

MAD  
PROJECT ID: 5788-00-76  
WITH: N/A

MAY 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 (INCL. EROSION CONTROL)
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 48

# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

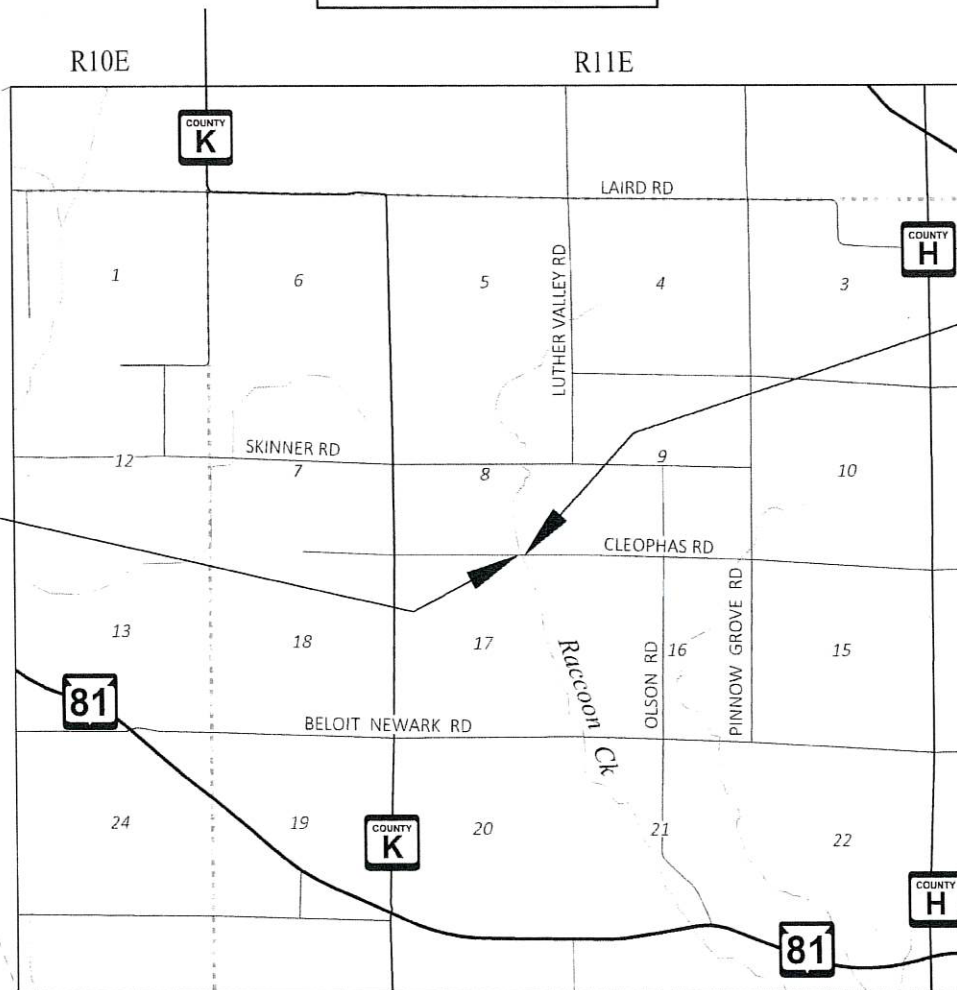
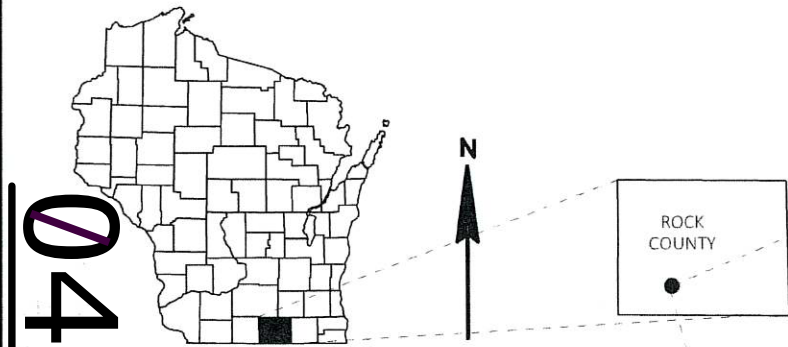
## T NEWARK, CLEOPHAS ROAD

RACCOON CREEK BRIDGE B-53-0391

LOC STR  
ROCK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5788-00-76	WISC 2026341	1

STATE PROJECT NUMBER
5788-00-76



END PROJECT  
STA 10+70.00  
Y= 223018.457  
X= 441954.260

BEGIN PROJECT  
STA 9+30.00  
Y= 223018.842  
X= 441814.261

DESIGN DESIGNATION

A.A.D.T.	2026	=	<100
A.A.D.T.	2046	=	<100
D.H.V.		=	
D.D.		=	
T.		=	3.5%
DESIGN SPEED		=	55 MPH
ESALS		=	

CONVENTIONAL SYMBOLS

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

LAYOUT  
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.0265 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), ROCK 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 W18.

ACCEPTED FOR  
ROCK COUNTY  
Date: 1-27-2026  
*[Signature]*  
DIRECTOR OF PUBLIC WORKS

ORIGINAL PLANS PREPARED BY  
**AYRES**

WISCONSIN  
AMANDA M. INMAN  
44690 OREGON WI  
PROFESSIONAL ENGINEER  
*[Signature]*  
1/27/2026

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	AYRES
Designer	AYRES
Project Manager	ZACK PEARSON
Regional Examiner	SW REGION
Regional Supervisor	KYLE HEMP

APPROVED FOR THE DEPARTMENT  
DATE: 02/16/26  
*[Signature]*  
ZACHARY PEARSON  
(Signature)

E

### GENERAL NOTES

THERE ARE NO KNOWN UTILITY FACILITIES WITHIN THE PROJECT AREA.

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

TRAFFIC CONTROL LOCATIONS WILL BE CHANGED/MODIFIED BY THE ENGINEER IN THE FIELD.

ALL SIGN LOCATIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION.

NO TREES OR SHRUBS SHALL BE REMOVED UNLESS DESIGNATED FOR REMOVAL BY THE ENGINEER.

PROTECT FROM DAMAGE AND COMPLETE SHOULDER WORK AROUND ANY EXISTING SIGNS OR MAILBOXES THAT ARE TO REMAIN IN PLACE.

RESTORATION OF EXPOSED SLOPES AND DITCHES SHALL TAKE PLACE WITHIN 7 CALENDAR DAYS AFTER FINISHED GRADING IS COMPLETE.

WETLANDS ARE PRESENT IN THE PROJECT AREA. DO NOT DISTURB WETLANDS OUTSIDE THE PROPOSED SLOPE INTERCEPTS.

IF AN EXISTING SIGN IS TO BE REMOVED AND REPLACED WITH A NEW SIGN, DO NOT REMOVE THE EXISTING SIGN PRIOR TO INSTALLATION OF THE NEW SIGN.

THE LOCATIONS OF EROSION CONTROL ITEMS SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

ASPHALT UNIT WEIGHT: 112 LB/SY/IN  
TACK COAT APPLICATION RATE: 0.07 GAL/SY  
ASPHALT LAYERS: 2.25-INCH (UPPER), 3.00-INCH (LOWER)

### PROJECT CONTACTS

**ROCK COUNTY PUBLIC WORKS**  
DUANE JORGENSON  
DIRECTOR OF PUBLIC WORKS  
3715 NEWVILLE ROAD  
JANESVILLE, WI 53545  
P: (608) 7575450  
E: JORGEND@CO.ROCK.WI.US

**TOWN OF NEWARK**  
BARB LANGE  
9528 W BELOIT ROAD  
BELOIT, WI 53511  
P: (608) 607-7568  
E: CHAIR@NEWARKWI.GOV

**WISCONSIN DEPARTMENT OF NATURAL RESOURCES**  
ANDY BARTA  
SOUTHWEST REGION HEADQUARTERS  
3911 FISH HATCHERY ROAD  
FITCHBURG, WI 53711  
P: (608) 275-3308  
E: ANDREW.BARTA@WISCONSIN.GOV

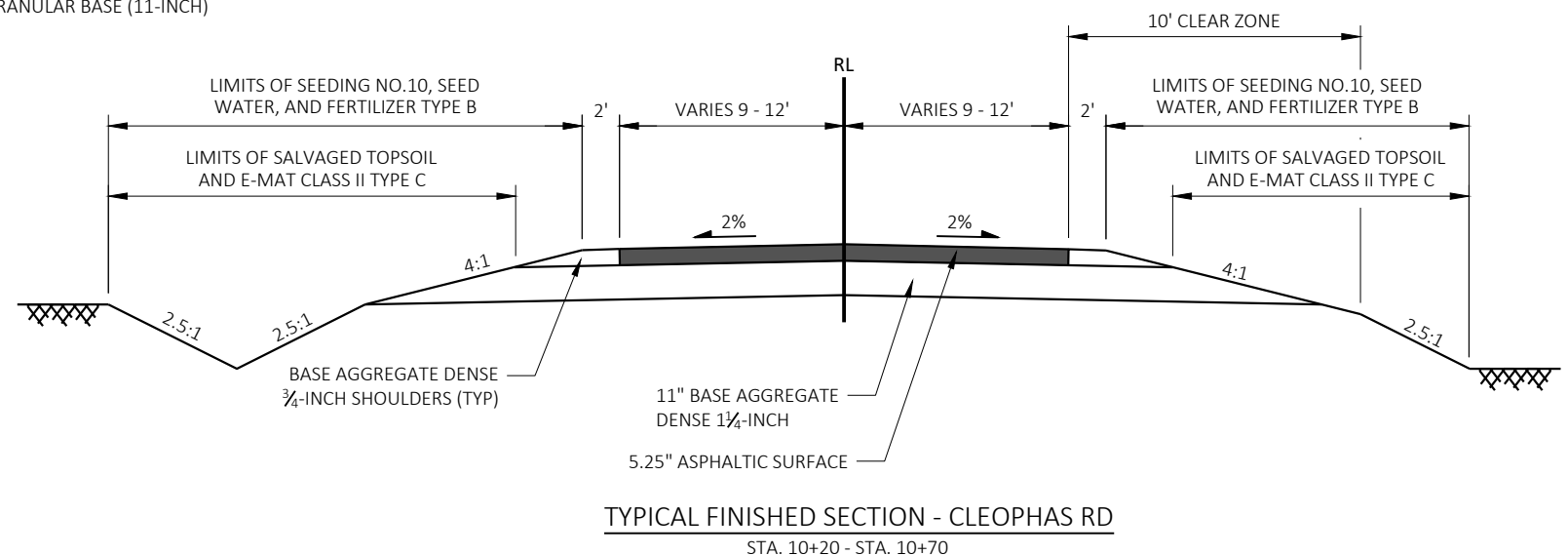
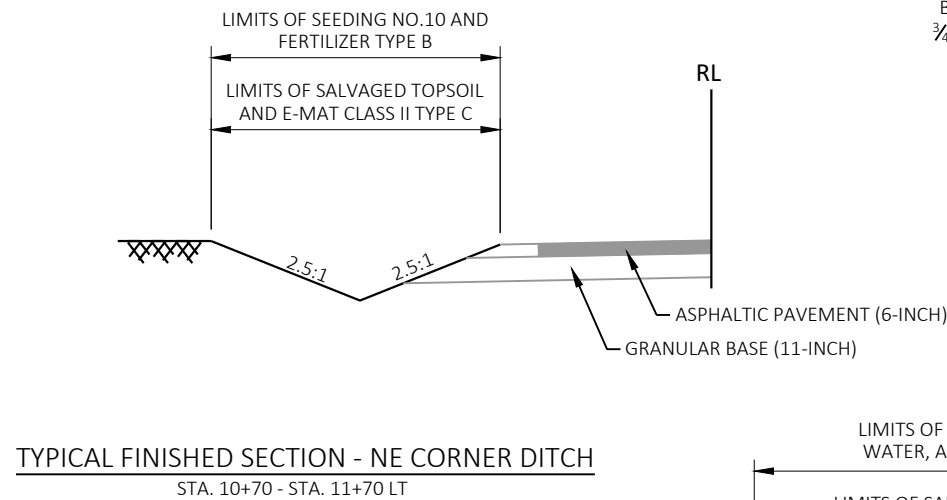
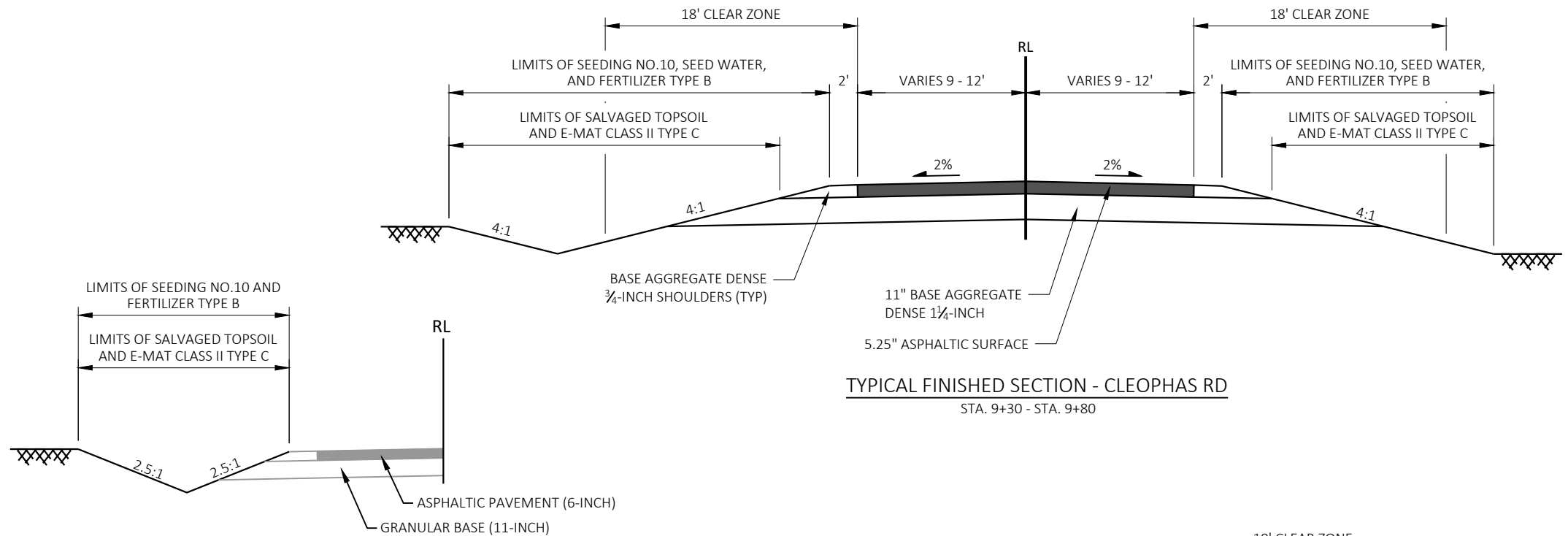
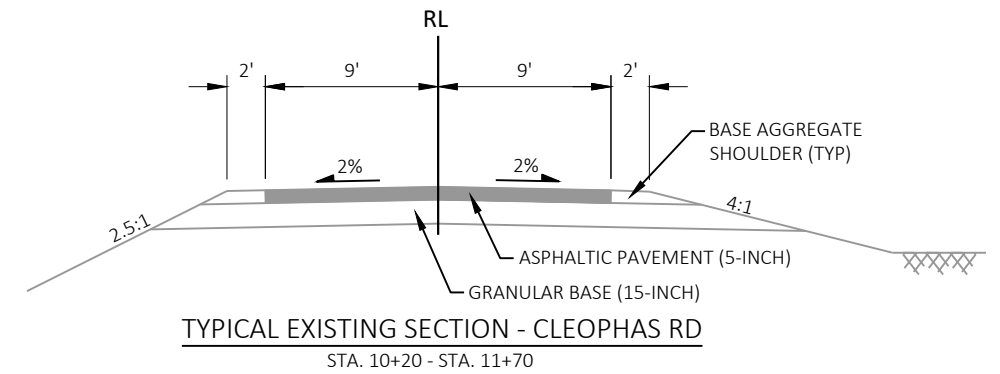
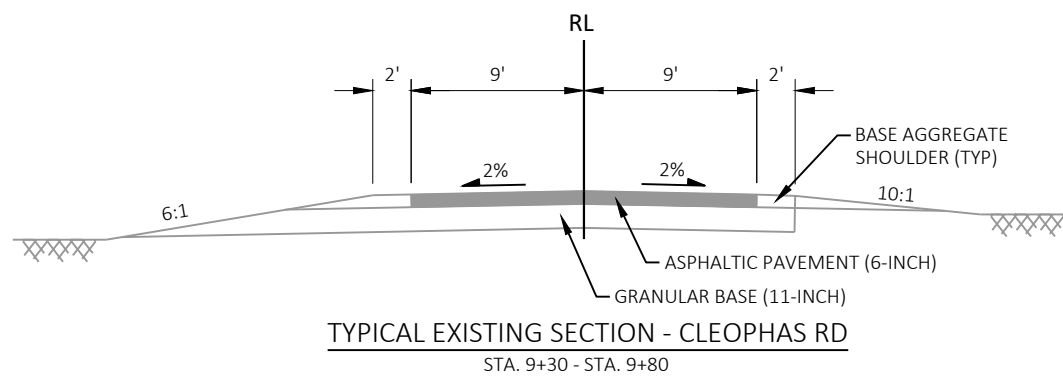
**DESIGNER**  
AMANDA INMAN, PE  
AYRES ASSOCIATES  
5201 EAST TERRACE DRIVE, SUITE 200  
MADISON, WI 53718  
P: (608) 443-1239  
E: INMANA@AYRESASSOCIATES.COM

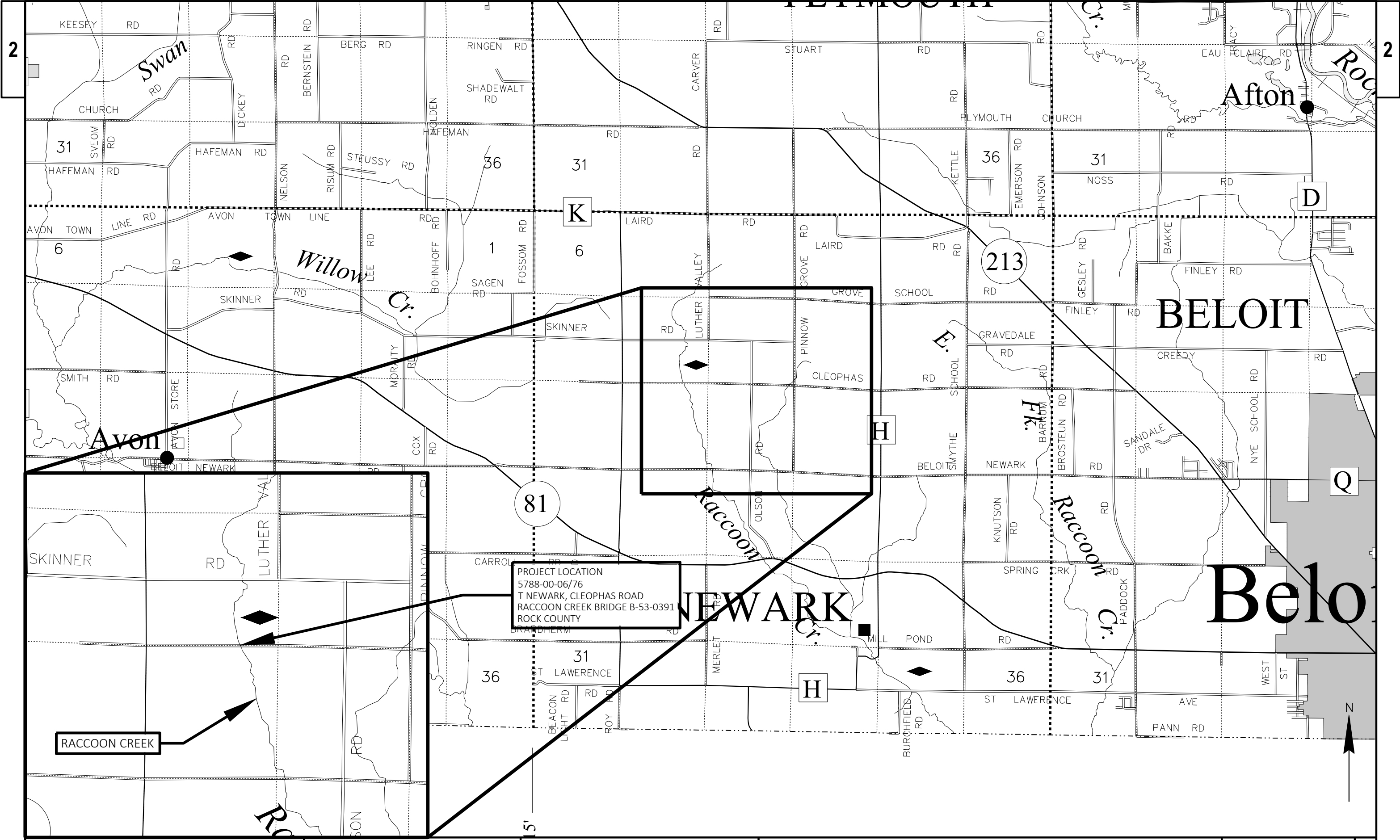
### UTILITIES

NO UTILITIES IN PROJECT AREA



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





PROJECT LOCATION  
 5788-00-06/76  
 T NEWARK, CLEOPHAS ROAD  
 RACCOON CREEK BRIDGE B-53-0391  
 ROCK COUNTY

RACCOON CREEK

Estimate Of Quantities

5788-00-76

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	1.000	1.000
0004	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0006	203.0250	Removing Structure Over Waterway Remove Debris (structure) 01. P-53-0146	EACH	1.000	1.000
0008	205.0100	Excavation Common	CY	87.000	87.000
0010	206.1001	Excavation for Structures Bridges (structure) 01. B-53-0391	EACH	1.000	1.000
0012	208.0100	Borrow	CY	49.000	49.000
0014	210.1500	Backfill Structure Type A	TON	190.000	190.000
0016	213.0100	Finishing Roadway (project) 01. 5788-00-76	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	20.000	20.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	220.000	220.000
0022	312.0110	Select Crushed Material	TON	200.000	200.000
0024	455.0605	Tack Coat	GAL	16.000	16.000
0026	465.0105	Asphaltic Surface	TON	70.000	70.000
0028	502.0100	Concrete Masonry Bridges	CY	138.000	138.000
0030	502.3200	Protective Surface Treatment	SY	175.000	175.000
0032	505.0400	Bar Steel Reinforcement HS Structures	LB	3,140.000	3,140.000
0034	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	17,580.000	17,580.000
0036	513.4061	Railing Tubular Type M	LF	132.000	132.000
0038	516.0500	Rubberized Membrane Waterproofing	SY	16.000	16.000
0040	550.2106	Piling CIP Concrete 10 3/4 X 0.365-Inch	LF	500.000	500.000
0042	606.0300	Riprap Heavy	CY	110.000	110.000
0044	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	180.000	180.000
0046	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5788-00-76	EACH	1.000	1.000
0048	619.1000	Mobilization	EACH	1.000	1.000
0050	624.0100	Water	MGAL	4.000	4.000
0052	625.0500	Salvaged Topsoil	SY	465.000	465.000
0054	628.1504	Silt Fence	LF	190.000	190.000
0056	628.1520	Silt Fence Maintenance	LF	375.000	375.000
0058	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0060	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0062	628.2027	Erosion Mat Class II Type C	SY	465.000	465.000
0064	628.6005	Turbidity Barriers	SY	125.000	125.000
0066	628.7504	Temporary Ditch Checks	LF	60.000	60.000
0068	629.0210	Fertilizer Type B	CWT	0.400	0.400
0070	630.0110	Seeding Mixture No. 10	LB	8.000	8.000
0072	630.0200	Seeding Temporary	LB	13.000	13.000
0074	630.0500	Seed Water	MGAL	10.000	10.000
0076	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0078	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0080	638.2602	Removing Signs Type II	EACH	8.000	8.000
0082	638.3000	Removing Small Sign Supports	EACH	8.000	8.000
0084	642.5001	Field Office Type B	EACH	1.000	1.000
0086	643.0420	Traffic Control Barricades Type III	DAY	1,332.000	1,332.000
0088	643.0705	Traffic Control Warning Lights Type A	DAY	1,776.000	1,776.000
0090	643.0900	Traffic Control Signs	DAY	1,036.000	1,036.000
0092	643.5000	Traffic Control	EACH	1.000	1.000
0094	645.0111	Geotextile Type DF Schedule A	SY	85.000	85.000
0096	645.0120	Geotextile Type HR	SY	240.000	240.000
0098	645.0135	Geotextile Type SR	SY	250.000	250.000

Estimate Of Quantities

5788-00-76

Line	Item	Item Description	Unit	Total	Qty
0100	650.4500	Construction Staking Subgrade	LF	100.000	100.000
0102	650.5000	Construction Staking Base	LF	100.000	100.000
0104	650.6501	Construction Staking Structure Layout (structure) 01. B-53-0391	EACH	1.000	1.000
0106	650.9911	Construction Staking Supplemental Control (project) 01. 5788-00-76	EACH	1.000	1.000
0108	650.9920	Construction Staking Slope Stakes	LF	200.000	200.000
0110	690.0150	Sawing Asphalt	LF	40.000	40.000
0112	715.0502	Incentive Strength Concrete Structures	DOL	828.000	828.000
0114	999.2005.S	Maintaining Bird Deterrent System (station) 01. STA 10+00	EACH	1.000	1.000
0116	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0118	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000

**CLEOPHAS ROAD EARTHWORK SUMMARY**

From/To Station	Location	Common Excavation (1) (Item 205.0100)	Unusable Cut	Unexpanded Fill	Expanded Fill (2)	Mass Ordinate +/- (3)	Waste	Borrow (Item 208.0100)	Comments
		Cut			Factor				
9+30 - 9+80	CLEOPHAS RD - WEST APPROACH	23	10	6	8	5	5	0	
10+20 - 10+70	CLEOPHAS RD - EAST APPROACH	64	13	81	105	-54	0	49	
<b>TOTAL</b>		<b>87</b>			<b>113</b>			<b>49</b>	

**GRUBBING**

CATEGORY	STATION TO STATION	LOCATION	201.0205 GRUBBING STA
0010	10+00 - 10+70	CLEOPHAS ROAD, RT	1
<b>TOTAL 0010</b>			<b>1</b>

**REMOVING SMALL PIPE CULVERTS**

CATEGORY	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH
0010	9+50 RT	1
<b>TOTAL 0010</b>		<b>1</b>

- 1) Common Excavation is the Cut. Unusable excavation is existing pavement. Item number 205.0100.
- 2) Expanded Fill. Factor = 1.30; Expanded Fill = Unexpanded Fill \* Fill Factor
- 3) The Mass Ordinate + (waste) or - (borrow)
- 4) All quantities shown in CY.

**SELECT CRUSHED MATERIAL**

CATEGORY	LOCATION	TON	SY	REMARKS
0010	UNDISTRIBUTED	200	250	DRAIN SELECT CRUSHED MATERIAL IF ADDED
<b>TOTAL 0010</b>		<b>200</b>	<b>250</b>	

**BASE AGGREGATE DENSE**

CATEGORY	STATION TO STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
0010	9+30 - 9+80	CLEOPHAS RD	10	110	2
	10+20 - 10+70	CLEOPHAS RD	10	110	2
<b>TOTAL 0010</b>			<b>20</b>	<b>220</b>	<b>4</b>

**ASPHALTIC SURFACE**

CATEGORY	STATION TO STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
0010	9+30 - 9+80	CLEOPHAS RD	8	35
	10+20 - 10+70	CLEOPHAS RD	8	35
<b>TOTAL 0010</b>			<b>16</b>	<b>70</b>

**HAUL ROADS**

CATEGORY	LOCATION	618.0100.01 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) (01. 5788-00-76) EACH
0030	PROJECT WIDE	1
<b>TOTAL 0030</b>		<b>1</b>

**EROSION CONTROL**

CATEGORY	STATION TO STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2027 EROSION MAT CLASS II TYPE C SY	628.6005 TURBIDITY BARRIERS SY	628.7504 TEMPORARY DITCH CHECKS LF
0010	9+30 - 9+80	CLEOPHAS RD	65	130	100	55	-
	10+20 - 10+70	CLEOPHAS RD	85	170	270	45	-
	UNDISTRIBUTED		40	75	95	25	60
<b>TOTAL 0010</b>			<b>190</b>	<b>375</b>	<b>465</b>	<b>125</b>	<b>60</b>

**FINISHING ITEMS**

CATEGORY	STATION TO STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
0010	9+30 - 9+80	CLEOPHAS RD	100	0.1	2	3	2
	10+20 - 11+70	CLEOPHAS RD	270	0.2	4	7	6
	UNDISTRIBUTED		95	0.1	2	3	2
<b>TOTAL 0010</b>			<b>465</b>	<b>0.4</b>	<b>8</b>	<b>13</b>	<b>10</b>

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

**PERMANENT SIGNING**

CATEGORY	STATION	LOCATION	SIGN CODE	WIDTH HEIGHT		MESSAGE	634.0612	637.2230	638.2602	638.3000
				FT	REFLECTIVE F		SIGNS TYPE II	SUPPORTS		
				(IN)	(IN)		4X6-INCH X 12-	SIGNS TYPE II	REMOVING	SMALL SIGN
							EACH	SF	EACH	EACH
0010	WEST	RT		--	--	10 TON BRIDGE	--	--	1	1
	9+66	RT	R12-1	--	--	WEIGHT LIMIT 10 TONS	--	--	1	1
	9+78	LT	W5-52L	12	36	BRIDGE HASH MARKS LT	1	3	1	1
	9+78	RT	W5-52R	12	36	BRIDGE HASH MARKS RT	1	3	1	1
	10+21	LT	W5-52L	12	36	BRIDGE HASH MARKS LT	1	3	1	1
	10+21	RT	W5-52R	12	36	BRIDGE HASH MARKS RT	1	3	1	1
	10+33	LT	R12-1	--	--	WEIGHT LIMIT 10 TONS	--	--	1	1
	EAST	RT		--	--	10 TON BRIDGE	--	--	1	1
<b>TOTAL 0010</b>							4	12	8	8

**STAKING**

CATEGORY	STATION TO	STATION	LOCATION	650.4500	650.5000	650.6501.01	650.9911.01	650.9920
				CONSTRUCTION STAKING SUBGRADE	CONSTRUCTION STAKING BASE	CONSTRUCTION STAKING STRUCTURE (01. B-53-0391)	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 5788-00-76)	CONSTRUCTION STAKING SLOPE
				LF	LF	EACH	EACH	LF
0010	9+30	- 10+70	CLEOPHAS RD	100	100	-	1	200
<b>TOTAL 0010</b>				100	100	0	1	200
0020	9+30	- 10+70	CLEOPHAS RD	-	-	1	-	-
<b>TOTAL 0020</b>				0	0	1	0	0
<b>PROJECT TOTAL</b>				100	100	1	1	200

**TRAFFIC CONTROL**

LOCATION	DURATION DAYS	643.0420		643.0705		643.0900		643.5000	
		TRAFFIC CONTROL	BARRICADES TYPE III	TRAFFIC CONTROL	WARNING LIGHTS	TRAFFIC CONTROL	SIGNS	TRAFFIC CONTROL	REMARKS
		NO.	DAY	NO.	DAY	NO.	DAY	EACH	
CLEOPHAS RD	74	18	1,332	24	1,776	14	1,036	1	SDD 15C2
<b>TOTAL 0010</b>			1,332		1,776		1,036	1	

