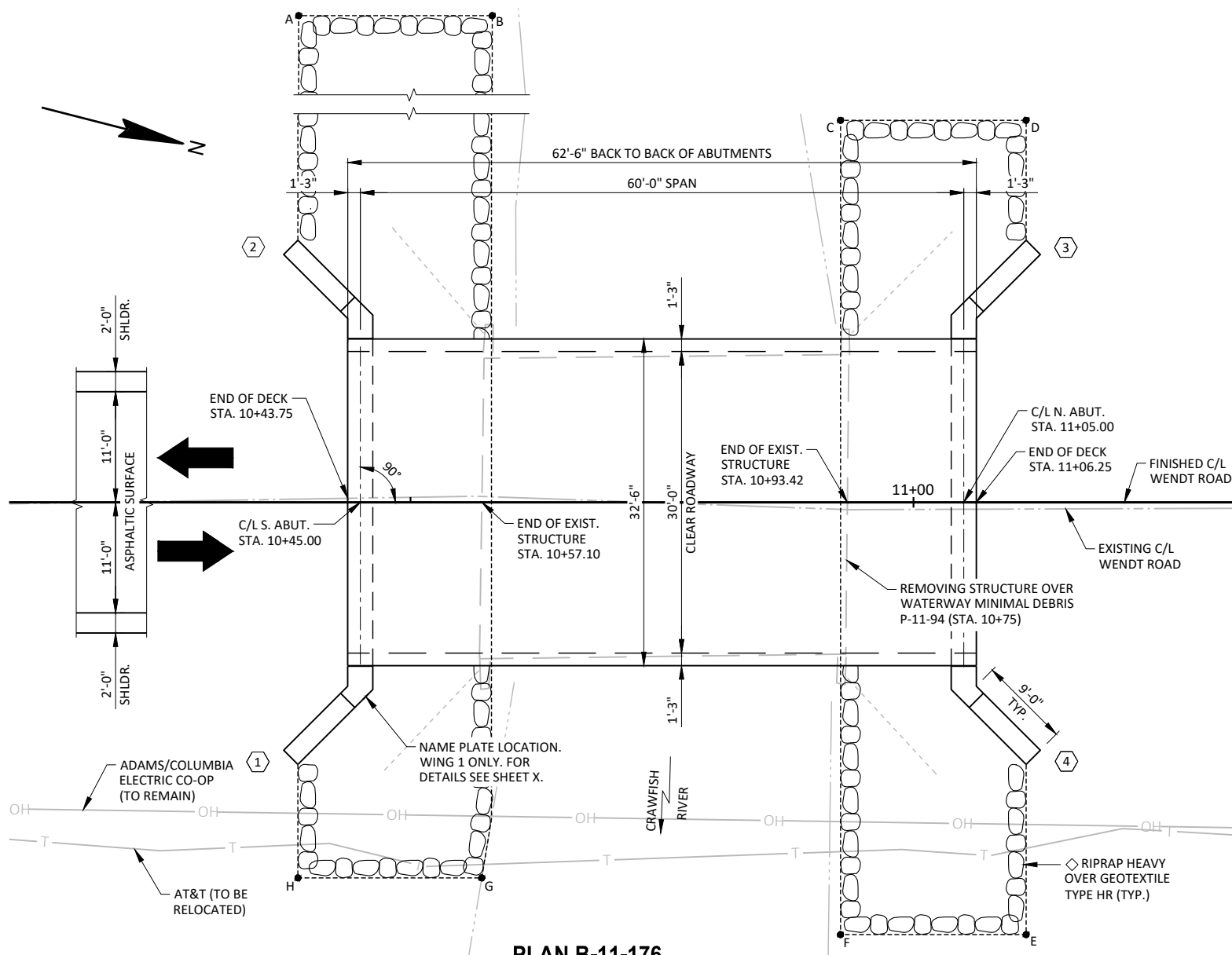
POINT	STATION	OFFSET
A	10+39	51' LT.
B	10+58	51' LT.
C	10+93	38' LT.
D	11+11	38' LT.
E	11+11	43' RT.
F	10+93	43' RT.
G	10+57	37' RT.
H	10+39	37' RT.

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	7+37	3/4" IRON REBAR SET, 13.9' RT	890.36
2	11+28	3/4" IRON REBAR SET, 11.0' LT	889.12
3	14+15	3/4" IRON REBAR SET, 22.0' LT	892.40

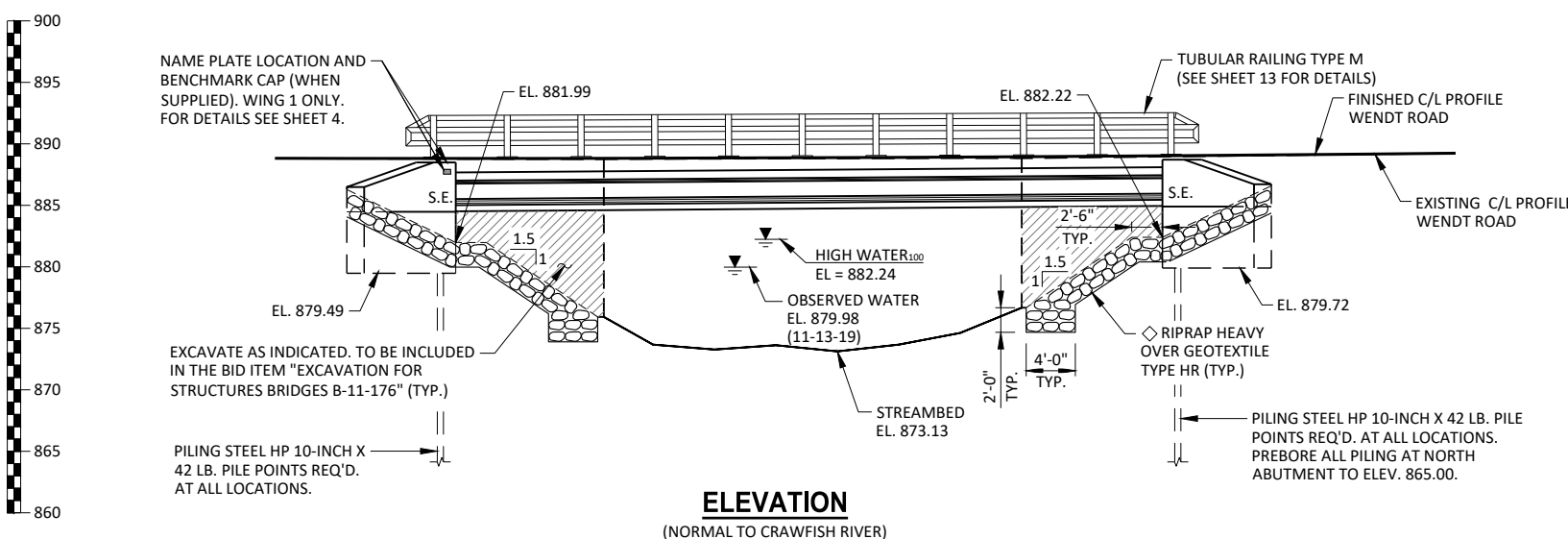
LEGEND

- INDICATES WING NUMBER
- ◇ VOIDS IN THE RIPRAP HEAVY SHALL BE FILLED WITH 6" STONE. COST OF THE 6-INCH STONE IS PAID FOR UNDER BID ITEM "MATERIAL FOR TRAVEL CORRIDOR". ENTIRE SURFACE OF RIPRAP HEAVY TO BE COVERED.



PLAN B-11-176

(SINGLE-SPAN 36-INCH PRESTRESSED GIRDER STRUCTURE)



ELEVATION

(NORMAL TO CRAWFISH RIVER)



DESIGN CONSULTANT
 PATRICK BOLAND, PE
 (608) 588-7484

BRIDGE OFFICE CONTACT
 AARON BONK, PE
 (608) 261-0261

NO.	DATE	REVISION	BY

JEWELL 560 SUNRISE DRIVE
 SPRING GREEN, WI 53588
 OFFICE: (608) 588-7484
 www.jewellassoc.com

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

ACCEPTED *[Signature]* SDR **08/05/21**
 CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-11-176
 WENDT ROAD OVER CRAWFISH RIVER

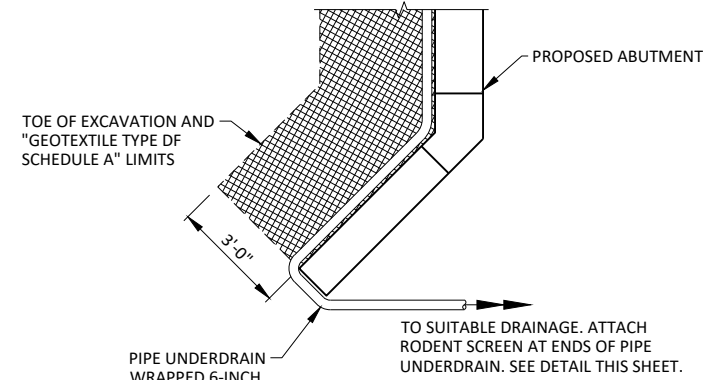
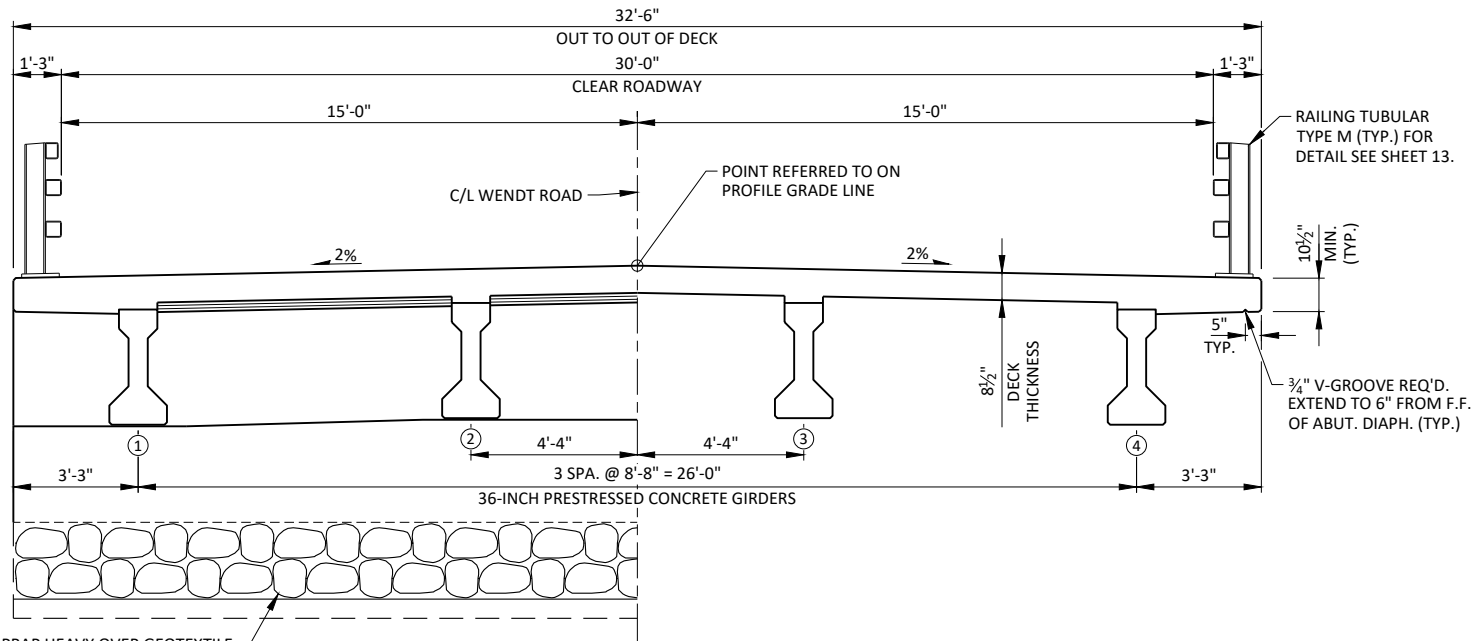
COUNTY: COLUMBIA TOWN/CITY/VILLAGE: COLUMBUS

DESIGN SPEC: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY: PMF DESIGN CK'D: PTB DRAWN BY: PMF PLANS CK'D: PTB

GENERAL PLAN

SHEET 1 OF 13

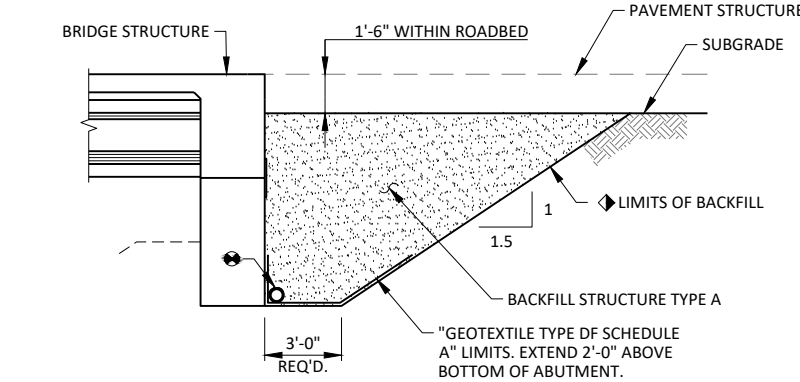


PIPE UNDERDRAIN DETAIL

GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88).
- JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.
- THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER IN THE FIELD. VOIDS IN THE RIPRAP HEAVY SHALL BE FILLED WITH 6-INCH STONE. COST OF THE 6-INCH STONE IS PAID FOR UNDER BID ITEM "MATERIAL FOR TRAVEL CORRIDOR".
- AT THE BACK FACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A. SEE THIS SHEET FOR DETAIL.
- APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE DECK, THE SIDES OF THE DECK, AND THE EXTERIOR 12" OF THE UNDERSIDE OF THE DECK (CONCRETE MATERIAL ONLY).
- THE EXISTING STRUCTURE IS A SINGLE-SPAN TIMBER DECK GIRDER STRUCTURE WITH A TIMBER DECK SUPPORTED ON TIMBER ABUTMENTS. THE STRUCTURE HAS A 29.7' OVERALL WIDTH AND IS 36.5' LONG AND SHALL BE REMOVED.
- ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.
- THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.
- THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.
- HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET, WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

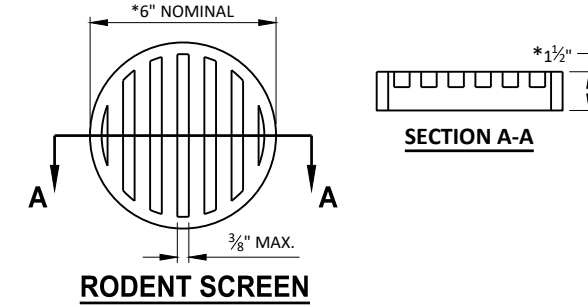
AT ABUTMENT IN SPAN
PROPOSED CROSS-SECTION THROUGH ROADWAY
LOOKING NORTH



BACKFILL STRUCTURE DETAIL

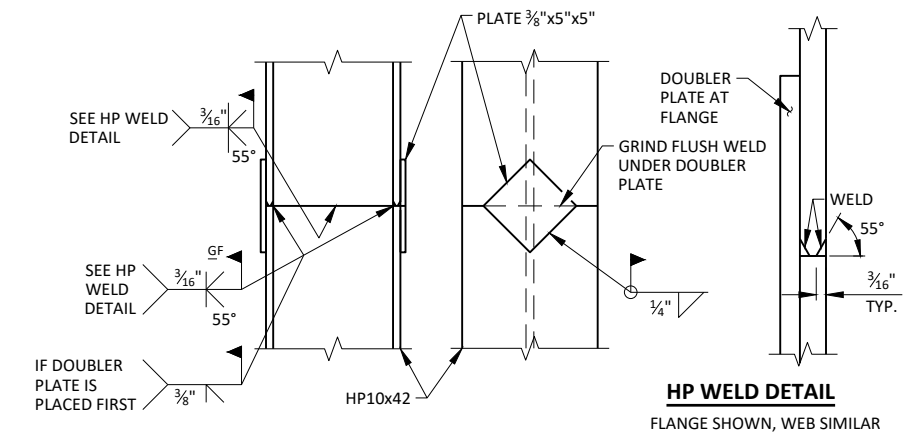
(TYPICAL AT BOTH ABUTMENTS. ABUTMENT BODY SOWN, - WING WALLS SIMILAR)

- BACKFILL STRUCTURE TYPE A PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO THE BID ITEM "EXCAVATION FOR STRUCTURES B-11-176". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PIPE UNDERDRAIN WRAPPED 6-INCH, SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."



