

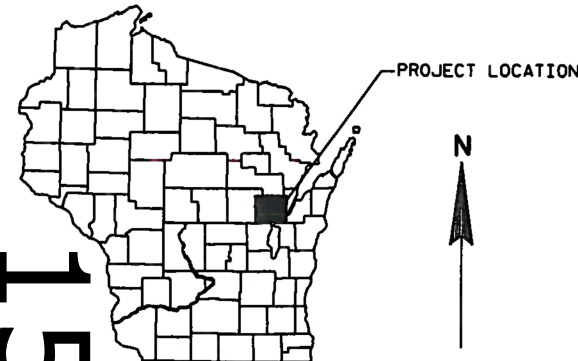
PROJECT ID: 4984-08-71

COUNTY: OUTAGAMIE

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 = 66



DESIGN DESIGNATION

A.A.D.T. (2013)	=	4000
A.A.D.T. (2033)	=	4300
D.H.V.	=	3.5
D.D.	=	58/42
T.	=	4.4
DESIGN SPEED	=	25
ESALS	=	N/A

CONVENTIONAL SYMBOLS

PLAN
CORPORATE LIMITS

PROPERTY LINE

LOT LINE

LIMITED HIGHWAY EASEMENT

EXISTING RIGHT OF WAY

PROPOSED OR NEW R/W LINE

SLOPE INTERCEPT

REFERENCE LINE

EXISTING CULVERT

PROPOSED CULVERT
(Box or Pipe)

COMBUSTIBLE FLUIDS

MARSH AREA

WOODED OR SHRUB AREA

PROFILE

GRADE LINE

ORIGINAL GROUND

MARSH OR ROCK PROFILE
(To be noted as such)

SPECIAL DITCH

GRADE ELEVATION

CULVERT (Profile View)

UTILITIES

ELECTRIC

FIBER OPTIC

GAS

SANITARY SEWER

STORM SEWER

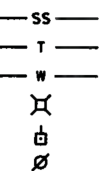
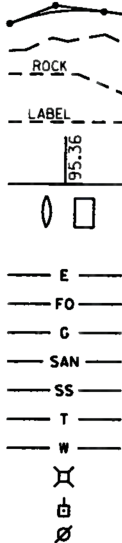
TELEPHONE

WATER

UTILITY PEDESTAL

POWER POLE

TELEPHONE POLE



2

GENERAL NOTES

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

FILL AS SHOWN ON THE PLANS PERTAINS TO EMBANKMENTS CONSTRUCTED FROM COMMON EXCAVATION. THE ALLOWANCE USED FOR EXPANDING THE FILLS TO COMPUTE THE VOLUME OF MATERIAL REQUIRED IS 30 PERCENT. ALL FILL VOLUMES SHOWN ARE THE ACTUAL VOLUMES.

THE EXACT LOCATION OF DRIVEWAYS IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

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

ALL DISTURBED AREAS, NOT OTHERWISE SURFACED ARE TO BE TOPSOILED, FERTILIZED, SEEDED AND MULCHED.

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE SHALL BE PLACED PRIOR TO CONSTRUCTION AND IN PLACE PRIOR TO STRUCTURE REMOVAL.

THE EXACT LOCATIONS OF ALL EROSION CONTROL ITEMS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

CURB AND GUTTER RADII ARE SHOWN TO THE FACE OF CURB.

ALL TRANSVERSE CONTRACTION JOINTS, LONGITUDINAL JOINTS AND CONSTRUCTION JOINTS FOR CONCRETE PAVEMENT AND CONCRETE CURB AND GUTTER SHALL BE SEALED

PLAN ELEVATIONS = USGS DATUM (NAVD 88)

EROSION CONTROL NOTES

RUNOFF COEFFICIENTS FOR THIS PROJECT: EXISTING PAVEMENT 0.95, EXISTING SLOPES 0.30, NEW PAVEMENT 0.95, NEW SLOPES 0.30.

TOTAL PROJECT AREA = 0.43 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.23 ACRES

CONTACTS

ELECTRIC & GAS

WE ENERGIES
333 WEST EVERETT STREET - A279
MILWAUKEE, WI 53203
ATTN: DAN SANDE
TELEPHONE: (414) 221-4578
EMAIL: Dan.sande@we-energies.com

LOCAL CONTACT (ELECTRIC): KEN VAN-OSS
TELEPHONE: (920) 380-3318
EMAIL: Kenneth.Van-oss@we-energies.com

LOCAL CONTACT (GAS): TOM BORCHART
TELEPHONE: 920-380-3449
EMAIL: thomas.borchart@we-energies.com

COMMUNICATIONS

TIME WARNER CABLE
3520 EAST DESTINATION DRIVE
APPLETON, WI 54915
ATTN: VINCE ALBIN
TELEPHONE: (920) 831-9249
EMAIL: vince.albin@twcable.com

WATER

CITY OF APPLETON
MARK KILHEFFER
100 N APPLETON STREET
APPLETON, WI 54911
TELEPHONE: (920) 832-6327
EMAIL: mark.kilheffer@appleton.org

SEWER

CITY OF APPLETON
CHAD WEYENBERG
100 N APPLETON STREET
APPLETON, WI 54911
TELEPHONE: (920) 832-5915
EMAIL: chad.weyenberg@appleton.org

DNR LIAISON

MATT SCHAEVE
DEPARTMENT OF NATURAL RESOURCES
2984 SHAWANO AVENUE
GREEN BAY, WI 54307-0448
TELEPHONE: (920) 662-5472
EMAIL: Matthew.Schaeve@wisconsin.gov

DIGGERSHOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

PROJECT NO: 4984-08-71

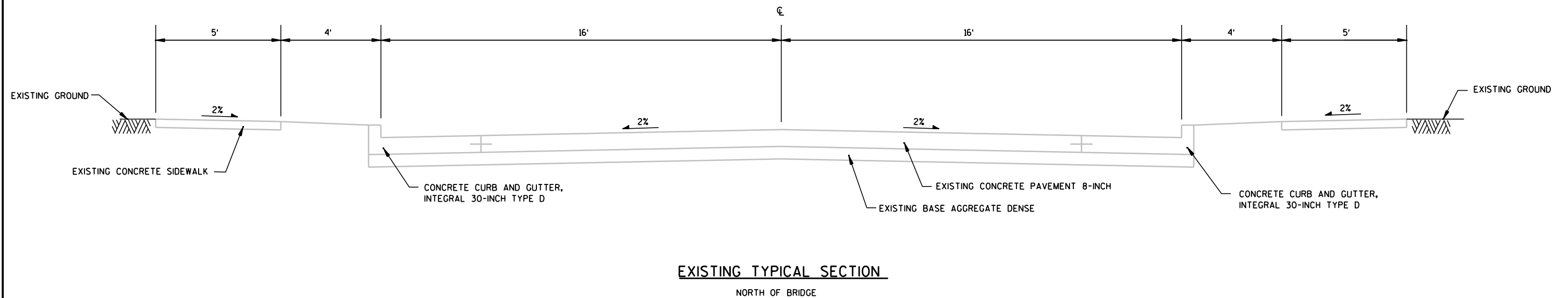
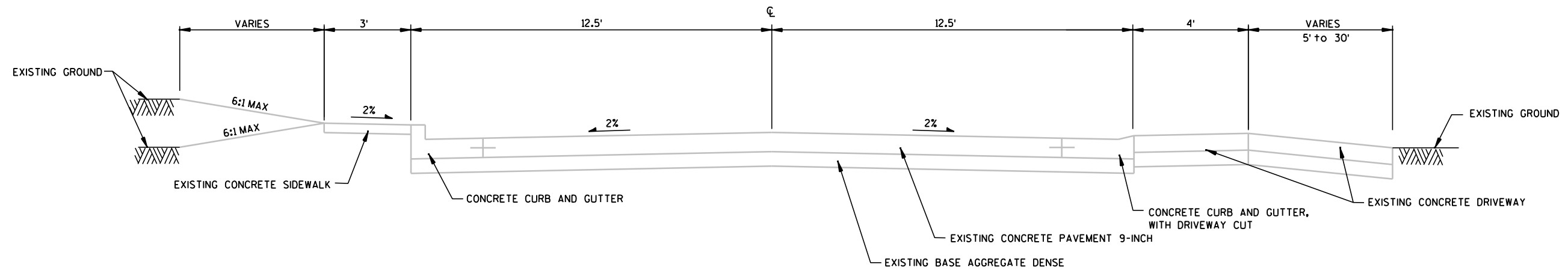
HWY: LAWE ST

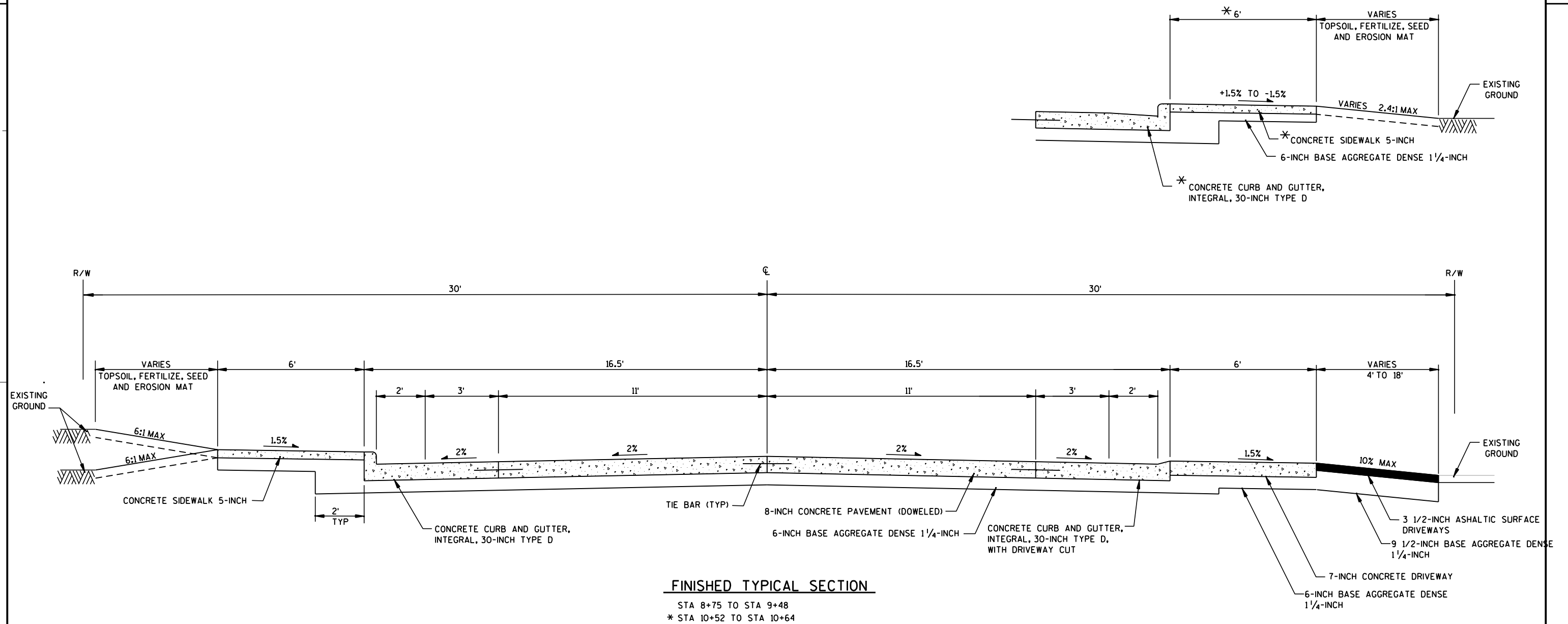
COUNTY: OUTAGAMIE

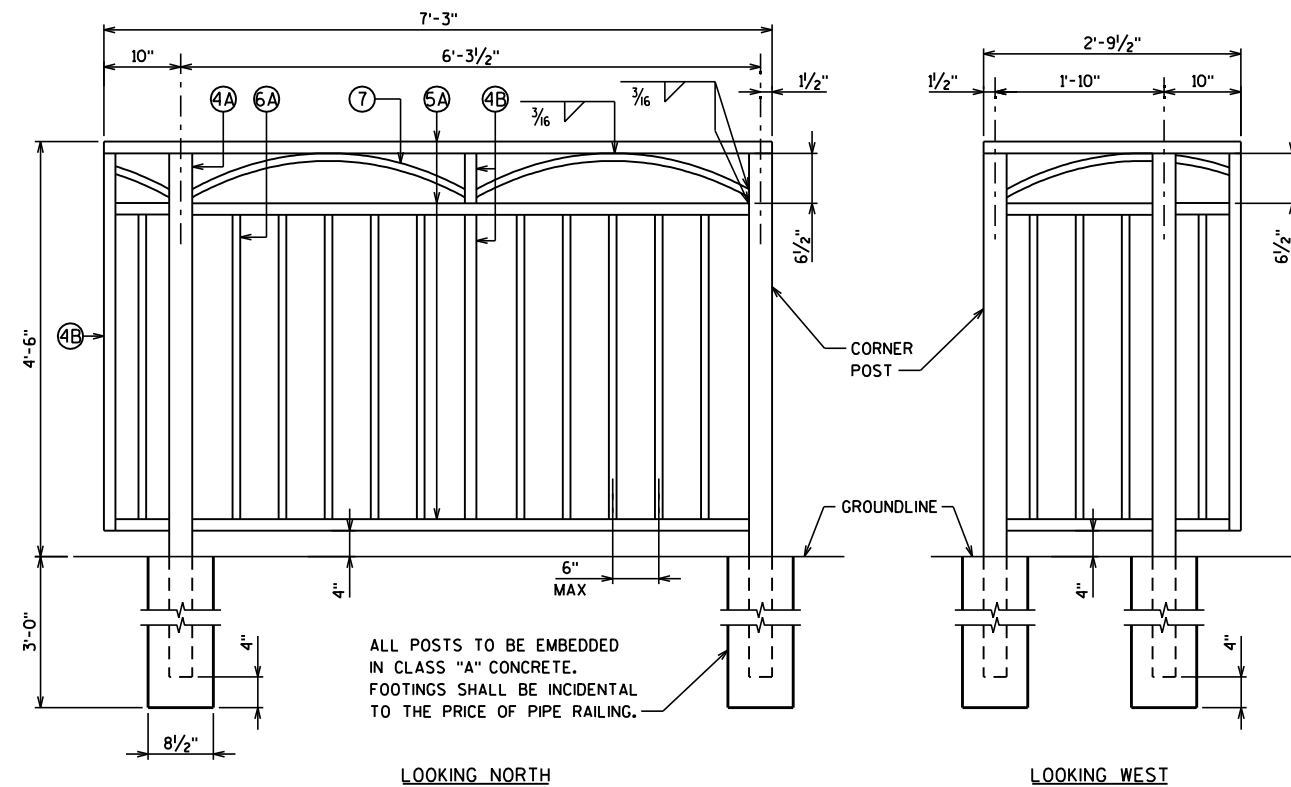
GENERAL NOTES

SHEET:

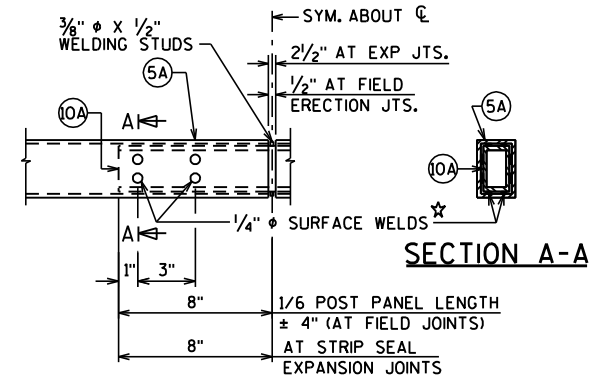
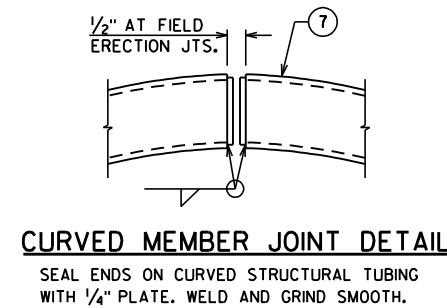
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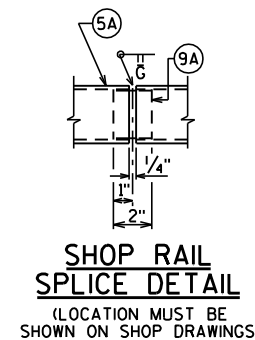


RAILING AT SOUTH WEST CORNER OF BRIDGE P-44-718



FIELD ERECTION JOINT DETAIL

★ MIN. 5/8" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.

**LEGEND**

- ④A STRUCTURAL TUBING 3" X 3" X 3/16". PLACE VERTICAL. WELD TO NO. 5.
- ④B STRUCTURAL TUBING 3" X 1 1/2" X 3/16". PLACE VERTICAL. WELD TO NO. 5.
- ⑤A STRUCTURAL TUBING 3" X 1 1/2" X 3/16" RAILS. WELD TO NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.
- ⑥A BAR 1" X 1" PICKETS. WELD TO NO. 5. PLACE VERTICAL.
- ⑦ BAR 1" X 1". BEND TO REQUIRED RADIUS. WELD TO NO. 4 & 5.
- ⑨A RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".
- ⑩A RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.) (1'-4" @ STRIP SEAL EXP. JTS.)

RAILING NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE C3 GALVANIZED PEDESTRIAN, WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

FOR RAILING AT SOUTHEAST CORNER OF BRIDGE, HORIZONTAL MEMBERS MUST BE CURVED AND NOT A SERIES OF CHORDS.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

NO. 1, 2, 6, 7, 9, 10 AND NO. 11 SHALL CONFORM TO ASTM A709 GRADE 36. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B (NO. 4, AND NO. 5).

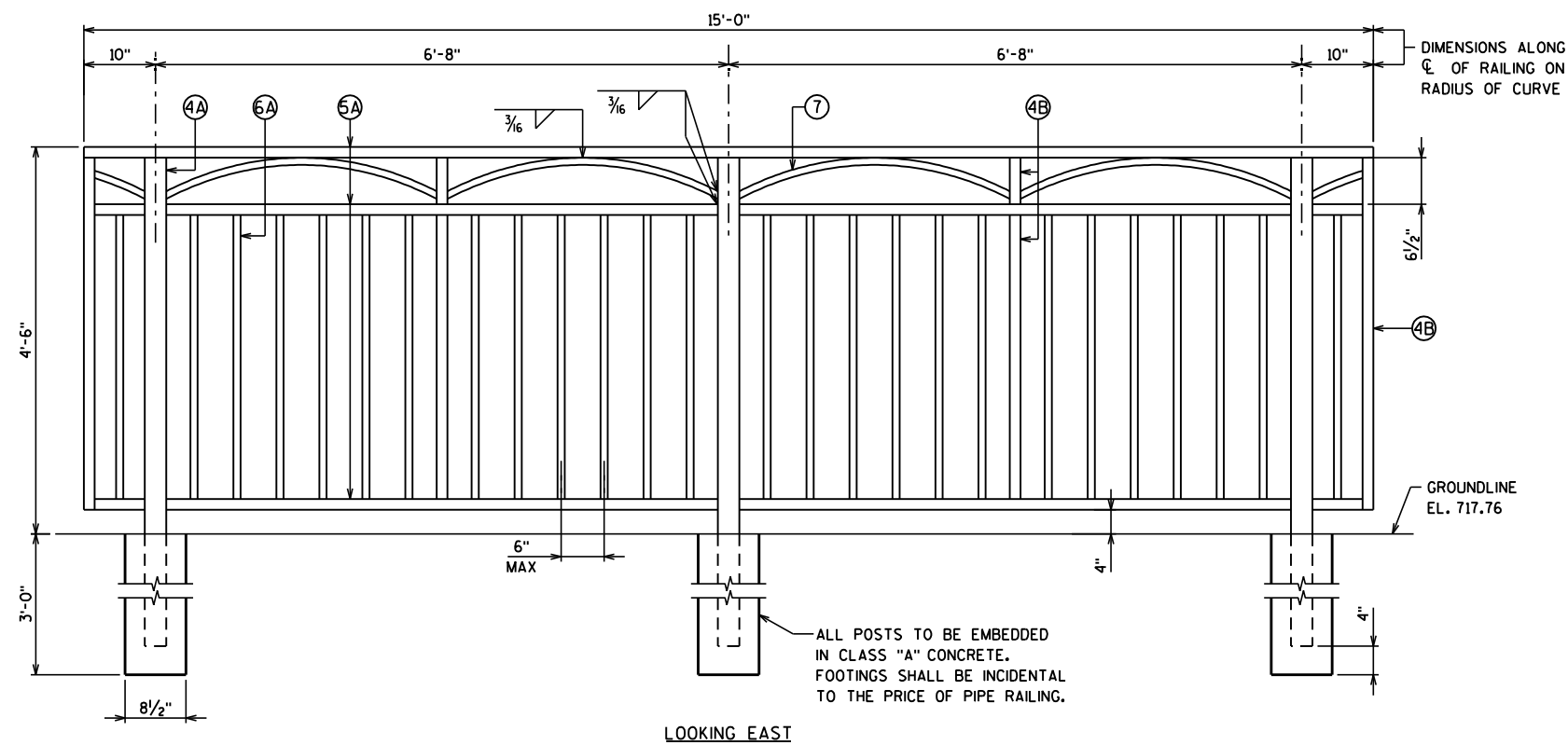
ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE "BRIDGE SPECIAL PROVISIONS". THE RAILING SHALL BE PAINTED FEDERAL COLOR NO. 27038, BLACK. VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

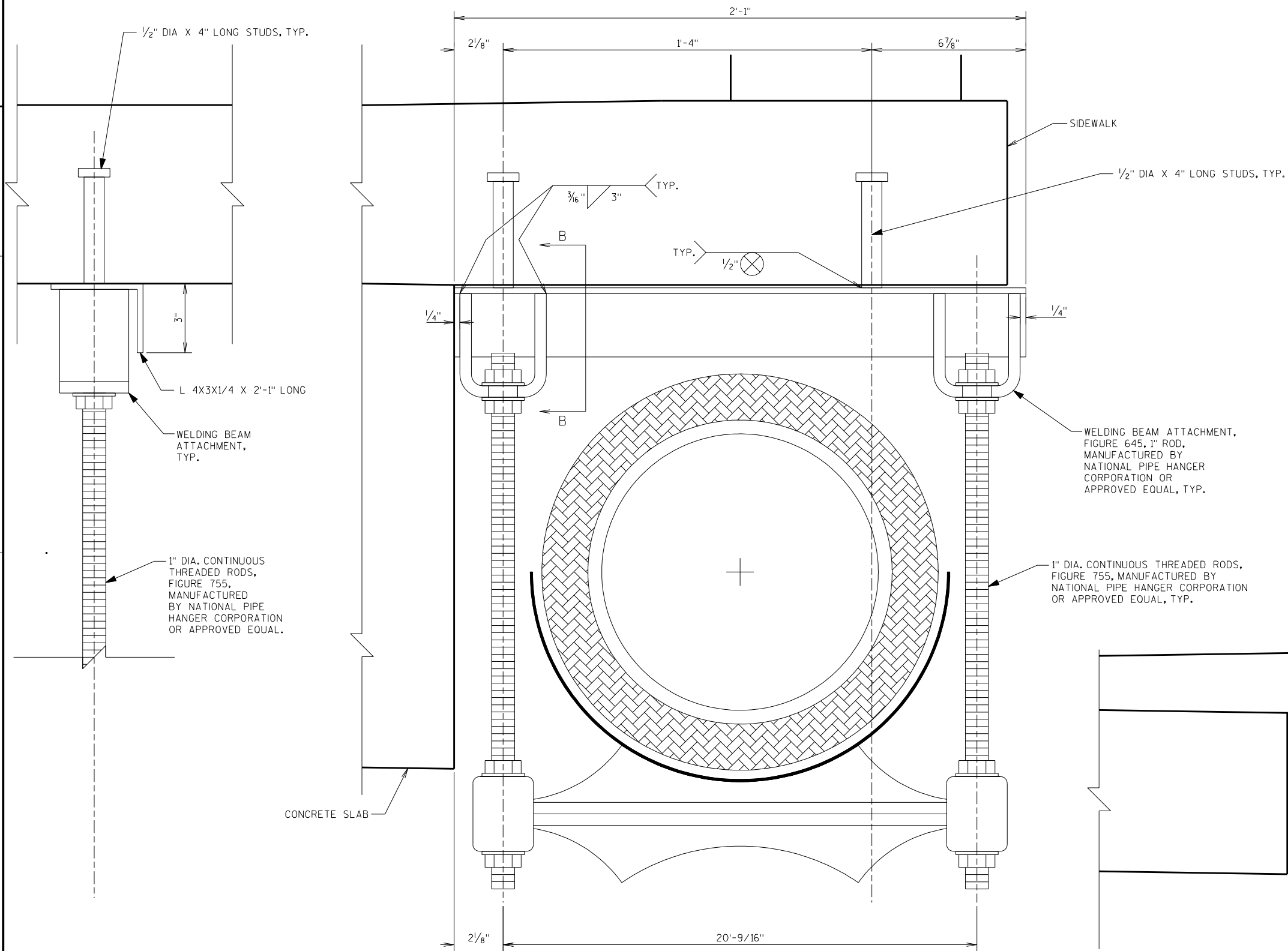
RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.



RAILING AT SOUTH EAST CORNER OF BRIDGE P-44-718

2



SECTION B-B

DETAIL A
CROSS SECTION
THROUGH
HANGER SUPPORT

GENERAL NOTES

PIPE HANGERS SHALL BE PLACED TWO (2) HANGERS PER PIPE WITH ONE (1) HANGER PLACED ADJACENT TO EVERY JOINT AND ONE PLACED AT THE MIDPOINT OF THE PIPE. SPACING NOT TO EXCEED 10 FT.

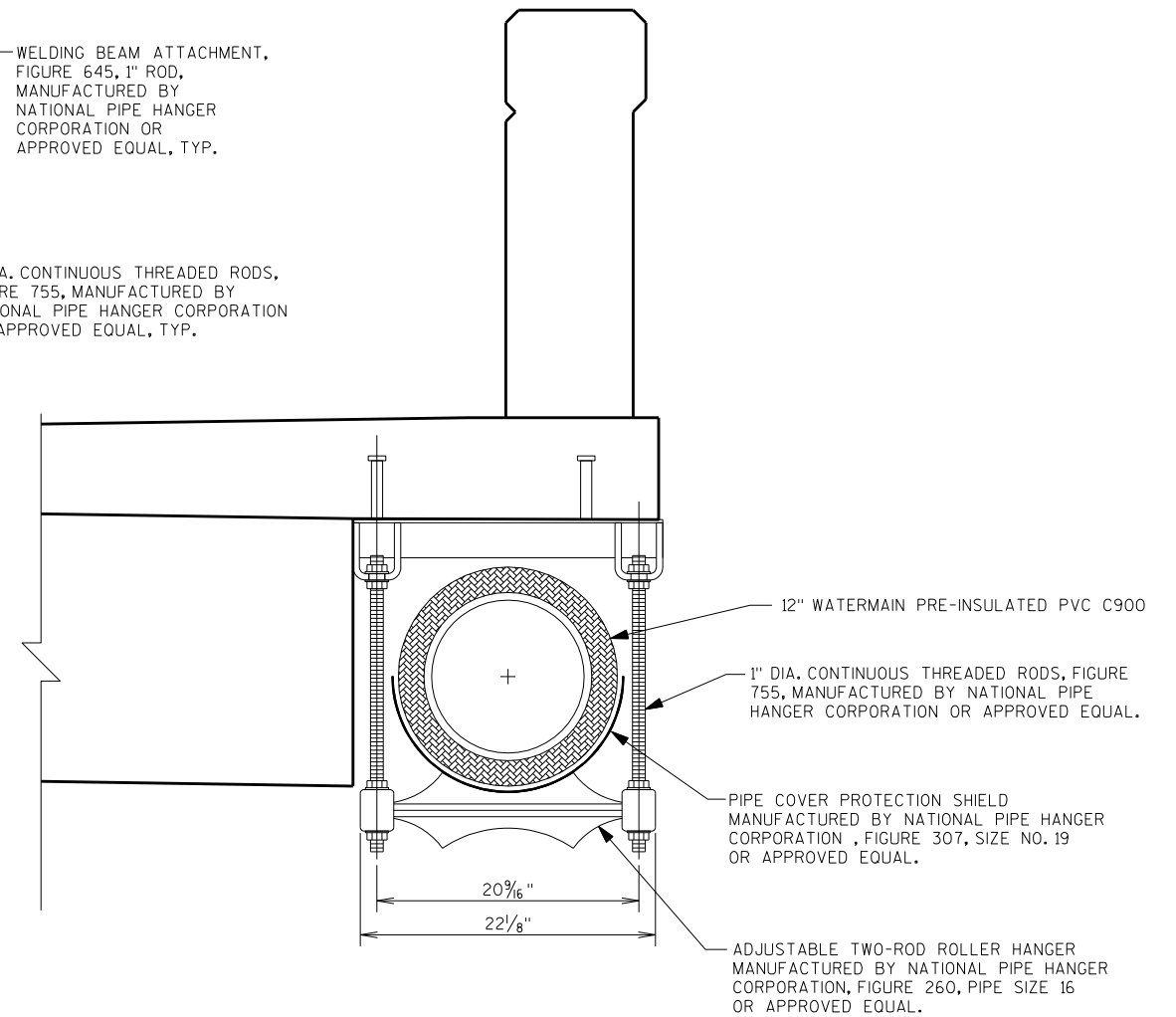
FINAL HANGER LAYOUT AND PIPE LENGTHS TO BE DETERMINED BY CONTRACTOR AND ILLUSTRATED ON SHOP DRAWINGS.

HANGERS SHALL BE ADJUSTABLE TWO-ROD ROLLER HANGER, FIGURE 260, PIPE SIZE 16 AS MANUFACTURED BY NATIONAL PIPE HANGER CORPORATION OR APPROVED EQUAL.

THERE SHALL BE A PIPE COVERING PROTECTION SHIELD AT EACH SUPPORT, FIGURE 307 SHIELD SIZE NO. 19, AS MANUFACTURED BY NATIONAL PIPE HANGER CORPORATION OR APPROVED EQUAL.

HANGING RODS SHALL BE 1 INCH DIA. CONTINUOUS THREADED RODS, FIGURE 755, MANUFACTURED BY NATIONAL PIPE HANGER CORPORATION OR APPROVED EQUAL. PROVIDE FOUR (4) HEAVY HEX NUTS PER SUPPORT.

ALL PIPE HANGERS, RODS, BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED FINISH.

SECTION THROUGH BRIDGE
PIPE HANGER

2

PROJECT NUMBER: 4984-08-71

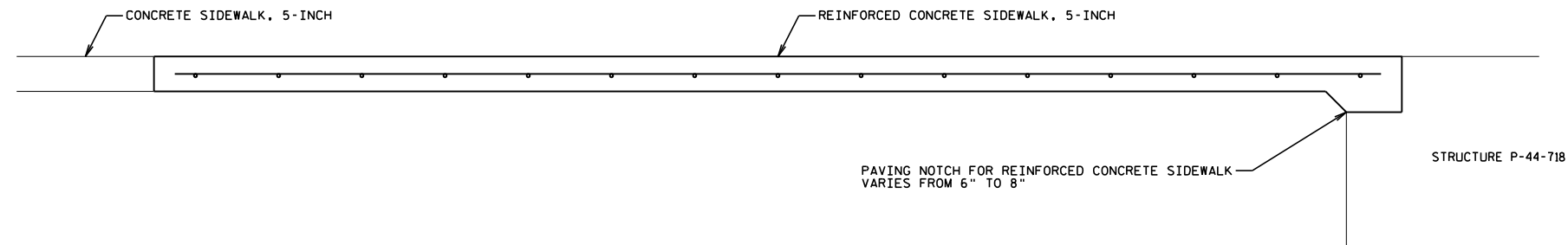
HWY: LAWE STREET

COUNTY: OUTAGAMIE

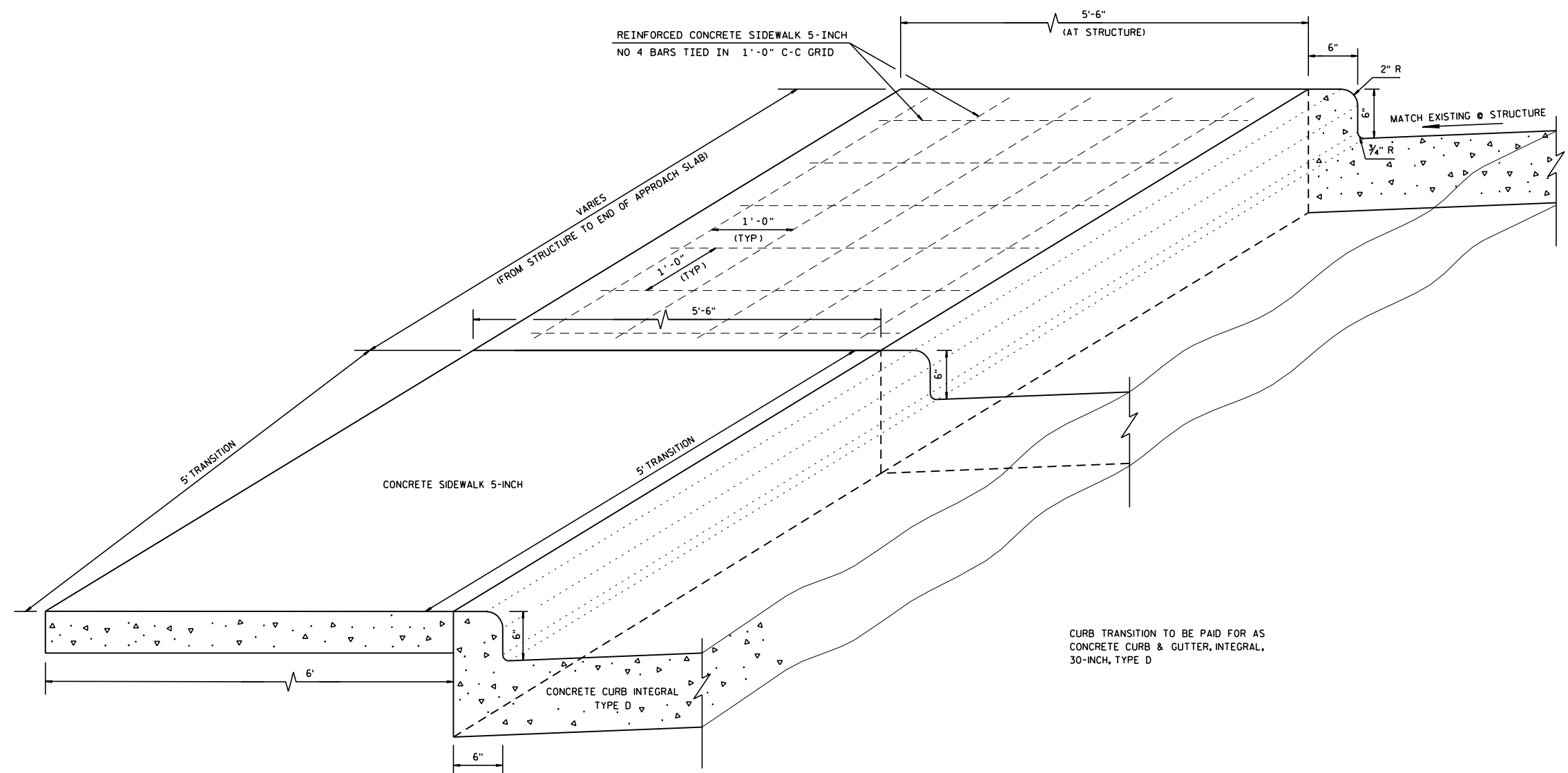
CONSTRUCTION DETAILS - WATERMAIN HANGER ASSEMBLY

SHEET NO:

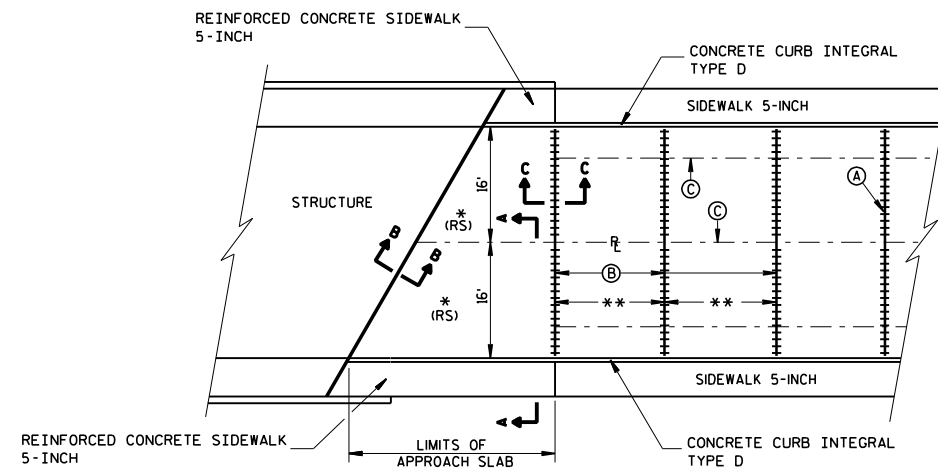
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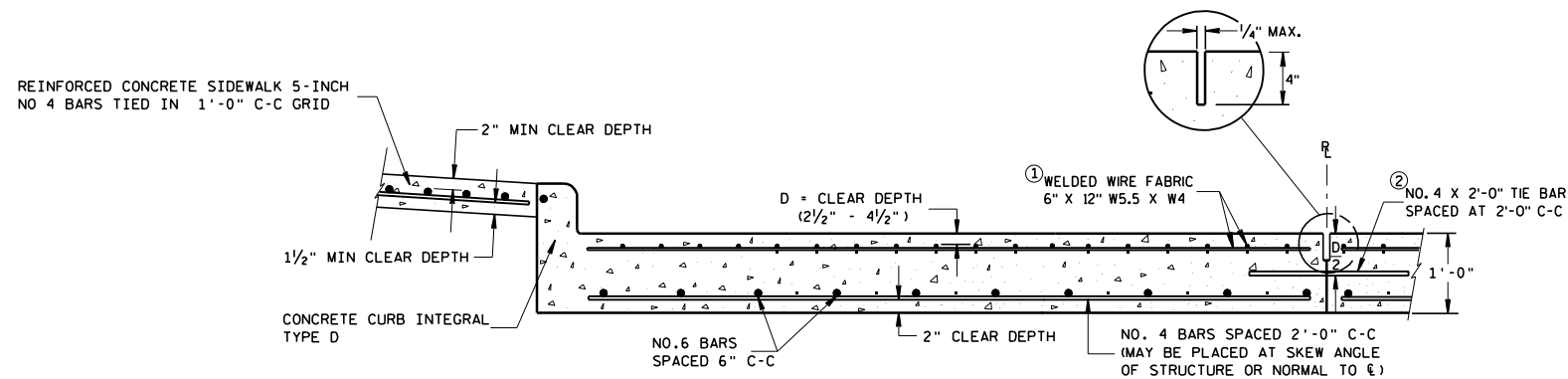
PROFILE VIEW OF REINFORCED CONCRETE SIDEWALK



SIDEWALK AND CONCRETE CURB INTEGRAL TRANSITION DETAIL

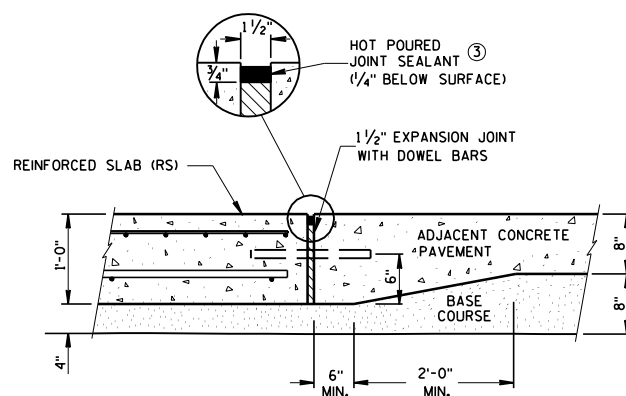


APPROACH SLAB AND ADJACENT PAVEMENT



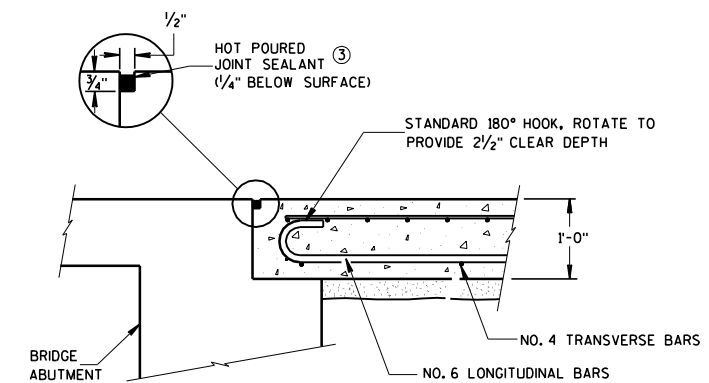
SECTION A-A

REINFORCEMENT POSITIONING DETAIL



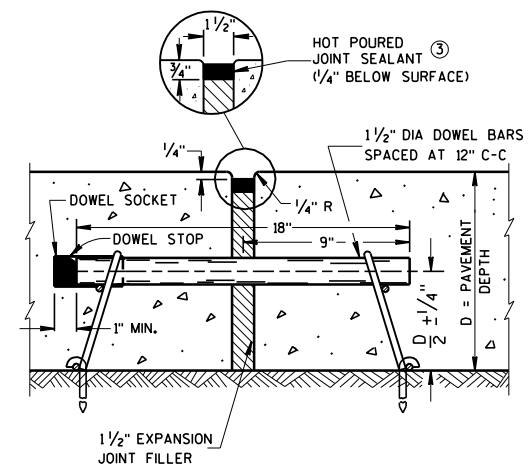
SECTION C-C

**TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT**



SECTION B-B

**BEND DETAIL
BOTTOM REINFORCEMENT**



EXPANSION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

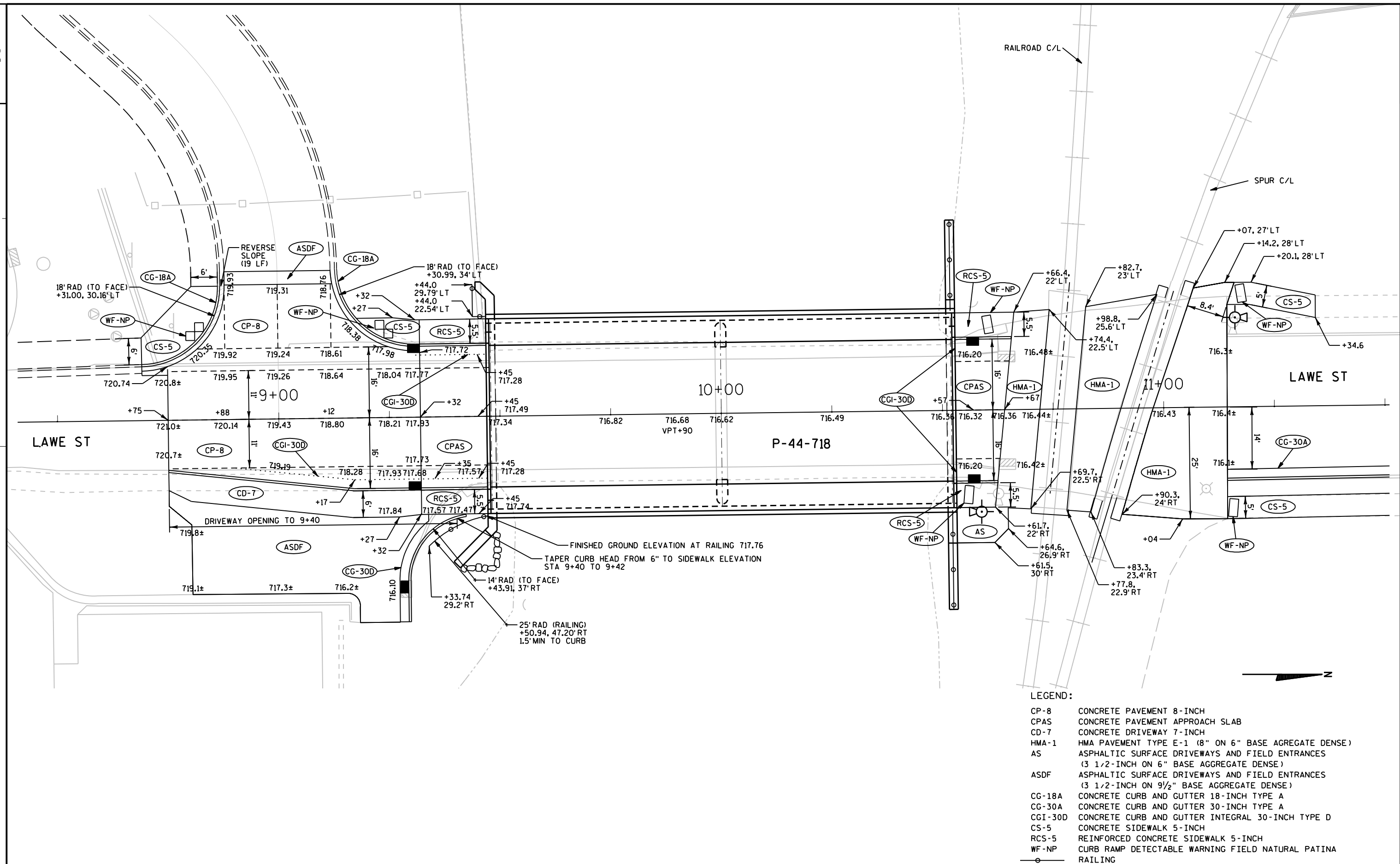
- ① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- ② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- ③ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

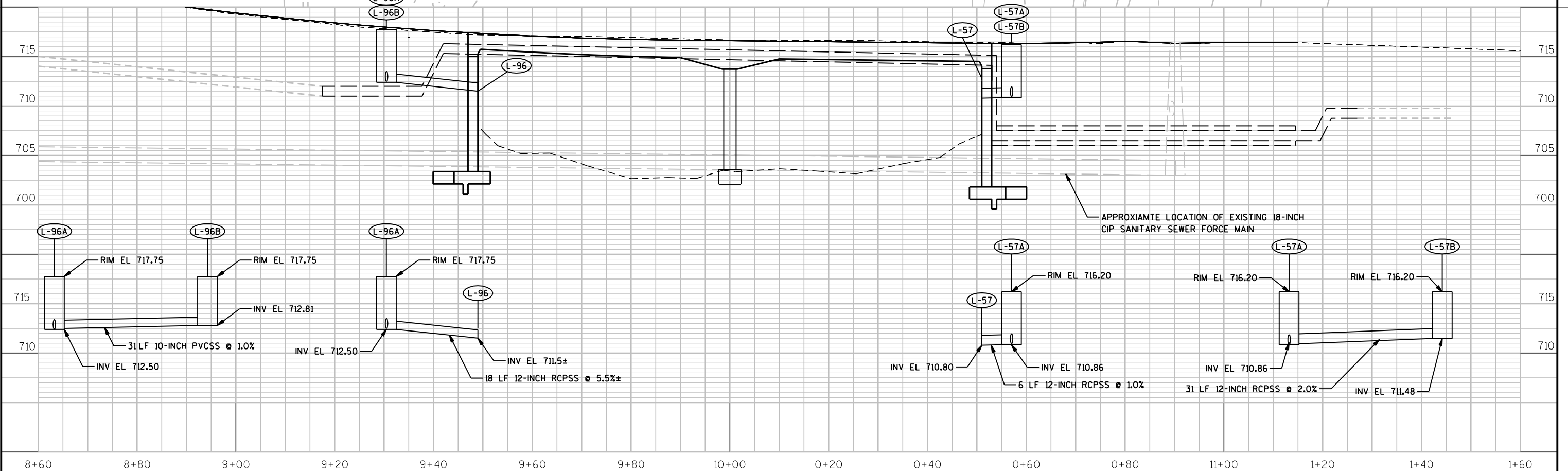
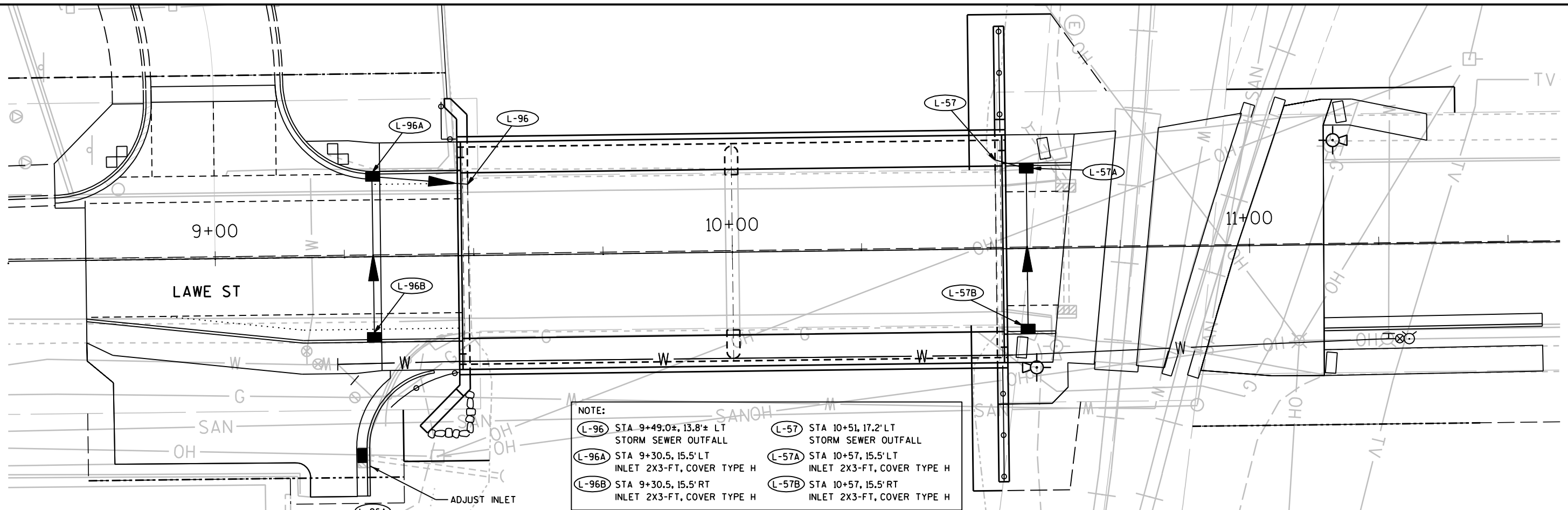
* (RS) = REINFORCED CONCRETE SLAB

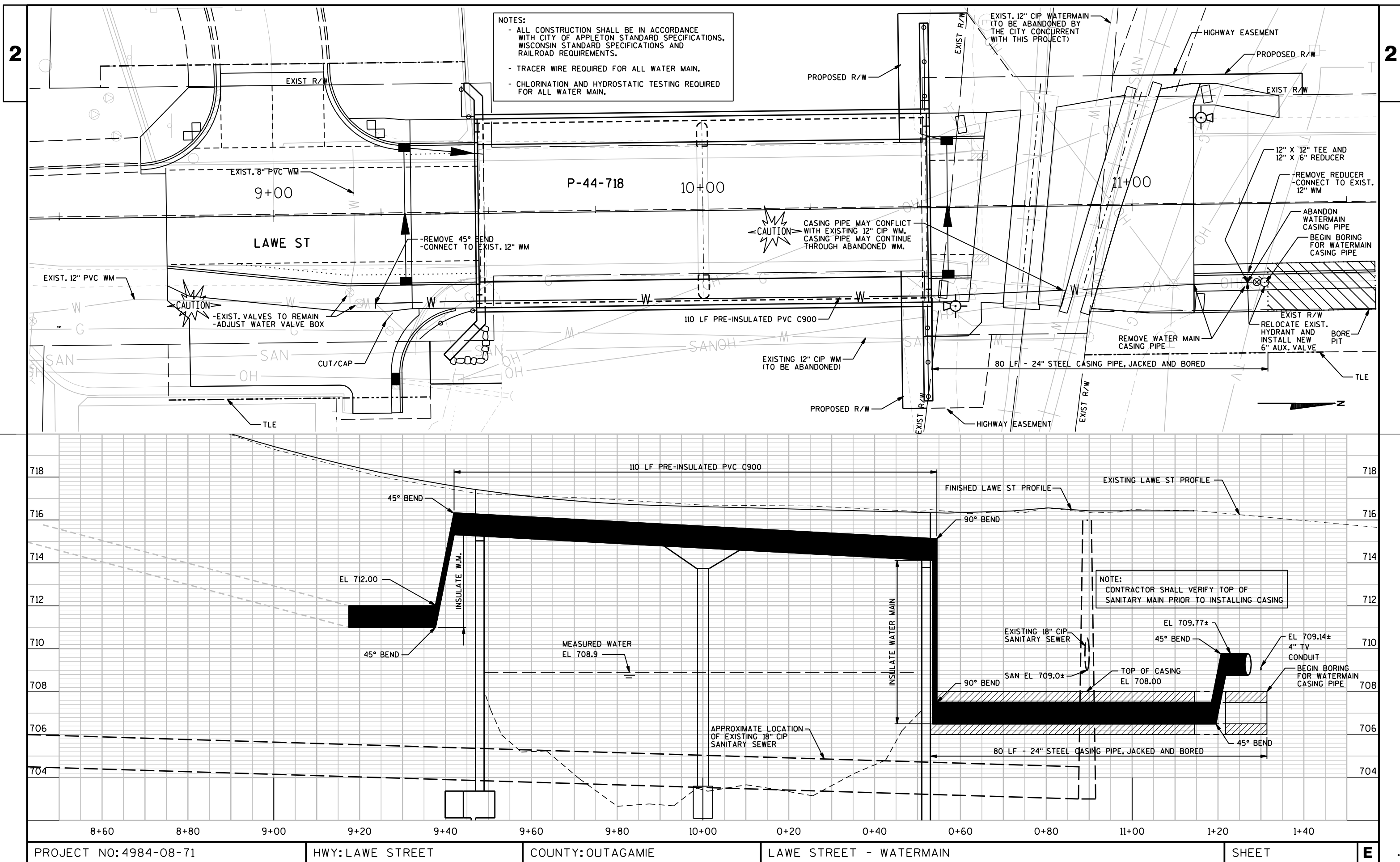
** STANDARD TRANSVERSE JOINT SPACING
(SEE SDD "URBAN DOWELED CONCRETE PAVEMENT")

- Ⓐ STANDARD CONTRACTION JOINT NORMAL TO R_L
- Ⓑ 1 1/2" EXPANSION JOINT WITH DOWEL BARS NORMAL TO R_L
- Ⓒ STANDARD LONGITUDINAL JOINT AND TIE BARS.

