

EAU

PROJECT ID:
WITH: N/A

7251-00-71

COUNTY:

JACKSON

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
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)	=	103
A.A.D.T. (2046)	=	110
D.H.V.	=	N/A
D.D.	=	50/50
T.	=	13.6%
DESIGN SPEED	=	35 MPH
ESALS	=	22,000

CONVENTIONAL SYMBOLS

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

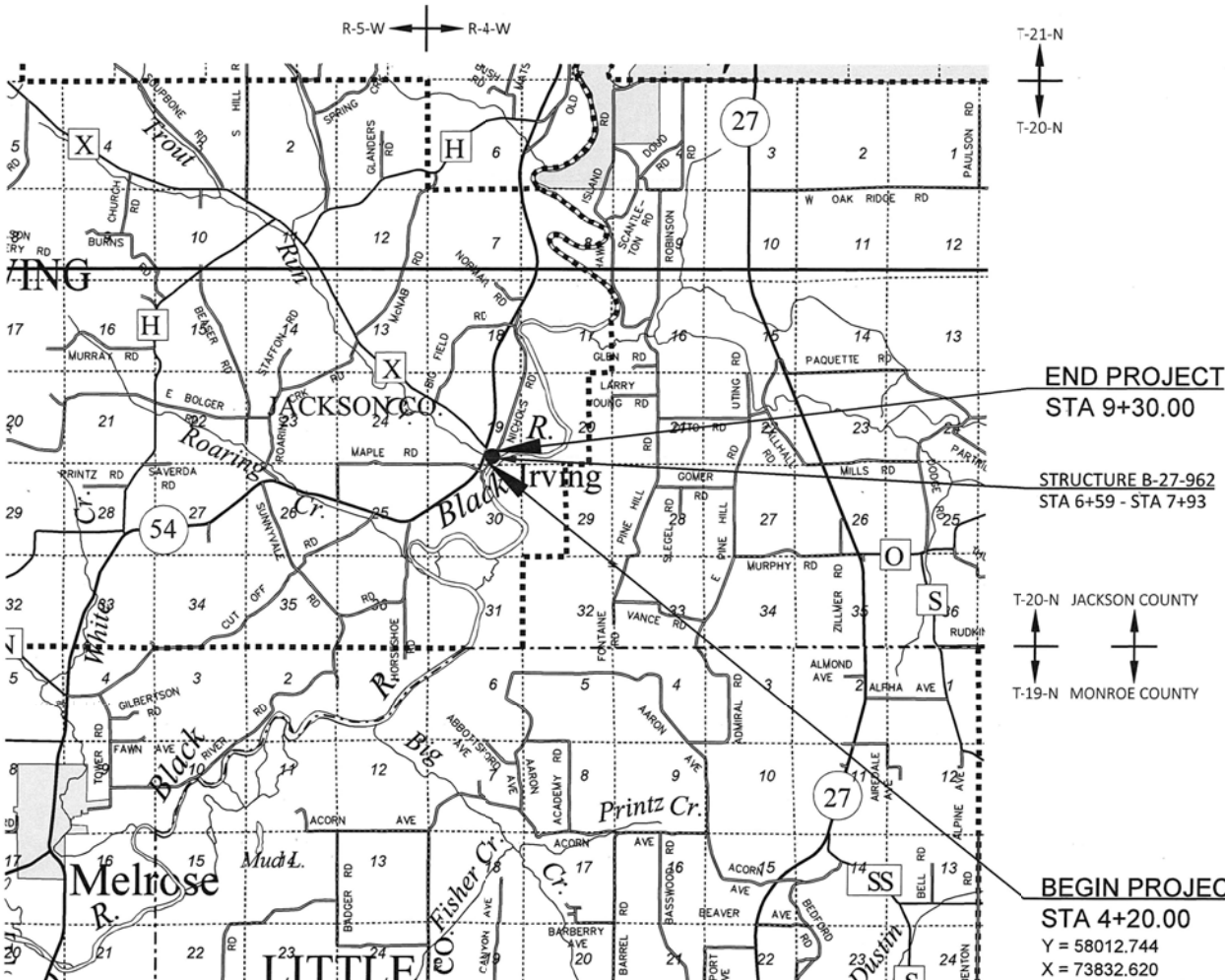
T IRVING, NICHOLS ROAD

TROUT RUN CREEK BRIDGE B-27-0184

LOC STR
JACKSON COUNTY

STATE PROJECT NUMBER

7251-00-71



LAYOUT
SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.097 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), JACKSON 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 G18

STATE PROJECT

7251-00-71

FEDERAL PROJECT

PROJECT

CONTRACT

ACCEPTED FOR
TOWN OF IRVING

Date 1-27-26
(Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

CORRE
ENGINEERING

MADISON | EAU CLAIRE | WAUKESHA | APPLETON | TOMAH | WAUSAU

WISCONSIN
PROFESSIONAL ENGINEER
ERIC T. PRICE
E-39027
MADISON WI
January 28, 2026

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	CORRE, INC.
Designer	CORRE, INC.
Project Manager	TOU YANG, PE
Regional Examiner	NW REGION
Regional Supervisor	TOU YANG, PE

APPROVED FOR THE DEPARTMENT
DATE: 2026.01.30 13:25:45-06'0
(Signature)

UTILITIES CONTACTS

BRIGHTSPEED
COMMUNICATIONS
BRIAN STELPUGH
333 N. FRONT STREET
LA CROSSE, WI 546901
PHONE: (980) 376-1557
EMAIL: RELOCATIONS@BRIGHTSPEED.COM

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
TYPICAL SECTIONS
EROSION CONTROL

TOWN OF IRVING CONTACT

BRUCE JOHNSON
TOWN CHAIRMAN
N3291 NICHOLS RD
BLACK RIVER FALLS, WI 54615
PHONE: 715-299-4486
EMAIL: TOWNOFIRVING@GMAIL.COM

WISCONSIN DNR LIAISON

BRAD BETTHAUSER
NORTHWEST REGION
910 HWY 54 E
BLACK RIVER FALLS, WI 54615
PHONE: 715-213-9064
EMAIL: BRADLEY.BETTHAUSER@WISCONSIN.GOV

CONSULTANT PROJECT MANAGER

ERIC PRICE, P.E.
CORRE, INC.
6510 GRAND TETON PLAZA, SUITE 314
MADISON, WI 53719
PHONE: 608-826-6146
EMAIL: EPRICE@CORREINC.COM

GENERAL NOTES:

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

THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES BY CALLING DIGGER'S HOTLINE AND CONTACTING UTILITIES DIRECTLY AS NEEDED.

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.

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AND PUBLIC TRAILS AT ALL TIMES EXCEPT WHEN PAVING OPERATIONS REQUIRE THE ACCESS TO BE CLOSED. ACCESS SHALL BE RE-ESTABLISHED IMMEDIATELY AFTER OPERATIONS ARE COMPLETED. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.

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

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

TACK COAT CALCULATIONS ARE BASED ON AN APPLICATION RATE OF 0.07 GAL/SY.

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

DO NOT APPLY FERTILIZER TO SATURATED SOILS, WETLANDS, SURFACES WATERS, FROZEN GROUND, OR IMPERVIOUS SURFACES. DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A WATERBODY OR WETLAND. DO NOT APPLY FERTILIZER WHEN A RUNOFF EVENT IS EXPECTED WITHIN 24 HOURS.

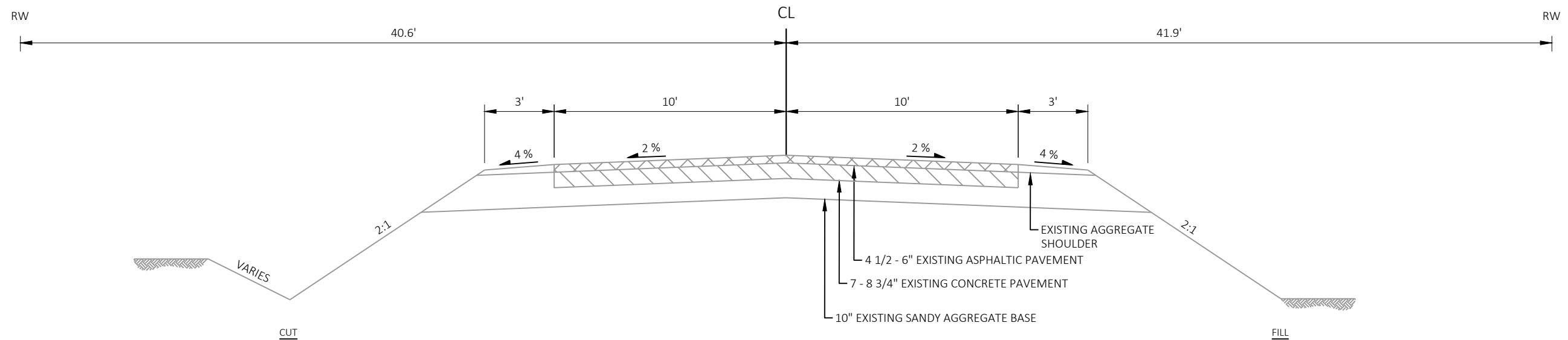
D.O.T. BENCHMARK MONUMENT TO BE FURNISHED BY THE STATE AND PLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

RUNOFF COEFFICIENT TABLE

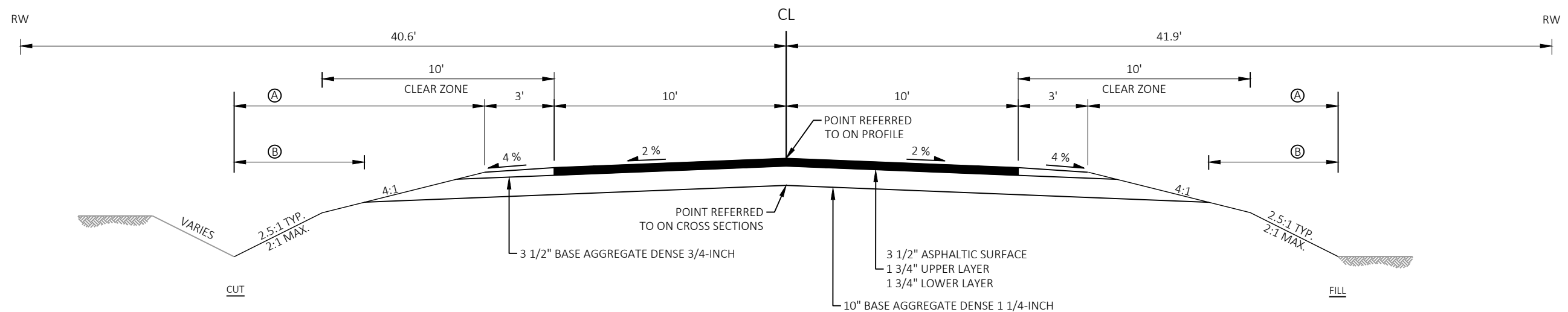
LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.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											

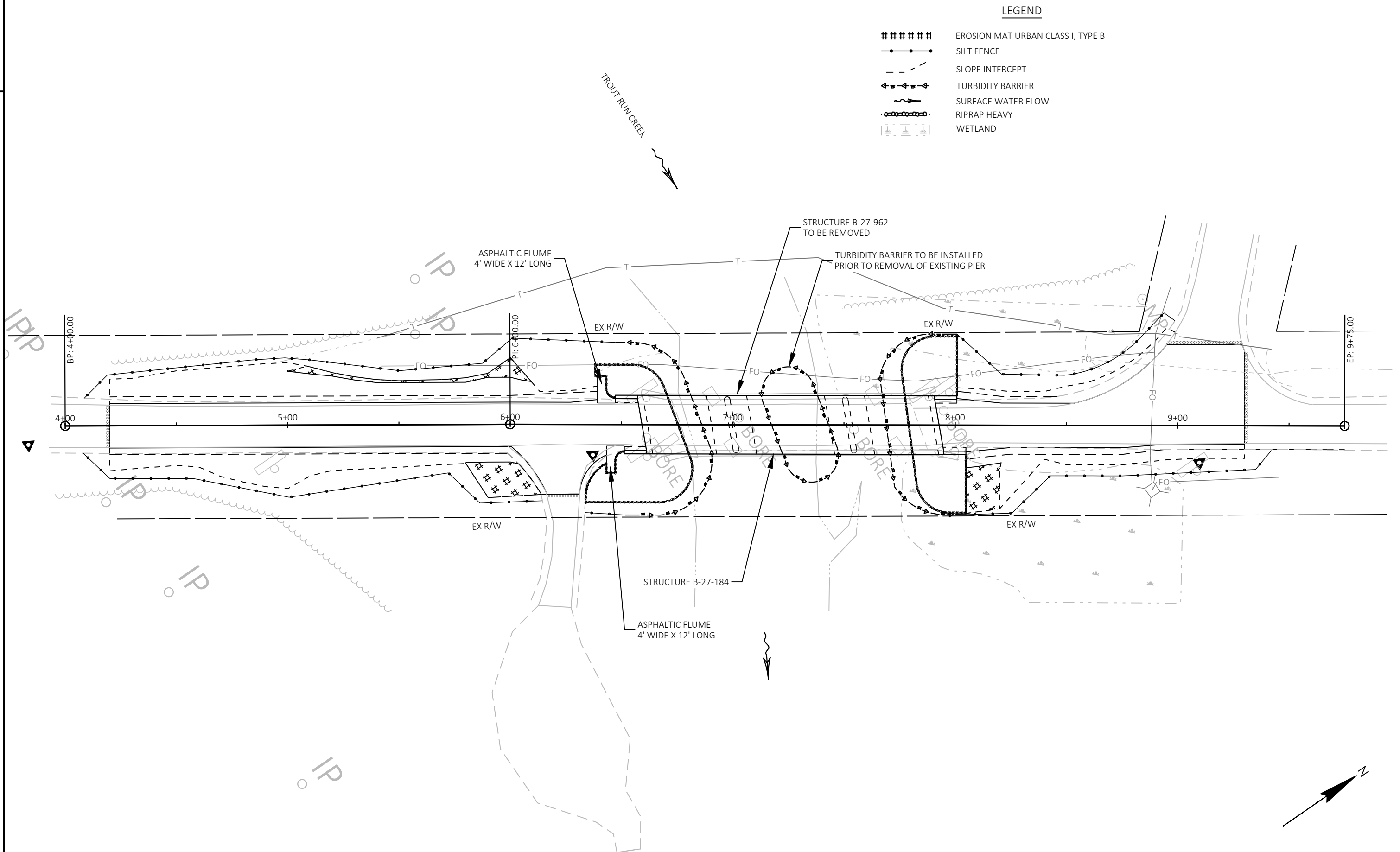
TOTAL PROJECT AREA = 0.352 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.244 ACRES





LEGEND	
(A)	FERTILIZER TYPE A, SEEDING MIXTURE NO. 20 & SEEDING TEMPORARY
(B)	SALVAGED TOPSOIL & EROSION MAT URBAN CLASS I TYPE B





Estimate Of Quantities

7251-00-71					
Line	Item	Item Description	Unit	Total	Qty
0002	203.0250	Removing Structure Over Waterway Remove Debris (structure) 01. B-27-962	EACH	1.000	1.000
0004	204.0100	Removing Concrete Pavement	SY	970.000	970.000
0006	205.0100	Excavation Common	CY	585.000	585.000
0008	206.1001	Excavation for Structures Bridges (structure) 01. B-27-184	EACH	1.000	1.000
0010	206.5001	Cofferdams (structure) 01. B-27-184	EACH	1.000	1.000
0012	210.1500	Backfill Structure Type A	TON	210.000	210.000
0014	213.0100	Finishing Roadway (project) 01. 7251-00-71	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	69.000	69.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	910.000	910.000
0020	455.0605	Tack Coat	GAL	73.000	73.000
0022	465.0105	Asphaltic Surface	TON	210.000	210.000
0024	465.0315	Asphaltic Flumes	SY	15.000	15.000
0026	502.0100	Concrete Masonry Bridges	CY	369.000	369.000
0028	502.3200	Protective Surface Treatment	SY	358.000	358.000
0030	502.3210	Pigmented Surface Sealer	SY	154.000	154.000
0032	502.9000.S	Underwater Substructure Inspection (structure) 01. B-27-184	EACH	1.000	1.000
0034	505.0400	Bar Steel Reinforcement HS Structures	LB	7,180.000	7,180.000
0036	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	55,320.000	55,320.000
0038	516.0500	Rubberized Membrane Waterproofing	SY	16.000	16.000
0040	550.2126	Piling CIP Concrete 12 3/4 X 0.375-Inch	LF	1,815.000	1,815.000
0042	606.0300	Riprap Heavy	CY	295.000	295.000
0044	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	195.000	195.000
0046	618.0100	Maintenance and Repair of Haul Roads (project) 01. 7251-00-71	EACH	1.000	1.000
0048	619.1000	Mobilization	EACH	1.000	1.000
0050	624.0100	Water	MGAL	20.000	20.000
0052	625.0500	Salvaged Topsoil	SY	80.000	80.000
0054	628.1504	Silt Fence	LF	975.000	975.000
0056	628.1520	Silt Fence Maintenance	LF	975.000	975.000
0058	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0060	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0062	628.2008	Erosion Mat Urban Class I Type B	SY	100.000	100.000
0064	628.6005	Turbidity Barriers	SY	350.000	350.000
0066	629.0205	Fertilizer Type A	CWT	0.500	0.500
0068	630.0120	Seeding Mixture No. 20	LB	35.000	35.000
0070	630.0200	Seeding Temporary	LB	20.000	20.000
0072	630.0500	Seed Water	MGAL	20.000	20.000
0074	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0076	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0078	638.2602	Removing Signs Type II	EACH	7.000	7.000
0080	638.3000	Removing Small Sign Supports	EACH	7.000	7.000
0082	642.5001	Field Office Type B	EACH	1.000	1.000
0084	643.0420	Traffic Control Barricades Type III	DAY	2,440.000	2,440.000
0086	643.0705	Traffic Control Warning Lights Type A	DAY	3,420.000	3,420.000
0088	643.0900	Traffic Control Signs	DAY	1,960.000	1,960.000
0090	643.5000	Traffic Control	EACH	1.000	1.000
0092	645.0111	Geotextile Type DF Schedule A	SY	52.000	52.000
0094	645.0120	Geotextile Type HR	SY	470.000	470.000
0096	650.4500	Construction Staking Subgrade	LF	377.000	377.000
0098	650.5000	Construction Staking Base	LF	377.000	377.000

Estimate Of Quantities

7251-00-71					
Line	Item	Item Description	Unit	Total	Qty
0100	650.6501	Construction Staking Structure Layout (structure) 01. B-27-184	EACH	1.000	1.000
0102	650.9911	Construction Staking Supplemental Control (project) 01. 7251-00-71	EACH	1.000	1.000
0104	650.9920	Construction Staking Slope Stakes	LF	377.000	377.000
0106	690.0150	Sawing Asphalt	LF	115.000	115.000
0108	690.0250	Sawing Concrete	LF	100.000	100.000
0110	715.0502	Incentive Strength Concrete Structures	DOL	2,214.000	2,214.000
0112	999.2005.S	Maintaining Bird Deterrent System (station) 01. 7+26	EACH	1.000	1.000
0114	SPV.0090	Special 01. Parapet Concrete Type 'TX'	LF	307.000	307.000
0116	SPV.0195	Special 01. Infill Riprap B-27-184	TON	20.000	20.000

REMOVALS

204.0100 REMOVING CONCRETE PAVEMENT					
CATEGORY	STATION	TO	STATION	LOCATION	SY
0010	4+20	-	6+77	NICHOLS RD	535
0010	7+83	-	9+30	NICHOLS RD	435
TOTAL 0010					970

BASE AGGREGATE

					305.0110 BASE AGGREGATE DENSE 3/4-INCH	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	624.0100 WATER
CATEGORY	STATION	TO	STATION	LOCATION	TON	TON	MGAL
0010	6+00	-	6+59	SOUTH APPROACH	48	585	13
0010	7+92	-	8+45	NORTH APPROACH	21	325	7
TOTAL 0010					69	910	20

DIVISION	FROM / TO STATION	LOCATION	205.0100 EXCAVATION COMMON	SALVAGED/UNUSABLE PAVEMENT MATERIAL	AVAILABLE MATERIAL	UNEXPANDED FILL	EXPANDED FILL	MASS ORDINATE +/-	WASTE	COMMENT
			CUT				FACTOR 1.25			
SOUTH APPROACH	4+20 / 6+47	NICHOLS RD	463	222	241	0	0	241	-	
NORTH APPROACH	8+05 / 9+30	NICHOLS RD	122	177	-55	21	26	-81	-	
TOTAL COMMON EXC			585	399	186	21	26	160	160	

ASPHALT

					455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	465.0315 ASPHALTIC FLUMES SY
CATEGORY	STATION	TO	STATION	LOCATION			
0010	6+00	-	6+59	SOUTH APPROACH	42	120	15
0010	7+92	-	8+45	NORTH APPROACH	31	90	-
TOTAL 0010					73	210	15

EROSION CONTROL & RESTORATION

		625.0500	628.1504	628.1520	628.1905	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL	628.2008	628.6005	629.0205	630.0120	630.0200	630.0500
		SALVAGED TOPSOIL SY	SILT FENCE LF	SILT FENCE MAINTENANCE LF	MOBILIZATIONS EROSION CONTROL EACH		EROSION MAT URBAN CLASS I TYPE B SY	TURBIDITY BARRIERS SY	FERTILIZER TYPE A CWT	SEEDING MIXTURE NO. 20 LB	SEEDING TEMPORARY LB	SEED WATER MGAL
CATEGORY	LOCATION											
0010	ENTIRE PROJECT UNDISTRIBUTED	80 -	775 200	775 200	5 -	3 -	80 20	280 70	0.4 0.1	25 10	15 5	15 5
TOTAL 0010		80	975	975	5	3	100	350	0.5	35	20	20

PERMANENT SIGNING

CATEGORY	LOCATION	634.0614	637.2230	638.2602	638.3000	REMARKS
		POSTS WOOD 4X6-INCH X 14-FT EACH	SIGNS TYPE II REFLECTIVE F SF	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
0010	NW QUADRANT	1	3	1	1	INSTALL NEW BRIDGE MARKER SIGNS (W5-52L & W5-52R) ACCORDING TO S.D.D. "SIGNING AND MARKING FOR TWO LANE BRIDGES"
0010	NE QUADRANT	1	3	1	1	
0010	SW QUADRANT	1	3	1	1	
0010	SE QUADRANT	1	3	1	1	
0010	SE & NW QUADRANT	-	-	2	2	WEIGHT LIMIT 15 TONS NARROW BRIDGE
0010	4+94 RT	-	-	1	1	
TOTAL 0010		4	12	7	7	

TRAFFIC CONTROL

CATEGORY	LOCATION	643.0420		643.0705		643.0900		REMARKS
		NUMBER OF DEVICES	TRAFFIC CONTROL BARRICADES TYPE III DAY	NUMBER OF DEVICES	TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	NUMBER OF DEVICES	TRAFFIC CONTROL SIGNS DAY	
0010	ENTIRE PROJECT	20	2,440	28	3,420	16	1,960	122 CALENDAR DAY DURATION
TOTAL 0010			2,440		3,420		1,960	

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500	650.5000	650.9920
					CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING SLOPE STAKES LF
0010	4+20	-	6+59	SOUTH APPROACH	239	239	239
0010	7+92	-	9+30	NORTH APPROACH	138	138	138
TOTAL 0010					377	377	377

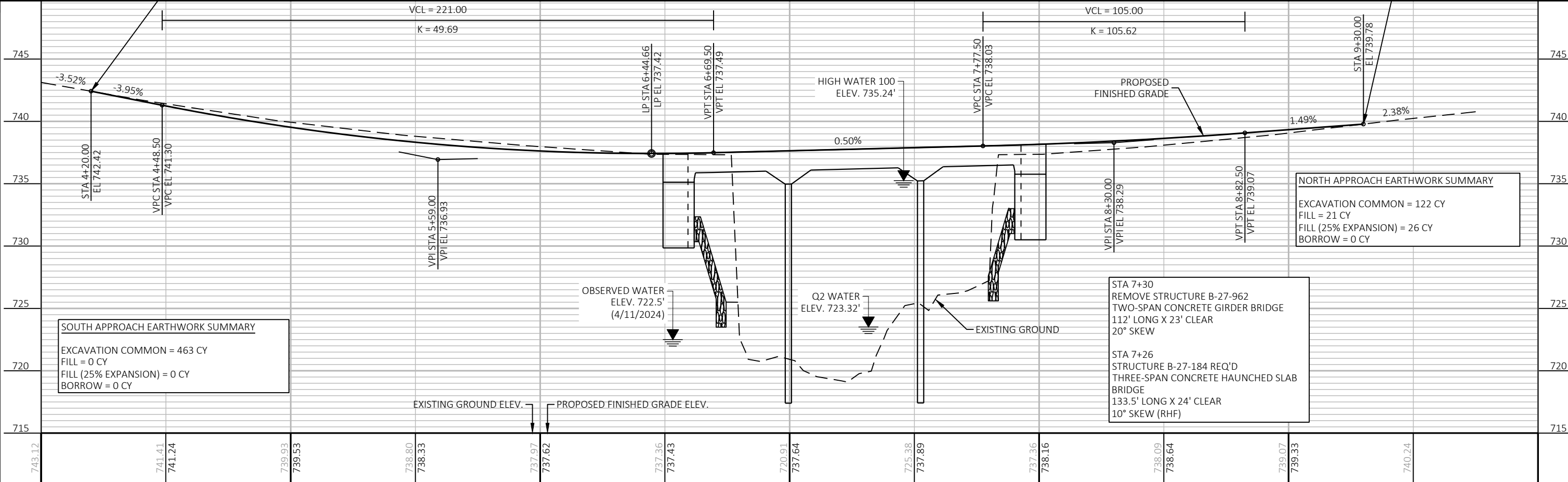
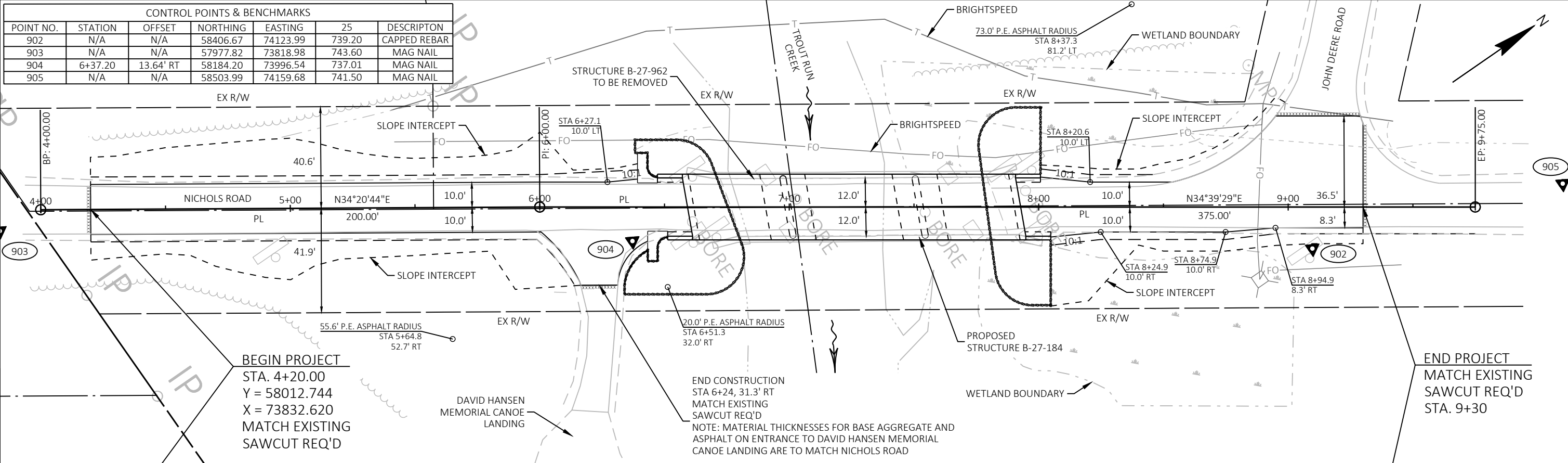
SAWING

CATEGORY	STATION	LOCATION	690.0150	690.0250
			SAWING ASPHALT LF	SAWING CONCRETE LF
0010	4+20	BOP	20	20
0010	6+24	RT	15	-
0010	9+30	EOP	80	80
TOTAL 0010			115	100

BIRD DETERRENT SYSTEM

CATEGORY	LOCATION	999.2005.S.01
		MAINTAINING BIRD DETERRENT SYSTEM (STATION) (01: 7+26) EACH
0010	ENTIRE PROJECT	1
TOTAL 0010		1

CONTROL POINTS & BENCHMARKS						
POINT NO.	STATION	OFFSET	NORTHING	EASTING	25	DESCRIPTION
902	N/A	N/A	58406.67	74123.99	739.20	CAPPED REBAR
903	N/A	N/A	57977.82	73818.98	743.60	MAG NAIL
904	6+37.20	13.64' RT	58184.20	73996.54	737.01	MAG NAIL
905	N/A	N/A	58503.99	74159.68	741.50	MAG NAIL



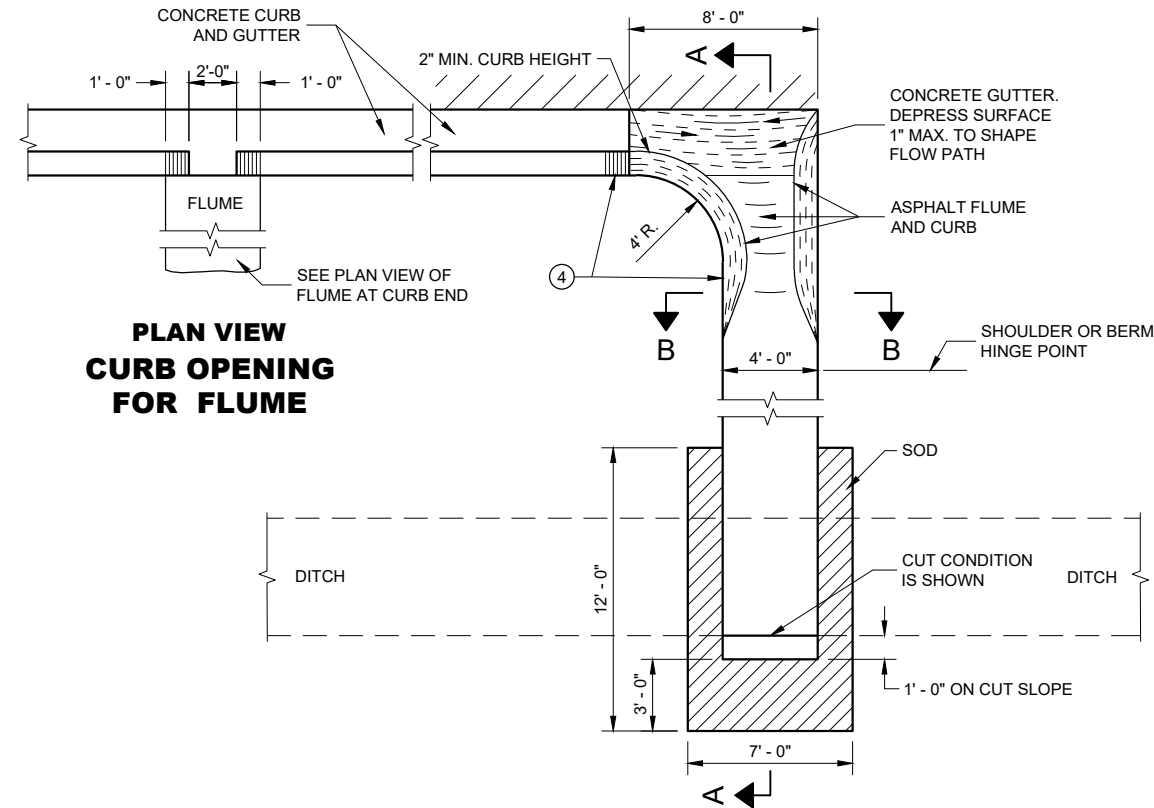
PROJECT NO:	7251-00-71	HWY:	NICHOLS ROAD	COUNTY:	JACKSON	PLAN AND PROFILE:	NICHOLS ROAD	SHEET	9	E
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Standard Detail Drawing List