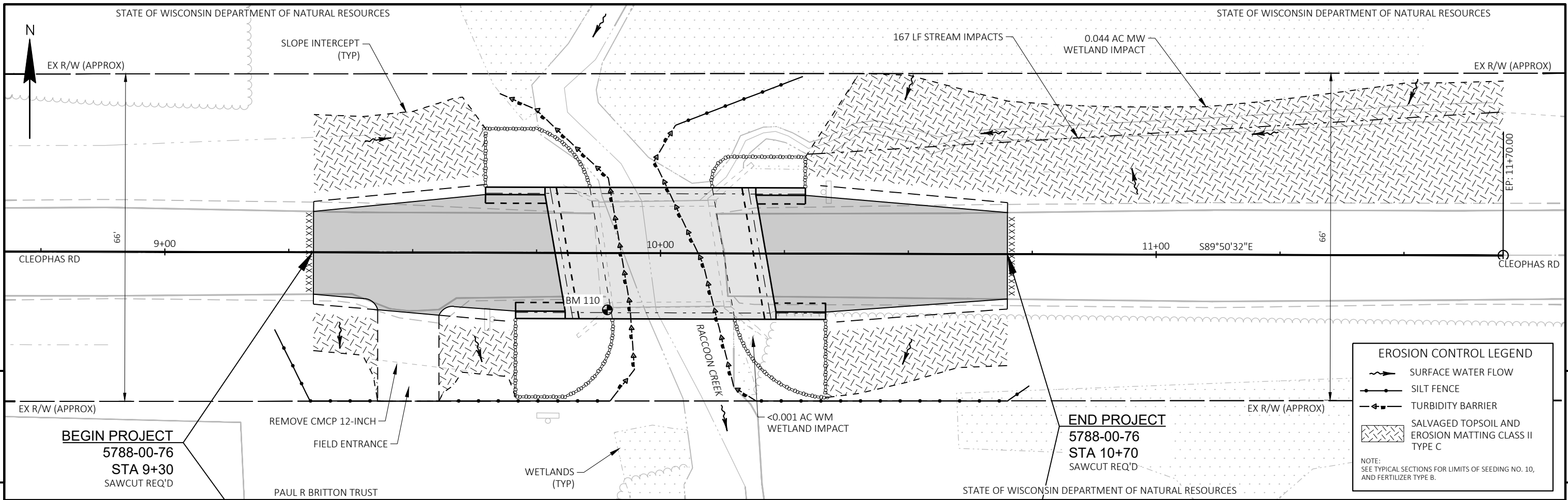
**PROJECT WIDE BID ITEMS**

STATION TO	STATION	LOCATION	213.0100.01	619.1000	628.1905	628.1910	642.5001	999.2005.S.01
			FINISHING ROADWAY (PROJECT) (01. 5788-00-76)	MOBILIZATION	MOBILIZATIONS EROSION CONTROL	MOBILIZATIONS EMERGENCY CONTROL	FIELD OFFICE TYPE B	MAINTAINING BIRD DETERRENT SYSTEM (STATION) (01. STA 10+00)
			EACH	EACH	EACH	EACH	EACH	EACH
9+30	- 10+70	CLEOPHAS RD	1	1	4	4	1	1
<b>TOTAL 0010</b>			1	1	4	4	1	1

**SAWING ASPHALT**

CATEGORY	STATION	STATION	LOCATION	690.0150
				SAWING ASPHALT LF
0010	9+30	LT/RT	CLEOPHAS RD	20
	10+20	LT/RT	CLEOPHAS RD	20
<b>TOTAL 0010</b>				40

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED



**EROSION CONTROL LEGEND**

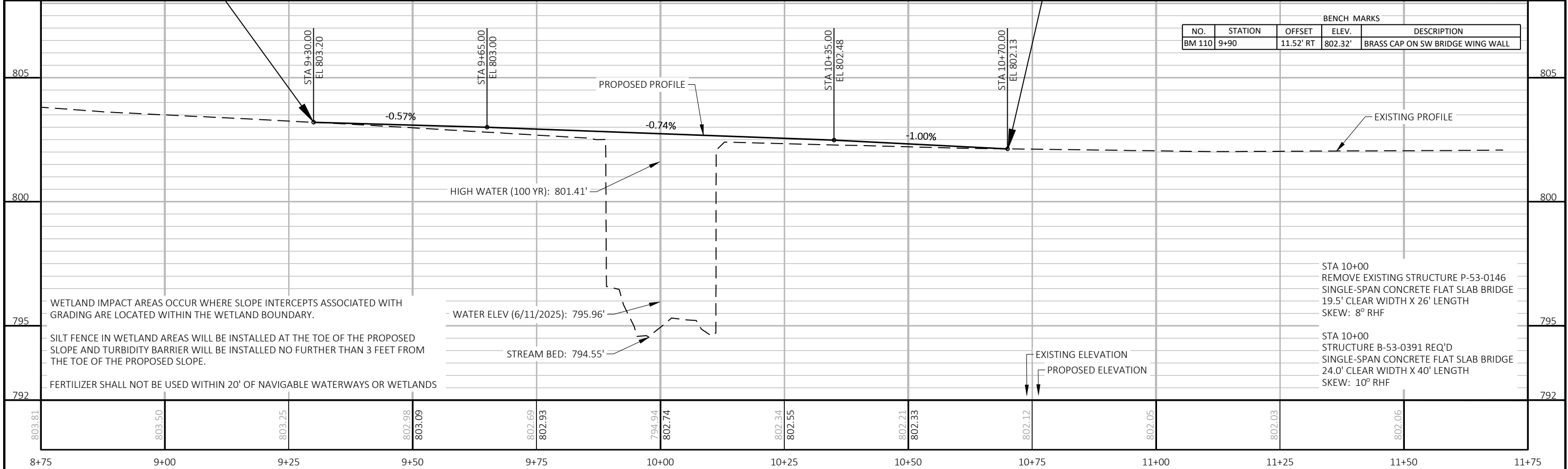
- SURFACE WATER FLOW
- SILT FENCE
- TURBIDITY BARRIER
- SALVAGED TOPSOIL AND EROSION MATTING CLASS II TYPE C

NOTE:  
SEE TYPICAL SECTIONS FOR LIMITS OF SEEDING NO. 10, AND FERTILIZER TYPE B.

**BEGIN PROJECT**  
5788-00-76  
STA 9+30  
SAWCUT REQ'D

**END PROJECT**  
5788-00-76  
STA 10+70  
SAWCUT REQ'D

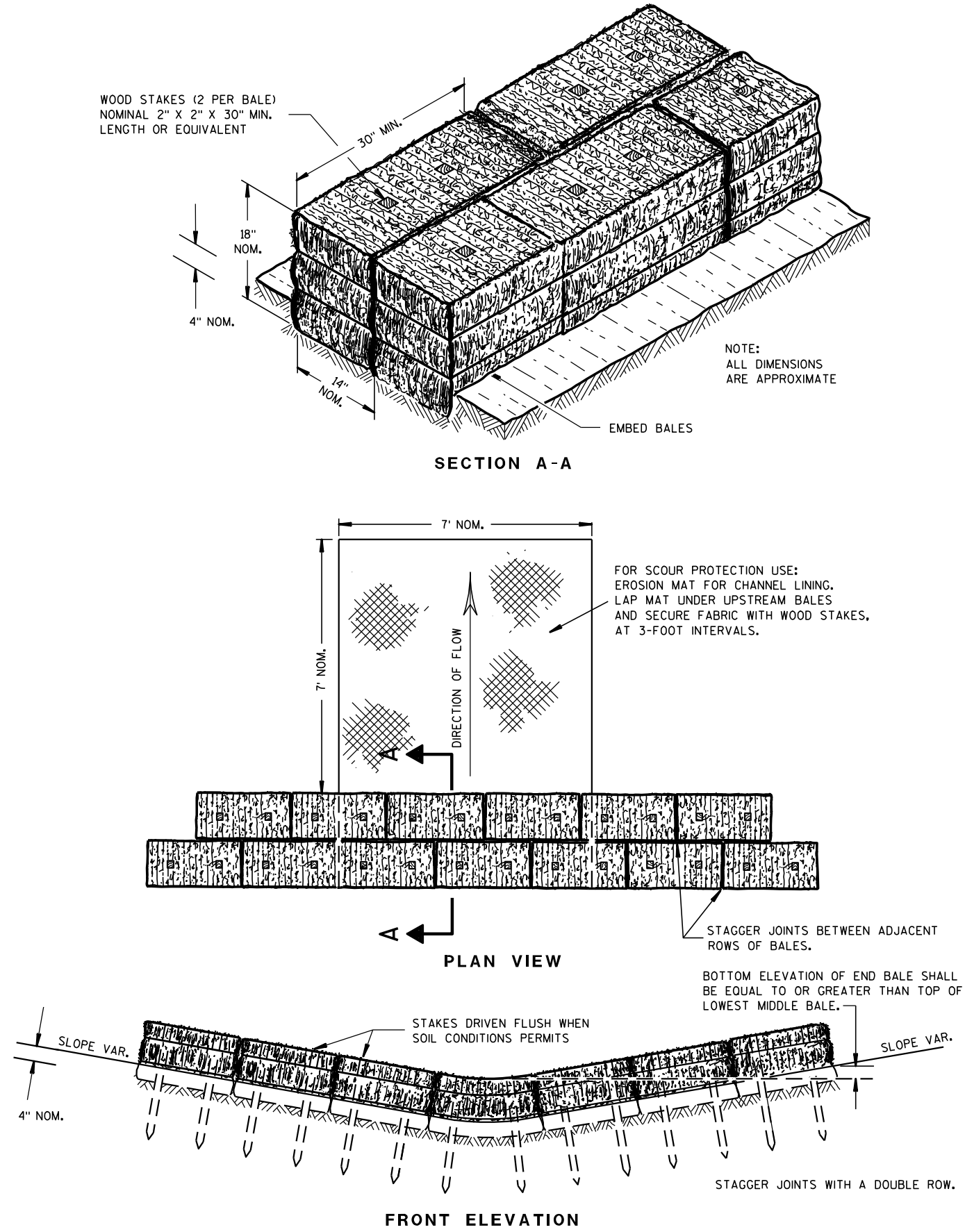
BENCH MARKS				
NO.	STATION	OFFSET	ELEV.	DESCRIPTION
BM 110	9+90	11.52' RT	802.32'	BRASS CAP ON SW BRIDGE WING WALL



PROJECT NO: 5788-00-76      HWY: CLEOPHAS ROAD      COUNTY: ROCK      PLAN AND PROFILE: CLEOPHAS ROAD      SHEET 8

## Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
09A14-01	DRIVEWAYS WITHOUT CURB AND GUTTER
12A03-10	NAME PLATE (STRUCTURES)
15C02-10A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-10B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-10C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

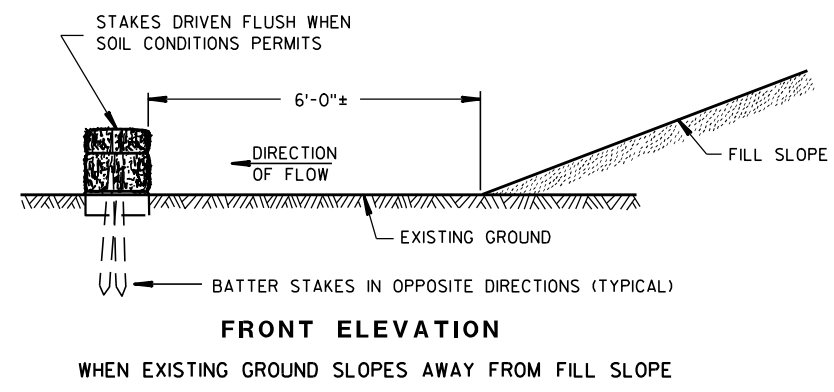
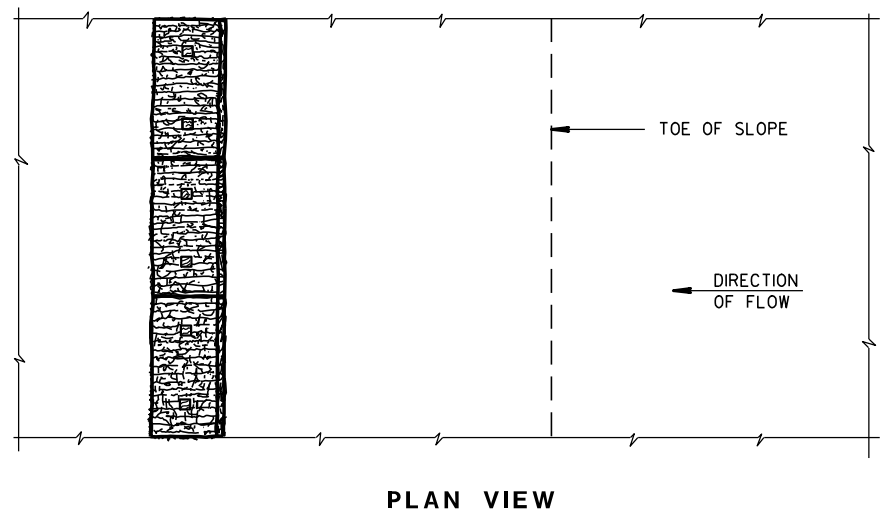
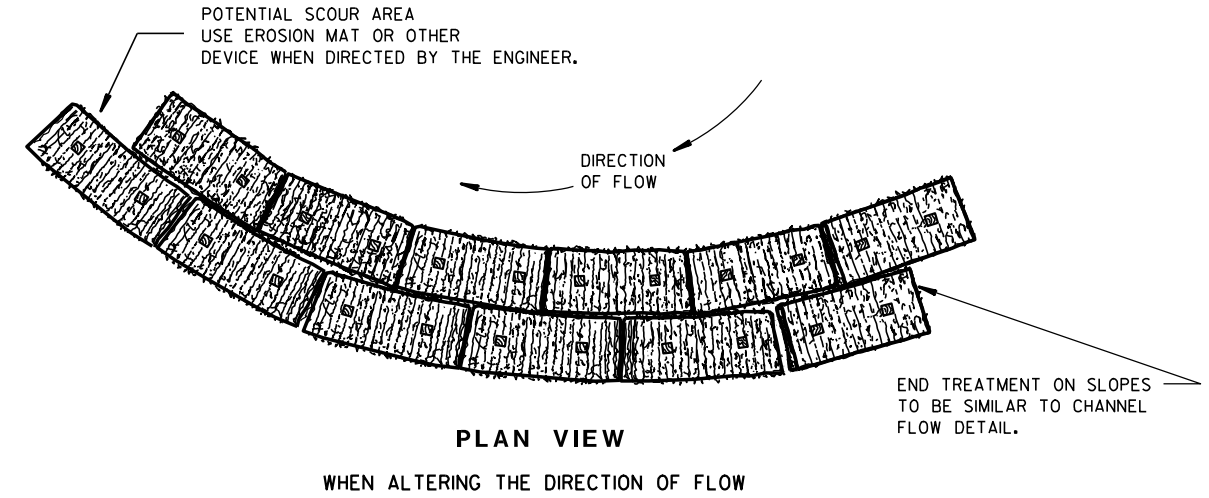


TEMPORARY DITCH CHECK USING EROSION BALES ①

**GENERAL NOTES**

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

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



EROSION BALES FOR SHEET FLOW

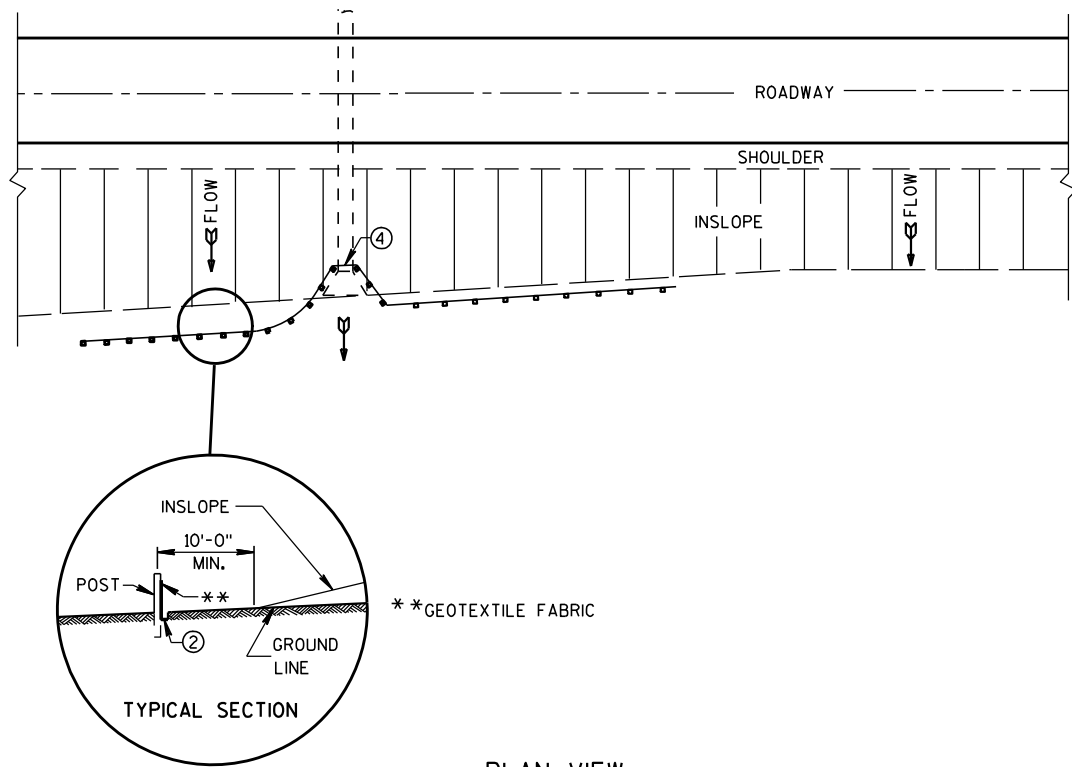
**TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

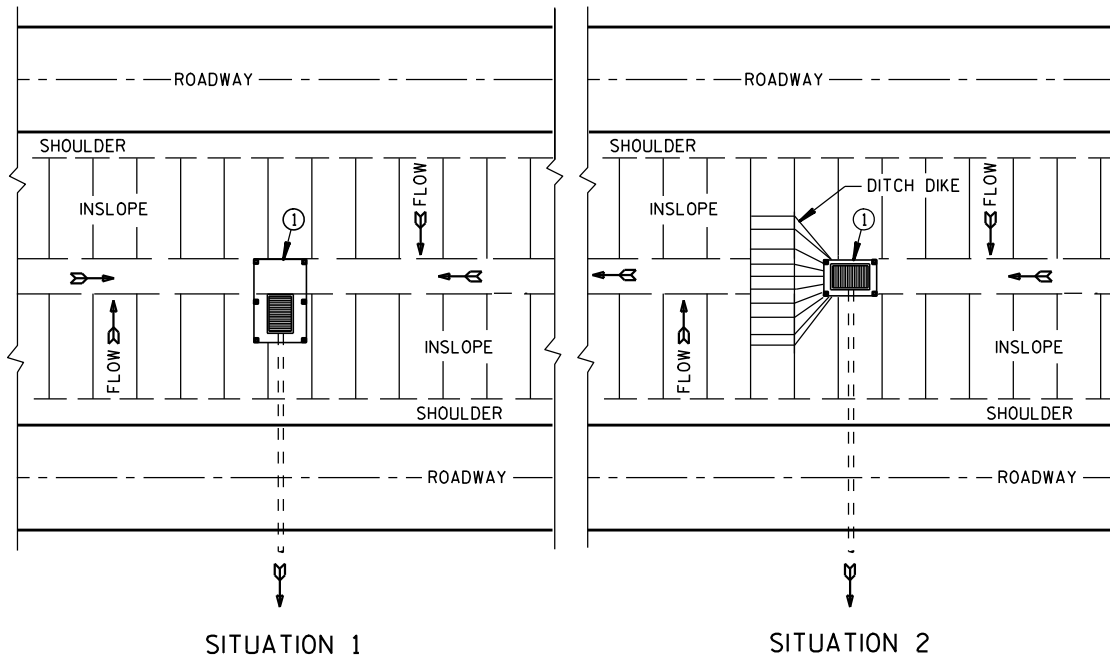
APPROVED

6/04/02 /S/ Beth Cann  
DATE CHIEF ROADWAY DEVELOPER 10 ENGINEER

FHWA



PLAN VIEW  
TYPICAL APPLICATION OF SILT FENCE

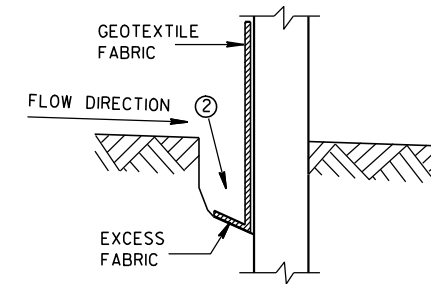


SITUATION 1 SITUATION 2  
PLAN VIEW  
SILT FENCE AT MEDIAN SURFACE DRAINS

**GENERAL NOTES**

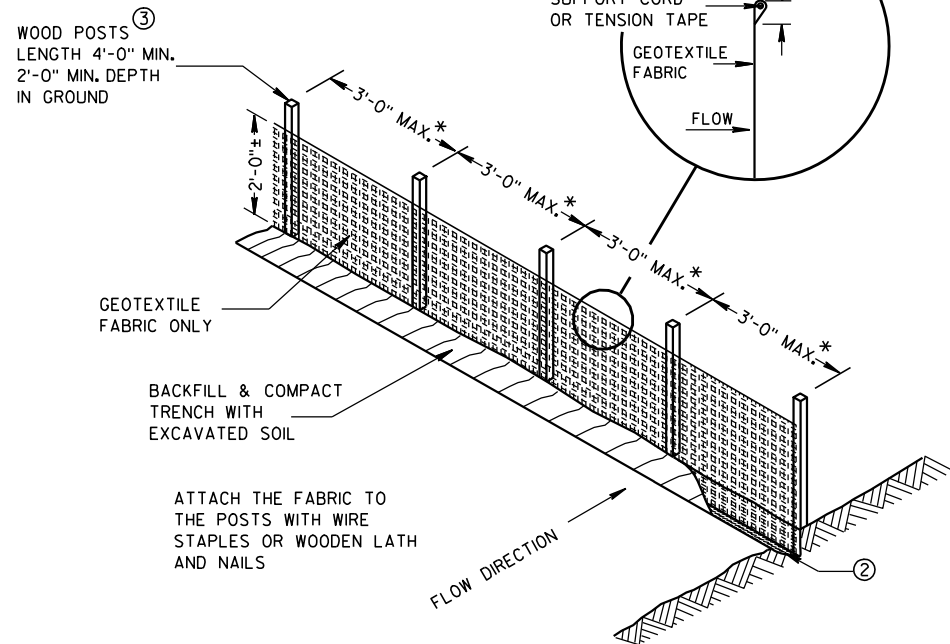
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



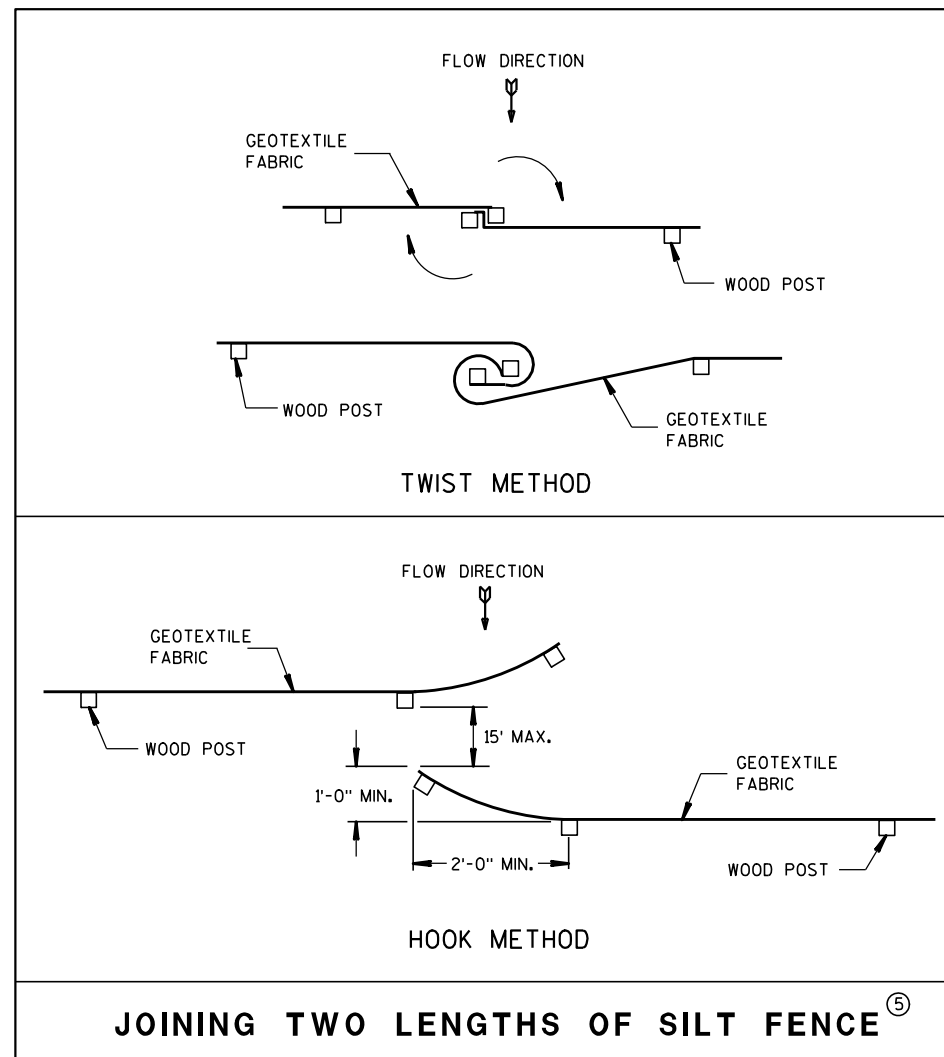
TRENCH DETAIL

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

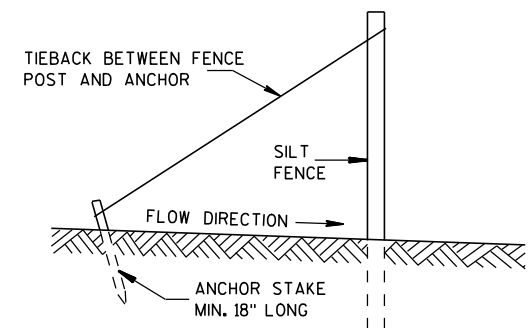


SILT FENCE

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

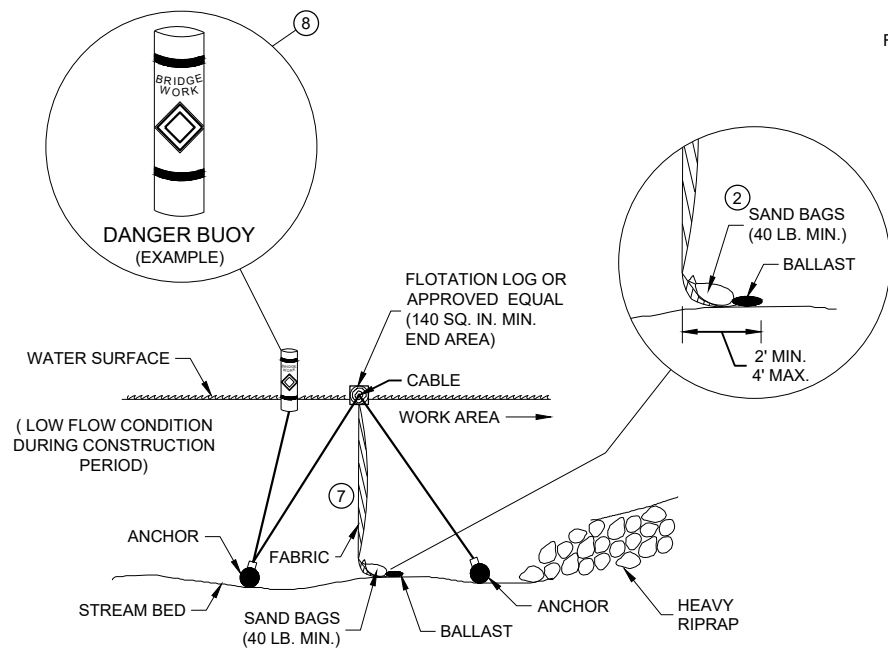


JOINING TWO LENGTHS OF SILT FENCE



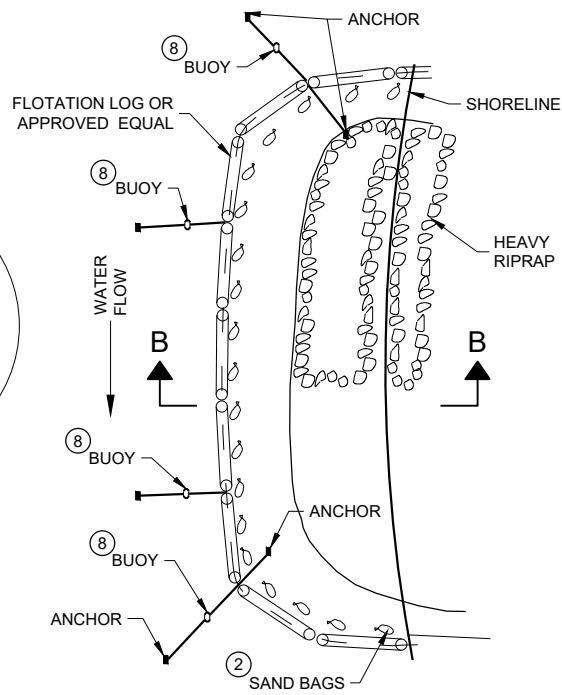
SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)

<b>SILT FENCE</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Cann CHIEF ROADWAY DEVELOPER
FHWA	ENGINEER

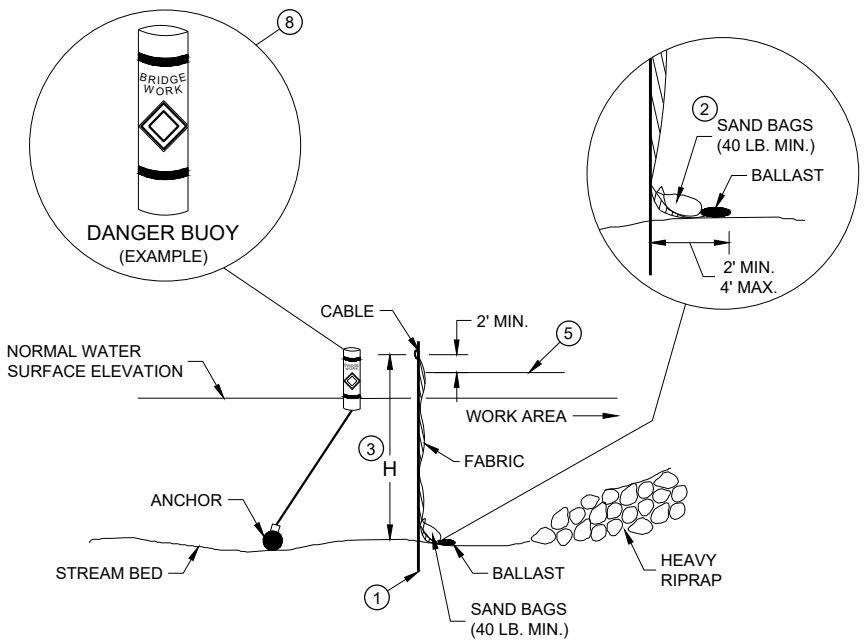


**SECTION B - B**

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

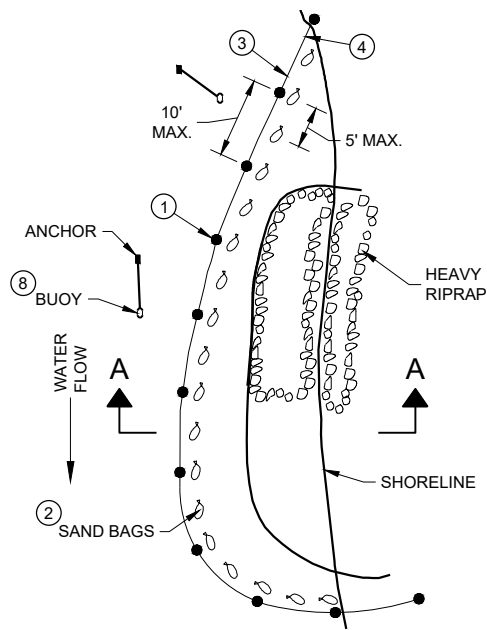


**PLAN VIEW**



**SECTION A - A**

**TURBIDITY BARRIER - STANDARD POST INSTALLATION**



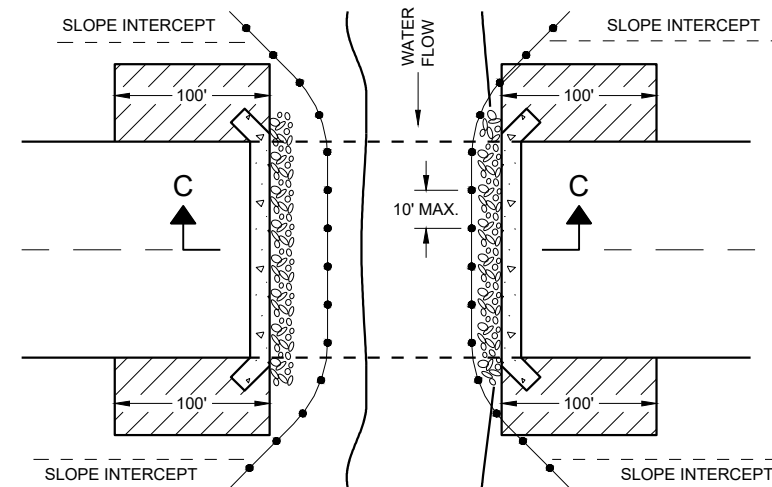
**PLAN VIEW**

**GENERAL NOTES**

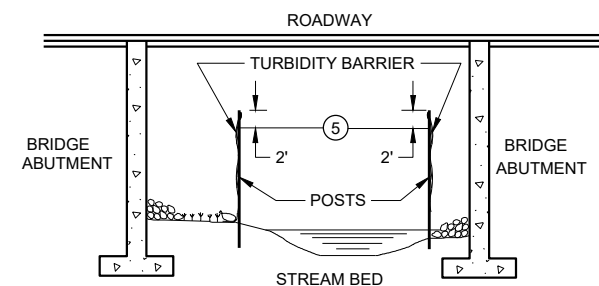
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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**