CONCRETE PAVEMENT APPROACH SLAB DETAIL







LAWE STREET

BOP = 5+00.00

6+00

7+00

8+00

MATCH LINE STA 8+25

E NEWBERRY STREET



E SOUTH ISLAND STREET

PAVEMENT MARKING EPOXY
RAILROAD CROSSING
STA 10+43.8PAVEMENT MARKING EPOXY
RAILROAD CROSSING
STA 11+26.6

LAWE STREET

MATCH LINE STA 8+25

PI = 8+33.00

STA 8+75

9+00

10+00

STA 10+72

11+00

STA 11+14.3

12+00

PI = 12+33.00

14+00

PAVEMENT MARKING EPOXY
RAILROAD CROSSING
STA 8+95.8 TO 9+55.8PAVEMENT MARKING EPOXY
4-INCH YELLOW (DOUBLE)PAVEMENT MARKING EPOXY
4-INCH YELLOW (DOUBLE)PAVEMENT MARKING EPOXY
RAILROAD CROSSING
STA 12+67.0 TO 13+27.0

STA 10+97

1 PERMANENT SIGN ON POST
(RXX) REMOVING SIGN



DATE 07OCT15		E S T I M A T E O F Q U A N T I T I E S			
LINE					4984-08-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	Clearing	STA	1.000	1.000
0020	201.0205	Grubbing	STA	1.000	1.000
0030	203.0200	Removing Old Structure (station) 01. 9+45	LS	1.000	1.000
0040	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. STA 10+00	LS	1.000	1.000
0050	204.0100	Removing Pavement	SY	205.000	205.000
0060	204.0150	Removing Curb & Gutter	LF	76.000	76.000
0070	204.0155	Removing Concrete Sidewalk	SY	102.000	102.000
0080	204.0165	Removing Guardrail	LF	26.000	26.000
0090	204.0220	Removing Inlets	EACH	2.000	2.000
0100	204.0245	Removing Storm Sewer (size) 01. 12-INCH	LF	25.000	25.000
0110	204.0245	Removing Storm Sewer (size) 02. 15-INCH	LF	13.000	13.000
0120	205.0100	Excavation Common	CY	302.000	302.000
0130	206.1000	Excavation for Structures Bridges (structure) 01. P-44-718	LS	1.000	1.000
0140	206.5000	Cofferdams (structure) 01. P-44-718	LS	1.000	1.000
0150	210.0100	Backfill Structure	CY	430.000	430.000
0160	213.0100	Finishing Roadway (project) 01. 4984-08-71	EACH	1.000	1.000
0170	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	315.000	315.000
0180	415.0080	Concrete Pavement 8-Inch	SY	225.000	225.000
0190	415.0410	Concrete Pavement Approach Slab	SY	81.000	81.000
0200	416.0170	Concrete Driveway 7-Inch	SY	38.000	38.000
0210	416.0610	Drilled Tie Bars	EACH	20.000	20.000
0220	416.0620	Drilled Dowel Bars	EACH	14.000	14.000
0230	455.0105	Asphaltic Material PG58-28	TON	5.000	5.000
0240	455.0605	Tack Coat	GAL	22.000	22.000
0250	460.1101	HMA Pavement Type E-1	TON	90.000	90.000
0260	460.2000	Incentive Density HMA Pavement	DOL	60.000	60.000
0270	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	24.000	24.000
0280	502.0100	Concrete Masonry Bridges	CY	504.000	504.000
0290	502.3200	Protective Surface Treatment	SY	617.000	617.000
0300	502.5002	Masonry Anchors Type L No. 4 Bars	EACH	244.000	244.000
0310	502.5005	Masonry Anchors Type L No. 5 Bars	EACH	124.000	124.000
0320	505.0400	Bar Steel Reinforcement HS Structures	LB	1,020.000	1,020.000
0330	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	94,890.000	94,890.000
0340	509.1500	Concrete Surface Repair	SF	10.000	10.000
0350	511.1200	Temporary Shoring (structure) 01. P-44-718	SF	1,875.000	1,875.000
0360	511.2200	Temporary Shoring Left in Place (structure) 01. P-44-718	SF	100.000	100.000
0370	513.7016	Railing Steel Type C3 (structure) 01. P-44-718	LF	212.000	212.000
0380	513.8016	Railing Steel Pedestrian Type C3 (structure) 01. P-44-718	LF	44.000	44.000
0390	516.0500	Rubberized Membrane Waterproofing	SY	41.000	41.000
0400	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	56.000	56.000
0410	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	42.000	42.000
0420	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	35.000	35.000
0430	601.0452	Concrete Curb & Gutter Integral 30-Inch Type D	LF	109.000	109.000
0440	602.0410	Concrete Sidewalk 5-Inch	SF	547.000	547.000

DATE 07OCT15		E S T I M A T E O F Q U A N T I T I E S			
LINE					4984-08-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0450	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	48.000	48.000
0460	606.0300	Riprap Heavy	CY	12.000	12.000
0470	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	37.000	37.000
0480	611.0624	Inlet Covers Type H	EACH	4.000	4.000
0490	611.3230	Inlets 2x3-FT	EACH	4.000	4.000
0500	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000
0510	619.1000	Mobilization	EACH	1.000	1.000
0520	624.0100	Water	MGAL	2.000	2.000
0530	625.0100	Topsoil	SY	236.000	236.000
0540	628.1504	Silt Fence	LF	200.000	200.000
0550	628.1520	Silt Fence Maintenance	LF	200.000	200.000
0560	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0570	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0580	628.2006	Erosion Mat Urban Class I Type A	SY	236.000	236.000
0590	628.7005	Inlet Protection Type A	EACH	4.000	4.000
0600	628.7010	Inlet Protection Type B	EACH	5.000	5.000
0610	629.0210	Fertilizer Type B	CWT	0.150	0.150
0620	630.0140	Seeding Mixture No. 40	LB	4.400	4.400
0630	630.0200	Seeding Temporary	LB	3.300	3.300
0640	638.2602	Removing Signs Type II	EACH	6.000	6.000
0650	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0660	643.0100	Traffic Control (project) 01. 4984-08-71	EACH	1.000	1.000
0670	643.0420	Traffic Control Barricades Type III	DAY	2,525.000	2,525.000
0680	643.0705	Traffic Control Warning Lights Type A	DAY	5,049.000	5,049.000
0690	643.0900	Traffic Control Signs	DAY	1,931.000	1,931.000
0700	643.2000	Traffic Control Detour (project) 01. 4984-08-71	EACH	1.000	1.000
0710	643.3000	Traffic Control Detour Signs	DAY	4,010.000	4,010.000
0720	645.0120	Geotextile Fabric Type HR	SY	36.000	36.000
0730	646.0106	Pavement Marking Epoxy 4-Inch	LF	428.000	428.000
0740	647.0110	Pavement Marking Railroad Crossings Epoxy	EACH	2.000	2.000
0750	650.4000	Construction Staking Storm Sewer	EACH	2.000	2.000
0760	650.4500	Construction Staking Subgrade	LF	133.000	133.000
0770	650.5000	Construction Staking Base	LF	51.000	51.000
0780	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	57.000	57.000
0790	650.6500	Construction Staking Structure Layout (structure) 01. P-44-718	LS	1.000	1.000
0800	650.7000	Construction Staking Concrete Pavement	LF	83.000	83.000
0810	650.9910	Construction Staking Supplemental Control (project) 01. 4984-08-71	LS	1.000	1.000
0820	650.9920	Construction Staking Slope Stakes	LF	133.000	133.000
0830	690.0150	Sawing Asphalt	LF	94.000	94.000
0840	690.0250	Sawing Concrete	LF	85.000	85.000
0850	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0860	715.0502	Incentive Strength Concrete Structures	DOL	3,024.000	3,024.000
0870	ASP.1TOA	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0880	ASP.1TOG	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0890	SPV.0060	Special 01. Adjusting Water Valve Box	EACH	2.000	2.000
0900	SPV.0060	Special 02. Relocating Existing Hydrant	EACH	1.000	1.000

DATE 07OCT15		E S T I M A T E O F Q U A N T I T I E S				
LINE						4984-08-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY	
0910	SPV. 0060	Speci al 03. Auxi l l a r y Hydrant Val ve, 6-Inch	EACH	1. 000	1. 000	
0920	SPV. 0060	Speci al 04. Bends, 12-Inch	EACH	6. 000	6. 000	
0930	SPV. 0090	Speci al 01. Water Main PVC C900 12-Inch	LF	105. 000	105. 000	
0940	SPV. 0090	Speci al 02. Water Main Pre-Insul ated PVC C900 12-Inch	LF	110. 000	110. 000	
0950	SPV. 0090	Speci al 03. Hydrant Leads	LF	10. 000	10. 000	
0960	SPV. 0090	Speci al 04. Steel Casi ng Pi pe, 24-Inch	LF	80. 000	80. 000	
0970	SPV. 0090	Speci al 05. Rai l i ng Steel Pedestrian Type C3 Spec i al	LF	25. 000	25. 000	
0980	SPV. 0090	Speci al 06. Storm Sewer Pipe PVC 10-Inch	LF	49. 000	49. 000	
0990	SPV. 0105	Speci al 01. Concrete Pavement Joi nt Layout	LS	1. 000	1. 000	
1000	SPV. 0165	Speci al 02. Rei nforced Concrete Sidewal k 5-Inch	SF	293. 000	293. 000	
1010	SPV. 0180	Speci al 01. Concrete Joi nt Seal i ng	SY	306. 000	306. 000	
1020	SPV. 0195	Speci al 01. Excavati on, Haul i ng, and Di sposal of Contami nated Hi stori c Fi ll	TON	1, 024. 000	1, 024. 000	

CLEARING AND GRUBBING

STATION TO STATION		LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
CATEGORY 0010				
9+00	-	9+50	RT	1

TOTAL 1 1

REMOVING OLD STRUCTURE STA 9+45

STATION TO STATION		DIR	LOCATION	203.0200.01 REMOVING OLD STRUCTURE STA 9+45 LS	COMMENTS
CATEGORY 0010					
8+75	-	9+47	LT	LAW E ST	1

TOTAL 1

REMOVING PAVEMENT

STATION TO STATION		LOCATION	204.0100 SY	COMMENTS
CATEGORY 0010				
8+75	-	9+47	LAW E ST	205

TOTAL 205

REMOVING CURB AND GUTTER

STATION TO STATION		DIR	LOCATION	204.0150 LF
CATEGORY 0010				
9+28	-	9+40	RT	LAW E ST
11+14	-	11+56	RT	LAW E ST

TOTAL 76

REMOVING STORM SEWER

STATION	DIR	LOCATION	204.0245.01 12-INCH LF	204.0245.02 15-INCH LF	COMMENTS
CATEGORY 0010					
10+15	---	LAW E ST	25	---	RCP
10+15	RT	LAW E ST	---	13	CMP

TOTALS 25 13

REMOVING CONCRETE SIDEWALK

STATION TO STATION		DIR	LOCATION	204.0155 SY
CATEGORY 0010				
8+75	-	9+47	LT	LAW E ST
8+75	-	9+47	RT	LAW E ST
10+52	-	10+62	LT	LAW E ST
10+52	-	10+62	RT	LAW E ST
11+14	-	11+34	LT	LAW E ST
11+14	-	11+56	RT	LAW E ST

TOTAL 102

REMOVING GUARDRAIL

STATION TO STATION		DIR	LOCATION	204.0165 LF
CATEGORY 0010				
9+32	-	9+47	RT	LAW E ST

TOTAL 26

REMOVING INLETS

STATION	DIR	LOCATION	204.0220 EA
CATEGORY 0010			
10+15	LT	LAW E ST	1
10+15	RT	LAW E ST	1

TOTAL 2

BASE AGGREGATE DENSE

STATION TO STATION		LOCATION	305.0120 1 1/4-INCH TON	624.0100 WATER MGAL
CATEGORY 0010				
8+75	-	9+47	LAW E ST	150
8+75	-	9+47	DRIVEWAY	61
10+53	-	11+56	LAW E ST	104

TOTALS 315 2

EARTHWORK SUMMARY

FROM/TO STATION	LOCATION	EXCAVATION COMMON 205.0100 CY (1)		SALVAGED/ UNUSABLE PAVEMENT MATERIAL CY	MATERIAL TO BE LANDFILLED CY (15)	SPV.0195.01 EXCAVATION, HAULING AND DISPOSAL OF CONTAMINATED HISTORIC FILL TON	AVAILABLE MATERIAL	UNEXPANDED FILL	EXPANDED FILL Factor 1.30	MASS ORDINATE +/- (14)	WASTE
		CUT	EBS EXCAVATION								
CATEGORY		CATEGORY 0010				CATEGORY 0030					
8+75 - 9+47	LAW E ST	209	0	51	119	227	39	9	12	27	27
	SUBTOTAL	209	0	51	119	227	39	9	12	27	27
0											
10+52 - 10+64	LAW E ST	20	0	0	15	28	5	19	25	-20	0
10+64 - 10+72	BETWEEN CONCRETE APPROACH SLAB & RR	16	0	0	0	0	16	0	0	16	16
10+80 - 10+90	BETWEEN RR & SPUR	21	0	0	0	0	21	0	0	21	21
10+98 - 11+14	BETWEEN SPUR & CONSTRUCITON LIMITS	37	0	0	0	0	37	0	0	37	37
	SUBTOTAL	93	0	0	15	28	78	19	25	54	73
	P-44-718				405	770					
TOTALS		302	0	51	539	1,024	117	28	37	80	100

(1) CUT INCLUDES VOLUME REMOVED AS PART OF REMOVING PAVEMENT

(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

(15)SEE ITEM SPV.0195.01. 1.9 TONS PER CUBIC YARD WAS USED FOR THE CONVERSION

CONCRETE PAVEMENT

STATION TO STATION				415.0080 8-INCH SY	415.0410 APPROACH SLAB SY	SPV.0180.01 CONCRETE JOINT SEALING SY
CATEGORY				0010	0010	0030
8+75	-	9+32	LAW E ST	225	---	225
9+32	-	9+47	LAW E ST	---	47	47
10+53	-	10+64	LAW E ST	---	34	34
TOTALS				225	81	306

DRILLED TIE BARS & DOWEL BARS

STATION TO STATION			LOCATION	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
CATEGORY 0010					
8+70	-	8+75	LAW E ST	3	14
11+14	-	11+56	LAW E ST	17	---
TOTALS				20	14

ASPHALTIC ITEMS

STATION TO STATION			DIR	LOCATION	455.0105 ASPHALTIC MATERIAL PG58-28 TON	455.0605 TACK COAT GAL	460.1101 HMA PAVEMENT TYPE E-1 TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	COMMENTS
CATEGORY 0010									
8+88	-	9+12	LT	LAW E ST	---	1	4	0	EAGLE FLATS
8+75	-	9+35	RT	LAW E ST	---	8	---	22	PARKING LOT
10+53	-	11+14	---	LAW E ST	5	14	87	2	EXCLUDES RR CROSSING PANEL AREAS
TOTALS					5	22	90	24	

CONCRETE DRIVEWAY & CONCRETE SIDEWALK

STATION TO STATION			DIR	LOCATION	416.0170 CONCRETE DRIVEWAY 7-INCH SY	602.0410 CONCRETE SIDEWALK 5-INCH SF	SPV.0165.02 REINFORCED CONCRETE SIDEWALK 5-INCH SF	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PETINA SF
CATEGORY 0010								
8+75	-	9+47	LT	LAW E ST	---	232	83	16
8+75	-	9+47	RT	LAW E ST	38	---	83	---
10+52	-	10+65	LT	LAW E ST	---	---	72	8
10+52	-	10+62	RT	LAW E ST	---	---	55	8
11+14	-	11+34	LT	LAW E ST	---	105		8
11+14	-	11+56	RT	LAW E ST	---	210		8
TOTALS					38	547	293	48

CONCRETE CURB AND GUTTER

STATION TO STATION			DIR	LOCATION	601.0405 18-INCH TYPE A LF	601.0409 30-INCH TYPE A LF	601.0411 30 INCH TYPE D LF	601.0452 INTEGRAL 30 INCH TYPE D LF
CATEGORY 0010								
8+70	-	9+32	LT	LAW E ST	56	---	---	---
9+32	-	9+47	LT	LAW E ST	---	---	---	15
8+75	-	9+47	RT	LAW E ST	---	---	---	72
9+28	-	9+40	RT	LAW E ST	---	---	35	---
10+52	-	10+65	LT	LAW E ST	---	---	---	12
10+52	-	10+62	RT	LAW E ST	---	---	---	10
11+14	-	11+56	RT	LAW E ST	---	42	---	---
TOTALS					56	42	35	109

STORM SEWER

STRUCT NUMBER	STATION	DIR	LOCATION	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	SPV.0090.06 STORM SEWER PIPE PVC 10-INCH LF	611.0624 INLET COVERS TYPE H EA	611.3230 INLETS 2X3-FT EA	COMMENTS
CATEGORY 0010								
L-57	---	---	---	---	---	---	---	
STRUCTURE L-57A TO L-57				6	---	---	---	PLACE THRU ABUTMENT WALL
L-57A	10+57	15.5' LT	LAW E ST	---	---	1	1	
STRUCTURE L-57B TO L-57A				31	---	---	---	
L-57B	10+57	15.5' RT	LAW E ST	---	---	1	1	
L-96	---	---	---	---	---	---	---	
STRUCTURE L-96A TO L-96				---	18	---	---	PLACE THRU EXISTING OPENING IN ABUTMENT WALL
L-96A	9+32	15.5' LT	LAW E ST	---	---	1	1	
STRUCTURE L-96B TO L-96A				---	31	---	---	
L-96B	9+32	15.5' RT	LAW E ST	---	---	1	1	DRIVEWAY LOCATION - CURB PLATE REQUIRED
TOTALS				37	49	4	4	

ADJUSTING INLET COVERS

STATION	DIR	LOCATION	611.8115 EA
CATEGORY 0010			
9+29	38' RT	LAW E ST	1
TOTAL			1

EROSION CONTROL AND RESTORATION

STATION TO STATION			LOCATION	625.0100 TOPSOIL SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2006 EROSION MAT URBAN CLASS 1 TYPE A	628.7005 INLET PROTECTION TYPE A EA	628.7010 INLET PROTECTION TYPE B EA	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	COMMENTS
CATEGORY 0010													
8+75	-	9+47	LAW E ST	72	---	---	72	2	3	0.05	1.3	1.0	DO NOT APPLY FERTILIZER WITHIN 20' OF WATERWAY
10+53	-	11+56	LAW E ST	117	---	---	117	2	2	0.07	2.1	1.6	
UNDISTRIBUTED				47	200	200	47	---	---	0.03	1.0	0.7	
TOTALS				236	200	200	236	4	5	0.15	4.4	3.3	

CONSTRUCTION STAKING

STATION TO STATION			LOCATION	650.4000 STORM SEWER EA	650.4500 SUBGRADE LF	650.5000 BASE LF	650.5500 CURB AND GUTTER LF	650.6500 STRUCTURE LAYOUT P-44-718 LS	650.7000 CONCRETE PAVEMENT LF	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF
CATEGORY 0010											
8+75	-	9+47	LAW E ST	---	72	---	57		72		72
10+53	-	11+14	LAW E ST	2	61	51	---		11		61
CATEGORY 0020											
			P-44-718	---	---	---	---	1	---		---
TOTALS				2	133	51	57	1	83	1	133

PAVEMENT MARKING

STATION - STATION	LOCATION	646.0106	647.0110	REMARKS
		EPOXY 4-INCH YELLOW	RAILROAD CROSSING EPOXY	
		LF	EACH	
CATEGORY 0010				
8+75 - 11+14	LAW E ST	428	---	DOUBLE CENTERLINE
8+96 - 10+44	LAW E ST	---	1	RR XING
11+27 - 13+27	LAW E ST	---	1	RR XING
TOTALS		428	2	

SAWING

STATION TO STATION			DIR	LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF
CATEGORY 0010						
8+80	-	8+75	LT	LAW E ST	24	8
8+75			---	LAW E ST	---	25
8+75	-	9+20	RT	LAW E ST	70	---
11+14	-	11+56	RT	LAW E ST	---	47
11+34			LT	LAW E ST	---	5
TOTALS					94	85

REMOVING TYPE II SIGNS AND
REMOVING SMALL SIGN SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
CATEGORY 0010				
R101	LAW E ST AT NEWBERRY	W10-1	1	1
	"	R8-3A	1	---
R102	LAW E ST SOUTH OF POWER CANAL	R12-5	1	1
R103	LAW E ST NORTH OF POWER CANAL	R12-5	1	1
R104	LAW E ST NORTH OF SOUTH ISLAND ST	W10-1	1	1
	"	R8-3A	1	---
TOTALS			6	4

TRAFFIC CONTROL AND DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	APPROX. SERVICE PERIOD 135 DAYS	643.0900		643.3000		643.0420		643.0705		REMARKS
					TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL DETOUR SIGNS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		
					NO.	DAYS	NO.	DAYS	NO.	DAYS	EACH	DAYS	
CATEGORY 0010													
1	LAW E ST AT COLLEGE AVE	R11-3B	60 X 30	135	1	135	---	---	1	135	2	270	
		SP-1	30 X 6	135	---	---	1	135	---	---	---	---	
		M4-9R	30 X 24	135	---	---	1	135	---	---	---	---	
		SP-2	30 X 30	135	---	---	1	135	---	---	---	---	
2	LAW E ST AT WASHINGTON ST	W20-2	48 X 48	135	---	---	1	135	---	---	---	---	
		SP-1	30 X 6	135	---	---	1	135	---	---	---	---	
2A	LAW E ST AT WASHINGTON ST	W12-2	36 X 36	135	---	---	1	135	---	---	---	---	
		W057-52	36 X 24	135	---	---	1	135	---	---	---	---	1/4 MILE AHEAD
3	LAW E ST AT FRANKLIN ST	W20-3	48 X 48	135	1	135	---	---	---	---	---	---	
4	COLLEGE AVE AT LAW E ST	M4-8A	24 X 18	135	---	---	1	135	---	---	---	---	
5	COLLEGE AVE AT DREW ST	SP-1	30 X 6	135	---	---	1	135	---	---	---	---	
		M4-9L	30 X 24	135	---	---	1	135	---	---	---	---	
6	DREW ST AT COLLEGE AVE	SP-1	30 X 6	135	---	---	1	135	---	---	---	---	
		M4-9R	30 X 24	135	---	---	1	135	---	---	---	---	
7	WATER ST AT OLDE ONEIDA ST	SP-1	30 X 6	135	---	---	1	135	---	---	---	---	
		M4-9L	30 X 24	135	---	---	1	135	---	---	---	---	
8	OLDE ONEIDA ST AT WATER ST	SP-1	30 X 6	135	---	---	1	135	---	---	---	---	
		M4-9R	30 X 24	135	---	---	1	135	---	---	---	---	
9	OLDE ONEIDA ST AT E. SOUTH RIVER ST	SP-1	30 X 6	135	---	---	1	135	---	---	---	---	
		M4-9L	30 X 24	135	---	---	1	135	---	---	---	---	
10	E. SOUTH RIVER ST AT OLDE ONEIDA ST	SP-1	30 X 6	135	---	---	1	135	---	---	---	---	
		M4-9R	30 X 24	135	---	---	1	135	---	---	---	---	
11	LAW E ST SOUTH PROJECT LIMITS	R11-2B	48 X 30	135	2	270	---	---	5	675	10	1,350	
12	E. SOUTH RIVER ST AT LAW E ST	M4-8A	24 X 18	135	---	---	1	135	---	---	---	---	
13	LAW E ST AT MCKINLEY ST	W20-3	48 X 48	135	1	135	---	---	---	---	---	---	
14	LAW E ST AT LINCOLN ST	W20-2	48 X 48	135	---	---	1	135	---	---	---	---	
		SP-1	30 X 6	135	---	---	1	135	---	---	---	---	
14A	LAW E ST AT LINCOLN ST	W12-2	36 X 36	135	---	---	1	135	---	---	---	---	
		W057-52	36 X 24	135	---	---	1	135	---	---	---	---	1 MILE AHEAD

TRAFFIC CONTROL AND DETOUR SIGN SUMMARY CONTINUED

SIGN NO.		SIGN CODE	SIZE W X H	APPROX. SERVICE PERIOD 135 DAYS	643.0900		643.3000		643.0420		643.0705		REMARKS
					TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL DETOUR SIGNS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		
					NO.	DAYS	NO.	DAYS	NO.	DAYS	EACH	DAYS	
15	LAW E ST AT E. SOUTH RIVER ST	R11-3B	60 X 30	135	1	135	---	---	1	135	2	270	
		SP-1	30 X 6	135	---	---	1	135	---	---	---	---	
		M4-9L	30 X 24	135	---	---	1	135	---	---	---	---	
16	LAW E ST NORTH PROJECT LIMITS	R11-2B	48 X 30	135	2	270	---	---	5	675	10	1,350	
17	LAW E ST SOUTH OF FOX RIVER	R11-3B	60 X 30	135	1	135	---	---	1	135	2	270	
18	LAW E ST NORTH OF FOX RIVER	W20-3	48 X 48	135	1	135	---	---	---	---	---	---	
	SOUTH ISLAND ST			135	1	135	---	---	---	---	---	---	
	EAGLE FLATS PARKWAY			135	2	270	---	---	4	540	8	1,080	
SUBTOTAL					1,755		3,645		2,295		4,590		
UNDISTRIBUTED					176		365		230		459		
TOTALS					1,931		4,010		2,525		5,049		

RAILING STEEL PEDESTRIAN TYPE C3 SPECIAL

STATION TO STATION			DIR	LOCATION	SPV.0090.05 RAILING STEEL PEDESTRIAN TYPE C3 SPECIAL LF	COMMENTS
CATEGORY 0010						
9+30	-	9+47	LT	LAW E ST	10	SW QUANDRANT OF THE BRIDGE APPROACHES
9+30	-	9+47	RT	LAW E ST	15	SE QUANDRANT OF THE BRIDGE APPROACHES
TOTAL					25	

WATERMAIN

STATION TO STATION			DIR	LOCATION	SPV.0060.01 ADJUSTING WATER VALVE BOX EACH	SPV.0060.02 RELOCATING EXISTING HYDRANT EACH	SPV.0060.03 AUXILIARY HYDRANT VALVE 6-INCH EACH	SPV.0060.04 BENDS 12-INCH EACH	SPV.0090.01 WATER MAIN PVC C900 12-INCH LF	SPV.0090.02 WATER MAIN PRE-INSULATED PVC C900 12-INCH LF	SPV.0090.03 HYDRANT LEADS LF	SPV.0090.04 STEEL CASING PIPE 24-INCH LF
CATEGORY 0030												
9+18	-	11+27	RT	LAW E ST	2	1	1	6	105	110	10	80
TOTALS					2	1	1	6	105	110	10	80

LEVELS ON = 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

OUTAGAMIE COUNTY

Conventional Signs and Abbreviations			
	SECTION LINE	AC	ACRES
	QUARTER LINE	Δ	CENTRAL ANGLE
	TOWNSHIP AND RANGE LINE	C/L	CENTERLINE
	PROPOSED OR NEW CENTERLINE	COR.	CORNER
	PROPOSED OR NEW R/W LINE	CTH	COUNTY TRUNK HIGHWAY
	EXISTING R/W LINE	D	DEGREE OF CURVE
	LOT LINE	E.	EAST
	PROPERTY LINE	L	LENGTH OF CURVE
	CORPORATE LIMITS	LC	LONG CHORD
	SLOPE INTERCEPTS	LCB	LONG CHORD BEARING
	R/W POINT	MI	MILE
	FENCE	N.	NORTH
	SECTION OR QUARTER CORNER	PC	POINT OF CURVATURE
	UNDERGROUND TELEPHONE CABLE	PI	POINT OF INTERSECTION
	UNDERGROUND ELECTRIC CABLE	PT	POINT OF TANGENCY
	UNDERGROUND TELEVISION CABLE	PLE	PERMANENT LIMITED EASEMENT
	UNDERGROUND GAS CABLE	P\L	PROPERTY LINE
	UNDERGROUND FIBER OPTIC CABLE	R	RADIUS
	UNDERGROUND TELEPHONE CABLE	R.	RANGE
	UNDERGROUND TELEPHONE CABLE	R/L	REFERENCE LINE
	UNDERGROUND TELEPHONE CABLE	R/W	RIGHT OF WAY
	UNDERGROUND TELEPHONE CABLE	1/4 LINE	QUARTER LINE
	UNDERGROUND TELEPHONE CABLE	1/16 LINE	SIXTEENTH LINE
	UNDERGROUND TELEPHONE CABLE	S.	SOUTH
	UNDERGROUND TELEPHONE CABLE	SEC	SECTION
	UNDERGROUND TELEPHONE CABLE	SEC LINE	SECTION LINE
	UNDERGROUND TELEPHONE CABLE	STH	STATE TRUNK HIGHWAY
	UNDERGROUND TELEPHONE CABLE	SF	SQUARE FEET
	UNDERGROUND TELEPHONE CABLE	STA	STATION
	UNDERGROUND TELEPHONE CABLE	T.	TOWN
	UNDERGROUND TELEPHONE CABLE	T	TANGENT LENGTH OF CURVE
	UNDERGROUND TELEPHONE CABLE	TI	TEMPORARY INTEREST
	UNDERGROUND TELEPHONE CABLE	USH	UNITED STATES HIGHWAY
	UNDERGROUND TELEPHONE CABLE	W.	WEST

	COMPENSABLE	NON-COMPENSABLE
POWER POLE		
PEDESTAL		

- TLE PT
- NEW R/W PT
- HIGHWAY EASEMENT PT
- EXISTING R/W PT
- RIGHT-OF-WAY TYPE 2 MONUMENTS SET AT NEWLY ACQUIRED R/W ANGLE POINTS
- SECTION CORNER SYMBOL

BEGIN RELOCATION ORDER STATION 8+33.00

1277.21 FEET SOUTH OF AND 207.05 FEET WEST
OF THE NORTHEAST CORNER OF SECTION 35,
T21N, R17E, CITY OF APPLETON, OUTAGAMIE
COUNTY, WISCONSIN
Y 559824.57
X 830187.02

Notes:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE SYSTEM, (OUTAGAMIE) COUNTY,
NAD 83 (2007) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID
DISTANCES. GRID DISTANCES MAY BE USED FOR GROUND DISTANCES.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" X 24" REBAR) AND ARE PLACED
PRIOR TO THE COMPLETION OF THE PROJECT.

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

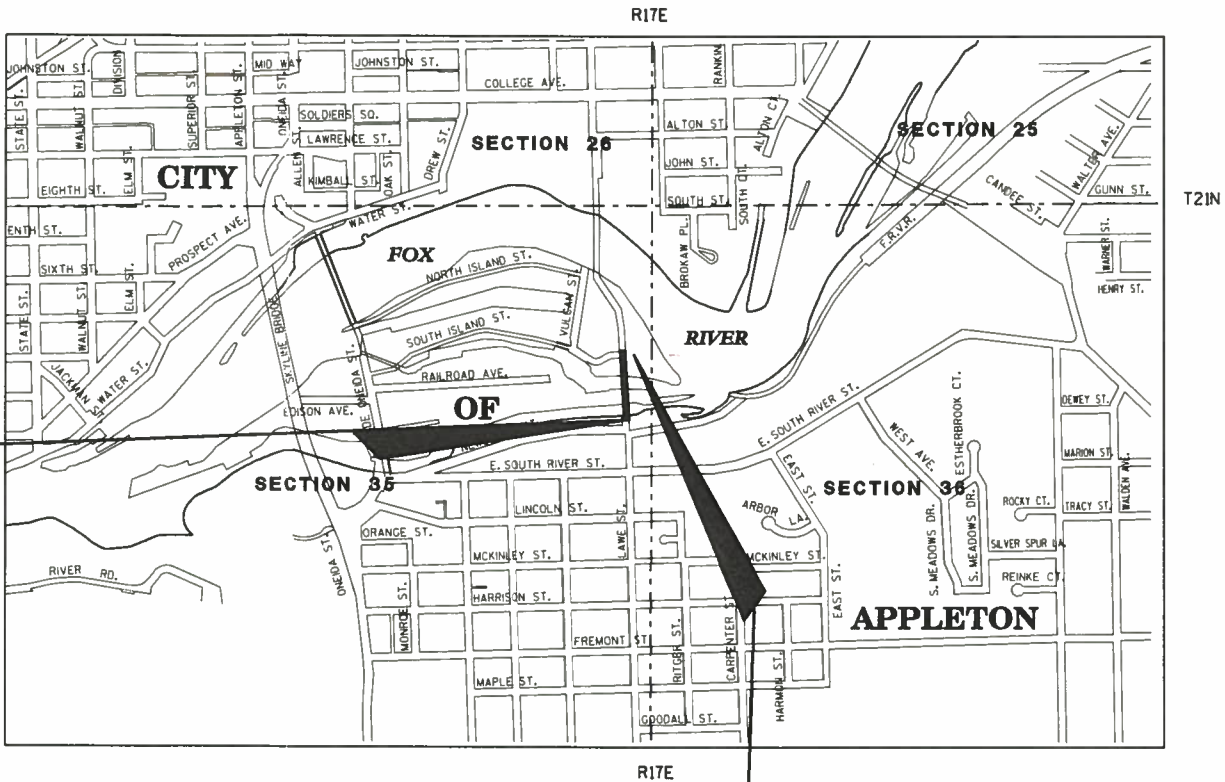
EXISTING RIGHT-OF-WAY OF LAWE STREET DEFINED BY OUTAGAMIE COUNTY CSM #6241, EDWARDS WEST PLAT,
HEBERT & ASSOCIATES ALTA/ACSM SURVEY DATED 6-22-07 (REF #07024001)

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

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

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED, HEREIN,
INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND
EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT,
REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR
DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A HIGHWAY EASEMENT (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE
RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES
MAY DEEM NECESSARY OR DESIRABLE.



END RELOCATION ORDER

STATION 12+00.00
910.24 FEET SOUTH OF AND
211.71 FEET WEST OF THE
NORTHEAST CORNER OF
SECTION 35, T21N, R17E,
CITY OF APPLETON, OUTAGAMIE
COUNTY, WISCONSIN
Y 560191.54
X 830182.36

LAYOUT
SCALE 0 600' 1200'
TOTAL NET LENGTH OF CENTERLINE - 0.070 MI.

REVISED 3-23-15
REVISED 11-6-14

R/W PROJECT NUMBER 4984-08-00	SHEET NUMBER 4.1	TOTAL SHEETS 3
FEDERAL PROJECT NUMBER		
PLAT OF RIGHT-OF-WAY REQUIRED FOR POWER CANAL CITY OF APPLETON LAWE ST POWER CANAL BRIDGE		
CITY OF APPLETON		OUTAGAMIE COUNTY
CONSTRUCTION PROJECT NUMBER 4984-08-71		

ACCEPTED FOR
CITY OF APPLETON

9/19/14
(Date)
MAROR
(Signature & Title of Official)

ORIGINAL PLANS PREPARED BY

OMNI
ASSOCIATES
APPLETON, WISCONSIN



8-18-2014
(Date)
David a. Yurk
(Signature)

LEVELS ON - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

BEGIN RELOCATION ORDER

STATION 8+33.00

1277.21 FEET SOUTH OF AND
207.05 FEET WEST OF THE
NORTHEAST CORNER OF
SECTION 35, T21N, R17E,
CITY OF APPLETON,
OUTAGAMIE COUNTY, WISCONSIN
Y 559824.57
X 830187.02

APPLETON

EAGLE FLATS, LLC

1

TLE FOR SLOPING
AND GRADING
SLOPE INTERCEPT

864

863

804

865

LAWE

N00°43'34"W

N00°43'34"W

90

N00°40'58"W

879

880

884

883

919

890

893

889

SLOPE INTERCEPT

LOT 8

BLOCK 1

EDWARDS WEST

PLAT

1

EAGLE FLATS, LLC

POWER CANAL
FOX RIVER
FLOW DIRECTION

OF

POWER CANAL
FOX RIVER
FLOW DIRECTION

NE - NE
SEC 35

CITY OF
APPLETON

2

LOT 11

GRAND CHUTE
ISLAND

WISCONSIN
CENTRAL
LIMITED

894

939

902

CITY OF
APPLETON

903

907

908

909

935

874

872

870

871

873

872

871

STREET

SLOPE INTERCEPT

870

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LINE TABLE		
LINE	BEARING	DISTANCE
L1	N89°16'26"E	14.71'
L2	S89°16'26"W	15.29'
L3	S89°16'26"W	25.24'



END RELOCATION ORDER

STATION 12+00.00

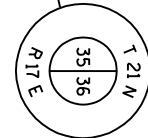
910.24 FEET SOUTH OF AND
211.71 FEET WEST OF THE
NORTHEAST CORNER OF
SECTION 35, T21N, R17E,
CITY OF APPLETON, OUTAGAMIE
COUNTY, WISCONSIN
Y 560191.54
X 830182.36

SCHEDULE OF LANDS AND INTERESTS

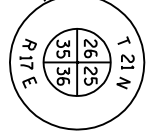
PARCEL NO.	OWNER	INTEREST REQUIRED	AREA ACRES REQUIRED			TLE AREA	HIGHWAY EASEMENT
			NEW	EXISTING	TOTAL		
1	EAGLE FLATS, LLC	FEE TLE	189 S.F.	---	189 S.F.	1328 S.F.	---
2	CITY OF APPLETON	FEE	654 S.F.	---	654 S.F.	---	---
3	WISCONSIN CENTRAL LTD	HIGHWAY EASEMENT	---	---	---	---	390 S.F.
4	FOX RIVER PAPER CO., LLC N/K/A NEENAH PAPER FR, LLC	TLE	---	---	---	808 S.F.	---
90	CITY OF APPLETON	RELEASE OF RIGHTS	---	---	---	---	---
91	WE ENERGIES - GAS	RELEASE OF RIGHTS	---	---	---	---	---
92	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS	---	---	---	---	---
93	TIME WARNER CABLE	RELEASE OF RIGHTS	---	---	---	---	---

"OWNERS" NAMES ARE SHOWN AS REFERENCE PUPOSES ONLY,
AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND
INTERESTS TO PORTAGE COUNTY

OUTAGAMIE COUNTY
MONUMENT FOUND
Y 558409.33
X 830400.50



OUTAGAMIE COUNTY
MONUMENT FOUND
Y 561101.78
X 830394.07



REVISION DATE NOV 6, 2014 MARCH 23, 2015	DATE	<div>SCALE, FEET</div> <div><div>02040</div></div>	HWY: LAWE STREET	STATE R/W PROJECT NUMBER 4984-08-00	PLAT SHEET NO: 4.2	
	GRID FACTOR N/A		COUNTY: OUTAGAMIE	CONSTRUCTION PROJECT NUMBER	PS&E SHEET NO:	
E						

E

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

4

TLE STATION OFFSET TABLE

PARCEL 1 WEST TLE		
PT#	STA	OFFSET
804	9+45.20	30.37'
863	9+44.38	35.37'
864	8+60.00	35.43'
865	8+60.00	30.43'
PARCEL 1 EAST TLE		
879	8+75.00	29.58'
880	8+75.00	42.58'
883	9+14.00	47.60'
884	9+14.00	42.60'
889	9+36.00	29.63'
919	9+36.00	47.62'
PARCEL 4		
862	10+89.80	24.74'
863	10+88.52	37.74'
948	11+70.00	34.80'
949	11+70.00	24.80'

CURVE TABLE

CURVE	RADIUS	LENGTH	CHORD	CHORD BEARING	PARCEL
895-930	1891.50'	17.15'	17.15'	N83°03'13"W	2 & 3
894-909	1891.50'	15.06'	15.06'	S85°22'14"E	2 & 3
873-872	562.50'	5.30'	5.30'	N71°10'50"W	2 & 3
874-935	1926.50'	5.02'	5.02'	S85°10'07"E	3

RIGHT-OF-WAY LINE TABLE

PARCEL 1		
LINE	BEARING	DISTANCE
889-890	N89°16' 26"E	10.00'
890-893	N00°40'58"W	14.95'
893-892	S89°19'12"W	10.00'
892-889	S00°40'58"E	14.96'
PARCEL 2 EAST R/W		
905-906	N89°16'26"E	32.00'
906-895	N00°40'58"W	5.59'
895-930	SEE CURVE	-
930-911	S00°40'58"E	2.41'
911-904	S89°19'02"W	15.00'
904-905	S00°40'58"E	5.43'
PARCEL 2 WEST R/W		
903-902	S89°16'26"W	30.00'
902-894	N00°40'58"W	16.12'
894-909	SEE CURVE	-
909-908	S00°40'58"E	9.25'
908-907	N89°19'02"E	15.00'
907-903	S00°40'58"E	5.45'
PARCEL 2 NORTH WEST		
873-872	SEE CURVE	-
872-870	N00°43'34"W	28.07'
870-871	N89°19'02"E	5.00'
871-873	S00°40'58"E	29.84'

HIGHWAY EASEMENT TABLE

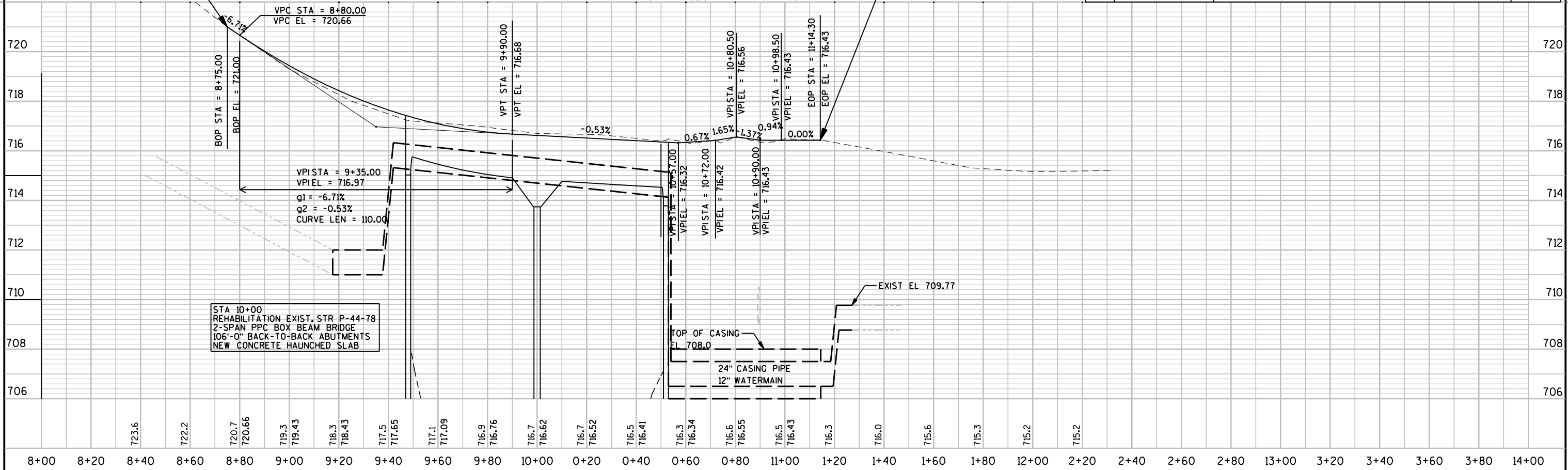
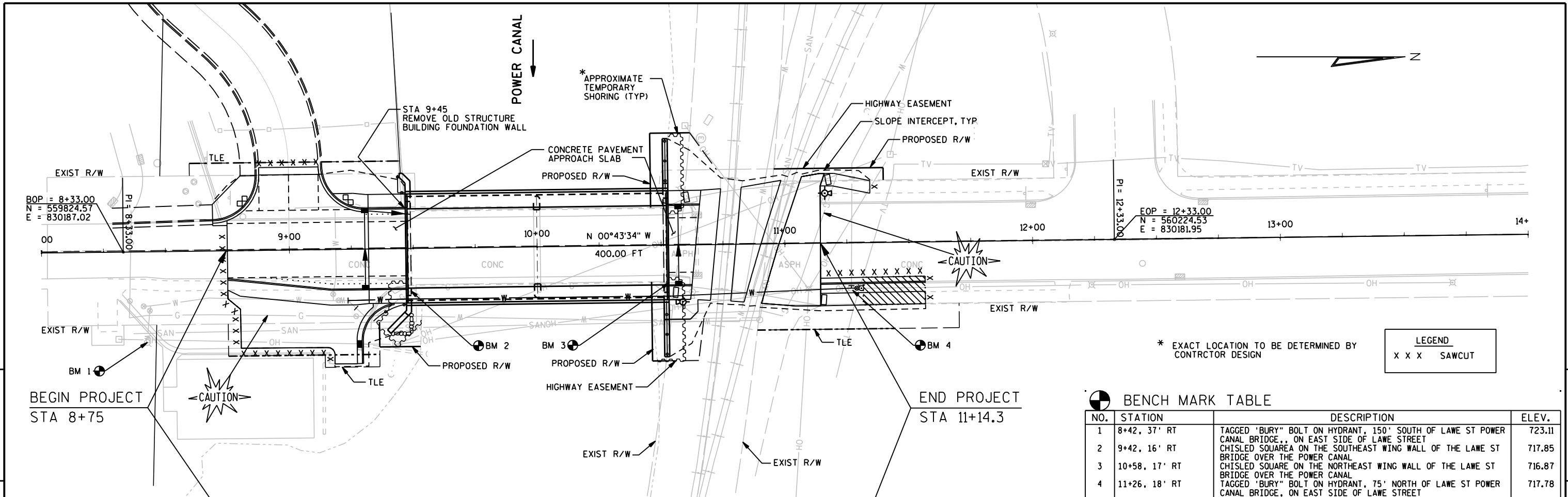
PARCEL 3 EAST		
LINE	BEARING	DISTANCE
930-938	N00°40'58"W	13.11'
938-937	S83°05'38"E	17.15'
937-895	S00°40'58"E	13.12'
895-930	SEE CURVE	-
PARCEL 3 WEST		
873-872	SEE CURVE	-
872-874	S00°40'58"E	16.06'
874-935	SEE CURVE	-
935-873	N00°40'58"W	14.77'
PARCEL 3 SOUTH WEST		
894-909	SEE CURVE	-
909-939	N00°40'58"W	12.00'
939-894	S54°03'51"W	18.37'