08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
15C02-10A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-10B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES

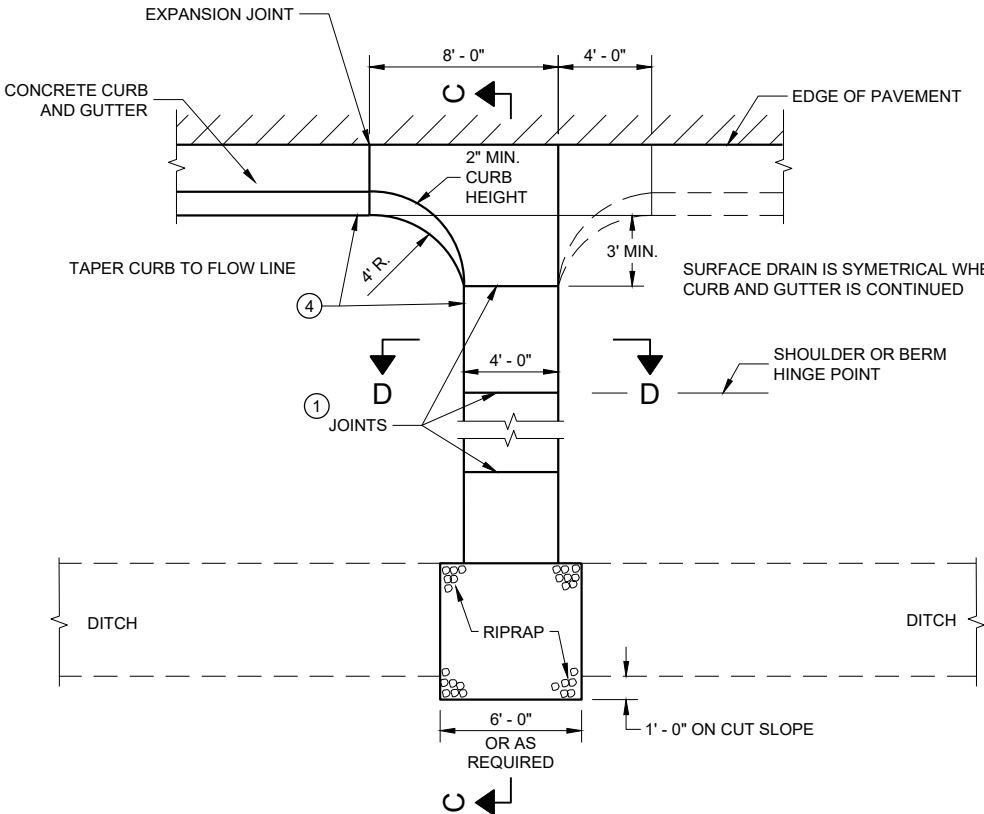
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING
FOR FLUME

PLAN VIEW
FLUME AT CURB END



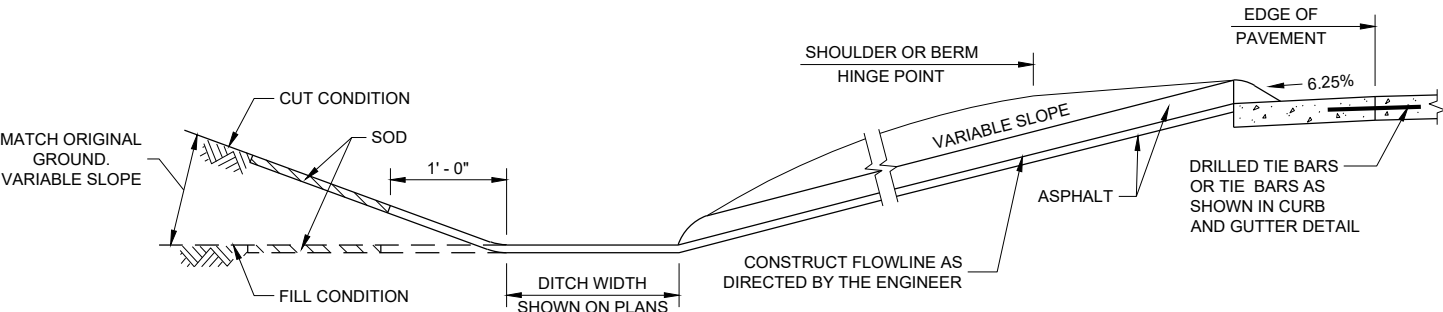
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

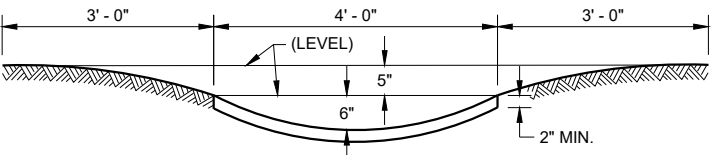
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

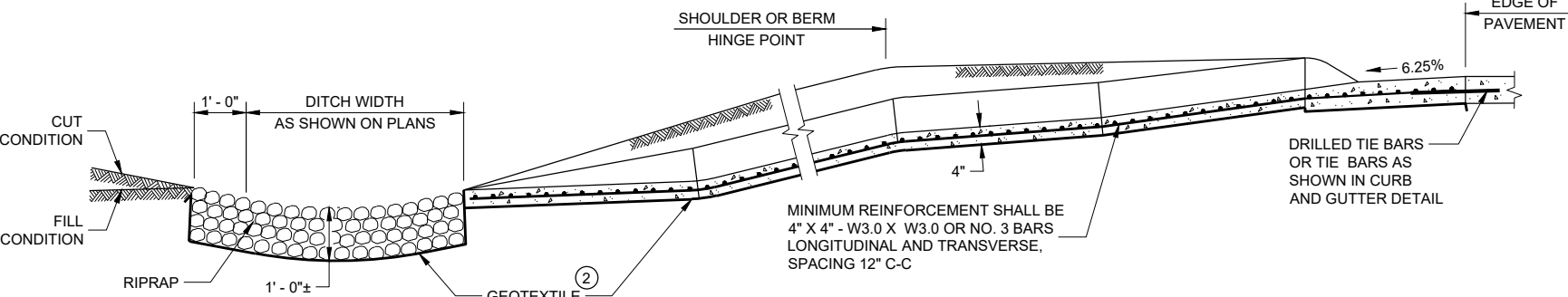
- ① JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- ④ ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



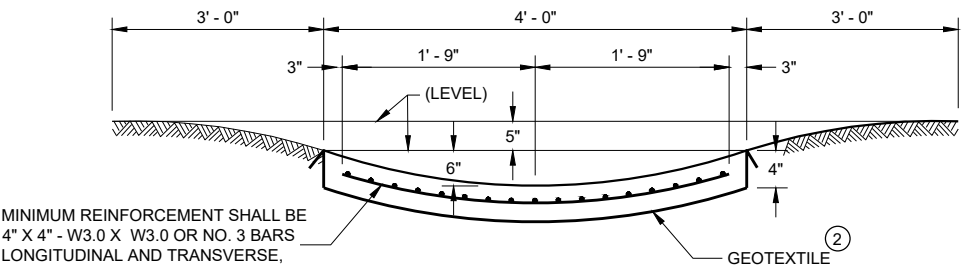
SECTION A - A



SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE
DRAINS AND
ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023

DATE

FHWA

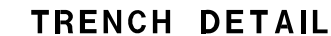
/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT ENGINEER

11



- 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.

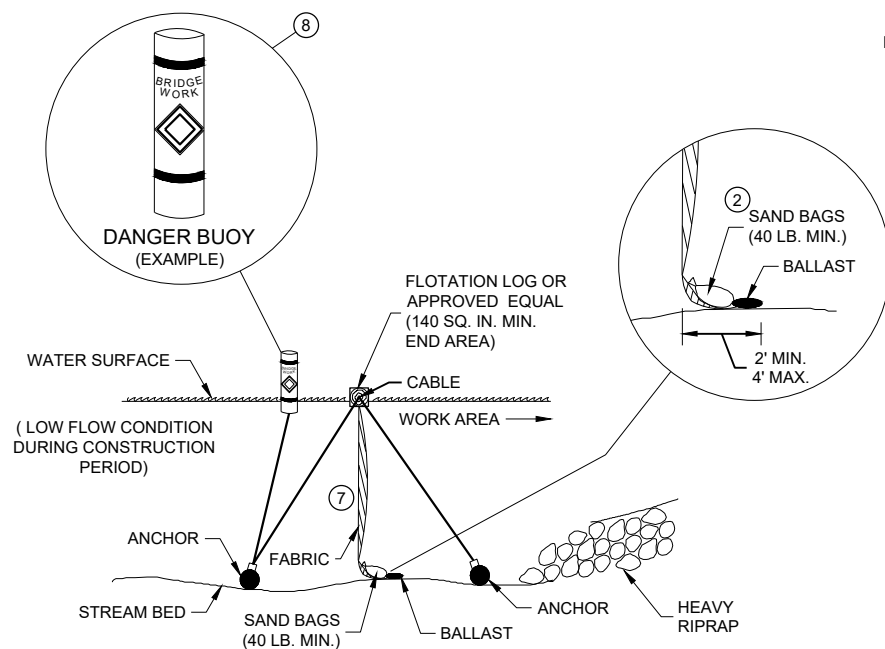


SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

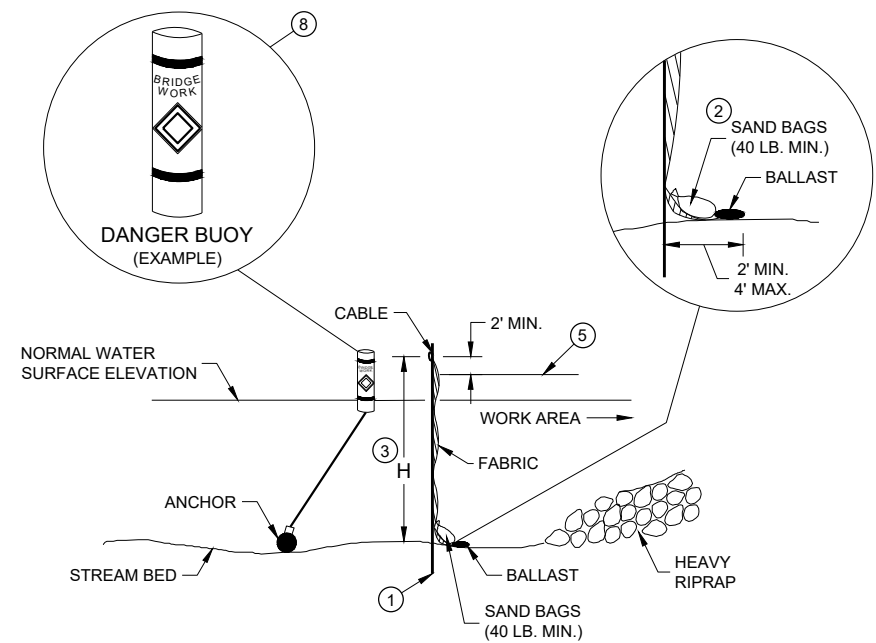
APPROVED
4-29-05 /S/ Beth Connolly
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



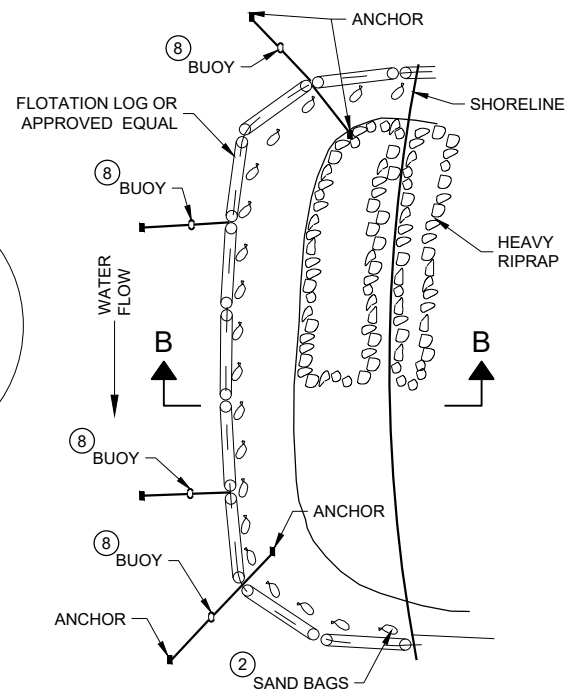
SECTION B - B

TURBIDITY BARRIER - FLOAT ALTERNATIVE CAUTION - SEE NOTE 6

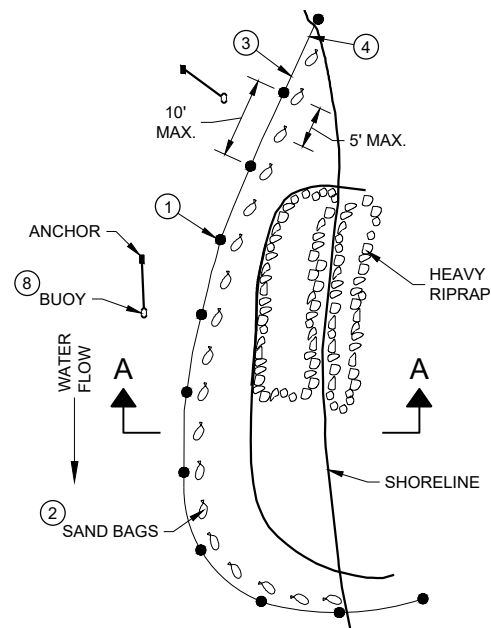


SECTION A - A

TURBIDITY BARRIER - STANDARD POST INSTALLATION



PLAN VIEW



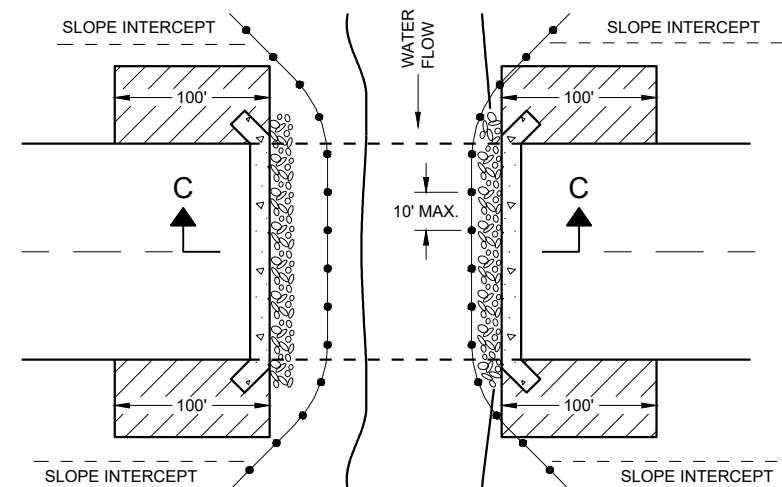
PLAN VIEW

GENERAL NOTES

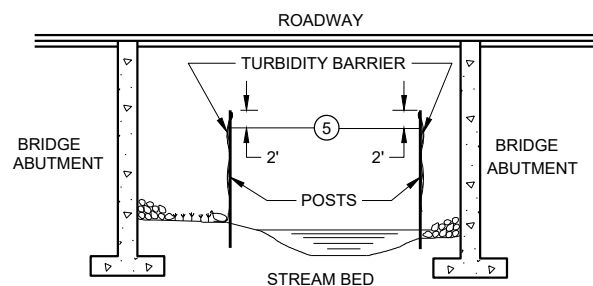
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

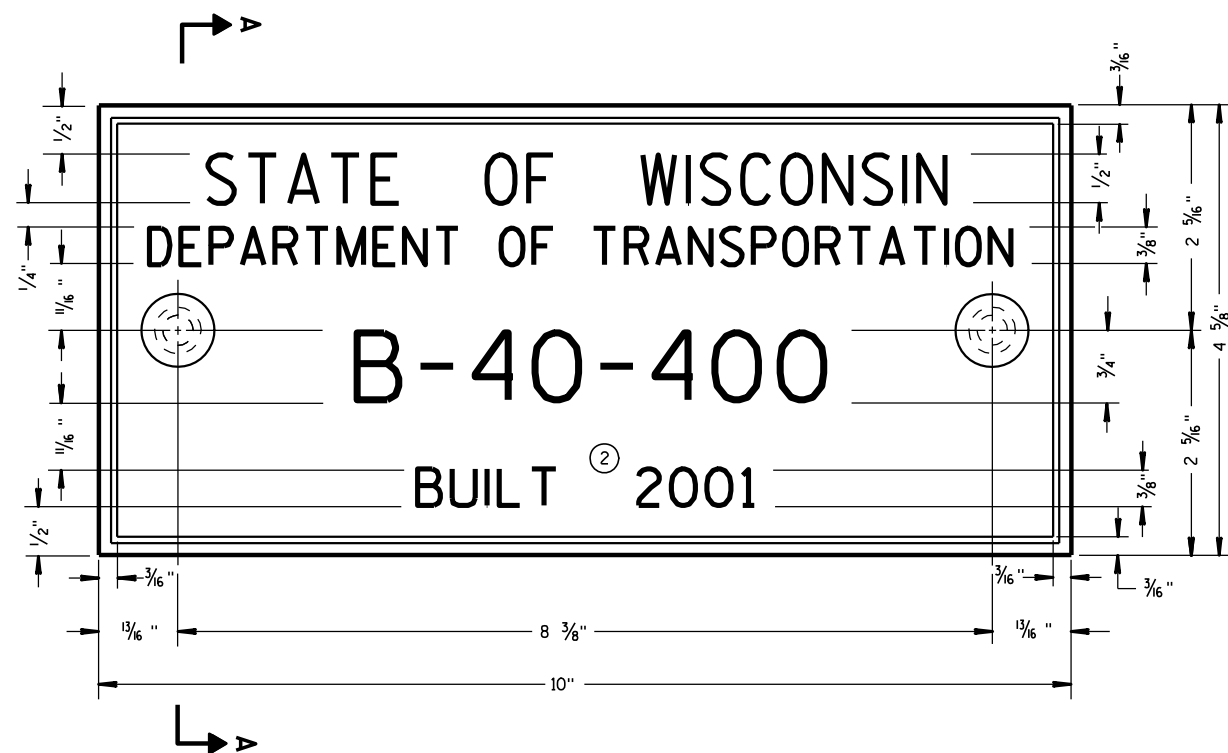
TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

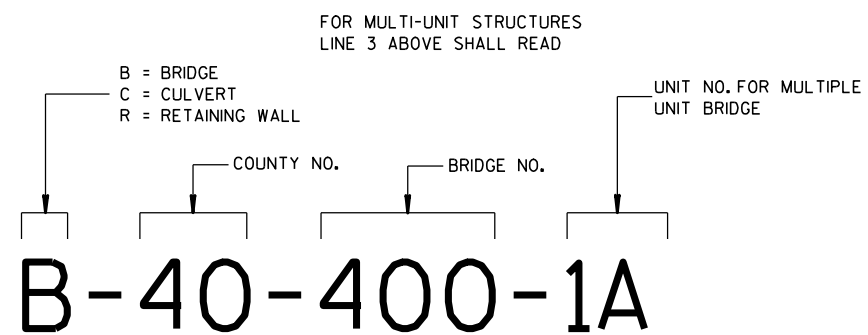
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/4/02 DATE /S/ Beth Cannestra
CHIEF ROADWAY DEVELOPER
ENGINEER 13

FHWA



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



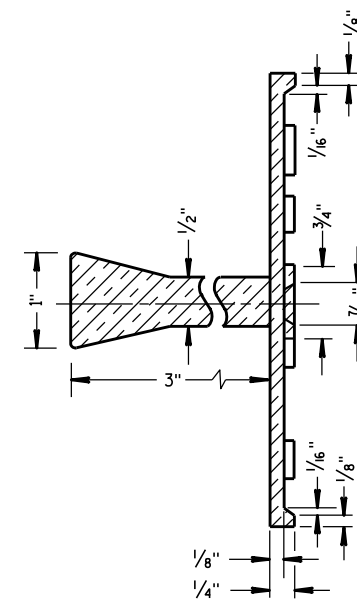
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

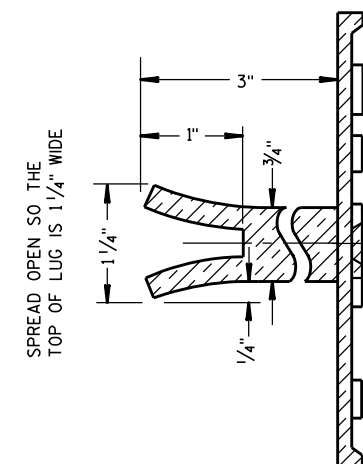
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

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

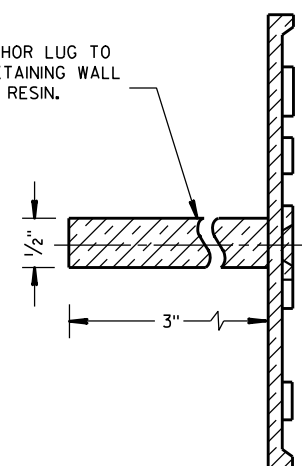


SECTION A-A



ALTERNATE LUG

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



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

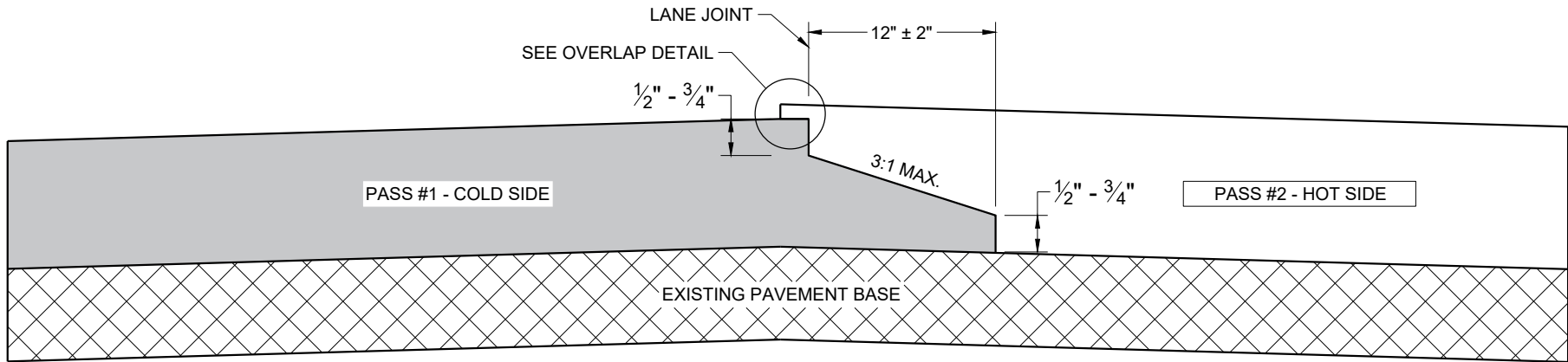
APPROVED

3/26/10
DATE

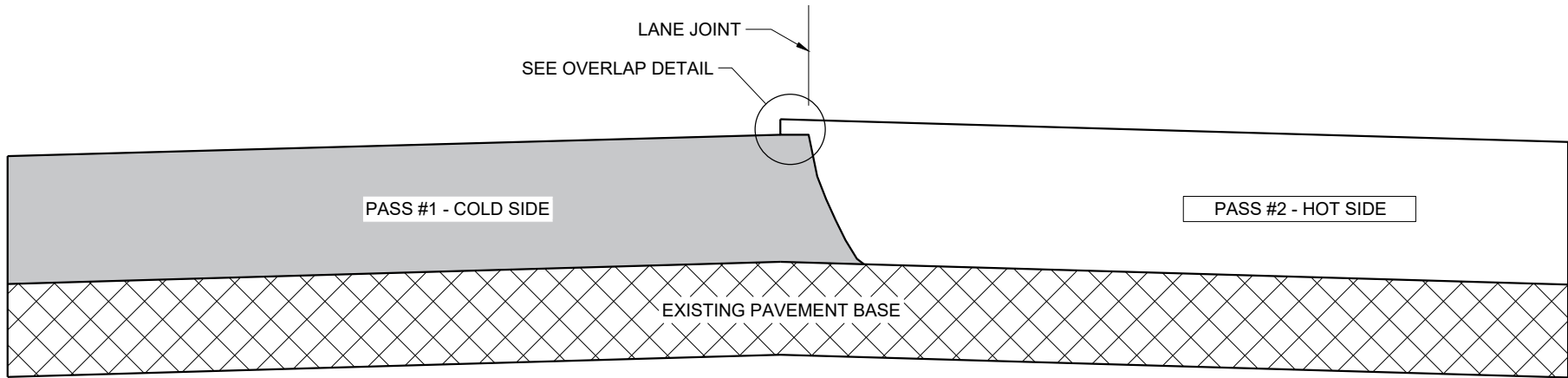
FHWA

/S/ Scot Beck
CHIEF STRUCTURAL DEVELOPER

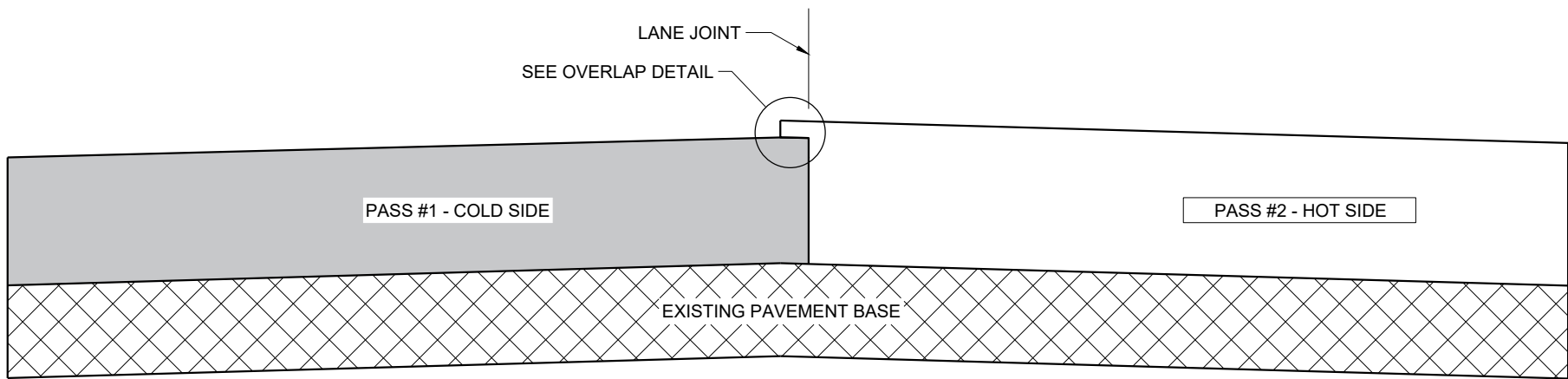
14
JEER



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

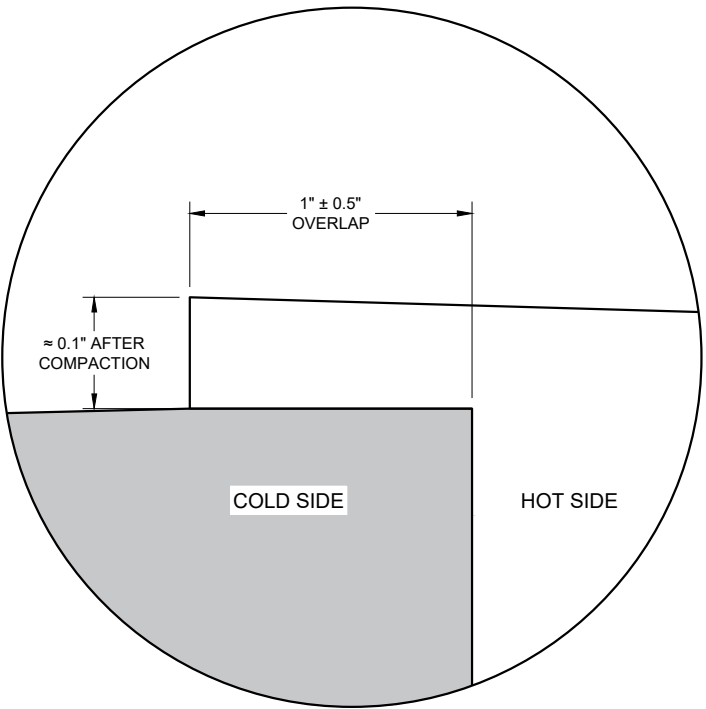
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



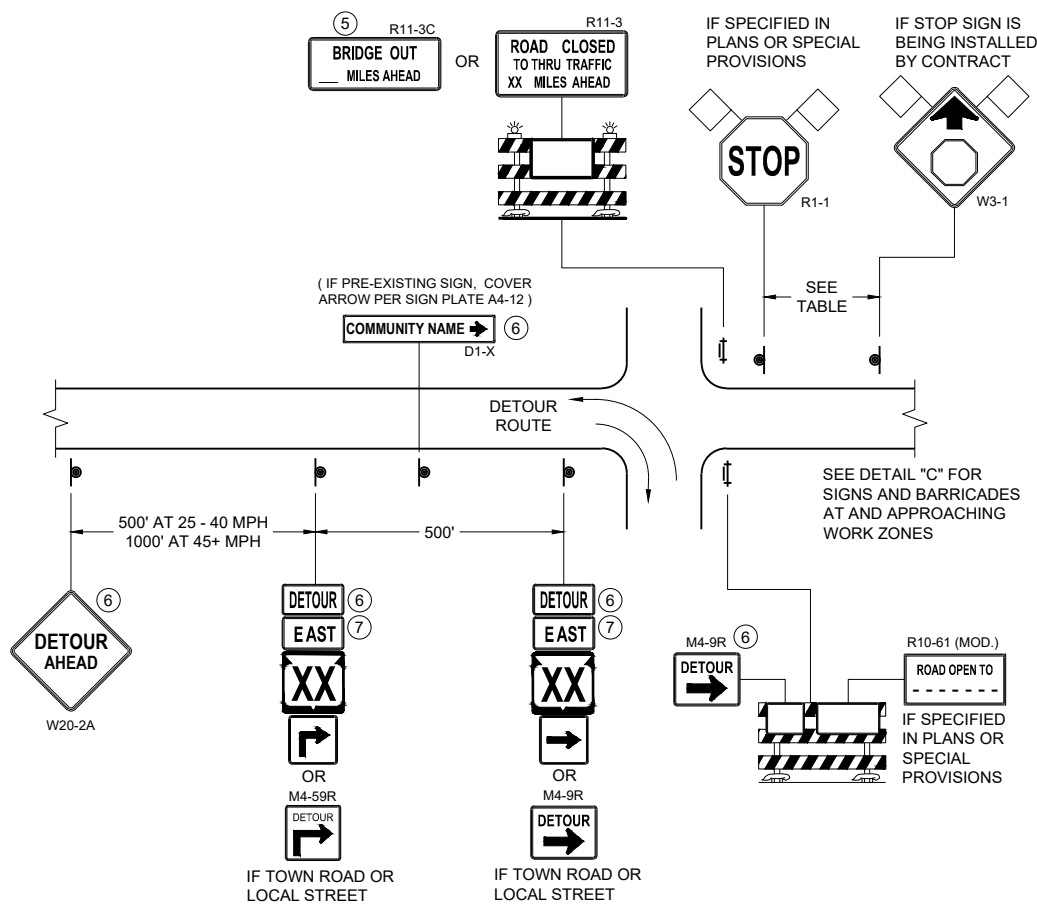
OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

