

PROJECT ID:
8680-00-74

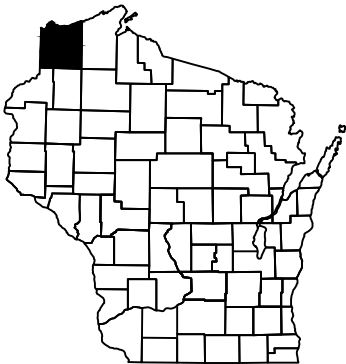
COUNTY:
DOUGLAS

WITH: N/A

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 =



DESIGN DESIGNATION

A.A.D.T.	(2014)	=	18,100
A.A.D.T.	(2034)	=	21,300
D.H.V.		=	N/A
D.D.		=	58/42
T.		=	12.1%
DESIGN SPEED		=	55 MPH
ESALS		=	15,549,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

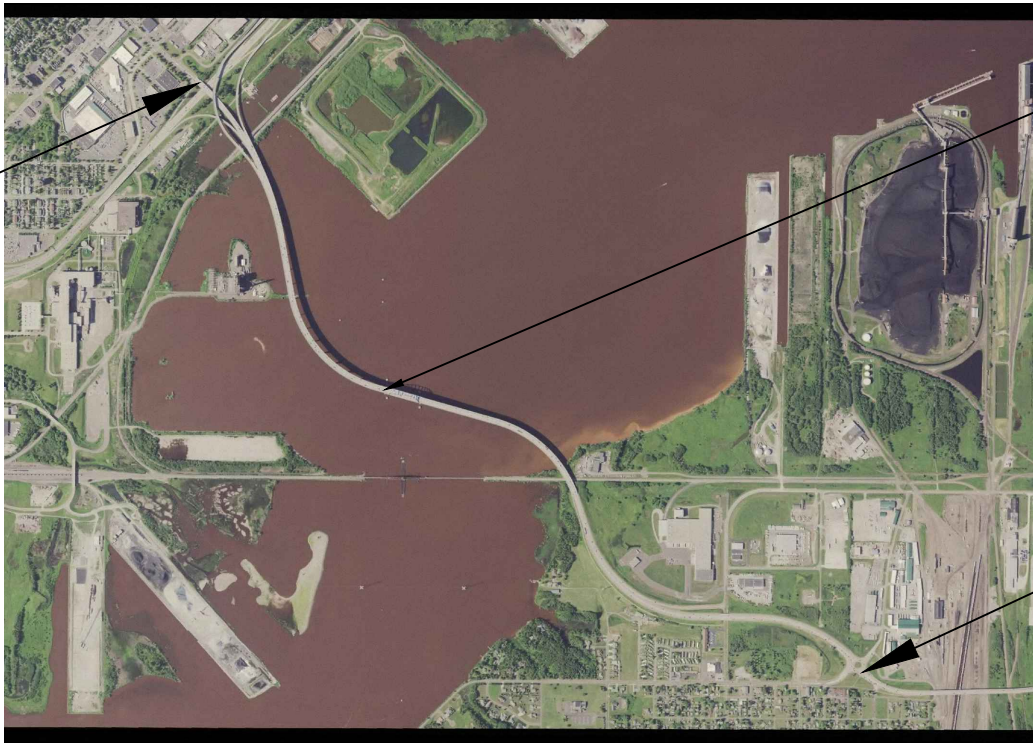
PLAN OF PROPOSED IMPROVEMENT

SUPERIOR - WENTWORTH

BONG BRIDGE B-16-0038-0013

USH 2
DOUGLAS COUNTY

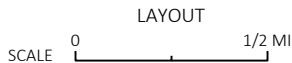
STATE PROJECT NUMBER
8680-00-74



BEGIN PROJECT
STA 18+52.34
Y = 313742.12
X = 134314.33

STRUCTURE B-16-0038 (WIS)
STRUCTURE 69100 (MINN)

END PROJECT
STA 152+97.43 EB



TOTAL NET LENGTH OF CENTERLINE = 2.546 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), DOUGLAS COUNTY, NAD83 (2012), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8680-00-74		

ORIGINAL PLANS PREPARED BY

AYRES

DATE: _____
(Professional Engineer Signature)

ORIGINAL PLANS PREPARED BY

KL Engineering
[A] Better Experience

DATE: _____
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	SURVEYOR
Designer	AYRES ASSOCIATES INC/KL ENGINEERING
Project Manager	PHIL KEPPERS
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	REGIONAL SUPERVISOR

APPROVED FOR THE DEPARTMENT
DATE: _____
(Signature)

E

GENERAL NOTES

WORK CONSIST OF TRAFFIC CONTROL, CONTAINMENT ENCLOSURE ERECTION, ABRASIVE BLASTING SURFACE PREPARATION, APPLICATION OF NEW COATING SYSTEM FOR ALL STRUCTURAL STEEL, METHACRYLATE FLOOD SEAL AND PAVEMENT MARKING OF PROJECT BRIDGE.

ENCLOSURE AND MATERIALS SHALL BE MAINTAINED TAUT AND IN SUCH A MANNER THAT IT WILL NOT OBSTRUCT/DISTRACT THE VIEW OF OR SNAG ON ANY PASSING VEHICLES.

USH 2 WILL BE KEPT OPEN TO A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES.

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

THE LOCATION OF EXISTING UTILITY FACILITIES LOCATED WITHIN THE PROJECT ARE NOT SHOWN ON THE PLANS.

UTILITIES CONTACTS

CONFIRMED AS PER 1077 PROCESS.
NO FACILITIES REPORTED WITHIN
PROJECT LIMITS.

DIGGERSHOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

DESIGN CONTACT

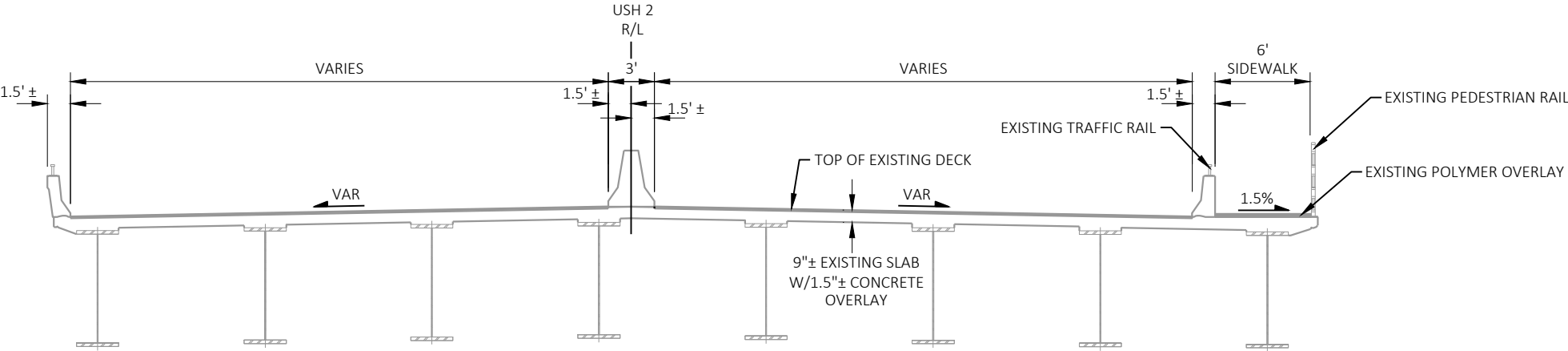
JEFF ABRAMSON, PE
AYRES ASSOCIATES INC
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
PHONE: 715-834-3161
EMAIL: abramsonj@ayresassociates.com

DESIGN CONTACT

JAKE JOYAL, PE
KL ENGINEERING
5400 KING JAMES WAY, SUITE 200
MADISON, WI 53719
PHONE: 608-310-3831
EMAIL: jake.joyal@klengineering.com
(LIGHTING PLANS,STRUCTURAL PLANS FOR
LIGHT BASES, DETOUR ROUTES, AND
ASSOCIATED TRAFFIC CONTROL)

WISCONSIN DNR LIAISON

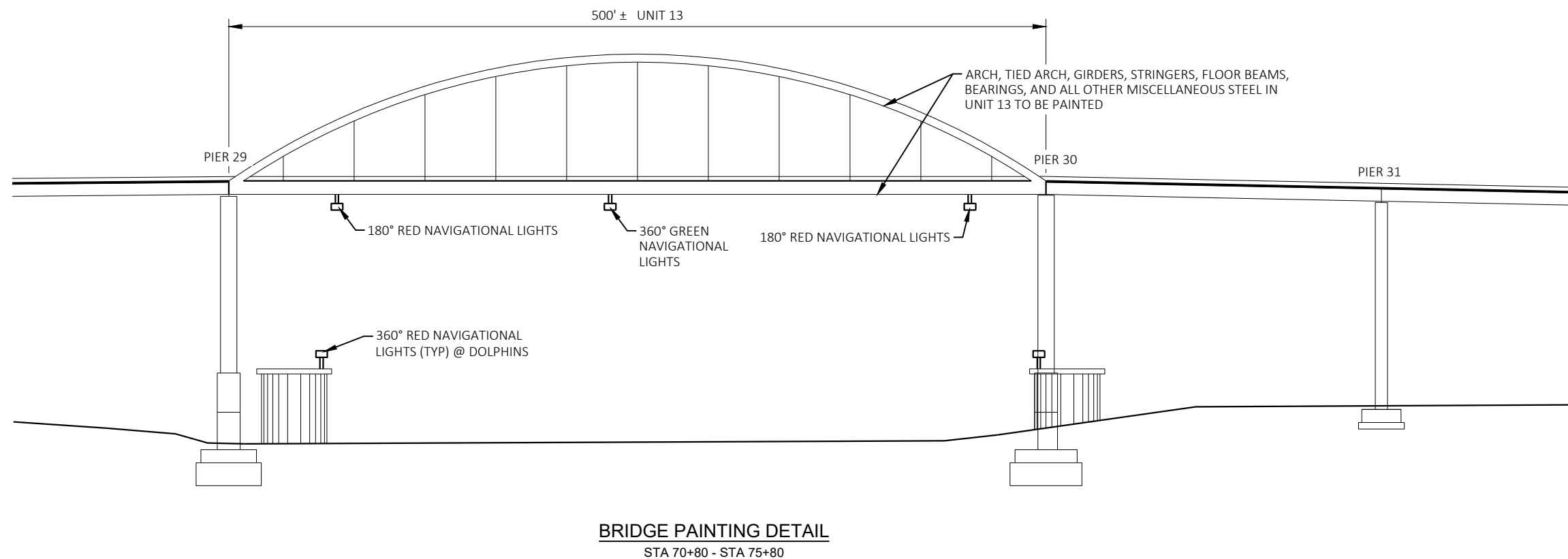
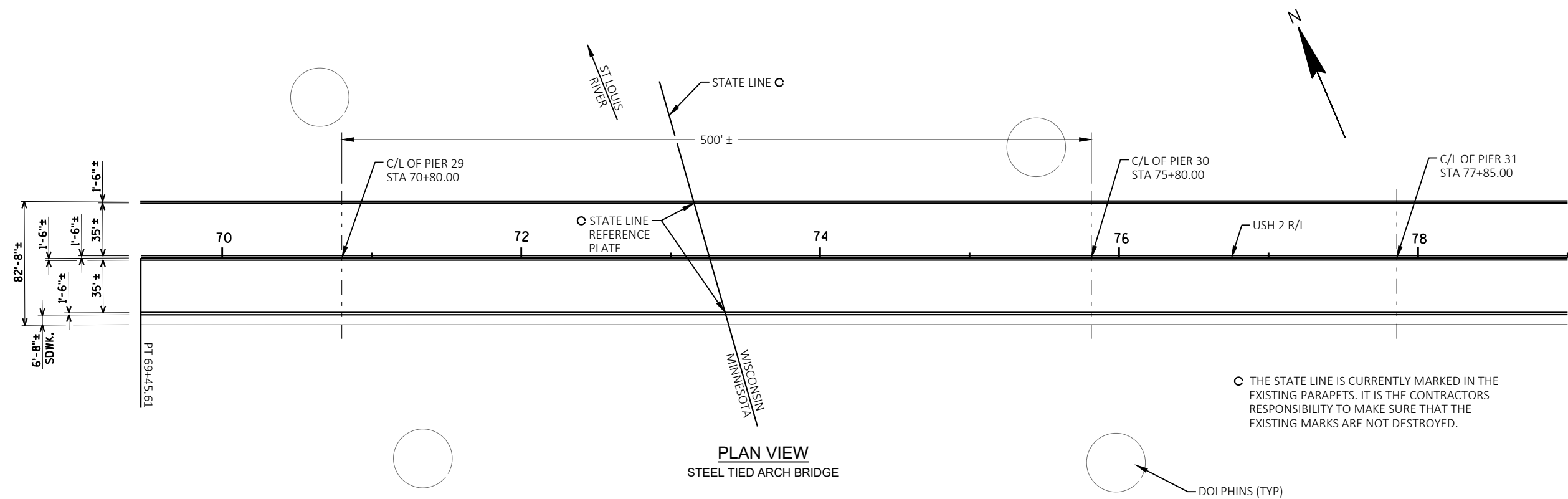
AMY CRONK
NORTHERN REGION HQ
810 WEST MAPLE STREET
SPOONER, WI 54801
PHONE: 715-520-3976
EMAIL: amy.cronk@wisconsin.gov



EXISTING TYPICAL SECTION
STA 18+52.92 - STA 101+72.08
(STRUCTURE B-16-0038)



PROJECT NO: 8680-00-74	HWY: USH 2	COUNTY: DOUGLAS	PROJECT OVERVIEW	SHEET	E
------------------------	------------	-----------------	------------------	-------	---





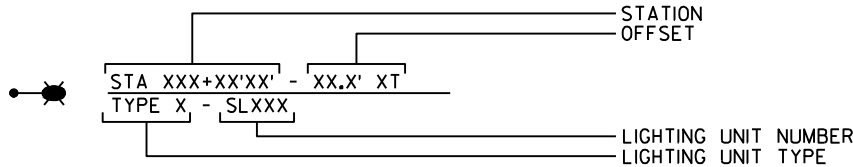
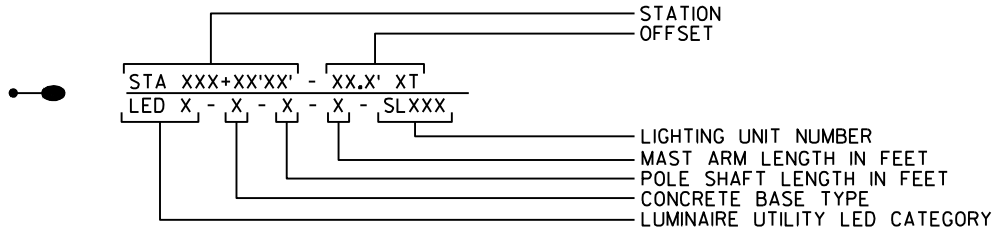
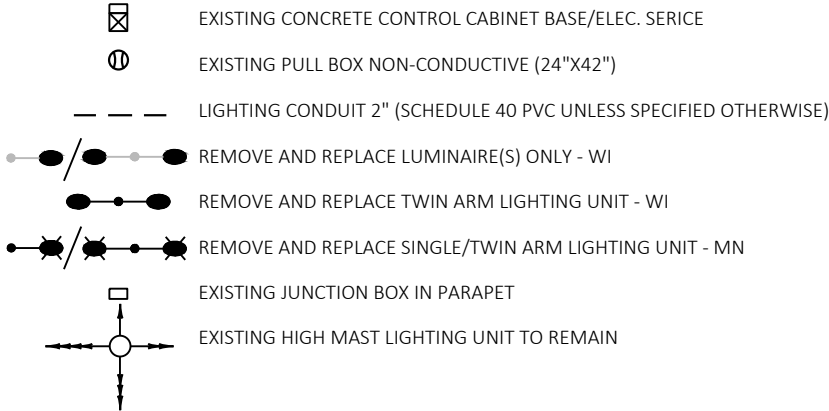
GENERAL STREET LIGHTING NOTES:

- 1) WISCONSIN DOT NORTHWEST REGION ELECTRICAL UNIT SHALL APPROVE THE FINAL LOCATION FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO INSTALLATION. CONTACT THEM 3 DAYS IN ADVANCE AT (XXX) XXX-XXXX OR (XXX) XXX-XXXX.
- 2) PITCH ALL CONDUIT TOWARDS PULLBOXES. A 2" DRAIN DUCT TO DITCH OR STORM SEWER REQUIRED FOR ALL PULLBOXES IN LOW POINTS. REFER TO THE MISCELLANEOUS QUANTITIES FOR LOCATIONS OF DRAIN DUCT.
- 3) THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

(DATE)

(SIGNATURE)

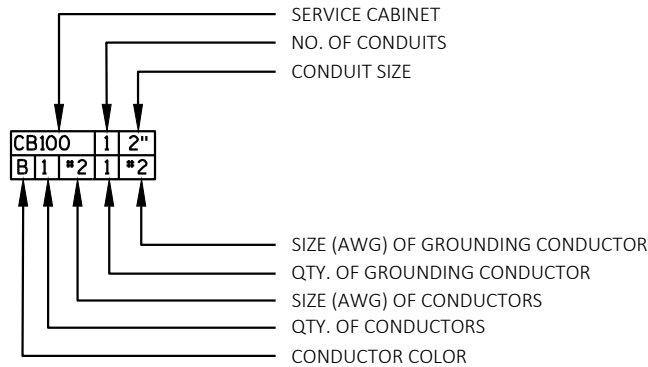
LIGHTING PLAN LEGEND



ABBREVIATIONS

- STR - STRUCTURE MOUNT (REFER TO STRUCTURE PLANS)
- PWO - PULLWIRE ONLY REQ'D

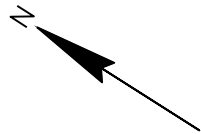
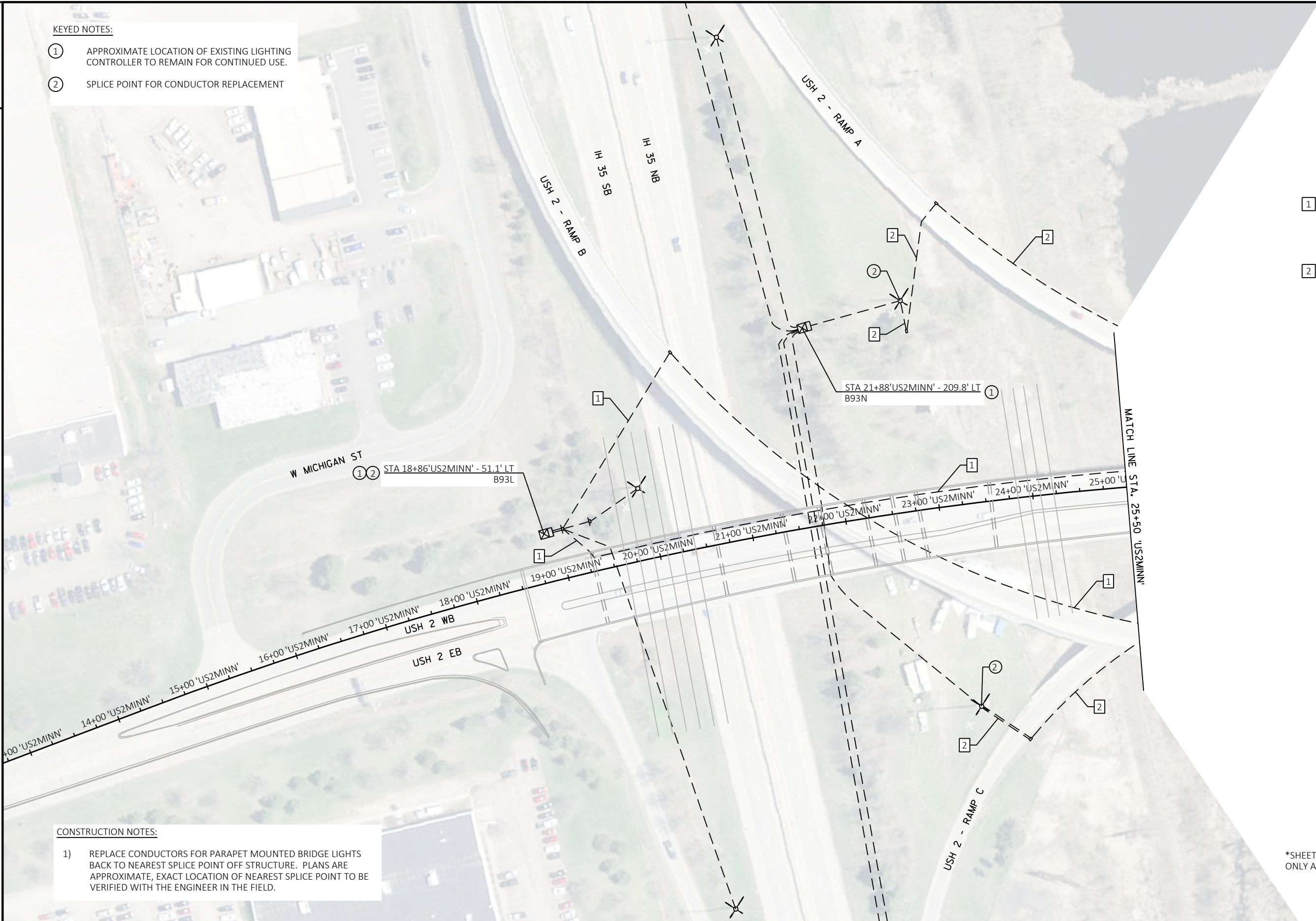
CONDUIT/CONDUCTOR LEGEND



NEU = NEUTRAL

KEYED NOTES:

- ① APPROXIMATE LOCATION OF EXISTING LIGHTING CONTROLLER TO REMAIN FOR CONTINUED USE.
- ② SPLICE POINT FOR CONDUCTOR REPLACEMENT



① =

B93L	EXISTING
R	1 #4 1 #4
B	1 #4 -- --
NEU	1 #4 -- --

② =

B93N	EXISTING
R	1 #4 1 #4
B	1 #4 -- --
NEU	1 #4 -- --

CONSTRUCTION NOTES:

- 1) REPLACE CONDUCTORS FOR PARAPET MOUNTED BRIDGE LIGHTS BACK TO NEAREST SPLICE POINT OFF STRUCTURE. PLANS ARE APPROXIMATE, EXACT LOCATION OF NEAREST SPLICE POINT TO BE VERIFIED WITH THE ENGINEER IN THE FIELD.

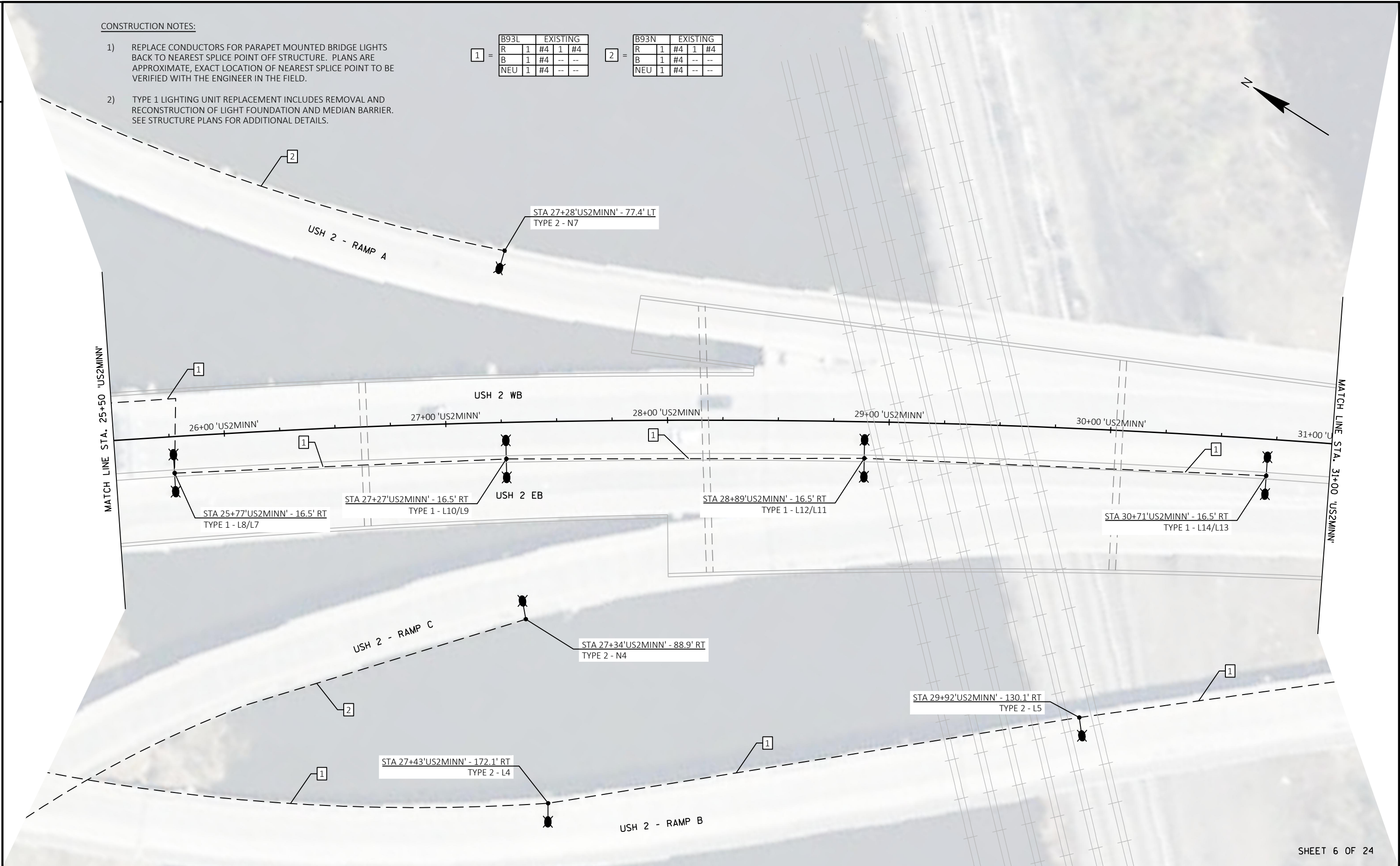
*SHEET IS FOR INFORMATIONAL PURPOSES ONLY AND IS AT 100 SCALE FOR VISIBILITY.

CONSTRUCTION NOTES:

- 1) REPLACE CONDUCTORS FOR PARAPET MOUNTED BRIDGE LIGHTS BACK TO NEAREST SPLICE POINT OFF STRUCTURE. PLANS ARE APPROXIMATE, EXACT LOCATION OF NEAREST SPLICE POINT TO BE VERIFIED WITH THE ENGINEER IN THE FIELD.
- 2) TYPE 1 LIGHTING UNIT REPLACEMENT INCLUDES REMOVAL AND RECONSTRUCTION OF LIGHT FOUNDATION AND MEDIAN BARRIER. SEE STRUCTURE PLANS FOR ADDITIONAL DETAILS.

1	B93L		EXISTING	
	R	1	#4	#4
	B	1	#4	--

2	B93N		EXISTING	
	R	1	#4	#4
	B	1	#4	--

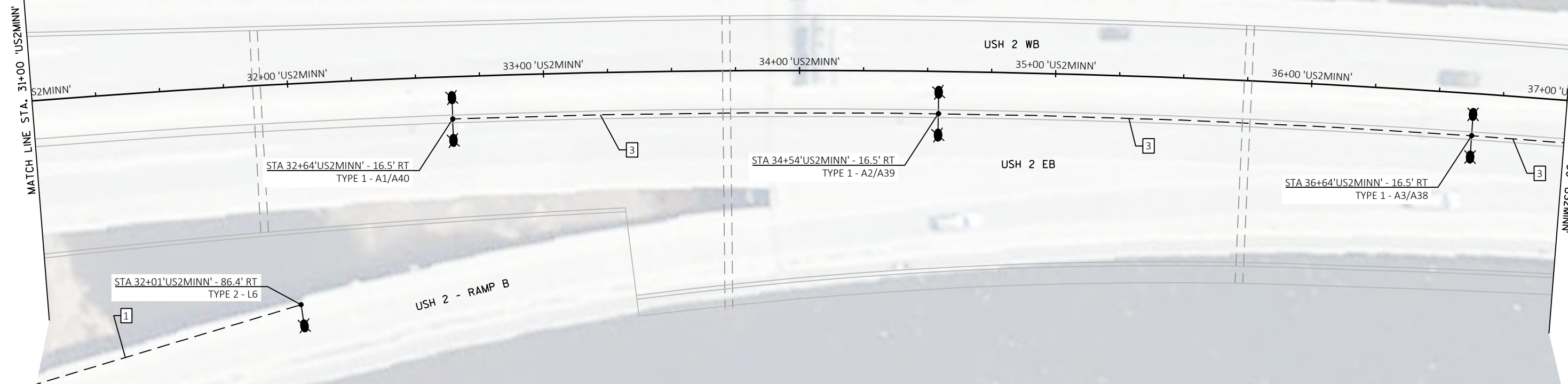


SHEET 6 OF 24

1	B93L EXISTING				
	R	1	#4	1	#4
	B	1	#4	--	--
2	B93N EXISTING				
	R	1	#4	1	#4
	B	1	#4	--	--
3	69A1 EXISTING				
	R	1	#4	1	#4
	B	1	#4	--	--
	NEU 1 #4 -- --				
	NEU	1	#4	--	--
	NEU	1	#4	--	--

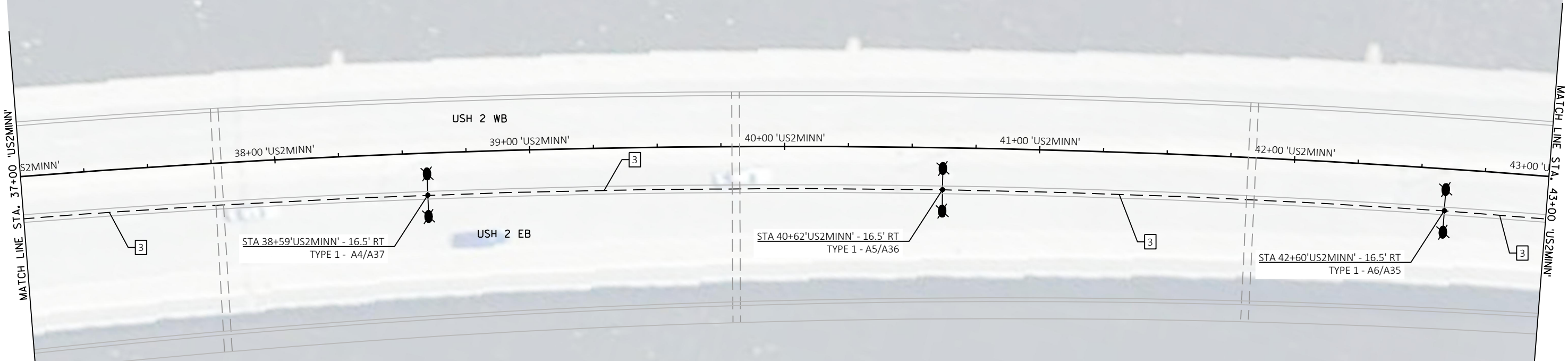
CONSTRUCTION NOTES:

- 1) REPLACE CONDUCTORS FOR PARAPET MOUNTED BRIDGE LIGHTS BACK TO NEAREST SPLICE POINT OFF STRUCTURE. PLANS ARE APPROXIMATE, EXACT LOCATION OF NEAREST SPLICE POINT TO BE VERIFIED WITH THE ENGINEER IN THE FIELD.



3		=		69A1		EXISTING	
R	1	#4	1	#4			
B	1	#4	--	--			
NEU	1	#4	--	--			

- CONSTRUCTION NOTES:
- 1) REPLACE CONDUCTORS FOR PARAPET MOUNTED BRIDGE LIGHTS BACK TO NEAREST SPLICE POINT OFF STRUCTURE. PLANS ARE APPROXIMATE, EXACT LOCATION OF NEAREST SPLICE POINT TO BE VERIFIED WITH THE ENGINEER IN THE FIELD.



3

=

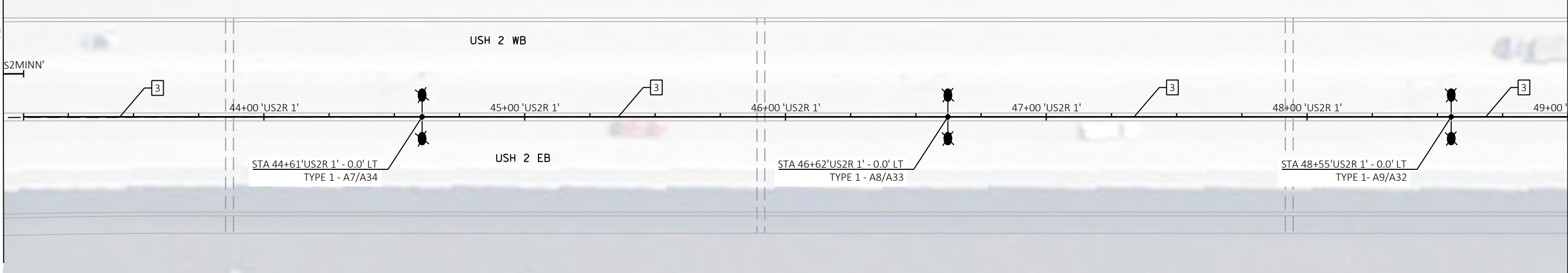
69A1		EXISTING			
R	1	#4	1	#4	
B	1	#4	--	--	
NEU	1	#4	--	--	

CONSTRUCTION NOTES:

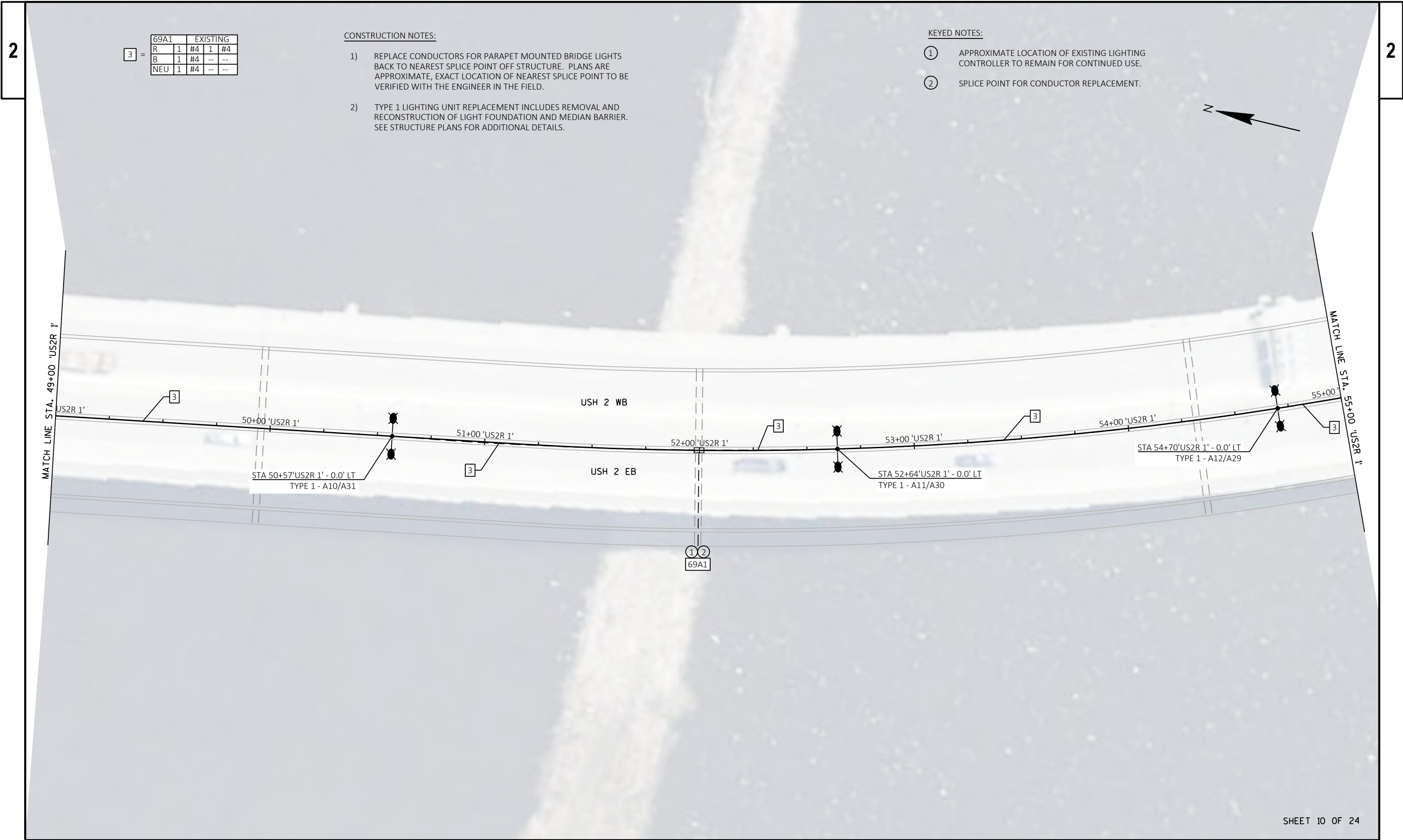
- 1)
- REPLACE CONDUCTORS FOR PARAPET MOUNTED BRIDGE LIGHTS
BACK TO NEAREST SPLICE POINT OFF STRUCTURE. PLANS ARE
APPROXIMATE, EXACT LOCATION OF NEAREST SPLICE POINT TO BE
VERIFIED WITH THE ENGINEER IN THE FIELD.



MATCH LINE STA. 43+00 'US2MINN'



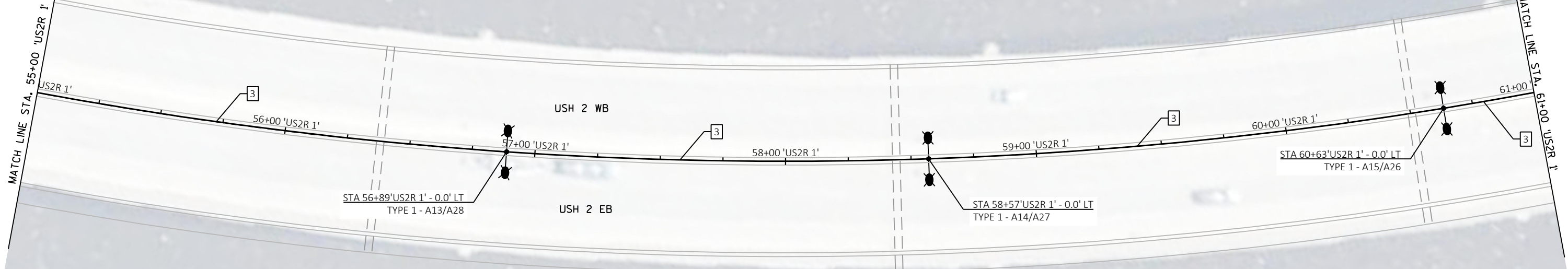
MATCH LINE STA. 49+00 'US2R 1'



3 =	69A1		EXISTING		
	R	1	#4	1	#4
	B	1	#4	--	--
	NEU	1	#4	--	--

CONSTRUCTION NOTES:

- 1) REPLACE CONDUCTORS FOR PARAPET MOUNTED BRIDGE LIGHTS BACK TO NEAREST SPLICE POINT OFF STRUCTURE. PLANS ARE APPROXIMATE, EXACT LOCATION OF NEAREST SPLICE POINT TO BE VERIFIED WITH THE ENGINEER IN THE FIELD.



SHEET 11 OF 24

PROJECT NO: 8680-00-74

HWY: USH 2

COUNTY: DOUGLAS

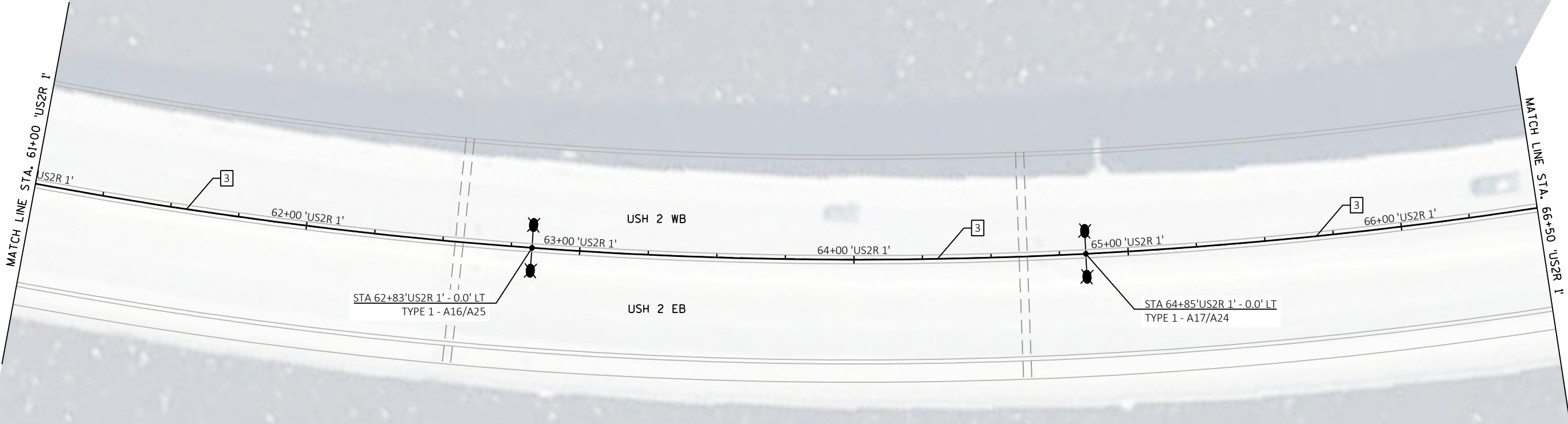
LIGHTING PLANS

SHEET

E

3 =		69A1	EXISTING			
R	1	#4	1	#4		
B	1	#4	--	--		
NEU	1	#4	--	--		

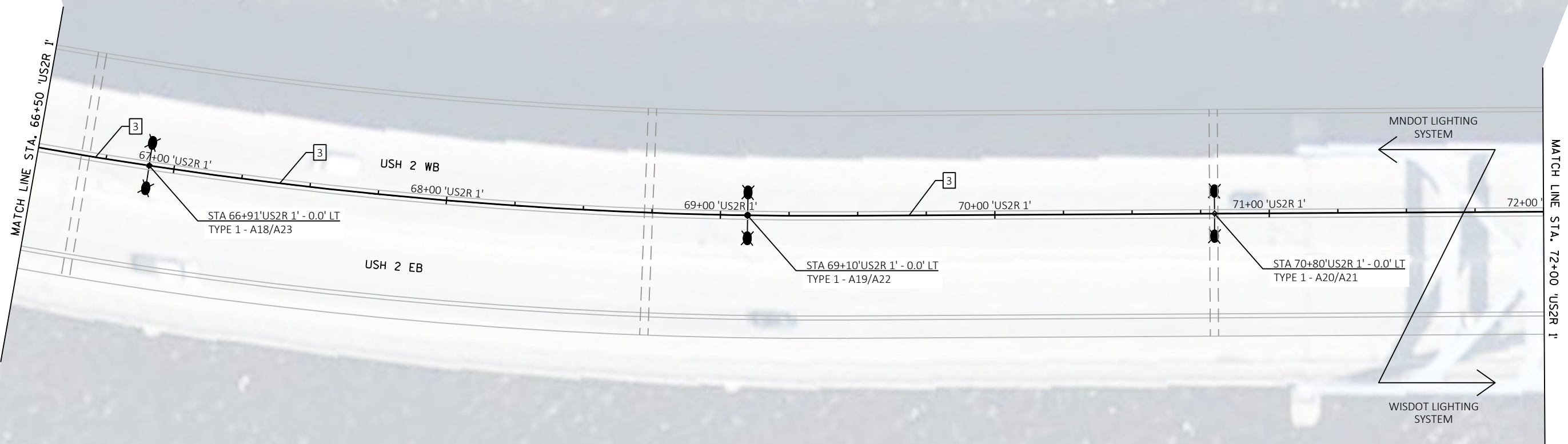
- CONSTRUCTION NOTES:
- 1) REPLACE CONDUCTORS FOR PARAPET MOUNTED BRIDGE LIGHTS BACK TO NEAREST SPLICE POINT OFF STRUCTURE. PLANS ARE APPROXIMATE, EXACT LOCATION OF NEAREST SPLICE POINT TO BE VERIFIED WITH THE ENGINEER IN THE FIELD.



3 =	69A1		EXISTING		
	R	1	#4	1	#4
	B	1	#4	--	--
	NEU	1	#4	--	--

CONSTRUCTION NOTES:

- 1) REPLACE CONDUCTORS FOR PARAPET MOUNTED BRIDGE LIGHTS BACK TO NEAREST SPLICE POINT OFF STRUCTURE. PLANS ARE APPROXIMATE, EXACT LOCATION OF NEAREST SPLICE POINT TO BE VERIFIED WITH THE ENGINEER IN THE FIELD.



SHEET 13 OF 24

PROJECT NO: 8680-00-74

HWY: USH 2

COUNTY: DOUGLAS

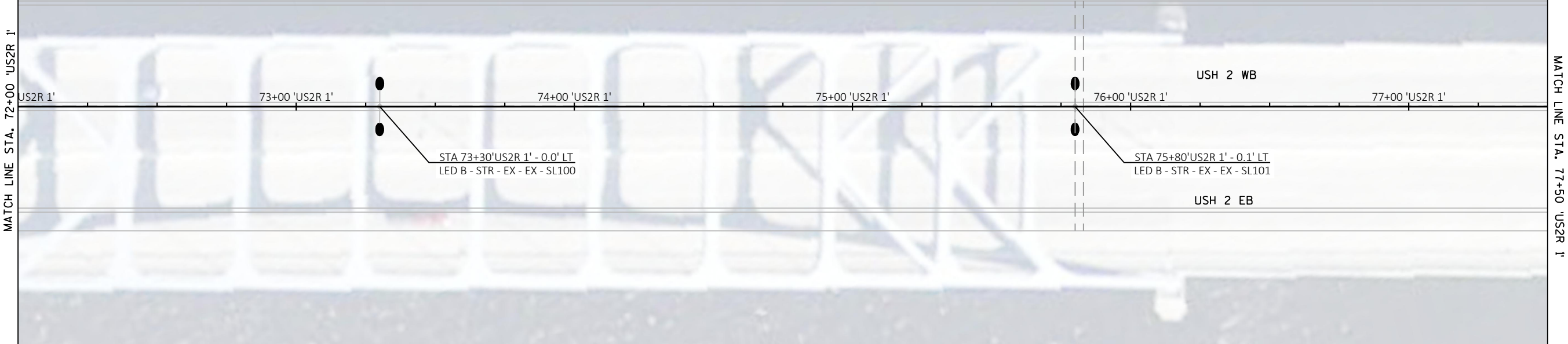
LIGHTING PLANS

SHEET

E

CONSTRUCTION NOTES:

- 1) REPLACE LUMINAIRES ONLY FOR WISDOT LIGHTING UNITS MOUNTED ON MEDIAN BARRIER. ALL OTHER ELECTRICAL INFRASTRUCTURE TO REMAIN.



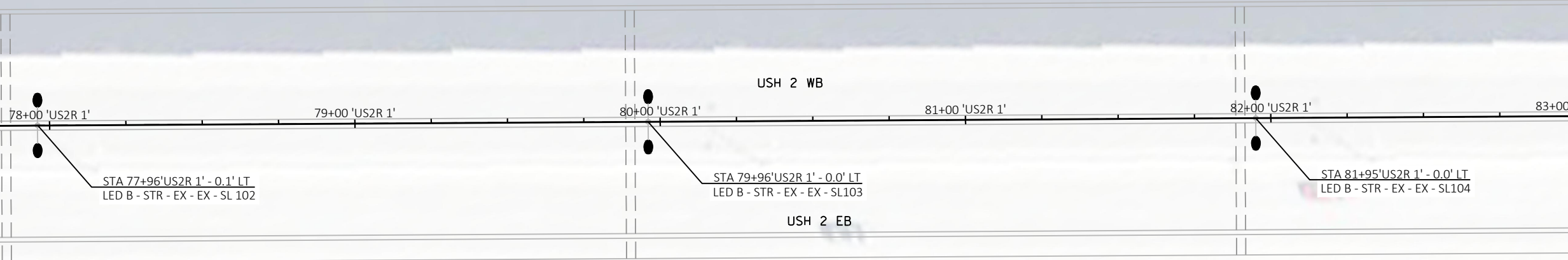
CONSTRUCTION NOTES:

- 1) REPLACE LUMINAIRES ONLY FOR WISDOT LIGHTING UNITS MOUNTED ON MEDIAN BARRIER. ALL OTHER ELECTRICAL INFRASTRUCTURE TO REMAIN.



MATCH LINE STA. 77+50 'US2R 1'

MATCH LINE STA. 83+00 'US2R 1'

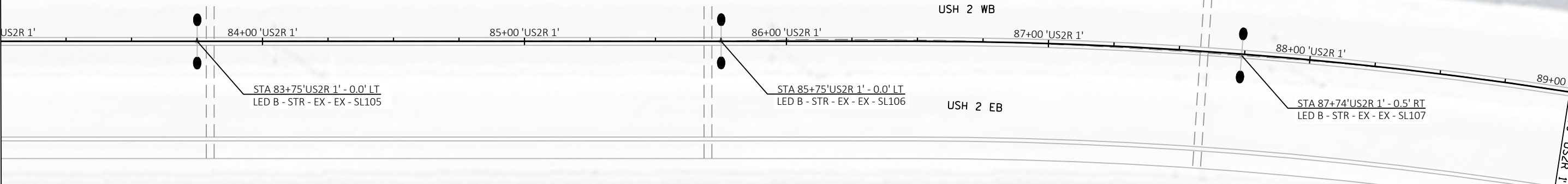


CONSTRUCTION NOTES:

- 1) REPLACE LUMINAIRES ONLY FOR WISDOT LIGHTING UNITS MOUNTED ON MEDIAN BARRIER. ALL OTHER ELECTRICAL INFRASTRUCTURE TO REMAIN.



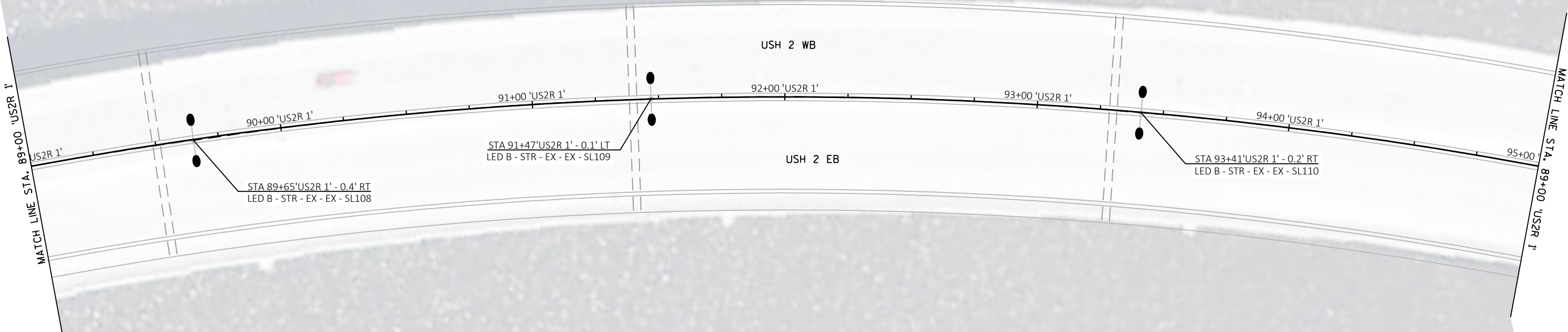
MATCH LINE STA. 83+00 'US2R 1'



MATCH LINE STA. 89+00 'US2R 1'

CONSTRUCTION NOTES:

- 1) REPLACE LUMINAIRES ONLY FOR WISDOT LIGHTING UNITS MOUNTED ON MEDIAN BARRIER. ALL OTHER ELECTRICAL INFRASTRUCTURE TO REMAIN.



CONSTRUCTION NOTES:

- 1) REPLACE LUMINAIRES ONLY FOR WISDOT LIGHTING UNITS MOUNTED ON MEDIAN BARRIER. ALL OTHER ELECTRICAL INFRASTRUCTURE TO REMAIN.

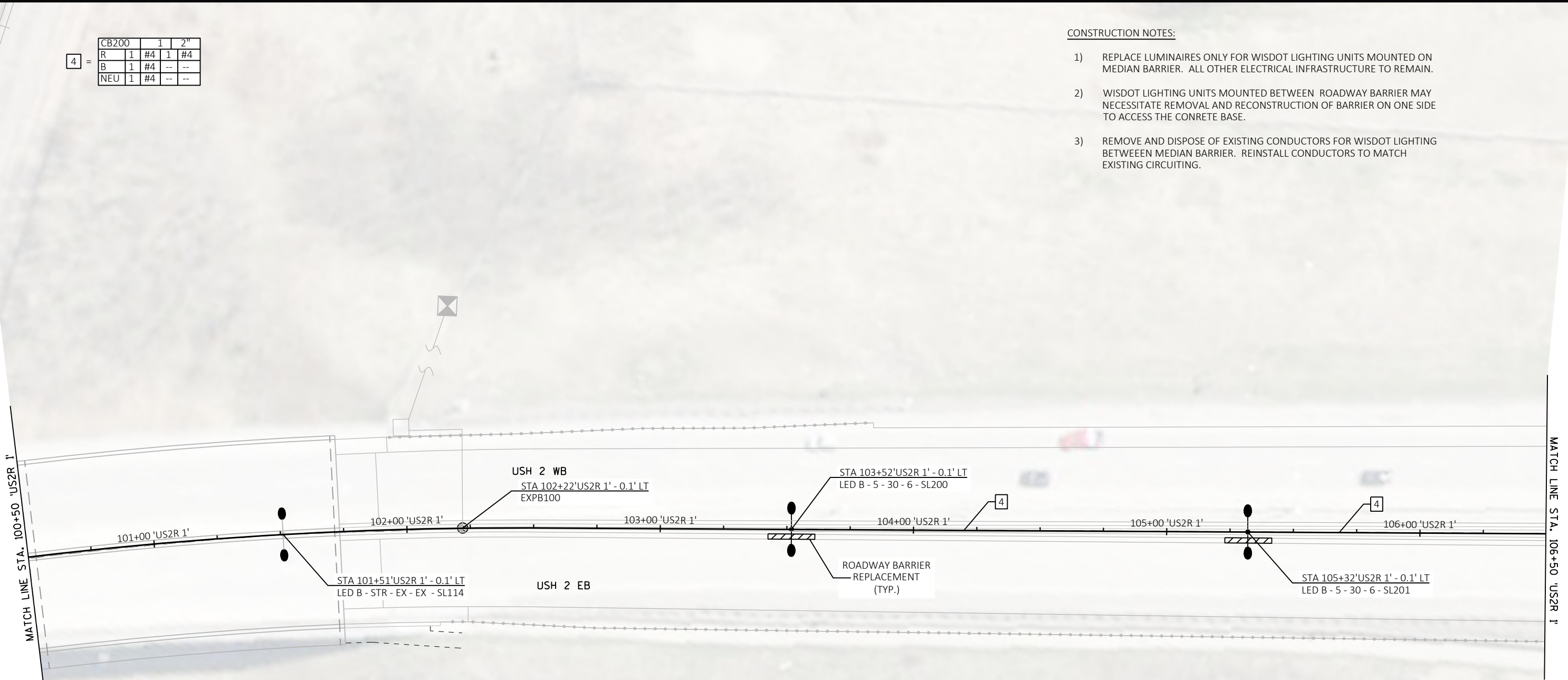


SHEET 18 OF 24

PROJECT NO: 8680-00-74	HWY: USH 2	COUNTY: DOUGLAS	LIGHTING PLANS	SHEET	E
------------------------	------------	-----------------	----------------	-------	---

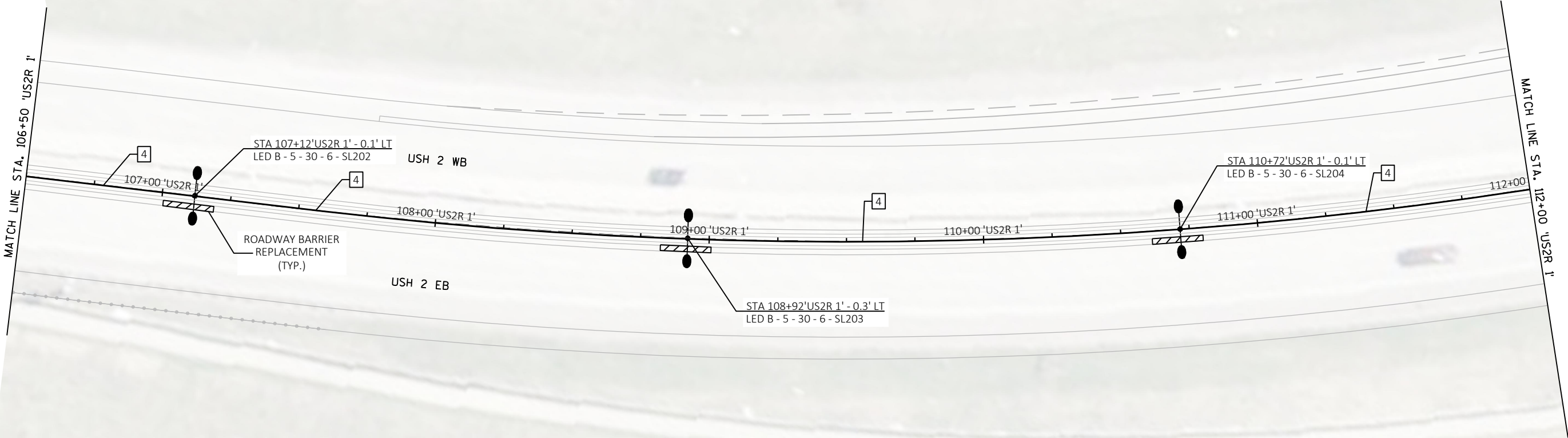
4	=	CB200	1	2"
		R	1	#4
		B	1	#4
		NEU	1	#4

- CONSTRUCTION NOTES:
- 1) REPLACE LUMINAIRES ONLY FOR WISDOT LIGHTING UNITS MOUNTED ON MEDIAN BARRIER. ALL OTHER ELECTRICAL INFRASTRUCTURE TO REMAIN.
 - 2) WISDOT LIGHTING UNITS MOUNTED BETWEEN ROADWAY BARRIER MAY NECESSITATE REMOVAL AND RECONSTRUCTION OF BARRIER ON ONE SIDE TO ACCESS THE CONCRETE BASE.
 - 3) REMOVE AND DISPOSE OF EXISTING CONDUCTORS FOR WISDOT LIGHTING BETWEEN MEDIAN BARRIER. REINSTALL CONDUCTORS TO MATCH EXISTING CIRCUITING.



4	=	CB200	1	2"
		R	1	#4 1 #4
		B	1	#4 -- --
		NEU	1	#4 -- --

- CONSTRUCTION NOTES:
- 1) WISDOT LIGHTING UNITS MOUNTED BETWEEN ROADWAY BARRIER MAY NECESSITATE REMOVAL AND RECONSTRUCTION OF BARRIER ON ONE SIDE TO ACCESS THE CONCRETE BASE.
 - 2) REMOVE AND DISPOSE OF EXISTING CONDUCTORS FOR WISDOT LIGHTING BETWEEN MEDIAN BARRIER. REINSTALL CONDUCTORS TO MATCH EXISTING CIRCUITING.



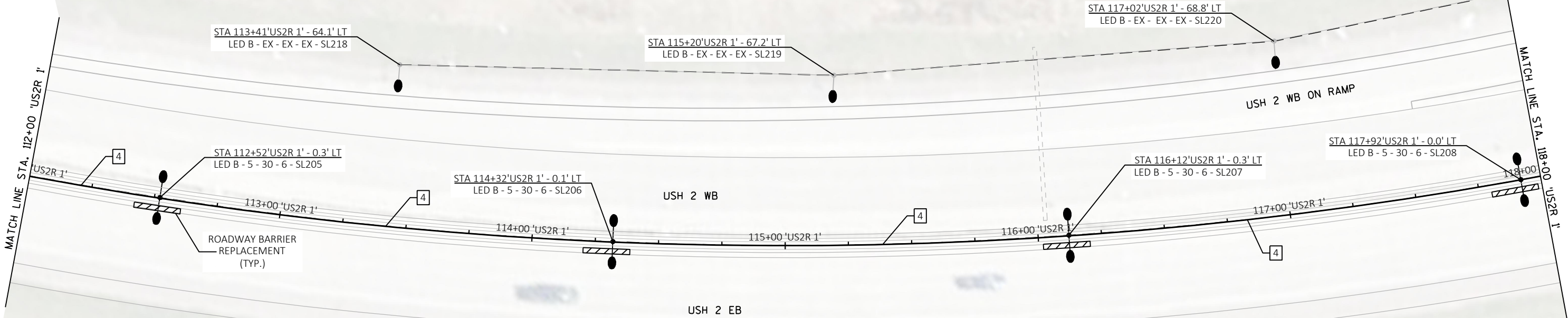
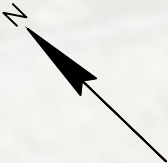
4

=

CB200		1	2"
R	1	#4	#4
B	1	#4	--
NEU	1	#4	--

CONSTRUCTION NOTES:

- 1)
- REPLACE LUMINAIRES ONLY FOR WISDOT LIGHTING UNITS MOUNTED ON
MEDIAN BARRIER. ALL OTHER ELECTRICAL INFRASTRUCTURE TO REMAIN.
- 2)
- WISDOT LIGHTING UNITS MOUNTED BETWEEN ROADWAY BARRIER MAY
NECESSITATE REMOVAL AND RECONSTRUCTION OF BARRIER ON ONE SIDE
TO ACCESS THE CONCRETE BASE.
- 3)
- REMOVE AND DISPOSE OF EXISTING CONDUCTORS FOR WISDOT LIGHTING
BETWEEN MEDIAN BARRIER. REINSTALL CONDUCTORS TO MATCH
EXISTING CIRCUITING.

