

MARCH 2026
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 = 54



DESIGN DESIGNATION

A.A.D.T.	(2026)	=	<100
A.A.D.T.	(2046)	=	<100
D.H.V.		=	10
D.D.		=	50/50
T.		=	5%
DESIGN SPEED		=	55 MPH
ESALS		=	36,500

CONVENTIONAL SYMBOLS

<u>PLAN</u>	
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



 ROCK

 LABEL

 95.36

 E

 FO

 G

 SAN

 SS

 T

 W

 Ø



LAYOUT
 SCALE 0 1 MI
 TOTAL NET LENGTH OF CENTERLINE = 0.063 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), CLARK 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 18.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7833-00-71		

ACCEPTED FOR

Town _____ of _____
Worden _____

10/18/25


(Date)

Earl Mott

(Town Chairman)

ORIGINAL PLANS PREPARED BY

AYRES



10/23/2025

_____ (Date)
_____ (Signature)

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor _____

Designer _____

Project Manager _____

Regional Examiner _____

Regional Supervisor _____

AYRES ASSOCIATES INC _____

AYRES ASSOCIATES INC _____

TOU YANG, PE _____

NW REGION _____

TOU YANG, PE _____

APPROVED FOR THE DEPARTMENT

DATE: 10/28/2025

[Signature]

(Signature)

E

UTILITIES CONTACTS

BRIGHTSPEED
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HAWKINS, WI 54530
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CELL: 715-563-8294
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GREENWOOD, WI 54437
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CELL: 715-207-8883
EMAIL: kweigel@cecoop.com

WISCONSIN DNR LIAISON

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WDNR
910 HWY 54 E
BLACK RIVER FALLS, WI 54615
PHONE: 715-213-9064
EMAIL: Bradley.Betthauser@wisconsin.gov

TOWN CONTACT

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THORP, WI 54771
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DESIGN PROJECT MANAGER

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WISDOT NW REGION
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DESIGN PROJECT LEADER

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AYRES ASSOCIATES
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EAU CLAIRE, WI 54701
PHONE: 715-834-3161
EMAIL: sydowd@AyresAssociates.com

GENERAL NOTES

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

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

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

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. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

SEED MIXTURE NO. 20 AND SEEDING TEMPORARY SHALL BE USED IN THE PROJECT AND SHALL BE PLACED AS SHOWN IN THE PLANS AND/OR DIRECTED BY THE ENGINEER.

THE PROPOSED SHOULDER WIDTH SHOWN IN THE TYPICAL SECTIONS ARE MINIMUM WIDTH. PERPETUATE EXISTING SHOULDERS THAT ARE WIDER THAN WHAT IS SHOWN IN THE TYPICAL SECTIONS.

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

DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH A MONUMENT TO BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

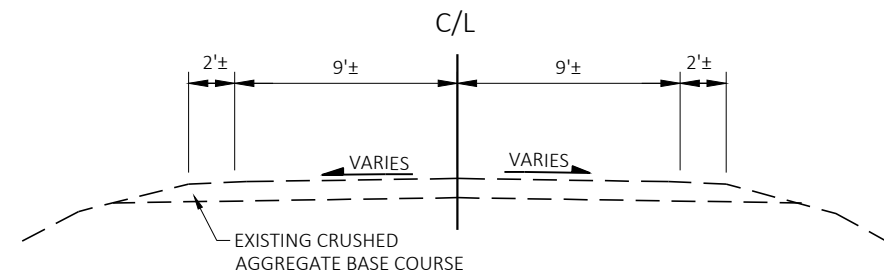


Dial  or (800)242-8511
www.DiggersHotline.com

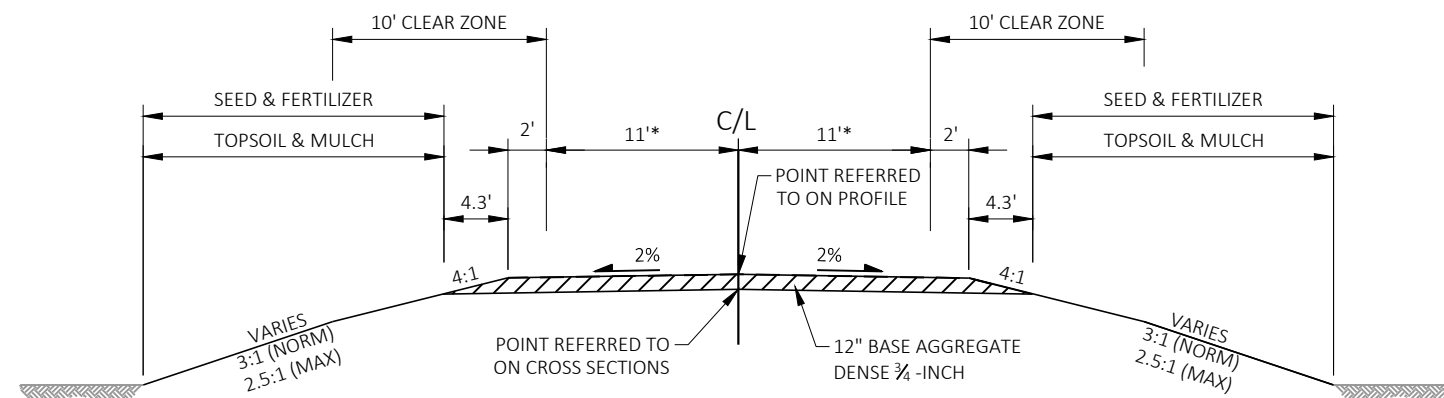
RUNOFF COEFFICIENT TABLE

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 = 0.619 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.445 ACRES

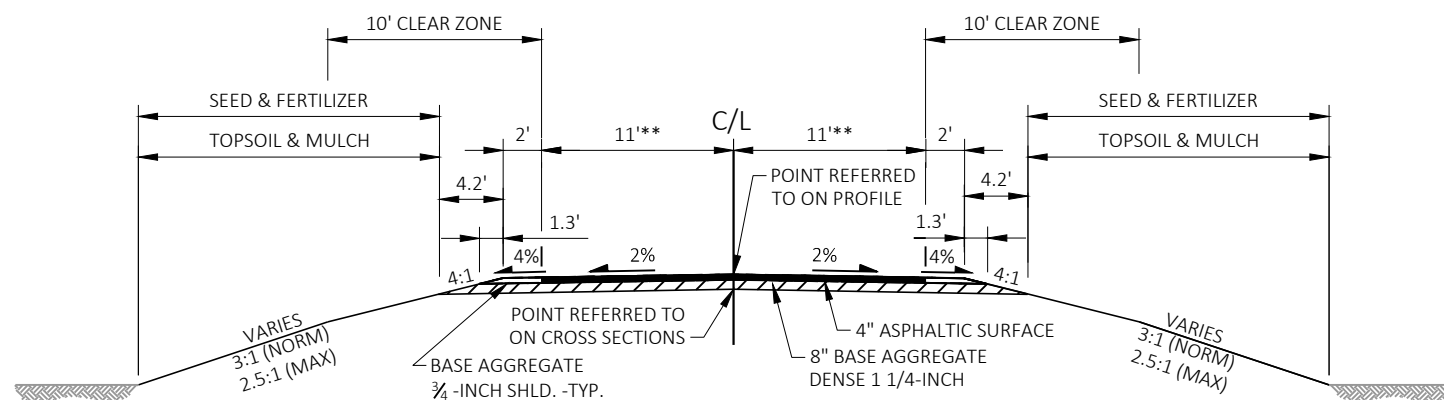


EXISTING TYPICAL SECTION
WORDEN ROAD



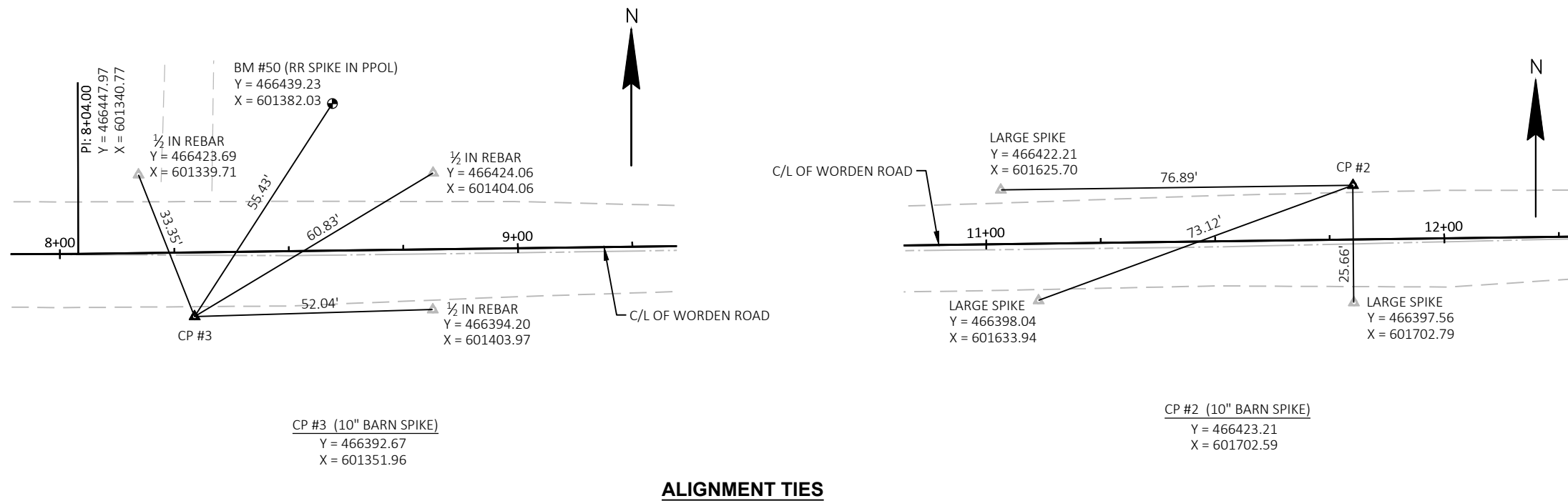
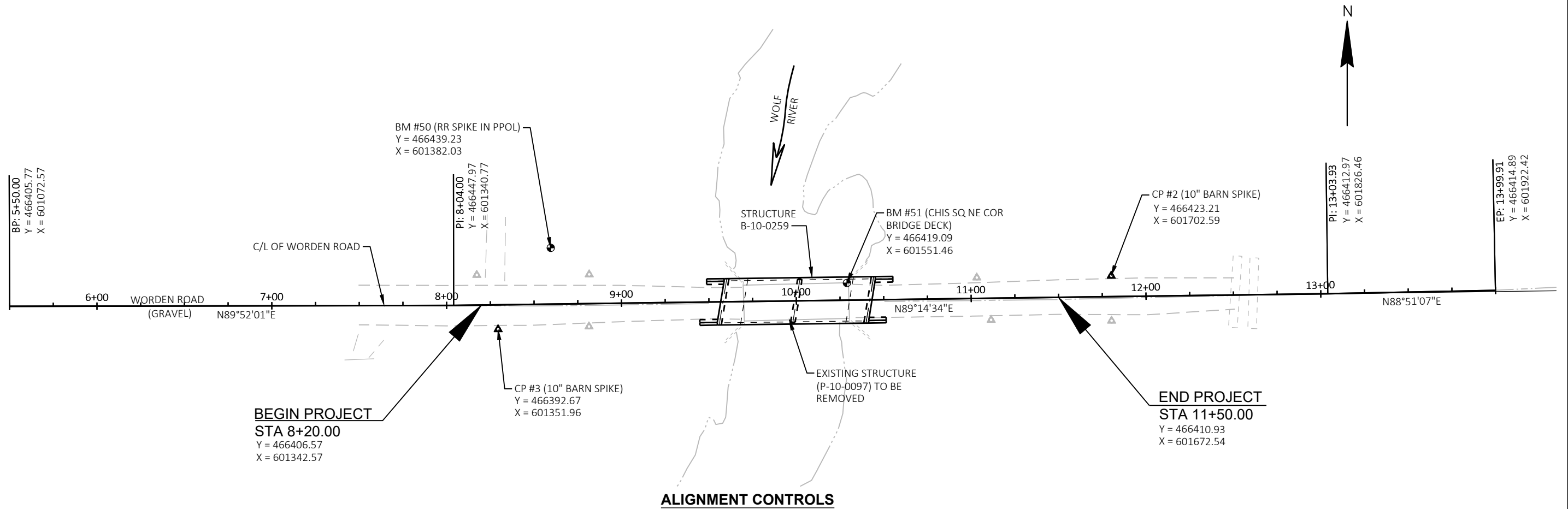
FINISHED TYPICAL SECTION
WORDEN ROAD
STA 8+20.00 TO STA 9+06.73
STA 10+93.27 TO STA 11+50.00

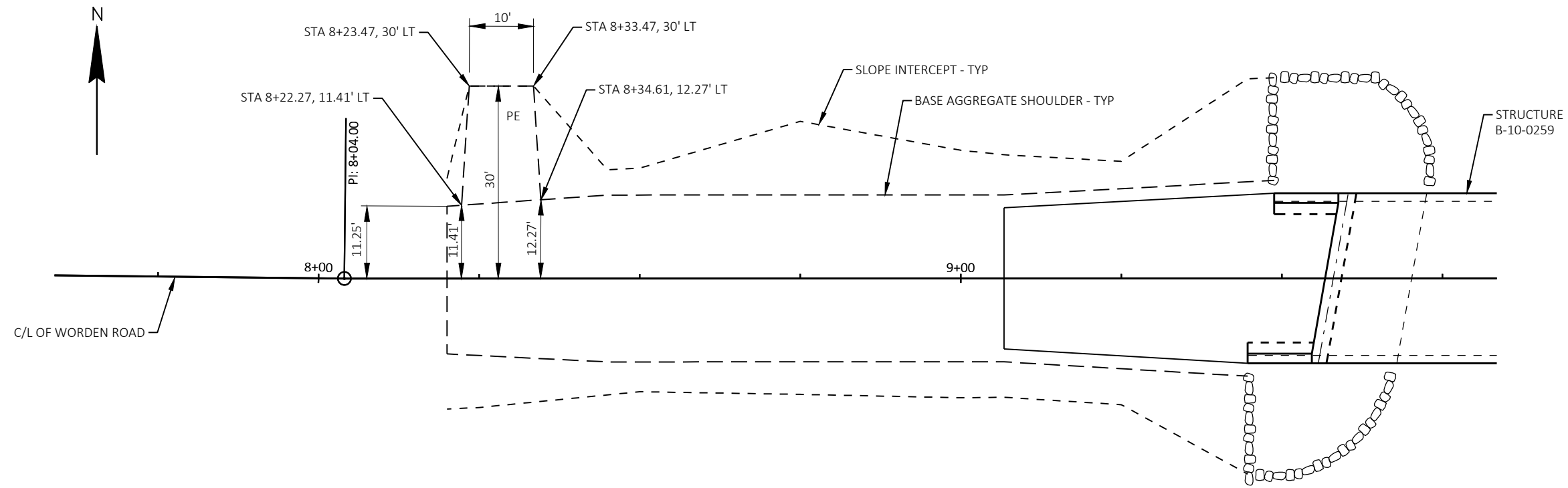
*THE BASE AGGREGATE LANE SHALL MATCH EXISTING AT THE ENDS OF THE PROJECT.



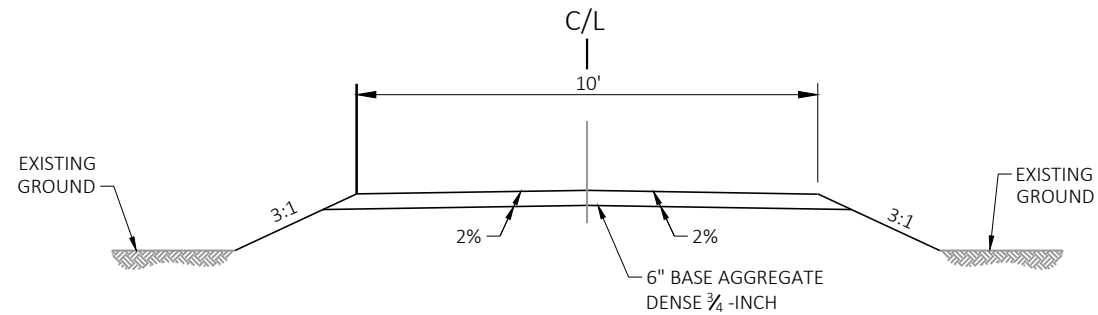
FINISHED TYPICAL SECTION
WORDEN ROAD
STA 9+06.73 TO STA 9+56.73
STA 10+43.27 TO STA 10+93.27

**THE ASPHALTIC SURFACE LANE SHALL TAPER FROM 13.25' WIDE AT THE ENDS OF THE WINGS TO 11' WIDE AT 50' FROM THE END OF THE BRIDGE.



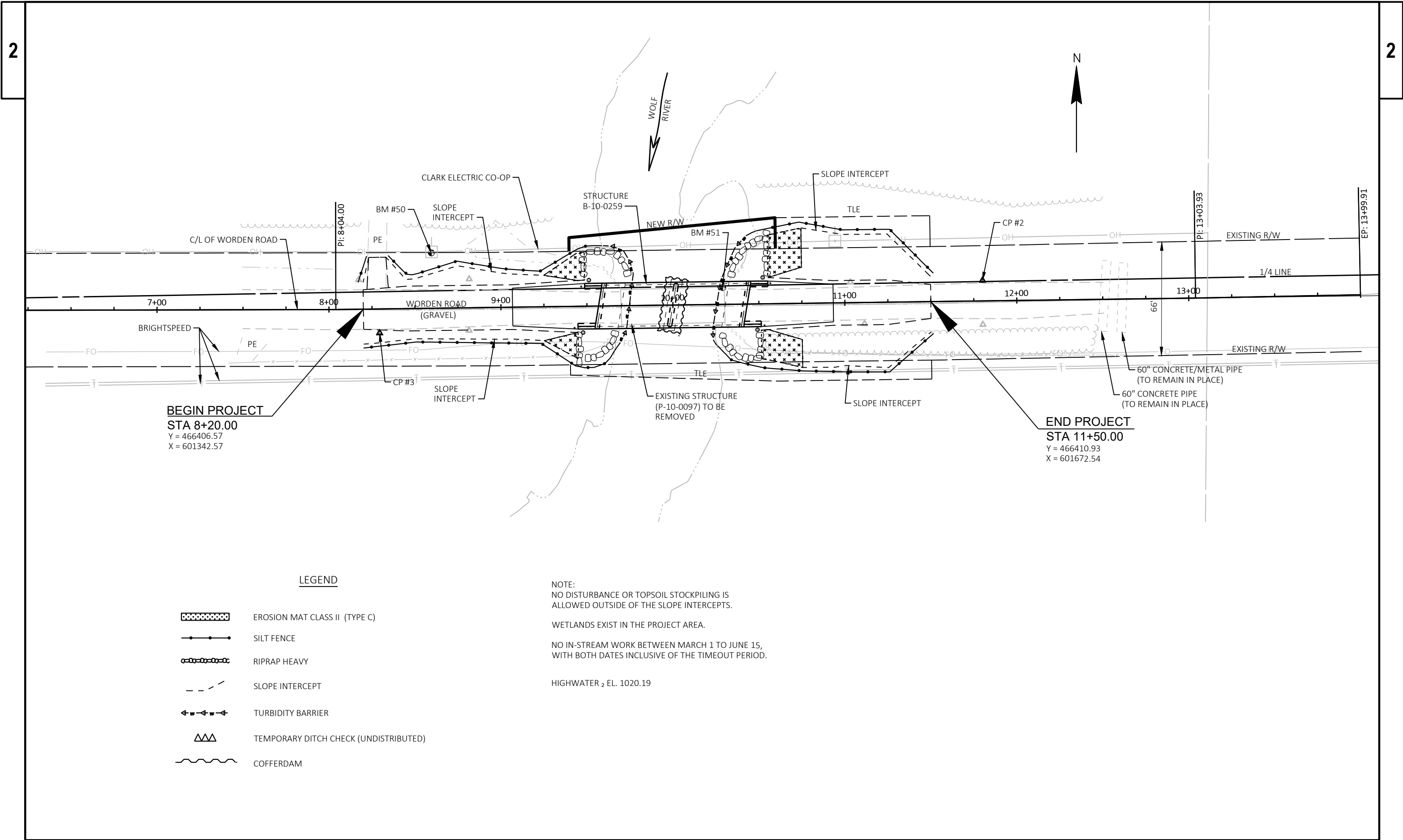


PLAN
STA 8+28.47, LT



TYPICAL CROSS SECTION

PRIVATE ENTRANCE DETAILS



LEGEND

- EROSION MAT CLASS II (TYPE C)
- SILT FENCE
- RIPRAP HEAVY
- SLOPE INTERCEPT
- TURBIDITY BARRIER
- TEMPORARY DITCH CHECK (UNDISTRIBUTED)
- COFFERDAM

NOTE:
NO DISTURBANCE OR TOPSOIL STOCKPILING IS
ALLOWED OUTSIDE OF THE SLOPE INTERCEPTS.

WETLANDS EXIST IN THE PROJECT AREA.

NO IN-STREAM WORK BETWEEN MARCH 1 TO JUNE 15,
WITH BOTH DATES INCLUSIVE OF THE TIMEOUT PERIOD.

HIGHWATER₂ EL. 1020.19

Estimate Of Quantities

7833-00-71					
Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	3.000	3.000
0004	201.0205	Grubbing	STA	3.000	3.000
0006	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-10-0097	EACH	1.000	1.000
0008	205.0100	Excavation Common	CY	429.000	429.000
0010	205.0508.S	Excavation, Hauling, and Disposal of Potential Creosote Contaminated Soil	TON	342.000	342.000
0012	206.1001	Excavation for Structures Bridges (structure) 01. B-10-0259	EACH	1.000	1.000
0014	206.5001	Cofferdams (structure) 01. B-10-0259	EACH	1.000	1.000
0016	210.1500	Backfill Structure Type A	TON	220.000	220.000
0018	213.0100	Finishing Roadway (project) 01. 7833-00-71	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	340.000	340.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	160.000	160.000
0024	455.0605	Tack Coat	GAL	20.000	20.000
0026	465.0105	Asphaltic Surface	TON	60.000	60.000
0028	502.0100	Concrete Masonry Bridges	CY	254.000	254.000
0030	502.3200	Protective Surface Treatment	SY	325.000	325.000
0032	502.9000.S	Underwater Substructure Inspection (structure) 01. B-10-0259	EACH	1.000	1.000
0034	505.0400	Bar Steel Reinforcement HS Structures	LB	5,150.000	5,150.000
0036	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	32,210.000	32,210.000
0038	513.4061	Railing Tubular Type M	LF	218.000	218.000
0040	516.0500	Rubberized Membrane Waterproofing	SY	18.000	18.000
0042	550.0020	Pre-Boring Rock or Consolidated Materials	LF	342.000	342.000
0044	550.1120	Piling Steel HP 12-Inch X 53 Lb	LF	670.000	670.000
0046	606.0300	Riprap Heavy	CY	220.000	220.000
0048	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	180.000	180.000
0050	618.0100	Maintenance and Repair of Haul Roads (project) 01. 7833-00-71	EACH	1.000	1.000
0052	619.1000	Mobilization	EACH	1.000	1.000
0054	624.0100	Water	MGAL	20.000	20.000
0056	625.0100	Topsoil	SY	865.000	865.000
0058	627.0200	Mulching	SY	1,015.000	1,015.000
0060	628.1504	Silt Fence	LF	705.000	705.000
0062	628.1520	Silt Fence Maintenance	LF	1,410.000	1,410.000
0064	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0066	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0068	628.2027	Erosion Mat Class II Type C	SY	180.000	180.000
0070	628.6005	Turbidity Barriers	SY	215.000	215.000
0072	628.7504	Temporary Ditch Checks	LF	50.000	50.000
0074	629.0210	Fertilizer Type B	CWT	0.900	0.900
0076	630.0120	Seeding Mixture No. 20	LB	54.000	54.000
0078	630.0200	Seeding Temporary	LB	18.000	18.000
0080	630.0500	Seed Water	MGAL	27.000	27.000
0082	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0084	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0086	638.2602	Removing Signs Type II	EACH	6.000	6.000
0088	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0090	642.5001	Field Office Type B	EACH	1.000	1.000
0092	643.0420	Traffic Control Barricades Type III	DAY	1,980.000	1,980.000
0094	643.0705	Traffic Control Warning Lights Type A	DAY	2,640.000	2,640.000
0096	643.0900	Traffic Control Signs	DAY	1,320.000	1,320.000
0098	643.5000	Traffic Control	EACH	1.000	1.000

Estimate Of Quantities

7833-00-71					
Line	Item	Item Description	Unit	Total	Qty
0100	645.0111	Geotextile Type DF Schedule A	SY	60.000	60.000
0102	645.0120	Geotextile Type HR	SY	410.000	410.000
0104	650.4500	Construction Staking Subgrade	LF	244.000	244.000
0106	650.5000	Construction Staking Base	LF	244.000	244.000
0108	650.6501	Construction Staking Structure Layout (structure) 01. B-10-0259	EACH	1.000	1.000
0110	650.9911	Construction Staking Supplemental Control (project) 01. 7833-00-71	EACH	1.000	1.000
0112	650.9920	Construction Staking Slope Stakes	LF	244.000	244.000
0114	715.0502	Incentive Strength Concrete Structures	DOL	1,524.000	1,524.000
0116	999.2005.S	Maintaining Bird Deterrent System (station) 01. 10+00	EACH	1.000	1.000

CLEARING & GRUBBING

STATION	TO	STATION	LOCATION	201.0105	201.0205
				CLEARING STA	GRUBBING STA
9+00	-	12+00	MAINLINE	3	3
TOTAL 0010				3	3

NOTE: TREES HAVE BEEN CUT BY OTHERS PRIOR TO CONSTRUCTION. CLEAR CUT TREES.

WORDEN ROAD EARTHWORK SUMMARY

From/To Station	Location	Excavation Common (1)	Salvaged / Unuseable Pavement Material (5)	Unexpanded Fill	Expanded Fill (2)	Mass Ordinate +/- (3)	Waste
		(item # 205.0100) Cut			Factor 1.30		
8+20.00 - 9+56.73	WORDEN ROAD	262	0	8	10	252	252
10+43.27 - 11+50.00	WORDEN ROAD	167	0	227	295	-128	-128
TOTAL		429		235	305		124

- 1) Excavation Common is the Cut. Item number 205.0100.
- 2) Expanded Fill. Factor = 1.30; Expanded Fill = Unexpanded Fill * Fill Factor
- 3) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material on the project.
- 4) All quantities shown in CY.
- 5) Salvaged/unuseable pavement material

ASPHALTIC SURFACE

STATION	TO	STATION	LOCATION	455.0605	465.0105
				TACK COAT GAL	ASPHALTIC SURFACE TON
9+06.73	-	9+56.73	WORDEN ROAD	10	30
10+43.27	-	10+93.27	WORDEN ROAD	10	30
TOTAL 0010				20	60

WATER

LOCATION	624.0100
	WATER MGAL
COMPACTION	8
DUST CONTROL	12
TOTAL 0010	20

EXCAVATION, HAULING, AND DISPOSAL OF POTENTIAL
CRESOTE CONTAMINATED SOIL

STATION	LOCATION	205.0508.S
		EXCAVATION, HAULING, AND DISPOSAL OF POTENTIAL CREOSOTE CONTAMINATED TON
10+00	P-10-0097	342
TOTAL 0010		342

NOTE: EXCAVATE A 5' OFFSET AROUND EACH EXISTING BRIDGE TIMBER
ABUTMENT AND 4' DEEP.

BASE AGGREGATE DENSE

STATION	TO	STATION	LOCATION	305.0110	305.0120
				BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4-INCH TON
8+20.00	-	9+06.73	WORDEN ROAD	195	--
		8+28.47	PELT	10	--
9+06.73	-	9+56.73	WORDEN ROAD	5	80
10+43.27	-	10+93.27	WORDEN ROAD	5	80
10+93.27	-	11+50.00	WORDEN ROAD	125	--
TOTAL 0010				340	160

EROSION CONTROL ITEMS

STATION	TO	STATION	LOCATION	628.1504	628.1520	628.2027	628.6005	628.7504
				SILT FENCE LF	SILT FENCE MAINTENANCE LF	EROSION MAT CLASS II TYPE C SY	TURBIDITY BARRIERS SY	TEMPORARY DITCH CHECKS LF
8+20	-	10+00	WORDEN ROAD	310	620	45	85	--
10+00	-	11+50	WORDEN ROAD	255	510	100	85	--
			UNDISTRIBUTED	140	280	35	45	50
TOTAL 0010				705	1,410	180	215	50

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

MOBILIZATIONS EROSION CONTROL

	628.1905	628.1910
	MOBILIZATIONS	MOBILIZATIONS
	EROSION	EROSION
	CONTROL	CONTROL
LOCATION	EACH	EACH
PROJECT LIMITS	4	4
TOTAL 0010	4	4

RESTORATION ITEMS

	625.0100	627.0200	629.0210	630.0120	630.0200	630.0500
	TOPSOIL	MULCHING	FERTILIZER	SEEDING	SEEDING	SEED WATER
	SY	SY	TYPE B	MIXTURE NO. 20	TEMPORARY	MGAL
STATION	TO	STATION	LOCATION	LB	LB	
8+20.00	-	9+56.73	MAINLINE	16	5	8
10+43.27	-	11+50.00	MAINLINE	28	9	14
			UNDISTRIBUTED	10	4	5
TOTAL 0010	865	1,015	0.9	54	18.0	27

SIGNS TYPE II

			634.0614	637.2230	638.2602	638.3000		
			POSTS WOOD	SIGNS TYPE II	REMOVING	REMOVING		
			4X6-INCH	REFLECTIVE F	SIGNS TYPE II	SMALL SIGN		
			X 14-FT	SF	EACH	SUPPORTS		
STATION	LOCATION	SIGN	SIGN SIZE					REMARKS
		CODE	(INCHES)	EACH				
9+44	RT	W5-52R	12X36	1	3	--	--	BRIDGE HASH MARKER SIGN
9+47	LT	W5-52L	12X36	1	3	--	--	BRIDGE HASH MARKER SIGN
9+58	RT	R12-1	--	--	--	1	1	WEIGHT LIMIT 5 TONS SIGN
9+69	RT	W5-52R	--	--	--	1	1	BRIDGE HASH MARKER SIGN
9+69	LT	W5-52L	--	--	--	1	1	BRIDGE HASH MARKER SIGN
10+31	RT	W5-52L	--	--	--	1	1	BRIDGE HASH MARKER SIGN
10+31	LT	W5-52R	--	--	--	1	1	BRIDGE HASH MARKER SIGN
10+51	LT	R12-1	--	--	--	1	1	WEIGHT LIMIT 5 TONS SIGN
10+52	RT	W5-52L	12X36	1	3	--	--	BRIDGE HASH MARKER SIGN
10+56	LT	W5-52R	12X36	1	3	--	--	BRIDGE HASH MARKER SIGN
TOTAL 0010				4	12	6	6	

TRAFFIC CONTROL

			643.0420	643.0705	643.0900
			TRAFFIC	TRAFFIC	TRAFFIC
			CONTROL	CONTROL	CONTROL
			BARRICADES	WARNING	SIGNS
			TYPE III	LIGHTS TYPE A	
LOCATION	DURATION	EACH	DAY	EACH	DAY
SDD 15C02	95	18	1,710	24	2,280
UNDISTRIBUTED			270		360
TOTAL 0010			1,980	2,640	1,320

CONSTRUCTION STAKING

			650.4500	650.5000	650.9920
			CONSTRUCTION	CONSTRUCTION	CONSTRUCTION
			STAKING	STAKING	STAKING
			SUBGRADE	BASE	SLOPE
			LF	LF	LF
STATION	TO	STATION	LOCATION		
8+20	-	11+50	WORDEN ROAD	244	244
TOTAL 0010				244	244