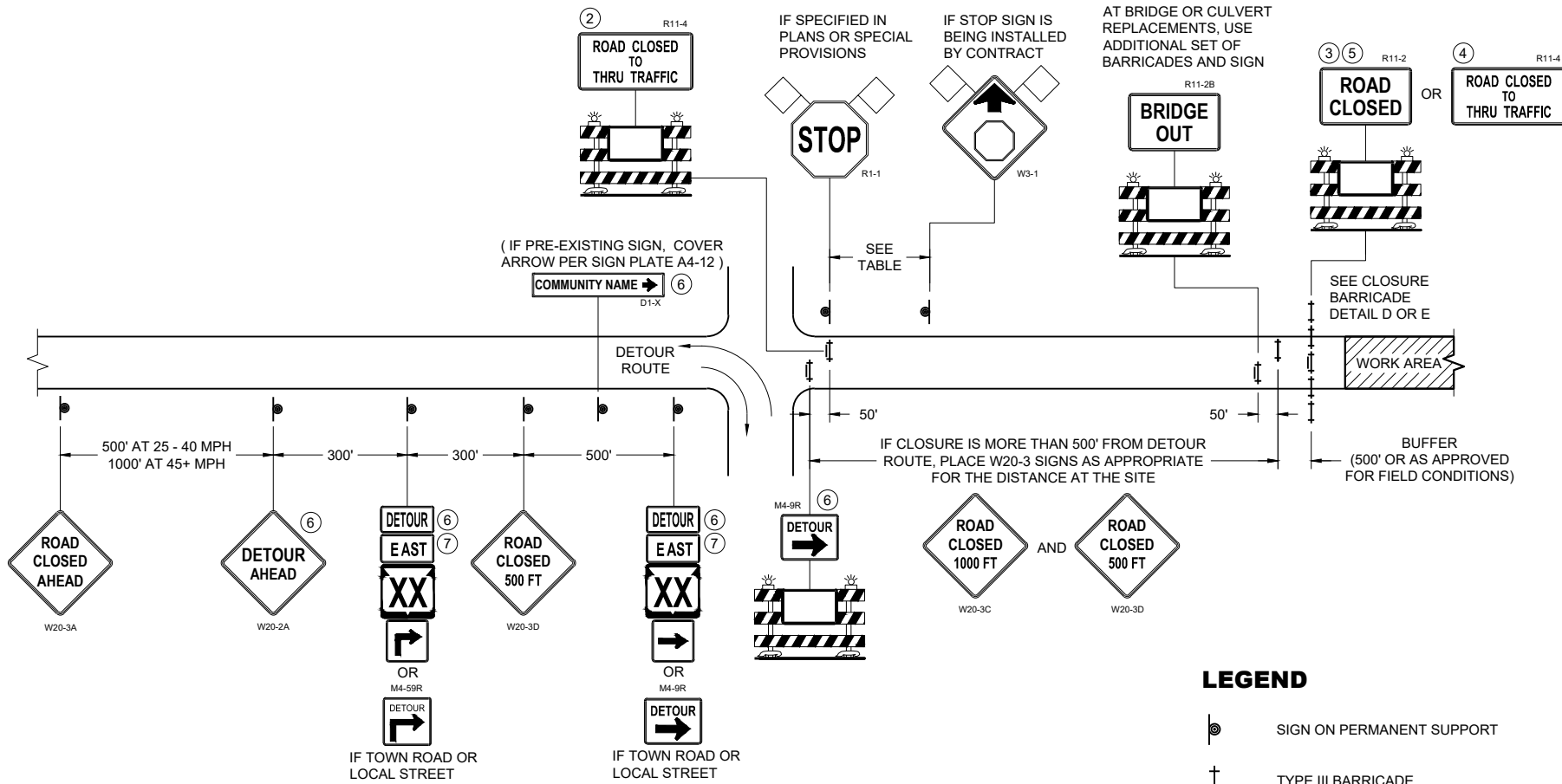
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 15

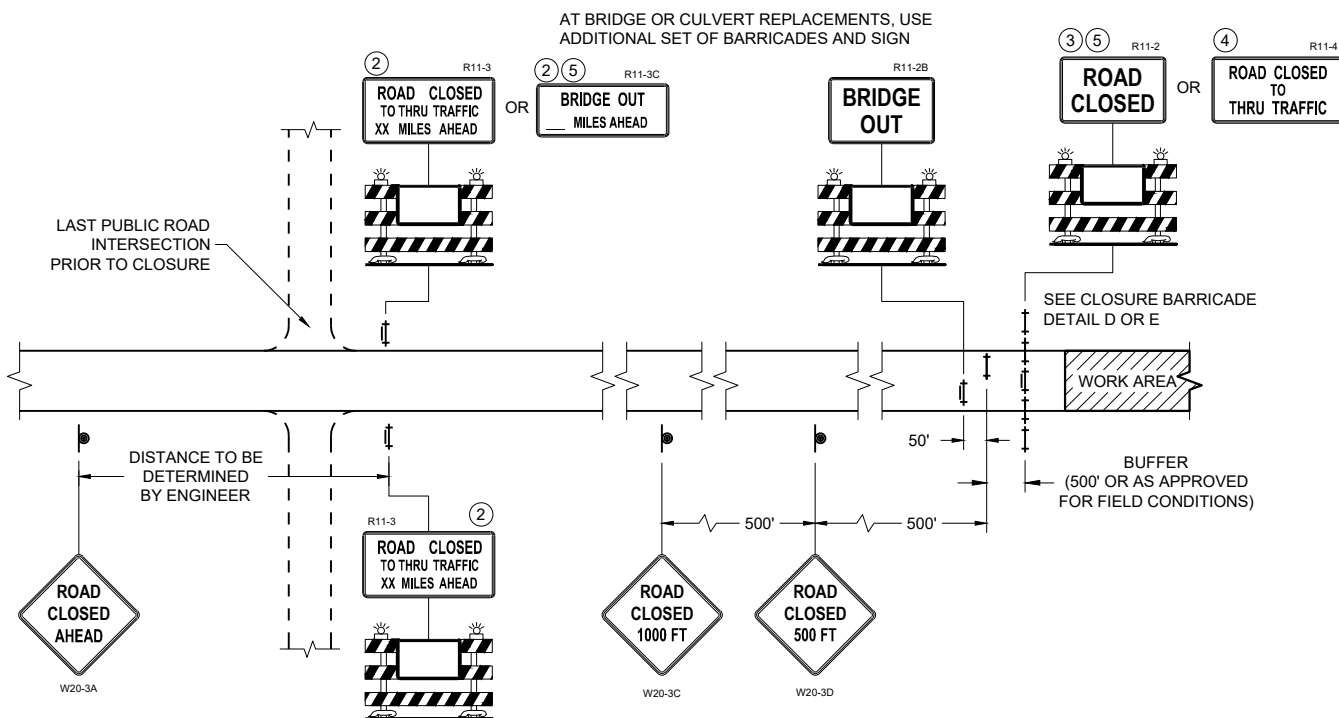
FHWA



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

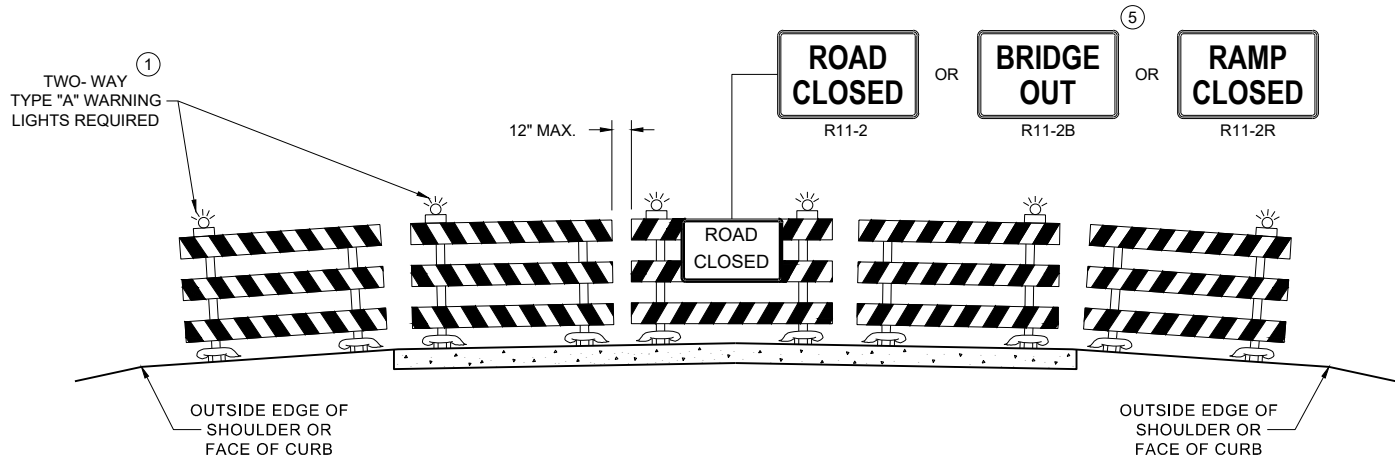
LEGEND

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

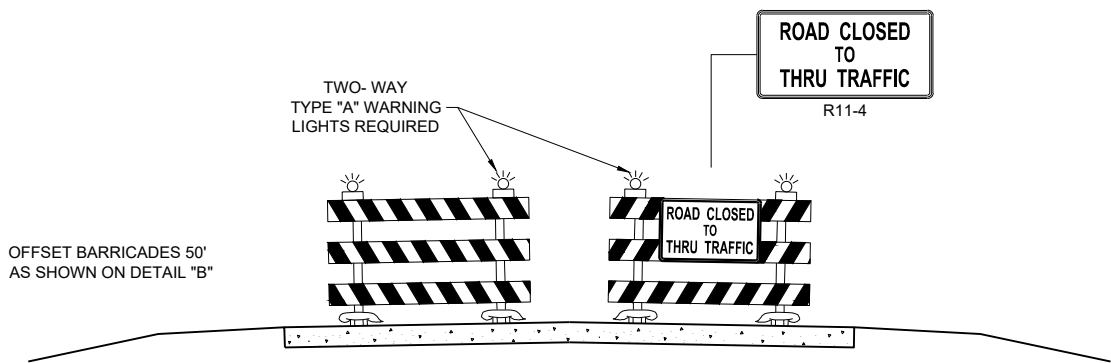
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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.

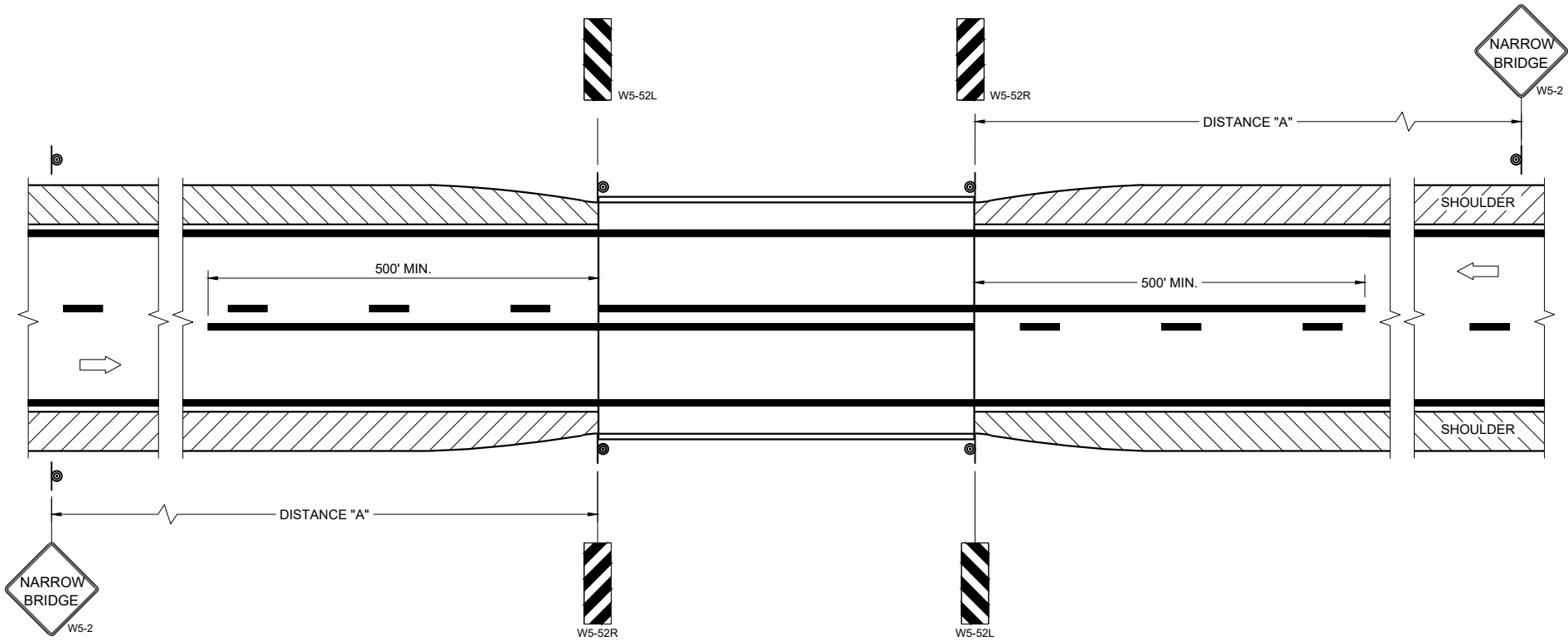
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- 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"

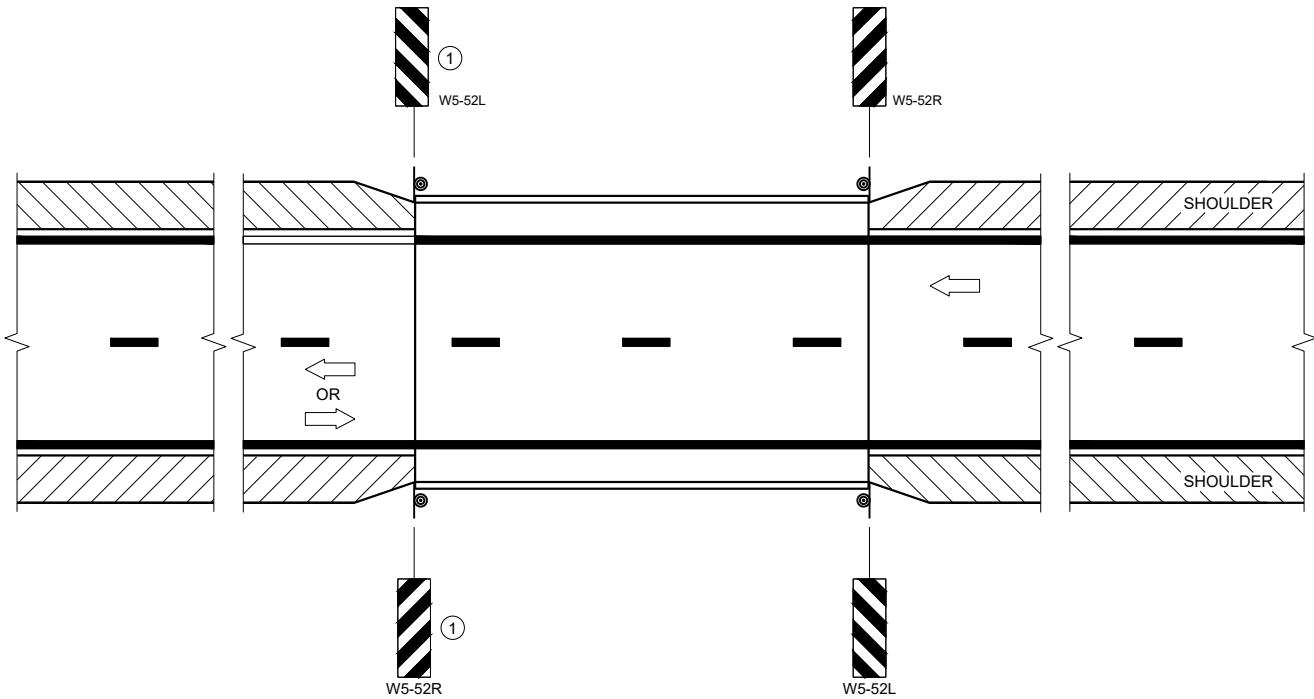
SIGNS PLACED ON TYPE III BARRICADES THAT ARE SIZES OTHER THAN 48"X30" SHALL HAVE A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE.

- 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.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2025 DATE	/S/ Andrew Heidtke 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**

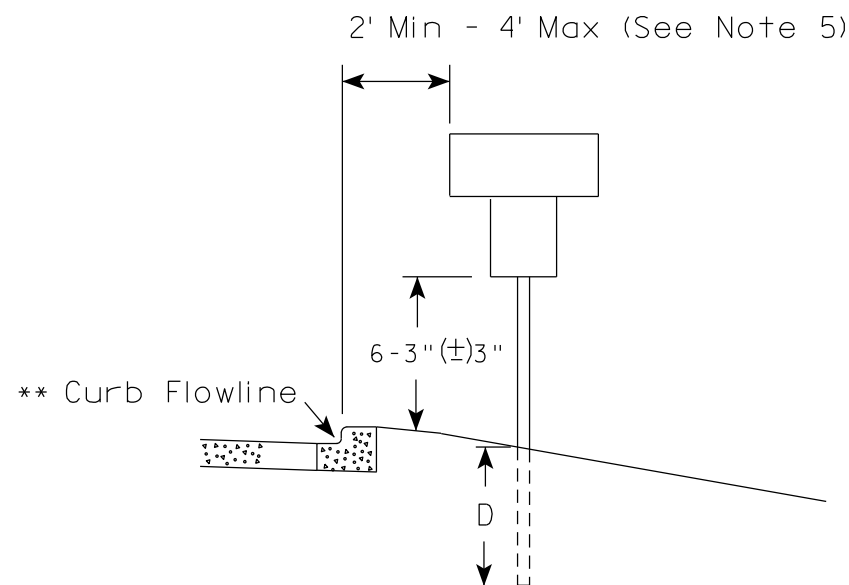
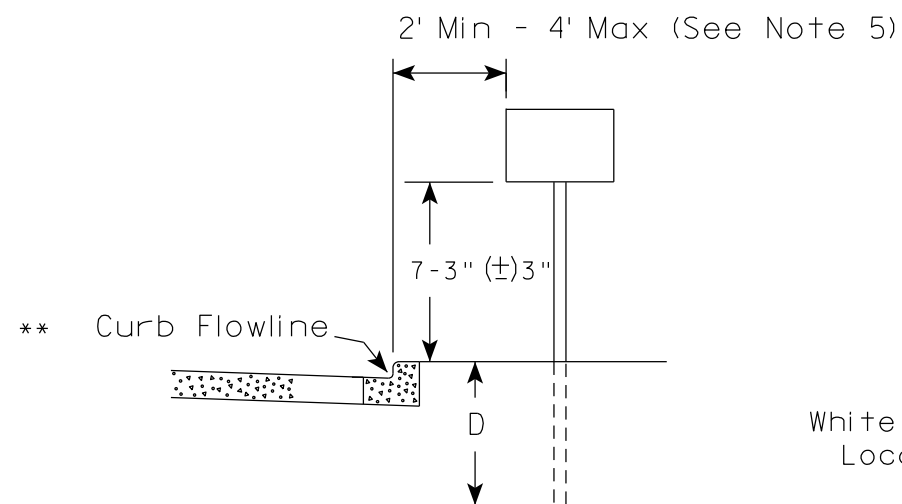
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

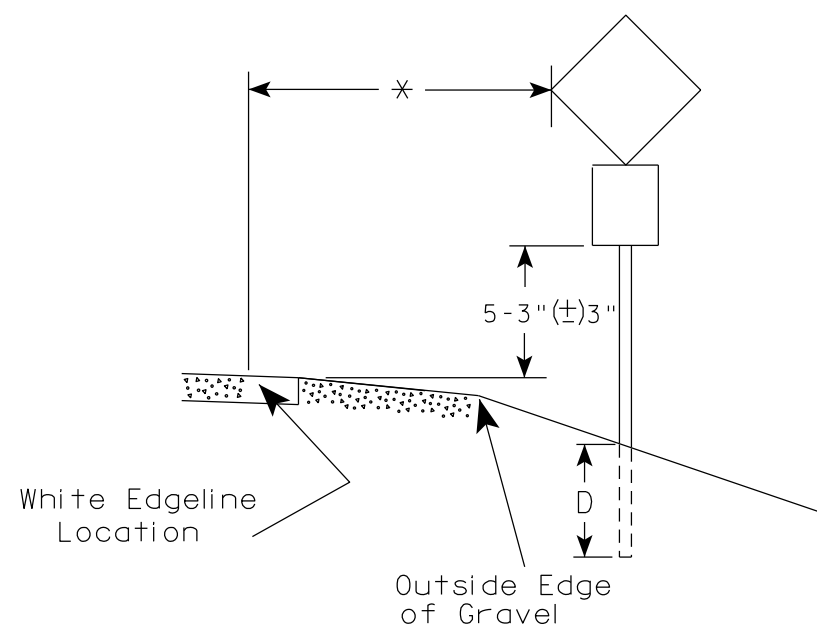
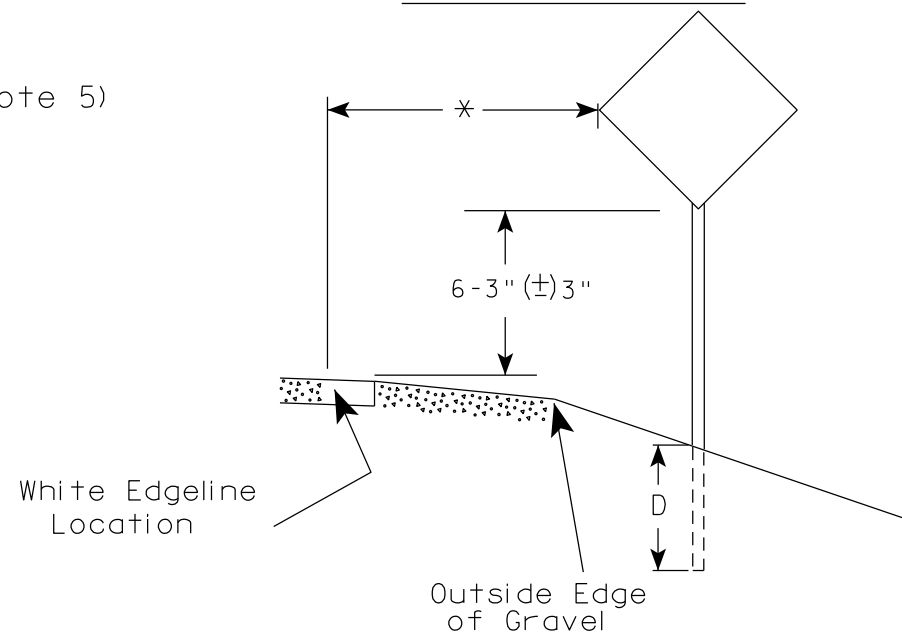
FHWA 18

URBAN AREA



* * 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.

RURAL AREA (See Note 2)



* 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.

POST EMBEDMENT DEPTH

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

GENERAL NOTES

- Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- 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".
- For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
- Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
- 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" (±) 3" or as directed by the 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

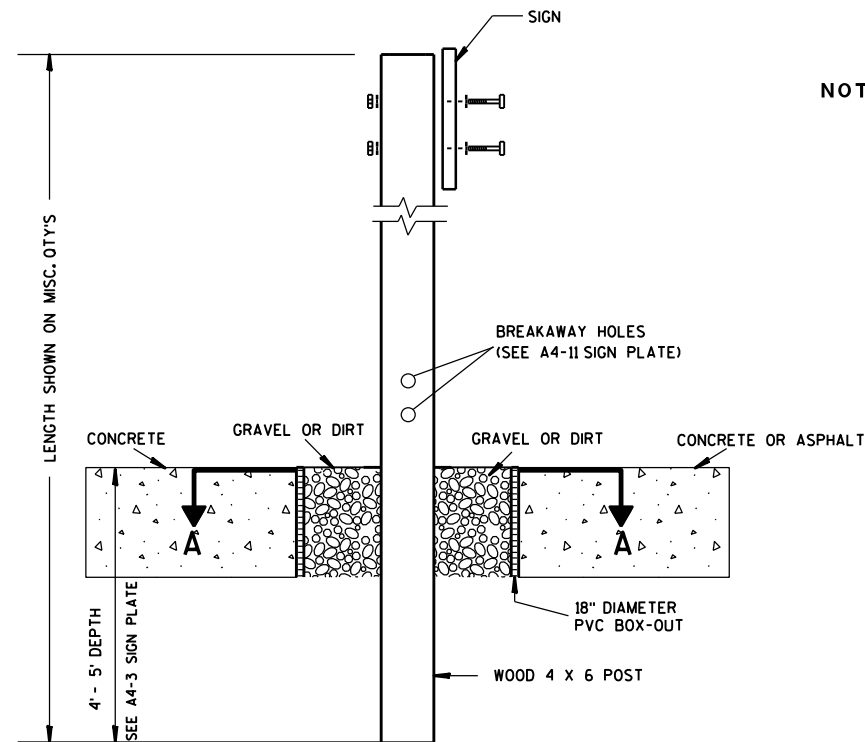
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 19

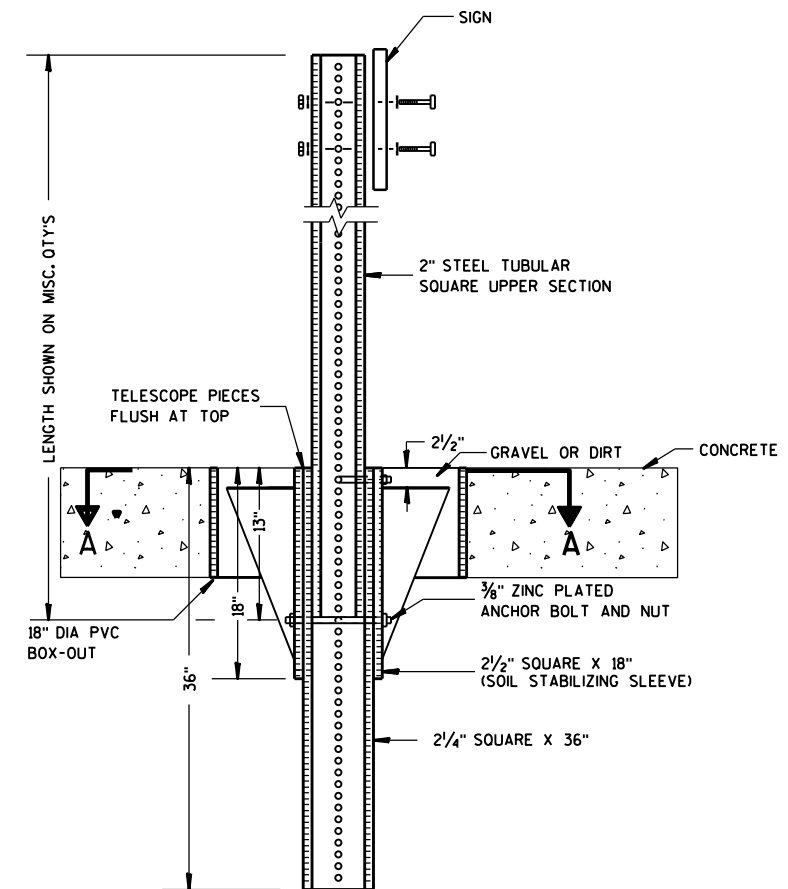
E



ELEVATION VIEW

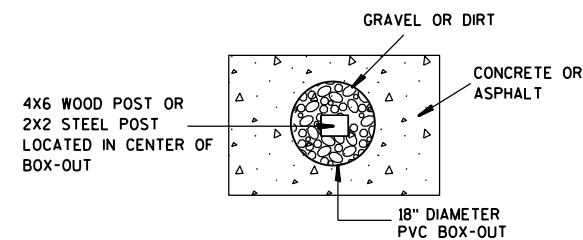
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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 PLAT 20 A4-3B.1

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

GENERAL NOTES

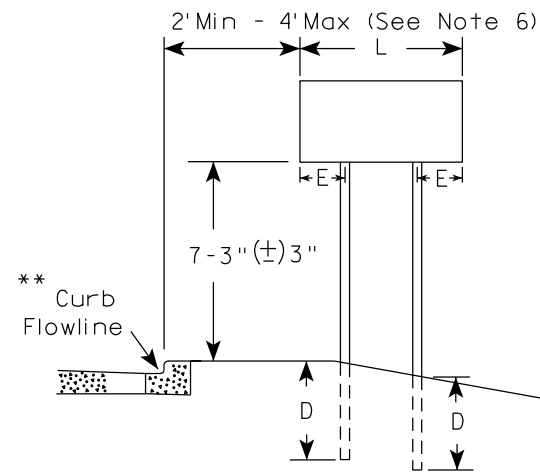
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 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" (±) 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.