RODENT SCREEN

- NOTES:
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.
ORIENT SHIELD SO SLOTS ARE VERTICAL.
THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".
THE RODENT SCREEN SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED ENDS OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

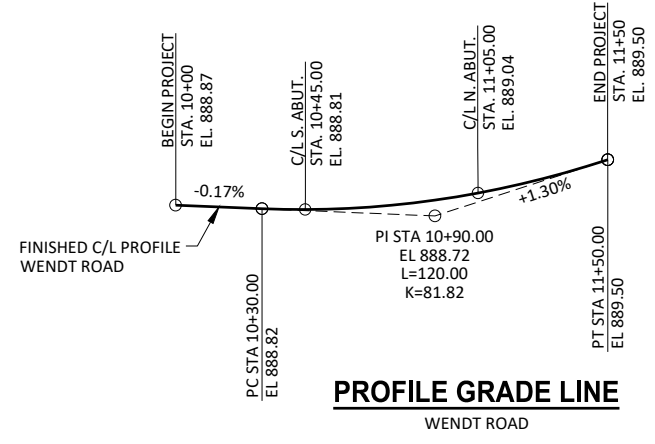


PILE SPLICE DETAIL

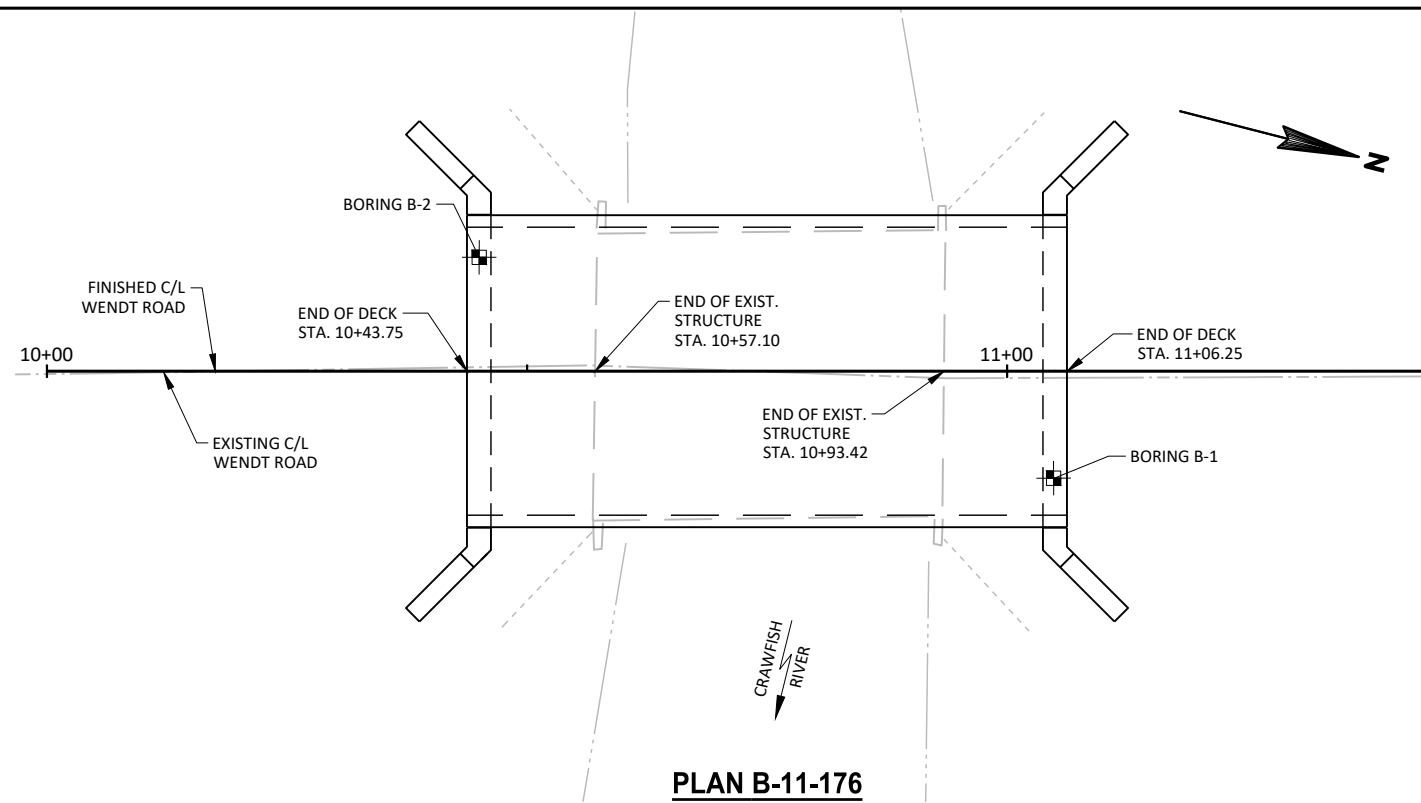
STEEL "HP" PILE MATERIAL SHALL BE ASTM A 572 GRADE 50.

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	S. ABUT.	SUPER.	N. ABUT.	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-11-94	EACH	--	--	--	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-11-176	LS	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	240	--	240	480
502.0100	CONCRETE MASONRY BRIDGES	CY	31	77	31	139
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	250	--	250
503.0136	PRESTRESSED GIRDER TYPE I 36-INCH	LF	--	244	--	244
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,430	--	2,430	4,860
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,470	15,290	1,470	18,230
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	4	--	4	8
506.4000	STEEL DIAPHRAGMS B-11-176	EACH	--	3	--	3
513.4061	RAILING TUBULAR TYPE M	LF	--	130	--	130
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	7	--	7	14
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	100	--	--	100
550.0500	PILE POINTS	EACH	7	--	7	14
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	245	--	245	490
606.0300	RIPRAP HEAVY	CY	135	--	115	250
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	75	--	75	150
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	55	--	55	110
645.0120	GEOTEXTILE TYPE HR	SY	220	--	190	410
SPV.0195.01	MATERIAL FOR TRAVEL CORRIDOR	TON	55	--	45	100
NON-BID ITEMS						
	FILLER	SIZE	--	--	--	1/2" & 3/4"
	NAME PLATE					



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-176			
DRAWN BY		PMF	PLANS CK'D. PTB
CROSS SECTION AND QUANTITIES			SHEET 2 OF 13



SOIL BORINGS			
BORING NUMBER	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	04/14/20	330,415.7	630,603.7
B-2	04/14/20	330,351.9	630,596.0

BORINGS & REPORT COMPLETED BY: AMERICAN ENGINEERING TESTING, INC. 4203 SCHOFIELD AVE. SUITE 1 SCHOFIELD, WI 54476

STATE PROJECT NUMBER
6217-00-79

MATERIAL SYMBOLS

Asphalt	Topsoil	Peat
Concrete	Fill	Gravel
Sand	Clay	Silt
Boulders or Cobbles	Limestone	Bedrock (unknown)
Shale	Sandstone	Igneous/meta

LEGEND OF BORING

ST
0.25 (1) 17 (2)

F-C
COBBLE OR BOULDER

WEATHERED LIMESTONE

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

(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 ELEVATIONS

▽ AT TIME OF DRILLING

▽ END OF DRILLING

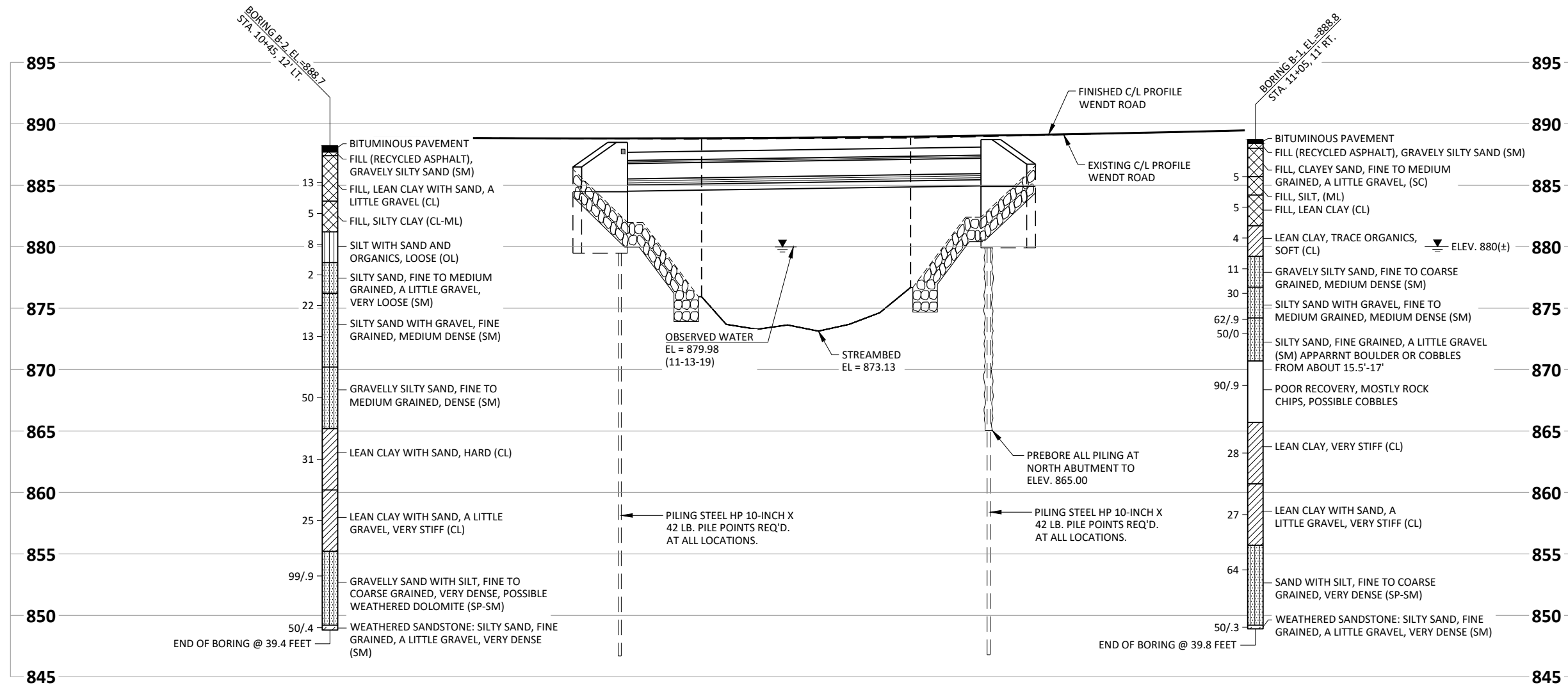
▽ AFTER DRILLING

ABBREVIATIONS

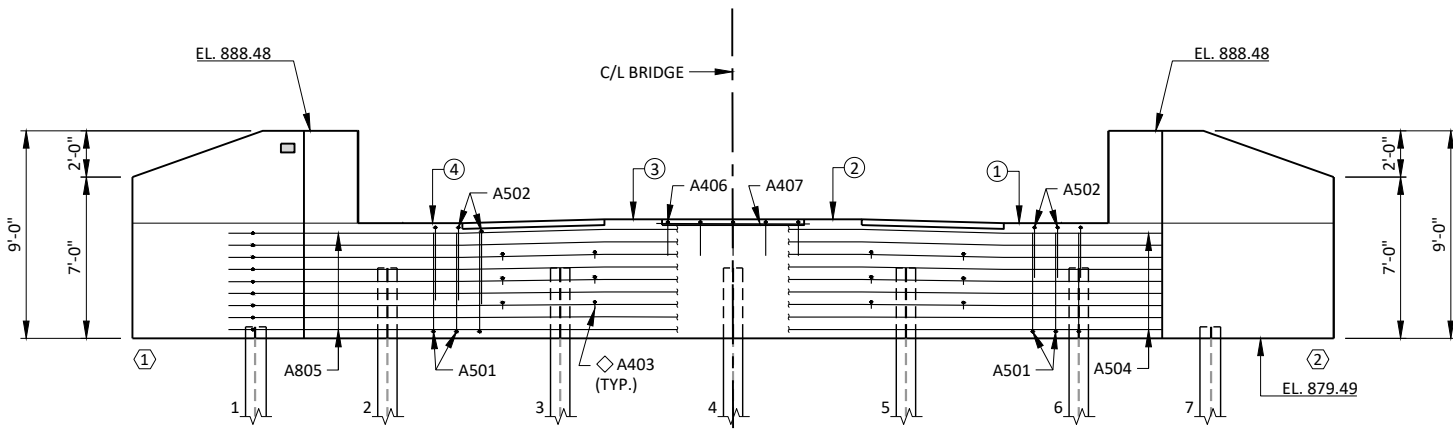
F-FINE M-MEDIUM C-COURSE ST-SHELBY TUBE

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.