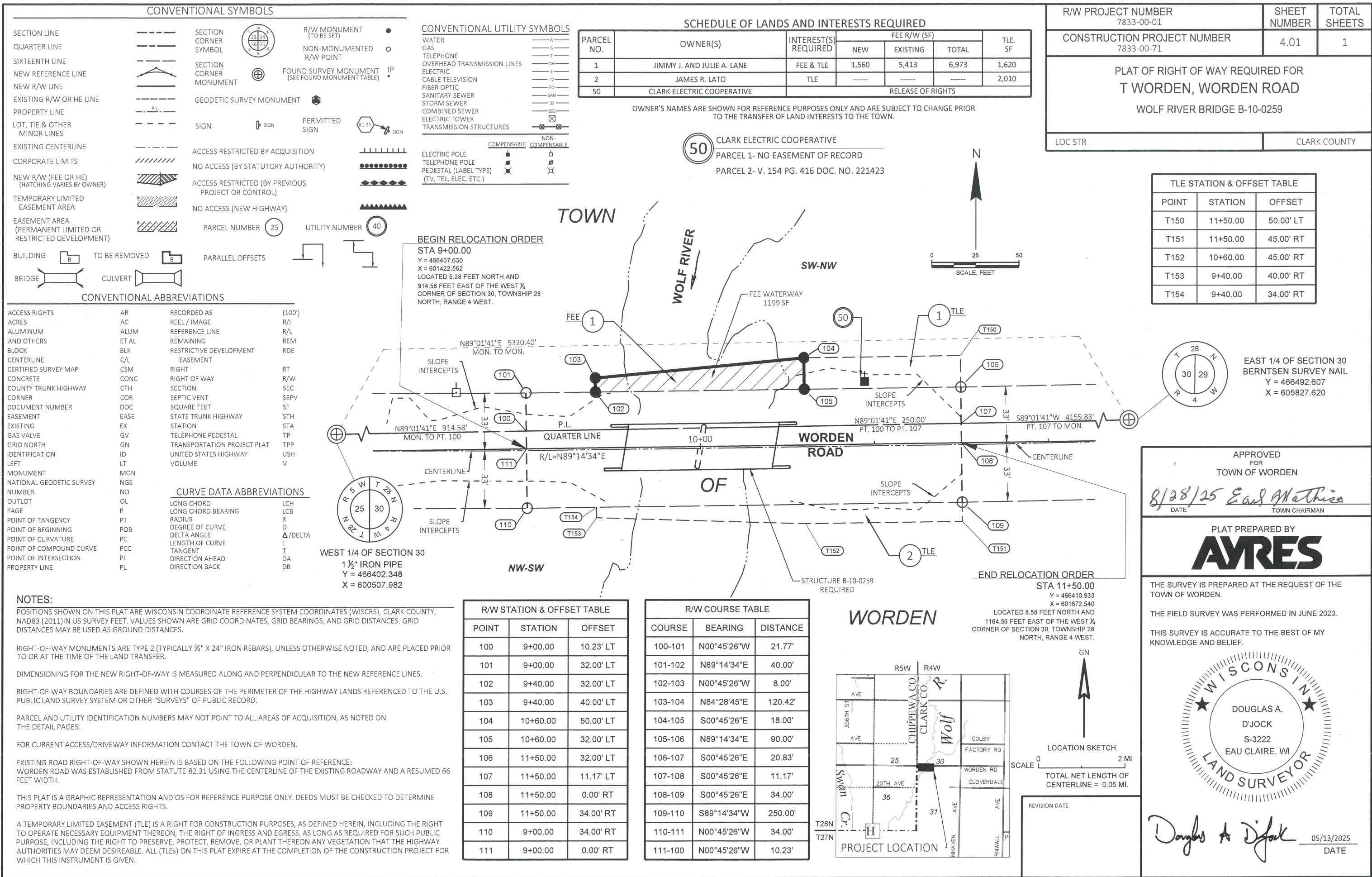
CONSTRUCTION STAKING STRUCTURE LAYOUT

			650.6501.01
			CONSTRUCTION STAKING
			STRUCTURE LAYOUT
			(STRUCTURE) (01. B-10-0259)
CATEGORY	STATION	LOCATION	EACH
0020	10+00	B-10-0259	1
TOTAL 0020			1

MAINTAINING BIRD DETERRENT SYSTEM

		999.2005.S.01
		MAINTAINING BIRD
		DETERRENT SYSTEM
		(STATION)
		(01. STA 10+00)
STATION	LOCATION	EACH
10+00	WORDEN ROAD	1
TOTAL 0010		1

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

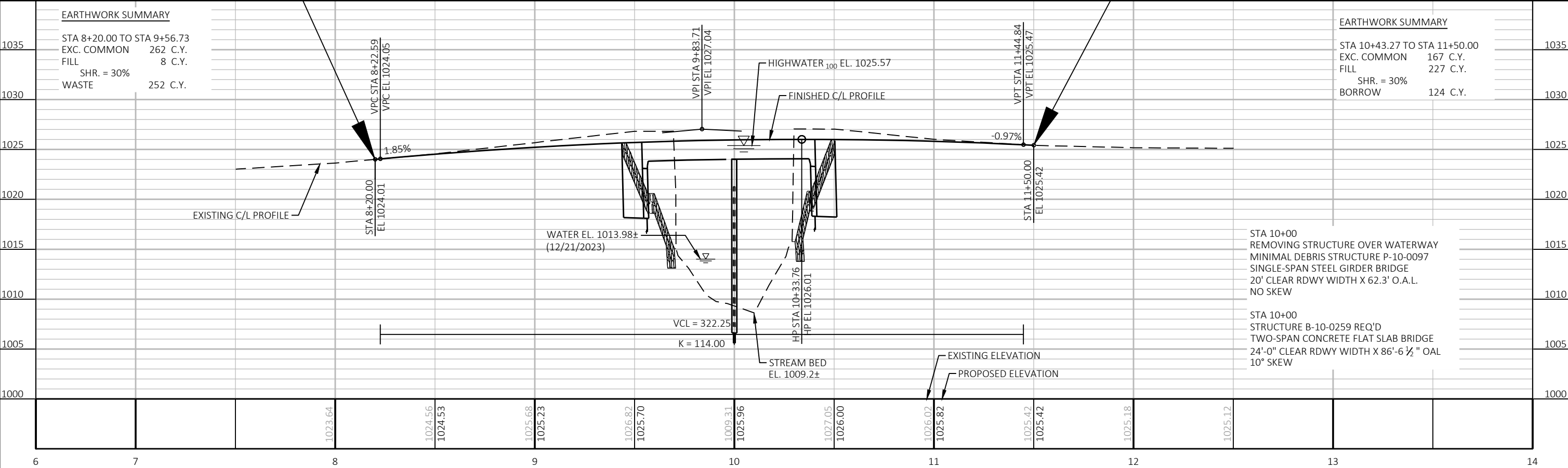
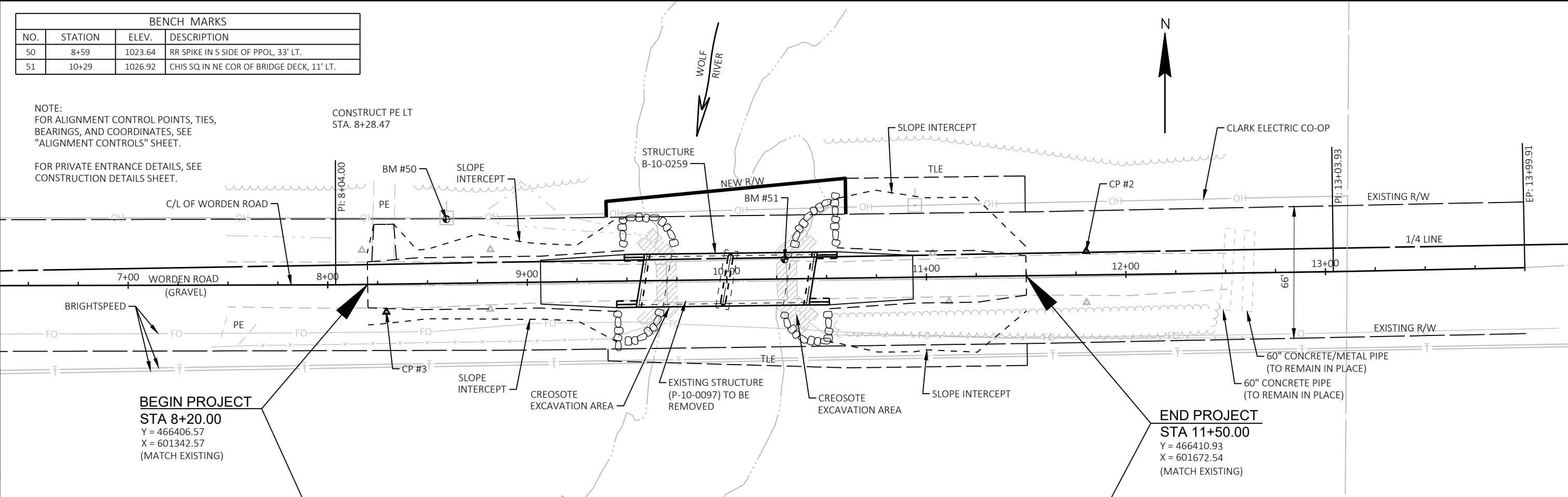


BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
50	8+59	1023.64	RR SPIKE IN S SIDE OF PPOL, 33' LT.
51	10+29	1026.92	CHIS SQ IN NE COR OF BRIDGE DECK, 11' LT.

NOTE:
FOR ALIGNMENT CONTROL POINTS, TIES,
BEARINGS, AND COORDINATES, SEE
"ALIGNMENT CONTROLS" SHEET.

FOR PRIVATE ENTRANCE DETAILS, SEE
CONSTRUCTION DETAILS SHEET.

CONSTRUCT PE LT
STA. 8+28.47



PROJECT NO: 7833-00-71

HWY: WORDEN ROAD

COUNTY: CLARK

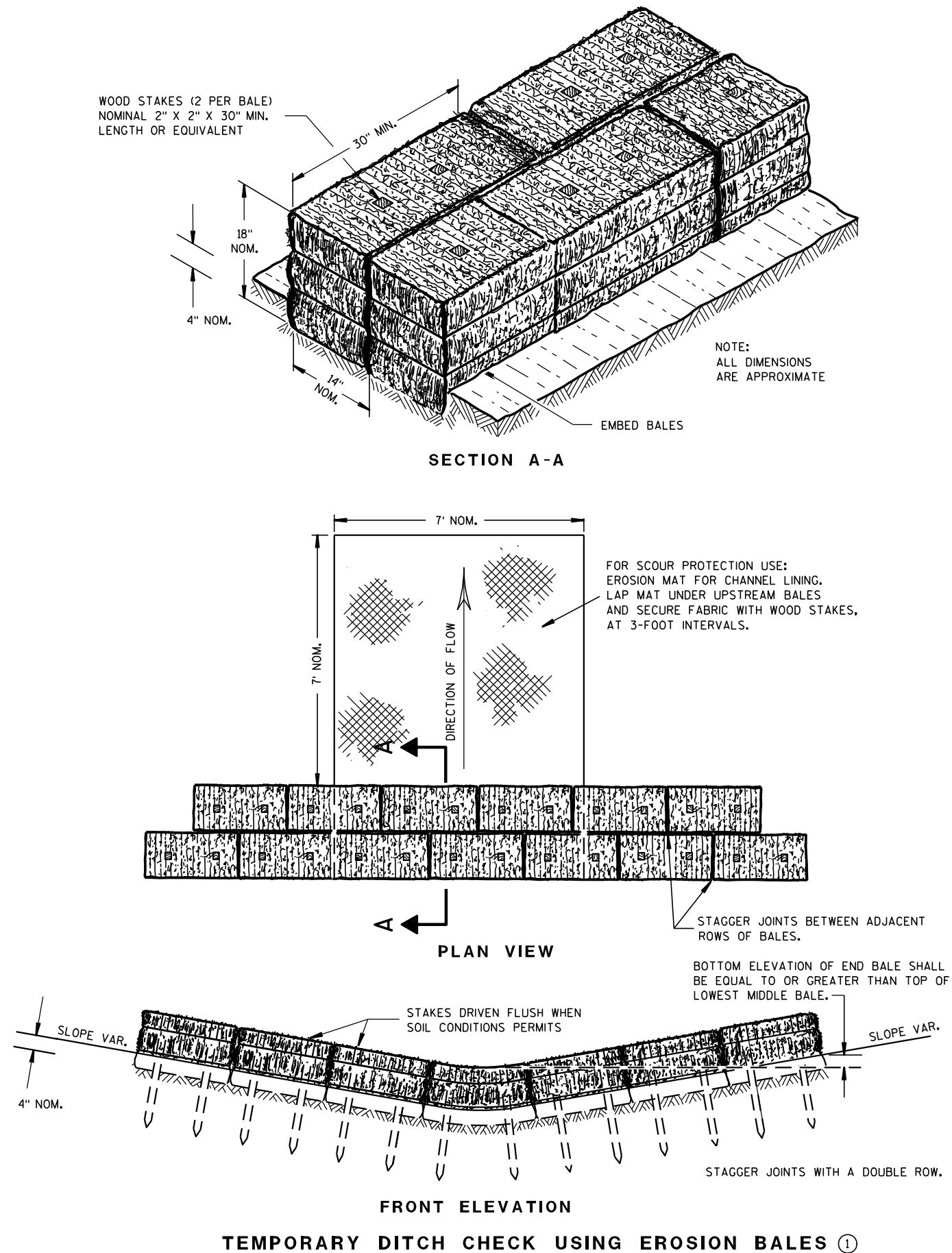
PLAN AND PROFILE:

SHEET

E

Standard Detail Drawing List

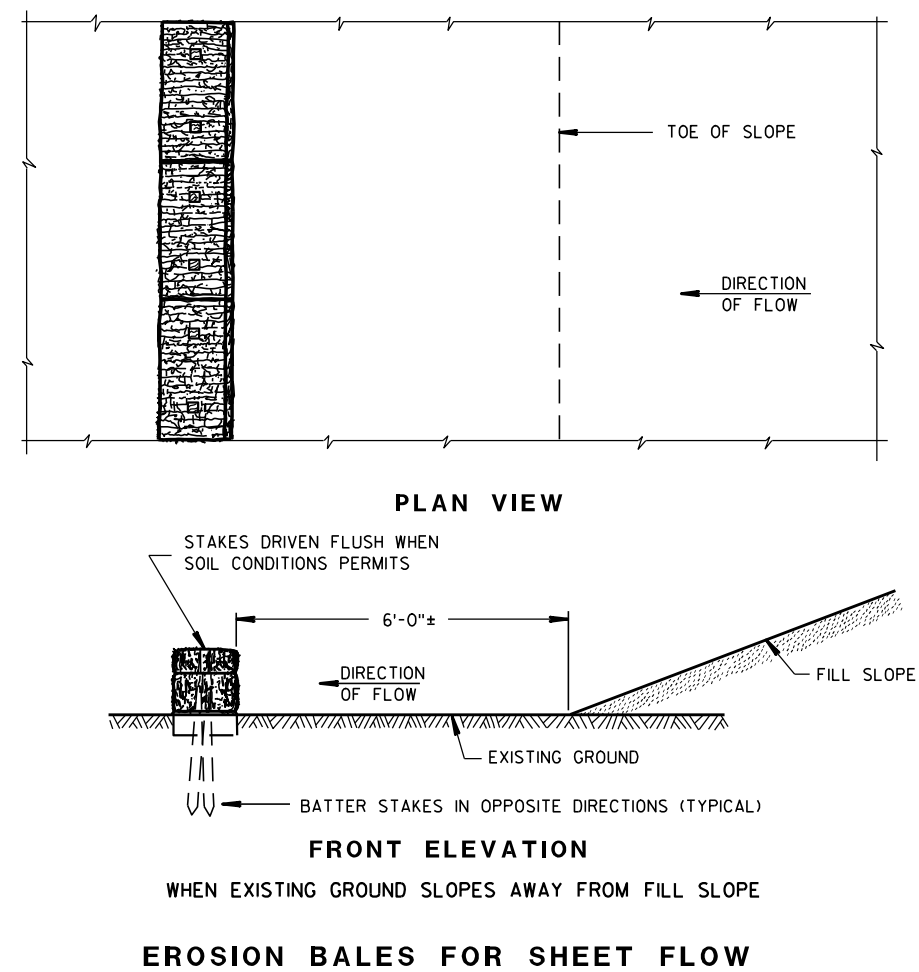
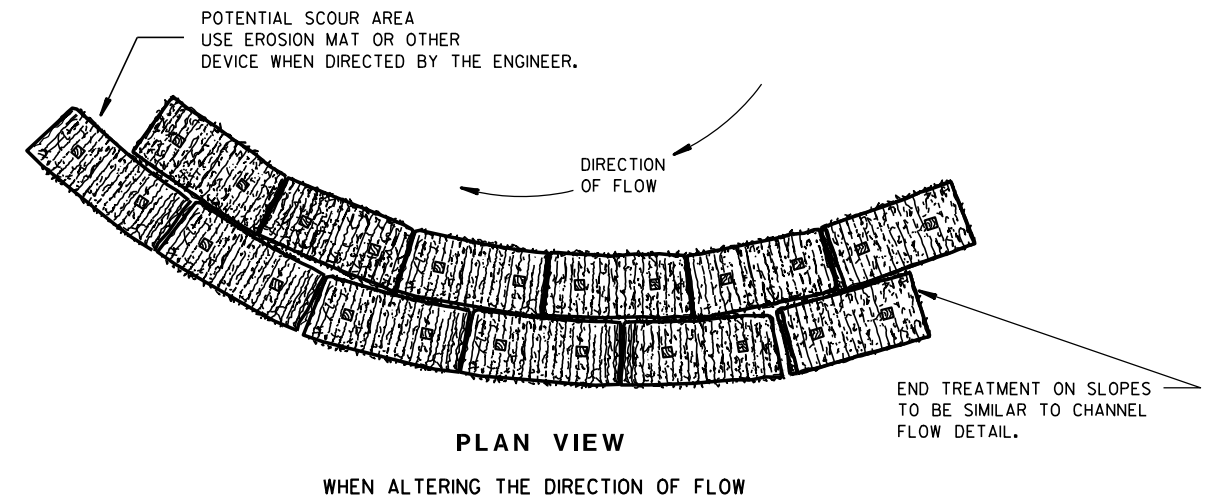
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES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



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.

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

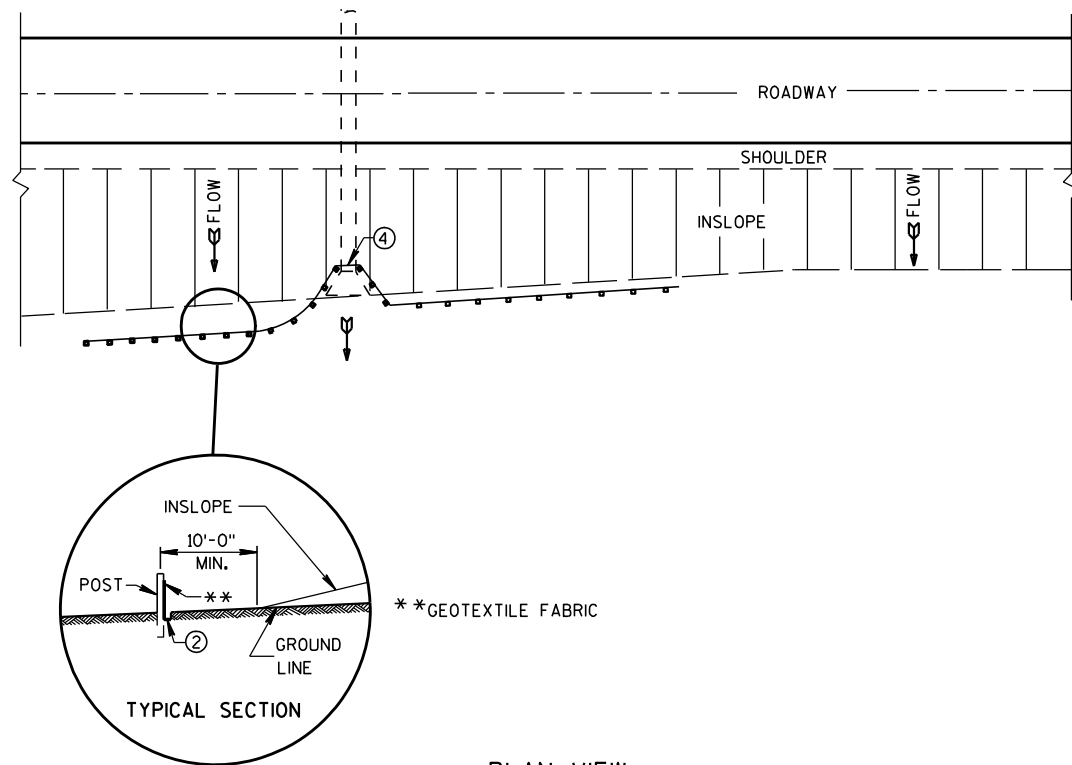
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

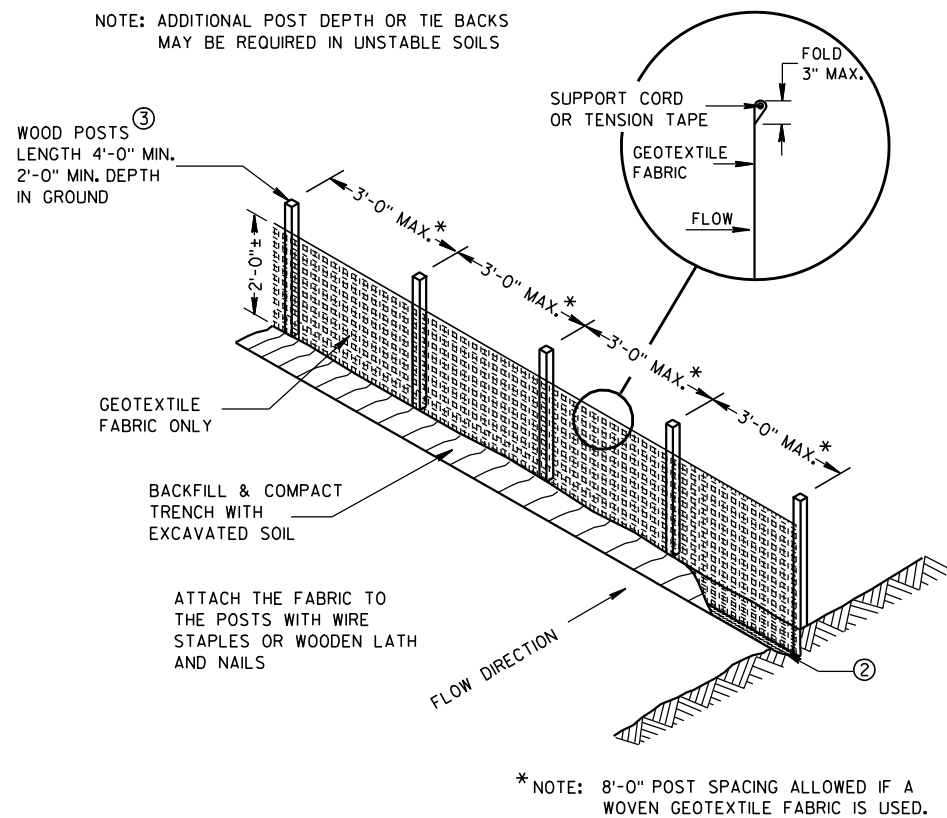
/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



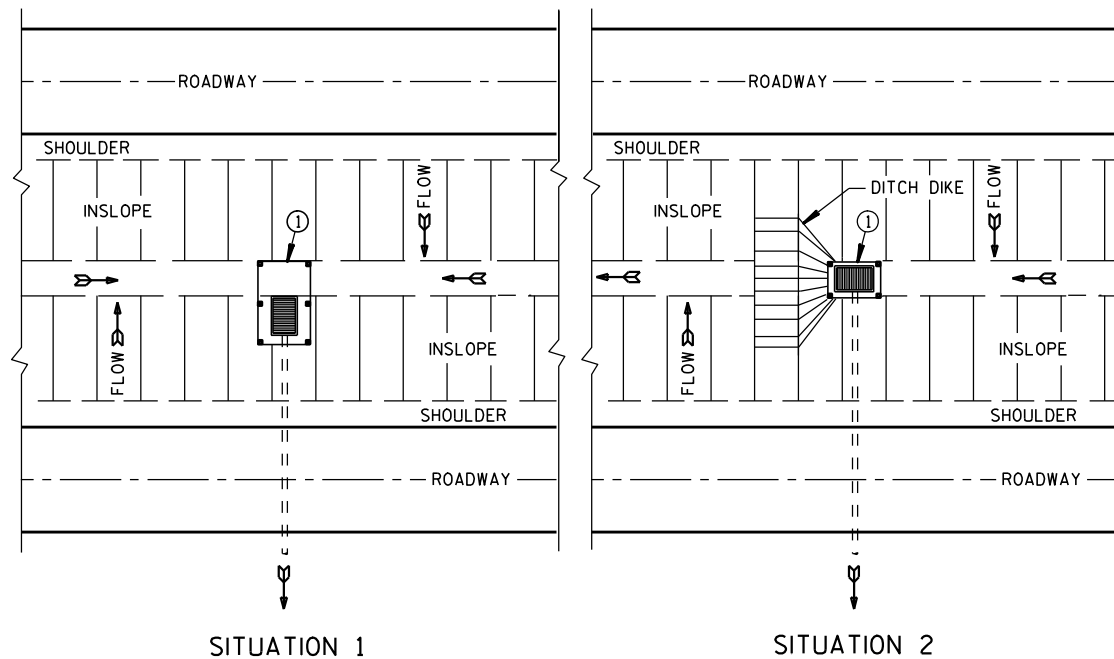
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

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

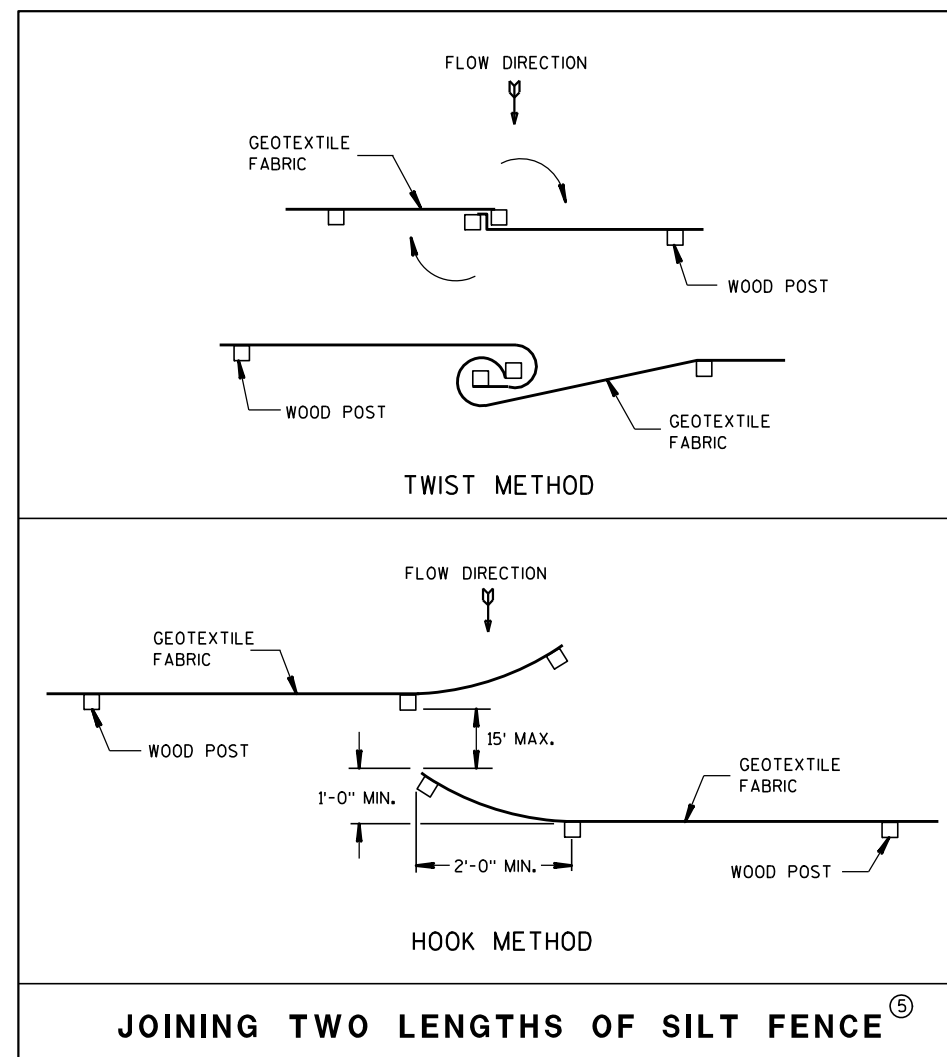


SILT FENCE

* NOTE: 8'-0" POST SPACING ALLOWED IF A
WOVEN GEOTEXTILE FABRIC IS USED.



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

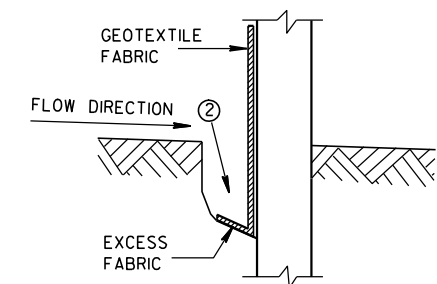


JOINING TWO LENGTHS OF SILT FENCE^⑤

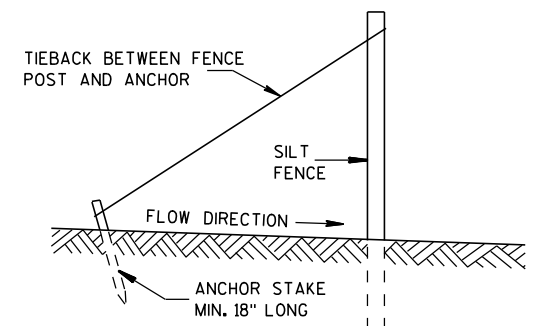
GENERAL NOTES

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



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

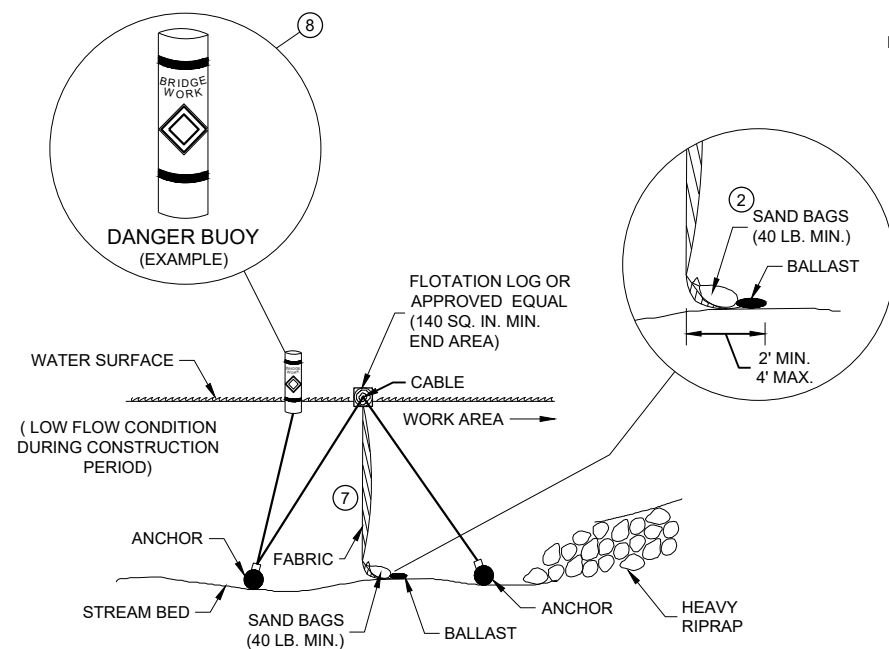
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-29-05
DATE

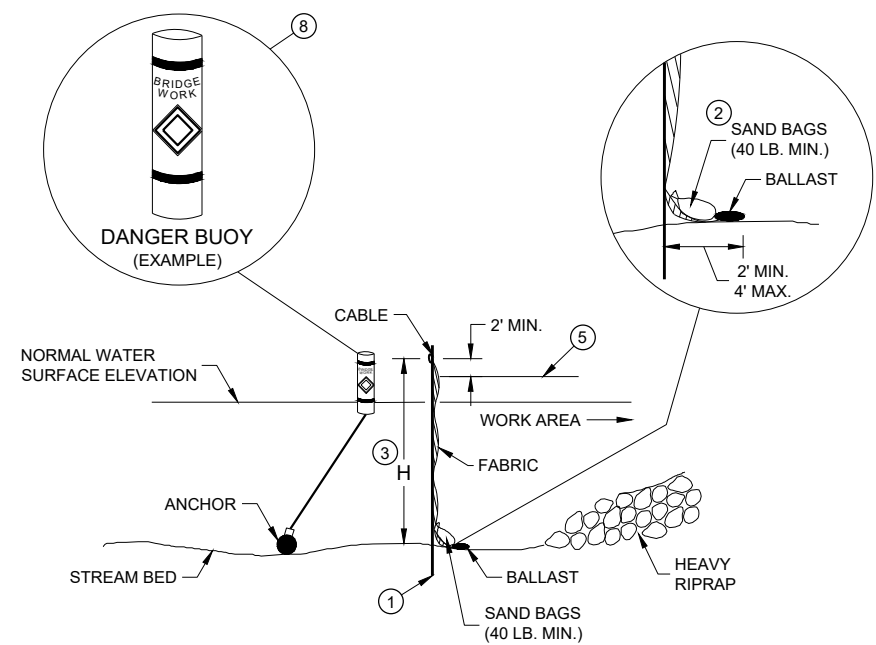
FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