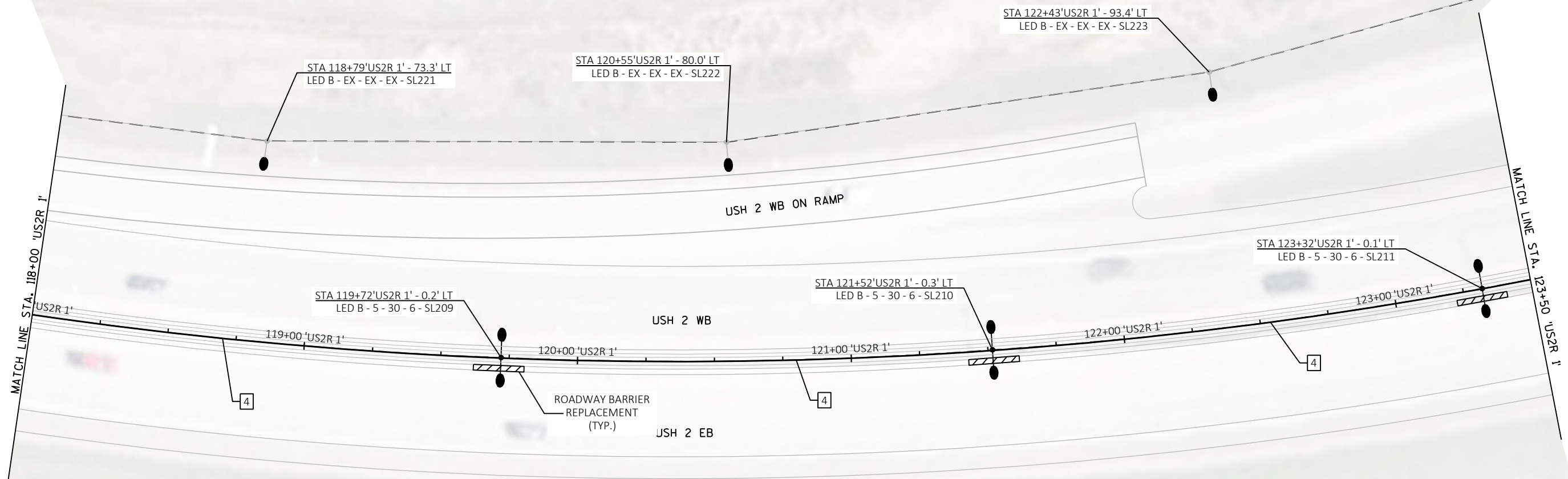


CB200		1	2"
R	1	#4	#4
B	1	#4	--
NEU	1	#4	--

4

CONSTRUCTION NOTES:

- 1) REPLACE LUMINAIRES ONLY FOR WISDOT LIGHTING UNITS MOUNTED ON MEDIAN BARRIER. ALL OTHER ELECTRICAL INFRASTRUCTURE TO REMAIN.
- 2) WISDOT LIGHTING UNITS MOUNTED BETWEEN ROADWAY BARRIER MAY NECESSITATE REMOVAL AND RECONSTRUCTION OF BARRIER ON ONE SIDE TO ACCESS THE CONCRETE BASE.
- 3) REMOVE AND DISPOSE OF EXISTING CONDUCTORS FOR WISDOT LIGHTING BETWEEN MEDIAN BARRIER. REINSTALL CONDUCTORS TO MATCH EXISTING CIRCUITING.



SHEET 22 OF 24

PROJECT NO: 8680-00-74

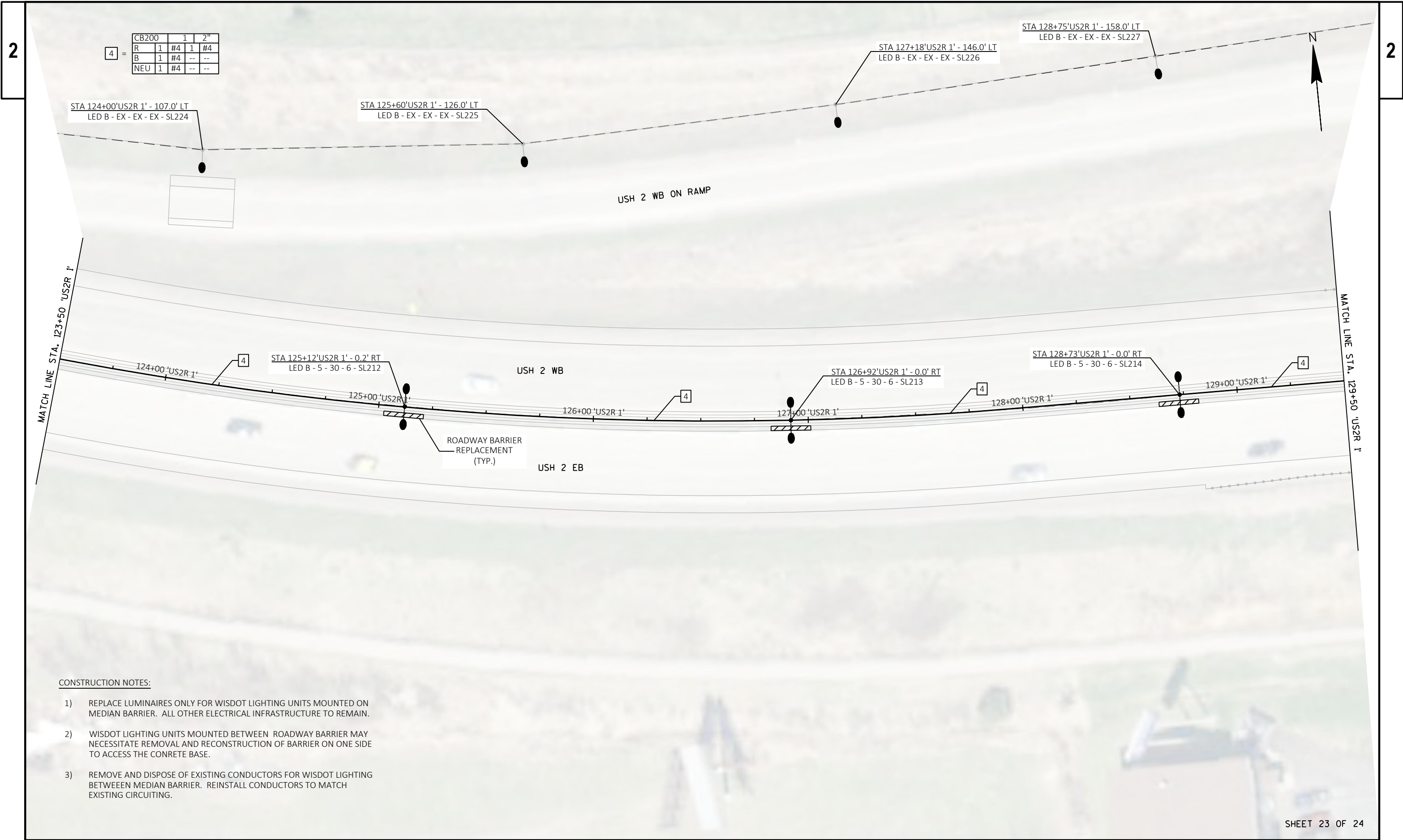
HWY: USH 2

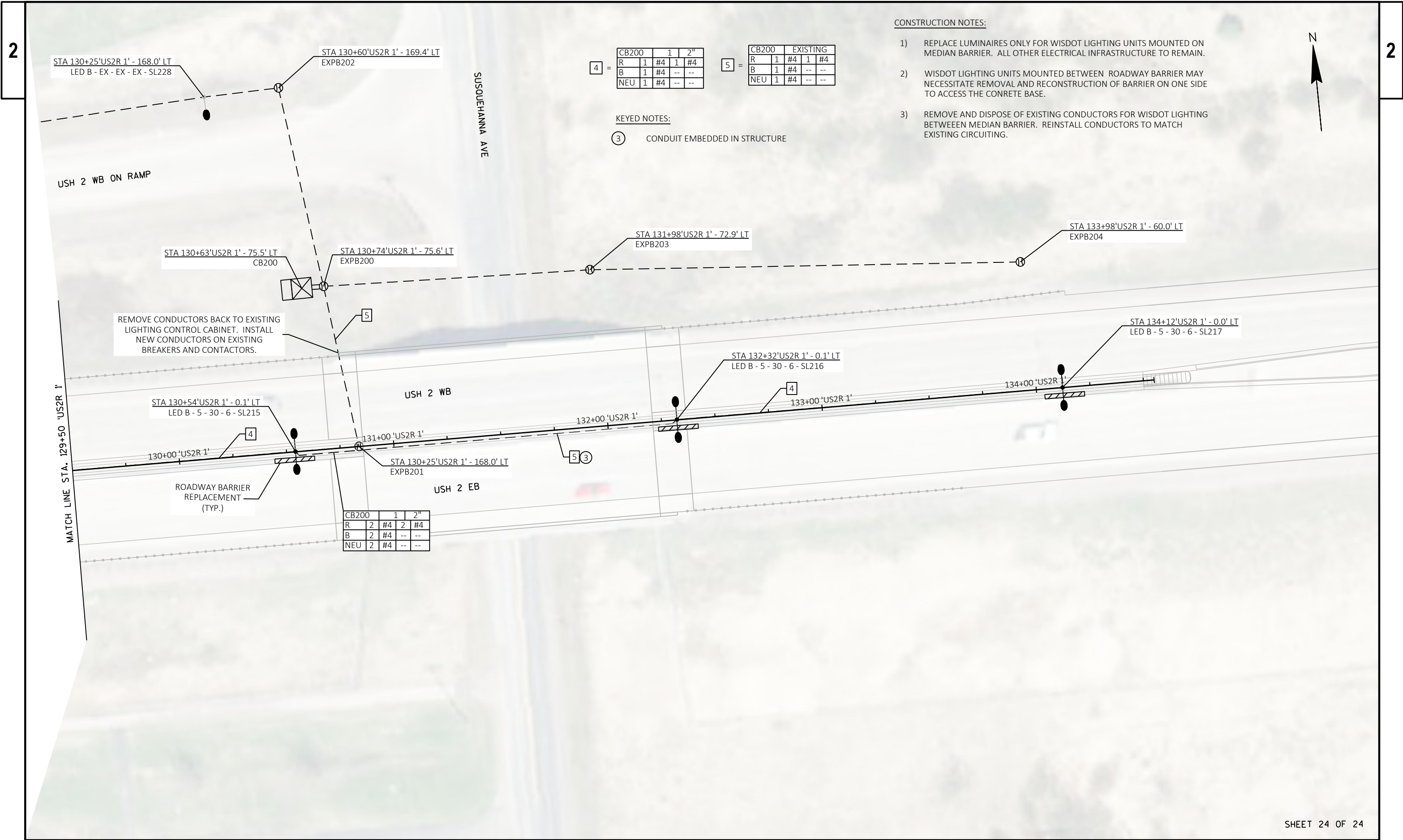
COUNTY: DOUGLAS

LIGHTING PLANS

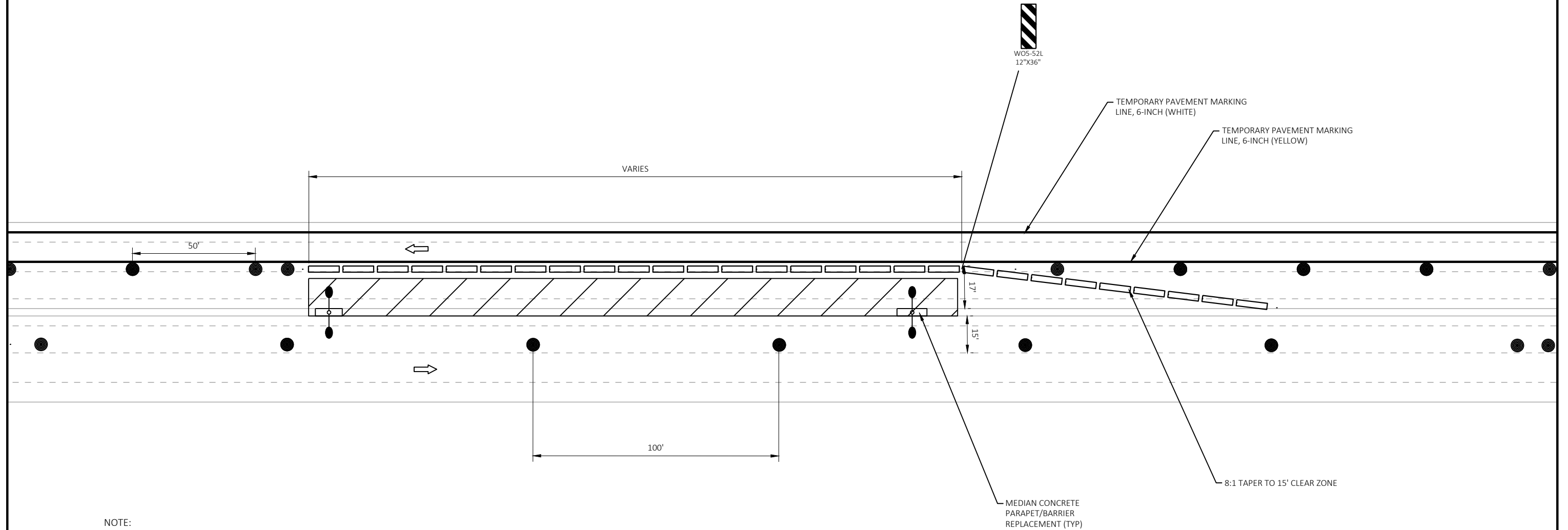
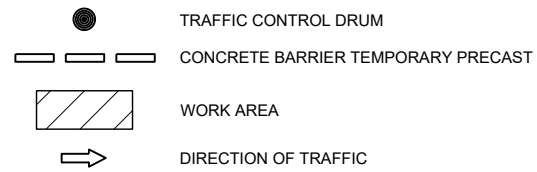
SHEET

E





LEGEND



NOTE:

- CONCRETE BARRIER TEMPORARY PRECAST REQUIRED FOR USH 2 WB WHEN REPLACING EXISTING MEDIAN CONCRETE PARAPET/BARRIER FOR LIGHTING WORK.
- CONTRACTOR MAY INSTALL CONCRETE BARRIER TEMPORARY PRECAST FOR ENTIRE LENGTH OF WORK ZONE OR MOVE AND REINSTALL AT EACH LIGHT REPLACEMENT LOCATION.
- CONCRETE BARRIER TEMPORARY PRECAST NOT REQUIRED AT LOCATION OF LUMINARIES REPLACEMENT ONLY (STA 70+80 - 101+72).
- ALL EQUIPMENT AND MATERIALS SHALL BE STORED BEHIND CONCRETE BARRIER TEMPORARY PRECAST.

CONCRETE BARRIER TEMPORARY PRECAST LAYOUT

STA 25+00 - 70+80 (STAGE 1B)
STA 101+72 - 134+50 (STAGE 1A)

PROJECT NO: 8680-00-74

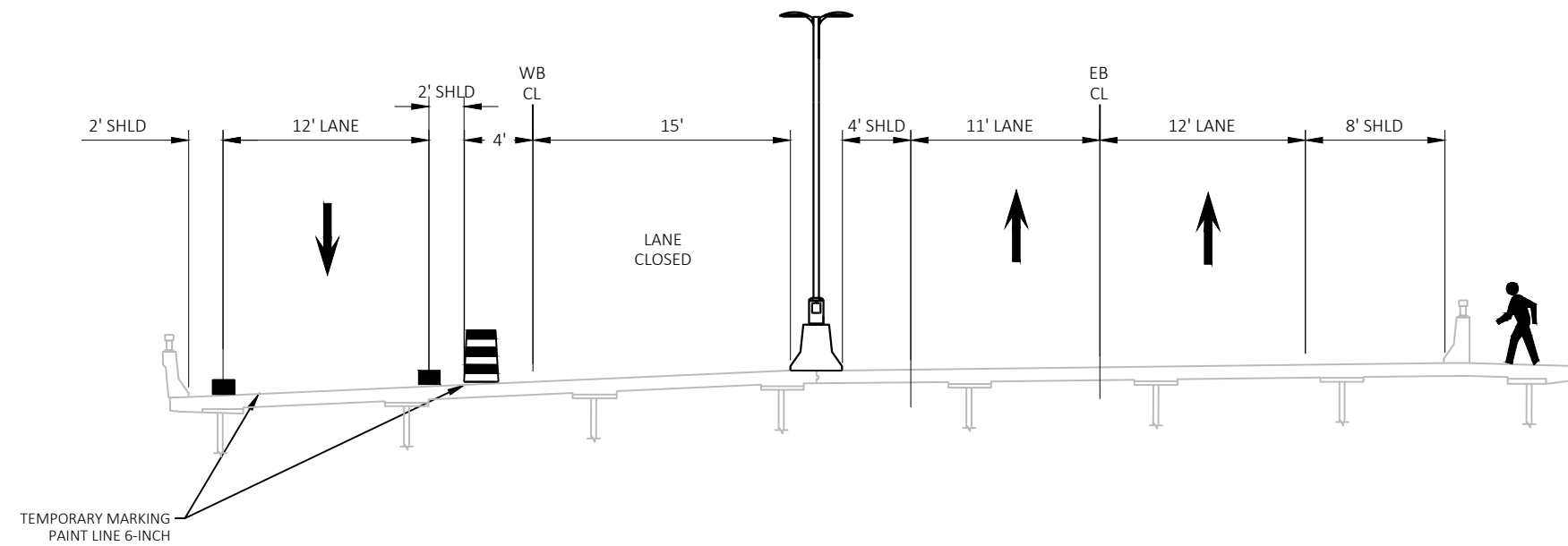
HWY: USH 2

COUNTY: DOUGLAS

CONSTRUCTION DETAILS

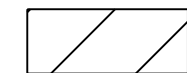
SHEET

E

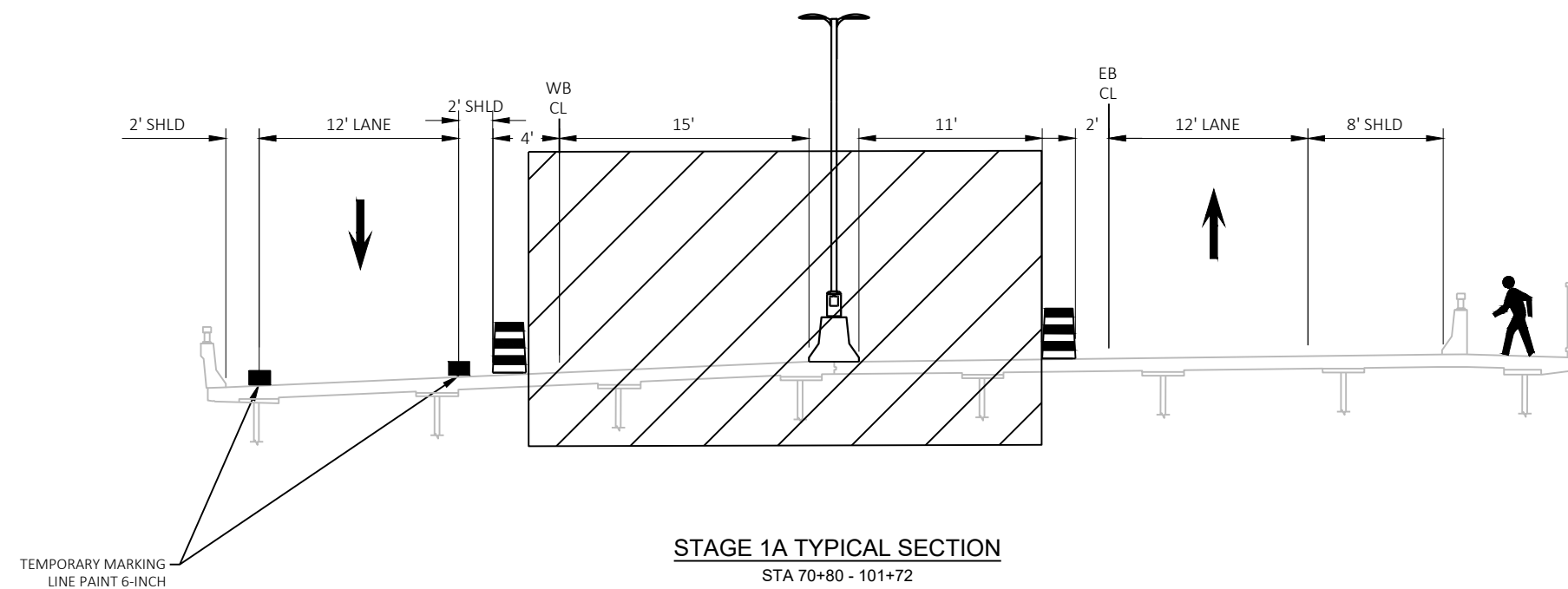


STAGE 1A TYPICAL SECTION

STA 24+00 - 70+80
(B-16-38 UNITS 1-13)

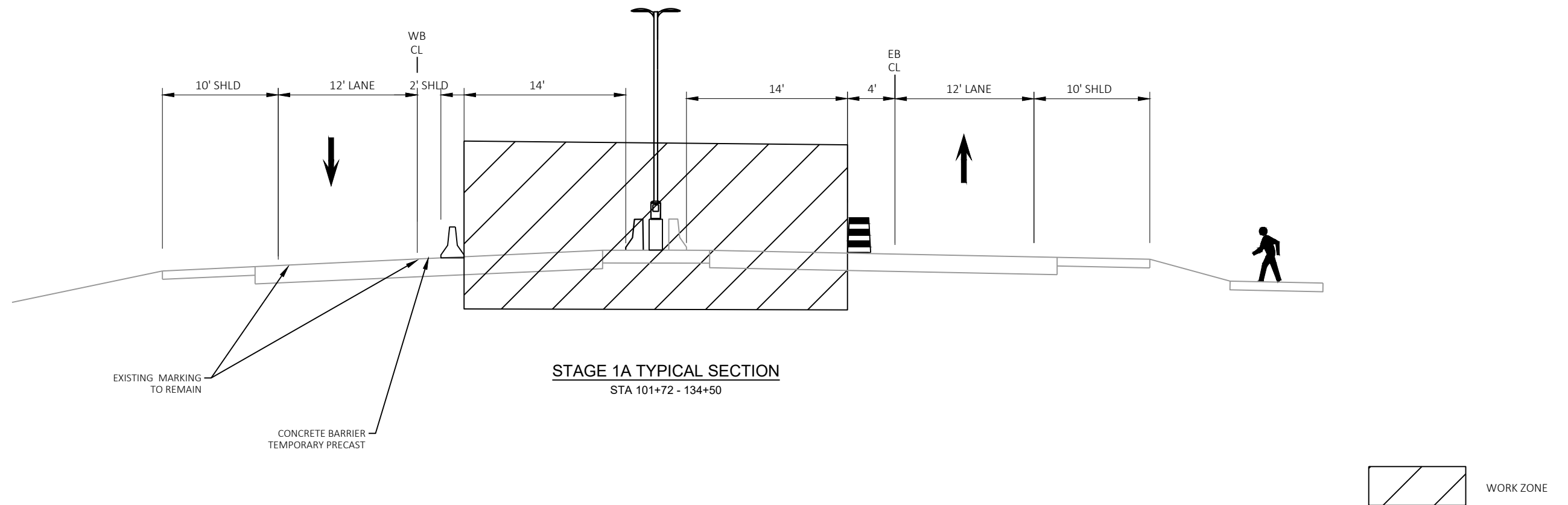


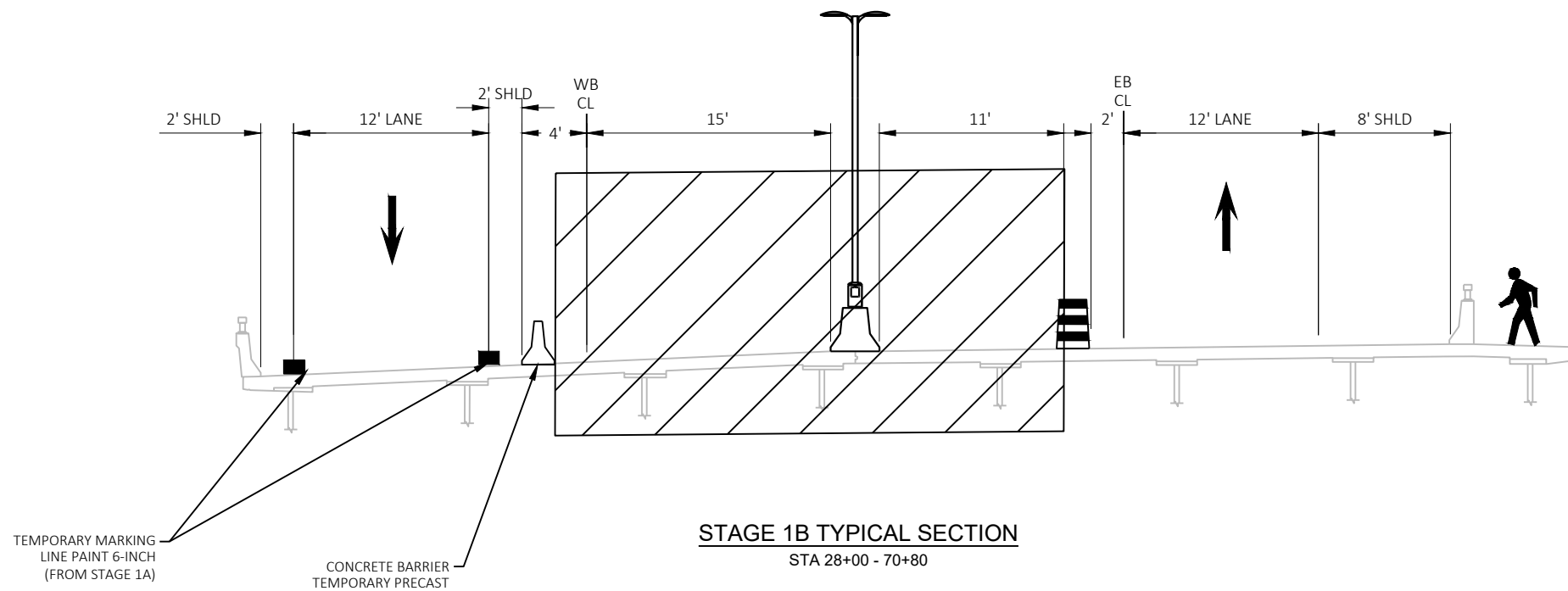
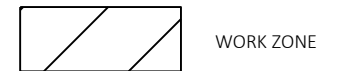
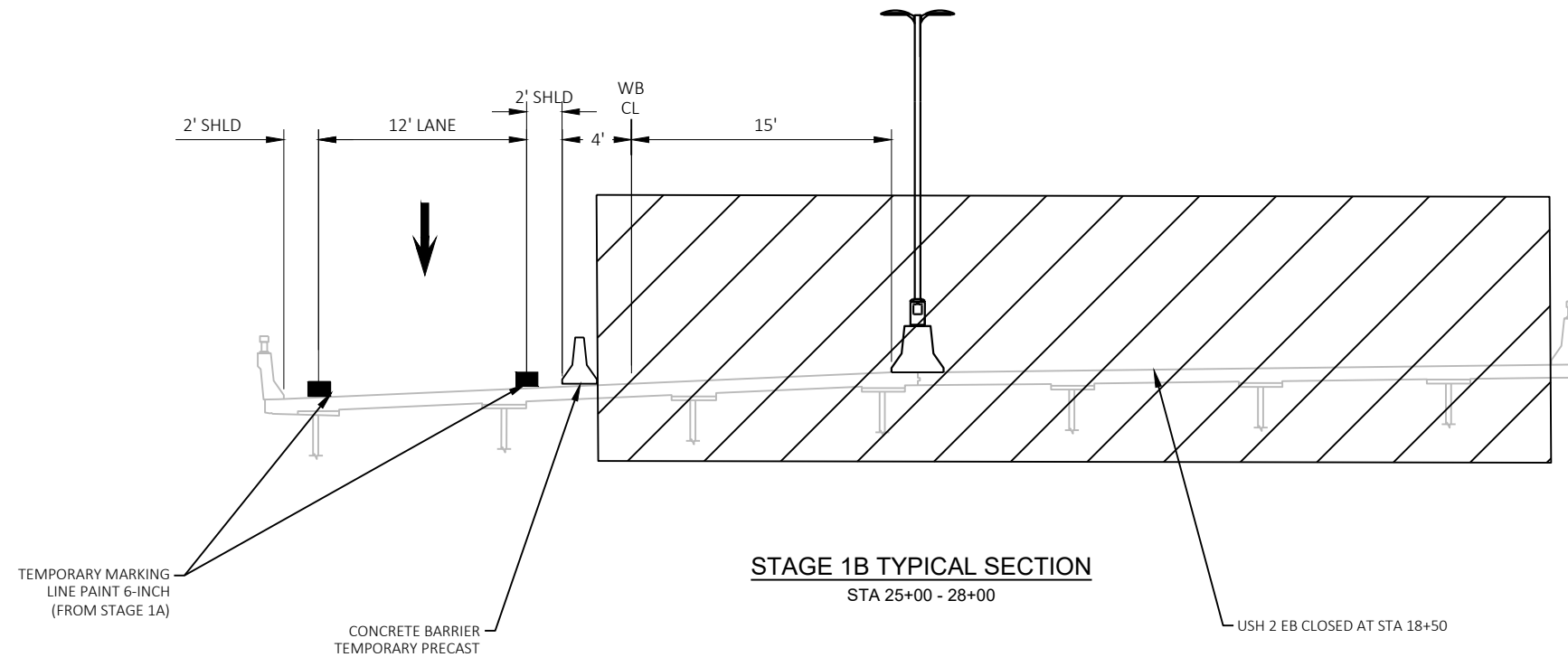
WORK ZONE

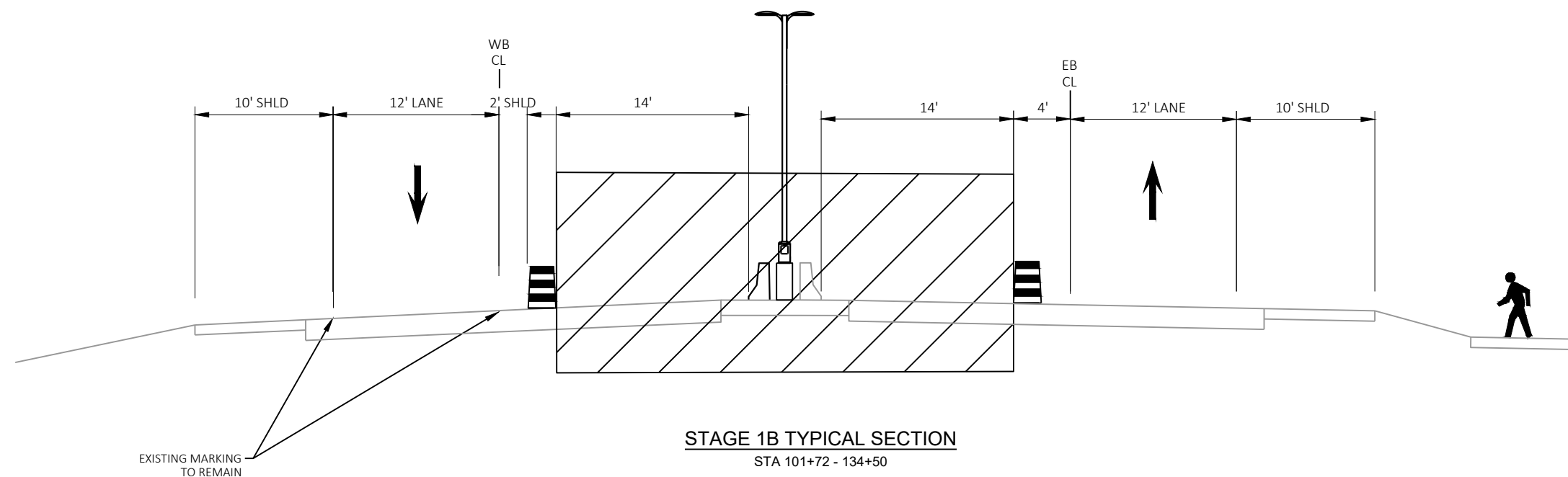
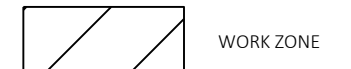
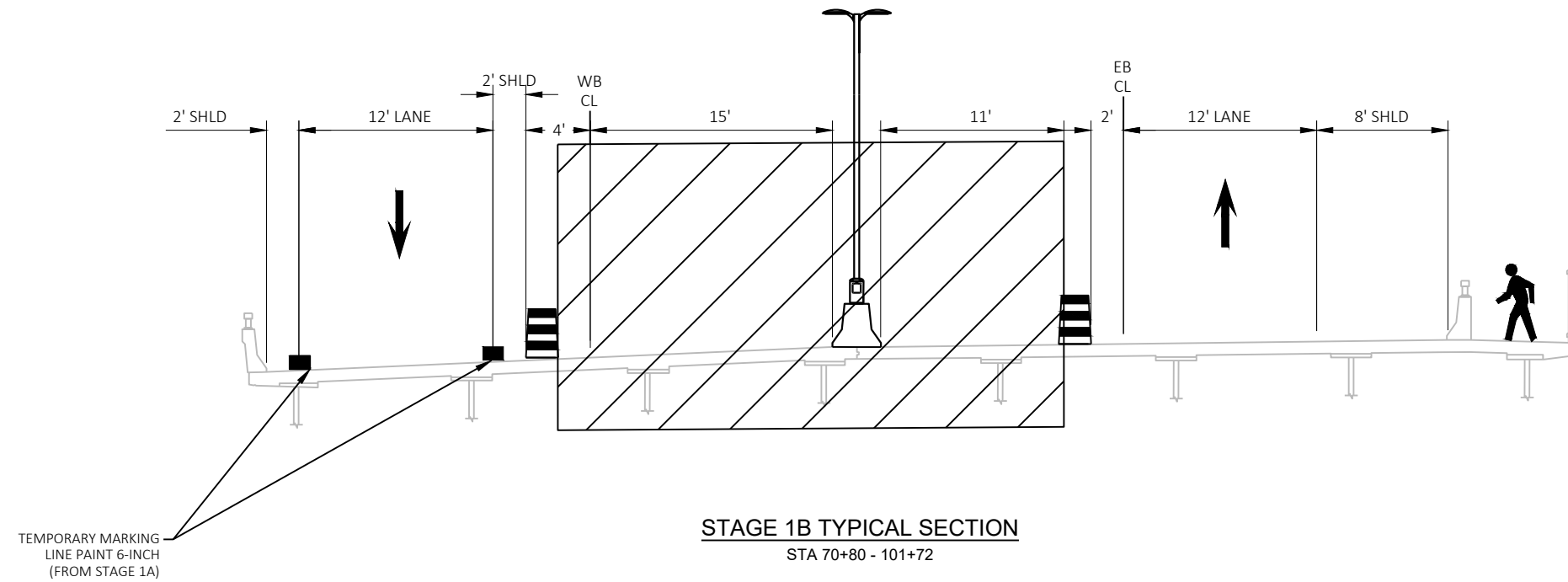


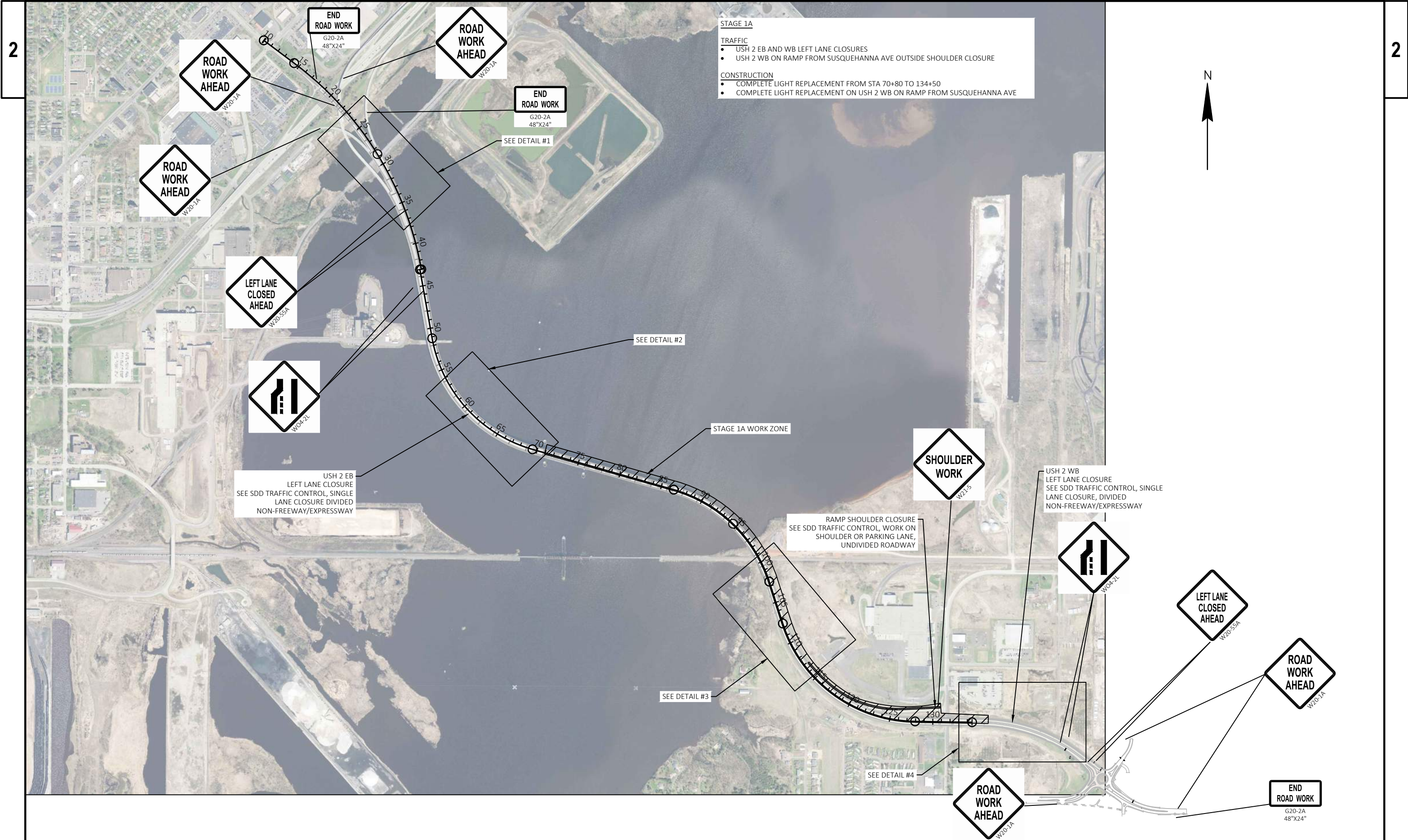
STAGE 1A TYPICAL SECTION

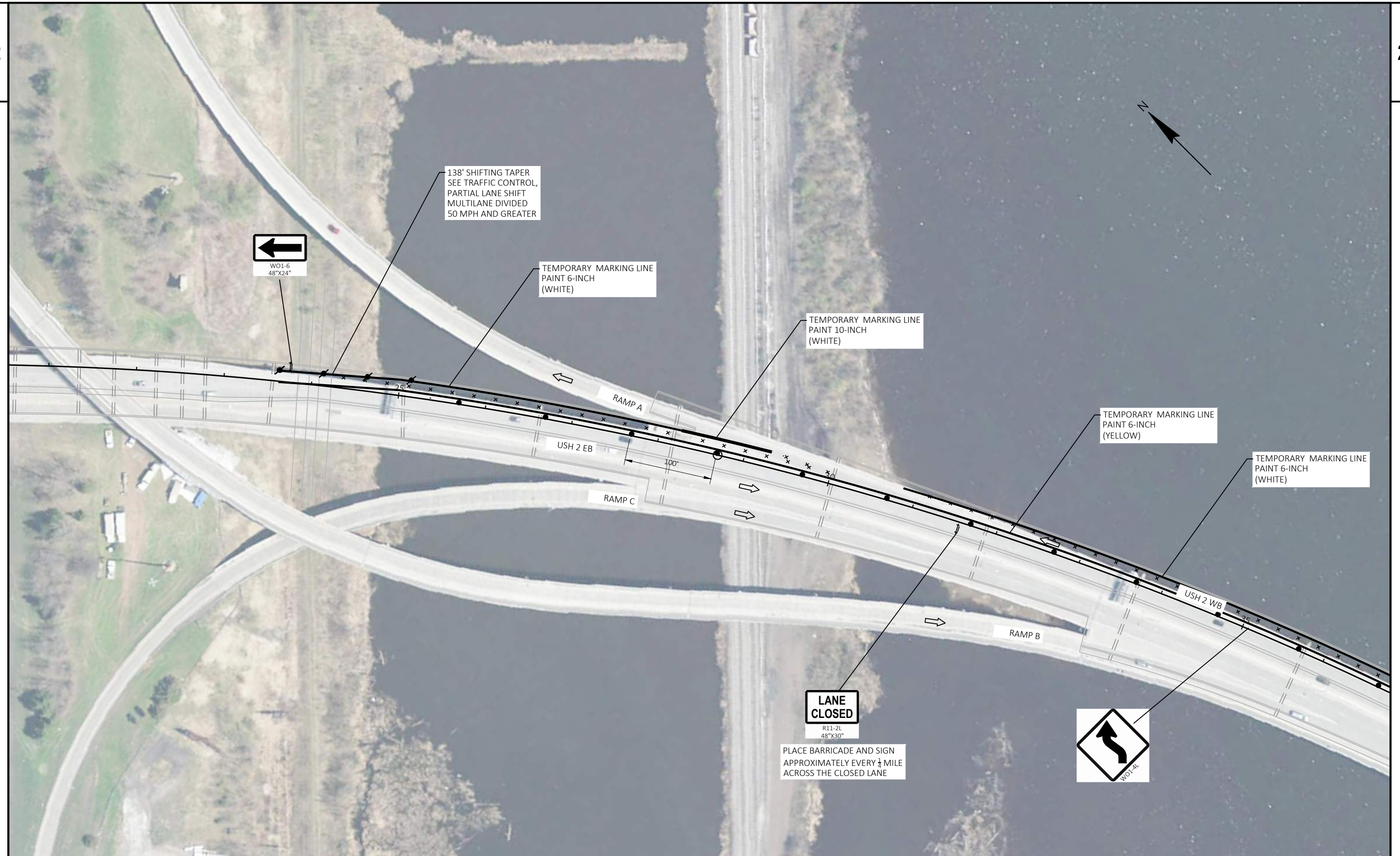
STA 70+80 - 101+72











PROJECT NO: 8680-00-74

HWY: USH 2

COUNTY: DOUGLAS

TRAFFIC CONTROL - STAGE 1A (DETAIL 1)

SHEET

E

FILE NAME : G:\WDOTNW\22114-008 BONG BRIDGE\CIVIL 3D\SHEETS\026100-TC_OVERVIEW-STAGE 1A.DWG
LAYOUT NAME - Detail 1

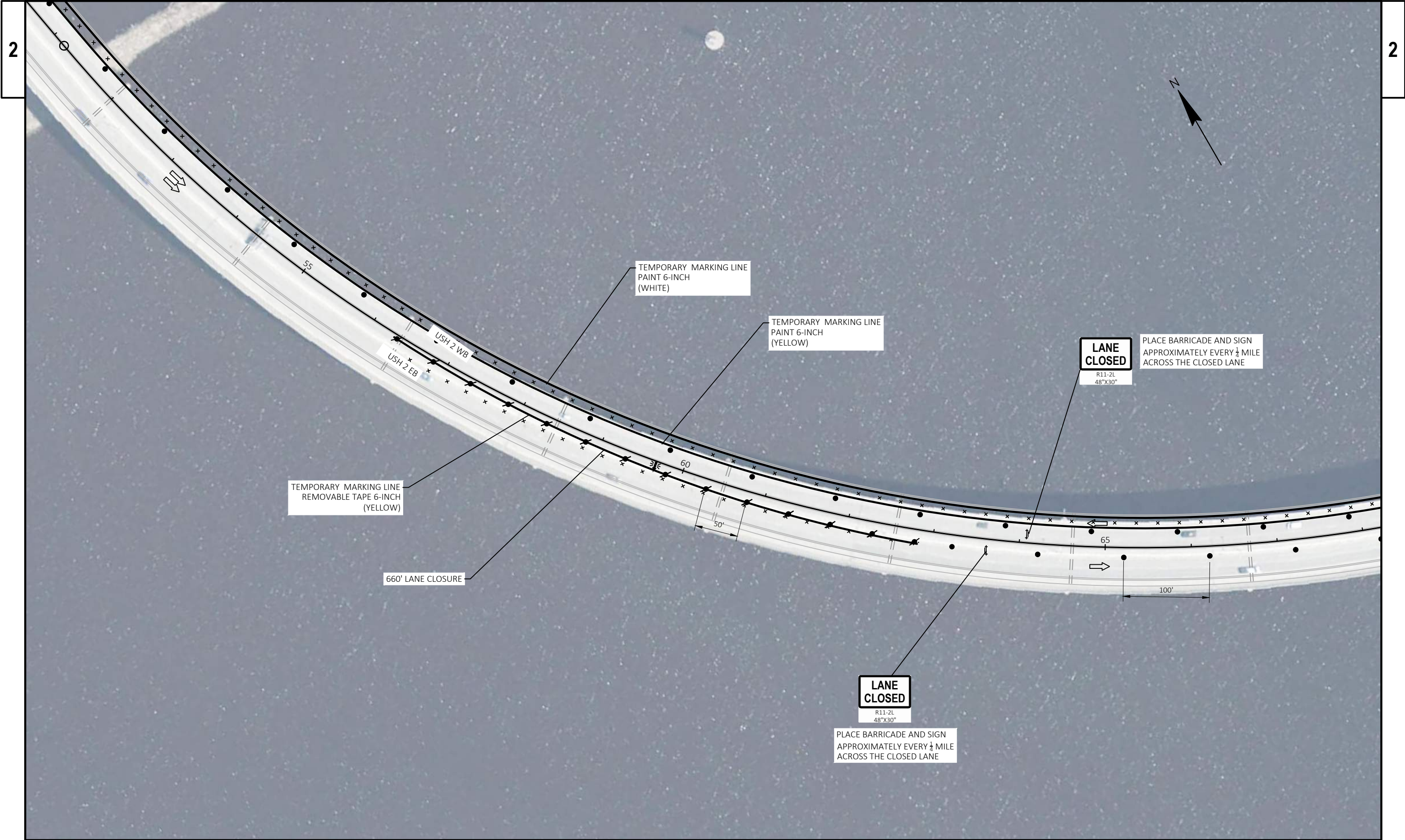
PLOT DATE : 11/26/2024 1:21 PM

PLOT BY : BRAD CUNNINGHAM

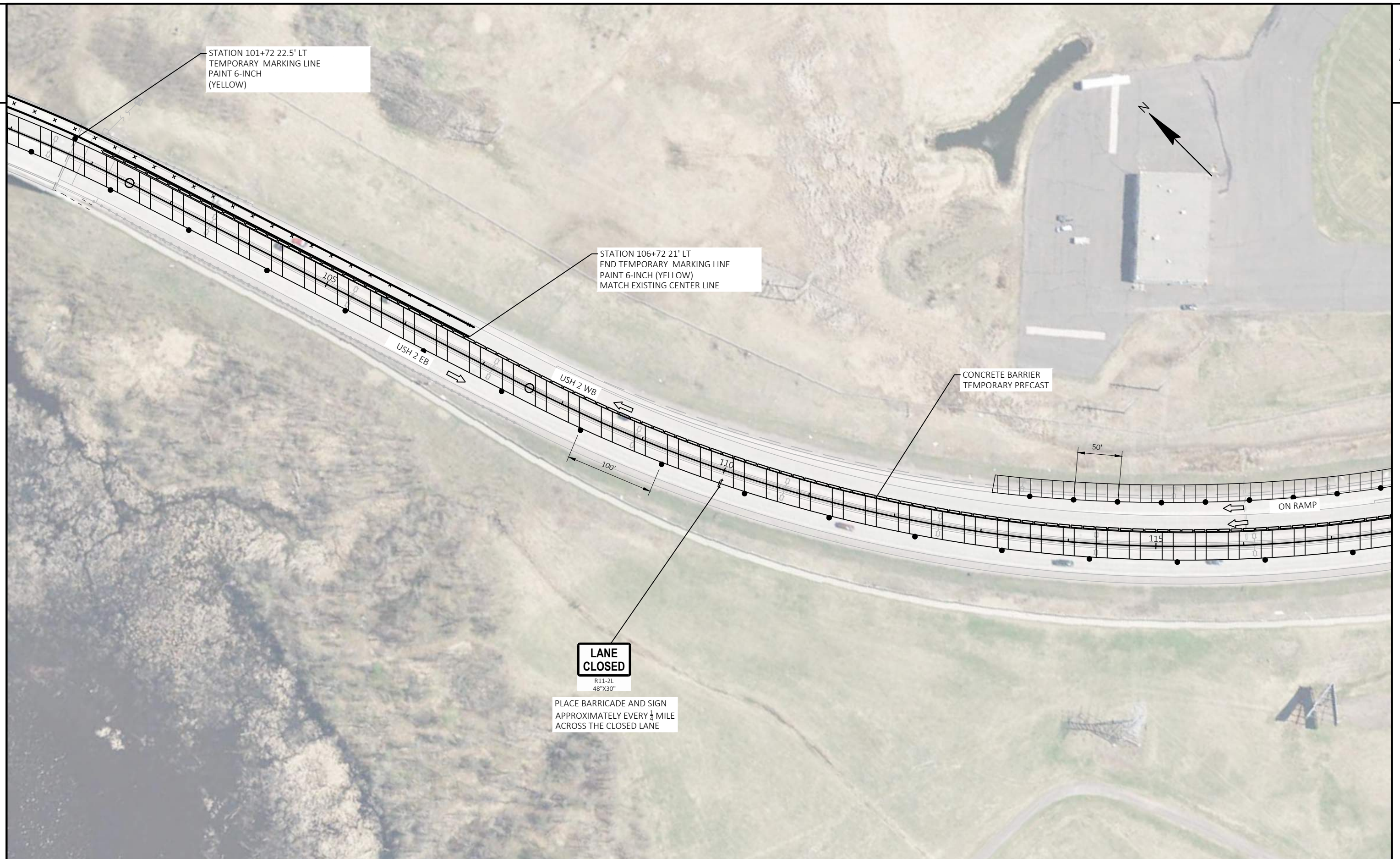
PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDs SHEET 42



PROJECT NO: 8680-00-74	HWY: USH 2	COUNTY: DOUGLAS	TRAFFIC CONTROL - STAGE 1A (DETAIL 2)	SHEET	E
------------------------	------------	-----------------	---------------------------------------	-------	---



PROJECT NO: 8680-00-74

HWY: USH 2

COUNTY: DOUGLAS

TRAFFIC CONTROL - STAGE 1A (DETAIL 3)

SHEET

E



PROJECT NO: 8680-00-74

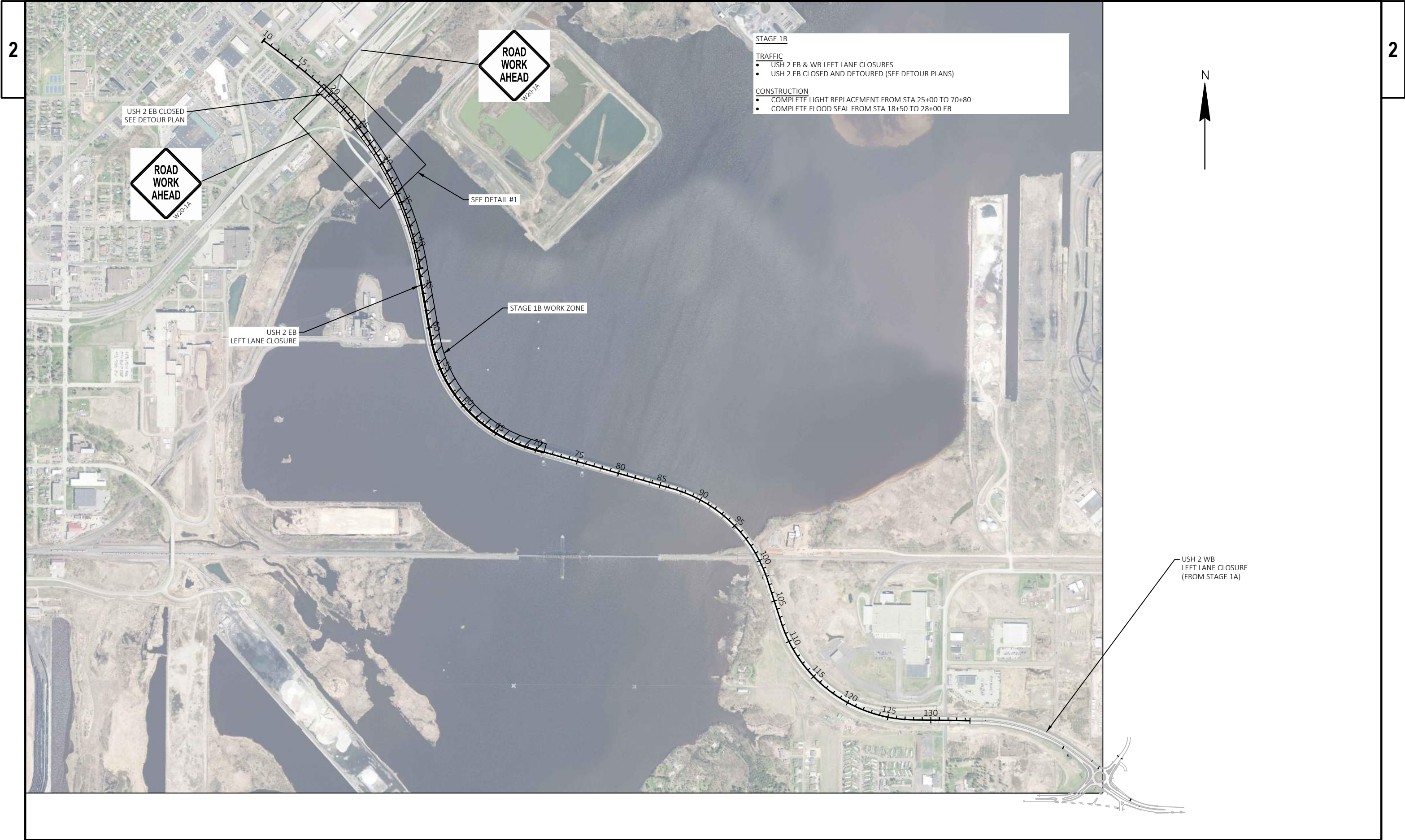
HWY: USH 2

COUNTY: DOUGLAS

TRAFFIC CONTROL - STAGE 1A (DETAIL 4)

SHEET

E



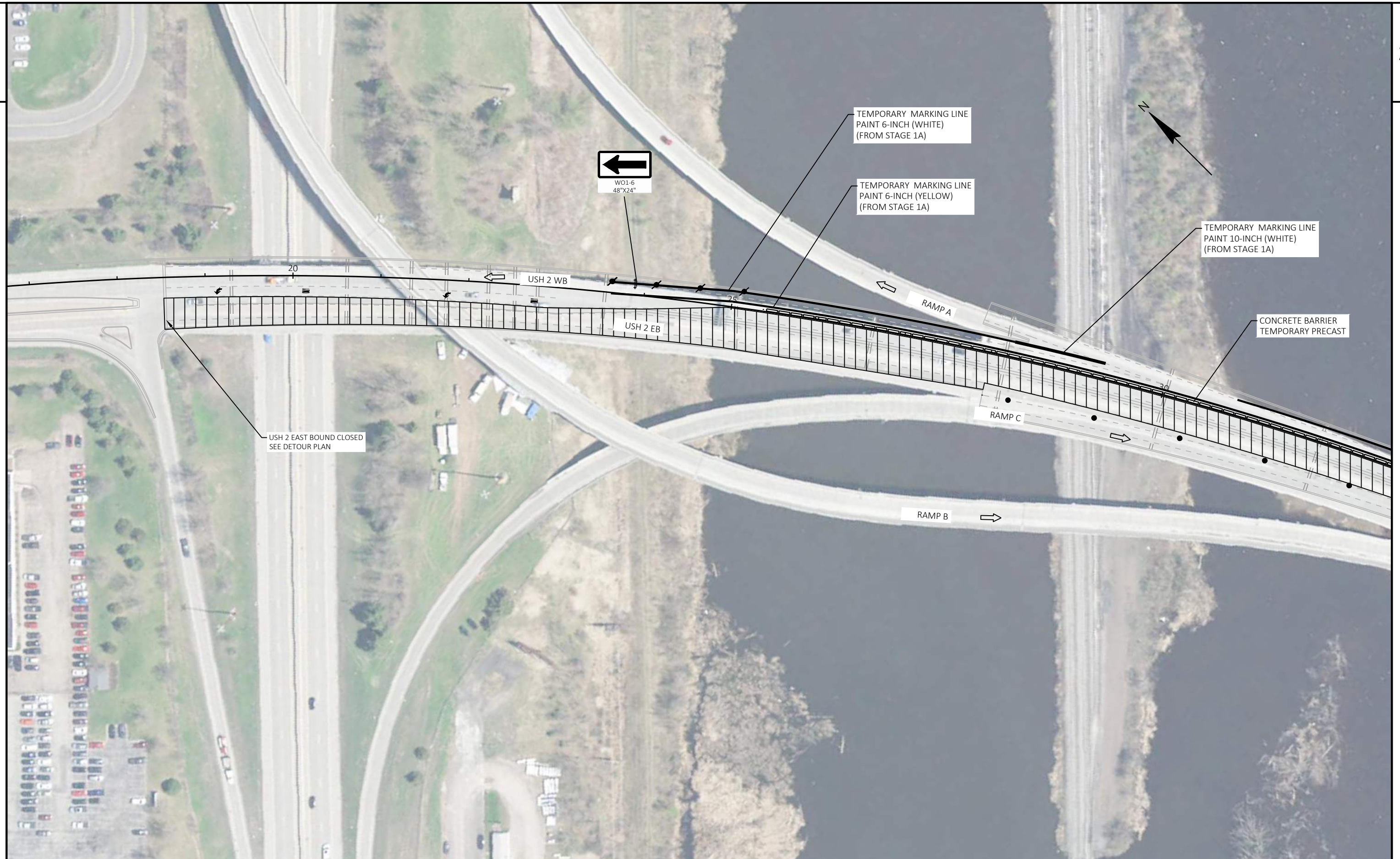
STAGE 1B

TRAFFIC

- USH 2 EB & WB LEFT LANE CLOSURES
- USH 2 EB CLOSED AND DETOURED (SEE DETOUR PLANS)

CONSTRUCTION

- COMPLETE LIGHT REPLACEMENT FROM STA 25+00 TO 70+80
- COMPLETE FLOOD SEAL FROM STA 18+50 TO 28+00 EB





This aerial map illustrates the proposed traffic control and sign placement for a ramp closure at the Bristol St. interchange on Interstate 35. The map shows the interchange layout with Bristol St. crossing I-35. Key streets shown include N. Central Ave., N. 59th Ave. W., S. Central Ave., and Grand Ave. The map highlights the specific ramp to be closed and the surrounding area for sign placement.