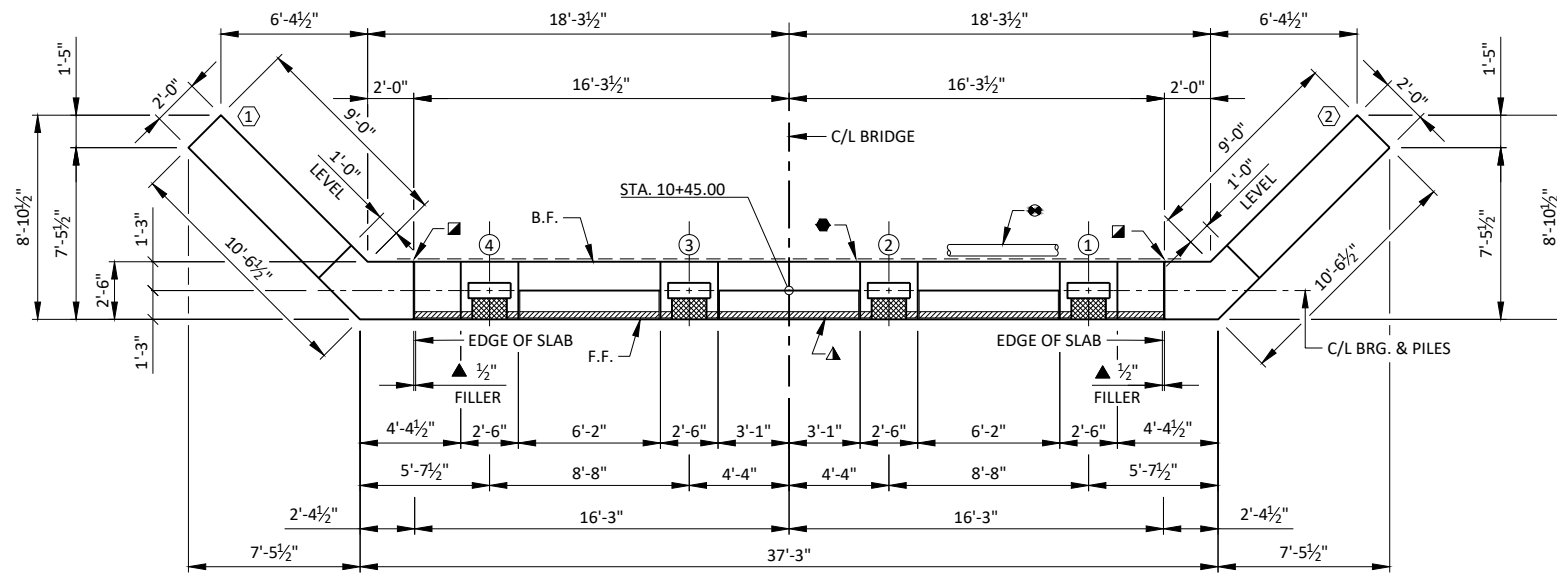
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-176			
DRAWN BY: P.M.F.		PLANS CK'D: P.T.B.	
SUBSURFACE EXPLORATION		SHEET 3 OF 13	



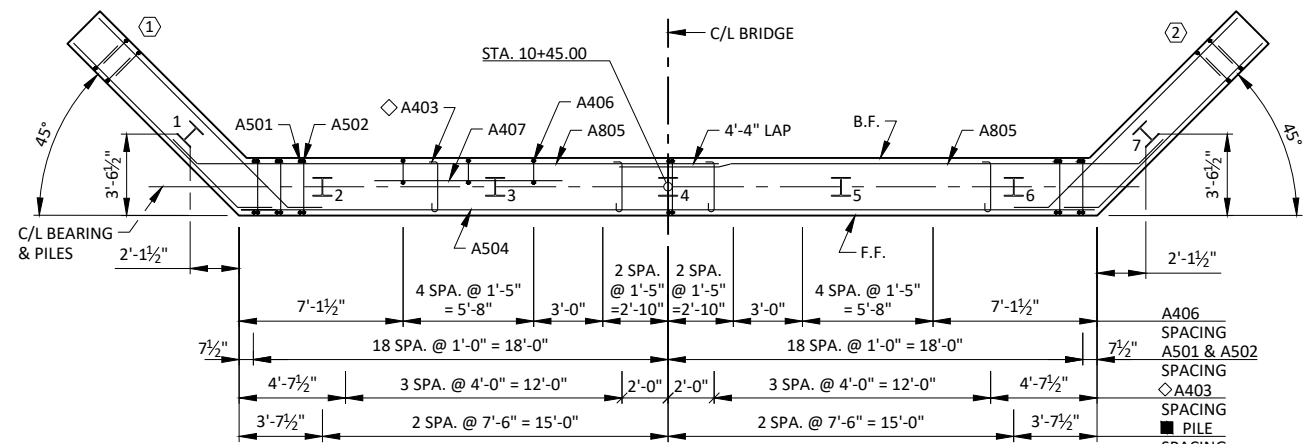
BACK FACE BAR STEEL REINF.

FRONT FACE BAR STEEL REINF.

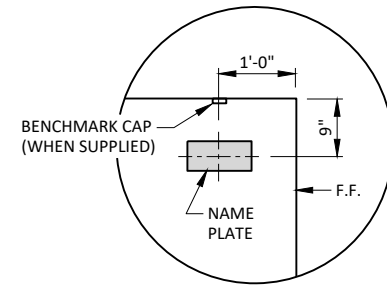
ELEVATION
(SOUTH ABUTMENT LOOKING SOUTH)



PLAN



LAYOUT



NAME PLATE AND BENCHMARK CAP DETAIL
(WING 1 ONLY)

NOTES

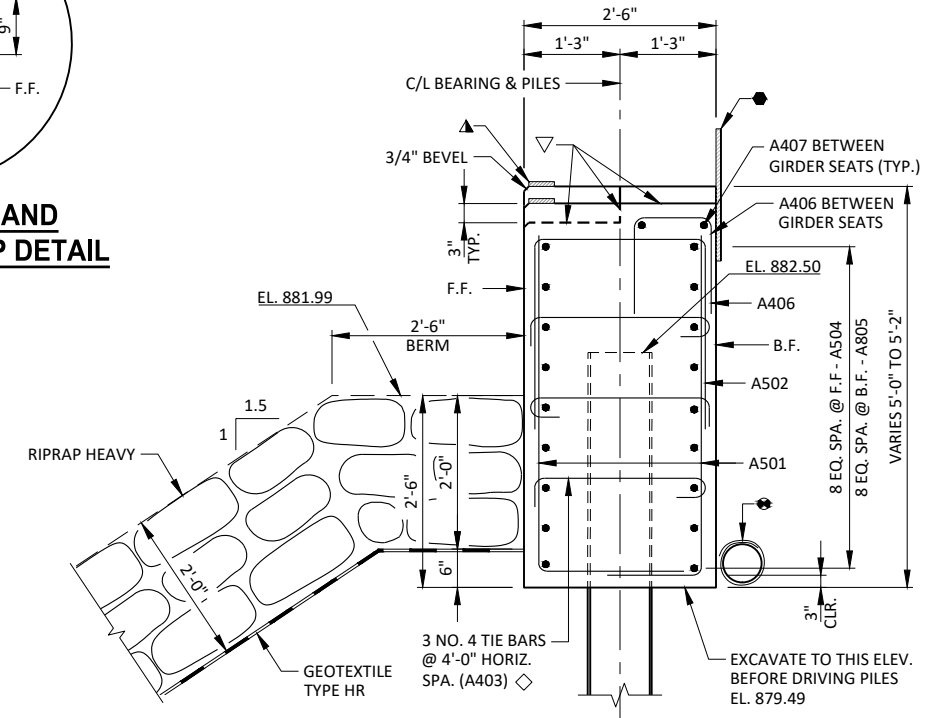
SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 5 FOR BILL OF BARS.

DO NOT PLACE FILL HIGHER THAN 3 FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

B.F. - BACK FACE

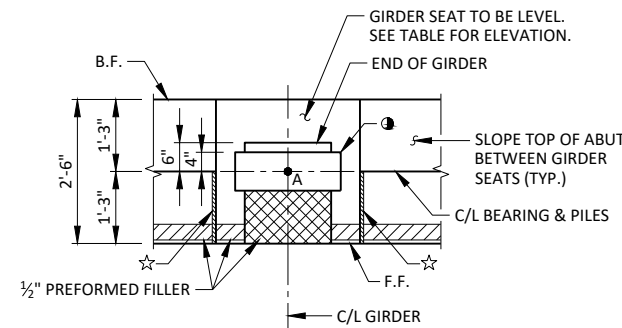


ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 35 FT. PILE LENGTHS AT SOUTH ABUTMENT. PILE POINTS REQUIRED AT ALL LOCATIONS.

TYPICAL SECTION THROUGH ABUTMENT BODY

LEGEND

- VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE)
- ▲ 1/2" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF DIAPHRAGM. USE 1/2" PREFORMED FILLER UNDER GIRDERS.
- PILE SPACING MEASURED AT BASE OF ABUTMENT BODY.
- PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."
- ☆ 3/4" CORK FILLER ON VERTICAL GIRDER SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- 1/2"x8"x1'-10" NON-LAMINATED ELASTOMERIC BEARING PAD.
- ▽ STEEL TROWEL ENTIRE TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ◊ ALTERNATE THE POSITION OF THE 90° AND THE 180° BENDS AT EACH VERTICAL LAYER OF TIES.
- INDICATES WING NUMBER.



GIRDER SEAT DETAIL
INTERIOR GIRDER SHOWN.
EXTERIOR GIRDERS SIMILAR.

GIRDER SEAT ELEVATIONS

GIRDER NUMBER	BEAM SEAT ELEV. (POINT A)
①	884.49
②	884.66
③	884.66
④	884.49

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-176			
DRAWN BY: PMP		PLANS CK'D: PTB	
SOUTH ABUTMENT			SHEET 4 OF 13

**BILL OF BARS
SOUTH ABUTMENT**

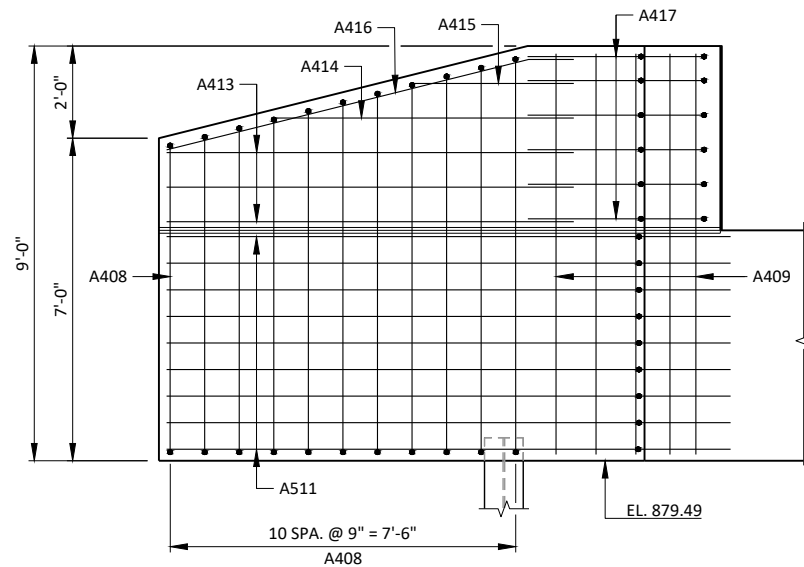
**1,470 LB (COATED)
2,430 LB (UNCOATED)**

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
A501	74	6-1	X			BODY - VERT. - F.F. & B.F.
A502	37	8-3	X			BODY - VERT. - TOP
A403	24	3-0	X			TIE BARS
A504	9	37-0				BODY - HORIZ. - F.F.
A805	18	24-6	X			BODY - HORIZ. - B.F.
A406	15	3-3	X			BODY - VERT. - TOP BETWEEN SEATS
A407	6	8-2				BODY - HORIZ. TOP BETWEEN SEATS
A408	44	10-1	X	X	*	WING 1 & 2 - VERT. - F.F. & B.F.
A409	18	8-7		X		WING 1 & 2 - VERT.
A410	2	4-4		X		WING 1 & 2 - VERT. - TOP
A511	18	11-9	X	X		WING 1 & 2 - HORIZ. - F.F.
A812	18	13-5	X	X		WING 1 & 2 - HORIZ. - B.F.
A413	12	8-10		X		WING 1 & 2 - HORIZ. - F.F. & B.F.
A414	4	6-7		X		WING 1 & 2 - HORIZ. - F.F. & B.F.
A415	4	3-7		X		WING 1 & 2 - HORIZ. - F.F. & B.F. - TOP
A416	4	9-1	X	X		WING 1 & 2 - HORIZ. - TOP
A417	12	9-6	X	X		WING 1 & 2 - HORIZ. - TOP

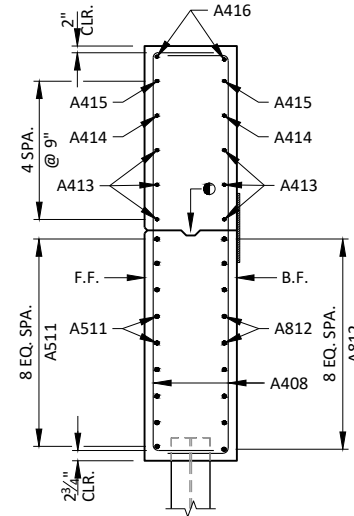
NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

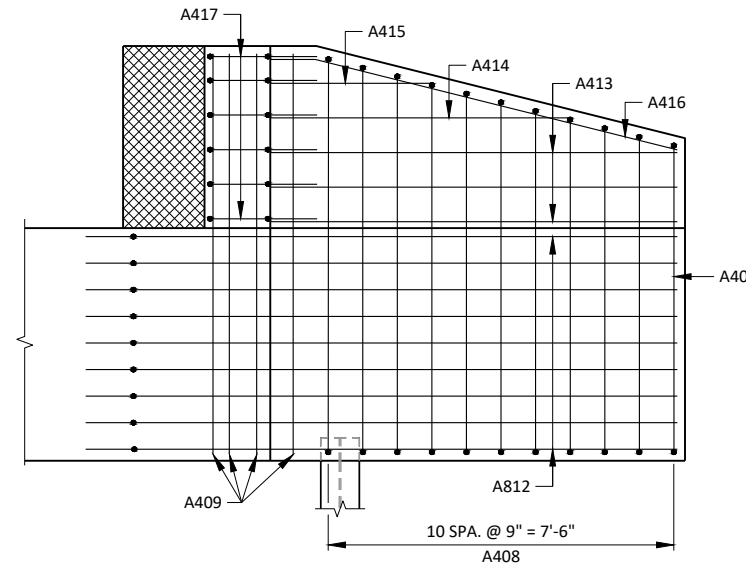
* LENGTH SHOWN IS AN AVERAGE LENGTH ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



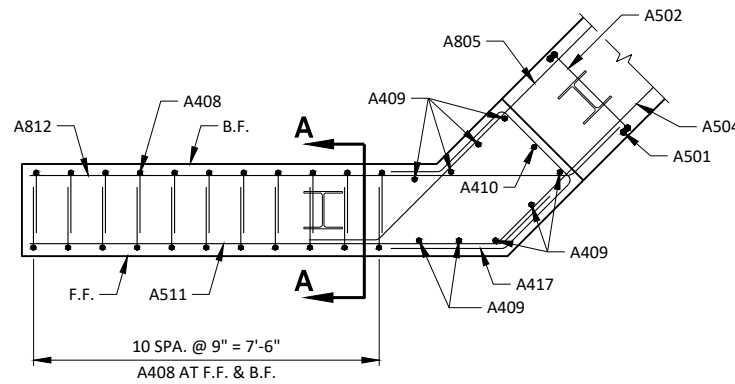
F.F. ELEVATION - WING 1
WING 1 SHOWN, WING 2 SIMILAR



SECTION A-A



B.F. ELEVATION - WING 1
WING 1 SHOWN, WING 2 SIMILAR



PLAN VIEW - WING 1
WING 1 SHOWN, WING 2 SIMILAR

LEGEND

- OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6. 3/4" "V" GROOVE AT FRONT FACE OF WING WALL AND HORIZONTAL 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE IF CONSTRUCTION JOINT IS USED. COST IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

SPACE REINFORCEMENT TO MISS PILING

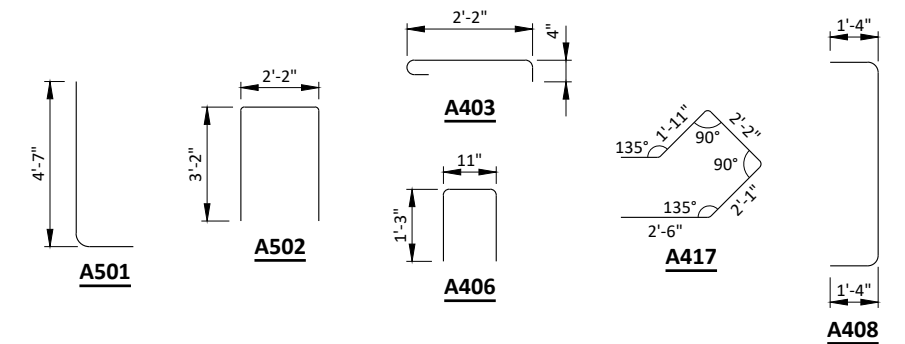
F.F. - FRONT FACE

B.F. - BACK FACE

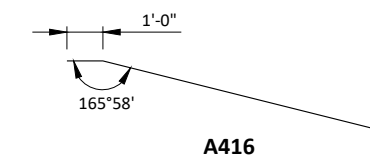
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
A408	4 SERIES OF 11	11-0 TO 9-2

BUNDLE AND TAG EACH SERIES SEPARATELY.

