

WKE MAY 2023

PROJECT ID: 1300-15-70

WITH:

COUNTY: MILWAUKEE

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 = 100



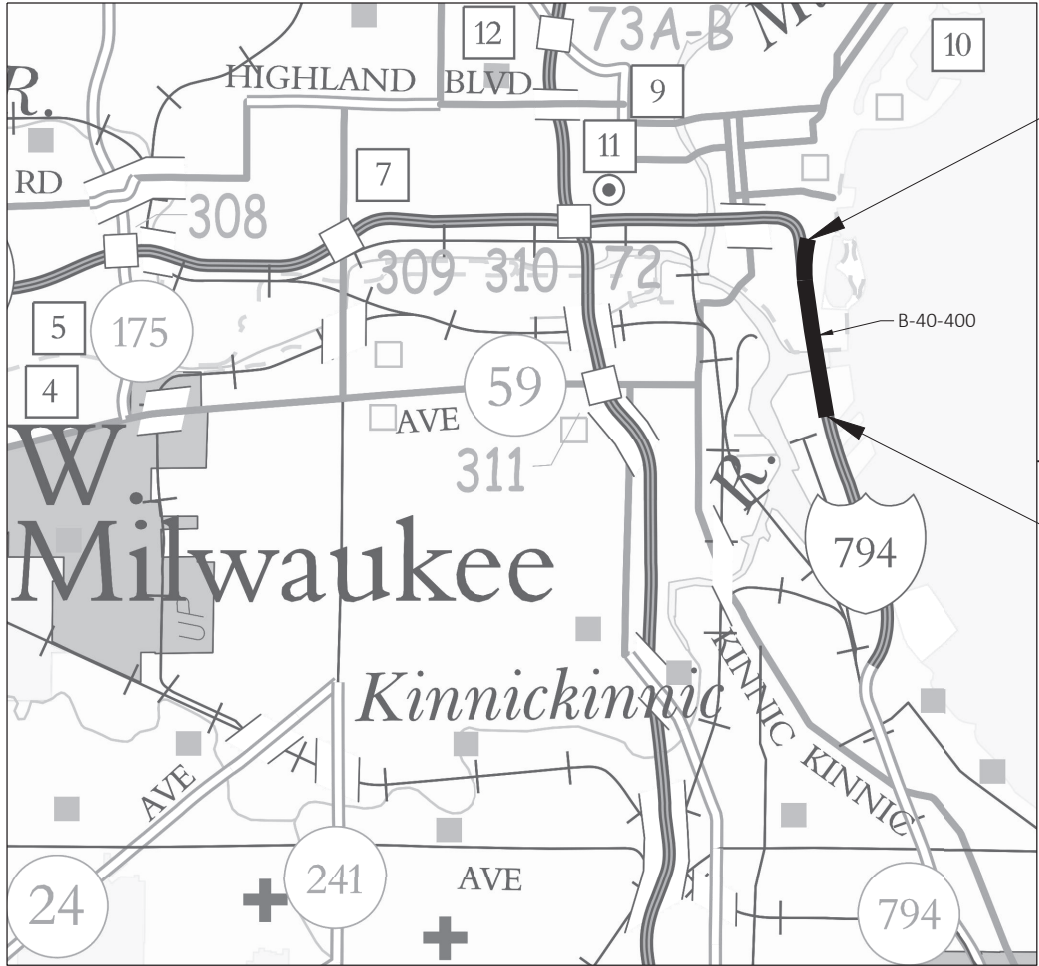
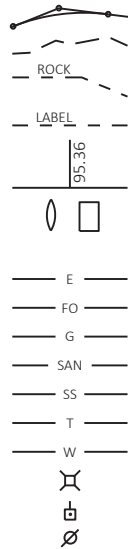
DESIGN DESIGNATION

A.A.D.T.	=
A.A.D.T.	=
D.H.V.	=
D.D.	=
T.	=
DESIGN SPEED	=
ESALS	=

CONVENTIONAL SYMBOLS

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

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



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MILWAUKEE COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (1991).

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1300-15-70		

END PROJECT 1300-15-70
STA 423+52

BEGIN PROJECT 1300-15-70
STA 126+34
Y = 293045.58
X = 609100.59

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	
Designer	WISDOT
Project Manager	AMANDA JOHANSEN
Regional Examiner	
Regional Supervisor	WAFA ELQAAQ
APPROVED FOR THE DEPARTMENT	
DATE: 1/20/23	Amanda Johansen (Signature)

E

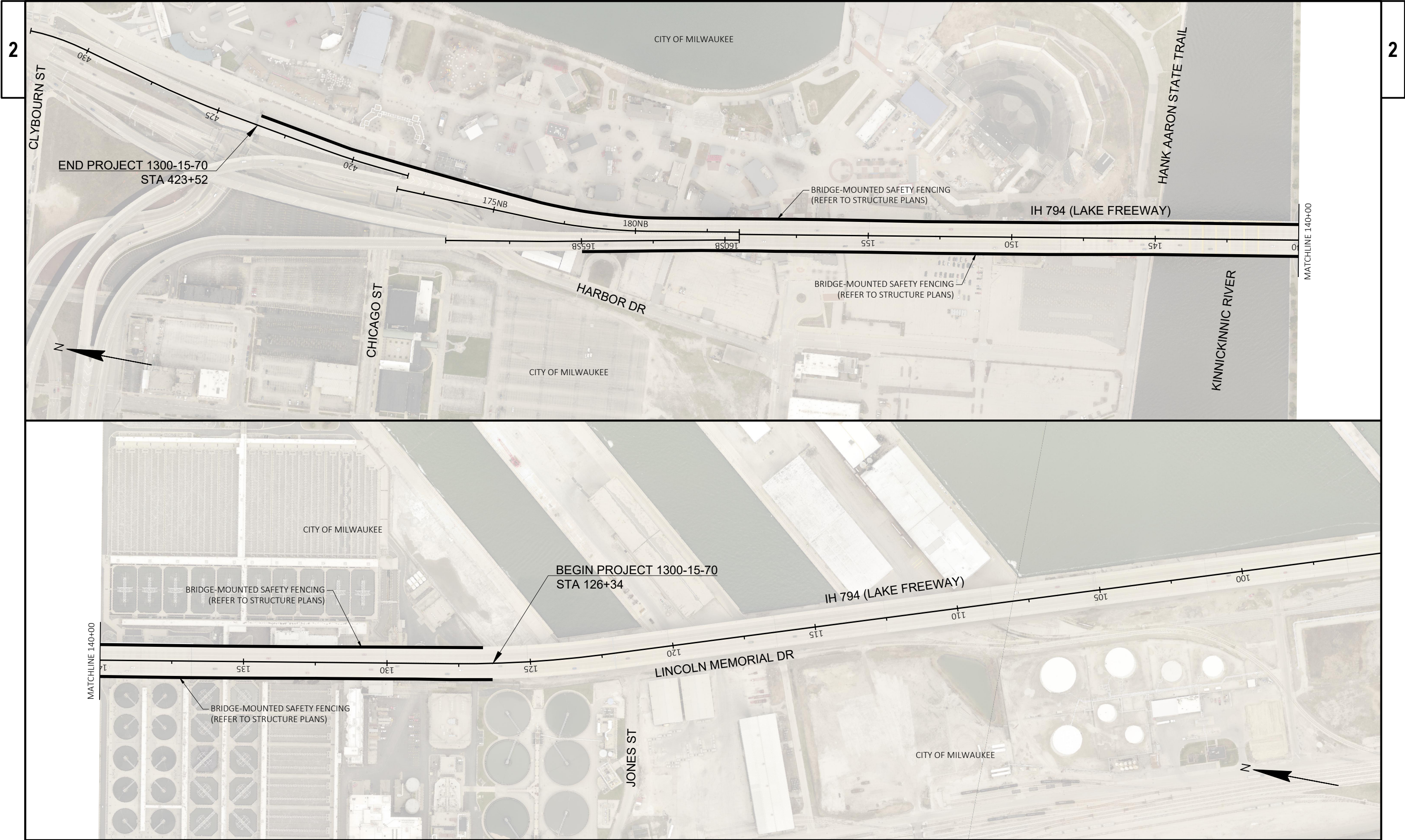
2	<div>GENERAL NOTES</div> <div>THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.</div>		UTILITY CONTACTS		2						
	<div>ORDER OF SECTION 2 DETAIL SHEETS</div> <div>GENERAL NOTES AND UTILITY CONTACTS PROJECT OVERVIEW PAVEMENT MARKING & EROSION CONTROL TRAFFIC CONTROL ALIGNMENT LAYOUT</div>										
	<div>OTHER CONTACTS</div> <div><div>WISCONSIN DEPARTMENT OF TRANSPORTATION</div><div>AMANDA JOHANSEN - PROJECT MANAGER 141 NW BARSTOW ST WAUKESHA, WI 53187 PHONE: (262) 521-4465 amanda.johansen@dot.wi.gov</div><div>WISCONSIN DEPARTMENT OF TRANSPORTATION</div><div>TOMMY CURRAN ENVIRONMENTAL COORDINATOR 141 NW BARSTOW ST WAUKESHA, WI 53187 PHONE: (262) 548-5682 thomas1.curran@dot.wi.gov</div><div>WISCONSIN DEPARTMENT OF TRANSPORTATION</div><div>AMANDA WILKER UTILITY COORDINATOR 141 NW BARSTOW ST WAUKESHA, WI 53187 PHONE: (262) 548-6478 CELL: (507) 676-4719 amanda.wilker@dot.wi.gov</div><div>MILWAUKEE COUNTY TRANSIT SYSTEM (MCTS)</div><div>1942 N 17TH ST MILWAUKEE, WI 53205</div><div>ARMOND SENSABAUGH TRANSPORTATION COORDINATOR (DETOURS) PHONE: (414) 343-1728 asensabaugh@mcts.org</div><div>DAVID LOCHER TRANSPORTATION MANAGER (BUS STOPS) PHONE: (414) 343-1727</div><div>LIGHT THE HOAN</div><div>MICHAEL HOSTAD 204 E CALUMET ROAD FOX POINT, WI 53217 PHONE: (414) 651-3141 michael@lightthehoan.com</div><div>PORT OF MILWAUKEE - RAILROAD FACILITY</div><div>BRIAN KASPRZYK 2323 S LINCOLN MEMORIAL DR MILWAUKEE, WI 53207 PHONE: (414) 286-8141 CELL: (414) 708-4213 bkaspr@milwaukee.gov</div><div>WISCONSIN DEPARTMENT OF TRANSPORTATION - COMMUNICATION LINE</div><div>JOHN MITTELSTADT 433 W. ST. PAUL AVE SUITE 300 MILWAUKEE, WI 53203-3007 PHONE: (608) 205-7859 john.mittelstadt@dot.wi.gov</div><div>WISCONSIN DEPARTMENT OF TRANSPORTATION - STREET LIGHTING</div><div>ERIC PEREA 141 NW BARSTOW STREET WAUKESHA, WI 53188 PHONE: (262) 574-5422 Eric.Perea@dot.wi.gov</div></div>										
PROJECT NO:1300-15-70		HWY: IH 794		COUNTY: MILWAUKEE		GENERAL NOTES & UTILITY CONTACTS		SHEET		E	

<div>AT&T WISCONSIN - COMMUNICATION LINE</div> <div>MATHEW DINNAUER 435 S. 95TH ST MILWAUKEE, WI 53214-1226 PHONE: (262) 237-0042 md9542@att.com</div>		<div>LEVEL 3 COMMUNICATIONS LLC - COMMUNICATION LINE</div> <div>BRAHIM GADDOUR 3235 INTERTECH DR, SUITE 600 BROOKFIELD, WI 53045 PHONE: (414) 908-1027 CELL: (414) 704-1026 brahim.gaddour@lumen.com</div>	
<div>CITY OF MILWAUKEE - COMMUNICATION LINE</div> <div>JOE MACIEJEWSKI 841 N BROADWAY, ROOM 501 MILWAUKEE, WI 53202 PHONE: (414) 708-7992 jmacie@milwaukee.gov</div>		<div>MILWAUKEE METROPOLITAN SEWERAGE DISTRICT - SEWER</div> <div>MICKI KLAPP-SULLIVAN 260 W SEEBOTH ST MILWAUKEE, WI 53204 PHONE: (414) 225-2178 CELL: (414) 416-5689 MKlappaSullivan@mmsd.com</div>	
<div>CITY OF MILWAUKEE - SEWER</div> <div>ZAFAR YOUSUF 841 N BROADWAY MILWAUKEE, WI 53202 PHONE: (414) 286-2467 zyousu@milwaukee.gov</div>		<div>SPECTRUM - COMMUNICATION LINE</div> <div>CHARLES BRASILE 1320 N DR MARTIN LUTHER KING JR DR MILWAUKEE, WI 53212 PHONE: (414) 908-4822 CELL: (414) 430-5812 charles.brasile@charter.com</div>	
<div>CITY OF MILWAUKEE - STREET LIGHTING</div> <div>MARK MACRAE 1540 W CANAL STREET MILWAUKEE, WI 53233 PHONE: (414) 286-5928 CELL: (414) 708-0734 mwrap@milwaukee.gov</div>		<div>WE ENERGIES - ELECTRICITY</div> <div>ALEX DANTINNE 500 S 116TH ST WEST ALLIS, WI 53214 PHONE: (920) 621-6903 alex.dantinne@we-energies.com</div>	
<div>CITY OF MILWAUKEE - WATER</div> <div>MILWAUKEE WATER WORKS CONTROL CENTER 841 N BROADWAY, ROOM 409 MILWAUKEE, WI 53202 PHONE: (414) 286-3710</div>		<div>WE ENERGIES - GAS/PETROLEUM</div> <div>ALEX DANTINNE 500 S 116TH ST WEST ALLIS, WI 53214 PHONE: (920) 621-6903 alex.dantinne@we-energies.com</div>	
<div>CITY OF MILWAUKEE - WISCONSIN SIGNAL</div> <div>RUDY GUTIERREZ 1540 W CANAL STREET MILWAUKEE, WI 53233 PHONE: (414) 286-5941 CELL: (414) 708-5148 rudy.gutierrez@milwaukee.gov</div>		<div>WEST SHORE PIPE LINE COMPANY- GAS/PETROLEUM</div> <div>ARIC AUFDERMAUER FIVE TEK PARK, 9999 HAMILTON BLVD BREINIGSVILLE, PA 18031 PHONE: (414) 391-8102 aaufdermauer@buckeye.com</div>	
<div>CITY OF MILWAUKEE - UNDERGROUND CONDUIT</div> <div>KAREN ROGNEY 841 N BROADWAY MILWAUKEE, WI 53202 PHONE: (414) 286-3243 krogne@milwaukee.gov</div>			

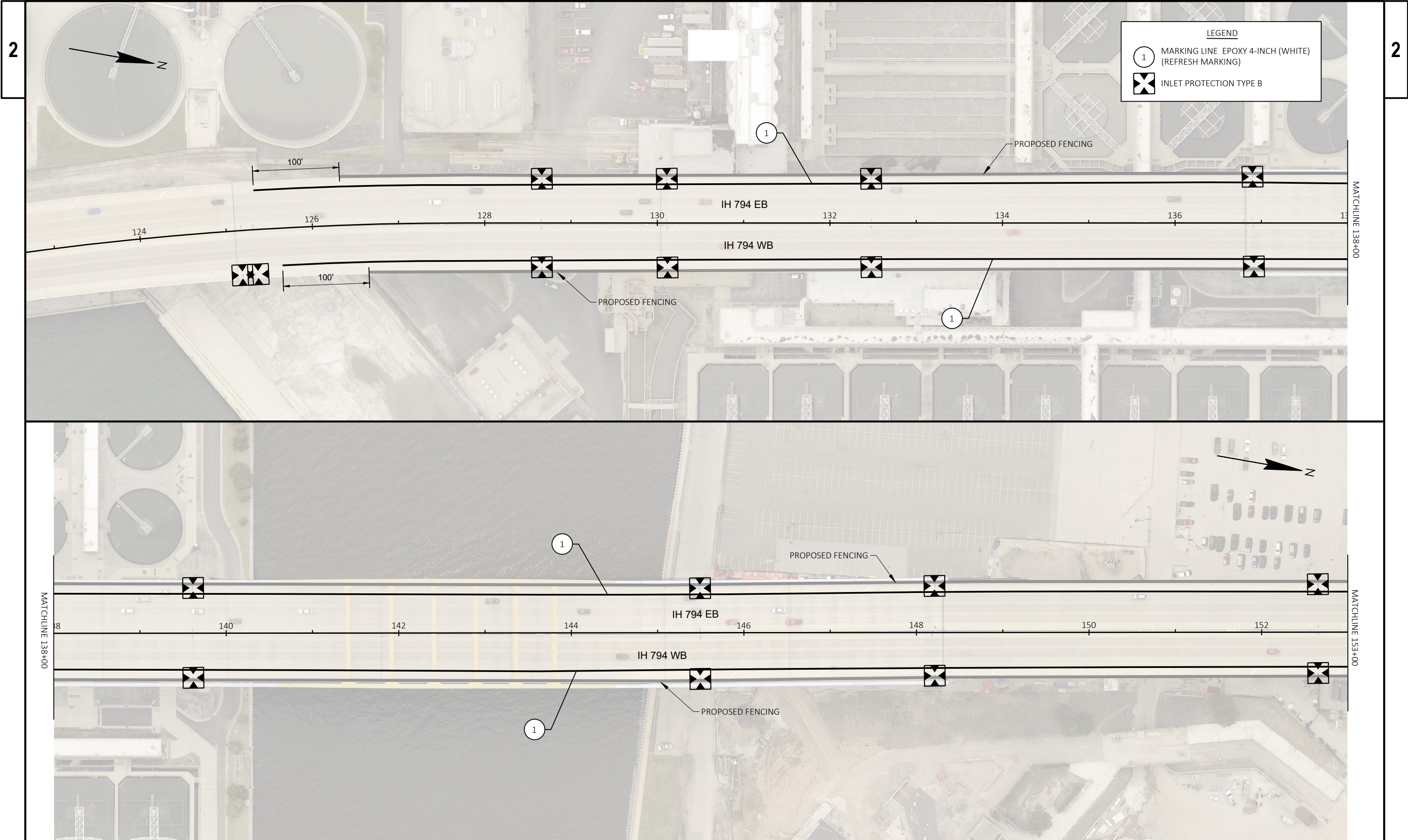
DIGGERSHOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com



PROJECT NO: 1300-15-70	HWY: IH 794	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET	E
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PROJECT NO: 1300-15-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING & EROSION CONTROL	SHEET	E
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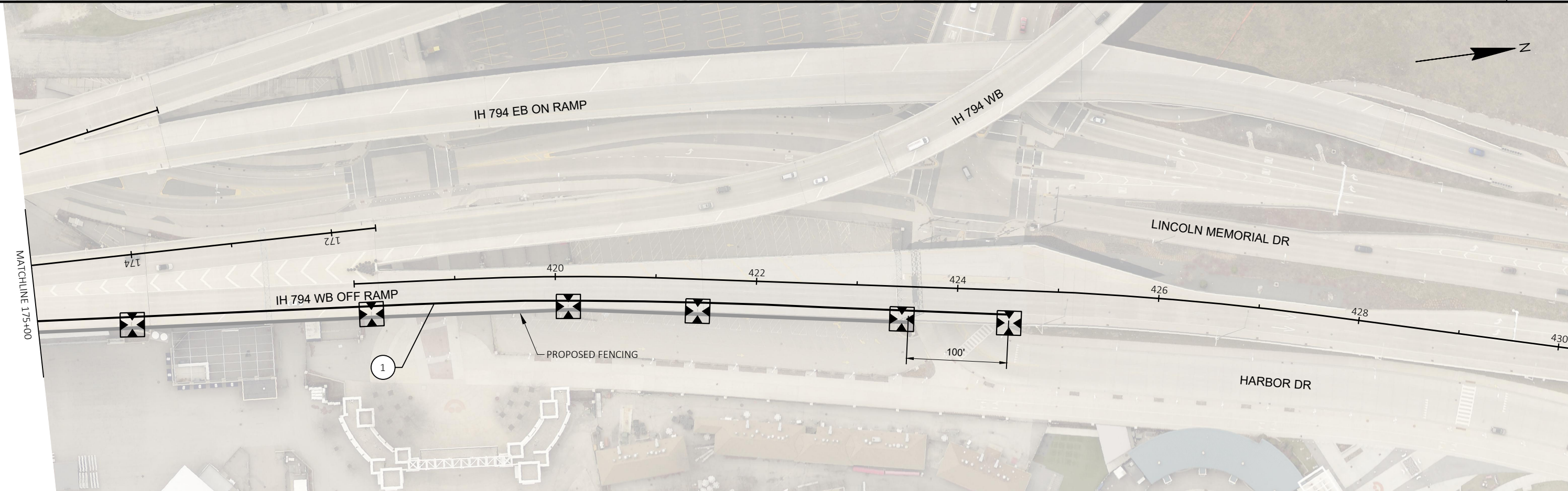
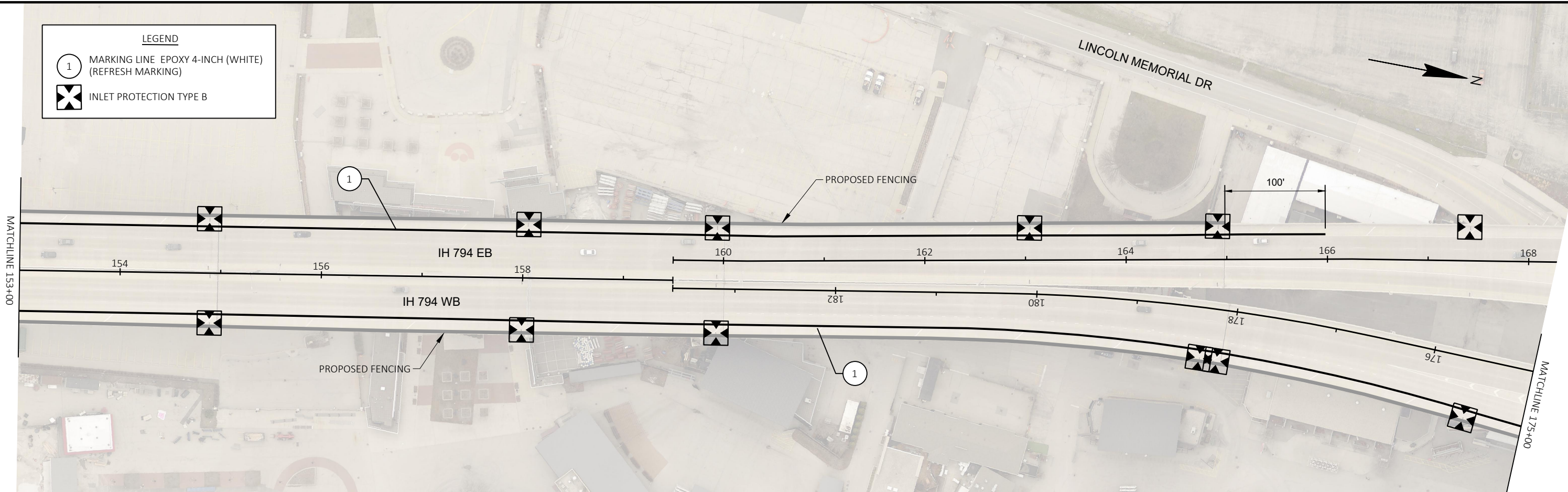
LEGEND

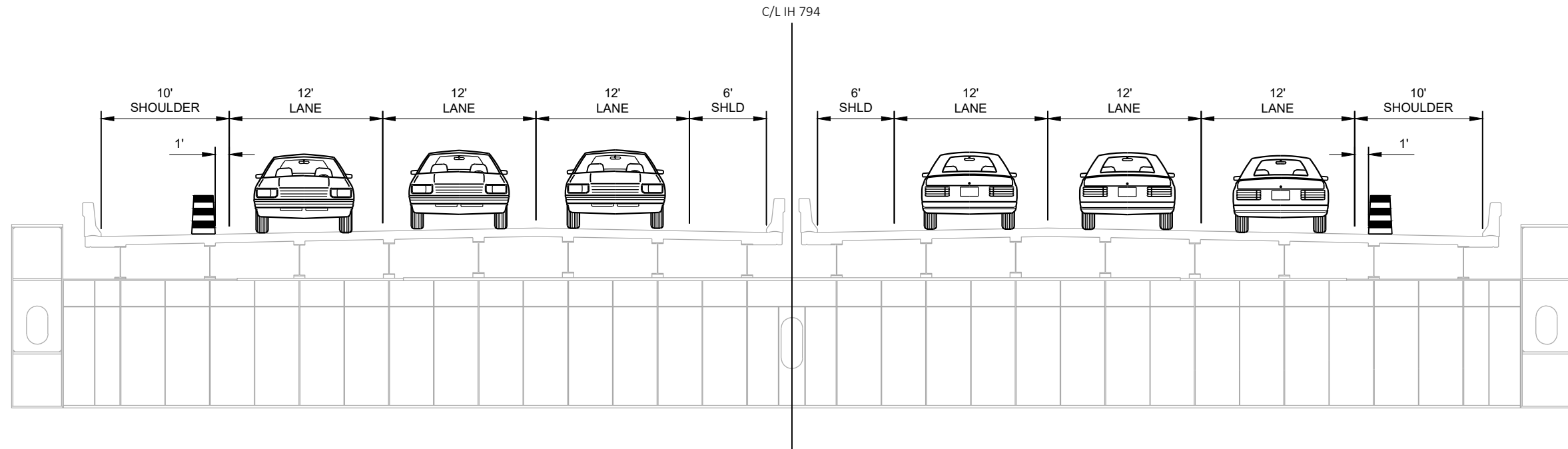
1

MARKING LINE EPOXY 4-INCH (WHITE)
(REFRESH MARKING)

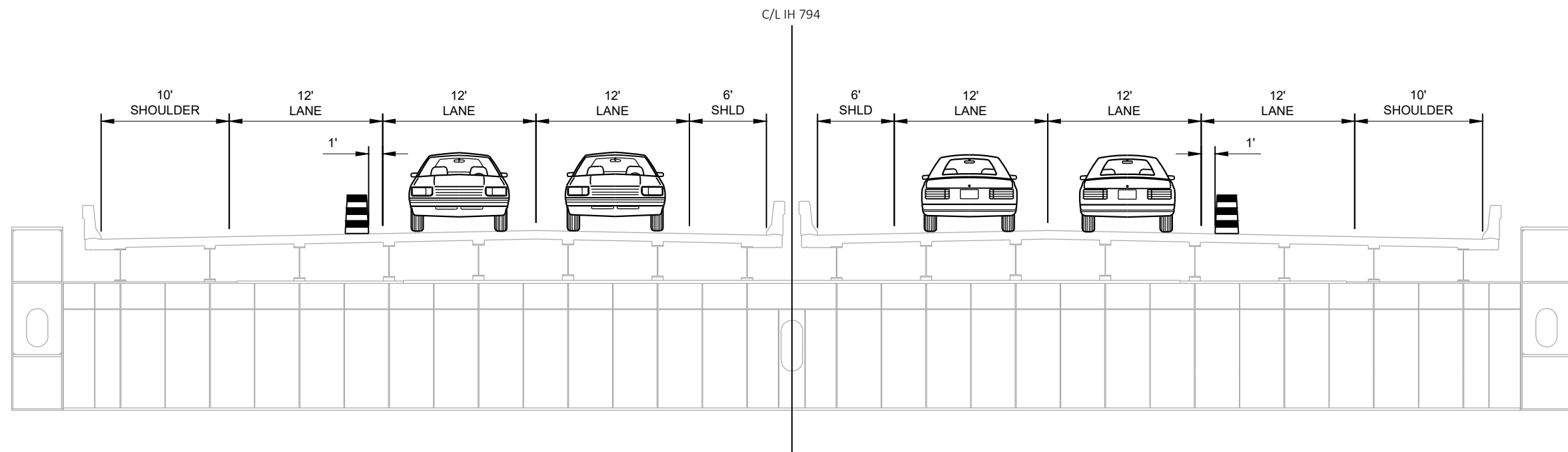
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INLET PROTECTION TYPE B

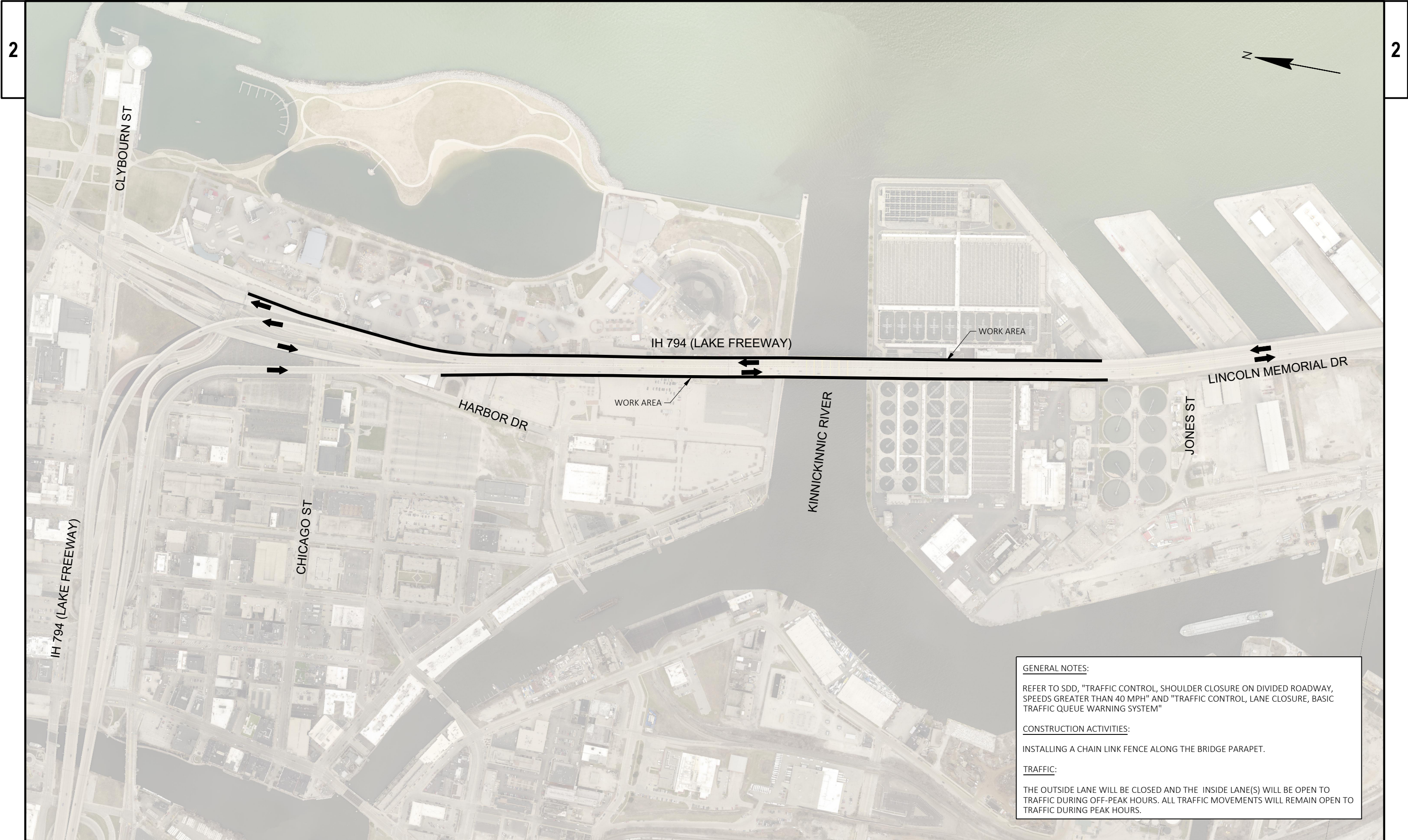




TYPICAL SECTION
I-794 (SHOULDER CLOSURE)



TYPICAL SECTION
I-794 (LANE CLOSURE)



GENERAL NOTES:

REFER TO SDD, "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" AND "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM"

CONSTRUCTION ACTIVITIES:

INSTALLING A CHAIN LINK FENCE ALONG THE BRIDGE PARAPET.

TRAFFIC:

THE OUTSIDE LANE WILL BE CLOSED AND THE INSIDE LANE(S) WILL BE OPEN TO TRAFFIC DURING OFF-PEAK HOURS. ALL TRAFFIC MOVEMENTS WILL REMAIN OPEN TO TRAFFIC DURING PEAK HOURS.

LEGEND

TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS

TYPE III BARRICADE WITH ATTACHED SIGN WITH TWO TYPE "A" LIGHTS

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT

FLASHING ARROW BOARD

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

PORTABLE TRAFFIC SENSOR (PTS)

FLASHING BEACON SIGN

STOPPED OR
SLOW TRAFFIC
WHEN FLASHING

WO8-76
96"x48"

NOTE:

TRAFFIC CONTROL SHOWN IS FOR NIGHTTIME WORK. OUTSIDE SHOULDER CLOSURES ARE REQUIRED FOR DAYTIME WORK. REFER TO SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH."

The figure is an aerial photograph of a highway section, specifically IH 794, showing a traffic control layout for nighttime work. The layout is overlaid on the road, which is divided into two lanes: IH 794 EB (Eastbound) and IH 794 WB (Westbound). The layout includes various traffic control devices such as Type III barricades, traffic control drums, and flashing beacon signs (FBS). Distances between these devices are marked along the road. A north arrow is located in the top right corner. The layout also includes a 'MATCHLINE 108+00' on the right side. The background shows a large industrial facility with several large circular storage tanks.

PROJECT NO: 1300-15-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SHEET	E
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FILE NAME : \\WKERTOVFILP01\N3PUBLIC\PD5\C3D\13001500\SHEETSPLAN\025102_TC.DWG LAYOUT NAME - 01	PLOT DATE : 11/15/2022 2:34 PM	PLOT BY : JOHANSEN, AMANDA A	PLOT NAME :	PLOT SCALE : 1 IN:100 FT	WISDOT/CADDs SHEET 42
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LEGEND

TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS

TYPE III BARRICADE WITH ATTACHED SIGN WITH TWO TYPE "A" LIGHTS

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT

FLASHING ARROW BOARD

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

PORTABLE TRAFFIC SENSOR (PTS)

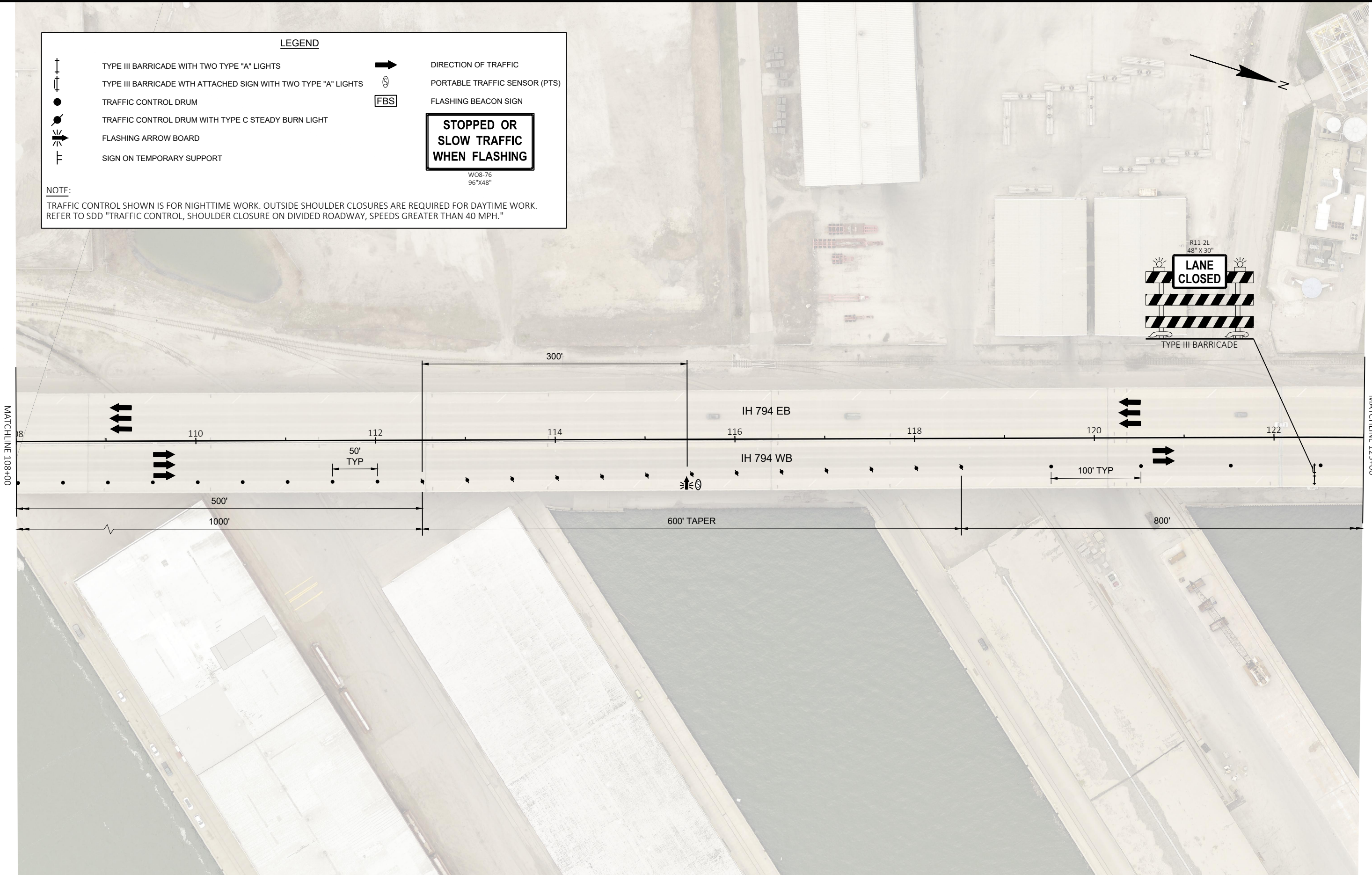
FLASHING BEACON SIGN

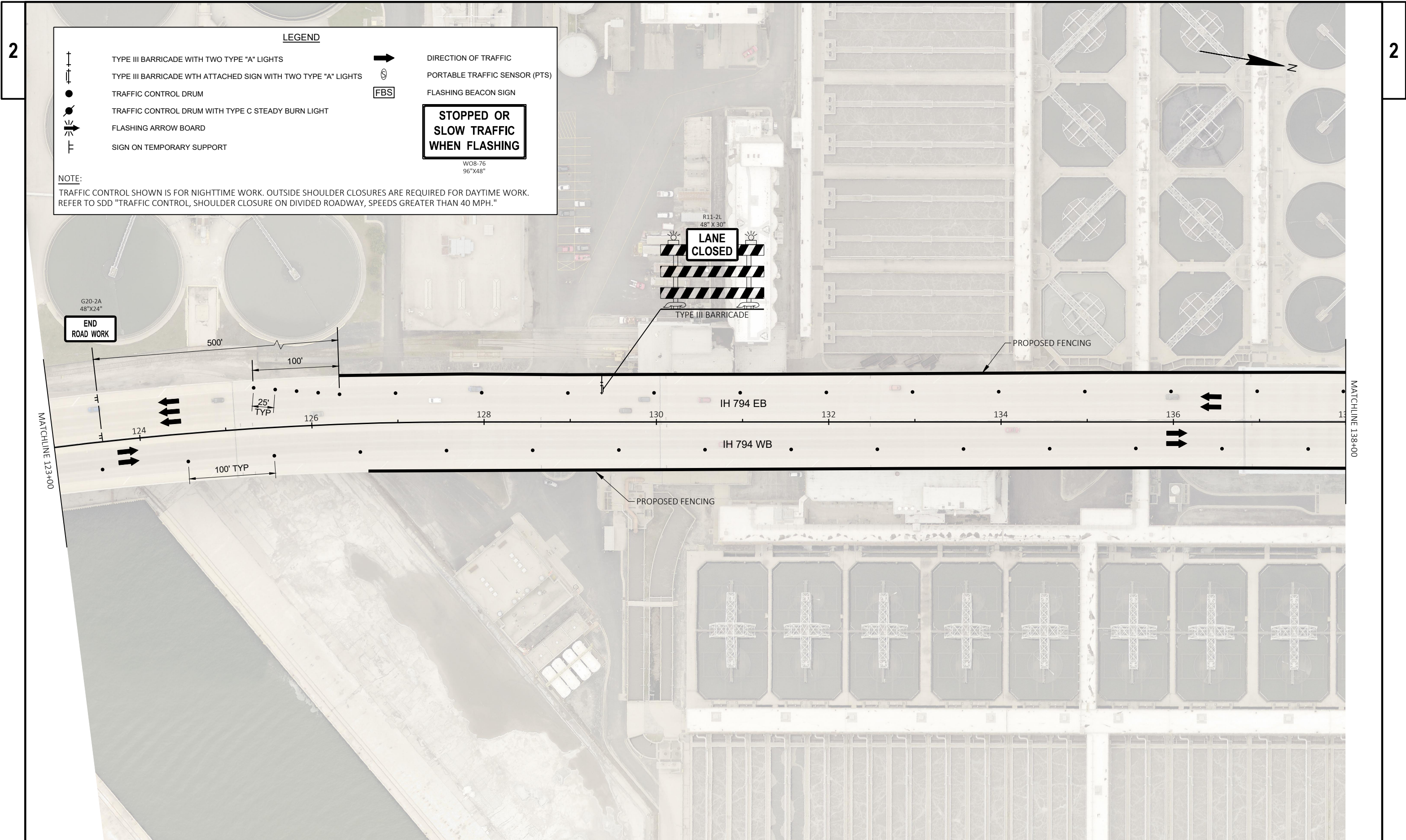
STOPPED OR SLOW TRAFFIC WHEN FLASHING

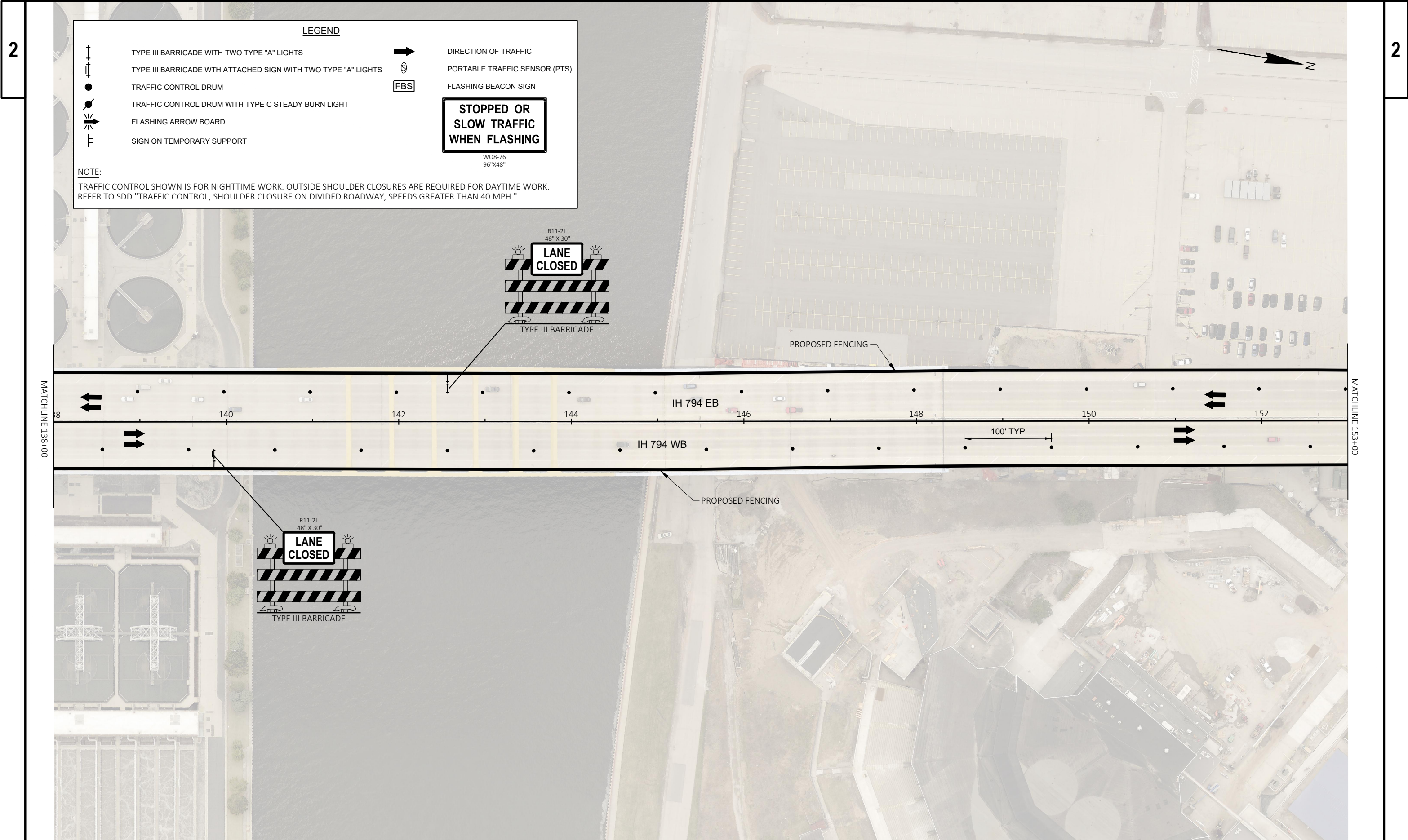
W08-76
96"X48"

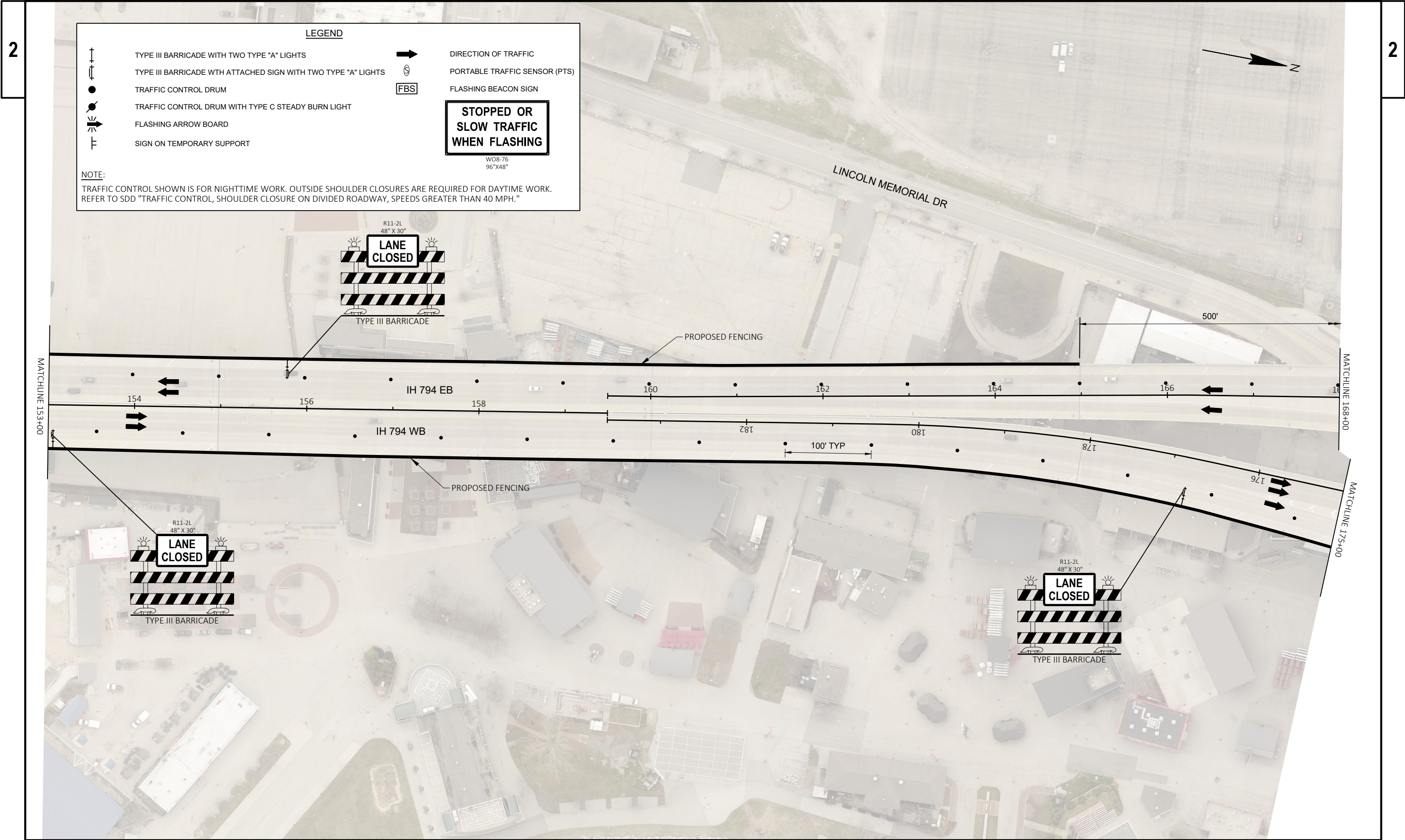
NOTE:

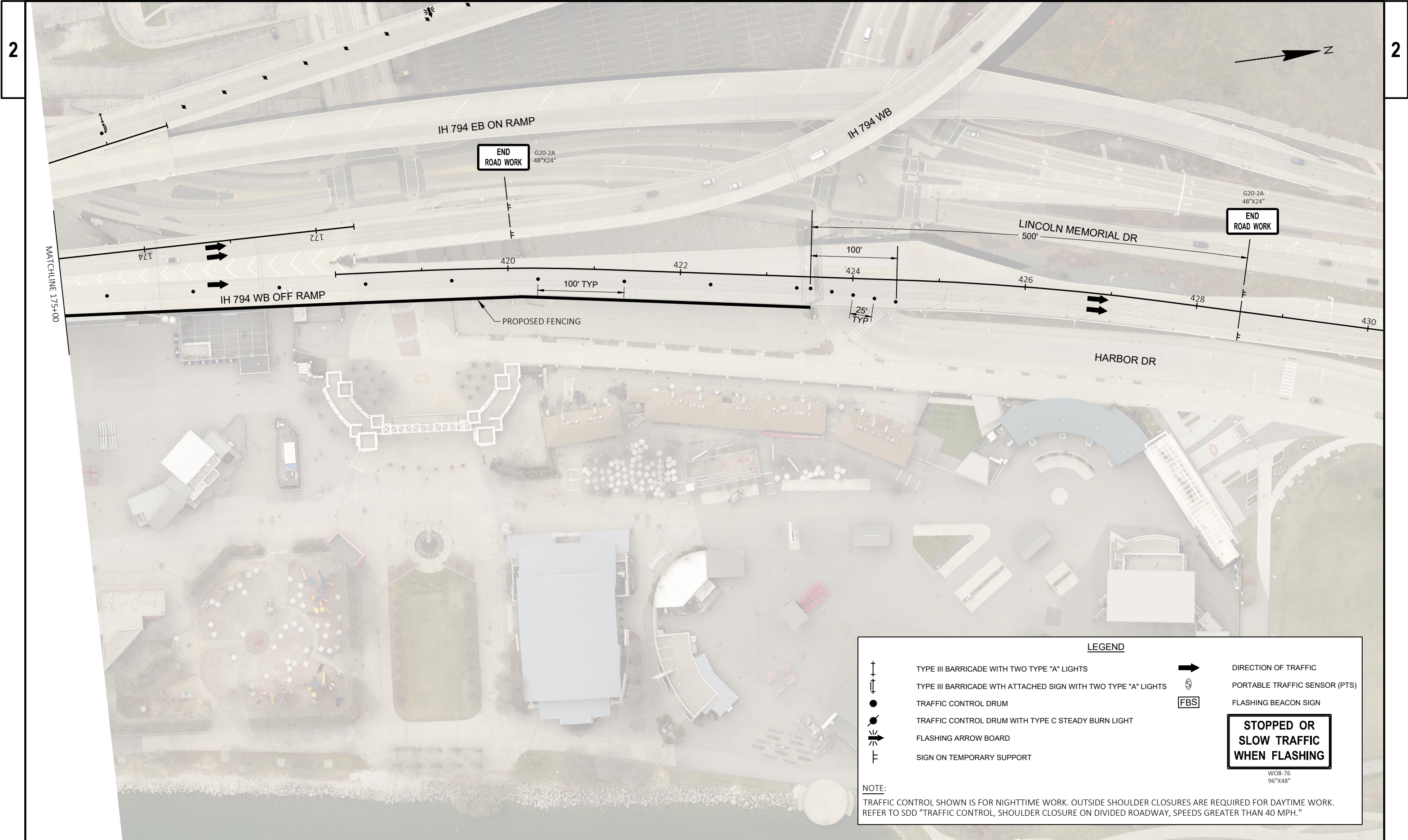
TRAFFIC CONTROL SHOWN IS FOR NIGHTTIME WORK. OUTSIDE SHOULDER CLOSURES ARE REQUIRED FOR DAYTIME WORK. REFER TO SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH."











LEGEND

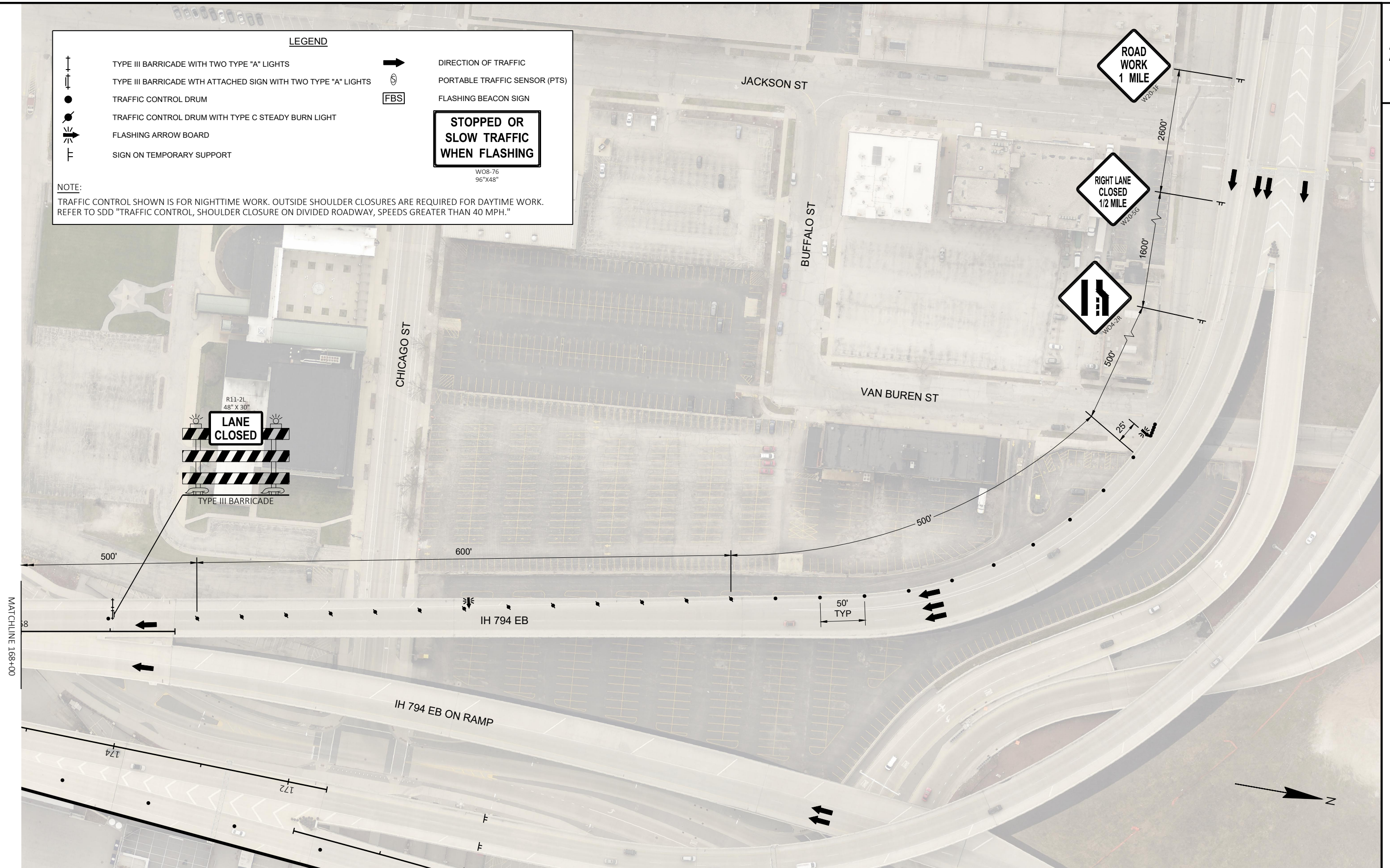
	TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS		DIRECTION OF TRAFFIC
	TYPE III BARRICADE WITH ATTACHED SIGN WITH TWO TYPE "A" LIGHTS		PORTABLE TRAFFIC SENSOR (PTS)
	TRAFFIC CONTROL DRUM		FLASHING BEACON SIGN
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		
	FLASHING ARROW BOARD		
	SIGN ON TEMPORARY SUPPORT		

**STOPPED OR
SLOW TRAFFIC
WHEN FLASHING**

W08-76
96"X48"

NOTE:

TRAFFIC CONTROL SHOWN IS FOR NIGHTTIME WORK. OUTSIDE SHOULDER CLOSURES ARE REQUIRED FOR DAYTIME WORK. REFER TO SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH."



