

GRE
PROJECT ID:
WITH: N/A

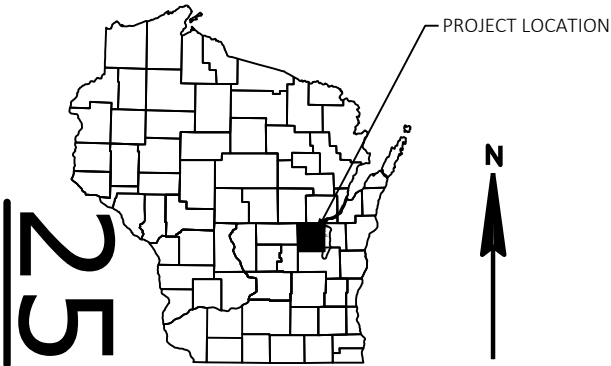
6445-00-01

COUNTY:
WINNEBAGO

MAY 2025
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 = 46



DESIGN DESIGNATION

A.A.D.T.	2025	=	40
A.A.D.T.	2045	=	40
D.H.V.		=	-
D.D.		=	50/50
T.		=	4.7%
DESIGN SPEED		=	35 MPH
ESALS		=	5,700

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

GRADE LINE

ORIGINAL GROUND

MARSH OR ROCK PROFILE
(To be noted as such)

SPECIAL DITCH

GRADE ELEVATION

CULVERT (Profile View)

UTILITIES

ELECTRIC

FIBER OPTIC

GAS

SANITARY SEWER

STORM SEWER

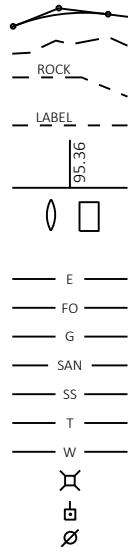
TELEPHONE

WATER

UTILITY PEDESTAL

POWER POLE

TELEPHONE POLE



STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

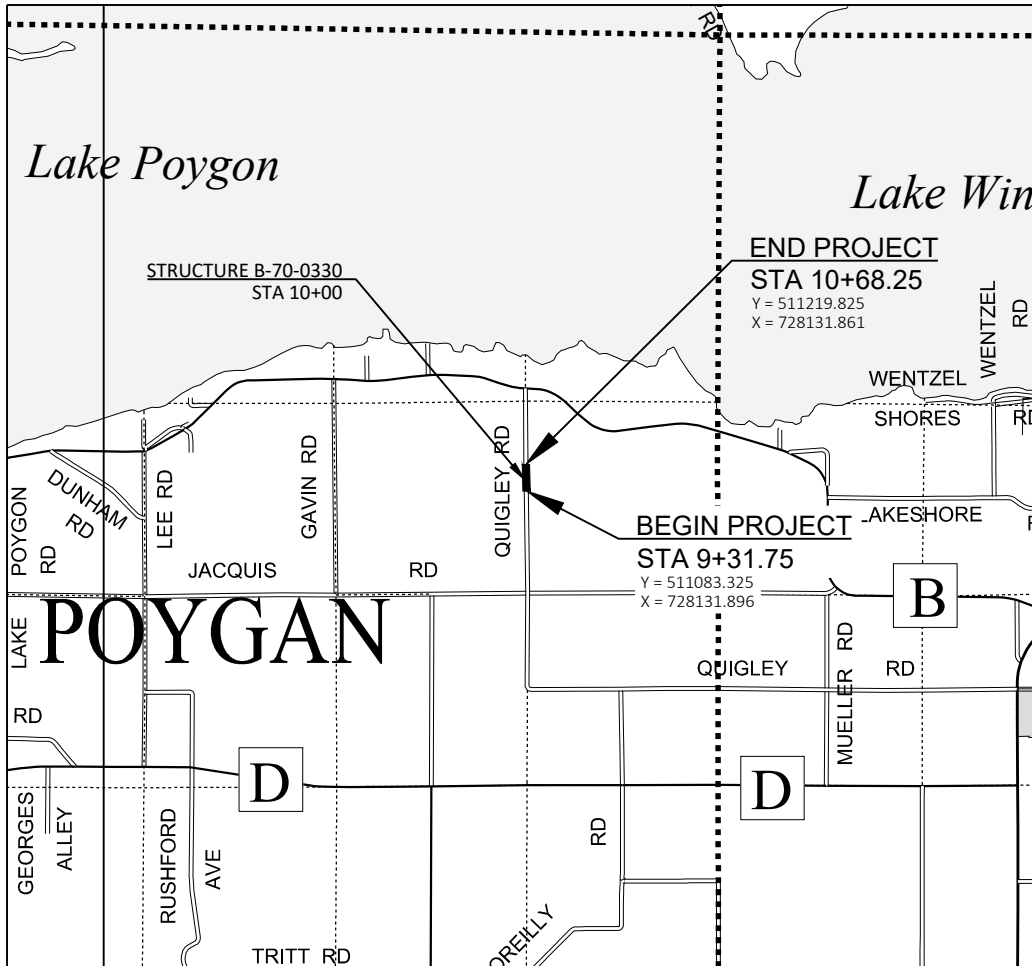
T POYGAN, QUIGLEY ROAD

LAKE POYGAN TRIBUTARY BRIDGE

LOC STR

WINNEBAGO COUNTY

STATE PROJECT NUMBER
6445-00-01



LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.026 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), WINNEBAGO COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6445-00-01	WISC 2025476	1

ACCEPTED FOR
TOWN OF POYGAN

1/31/25
DATE
CHAIRMAN

ORIGINAL PLANS PREPARED BY

AYRES



1/15/2025
(Date)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES
Designer	AYRES
Project Manager	MIKE COHEN
Regional Supervisor	KIMBERLY SLEZAK

APPROVED FOR THE DEPARTMENT

DATE: 1/31/2025
Mike Cohen P.E.
(Signature)

E

UTILITIES CONTACTS

ALLIANT ENERGY
ELECTRIC
WESLEY SCHAAL
883 W SCOTT ST
FOND DU LAC, WI 54937
PHONE: 920-322-6624
EMAIL: wesleyschaal@alliantenergy.com

AT&T DISTRIBUTION
COMMUNICATIONS
CHARLES BARTELT
70 E DIVISION STREET
FOND DU LAC, WI 54935
PHONE: 920-410-5104
EMAIL: cb1461@att.com

SPECTRUM
COMMUNICATIONS
LISA ALBIN
3545 PLANK ROAD
APPLETON, WI 54915
PHONE: 920-378-0360
EMAIL: lisa.albin@charter.com

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
TYPICAL SECTIONS
CONSTRUCTION DETAILS

WISCONSIN DNR LIAISON

JAY SCHIEFELBEIN
NORTHEAST REGION
2984 SHAWANO AVE
GREEN BAY, WI 54313
PHONE: 920-360-3784
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TOWN OF POYGAN

MARTIN JOHNSON
CHAIRMAN
8291 TRITT ROAD
OMRO, WI 54963
PHONE: 920-410-6756
EMAIL: chairman@townofpoygan.gov

AYRES ASSOCIATES

ATTN: KRISTOFER OLSON, PE
STRUCTURAL ENGINEER
3376 PACKERLAND DRIVE
ASHWAUBENON, WI 54115
PHONE: 920-498-1200
EMAIL: OLSONK@AYRESASSOCIATES.COM

WIS. DEPT OF TRANSPORTATION

MIKE COHEN
NORTHEAST REGION
944 VANDERPERREN WAY
GREEN BAY, WI 54304
PHONE: 920-360-1476
EMAIL: michael.cohen@dot.wi.gov

COUNTY HIGHWAY COMMISSIONER

ROBERT DOEMEL
WINNEBAGO COUNTY
901 W. COUNTY ROAD Y
OSHKOSH, WI 54901
PHONE: 920-232-1700
EMAIL: hwy@co.winnebago.wi.us

GENERAL NOTES

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

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

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR’S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER.

SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

BEARINGS SHOWN ON THIS PLAN ARE TRUE BEARINGS TO THE NEAREST SECOND.

ALL TIES ON THIS PLAN ARE HORIZONTAL UNLESS DESCRIBED OTHERWISE.

WISDOT WILL FURNISH A BENCHMARK MONUMENT TO BE SET BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER IN THE FIELD.

PROPERTY LINES AS SHOWN ARE APPROXIMATE.

RUNOFF COEFFICIENT TABLE

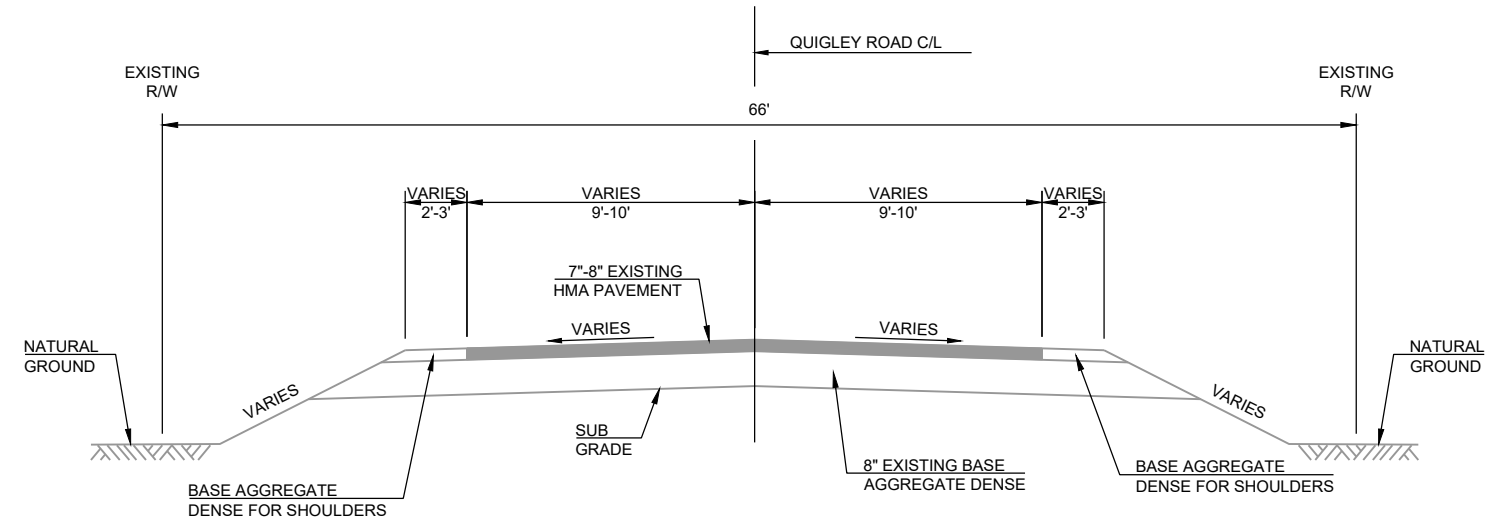
LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26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

TOTAL PROJECT AREA = 0.20 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.15 ACRES

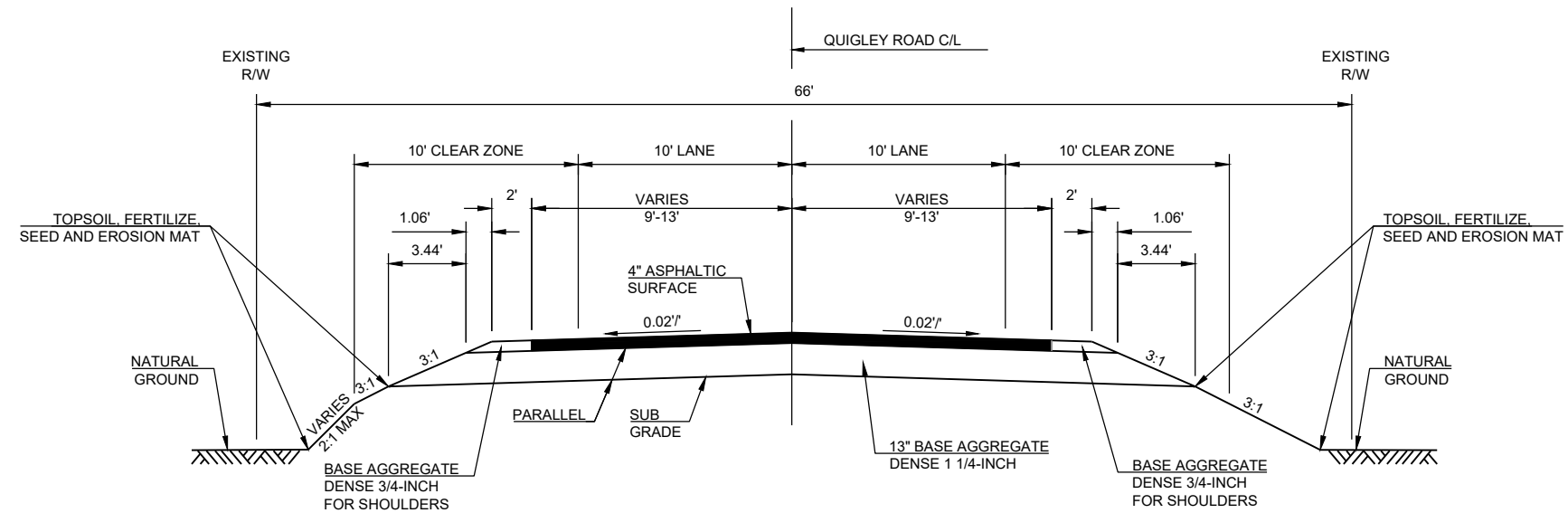
DIGGERSHOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com



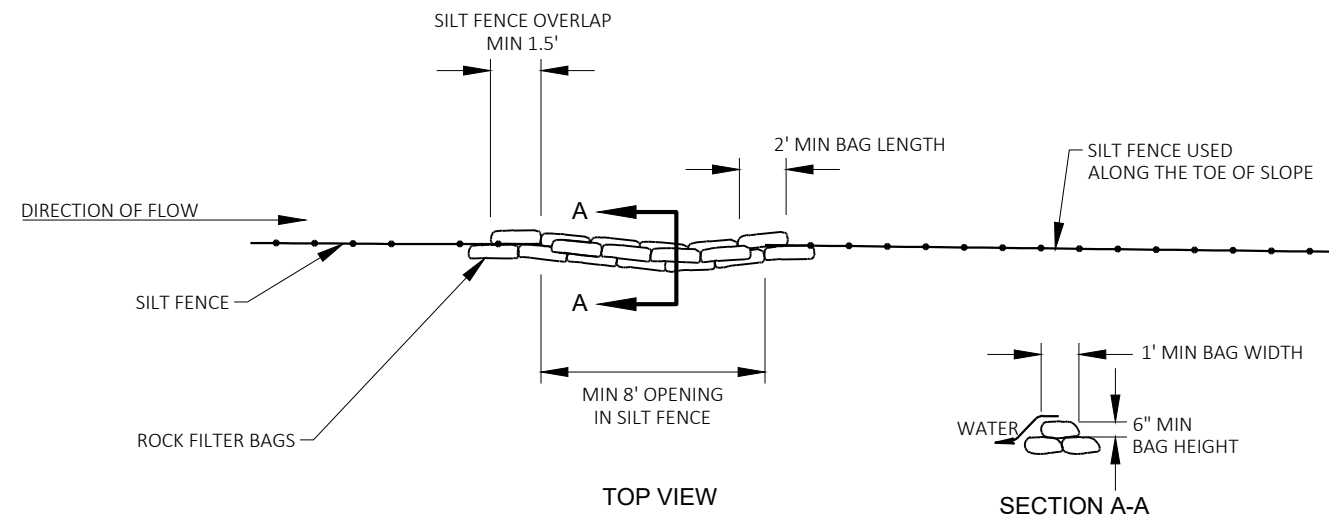
EXISTING TYPICAL SECTION FOR QUIGLEY ROAD
STA. 9+31.75 - STA. 10+68.25



PAVEMENT LAYERS

4" ASPHALTIC SURFACE	1.75" UPPER LAYER 2.25" LOWER LAYER
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FINISHED TYPICAL SECTION FOR QUIGLEY ROAD
STA. 9+31.75 - STA. 9+81.75
STA. 10+18.25 - STA. 10+68.25



ROCK BAGS USED FOR SILT FENCE RELIEF



Estimate Of Quantities

6445-00-01

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	2.000	2.000
0004	203.0250	Removing Structure Over Waterway Remove Debris (structure) 01. P-70-903	EACH	1.000	1.000
0006	205.0100	Excavation Common	CY	170.000	170.000
0008	206.1001	Excavation for Structures Bridges (structure) 01. B-70-330	EACH	1.000	1.000
0010	206.5001	Cofferdams (structure) 01. B-70-330	EACH	1.000	1.000
0012	208.0100	Borrow	CY	17.000	17.000
0014	210.1500	Backfill Structure Type A	TON	200.000	200.000
0016	213.0100	Finishing Roadway (project) 01. 6445-00-01	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	10.000	10.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	140.000	140.000
0022	455.0605	Tack Coat	GAL	20.000	20.000
0024	465.0105	Asphaltic Surface	TON	60.000	60.000
0026	502.0100	Concrete Masonry Bridges	CY	141.000	141.000
0028	502.3200	Protective Surface Treatment	SY	110.000	110.000
0030	502.3210	Pigmented Surface Sealer	SY	60.000	60.000
0032	505.0400	Bar Steel Reinforcement HS Structures	LB	3,460.000	3,460.000
0034	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	17,540.000	17,540.000
0036	516.0500	Rubberized Membrane Waterproofing	SY	20.000	20.000
0038	550.0500	Pile Points	EACH	10.000	10.000
0040	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	550.000	550.000
0042	606.0300	Riprap Heavy	CY	108.000	108.000
0044	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	140.000	140.000
0046	619.1000	Mobilization	EACH	1.000	1.000
0048	624.0100	Water	MGAL	4.000	4.000
0050	625.0100	Topsoil	SY	240.000	240.000
0052	628.1504	Silt Fence	LF	250.000	250.000
0054	628.1520	Silt Fence Maintenance	LF	500.000	500.000
0056	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0058	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0060	628.2008	Erosion Mat Urban Class I Type B	SY	240.000	240.000
0062	628.6005	Turbidity Barriers	SY	85.000	85.000
0064	628.7570	Rock Bags	EACH	75.000	75.000
0066	629.0210	Fertilizer Type B	CWT	1.000	1.000
0068	630.0120	Seeding Mixture No. 20	LB	5.000	5.000
0070	630.0500	Seed Water	MGAL	6.000	6.000
0072	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0074	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0076	638.2602	Removing Signs Type II	EACH	4.000	4.000
0078	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0080	642.5001	Field Office Type B	EACH	1.000	1.000
0082	643.0420	Traffic Control Barricades Type III	DAY	1,206.000	1,206.000
0084	643.0705	Traffic Control Warning Lights Type A	DAY	1,608.000	1,608.000
0086	643.0900	Traffic Control Signs	DAY	670.000	670.000
0088	645.0111	Geotextile Type DF Schedule A	SY	50.000	50.000
0090	645.0120	Geotextile Type HR	SY	221.000	221.000
0092	650.4500	Construction Staking Subgrade	LF	100.000	100.000
0094	650.5000	Construction Staking Base	LF	100.000	100.000
0096	650.6501	Construction Staking Structure Layout (structure) 01. B-70-330	EACH	1.000	1.000
0098	650.9911	Construction Staking Supplemental Control (project) 01. 6445-00-01	EACH	1.000	1.000

Estimate Of Quantities

6445-00-01

Line	Item	Item Description	Unit	Total	Qty
0100	650.9920	Construction Staking Slope Stakes	LF	100.000	100.000
0102	690.0150	Sawing Asphalt	LF	40.000	40.000
0104	715.0502	Incentive Strength Concrete Structures	DOL	846.000	846.000
0106	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	600.000	600.000
0108	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0110	SPV.0060	Special 01. Temporary Bypass Pumping STA 10+00	EACH	1.000	1.000
0112	SPV.0195	Special 01. Select Crushed Material for Travel Corridor	TON	50.000	50.000

EARTHWORK SUMMARY										
DIVISION	FROM/TO STATION	LOCATION	COMMON EXCAVATION (1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE (15)	208.0100 BORROW
			CUT (2)				FACTOR 1.30			
DIVISION 1										
POYGAN	9+31.75/10+68.25		170	34	136	118	153	-17		
DIVISION 1 SUBTOTAL			170	34	136	118	153	-17	0	17
GRAND TOTAL			170	34	136	118	153	-17	0	17
TOTAL COMMON EXC			170							

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTOR = 1.30
(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

AGGREGATES

GRUBBING

			201.0205 GRUBBING STA	
STATION	TO	STATION	LOCATION	
9+00	-	11+00	QUIGLEY ROAD	2
			TOTAL 0010	2

				305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL	REMARKS
9+32	-	9+82	QUIGLEY ROAD	5	70	2	SOUTH APPROACH
10+18	-	10+68	QUIGLEY ROAD	5	70	2	NORTH APPROACH
TOTAL 0010				10	140	4	

LANDSCAPING ITEMS

ASPHALTIC SURFACE

			455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	REMARKS
STATION	TO	STATION	LOCATION		
9+32	-	9+82	QUIGLEY ROAD	10	SOUTH APPROACH
10+18	-	10+68	QUIGLEY ROAD	10	NORTH APPROACH
TOTAL 0010			20	60	

				625.0100 TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0500 SEED WATER MGAL
9+32	-	9+72	QUIGLEY ROAD, LT	60	60	0.1	1.2	1.3
9+32	-	9+72	QUIGLEY ROAD, RT	54	54	0.1	0.9	1.2
10+28	-	10+68	QUIGLEY ROAD, LT	50	50	0.1	0.8	1.1
10+28	-	10+68	QUIGLEY ROAD, RT	49	49	0.1	0.8	1.1
UNDISTRIBUTED				27	27	0.6	1.3	1.3
TOTAL 0010				240	240	1	5	6

MOBILIZATIONS EROSION CONTROL

SILT FENCE

TURBIDITY BARRIER

				628.1504	628.1520
				SILT FENCE	SILT FENCE
				LF	MAINTENANCE
STATION	TO	STATION	LOCATION	LF	LF
9+32	-	9+72	QUIGLEY ROAD, LT	54	108
9+32	-	9+72	QUIGLEY ROAD, RT	58	116
10+28	-	10+68	QUIGLEY ROAD, LT	50	100
10+28	-	10+68	QUIGLEY ROAD, RT	51	102
UNDISTRIBUTED				37	74
TOTAL 0010				250	500

STATION	TO	STATION	LOCATION	628.1905	628.1910
				MOBILIZATIONS	MOBILIZATIONS
				EROSION	EROSION
				CONTROL	CONTROL
				EACH	EACH
9+32	-	10+68	QUIGLEY ROAD	5	3
TOTAL 0010				5	3

LOCATION	SY	REMARKS
QUIGLEY ROAD	41	SOUTH ABUTMENT
QUIGLEY ROAD	44	NORTH ABUTMENT
TOTAL 0010	85	

ROCK BAGS

SIGNS

REMOVE SIGN POST

		628.7570	REMARKS
		ROCK BAGS	
STATION	LOCATION	EACH	REMARKS
9+72	QUIGLEY ROAD, LT	15	SILT FENCE RELIEF
9+75	QUIGLEY ROAD, RT	15	SILT FENCE RELIEF
10+27	QUIGLEY ROAD, LT	15	SILT FENCE RELIEF
10+35	QUIGLEY ROAD, RT	15	SILT FENCE RELIEF
UNDISTRIBUTED		15	SILT FENCE RELIEF
TOTAL 0010		75	

		634.0612	637.2230	REMARKS
		POSTS WOOD	SIGNS TYPE II	
		4X6-INCH X 12-FT	REFLECTIVE F	
STATION	LOCATION	EACH	SF	REMARKS
9+80	QUIGLEY ROAD, LT	1	3	OM3-L
9+80	QUIGLEY ROAD, RT	1	3	OM3-R
10+20	QUIGLEY ROAD, LT	1	3	OM3-L
10+20	QUIGLEY ROAD, RT	1	3	OM3-R
TOTAL 0010		4	12	

		638.2602	638.3000	REMARKS
		REMOVING	REMOVING	
		SIGNS TYPE II	SMALL SIGN	
		EACH	SUPPORTS	
STATION	LOCATION	EACH	EACH	REMARKS
9+82	QUIGLEY ROAD, LT	1	1	OBJECT MARKER
9+83	QUIGLEY ROAD, RT	1	1	OBJECT MARKER
10+16	QUIGLEY ROAD, LT	1	1	OBJECT MARKER
10+19	QUIGLEY ROAD, RT	1	1	OBJECT MARKER
TOTAL 0010		4	4	

TRAFFIC CONTROL SIGNS

LOCATION	APPOXIMATE SERVICE DAYS	643.0420		643.0705		643.0900		REMARKS
		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL SIGNS		
		NO. IN		NO. IN		NO. IN		
		SERVICE	DAY	SERVICE	DAY	SERVICE	DAY	
SOUTH OF WORK ZONE LIMITS	67	2	134	4	268	3	201	(1)
SOUTH WORK ZONE LIMITS	67	7	469	8	536	2	134	(2)
NORTH WORK ZONE LIMITS	67	7	469	8	536	2	134	(2)
NORTH OF WORK ZONE LIMITS	67	2	134	4	268	3	201	(1)
TOTAL 0010		1,206		1,608		670		

(1) SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C
(2) SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL D

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500	650.5000	650.9920	650.6501.01	650.9911.01
					CONSTRUCTION STAKING SUBGRADE	CONSTRUCTION STAKING BASE	CONSTRUCTION STAKING SLOPE STAKES	CONSTRUCTION STAKING STRUCTURE LAYOUT (B-70-0330)	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (6445-00-01)
					LF	LF	LF	EACH	EACH
0010	9+32	-	9+82	QUIGLEY ROAD	50	50	50	0	1
0010	10+18	-	10+68	QUIGLEY ROAD	50	50	50	0	0
TOTAL 0010					100	100	100	0	1
0020	10+00			B-70-0330	0	0	0	1	0
TOTAL 0020					0	0	0	1	0
PROJECT TOTAL					100	100	100	1	1

SAWING

STATION	LOCATION	690.0150	REMARKS
		SAWING ASPHALT LF	
9+32	QUIGLEY ROAD	20	SOUTH APPROACH
10+68	QUIGLEY ROAD	20	NORTH APPROACH
TOTAL 0010		40	

TEMPORARY BYPASS PUMPING

STATION	SPV.0060.01
	SPECIAL (01: TEMPORARY BYPASS PUMPING) EACH
10+00	1
TOTAL 0010	1

XXXXX SAW CUTS

5

Standard Detail Drawing List

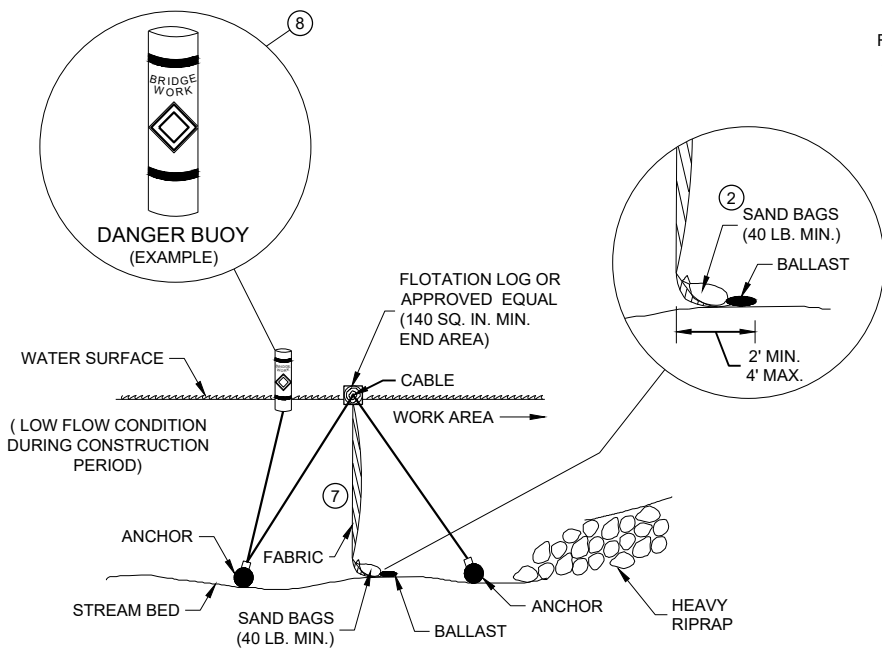
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS



- 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.