Signage and Traffic Control Details:

- Exit Sign:** A rectangular sign with a diagonal hatched pattern and the word "EXIT" is placed over the existing exit sign, labeled "COVER EXISTING EXIT SIGN (COVERING SIGNS TYPE II)".
- Ramp Closed Signs:**
 - A diamond-shaped sign reading "RAMP CLOSED 1000 FT" (W20-55C) is placed on the ramp.
 - A diamond-shaped sign reading "RAMP CLOSED AHEAD" (W20-53A) is placed further upstream on the ramp.
- Closure Signage:**
 - A rectangular sign reading "CLOSED" (G20-61, 120"x30") is placed over the existing E4-1 sign, labeled "COVER ARROW ON EXISTING E4-1 SIGN (COVERING SIGNS TYPE I)".
 - A rectangular sign reading "CLOSED" (G20-60, 108"x24") is placed over the existing E1-1A sign, labeled "PLACE SIGN G20-60 OVER MILEAGE ON EXISTING E1-1A SIGN".
- Directional Signs:**
 - Rectangular signs for "TO NORTH INTERSTATE 35" (M4-5, 24"x12") and "TO SOUTH INTERSTATE 35" (M3-1, 24"x12") are placed on the mainline.
 - Rectangular signs for "TO NORTH INTERSTATE 35" (M1-1, 24"x24") and "TO SOUTH INTERSTATE 35" (M1-1, 24"x24") are placed on the ramp.
 - Rectangular signs for "TO NORTH INTERSTATE 35" (M4-5, 24"x12") and "TO SOUTH INTERSTATE 35" (M3-1, 24"x12") are placed on the mainline.
 - Rectangular signs for "TO NORTH INTERSTATE 35" (M1-1, 24"x24") and "TO SOUTH INTERSTATE 35" (M1-1, 24"x24") are placed on the ramp.
 - Rectangular signs for "TO NORTH INTERSTATE 35" (M4-5, 24"x12") and "TO SOUTH INTERSTATE 35" (M3-1, 24"x12") are placed on the mainline.
 - Rectangular signs for "TO NORTH INTERSTATE 35" (M1-1, 24"x24") and "TO SOUTH INTERSTATE 35" (M1-1, 24"x24") are placed on the ramp.
- Other Notes:**
 - "SEE S.D.D. 15D16-06 'TRAFFIC CONTROL, EXIT RAMP CLOSURE' FOR DETAILS NOT SHOWN."
 - "RAMP CLOSED BEGINNING XXX-XX (G20-58)"
 - "PLACE SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER."

11

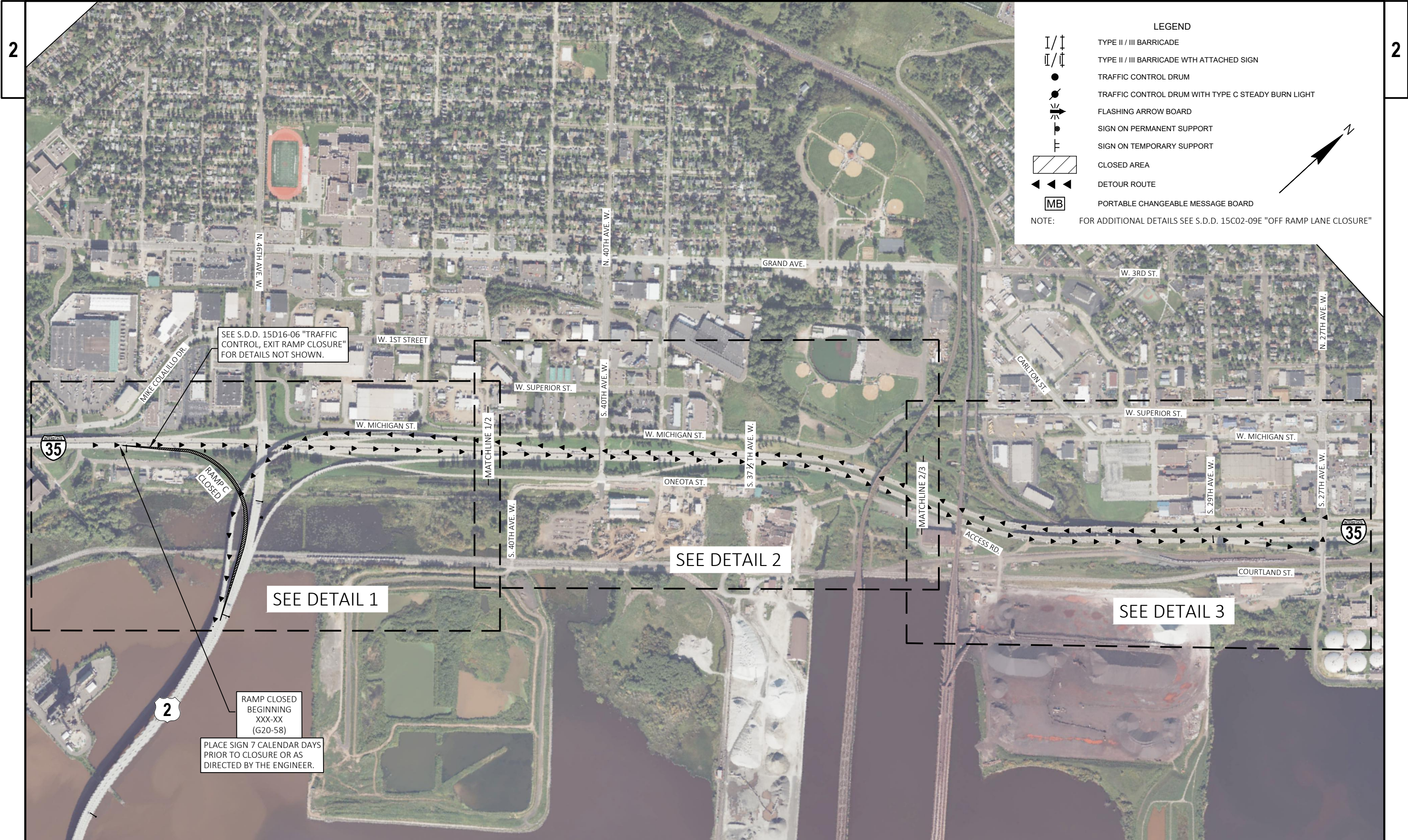
WISDOT/CADDS SHEET 42

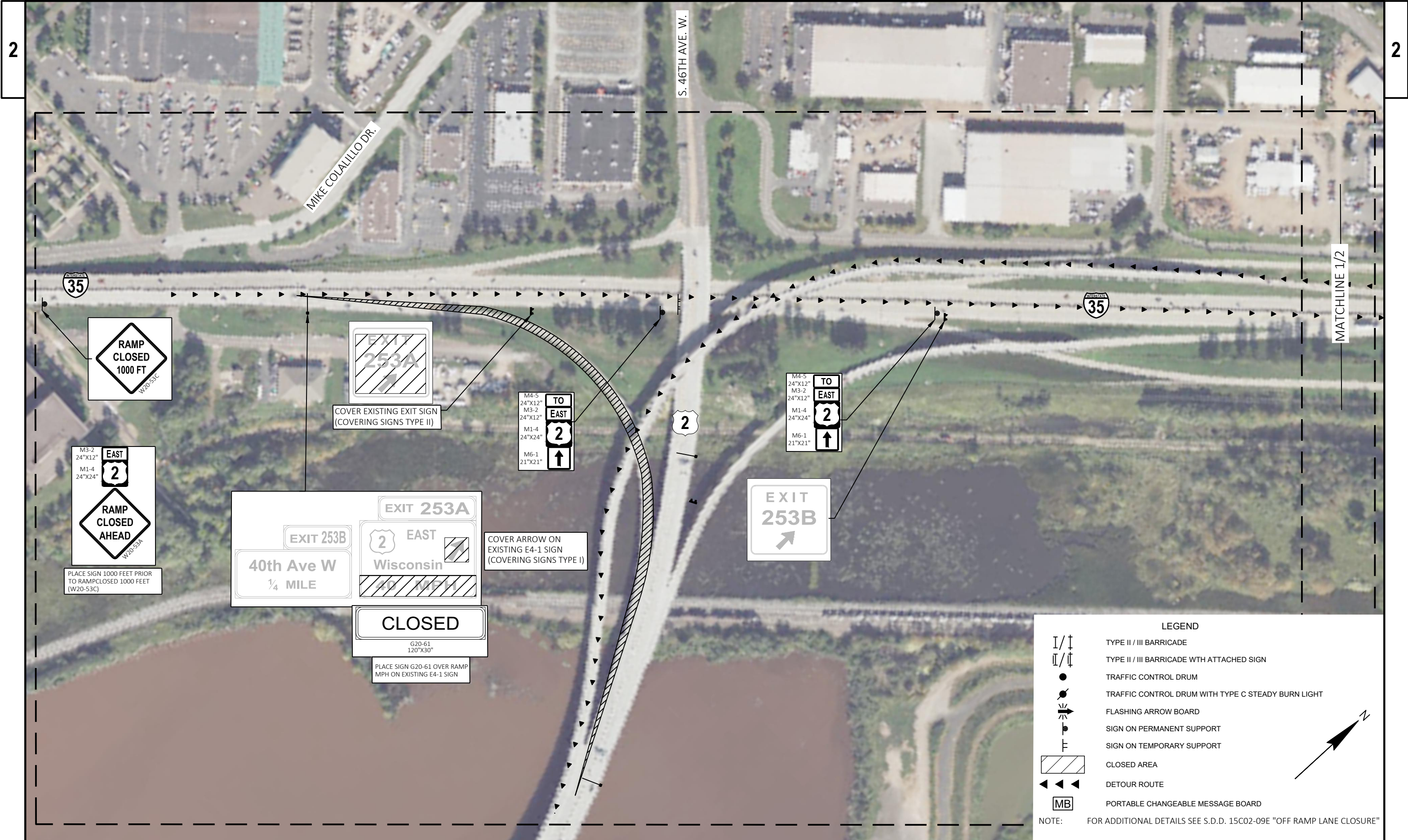










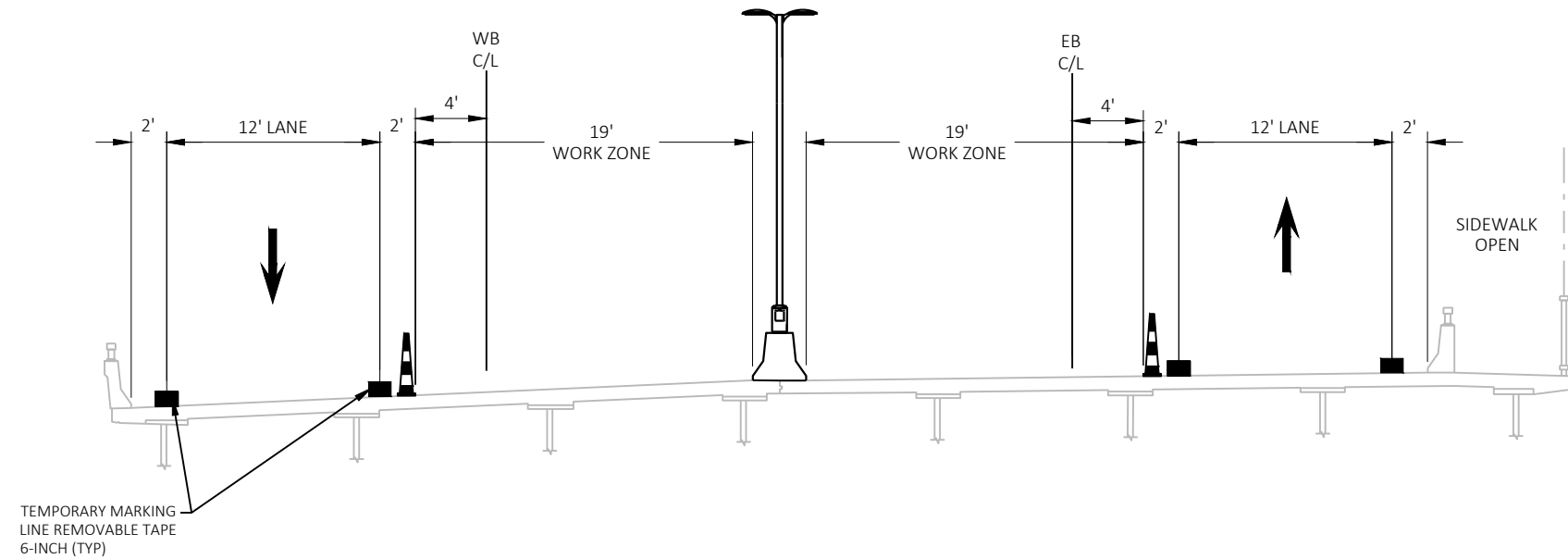




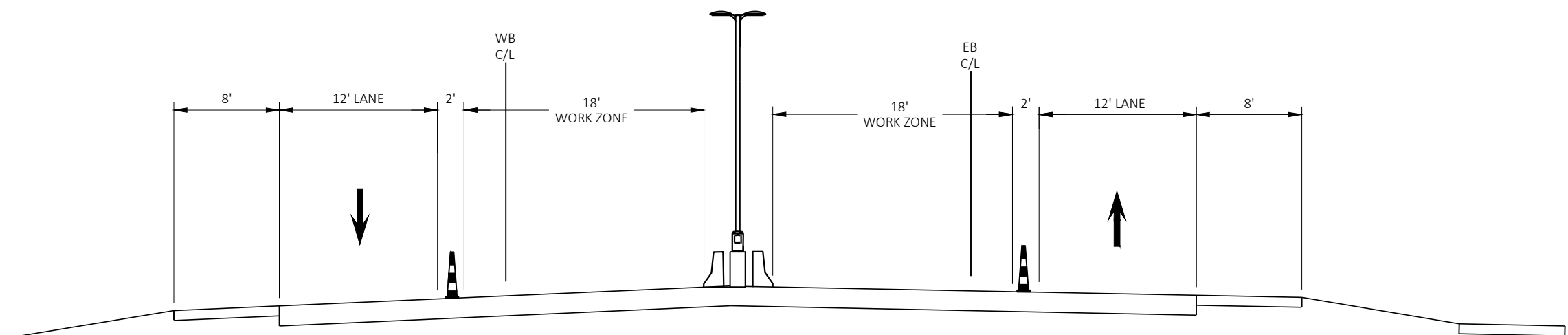




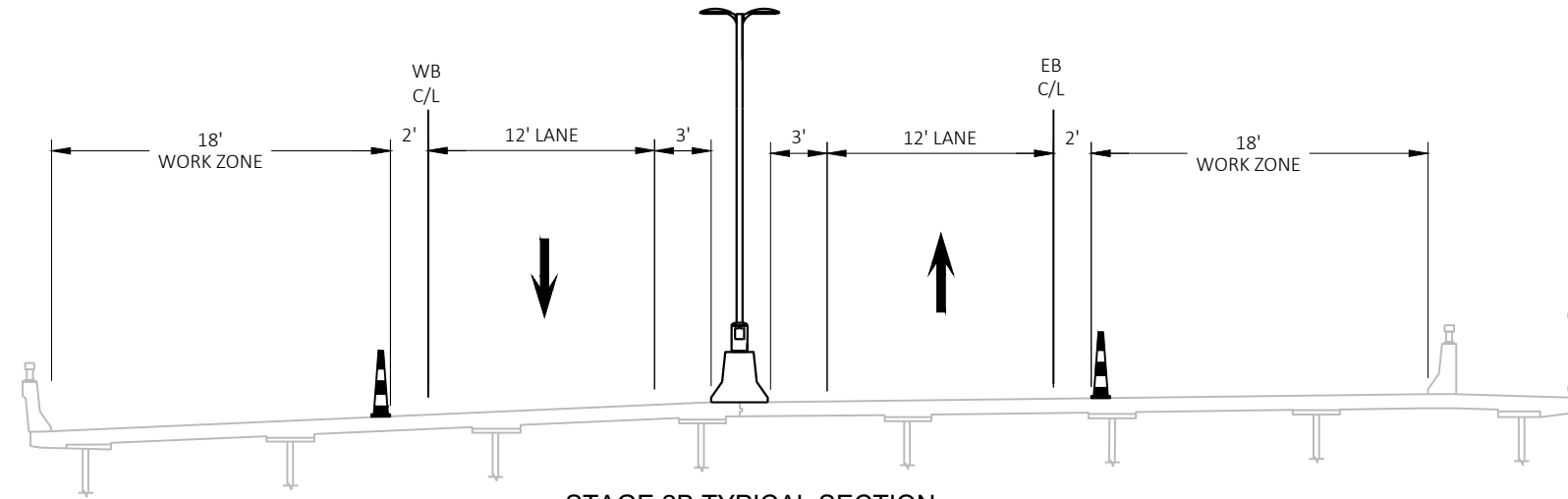




STAGE 2A TYPICAL SECTION
STA 24+00 - STA 101+72

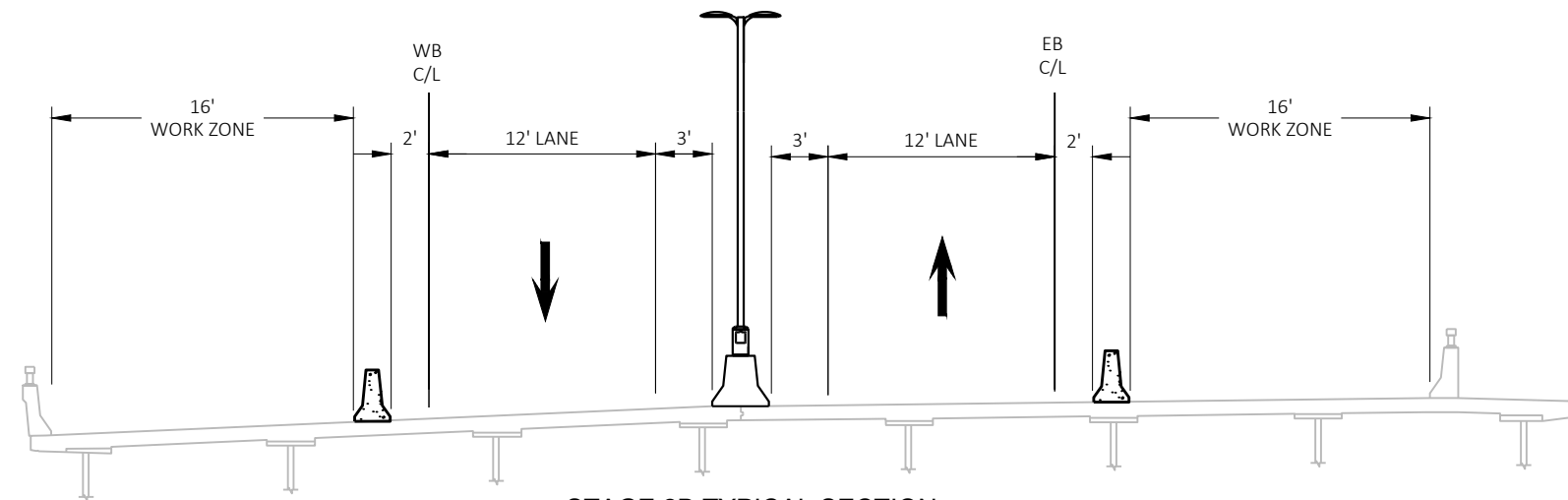


STAGE 2A TYPICAL SECTION
STA 101+00 - 134+50



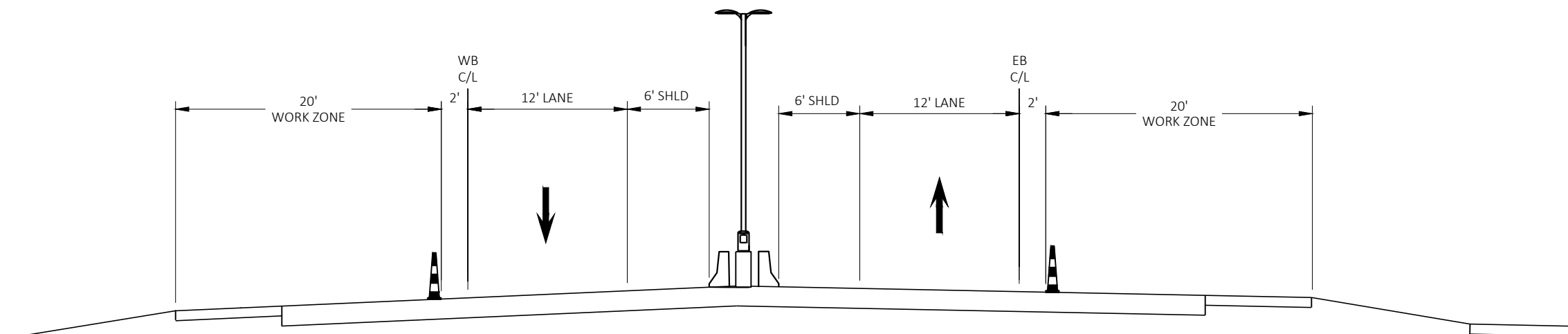
STAGE 2B TYPICAL SECTION

STA 24+00 - STA 102+00



STAGE 2B TYPICAL SECTION

STA 70+00 - STA 76+00
(STRUCTURE PAINTING DURING STAGE 2B)



STAGE 2B TYPICAL SECTION

STA 101+72 - STA 134+50

PROJECT NO: 8680-00-74

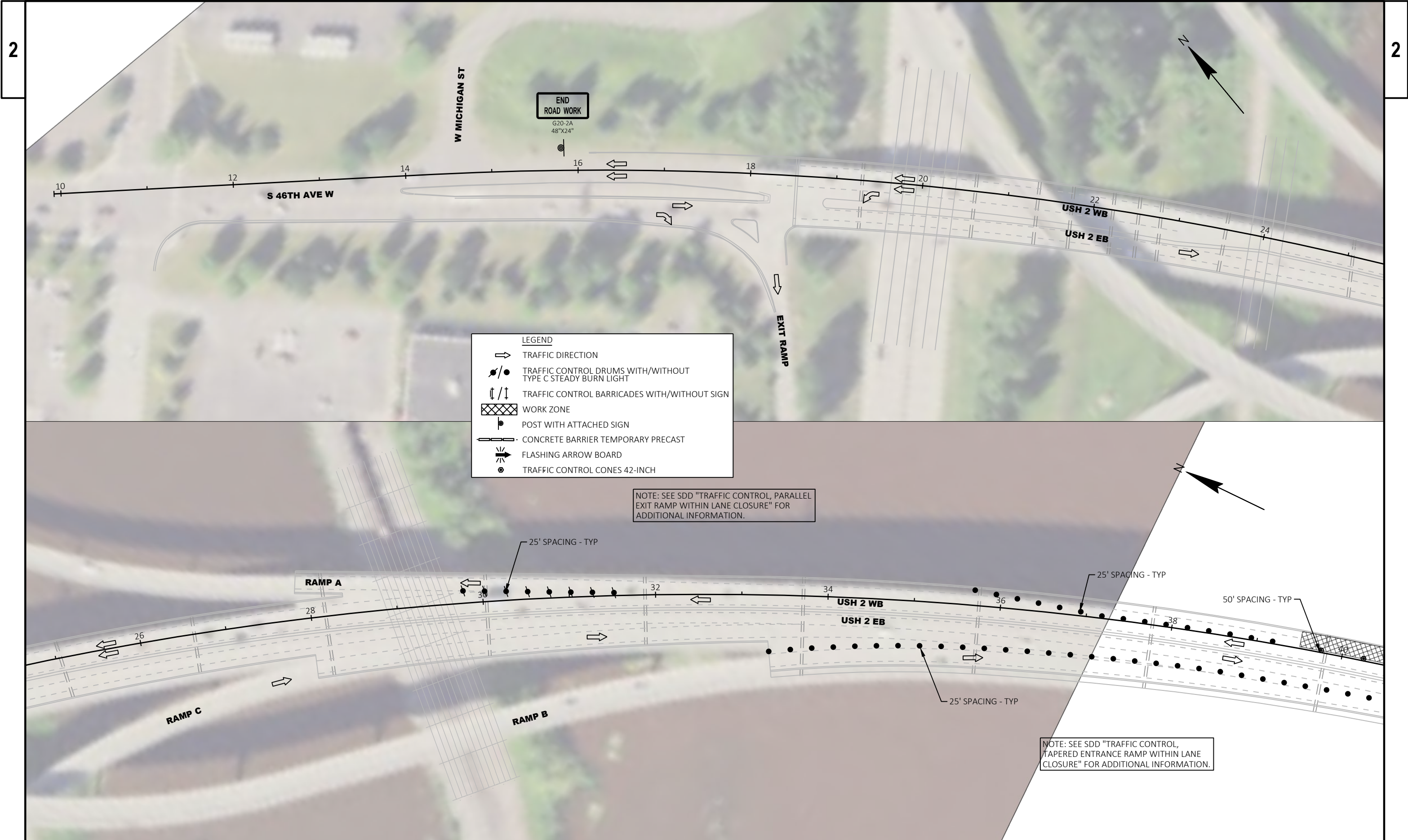
HWY: USH 2

COUNTY: DOUGLAS

TRAFFIC CONTROL - TYPICAL SECTION (STAGE 2B)

SHEET

E

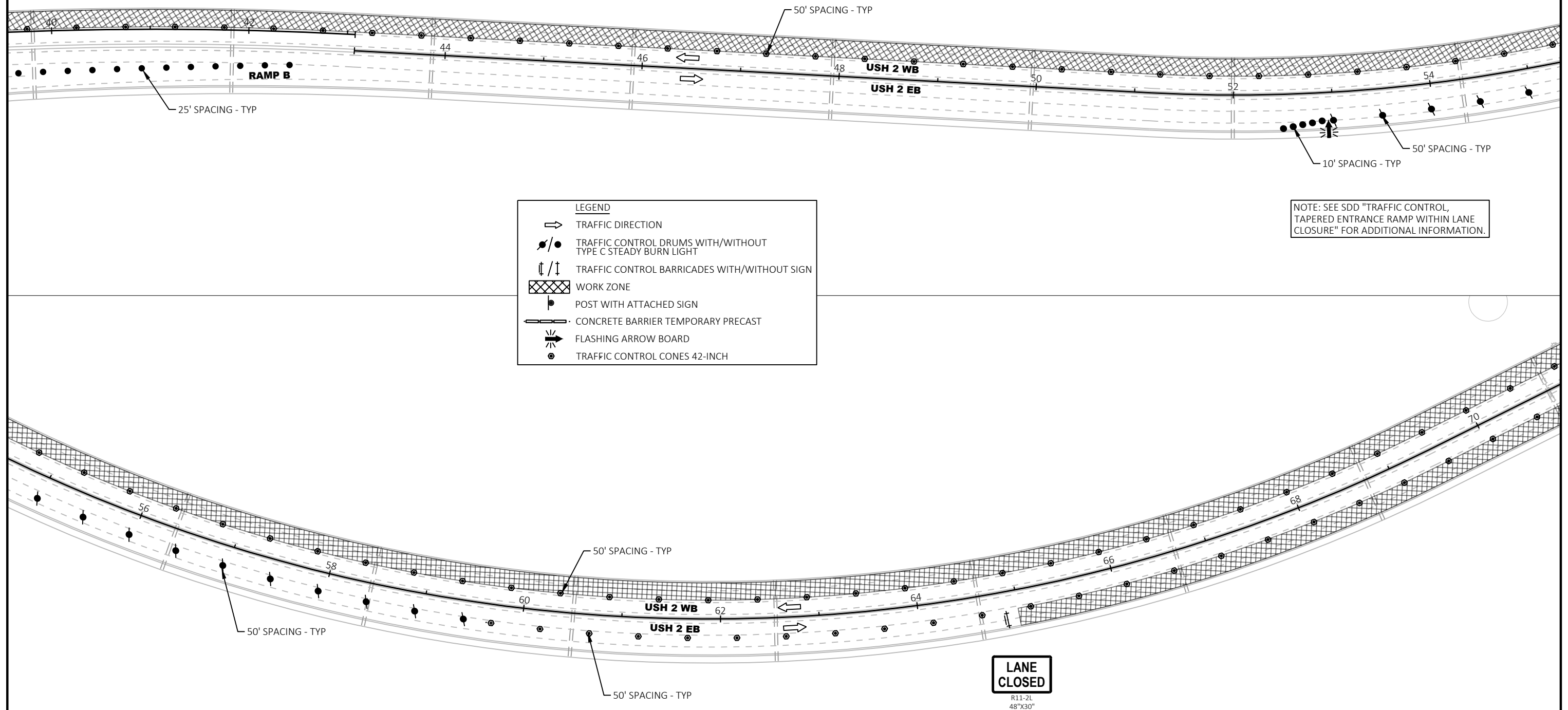


LEGEND

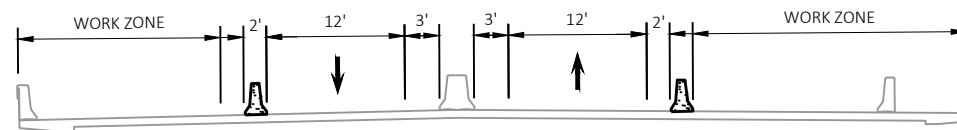
- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE C STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES WITH/WITHOUT SIGN
- WORK ZONE
- POST WITH ATTACHED SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- FLASHING ARROW BOARD
- TRAFFIC CONTROL CONES 42-INCH

NOTE: SEE SDD "TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE" FOR ADDITIONAL INFORMATION.

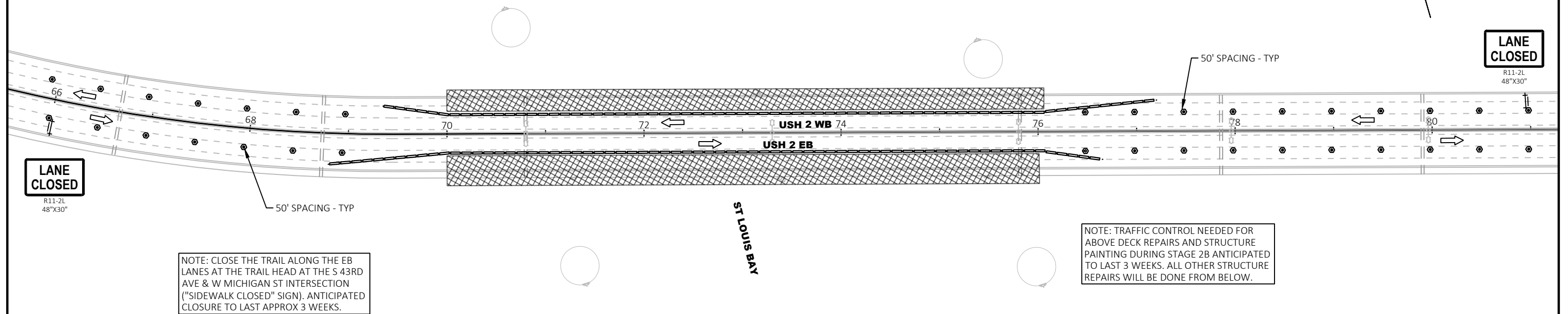
NOTE: SEE SDD "TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE" FOR ADDITIONAL INFORMATION.

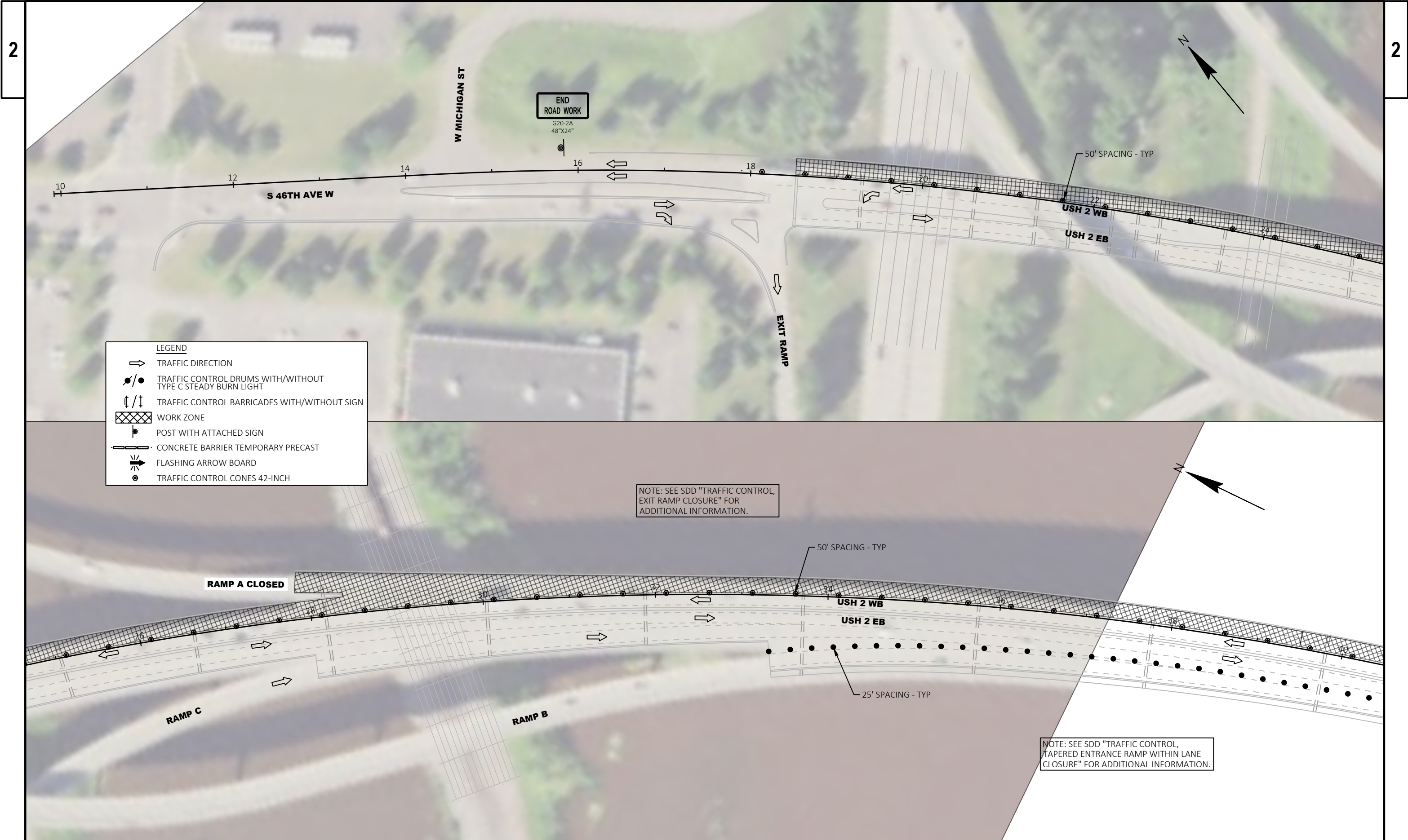


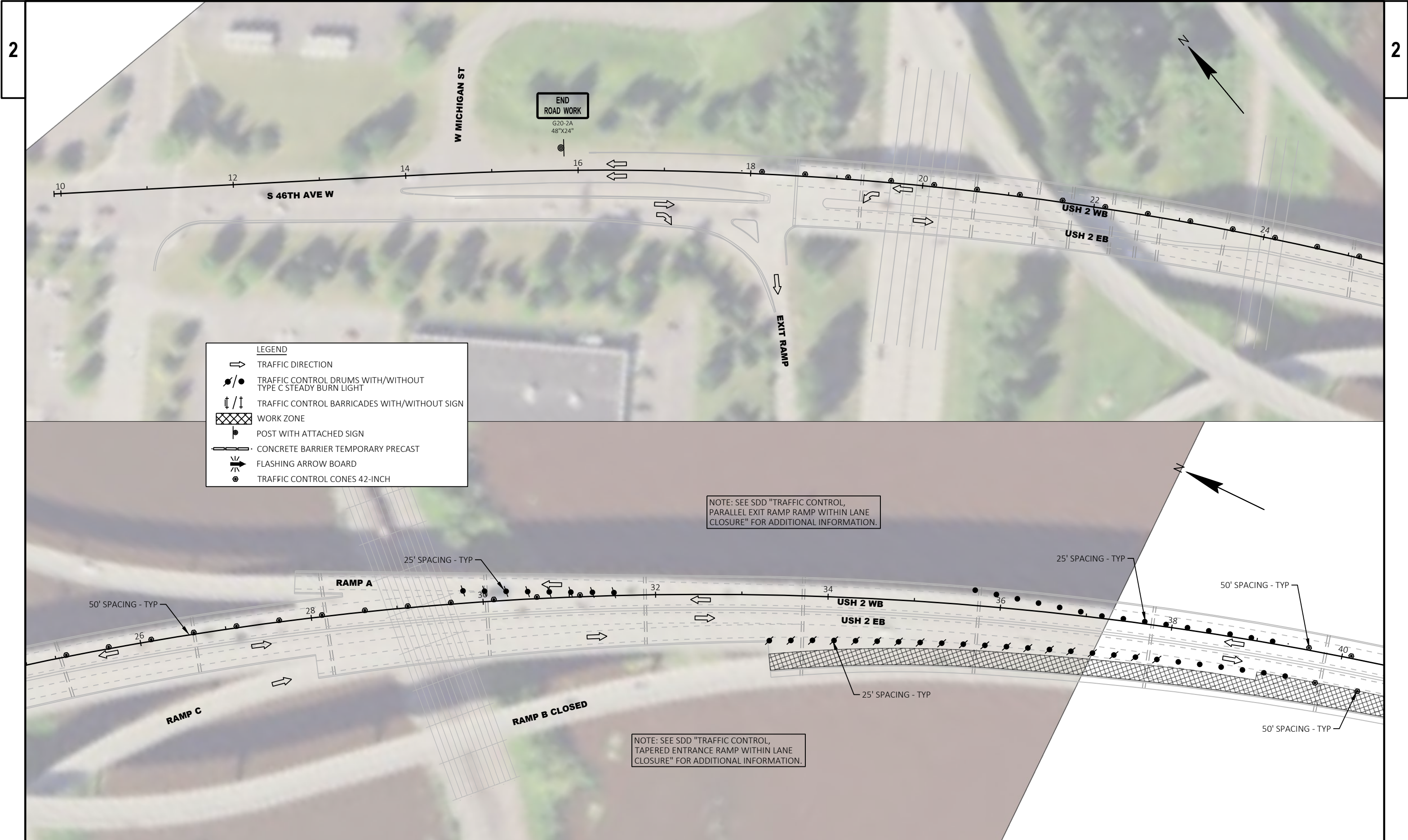
LEGEND	
	TRAFFIC DIRECTION
	TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE C STEADY BURN LIGHT
	TRAFFIC CONTROL BARRICADES WITH/WITHOUT SIGN
	WORK ZONE
	POST WITH ATTACHED SIGN
	CONCRETE BARRIER TEMPORARY PRECAST
	FLASHING ARROW BOARD
	TRAFFIC CONTROL CONES 42-INCH