PROJECT NO: 1300-15-70

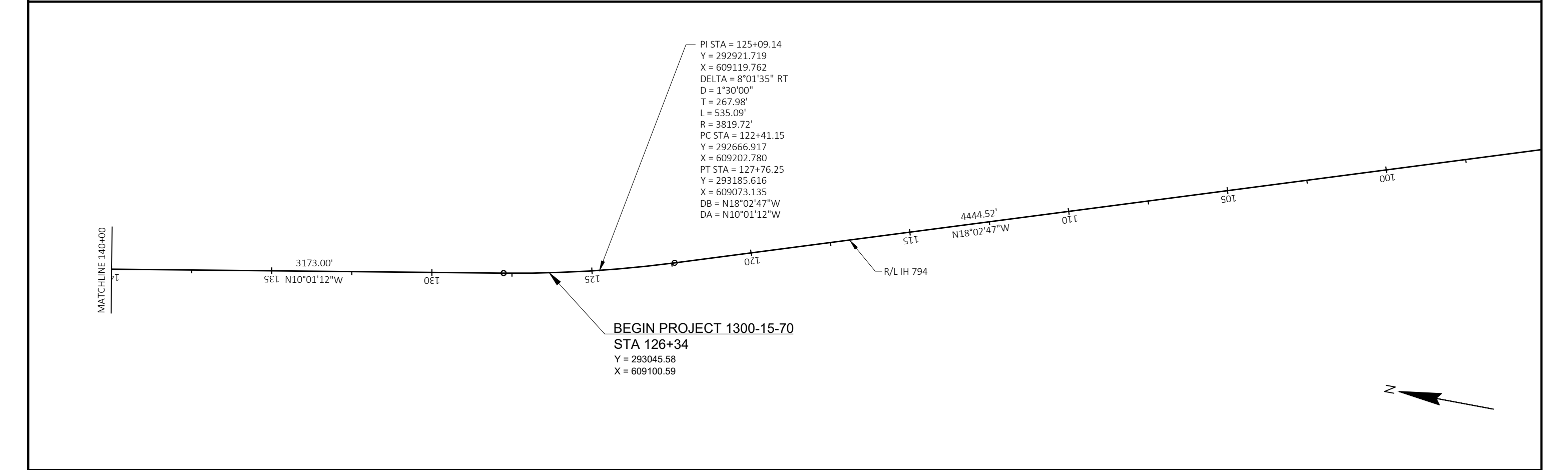
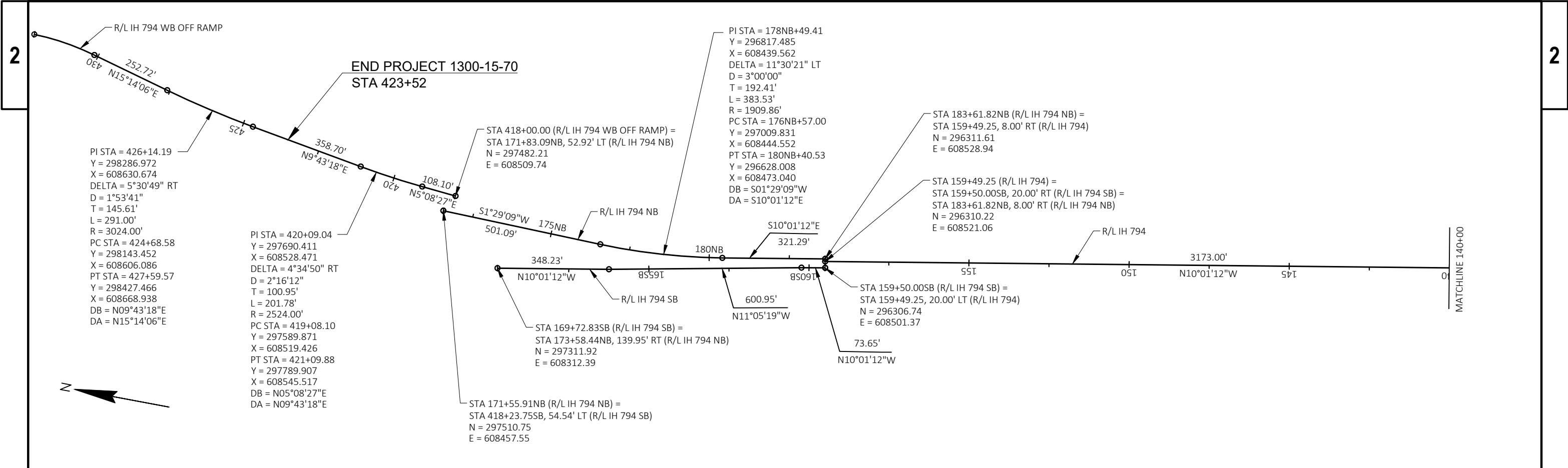
HWY: IH 794

COUNTY: MILWAUKEE

TRAFFIC CONTROL

SHEET

E



Estimate Of Quantities

1300-15-70					
Line	Item	Item Description	Unit	Total	Qty
0002	213.0100	Finishing Roadway (project) 01. 1300-15-70	EACH	1.000	1.000
0004	509.1500	Concrete Surface Repair	SF	40.000	40.000
0006	616.0206	Fence Chain Link 6-FT	LF	9,094.000	9,094.000
0008	616.0329	Gates Chain Link (width) 01. 4-FT	EACH	38.000	38.000
0010	619.1000	Mobilization	EACH	1.000	1.000
0012	628.7010	Inlet Protection Type B	EACH	36.000	36.000
0014	638.2102	Moving Signs Type II	EACH	5.000	5.000
0016	638.2602	Removing Signs Type II	EACH	2.000	2.000
0018	638.3000	Removing Small Sign Supports	EACH	2.000	2.000
0020	643.0300	Traffic Control Drums	DAY	19,700.000	19,700.000
0022	643.0420	Traffic Control Barricades Type III	DAY	1,600.000	1,600.000
0024	643.0705	Traffic Control Warning Lights Type A	DAY	3,200.000	3,200.000
0026	643.0715	Traffic Control Warning Lights Type C	DAY	2,600.000	2,600.000
0028	643.0800	Traffic Control Arrow Boards	DAY	400.000	400.000
0030	643.0900	Traffic Control Signs	DAY	32,000.000	32,000.000
0032	643.1205.S	Basic Traffic Queue Warning System	DAY	80.000	80.000
0034	643.4100	Traffic Control Interim Lane Closure	EACH	181.000	181.000
0036	643.5000	Traffic Control	EACH	1.000	1.000
0038	646.1020	Marking Line Epoxy 4-Inch	LF	9,269.000	9,269.000
0040	646.7120	Marking Diagonal Epoxy 12-Inch	LF	100.000	100.000
0042	SPV.0060	Special 01. Unit 1A/1B Platform	EACH	4.000	4.000
0044	SPV.0060	Special 02. Lock Box	EACH	2.000	2.000

INLET PROTECTION

		628.7010
		INLET PROTECTION
CATEGORY	LOCATION	TYPE B EACH
1000	IH 794 WB	22
	IH 794 EB	14
TOTAL		36

PAVEMENT MARKING

		646.1020	646.7120
		MARKING LINE EPOXY 4-INCH LF	MARKING DIAGONAL EPOXY 12-INCH LF
CATEGORY	LOCATION		
1000	IH 794 WB	5,204	--
	IH 794 EB	4,065	--
UNDISTRIBUTED		--	100
TOTAL		9,269	100

TRAFFIC CONTROL

		643.0300		643.0420		643.0705		643.0715		643.0800		643.0900		643.4100	
		TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADE TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL WARNING LIGHTS TYPE C		TRAFFIC CONTROL ARROW BOARDS		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL INTERIM LANE CLOSURE EACH	
CATEGORY	LOCATION	DURATION DAYS	*EACH	DAYS	*EACH	DAYS	*EACH	DAYS	*EACH	DAYS	*EACH	DAYS	*EACH	DAYS	
1000	IH 794 WB	80	121	9,680	8	640	16	1,280	13	1,040	2	160	14	12,800	80
	IH 794 EB	65	76	6,080	8	640	16	1,280	13	1,040	2	160	9	12,800	65
UNDISTRIBUTED				3,940		320		640		520		80		6,400	36
TOTAL				19,700		1,600		3,200		2,600		400		32,000	181

*FOR INFORMATION ONLY

BASIC TRAFFIC QUEUE WARNING SYSTEM (ITEM 643.1205.S)

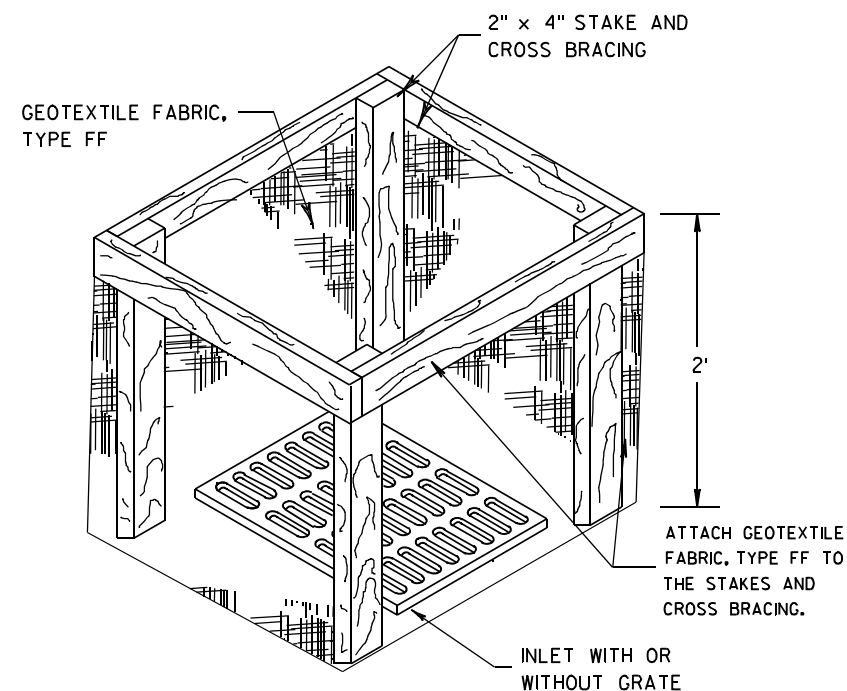
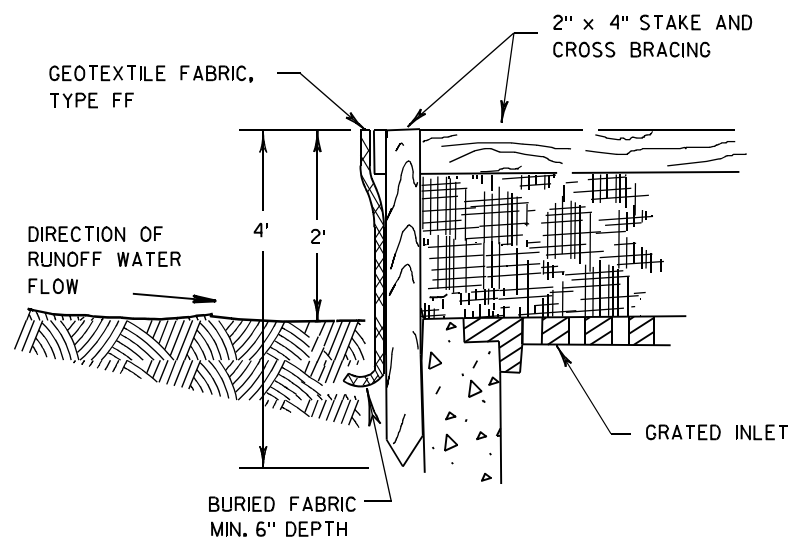
CATEGORY	LOCATION	FLASHING BEACON SIGNS (FBS)	PORTABLE TRAFFIC SENSORS (PTS)	BASIC QUEUE WARNING SYSTEM DAY
1000	IH 794 WB	3	3	80

THESE ITEMS ARE PART OF THE QWS AND ARE PAID FOR ONE COMPLETE SYSTEM PER ROADWAY

TYPE II PERMANENT SIGNING			1300-15-70			
SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP [EA]	REMARKS / NEW SIGN LOCATION
1	NONE	LAKESHORE STATE PARK	1			LOCATED ON S-40-330 ON NORTHBOUND IH 794 NEAR STATION 130 . MOUNT SIGN UP HIGHER ON SIGN STRUCTURE UPRIGHT ABOVE THE NEW FENCE TO AVOID BLOCKING SIGN
		EXIT 1F				MOUNTING BRACKET INCIDENTAL PER A5-10 SIGN PLATE. NO SIGNING PLAN
2	W13-2	EXIT 35 MPH	1			LOCATED ON S-40-850 ON NORTHBOUND IH 794 NEAR STATION 420 AT LINCOLN MEMORIAL DRIVE EXIT RAMP ON UPRIGHT OF SIGN STRUCTURE. MOVE SIGN UP HIGHER ON SIGN STRUCTURE SO NOT BLOCKED BY FENCE
						MOUNTING BRACKET INCIDENTAL PER A5-10 SIGN PLATE. NO SIGNING PLAN
3	W3-3	SIGNAL AHEAD	1		1	MOVE SIGN TO UPRIGHT OF S-40-853 ALONG RAMP AROUND STATION 423. PRESENTLY LOCATED ON STEEL POST MOUNTED TO TOP OF WALL. NO SIGNING PLAN. MOUNTING BRACKET INCIDENTAL PER STATE PLATE A5-10
		UNDISTRIBUTED	2	2	1	
			5	2	2	

Standard Detail Drawing List

08E10-02	INLET PROTECTION TYPE A, B, C AND D
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C08-22A	LONGITUDINAL MARKING (MAINLINE)
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D12-10A	TRAFFIC CONTROL, LANE CLOSURE
15D12-10D	TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH



INLET PROTECTION, TYPE A

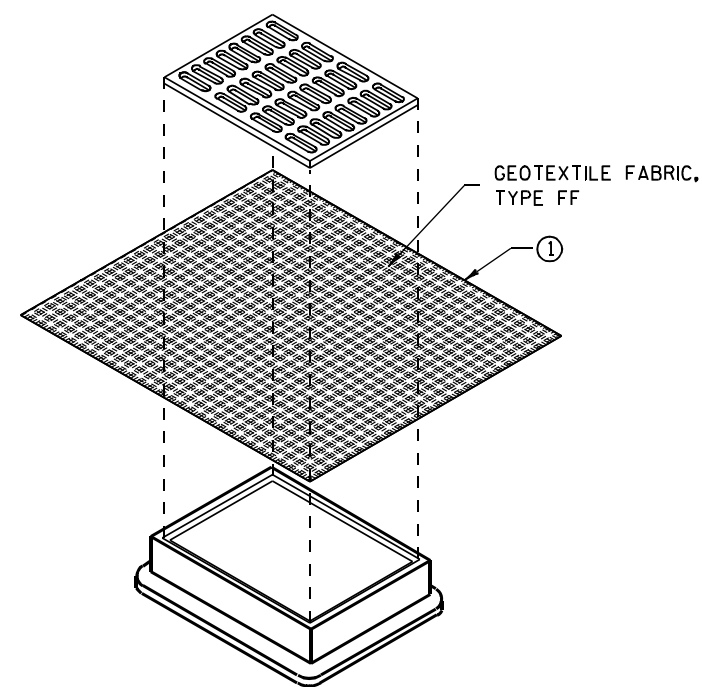
GENERAL NOTES

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.

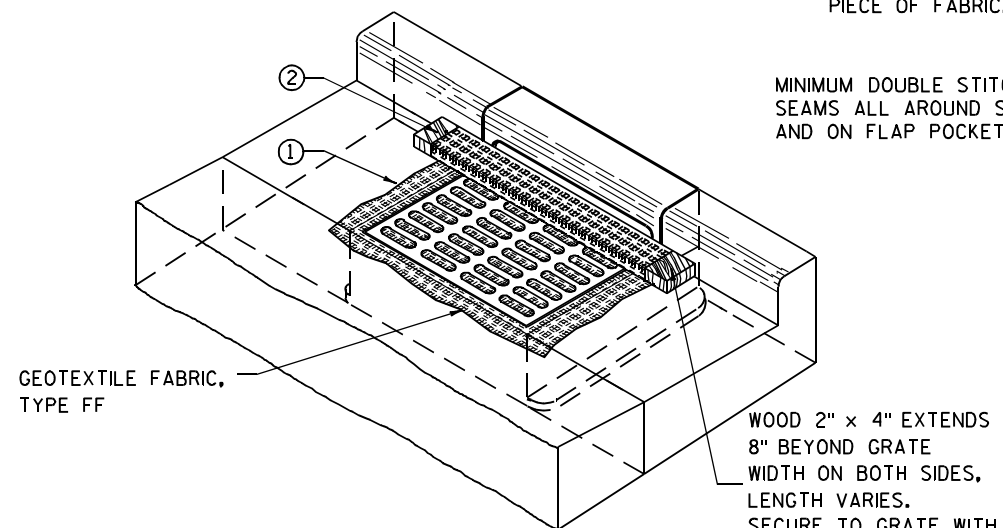
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

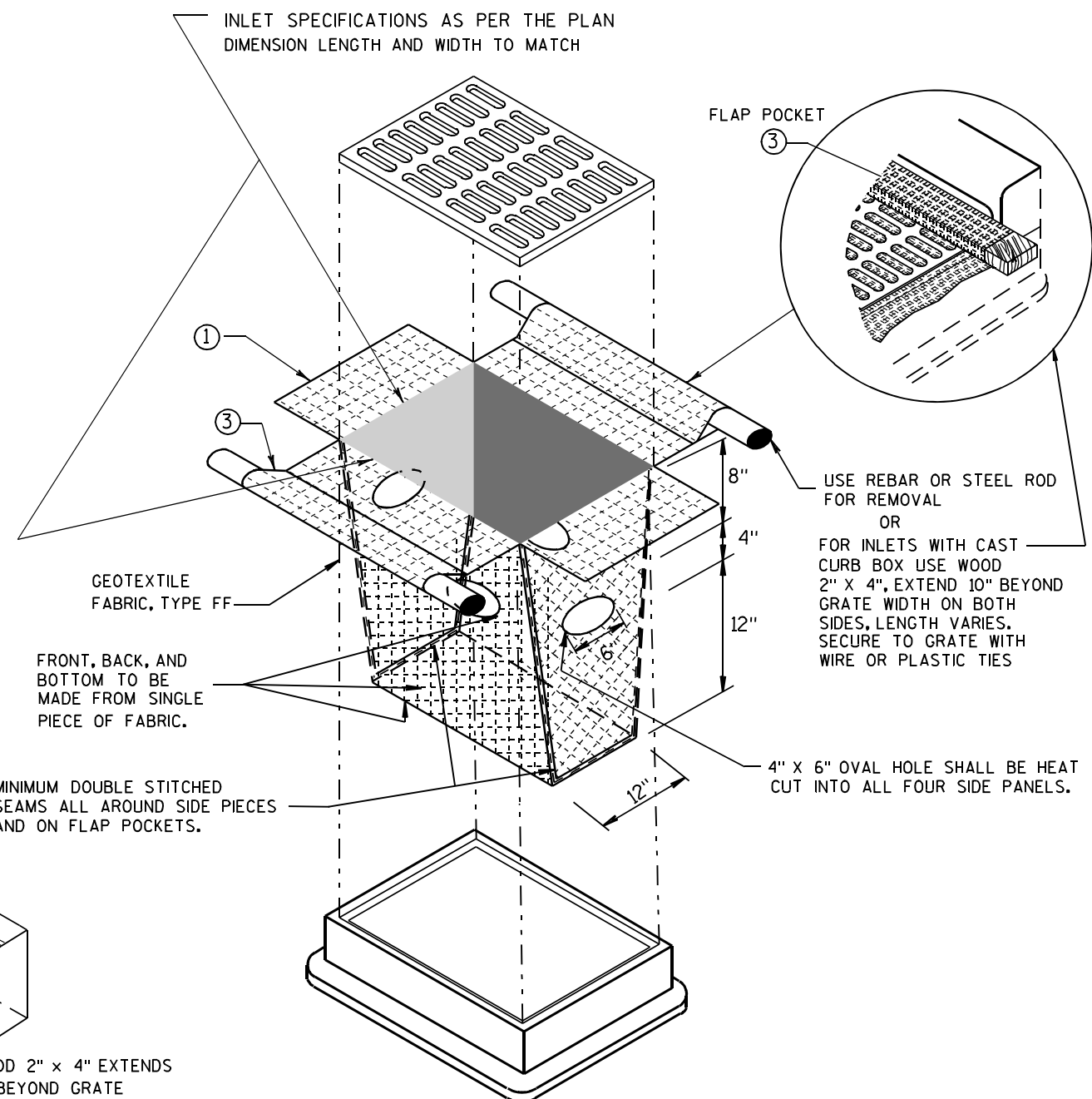
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.



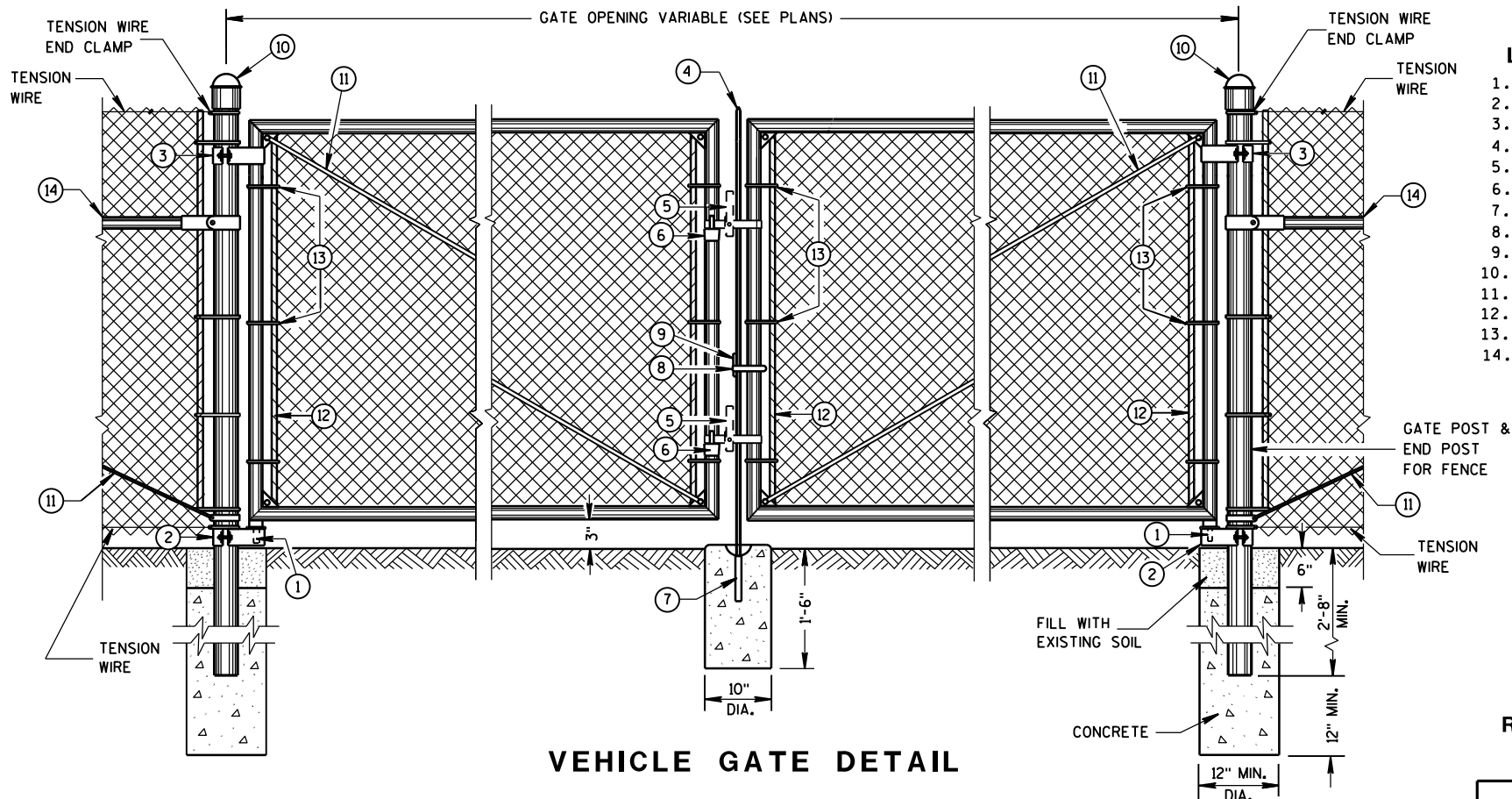
INLET PROTECTION, TYPE D

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

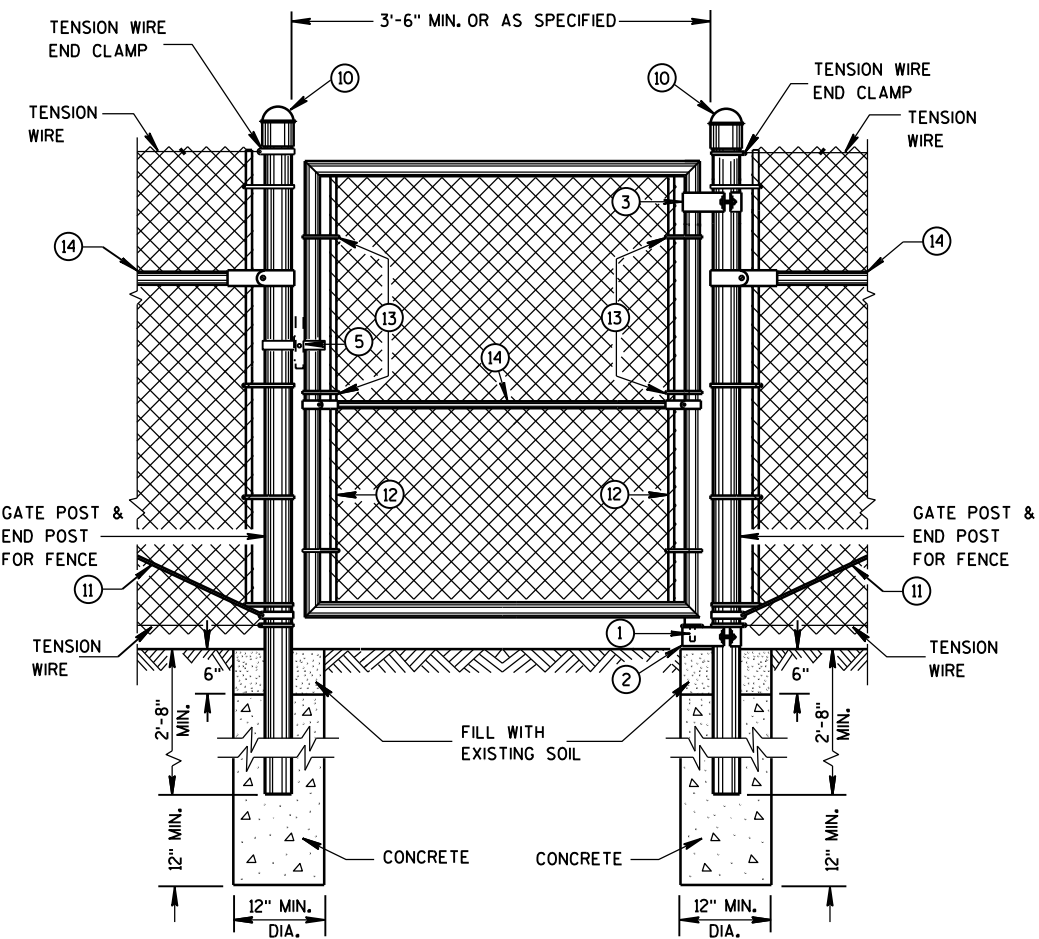
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2+
	GREATER THAN OR EQUAL TO 8 FT.	FS3

BRACE RAIL TYPES

USE	TYPE
BRACE RAIL	SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

LEGEND

1. STRAIGHT PLUG
 2. BOTTOM HINGE
 3. TOP HINGE
 4. PLUNGER ROD
 5. FULCRUM LATCH
 6. FORK CATCH *
 7. PLUNGER ROD CATCH
 8. LOCK KEEPER GUIDE
 9. LOCK KEEPER
 10. DOME TOPS
 11. TRUSS RODS
 12. TENSION BAR
 13. TENSION BANDS
 14. BRACE RAIL
- *NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

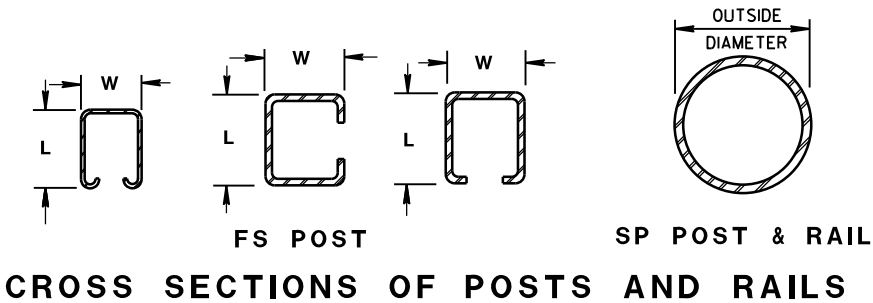
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



ROLLED-FORMED STEEL FENCE POST
(2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2+	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST
(1.8 OZ./SQ. FT. COATING)

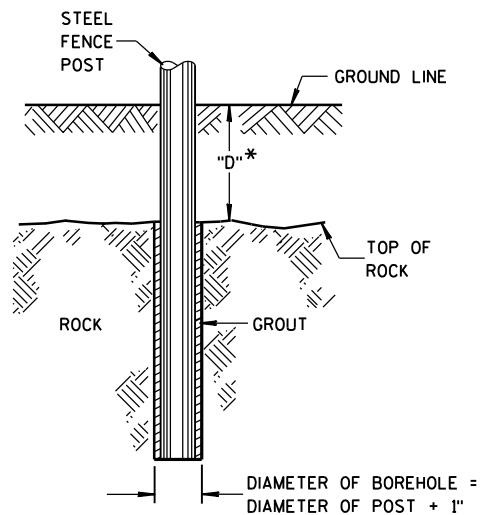
POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

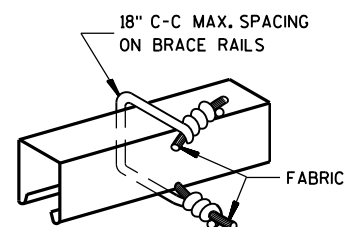
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



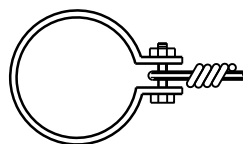
* IF "D" IS LESS THAN 2'-6",
DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST

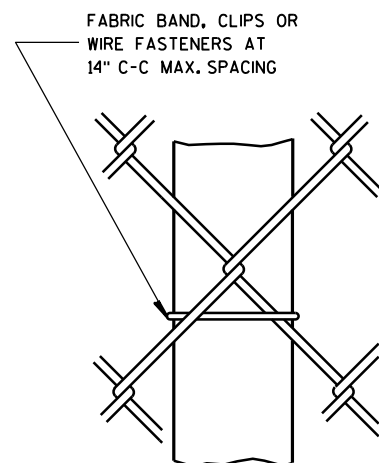


BRACE RAIL FABRIC FASTENER

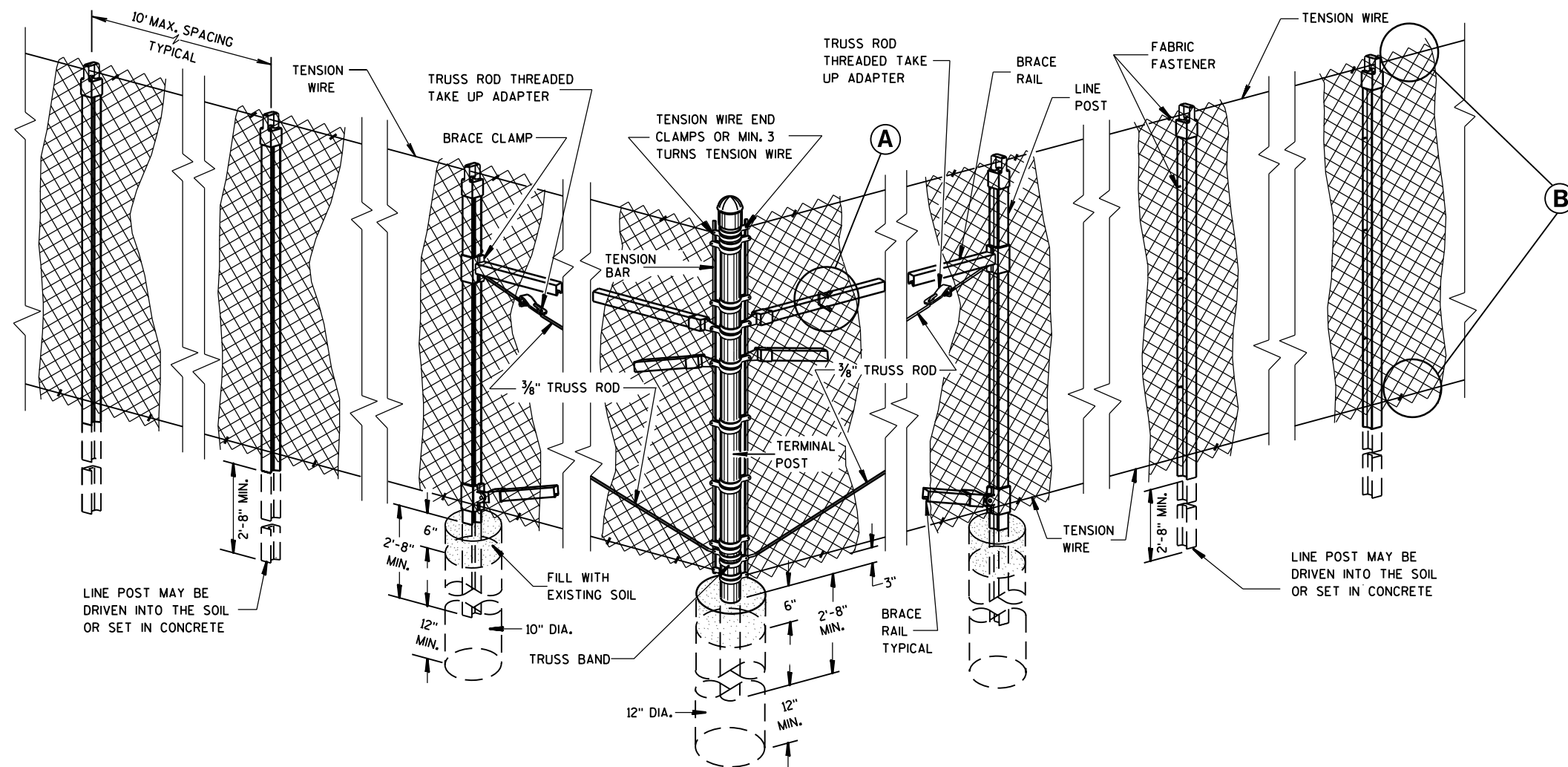
(A)



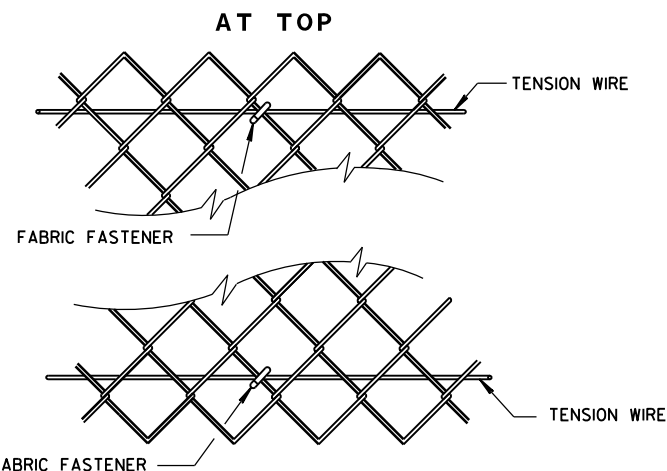
TENSION WIRE END CLAMP



LINE POST FABRIC FASTENER



END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS

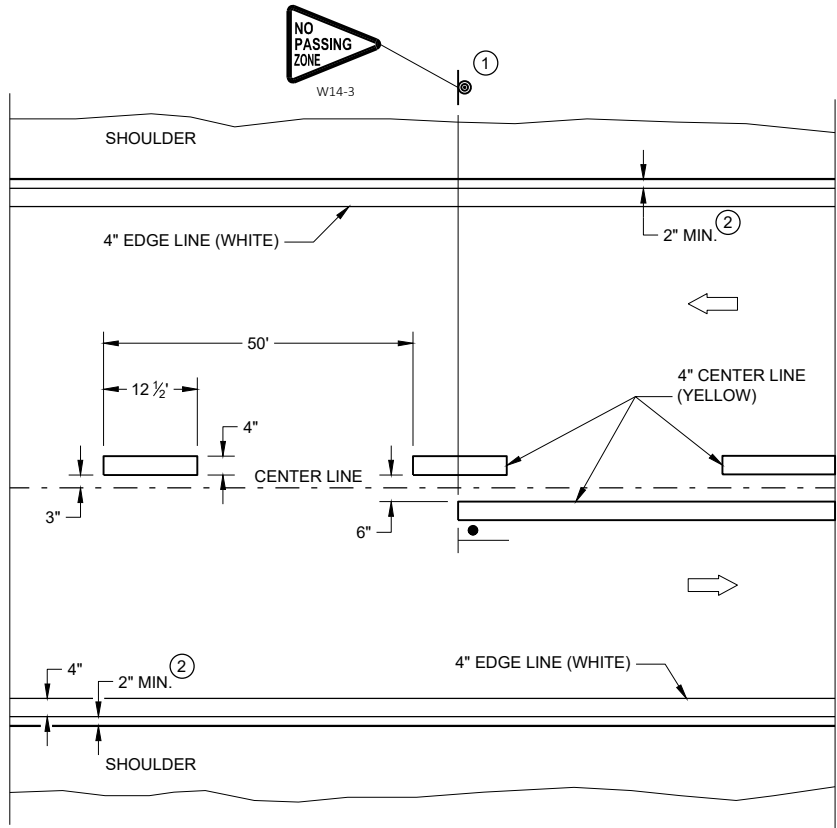


(B)

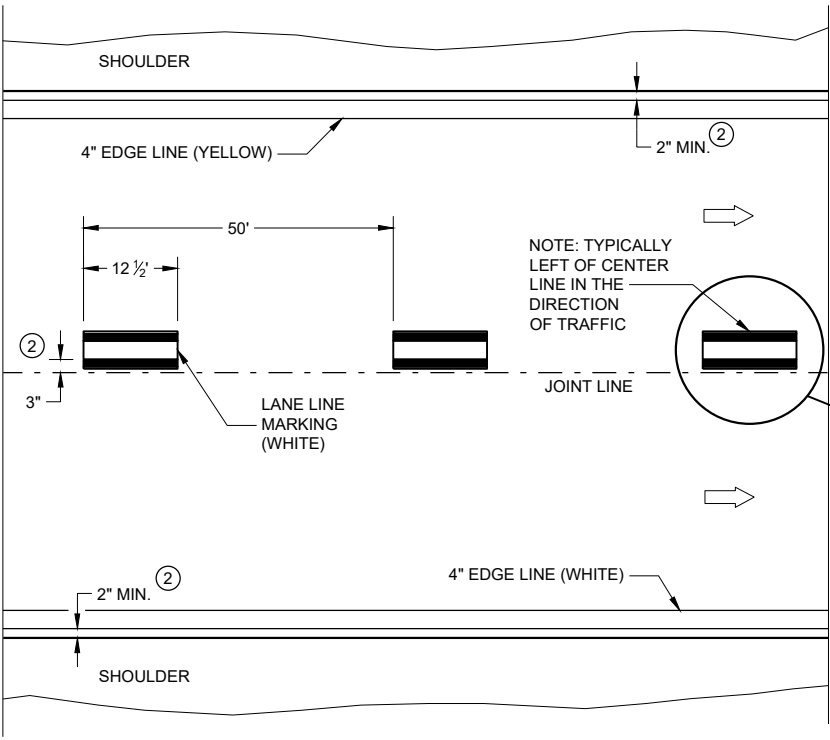
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

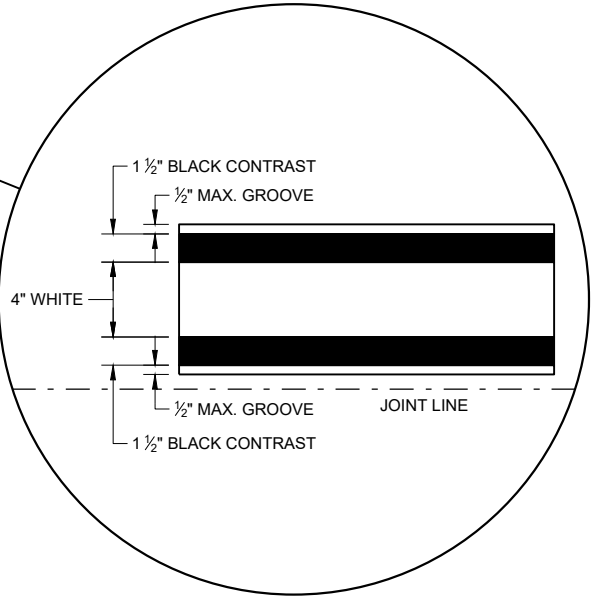
GENERAL NOTES

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

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

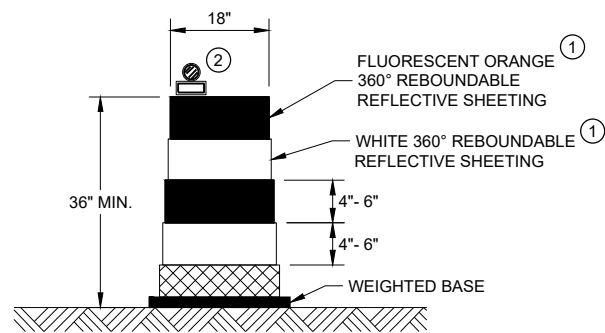


PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

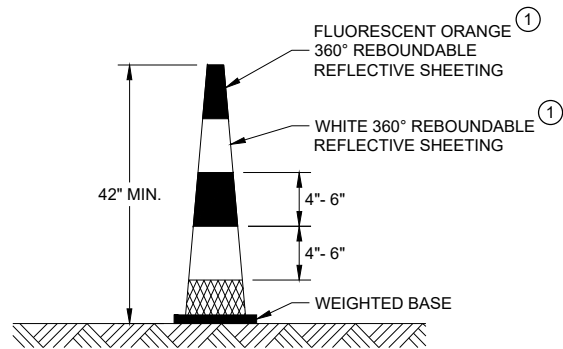
APPROVED
May 2022
DATE
/S/ Jeannie Silver
STATEWIDE SIGNING AND MARKING
ENGINEER

FHWA



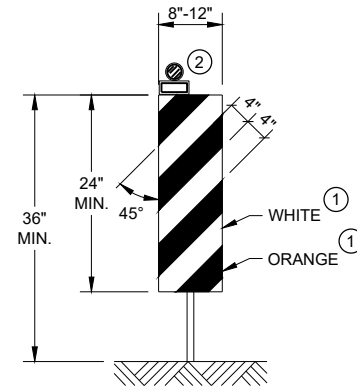
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



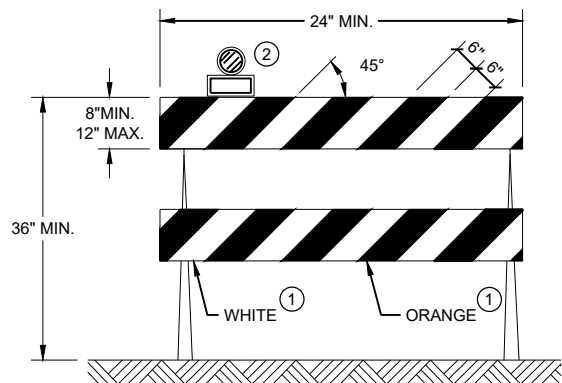
42" CONE

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



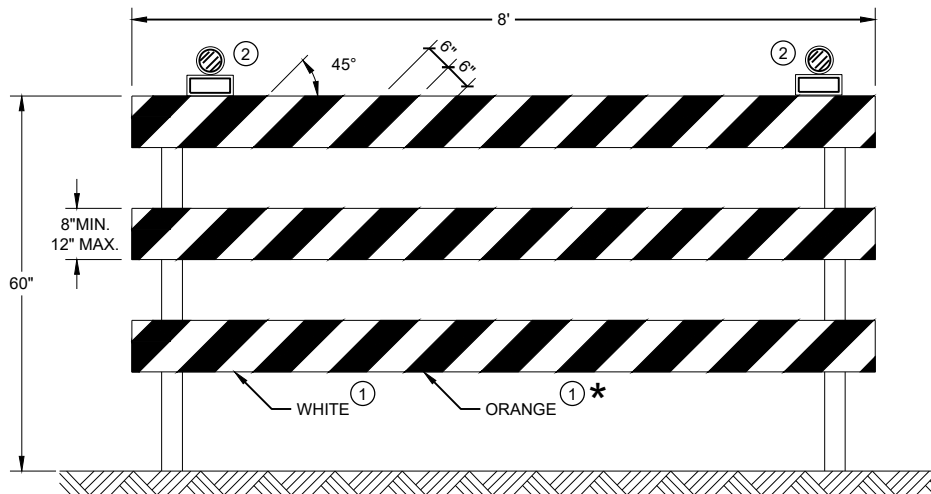
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

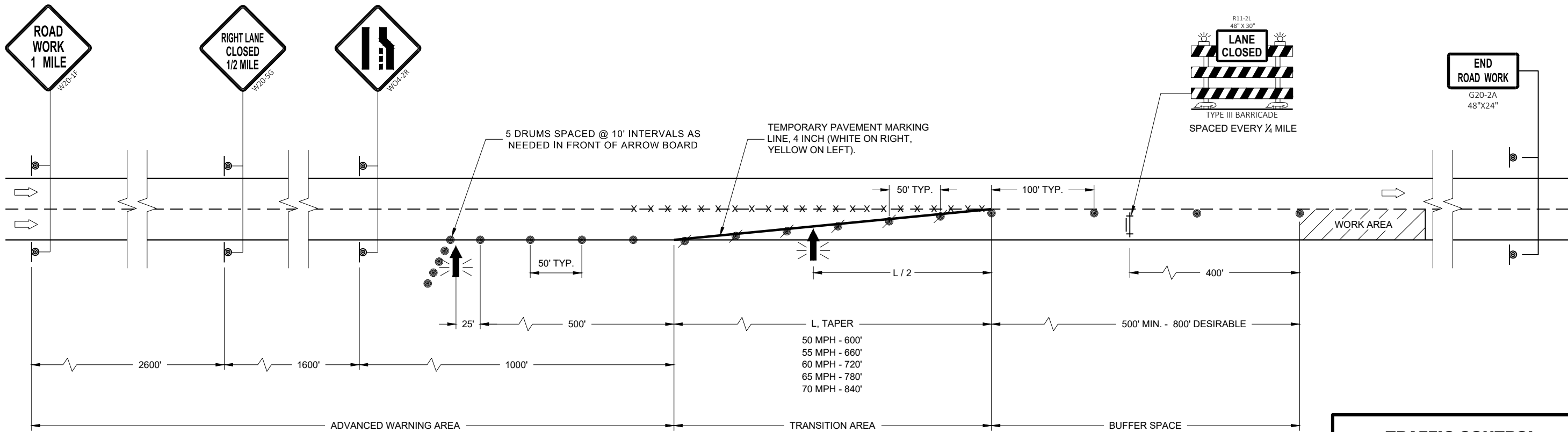
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS

NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



**TRAFFIC CONTROL
LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

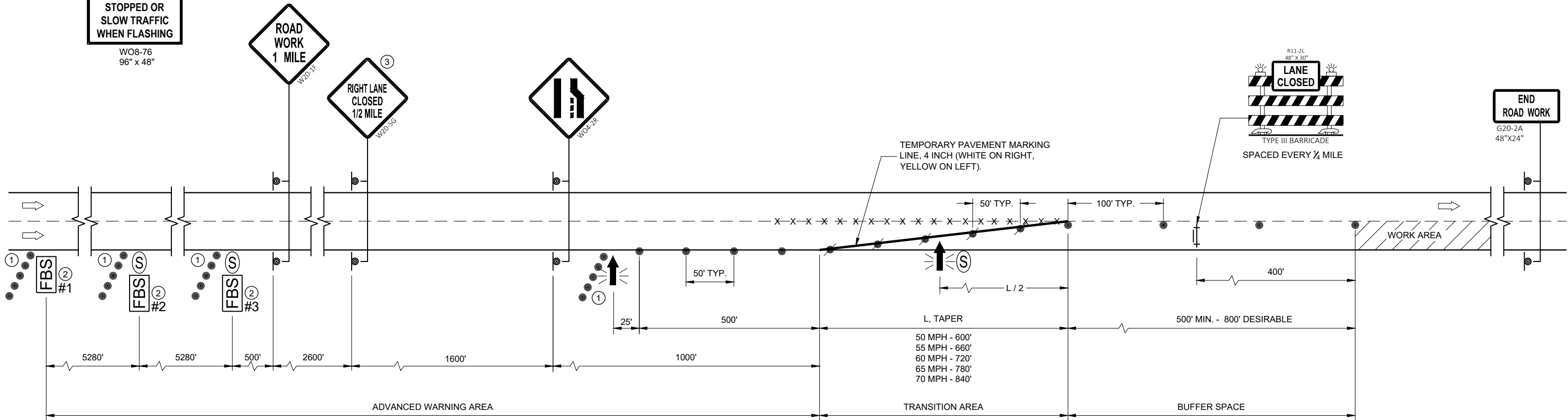
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- PORTABLE TRAFFIC SENSOR (PTS)
- FLASHING BEACON SIGN

STOPPED OR SLOW TRAFFIC WHEN FLASHING
WO8-76
96" x 48"

ROAD WORK 1 MILE
W20-1P

RIGHT LANE CLOSED 1/2 MILE
W20-5G

ROAD WORK AHEAD
W06-2X



GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS

AND NIGHTS. WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

PORTABLE TRAFFIC SENSOR (PTS) MAY BE MOUNTED ON THE FBS, ARROW BOARD OR OTHER TRAILER DEVICES.

- 5 DRUMS SPACED AT 10 FOOT INTERVALS AS NEEDED.
- IF THERE ARE MORE THAN TWO LANES OR IF SPECIFIED IN THE PLANS, PLACE FBS ON BOTH SIDES OF THE ROADWAY.
- IF THERE IS AN APPROVED TEMPORARY SPEED DECLARATION, ADD WO-3-5 SIGNS 400 FEET AFTER THE W20-5G SIGNS AND ADD R2-1 SIGNS (48"x60") 700 FEET AFTER THE WO3-5 SIGNS. A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A "RESUME SPEED LIMIT" SIGN 200 FEET MINIMUM (800 FEET DESIRABLE) BEYOND THE G30-3A "END ROAD WORK" SIGN.

TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE
/S/ Erin Schwark
WORK ZONE ENGINEER

FHWA

LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ⚡➡ FLASHING ARROW BOARD
- ▨ WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

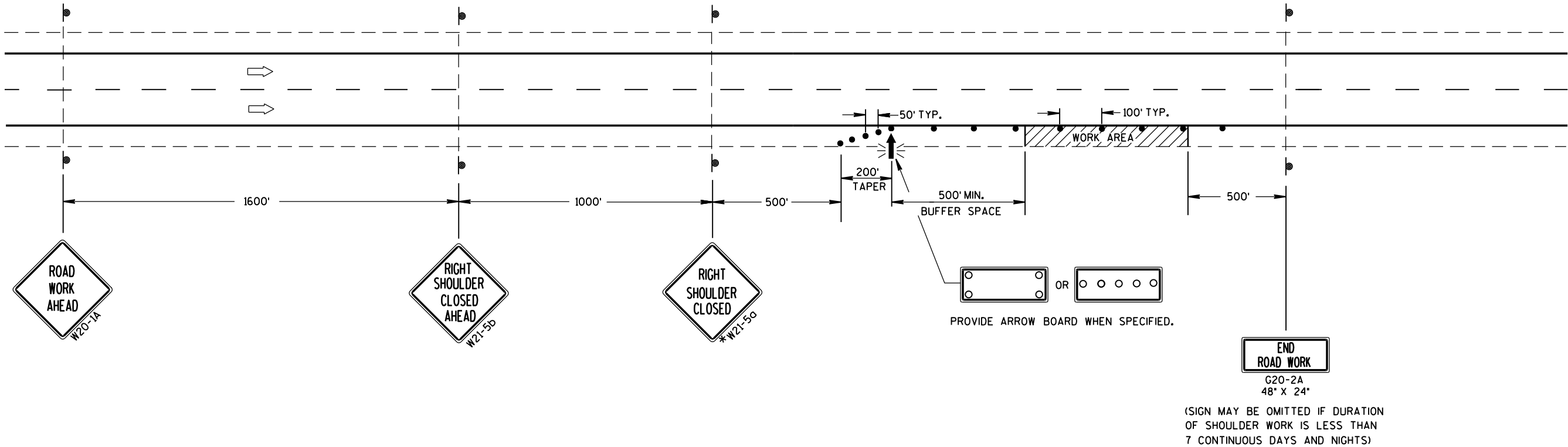
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

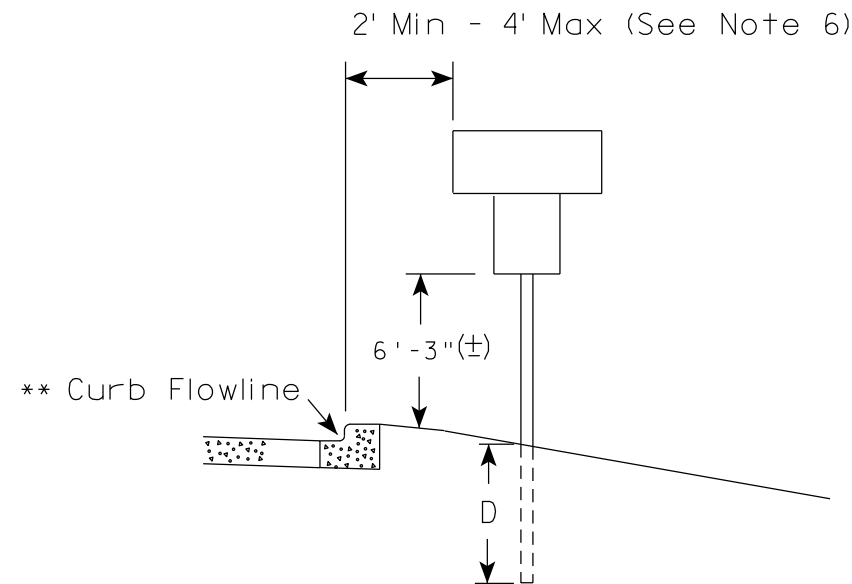
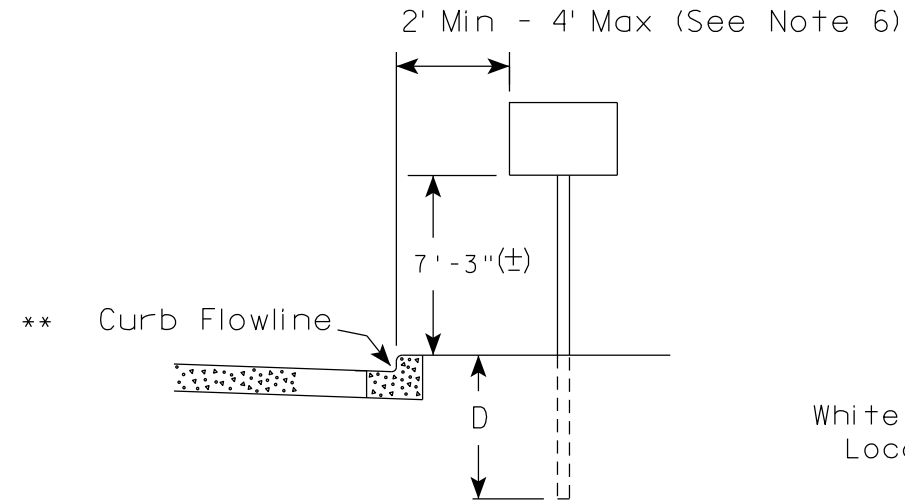
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



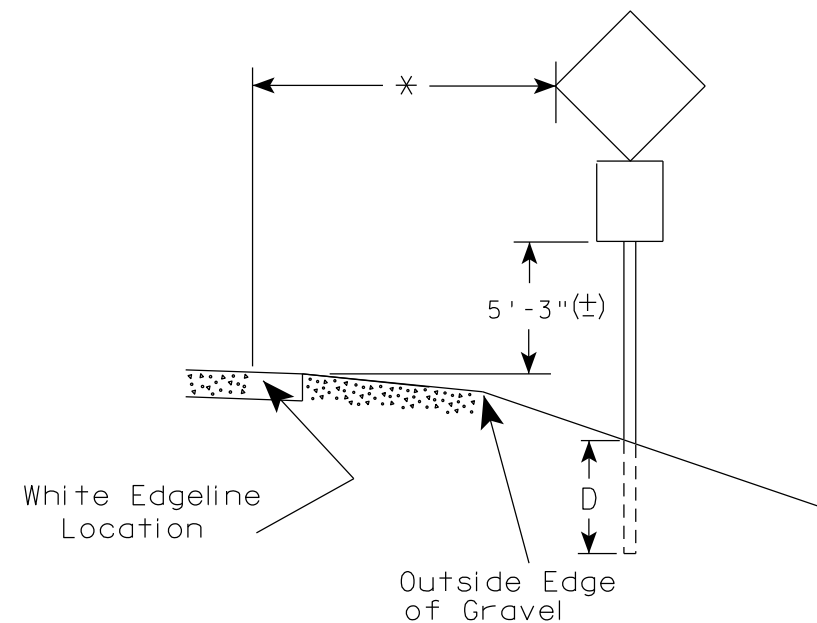
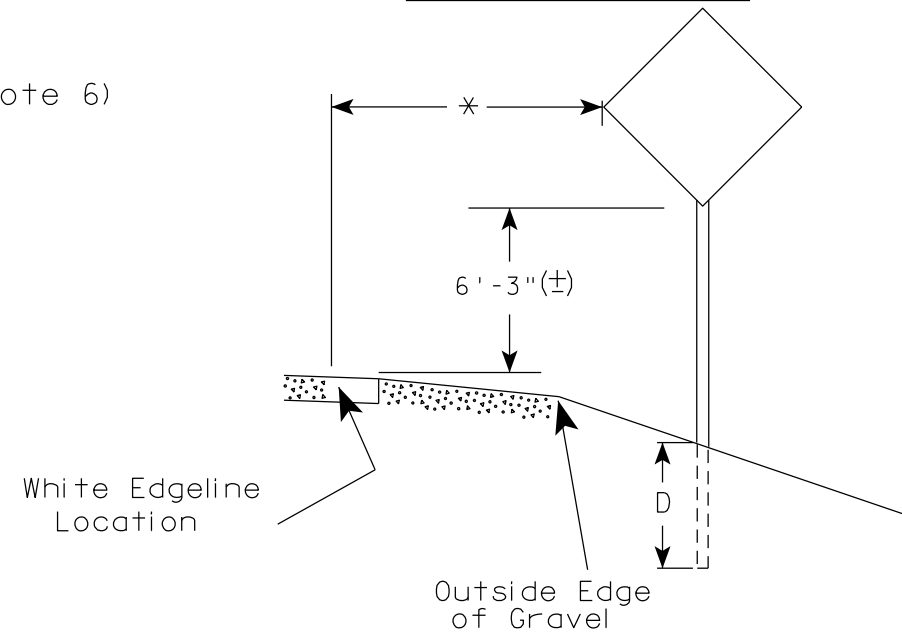
TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2016 DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	

URBAN AREA



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

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

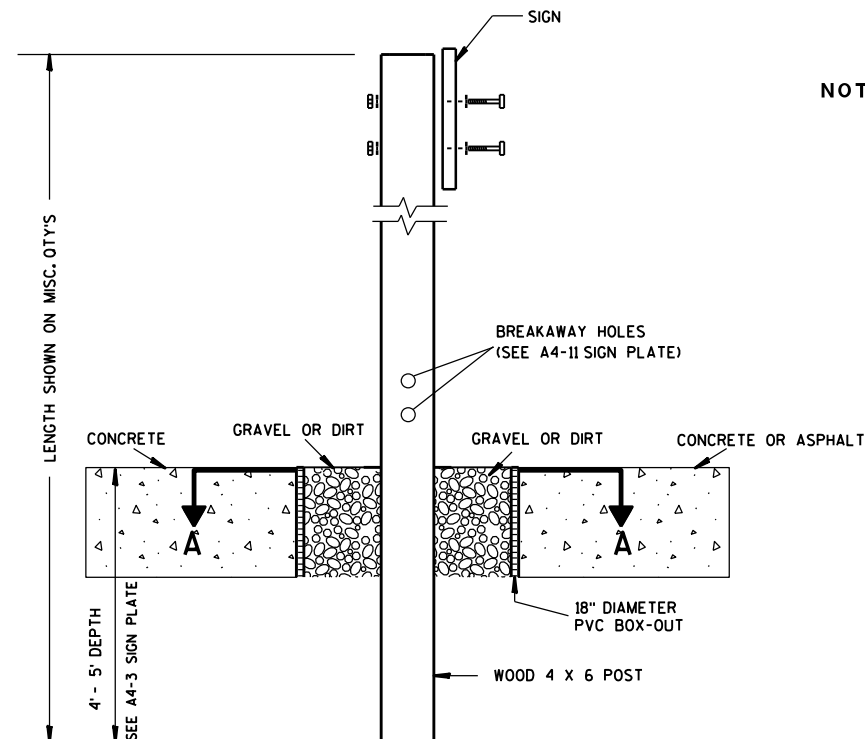
- Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

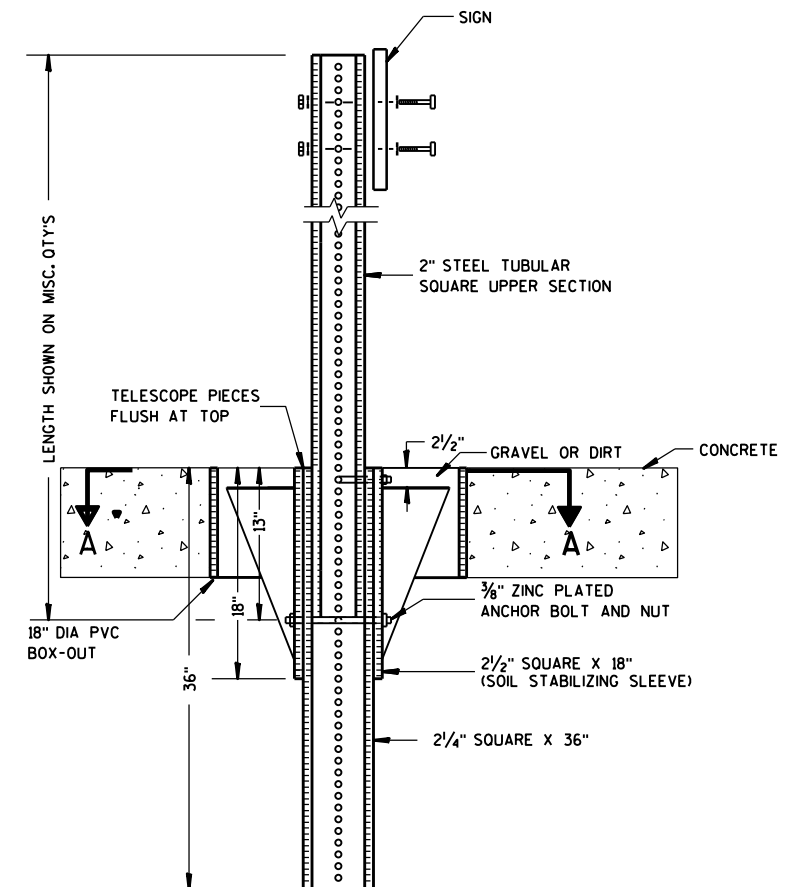
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

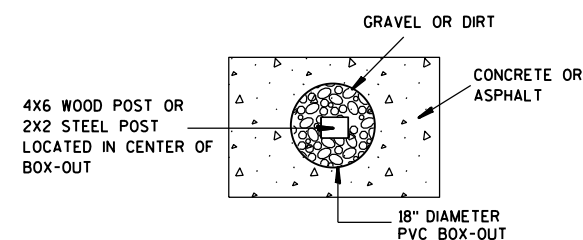
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

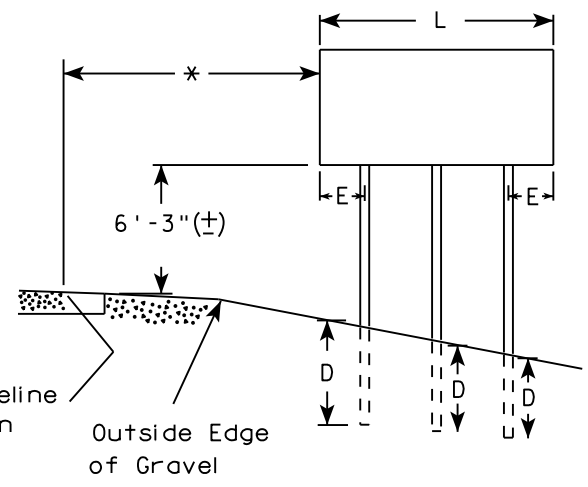
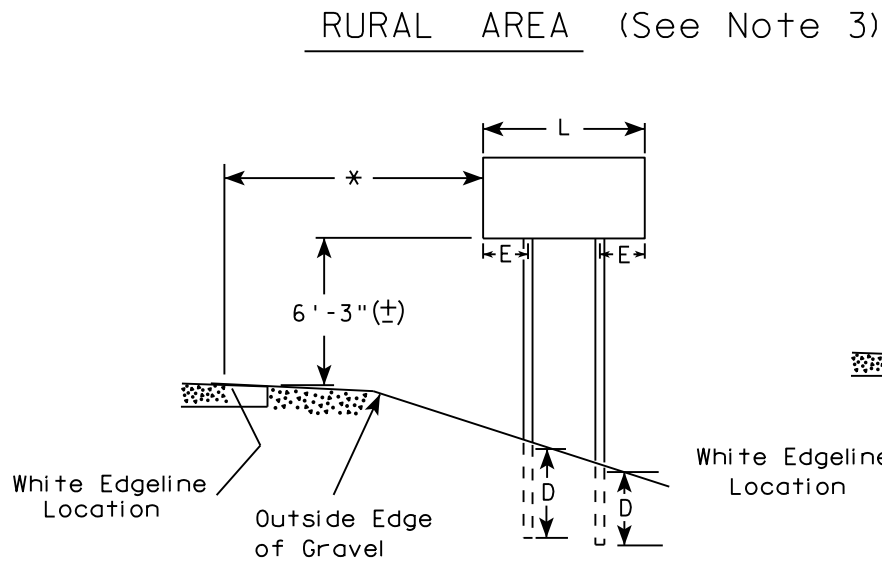
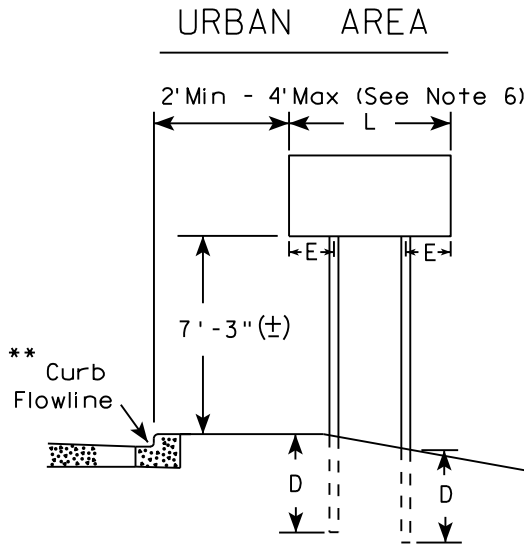
FOR NEW CONCRETE/ASPHALT INSTALLATIONS