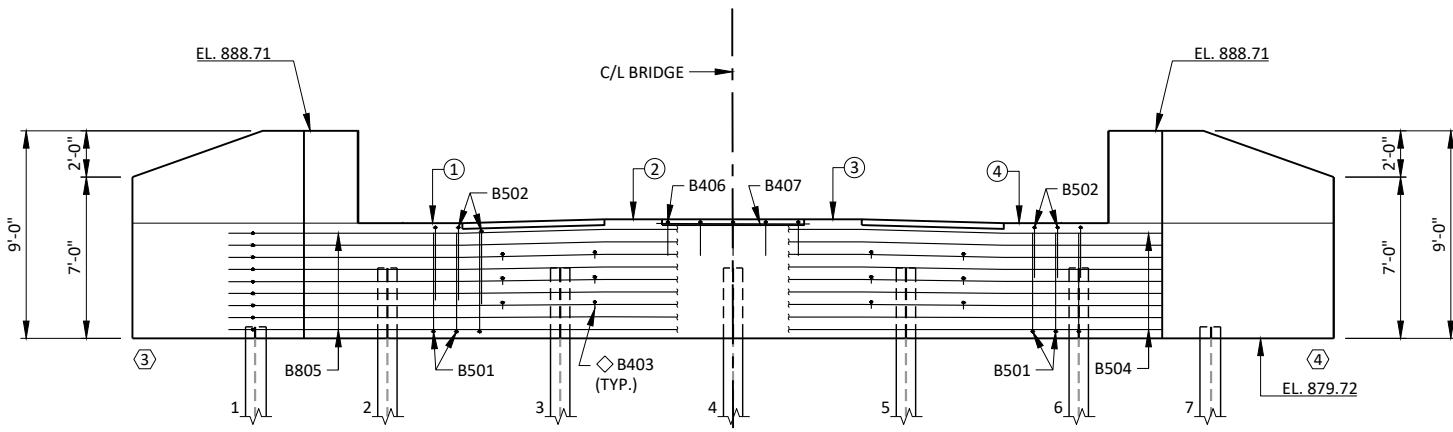


A805, A511, & A812



A416

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-176			
DRAWN BY: PMF		PLANS CK'D: PTB	
SOUTH ABUTMENT DETAILS			SHEET 5 OF 13



BACK FACE BAR STEEL REINF.

FRONT FACE BAR STEEL REINF.

ELEVATION
(NORTH ABUTMENT LOOKING NORTH)

NOTES

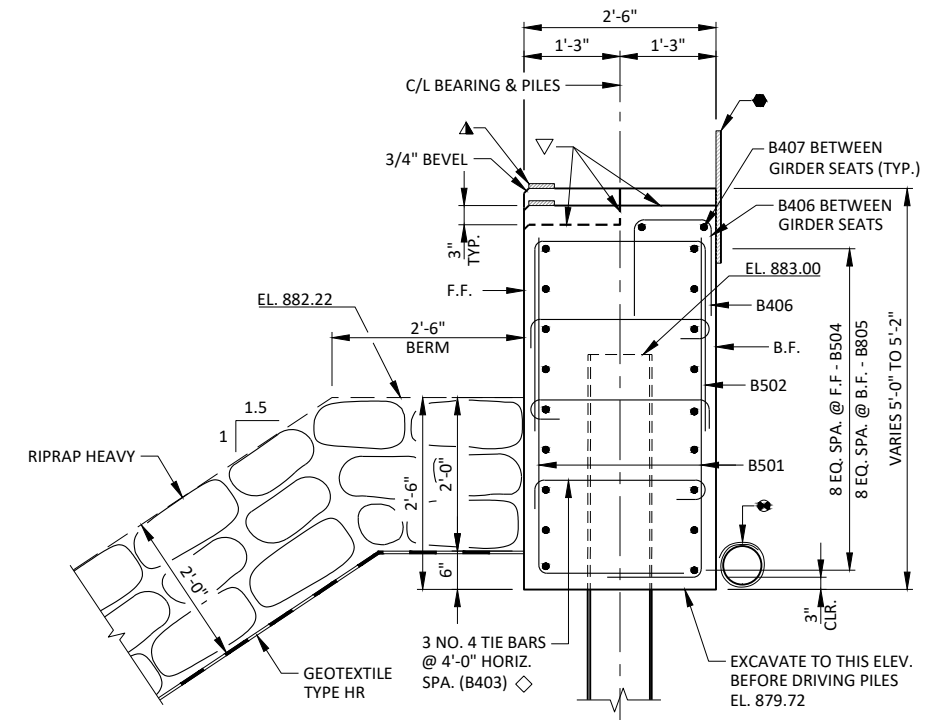
SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 7 FOR BILL OF BARS.

DO NOT PLACE FILL HIGHER THAN 3 FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

B.F. - BACK FACE



ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 35 FT. PILE LENGTHS AT NORTH ABUTMENT. PILE POINTS REQUIRED AT ALL LOCATIONS. PREBORE ALL PILING AT NORTH ABUTMENT TO ELEV. 865.00.

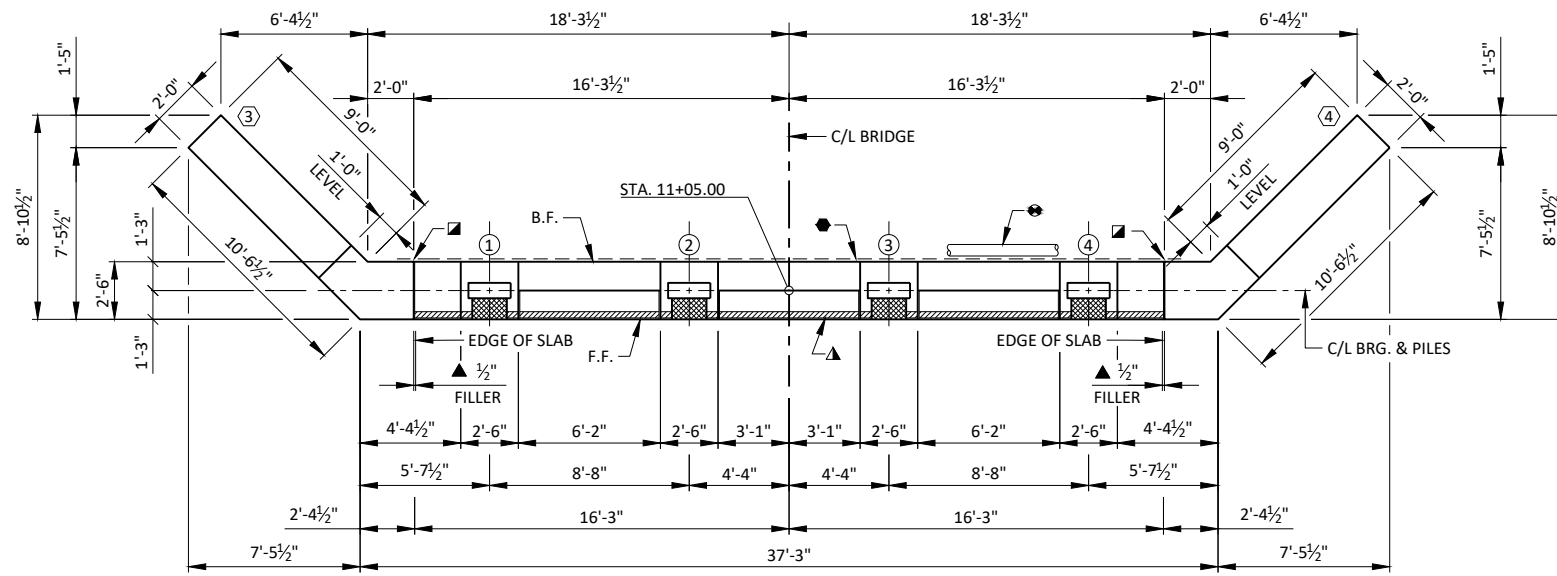
TYPICAL SECTION THROUGH ABUTMENT BODY

LEGEND

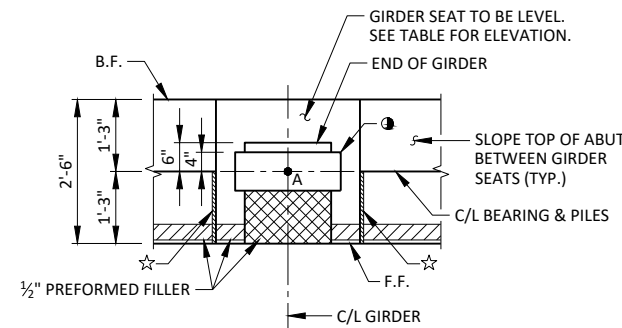
- VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 3/8" BELOW SURFACE OF CONCRETE)
- ▲ 1/2" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF DIAPHRAGM. USE 1/2" PREFORMED FILLER UNDER GIRDERS.
- PILE SPACING MEASURED AT BASE OF ABUTMENT BODY.
- PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."
- ☆ 3/4" CORK FILLER ON VERTICAL GIRDER SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- 1/2"x8"x1'-10" NON-LAMINATED ELASTOMERIC BEARING PAD.
- ▽ STEEL TROWEL ENTIRE TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ◇ ALTERNATE THE POSITION OF THE 90° AND THE 180° BENDS AT EACH VERTICAL LAYER OF TIES.
- INDICATES WING NUMBER.

GIRDER SEAT ELEVATIONS

GIRDER NUMBER	BEAM SEAT ELEV. (POINT A)
①	884.72
②	884.89
③	884.89
④	884.72

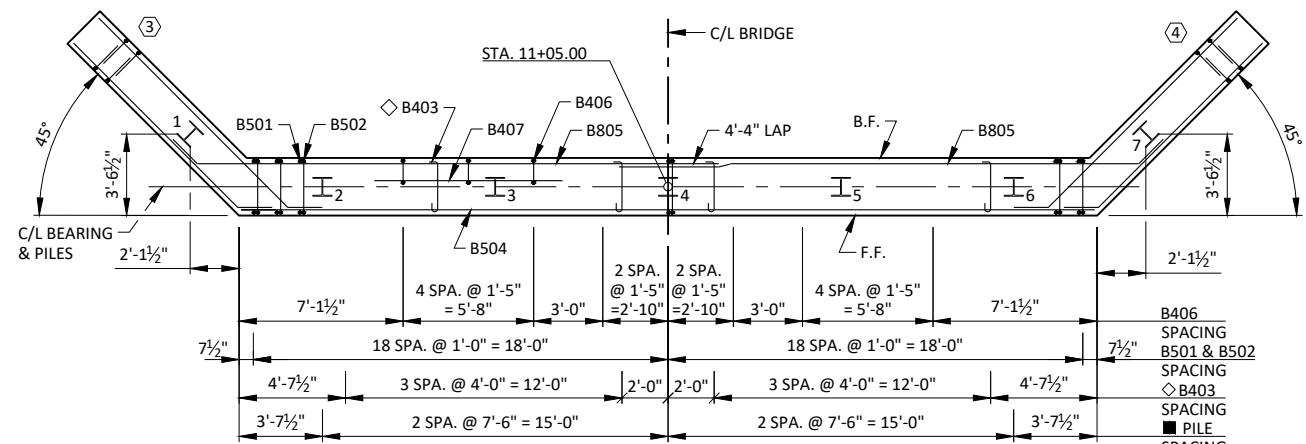


PLAN



GIRDER SEAT DETAIL

INTERIOR GIRDER SHOWN.
EXTERIOR GIRDERS SIMILAR.