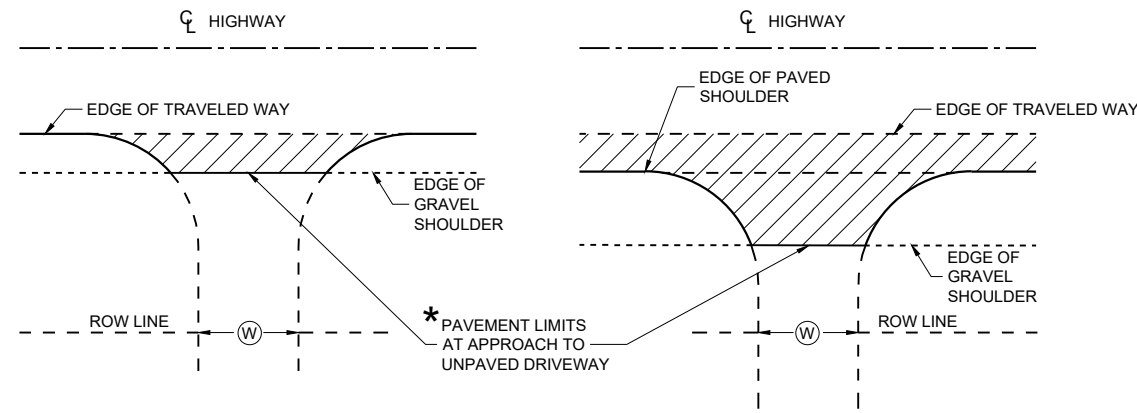
**TURBIDITY BARRIER DETAIL SHOWING  
TYPICAL PLACEMENT AT STRUCTURES**

**TURBIDITY BARRIER**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA



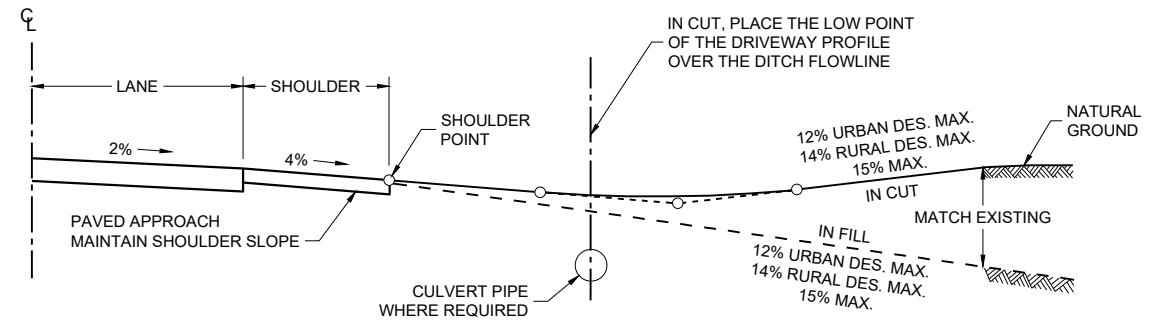
\* WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

**PLAN VIEW**  
(UNPAVED SHOULDER ON HIGHWAY)

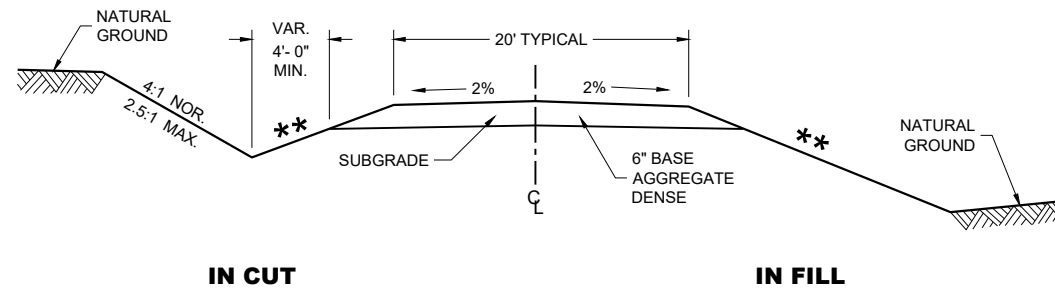
**PLAN VIEW**  
(PAVED SHOULDER ON HIGHWAY)

**RURAL DRIVEWAY INTERSECTION DETAIL  
(NO CURB AND GUTTER OR SIDEWALK)**

Ⓜ : DRIVEWAY WIDTHS (MEASURED AT ROW LINE)  
 ~ COMMERCIAL & INDUSTRIAL 16' MIN. - 35' MAX.  
 ~ RESIDENTIAL & AGRICULTURAL 16' MIN. - 24' MAX. (NONCOMMERCIAL)



**TYPICAL DRIVEWAY PROFILES**

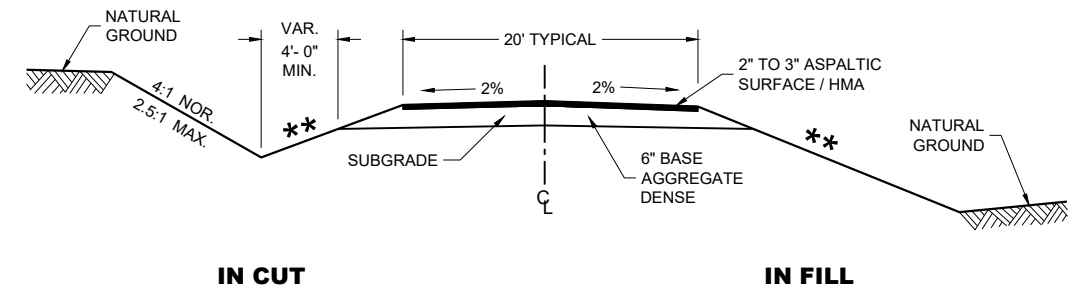


**TYPICAL CROSS SECTION FOR  
PRIVATE DRIVE OR FIELD ENTRANCE  
AGGREGATE SURFACE**

\*\*

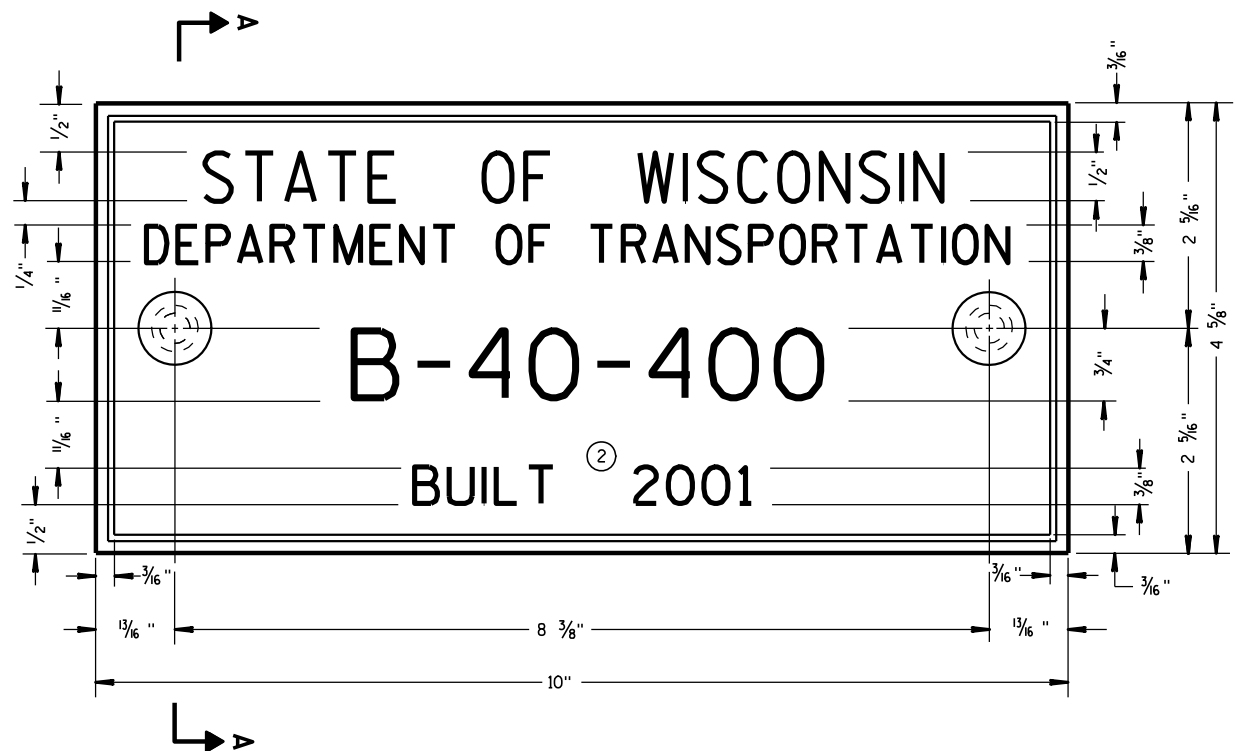
SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



**TYPICAL CROSS SECTION FOR  
PRIVATE DRIVE OR FIELD ENTRANCE  
ASPHALTIC SURFACE**

<b>DRIVEWAYS WITHOUT CURB AND GUTTER</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2025 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA 13	



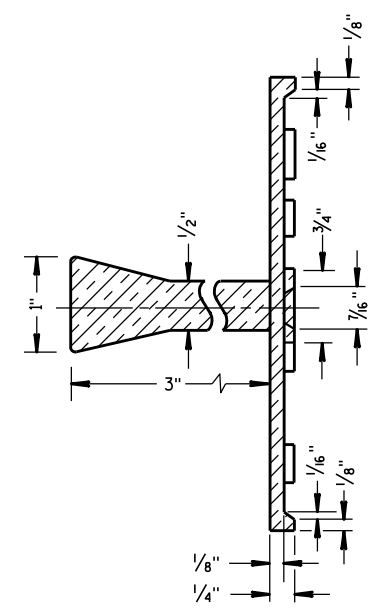
**TYPICAL NAME PLATE**  
(BRIDGES, CULVERTS, AND RETAINING WALLS)

**GENERAL NOTES**

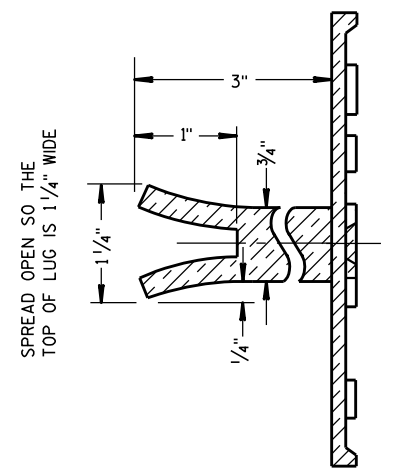
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

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



**SECTION A-A**



**ALTERNATE LUG**

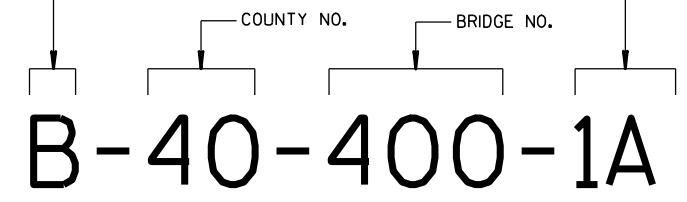
6

6

FOR MULTI-UNIT STRUCTURES  
LINE 3 ABOVE SHALL READ

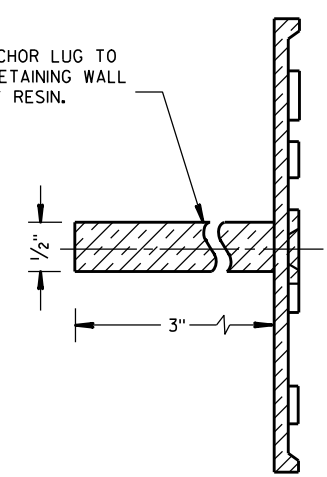
B = BRIDGE  
C = CULVERT  
R = RETAINING WALL

UNIT NO. FOR MULTIPLE  
UNIT BRIDGE



**NUMBERING DESIGNATION  
MULTI-UNIT STRUCTURES**

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

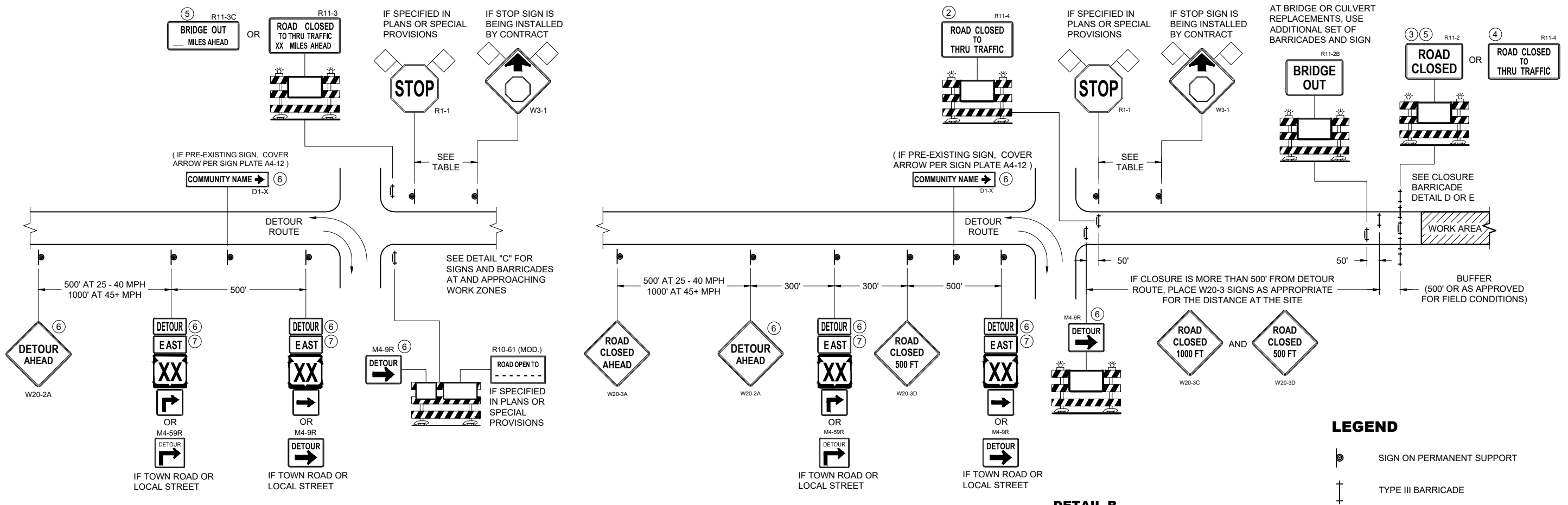


**ALTERNATE LUG**  
(FOR ATTACHMENT TO PRECAST STRUCTURES)

S.D.D. 12 A 3-10

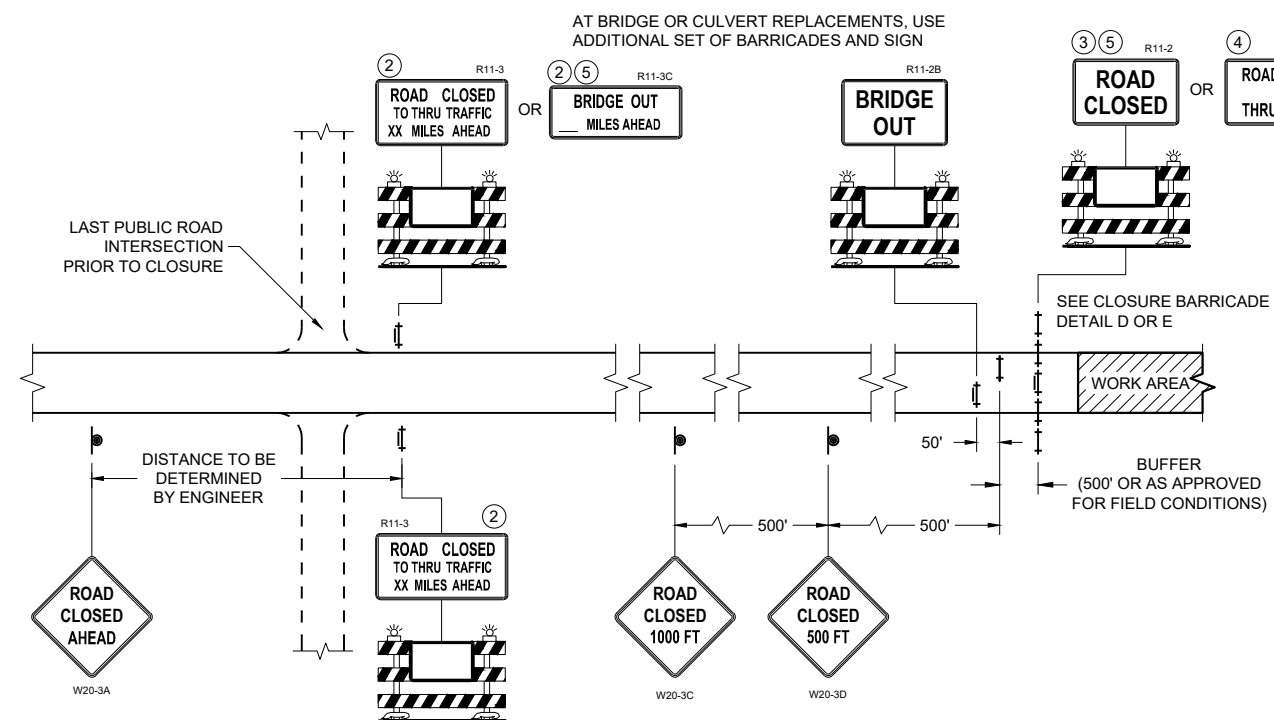
S.D.D. 12 A 3-10

<b>NAME PLATE (STRUCTURES)</b>		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED DATE 3/26/10	/S/ Scot Beck CHIEF STRUCTURAL DEVELOPER	14 EER
FHWA		



**DETAIL A**  
**MAINLINE CLOSURE WITH POSTED DETOUR**  
 WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM  
 DETOUR ROUTE ( 1000 FEET IF URBAN )

**DETAIL B**  
**MAINLINE CLOSURE WITH POSTED DETOUR**  
 WORK ZONE LESS THAN 1/2 MILE FROM  
 DETOUR ROUTE ( 1000 FEET IF URBAN )



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

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

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

**LEGEND**

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- 

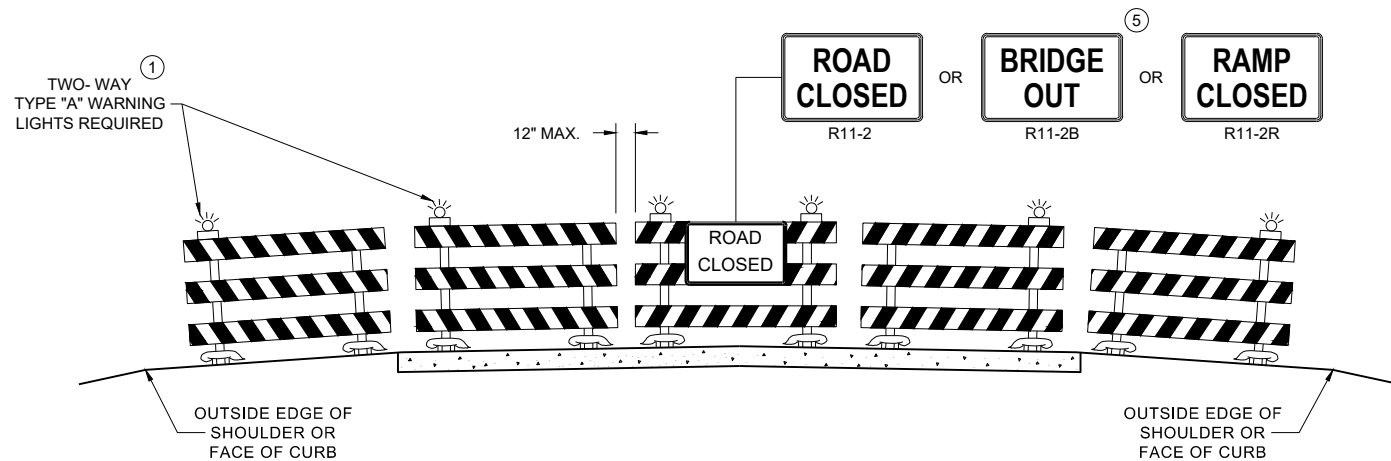
M4 - 8  
 M3 - X  
 M1 - 4 OR M1 - 6 OR M1 - 5A  
 M05 - 1 OR M06 - 1

**BARRICADES AND SIGNS  
 FOR MAINLINE CLOSURES**

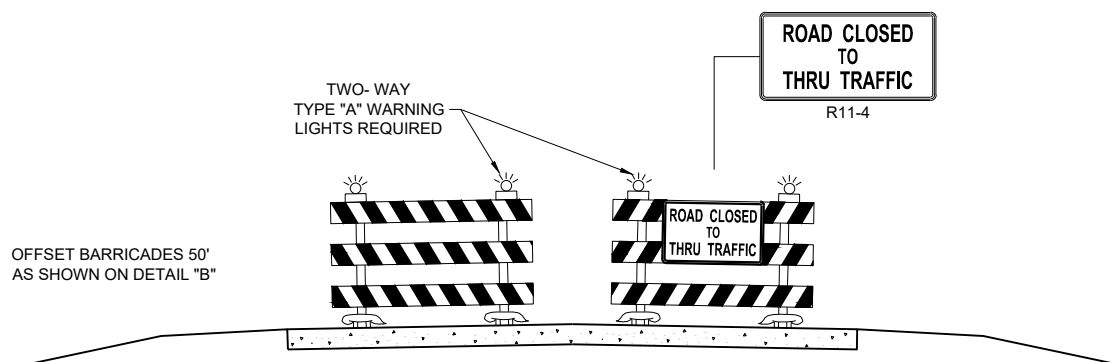
STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

APPROVED  
 November 2025 /S/ Andrew Heidtke  
 DATE WORK ZONE ENGINEER

FHWA 15



**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.

PARTIAL NUMBERS ON SIGNS SHALL BE DISPLAYED AS A WHOLE NUMBER (AS NEEDED) FOLLOWED BY A FRACTION. SIGNS SHALL NOT DISPLAY NUMBERS IN DECIMAL FORM.

"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"

SIGNS PLACED ON TYPE III BARRICADES THAT ARE SIZES OTHER THAN 48"X30" SHALL HAVE A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE.

- 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.

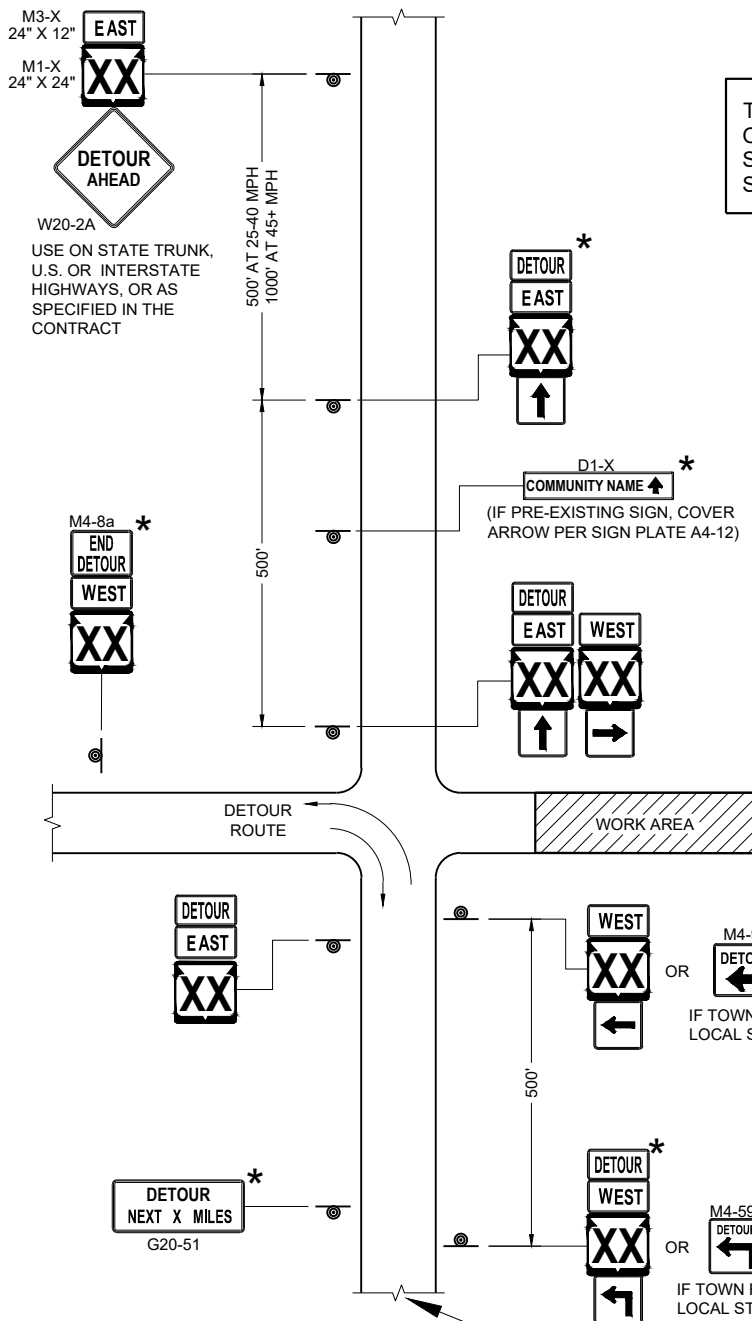
6

6

SDD 15C02-10b

SDD 15C02-10b

<b>BARRICADES AND SIGNS FOR VARIOUS CLOSURES</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2025 DATE	/s/ Andrew Heidtke WORK ZONE ENGINEER
FHWA 16	



THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

**LEGEND**

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4 OR M1 - 6 OR M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

**GENERAL NOTES**

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

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. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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.