**SIGN POST
BOX-OUTS
A4-3B**

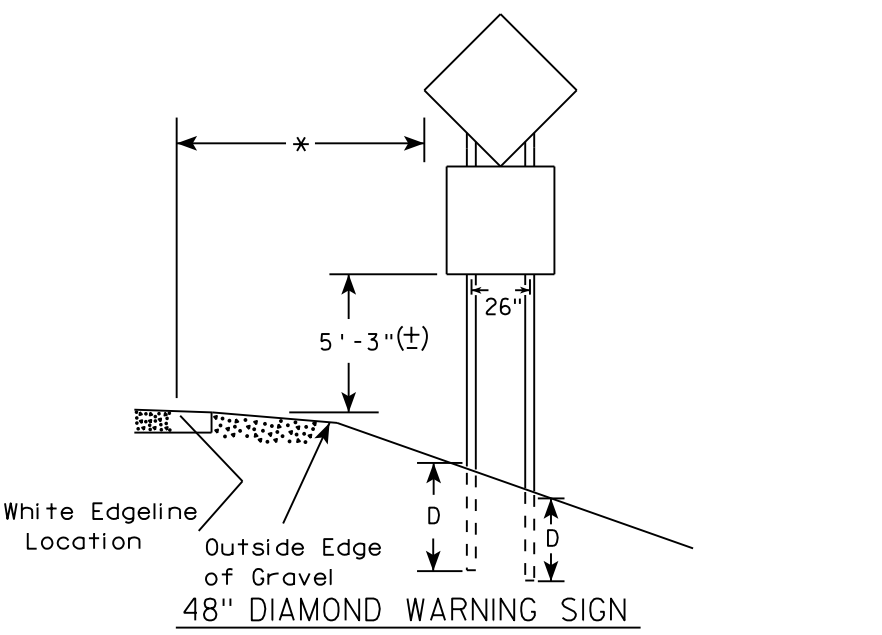
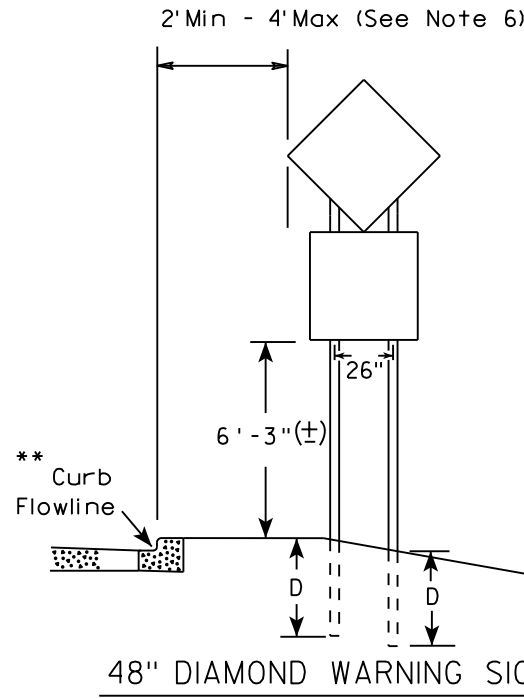
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1



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



- * 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.
- ** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.
- *** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

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

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

POST EMBEDMENT DEPTH

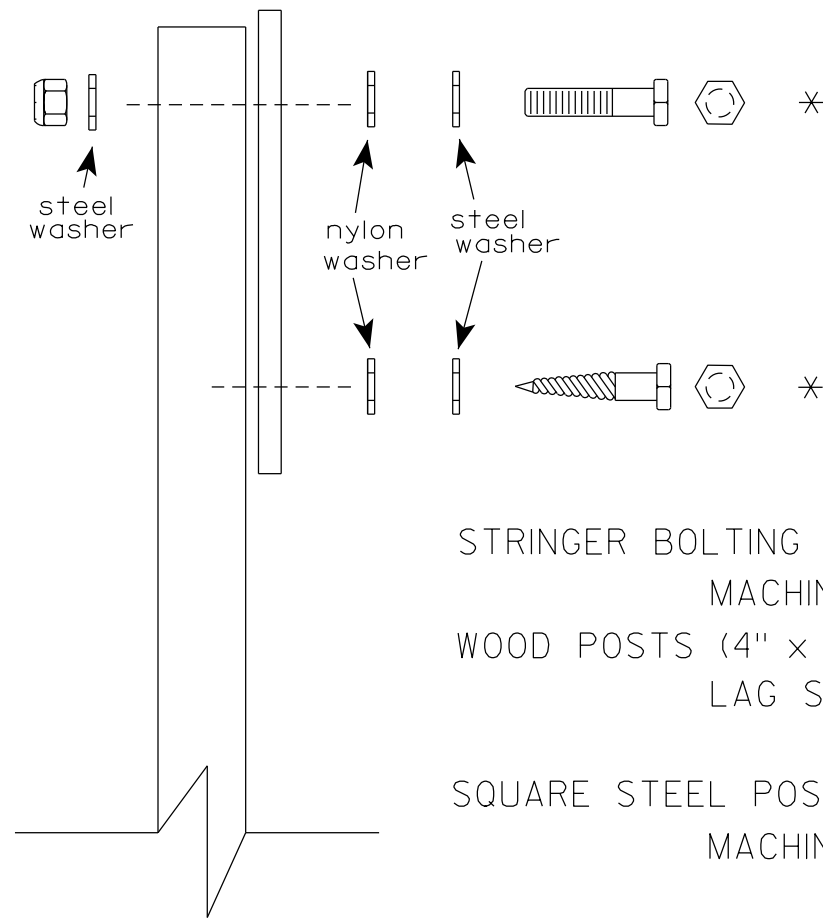
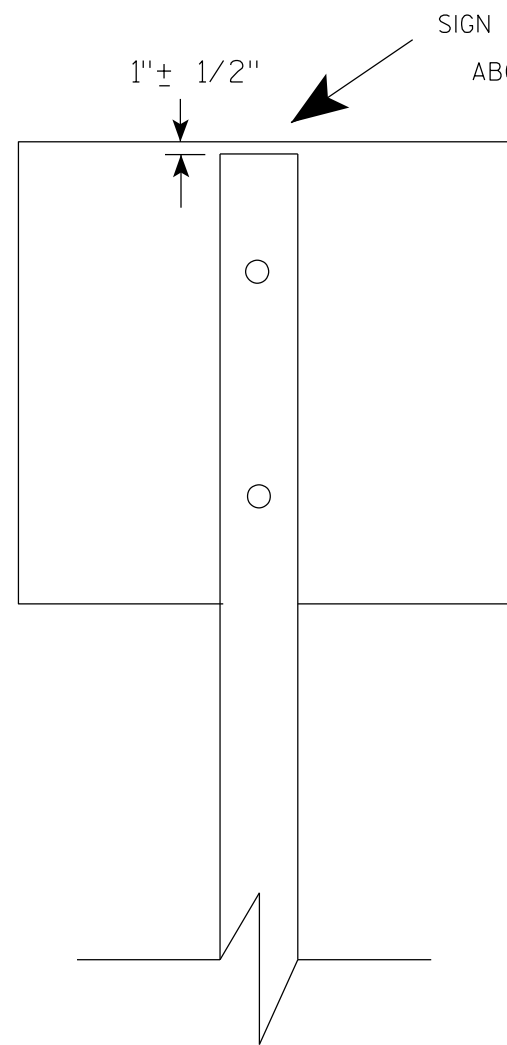
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



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

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

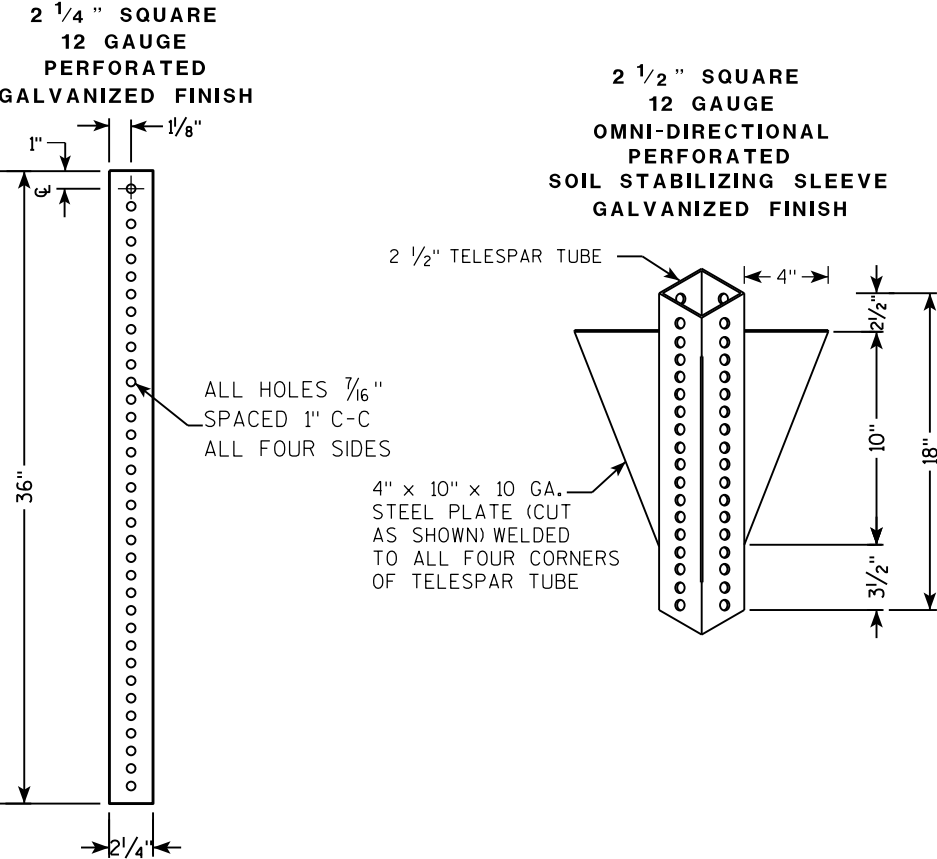
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

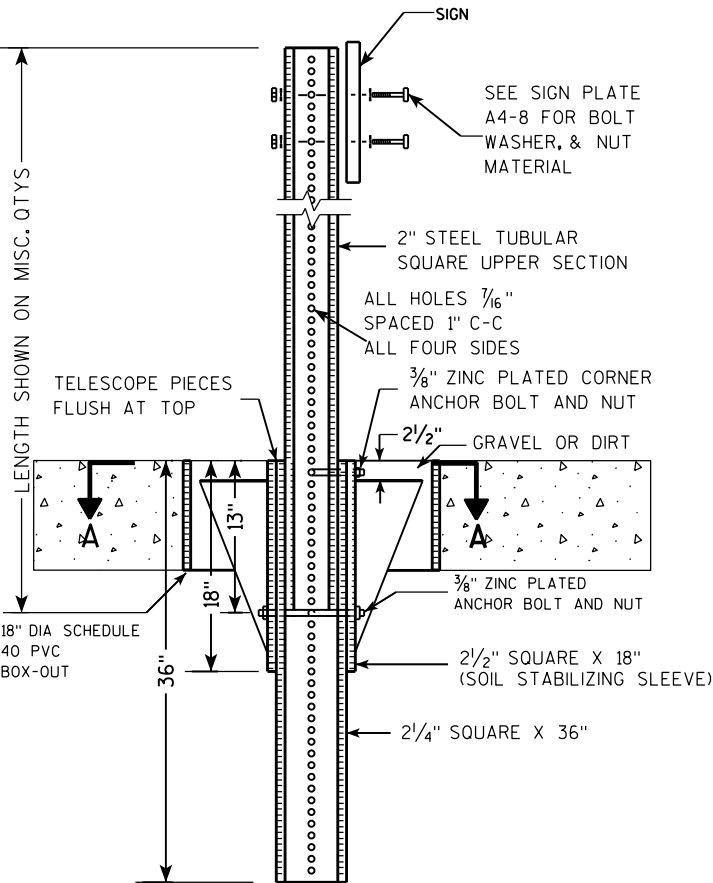
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

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

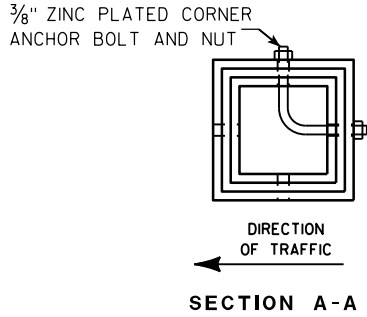
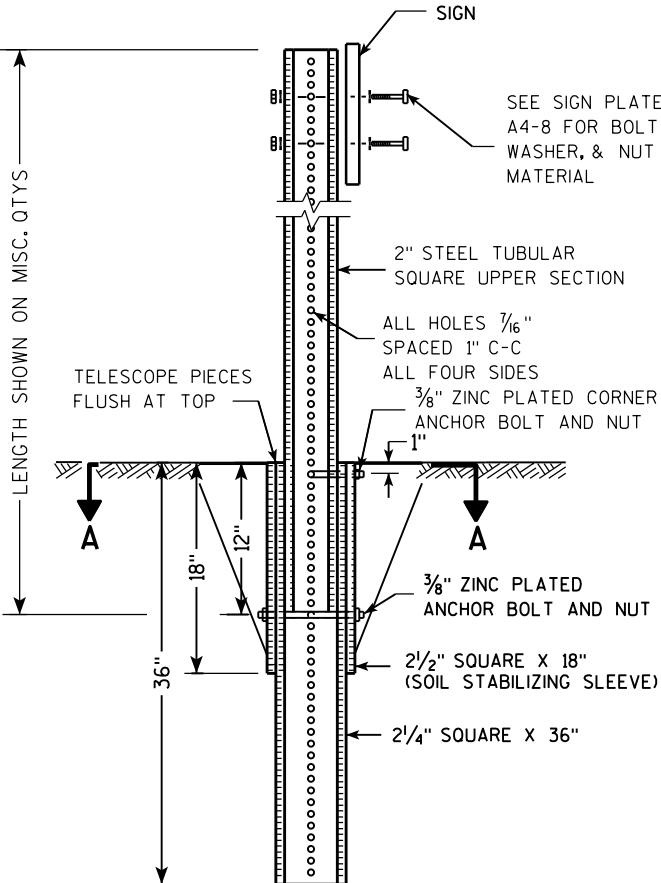
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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



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



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

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

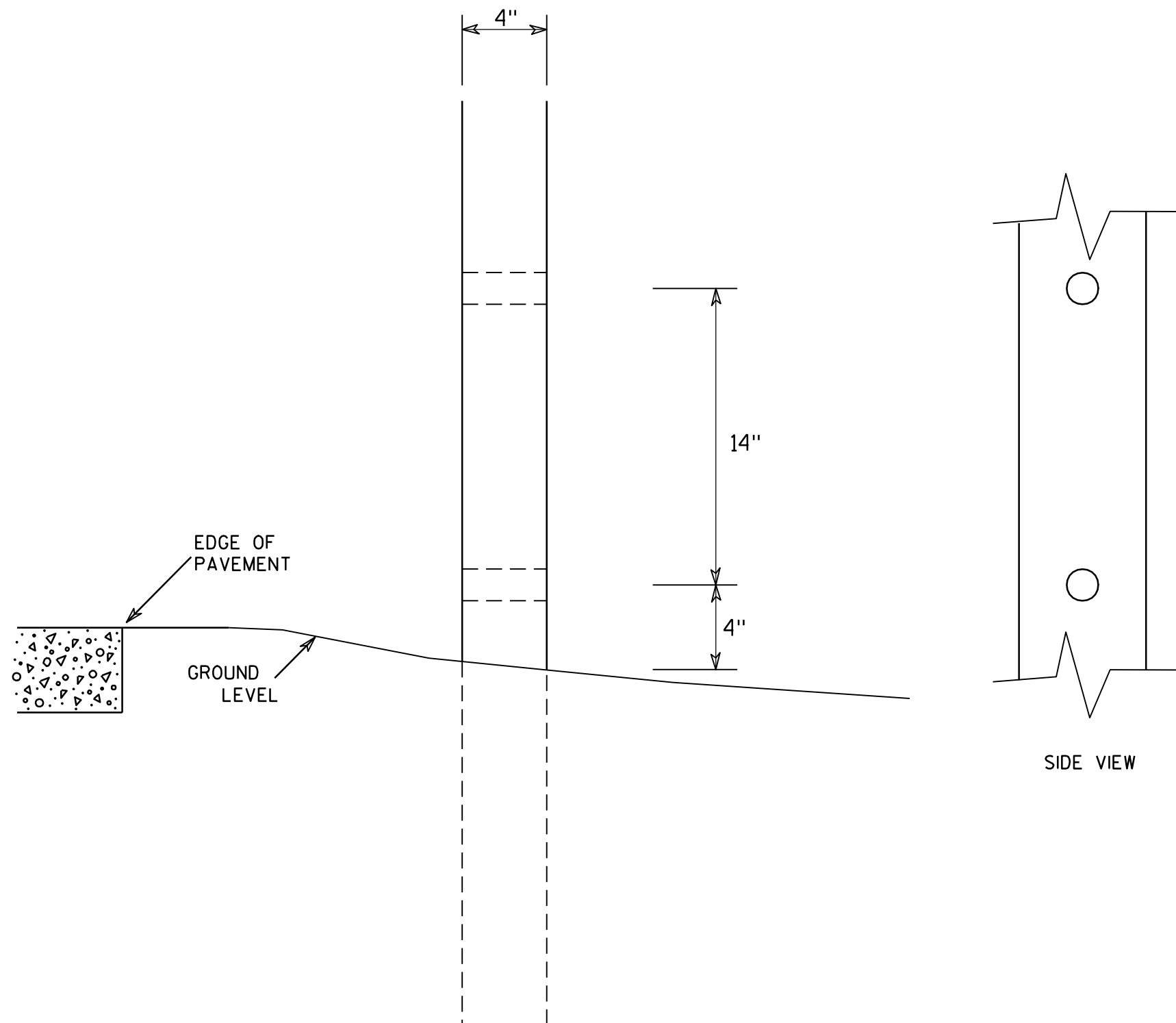
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

7



GENERAL NOTES

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

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

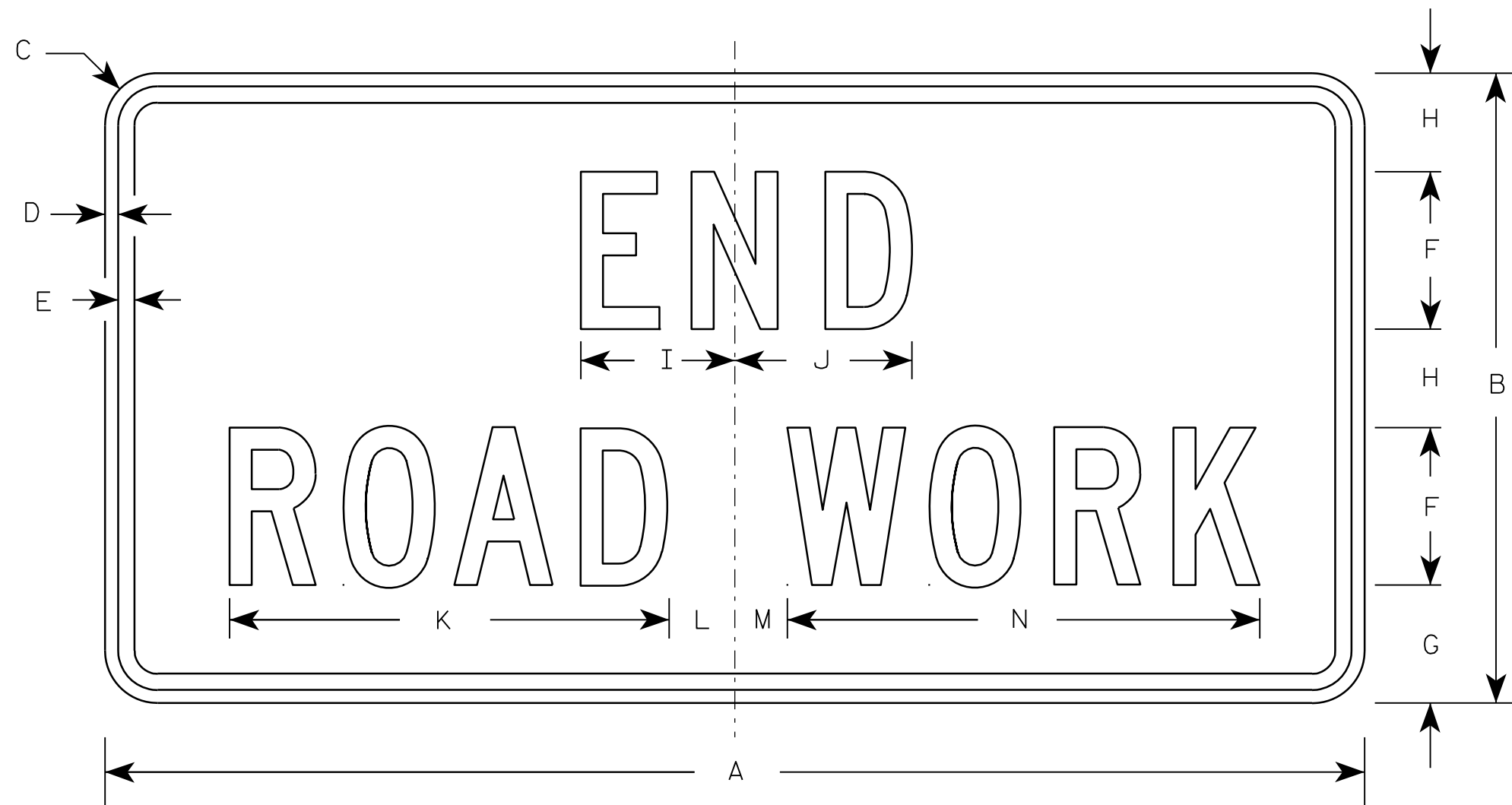
HWY:

COUNTY:

SHEET NO:

E

7



G20-2A

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

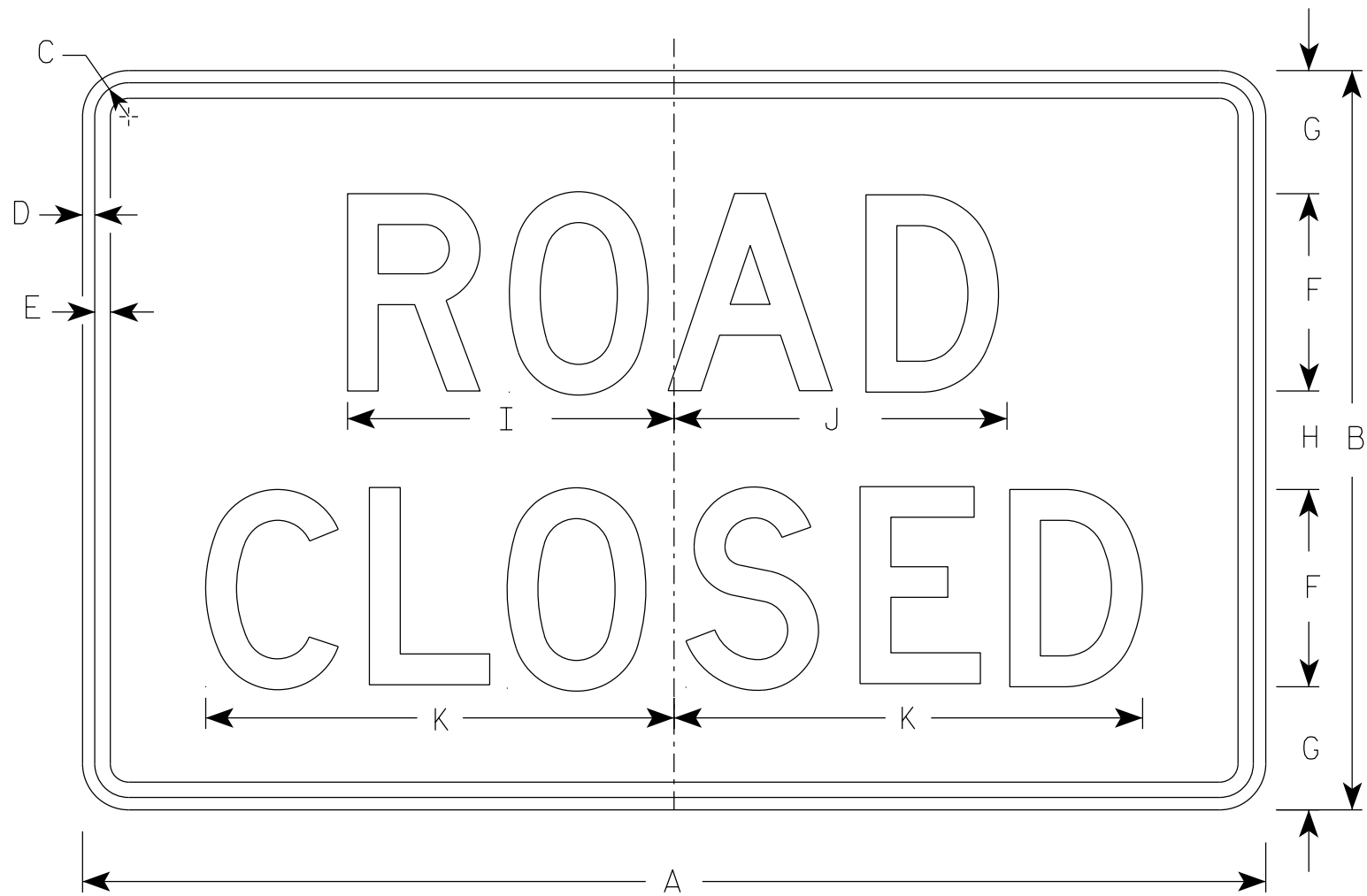
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

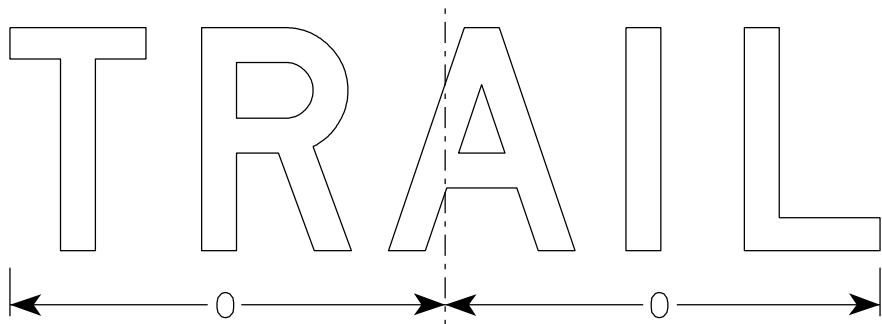


R11-2

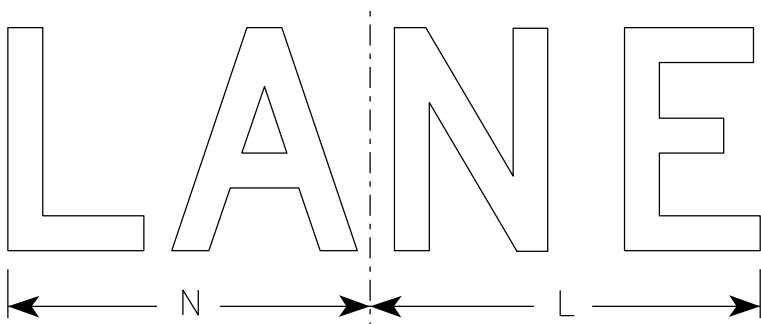
- NOTES
1. Sign is Type II - Type H Reflective
 2. Color:
Background - White
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 5. Modify the message as required.



R11-2R



R11-2T



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13	15 5⁄8												10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13	15 5⁄8												10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13	15 5⁄8												10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13	15 5⁄8												10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13	15 5⁄8												10.0

STANDARD SIGN
R11-2

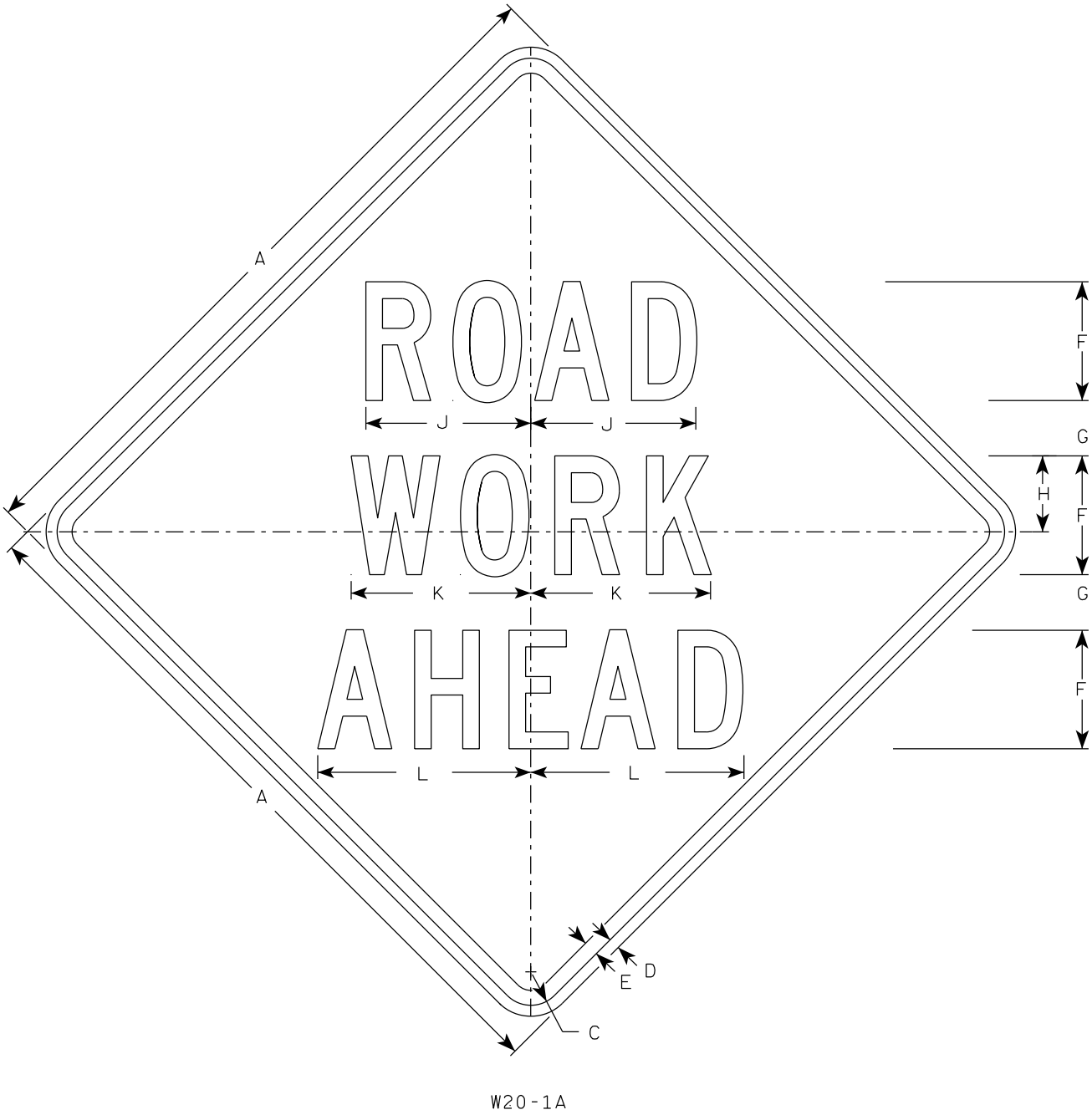
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

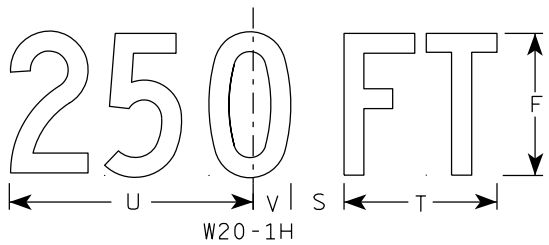
DATE 3/29/2021 PLATE NO. R11-2.11

NOTES

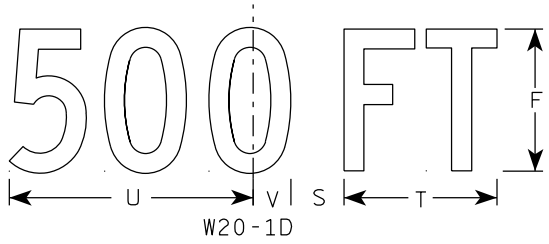
1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



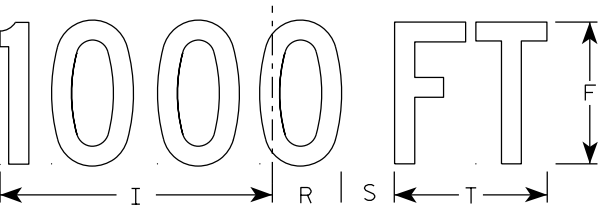
W20-1A



W20-1H



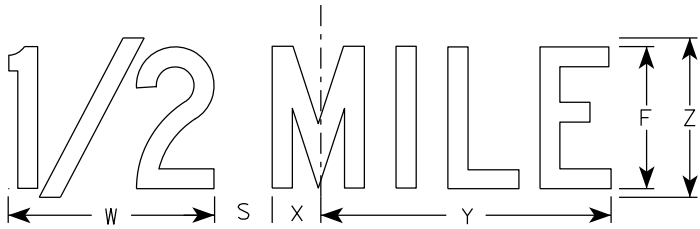
W20-1D



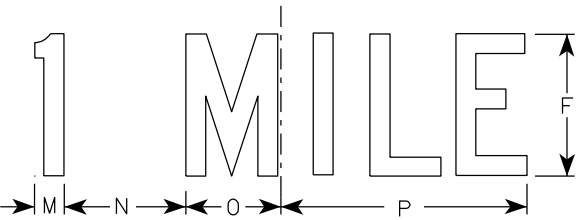
W20-1C



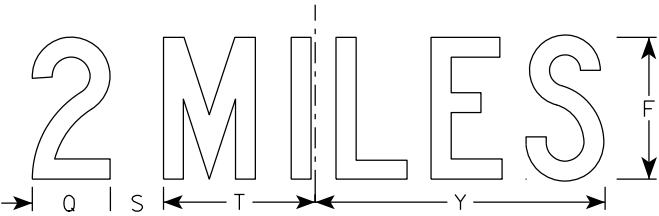
W20-1B



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A _{req} sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

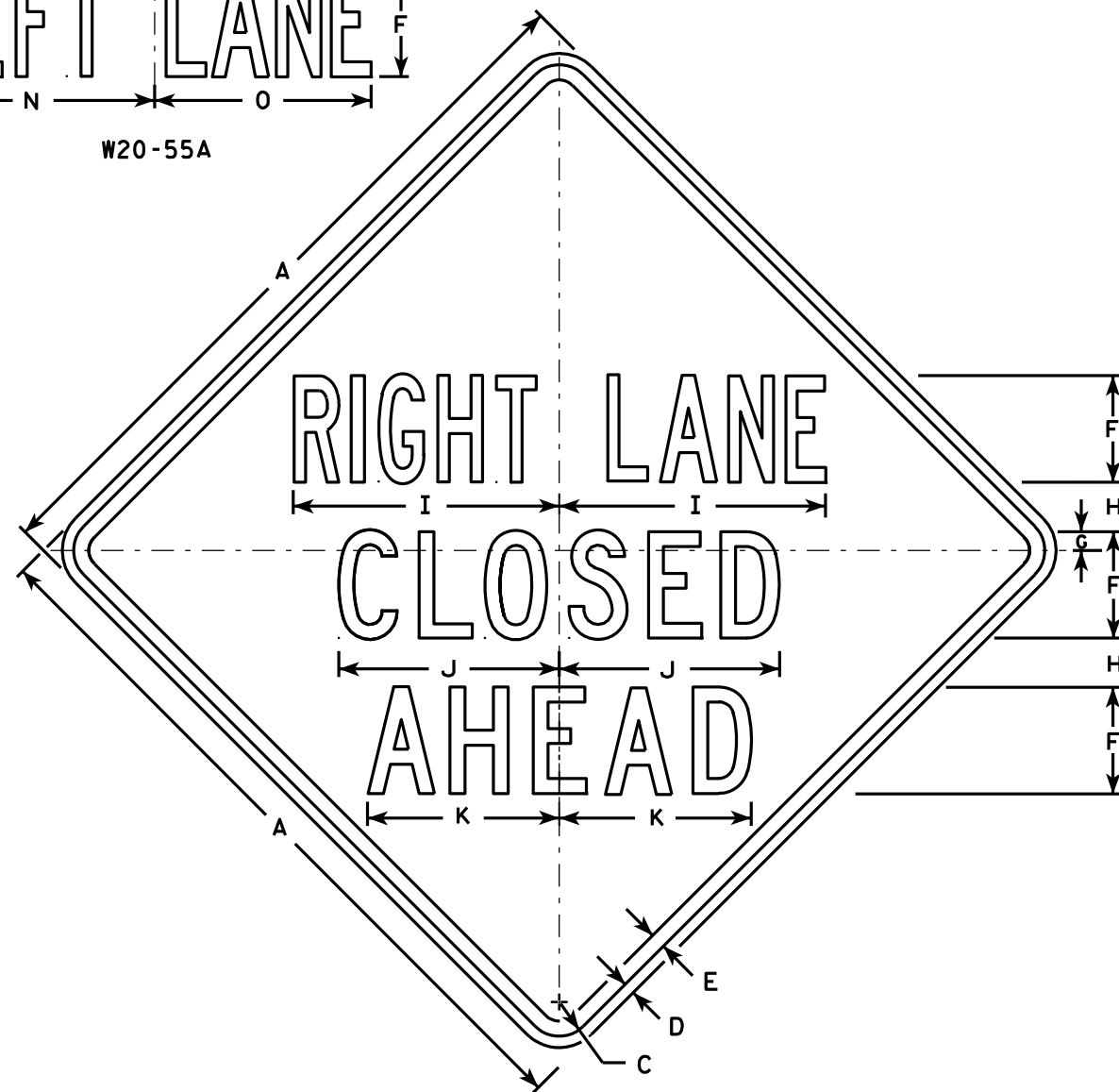
DATE 3/25/2020 PLATE NO. W20-1.11

CENTER LANE

W20-56A

LEFT LANE

W20-55A



W20-5A

500 FT

W20-5D

1000 FT

W20-5C

1500 FT

W20-5B

1/2 MILE

W20-5G

1 MILE

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. "----- LANE" is Series B.
All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN
W20-5A, B, C, D, F & G

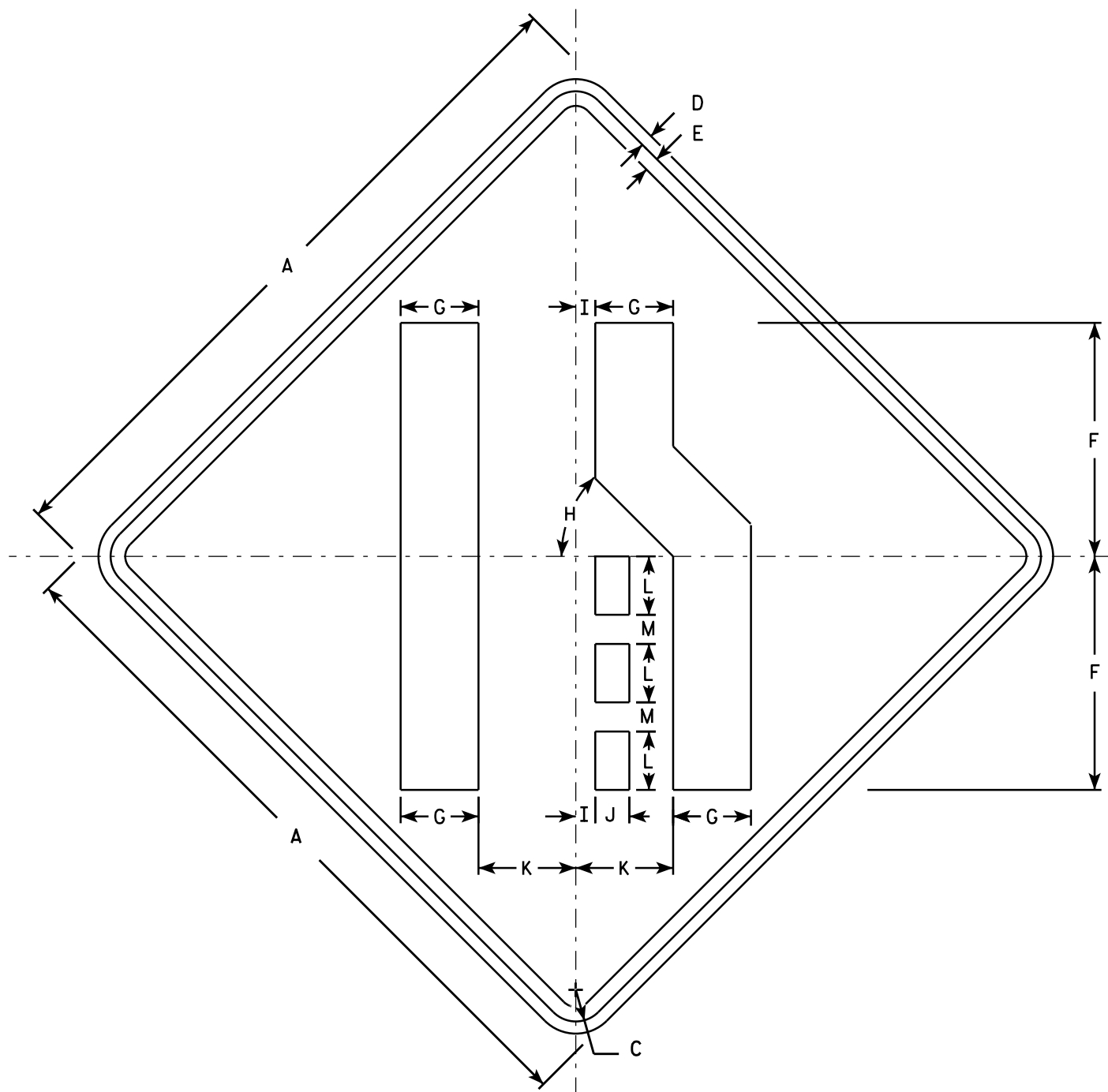
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

SHEET NO:

E



W04-2R

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Orange
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN

W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch

For State Traffic Engineer

DATE 11/20/13

PLATE NO. W04-2.1

7

7

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - Lines 1 and 2 are series D
Line 3 is series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W08-76

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	96	48	2 1/4	3/4	1	8	6	34 3/4	14 1/8	7	13 5/8	28 7/8	4 5/8	40 1/2	23 1/8	5 3/4		35 7/8									32.0
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

NOTES:
1. DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

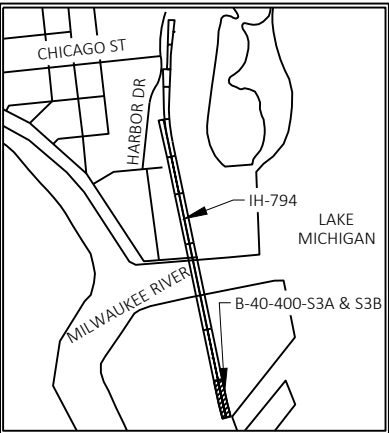
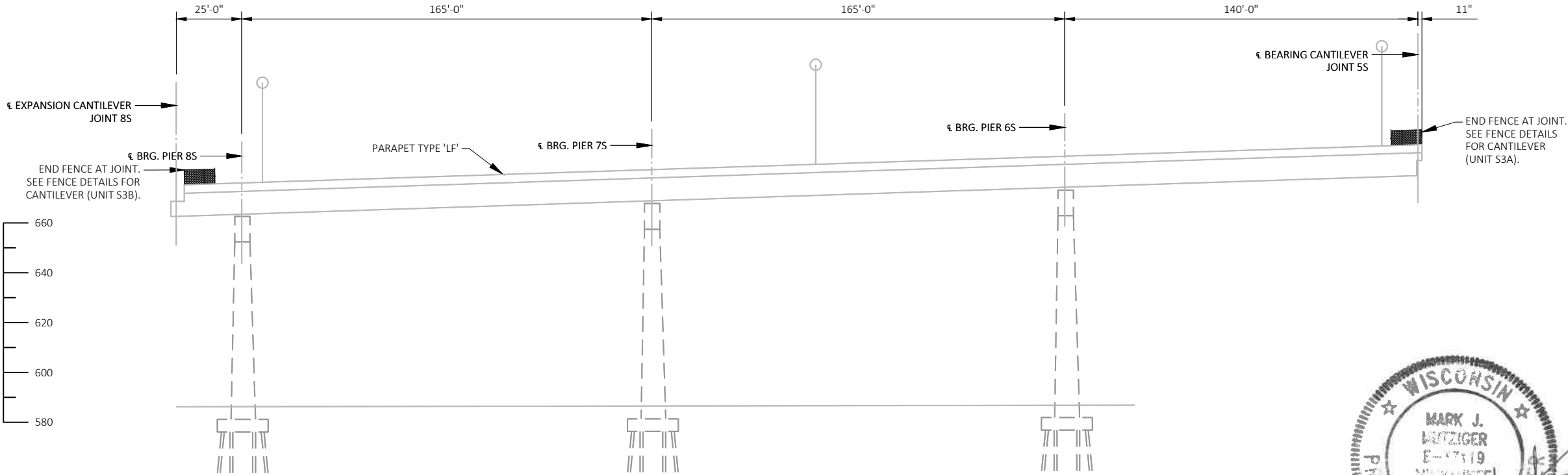
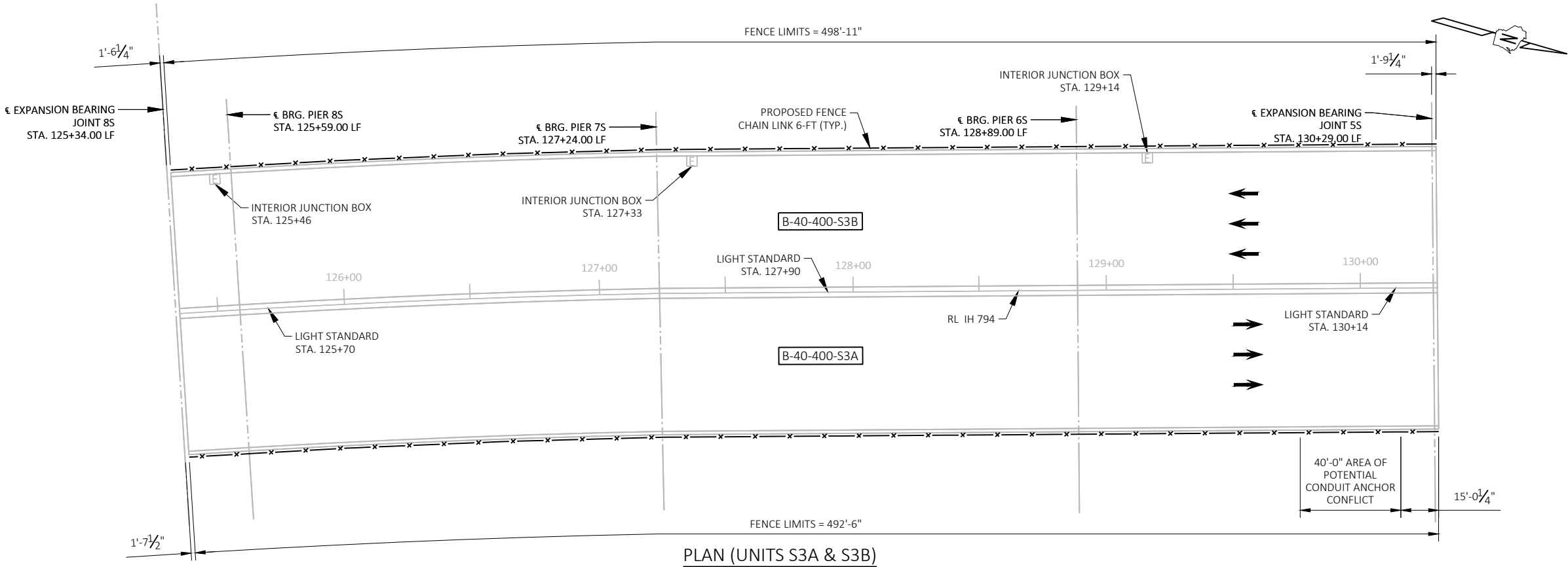
LIVE LOAD:
INVENTORY RATING: HS-20
OPERATING RATING: HS-33
MAXIMUM WISCONSIN STANDARD
PERMIT VEHICLE (WIS-SPV) LOAD = 250 KIPS

TRAFFIC DATA
AADT (2035) = 29,250 (ONE DIRECTION)
DESIGN SPEED = 55 MPH

SCOPE OF WORK
INSTALL NEW PARAPET MOUNTED CHAIN LINK FENCE

LIST OF DRAWINGS

- GENERAL PLAN & ELEVATION
- CROSS SECTIONS
- PARAPET DETAILS
- FENCE DETAILS
- MODULAR JOINT DETAILS



NO.	DATE	REVISION	BY
-----	------	----------	----

COLLINS ENGINEERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED *[Signature]* SDR **03/30/23**
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-400-S3A & S3B

IH 794LAKE FREEWAY OVER DOCK RR

COUNTY MILWAUKEE TOWN/CITY/VILLAGE MILWAUKEE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY JCG DESIGN CK'D. MJM DRAWN BY MDG PLANS CK'D. JCG

GENERAL PLAN
& ELEVATION

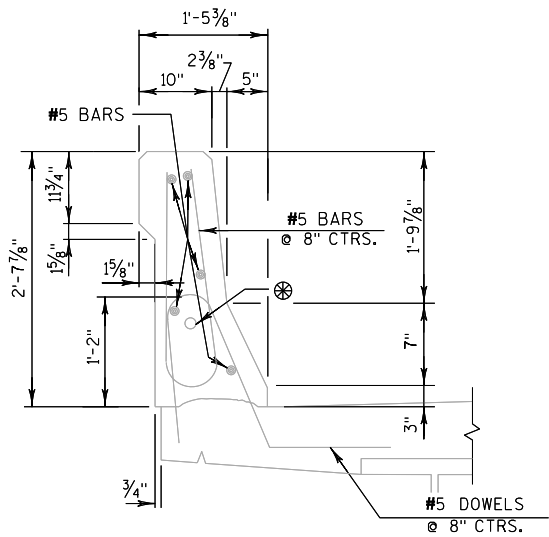
SHEET 1 OF 5

STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261

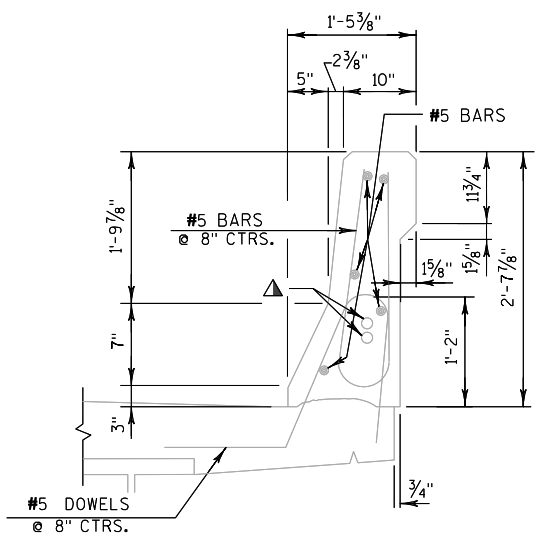
CONSULTANT CONTACT:
MARK MUTZIGER (414) 282-6905



ITEM NUMBER	BID ITEMS	QTY	UNIT
616.0206	FENCE CHAIN LINK 6-FT	992	LF



SECTION THRU
OUTSIDE PARAPET
UNIT S3B



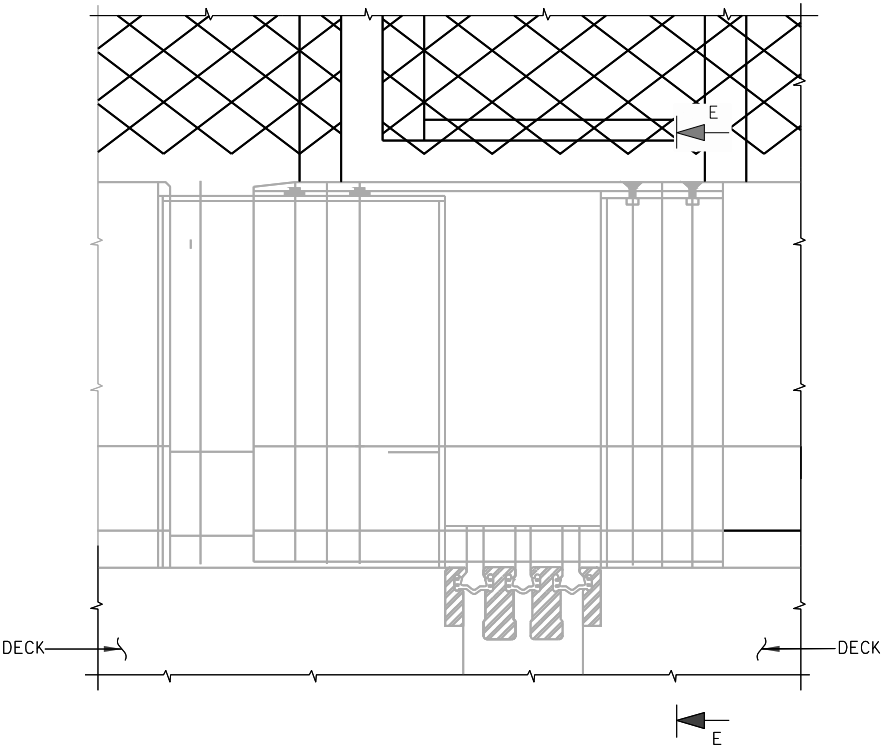
SECTION THRU
OUTSIDE PARAPET
UNIT S3A

LEGEND

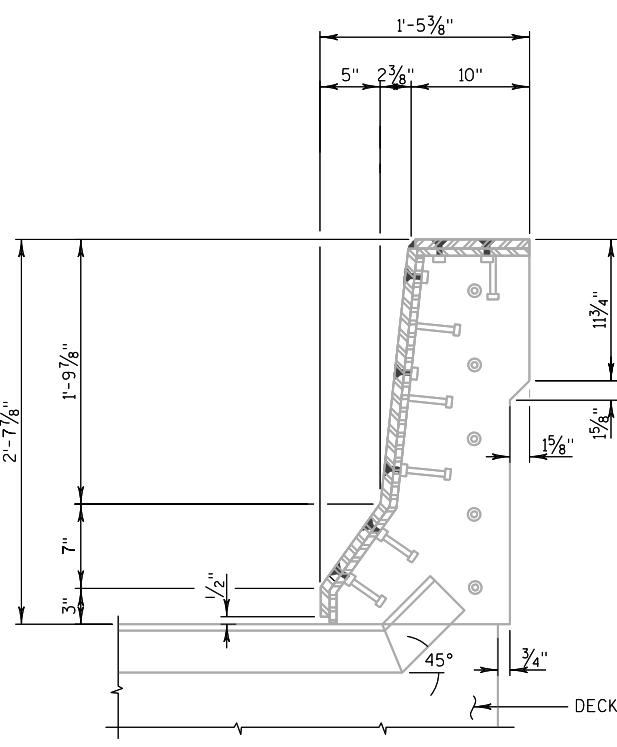
- ⊗ (1)-"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH" FOR TEMPORARY ROADWAY LIGHTING
- Δ (2)-"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH" FMTS COMMUNICATIONS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-S3A & S3B			
DRAWN BY		MDG	PLANS CK'D. JCG
PARAPET DETAILS		SHEET 3 OF 5	

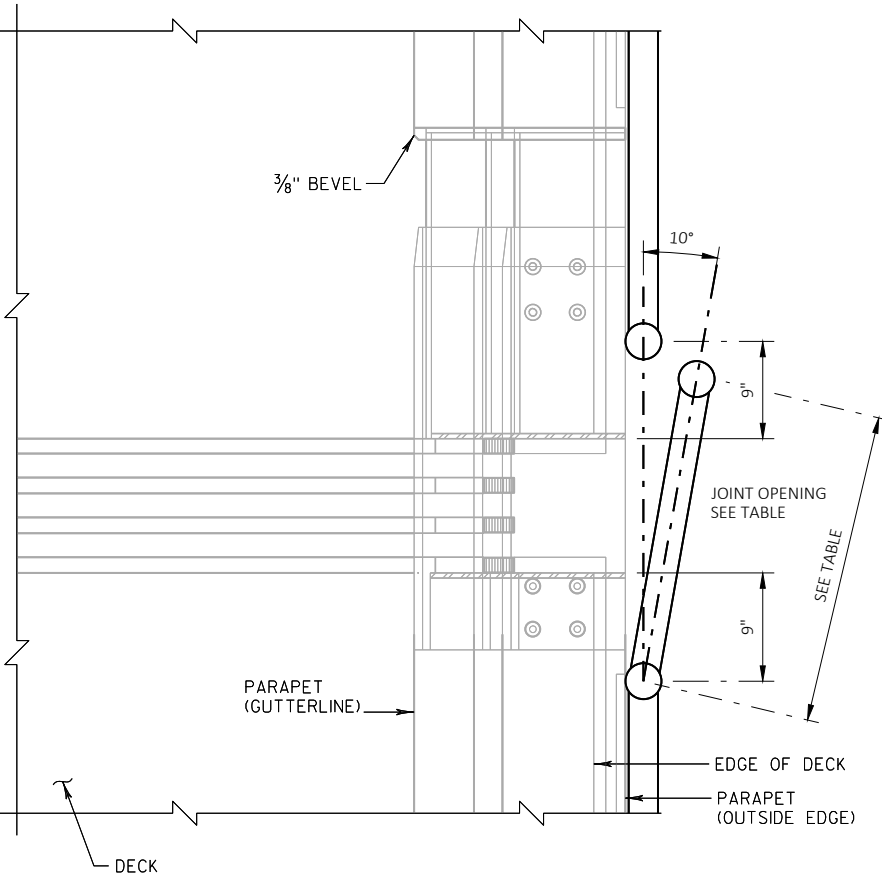
PROTECTIVE SCREENING SHALL BE STRAIGHT.