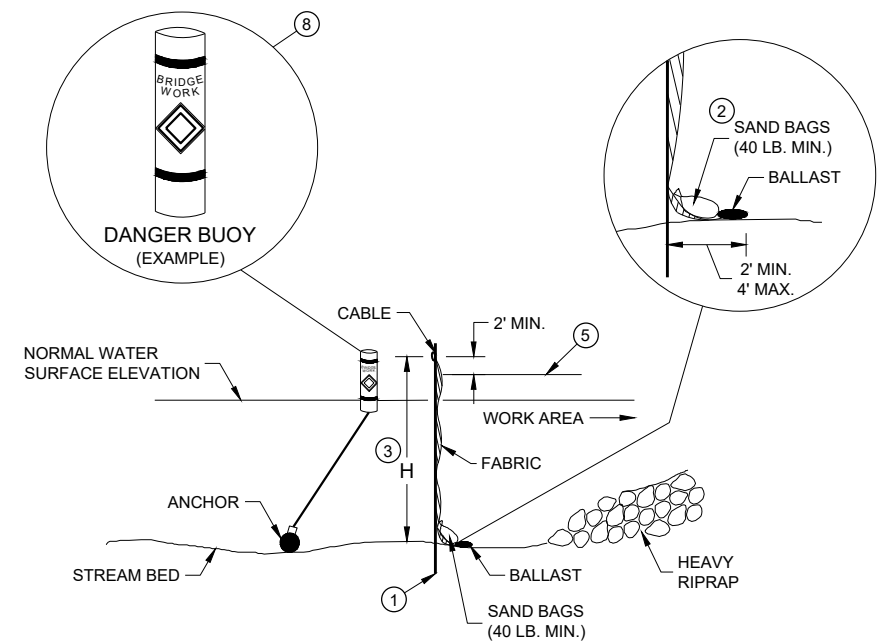


<p style="text-align: center;">SILT FENCE</p>	
<p style="text-align: center;">STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>	
<p>APPROVED</p> <p><u>4-29-05</u></p> <p>DATE</p>	<p><u>/S/ Beth Cannestra</u></p> <p>CHIEF ROADWAY DEVELOPMENT ENGINEER</p>
<p>FHWA</p>	



SECTION B - B

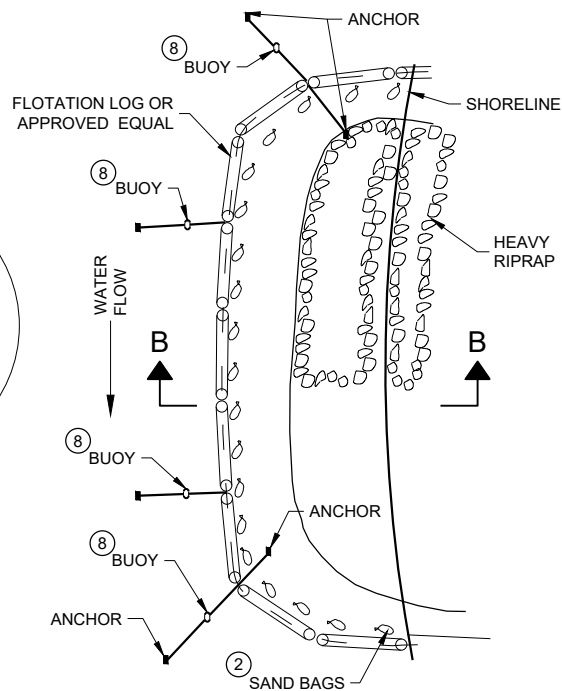
TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



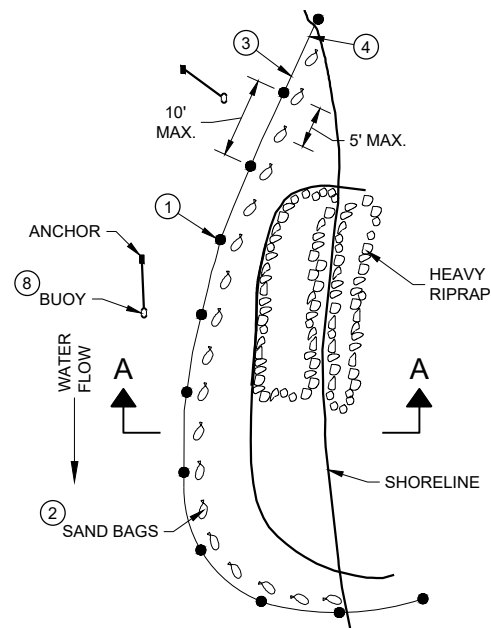
SECTION A - A

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS



PLAN VIEW



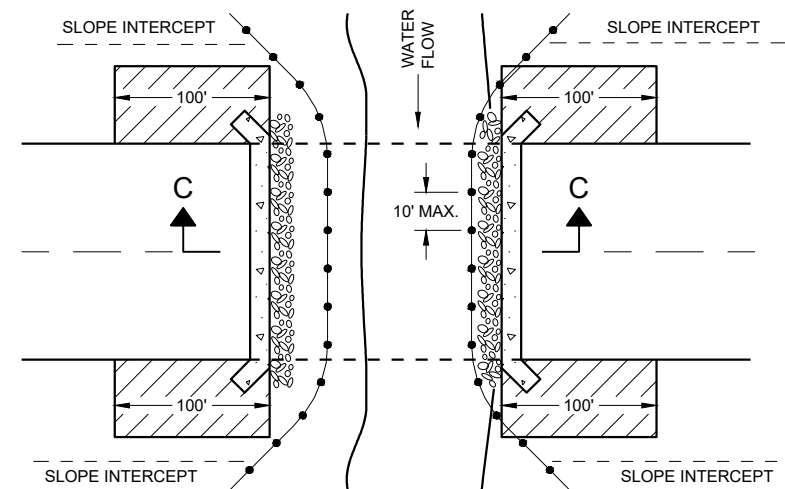
PLAN VIEW

GENERAL NOTES

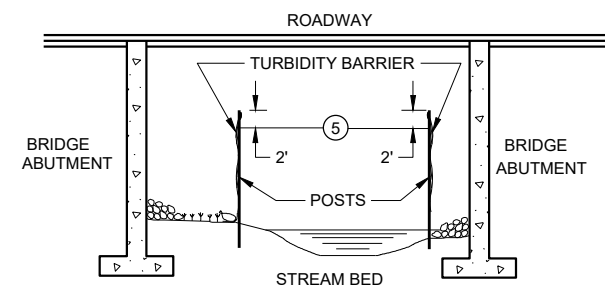
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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



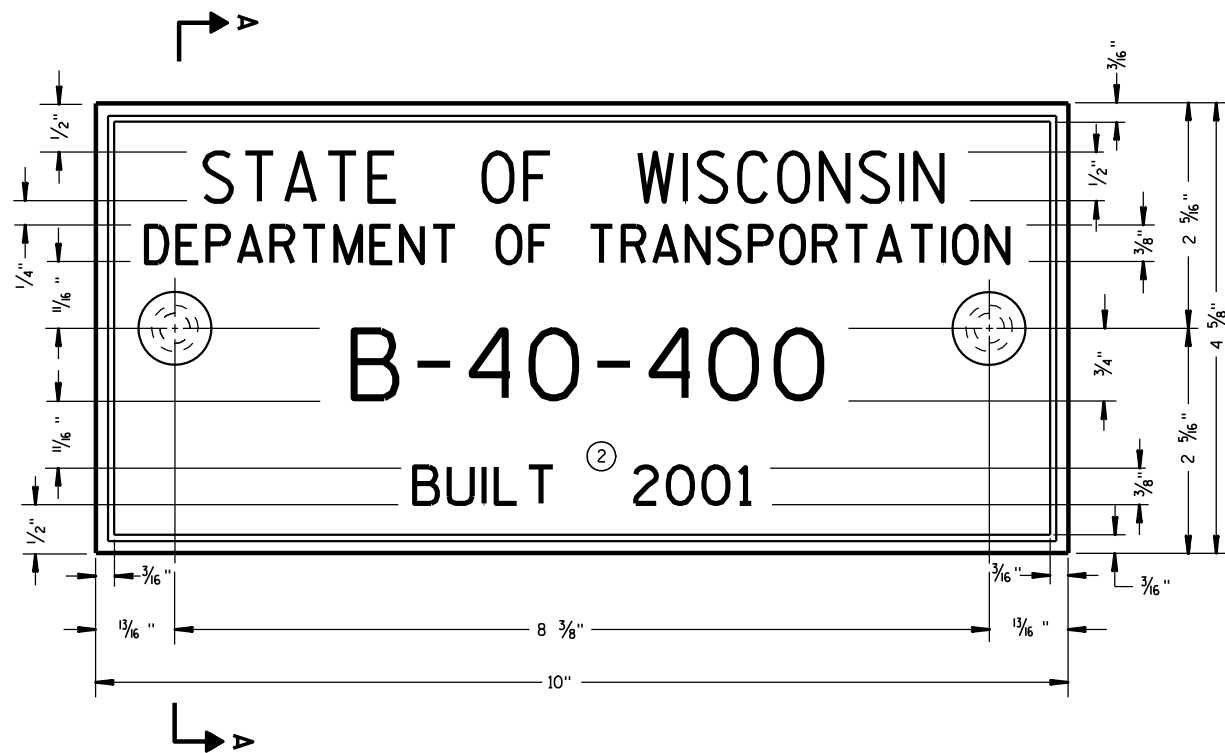
SECTION C - C

TURBIDITY BARRIER DETAIL SHOWING
TYPICAL PLACEMENT AT STRUCTURES

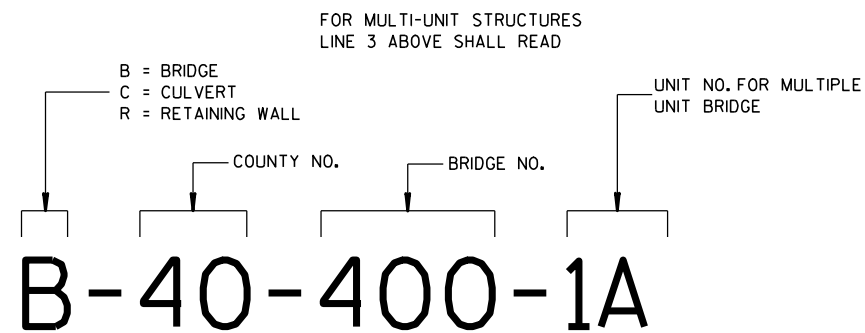
TURBIDITY BARRIER

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)



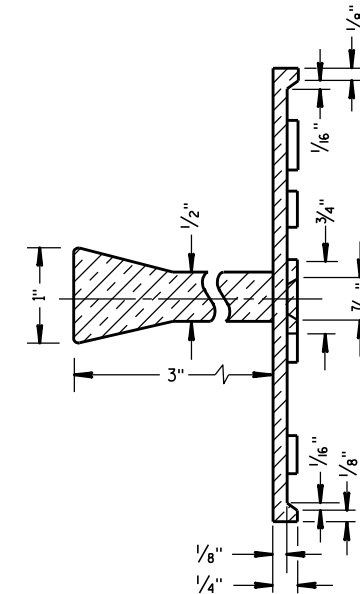
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

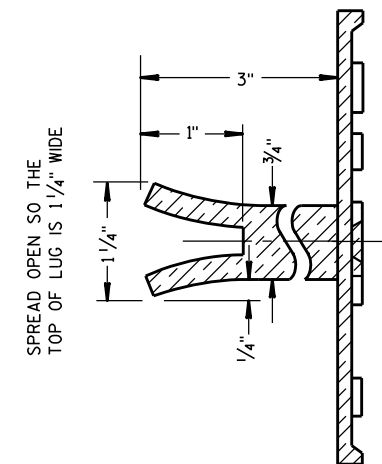
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

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

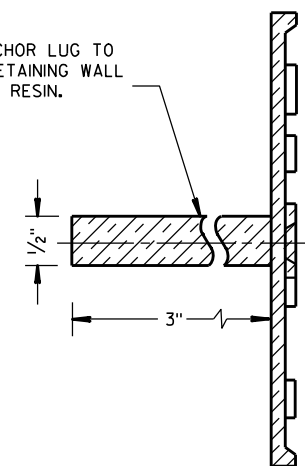


SECTION A-A



ALTERNATE LUG

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



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

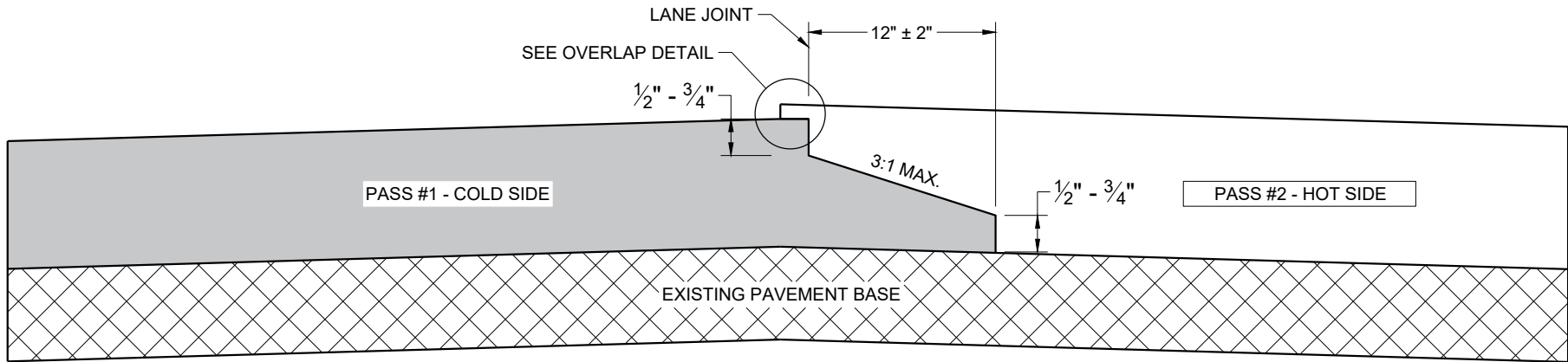
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

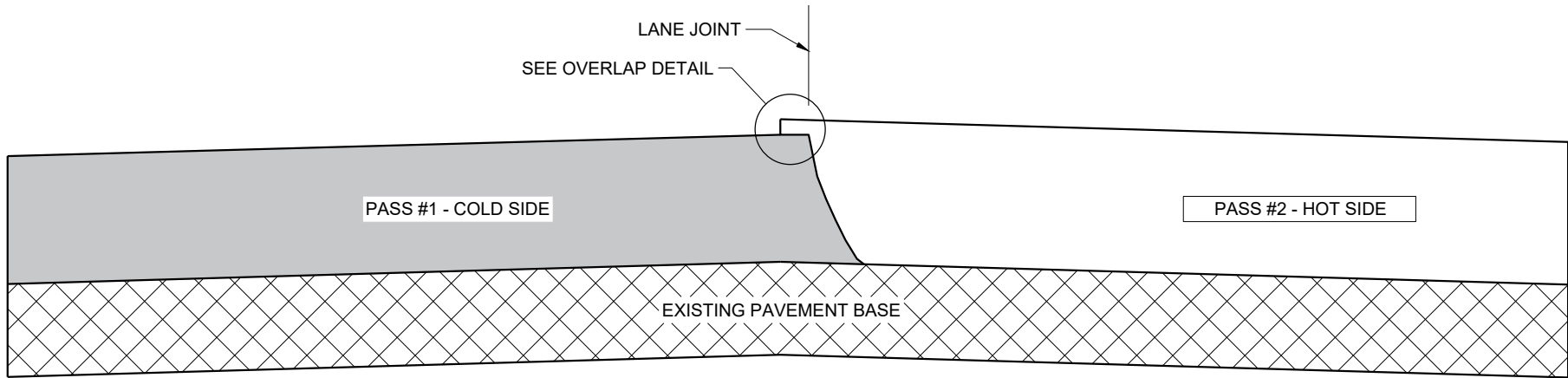
3/26/10
DATE

FHWA

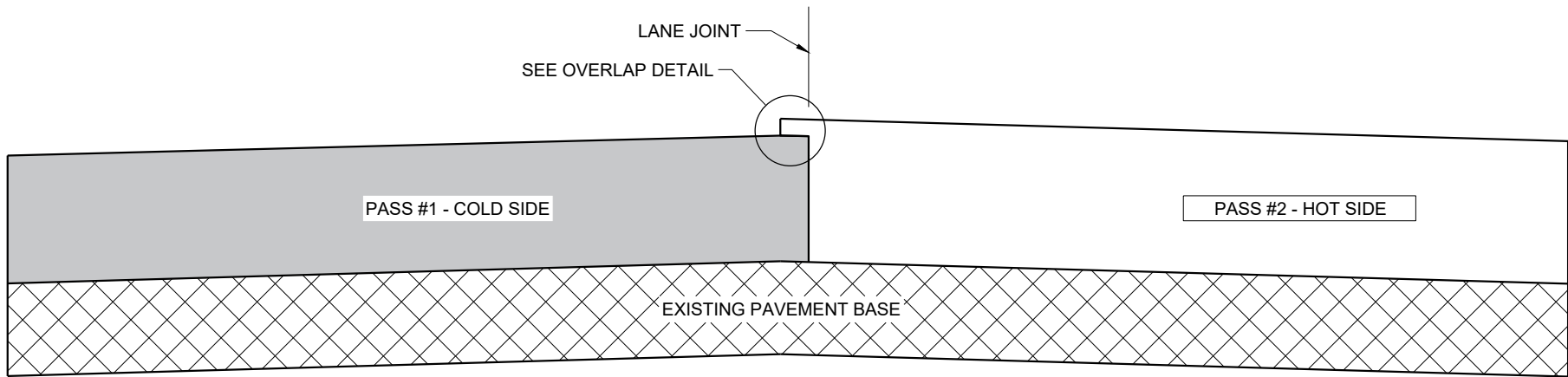
/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

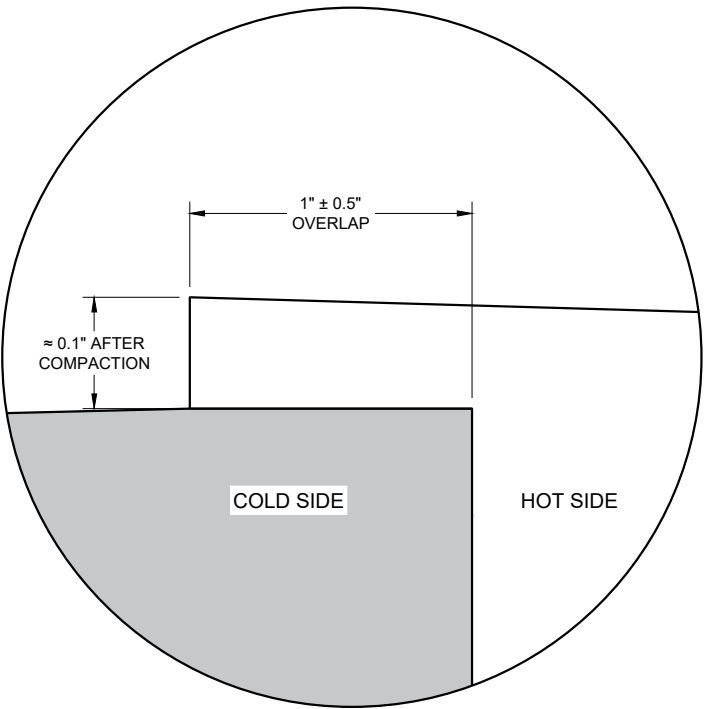
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY $0.1"$ AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO $2"$ FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.

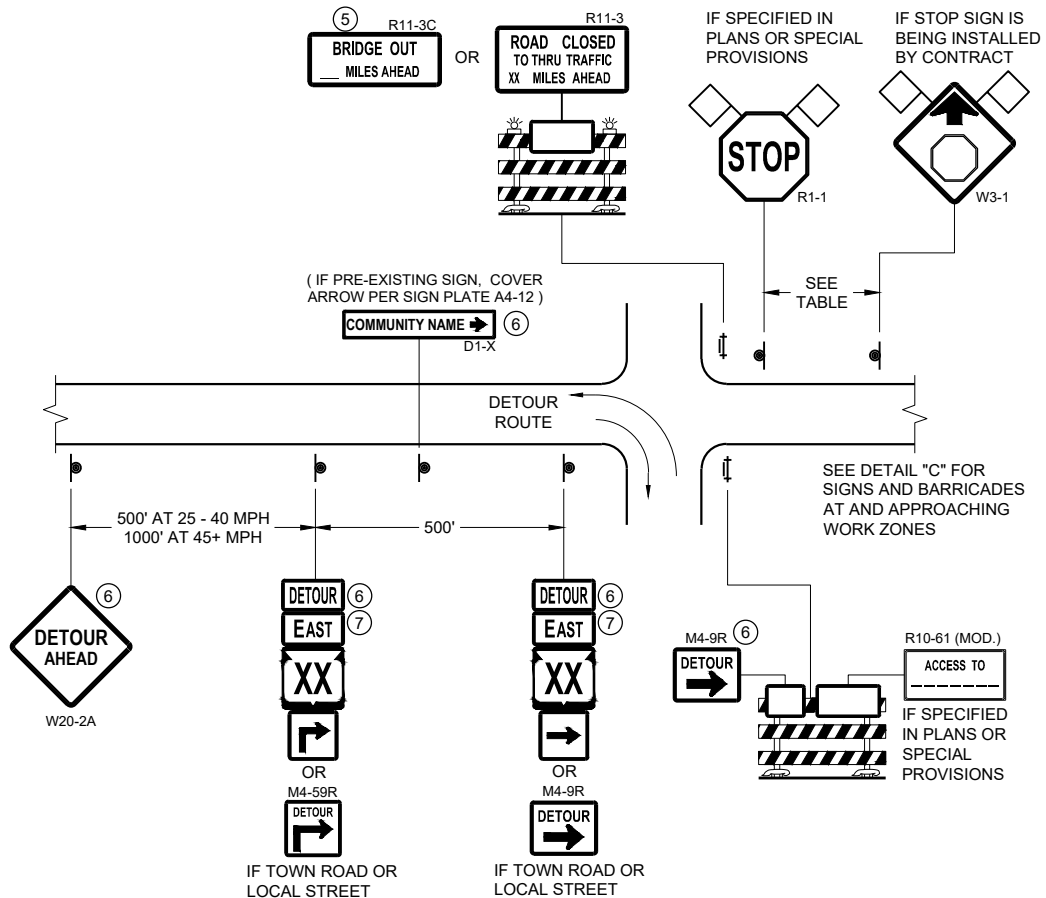


OVERLAP DETAIL (TYPICAL)

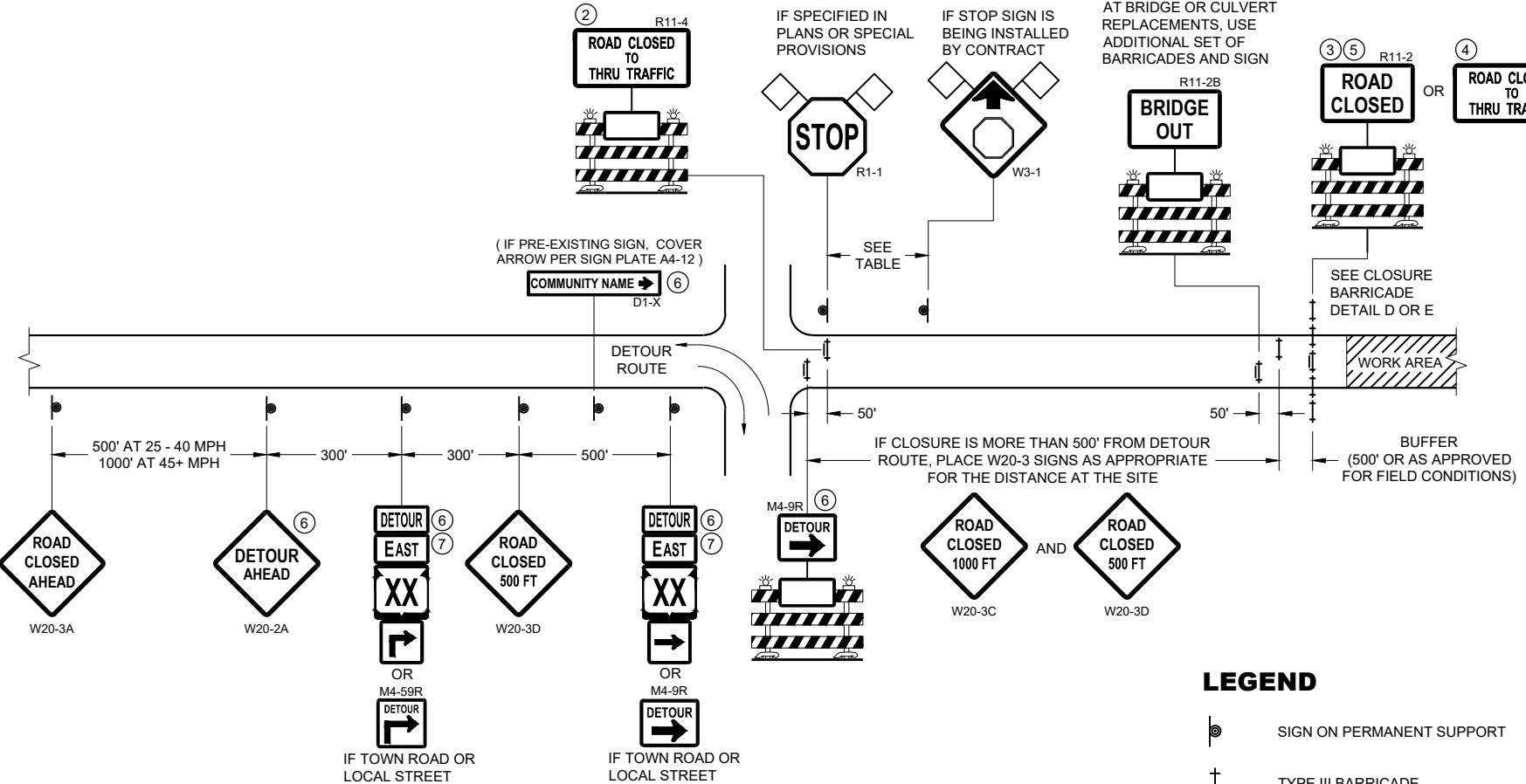
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGINEER
FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