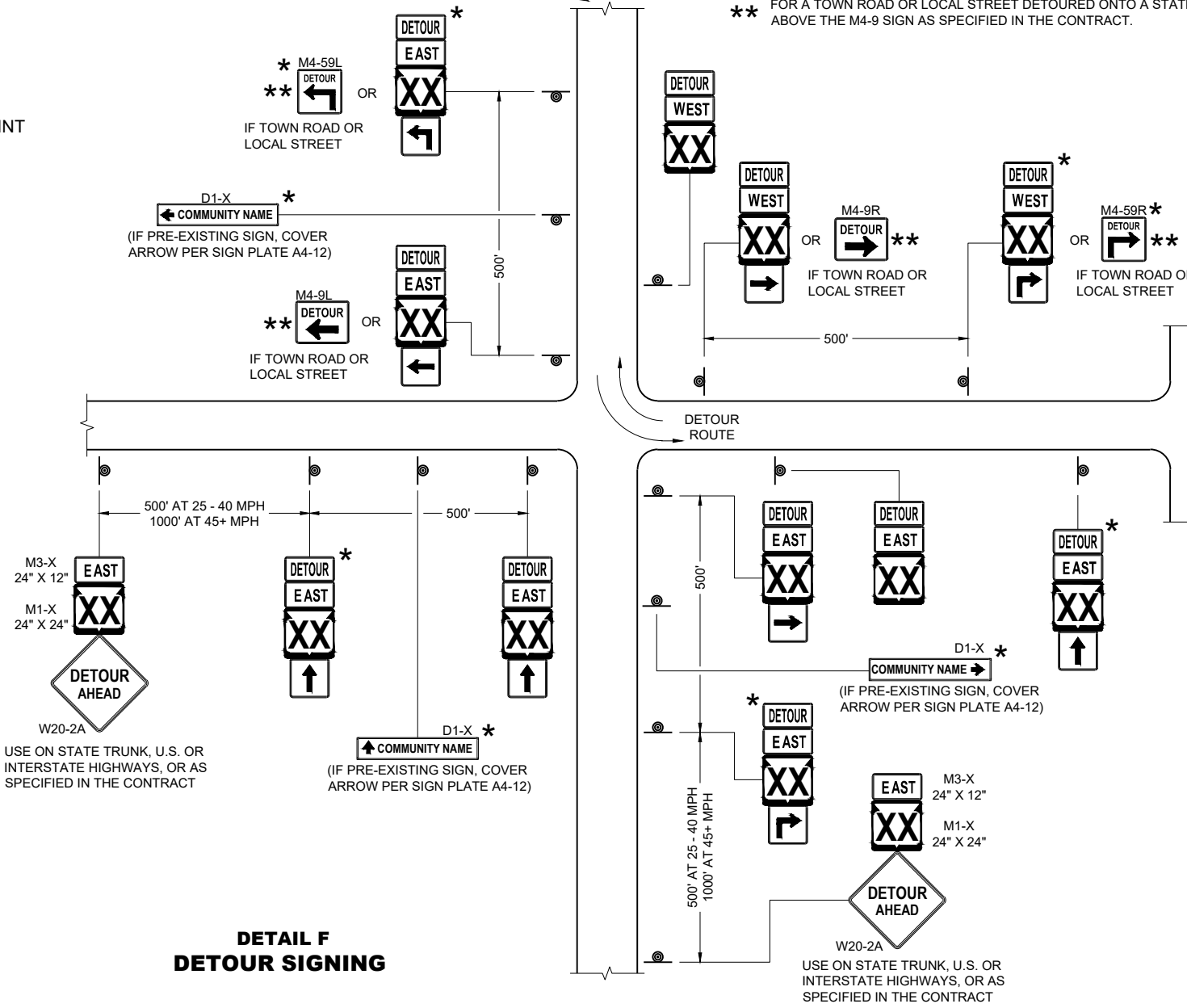
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

SIGN SIZES SHALL BE AS FOLLOWS:  
 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)  
 M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)  
 M4-9 AND M4-59 SHALL BE 30" X 24"  
 M4-8a SHALL BE 24" X 18"  
 G20-51 SHALL BE 60" X 24"  
 W20-2A SHALL BE 48" X 48"  
 D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

- \* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- \*\* FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

MATCH POINT



**DETAIL F  
DETOUR SIGNING**

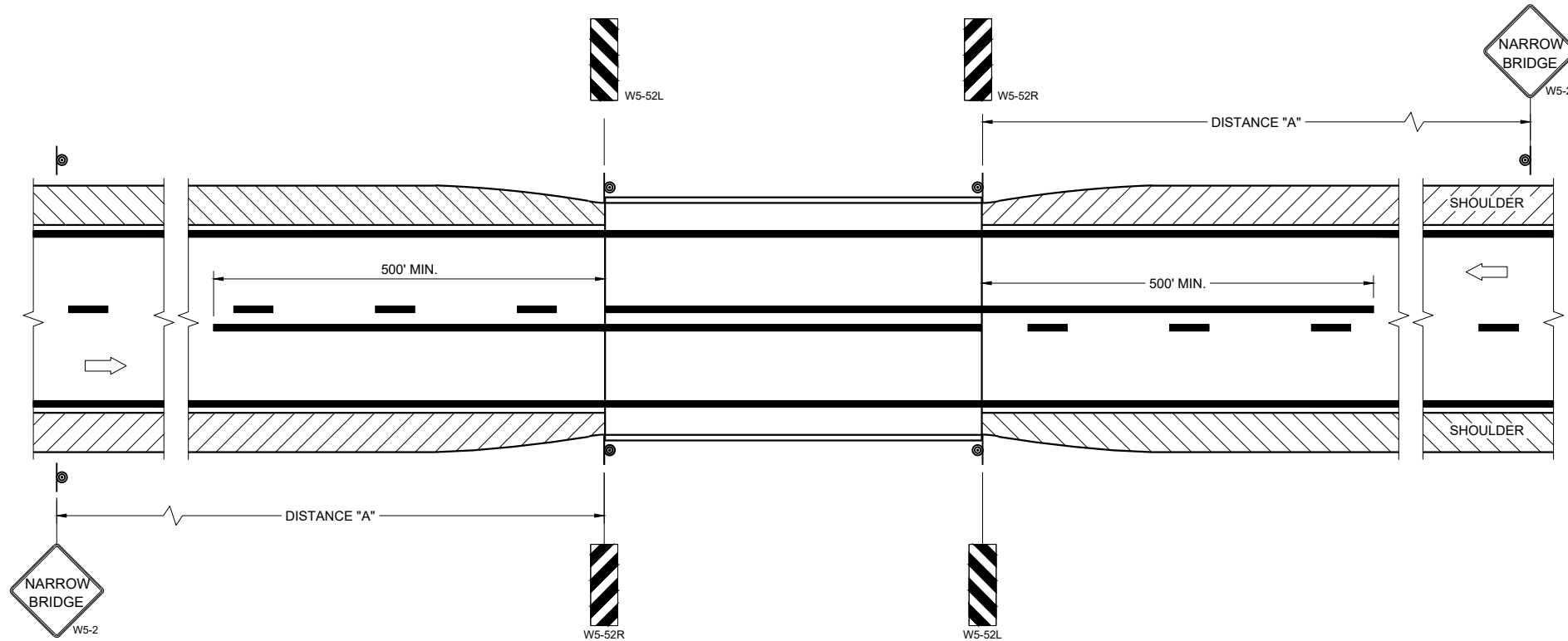
SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

**DETOUR SIGNING  
FOR MAINLINE CLOSURES**

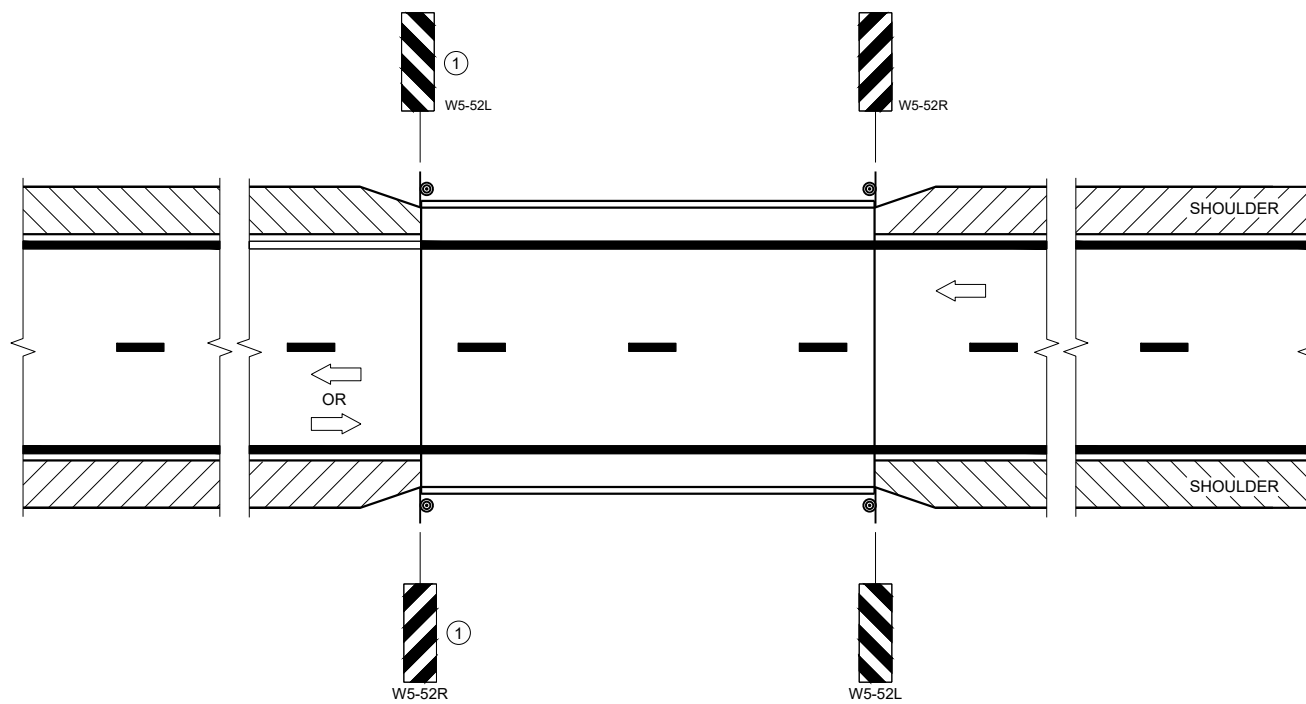
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2025 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA 17



**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'

6

6

SDD 15C06-12

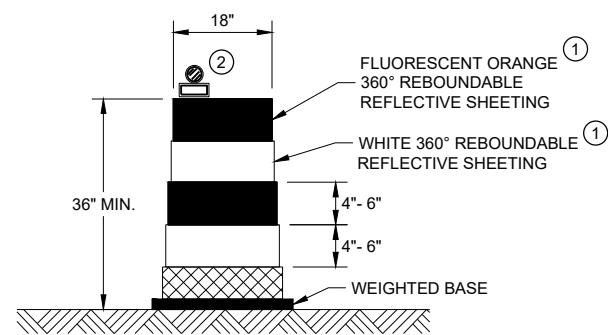
SDD 15C06-12

**SIGNING AND MARKING FOR TWO LANE BRIDGES**

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

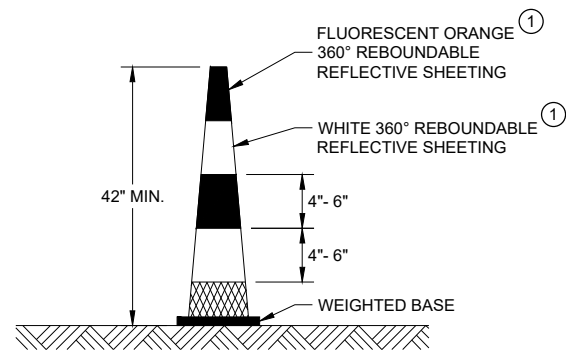
APPROVED  
 May 2023 /S/ Jeannie Silver  
 DATE Statewide Pavement Marking Engineer

FHWA



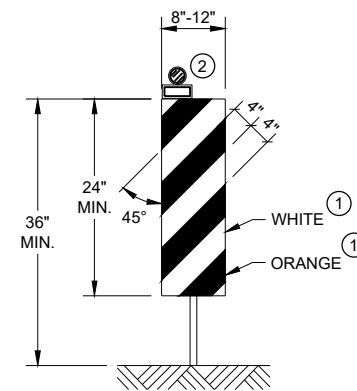
**DRUM**

BALLAST WIDTHS  
RANGE FROM 24"-36"



**42" CONE**

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

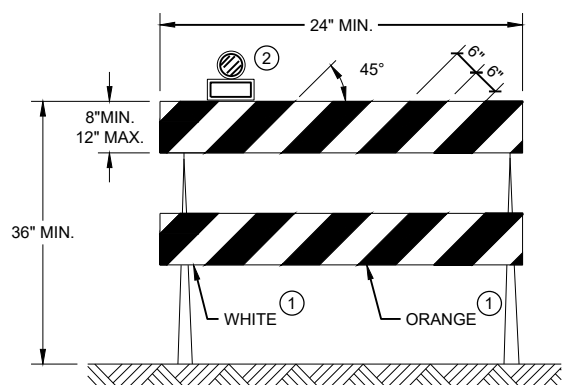


**VERTICAL PANEL**

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

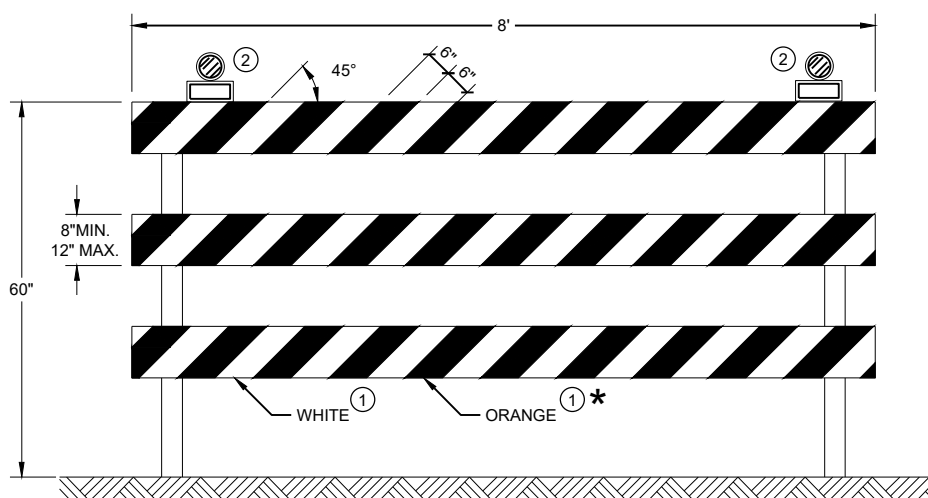
**GENERAL NOTES**

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



**TYPE II BARRICADE**

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



**TYPE III BARRICADE**

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

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

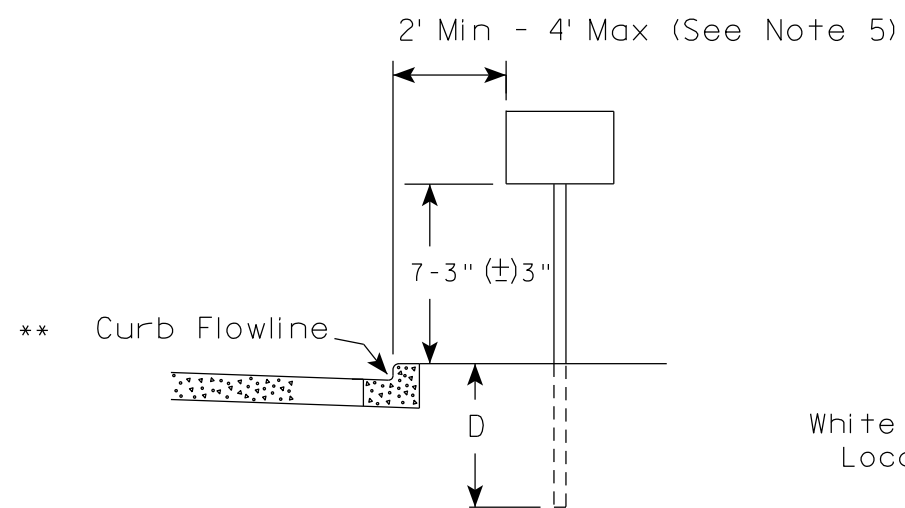
**CHANNELIZING DEVICES  
DRUMS, CONES, BARRICADES  
AND VERTICAL PANELS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2022 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER 19  
FHWA

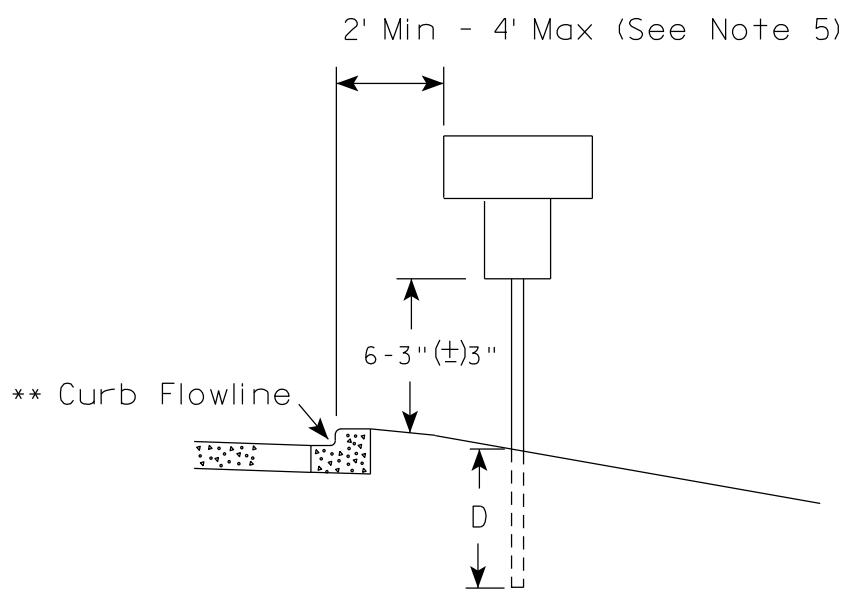
URBAN AREA

RURAL AREA (See Note 2)



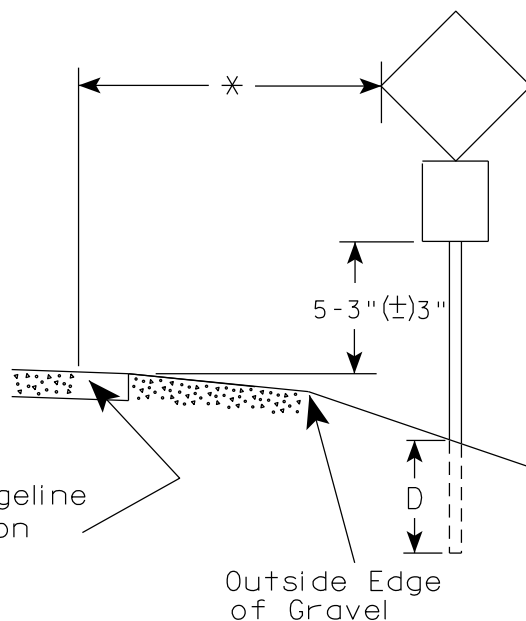
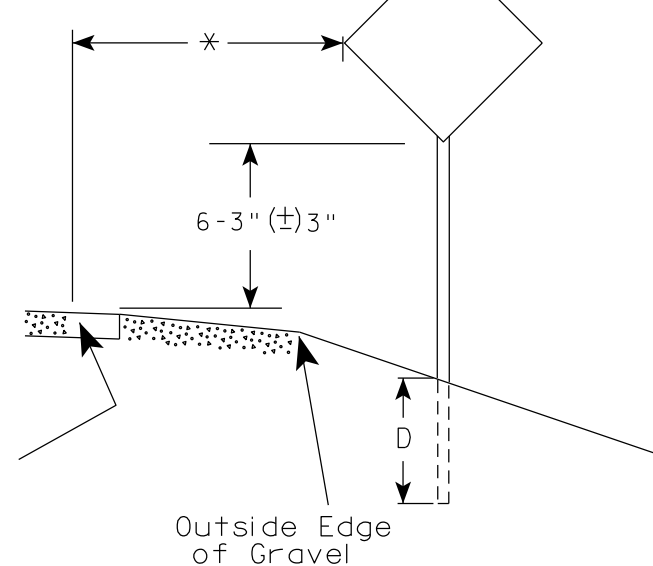
White Edgeline Location

Outside Edge of Gravel



White Edgeline Location

Outside Edge of Gravel



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

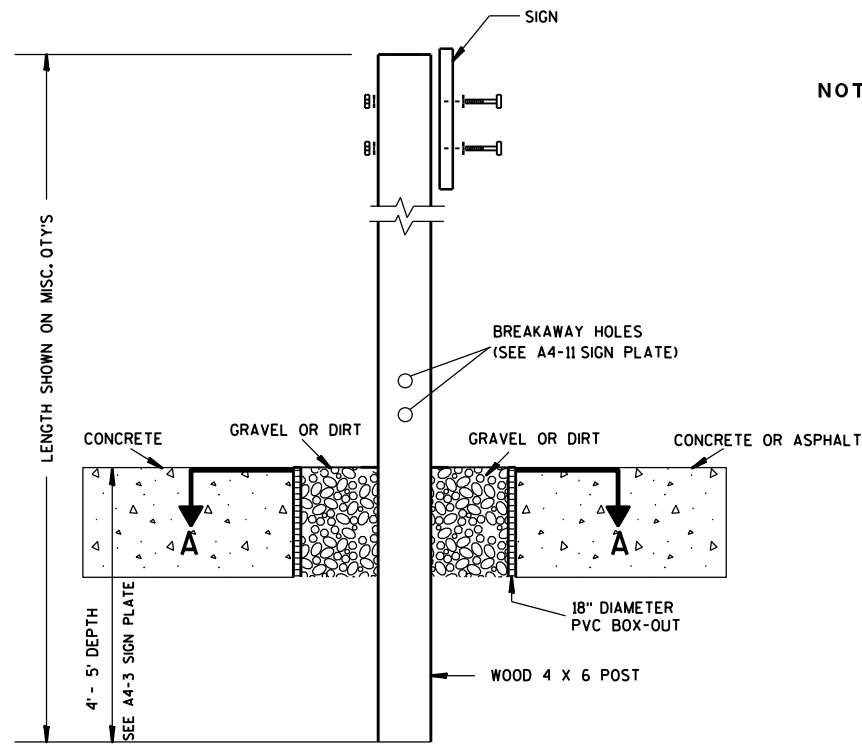
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Matthew R Raub*  
for State Traffic Engineer

DATE 12/6/23

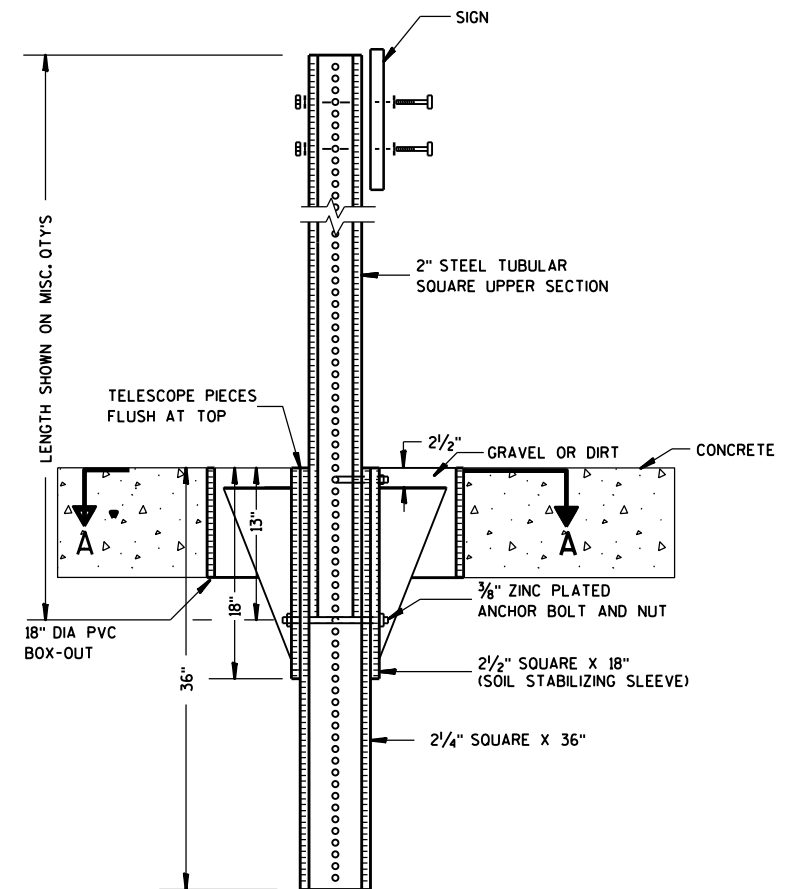
PLATE NO. A4-3.23



**ELEVATION VIEW**

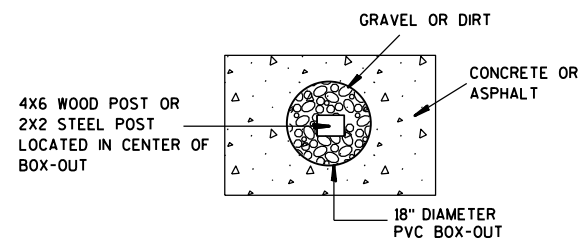
**DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT**

- 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**

<b>SIGN POST BOX-OUTS A4-3B</b>	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED <i>Matthew R. Rauch</i> <i>for State Traffic Engineer</i>	
DATE <u>1/27/14</u>	PLAT <u>21</u> <b>A4-3B.1</b>

GENERAL NOTES

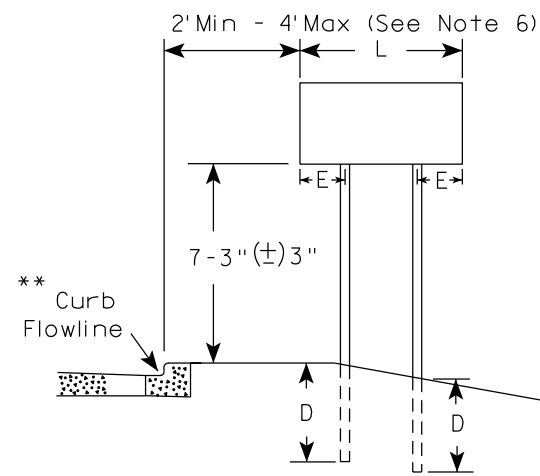
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" ( $\pm$  3") or 6'-3" ( $\pm$  3") depending upon existence of sub-sign.
- The ( $\pm$ ) tolerance for mounting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

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

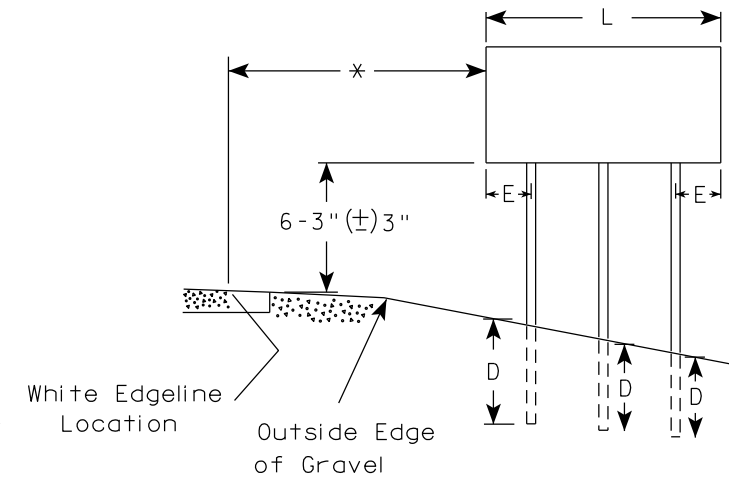
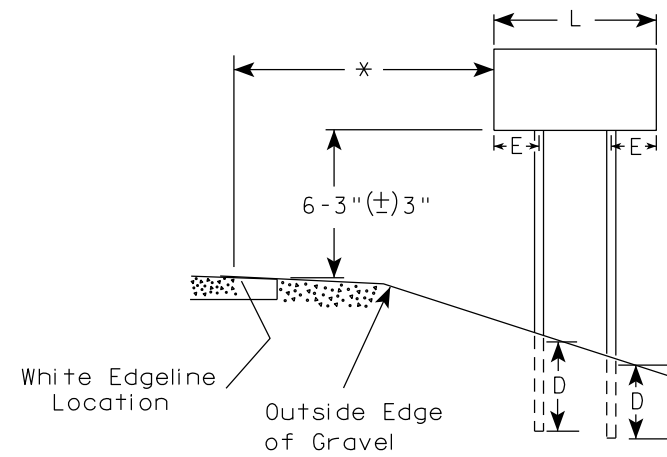
\*\* The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of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

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

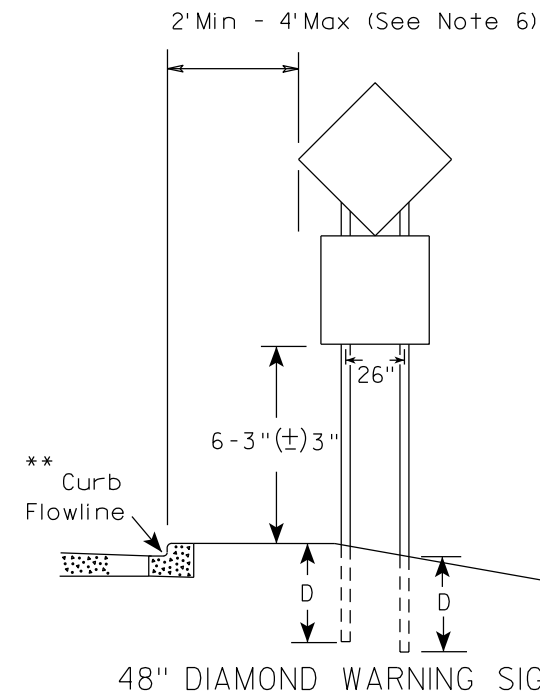
URBAN AREA



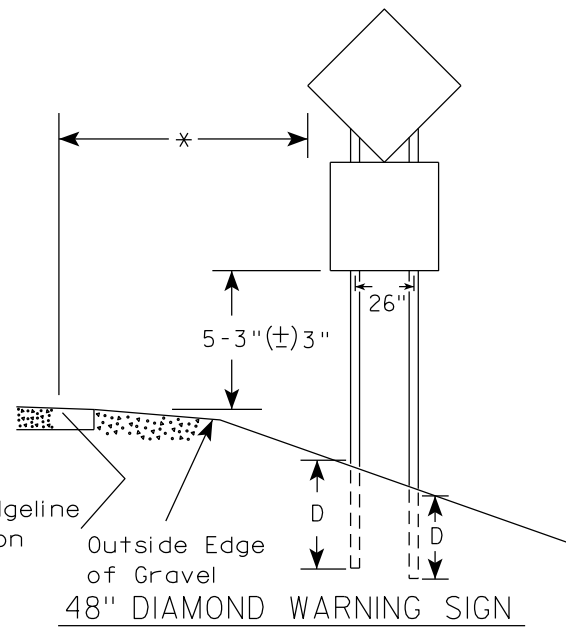
RURAL AREA (See Note 3)



URBAN AREA



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

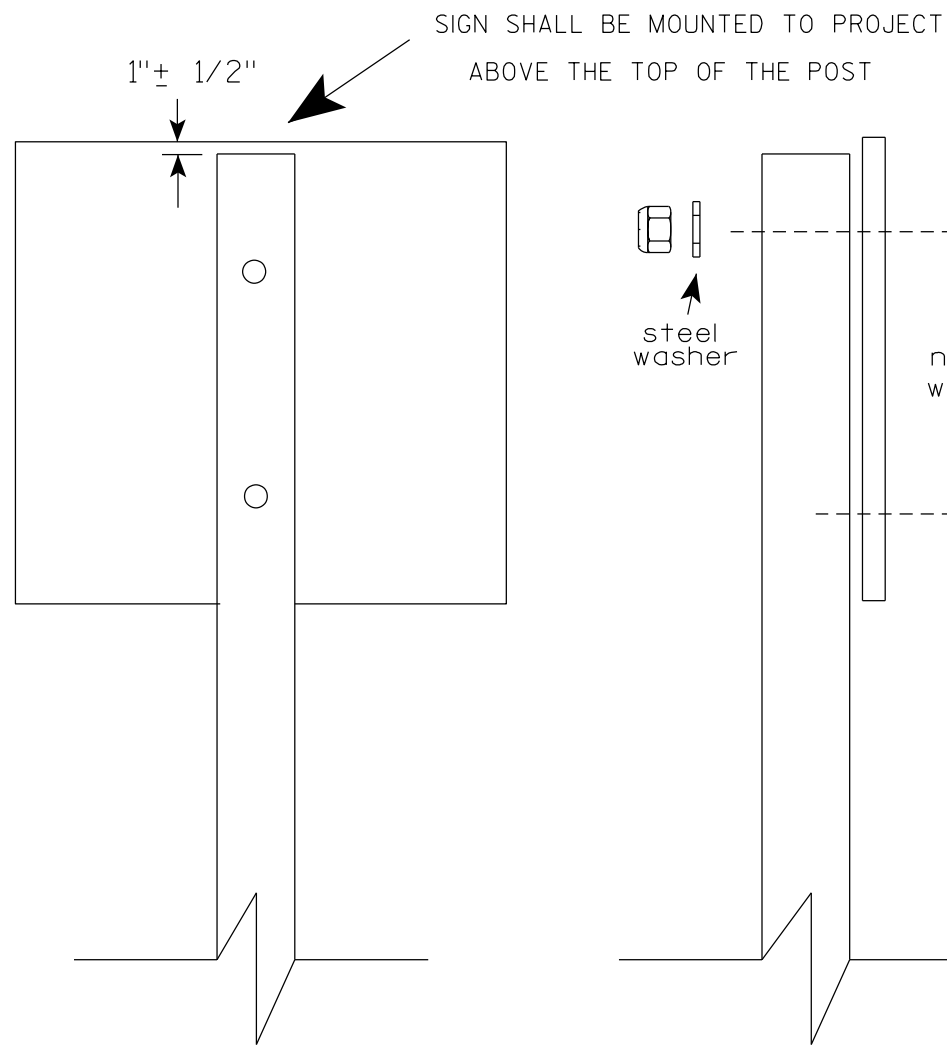
Area of Sign Installation ( Sq. Ft. )	D ( Min )
20 or Less	4'
Greater than 20	5'

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



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

1"± 1/2"

steel washer

nylon washer

steel washer

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

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

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

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

ATTACHMENT OF SIGNS  
TO POSTS

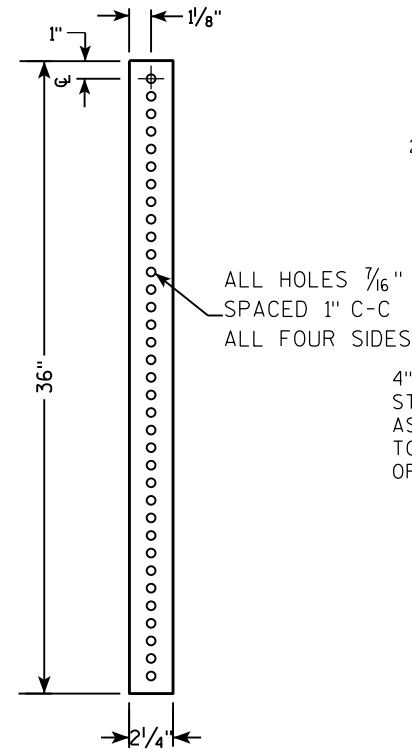
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
For State Traffic Engineer