RIGHT-OF-WAY & HIGHWAY
EASEMENT STATION OFFSET

PARCEL 1 R/W		
PT#	STA	OFFSET
889	9+36.00	29.63'
890	9+36.00	39.63'
892	9+50.96	29.64'
893	9+50.95	39.64'
PARCEL 2 R/W EAST		
895	10+51.59	46.71'
904	10+51.43	14.71'
905	10+46.00	14.71'
906	10+46.00	46.71'
911	10+51.42	29.71'
930	10+53.88	29.72'
PARCEL 2 R/W WEST		
894	10+62.12	45.28'
902	10+46.00	45.29'
903	10+46.00	15.29'
907	10+51.45	15.29'
908	10+51.46	30.29'
909	10+60.71	30.28'
PARCEL 2 R/W NORTH WEST		
870	11+40.00	30.22'
871	11+40.00	25.22'
872	11+11.94	30.24'
873	11+10.16	25.24'
PARCEL 3 HIGHWAY EASEMENT EAST		
895	10+51.59	46.71'
930	10+53.88	29.72'
937	10+64.71	46.72'
938	10+66.99	29.73'
PARCEL 3 HIGHWAY EASEMENT SW		
894	10+62.12	45.28'
909	10+60.71	30.28'
939	10+72.71	30.27'
PARCEL 3 HIGHWAY EASEMENT WEST		
872	11+11.94	30.24'
873	11+10.16	25.24'
874	10+95.87	30.25'
936	10+95.36	25.25'

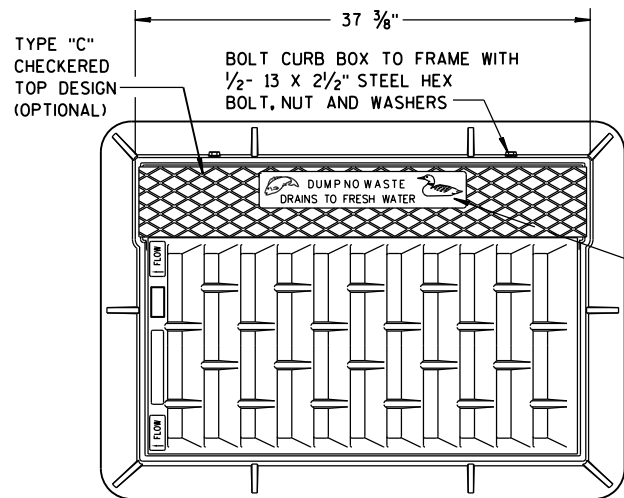
4

REVISION DATE 11-6-14 NC 3-23-15	DATE	SCALE, FEET N/A	HWY: LAWE STREET	STATE R/W PROJECT NUMBER 4984-08-00	PLAT SHEET NO: 4.3	
	GRID FACTOR N/A		COUNTY: OUTAGAMIE		PS&E SHEET NO:	

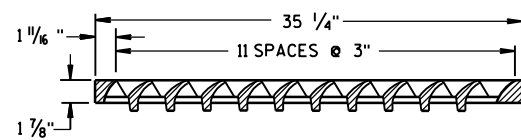
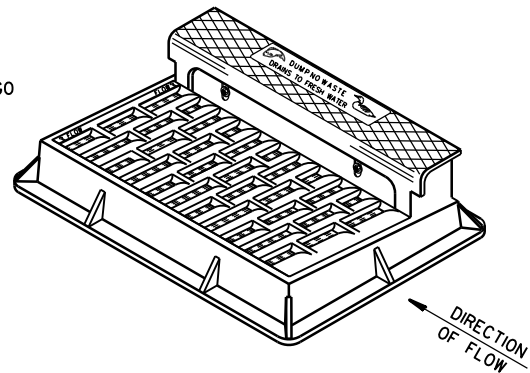


Standard Detail Drawing List

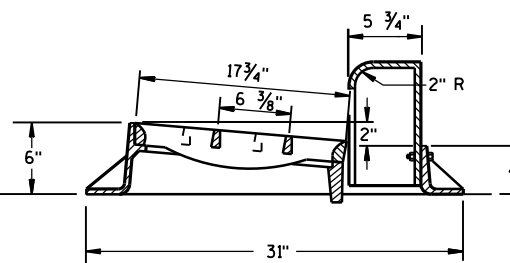
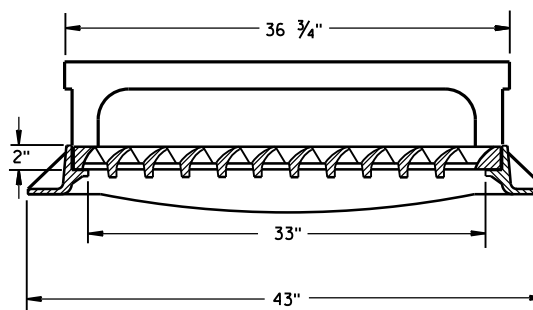
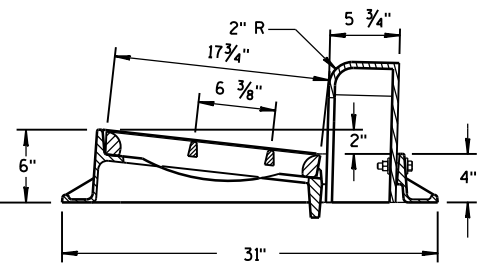
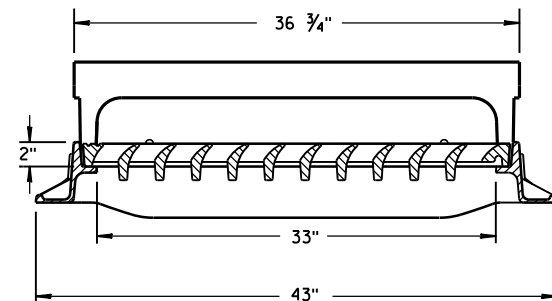
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
12A03-10	NAME PLATE (STRUCTURES)
13B01-10	PAVEMENT DETAILS FOR RAILROAD APPROACH
13B02-08A	CONCRETE BRIDGE APPROACH
13C01-17	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C09-09A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS



NOTE:
GRATE IS REVERSIBLE.

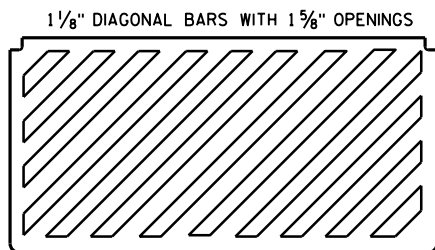


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



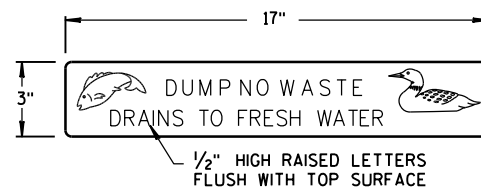
TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

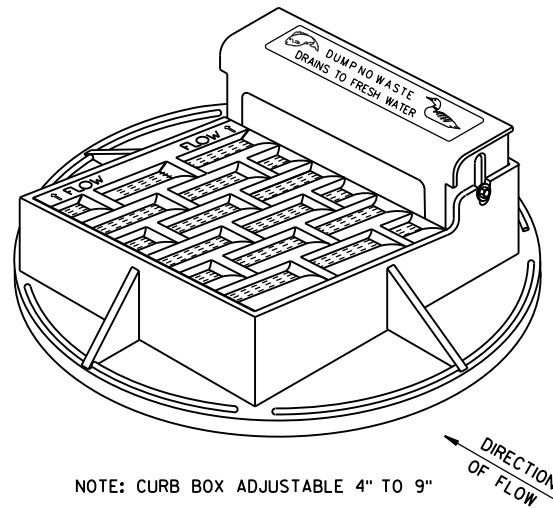


SPECIAL GRATE FOR
TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

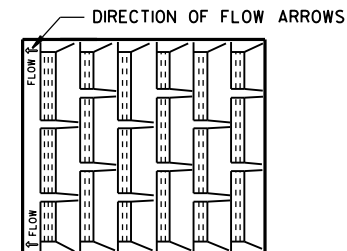


LOGO DETAIL

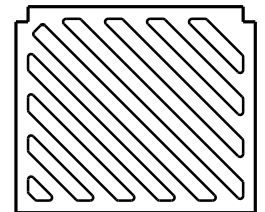


NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.

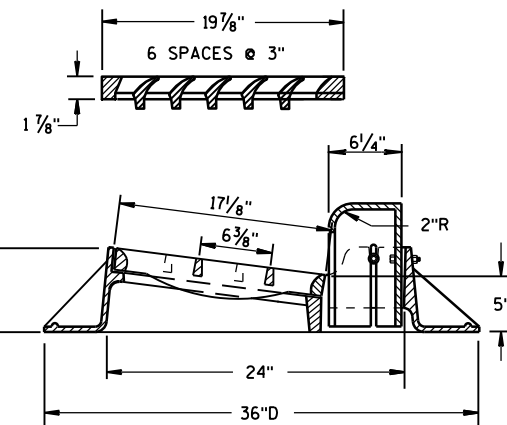
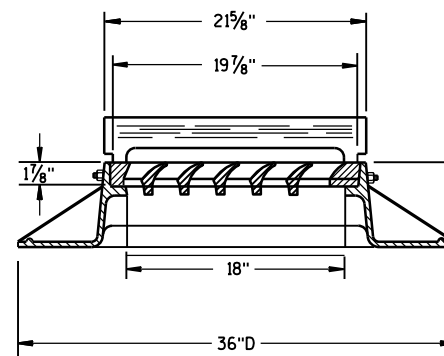


1" DIAGONAL BARS
WITH 1 1/2" OPENINGS

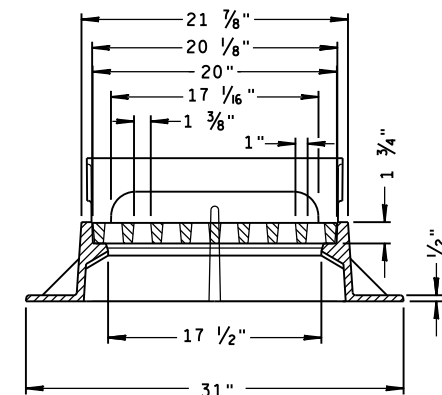
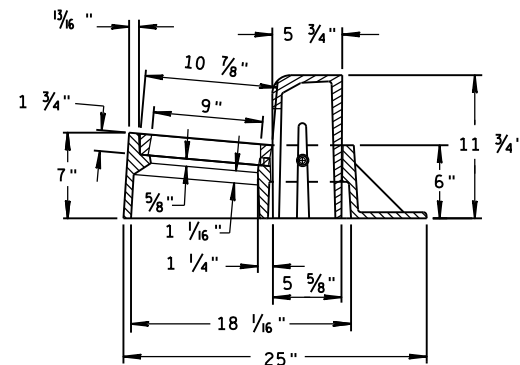


SPECIAL GRATE FOR
TYPE "A" COVER

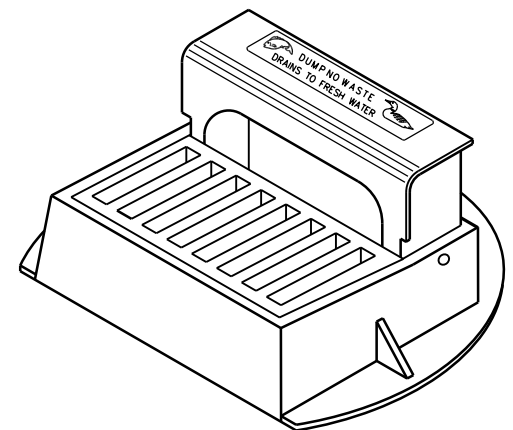
(MEASURES 19 3/4" X 17" X 1 1/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"



TYPE "Z"



INLET COVERS
TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11-27-13

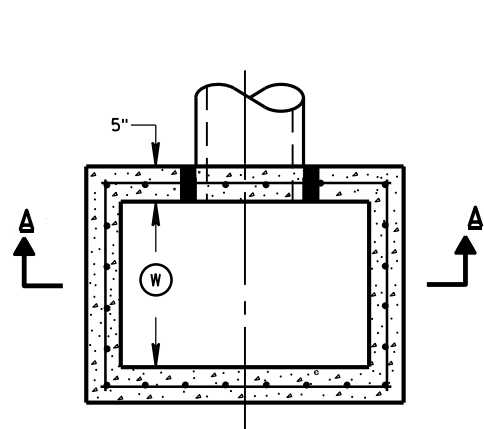
DATE

FHWA

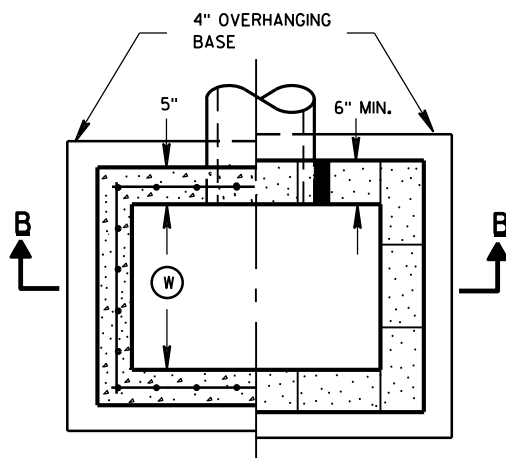
/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER

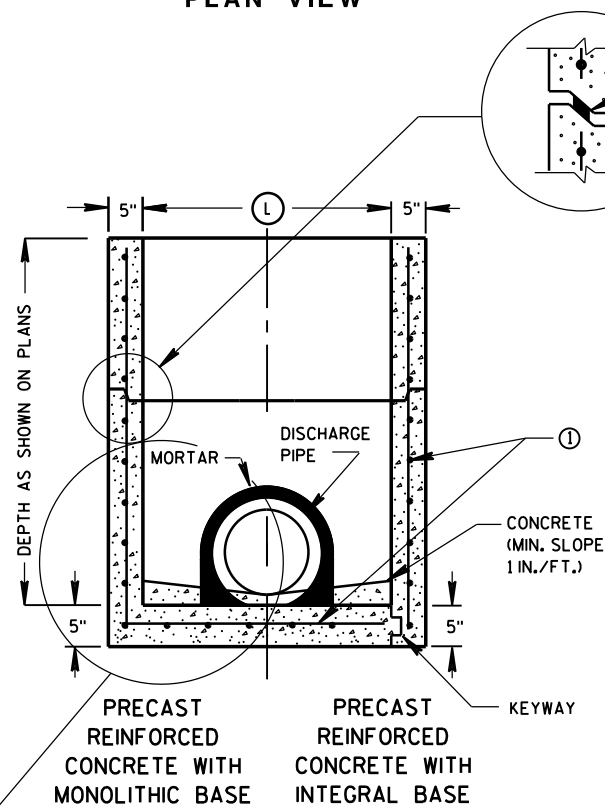


PLAN VIEW

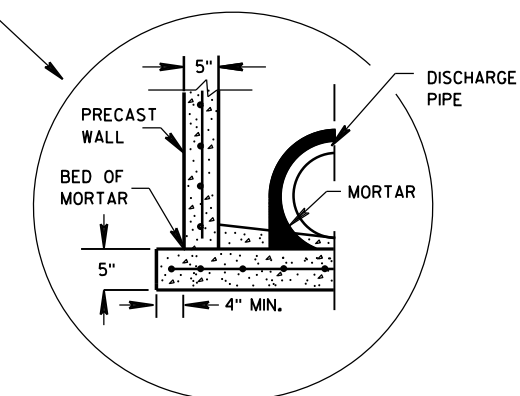


PLAN VIEW

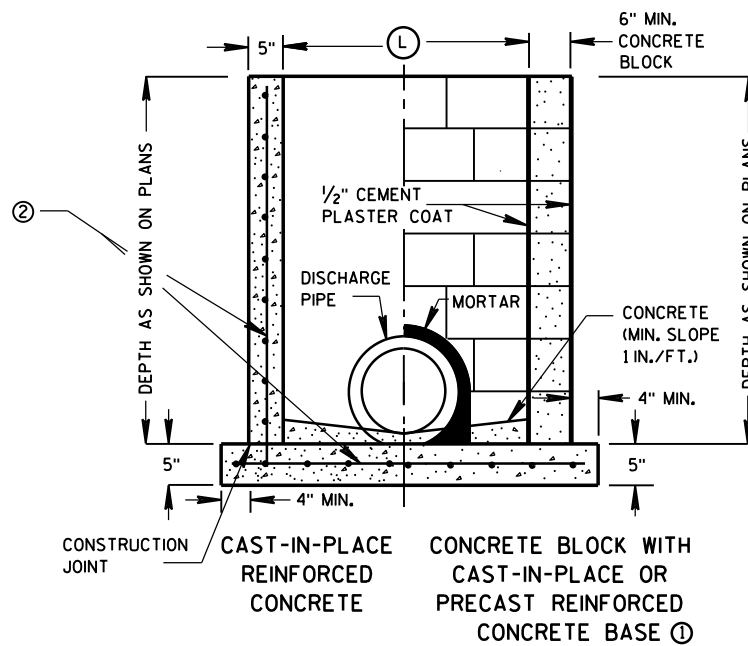
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION



SECTION B-B

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

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 INLET 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 INLET 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 GRANULAR 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 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

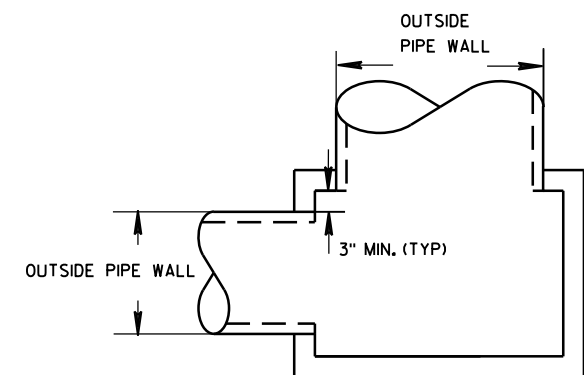
- FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH ① (FT)	LENGTH ② (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24

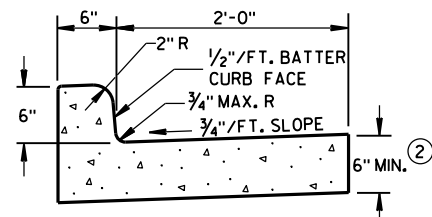


DETAIL "A"

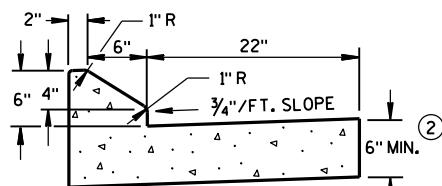
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

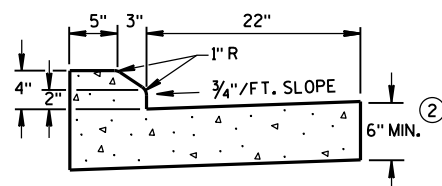
APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA ENGINEER



TYPES A & D ①

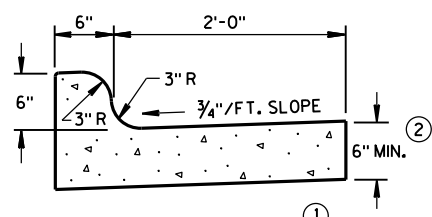


6" SLOPED CURB TYPES G & J ①



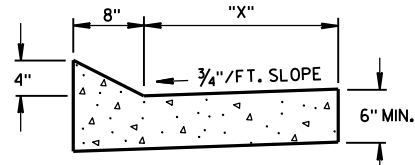
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"



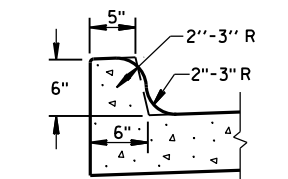
TYPES K & L ①

CONCRETE CURB & GUTTER 30"

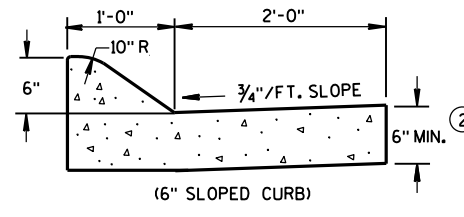


TYPES TBT & TBT
CONCRETE CURB & GUTTER

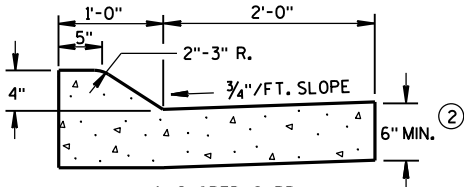
TBT & TBT	"X"
30"	22"
36"	28"



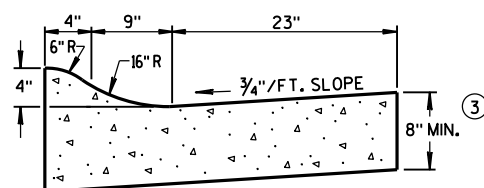
OPTIONAL CURB SHAPE
FOR TYPES K & L ①



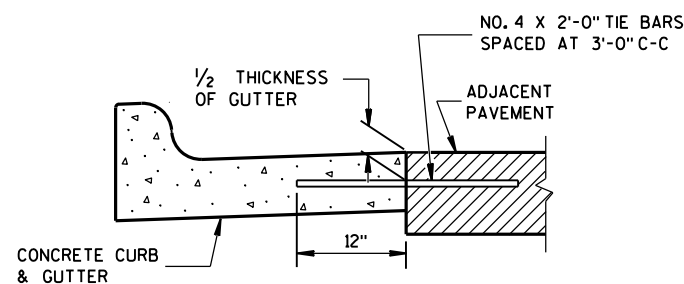
(6" SLOPED CURB)



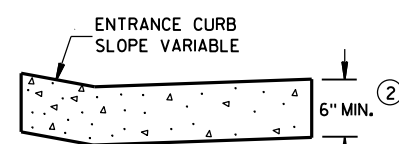
TYPES A & D ①



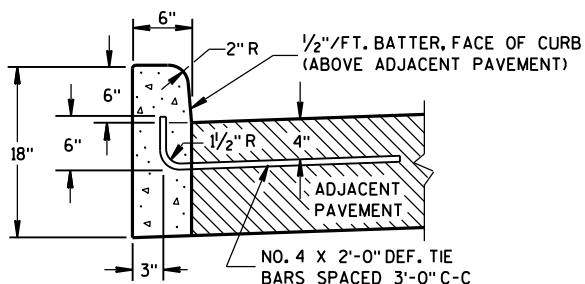
4" SLOPED CURB TYPES R & T ① ④
CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION ①

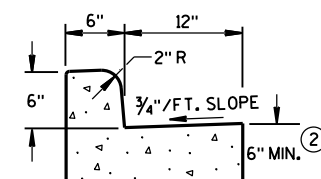


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

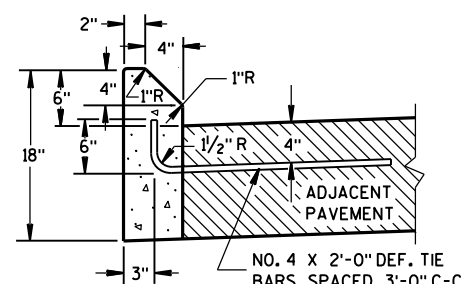


TYPES A & D ①

CONCRETE CURB



TYPES A & D
CONCRETE CURB & GUTTER 18"



TYPES G & J ①

GENERAL NOTES

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

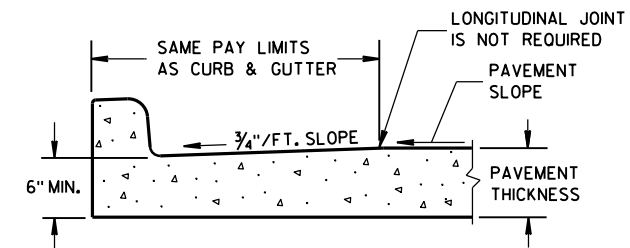
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

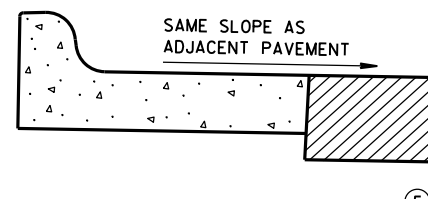
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

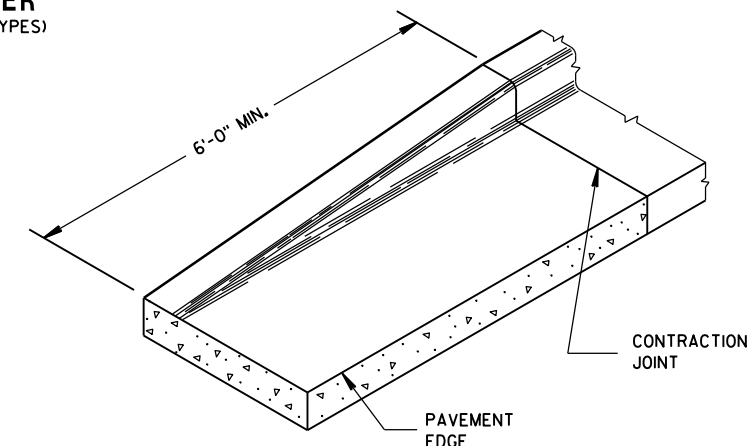
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



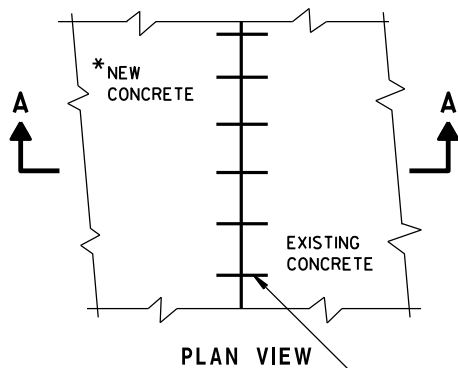
PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



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



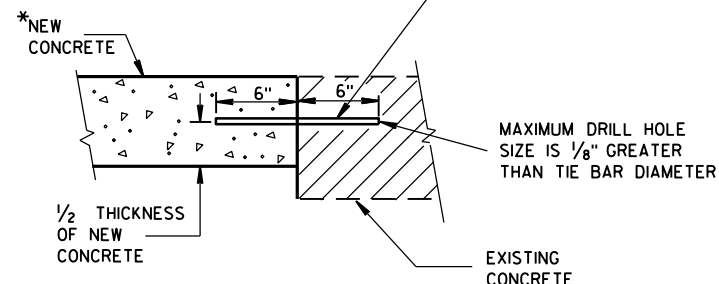
END SECTION CURB & GUTTER



PLAN VIEW

*NEW CURB & GUTTER,
SURFACE DRAINS,
CONCRETE PAVEMENT
OR OTHER NEW CONCRETE.

NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

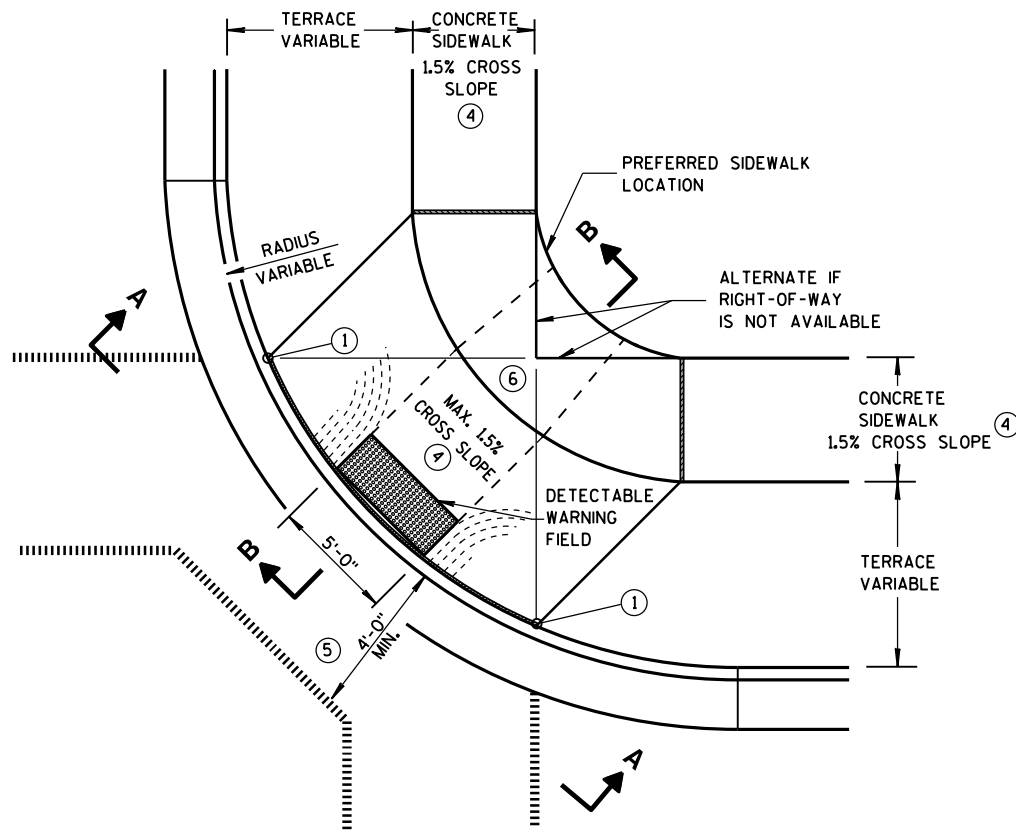


SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

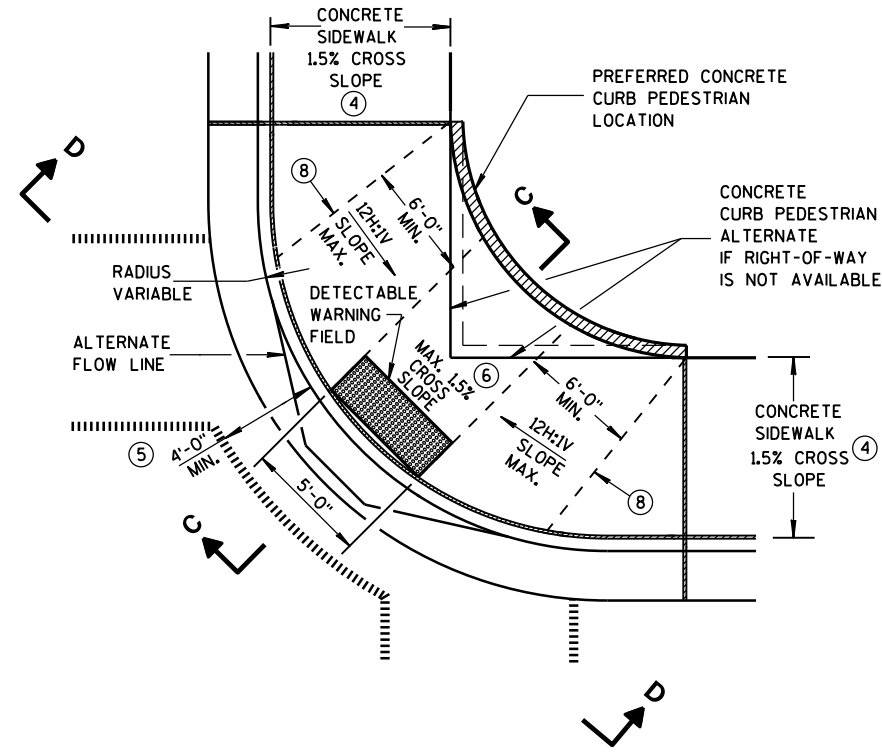
CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

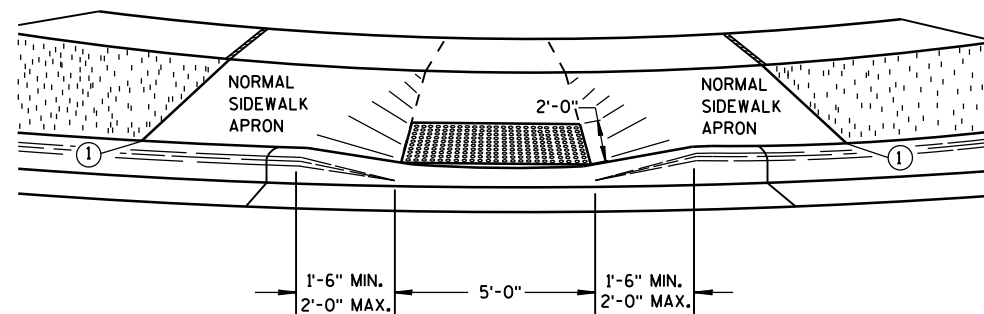
APPROVED
June, 2015 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)

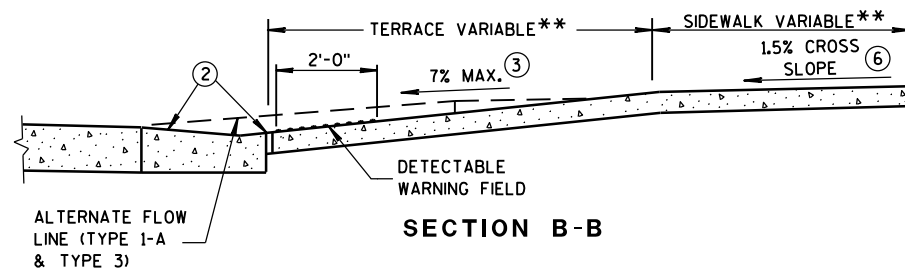


**PLAN VIEW
TYPE 1-A RAMP**
(NO TERRACE)

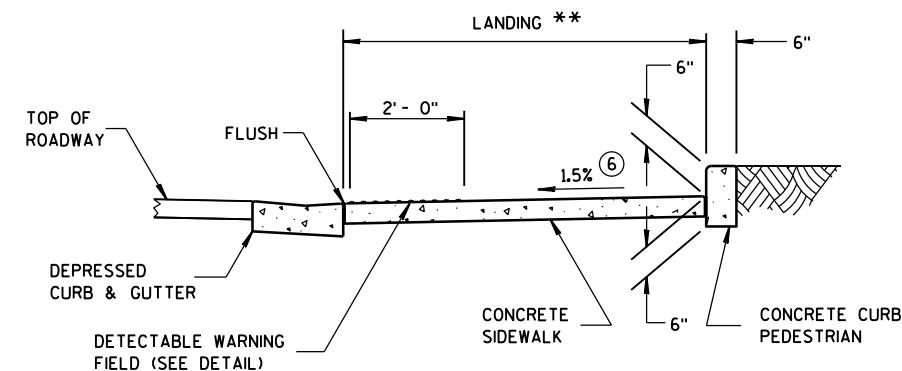


VIEW A-A

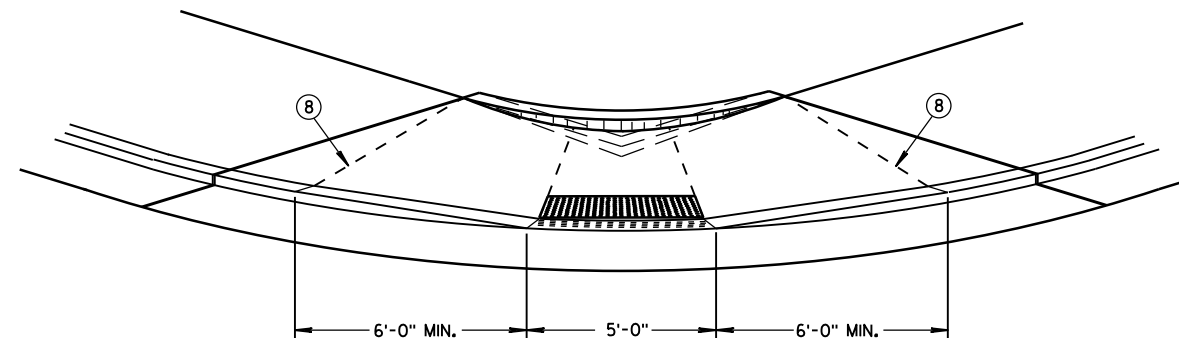
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

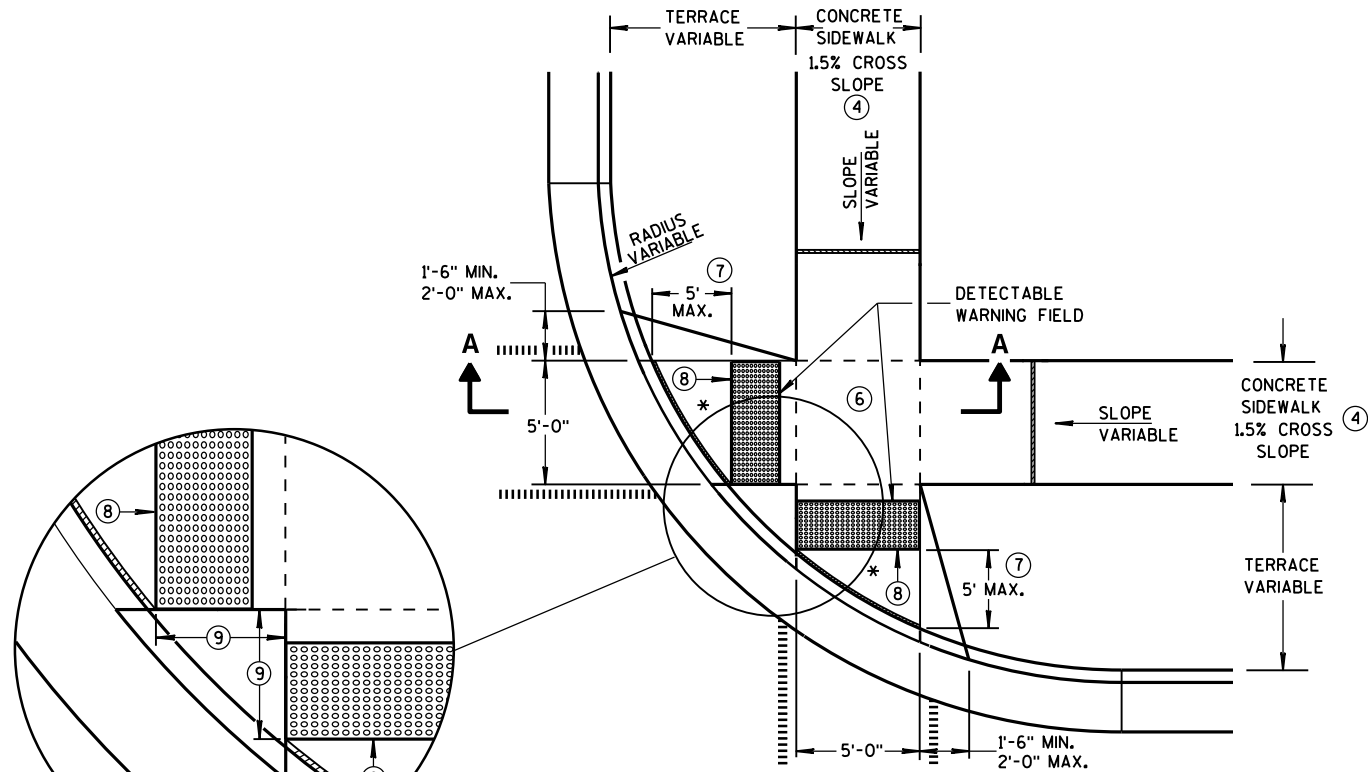
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

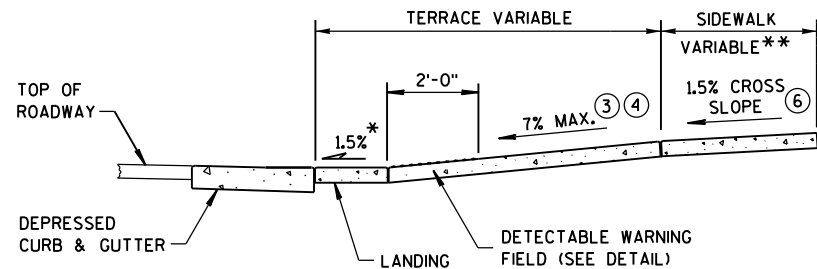
**CURB RAMPS
TYPES 1 AND 1-A**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



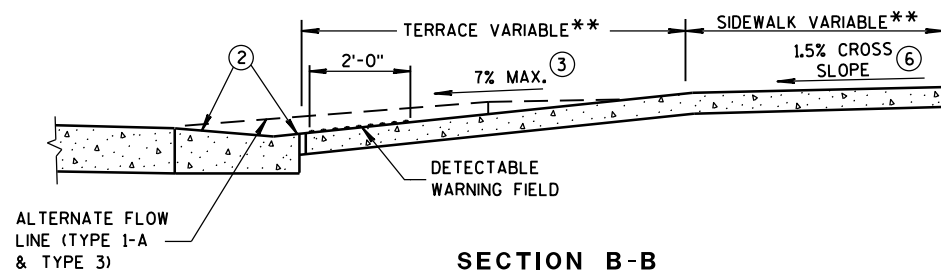
PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE
IN THE PLANS



SECTION B-B

GENERAL NOTES

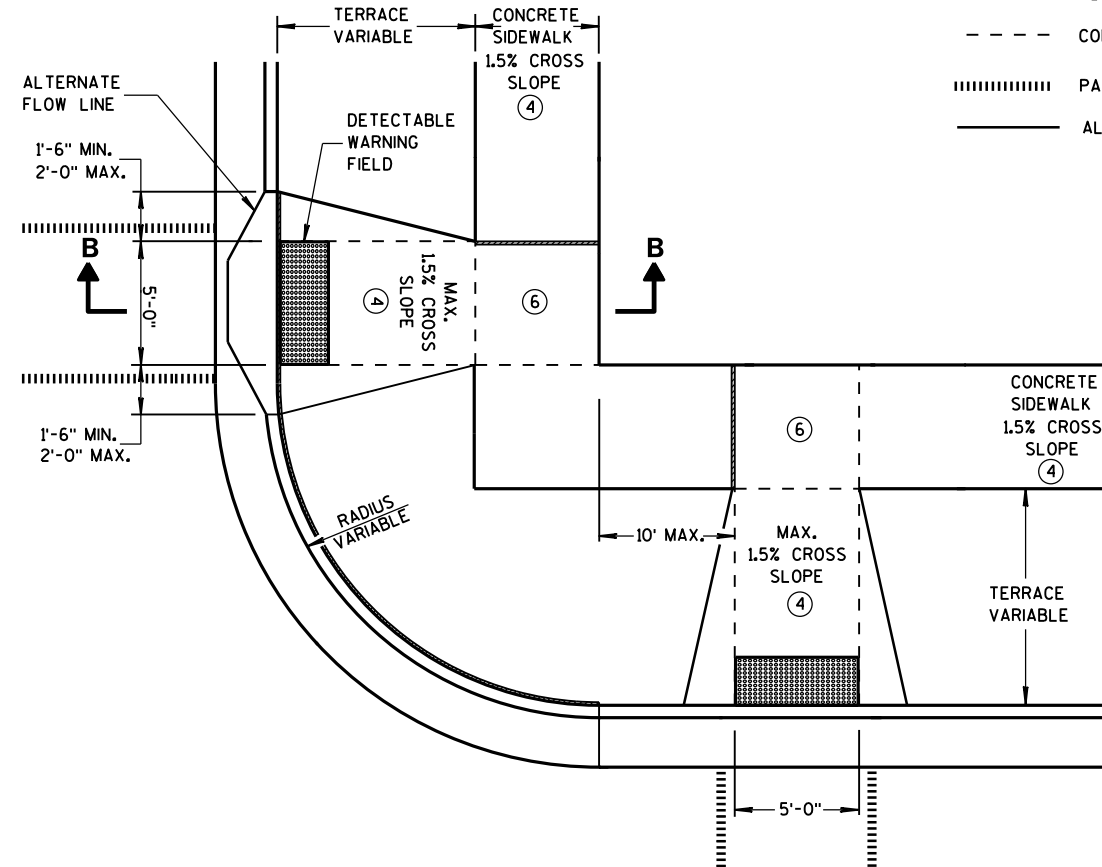
USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
- ⑦ WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. 2" MINIMUM CURB HEIGHT.