ELEVATION OF PARAPET



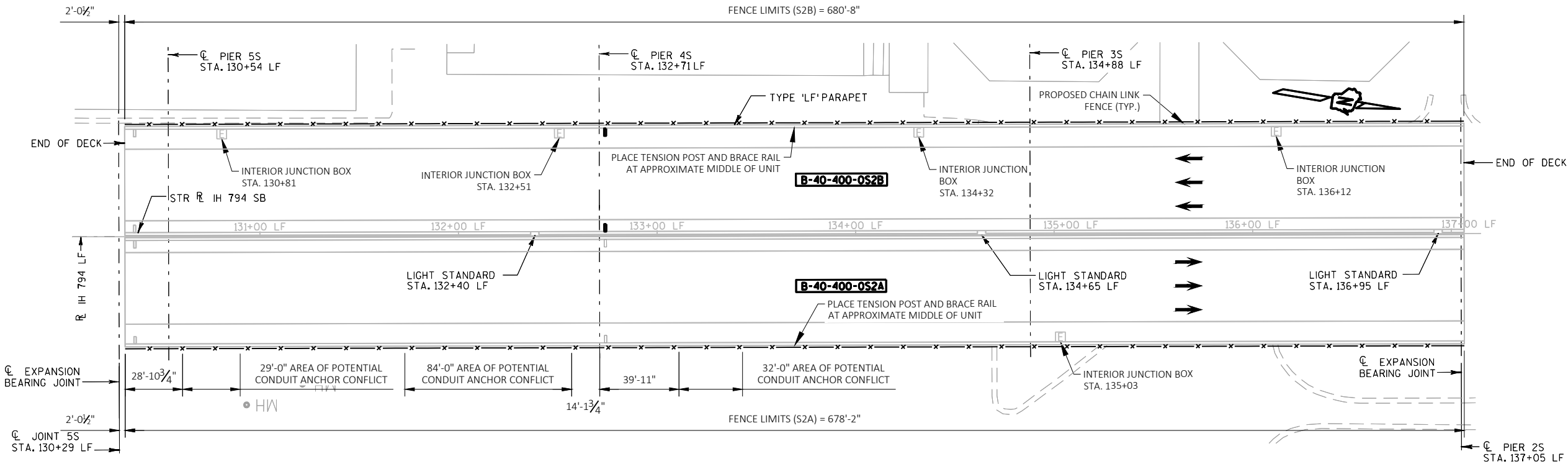
SECTION E-E



PLAN OF PARAPET

CANTILEVER LENGTHS			
TRAFFIC DIRECTION	UNIT W/ OVERHANG	JOINT OPENING (IN)	REQUIRED OVERHANG DISTANCE (IN)
SB	S3B TO S4B	12	30
NB	S3A TO S2A	12.5	30

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-S3A & S3B			
DRAWN BY		MDG	PLANS CK'D. JCG
MODULAR JOINT DETAILS		SHEET 5 OF 5	



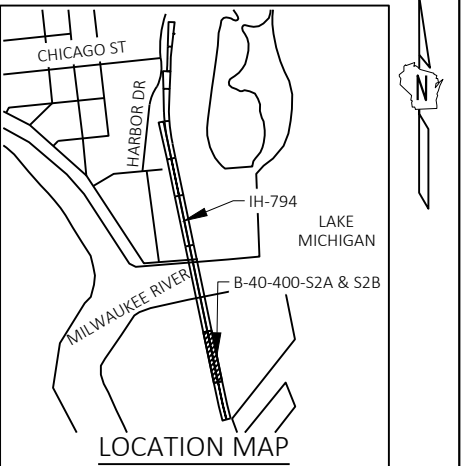
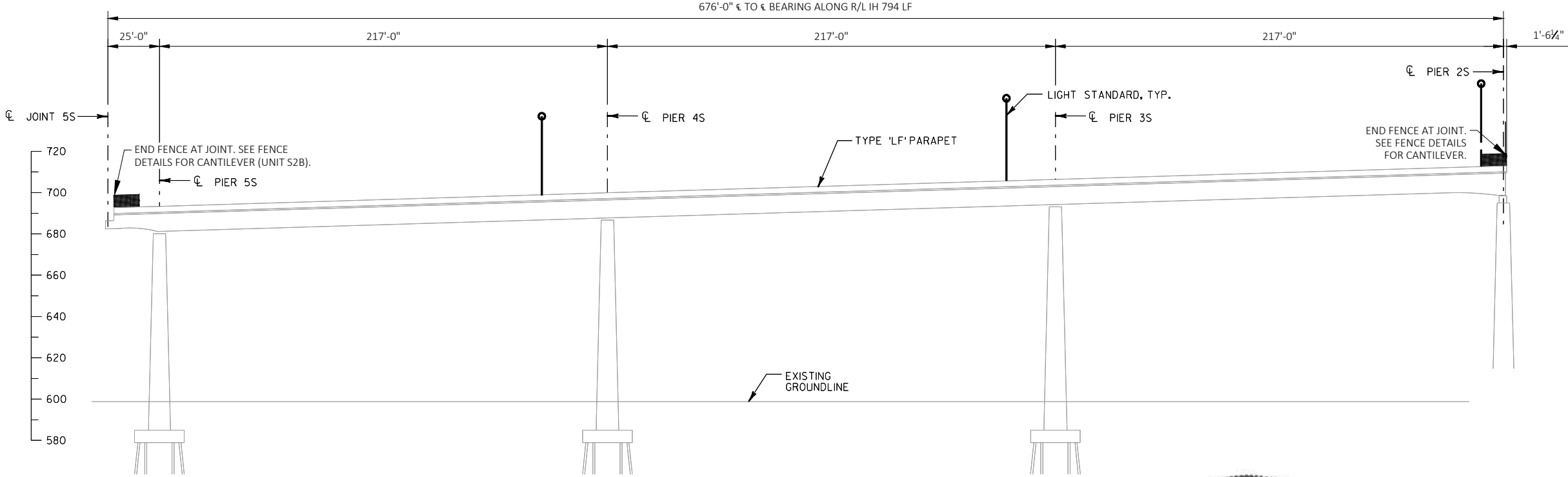
NOTES:
1. DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

LIVE LOAD:
INVENTORY RATING: HS-20
OPERATING RATING: HS- 33
MAXIMUM WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) LOAD = 250 KIPS

TRAFFIC DATA
AADT (2035) = 29,250 (ONE DIRECTION)
DESIGN SPEED = 55 MPH

SCOPE OF WORK
INSTALL NEW PARAPET MOUNTED CHAIN LINK FENCE

LIST OF DRAWINGS
1. GENERAL PLAN & ELEVATION
2. CROSS SECTIONS
3. PARAPET DETAILS
4. FENCE DETAILS
5. MODULAR JOINT DETAILS

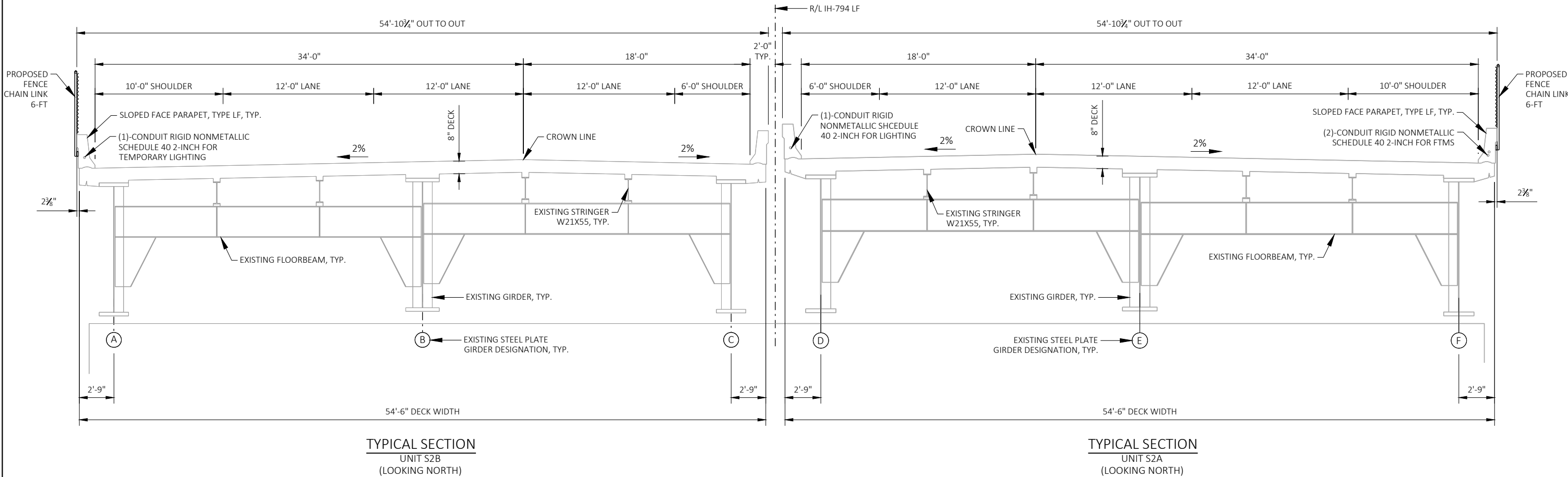


NO.	DATE	REVISION	BY
COLLINS ENGINEERS			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>[Signature]</i>	SDR	03/30/23
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-40-400-S2A & S2B			
IH 794-LAKE FREEWAY OVER LAND			
COUNTY	MILWAUKEE	TOWN/CITY/VILLAGE	MILWAUKEE
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	JCG	DESIGN CK'D.	MJM
DRAWN BY	MDG	PLANS CK'D.	JCG
GENERAL PLAN & ELEVATION			SHEET 1 OF 5

STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261

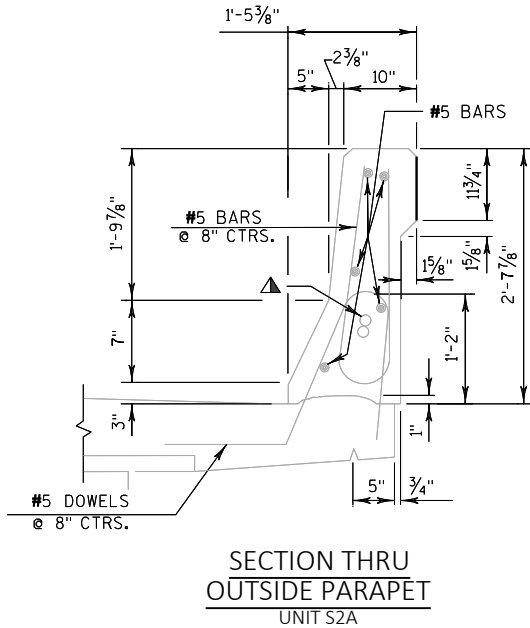
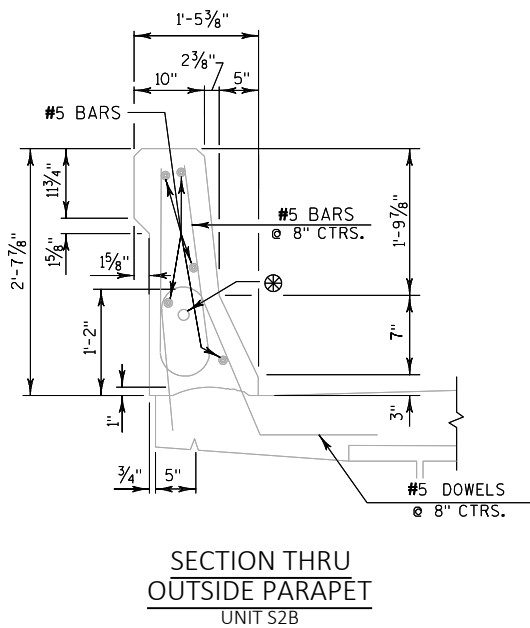
CONSULTANT CONTACT:
MARK MUTZIGER (414) 282-6905





ESTIMATE OF QUANTITIES			
ITEM NUMBER	BID ITEMS	QTY	UNIT
616.0206	FENCE CHAIN LINK 6-FT	1360	LF

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-S2A & S2B			
DRAWN BY		MDG	PLANS CK'D. JCG
CROSS SECTIONS		SHEET 2 OF 5	

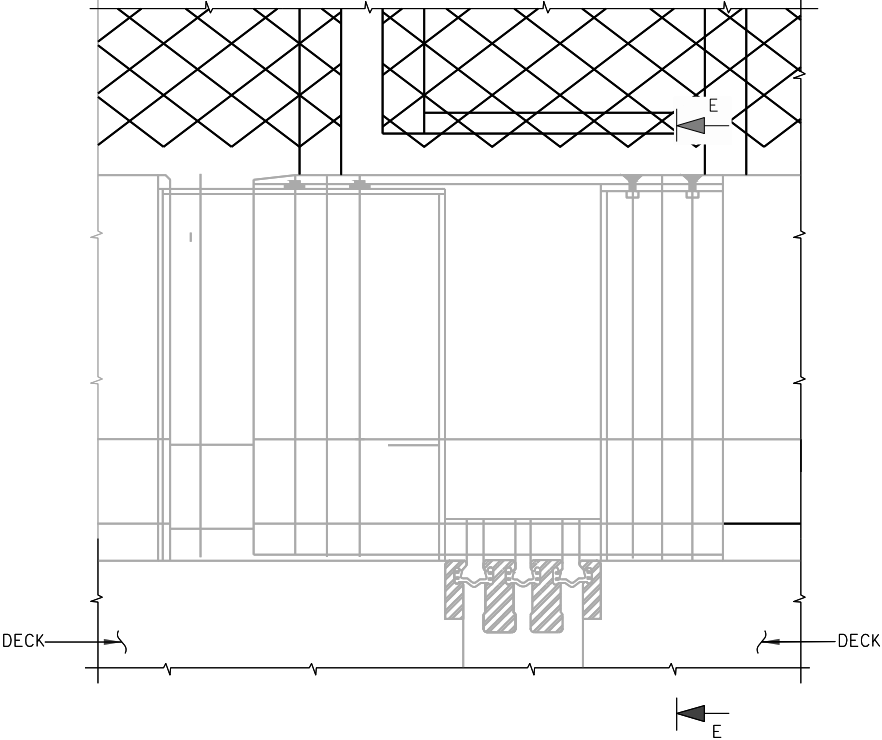


LEGEND

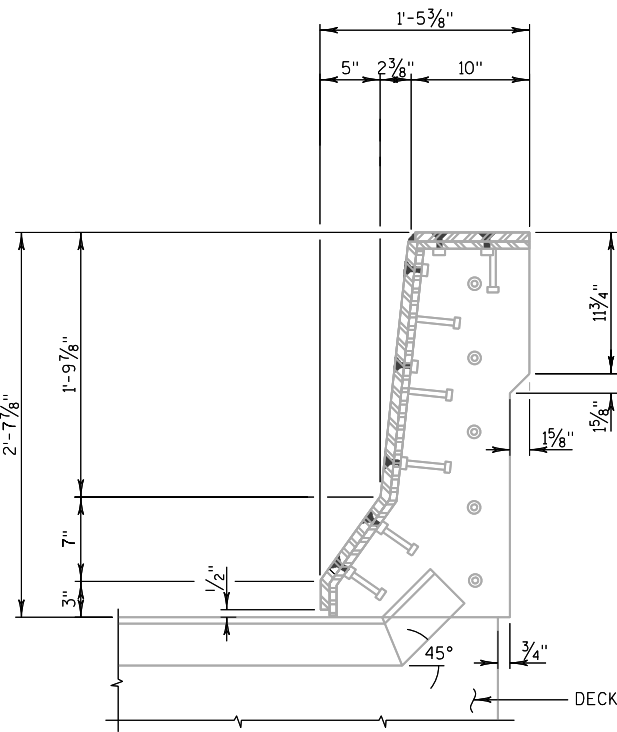
- (1) - "CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH" FOR TEMPORARY ROADWAY LIGHTING.
- (2) - "CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH" FOR FTMS COMMUNICATIONS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-S2A & S2B			
DRAWN BY		MDG	PLANS CK'D. JCG
PARAPET DETAILS		SHEET 3 OF 5	

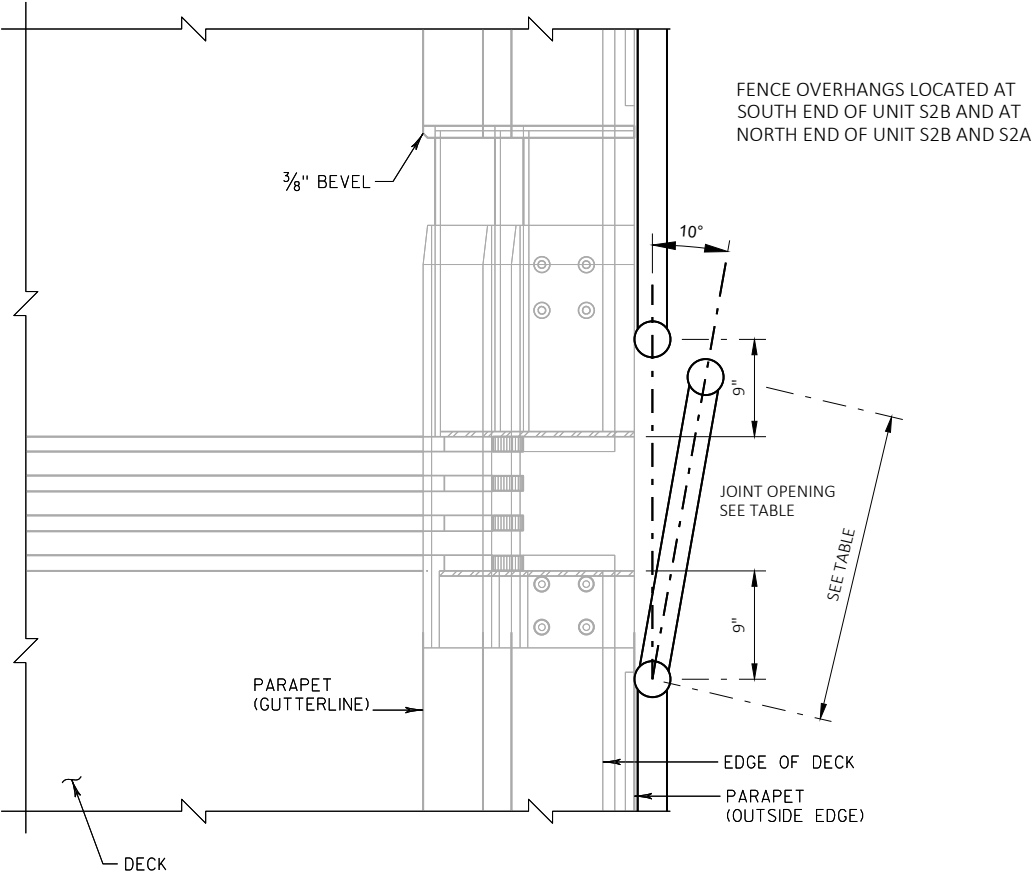
NO.	DATE	REVISION		BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION				
STRUCTURE B-40-400-S2A & S2B				
		DRAWN BY	MDG	PLANS CK'D. JCG
FENCE DETAILS			SHEET 4 OF 5	



ELEVATION OF PARAPET



SECTION E-E



PLAN OF PARAPET

CANTILEVER LENGTHS			
TRAFFIC DIRECTION	UNIT W/ OVERHANG	JOINT OPENING (IN)	REQUIRED OVERHANG DISTANCE (IN)
SB	S2B TO S3B	12	30

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-S2A & S2B			
DRAWN BY		MDG	PLANS CK'D. JCG
MODULAR JOINT DETAILS		SHEET 5 OF 5	

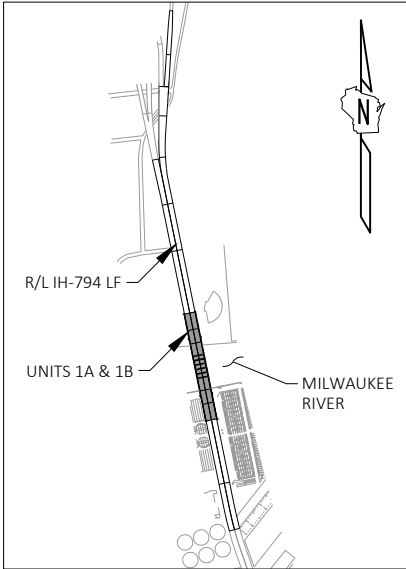
NOTES:
1. DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

LIVE LOAD:
INVENTORY RATING: HS-18
OPERATING RATING: HS-31
MAXIMUM WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) LOAD = 250 KIPS


TRAFFIC DATA
AADT (2035) = 29,250 (ONE DIRECTION)
DESIGN SPEED = 55 MPH

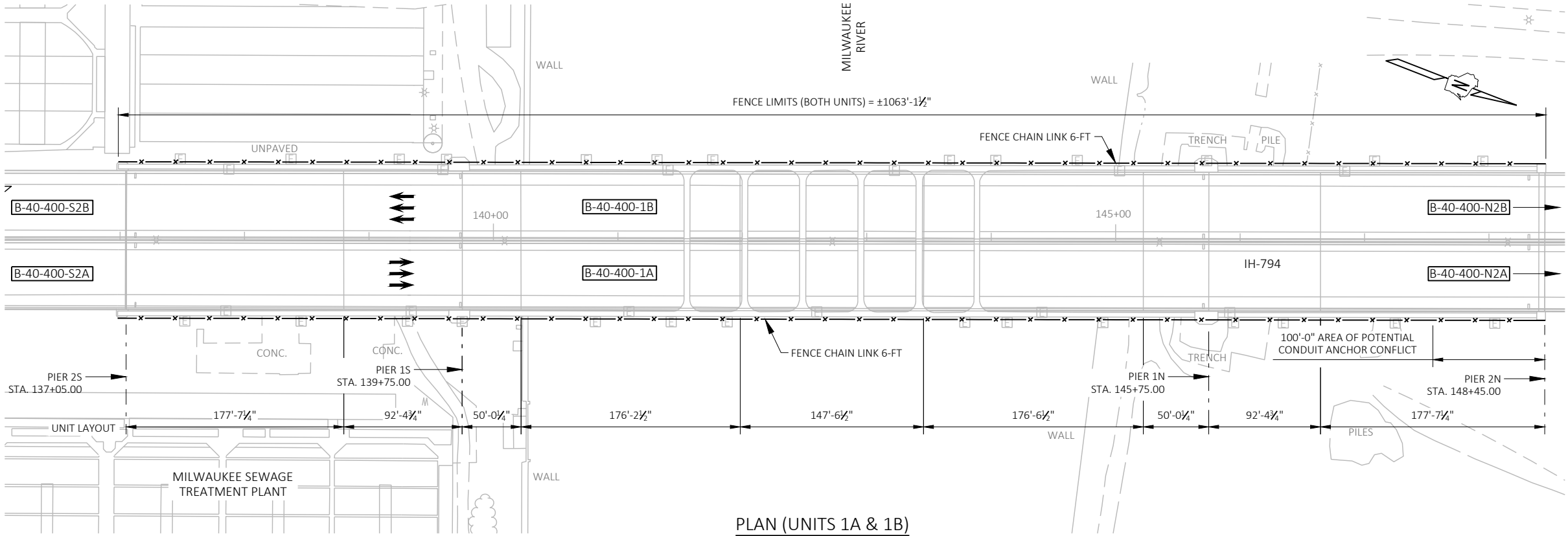
SCOPE OF WORK
INSTALL NEW PARAPET MOUNTED CHAIN LINK FENCE

- LIST OF DRAWINGS
1. GENERAL PLAN & ELEVATION
 2. CROSS SECTIONS
 3. DECK LAYOUT-1
 4. DECK LAYOUT-2
 5. DECK LAYOUT-3
 6. DECK LAYOUT-4
 7. PARAPET DETAILS
 8. FENCE DETAILS
 9. FENCE GATE DETAILS
 10. LIGHTING DETAILS
 11. PLATFORM DETAILS-1
 12. PLATFORM DETAILS-2

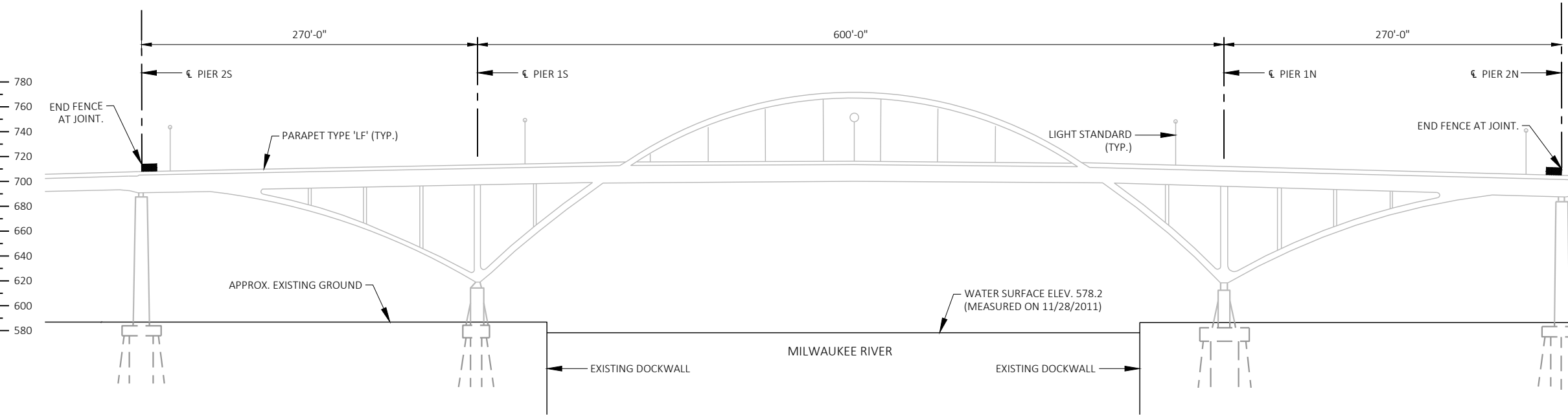


LOCATION MAP

NO.	DATE	REVISION	BY
<div>COLLINS ENGINEERS</div> <div>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</div> <div>ACCEPTED  SDR 03/30/23 CHIEF STRUCTURES DESIGN ENGINEER DATE</div> <div>STRUCTURE B-40-400-1A & 1B</div> <div>IH 794 WB-LAKE FREEWAY OVER MILWAUKEE RIVER</div> <div>COUNTY MILWAUKEE TOWN/CITY/VILLAGE MILWAUKEE</div> <div>DESIGN SPEC. REHABILITATION N/A</div> <div>DESIGNED BY JCG DESIGN CK'D. MJM DRAWN BY MDG PLANS CK'D. JCG</div> <div>GENERAL PLAN & ELEVATION</div> <div>SHEET 1 OF 12</div>			



PLAN (UNITS 1A & 1B)

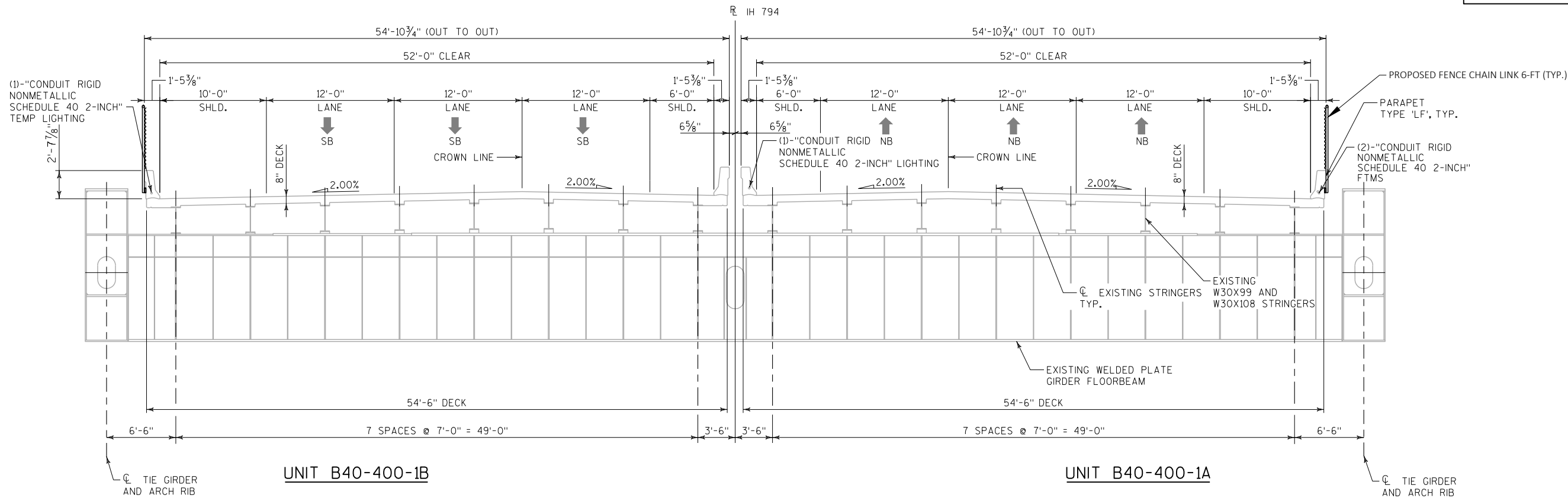


ELEVATION
LOOKING WEST



STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261

CONSULTANT CONTACT:
MARK MUTZIGER (414) 282-6905



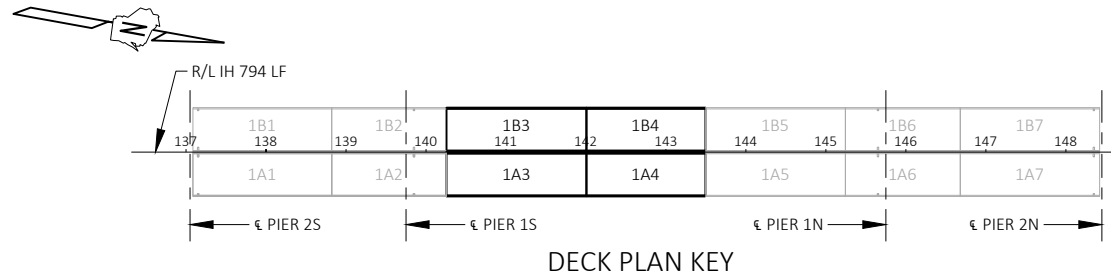
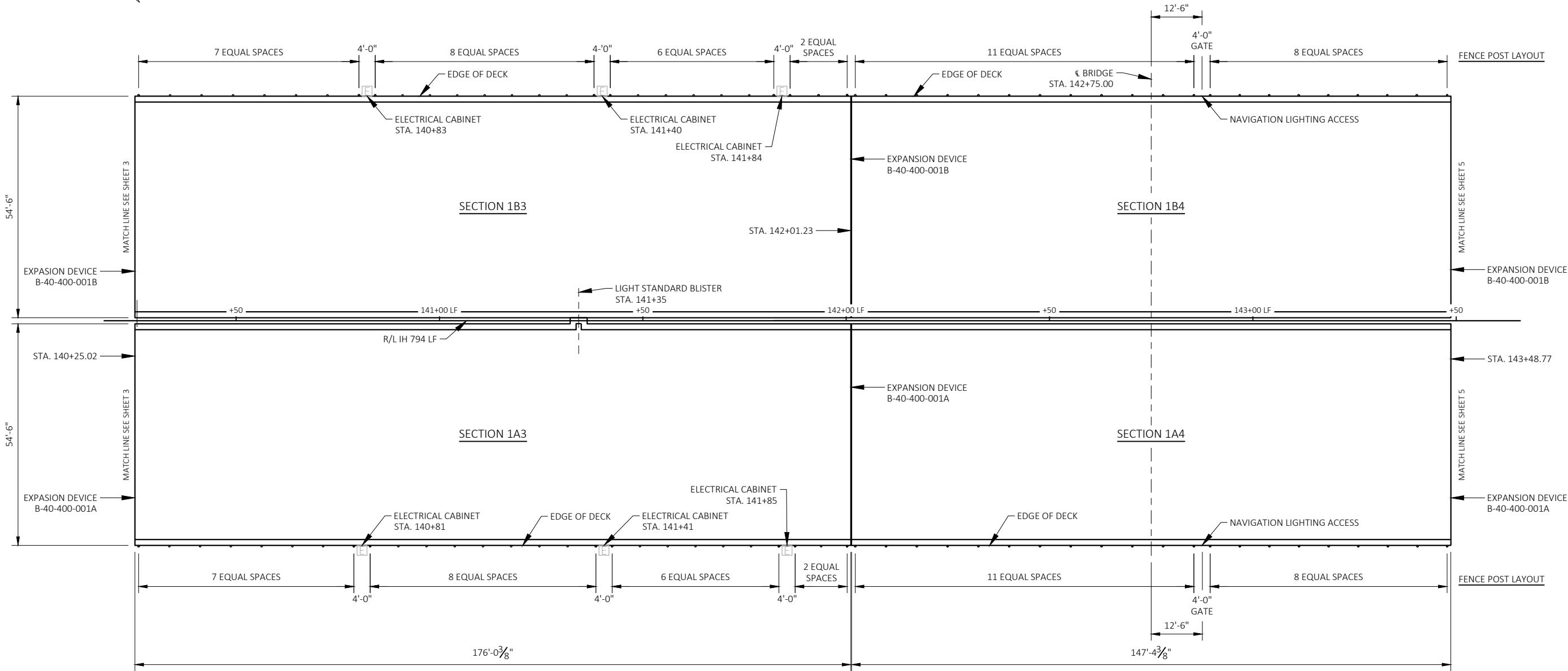
TYPICAL CROSS SECTION AT FLOORBEAMS
(LOOKING NORTH)

ESTIMATE OF QUANTITIES			
ITEM NUMBER	BID ITEMS	QTY	UNIT
616.0206	FENCE CHAIN LINK 6-FT	2128	LF
616.0329	GATES CHAIN LINK 4-FT	38	EA
SPV.0060.01	UNIT 1A/1B PLATFORM	4	EA
SPV.0060.02	LOCK BOX	2	EA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-1A & 1B			
DRAWN BY		MDG	PLANS CK'D. JCG
CROSS SECTION		SHEET 2 OF 12	

NOTES:
FENCE POST SPACING FOR REFERENCE ONLY CONTRACTOR
TO DETERMINE ACTUAL POST LOCATIONS.

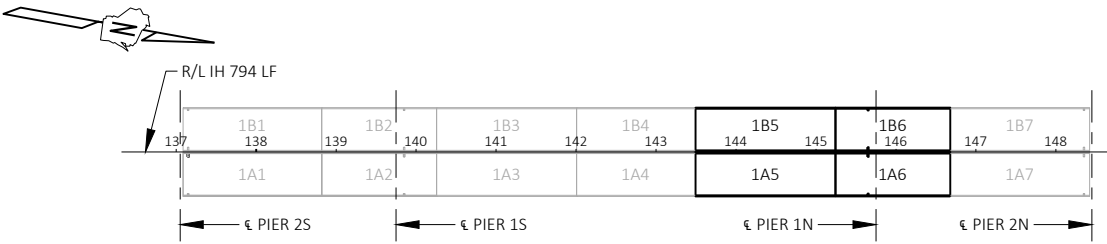
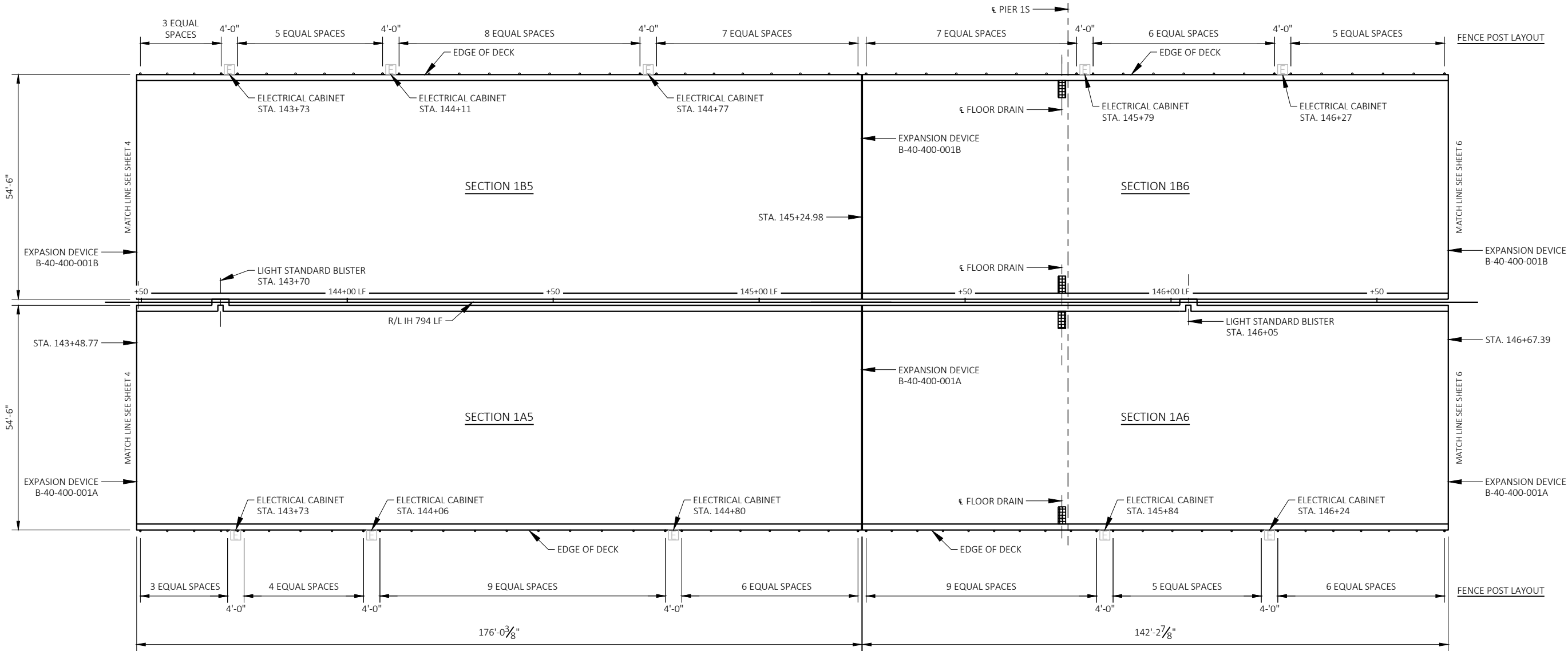
LOCATE POSTS TO AVOID EXISTING MOUNTED LIGHTING
INFRASTRUCTURE.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-1A & 1B			
DRAWN BY		MDG	PLANS CK'D. JCG
DECK LAYOUT-2		SHEET 4 OF 12	

NOTES:
FENCE POST SPACING FOR REFERENCE ONLY CONTRACTOR
TO DETERMINE ACTUAL POST LOCATIONS.

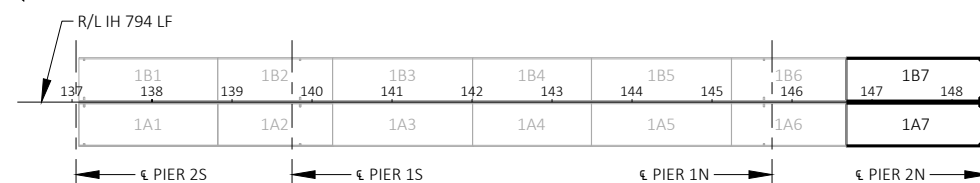
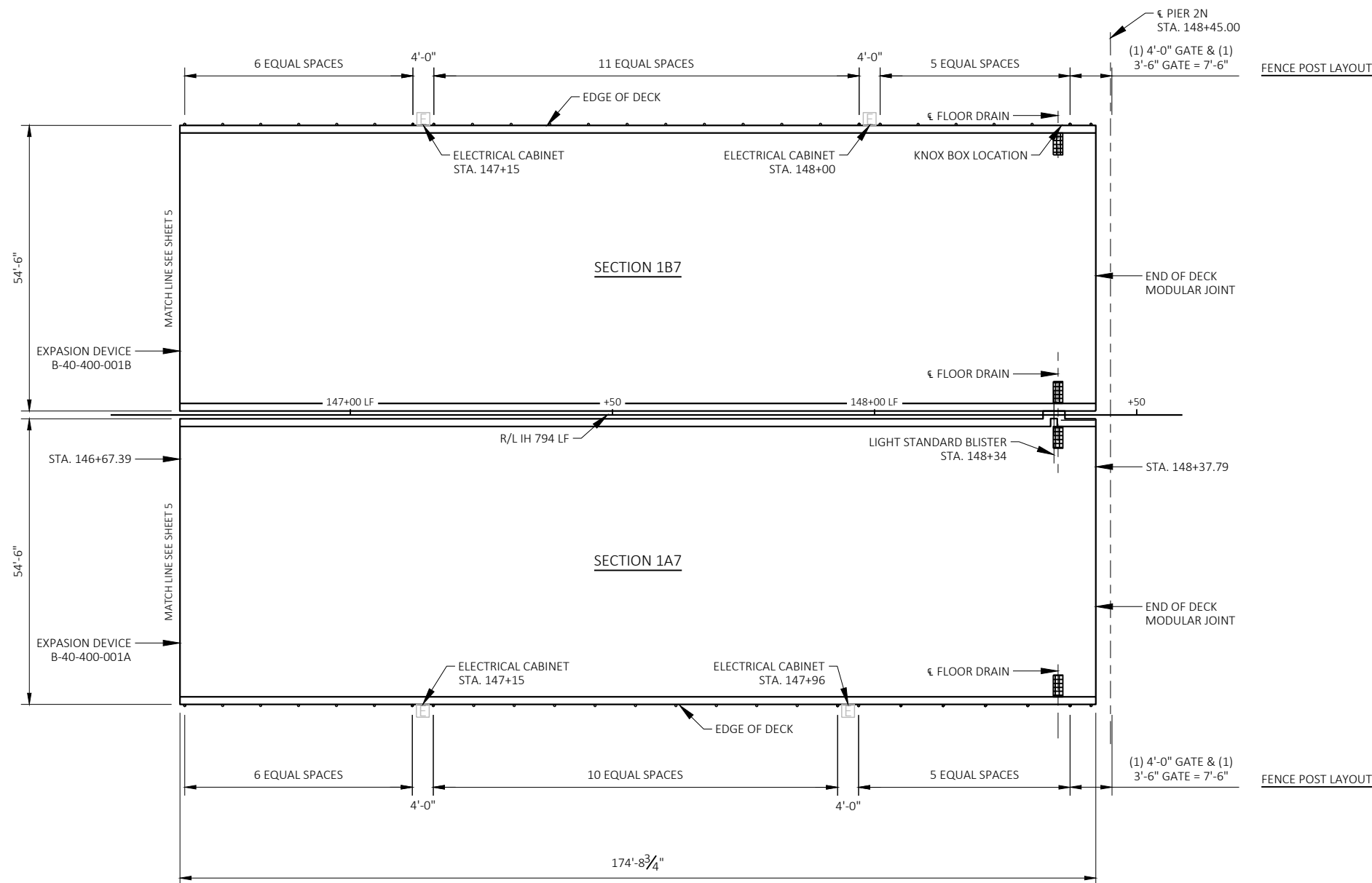
LOCATE POSTS TO AVOID EXISTING MOUNTED LIGHTING
INFRASTRUCTURE.



DECK PLAN KEY

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-1A & 1B			
DRAWN BY		MDG	PLANS CK'D. JCG
DECK LAYOUT-3		SHEET 5 OF 12	

LOCATE POSTS TO AVOID EXISTING MOUNTED LIGHTING INFRASTRUCTURE.

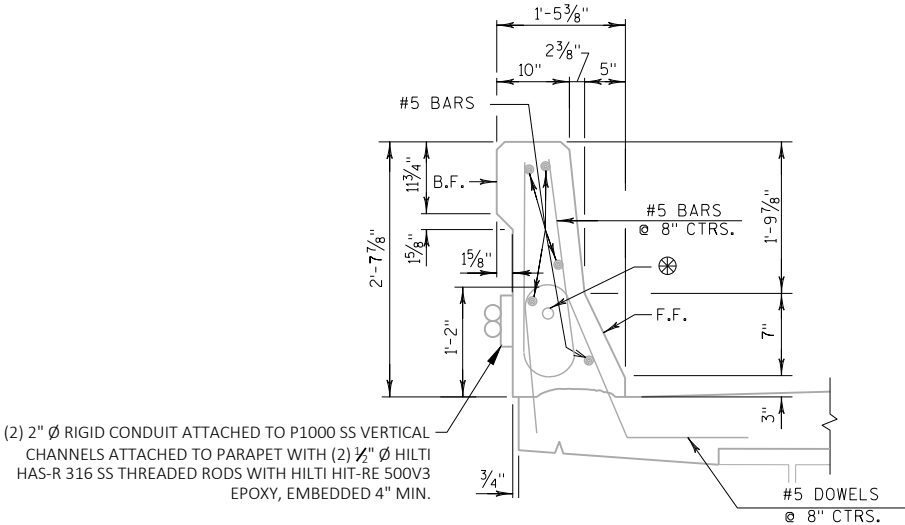


DECK PLAN KEY

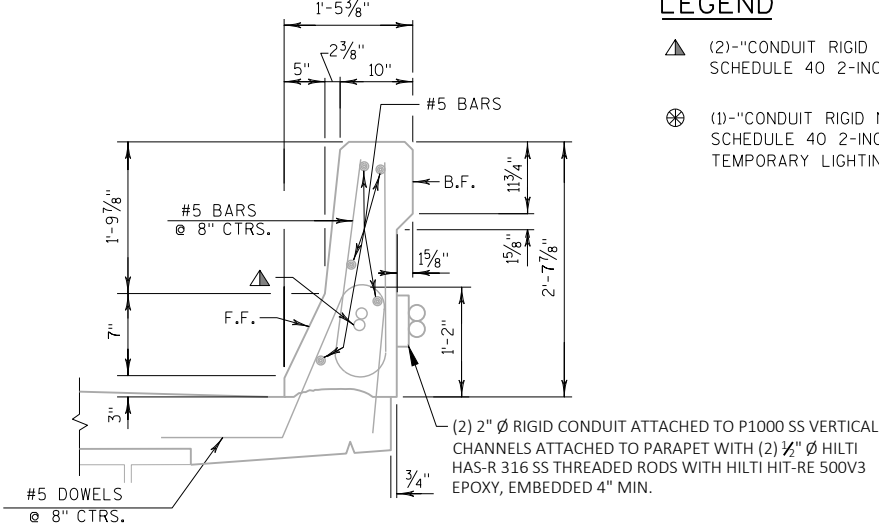
NO.	DATE	REVISION		BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION				
STRUCTURE B-40-400-1A & 1B				
		DRAWN BY	MDG	PLANS CK'D. JC
DECK LAYOUT-4			SHEET 6 OF 1	

LEGEND

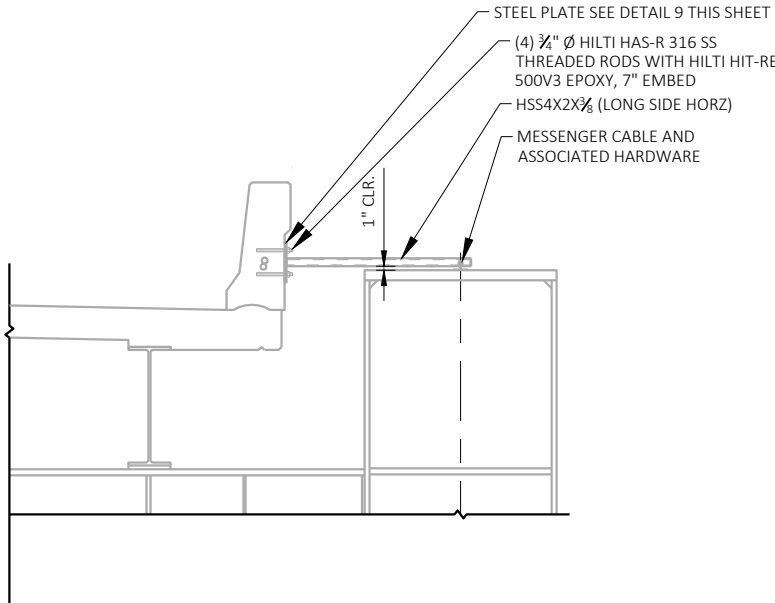
- (2) 2"-CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH FTMS
- (1) 1"-CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH FOR TEMPORARY LIGHTING



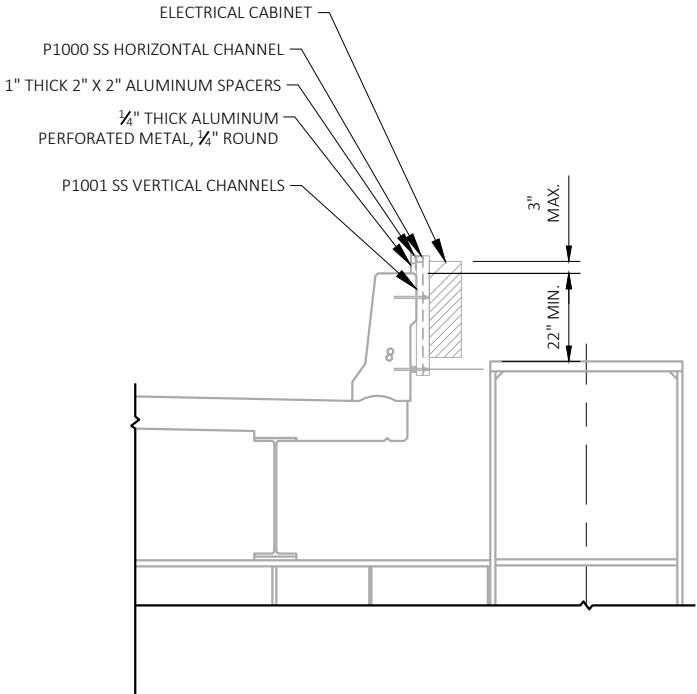
SECTION THRU
OUTSIDE PARAPET
UNIT 1B



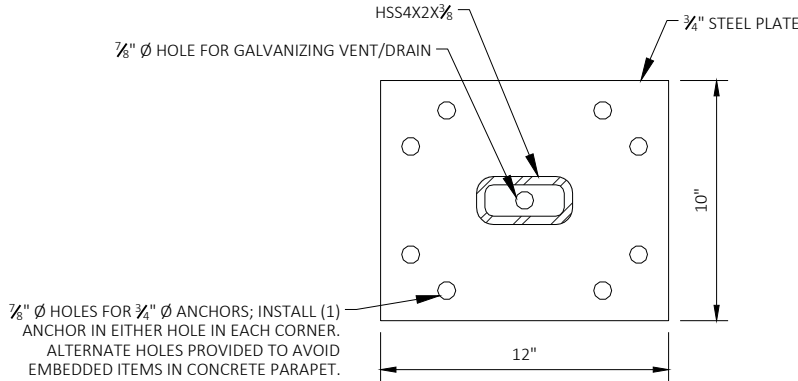
SECTION THRU
OUTSIDE PARAPET
UNIT 1A



EXISTING LIGHTING
INFRASTRUCTURE CABLE ARM



EXISTING LIGHTING INFRASTRUCTURE
ELECTRICAL CABINETS



DETAIL 9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-1A & 1B			
DRAWN BY		MDG	PLANS CK'D. JCG
PARAPET DETAILS		SHEET 7 OF 12	

NOTES:

POSTS ARE TO BE SET VERTICAL.

METALLIC-COATED FENCE SYSTEM:
ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH SHALL BE ALUMINUM-COATED STEEL.

FABRIC SHALL CONFORM TO ASTM A491. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626.

STEEL POSTS SHALL BE HIGH STRENGTH GRADE 50.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 6- FT."

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST CLAMPS AND POST CLAMP SPACERS SHALL BE ASTM A709, GRADE 36.

TENSION WIRE SHALL BE 7 GAGE STEEL WIRE COATED IN ACCORDANCE WITH ASTM A824 AND A817 AS TYPE I (ALUMINUMIZED).

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

CONCRETE ADHESIVE ANCHORS 3/8"-INCH. EMBED 5" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.

PAYMENT FOR ADHESIVE ANCHOR AND ANCHOR HARDWARE INCIDENTAL TO CHAIN LINK FENCE ITEM.

ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

PROVIDE TENSION POST AND BRACE RAILS TO LIMIT TENSION WIRE RUNS TO LESS THAN 500 FEET.

PARAPET HAS INTERNAL CONDUIT. INSPECT ALL ANCHOR HOLES BEFORE ADHESIVE INSTALLATION. NOTIFY ENGINEER IF CONDUIT IS ENCOUNTERED DURING ADHESIVE ANCHOR INSTALLATION. SEE TABLE BELOW FOR POTENTIAL CONDUIT CONFLICT WITH TYPICAL ADHESIVE ANCHOR LOCATION.

STRUCTURAL TUBING SHALL BE ASTM A500 AND GALVANIZED.

CONTRACTOR TO PROVIDE DUST CONTROL DURING EPOXY ANCHOR INSTALLATION. SUBMIT COLLECTION METHOD FOR APPROVAL. DUST COLLECTION INCIDENTAL TO FENCE ITEM.

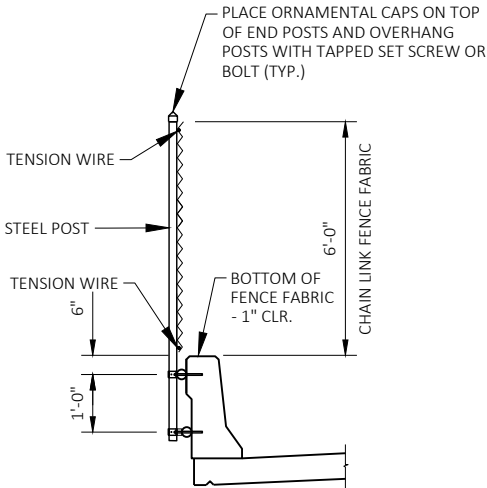
ATTACH KNOX BOX TO TRAFFIC SIDE OF CHAIN LINK FENCE FABRIC WITH 1/2" THICK GALVANIZED PLATE. BOLT BOX TO PLATE WITH FOUR 3/8" DIA. STAINLESS STEEL BOLTS, NUTS AND WASHERS. ATTACH BOX TO FENCE POST WITH TWO BRACKETS. SEE DETAILS SHEET 12.

CONDUIT ANCHOR CONFLICT

SPAN	STATION OF CONFLICT	LENGTH	LOCATION
1A	147+55 TO 148+55	100	UPPER ANCHOR

* REVISE DIMENSION TO 4.5" AT LOCATIONS NOTED TO AVOID POTENTIAL CONFLICT WITH CONDUIT INTERNAL TO PARAPET.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-1A & 1B			
DRAWN BY		MDG	PLANS CK'D. JCG
FENCE DETAILS			SHEET 8 OF 12

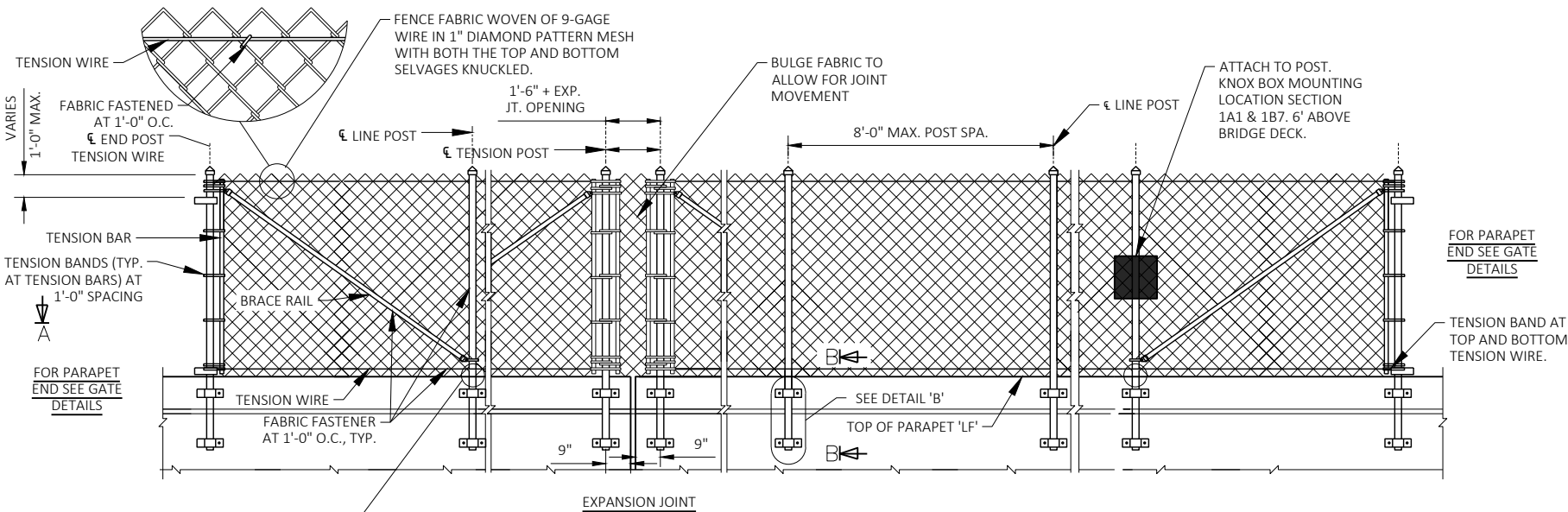


SECTION THRU FENCE ON PARAPET 'LF'

PROTECTIVE SCREENING SHALL BE STRAIGHT.

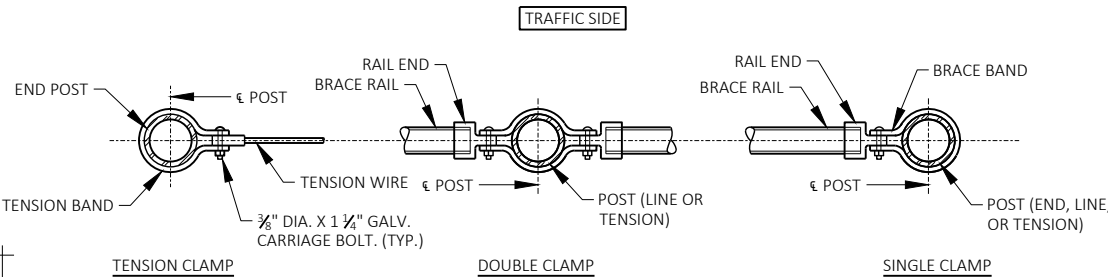
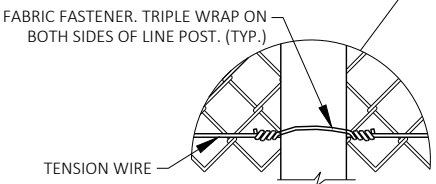
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
POST (END, LINE, OR TENSION)	3.50	7.576
BRACE RAIL	1.66	2.273



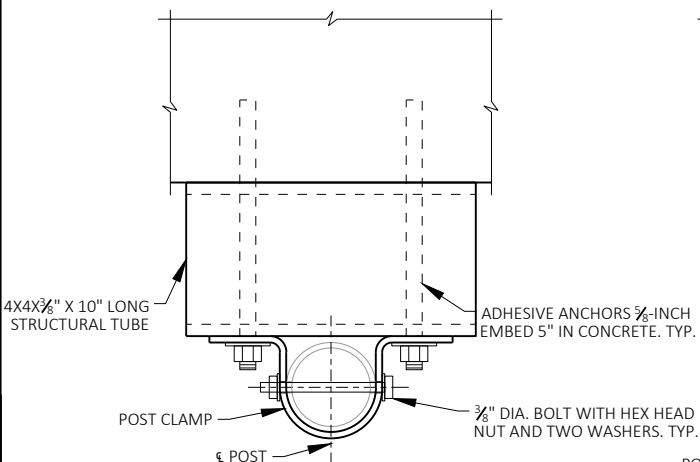
FENCE PART ELEVATION

(OUTSIDE VIEW OF PARAPET 'LF')

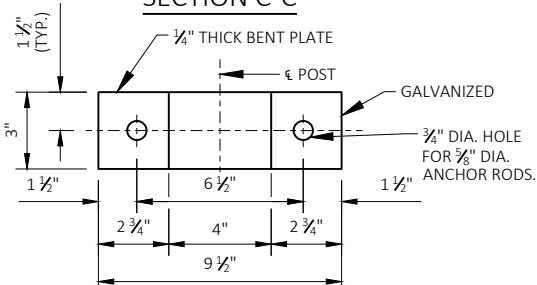


SECTION A-A

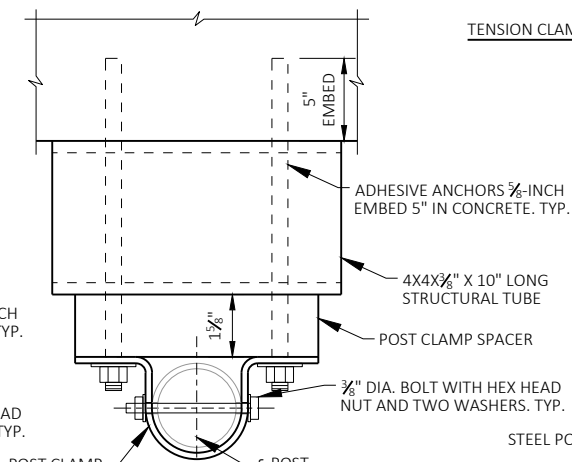
NOTE: PLACE ALL BOLT HEADS ON THE TRAFFIC SIDE



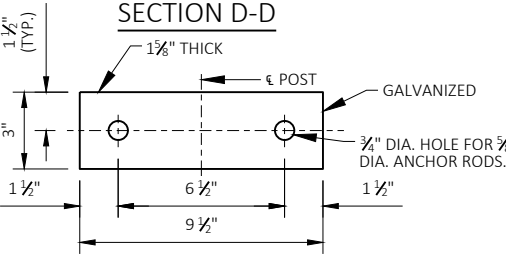
SECTION C-C



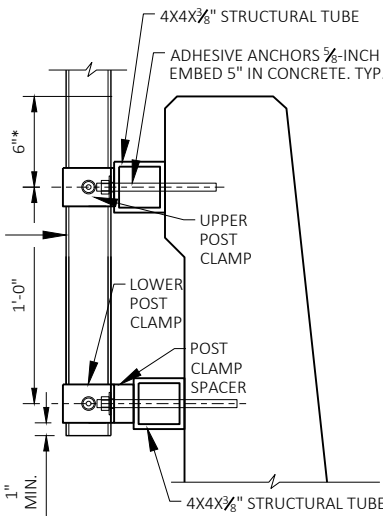
POST CLAMP DETAIL



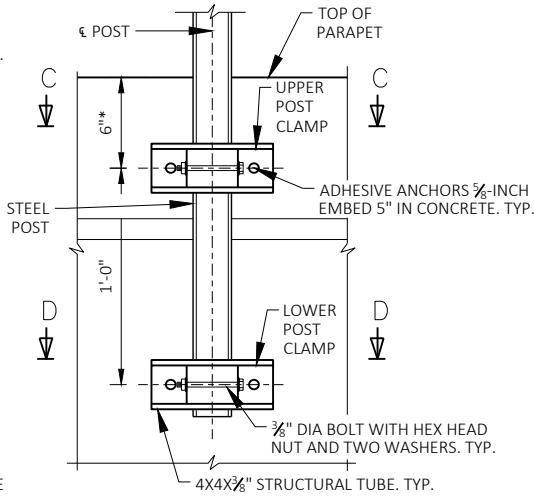
SECTION D-D



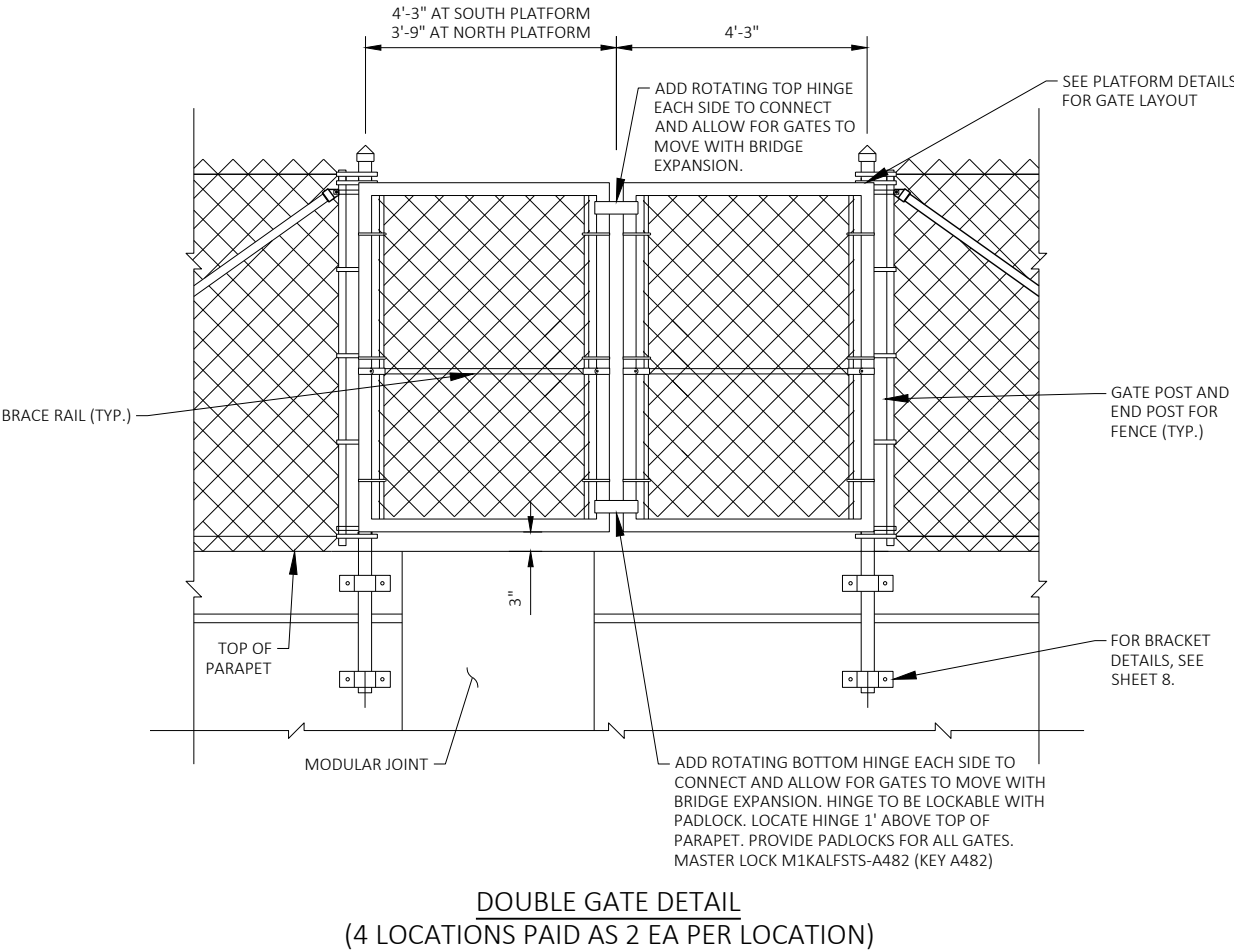
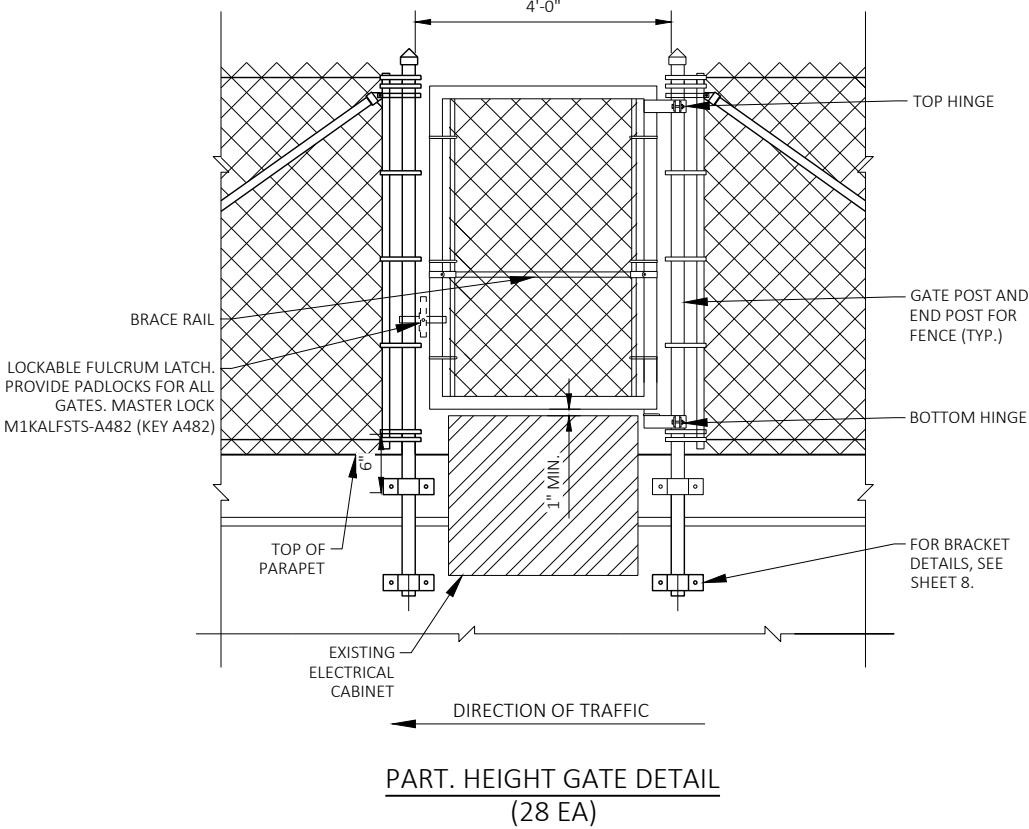
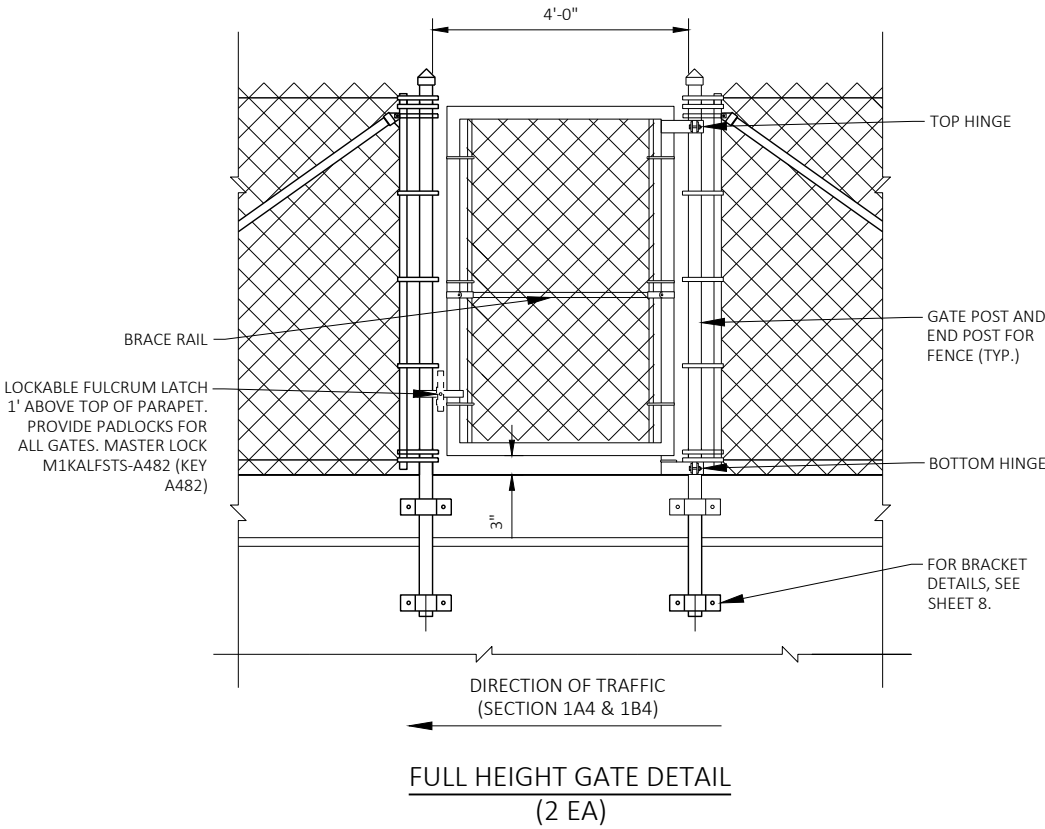
POST CLAMP SPACER DETAIL