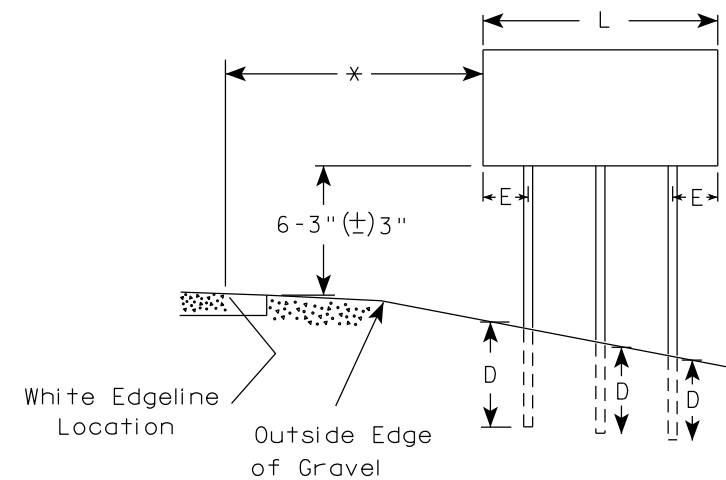
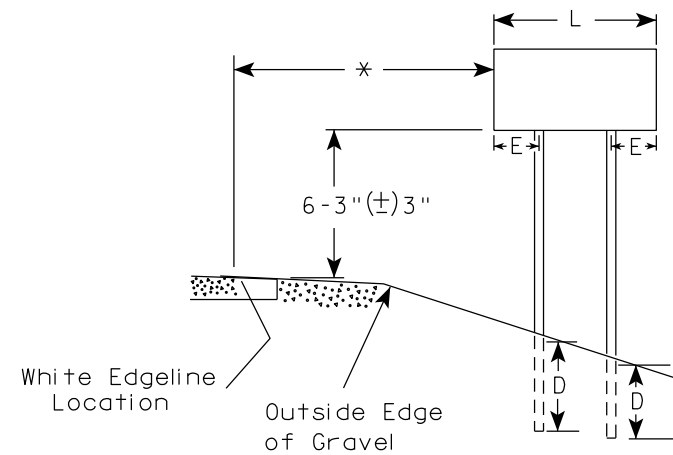
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

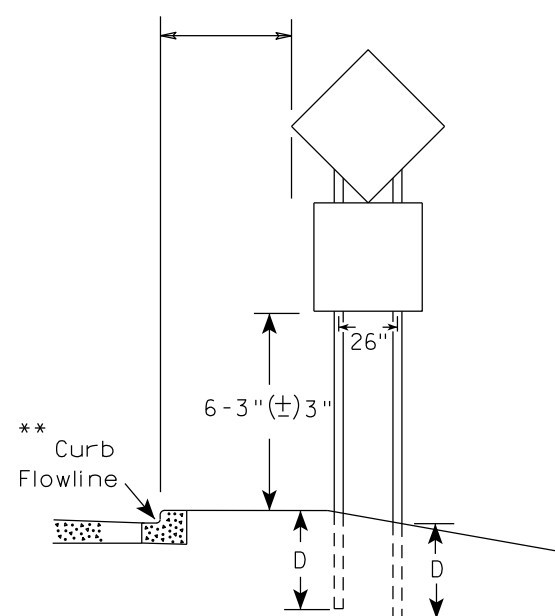
URBAN AREA



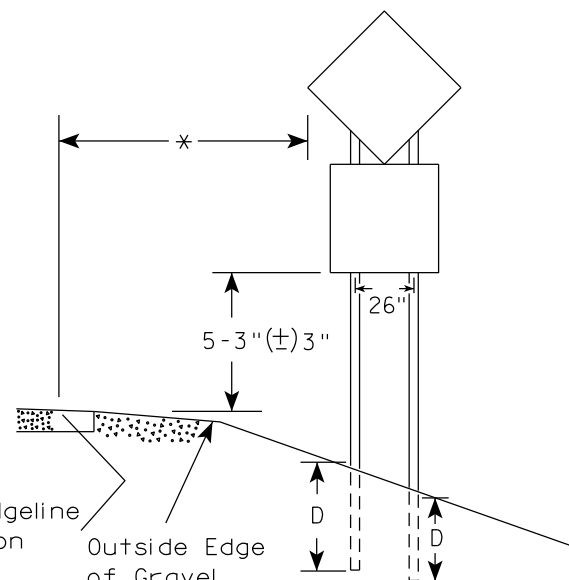
RURAL AREA (See Note 3)



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

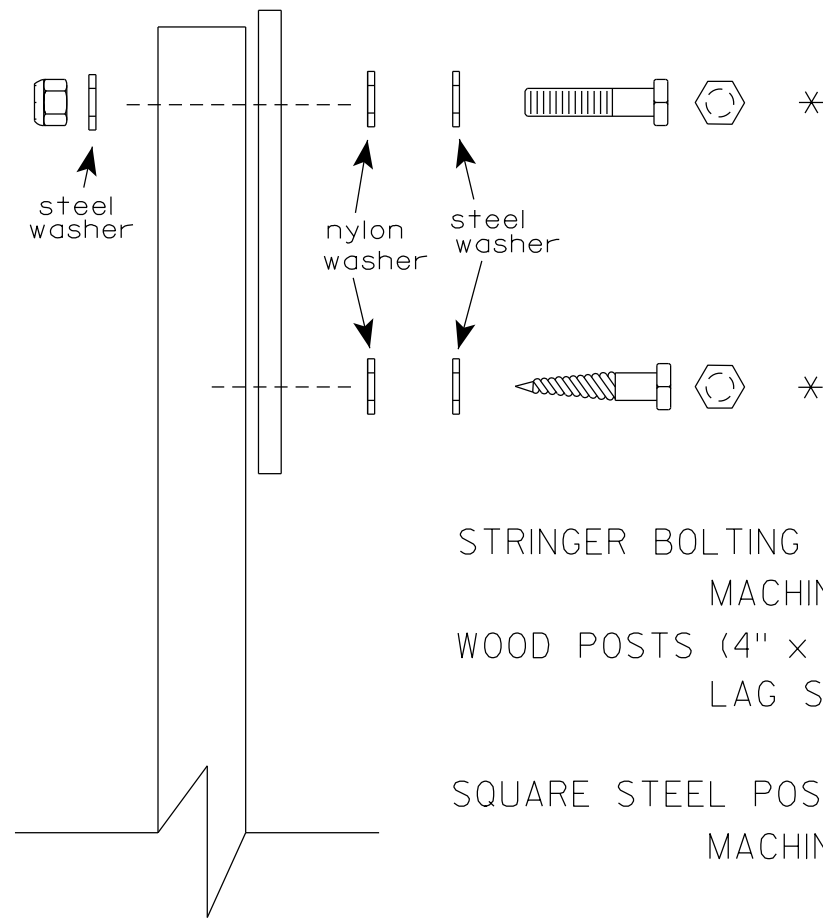
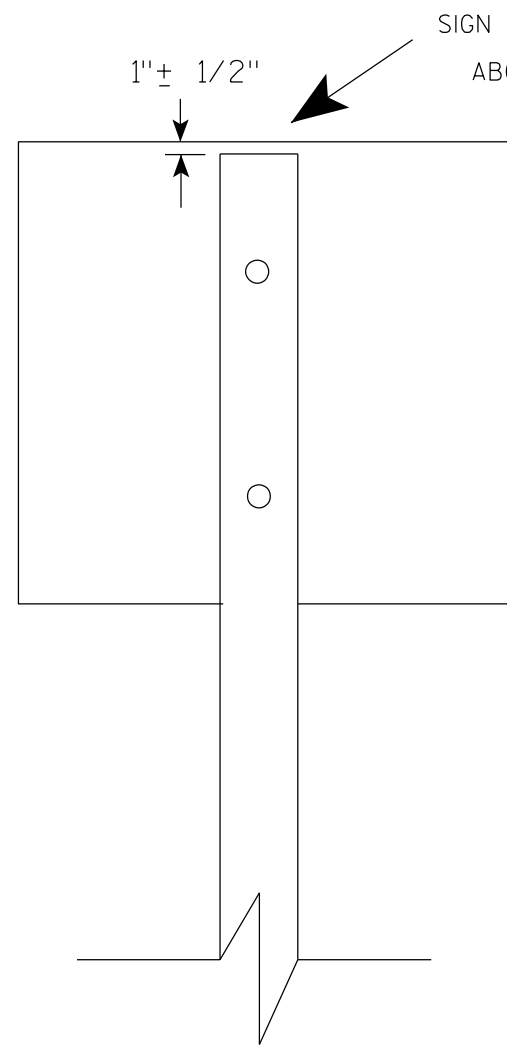
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 21

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.

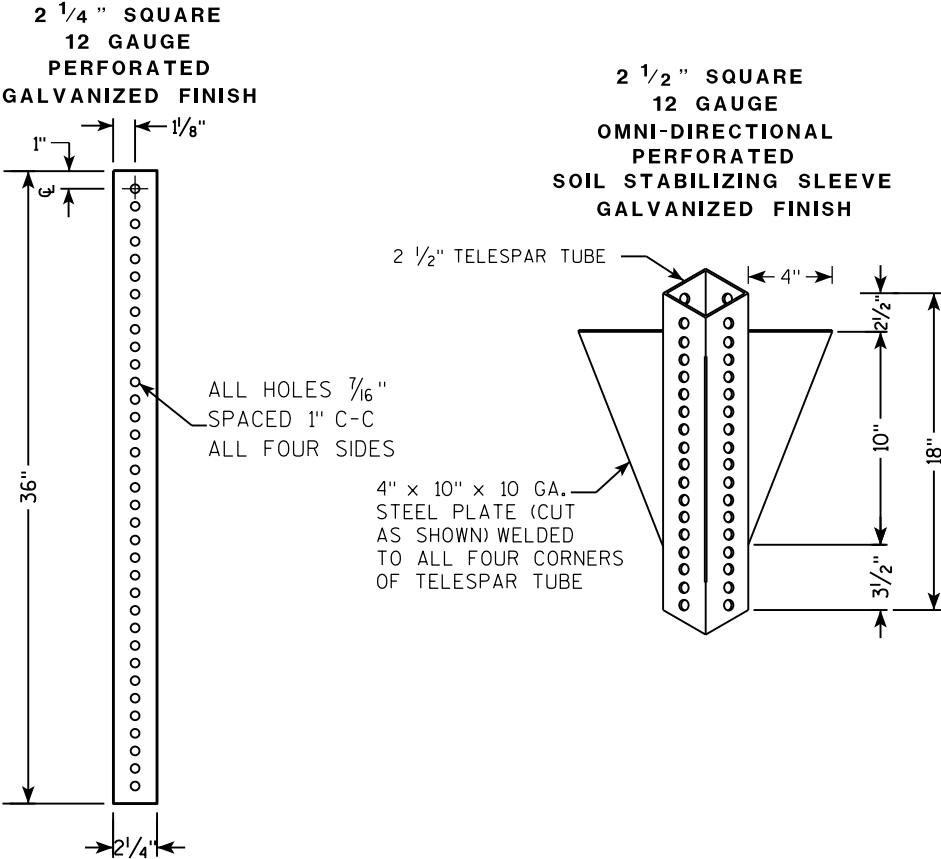
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- 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

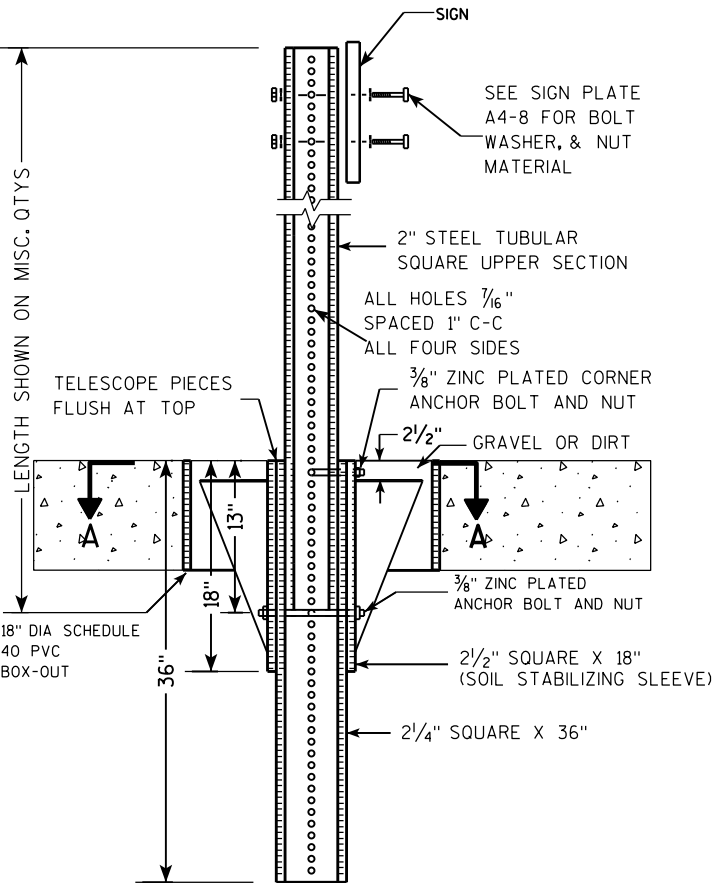
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

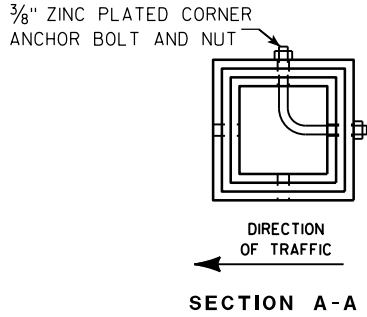
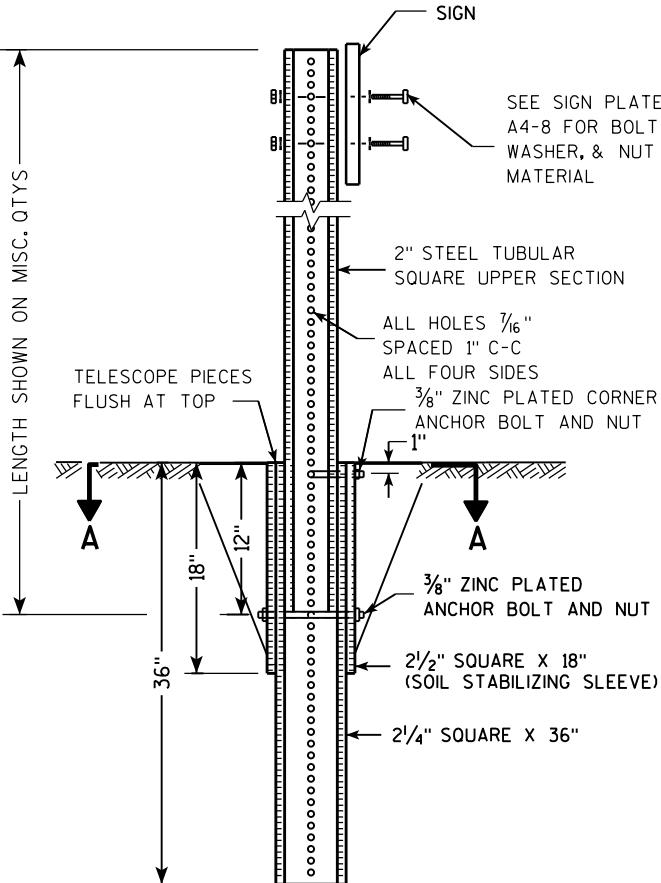
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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

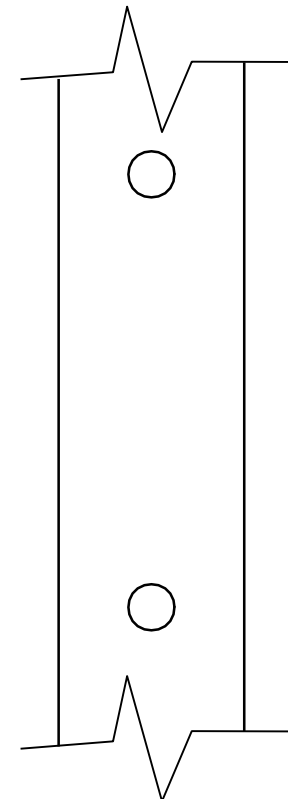
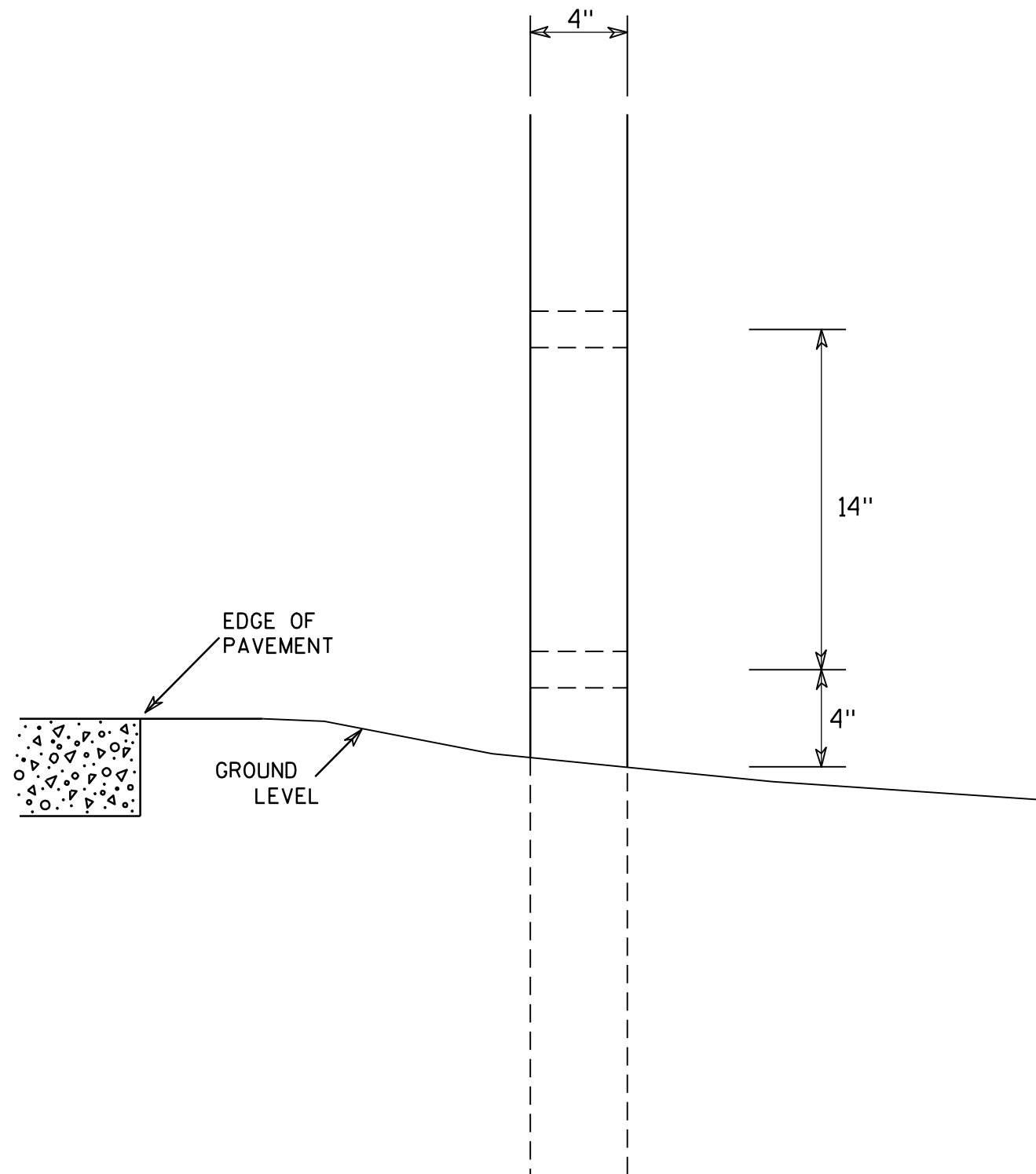
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLAT 23 14-9.9



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

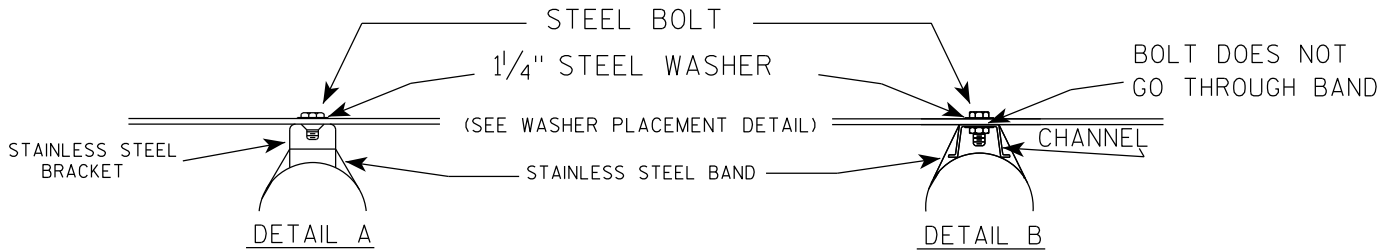
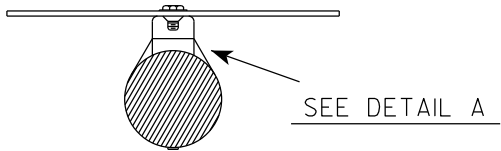
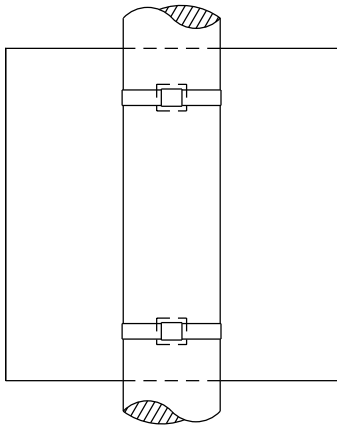
COUNTY:

SHEET NO: 24

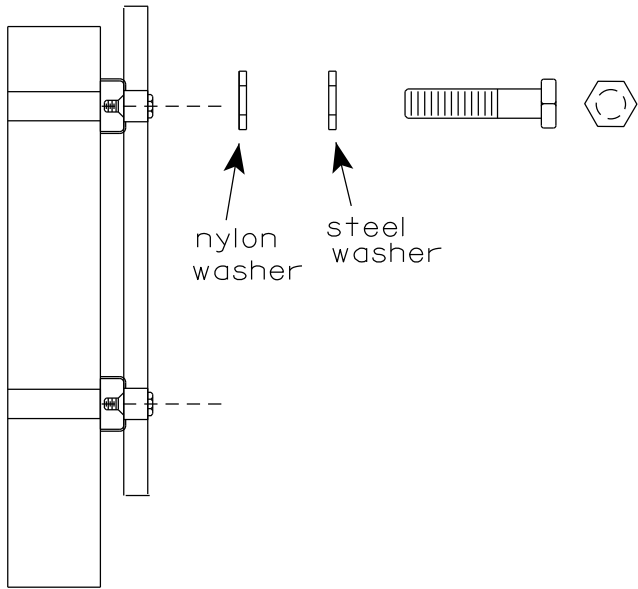
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

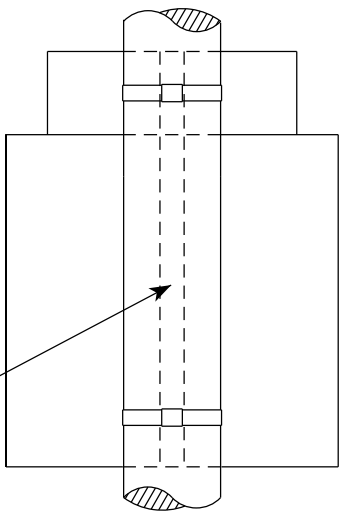


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

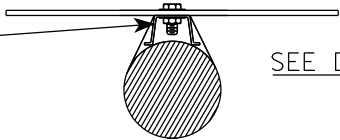
GENERAL NOTES

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

"J" ASSEMBLY



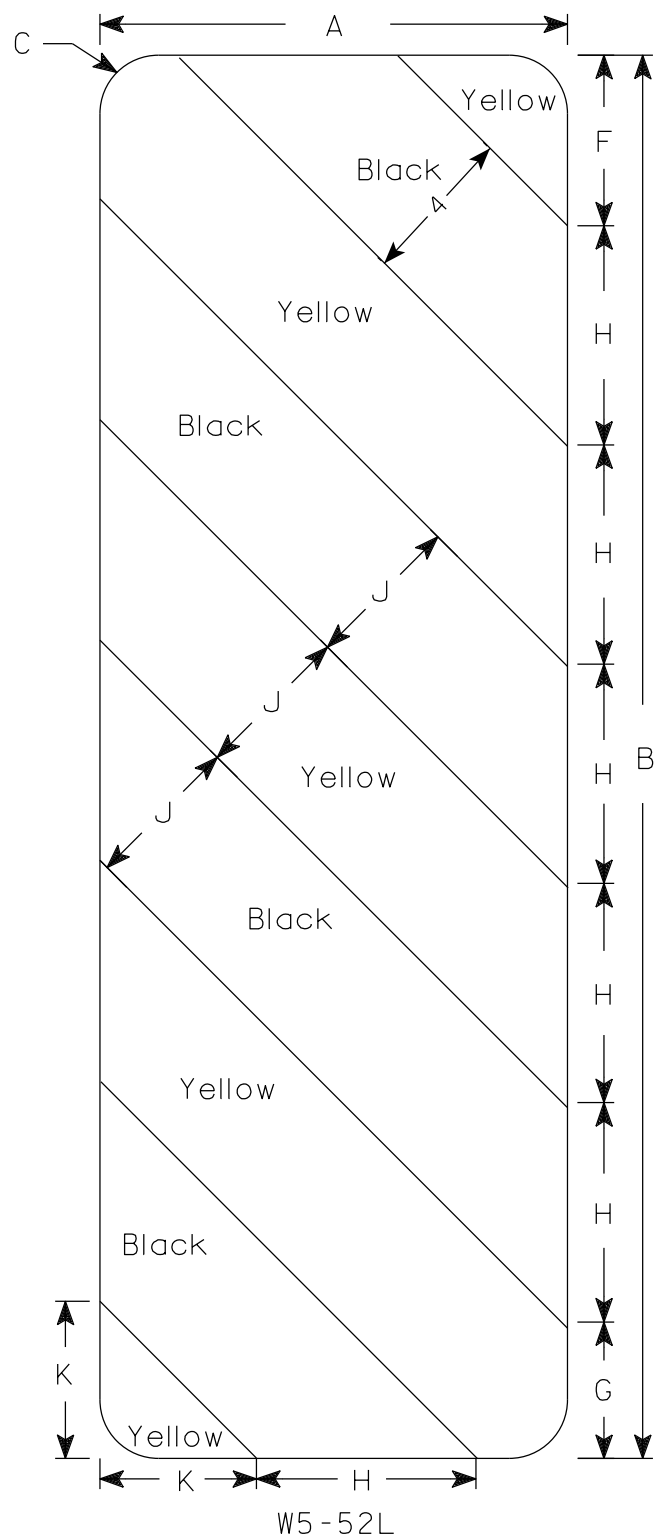
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



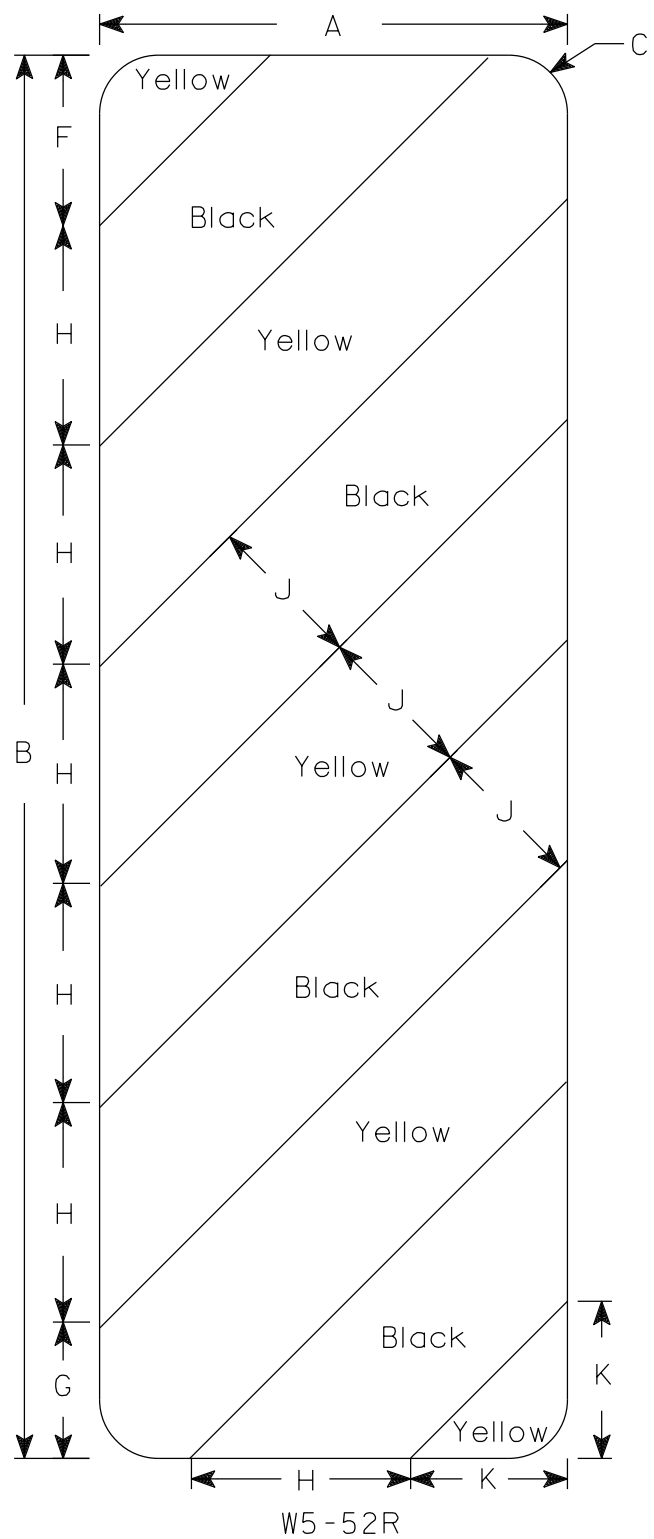
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

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



W5-52L



W5-52R

NOTES

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

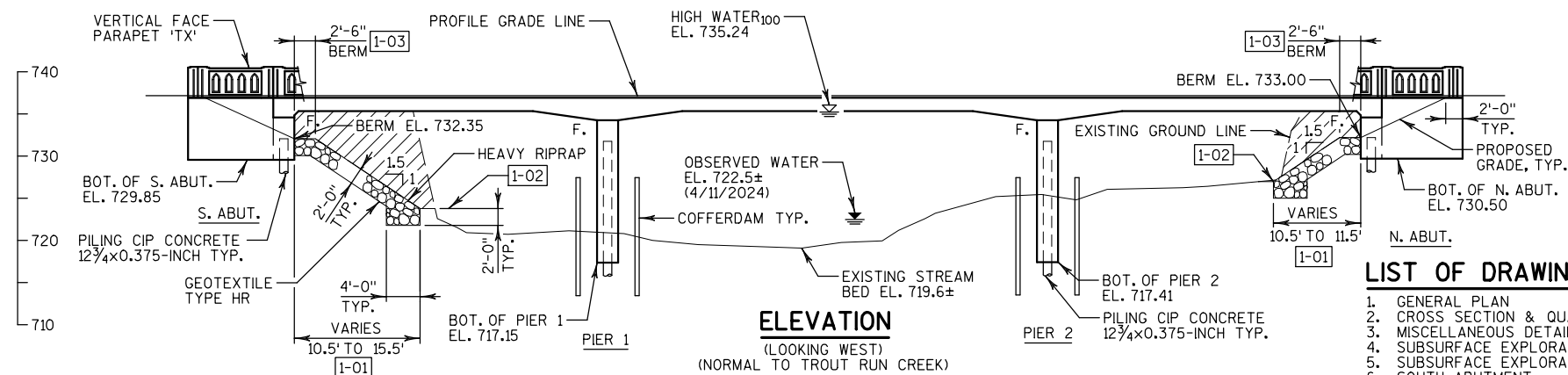
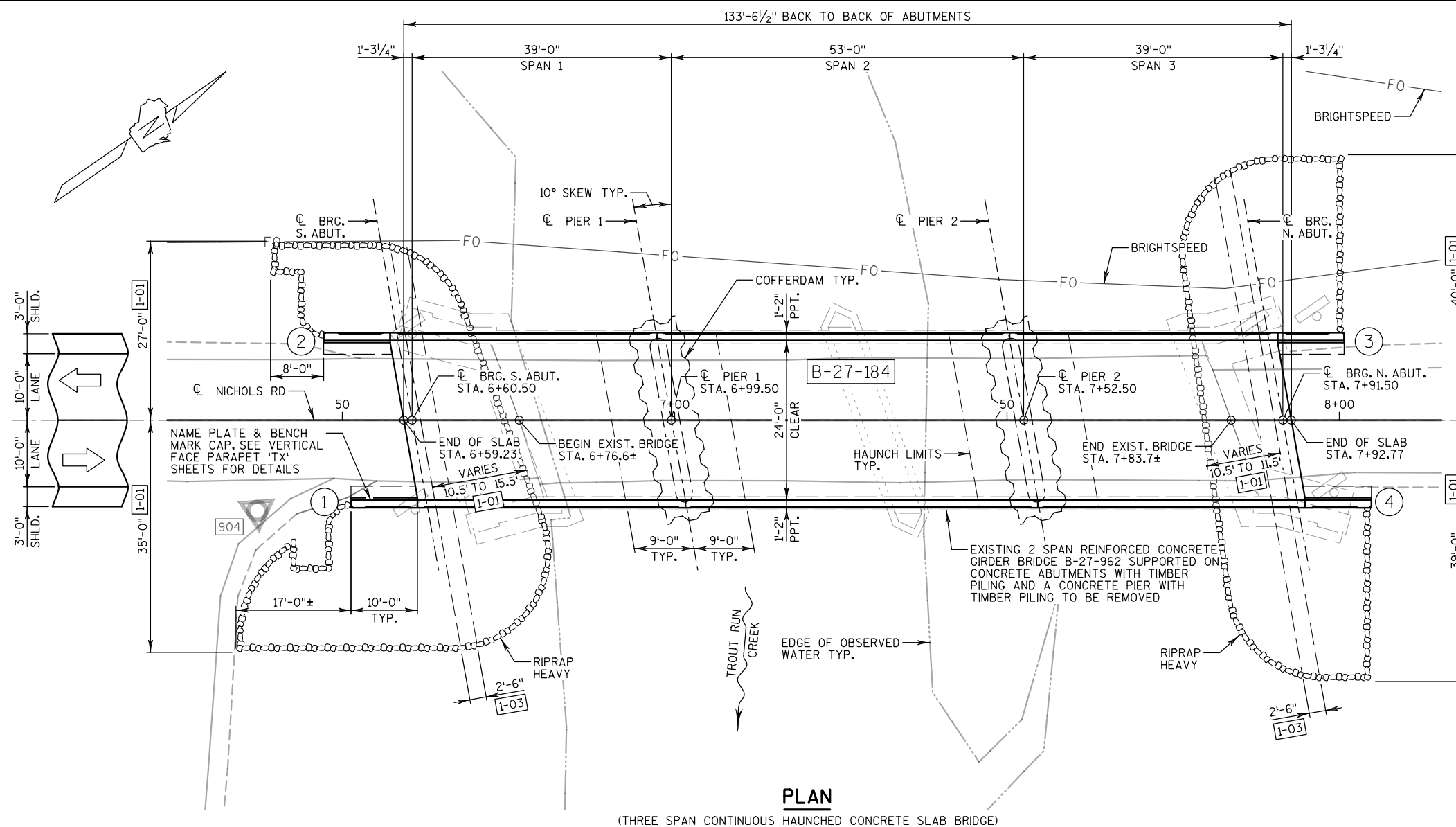
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4													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



- ## LIST OF DRAWINGS

LEGEND

(X) INDICATES WING NUMBER.