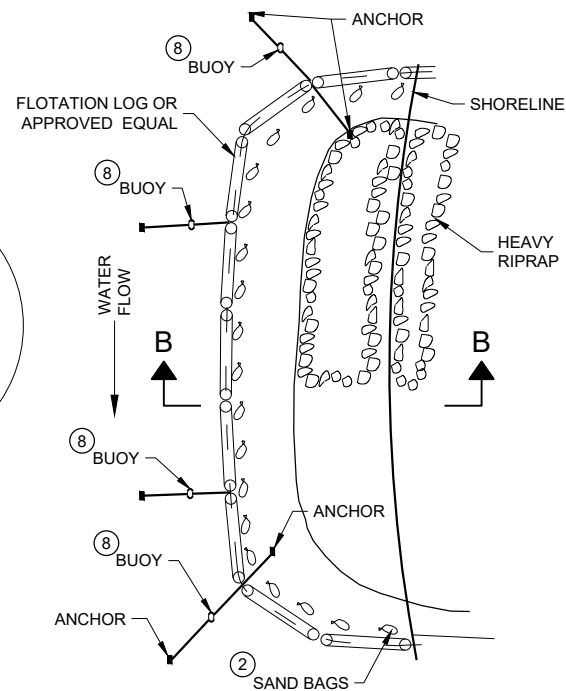
SECTION B - B

TURBIDITY BARRIER - FLOAT ALTERNATIVE CAUTION - SEE NOTE 6

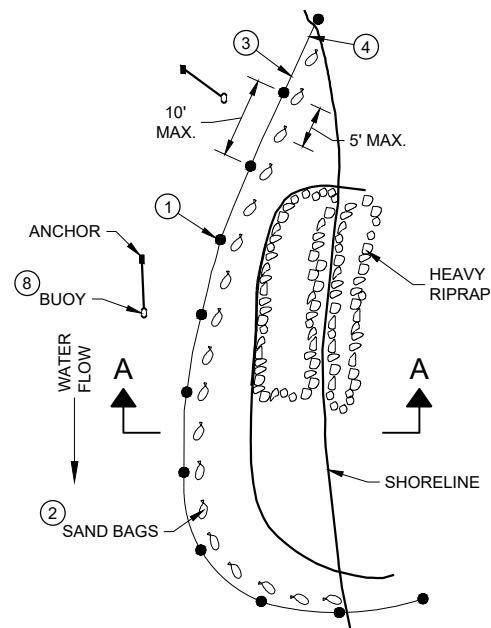


SECTION A - A

TURBIDITY BARRIER - STANDARD POST INSTALLATION



PLAN VIEW



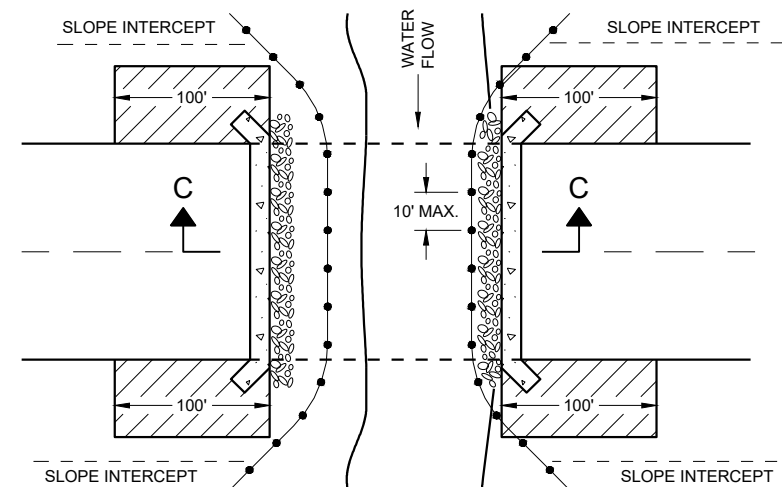
PLAN VIEW

GENERAL NOTES

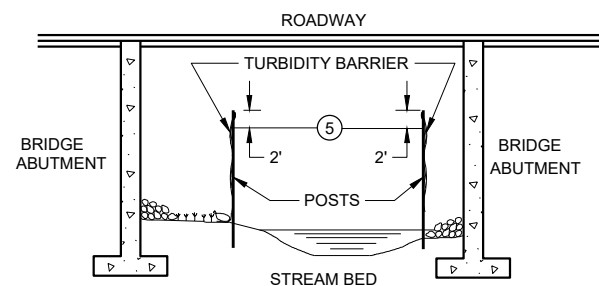
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

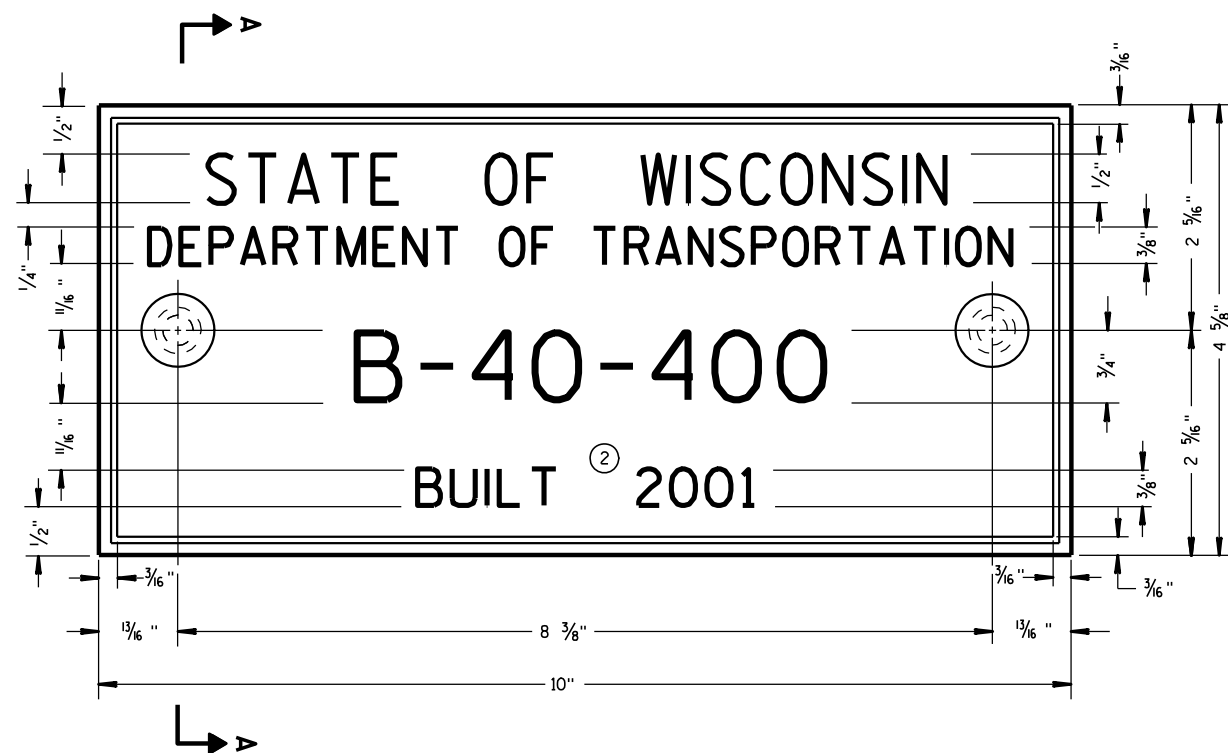
DATE

FHWA

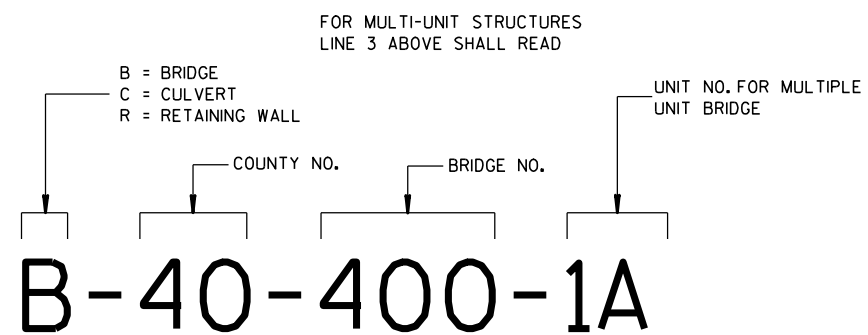
/S/ Beth Canestra

CHIEF ROADWAY DEVELOPMENT

ENGINEER



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



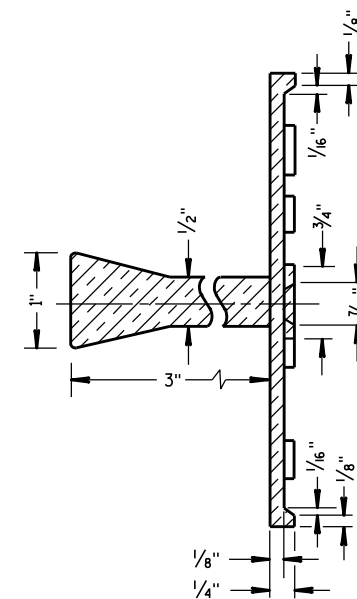
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

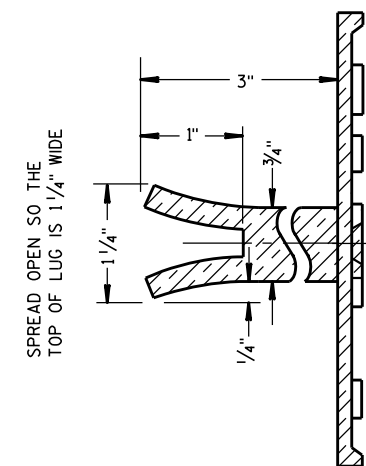
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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.



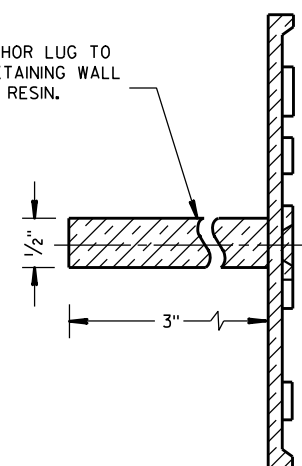
SECTION A-A



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

ALTERNATE LUG

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



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

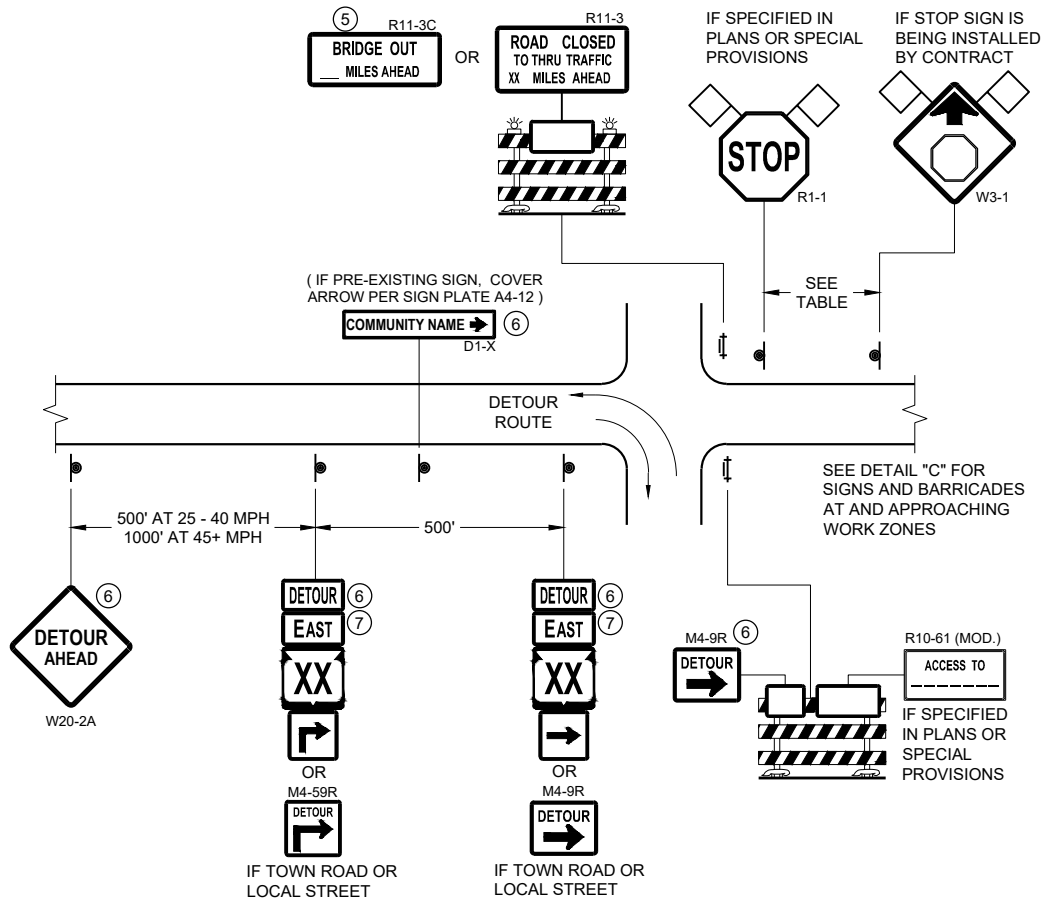
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

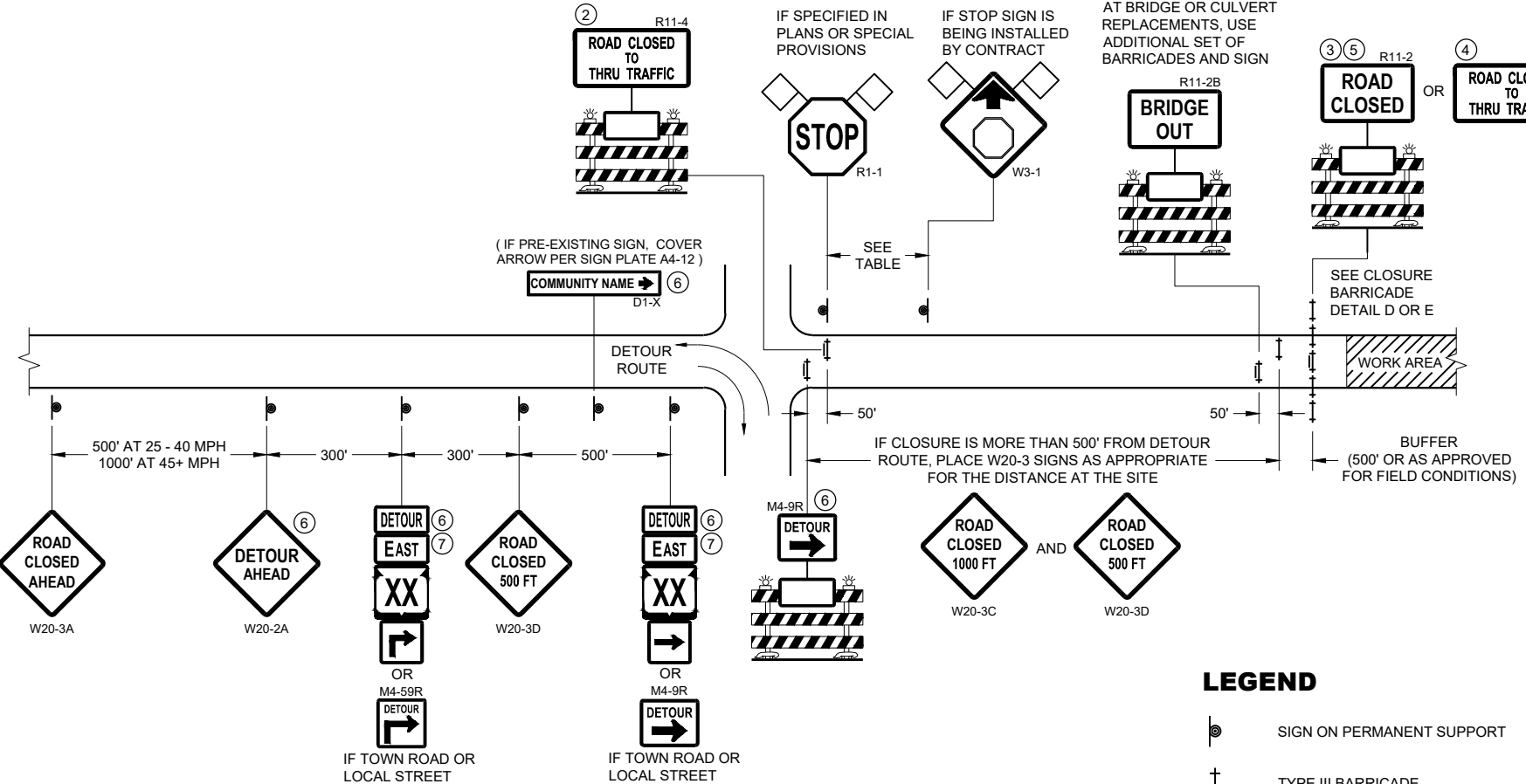
3/26/10
DATE

FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



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



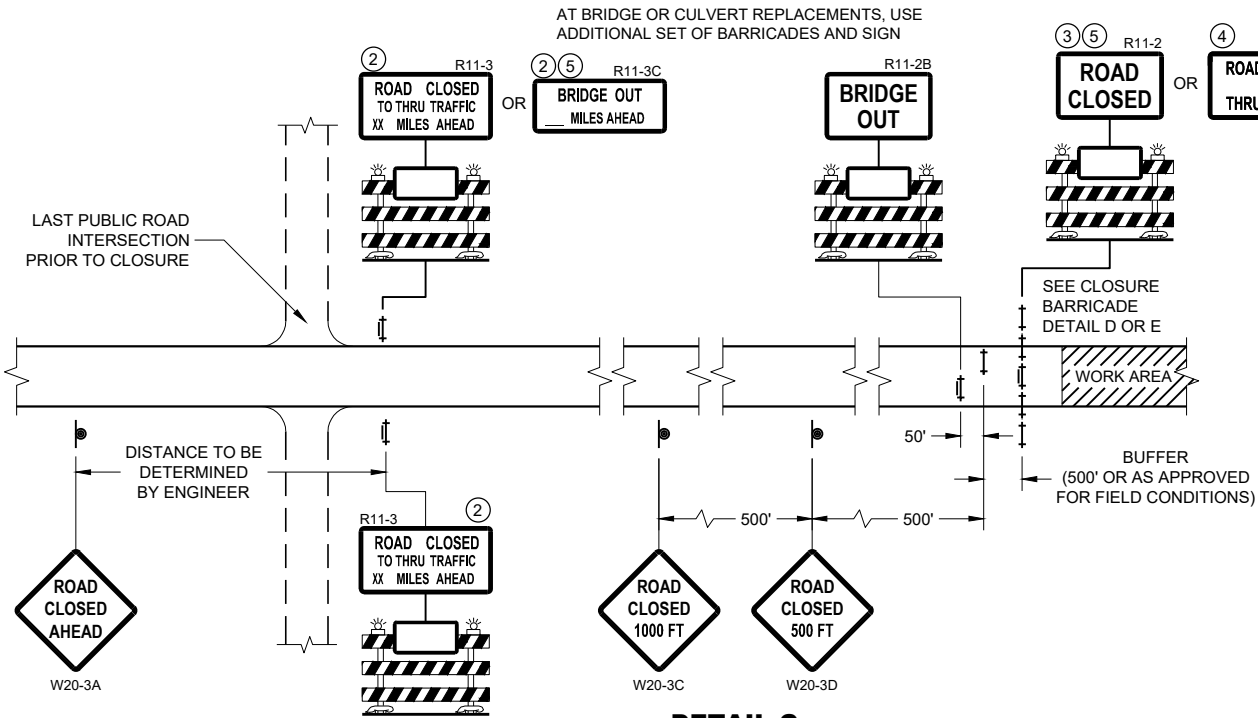
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

- 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



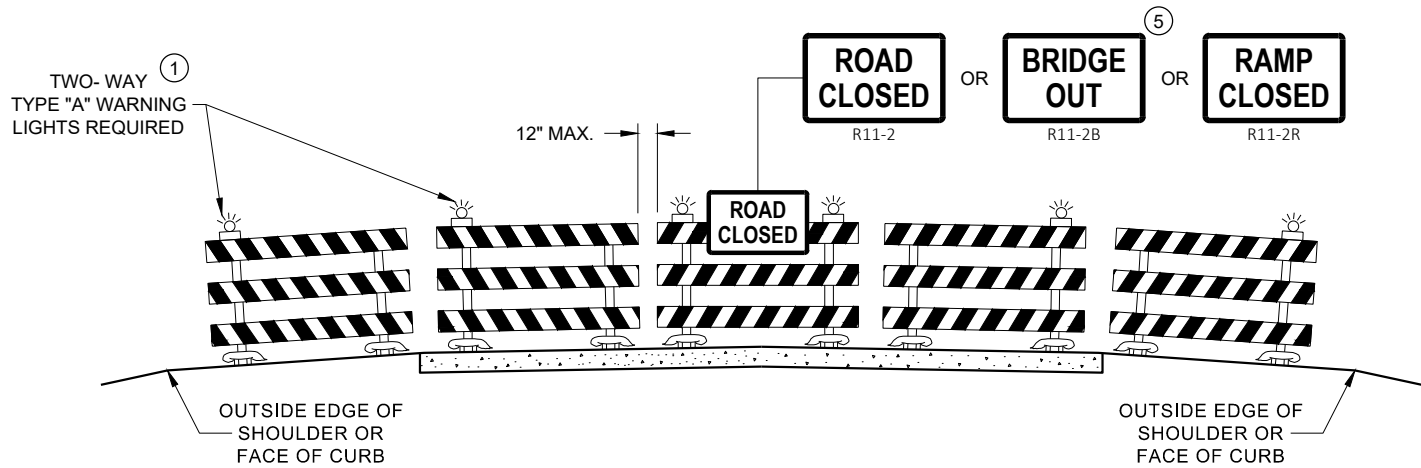
DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

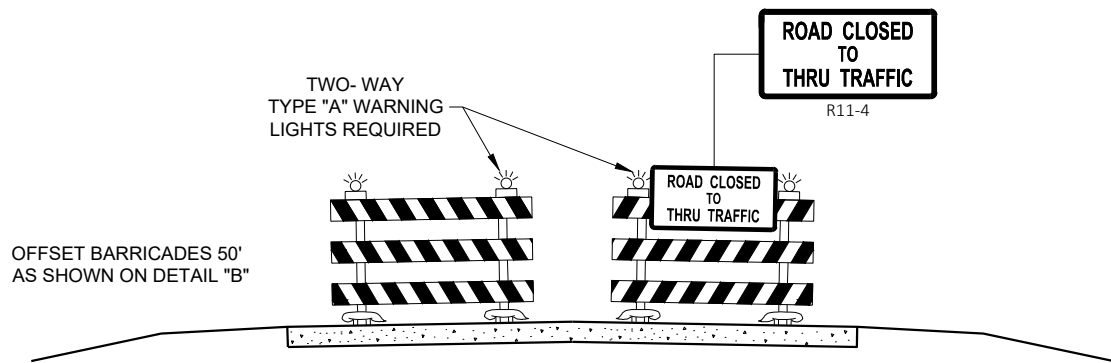
STATE OF WISCONSIN
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APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

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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"

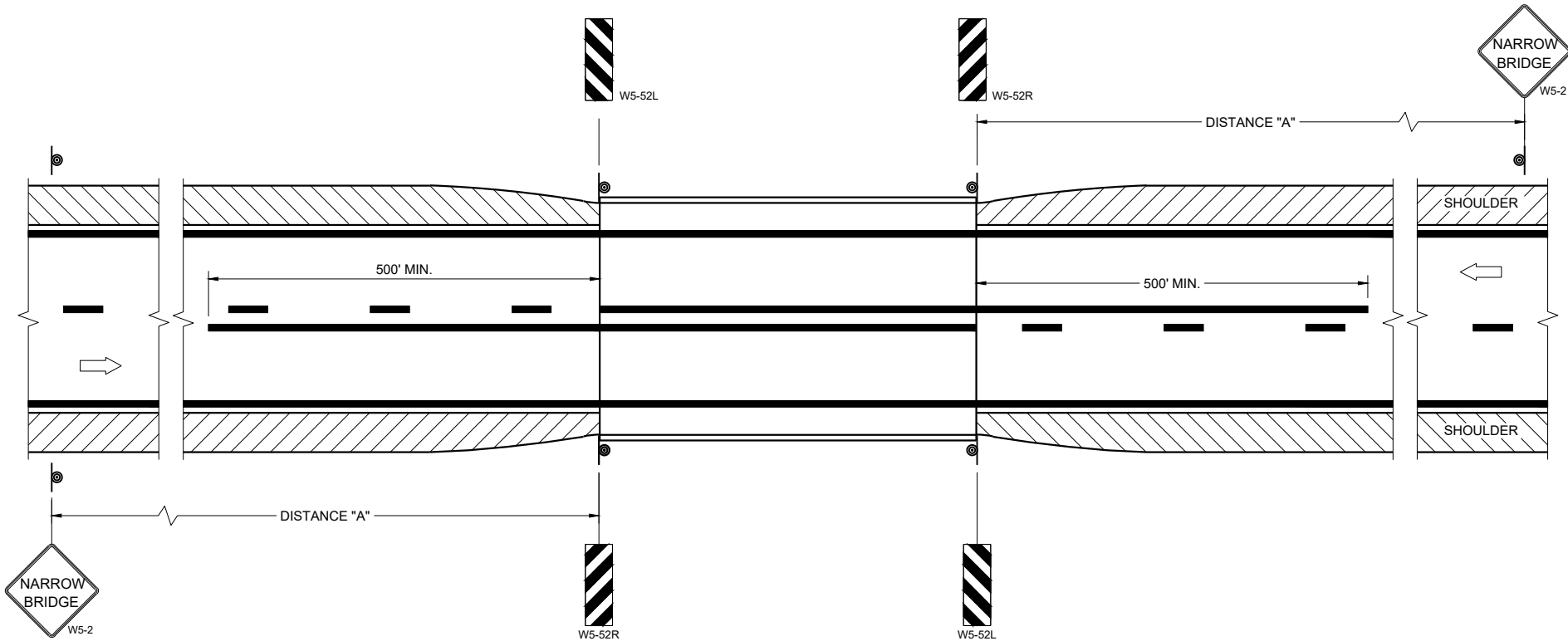
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS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

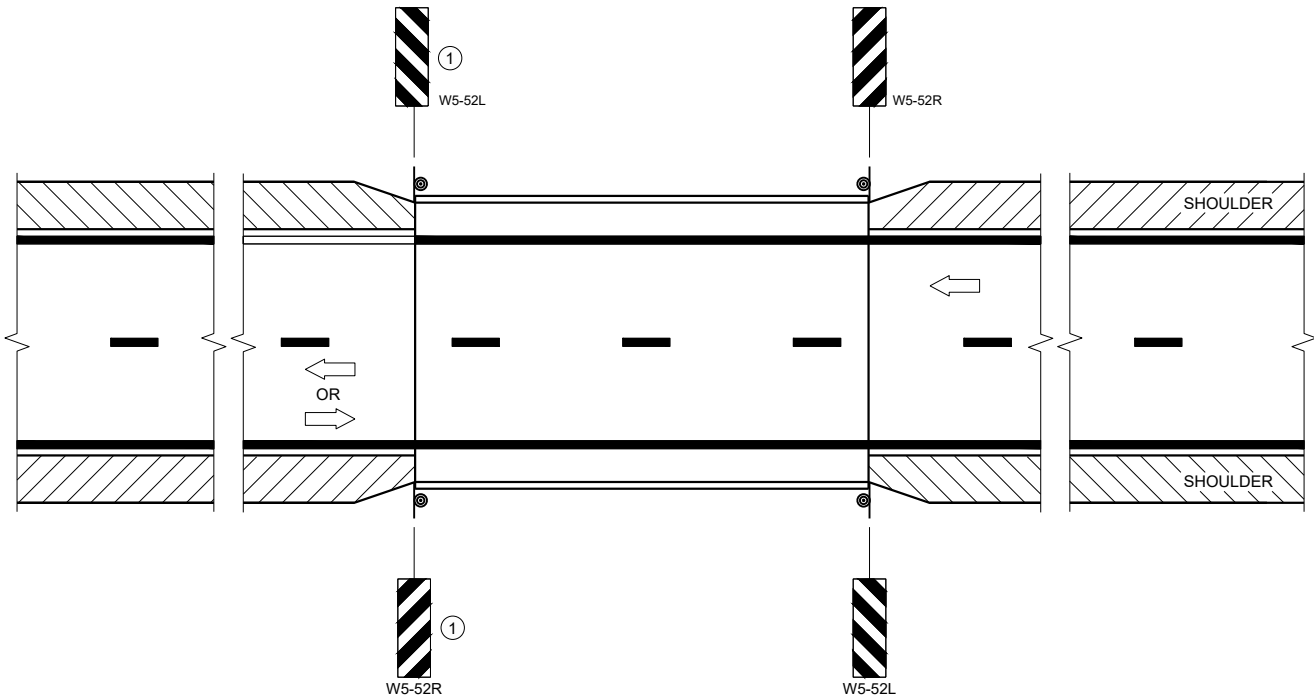
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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'

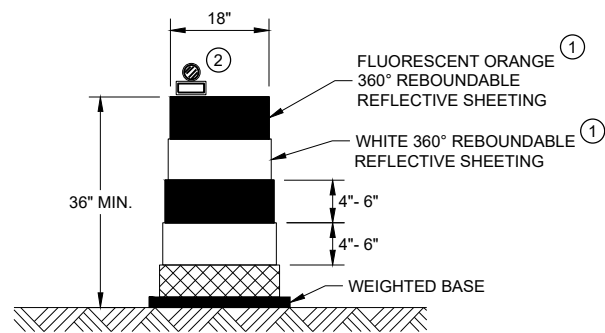
**SIGNING AND MARKING
FOR TWO LANE BRIDGES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

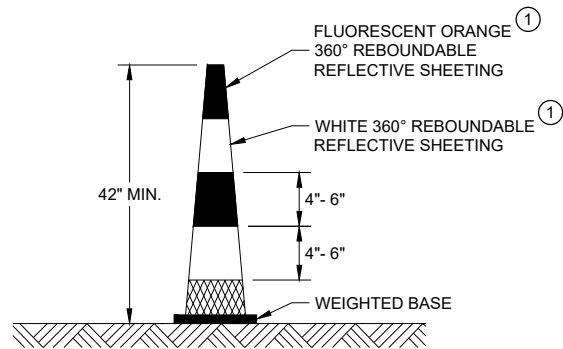
/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA



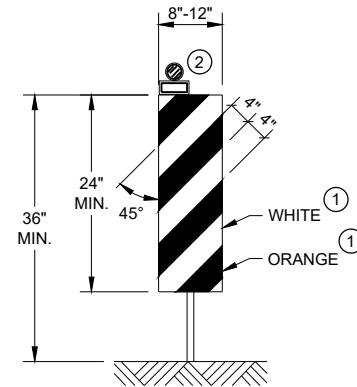
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



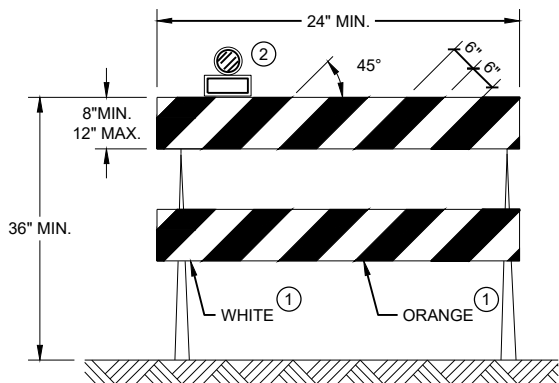
42" CONE

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



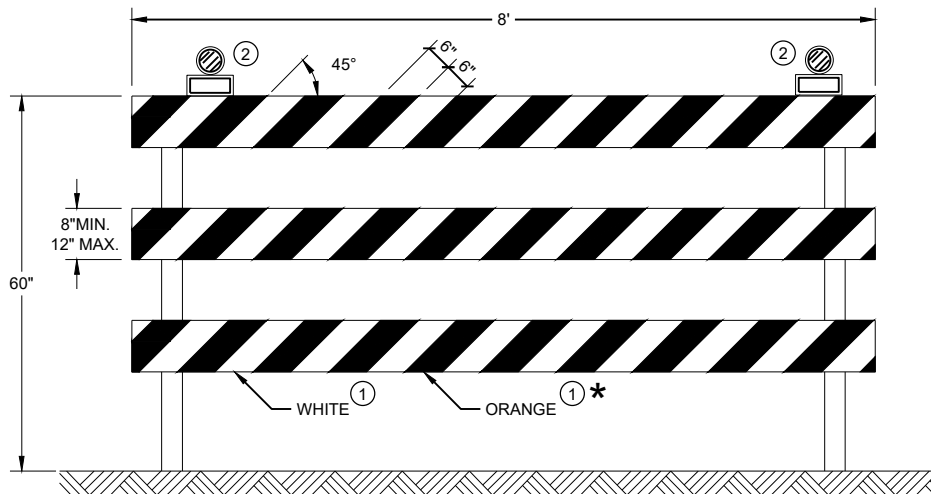
VERTICAL PANEL

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.