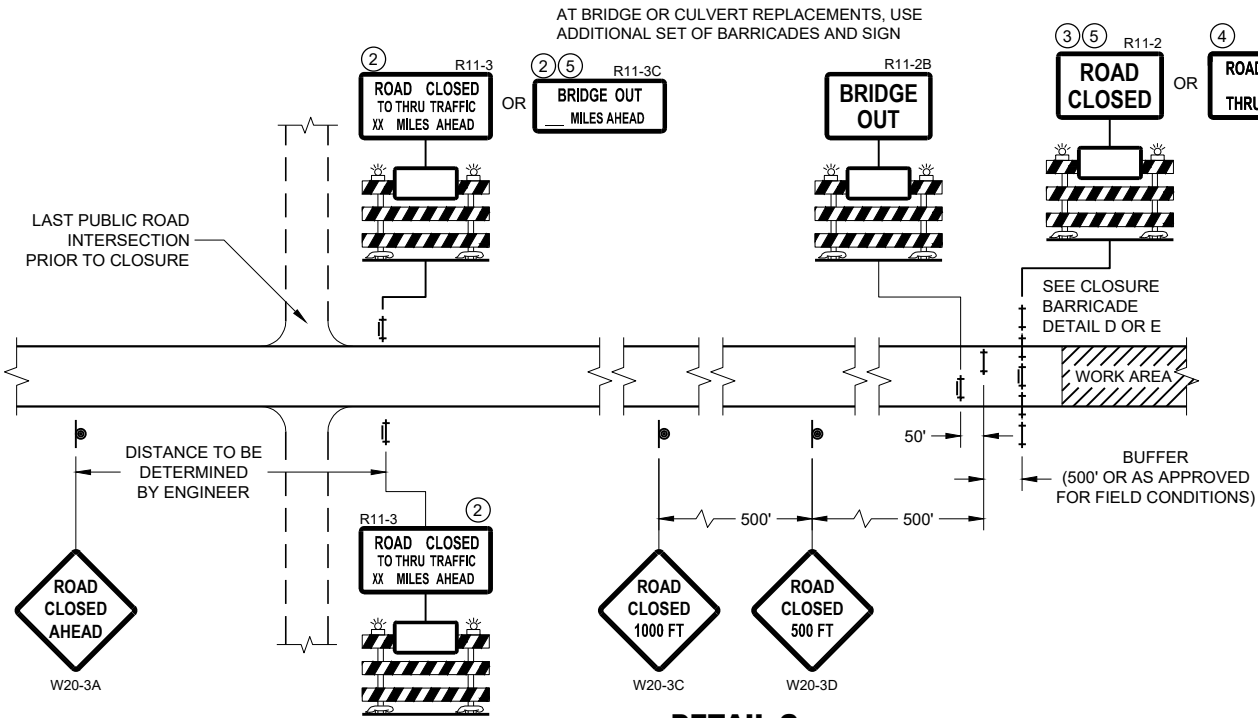
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

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

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

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

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

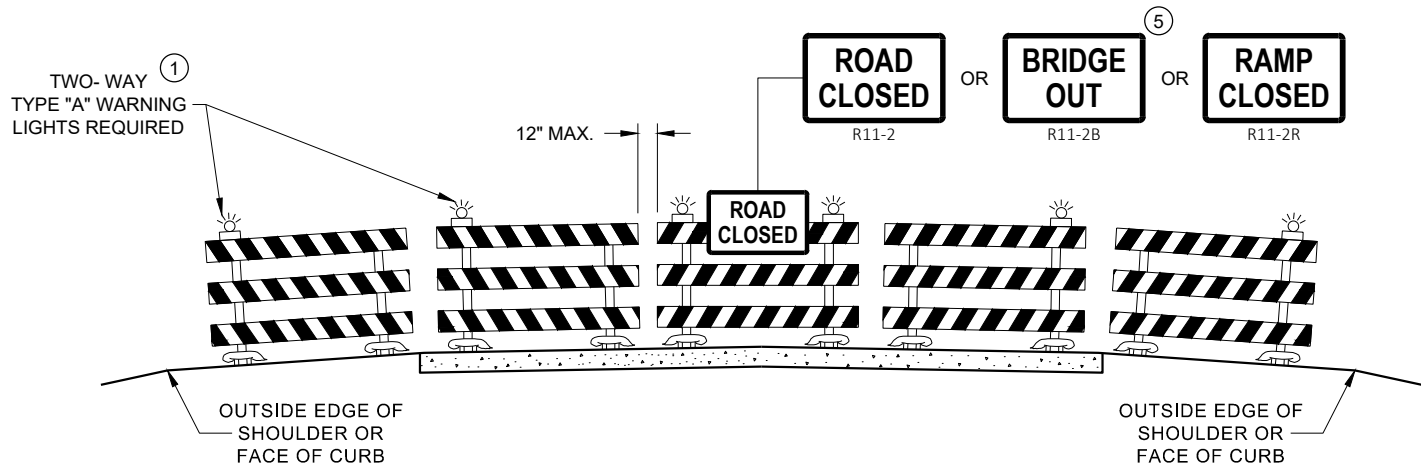


DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

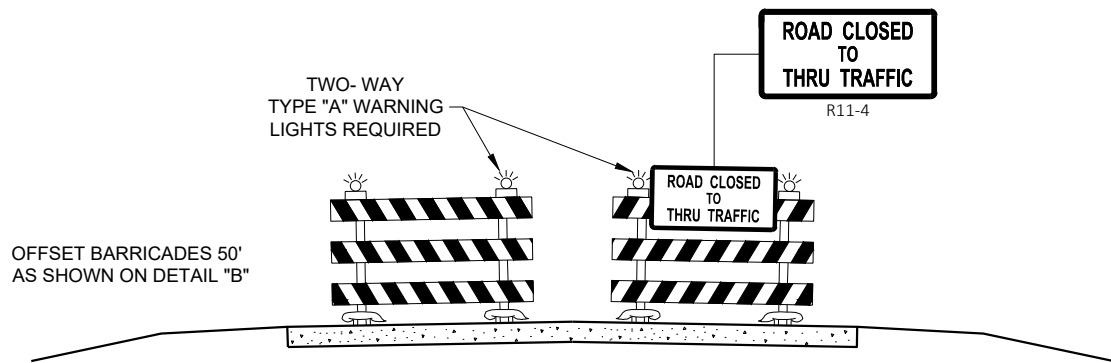
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
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"

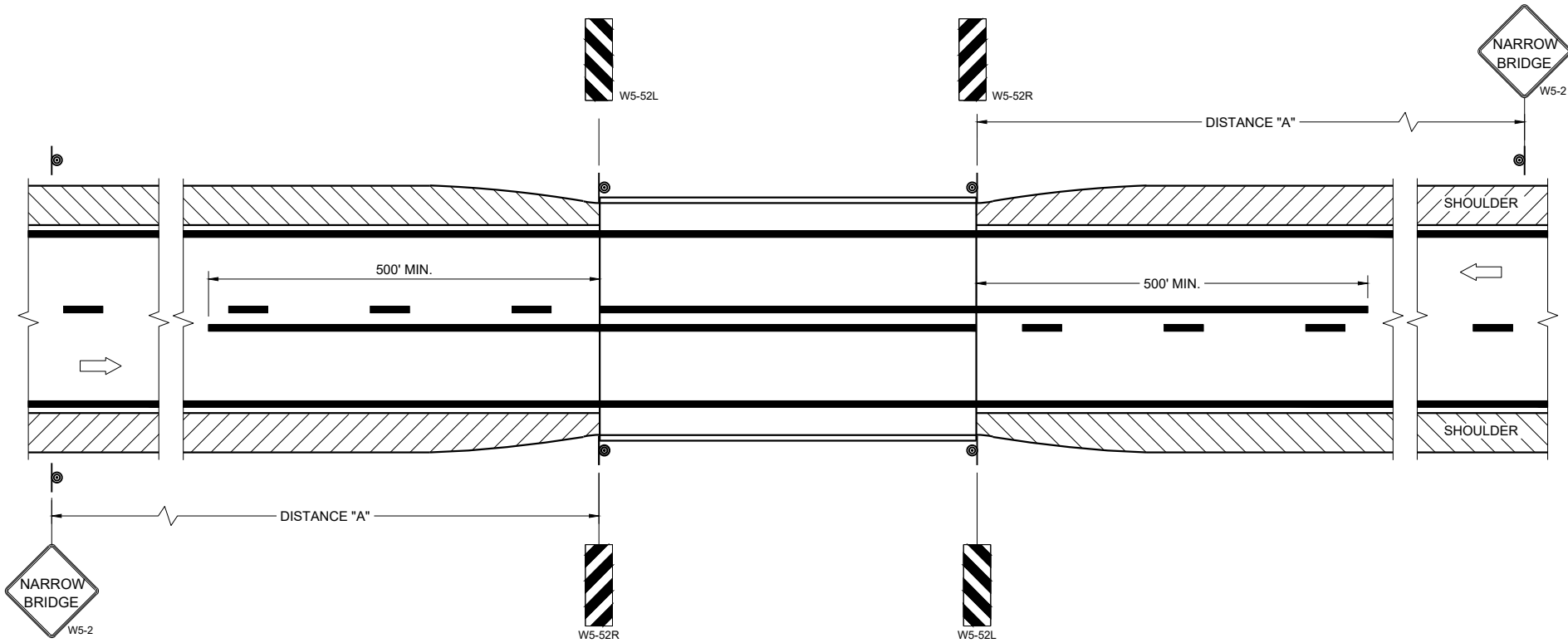
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS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

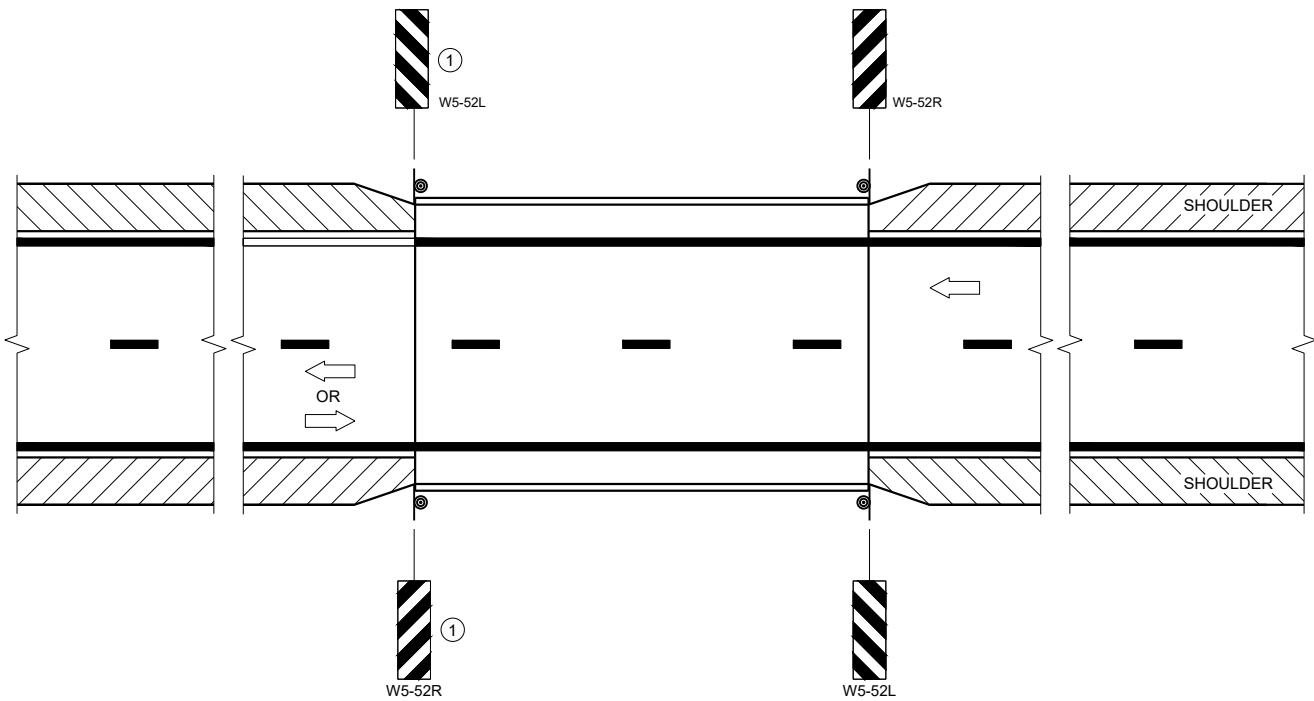
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



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

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THE 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.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

① OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

⊙ SIGN ON PERMANENT SUPPORT

➡ DIRECTION OF TRAFFIC

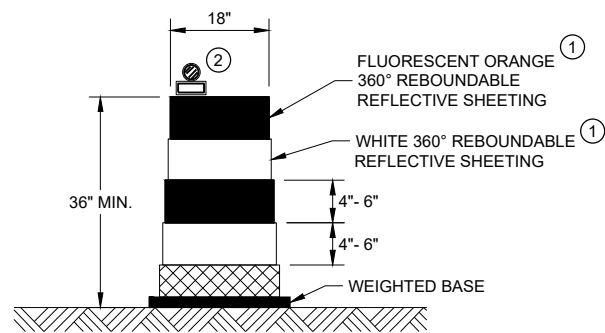
DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

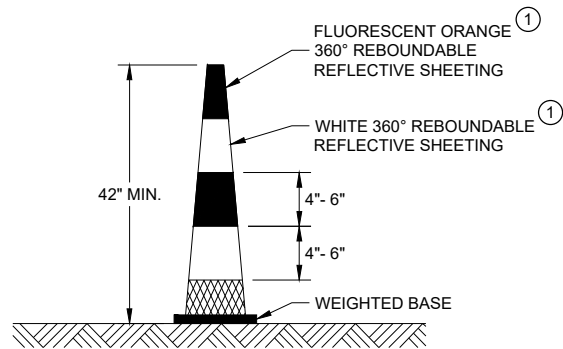
**SIGNING AND MARKING
FOR TWO LANE BRIDGES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

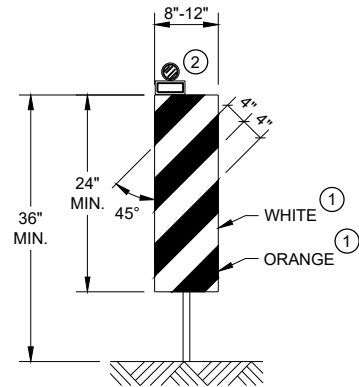
APPROVED
May 2023 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer
FHWA



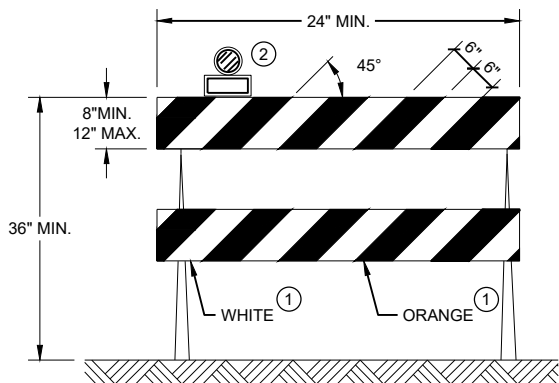
DRUM
BALLAST WIDTHS
RANGE FROM 24"-36"



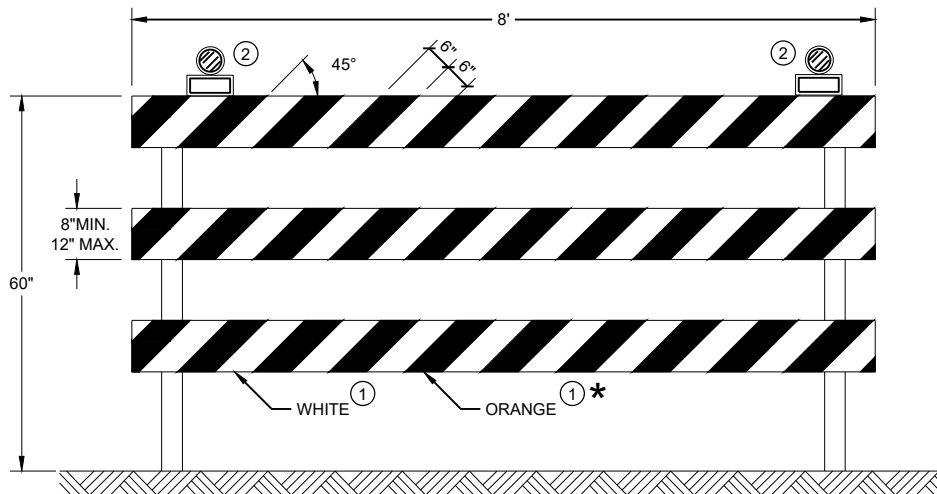
42" CONE
DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



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



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



TYPE III BARRICADE
IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.
* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

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

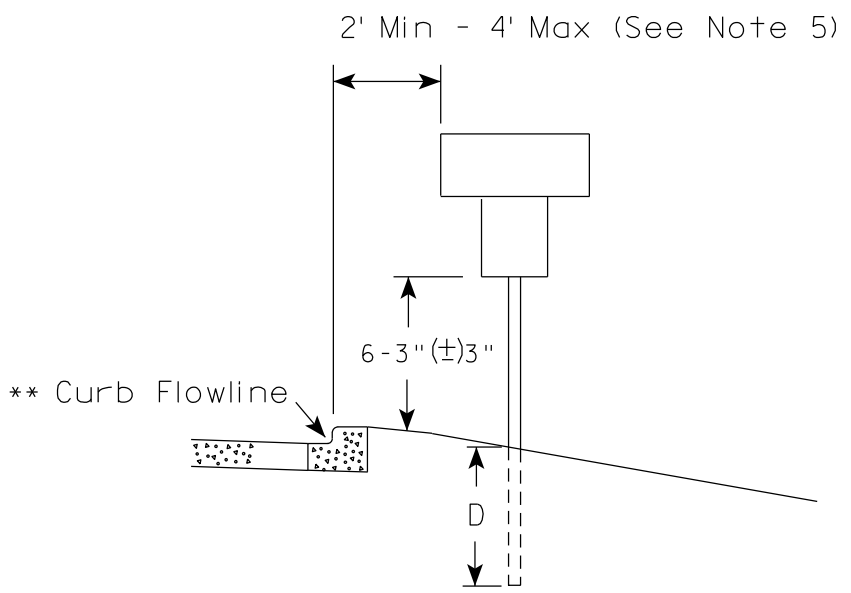
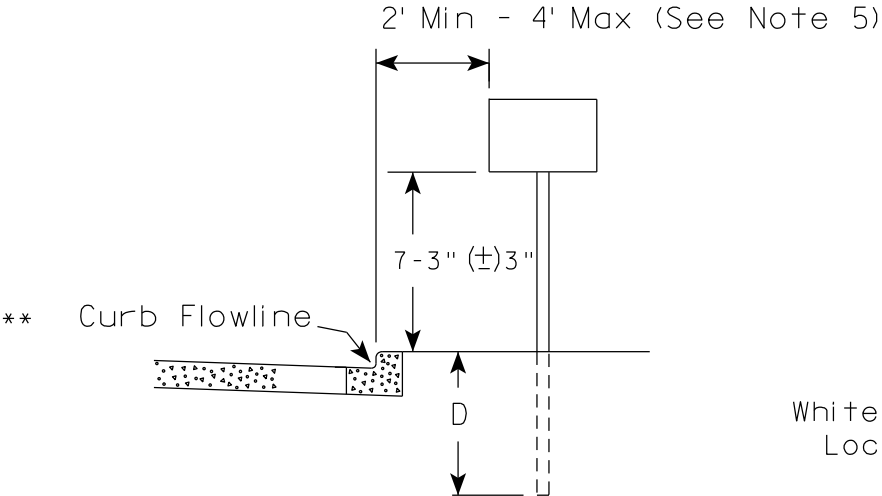
**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

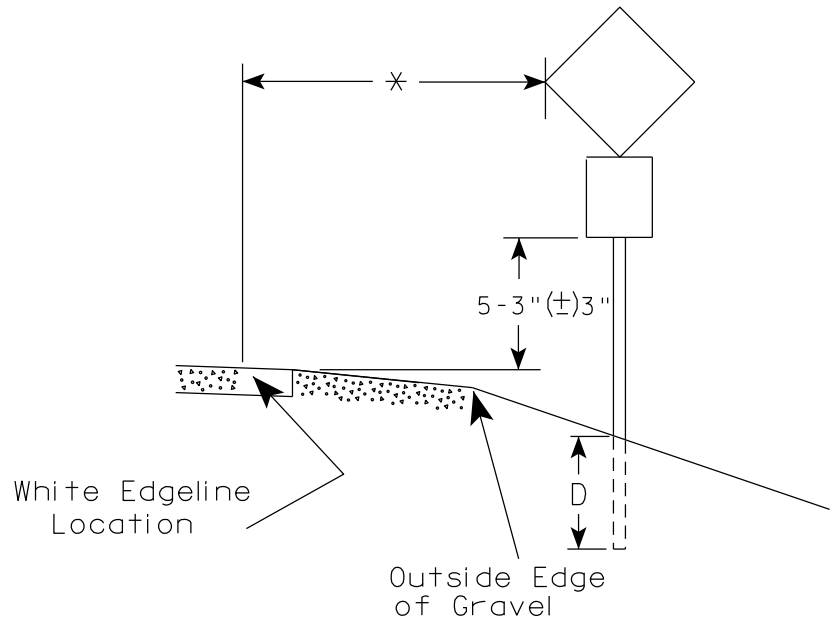
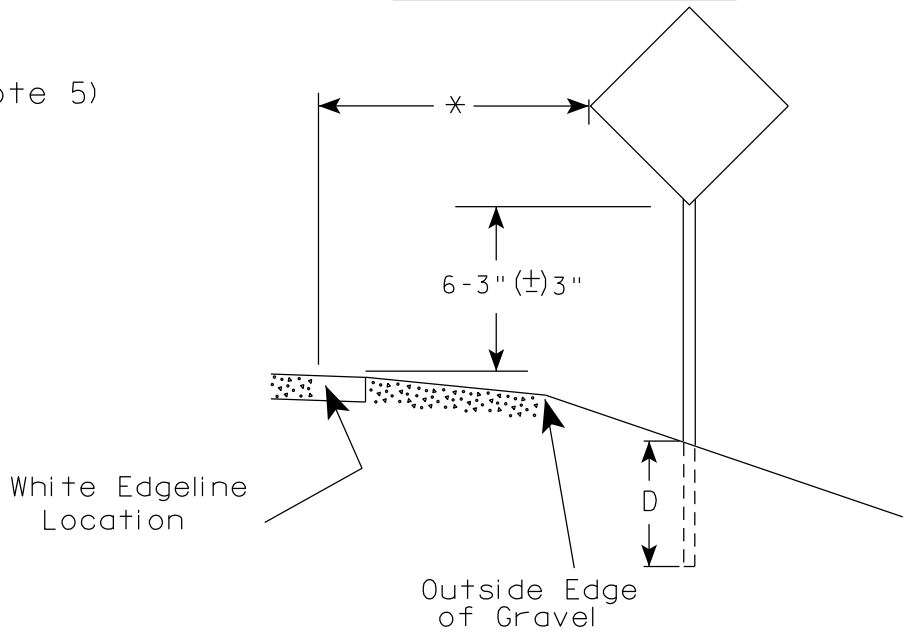
APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

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" (±) 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".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 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.