LEGEND

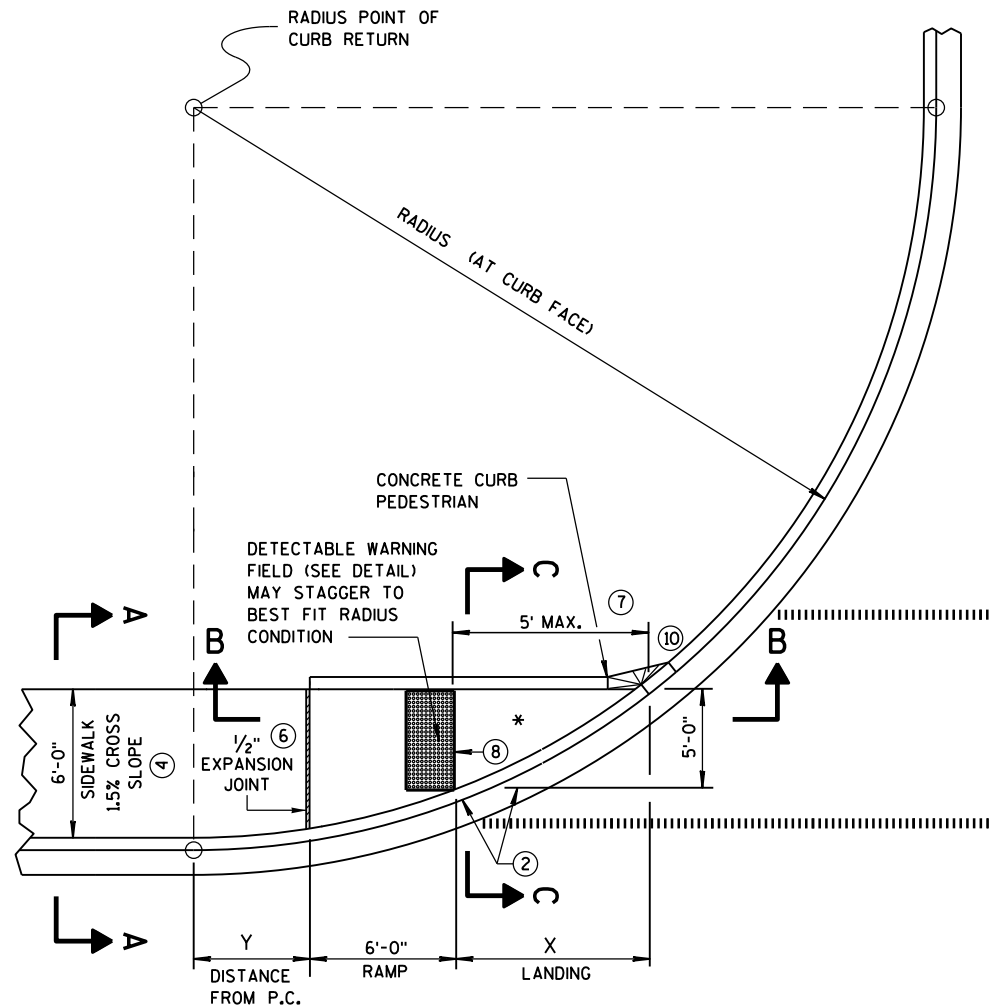
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



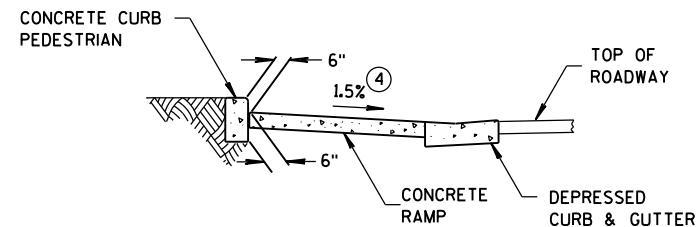
PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

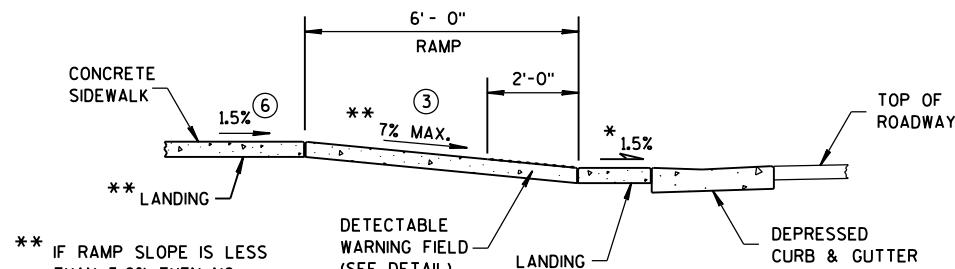
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 4A
PLAN VIEW



SECTION C-C FOR TYPE 4A



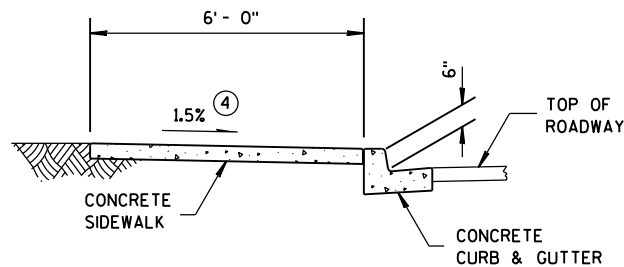
SECTION B-B FOR TYPE 4A

** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

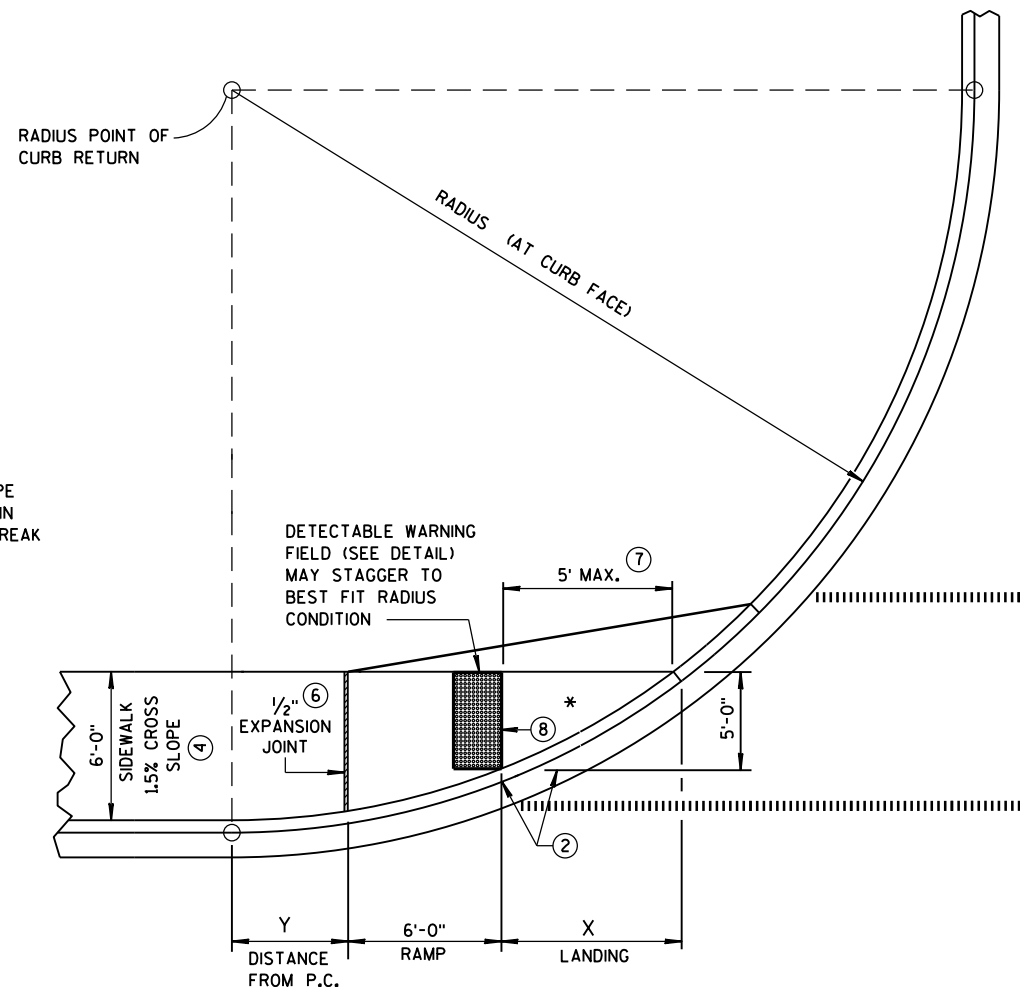
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1 3/4"	2'-7 1/4"
30 FEET	7'-11 3/4"	4'-8 1/4"
40 FEET	9'-5 1/4"	6'-5"
50 FEET	10'-8 3/4"	7'-11 1/4"
60 FEET	11'-10 1/4"	9'-3 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A



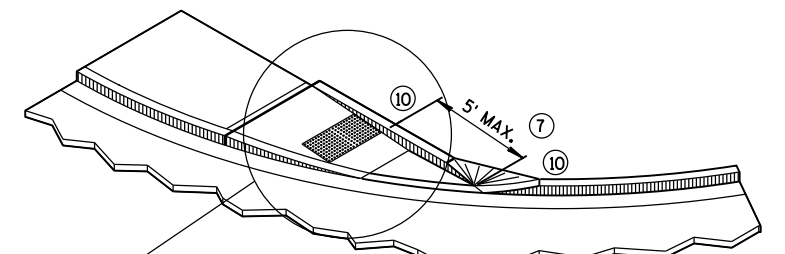
CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

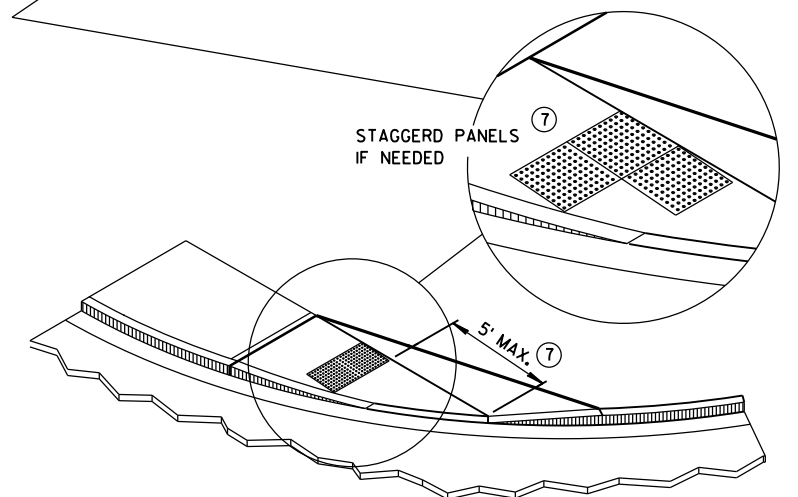
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
- ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
- WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



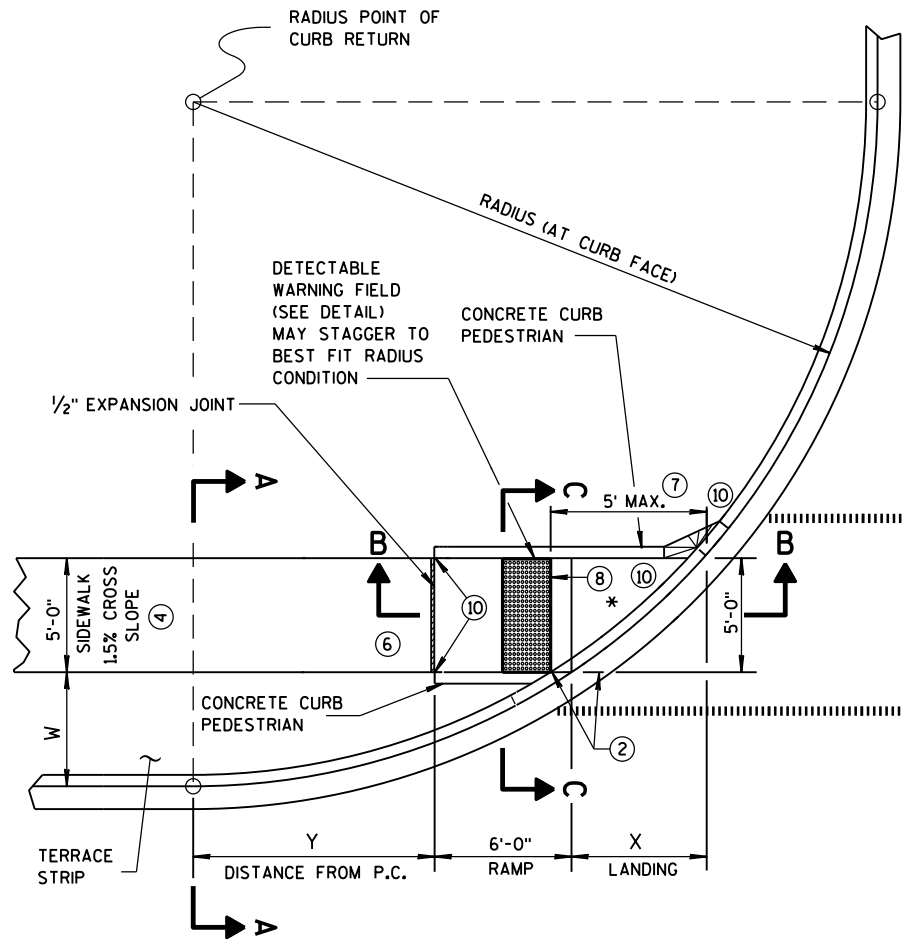
ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

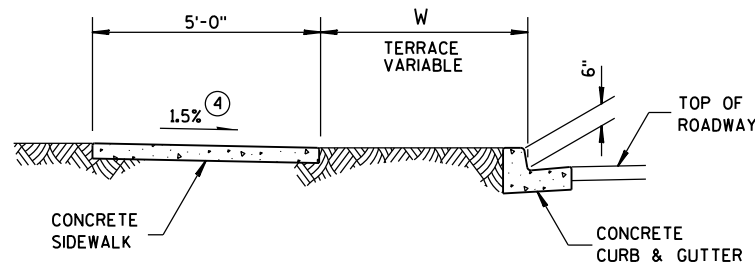
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

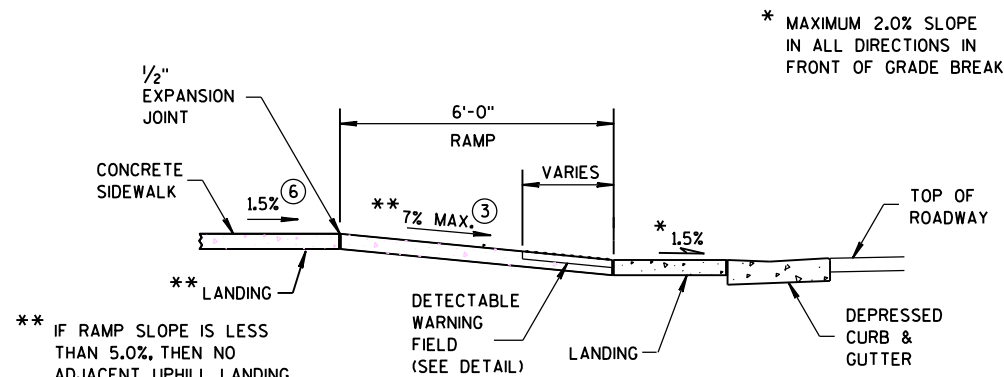
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 4B
PLAN VIEW

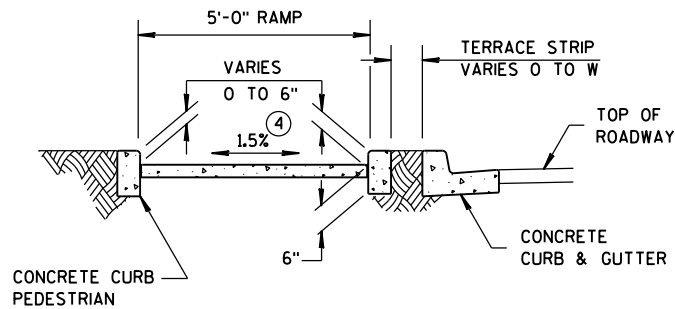


SECTION A-A FOR TYPE 4B

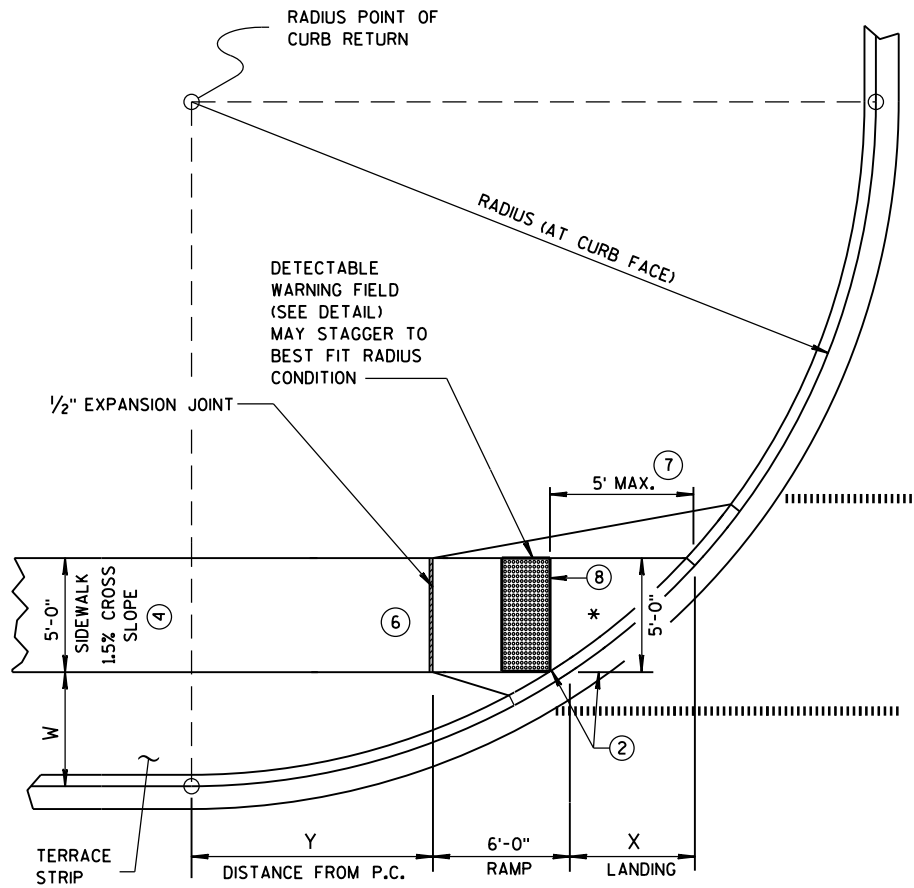


SECTION B-B FOR TYPE 4B

- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
 - CONTRACTION JOINT FIELD LOCATED
 - PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

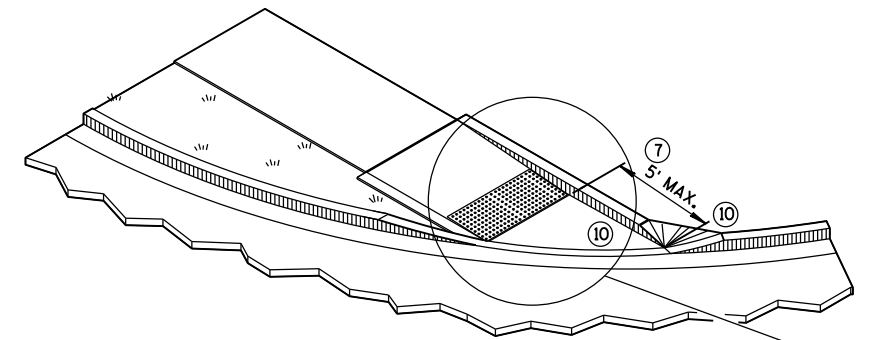


CURB RAMP TYPE 4B1
PLAN VIEW

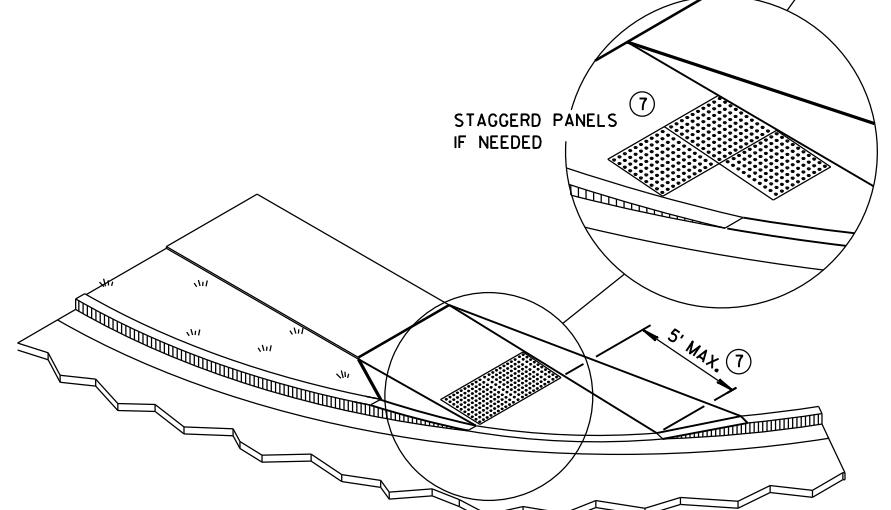
RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3/4"	11'-3/4"	9'-1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"

GENERAL NOTES

- INTERMEDIATE RADII CAN BE INTERPOLATED
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS. DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
 - ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
 - ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
 - WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.
 - PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
 - INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



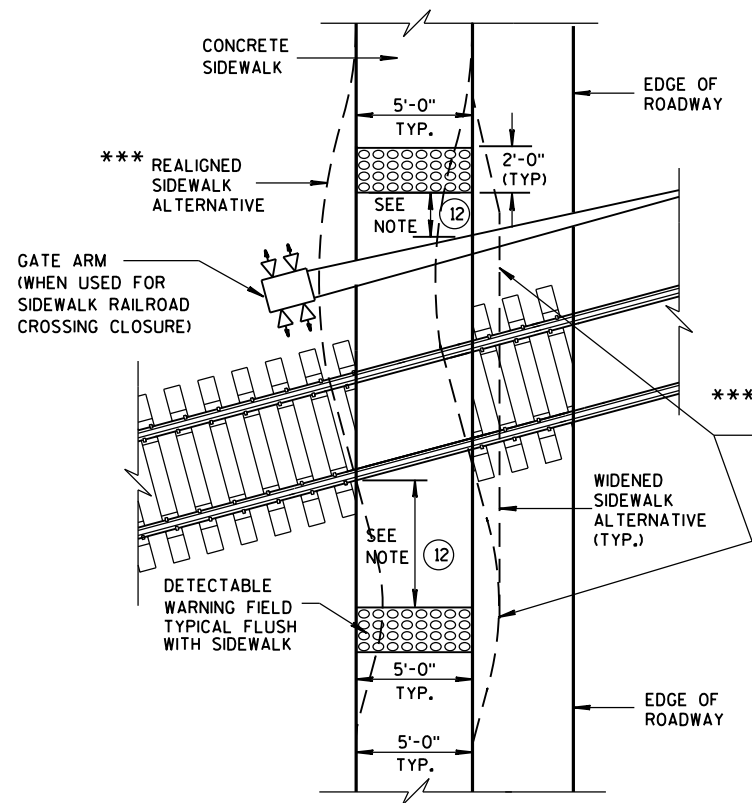
ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

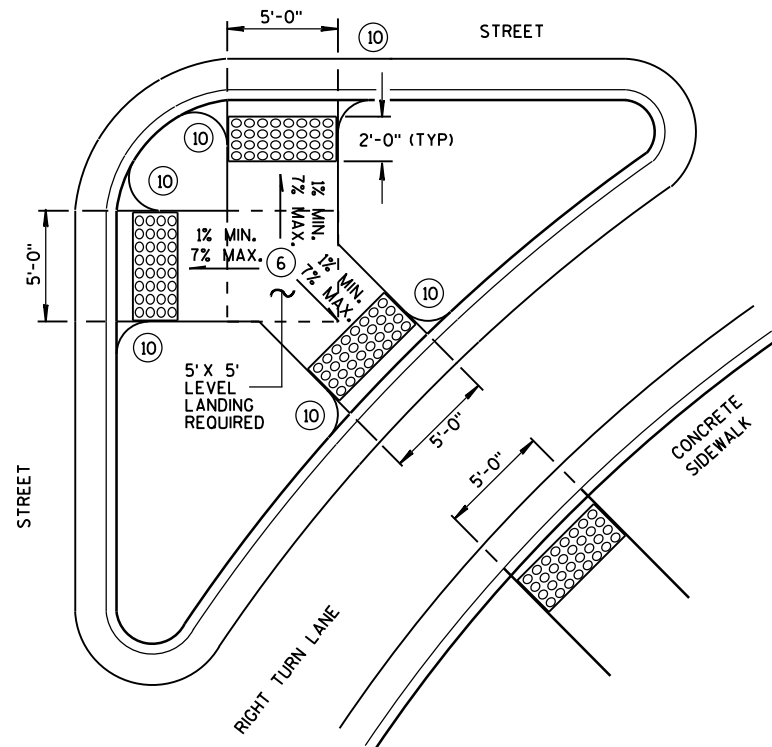
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

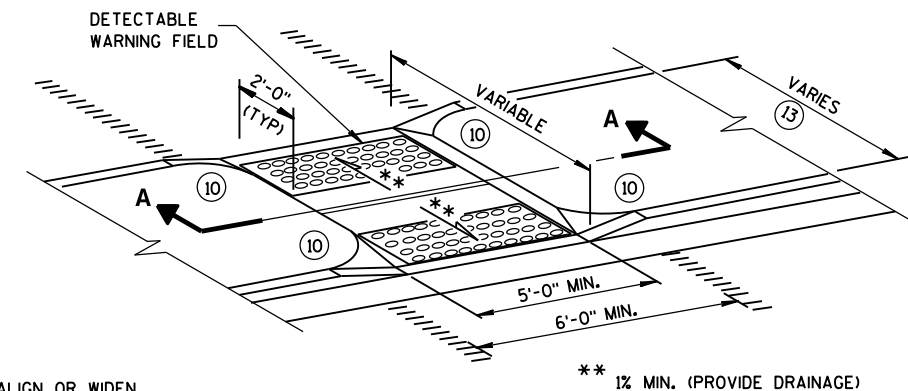


TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING

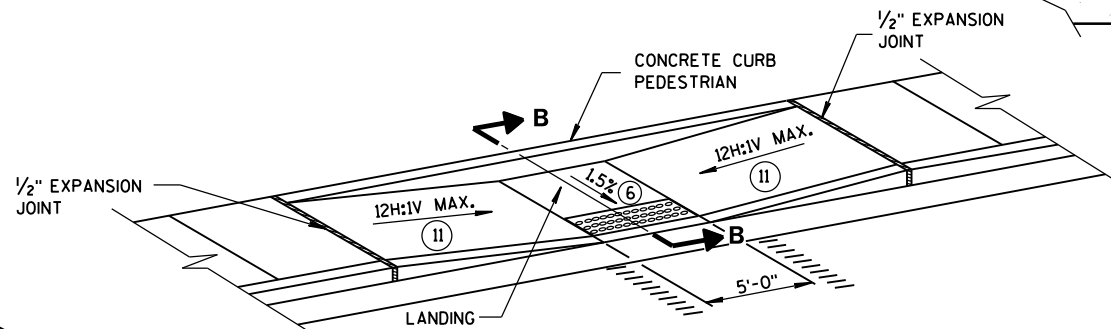
REFER TO GENERAL NOTES ② AND ③
FOR ALL ISLAND CURB RAMPS



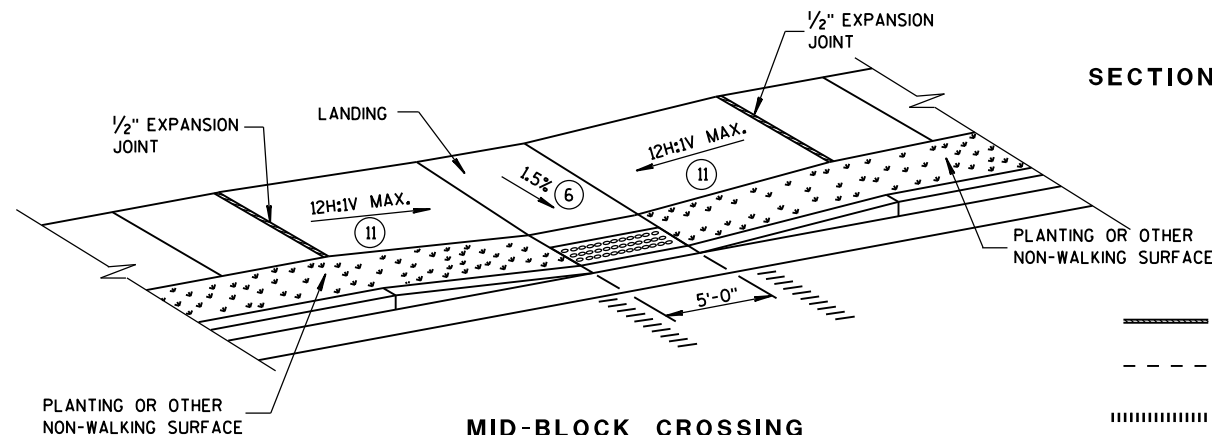
TYPE 6
DETECTABLE WARNING AT ISLANDS



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



MID-BLOCK CROSSING
TYPE 7A

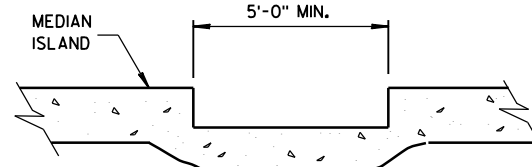


MID-BLOCK CROSSING
TYPE 7B

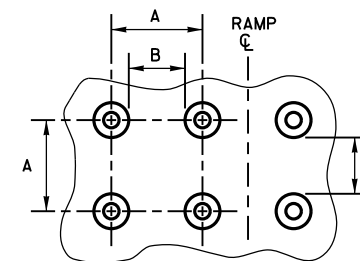
NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS
MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

GENERAL NOTES

- SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
- ⑩ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



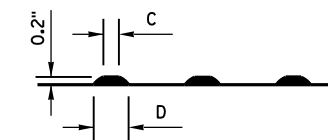
SECTION A-A



PLAN VIEW

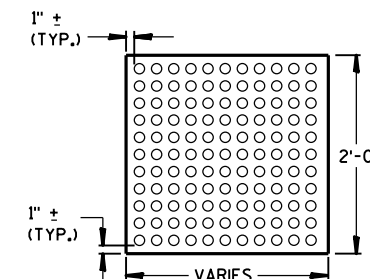
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



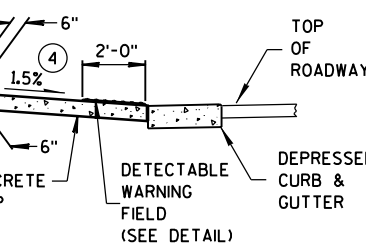
ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



PLAN VIEW
DETECTABLE WARNING
FIELD (TYPICAL)

SECTION B-B



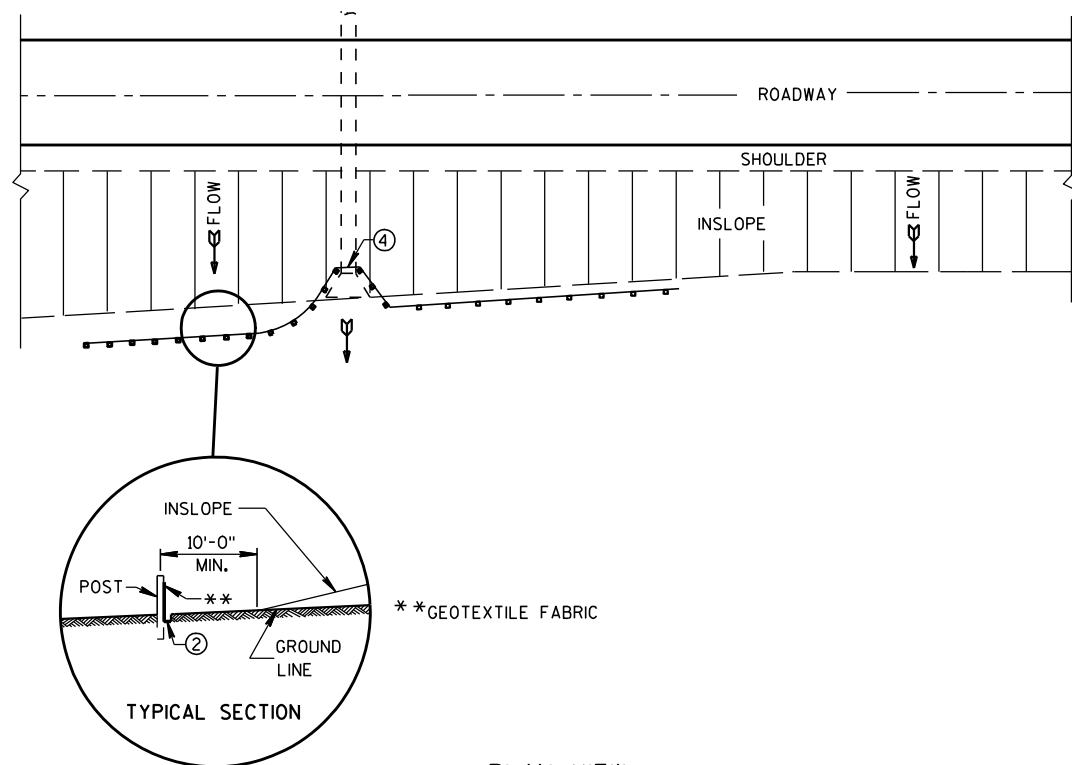
LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

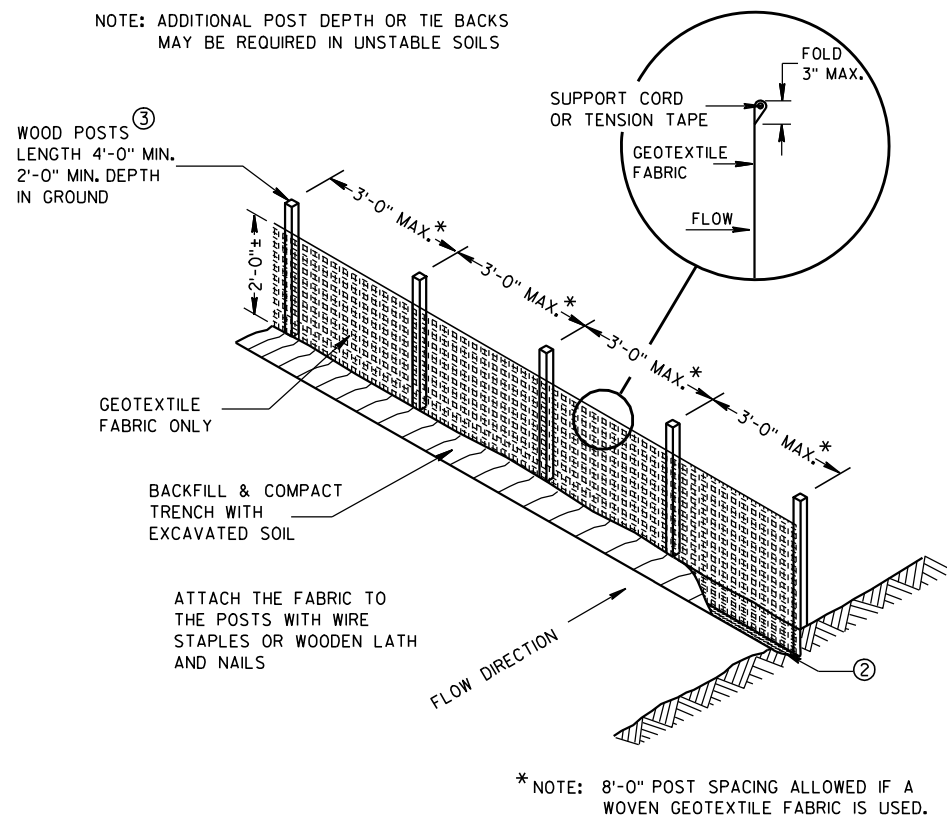
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

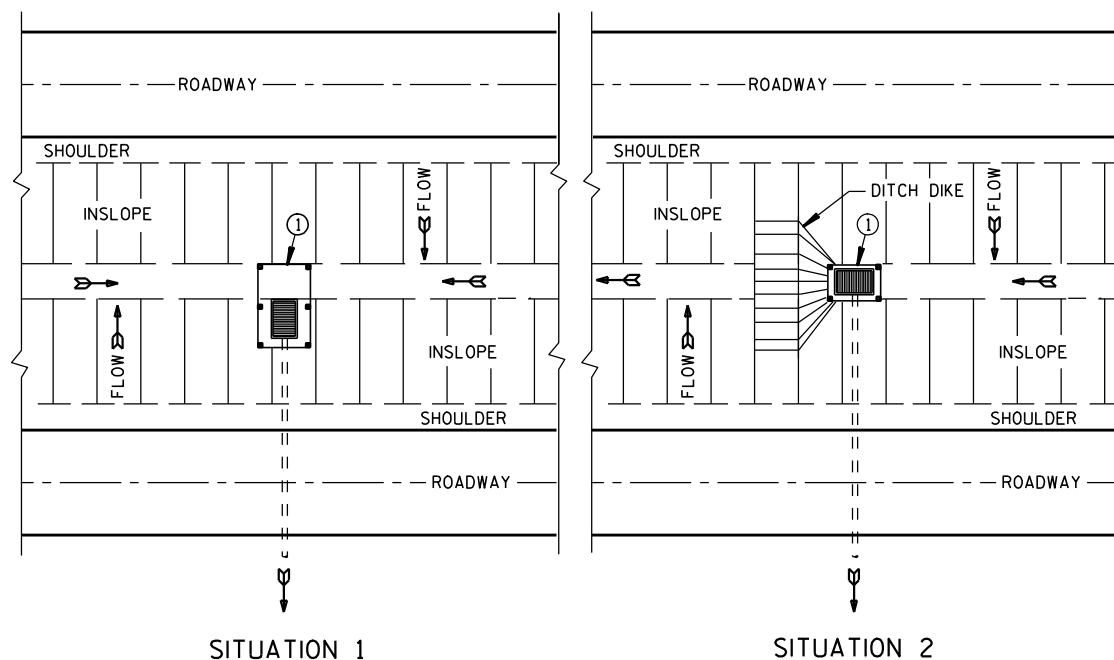


TYPICAL APPLICATION OF SILT FENCE

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

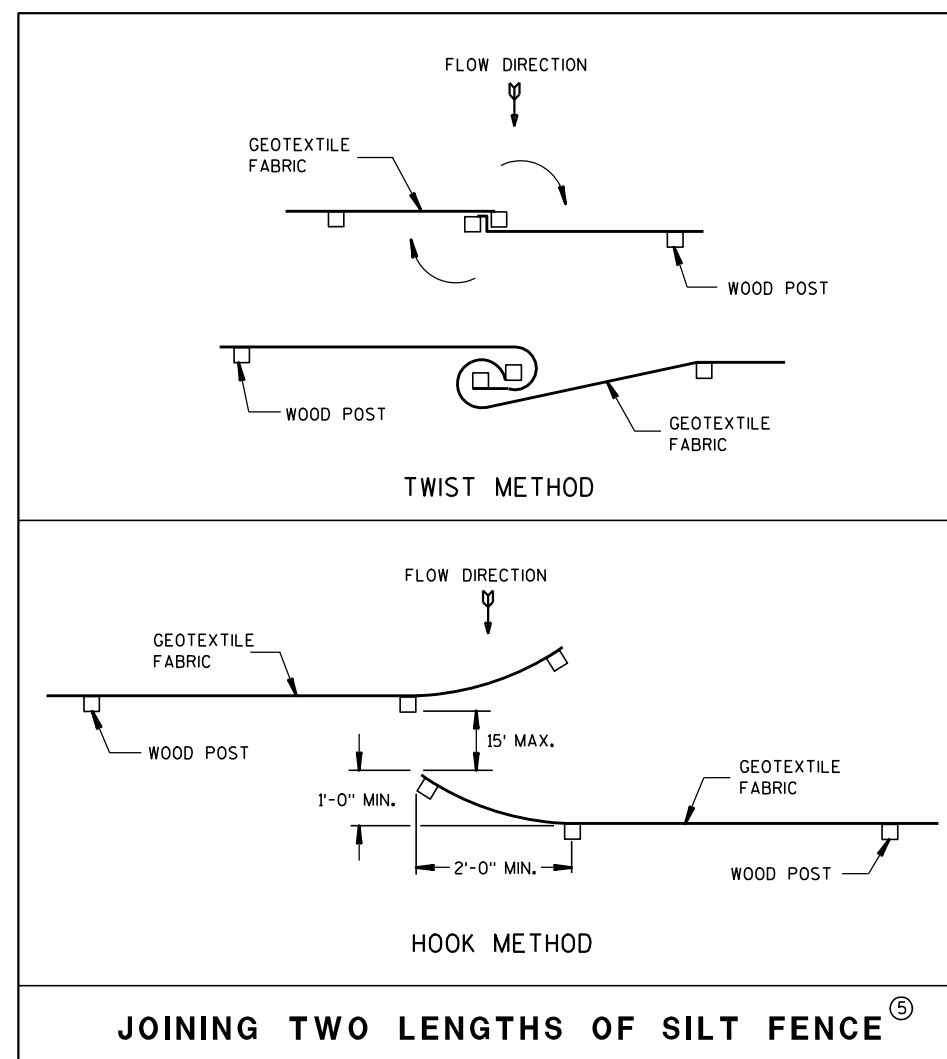


SILT FENCE



PLAN VIEW

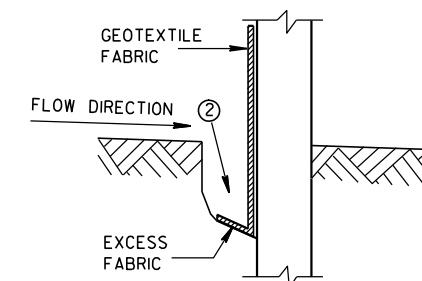
SILT FENCE AT MEDIAN SURFACE DRAINS



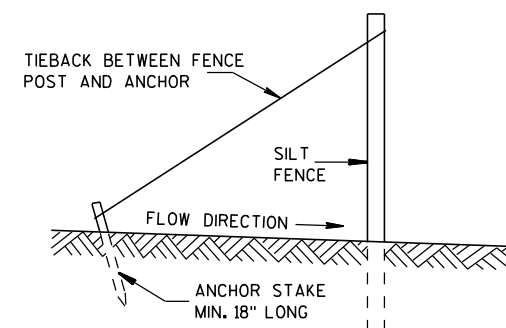
GENERAL NOTES

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 TIE BACK (WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

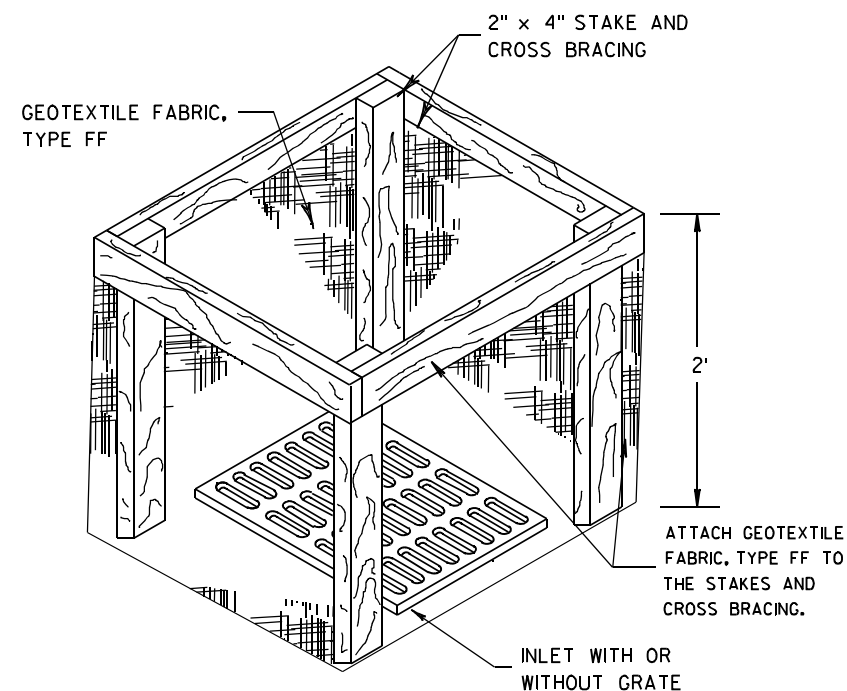
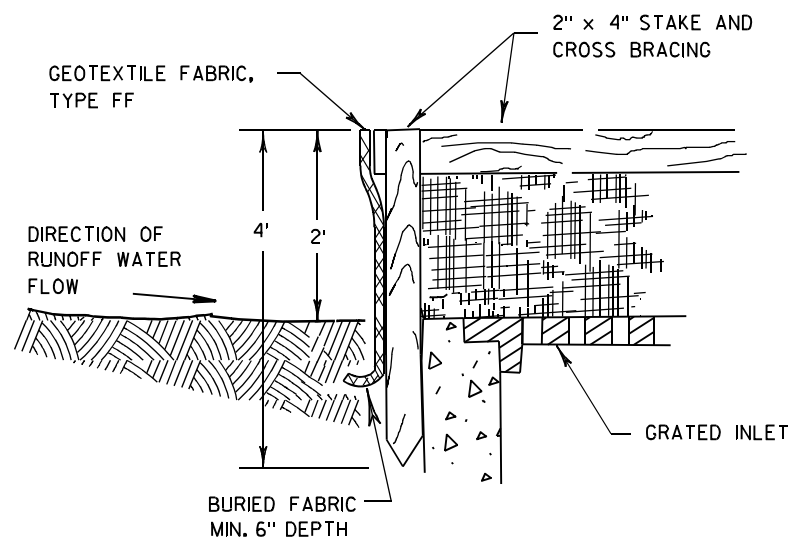
APPROVED

4-29-05

DATE

FHWA

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



INLET PROTECTION, TYPE A

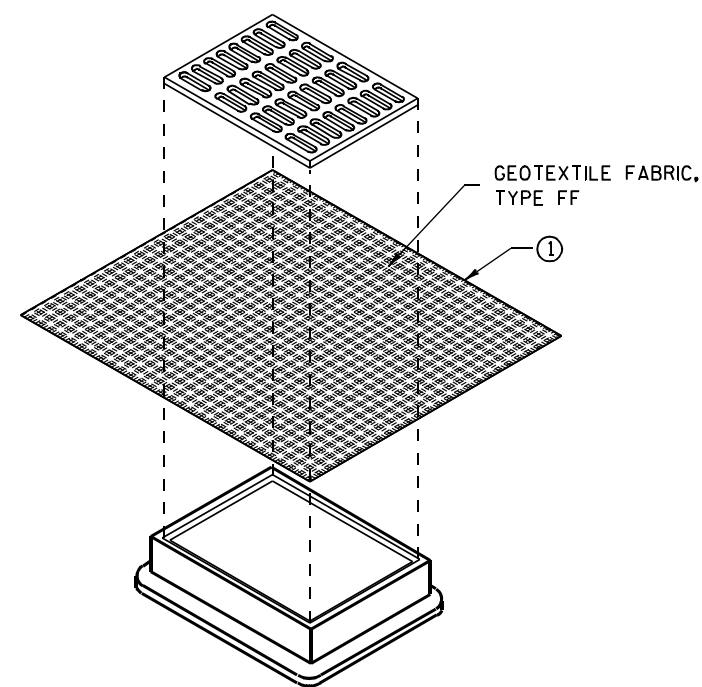
GENERAL NOTES

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.

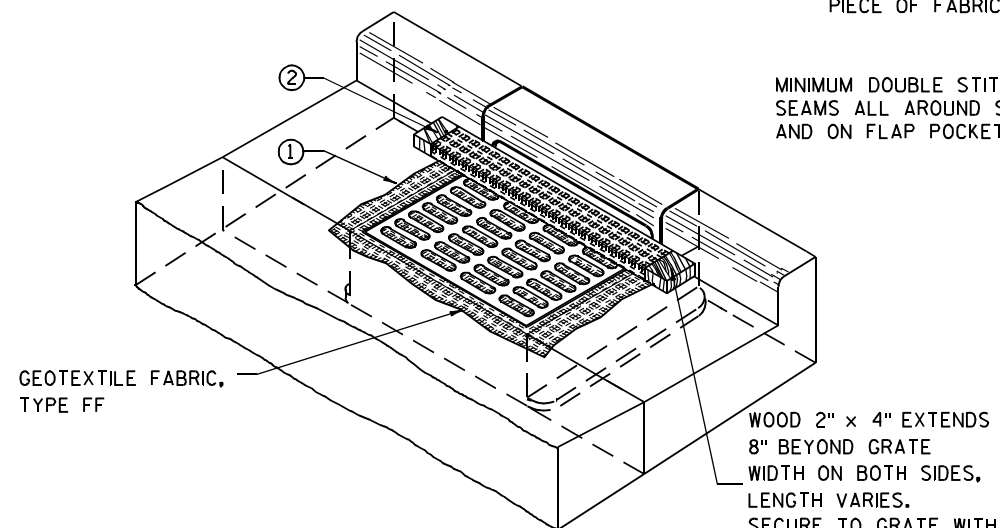
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

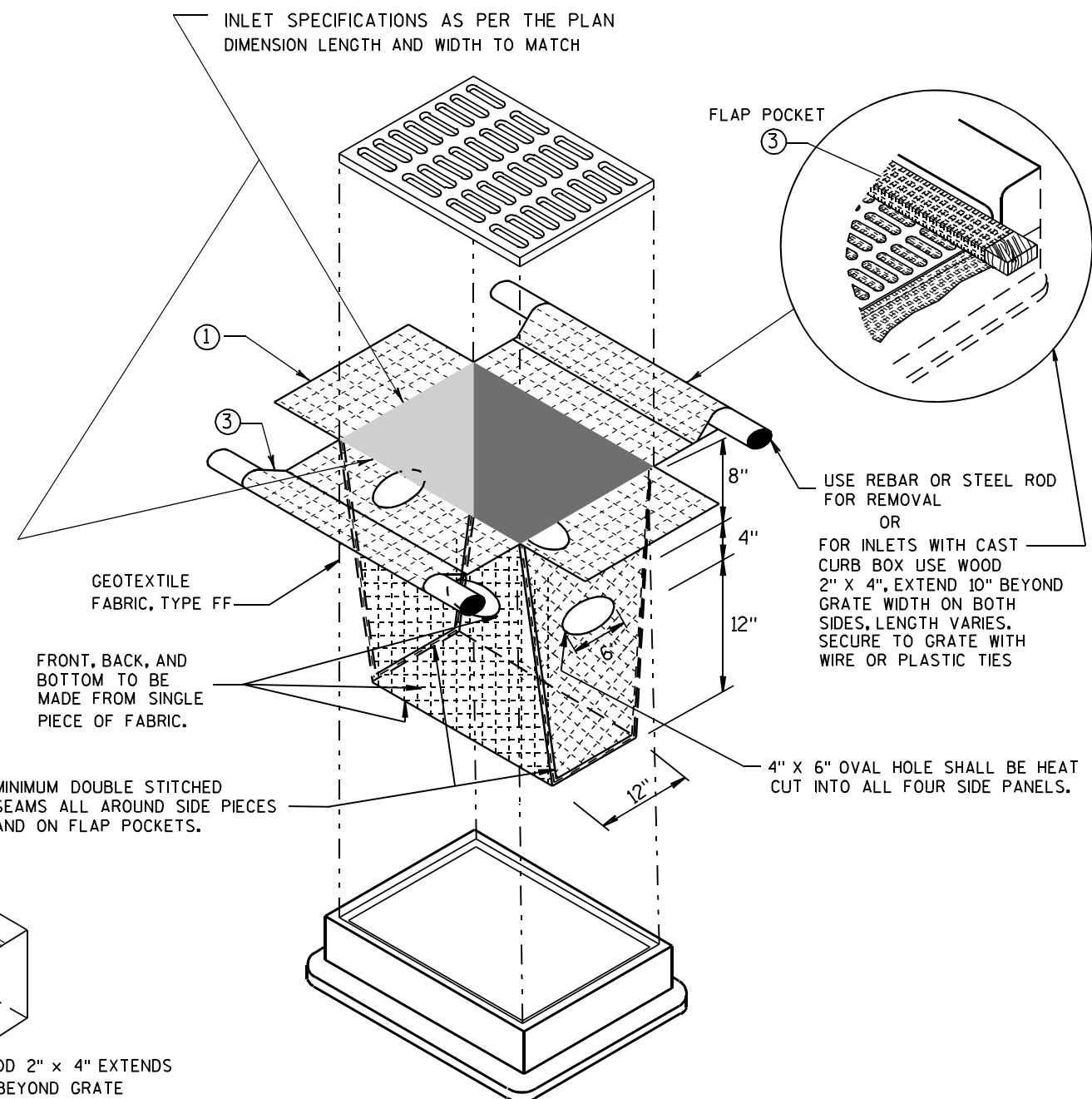
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.