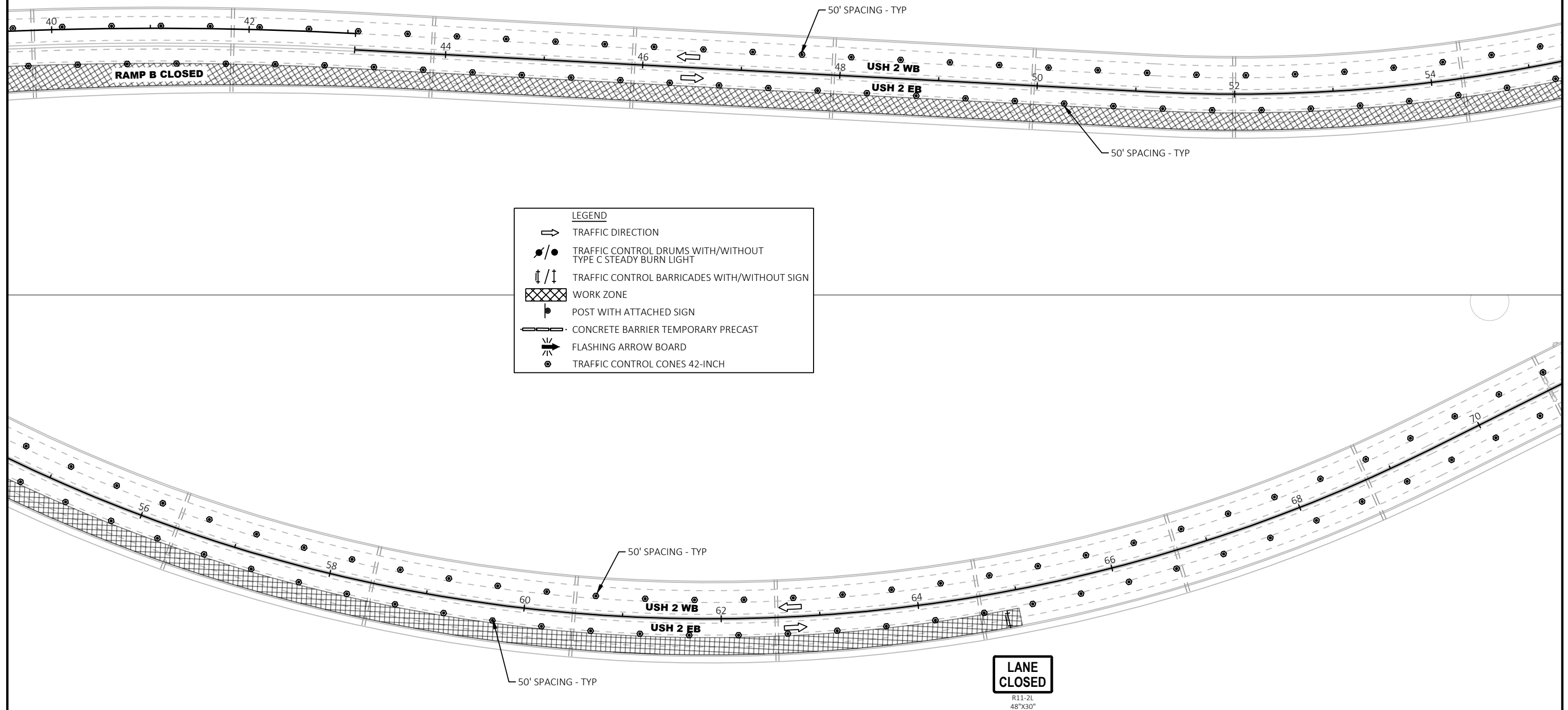


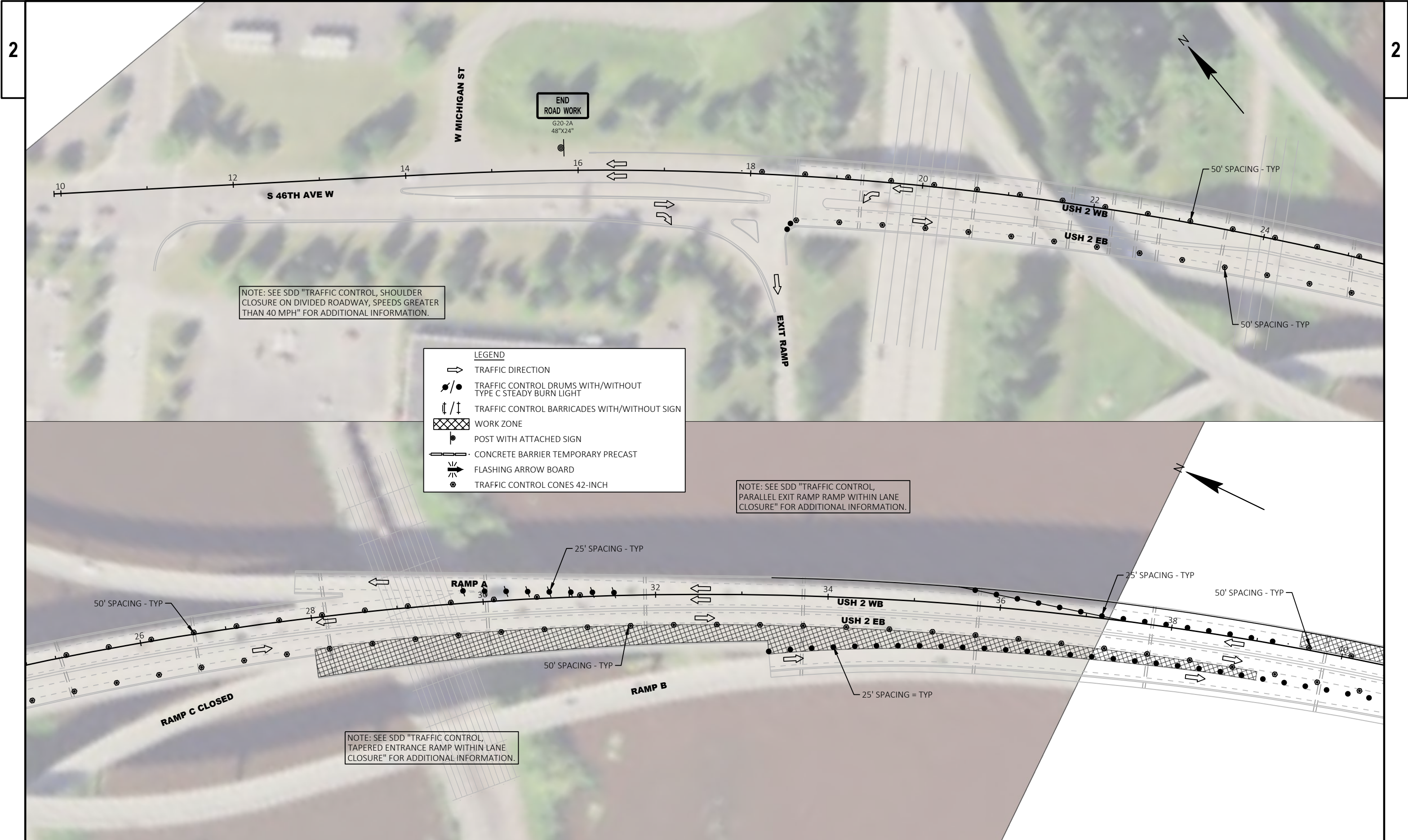
TRAFFIC CONTROL TYPICAL SECTION

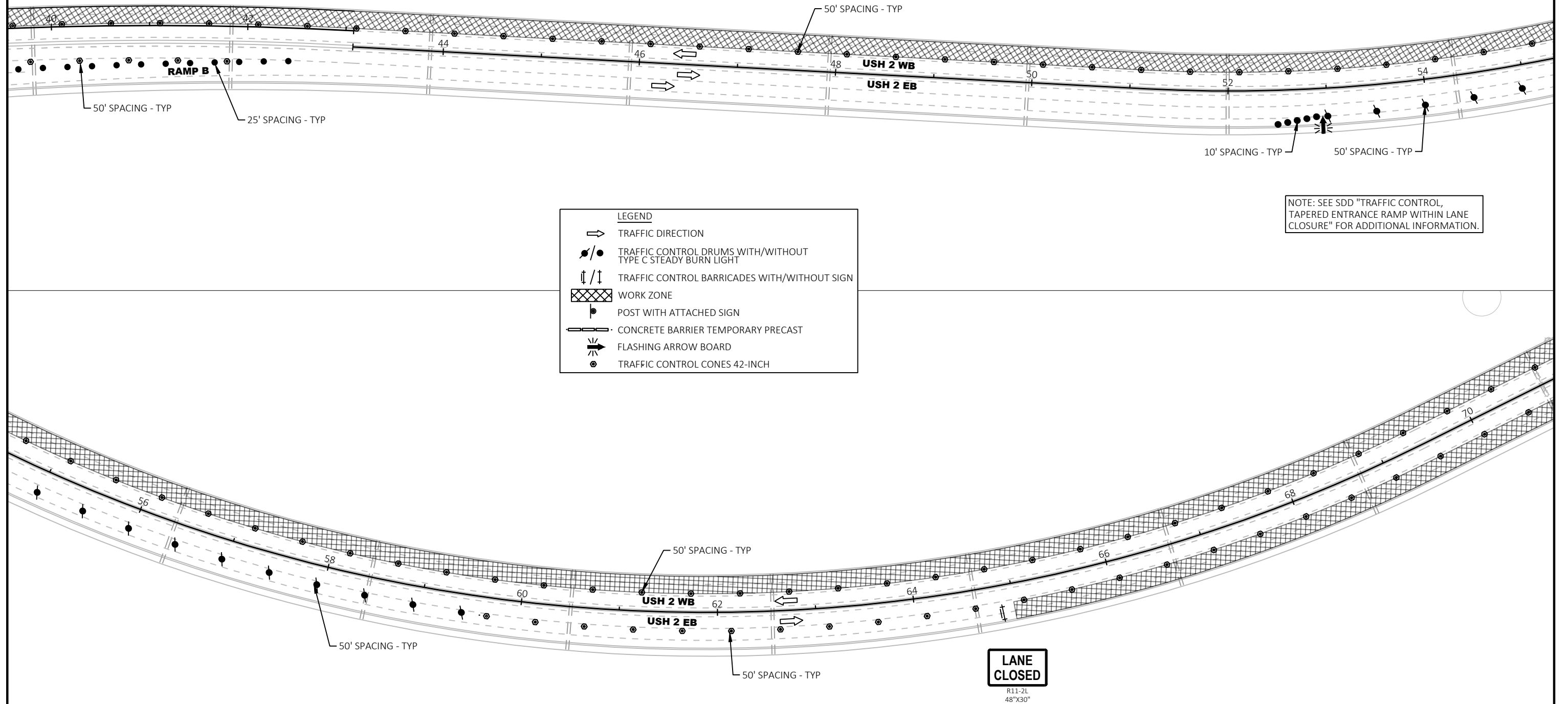


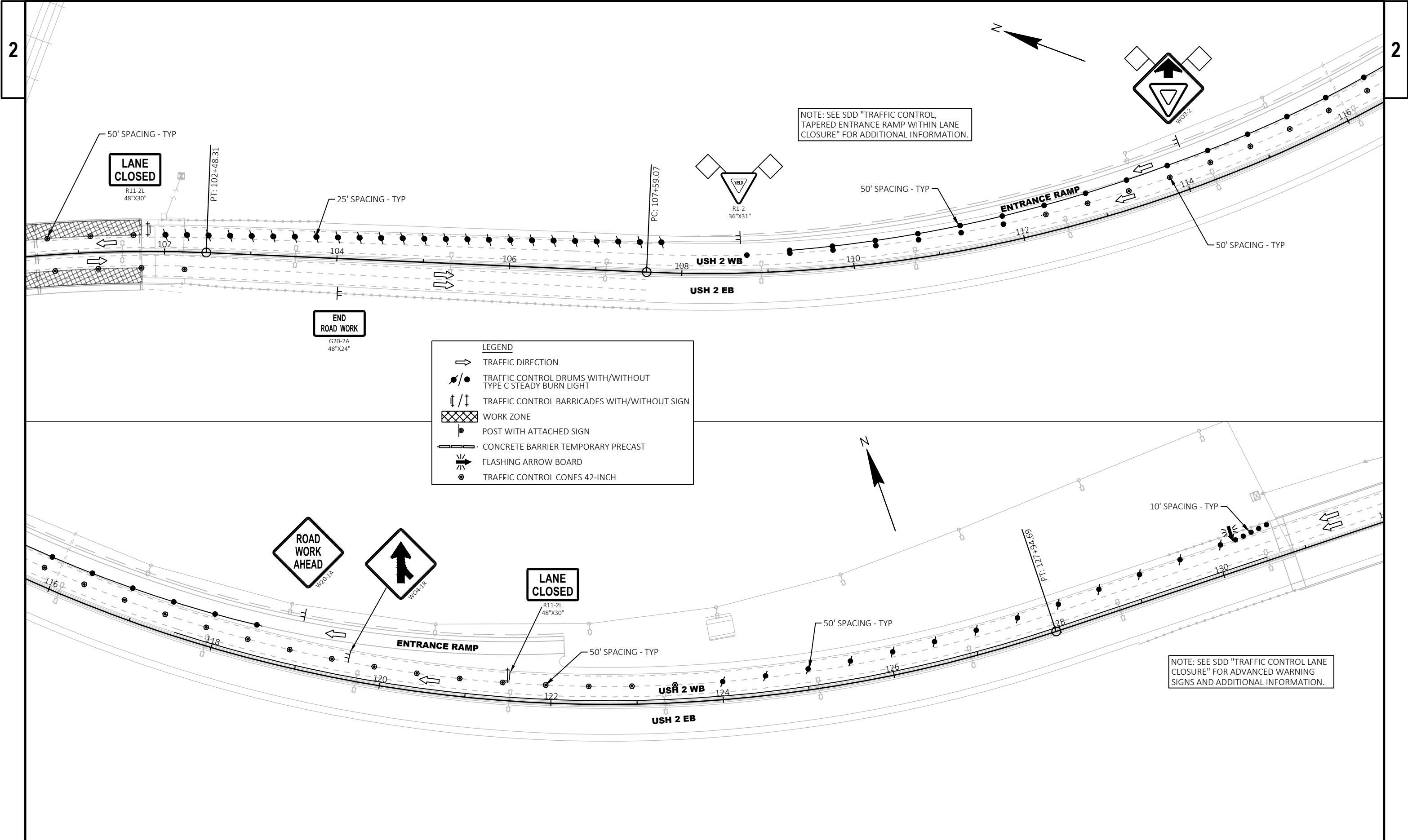


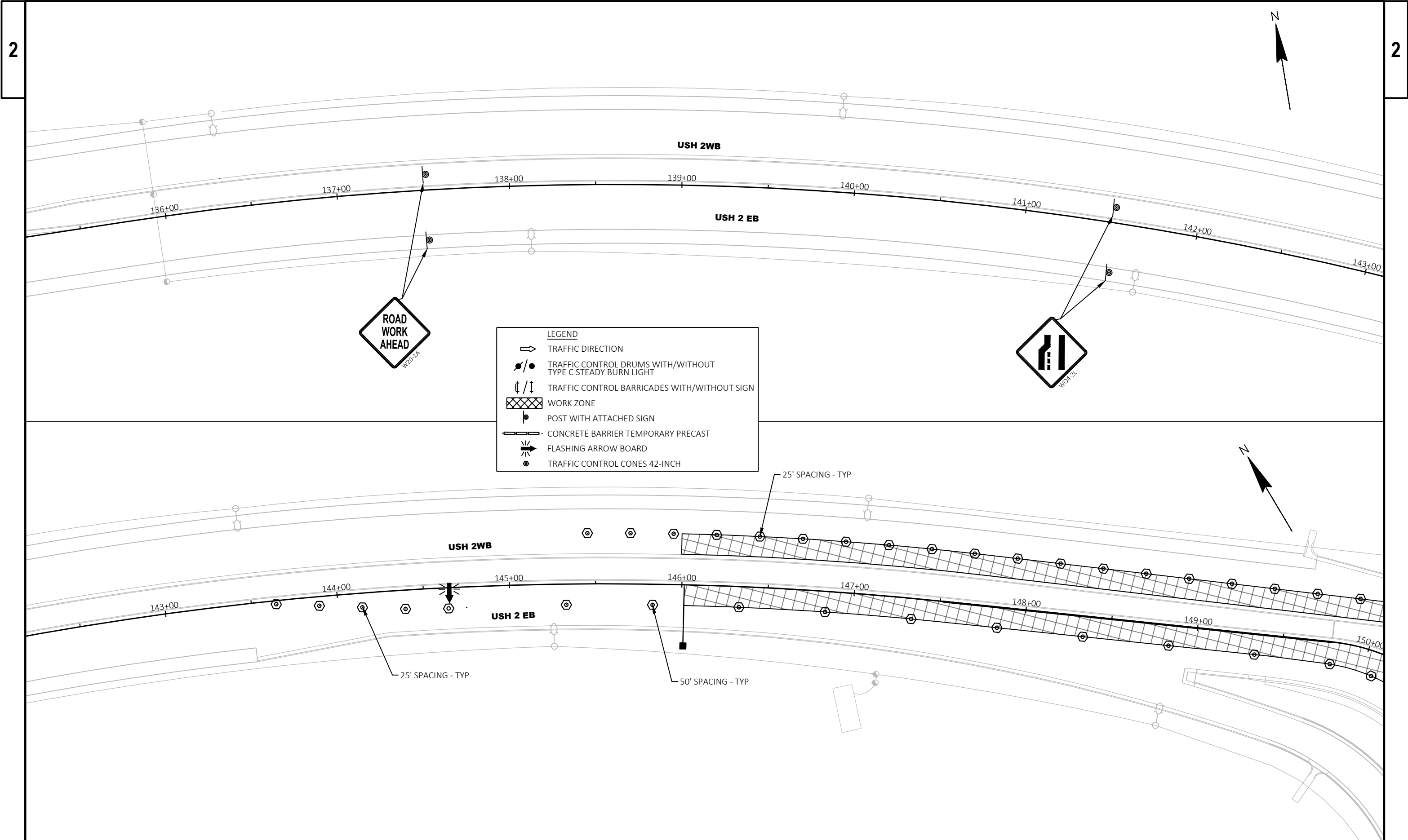


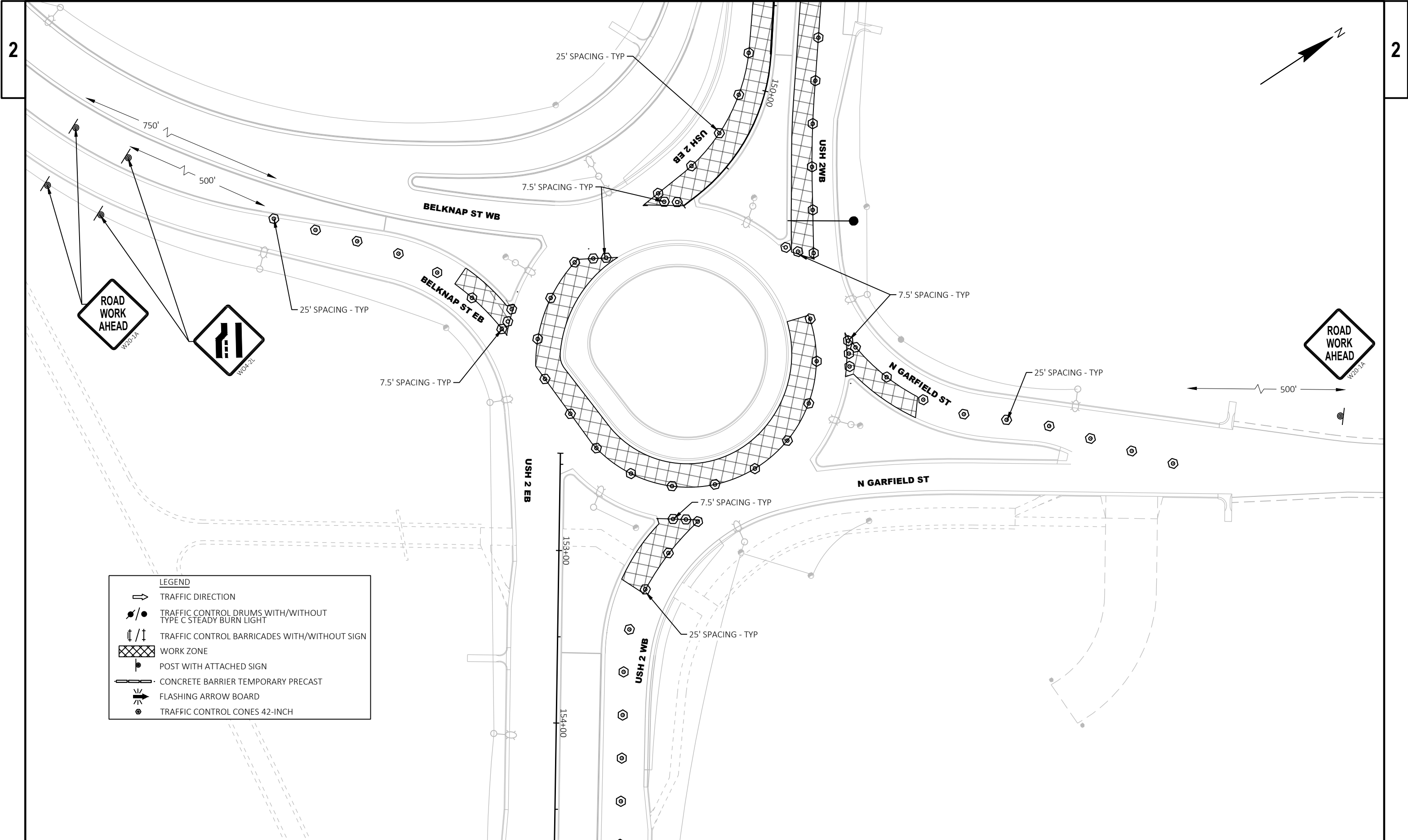


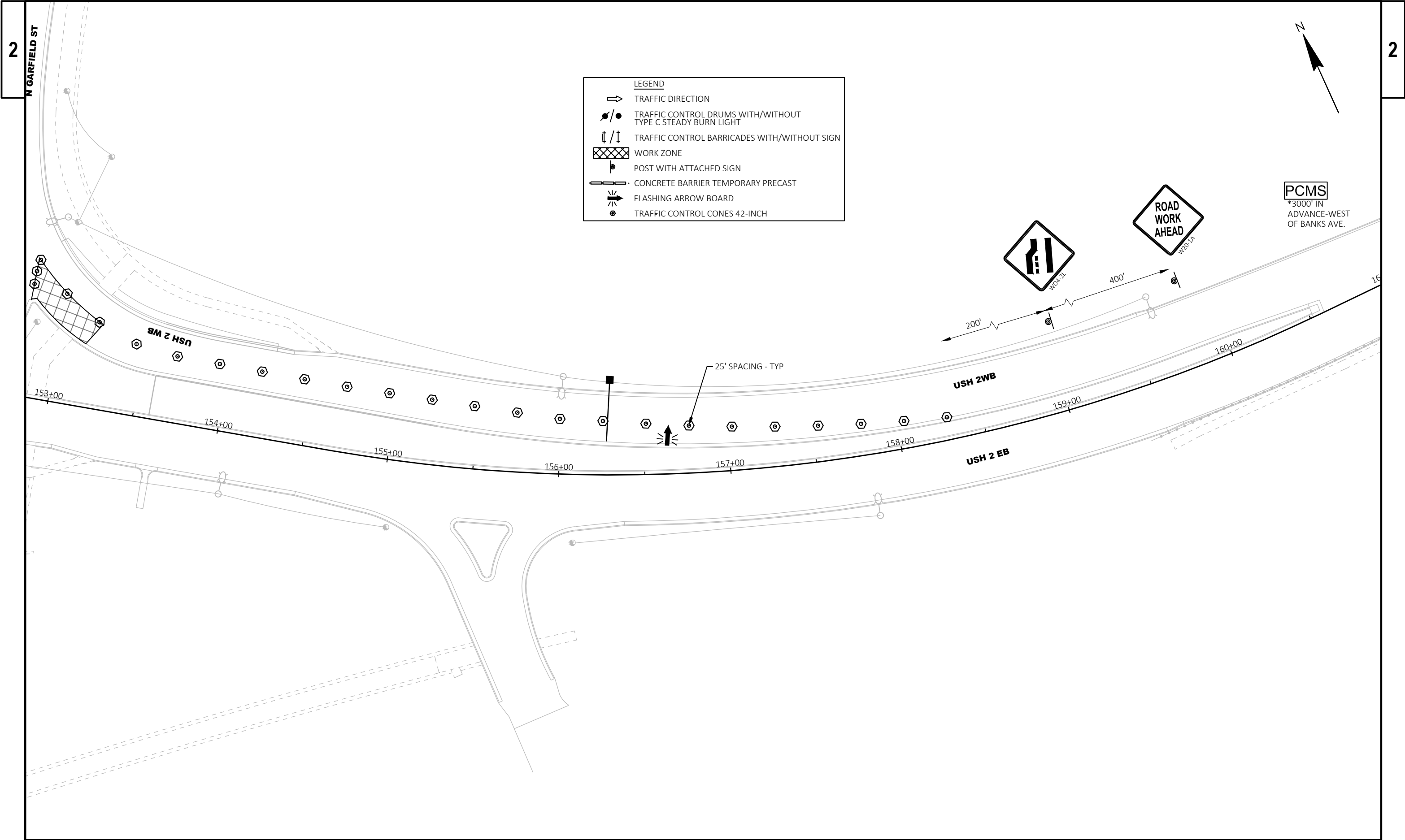




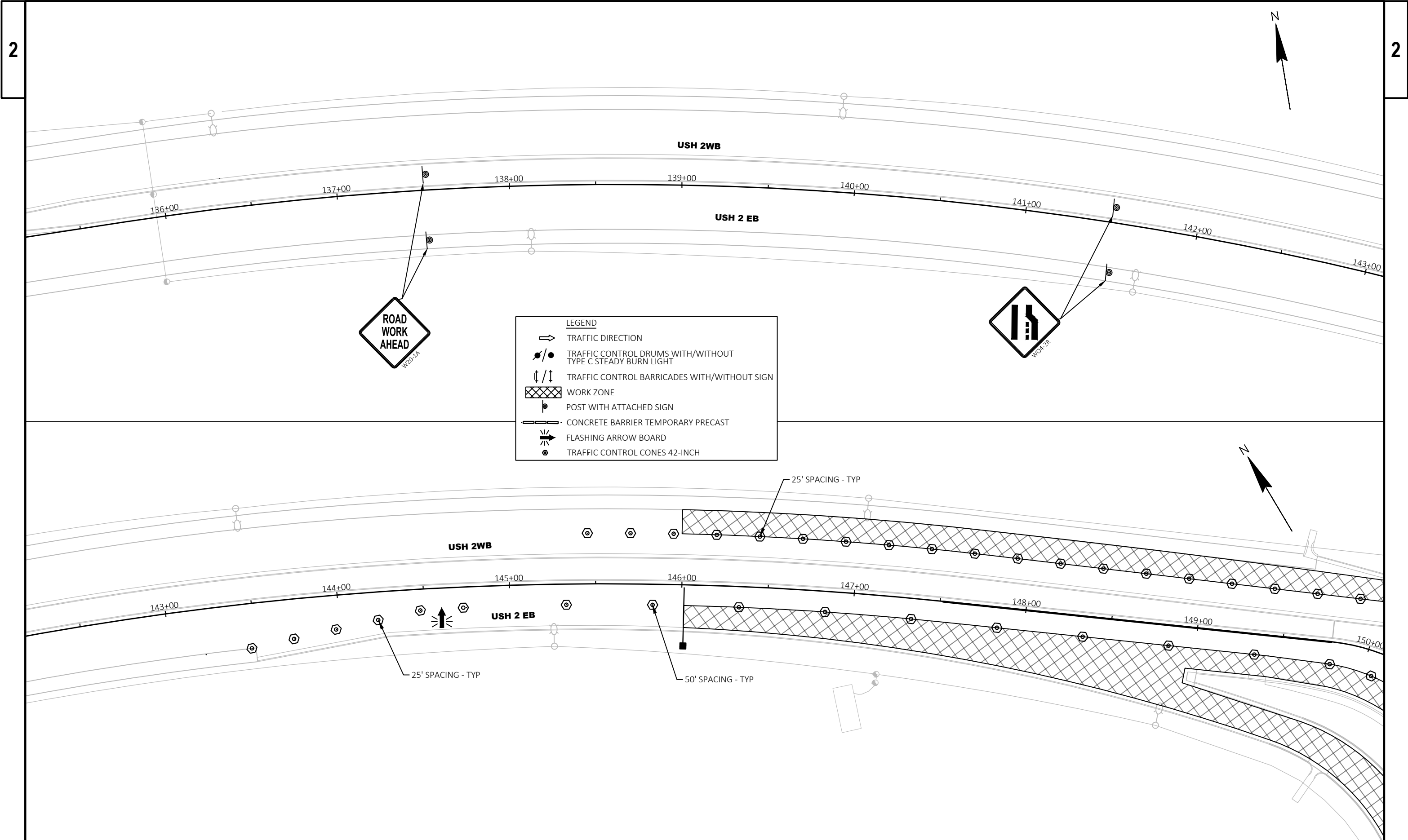


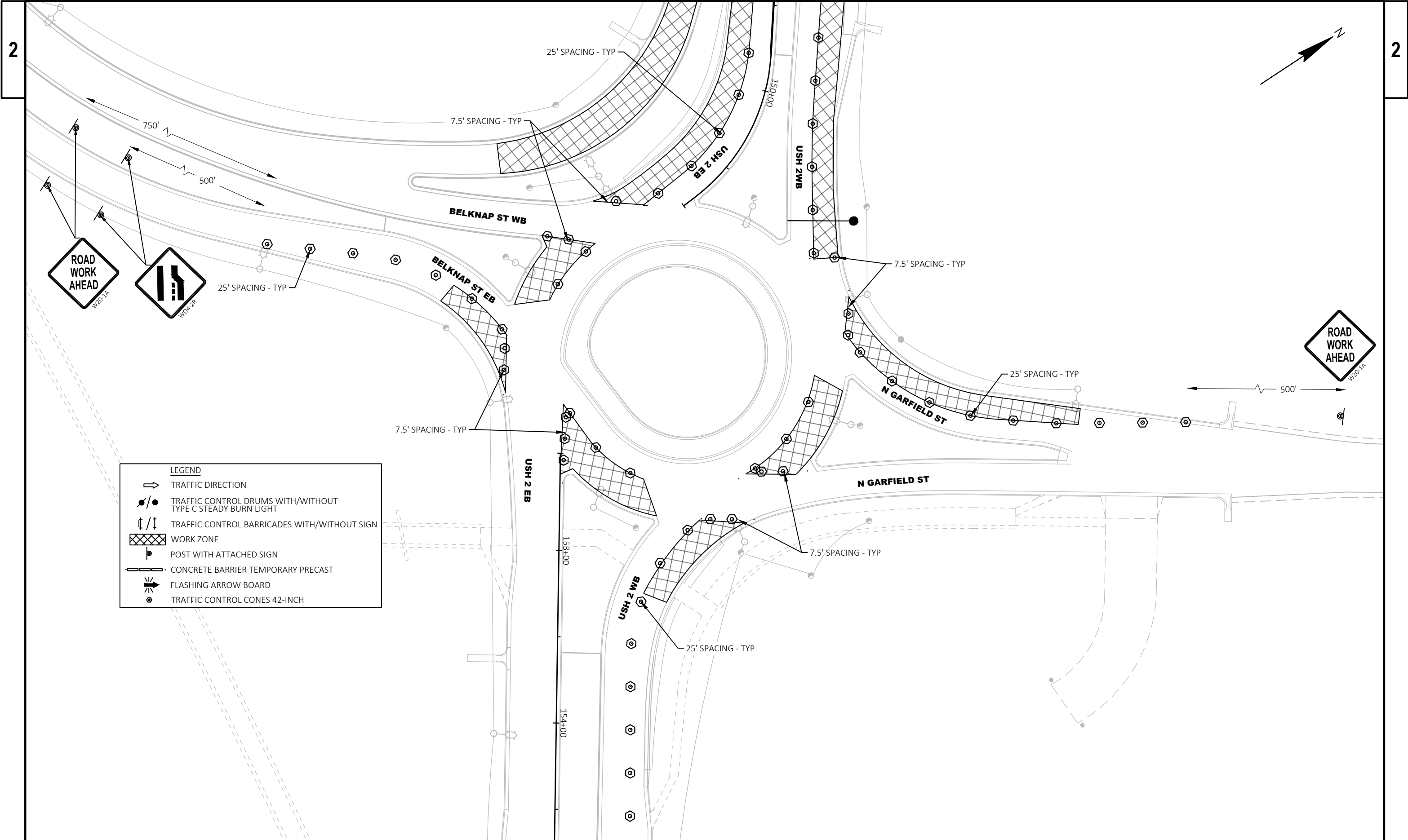


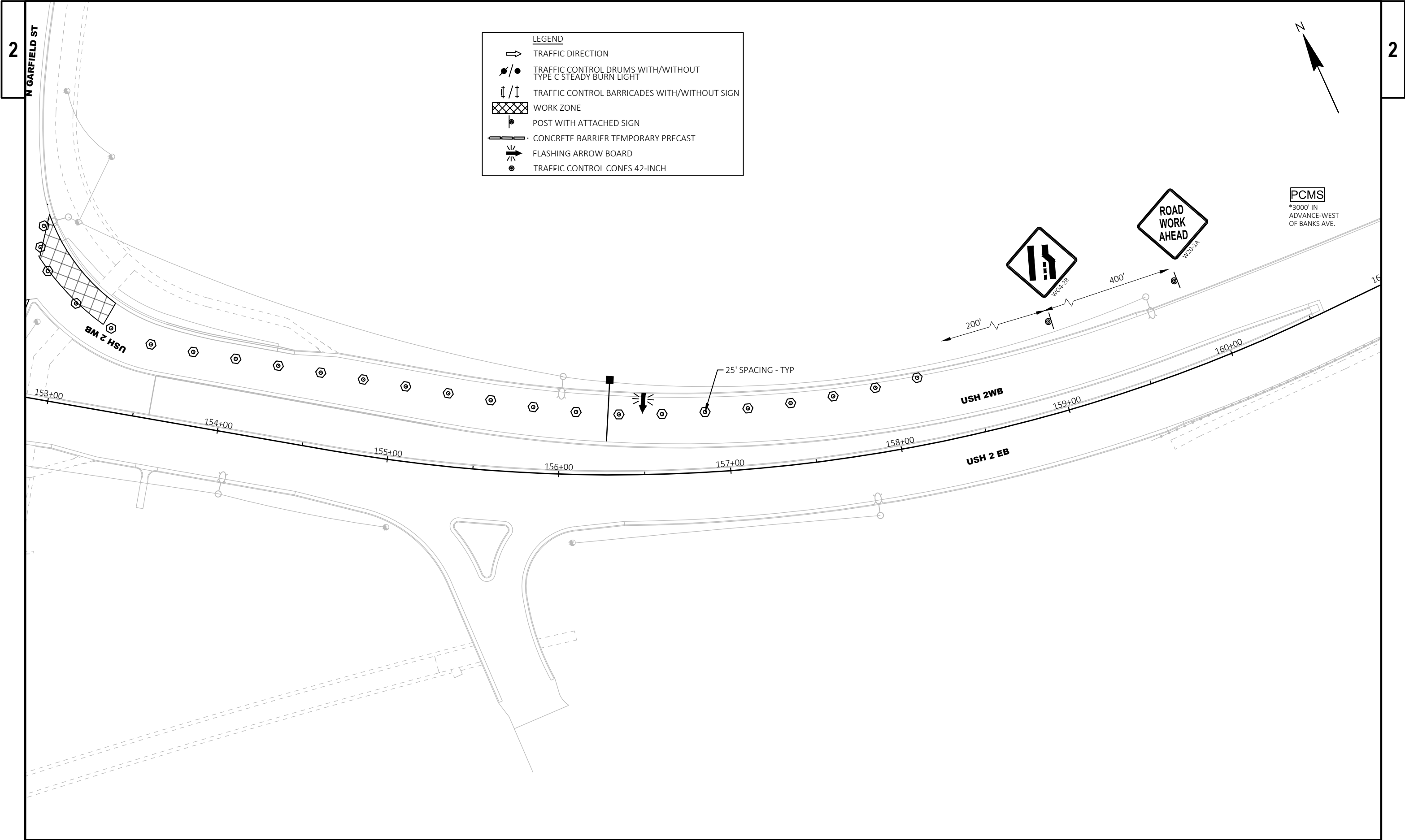




PROJECT NO: 8680-00-74	HWY: USH 2	COUNTY: DOUGLAS	TRAFFIC CONTROL - RAB MARKING (PHASE 1)	SHEET	E
------------------------	------------	-----------------	---	-------	---







FINISHING ROADWAY

213.0100.01 FINISHING ROADWAY (PROJECT) (01. 8680-00-74)	
LOCATION	EACH
PROJECT LIMITS	1
TOTAL 0010	1

STRUCTURE REPAINTING RECYCLED ABRASIVE

517.1801.S.01 STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) (01. B-16-0038)					
CATEGORY	STATION	TO	STATION	LOCATION	EACH
0020	70+80	-	75+80	B-16-0038	1
TOTAL 0020					1

CONCRETE BARRIER TEMPORARY PRECAST

						603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED		
CATEGORY	STATION	TO	STATION	LOCATION	STAGE	LF	LF	REMARKS	
0020	68+80	-	76+65	USH 2 EB	STAGE 2B	785	785		
	69+35	-	77+20	USH 2 WB	STAGE 2B	785	785		
TOTAL 0020						1,570	1,570		
0030	25+40	-	73+30	USH 2 WB	STAGE 1B	4,790	4,790		
				UNDISTRIBUTED		300	300	MOVE/REINSTALLATION OF 8:1 TAPER	
TOTAL 0030						5,090	5,090		
0040	102+00	-	135+00	USH 2 WB	STAGE 1A	3,300	3,300		
				UNDISTRIBUTED		300	300	MOVE/REINSTALLATION OF 8:1 TAPER	
TOTAL 0040						3,600	3,600		
PROJECT TOTAL						10260	10260		

MAINTENANCE AND REPAIR OF HAUL ROADS

618.0100.01 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) (01. 8680-00-74)	
LOCATION	EACH
PROJECT LIMITS	1
TOTAL 0010	1

MOBILIZATION

619.1000 MOBILIZATION EACH	
CATEGORY	LOCATION
0010	8680-00-74
TOTAL 0010	0
0020	8680-00-74
TOTAL 0020	0
0030	8680-00-74
TOTAL 0030	0
0040	8680-00-74
TOTAL 0040	0
0050	8680-00-74
TOTAL 0050	0
PROJECT TOTAL	0

FIELD OFFICE TYPE B

642.5001 FIELD OFFICE TYPE B	
PROJECT	EACH
8680-00-74	1
TOTAL 0010	1

TRAFFIC CONTROL

643.5000 TRAFFIC CONTROL	
PROJECT	EACH
8680-00-74	1
TOTAL 0010	1

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

TRAFFIC CONTROL																		
CATEGORY	LOCATION	DURATION DAYS	#	643.0300	643.0420		643.0705		643.0715		643.0800		643.0900		643.1050		643.1070	
				TRAFFIC CONTROL	TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL	
				DRUMS	III	III	TYPE A	TYPE A	TYPE C	TYPE C	ARROW BOARDS	ARROW BOARDS	SIGNS	SIGNS	SIGNS PCMS	SIGNS PCMS	CONES 42-INCH	CONES 42-INCH
				DAY	#	DAY	#	DAY	#	DAY	#	DAY	#	DAY	#	DAY	#	DAY
0010	STAGE 1A	30	255	7650	12	360	24	720	88	2640	2	60	33	990	2	14	--	--
	STAGE 1B	45	260	11700	13	585	26	1170	19	855	1	45	23	1035	--	--	--	--
	STAGE 2A	20	20	400	16	320	32	640	20	400	2	40	26	520	--	--	398	7,960
	STAGE 2B RAMP A CLOSED	7	124	868	9	63	18	126	51	357	1	7	14	98	--	--	397	2,779
	STAGE 2B RAMP B CLOSED	7	127	889	9	63	18	126	64	448	1	7	14	98	--	--	358	2,506
	STAGE 2B RAMP C CLOSED	7	147	1,029	9	63	18	126	51	357	1	7	14	98	--	--	335	2,345
	RAMP A DETOUR	7	22	154	4	28	6	42	0	0	0	0	35	245	--	--	--	--
	RAMP B DETOUR	7	22	154	4	28	0	0	0	0	0	0	40	280	--	--	--	--
	RAMP C DETOUR	7	22	154	4	28	0	0	0	0	0	0	44	308	--	--	--	--
	USH 2 EB DETOUR	45	0	0	5	225	6	270	0	0	0	0	54	2430	1	7	--	--
	UNDISTRIBUTED			5,752		442		805		1,263		44		1,523		--		3,900
	TOTAL 0010			28,750		2,205		4,025		6,320		210		7,625		21		19,490
0040	PHASE 1 RAB	1		--		--		--		--	2	2	11	11	1	1	141	141
	PHASE 2 RAB	1		--		--		--		--	2	2	11	11	1	1	146	146
	UNDISTRIBUTED			--		--		--		--	--	--	--	8	--	--	--	73
	TOTAL 0040			0		0		0		0		4		30		2		360
PROJECT TOTAL				28750		2205		4025		6320		214		7655		23		19850

TRAFFIC CONTROL COVERING SIGNS & TC SIGNS FIXED MESSAGE

CATEGORY	LOCATION	# OF CYCLES	643.0910	643.0920	643.1000
			TRAFFIC CONTROL COVERING SIGNS	TRAFFIC CONTROL COVERING SIGNS	TRAFFIC CONTROL SIGNS FIXED
			TYPE I EACH	TYPE II EACH	MESSAGE SF
0010	RAMP A DETOUR	1	1	1	73
	RAMP B DETOUR	1	1	1	73
	RAMP C DETOUR	1	1	1	55
	USH 2 EB DETOUR	1	--	--	18
	UNDISTRIBUTED				
TOTAL 0010			3	3	219

TEMPORARY MARKING LINE & MARKING LINE REMOVAL

CATEGORY	LOCATION	643.3165	643.3180	643.3265	646.9010	646.9110
		TEMPORARY MARKING LINE	TEMPORARY MARKING LINE	TEMPORARY MARKING LINE	MARKING REMOVAL LINE	MARKING REMOVAL LINE
		PAINT 6-INCH LF	REMOVABLE TAPE 6-INCH LF	PAINT 10-INCH LF	WATER BLASTING 4-INCH LF	WATER BLASTING 8-INCH LF
0010	STAGE 1A	21,480	330	710	9,980	1,220
	STAGE 1B	--	--	--	--	--
	RAMP A CLOSURE	--	170	--	--	--
	RAMP B CLOSURE	--	170	--	--	--
	RAMP C CLOSURE	--	170	--	--	--
TOTAL 0010		21,480	840	710	9,980	1,220

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

MARKING ARROWS & MARKING WORDS

					SPV.0060.01 SPECIAL (01. MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC)	SPV.0060.02 SPECIAL (02. MARKING WORDS GROOVED PREFORMED THERMOPLASTIC)	SPV.0060.03 SPECIAL (03. MARKING ARROWS PREFORMED THERMOPLASTIC)	SPV.0060.04 SPECIAL (04. MARKING WORDS PREFORMED THERMOPLASTIC)		
CATEGORY	STATION	TO	STATION	LOCATION	EACH	EACH	EACH	EACH	REMARKS	
0010	18+55	-	23+00	USH 2 WB	2	2	--	--	TYPE 2 / "ONLY"	
TOTAL 0010					2	2	0	0		
0040			146+02 EB	RAB WEST LEG	--	--	2	--	TYPE 3R/3	
			148+41 EB	RAB WEST LEG	--	--	3	--	TYPE 3R/1/2	
			149+29 EB	RAB WEST LEG	--	--	2	--	TYPE 3R/1	
			150+83 EB	RAB WEST LEG	--	--	--	2	"YIELD"	
				RAB	--	--	3	--	TYPE 3	
				RAB	--	--	2	--	TYPE 1	
				RAB	--	--	1	--	TYPE 2	
			152+60 WB	RAB EAST LEG	--	--	--	2	"YIELD"	
TOTAL 0040					0	0	13	4		
PROJECT TOTAL					2	2	13	4		

MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH

CATEGORY	STATION	LOCATION	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
			LF
0040	153+05 WB	USH 2 WB	59
	152+92 EB	USH 2 EB	49
TOTAL 0040			108

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

PROJECT	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 8680-00-74)
	EACH
8680-00-74	1
TOTAL 0010	1

INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM

STATION	LOCATION	999.2000.S.01 INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM (STATION) (01. STA 73+30)
		EACH
73+30	USH 2	1
TOTAL 0010		1

METHACRYLATE FLOOD SEAL

					SPV.0180.01 SPECIAL (01. METHACRYLATE FLOOD SEAL (BRIDGE))	SPV.0180.02 SPECIAL (02. METHACRYLATE FLOOD SEAL (RAMPS))
CATEGORY	STATION	TO	STATION	LOCATION	SY	SY
0020	18+53	-	100+72	B-16-0038	66,770	--
TOTAL 0020					66,770	0
0050				RAMP A	--	3,615
				RAMP B	--	6,755
				RAMP C	--	1,370
	TOTAL 0050					0
PROJECT TOTAL					66,770	11,740

STRUCTURE ITEMS

CATEGORY	STRUCTURE	203.0270.01 REMOVING STRUCTURE OVER WATERWAY DEBRIS CAPTURE (STRUCTURE) (01. B-16-0038)	509.1500 CONCRETE SURFACE REPAIR	517.3001.S.01 STRUCTURE OVERCOATING CLEANING AND PRIMING (STRUCTURE) (01. B-16-0038)	517.4001.S.01 CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) (01. B-16-0038)	517.6001.S PORTABLE DECONTAMINATION FACILITY	SPV.0090.02 SPECIAL (02. STRIP SEAL GLAND REPLACEMENT)
		EACH	SF	EACH	EACH	EACH	LF
0020	B-16-0038	1	1,500	1	1	1	166
TOTAL 0020		1	1,500	1	1	1	166

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

LIGHTING REMOVALS						
ITEM		204.0157 REMOVING CONCRETE BARRIER LF	204.0195 REMOVING CONCRETE BASES EACH	204.9060.S REMOVING LIGHTING UNITS EACH	204.9060.S REMOVING LUMINAIRES EACH	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
CATEGORY 0030 (MN)						
EXSL	N4	--	--	1	--	1
EXSL	N7	--	--	1	--	1
EXSL	L4	--	--	1	--	1
EXSL	L5	--	--	1	--	1
EXSL	L6	--	--	1	--	1
EXSL	L7/L8	--	--	1	--	2
EXSL	L9/L10	--	--	1	--	2
EXSL	L11/L12	--	--	1	--	2
EXSL	L13/L14	--	--	1	--	2
EXSL	A1/A40	--	--	1	--	2
EXSL	A2/A39	--	--	1	--	2
EXSL	A3/A38	--	--	1	--	2
EXSL	A4/A37	--	--	1	--	2
EXSL	A5/A36	--	--	1	--	2
EXSL	A6/A35	--	--	1	--	2
EXSL	A7/A34	--	--	1	--	2
EXSL	A8/A33	--	--	1	--	2
EXSL	A9/A32	--	--	1	--	2
EXSL	A10/A31	--	--	1	--	2
EXSL	A11/A30	--	--	1	--	2
EXSL	A12/A29	--	--	1	--	2
EXSL	A13/A28	--	--	1	--	2
EXSL	A14/A27	--	--	1	--	2
EXSL	A15/A26	--	--	1	--	2
EXSL	A16/A25	--	--	1	--	2
EXSL	A17/A24	--	--	1	--	2
EXSL	A18/A23	--	--	1	--	2
EXSL	A19/A22	--	--	1	--	2
EXSL	A20/A21	--	--	1	--	2
CATEGORY 0030 SUBTOTAL		0	0	29	0	53

LIGHTING LINEAR REMOVALS				
FROM - TO		204.9090.S REMOVING ELECTRICAL CONDUCTORS FROM EXISTING CONDUIT LF	204.9090.S REMOVING OR ABANDONING EXISTING CONDUIT LF	
CATEGORY 0030 (MN)				
CB B93N -	EXSL N7	500	--	
CB B93N -	EXSL N4	750	--	
CB B93L -	EXSL L6	1200	--	
CB B93L -	EXSL L13/L14	900	--	
CB 69A1 -	EXSL A1/A10	2000	--	
CB 69A1 -	EXSL A20/A21	2000	--	
CATEGORY 0300 SUBTOTAL		7350	0	
CATEGORY 0040 (WI)				
CB 100 -	EXSL 100	--	--	
CB 200 -	EXSL 218	--	--	
CB 200 -	EXPB 201	150	--	
EXSL 200 -	EXSL 217	3100	2900	
CATEGORY 0400 SUBTOTAL		3250	2900	
PROJECT TOTAL		10600	2900	

LIGHTING REMOVALS (CONTINUED)						
ITEM		204.0157 REMOVING CONCRETE BARRIER LF	204.0195 REMOVING CONCRETE BASES EACH	204.9060.S REMOVING LIGHTING UNITS EACH	204.9060.S REMOVING LUMINAIRES EACH	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
CATEGORY 0040 (WI)						
EXSL	100	--	--	--	2	2
EXSL	101	--	--	--	2	2
EXSL	102	--	--	--	2	2
EXSL	103	--	--	--	2	2
EXSL	104	--	--	--	2	2
EXSL	105	--	--	--	2	2
EXSL	106	--	--	--	2	2
EXSL	107	--	--	--	2	2
EXSL	108	--	--	--	2	2
EXSL	109	--	--	--	2	2
EXSL	110	--	--	--	2	2
EXSL	111	--	--	--	2	2
EXSL	112	--	--	--	2	2
EXSL	113	--	--	--	2	2
EXSL	114	--	--	--	2	2
EXSL	200	15	1	1	--	2
EXSL	201	15	1	1	--	2
EXSL	202	15	1	1	--	2
EXSL	203	15	1	1	--	2
EXSL	204	15	1	1	--	2
EXSL	205	15	1	1	--	2
EXSL	206	15	1	1	--	2
EXSL	207	15	1	1	--	2
EXSL	208	15	1	1	--	2
EXSL	209	15	1	1	--	2
EXSL	210	15	1	1	--	2
EXSL	211	15	1	1	--	2
EXSL	212	15	1	1	--	2
EXSL	213	15	1	1	--	2
EXSL	214	15	1	1	--	2
EXSL	215	15	1	1	--	2
EXSL	216	15	1	1	--	2
EXSL	217	15	1	1	--	2
EXSL	218	--	--	--	1	1
EXSL	219	--	--	--	1	1
EXSL	220	--	--	--	1	1
EXSL	221	--	--	--	1	1
EXSL	222	--	--	--	1	1
EXSL	223	--	--	--	1	1
EXSL	224	--	--	--	1	1
EXSL	225	--	--	--	1	1
EXSL	226	--	--	--	1	1
EXSL	227	--	--	--	1	1
EXSL	228	--	--	--	1	1
EXPB	201	15	--	--	--	1
CATEGORY 0040 SUBTOTAL		285	18	18	41	78
PROJECT TOTAL		285	18	47	41	131

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

STREET LIGHTS												
		603.0105 *	657.0255	657.0322	657.0610	659.1120	SPV.0060.XX	SPV.0060.XX	SPV.0060.XX	655.0610		
		CONCRETE BARRIER	TRANSFORMER BASES	POLES	LUMINAIRE ARMS SINGLE	LUMINAIRES	MNDOT	MNDOT	CONCRETE	ELECTRICAL		
		SINGLE-FACED	BREAKAWAY 11 1/2-INCH	TYPE 5	MEMBER 4 1/2-INCH	UTILITY	LIGHTING UNIT	LIGHTING UNIT	BASES	WIRE LIGHTING		
		32-INCH	BOLT CIRCLE	ALUMINUM	CLAMP 6-FT	LED B	TYPE 1	TYPE 2	TYPE 5 - TALL	12 AWG		
LIGHT	STATION	OFFSET	R/L	LF	EACH	EACH	EACH	EACH	LF	LF	EACH	LF
CATEGORY 0030 (MN)												
SL N4	27+34'US2MINN'	88.9'	RT	--	--	--	--	--	--	1	--	180
SL N7	27+28'US2MINN'	77.4'	LT	--	--	--	--	--	--	1	--	180
SL L4	27+43'US2MINN'	172.1'	RT	--	--	--	--	--	--	1	--	180
SL L5	29+92'US2MINN'	130.1'	RT	--	--	--	--	--	--	1	--	180
SL L6	32+01'US2MINN'	86.4'	RT	--	--	--	--	--	--	1	--	180
SL L7/L8	25+77'US2MINN'	16.5'	RT	--	--	--	--	--	1	--	--	360
SL L9/L10	27+27'US2MINN'	16.5'	RT	--	--	--	--	--	1	--	--	360
SL L11/L12	28+89'US2MINN'	16.5'	RT	--	--	--	--	--	1	--	--	360
SL L13/L14	30+71'US2MINN'	16.5'	RT	--	--	--	--	--	1	--	--	360
SL A1/A40	32+64'US2MINN'	16.5'	RT	--	--	--	--	--	1	--	--	360
SL A2/A39	34+54'US2MINN'	16.5'	RT	--	--	--	--	--	1	--	--	360
SL A3/A38	36+64'US2MINN'	16.5'	RT	--	--	--	--	--	1	--	--	360
SL A4/A37	38+59'US2MINN'	16.5'	RT	--	--	--	--	--	1	--	--	360
SL A5/A36	40+62'US2MINN'	16.5'	RT	--	--	--	--	--	1	--	--	360
SL A6/A35	42+60'US2MINN'	16.5'	RT	--	--	--	--	--	1	--	--	360
SL A7/A34	44+61'US2R 1'	0.0'	LT	--	--	--	--	--	1	--	--	360
SL A8/A33	46+62'US2R 1'	0.0'	LT	--	--	--	--	--	1	--	--	360
SL A9/A32	48+55'US2R 1'	0.0'	LT	--	--	--	--	--	1	--	--	360
SL A10/A31	50+57'US2R 1'	0.0'	LT	--	--	--	--	--	1	--	--	360
SL A11/A30	52+64'US2R 1'	0.0'	LT	--	--	--	--	--	1	--	--	360
SL A12/A29	54+70'US2R 1'	0.0'	LT	--	--	--	--	--	1	--	--	360
SL A13/A28	56+89'US2R 1'	0.0'	LT	--	--	--	--	--	1	--	--	360
SL A14/A27	58+57'US2R 1'	0.0'	LT	--	--	--	--	--	1	--	--	360
SL A15/A26	60+63'US2R 1'	0.0'	LT	--	--	--	--	--	1	--	--	360
SL A16/A25	62+83'US2R 1'	0.0'	LT	--	--	--	--	--	1	--	--	360
SL A17/A24	64+85'US2R 1'	0.0'	LT	--	--	--	--	--	1	--	--	360
SL A18/A23	66+91'US2R 1'	0.0'	LT	--	--	--	--	--	1	--	--	360
SL A19/A22	69+10'US2R 1'	0.0'	LT	--	--	--	--	--	1	--	--	360
SL A20/A21	70+80'US2R 1'	0.0'	LT	--	--	--	--	--	1	--	--	180
CATEGORY 0030 TOTAL				0	0	0	0	0	24	5	0	9360

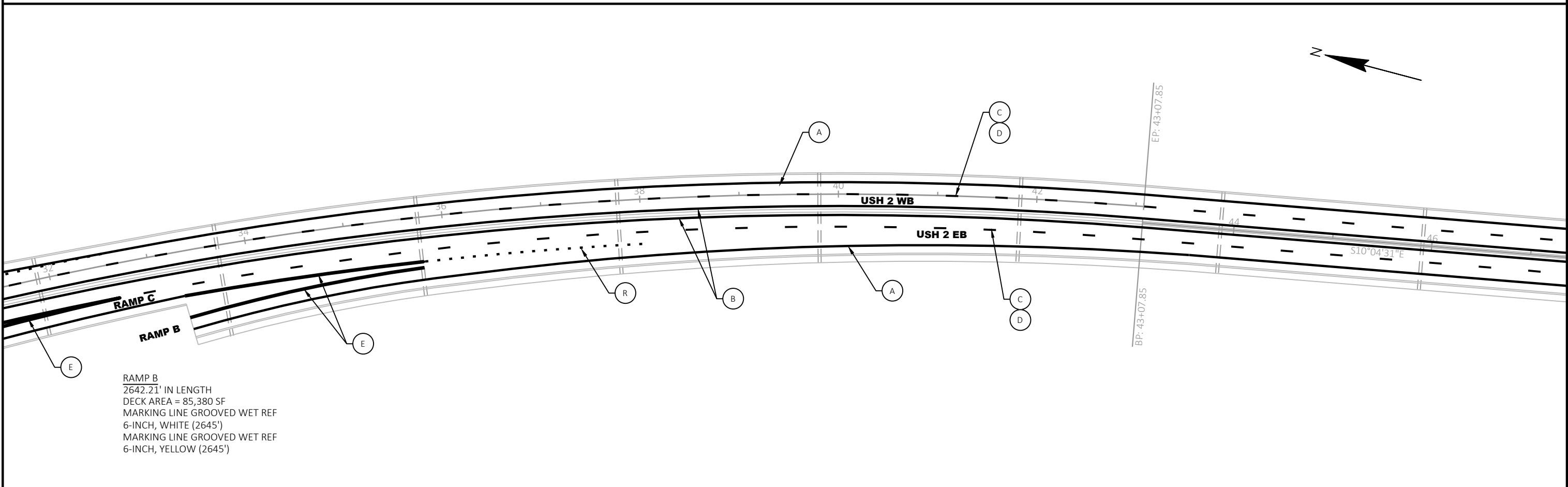
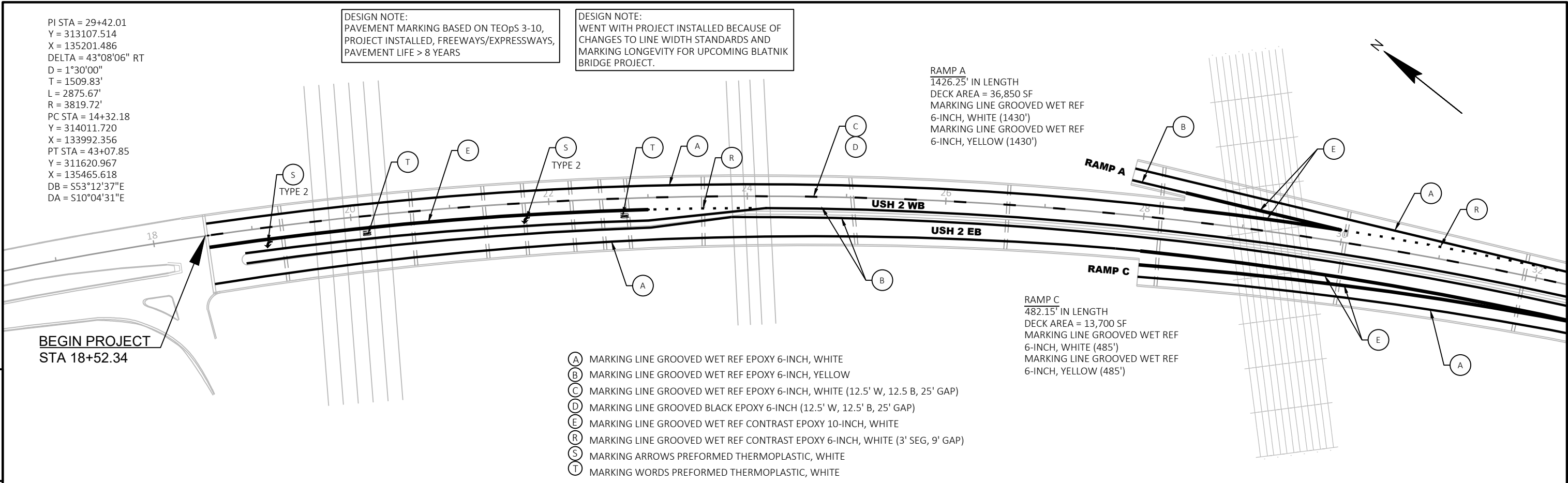
STREET LIGHTS (CONTINUED)												
				603.0105 *	657.0255	657.0322	657.0610	659.1120	SPV.0060.XX	SPV.0060.XX	SPV.0060.XX	655.0610
				CONCRETE BARRIER	TRANSFORMER BASES	POLES	LUMINAIRE ARMS SINGLE	LUMINAIRES	MNDOT	MNDOT	CONCRETE	ELECTRICAL
				SINGLE-FACED	BREAKAWAY 11 1/2-INCH	TYPE 5	MEMBER 4 1/2-INCH	UTILITY	LIGHTING UNIT	LIGHTING UNIT	BASES	WIRE LIGHTING
LIGHT	STATION	OFFSET	R/L	32-INCH	BOLT CIRCLE	ALUMINUM	CLAMP 6-FT	LED B	TYPE 1	TYPE 2	TYPE 5 - TALL	12 AWG
NUMBER				LF	EACH	EACH	EACH	EACH	LF	LF	EACH	LF
CATEGORY 0040 (WI)												
SL 100	73+30'US2R 1'	0.0'	LT	--	--	--	--	2	--	--	--	--
SL 101	75+80'US2R 1'	0.1'	LT	--	--	--	--	2	--	--	--	--
SL 102	77+96'US2R 1'	0.1'	LT	--	--	--	--	2	--	--	--	--
SL 103	79+96'US2R 1'	0.0'	LT	--	--	--	--	2	--	--	--	--
SL 104	81+95'US2R 1'	0.0'	LT	--	--	--	--	2	--	--	--	--
SL 105	83+75'US2R 1'	0.0'	LT	--	--	--	--	2	--	--	--	--
SL 106	85+75'US2R 1'	0.0'	LT	--	--	--	--	2	--	--	--	--
SL 107	87+74'US2R 1'	0.5'	RT	--	--	--	--	2	--	--	--	--
SL 108	89+65'US2R 1'	0.1'	RT	--	--	--	--	2	--	--	--	--
SL 109	97+47'US2R 1'	0.1'	LT	--	--	--	--	2	--	--	--	--
SL 110	93+41'US2R 1'	0.2'	RT	--	--	--	--	2	--	--	--	--
SL 111	95+30'US2R 1'	0.2'	LT	--	--	--	--	2	--	--	--	--
SL 112	97+05'US2R 1'	0.1'	LT	--	--	--	--	2	--	--	--	--
SL 113	99+30'US2R 1'	0.1'	LT	--	--	--	--	2	--	--	--	--
SL 114	101+51'US2R 1'	0.1'	LT	--	--	--	--	2	--	--	--	--
SL 200	103+52'US2R 1'	0.1'	LT	15	1	1	2	2	--	--	1	360
SL 201	105+32'US2R 1'	0.1'	LT	15	1	1	2	2	--	--	1	360
SL 202	107+12'US2R 1'	0.1'	LT	15	1	1	2	2	--	--	1	360
SL 203	108+92'US2R 1'	0.3'	LT	15	1	1	2	2	--	--	1	360
SL 204	110+72'US2R 1'	0.1'	LT	15	1	1	2	2	--	--	1	360
SL 205	112+52'US2R 1'	0.3'	LT	15	1	1	2	2	--	--	1	360
SL 206	114+32'US2R 1'	0.1'	LT	15	1	1	2	2	--	--	1	360
SL 207	116+12'US2R 1'	0.3'	LT	15	1	1	2	2	--	--	1	360
SL 208	117+92'US2R 1'	0.0'	LT	15	1	1	2	2	--	--	1	360
SL 209	119+72'US2R 1'	0.2'	LT	15	1	1	2	2	--	--	1	360
SL 210	121+52'US2R 1'	0.3'	LT	15	1	1	2	2	--	--	1	360
SL 211	123+32'US2R 1'	0.1'	LT	15	1	1	2	2	--	--	1	360
SL 212	125+12'US2R 1'	0.2'	RT	15	1	1	2	2	--	--	1	360
SL 213	126+92'US2R 1'	0.0'	LT	15	1	1	2	2	--	--	1	360
SL 214	128+73'US2R 1'	0.0'	LT	15	1	1	2	2	--	--	1	360
SL 215	130+54'US2R 1'	0.1'	LT	15	1	1	2	2	--	--	1	360
SL 216	132+32'US2R 1'	0.1'	LT	15	1	1	2	2	--	--	1	360
SL 217	134+12'US2R 1'	0.0'	LT	15	1	1	2	2	--	--	1	360
SL 218	113+41'US2R 1'	64.1'	LT	--	--	--	--	1	--	--	--	--
SL 219	115+20'US2R 1'	67.2'	LT	--	--	--	--	1	--	--	--	--
SL 220	117+02'US2R 1'	68.8'	LT	--	--	--	--	1	--	--	--	--
SL 221	118+79'US2R 1'	73.3'	LT	--	--	--	--	1	--	--	--	--
SL 222	120+55'US2R 1'	80.0'	LT	--	--	--	--	1	--	--	--	--
SL 223	122+43'US2R 1'	93.4'	LT	--	--	--	--	1	--	--	--	--
SL 224	124+00'US2R 1'	107.0'	LT	--	--	--	--	1	--	--	--	--
SL 225	125+60'US2R 1'	126.0'	LT	--	--	--	--	1	--	--	--	--
SL 226	127+18'US2R 1'	146.0'	LT	--	--	--	--	1	--	--	--	--
SL 227	128+75'US2R 1'	158.0'	LT	--	--	--	--	1	--	--	--	--
SL 228	130+25'US2R 1'	168.0'	LT	--	--	--	--	1	--	--	--	--
CATEGORY 0040 TOTAL				270	18	18	36	77	0	0	18	6480
PROJECT TOTAL				270	18	18	36	77	24	5	18	15840

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

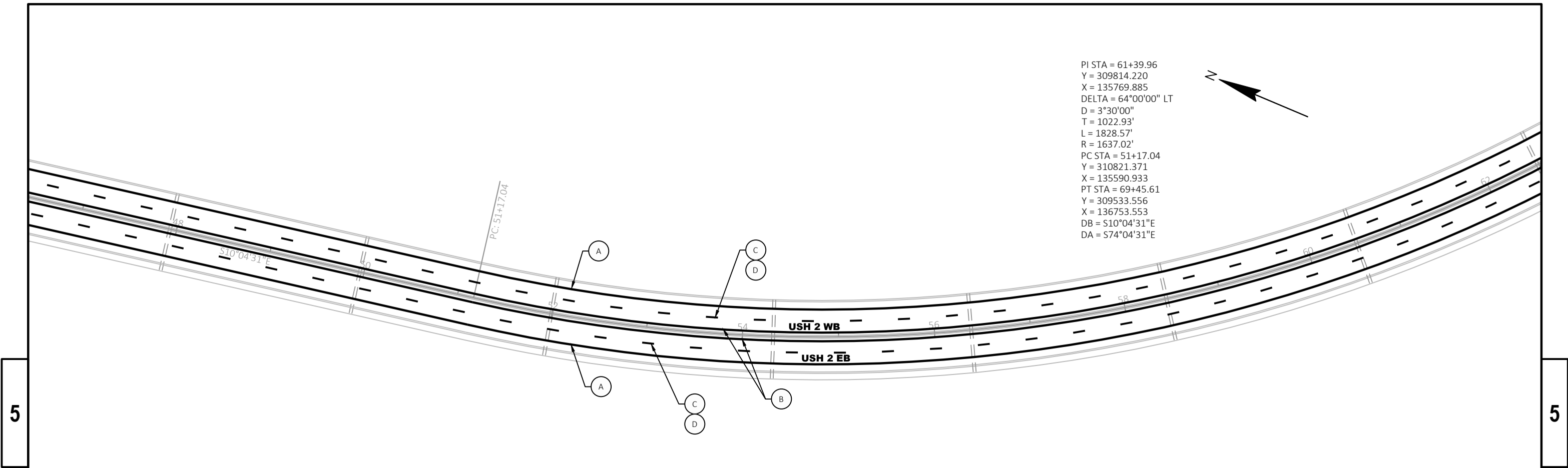
LIGHTING CONDUIT AND WIRE					
		652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH		655.0630 ELECTRICAL WIRE LIGHTING 4 AWG	
FROM	-	TO	LF	LF	REMARKS
CATEGORY 0030 (MN)					
CB B93N	-	EXSL N7	--	2000	EXISTING CONDUIT
CB B93N	-	EXSL N4	--	3000	EXISTING CONDUIT
CB B93L	-	EXSL L6	--	4800	EXISTING CONDUIT
CB B93L	-	EXSL L13/L14	--	3600	EXISTING CONDUIT
CB 69A1	-	EXSL A1/A10	--	8000	EXISTING CONDUIT
CB 69A1	-	EXSL A20/A21	--	8000	EXISTING CONDUIT
CATEGORY 0030 TOTAL			0	29400	
LIGHTING CONDUIT AND WIRE (CONTINUED)					
		652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40		655.0630 ELECTRICAL WIRE LIGHTING 4 AWG	
FROM	-	TO	LF	LF	REMARKS
CATEGORY 0040 (WI)					
CB 100	-	EXSL 100	--	--	--
CB 200	-	EXSL 218	--	--	--
CB 200	-	EXPB 201	--	600	EXISTING CONDUIT
EXSL 200	-	EXSL 217	2900	12,400	--
CATEGORY 0040 TOTAL			2900	13000	
PROJECT TOTAL			2900	42400	

LIGHTING PULLBOXES						
PULLBOX		603.0105 *			652.0700.S	
NUMBER	STATION	OFFSET	R/L	CONCRETE BARRIER SINGLE-FACED 32-INCH LF	INSTALL CONDUIT INTO EXISTING EACH	
ALL ITEMS ARE CATEGORY 0040 (WI)						
EXPB 201	130+25'US2R 1'	0.1'	LT	15	1	
PROJECT TOTAL				15	1	

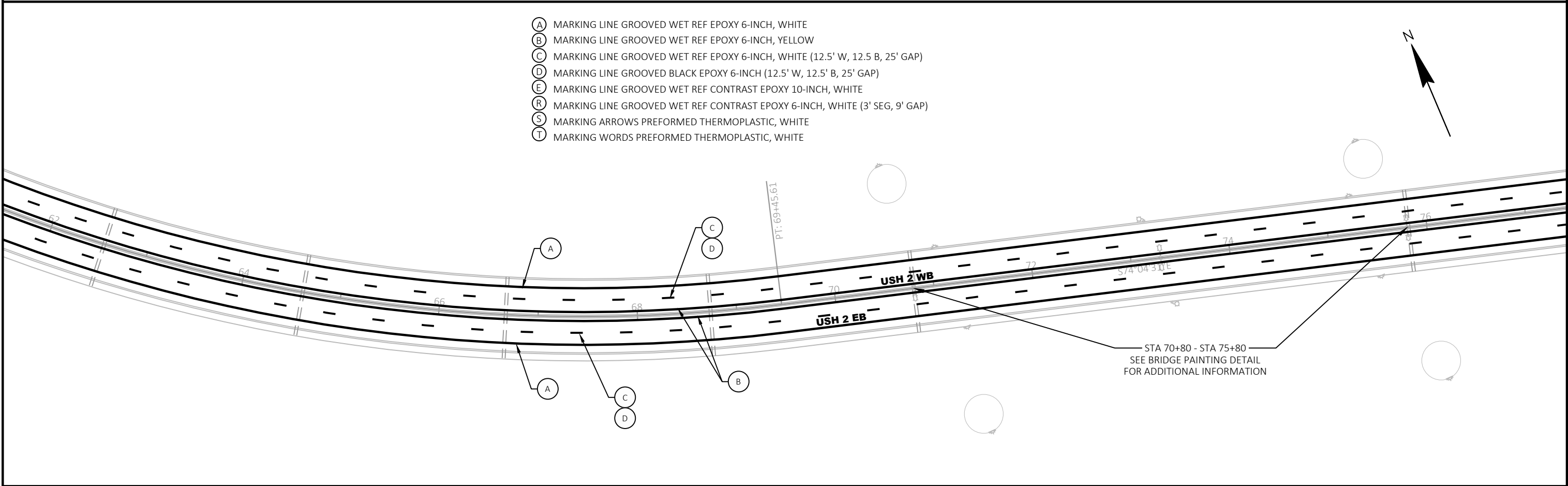
* ADDITIONAL QUANTITIES FOUND ELSEWHERE

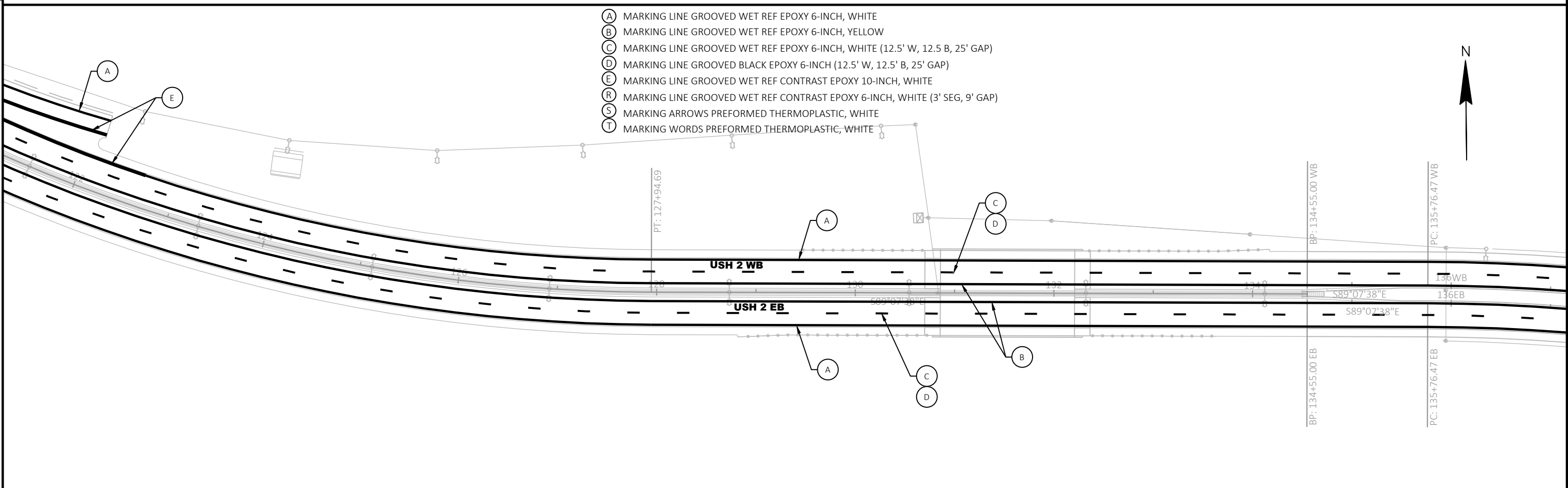
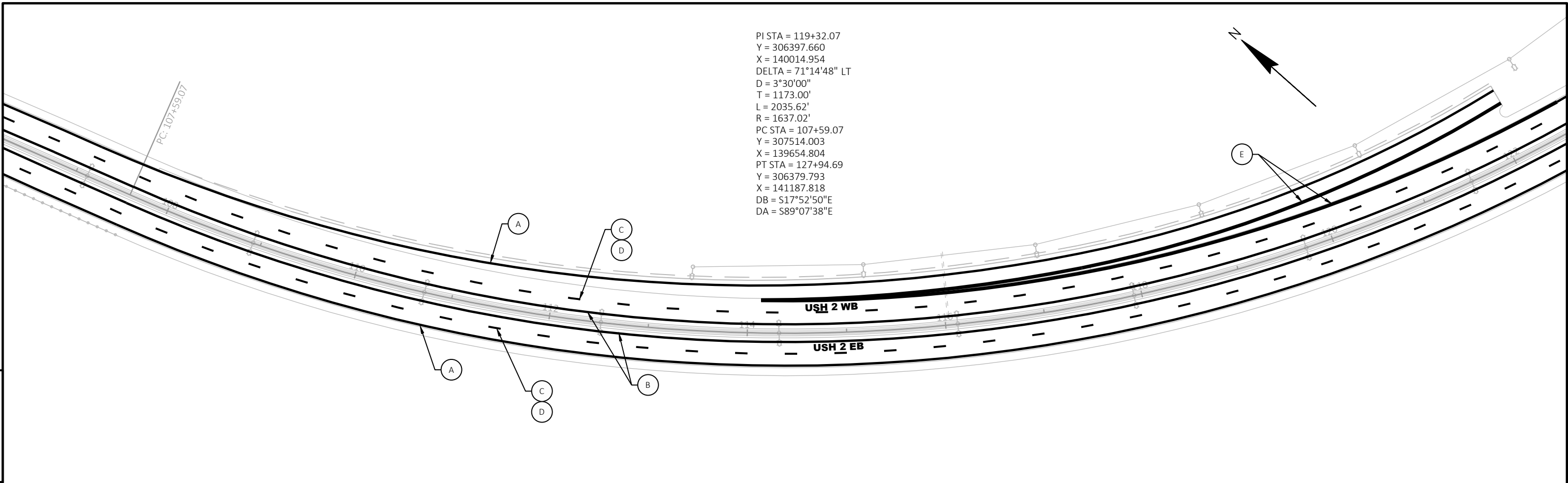


PROJECT NO: 8680-00-74	HWY: USH 2	COUNTY: DOUGLAS	PLAN	SHEET	E
------------------------	------------	-----------------	------	-------	---

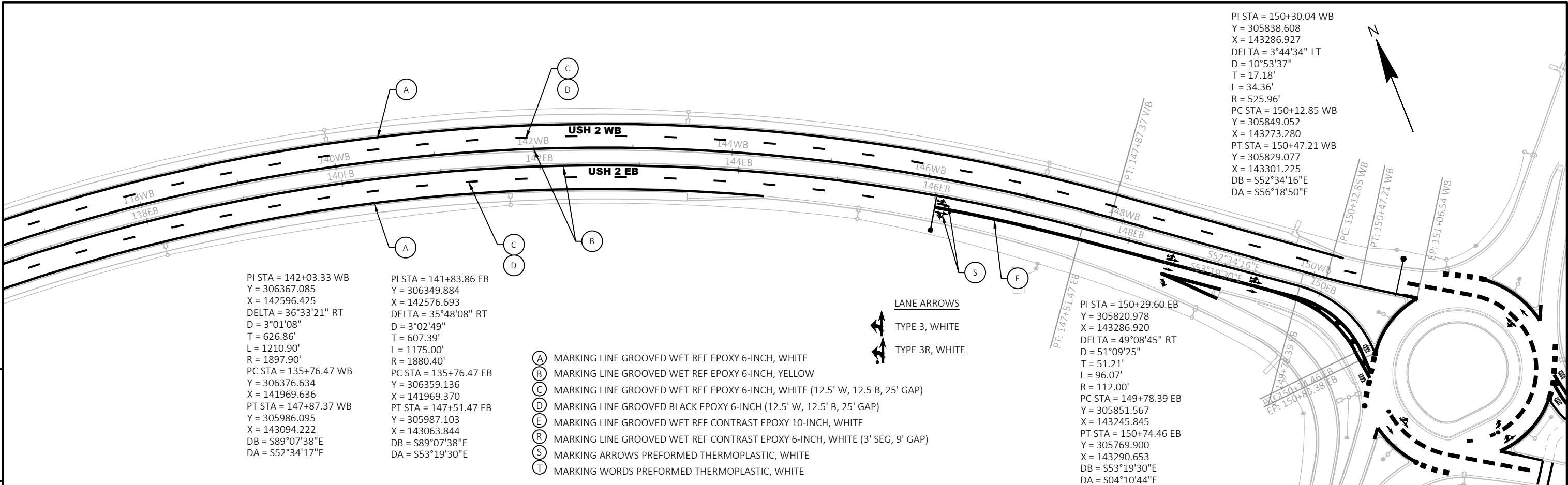


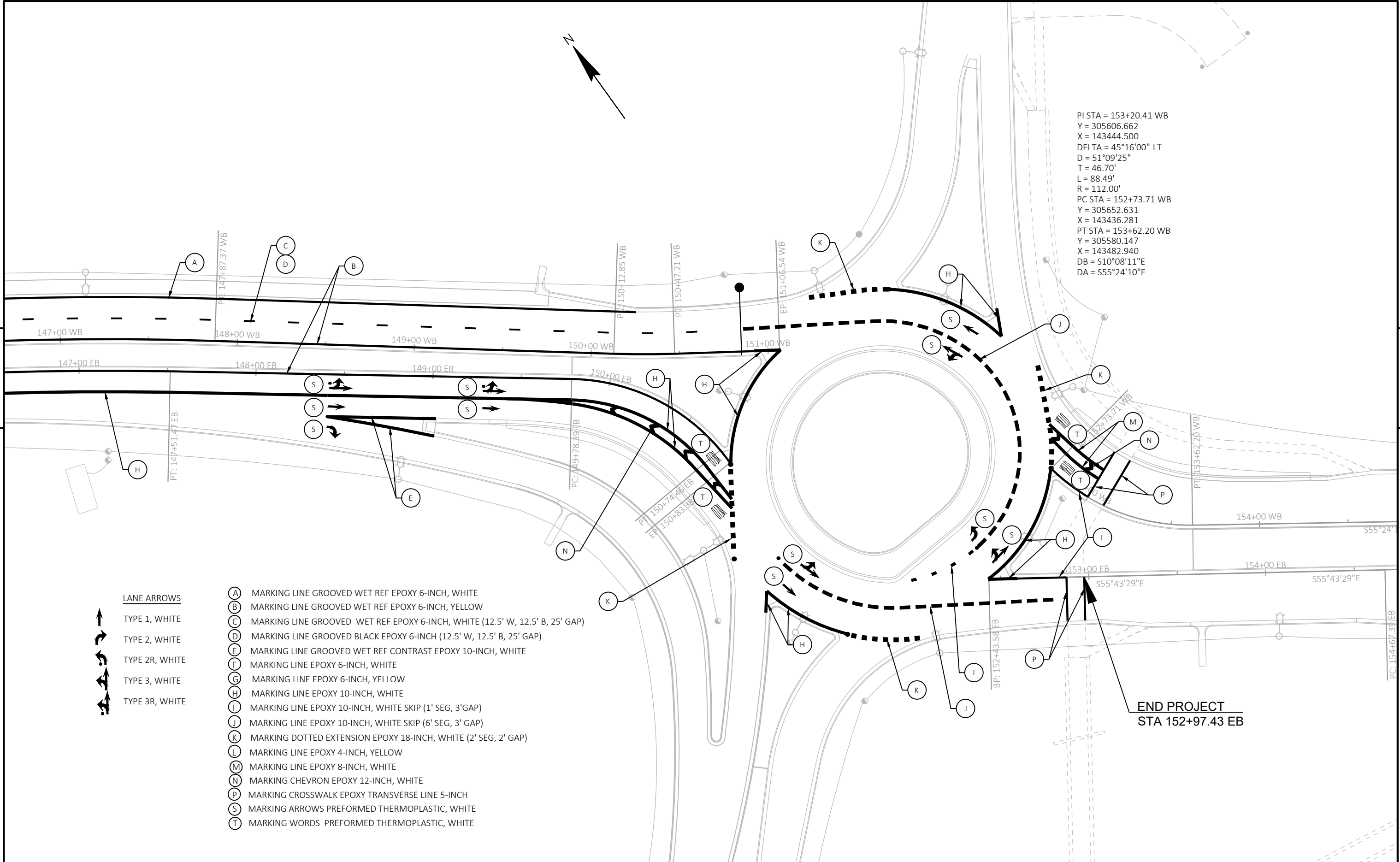
- (A) MARKING LINE GROOVED WET REF EPOXY 6-INCH, WHITE
- (B) MARKING LINE GROOVED WET REF EPOXY 6-INCH, YELLOW
- (C) MARKING LINE GROOVED WET REF EPOXY 6-INCH, WHITE (12.5' W, 12.5' B, 25' GAP)
- (D) MARKING LINE GROOVED BLACK EPOXY 6-INCH (12.5' W, 12.5' B, 25' GAP)
- (E) MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH, WHITE
- (R) MARKING LINE GROOVED WET REF CONTRAST EPOXY 6-INCH, WHITE (3' SEG, 9' GAP)
- (S) MARKING ARROWS PREFORMED THERMOPLASTIC, WHITE
- (T) MARKING WORDS PREFORMED THERMOPLASTIC, WHITE





PROJECT NO: 8680-00-74	HWY: USH 2	COUNTY: DOUGLAS	PLAN	SHEET	E
------------------------	------------	-----------------	------	-------	---





PI STA = 153+20.41 WB
Y = 305606.662
X = 143444.500
DELTA = 45°16'00" LT
D = 51°09'25"
T = 46.70'
L = 88.49'
R = 112.00'
PC STA = 152+73.71 WB
Y = 305652.631
X = 143436.281
PT STA = 153+62.20 WB
Y = 305580.147
X = 143482.940
DB = S10°08'11"E
DA = S55°24'10"E

LANE ARROWS

- TYPE 1, WHITE
- TYPE 2, WHITE
- TYPE 2R, WHITE
- TYPE 3, WHITE
- TYPE 3R, WHITE

- A MARKING LINE GROOVED WET REF EPOXY 6-INCH, WHITE
- B MARKING LINE GROOVED WET REF EPOXY 6-INCH, YELLOW
- C MARKING LINE GROOVED WET REF EPOXY 6-INCH, WHITE (12.5' W, 12.5' B, 25' GAP)
- D MARKING LINE GROOVED BLACK EPOXY 6-INCH (12.5' W, 12.5' B, 25' GAP)
- E MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH, WHITE
- F MARKING LINE EPOXY 6-INCH, WHITE
- G MARKING LINE EPOXY 6-INCH, YELLOW
- H MARKING LINE EPOXY 10-INCH, WHITE
- I MARKING LINE EPOXY 10-INCH, WHITE SKIP (1' SEG, 3' GAP)
- J MARKING LINE EPOXY 10-INCH, WHITE SKIP (6' SEG, 3' GAP)
- K MARKING DOTTED EXTENSION EPOXY 18-INCH, WHITE (2' SEG, 2' GAP)
- L MARKING LINE EPOXY 4-INCH, YELLOW
- M MARKING LINE EPOXY 8-INCH, WHITE
- N MARKING CHEVRON EPOXY 12-INCH, WHITE
- P MARKING CROSSWALK EPOXY TRANSVERSE LINE 5-INCH
- S MARKING ARROWS PREFORMED THERMOPLASTIC, WHITE
- T MARKING WORDS PREFORMED THERMOPLASTIC, WHITE

END PROJECT
STA 152+97.43 EB

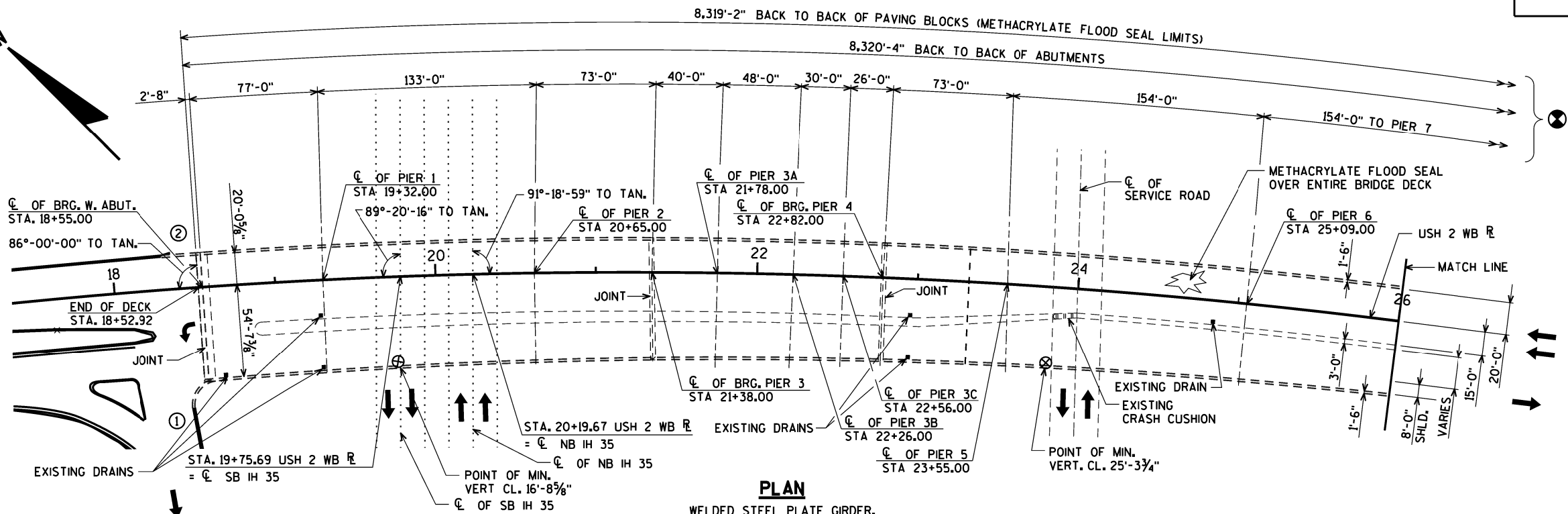
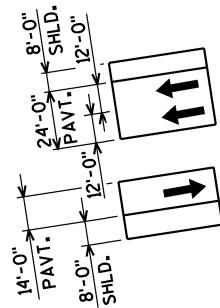
\$PRJNAME\$ I:\414\0903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 gp1.dgn

DATE: DATE: DATE: DATE:
CHECKED BY: BACK CHECKED BY: CORRECTED BY:

8

CURVE DATA

USH 2 WB R
P.I. STA. 29+42.00
 $\Delta=43^{\circ}-08'-06.4''$
D=1'-30'
T=1,509.83'
L=2,875.67'
R=3,819.72'
S.E.=0.036%
P.C. STA. 14+32.17
P.T. STA. 43+07.85



PLAN

WELDED STEEL PLATE GIRDER,
CONCRETE HAUNCHED SLAB, &
STEEL TIED ARCH BRIDGE
METHACRYLATE FLOOD SEAL

○ DENOTES WING NUMBER

⊗ MEASURED ALONG USH 2 WB R
& USH 2 R. NOTE BASE LINE
SHIFT AT STA. 43+07.85.