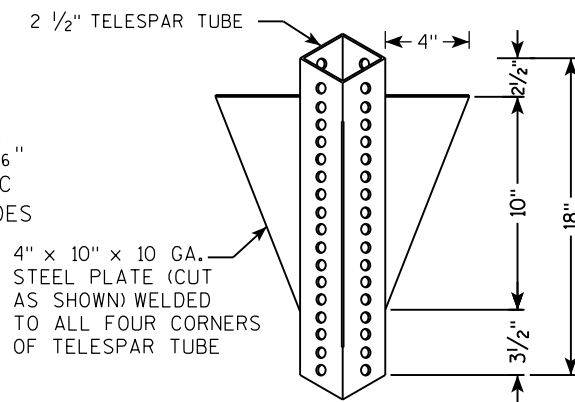
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS  
TWO PIECE SYSTEM**

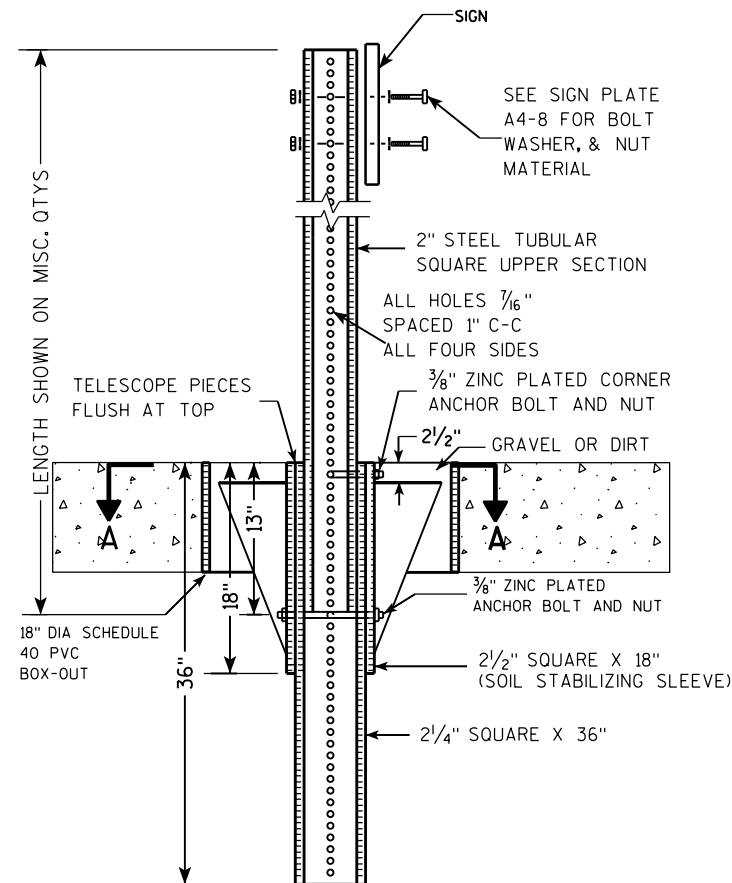
2 1/4" SQUARE  
12 GAUGE  
PERFORATED  
GALVANIZED FINISH



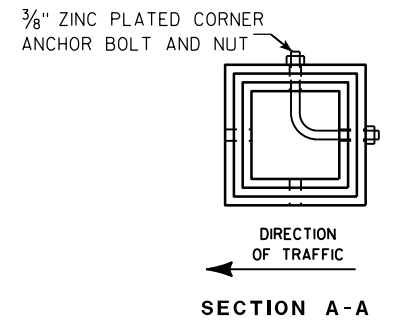
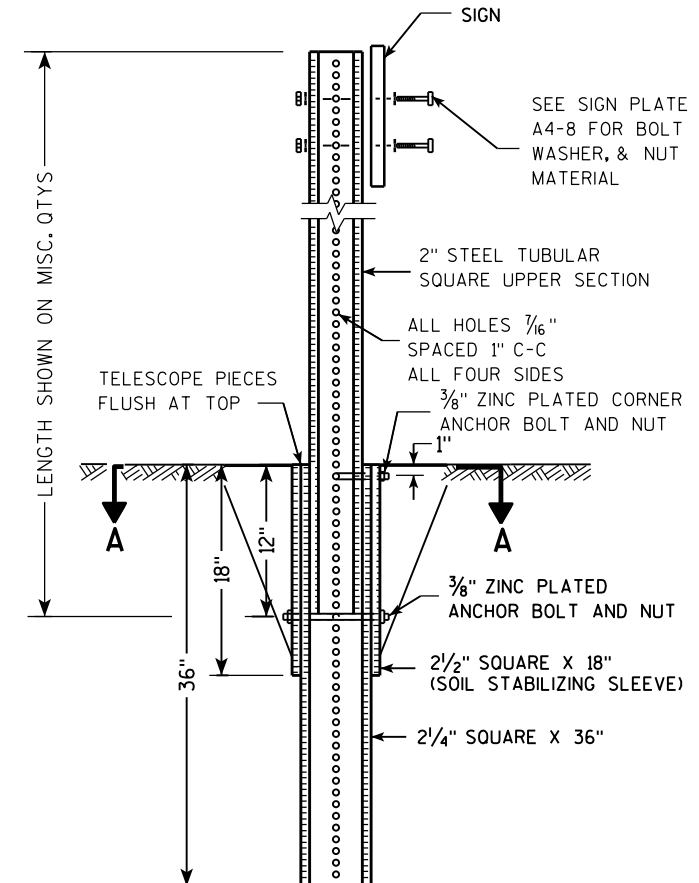
2 1/2" SQUARE  
12 GAUGE  
OMNI-DIRECTIONAL  
PERFORATED  
SOIL STABILIZING SLEEVE  
GALVANIZED FINISH



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



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



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

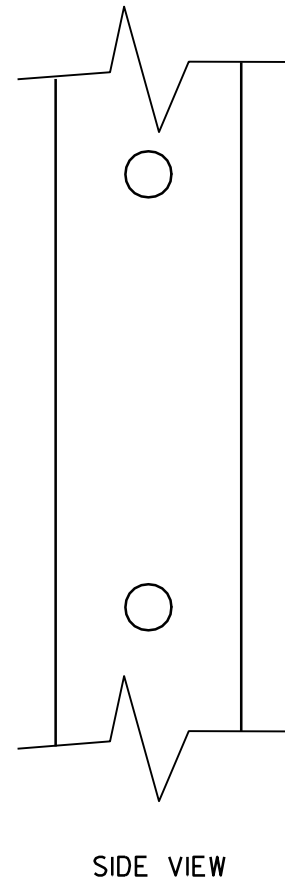
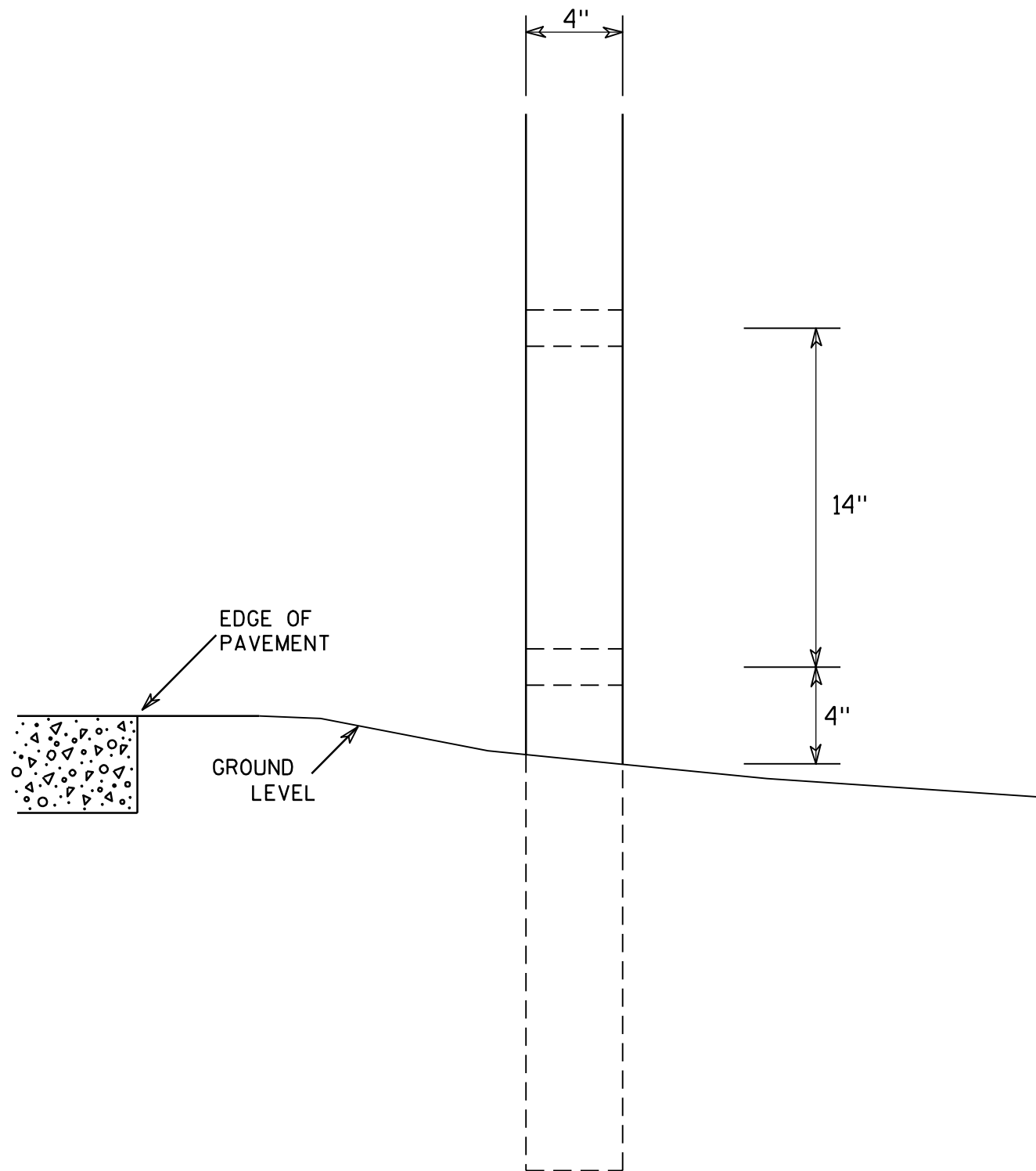
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL  
SIGN POST  
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 2/05/15 PLAT 24 14-9.9



GENERAL NOTES

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

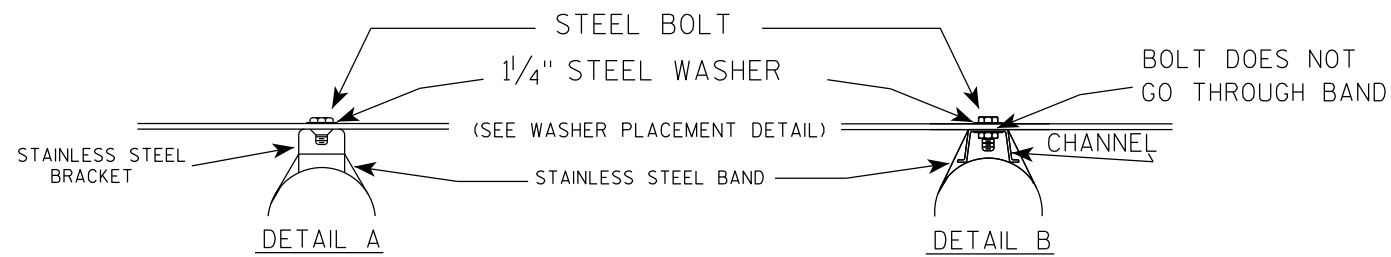
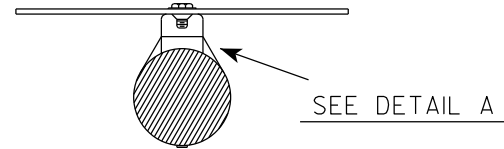
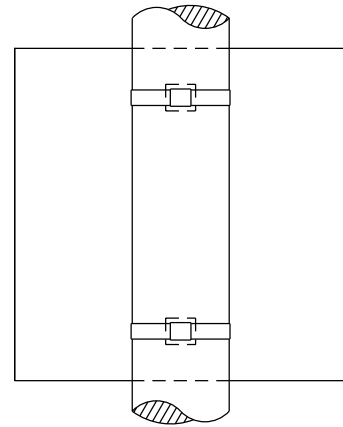
7

7

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

# BANDING

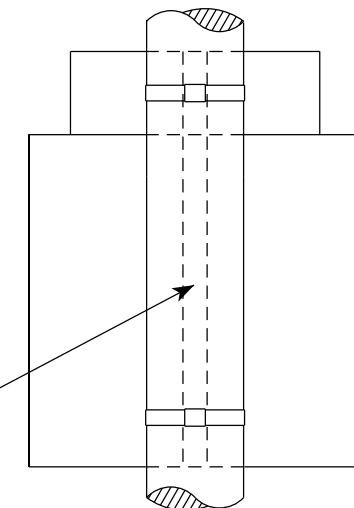
SINGLE SIGN



## GENERAL NOTES

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

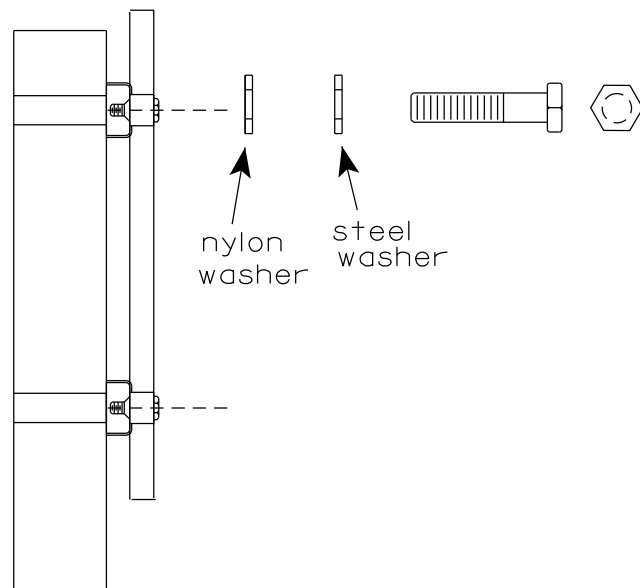
"J" ASSEMBLY



CHANNEL  
SEE TYPICAL PANEL  
INSTALLATION SHEET



WASHER PLACEMENT



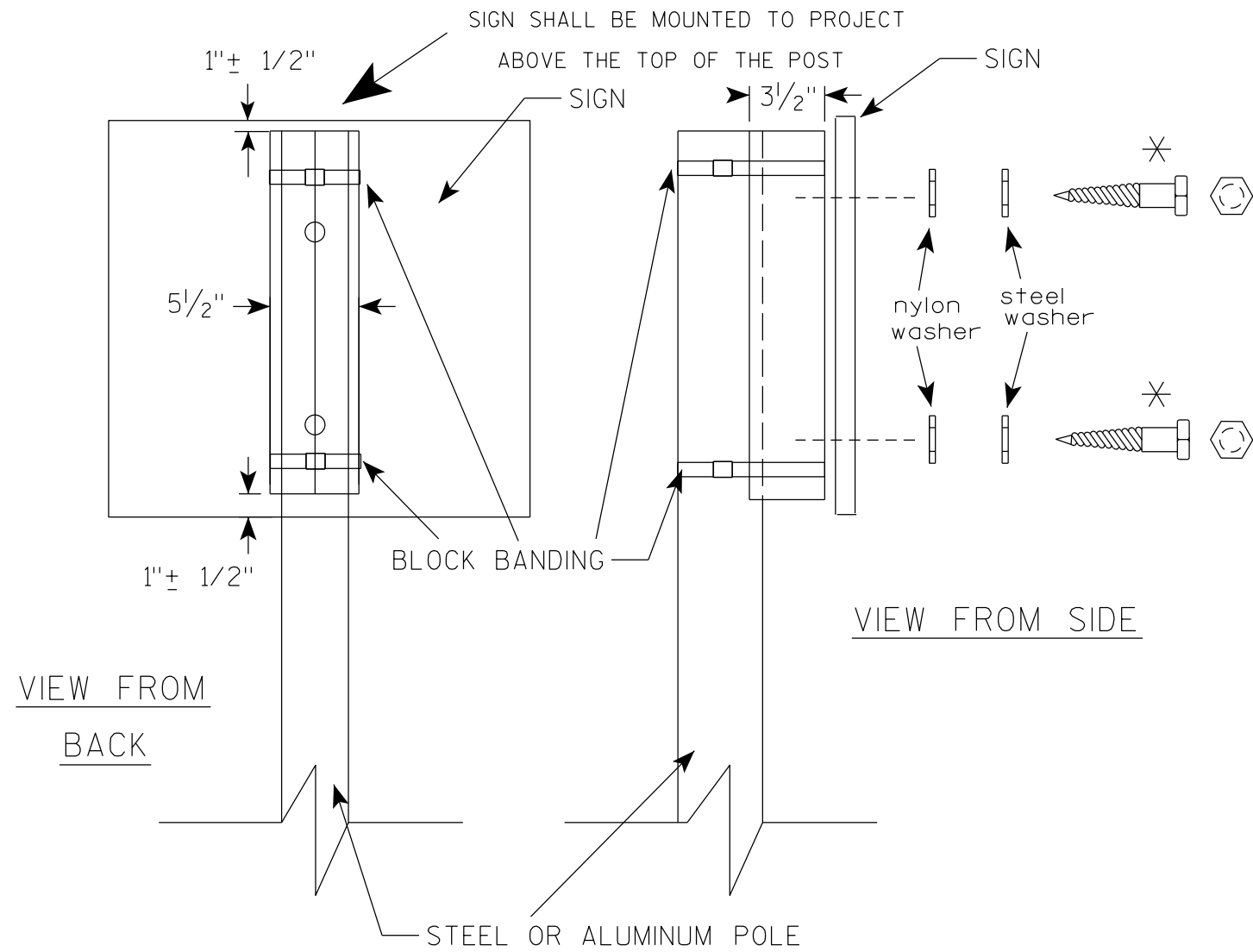
WASHERS (ALL POSTS) -  
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL  
1-1/4" O.D. X 3/8" I.D. X .080 NYLON  
FOR ALL TYPE H SIGNS

STANDARD SIGN  
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

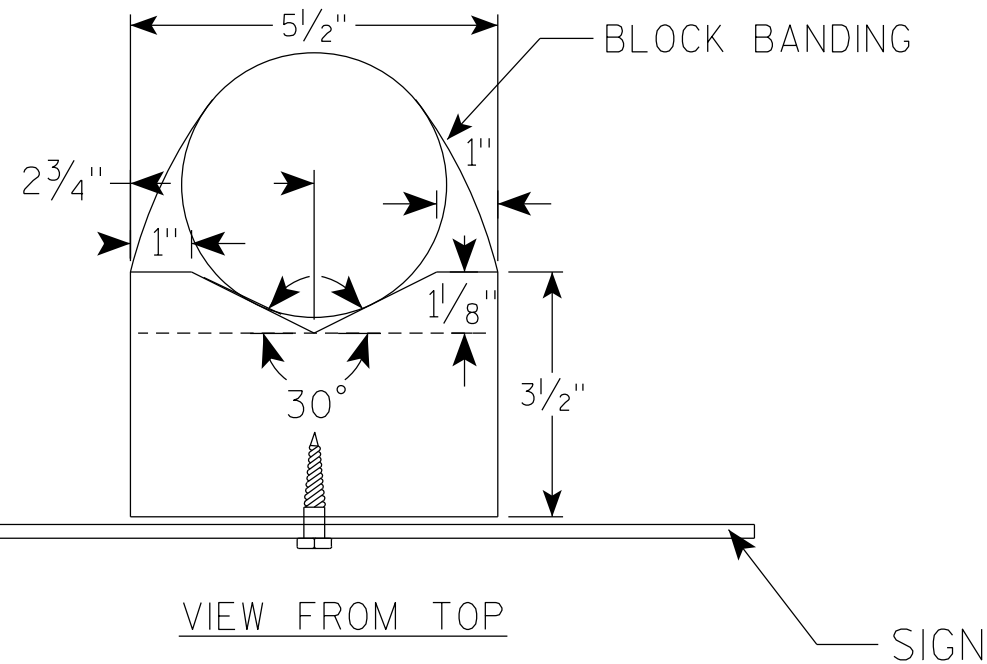
DATE 6/10/19 PLATE NO. A5-9.4



GENERAL NOTES

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

\* LAG BOLTS SHALL BE 3/8" X 2 1/2"

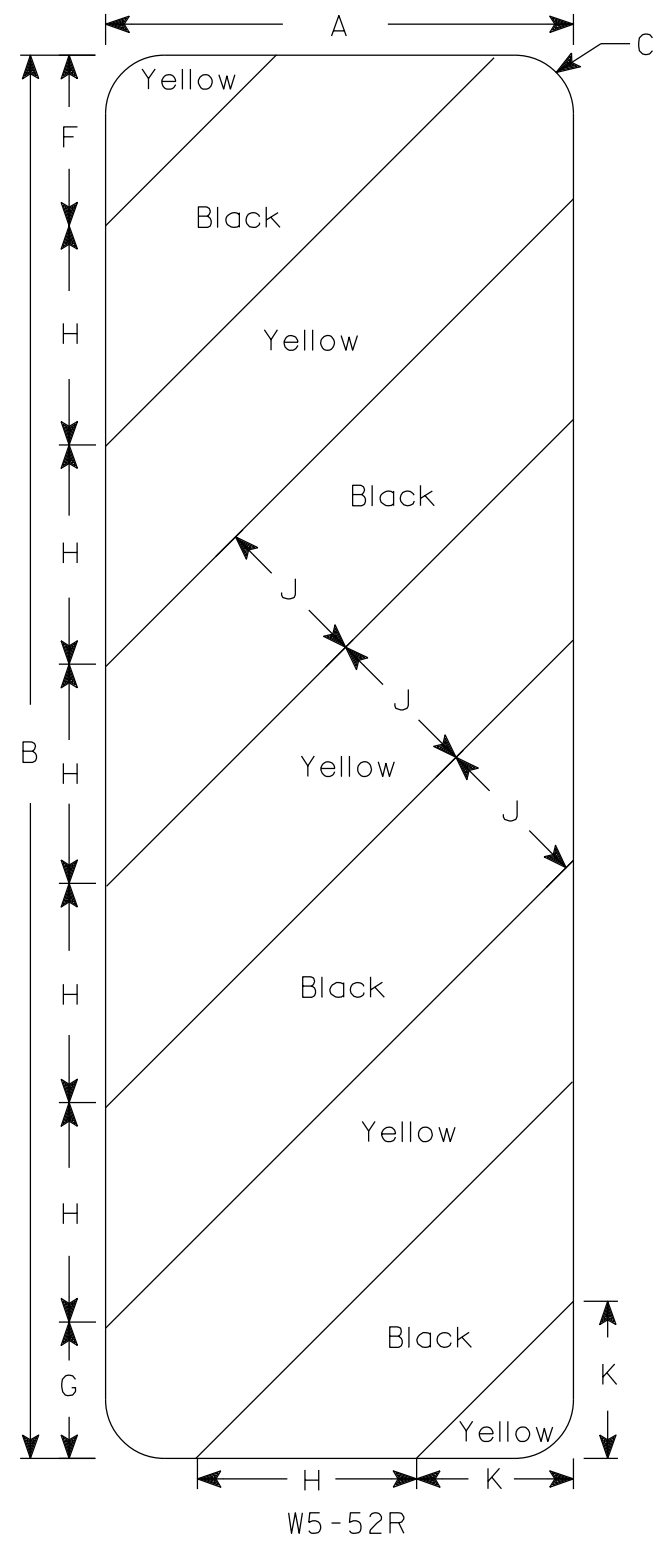
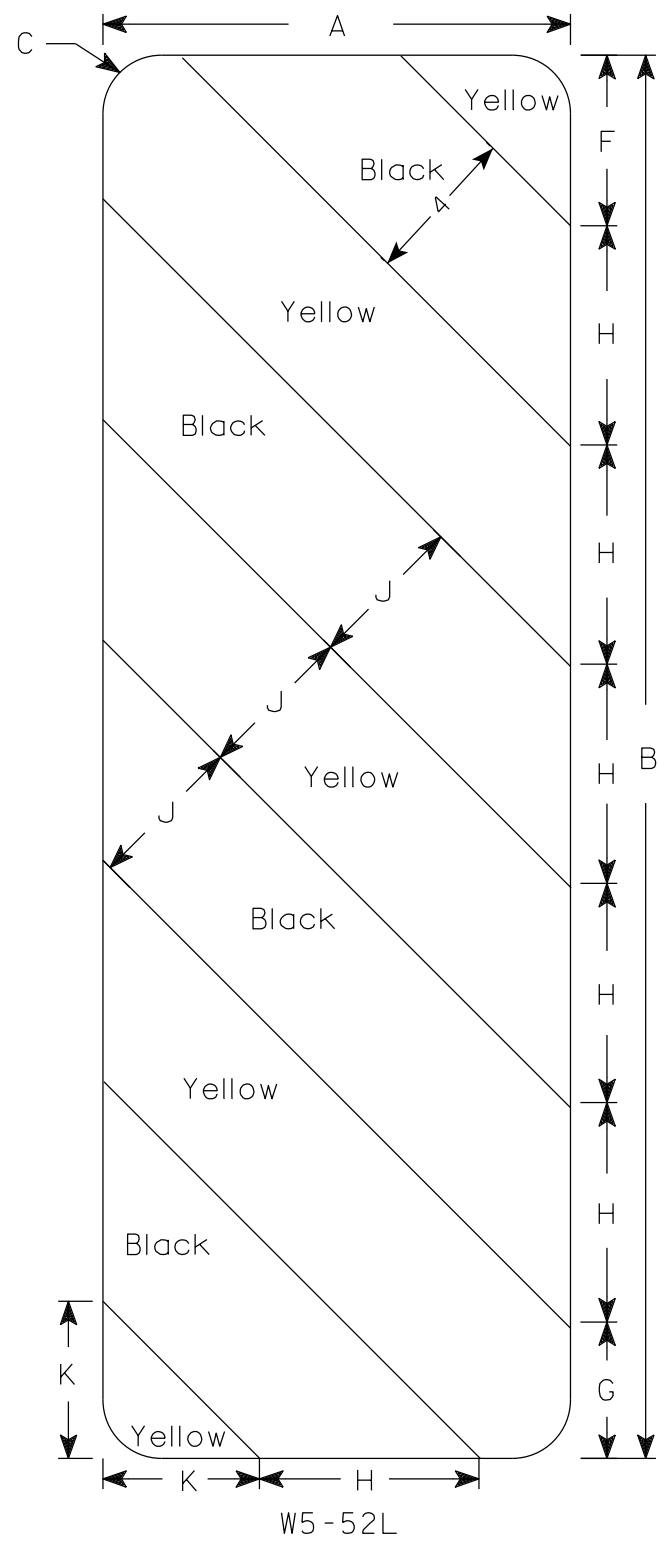


BLOCK BANDING DETAIL  
( V-BLOCK OPTION )

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
for State Traffic Engineer

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



NOTES

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

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	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 = 1.18  
 OPERATING RATING: RF = 1.53  
 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 & STRUCTURAL APPROACH SLAB  $f'_c = 4,000$  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 CIP 10 3/4" X 0.365-INCH PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 130 TONS \*\* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.  
 ESTIMATED 50'-0" LONG @ W ABUT.  
 ESTIMATED 50'-0" LONG @ E ABUT.

\*\*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:**

$Q_{100} = 920$  C.F.S.  
 $V_{100} = 4.7$  F.P.S.  
 $HW_{100} = EL. 801.25$   
 WATERWAY AREA = 196 SQ. FT.  
 DRAINAGE AREA = 8.13 SQ. MI.  
 ROADWAY OVERTOPPING = N/A  
 SCOUR CRITICAL CODD = 5

**2-YEAR FREQUENCY:**

$Q_2 = 205$  C.F.S.  
 $V_2 = 2.5$  F.P.S.  
 $HW_2 = EL. 797.30$

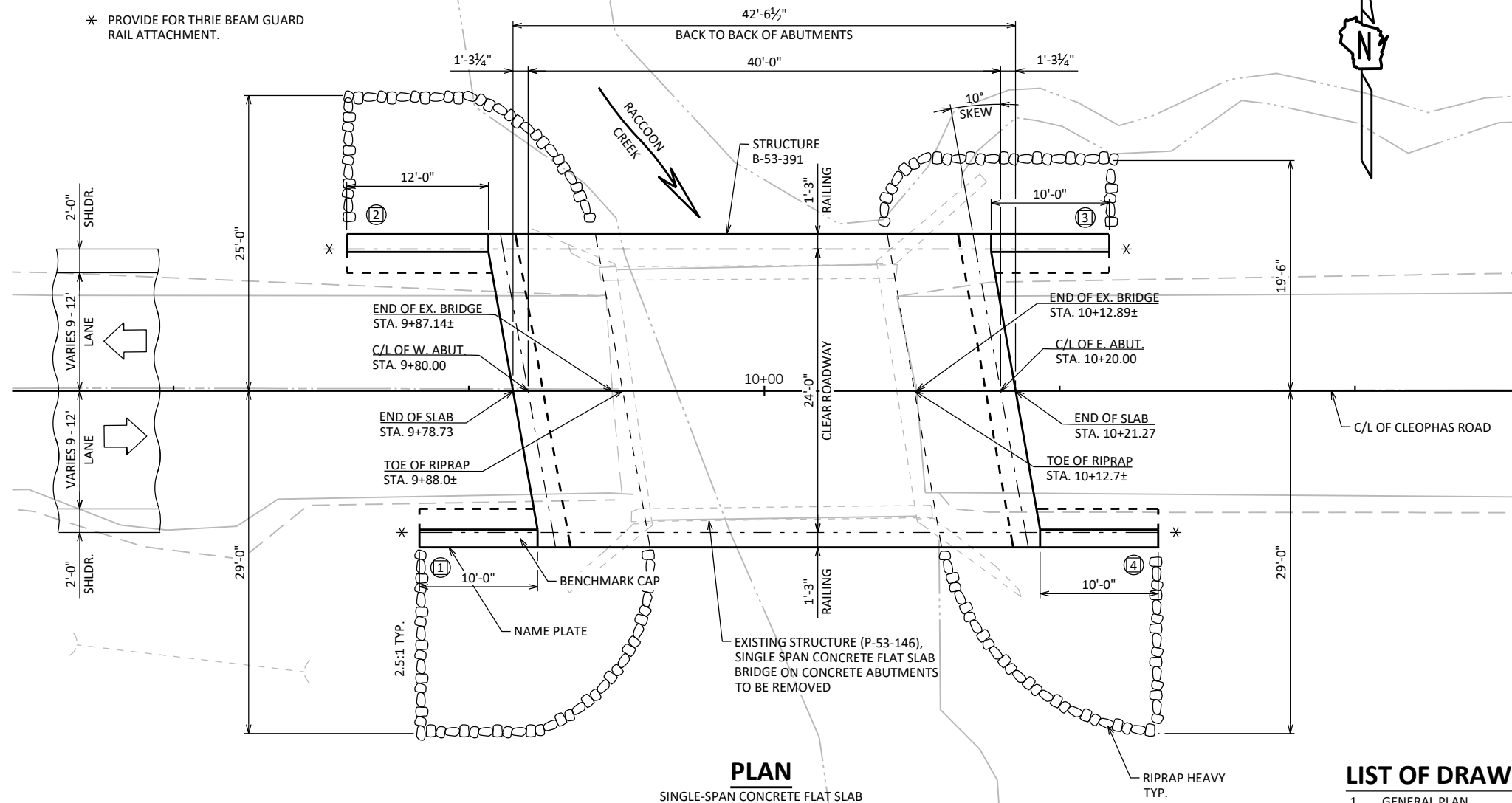
**TRAFFIC DATA**

**FEATURE ON: CLEOPHAS ROAD**

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

○ INDICATES WING NUMBER

\* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT.