 AREA TO EXCAVATE INCLUDED IN "EXCAVATION FOR STRUCTURES BRIDGES 8-27-184".

1-01 LIMITS OF RIPRAP HEAVY AND GEOTEXTILE TYPE HR.

⊕ BENCH MARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
904	6+37.20, 13.6' RT	MAG NAIL	737.01

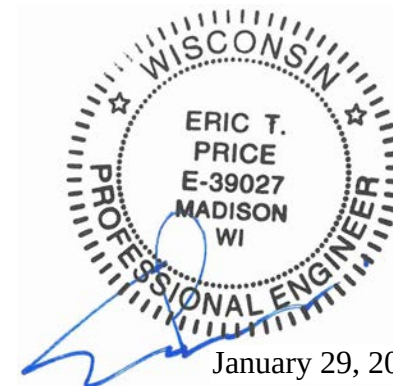
TRAFFIC DATA

DESIGN DATA

MATERIAL PROPERTIES

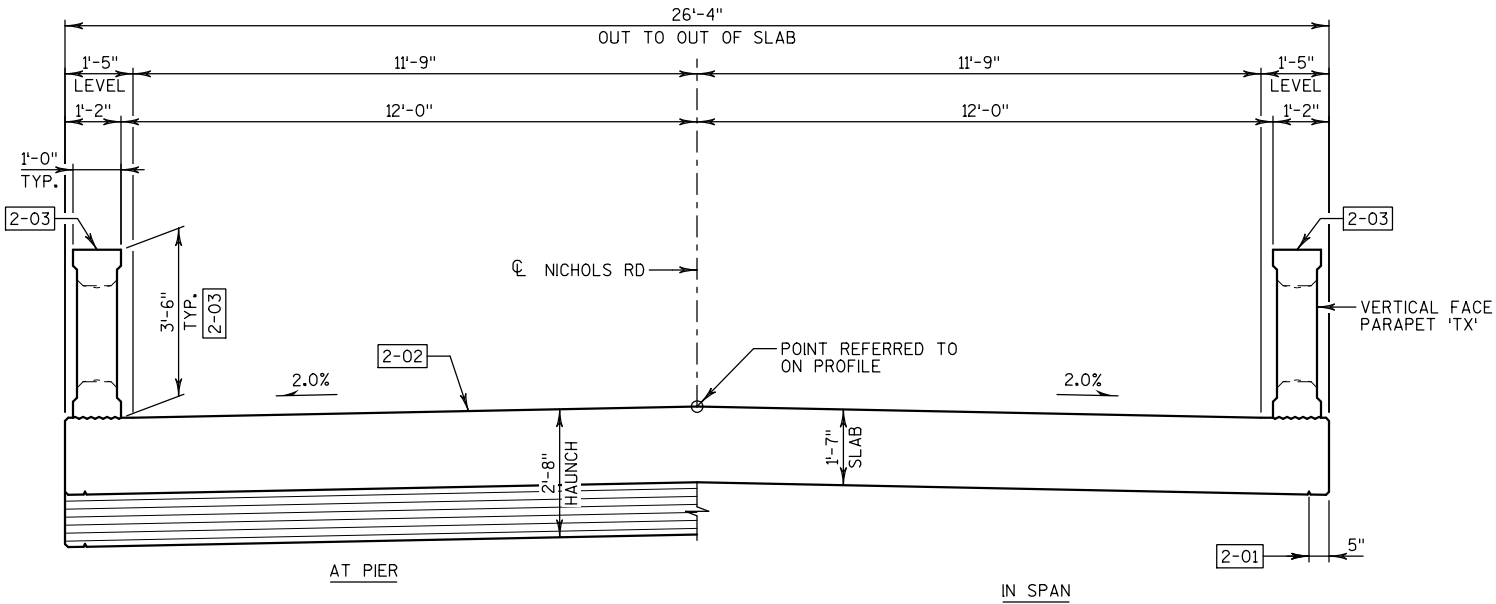
HYDRAULIC DATA

FOUNDATION DATA

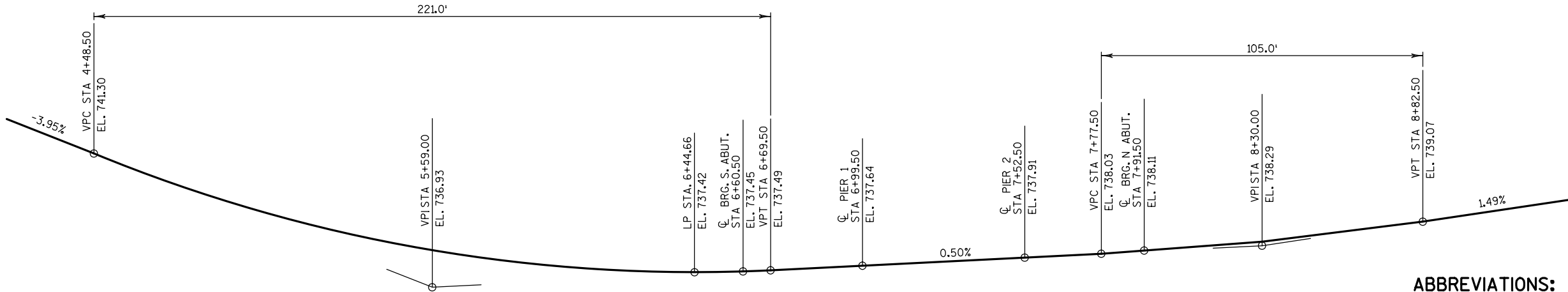


BUREAU OF STRUCTURES CONTACT:
AARON BONK, P.E. (608) 261-0261

NO.	DATE	REVISION	BY
CORRE 			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED			02/10/26
	CHIEF STRUCTURES DESIGN ENGINEER		DATE
STRUCTURE B-27-184			
NICHOLS RD OVER TROUT RUN CREEK			
COUNTY	JACKSON	TOWN/CITY/VILLAGE	IRVING
DESIGN SPEC.			
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	SMS	DESIGN CHK'D.	ETP
DRAWN BY	TKB	PLANS CHK'D.	ETP
GENERAL PLAN		SHEET 10F 20	
		28	



PROPOSED CROSS SECTION THRU ROADWAY
(LOOKING NORTH)



PROFILE
NICHOLS ROAD

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	SOUTH ABUTMENT	PIER 1	PIER 2	NORTH ABUTMENT	SUPER.	TOTALS
203.0250	REMOVING STRUCTURE OVER WATERWAY REMOVE DEBRIS B-27-962	EACH	--	--	--	--	--	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-27-184	EACH	--	--	--	--	--	1
206.5001	COFFERDAMS B-27-184	EACH	--	--	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	105	--	--	105	--	210
502.0100	CONCRETE MASONRY BRIDGES	CY	27.4	40.8	40.8	27.5	232.4	369
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1	--	--	1	356	358
502.3210	PIGMENTED SURFACE SEALER	SY	10	--	--	10	134	154
502.9000.S	UNDERWATER SUBSTRUCTURE INSPECTION B-27-184	EACH	--	--	--	--	--	1
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1,630	1,960	1,960	1,630	--	7,180
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,705	50	50	1,715	51,800	55,320
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	8	--	--	8	--	16
550.2126	PIILING CIP CONCRETE 12 3/4 X 0.375-INCH	LF	260	700	595	260	--	1,815
606.0300	RIPRAP HEAVY	CY	150	--	--	145	--	295
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	95	--	--	100	--	195
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	26	--	--	26	--	52
645.0120	GEOTEXTILE TYPE HR	SY	240	--	--	230	--	470
SPV.0090	PARAPET CONCRETE TYPE 'TX'	LF	--	--	--	--	307	307
SPV.0195	INFILL RIPRAP B-27-184	TON	10	--	--	10	--	20
	NON-BID ITEMS							
	FILLER	SIZE	--	--	--	--	--	1/2" & 3/4"

ALL ITEMS ARE CATEGORY 0020

GENERAL NOTES:

DRAWINGS SHALL NOT BE SCALED.

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

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

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

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-27-184" SHALL BE THE EXISTING GROUNDLINE.

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

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

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

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF SLAB AND EXPOSED TOP OF WINGS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

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

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

THE EXISTING STREAM BED SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIERS.

COFFERDAM REQUIRED AT PIER 1 & PIER 2. CONCRETE POURED UNDERWATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH STANDARD SPEC 502.3.5.3. CONCRETE POURED UNDERWATER SHALL NOT EXCEED 10.0 FEET IN DEPTH, UNLESS APPROVED OTHERWISE.

STATE PROJECT NUMBER

7251-00-71

ABBREVIATIONS:

ABUT.	-	ABUTMENT
BTWN.	-	BETWEEN
B.F.	-	BACK FACE
BOT.	-	BOTTOM
BRG.	-	BEARING
CL.	-	CLEAR
CONST.	-	CONSTRUCTION
DIA.	-	DIAMETER
E.F.	-	EACH FACE
EXIST.	-	EXISTING
F.F.	-	FRONT FACE
HORIZ.	-	HORIZONTAL
JT.	-	JOINT
LONG.	-	LONGITUDINAL
PPT.	-	PARAPET
PROJ.	-	PROJECTION
S.E.	-	SEMI-EXPANSION
SPA.	-	SPACED
STD.	-	STANDARD
SYMM.	-	SYMMETRICAL
T&B	-	TOP AND BOTTOM
TRANS.	-	TRANSVERSE
TYP.	-	TYPICAL
VERT.	-	VERTICAL
U.N.O.	-	UNLESS NOTED OTHERWISE

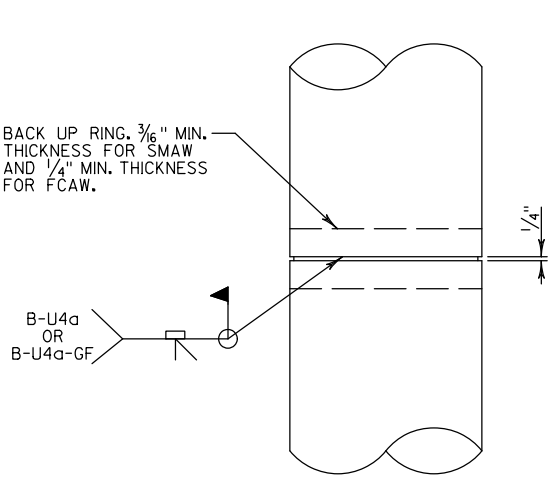
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-184			
DRAWN BY		TKB	PLANS CK'D. ETP
CROSS SECTION & QUANTITIES			SHEET 2 OF 20
			29

LEGEND

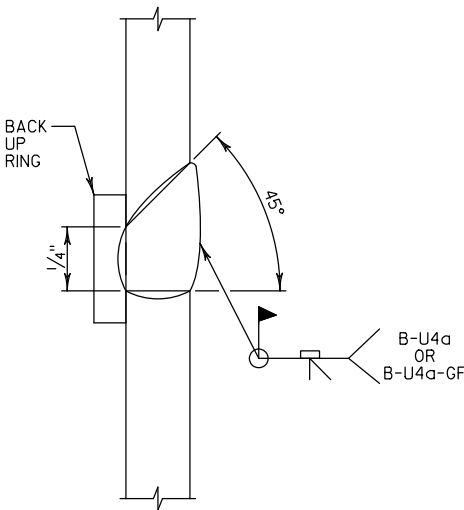
- [3-01] BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION OF STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- [3-02] PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN.
- [3-03] EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. "GEOTEXTILE TYPE DF SCHEDULE A" SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF EXCAVATION LIMITS.

NOTES:

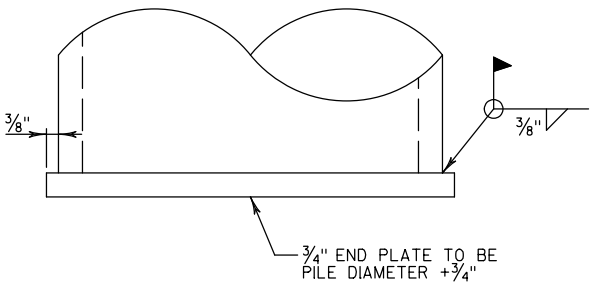
CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATION.



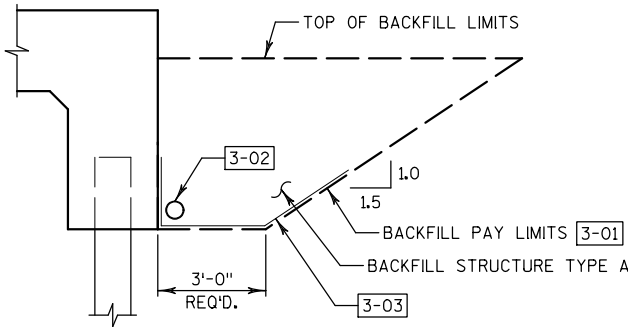
CAST-IN-PLACE 'PIPE PILE'



CIP PILE WELD DETAIL

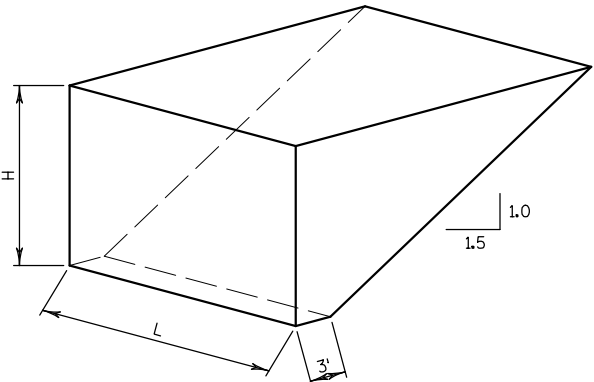


END PLATE DETAIL FOR CIP PILING



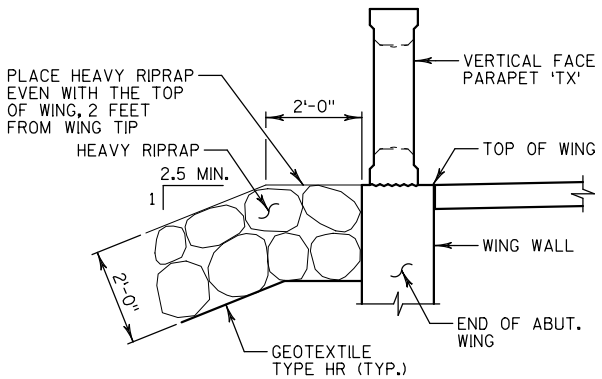
STRUCTURE BACKFILL LIMITS

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



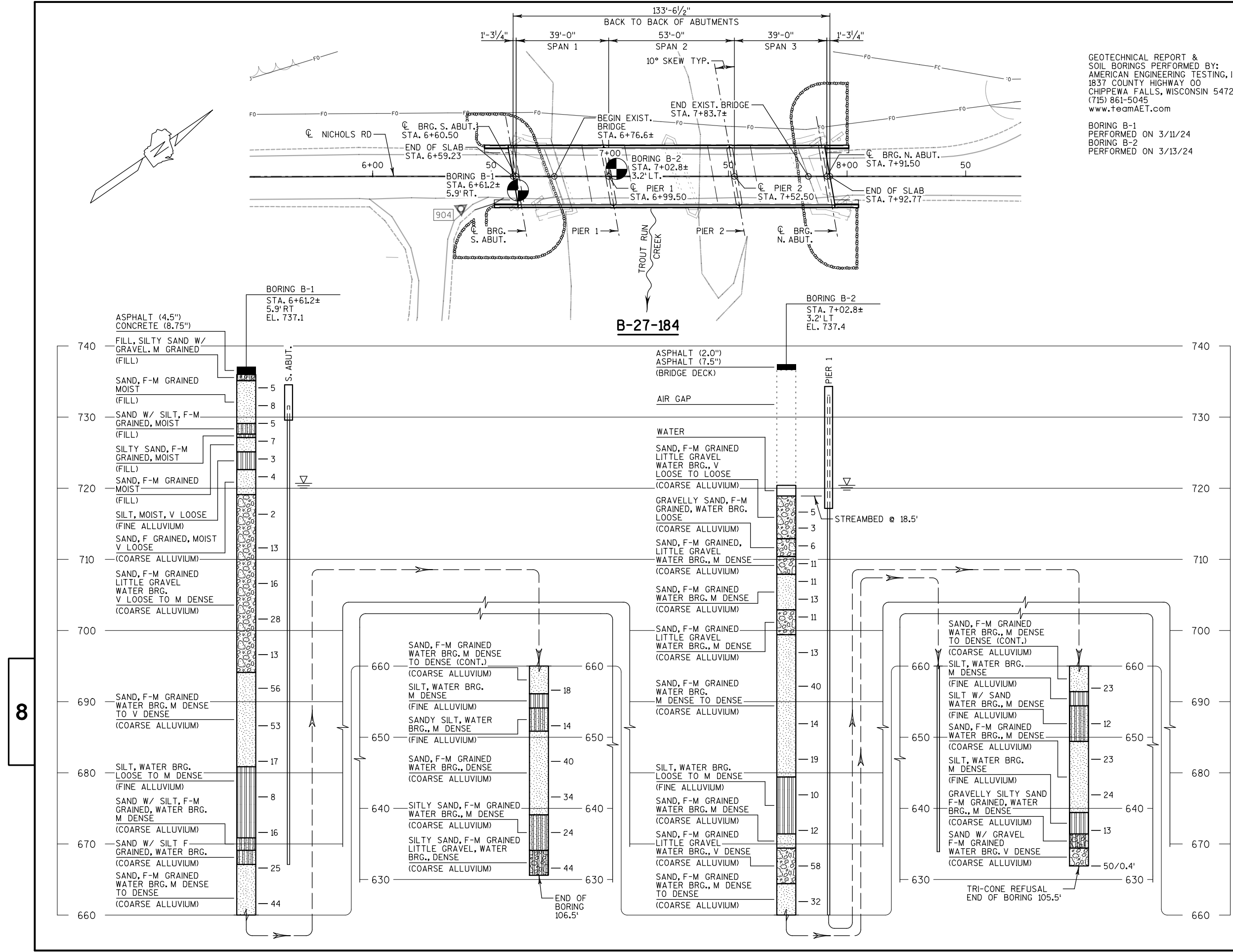
ABUTMENT BACKFILL PAY LIMIT DIAGRAM

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



TYPICAL FILL SECTION AT WING TIPS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-184			
DRAWN BY TKB		PLANS CK'D. ETP	
MISCELLANEOUS DETAILS			SHEET 3 OF 20
			30



GEOTECHNICAL REPORT &
SOIL BORINGS PERFORMED BY:
AMERICAN ENGINEERING TESTING, INC.
1837 COUNTY HIGHWAY 00
CHIPPEWA FALLS, WISCONSIN 54729
(715) 861-5045
www.teamAET.com

BORING B-1
PERFORMED ON 3/11/24
BORING B-2
PERFORMED ON 3/13/24

STATE PROJECT NUMBER

7251-00-71

MATERIAL SYMBOLS

ASPHALT

CONCRETE

SAND

BOULDERS OR COBBLES

SHALE

TOPSOIL

FILL

CLAY

LIMESTONE

SANDSTONE

PEAT

GRAVEL

SILT

BEDROCK (UNKNOWN)

IGNEOUS/META

ADDITIONAL ABBREVIATIONS

V-VERY

CONT.-CONTINUED

LEGEND OF BORING

BORING #/EL.

STA./OFF-SET

ST

0.25

17

F-C

COBBLE OR BOULDER

WEATHERED LIMESTONE

CORE RUN #1 - 24'-29'

REC=80%, ROD=72%

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

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

GROUND WATER ELEVATION

▽

 AT TIME OF DRILLING

▽

 END OF DRILLING

▽

 AFTER DRILLING

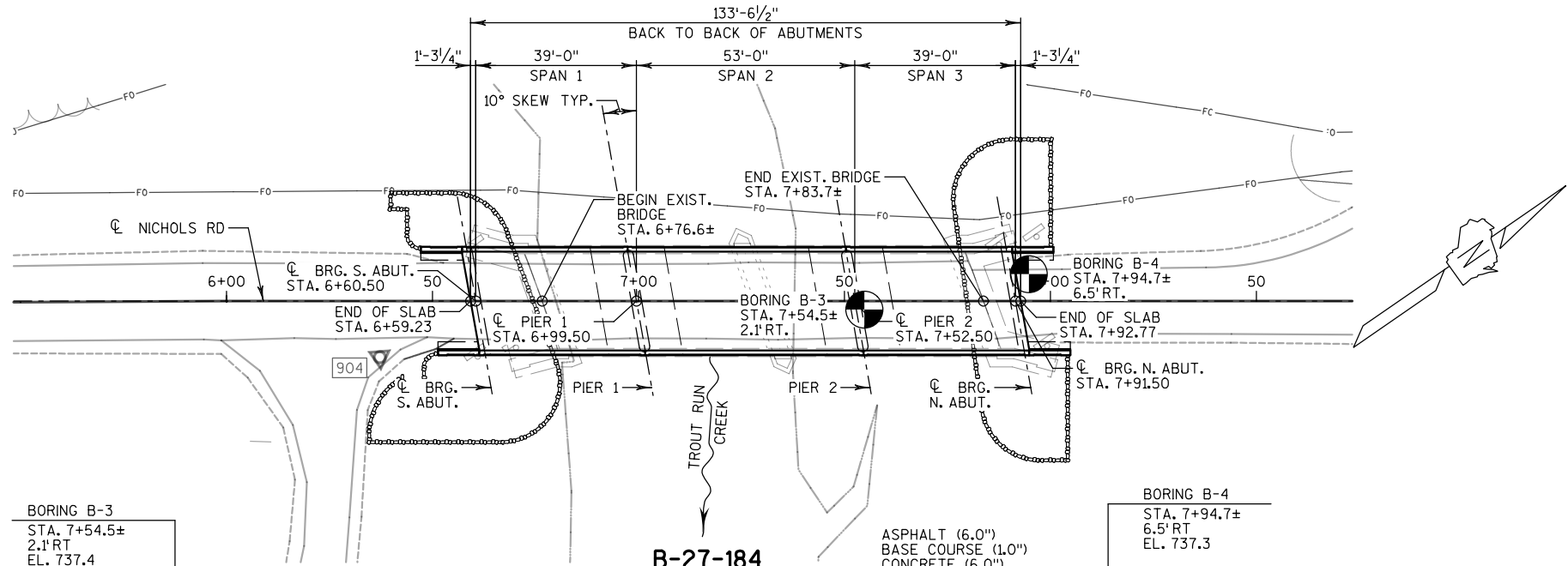
ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

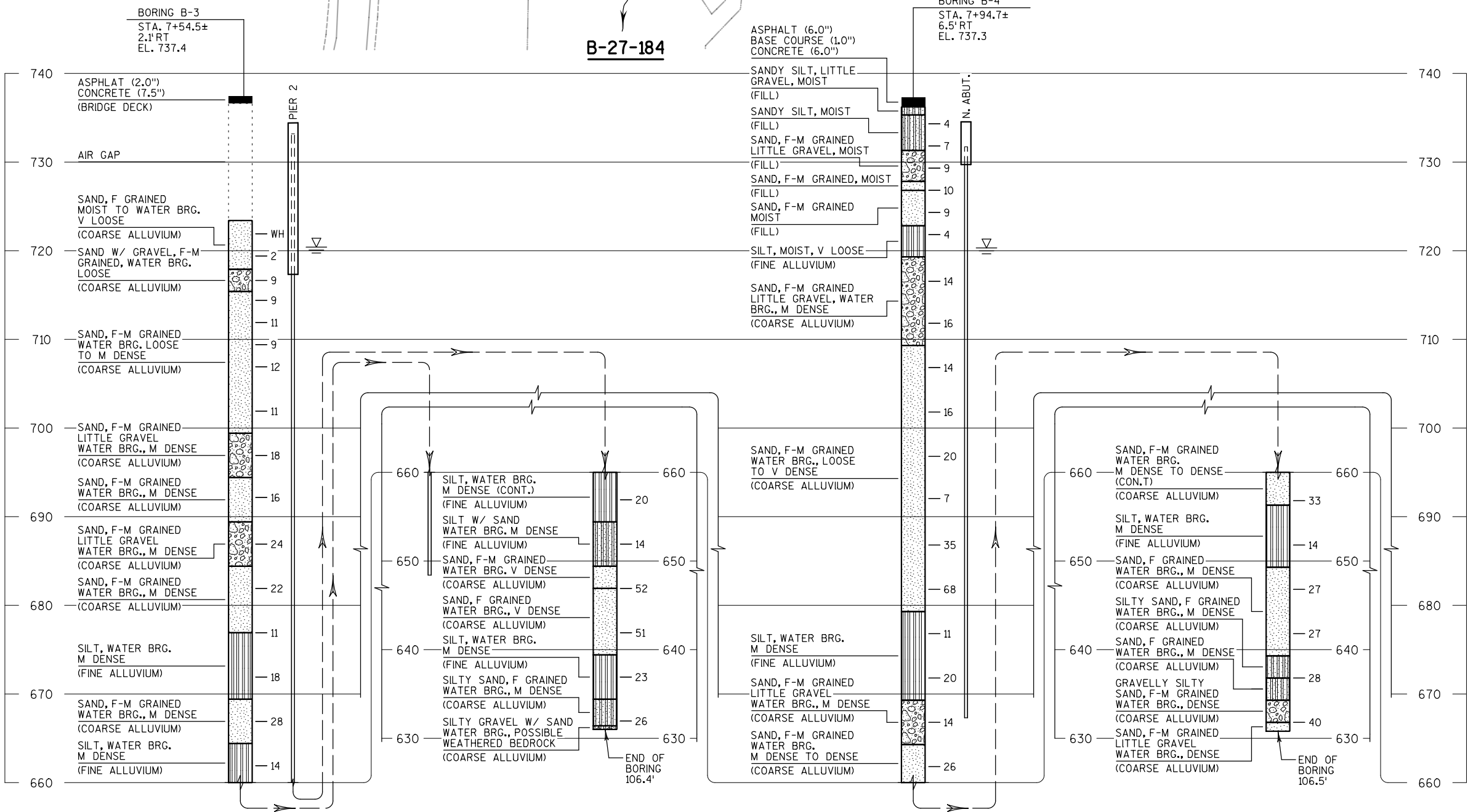
BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-184			
DRAWN BY TKB		PLANS CK'D. ETP	
SUBSURFACE EXPLORATION-1			SHEET 4 OF 20



GEOTECHNICAL REPORT &
SOIL BORINGS PERFORMED BY:
AMERICAN ENGINEERING TESTING, INC.
1837 COUNTY HIGHWAY 00
CHIPPEWA FALLS, WISCONSIN 54729
(715) 861-5045
www.teamAET.com

BORING B-3
PERFORMED ON 3/14/24
BORING B-4
PERFORMED ON 3/11/24



STATE PROJECT NUMBER

7251-00-71

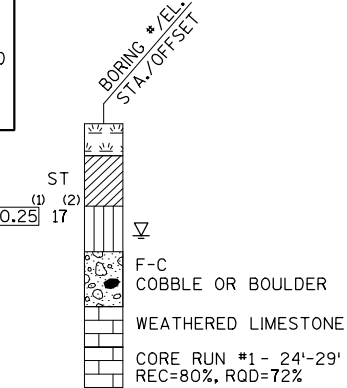
MATERIAL SYMBOLS

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

ADDITIONAL ABBREVIATIONS

V-VERY
CONT.-CONTINUED

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

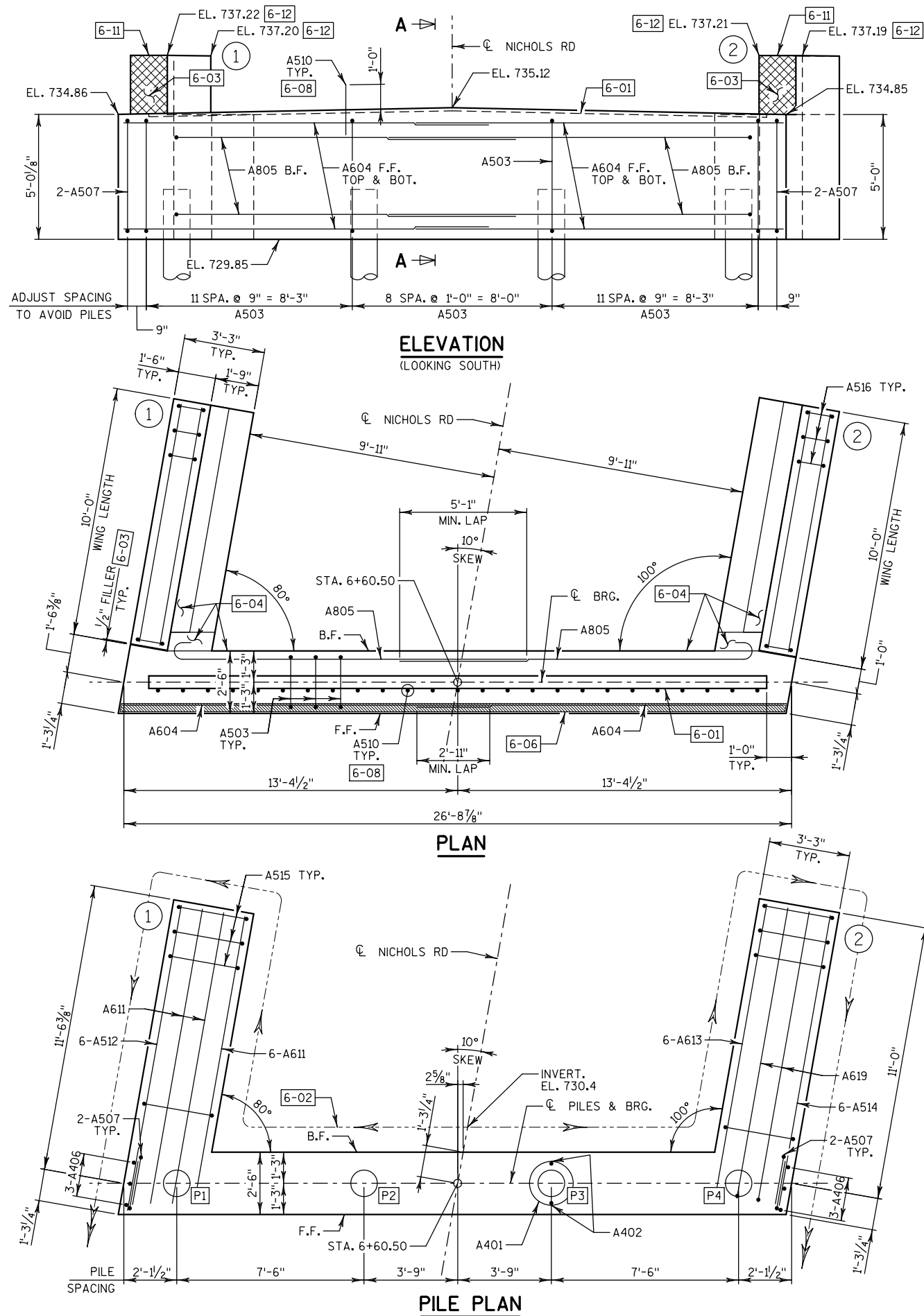
ABBREVIATIONS

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

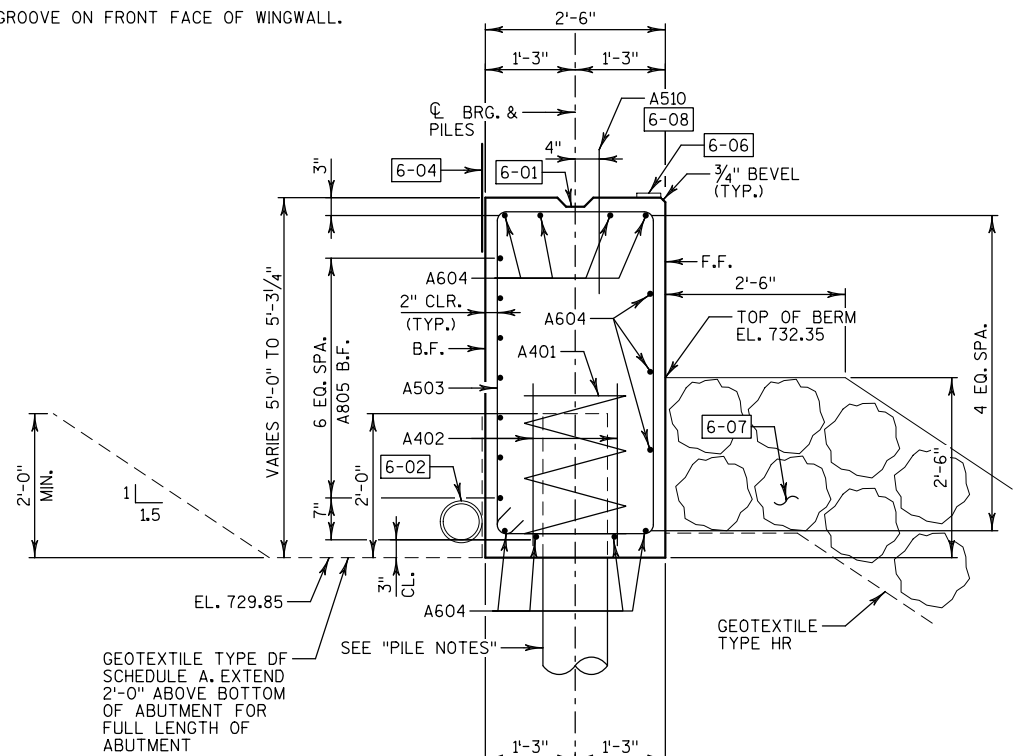
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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-27-184			
DRAWN BY TKB		PLANS CK'D. ETP	
SUBSURFACE EXPLORATION-2			SHEET 5 OF 20



- LEGEND**
- (X) INDICATES WING NUMBER.
 - PX INDICATES PILE NUMBER.
 - 6-01 KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"x6".
 - 6-02 PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".
 - 6-03 1/2" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).
 - 6-04 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
 - 6-05 PULL UP TO 2" CLEAR.
 - 6-06 3/4"x4" PREFORMED JOINT FILLER TO EXTEND BETWEEN EDGES OF SLAB.
 - 6-07 HEAVY RIPRAP. SEE SHEET 1 FOR ADDITIONAL DETAILS.
 - 6-08 A510 BARS SPACED AT 1'-0" ON CENTER MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.
 - 6-09 OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2"x6" KEYWAY WITH MEMBRANE ON BACKFACE.
 - 6-10 SEE "VERTICAL FACE PARAPET 'TX'" SHEETS FOR PARAPET REINFORCEMENT.
 - 6-11 CONSTRUCTION JOINT. STRIKE OFF AND LEAVE ROUGH. SEE "VERTICAL FACE PARAPET 'TX'" SHEETS.
 - 6-12 TOP OF WING IS FLAT.
 - 6-13 3/4" 'V' GROOVE ON FRONT FACE OF WINGWALL.