LIST OF DRAWINGS

1. GENERAL PLAN UNITS 1 THRU 3
2. GENERAL PLAN UNITS 3 THRU 5
3. GENERAL PLAN UNITS 5 THRU 7
4. GENERAL PLAN UNITS 7 THRU 9
5. GENERAL PLAN UNITS 9 THRU 12
6. GENERAL PLAN UNITS 12 THRU 14
7. GENERAL PLAN UNITS 14 & 15
8. GENERAL PLAN UNITS 15 THRU 18
9. GENERAL PLAN UNITS 18 & 19
10. GENERAL PLAN RAMP 69101
11. GENERAL PLAN RAMP 69101
12. GENERAL PLAN RAMP 69101
13. GENERAL PLAN RAMP 69102
14. GENERAL PLAN RAMP 69102
15. GENERAL PLAN RAMP 69102
16. GENERAL PLAN RAMP 69102
17. GENERAL PLAN RAMP 69102
18. GENERAL PLAN RAMP 69102
19. GENERAL PLAN RAMP 69109
20. CROSS SECTIONS UNITS 1-3
21. CROSS SECTIONS UNIT 4
22. CROSS SECTIONS UNITS 5 & 6
23. CROSS SECTION UNITS 7-12, 14-19
24. CROSS SECTION UNIT 13
25. DESIGN DATA, QUANTITIES AND NOTES
26. HANGER DETAILS
27. TIED ARCH REPAINTING DETAILS
28. TIED ARCH BEARINGS
29. ARCH STRUT & CROSS BRACING DETAIL
30. PIER 29
31. PIER 29
32. PIER 30
33. PIER 30
34. STRIP SEAL GLAND REPLACEMENT JOINTS 17 & 18

STATE PROJECT NUMBER

8680-00-74

NO.	DATE	REVISION	BY
STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION			
MINNESOTA BRIDGE NO. 69100			
STH 2 OVER THE ST. LOUIS RIVER I.H. 35 & RR			
CITY OF DULUTH		ST. LOUIS COUNTY	
APPROVED: _____ DATE _____ STATE BRIDGE ENGINEER			
ORIGINAL PLANS PREPARED BY AYRES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED: _____ DATE _____ CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-16-38/69100			
USH 2 OVER ST. LOUIS RIVER			
COUNTY DOUGLAS CO., WI		TOWN/CITY/VILLAGE ST. LOUIS CO., MN SUPERIOR, WI & DULUTH, MN	
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY JLB	DESIGN CK'D.	DRAWN BY CLP	PLANS CK'D. JLB
GENERAL PLAN UNITS 1 THRU 3			SHEET 1 OF 34

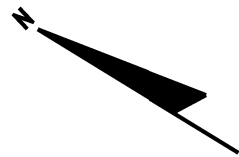
BRIDGE OFFICE CONTACT:
AARON BONK
(608)-261-0261

CONSULTANT CONTACT:
JOSEPH BLUMA
(715)-834-3161

8

\$PRNAME\$
I:\410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 gp2.dgn

8

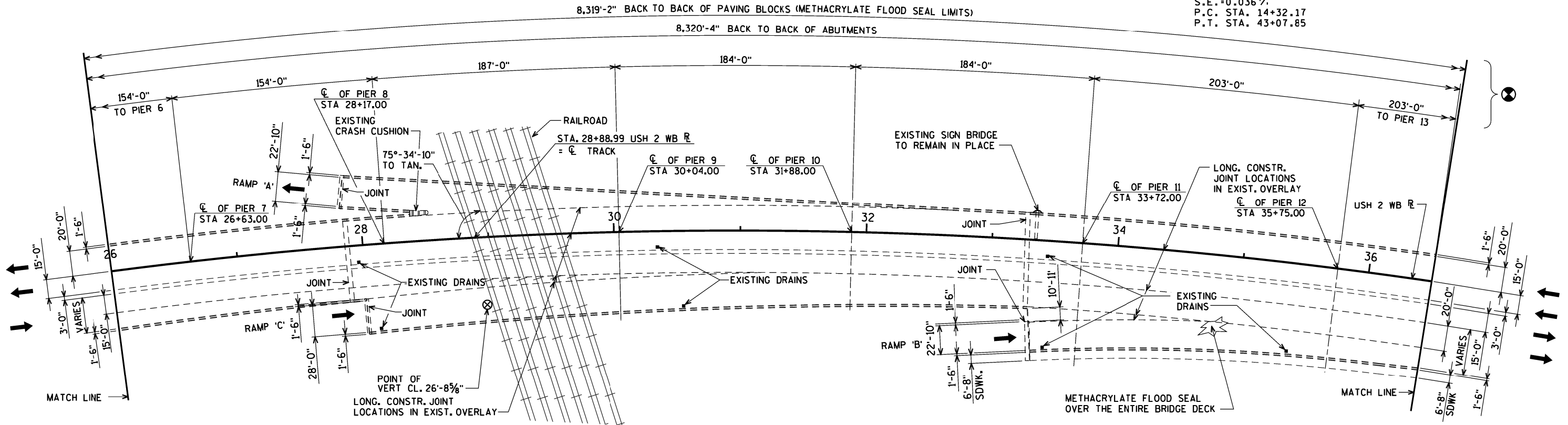


STATE PROJECT NUMBER

8680-00-74

CURVE DATA

USH 2 WB R
P.I. STA. 29+42.00
 $\Delta=43^{\circ}-08'-06.4''$
 $D=1^{\circ}-30'$
 $T=1,509.83'$
 $L=2,875.67'$
 $R=3,819.72'$
 $S.E.=0.036\%$
P.C. STA. 14+32.17
P.T. STA. 43+07.85



PLAN

WELDED STEEL PLATE GIRDER,
CONCRETE HAUNCHED SLAB, &
STEEL TIED ARCH BRIDGE
METHACRYLATE FLOOD SEAL

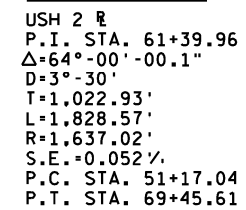
⊗ MEASURED ALONG USH 2 WB R
& USH 2 R. NOTE BASE LINE
SHIFT AT STA. 43+07.85.

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
GENERAL PLAN UNITS 3 THRU 5			SHEET 2 OF 34



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
		DRAWN BY CLP	PLANS CK'D. JLB
GENERAL PLAN UNITS 5 THRU 7		SHEET 3 OF 34	

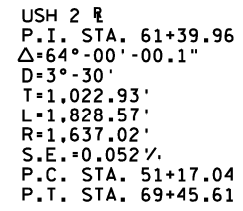


⊗ MEASURED ALONG USH 2 WB R
& USH 2 R. NOTE BASE LINE
SHIFT AT STA. 43+07.85.

PLAN

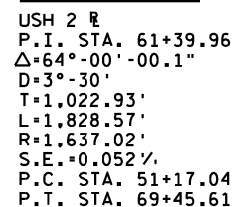
WELDED STEEL PLATE GIRDER,
CONCRETE HAUNCHED SLAB, &
STEEL TIED ARCH BRIDGE
METHACRYLATE FLOOD SEAL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
		DRAWN BY CLP	PLANS CK'D. JLB
GENERAL PLAN UNITS 7 THRU 9		SHEET 4 OF 34	

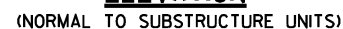


WELDED STEEL PLATE GIRDER,
CONCRETE HAUNCHED SLAB, &
STEEL TIED ARCH BRIDGE
METHACRYLATE FLOOD SEAL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
		DRAWN BY CLP	PLANS CK'D. JLB
GENERAL PLAN UNITS 9 THRU 12		SHEET 5 OF 34	



WELDED STEEL PLATE GIRDER, CONCRETE HAUNCHED SLAB,
& STEEL TIED ARCH BRIDGE - METHACRYLATE FLOOD SEAL



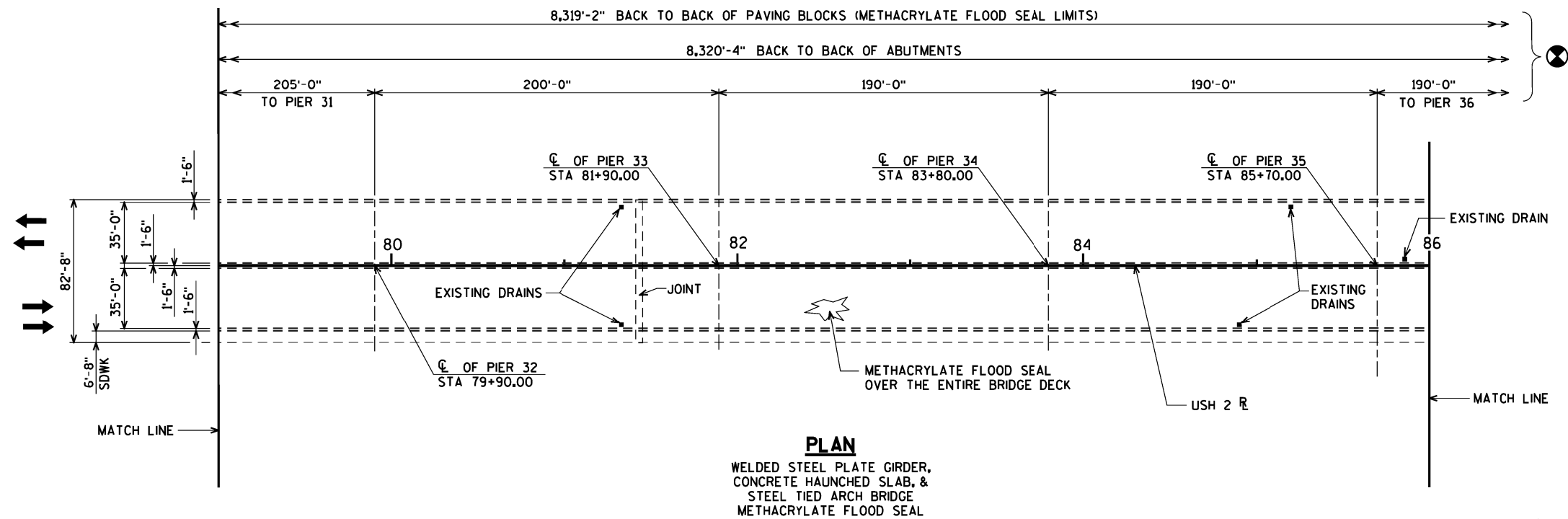
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
		DRAWN BY CLP	PLANS CK'D. JLB
GENERAL PLAN UNITS 12 THRU 14		SHEET 6 OF 34	

\$PRNAME\$
I:\410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 gp7.dgn

8

STATE PROJECT NUMBER

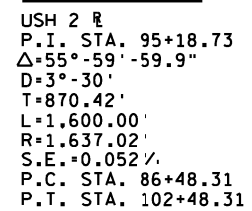
8680-00-74



MEASURED ALONG USH 2 WB R
& USH 2 R. NOTE BASE LINE
SHIFT AT STA. 43+07.85.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CK'D. JLB	
GENERAL PLAN UNITS 14 & 15			SHEET 7 OF 34

8



WELDED STEEL PLATE GIRDER,
CONCRETE HAUNCHED SLAB, &
STEEL TIED ARCH BRIDGE
METHACRYLATE FLOOD SEAL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
		DRAWN BY CLP	PLANS CK'D. JLB
GENERAL PLAN UNITS 15 THRU 18		SHEET 8 OF 34	

\$PRNAME\$
I:\410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 gp9.dgn

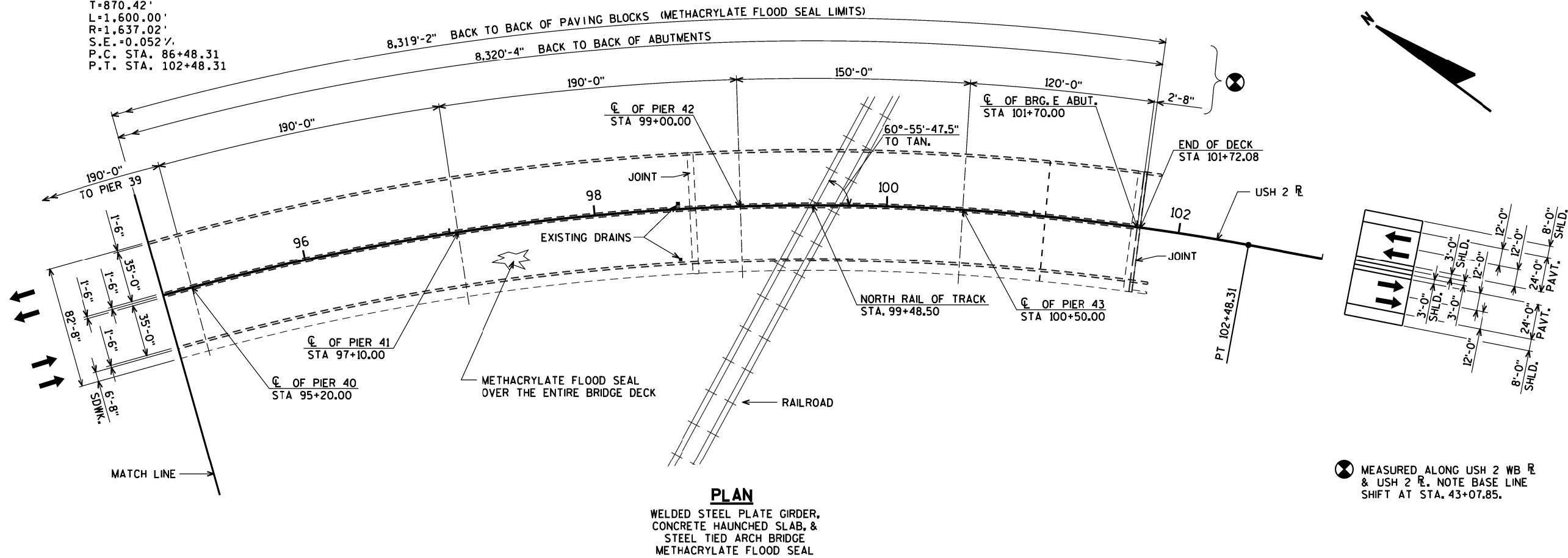
8

CURVE DATA

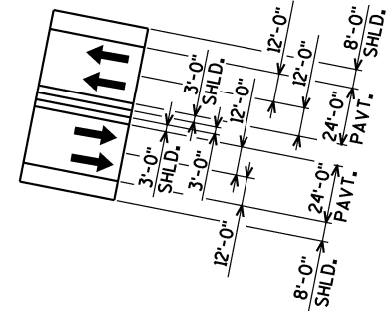
USH 2 R
P.I. STA. 95+18.73
 $\Delta=55^{\circ}-59'-59.9''$
D=3'-30"
T=870.42'
L=1,600.00'
R=1,637.02'
S.E.=0.052 %
P.C. STA. 86+48.31
P.T. STA. 102+48.31

STATE PROJECT NUMBER

8680-00-74



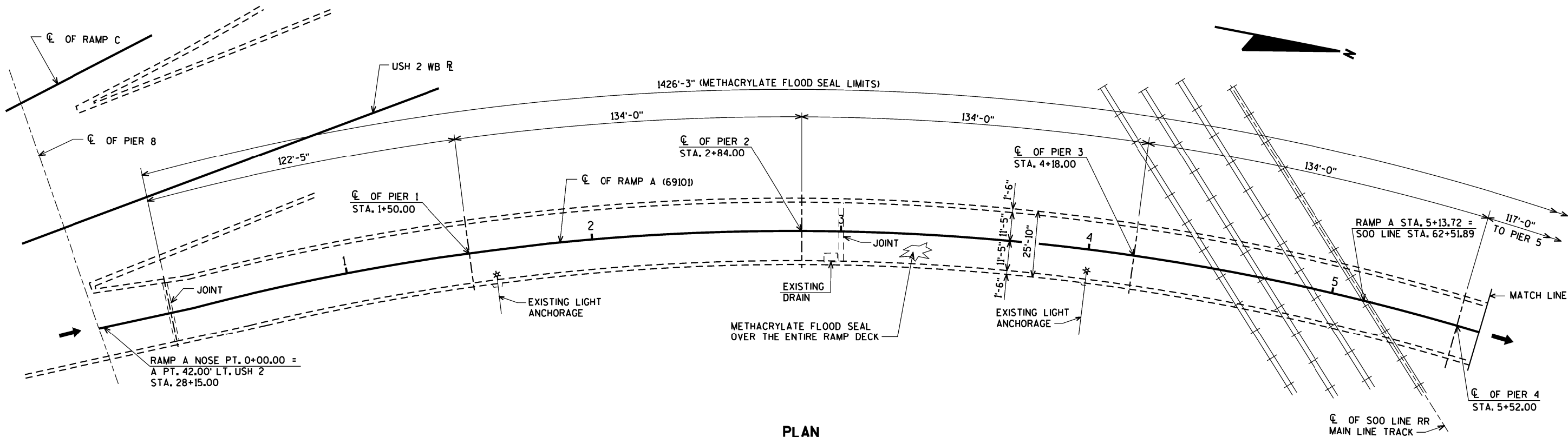
MEASURED ALONG USH 2 WB R
& USH 2 R. NOTE BASE LINE
SHIFT AT STA. 43+07.85.



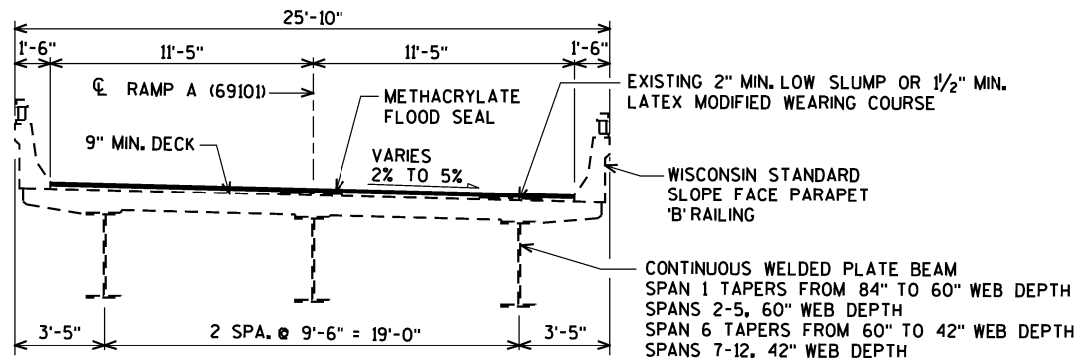
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY	CLP	PLANS CK'D.	JLB
GENERAL PLAN UNITS 18 & 19			SHEET 9 OF 34

8

\$PRNAME\$
I:\41410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 ramp101.dgn



PLAN
WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL



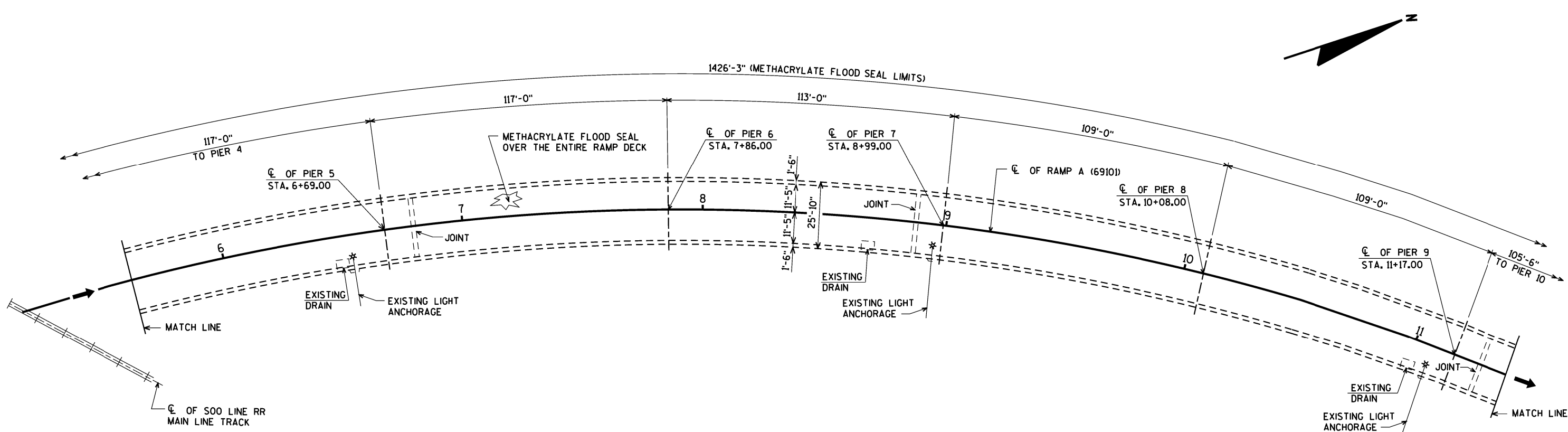
TRANSVERSE SECTION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
GENERAL PLAN RAMP 69101			SHEET 10 OF 34

\$PRNAME\$
I:\41410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 ramp\01.dgn

STATE PROJECT NUMBER

8680-00-74



PLAN
WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY	CLP	PLANS CK'D.	JLB
GENERAL PLAN RAMP 69101		SHEET 11 OF 34	

LIST OF DRAWINGS:

1. GENERAL PLAN (1 OF 5)
2. GENERAL PLAN (2 OF 5)
3. GENERAL PLAN (3 OF 5)
4. GENERAL PLAN (4 OF 5)
5. GENERAL PLAN (5 OF 5)
6. GENERAL NOTES, DESIGN DATA & QUANTITIES
7. TYPICAL SECTION UNIT 3
8. TYPICAL SECTION UNIT 4
9. TYPICAL SECTION UNIT 5
10. TYPICAL SECTION UNIT 6
11. TYPICAL SECTION UNIT 7
12. TYPICAL SECTION UNIT 8
13. TYPICAL SECTION UNIT 9
14. TYPICAL SECTION UNIT 10
15. TYPICAL SECTION UNIT 11
16. TYPICAL SECTION UNIT 12
17. TYPICAL SECTION UNIT 13
18. PARAPET REMOVAL DETAILS
19. PARAPET DETAILS UNIT 3
20. PARAPET DETAILS UNIT 4
21. PARAPET DETAILS UNIT 5
22. PARAPET DETAILS UNIT 6
23. PARAPET DETAILS UNIT 7
24. PARAPET DETAILS UNIT 8
25. PARAPET DETAILS UNIT 9
26. PARAPET DETAILS UNIT 10
27. PARAPET DETAILS UNIT 11
28. PARAPET DETAILS UNIT 12
29. PARAPET DETAILS UNIT 13
30. CONDUIT DETAILS
31. ANCHOR BOLT DETAIL 1
32. ANCHOR BOLT DETAIL 2

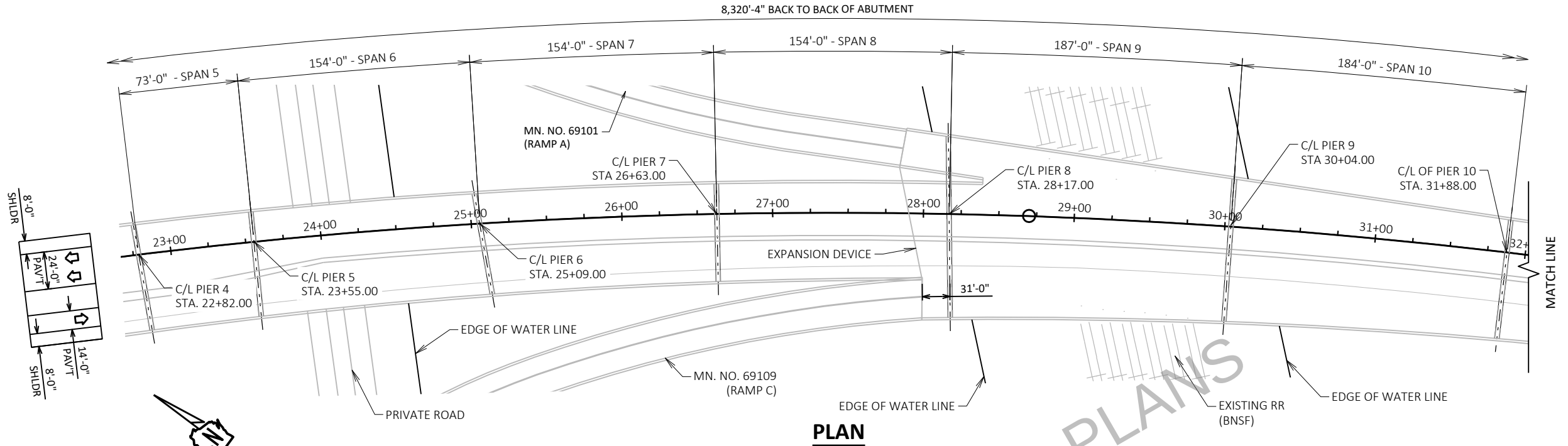
LEGEND

➡ DIRECTION OF TRAFFIC

STRUCTURE DESIGN CONTACTS:

WISDOT BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
SHELLY HARRIS (715) 309-5224

NO.	DATE	REVISION	BY
STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38 USH 2 OVER ST. LOUIS RIVER CITY OF DULUTH ST. LOUIS COUNTY			
ACCEPTED _____		STATE BRIDGE ENGINEER _____ DATE _____	
KL Engineering [A] Better Experience			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED _____		CHIEF STRUCTURES DESIGN ENGINEER _____ DATE _____	
STRUCTURE B-16-38 USH 2 OVER ST. LOUIS RIVER			
COUNTY	DOUGLAS	CITY	SUPERIOR
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	SKH	DESIGNED CK'D	CDH
DRAWN BY	STD	PLANS CK'D	SKH
GENERAL PLAN (1 OF 5)			SHEET 1 OF 32

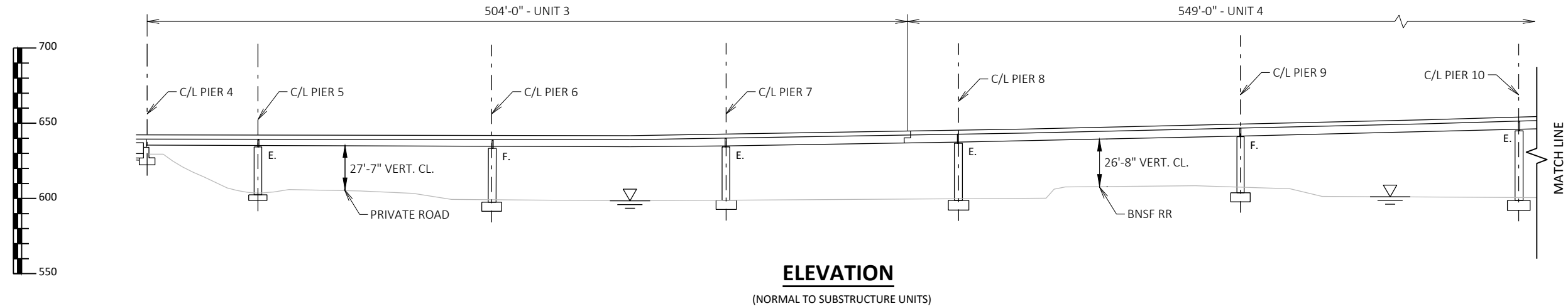
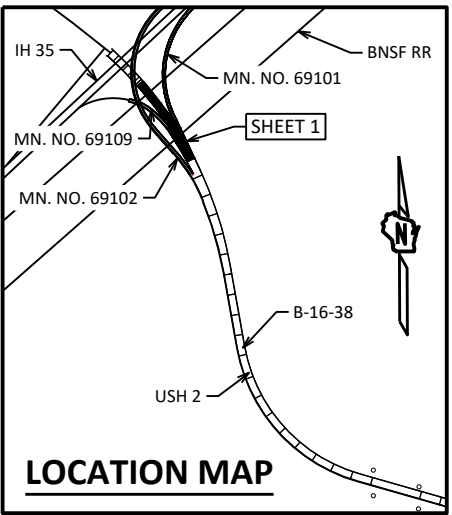


CURVE DATA

USH 2 WB

P.I. = STA. 29+42.00
Δ = 43°08'06.4"
D = 1°30'
T = 1509.83'
L = 2875.67'
R = 3819.72'
S.E. = 0.036 1/'
R.O. = 175'
P.C. = STA. 14+32.17
P.T. = STA. 43+07.85

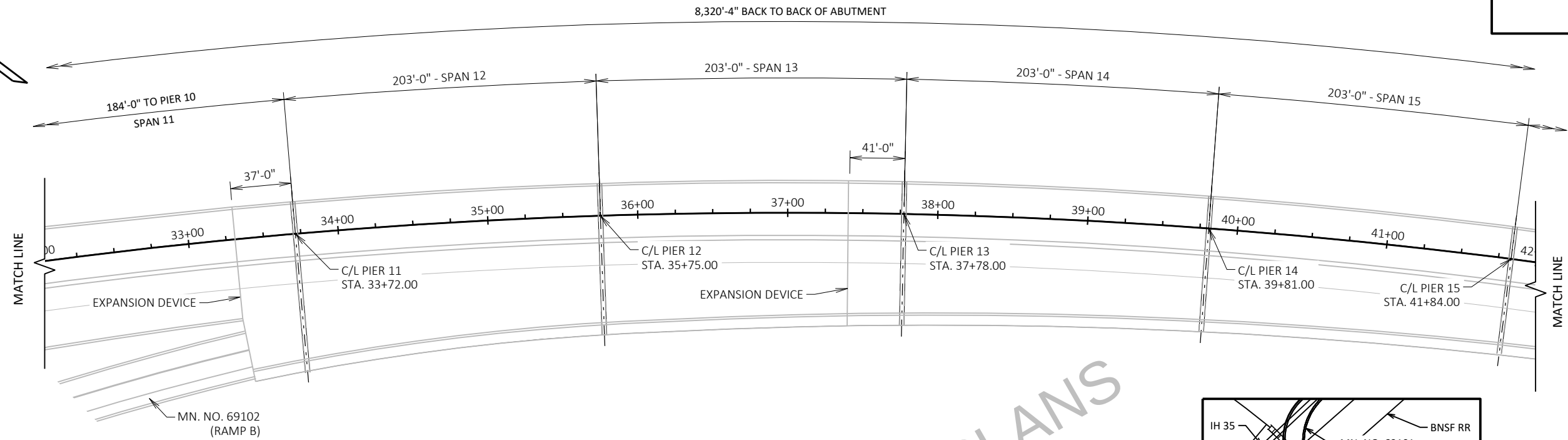
NOTE: ALL DIMENSIONS MEASURED
ALONG BASE LINE WEST BOUND LANE &
C/L OF MEDIAN. NOTE BASE LINE SHIFT
AT STA. 43+07.85.



CURVE DATA

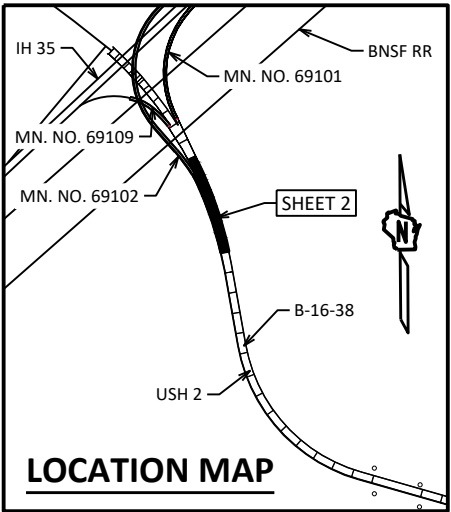
USH 2 WB

P.I. = STA. 29+42.00
 $\Delta = 43^{\circ}08'06.4''$
 $D = 1^{\circ}30'$
 $T = 1509.83'$
 $L = 2875.67'$
 $R = 3819.72'$
 $S.E. = 0.036'/'$
 $R.O. = 175'$
P.C. = STA. 14+32.17
P.T. = STA. 43+07.85

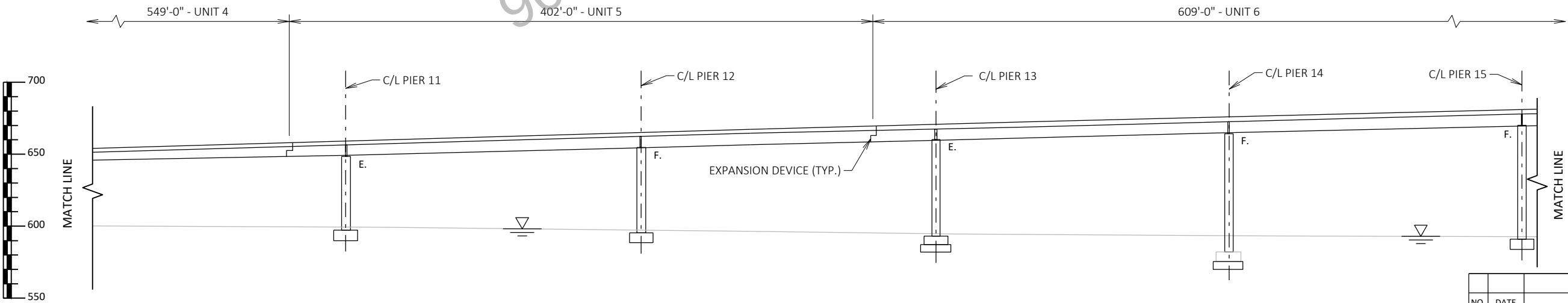


NOTE: ALL DIMENSIONS MEASURED
ALONG BASE LINE WEST BOUND LANE &
C/L OF MEDIAN. NOTE BASE LINE SHIFT
AT STA. 43+07.85.

PLAN



LOCATION MAP



ELEVATION
(NORMAL TO SUBSTRUCTURE UNITS)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38			
DRAWN BY		STD	PLANS CK'D SKH
GENERAL PLAN (2 OF 5)			SHEET 2

CURVE DATA

USH 2 WB

P.I. = STA. 61+39.96
 Δ = 64°00'00.1"
D = 3°30'
T = 1022.93'
L = 1828.57'
R = 1637.02'
S.E. = 0.052'/'
R.O. = 162'
P.C. = STA. 51+17.04
P.T. = STA. 69+45.61

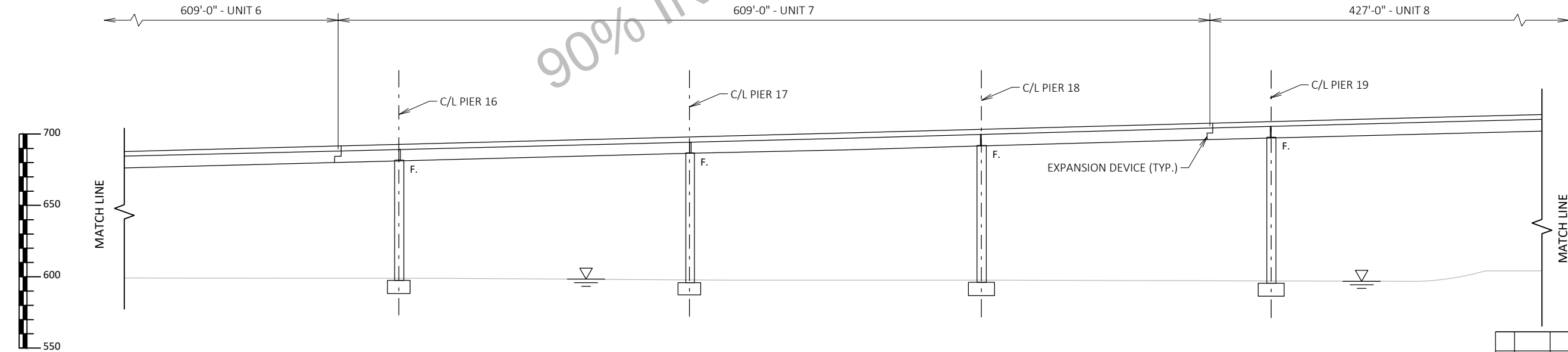
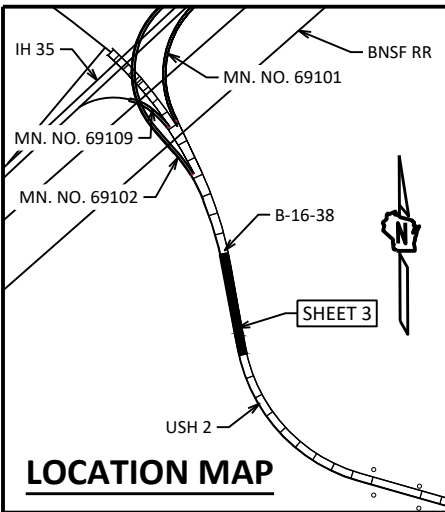
CURVE DATA

USH 2 WB

P.I. = STA. 29+42.00
 Δ = 43°08'06.4"
D = 1°30'
T = 1509.83'
L = 2875.67'
R = 3819.72'
S.E. = 0.036'/'
R.O. = 175'
P.C. = STA. 14+32.17
P.T. = STA. 43+07.85

NOTE: ALL DIMENSIONS MEASURED
ALONG BASE LINE WEST BOUND LANE &
C/L OF MEDIAN. NOTE BASE LINE SHIFT
AT STA. 43+07.85.

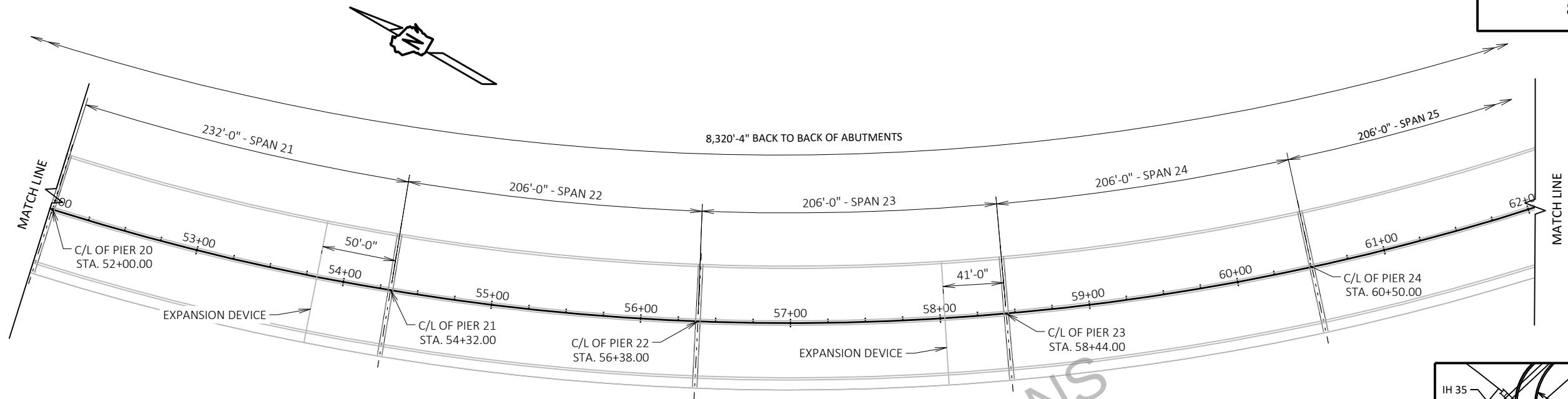
PLAN



ELEVATION

(NORMAL TO SUBSTRUCTURE UNITS)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38			
DRAWN BY		STD	PLANS CK'D SKH
GENERAL PLAN (3 OF 5)		SHEET 3	



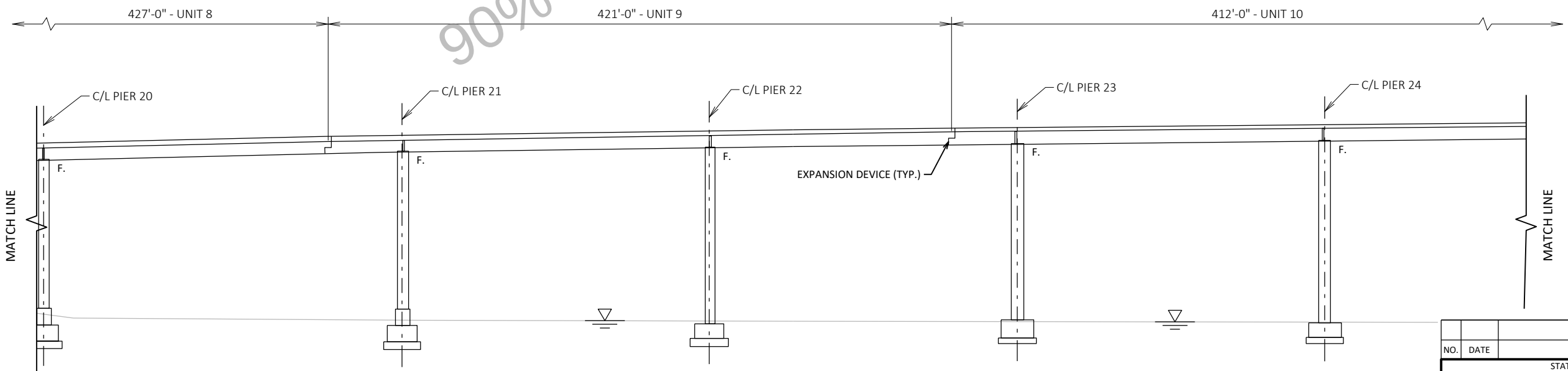
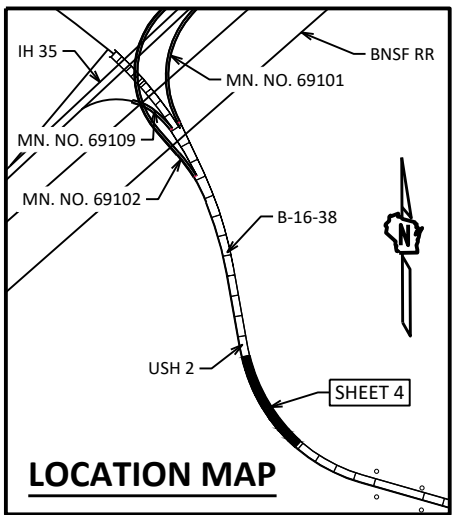
CURVE DATA

USH 2 WB

P.I. = STA. 61+39.96
 $\Delta = 64^{\circ}00'00.1''$
 $D = 3^{\circ}30'$
 $T = 1022.93'$
 $L = 1828.57'$
 $R = 1637.02'$
 $S.E. = 0.0521'$
 $R.O. = 162'$
P.C. = STA. 51+17.04
P.T. = STA. 69+45.61

NOTE: ALL DIMENSIONS MEASURED
ALONG BASE LINE WEST BOUND LANE &
C/L OF MEDIAN. NOTE BASE LINE SHIFT
AT STA. 43+07.85.

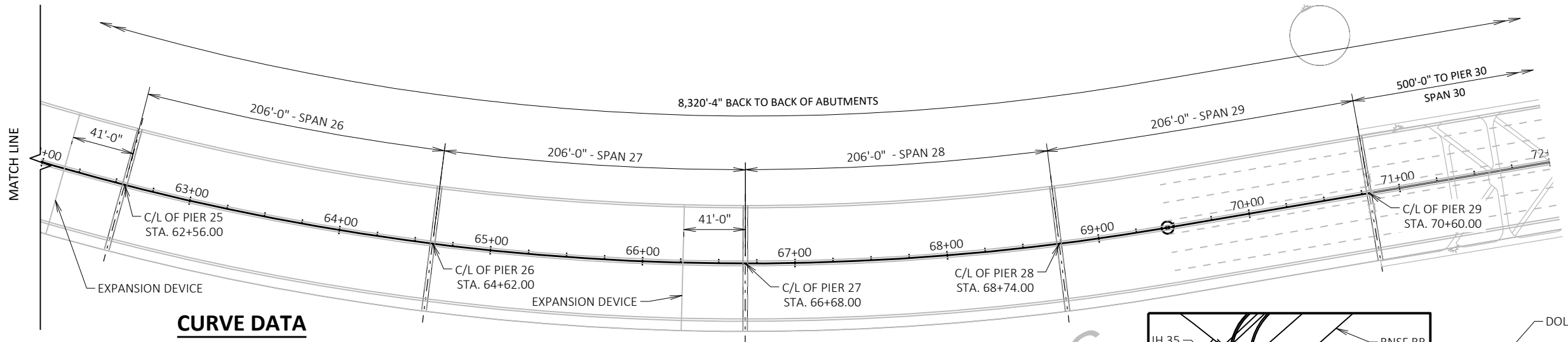
PLAN



ELEVATION

(NORMAL TO SUBSTRUCTURE UNITS)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38			
DRAWN BY		STD	PLANS CK'D SKH
GENERAL PLAN (4 OF 5)		SHEET 4	

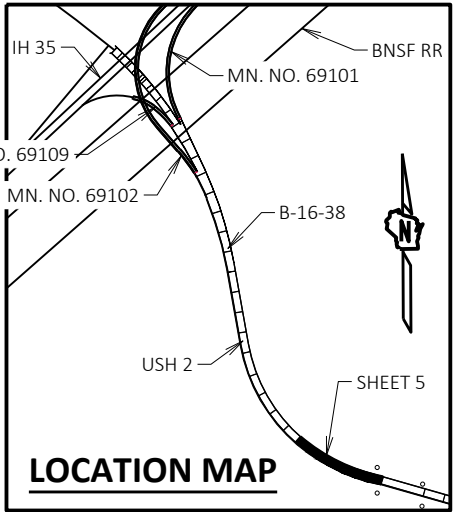


CURVE DATA

USH 2 WB
P.I. = STA. 61+39.96
 $\Delta = 64^{\circ}00'00.1''$
D = 3°30'
T = 1022.93'
L = 1828.57'
R = 1637.02'
S.E. = 0.052 1/
R.O. = 162'
P.C. = STA. 51+17.04
P.T. = STA. 69+45.61

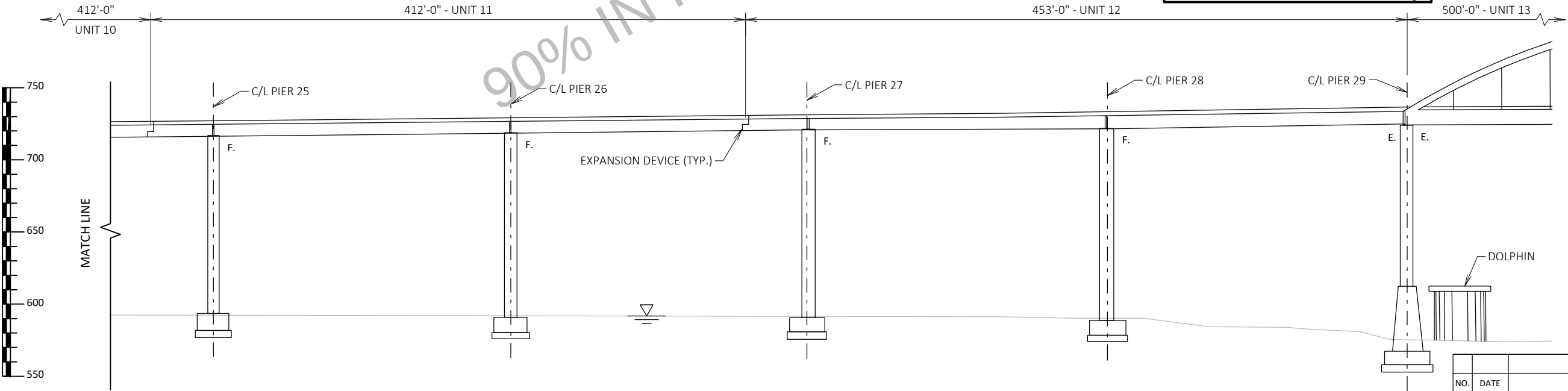
NOTE: ALL DIMENSIONS MEASURED
ALONG BASE LINE WEST BOUND LANE &
C/L OF MEDIAN. NOTE BASE LINE SHIFT
AT STA. 43+07.85.

PLAN



LOCATION MAP

DOLPHIN (TYP.)



ELEVATION

(NORMAL TO SUBSTRUCTURE UNITS)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38			
DRAWN BY		STD	PLANS CK'D SKH
GENERAL PLAN (5 OF 5)		SHEET 5	

DESIGN DATA

LIVE LOAD:

TAKEN FROM HSI 8/22/2024
DESIGN LOADING: HS 20

UNIT	INVENTORY RATING	OPERATING RATING	WIS-SPV
3	24	40	190
4	29	48	190
5	37	61	190
6	29	48	190
7	25	42	190
8	53	88	190
9	59	98	190
10	47	78	190
11	47	78	190
12	51	85	190
13	28	47	250

MATERIAL PROPERTIES:

CONCRETE MASONRY: _____ f_c = 4,000 PSI
SUPERSTRUCTURE _____

BAR STEEL REINFORCEMENT _____ f_y = 60,000 PSI
GRADE 60 _____

TRAFFIC DATA

USH 2:

AADT = 14,800 (2020)
AADT = 16,130 (2044)
R.D.S. = 55 MPH

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

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

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" OR MATCH EXISTING BEVELS, UNLESS OTHERWISE NOTED.

ALL REMOVAL LINES SHALL BE DEFINED BY A 1/2-INCH SAWCUT.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE, TOP, AND BACKFACE OF THE PARAPETS.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF JOINT FILLER WITH NON-STAINING NON-ASPHALTIC JOINT SEALER (1-INCH DEEP AND HOLD ⅙" BELOW SURFACE OF THE CONCRETE). COLOR TO MATCH ADJACENT SURFACES.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M153 TYPE 1, 2, OR 3, OR AASHTO M213.

SEE ROADWAY PLANS FOR STAGING DETAILS.

"REMOVING STRUCTURE OVER WATERWAY DEBRIS CAPTURE" BID ITEM INCLUDES REMOVAL OF EXISTING PARAPETS, LIGHTING CONDUIT AND JUNCTION BOXES, AND OTHER REMOVALS AS REQUIRED FOR COMPLETION OF WORK.