LAYOUT

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-176			
DRAWN BY: PMP		PLANS CK'D: PTB	
NORTH ABUTMENT			SHEET 6 OF 13

**BILL OF BARS
NORTH ABUTMENT**

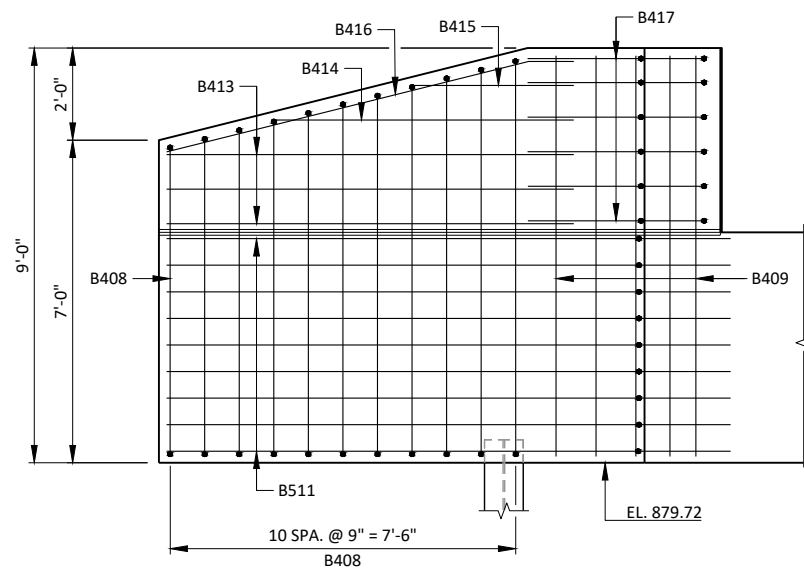
**1,470 LB (COATED)
2,430 LB (UNCOATED)**

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
B501	74	6-1	X			BODY - VERT. - F.F. & B.F.
B502	37	8-3	X			BODY - VERT. - TOP
B403	24	3-0	X			TIE BARS
B504	9	37-0				BODY - HORIZ. - F.F.
B805	18	24-6	X			BODY - HORIZ. - B.F.
B406	15	3-3	X			BODY - VERT. - TOP BETWEEN SEATS
B407	6	8-2				BODY - HORIZ. TOP BETWEEN SEATS
B408	44	10-1	X	X	*	WING 3 & 4 - VERT. - F.F. & B.F.
B409	18	8-7		X		WING 3 & 4 - VERT.
B410	2	4-4		X		WING 3 & 4 - VERT. - TOP
B511	18	11-9	X	X		WING 3 & 4 - HORIZ. - F.F.
B812	18	13-5	X	X		WING 3 & 4 - HORIZ. - B.F.
B413	12	8-10		X		WING 3 & 4 - HORIZ. - F.F. & B.F.
B414	4	6-7		X		WING 3 & 4 - HORIZ. - F.F. & B.F.
B415	4	3-7		X		WING 3 & 4 - HORIZ. - F.F. & B.F. - TOP
B416	4	9-1	X	X		WING 3 & 4 - HORIZ. - TOP
B417	12	9-6	X	X		WING 3 & 4 - HORIZ. - TOP

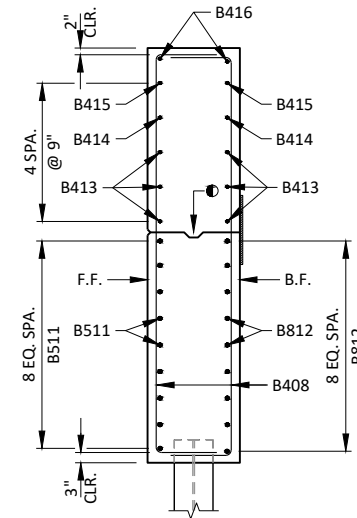
NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

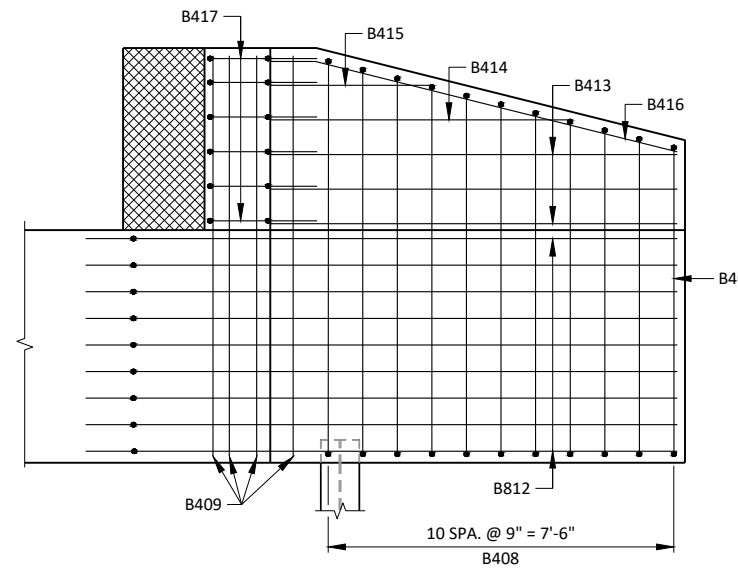
* LENGTH SHOWN IS AN AVERAGE LENGTH ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



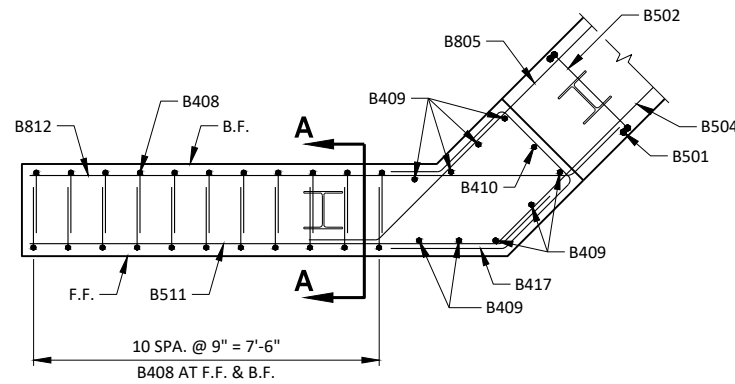
F.F. ELEVATION - WING 3
WING 3 SHOWN, WING 4 SIMILAR



SECTION A-A



B.F. ELEVATION - WING 3
WING 3 SHOWN, WING 4 SIMILAR



PLAN VIEW - WING 3
WING 3 SHOWN, WING 4 SIMILAR

LEGEND

- OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6. 3/4" "V" GROOVE AT FRONT FACE OF WING WALL AND HORIZONTAL 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE IF CONSTRUCTION JOINT IS USED. COST IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

SPACE REINFORCEMENT TO MISS PILING

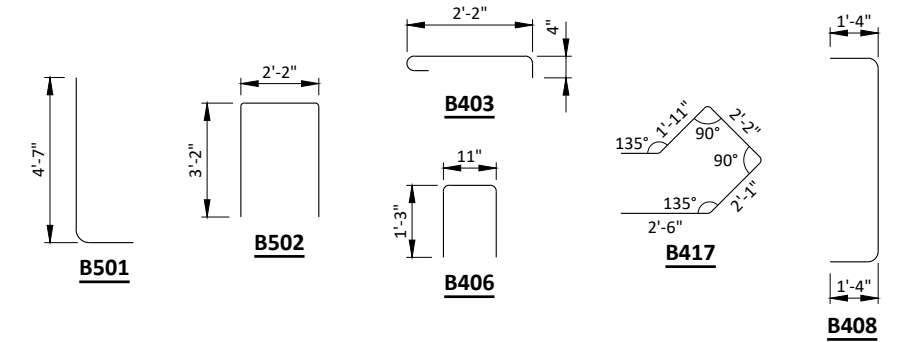
F.F. - FRONT FACE

B.F. - BACK FACE

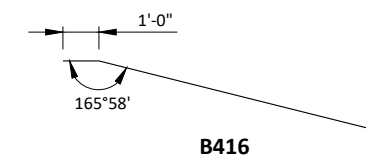
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
B408	4 SERIES OF 11	11-0 TO 9-2

BUNDLE AND TAG EACH SERIES SEPARATELY.

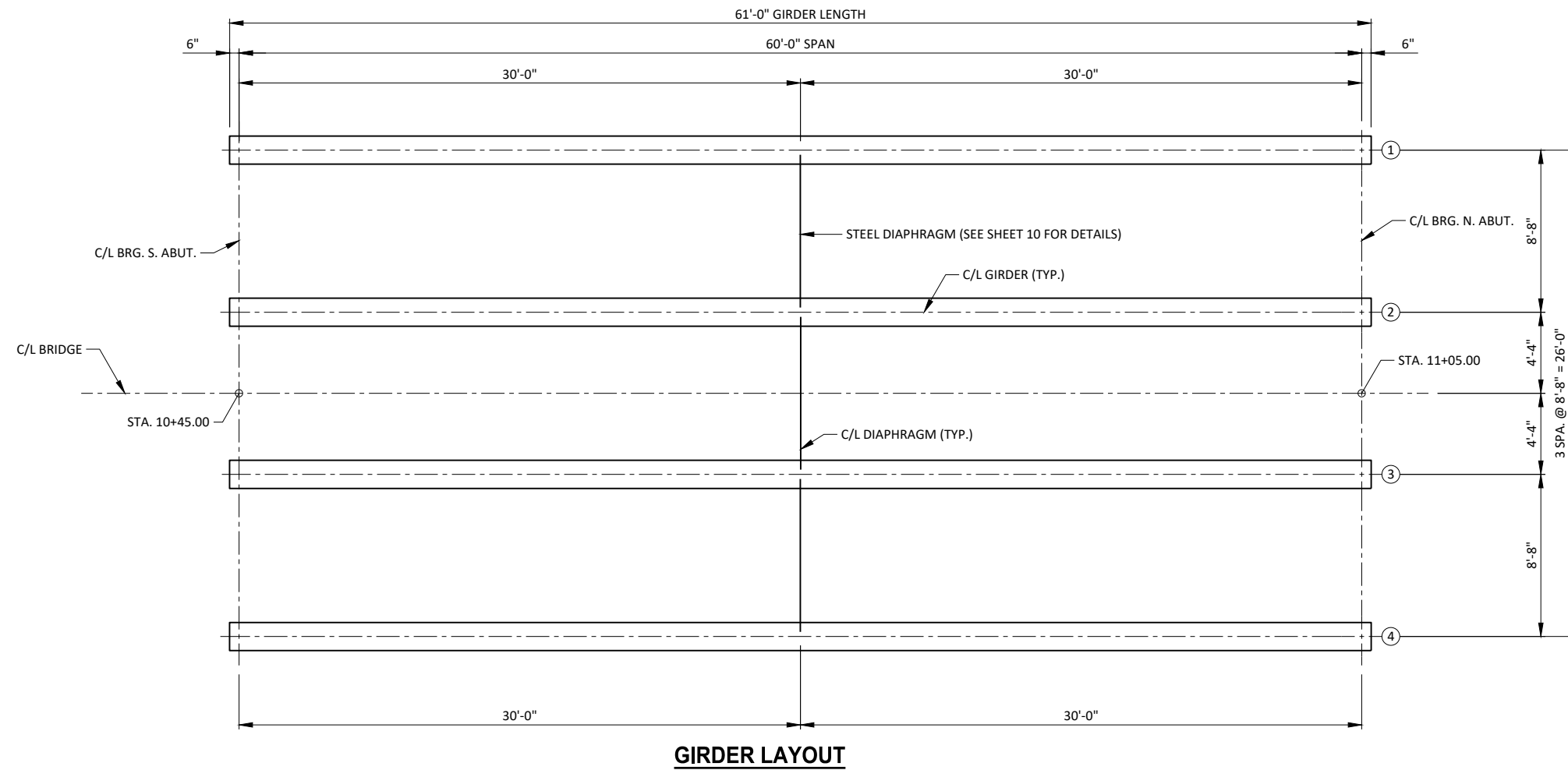


B805, B511, & B812



B416

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-176			
DRAWN BY PMF		PLANS CK'D. PTB	
NORTH ABUTMENT DETAILS			SHEET 7 OF 13

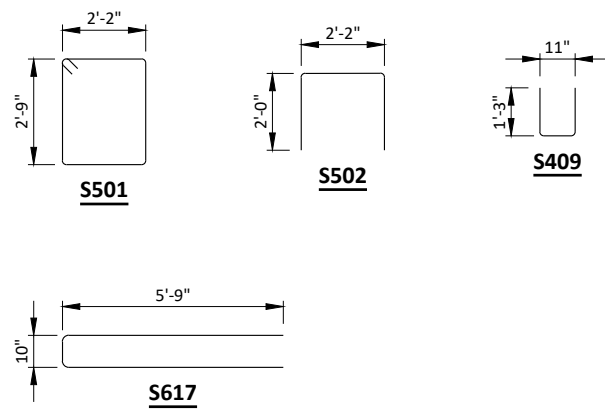


GIRDER LAYOUT

**BILL OF BARS
SUPERSTRUCTURE**

15,290 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
S501	76	10-6	X	X		ABUT. DIAPHRAGM - VERT.
S502	76	5-11	X	X		ABUT. DIAPHRAGM - VERT. - TOP
S603	4	2-2		X		ABUT. DIAPHRAGM - HORIZ. - FRONT - ENDS
S604	12	2-5		X		ABUT. DIAPHRAGM - HORIZ. - FRONT - ENDS
S605	6	6-10		X		ABUT. DIAPHRAGM - HORIZ. FRONT
S606	18	7-4		X		ABUT. DIAPHRAGM - HORIZ. FRONT
S607	12	32-2		X		ABUT. DIAPHRAGM - HORIZ. - BACK
S408	12	5-10		X		ABUT. DIAPHRAGM - HORIZ. BOT.
S409	42	3-3	X	X		ABUT. DIAPHRAGM - VERT. - BOT.
S510	16	6-0		X		ABUT. DIAPHRAGM - GIRDER WEB
S511	107	32-2		X		DECK - TOP - TRANSVERSE
S512	106	32-2		X		DECK - BOTTOM - TRANSVERSE
S413	92	32-0		X		DECK - TOP - LONGITUDINAL
S414	94	32-0		X		DECK - BOTTOM - LONGITUDINAL
S615	80	6-0		X		DECK - RAIL POSTS - INTERIOR
S616	16	6-0	X	X		DECK - RAIL POSTS - ENDS
S617	48	12-0	X	X		DECK - RAIL POSTS



NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

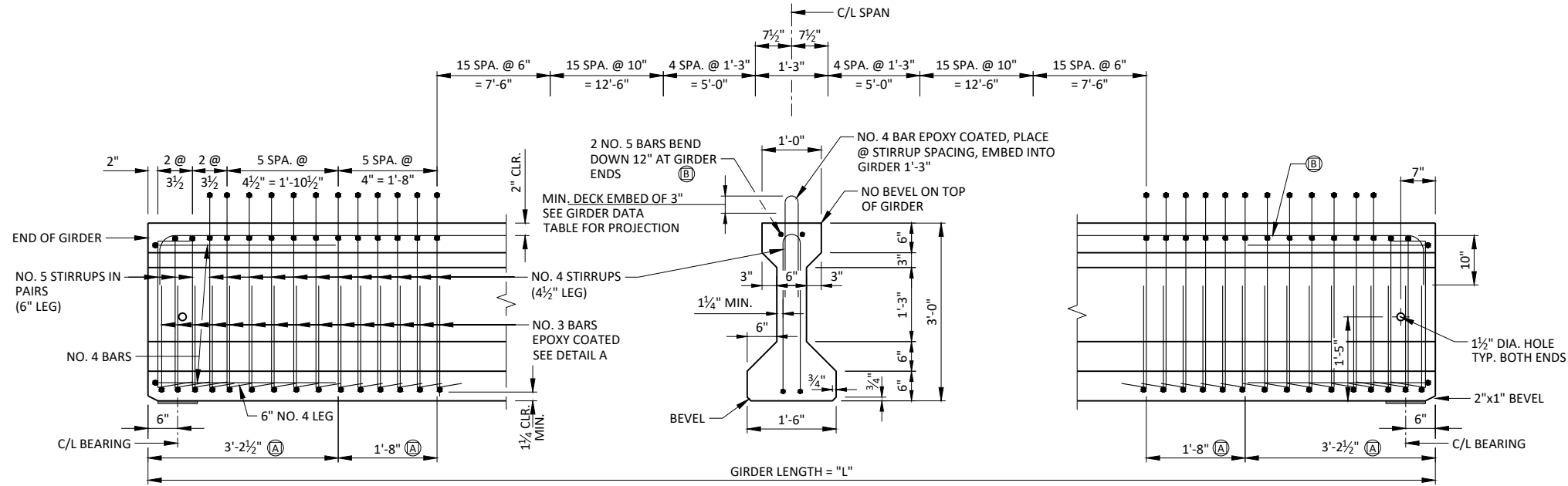
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

* LENGTH SHOWN IS AN AVERAGE LENGTH ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-176			
DRAWN BY		PMF	PLANS CK'D. PTB
GIRDER LAYOUT			SHEET 8 OF 13

8

8



36-INCH GIRDER - SIDE VIEW & TYP. SECTION IN SPAN

(A) DETAIL TYP. AT EACH END

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 2" OF THE TOP FLANGE.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

PRESTRESSING STRANDS SHALL BE 0.5-INCH DIAMETER 7-WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270 KSI.