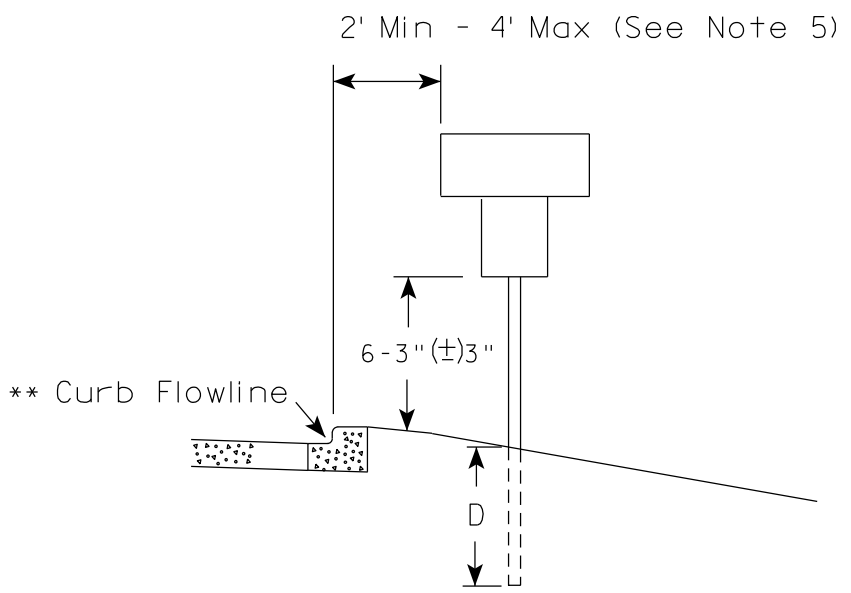
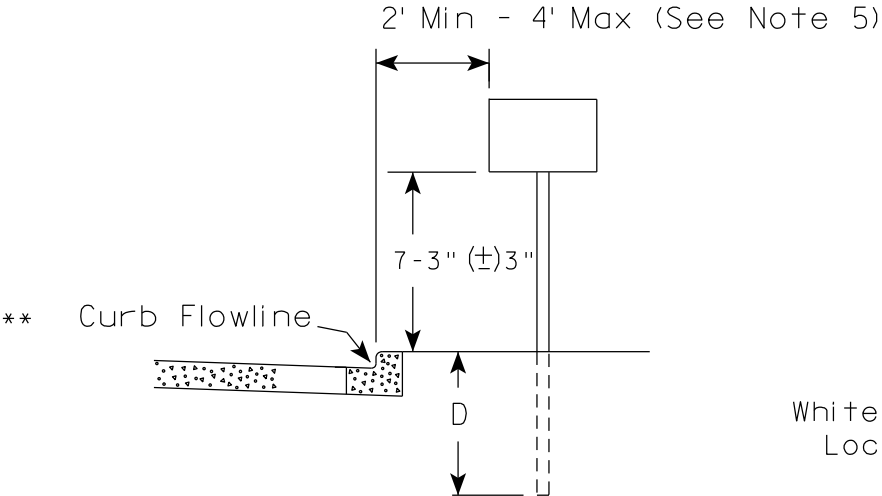
**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

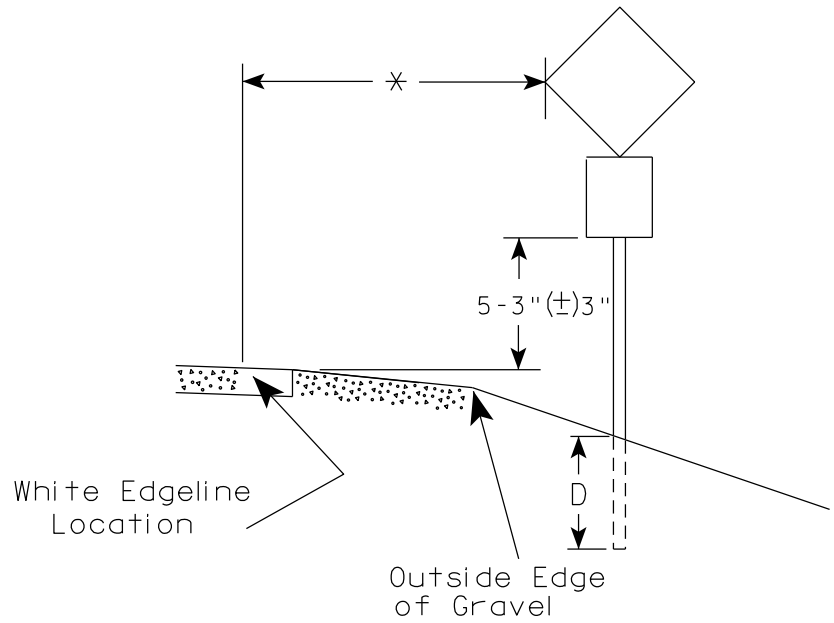
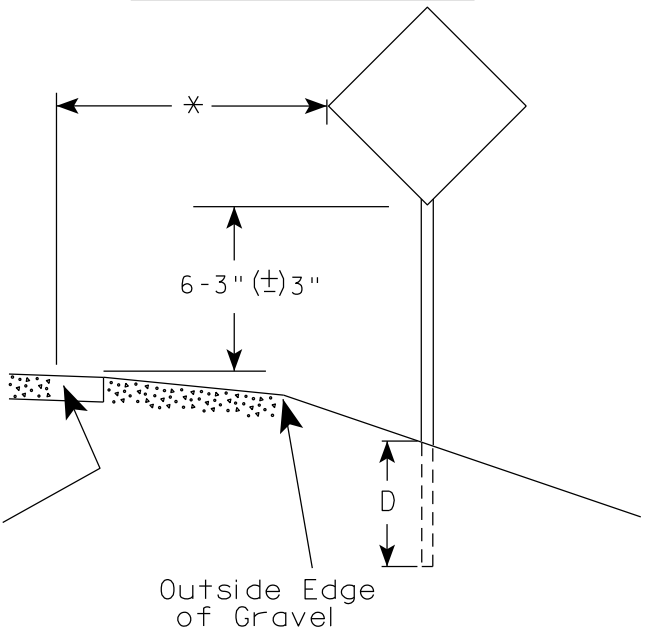
APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

URBAN AREA



RURAL AREA (See Note 2)



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.

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.

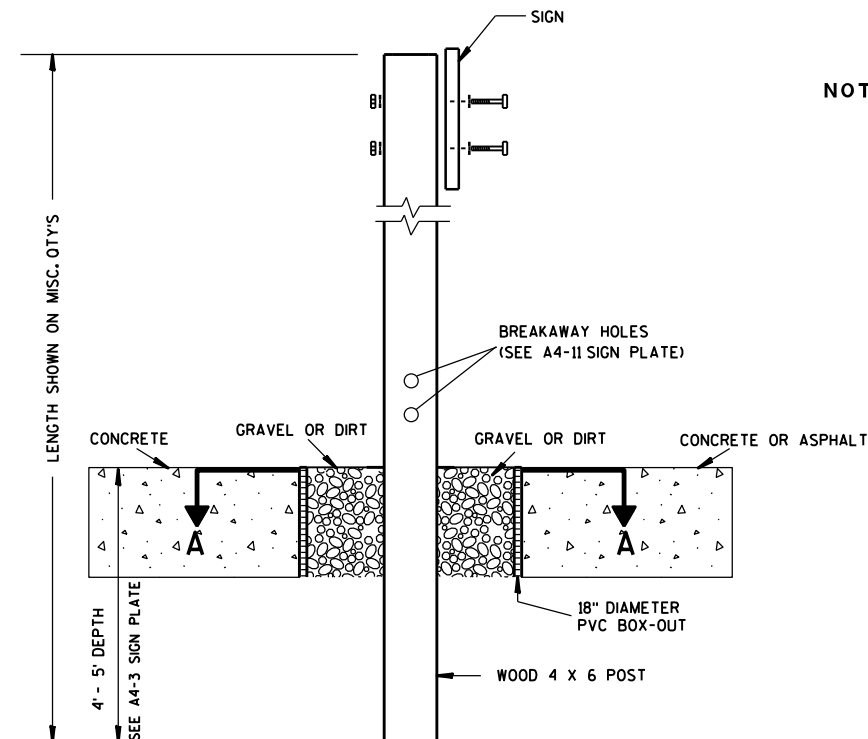
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

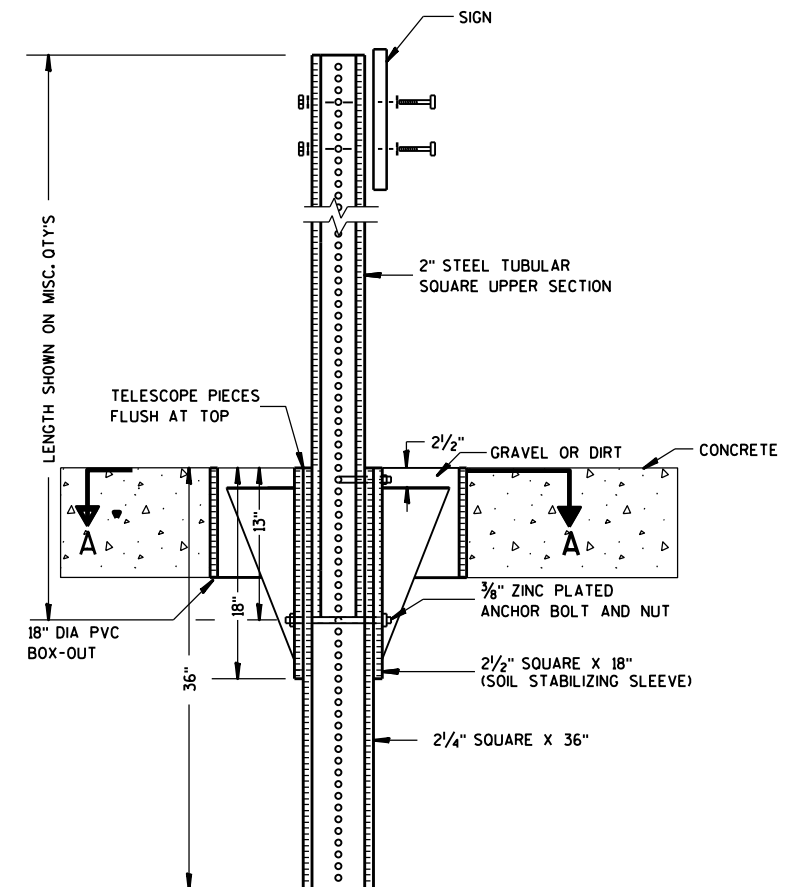
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

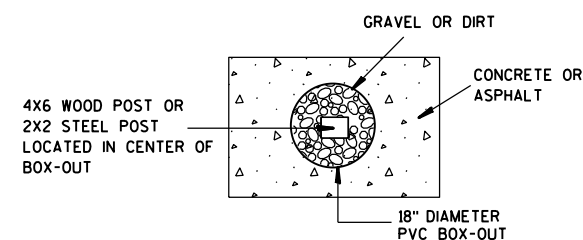
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

PROJECT NO:

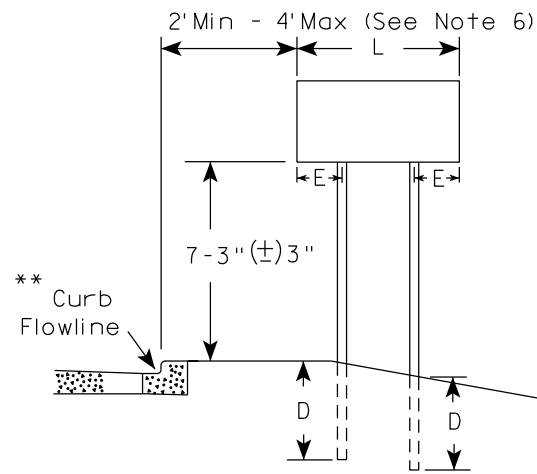
HWY:

COUNTY:

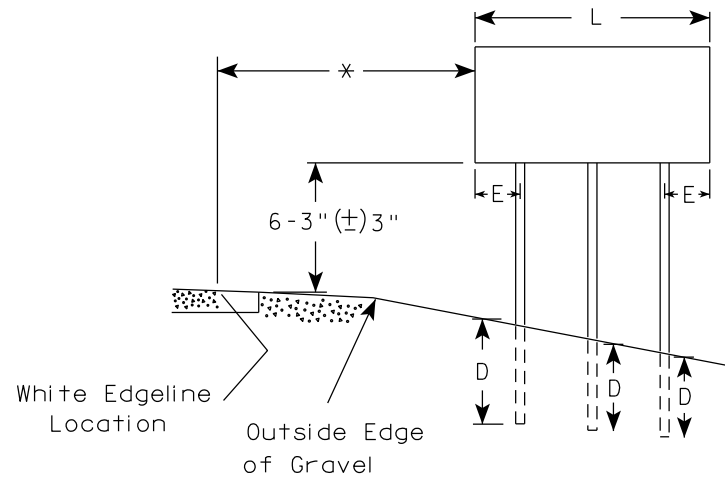
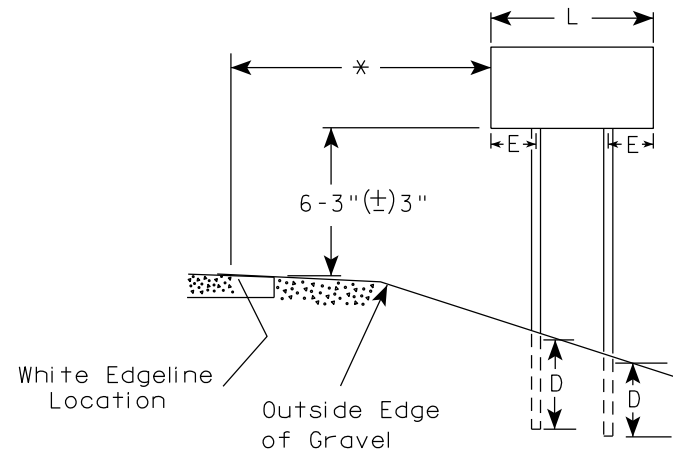
SHEET NO:

E

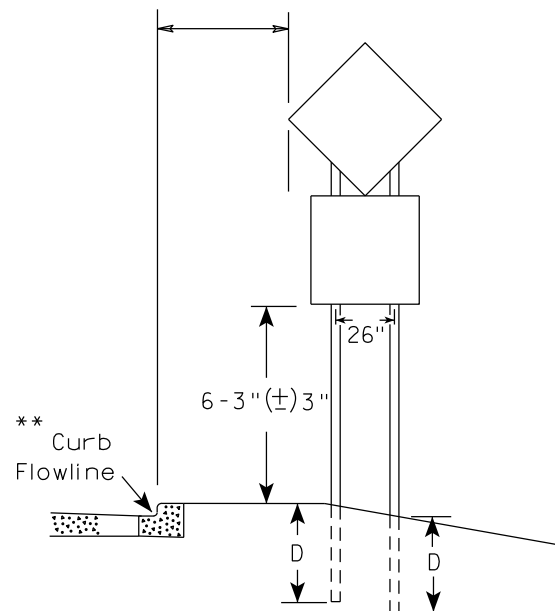
URBAN AREA



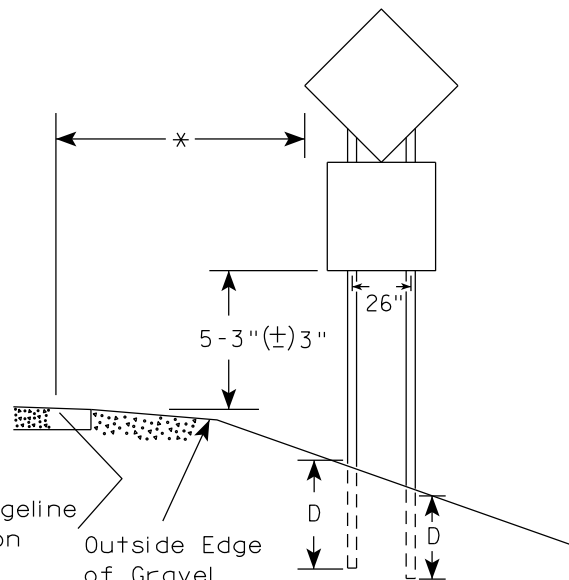
RURAL AREA (See Note 3)



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

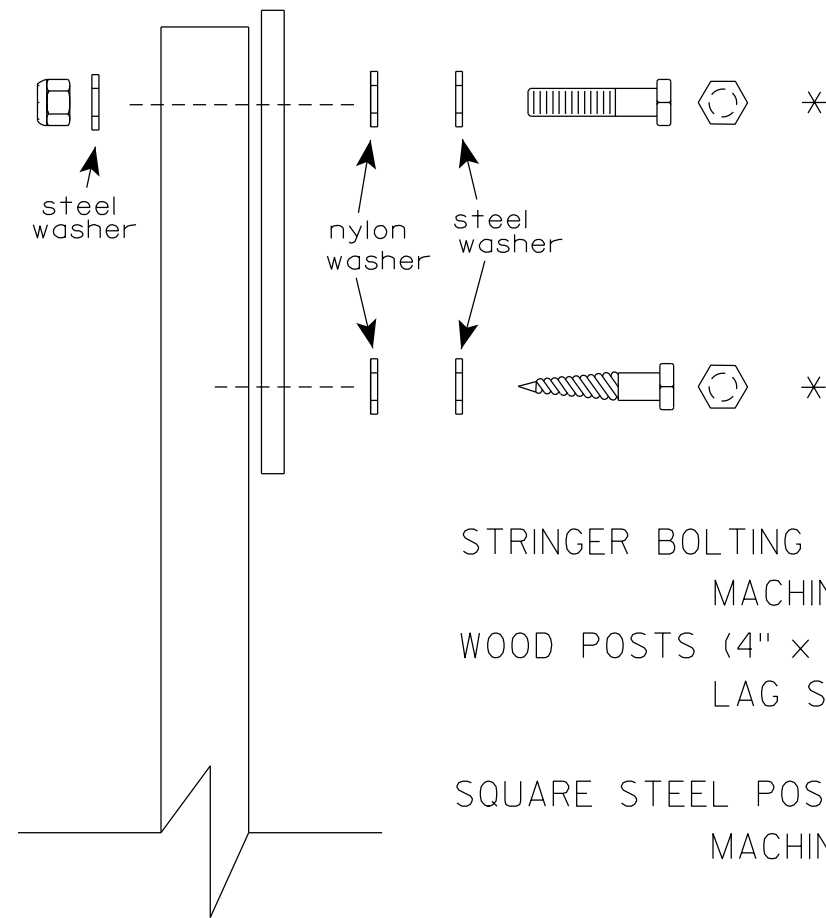
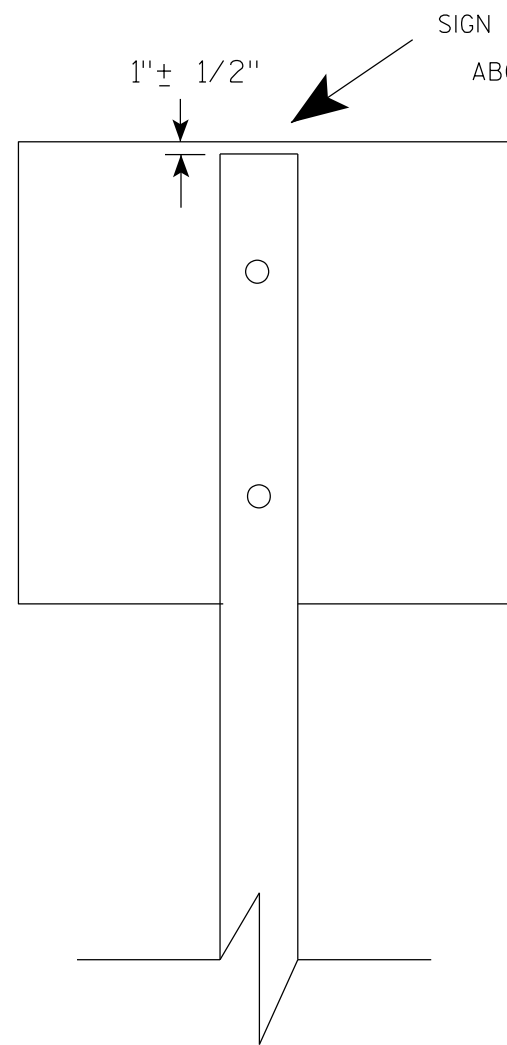
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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

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

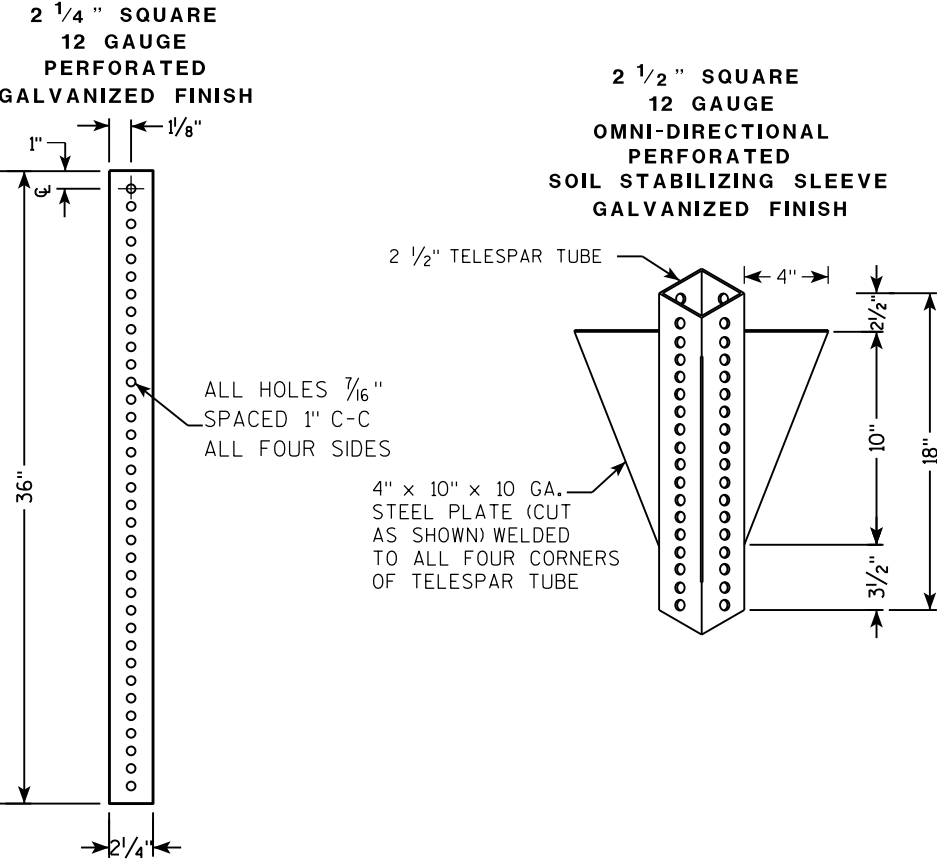
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " 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

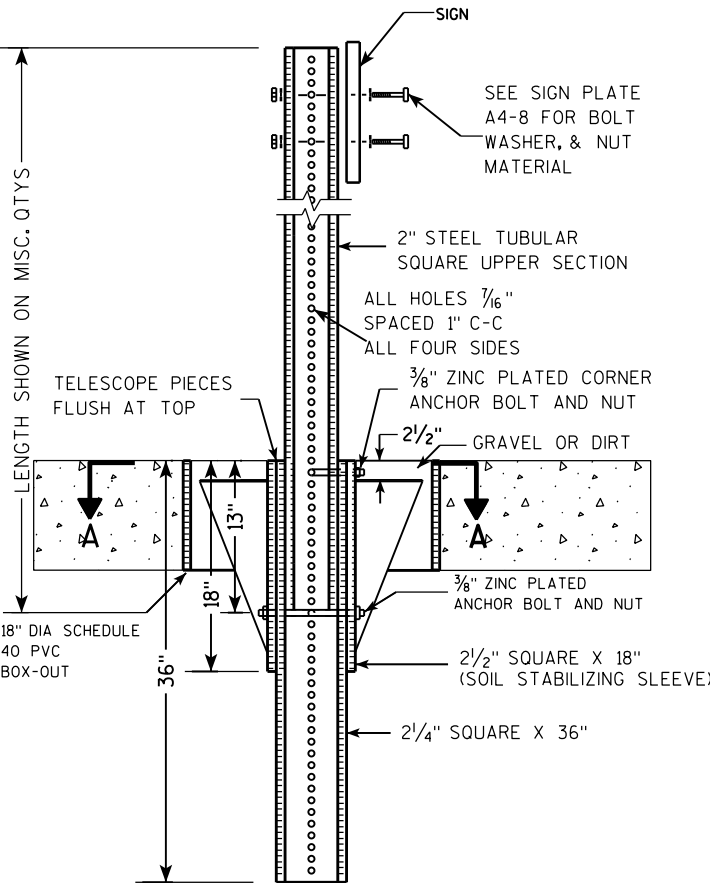
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

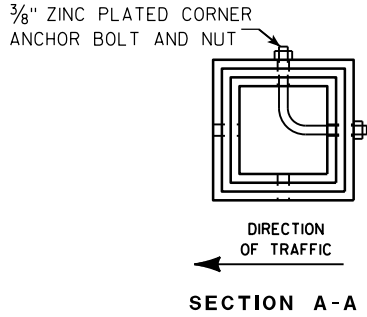
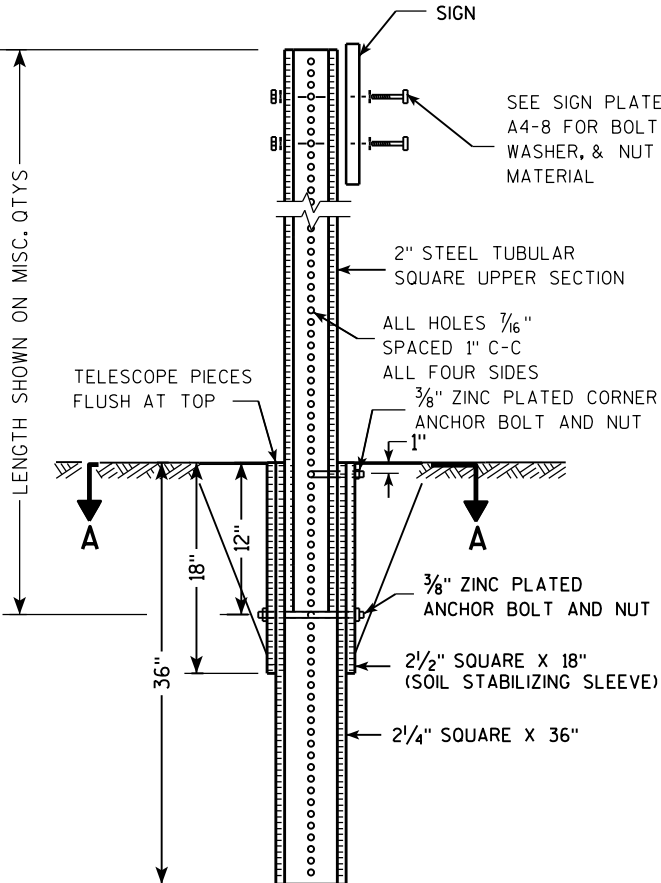
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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).

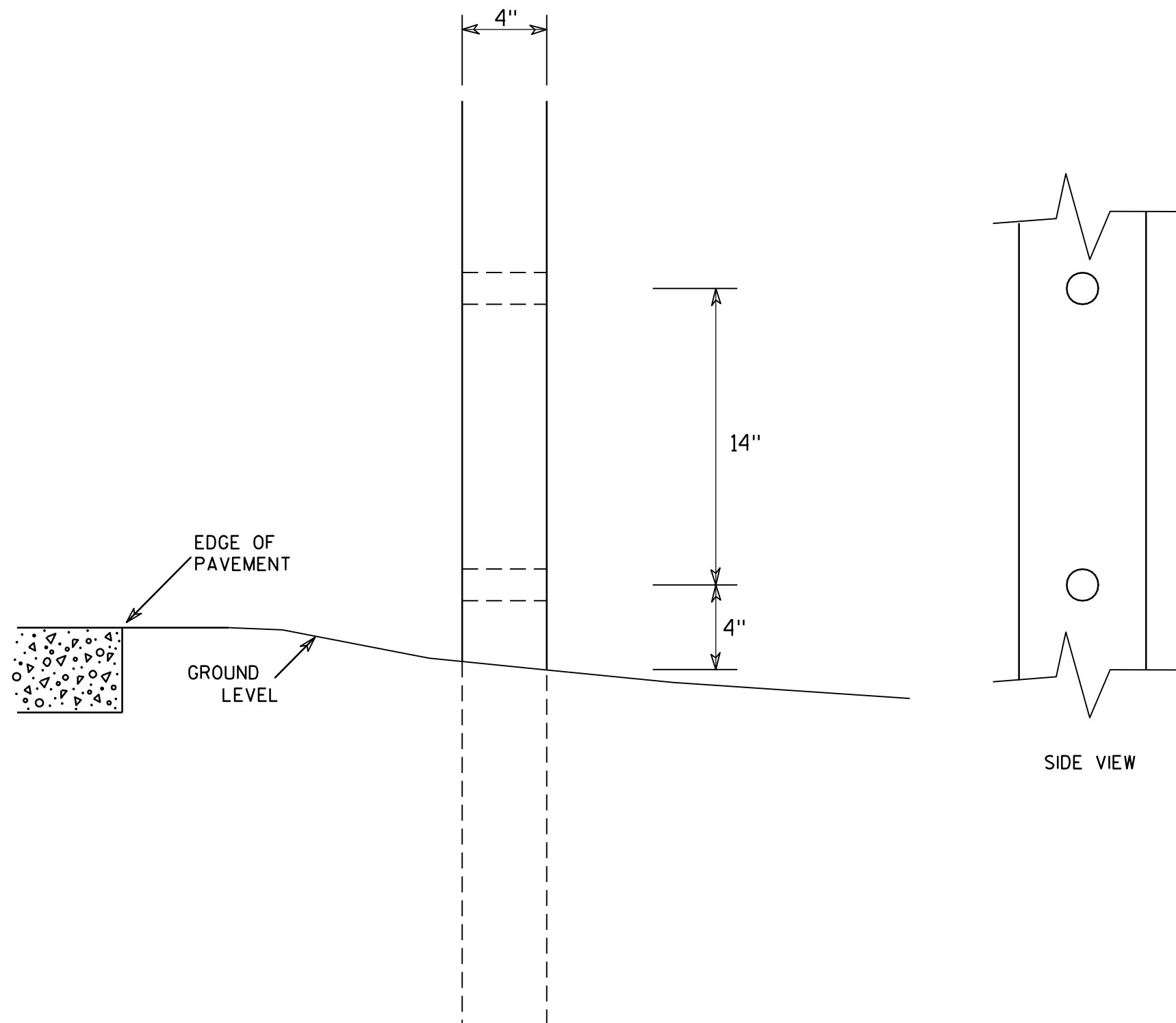
TUBULAR STEEL
SIGN POST
A4-9

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:

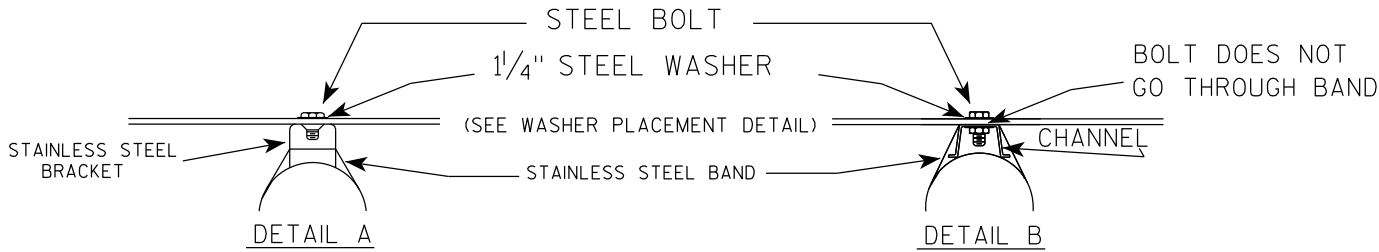
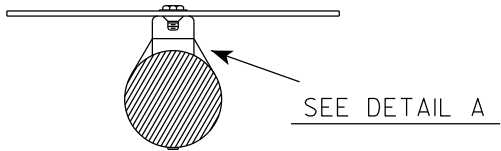
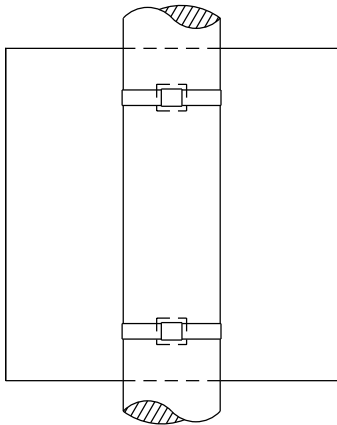
COUNTY:

SHEET NO:

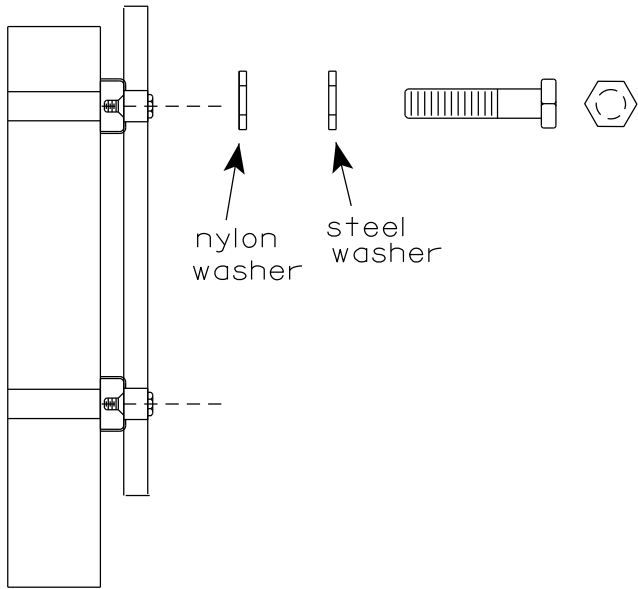
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

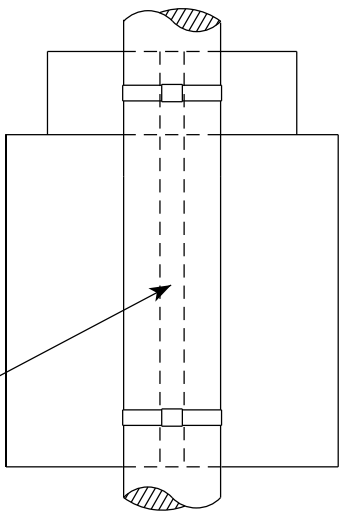


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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