SCOPE OF WORK

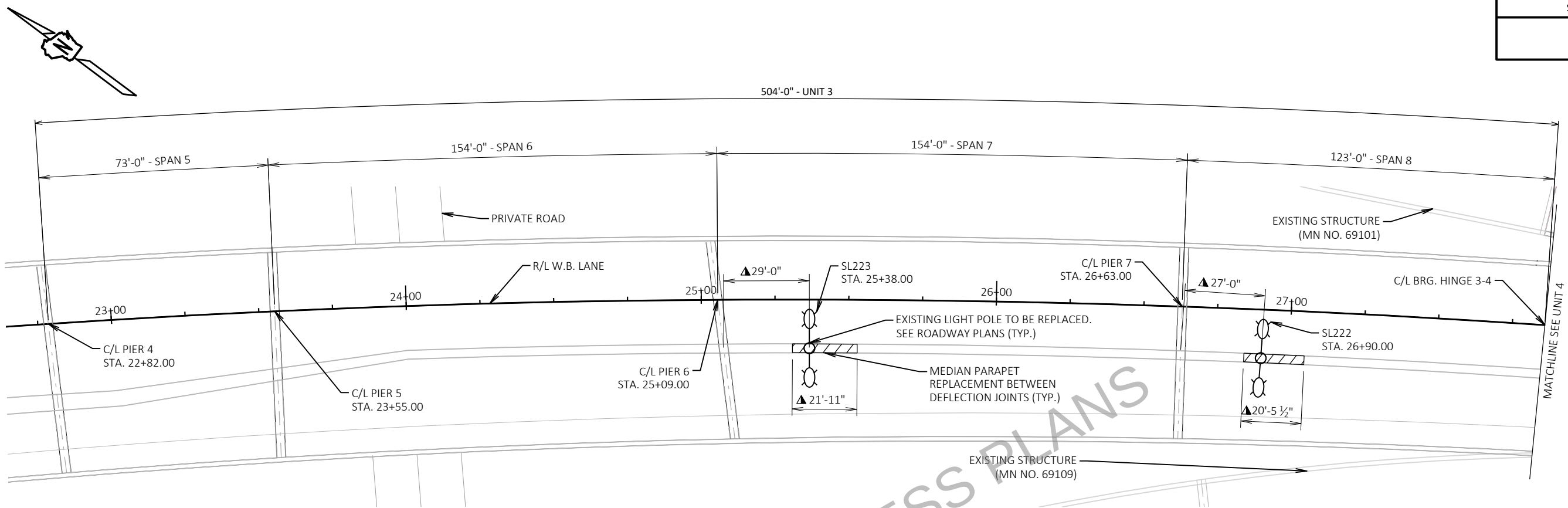
- REMOVAL AND REPLACEMENT OF CONCRETE PARAPETS AND EMBEDDED CONDUIT AND JUNCTION BOXES.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8	UNIT 9	UNIT 10	UNIT 11	UNIT 12	UNIT 13	TOTALS
203.0270	REMOVING STRUCTURE OVER WATERWAY DEBRIS CAPTURE B-16-38	EACH	---	---	---	---	---	---	---	---	---	---	---	1
502.0100	CONCRETE MASONRY BRIDGES	CY	8.5	6.6	4.4	13.6	13.6	9.1	9.3	8.5	8.5	8.6	4.8	96
502.3210	PIGMENTED SURFACE SEALER	SY	35.0	29.0	20.0	57.0	57.0	38.0	38.0	35.0	35.0	35.0	20.0	399
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	60	96	64	94	97	63	65	60	60	60	34	753
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LBS	550	830	550	860	870	570	590	550	550	550	310	6,780
531.8990	ANCHOR ASSEMBLIES POLES ON STRUCTURES	EACH	2	3	2	3	3	2	2	2	2	2	1	24
652.0210	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1-INCH	LF	3	5	3	5	5	3	3	3	3	3	3	38
652.0220	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/2-INCH	LF	3	2	---	---	---	---	2	---	---	---	---	6
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	39	74	503	9	75	50	51	47	47	47	26	547
SPV.0060	JUNCTION BOXES 8X8X6-INCH	EACH	---	1	---	---	---	---	1	---	---	---	---	2
	NON-BID ITEMS													
	FILLER	SIZE		1"	1"									1"

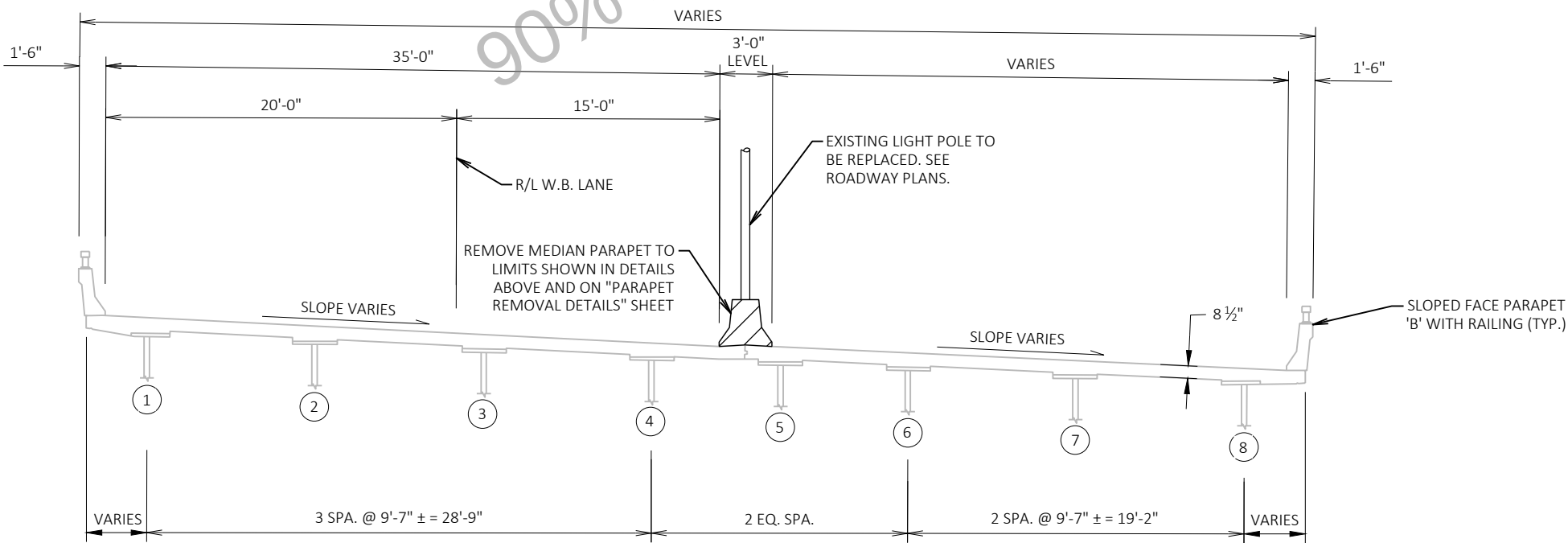
ALL ITEMS ARE INCLUDED IN CATEGORY 0030

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38			
DRAWN BY		STD	PLANS CK'D SKH
GENERAL NOTES, DESIGN DATA & QUANTITIES			SHEET 6



PLAN - UNIT 3

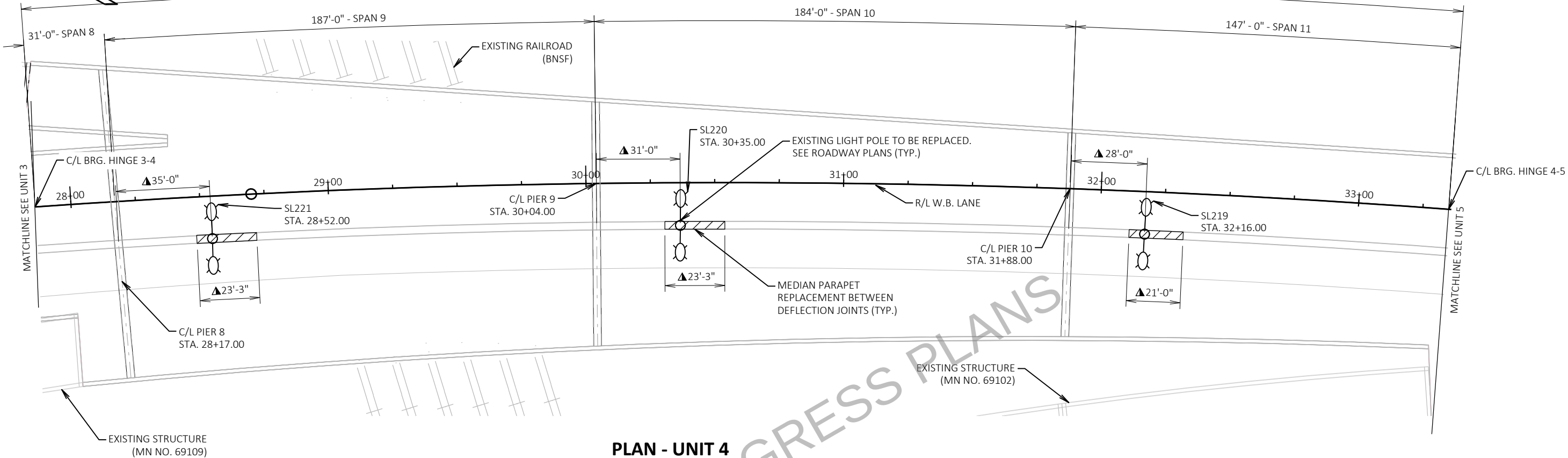
▲ MEASURED ALONG BASE LINE WEST BOUND LANE ACCORDING TO AS BUILTS. DIMENSIONS IN FIELD MAY VARY.



TYPICAL SECTION
LOOKING UPSTATION

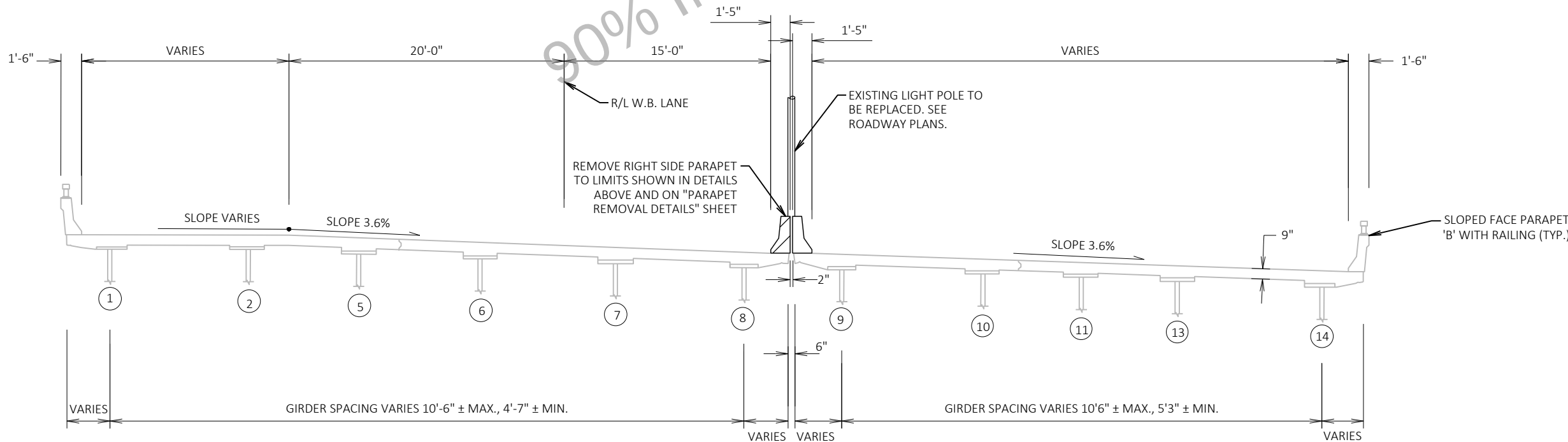
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 3			SHEET 7

549'-0" - UNIT 4



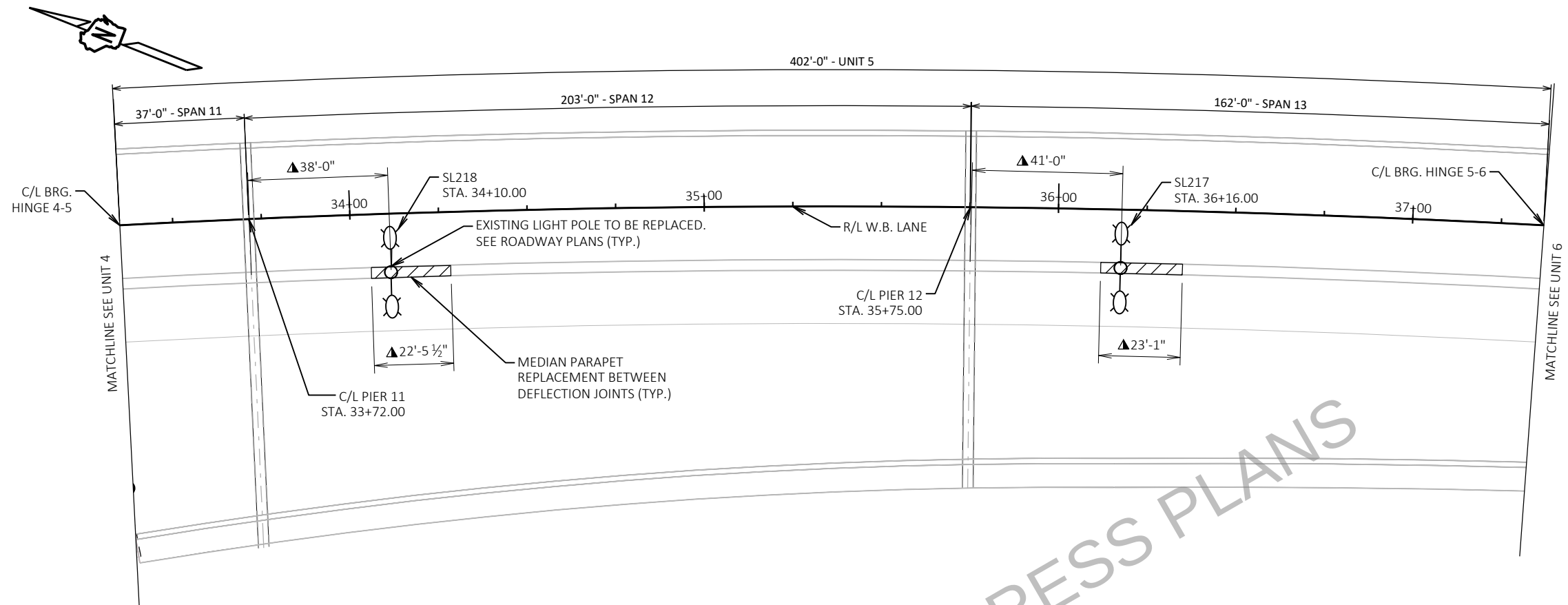
PLAN - UNIT 4

▲ MEASURED ALONG BASE LINE WEST BOUND LANE ACCORDING TO AS BUILTS. DIMENSIONS IN FIELD MAY VARY.



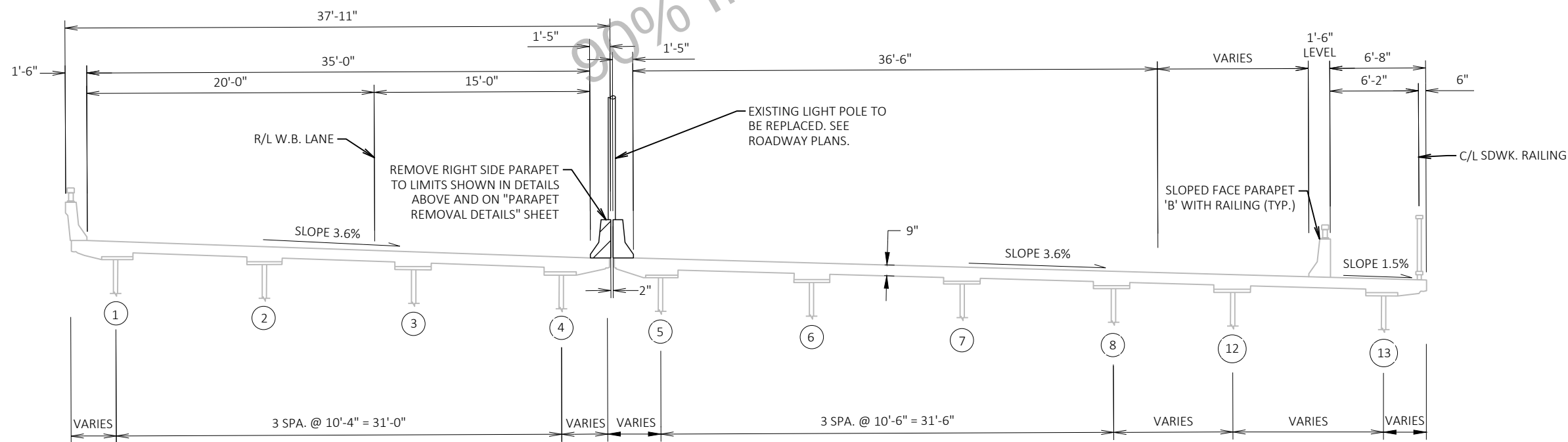
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 4			SHEET 8



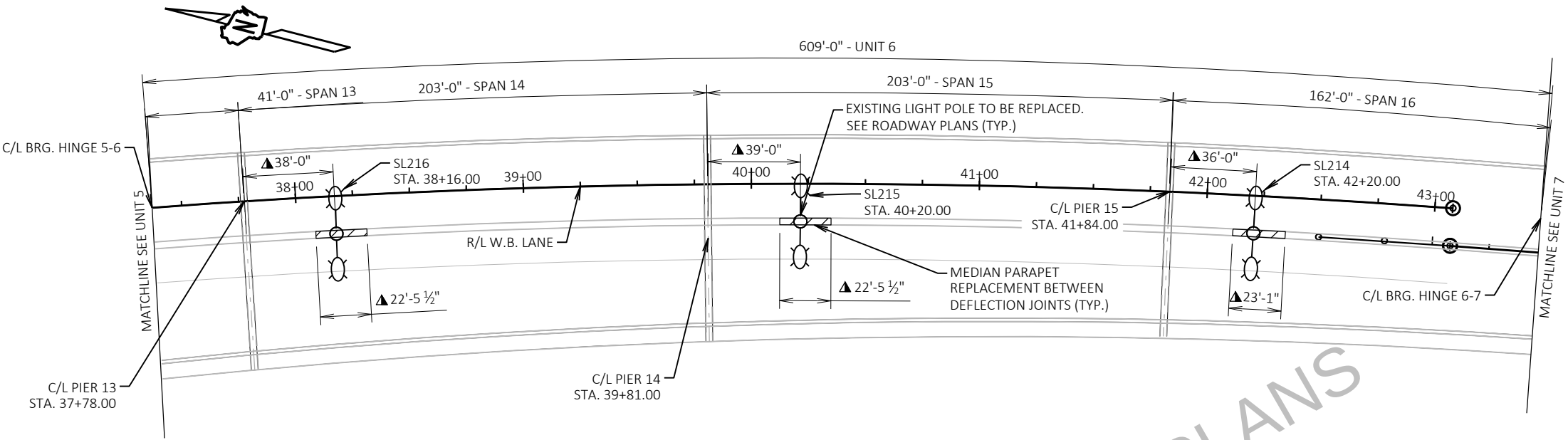
PLAN - UNIT 5

▲ MEASURED ALONG BASE LINE WEST BOUND LANE ACCORDING TO AS BUILTS. DIMENSIONS IN FIELD MAY VARY.



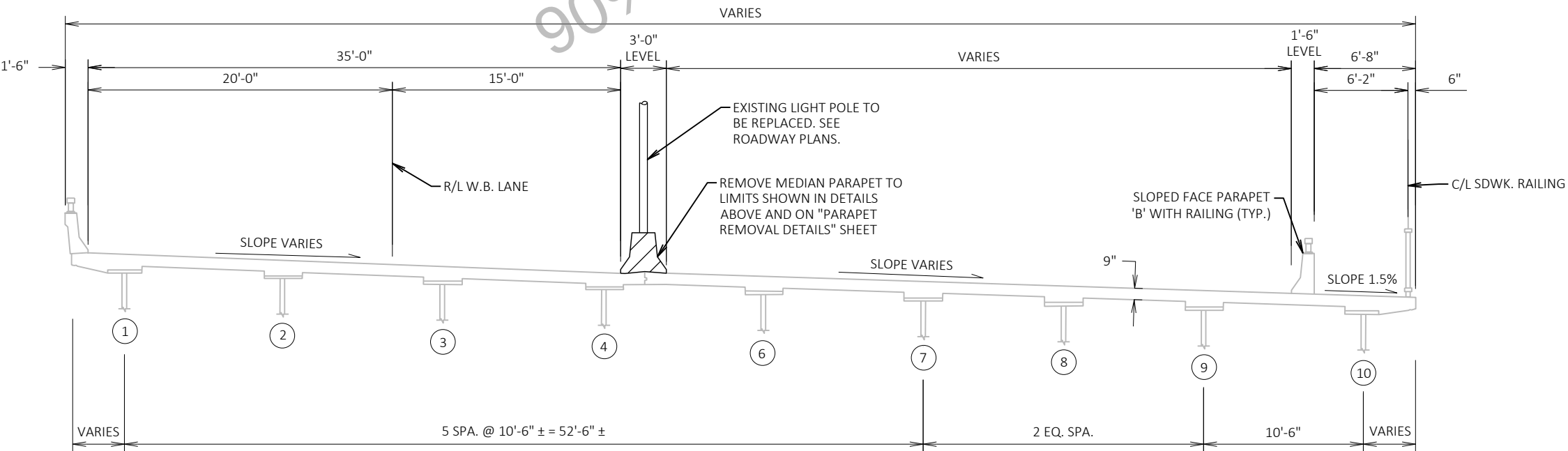
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 5			SHEET 9



PLAN - UNIT 6

▲ MEASURED ALONG BASE LINE WEST
BOUND LANE & C/L OF MEDIAN
ACCORDING TO AS BUILTS. DIMENSIONS
IN FIELD MAY VARY.



TYPICAL SECTION
LOOKING UPSTATION

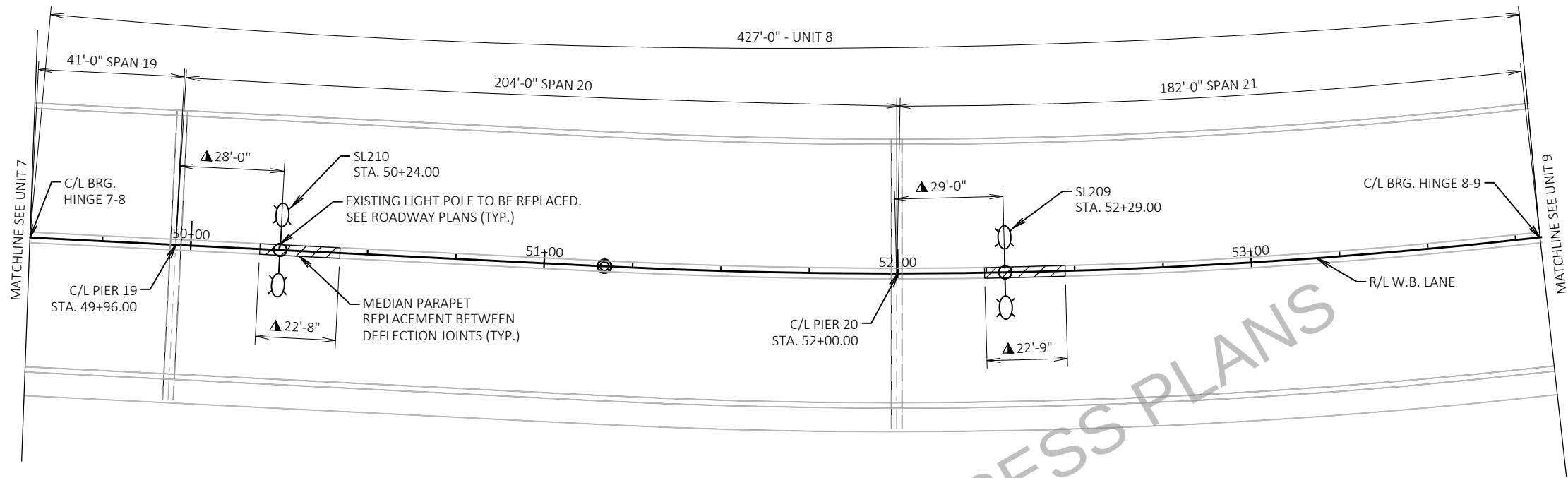
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 6			SHEET 10



Diagram illustrating the cross-section of a bridge deck with dimensions and structural details:

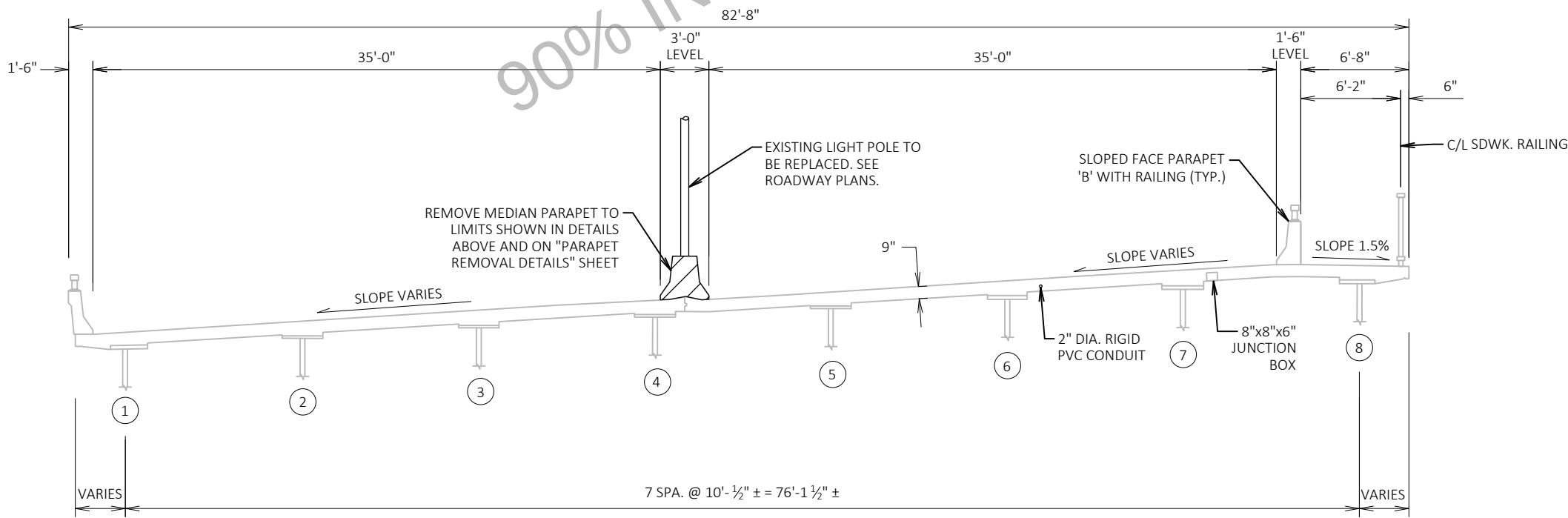
- Overall Width:** 82'-8"
- Span Lengths:** 35'-0" (left), 35'-0" (right)
- Levels:** 3'-0" LEVEL, 1'-6" LEVEL
- Dimensions:**
 - 1'-6" (left side)
 - 3'-0" (between levels)
 - 6'-8" (right side)
 - 6'-2" (right side)
 - 6" (right side)
 - 9" (vertical dimension)
 - 3'-0 3/4" (bottom left)
 - 3'-0 3/4" (bottom right)
- Structural Details:**
 - REMOVE MEDIAN PARAPET TO LIMITS SHOWN IN DETAILS ABOVE AND ON "PARAPET REMOVAL DETAILS" SHEET
 - EXISTING LIGHT POLE TO BE REPLACED. SEE ROADWAY PLANS.
 - SLOPED FACE PARAPET 'B' WITH RAILING (TYP.)
 - SLOPE VARIES
 - SLOPE 1.5%
 - C/L SDWK. RAILING
- Span Spacing:** 7 SPA. @ 10'-10 1/2" = 76'-1 1/2"

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 7			SHEET 11



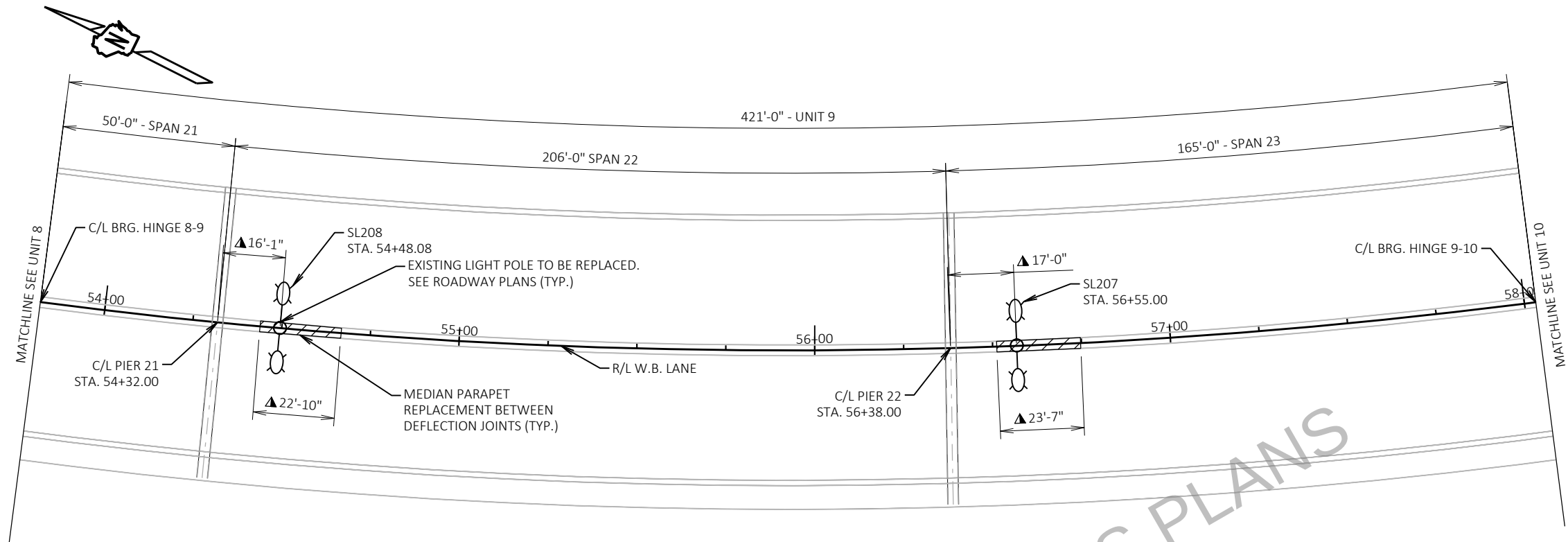
PLAN - UNIT 8

▲ MEASURED ALONG C/L OF MEDIAN
ACCORDING TO AS BUILT. DIMENSIONS
IN FIELD MAY VARY.



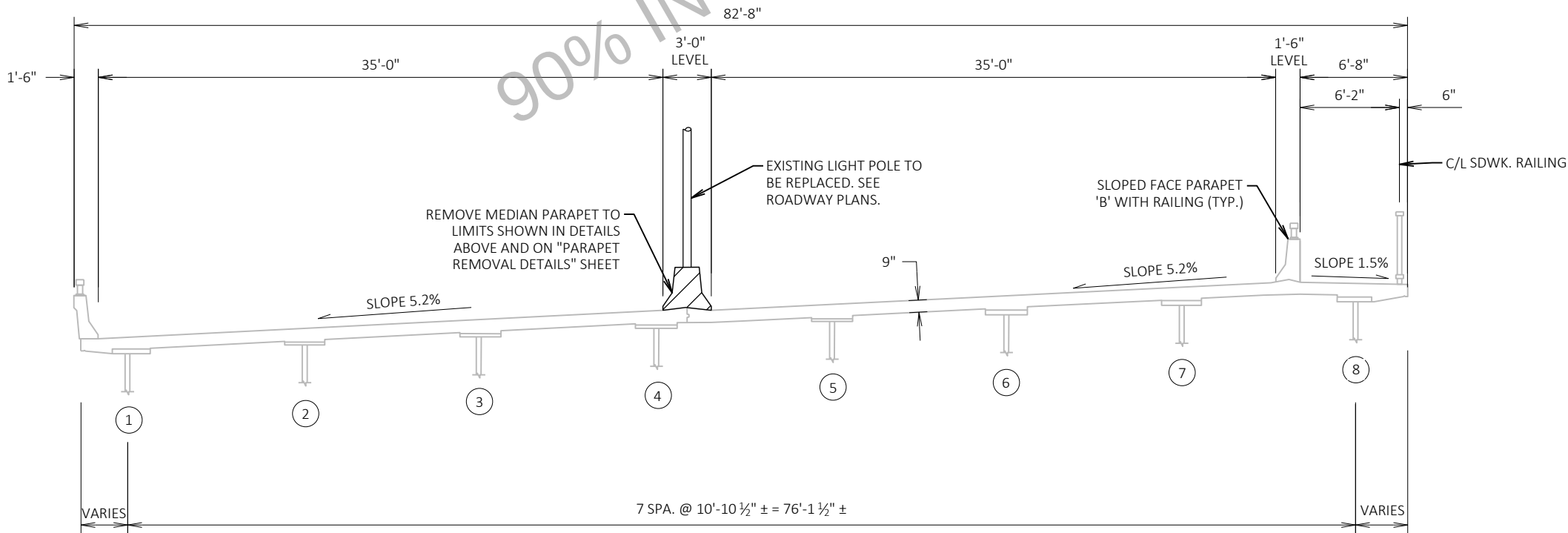
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 8			SHEET 12



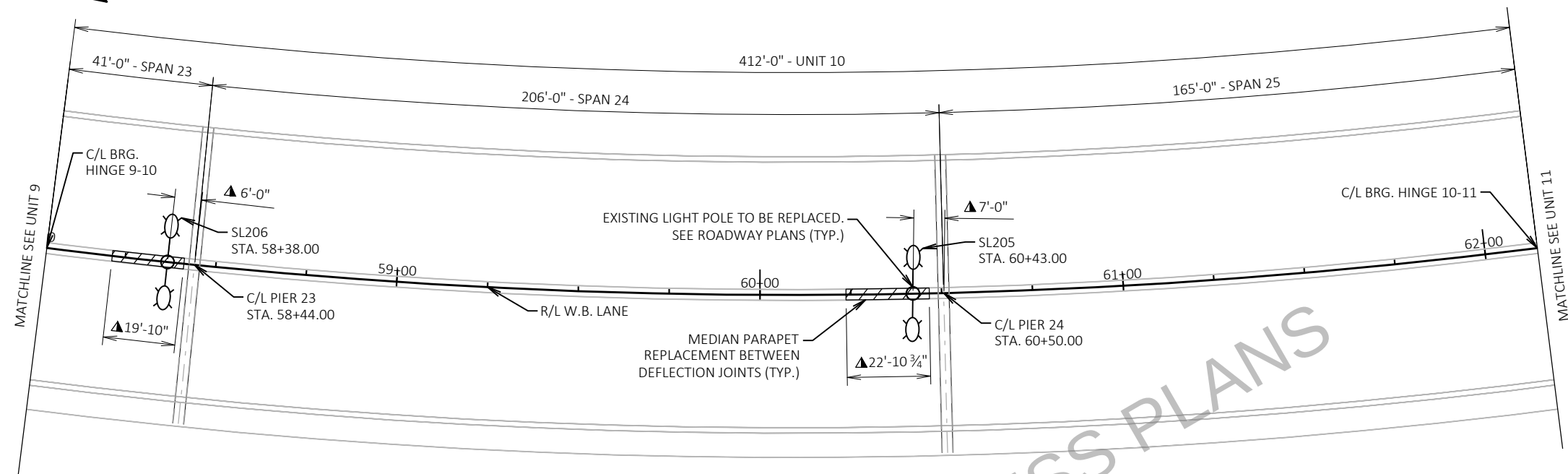
PLAN - UNIT 9

▲ MEASURED ALONG C/L OF MEDIAN
ACCORDING TO AS BUILTS. DIMENSIONS
IN FIELD MAY VARY.



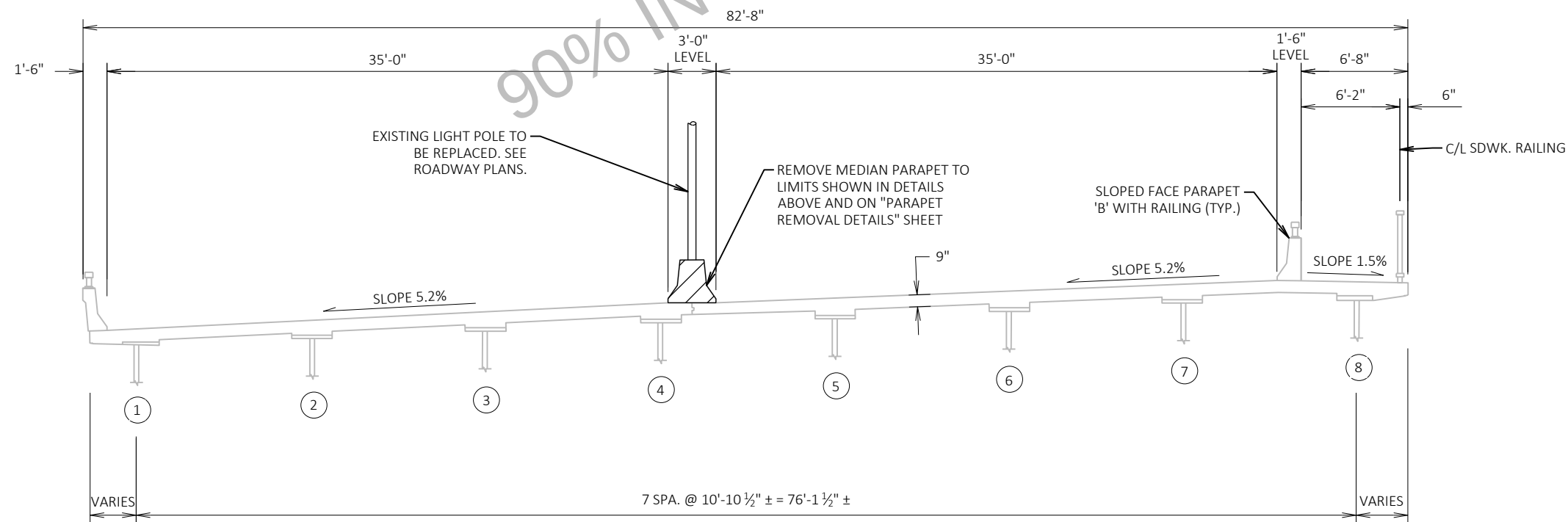
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 9			SHEET 13



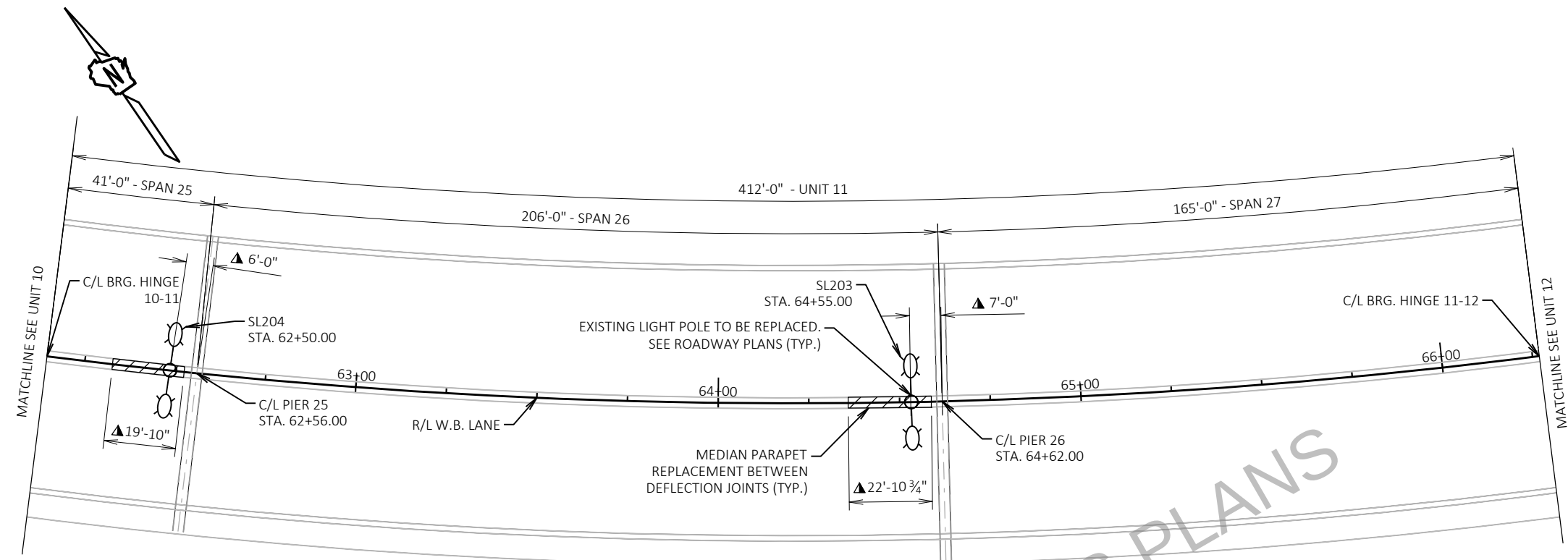
PLAN - UNIT 10

▲ MEASURED ALONG C/L OF MEDIAN
ACCORDING TO AS BUILT. DIMENSIONS
IN FIELD MAY VARY.

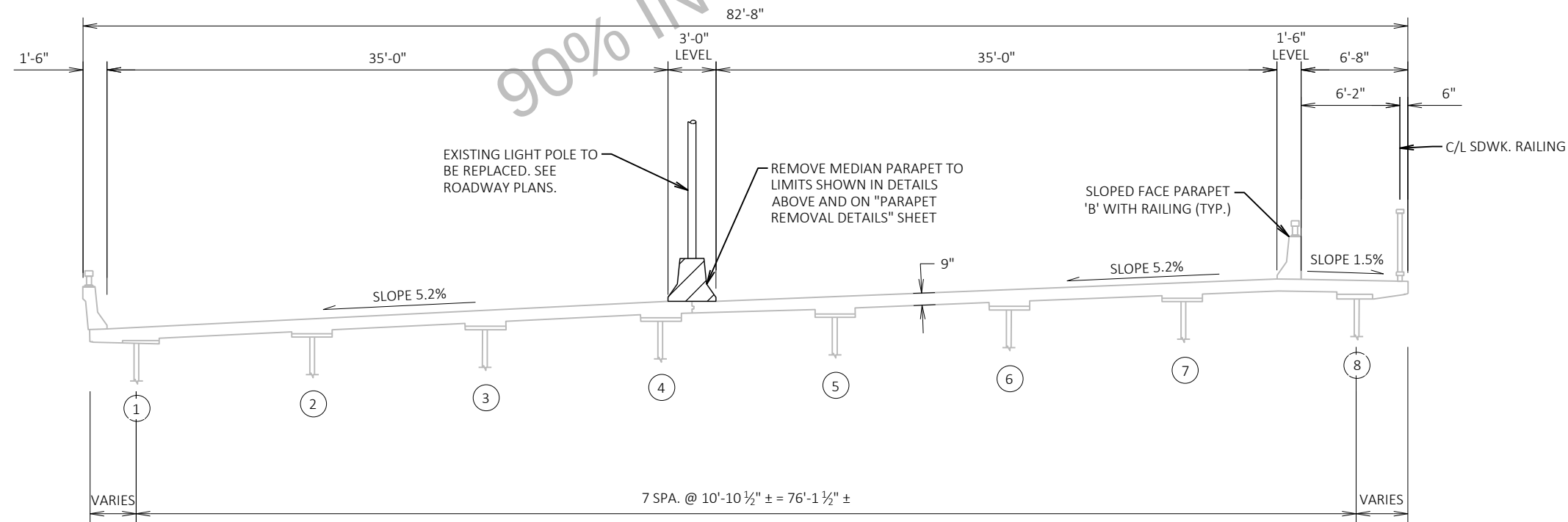


TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 10		SHEET 14	

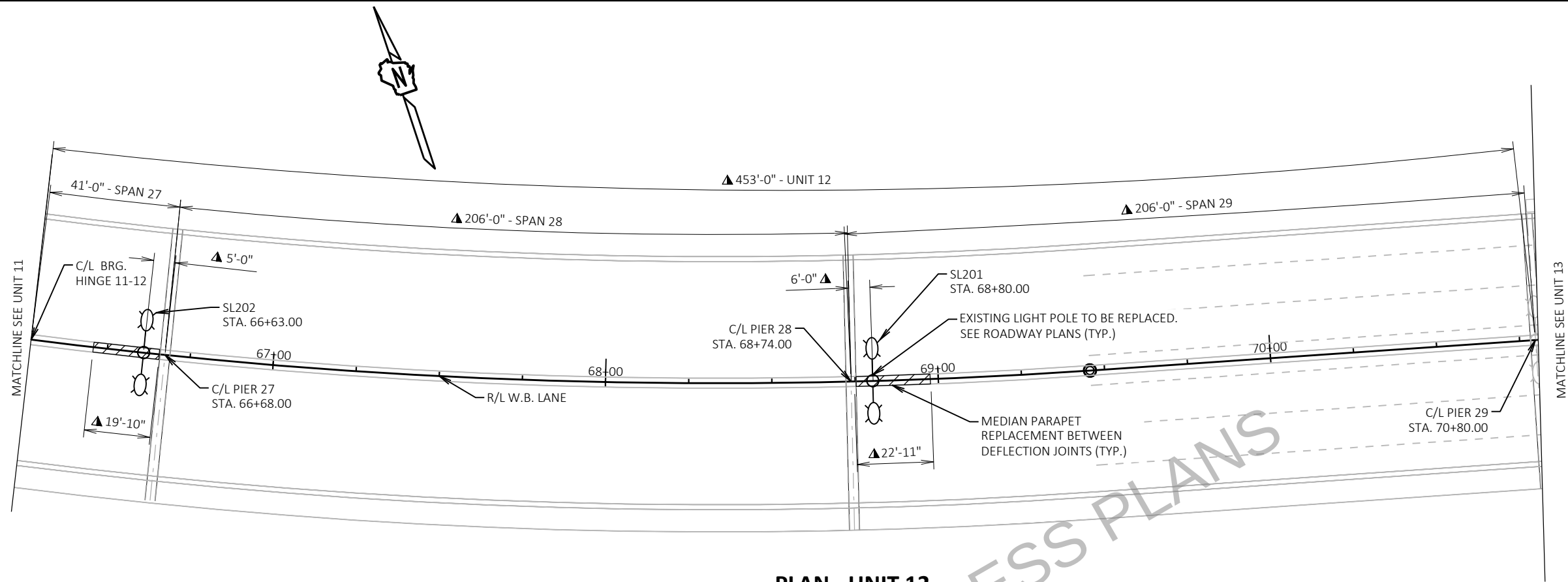


▲ MEASURED ALONG C/L OF MEDIAN
ACCORDING TO AS BUILTS. DIMENSIONS
IN FIELD MAY VARY.



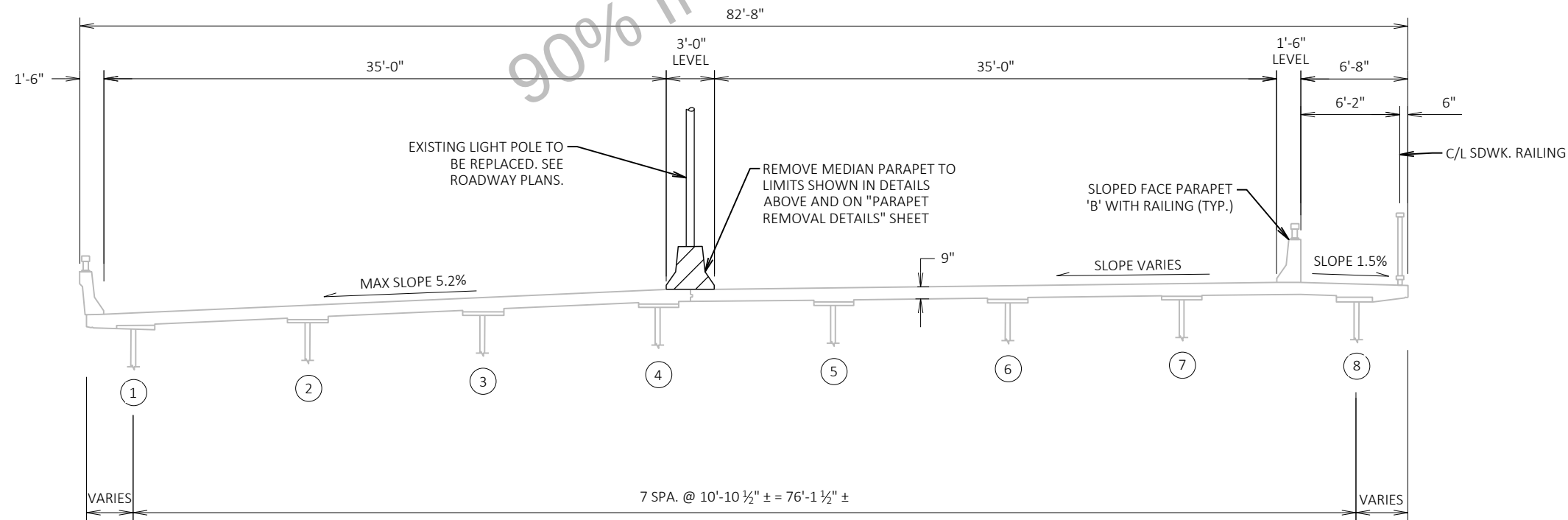
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 11			SHEET 15



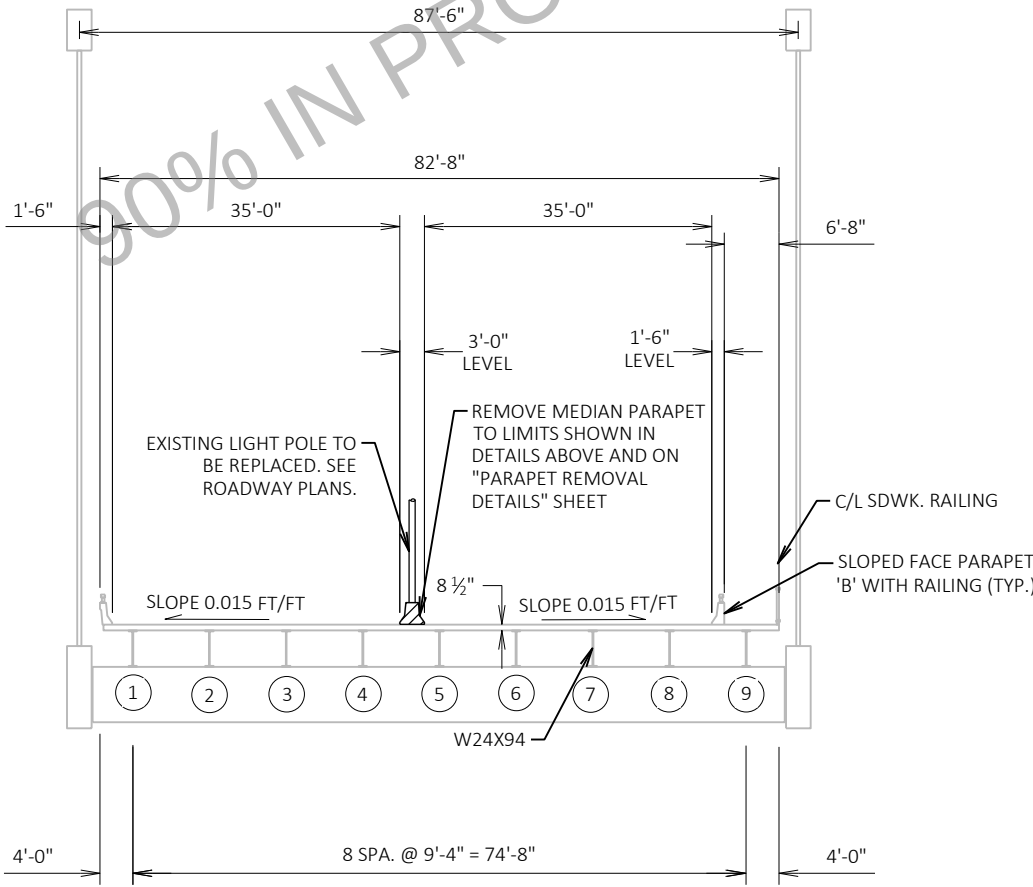
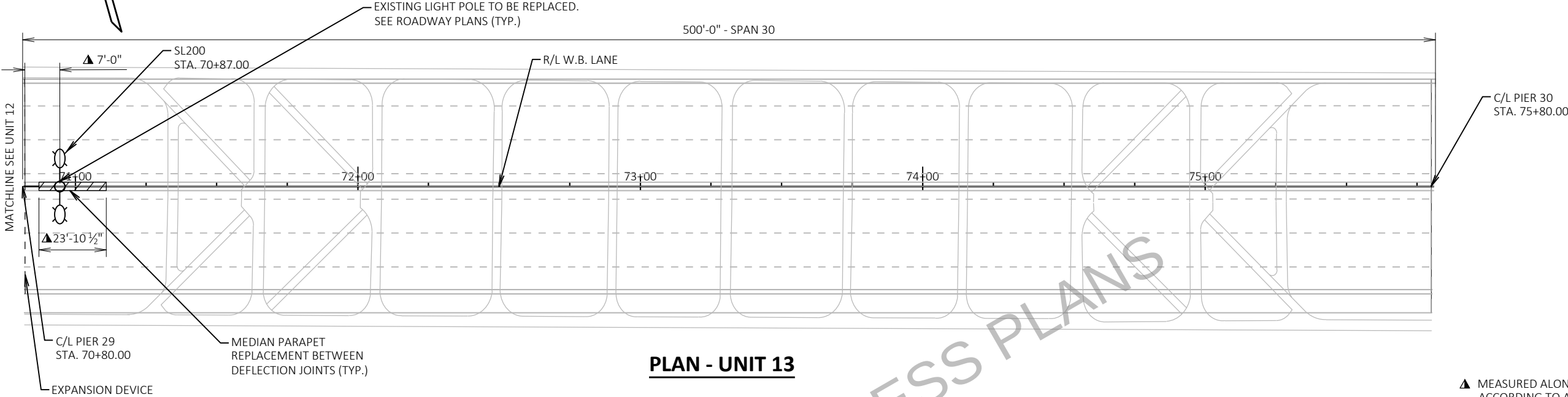
PLAN - UNIT 12

▲ MEASURED ALONG C/L OF MEDIAN
ACCORDING TO AS BUILTS. DIMENSIONS
IN FIELD MAY VARY.



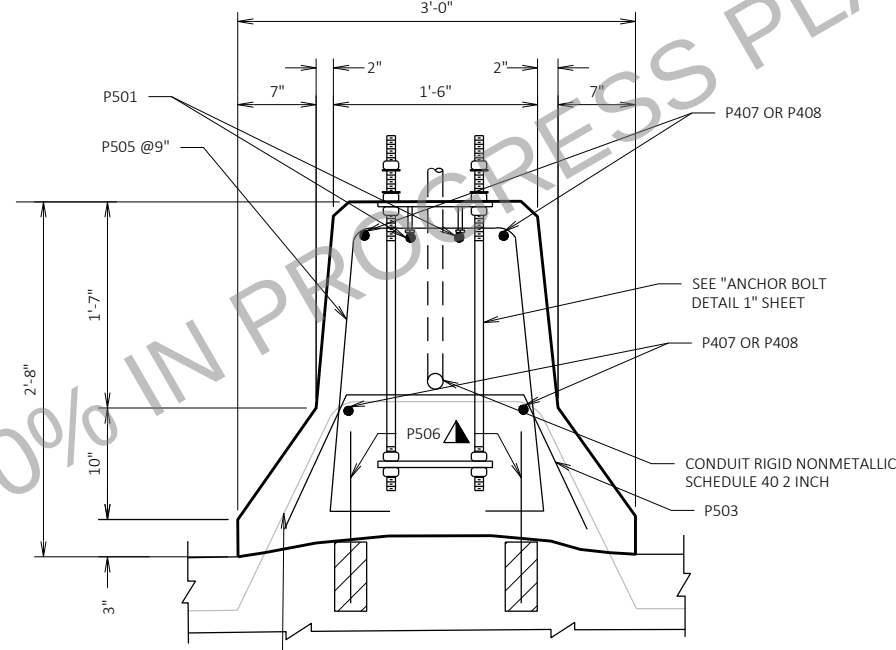
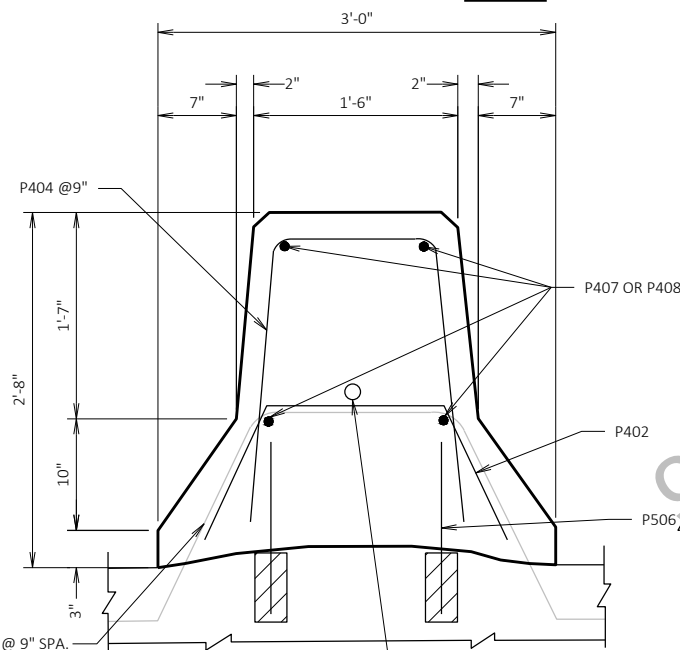
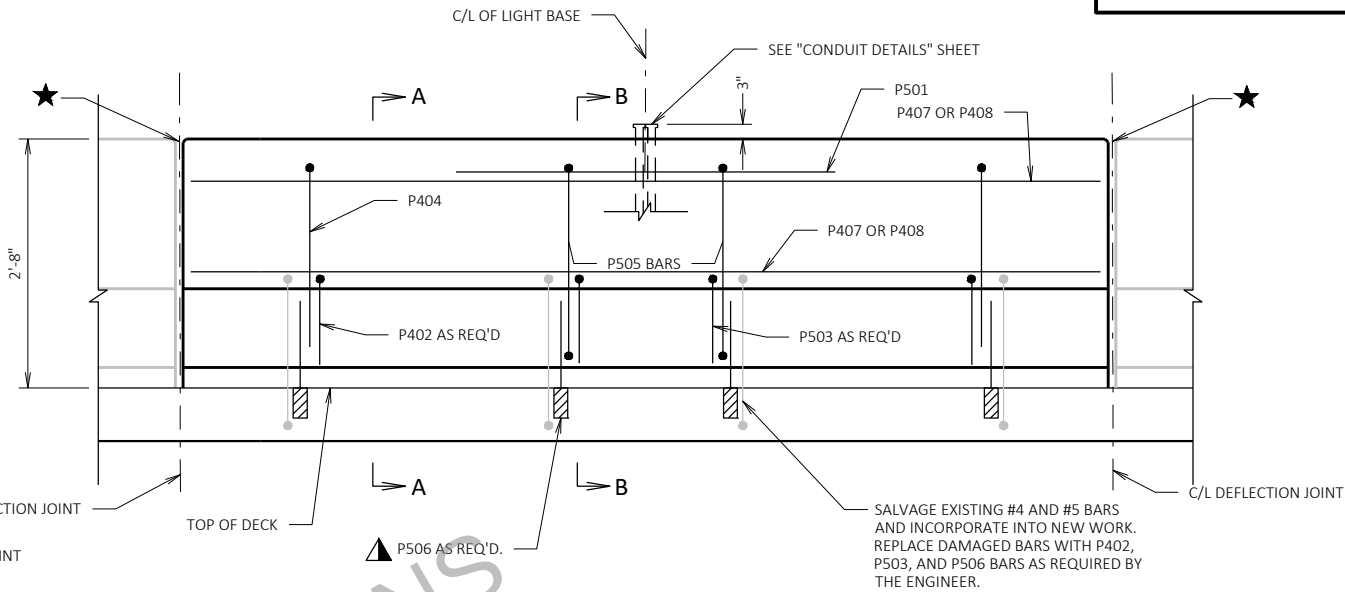
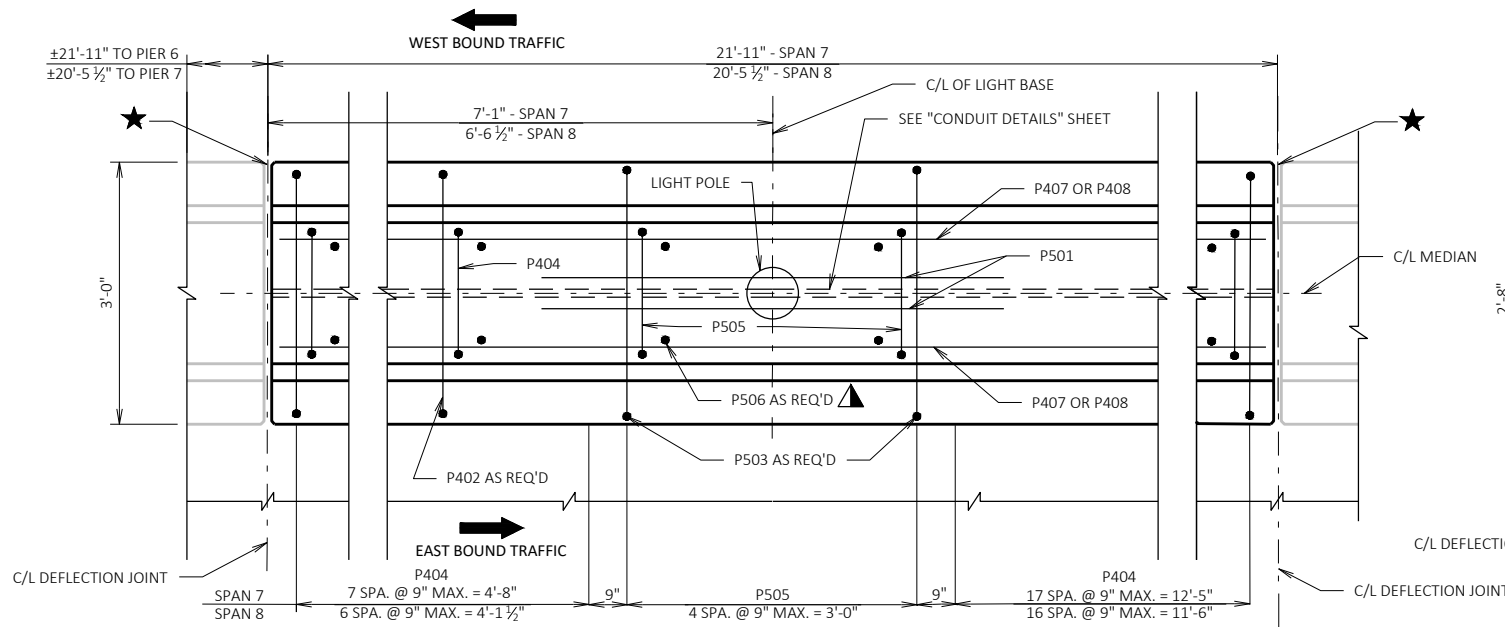
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 12			SHEET 16



TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 13			SHEET 17



LEGEND

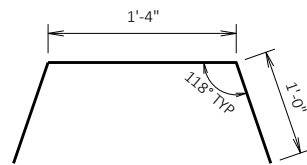
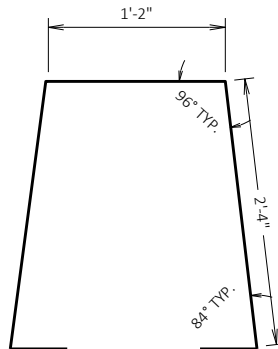
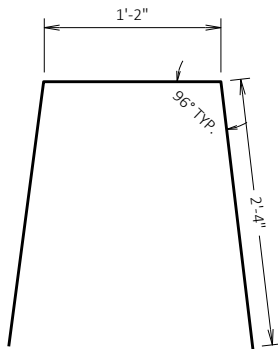
- 1" DIA. ANCHOR RODS ASTM F1554 GR 55, HEAVY HEX NUTS ASTM A563, AND WASHERS ASTM F436. ANCHOR ASSEMBLIES SHALL BE GALVANIZED PER SECTION 531 OF THE STANDARD SPECIFICATION. PROVIDE (2) WASHERS AND (7) NUTS PER ANCHOR ROD.
- ADHESIVE ANCHORS NO. 5 BAR. EMBEDDED 5 1/4" IN CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.
- 50% OF BARS ASSUMED TO BE REPLACED FOR QUANTITIES IN BILL OF BARS. ACTUAL QUANTITY OF BARS MAY VARY IN THE FIELD.
- DEFLECTION JOINT. SALVAGE EXISTING 1/2" ALUMINUM OR ZINC PLATE. FILL WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (TYP.)