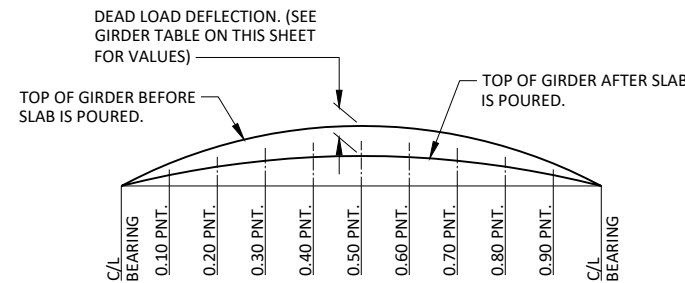
STRANDS SHALL BE FLUSH WITH THE ENDS OF THE GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINEOUS JOINT SEALER.

SPACING SHOWN FOR NO. 4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

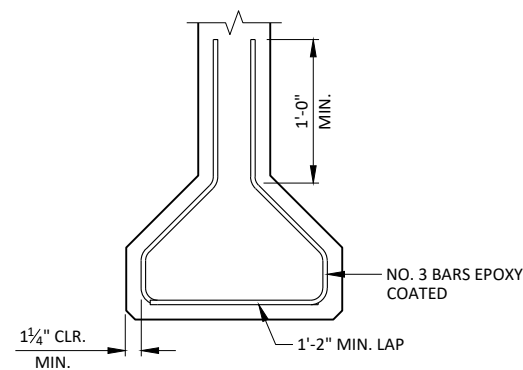
AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE SHEET 10.

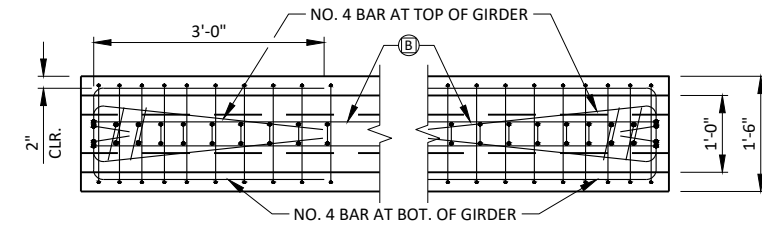
DATA SHOWN IN DEFLECTION DATA IS THEORETICAL AND MAY VARY WITH CONCRETE STRENGTH, VARIABLE PRESTRESS CONDITIONS AND PRESTRESS LOSSES.



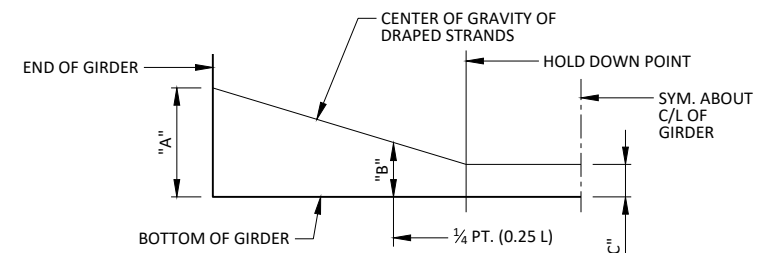
DEAD LOAD DEFLECTION DIAGRAM



DETAIL A



TOP VIEW OF GIRDER ENDS

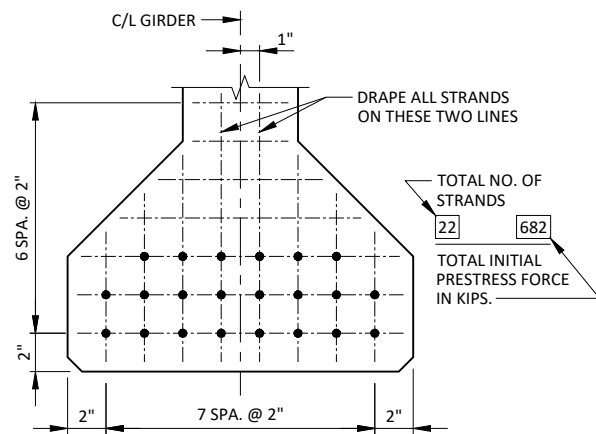


DRAPED STRAND PROFILE

THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN

SPAN	CAMBER (IN.)
1	1.81"

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



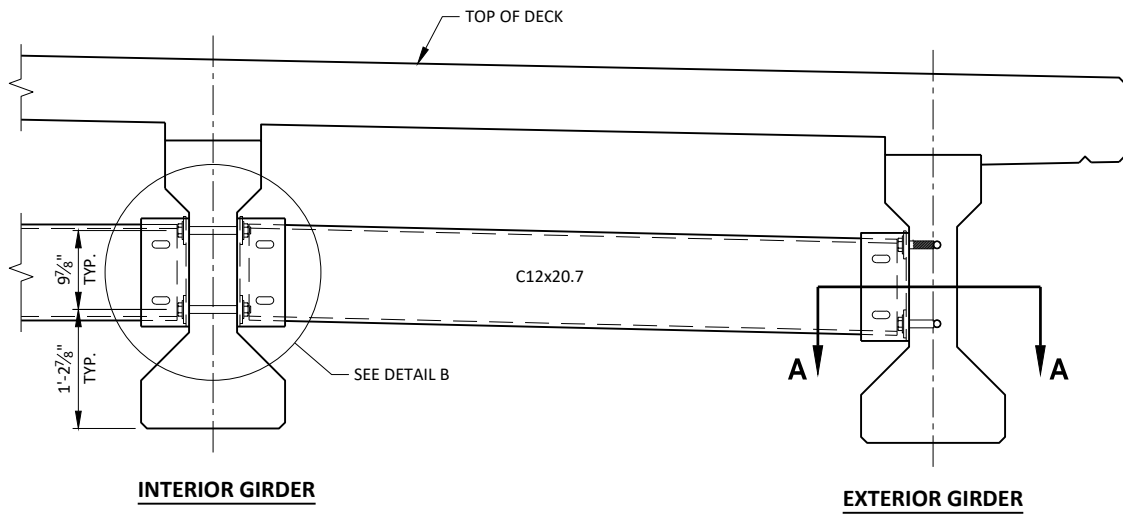
TYP. STRAND PATTERN

PATTERN IS SYMMETRICAL ABOUT THE C/L OF GIRDER

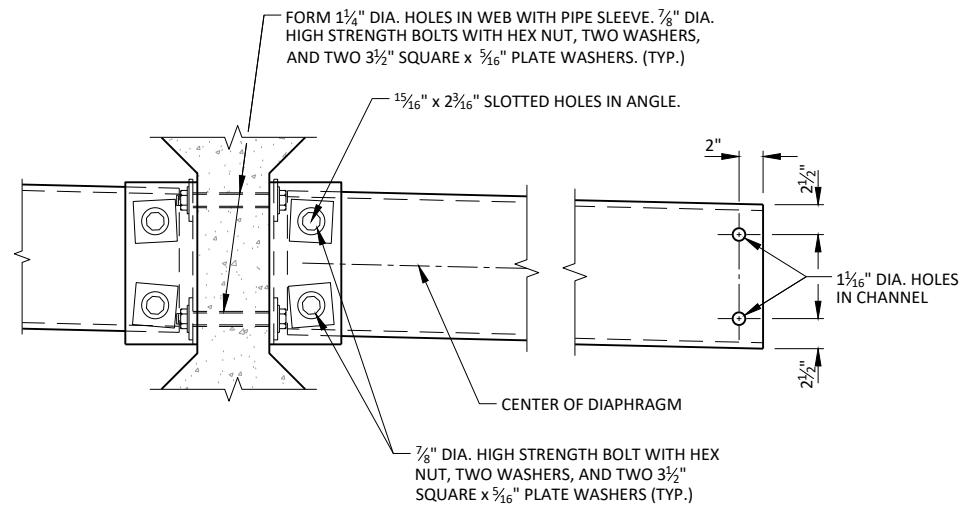
GIRDER LENGTH "L"	QUANT.	DEAD LOAD DEFLECTION										CONC. STRENGTH f _c Ksi	STIRRUP PROJECTION "P"			DIA. OF STRAND (IN.)	DRAPED PATTERN										UNDRAINED PATTERN		GIRDER NO.
		0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1ST 1/3		MID. 1/3	END 1/3	TOTAL NO. OF STRANDS		f _{ci} Ksi *	(INCHES)				TOTAL NO. OF STRANDS	f _{ci} Ksi *						
		"A"	"B" MIN.	"B" MAX.	"C"	"A"	"B"	"C"	"A"	"B"	"C"		"A"	"B"	"C"														
61'-0"	4	0.3"	0.5"	0.7"	0.8"	0.9"	0.8"	0.7"	0.5"	0.3"	8	7"	7"	7"	0.5	22	6.2	32	11	14	4	--	--	1-4					

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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-176			
DRAWN BY PMF		PLANS CK'D. PTB	
36-INCH PRESTRESSED GIRDER DETAILS			SHEET 9 OF 13



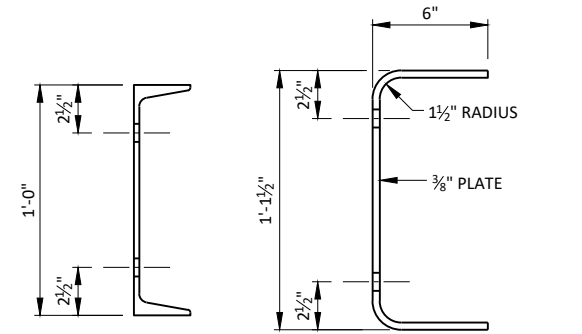
PART TRANSVERSE SECTION AT DIAPHRAGM



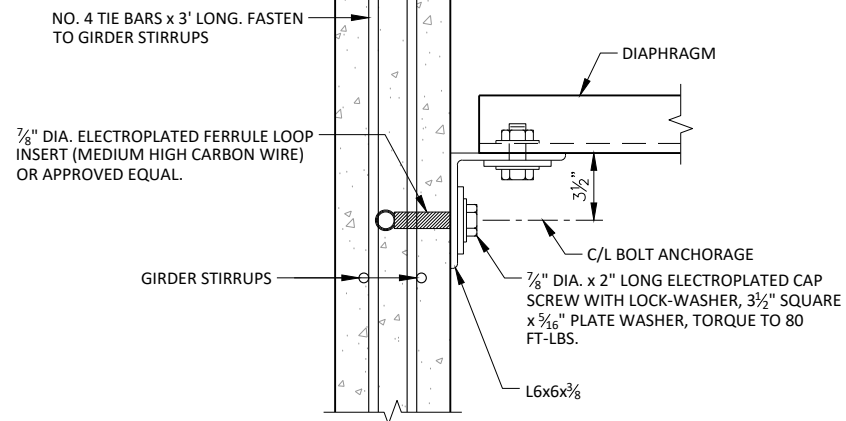
DETAIL B
(FOR STAGGERED DIAPHRAGMS)

NOTES

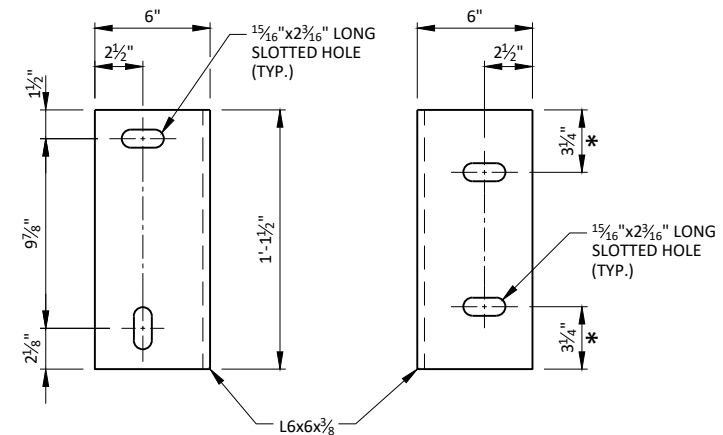
- ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-11-176", EACH.
- EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.
- ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.
- ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.
- STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.
- PLACE ONE DIAPHRAGM AT MID-LENGTH OF GIRDER AS INDICATED ON SHEET 8.