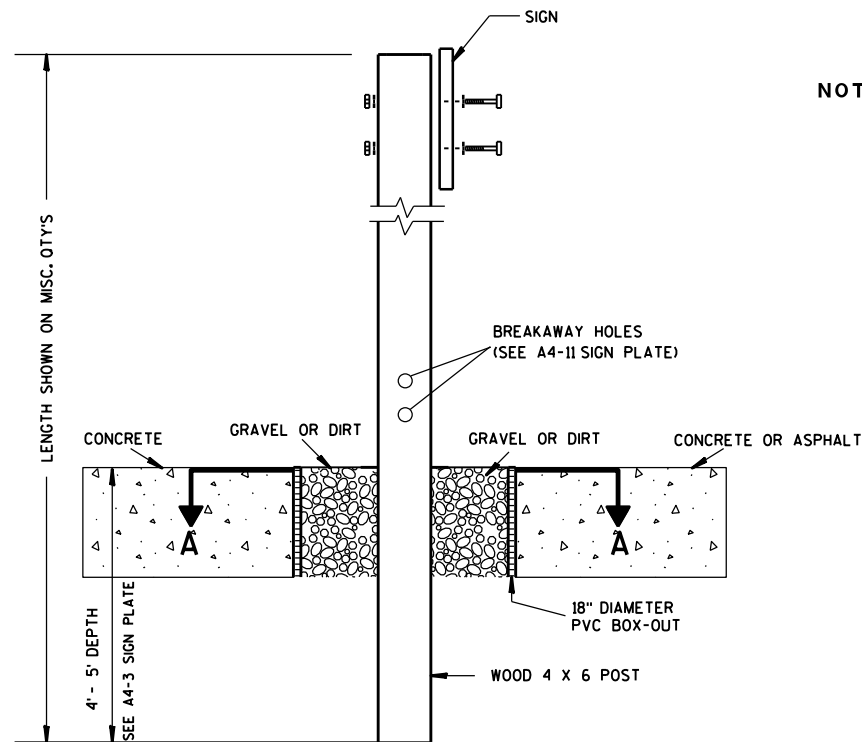
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED 
for State Traffic Engineer

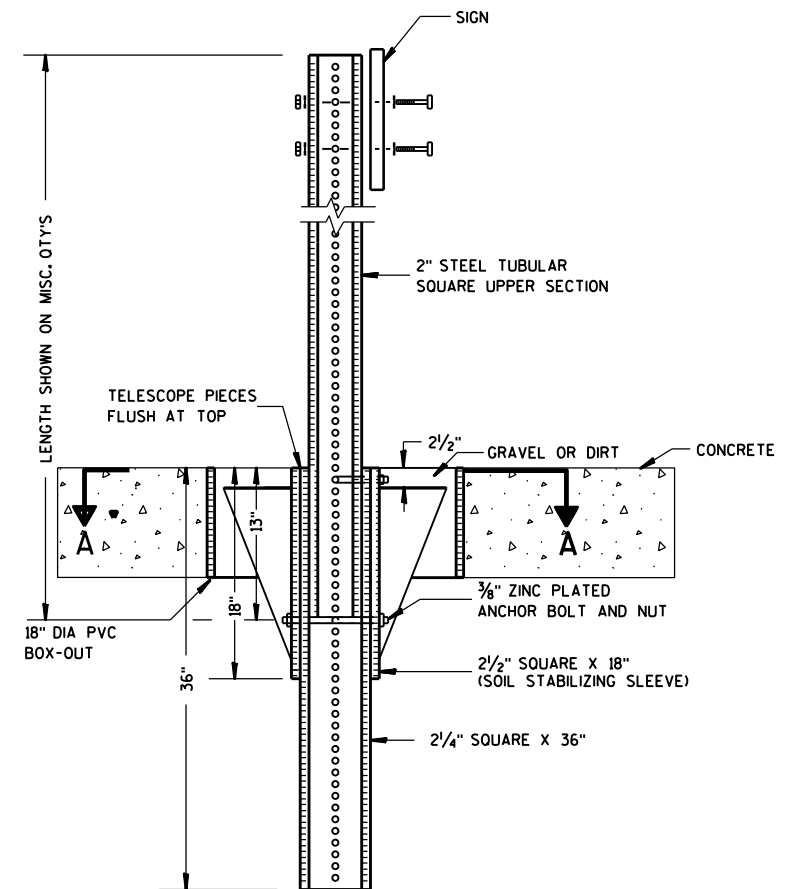
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

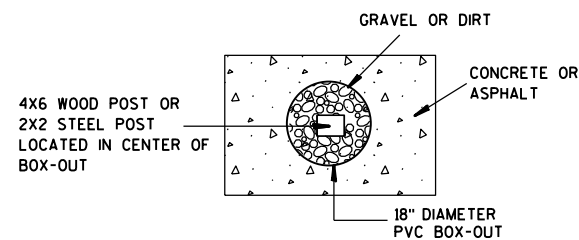
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

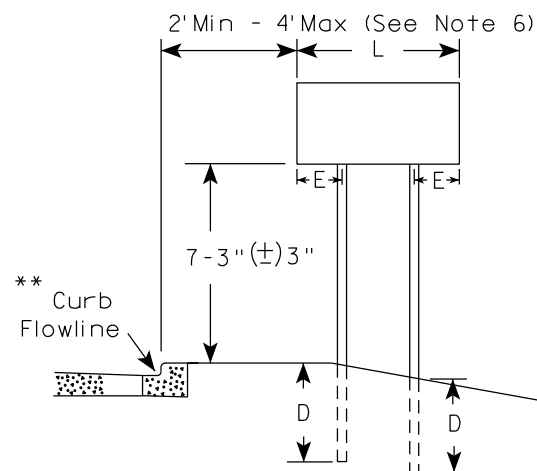
SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

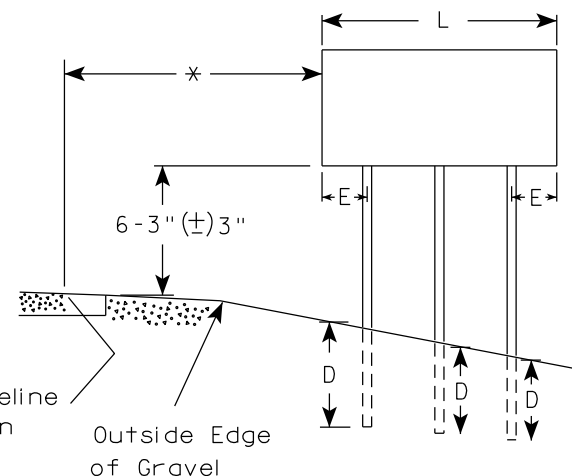
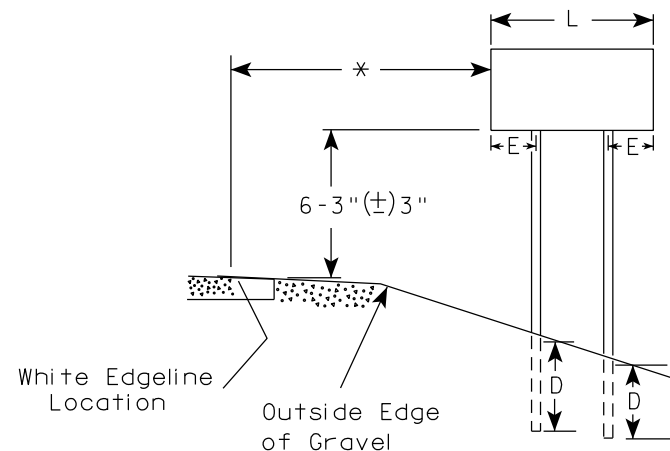
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

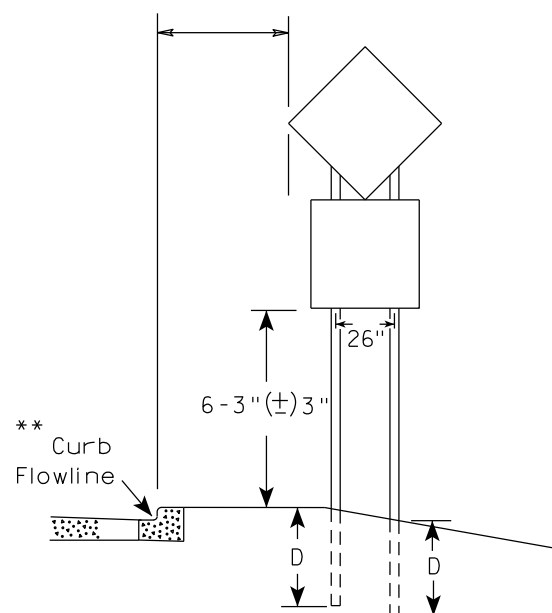
URBAN AREA



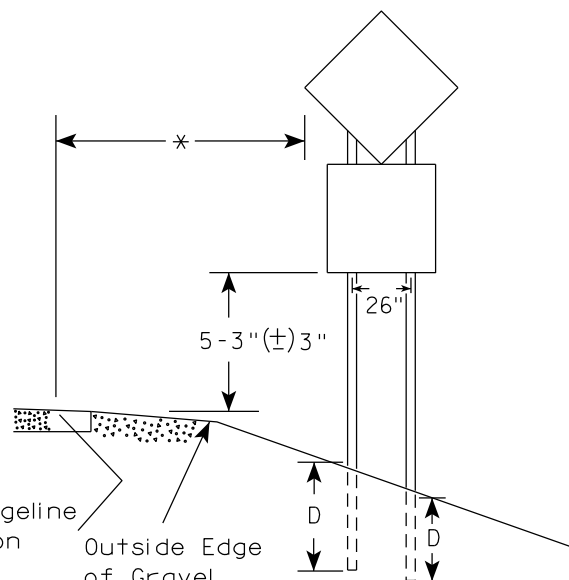
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

POST EMBEDMENT DEPTH

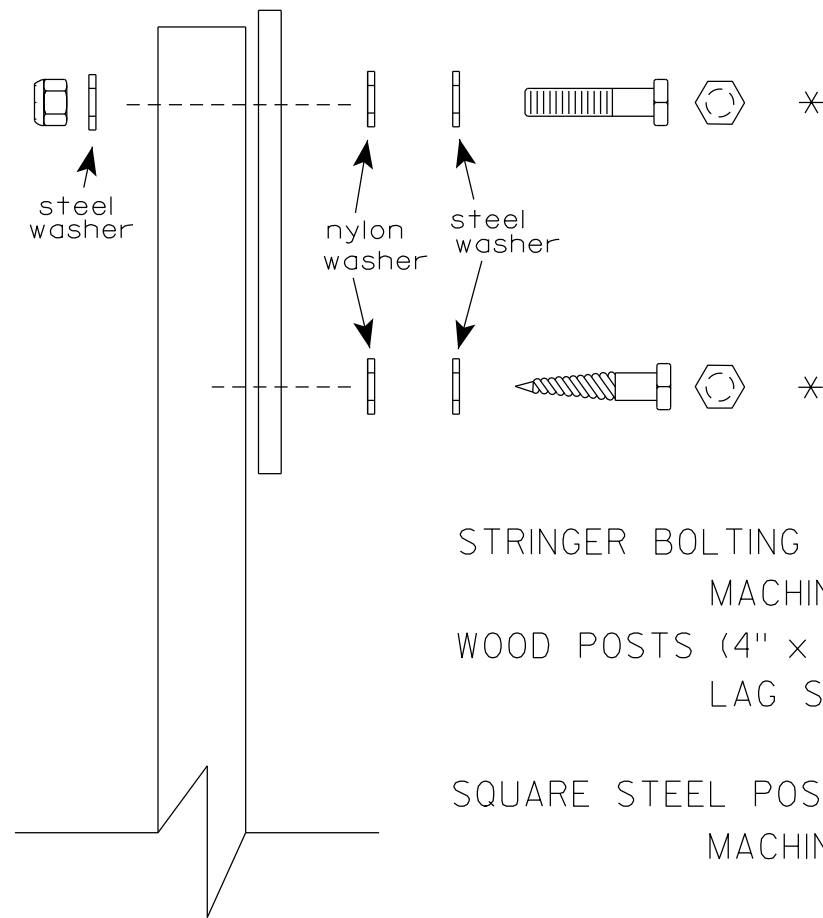
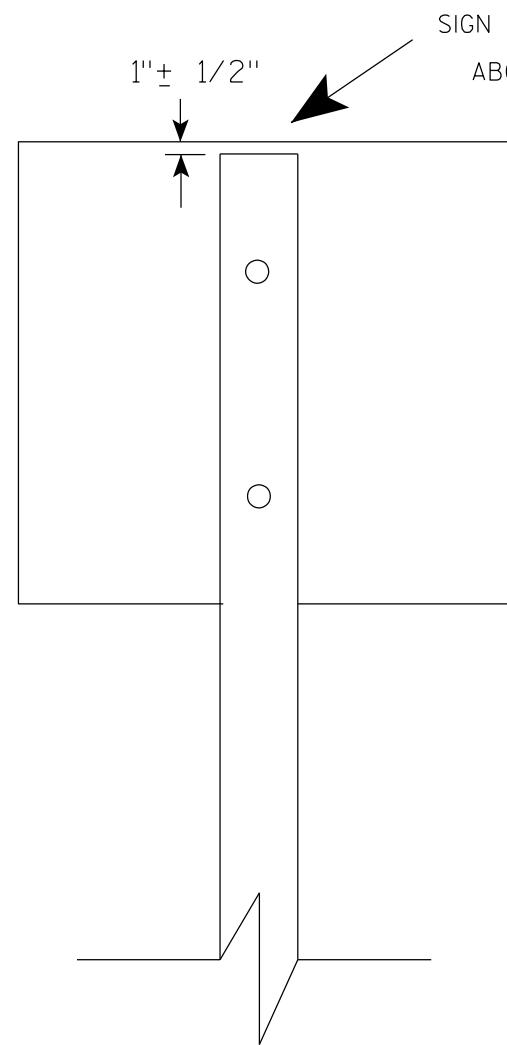
Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16



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

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

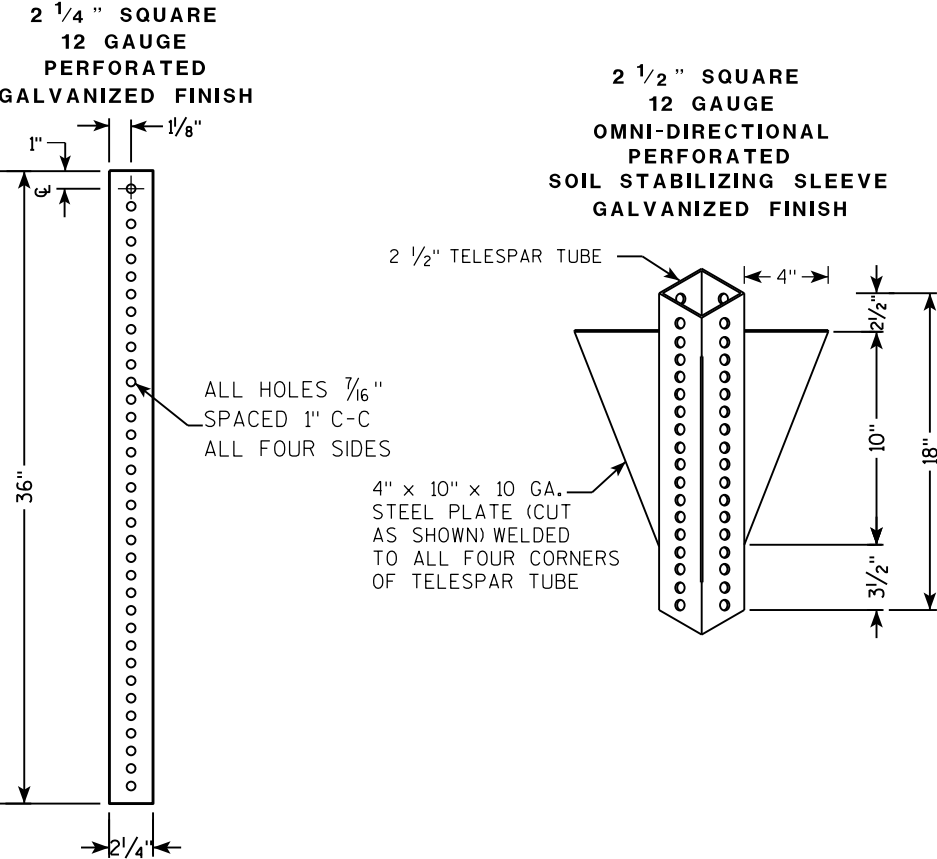
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

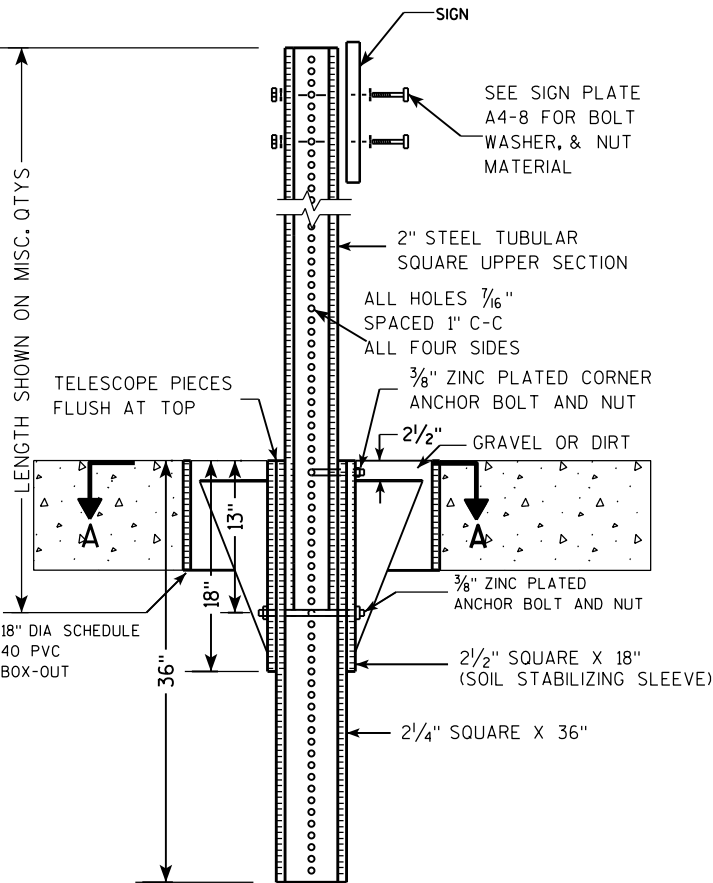
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

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

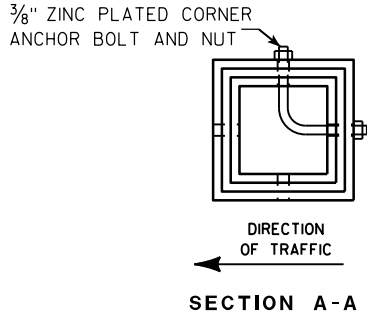
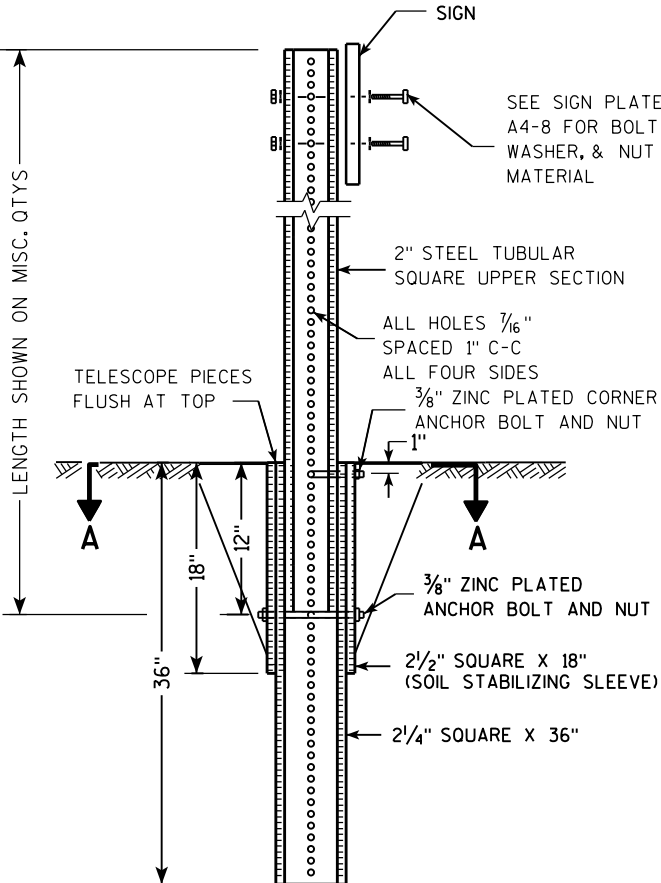
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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).

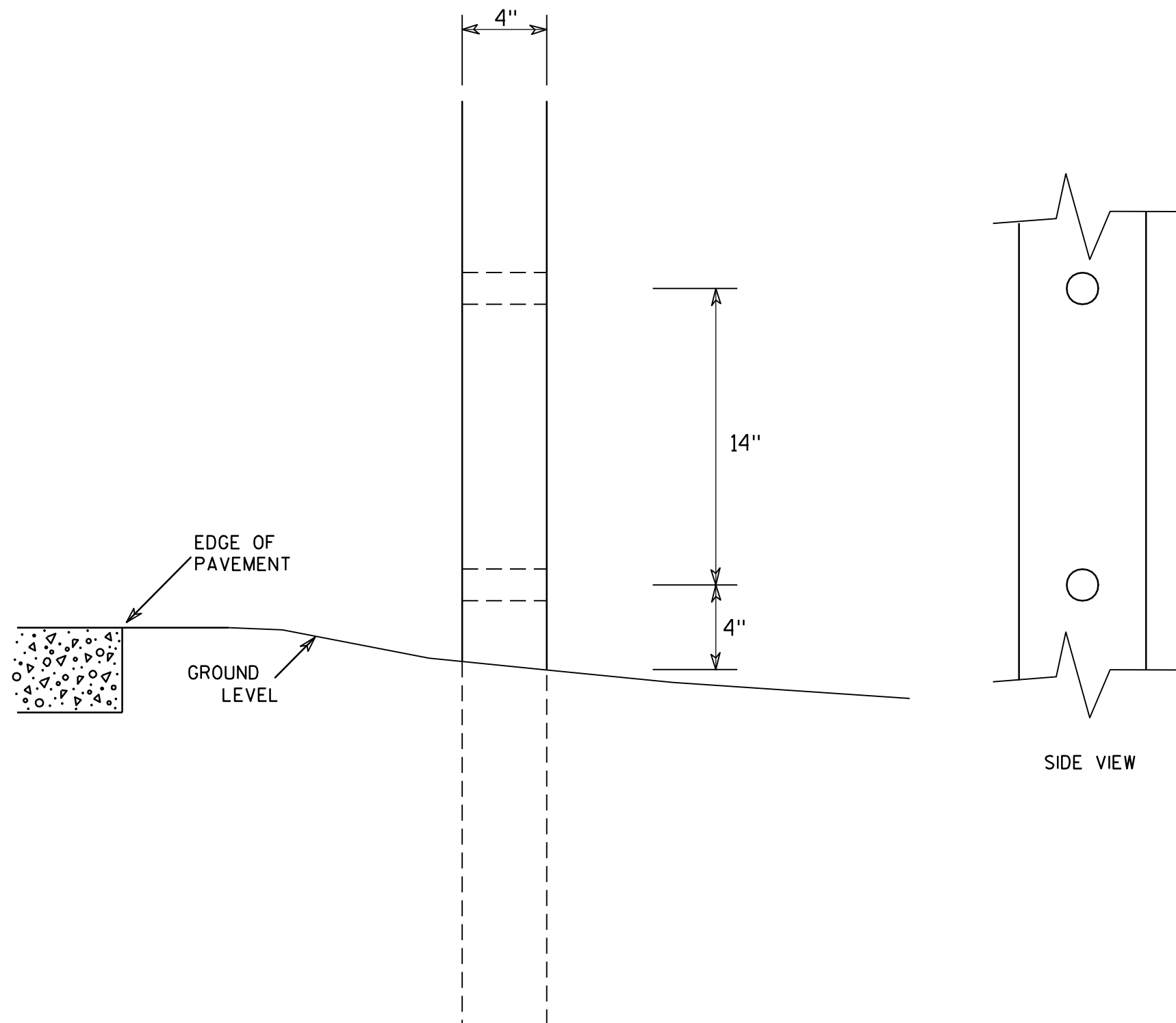
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

7



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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

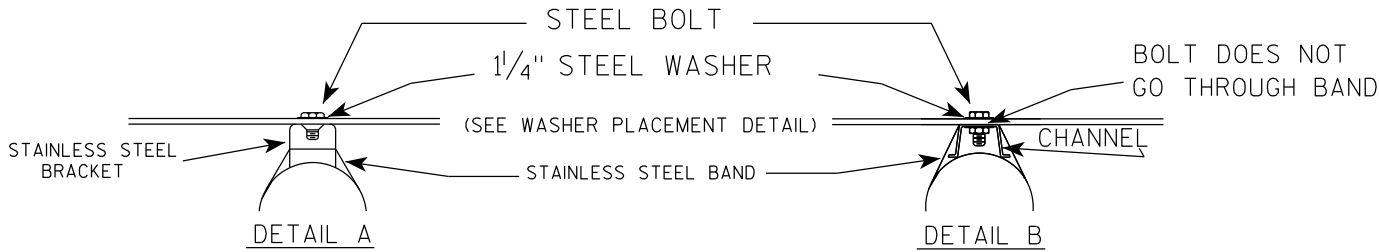
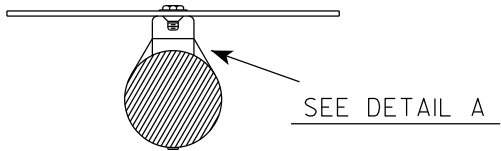
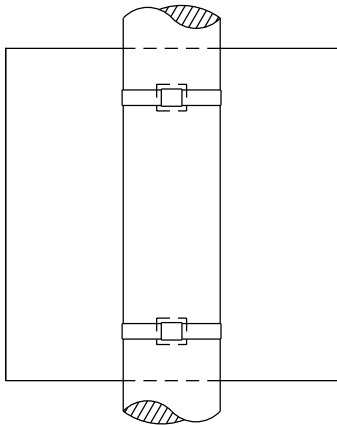
COUNTY:

SHEET NO:

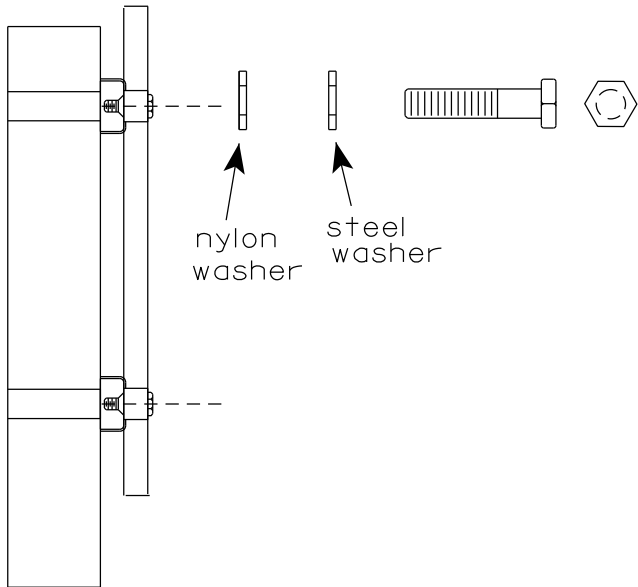
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

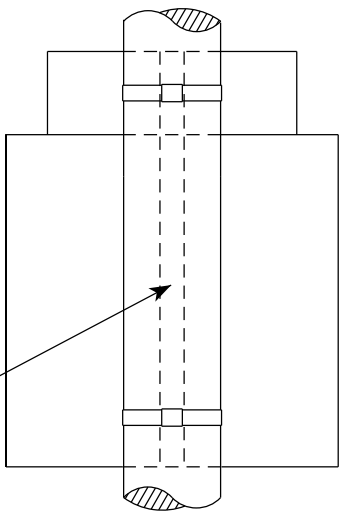


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

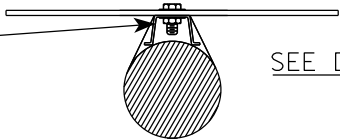
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 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