UNIT 3 BILL OF BARS

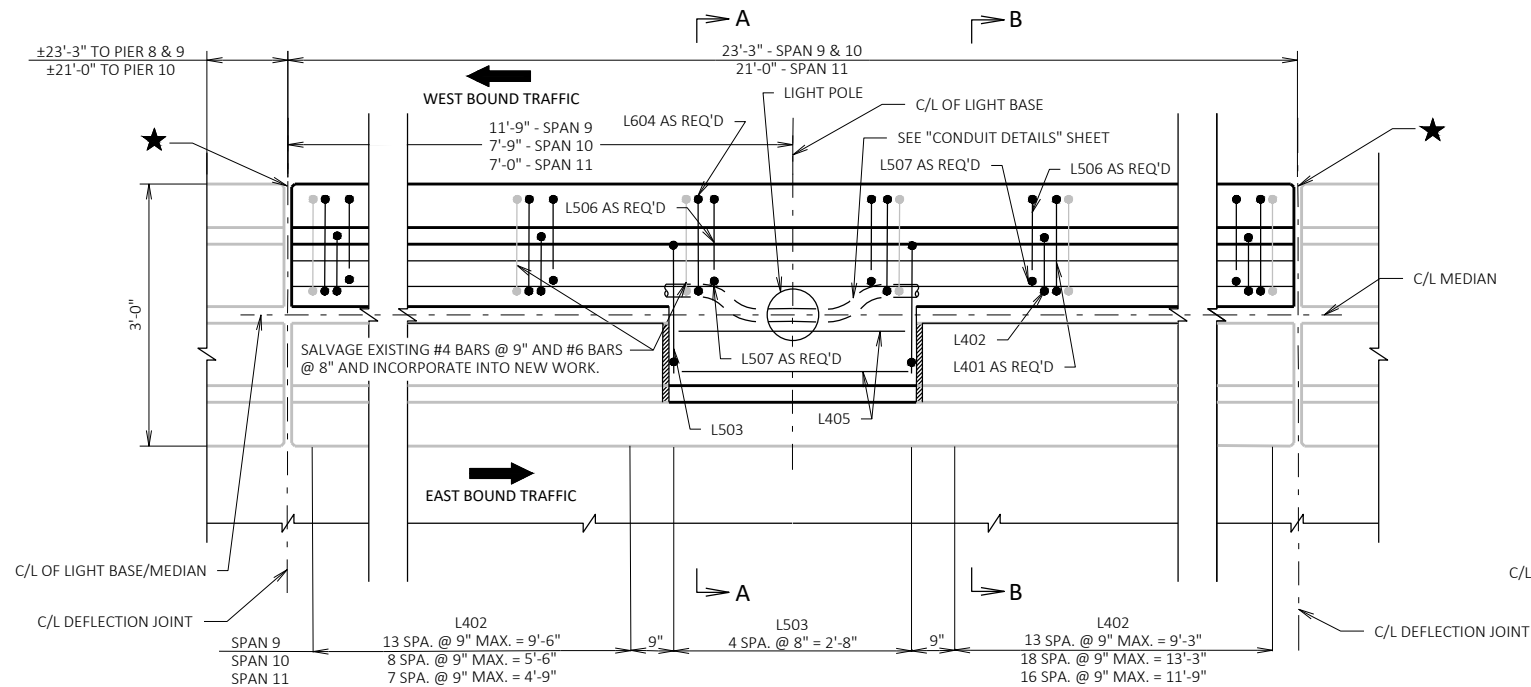
COATED TOTAL = 550 LBS

BAR MARK	NO.	LENGTH	COAT	BENT	LOCATION
P501	4	3'-6"	X		PARAPET HORIZ. - LIGHT BASE
P402	25	3'-2"	X	X	PARAPET VERT. - AS REQ'D
P503	5	3'-1"	X	X	PARAPET VERT. - AS REQ'D
P404	50	5'-8"	X	X	PARAPET VERT.
P505	10	7'-0"	X	X	PARAPET VERT. - LIGHT BASE
P506	60	1'-4"	X		PARAPET VERT. - ANCHORS
P407	4	21'-7"	X		PARAPET HORIZ. - SPAN 7
P408	4	20'-1"	X		PARAPET HORIZ. - SPAN 8

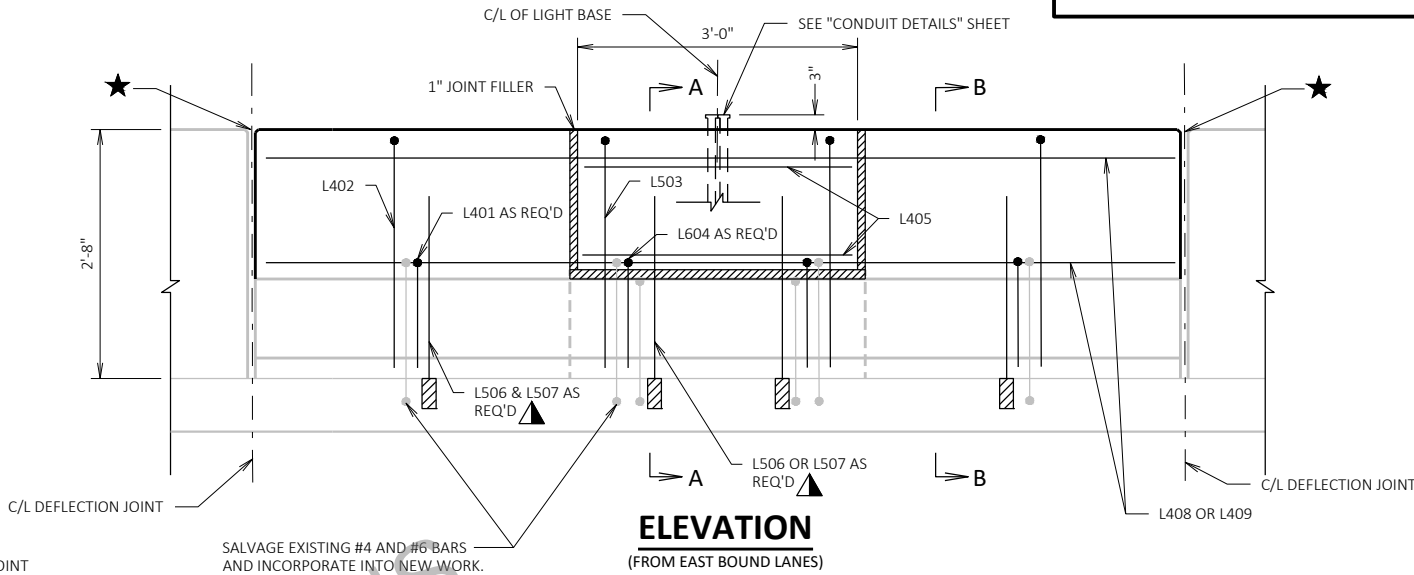
NOTES:
SEE "CONDUIT DETAILS" SHEET FOR CONDUIT AND JUNCTION BOX DETAILS



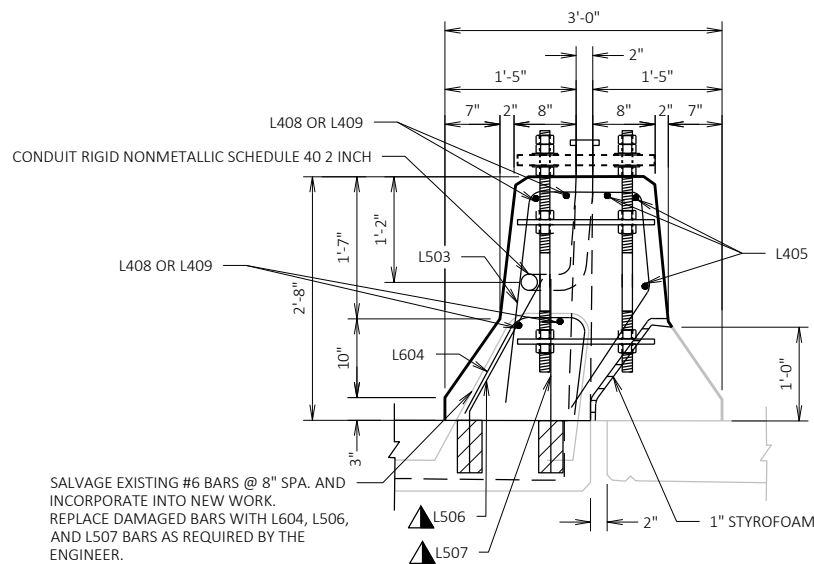
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
PARAPET DETAILS UNIT 3		SHEET 19	



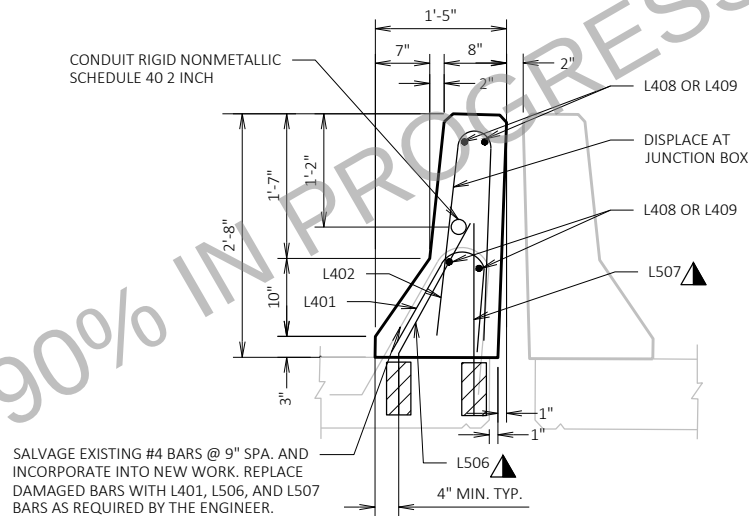
PLAN



ELEVATION
(FROM EAST BOUND LANES)



SECTION A-A



SECTION B-B

LEGEND

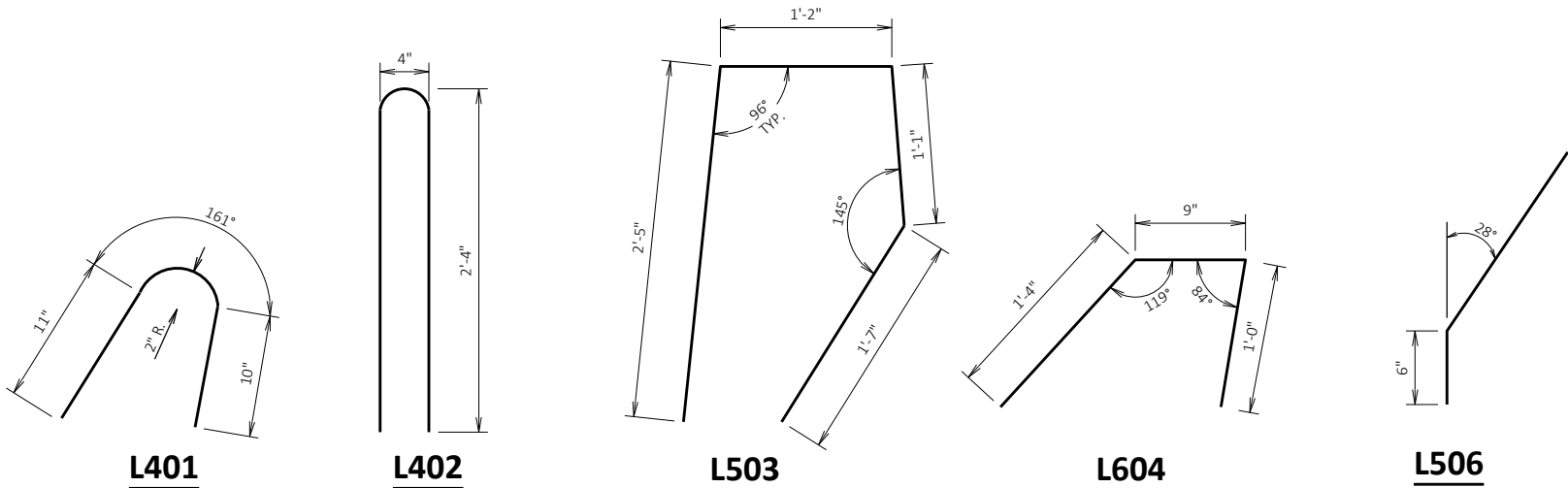
- 1" DIA. ANCHOR RODS ASTM F1554 GR 55, HEAVY HEX NUTS ASTM A563, AND WASHERS ASTM F436. ANCHOR ASSEMBLIES SHALL BE GALVANIZED PER SECTION 531 OF THE STANDARD SPECIFICATION. PROVIDE (2) WASHERS AND (7) NUTS PER ANCHOR ROD.
- ADHESIVE ANCHORS NO. 5 BAR. EMBEDDED 5 1/2" IN CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.
- 50% OF BARS ASSUMED TO BE REPLACED FOR QUANTITIES IN BILL OF BARS. ACTUAL QUANTITY OF BARS MAY VARY IN THE FIELD.
- DEFLECTION JOINT. SALVAGE EXISTING 1/2" ALUMINUM OR ZINC PLATE. FILL WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (TYP.)

UNIT 4 BILL OF BARS

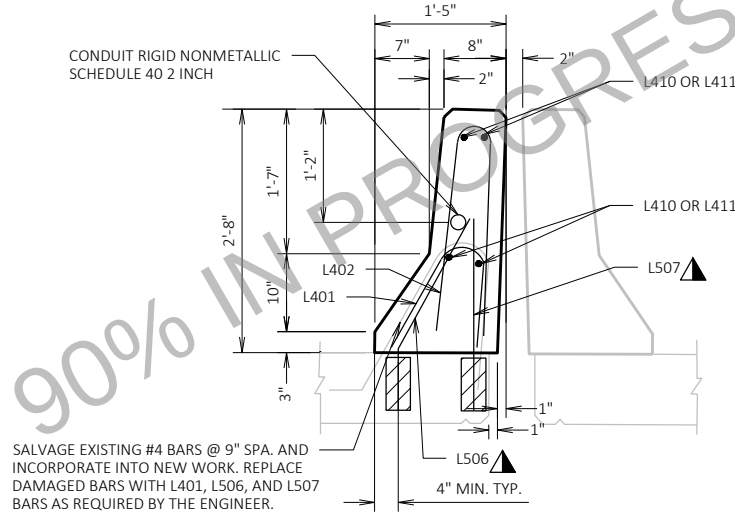
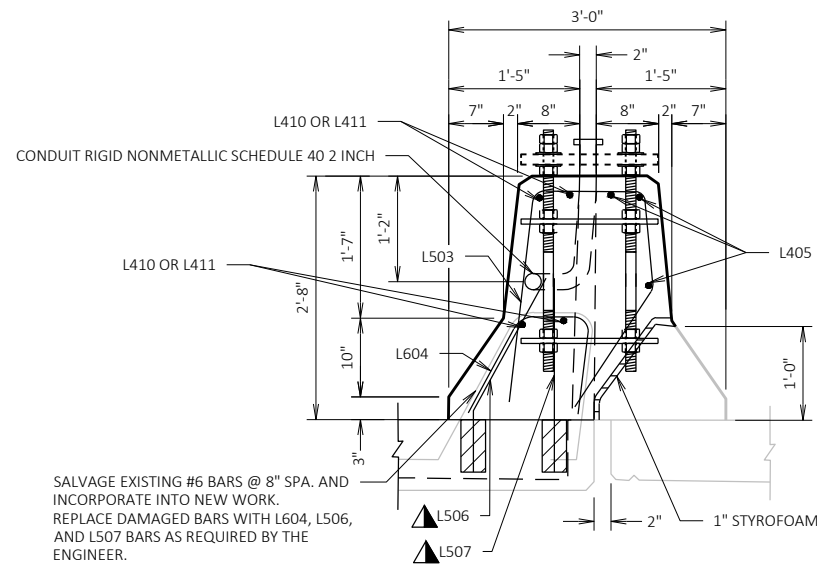
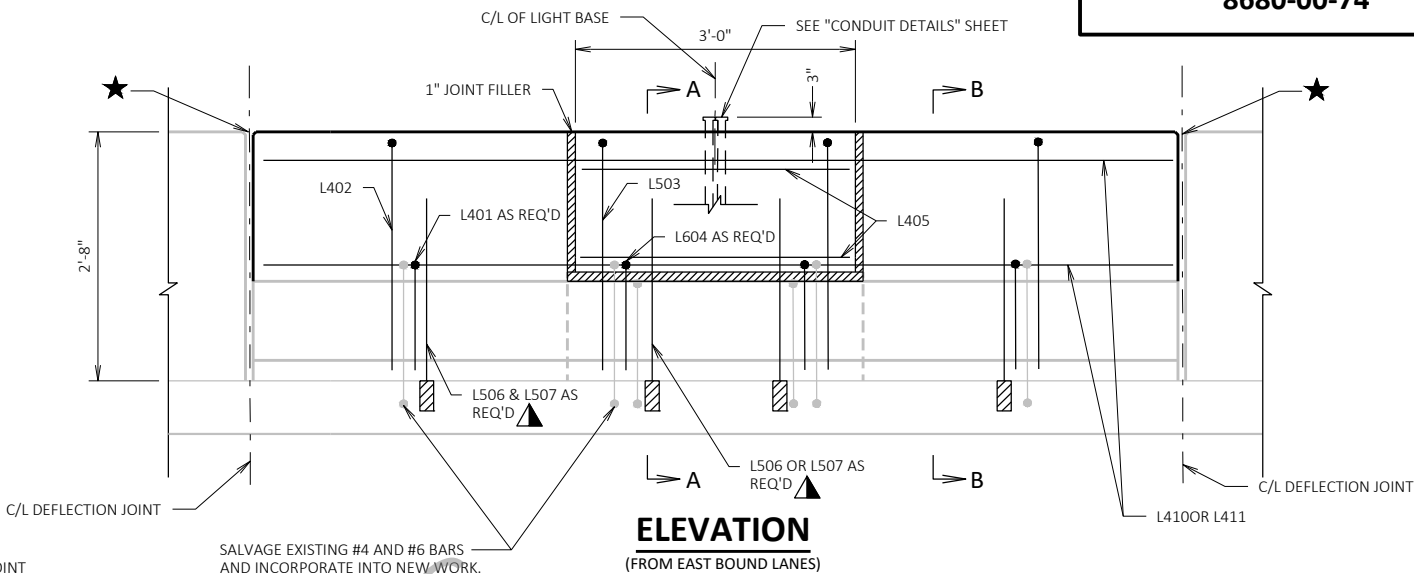
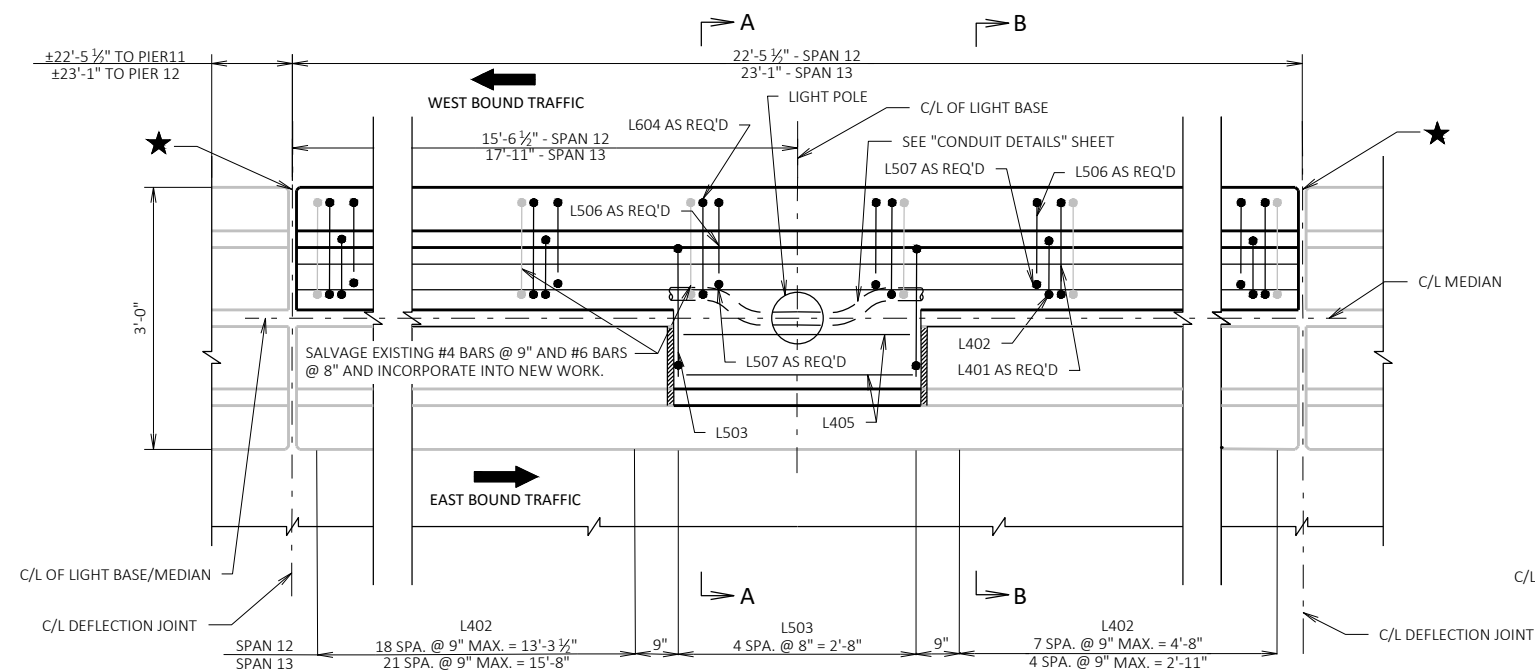
COATED TOTAL = 830 LBS

BAR MARK	NO.	LENGTH	COAT	BENT	LOCATION
L401	40	2'-0"	X	X	PARAPET VERT. - AS REQ'D
L402	81	4'-10"	X	X	PARAPET VERT.
L503	15	6'-0"	X	X	PARAPET VERT. - LIGHT BASE
L604	8	2'-10"	X	X	PARAPET VERT. - LIGHT BASE - AS REQ'D
L405	9	2'-8"	X		PARAPET HORIZ. - LIGHT BASE
L506	48	2'-5"	X	X	PARAPET VERT. - ANCHORS
L507	48	1'-4"	X		PARAPET VERT. - ANCHORS
L408	8	22'-11"	X		PARAPET HORIZ. - SPAN 9 & 10
L409	4	20'-8"	X		PARAPET HORIZ. - SPAN 11

NOTES:
SEE "CONDUIT DETAILS" SHEET FOR CONDUIT AND JUNCTION BOX DETAILS



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
PARAPET DETAILS UNIT 4		SHEET 20	



LEGEND

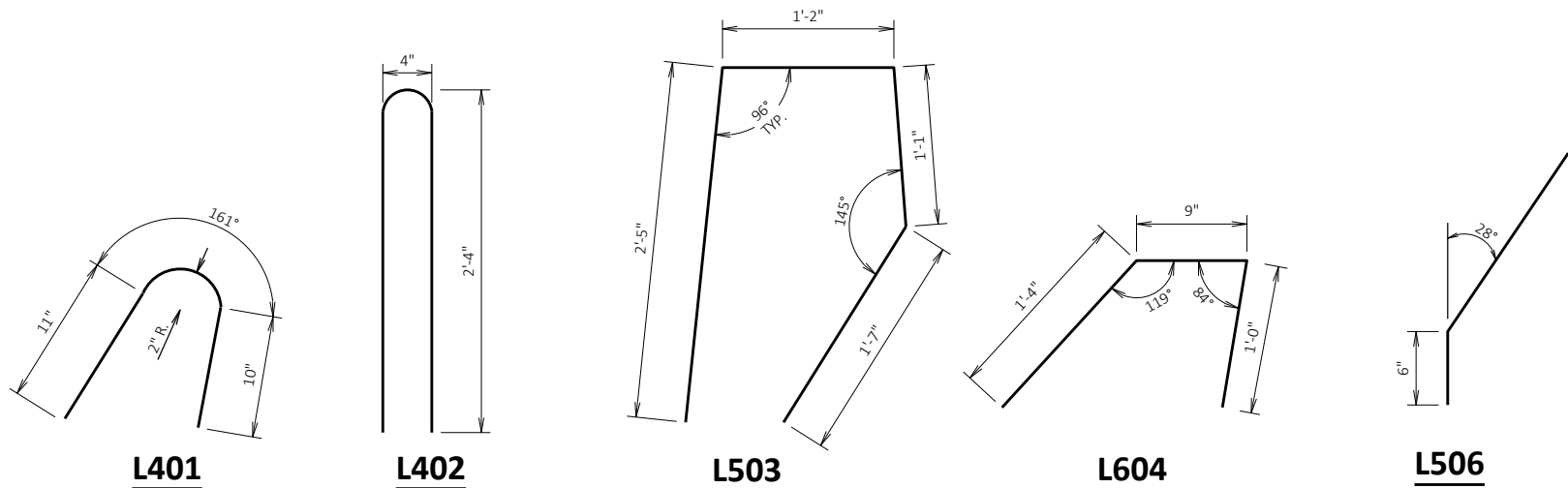
- 1" DIA. ANCHOR RODS ASTM F1554 GR 55, HEAVY HEX NUTS ASTM A563, AND WASHERS ASTM F436. ANCHOR ASSEMBLIES SHALL BE GALVANIZED PER SECTION 531 OF THE STANDARD SPECIFICATION. PROVIDE (2) WASHERS AND (7) NUTS PER ANCHOR ROD.
- ADHESIVE ANCHORS NO. 5 BAR. EMBEDDED 5 1/4" IN CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.
- 50% OF BARS ASSUMED TO BE REPLACED FOR QUANTITIES IN BILL OF BARS. ACTUAL QUANTITY OF BARS MAY VARY IN THE FIELD.
- DEFLECTION JOINT. SALVAGE EXISTING 1/2" ALUMINUM OR ZINC PLATE. FILL WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (TYP.)

UNIT 5 BILL OF BARS

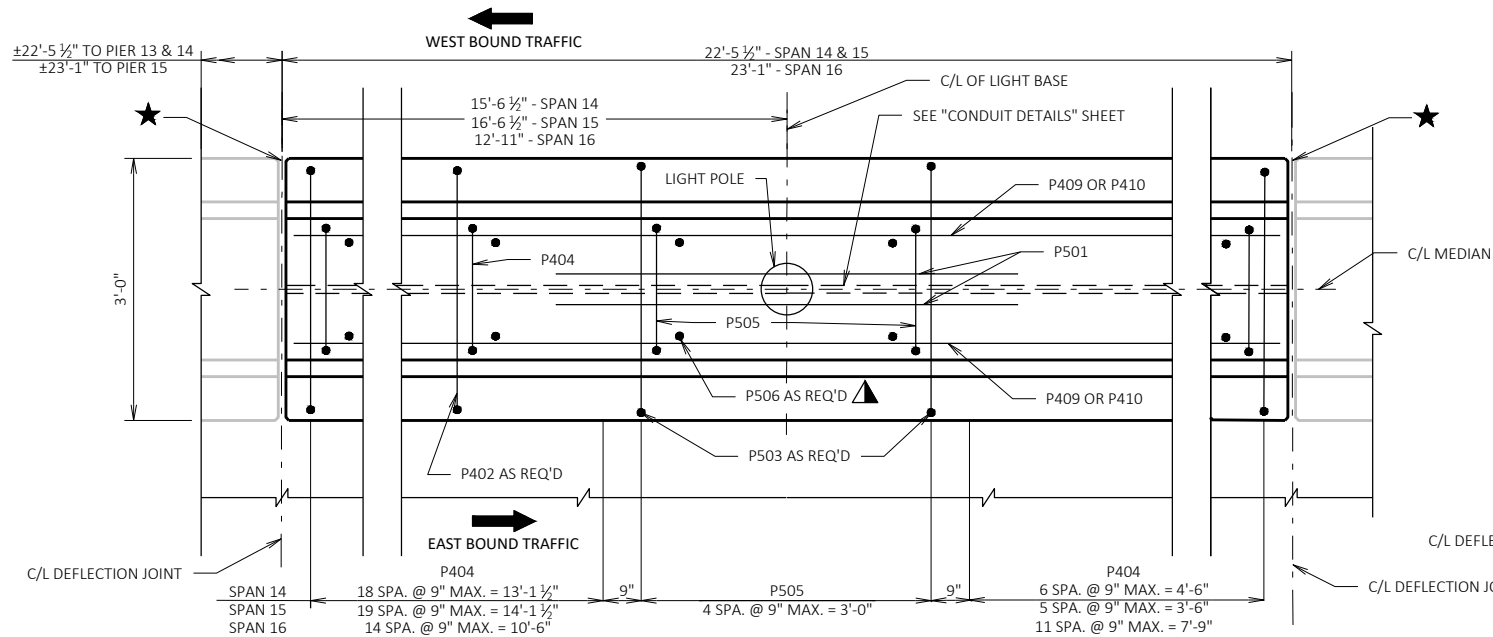
COATED TOTAL = 550 LBS

BAR MARK	NO	LENGTH	COAT	BENT	LOCATION
L401	27	2'-0"	X	X	PARAPET VERT. - AS REQ'D
L402	54	4'-10"	X	X	PARAPET VERT.
L503	10	6'-0"	X	X	PARAPET VERT. - LIGHT BASE
L604	5	2'-10"	X	X	PARAPET VERT. - LIGHT BASE - AS REQ'D
L405	6	2'-8"	X		PARAPET HORIZ. - LIGHT BASE
L506	32	2'-5"	X	X	PARAPET VERT. - ANCHORS
L507	32	1'-4"	X		PARAPET VERT. - ANCHORS
L410	4	22'-1"	X		PARAPET HORIZ. - SPAN 12
L411	4	22'-9"	X		PARAPET HORIZ. - SPAN 13

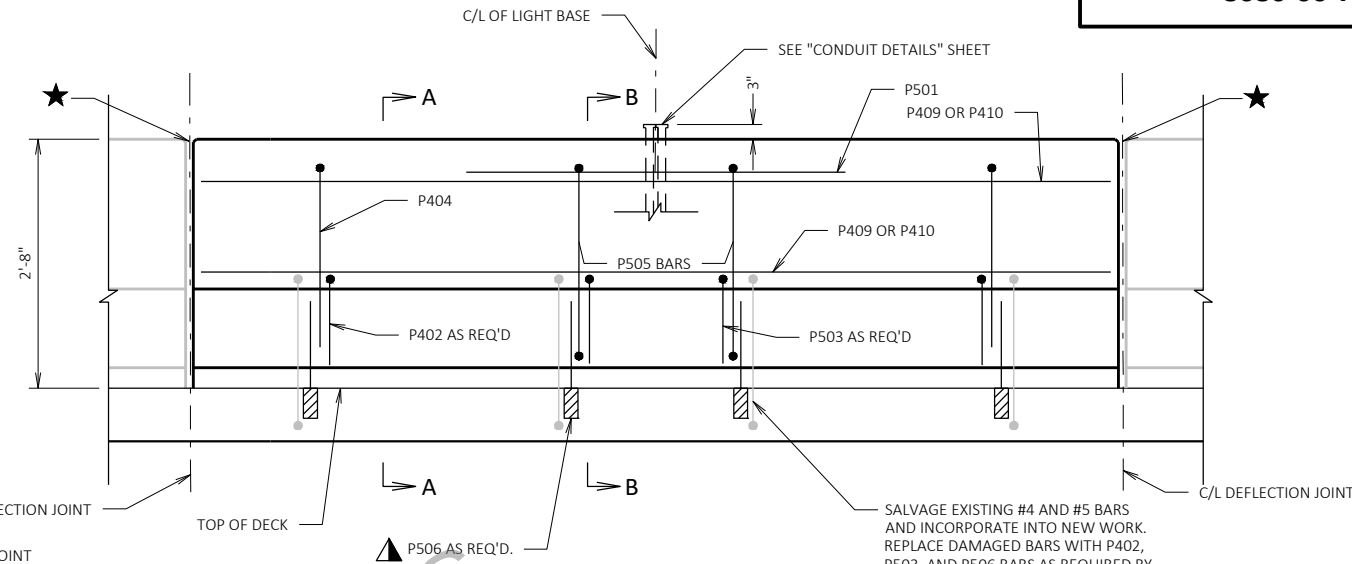
NOTES:
SEE "CONDUIT DETAILS" SHEET FOR CONDUIT AND JUNCTION BOX DETAILS



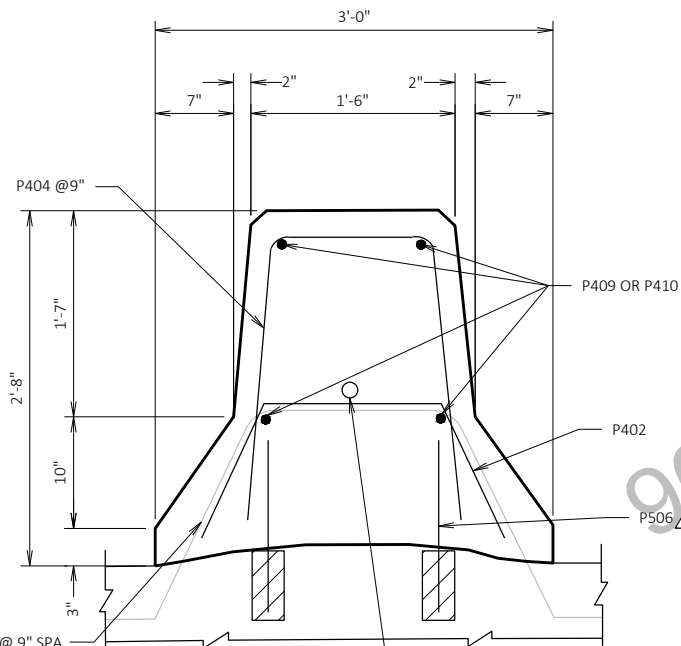
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
PARAPET DETAILS UNIT 5		SHEET 21	



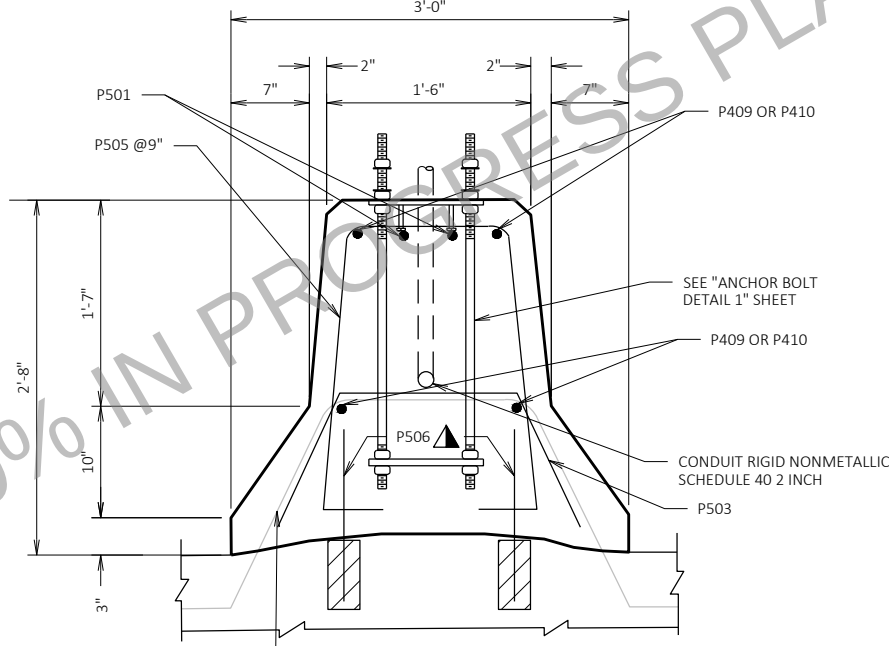
PLAN



ELEVATION



SECTION A-A



SECTION B-B

LEGEND

- 1" DIA. ANCHOR RODS ASTM F1554 GR 55, HEAVY HEX NUTS ASTM A563, AND WASHERS ASTM F436. ANCHOR ASSEMBLIES SHALL BE GALVANIZED PER SECTION 531 OF THE STANDARD SPECIFICATION. PROVIDE (2) WASHERS AND (7) NUTS PER ANCHOR ROD.
- ADHESIVE ANCHORS NO. 5 BAR. EMBEDDED 5 1/4" IN CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.
- 50% OF BARS ASSUMED TO BE REPLACED FOR QUANTITIES IN BILL OF BARS. ACTUAL QUANTITY OF BARS MAY VARY IN THE FIELD.
- DEFLECTION JOINT. SALVAGE EXISTING 3/8" ALUMINUM OR ZINC PLATE. FILL WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (TYP.)

UNIT 6 BILL OF BARS

COATED TOTAL = 860 LBS

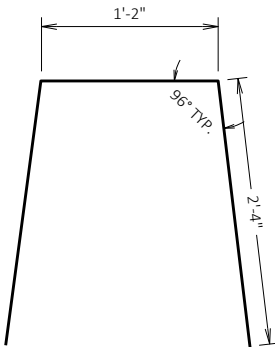
BAR MARK	NO.	LENGTH	COAT	BENT	LOCATION
P501	6	3'-6"	X		PARAPET HORIZ. - LIGHT BASE
P402	40	3'-2"	X	X	PARAPET VERT. - AS REQ'D
P503	8	3'-1"	X	X	PARAPET VERT. - AS REQ'D
P404	79	5'-8"	X	X	PARAPET VERT.
P505	15	7'-0"	X	X	PARAPET VERT. - LIGHT BASE
P506	94	1'-4"	X		PARAPET VERT. - ANCHORS
P409	8	22'-1"	X		PARAPET HORIZ. - SPAN 14 & 15
P410	4	22'-9"	X		PARAPET HORIZ. - SPAN 16

NOTES:
SEE "CONDUIT DETAILS" SHEET FOR CONDUIT AND JUNCTION BOX DETAILS

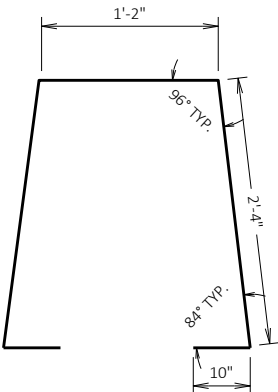
SALVAGE EXISTING #4 BARS @ 9" SPA. AND INCORPORATE INTO NEW WORK. REPLACE DAMAGED BARS WITH P402 AND P506 BARS AS REQUIRED BY THE ENGINEER.

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 INCH

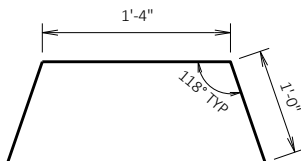
SALVAGE EXISTING #5 BARS @ 9" SPA. AND INCORPORATE INTO NEW WORK. REPLACE DAMAGED BARS WITH P503 AND P506 BARS AS REQUIRED BY THE ENGINEER.



P404

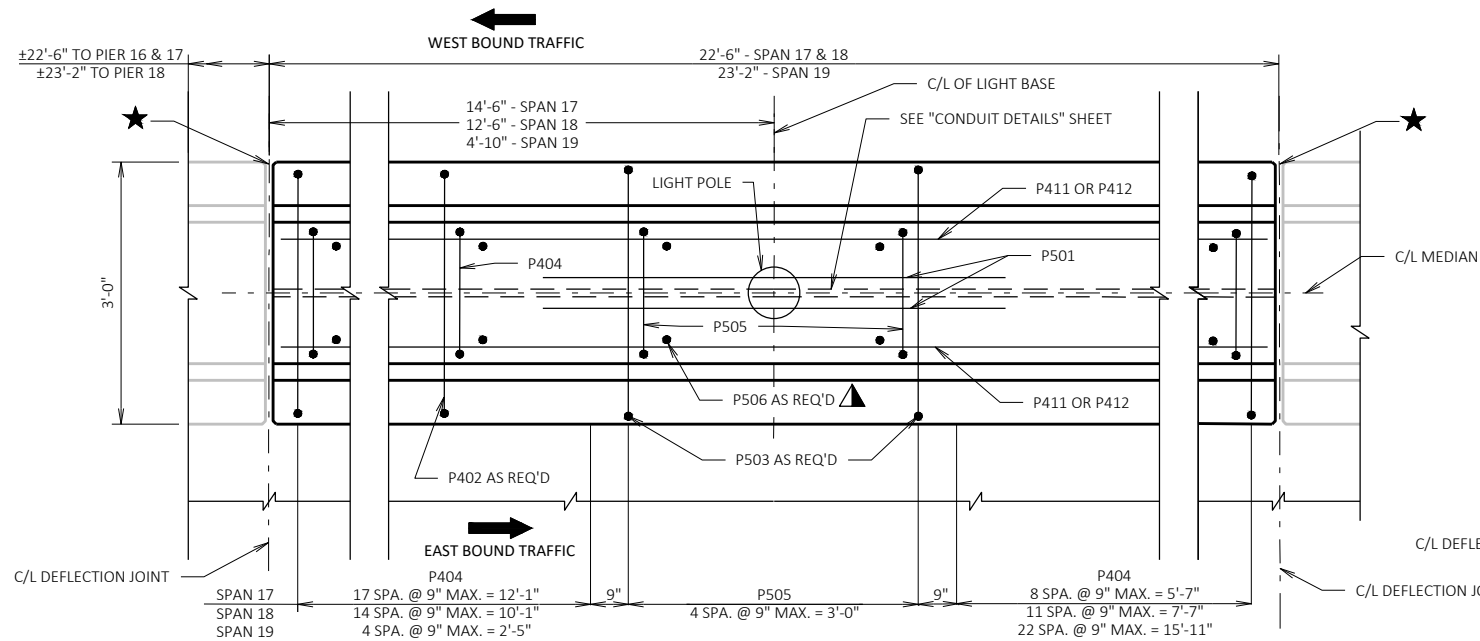


P505

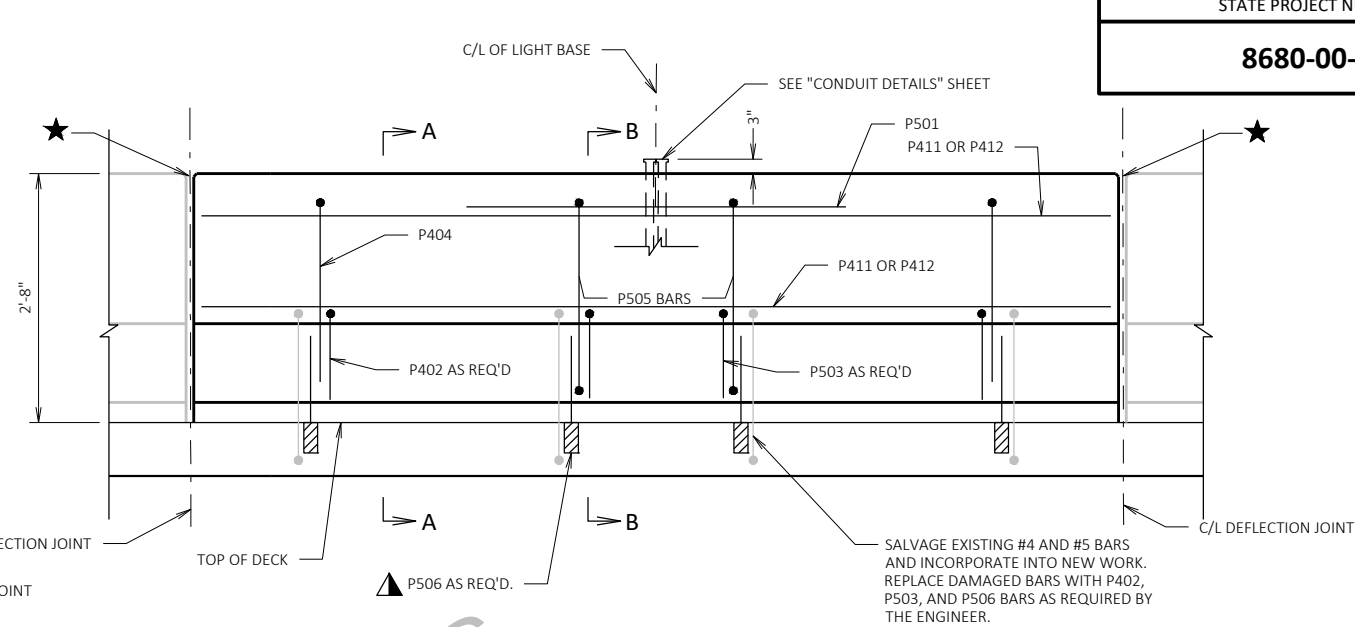


P402, P503

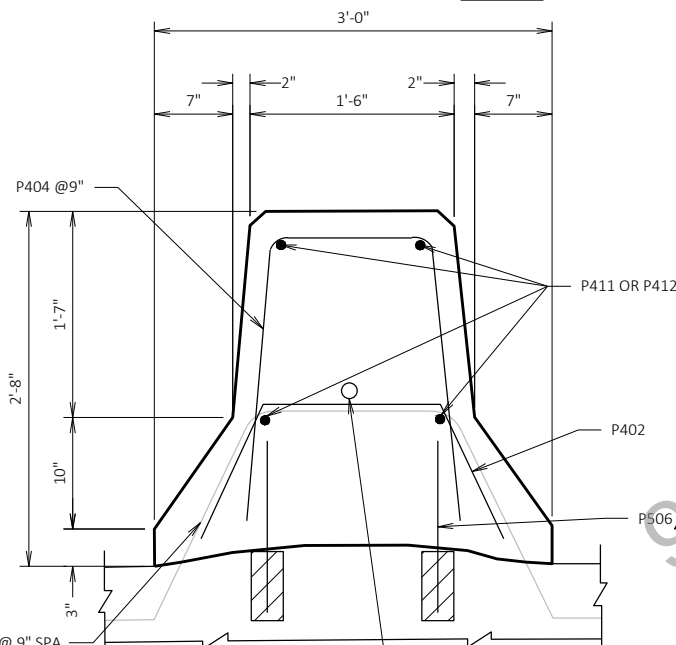
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
PARAPET DETAILS UNIT 6		SHEET 22	



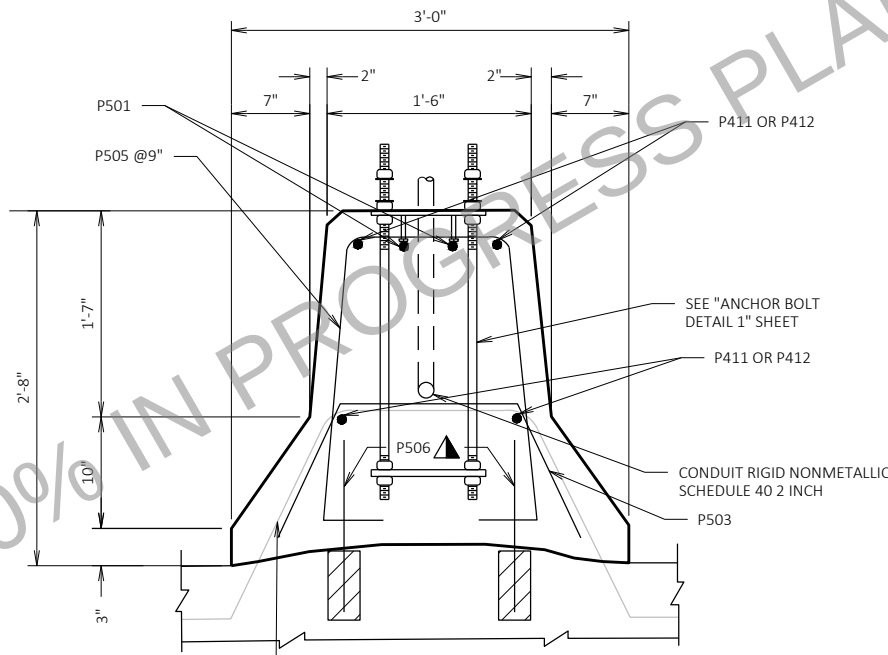
PLAN



ELEVATION



SECTION A-A



SECTION B-B

LEGEND

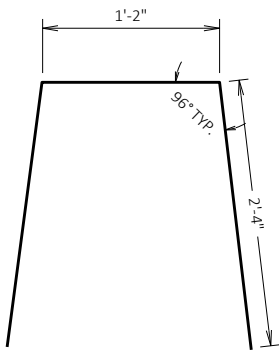
- 1" DIA. ANCHOR RODS ASTM F1554 GR 55, HEAVY HEX NUTS ASTM A563, AND WASHERS ASTM F436. ANCHOR ASSEMBLIES SHALL BE GALVANIZED PER SECTION 531 OF THE STANDARD SPECIFICATION. PROVIDE (2) WASHERS AND (7) NUTS PER ANCHOR ROD.
- ADHESIVE ANCHORS NO. 5 BAR. EMBEDDED 5 1/4" IN CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.
- 50% OF BARS ASSUMED TO BE REPLACED FOR QUANTITIES IN BILL OF BARS. ACTUAL QUANTITY OF BARS MAY VARY IN THE FIELD.
- DEFLECTION JOINT. SALVAGE EXISTING 3/8" ALUMINUM OR ZINC PLATE. FILL WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (TYP.)

UNIT 7 BILL OF BARS

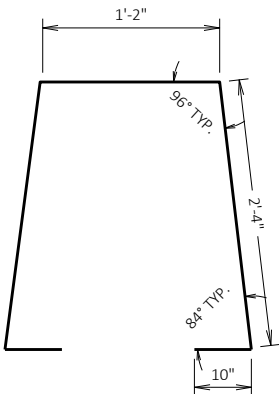
COATED TOTAL = 870 LBS

BAR MARK	NO.	LENGTH	COAT	BENT	LOCATION
P501	6	3'-6"	X		PARAPET HORIZ. - LIGHT BASE
P402	41	3'-2"	X	X	PARAPET VERT. - AS REQ'D
P503	8	3'-1"	X	X	PARAPET VERT. - AS REQ'D
P404	82	5'-8"	X	X	PARAPET VERT.
P505	15	7'-0"	X	X	PARAPET VERT. - LIGHT BASE
P506	97	1'-4"	X		PARAPET VERT. - ANCHORS
P411	8	22'-2"	X		PARAPET HORIZ. - SPAN 17 & 18
P412	4	22'-10"	X		PARAPET HORIZ. - SPAN 19

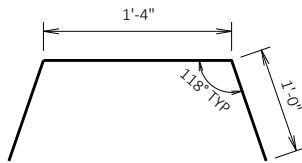
NOTES:
SEE "CONDUIT DETAILS" SHEET FOR CONDUIT AND JUNCTION BOX DETAILS



P404

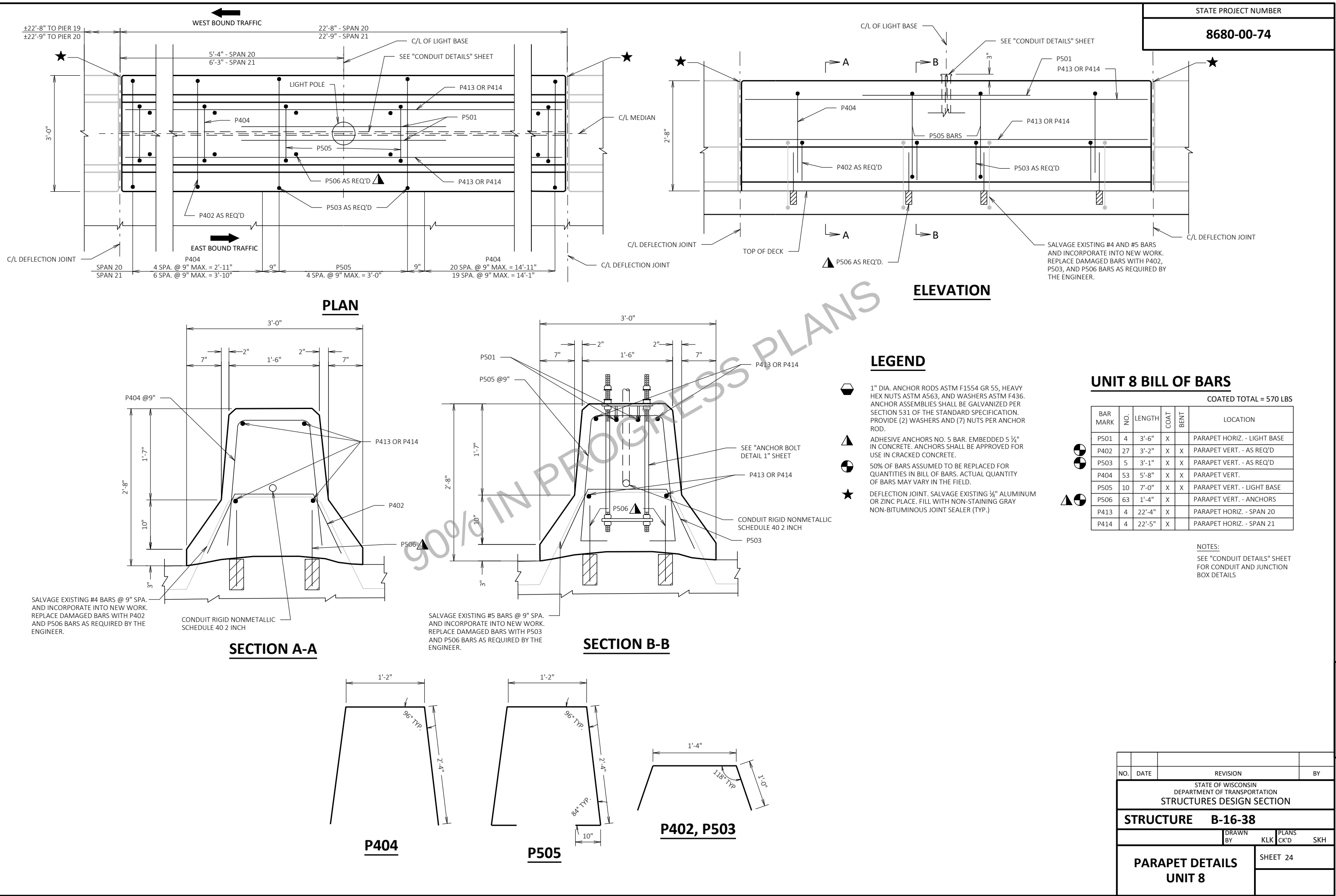


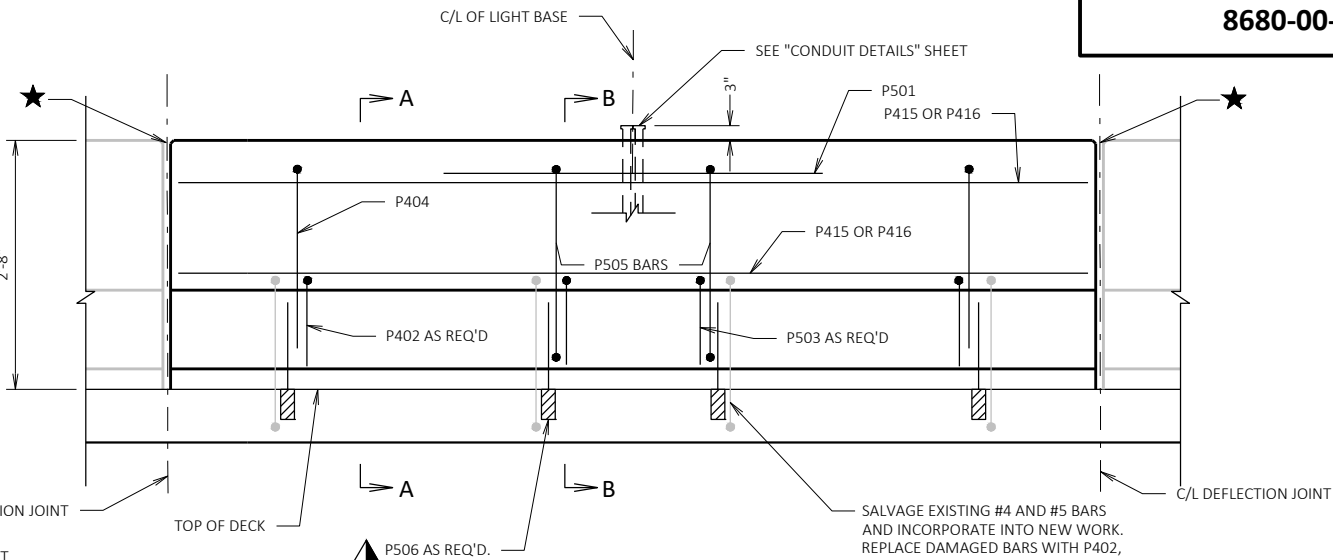
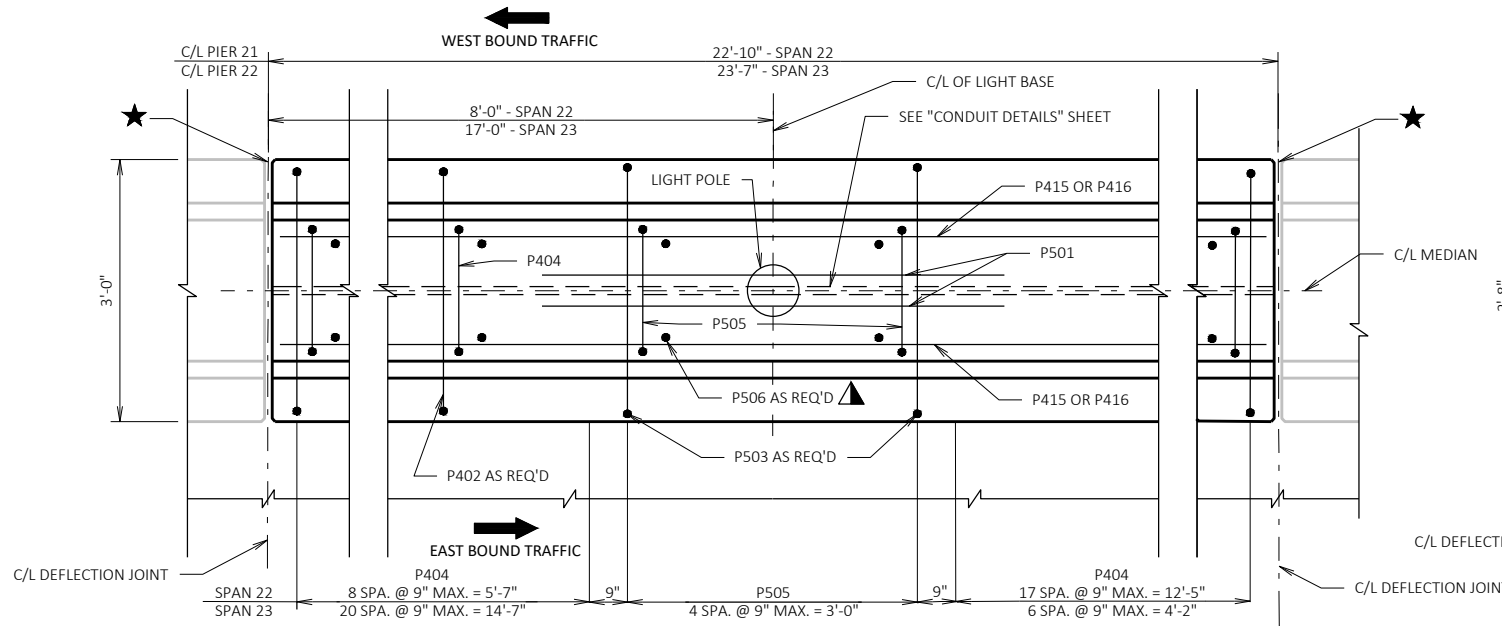
P505



P402, P503

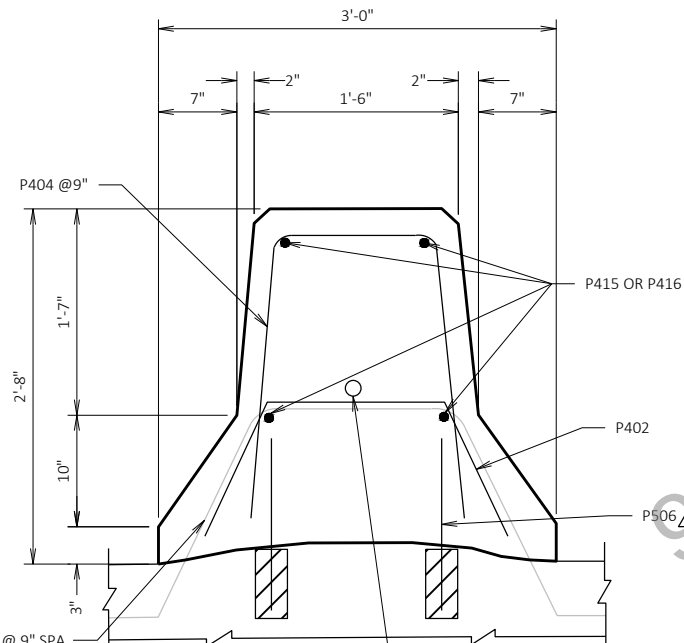
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
PARAPET DETAILS UNIT 7		SHEET 23	



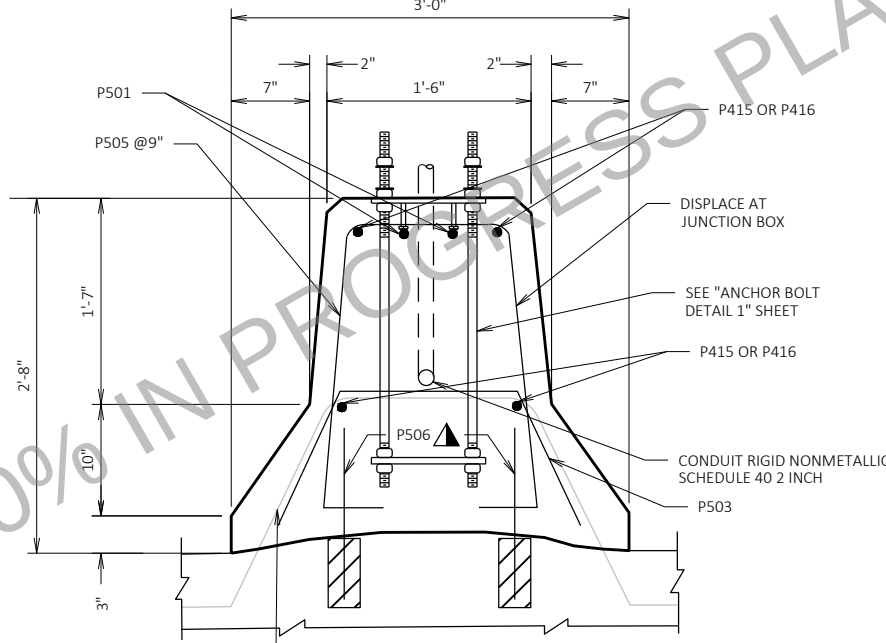


ELEVATION

PLAN



SECTION A-A



SECTION B-B

LEGEND

- 1" DIA. ANCHOR RODS ASTM F1554 GR 55, HEAVY HEX NUTS ASTM A563, AND WASHERS ASTM F436. ANCHOR ASSEMBLIES SHALL BE GALVANIZED PER SECTION 531 OF THE STANDARD SPECIFICATION. PROVIDE (2) WASHERS AND (7) NUTS PER ANCHOR ROD.
- ADHESIVE ANCHORS NO. 5 BAR. EMBEDDED 5 1/4" IN CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.
- 50% OF BARS ASSUMED TO BE REPLACED FOR QUANTITIES IN BILL OF BARS. ACTUAL QUANTITY OF BARS MAY VARY IN THE FIELD.
- DEFLECTION JOINT. SALVAGE EXISTING 1/2" ALUMINUM OR ZINC PLATE. FILL WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (TYP.)