PILE NOTES

ABUTMENT TO BE SUPPORTED ON PILING CIP CONCRETE 12 3/4"x0.375-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 130* TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 65' LONG AT THE SOUTH ABUTMENT.

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

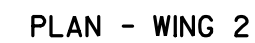
STATE PROJECT NUMBER

7251-00-71

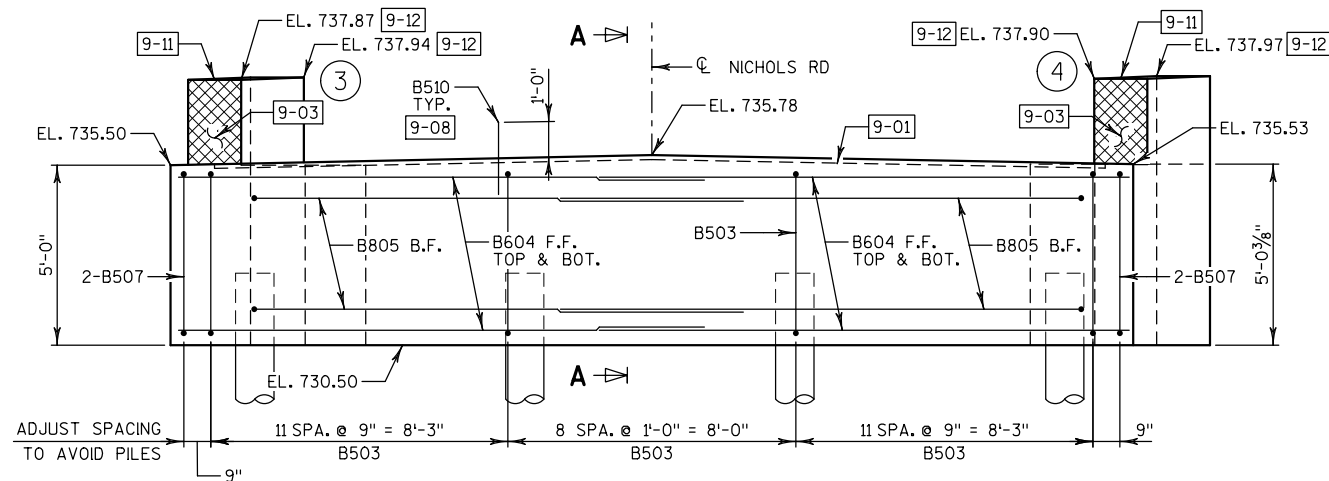
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-184			
DRAWN BY TKB		PLANS CK'D. ETP	
SOUTH ABUTMENT			SHEET 6 OF 20

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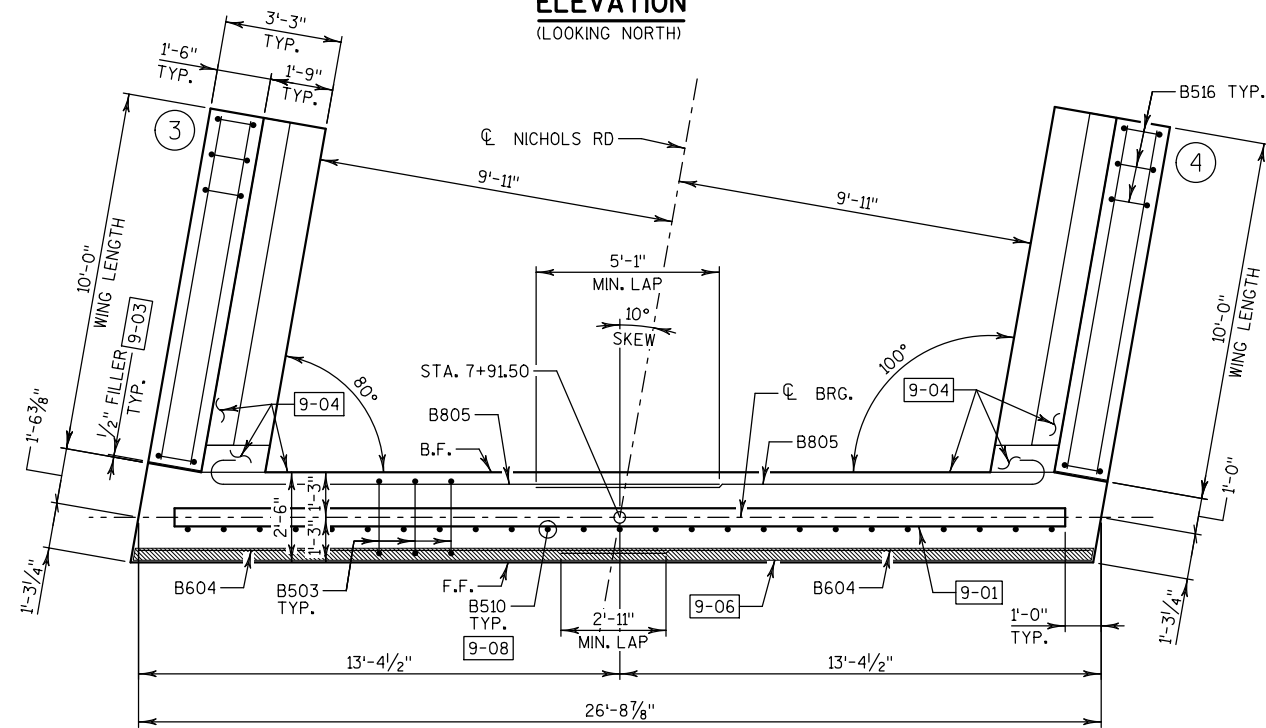
6-XX SEE SHEET 6 FOR CALLOUTS.



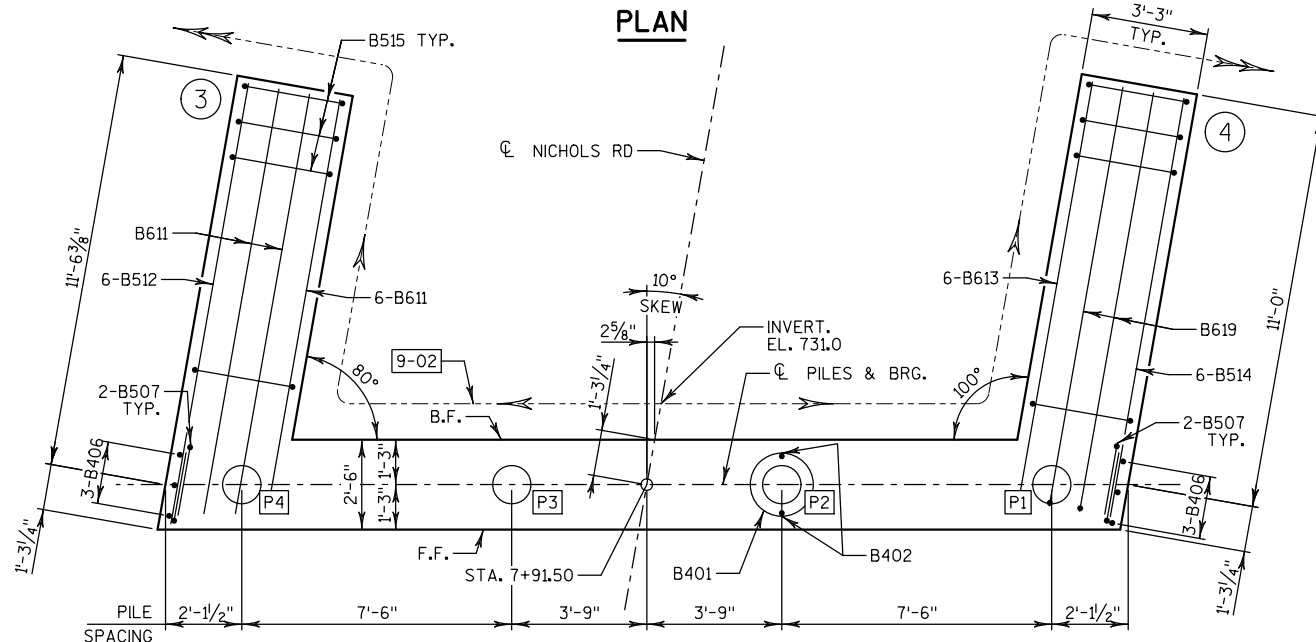
NO.	DATE	REVISION			BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION					
STRUCTURE B-27-184					
			DRAWN BY	TKB	PLANS CK'D. ETP
SOUTH ABUTMENT DETAILS-1				SHEET 7 OF 20	
				34	



ELEVATION
(LOOKING NORTH)



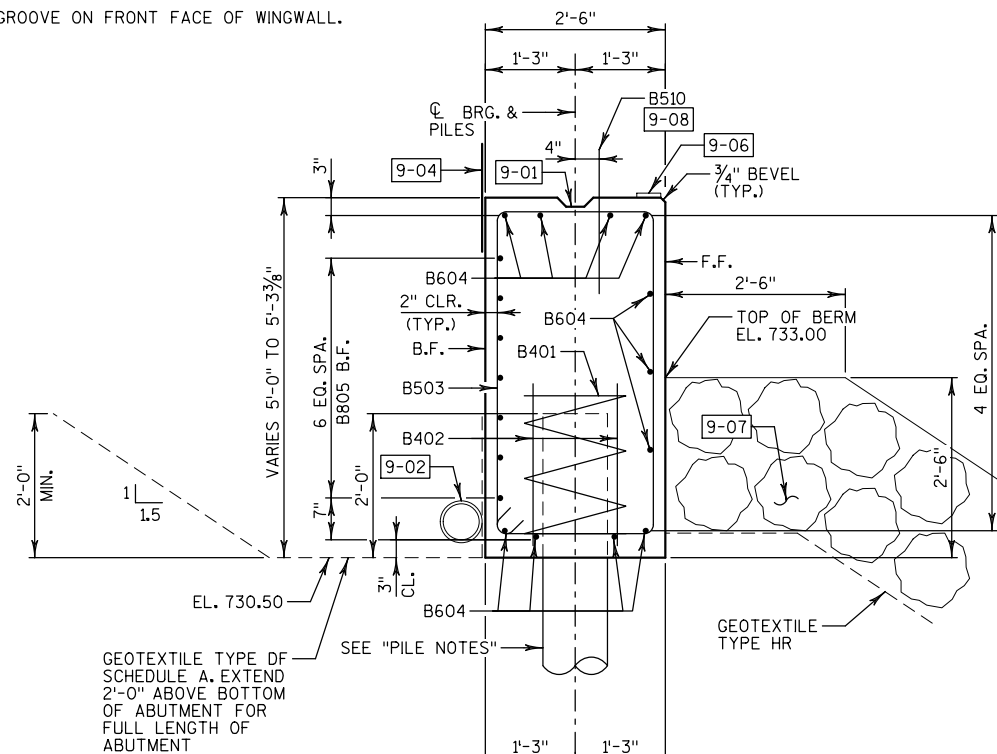
PLAN



PILE PLAN

LEGEND

- (X) INDICATES WING NUMBER.
- (PX) INDICATES PILE NUMBER.
- 9-01 KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"x6".
- 9-02 PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".
- 9-03 1/2" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).
- 9-04 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- 9-05 PULL UP TO 2" CLEAR.
- 9-06 3/4"x4" PREFORMED JOINT FILLER TO EXTEND BETWEEN EDGES OF SLAB.
- 9-07 HEAVY RIPRAP. SEE SHEET 1 FOR ADDITIONAL DETAILS.
- 9-08 B510 BARS SPACED AT 1'-0" ON CENTER MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.
- 9-09 OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2"x6" KEYWAY WITH MEMBRANE ON BACKFACE.
- 9-10 SEE "VERTICAL FACE PARAPET 'TX'" SHEETS FOR PARAPET REINFORCEMENT.
- 9-11 CONSTRUCTION JOINT. STRIKE OFF AND LEAVE ROUGH. SEE "VERTICAL FACE PARAPET 'TX'" SHEETS.
- 9-12 TOP OF WING IS FLAT.
- 9-13 3/4" 'V' GROOVE ON FRONT FACE OF WINGWALL.



SECTION A-A

PILE NOTES

ABUTMENT TO BE SUPPORTED ON PILING CIP CONCRETE 12 3/4"x0.375-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 130* TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 65' LONG AT THE NORTH ABUTMENT.

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

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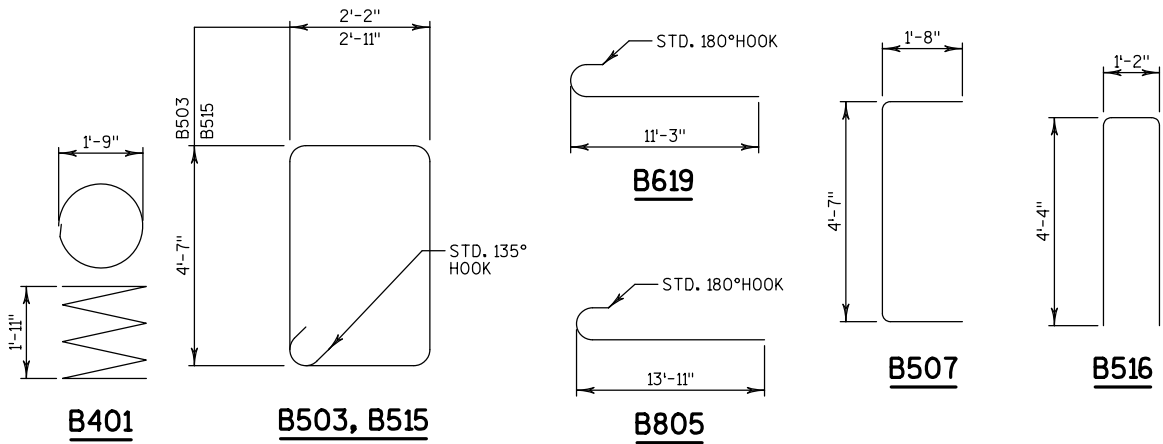
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-184			
DRAWN BY TKB		PLANS CK'D. ETP	
NORTH ABUTMENT			SHEET 9 OF 20

9-XX SEE SHEET 9 FOR CALLOUTS.



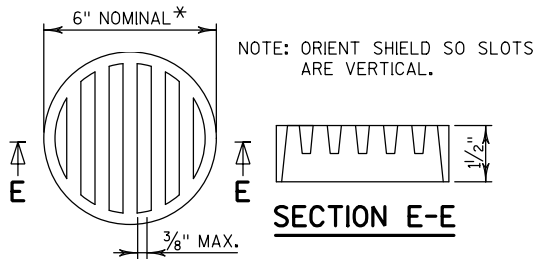
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-184			
DRAWN BY		TKB	PLANS CK'D. ETP
NORTH ABUTMENT DETAILS-1		SHEET 10 OF 20	
		37	



BILL OF BARS - NORTH ABUTMENT

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
UNCOATED BARS					TOTAL WEIGHT = 1,630 LBS	
B401	4	28'-0"	X		BODY - AT PILES - 1 PER PLE	VERT.
B402	8	2'-3"			BODY - AT PILES - 2 PER PLE	VERT.
B503	31	14'-2"	X		BODY - STIRRUPS	VERT.
B604	22	14'-8"			BODY - TOP, F.F. & BOT.	HORIZ.
B805	14	14'-10"	X		BODY - B.F.	HORIZ.
B406	6	4'-7"			BODY - ENDS	VERT.
B507	4	7'-8"	X		BODY - END STIRRUPS	VERT.
COATED BARS					TOTAL WEIGHT = 1,220 LBS	
B510	25	2'-0"			BODY - TOP	VERT.
B611	8	11'-8"			WING 3 FTG. - B.F. & TOP	HORIZ.
B512	6	12'-5"			WING 3 FTG. - F.F.	HORIZ.
B613	6	12'-1"			WING 4 FTG. - B.F.	HORIZ.
B514	6	11'-11"			WING 4 FTG. - F.F.	HORIZ.
B515	22	15'-8"	X		WINGS 3 & 4 FTG. - STIRRUPS	VERT.
B516	28	9'-7"	X		WINGS - STIRRUPS	VERT.
B417	10	9'-8"			WINGS - F.F. & B.F.	HORIZ.
B618	4	9'-8"			WINGS - TOP	HORIZ.
B619	2	11'-11"	X		WING 4 FTG. - TOP	HORIZ.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.



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

RODENT SHIELD DETAIL

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

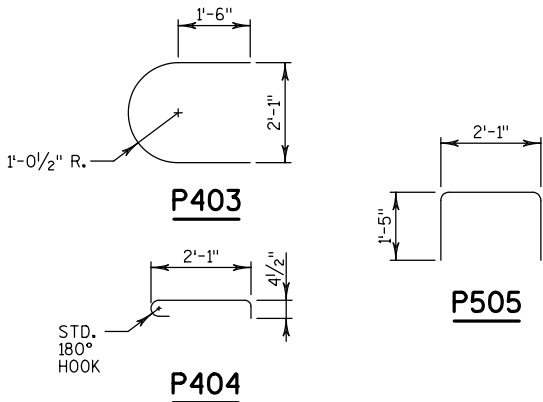
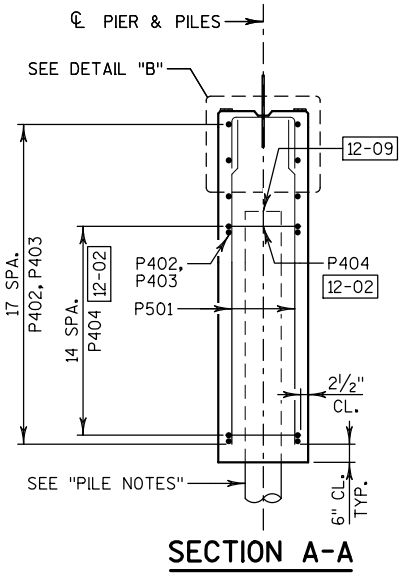
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO.10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-184			
DRAWN BY TKB		PLANS CK'D. ETP	
NORTH ABUTMENT DETAILS-2			SHEET 11 OF 20

BILL OF BARS - PIER 1

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
UNCOATED BARS					TOTAL WEIGHT = 1,960 LBS
P501	54	16'-9"			E.F. VERT.
P402	72	12'-6"			E.F. HORIZ.
P403	36	6'-4"	X		ENDS HORIZ.
P404	105	2'-11"	X		TIE BAR HORIZ.
P505	13	4'-6"	X		TOP TIE VERT.
COATED BARS					TOTAL WEIGHT = 50 LBS
P506	25	2'-0"			DOWEL BAR VERT.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.



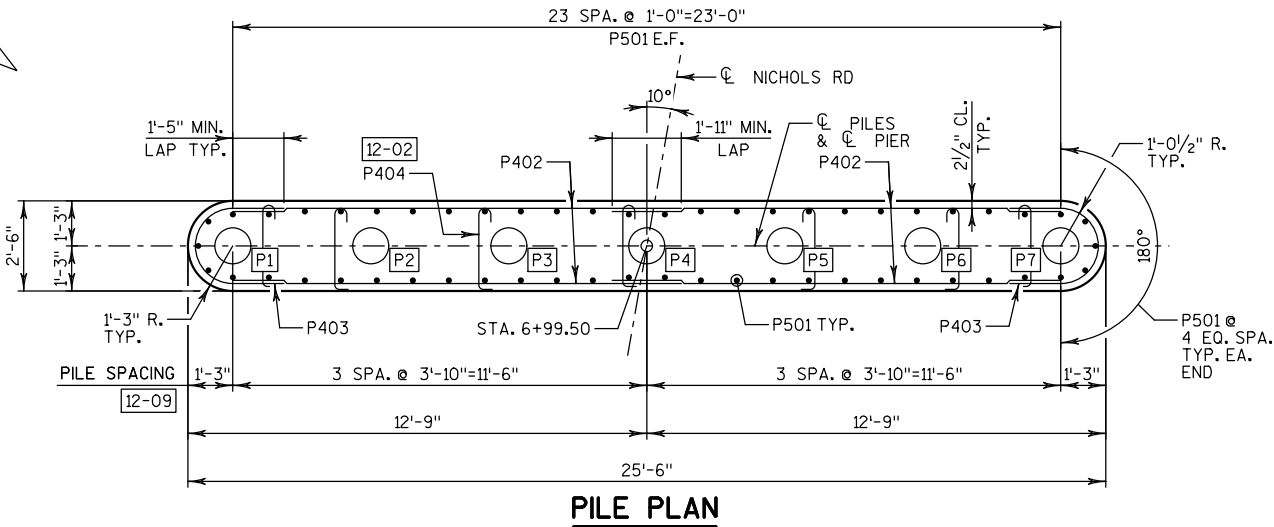
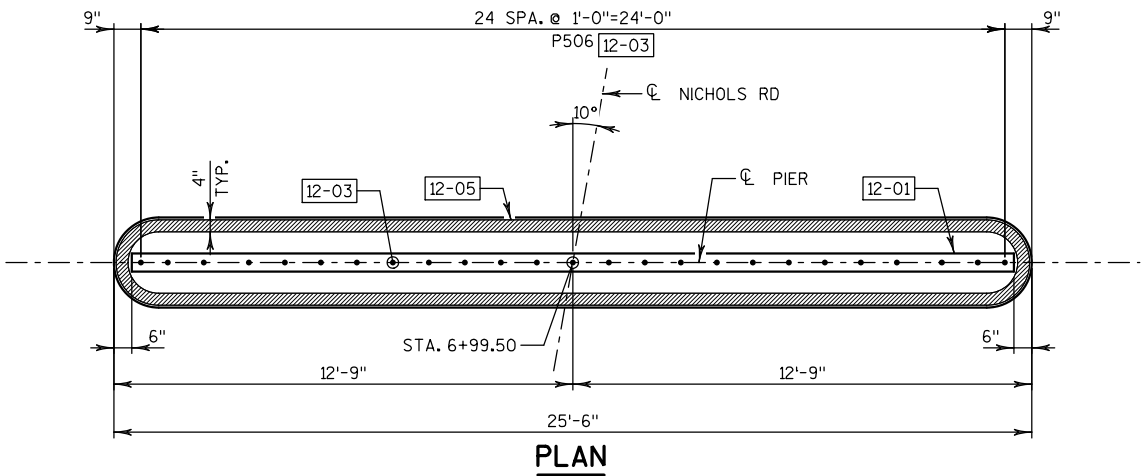
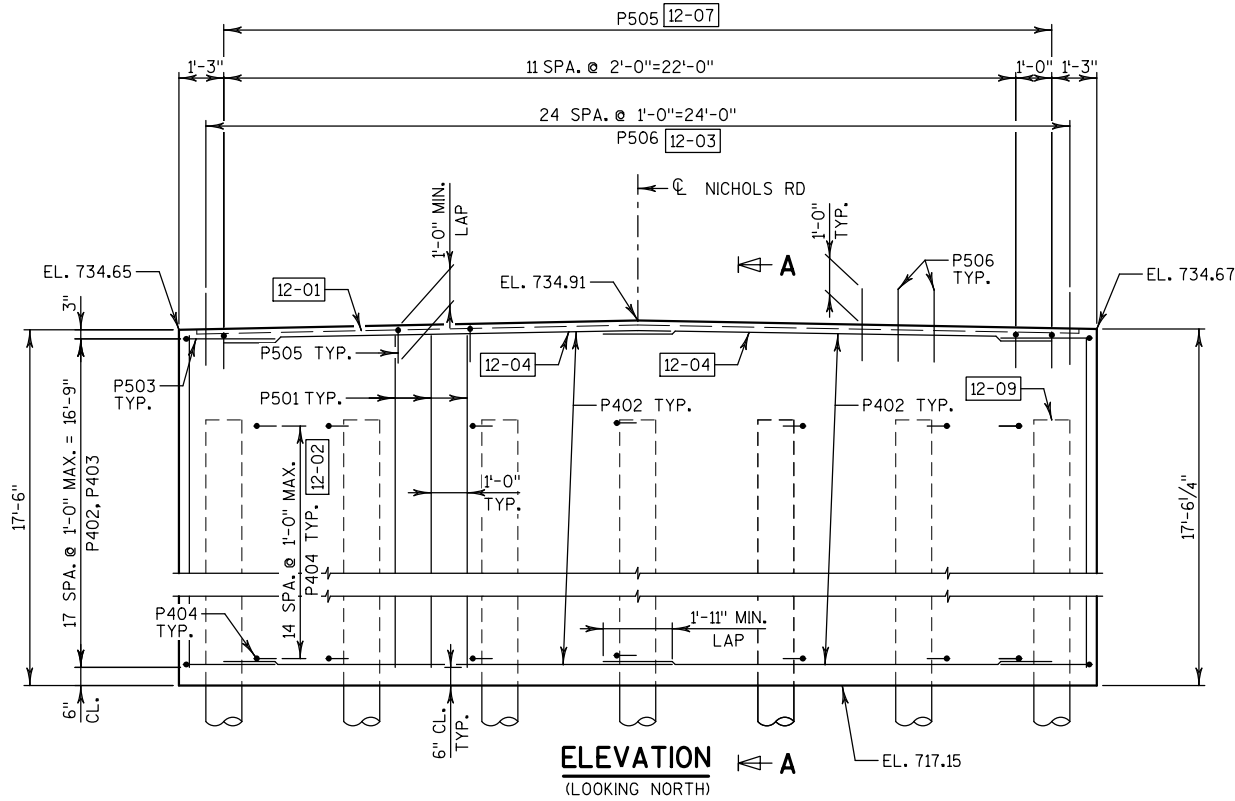
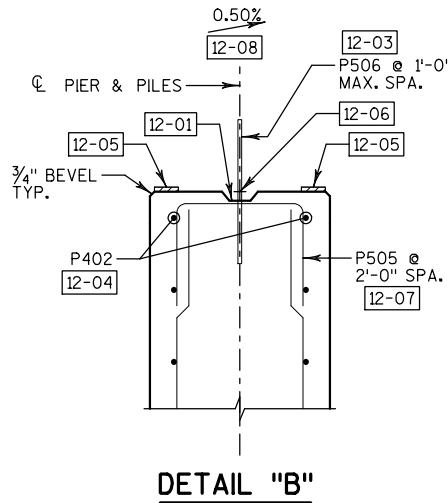
PILE NOTES

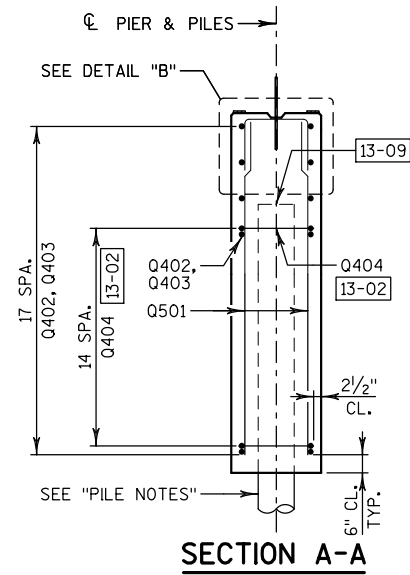
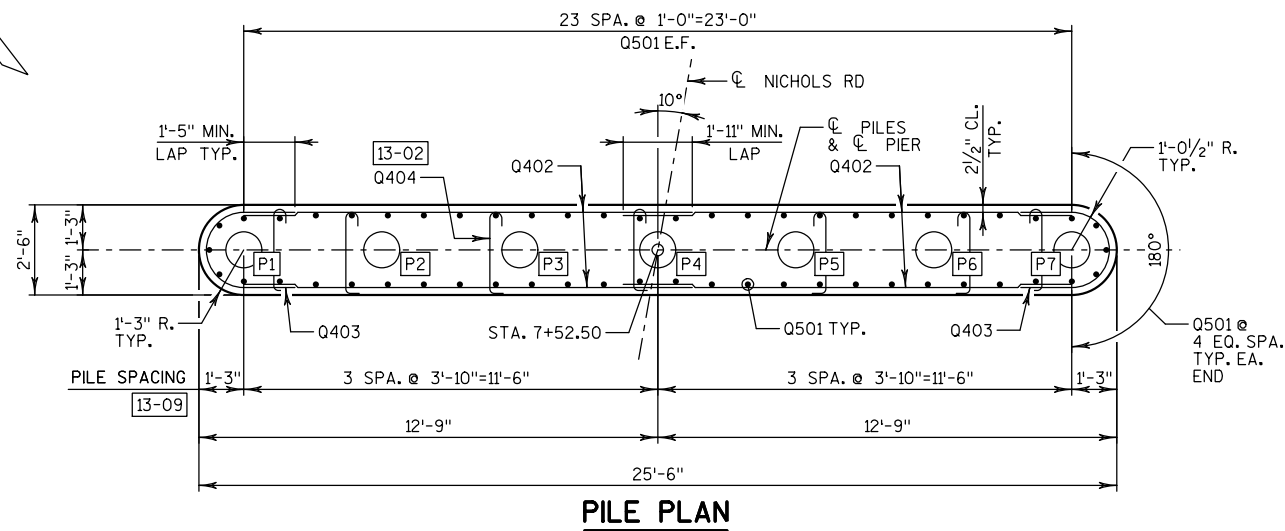
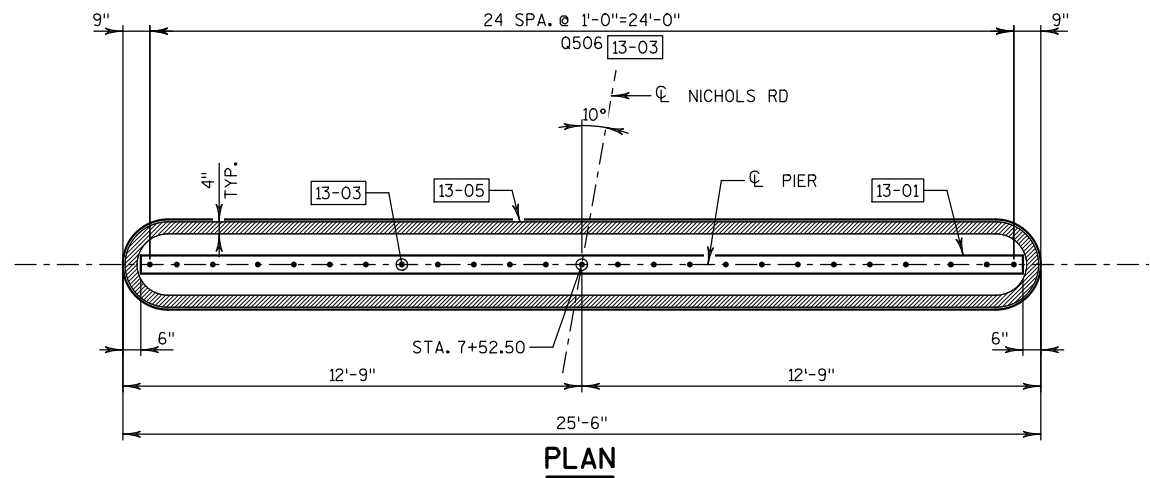
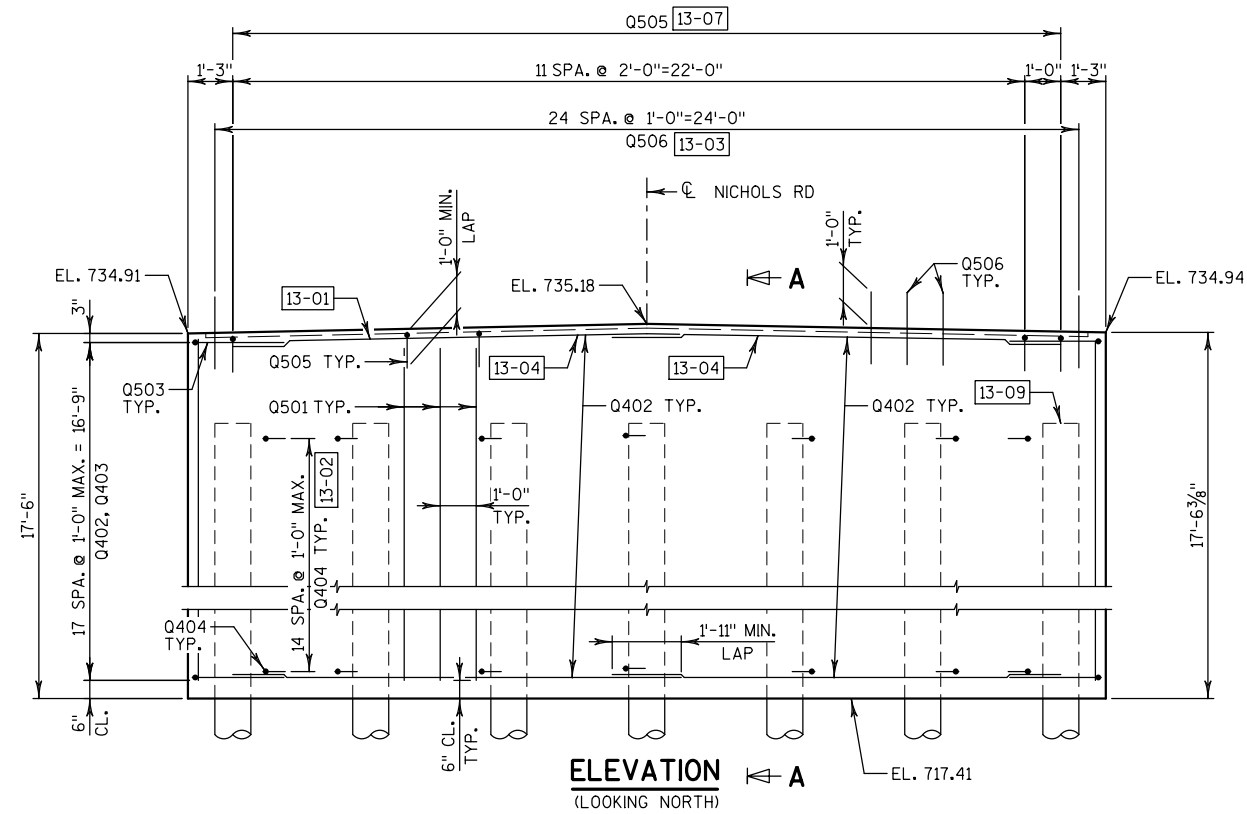
PIER 1 TO BE SUPPORTED ON PILING CIP CONCRETE 12 3/4"x0.375-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 185* TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED 100' LONG AT PIER 1.