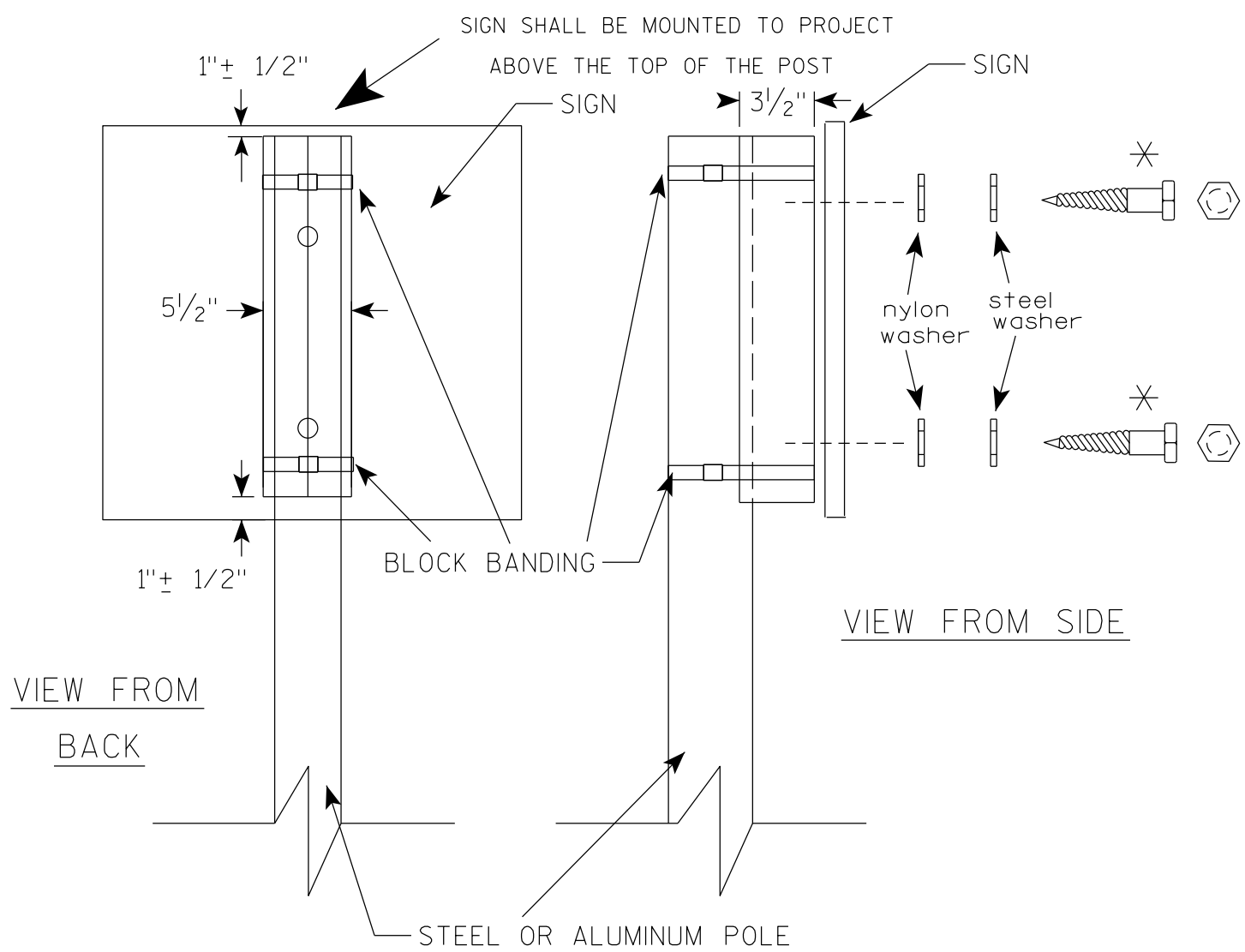
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



STANDARD SIGN
SIGN BANDING DETAILS

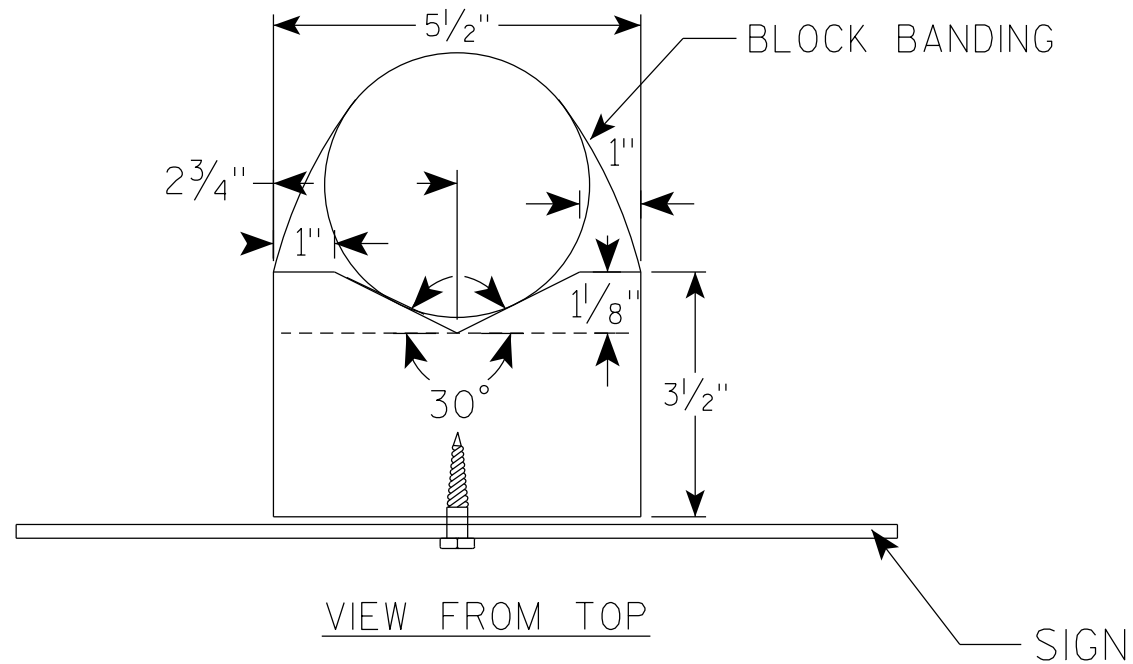
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

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, $\frac{3}{4}$ " 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 $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

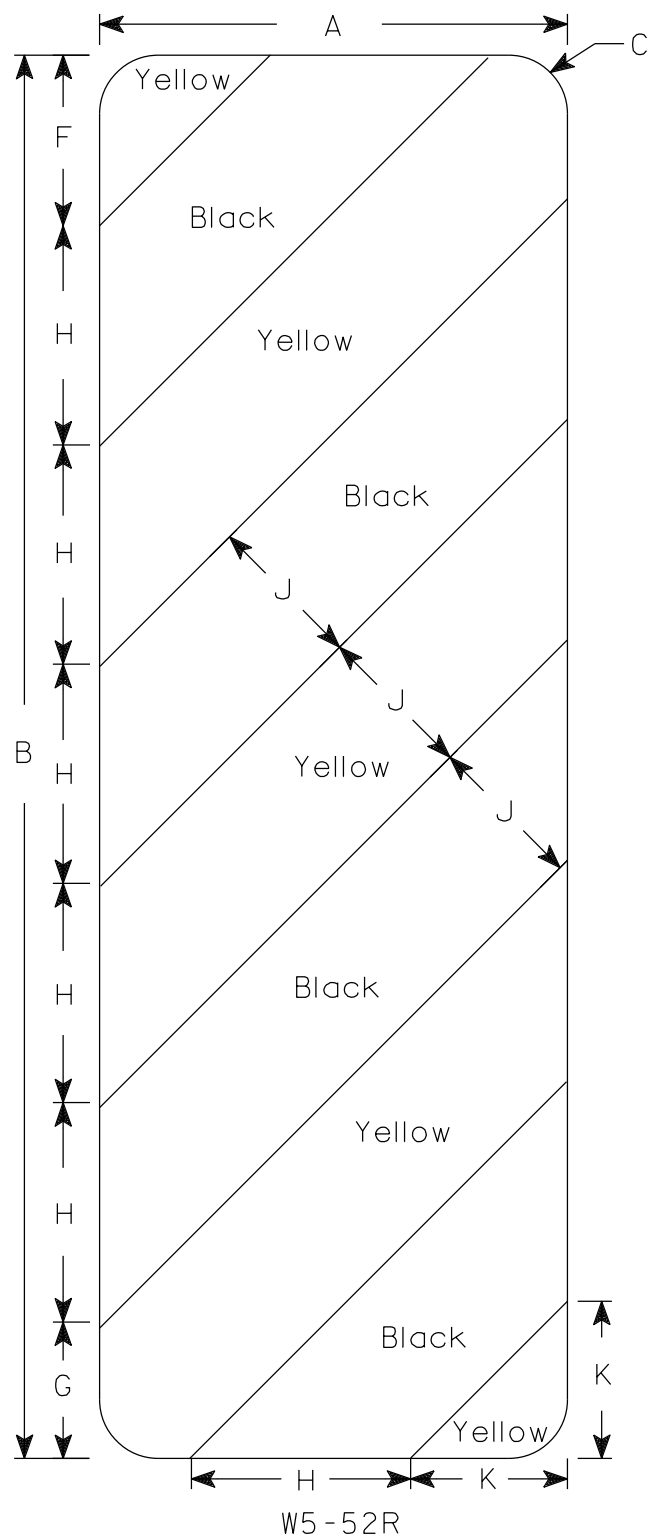
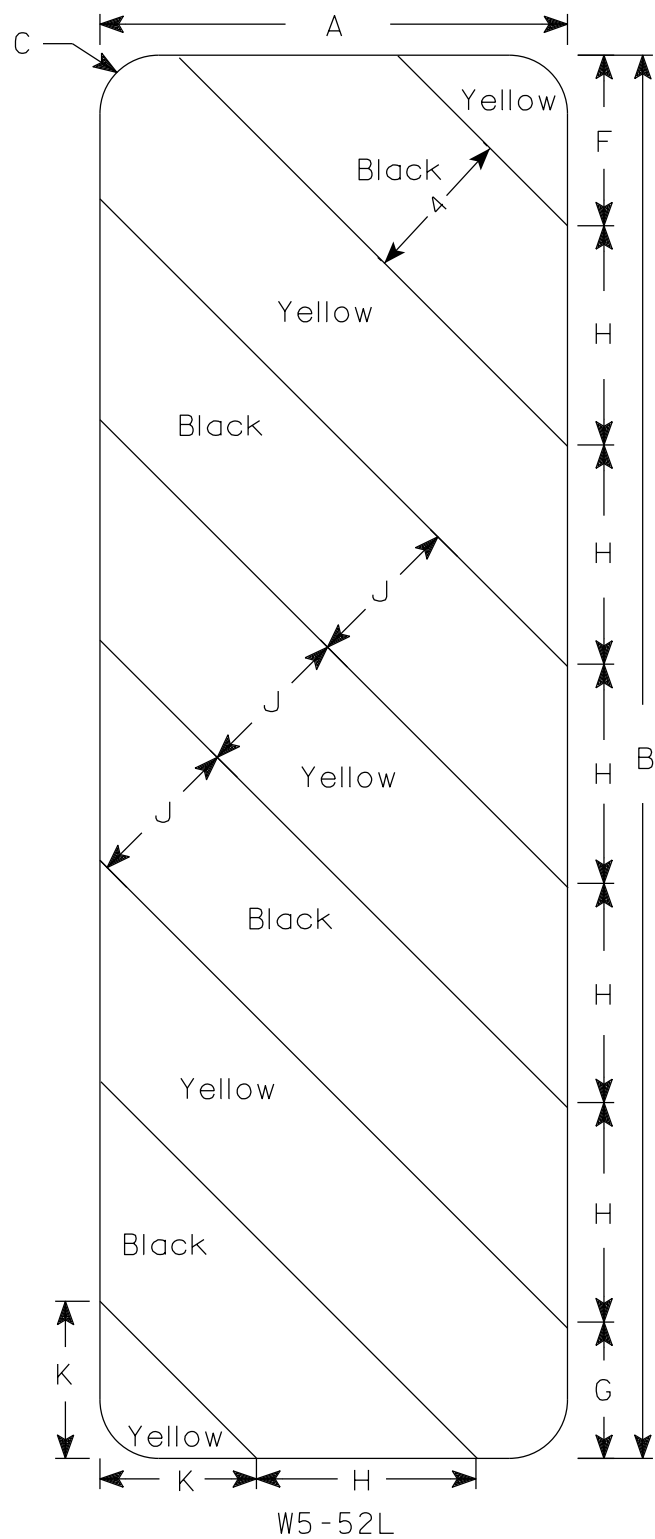
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO:

E



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Yellow
 - Message - Black
- 3. Alternate colors of stripes as shown.

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

STANDARD SIGN
W5-52L & W5-52R

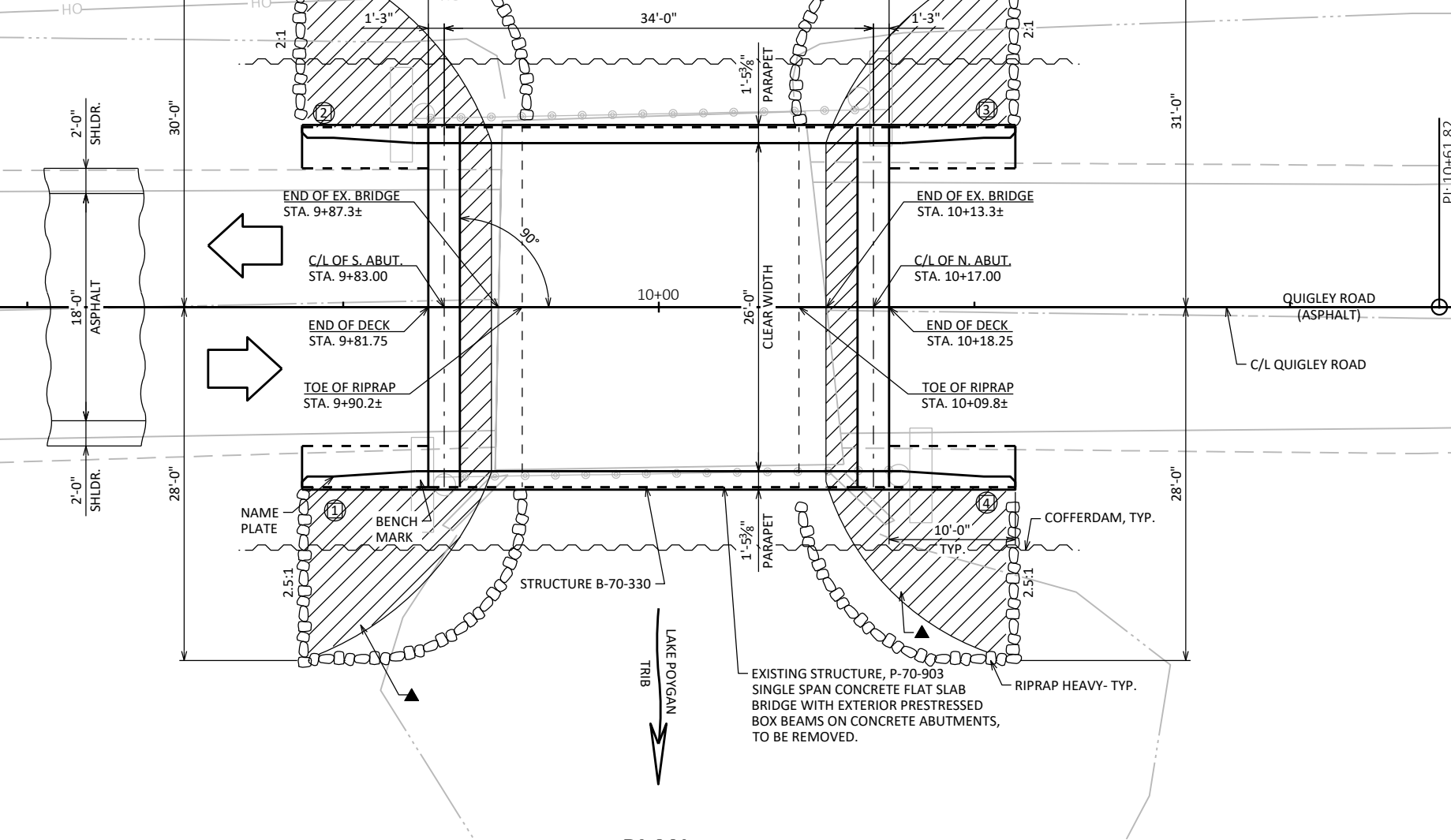
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/4/2024 PLATE NO. W5-52.10

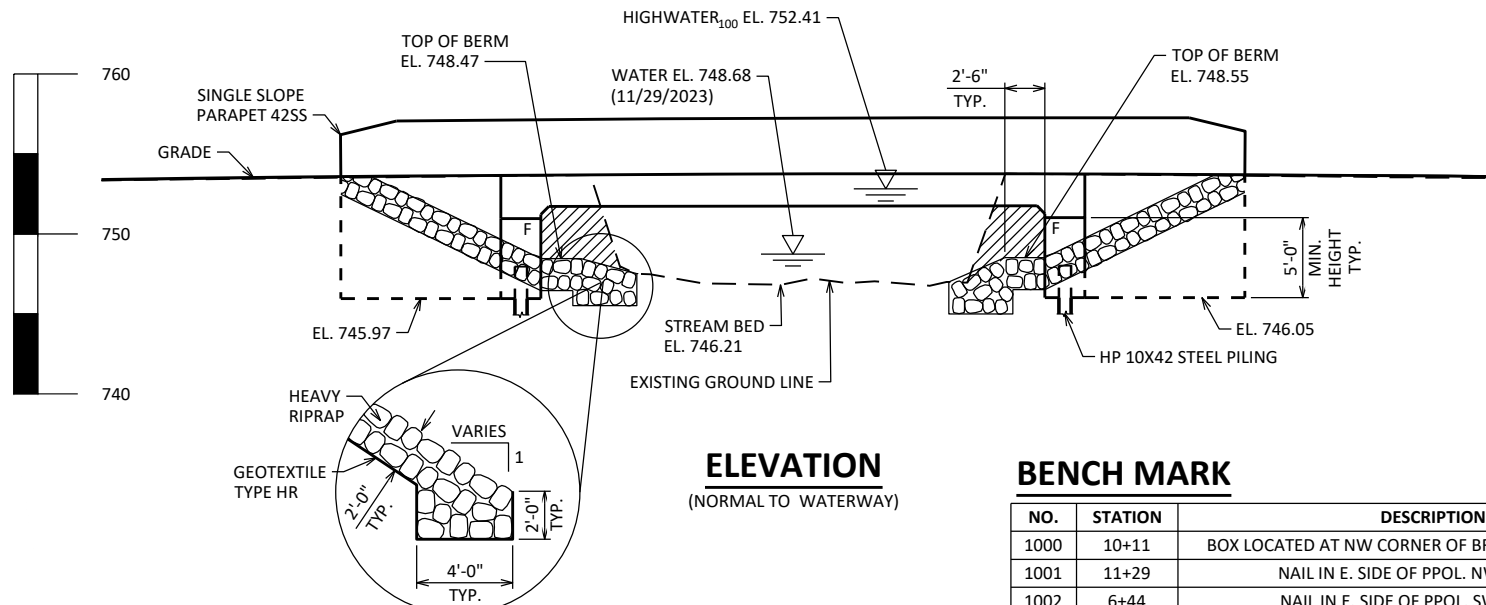
INDICATES WING NUMBER

ECO-PASSAGE - FILL VOIDS IN RIPRAP AT THE BERM ELEVATION AND ABOVE WITH SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR.



PLAN

SINGLE-SPAN CONCRETE FLAT SLAB BRIDGE



ELEVATION

(NORMAL TO WATERWAY)

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
1000	10+11	BOX LOCATED AT NW CORNER OF BRIDGE CONCRETE SLAB	753.22
1001	11+29	NAIL IN E. SIDE OF PPOL. NW OF BRIDGE	752.83
1002	6+44	NAIL IN E. SIDE OF PPOL. SW OF BRIDGE	753.85

COST OF EXCAVATION OR FILL IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGE B-70-330"

REMOVE EXISTING STRUCTURE AS NEEDED. COST INCLUDED IN "REMOVING STRUCTURE OVER WATERWAY REMOVE DEBRIS P-70-903" ITEM. TYPICAL AT ALL SUBSTRUCTURES.

LIST OF DRAWINGS

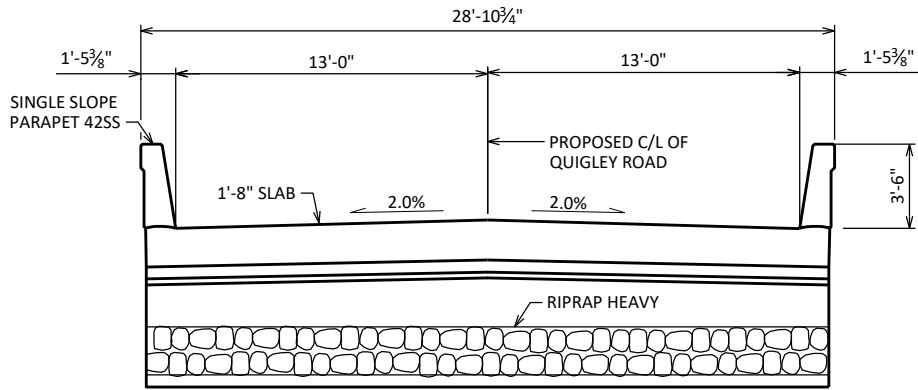
- GENERAL PLAN
- QUANTITIES AND NOTES
- SUBSURFACE EXPLORATION
- SOUTH ABUTMENT
- SOUTH ABUTMENT WING DETAILS
- SOUTH ABUTMENT PILE LAYOUT AND BILL OF BARS
- NORTH ABUTMENT
- NORTH ABUTMENT WING DETAILS
- NORTH ABUTMENT PILE LAYOUT AND BILL OF BARS
- SUPERSTRUCTURE
- SUPERSTRUCTURE PLAN
- SINGLE SLOPE PARAPET 42SS



STRUCTURE DESIGN CONTACTS:
AARON BONK 608-261-0261
KRISTOFER OLSON 920-498-1200

STATE PROJECT NUMBER

6445-00-01



TYPICAL SECTION THRU BRIDGE

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.11
OPERATING RATING: RF = 1.44
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

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

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE $f'_c = 4,000$ PSI
ALL OTHER $f'_c = 3,500$ PSI
BAR STEEL REINFORCEMENT
GRADE 60 $f_y = 60,000$ PSI

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10X42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 120 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. PILING SHALL BE FITTED WITH PILE POINTS
ESTIMATED 55'-0" LONG AT SOUTH ABUTMENT.
ESTIMATED 55'-0" LONG AT 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 PILE CAPACITY.

HYDRAULIC DATA

100-YEAR FREQUENCY:

$Q_{100} = 470$ C.F.S.
 $V_{100} = 3.6$ F.P.S.
 $HW_{100} = EL. 752.41$
WATERWAY AREA = 130 SQ. FT.
DRAINAGE AREA = 4.4 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 5

2-YEAR FREQUENCY:

$Q_2 = 140$ C.F.S.
 $V_2 = 1.4$ F.P.S.
 $HW_2 = EL. 750.85$

TRAFFIC DATA

FEATURE ON: QUIGLEY ROAD

ADT = 40 (2025)
ADT = 40 (2045)
R.D.S. = 35 MPH

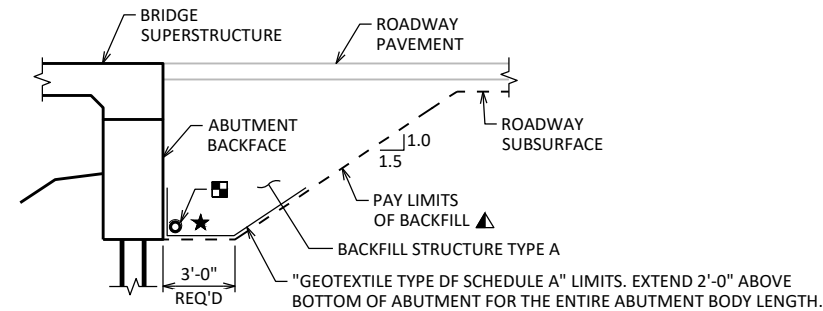
NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
AYRES 700 PILGRIM WAY, SUITE 180 GREEN BAY, WI 54304 www.AyresAssociates.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>[Signature]</i> EMK CHIEF STRUCTURES DESIGN ENGINEER		03/25/25 DATE
STRUCTURE B-70-330			
QUIGLEY OVER LAKE POYGAN TRIB			
COUNTY	WINNEBAGO	TOWN	POYGAN
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION			
DESIGNED BY	JMC	DESIGN CK'D	NBE
DRAWN BY	JMC	PLANS CK'D	KRO
GENERAL PLAN			SHEET 1 OF 12

I.D.

DATE:

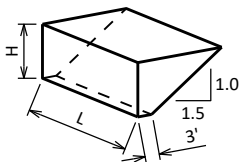
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	S ABUT.	N ABUT.	TOTALS
203.0250	REMOVING STRUCTURE OVER WATERWAY REMOVE DEBRIS P-70-903	EACH	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-70-330	EACH	---	---	---	1
206.5001	COFFERDAMS B-70-330	EACH	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	---	100	100	200
502.0100	CONCRETE MASONRY BRIDGES	CY	78.7	31.1	31.1	141
502.3200	PROTECTIVE SURFACE TREATMENT	SY	110	---	---	110
502.3210	PIGMENTED SURFACE SEALER	SY	40	10	10	60
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURE	LB	---	1,730	1,730	3,460
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	13,740	1,900	1,900	17,540
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	10	10	20
550.0500	PILE POINTS	EACH	---	5	5	10
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	---	275	275	550
606.0300	RIPRAP HEAVY	CY	---	54	54	108
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	---	70	70	140
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	---	25	25	50
645.0120	GEOTEXTILE TYPE HR	SY	---	110	111	221
SPV.0195.01	SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR	TON	---	25	25	50
	NON-BID ITEMS					
	FILLER	SIZE	---	---	---	1/2", 3/4"



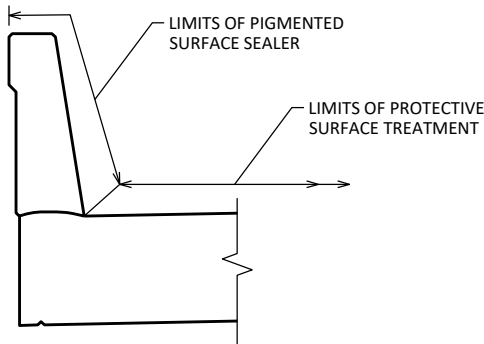
TYPICAL SECTION THRU ABUTMENT

- ▲ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.
- ★ FOR BOTTOM OF ABUTMENTS LOCATED BELOW NORMAL WATER, PLACE DRAIN ABOVE NORMAL WATER. SEE BRIDGE MANUAL 12.6.1 FOR ADDITIONAL GUIDANCE.

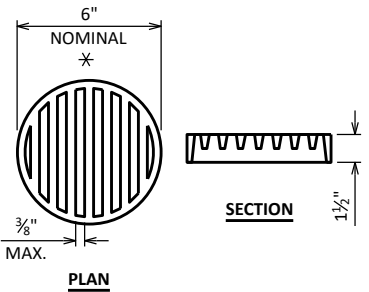


ABUTMENT BACKFILL DIAGRAM

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



PROTECTIVE SURFACE TREATMENT DETAIL



RODENT SHIELD DETAIL

- ✱ DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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

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

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES B-70-330" SHALL BE THE EXISTING GROUNDLINE.

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

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

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET.