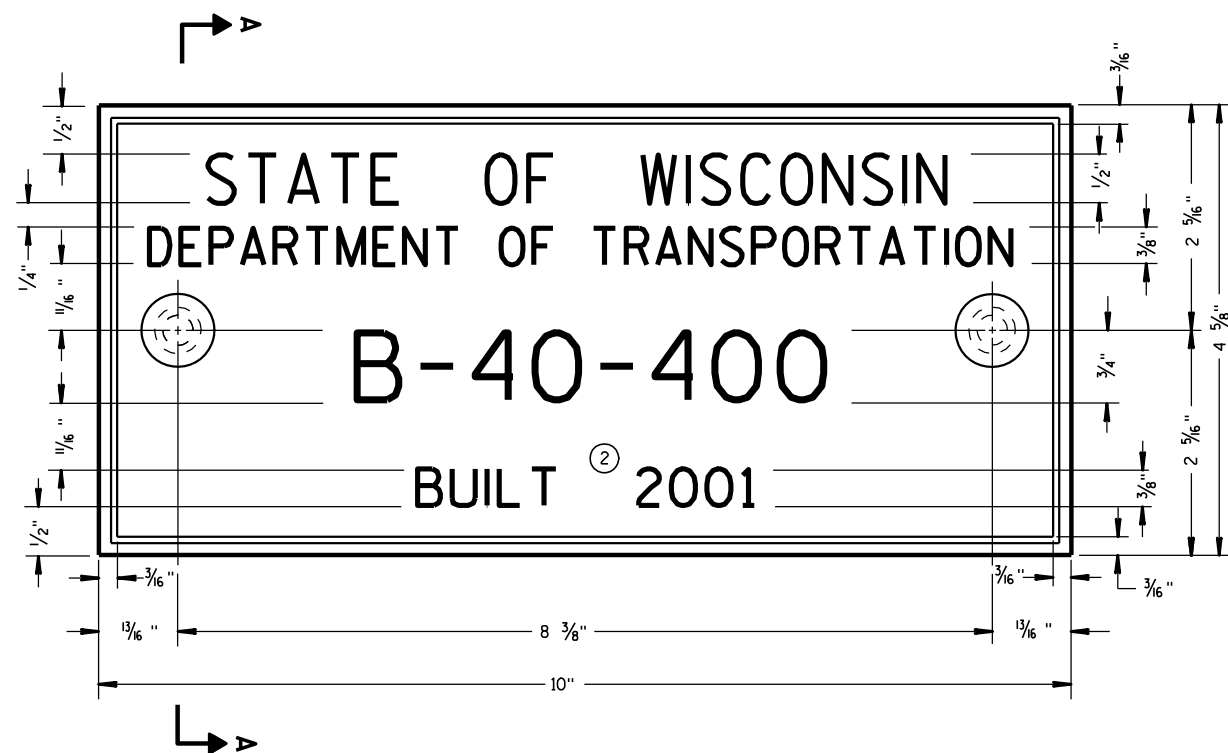
INLET PROTECTION, TYPE D

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

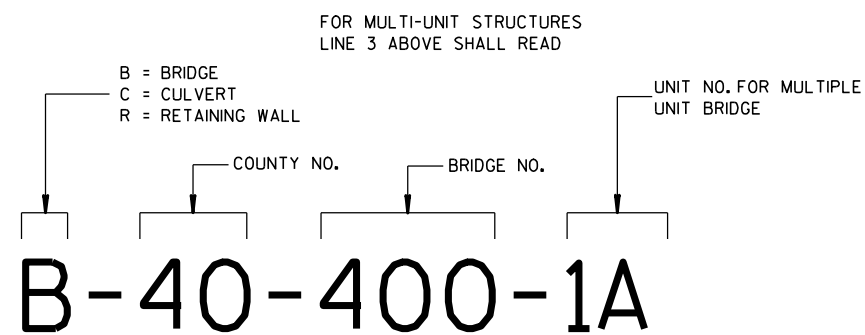
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Cannestra
DATE
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



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



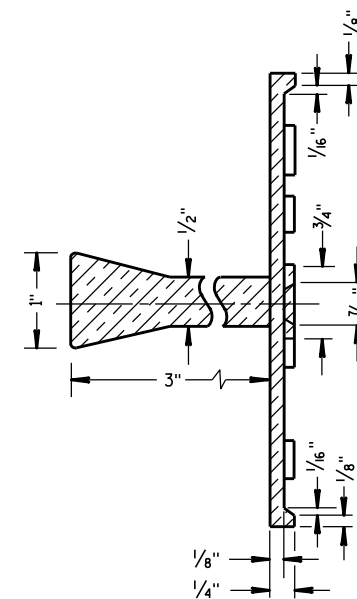
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

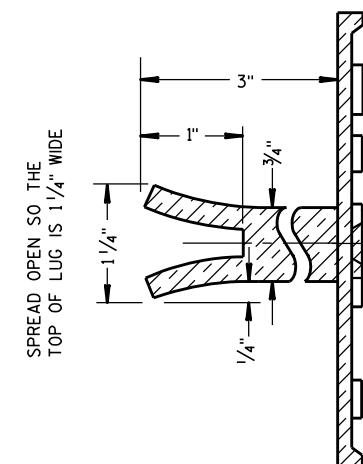
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

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

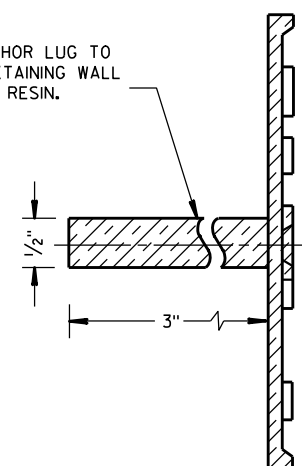


SECTION A-A



ALTERNATE LUG

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



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

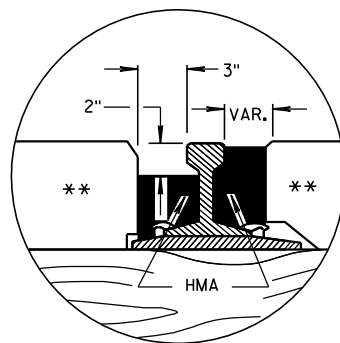
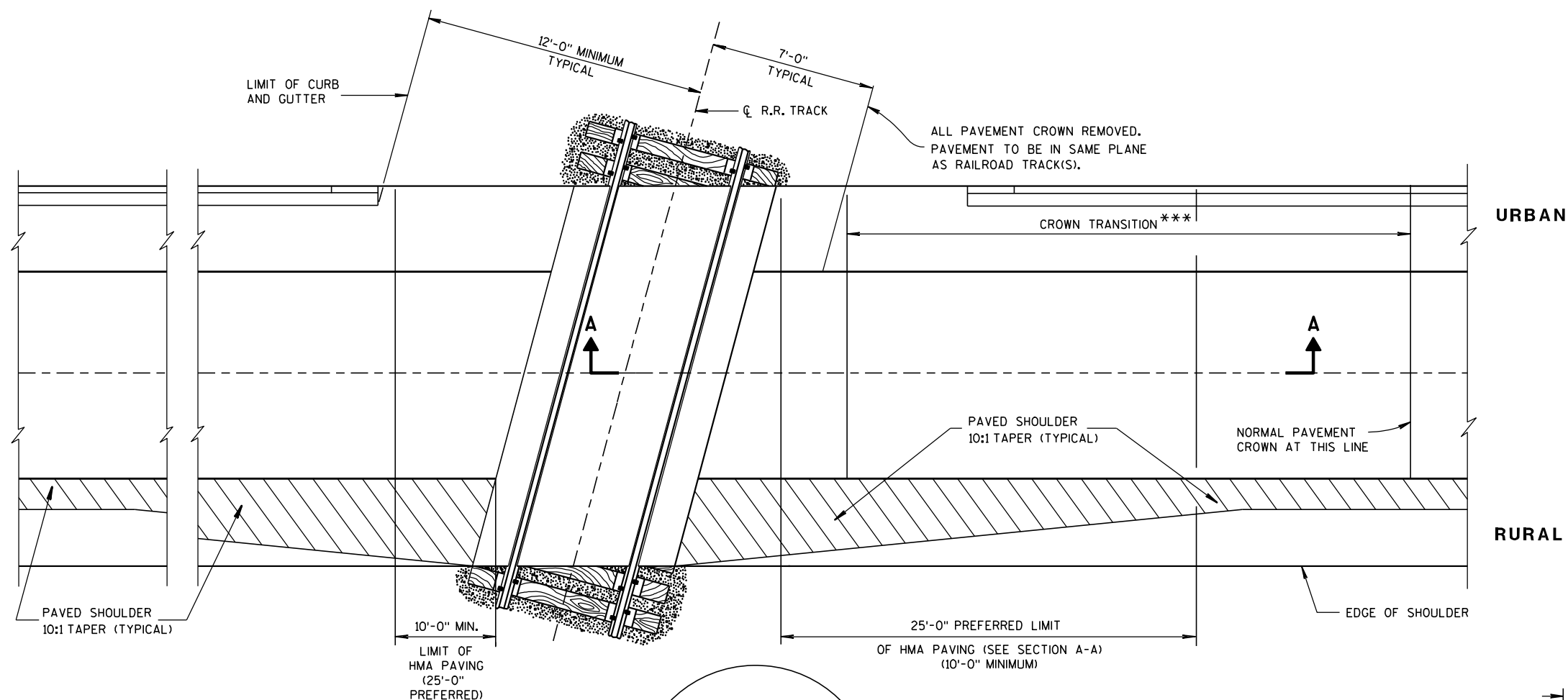
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

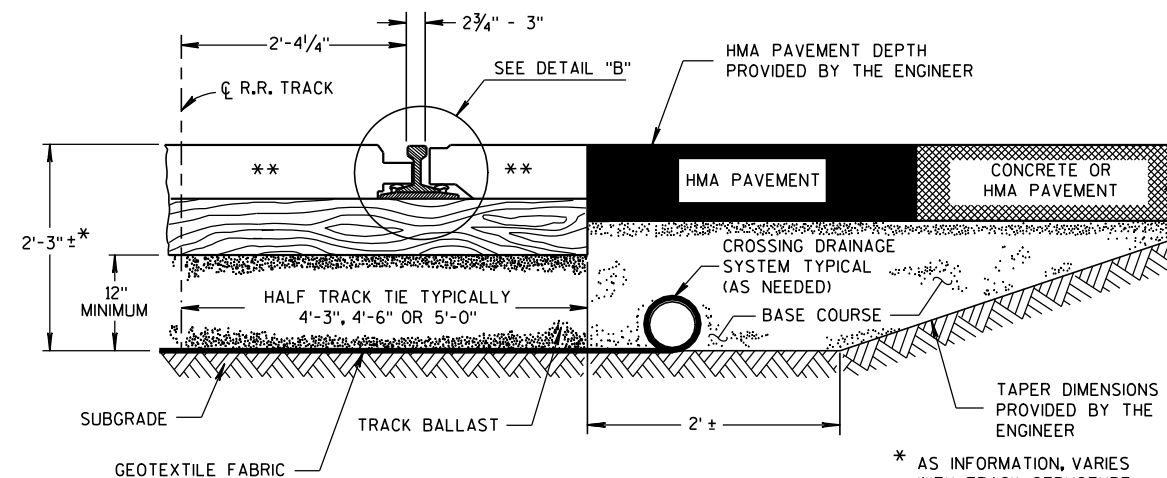
3/26/10
DATE

FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER

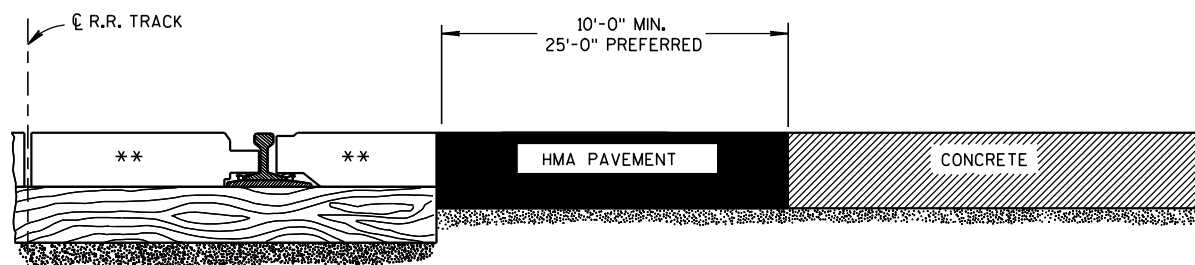


DETAIL B
HMA FLANGEWAY
AND FIELD FILLERS

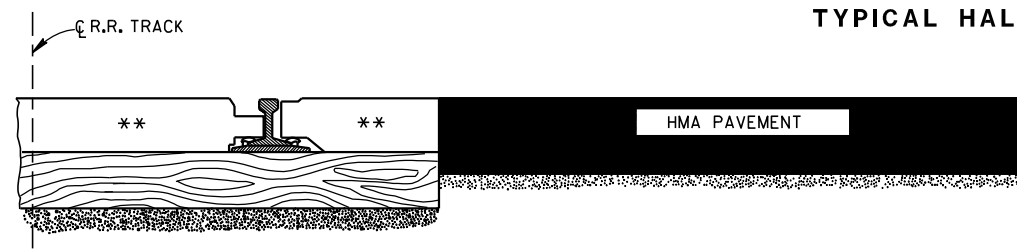


TYPICAL HALF SECTION

* AS INFORMATION, VARIES WITH TRACK STRUCTURE AND SOIL CONDITIONS



SECTION A-A
CONCRETE PAVEMENT APPROACH



SECTION A-A
HMA PAVEMENT APPROACH

EXAMPLES OF PAVEMENT APPROACHES

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.

TIMBER, CONCRETE OR RUBBER CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, GEOTEXTILE FABRIC AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS OTHERWISE PROVIDED.

HMA PAVEMENT APPROACHES AND HMA PAVEMENT CROSSING SURFACES TO BE PLACED BY CONTRACTOR UNLESS OTHERWISE PROVIDED.

HMA FLANGEWAY AND FIELD FILLERS TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR WHEN NOT PROVIDED BY OTHERS. SEE DETAIL B. HMA FILLERS NOT REQUIRED WHEN RUBBER FILLERS ARE PROVIDED.

HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

** CROSSING SURFACE MAY BE TIMBER, RUBBER, CONCRETE, HMA PAVEMENT OR A COMBINATION OF SUCH MATERIALS.

*** CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.

PAVEMENT DETAILS FOR RAILROAD APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

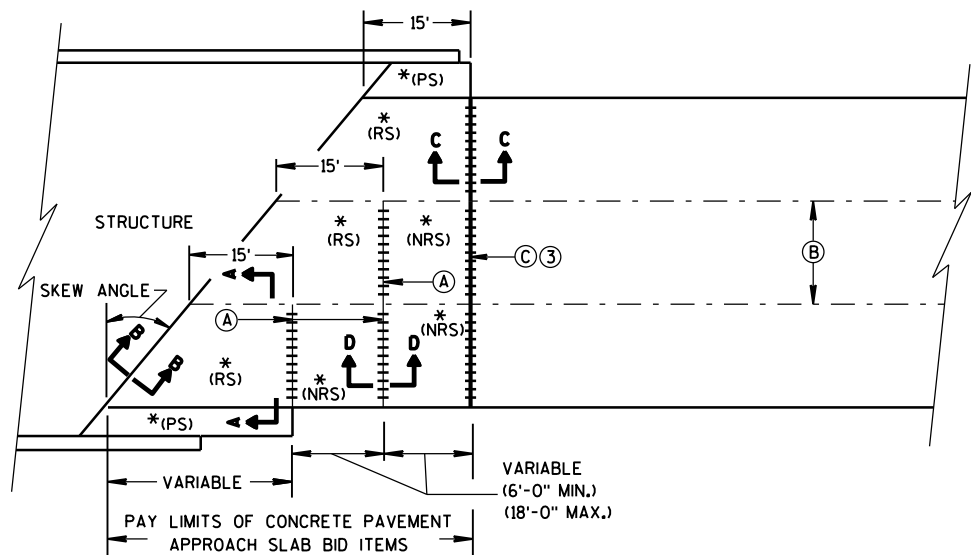
APPROVED

8-28-09

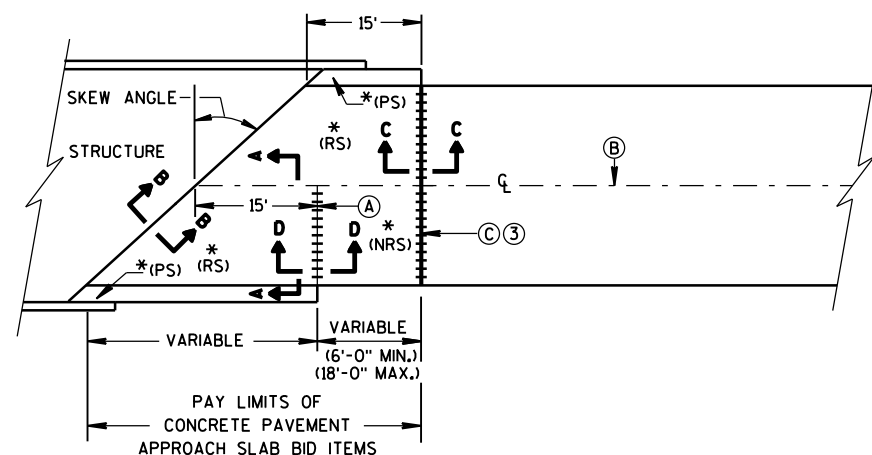
DATE

FHWA

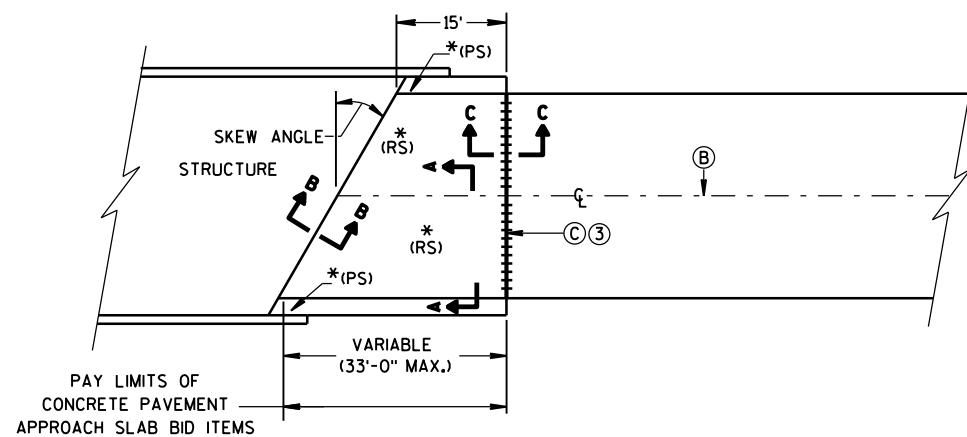
/S/ Ronald E. Adams
CHIEF, RAILROADS & HARBORS SECTION



**SKewed APPROACH
(PAVEMENT MORE THAN 2 LANES)**



**SKEDS > 20°
(PAVEMENT WIDTH ≤ 30')**

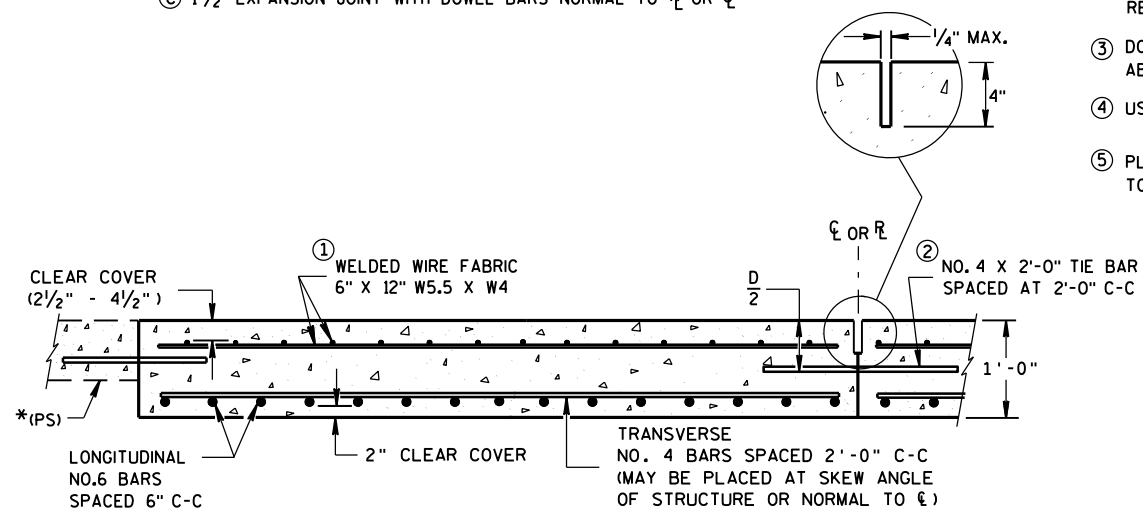


**SKEDS ≤ 20°
(PAVEMENT WIDTH ≤ 30')
APPROACH SLAB AND ADJACENT PAVEMENT**

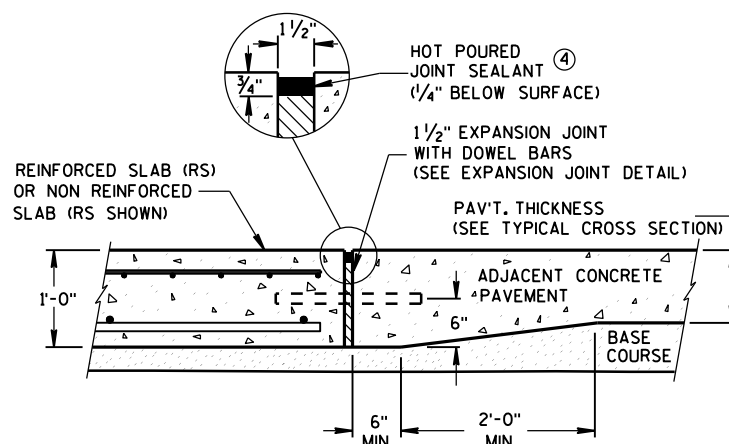
* (RS) = REINFORCED CONCRETE SLAB
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
* (NRS) = NON-REINFORCED CONCRETE SLAB

*** STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

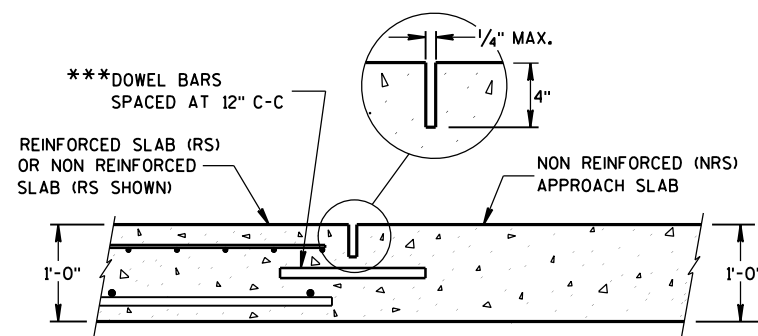
- (A) STANDARD CONTRACTION JOINT NORMAL TO ℓ OR ℓ_c
(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.
(C) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℓ OR ℓ_c



**SECTION A-A
REINFORCEMENT POSITIONING DETAIL**



**SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT**



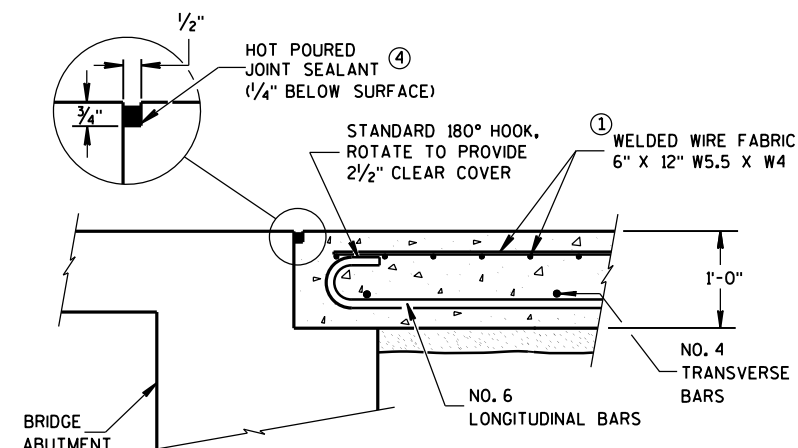
**SECTION D-D
CONTRACTION JOINT**

GENERAL NOTES

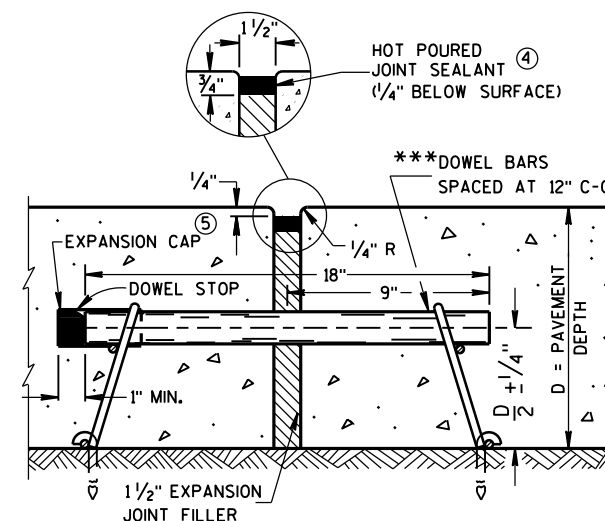
THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

- THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
- USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.
- PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



**SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT**

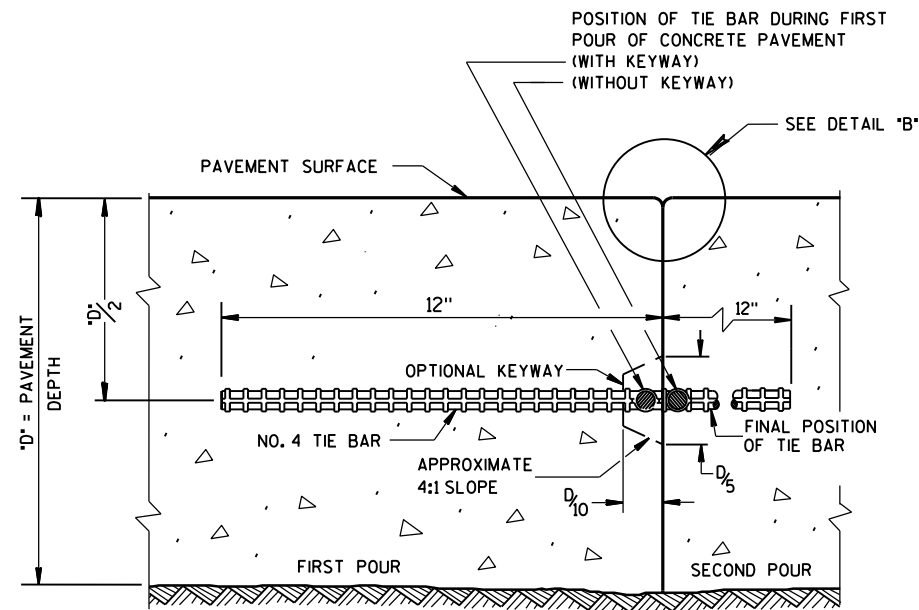


EXPANSION JOINT DETAIL

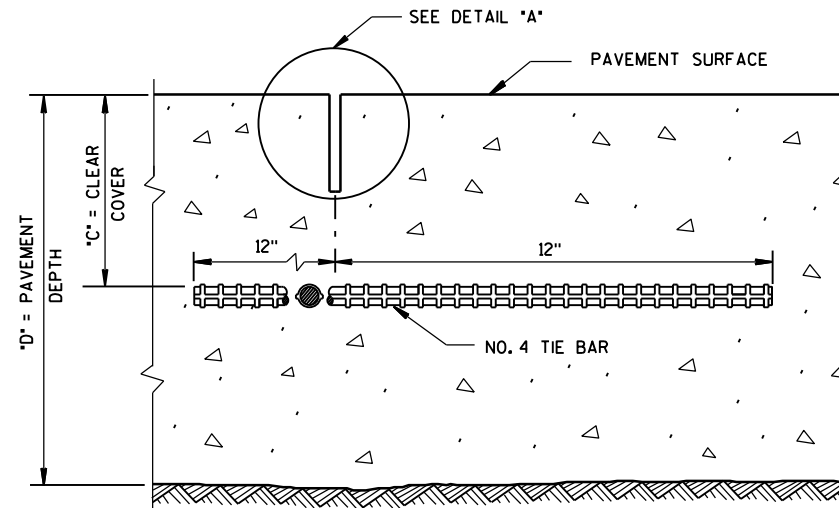
CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA



CONSTRUCTION JOINT



SAWED JOINT

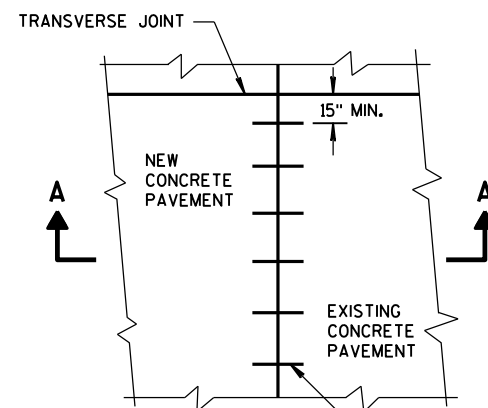
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

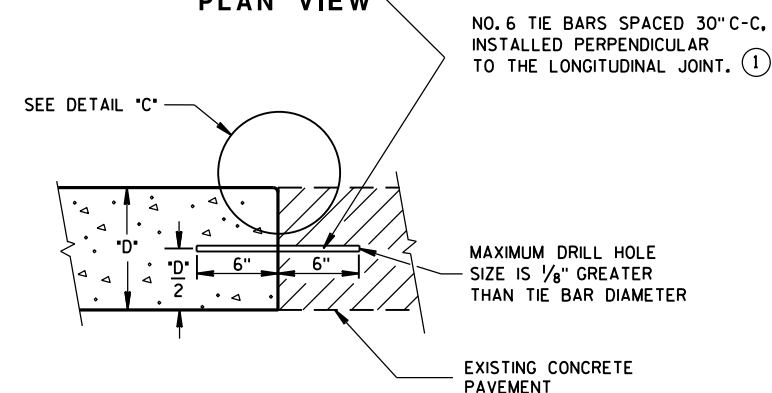
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

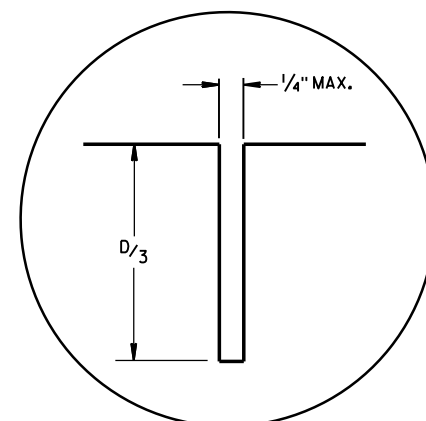
① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



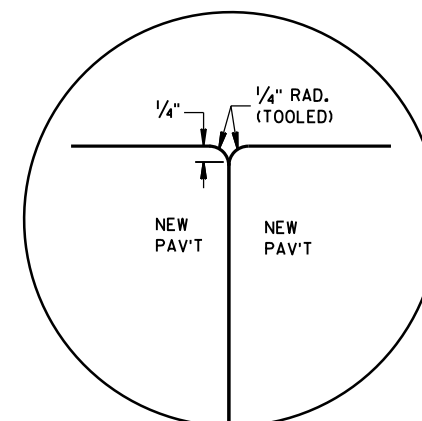
PLAN VIEW



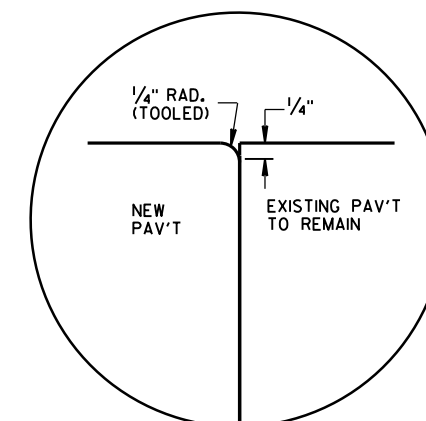
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



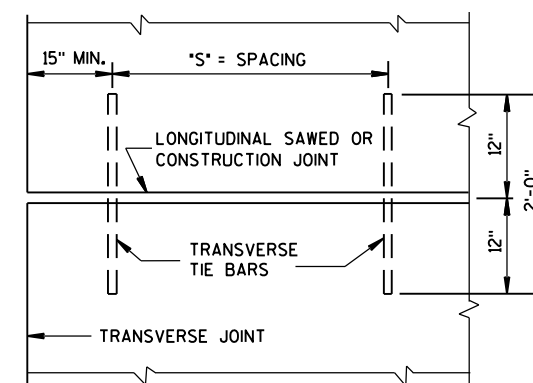
DETAIL "B"



DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH 24' OR 26'	≥ 30'
6, 6 1/2"	3 ± 1/2"	48"	42"
7, 7 1/2"	3 1/4 ± 1"	45"	36"
8, 8 1/2"	3 3/4 ± 1"	39"	30"
9, 9 1/2"	4 1/4 ± 1"	33"	27"
10, 10 1/2"	4 3/4 ± 1"	30"	24"
11, 11 1/2"	5 1/4 ± 1"	27"	21"
12"	5 3/4 ± 1"	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

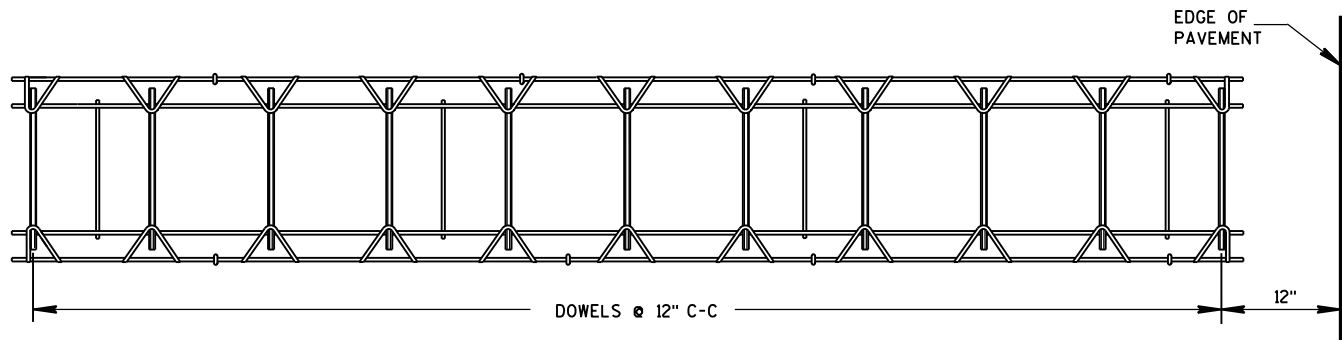
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

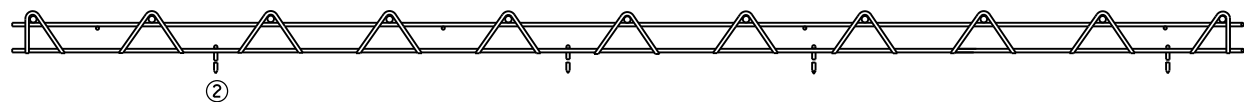
9/2014
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DESIGN ENGINEER

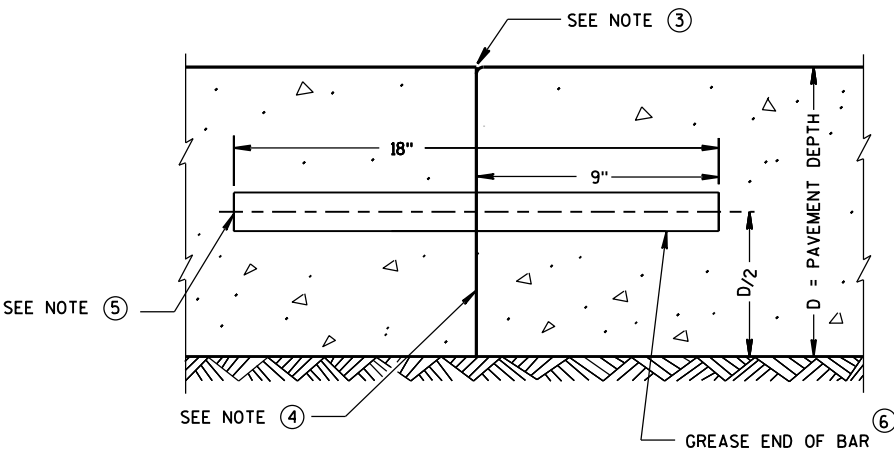
FHWA



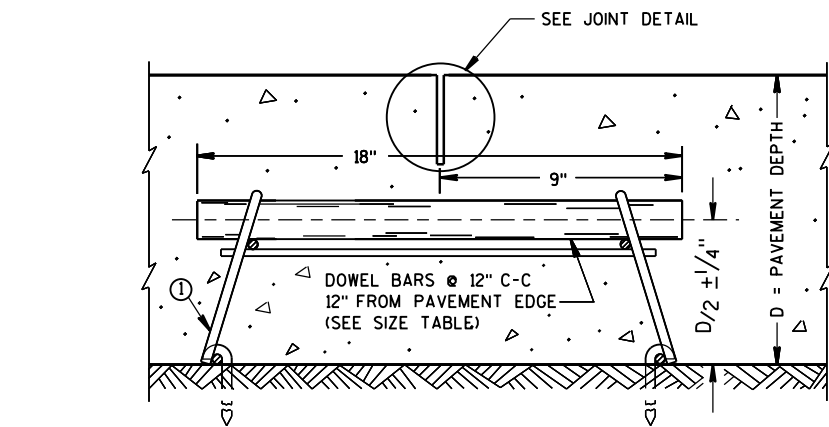
PLAN VIEW



SIDE VIEW
CONTRACTION JOINT DOWEL ASSEMBLY



TRANSVERSE CONSTRUCTION JOINT



DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

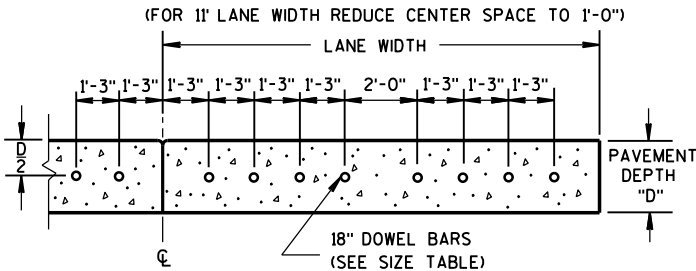
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

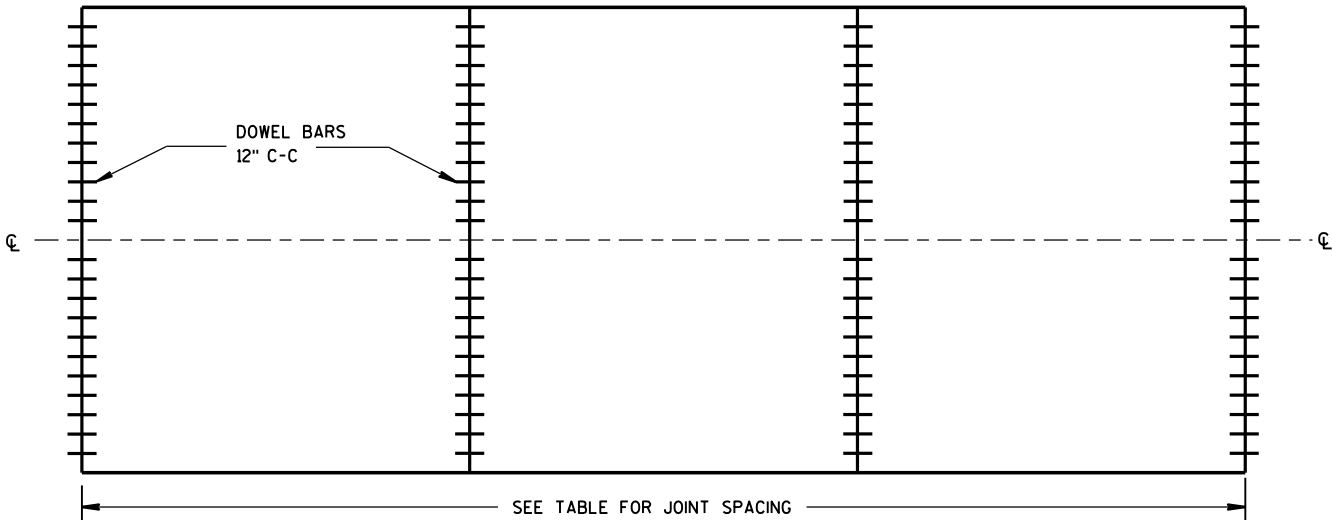
CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

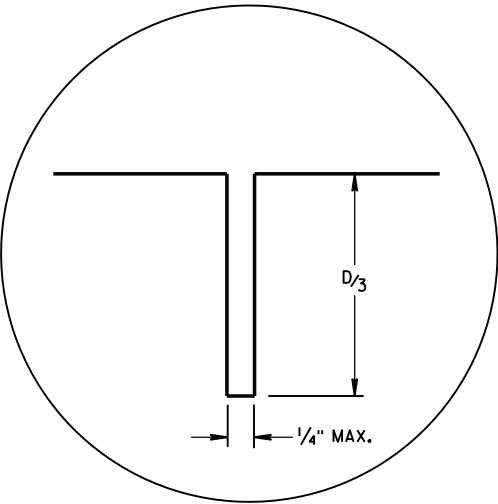
- OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DRILLED DOWEL BAR CONSTRUCTION JOINT



CONTRACTION JOINT LOCATIONS

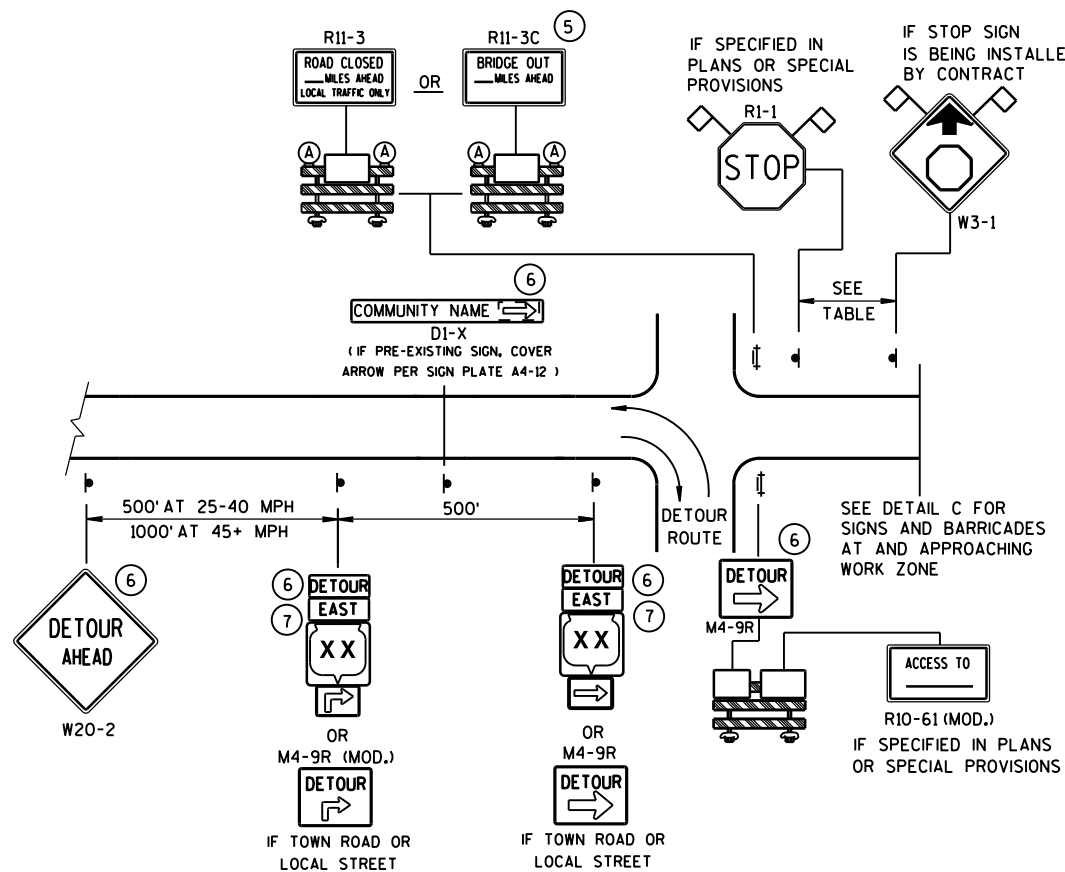


JOINT DETAIL

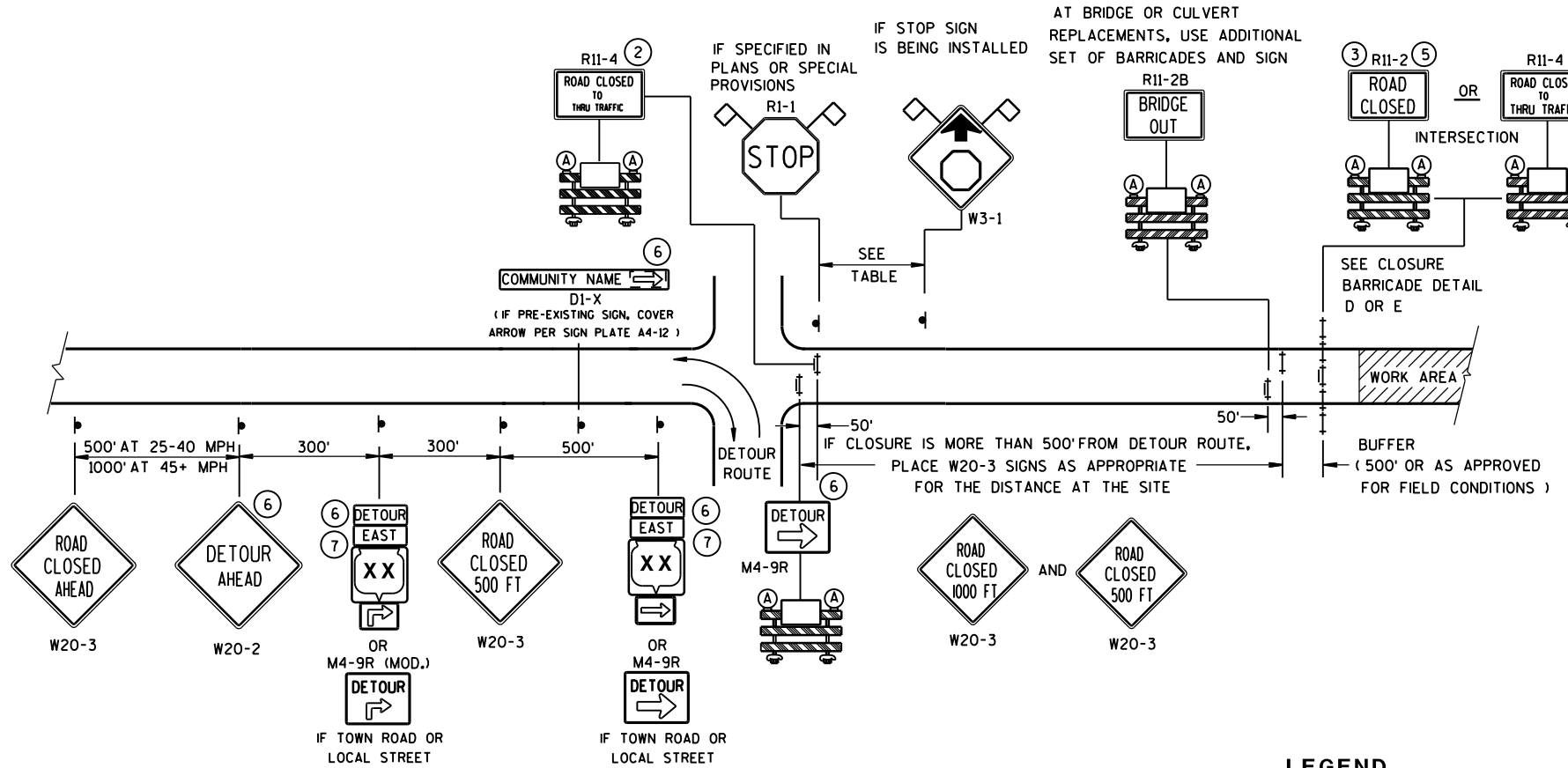
URBAN DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