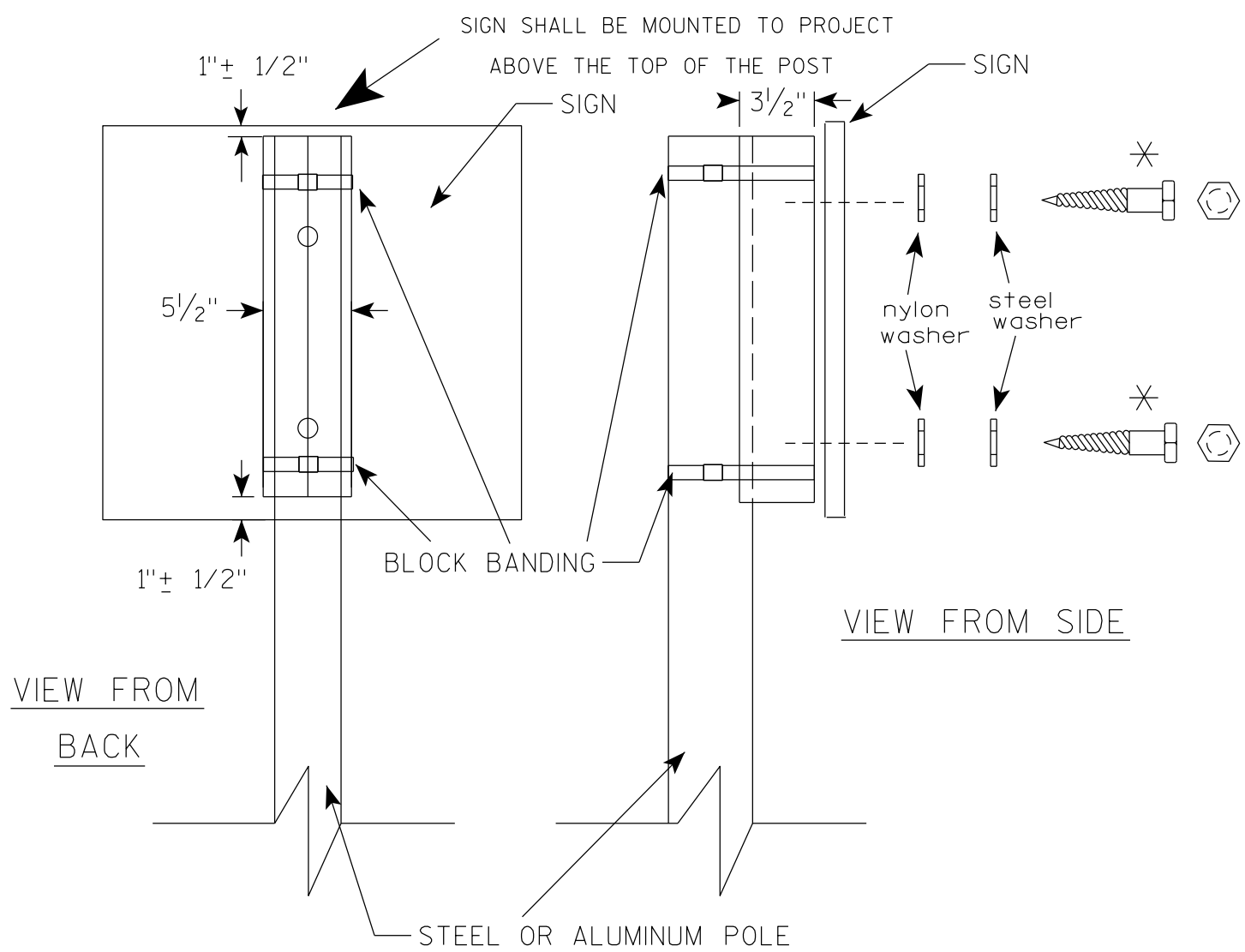
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

STANDARD SIGN
SIGN BANDING DETAILS

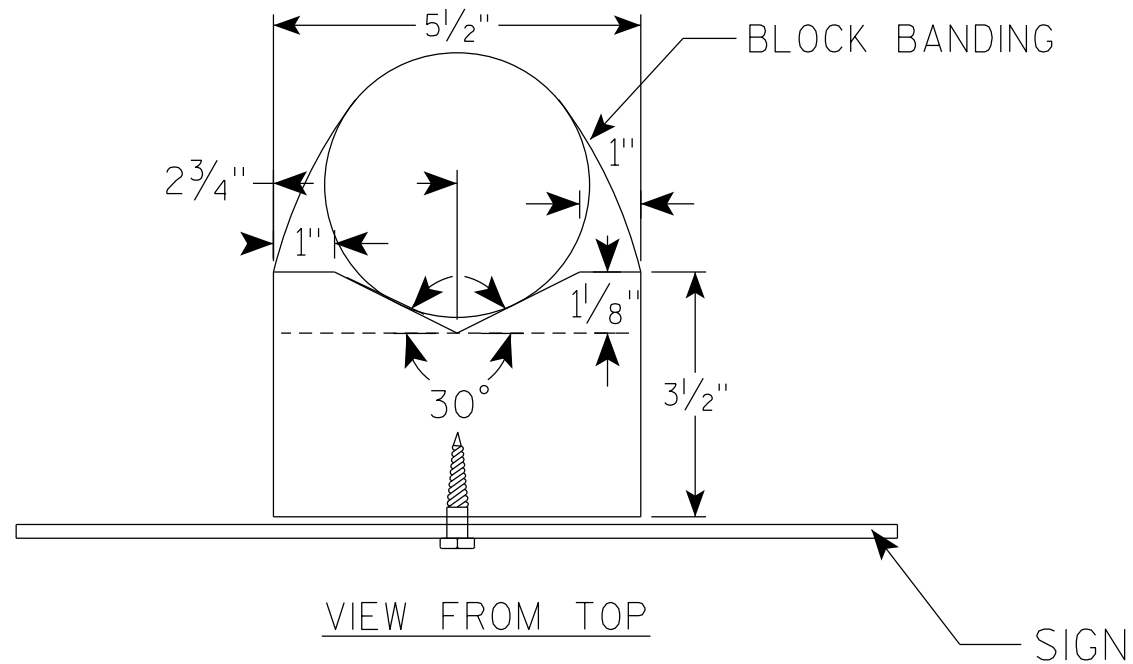
WISCONSIN DEPT OF TRANSPORTATION

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

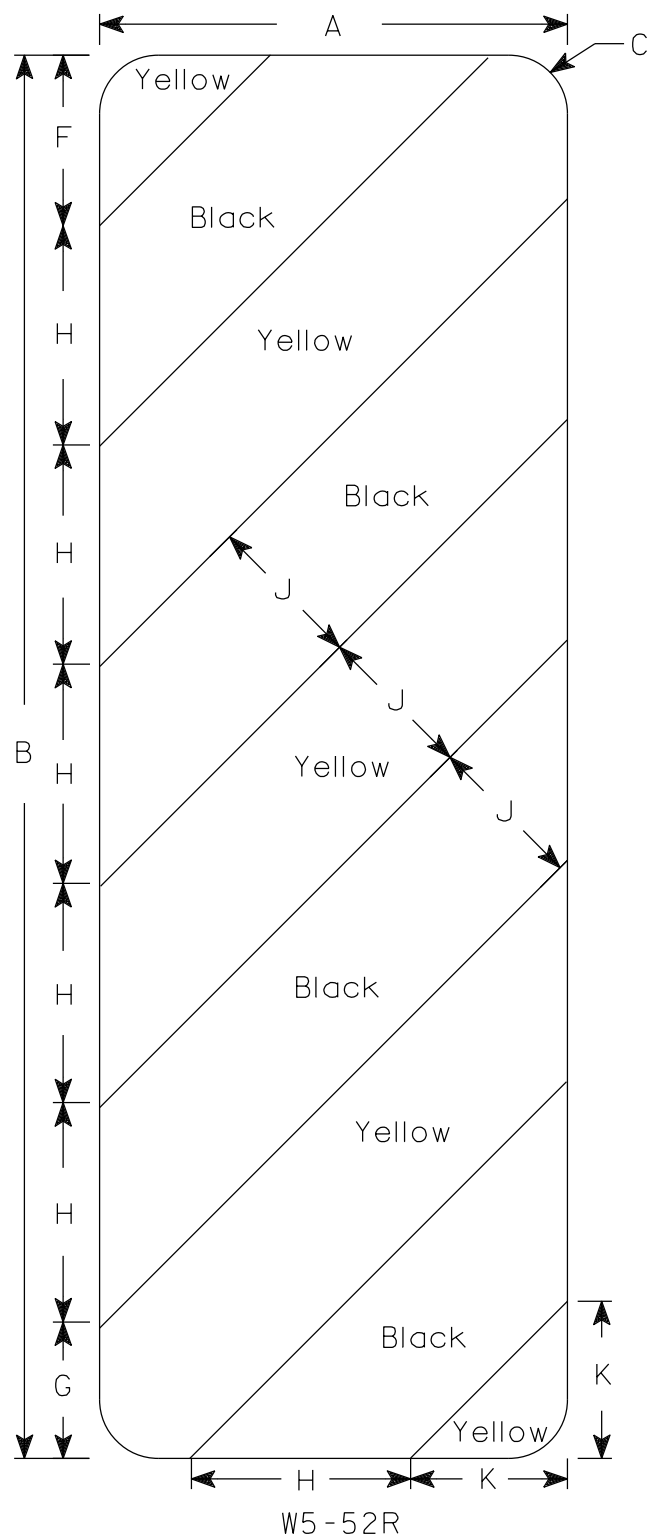
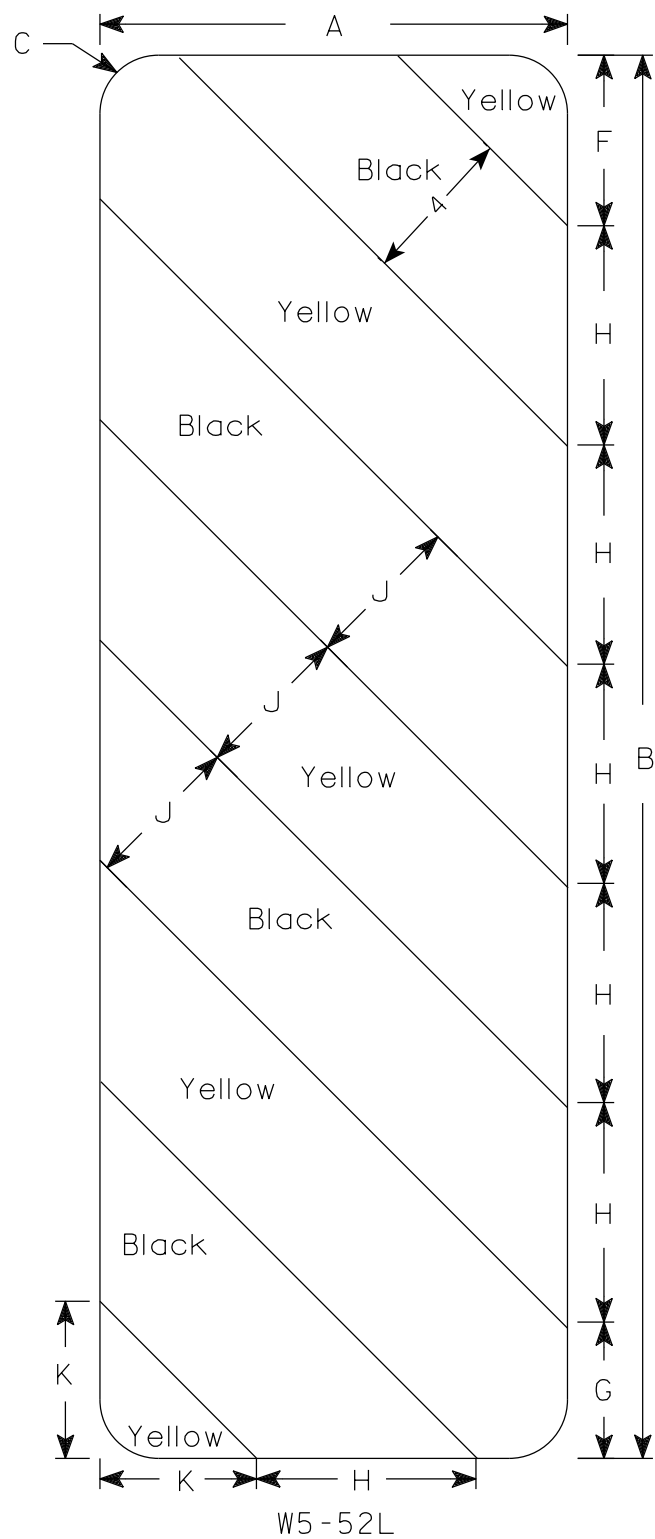
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.06
OPERATING RATING: RF = 1.37
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 12x53 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 120 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

ESTIMATED 40'-0" LONG AT WEST ABUTMENT. PILES TO BE PRE-BORED 36' PRIOR TO DRIVING.
ESTIMATED 40'-0" LONG AT EAST ABUTMENT.

PIER TO BE SUPPORTED ON HP 12X53 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 200 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

ESTIMATED 45'-0" LONG AT PIER. PILES TO BE PRE-BORED 27' PRIOR TO DRIVING.

**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.

TRAFFIC DATA

FEATURE ON: WORDEN ROAD

ADT = <100 (2026)
ADT = <100 (2046)
R.D.S. = 55 MPH

HYDRAULIC DATA

100-YEAR FREQUENCY:

$Q_{100} = 8,520$ C.F.S.
 $Q_{BRIDGE} = 6,122$ C.F.S.
 $Q_{ROADWAY} = 2,398$ C.F.S.
 $V_{100} = 8.3$ F.P.S.
 $HW_{100} = EL. 1025.57$
WATERWAY AREA = 740 SQ. FT.
DRAINAGE AREA = 66.3 SQ. MI.
SCOUR CRITICAL CODE = 5

ROADWAY OVERTOPPING

FREQUENCY = 22 YEARS
 $Q = 5,800$ C.F.S.
 $HW = EL. 1023.64$

2-YEAR FREQUENCY:

$Q_2 = 1,970$ C.F.S.
 $V_2 = 4.5$ F.P.S.
 $HW_2 = EL. 1020.19$

LIST OF DRAWINGS:

- GENERAL PLAN
- TYPICAL SECTION, QUANTITIES AND NOTES
- STRUCTURE DETAILS
- SUBSURFACE EXPLORATION
- WEST ABUTMENT
- WEST ABUTMENT WING 1 DETAILS
- WEST ABUTMENT WING 2 DETAILS
- WEST ABUTMENT PILE LAYOUT AND BILL OF BARS
- EAST ABUTMENT
- EAST ABUTMENT WING 3 DETAILS
- EAST ABUTMENT WING 4 DETAILS
- EAST ABUTMENT PILE LAYOUT AND BILL OF BARS
- PIER
- SUPERSTRUCTURE
- SUPERSTRUCTURE PLAN
- TUBULAR STEEL RAILING TYPE "M"



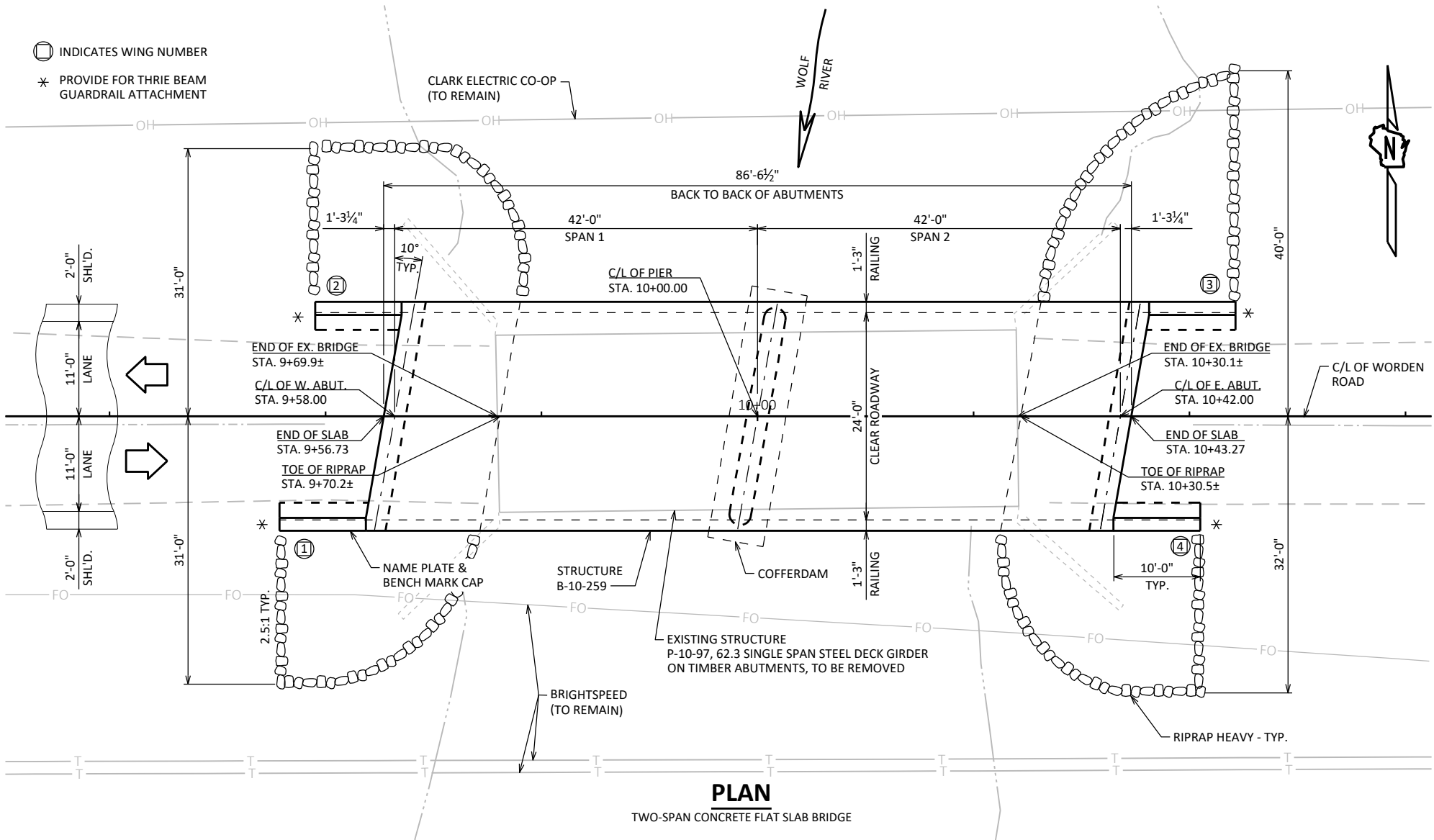
10/07/2025

STRUCTURE DESIGN CONTACTS:

AARON BONK 608-261-0261
DANIEL SYDOW 715-834-3161

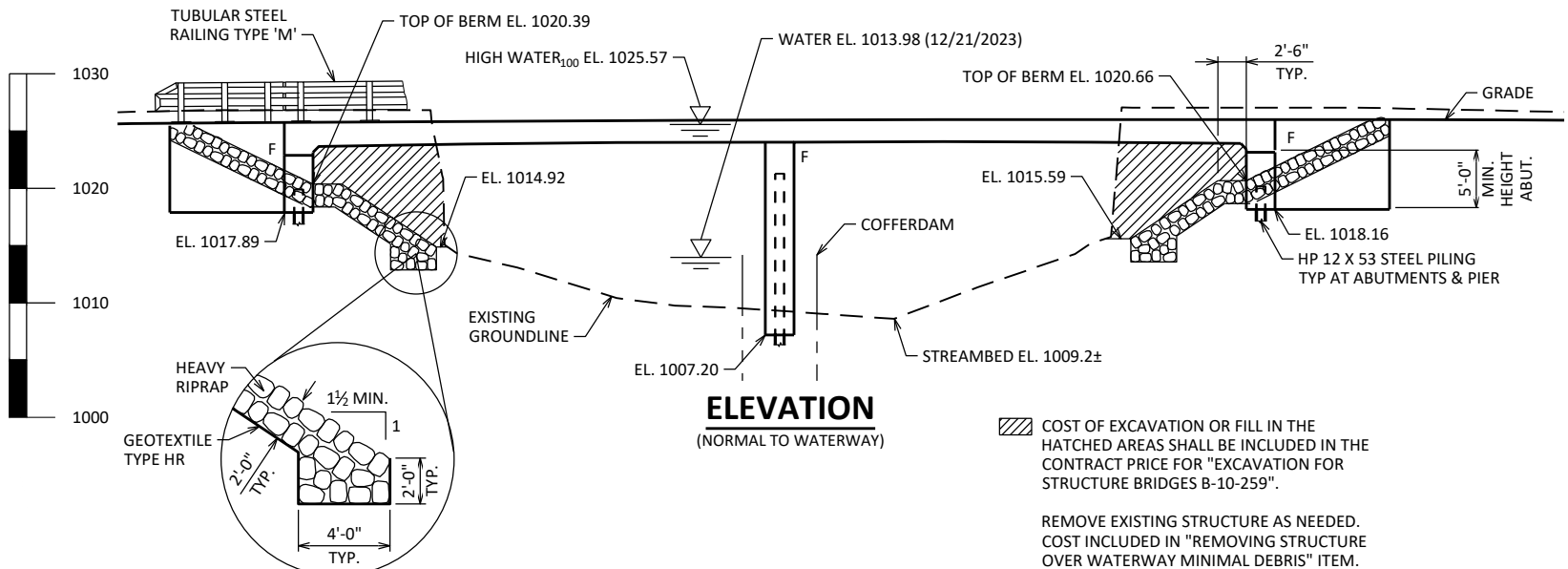
INDICATES WING NUMBER

* PROVIDE FOR THRE BEAM GUARDRAIL ATTACHMENT



PLAN

TWO-SPAN CONCRETE FLAT SLAB BRIDGE




ELEVATION

(NORMAL TO WATERWAY)

COST OF EXCAVATION OR FILL IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT PRICE FOR "EXCAVATION FOR STRUCTURE BRIDGES B-10-259".

REMOVE EXISTING STRUCTURE AS NEEDED. COST INCLUDED IN "REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS" ITEM. TYPICAL AT ALL SUBSTRUCTURES.

NO.		DATE		REVISION		BY	
ORIGINAL PLANS PREPARED BY							
<div>AYRES</div>		3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com					
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION							
ACCEPTED		 JLR				12/01/25	
		CHIEF STRUCTURES DESIGN ENGINEER				DATE	
STRUCTURE B-10-259							
WORDEN ROAD OVER WOLF RIVER							
COUNTY		CLARK		TOWN		WORDEN	
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION							
DESIGNED BY		NBE		DESIGN CK'D		DNS	
DRAWN BY		JMC/CLP		PLANS CK'D		DNS	
GENERAL PLAN						SHEET 1 OF 16	

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	W. ABUT.	PIER	E. ABUT.	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS (P-10-97)	EACH	---	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-10-259	EACH	---	---	---	---	1
206.5001	COFFERDAMS B-10-259	EACH	---	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	---	110	---	110	220
502.0100	CONCRETE MASONRY BRIDGES	CY	159.7	27.7	38.6	27.7	254
502.3200	PROTECTIVE SURFACE TREATMENT	SY	309	8	---	8	325
502.9000.S	UNDERWATER SUBSTRUCTURE INSPECTION B-10-259	EACH	---	---	---	---	1
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	---	1,670	1,810	1,670	5,150
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	29,420	1,370	50	1,370	32,210
513.4061	RAILING TUBULAR TYPE M	LF	173	22.5	---	22.5	218
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	9	---	9	18
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	---	180	162	---	342
550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	---	200	270	200	670
606.03000	RIPRAP HEAVY	CY	---	100	---	120	220
612.0406	PIPE UNDERDRAIN WRAPPED 6 - INCH	LF	---	90	---	90	180
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	---	30	---	30	60
645.0120	GEOTEXTILE TYPE HR	SY	---	190	---	220	410
	NON-BID ITEMS						
	FILLER	SIZE	---	---	---	---	½", ¾"

TYPICAL SECTION THRU BRIDGE

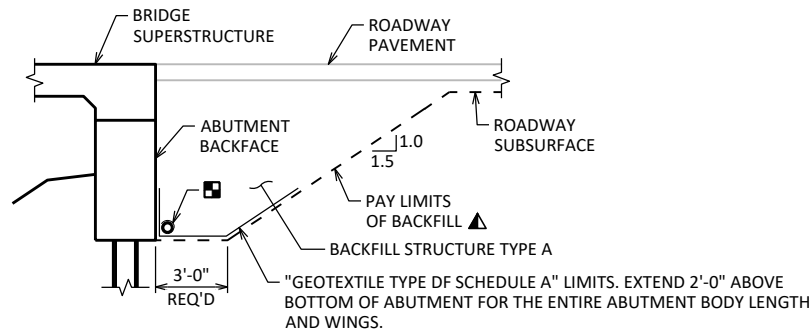
PROTECTIVE SURFACE TREATMENT DETAIL

PROFILE GRADE LINE

EXISTING SUBSTRUCTURE LOCATIONS ARE BASED ON SURVEY. EXTENT OF BELOW GRADE SUBSTRUCTURES ARE NOT KNOWN. REMOVE EXISTING SUBSTRUCTURES AS NEEDED TO BUILD NEW SUBSTRUCTURES. COST OF SUBSTRUCTURE REMOVAL IS CONSIDERED INCIDENTAL TO "REMOVING STRUCTURE" BID ITEM.

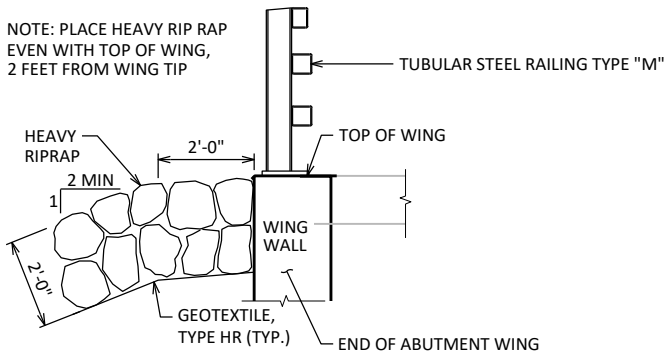
NO.	STATION	DESCRIPTION	ELEV.
50	8+59	RR SPIKE IN S. SIDE OF PPOL, 33' LT	1023.64
51	10+29	CHIS SQ NE COR OF BRIDGE DECK, 11' LT	1026.92

NO.	DATE	REVISION			BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION					
STRUCTURE B-10-259					
		DRAWN BY	JMC/CLP	PLANS CK'D	ERS
TYPICAL SECTION, QUANTITIES AND NOTES			SHEET 2 OF 16		

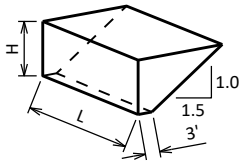


TYPICAL SECTION THRU ABUTMENT

- ▲ 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.

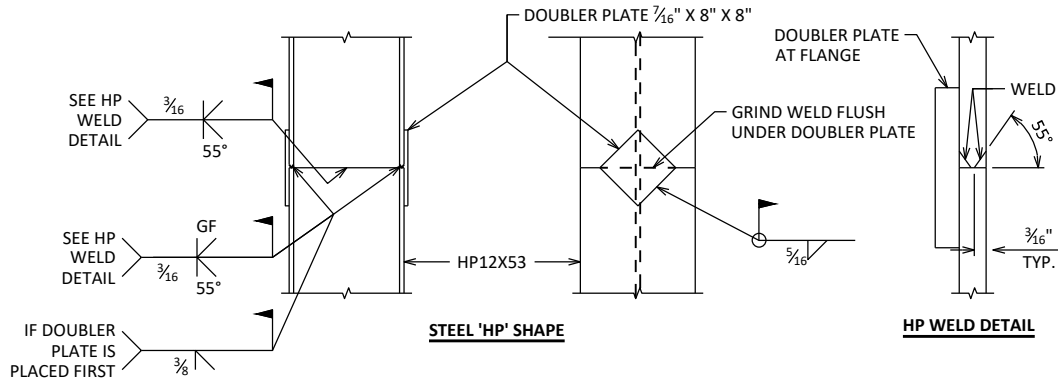


TYPICAL FILL SECTION AT WING TIPS

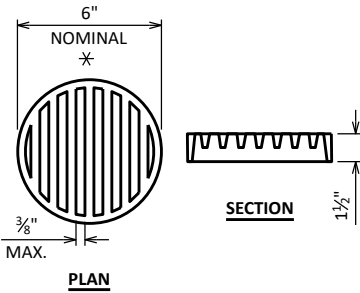


ABUTMENT BACKFILL DIAGRAM

- 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)
- $V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)$
- $V_{CY} = V_{CF}(EF)/27$
- $V_{TON} = V_{CY}(2.0)$



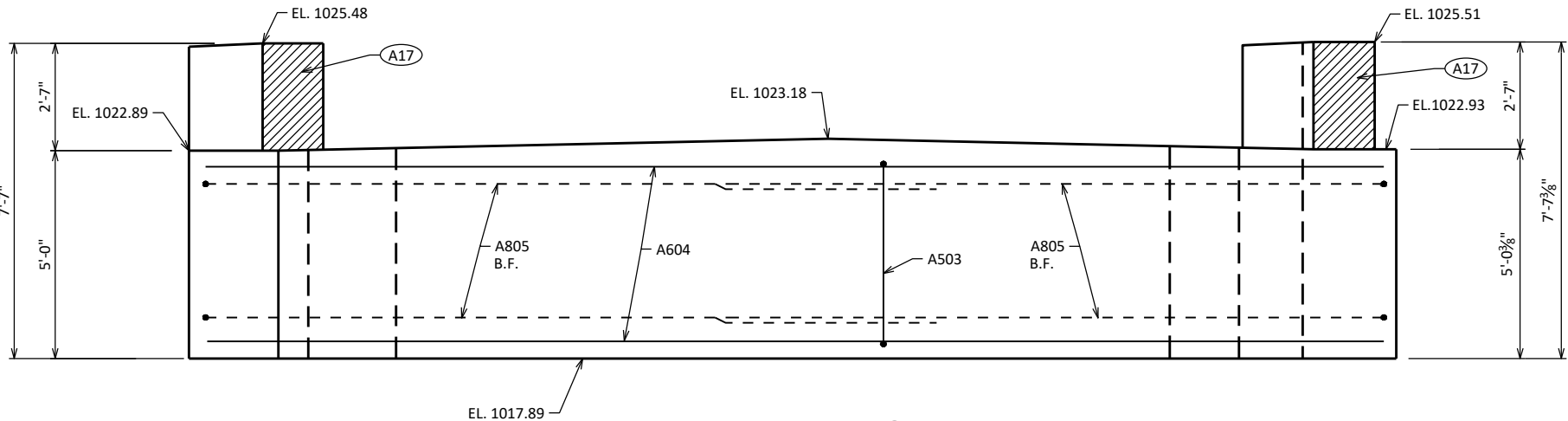
'HP' PILE DETAILS



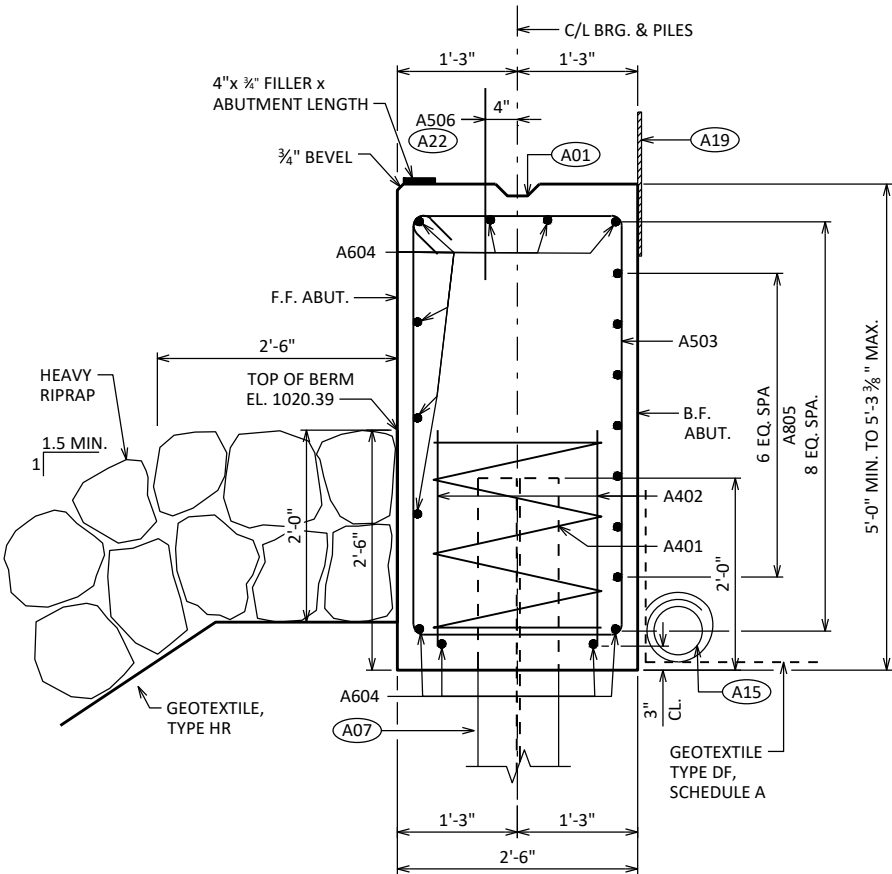
RODENT SHIELD DETAIL

- * 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.