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

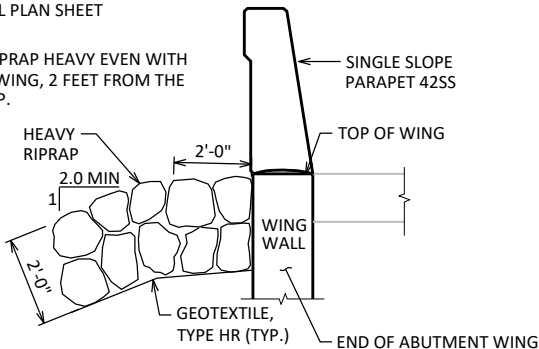
SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE, UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

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

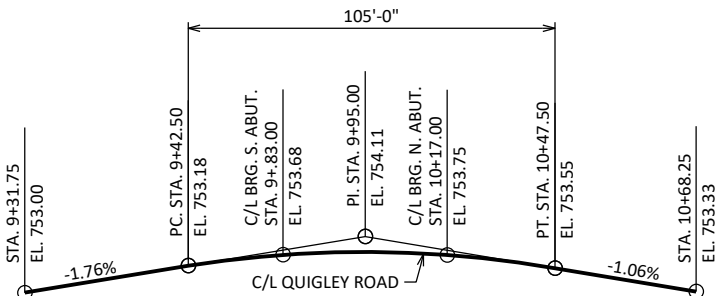
EXISTING SUBSTRUCTURE LOCATIONS ARE BASED ON SURVEY. EXTENT OF BELOW GRADE SUBSTRUCTURE ARE NOT KNOW. REMOVE EXISTING SUBSTRUCTURE AS NEEDED TO BUILD NEW SUBSTRUCTURE. COST OF SUBSTRUCTURE REMOVAL IS CONSIDERED INCIDENTAL TO "REMOVING STRUCTURE OVER WATERWAY REMOVE DEBRIS P-70-903" BID ITEM.

NOTE: PLACE RIPRAP HEAVY AS SHOWN ON GENERAL PLAN SHEET

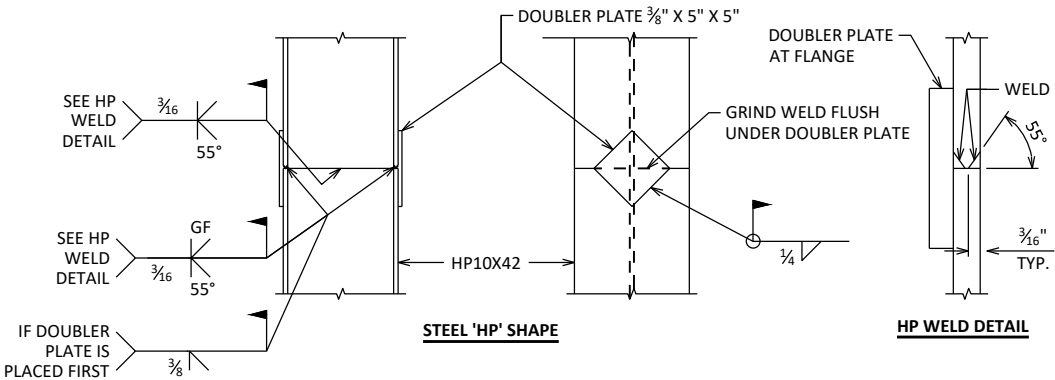
PLACE RIPRAP HEAVY EVEN WITH TOP OF WING, 2 FEET FROM THE WING TIP.



TYPICAL FILL SECTION AT WING TIPS



PROFILE GRADE LINE

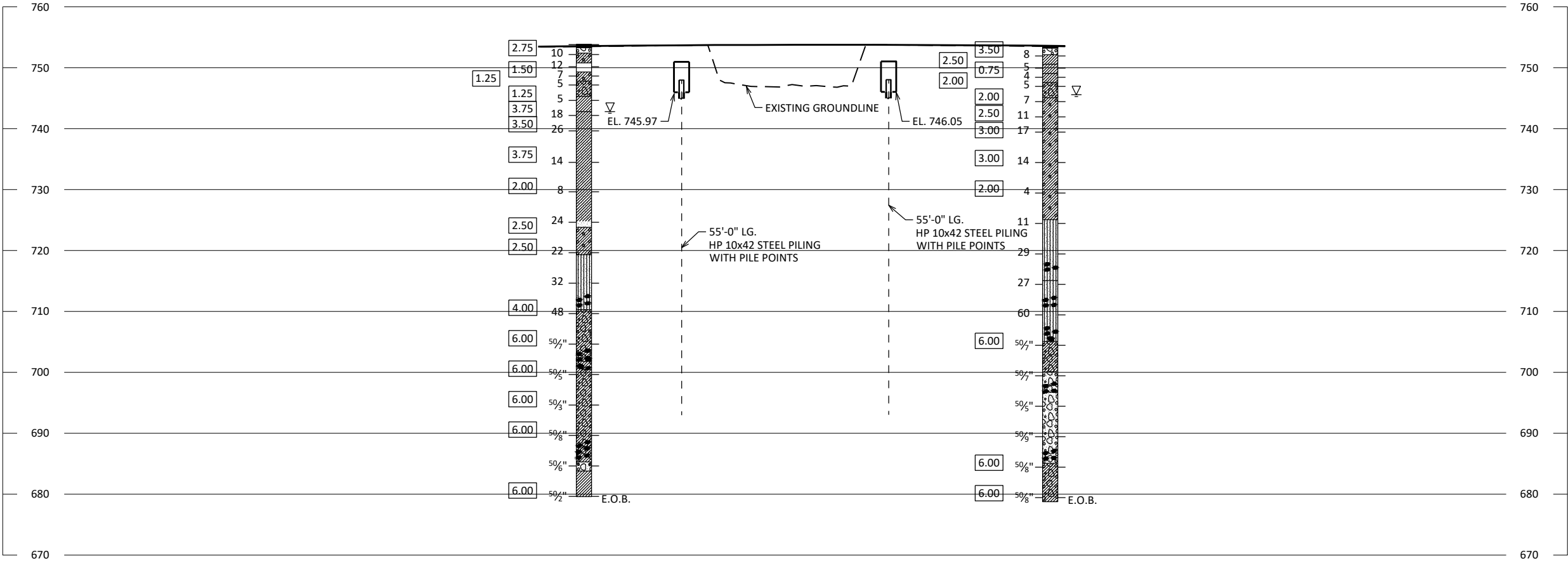
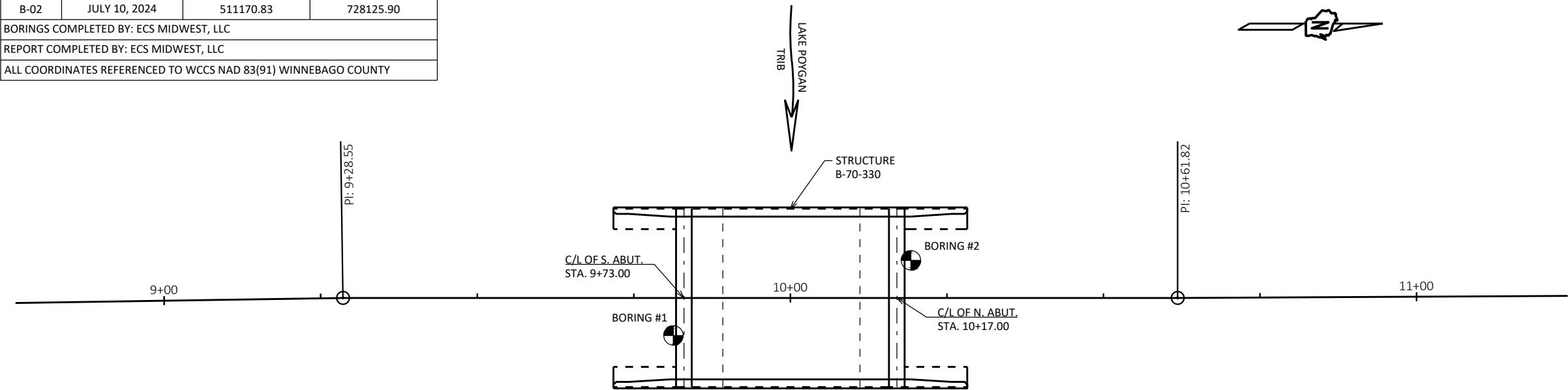


'HP' PILE DETAILS

STATE PROJECT NUMBER			
6445-00-01			

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-70-330			
		DRAWN BY JMC	PLANS CK'D ZSS
QUANTITIES AND NOTES		SHEET 2 OF 12	

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-01	JULY 10, 2024	511132.88	728137.90
B-02	JULY 10, 2024	511170.83	728125.90
BORINGS COMPLETED BY: ECS MIDWEST, LLC			
REPORT COMPLETED BY: ECS MIDWEST, LLC			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) WINNEBAGO COUNTY			



STATE PROJECT NUMBER

6445-00-01

MATERIAL SYMBOLS

ASPHALT

CONCRETE

SAND

BOULDERS OR COBBLES

SHALE

TOPSOIL

FILL

CLAY

LIMESTONE

SANDSTONE

PEAT

GRAVEL

SILT

BEDROCK (UNKNOWN)

IGNEOUS/META

LEGEND OF BORING

BORING #/EL. STA./OFFSET

ST

0.25

17

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 ELEVATION

▽

AT TIME OF DRILLING

▼

END OF DRILLING

▽

AFTER DRILLING

ABBREVIATIONS

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

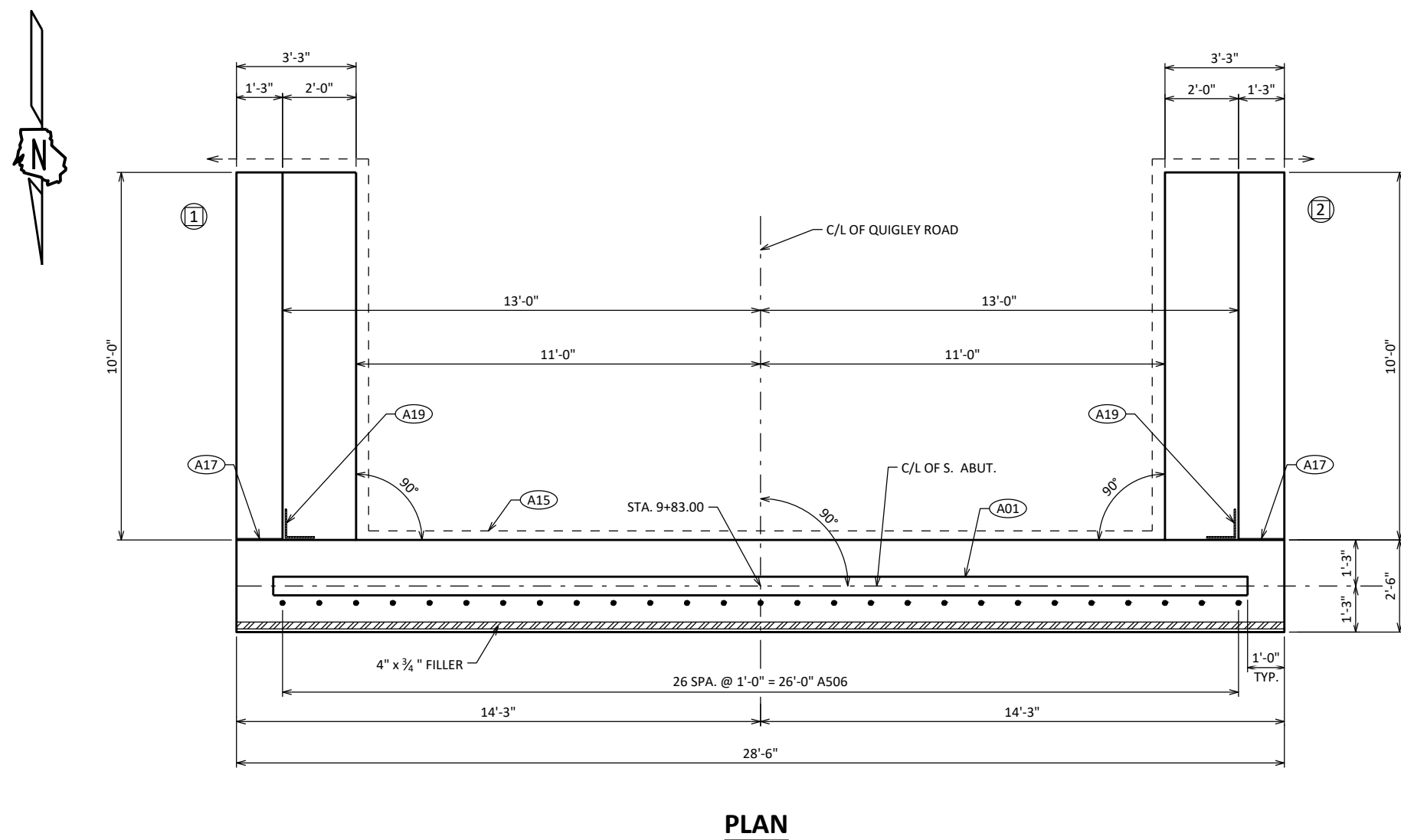
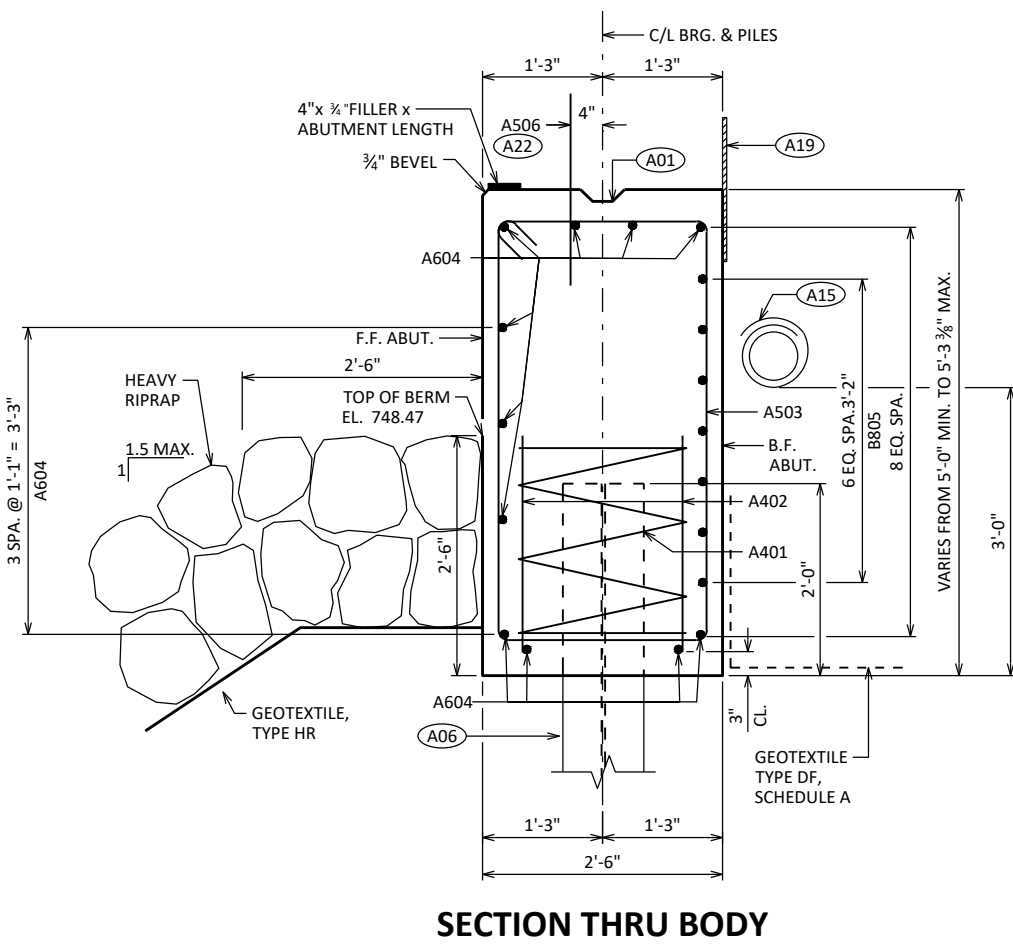
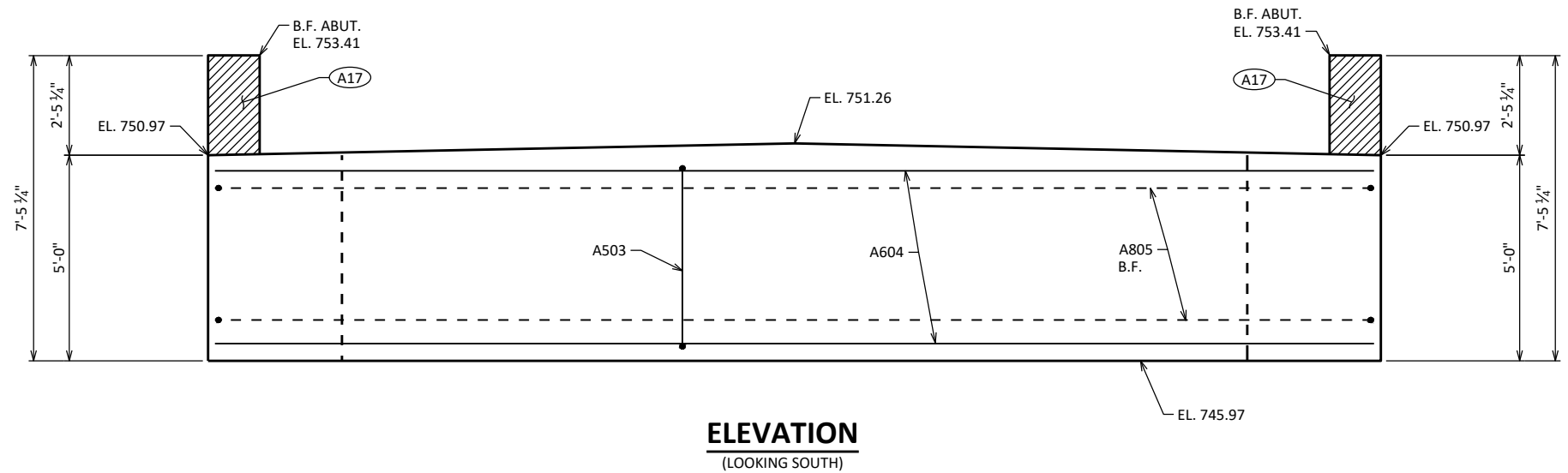
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-70-330			
DRAWN BY JMC		PLANS CK'D ZSS	
SUBSURFACE EXPLORATION		SHEET 3 OF 12	

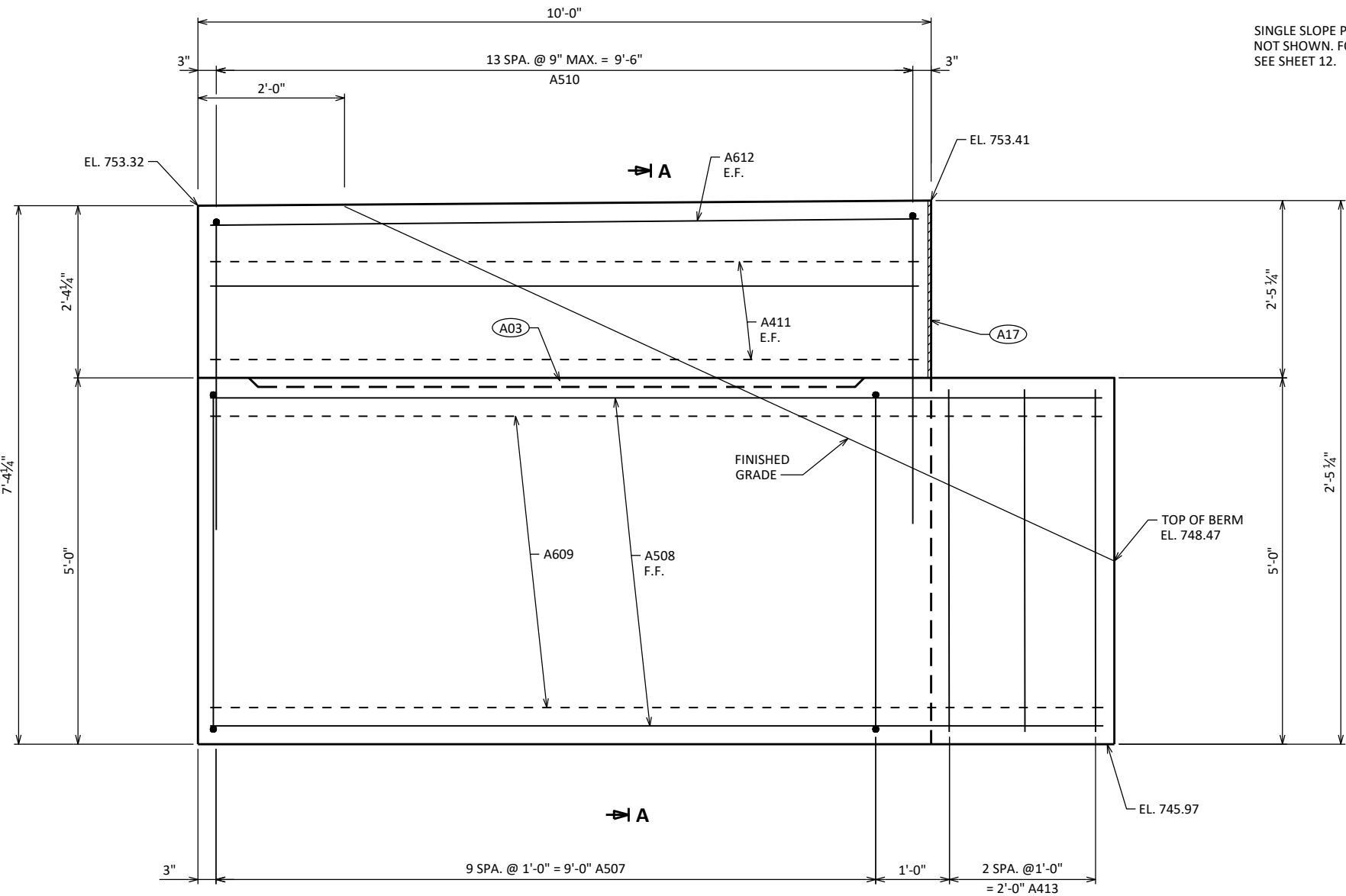
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8



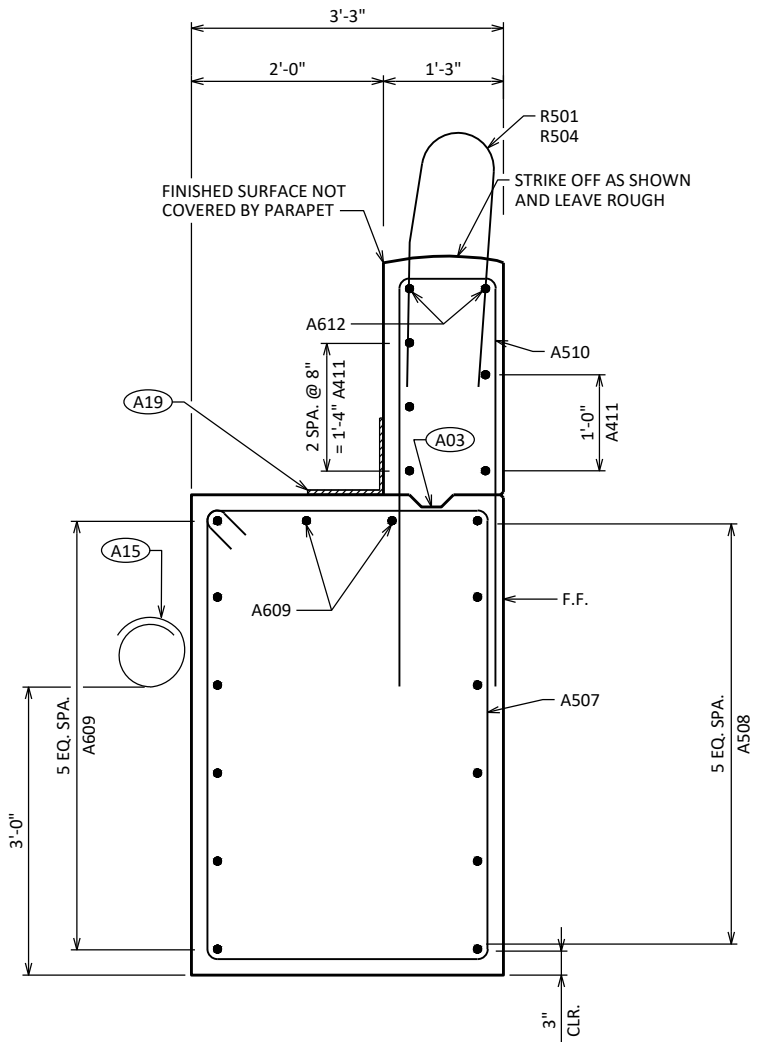
- (A01) CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 6.
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 55'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 120 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/2" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A22) BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

NO.	DATE	REVISION		BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION				
STRUCTURE B-70-330				
		DRAWN BY	JMC	PLANS CK'D ZSS
SOUTH ABUTMENT			SHEET 4 OF 12	



ELEVATION - WING 1
(WING 1 SHOWN - WING 2 SIMILAR)

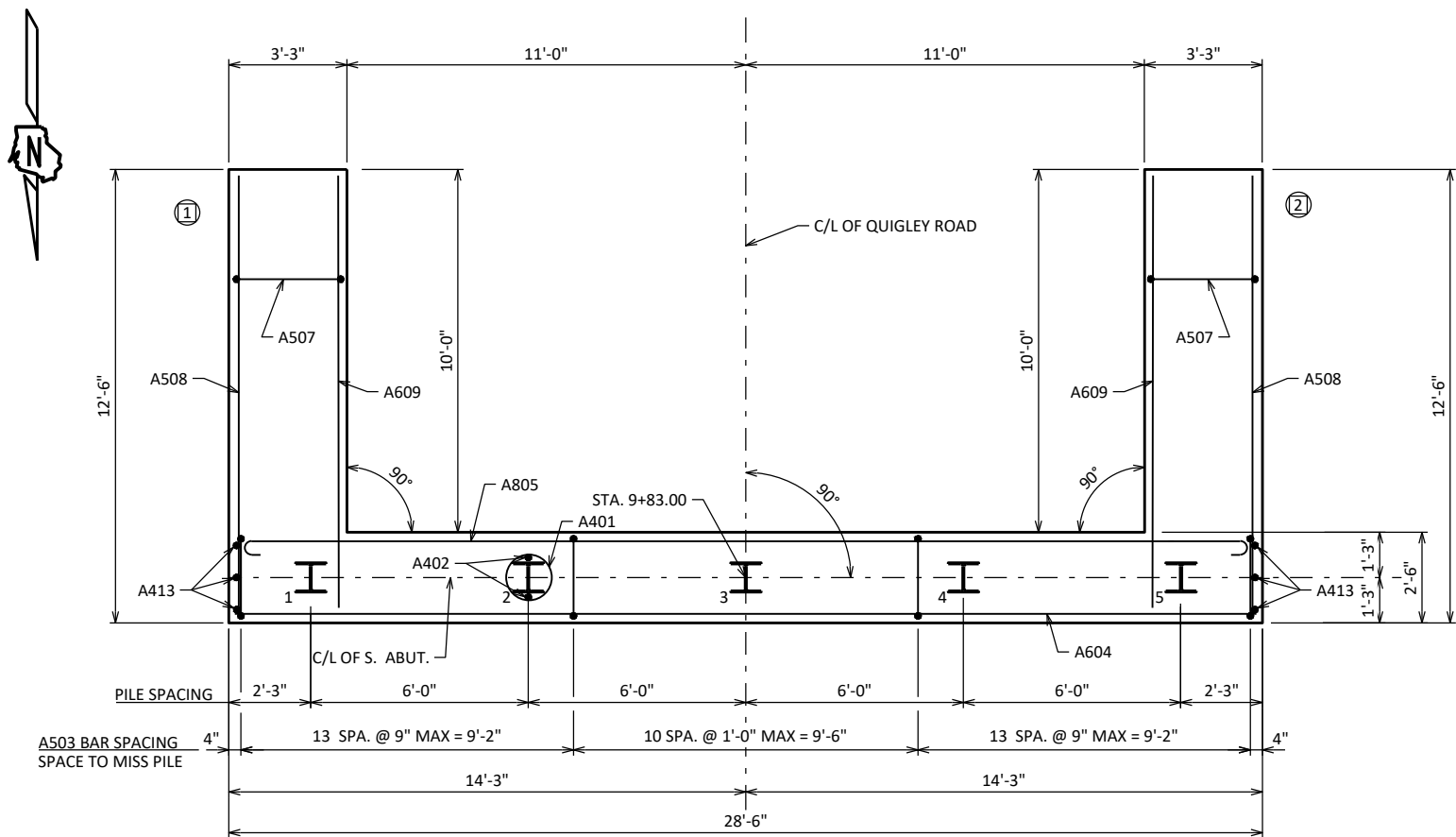
SINGLE SLOPE PARAPET 42SS
NOT SHOWN. FOR DETAILS
SEE SHEET 12.