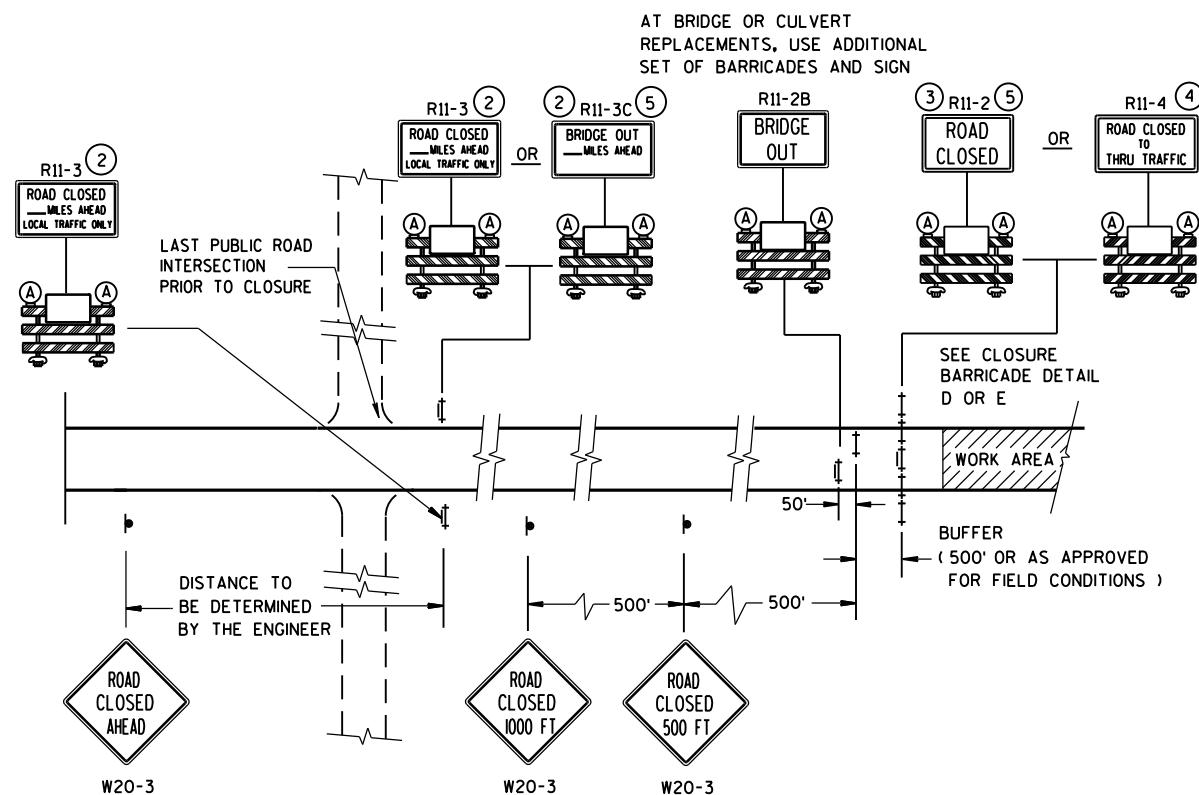
APPROVED
5/3/2013 /S/ Deb Bischoff
DATE PAVEMENT POLICY & DESIGN ENGINEER
FHWA



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



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

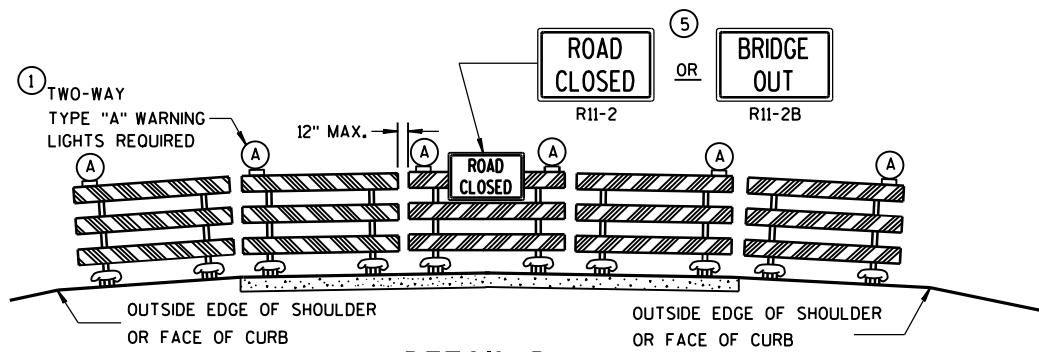


DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

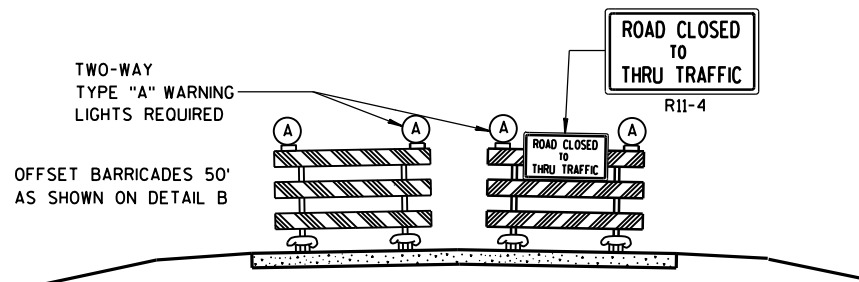
SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

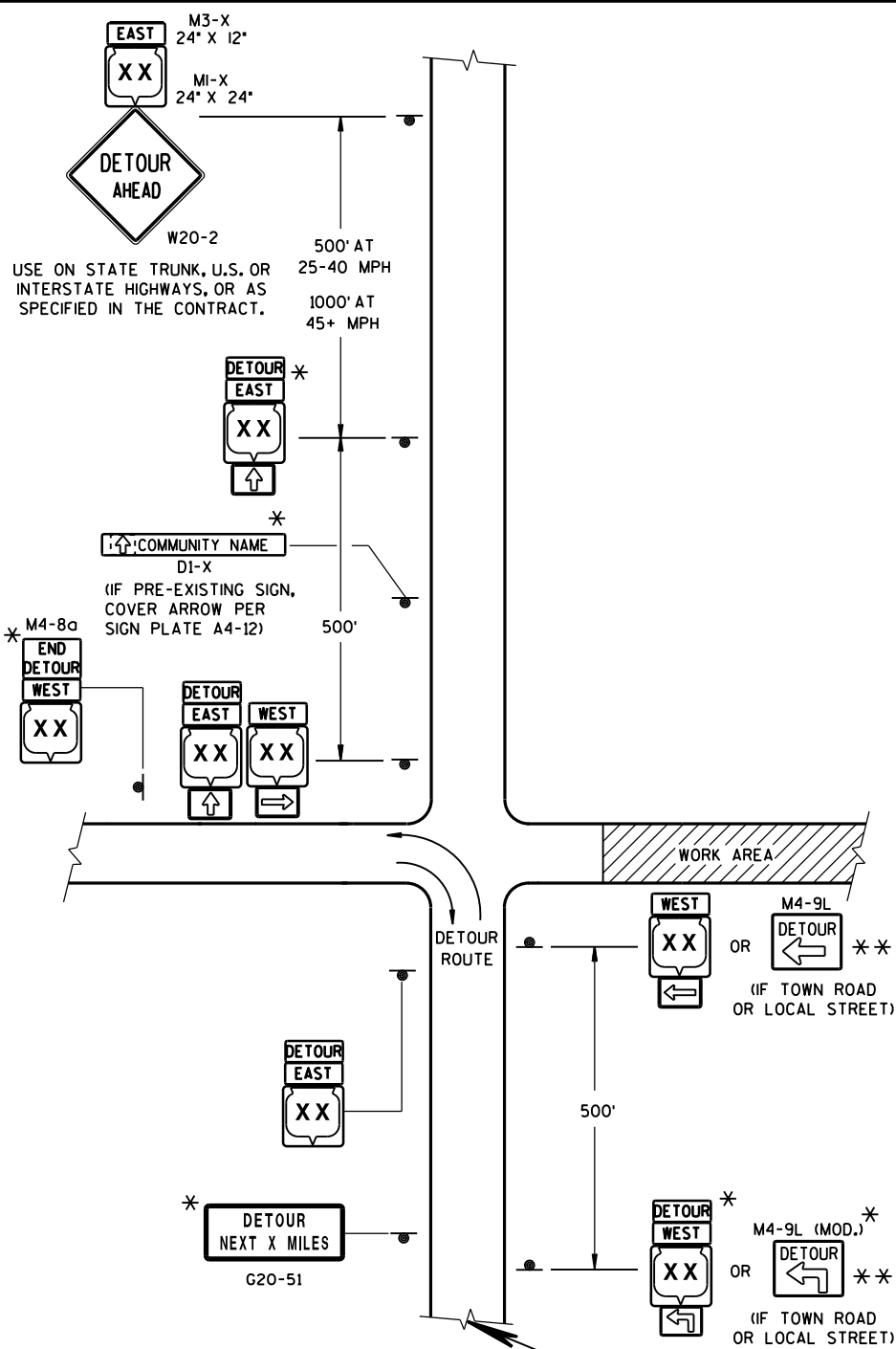
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- 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 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 LANE 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
MAINLINE CLOSURES**

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



LEGEND

● SIGN ON PERMANENT SUPPORT

▨ WORK AREA

DETOUR EAST M4-8 M3-X

MI-4 OR COUNTY MI-5A OR MI-6

M05-1 OR M06-1 OR M06-1

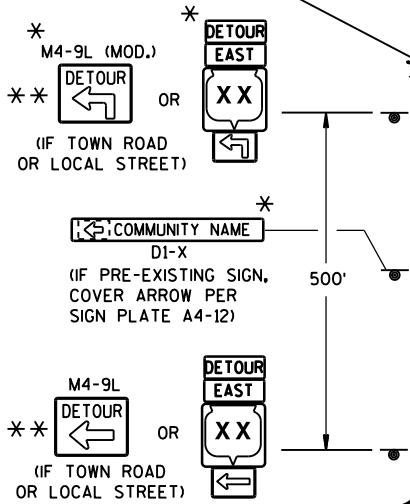
SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

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

MATCH POINT

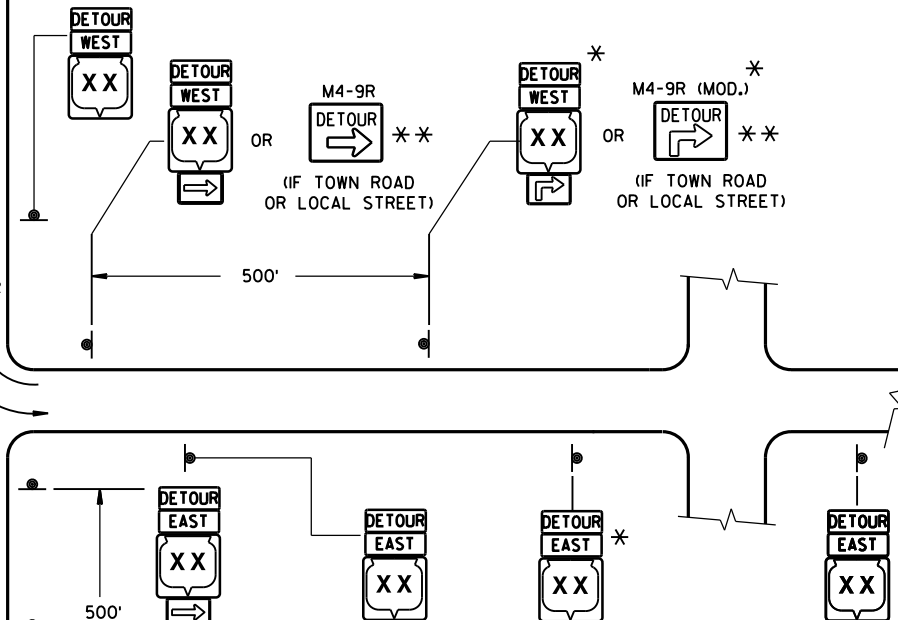
DETAIL F
DETOUR SIGNING

USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT.



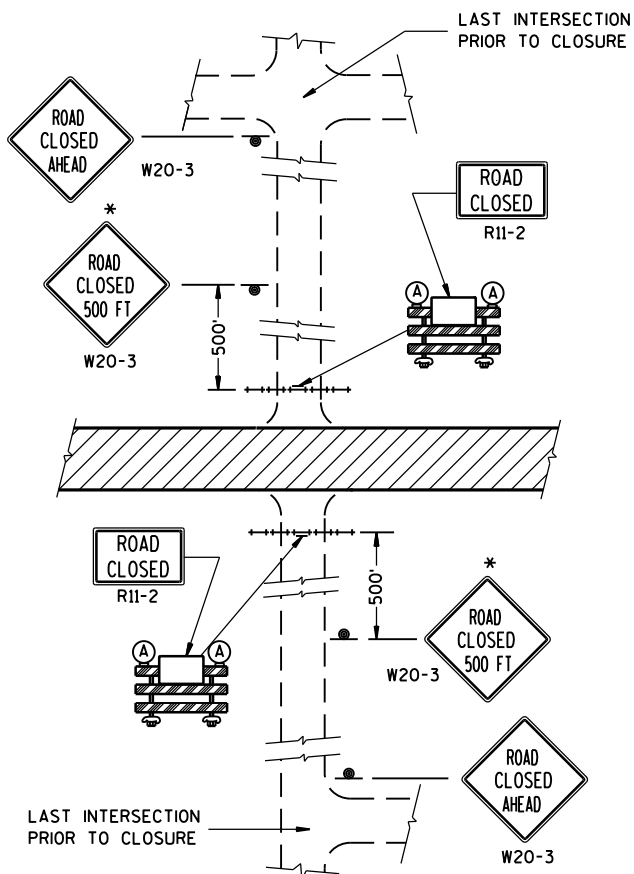
GENERAL NOTES

- THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS, MODIFY EXISTING SIGNS WHERE POSSIBLE.
- THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
- SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- SIGN SIZES SHALL BE AS FOLLOWS:
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M4-9 SHALL BE 30" X 24".
 - M4-8a SHALL BE 24" X 18".
 - G20-51 SHALL BE 60" X 24".
 - W20-2 SHALL BE 48" X 48".
 - D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

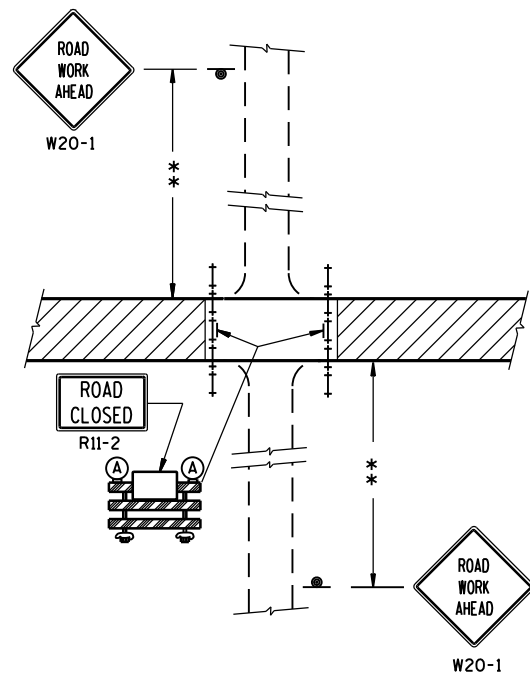


PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA.)

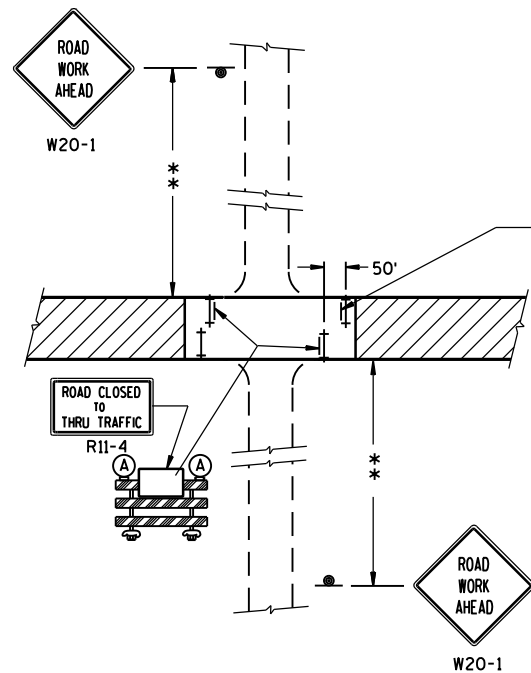
DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



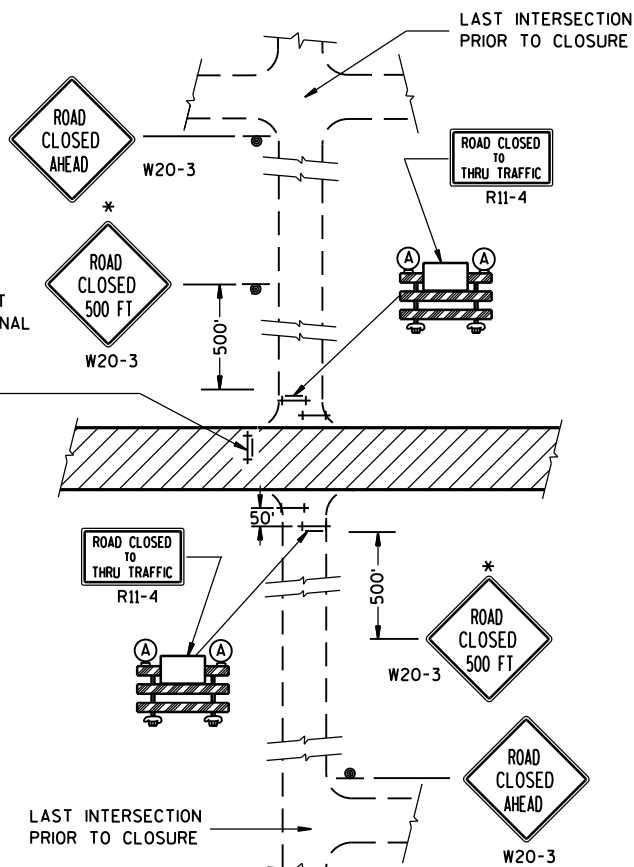
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR,
LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

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.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

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 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

R11-2 SHALL BE 48" X 30".

R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

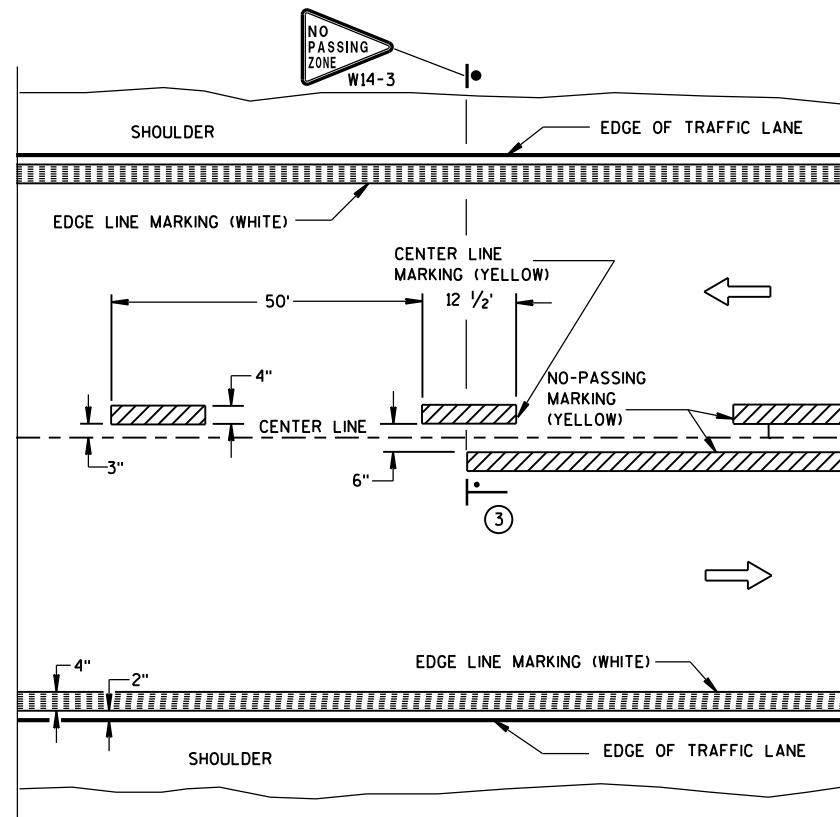
8/2013

DATE

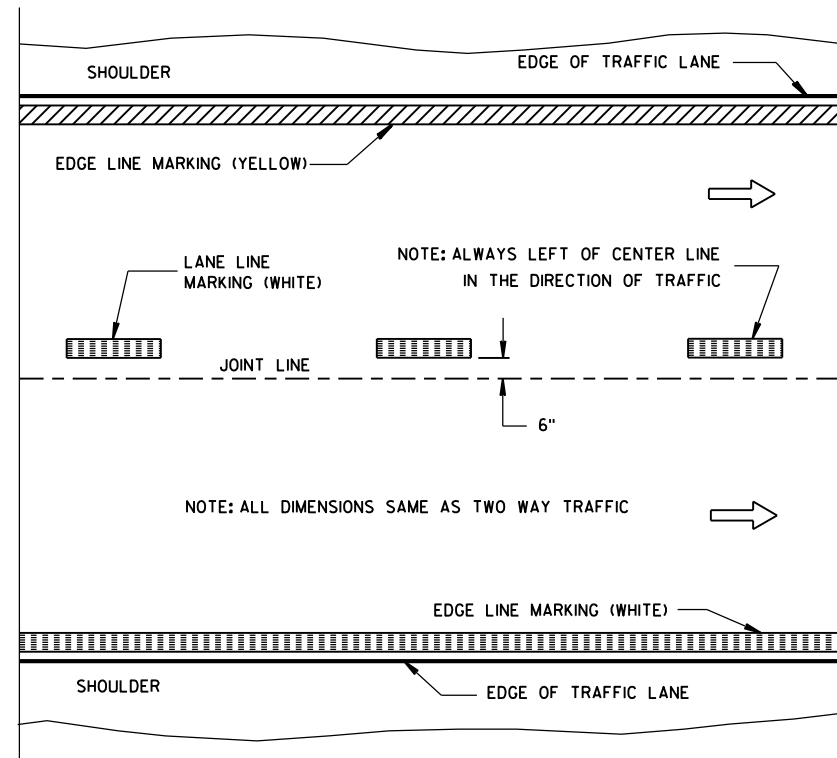
FHWA

/S/ Travis Feltes

STATE TRAFFIC ENGINEER OF DESIGN

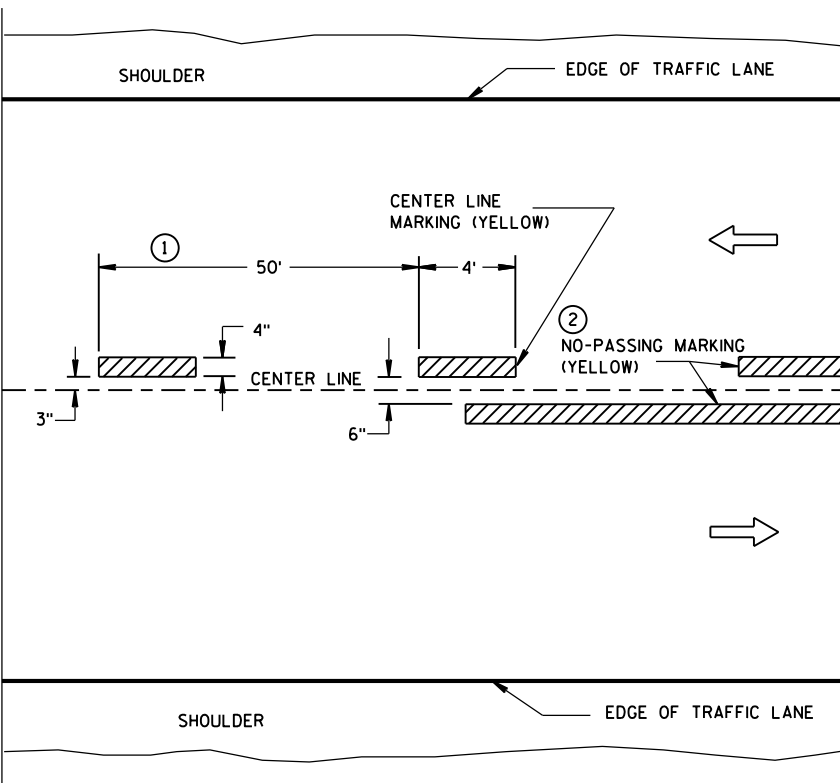


TWO WAY TRAFFIC

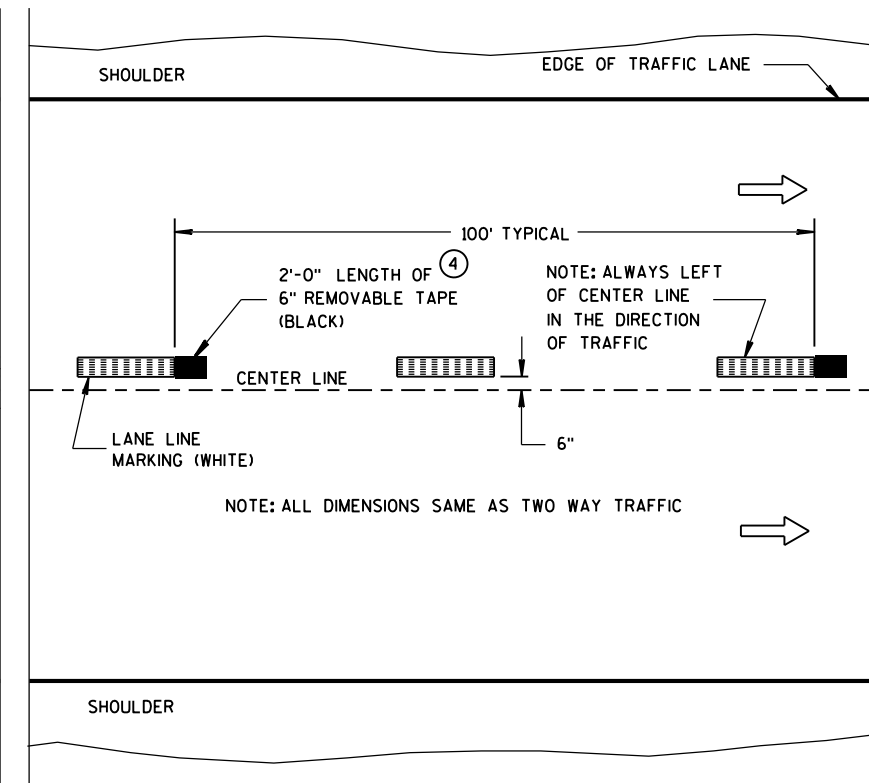


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

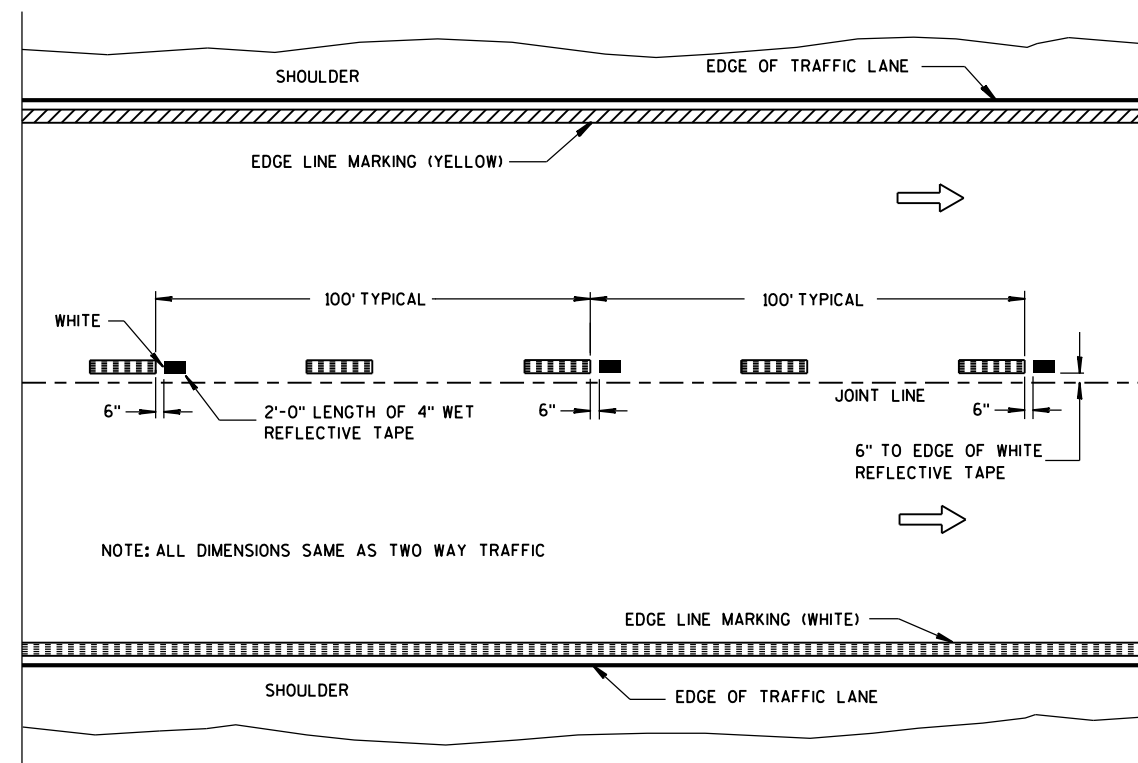
GENERAL NOTES

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

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

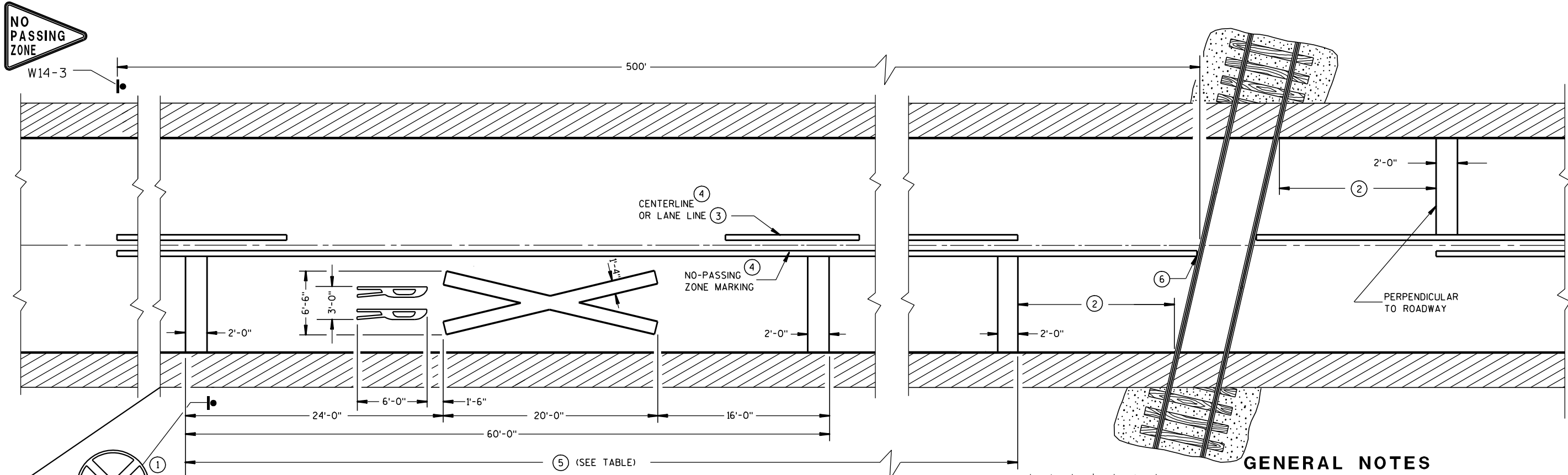
- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

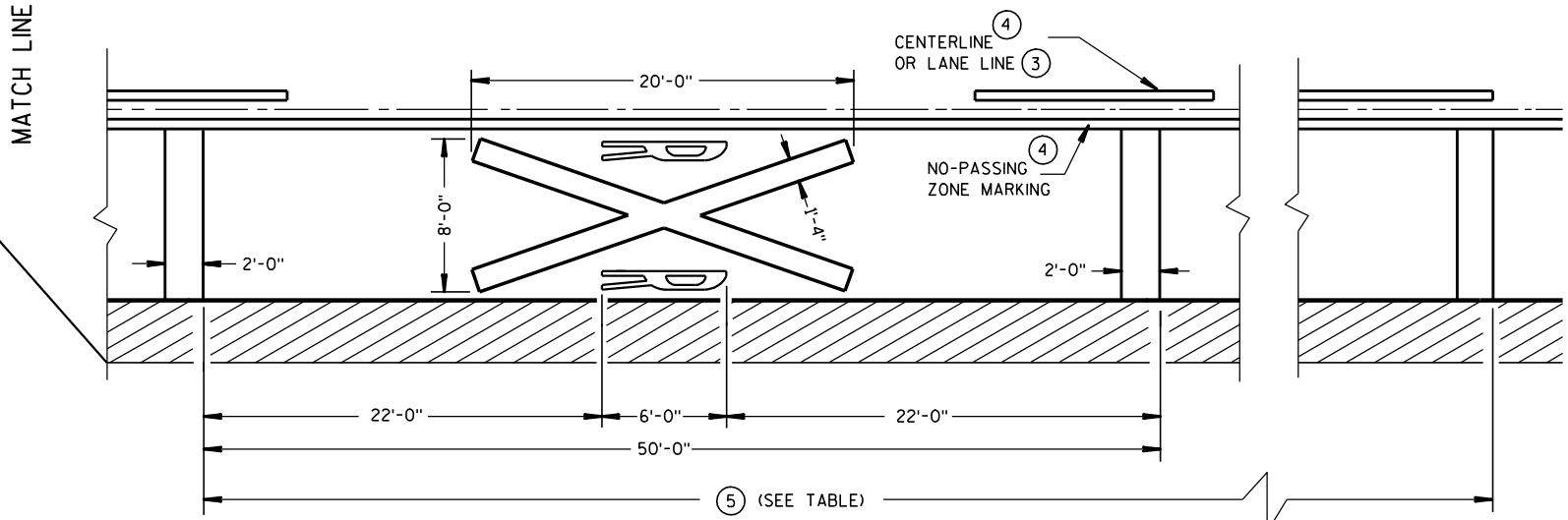
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013
DATE
FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER



PREFERRED PAVEMENT MARKING



ALTERNATE PAVEMENT MARKING

Posted Speed (M.P.H.)	Dimension Range (Feet)
25	150*- 250
30	200*- 300
35	250*- 450
40	300*- 500
45	400*- 650
50	550*- 800
55	750*- 1000
60	1000*- 1250
65	1000*- 1250

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSE PROXIMITY OF DRIVEWAYS, BRIDGES, SIDEROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

GENERAL NOTES

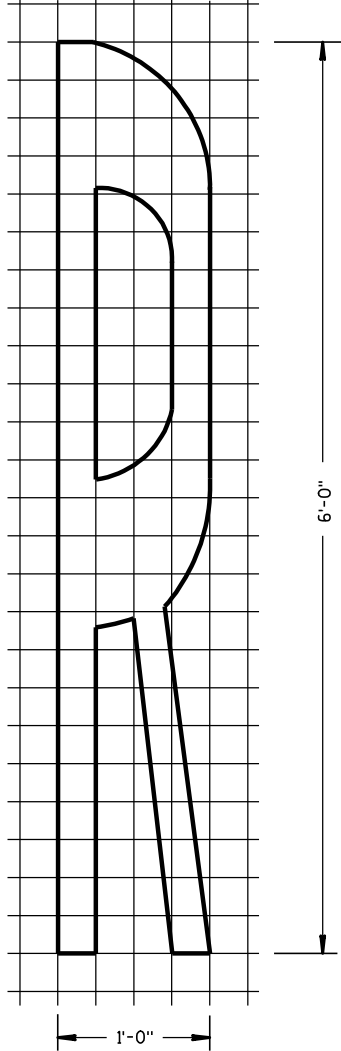
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A THREE-LANE ROADWAY SHOULD BE MARKED WITH A CENTERLINE FOR TWO-LANE APPROACH OPERATION ON THE APPROACH TO A CROSSING.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE. ALL LETTERS AND SYMBOLS SHALL BE IN CONFORMANCE WITH THE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" (ADOPTED BY THE FEDERAL HIGHWAY ADMINISTRATION).

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

- ① A PORTION OF THE PAVEMENT MARKING SYMBOL SHOULD BE DIRECTLY OPPOSITE THE ADVANCE WARNING SIGN (W10-1).
- ② MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.
- ③ REFLECTIVE WHITE.
- ④ REFLECTIVE YELLOW 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- ⑤ TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- ⑥ FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.



SIGNING AND PAVEMENT MARKING
DETAILS FOR RAILROAD-HIGHWAY
GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
1-9-2012 /S/ Thomas N. Notbohm
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

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

THE EXISTING STRUCTURE IS A TWO SPAN BRIDGE WITH A CONCRETE WEARING SURFACE ON PRECAST CONCRETE BOX BEAMS AND IS SUPPORTED ON CONCRETE ABUTMENTS AND A SOLID CONCRETE PIER. IT WAS BUILT IN 1970.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION.

AT THE BACKFACE OF ABUTMENTS, ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

REMOVING OLD STRUCTURE SHALL CONSIST OF REMOVING THE EXISTING SUPERSTRUCTURE, RAILING, ABANDONED GAS MAIN, AND PORTIONS OF THE PIER AND ABUTMENTS. SEE REMOVAL PLANS SHEET 3.

DIMENSIONS GIVEN FOR EXISTING FOUNDATIONS ARE BASED ON ORIGINAL PLANS AND SHALL BE CONSIDERED AS APPROXIMATE AND MEASURED IN FIELD FOR MATCHING PURPOSE.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP OF DECK, FACE OF CURB, SIDEWALK, FACE AND TOP OF PARAPET. DO NOT USE PIGMENTED PROTECTIVE SURFACE TREATMENT ON THE PARAPETS.

ALL RAILINGS, POSTS, AND ASSOCIATED HARDWARE SHALL BE PAINTED BLACK (FEDERAL COLOR NO. 27038).

THE EXACT LOCATION OF THE SANITARY FORCE MAIN IS UNKNOWN. THE CONTRACTOR SHALL DETERMINE THE LOCATION AND ELEVATION OF THE FORCE MAIN AT CRITICAL LOCATIONS INCLUDING; SHORING CROSSING, NORTH ABUTMENT, NORTH COFFERDAM, SOUTH COFFERDAM AND SOUTH ABUTMENT. THE CONTRACTOR SHALL DESIGN THEIR SHORING AND COFFERDAMS TO GO AROUND THE FORCE MAIN. THE ABUTMENTS WILL NEED TO BE CONSTRUCTED AROUND THE FORCE MAIN.

FOUNDATION DATA

ABUTMENT WIDENING TO BE SUPPORTED ON SPREAD FOOTINGS ON SOUND BEDROCK.

TEMPORARY SHORING

SOUTHEAST WING AREA
30 FT LONG X 16 FT HIGH
NORTHEAST WING AREA
44 FT LONG X 16 FT HIGH
NORTHWEST WING AREA
43 FT LONG X 16 FT HIGH

TEMPORARY SHORING
LEFT IN PLACE

SOUTHEAST WING AREA
2 FT LONG X 16 FT HIGH
NORTHEAST WING AREA
2 FT LONG X 16 FT HIGH
NORTHWEST WING AREA
2 FT LONG X 16 FT HIGH

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. REMOVAL PLANS
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT DETAILS
8. PIER
9. SUPERSTRUCTURE
10. SUPERSTRUCTURE DETAILS
11. VERTICAL FACE PARAPET 'A'
12. RAILING PLAN
13. RAILING DETAILS

TRAFFIC DATA

ADT = 4,000 (2013)
4,300 (2033)
RDS = 30 M.P.H.



DESIGN DATA

LIVE LOAD:

DESIGN LOADING ————— HL-93
INVENTORY RATING FACTOR ——— RF = 1.25
OPERATING RATING FACTOR ——— RF = 1.62
WISCONSIN STANDARD PERMIT
VEHICLE (WIS-SPV) ————— 250 (KIPS)
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT

MATERIAL PROPERTIES:

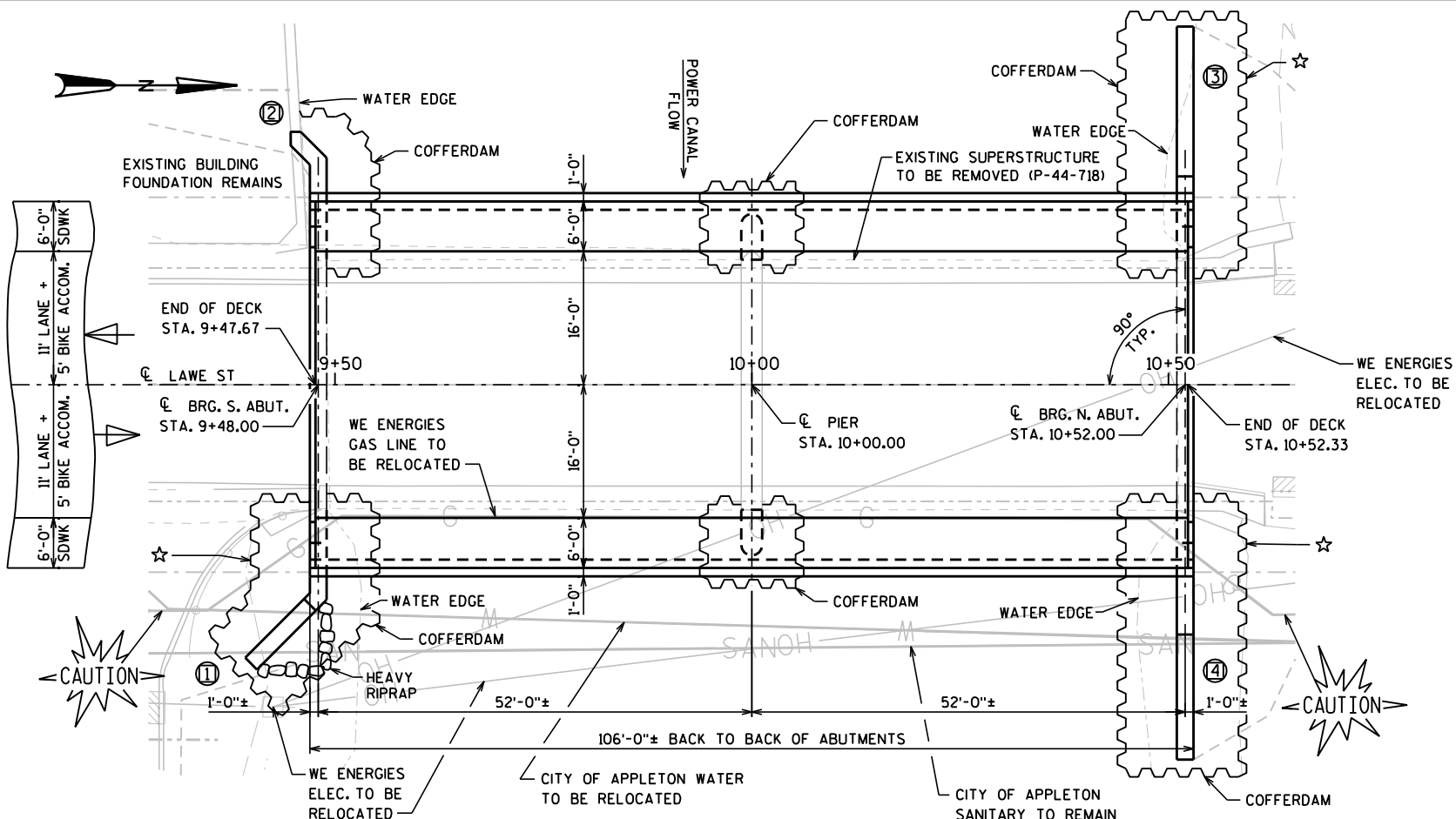
CONCRETE MASONRY
SLAB ————— f'c = 4,000 P.S.I.
ALL OTHER ————— f'c = 3,500 P.S.I.
HIGH STRENGTH BAR STEEL
REINFORCEMENT, GRADE 60 ——— fy = 60,000 P.S.I.

CONSULTANT CONTACT

KRISTOFER OLSON
OMNI ASSOCIATES, INC.
(920) 735-6900

BRIDGE OFFICE CONTACT

WILLIAM DREHER
(608) 266-8489

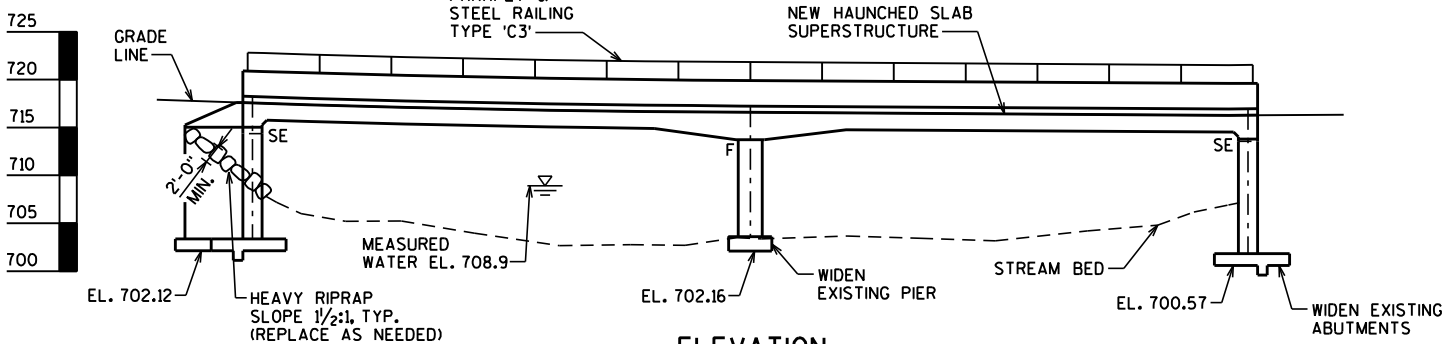


PLAN

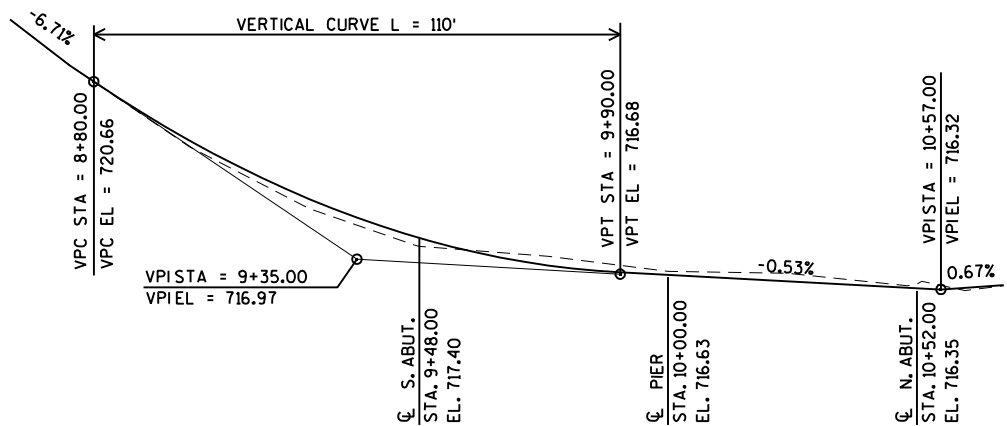
TWO SPAN HAUNCHED CONCRETE SLAB BRIDGE

⊗ DENOTES WING NUMBER

☆ LOCATION OF TEMPORARY SHORING, EXACT LOCATION DETERMINED BY CONTRACTOR.