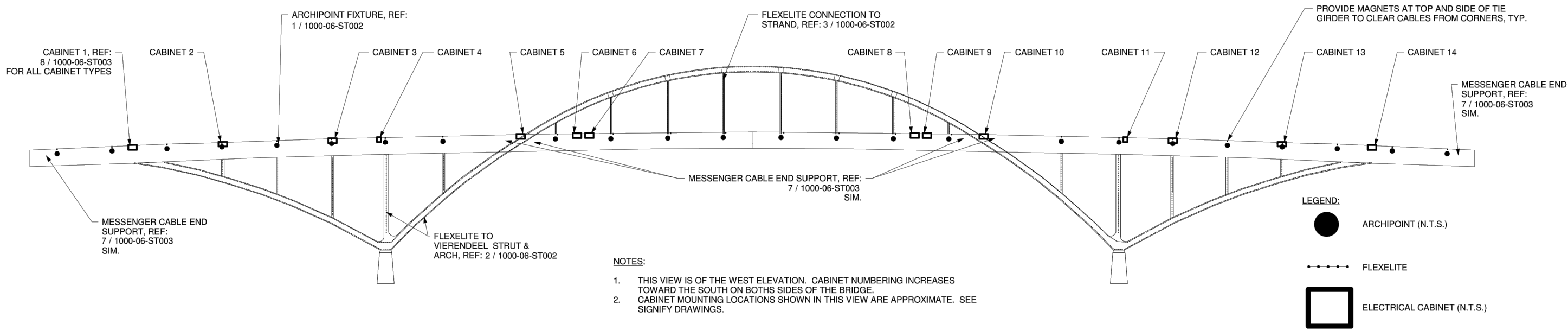
SECTION B-B



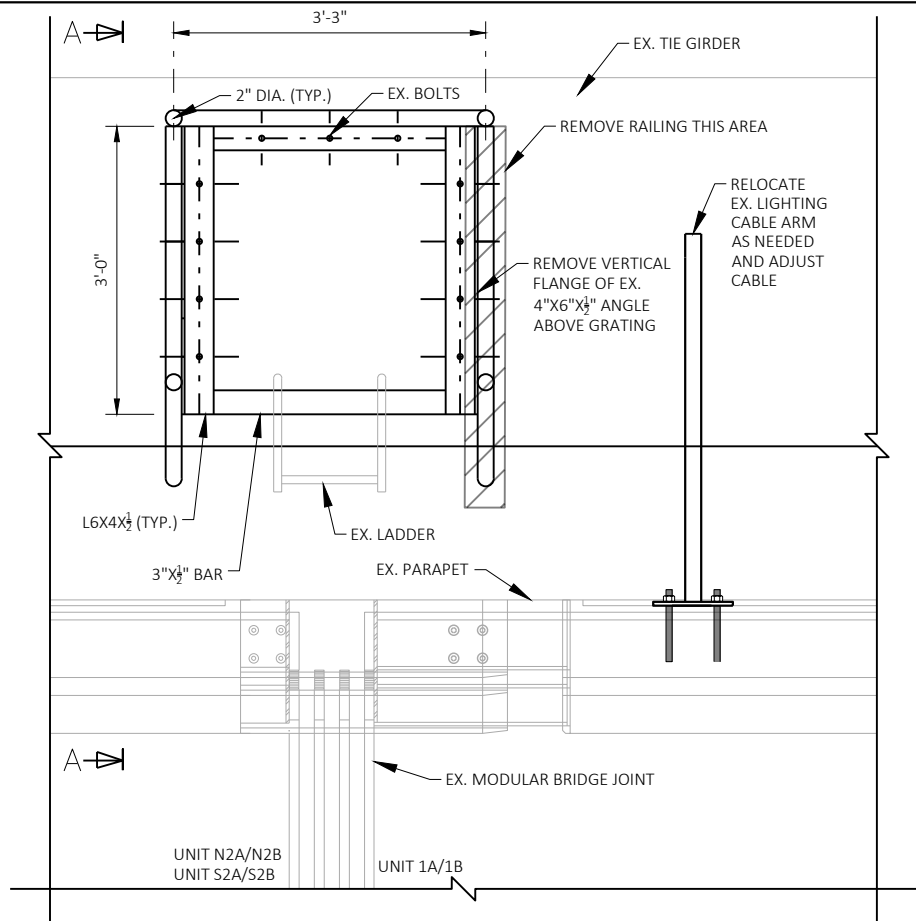
DETAIL 'B'



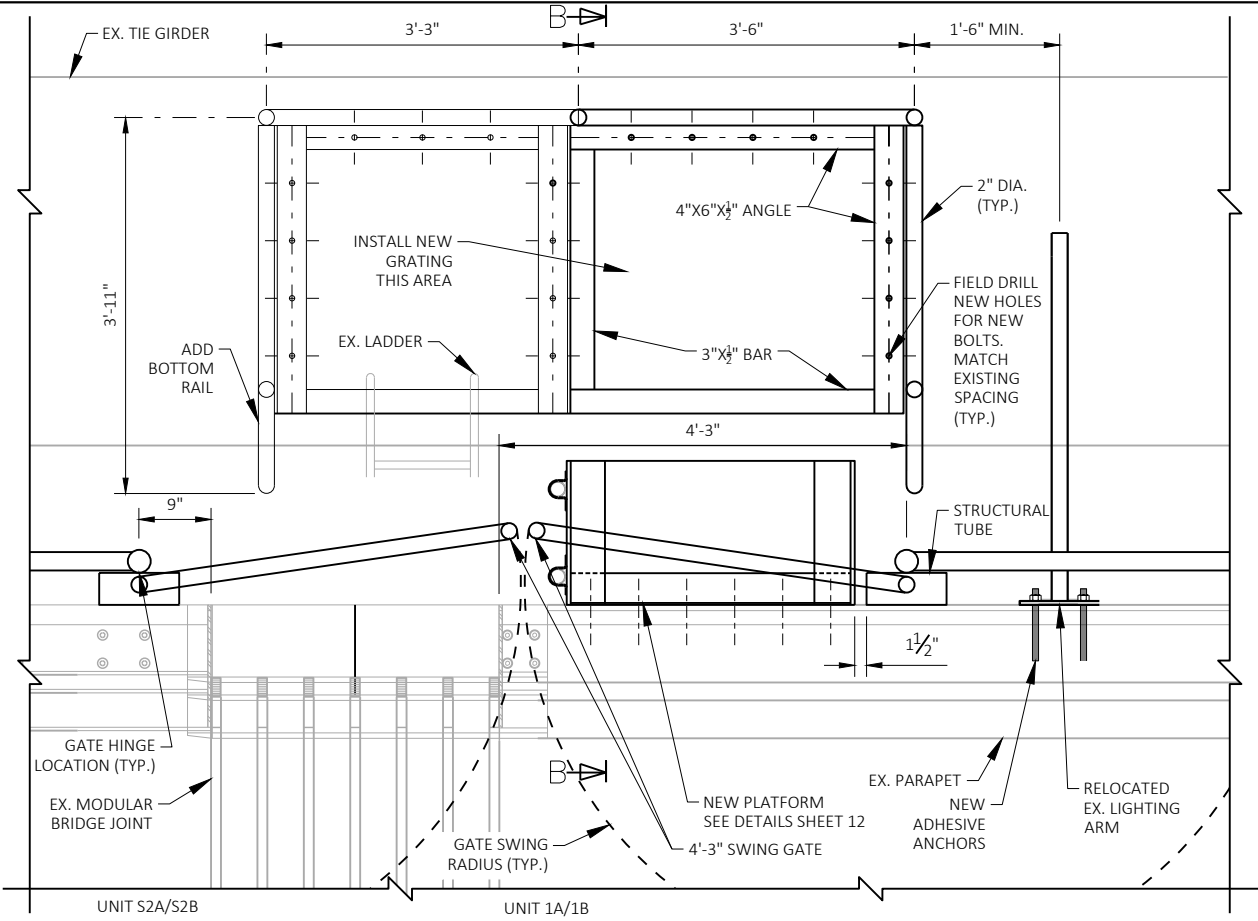
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-1A & 1B			
DRAWN BY		MDG	PLANS CK'D. JCG
FENCE GATE DETAILS		SHEET 9 OF 12	



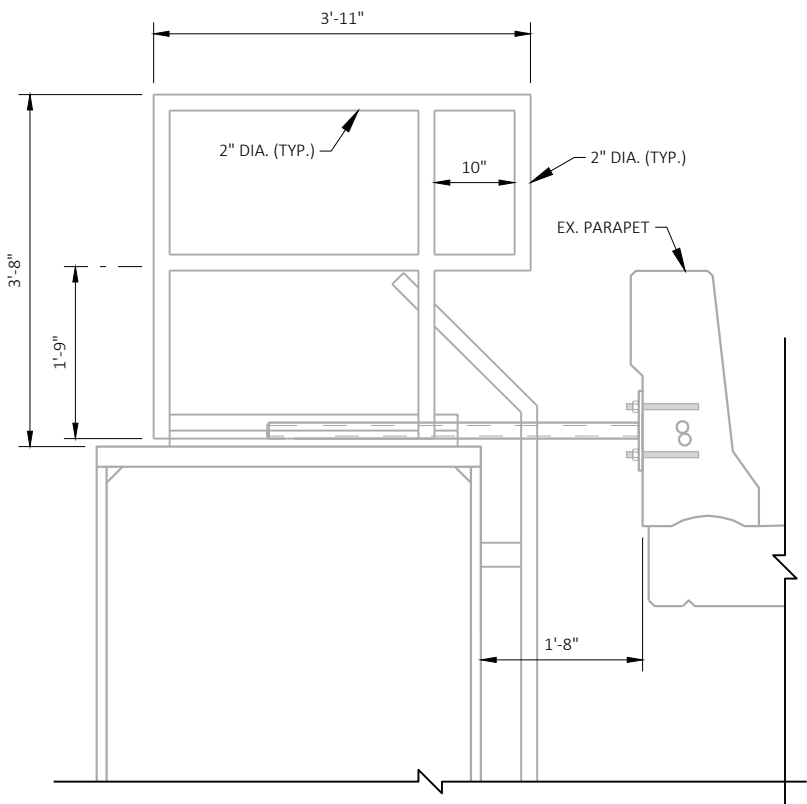
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-1A & 1B			
DRAWN BY MDG		PLANS CK'D. JCG	
LIGHTING DETAILS		SHEET 10 OF 12	



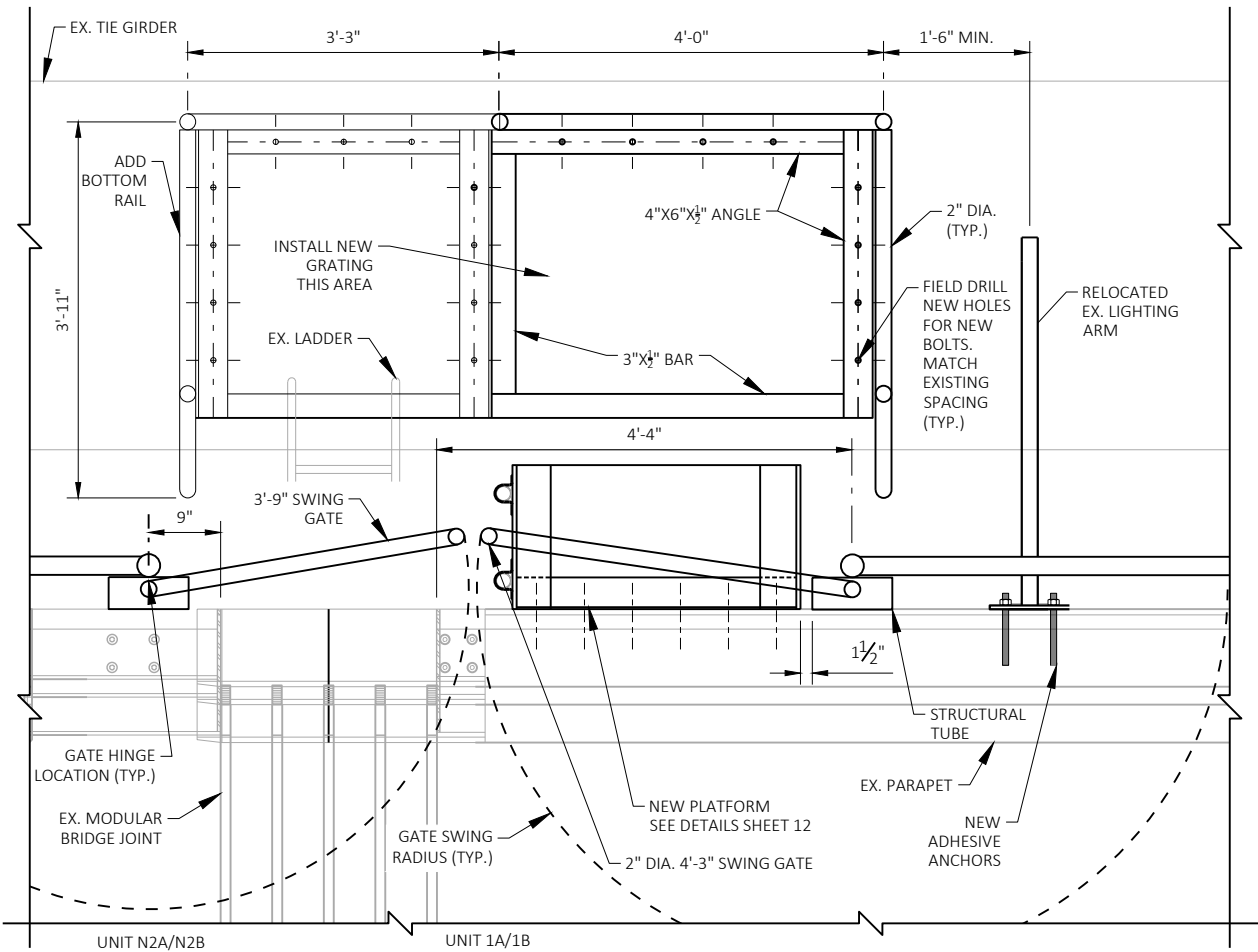
EXISTING PLATFORM PLAN



PROPOSED SOUTH JOINT PLATFORM PLAN



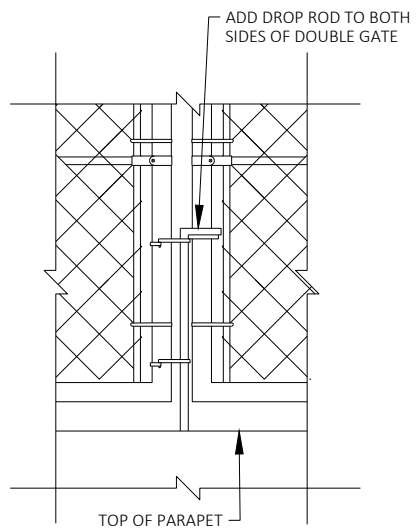
SECTION A-A
SIDE ELEVATION OF EX. PLATFORM



PROPOSED NORTH JOINT PLATFORM PLAN

STATE PROJECT NUMBER
1300-15-70

- NOTES:
- TIE GIRDER TOP FLANGE 1 1/2" THICK.
 - WALKING GRATES NOT SHOWN FOR CLARITY.
 - PROVIDE SHOP DRAWINGS IN ACCORDANCE TO STANDARD SPECIFICATION 506.3 FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. ALL WORK SHALL CONFORM TO STANDARD SPECIFICATION 506.
 - WELD GRATE TO ANGLES.
 - WELD DETAILS NOT SHOWN FOR CLARITY. FILLET WELDS ANTICIPATED CONNECTING ALL MEMBERS.
 - GRATING 4"X 1 1/2" SPACING, 1" TALL.
 - BOLTS SHALL CONFORM TO STANDARD SPECIFICATION SECTION 506.2.5. INSTALLATION SHALL CONFORM TO STANDARD SPECIFICATION 506.3.
 - GALVANIZE ALL PLATFORM FABRICATIONS.
 - DOUBLE GATES TO ROTATE TO ALLOW FOR BRIDGE MOVEMENT BUT SWING TOWARD TRAFFIC WHEN OPENED FOR ACCESS. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF FENCE HINGES AT POSTS AND AT MOVABLE CONNECTION.



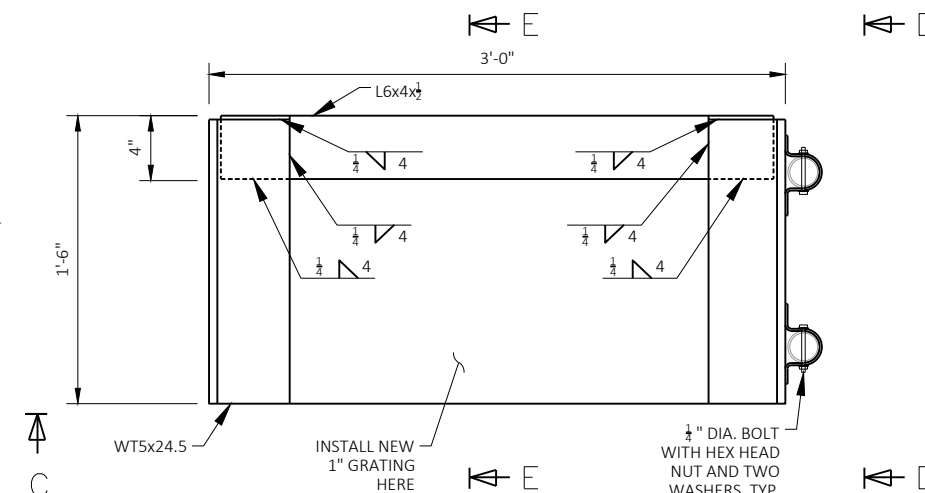
DOUBLE GATE CLOSURE DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-1A & 1B			
DRAWN BY		MDG	PLANS CK'D. JCG
PLATFORM DETAILS-1		SHEET 11 OF 12	

PROVIDE SHOP DRAWINGS IN ACCORDANCE TO STANDARD SPECIFICATION 506.3 FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. ALL WORK SHALL CONFORM TO STANDARD SPECIFICATION 506.

WELD DETAILS NOT SHOWN FOR CLARITY. FILLET WELDS ANTICIPATED CONNECTING ALL MEMBERS.

GALVANIZE ALL PLATFORM FABRICATIONS. STEEL POSTS SHALL CONFORM TO ASTM F1083 STANDARD WEIGHT. STRUCTURAL STEEL SHALL BE MIN A36.

[illegible]

INSTALL WELDED END CAP

INSTALL FALL PROTECTION ANCHOR POINT

10"

1'-2"

1'-7"

2'-4 1/2"

(TYP.)

1/2"

3"

3"

3 3/4"

1/4" BENT PLATE (TYP.)

WT5x24.5

10"

1/2"

1 1/4"

5"

5 1/2"

5"

1 1/4"

1'-6"

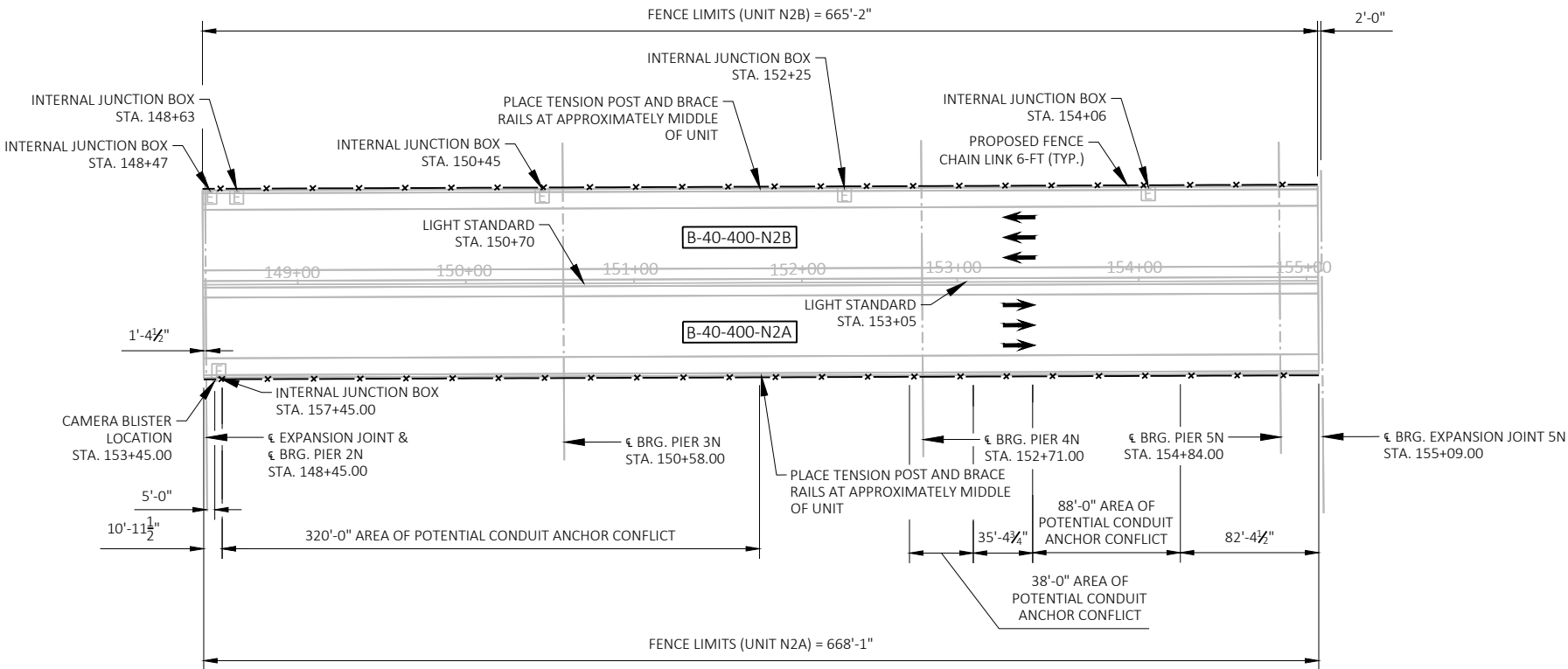
1" GRATING

WT5x24.5

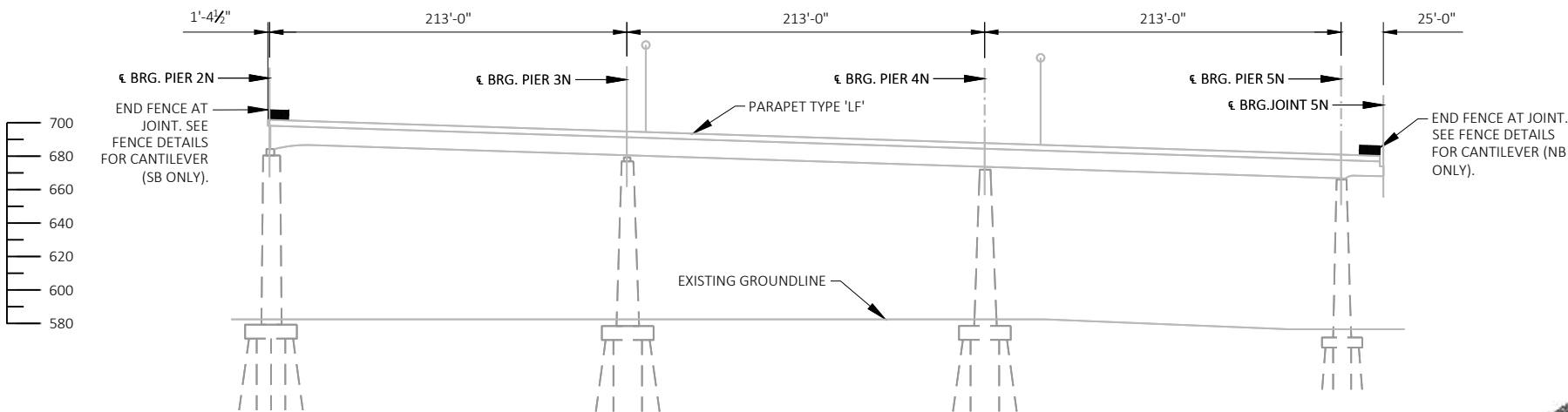
$\frac{3}{8}$ " EPOXY ANCHOR RODS - 5" EMBEDMENT MIN.

1'-6"

NO.	DATE	REVISION		BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION				
STRUCTURE B-40-400-1A & 1B				
DRAWN BY		MDG	PLANS CK'D.	JCG
PLATFORM DETAILS-2			SHEET	12 OF 12



PLAN (UNITS N2A & N2B)



ELEVATION
LOOKING WEST

NOTES:
1. DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

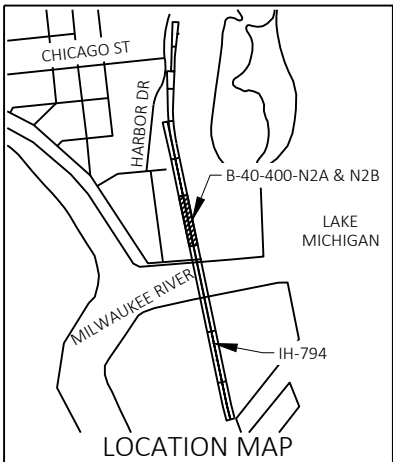
LIVE LOAD:
INVENTORY RATING: HS-20
OPERATING RATING: HS-33
MAXIMUM WISCONSIN STANDARD
PERMIT VEHICLE (WIS-SPV) LOAD = 250 KIPS

TRAFFIC DATA
AADT (2035) = 29,250 (ONE DIRECTION)
DESIGN SPEED = 55 MPH

SCOPE OF WORK
INSTALL NEW PARAPET MOUNTED CHAIN LINK FENCE

LIST OF DRAWINGS

- GENERAL PLAN & ELEVATION
- CROSS SECTIONS
- PARAPET DETAILS
- CAMERA BLISTER DETAILS
- FENCE DETAILS
- MODULAR JOINT DETAILS



NO.	DATE	REVISION	BY
-----	------	----------	----

COLLINS ENGINEERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED *[Signature]* SDR **03/30/23**
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-400-N2A & N2B

IH 794-LAKE FREEWAY OVER LAND

COUNTY MILWAUKEE TOWN/CITY/VILLAGE MILWAUKEE

DESIGN SPEC. REHABILITATION N/A

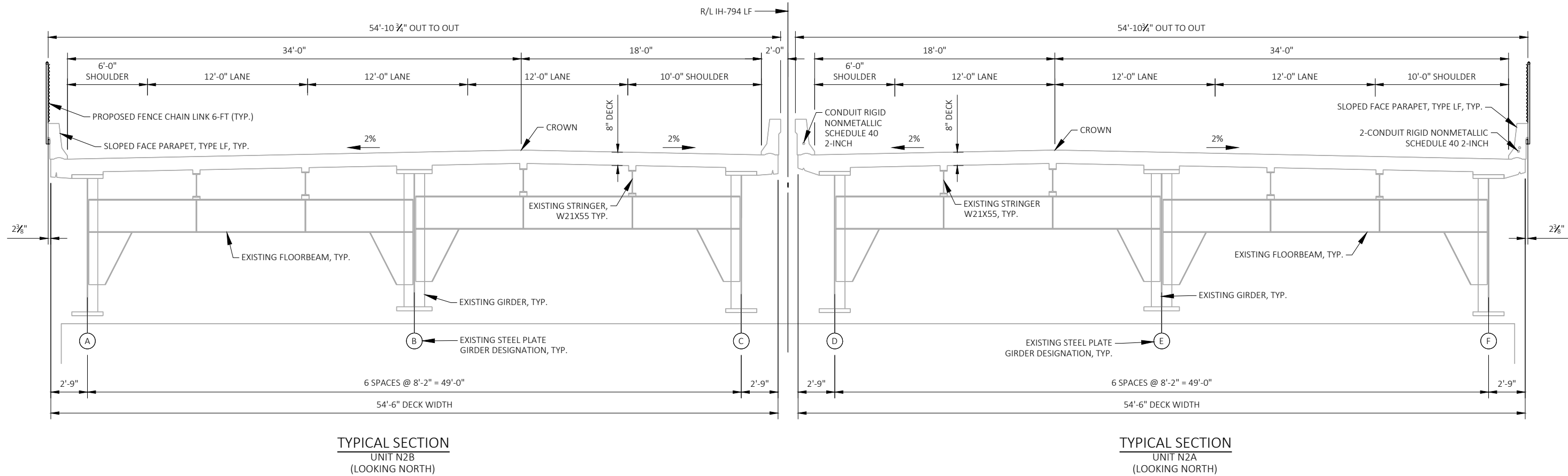
DESIGNED BY JCG DESIGN CK'D. MJM DRAWN BY MDG PLANS CK'D. JCG

GENERAL PLAN
& ELEVATION

SHEET 1 OF 6

STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261

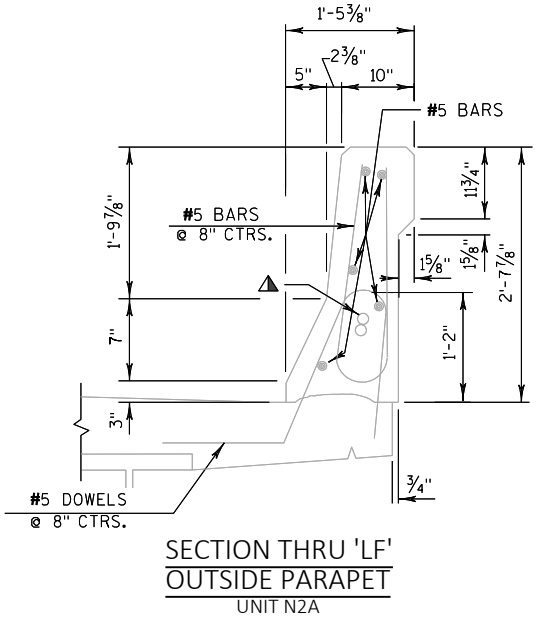
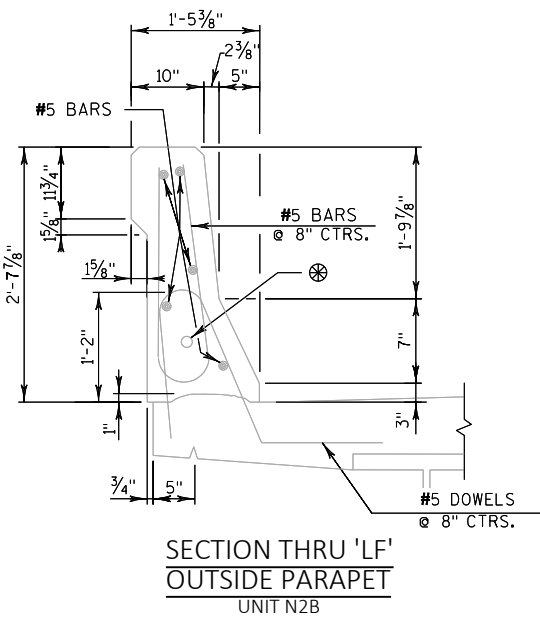
CONSULTANT CONTACT:
MARK MUTZIGER (414) 282-6905



ESTIMATE OF QUANTITIES

ITEM NUMBER	BID ITEMS	QTY	UNIT
616.0206	FENCE CHAIN LINK 6-FT	1335	LF

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-N2A & N2B			
DRAWN BY MDG		PLANS CK'D. JCG	
CROSS SECTIONS		SHEET 2 OF 6	



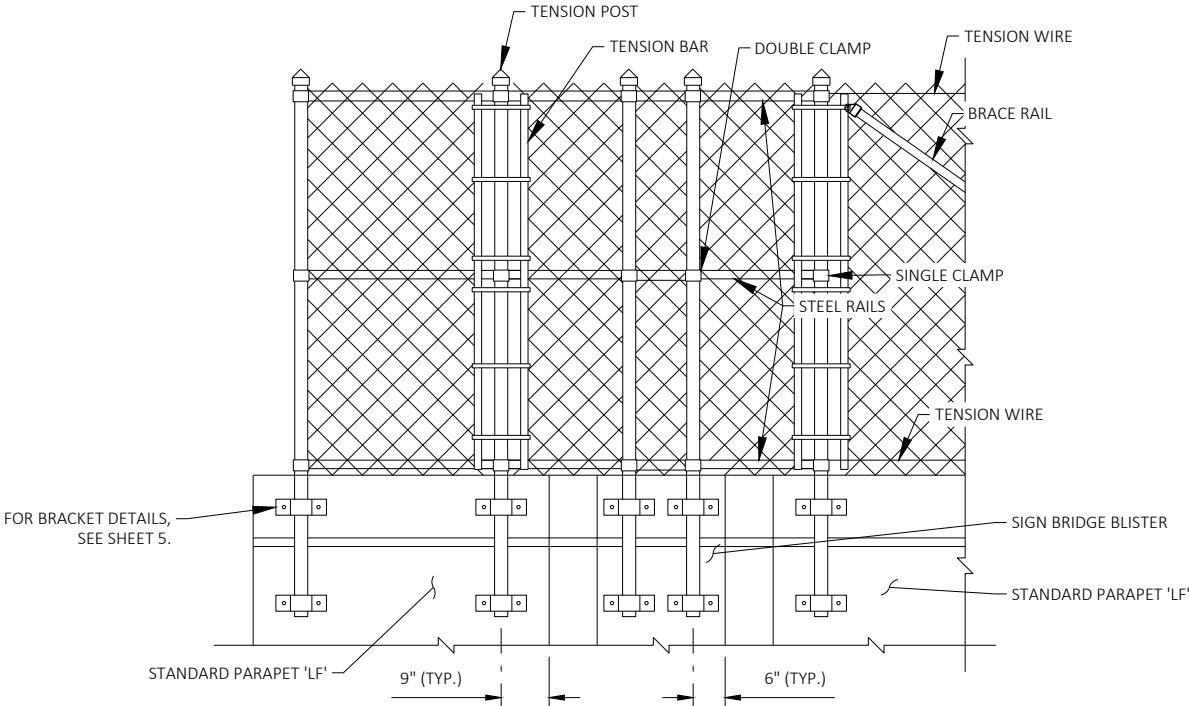
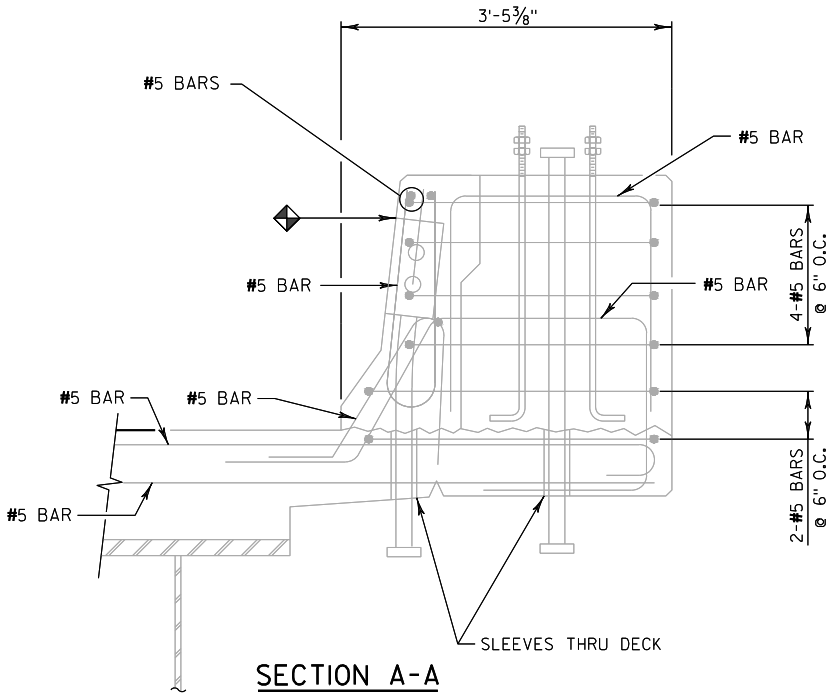
LEGEND

- ⊗ (1) - "CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH" LIGHTING CONDUIT, MEDIAN PARAPET
- ▲ (2) - "CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH" FOR FTMS COMMUNICATIONS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-N2A & N2B			
DRAWN BY MDG		PLANS CK'D. JCG	
PARAPET DETAILS		SHEET 3 OF 6	

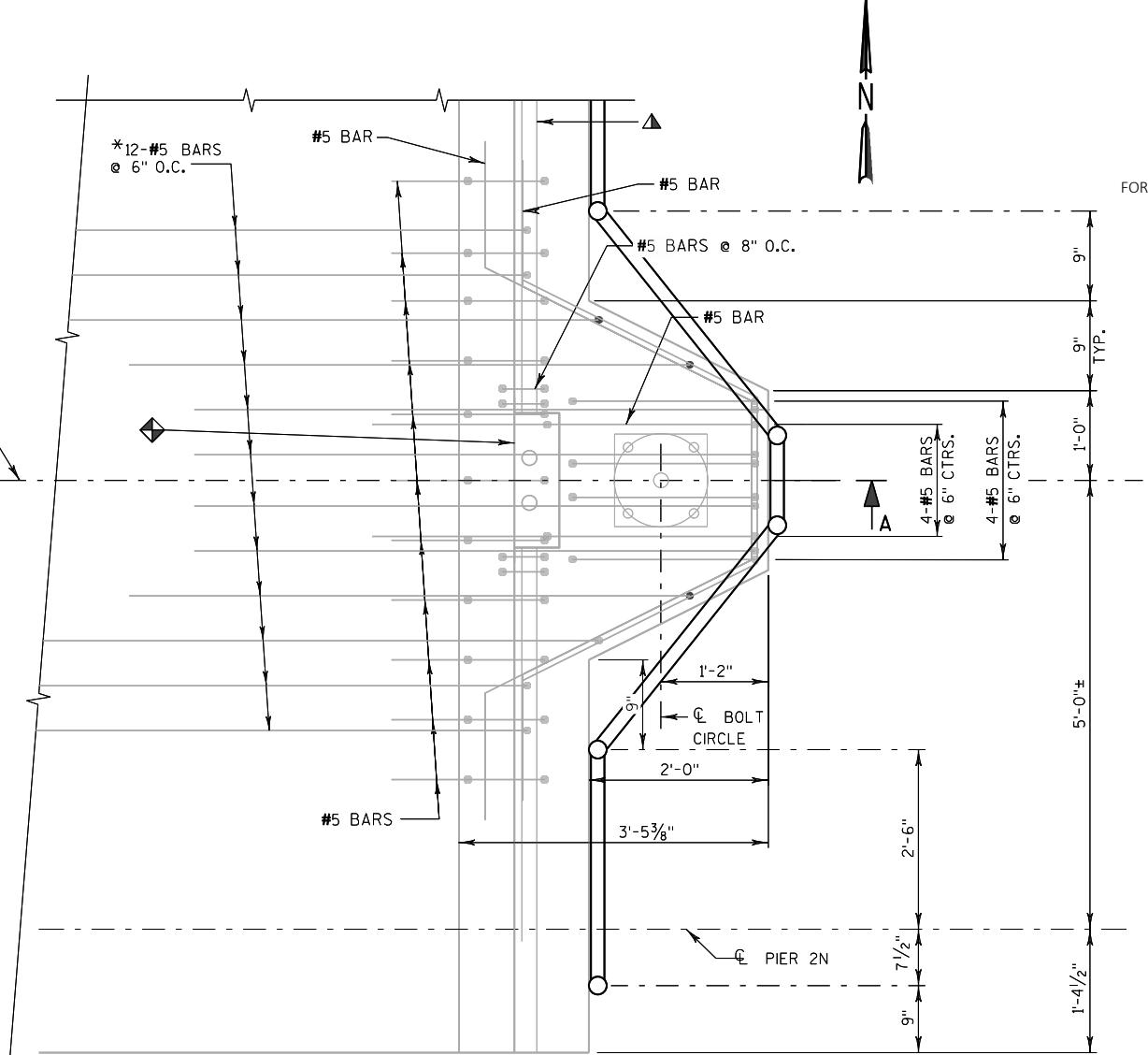
LEGEND

JUNCTION BOX 18X12X6-INCH



CL CAMERA POLE & JUNCTION BOX

A



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-N2A & N2B			
DRAWN BY		MDG	PLANS CK'D. JCG
CAMERA BLISTER DETAIL		SHEET 4 OF 6	

NOTES:

POSTS ARE TO BE SET VERTICAL.

METALLIC-COATED FENCE SYSTEM:
ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH SHALL BE ALUMINUM-COATED STEEL.

FABRIC SHALL CONFORM TO ASTM A491. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. STEEL POSTS SHALL BE HIGH STRENGTH GRADE 50.

STEEL POSTS SHALL BE HIGH STRENGTH GRADE 50.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 6- FT. "

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST CLAMPS AND POST CLAMP SPACERS SHALL BE ASTM A709, GRADE 36.

TENSION WIRE SHALL BE 7 GAGE STEEL WIRE COATED IN ACCORDANCE WITH ASTM A824 AND A817 AS TYPE I (ALUMINUMIZED).

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

CONCRETE ADHESIVE ANCHORS 5/8"-INCH. EMBED 5" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.

PAYMENT FOR ADHESIVE ANCHOR AND ANCHOR HARDWARE INCIDENTAL TO CHAIN LINK FENCE ITEM.

ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

PROVIDE TENSION POST AND BRACE RAILS TO LIMIT TENSION WIRE RUNS TO LESS THAN 500 FEET.

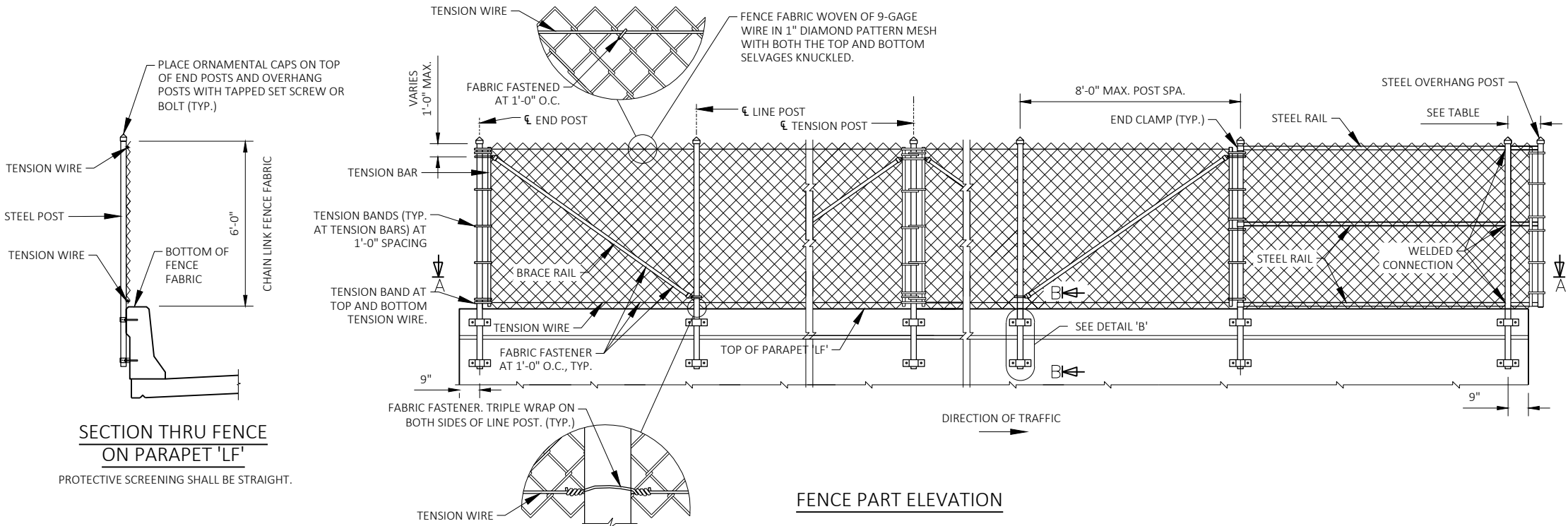
PARAPET HAS INTERNAL CONDUIT. INSPECT ALL ANCHOR HOLES BEFORE ADHESIVE INSTALLATION. NOTIFY ENGINEER IF CONDUIT IS ENCOUNTERED DURING ADHESIVE ANCHOR INSTALLATION. SEE TABLE BELOW FOR POTENTIAL CONDUIT CONFLICT WITH TYPICAL ADHESIVE ANCHOR LOCATION.

CONTRACTOR TO PROVIDE DUST CONTROL DURING EPOXY INSTALLATION. SUBMIT COLLECTION METHOD FOR APPROVAL. DUST COLLECTION INCIDENTAL TO FENCE ITEM.

CONDUIT ANCHOR CONFLICT			
SPAN	STATION OF CONFLICT	LENGTH	LOCATION
N2A	148+55 TO 151+75	320	UPPER ANCHOR
N2A	152+64 TO 153+02	38.00	UPPER ANCHOR
N2A	153+45 TO 154+33	88.0	UPPER ANCHOR

* REVISE DIMENSION TO 4.5" AT LOCATIONS NOTED TO AVOID POTENTIAL CONFLICT WITH CONDUIT INTERNAL TO PARAPET. REVISE DIMENSION TO 7" AT APPROXIMATELY STA 150+45 TO AVOID POTENTIAL CONFLICT WITH CONDUIT INTERNAL TO PARAPET

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-N2A & N2B			
DRAWN BY		MDG	PLANS CK'D. JCG
FENCE DETAILS			SHEET 5 OF 6



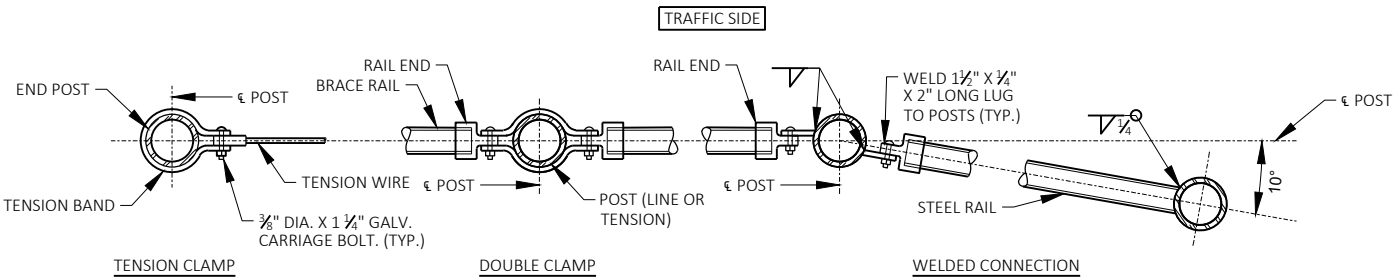
SECTION THRU FENCE ON PARAPET 'LF'

PROTECTIVE SCREENING SHALL BE STRAIGHT.

FENCE PART ELEVATION

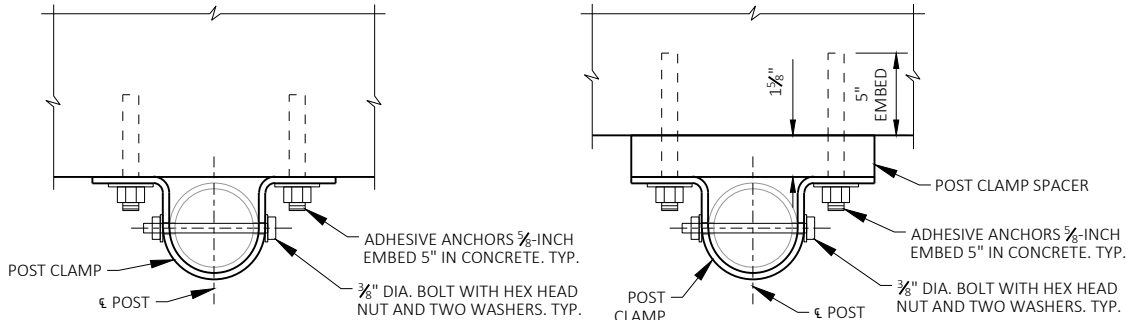
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
POST (END, LINE, OR TENSION)	3.50	7.576
BRACE RAIL	1.66	2.273



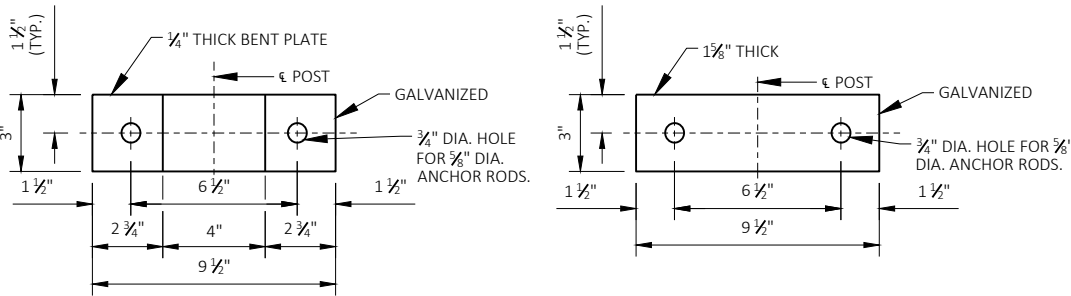
SECTION A-A

NOTE: PLACE ALL BOLT HEADS ON THE TRAFFIC SIDE



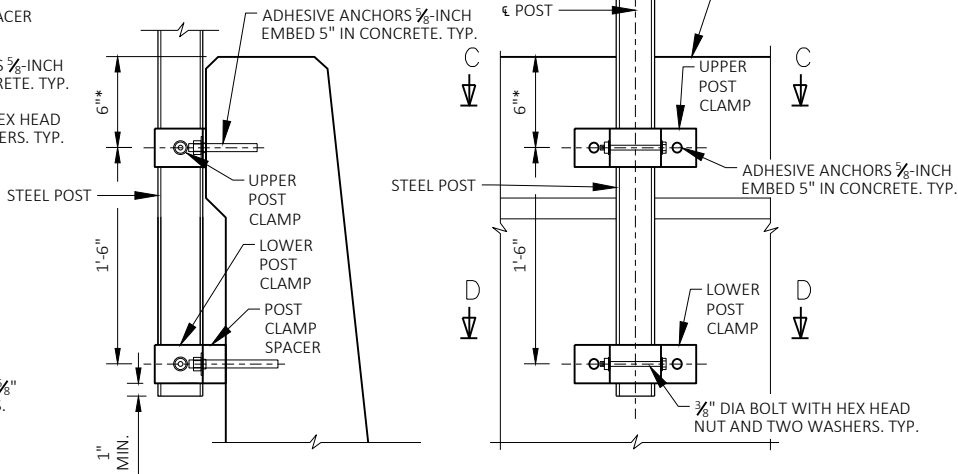
SECTION C-C

SECTION D-D



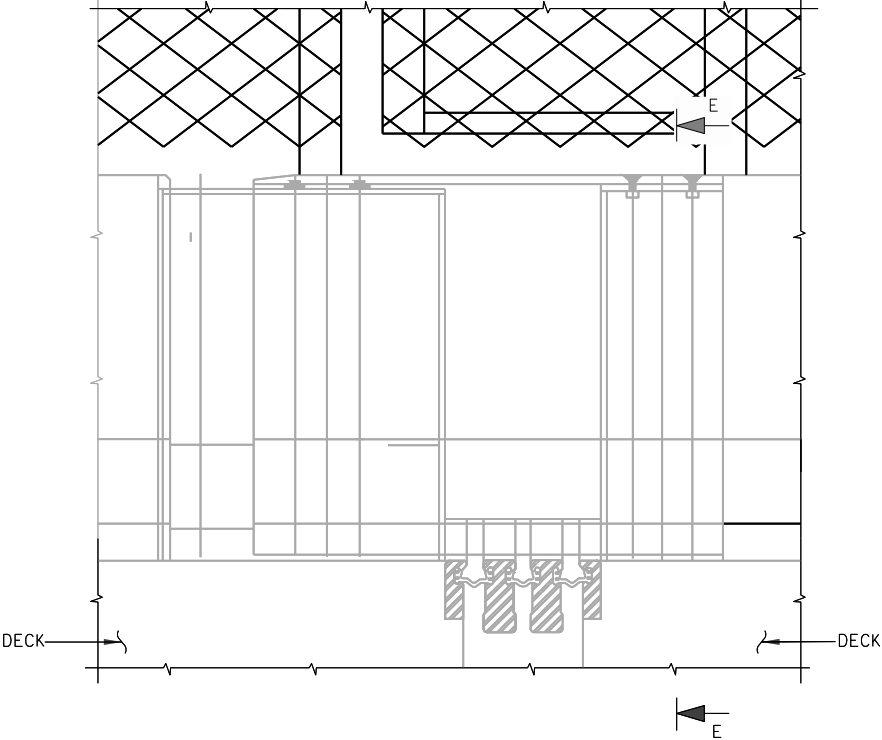
POST CLAMP DETAIL

POST CLAMP SPACER DETAIL

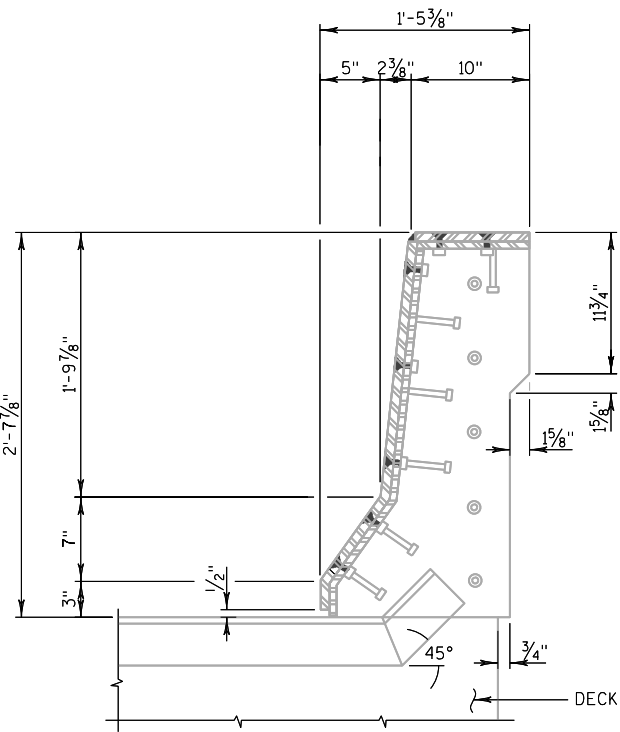


SECTION B-B

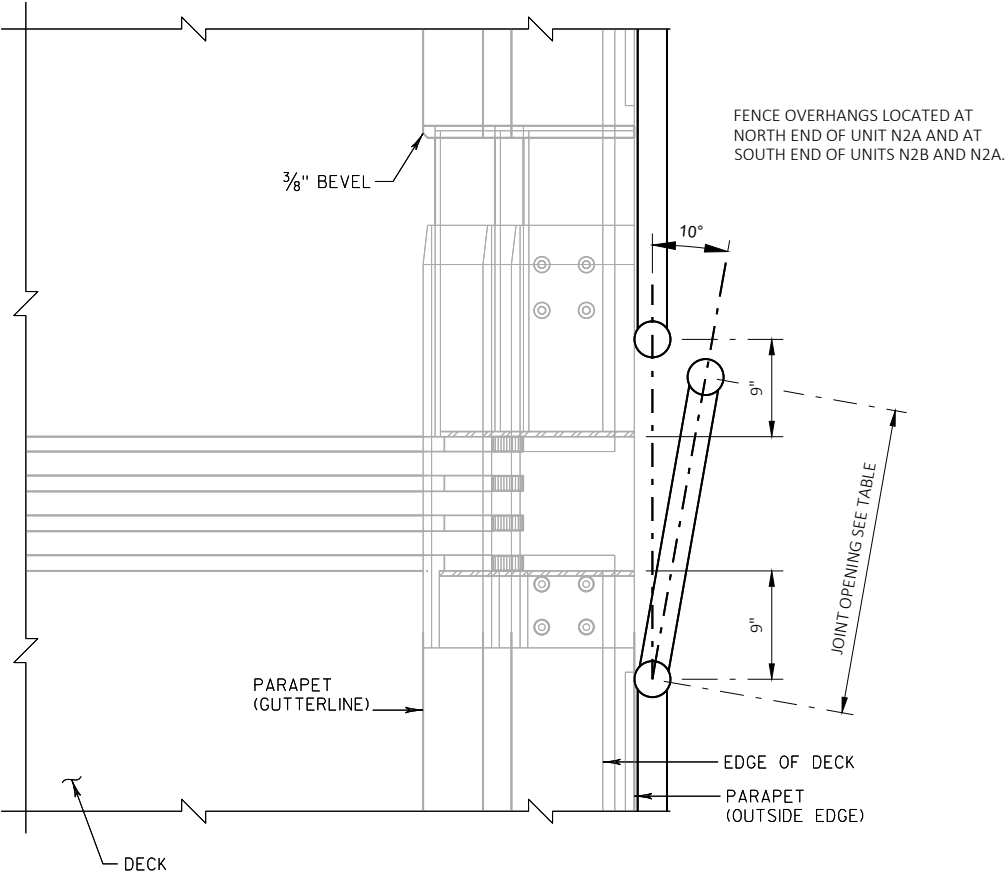
DETAIL 'B'



