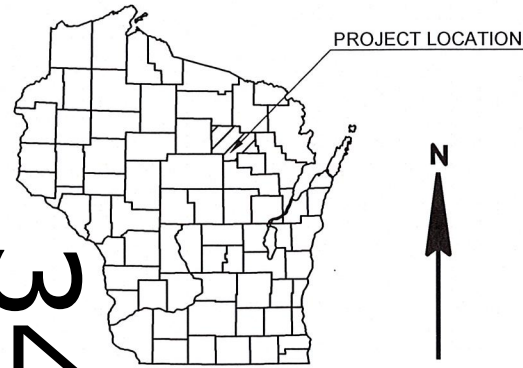


ORDER OF SHEETS

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 = 72



DESIGN DESIGNATION

A.A.D.T. (2024)	=	1,340
A.A.D.T. (2044)	=	1,394
D.H.V.	=	-
D.D.	=	50/50
T.	=	3.7%
DESIGN SPEED	=	25 MPH
ESALS	=	180,000

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
MARSH AREA	STORM SEWER
WOODED OR SHRUB AREA	TELEPHONE
	WATER
	UTILITY PEDESTAL
	POWER POLE
	TELEPHONE POLE

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

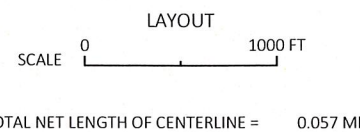
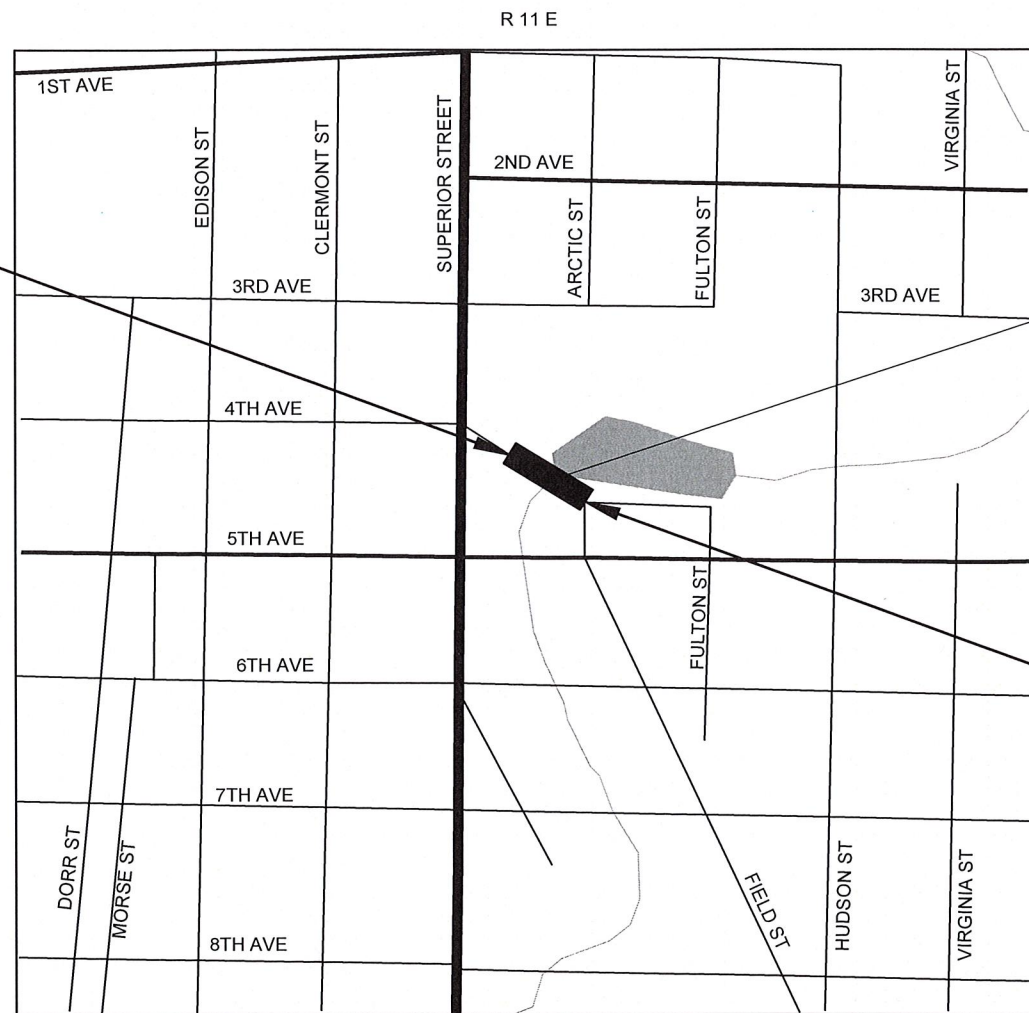
PLAN OF PROPOSED IMPROVEMENT

C ANTIGO, 4TH AVENUE

SPRINGBROOK CREEK BRIDGE B-34-0062

LOC STR LANGLADE COUNTY

STATE PROJECT NUMBER
9835-00-71



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

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

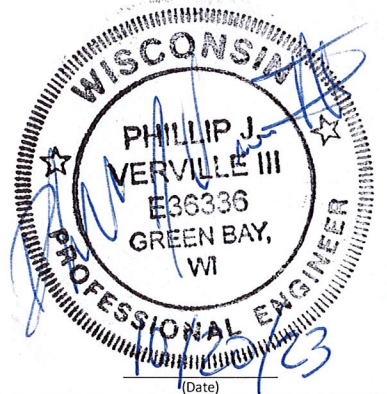
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9835-00-71	WISC 2024259	1

ACCEPTED FOR
CITY OF ANTIGO

10/20/23
DATE CITY ADMINISTRATOR

ORIGINAL PLANS PREPARED BY

AYRES



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	AYRES
Designer	AYRES
Project Manager	
Regional Supervisor	DAN ERVA

APPROVED FOR THE DEPARTMENT
DATE: 10/24/23 (Signature)

E

GENERAL NOTES

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

PROPERTY LINES AS SHOWN ARE APPROXIMATE.

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

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

ALL TIES ON THIS PLAN ARE HORIZONTAL UNLESS DESCRIBED OTHERWISE.

MAINTAIN DRIVING SURFACE TO ALL PROPERTY OWNERS WITH BASE AGGREGATE DENSE 1 1/4-INCH.

PLACE EROSION CONTROL DEVICES IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER. EROSION CONTROL FEATURES ARE SHOWN AT APPROXIMATE LOCATIONS, WITH EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER

CURB AND GUTTER ELEVATIONS ARE ALONG THE FLANGE LINE UNLESS OTHERWISE SPECIFIED.

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

UTILITIES

COMMUNICATIONS

SPECTRUM
 JASON SATTERFIELD
 853 MCINTOSH STREET
 WAUSAU, WI 54403
 PHONE: (715) 301-4077
 EMAIL: jason.satterfield@charter.com

FRONTIER COMMUNICATION

JEREMY ZEHRM
 1851 N. 14TH AVENUE
 WAUSAU, WI 54401
 PHONE: (715) 243-9243
 EMAIL: jeremy.zehm@ftr.com

GAS/PETROLEUM

CITY GAS COMPANY
 VINCE FEDERMAN
 826 9TH AVENUE
 ANTIGO, WI 54409
 PHONE: (715) 627-4351
 EMAIL: vfederman@citygasantigo.com

ELECTRICITY

WISCONSIN PUBLIC SERVICE CORPORATION
 DON LUTZOW
 P.O. BOX 1166
 WAUSAU, WI 54402-1166
 PHONE: (715) 848-7487
 CELL: (507) 848-4211
 EMAIL: donaldlutzow@wisconsinpublicservice.com



Dial **811** or (800)242-8511

www.DiggersHotline.com

RUNOFF COEFFICIENT TABLE

LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-TURF	.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 SLOPE-TURF			.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= 0.49 ACRES
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.49 ACRES
 SOIL GROUP D

PROJECT CONTACTS

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

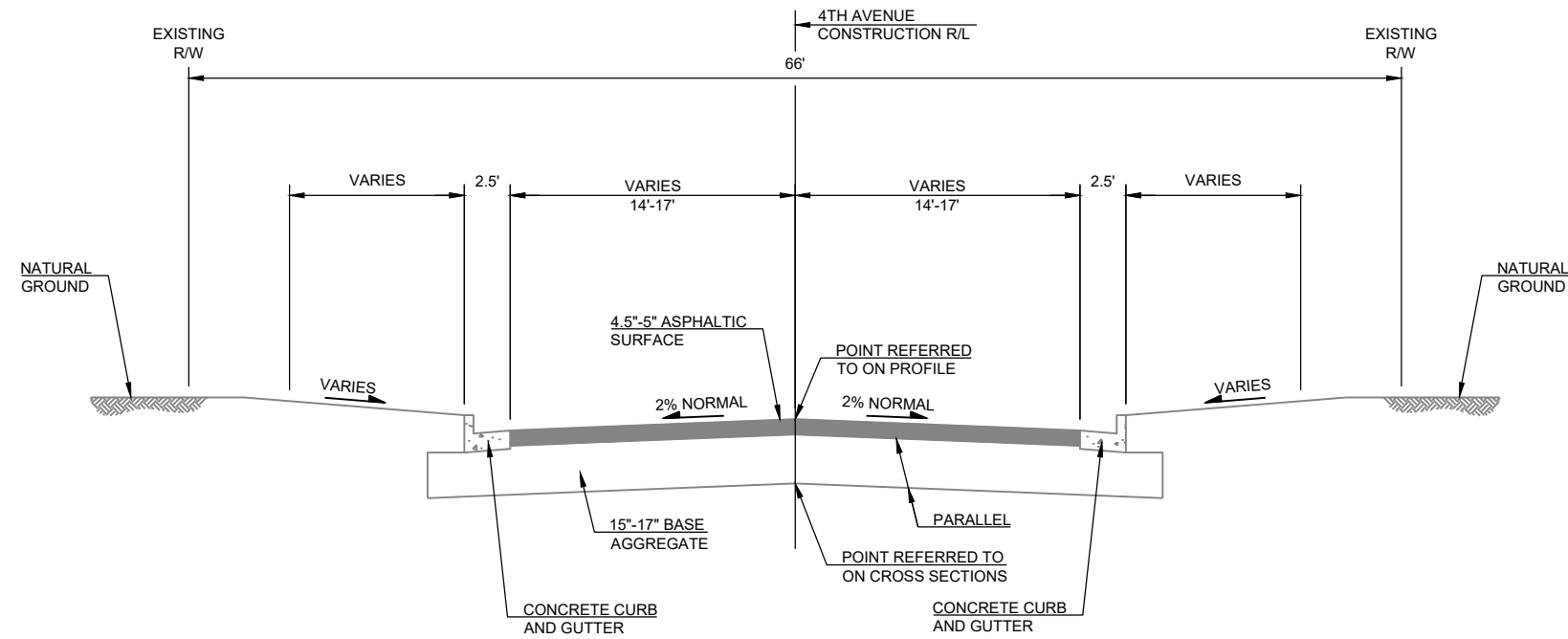
NORTH REGION HEADQUARTERS
 ATTN: WENDY HENNIGES
 107 SUTLIFF
 RHINELANDER, WI 54501
 PHONE: 715-365-8916
 EMAIL: wendy.henniges@wisconsin.gov

AYRES

ATTN: PHIL VERVILLE III, PE
 3376 PACKERLAND DRIVE
 ASHWAUBENON, WI 54115
 PHONE: 920-327-7822
 EMAIL: vervillep@ayresassociates.com

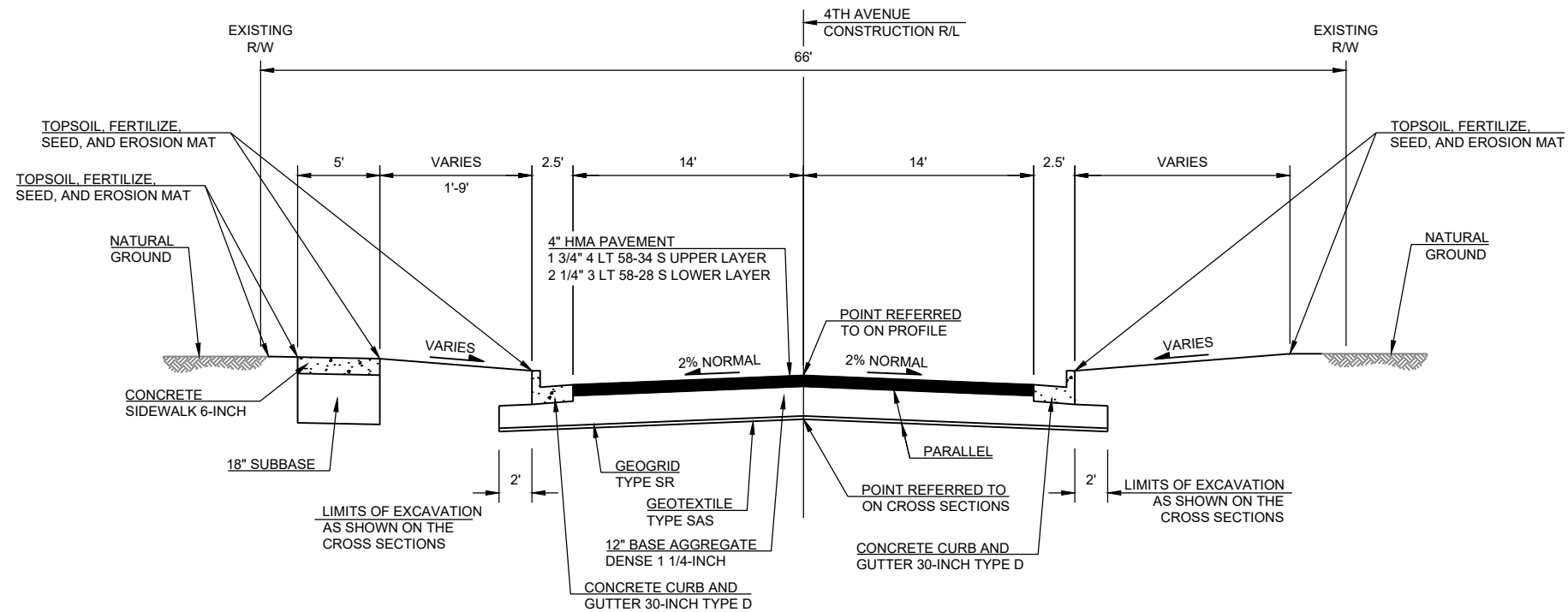
STANDARD ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC	NC	NORMAL CROWN
AC	ASPHALT CEMENT	PT	POINT OF TANGENCY
AGG	AGGREGATE	PC	POINT OF CURVATURE
ASPH	ASPHALT	PI	POINT OF INTERSECTION
BM	BENCH MARK	PE	PRIVATE ENTRANCE
C/L	CENTERLINE	R	RADIUS
CONC	CONCRETE	REM	REMOVE
CMP	CORRUGATED METAL PIPE	R/L OR RL	REFERENCE LINE
CR.	CREEK	RCCP	REINFORCED CONCRETE CULVERT PIPE
D	DEGREE OF CURVE	RCPSS	REINFORCED CONCRETE PIPE STORM SEWER
DHV	DESIGN HOUR VOLUME	R.O.	RUNOUT
ESALS	EQUIVALENT SINGLE AXIS LOADS	R/W	RIGHT-OF-WAY
EXIST	EXISTING	STA	STATION
FE	FIELD ENTRANCE	SE	SUPER ELEVATION
HYD	HYDRANT	SS	STORM SEWER
IP	IRON PIPE OR PIN	T	TANGENT
L	LENGTH OF CURVE	TEL	TELEPHONE
LC	LONG CHORD OF CURVE	TLE	TEMPORARY LIMITED EASEMENT
LR	LENGTH OF RUNOFF	T	TRUCKS
MH	MANHOLE	VC	VERTICAL CURVE
		W	WELL



EXISTING TYPICAL SECTION FOR 4TH AVENUE

STA. 8+25 - STA. 9+82.25
STA. 10+17.75 - STA. 11+27



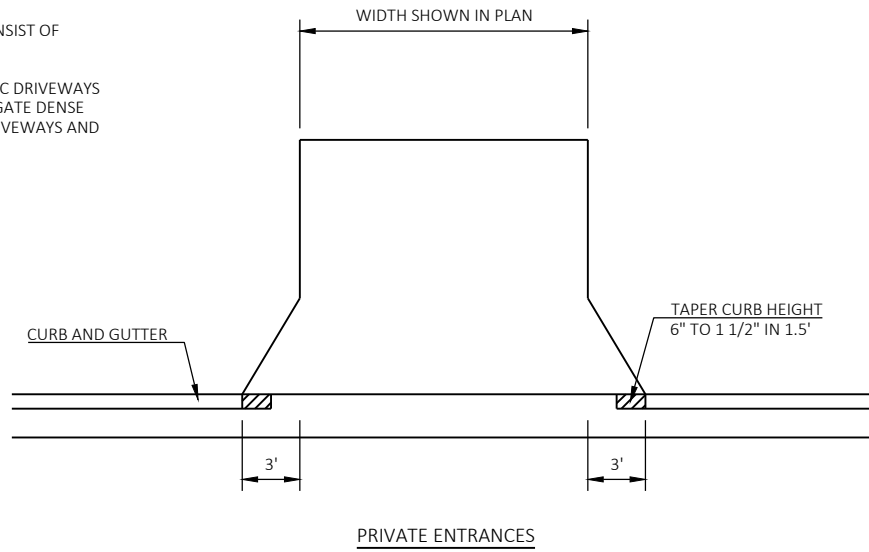
FINISHED TYPICAL SECTION FOR 4TH AVENUE

STA. 8+25 - STA. 9+88.25
STA. 10+17.75 - STA. 11+27

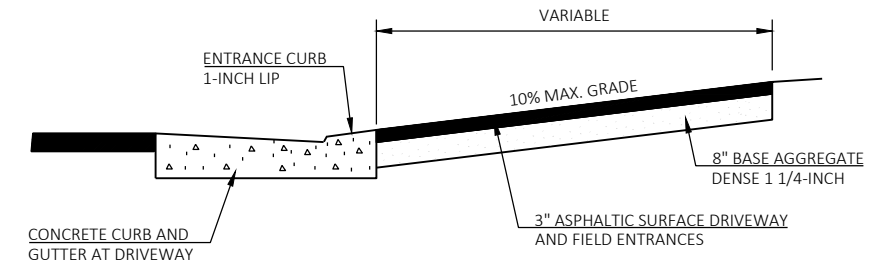
NOTES:

NON-PAVED DRIVEWAYS SHALL CONSIST OF 8" OF BASE AGGREGATE DENSE.

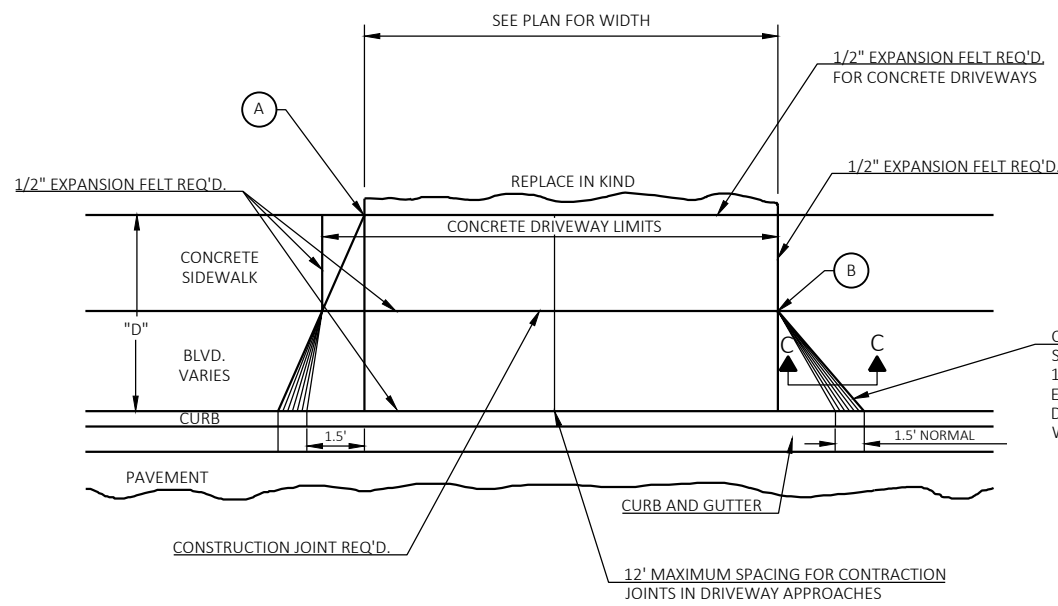
COMMERCIAL ENTRANCE ASPHALTIC DRIVEWAYS SHALL CONSIST OF 8" BASE AGGREGATE DENSE AND 3" OF ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES.



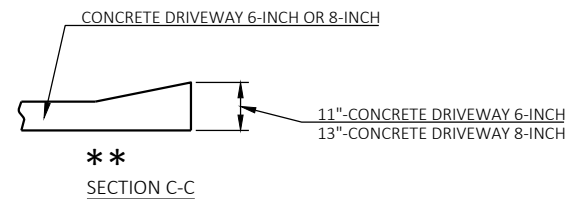
PRIVATE ENTRANCES
DRIVEWAYS WITH NO SIDEWALK



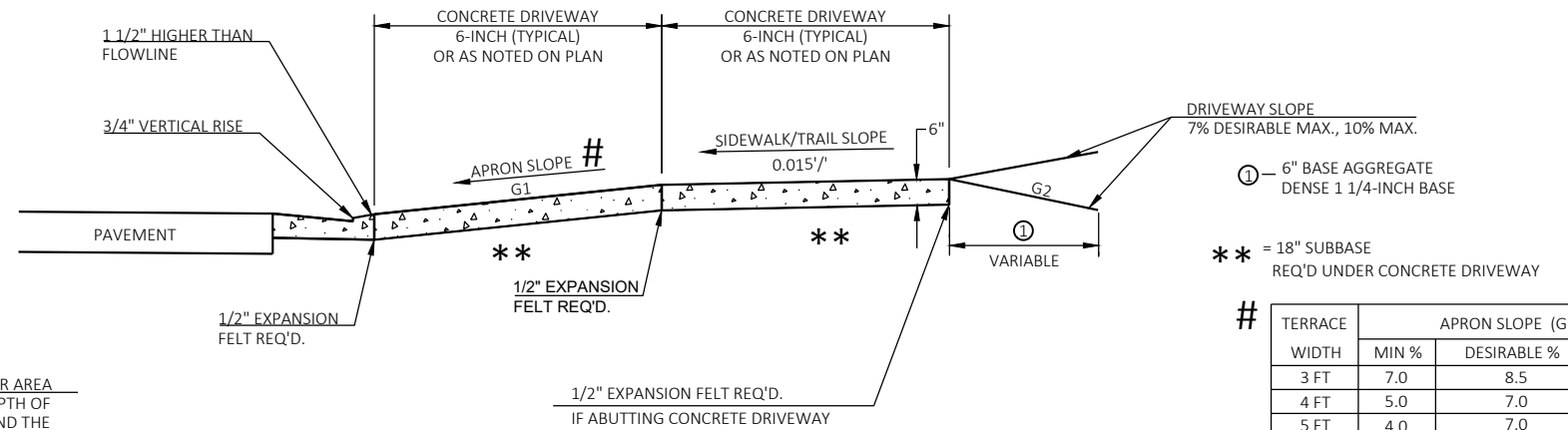
TYPICAL LONGITUDINAL SECTION AT ASPHALTIC SURFACE PRIVATE ENTRANCES
(REPLACE IN KIND)



PLAN VIEW



SECTION C-C



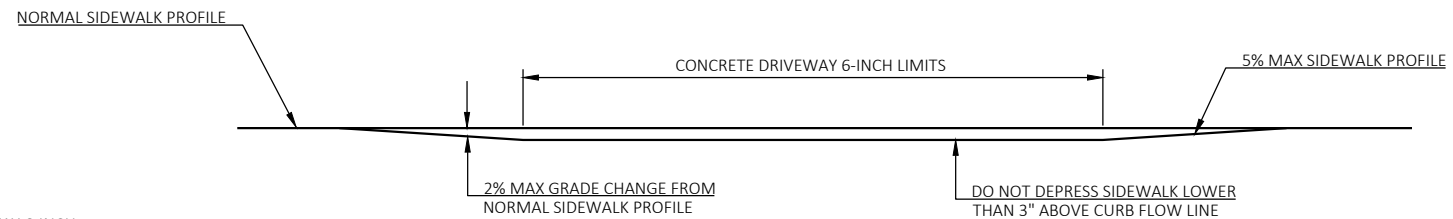
TYPICAL SIDEWALK SECTION

- ① 6" BASE AGGREGATE DENSE 1 1/4-INCH BASE
- ** = 18" SUBBASE REQ'D UNDER CONCRETE DRIVEWAY

#	TERRACE WIDTH	APRON SLOPE (G1)		
		MIN %	DESIRABLE %	MAX %
	3 FT	7.0	8.5	9.0
	4 FT	5.0	7.0	9.0
	5 FT	4.0	7.0	9.0
	6 FT	4.0	7.0	9.0
	7 FT	3.5	7.0	9.0
	8 FT	3.0	7.0	9.0
	9 FT	3.0	7.0	9.0
	10 FT	3.0	7.0	9.0

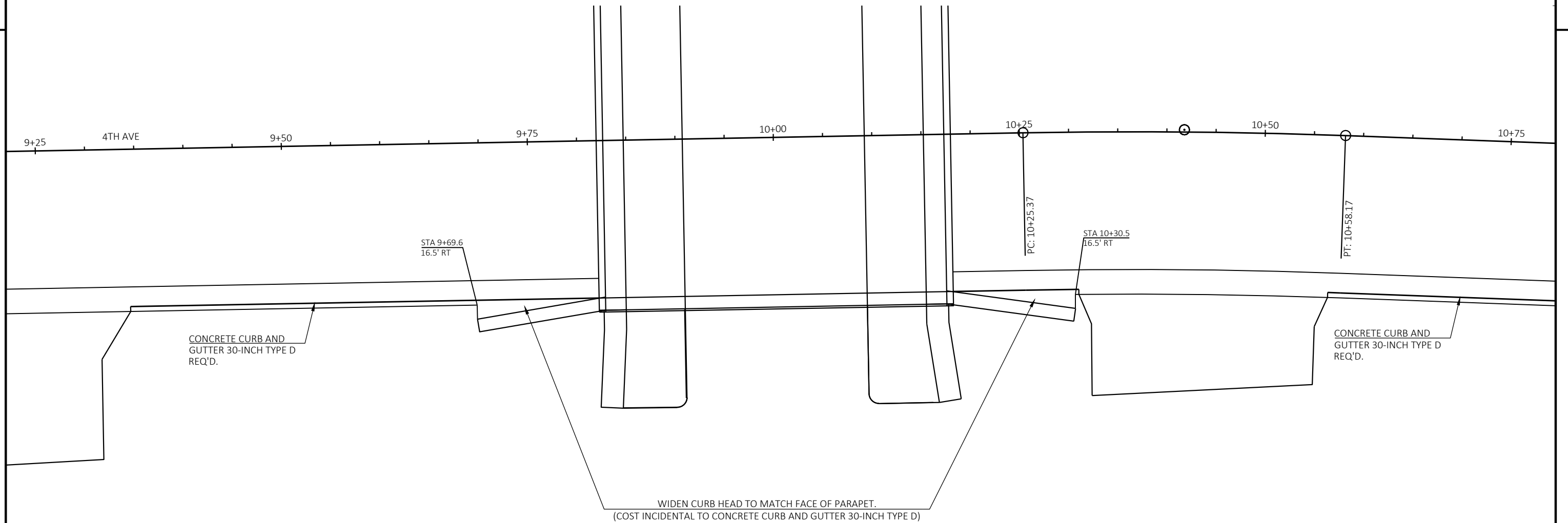
NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 TO NOT EXCEED 15%

DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAX SLOPE

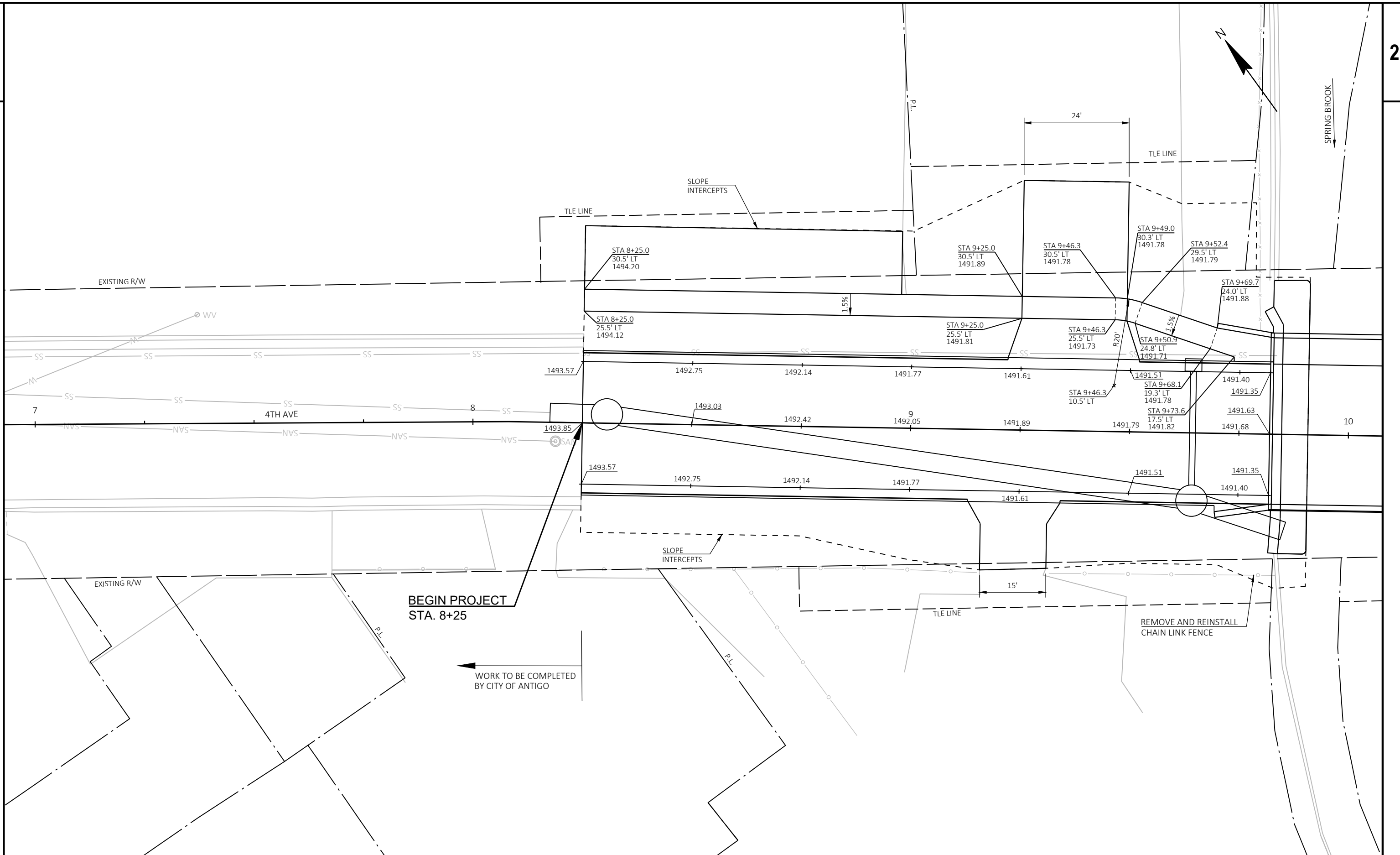


DEPRESSED SIDEWALK PROFILE DETAIL

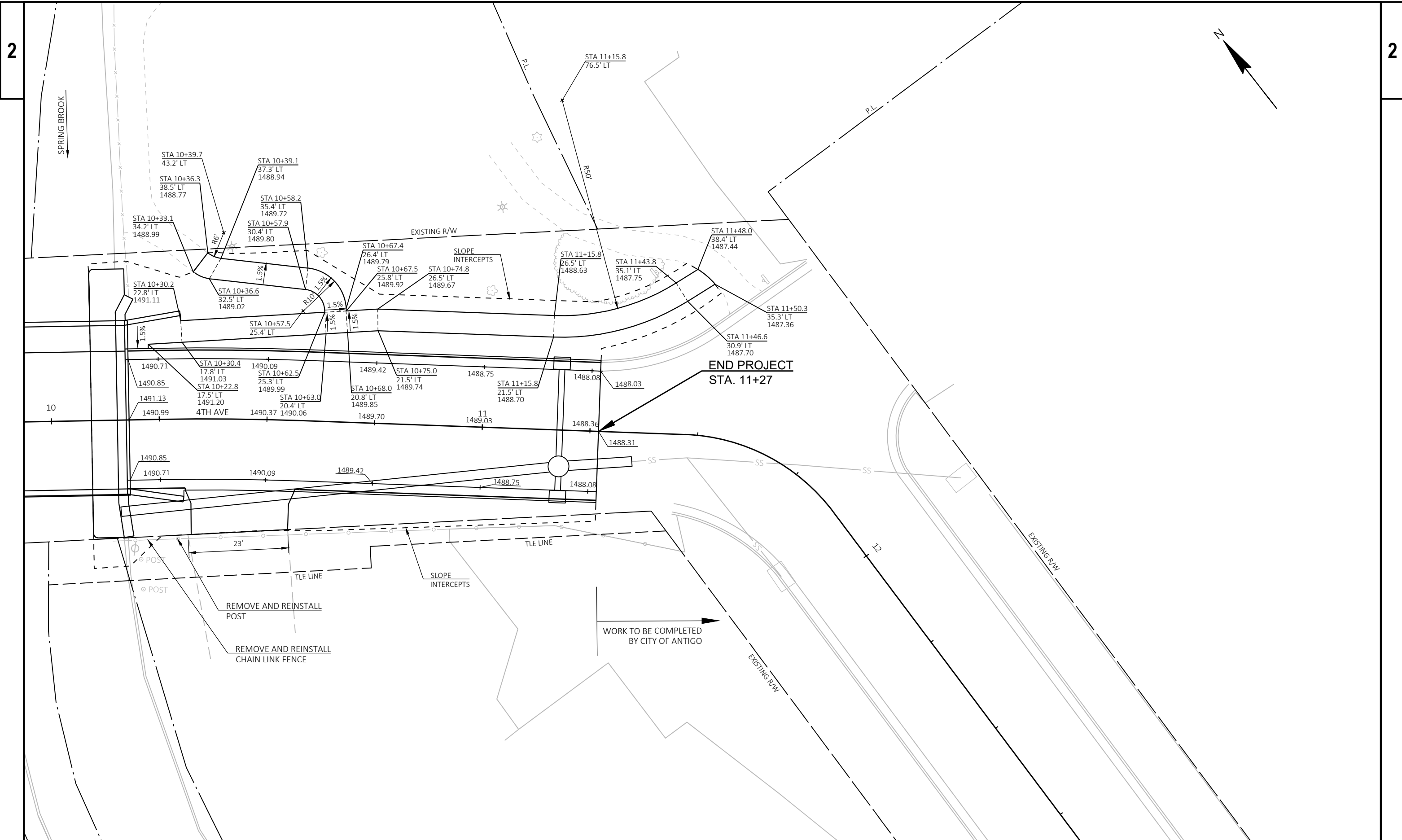
DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB AND GUTTER



CURB HEAD MODIFICATION DETAIL



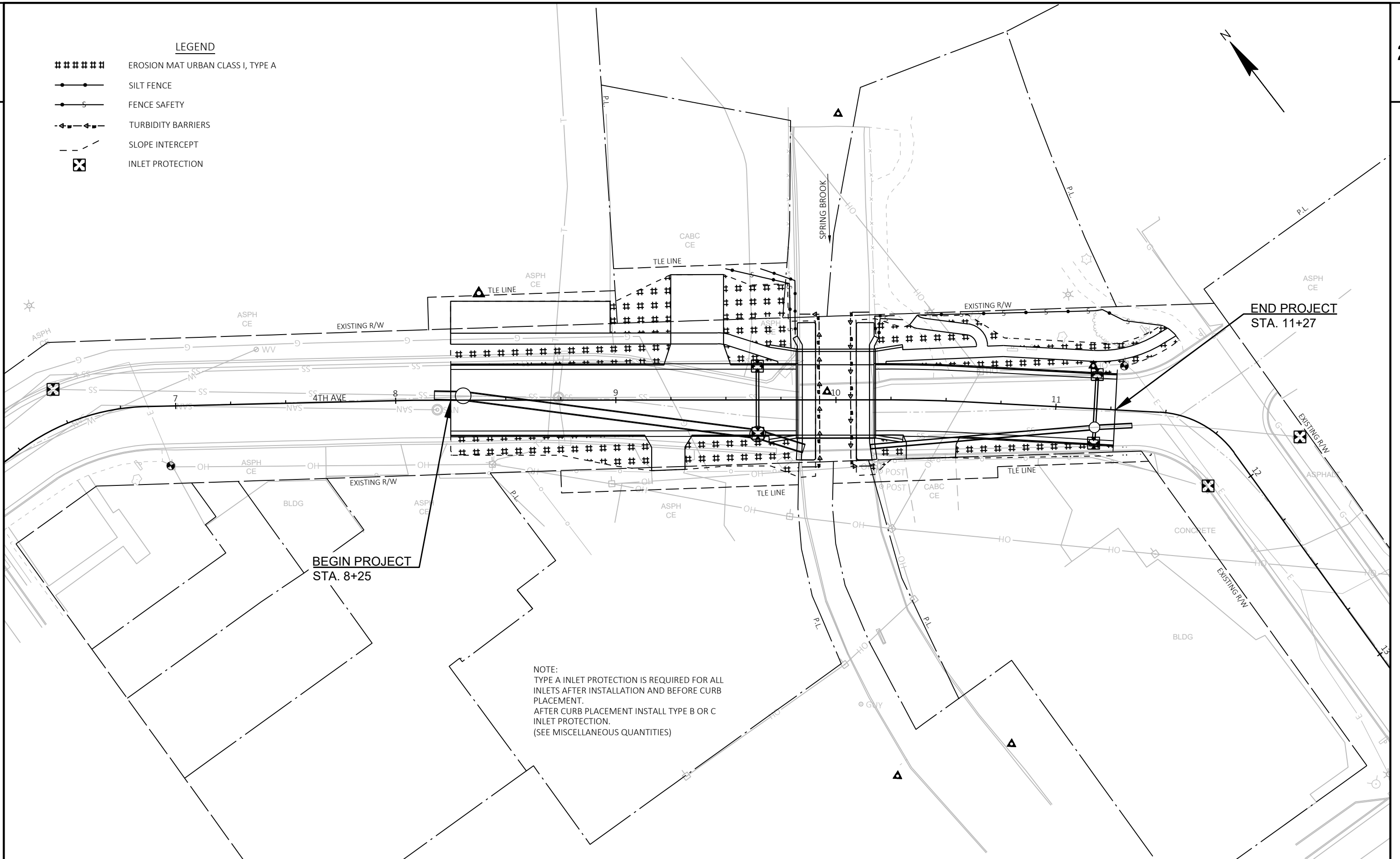
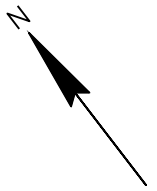
PROJECT NO: 9835-00-71	HWY: 4TH AVENUE	COUNTY: LANGLADE	PLAN GRADES AND OFFSETS	SHEET E
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PROJECT NO: 9835-00-71 HWY: 4TH AVENUE COUNTY: LANGLADE PLAN GRADES AND OFFSETS SHEET E

LEGEND

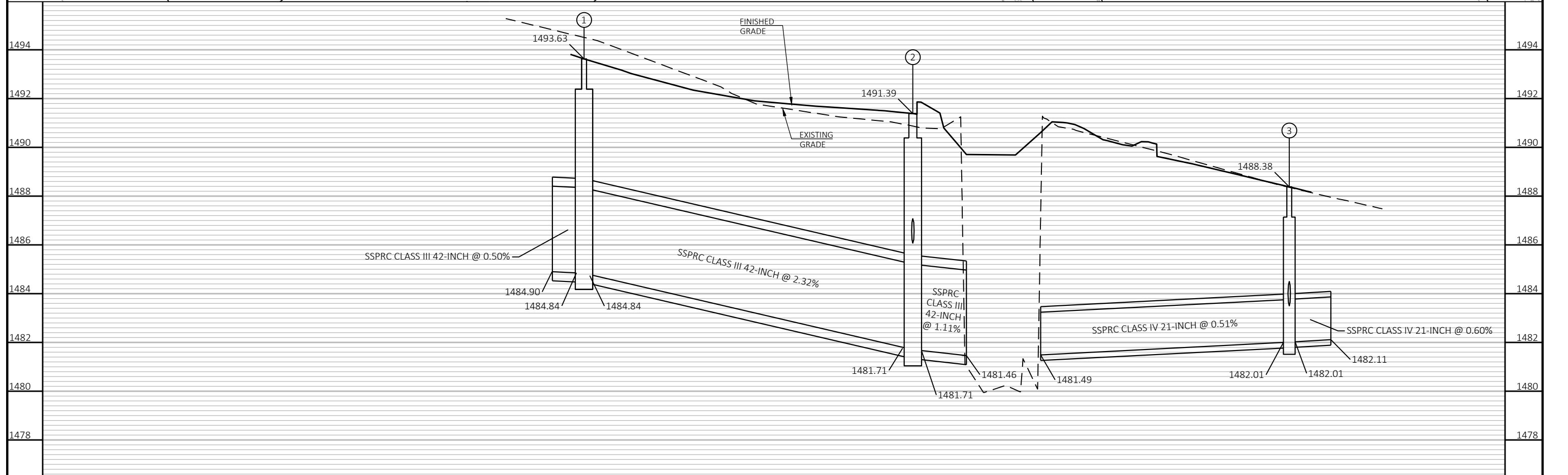
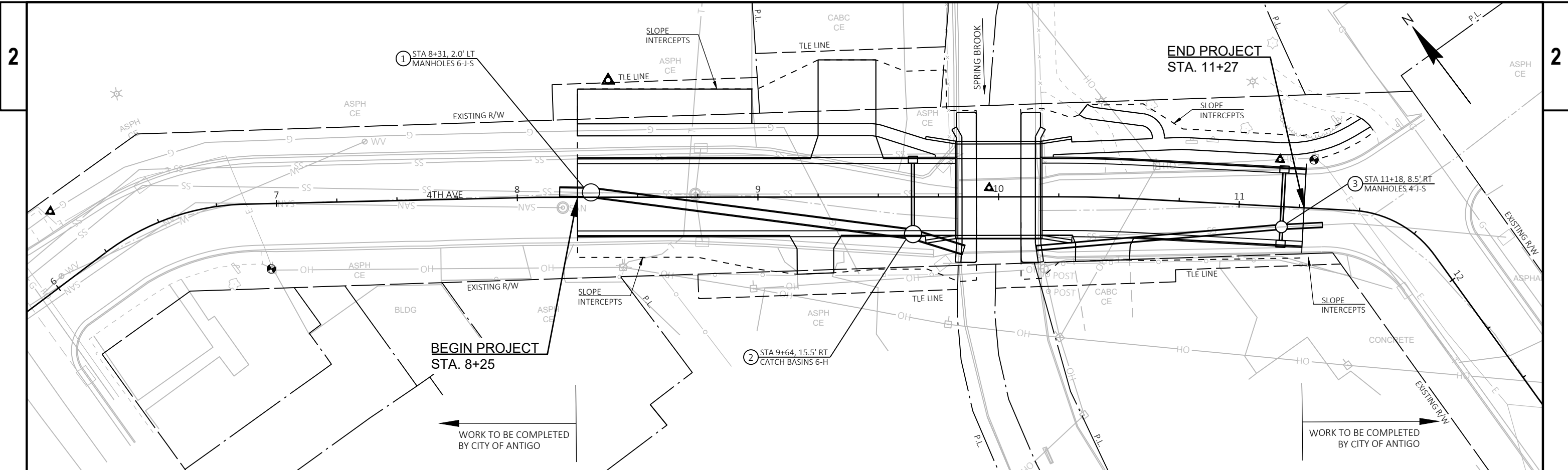
- ##### EROSION MAT URBAN CLASS I, TYPE A
- SILT FENCE
- FENCE SAFETY
- ◄— TURBIDITY BARRIERS
- - - SLOPE INTERCEPT
- ⊠ INLET PROTECTION



BEGIN PROJECT
STA. 8+25

END PROJECT
STA. 11+27

NOTE:
TYPE A INLET PROTECTION IS REQUIRED FOR ALL
INLETS AFTER INSTALLATION AND BEFORE CURB
PLACEMENT.
AFTER CURB PLACEMENT INSTALL TYPE B OR C
INLET PROTECTION.
(SEE MISCELLANEOUS QUANTITIES)



PROJECT NO: 9835-00-71

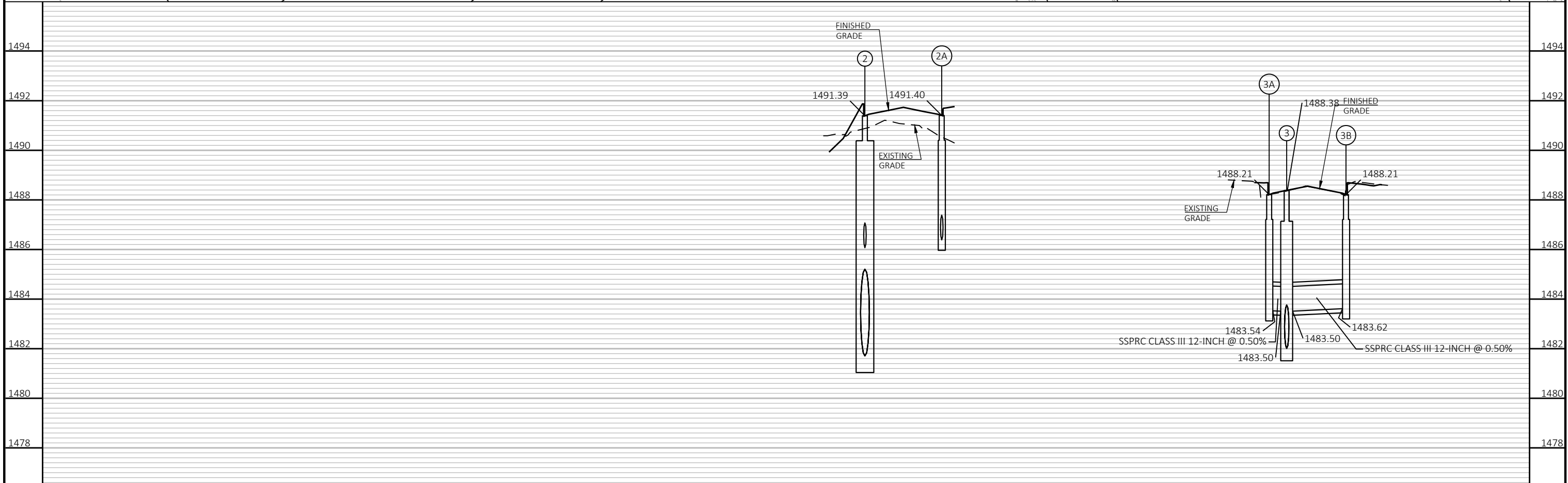
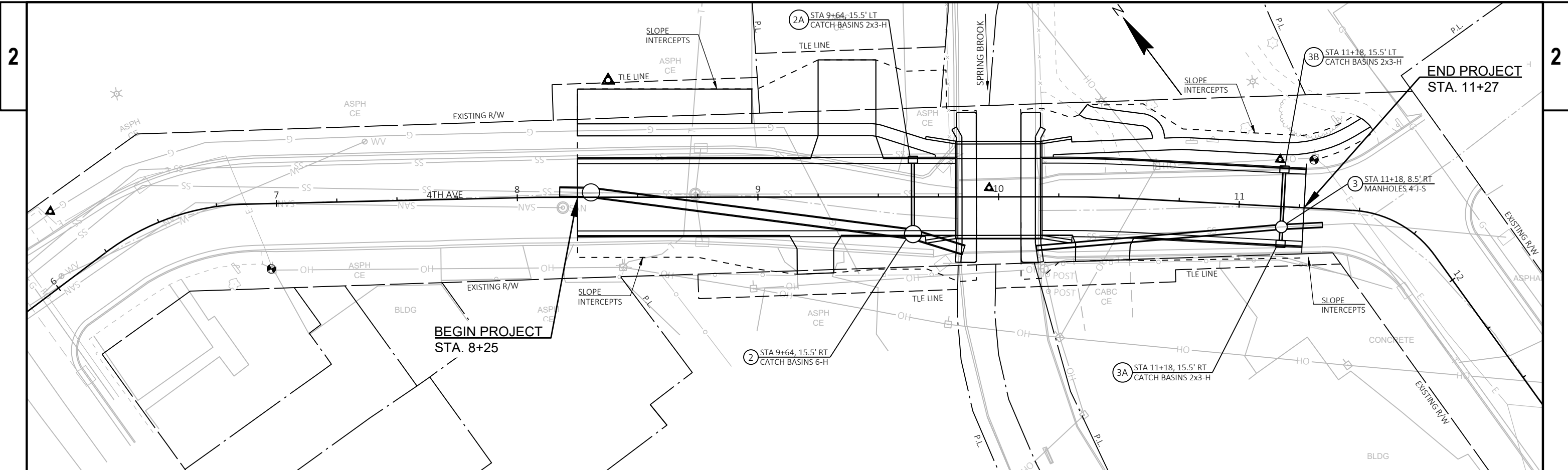
HWY: 4TH AVENUE

COUNTY: LANGLADE

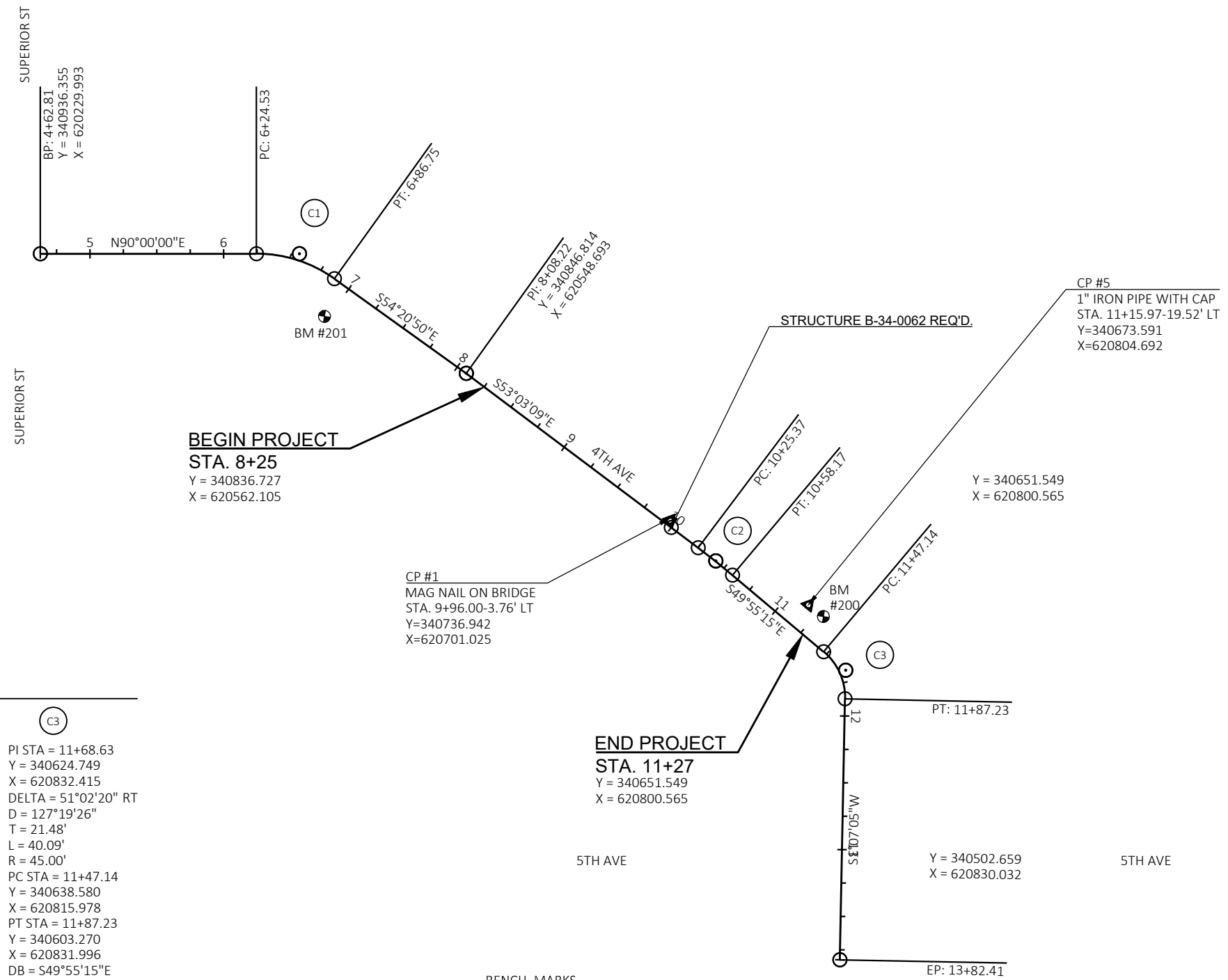
STORM SEWER

SHEET

E



PROJECT NO: 9835-00-71	HWY: 4TH AVENUE	COUNTY: LANGLADE	STORM SEWER	SHEET	E
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CURVE DATA

C1	C2	C3
PI STA = 6+56.69	PI STA = 10+41.77	PI STA = 11+68.63
Y = 340936.355	Y = 340706.428	Y = 340624.749
X = 620423.866	X = 620735.346	X = 620832.415
DELTA = 35°39'10" RT	DELTA = 3°07'54" RT	DELTA = 51°02'20" RT
D = 57°17'45"	D = 9°32'57"	D = 127°19'26"
T = 32.16'	T = 16.40'	T = 21.48'
L = 62.23'	L = 32.79'	L = 40.09'
R = 100.00'	R = 600.00'	R = 45.00'
PC STA = 6+24.53	PC STA = 10+25.37	PC STA = 11+47.14
Y = 340936.355	Y = 340716.286	Y = 340638.580
X = 620391.708	X = 620722.239	X = 620815.978
PT STA = 6+86.75	PT STA = 10+58.17	PT STA = 11+87.23
Y = 340917.612	Y = 340695.868	Y = 340603.270
X = 620449.995	X = 620747.896	X = 620831.996
DB = N90°00'00"E	DB = S53°03'09"E	DB = S49°55'15"E
DA = S54°20'50"E	DA = S49°55'15"E	DA = S01°07'05"W