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

LEGEND

- [PX] INDICATES PILE NUMBER.
- [12-01] KEYED CONSTRUCTION JOINT-FORMED BY BEVELED 2x6.
- [12-02] P404 BARS PLACED ADJACENT TO EACH PILE ONLY. TIE TO THE NEAREST P501 BAR. VERTICAL SPACING TO MATCH TYPICAL P402, P403 SPACING. ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.
- [12-03] P506 BARS @ 1'-0" MAX. CTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONCRETE).
- [12-04] FIELD BEND TO FOLLOW TOP OF PIER SLOPE.
- [12-05] 4"x3/4" PREFORMED JOINT FILLER TYP.
- [12-06] ELEVATION SHOWN IS TAKEN AT THE CL OF PIER.
- [12-07] PULL UP TO 2" CLEAR.
- [12-08] SLOPE TOP OF PIER AS SHOWN.
- [12-09] TYPICAL TOP OF PILE EL. 732.15. SEE "PILE NOTES".

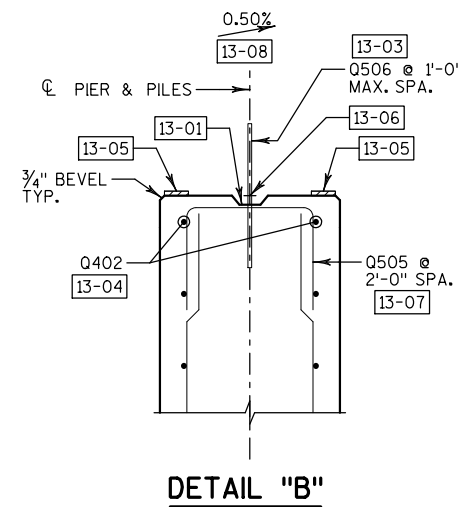




PILE NOTES

PIER 2 TO BE SUPPORTED ON PILING CIP CONCRETE 12 3/4" x 0.375-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 185* TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED 85' LONG AT PIER 2.

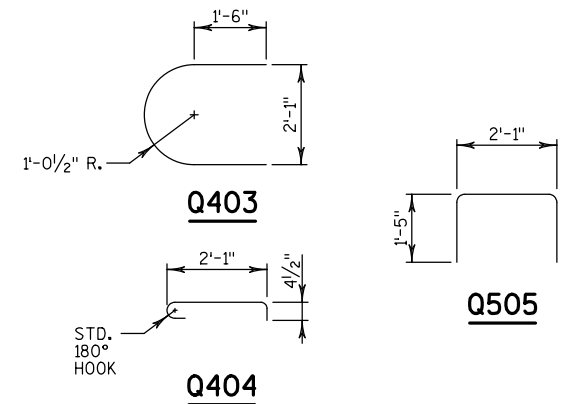
*THE FACTORED AXIAL RESISTANCE OF THE PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.



BILL OF BARS - PIER 2

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
UNCOATED BARS					
					TOTAL WEIGHT = 1,960 LBS
Q501	54	16'-9"			E.F. VERT.
Q402	72	12'-6"			E.F. HORIZ.
Q403	36	6'-4"	X		ENDS HORIZ.
Q404	105	2'-11"	X		TIE BAR HORIZ.
Q505	13	4'-6"	X		TOP TIE VERT.
COATED BARS					
					TOTAL WEIGHT = 50 LBS
Q506	25	2'-0"			DOWEL BAR VERT.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.



LEGEND

- [PX] INDICATES PILE NUMBER.
- [13-01] KEYED CONSTRUCTION JOINT-FORMED BY BEVELED 2x6.
- [13-02] Q404 BARS PLACED ADJACENT TO EACH PILE ONLY. TIE TO THE NEAREST Q501 BAR. VERTICAL SPACING TO MATCH TYPICAL Q402, Q403 SPACING. ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.
- [13-03] Q506 BARS @ 1'-0" MAX. CTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONCRETE).
- [13-04] FIELD BEND TO FOLLOW TOP OF PIER SLOPE.
- [13-05] 4"x 3/4" PREFORMED JOINT FILLER TYP.
- [13-06] ELEVATION SHOWN IS TAKEN AT THE CL OF PIER.
- [13-07] PULL UP TO 2" CLEAR.
- [13-08] SLOPE TOP OF PIER AS SHOWN.
- [13-09] TYPICAL TOP OF PILE EL. 732.41. SEE "PILE NOTES".

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-184			
DRAWN BY TKB		PLANS CK'D. ETP	
PIER 2			SHEET 13 OF 20

NOTES

THE TOP TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY.

THE BOTTOM LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO SUBSTRUCTURE UNITS.

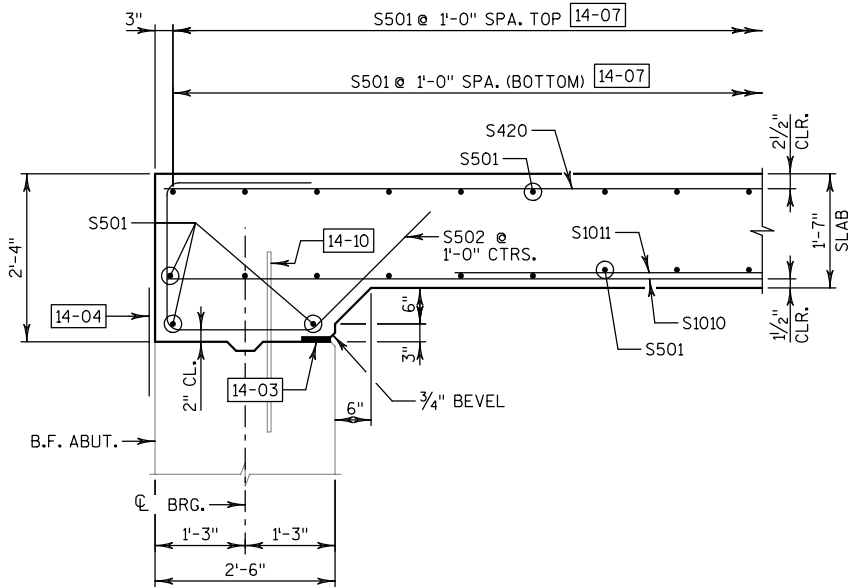
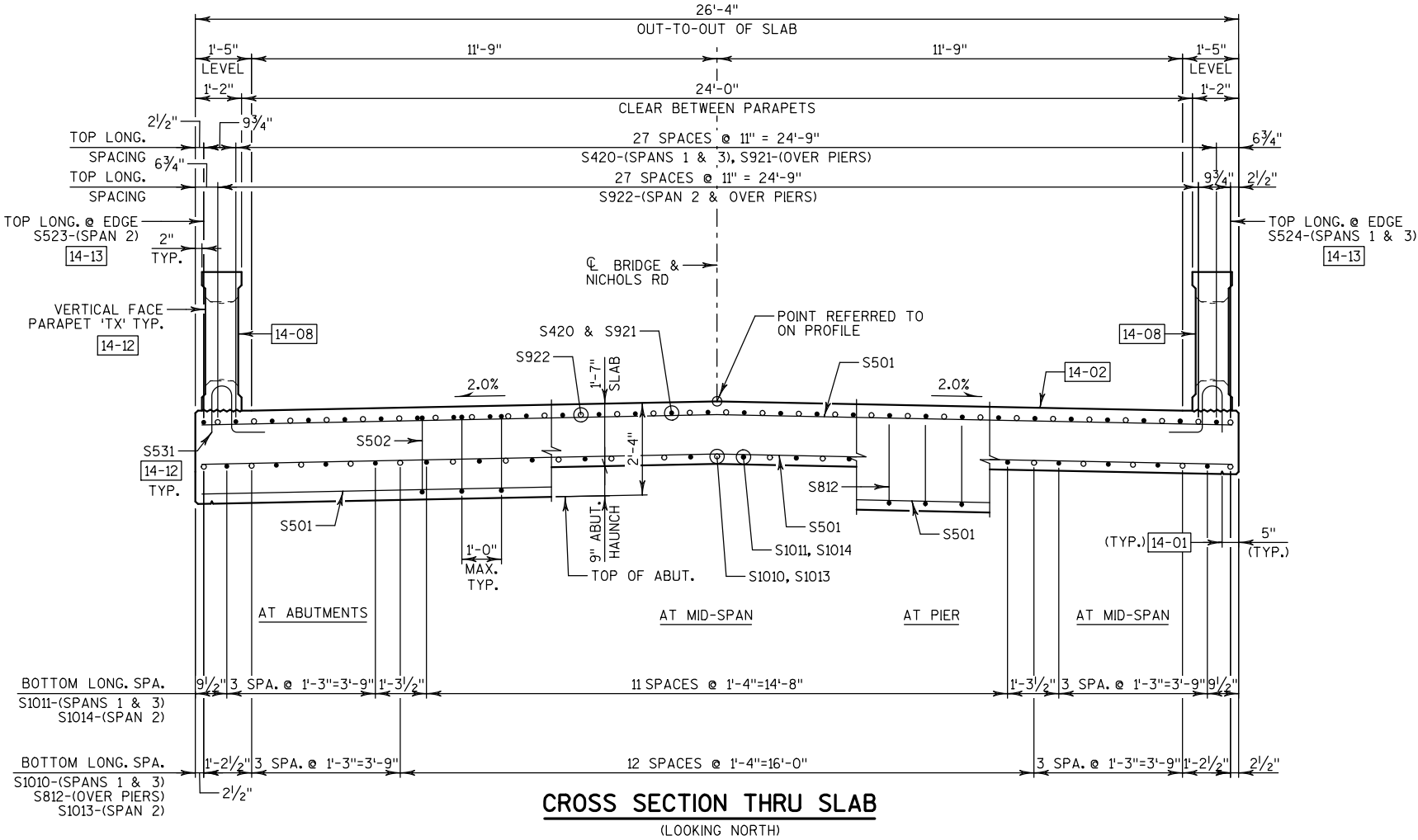
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE CL OF ABUTMENTS, THE CL PIERS AND AT 5/10 POINTS TO VERIFY CAMBER. TAKE ELEVATIONS ALONG THE GUTTER LINES AND CL NICHOLS RD/CROWN POINT. RECORD THE ELEVATIONS IN THE "SURVEY TOP OF SLAB ELEVATIONS" TABLE ON "SUPERSTRUCTURE DETAILS-4" SHEET FOR THE "AS BUILT" PLANS.

PARAPETS SHALL BE POURED AFTER FORMWORK IS RELEASED.

LEGEND

- [14-01] 3/4" CONTINUOUS DRIP "V" GROOVE, END 6" FROM FRONT FACE OF ABUTMENTS.
- [14-02] COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATION.
- [14-03] 3/4"x4" PREFORMED JOINT FILLER TO EXTEND BETWEEN EDGES OF SLAB OR AROUND ENTIRE OUTSIDE EDGE OF TOP OF PIER.
- [14-04] 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- [14-05] DIMENSION IS TAKEN PERPENDICULAR TO CL SUBSTRUCTURES.
- [14-06] DIMENSION IS TAKEN PARALLEL TO CL NICHOLS RD.
- [14-07] BARS PLACED PARALLEL TO SKEW AND SPACED ALONG CL NICHOLS RD.
- [14-08] PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE ROADWAY FACE AND TOP OF PARAPETS.
- [14-09] FIELD BEND S501 BARS AT B.F. OF ABUTMENT TO MAINTAIN 2" CLEAR FROM WING.
- [14-10] SEE ABUTMENT SHEETS FOR DOWEL INFO.
- [14-11] SEE PIER SHEETS FOR DOWEL INFO.
- [14-12] SEE "VERTICAL FACE PARAPET 'TX' " SHEETS FOR DETAILS.
- [14-13] S524 BARS ADDED TO SPANS 1 & 3 AND S523 BARS ADDED TO SPAN 2, AT TOP EDGES. BARS ADDED TO MAINTAIN A CONTINUOUS LINE OF REINFORCEMENT AT THE SLAB EDGES ALONG THE ENTIRE LENGTH OF THE STRUCTURE. LAP S524 & S523 BARS WITH S922 & S921 BARS, RESPECTIVELY, A MIN. OF 2'-11".

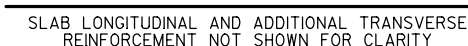
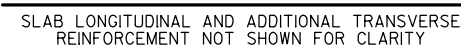


PARTIAL LONGITUDINAL SECTION AT ABUTMENTS

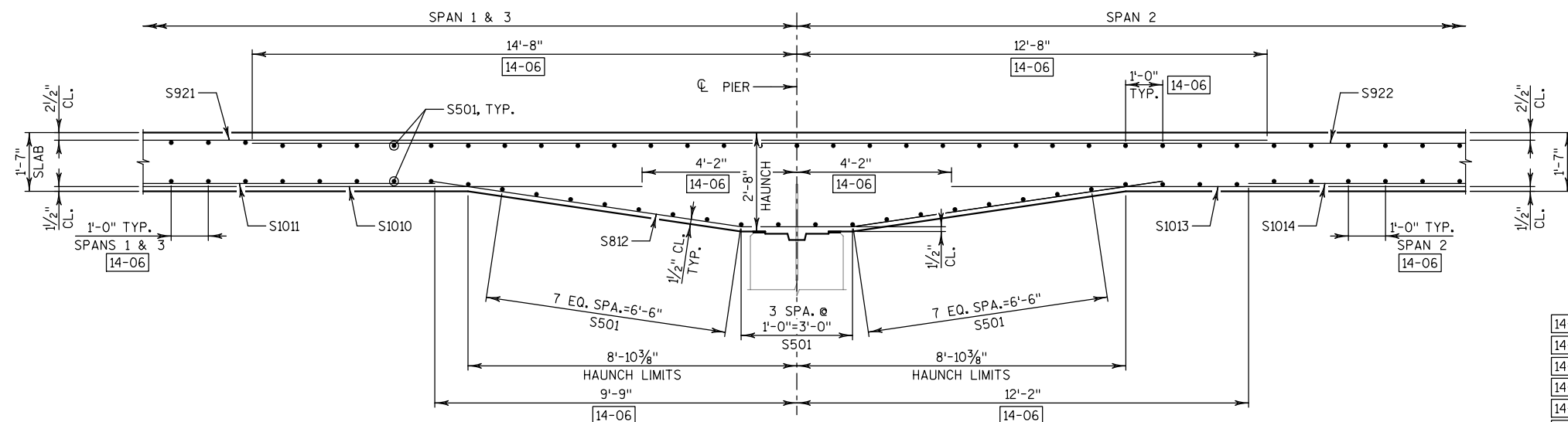
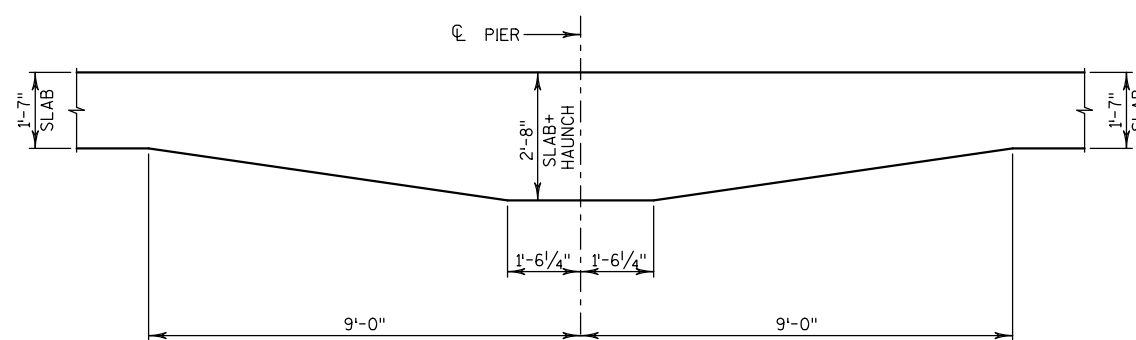
DIMENSIONS ARE PERPENDICULAR TO CL ABUTMENT U.N.O.
BARS PLACED PARALLEL TO CL NICHOLS RD U.N.O.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-184			
DRAWN BY TKB		PLANS CK'D. ETP	
SUPERSTRUCTURE DETAILS-1			SHEET 14 OF 20

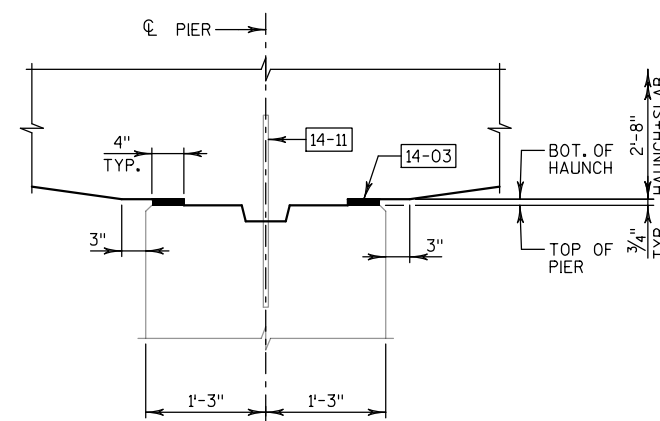
14-XX SEE "SUPERSTRUCTURE DETAILS-1" SHEET
FOR CALLOUTS AND NOTES.

42

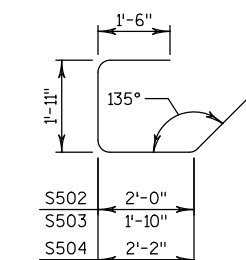
14-XX SEE "SUPERSTRUCTURE DETAILS-1" SHEET FOR CALLOUTS AND NOTES.

(DIMENSIONS ARE PERPENDICULAR TO $\odot$ PIER U.N.O.)

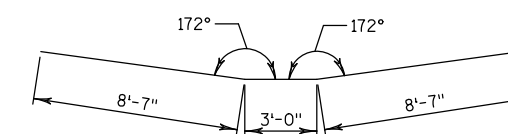
(DIMENSIONS ARE PARALELL TO C NICHOLS RD)
(REINFORCEMENT NOT SHOWN FOR CLARITY)



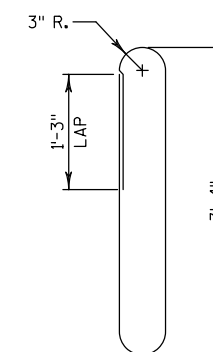
(DIMENSIONS TAKEN PERPENDICULAR TO $\mathbb{C}$ PIER)
(TYPICAL ALL PIERS)



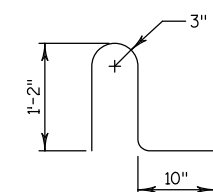
S502, S503, S504



S812



S530



S531

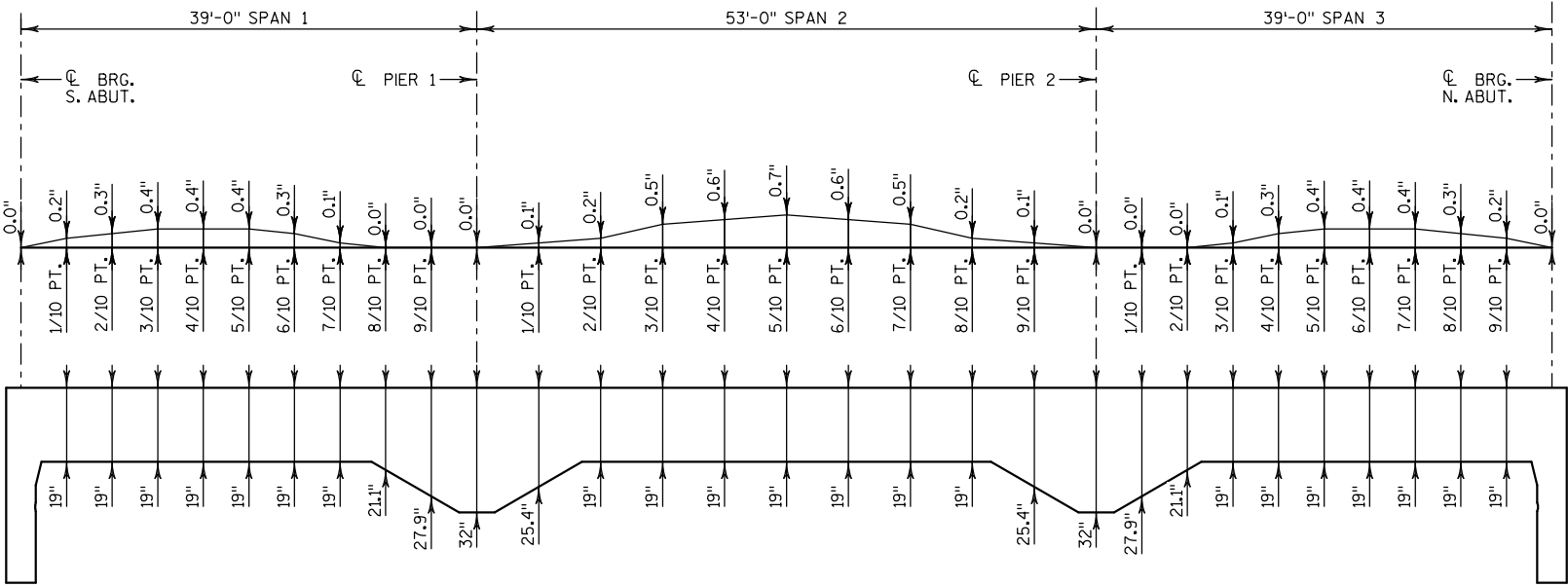
BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
COATED BARS					TOTAL WEIGHT = 51,800 LB.
S501	274	26'-5"			SLAB TOP & BTM. TRANS.
S502	50	7'-2"	X		SLAB AT ABUTMENT VERT.
S503	2	7'-0"	X		SLAB AT ABUTMENT ENDS NEAR W2 & W4 VERT.
S504	2	7'-4"	X		SLAB AT ABUTMENT ENDS NEAR W1 & W3 VERT.
S1010	42	35'-11"			SLAB - BTM. SPANS 1 & 3 LONGIT.
S1011	40	26'-4"			SLAB - BTM. SPANS 1 & 3 LONGIT.
S812	42	20'-2"	X		SLAB - BTM. HAUNCH LONGIT.
S1013	21	44'-8"			SLAB - BTM. SPAN 2 LONGIT.
S1014	20	28'-8"			SLAB - BTM. SPAN 2 LONGIT.
S420	58	12'-5"			SLAB - TOP, SPANS 1 & 3 LONGIT.
S921	58	43'-0"			SLAB - TOP, OVER PIERS LONGIT.
S922	58	44'-10"			SLAB - TOP, OVER PIERS LONGIT.
S523	1	33'-6"			SLAB - TOP, OVER SPAN 2 AT WEST EDGE LONGIT.
S524	2	28'-8"			SLAB - TOP, OVER SPANS 1 & 3 AT EAST EDGE LONGIT.
S530	360	8'-6"	X		PARAPET VERT.
S531	358	3'-4"	X		PARAPET VERT.
S532	16	20'-10"			PARAPET - BTM. SPANS 1 & 3 LONGIT.
S733	16	21'-3"			PARAPET - TOP SPANS 1 & 3 LONGIT.
S534	8	27'-3"			PARAPET - BTM. SPAN 2 LONGIT.
S735	8	27'-8"			PARAPET - TOP SPAN 2 LONGIT.

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

NO.	DATE	REVISION	B
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-184			
		DRAWN BY	TKB PLANS CK'D. ETP
SUPERSTRUCTURE DETAILS-3		SHEET 16 OF 2	
		43	

TOP OF SLAB ELEVATIONS

LOCATION	S. ABUT.	1.1 PT	1.2 PT	1.3 PT	1.4 PT	1.5 PT	1.6 PT	1.7 PT	1.8 PT	1.9 PT	PIER 1	2.1 PT	2.2 PT	2.3 PT	2.4 PT	2.5 PT	2.6 PT	2.7 PT	2.8 PT	2.9 PT	PIER 2	3.1 PT	3.2 PT	3.3 PT	3.4 PT	3.5 PT	3.6 PT	3.7 PT	3.8 PT	3.9 PT	N. ABUT.
WEST GUTTER	737.21	737.22	737.24	737.26	737.28	737.30	737.32	737.34	737.36	737.38	737.39	737.42	737.45	737.47	737.50	737.53	737.55	737.58	737.61	737.63	737.66	737.68	737.70	737.72	737.74	737.76	737.78	737.80	737.82	737.84	737.86
CROWN	737.45	737.46	737.48	737.50	737.52	737.54	737.56	737.58	737.60	737.62	737.64	737.67	737.69	737.72	737.75	737.77	737.80	737.83	737.85	737.88	737.91	737.92	737.94	737.96	737.98	738.00	738.02	738.04	738.06	738.09	738.11
EAST GUTTER	737.22	737.24	737.26	737.28	737.30	737.32	737.34	737.36	737.38	737.40	737.42	737.44	737.47	737.49	737.52	737.55	737.57	737.60	737.63	737.65	737.68	737.70	737.72	737.74	737.76	737.78	737.80	737.82	737.84	737.86	737.89



CAMBER AND SLAB THICKNESS DIAGRAM

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

PARAPETS SHALL BE POURED AFTER FALSEWORK IS RELEASED.

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

TOP OF SLAB ELEVATION AT FINAL GRADE
MINUS (-) 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.

CAMBER NOTES:

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE CL OF ABUTMENTS, THE CL OF PIERS AND AT 5/10 POINTS, TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN POINT. RECORD THE ELEVATIONS IN THE "SURVEY TOP OF SLAB ELEVATIONS" TABLE FOR THE "AS BUILT" PLANS.

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

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	S. ABUT.	5/10 PT	PIER 1	5/10 PT	PIER 2	5/10 PT	N. ABUT.
WEST GUTTER							
CROWN							
EAST GUTTER							

NO.	DATE	REVISION	BY
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SUPERSTRUCTURE DETAILS-4			SHEET 17 OF 20
			44

NOTES

DIMENSIONS TAKEN AT GUTTER LINE.