ELEVATION OF PARAPET



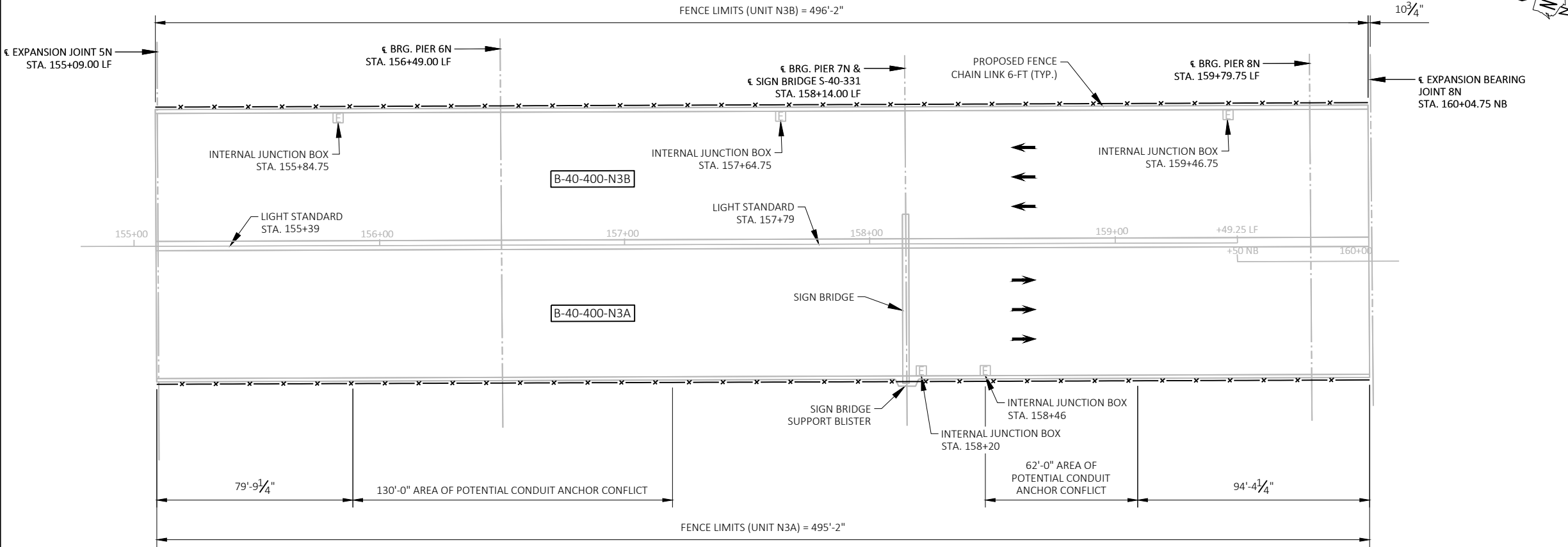
SECTION E-E



PLAN OF PARAPET

CANTILEVER LENGTHS			
TRAFFIC DIRECTION	UNIT W/ OVERHANG	JOINT OPENING (IN)	REQUIRED OVERHANG DISTANCE (IN)
NB	N2A TO N3A	16	36

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-N2A & N2B			
DRAWN BY		MDG	PLANS CK'D. JCG
MODULAR JOINT DETAILS		SHEET 6 OF 6	



NOTES:
1. DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

LIVE LOAD:
INVENTORY RATING: HS-20
OPERATING RATING: HS-33
MAXIMUM WISCONSIN STANDARD
PERMIT VEHICLE (WIS-SPV) LOAD = 250 KIPS

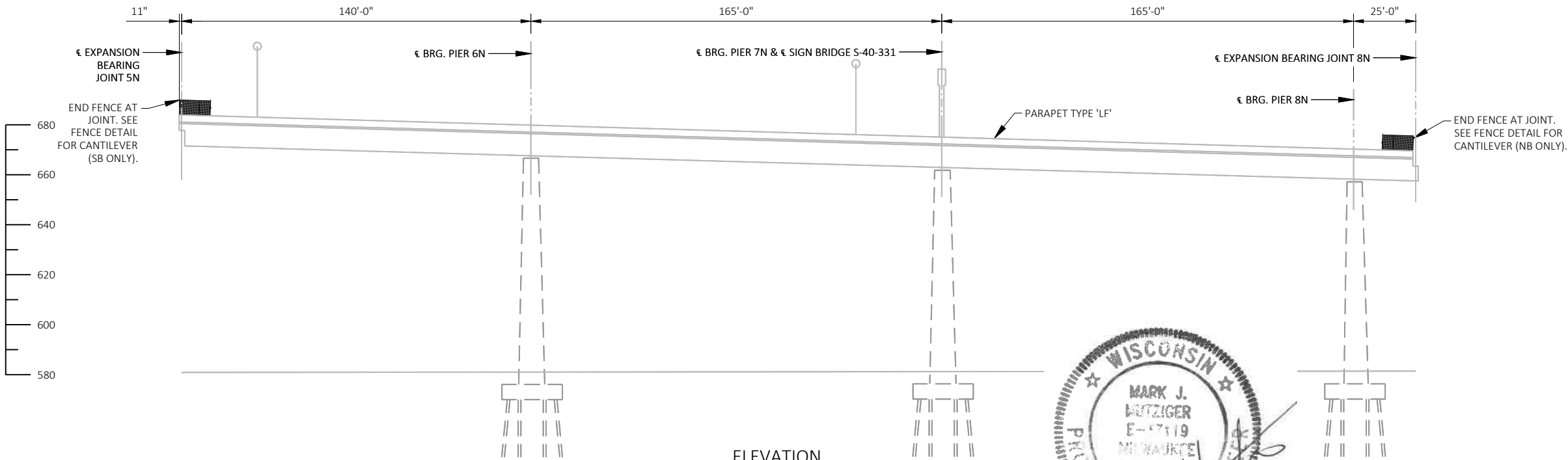
TRAFFIC DATA
AADT (2035) = 29,250 (ONE DIRECTION)
DESIGN SPEED = 55 MPH

SCOPE OF WORK
INSTALL NEW PARAPET MOUNTED CHAIN LINK FENCE

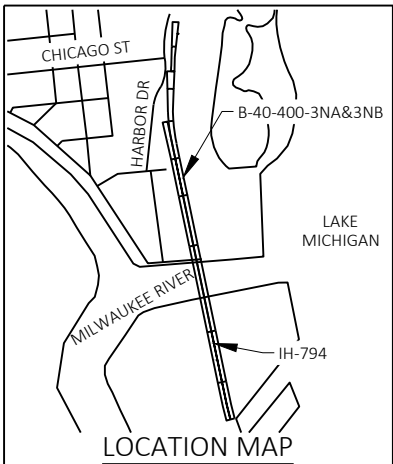
LIST OF DRAWINGS


1. GENERAL PLAN & ELEVATION
2. CROSS SECTIONS
3. PARAPET DETAILS
4. SIGN BRIDGE BLISTER DETAILS
5. FENCE DETAILS
6. MODULAR JOINT DETAILS

PLAN (UNITS N3A & N3B)



ELEVATION
LOOKING WEST

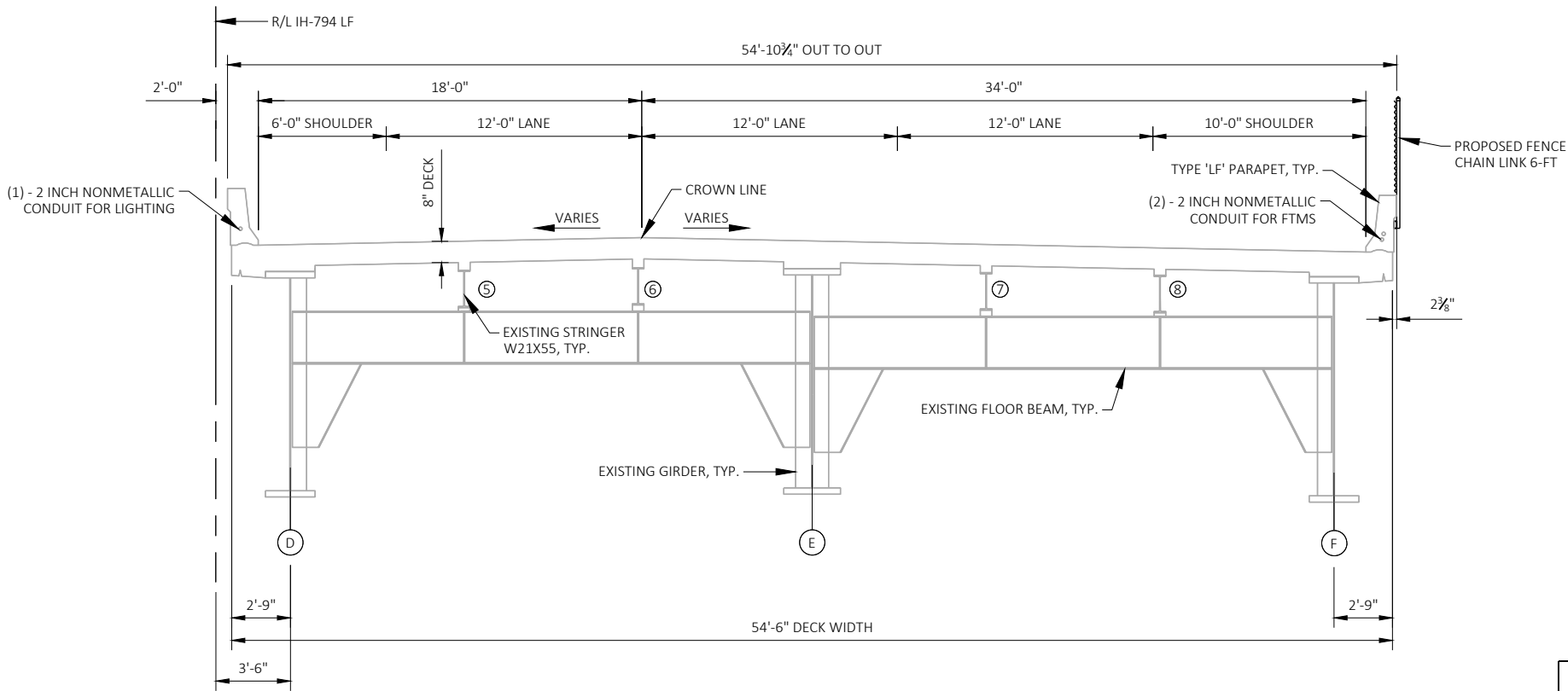


NO.	DATE	REVISION	BY
COLLINS ENGINEERS			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	 CHIEF STRUCTURES DESIGN ENGINEER		SDR 03/30/23 DATE
STRUCTURE B-40-400-N3A & N3B			
IH 794-LAKE FREEWAY OVER LAND			
COUNTY	MILWAUKEE	TOWN/CITY/VILLAGE	MILWAUKEE
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	JCG	DESIGN CK'D.	MJM
DRAWN BY	MDG	PLANS CK'D.	JCG
GENERAL PLAN & ELEVATION			SHEET 1 OF 6

STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261

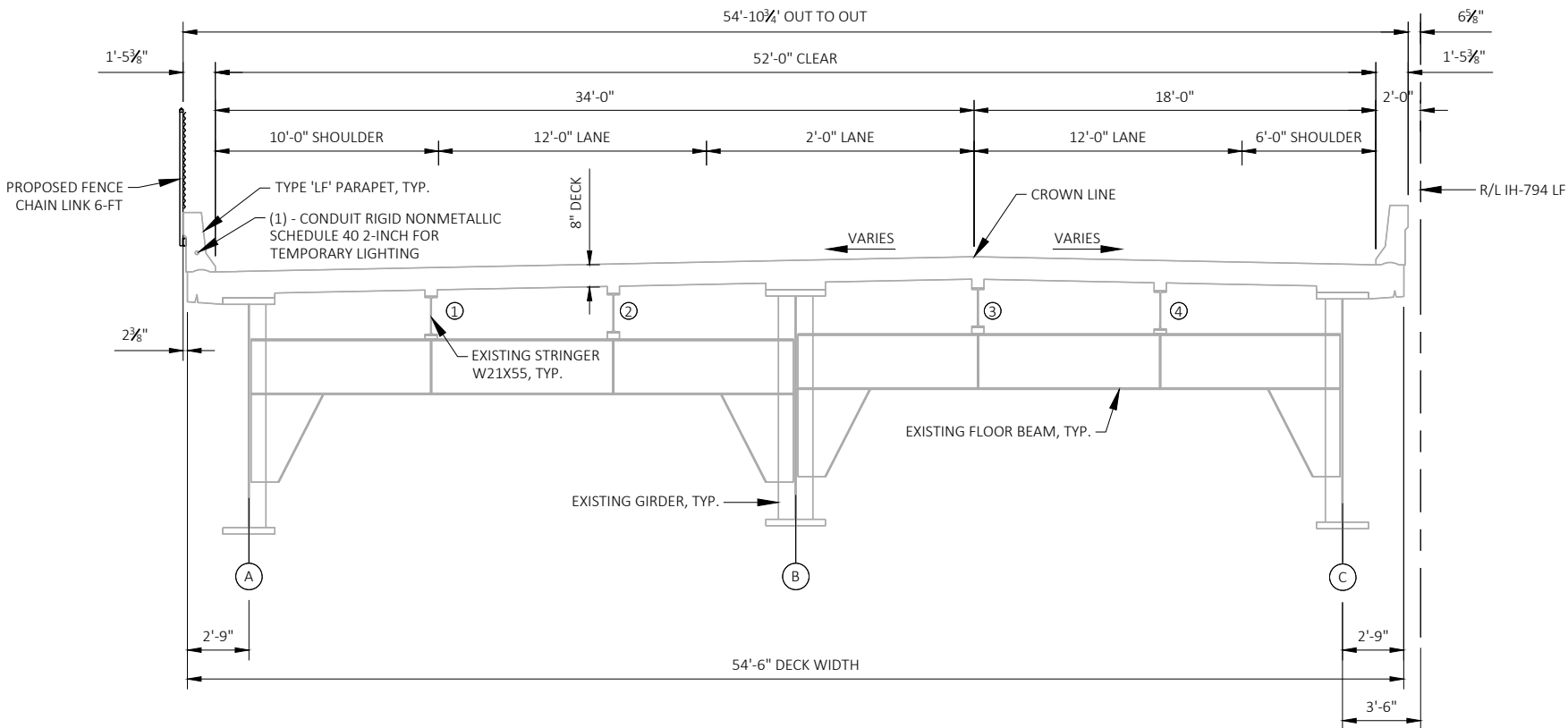
CONSULTANT CONTACT:
MARK MUTZIGER (414) 282-6905





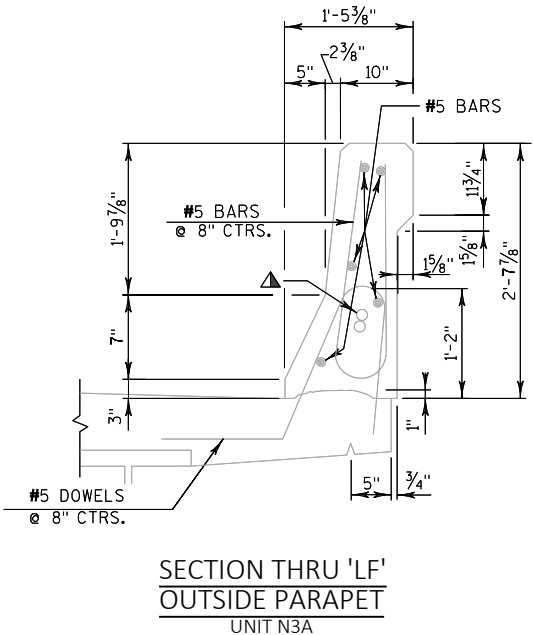
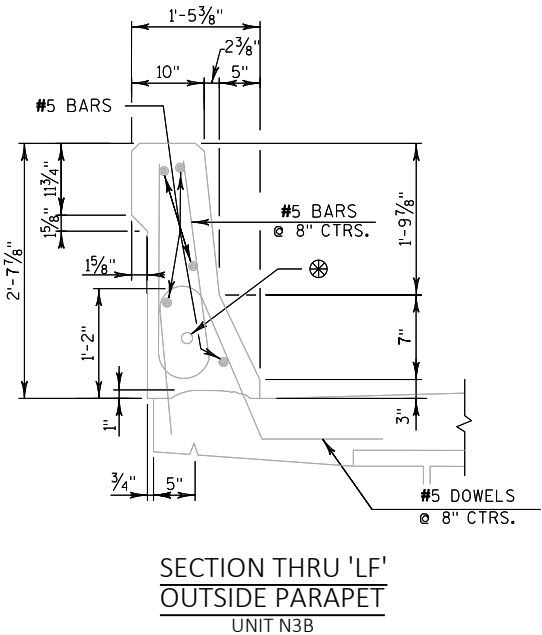
TYPICAL SECTION
UNIT N3A
SECTION ALONG STA. 155+09.00 LF TO STA. 159+49.25 LF SHOWN
SECTION ALONG STA. 159+50.00 NB TO STA. 160+04.75 NB SIMILAR
(LOOKING NORTH)

ESTIMATE OF QUANTITIES			
ITEM NUMBER	BID ITEMS	QTY	UNIT
616.0206	FENCE CHAIN LINK 6-FT	993	LF



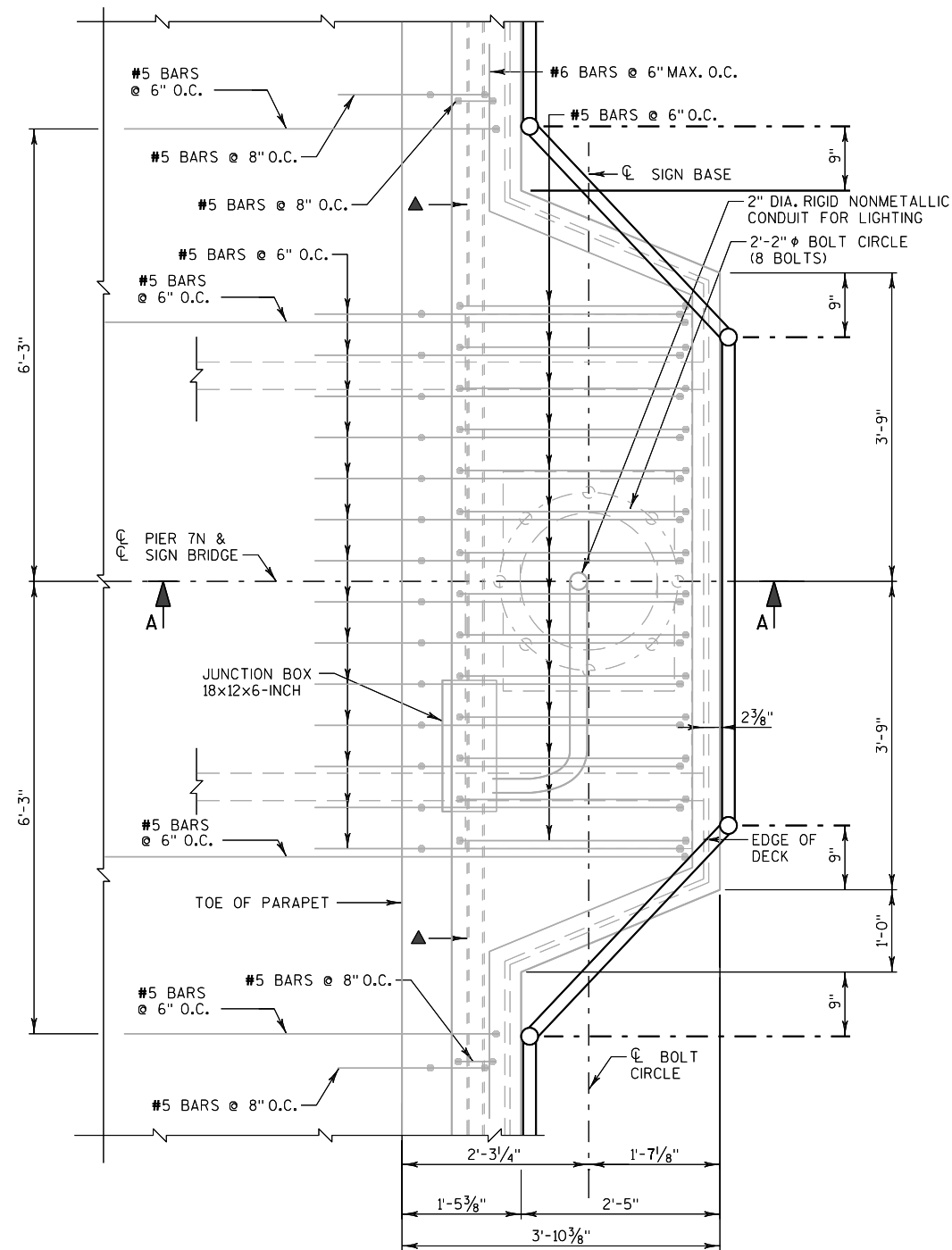
TYPICAL SECTION
UNIT N3B
SECTION ALONG STA. 155+09.00 LF TO STA. 159+49.25 LF SHOWN
SECTION ALONG STA. 159+50.00 SB TO STA. 160+04.75 SB SIMILAR
(LOOKING NORTH)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-N3A & N3B			
DRAWN BY		MDG	PLANS CK'D. JCG
CROSS SECTIONS		SHEET 2 OF 6	

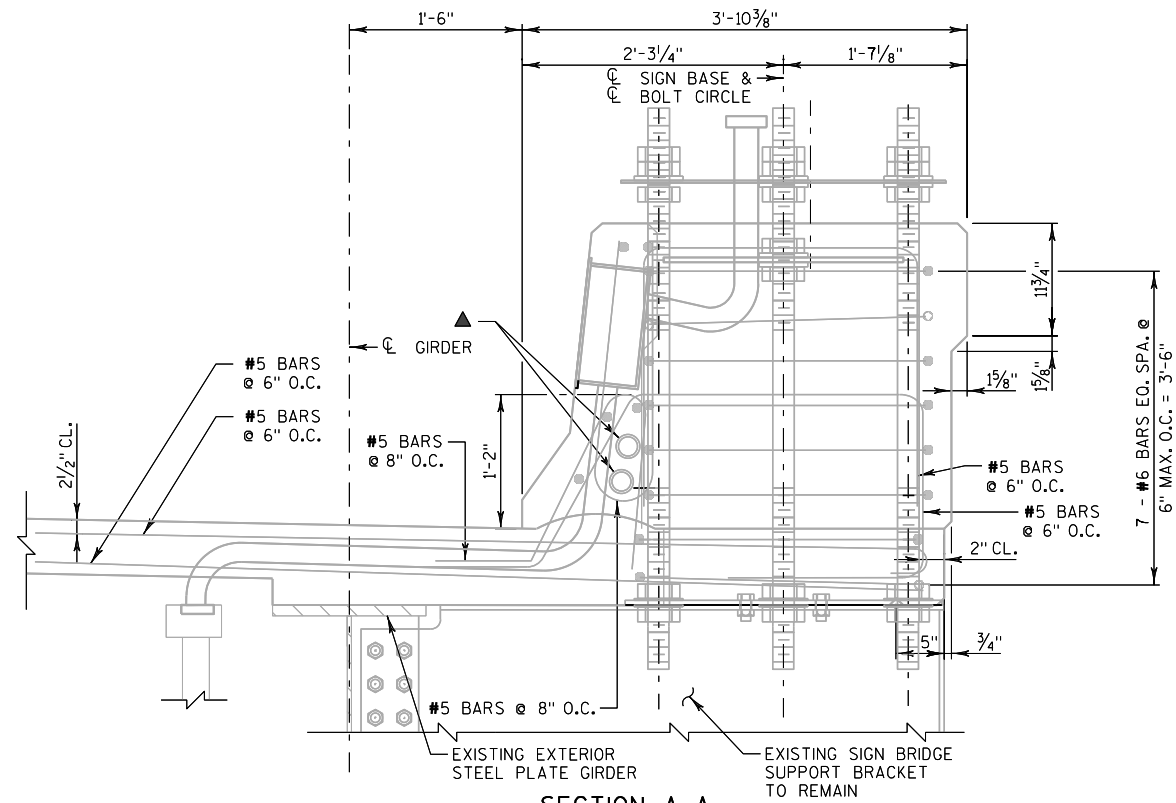


- LEGEND**
- (1) - "CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH FOR TEMPORARY LIGHTING.
 - (2) - "CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH" FOR FTMS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-N3A & N3B			
DRAWN BY		MDG	PLANS CK'D. JCG
PARAPET DETAILS		SHEET 3 OF 6	



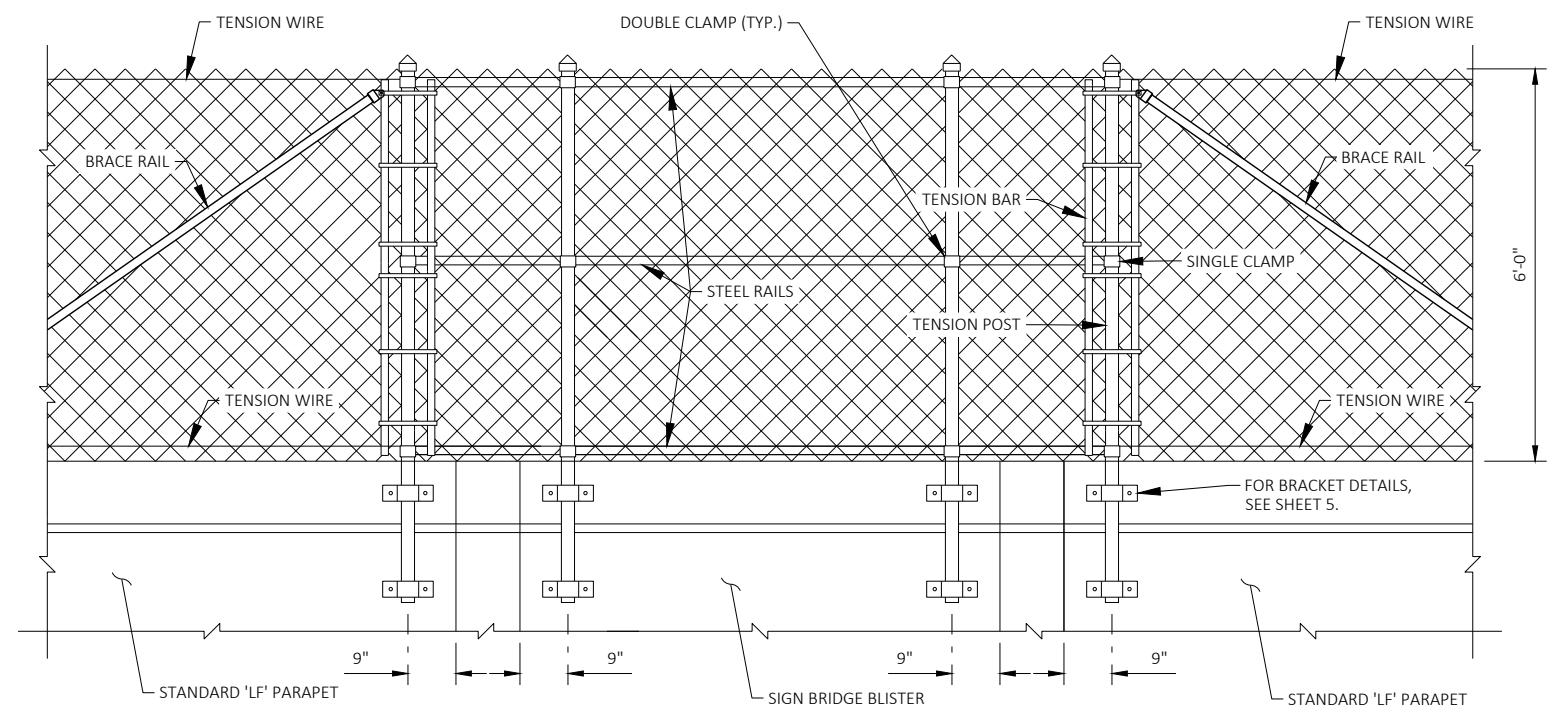
PLAN AT OUTSIDE N3A PARAPET SIGN BRIDGE BASE



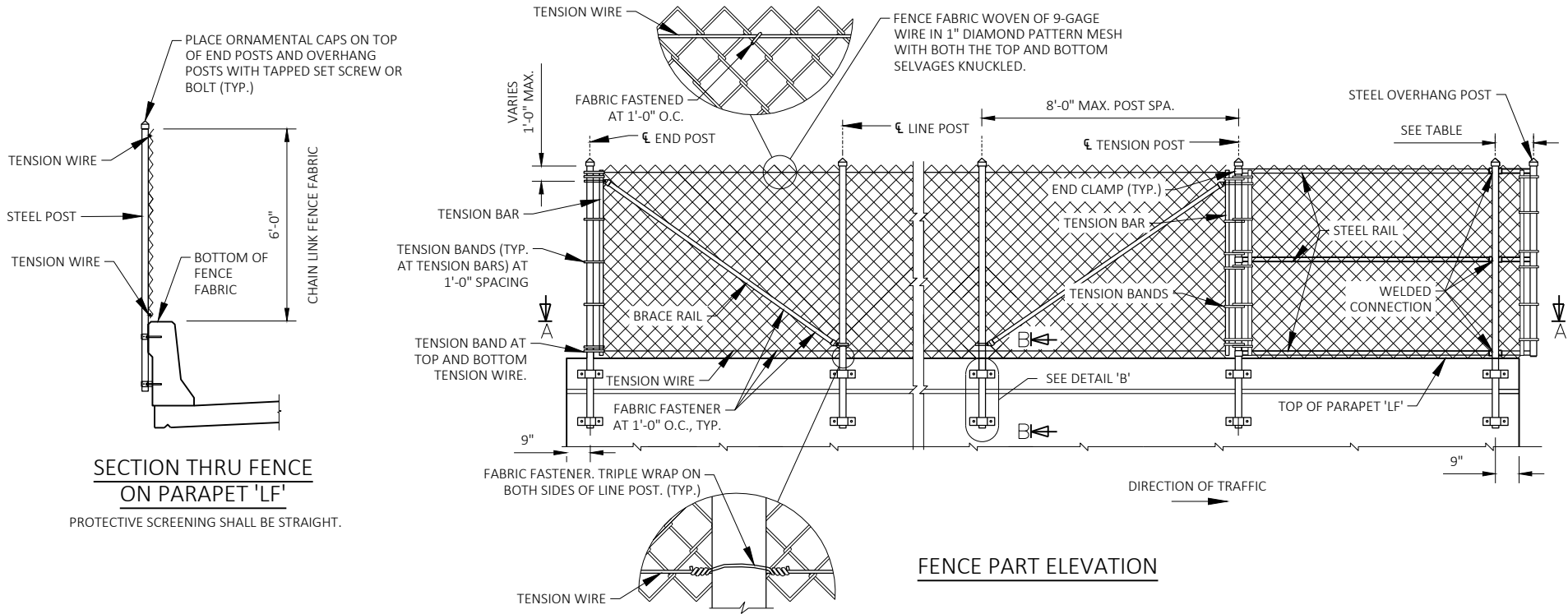
SECTION A-A

LEGEND

- ▲ "CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH" FOR FMS COMMUNICATIONS AT EAST EXTERIOR PARAPET ONLY.

FENCE ELEVATION AT SIGN
BRIDGE BLISTER

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-N3A & N3B			
DRAWN BY		MDG	PLANS CK'D. JCG
SIGN BRIDGE BLISTER DETAILS		SHEET 4 OF 6	



NOTES:

POSTS ARE TO BE SET VERTICAL.

METALLIC-COATED FENCE SYSTEM:
ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH SHALL BE ALUMINUM-COATED STEEL.

FABRIC SHALL CONFORM TO ASTM A491. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. STEEL POSTS SHALL BE HIGH STRENGTH GRADE 50.

STEEL POSTS SHALL BE HIGH STRENGTH GRADE 50.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 6- FT."

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST CLAMPS AND POST CLAMP SPACERS SHALL BE ASTM A709, GRADE 36.

TENSION WIRE SHALL BE 7 GAGE STEEL WIRE COATED IN ACCORDANCE WITH ASTM A824 AND A817 AS TYPE I (ALUMINUMIZED).

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

CONCRETE ADHESIVE ANCHORS 5/8"-INCH. EMBED 5" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.

PAYMENT FOR ADHESIVE ANCHOR AND ANCHOR HARDWARE INCIDENTAL TO CHAIN LINK FENCE ITEM.

ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

PROVIDE TENSION POST AND BRACE RAILS TO LIMIT TENSION WIRE RUNS TO LESS THAN 500 FEET.

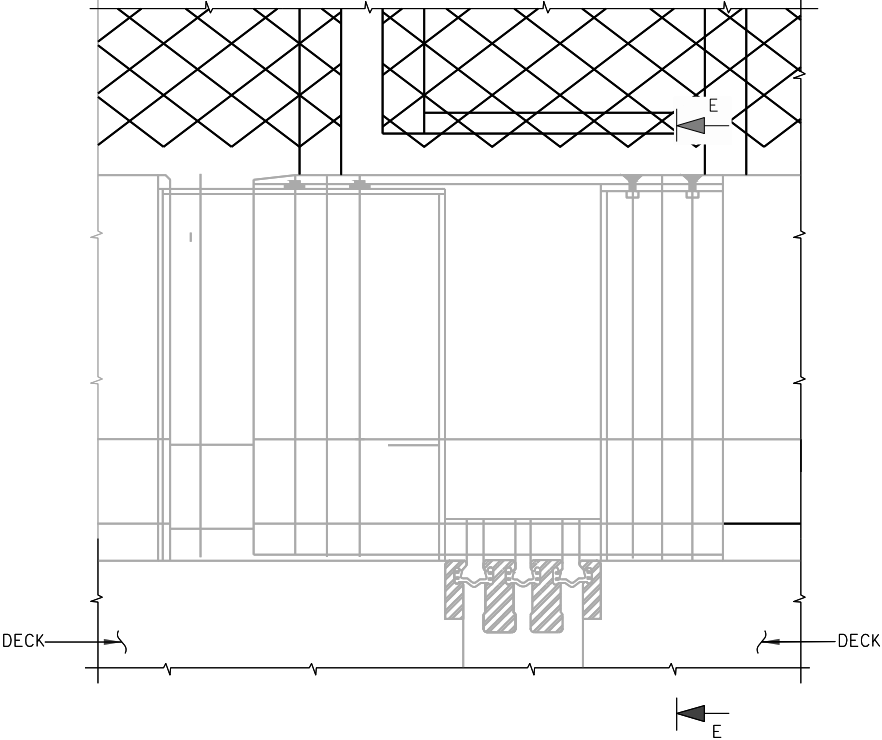
PARAPET HAS INTERNAL CONDUIT. INSPECT ALL ANCHOR HOLES BEFORE ADHESIVE INSTALLATION. NOTIFY ENGINEER IF CONDUIT IS ENCOUNTERED DURING ADHESIVE ANCHOR INSTALLATION. SEE TABLE BELOW FOR POTENTIAL CONDUIT CONFLICT WITH TYPICAL ADHESIVE ANCHOR LOCATION.

CONTRACTOR TO PROVIDE DUST CONTROL DURING EPOXY INSTALLATION. SUBMIT COLLECTION METHOD FOR APPROVAL. DUST COLLECTION INCIDENTAL TO FENCE ITEM.

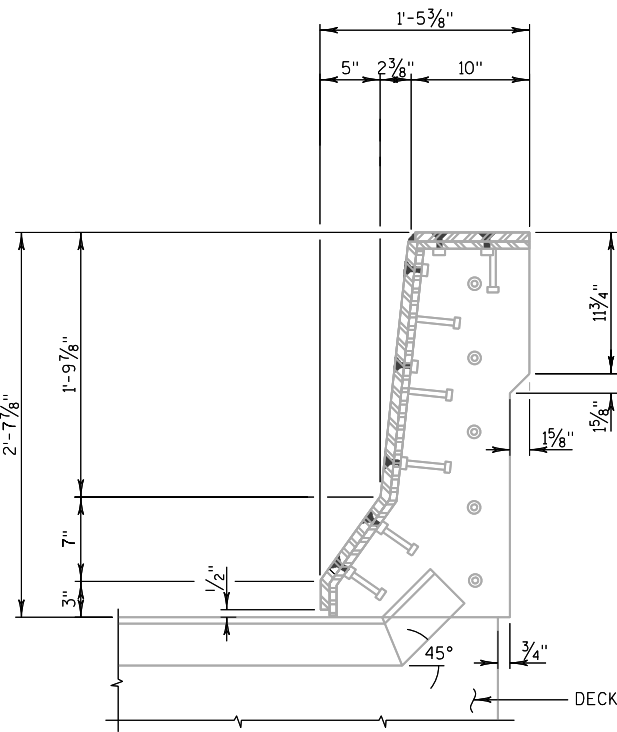
CONDUIT ANCHOR CONFLICT			
SPAN	STATION OF CONFLICT	LENGTH	LOCATION
N3A	155+89 TO 157+19	130	UPPER ANCHOR
N3A	158+47 TO 159+09	62	UPPER ANCHOR

* REVISE DIMENSION TO 4.5" AT LOCATIONS NOTED TO AVOID POTENTIAL CONFLICT WITH CONDUIT INTERNAL TO PARAPET.

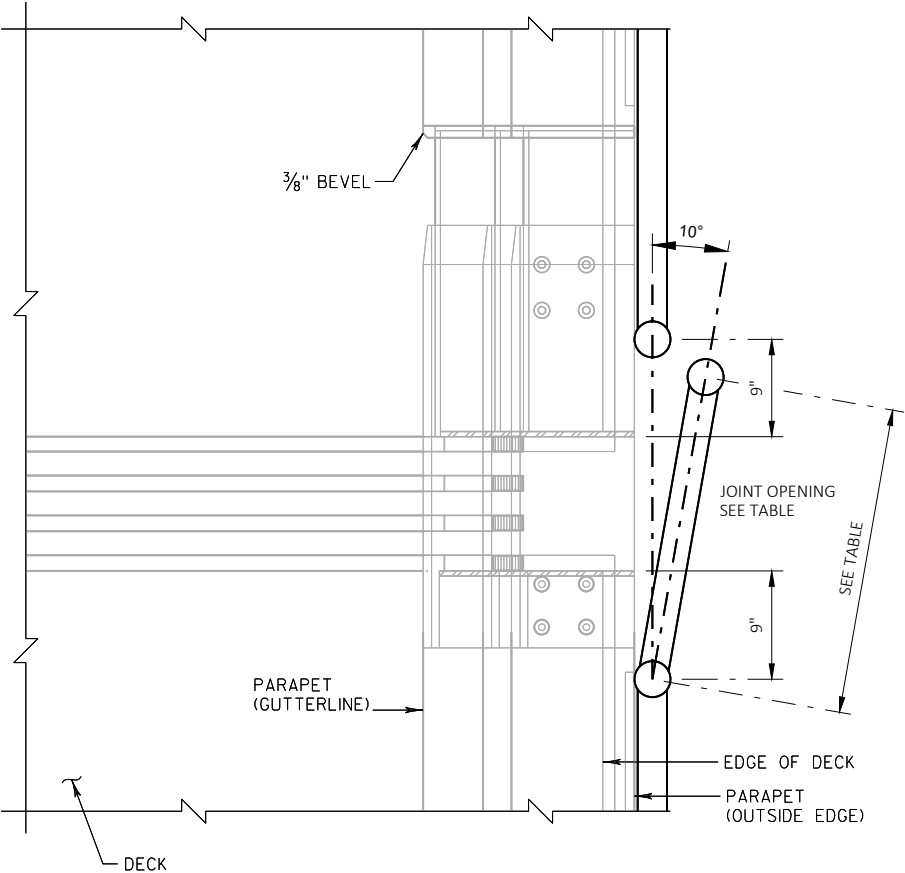
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-N3A & N3B			
DRAWN BY		MDG	PLANS CK'D. JCG
FENCE DETAILS		SHEET 5 OF 6	



ELEVATION OF PARAPET



SECTION E-E



PLAN OF PARAPET

CANTILEVER LENGTHS			
TRAFFIC DIRECTION	UNIT W/ OVERHANG	JOINT OPENING (IN)	REQUIRED OVERHANG DISTANCE (IN)
SB	N3B TO N2B	15	36
NB	N3A TO N4A	7.5	24

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-N3A & N3B			
DRAWN BY		MDG	PLANS CK'D. JCG
MODULAR JOINT DETAILS		SHEET 6 OF 6	

NOTES:

1. DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

LIVE LOAD:

INVENTORY RATING: HS-20
OPERATING RATING: HS-33
MAXIMUM WISCONSIN STANDARD
PERMIT VEHICLE (WIS-SPV) LOAD = 250 KIPS

TRAFFIC DATA

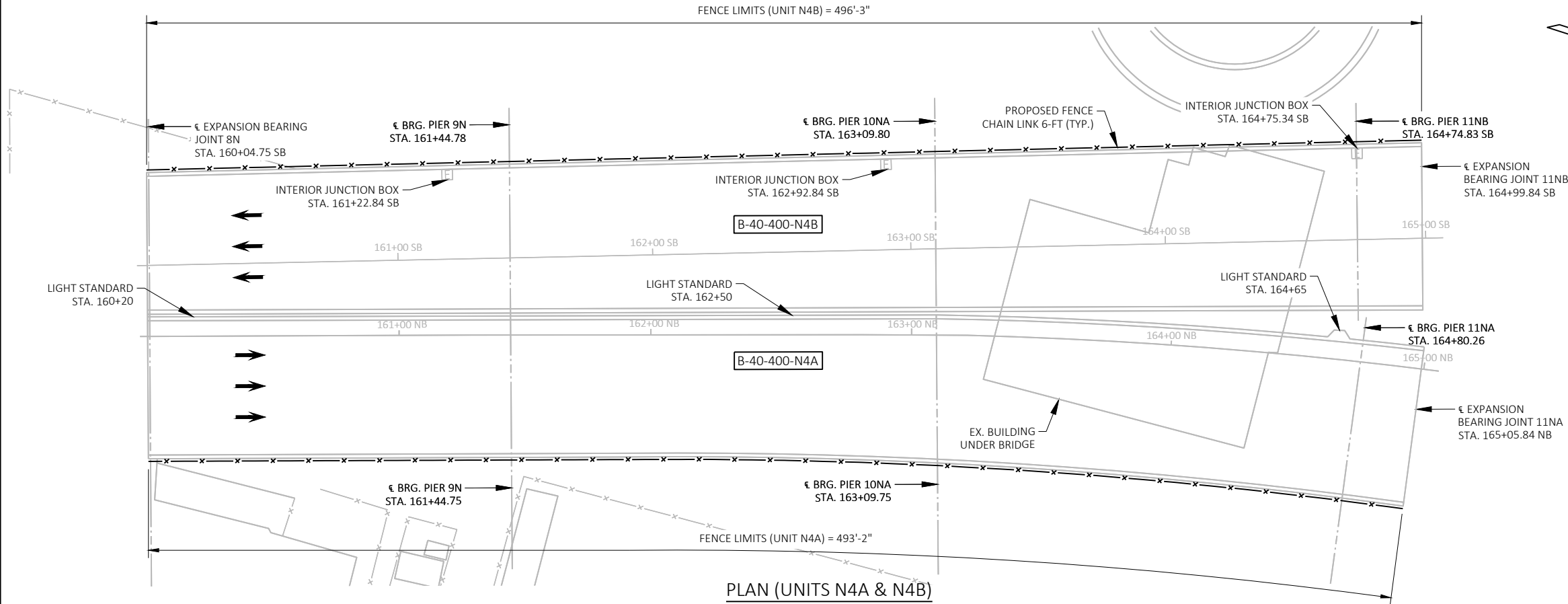
AADT (2035) = 29,250 (ONE DIRECTION)
DESIGN SPEED = 55 MPH

SCOPE OF WORK

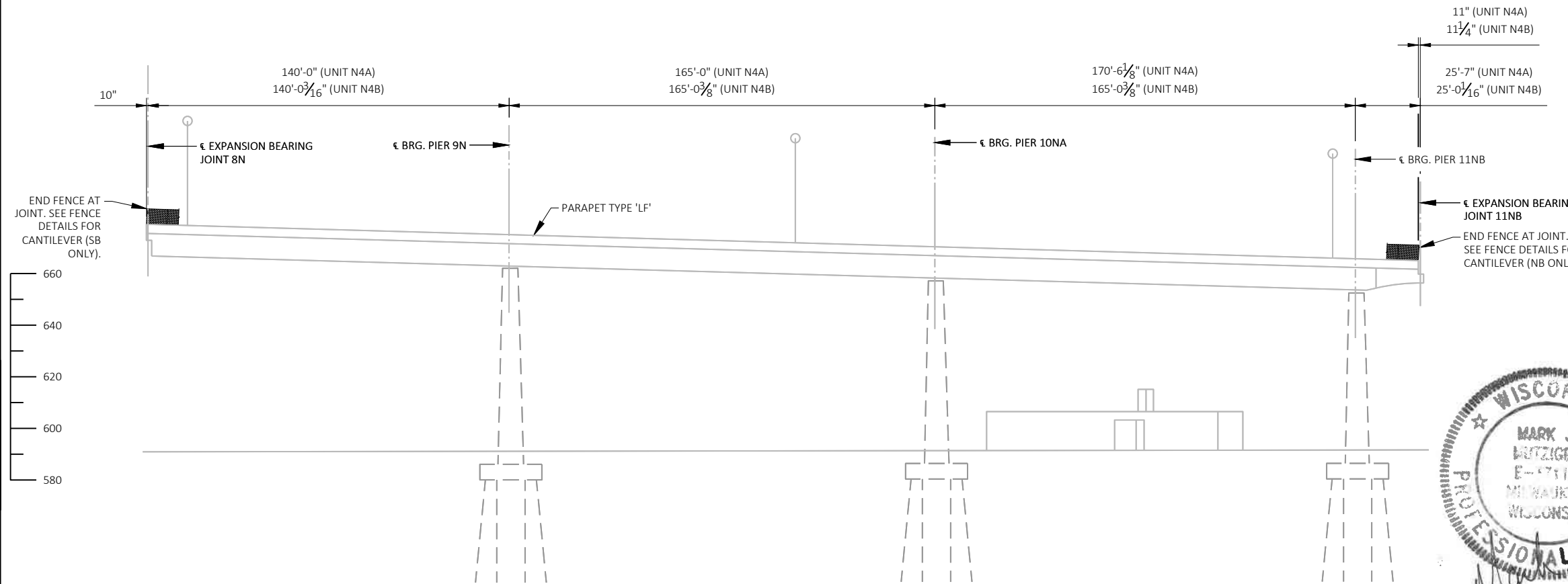
INSTALL NEW PARAPET MOUNTED CHAIN LINK FENCE

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTIONS
3. PARAPET DETAILS
4. FENCE DETAILS
5. MODULAR JOINT DETAILS

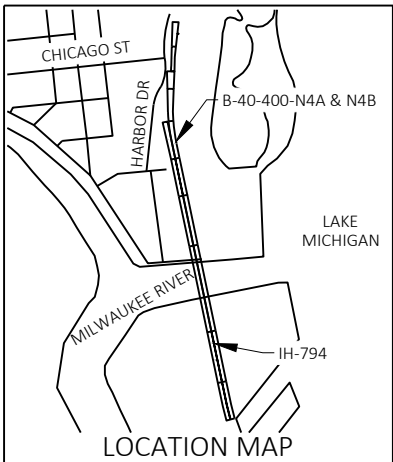


PLAN (UNITS N4A & N4B)



ELEVATION

LOOKING WEST



LOCATION MAP

NO.	DATE	REVISION	BY
-----	------	----------	----

COLLINS ENGINEERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED *[Signature]* SDR **03/30/23**
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-400-N4A & N4B

IH 794-LAKE FREEWAY OVER LAND

COUNTY MILWAUKEE TOWN/CITY/VILLAGE MILWAUKEE

DESIGN SPEC. REHABILITATION N/A

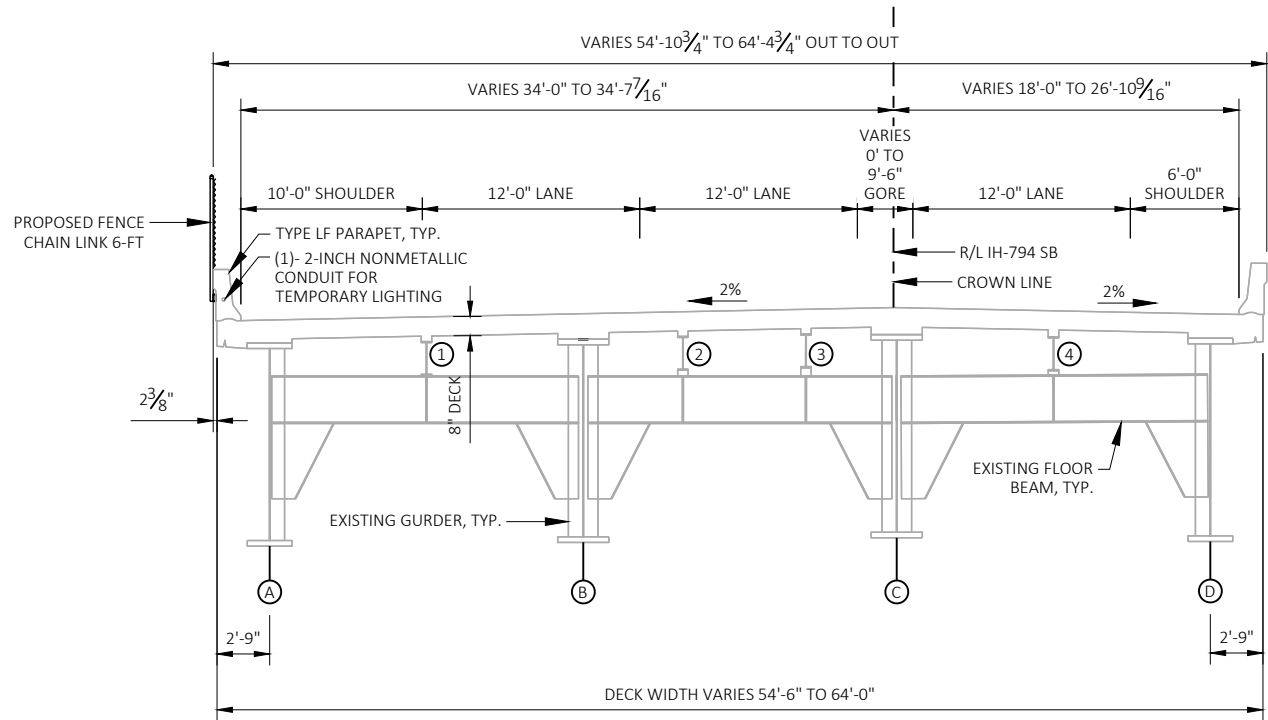
DESIGNED BY JCG DESIGN CK'D. MJM DRAWN BY MDG PLANS CK'D. JCG

**GENERAL PLAN
& ELEVATION**

SHEET 1 OF 5

STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261

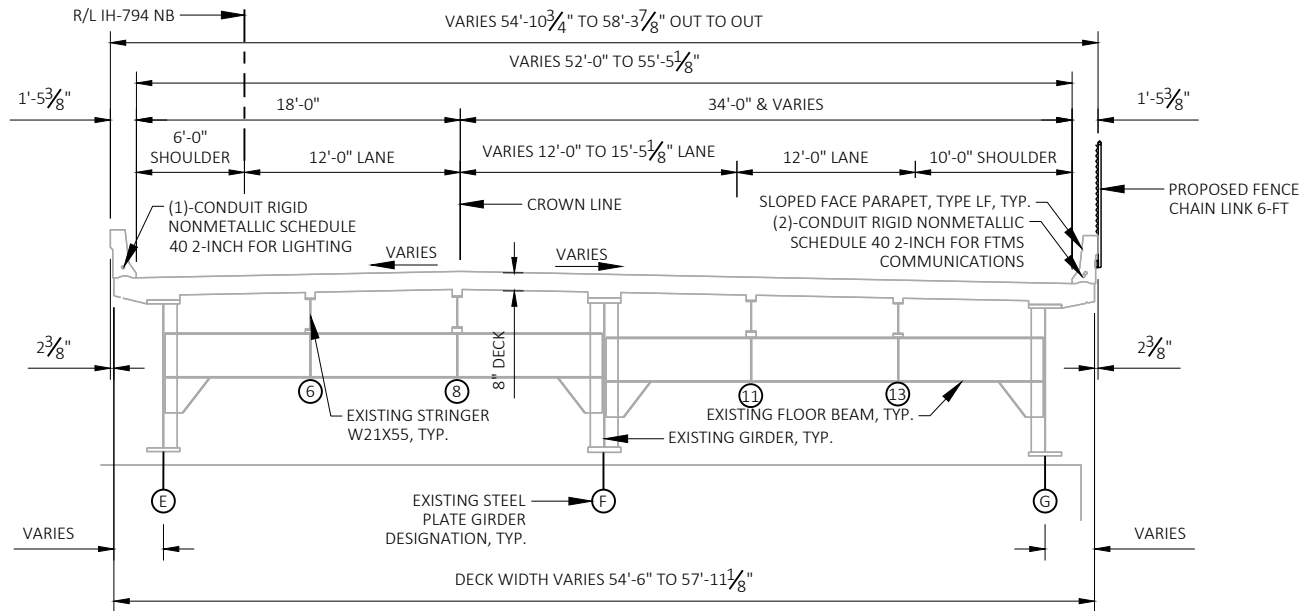
CONSULTANT CONTACT:
MARK MUTZIGER (414) 282-6905



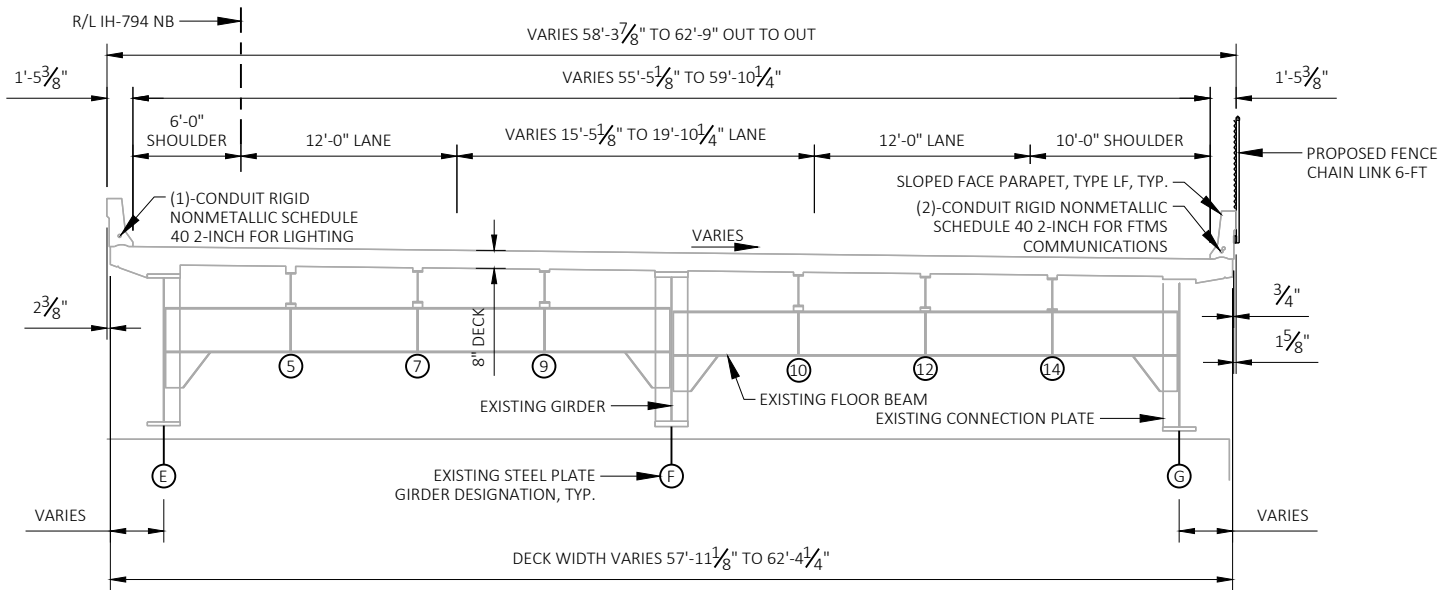
TYPICAL SECTION
UNIT N4B
(LOOKING NORTH)

ESTIMATE OF QUANTITIES

ITEM NUMBER	BID ITEMS	QTY	UNIT
616.0206	FENCE CHAIN LINK 6-FT	991	LF

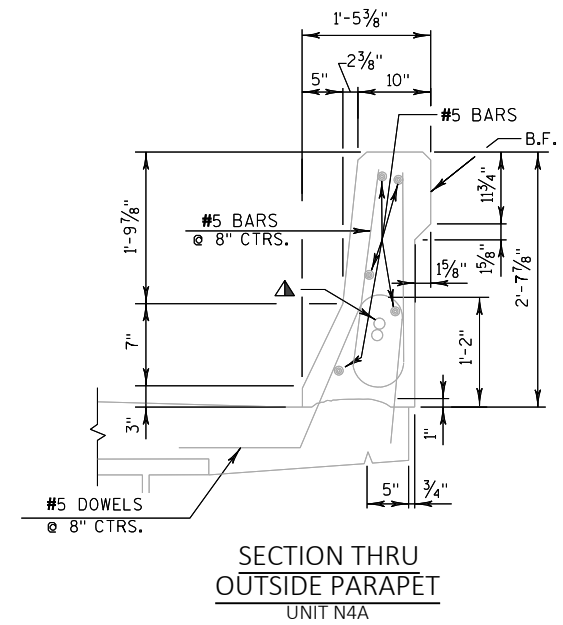


TYPICAL SECTION
UNIT N4A
(LOOKING NORTH) STA. 160+04.75 NB TO 162+11.91 NB



TYPICAL SECTION
UNIT N4A
(LOOKING NORTH) STA. 162+11.91 NB TO 165+05.84 NB

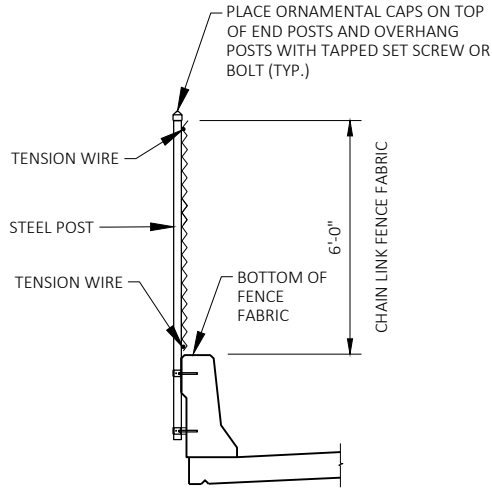
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-N4A & N4B			
DRAWN BY		MDG	PLANS CK'D. JCG
CROSS SECTIONS		SHEET 2 OF 5	



⚠ (2) - "CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH" (FIMS COMMUNICATION)

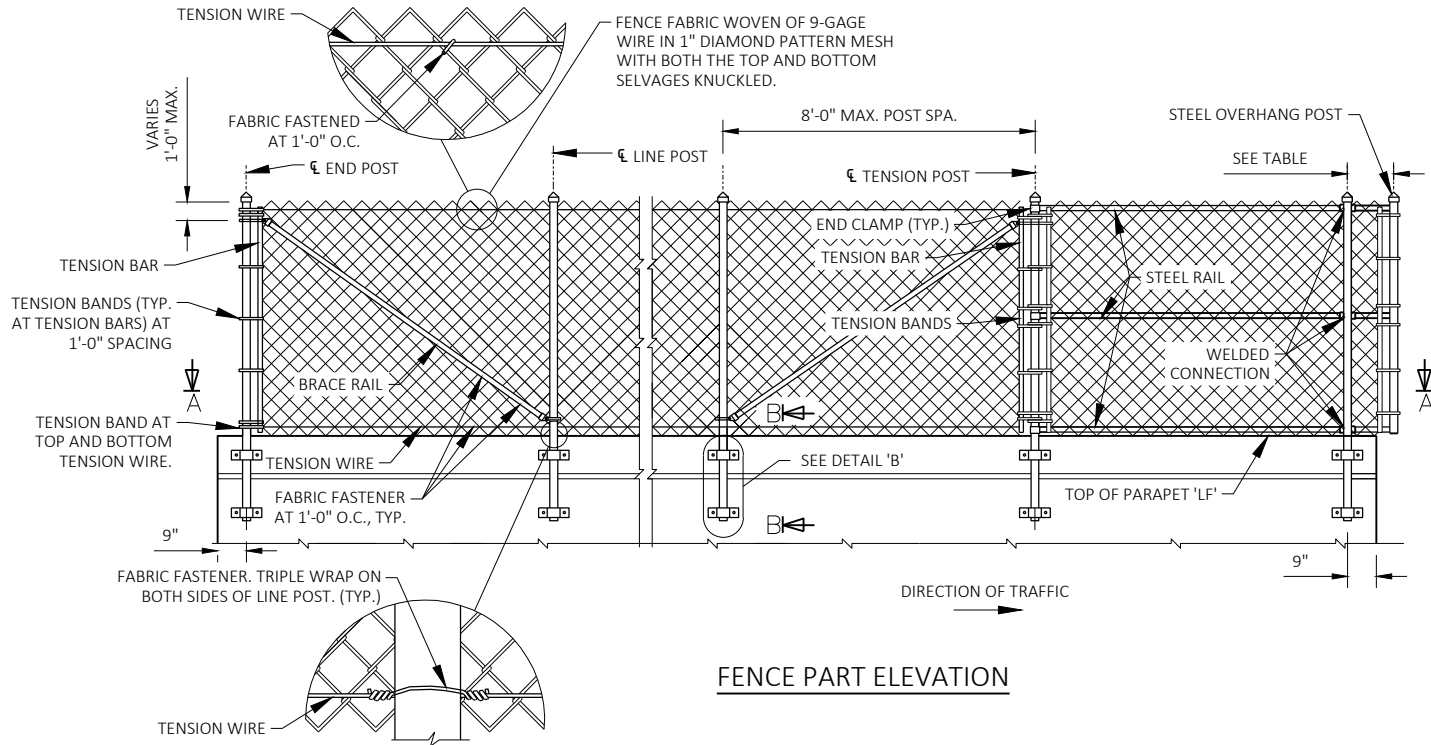
⚙ (1) "CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH" FOR TEMPORARY LIGHTING.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-N4A & N4B			
		DRAWN BY	PLANS CK'D.
		MDG	JCG
PARAPET DETAILS		SHEET 3 OF 5	



SECTION THRU FENCE
ON PARAPET 'LF'

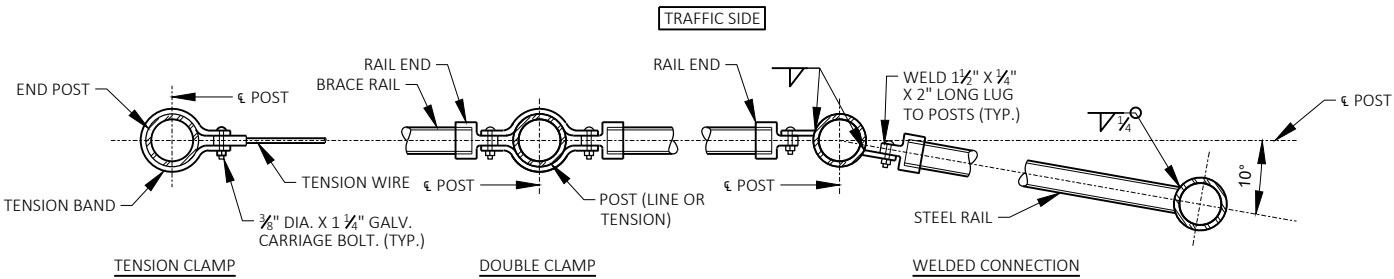
PROTECTIVE SCREENING SHALL BE STRAIGHT.