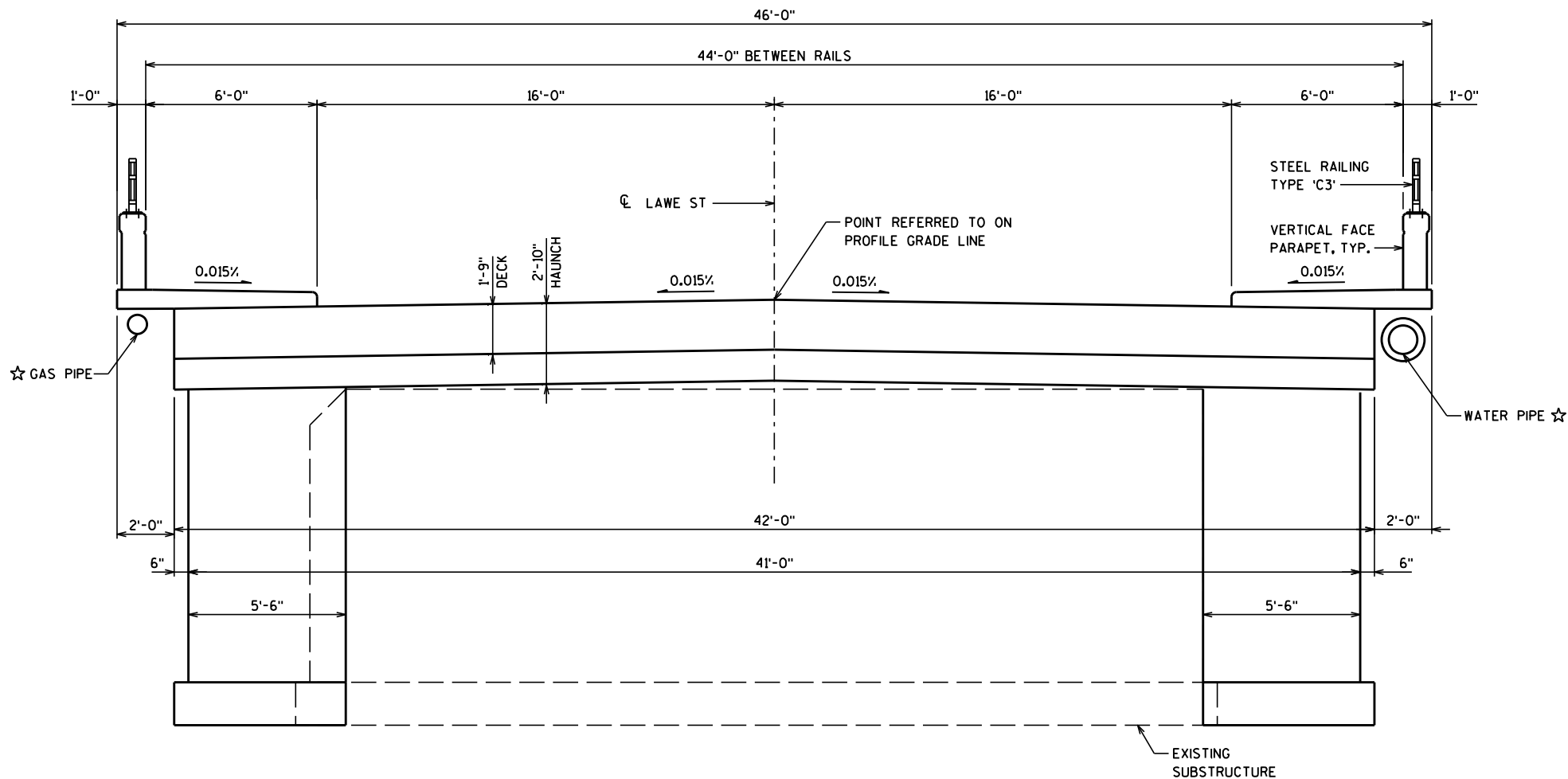


ELEVATION



PROFILE GRADE LINE

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
Omni ASSOCIATES			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>William C. Dreher</i>	09/30/15	DATE
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE P-44-718			
LAW STREET OVER POWER CANAL			
COUNTY	OUTAGAMIE	TOWN	APPLETON
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	BRE	DESIGN CK'D.	KRO
DRAWN BY	BRE	PLANS CK'D.	KRO
GENERAL PLAN			SHEET 1 OF 13



CROSS SECTION THRU PROPOSED BRIDGE

(LOOKING NORTH)

UTILITY NOTE:

☆ TWO UTILITIES WILL BE LOCATED ON THE BRIDGE. GAS PIPE ANCHORS WILL BE PROVIDED BY THE UTILITY. BRIDGE CONTRACTOR SHALL INSTALL PIPE ANCHORS AS REQUIRED. UTILITY WILL INSTALL GAS PIPE AND PROVIDE FINAL ADJUSTMENT OF HANGERS. WATER PIPE AND HANGER ASSEMBLIES TO BE INSTALLED BY CONTRACTOR. SEE ADDITIONAL INFORMATION PROVIDED ON ROADWAY CONSTRUCTION DETAILS. INSTALLATION OF ALL ANCHORS SHALL BE INCIDENTAL TO CONCRETE MASONRY BRIDGES. CONTRACTOR SHALL PROVIDE OPENINGS IN SHORING FOR UTILITIES. SHORING THAT UTILITIES PASSES THROUGH SHALL BE LEFT IN PLACE. PROVIDING OPENINGS SHALL BE INCIDENTAL TO TEMPORARY SHORING LEFT IN PLACE.

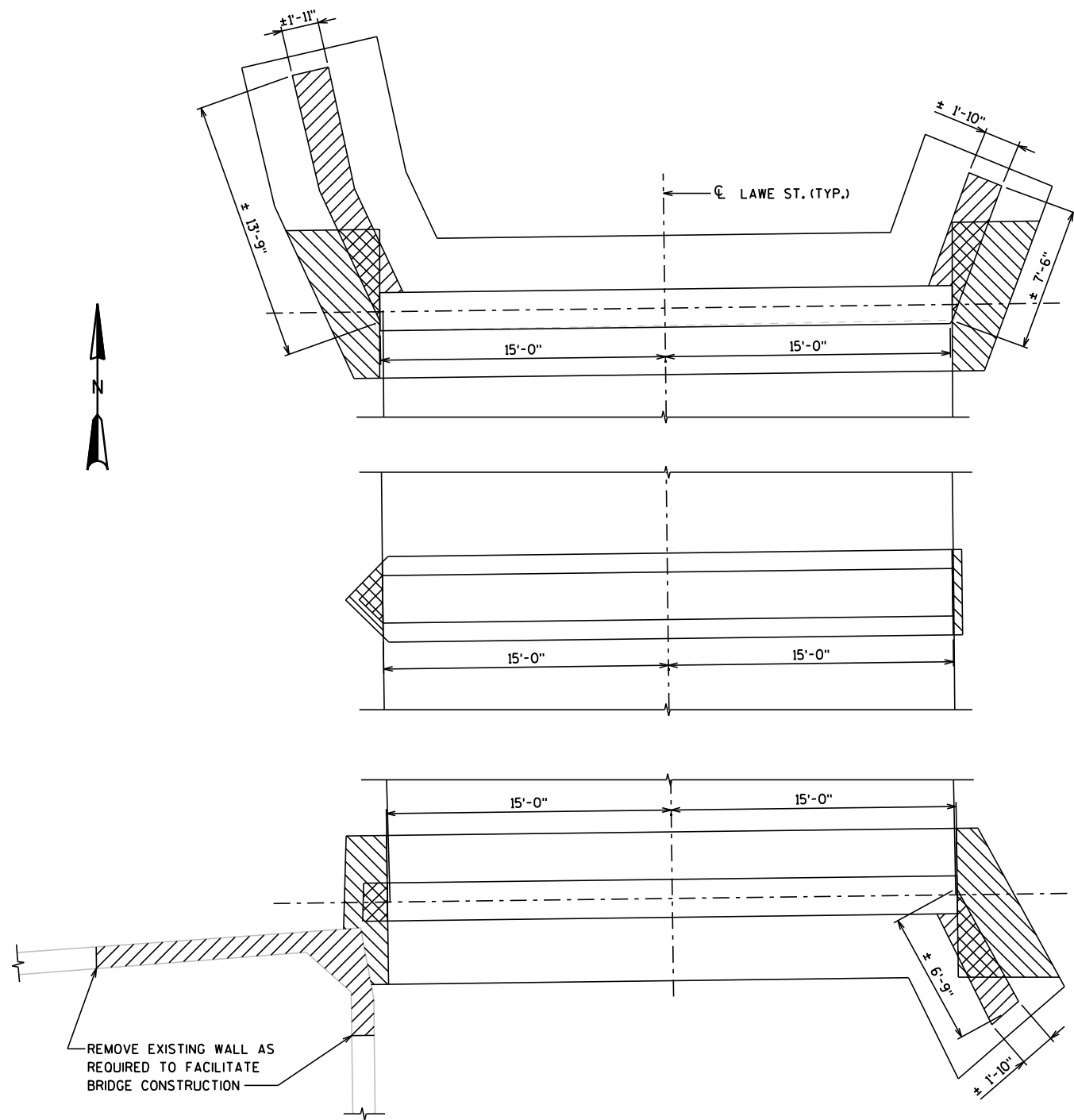
BENCH MARKS (NAVD 88)

NO.	STATION	DESCRIPTION	ELEV.
BM1	8+42 , 37' LT	'BURY' BOLT ON HYDRANT, EAST OF ROADWAY	723.11
BM2	9+42 , 17' RT	CHISELED SQUARE ON SE WING WALL OF BRIDGE	717.85
BM3	10+58 , 18' RT	CHISELED SQUARE ON NE WING WALL OF BRIDGE	716.87
BM4	11+26 , 18' LT	'BURY' BOLT ON HYDRANT, EAST OF ROADWAY	717.78

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	PIER	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STA 10+00)	LS	-----	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES (P-44-718)	LS	-----	-----	-----	-----	1
206.5000	COFFER DAMS (P-44-718)	LS	-----	-----	-----	-----	1
210.0100	BACKFILL STRUCTURE	CY	-----	170	260	-----	430
502.0100	CONCRETE MASONRY BRIDGES	CY	352	54	80	18	504
502.3200	PROTECTIVE SURFACE TREATMENT	SY	617	-----	-----	-----	617
502.5002	MASONRY ANCHORS TYPE L NO. 4 BARS	EACH	-----	62	66	116	244
502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EACH	-----	62	62	-----	124
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-----	-----	-----	1,020	1,020
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	80,880	5,730	8,200	80	94,890
509.1500	CONCRETE SURFACE REPAIR	SF	10	-----	-----	-----	10
511.1200	TEMPORARY SHORING (P-44-718)	SF	-----	480	1,395	-----	1,875
511.2200	TEMPORARY SHORING LEFT IN PLACE (P-44-718)	SF	-----	35	65	-----	100
513.7016	RAILING STEEL TYPE C3 (P-44-718)	LF	212	-----	-----	-----	212
513.8016	RAILING STEEL PEDESTRIAN TYPE C3 (P-44-718)	LF	44	-----	-----	-----	44
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-----	20	21	-----	41
606.0300	RIPRAP HEAVY	CY	-----	12	-----	-----	12
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	-----	36	-----	-----	36
NON-BID ITEMS							
	FILLER	SIZE	---	---	---		1/2" & 3/4"

NO.	DATE	REVISION			BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION					
STRUCTURE P-44-718					
		DRAWN BY	BRE	PLANS CK'D.	KRO
CROSS SECTION AND QUANTITIES				SHEET 2 OF 13	



PARTIAL PLAN VIEW OF EXISTING SUBSTRUCTURE

NOTES:

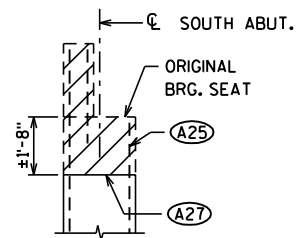
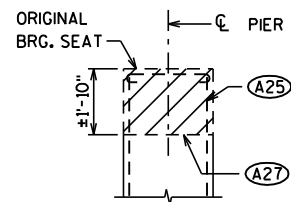
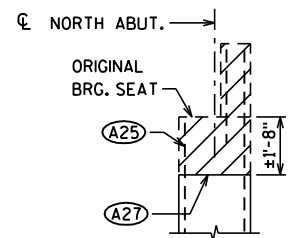
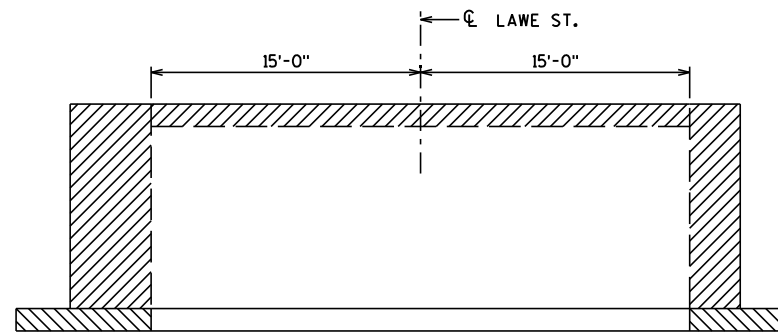
REMOVING OLD STRUCTURE SHALL CONSIST OF REMOVING THE EXISTING SUPERSTRUCTURE, RAILINGS, BEARINGS, BEARING SEATS, WINGWALLS, PIER NOSE, PORTIONS OF EXISTING FOOTINGS, AND A PORTION OF THE EXISTING BUILDING FOUNDATION IN THE SW CORNER OF THE BRIDGE. SEE DETAILS ON THIS SHEET.

(A25) SALVAGE EXIST. REINF. & EXTEND INTO NEW WORK. CUT AS REQUIRED FOR NEW WORK.

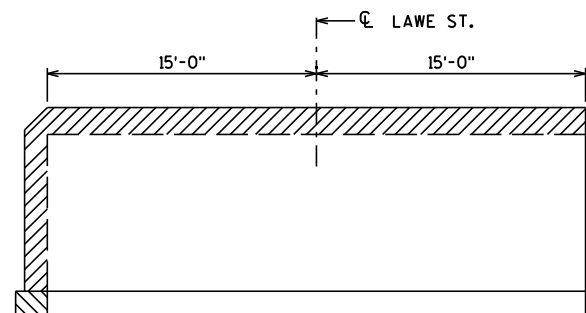
(A27) LINE OF ABUTMENT REMOVAL.

▨ SUBSTRUCTURE REMOVAL

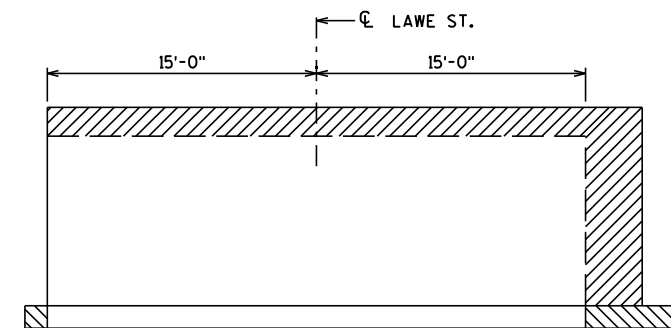
▨ MINIMUM FOOTING REMOVAL

SECTION THRU EXIST.
SOUTH ABUT. BODYSECTION THRU
EXIST. PIERSECTION THRU EXIST.
NORTH ABUT. BODY**N. ABUT. REMOVAL ELEVATION**

(LOOKING NORTH)

**PIER REMOVAL ELEVATION**

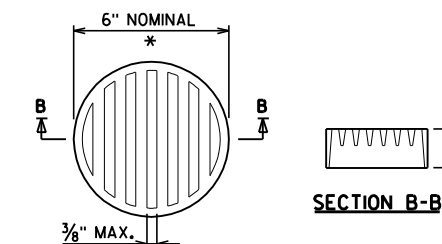
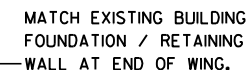
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**S. ABUT. REMOVAL ELEVATION**

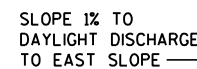
(LOOKING NORTH)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-44-718			
DRAWN BY		BRE	PLANS CK'D. KRO
REMOVAL PLANS		SHEET 3 OF 13	

THE CONTRACTOR SHALL FIELD CUT REINFORCING BARS AND CAST CONCRETE AROUND THE SANITARY FORCE MAIN AS REQUIRED. PROVIDE ADDITIONAL REINFORCING BARS AROUND OPENING.



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



FOOTING LAYOUT

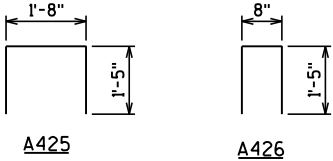
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	SERIES	BENT	LOCATION
A601	X	42	2'-0"			KEY DOWEL
A802	X	42	6'-0"			FOOTING HORIZONTAL
A403	X	11	12'-6"			FOOTING - HORIZONTAL WING 1
A404	X	11	11'-6"			FOOTING - HORIZONTAL
A405	X	11	13'-0"			FOOTING - HORIZONTAL
A406	X	11	4'-3"			FOOTING - HORIZONTAL WING 2
A807	X	52	9'-2"		X	FOOTING DOWEL
A508	X	10	12'-2"	△		VERTICAL F.F.
A509	X	16	13'-9"			VERTICAL F.F.
A510	X	16	10'-7"			VERTICAL F.F.
A711	X	14	12'-3"	△		VERTICAL B.F.
A712	X	16	13'-9"			VERTICAL B.F.
A713	X	22	10'-7"			VERTICAL B.F.
A414	X	12	22'-0"		X	BODY HORIZONTAL, F.F.
A415	X	12	20'-10"		X	BODY HORIZONTAL, B.F.
A416	X	12	16'-0"		X	BODY HORIZONTAL, F.F.
A417	X	12	16'-0"		X	BODY HORIZONTAL, B.F.
A418	X	4	9'-1"	△	X	BODY HORIZONTAL WING 1
A419	X	2	11'-9"		X	BODY HORIZONTAL, TOP WING 1
A420	X	4	8'-1"		X	BODY HORIZONTAL WING 2
A421	X	4	7'-10"	△	X	BODY HORIZONTAL WING 1
A422	X	4	8'-0"		X	BODY HORIZONTAL WING 2
* A523	X	62	2'-1"			DOWEL BARS IN EXIST. ABUT.
A424	X	16	24'-2"			HORIZONTAL ABOVE EXIST. ABUT.
A425	X	73	4'-4"		X	VERTICAL TOP
A426	X	47	3'-4"		X	VERTICAL TOP
* A427	X	62	3'-2"			HORIZONTAL DOWEL

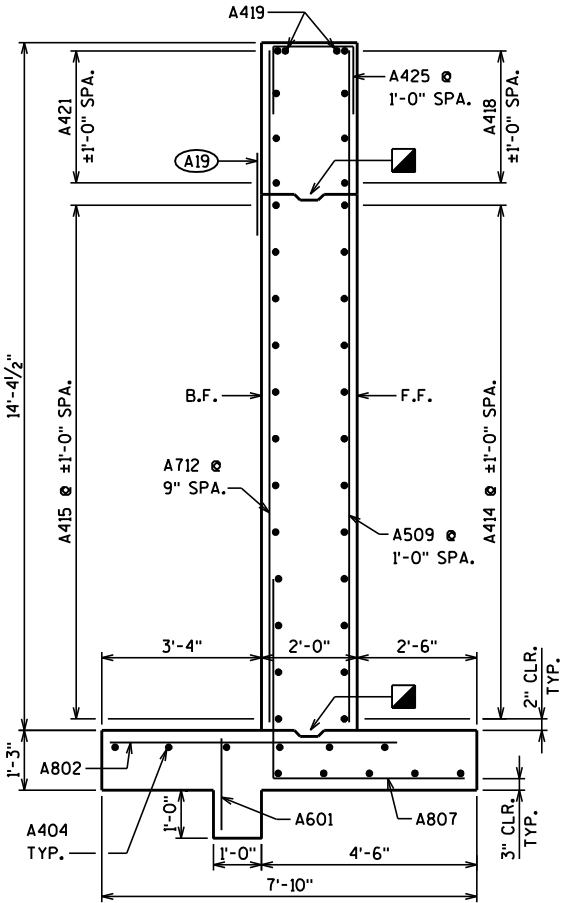
* MASONRY ANCHOR TYPE L. 8" MIN. EMBED.

BAR SERIES

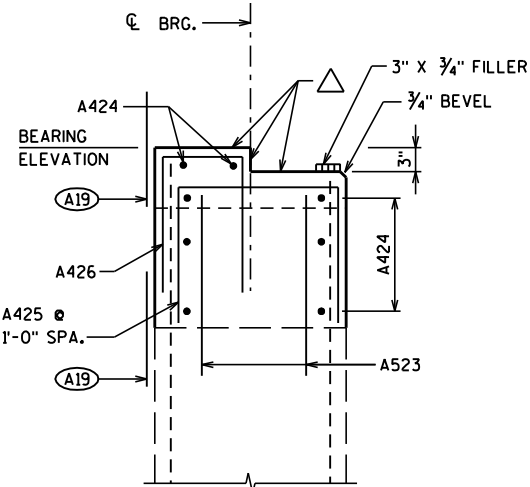
BAR NO.	NO. REQ'D.	LENGTH
A508	1 SERIES OF 10	10'-10" TO 13'-6"
A711	1 SERIES OF 14	10'-11" TO 13'-7"
A418	1 SERIES OF 4	4'-3" TO 13'-11"
A421	1 SERIES OF 4	3'-0" TO 12'-8"



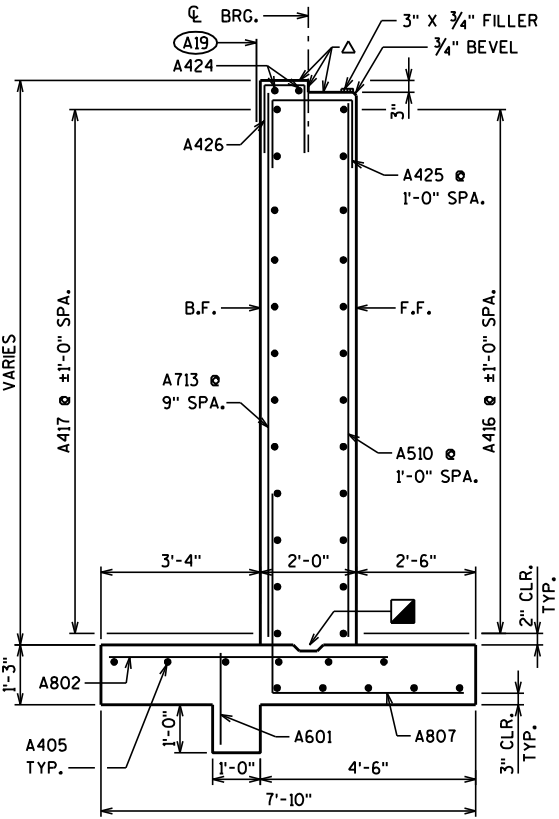
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-44-718			
DRAWN BY		BRE	PLANS CK'D. KRO
SOUTH ABUTMENT DETAILS		SHEET 5 OF 13	



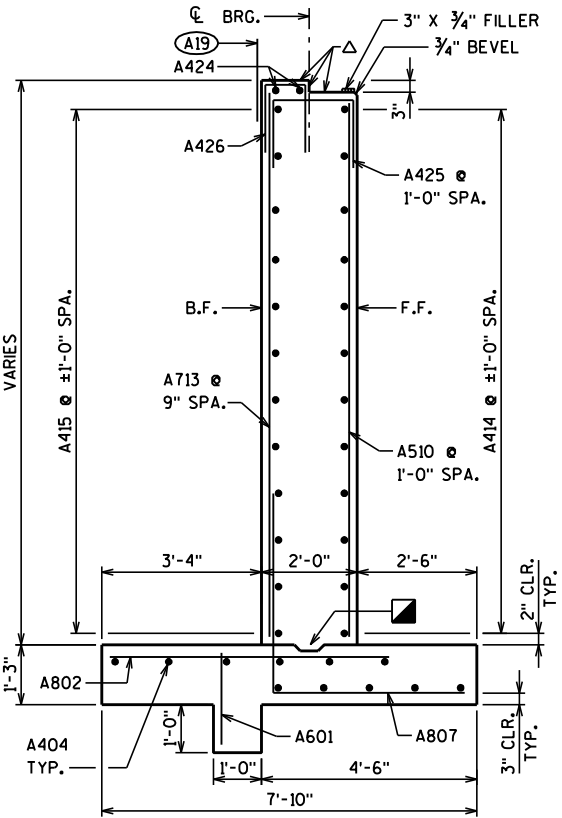
SECTION A-A



SECTION C-C



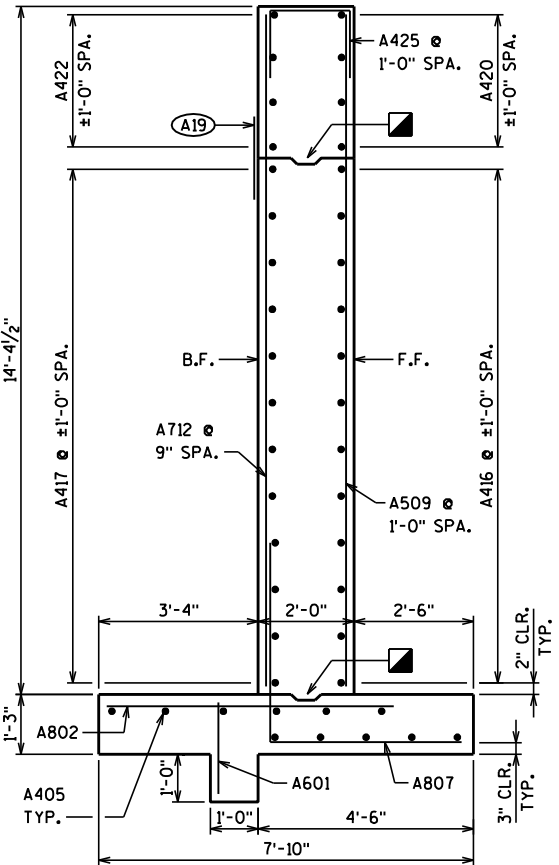
SECTION D-D

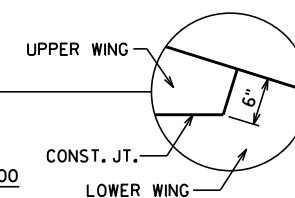


SECTION B-B

NOTES:

- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. TERMINATE 1'-0" FROM END OF WING.





CONST. JT. DETAIL

NOTES:

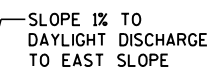
- (A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN, SEE SHEET 4 FOR DETAILS.
- (A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.) EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- (A23) MASONRY ANCHORS TYPE L NO. 4 BARS. ALIGN WITH HORIZONTAL REINFORCING IN FOOTING AND WALL.
- SEE SHEET 7 FOR SECTIONS, WINGWALL DETAILS, BILL OF BARS, AND BAR BENDING DIAGRAMS.
- (X) INDICATES WING NUMBER
- * B427 BARS ALIGN WITH FRONT FACE VERTICAL BARS.

THE CONTRACTOR SHALL FIELD CUT REINFORCING BARS AND CAST CONCRETE AROUND THE SANITARY FORCE MAIN AS REQUIRED. PROVIDE ADDITIONAL REINFORCING BARS AROUND OPENING.

- ☆ PROVIDE OPENING FOR 12" STORM SEWER PIPE. PIPE
INVERT EL. 710.80 (VERIFY WITH STORM SEWER
PLANS). DISPLACE, BEND, OR CUT BARS AS
REQUIRED.

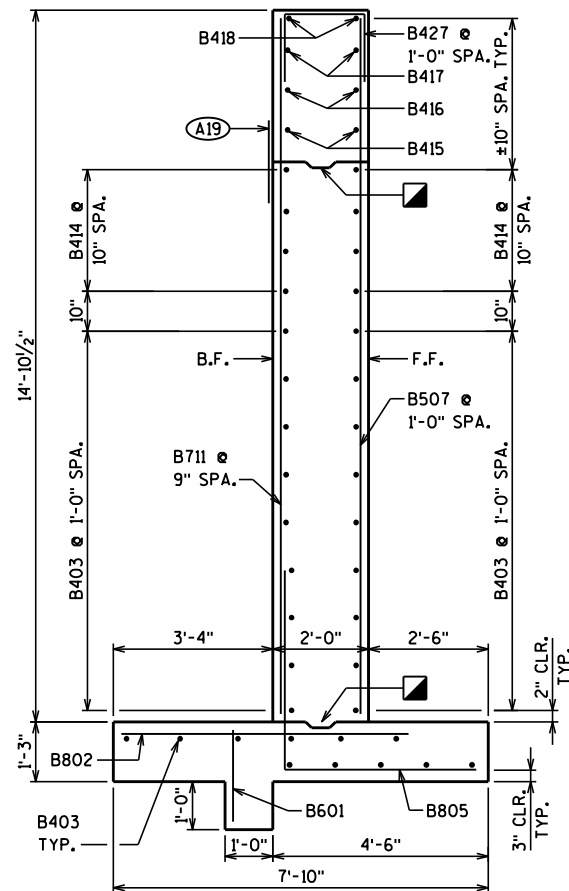


PLAN

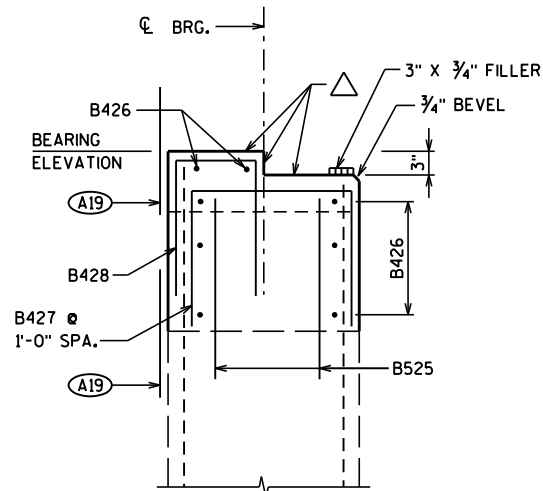


FOOTING LAYOUT

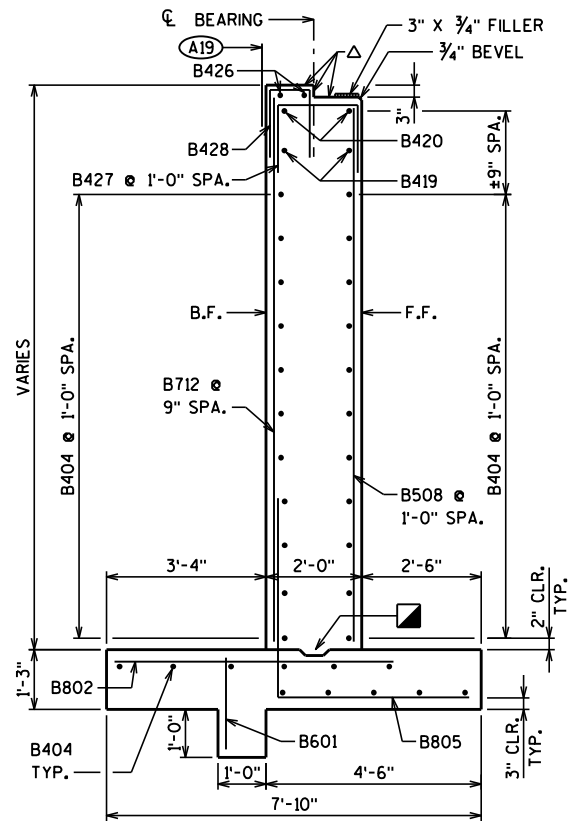
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-44-718			
		DRAWN BY	BRE PLANS CK'D. KRO
NORTH ABUTMENT		SHEET 6 OF 13	



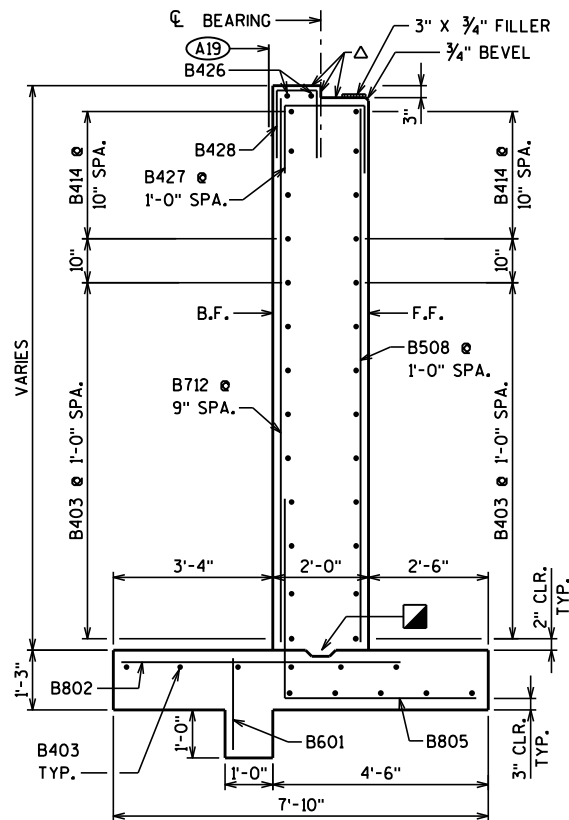
SECTION A-A



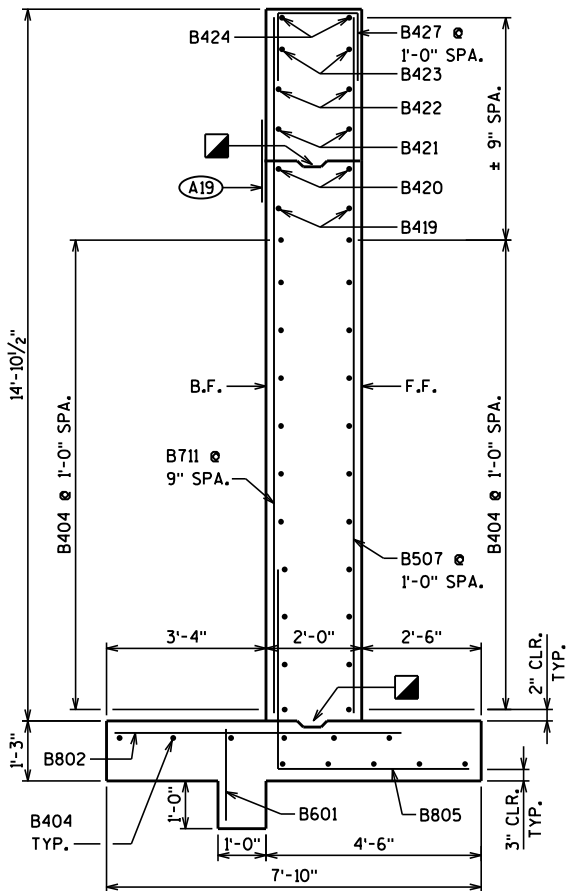
SECTION C-C



SECTION D-D



SECTION B-B



SECTION E-E

NOTES:

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

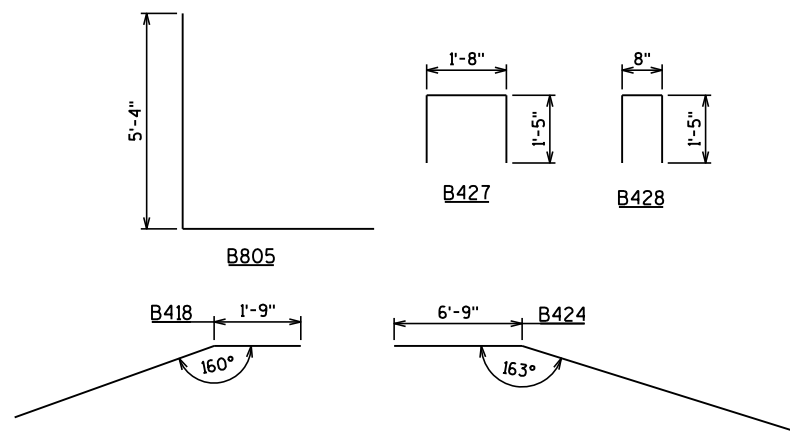
△ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

■ CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. END 1'-0" FROM END. TERMINATE 1'-0" FROM END OF WING.

BILL OF BARS

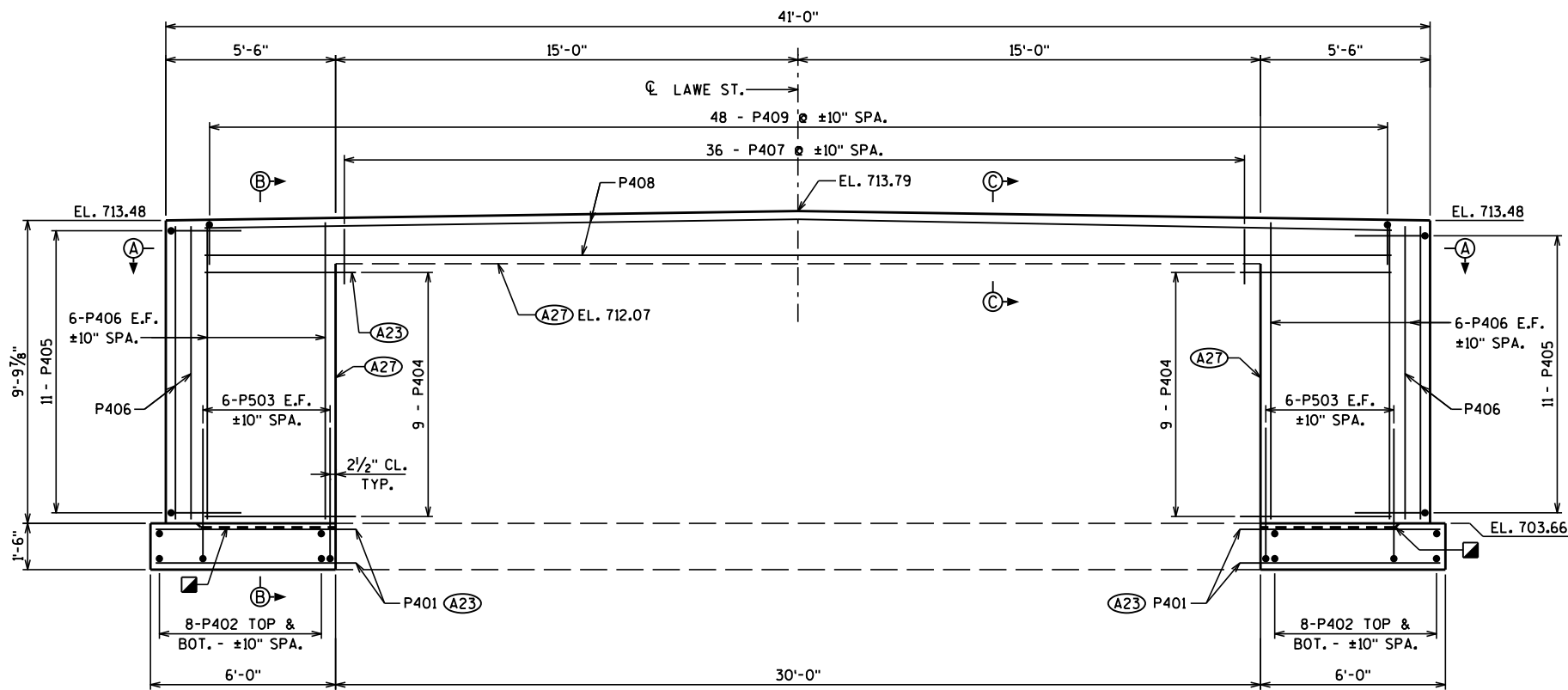
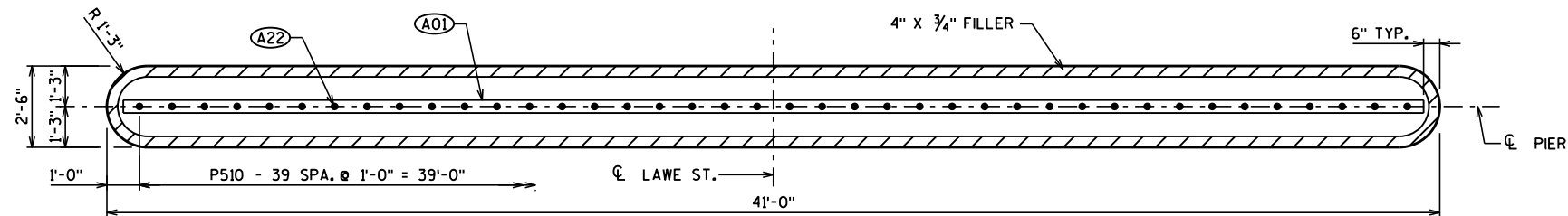
BAR MARK	COAT	NO. REQ'D.	LENGTH	SERIES	BENT	LOCATION
B601	X	60	2'-0"			KEY DOWEL
B802	X	60	6'-0"			FOOTING HORIZONTAL
B403	X	29	27'-8"			FOOTING/BODY - HORIZONTAL
B404	X	33	29'-8"			FOOTING/BODY - HORIZONTAL
B805	X	79	9'-2"		X	FOOTING DOWEL
B506	X	18	11'-2"	△		VERTICAL F.F.
B507	X	11	14'-6"			VERTICAL F.F.
B508	X	16	11'-4"			VERTICAL F.F.
B509	X	15	12'-0"	△		VERTICAL F.F.
B710	X	24	11'-2"	△		VERTICAL B.F.
B711	X	14	14'-6"			VERTICAL B.F.
B712	X	22	11'-4"			VERTICAL B.F.
B713	X	20	12'-1"	△		VERTICAL B.F.
B414	X	8	22'-2"	△		BODY HORIZONTAL WING 3
B415	X	2	8'-4"			BODY HORIZONTAL WING 3
B416	X	2	6'-0"			BODY HORIZONTAL WING 3
B417	X	2	3'-8"			BODY HORIZONTAL WING 3
B418	X	2	20'-9"		X	BODY HORIZONTAL, TOP WING 3
B419	X	2	27'-3"			BODY HORIZONTAL WING 4
B420	X	2	24'-11"			BODY HORIZONTAL WING 4
B421	X	2	14'-3"			BODY HORIZONTAL WING 4
B422	X	2	11'-7"			BODY HORIZONTAL WING 4
B423	X	2	8'-11"			BODY HORIZONTAL WING 4
B424	X	2	22'-4"		X	BODY HORIZONTAL, TOP WING 4
* B525	X	62	2'-1"			DOWEL BARS IN EXIST. ABUT.
B426	X	16	24'-2"			HORIZONTAL ABOVE EXIST. ABUT.
B427	X	91	4'-4"		X	VERTICAL TOP
B428	X	47	3'-4"		X	VERTICAL TOP
* B429	X	66	3'-2"			HORIZONTAL DOWEL

* MASONRY ANCHOR TYPE L. 8" MIN. EMBED.

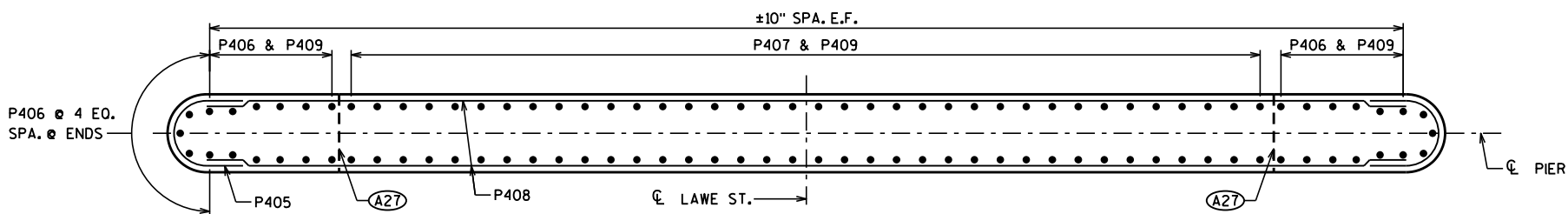
**BAR BENDING DIAGRAMS****BAR SERIES**

BAR NO.	NO. REQ'D.	LENGTH
B506	1 SERIES OF 18	8'-1" TO 14'-3"
B509	1 SERIES OF 15	9'-9" TO 14'-3"
B710	1 SERIES OF 24	8'-1" TO 14'-3"
B713	1 SERIES OF 20	9'-10" TO 14'-4"
B414	2 SERIES OF 4	18'-7" TO 25'-9"

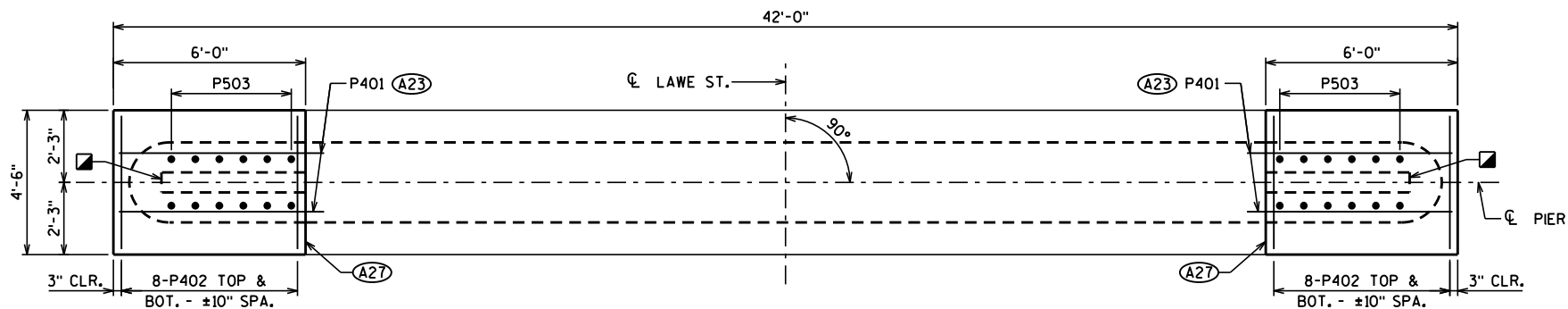
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-44-718			
DRAWN BY		BRE	PLANS CK'D. KRO
NORTH ABUTMENT DETAILS			SHEET 7 OF 13

ELEVATION
(LOOKING NORTH)

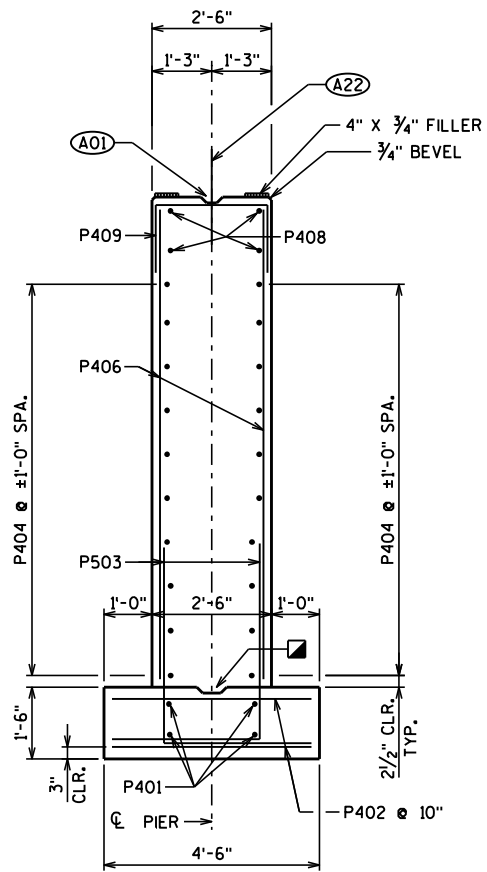
PLAN



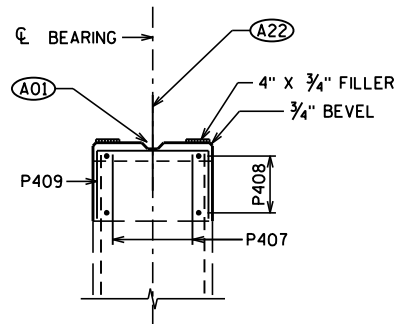
SECTION A-A



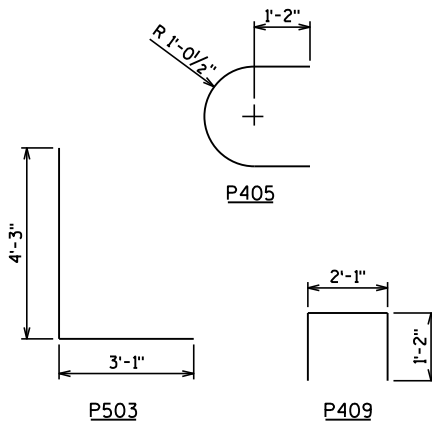
FOOTING PLAN



SECTION B-B



SECTION C-C



BAR BENDING DIAGRAMS

BILL OF BARS

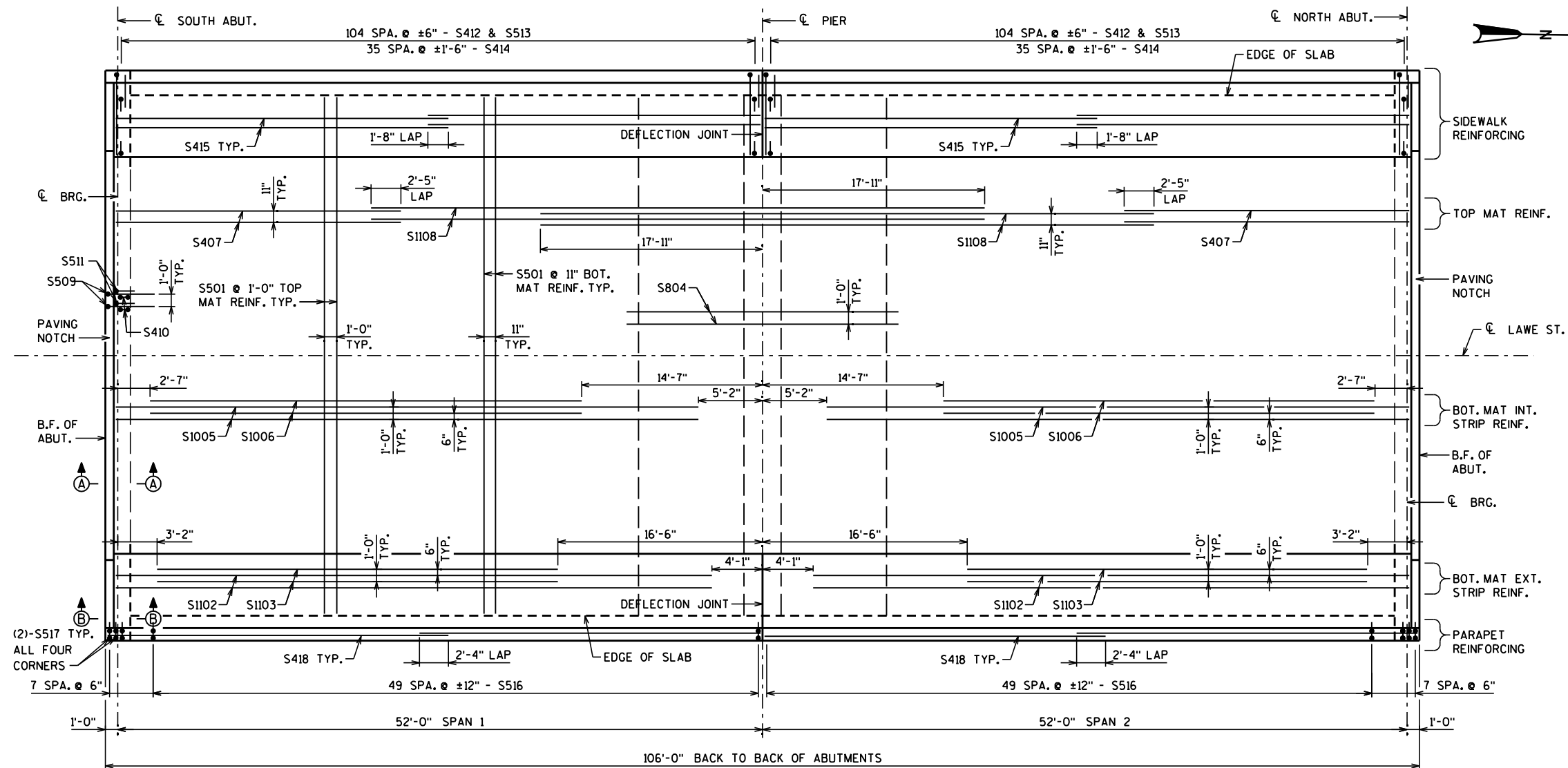
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
* P401		8	6'-5"		FOOTING - HORIZONTAL
P402		32	4'-0"		FOOTING - HORIZONTAL
P503		24	7'-3"	X	FOOTING - DOWEL
* P404		36	4'-11"		SHAFT - HORIZONTAL
P405		22	5'-8"	X	SHAFT - HORIZONTAL
P406		30	9'-6"		SHAFT - VERTICAL
* P407		72	1'-11"		SHAFT - VERTICAL
P408		4	38'-6"		SHAFT - HORIZONTAL TOP
P409		48	4'-3"	X	SHAFT - VERTICAL TOP
P510	X	40	2'-0"		SHAFT - DOWEL

* MASONRY ANCHOR TYPE L

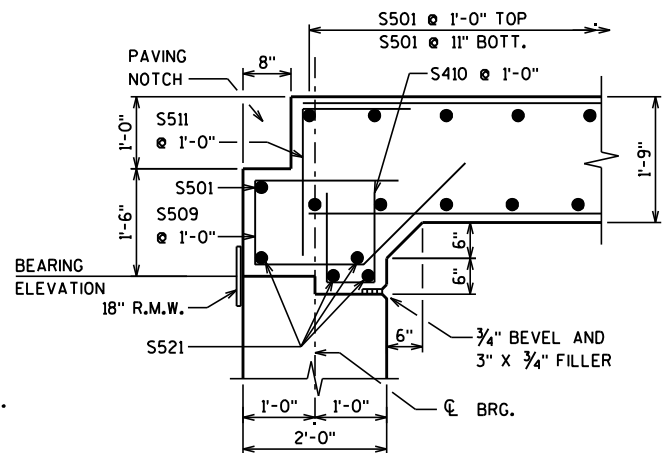
NOTES:

- (A01) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6.
- (A22) P510 BARS SPACED @ 1'-0" CTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)
- (A23) MASONRY ANCHORS TYPE L NO. 4 BARS, ALIGN WITH HORIZONTAL REINFORCING. 8" MIN. EMBED. TYP.
- (A27) LINE OF PIER REMOVAL. SEE SHEET 3 FOR REMOVAL PLAN.
- CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. END 1'-0" FROM END OF PIER SHAFT.