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
201	6+97	NAIL IN PPOL - 27' RT	1498.53
200	11+30	NAIL IN PPOL - 20' LT	1489.80

Estimate Of Quantities

9835-00-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0250	Removing Structure Over Waterway Remove Debris (structure) 01. P-34-701	EACH	1.000	1.000
0004	204.0150	Removing Curb & Gutter	LF	530.000	530.000
0006	204.0155	Removing Concrete Sidewalk	SY	20.000	20.000
0008	204.0170	Removing Fence	LF	65.000	65.000
0010	204.0210	Removing Manholes	EACH	1.000	1.000
0012	204.0220	Removing Inlets	EACH	4.000	4.000
0014	204.0245	Removing Storm Sewer (size) 01. 8-Inch	LF	40.000	40.000
0016	204.0245	Removing Storm Sewer (size) 02. 12-Inch	LF	40.000	40.000
0018	204.0245	Removing Storm Sewer (size) 03. 30-Inch	LF	100.000	100.000
0020	204.0291.S	Abandoning Sewer	CY	46.000	46.000
0022	206.5001	Cofferdams (structure) 01. B-34-62	EACH	1.000	1.000
0024	208.0100	Borrow	CY	100.000	100.000
0026	210.1500	Backfill Structure Type A	TON	1,000.000	1,000.000
0028	213.0100	Finishing Roadway (project) 01. 9835-00-71	EACH	1.000	1.000
0030	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	775.000	775.000
0032	350.0104	Subbase	TON	165.000	165.000
0034	455.0605	Tack Coat	GAL	60.000	60.000
0036	460.2000	Incentive Density HMA Pavement	DOL	130.000	130.000
0038	460.5223	HMA Pavement 3 LT 58-28 S	TON	110.000	110.000
0040	460.5244	HMA Pavement 4 LT 58-34 S	TON	85.000	85.000
0042	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	45.000	45.000
0044	502.0100	Concrete Masonry Bridges	CY	225.000	225.000
0046	502.3200	Protective Surface Treatment	SY	163.000	163.000
0048	502.3210	Pigmented Surface Sealer	SY	55.000	55.000
0050	505.0400	Bar Steel Reinforcement HS Structures	LB	6,160.000	6,160.000
0052	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	23,610.000	23,610.000
0054	511.1100	Temporary Shoring	SF	470.000	470.000
0056	513.7011	Railing Steel Type C2	LF	59.500	59.500
0058	516.0500	Rubberized Membrane Waterproofing	SY	24.000	24.000
0060	517.1015.S	Concrete Staining Multi-Color (structure) 01. B-34-62	SF	932.000	932.000
0062	517.1050.S	Architectural Surface Treatment (structure) 01. B-34-62	SF	932.000	932.000
0064	520.8000	Concrete Collars for Pipe	EACH	2.000	2.000
0066	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	920.000	920.000
0068	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	555.000	555.000
0070	602.0415	Concrete Sidewalk 6-Inch	SF	1,565.000	1,565.000
0072	602.0810	Concrete Driveway 6-Inch	SY	34.000	34.000
0074	606.0300	Riprap Heavy	CY	60.000	60.000
0076	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	62.000	62.000
0078	608.0342	Storm Sewer Pipe Reinforced Concrete Class III 42-Inch	LF	170.000	170.000
0080	608.0421	Storm Sewer Pipe Reinforced Concrete Class IV 21-Inch	LF	120.000	120.000
0082	611.0535	Manhole Covers Type J-Special	EACH	2.000	2.000
0084	611.0624	Inlet Covers Type H	EACH	5.000	5.000
0086	611.1006	Catch Basins 6-FT Diameter	EACH	1.000	1.000
0088	611.1230	Catch Basins 2x3-FT	EACH	3.000	3.000
0090	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0092	611.2006	Manholes 6-FT Diameter	EACH	1.000	1.000
0094	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	124.000	124.000
0096	616.0700.S	Fence Safety	LF	200.000	200.000
0098	619.1000	Mobilization	EACH	1.000	1.000
0100	624.0100	Water	MGAL	10.000	10.000

Estimate Of Quantities

9835-00-71

Line	Item	Item Description	Unit	Total	Qty
0102	625.0100	Topsoil	SY	790.000	790.000
0104	628.1504	Silt Fence	LF	75.000	75.000
0106	628.1520	Silt Fence Maintenance	LF	150.000	150.000
0108	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0110	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0112	628.2006	Erosion Mat Urban Class I Type A	SY	790.000	790.000
0114	628.6005	Turbidity Barriers	SY	240.000	240.000
0116	628.7005	Inlet Protection Type A	EACH	4.000	4.000
0118	628.7010	Inlet Protection Type B	EACH	2.000	2.000
0120	628.7015	Inlet Protection Type C	EACH	7.000	7.000
0122	630.0140	Seeding Mixture No. 40	LB	15.000	15.000
0124	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0126	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0128	638.2602	Removing Signs Type II	EACH	4.000	4.000
0130	638.3000	Removing Small Sign Supports	EACH	5.000	5.000
0132	642.5001	Field Office Type B	EACH	1.000	1.000
0134	643.0410	Traffic Control Barricades Type II	DAY	100.000	100.000
0136	643.0420	Traffic Control Barricades Type III	DAY	1,600.000	1,600.000
0138	643.0705	Traffic Control Warning Lights Type A	DAY	2,600.000	2,600.000
0140	643.0900	Traffic Control Signs	DAY	900.000	900.000
0142	643.5000	Traffic Control	EACH	1.000	1.000
0144	645.0111	Geotextile Type DF Schedule A	SY	110.000	110.000
0146	645.0120	Geotextile Type HR	SY	120.000	120.000
0148	645.0140	Geotextile Type SAS	SY	1,100.000	1,100.000
0150	645.0220	Geogrid Type SR	SY	1,100.000	1,100.000
0152	650.4000	Construction Staking Storm Sewer	EACH	6.000	6.000
0154	650.4500	Construction Staking Subgrade	LF	268.000	268.000
0156	650.5000	Construction Staking Base	LF	268.000	268.000
0158	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	555.000	555.000
0160	650.6501	Construction Staking Structure Layout (structure) 01. B-34-62	EACH	1.000	1.000
0162	650.9500	Construction Staking Sidewalk (project) 01. 9835-00-71	EACH	1.000	1.000
0164	650.9911	Construction Staking Supplemental Control (project) 01. 9835-00-71	EACH	1.000	1.000
0166	650.9920	Construction Staking Slope Stakes	LF	268.000	268.000
0168	652.0125	Conduit Rigid Metallic 2-Inch	LF	24.000	24.000
0170	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	107.000	107.000
0172	653.0220	Junction Boxes 18x6x6-Inch	EACH	2.000	2.000
0174	690.0150	Sawing Asphalt	LF	185.000	185.000
0176	690.0250	Sawing Concrete	LF	15.000	15.000
0178	715.0502	Incentive Strength Concrete Structures	DOL	1,350.000	1,350.000
0180	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 10+00	EACH	1.000	1.000
0182	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0184	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0186	SPV.0030	Special 01. Fertilizer for Lawn Type Turf	CWT	1.000	1.000
0188	SPV.0035	Special 01. Excavation Common Special	CY	655.000	655.000
0190	SPV.0035	Special 02. Excavation for Structures Special	CY	580.000	580.000
0192	SPV.0060	Special 01. Remove and Reinstall Post	EACH	1.000	1.000
0194	SPV.0060	Special 02. Temporary Water Diversion B-34-62	EACH	1.000	1.000
0196	SPV.0090	Special 01. Remove and Reinstall Chain Link Fence	LF	35.000	35.000
0198	SPV.0090	Special 02. Removing Stone Masonry Wall	LF	68.000	68.000
0200	SPV.0090	Special 03. Oil Absorbent Boom	LF	150.000	150.000

Estimate Of Quantities

9835-00-71

Line	Item	Item Description	Unit	Total	Qty
0202	SPV.0165	Special 01. Stone Masonry Wall Connection	SF	95.000	95.000
0204	SPV.0180	Special 01. Preparing Topsoil for Lawn Type Turf	SY	790.000	790.000
0206	SPV.0195	Special 01. Hauling and Disposal of Contaminated Soil	TON	2,550.000	2,550.000

REMOVING CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	204.0150 LF
0010	8+25	-	9+73	4TH AVERT	149
0010	8+25	-	9+83	4TH AVE LT	160
0010	10+16	-	11+27	4TH AVE LT	111
0010	10+16	-	11+27	4TH AVERT	110
TOTAL 0010					530

REMOVING STORM SEWER

CATEGORY	STATION	TO	STATION	LOCATION	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER 01. 8-INCH LF	204.0245.02 REMOVING STORM SEWER 02. 12-INCH LF	204.0245.03 REMOVING STORM SEWER 03. 30-INCH LF	204.0291.5 ABANDONING SEWER CY
0010	8+25	-	9+83	4TH AVE	1	4	40	17	100	43
0010	10+16	-	11+27	4TH AVE	-	-	-	23	-	3
TOTAL 0010					1	4	40	40	100	46

NOTES:
STORM SEWER LARGER THAN 8-INCH IS THAT IS OUTSIDE OF BRIDGE EXCAVATION AND OUTSIDE OF NEW STORM SEWER EXCAVATION IS BE ABANDONED

EARTHWORK SUMMARY

Category	Division	From/To Station	Location	Excavation Common Special (1) (item #SPV.0035.01)	Unexpanded Fill (2)	Expanded Fill	Waste (3)	Borrow (item #208.0100)
				Cut	(3)	Factor 1.30		
0010	1	8+25 - 9+82	4th Ave West Side	405	51	66	405	66
0010	2	10+18 - 11+27	4th Ave East Side	250	26	34	250	34
Totals				655	77	100	655	100

- 1) Common Excavation Special is for Excavation of Contaminated Soil into Trucks for Off-Site Disposal
- 2) Fill areas to be backfilled with Borrow.
- 3) Waste is Contaminated Soil to be Removed from Site under item - Hauling, and Disposal of Petroleum Contaminated Soil and Management

REMOVING CONCRETE SIDEWALK

CATEGORY	STATION	TO	STATION	LOCATION	204.0155 SY
0010	10+33	-	10+53	4TH AVE LT	20
TOTAL 0010					20

REMOVING FENCE

CATEGORY	STATION	TO	STATION	LOCATION	204.0170 LF	REMARKS
0010	9+79	-	9+80	4TH AVE LT	30	WHITE FENCE
0010	10+17	-	10+18	4TH AVE LT	35	WHITE FENCE
TOTAL 0010					65	

ROADWAY MATERIALS

CATEGORY	STATION	TO	STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	350.0104 SUBBASE TON	624.0100 WATER MGAL	645.0140 GEOTEXTILE TYPE SAS SY	645.0220 GEOGRID TYPE SR SY	REMARKS
0010	8+25	-	9+82	4TH AVE	399	-	4	650	650	ROADWAY
0010	8+25	-	9+82	4TH AVE LT	-	90	1	-	-	UNDER SIDEWALK & CONCRETE DRIVEWAY
0010	8+25	-	10+55	4TH AVE LT & RT	99	-	1	-	-	UNDER DRIVEWAYS
0010	10+17	-	11+45	4TH AVE	277	-	3	450	450	ROADWAY
0010	10+17	-	11+50	4TH AVE LT	-	75	1	-	-	UNDER SIDEWALK
TOTAL 0010					775	165	10	1,100	1,100	

HMA PAVEMENT ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	455.0605	460.5223	460.5244	465.0120	REMARKS
					TACK COAT GAL	HMA PAVEMENT 3 LT 58-28 S TON	HMA PAVEMENT 4 LT 58-34 S TON	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	
0010	8+25	-	9+82	4TH AVE	35	65	50	-	MAINLINE
0010	8+25	-	8+98	4TH AVE LT	-	-	-	22	PARKING LOT
0010	9+13	-	10+57	4TH AVE LT & RT	-	-	-	23	DRIVEWAYS
0010	10+17	-	11+45	4TH AVE	25	45	35	-	MAINLINE
TOTAL 0010					60	110	85	45	

CONCRETE CURB & GUTTER 30-INCH TYPE D

CATEGORY	STATION	TO	STATION	LOCATION	601.0411
					LF
0010	8+25	-	9+82	4TH AVE LT	158
0010	8+25	-	9+82	4TH AVE RT	158
0010	10+17	-	11+27	4TH AVE LT	111
0010	10+17	-	11+45	4TH AVE RT	128
TOTAL 0010					555

STORM SEWER

CATEGORY	STATION	TO	STATION	LOCATION	520.8000	608.0312	608.0342	608.0421
					CONCRETE COLLARS FOR PIPE EACH	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 42-INCH LF	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH LF
0010	8+17	-	9+85	4TH AVE	1	31	170	-
0010	10+15	-	11+35	4TH AVE	1	31	-	120
TOTAL 0010					2	62	170	120

CONCRETE SIDEWALK & DRIVEWAY

CATEGORY	STATION	TO	STATION	LOCATION	602.0415	602.0810
					CONCRETE SIDEWALK 6-INCH SF	CONCRETE DRIVEWAY 6-INCH SY
0010	8+25	-	9+82	4TH AVE LT	685	34
0010	10+17	-	11+50	4TH AVE LT	880	-
TOTAL 0010					1,565	34

STORM SEWER STRUCTURES AND COVERS

CATEGORY	STATION	LOCATION	611.0535	611.0624	611.1006	611.1230	611.2004	611.2006
			MANHOLE COVERS TYPE J-SPECIAL EACH	INLET COVERS TYPE H EACH	CATCH BASINS 6-FT DIAMETER EACH	CATCH BASINS 2X3-FT EACH	MANHOLES 4-FT DIAMETER EACH	MANHOLES 6-FT DIAMETER EACH
0010	8+31	4TH AVE	1	-	-	-	-	1
0010	9+64	4TH AVE	-	2	1	1	-	-
0010	11+18	4TH AVE	1	3	-	2	1	-
TOTAL 0010			2	5	1	3	1	1

TURBIDITY BARRIERS

CATEGORY	STATION	LOCATION	628.6005
			SY
0010	9+64	WEST ABUTMENT	120
0010	11+18	EAST ABUTMENT	120
TOTAL 0010			240

MOBILIZATIONS EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	628.1905	628.1910
					MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	8+25	-	11+27	4TH AVE	5	2
TOTAL 0010					5	2

FENCE SAFETY

CATEGORY	STATION	TO	STATION	LOCATION	616.0700.S
					LF
0010	9+50	-	9+80	4TH AVE LT	60
0010	10+18	-	11+48	4TH AVE LT	140
TOTAL 0010					200

SILT FENCE

CATEGORY	STATION	TO	STATION	LOCATION	628.1504	628.1520
					SILT FENCE LF	SILT FENCE MAINTENANCE LF
0010	9+65	-	9+82	4TH AVE LT	40	80
0010	10+18	-	10+27	4TH AVE LT	17	34
0010	UNDISTRIBUTED			4TH AVE	18	36
TOTAL 0010					75	150

INLET PROTECTION

CATEGORY	STATION	LOCATION	628.7005	628.7010	628.7015	REMARKS
			INLET PROTECTION TYPE A EACH	INLET PROTECTION TYPE B EACH	INLET PROTECTION TYPE C EACH	
0010	9+64	4TH AVE LT & RT	2	-	2	
0010	11+18	4TH AVE LT & RT	2	-	2	
0010	OUTSIDE PROJECT AREA		-	2	3	FIRST INLET OUTSIDE PROJECT
TOTAL 0010			4	2	7	

LANDSCAPING

CATEGORY	STATION	TO	STATION	LOCATION	625.0100	628.2006	630.0140	SPV.0030.01	SPV.0180.01
					TOPSOIL SY	EROSION MAT URBAN CLASS I TYPE A SY	SEEDING MIXTURE NO. 40 LB	FERTILIZER FOR LAWN TYPE TURF CWT	PREPARING TOPSOIL FOR LAWN TYPE TURF SY
0010	8+25	-	9+83	4TH AVE RT	182	182	3.3	0.1	182
0010	8+25	-	9+83	4TH AVE LT	266	266	4.8	0.2	266
0010	10+17	-	11+45	4TH AVE RT	71	71	1.3	0.1	71
0010	10+17	-	11+52	4TH AVE LT	140	140	2.5	0.1	140
0010	UNDISTRIBUTED			4TH AVE	131	131	3.4	0.6	131
TOTAL 0010					790	790	15	1	790

REMOVING SIGNS

CATEGORY	STATION	LOCATION	638.2602	638.3000	REMARKS
			REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
0010	9+83	4TH AVE RT	1	1	OM3-R
0010	9+83	4TH AVE LT	1	1	OM3-L
0010	10+17	4TH AVE RT	1	1	OM3-R
0010	10+17	4TH AVE LT	1	1	OM3-L
0010	10+20	4TH AVE RT	-	1	POST
TOTAL 0010			4	5	

SIGNS

CATEGORY	STATION	LOCATION	634.0612	637.2230	REMARKS
			POSTS WOOD 4X6-INCH X 12-FT EACH	SIGNS TYPE II REFLECTIVE F SF	
0010	9+70	4TH AVE RT	1	3	OM3-R
0010	9+70	4TH AVE LT	1	3	OM3-L
0010	10+30	4TH AVE RT	1	3	OM3-R
0010	10+30	4TH AVE LT	1	3	OM3-L
TOTAL 0010			4	12	

TRAFFIC CONTROL SUMMARY

CATEGORY	LOCATION	APPROXIMATE SERVICE DAYS	643.0410		643.0420		643.0705		643.0900		REMARKS
			TRAFFIC CONTROL BARRICADES TYPE II NO. IN SERVICE	DAY	TRAFFIC CONTROL BARRICADES TYPE III NO. IN SERVICE	DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A NO. IN SERVICE	DAY	TRAFFIC CONTROL SIGNS NO. IN SERVICE	DAY	
0010	8TH AVE/USH 45	100	-	-	2	200	4	400	2	200	BRIDGE OUT STAGGER - SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C, WITH ROAD CLOSED AHEAD SIGN ONLY
0010	WEST WORK ZONE LIMITS	100	-	-	5	500	6	600	1	100	SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL B
0010	EAST WORK ZONE LIMITS	100	-	-	5	500	6	600	1	100	SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL B
0010	PATH	100	1	100	-	-	2	200	1	100	SIDEWALK CLOSED
0010	FIELD ST AT 5TH AVE	100	-	-	2	200	4	400	2	200	BRIDGE OUT STAGGER - SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C, WITH ROAD CLOSED AHEAD SIGN ONLY
0010	4TH AVE AT FIELD ST	100	-	-	2	200	4	400	2	200	BRIDGE OUT STAGGER - SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C, WITH ROAD CLOSED AHEAD SIGN ONLY
TOTAL 0010					100	1,600		2,600		900	

3

3

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4000	650.4500	650.5000	650.5500	650.6501.01	650.9500.01	650.9911.01	650.9920	REMARKS
					CONSTRUCTION STAKING STORM SEWER EACH	CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	CONSTRUCTION STAKING STRUCTURE LAYOUT B-34-0062 EACH	CONSTRUCTION STAKING SIDEWALK 9835-00-71 EACH	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 9835-00-71 EACH	CONSTRUCTION STAKING SLOPE STAKES LF	
0010	8+25	-	9+83	4TH AVE	3	158	158	316	-	1	1	158	
0010	10+17	-	11+27	4TH AVE	3	110	110	239	-	-	-	110	
SUBTOTAL					6	268	268	555	0	1	1	268	
0020	10+00			4TH AVE	-	-	-	-	1	-	-	-	B-34-0062
SUBTOTAL					0	0	0	0	1	0	0	0	
TOTAL S					6	268	268	555	1	1	1	268	

SAWING

CATEGORY	STATION	TO	STATION	LOCATION	690.0150	690.0250	REMARKS
					SAWING ASPHALT LF	SAWING CONCRETE LF	
0010	8+25			4TH AVE	35	5	
0010	8+25	-	8+98	4TH AVE LT	99	-	PARKING LOT
0010	9+61	-	9+82	4TH AVE LT	21	-	PATH
0010	10+33	-	10+35	4TH AVE LT	-	5	SIDEWALK
0010	11+27			4TH AVE	30	5	
TOTAL 0010					185	15	

REMOVE AND REINSTALL FENCE

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0060.02	SPV.0090.01
					REMOVE AND REINSTALL POST EACH	REMOVE AND REINSTALL CHAIN LINK FENCE LF
0010	9+63	-	9+83	4TH AVE RT	-	20
0010	10+13	-	10+29	4TH AVE LT	1	15
TOTAL 0010					1	35

INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM

CATEGORY	STATION	LOCATION	999.2000.S.01
			INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM (STATION) 10+00 EACH
0010	10+00	PROJECT	1
TOTAL 0010			1

HAULING AND DISPOSAL OF CONTAMINATED SOIL

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0195.01	REMARKS
					TON	
0030	8+25	-	9+82	4TH AVE	920	INCLUDE STRUCTURE EXCAVATION AREA
0030	10+18	-	11+27	4TH AVE	700	INCLUDE STRUCTURE EXCAVATION AREA
0030				STORM SEWER TRENCHES	930	
TOTAL 0010					2,550	

OIL ABSORBENT BOOM

CATEGORY	LOCATION	SPV.0090.03
		LF
0010	4TH AVE	150
TOTAL 0010		150

CONVENTIONAL SYMBOLS

SECTION LINE	PARCEL NUMBER (25)	UTILITY NUMBER (40)
QUARTER LINE	PRW POINT NUMBER (100)	TILE POINT NUMBER (T150)
SIXTEENTH LINE	SECTION CORNER	R/W MONUMENT
NEW REFERENCE LINE	NOTATION FOR COMBUSTIBLE FLUIDS	NON-MONUMENTED R/W POINT
NEW R/W LINE	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	FOUND IRON PIN
EXISTING R/W LINE	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	SIGN
PROPERTY LINE	ACCESS CONTROLLED BY ACQUISITION	NO ACCESS (BY STATUTORY AUTHORITY)
LOT, TIE, AND OTHER MINOR LINES	NO ACCESS (BY PREVIOUS PROJECT OR CONTROL)	NO ACCESS (BY STATUTORY AUTHORITY)
SLOPE INTERCEPT	NO ACCESS (NEW HIGHWAY)	NO ACCESS (BY PREVIOUS PROJECT OR CONTROL)
CORPORATE LIMITS	NATIONAL GEODETTIC SURVEY MONUMENT	NO ACCESS (NEW HIGHWAY)
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	SIXTEENTH CORNER MONUMENT	NO ACCESS (NEW HIGHWAY)
FEE ACQUISITION AREA (ATCHING VARIES BY OWNER)	PARALLEL OFFSETS	NO ACCESS (NEW HIGHWAY)
TEMP. LIMITED EASEMENT AREA		
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)		
TRANSMISSION STRUCTURES		
BUILDING		
BUILDING (TO BE REMOVED)		
BRIDGE		

CONVENTIONAL UTILITY SYMBOLS

WATER	NON-COMPENSABLE	COMPENSABLE
GAS	POWER POLE	TELEPHONE POLE
TELEPHONE	TELEPHONE POLE	TELEPHONE PEDESTAL
OVERHEAD TRANSMISSION LINES		
ELECTRIC		
CABLE TELEVISION		
FIBER OPTIC		
SANITARY SEWER		
STORM SEWER		
ELECTRIC TOWER		

CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	A / DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NO.	OWNER(S)	INTEREST REQUIRED	R/W (ACRES)			TLE
			NEW	EXISTING	TOTAL	
1	MATHEW S. & JENNIFER J. HAYEK (PURCHASER) WC ENTERPRISES LLC (VENDOR)	TLE	---	---	---	0.029
2	CITY OF ANTIGO	TLE	---	---	---	0.048
3	DONALD E & SUSAN D. FISCHER	TLE	---	---	---	0.020
4	SCOTT LIS & ANN RICHARDSON	TLE	---	---	---	0.025
50	WISCONSIN PUBLIC SERVICE	RELEASE OF RIGHTS	---	---	---	---
51	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS	---	---	---	---
52	CITY OF ANTIGO - GAS	RELEASE OF RIGHTS	---	---	---	---

R/W PROJECT NUMBER 9835-00-00	SHEET NUMBER 4.01	TOTAL SHEETS 1
CONSTRUCTION PROJECT NUMBER 9835-00-71		
PLAT OF RIGHT OF WAY REQUIRED FOR C ANTIGO, 4TH AVENUE SPRINGBROOK CREEK BRIDGE B-34-0062		
LOCAL STREET	LANGLADE COUNTY	

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	OUTLET	OL
ACRES	AC	PAGE	P
AHEAD	AH	POINT OF TANGENCY	PT
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	RA (100)
BACK	BK	REEL / IMAGE	RA
BLOCK	BK	REFERENCE LINE	RL
CENTERLINE	CL	PERMANENT LIMITED EASEMENT	PLE
CERTIFIED SURVEY MAP	CSM	POINT OF BEGINNING	POB
CONCRETE	CONC	POINT OF CURVATURE	PC
COUNTY	CO	POINT OF COMPOUND CURVE	PCC
COUNTY TRUNK HIGHWAY	CTH	POINT OF INTERSECTION	PI
DISTANCE	DIST	REMAINING	REM
CORNER	COR	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
DOCUMENT NUMBER	DOC	RIGHT	RT
EASEMENT	EASE	RIGHT OF WAY	R/W
EXISTING	EX	SECTION	SEC
GAS VALVE	GV	SEPTIC VENT	SEPV
GRID NORTH	GN	SQUARE FEET	SF
HIGHWAY EASEMENT	HE	STATE TRUNK HIGHWAY	STH
IDENTIFICATION	ID	STATION	STA
LAND CONTRACT	LC	TELEPHONE PEDESTAL	TP
LEFT	LT	TEMPORARY LIMITED EASEMENT	TLE
MONUMENT	MON	TRANSPORTATION PROJECT PLAT	TPP
NATIONAL GEODETTIC SURVEY NUMBER	NGB	UNITED STATES HIGHWAY	USH
	NO	VOLUME	V

TLE STATION & OFFSET TABLE

POINT	STATION	OFFSET
T150	8+14.51	-46.80' LT
T151	8+99.74	-49.72' LT
T152	8+99.07	-59.71' LT
T153	9+77.86	-62.41' LT
T154	9+75.84	-37.34' LT
T155	11+43.48	22.51' RT
T156	10+75.00	28.61' RT
T157	10+75.44	33.59' RT
T158	9+98.60	37.94' RT
T159	9+98.83	27.94' RT
T160	9+83.13	28.45' RT
T161	9+82.77	38.49' RT
T162	8+75.33	42.17' RT
T163	8+74.99	31.98' RT

R/W STATION & OFFSET TABLE

POINT	STATION	OFFSET
100	8+14.99	0.00'
101	8+14.99	-32.10' LT
102	11+34.15	-47.71' LT
103	11+38.32	0.00'
104	11+39.90	18.04' RT
105	8+14.99	33.94' RT

COURSE TABLE

Line #	BEARING	DISTANCE
100-101	N36°56'51"E	32.10'
101-102	S54°55'15"E	321.81'
102-103	S35°04'45"W	47.89'
103-104	S35°04'45"W	18.11'
104-105	N54°55'15"W	323.96'
105-100	N36°56'51"E	33.94'

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), LANGLADE COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSE ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS

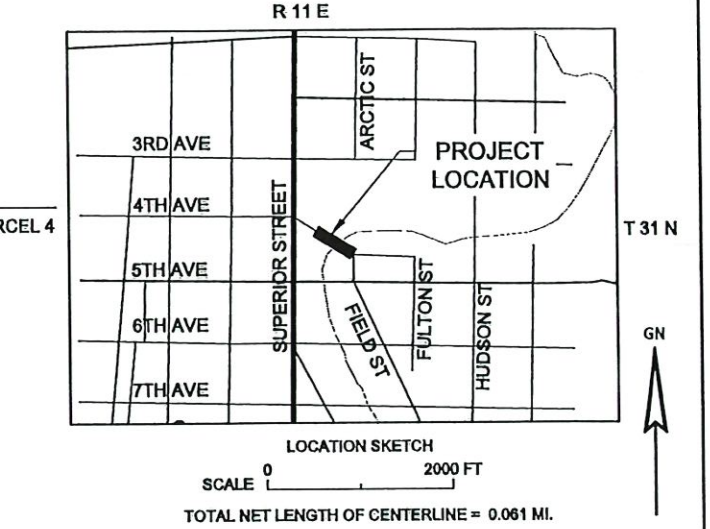
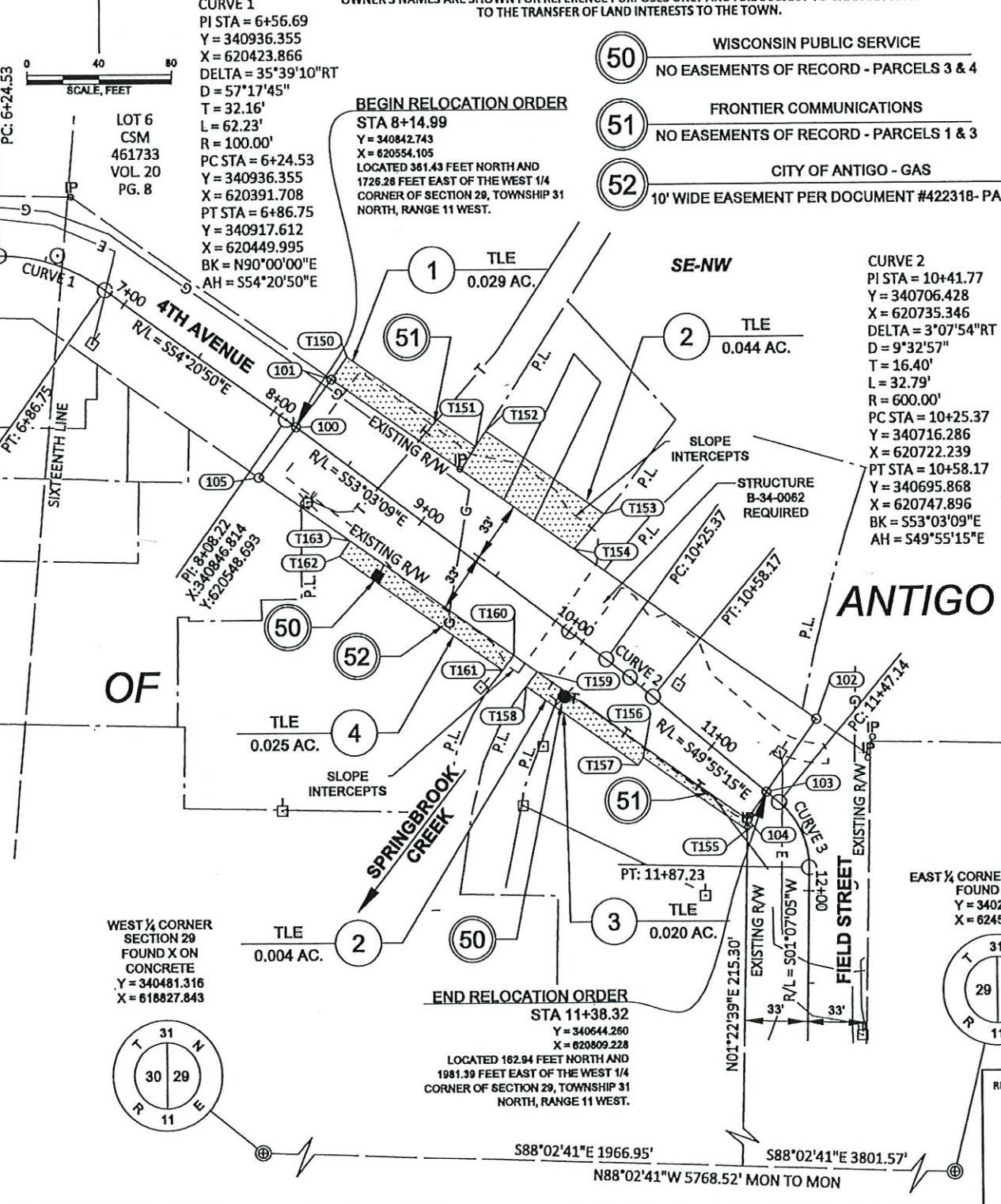
RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (1/2"x24" CAPPED IRON REBAR WEIGHING 1.50 LBS./LIN. FT.) AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

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

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING ROAD RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINT OF REFERENCE:
EXISTING RIGHT OF WAY OF 4TH AVENUE WAS DETERMINED FROM THE ORIGINAL PLAT OF ANTIGO AND CSM 461733.



APPROVED FOR CITY OF ANTIGO

6/5/23 DATE

DIRECTOR OF ADMINISTRATIVE SERVICES

PLAT PREPARED BY

AYRES

THE SURVEY IS PREPARED AT THE REQUEST OF CITY OF ANTIGO.

THE FIELD SURVEY WAS PERFORMED IN DECEMBER 2022.

THIS SURVEY IS ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

WISCONSIN LAND SURVEYOR

JACOB S. JENSEN
S-2961
SURING, WI

REVISION DATE

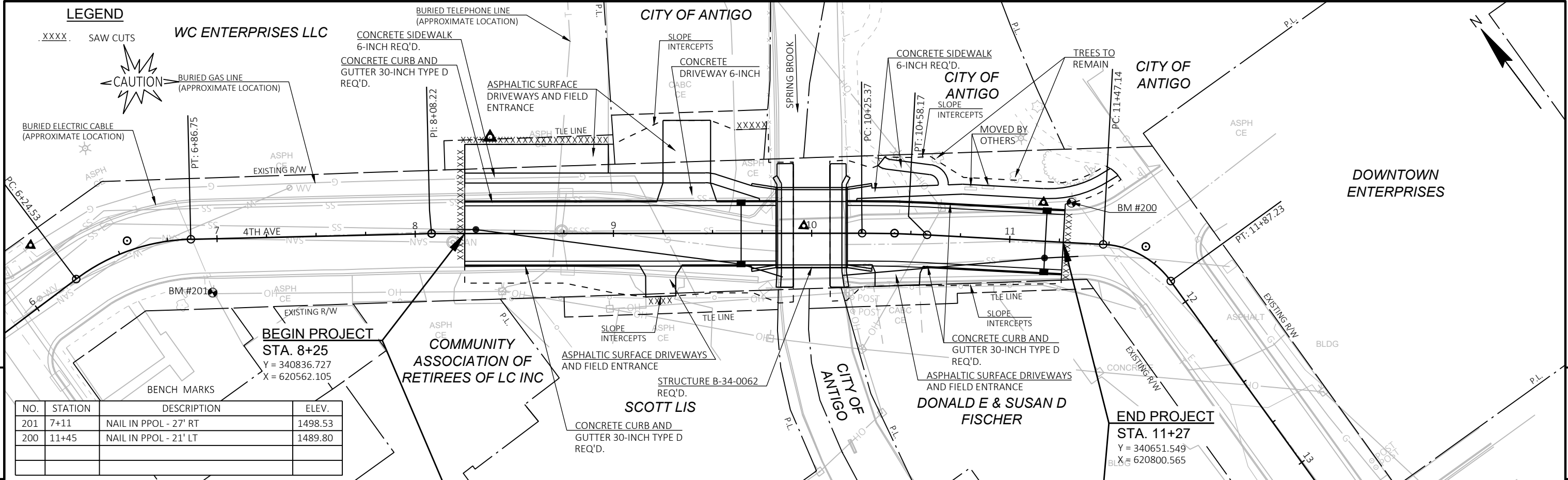
JUNE 1, 2023 DATE

JACOB S. JENSEN, P.L.S. S-2961

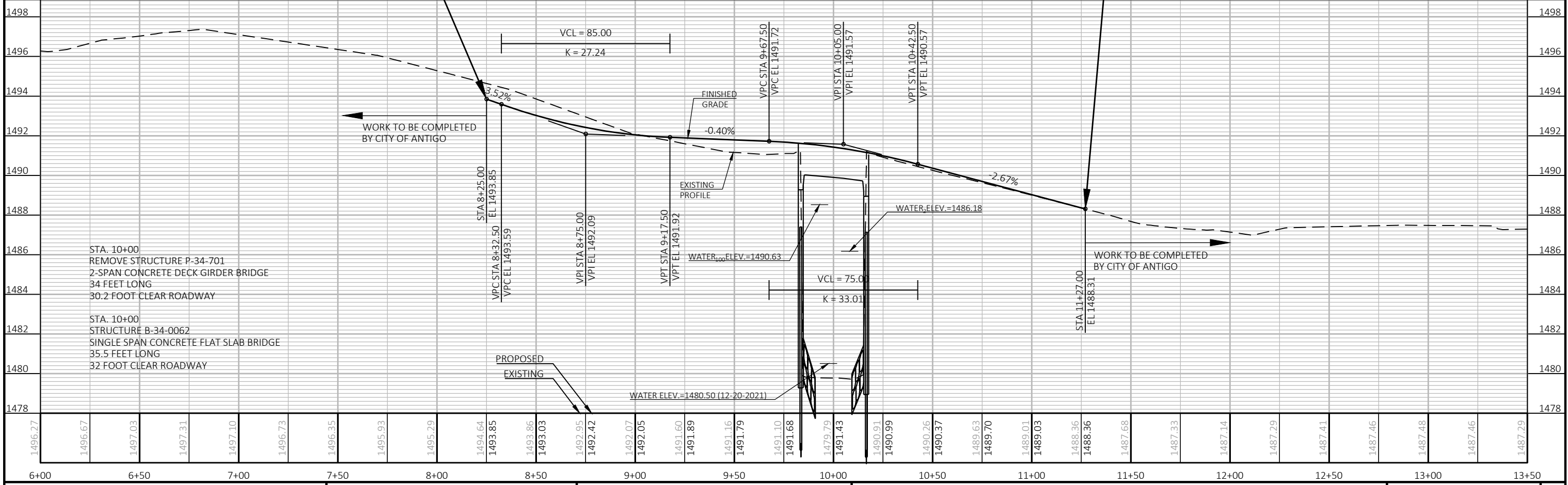
RECORD # 20557

LANGLADE COUNTY SURVEYORS OFFICE

DATE FILED: 6/7/23 BY: D.T.



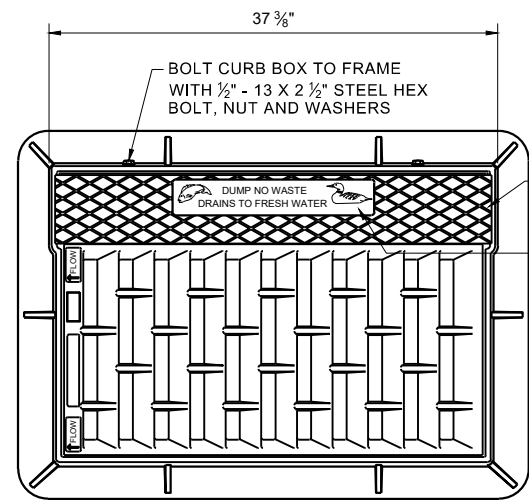
NO.	STATION	DESCRIPTION	ELEV.
201	7+11	NAIL IN PPOL - 27' RT	1498.53
200	11+45	NAIL IN PPOL - 21' LT	1489.80



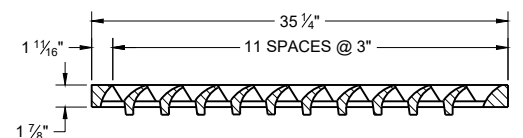
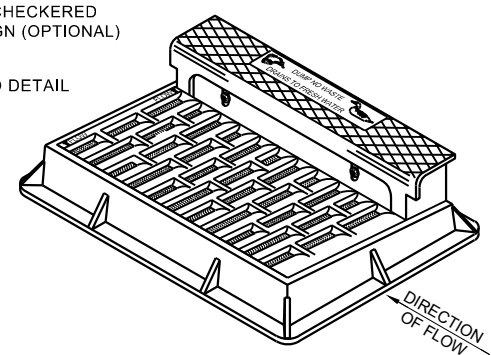
PROJECT NO: 9835-00-71 HWY: 4TH AVENUE COUNTY: LANGLADE PLAN AND PROFILE SHEET E

Standard Detail Drawing List

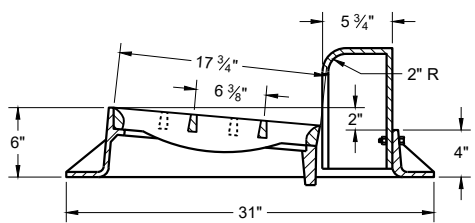
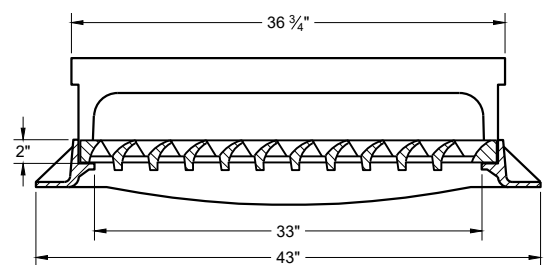
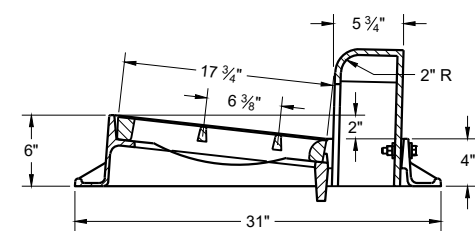
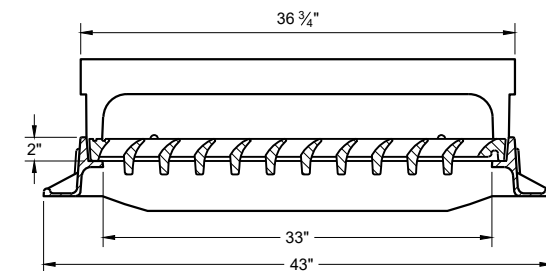
08A05-20A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-20D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-02	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08A09-02	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-03	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS



NOTE: EITHER CASTING IS ACCEPTABLE

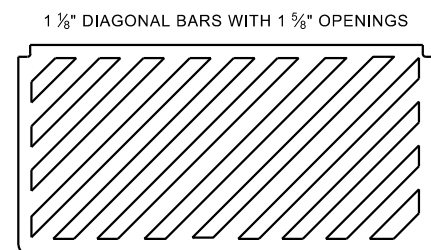


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"



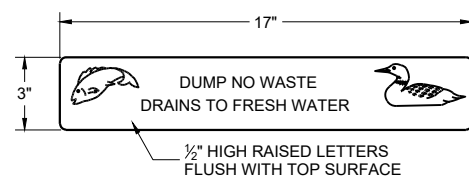
TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE



SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35" X 17 3/4" X 2")
(NOTED AS TYPE H-S ON DRAINAGE TABLE)



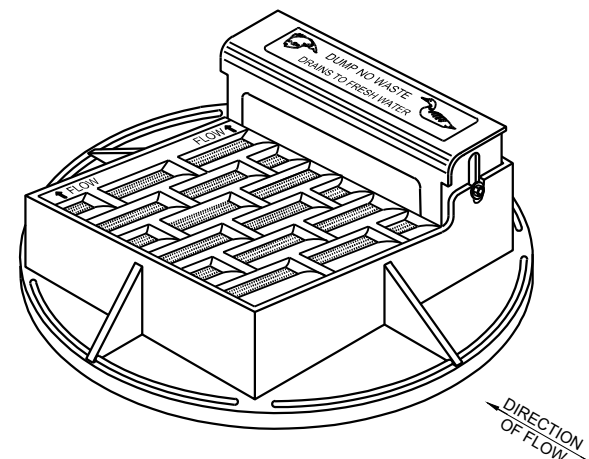
LOGO DETAIL

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.

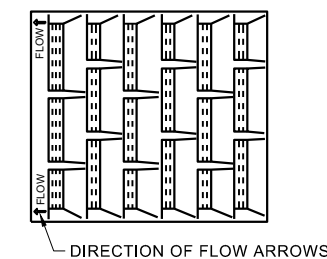
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

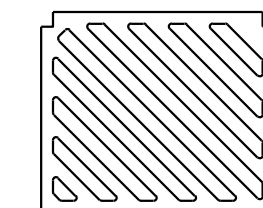


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE

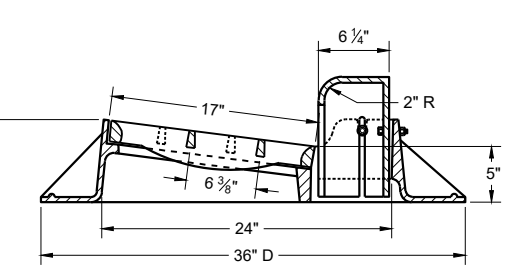
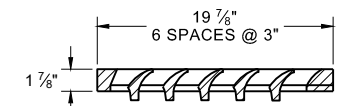
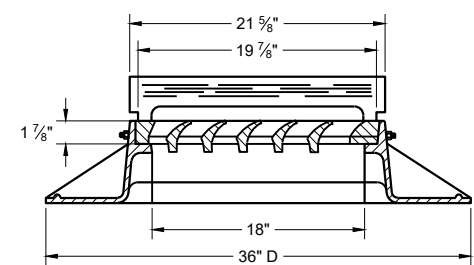


1" DIAGONAL BARS WITH 1 1/2" OPENINGS

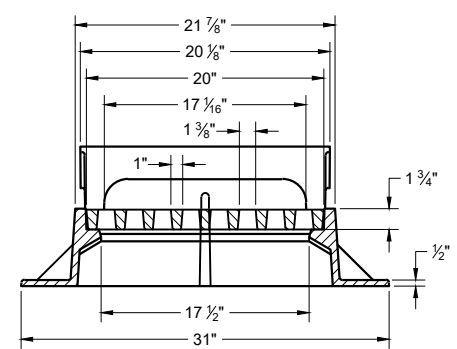
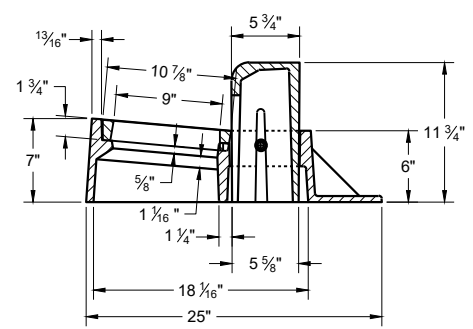


SPECIAL GRATE FOR TYPE "A" COVER

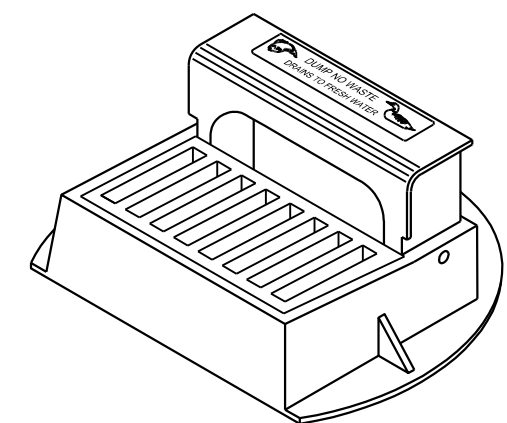
(MEASURES 19 3/4" X 17" X 1 7/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"



TYPE "Z"



INLET COVERS TYPES A, H, A-S, H-S AND Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

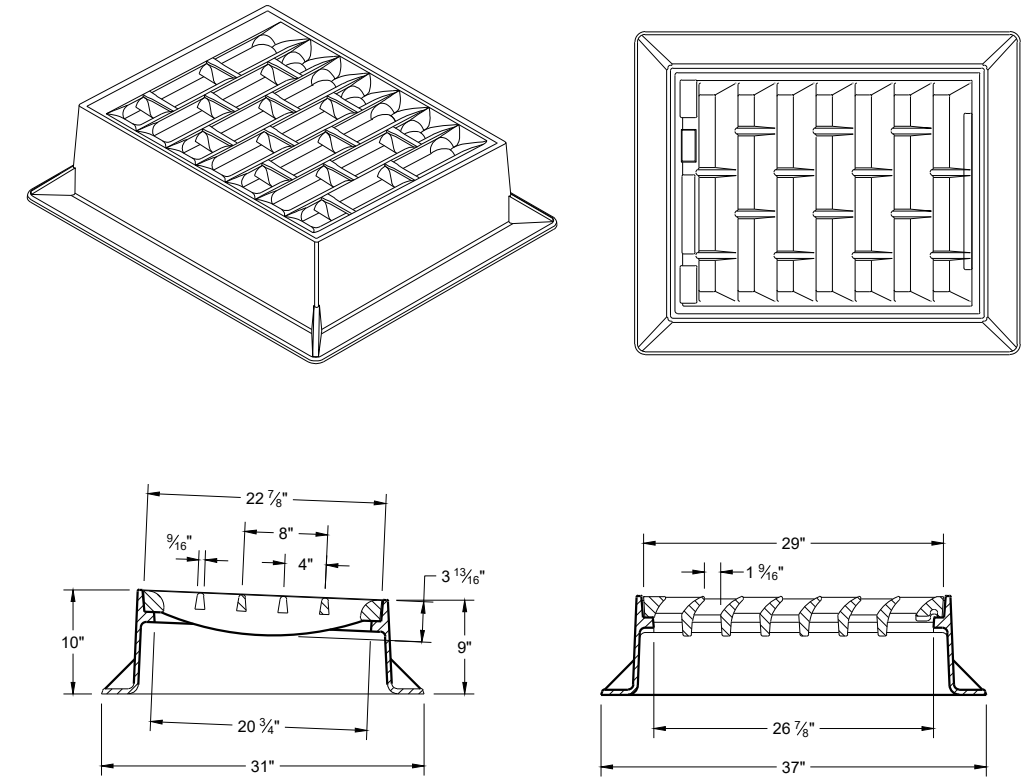
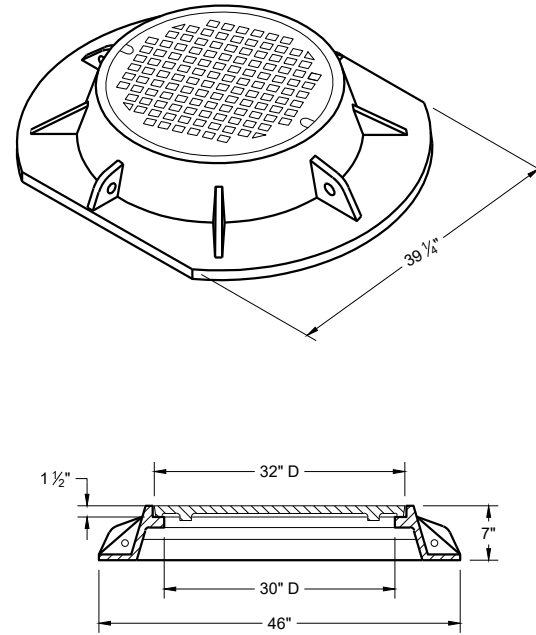
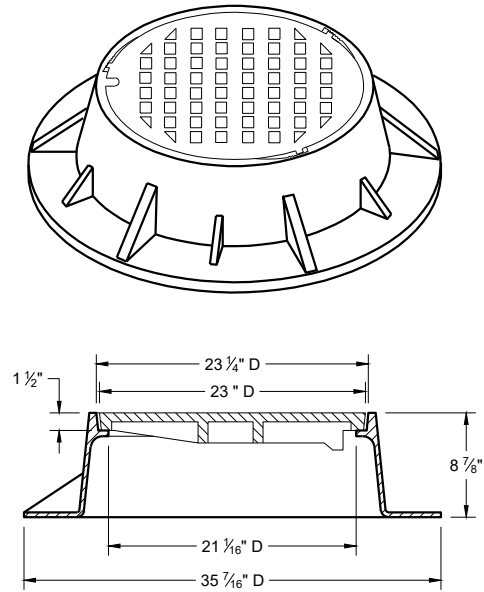
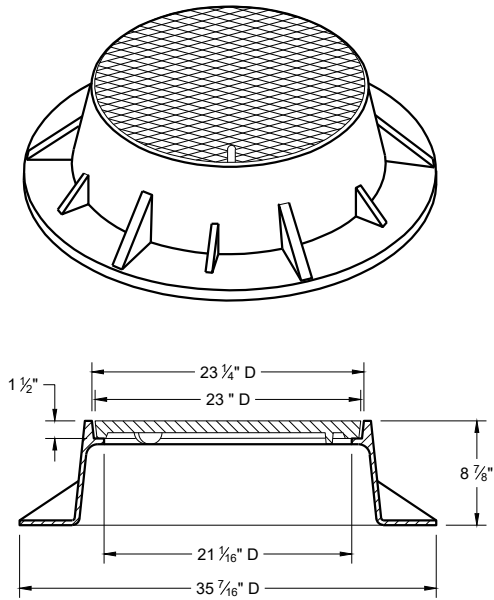
APPROVED
July 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

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.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

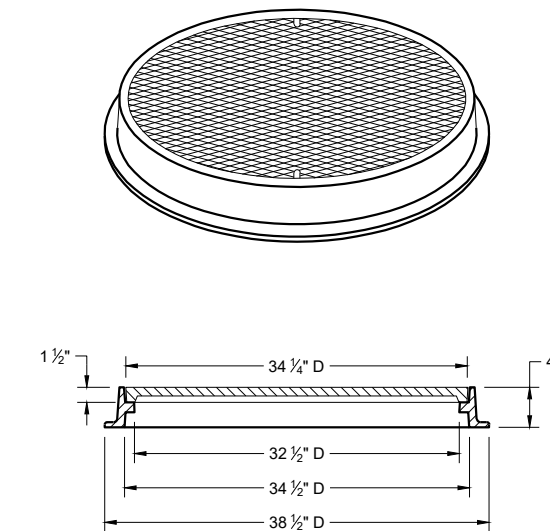
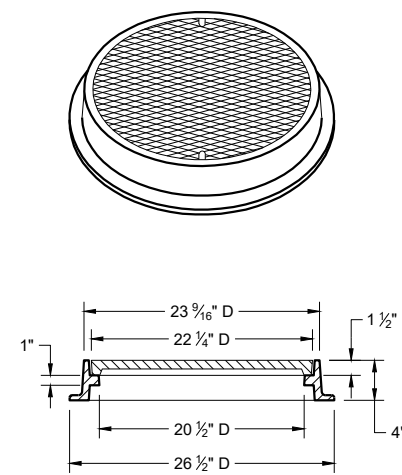
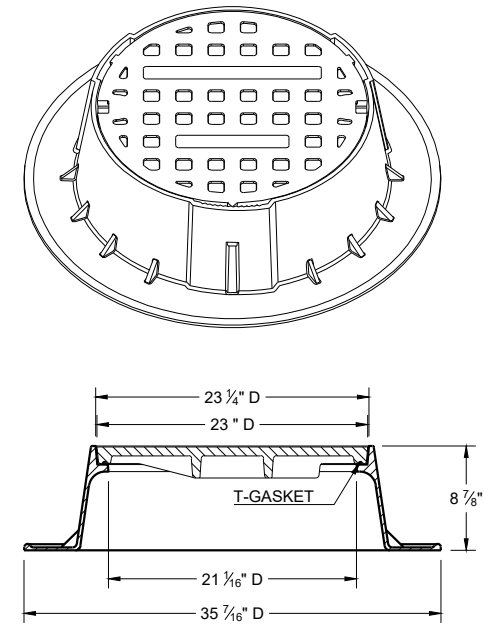
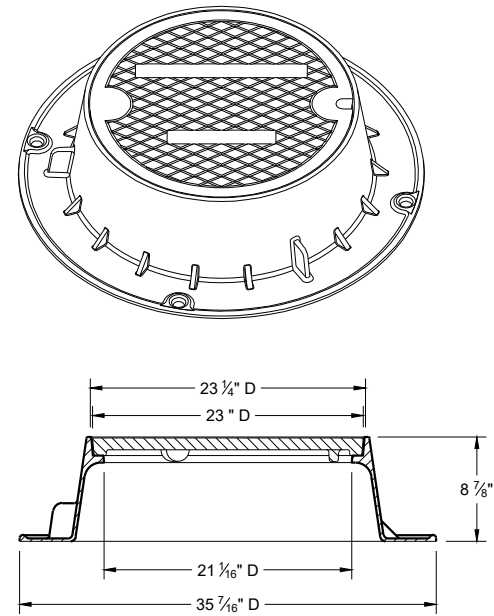