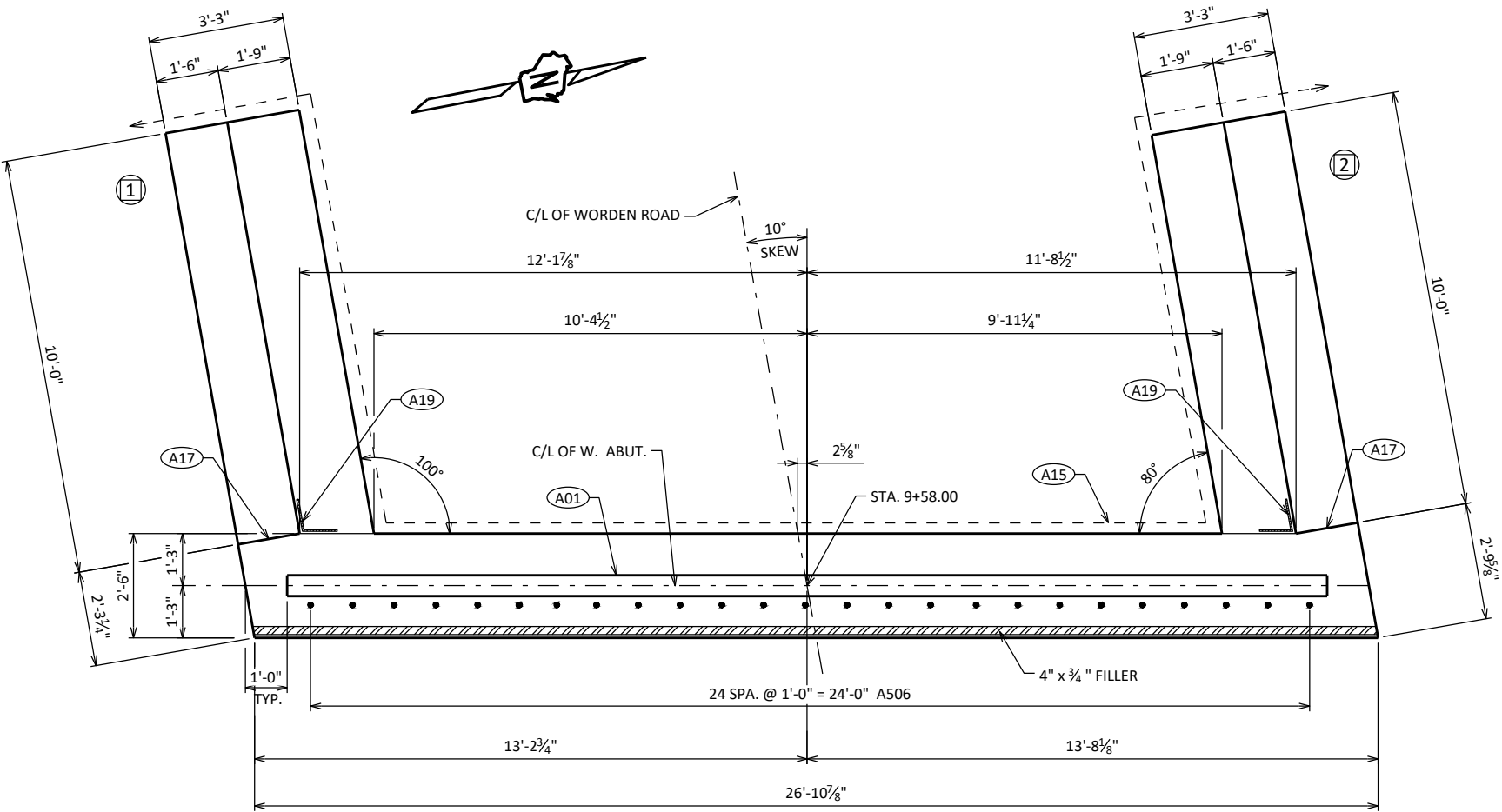
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-259			
DRAWN BY JMC/CLP		PLANS CK'D ERS	
STRUCTURE DETAILS		SHEET 3 OF 16	



ELEVATION
(LOOKING WEST)



SECTION THRU BODY



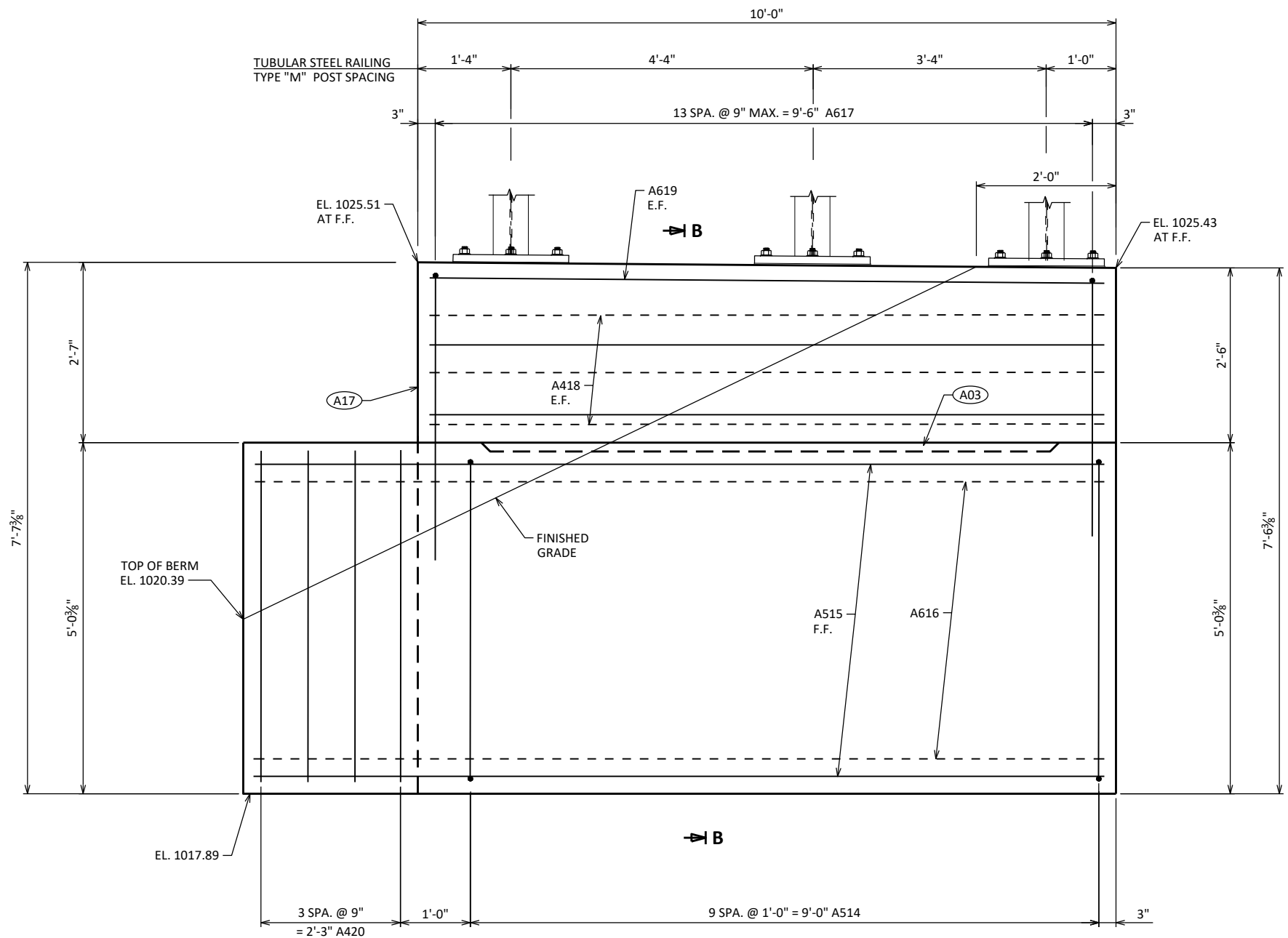
PLAN

- (A01)** CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 6.
- (A07)** SUPPORT ABUTMENT ON HP 12 X 53 STEEL PILING, ESTIMATED 40'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 120 TONS PER PILE. PRE-BORE PILES 36'-0" PRIOR TO DRIVING.
- (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 1/8" 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.)

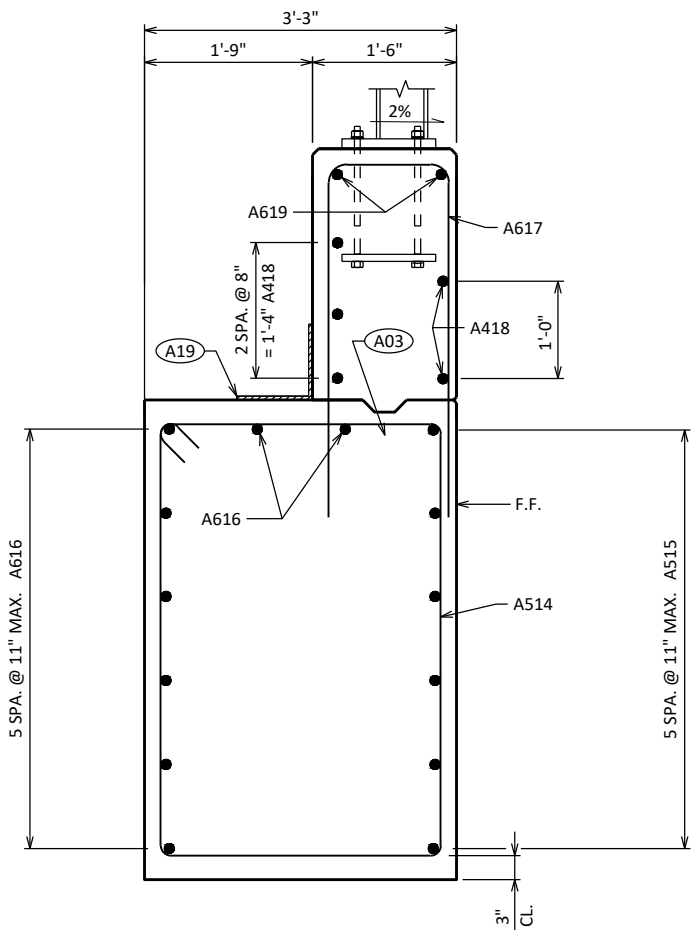
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-259			
DRAWN BY		CLP	PLANS CK'D ERS
WEST ABUTMENT		SHEET 5 of 16	



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| NO. | DATE | REVISION | B |
| STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE | | B-10-259 | |
| DRAWN
BY | | CLP | PLANS
CK'D
ER |
| WEST ABUTMENT
WING 1 DETAILS | | SHEET 6 OF 16 | |
| | | | |



ELEVATION - WING 2



SECTION B

- (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).
- (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 3/8" 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.

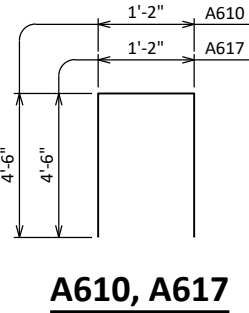
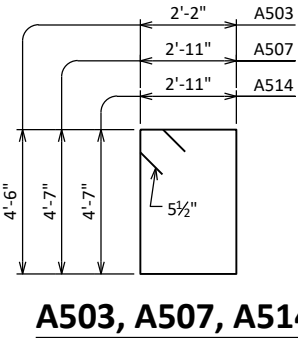
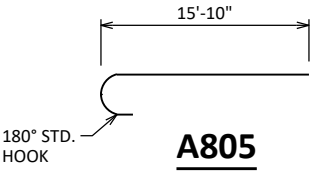
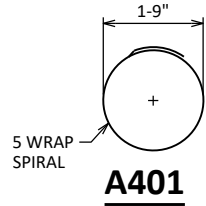
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-259			
DRAWN BY		CLP	PLANS CK'D ERS
WEST ABUTMENT WING 2 DETAILS		SHEET 7 OF 16	

BILL OF BARS

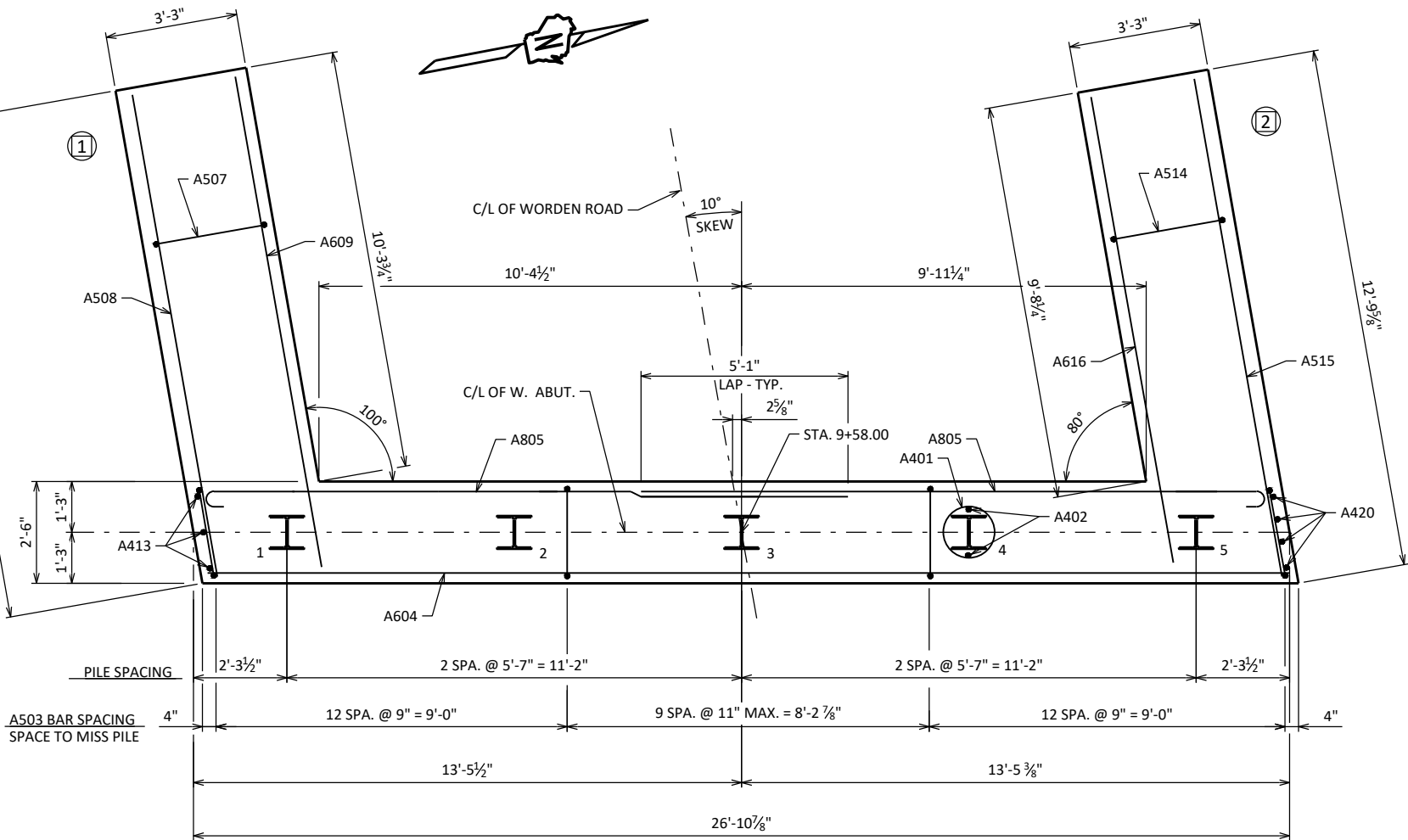
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

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		34	14'-0"	X		BODY VERT.
A604		11	26'-6"			BODY HORIZ.
A805		14	16'-9"	X		BODY HORIZ. @ WINGS 1 & 2 B.F.
A506	X	25	2'-0"			BODY DOWELS
A507	X	10	15'-8"	X		WING 1 VERT.
A508	X	6	11'-11"			WING 1 HORIZ. F.F.
A609	X	8	12'-2"			WING 1 HORIZ. B.F. & TOP
A610	X	14	9'-10"	X		WING 1 VERT.
A411	X	5	9'-8"			WING 1 HORIZ. E.F.
A612	X	2	9'-8"			WING 1 HORIZ. E.F. TOP
A413	X	3	4'-7"			BODY VERT. END @ WING 1
A514	X	10	15'-8"	X		WING 2 VERT.
A515	X	6	12'-5"			WING 2 HORIZ. F.F.
A616	X	8	11'-7"			WING 2 HORIZ. B.F. & TOP
A617	X	14	9'-10"	X		WING 2 VERT.
A418	X	5	9'-8"			WING 2 HORIZ. E.F.
A619	X	2	9'-8"			WING 2 HORIZ. E.F. TOP
A420	X	4	4'-7"			BODY VERT. END @ WING 2

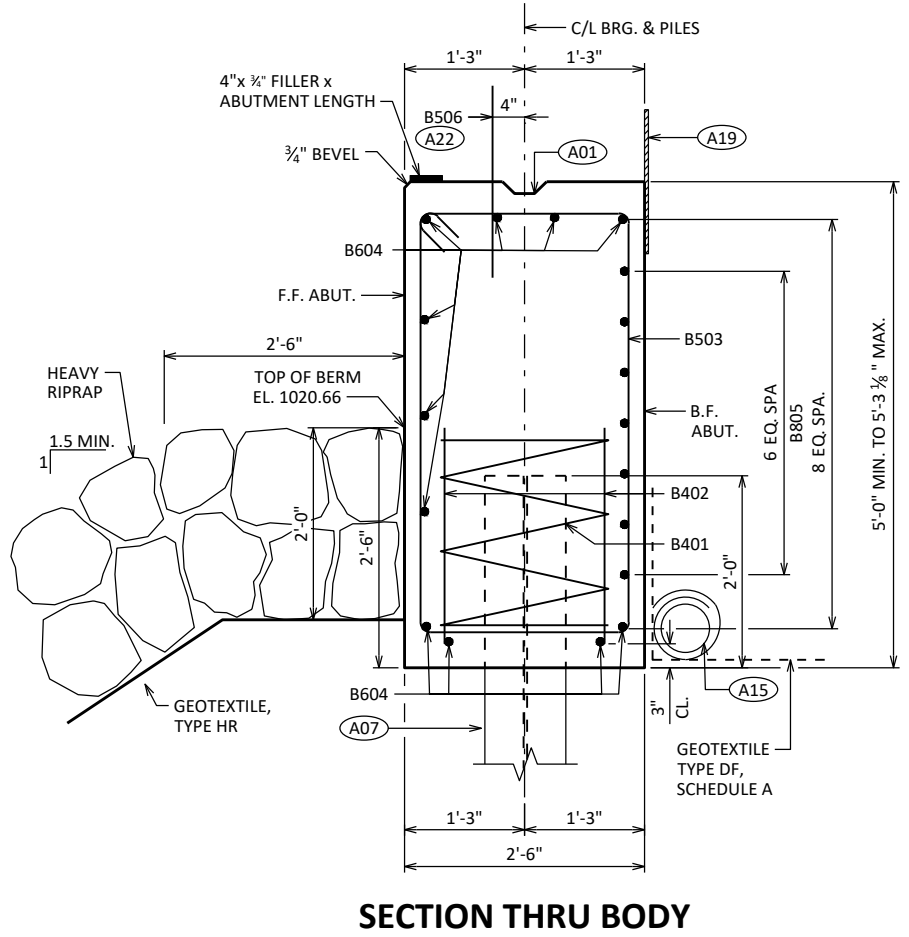
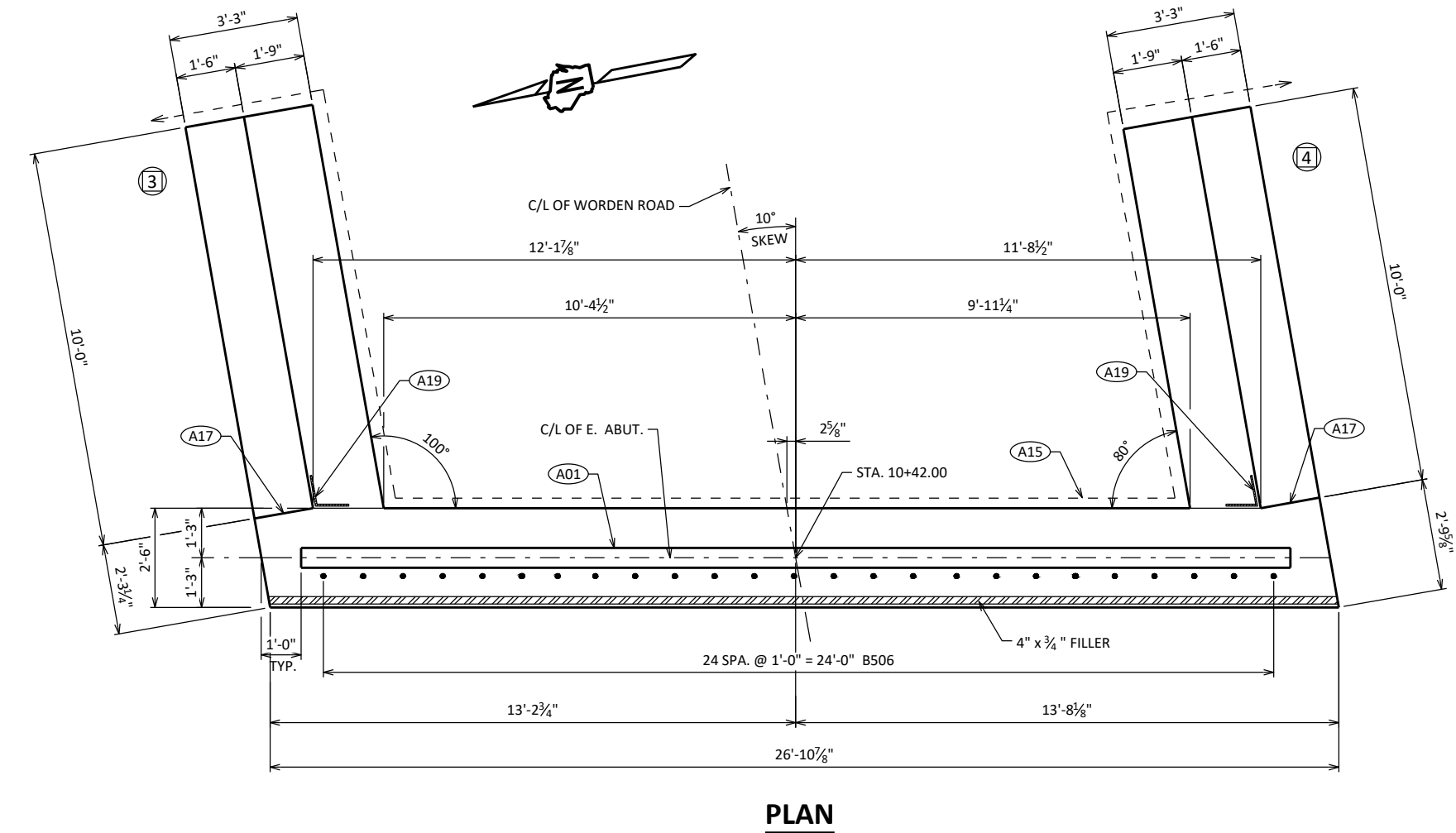
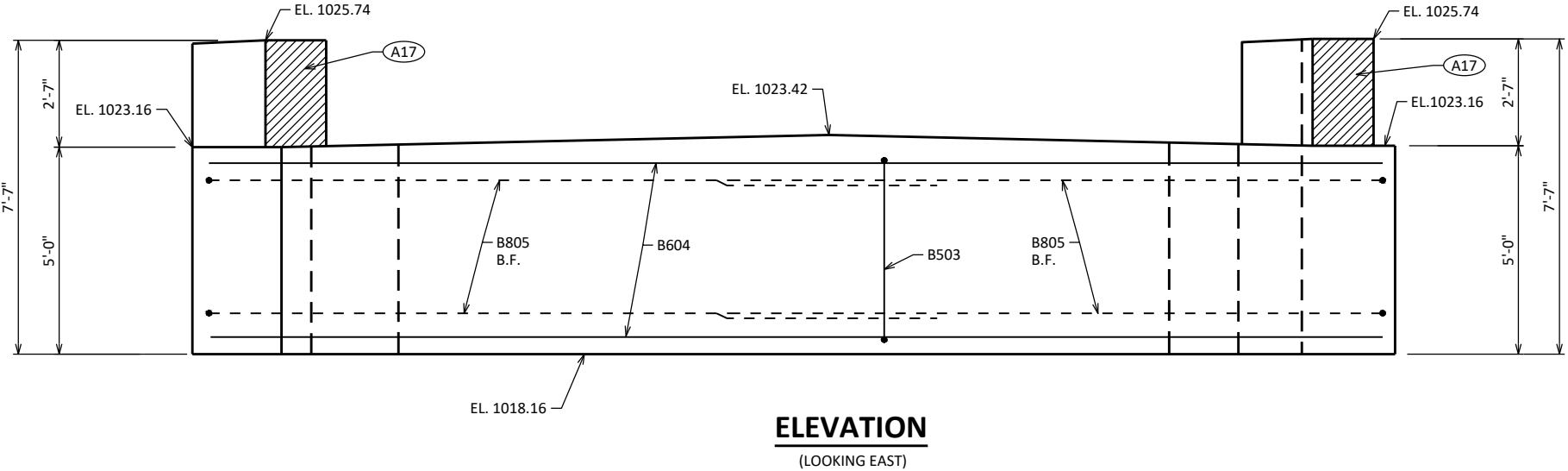
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



PILE LAYOUT

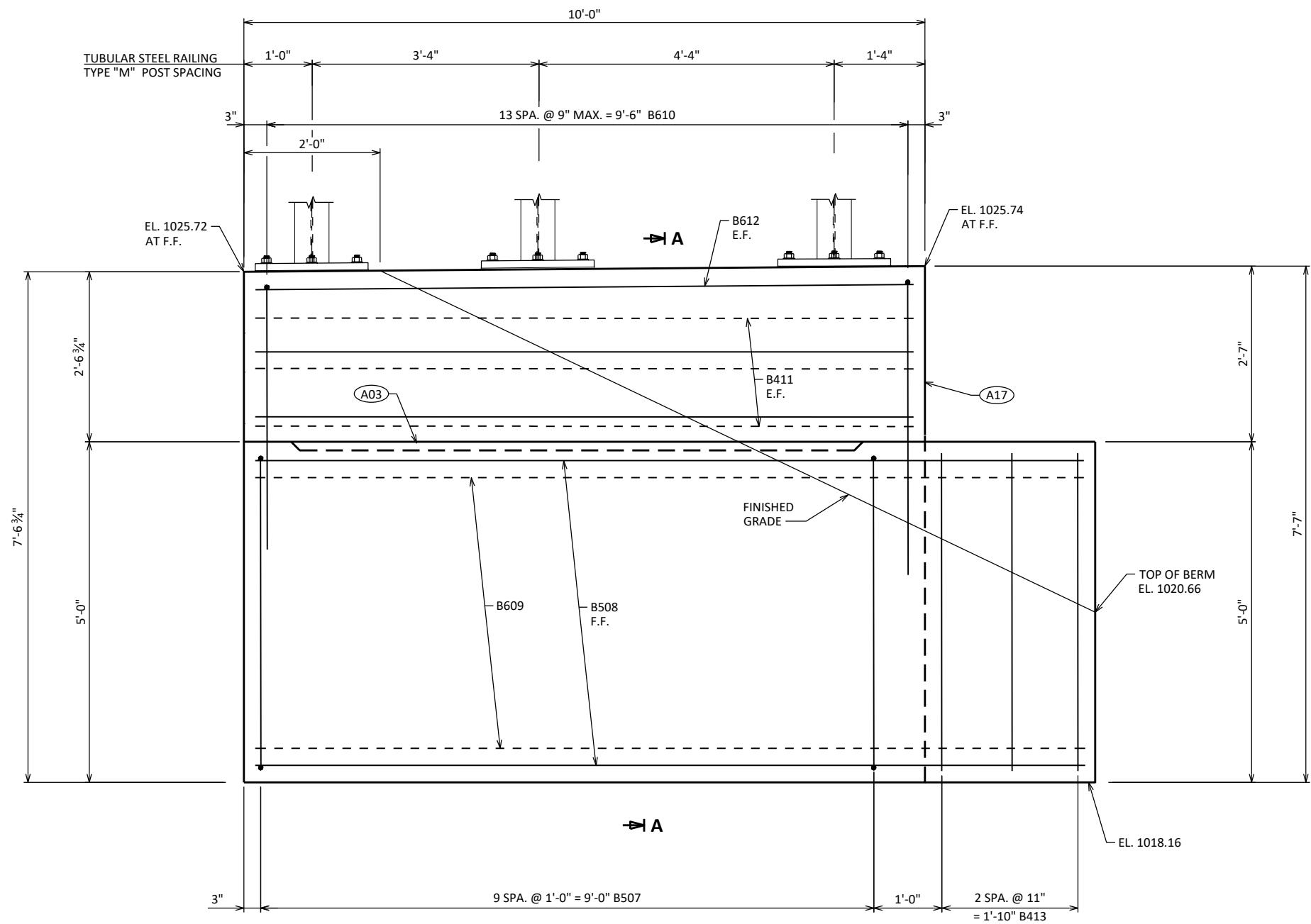


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-259			
DRAWN BY		CLP	PLANS CK'D ERS
WEST ABUTMENT PILE LAYOUT AND BILL OF BARS		SHEET 8 OF 16	

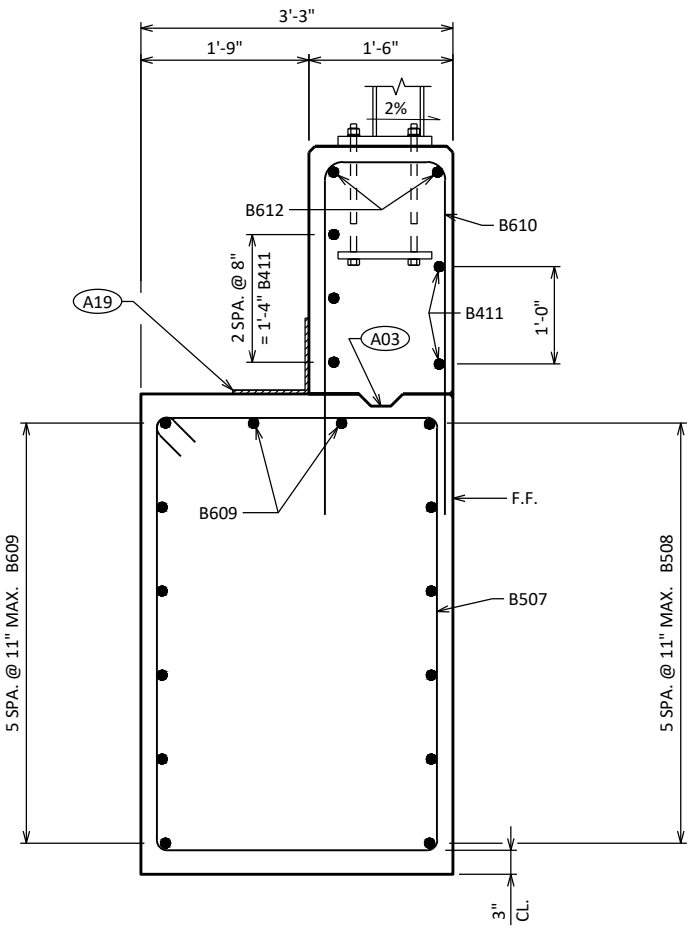


- (A01) CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 6.
- (A07) SUPPORT ABUTMENT ON HP 12 X 53 STEEL PILING, ESTIMATED 40'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 120 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) 1/2" 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 1/8" 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-10-259			
DRAWN BY		CLP	PLANS CK'D ERS
EAST ABUTMENT		SHEET 9 OF 16	



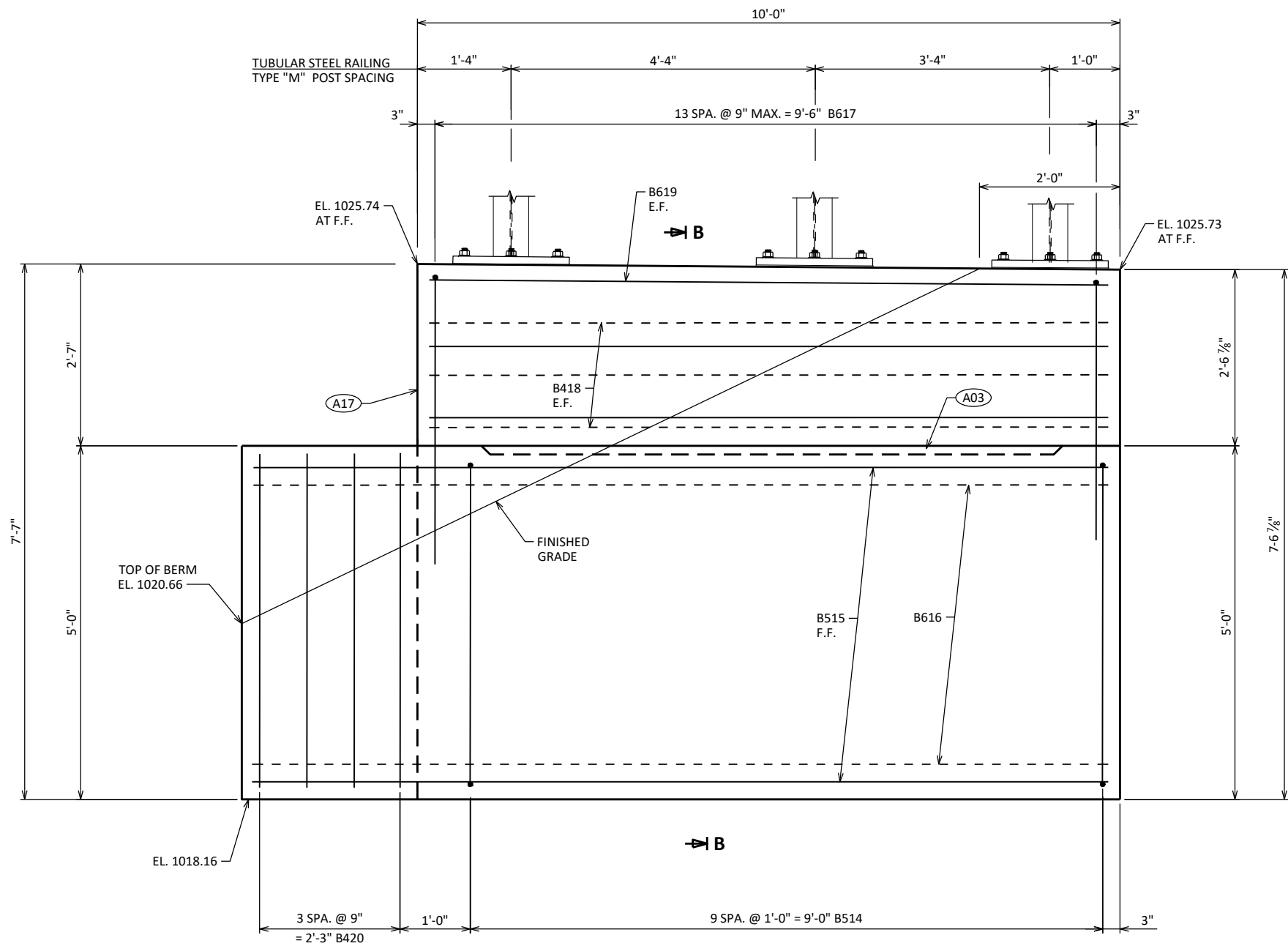
ELEVATION - WING 3



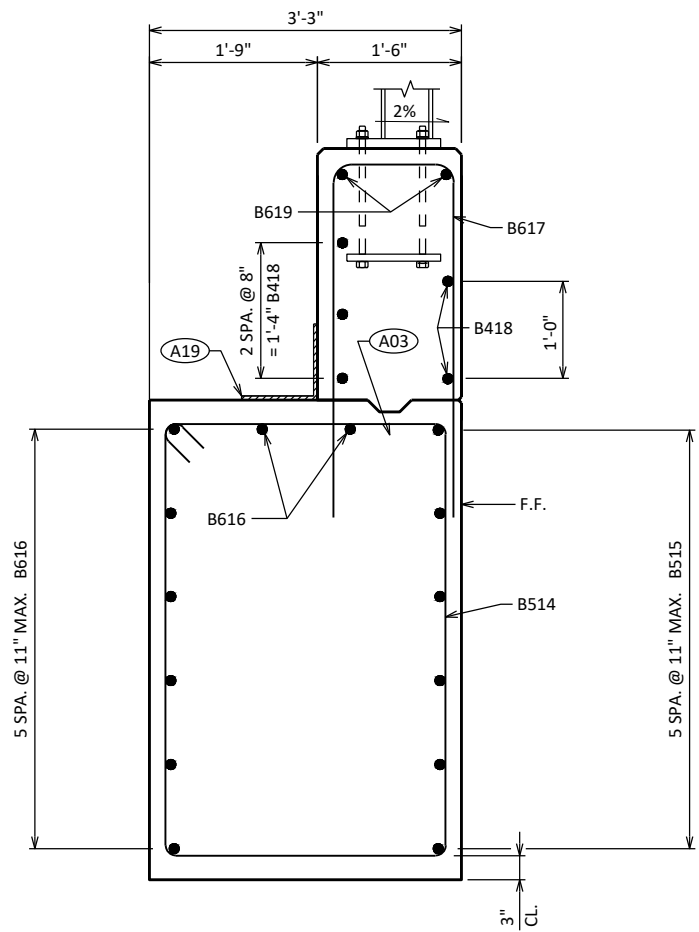
SECTION A

- (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).
- (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 1/8" 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-10-259			
DRAWN BY		CLP	PLANS CK'D ERS
EAST ABUTMENT WING 3 DETAILS		SHEET 10 OF 16	



ELEVATION - WING 4



SECTION B

- (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).
- (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 1/8" 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.