SECTION THROUGH DIAPHRAGM



SECTION A-A
(FOR EXTERIOR ATTACHMENT)



DIAPHRAGM SUPPORT

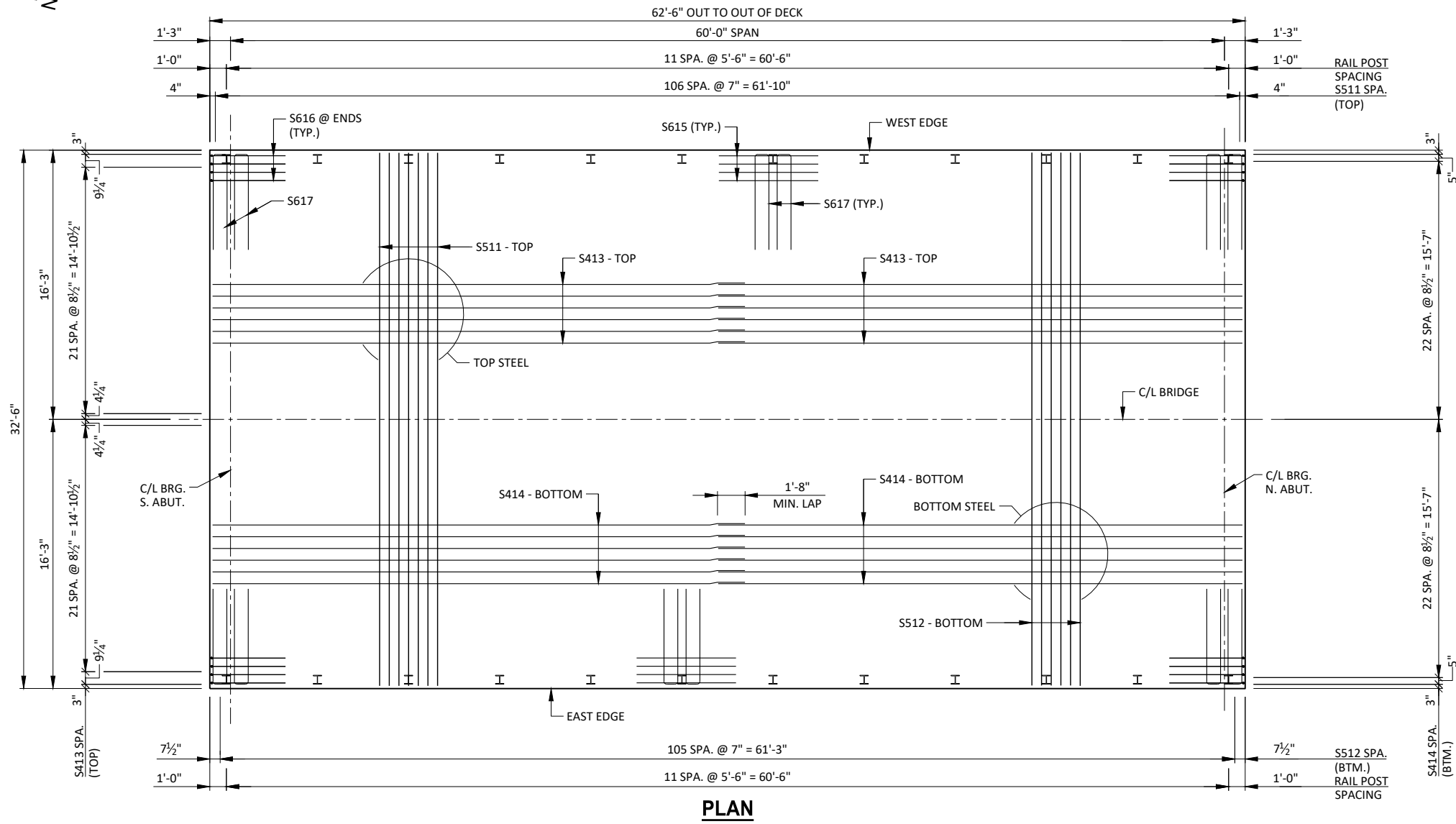
DIAPHRAGM SUPPORT

*2 1/2" FOR ALTERNATE PLATE DIAPHRAGM

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-176			
DRAWN BY		PMF	PLANS CK'D. PTB
STEEL DIAPHRAGM			SHEET 10 OF 13

8

8



PLAN

TOP OF DECK ELEVATIONS

GIRDER LINE	C/L S. ABUT.	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L N. ABUT.
W. EDGE	888.49	888.49	888.50	888.51	888.53	888.55	888.57	888.60	888.64	888.68	888.72
1	888.55	888.55	888.56	888.57	888.59	888.61	888.63	888.66	888.70	888.74	888.78
2	888.72	888.72	888.73	888.74	888.76	888.78	888.80	888.83	888.87	888.91	888.95
C/L	888.81	888.81	888.82	888.83	888.85	888.87	888.89	888.92	888.96	889.00	889.04
3	888.72	888.72	888.73	888.74	888.76	888.78	888.80	888.83	888.87	888.91	888.95
4	888.55	888.55	888.56	888.57	888.59	888.61	888.63	888.66	888.70	888.74	888.78
E. EDGE	888.49	888.49	888.50	888.51	888.53	888.55	888.57	888.60	888.64	888.68	888.72

8

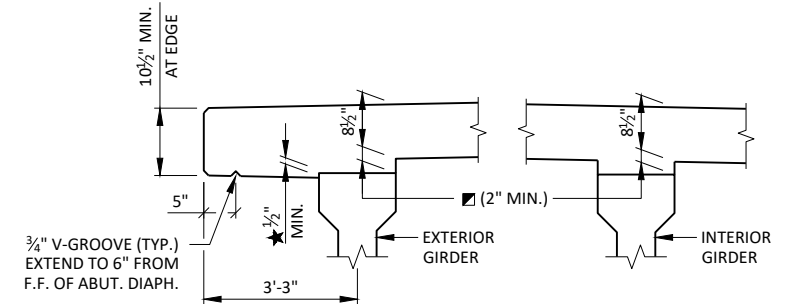
8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-176			
DRAWN BY		PMF	PLANS CK'D. PTB
SUPERSTRUCTURE			SHEET 11 OF 13

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 8 FOR BILL OF BARS.

T.D. - TOP OF DECK



IF 2" MINIMUM HAUNCH HEIGHT "H" CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. MAXIMUM HAUNCH HEIGHT EQUALS "STIRRUP PROJECTION" MINUS 3".

TO DETERMINE "H" (AFTER GIRDERS ARE IN PLACE):
 OBTAIN THE ELEVATIONS OF THE TOP OF GIRDER AT THE C/L OF SUBSTRUCTURE UNITS AND AT EACH 1/10 POINT FOR EVERY GIRDER AND ALL SPANS, THEN PROCEED WITH THE PROCESS SHOWN BELOW.

- TOP OF DECK ELEVATION AT THE FINAL GRADE
- TOP OF GIRDER ELEVATION
- +DEAD LOAD DEFLECTION
- SLAB THICKNESS
- =HAUNCH HEIGHT "H"

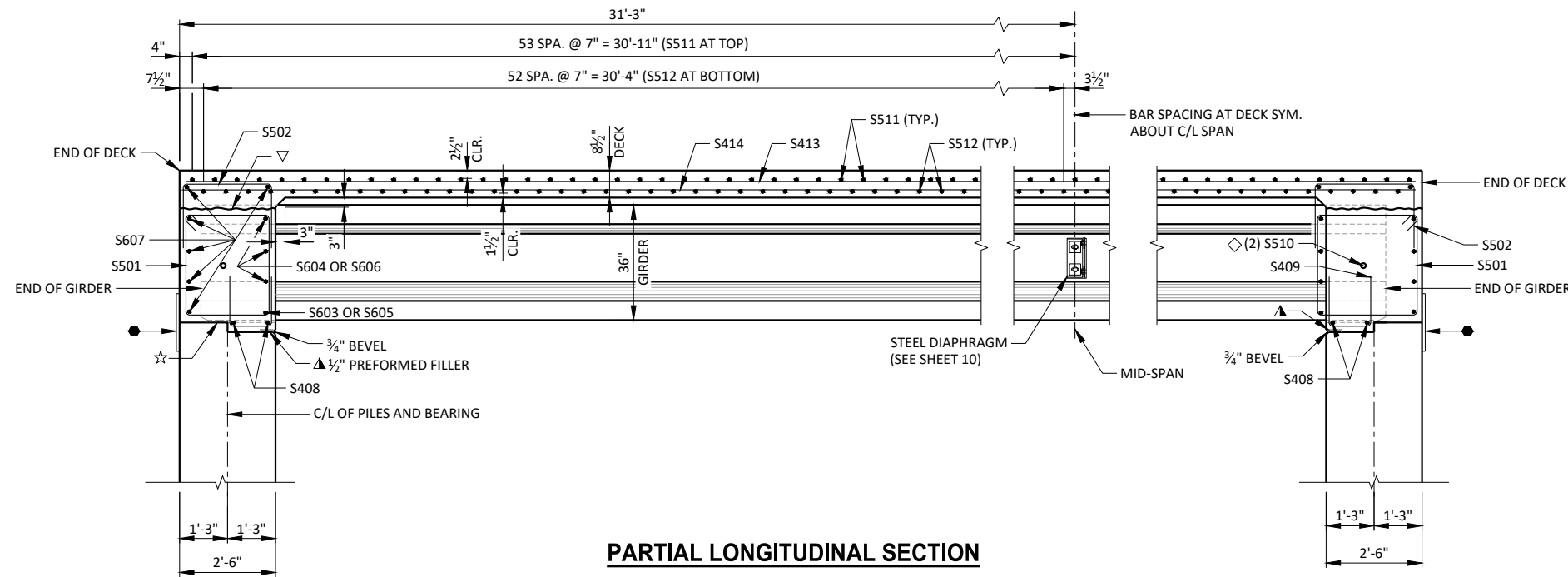
NOTE: AN AVERAGE HAUNCH "H" OF 2.5" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

★ SLAB THICKNESS SHALL BE INCREASED AS NECESSARY TO CONCEAL INTERSECTION OF SLAB AND TOP OF GIRDER AT ALL FACIA GIRDERS.

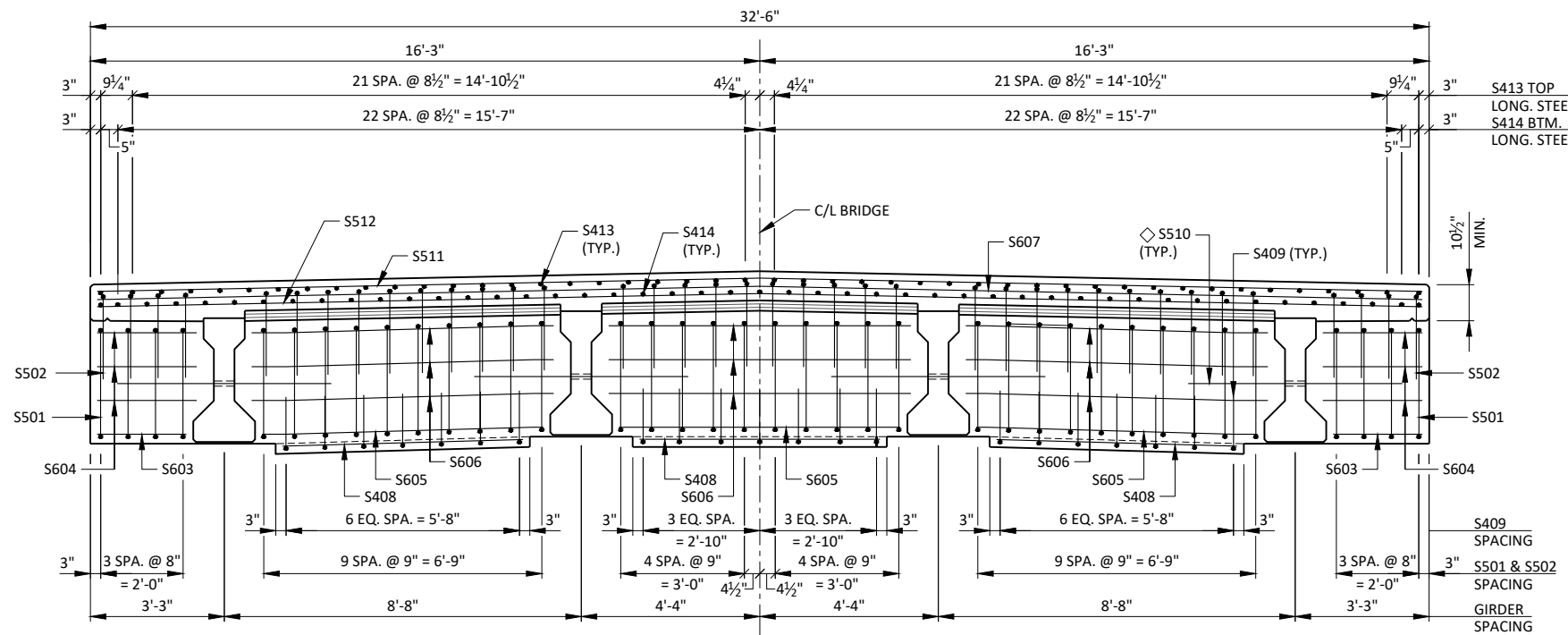
SLAB HAUNCH DETAIL

LEGEND

- 18" RUBBERIZED MEMBRANE WATERPROOFING (HORIZONTAL)
- ☆ 1/2" NON-LAMINATED ELASTOMERIC BEARING PAD AND 1/2" PREFORMED FILLER.
- ▲ 4"x 1/2" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF DIAPHRAGM.
- ◇ (1) 1 1/2" DIAMETER HOLE IN WEB FOR (2) S510 HORIZONTAL BARS. BARS TO BE PLACED SYMMETRICAL ABOUT C/L OF GIRDERS.
- ▽ OPTIONAL CONSTRUCTION JOINT. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR



PARTIAL LONGITUDINAL SECTION



CROSS SECTION THROUGH ROADWAY

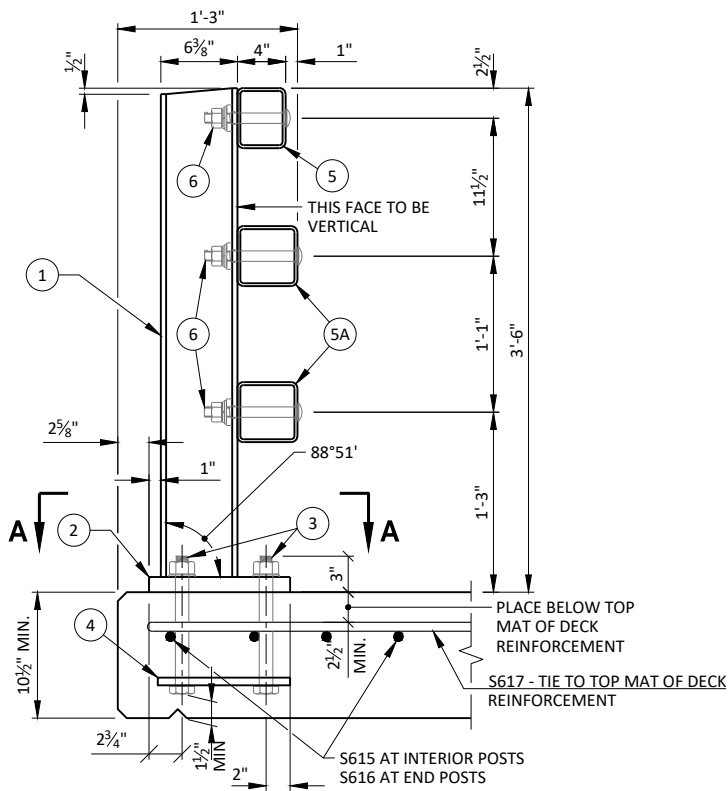
8

8

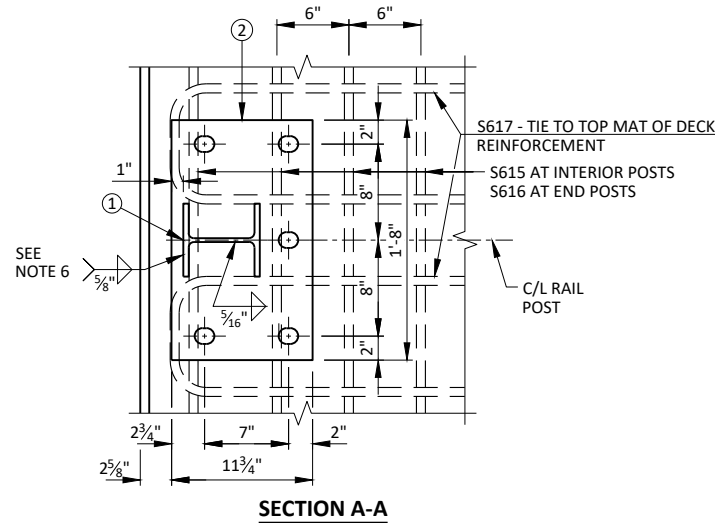
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-11-176			
DRAWN BY		PMF	PLANS CK'D. PTB
SUPERSTRUCTURE DETAILS			SHEET 12 OF 13

LEGEND

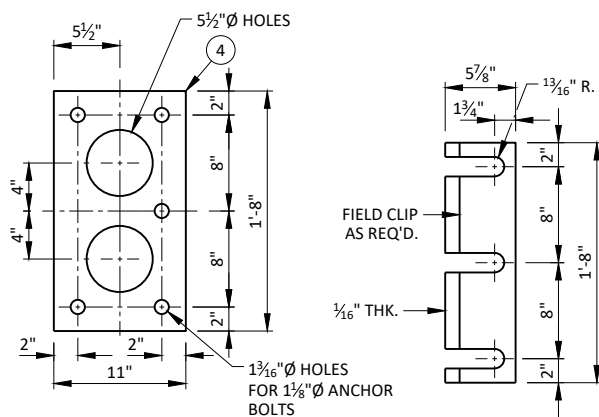
- ① W6x25 WITH 1½" x 1½" HORIZONTAL SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE 1¼"x11¾"x1'-8" WITH 1½" DIA. OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
- ③ ASTM A449 - 1½" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG.
- ④ ½"x11"x1'-8" ANCHOR PLATE (GALVANIZED) WITH 1½" DIA. HOLES FOR ANCHOR BOLTS NO. 3.
- ⑤ TSS 5x4x0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑤A TSS 5x5x0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑥ 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16"x1½"x1½" MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO LOCATION).
- ⑨ SPLICE SLEEVE FABRICATED FROM ¾" PLATE. PROVIDE "SLIDING FIT".
- ⑩ ¾"x3½"x2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
- ⑩A ¾"x2½"x2'-4" PLATE USED IN NO. 5, ¾"x3½"x2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
- ⑪ 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15/16"x1½" LONGIT. SLOTTED HOLES IN PLATE NO. 10A. AT FIELD JOINTS AND 15/16"x2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A. PROVIDE 15/16" DIA. ROUND HOLES IN TUBES NO. 5 AND NO. 5A.