TYPE "K"

INLET COVER TYPE "BW"

6

6



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID (NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

NOTE: EITHER CASTING IS ACCEPTABLE

TYPE "L"

TYPE "M"

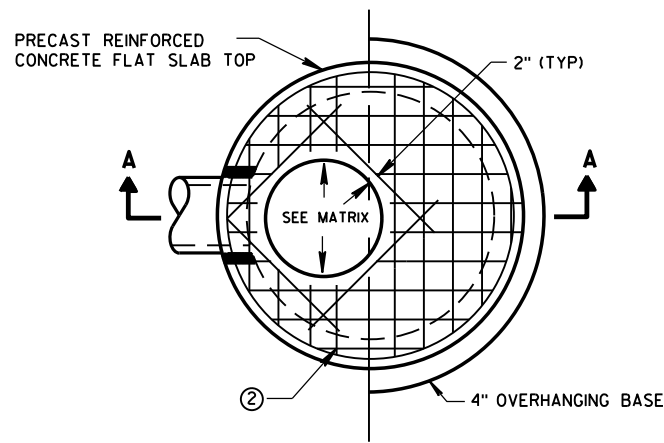
**INLET COVERS TYPES BW
MANHOLE COVERS TYPES K,
J, J-S, L, AND M**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

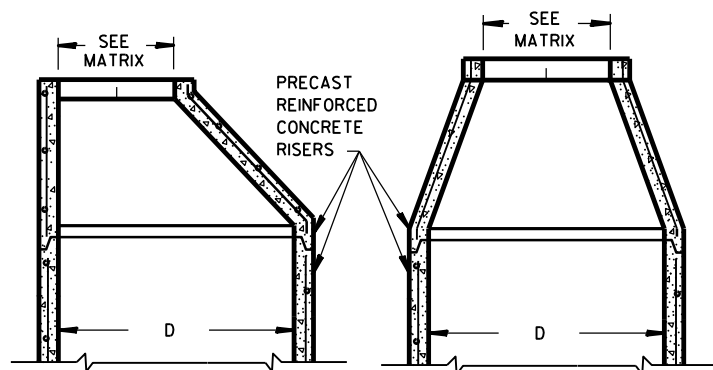
APPROVED
July 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

SDD 08A05-20d

SDD 08A05-20d

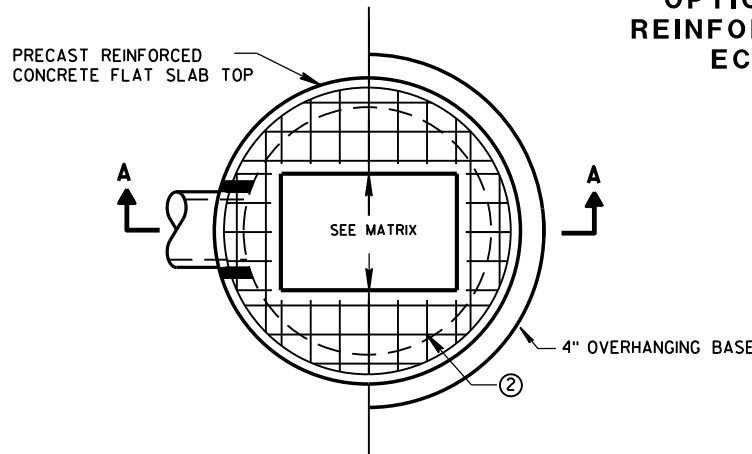


PLAN VIEW CIRCULAR OPENING

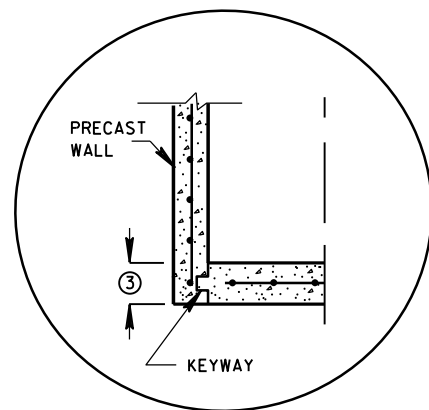


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

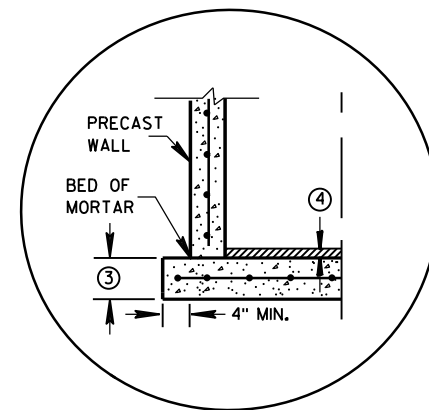
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



PLAN VIEW RECTANGULAR OPENING

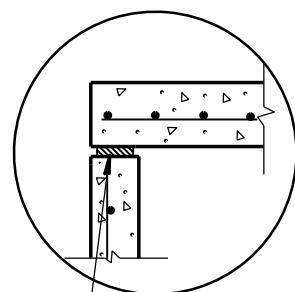


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

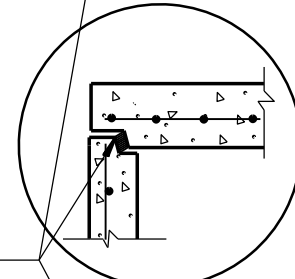


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

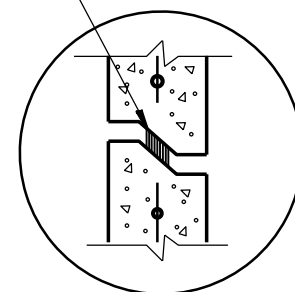
DETAIL "A"



TOP WITH PLAIN END JOINT

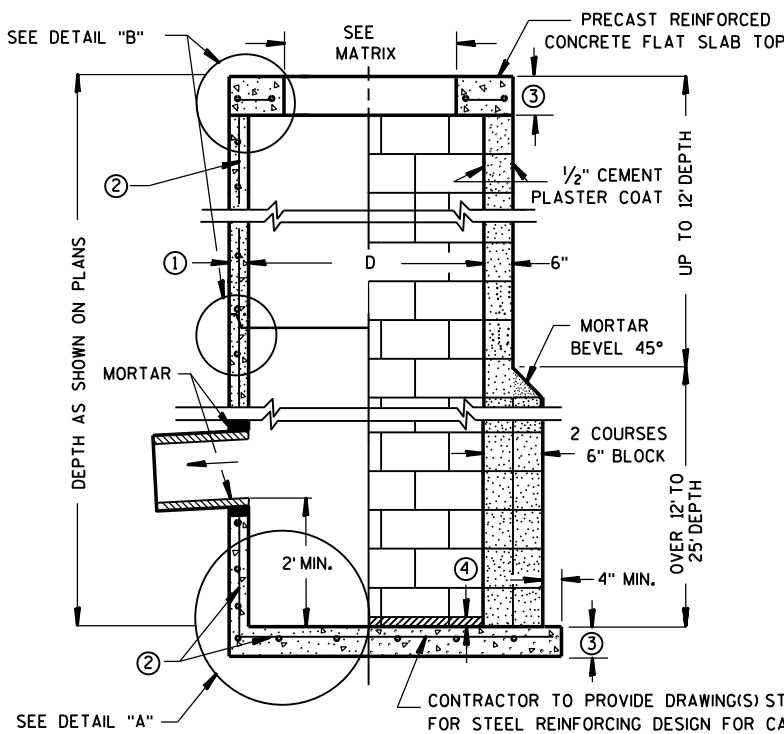


TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

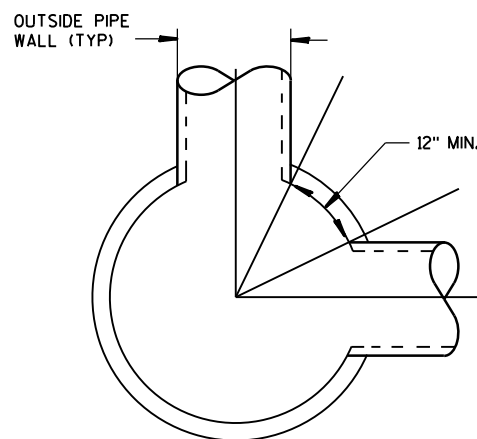


SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "C"

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH; 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

- ① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.
- ② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".
- ④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2" SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE OPENING SIZE (FT)	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
3-FT	2X2	X	X					X		X		
	2 DIA.				X					X		X
4-FT- 6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3											

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

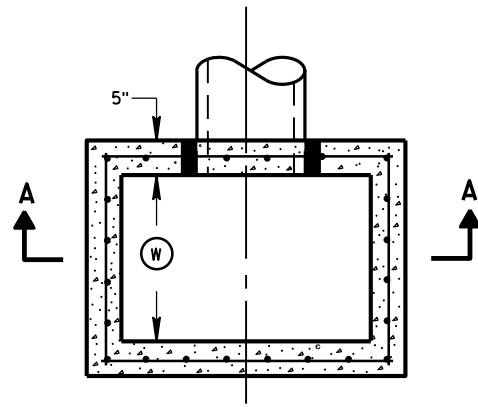
APPROVED
Sep 1, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

6

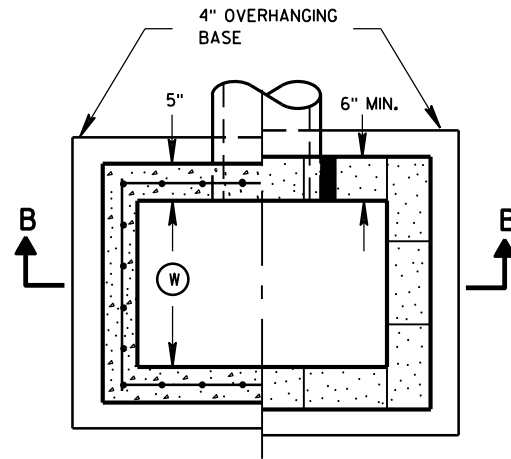
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S.D.D. 8 A 8-2

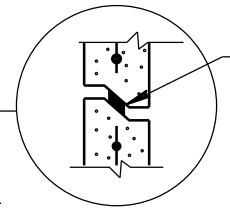
S.D.D. 8 A 8-2



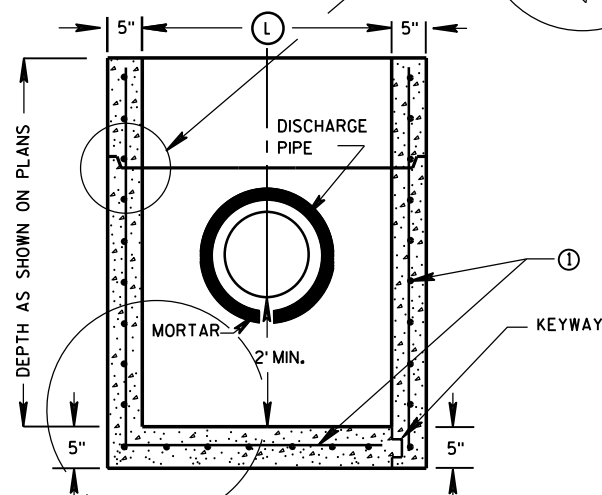
PLAN VIEW



PLAN VIEW

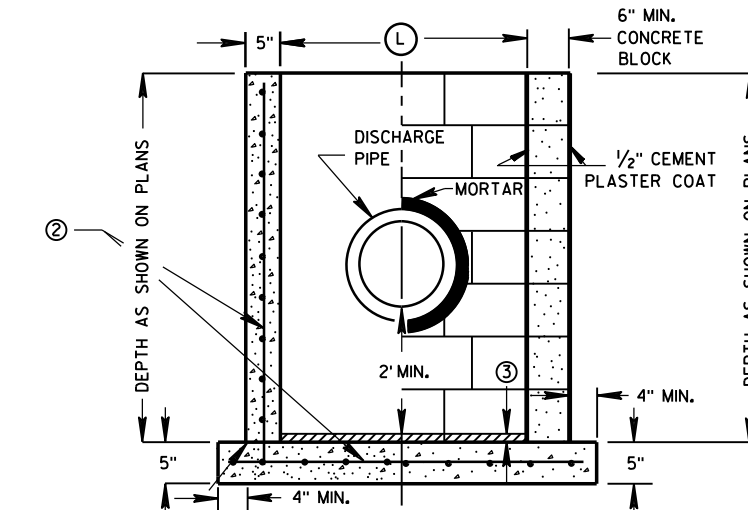


RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

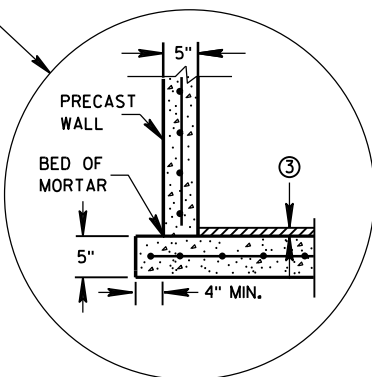
SECTION A-A



CAST-IN-PLACE REINFORCED CONCRETE

CONCRETE BLOCK ON CAST-IN-PLACE WITH PRECAST REINFORCED CONCRETE BASE ①

SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST CATCH BASIN UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

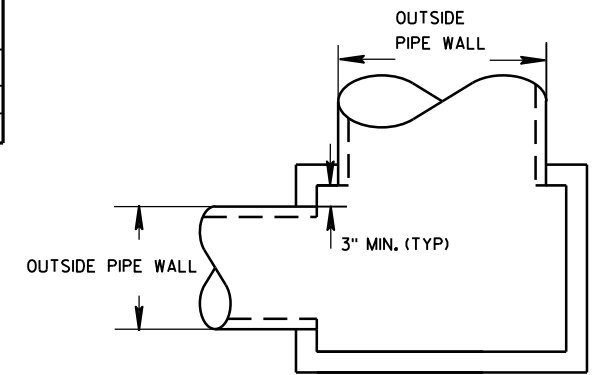
- ① FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.
- ③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2" SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE	INLET COVER TYPE		F	ALL H'S
	WIDTH (W) (FT)	LENGTH (L) (FT)		
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24

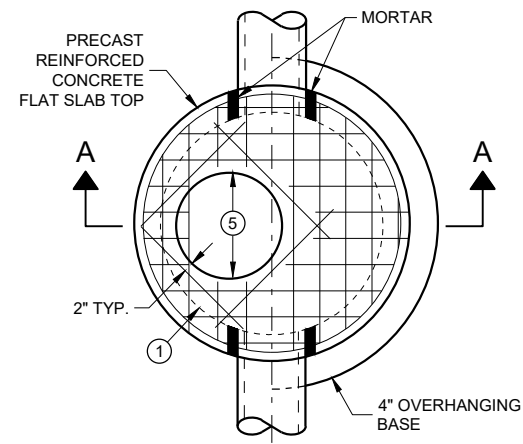


DETAIL "A"

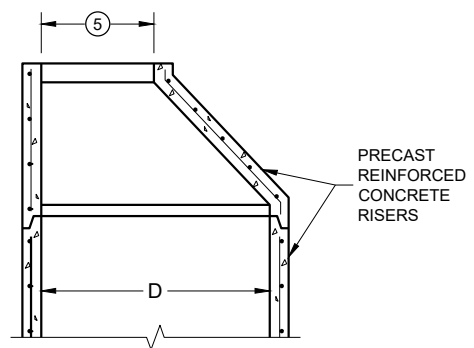
CATCH BASINS 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

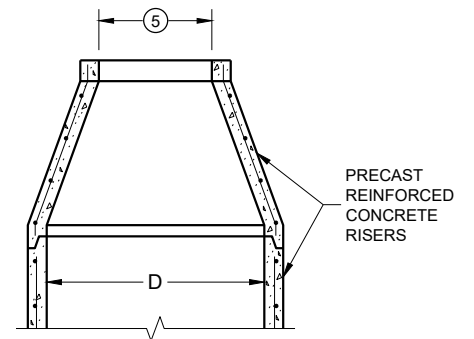
APPROVED
DATE: Sept., 2016 /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR



**PLAN VIEW
CIRCULAR OPENING**



**OPTIONAL PRECAST
REINFORCED CONCRETE
ECCENTRIC TOP**



**OPTIONAL PRECAST
REINFORCED CONCRETE
CONCENTRIC TOP**

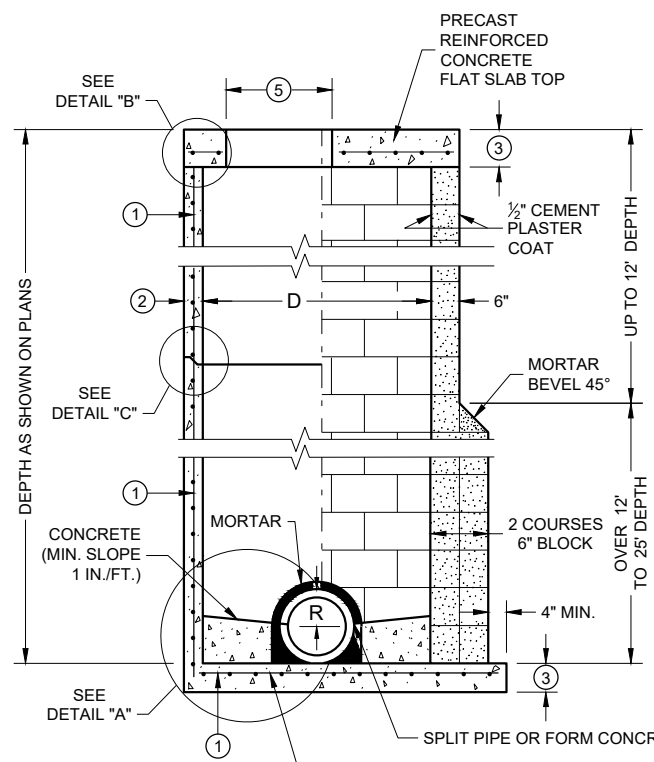
MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE OPENING SIZE (FT.)	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42*	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

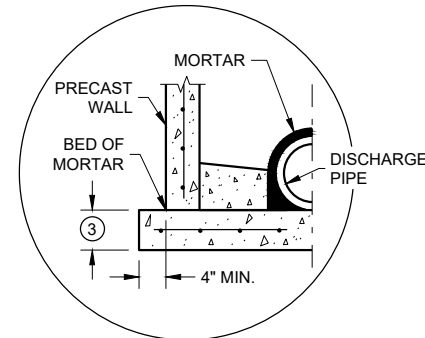
*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.



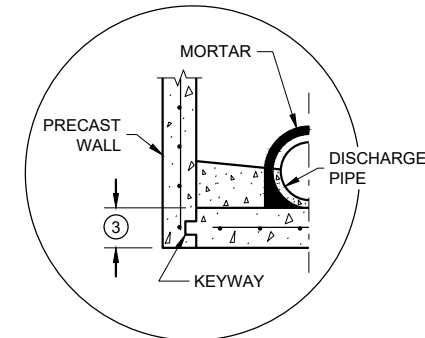
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE ①

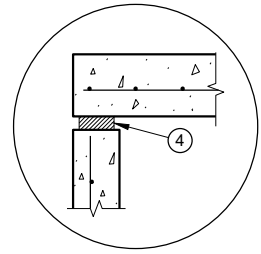


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

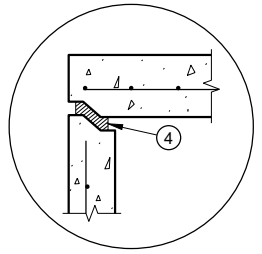


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

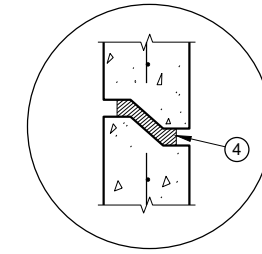
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

DETAIL "C"

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

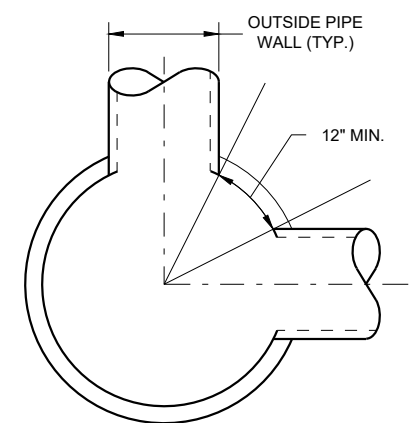
PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

- ① FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ② SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES
- ③ SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.
- ④ JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP.).
- ⑤ SEE MANHOLE COVER OPENING MATRIX.

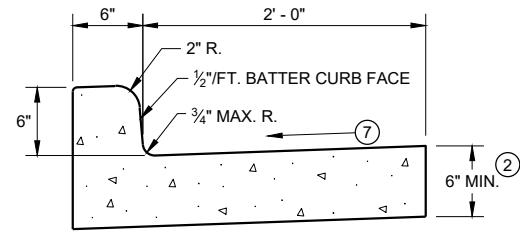


MINIMUM HORIZONTAL PIPE SEPARATION

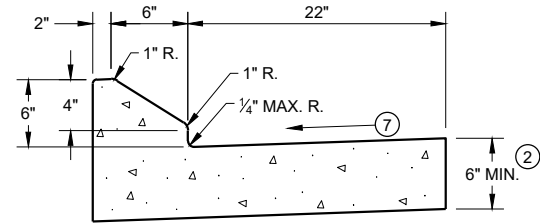
**MANHOLES, 3-FT, 4-FT
5-FT, 6-FT, 7-FT, 8-FT, 9-FT
AND 10-FT DIAMETER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

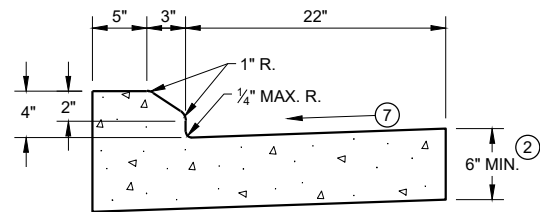
APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



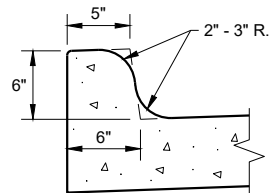
TYPES A¹ & D



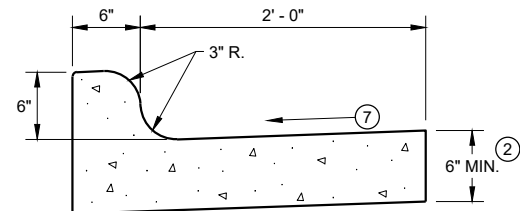
6" SLOPED CURB TYPES G¹ & J



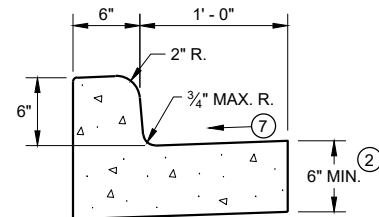
4" SLOPED CURB TYPES G¹ & J



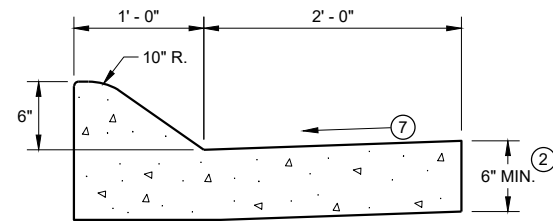
TYPES K¹ & L
(OPTIONAL CURB SHAPE)



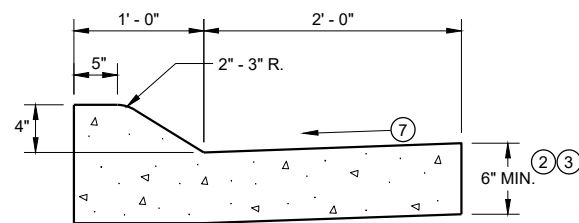
TYPES K¹ & L
CONCRETE CURB AND GUTTER 30"



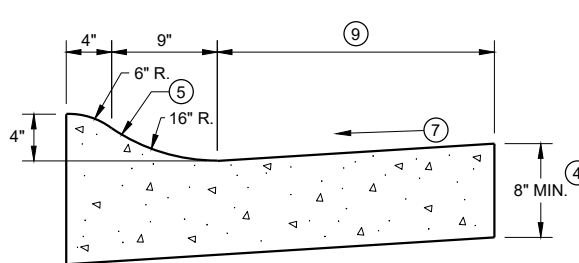
TYPES A¹ & D
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A¹ & D

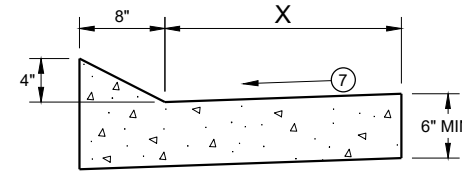


4" SLOPED CURB TYPES A¹ & D
CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R¹ & T

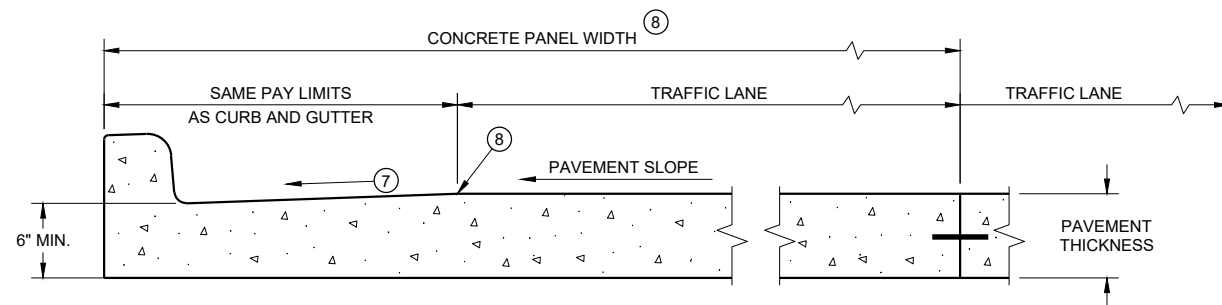
TBT & TBTT	X
30"	22"
36"	28"



TYPES TBT & TBTT¹
CONCRETE CURB AND GUTTER

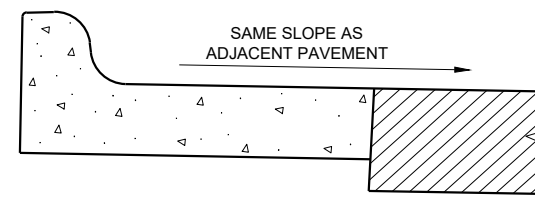
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT* WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER⁶
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

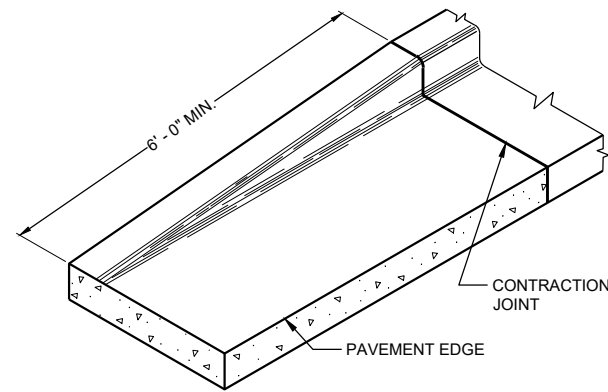
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

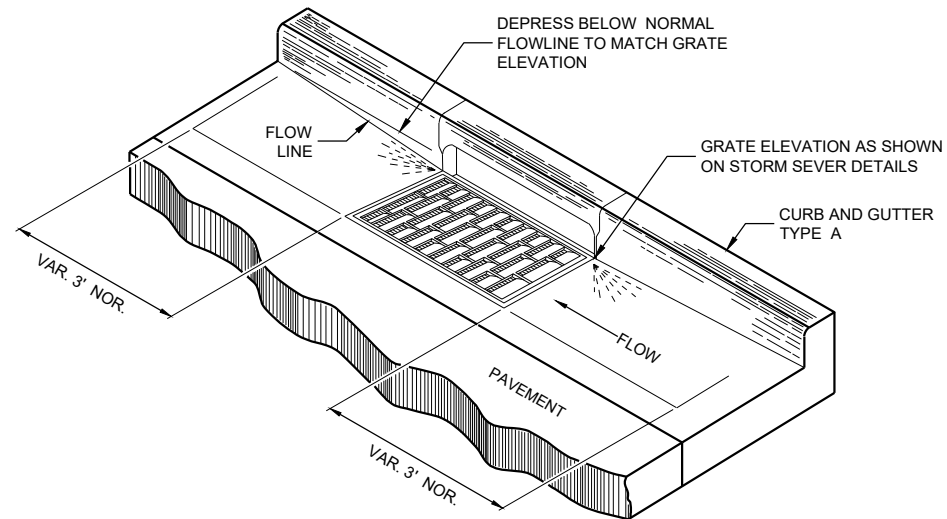
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

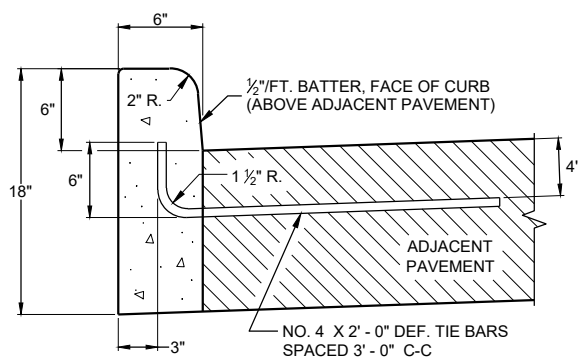
GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

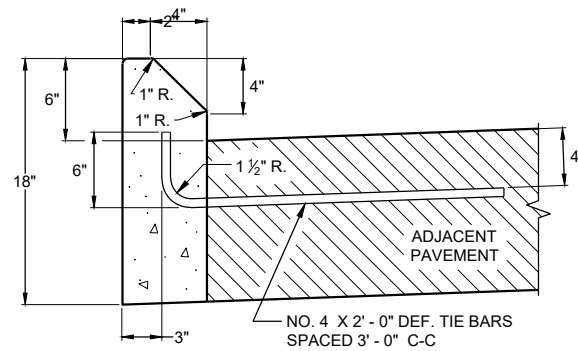
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

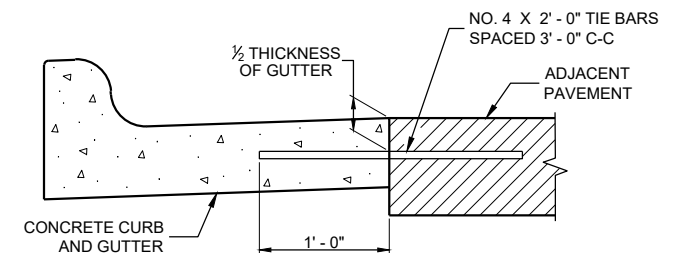
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.
- ⑪ PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.



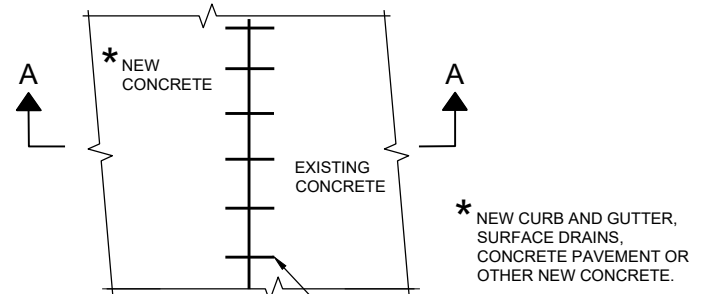
TYPES A^① & D



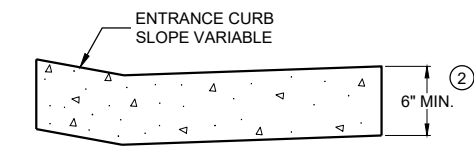
**TYPES G^① & J
CONCRETE CURB**



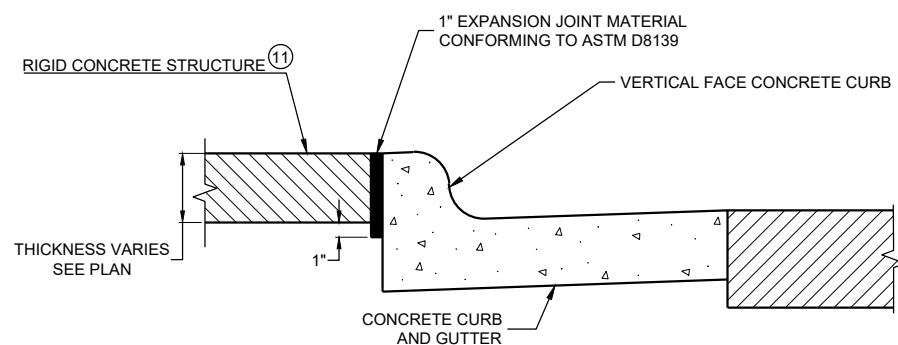
TYPICAL TIE BAR LOCATION^①



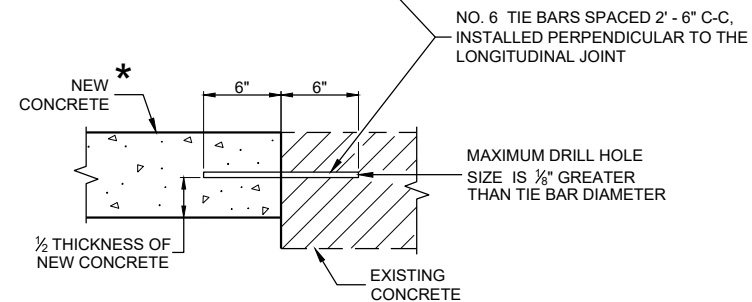
PLAN VIEW



**DRIVEWAY ENTRANCE CURB^⑩
(WHEN DIRECTED BY THE ENGINEER)**



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE^⑪



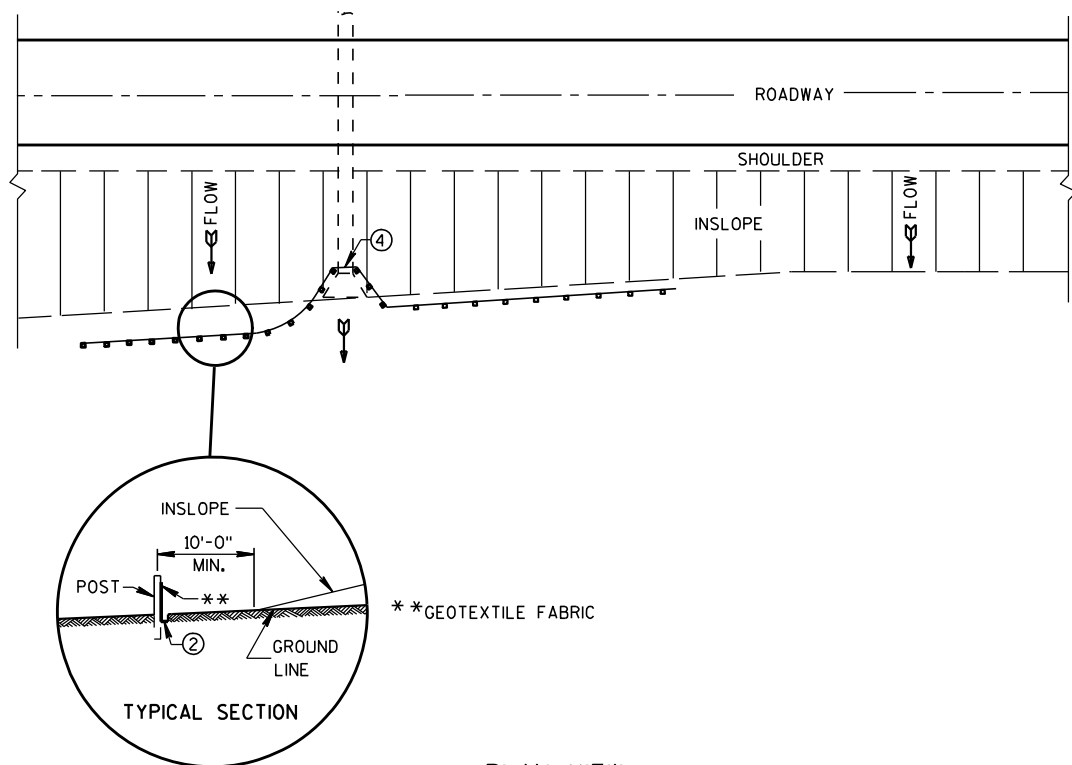
**SECTION A - A
TIE BARS DRILLED INTO EXISTING PAVEMENT**

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

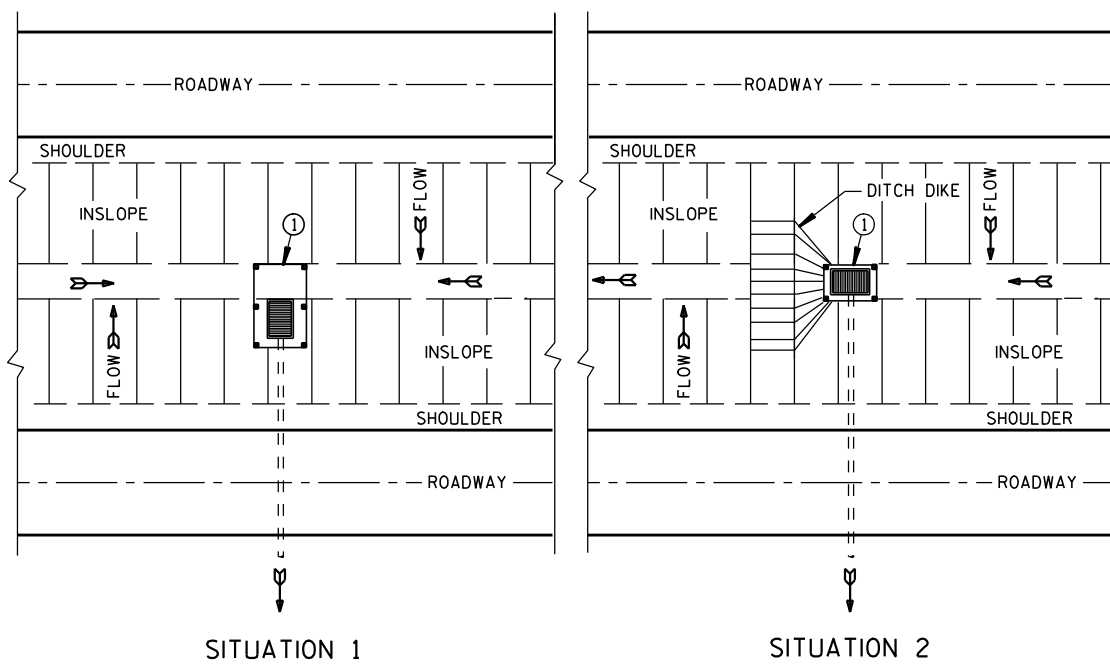
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE May 2023 /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

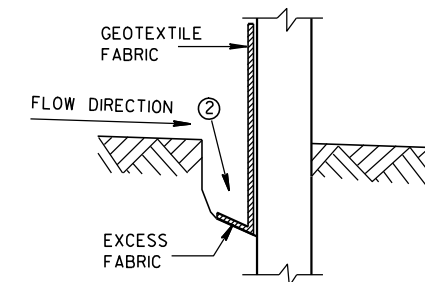


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

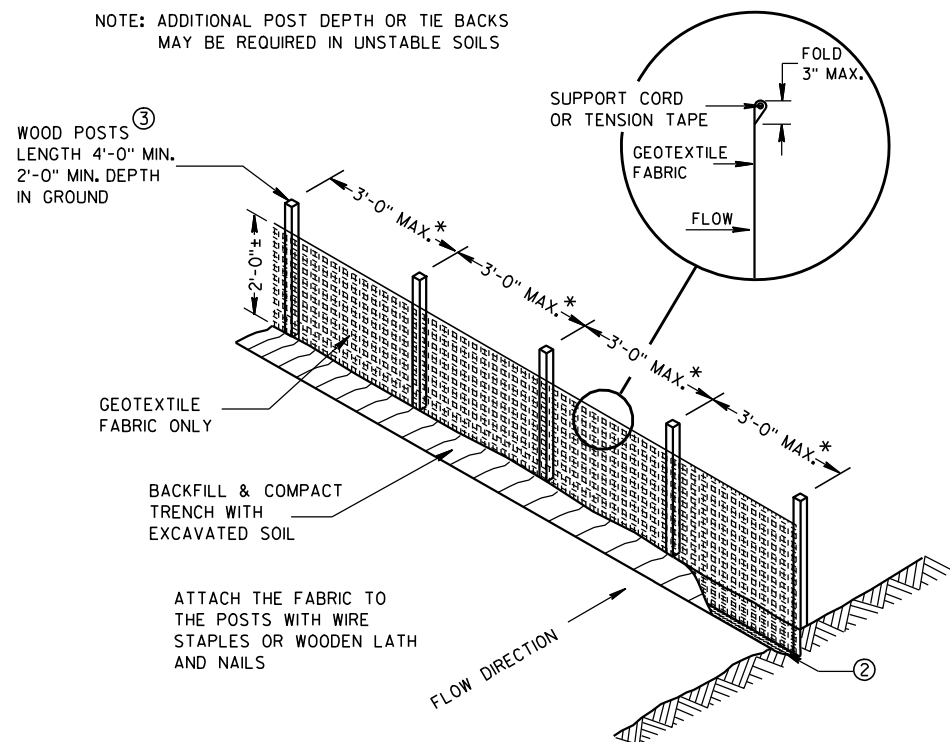
GENERAL NOTES

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

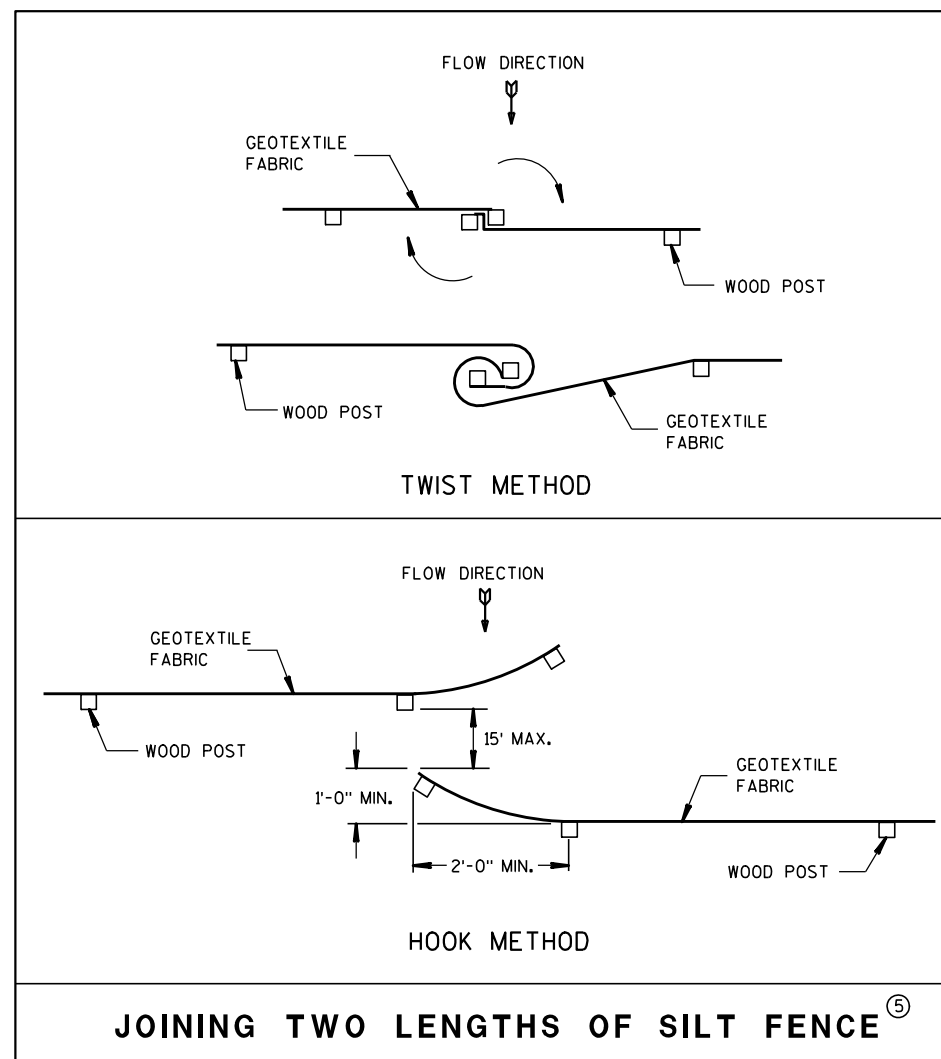
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS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



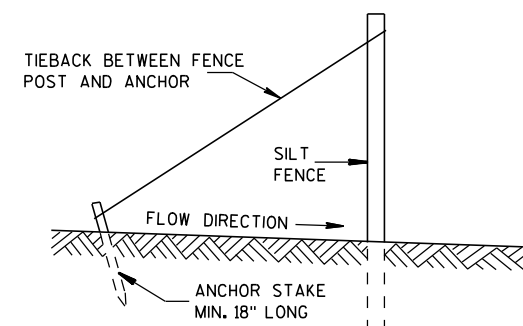
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

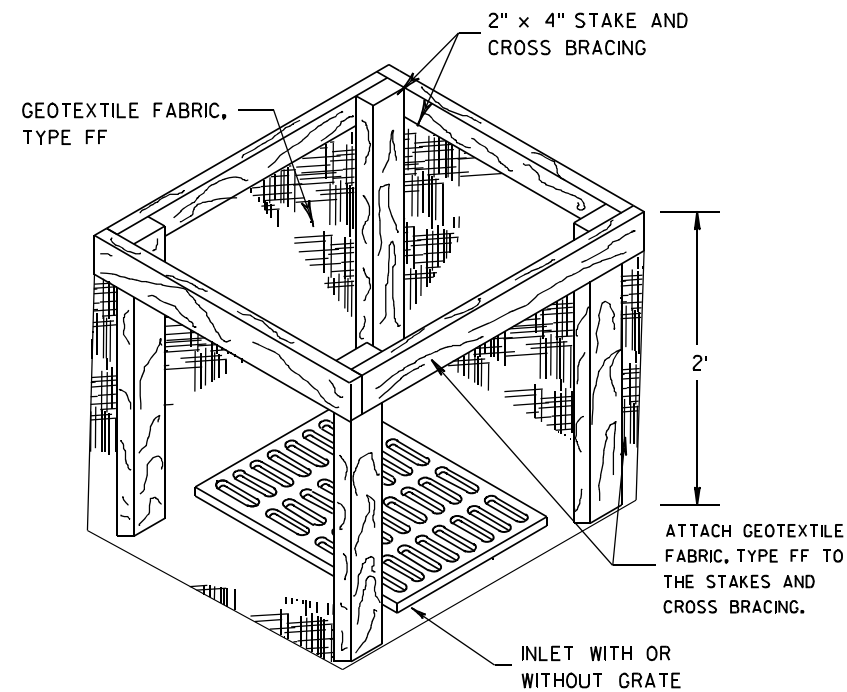
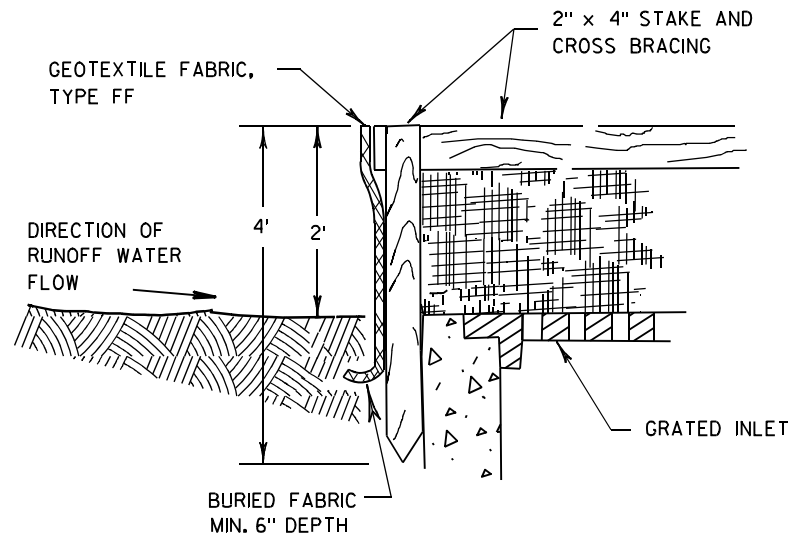


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



INLET PROTECTION, TYPE A

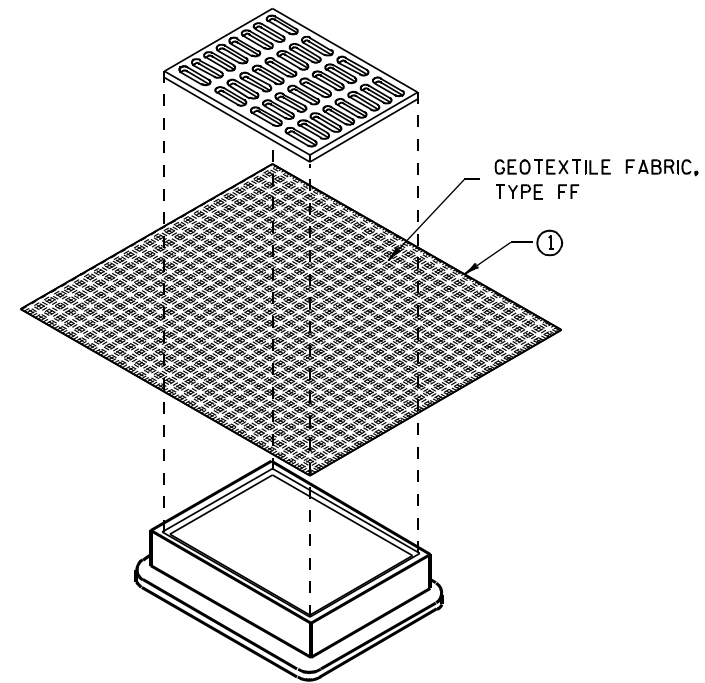
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

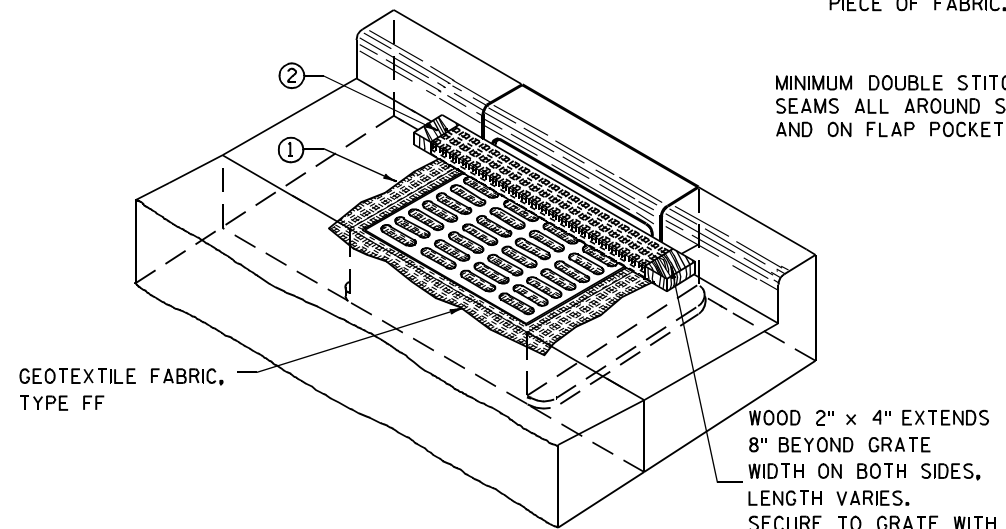
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