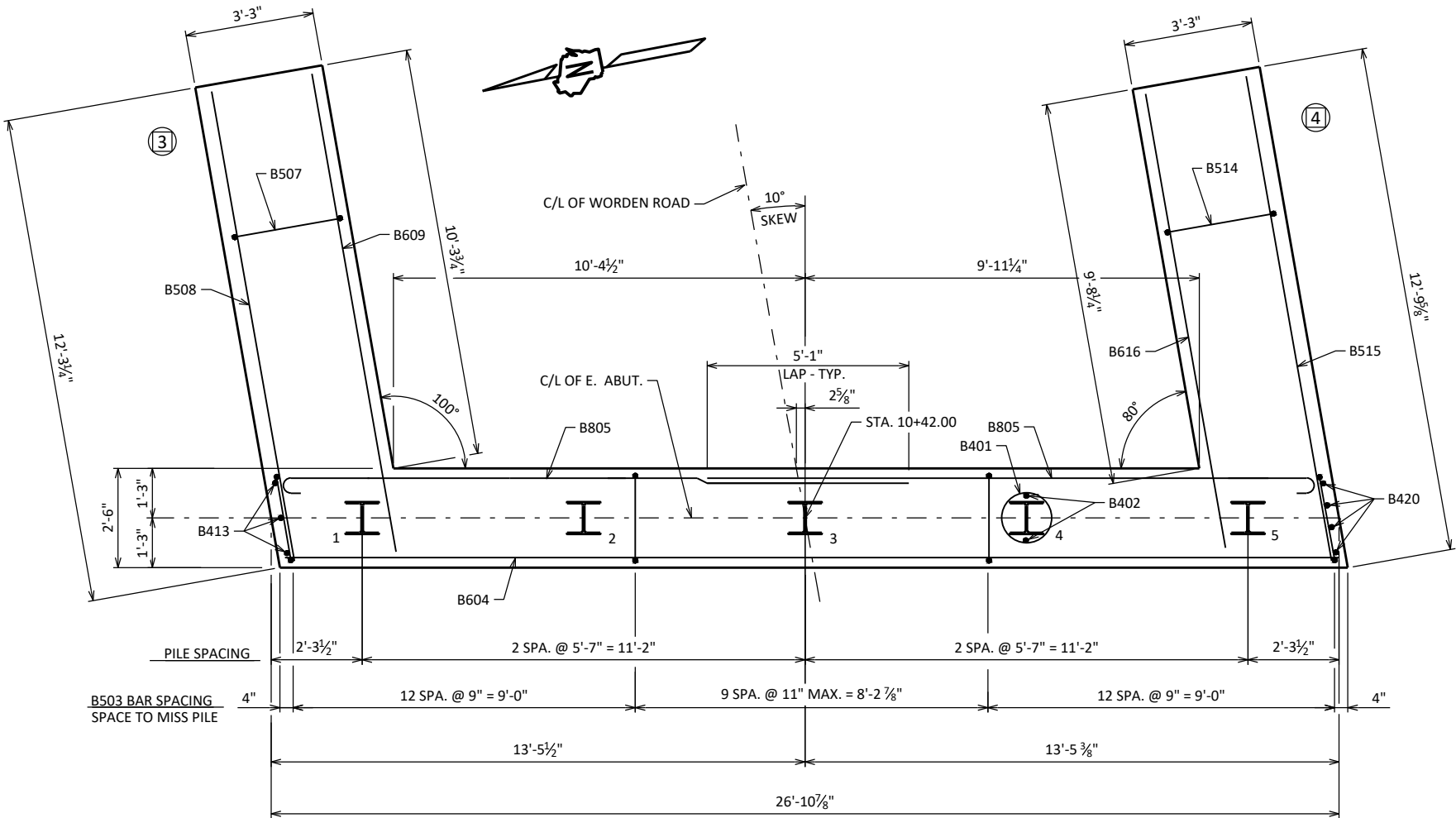
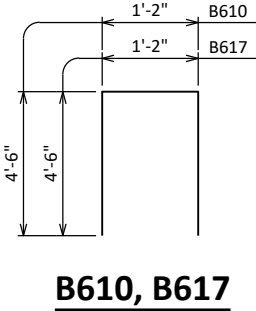
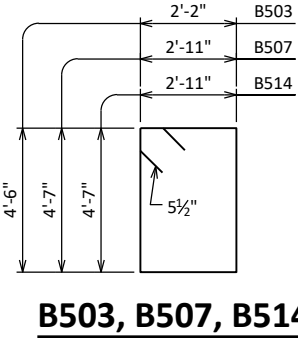
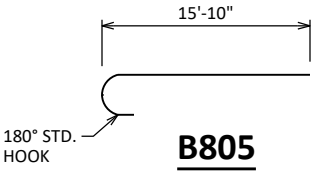
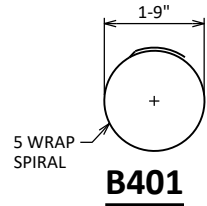
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-259			
DRAWN BY		PLANS CK'D ERS	
EAST ABUTMENT WING 4 DETAILS		SHEET 11 OF 16	

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		34	14'-0"	X		BODY VERT.
B604		11	26'-6"			BODY HORIZ.
B805		14	16'-9"	X		BODY HORIZ. @ WINGS 3 & 4 B.F.
B506	X	25	2'-0"			BODY DOWELS
B507	X	10	15'-8"	X		WING 3 VERT.
B508	X	6	11'-11"			WING 3 HORIZ. F.F.
B609	X	8	12'-2"			WING 3 HORIZ. B.F. & TOP
B610	X	14	9'-10"	X		WING 3 VERT.
B411	X	5	9'-8"			WING 3 HORIZ. E.F.
B612	X	2	9'-8"			WING 3 HORIZ. E.F. TOP
B413	X	3	4'-7"			BODY VERT. END @ WING 3
B514	X	10	15'-8"	X		WING 4 VERT.
B515	X	6	12'-5"			WING 4 HORIZ. F.F.
B616	X	8	11'-7"			WING 4 HORIZ. B.F. & TOP
B617	X	14	9'-10"	X		WING 4 VERT.
B418	X	5	9'-8"			WING 4 HORIZ. E.F.
B619	X	2	9'-8"			WING 4 HORIZ. E.F. TOP
B420	X	4	4'-7"			BODY VERT. END @ WING 4

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



PILE LAYOUT

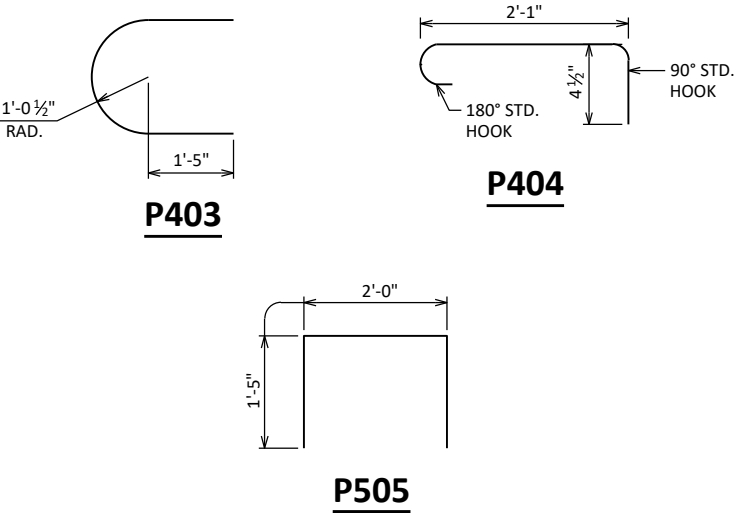
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-259			
DRAWN BY		CLP	PLANS CK'D ERS
EAST ABUTMENT PILE LAYOUT AND BILL OF BARS		SHEET 12 OF 16	

BILL OF BARS

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

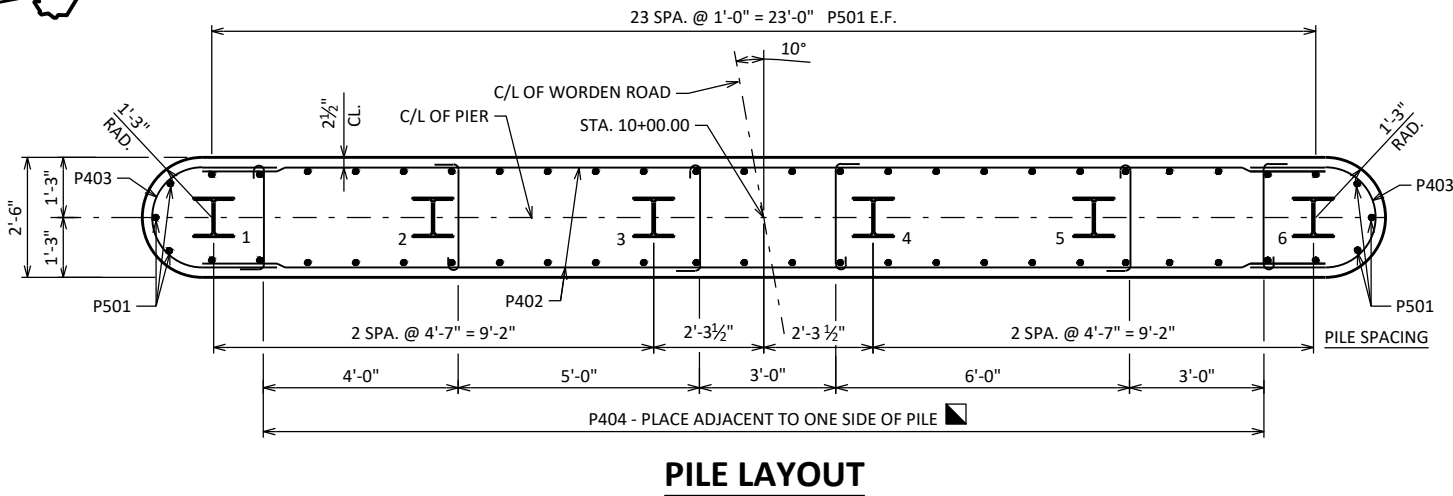
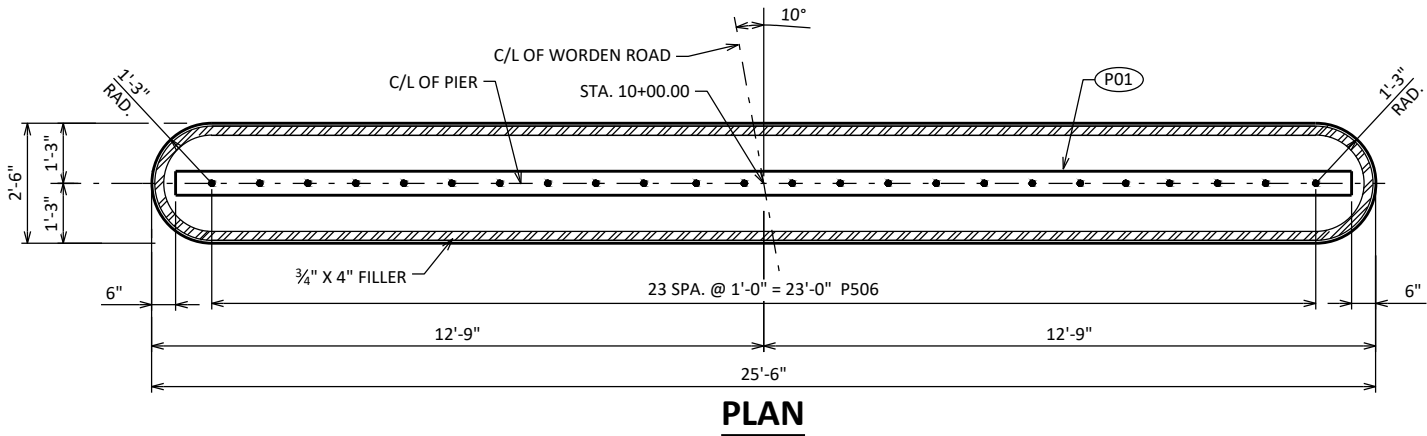
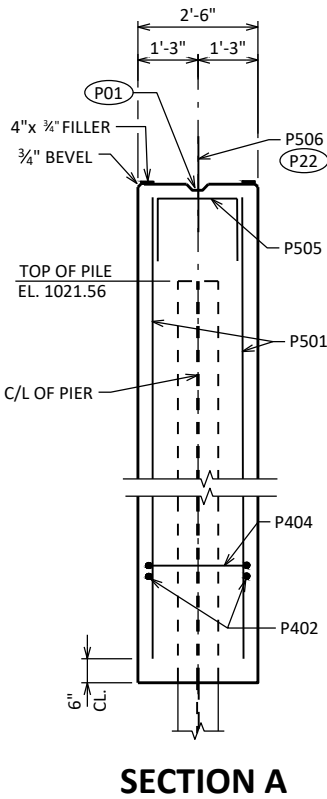
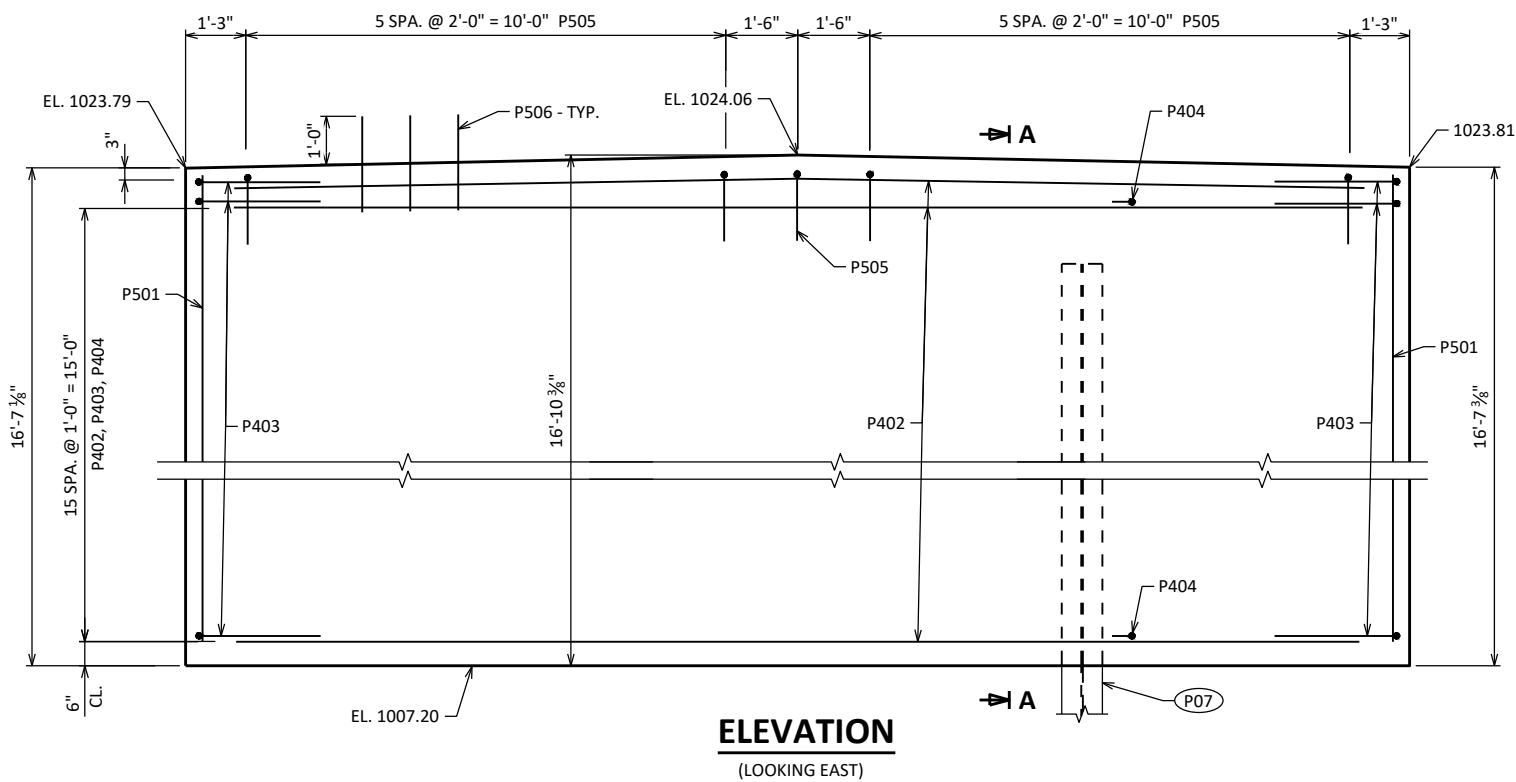
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
P501		54	15'-11"			COLUMN VERT.
P402		34	23'-0"			COLUMN HORIZ.
P403		34	6'-2"	X		COLUMN HORIZ.
P404		96	2'-11"	X		COLUMN TIES
P505		13	4'-7"	X		COLUMN TOP
P506	x	24	2'-0"			COLUMN DOWELS

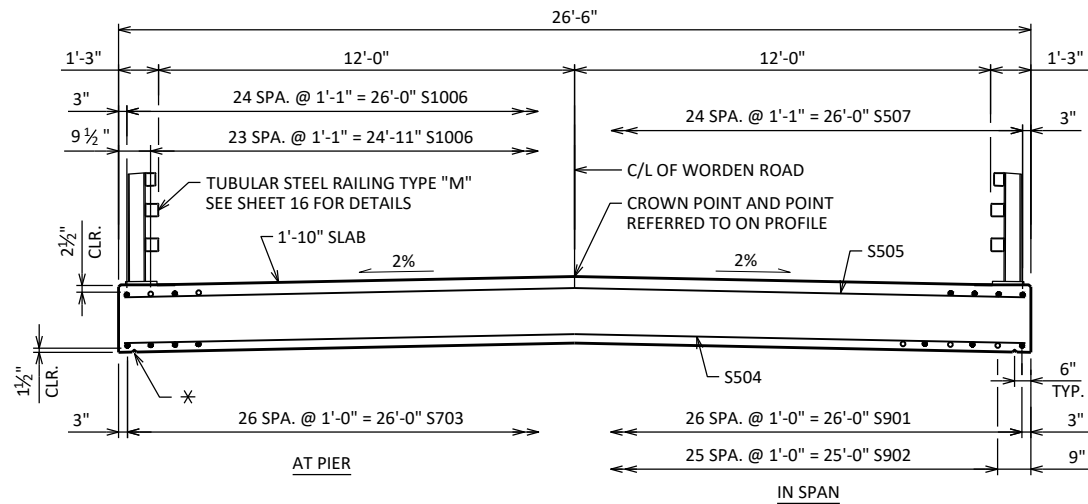
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



- (P01) CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 6.
- (P07) SUPPORT PIER ON HP 12 X 53 STEEL PILING, ESTIMATED 45'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 200 TONS PER PILE. PRE-BORE PILES 27'-0" PRIOR TO DRIVING.
- (P22) BARS @ 1'-0" CTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)
- 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-10-259			
		DRAWN BY CLP	PLANS CK'D ERS
PIER		SHEET 13 OF 16	





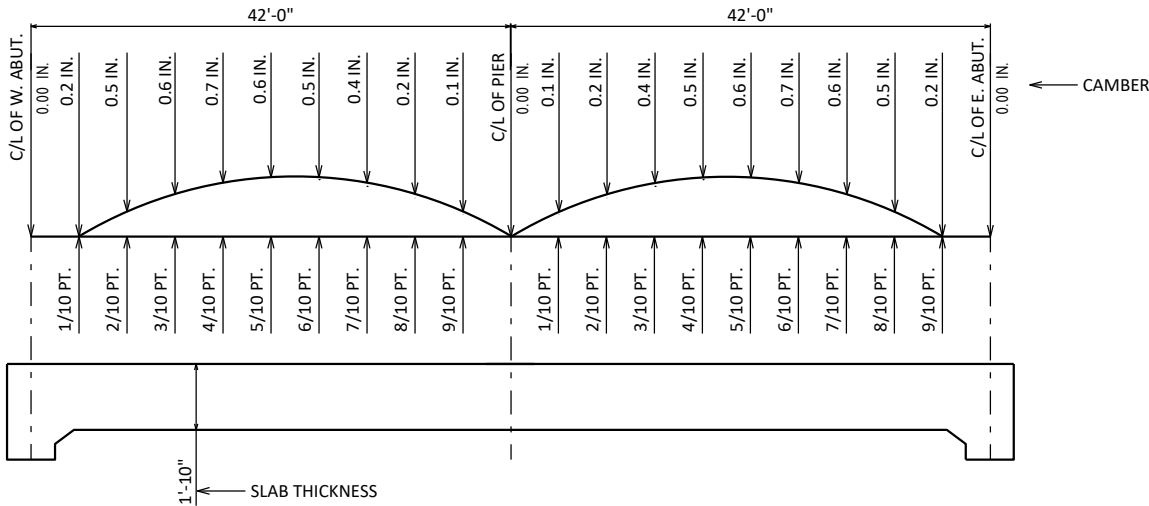
TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

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

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

V-GROOVES ARE REQUIRED.

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:

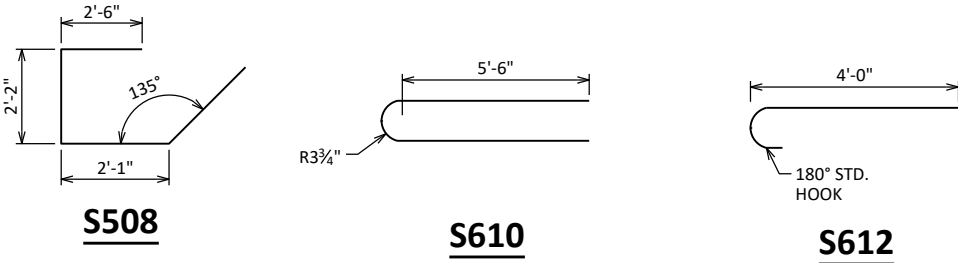
- TOP OF SLAB ELEVATION AT FINAL GRADE
- LESS SLAB THICKNESS
- PLUS CAMBER
- PLUS FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
- EQUALS TOP OF SLAB FALSEWORK ELEVATION

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
S901	X	54	39'-10"			SLAB LONG. BOT.
S902	X	52	29'-2"			SLAB LONG. BOT.
S703	X	27	14'-2"			SLAB LONG. BOT. @ PIER
S504	X	87	26'-7"			SLAB TRANS. BOT.
S505	X	87	26'-7"			SLAB TRANS. TOP
S1006	X	49	36'-6"			SLAB LONG. TOP @ PIER
S507	X	50	21'-6"			SLAB LONG. TOP
S508	X	54	7'-7"	X		SLAB @ ABUT. DIAPHRAGM STIRRUPS
S509	X	4	26'-7"			SLAB @ ABUT. DIAPHRAGM TRANS.
S610	X	56	12'-0"	X		SLAB @ RAIL POSTS
S611	X	96	6'-0"			SLAB @ INT. RAIL POSTS
S612	X	16	4'-8"	X		SLAB @ END RAIL POSTS

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



SURVEY TOP OF SLAB ELEVATIONS

	ABUTMENT	5/10 PT.	PIER	5/10 PT.	ABUTMENT
N. EDGE OF SLAB					
C/L OF WORDEN ROAD					
S. EDGE OF SLAB					

PRIOR TO RELEASING SLAB FORMWORK, TAKE TOP OF SLAB ELEVATIONS AT THE C/L OF SUBSTRUCTURES & PIER, 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.

TOP OF SLAB ELEVATIONS

LOCATION	C/L W. 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 PIER	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 E. ABUT.
N. EDGE OF SLAB	1025.51	1025.54	1025.56	1025.58	1025.61	1025.63	1025.64	1025.66	1025.68	1025.69	1025.70	1025.71	1025.72	1025.73	1025.74	1025.74	1025.74	1025.75	1025.75	1025.74	1025.74
C/L OF WORDEN ROAD	1025.76	1025.79	1025.81	1025.84	1025.86	1025.88	1025.90	1025.92	1025.93	1025.95	1025.96	1025.97	1025.98	1025.99	1026.00	1026.00	1026.01	1026.01	1026.01	1026.01	1026.01
S. EDGE OF SLAB	1025.48	1025.51	1025.53	1025.56	1025.58	1025.60	1025.62	1025.64	1025.66	1025.67	1025.69	1025.70	1025.71	1025.72	1025.73	1025.74	1025.74	1025.74	1025.75	1025.75	1025.74

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-259			
DRAWN BY		CLP	PLANS CK'D ERS
SUPERSTRUCTURE		SHEET 14 OF 16	



(A22) 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-10-259			
	DRAWN BY	CLP	PLANS CK'D ERS
SUPERSTRUCTURE PLAN		SHEET 15 OF 16	

LEGEND

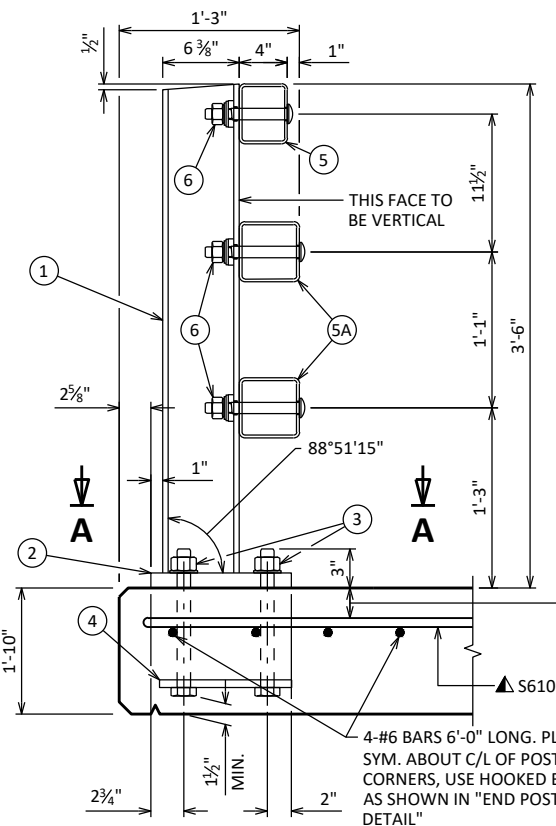
- W6 X 25 WITH $1\frac{1}{8}$ " X $1\frac{1}{2}$ " HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- PLATE $1\frac{1}{4}$ " X $11\frac{3}{4}$ " X 1'-8" WITH $1\frac{1}{16}$ " DIA. OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
- ASTM A449 - $1\frac{1}{8}$ " 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. USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE $10\frac{3}{4}$ " LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTABILITY.)
- $\frac{5}{8}$ " X 11" X 1'-8" ANCHOR PLATE (GALVANIZED) WITH $1\frac{3}{16}$ " DIA. HOLES FOR ANCHOR BOLTS NO. 3
- TS 5 X 4 X 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- TS 5 X 5 X 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- $\frac{7}{8}$ " DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, $\frac{3}{16}$ " X $1\frac{5}{8}$ " X $1\frac{5}{8}$ " MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
- $\frac{1}{2}$ " THK. BACK-UP PLATE WITH 2 - $\frac{7}{8}$ " X $1\frac{1}{2}$ " THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
- 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR $\frac{7}{8}$ " DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
- SPLICE SLEEVE FABRICATED FROM $\frac{1}{4}$ " PLATE. PROVIDE "SLIDING FIT".
- $\frac{3}{8}$ " X $3\frac{5}{8}$ " X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
- $\frac{3}{8}$ " X $2\frac{5}{8}$ " X 2'-4" PLATE USED IN NO. 5, $\frac{3}{8}$ " X $3\frac{5}{8}$ " X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
- $\frac{7}{8}$ " DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE $1\frac{5}{16}$ " X $1\frac{1}{4}$ " LONGIT. SLOTTED HOLES IN PLATE NO. 10A. AT FIELD JOINTS AND $1\frac{5}{16}$ " X $2\frac{3}{4}$ " MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A. PROVIDE $1\frac{5}{16}$ " DIA. ROUND HOLES IN TUBES NO. 5 AND NO. 5A.
- $\frac{7}{8}$ " DIA. X $1\frac{1}{2}$ " LONG THREADED SHOP WELDED STUDS (2 REQ'D.).
- $\frac{3}{8}$ " X 8" X 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
- $\frac{7}{8}$ " DIA. X 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
- 1" DIA. HOLES IN TUBES NO. 5A FOR $\frac{7}{8}$ " DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

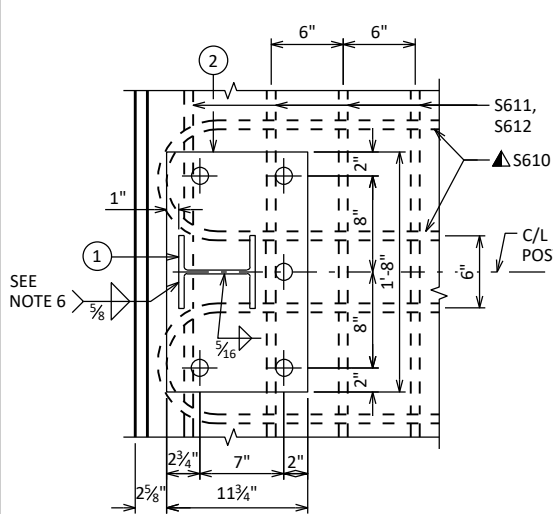
- BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
- RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
- THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL $\frac{1}{8}$ TURN.
- RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.
- ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
- WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
- 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.
- 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.
- 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 SSPC SPECIFICATIONS.