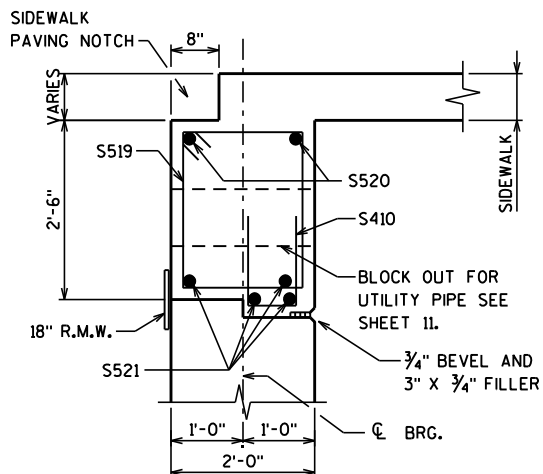
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-44-718			
DRAWN BY		BRE	PLANS CK'D. KRO
PIER		SHEET 8 OF 13	



PLAN



SECTION A-A

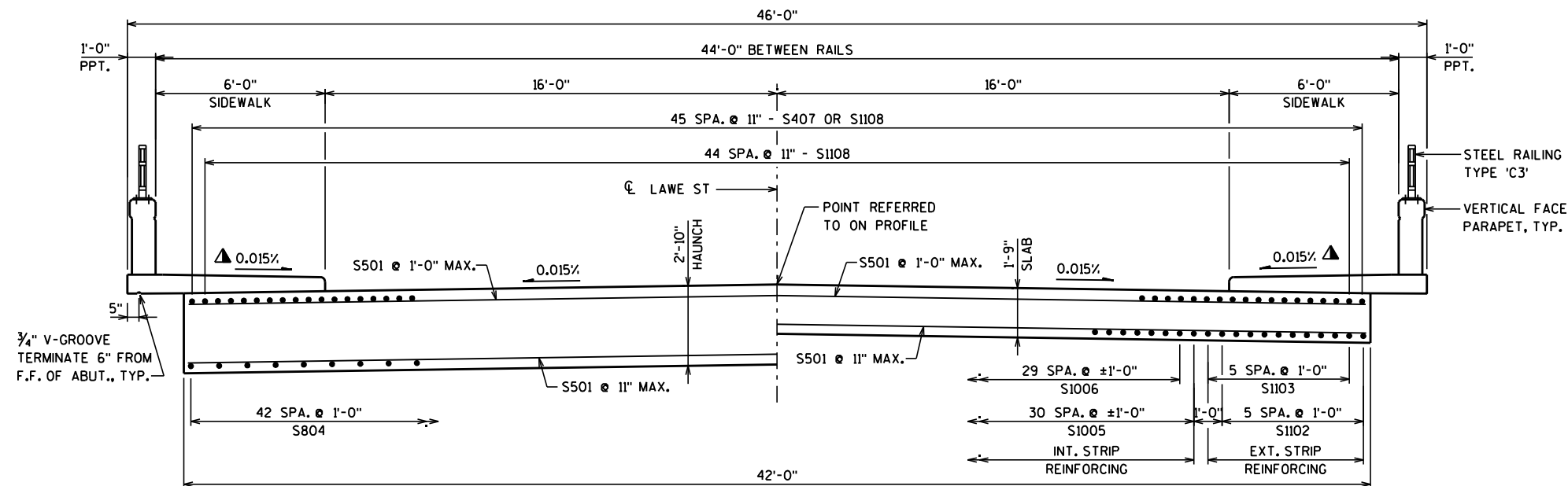


SECTION B-B

NOTES:

WHEN PARAPETS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF $\frac{1}{8}$ " ZINC OR PLASTIC PLATE CUT AS SHOWN IN THE "DEFLECTION JOINT DETAIL". IF CONSTRUCTION JOINTS IN PARAPETS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL BE COATED WITH AN APPROVED LIQUID BOND BREAKER AND PLATE SEPARATORS MAY BE OMITTED.

▲ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

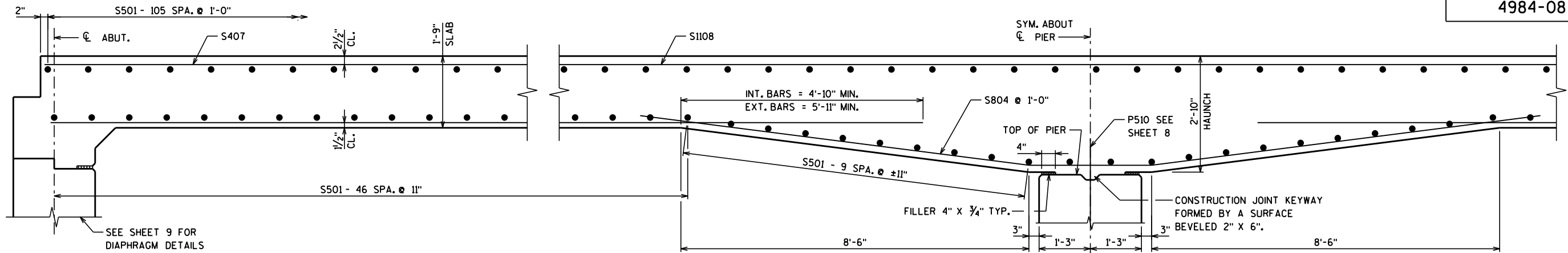


AT PIER

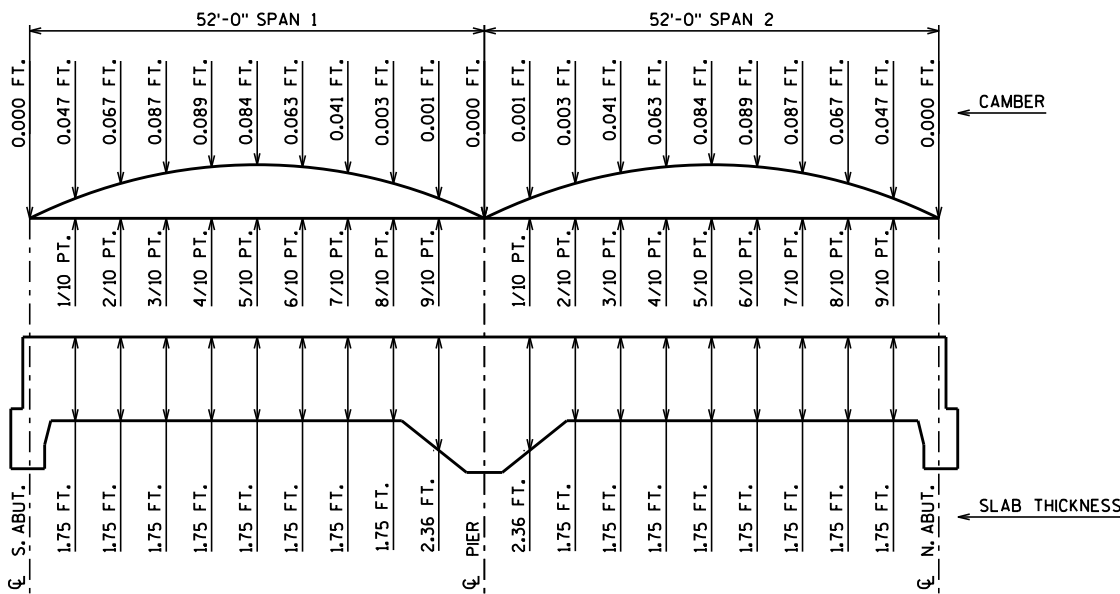
IN SPAN

CROSS SECTION THRU ROADWAY

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-44-718			
DRAWN BY		BRE	PLANS CK'D. KRO
SUPERSTRUCTURE		SHEET 9 OF 13	

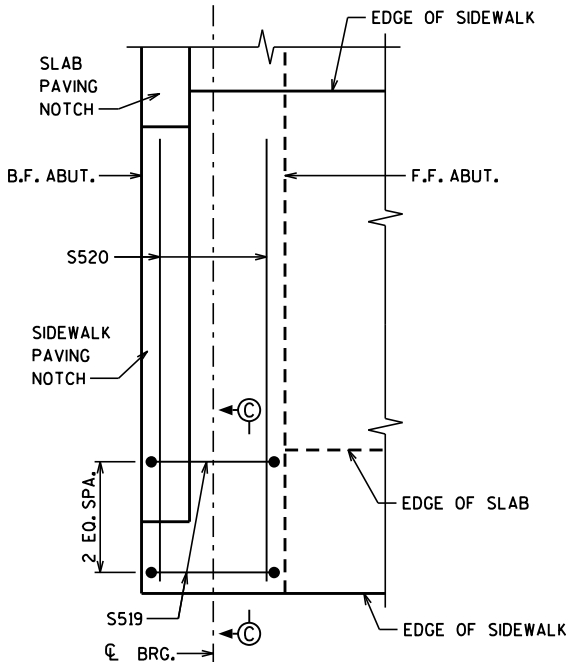


PART LONGITUDINAL SECTION THRU ROADWAY



CAMBER DIAGRAM

CAMBER IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. PARAPETS & SIDEWALKS SHOWN ABOVE THE HORIZ. CONST. JT. SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.



PARTIAL PLAN TYPICAL
CORNER OF BRIDGE

SEE SHEET 11 FOR SECTION C-C.

NOTES

SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

TOP TRANSVERSE BARS IN THE 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.

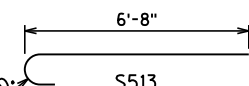
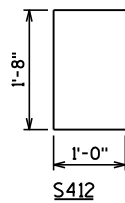
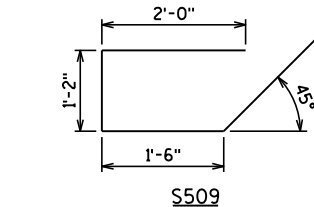
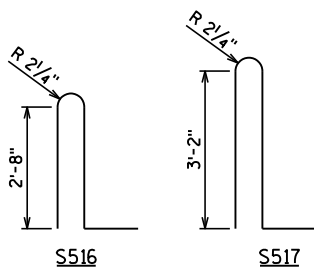
TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE ϕ OF SUBSTRUCTURE UNITS.

PARAPETS & SIDEWALKS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

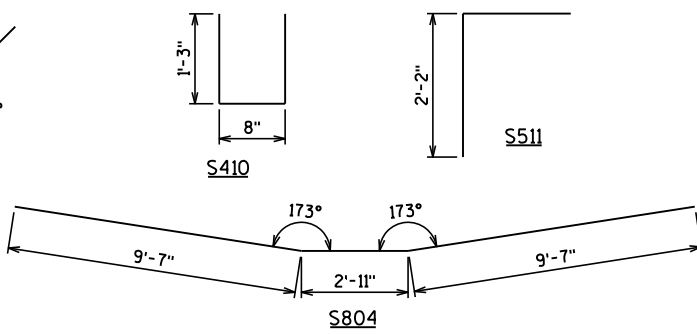
PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ϕ OF ABUTMENTS, THE ϕ OF PIERS AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR ϕ .

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
S501	X	222	41'-6"		SLAB TRANS. TOP & BOT.
S1102	X	24	48'-1"		SLAB LONG. BOT.
S1103	X	24	32'-4"		SLAB LONG. BOT.
S804	X	43	22'-1"	X	SLAB LONG. BOT. AT PIER
S1005	X	62	47'-0"		SLAB LONG. BOT. SPAN 2
S1006	X	60	34'-10"		SLAB LONG. BOT. SPAN 2
S407	X	92	23'-0"		SLAB LONG. TOP
S1108	X	92	49'-6"		SLAB LONG. TOP
S509	X	86	6'-5"	X	END OF SLAB
S410	X	94	3'-0"	X	END OF SLAB
S511	X	86	3'-7"	X	END OF SLAB
S412	X	840	3'-6"	X	SLAB & SIDEWALK, VERTICAL
S513	X	420	7'-3"	X	SIDEWALK HORIZ.
S414	X	144	2'-10"		SIDEWALK HORIZ.
S415	X	104	26'-10"		SIDEWALK LONG.
S516	X	220	6'-8"	X	PARAPET VERTICAL
S517	X	8	7'-9"	X	PARAPET VERTICAL END OF SLAB
S418	X	48	27'-6"		PARAPET HORIZ.
S519	X	8	8'-3"	X	DIAPHRAGM VERTICAL
S520	X	8	6'-2"		DIAPHRAGM HORIZONTAL, TOP
S521	X	8	45'-8"		DIAPHRAGM HORIZONTAL, BOTTOM



BAR BEND DIAGRAMS

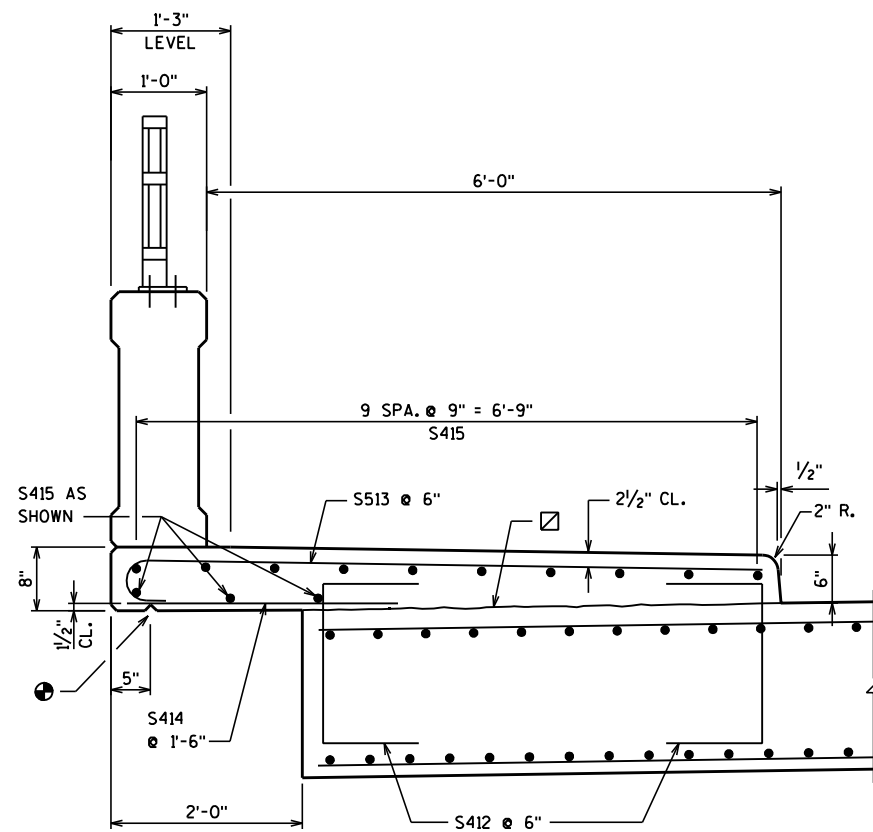


TOP OF DECK ELEVATIONS

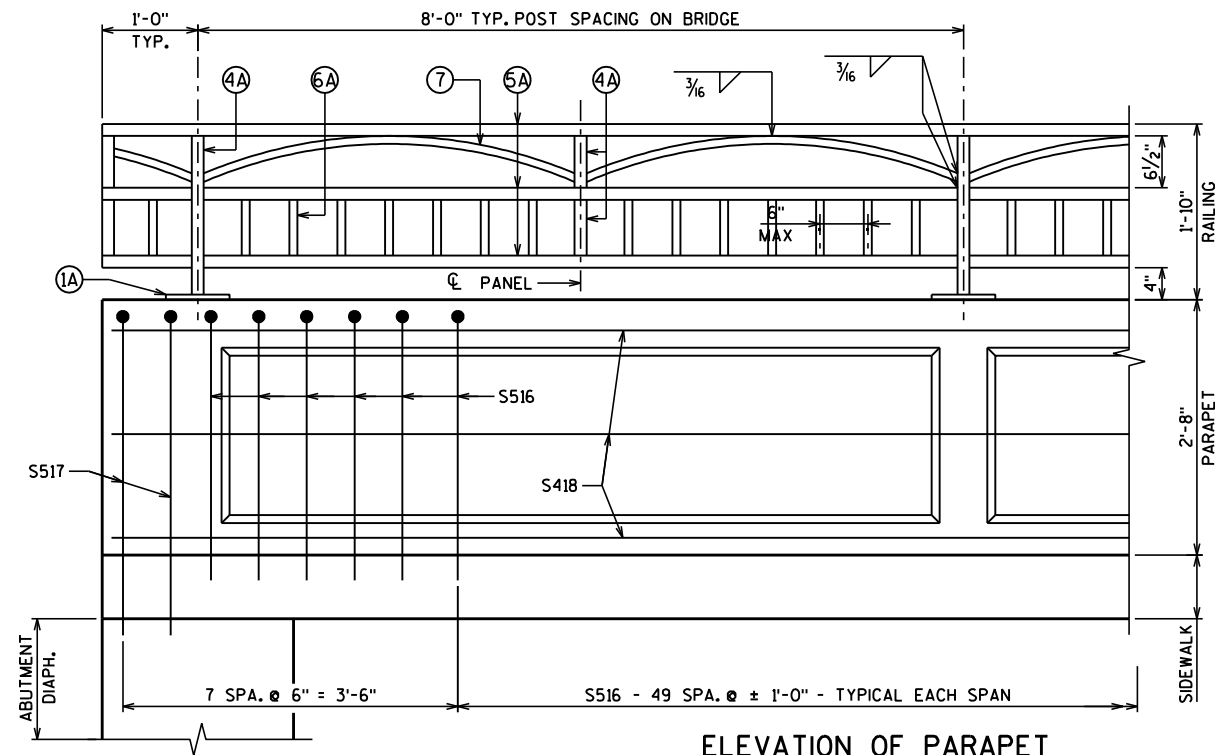
LOCATION	S.ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER
W. EDGE	717.08	716.94	716.81	716.70	716.60	716.52	716.45	716.40	716.37	716.34	716.31
CROWN	717.40	717.25	717.13	717.01	716.92	716.84	716.77	716.72	716.68	716.65	716.63
E. EDGE	717.08	716.94	716.81	716.70	716.60	716.52	716.45	716.40	716.37	716.34	716.31

LOCATION	PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	N.ABUT.
W. EDGE	716.31	716.28	716.26	716.23	716.20	716.17	716.15	716.12	716.09	716.06	716.03
CROWN	716.63	716.60	716.57	716.54	716.52	716.49	716.46	716.43	716.41	716.38	716.35
E. EDGE	716.31	716.28	716.26	716.23	716.20	716.17	716.15	716.12	716.09	716.06	716.03

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-44-718			
	DRAWN BY	BRE	PLANS CK'D. KRO
SUPERSTRUCTURE DETAILS			SHEET 10 OF 13

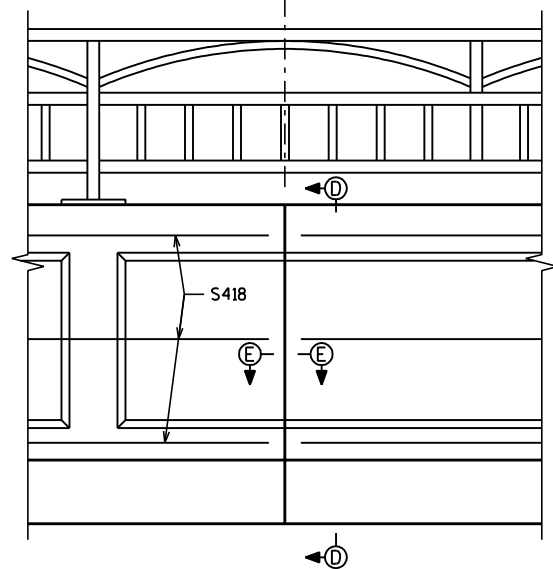


SECTION THRU SIDEWALK



ELEVATION OF PARAPET

NOTE: SEE SHEET 13 FOR RAILING DETAILS.

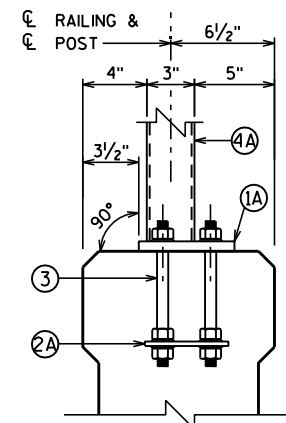
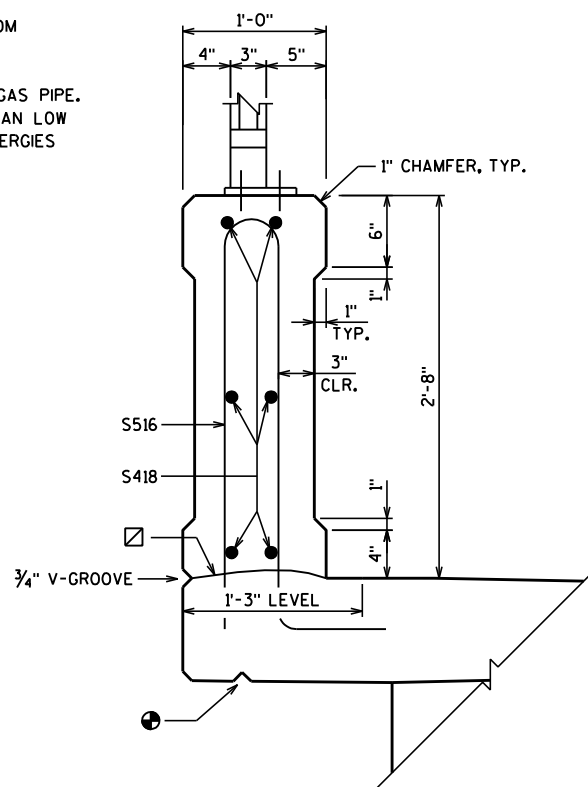
FIELD ERECTION JT.
LOCATION, SEE SHEET 13.SECTION D-D DEFLECTION
JOINT DETAIL(SHOWING DEFLECTION JOINT OVER
THE PIER IN PARAPET & SIDEWALK)

SECTION E-E

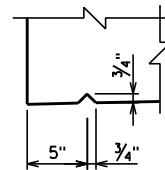
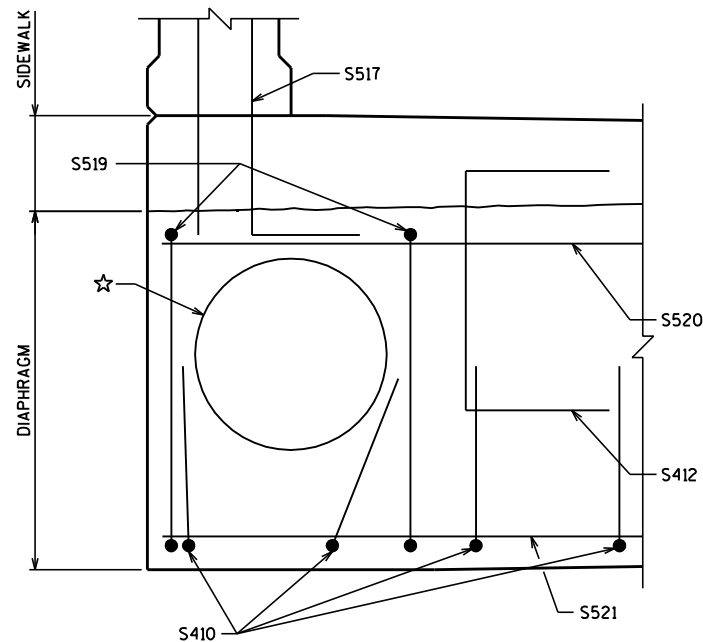
1" V-GROOVES

NOTES:

- ☑ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR SLAB POUR, MATCH BRIDGE CROSS SLOPE.
- ⊕ 3/4" V-GROOVE. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGM.
- ☆ PROVIDE OPENING FOR 16" WATER PIPE OR 8" GAS PIPE. THE LOW POINT OF PIPE SHALL BE HIGHER THAN LOW POINT OF THE SLAB. COORDINATE WITH WE-ENERGIES FOR DETAILS ON GAS PIPE.

RAILING BASE
PLATE DETAIL

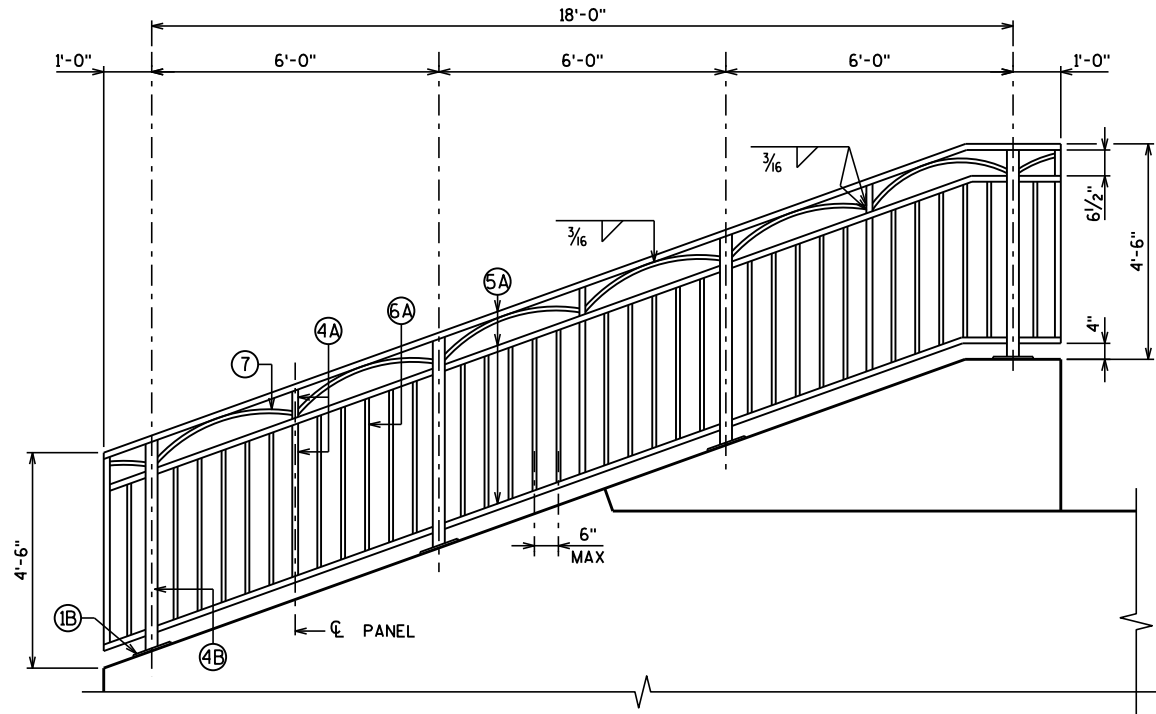
SECTION THRU PARAPET ON BRIDGE

3/4" V-GROOVE EDGE
DETAIL

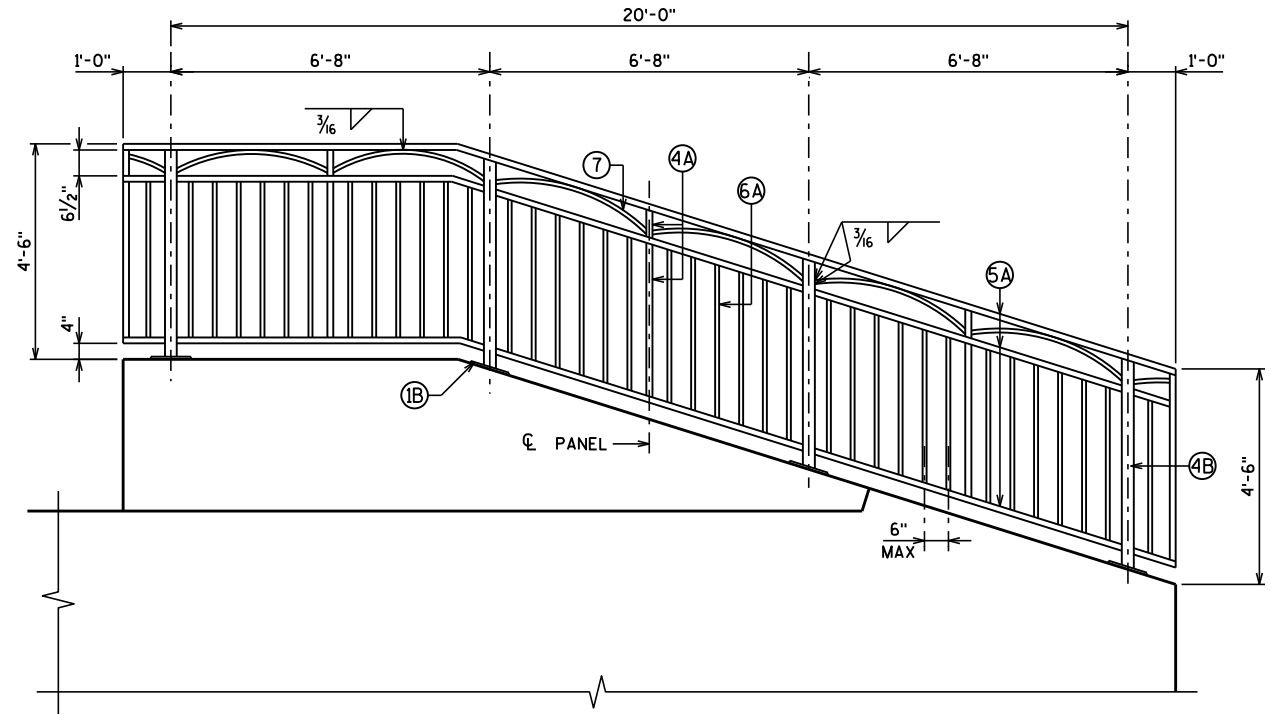
SECTION C-C

TYPICAL ALL FOUR
CORNERS OF BRIDGE

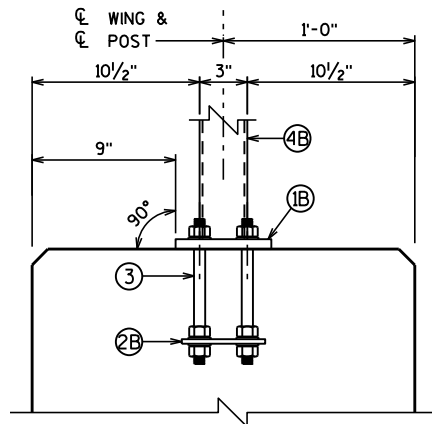
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-44-718			
DRAWN BY		BRE	PLANS CK'D. KRO
VERTICAL FACE PARAPET 'A'		SHEET 11 OF 13	



ELEVATION OF NORTH WEST WING
(LOOKING NORTH)



ELEVATION OF NORTH EAST WING
(LOOKING NORTH)



**RAILING BASE
PLATE DETAIL**

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-44-718			
DRAWN BY		BRE	PLANS CK'D. KRO
RAILING PLAN		SHEET 12 OF 13	



- (1A) PLATE $\frac{5}{8}$ " X 6" X 8" WITH $\frac{3}{4}$ " X $\frac{1}{2}$ " SLOTTED HOLES.
- (1B) PLATE $\frac{5}{8}$ " X 6" X 10" WITH $\frac{3}{4}$ " X $\frac{1}{2}$ " SLOTTED HOLES
- (2A) $\frac{1}{4}$ " X 5" X 7" ANCHOR PLATE WITH $\frac{1}{8}$ " ϕ HOLES FOR THR'D. RODS NO. 3.
- (2B) $\frac{1}{4}$ " X 5" X 9" ANCHOR PLATE WITH $\frac{1}{8}$ " ϕ HOLES FOR THR'D. RODS NO. 3.
- (3) $\frac{5}{8}$ " DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP.
(ALTERNATE RAIL POST ANCHORAGE - 4 EQUIV. STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY), $\frac{5}{8}$ " ϕ , MINIMUM PULLOUT CAPACITY OF 13 KIPS. EMBED A MIN. OF 7" FOR RAIL POSTS AND 5" FOR END RAILS.)
- (4A) STRUCTURAL TUBING 3" X $\frac{1}{2}$ " X $\frac{3}{16}$ ". PLACE VERTICAL. WELD TO NO.1 & 5.
- (4B) STRUCTURAL TUBING 3" X 3" X $\frac{3}{16}$ ". PLACE VERTICAL. WELD TO NO.1 & 5.
- (5A) STRUCTURAL TUBING 3" X $\frac{1}{2}$ " X $\frac{3}{16}$ " RAILS. WELD TO NO.1 & NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.
- (6A) BAR 1" X 1" PICKETS. WELD TO NO. 5. PLACE VERTICAL.
- (7) BAR 1" X 1". BEND TO REQUIRED RADIUS. WELD TO NO. 4 & 5.
- (9A) RECTANGULAR SLEEVE FABRICATED FROM $\frac{3}{16}$ " PLATES. PROVIDE "SLIDING FIT".
- (10A) RECTANGULAR SLEEVE FABRICATED FROM $\frac{3}{16}$ " PLATES. (1'-4" ϕ FIELD ERECTION JTS.) (1'-4" ϕ STRIP SEAL EXP. JTS.)



PARAPET RAIL POST SHIM DETAIL
(2 SETS PER POST)



WING ANCHORAGE FOR RAIL POSTS

WING RAIL POST SHIM DETAIL
(2 SETS PER POST)



8

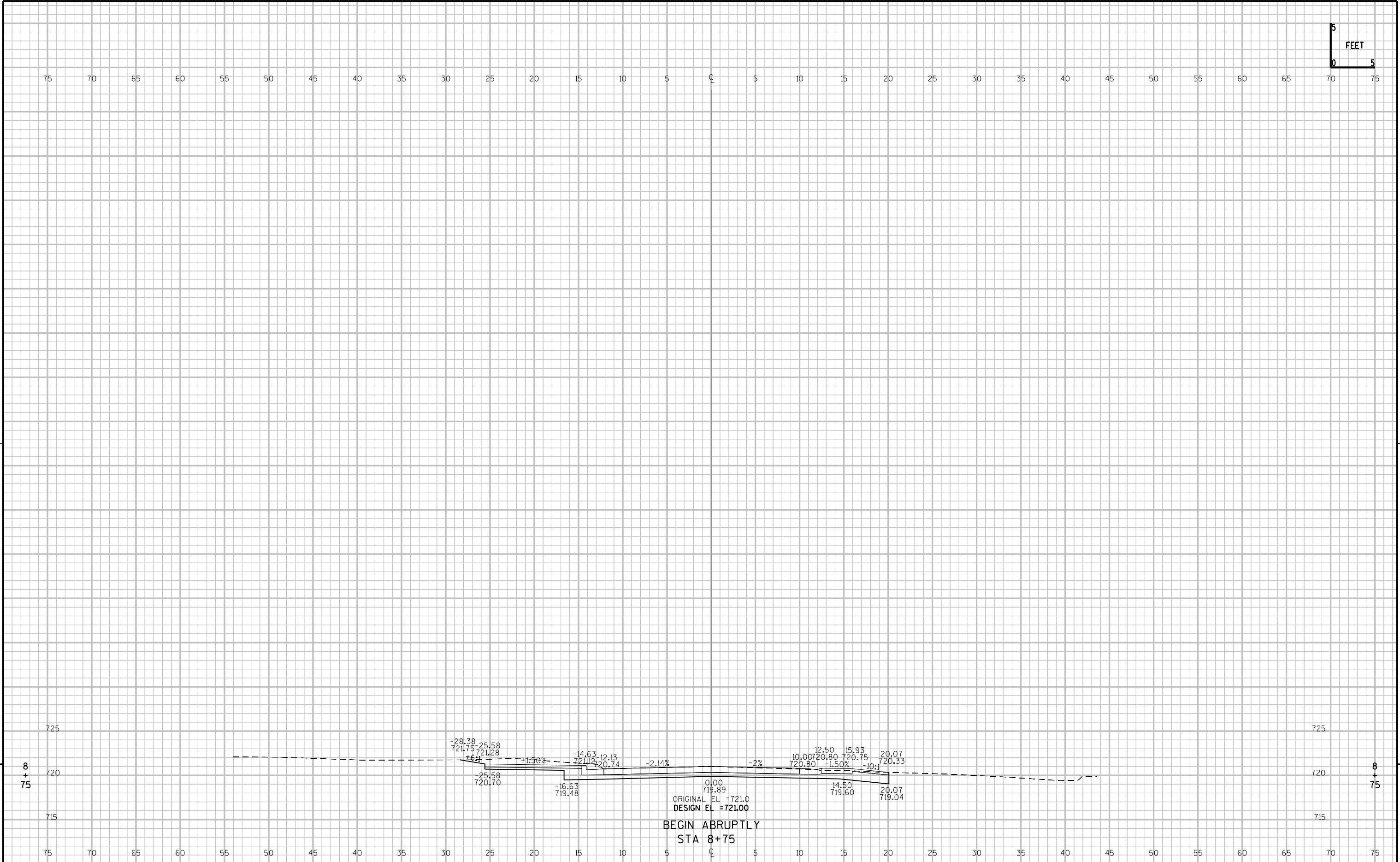
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-44-718			
DRAWN BY		BRE	PLANS CK'D. KRO
RAILING DETAILS		SHEET 13 OF 13	

LAWE STREET - SOUTH

STATION	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
	Cut	Salvaged/ Unusable Pavement Material	Fill	Cut	Salvaged/ Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.3	
8+75.00	54	19	0	0	0	0	0	0	0
9+00.00	85	19	0	64	18	0	64	0	47
9+25.00	90	19	0	81	18	0	145	0	110
9+45.00	65	19	20	57	14	7	203	10	144
ENDS ABRUPTLY	65	19	20	6	2	2	209	12	146
STRUCTURE	0		0	0	0	0	209	12	146

LAWE STREET - NORTH

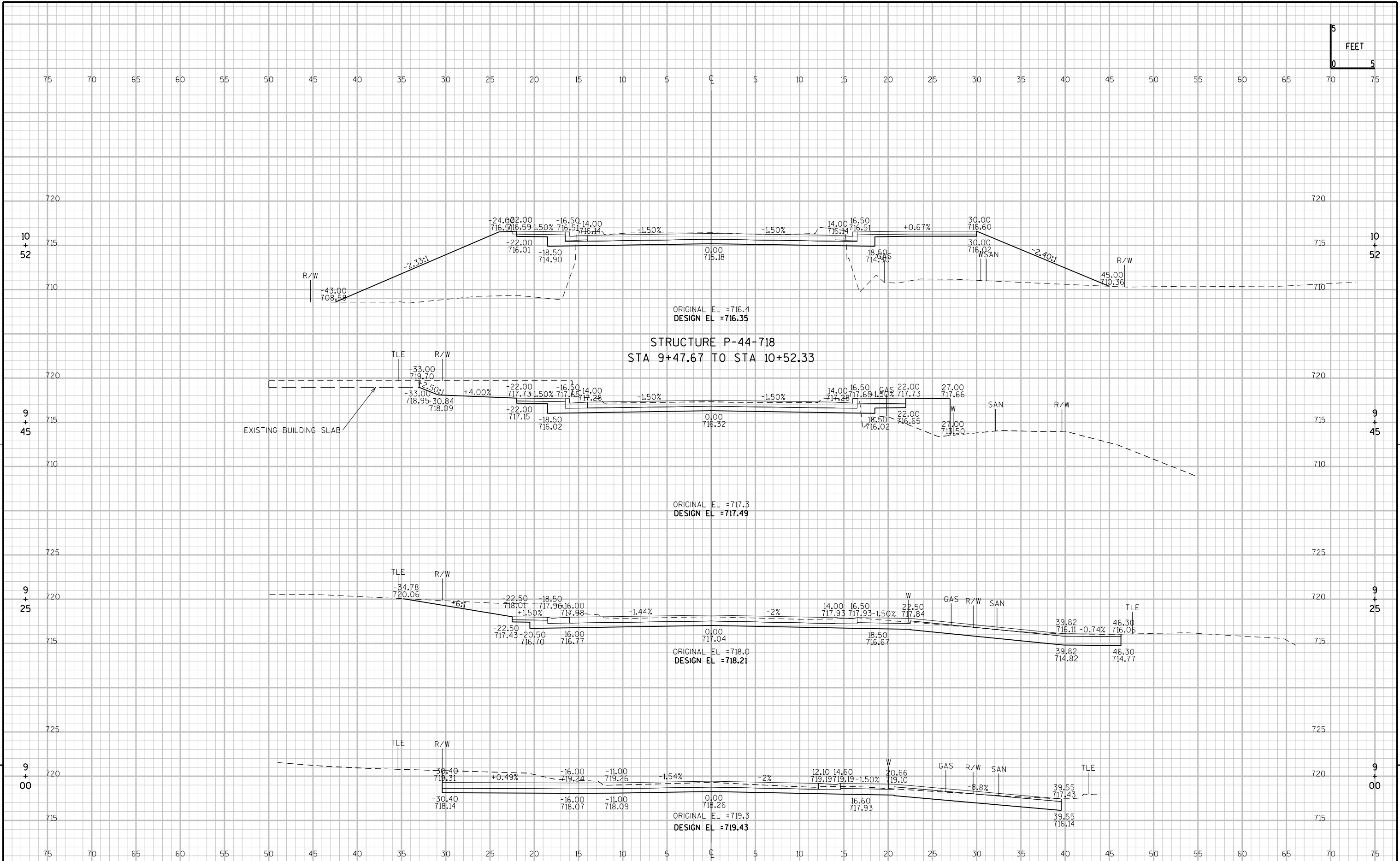
STATION	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
	Cut	Salvaged/ Unusable Pavement Material	Fill	Cut	Salvaged/ Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.3	
STRUCTURE	0	0	0	0	0	0	0	0	0
BEGINS ABRPUTLY	0	0	0	0	0	0	0	0	0
10+52.33	44	17	44	0	0	0	0	0	0
10+64.00	48	17	44	20	0	19	20	25	-5
END ABRUPTLY	0	0		0	0	0	20	25	-5

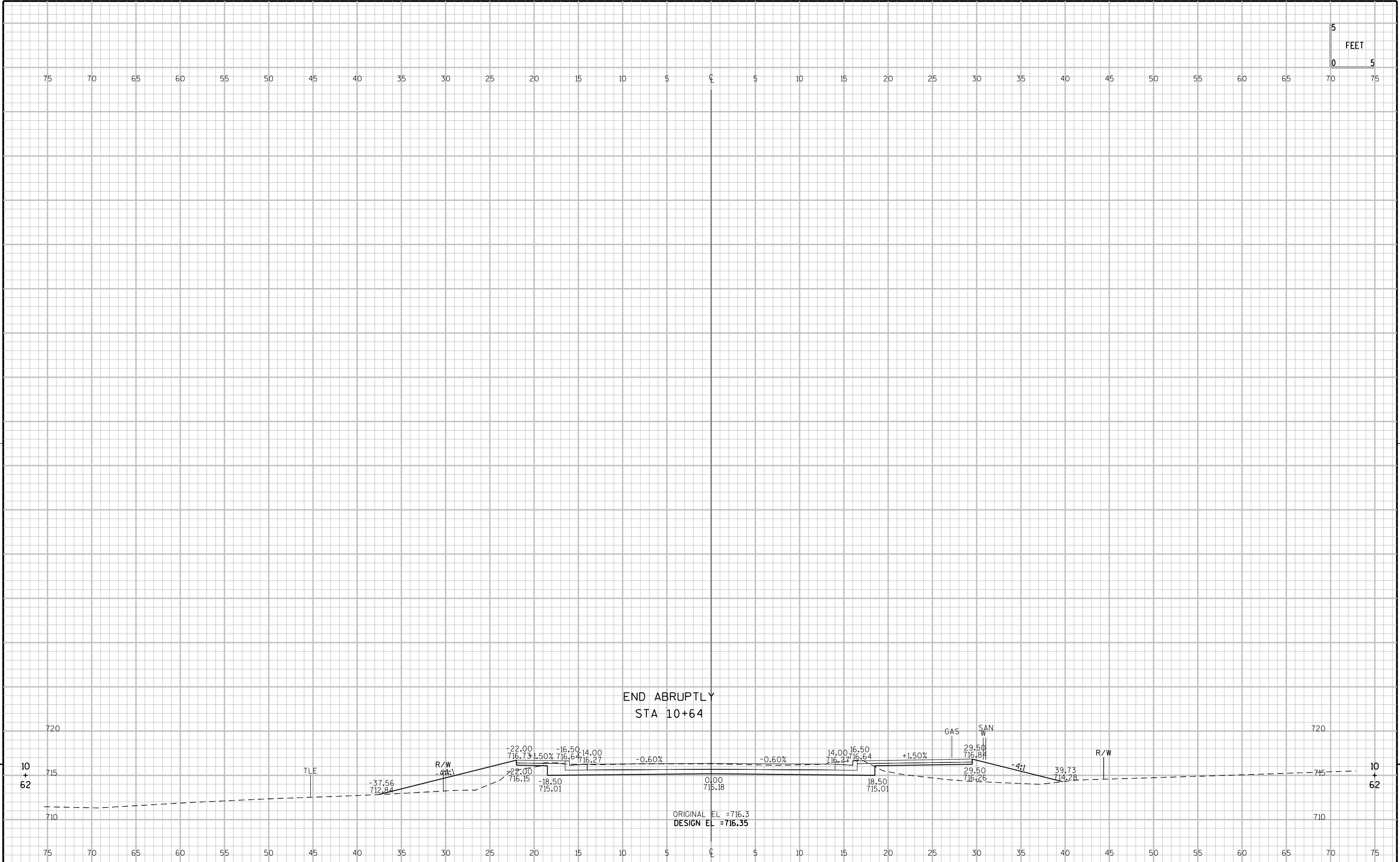


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FEET

9

9





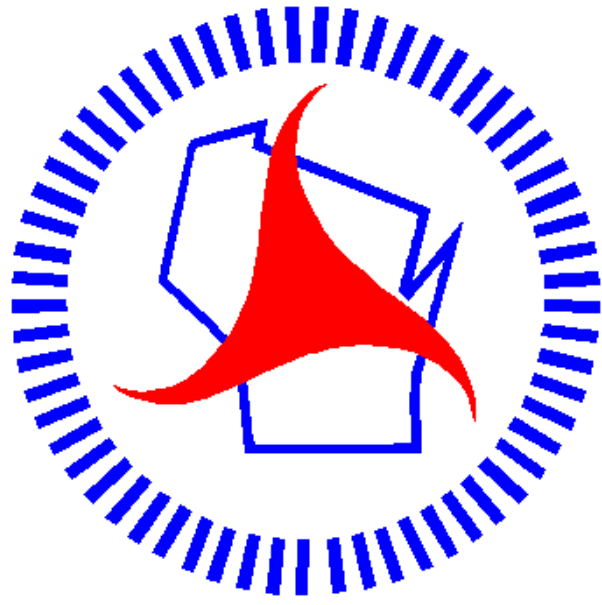
END ABRUPTLY
STA 10+64

10
+
62

10
+
62

9

9



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