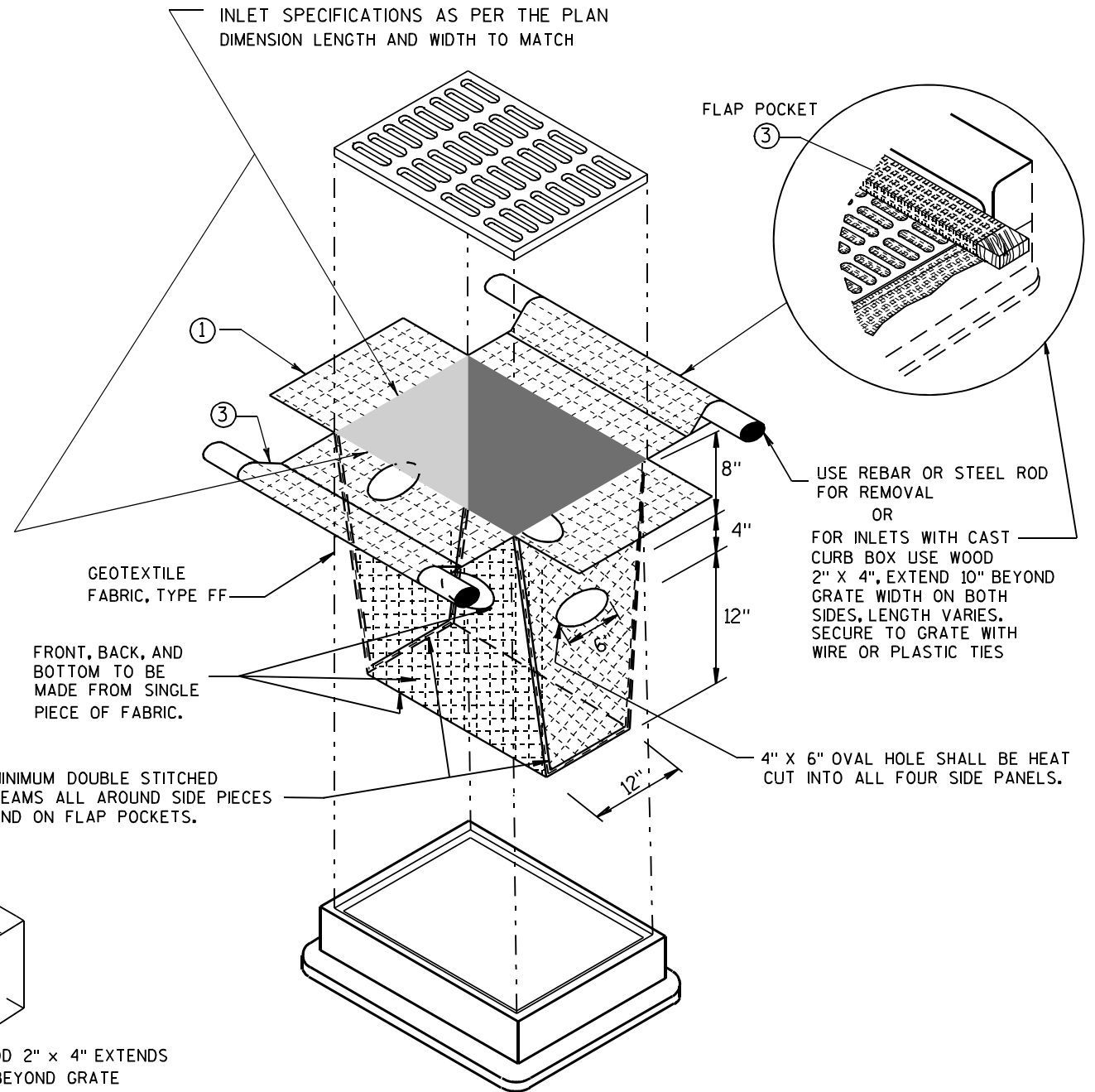
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

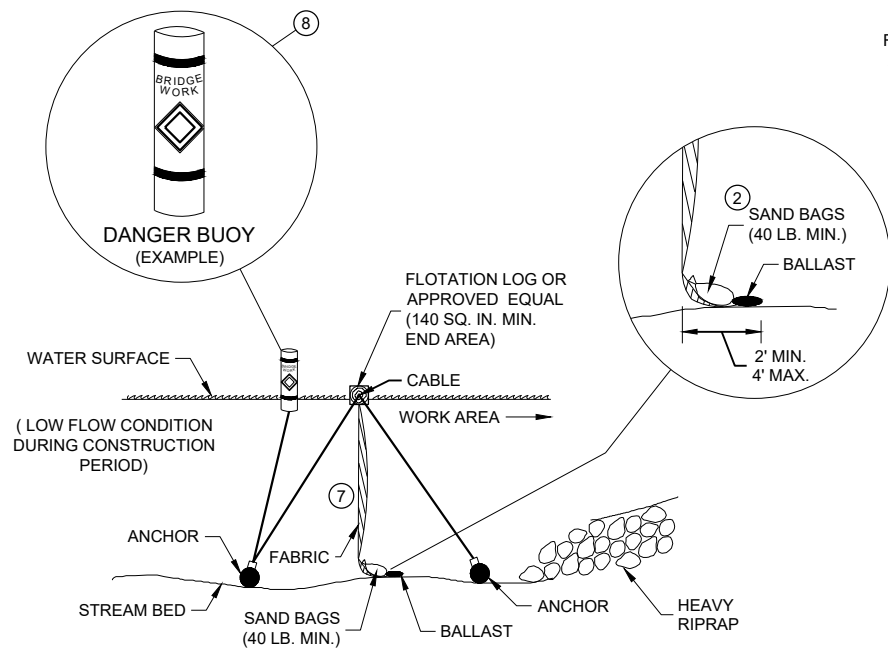
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



INLET PROTECTION, TYPE D

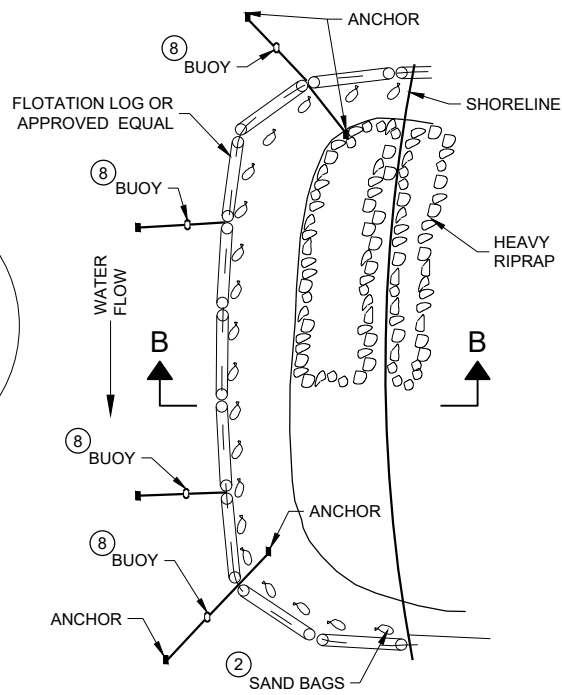
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

INLET PROTECTION TYPE A, B, C, AND D	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/16/02 DATE	/s/ Beth Conestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

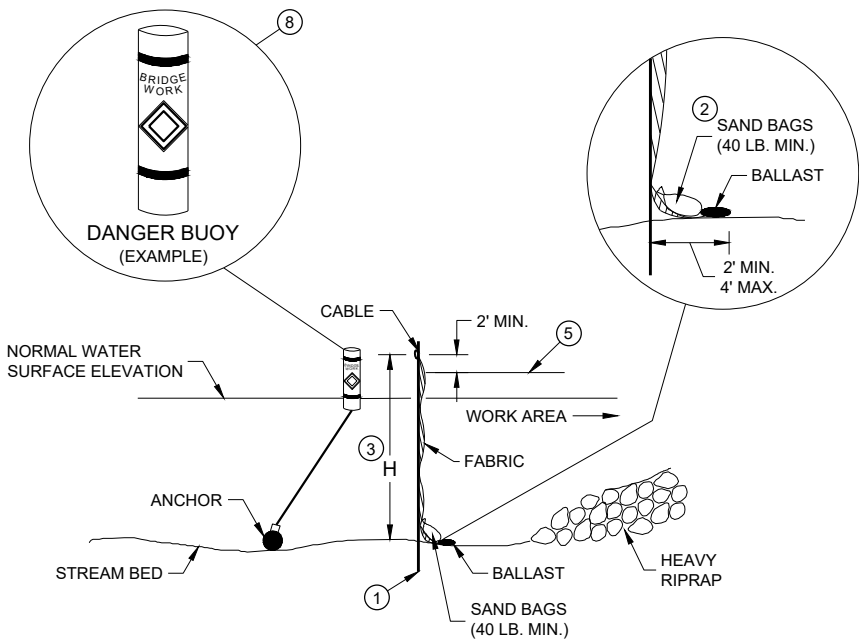


SECTION B - B

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

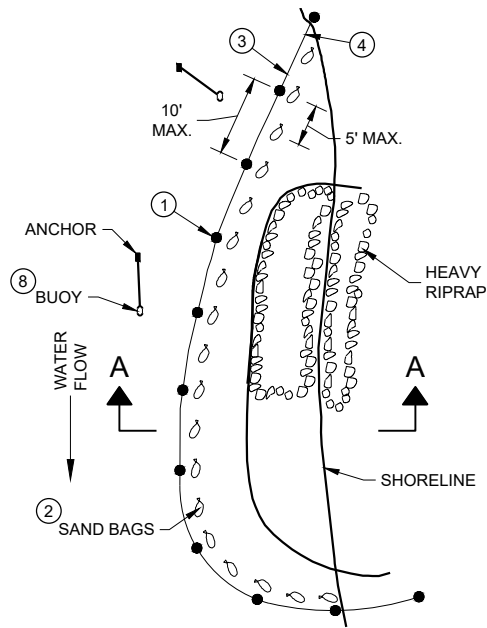


PLAN VIEW



SECTION A - A

TURBIDITY BARRIER - STANDARD POST INSTALLATION



PLAN VIEW

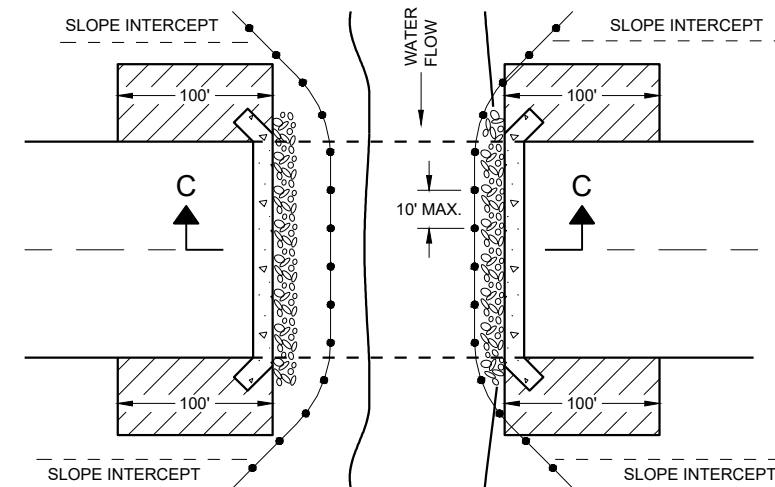
TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

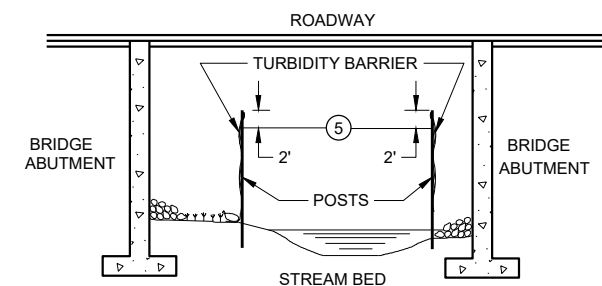
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

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



PLAN VIEW



SECTION C - C

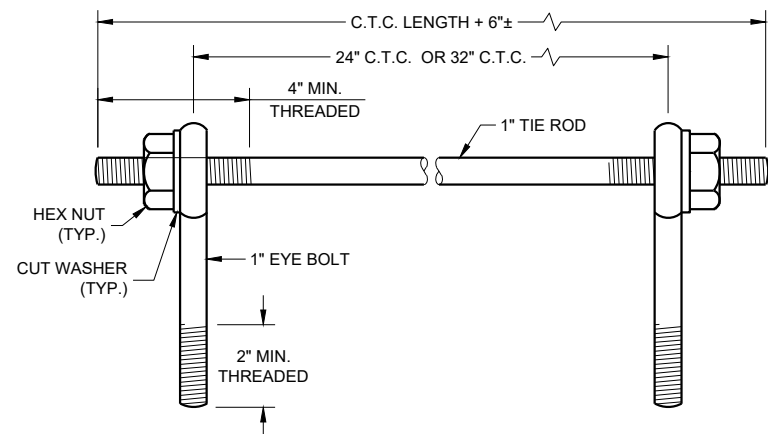
**TURBIDITY BARRIER DETAIL SHOWING
TYPICAL PLACEMENT AT STRUCTURES**

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

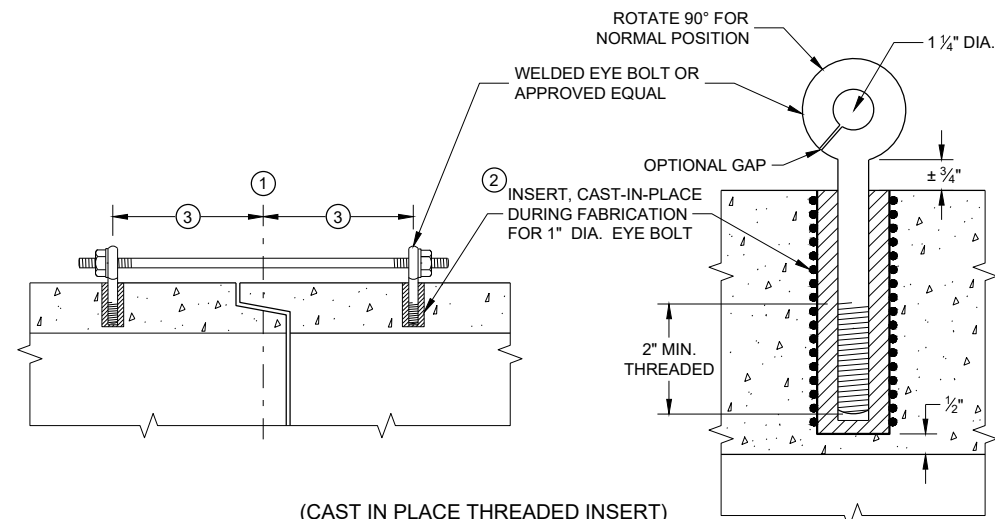
APPROVED
6/4/02 DATE /S/ Beth Cannestra
DATE CHIEF ROADWAY DEVELOPMENT
ENGINEER

FHWA



EYE BOLTS AND TIE ROD

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)



(CAST IN PLACE THREADED INSERT)
LONGITUDINAL SECTIONS

GENERAL NOTES

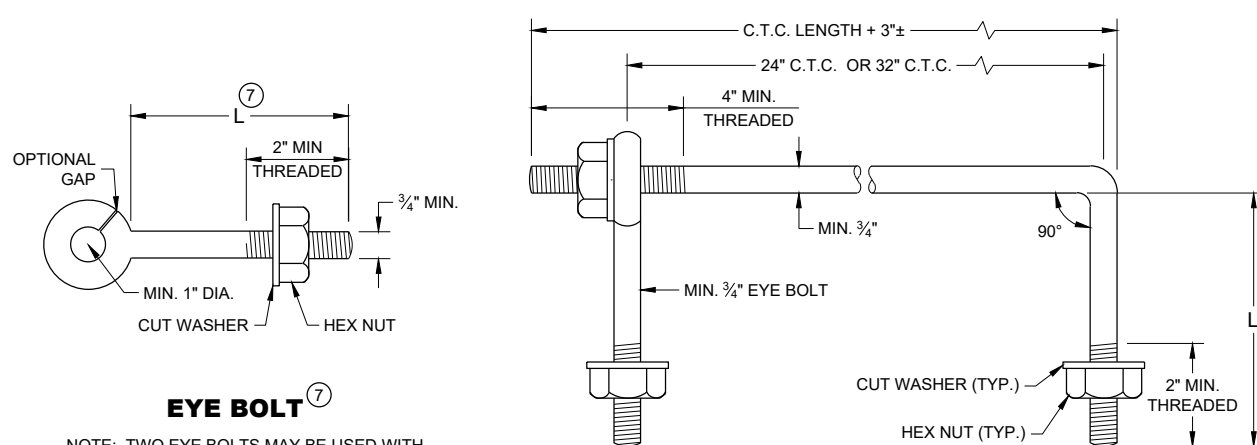
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

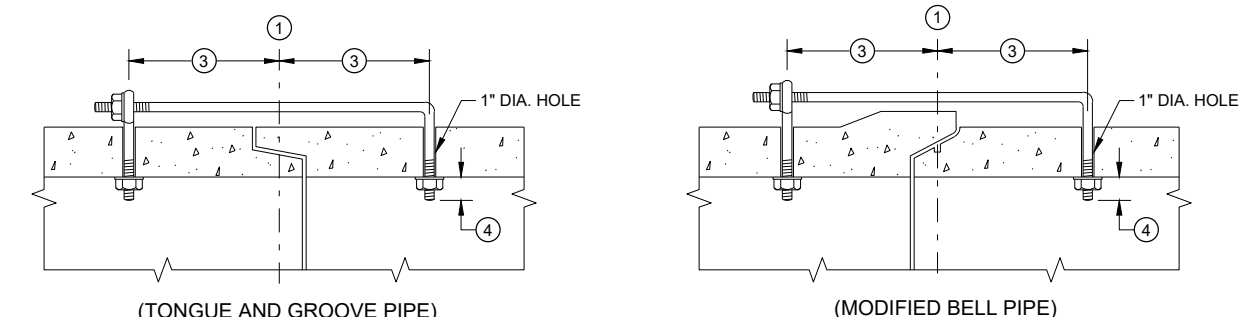
- ① CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- ⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- ⑦ EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.



EYE BOLT AND TIE ROD

EYE BOLT ⑦

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



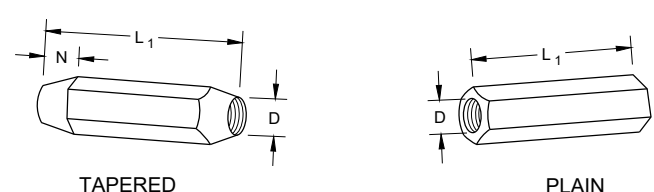
LONGITUDINAL SECTION
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

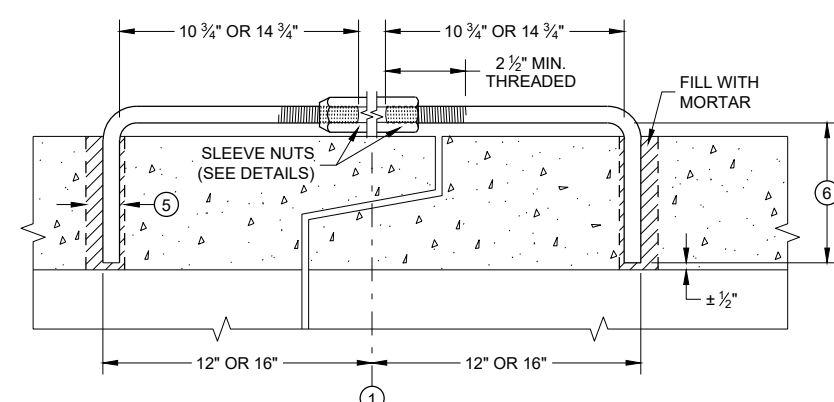
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 7/16

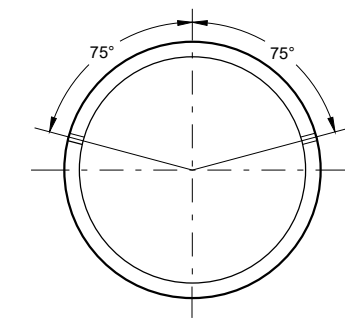
DIMENSIONS SHOWN ARE IN INCHES



RIGHT AND LEFT THREADS SLEEVE NUTS

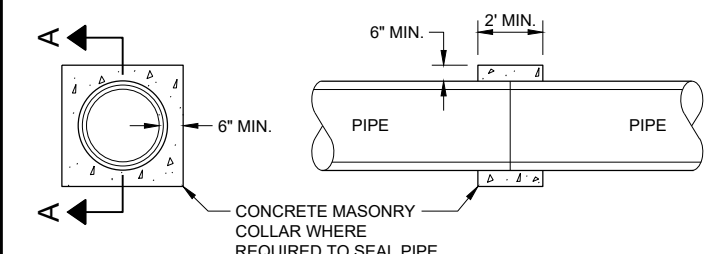


LONGITUDINAL SECTION
ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



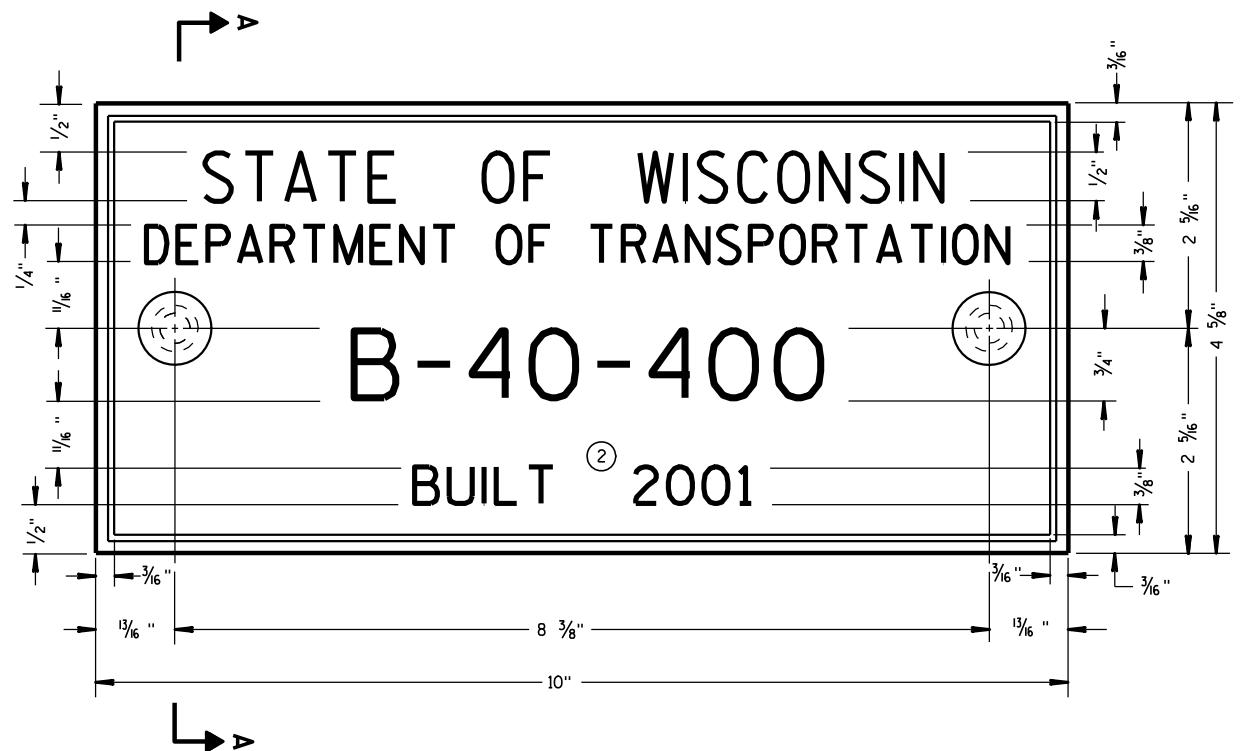
SECTION A - A
CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER

FHWA



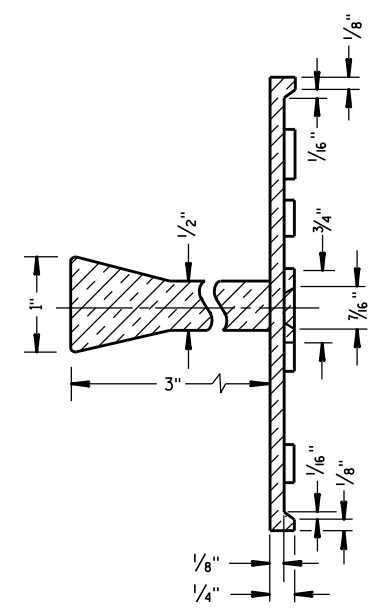
TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

GENERAL NOTES

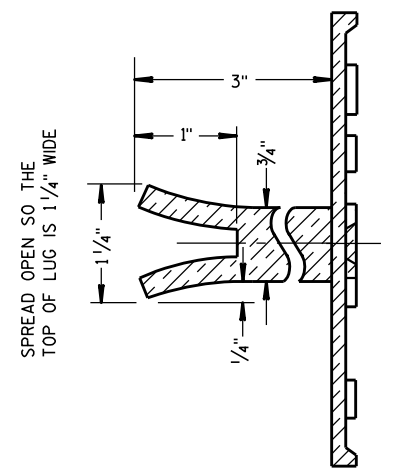
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

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



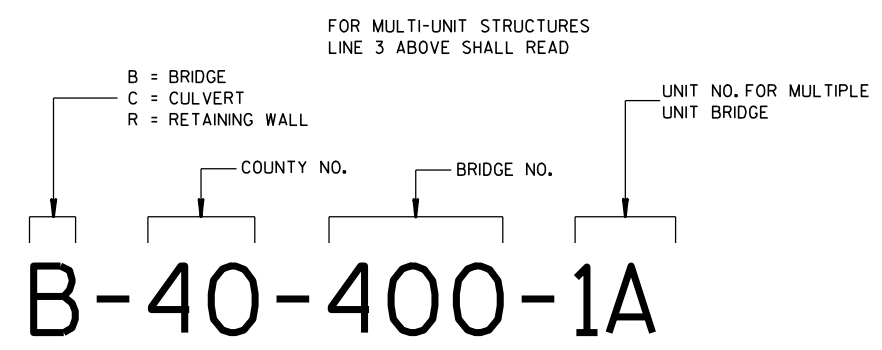
SECTION A-A



ALTERNATE LUG

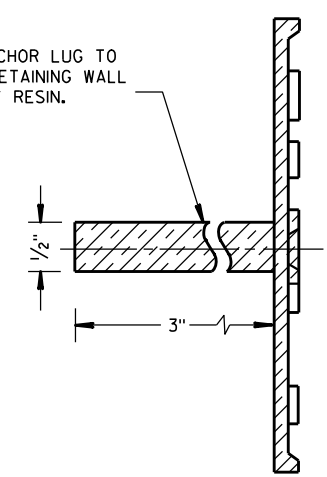
6

6



**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

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

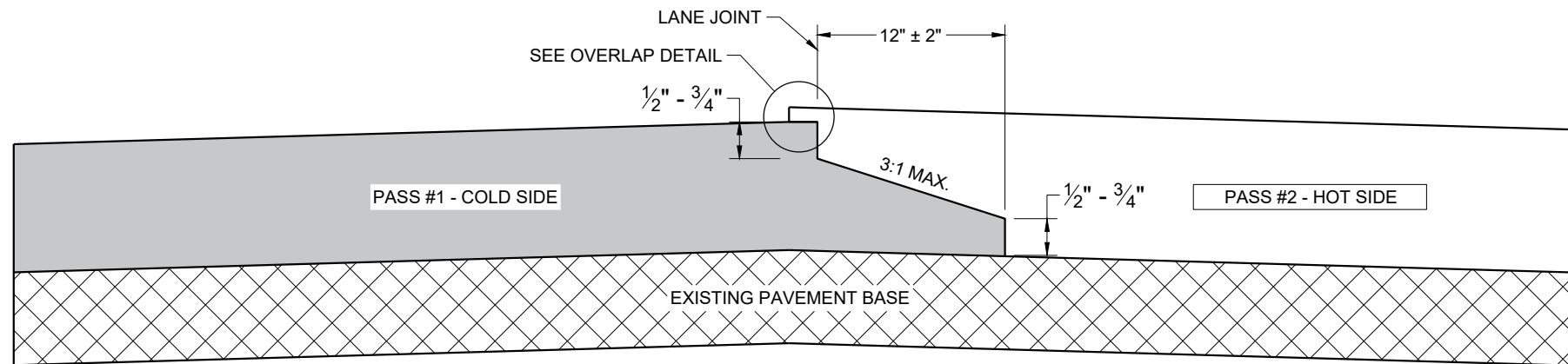


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

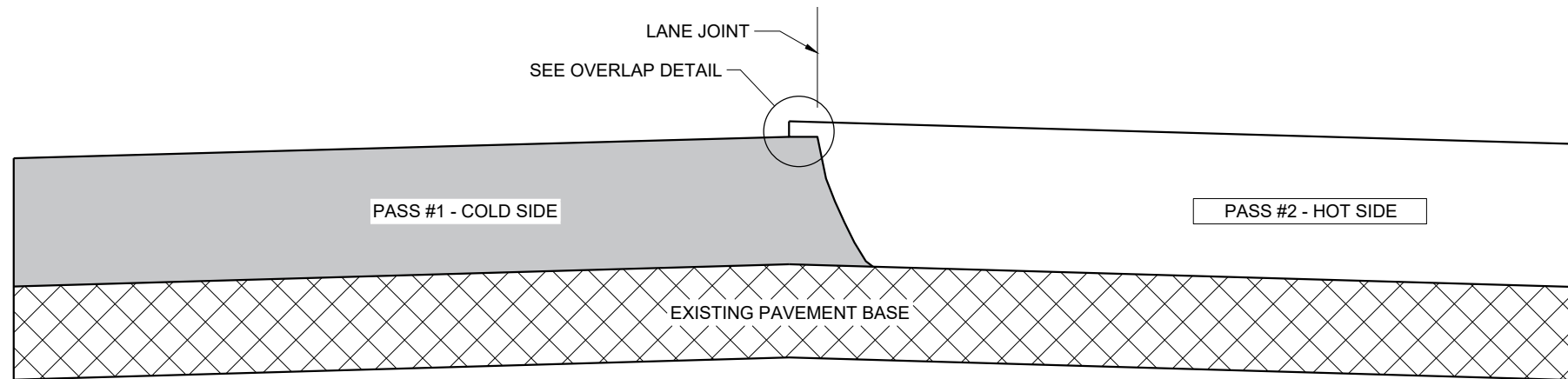
S.D.D. 12 A 3-10

S.D.D. 12 A 3-10

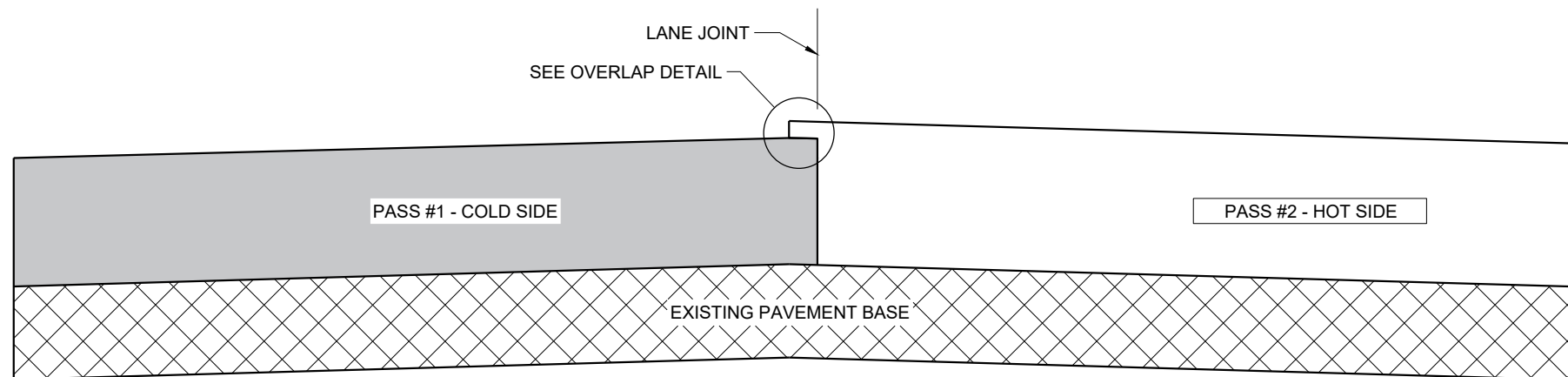
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 3/26/10	/S/ Scot Becker CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA	



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



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

GENERAL NOTES

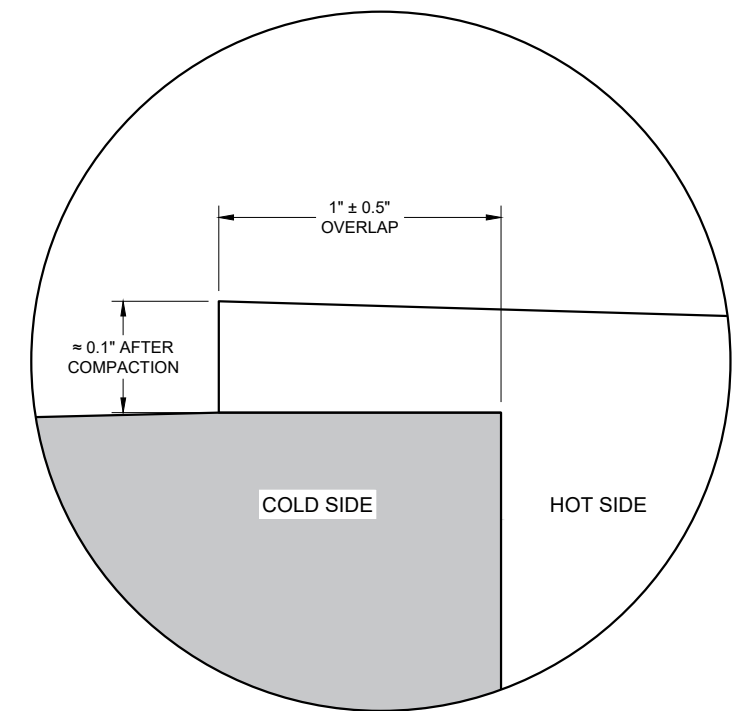
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

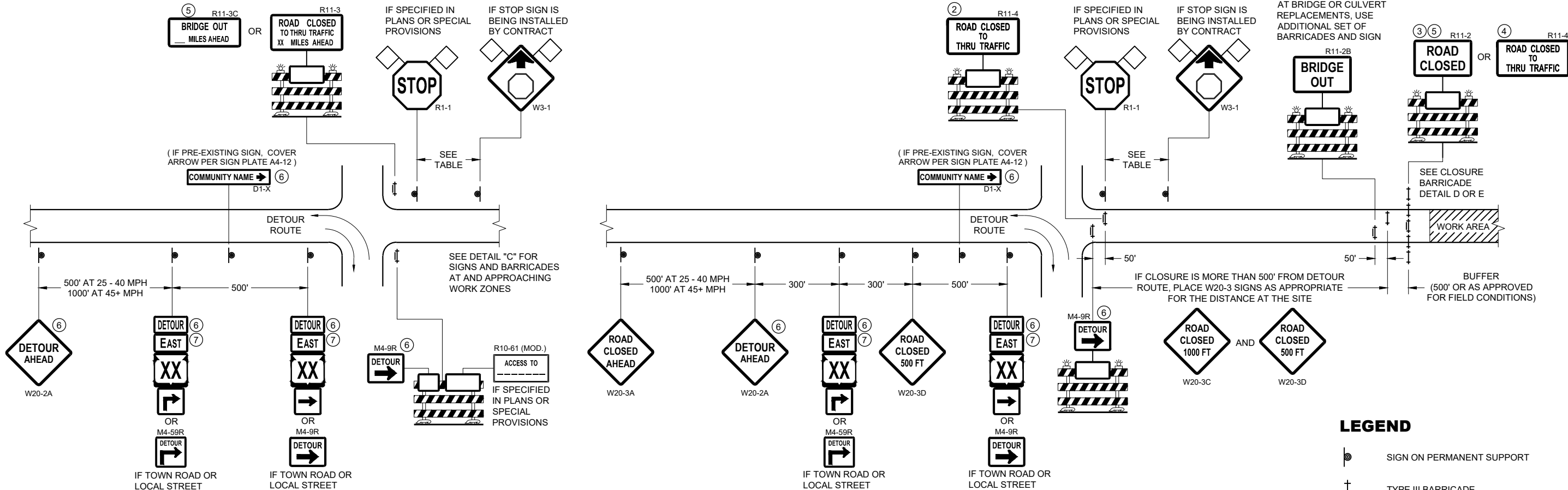
SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

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

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

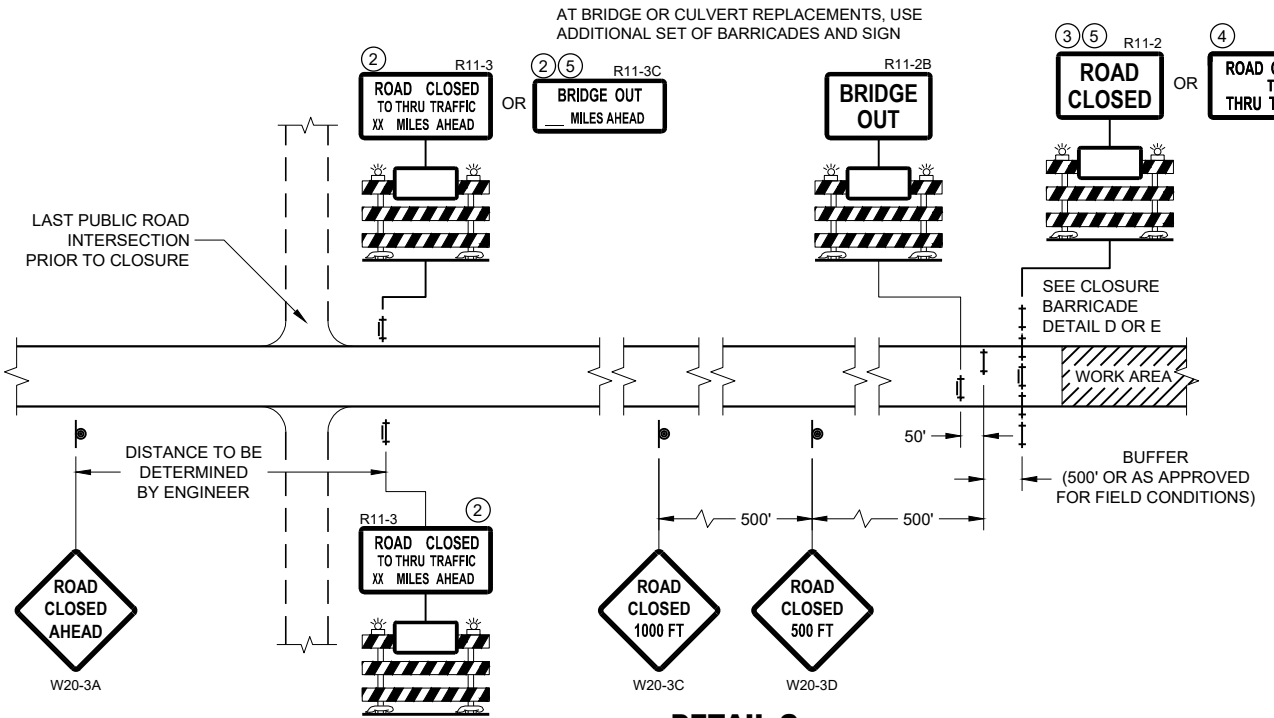
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

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

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

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



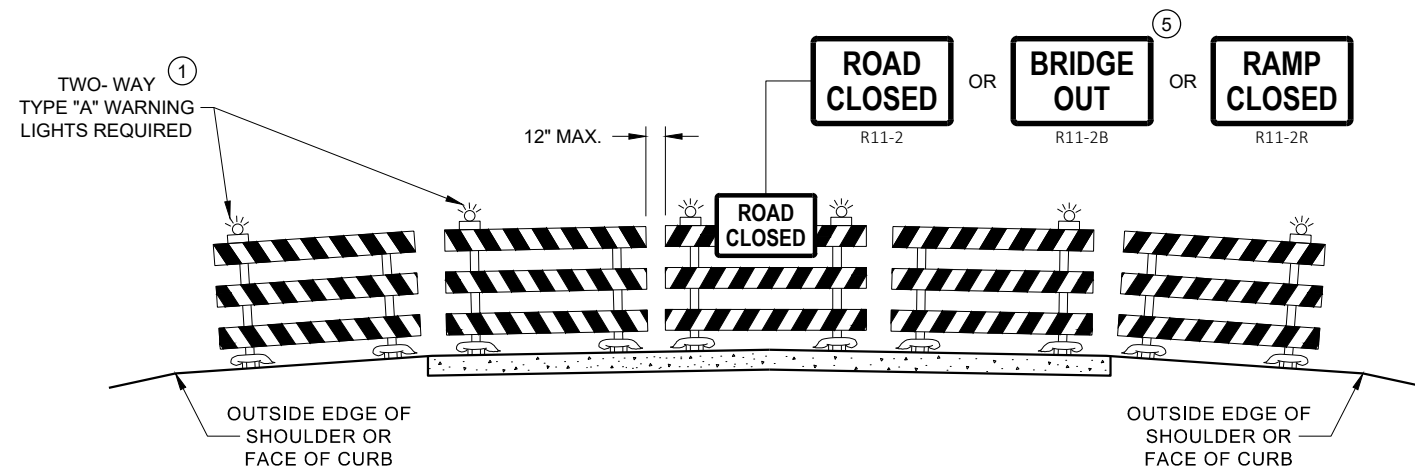
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

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

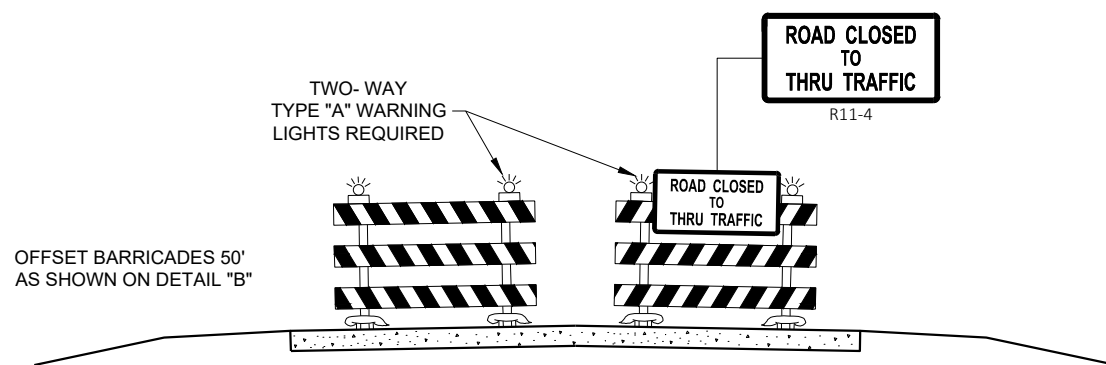
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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



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

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

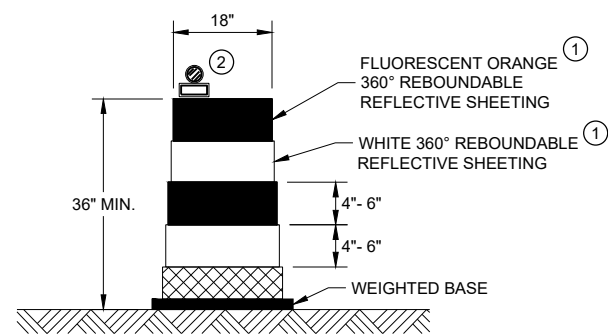
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24"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

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

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

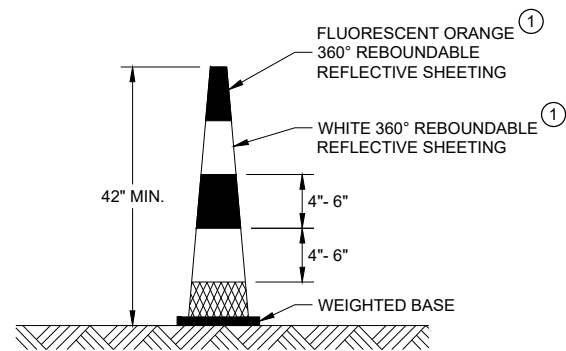
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



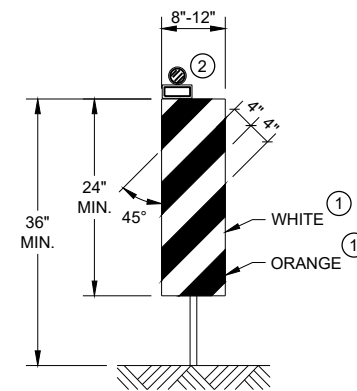
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"

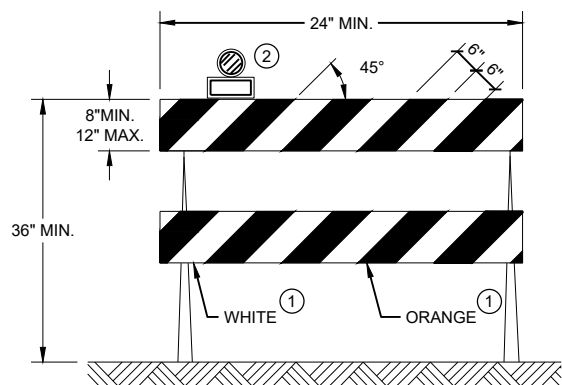


VERTICAL PANEL

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

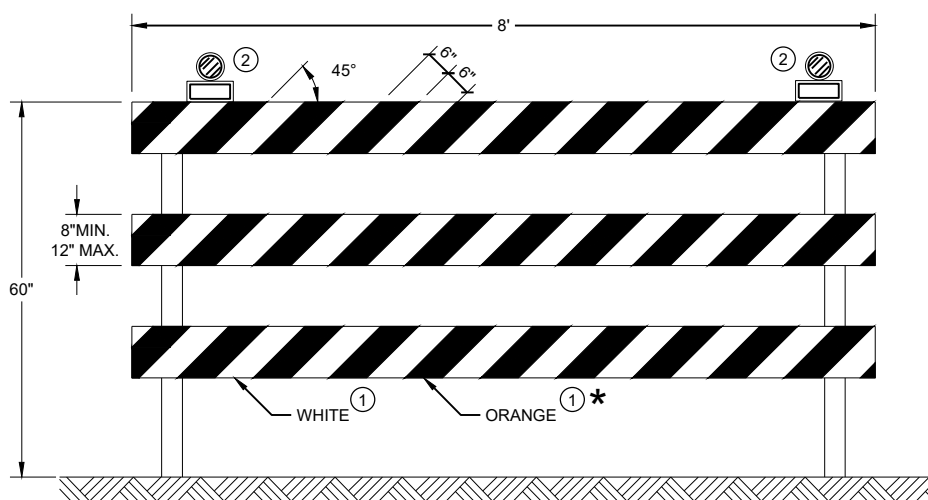
GENERAL NOTES

- 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.



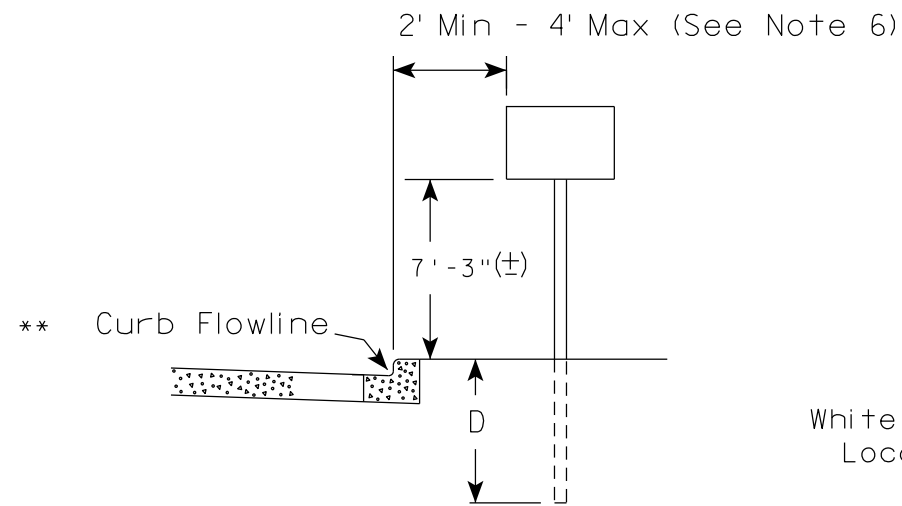
TYPE III BARRICADE

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

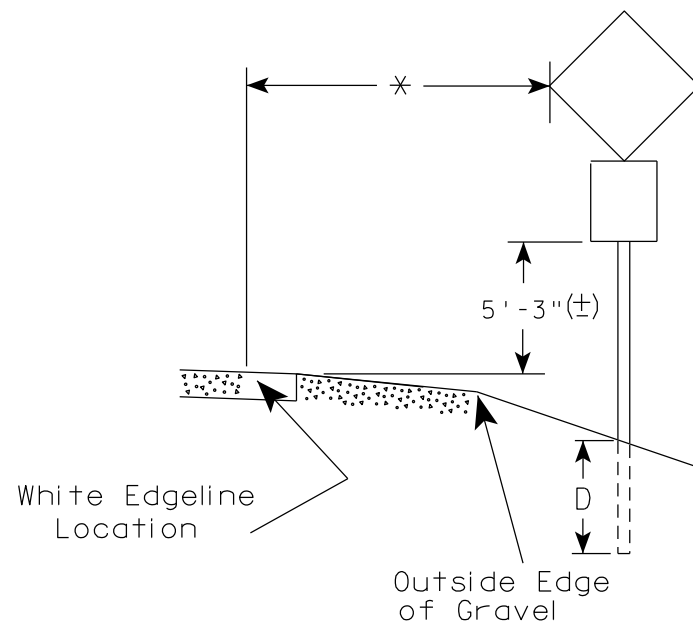
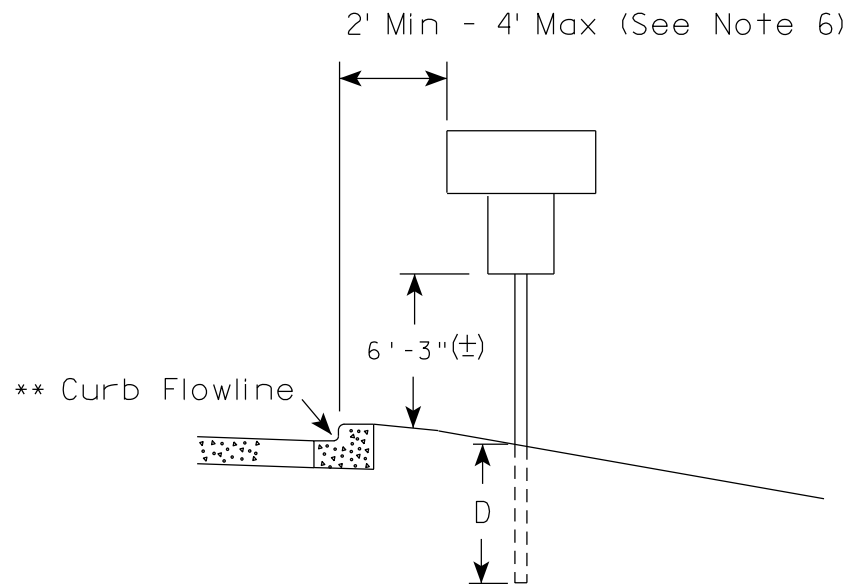
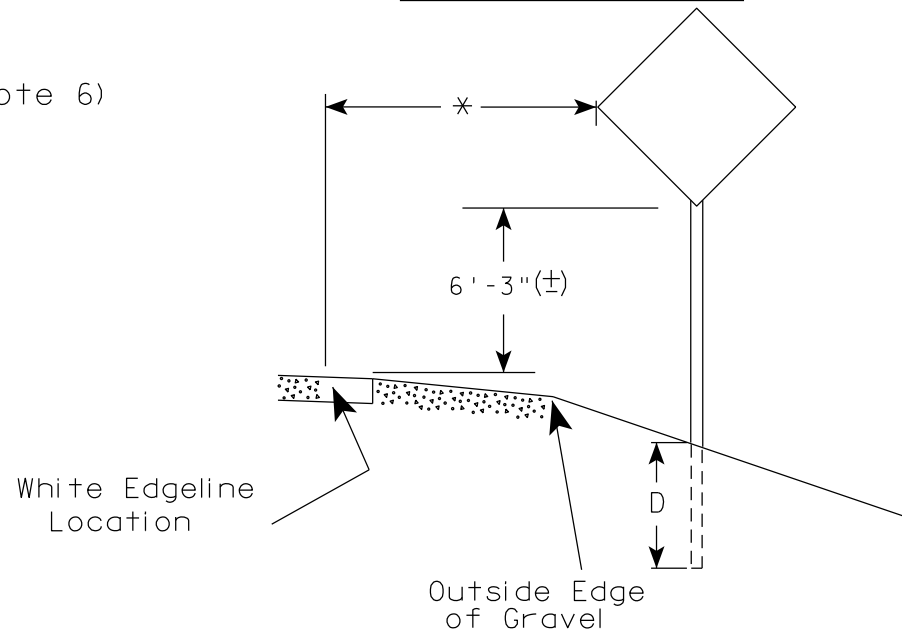
* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

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

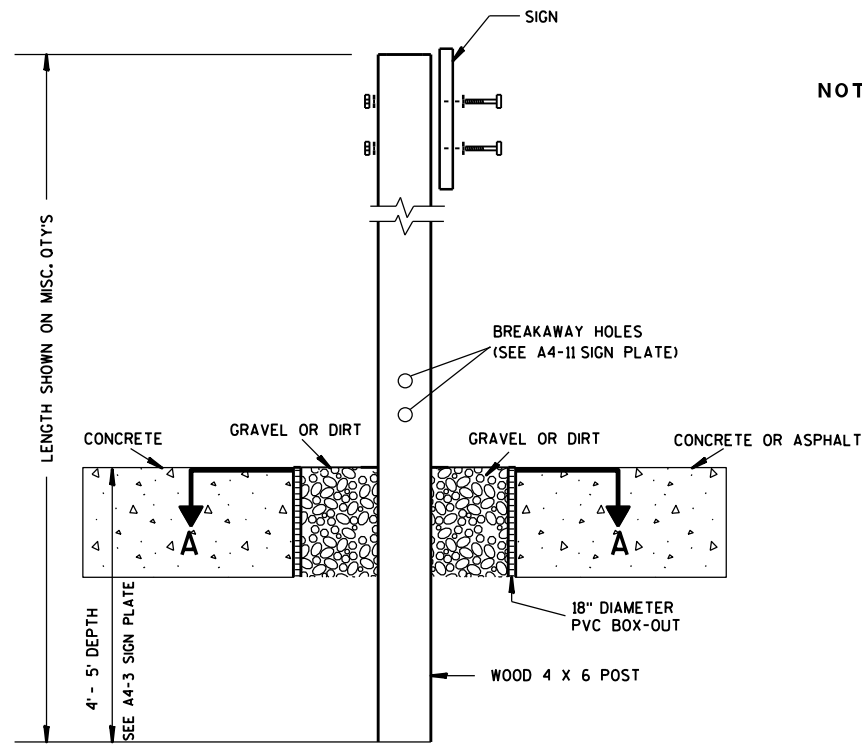
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