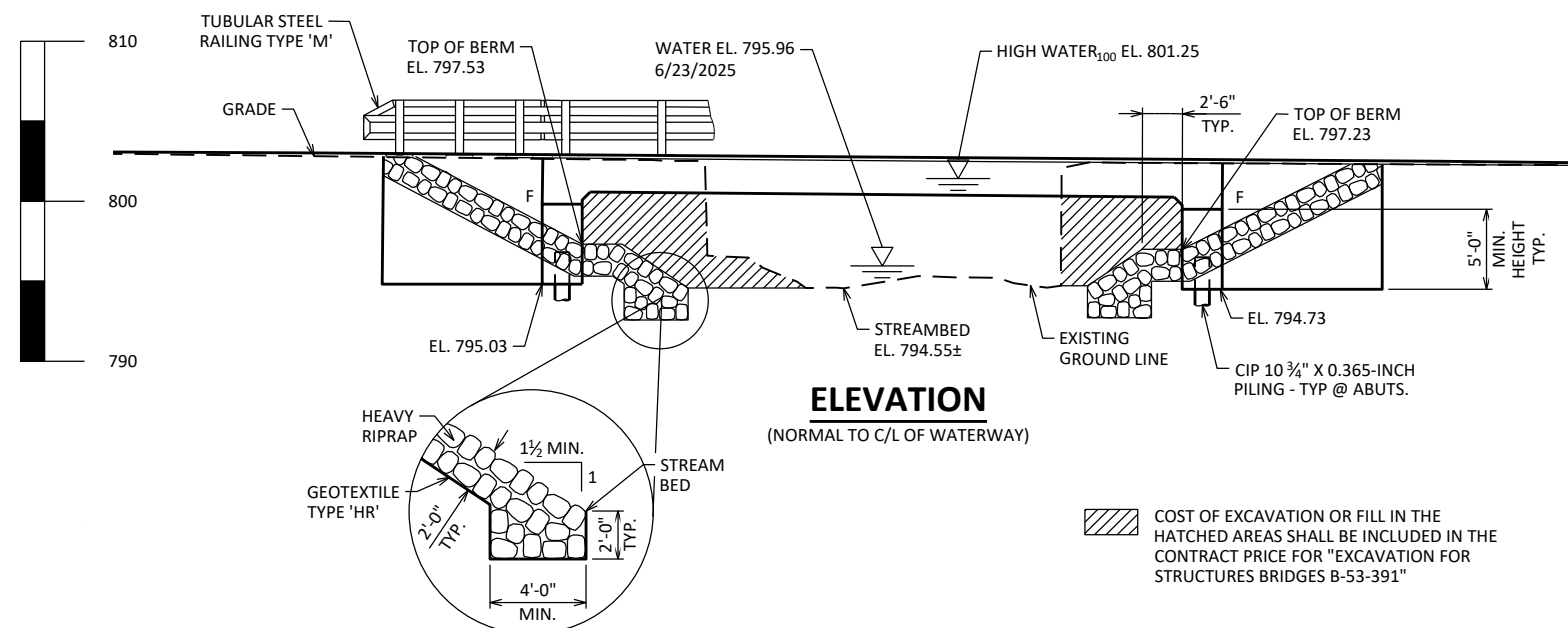


**PLAN**

SINGLE-SPAN CONCRETE FLAT SLAB

**LIST OF DRAWINGS:**

1. GENERAL PLAN
2. TYPICAL SECTION, QUANTITIES AND NOTES
3. STRUCTURE DETAILS
4. SUBSURFACE EXPLORATION
5. WEST ABUTMENT
6. WEST ABUTMENT WING 1 DETAILS
7. WEST ABUTMENT WING 2 DETAILS
8. WEST ABUTMENT PILE LAYOUT AND BILL OF BARS
9. EAST ABUTMENT
10. EAST ABUTMENT WING 3 DETAILS
11. EAST ABUTMENT WING 4 DETAILS
12. EAST ABUTMENT PILE LAYOUT AND BILL OF BARS
13. SUPERSTRUCTURE
14. SUPERSTRUCTURE PLAN
15. TUBULAR STEEL RAILING TYPE "M"



**ELEVATION**

(NORMAL TO C/L OF WATERWAY)

▨ COST OF EXCAVATION OR FILL IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-53-391"

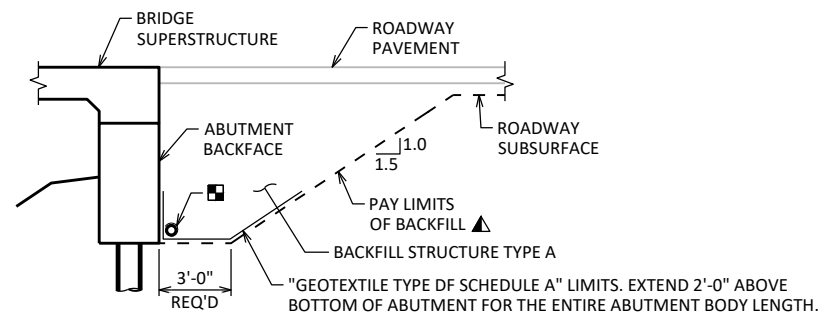


01/28/2026

**STRUCTURE DESIGN CONTACTS:**  
 AARON BONK 608-261-0261  
 ARLEN BEAUDETTE 715-831-7566

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	ARLEN E. BEAUDETTE CHIEF STRUCTURES DESIGN ENGINEER		DATE 02/10/26
<b>STRUCTURE B-53-391</b>			
CLEOPHAS ROAD OVER RACCOON CREEK			
COUNTY	ROCK	TOWN	NEWARK
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION			
DESIGNED BY	ERS	DESIGN CK'D	LMP
DRAWN BY	JMC	PLANS CK'D	AEB
<b>GENERAL PLAN</b>			SHEET 1 OF 15 29



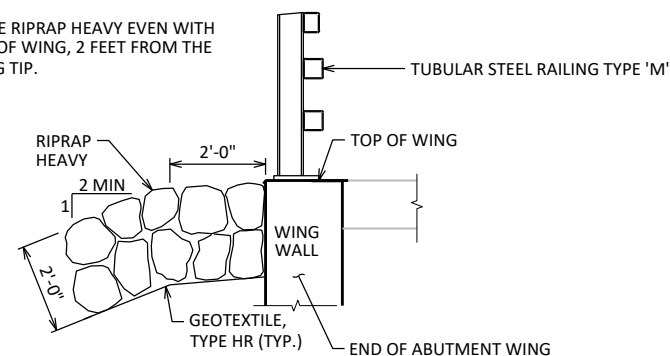


**TYPICAL SECTION THRU ABUTMENT**

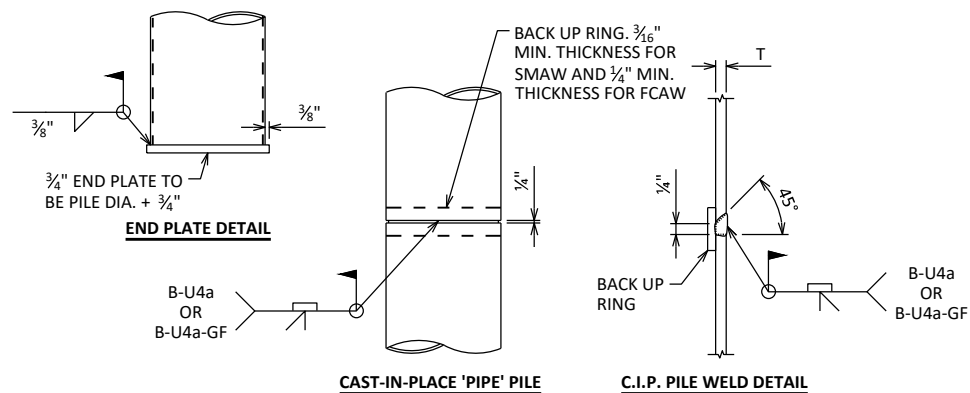
- ▲ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

NOTES:  
PLACE RIPRAP HEAVY AS SHOWN ON GENERAL PLAN SHEET.

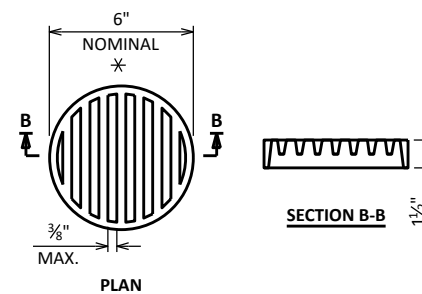
PLACE RIPRAP HEAVY EVEN WITH TOP OF WING, 2 FEET FROM THE WING TIP.



**TYPICAL FILL SECTION AT WING TIPS**



**CIP 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			
<b>STRUCTURE B-53-391</b>			
DRAWN BY		CLP	PLANS CK'D ERS
<b>STRUCTURE DETAILS</b>		SHEET 3 OF 15 31	

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-01	JULY 24, 2025	223012.87	441861.94
B-02	JULY 25, 2025	223020.46	441901.83

BORINGS COMPLETED BY: ECS MIDWEST, LLC  
 REPORT COMPLETED BY: ECS MIDWEST, LLC  
 ALL COORDINATES REFERENCED TO WISCRS ROCK COUNTY

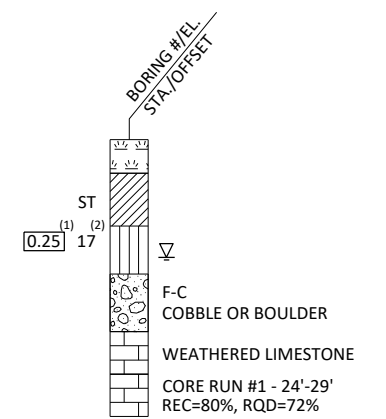
STATE PROJECT NUMBER

5788-00-76

**MATERIAL SYMBOLS**

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

**LEGEND OF BORING**



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

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

**GROUND WATER ELEVATION**

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

**ABBREVIATIONS**

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

**SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION**

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

NO.	DATE	REVISION	BY

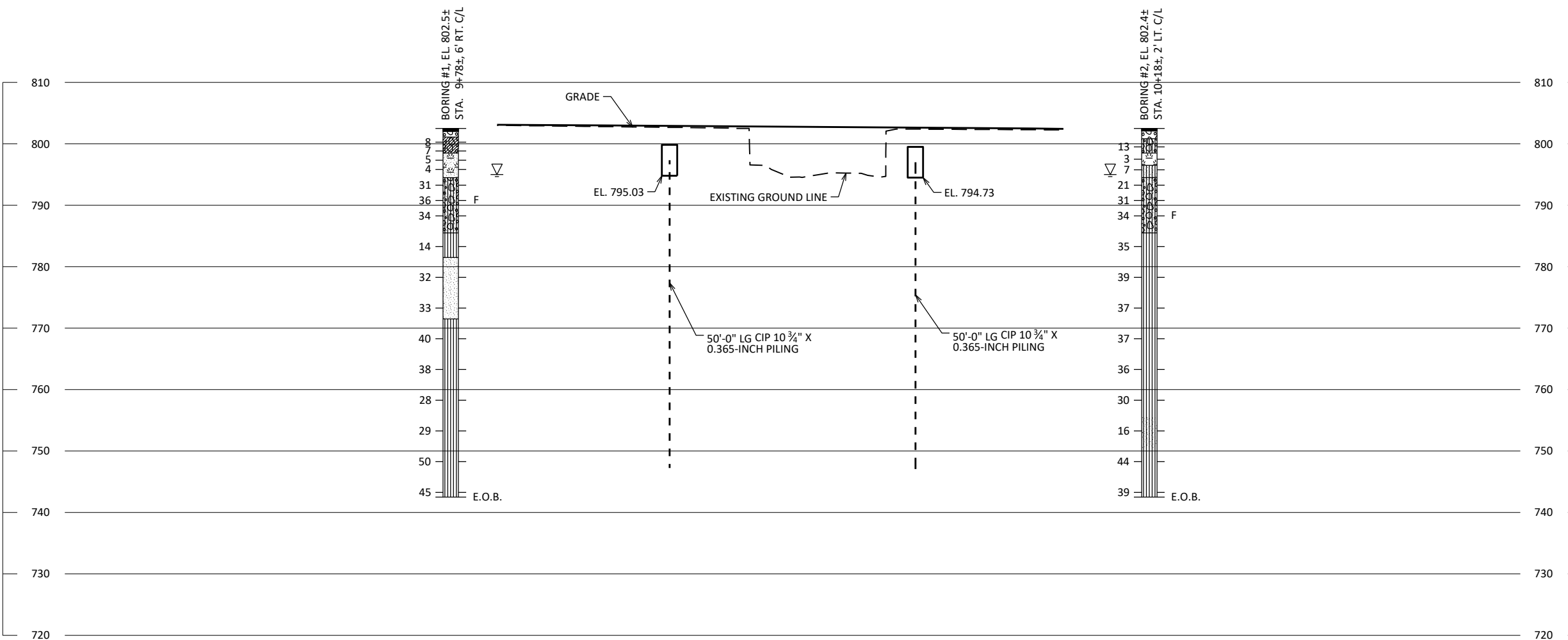
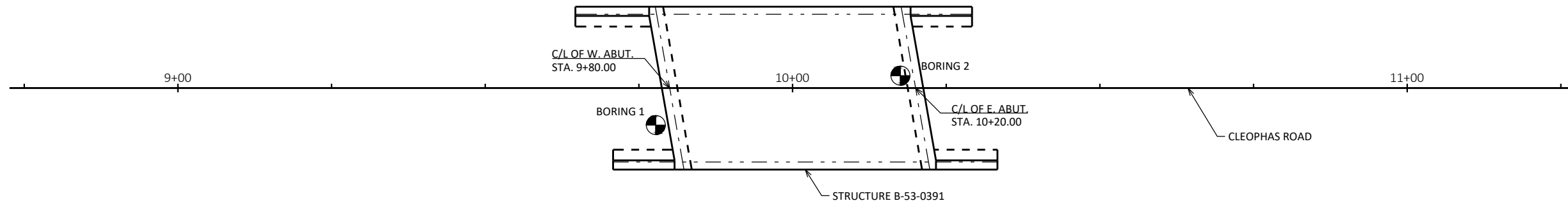
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**STRUCTURE B-53-391**

DRAWN BY	PLANS CK'D
JMC	ERS

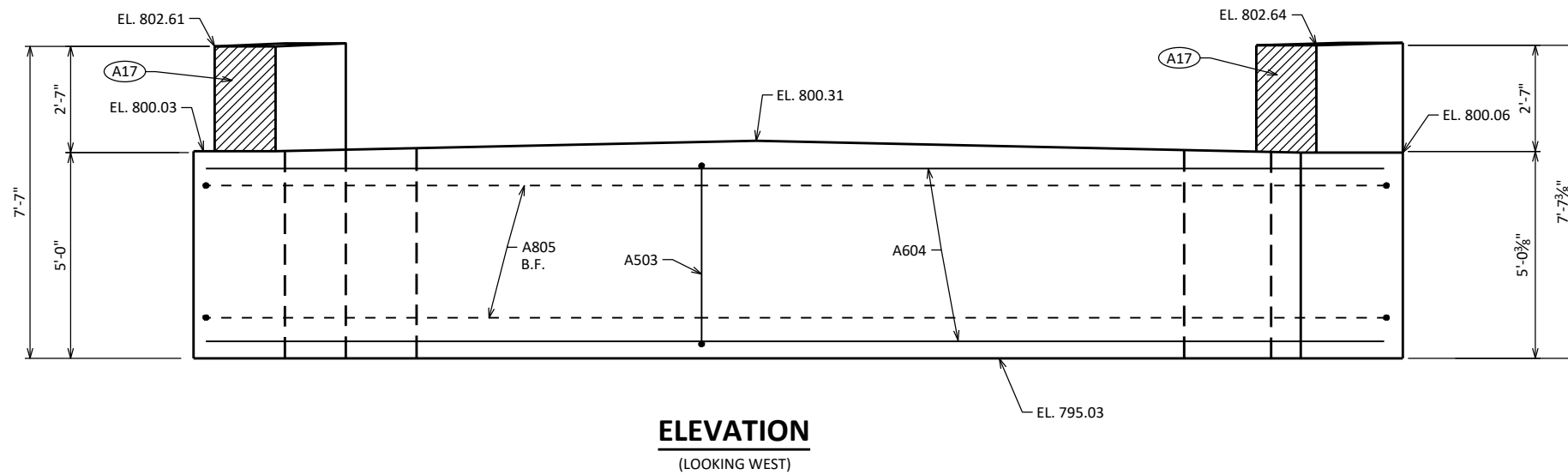
**SUBSURFACE EXPLORATION**

SHEET 4 OF 15  
32

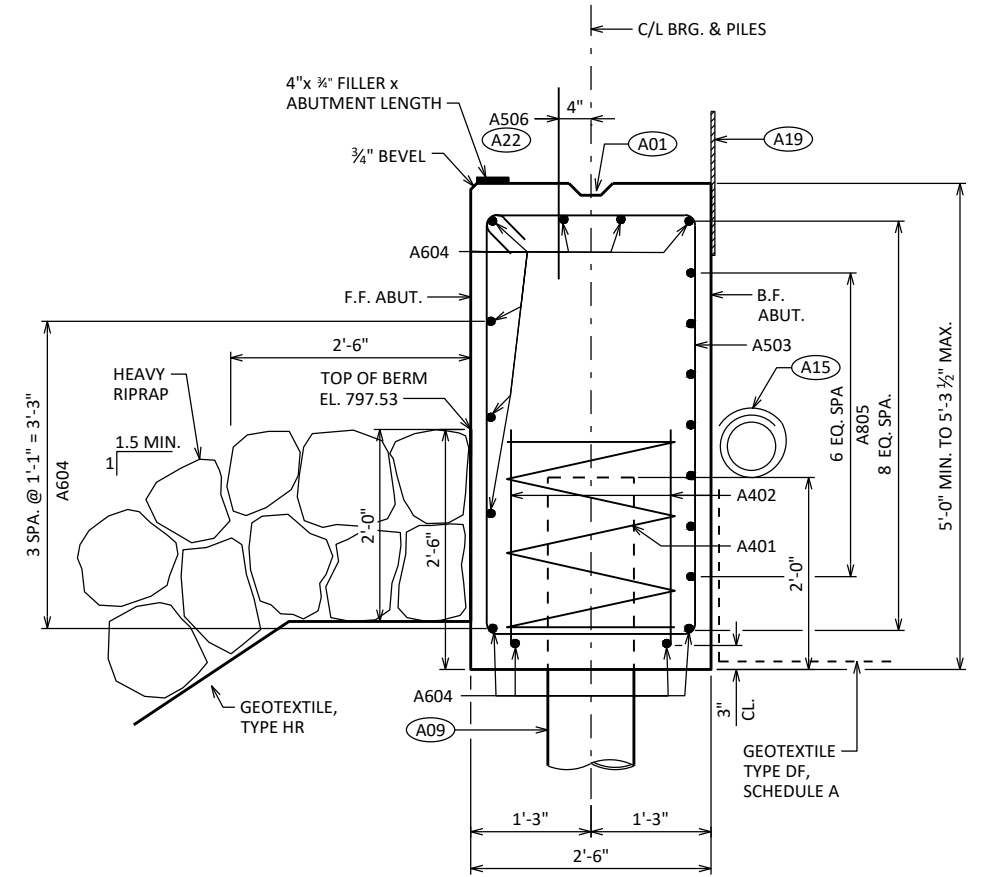


8

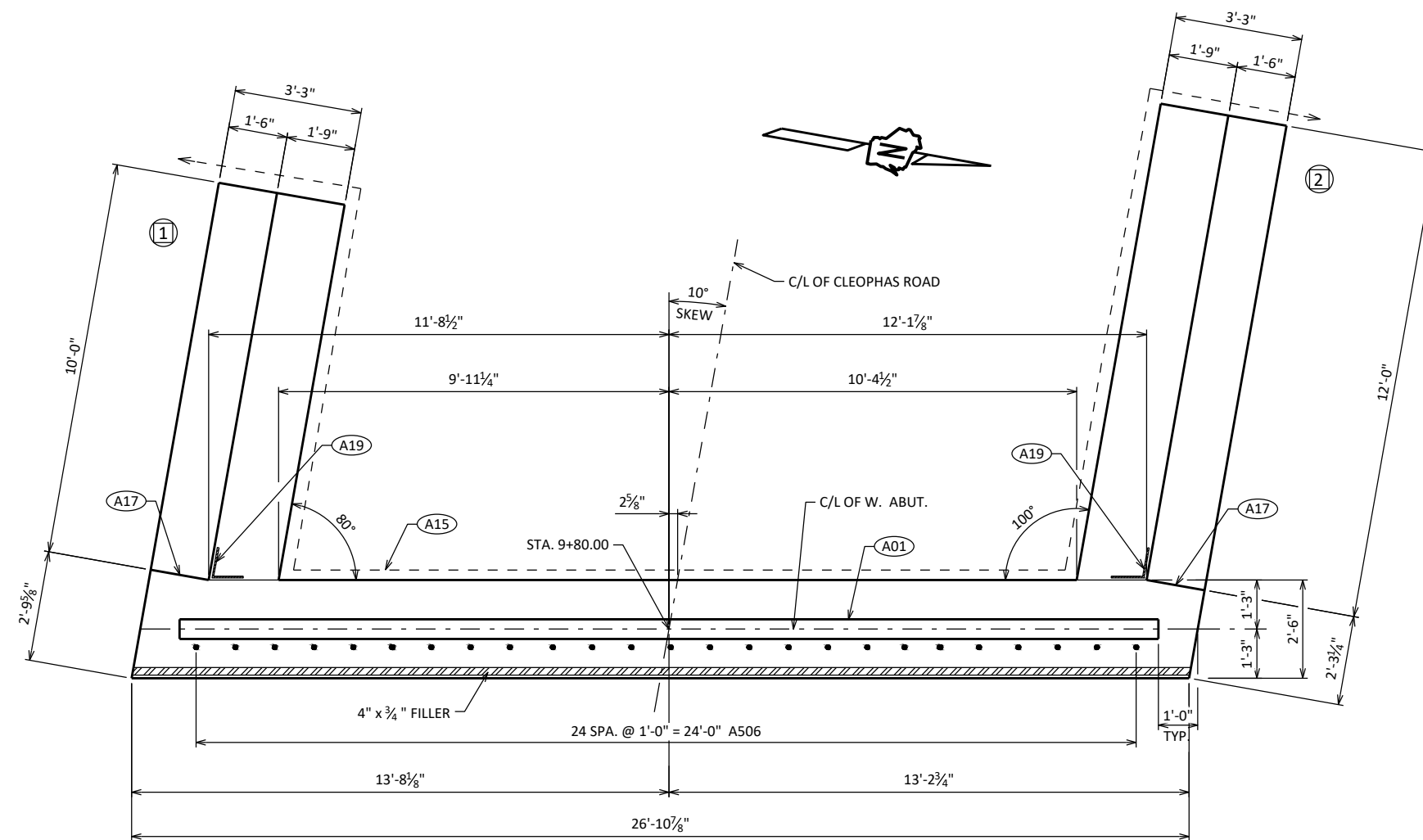
8



**ELEVATION**  
(LOOKING WEST)



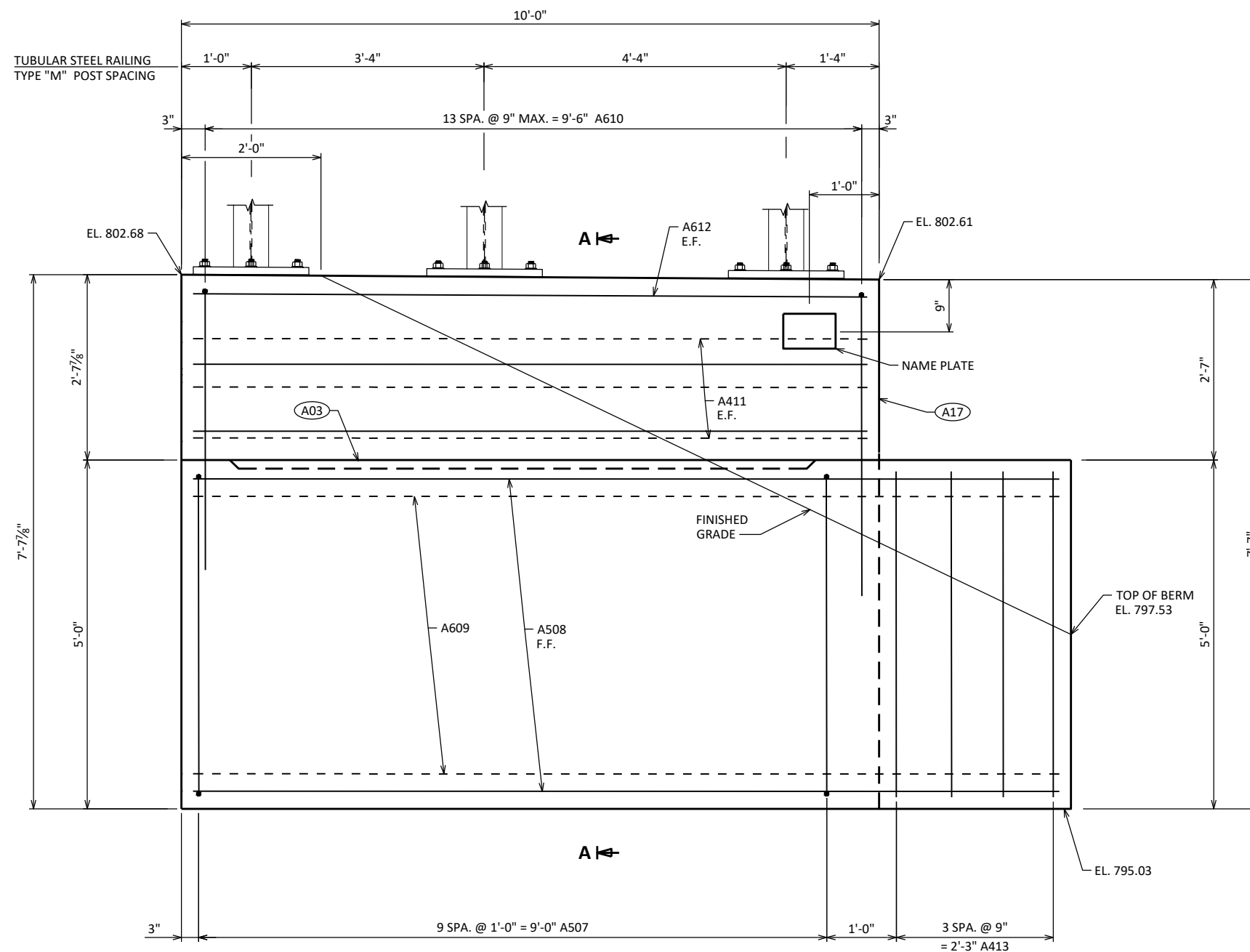
**SECTION THRU BODY**



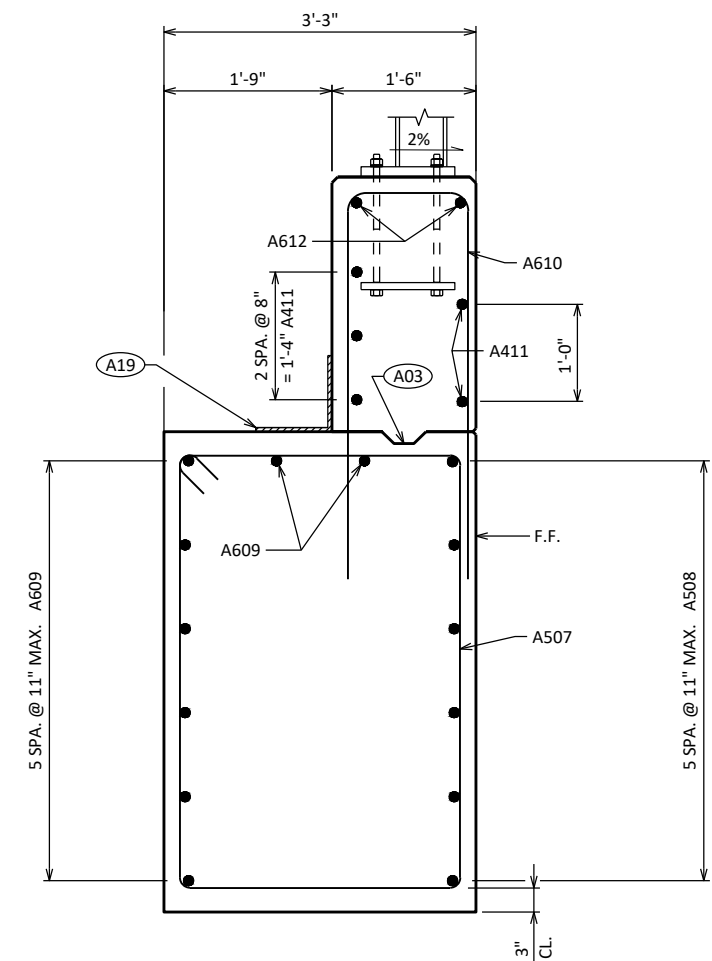
**PLAN**

- (A01) CONST. JOINT: KEYWAY FORMED BY A BEVELED 2X6.
- (A09) SUPPORT ABUTMENT ON 10 3/4" DIA. X 0.365" CIP CONCRETE PILING. ESTIMATED 50'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 130 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 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.
- (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			
<b>STRUCTURE B-53-391</b>			
DRAWN BY		CLP	PLANS CK'D ERS
<b>WEST ABUTMENT</b>		SHEET 5 OF 15 33	



**ELEVATION - WING 1**



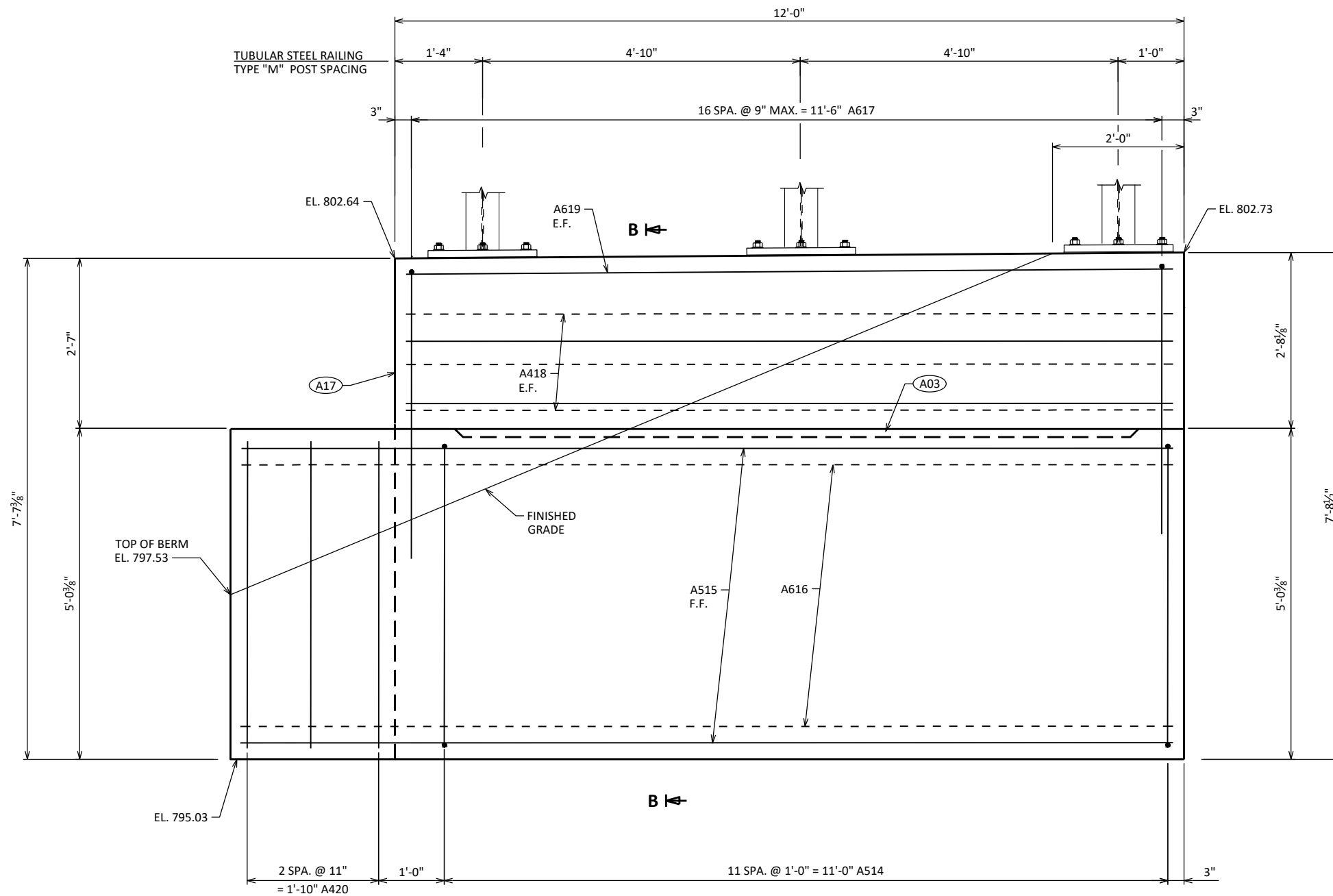
**SECTION A**

(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).