SECTION A

- A03** OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).
- A15** PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- A17** 1/2" FILLER (INCLUDED IN WING LENGTH); SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/2" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-70-330			
DRAWN BY JMC		PLANS CK'D ZSS	
SOUTH ABUTMENT WING DETAILS			SHEET 5 OF 12

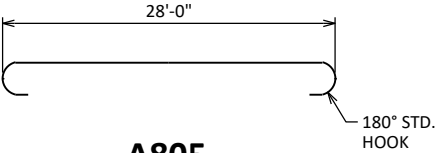
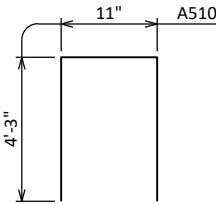
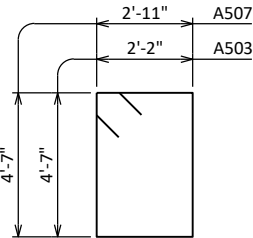
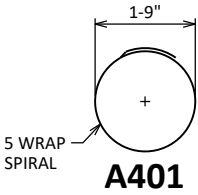


PILE LAYOUT

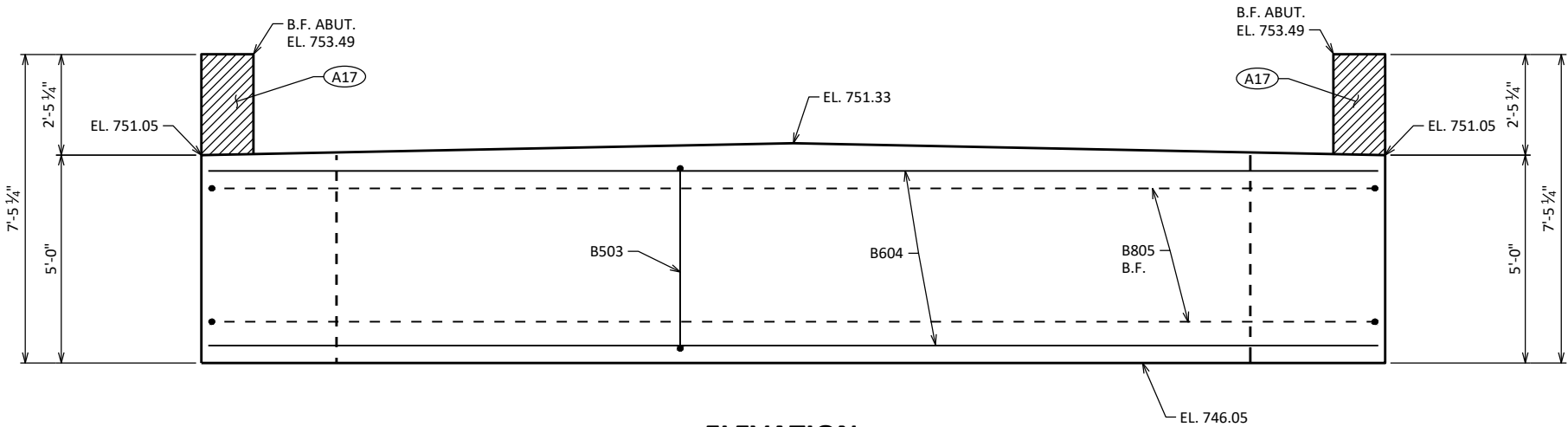
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

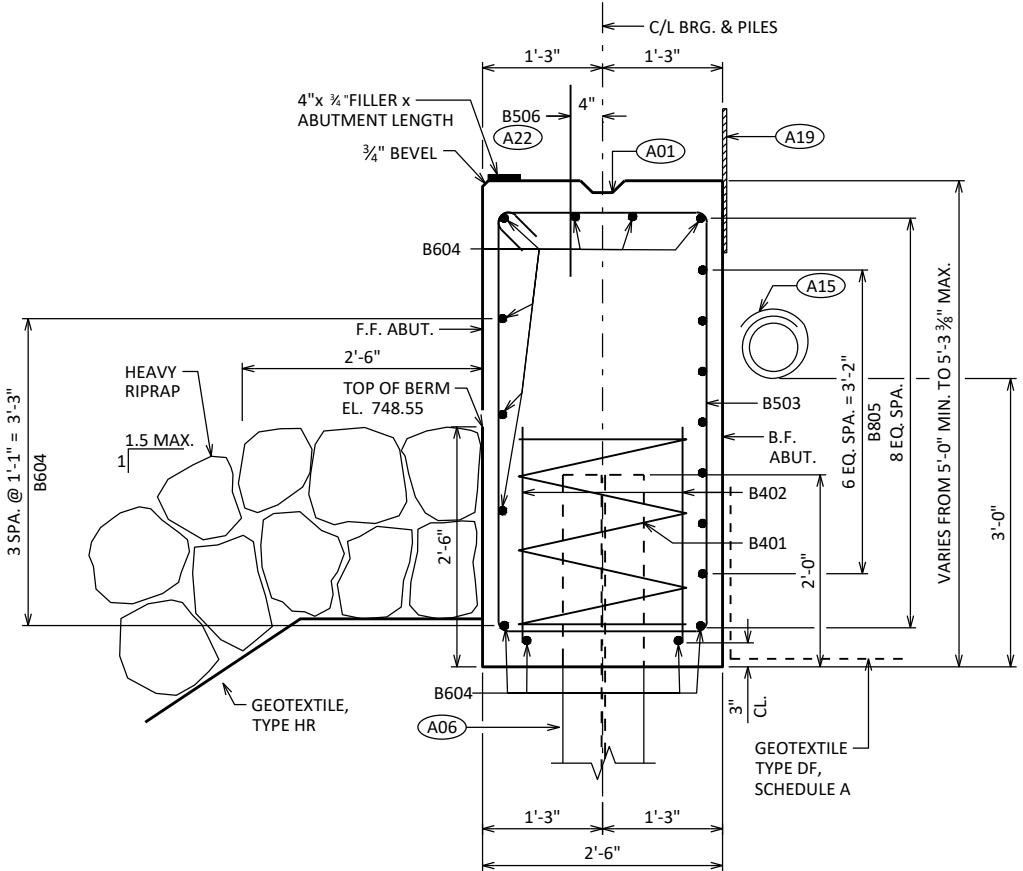
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A401		5	28'-0"	X		BODY @ PILES
A402		10	2'-3"			BODY @ PILES
A503		37	14'-2"	X		BODY VERT.
A604		11	28'-2"			BODY HORIZ.
A805		7	29'-10"	X		BODY HORIZ. B.F.
A506		27	2'-0"			BODY DOWELS
A507	X	20	15'-8"	X		WINGS 1 & 2 VERT.
A508	X	12	12'-2"			WINGS 1 & 2 HORIZ. F.F.
A609	X	16	11'-11"			WINGS 1 & 2 HORIZ. B.F. & TOP
A510	X	28	9'-2"	X		WINGS 1 & 2 VERT.
A411	X	10	9'-7"			WINGS 1 & 2 HORIZ. E.F.
A612	X	4	9'-7"			WINGS 1 & 2 E.F. TOP
A413	X	6	4'-7"			BODY VERT. END @ WINGS 1 & 2



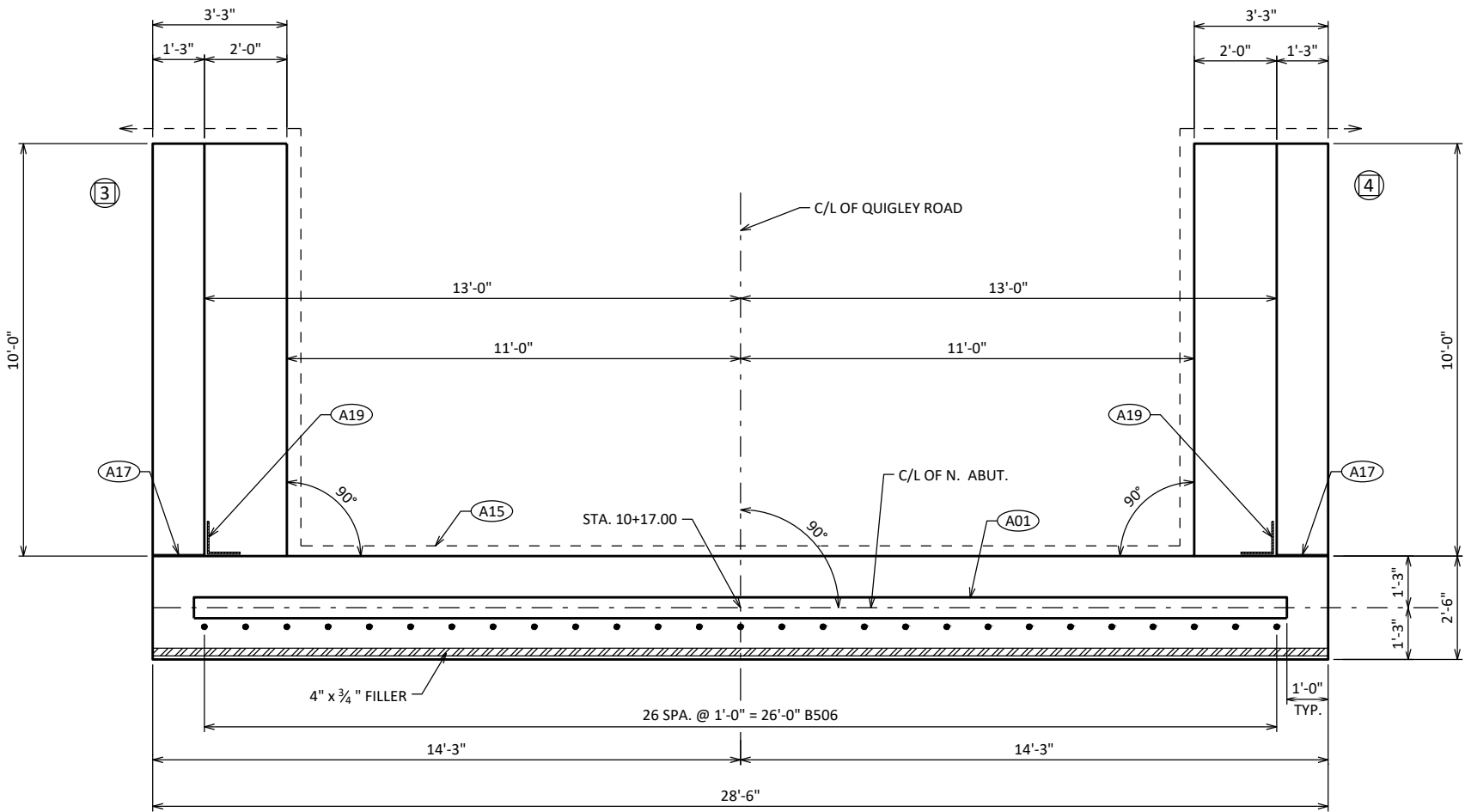
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-70-330			
DRAWN BY JMC		PLANS CK'D ZSS	
SOUTH ABUTMENT PILE LAYOUT AND BILL OF BARS		SHEET 6 OF 12	



ELEVATION
(LOOKING NORTH)



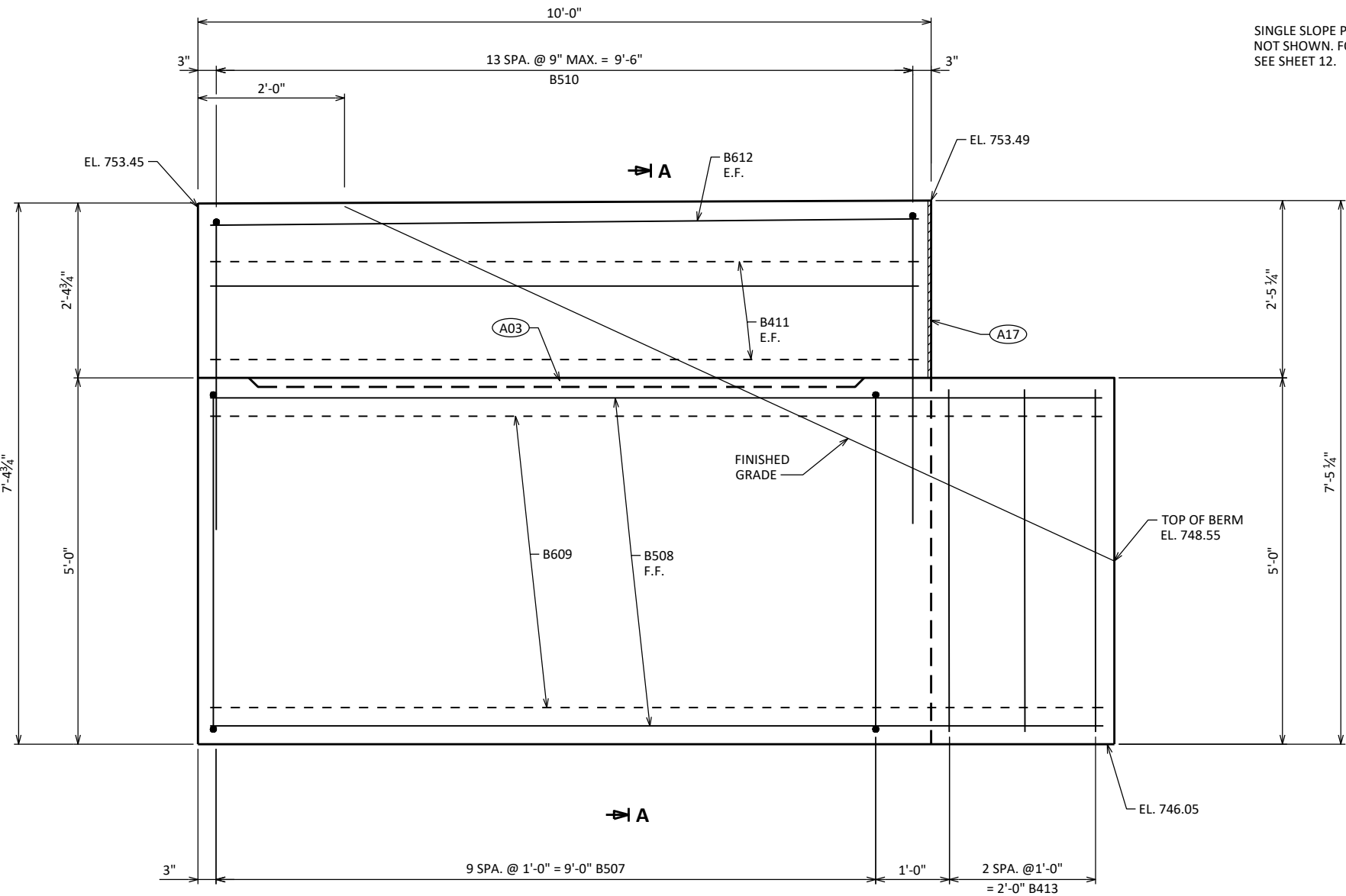
SECTION THRU BODY



PLAN

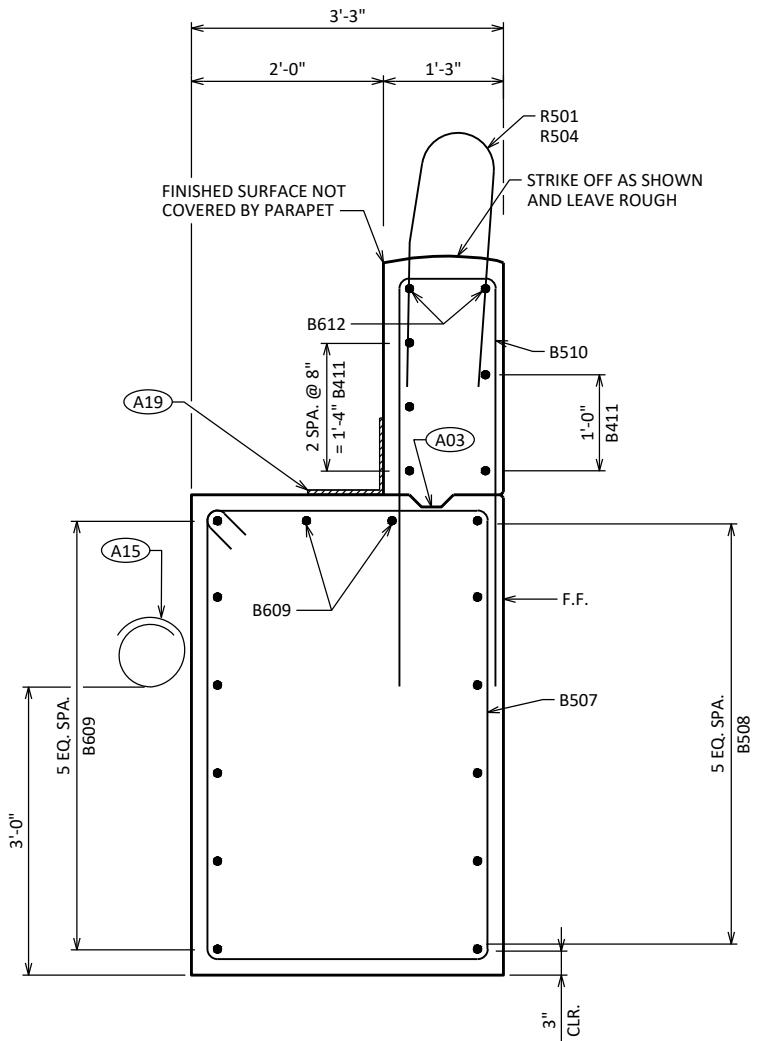
- (A01) CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 6.
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 55'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 120 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
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- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
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NO.	DATE	REVISION		BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION				
STRUCTURE B-70-330				
		DRAWN BY	JMC	PLANS CK'D ZSS
NORTH ABUTMENT			SHEET 7 OF 12	



ELEVATION - WING 3
(WING 3 SHOWN - WING 4 SIMILAR)

SINGLE SLOPE PARAPET 42SS
NOT SHOWN. FOR DETAILS
SEE SHEET 12.



SECTION A

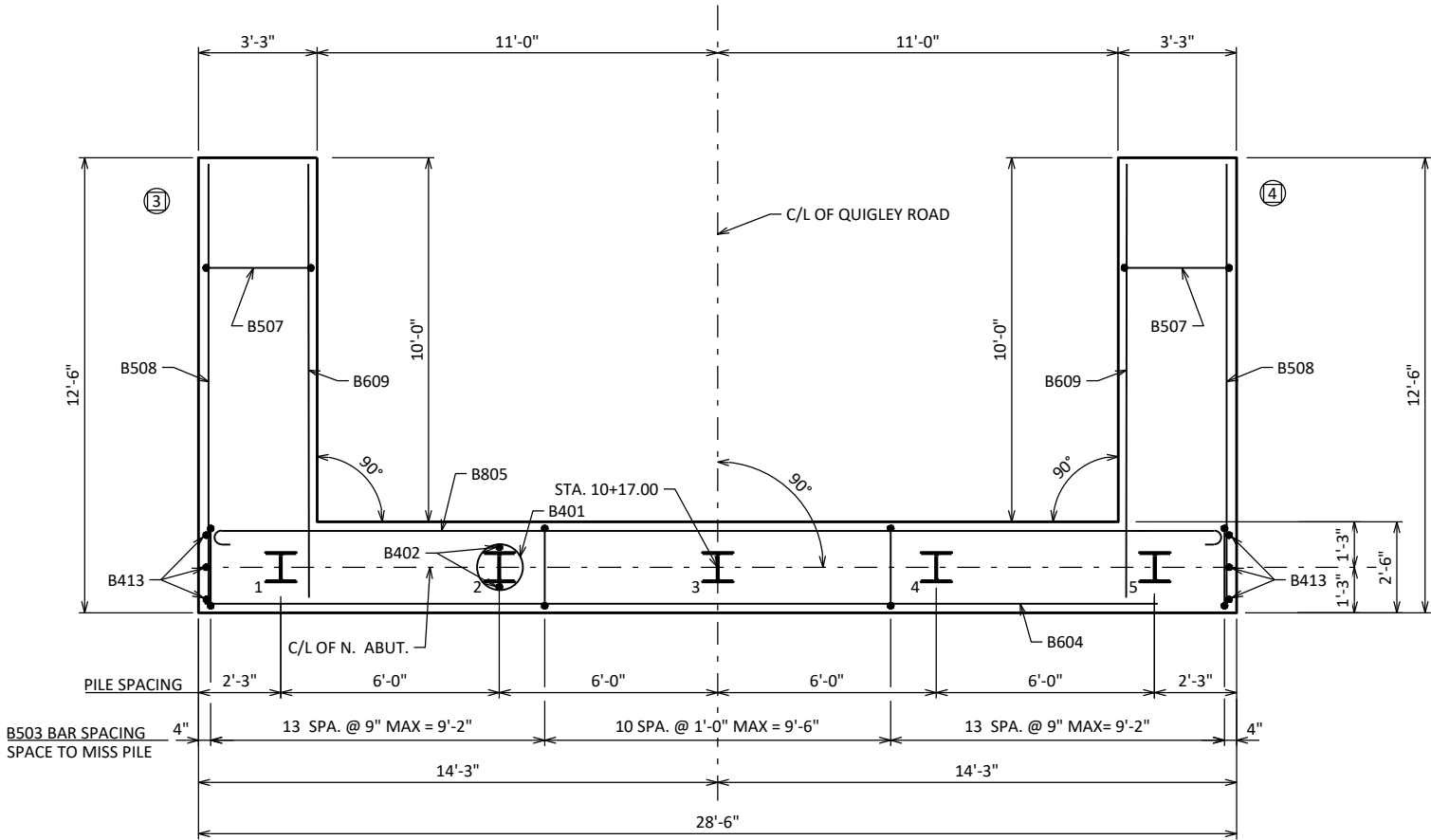
- A03 OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).
- A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- A17 1/2" FILLER (INCLUDED IN WING LENGTH); SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/2" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-70-330			
DRAWN BY JMC		PLANS CK'D ZSS	
NORTH ABUTMENT WING DETAILS			SHEET 8 OF 12

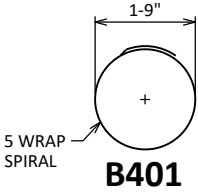
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

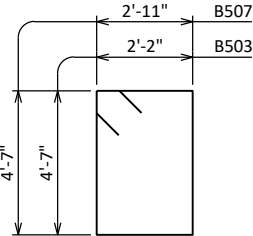
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B401		5	28'-0"	X		BODY @ PILES
B402		10	2'-3"			BODY @ PILES
B503		37	14'-2"	X		BODY VERT.
B604		11	28'-2"			BODY HORIZ.
B805		7	29'-10"	X		BODY HORIZ. B.F.
B506		27	2'-0"			BODY DOWELS
B507	X	20	15'-8"	X		WINGS 3 & 4 VERT.
B508	X	12	12'-2"			WINGS 3 & 4 HORIZ. F.F.
B609	X	16	11'-11"			WINGS 3 & 4 HORIZ. B.F. & TOP
B510	X	28	9'-2"	X		WINGS 3 & 4 VERT.
B411	X	10	9'-7"			WINGS 3 & 4 HORIZ. E.F.
B612	X	4	9'-7"			WINGS 3 & 4 E.F. TOP
B413	X	6	4'-7"			BODY VERT. END @ WINGS 3 & 4



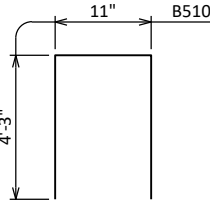
PILE LAYOUT



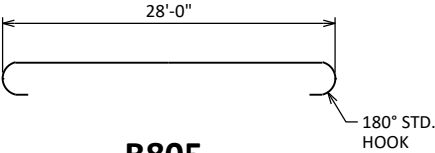
B401



B503, B507

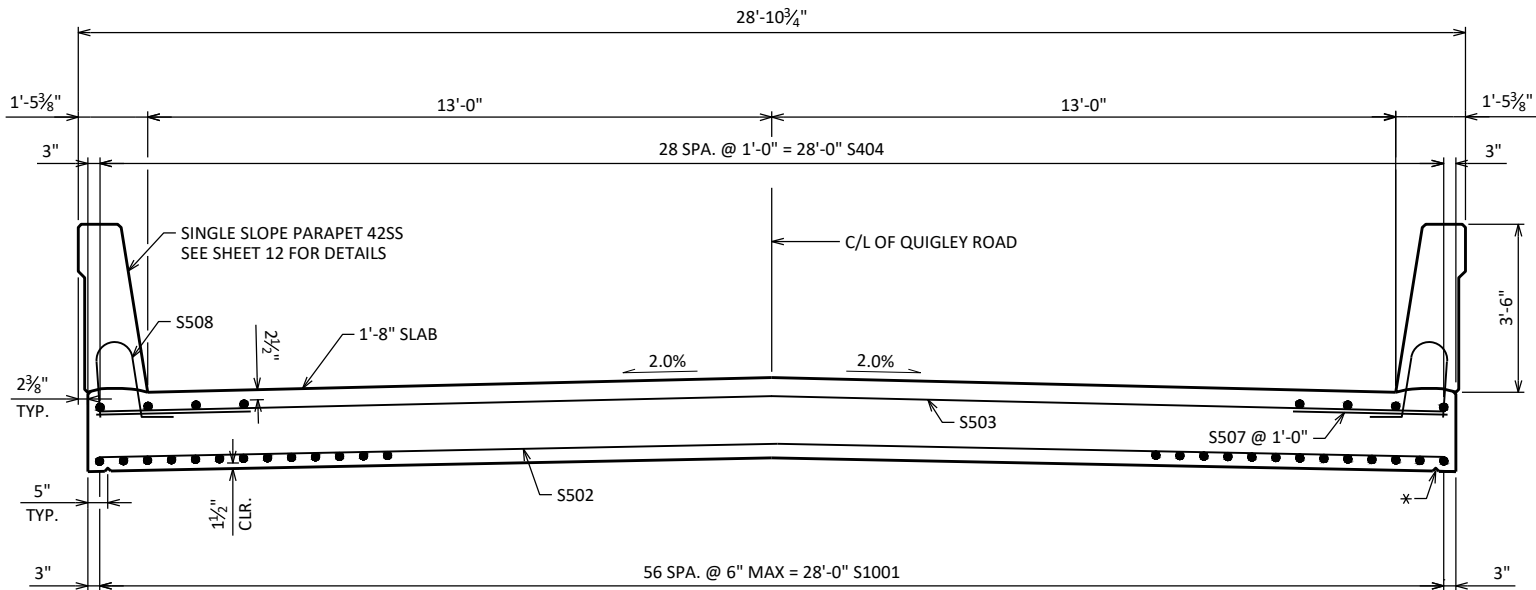


B510

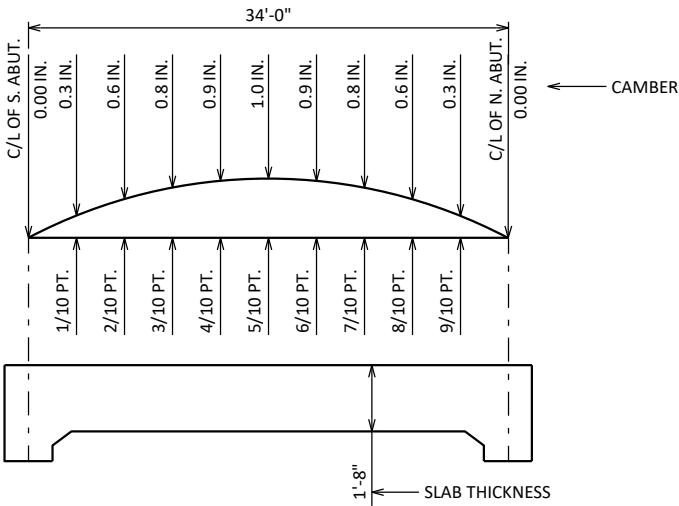


B805

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-70-330			
DRAWN BY JMC		PLANS CK'D ZSS	
NORTH ABUTMENT PILE LAYOUT AND BILL OF BARS		SHEET 9 OF 12	



TYPICAL SECTION THRU BRIDGE



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

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

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

TOP OF SLAB ELEVATIONS

LOCATION	C/L S. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	C/L N. ABUT.
W. EDGE OF SLAB	753.42	753.44	753.46	753.47	753.48	753.49	753.50	753.50	753.50	753.50	753.49
W. FLOW LINE	753.42	753.44	753.46	753.47	753.48	753.49	753.50	753.50	753.50	753.50	753.49
C/L OF QUIGLEY ROAD	753.68	753.70	753.72	753.73	753.74	753.75	753.76	753.76	753.76	753.76	753.75
E. FLOW LINE	753.42	753.44	753.46	753.47	753.48	753.49	753.50	753.50	753.50	753.50	753.49
E. EDGE OF SLAB	753.42	753.44	753.46	753.47	753.48	753.49	753.50	753.50	753.50	753.50	753.49

NOTES

* 3/4" V-GROOVE REQ'D. EXTEND TO 6" FROM F.F. OF ABUT. BODY.