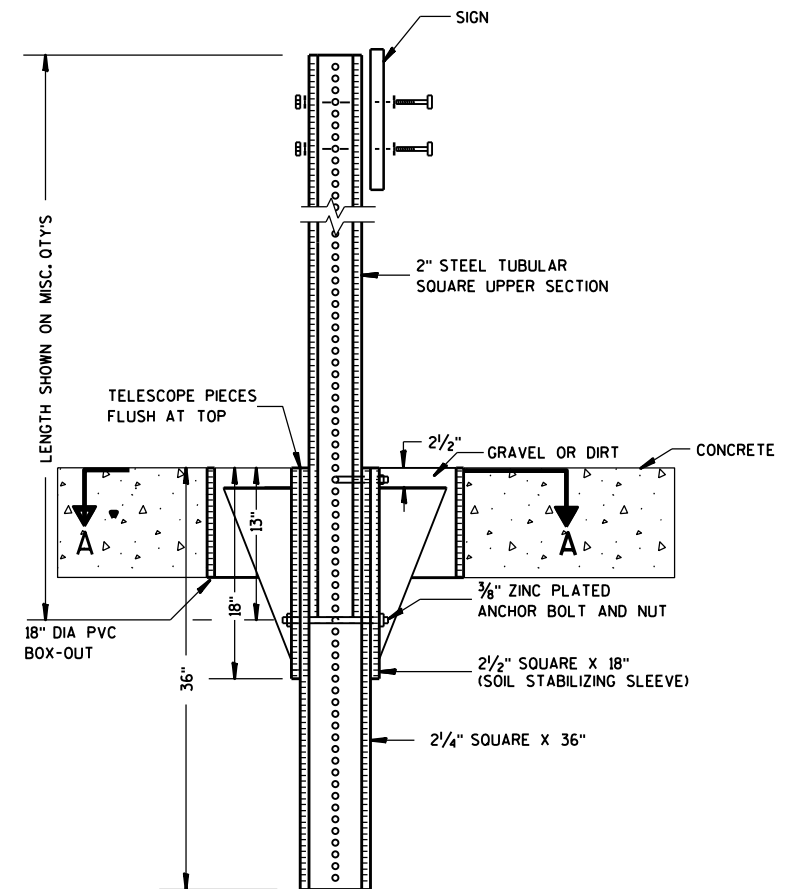
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

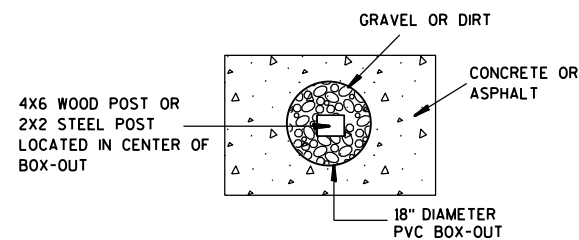
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

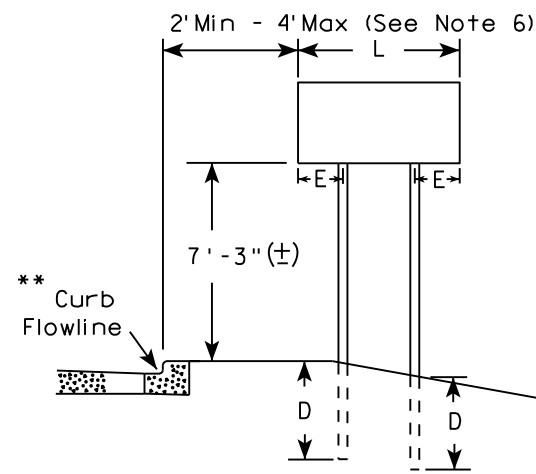
FOR NEW CONCRETE/ASPHALT INSTALLATIONS

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

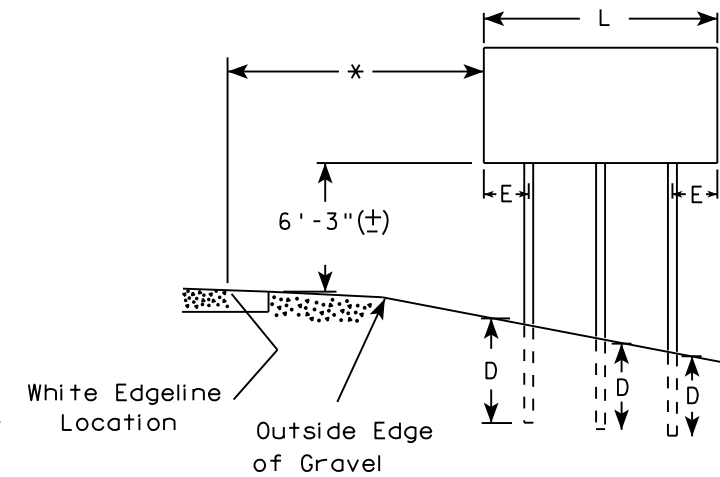
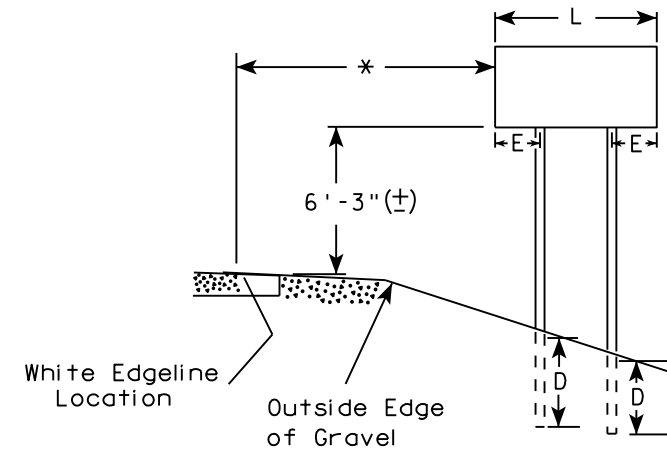
GENERAL NOTES

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

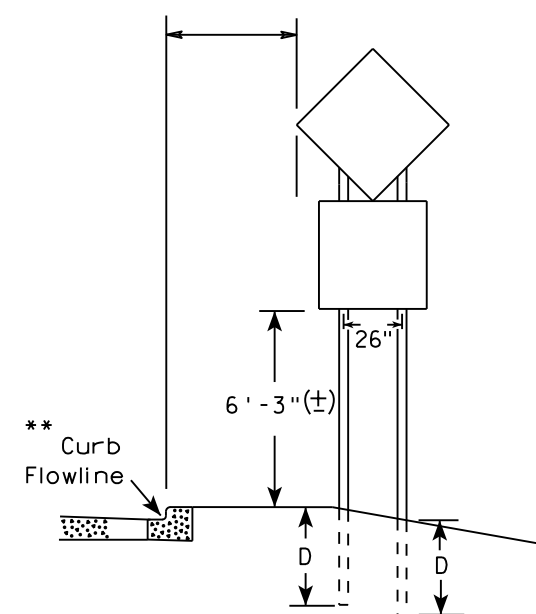
URBAN AREA



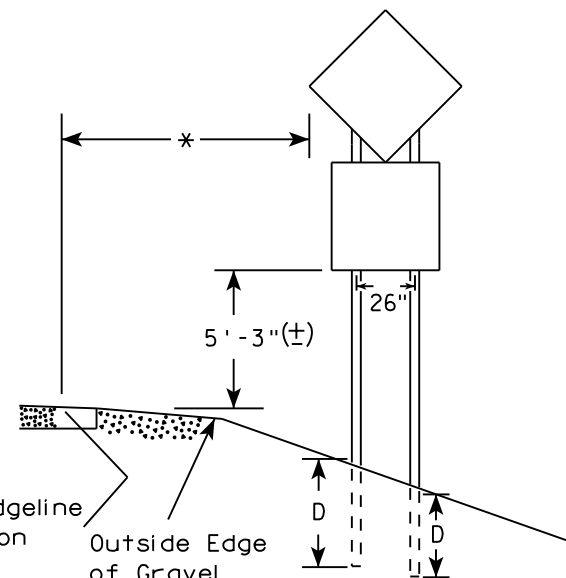
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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

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

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

POST EMBEDMENT DEPTH

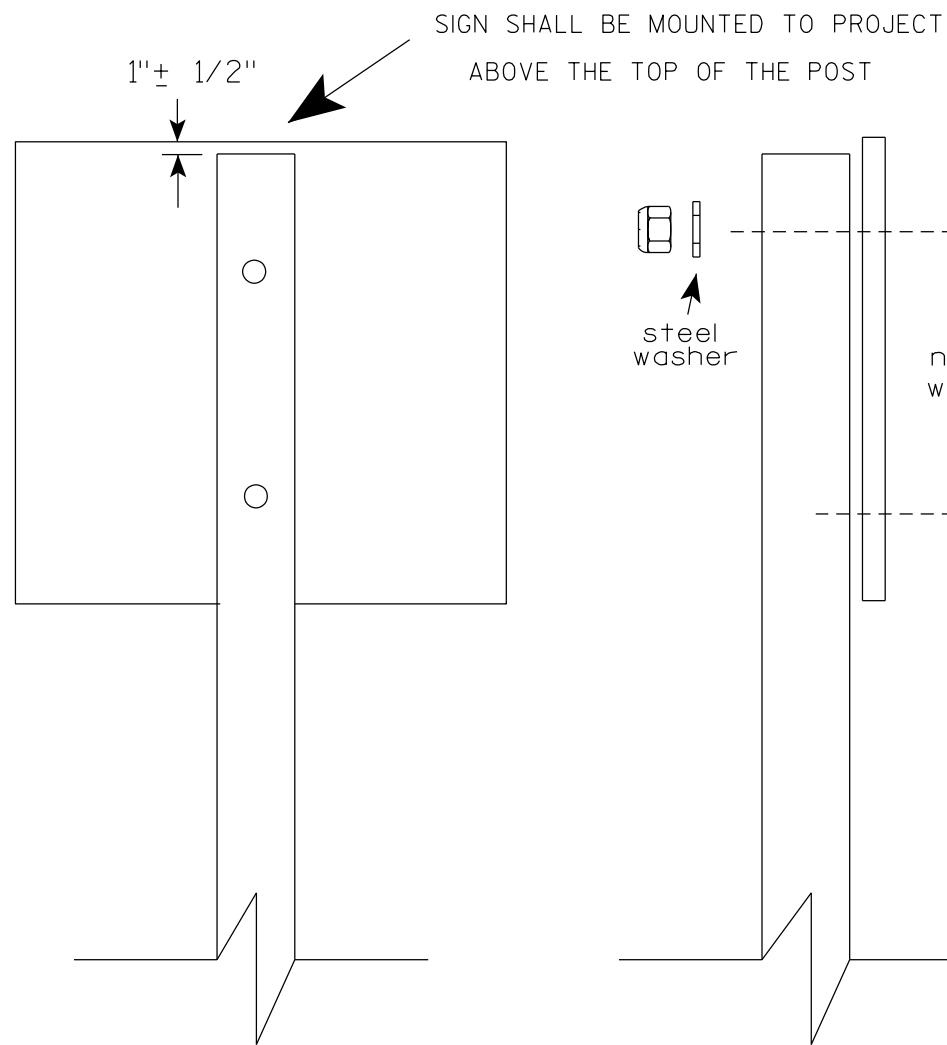
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

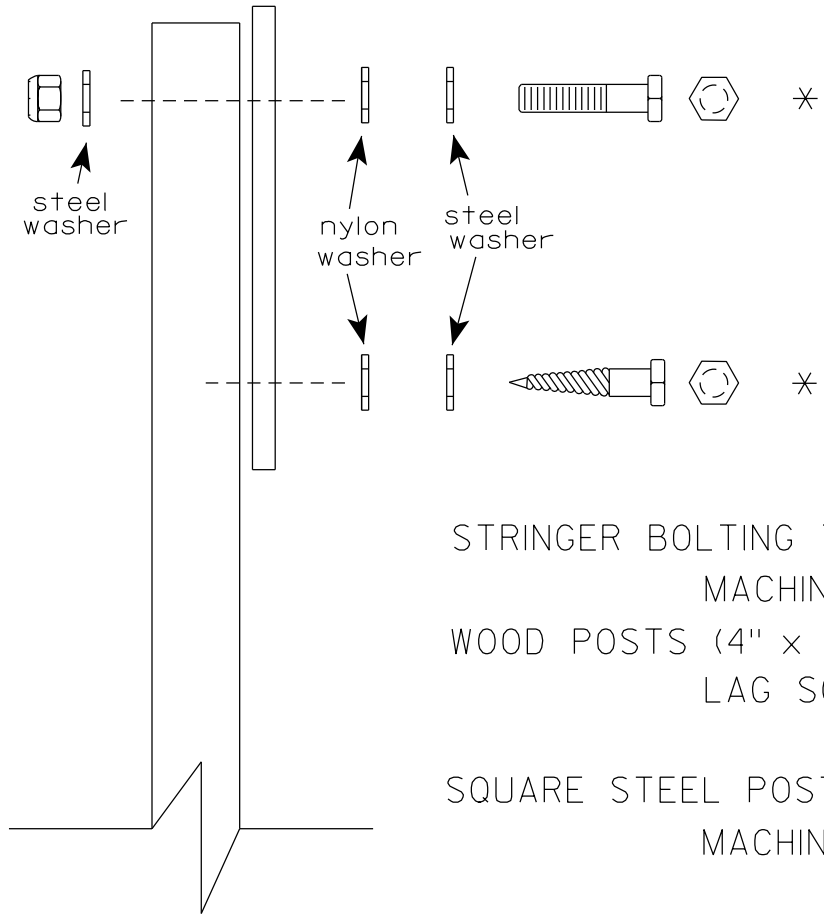
DATE 8/21/17 PLATE NO. A4-4.15



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

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

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



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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

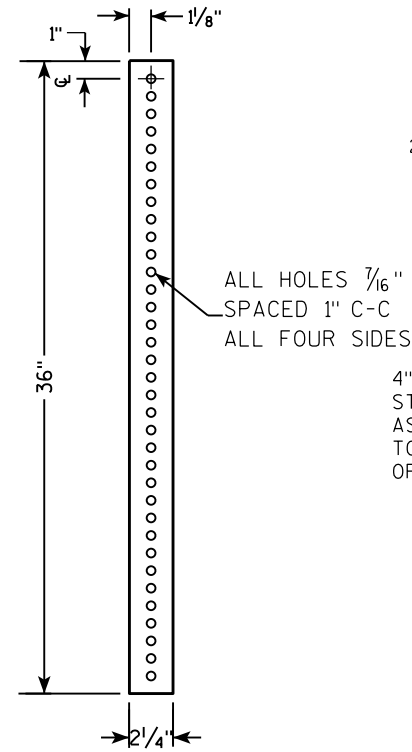
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

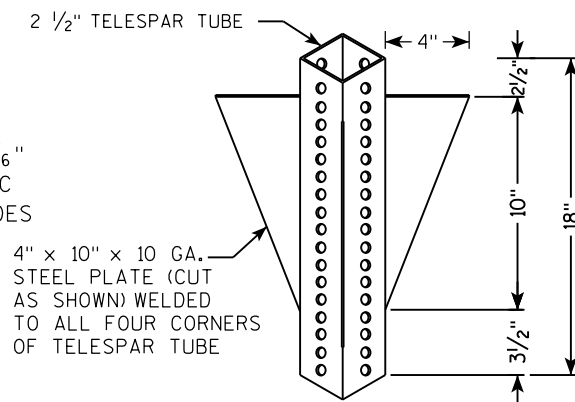
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

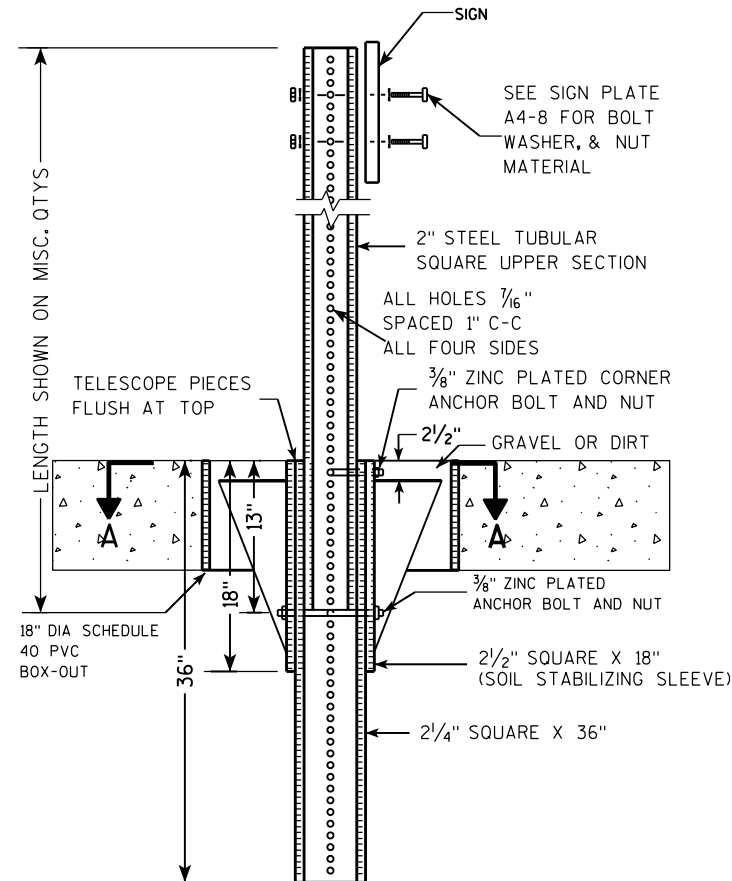
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



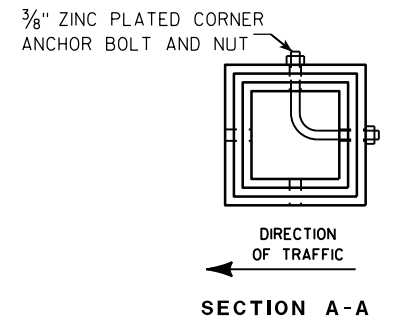
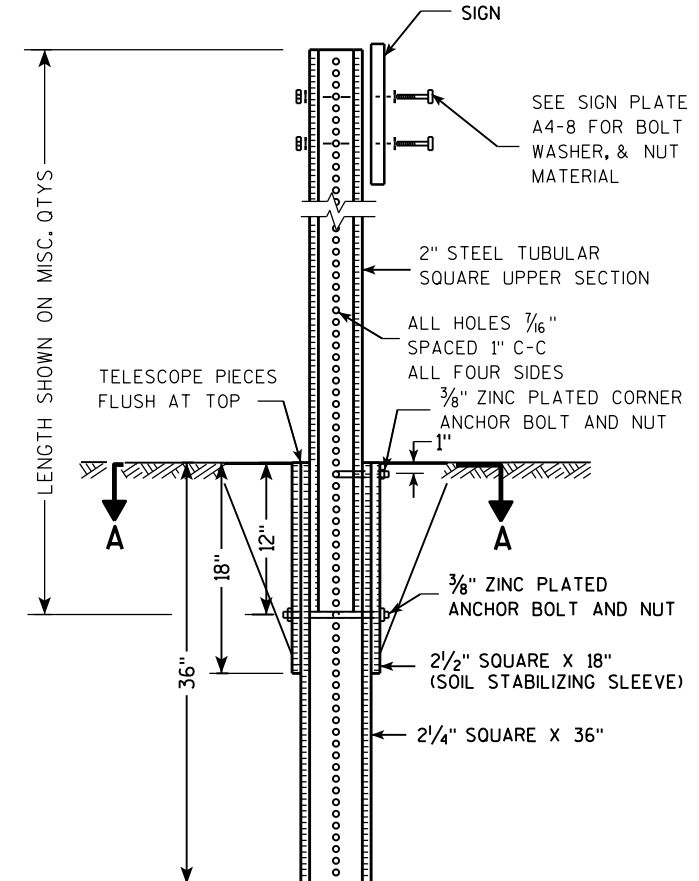
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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



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

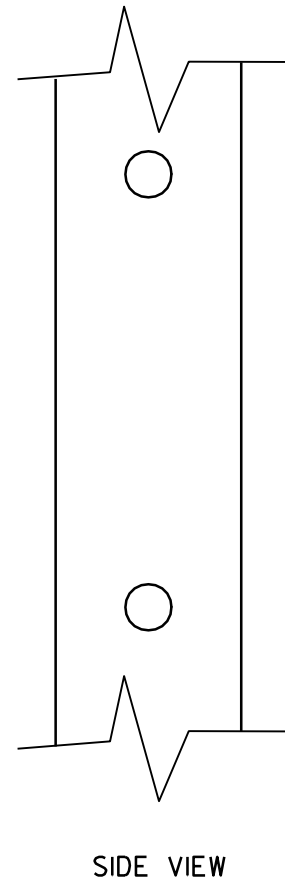
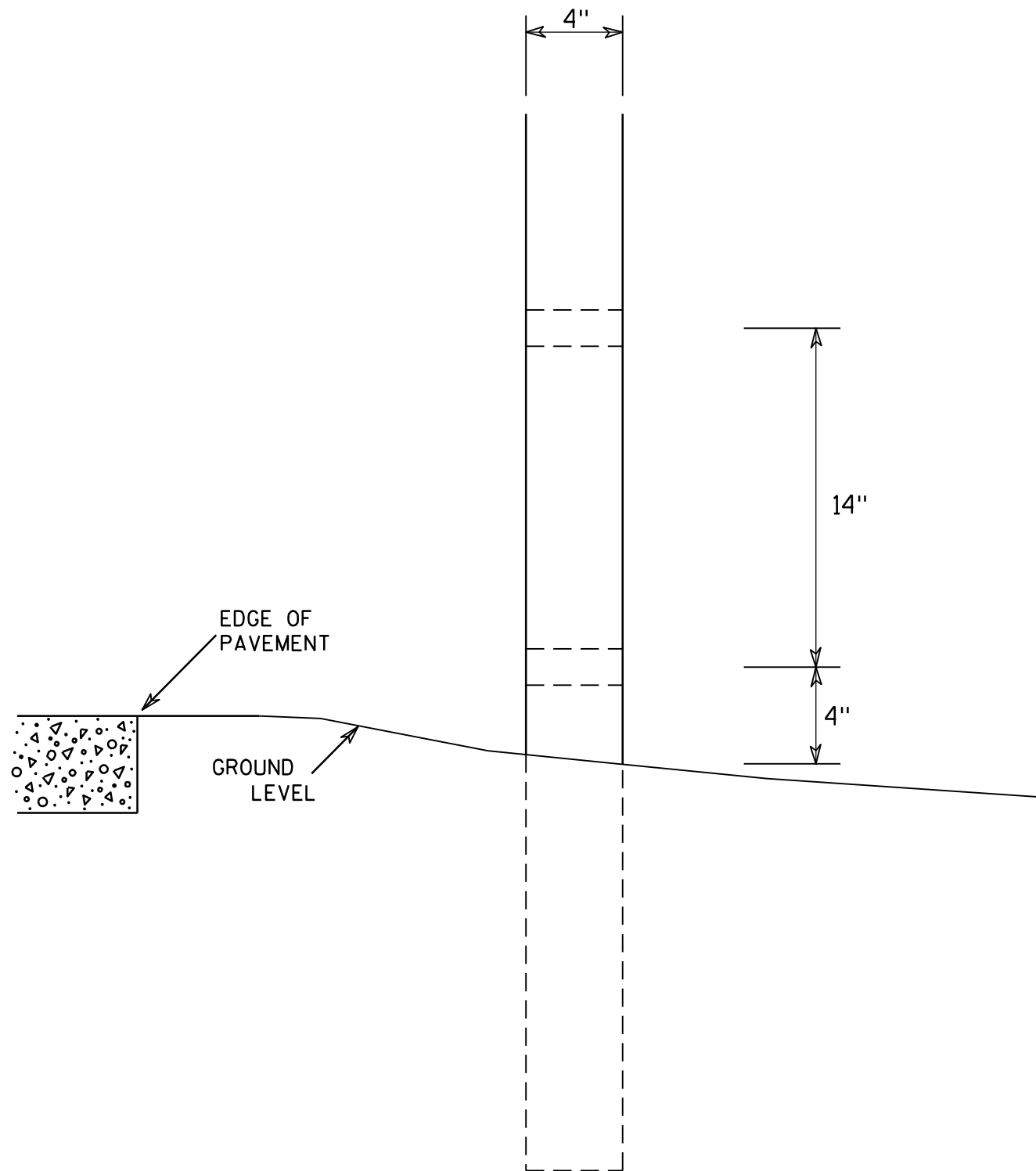
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



GENERAL NOTES

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

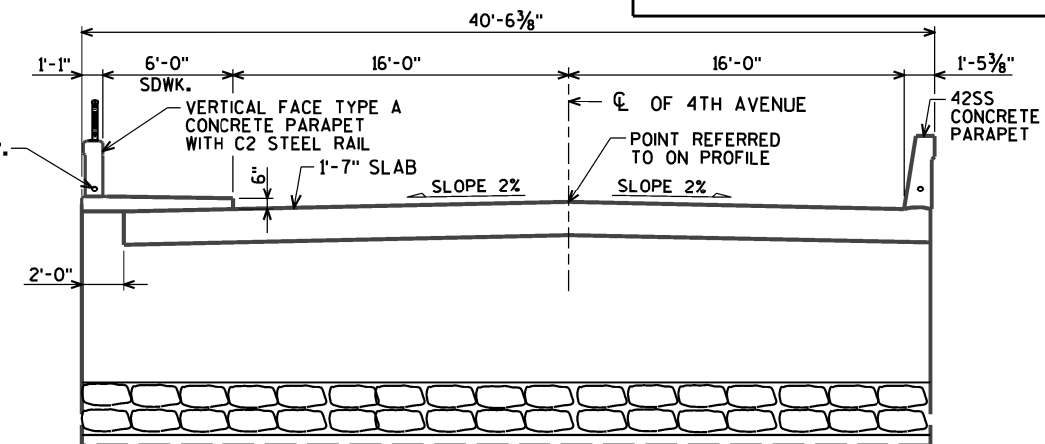
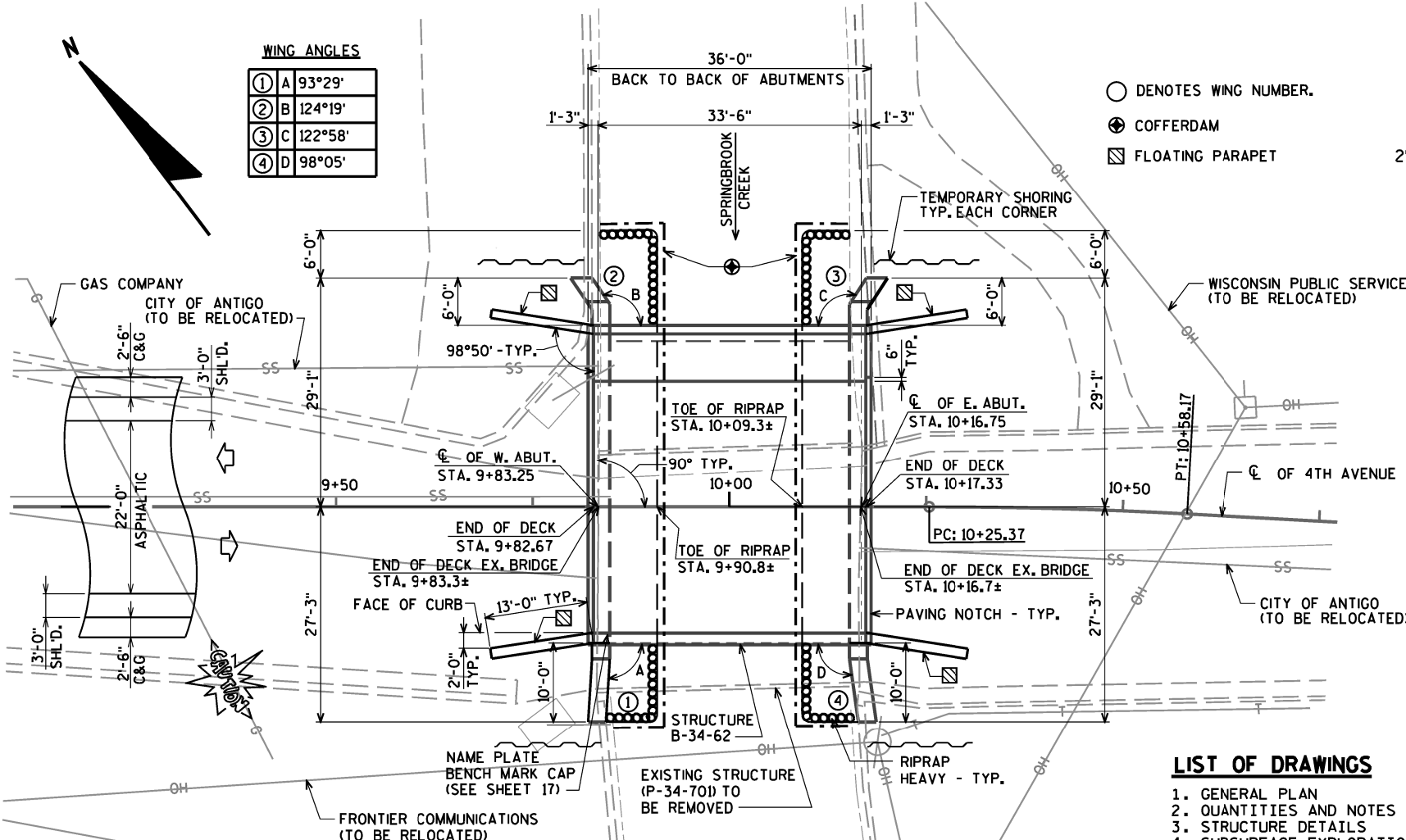
7

7

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

WING ANGLES

1	A	93°29'
2	B	124°19'
3	C	122°58'
4	D	98°05'



DESIGN DATA

LIVE LOAD:
 DESIGN LOADING: HL-93
 INVENTORY RATING FACTOR: 1.06
 OPERATING RATING FACTOR: 1.38
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

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

MATERIAL PROPERTIES:

CONCRETE MASONRY { SUPERSTRUCTURE f'c = 4,000 p.s.i.
 ALL OTHER f'c = 3,500 p.s.i.
 HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) fy = 60,000 p.s.i.

HYDRAULIC DATA:

100 YEAR FREQUENCY
 O₁₀₀ = 2,460 c.f.s. { STRUCTURE = 2,169 c.f.s.
 ROADWAY OVERFLOW = 291 c.f.s.

2 YEAR FREQUENCY
 O₂ = 800 c.f.s.
 VEL. = 4.66 f.p.s.
 HW₂ = EL. 1486.18

ROAD OVERTOPPING FREQUENCY
 FREQUENCY = 30 YEARS
 O₂₃ = 1,700 c.f.s.
 HW₂₃ = EL. 1488.9

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ± PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 55'-0" FOR WEST ABUT. & 60'-0" FOR EAST ABUT.

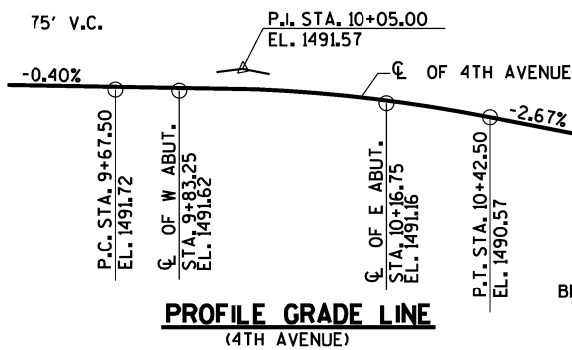
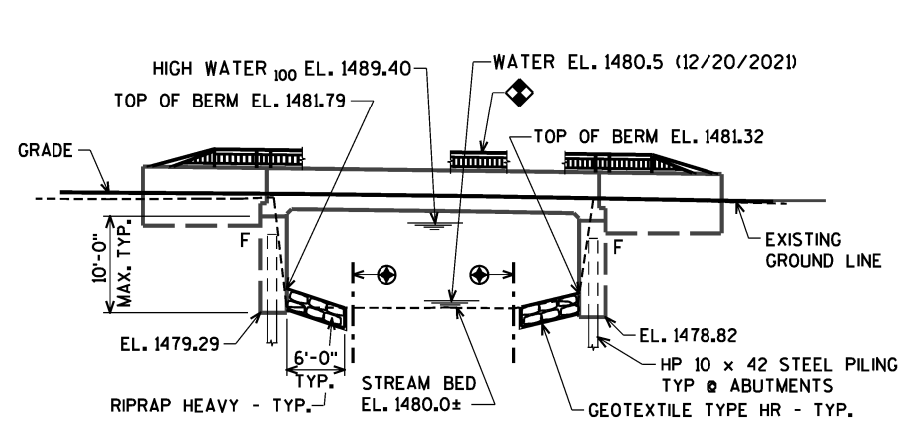
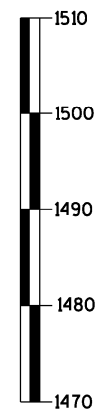
*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

A.A.D.T. = 1,340 (2024)
 A.A.D.T. = 1,394 (2044)
 R.D.S. = 25 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN
2. 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 BILL OF BARS
9. EAST ABUTMENT
10. EAST ABUTMENT WING 3 DETAILS
11. EAST ABUTMENT WING 4 DETAILS
12. EAST ABUTMENT BILL OF BARS
13. STONE WALL CONNECTION DETAILS
14. SUPERSTRUCTURE
15. SUPERSTRUCTURE PLAN
16. SUPERSTRUCTURE DETAILS
17. SUPERSTRUCTURE DETAILS AND BILL OF BARS
18. SINGLE SLOPE PARAPET 42SS WITH FOOTING
19. VERTICAL FACE PARAPET WITH FOOTING
20. COMBINATION RAIL TYPE "C2" DETAILS
21. SINGLE SLOPE PARAPET 42SS ELECTRICAL WORK
22. VERTICAL FACE PARAPET ELECTRICAL WORK
23. PARAPET FOOTING ELECTRICAL DETAILS



BRIDGE OFFICE CONTACT:
 AARON BONK
 (608)-261-0261

CONSULTANT CONTACT:
 KRISTOFER OLSON
 (920)-498-1200

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
AVRES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>[Signature]</i>	SDR 11/15/23	DATE
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-34-62			
4TH AVENUE OVER SPRINGBROOK CREEK			
COUNTY	LANGLADE	TOWN/CITY/VILLAGE	ANTIGO
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	JMC	DESIGN CK'D.	ZSS
DRAWN BY	ZSS/CLP	PLANS CK'D.	KRO
GENERAL PLAN			SHEET 1 OF 23

8/1/2023
PENTABLE:Breou_shd_util.tbi

CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

8

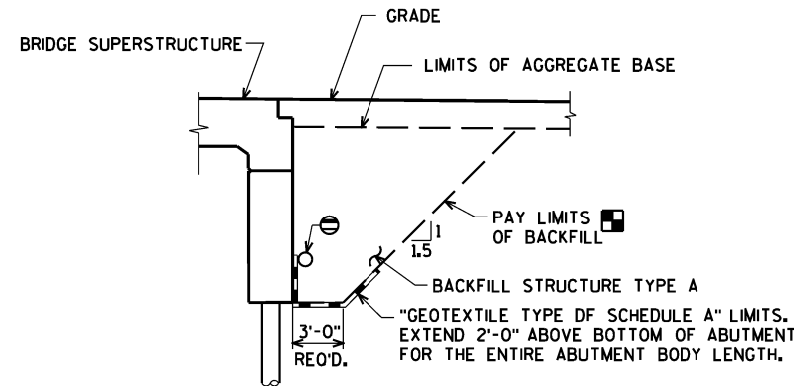
8

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTAL
203.0250	REMOVING STRUCTURE OVER WATERWAY REMOVE DEBRIS P-34-701	EACH	-----	-----	-----	1
206.5001	COFFERDAM B-34-62	EACH	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	500	500	-----	1,000
502.0100	CONCRETE MASONRY BRIDGES	CY	55.1	56.0	113.4	225
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	-----	163
502.3210	PIGMENTED SURFACE SEALER	SY	-----	-----	-----	55
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	3,080	3,080	-----	6,160
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,600	2,560	18,450	23,610
511.1200	TEMPORARY SHORING B-34-62	SF	235	235	-----	470
513.7011	RAILING STEEL TYPE C2	LF	-----	-----	-----	59.5
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	12	12	-----	24
517.1015.S	CONCRETE STAINING MUILT-COLOR B-34-62	SF	465.6	466.1	-----	932
517.1050.S	ARCHITECTURAL SURFACE TREATMENT B-34-62	SF	465.6	466.1	-----	932
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	440	480	-----	920
606.0300	RIPRAP HEAVY	CY	30	30	-----	60
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	62	62	-----	124
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	55	55	-----	110
645.0120	GEOTEXTILE TYPE HR	SY	60	60	-----	120
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	-----	-----	-----	24
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	-----	-----	-----	107
653.0220	JUNCTION BOXES 18x6x6-INCH	EACH	-----	-----	-----	2
SPV.0035	EXCAVATION FOR STRUCTURES SPECIAL	CY	290	290	-----	580
SPV.0090	REMOVING STONE MASONRY WALL	LF	34	34	-----	68
SPV.0165	STONE MASONRY WALL CONNECTION	SF	45	50	-----	95
NON-BID ITEMS						
	FILLER	SIZE	-----	-----	-----	1/2" & 3/4"

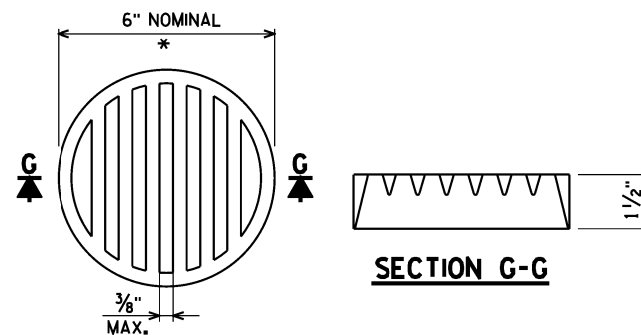
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
 BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
 THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE. JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.
 THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.
 SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATIVE METHOD IS APPROVED BY THE ENGINEER.
 THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES SPECIAL" SHALL BE THE EXISTING GROUNDLINE.
 THE EXISTING STRUCTURE, P-34-701 TO BE REMOVED, IS A CONCRETE DECK GIRDER BRIDGE ON CONCRETE ABUTMENTS, 34.0 FEET LONG WITH A 30.2 FOOT CLEAR ROADWAY WIDTH.
 PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET AND APPLY TO THE TOP AND EXTERIOR EXPOSED FACE OF WINGS, AND THE END 1'-0" OF THE FRONT FACE OF ABUTMENT. PIGMENTED SURFACE SEALER IS TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPET.
 BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE.
 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 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.
 EXISTING SUBSTRUCTURE LOCATIONS ARE BASED ON SURVEY. EXTENT OF BELOW GRADE SUBSTRUCTURES ARE NOT KNOWN. REMOVE EXISTING SUBSTRUCTURES AS NEEDED TO BUILD NEW SUBSTRUCTURES. COST OF SUBSTRUCTURE REMOVAL IS CONSIDERED INCIDENTAL TO "REMOVING STRUCTURE" BID ITEM.
 AT ABUTMENTS, CONCRETE POURED UNDERWATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.



BACKFILL STRUCTURE LIMITS

- ☐ 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 AS DETAILED ON THIS SHEET.

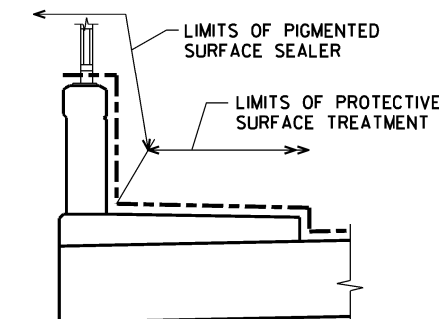


* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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.

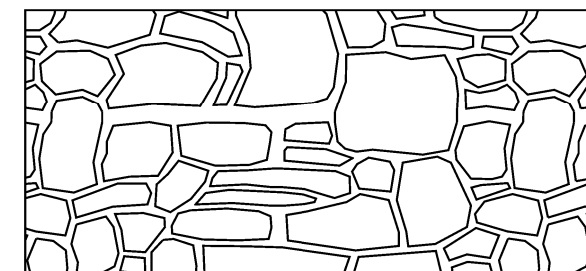
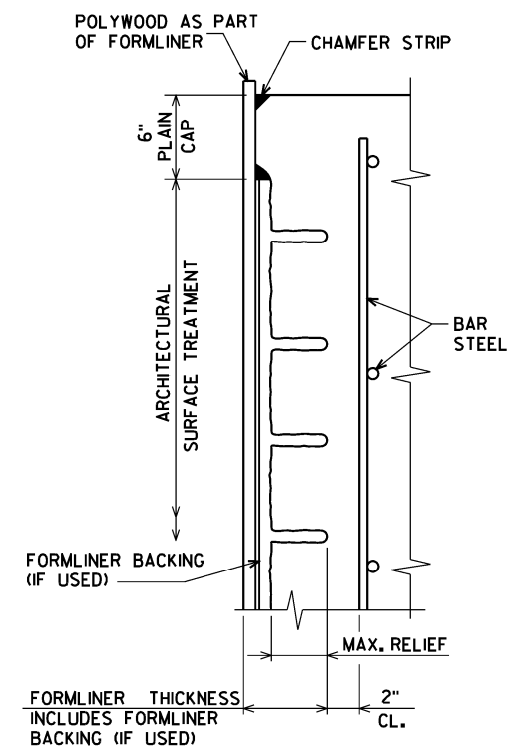
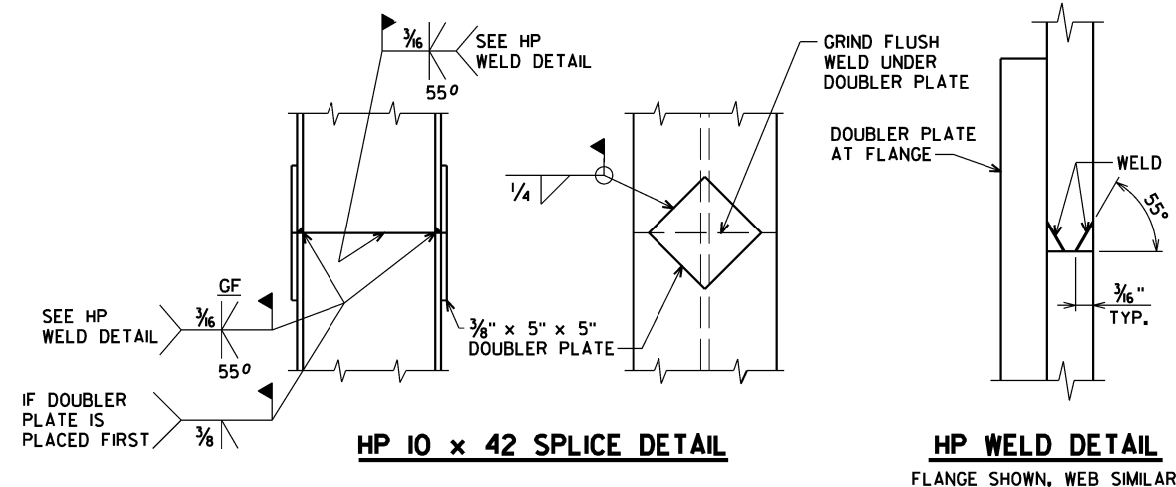
RODENT SHIELD DETAIL



PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY ZSS/CLP		PLANS CK'D. KRO	
QUANTITIES AND NOTES			SHEET 2 OF 23

ORIGINAL PLANS PREPARED BY
AYRES 3433 Oakwood Hills Parkway
 Eau Claire, WI 54701
 www.AyresAssociates.com



SPLIT STONE - RANDOM

FORMLINER THICKNESS = 3"
SIZE = 6" & 24"
MAX. RELIEF = 2"

ABUTMENT NOTES

- FORMLINER COURSING ON ABUTMENTS AND WINGS SHALL BE LEVEL.
- THE FORMLINER COURSING ON THE WINGS SHALL BE VERTICALLY ALIGNED WITH THE FORMLINER COURSING ON THE FRONT OF THE ABUTMENT.
- THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.
- WRAPAROUND/MATCH FORMLINER PATTERN AT CORNERS.

6/14/2023
PENTABLE:Breou-shd_util.tbi

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY ZSS/CLP		PLANS CK'D. KRO	
STRUCTURE DETAILS			SHEET 3 OF 23

ORIGINAL PLANS PREPARED BY
AYRES 3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	APRIL 20, 2022	340739.0624	620671.6951
2	APRIL 20, 2022	340720.5407	620724.4593

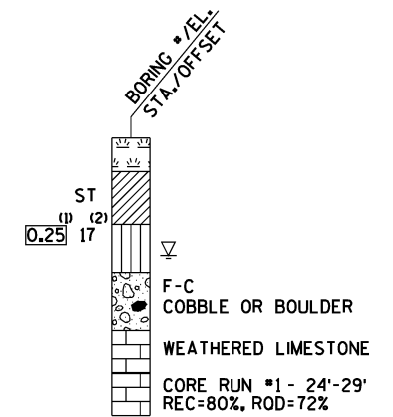
BORINGS COMPLETED BY: ECS MIDWEST, LLC
 REPORT COMPLETED BY: ECS MIDWEST, LLC
 ALL COORDINATES REFERENCED TO WCCS NAD 83(9) LANGLADE COUNTY



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

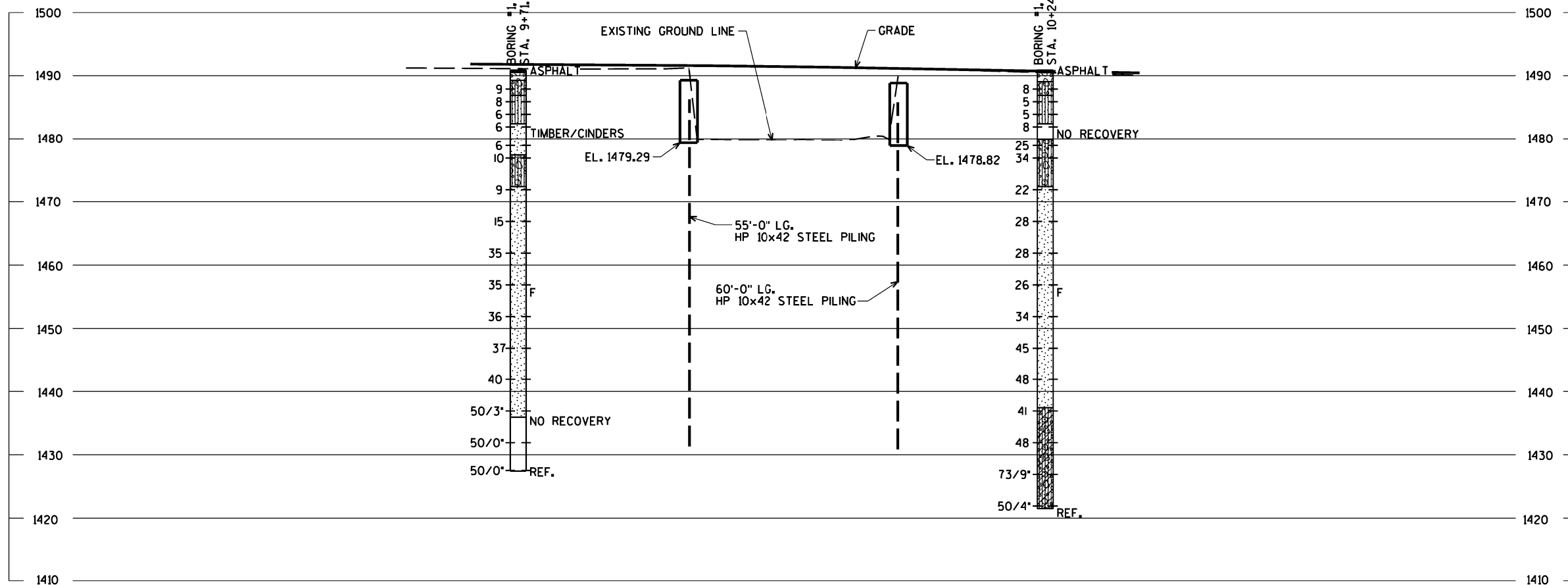
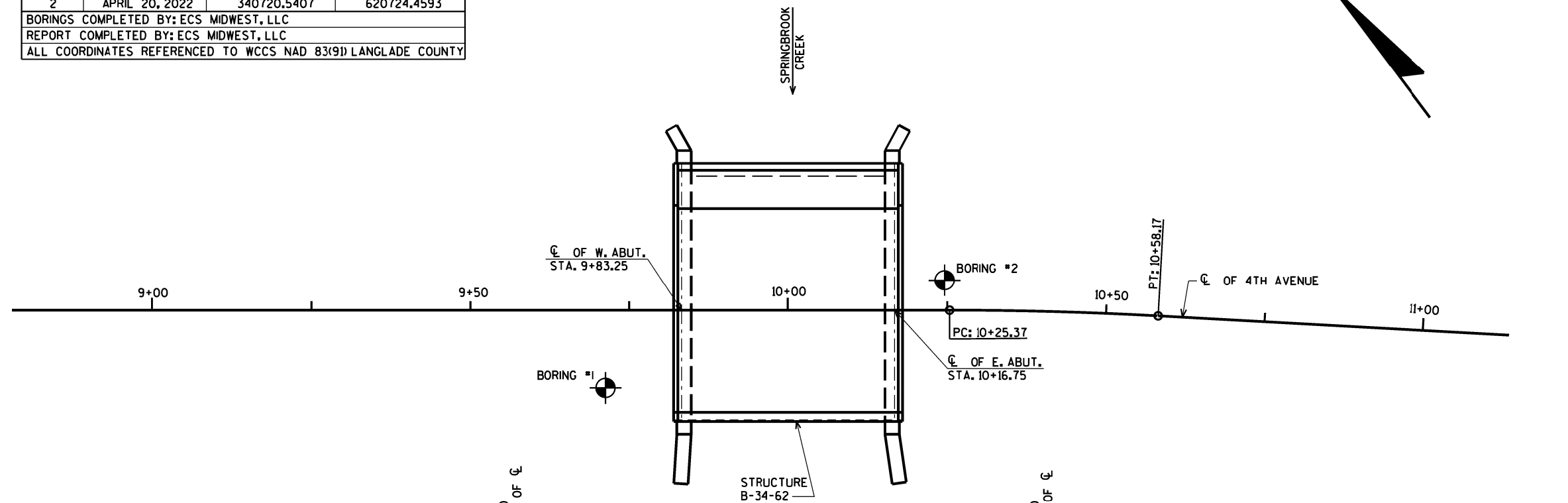
- ▽ AT TIME OF DRILLING
- ▽ END OF DRILLING
- ▽ AFTER DRILLING

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.



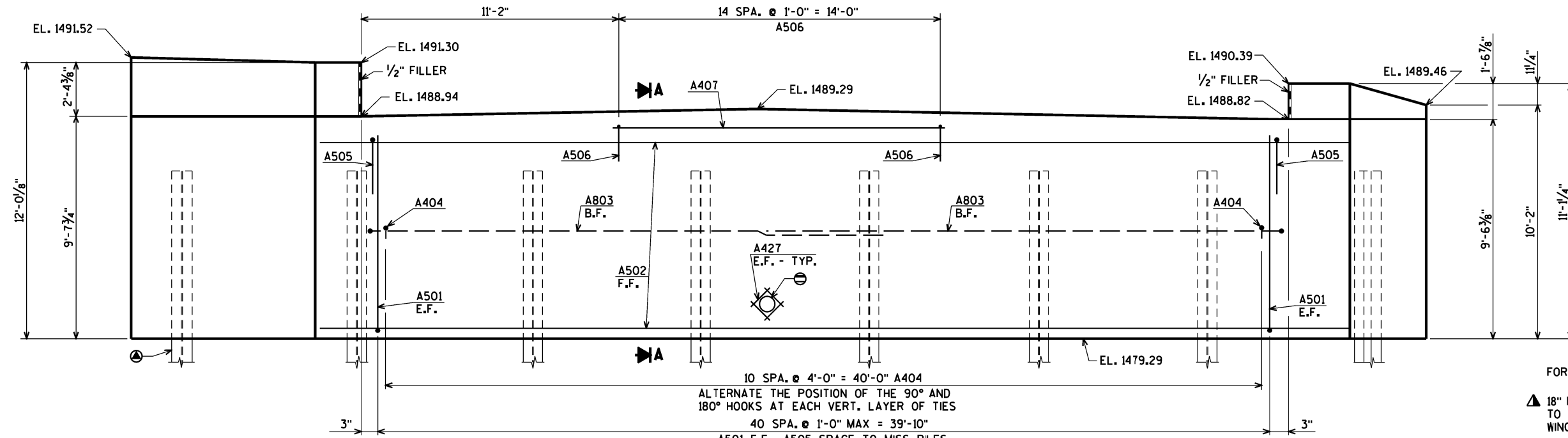
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY		ZSS	PLANS CKD. KRO
SUBSURFACE EXPLORATION			SHEET 4 OF 23

NOTE: 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.)



ELEVATION

FOR DETAIL OF SECTION A SEE SHEET 8.

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

⊙ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SHIELD TO BE INCIDENTAL TO BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH". AN 8" DIA. HOLE IN WALL IS REQ'D. LOCATE TO MISS REINF. STEEL.

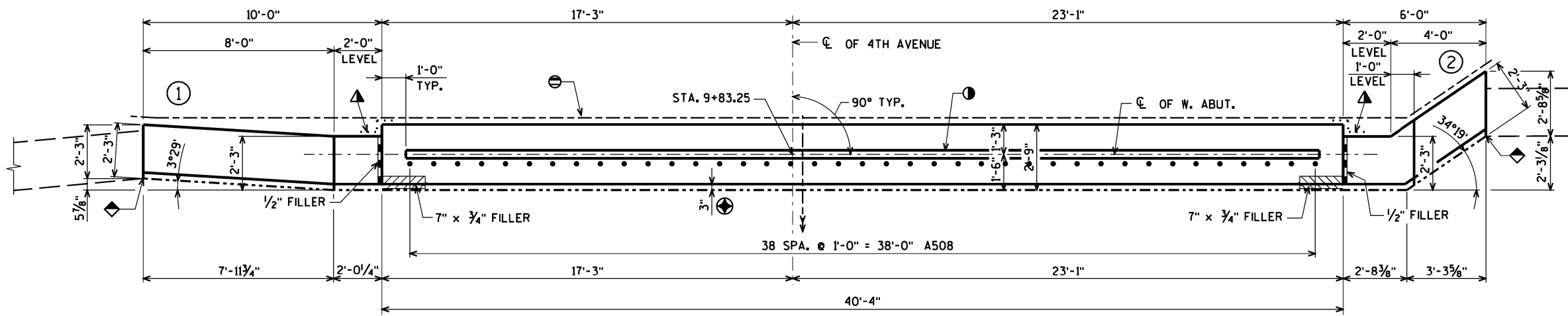
⊙ ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. ESTIMATED LENGTH 55'-0".