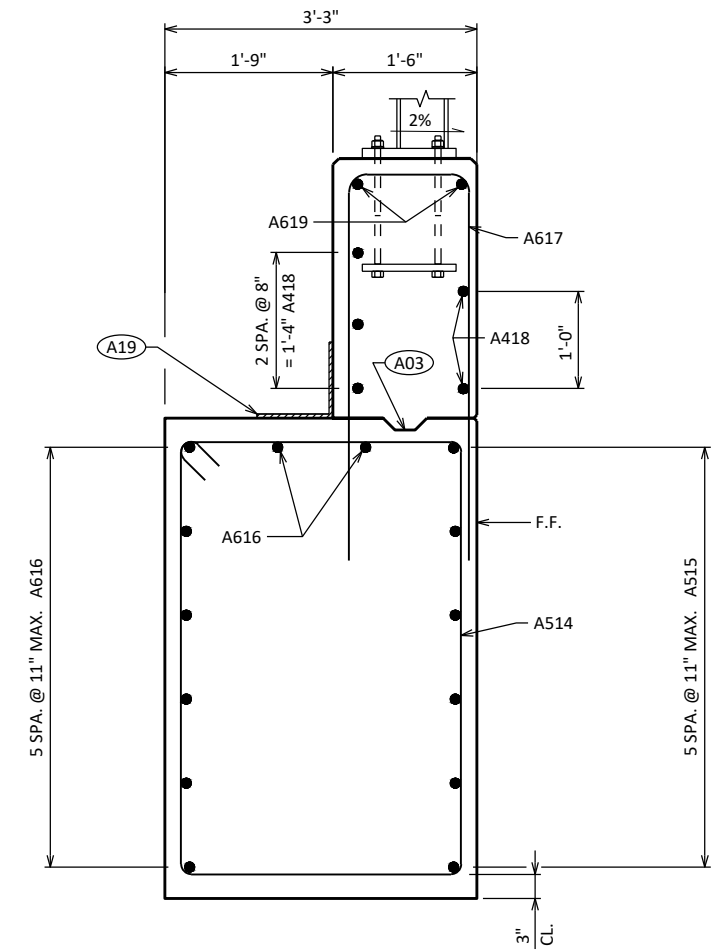
(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/2" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-53-391</b>			
DRAWN BY		CLP	PLANS CK'D ERS
<b>WEST ABUTMENT WING 1 DETAILS</b>			SHEET 6 OF 15 34



**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.

8

8

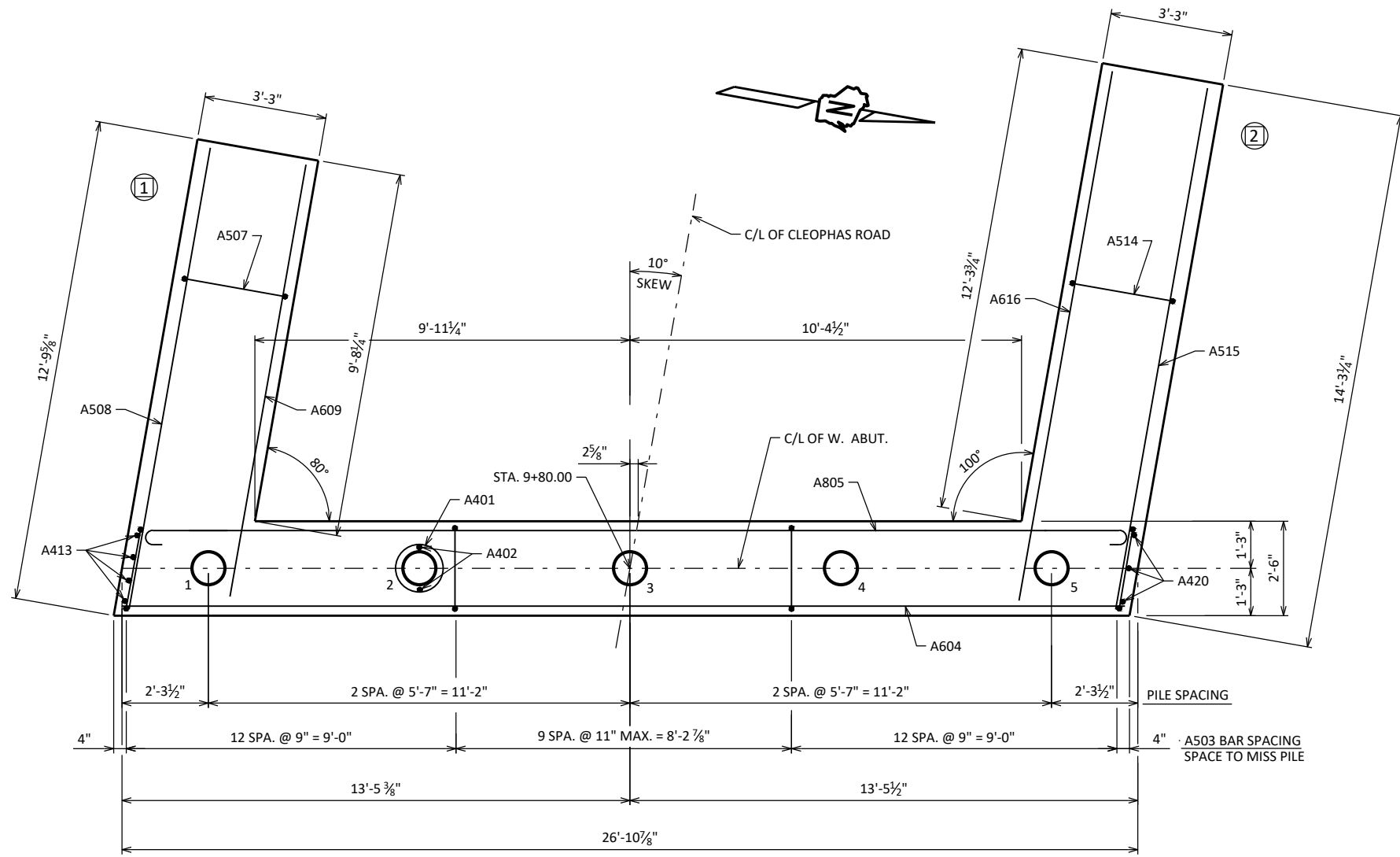
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-53-391</b>			
DRAWN BY		CLP	PLANS CK'D ERS
<b>WEST ABUTMENT WING 2 DETAILS</b>		SHEET 7 OF 15 35	

**BILL OF BARS**

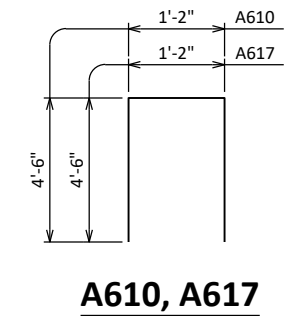
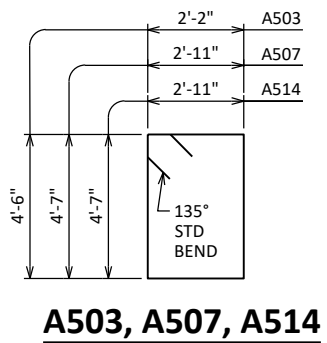
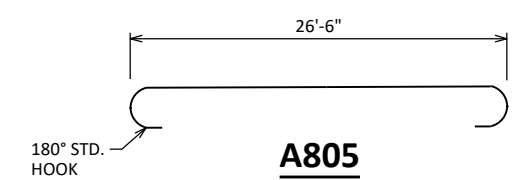
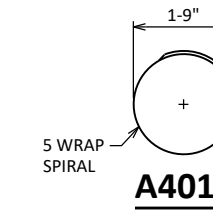
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

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		7	28'-4"	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	12'-5"			WING 1 HORIZ. F.F.
A609	X	8	11'-7"			WING 1 HORIZ. B.F. & TOP
A610	X	14	9'-10"	X		WING 1 VERT.
A411	X	5	9'-7"			WING 1 HORIZ. E.F.
A612	X	2	9'-7"			WING 1 HORIZ. E.F. TOP
A413	X	4	4'-7"			BODY VERT. END @ WING 1
A514	X	12	15'-8"	X		WING 2 VERT.
A515	X	6	13'-11"			WING 2 HORIZ. F.F.
A616	X	8	14'-3"			WING 2 HORIZ. B.F. & TOP
A617	X	17	9'-10"	X		WING 2 VERT.
A418	X	5	11'-7"			WING 2 HORIZ. E.F.
A619	X	2	11'-7"			WING 2 HORIZ. E.F. TOP
A420	X	3	4'-7"			BODY VERT. END @ WING 2

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



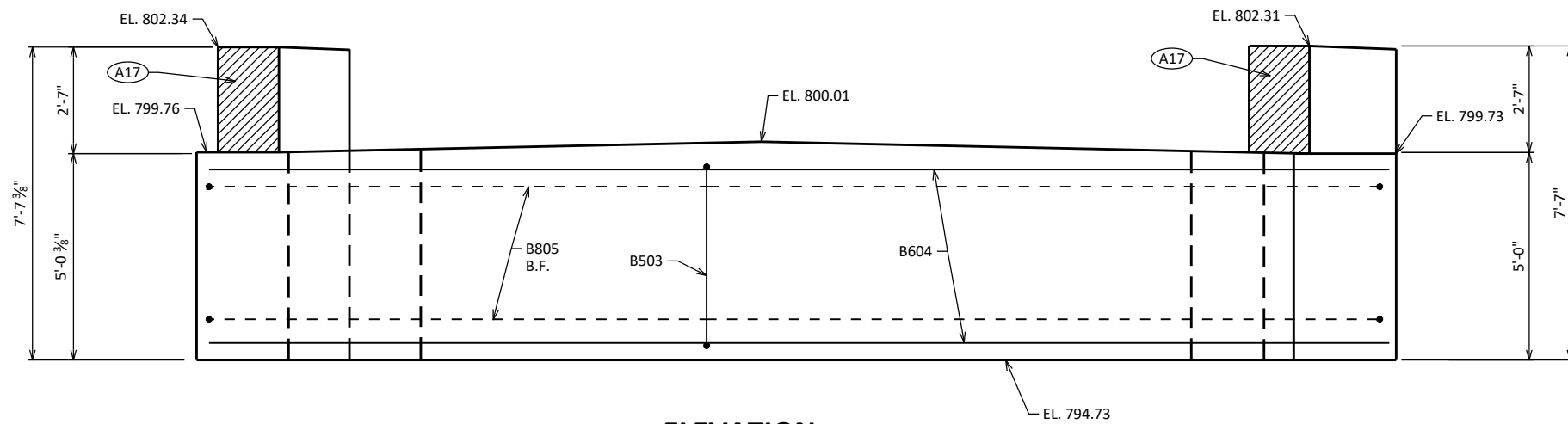
**PILE LAYOUT**



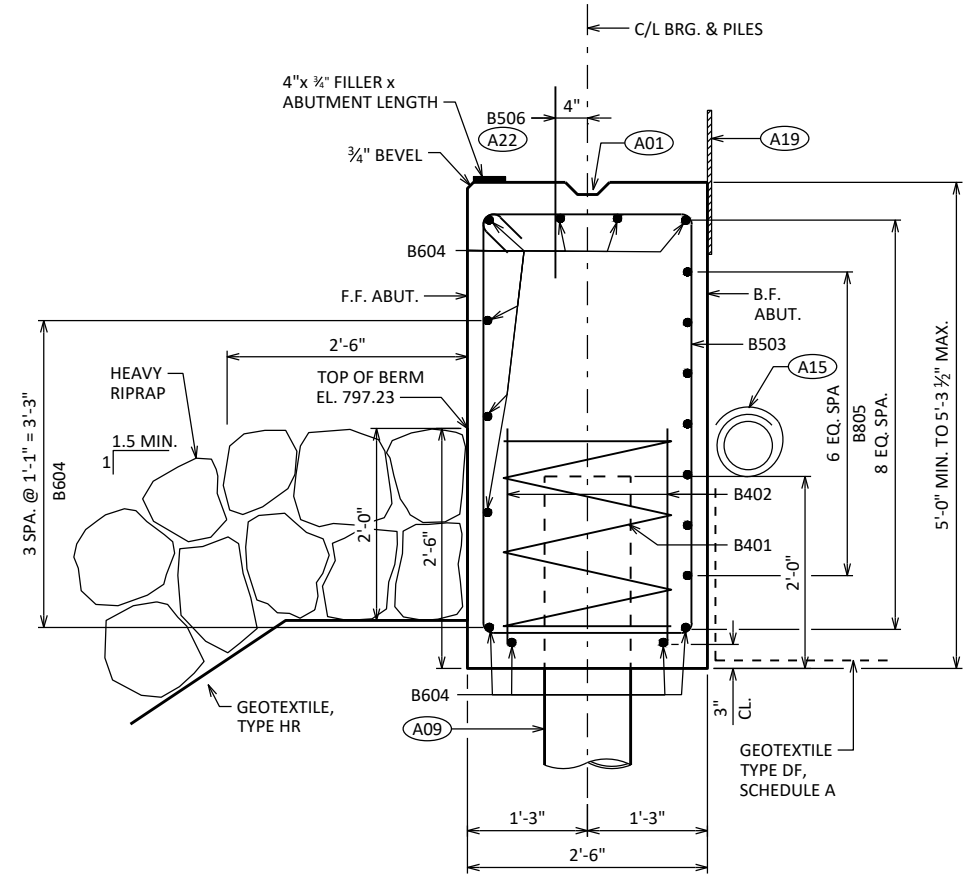
8

8

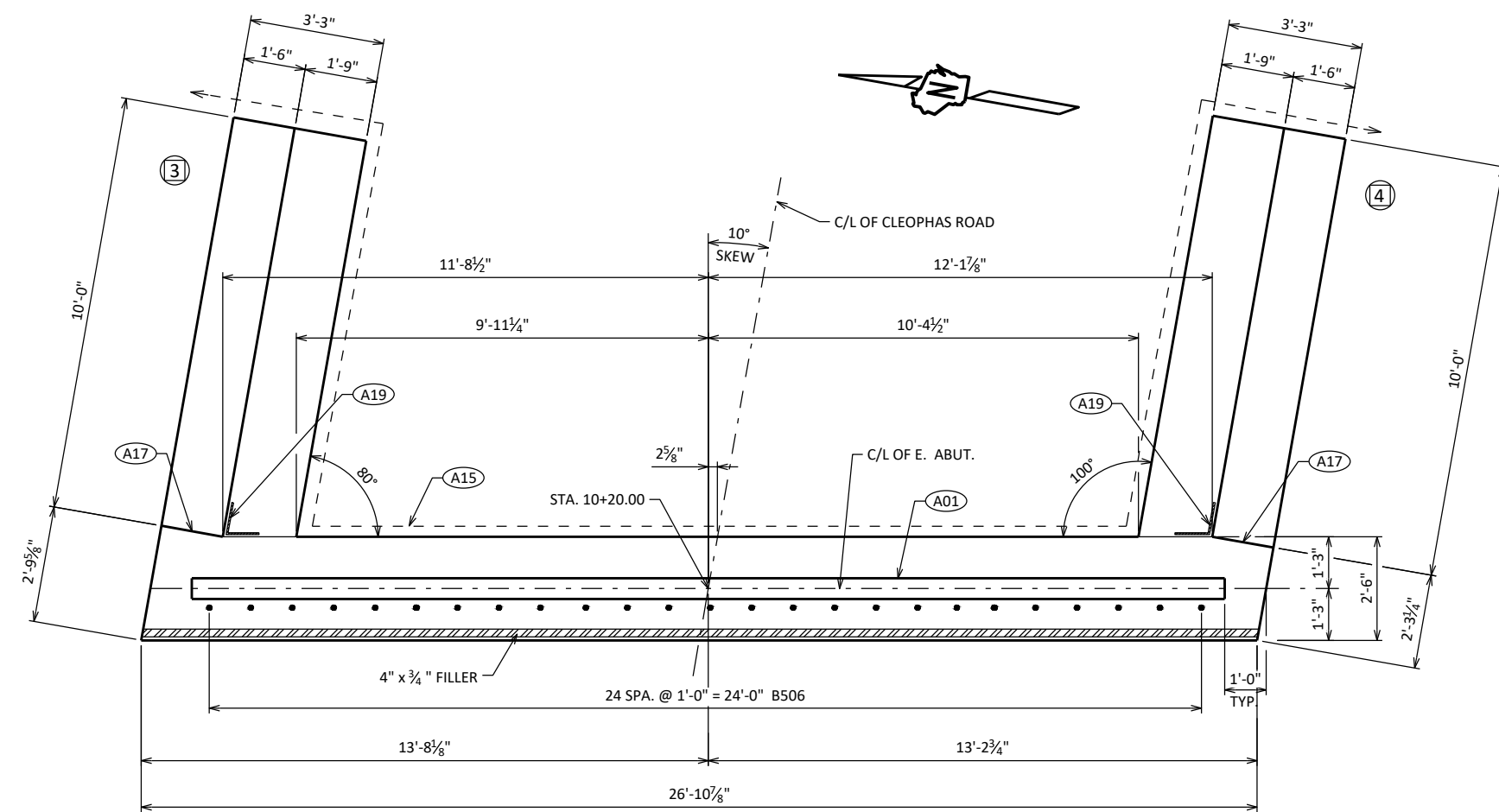
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-53-391</b>			
DRAWN BY		CLP	PLANS CK'D ERS
<b>WEST ABUTMENT PILE LAYOUT AND BILL OF BARS</b>		SHEET 8 OF 15 36	



**ELEVATION**  
(LOOKING EAST)



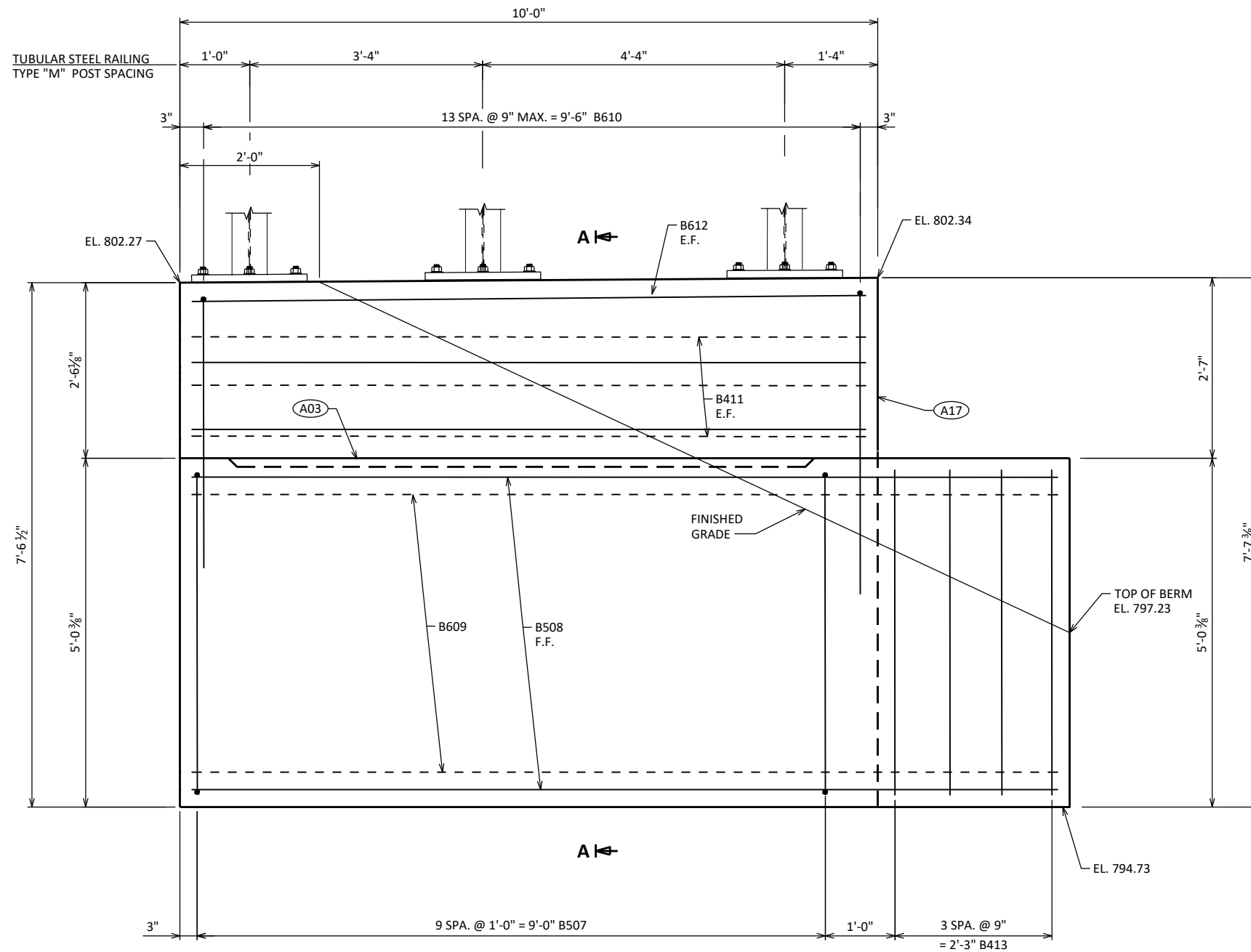
**SECTION THRU BODY**



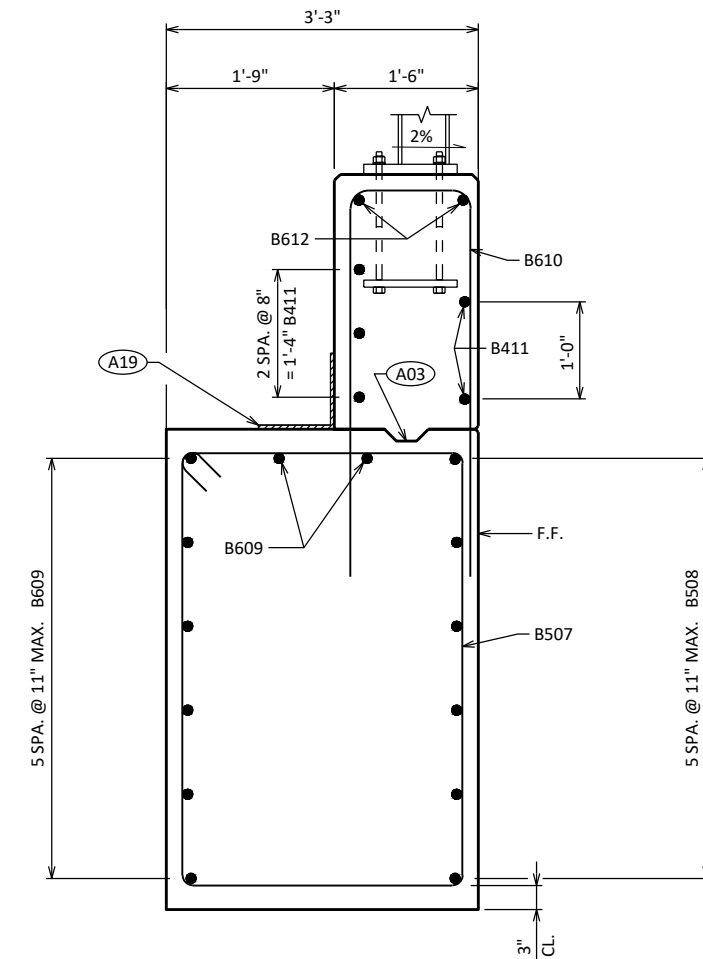
**PLAN**

- (A01) CONST. JOINT: KEYWAY FORMED BY A BEVELED 2X6.
- (A09) SUPPORT ABUTMENT ON 10 3/4" DIA. X 0.365" CIP CONCRETE PILING. ESTIMATED 50'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 130 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			
<b>STRUCTURE B-53-391</b>			
DRAWN BY		CLP	PLANS CK'D ERS
<b>EAST ABUTMENT</b>			SHEET 9 OF 15 37



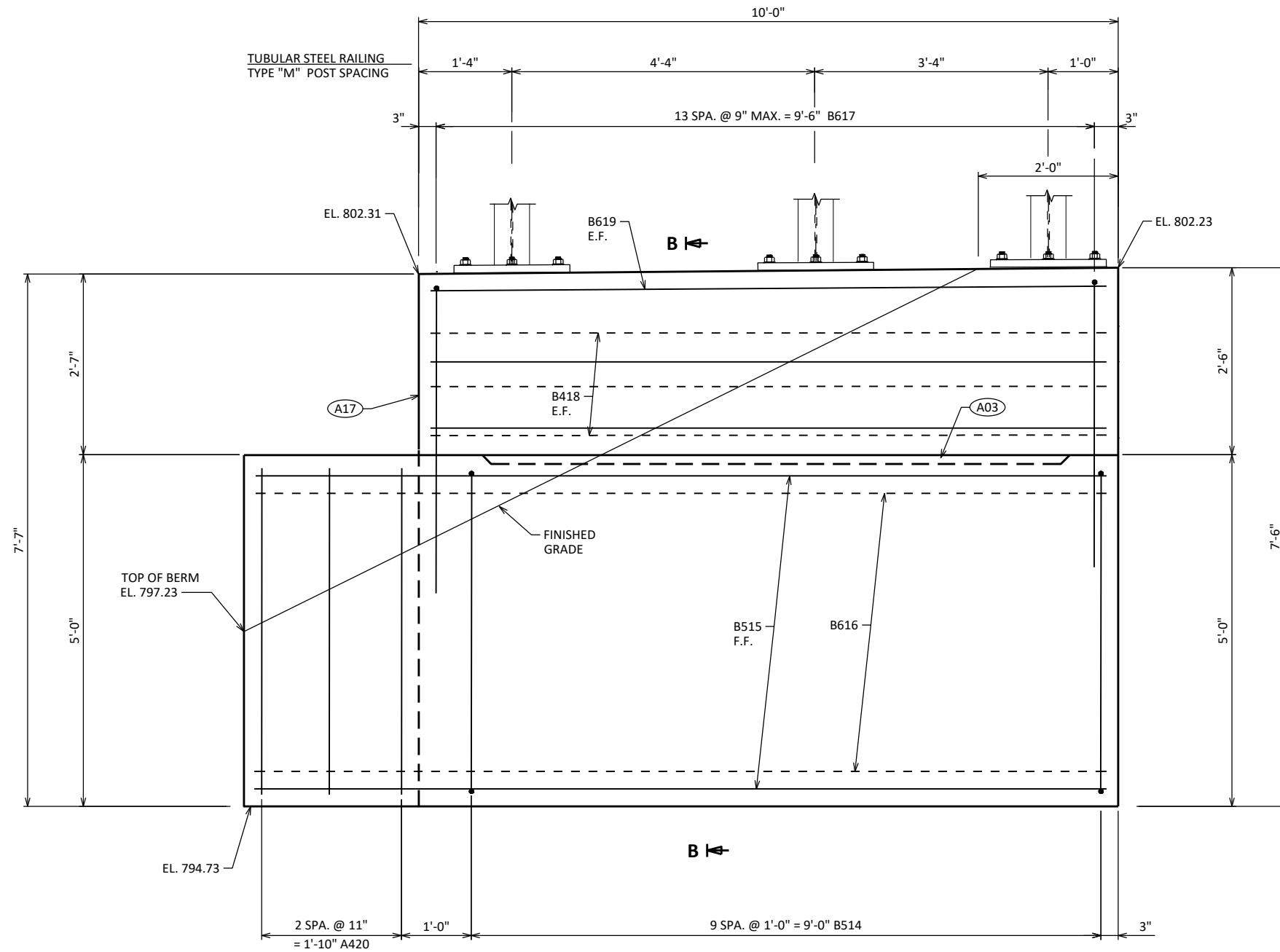
**ELEVATION - WING 3**



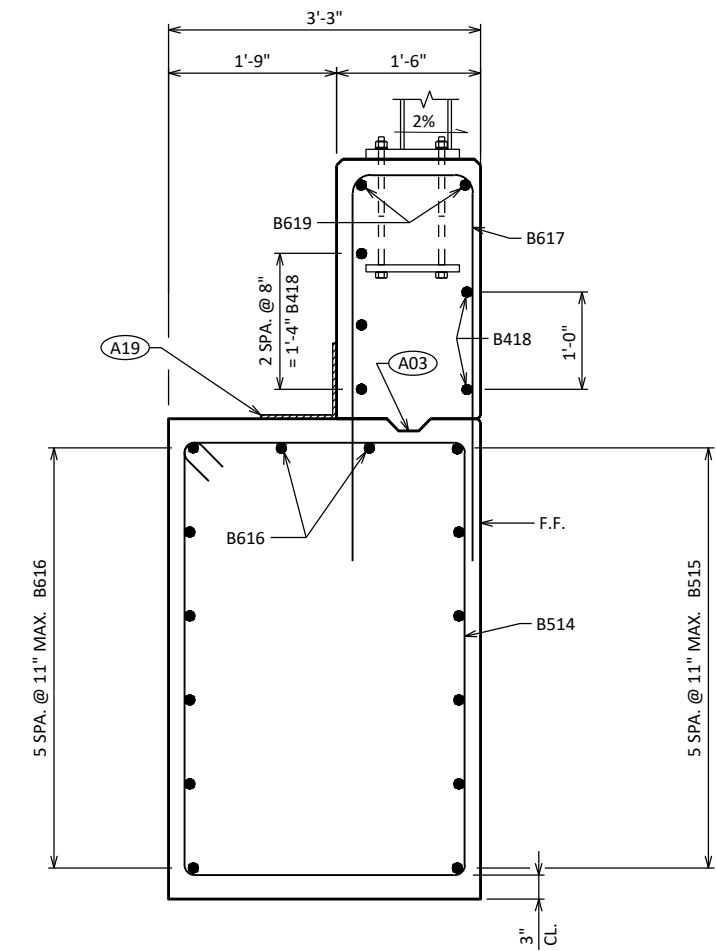
**SECTION A**

- (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 1/2" 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			
<b>STRUCTURE B-53-391</b>			
DRAWN BY		CLP	PLANS CK'D ERS
<b>EAST ABUTMENT WING 3 DETAILS</b>			SHEET 10 OF 15 38