▲ TIE TO TOP MAT OF STEEL.

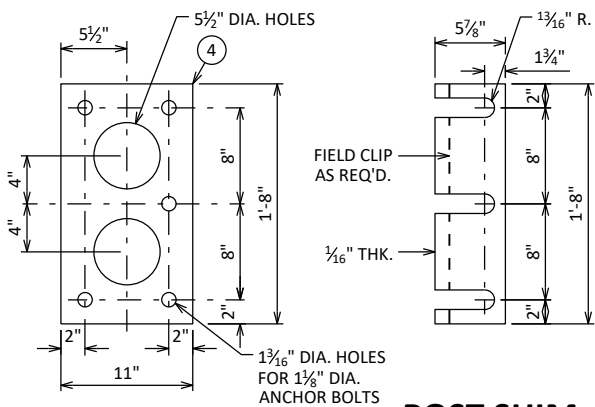
* ANCHOR BOLT ASSEMBLY MAY BE TACK WELDED, EITHER IN THE SHOP, OR IN THE FIELD AFTER THE ANCHOR PLATE IS PLACED.

■ $\frac{1}{4}$ " TO $\frac{3}{4}$ " OPENING FOR A1 ABUTMENT.

SECTION THRU RAILING ON DECK



SECTION A-A

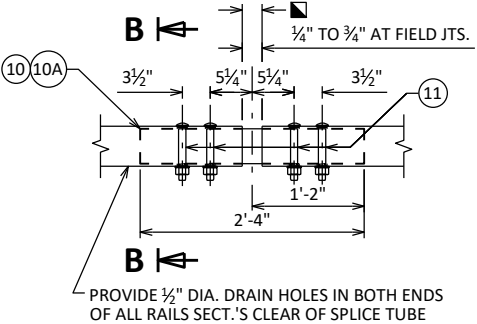


ANCHOR PLATE

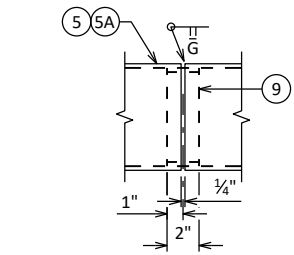
AT RAIL TO DECK CONNECTION

POST SHIM

DETAIL

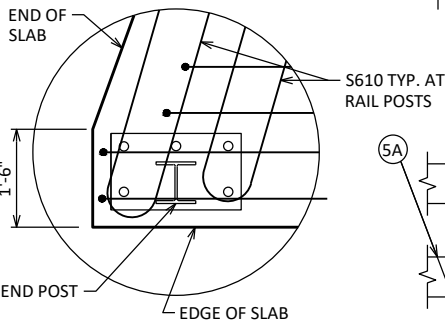


FIELD ERECTION JOINT DETAIL



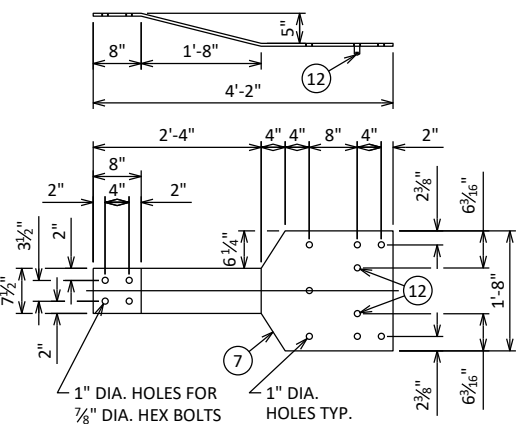
SHOP RAIL SPLICE DETAIL

LOCATION MUST BE SHOWN ON SHOP DRAWINGS



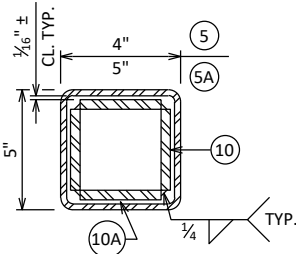
END POST DETAIL

REINFORCEMENT AT CORNERS

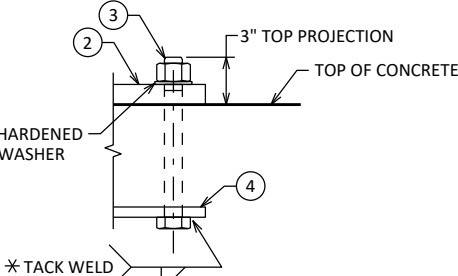


BACK-UP PLATE DETAIL

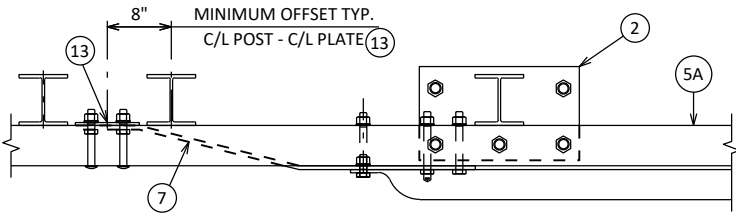
AT BEAM GUARD ATTACHMENT



SECTION B-B

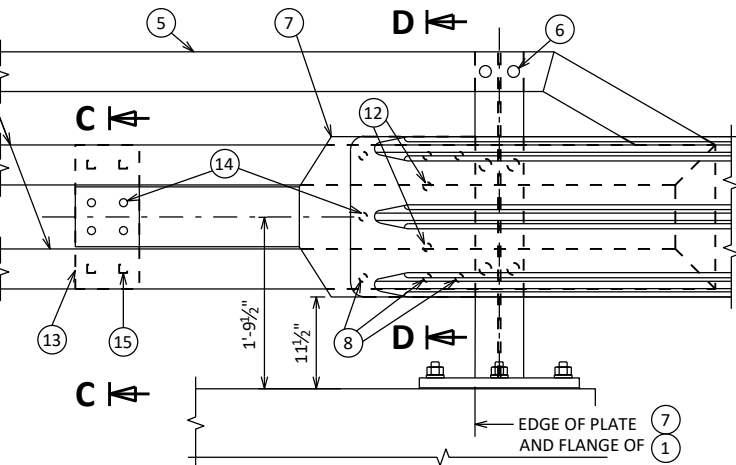


ANCHOR BOLTS



TOP VIEW AT END POST

THRIE BEAM RAIL ATTACHMENT

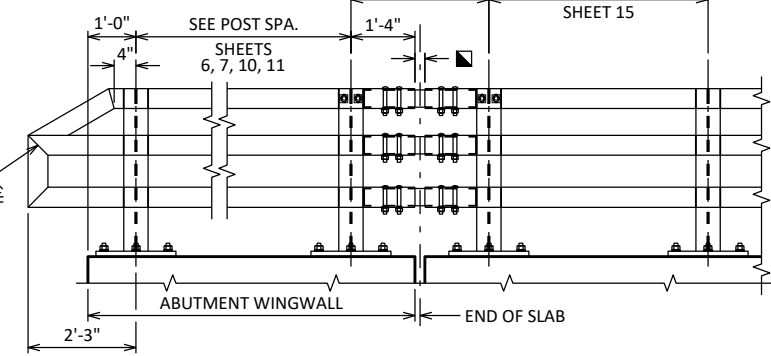


ANCHOR PLATE

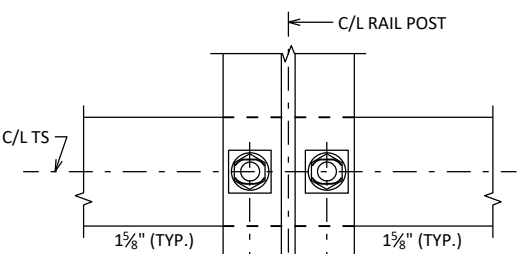
AT BEAM GUARD ATTACHMENT

DETAIL AT END POST

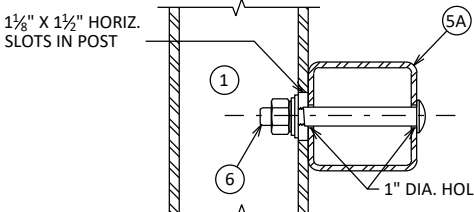
THRIE BEAM RAIL ATTACHMENT



PART ELEVATION OF RAILING

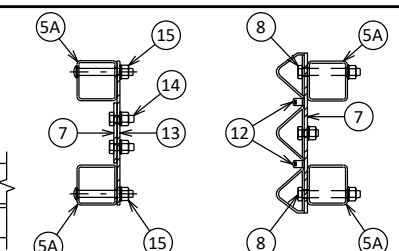


SECTION THRU POST WEB



SECTION THRU RAIL

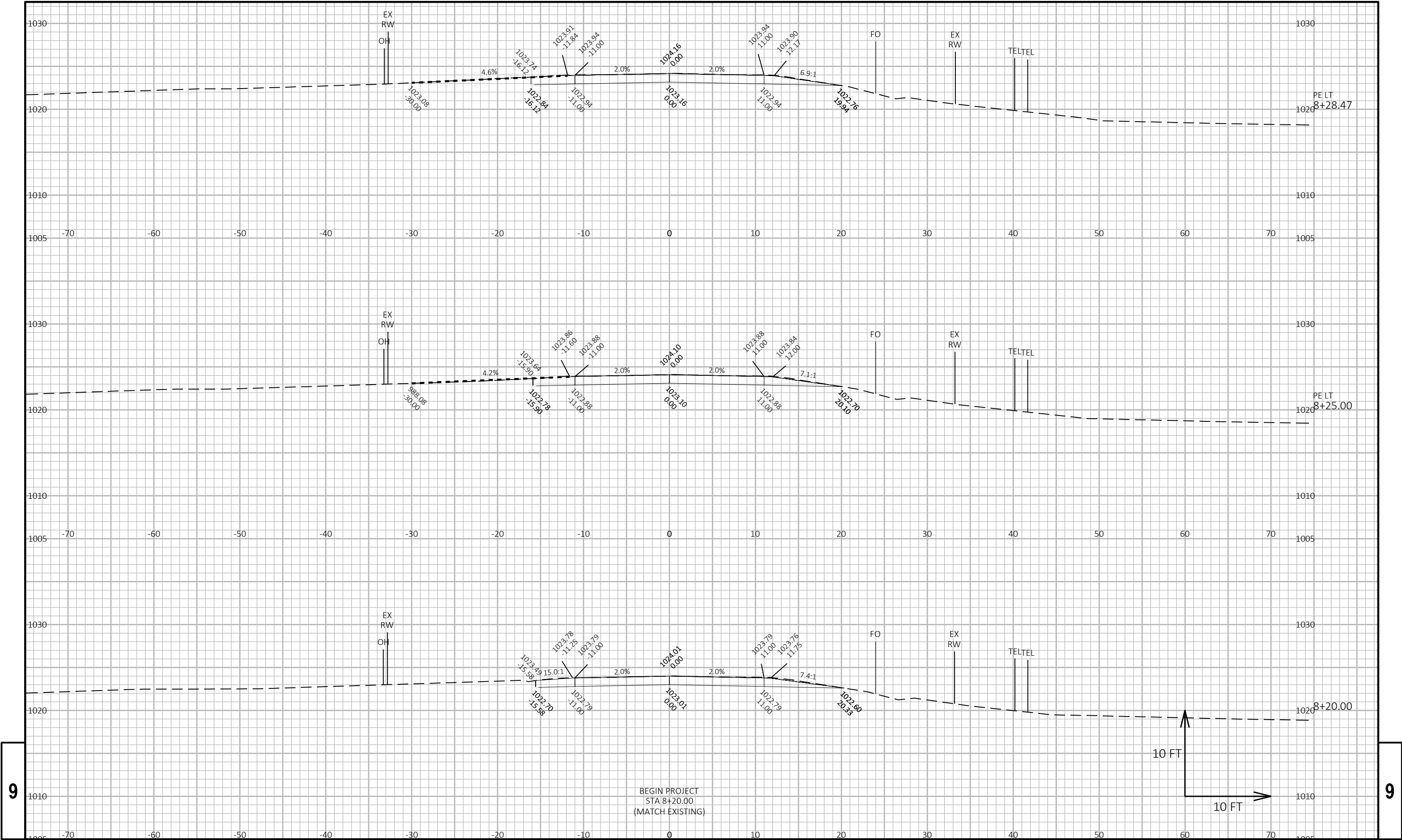
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.



SECTION C-C SECTION D-D

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-259			
DRAWN BY		CLP	PLANS CK'D ERS
TUBULAR STEEL RAILING TYPE "M"		SHEET 16 OF 16	

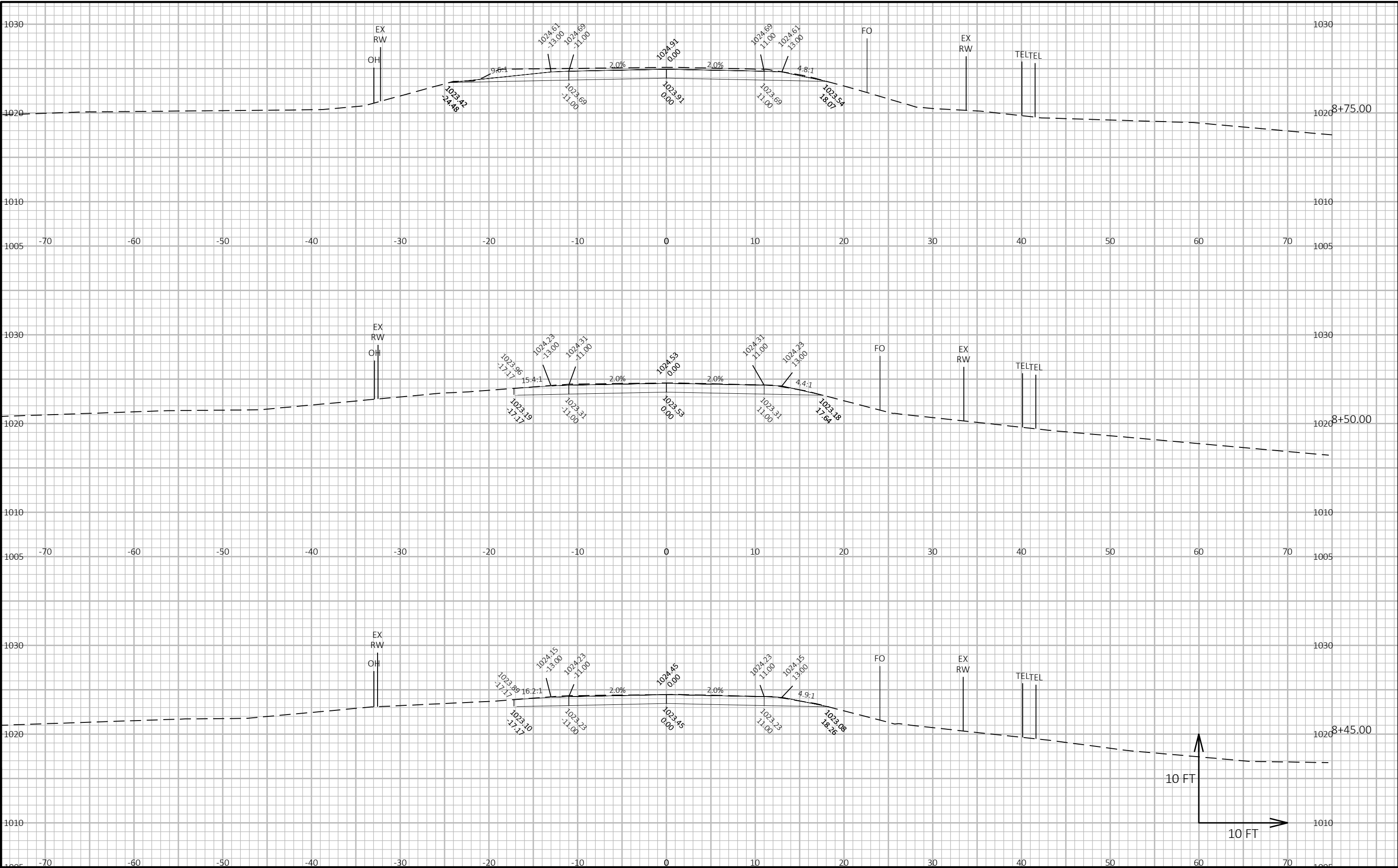
WORDEN ROAD COMPUTER EARTHWORK										
Station	Distance	Area (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Unuseable Pavement Material	Fill	Cut	Salvaged / Unuseable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.30	
8+20	--	40.5	0.0	0.0						
8+25	5.00	41.1	0.0	0.0	8	0	0	8	0	8
8+28.47	3.47	41.6	0.0	0.0	5	0	0	13	0	13
8+45	16.53	43.6	0.0	0.0	26	0	0	39	0	39
8+50	5.00	44.3	0.0	0.0	8	0	0	47	0	47
8+75	25.00	45.5	0.0	0.0	42	0	0	89	0	89
9+00	25.00	49.5	0.0	0.0	44	0	0	133	0	133
9+06.73	6.73	51.6	0.0	0.0	13	0	0	145	0	145
9+25	18.27	59.6	0.0	0.0	38	0	0	183	0	183
9+44.66	19.66	77.1	0.0	11.7	50	0	4	233	6	227
9+48.8	4.14	64.7	0.0	11.3	11	0	2	243	8	236
9+56.73	7.93	63.4	0.0	0.0	19	0	2	262	10	252
Bridge	--	--	--	--	--	--	--	--	--	--
10+43.27	--	58.1	0.0	0.0	--	--	--	--	--	--
10+51.25	7.98	59.2	0.0	6.9	17	0	1	280	11	268
10+55.34	4.09	58.2	0.0	62.9	9	0	5	288	18	270
10+75	19.66	48.3	0.0	94.1	39	0	57	327	92	235
10+93.27	18.27	39.7	0.0	70.4	30	0	56	357	165	192
11+00	6.73	36.9	0.0	63.5	10	0	17	367	187	180
11+25	25.00	33.2	0.0	66.8	32	0	60	399	265	134
11+50	25.00	31.7	0.0	0.0	30	0	31	429	305	124
					429	0	235			



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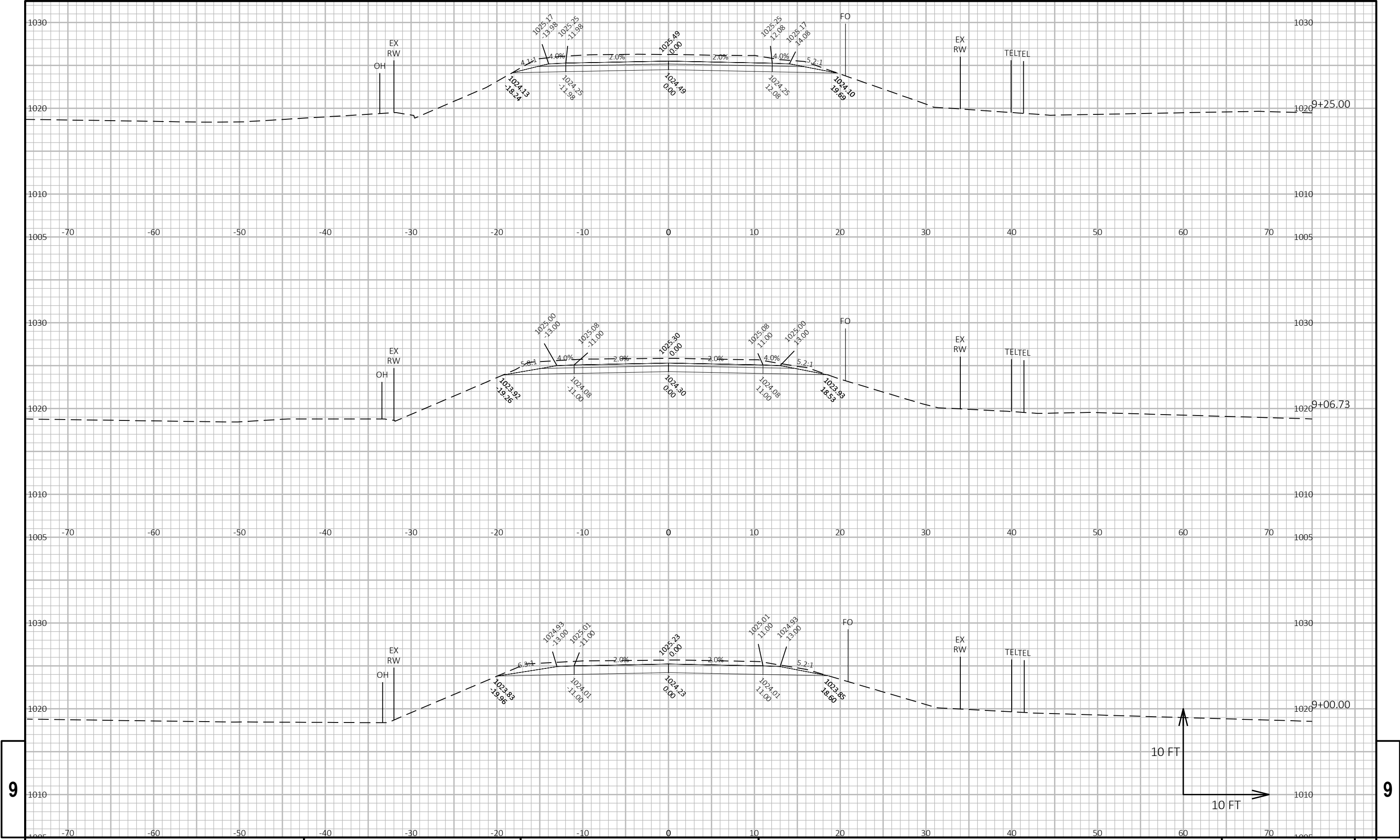
PROJECT NO: 7833-00-71	HWY: WORDEN ROAD	COUNTY: CLARK	CROSS SECTIONS: WORDEN ROAD	SHEET E
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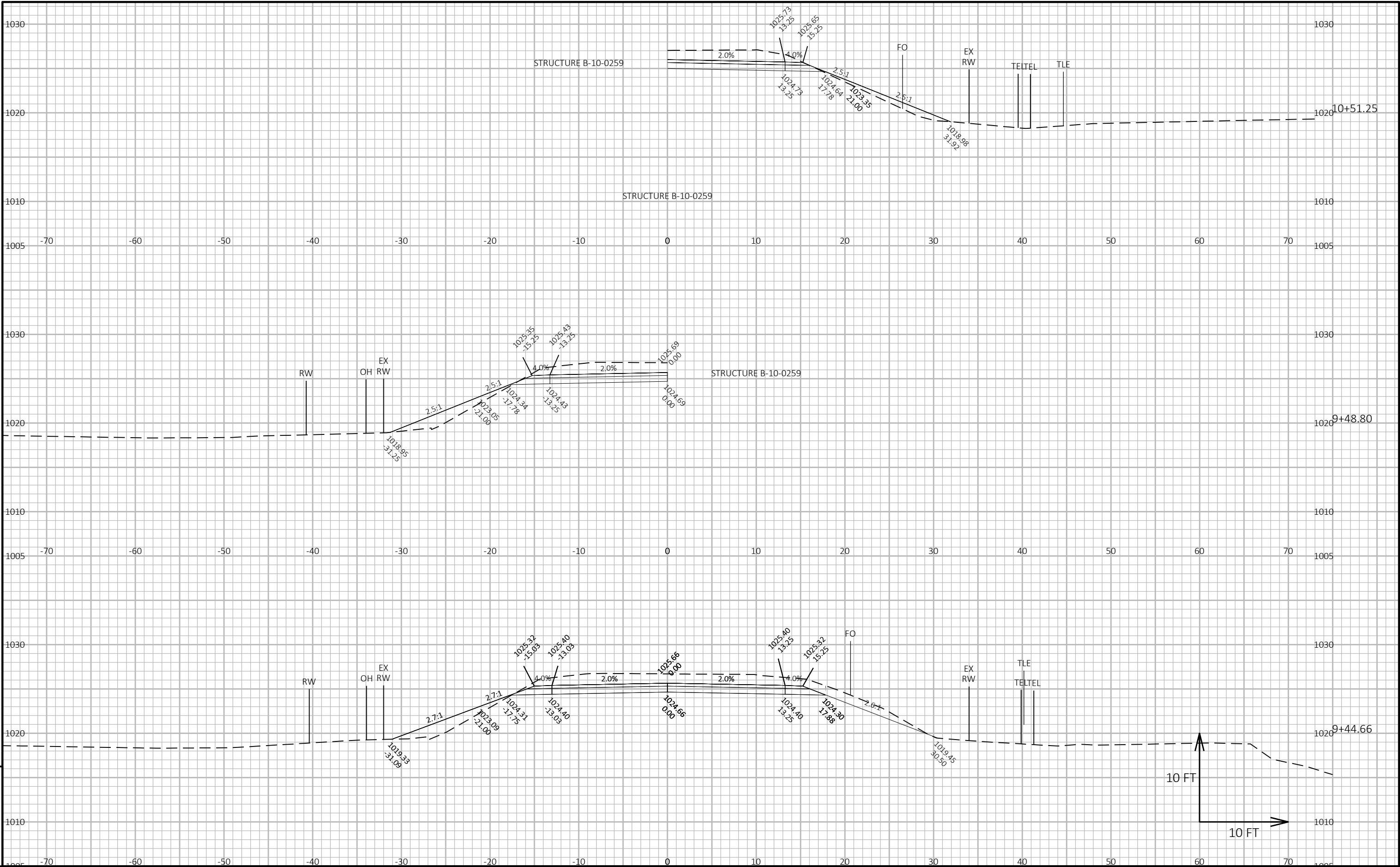
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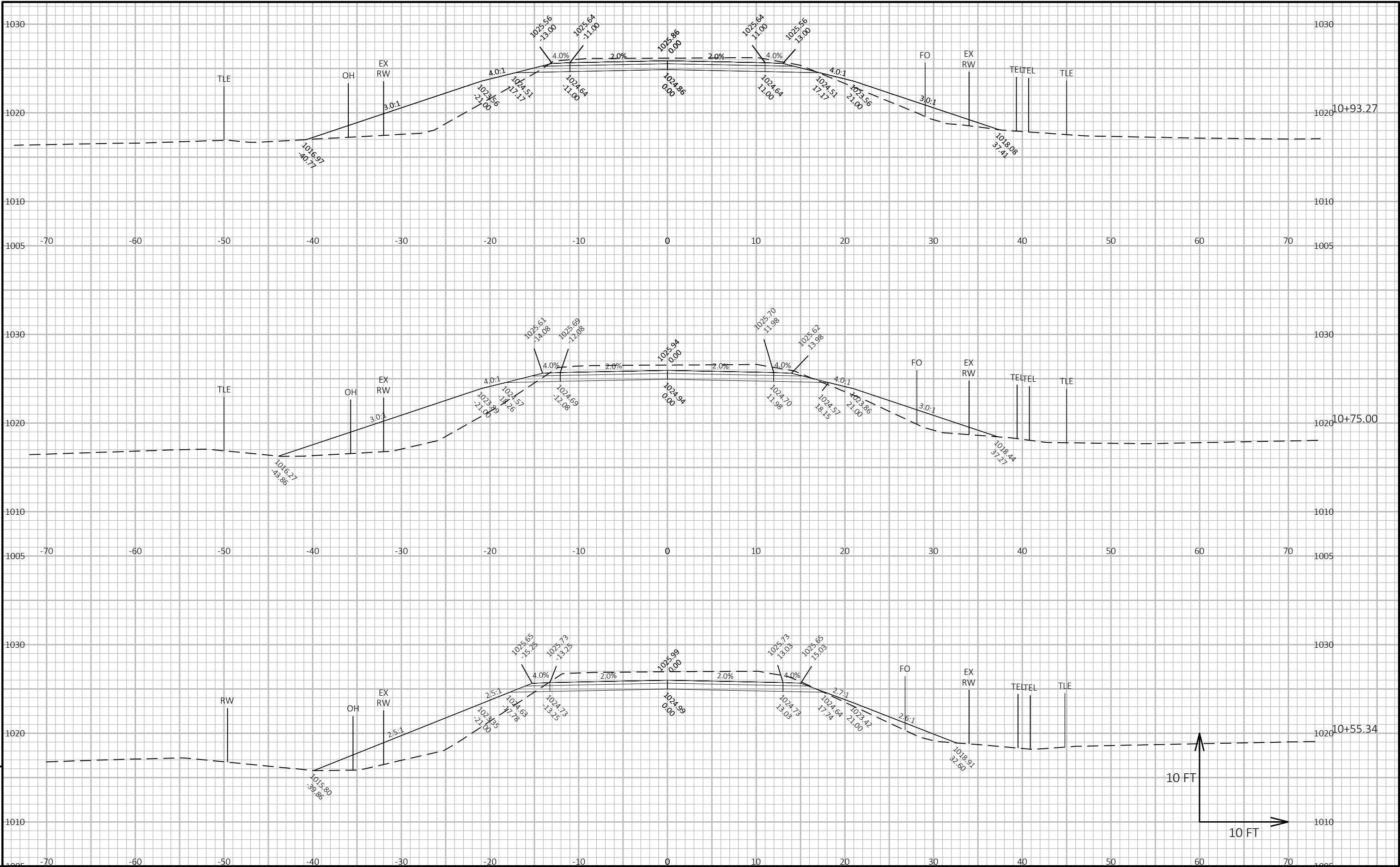
PROJECT NO: 7833-00-71	HWY: WORDEN ROAD	COUNTY: CLARK	CROSS SECTIONS: WORDEN ROAD	SHEET E
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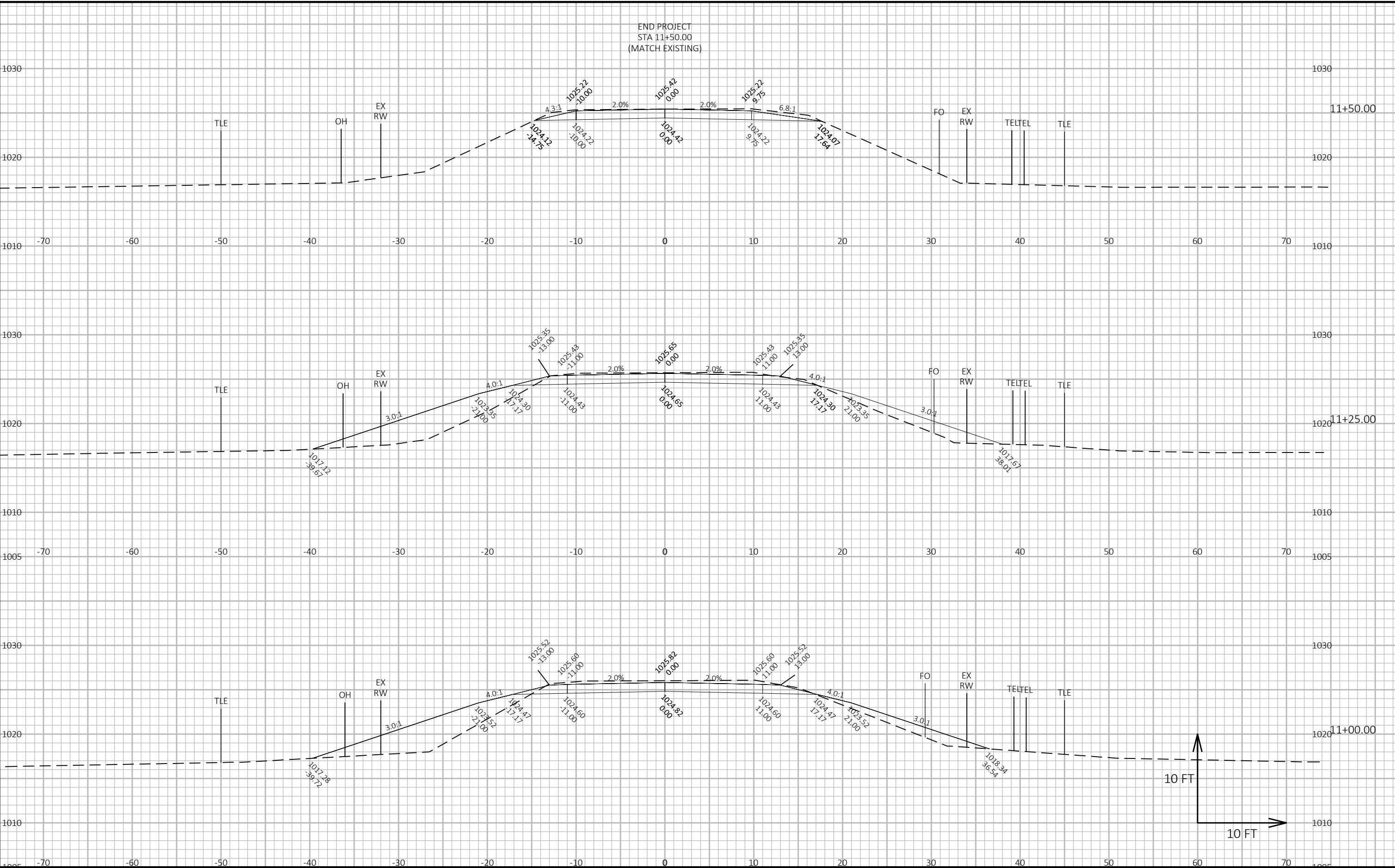


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PROJECT NO: 7833-00-71	HWY: WORDEN ROAD	COUNTY: CLARK	CROSS SECTIONS: WORDEN ROAD	SHEET	E
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Wisconsin Department of Transportation

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