FENCE PART ELEVATION

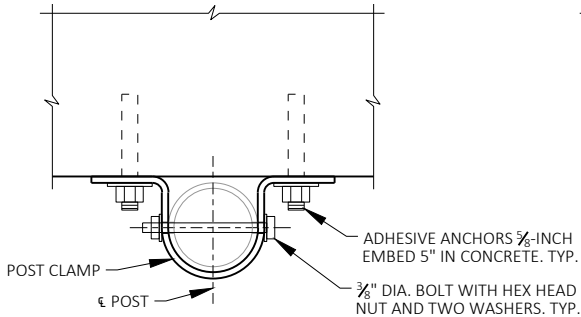
FENCE MEMBER
SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
POST (END, LINE, OR TENSION)	3.50	7.576
BRACE RAIL	1.66	2.273

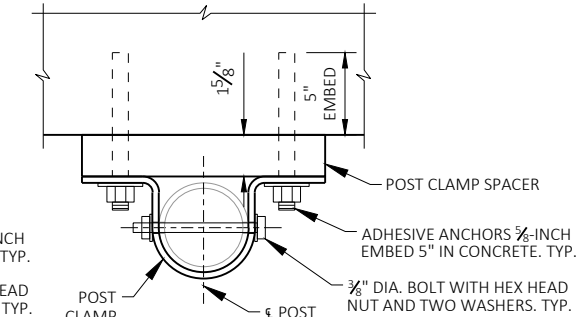


SECTION A-A

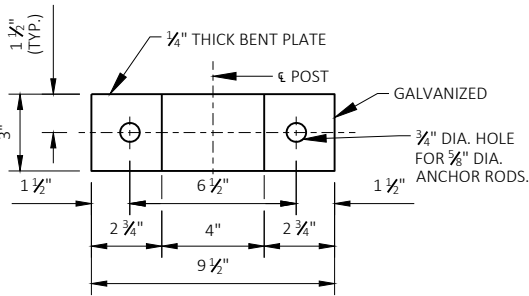
NOTE: PLACE ALL BOLT HEADS ON THE TRAFFIC SIDE



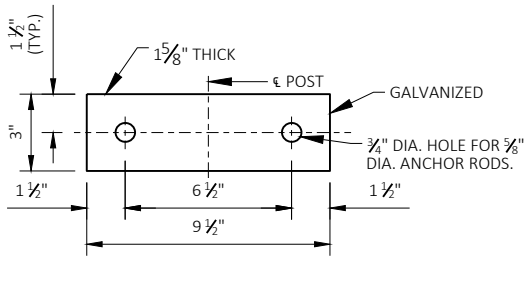
SECTION C-C



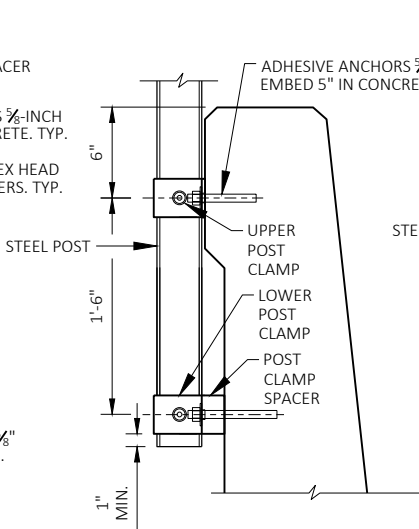
SECTION D-D



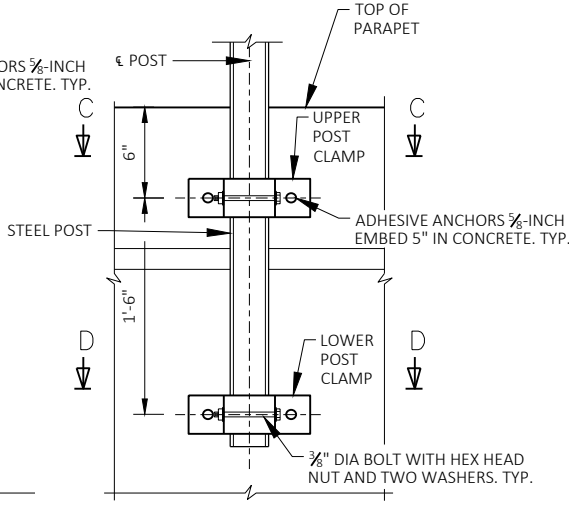
POST CLAMP DETAIL



POST CLAMP SPACER DETAIL



SECTION B-B



DETAIL 'B'

NOTES:

POSTS ARE TO BE SET VERTICAL.

METALLIC-COATED FENCE SYSTEM:
ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH SHALL BE ALUMINUM-COATED STEEL.

FABRIC SHALL CONFORM TO ASTM A491. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. STEEL POSTS SHALL BE HIGH STRENGTH GRADE 50.

STEEL POSTS SHALL BE HIGH STRENGTH GRADE 50.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 6- FT."

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST CLAMPS AND POST CLAMP SPACERS SHALL BE ASTM A709, GRADE 36.

TENSION WIRE SHALL BE 7 GAGE STEEL WIRE COATED IN ACCORDANCE WITH ASTM A824 AND A817 AS TYPE I (ALUMINUMIZED).

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

CONCRETE ADHESIVE ANCHORS 3/8-INCH. EMBED 5" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.

PAYMENT FOR ADHESIVE ANCHOR AND ANCHOR HARDWARE INCIDENTAL TO CHAIN LINK FENCE ITEM.

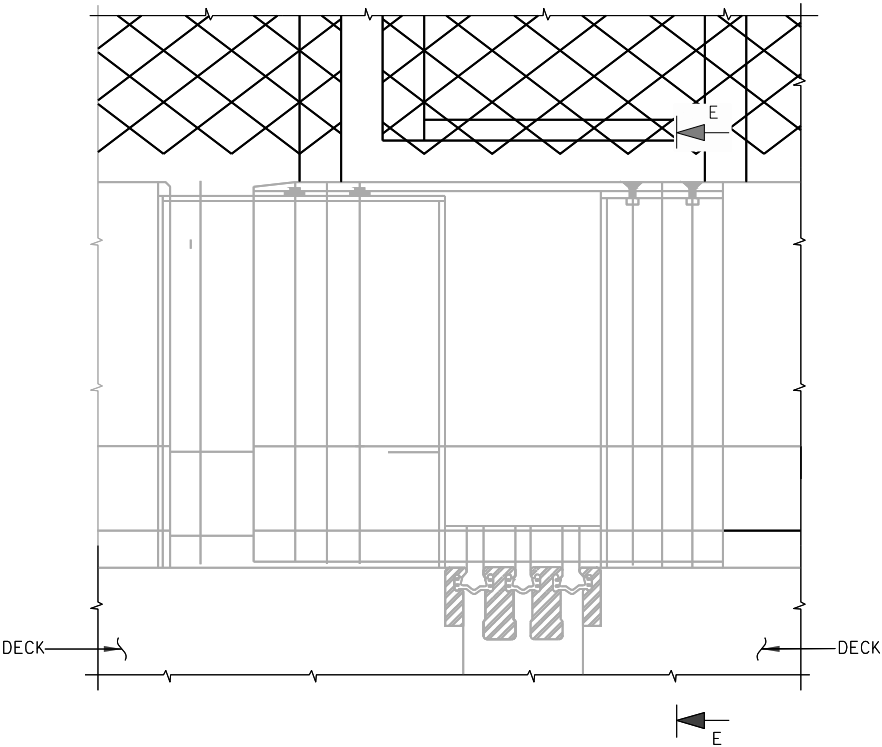
ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

PROVIDE TENSION POST AND BRACE RAILS TO LIMIT TENSION WIRE RUNS TO LESS THAN 500 FEET.

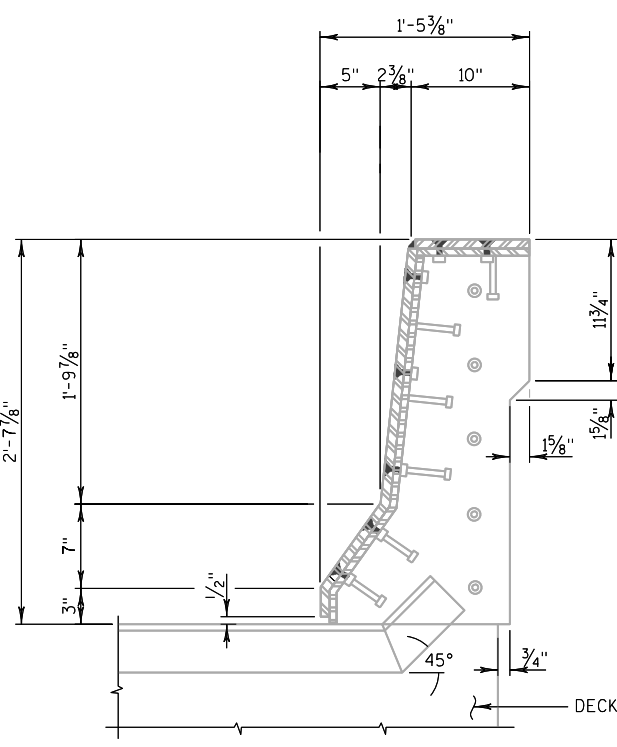
PARAPET HAS INTERNAL CONDUIT. INSPECT ALL ANCHOR HOLES BEFORE ADHESIVE INSTALLATION. NOTIFY ENGINEER IF CONDUIT IS ENCOUNTERED DURING ADHESIVE ANCHOR INSTALLATION.

CONTRACTOR TO PROVIDE DUST CONTROL DURING EPOXY INSTALLATION. SUBMIT COLLECTION METHOD FOR APPROVAL. DUST COLLECTION INCIDENTAL TO FENCE ITEM.

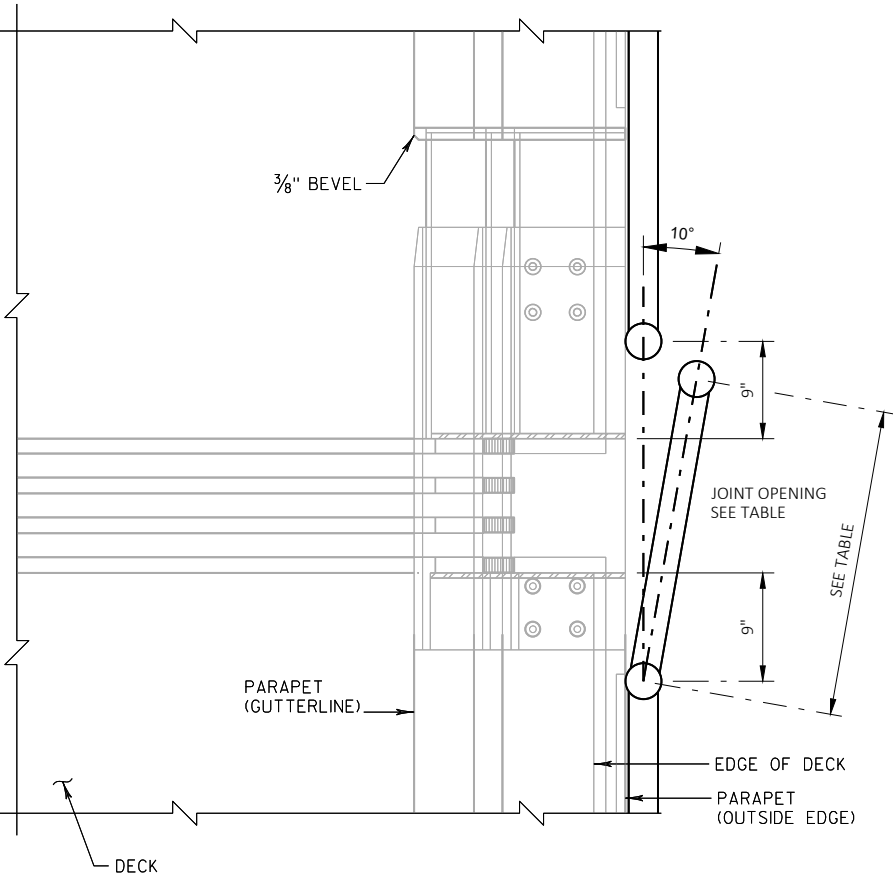
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-N4A & N4B			
DRAWN BY		MDG	PLANS CK'D. JCG
FENCE DETAILS		SHEET 4 OF 5	



ELEVATION OF PARAPET



SECTION E-E



PLAN OF PARAPET

CANTILEVER LENGTHS			
TRAFFIC DIRECTION	UNIT W/ OVERHANG	JOINT OPENING (IN)	REQUIRED OVERHANG DISTANCE (IN)
SB	N4B TO N3B	7.25	24
NB	N4A TO 6A	11.25	28

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-N4A & N4B			
DRAWN BY		MDG	PLANS CK'D. JCG
MODULAR JOINT DETAILS		SHEET 5 OF 5	

NOTES:

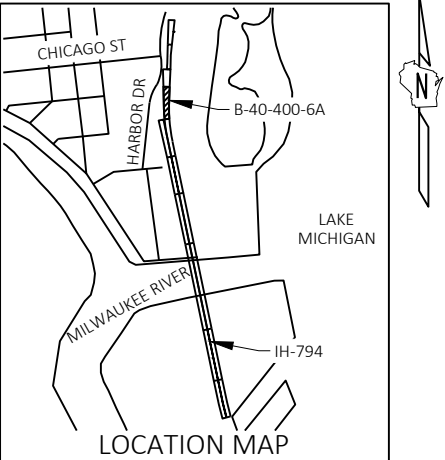
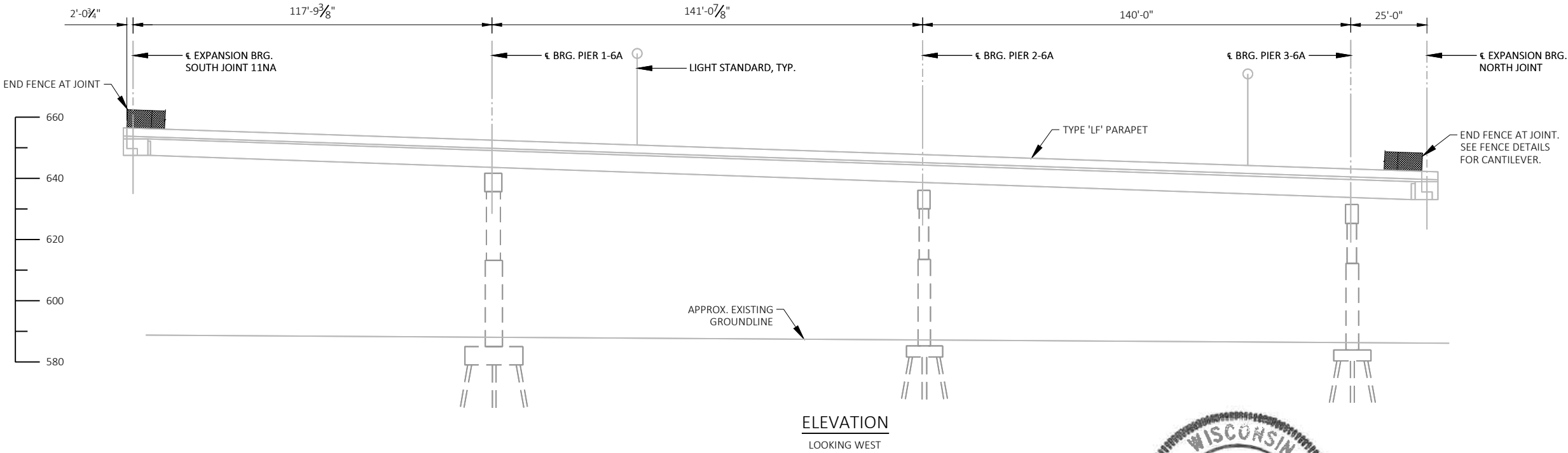
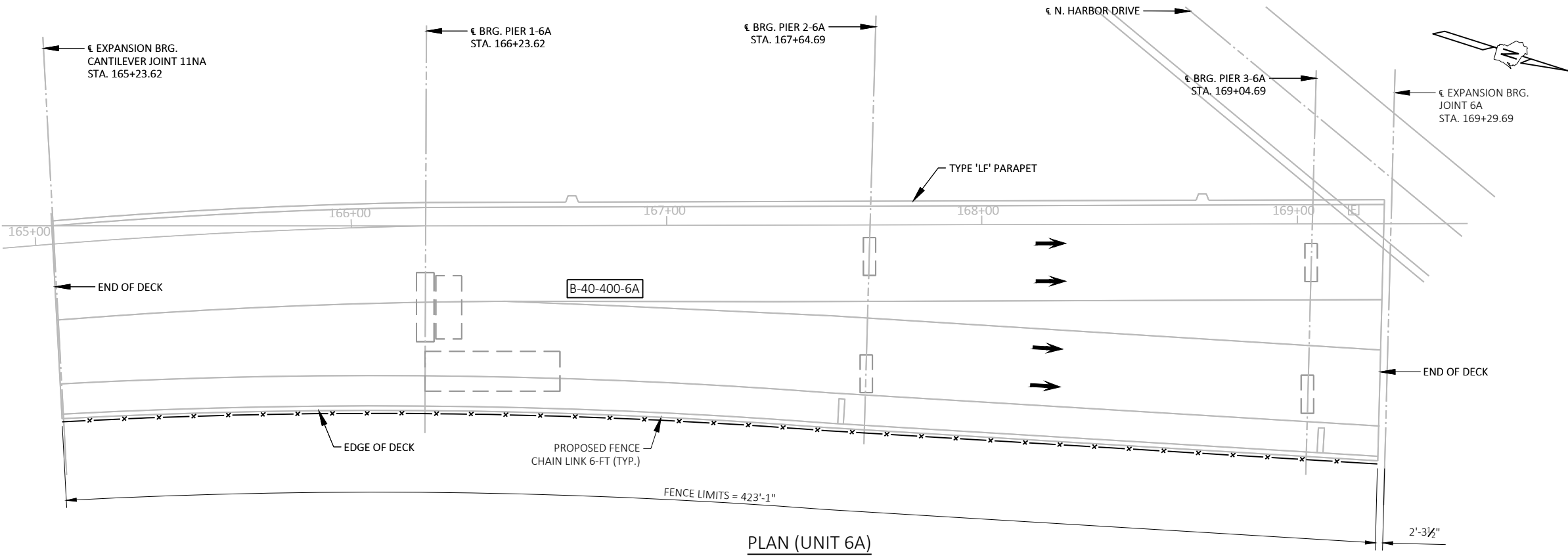
1. DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

LIVE LOAD:
INVENTORY RATING: HS-27
OPERATING RATING: HS-46
MAXIMUM WISCONSIN STANDARD
PERMIT VEHICLE (WIS-SPV) LOAD = 250 KIPS

TRAFFIC DATA
AADT (2035) = 29,250 (ONE DIRECTION)
DESIGN SPEED = 55 MPH

SCOPE OF WORK
INSTALL NEW PARAPET MOUNTED CHAIN LINK FENCE

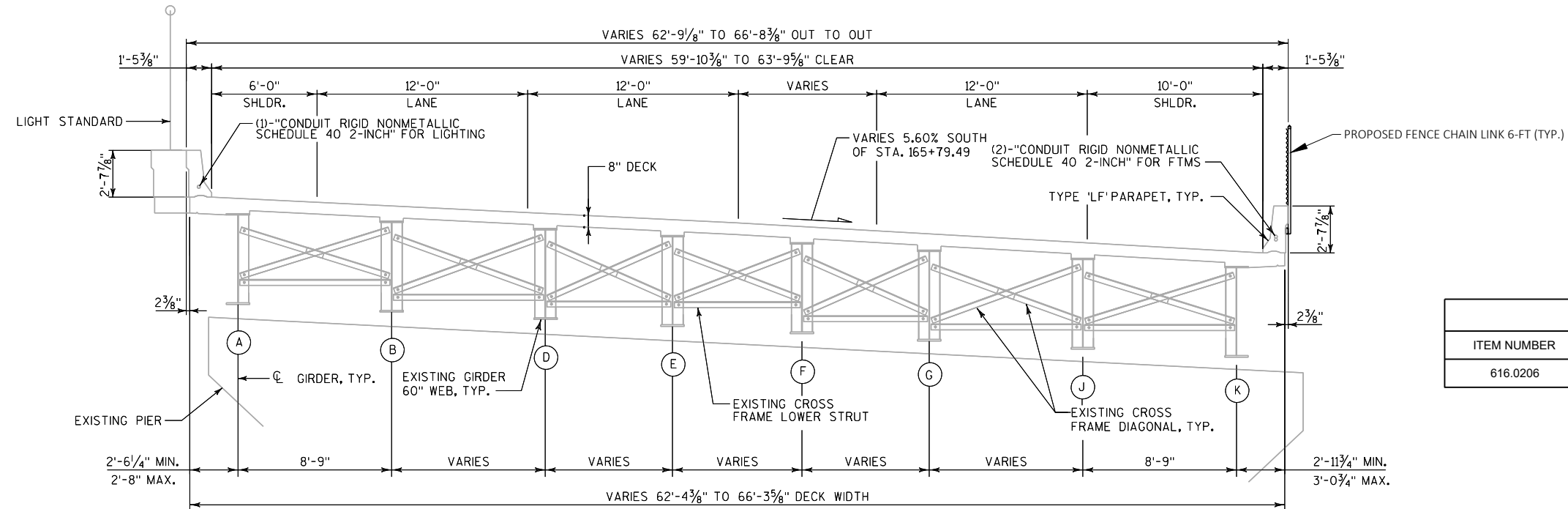
- LIST OF DRAWINGS
- GENERAL PLAN & ELEVATION
 - CROSS SECTION
 - PARAPET DETAILS
 - FENCE DETAILS
 - MODULAR JOINT DETAILS



NO.	DATE	REVISION	BY
COLLINS ENGINEERS			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>[Signature]</i>	SDR	03/30/23
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-40-400-6A			
IH 794 WB-LAKE FREEWAY OVER N. HARBOR DRIVE			
COUNTY	MILWAUKEE	TOWN/CITY/VILLAGE	MILWAUKEE
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	JCG	DESIGN CK'D.	MJM
DRAWN BY	MDG	PLANS CK'D.	JCG
GENERAL PLAN & ELEVATION			SHEET 1 OF 5

STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261

CONSULTANT CONTACT:
MARK MUTZIGER (414) 282-6905

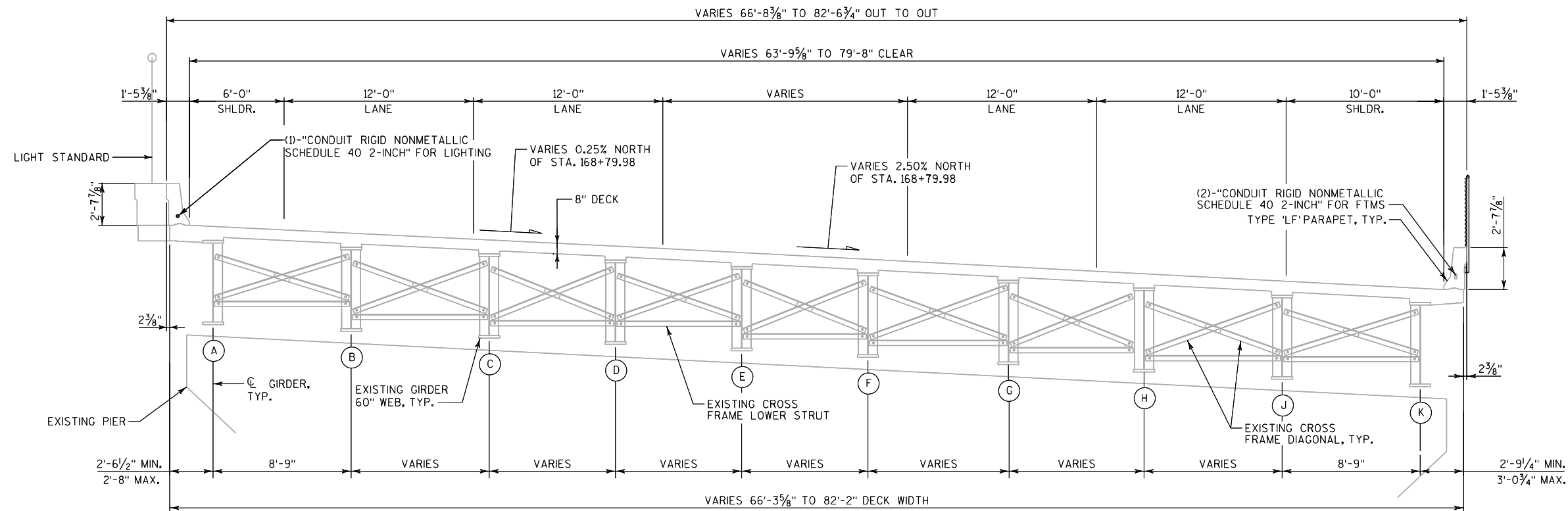


ESTIMATE OF QUANTITIES

ITEM NUMBER	BID ITEMS	QTY	UNIT
616.0206	FENCE CHAIN LINK 6-FT	424	LF

TYPICAL CROSS SECTION UNIT 6A (SOUTH END)

(SOUTH OF STA. 166+48.48 LOOKING NORTH)



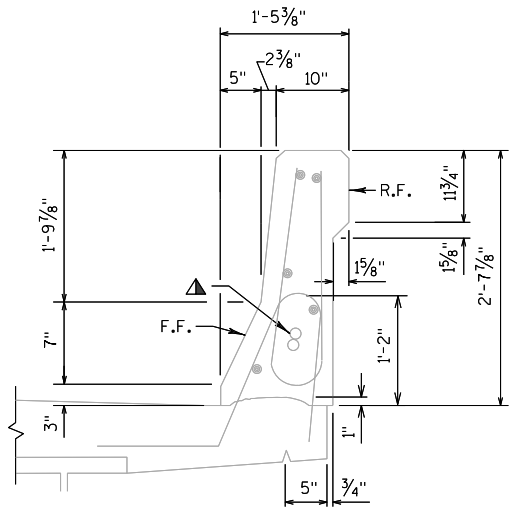
LEGEND

Ⓐ GIRDER OR STRINGER DESIGNATION

TYPICAL CROSS SECTION UNIT 6A (NORTH END)

(NORTH OF STA. 166+48.48 LOOKING NORTH)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-6A			
DRAWN BY MDG		PLANS CK'D. JCG	
CROSS SECTION		SHEET 2 OF 5	



SECTION THRU 'LF' PARAPET

LEGEND

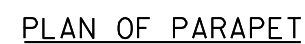
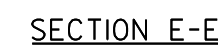
▲ (2)-"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH" (EAST PARAPET)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-6A			
DRAWN BY MDG		PLANS CK'D. JCG	
PARAPET DETAILS		SHEET 3 OF 5	

CONTRACTOR TO PROVIDE DUST CONTROL DURING EPOXY
INSTALLATION. SUBMIT COLLECTION METHOD FOR APPROVAL. DUST
COLLECTION INCIDENTAL TO FENCE ITEM.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-6A			
		DRAWN BY	MDG
		PLANS CK'D.	JCG
FENCE DETAILS		SHEET 4 OF 5	



CANTILEVER LENGTHS			
TRAFFIC DIRECTION	UNIT W/ OVERHANG	JOINT OPENING (IN)	REQUIRED OVERHANG DISTANCE (IN)
NB	6A TO 6B	8	24

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-6A			
		DRAWN BY	MDG PLANS CK'D.
MODULAR JOINT DETAILS		SHEET 5 OF 5	

STATE PROJECT NUMBER

1300-15-70

NOTES:
1. DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

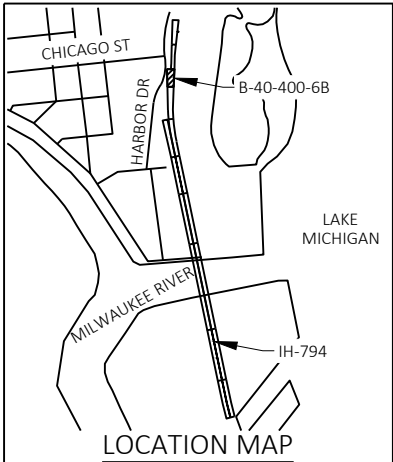
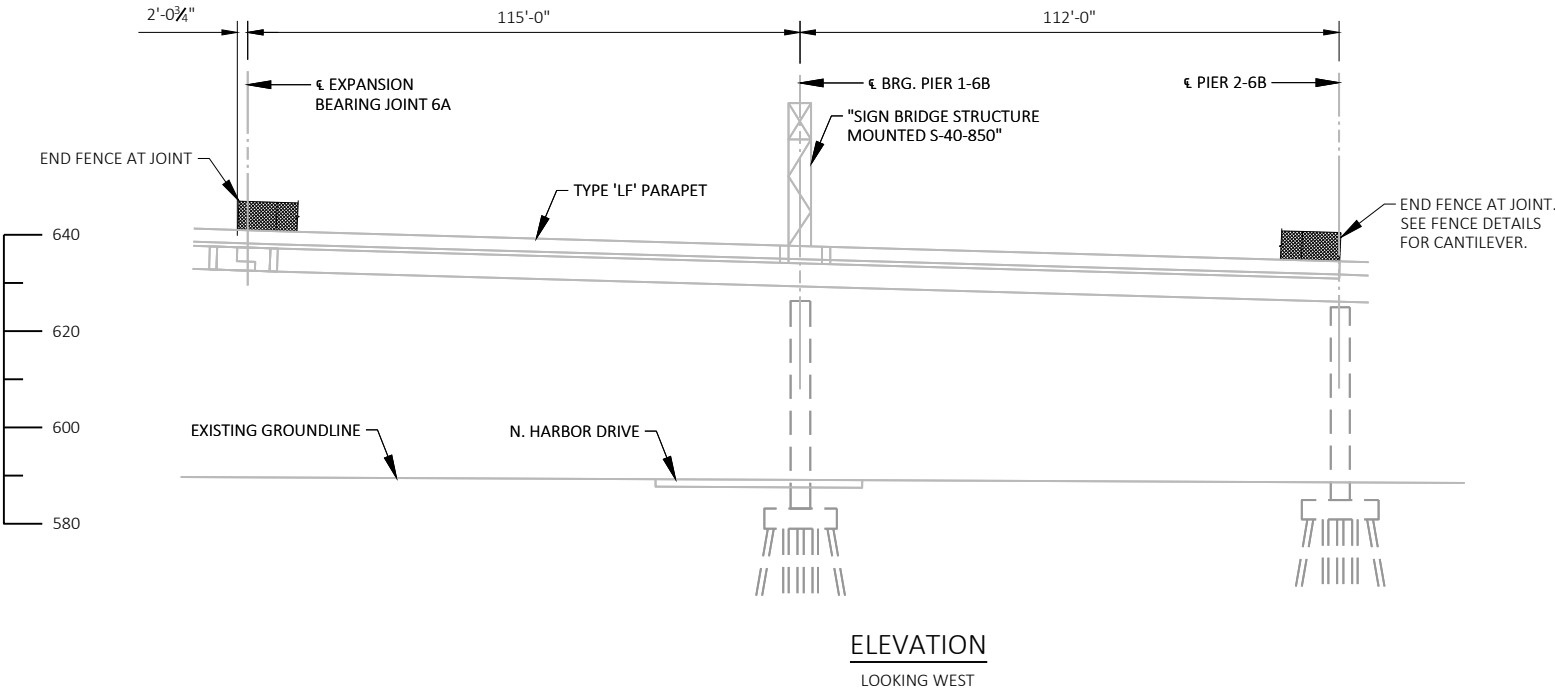
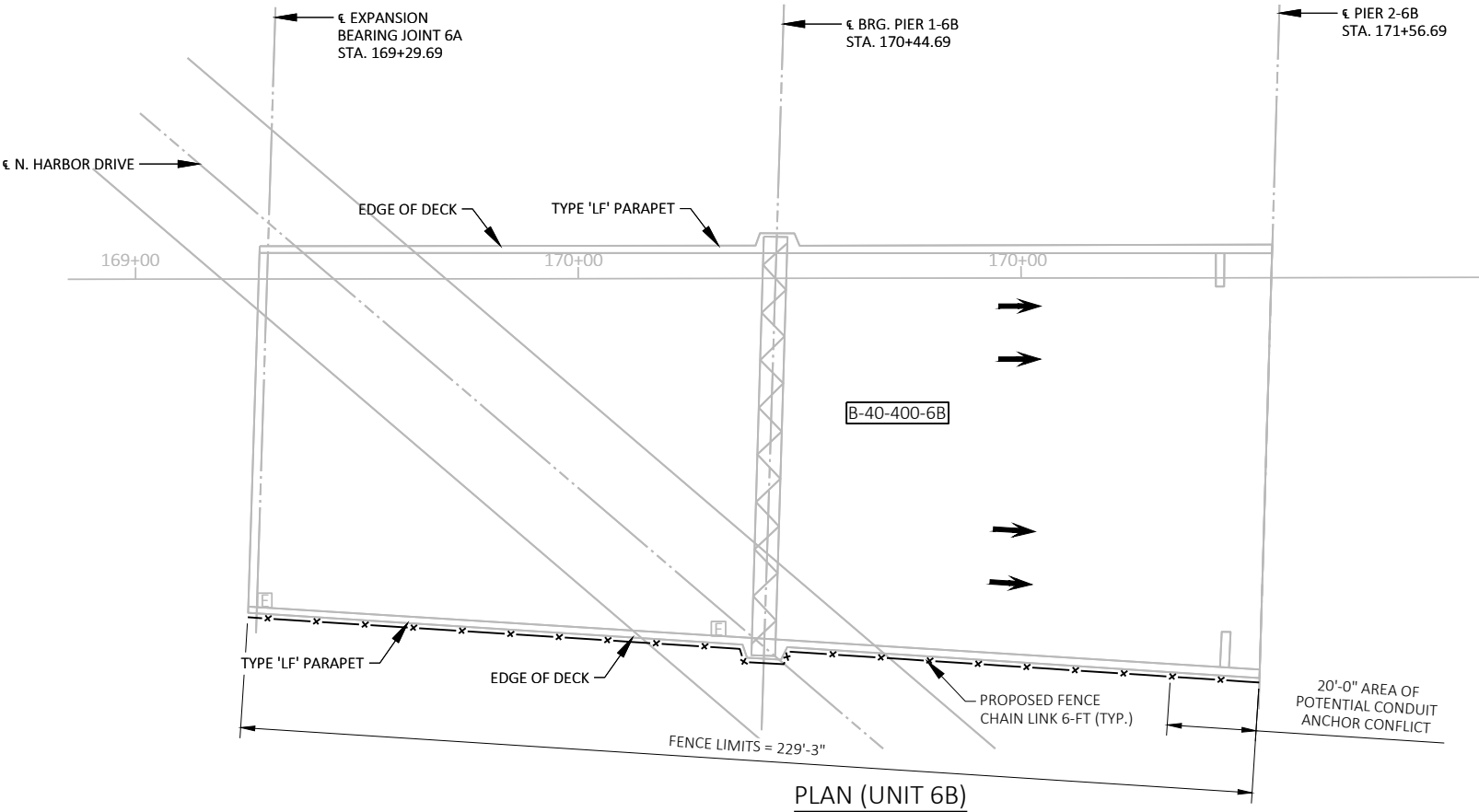
LIVE LOAD:
INVENTORY RATING: HS-28
OPERATING RATING: HS-46
MAXIMUM WISCONSIN STANDARD
PERMIT VEHICLE (WIS-SPV) LOAD = 250 KIPS

TRAFFIC DATA
AADT (2035) = 29,250 (ONE DIRECTION)
DESIGN SPEED = 55 MPH

SCOPE OF WORK
INSTALL NEW PARAPET MOUNTED CHAIN LINK FENCE

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTION
3. PARAPET DETAILS
4. SIGN SUPPORT BLISTER DETAILS
5. FENCE DETAILS
6. MODULAR JOINT DETAILS



NO.	DATE	REVISION	BY
-----	------	----------	----

COLLINS ENGINEERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED *[Signature]* SDR **03/30/23**
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-400-6B

IH 794 WB-LAKE INTERCHANGE OVER LAND

COUNTY MILWAUKEE TOWN/CITY/VILLAGE MILWAUKEE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	JCG	DESIGN CK'D.	MJM	DRAWN BY	MDG	PLANS CK'D.	JCG
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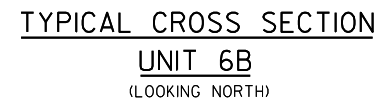
GENERAL PLAN
& ELEVATION

SHEET 1 OF 6



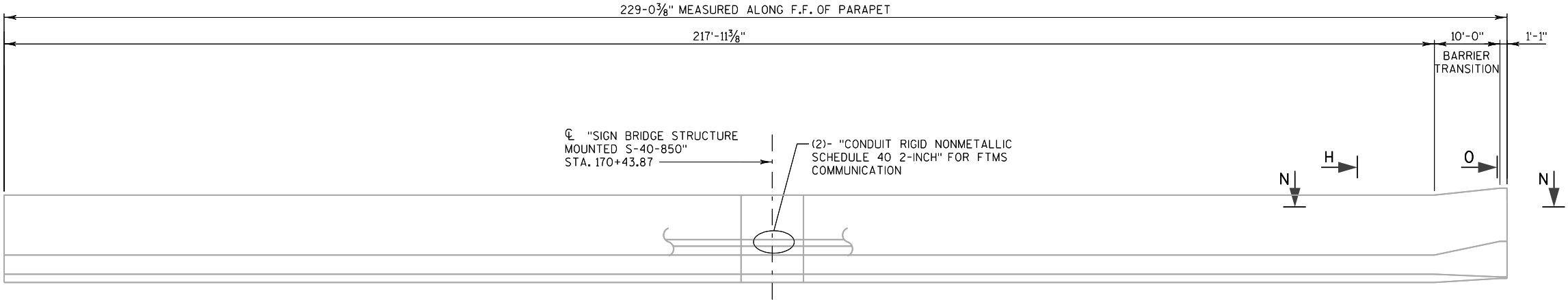
STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261

CONSULTANT CONTACT:
MARK MUTZIGER (414) 282-6905

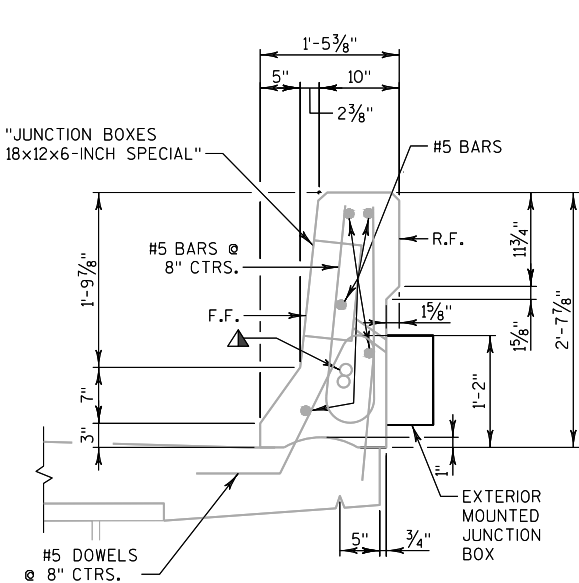


ESTIMATE OF QUANTITIES			
ITEM NUMBER	BID ITEMS	QTY	UNIT
616.0206	FENCE CHAIN LINK 6-FT	230	LF

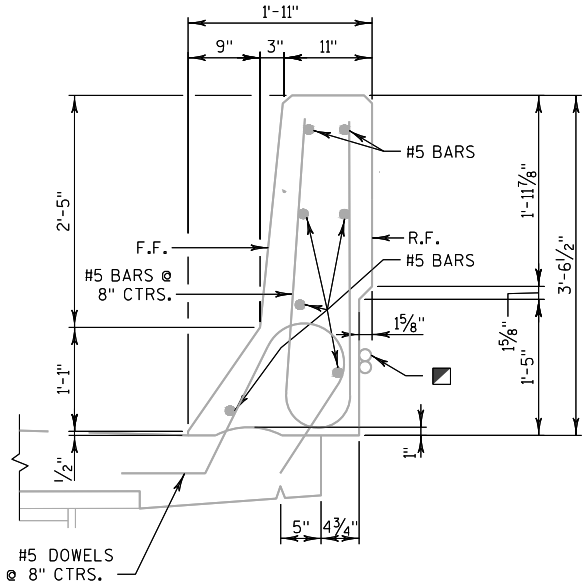
NO.	DATE	REVISION		BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION				
STRUCTURE B-40-400-6B				
		DRAWN BY	MDG	PLANS CK'D. JCG
CROSS SECTION			SHEET 2 OF 6	



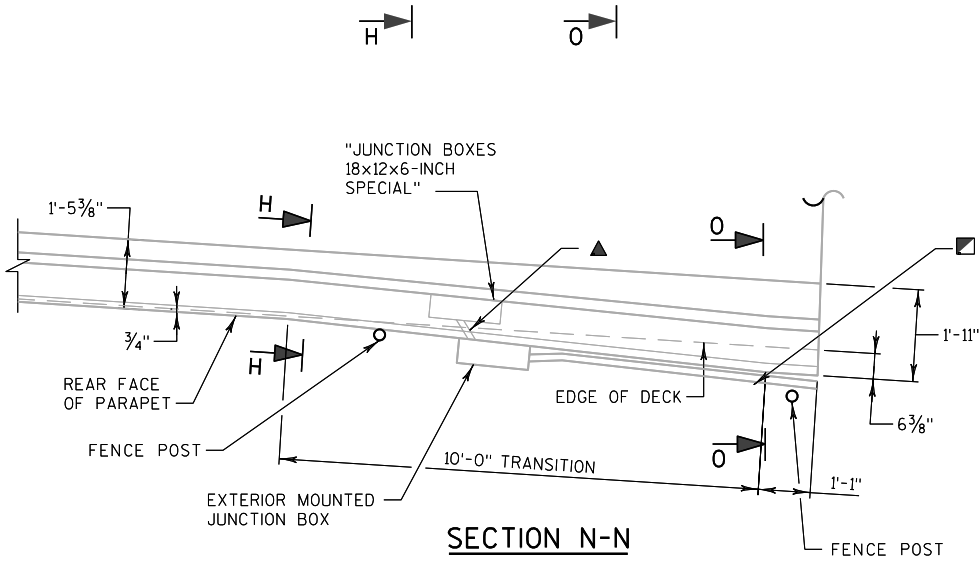
SECTION G-G PARAPET 'LF' REINFORCING ELEVATION
(LOOKING AT THE REAR FACE)



SECTION H-H THRU 'LF' PARAPET



SECTION O-O THRU 'LF' PARAPET TRANSITION

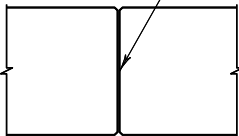


SECTION N-N

LEGEND

- ▲ "CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH" FOR FTMS COMMUNICATION, EAST PARAPET
- ▲ (1) 3" METALLIC CONDUIT FOR FTMS
- (2) 2" DIAM. CONDUIT MOUNTED ON EXTERIOR OF PARAPET

CONSTRUCTION JOINTS IN THE PARAPETS MAY BE PRESENT. JOINT SPACING OF 80'-0". CONSTR. JOINT DEFINED WITH A 3³/₄"-V GROOVE.



CONSTRUCTION JOINT IN PARAPET DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-6B			
DRAWN BY		MDG	PLANS CK'D. JCG
PARAPET DETAILS		SHEET 3 OF 6	



■ (2) "CONDUIT RIGID NONMETALLIC
SCHEDULE 40 2-INCH" EAST
PARAPET FOR FTMS COMMUNICATION.



NO.	DATE	REVISION		BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION				
STRUCTURE B-40-400-6B				
		DRAWN BY	MDG	PLANS CK'D.
SIGN SUPPORT BLISTER DETAILS			SHEET 4 OF	

NOTES:

POSTS ARE TO BE SET VERTICAL.

METALLIC-COATED FENCE SYSTEM:
ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH SHALL BE ALUMINUM-COATED STEEL.

FABRIC SHALL CONFORM TO ASTM A491. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. STEEL POSTS SHALL BE HIGH STRENGTH GRADE 50.

STEEL POSTS SHALL BE HIGH STRENGTH GRADE 50.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 6- FT."

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST CLAMPS AND POST CLAMP SPACERS SHALL BE ASTM A709, GRADE 36.

TENSION WIRE SHALL BE 7 GAGE STEEL WIRE COATED IN ACCORDANCE WITH ASTM A824 AND A817 AS TYPE I (ALUMINUMIZED).

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

CONCRETE ADHESIVE ANCHORS 5/8"-INCH. EMBED 5" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.

PAYMENT FOR ADHESIVE ANCHOR AND ANCHOR HARDWARE INCIDENTAL TO CHAIN LINK FENCE ITEM.

ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

PROVIDE TENSION POST AND BRACE RAILS TO LIMIT TENSION WIRE RUNS TO LESS THAN 500 FEET.

PARAPET HAS INTERNAL CONDUIT. INSPECT ALL ANCHOR HOLES BEFORE ADHESIVE INSTALLATION. NOTIFY ENGINEER IF CONDUIT IS ENCOUNTERED DURING ADHESIVE ANCHOR INSTALLATION. SEE TABLE BELOW FOR POTENTIAL CONDUIT CONFLICT WITH TYPICAL ADHESIVE ANCHOR LOCATION.

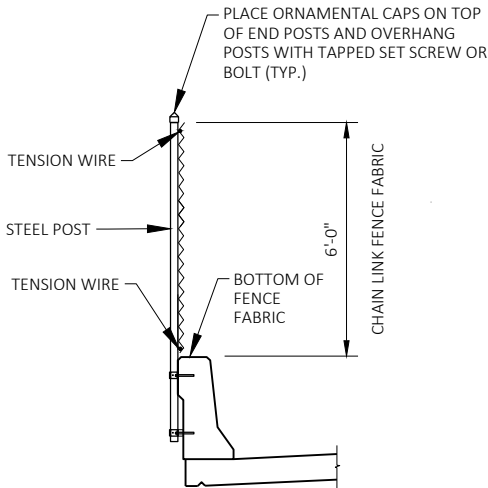
CONTRACTOR TO PROVIDE DUST CONTROL DURING EPOXY INSTALLATION. SUBMIT COLLECTION METHOD FOR APPROVAL. DUST COLLECTION INCIDENTAL TO FENCE ITEM.

CONDUIT ANCHOR CONFLICT

SPAN	STATION OF CONFLICT	LENGTH	LOCATION
6B	2+12 TO 2+32	20	UPPER ANCHOR

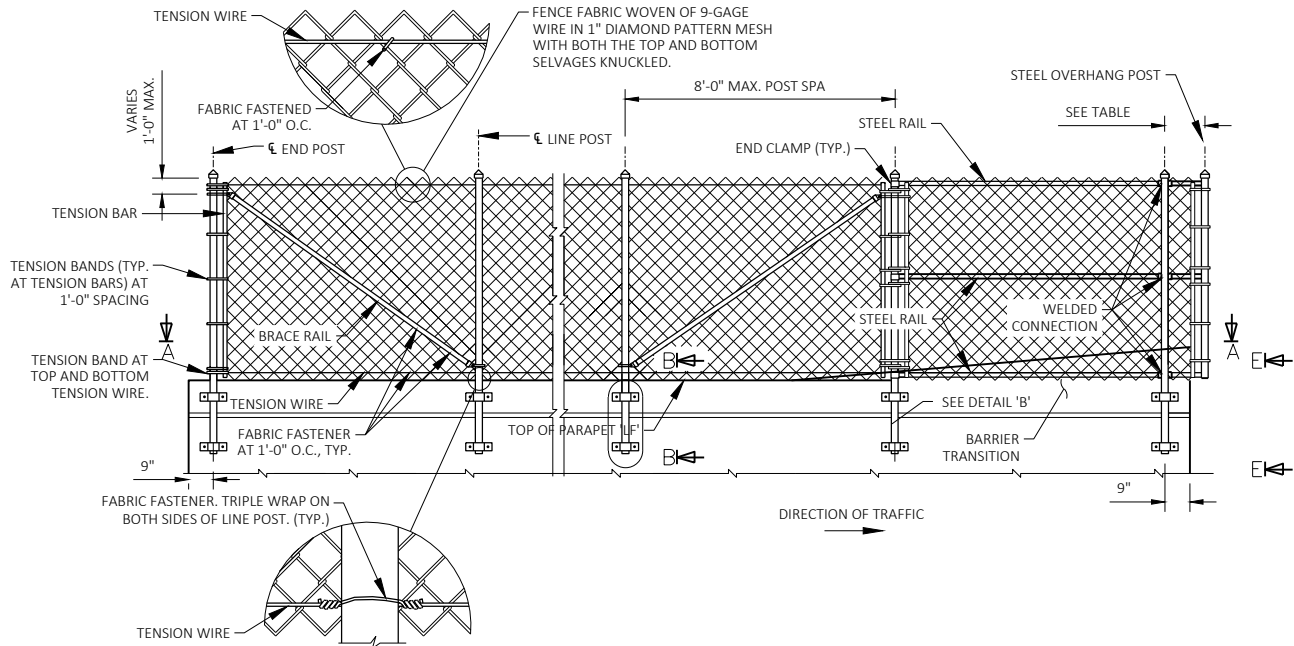
* REVISE DIMENSION TO 4.5" AT LOCATIONS NOTED TO AVOID POTENTIAL CONFLICT WITH CONDUIT INTERNAL TO PARAPET.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-6B			
DRAWN BY		MDG	PLANS CK'D. JCG
FENCE DETAILS		SHEET 5 OF 6	



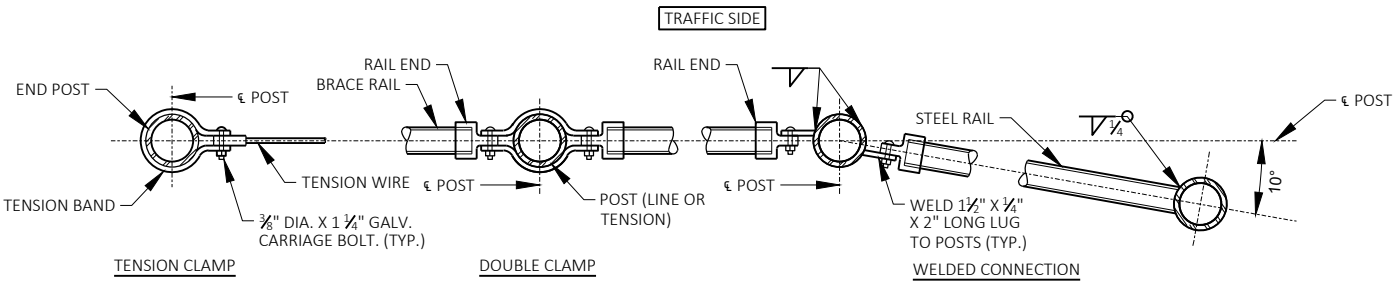
SECTION THRU FENCE
ON PARAPET 'LF'

PROTECTIVE SCREENING SHALL BE STRAIGHT.



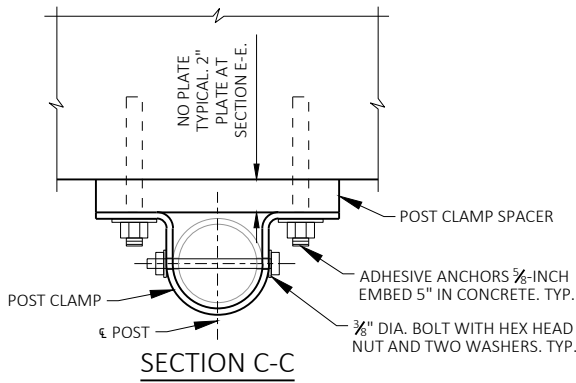
FENCE MEMBER
SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
POST (END, LINE, OR TENSION)	3.50	7.576
BRACE RAIL	1.66	2.273

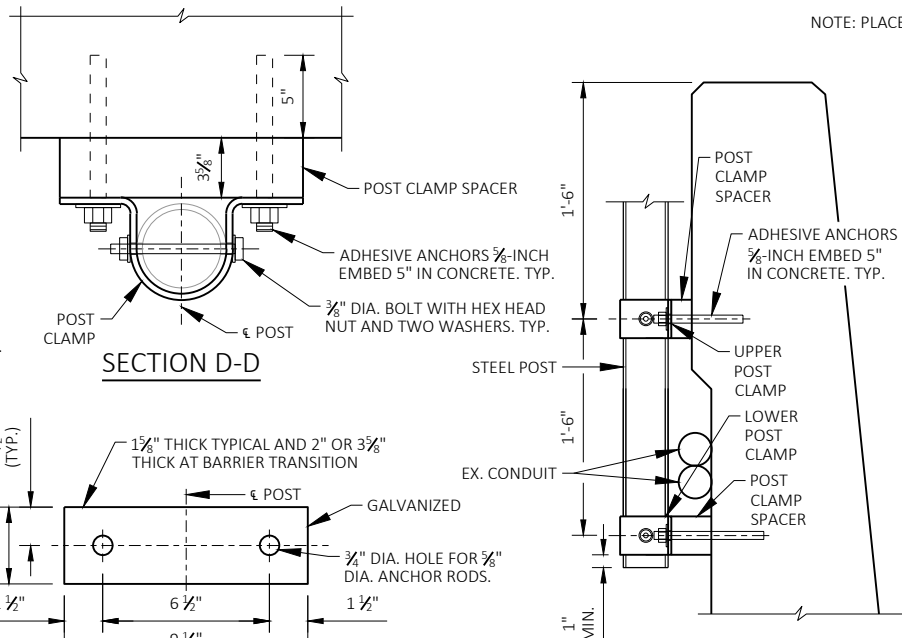


SECTION A-A

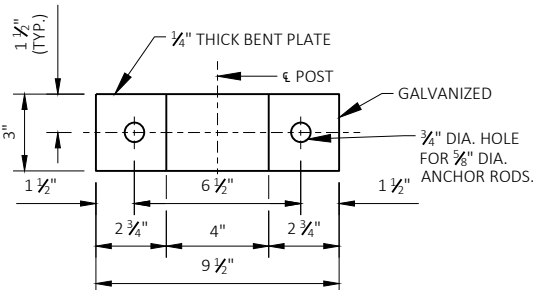
NOTE: PLACE ALL BOLT HEADS ON THE TRAFFIC SIDE



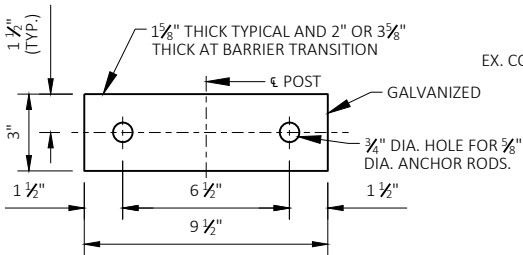
SECTION C-C



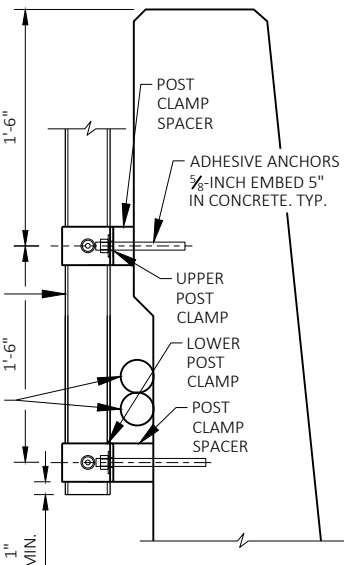
SECTION D-D



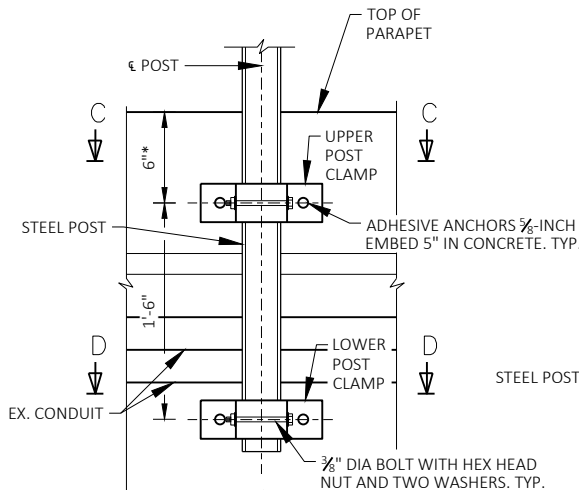
POST CLAMP DETAIL



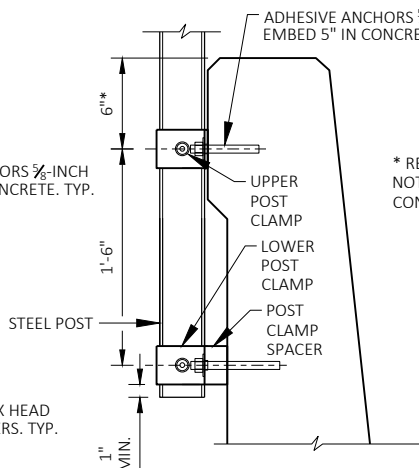
POST CLAMP SPACER DETAIL



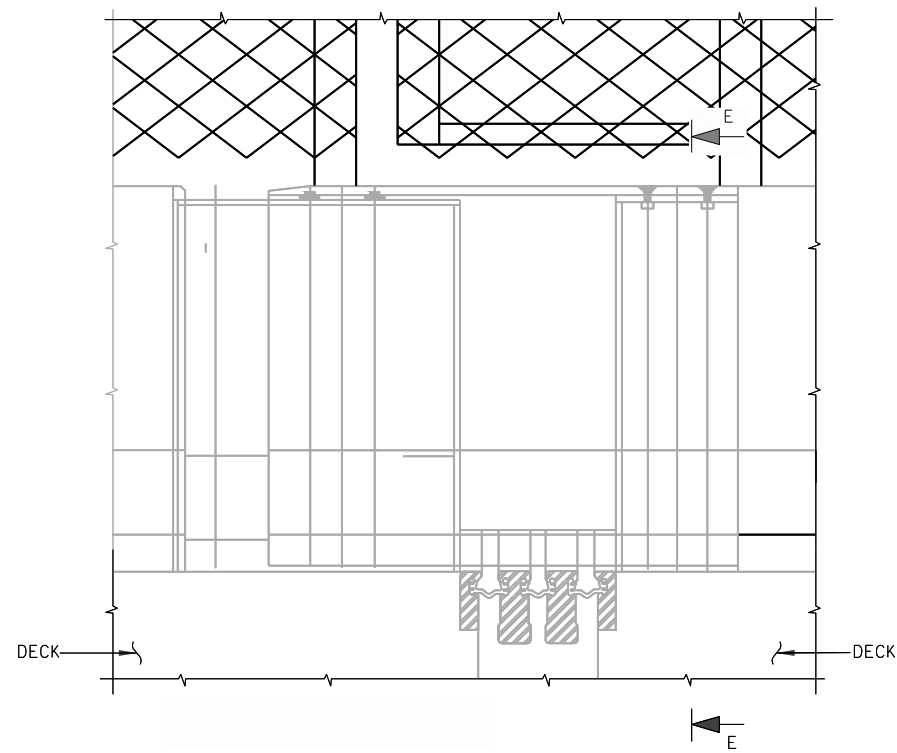
SECTION E-E



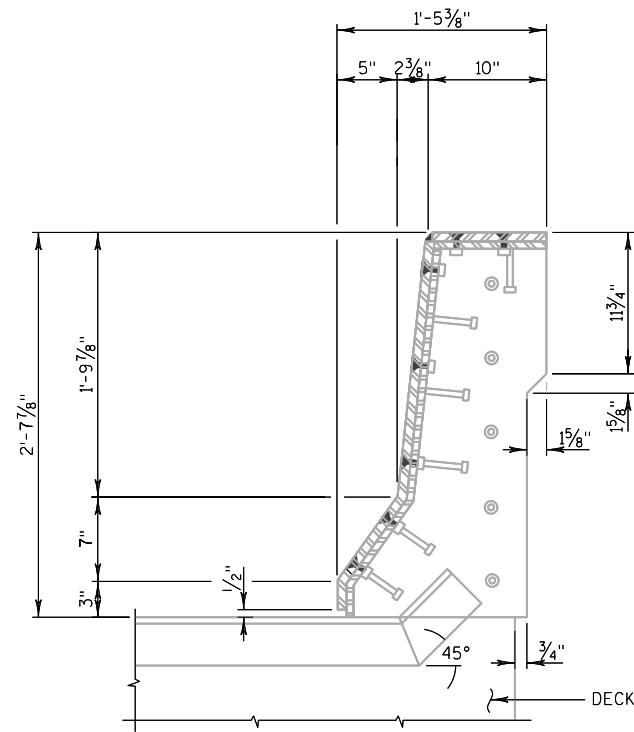
DETAIL 'B'



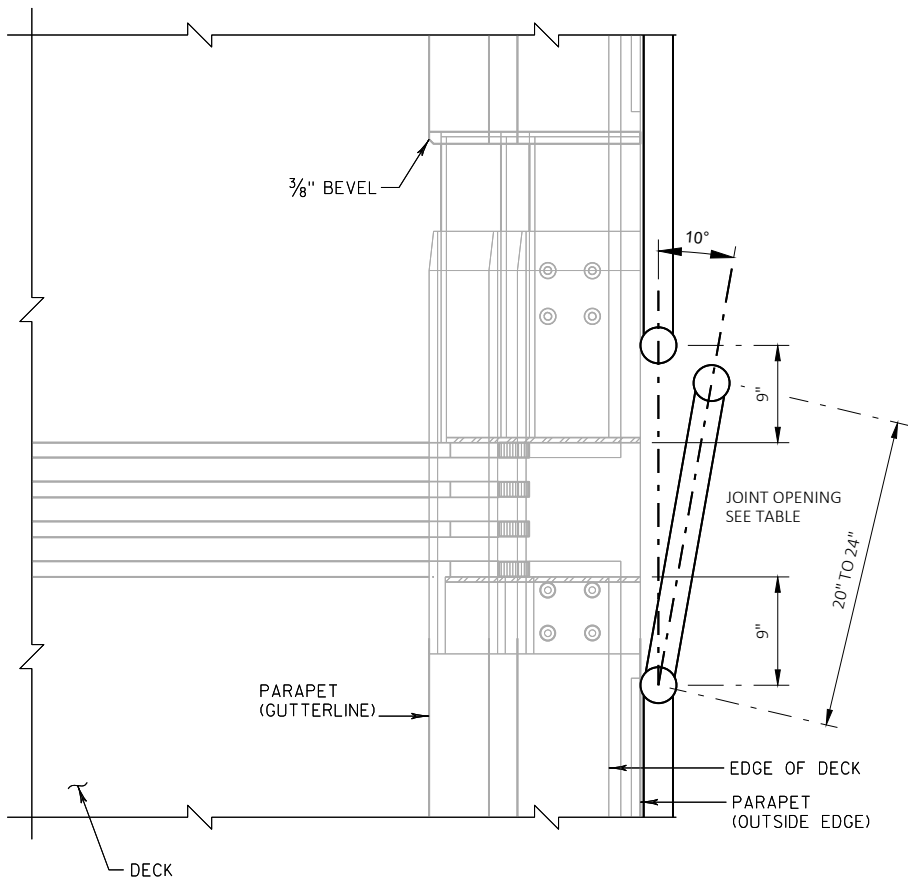
SECTION B-B



ELEVATION OF PARAPET



SECTION E-E



PLAN OF PARAPET

CANTILEVER LENGTHS			
TRAFFIC DIRECTION	UNIT W/ OVERHANG	JOINT OPENING (IN)	REQUIRED OVERHANG DISTANCE (IN)
NB	6B TO 6C	1	20

STATE PROJECT NUMBER
1300-15-70

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-6B			
DRAWN BY		MDG	PLANS CK'D. JCG
MODULAR JOINT DETAILS		SHEET 6 OF 6	

- NOTES:
1. DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
 2. ALL CONCRETE REMOVAL SHALL BE DEFINED BY A ½ INCH DEEP SAW CUT, UNLESS SPECIFIED OTHERWISE.
 3. UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.
 4. ENGINEER TO VERIFY CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER. QUANTITIES SHOWN ARE APPROXIMATE.