**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.

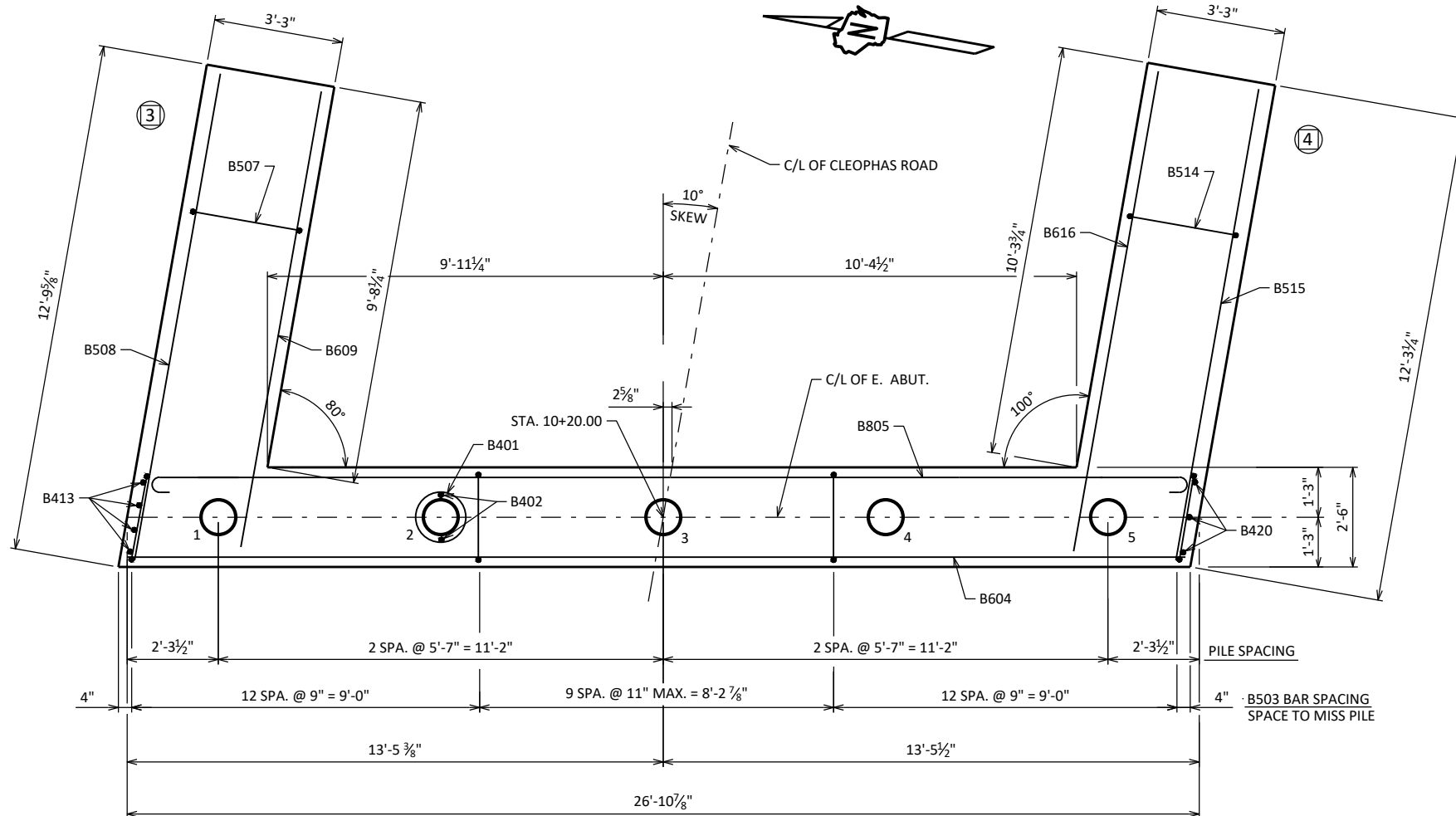
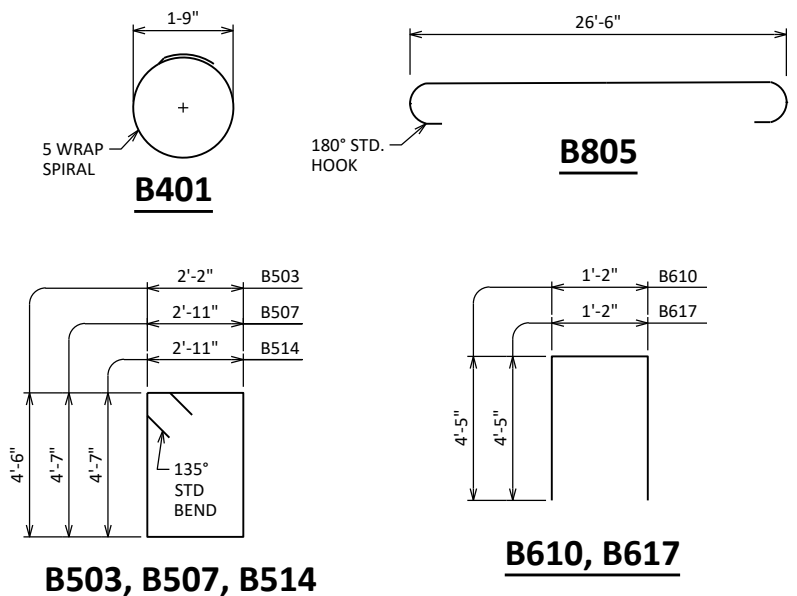
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-53-391</b>			
DRAWN BY		CLP	PLANS CK'D ERS
<b>EAST ABUTMENT WING 4 DETAILS</b>			SHEET 11 OF 15 39

**BILL OF BARS**

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

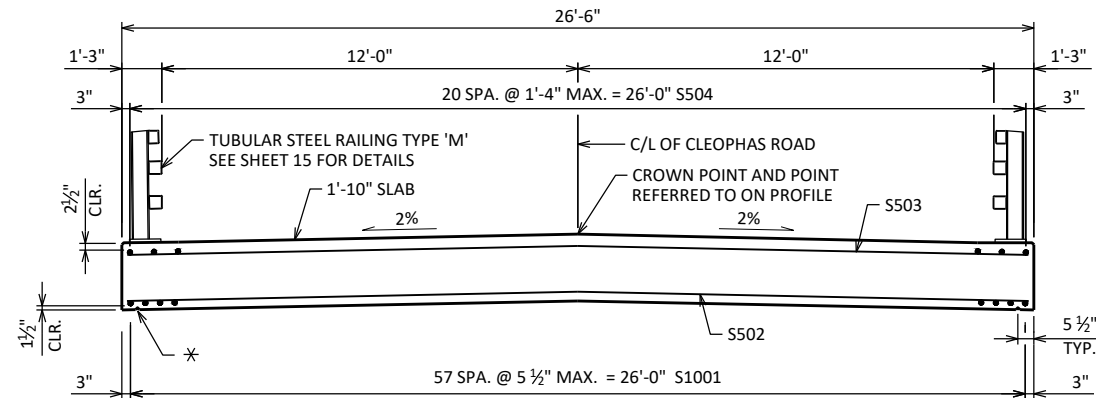
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B401		5	28'-0"	X		BODY @ PILES
B402		10	2'-3"			BODY @ PILES
B503		34	14'-0"	X		BODY VERT.
B604		11	26'-6"			BODY HORIZ.
B805		7	28'-4"	X		BODY HORIZ. @ WINGS 3 & 4 B.F.
B506	X	25	2'-0"			BODY DOWELS
B507	X	10	15'-8"	X		WING 3 VERT.
B508	X	6	12'-5"			WING 3 HORIZ. F.F.
B609	X	8	11'-7"			WING 3 HORIZ. B.F. & TOP
B610	X	14	9'-8"	X		WING 3 VERT.
B411	X	5	9'-7"			WING 3 HORIZ. E.F.
B612	X	2	9'-7"			WING 3 HORIZ. E.F. TOP
B413	X	4	4'-7"			BODY VERT. END @ WING 3
B514	X	10	15'-8"	X		WING 4 VERT.
B515	X	6	11'-11"			WING 4 HORIZ. F.F.
B616	X	8	12'-3"			WING 4 HORIZ. B.F. & TOP
B617	X	14	9'-8"	X		WING 4 VERT.
B418	X	5	9'-7"			WING 4 HORIZ. E.F.
B619	X	2	9'-7"			WING 4 HORIZ. E.F. TOP
B420	X	3	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			
<b>STRUCTURE B-53-391</b>			
DRAWN BY		CLP	PLANS CK'D ERS
<b>EAST ABUTMENT PILE LAYOUT AND BILL OF BARS</b>		SHEET 12 OF 15 40	



**TYPICAL SECTION THRU BRIDGE**

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.

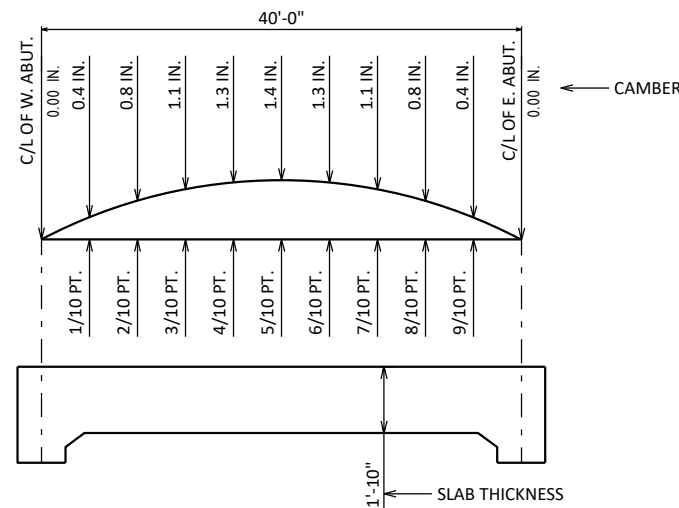
V-GROOVES ARE REQUIRED.

**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
S1001	x	58	36'-8"			SLAB LONG. BOT.
S502	x	64	26'-6"			SLAB TRANS. BOT.
S503	x	43	26'-6"			SLAB TRANS. TOP
S504	x	21	42'-2"			SLAB LONG. TOP
S505	x	54	7'-10"	X		SLAB @ ABUT. DIAPHRAGM STIRRUPS
S506	x	4	26'-6"			SLAB @ ABUT. DIAPHRAGM TRANS.
S607	x	32	11'-8"	X		SLAB @ RAIL POSTS
S608	x	48	6'-0"			SLAB @ INT. RAIL POSTS
S609	x	16	4'-8"	X		SLAB @ END RAIL POSTS

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



**CAMBER AND SLAB THICKNESS DIAGRAM**

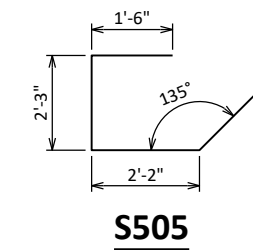
CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

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

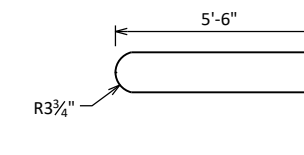
- LESS TOP OF SLAB ELEVATION AT FINAL GRADE
- LESS SLAB THICKNESS
- PLUS CAMBER
- PLUS FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
- EQUALS TOP OF SLAB FALSEWORK ELEVATION

**TOP OF SLAB ELEVATIONS**

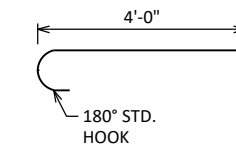
LOCATION	C/L W. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	C/L E. ABUT.
N. EDGE OF SLAB	802.64	802.61	802.58	802.55	802.52	802.49	802.46	802.43	802.40	802.37	802.34
C/L OF CLEOPHAS ROAD	802.89	802.86	802.83	802.80	802.77	802.74	802.71	802.68	802.65	802.62	802.59
S. EDGE OF SLAB	802.61	802.58	802.55	802.52	802.49	802.46	802.43	802.40	802.37	802.34	802.31



**S505**



**S607**



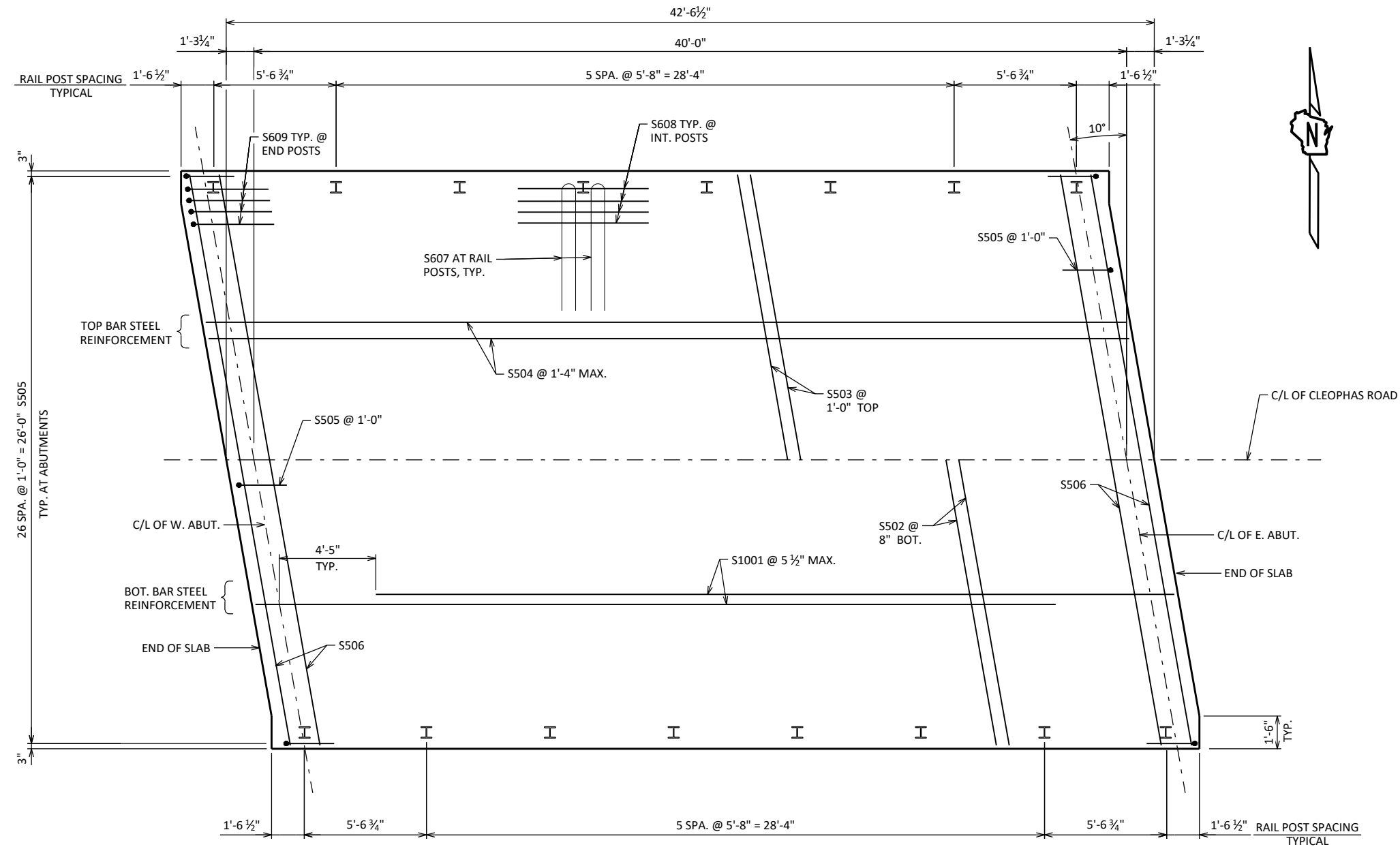
**S609**

**SURVEY TOP OF SLAB ELEVATIONS**

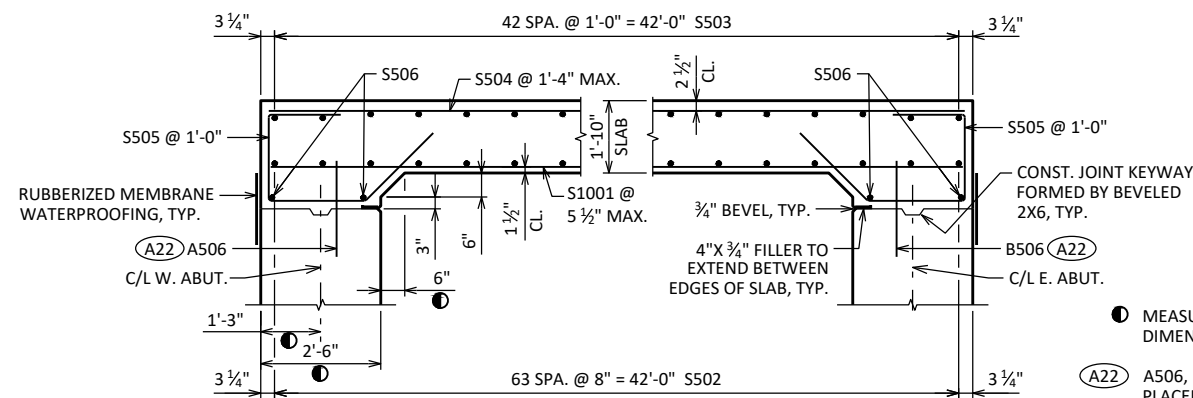
	ABUTMENT	5/10 PT.	ABUTMENT
N. EDGE OF SLAB			
C/L OF CLEOPHAS DRIVE			
S. EDGE OF SLAB			

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.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-53-391</b>			
DRAWN BY		CLP	PLANS CK'D ERS
<b>SUPERSTRUCTURE</b>			SHEET 13 OF 15 41



**PLAN**



**LONGITUDINAL SECTION**

DIMENSIONS ARE GIVEN PARALLEL TO C/L ROADWAY UNLESS OTHERWISE NOTED.

● MEASURED NORMAL TO THE C/L OF ABUTMENT. DIMENSIONS ARE TYPICAL FOR BOTH ABUTMENTS.

(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.)

8

8

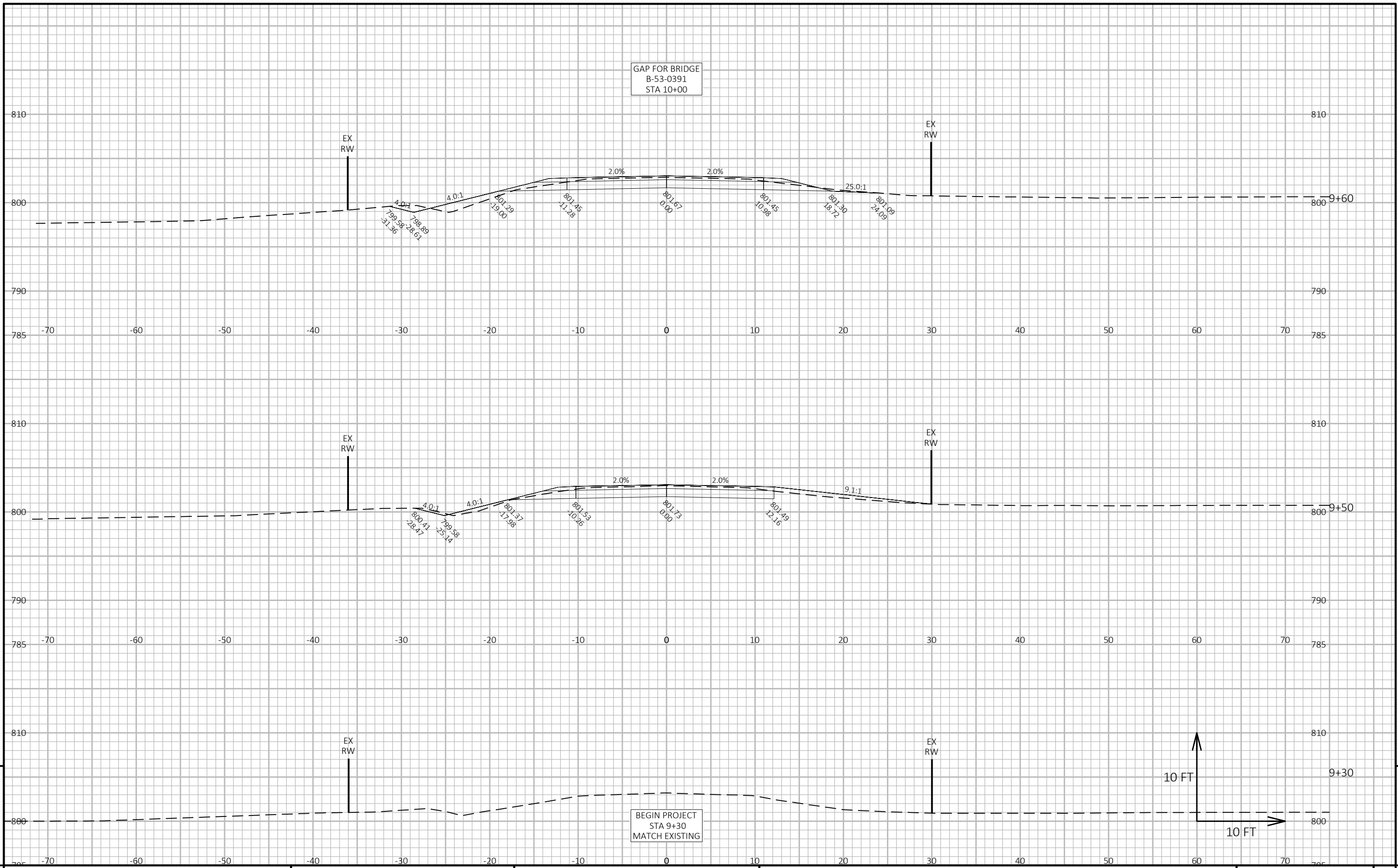
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-53-391</b>			
DRAWN BY		CLP	PLANS CK'D ERS
<b>SUPERSTRUCTURE PLAN</b>		SHEET 14 OF 15 42	



CLEOPHAS ROAD COMPUTER EARTHWORK

Station	Distance	Area (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Unusable			Unusable			Unusable			
		Cut	Cut	Fill	Cut	Cut	Fill	Cut 1.00	Cut 1.30	Expanded	
				Note 1	Note 2	Note 3	Note 1	Note 2	Note 3	Note 4	
9+30	--	0.0	0.0	0.0	--	--	--	--	--	--	--
9+50	20	31.0	9.0	8.2	11	7	3	11	7	4	0
9+60	10	36.5	9.0	5.9	12	3	3	23	10	8	5
Bridge											
10+20	--	0.0	0.0	0.0	--	--	--	--	--	--	--
10+40	20	35.4	9.0	31.4	13	3	12	36	13	23	-1
10+50	10	31.9	9.0	26.5	12	3	11	48	16	38	-6
10+70	30	2.2	0.0	14.1	26	7	27	74	23	73	-22
11+00	30	1.6	0.0	8.6	2	0	13	76	23	90	-37
11+35	35	2.0	0.0	3.0	2	0	7	78	23	99	-44
11+70	70	7.4	0.0	1.5	9	0	11	87	23	113	-49
					87	23	87				

Note 1 -	Includes usable & unusable cut
Note 2 -	Existing asphalt pavement. Not to be used inside the 1:1 road core.
Note 3 -	Volume needed to be filled = Fill * 1.30
Note 4 -	(Cut) - (Expanded Fill)



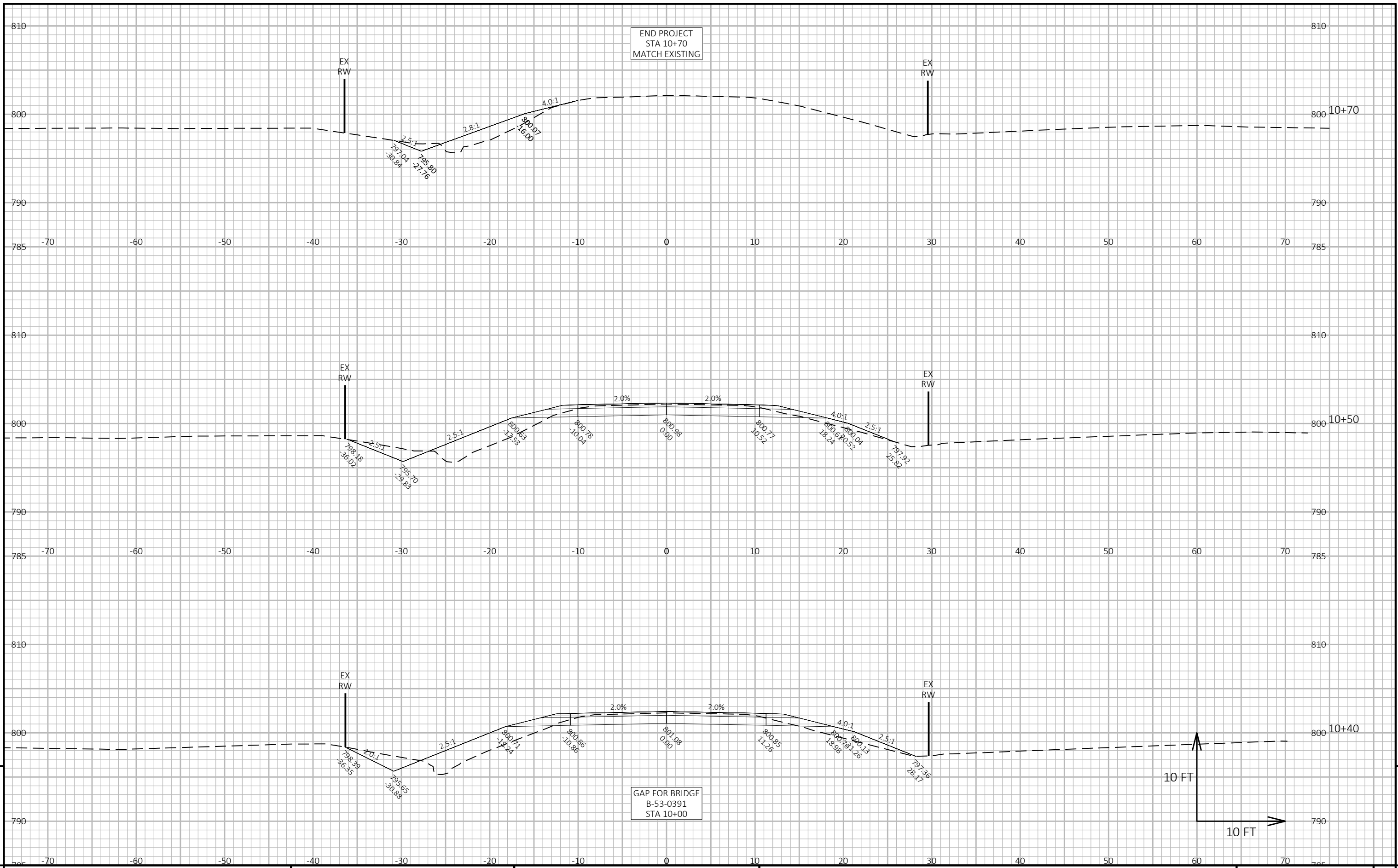
PROJECT NO: 5788-00-76

HWY: CLEOPHAS ROAD

COUNTY: ROCK

CROSS SECTIONS: CLEOPHAS ROAD

SHEET 45



END PROJECT  
STA 10+70  
MATCH EXISTING

GAP FOR BRIDGE  
B-53-0391  
STA 10+00

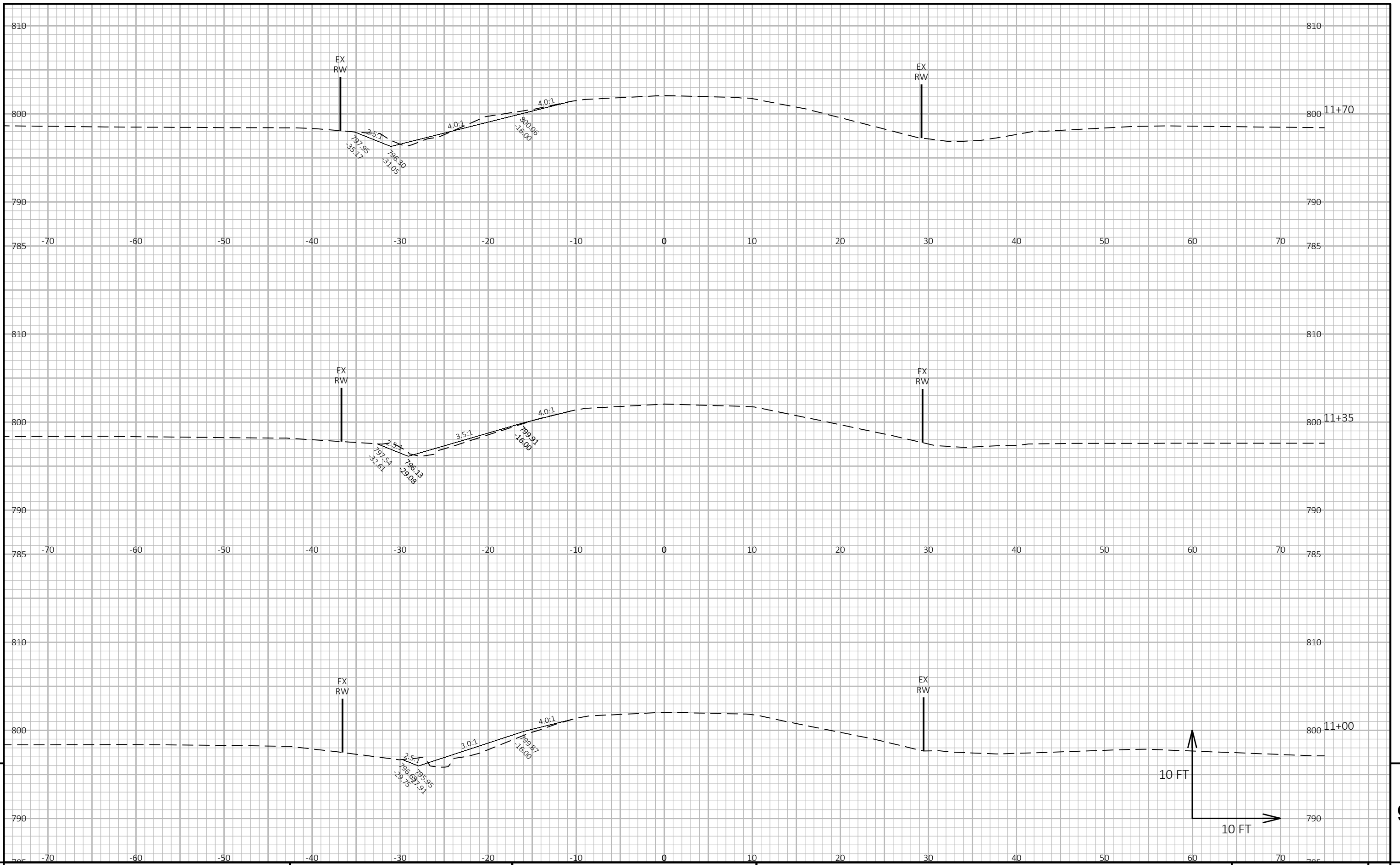
9

9

PROJECT NO: 5788-00-76      HWY: CLEOPHAS ROAD      COUNTY: ROCK      CROSS SECTIONS: CLEOPHAS ROAD      SHEET 46      E

FILE NAME : I:\47\470465 ROCK NEWARK\C3D\SHEETS\57880076-090201\_XS.DWG      PLOT DATE : 12/16/2025 4:37 PM      PLOT BY : KUSCHEL, LEVI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 02

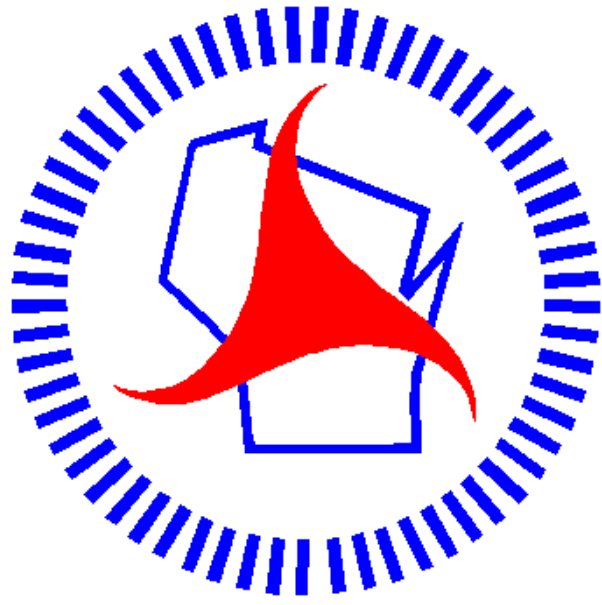


9

9

PROJECT NO: 5788-00-76      HWY: CLEOPHAS ROAD      COUNTY: ROCK      CROSS SECTIONS: CLEOPHAS ROAD      SHEET 47      E

FILE NAME : I:\47\470465 ROCK NEWARK\C3D\SHEETS\57880076-090201\_XS.DWG      PLOT DATE : 12/16/2025 4:37 PM      PLOT BY : KUSCHEL, LEVI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49



## ***Wisconsin Department of Transportation***

Dedicated people creating transportation solutions through innovation and exceptional service.

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