◆ MATCH INTO EXISTING STONE RETAINING WALL - TYP. SEE DETAILS ON SHEET 13.

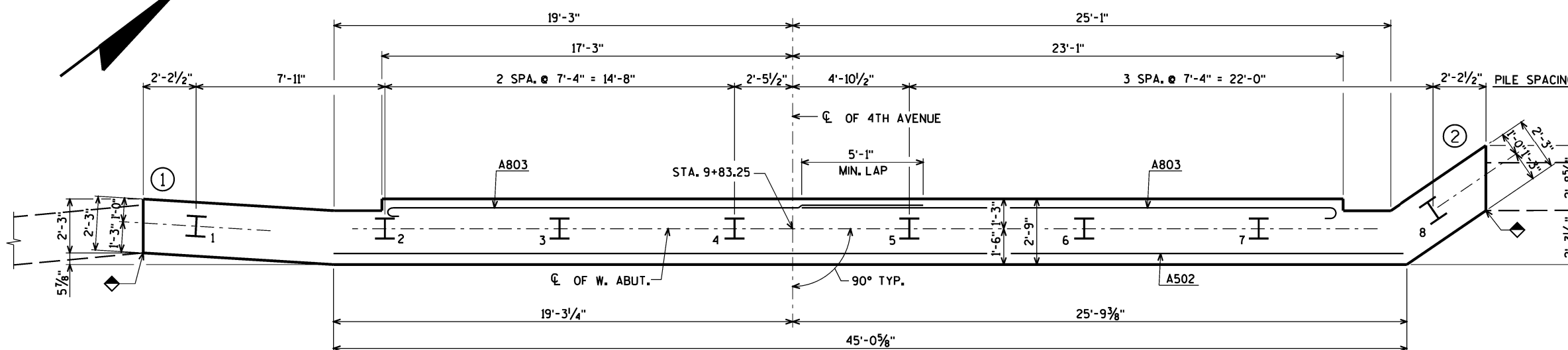
⊙ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 3.

⊙ KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

FOR PILE SPLICE DETAIL SEE SHEET 3.



PLAN



PILE LAYOUT

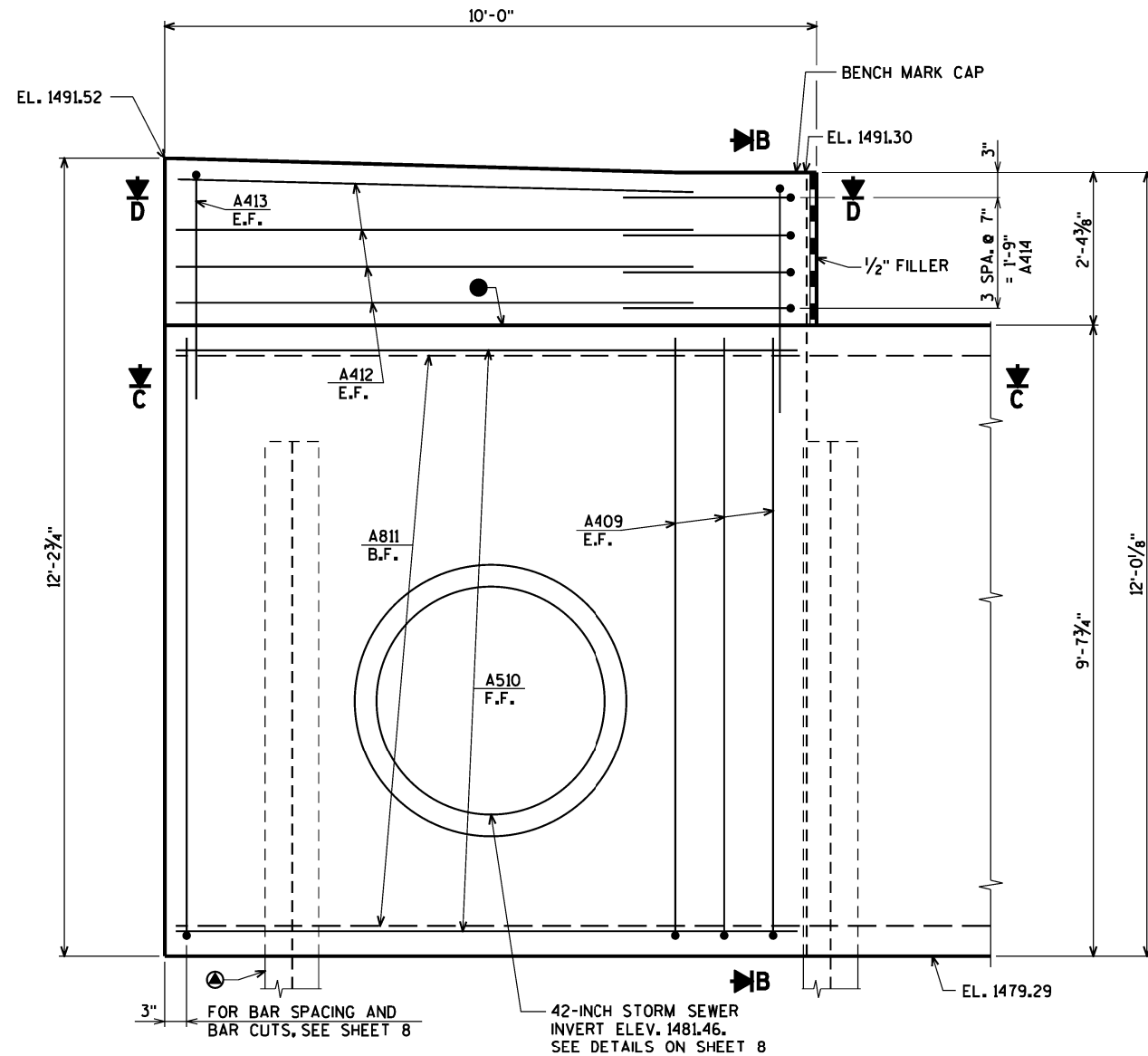
ORIGINAL PLANS PREPARED BY
AYRES 3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY		CLP	PLANS CK'D. KRO
WEST ABUTMENT			SHEET 5 OF 23

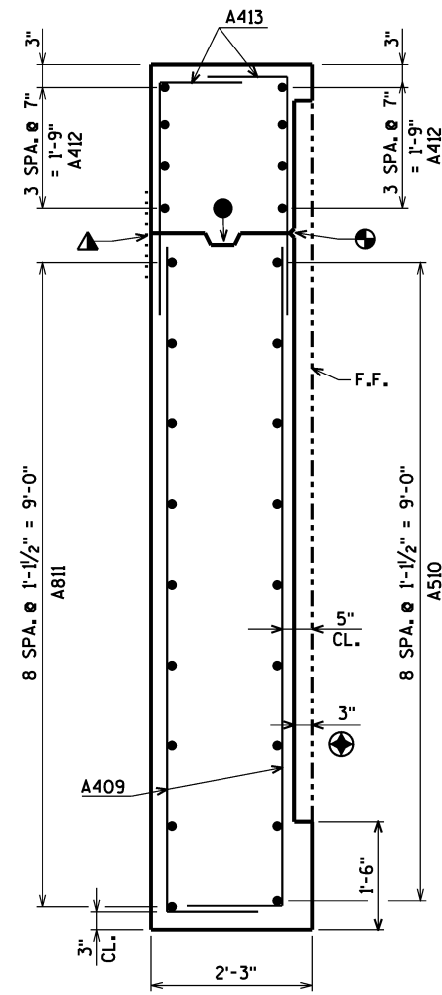
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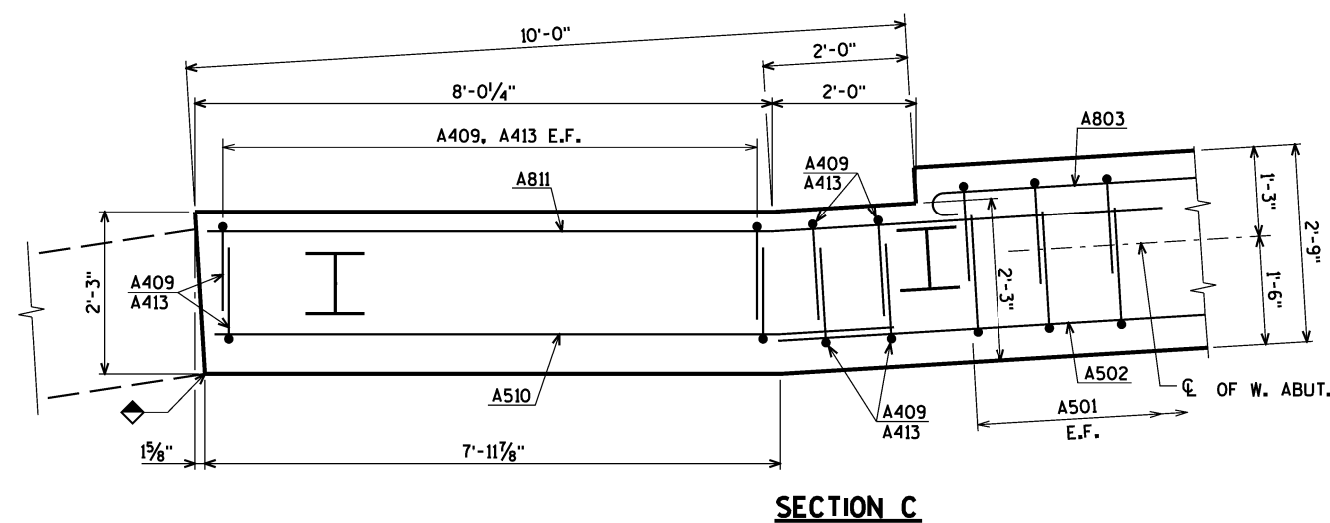


ELEVATION - WING 1

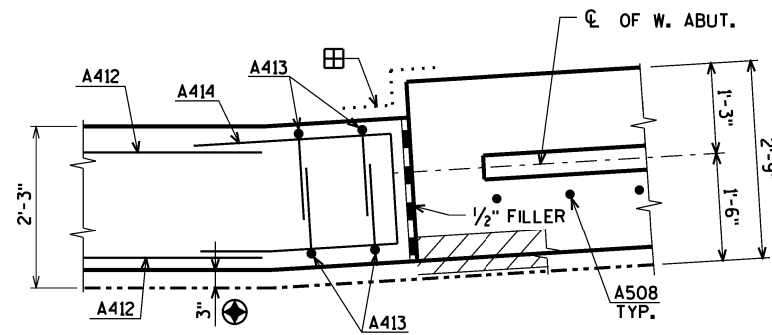


SECTION B

- ▣ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.
- ⊕ 3/4" 'V' GROOVE ON F.F. OF WINGWALL.
- OPT. KEYED CONST. JOINT - FORMED BY BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACKFACE.
- ▲ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONSTRUCTION JOINT IS USED (COST INCIDENTAL TO "CONCRETE MASONRY BRIDGES").
- ◆ MATCH INTO EXISTING STONE RETAINING WALL - TYP. SEE DETAILS ON SHEET 13.
- ⊕ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 3.
- FOR PILE SPLICE DETAIL SEE SHEET 3.
- SPACE BARS TO MISS PILING.
- ⊕ ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. ESTIMATED LENGTH 55'-0".



SECTION C



SECTION D

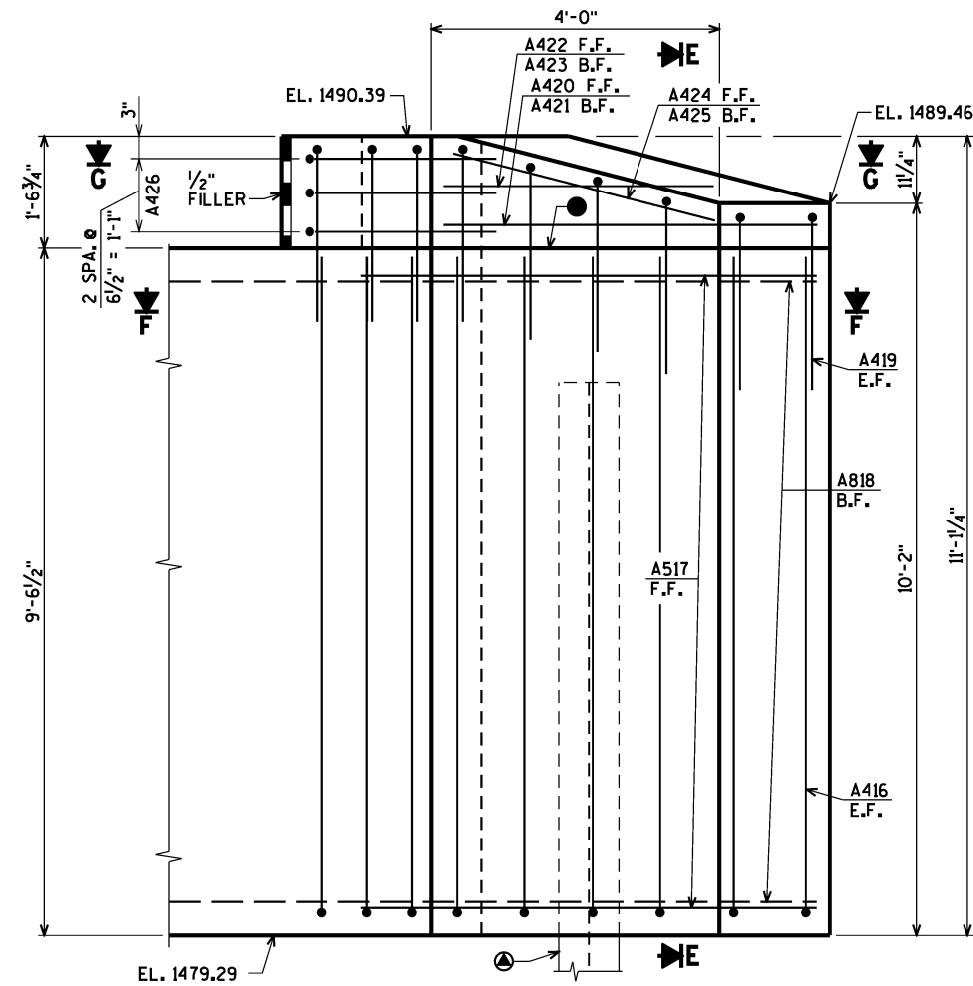
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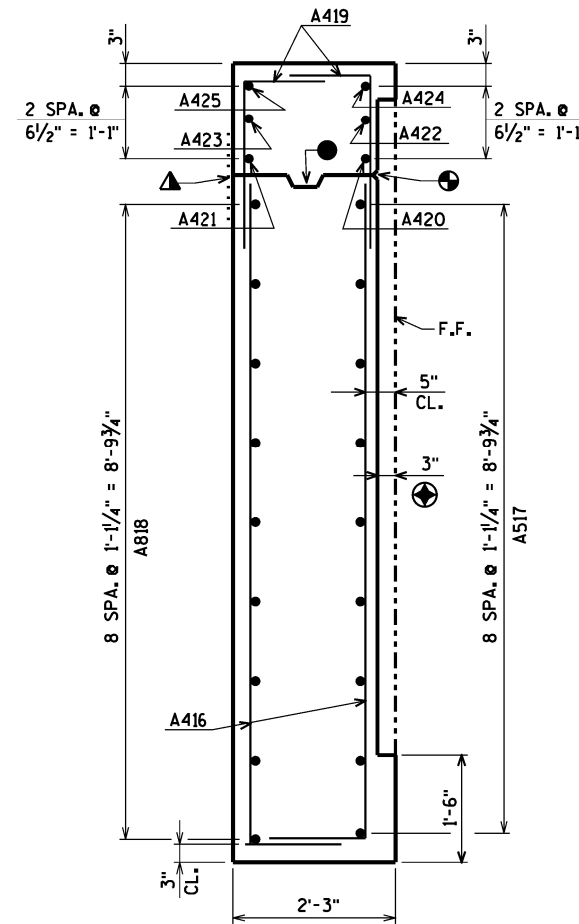
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY		CLP	PLANS CK'D. KRO
WEST ABUTMENT WING 1 DETAILS			SHEET 6 OF 23

ORIGINAL PLANS PREPARED BY
AYRES 3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

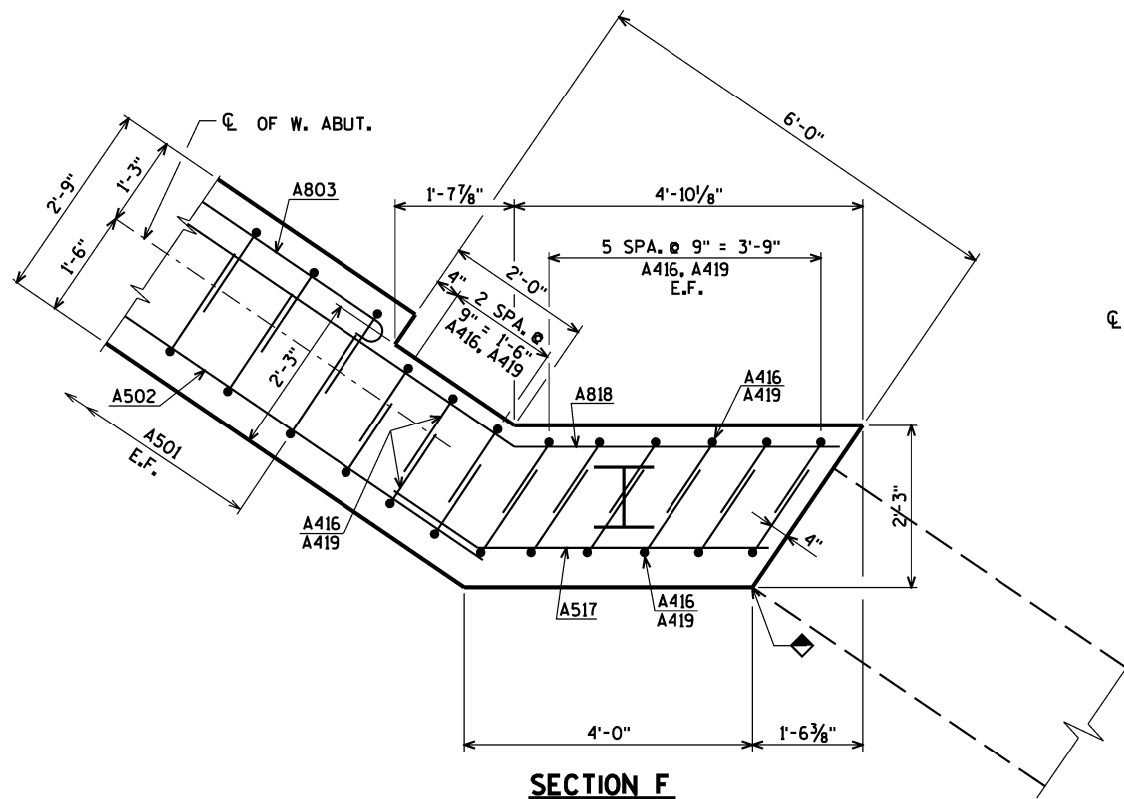


ELEVATION - WING 2

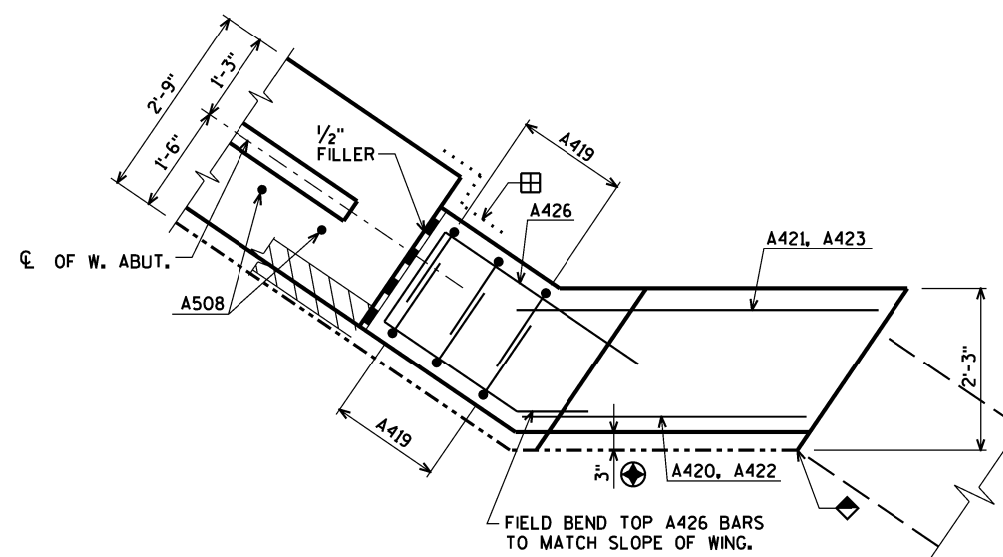


SECTION E

- ▣ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.
 - ⊕ 3/4" 'V' GROOVE ON F.F. OF WINGWALL.
 - OPT. KEYED CONST. JOINT - FORMED BY BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACKFACE.
 - ▲ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONSTRUCTION JOINT IS USED (COST INCIDENTAL TO "CONCRETE MASONRY BRIDGES").
 - ◆ MATCH INTO EXISTING STONE RETAINING WALL - TYP. SEE DETAILS ON SHEET 13.
 - ⊕ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 3.
- FOR PILE SPLICE DETAIL SEE SHEET 3.
- SPACE BARS TO MISS PILING.
- ⊕ ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. ESTIMATED LENGTH 55'-0".



SECTION F



SECTION G

FIELD BEND TOP A426 BARS TO MATCH SLOPE OF WING.

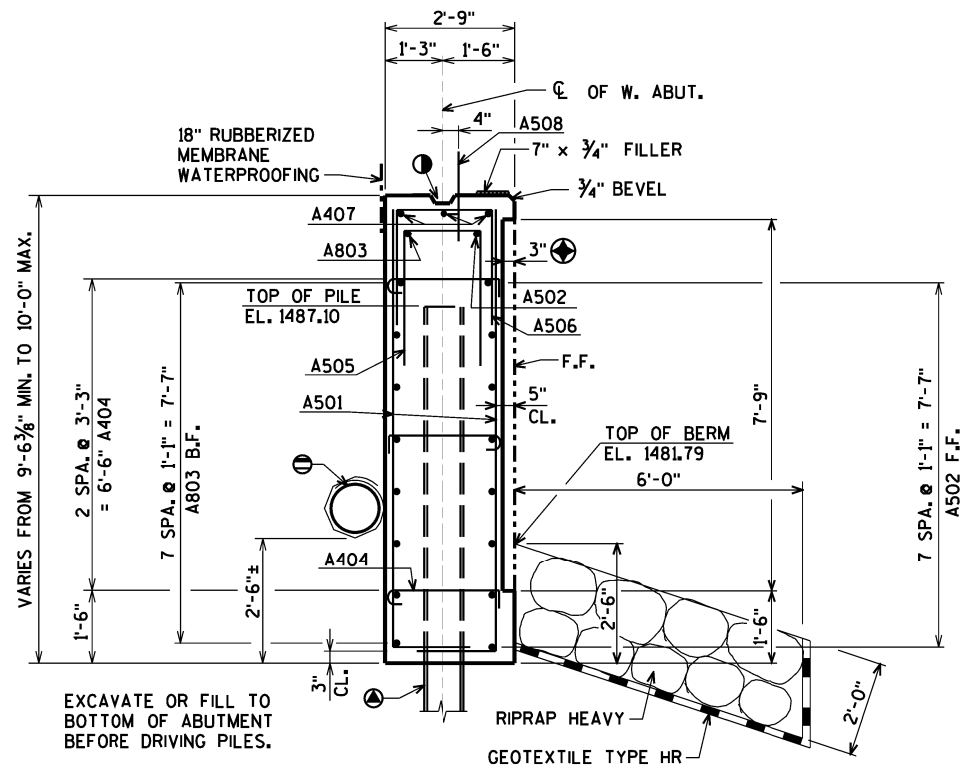
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY		CLP	PLANS CK'D. KRO
WEST ABUTMENT WING 2 DETAILS			SHEET 7 OF 23

ORIGINAL PLANS PREPARED BY
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Eau Claire, WI 54701
www.AyresAssociates.com



SECTION A

NOTES: DO NOT PLACE FILL ABOVE THREE FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

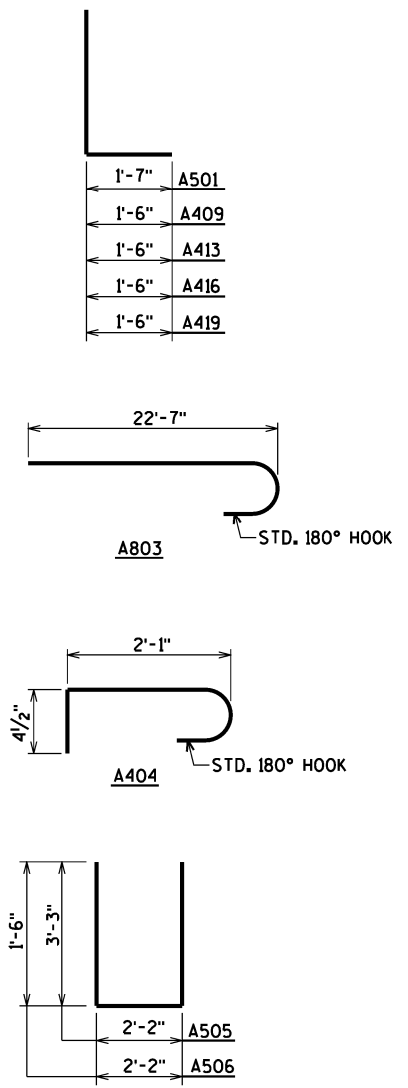
A508 BARS MAY BE PLACED AFTER ABUT. IS POURED BUT BEFORE CONC. HAS SET. EMBED BARS 1'-0\".

- ⊙ KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".
- ⊙ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SHIELD TO BE INCIDENTAL TO BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".
- ⊙ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 3.

FOR PILE SPLICE DETAIL SEE SHEET 3.

FOR LOCATION OF SECTION A SEE SHEET 5.

- ⊙ ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. ESTIMATED LENGTH 55'-0\".

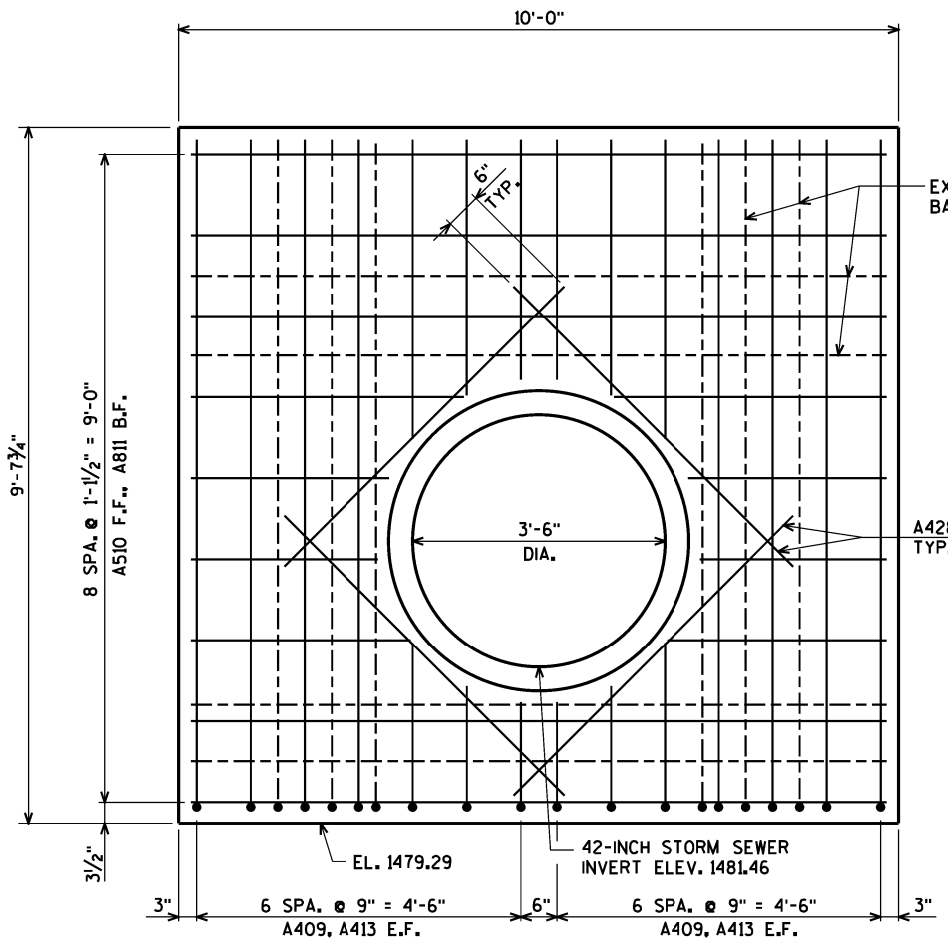


BILL OF BARS

INCLUDES WEIGHT FROM PARAPETS

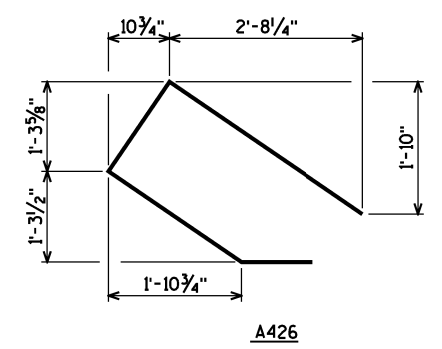
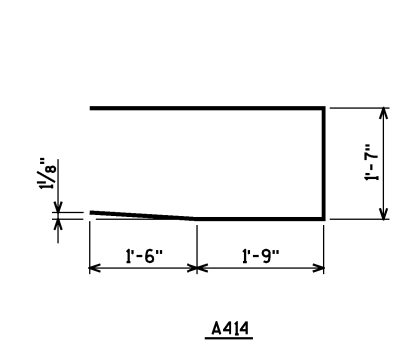
BAR NO.	COATED BAR	NO. REOD.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	2,600# COATED 3,080# UNCOATED	
								LOCATION
A501		82	10-7	X				BODY VERT. E.F.
A502		9	44-11					BODY HORIZ. F.F.
A803		18	23-6	X				BODY HORIZ. B.F.
A404		33	2-9	X				BODY TIES
A505		41	8-5	X				BODY VERT. TOP
A506		15	4-11	X				BODY VERT. TOP
A407		3	14-4					BODY HORIZ. TOP
A508		39	2-0					BODY DOWELS
A409	X	38	10-7	X				WINGS 1 VERT. E.F.F.
A510	X	13	9-4	X				WINGS 1 HORIZ. F.F.
A811	X	13	13-3	X				WINGS 1 HORIZ. B.F.
A412	X	8	7-10					WINGS 1 HORIZ. E.F.
A413	X	26	5-8	X				WINGS 1 VERT. TOP
A414	X	4	7-8	X				WINGS 1 HORIZ.
OMIT								
A416	X	18	10-6	X				WINGS 2 VERT. E.F.F.
A517	X	9	5-5	X				WINGS 2 HORIZ. F.F.
A818	X	9	9-11	X				WINGS 2 HORIZ. B.F.
A419	X	18	4-0	X				WINGS 2 VERT. TOP
A420	X	1	3-11					WINGS 2 HORIZ. F.F.
A421	X	1	5-0					WINGS 2 HORIZ. B.F.
A422	X	1	3-2					WINGS 2 HORIZ. F.F.
A423	X	1	4-3					WINGS 2 HORIZ. B.F.
A424	X	1	3-10					WINGS 2 DIAG. F.F.
A425	X	1	5-1	X				WINGS 2 DIAG. B.F.
A426	X	3	7-11	X				WINGS 2 HORIZ.
A427		8	2-6					BODY P.U. OPENING
A428	X	8	5-6					STORM SEWER OPENING

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



BAR STEEL LAYOUT - WING 1
FIELD CUT ALL BARS 2" CLEAR OF PIPE

BAR NO.	DIM. "A"	DIM. "B"
A510	1'-6"	1 1/8"
A811	5'-5"	4"
A517	1'-2 7/8"	10 7/8"
A818	4'-6 3/8"	3'-1 1/8"
A425	1'-5 1/2"	4 1/2"



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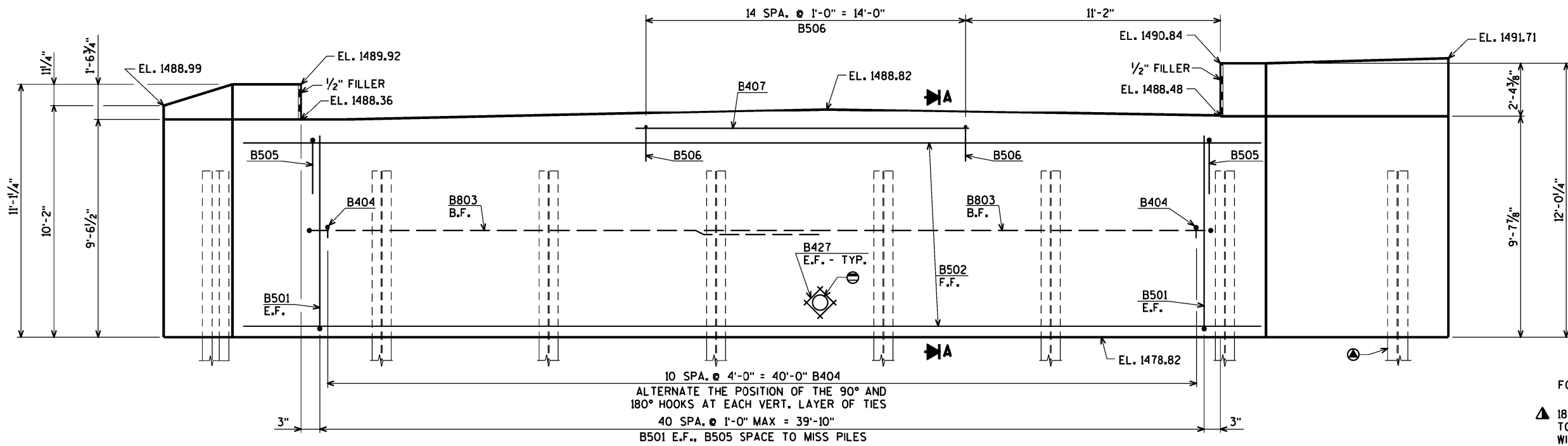
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY		CLP	PLANS CK'D. KRO
WEST ABUTMENT BILL OF BARS			SHEET 8 OF 23

ORIGINAL PLANS PREPARED BY
AYRES 3433 Oakwood Hills Parkway
 Eau Claire, WI 54701
 www.AyresAssociates.com

NOTE: 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.)



ELEVATION

FOR DETAIL OF SECTION A SEE SHEET 12.

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SHIELD TO BE INCIDENTAL TO BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH". AN 8" DIA. HOLE IN WALL IS REQ'D. LOCATE TO MISS REINF. STEEL.

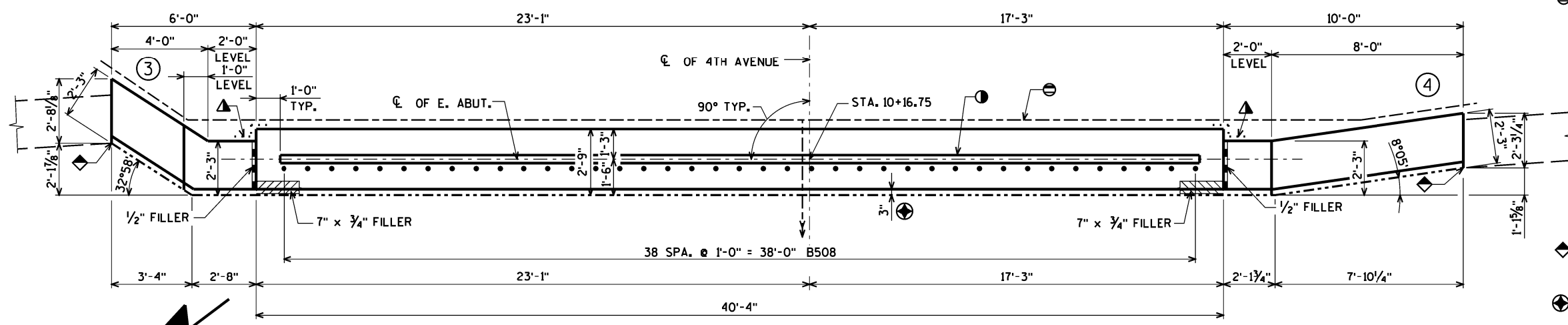
⊙ ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. ESTIMATED LENGTH 60'-0".

◆ MATCH INTO EXISTING STONE RETAINING WALL - TYP. SEE DETAILS ON SHEET 13.

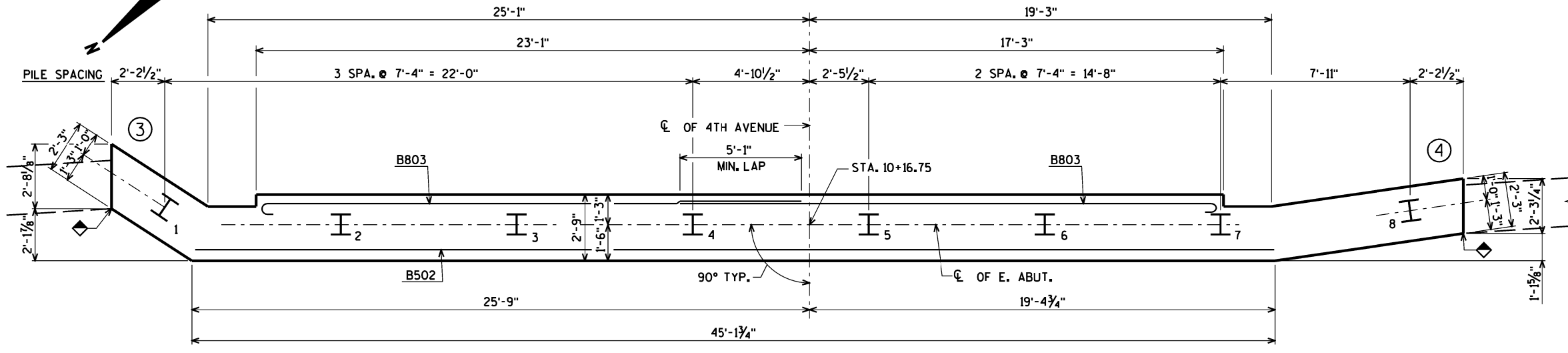
⊕ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 3.

⊙ KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

FOR PILE SPlice DETAIL SEE SHEET 3.



PLAN



PILE LAYOUT

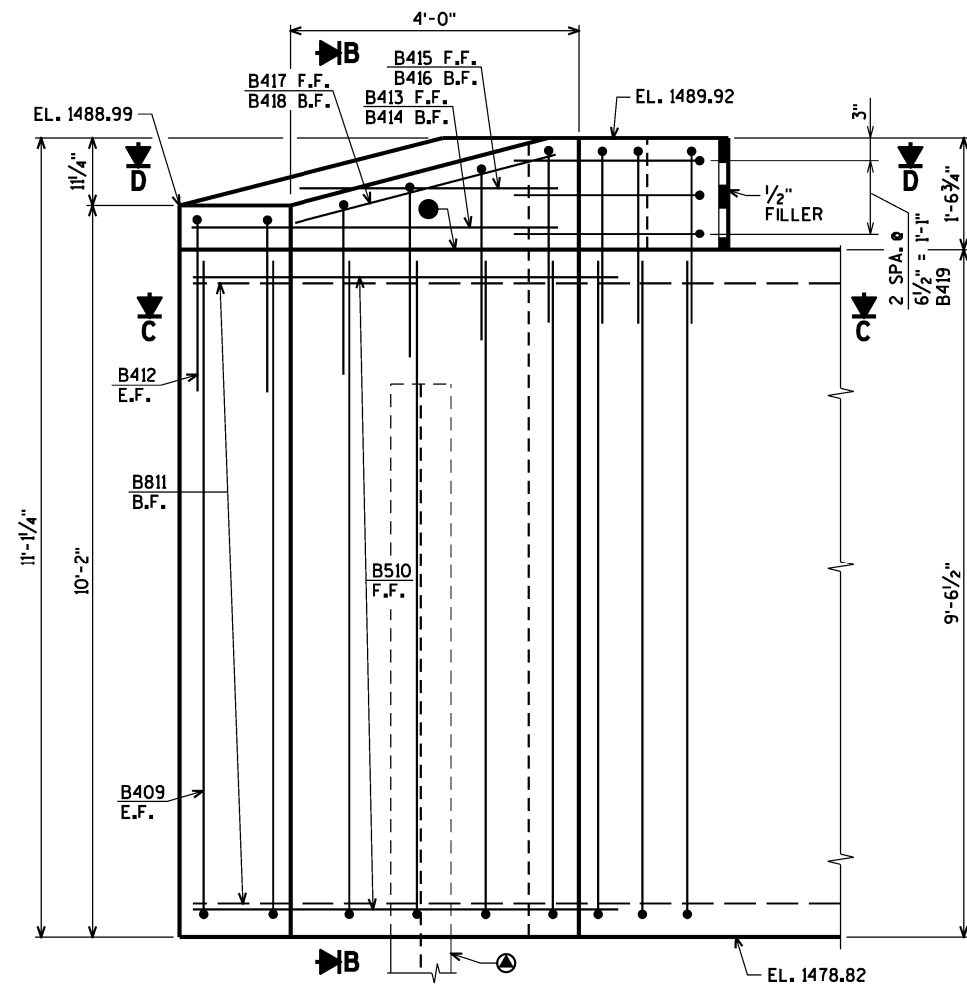
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY		CLP	PLANS CK'D. KRO
EAST ABUTMENT			SHEET 9 OF 23

ORIGINAL PLANS PREPARED BY
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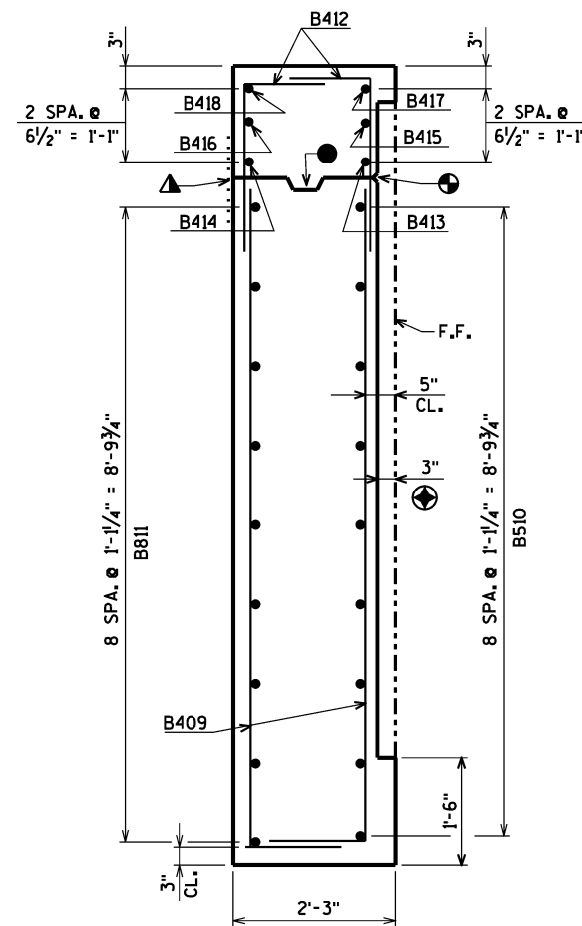
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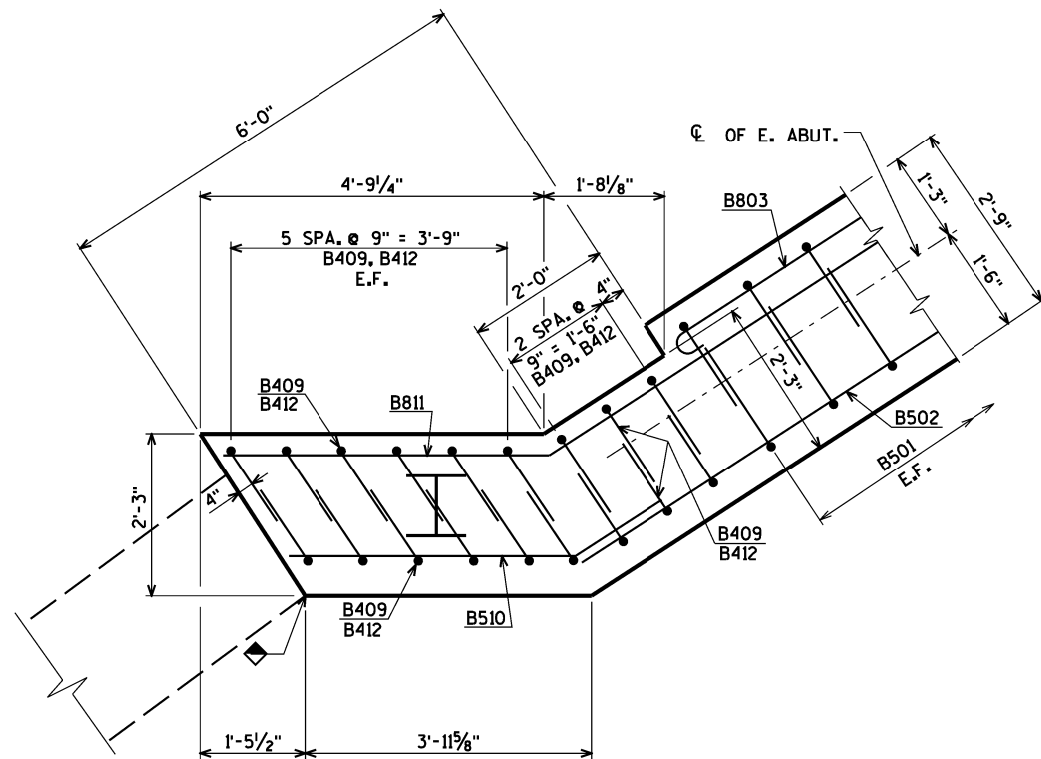


ELEVATION - WING 3

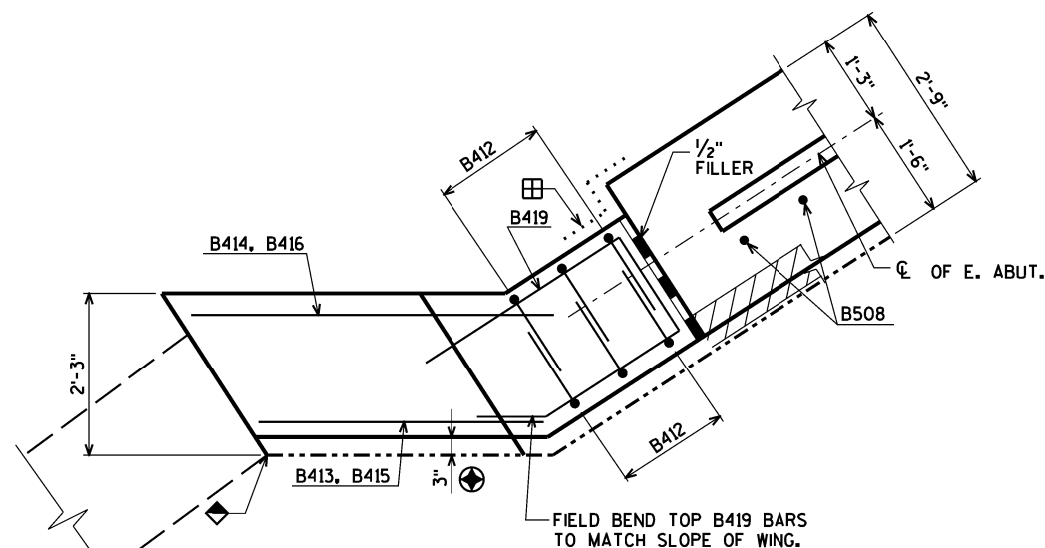


SECTION B

- ⊠ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.
 - ⊕ 3/4" 'V' GROOVE ON F.F. OF WINGWALL.
 - OPT. KEYED CONST. JOINT - FORMED BY BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACKFACE.
 - ▲ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONSTRUCTION JOINT IS USED (COST INCIDENTAL TO "CONCRETE MASONRY BRIDGES").
 - ◆ MATCH INTO EXISTING STONE RETAINING WALL - TYP. SEE DETAILS ON SHEET 13.
 - ⊕ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 3.
- FOR PILE SPLICE DETAIL SEE SHEET 3.
- SPACE BARS TO MISS PILING.
- ⊕ ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. ESTIMATED LENGTH 60'-0".



SECTION C



SECTION D

FIELD BEND TOP B419 BARS TO MATCH SLOPE OF WING.