LIVE LOAD:
INVENTORY RATING: HS-20
OPERATING RATING: HS-33
MAXIMUM WISCONSIN STANDARD
PERMIT VEHICLE (WIS-SPV) LOAD = 250 KIPS

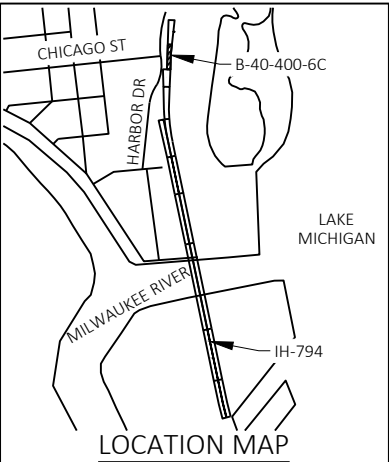
TRAFFIC DATA
AADT (2035) = 29,250 (ONE DIRECTION)
DESIGN SPEED = 55 MPH


MATERIAL PROPERTIES
CONCRETE MASONRY - SURFACE REPAIR $f_c = 4,000$ P.S.I.

SCOPE OF WORK
INSTALL NEW PARAPET MOUNTED CHAIN LINK FENCE
CONCRETE SURFACE REPAIR TO BACK FACE OF PARAPET

LIST OF DRAWINGS

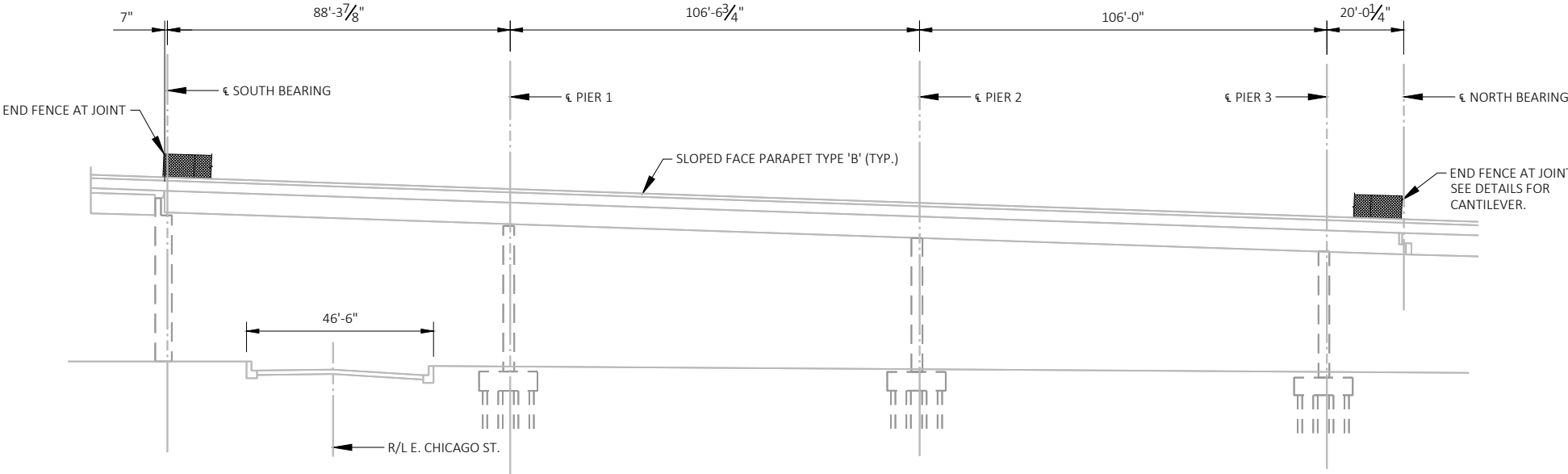
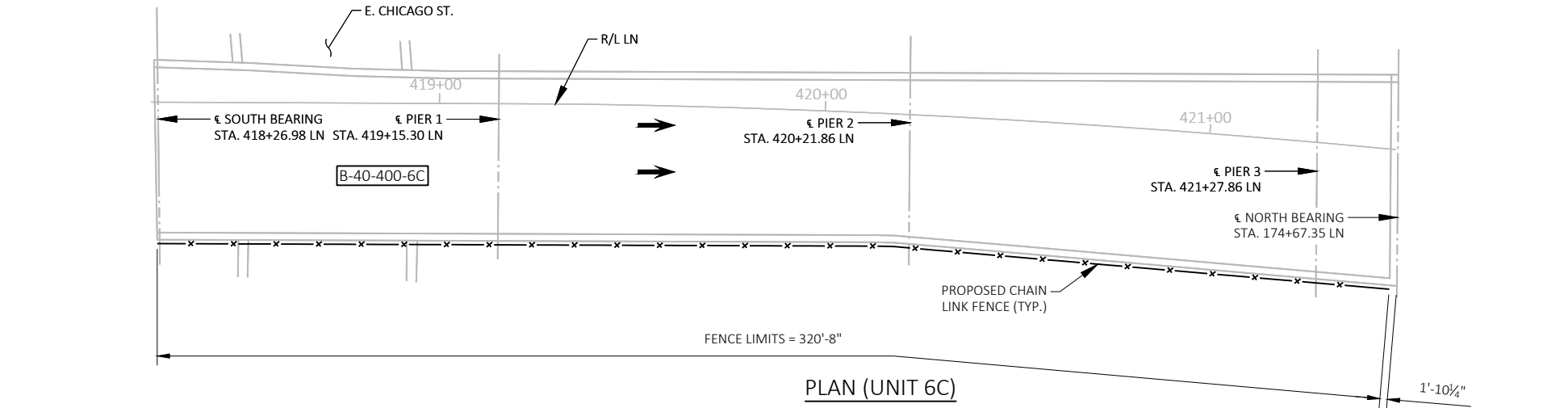
1. GENERAL PLAN & ELEVATION
2. CROSS SECTION
3. PARAPET DETAILS
4. FENCE DETAILS
5. MODULAR JOINT DETAILS



NO.	DATE	REVISION	BY
COLLINS ENGINEERS			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	 CHIEF STRUCTURES DESIGN ENGINEER		SDR 03/30/23 DATE
STRUCTURE B-40-400-6C			
RAMP IH 794 WB-LAKE FREEWAY OVER PARKING LOT			
COUNTY	MILWAUKEE	TOWN/CITY/VILLAGE	MILWAUKEE
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	JCG	DESIGN CK'D.	MJM
DRAWN BY	MDG	PLANS CK'D.	JCG
GENERAL PLAN & ELEVATION			SHEET 1 OF 5

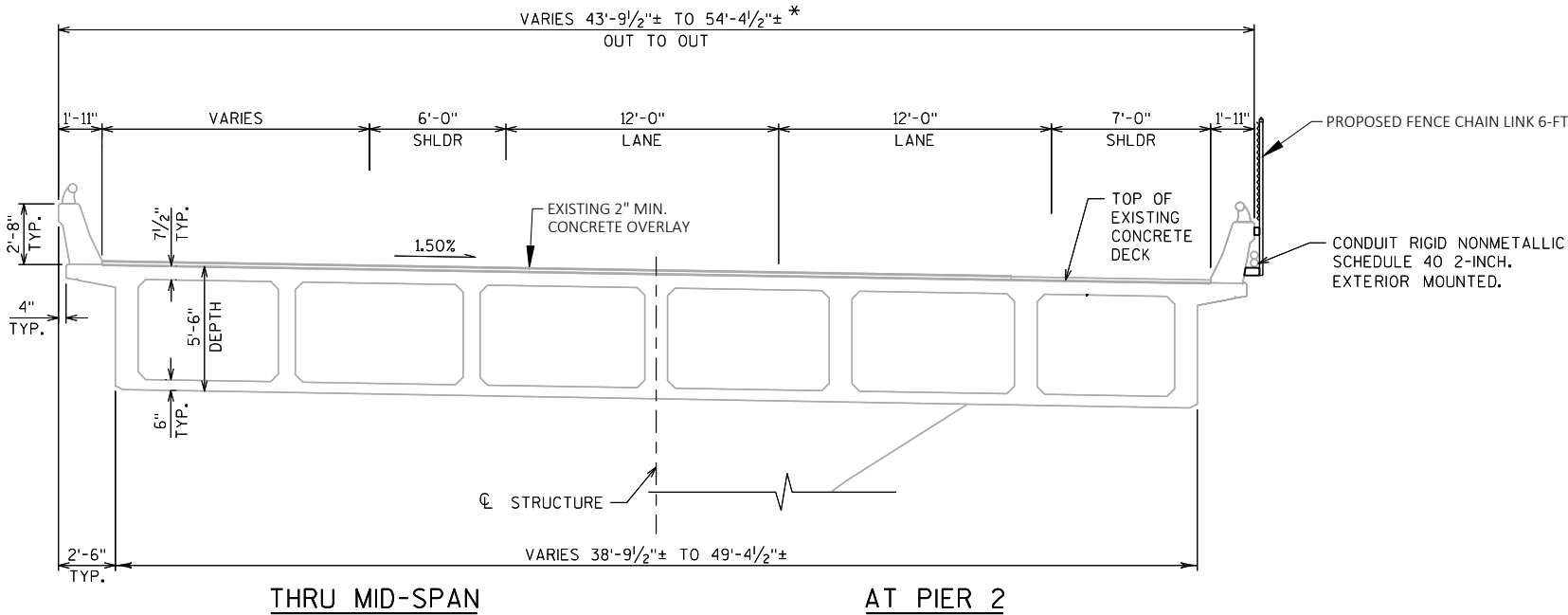
STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261

CONSULTANT CONTACT:
MARK MUTZIGER (414) 282-6905



ELEVATION
LOOKING WEST





CROSS SECTION

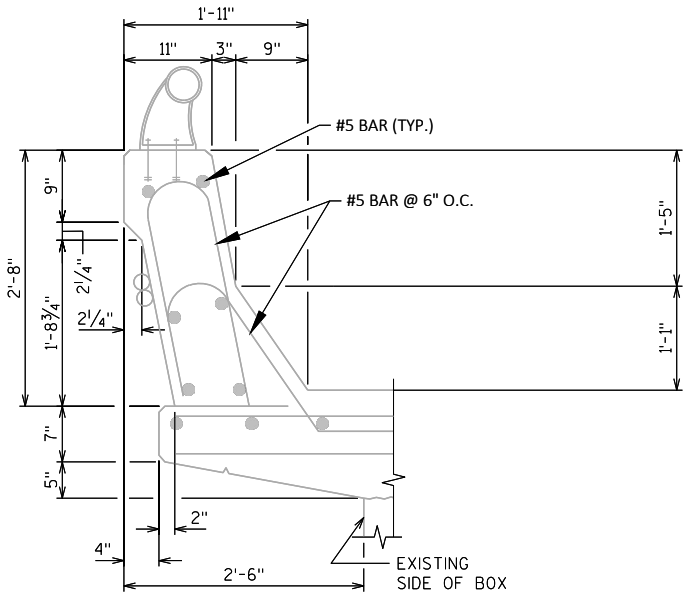
(STATION 419+90.29 LN TO 421+47.04 LN)
(LOOKING NORTH)

ESTIMATE OF QUANTITIES			
ITEM NUMBER	BID ITEMS	QTY	UNIT
616.0206	FENCE CHAIN LINK 6-FT	321	LF
509.1500	CONCRETE SURFACE REPAIR	20	SF

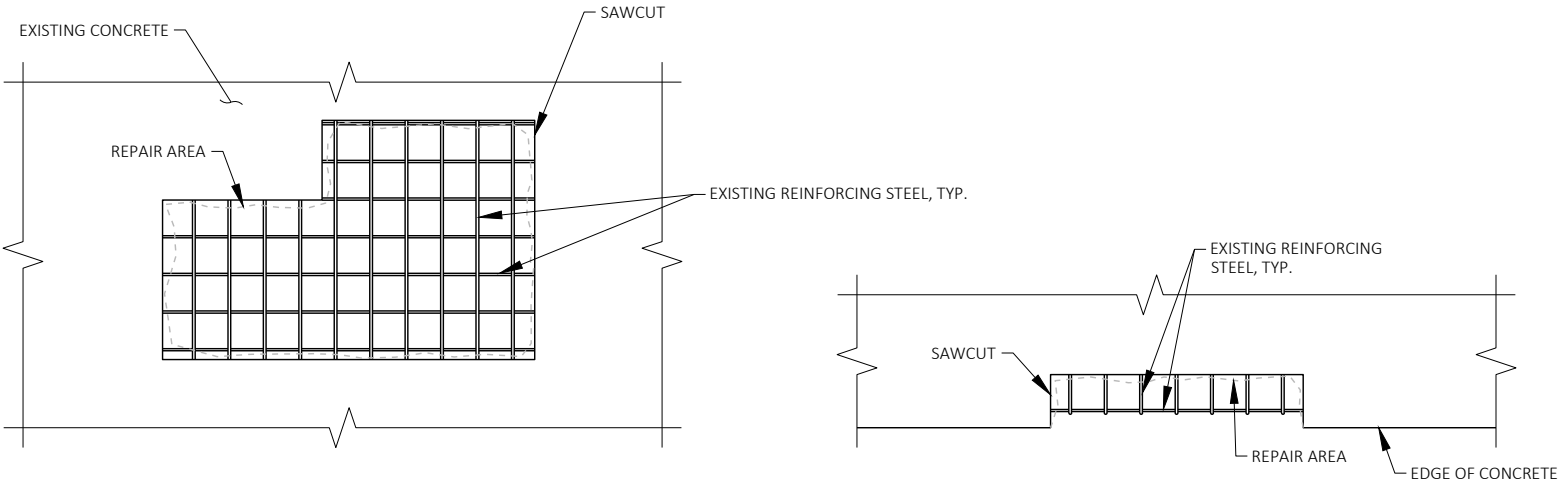
LEGEND

* DIMENSIONS MEASURED ALONG SOUTH END OF
OVERLAY OR NORTH END OF DECK

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-6C			
DRAWN BY		MDG	PLANS CK'D. JCG
CROSS SECTION		SHEET 2 OF 5	



PARAPET SECTION



PART. PLAN TYPICAL REPAIR DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-6C			
DRAWN BY		MDG	PLANS CK'D. JCG
PARAPET DETAILS		SHEET 3 OF 5	

NOTES:

POSTS ARE TO BE SET VERTICAL.

METALLIC-COATED FENCE SYSTEM:
ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH SHALL BE ALUMINUM-COATED STEEL.

FABRIC SHALL CONFORM TO ASTM A491. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. STEEL POSTS SHALL BE HIGH STRENGTH GRADE 50.

STEEL POSTS SHALL BE HIGH STRENGTH GRADE 50.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 6- FT."

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST CLAMPS AND POST CLAMP SPACERS SHALL BE ASTM A709, GRADE 36.

TENSION WIRE SHALL BE 7 GAGE STEEL WIRE COATED IN ACCORDANCE WITH ASTM A824 AND A817 AS TYPE I (ALUMINUMIZED).

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

CONCRETE ADHESIVE ANCHORS 5/8"-INCH. EMBED 5" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.

PAYMENT FOR ADHESIVE ANCHOR AND ANCHOR HARDWARE INCIDENTAL TO CHAIN LINK FENCE ITEM.

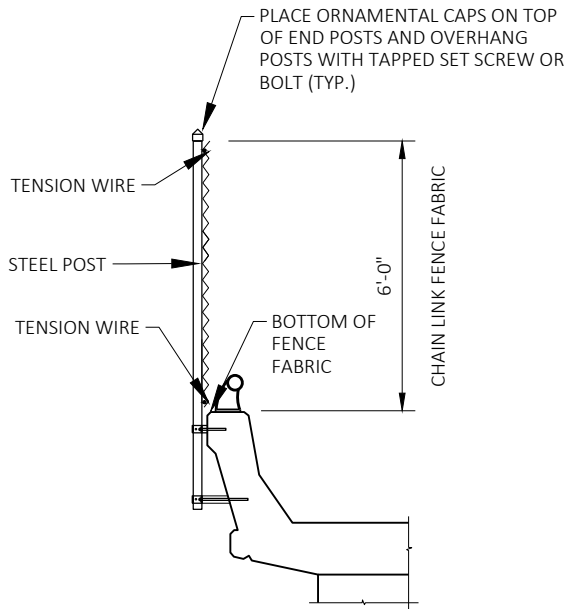
ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

PROVIDE TENSION POST AND BRACE RAILS TO LIMIT TENSION WIRE RUNS TO LESS THAN 500 FEET.

PARAPET HAS INTERNAL CONDUIT. INSPECT ALL ANCHOR HOLES BEFORE ADHESIVE INSTALLATION. NOTIFY ENGINEER IF CONDUIT IS ENCOUNTERED DURING ADHESIVE ANCHOR INSTALLATION.

CONTRACTOR TO PROVIDE DUST CONTROL DURING EPOXY INSTALLATION. SUBMIT COLLECTION METHOD FOR APPROVAL. DUST COLLECTION INCIDENTAL TO FENCE ITEM.

PERFORM CONCRETE SURFACE REPAIRS AS DIRECTED BY THE ENGINEER TO PROVIDE SOUND CONCRETE FOR FENCE ANCHORS. PROVIDE DEBRIS CONTAINMENT DURING CONCRETE SURFACE REPAIRS. WORK INCIDENTAL TO CONCRETE SURFACE REPAIR ITEM.

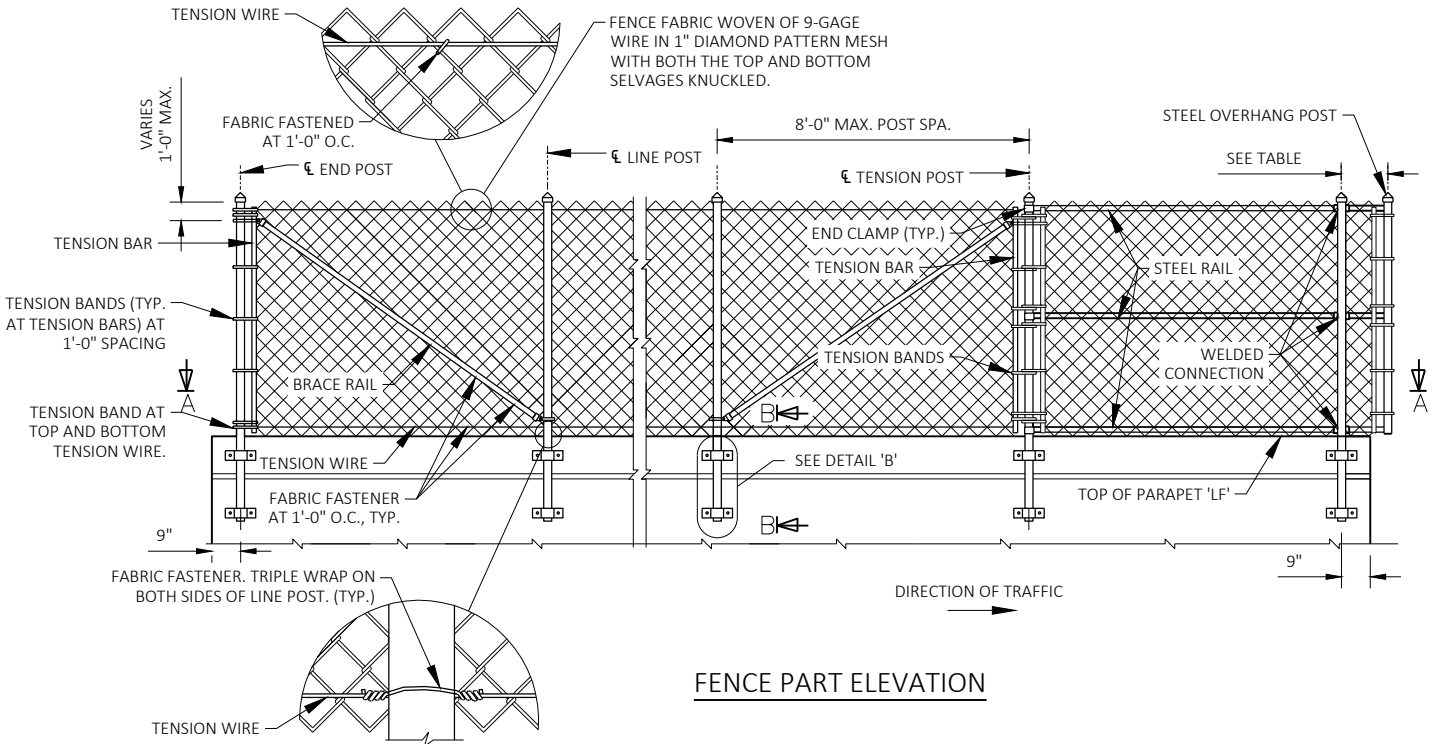


SECTION THRU FENCE
ON PARAPET 'B'

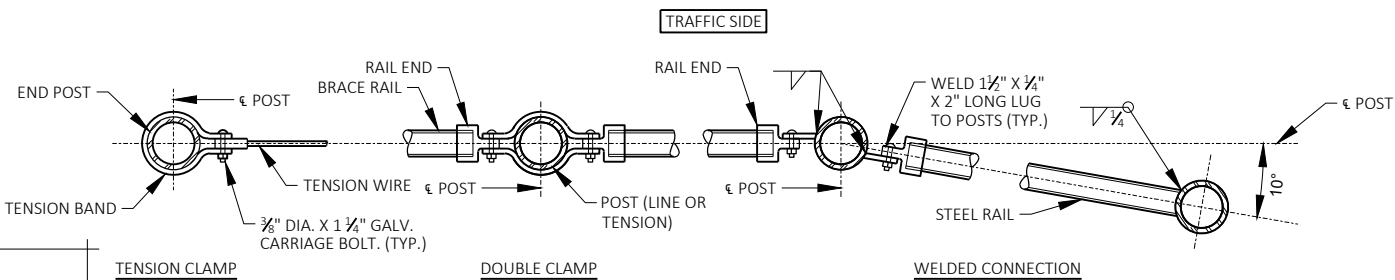
PROTECTIVE SCREENING SHALL BE STRAIGHT.

FENCE MEMBER
SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
POST (END, LINE, OR TENSION)	3.50	7.576
BRACE RAIL	1.66	2.273

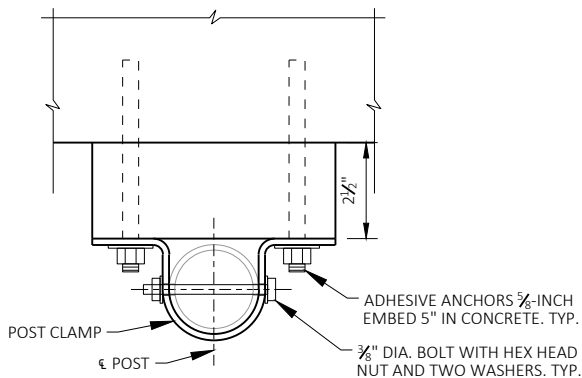


FENCE PART ELEVATION

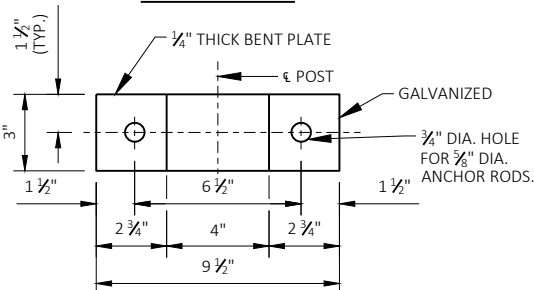


SECTION A-A

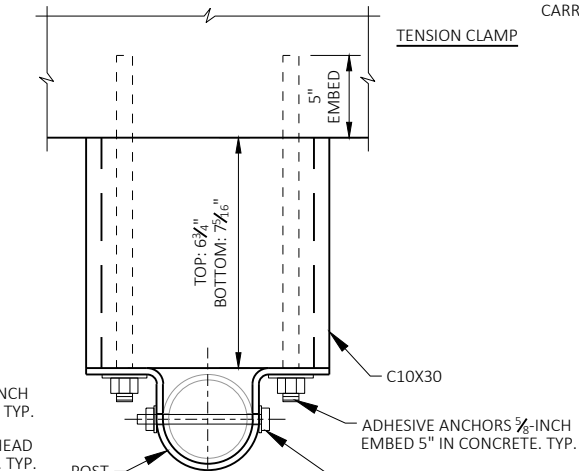
NOTE: PLACE ALL BOLT HEADS ON THE TRAFFIC SIDE



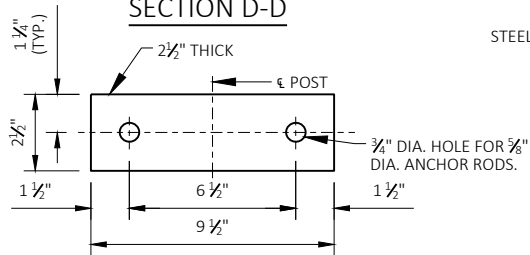
SECTION C-C



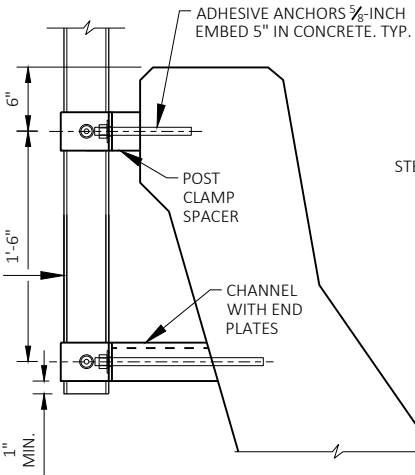
POST CLAMP DETAIL



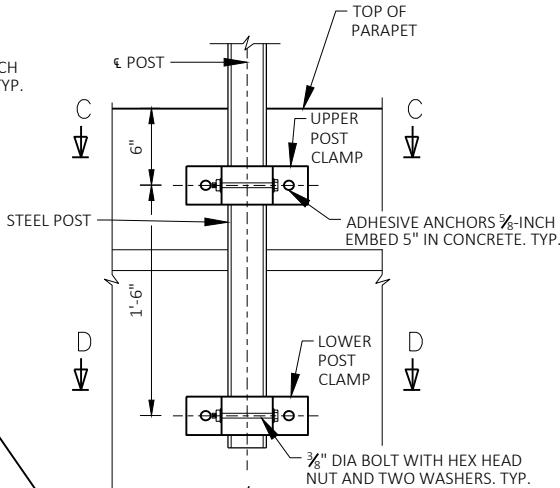
SECTION D-D



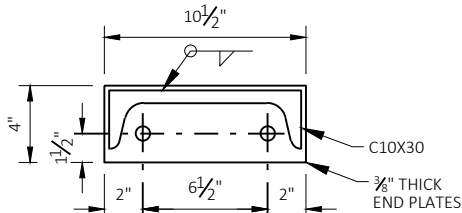
POST CLAMP SPACER TUBE DETAIL



SECTION B-B

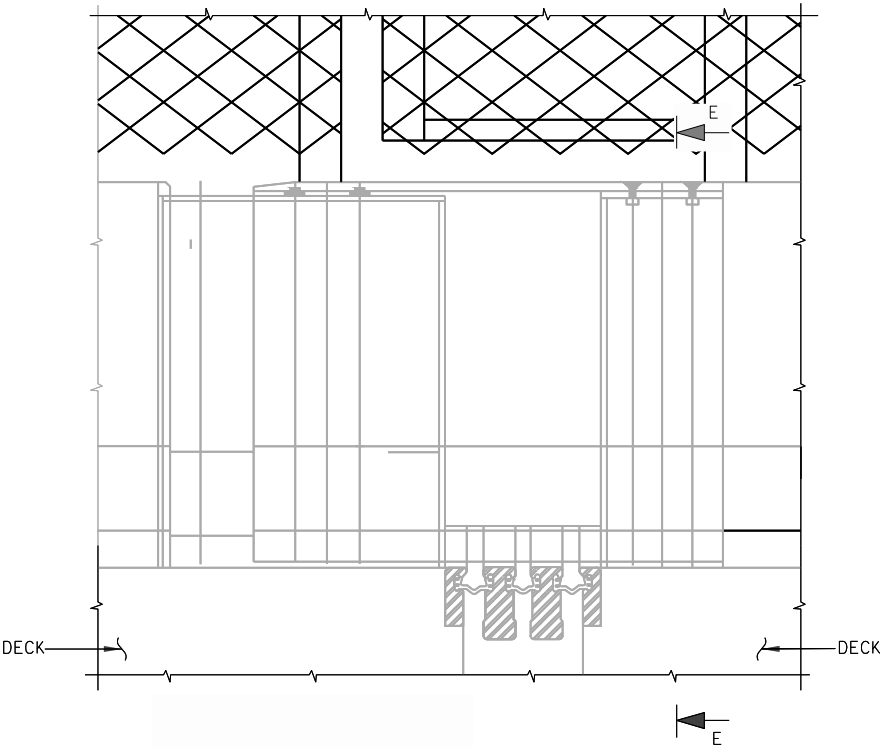


DETAIL 'B'

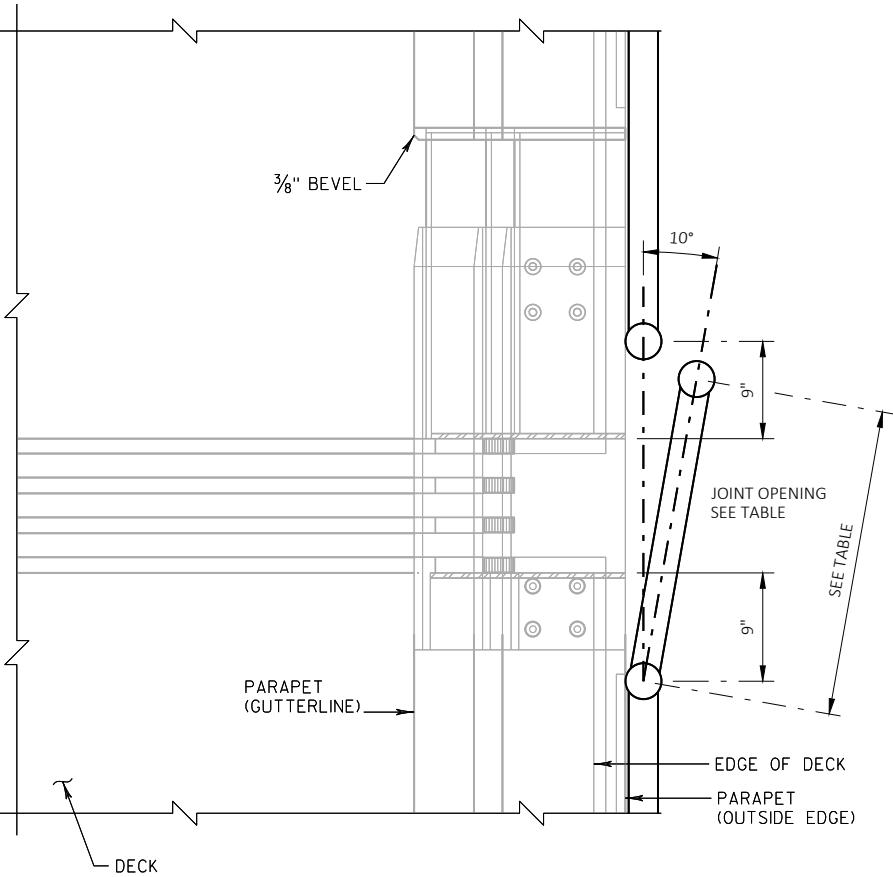


CHANNEL DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-6C			
DRAWN BY		MDG	PLANS CK'D. JCG
FENCE DETAILS		SHEET 4 OF 5	



ELEVATION OF PARAPET



PLAN OF PARAPET

CANTILEVER LENGTHS			
TRAFFIC DIRECTION	UNIT W/ OVERHANG	JOINT OPENING (IN)	REQUIRED OVERHANG DISTANCE (IN)
NB	6C TO 6D	3.5	20

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-6C			
DRAWN BY		MDG	PLANS CK'D. JCG
MODULAR JOINT DETAILS		SHEET 5 OF 5	

NOTES:

- DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
- ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT, UNLESS SPECIFIED OTHERWISE.
- UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.
- ENGINEER TO VERIFY CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER. QUANTITIES SHOWN ARE APPROXIMATE.

LIVE LOAD:
INVENTORY RATING: HS-20
OPERATING RATING: HS-34
MAXIMUM WISCONSIN STANDARD
PERMIT VEHICLE (WIS-SPV) LOAD = 250 KIPS

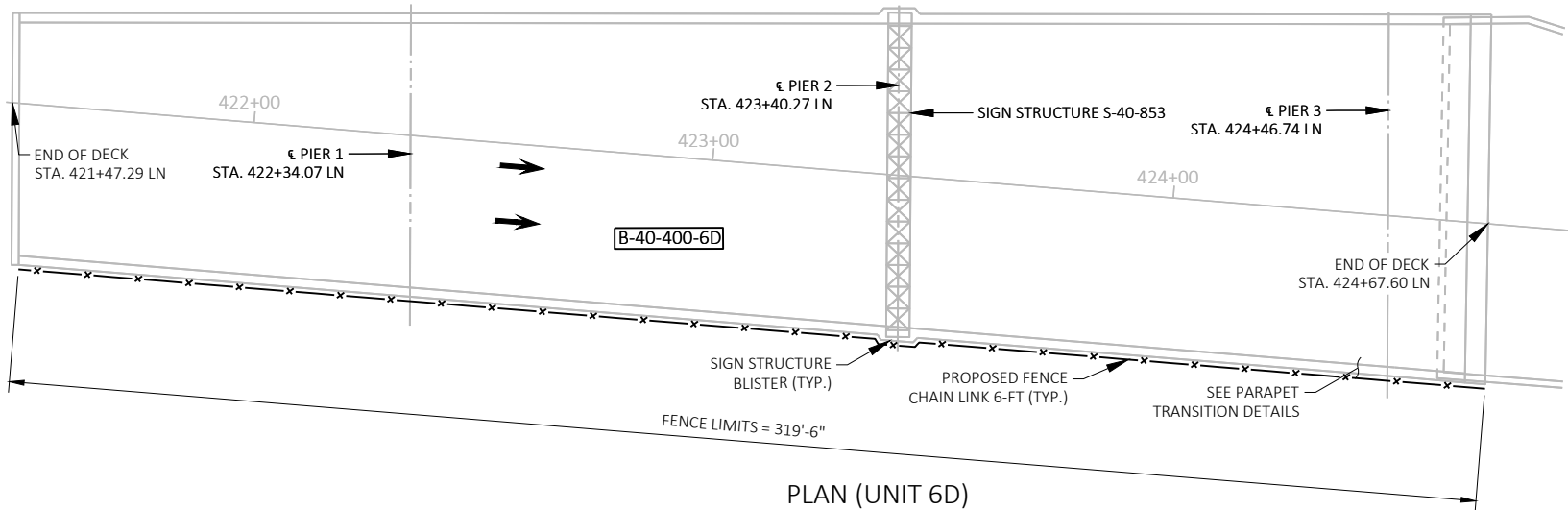
TRAFFIC DATA
AADT (2035) = 29,250 (ONE DIRECTION)
DESIGN SPEED = 55 MPH

MATERIAL PROPERTIES
CONCRETE MASONRY - SURFACE REPAIR $f_c = 4,000$ P.S.I.

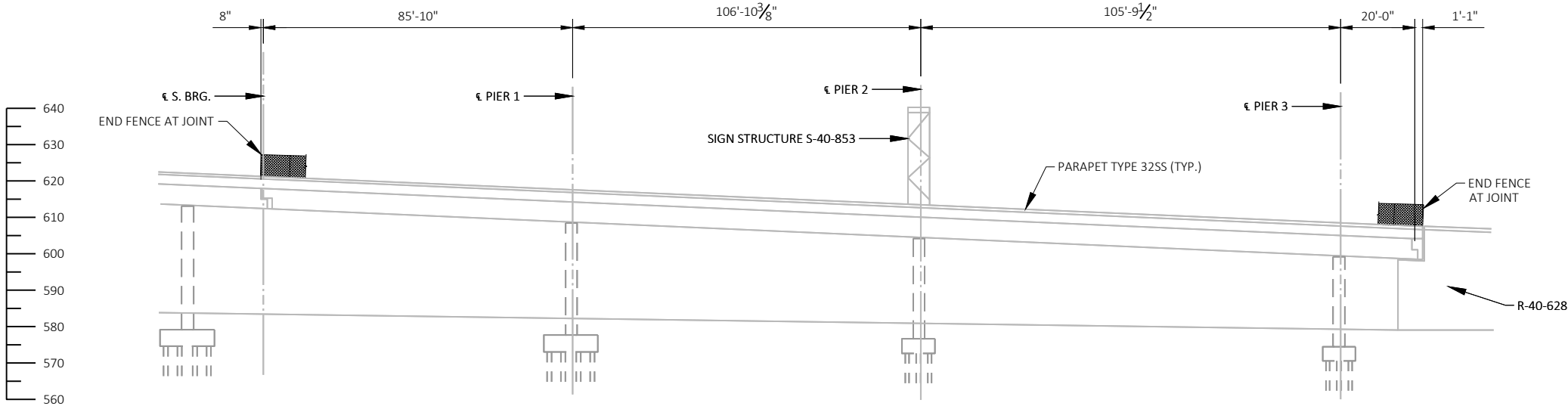
SCOPE OF WORK
INSTALL NEW PARAPET MOUNTED CHAIN LINK FENCE
CONCRETE SURFACE REPAIR TO BACK FACE OF PARAPET

LIST OF DRAWINGS

- GENERAL PLAN & ELEVATION
- CROSS SECTION
- PARAPET DETAILS
- FENCE DETAILS
- SIGN BRIDGE BLISTER DETAIL

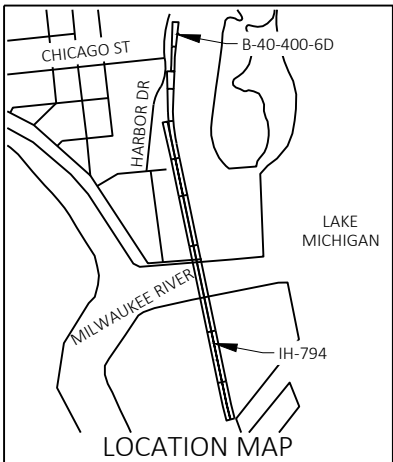


PLAN (UNIT 6D)



ELEVATION

LOOKING WEST



LOCATION MAP

NO.	DATE	REVISION	BY
-----	------	----------	----

COLLINS ENGINEERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED *[Signature]* SDR **03/30/23**
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-400-6D

RAMP IH 794 WB-LAKE FREEWAY OVER N. HARBOR DRIVE

COUNTY MILWAUKEE TOWN/CITY/VILLAGE MILWAUKEE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY JCG DESIGN CK'D. MJM DRAWN BY MDG PLANS CK'D. JCG

GENERAL PLAN
& ELEVATION

SHEET 1 OF 5

STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261

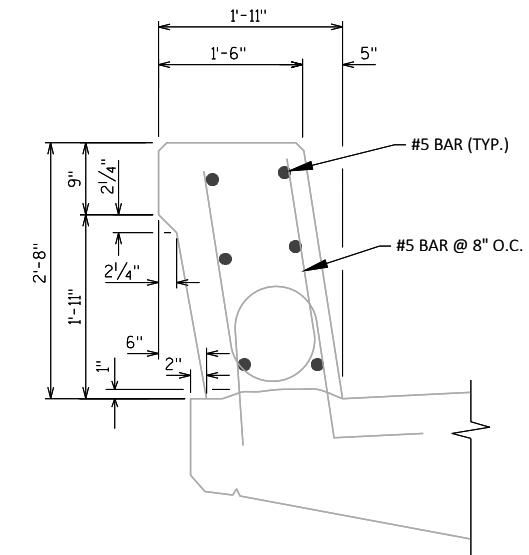
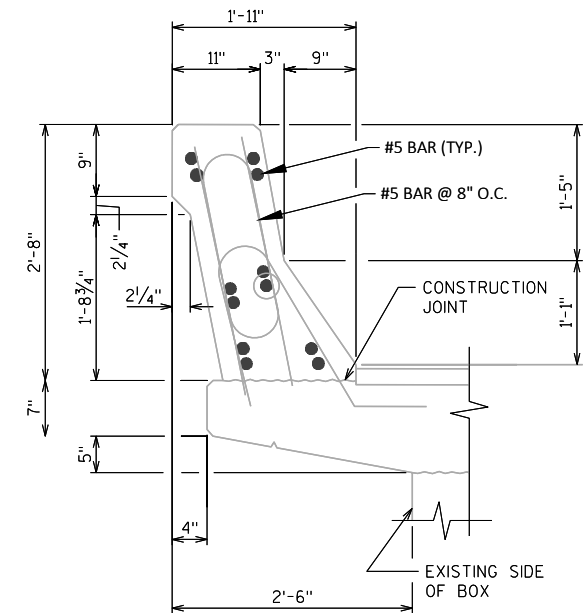
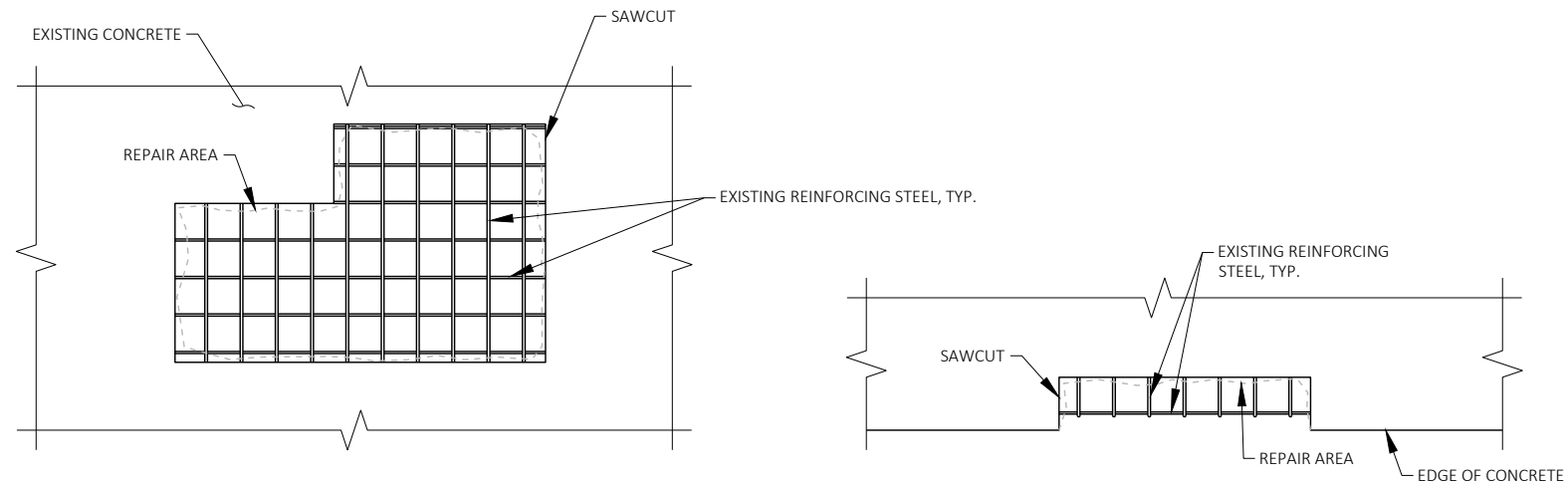
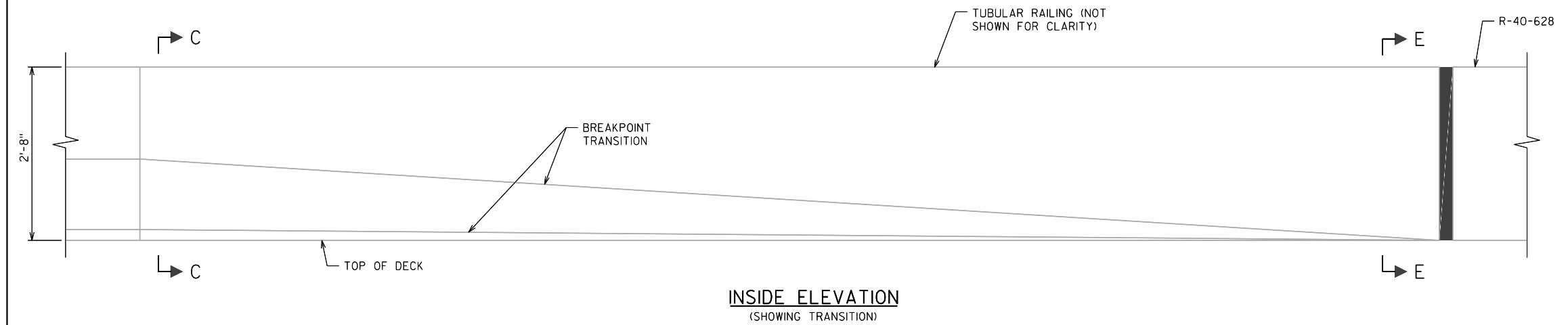
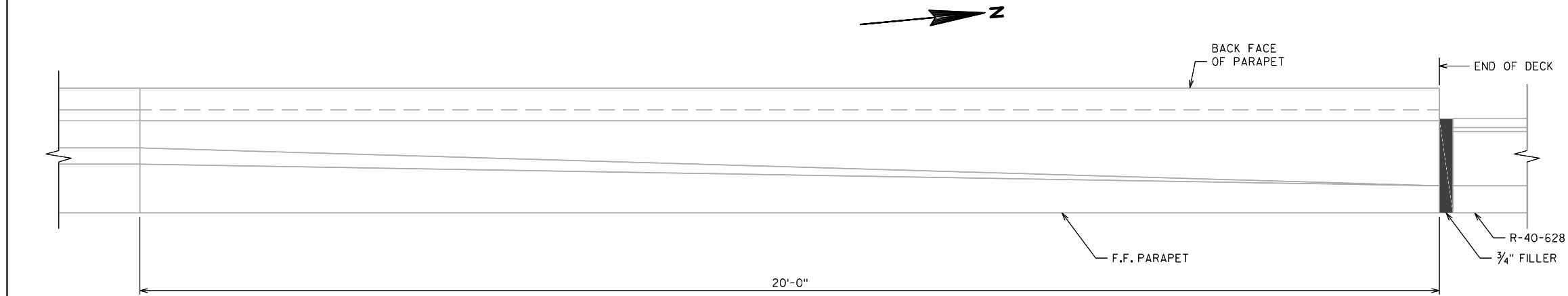
CONSULTANT CONTACT:
MARK MUTZIGER (414) 282-6905



ESTIMATE OF QUANTITIES			
ITEM NUMBER	BID ITEMS	QTY	UNIT
616.0206	FENCE CHAIN LINK 6-FT	320	LF
509.1500	CONCRETE SURFACE REPAIR	20	SF

* DIMENSIONS MEASURED NORMAL TO THE WEST
DECK EDGE

NO.	DATE	REVISION		BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION				
STRUCTURE B-40-400-6D				
		DRAWN BY	MDG	PLANS C'K'D. JCG
CROSS SECTION			SHEET 2 OF 5	



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-6D			
DRAWN BY		MDG	PLANS CK'D. JCG
PARAPET DETAILS		SHEET 3 OF 5	

NOTES:

POSTS ARE TO BE SET VERTICAL.

METALLIC-COATED FENCE SYSTEM:
ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH SHALL BE ALUMINUM-COATED STEEL.

FABRIC SHALL CONFORM TO ASTM A491. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. STEEL POSTS SHALL BE HIGH STRENGTH GRADE 50.

STEEL POSTS SHALL BE HIGH STRENGTH GRADE 50.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 6- FT."

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST CLAMPS AND POST CLAMP SPACERS SHALL BE ASTM A709, GRADE 36.

TENSION WIRE SHALL BE 7 GAGE STEEL WIRE COATED IN ACCORDANCE WITH ASTM A824 AND A817 AS TYPE I (ALUMINUMIZED).

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

CONCRETE ADHESIVE ANCHORS 5/8"-INCH. EMBED 5" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.

PAYMENT FOR ADHESIVE ANCHOR AND ANCHOR HARDWARE INCIDENTAL TO CHAIN LINK FENCE ITEM.

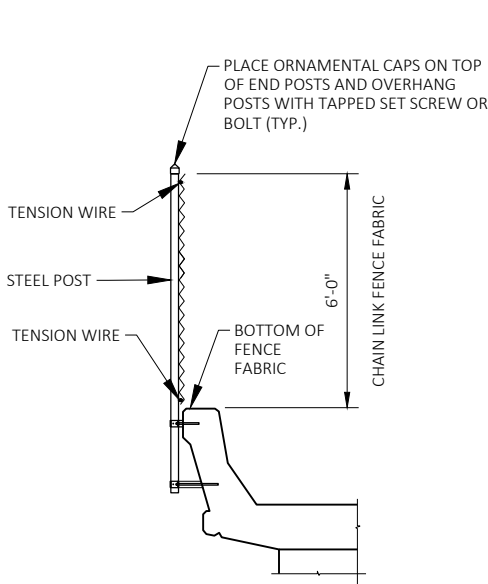
ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

PROVIDE TENSION POST AND BRACE RAILS TO LIMIT TENSION WIRE RUNS TO LESS THAN 500 FEET.

PARAPET HAS INTERNAL CONDUIT. INSPECT ALL ANCHOR HOLES BEFORE ADHESIVE INSTALLATION. NOTIFY ENGINEER IF CONDUIT IS ENCOUNTERED DURING ADHESIVE ANCHOR INSTALLATION.

CONTRACTOR TO PROVIDE DUST CONTROL DURING EPOXY INSTALLATION. SUBMIT COLLECTION METHOD FOR APPROVAL. DUST COLLECTION INCIDENTAL TO FENCE ITEM.

PERFORM CONCRETE SURFACE REPAIRS AS DIRECTED BY THE ENGINEER TO PROVIDE SOUND CONCRETE FOR FENCE ANCHORS. PROVIDE DEBRIS CONTAINMENT DURING CONCRETE SURFACE REPAIRS. WORK INCIDENTAL TO CONCRETE SURFACE REPAIR ITEM.

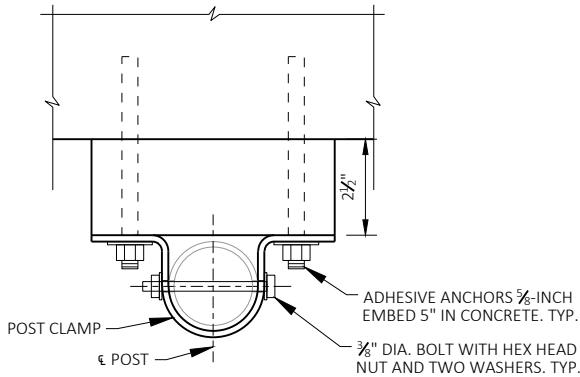


SECTION THRU FENCE ON PARAPET 'B'

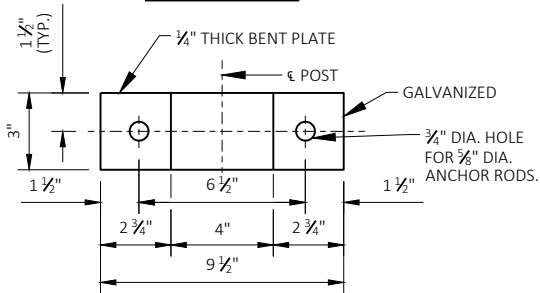
PROTECTIVE SCREENING SHALL BE STRAIGHT.

FENCE MEMBER SIZE & WEIGHT

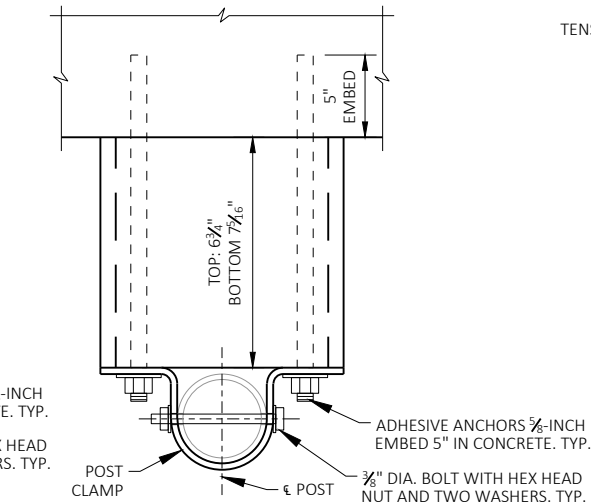
STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
POST (END, LINE, OR TENSION)	3.50	7.576
BRACE RAIL	1.66	2.273



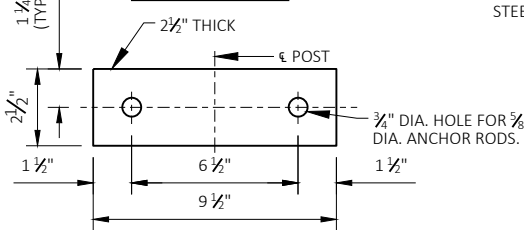
SECTION C-C



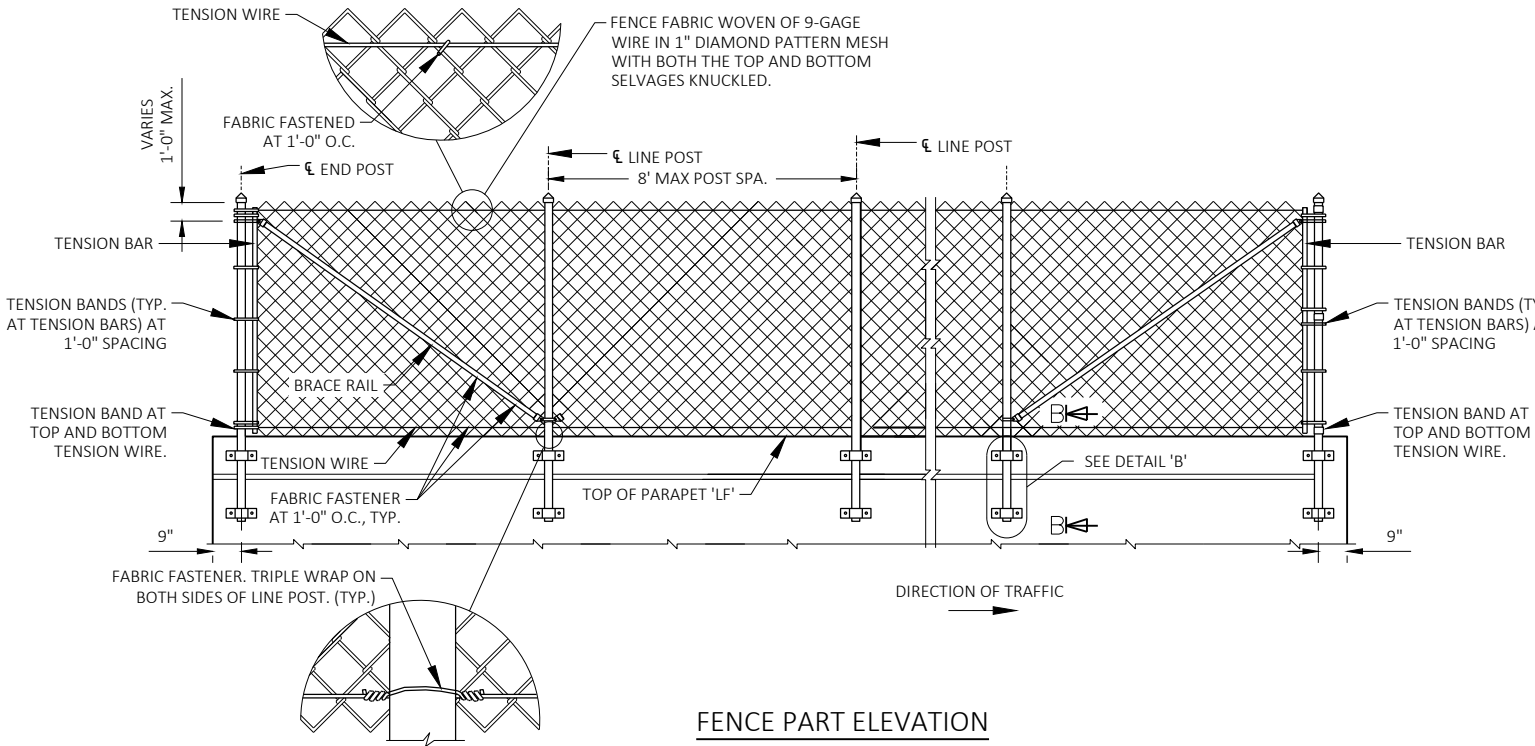
POST CLAMP DETAIL



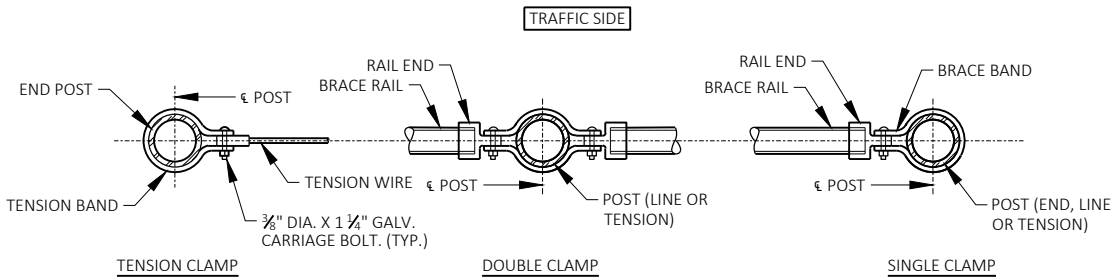
SECTION D-D



POST CLAMP SPACER TUBE DETAIL

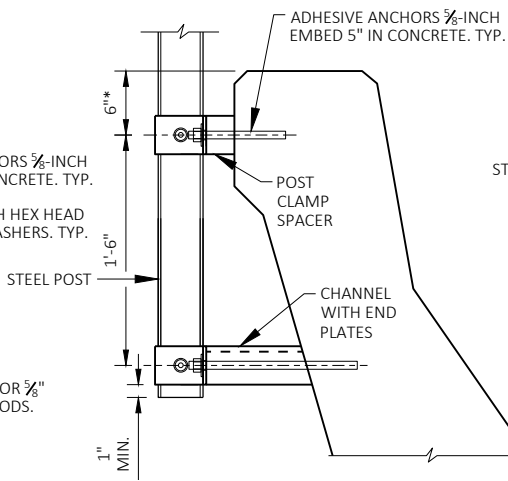


FENCE PART ELEVATION

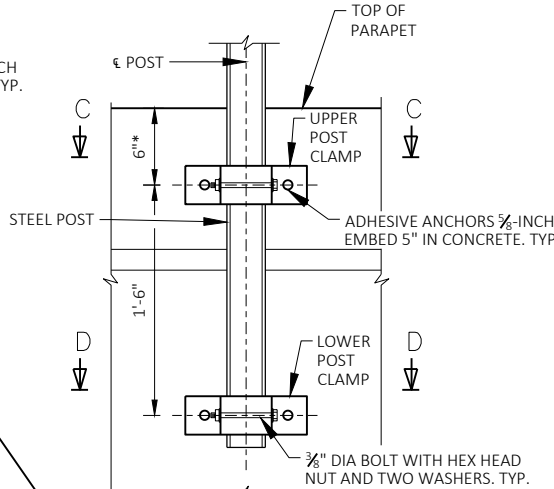


SECTION A-A

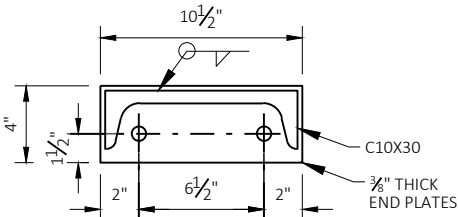
NOTE: PLACE ALL BOLT HEADS ON THE TRAFFIC SIDE



SECTION B-B



DETAIL 'B'



CHANNEL DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-40-400-6D			
DRAWN BY		MDG	PLANS CK'D. JCG
FENCE DETAILS		SHEET 4 OF 5	



NO.	DATE	REVISION		BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION				
STRUCTURE B-40-400-6D				
		DRAWN BY	MDG	PLANS CK'D. JC
SIGN BRIDGE BLISTER DETAILS			SHEET 5 OF 5	



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