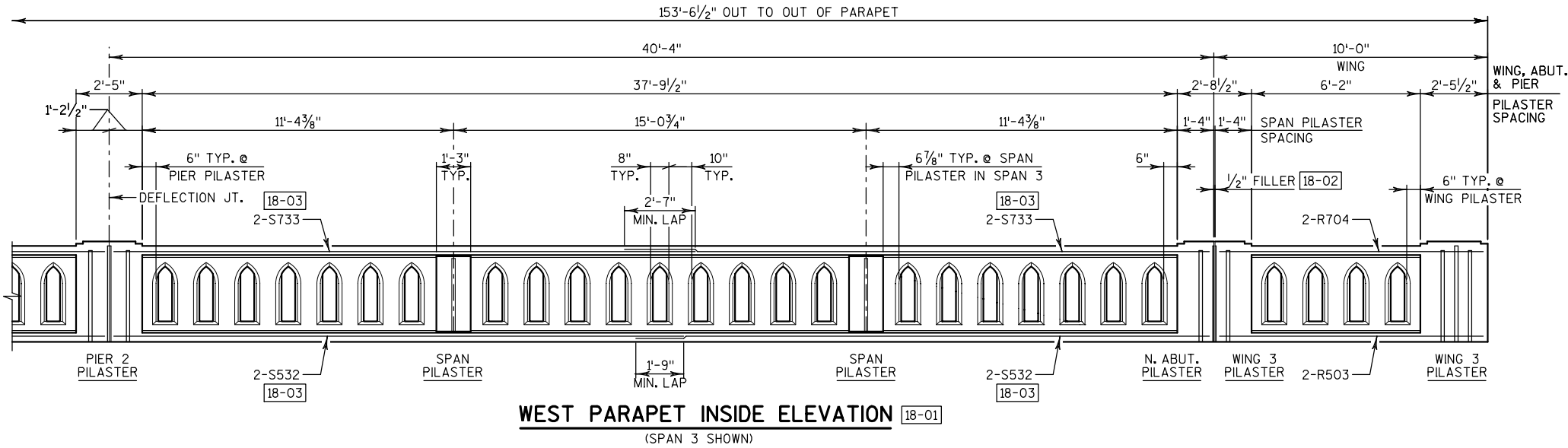
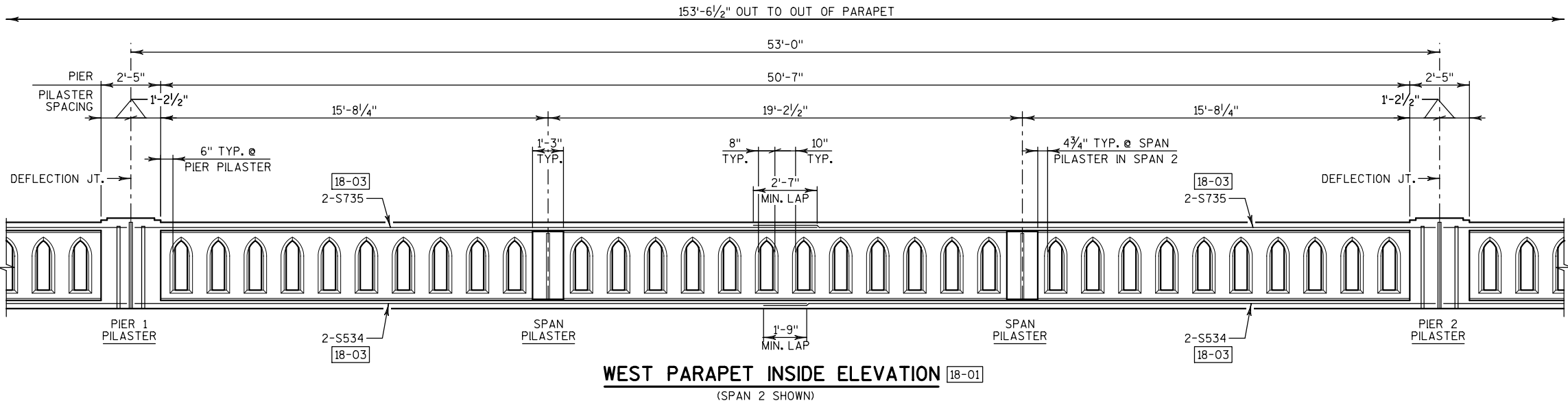
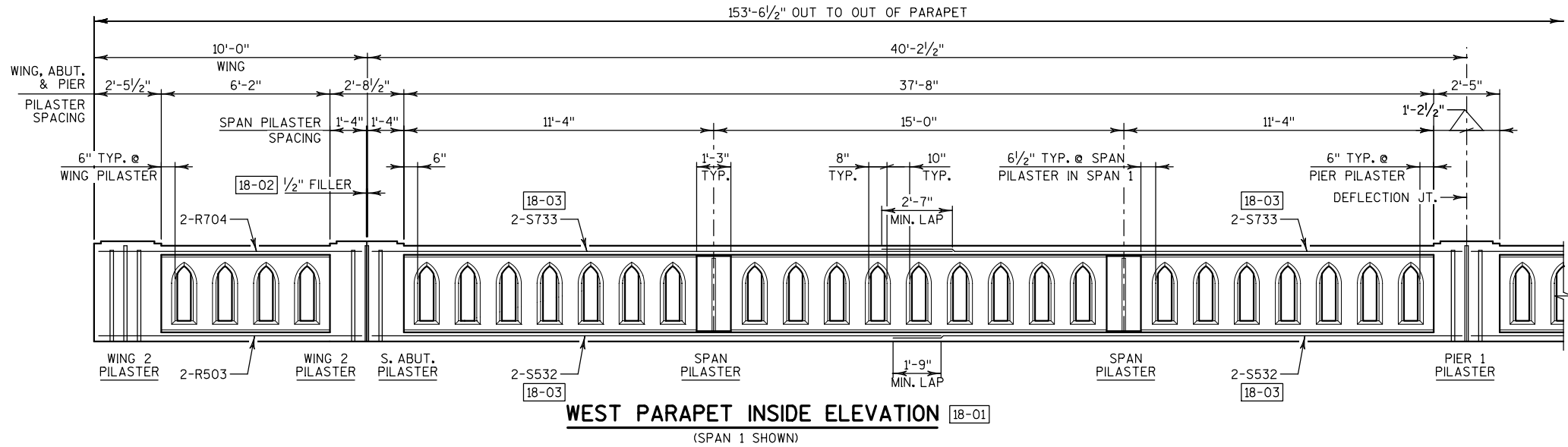
LEGEND

- 18-01

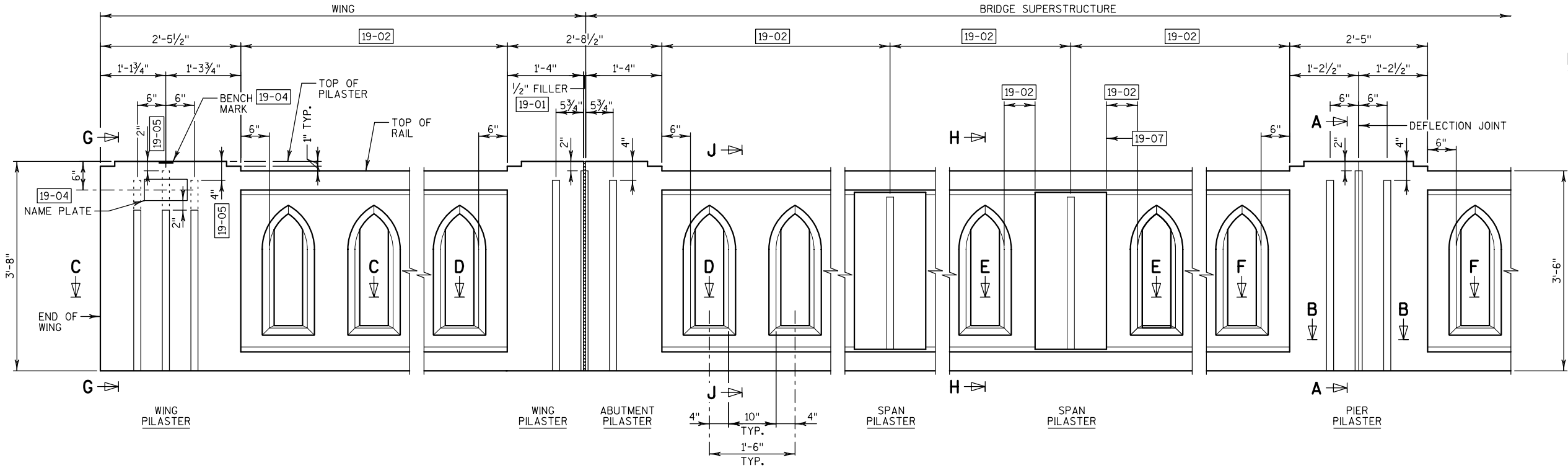
EAST PARPET ROTATED 180° ABOUT ϕ ROADWAY.
- 18-02

INCLUDED IN WING LENGTH.
- 18-03

SEE "SUPERSTRUCTURE DETAILS-3" SHEET FOR BAR DETAILS.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-184			
DRAWN BY TKB		PLANS CK'D. ETP	
VERTICAL FACE PARAPET 'TX' ELEVATIONS			SHEET 18 OF 20
			45

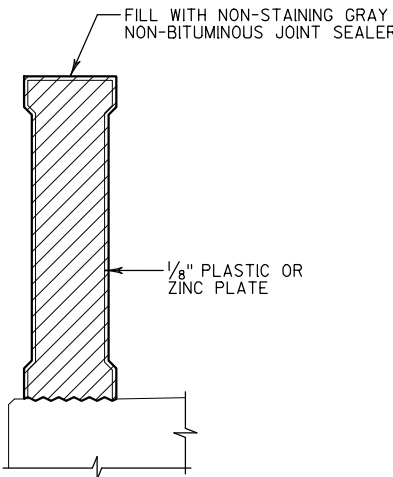


NOTES:
BID ITEM SHALL BE "PARAPET CONCRETE TYPE 'TX'", WHICH SHALL INCLUDE ALL ITEMS SHOWN.

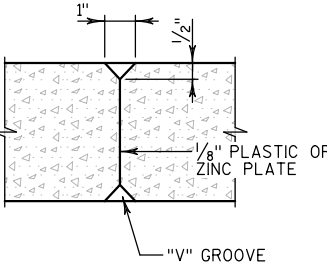
INSIDE ELEVATION

LEGEND

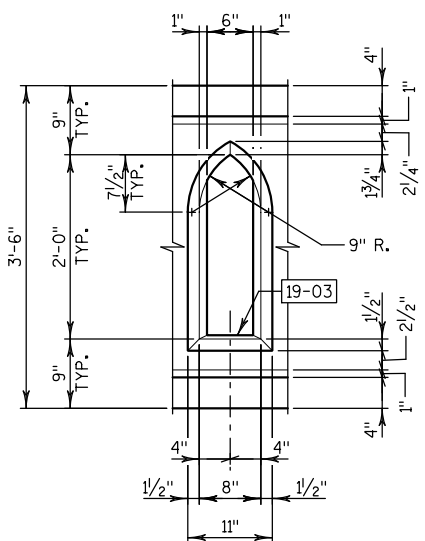
- 19-01 1/2" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.
- 19-02 SEE SHEET 18 FOR DIMENSION.
- 19-03 3% DRAFT PERMISSABLE AT BOTTOM OF OPENINGS.
- 19-04 SEE "GENERAL PLAN" SHEET FOR LOCATION.
- 19-05 TYPICAL ON WINGS 2 THRU 4.
- 19-06 SEE "RUSTICATION DETAIL".
- 19-07 OPTIONAL CONSTRUCTION JOINT IN THE PARAPET MAY BE USED. RUN BAR REINF. THRU THE JOINT.
- 19-08 CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.



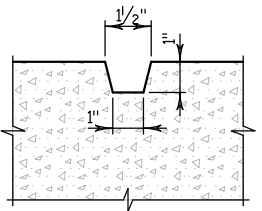
SECTION A-A
DEFLECTION JOINT



SECTION B-B
DEFLECTION JOINT



WINDOW DETAIL



RUSTICATION DETAIL

NO.	DATE	REVISION	BY
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STRUCTURE B-27-184			
DRAWN BY TKB		PLANS CK'D. ETP	
VERTICAL FACE PARAPET 'TX' DETAILS-1			SHEET 19 OF 20
			46

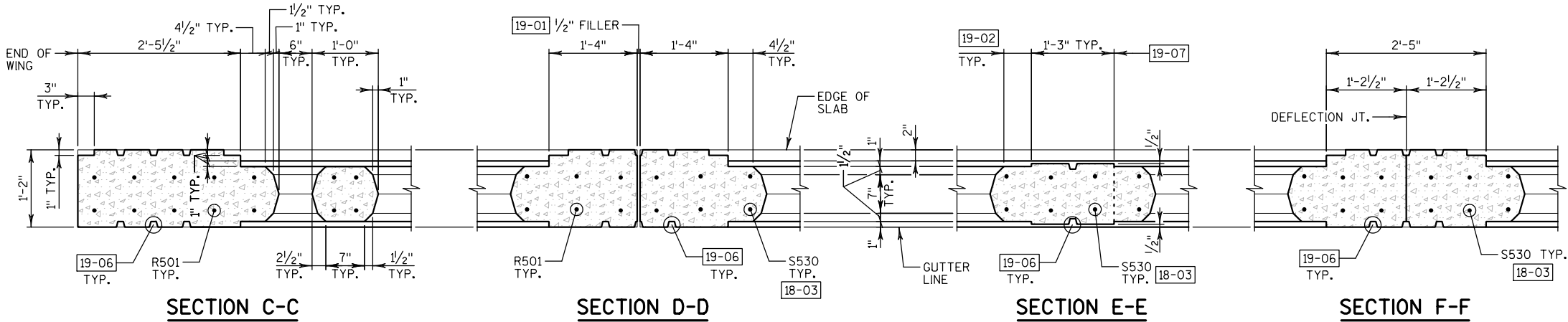
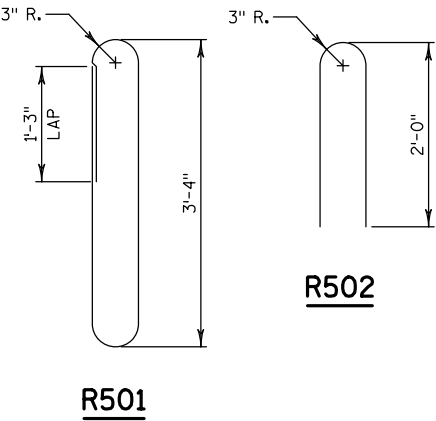
BILL OF BARS - PARAPETS

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
COATED BARS					TOTAL WEIGHT = 990 LBS
R501	56	8'-6"	X		PARAPET
R502	56	4'-4"	X		PARAPET AT WINGS
R503	8	9'-8"			PARAPET AT WINGS - BTM.
R704	8	9'-8"			PARAPET AT WINGS - TOP

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.
TABLE INCLUDES BARS FOR BOTH ABUTMENTS.

LEGEND

- 18-XX SEE SHEET 18 FOR CALLOUTS.
19-XX SEE SHEET 19 FOR CALLOUTS.

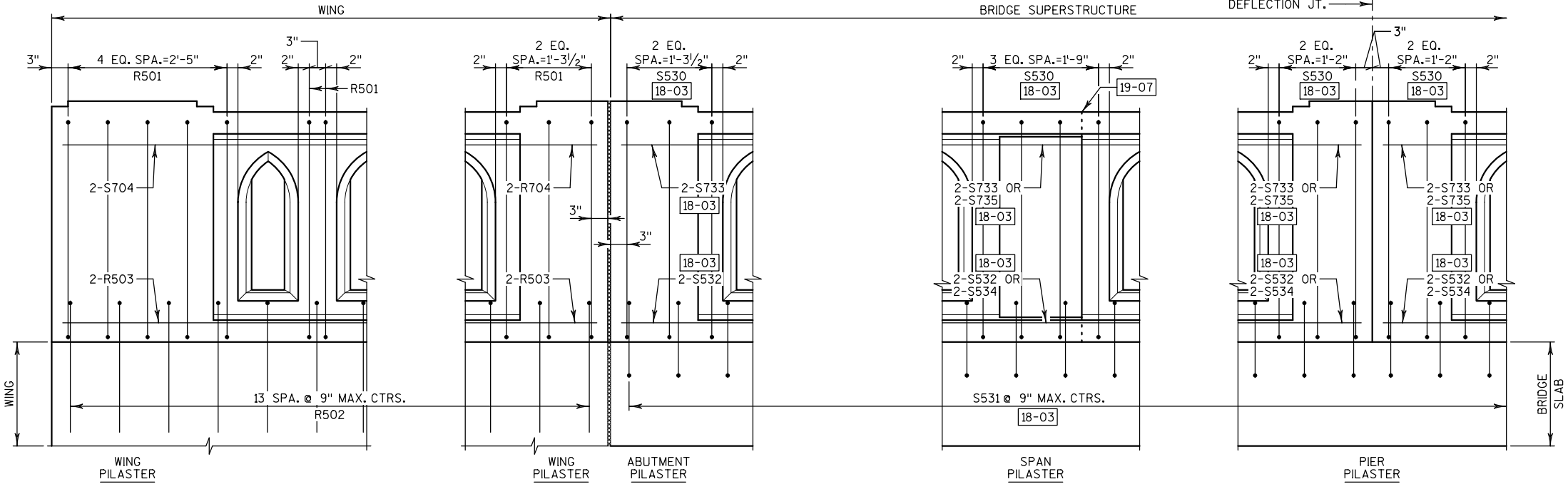


SECTION C-C

SECTION D-D

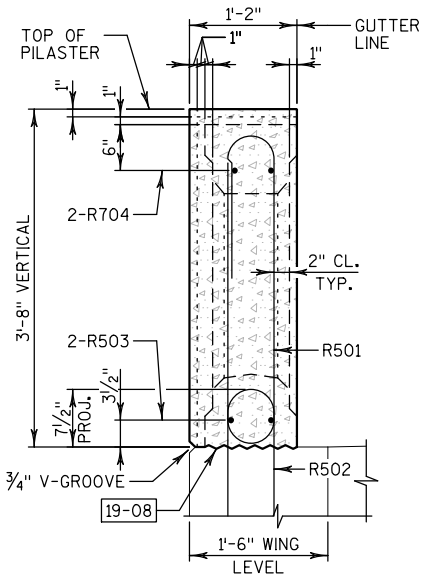
SECTION E-E

SECTION F-F

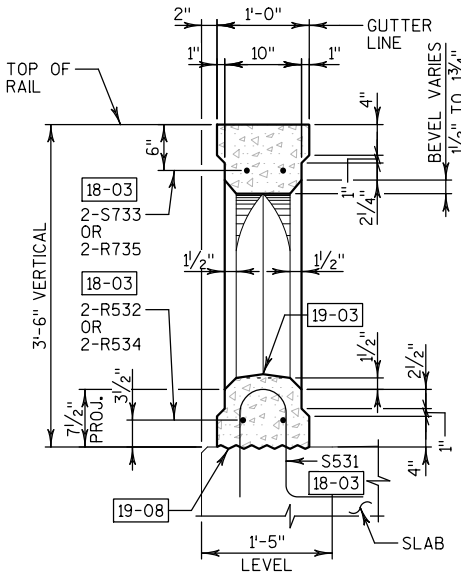


TYPICAL REINFORCEMENT PLACEMENT

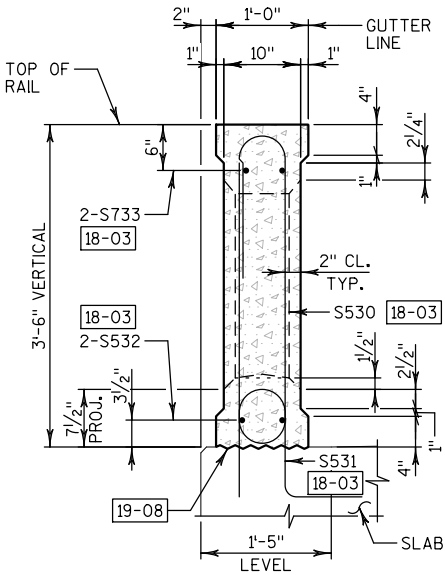
(PILASTER RUSTICATION NOT SHOWN FOR CLARITY)



SECTION G-G



SECTION H-H



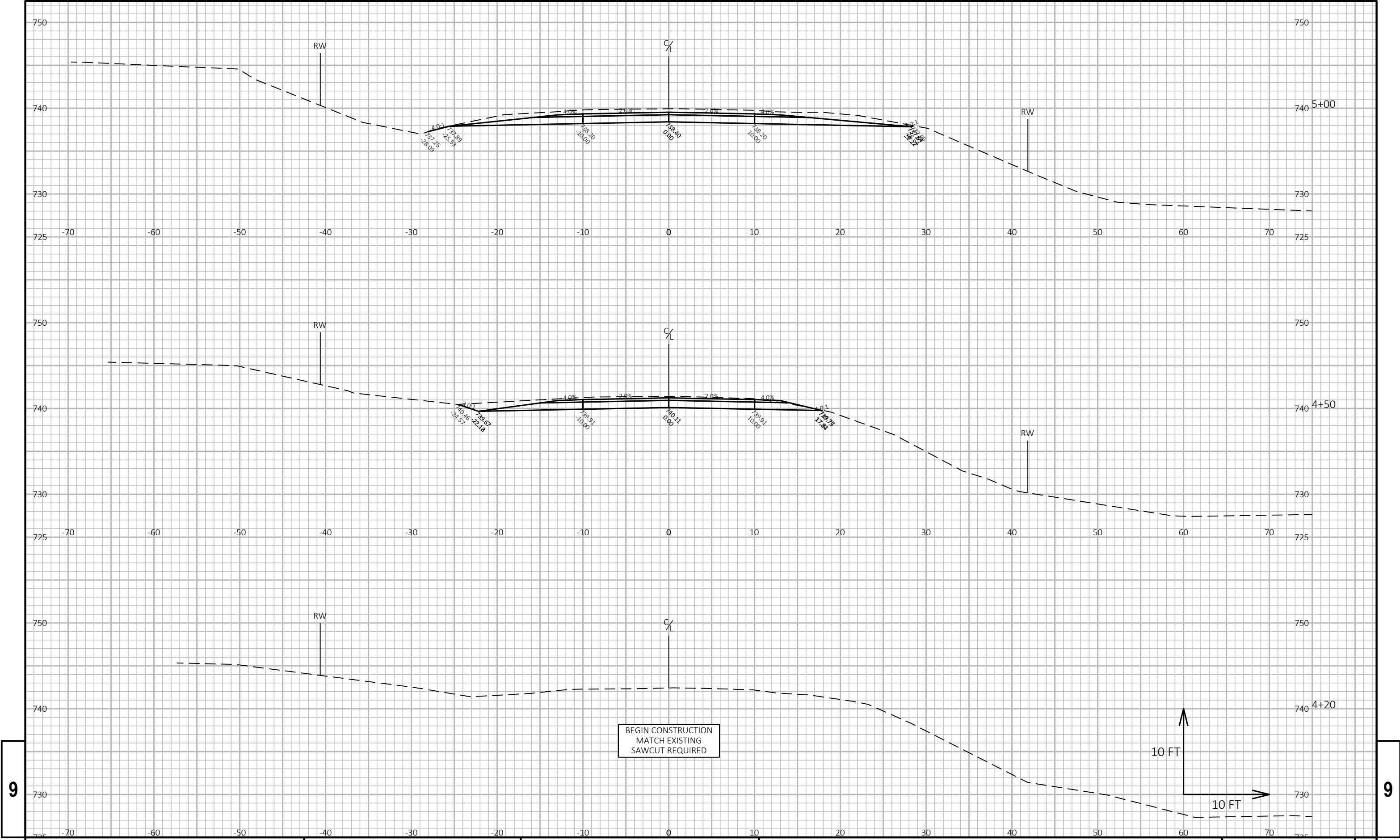
SECTION J-J

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-184			
DRAWN BY TKB		PLANS CK'D. ETP	
VERTICAL FACE PARAPET 'TX' DETAILS-2			SHEET 20 OF 20

Division 1 - NICHOLS RD

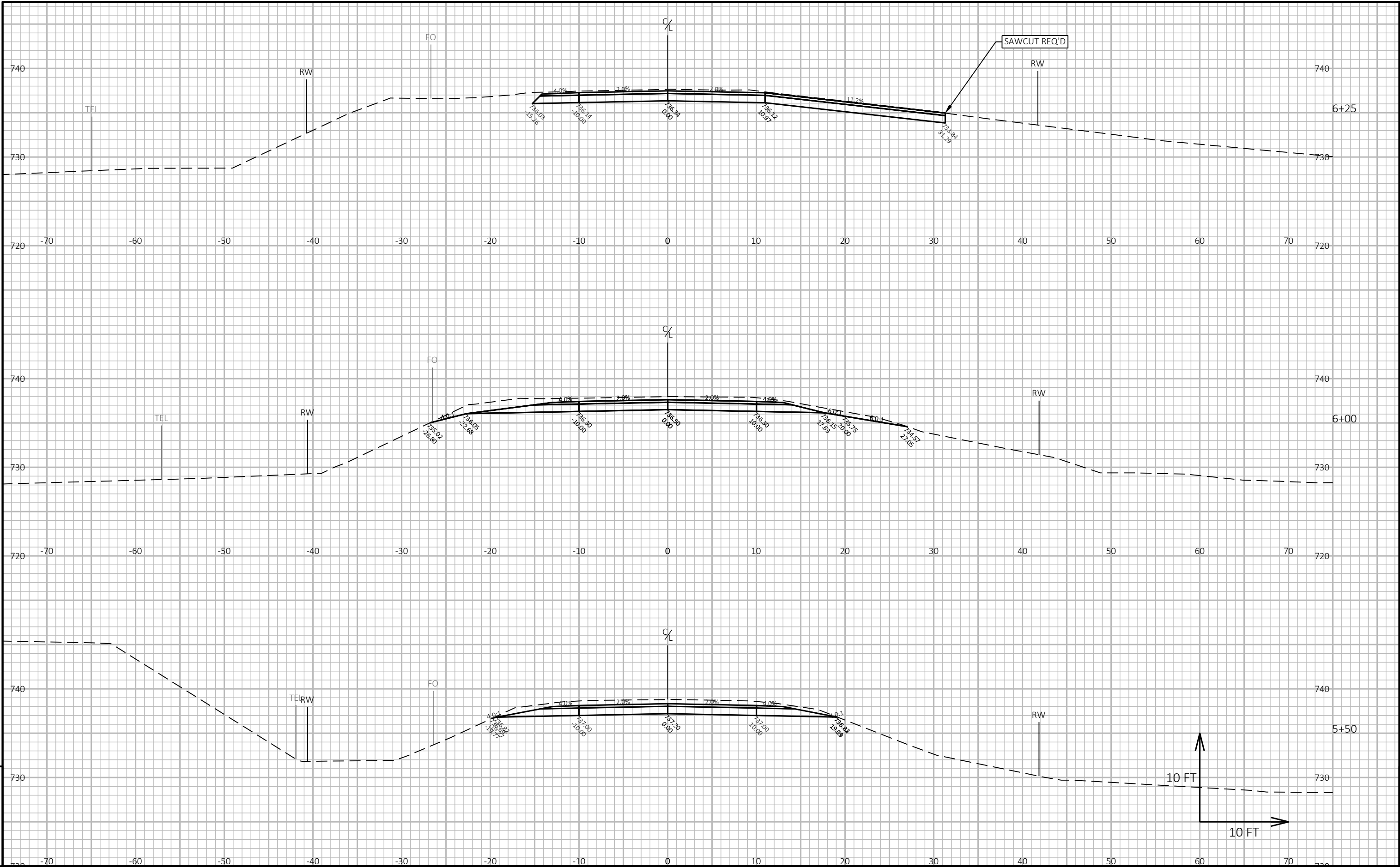
STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 4
4+20.00	420.00	0.00	39.27	0.00	0	0	0	0	0	0
4+50.00	450.00	30	46.83	0.00	48	37	0	48	0	11
5+00.00	500.00	50	69.29	0.00	108	37	0	156	0	82
5+50.00	550.00	50	53.15	0.00	113	37	0	269	0	158
6+00.00	600.00	50	58.78	0.01	104	37	0	373	0	225
6+25.00	625.00	25	58.58	0.00	54	37	0	427	0	242
6+47.00	647.00	22	30.01	0.00	36	37	0	463	0	241
STRUCTURE B-27-184										
8+05.00	805.00	0.00	10.83	25.77	0	0	0	463	0	241
8+50.00	850.00	45.00	19.04	0.00	25	59	21	488	26	181
9+10.00	910.00	60.00	41.48	0.00	67	59	0	555	26	189
9+30.00	930.00	20.00	38.52	0.00	30	59	0	585	26	160

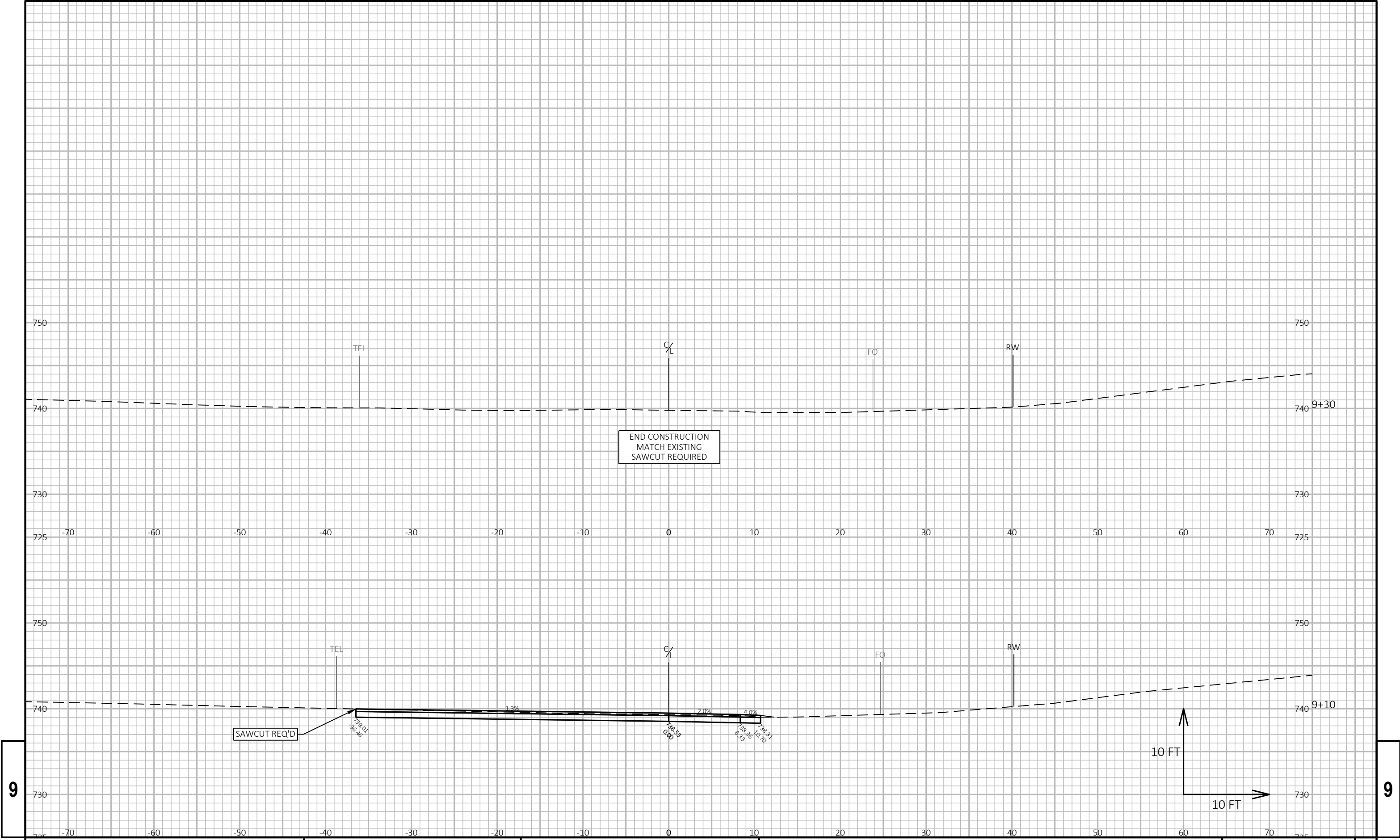
NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	(CUT-SALVAGED PAVT)-(FILL*FILL FACTOR)



9

9

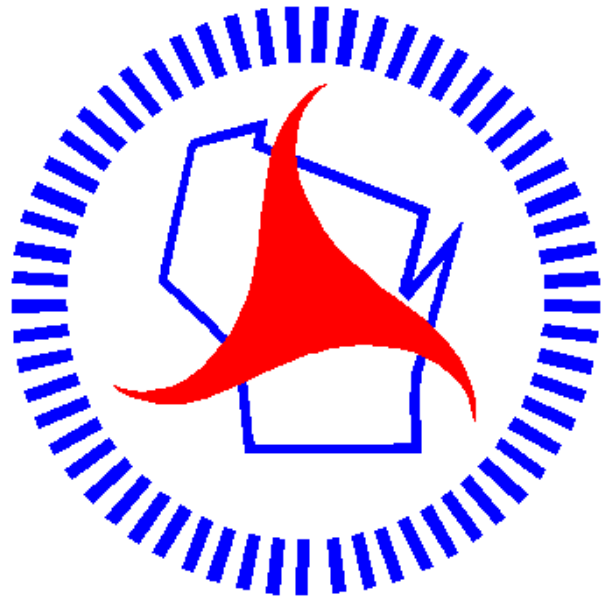




9

9

Notes



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