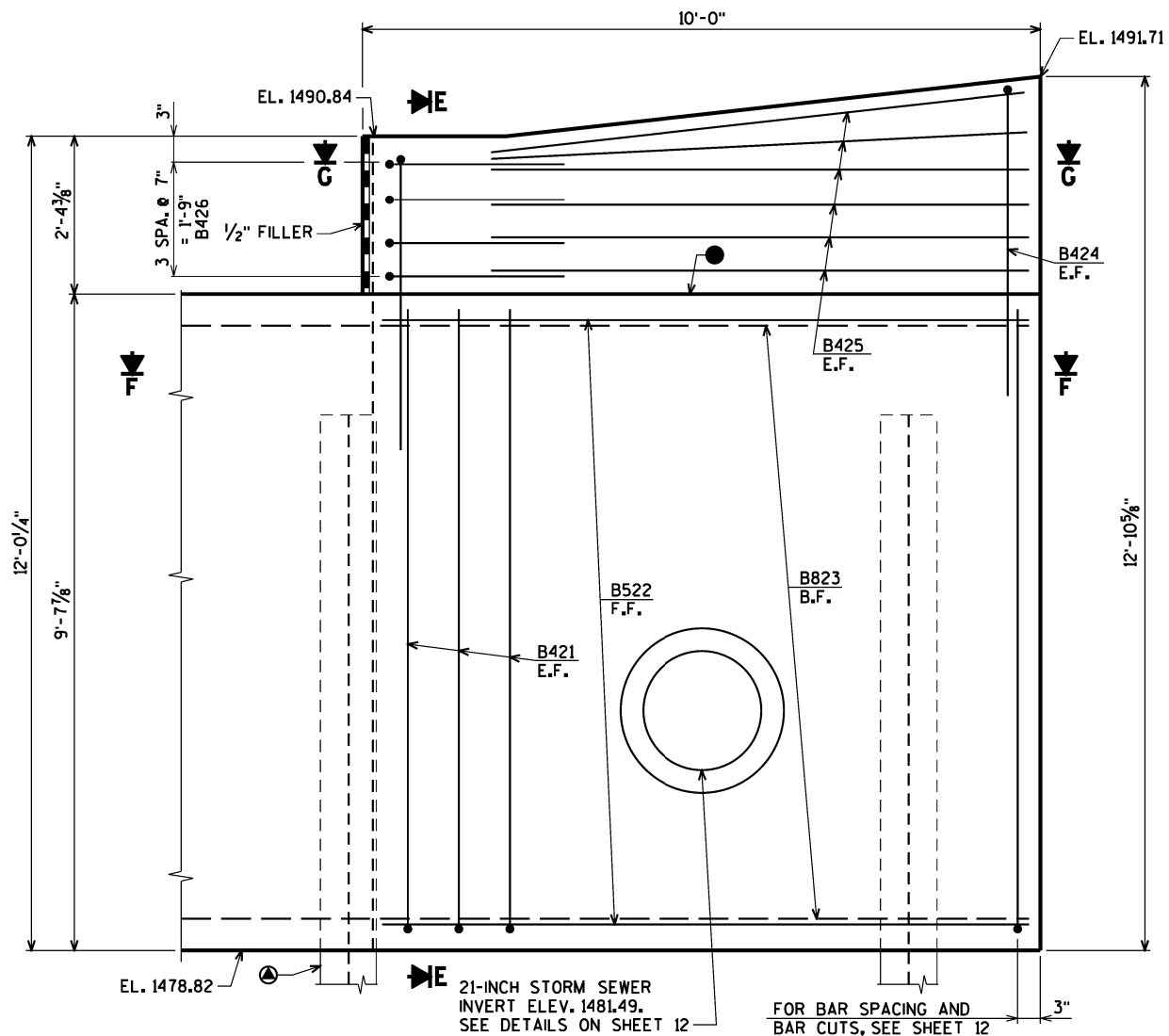
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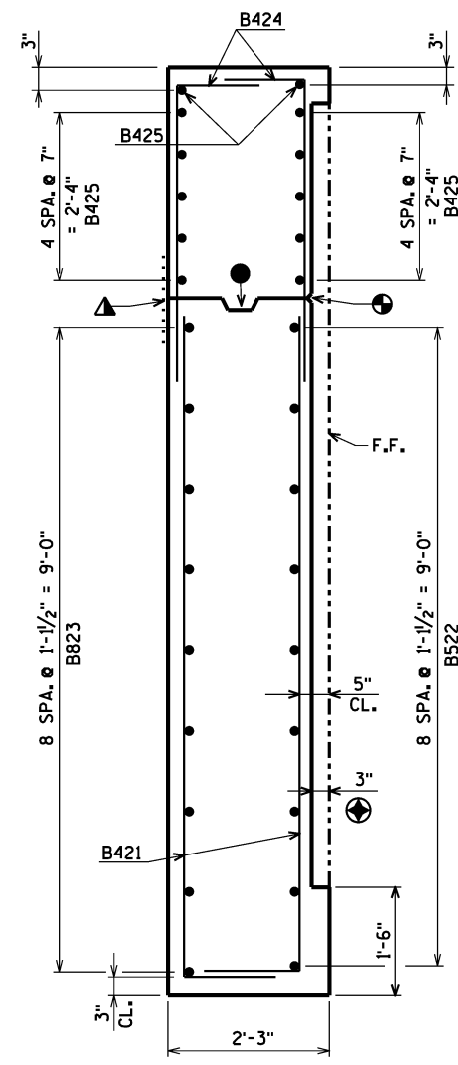
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY		CLP	PLANS CK'D. KRO
EAST ABUTMENT WING 3 DETAILS			SHEET 10 OF 23

ORIGINAL PLANS PREPARED BY
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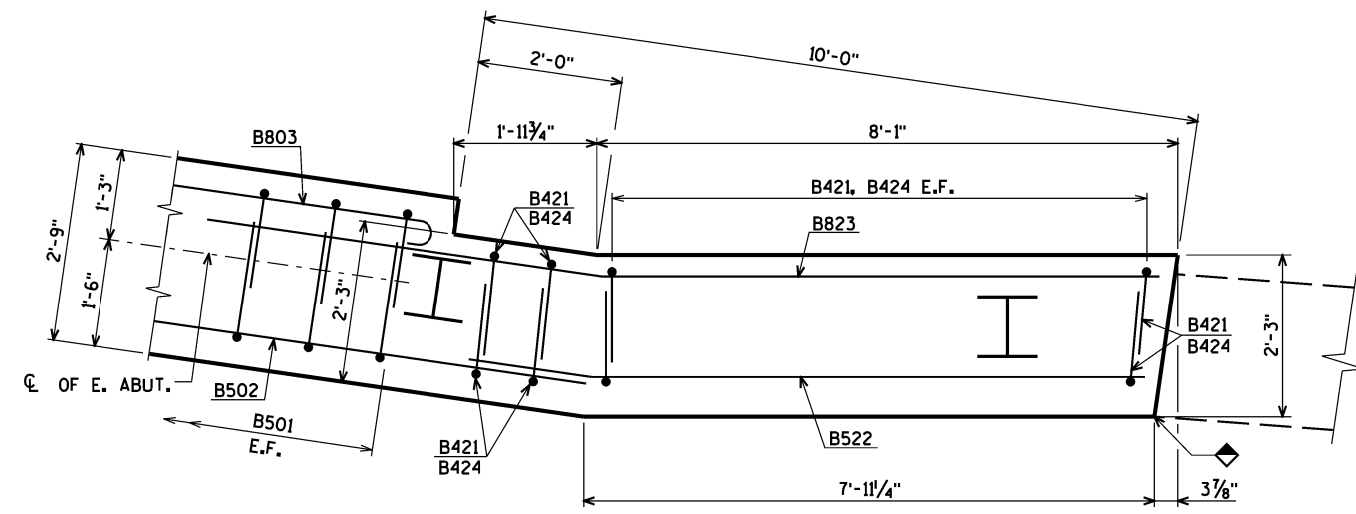


ELEVATION - WING 4

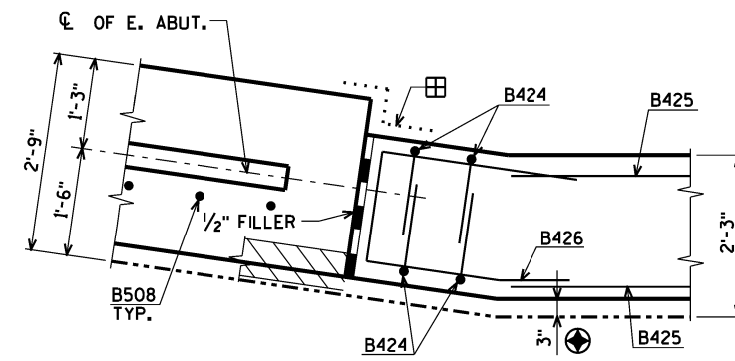


SECTION E

- ▣ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.
 - ◐ 3/4" V GROOVE ON F.F. OF WINGWALL.
 - OPT. KEYED CONST. JOINT - FORMED BY BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACKFACE.
 - ▲ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONSTRUCTION JOINT IS USED (COST INCIDENTAL TO "CONCRETE MASONRY BRIDGES").
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 - ◉ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 3.
- FOR PILE SPLICE DETAIL SEE SHEET 3.
- SPACE BARS TO MISS PILING.
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SECTION F



SECTION G

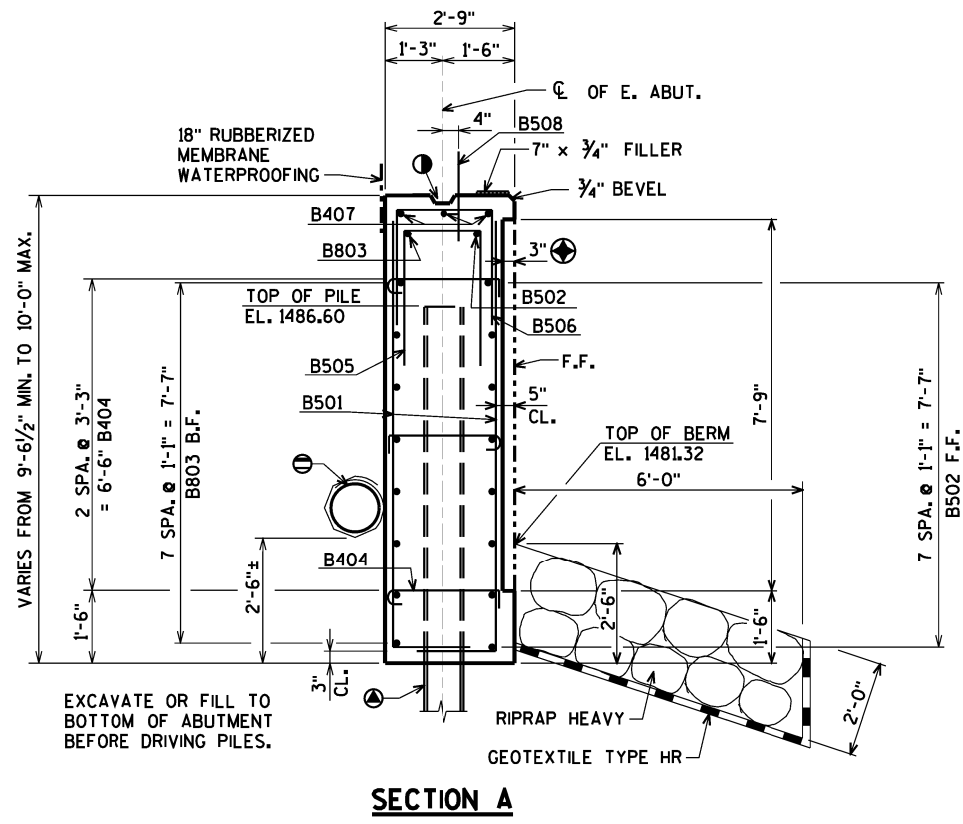
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY		CLP	PLANS CK'D. KRO
EAST ABUTMENT WING 4 DETAILS			SHEET 11 OF 23

ORIGINAL PLANS PREPARED BY
AYRES 3433 Oakwood Hills Parkway
 Eau Claire, WI 54701
 www.AyresAssociates.com



NOTES: DO NOT PLACE FILL ABOVE THREE FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

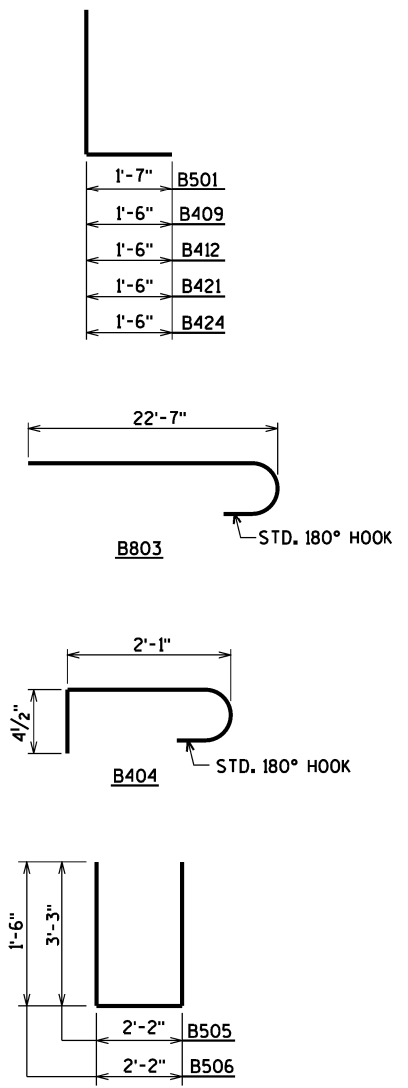
B508 BARS MAY BE PLACED AFTER ABUT. IS POURED BUT BEFORE CONC. HAS SET. EMBED BARS 1'-0\"/>

- ① KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".
- ② PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SHIELD TO BE INCIDENTAL TO BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".
- ③ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 3.

FOR PILE SPLICE DETAIL SEE SHEET 3.

FOR LOCATION OF SECTION A SEE SHEET 9.

- ④ ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. ESTIMATED LENGTH 60'-0\"/>

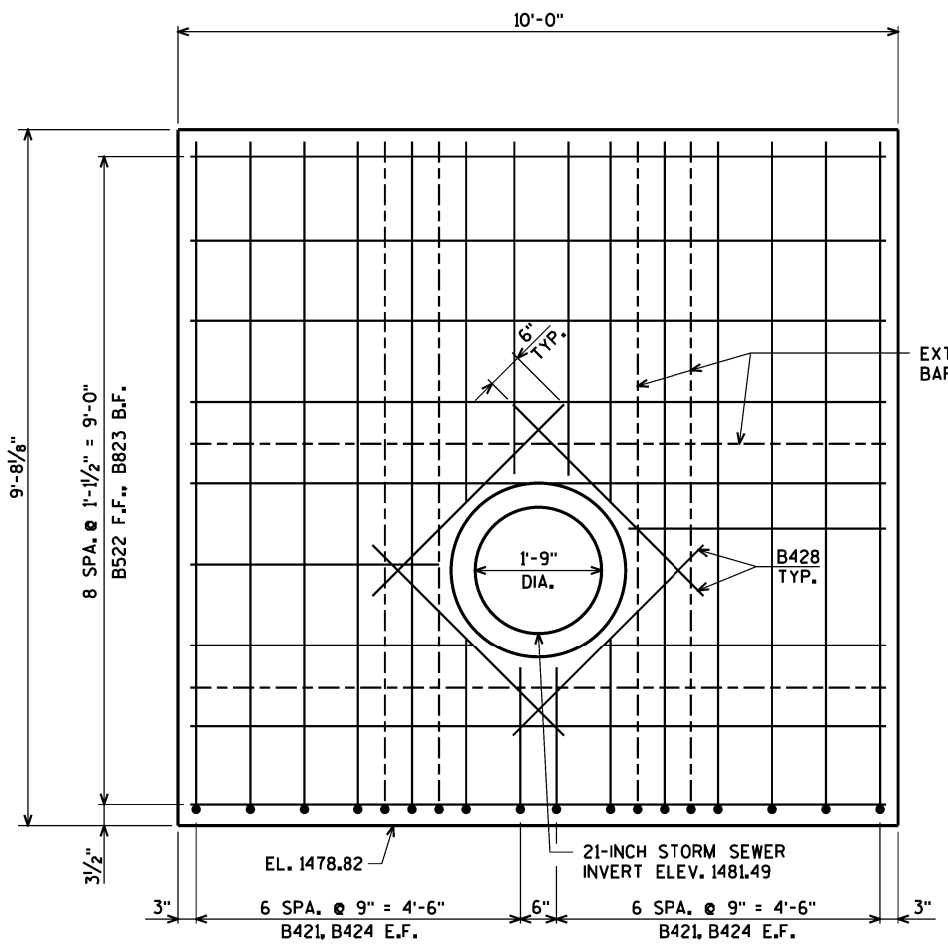


BILL OF BARS

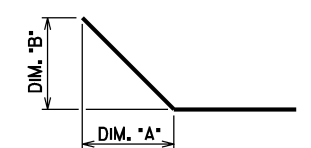
INCLUDES WEIGHT FROM PARAPETS

BAR NO.	COATED BAR	NO. REOD.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	2,560# COATED	3,080# UNCOATED
							LOCATION	
B501		82	10-7	X		BODY VERT. E.F.		
B502		9	44-11			BODY HORIZ. F.F.		
B803		18	23-6	X		BODY HORIZ. B.F.		
B404		33	2-9	X		BODY TIES		
B505		41	8-5	X		BODY VERT. TOP		
B506		15	4-11	X		BODY VERT. TOP		
B407		3	14-4			BODY HORIZ. TOP		
B508		39	2-0			BODY DOWELS		
B409	X	18	10-6	X		WINGS 3 VERT. E.F.		
B510	X	9	5-4	X		WINGS 3 HORIZ. F.F.		
B811	X	9	9-10	X		WINGS 3 HORIZ. B.F.		
B412	X	18	4-0	X		WINGS 3 VERT. TOP		
B413	X	1	3-11			WINGS 3 HORIZ. F.F.		
B414	X	1	4-11			WINGS 3 HORIZ. B.F.		
B415	X	1	3-2			WINGS 3 HORIZ. F.F.		
B416	X	1	4-2			WINGS 3 HORIZ. B.F.		
B417	X	1	3-10			WINGS 3 DIAG. F.F.		
B418	X	1	5-1	X		WINGS 3 DIAG. B.F.		
B419	X	3	7-11	X		WINGS 3 HORIZ.		
OMIT								
B421	X	34	12-10	X		WINGS 4 VERT. E.F.		
B522	X	11	9-3	X		WINGS 4 HORIZ. F.F.		
B823	X	11	13-4	X		WINGS 4 HORIZ. B.F.		
B424	X	26	6-4	X		WINGS 4 VERT. TOP		
B425	X	12	7-10			WINGS 4 HORIZ. E.F.		
B426	X	4	7-9	X		WINGS 4 HORIZ.		
B427		8	2-6			BODY P.U. OPENING		
B428	X	8	3-9			STORM SEWER OPENING		

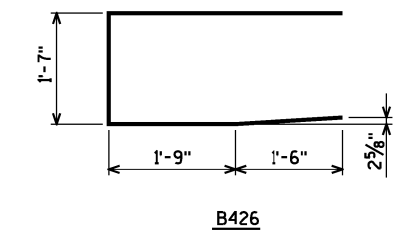
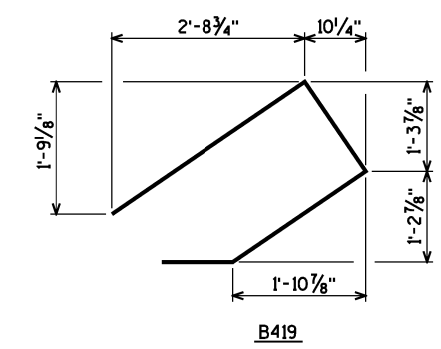
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



BAR STEEL LAYOUT - WING 4
FIELD CUT ALL BARS 2" CLEAR OF PIPE



BAR NO.	DIM. "A"	DIM. "B"
B510	1'-3 3/8"	9 3/4"
B811	4'-7 1/4"	2'-11 3/4"
B412	1'-5 1/2"	4 1/2"
B522	1'-5 3/4"	2 5/8"
B823	5'-4 1/2"	9 1/4"



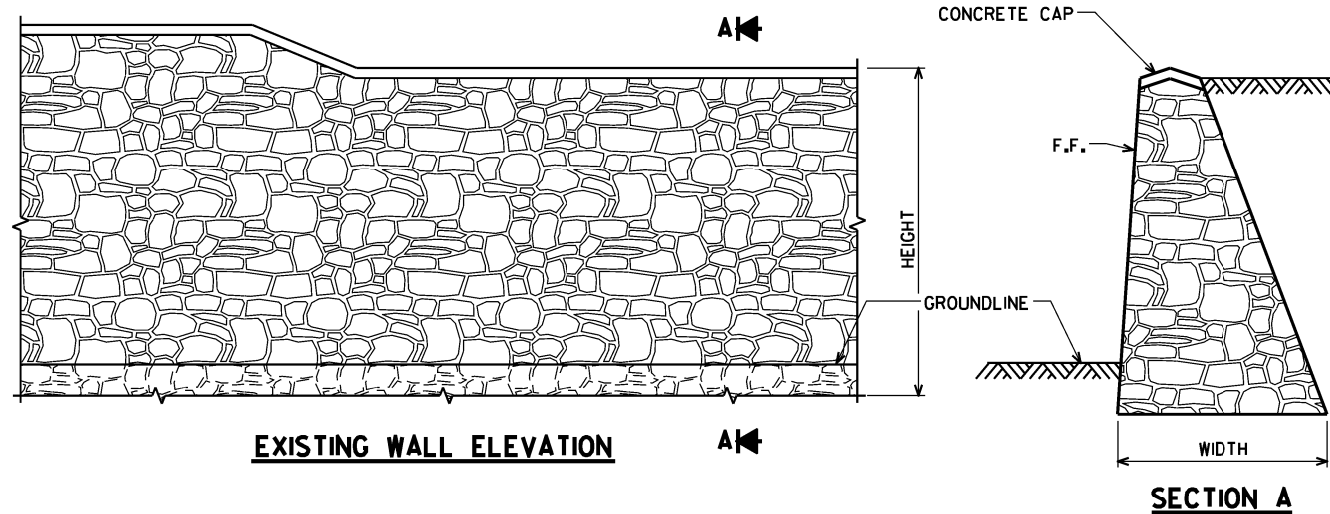
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8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY		CLP	PLANS CK'D. KRO
EAST ABUTMENT BILL OF BARS			SHEET 12 OF 23

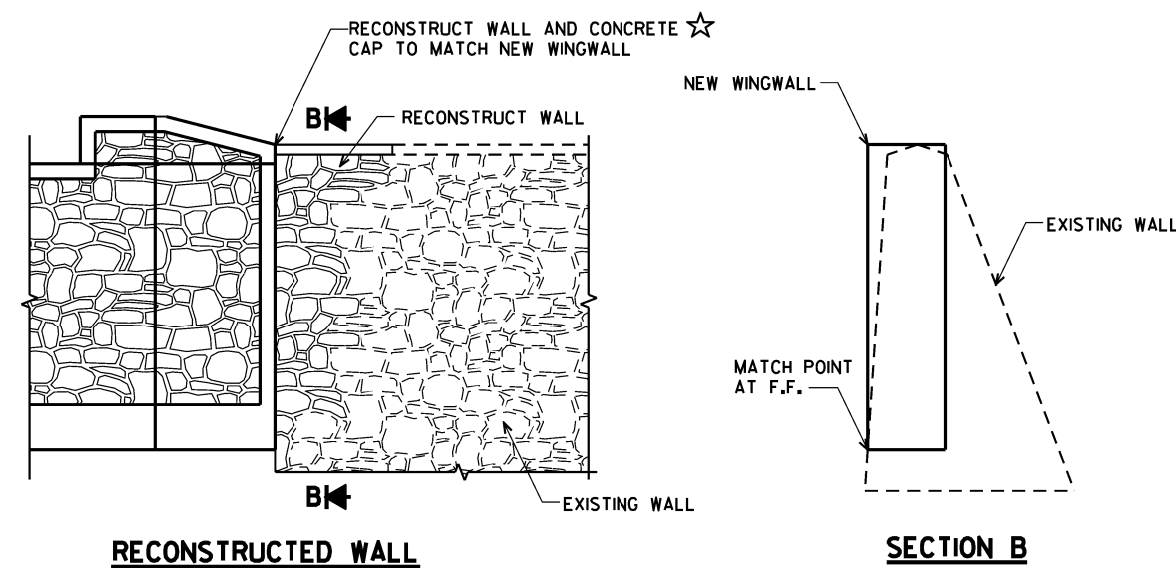
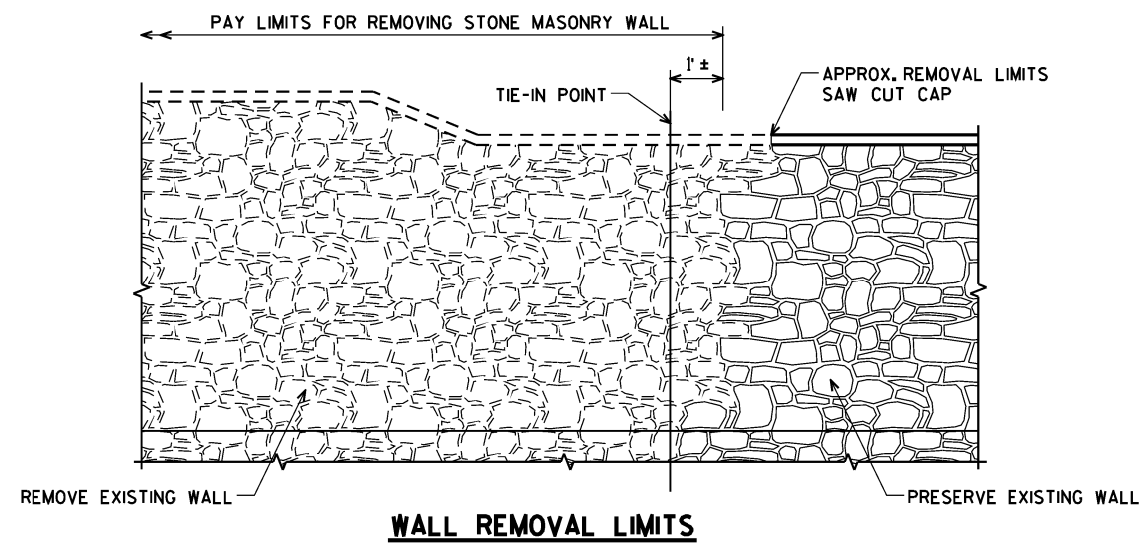
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NOTES:

EXTENT OF EXISTING RETAINING WALL IS UNKNOWN.
 BASED ON HISTORIC WALL CONSTRUCTION PRACTICES
 IT IS ANTICIPATED THAT THE WALL BASE WIDTH IS
 APPROX. 2/3 x THE HEIGHT OF THE WALL.

★ PLACE 1/2" FILLER BETWEEN BRIDGE WINGWALL AND STONE WALL. 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). EXTEND SEALER 3" BELOW GRADE AT BACK FACE. SEAL JOINT ON BACK FACE WITH 18" RUBBERIZED MEMBRANE WATERPROOFING.



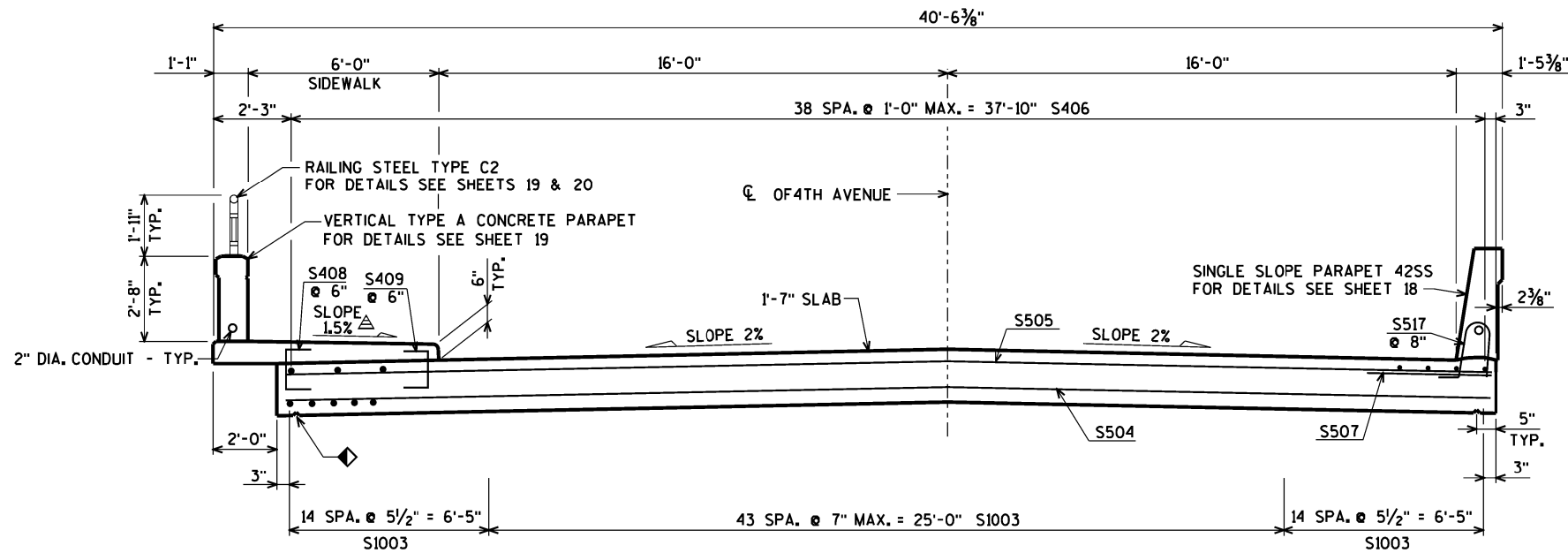
6/15/2023
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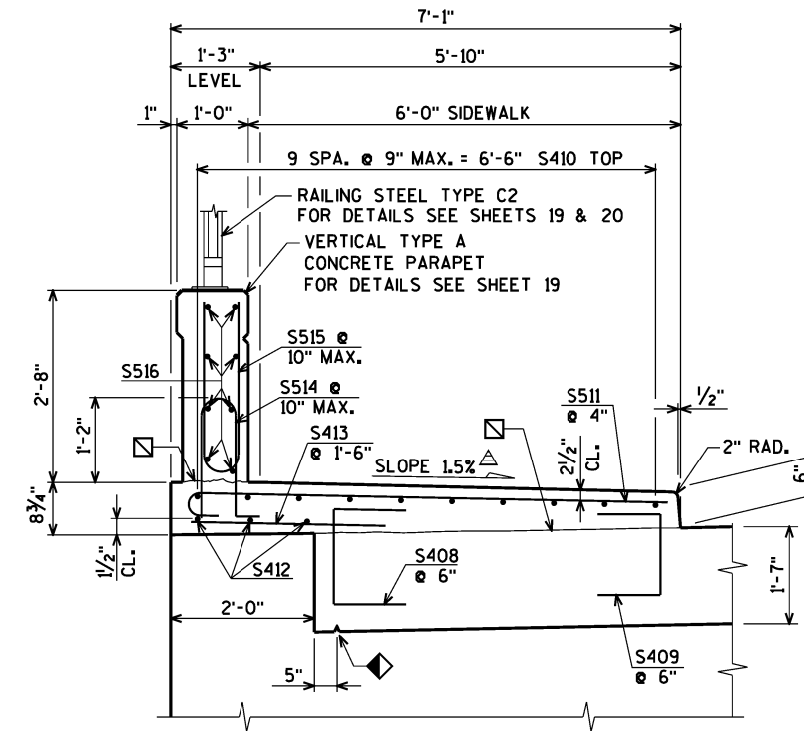
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
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STONE WALL CONNECTION DETAILS			SHEET 13 OF 23

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TYPICAL SECTION THRU BRIDGE
(LOOKING EAST)

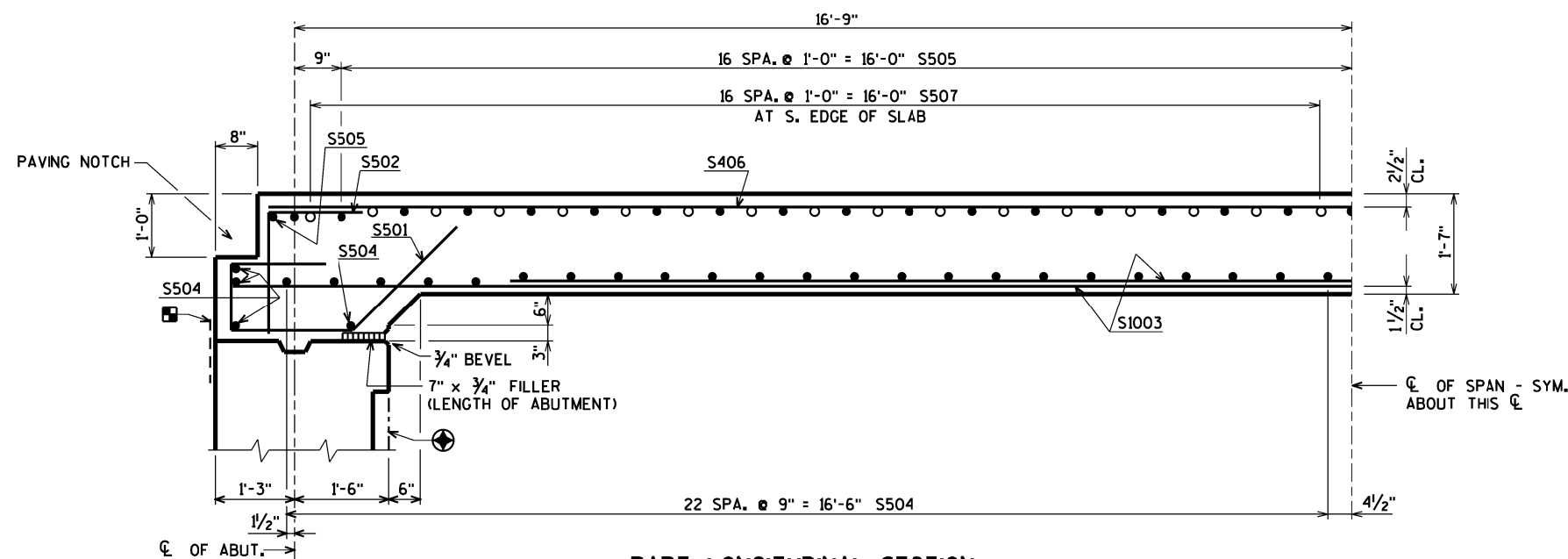


TYPICAL SECTION THRU SIDEWALK

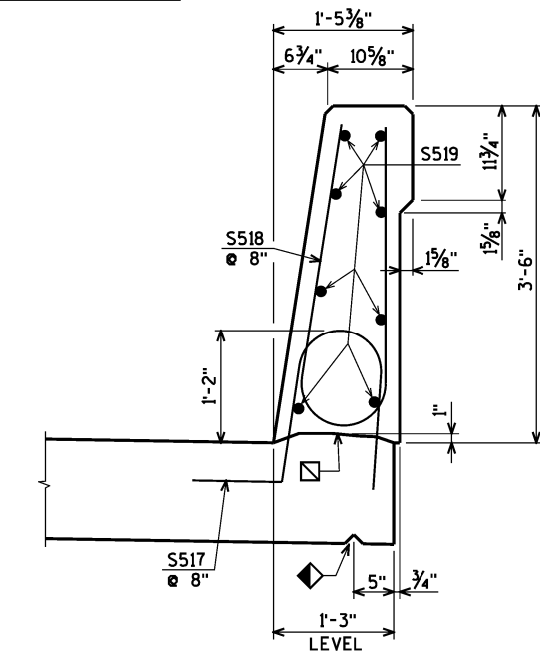
- ◆ 3/4" V-GROOVE. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENTS - TYP.
- △ ± 0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ☐ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE X-SLOPE.
- 18" RUBBERIZED MEMBRANE WATERPROOFING
- ⊙ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 3.

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 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 TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).



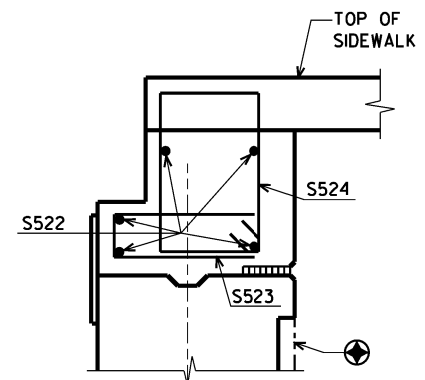
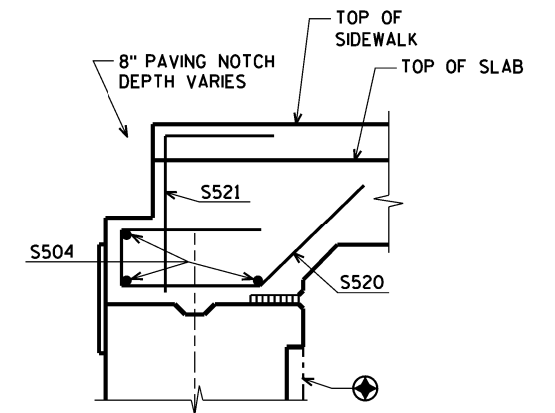
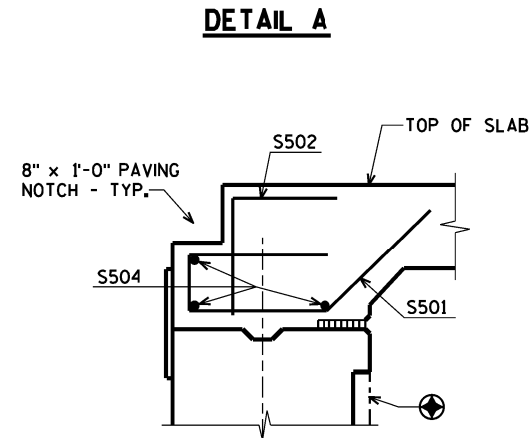
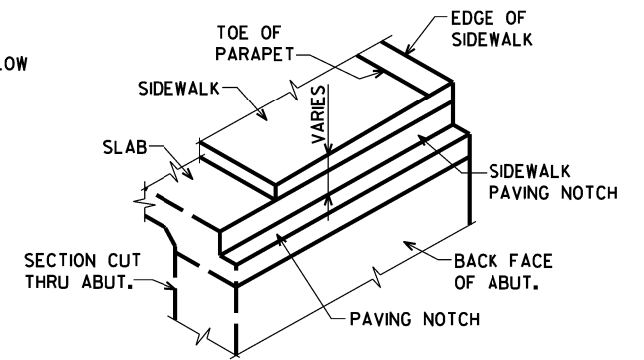
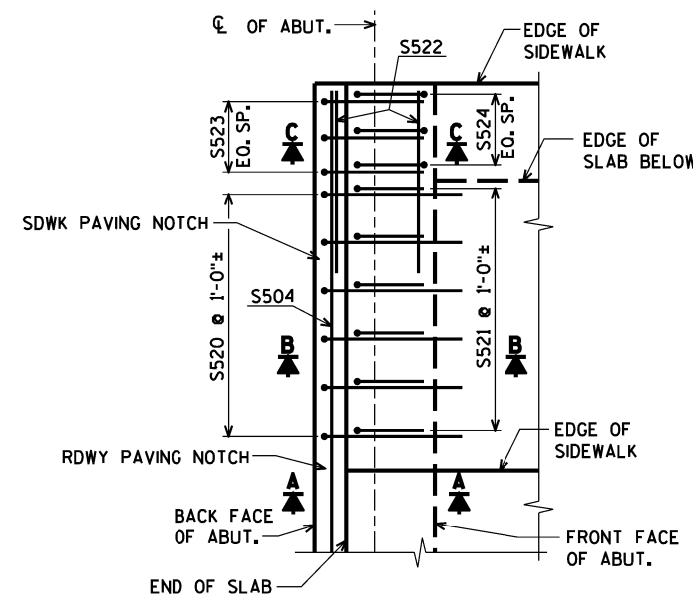
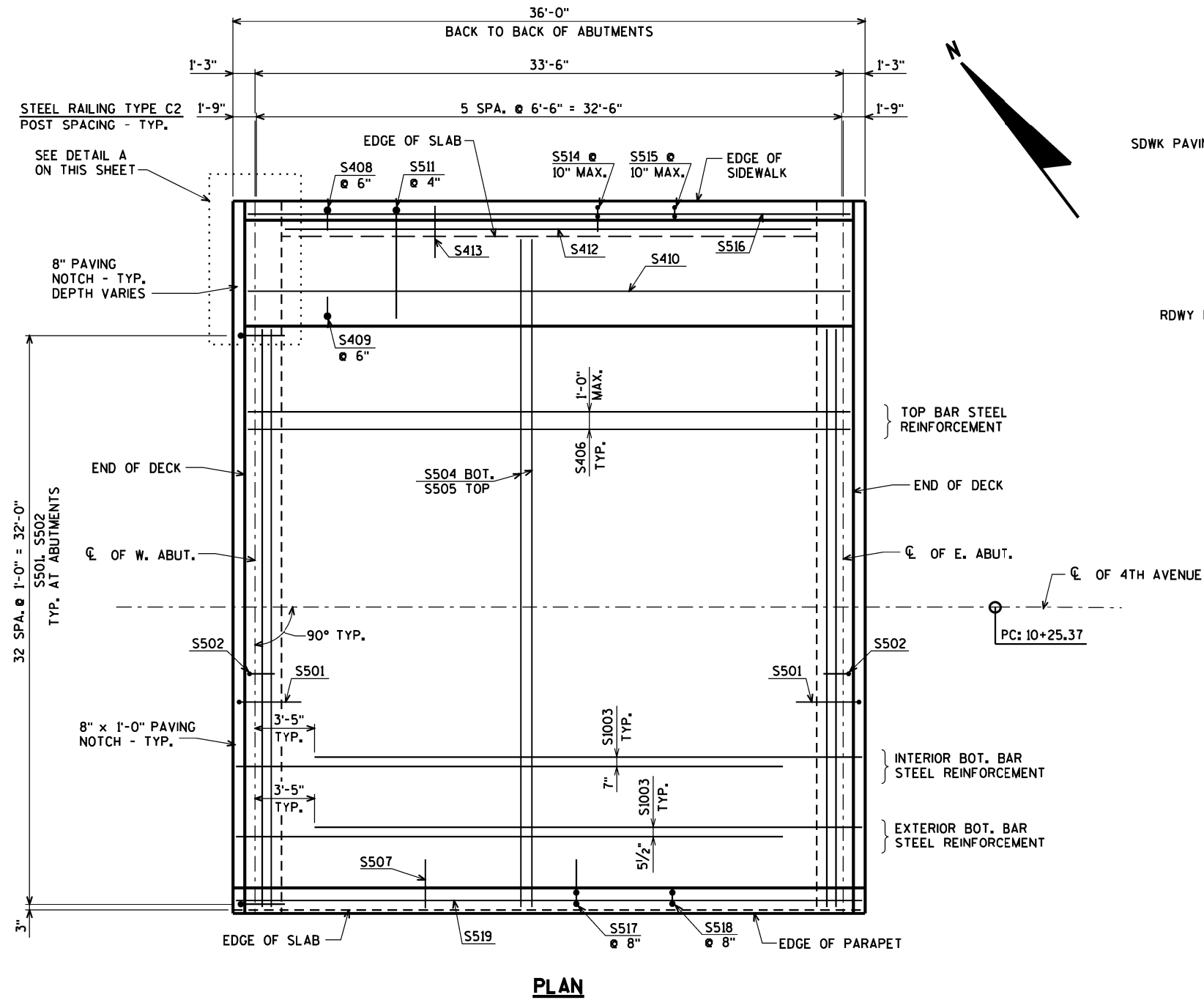
PART LONGITUDINAL SECTION



TYPICAL SECTION THRU DECK

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STRUCTURE B-34-62			
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SUPERSTRUCTURE			SHEET 14 OF 23

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ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 3.

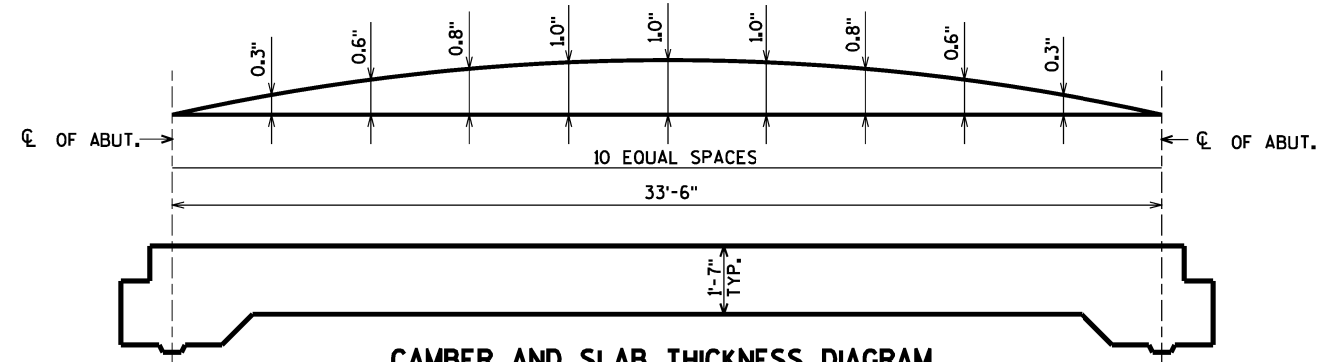
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STRUCTURE B-34-62			
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SUPERSTRUCTURE PLAN			SHEET 15 OF 23

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CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTION.

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

PARAPETS AND SIDEWALK PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAD BEEN RELEASED.

TOP OF SLAB ELEVATIONS

LOCATION	€ OF W. ABUT.	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	€ OF E. ABUT.
N. EDGE OF SLAB	1491.20	1491.17	1491.13	1491.09	1491.05	1491.01	1490.96	1490.91	1490.85	1490.80	1490.73
N. GUTTER	1491.30	1491.27	1491.23	1491.20	1491.15	1491.11	1491.06	1491.01	1490.96	1490.90	1490.84
€ OF 4TH AVENUE	1491.62	1491.59	1491.55	1491.52	1491.47	1491.43	1491.38	1491.33	1491.28	1491.22	1491.16
S. GUTTER	1491.30	1491.27	1491.23	1491.20	1491.15	1491.11	1491.06	1491.01	1490.96	1490.90	1490.84
S. EDGE OF SLAB	1491.30	1491.27	1491.23	1491.20	1491.15	1491.11	1491.06	1491.01	1490.96	1490.90	1490.84

ELEVATIONS SHOWN ARE FINISHED SLAB AND DO NOT INCLUDE ALLOWANCES OF DEAD LOAD DEFLECTION AND FUTURE CREEP.

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	€ OF W. ABUT.	5/10 PTS.	€ OF E. ABUT.
N. GUTTER			
€ OF STRUCTURE			
S. GUTTER			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE € OF ABUTMENTS AND AT 1/2 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR €. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE, 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 FLASEWORK ELEVATION

8/1/2023 PENTABLE:RReou_shd_util.tbl

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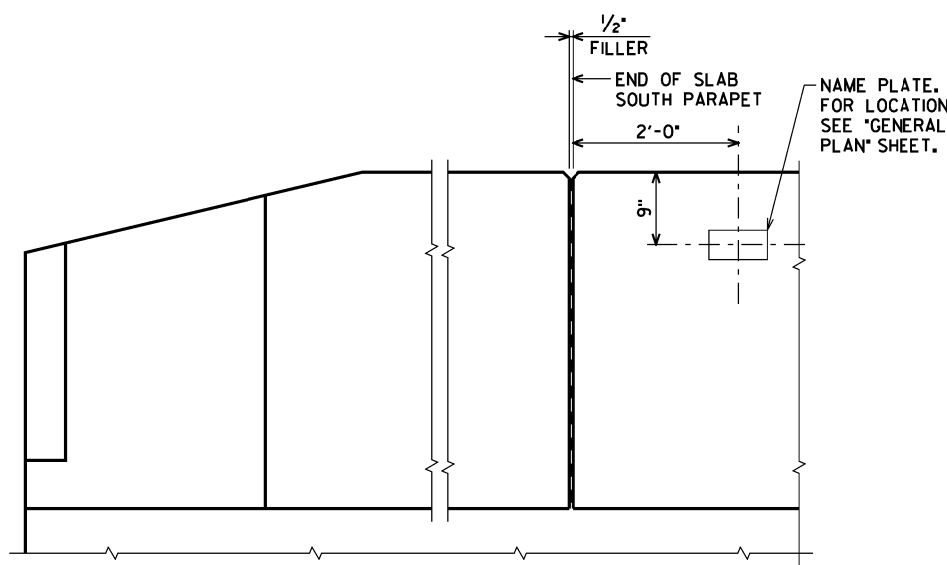
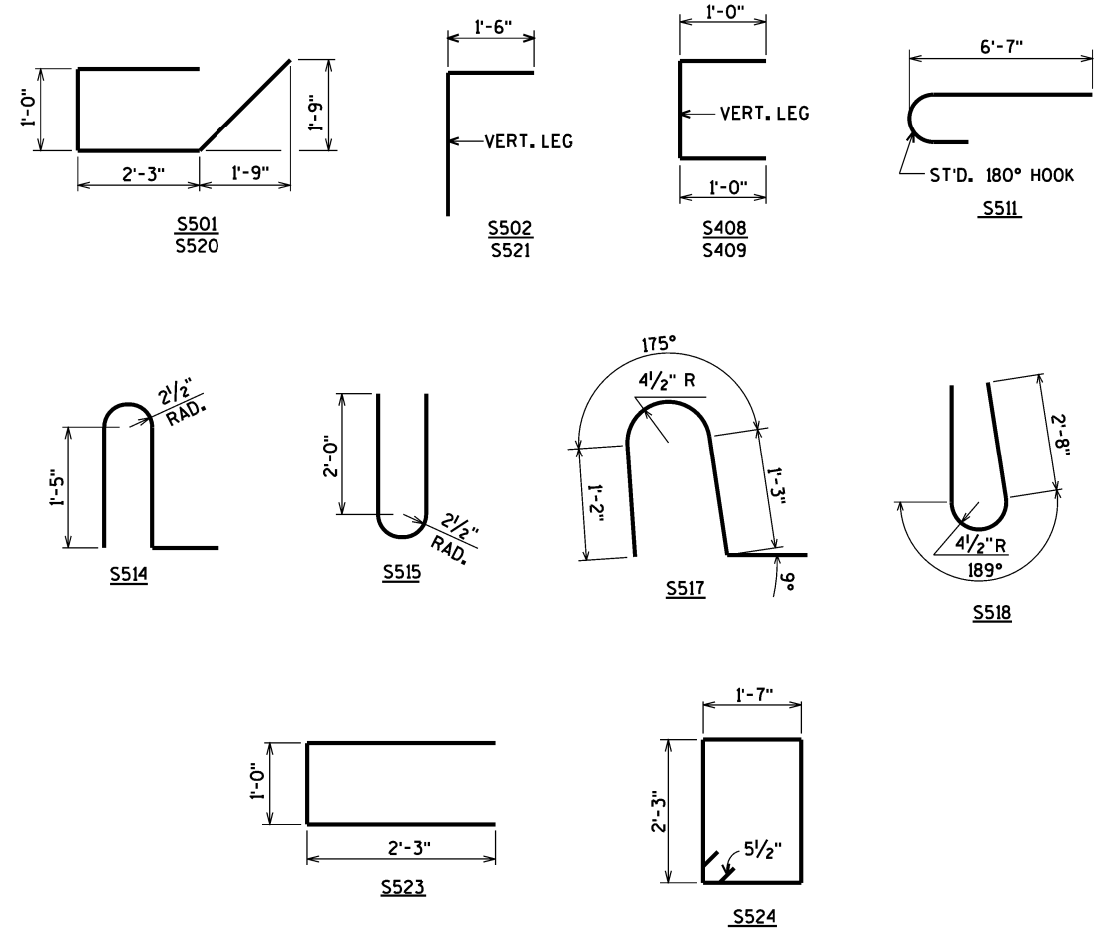
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY		CLP	PLANS CK'D. JMC
SUPERSTRUCTURE DETAILS			SHEET 16 OF 23

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BILL OF BARS

BAR NO.	COATED BAR	NO. REOD.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	18,450' COATED
							LOCATION
S501	X	66	7-7	X			SLAB @ ABUT.
S502	X	66	3-4	X			SLAB @ ABUT.
S1003	X	72	31-2				SLAB LONG. BOT.
S504	X	54	38-0				SLAB TRANS. BOT.
S505	X	37	38-0				SLAB TRANS. TOP
S406	X	39	34-4				SLAB LONG. TOP
S507	X	34	5-0				SLAB @ S. EDGE
S408	X	71	3-6	X			SLAB @ SDWK. @ CURB
S409	X	71	3-4	X			SLAB @ SDWK. @ CURB
S410	X	10	34-4				SDWK. LONG. TOP
S511	X	107	7-3	X			SDWK. TRANS. TOP
S412	X	3	30-2				SLAB @ SDWK.
S413	X	21	2-10				SLAB @ SDWK.
S514	X	46	4-4	X			SLAB @ PARAPET VERT.
S515	X	46	4-9	X			PARAPET VERT.
S516	X	8	34-4				PARAPET HORIZ.
S517	X	55	4-5	X			SLAB @ PARAPET VERT.
S518	X	53	6-8	X			PARAPET VERT.
S519	X	8	34-4				PARAPET HORIZ.
S520	X	12	7-7	X			SLAB @ ABUT.
S521	X	12	3-8	X			SLAB @ ABUT.
S522	X	10	4-0				SLAB TRANS. BOT.
S523	X	6	5-3	X			SLAB @ ABUT.
S524	X	6	8-4	X			SLAB @ ABUT.
S525	X	2	3-1				PARAPET VERT. @ JUNCTION BOX

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



NAME PLATE LOCATION

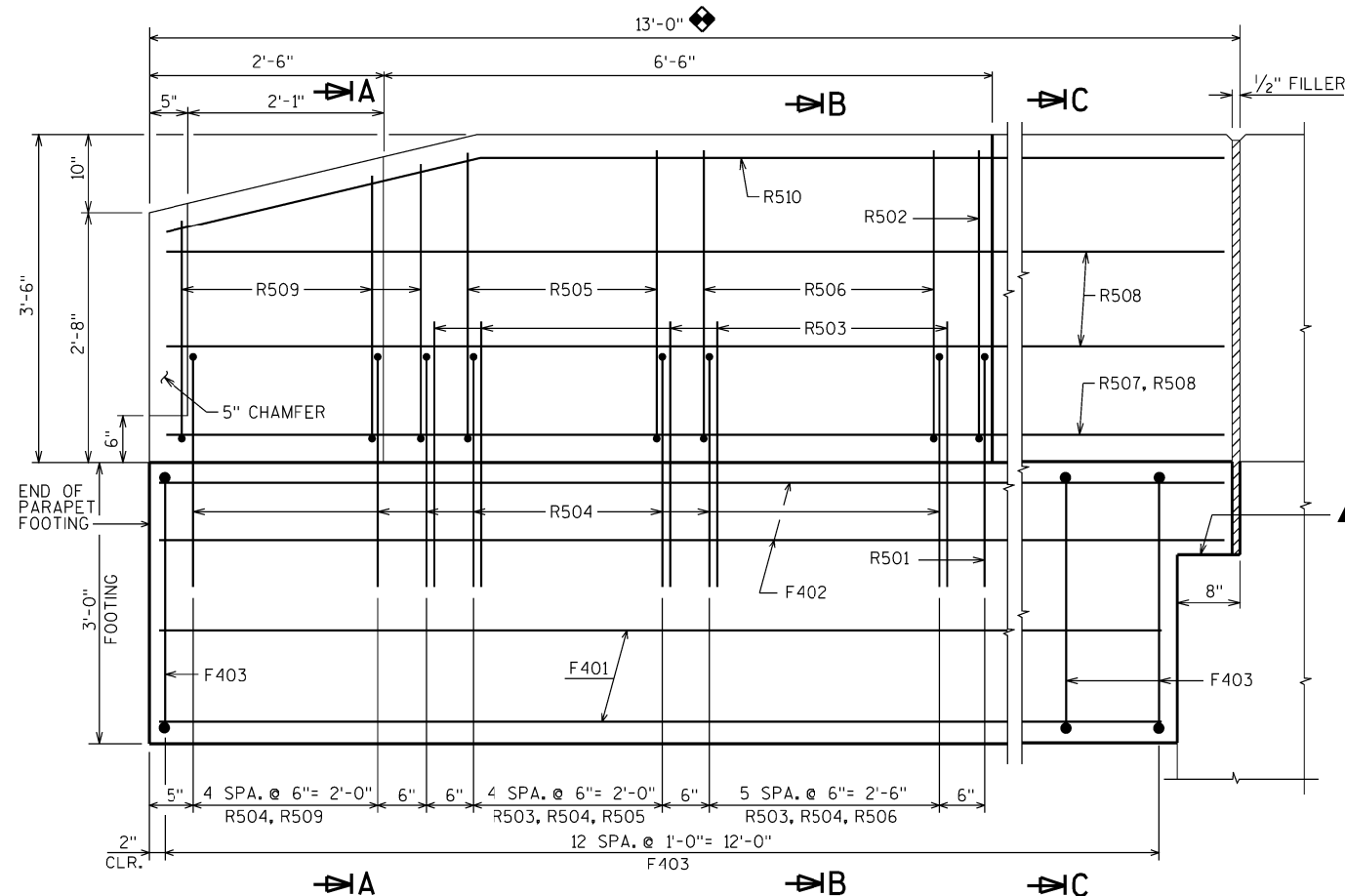
6/15/2023
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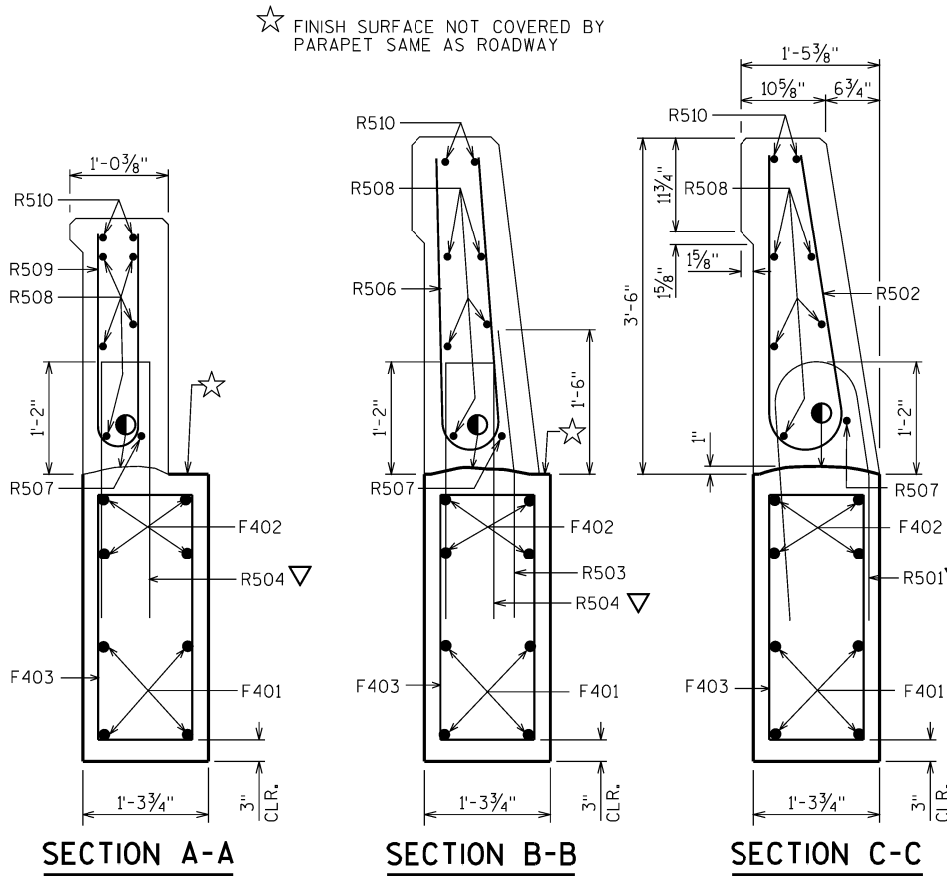
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY		CLP	PLANS CK'D. JMC
SUPERSTRUCTURE DETAILS AND BILL OF BARS			SHEET 17 OF 23

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INSIDE ELEVATION
(WING 1 SHOWN, WING 4 SIMILAR)



SECTION A-A

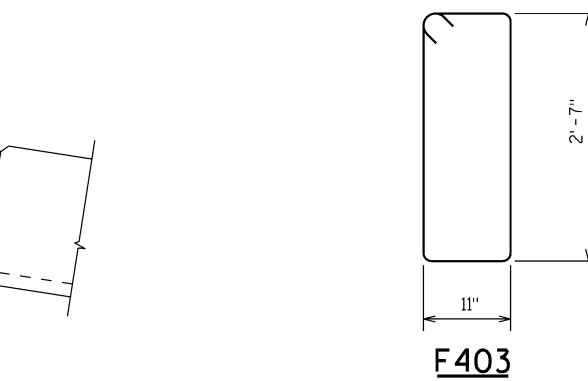
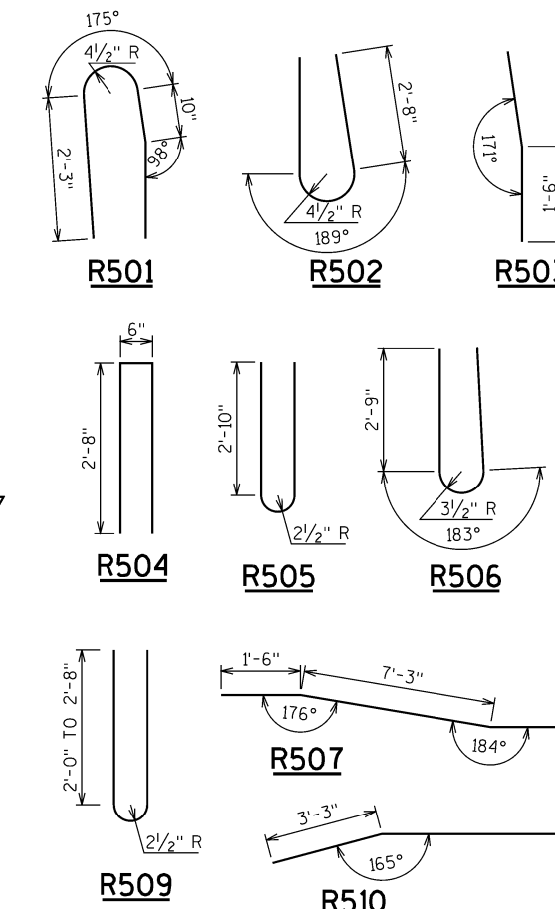
SECTION B-B

SECTION C-C

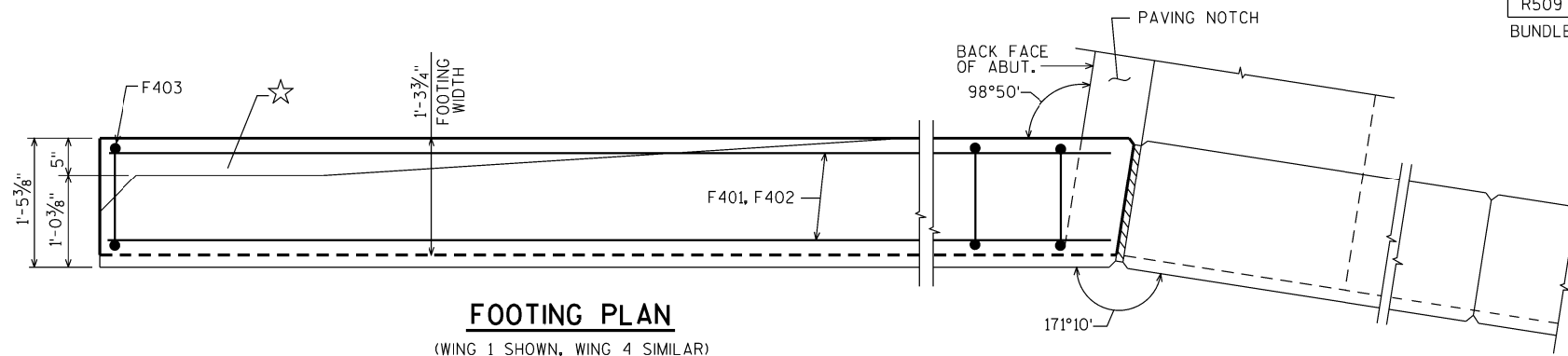
BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
R509	2 SERIES OF 6	4'-9" TO 6'-1"

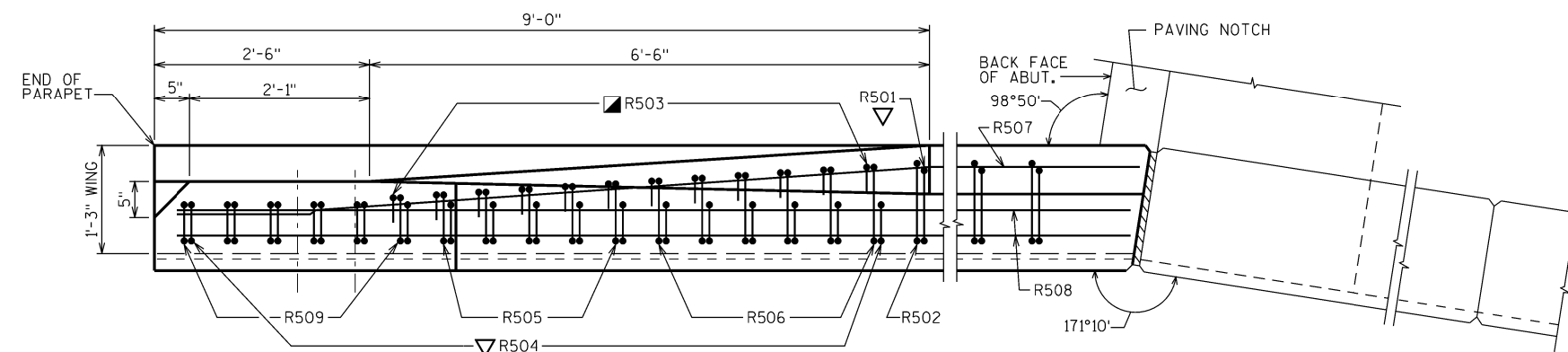
BUNDLE AND TAG EACH SERIES SEPARATELY.