SECTION THROUGH RAILING ON DECK

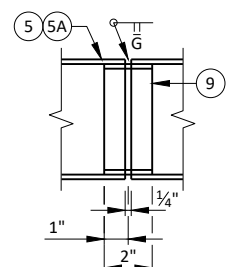


SECTION A-A

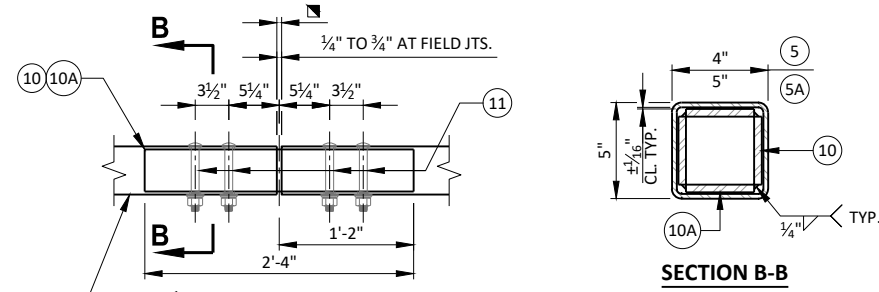


ANCHOR PLATE
AT RAIL TO DECK CONNECTION

POST SHIM
DETAIL

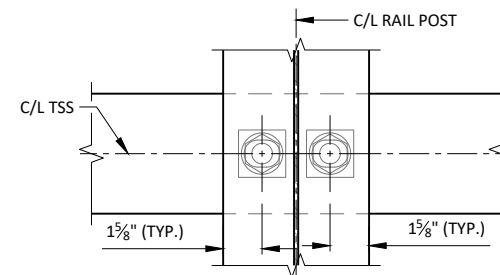


SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

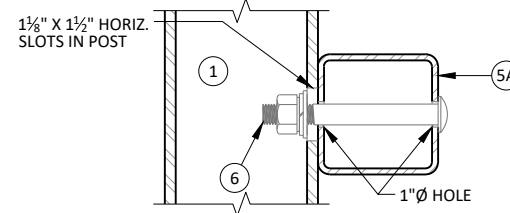


FIELD ERECTION JOINT DETAIL

RDWY. OPENING OR 2½" MIN. FOR STRIP SEAL EXP. JOINT & (¾" TO ¾") OPENING FOR A1 ABUTMENT.



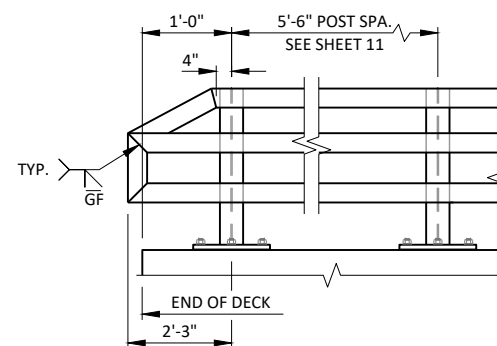
SECTION THROUGH POST WEB



SECTION THROUGH RAIL

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

TYPICAL RAIL TO POST CONNECTIONS



PART ELEVATION OF RAILING

GENERAL NOTES

- 1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
- 2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY=50 KSI. ANCHOR PLATES AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
- 3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.
- 4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.
- 5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
- 6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
- 7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
- 8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
- 9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.
- 10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).

NO.	DATE	REVISION	BY
STRUCTURE B-11-176			
DRAWN BY		PMF	PLANS CK'D. PTB
TUBULAR RAILING		SHEET 13 OF 13	
TYPE M			

EARTHWORK-WENDT ROAD

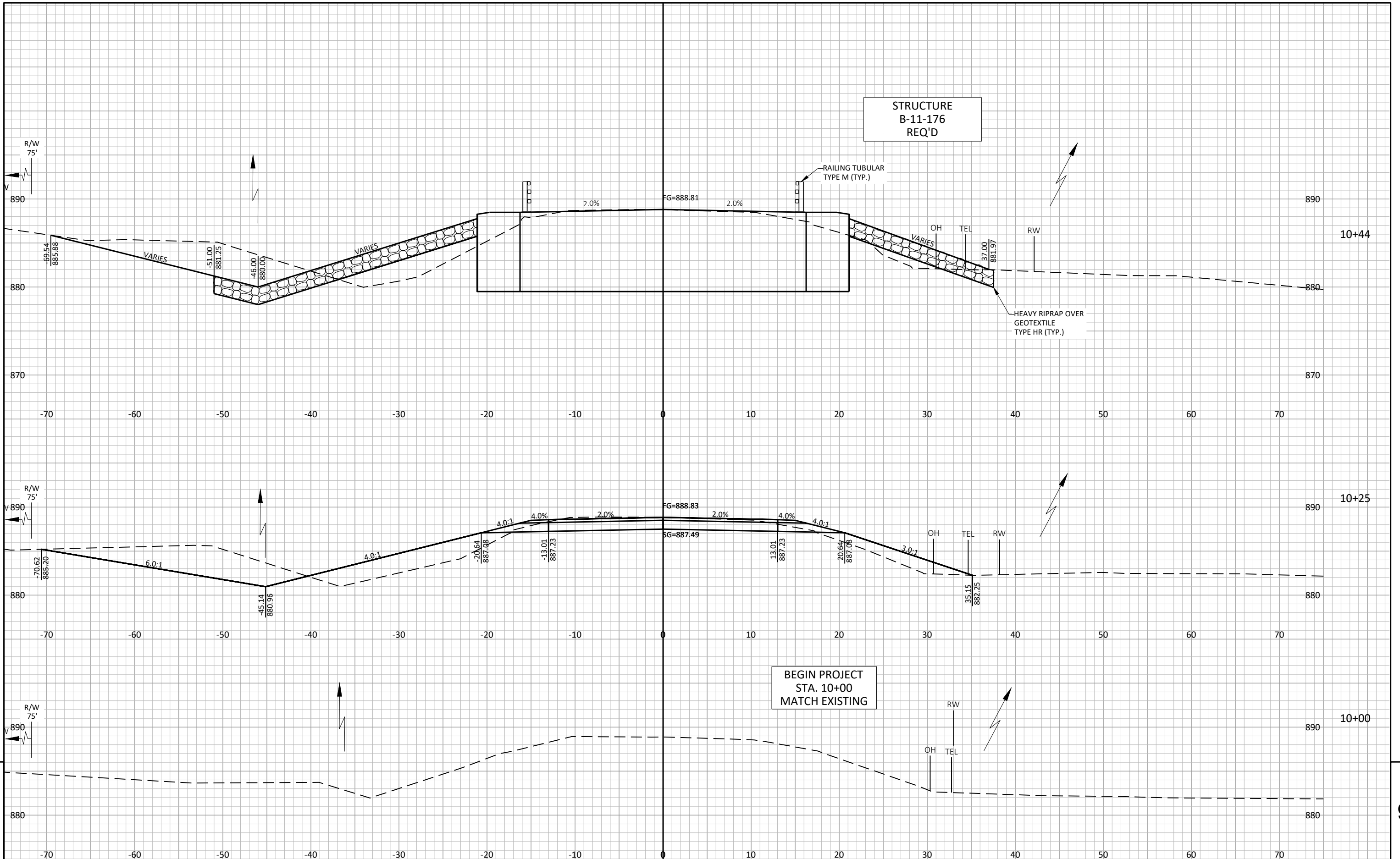
STATION	AREA (SF)			INCREMENTAL VOL (CY)				CUMMULATIVE VOLUME (CY)				
	CUT	SALVAGED/ UNUSABLE PAV'T MATERIAL		CUT NOTE 1	SALVAGED/ UNUSABLE PAV'T MATERIAL		FILL NOTE 3	FILL (25%)	CUT 1.00 NOTE 1	FILL NOTE 4	FILL (25%) NOTE 4	MASS ORDINATE NOTE 5
		FILL			NOTE 2							
10+00	39	0	0	0	0	0	0	0	0	0	0	0
10+25	101	0	60	65	0	28	36	65	28	36	29	
10+44	101	0	60	71	0	42	54	136	70	90	46	
10+44	0	0	0	0	0	0	0	136	70	90	46	
10+50	0	0	0	0	0	0	0	136	70	90	46	
10+75	0	0	0	0	0	0	0	136	70	90	46	
11+00	0	0	0	0	0	0	0	136	70	90	46	
11+06	0	0	0	0	0	0	0	136	70	90	46	
11+06	56	0	34	0	0	0	0	136	70	90	46	
11+25	56	0	34	40	0	24	30	176	94	120	56	
11+50	40	0	0	44	0	16	20	220	110	140	80	

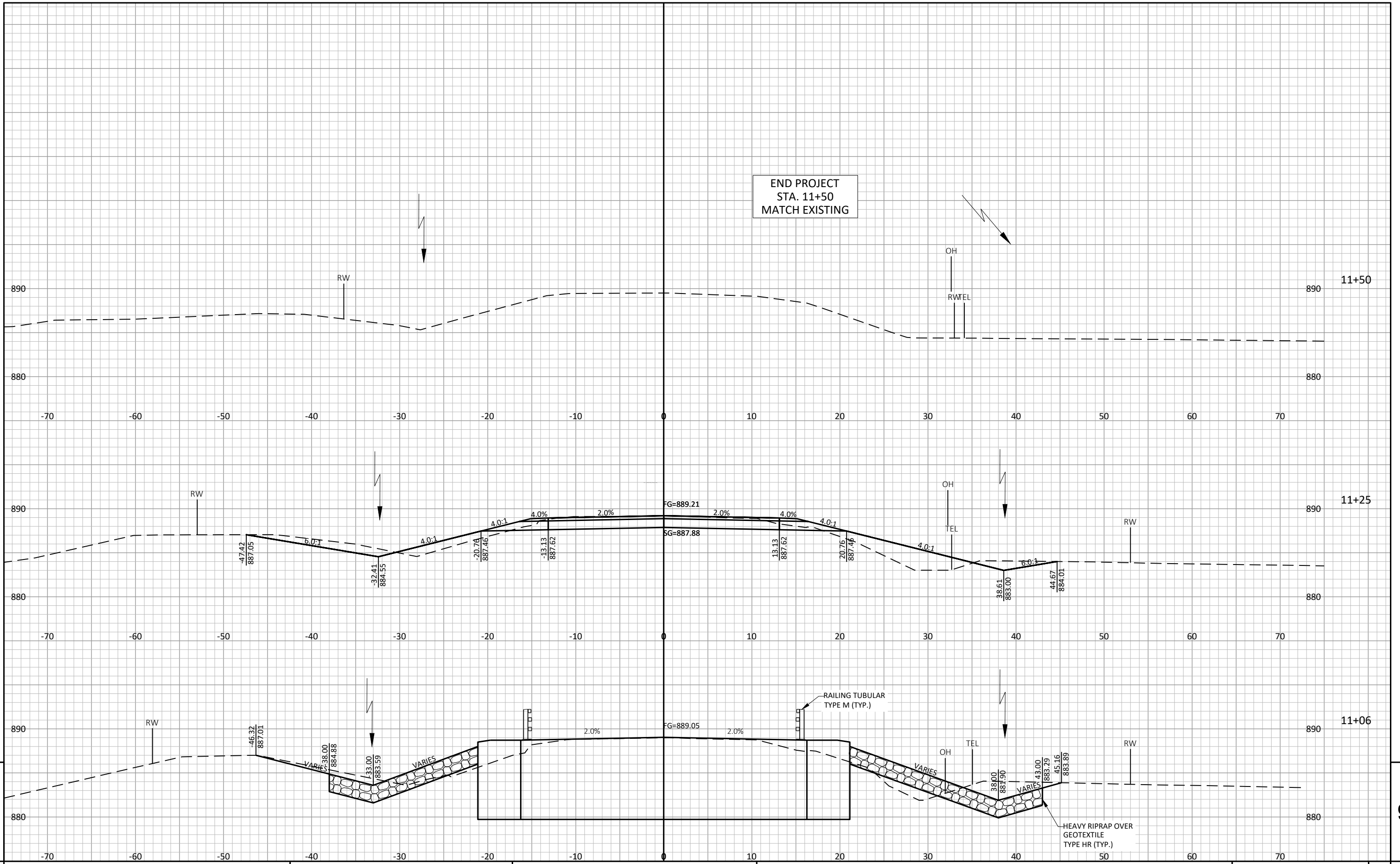
COLUMN TOTALS = 220 0 110 140 80

<p>NOTES: 1 - CUT 2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL 3 - FILL 4 - FILL (25%) 5 - MASS ORDINATE</p>	<p>CUT INCLUDES SALVAGED/UNUSABLE MATERIAL THIS DOES NOT SHOW UP IN CROSS SECTIONS DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME FILL 25%: (UNEXPANDED FILL - (ROCK * ROCK FACTOR))*1.25 (CUT - FILL (25%))</p>
--	--

9

9





END PROJECT
STA. 11+50
MATCH EXISTING

PROJECT NO: 6217-00-79

HWY: WENDT ROAD

COUNTY: COLUMBIA

CROSS SECTIONS: MAINLINE

SHEET

E



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>