V-GROOVES ARE REQUIRED.

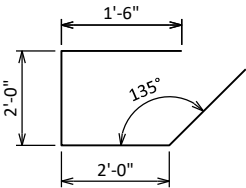
TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

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

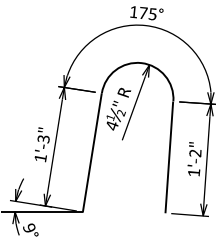
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

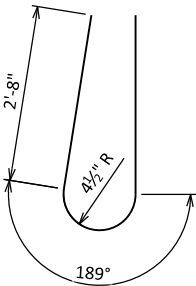
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	
S1001	X	57	30'-8"			SLAB LONG. BOT.
S502	X	55	28'-2"			SLAB TRANS. BOT.
S503	X	37	28'-2"			SLAB TRANS. TOP
S404	X	29	36'-2"			SLAB LONG. TOP
S505	X	58	7'-5"	X		SLAB @ ABUT. DIAPHRAGM STIRRUPS
S506	X	4	28'-2"			SLAB @ ABUT. DIAPHRAFM TRANS.
S507	X	72	5'-0"			SLAB @ EDGE TRANS. TOP @ EDGES
S508	X	110	4'-5"	X		SLAB @ PARAPET VERT.
S509	X	110	6'-8"	X		PARAPET VERT.
S510	X	16	36'-2"			PARAPET HORIZ.



S505



S508



S509

SURVEY TOP OF SLAB ELEVATIONS

	S. ABUTMENT	5/10 PT.	N. ABUTMENT
W. EDGE OF SLAB			
C/L OF QUIGLEY ROAD			
E. EDGE OF SLAB			

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

STATE PROJECT NUMBER

6445-00-01

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-70-330			
DRAWN BY JMC		PLANS CK'D ZSS	
SUPERSTRUCTURE		SHEET 10 OF 12	



MEASURED NORMAL TO THE C/L OF ABUTMENT.
DIMENSIONS ARE TYPICAL FOR BOTH ABUTMENTS.
A506, B506 BARS SPACED @ 1'-0" CNTRS. MAY BE
PLACED AFTER CONCRETE IS POURED BUT BEFORE
INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO
CONC.)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-70-330			
		DRAWN BY	PLANS CK'D
		JMC	ZSS
SUPERSTRUCTURE PLAN		SHEET 11 OF 12	

BILL OF BARS

FOR WING PARAPETS

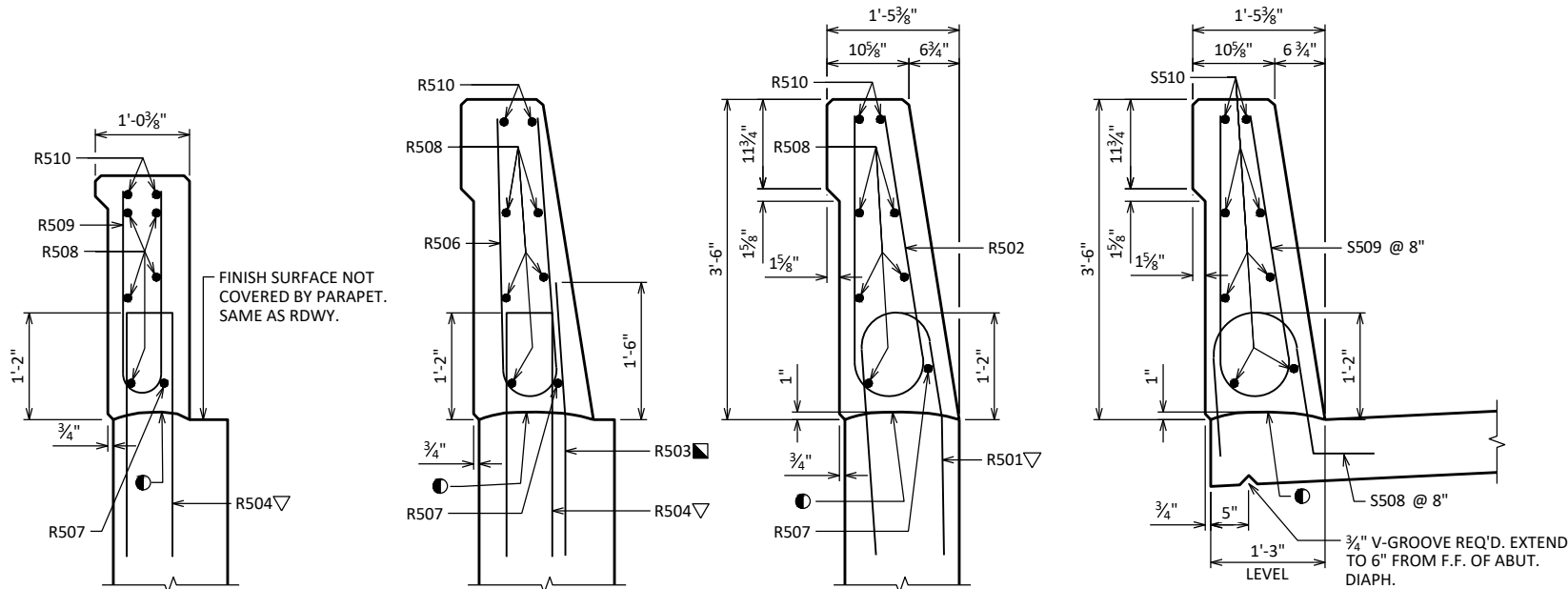
BAR MARK	COAT	S. ABUT.	N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	6	6	5'-10"	X		PARAPET VERT.
R502	X	6	6	6'-8"	X		PARAPET VERT.
R503	X	24	24	3'-0"	X		PARAPET VERT.
R504	X	34	34	5'-7"	X		PARAPET VERT.
R505	X	10	10	6'-5"	X		PARAPET VERT.
R506	X	12	12	6'-6"	X		PARAPET VERT.
R507	X	2	2	9'-7"	X		PARAPET HORIZ.
R508	X	10	10	9'-7"			PARAPET HORIZ.
R509	X	12	12	5'-5"	X	▲	PARAPET VERT.
R510	X	4	4	9'-7"	X		PARAPET HORIZ.

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

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

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



SECTION A-A

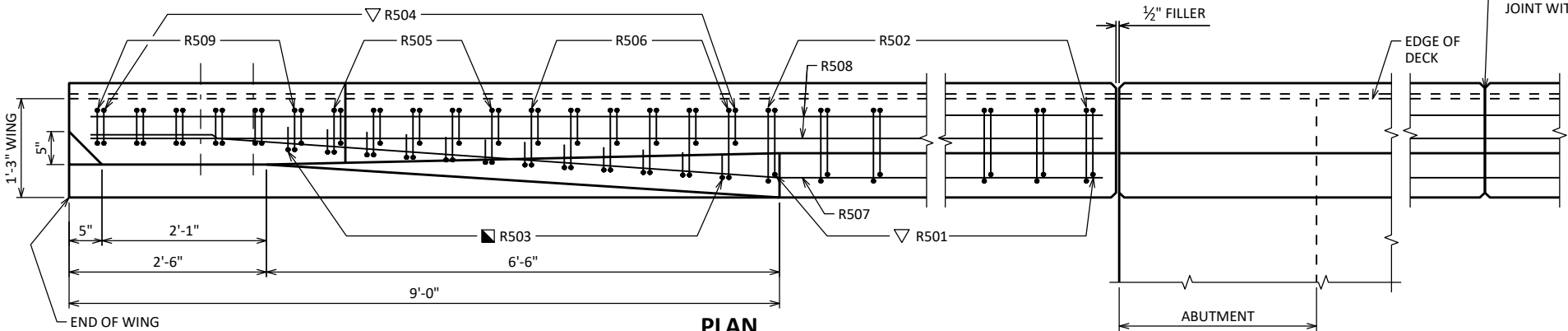
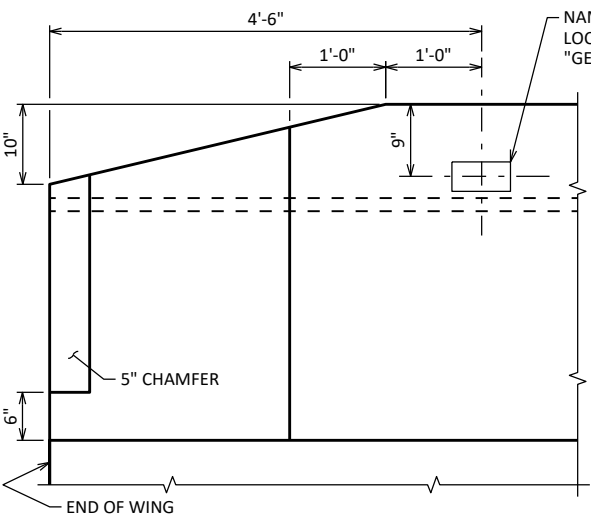
SECTION B-B

SECTION C-C

SECTION THRU PARAPET ON DECK

PARAPET END TREATMENT DETAIL

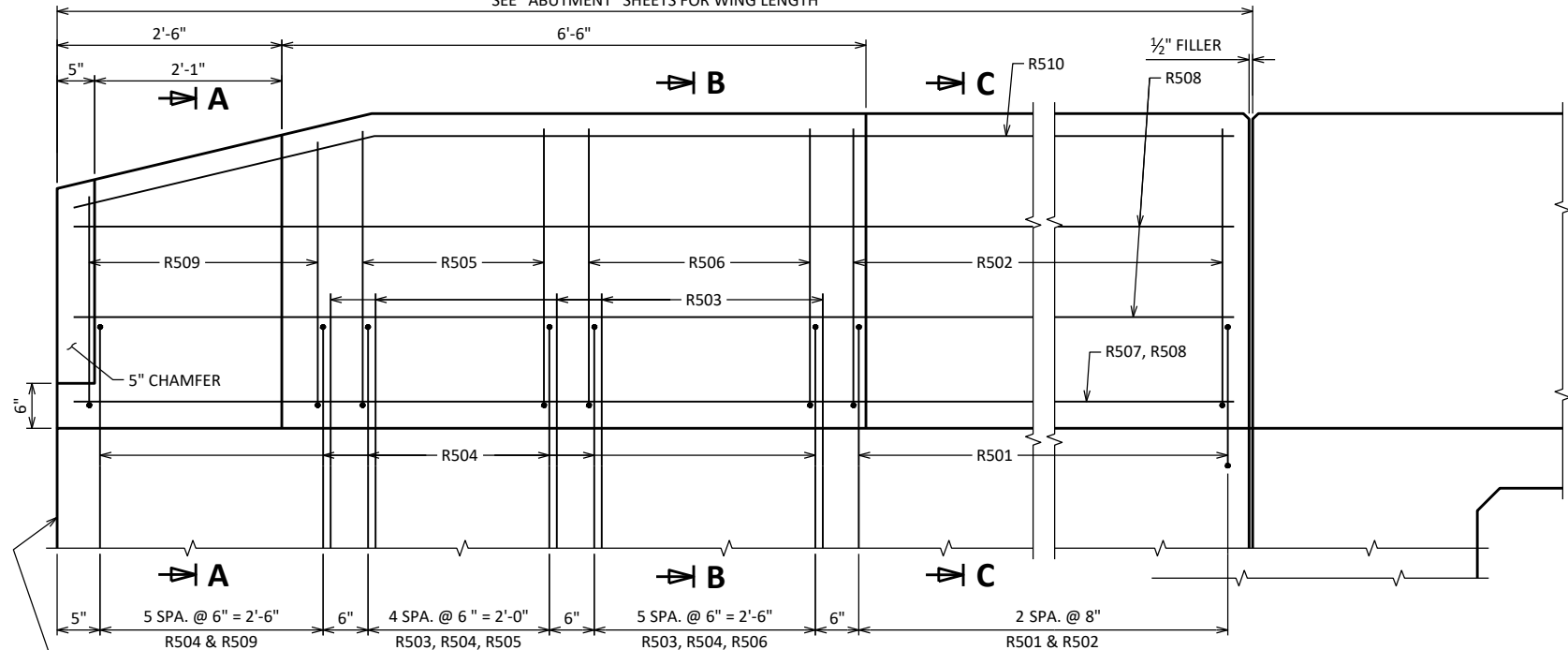
LOOKING AT INSIDE FACE OF PARAPET



PLAN

SW CORNER SHOWN, OTHERS SIMILAR

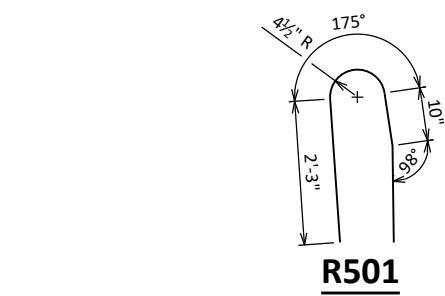
SEE "ABUTMENT" SHEETS FOR WING LENGTH



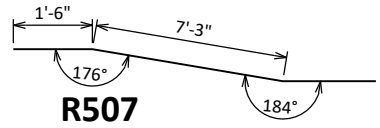
INSIDE ELEVATION

SW CORNER SHOWN, OTHERS SIMILAR

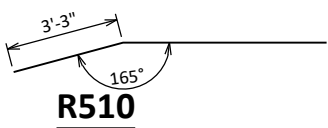
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A 3/4" - 'V' GROOVE



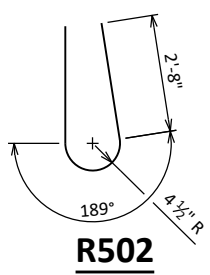
R501



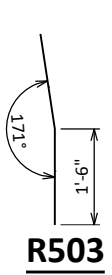
R507



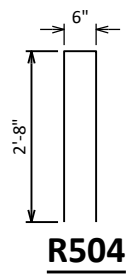
R510



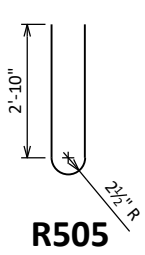
R502



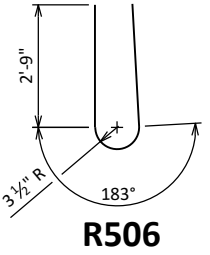
R503



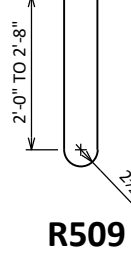
R504



R505



R506



R509

● CONST. JOINT - STRIKE OFF AS SHOWN

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

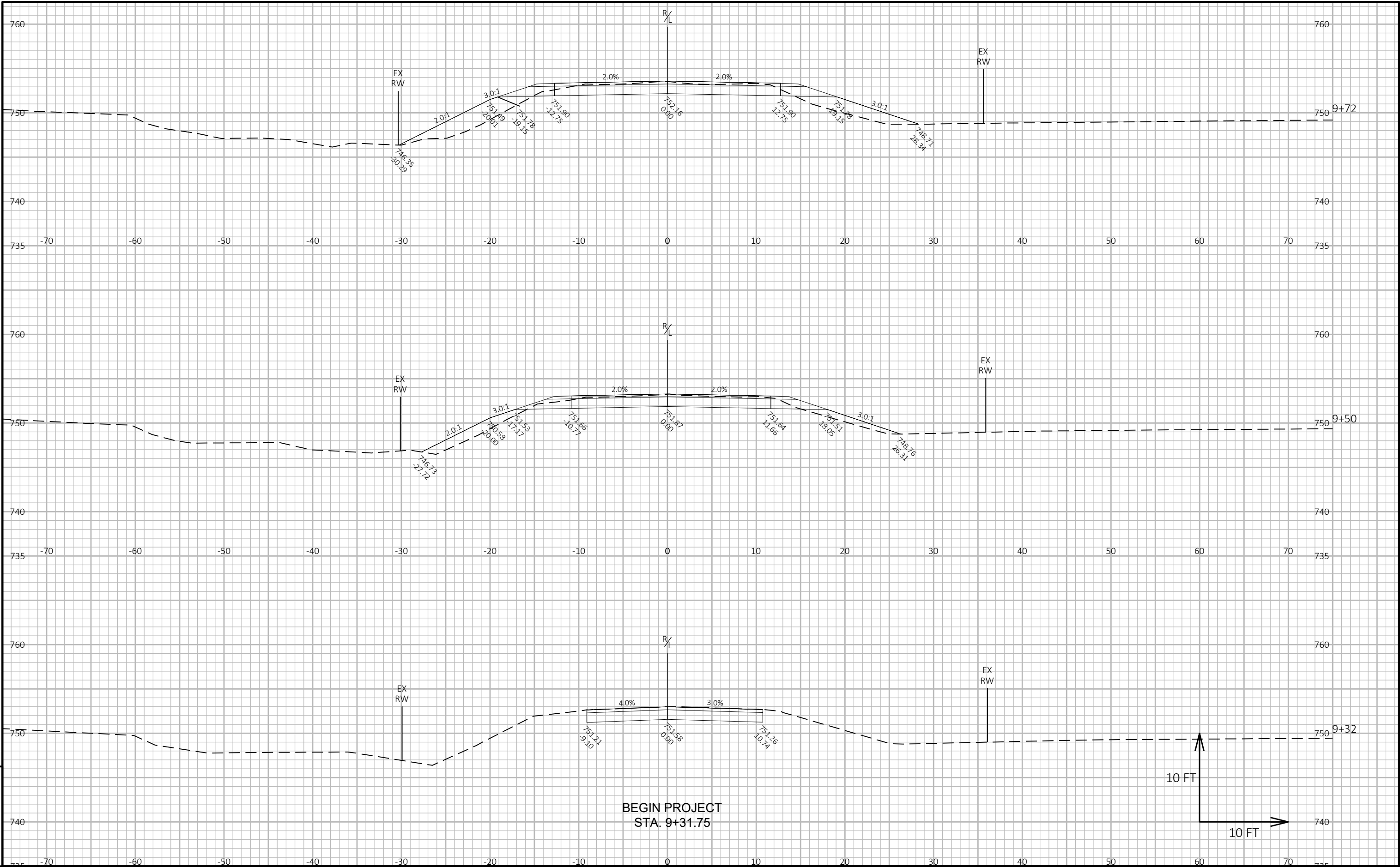
▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-70-330			
DRAWN BY JMC		PLANS CK'D ZSS	
SINGLE SLOPE PARAPET 42SS		SHEET 12 OF 12	

DIVISION 1 - LCL-POYGANRD

STATION	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
				NOTE 1	NOTE 2	NOTE 3	1.00	1.30	NOTE 8
							NOTE 1		
9+31.75	28.40	6.67	0.00	0	0	0	0	0	0
9+50.00	33.32	6.67	17.22	21	5	6	21	8	8
9+71.75	31.90	6.67	31.72	26	5	20	47	34	3
9+80.00	31.90	6.67	31.72	10	2	10	57	47	-2
B-70-0330									
10+20.00	36.43	6.67	35.26	51	10	50	108	112	-26
10+28.25	36.43	6.67	35.26	11	2	11	119	126	-31
10+50.00	36.48	6.67	8.61	29	5	18	148	150	-31
10+68.25	27.44	6.67	0.00	22	5	3	170	153	-17

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	CUT - UNUSABLE PAVEMENT MATERIAL - (FILL * FILL FACTOR)



PROJECT NO: 6445-00-00

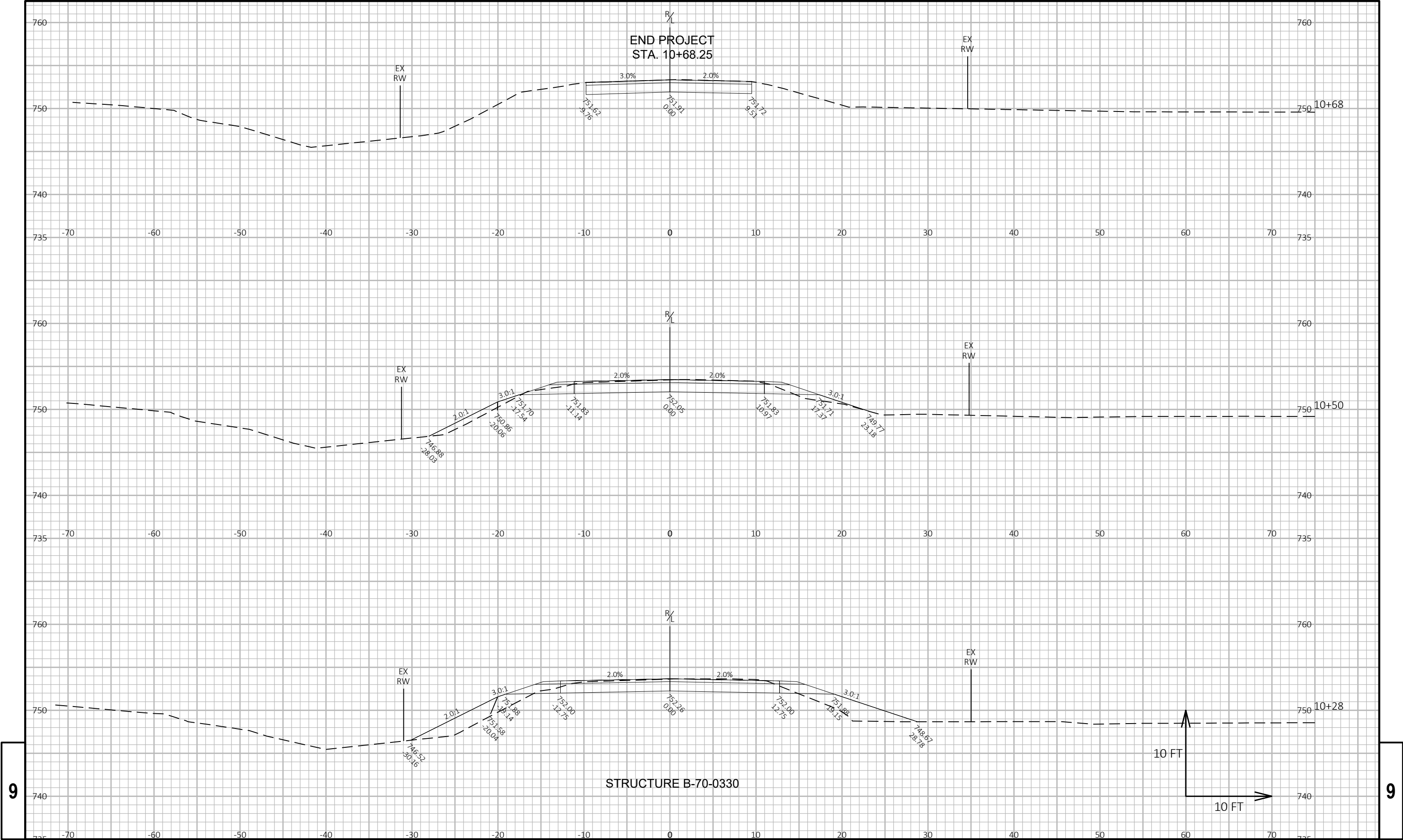
HWY: QUIGLEY ROAD

COUNTY: WINNEBAGO

CROSS SECTIONS: QUIGLEY ROAD

SHEET

E



9

9

Notes



Wisconsin Department of Transportation

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through innovation and exceptional service.

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