F403



FOOTING PLAN
(WING 1 SHOWN, WING 4 SIMILAR)



PARAPET PLAN
(WING 1 SHOWN, WING 4 SIMILAR)

BILL OF BARS

FOR ABUTMENT PARAPETS

BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	7	7	5'-10"	X		PARAPET VERT.
R502	X	7	7	6'-8"	X		PARAPET VERT.
R503	X	12	12	3'-0"	X		PARAPET VERT.
R504	X	17	17	5'-7"	X		PARAPET VERT.
R505	X	5	5	6'-5"	X		PARAPET VERT.
R506	X	6	6	6'-6"	X		PARAPET VERT.
R507	X	1	1	12'-7"	X		PARAPET HORIZ.
R508	X	5	5	12'-7"			PARAPET HORIZ.
R509	X	6	6	5'-5"	X	⊗	PARAPET VERT.
R510	X	2	2	12'-9"	X		PARAPET HORIZ.
F401	X	4	4	11'-11"			PARAPET FOOTING
F402	X	4	4	12'-7"			PARAPET FOOTING
F403	X	13	13	7'-6"	X		PARAPET FOOTING

● CONST. JOINT - STRIKE OFF AS SHOWN

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

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

▲ STEEL TROWEL HORIZ. SURFACE OF ABUTMENT PAVING NOTCH. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS BETWEEN PARAPET FOOTING AND HORIZ. SURFACE OF PAVING NOTCH. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

◆ WING LENGTH MEASURED AT C OF FOOTING.

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

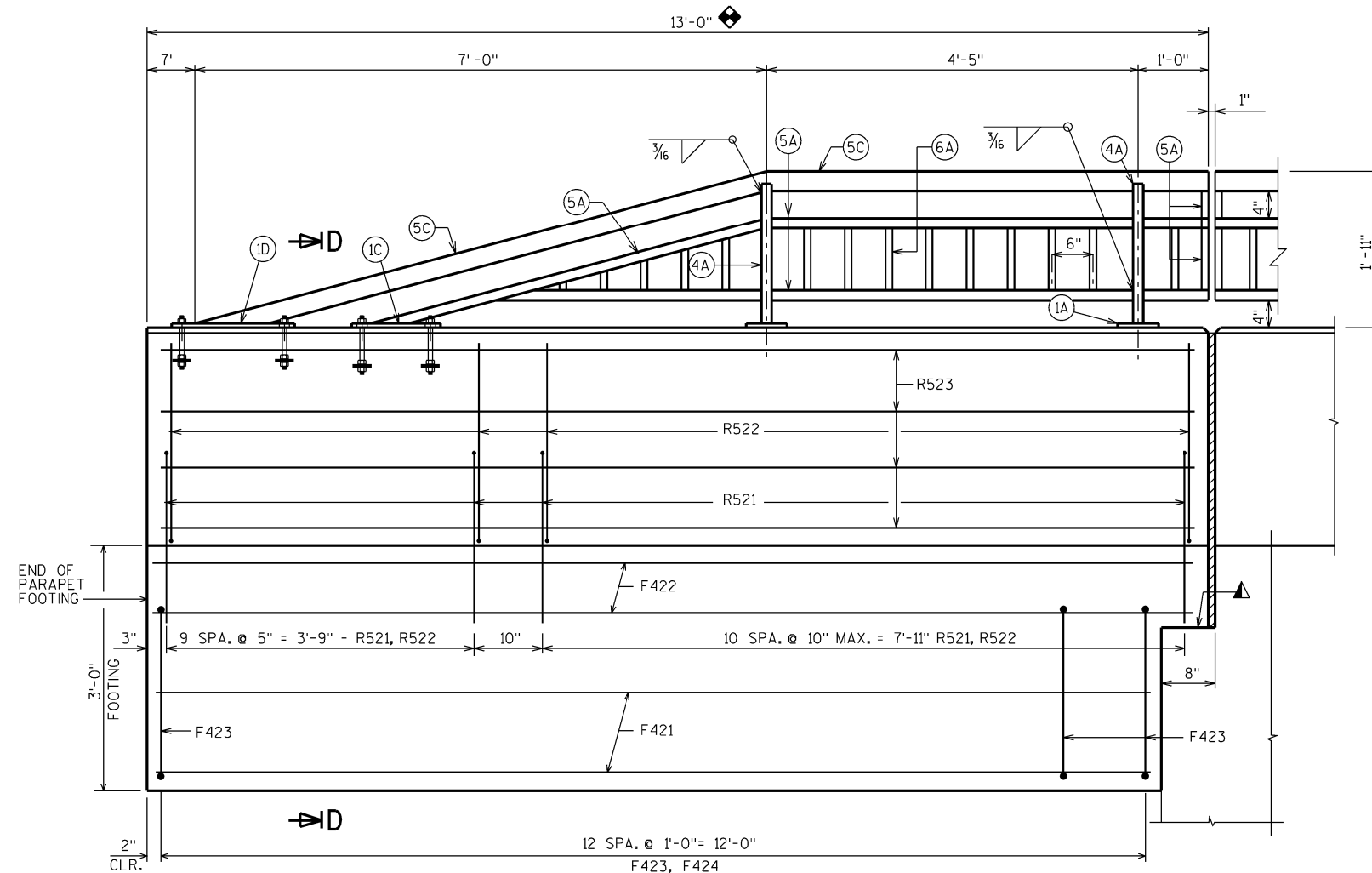
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY		CLP	PLANS CK'D. KRO
SINGLE SLOPE PARAPET 42SS WITH FOOTING			SHEET 18 OF 23

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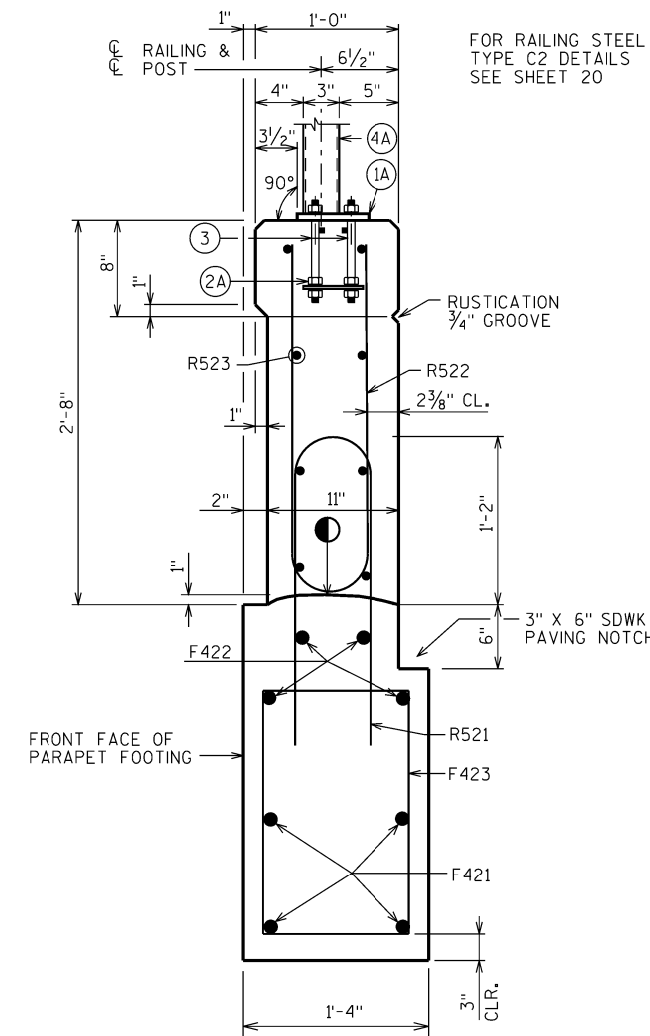
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FOR RAILING STEEL TYPE C2 DETAILS SEE SHEET 20

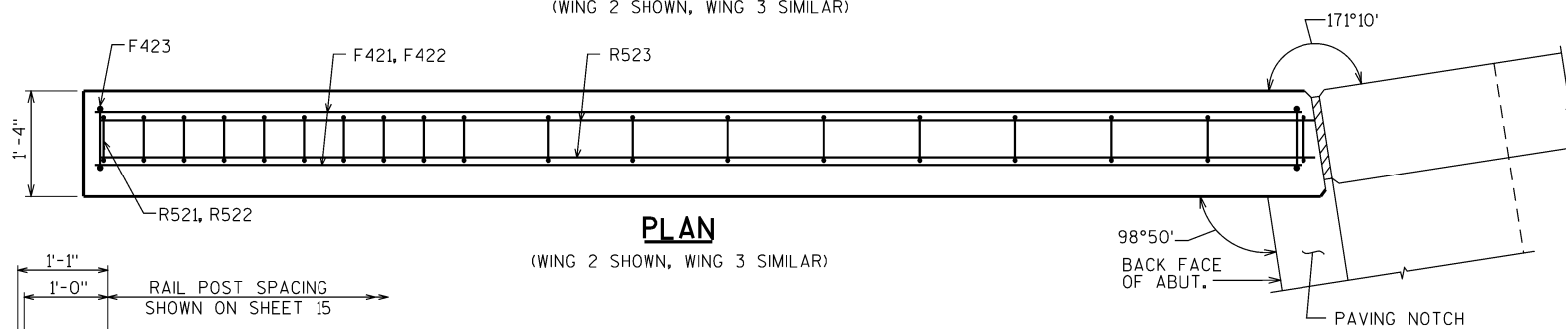
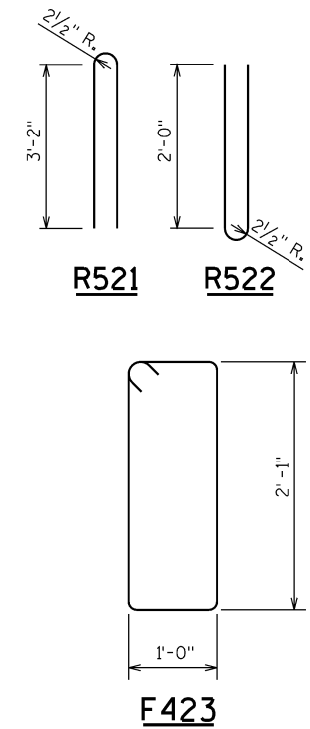


ELEVATION OF PARAPET ON FOOTING

(WING 2 SHOWN, WING 3 SIMILAR)



SECTION D-D



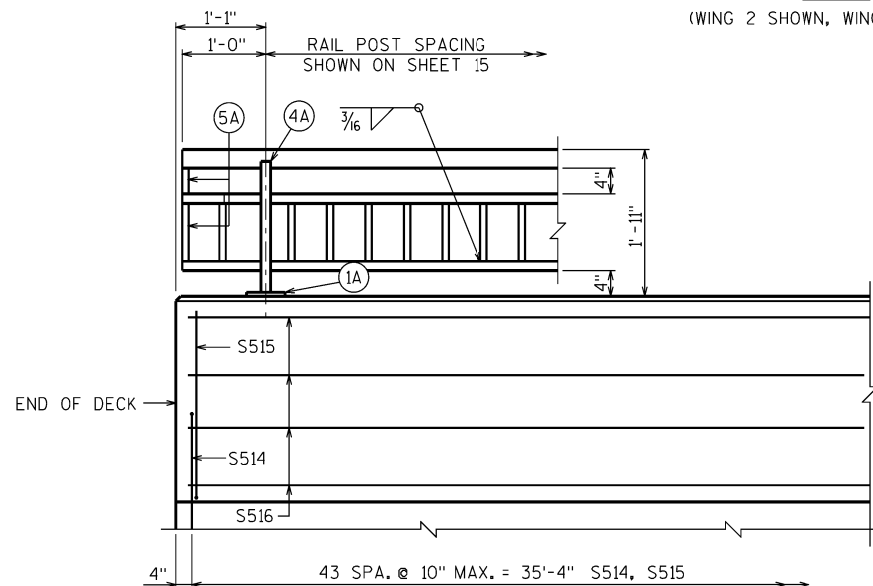
PLAN

(WING 2 SHOWN, WING 3 SIMILAR)

BILL OF BARS

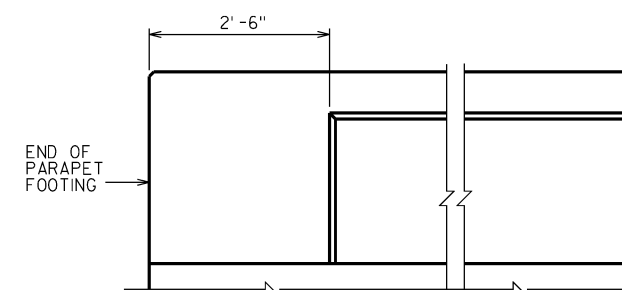
FOR ABUTMENT PARAPETS

BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R521	X	21	21	7'-1"	X		PARAPET VERT.
R522	X	21	21	4'-9"	X		PARAPET VERT.
R523	X	8	8	12'-7"			PARAPET HORIZ.
F421	X	4	4	11'-11"			PARAPET FOOTING
F422	X	4	4	12'-7"			PARAPET FOOTING
F423	X	13	13	6'-8"	X		PARAPET FOOTING



INSIDE ELEVATION OF PARAPET ON BRIDGE

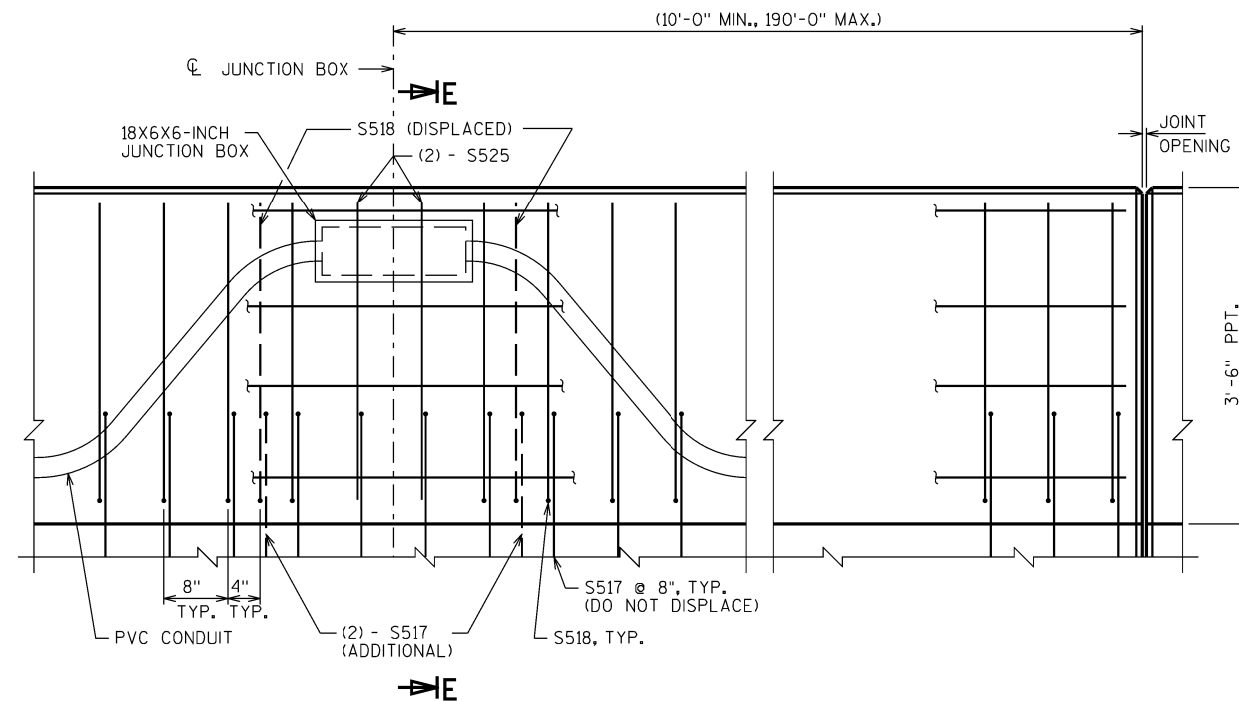
- CONST. JOINT - STRIKE OFF AS SHOWN
- ▲ STEEL TROWEL HORIZ. SURFACE OF ABUTMENT PAVING NOTCH. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS BETWEEN PARAPET FOOTING AND HORIZ. SURFACE OF PAVING NOTCH. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ◆ WING LENGTH MEASURED AT C OF FOOTING.



OUTSIDE FACE OF PARAPET

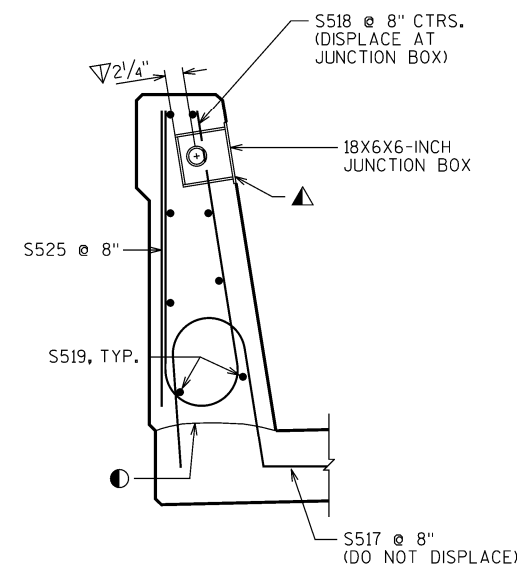
ORIGINAL PLANS PREPARED BY
AYRES 3433 Oakwood Hills Parkway
 Eau Claire, WI 54701
 www.AyresAssociates.com

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY		CLP	PLANS CK'D. KRO
VERTICAL FACE PARAPET WITH FOOTING			SHEET 19 OF 23



INSIDE ELEVATION AT JUNCTION BOX

(SLAB STEEL NOT SHOWN FOR CLARITY)



SECTION E-E

NOTES

- CONDUIT SHALL BE EMBEDDED 2" CLEAR.
- USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.
- CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.
- PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.
- SEE "PARAPET FOOTING ELECTRICAL DETAILS" SHEET FOR ADDITIONAL INFORMATION.

LEGEND

- CONSTRUCTION JOINT, STRIKE OFF AS SHOWN.
- ▲ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- ▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

PVC = POLYVINYL CHLORIDE (RIGID NONMETALLIC) CONDUIT

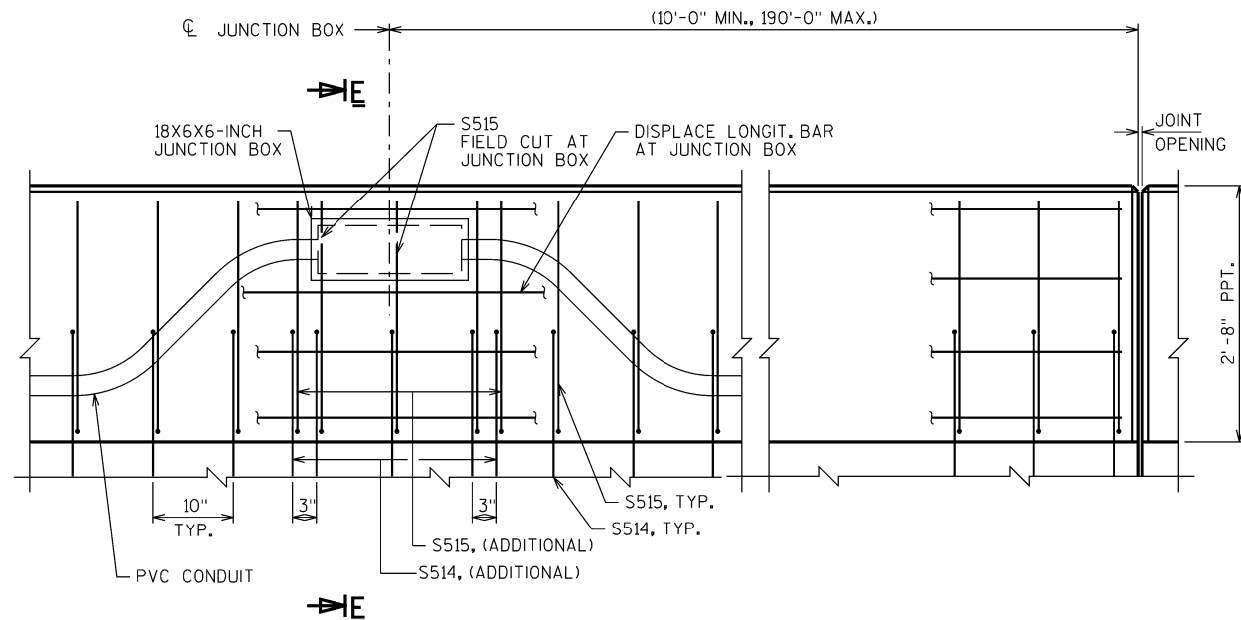
6/15/2023 PENTABLE:BRReou_shd_util.tbl

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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY		CLP	PLANS CK'D. KRO
SINGLE SLOPE PARAPET 42SS ELECTRICAL WORK			SHEET 21 OF 23

ORIGINAL PLANS PREPARED BY
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Eau Claire, WI 54701
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INSIDE ELEVATION AT JUNCTION BOX

(SLAB STEEL NOT SHOWN FOR CLARITY)

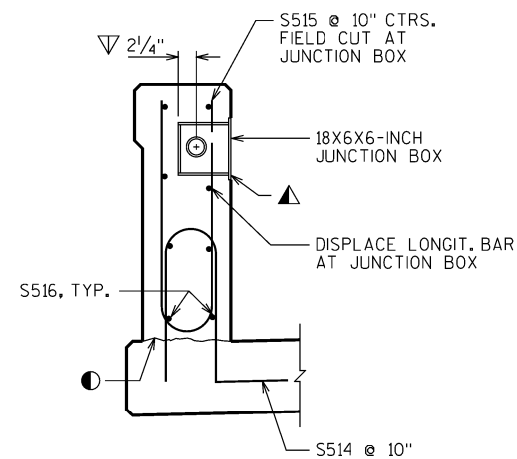
NOTES

- CONDUIT SHALL BE EMBEDDED 2" CLEAR.
- USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.
- CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.
- PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.
- SEE "PARAPET FOOTING ELECTRICAL DETAILS" SHEET FOR ADDITIONAL INFORMATION.

LEGEND

- CONSTRUCTION JOINT, STRIKE OFF AS SHOWN.
- ▲ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- ▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

PVC = POLYVINYL CHLORIDE (RIGID NONMETALLIC) CONDUIT



SECTION E-E

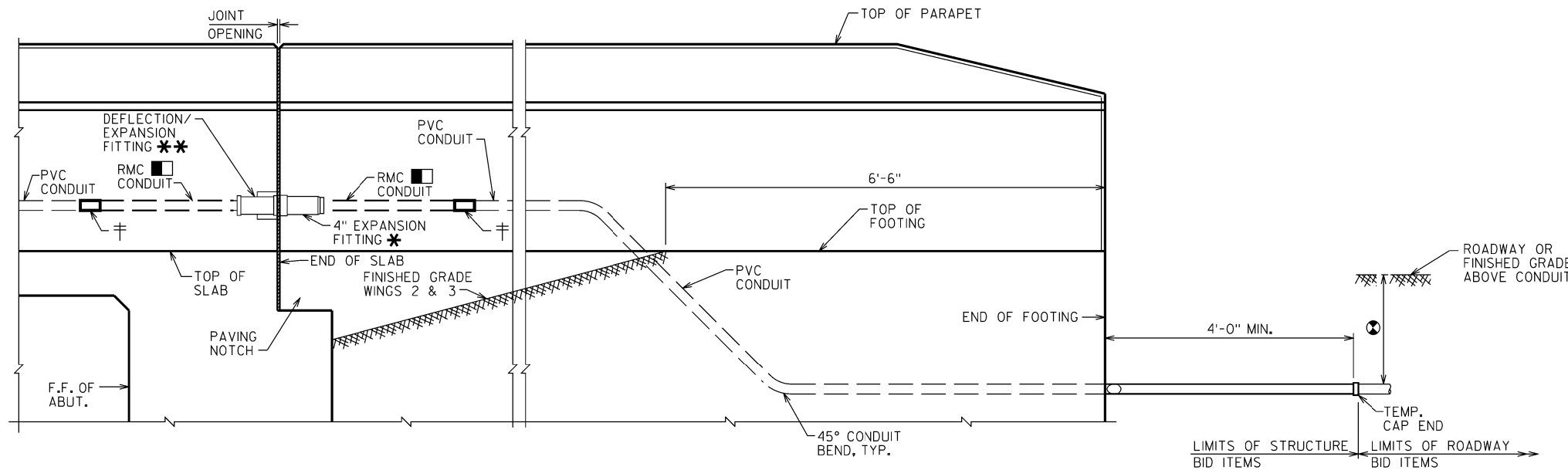
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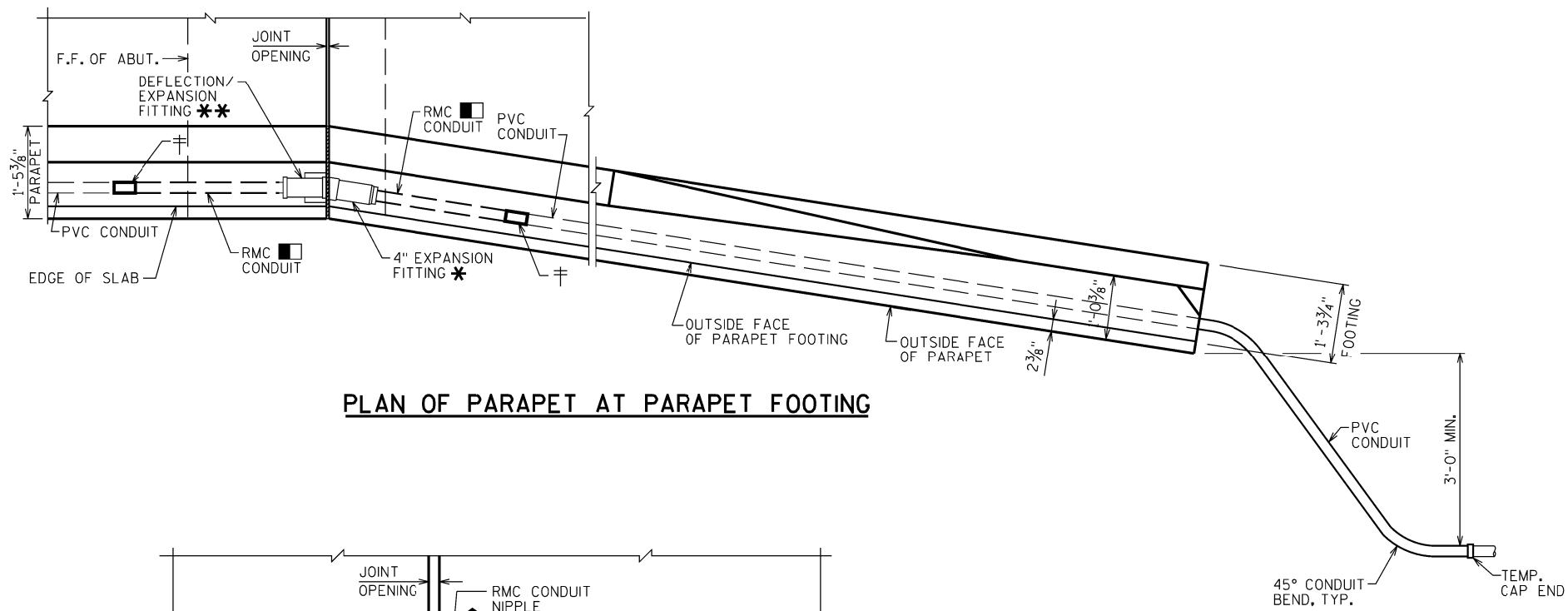
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY CLP		PLANS CK'D. KRO	
VERTICAL FACE PARAPET ELECTRICAL WORK			SHEET 22 OF 23

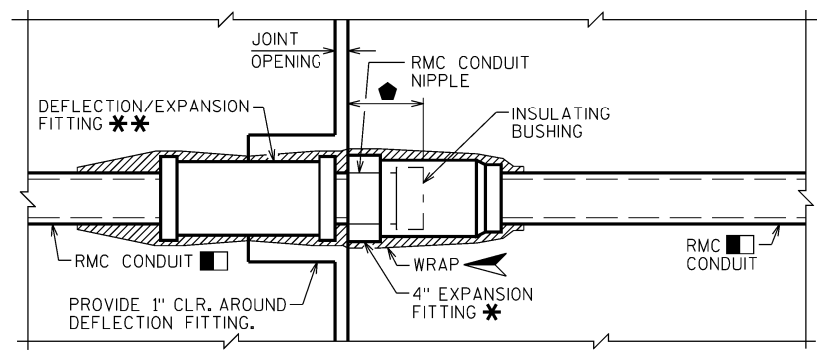
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OUTSIDE ELEVATION OF PARAPET AT WINGWALL



PLAN OF PARAPET AT PARAPET FOOTING



DEFLECTION/EXPANSION AND 4\"/>

THIS DETAIL ACCOMMODATES A MAXIMUM OF 4\"/>

LEGEND

- USE 2\"/>
- ⊥ NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTER FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED).
- ⚡ SPONGE RUBBER WRAP TO BE AASHTO M153, TYPE 1 OR EQUIVALENT - 1/4\"/>
- ◆ POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING, SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION/CONTRACTION) AS THE EXPANSION DEVICE SET IN PLACE IN THE DECK BELOW IT. TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.
- ⊙ 2'-0\"/>
- * EXPANSION FITTING REQUIREMENTS (IF USED):
 - 4\"/>
- ** DEFLECTION/EXPANSION FITTING REQUIREMENTS (IF USED):
 - UP TO 3/4\"/>

NOTES

- CONDUIT SHALL BE EMBEDDED 2\"/>
- USE 2\"/>
- CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.
- CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.
- SINGLE SLOPE PARAPET SHOWN. VERTICAL FACE PARAPET SIMILAR.

8/1/2023 PENTABLE:BRReqd_shd_util.tbl

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8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-34-62			
DRAWN BY CLP		PLANS CK'D. KRO	
PARAPET FOOTING ELECTRICAL DETAILS			SHEET 23 OF 23

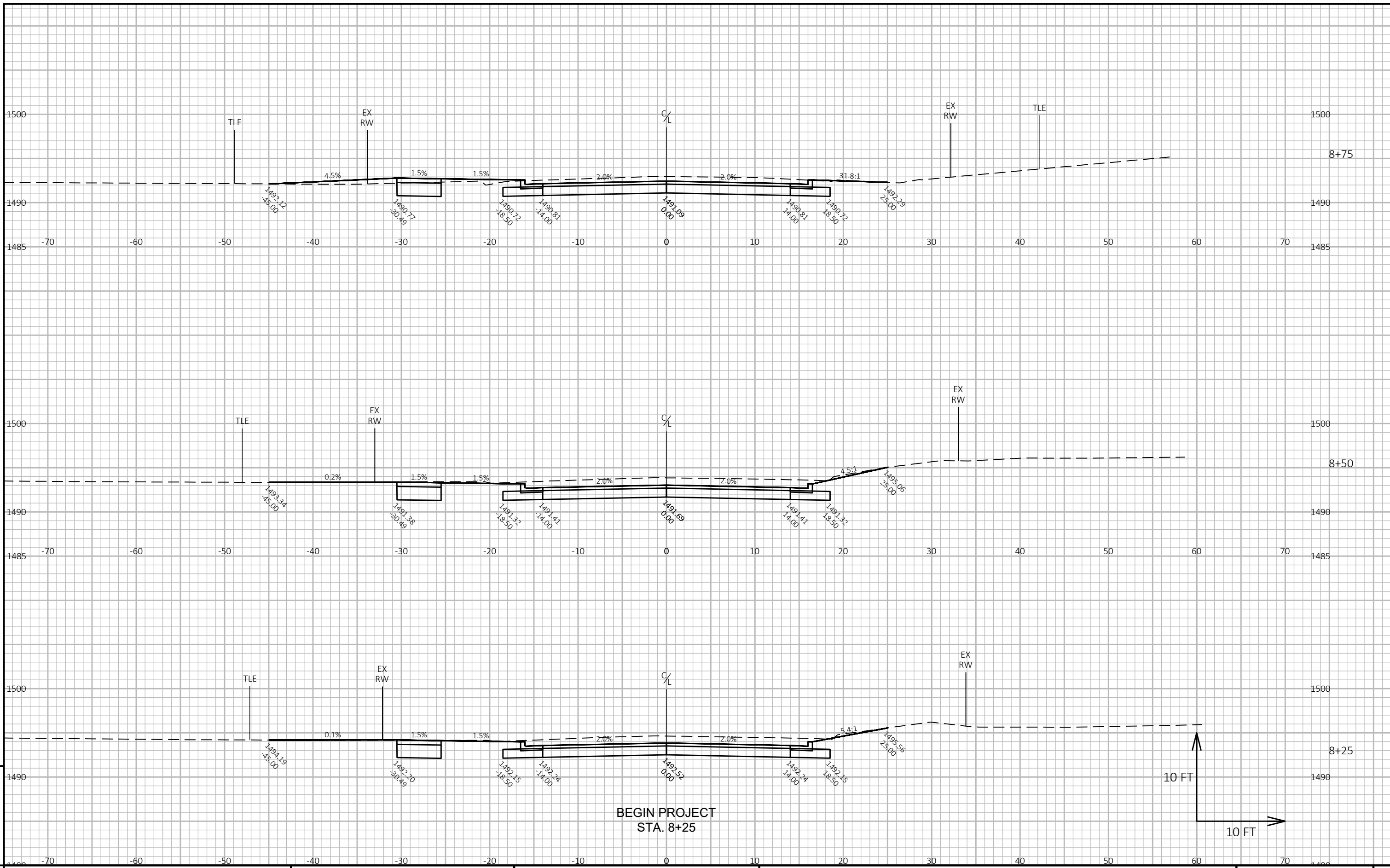
ORIGINAL PLANS PREPARED BY
AYRES 3433 Oakwood Hills Parkway
 Eau Claire, WI 54701
 www.AyresAssociates.com

EARTHWORK - 4TH AVE WEST SIDE

STATION	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)	
	Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.30
8+25	102.3	4.0				
8+50	100.5	4.0	94	4	94	5
8+75	79.3	9.9	83	6	177	13
9+00	53.5	19.7	62	14	239	31
9+25	80.4	0.0	62	9	301	43
9+50	49.7	8.5	60	4	361	48
9+75	25.7	13.4	35	10	396	61
9+82	45.8	17	9	4	405	66

EARTHWORK - 4TH AVE EAST SIDE

STATION	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)	
	Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.30
10+18	60.3	14.0				
10+25	58.6	11.9	15	3	15	4
10+50	65.5	7.7	57	9	73	16
10+75	59.5	5.1	58	6	131	24
11+00	64.8	4.5	58	4	188	30
11+27	59.7	1.8	62	3	250	34

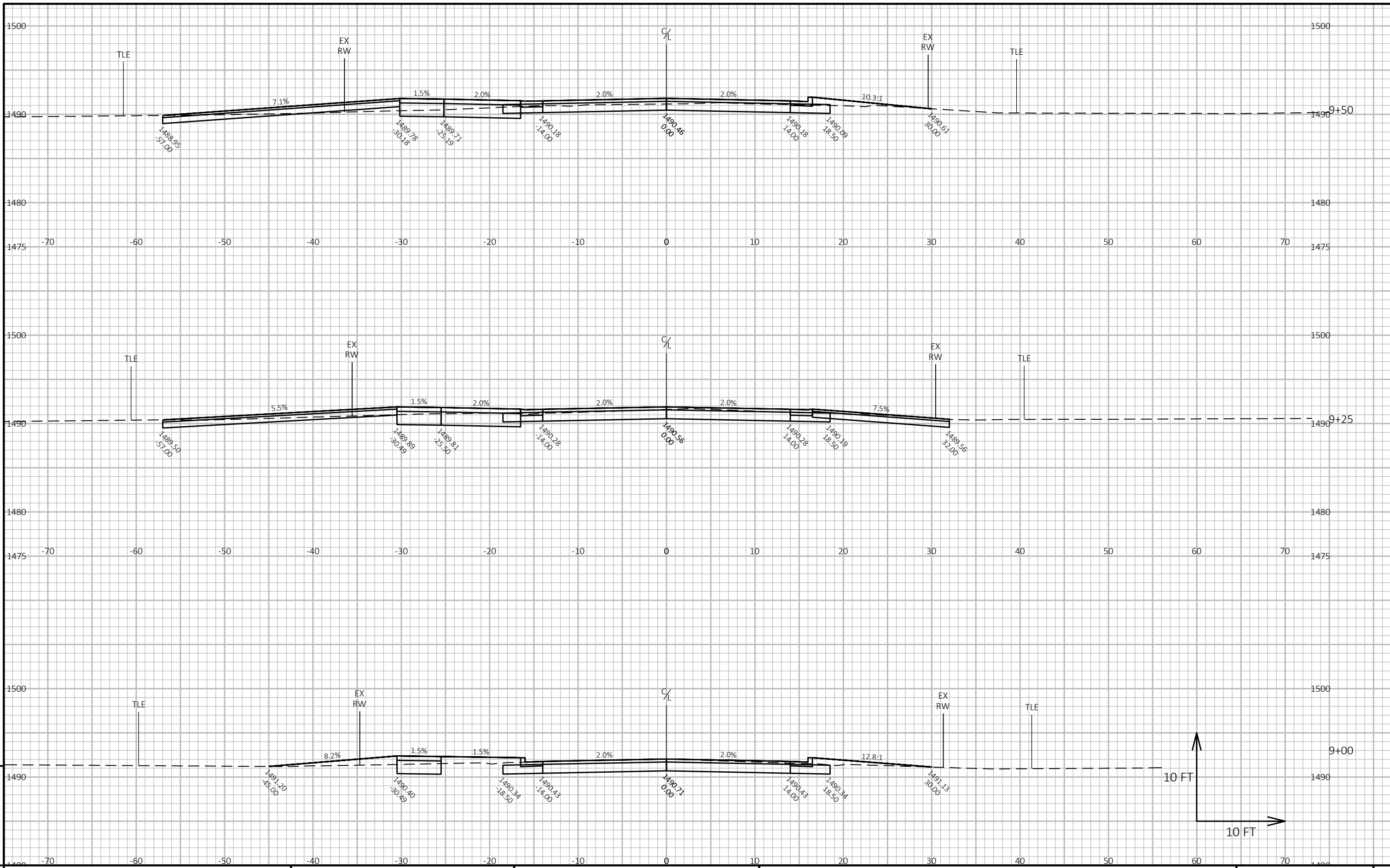


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PROJECT NO: 9835-00-71 HWY: 4TH AVENUE COUNTY: LANGLADE CROSS SECTIONS: 4TH AVENUE SHEET E

FILE NAME : I:\45\450543 ANTIGO 4TH AVE BRIDGE\C3D\SHEETSPLAN\090201-XS.DWG PLOT DATE : 10/31/2023 3:53 PM PLOT BY : GARNICA, BRANDON PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49



PROJECT NO: 9835-00-71

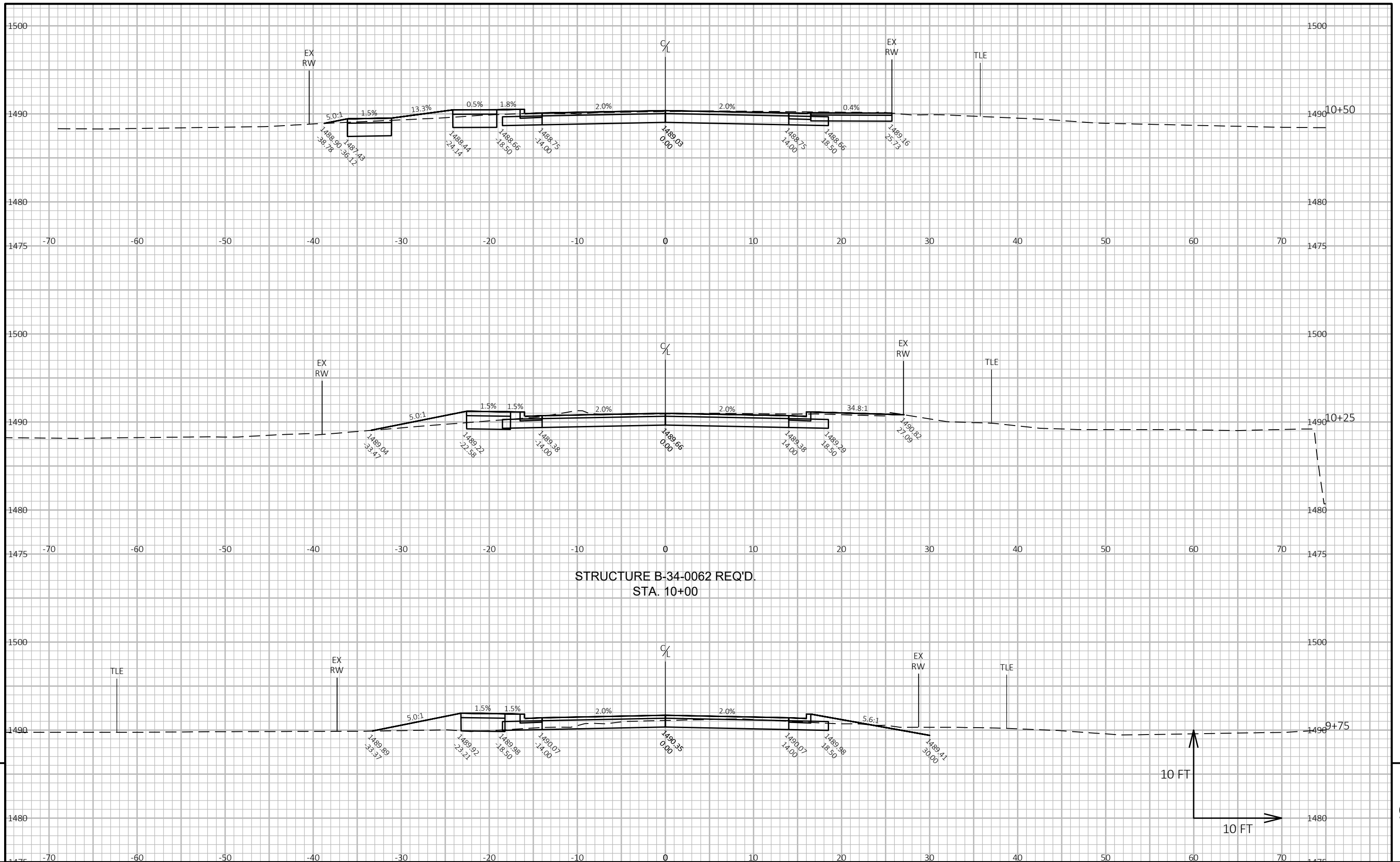
HWY: 4TH AVENUE

COUNTY: LANGLADE

CROSS SECTIONS: 4TH AVENUE

SHEET

E



STRUCTURE B-34-0062 REQ'D.
STA. 10+00

PROJECT NO: 9835-00-71

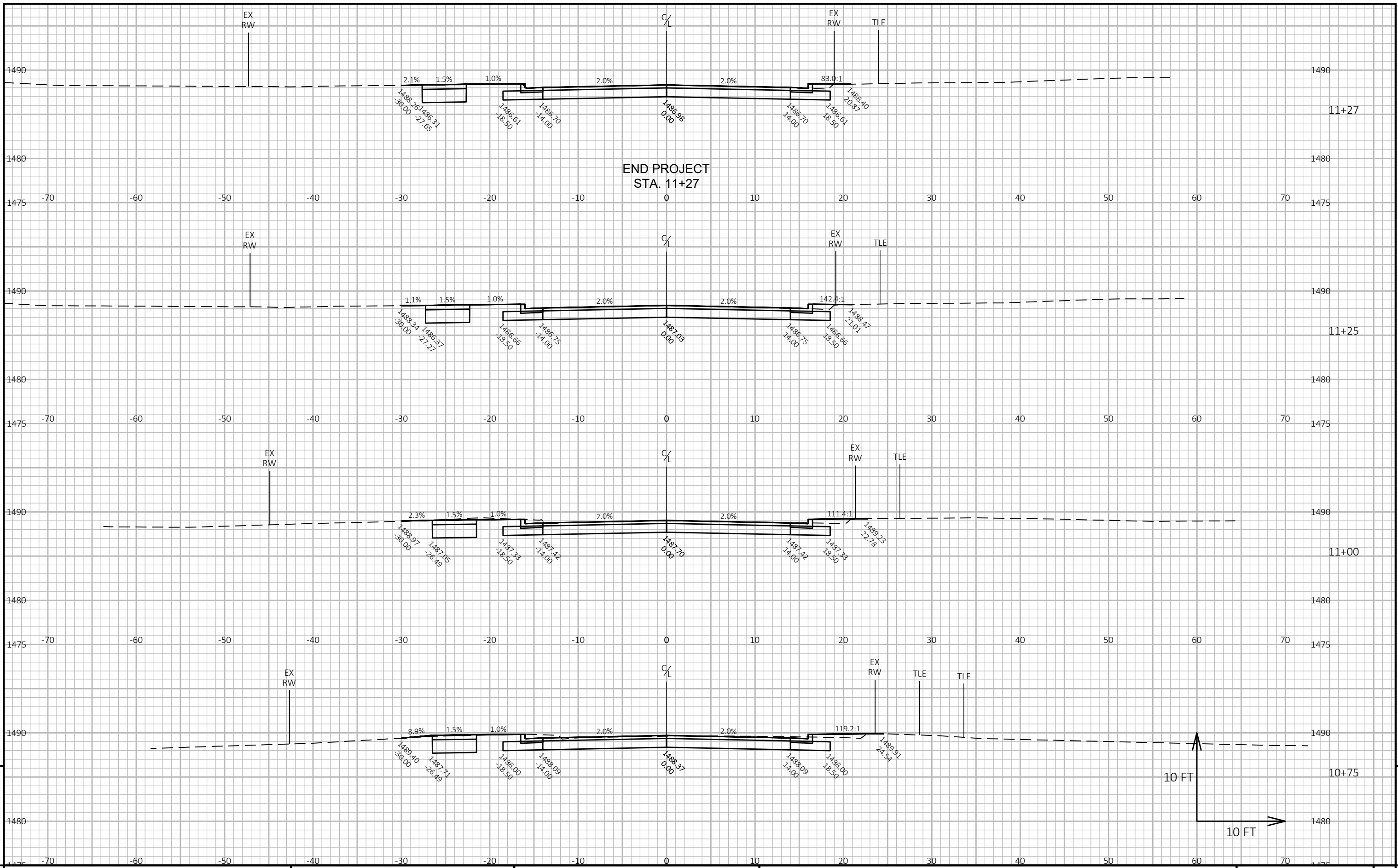
HWY: 4TH AVENUE

COUNTY: LANGLADE

CROSS SECTIONS: 4TH AVENUE

SHEET

E



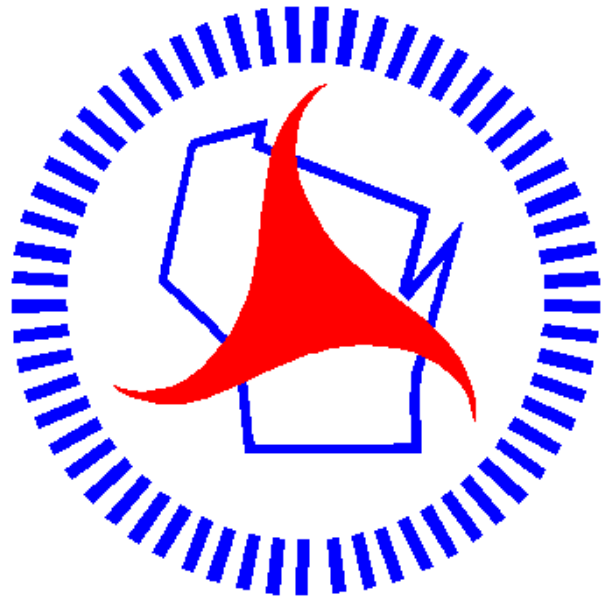
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9

PROJECT NO: 9835-00-71 HWY: 4TH AVENUE COUNTY: LANGLADE CROSS SECTIONS: 4TH AVENUE SHEET E

FILE NAME : I:\45\450543 ANTIGO 4TH AVE BRIDGE\C3D\SHEETSPLAN\090201-XS.DWG PLOT DATE : 10/31/2023 3:53 PM PLOT BY : GARNICA, BRANDON PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 090204-xs



Wisconsin Department of Transportation

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