UNIT 9 BILL OF BARS

COATED TOTAL = 590 LBS

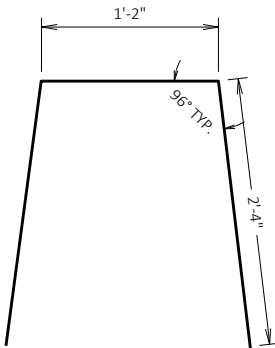
BAR MARK	NO.	LENGTH	COAT	BENT	LOCATION
P501	4	3'-6"	X		PARAPET HORIZ. - LIGHT BASE
P402	28	3'-2"	X	X	PARAPET VERT. - AS REQ'D
P503	5	3'-1"	X	X	PARAPET VERT. - AS REQ'D
P404	55	5'-8"	X	X	PARAPET VERT.
P505	10	7'-0"	X	X	PARAPET VERT. - LIGHT BASE
P506	65	1'-4"	X		PARAPET VERT. - ANCHORS
P415	4	22'-6"	X		PARAPET HORIZ. - SPAN 22
P416	4	23'-3"	X		PARAPET HORIZ. - SPAN 23

NOTES:
SEE "CONDUIT DETAILS" SHEET FOR CONDUIT AND JUNCTION BOX DETAILS

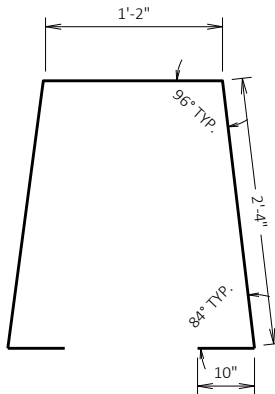
SALVAGE EXISTING #4 BARS @ 9" SPA. AND INCORPORATE INTO NEW WORK. REPLACE DAMAGED BARS WITH P402 AND P506 BARS AS REQUIRED BY THE ENGINEER.

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 INCH

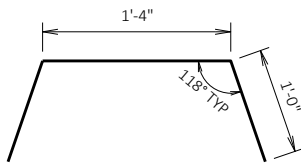
SALVAGE EXISTING #5 BARS @ 9" SPA. AND INCORPORATE INTO NEW WORK. REPLACE DAMAGED BARS WITH P503 AND P506 BARS AS REQUIRED BY THE ENGINEER.



P404



P505



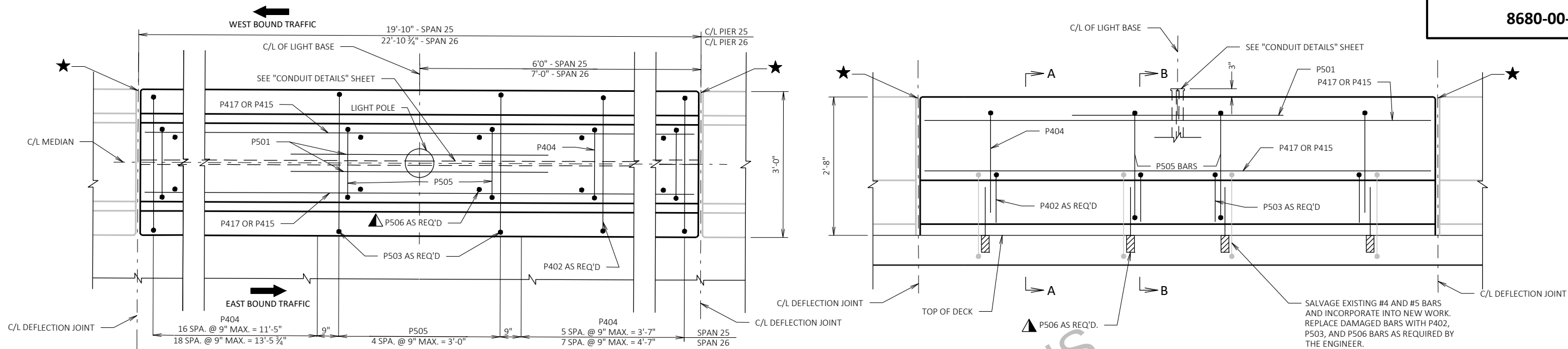
P402, P503

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
PARAPET DETAILS UNIT 9		SHEET 25	



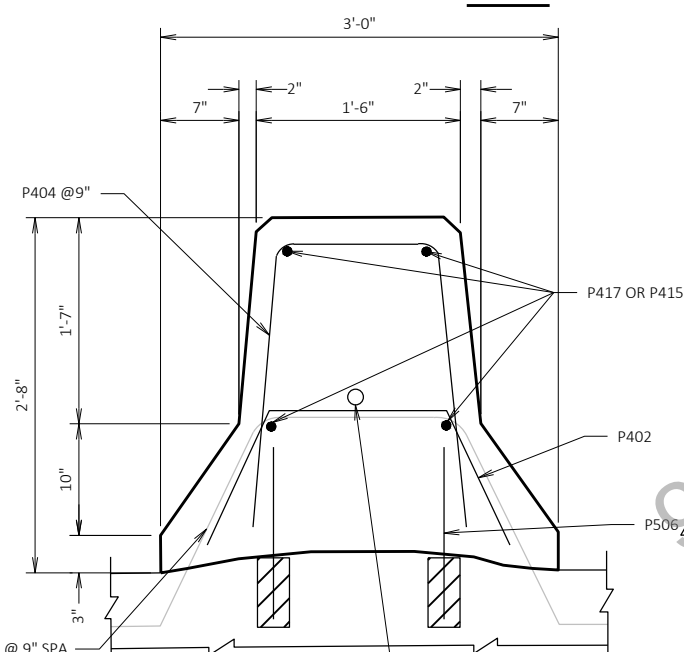
P402, P503

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		B-16-38	
	DRAWN BY	CLK	PLANS CK'D SKH
PARAPET DETAILS UNIT 10		SHEET 26	

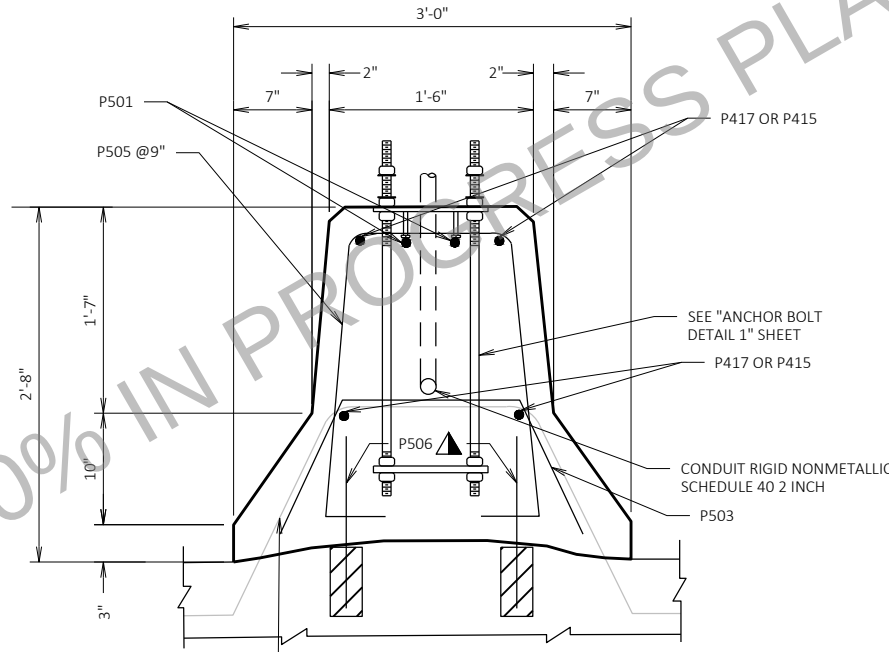


ELEVATION

PLAN



SECTION A-A



SECTION B-B

LEGEND

- 1" DIA. ANCHOR RODS ASTM F1554 GR 55, HEAVY HEX NUTS ASTM A563, AND WASHERS ASTM F436. ANCHOR ASSEMBLIES SHALL BE GALVANIZED PER SECTION 531 OF THE STANDARD SPECIFICATION. PROVIDE (2) WASHERS AND (7) NUTS PER ANCHOR ROD.
- ADHESIVE ANCHORS NO. 5 BAR. EMBEDDED 5 1/4" IN CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.
- 50% OF BARS ASSUMED TO BE REPLACED FOR QUANTITIES IN BILL OF BARS. ACTUAL QUANTITY OF BARS MAY VARY IN THE FIELD.
- DEFLECTION JOINT. SALVAGE EXISTING 3/8" ALUMINUM OR ZINC PLATE. FILL WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (TYP.)

UNIT 11 BILL OF BARS

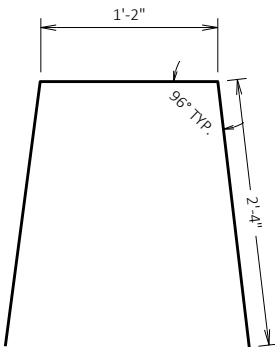
COATED TOTAL = 550 LBS

BAR MARK	NO.	LENGTH	COAT	BENT	LOCATION
P501	4	3'-6"	X		PARAPET HORIZ. - LIGHT BASE
P402	25	3'-2"	X	X	PARAPET VERT. - AS REQ'D
P503	5	3'-1"	X	X	PARAPET VERT. - AS REQ'D
P404	50	5'-8"	X	X	PARAPET VERT.
P505	10	7'-0"	X	X	PARAPET VERT. - LIGHT BASE
P506	60	1'-4"	X		PARAPET VERT. - ANCHORS
P417	4	19'-6"	X		PARAPET HORIZ. - SPAN 25
P415	4	22'-6"	X		PARAPET HORIZ. - SPAN 26

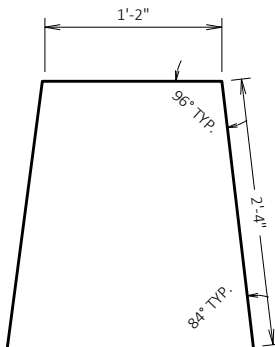
NOTES:
SEE "CONDUIT DETAILS" SHEET FOR CONDUIT AND JUNCTION BOX DETAILS

SALVAGE EXISTING #4 BARS @ 9" SPA. AND INCORPORATE INTO NEW WORK. REPLACE DAMAGED BARS WITH P402 AND P506 BARS AS REQUIRED BY THE ENGINEER.

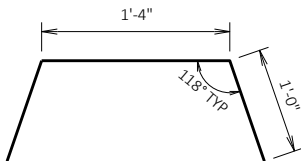
SALVAGE EXISTING #5 BARS @ 9" SPA. AND INCORPORATE INTO NEW WORK. REPLACE DAMAGED BARS WITH P503 AND P506 BARS AS REQUIRED BY THE ENGINEER.



P404

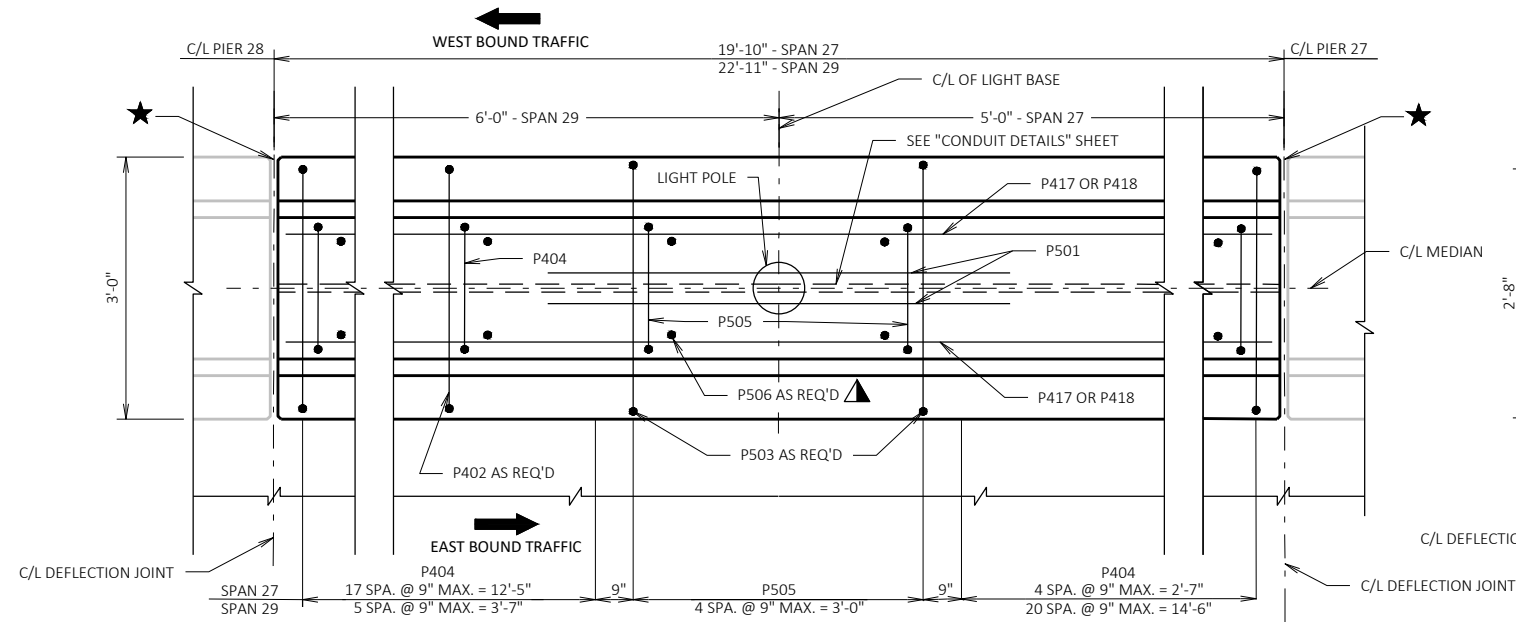


P505

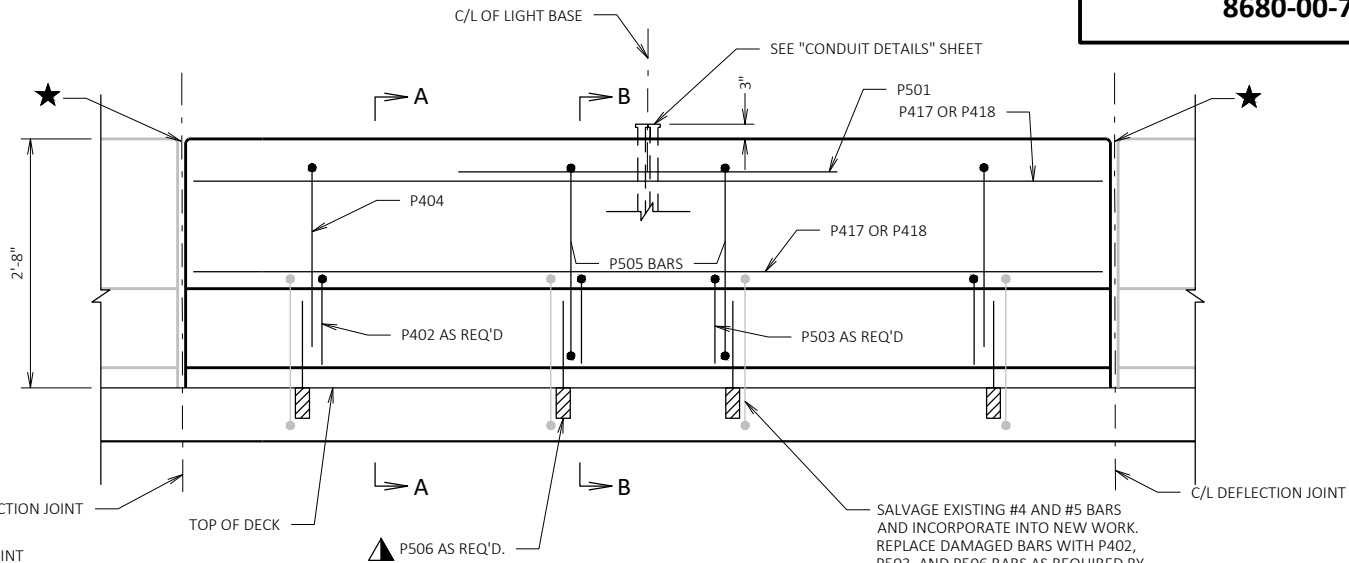


P402, P503

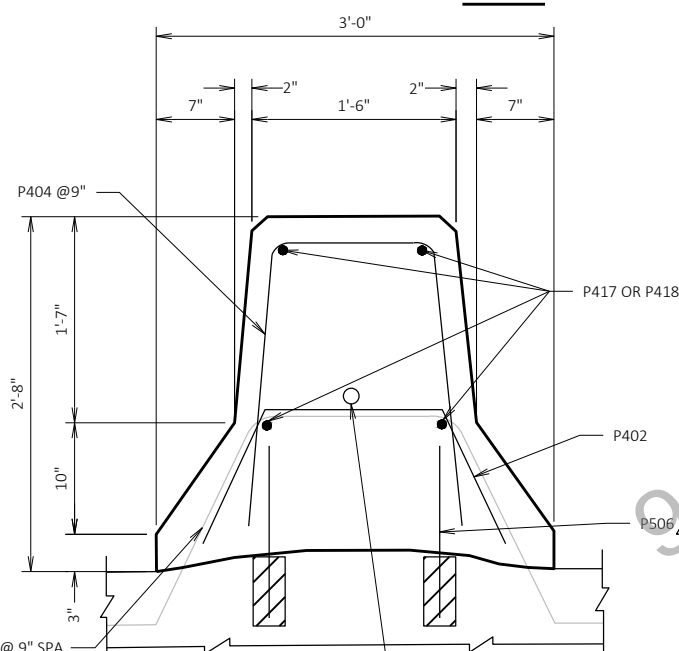
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
PARAPET DETAILS UNIT 11			SHEET 27



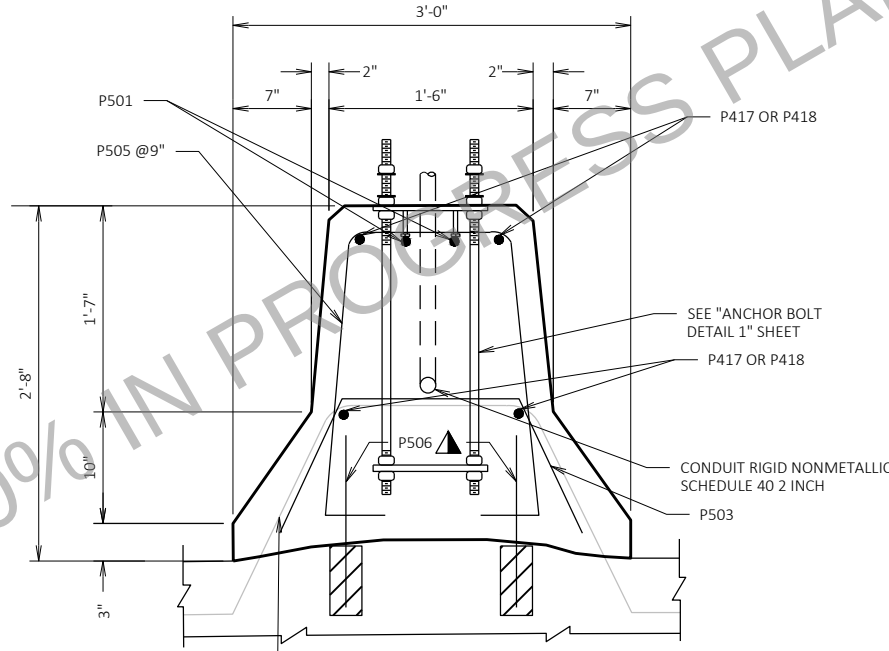
PLAN



ELEVATION



SECTION A-A



SECTION B-B

LEGEND

- 1" DIA. ANCHOR RODS ASTM F1554 GR 55, HEAVY HEX NUTS ASTM A563, AND WASHERS ASTM F436. ANCHOR ASSEMBLIES SHALL BE GALVANIZED PER SECTION 531 OF THE STANDARD SPECIFICATION. PROVIDE (2) WASHERS AND (7) NUTS PER ANCHOR ROD.
- ADHESIVE ANCHORS NO. 5 BAR. EMBEDDED 5 1/4" IN CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.
- 50% OF BARS ASSUMED TO BE REPLACED FOR QUANTITIES IN BILL OF BARS. ACTUAL QUANTITY OF BARS MAY VARY IN THE FIELD.
- DEFLECTION JOINT. SALVAGE EXISTING 1/2" ALUMINUM OR ZINC PLATE. FILL WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (TYP.)

UNIT 12 BILL OF BARS

COATED TOTAL = 550 LBS

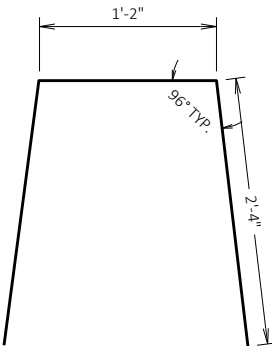
BAR MARK	NO.	LENGTH	COAT	BENT	LOCATION
P501	4	3'-6"	X		PARAPET HORIZ. - LIGHT BASE
P402	25	3'-2"	X	X	PARAPET VERT. - AS REQ'D
P503	5	3'-1"	X	X	PARAPET VERT. - AS REQ'D
P404	50	5'-8"	X	X	PARAPET VERT.
P505	10	7'-0"	X	X	PARAPET VERT. - LIGHT BASE
P506	60	1'-4"	X		PARAPET VERT. - ANCHORS
P417	4	19'-6"	X		PARAPET HORIZ. - SPAN 27
P418	4	22'-7"	X		PARAPET HORIZ. - SPAN 29

NOTES:
SEE "CONDUIT DETAILS" SHEET FOR CONDUIT AND JUNCTION BOX DETAILS

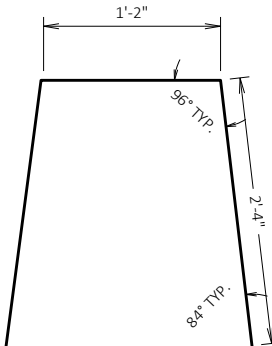
SALVAGE EXISTING #4 BARS @ 9" SPA. AND INCORPORATE INTO NEW WORK. REPLACE DAMAGED BARS WITH P402 AND P506 BARS AS REQUIRED BY THE ENGINEER.

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 INCH

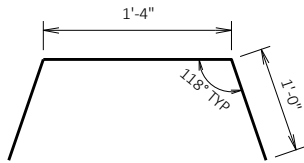
SALVAGE EXISTING #5 BARS @ 9" SPA. AND INCORPORATE INTO NEW WORK. REPLACE DAMAGED BARS WITH P503 AND P506 BARS AS REQUIRED BY THE ENGINEER.



P404

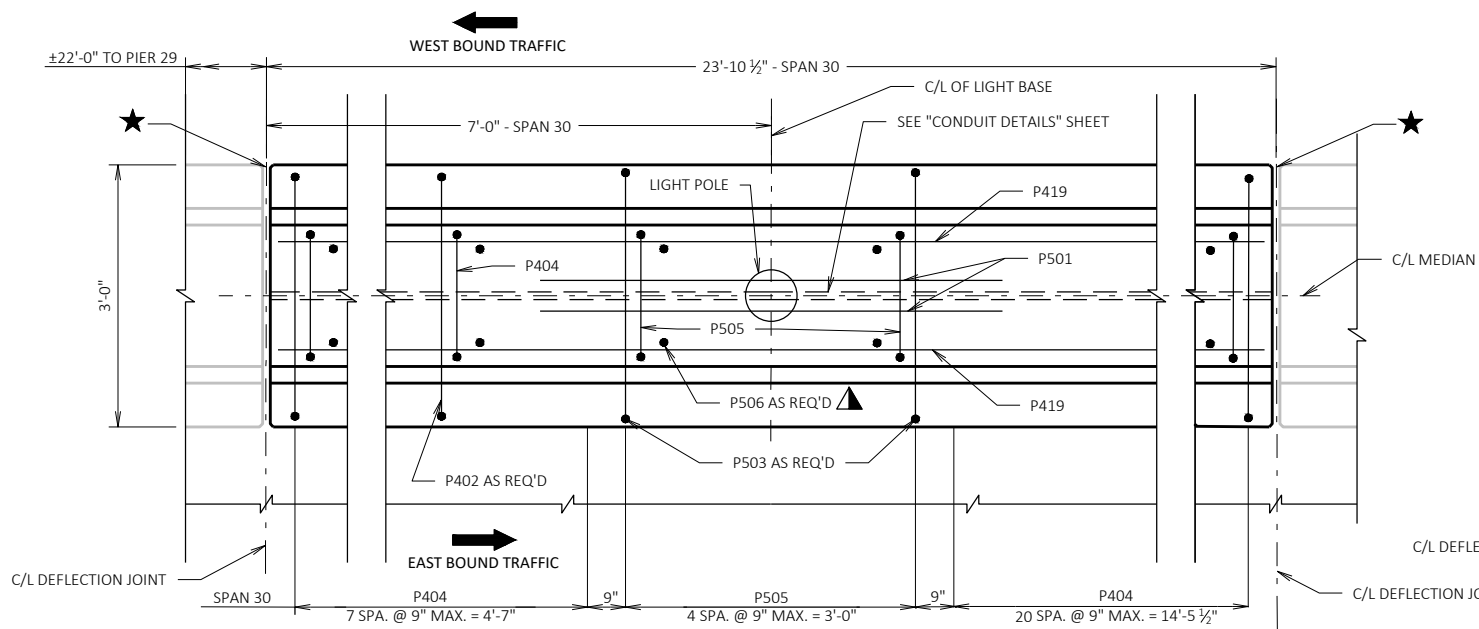


P505

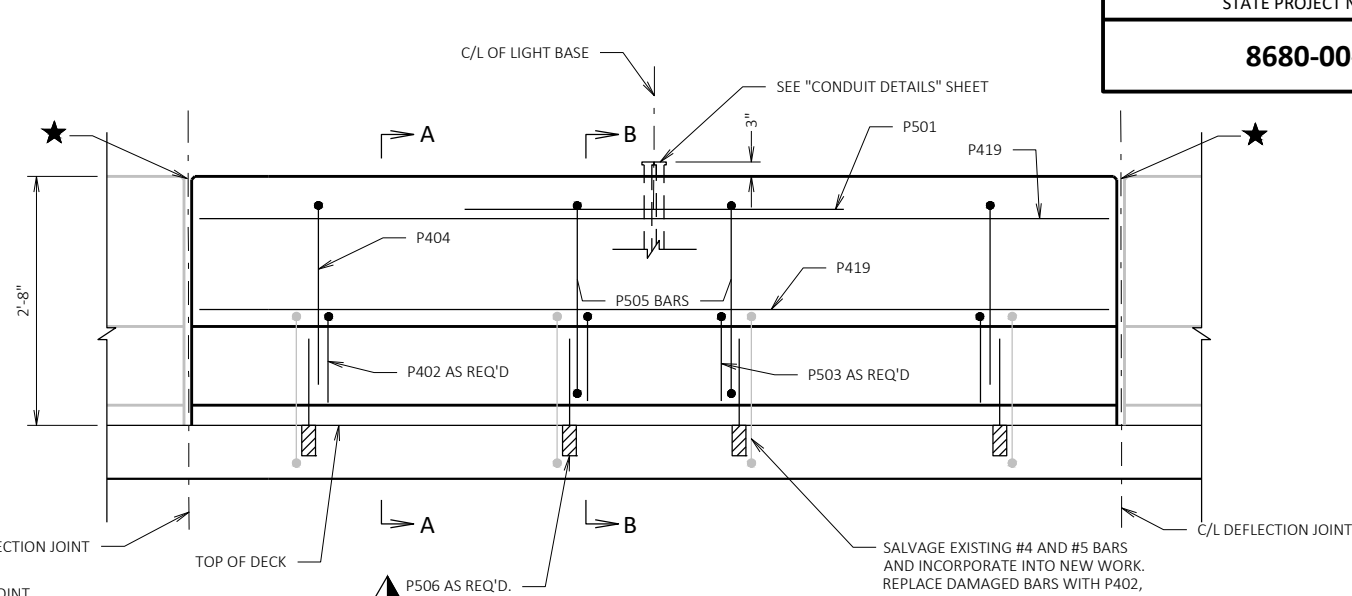


P402, P503

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
PARAPET DETAILS UNIT 12		SHEET 28	



PLAN



ELEVATION

LEGEND

- 1" DIA. ANCHOR RODS ASTM F1554 GR 55, HEAVY HEX NUTS ASTM A563, AND WASHERS ASTM F436. ANCHOR ASSEMBLIES SHALL BE GALVANIZED PER SECTION 531 OF THE STANDARD SPECIFICATION. PROVIDE (2) WASHERS AND (7) NUTS PER ANCHOR ROD.
- ADHESIVE ANCHORS NO. 5 BAR. EMBEDDED 5 1/2" IN CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.
- 50% OF BARS ASSUMED TO BE REPLACED FOR QUANTITIES IN BILL OF BARS. ACTUAL QUANTITY OF BARS MAY VARY IN THE FIELD.
- DEFLECTION JOINT. SALVAGE EXISTING 1/2" ALUMINUM OR ZINC PLATE. FILL WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (TYP.)

UNIT 13 BILL OF BARS

COATED TOTAL = 300 LBS

BAR MARK	NO.	LENGTH	COAT	BENT	LOCATION
P501	2	3'-6"	X		PARAPET HORIZ. - LIGHT BASE
P402	15	3'-2"	X	X	PARAPET VERT. - AS REQ'D
P503	3	3'-1"	X	X	PARAPET VERT. - AS REQ'D
P404	29	5'-8"	X	X	PARAPET VERT.
P505	5	7'-0"	X	X	PARAPET VERT. - LIGHT BASE
P506	34	1'-4"	X		PARAPET VERT. - ANCHORS
P419	4	23'-6"	X		PARAPET HORIZ. - SPAN 30

NOTES:
SEE "CONDUIT DETAILS" SHEET FOR CONDUIT AND JUNCTION BOX DETAILS

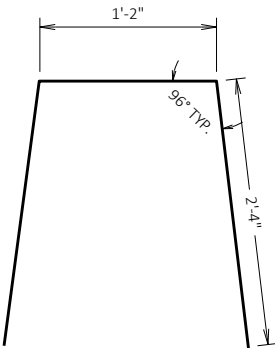
SALVAGE EXISTING #4 BARS @ 9" SPA. AND INCORPORATE INTO NEW WORK. REPLACE DAMAGED BARS WITH P402 AND P506 BARS AS REQUIRED BY THE ENGINEER.

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 INCH

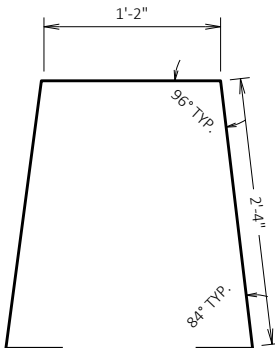
SECTION A-A

SALVAGE EXISTING #5 BARS @ 9" SPA. AND INCORPORATE INTO NEW WORK. REPLACE DAMAGED BARS WITH P503 AND P506 BARS AS REQUIRED BY THE ENGINEER.

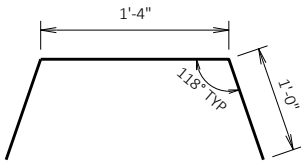
SECTION B-B



P404



P505



P402, P503

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
PARAPET DETAILS UNIT 13		SHEET 29	



(FROM EAST BOUND LANES)
(UNITS 3, 6, 7, 8, 9, 10, 11, 12, 13)



(FROM EAST BOUND LANES)
(UNITS 4 & 5)



(FROM EAST BOUND LANES)
(UNIT 3, SPAN 7)



(UNITS 3, 6, 7, 8, 9, 10, 11, 12, 13)



(UNITS 4 & 5)



CONDUIT SHALL BE EMBEDDED 2" CLEAR.
USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.
CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.
CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.
PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCT LIST.



(UNIT 9)

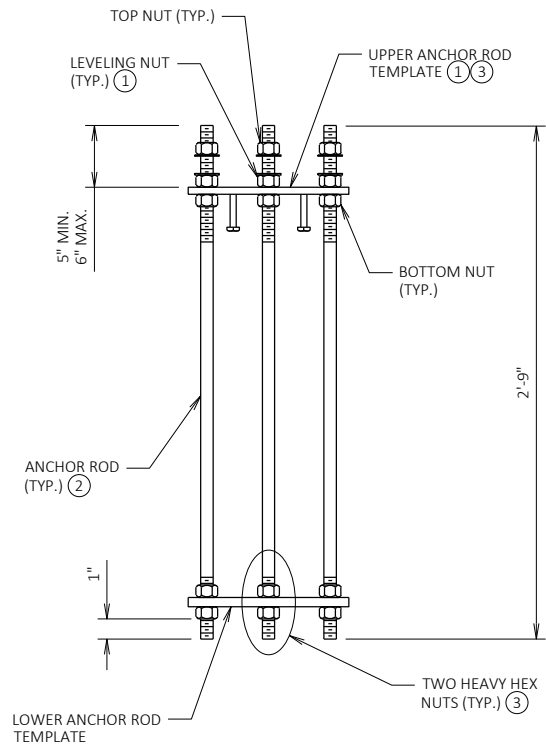


(UNIT 4)

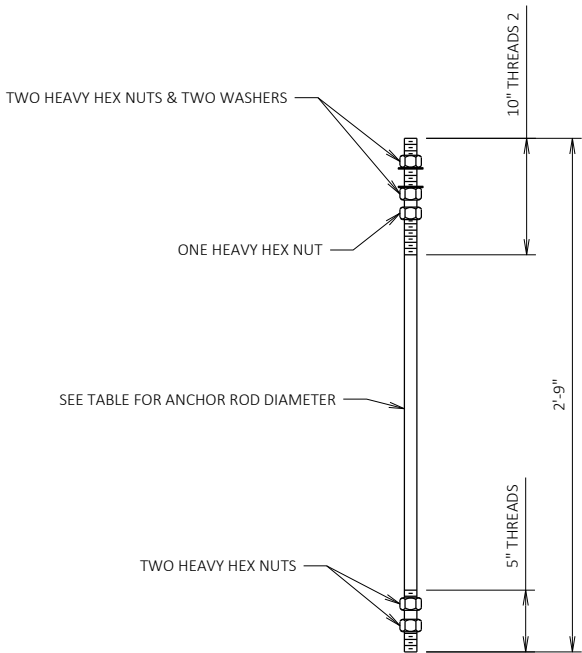
 CUT OUT $\pm 1"$ OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE
EDGE OF JUNCTION BOX.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		B-16-38	
		DRAWN BY	PLANS CK'D SKH
CONDUIT DETAILS		SHEET 30	

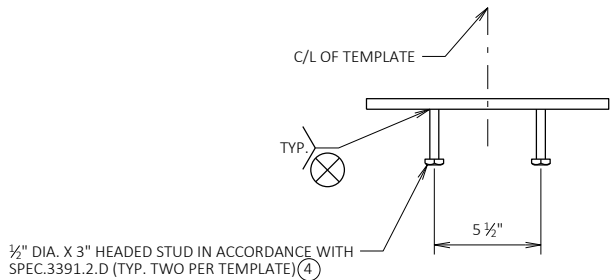


ANCHOR ROD ASSEMBLY



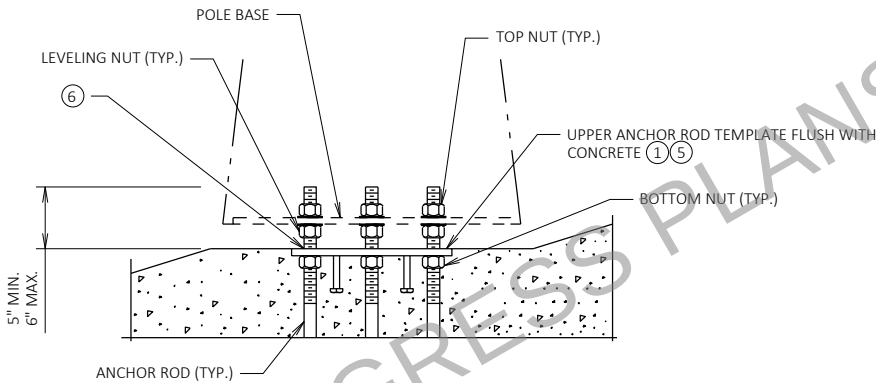
ANCHOR ROD & HARDWARE

SIX REQUIRED PER ASSEMBLY



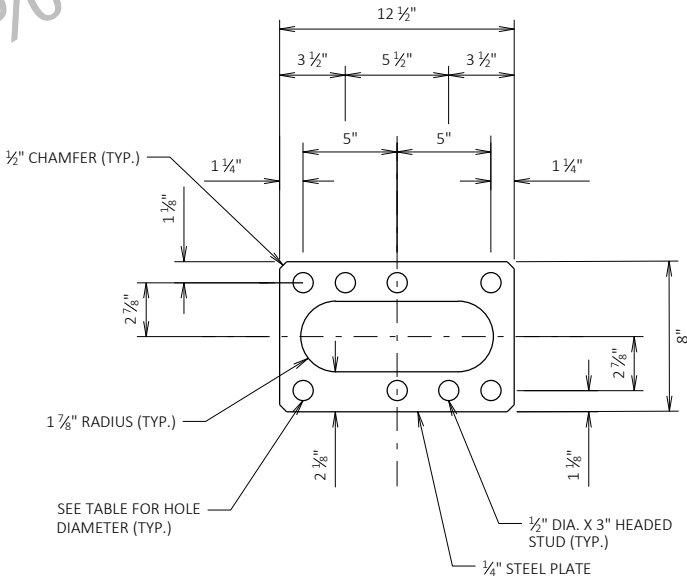
ELEVATION VIEW

UPPER ANCHOR ROD TEMPLATE



PARTIAL ELEVATION

(SHOWING ANCHOR ROD ASSEMBLY & HEX NUT POSITIONS AFTER POLE INSTALLATION)



ANCHOR ROD TEMPLATE

TWO REQUIRED PER ASSEMBLY

ANCHOR ROD DETAILS		
TYPE	ANCHOR ROD DIAMETER	HOLE DIAMETER
49' LIGHT POLES WITH TWIN ARMS 10' OR LONGER	1 1/4"	1 5/8"
OTHERS	1"	1 1/8"

NOTES:

- INSTALL ANCHOR ROD ASSEMBLY PLUMB WITH UPPER ANCHOR ROD TEMPLATE LEVEL AND EMBEDDED IN CONCRETE AS SHOWN IN PARTIAL ELEVATION.
- PROTECT ANCHOR ROD THREADS AND LEVELING NUTS ABOVE THE UPPER ANCHOR ROD TEMPLATE FROM CONCRETE CONTAMINATION.
- FURNISH AND INSTALL GALVANIZED COMPONENTS OF ANCHOR ASSEMBLIES IN ACCORDANCE WITH STANDARD SPEC 531.
- TACK WELDING IS PROHIBITED.
- ALL ITEMS SHOWN ARE INCLUDED IN BID ITEM "ANCHOR ASSEMBLIES POLES ON STRUCTURES."

LEGEND

- (1) TEMPORARILY SECURE THE UPPER ANCHOR ROD TEMPLATE WITH THE LEVELING NUTS BEFORE CONCRETE PLACEMENT. AFTER CONCRETE PLACEMENT, LEAVE LEVELING NUTS SECURED AGAINST THE TEMPLATE UNTIL THE CLEANING AND LUBRICATING OF THE ANCHOR ROD CONNECTIONS BEFORE POLE PLACEMENT IS INITIATED.
- (2) PROTECT ANCHOR ROD THREADS AND LEVELING NUTS ABOVE THE UPPER ANCHOR ROD TEMPLATE FROM CONCRETE CONTAMINATION.
- (3) USE A 12" LONG WRENCH TO SNUG TIGHTEN NUTS PULLING THE HANDLE WITH ONE ARM IN ONE SMOOTH MOTION.
- (4) HEADED STUDS IN ACCORDANCE WITH STANDARD SPEC 506 ON UPPER ANCHOR ROD TEMPLATE ONLY.
- (5) LOCALLY ADJUST TOP-OF-BARRIER PROFILE AS REQUIRED TO PROVIDE A LEVEL ANCHOR ROD TEMPLATE PLACEMENT.
- (6) REMOVE SURFACE CONTAMINANTS AND APPLY SILICONE JOINT SEALER TO THE UPPER TEMPLATE AROUND THE ANCHOR RODS AND ANCHOR ROD HOLES, AND THE INNER AND OUTER EDGES WHERE THE PLATE MEETS CONCRETE. USE AN APPROVED SILICONE JOINT SEALANT FOUND ON MnDOT'S APPROVED /QUALIFIED PRODUCTS LIST UNDER BRIDGE PRODUCTS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
ANCHOR BOLT DETAIL 1		SHEET 31	

90% IN PROGRESS PLANS

STATE PROJECT NUMBER
8680-00-74

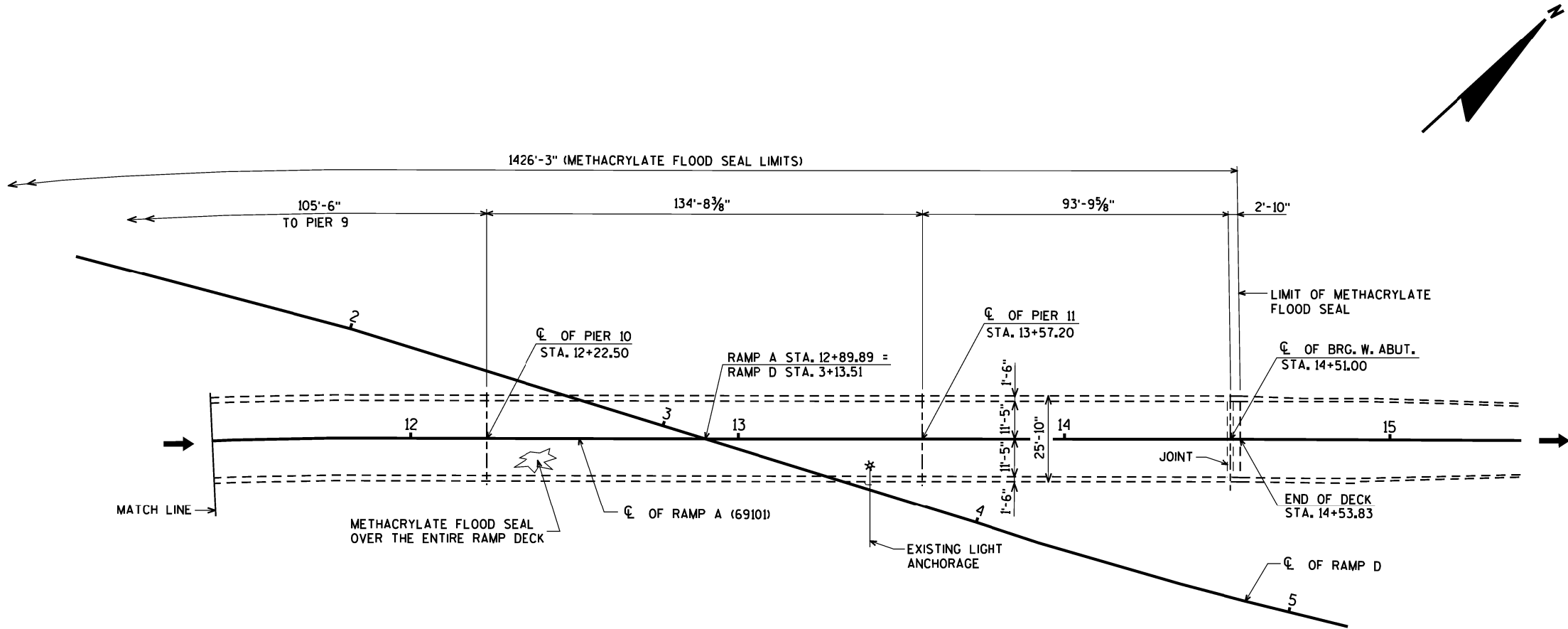
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
		DRAWN BY	PLANS CK'D SKH
ANCHOR BOLT DETAIL 2		SHEET 32	

\$PRNAME\$ I:\4\1410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 ramp\01.dgn

8

STATE PROJECT NUMBER

8680-00-74



PLAN

WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL

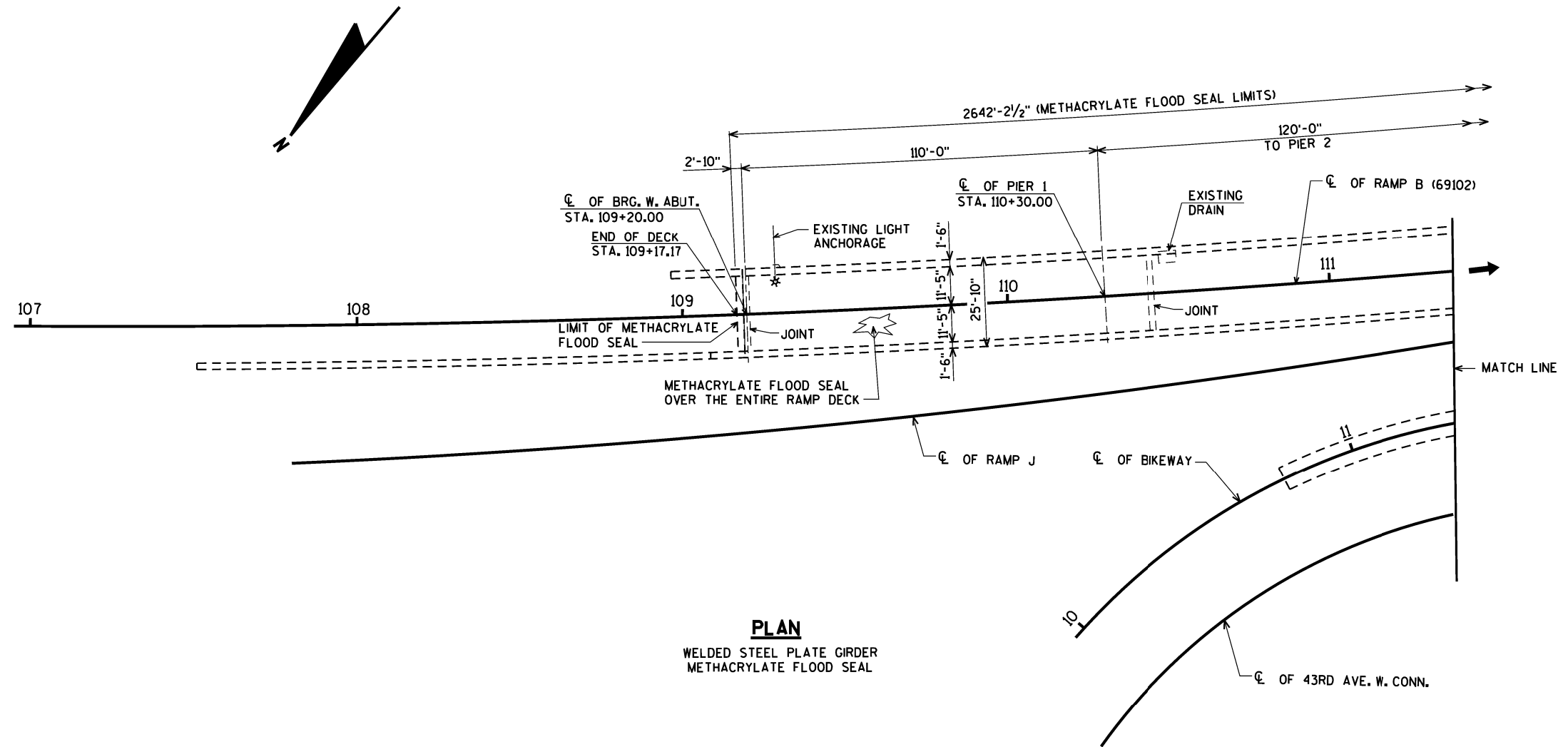
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CK'D. JLB	
GENERAL PLAN RAMP 69101		SHEET 12 OF 34	

8

\$PRNAME\$
I:\410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 ramp102.dgn

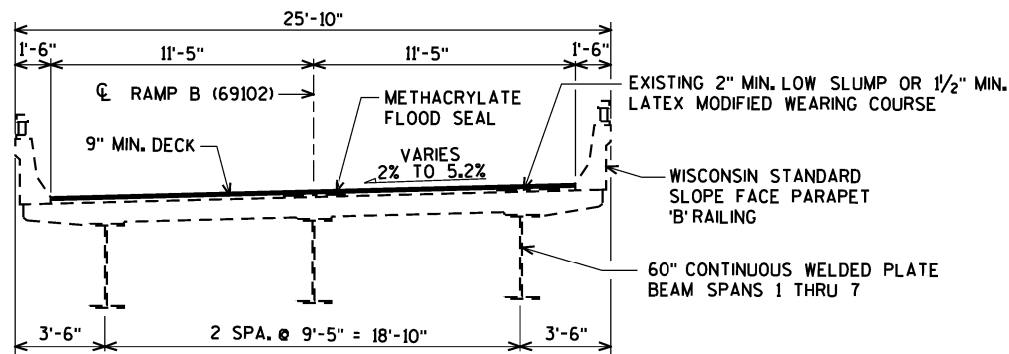
STATE PROJECT NUMBER

8680-00-74



PLAN

WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL



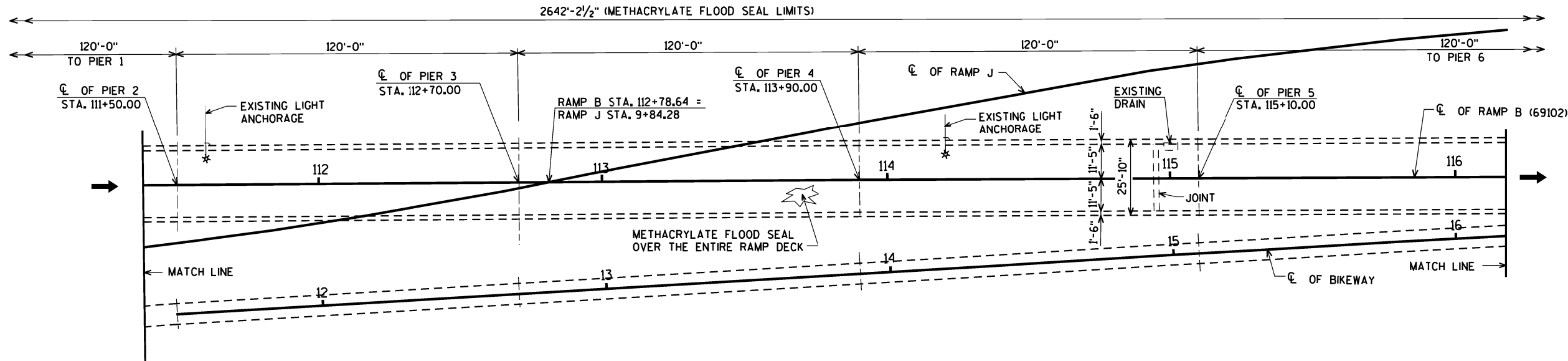
TRANSVERSE SECTION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CK'D. JLB	
GENERAL RAMP PLAN 69102			SHEET 13 OF 34

\$PRNAME\$
I:\410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 ramp102.dgn

STATE PROJECT NUMBER

8680-00-74



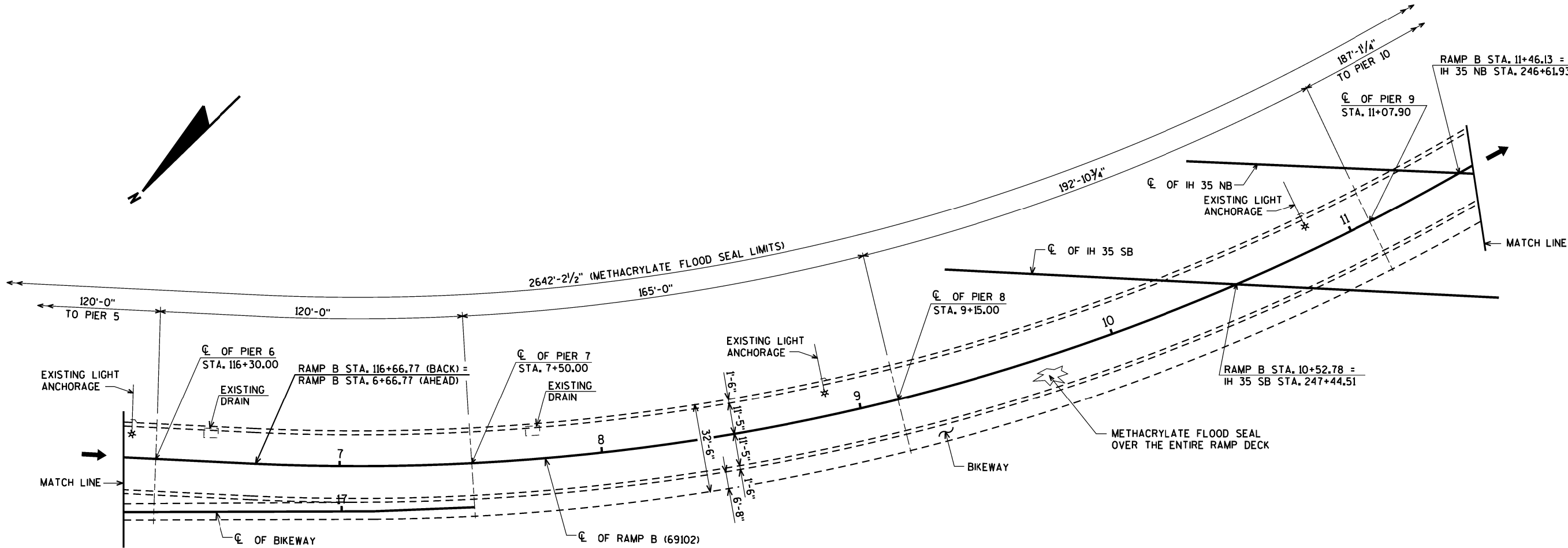
PLAN

WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL

8

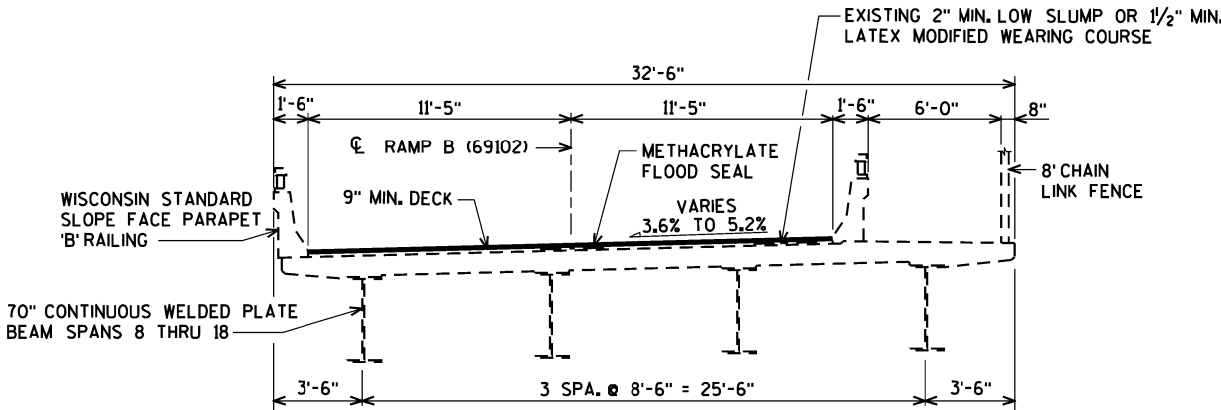
8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
GENERAL PLAN RAMP 69102			SHEET 14 OF 34



PLAN

WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL



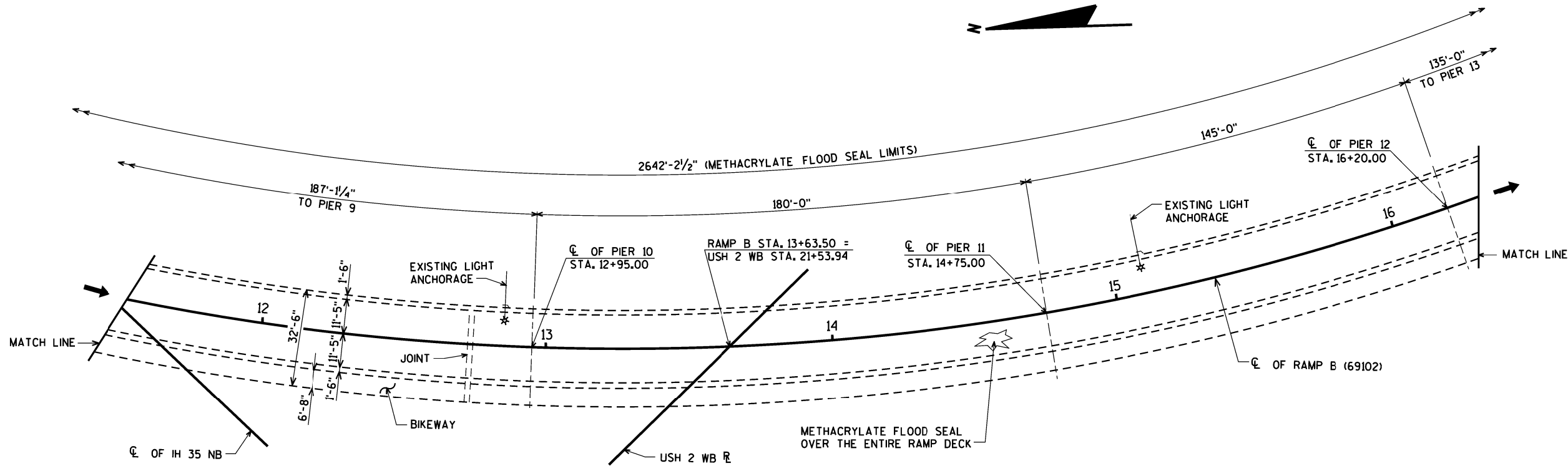
TRANSVERSE SECTION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
GENERAL PLAN RAMP 69102			SHEET 15 OF 34

\$PRNAME\$
I:\410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 ramp102.dgn

STATE PROJECT NUMBER

8680-00-74



PLAN
WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL

8

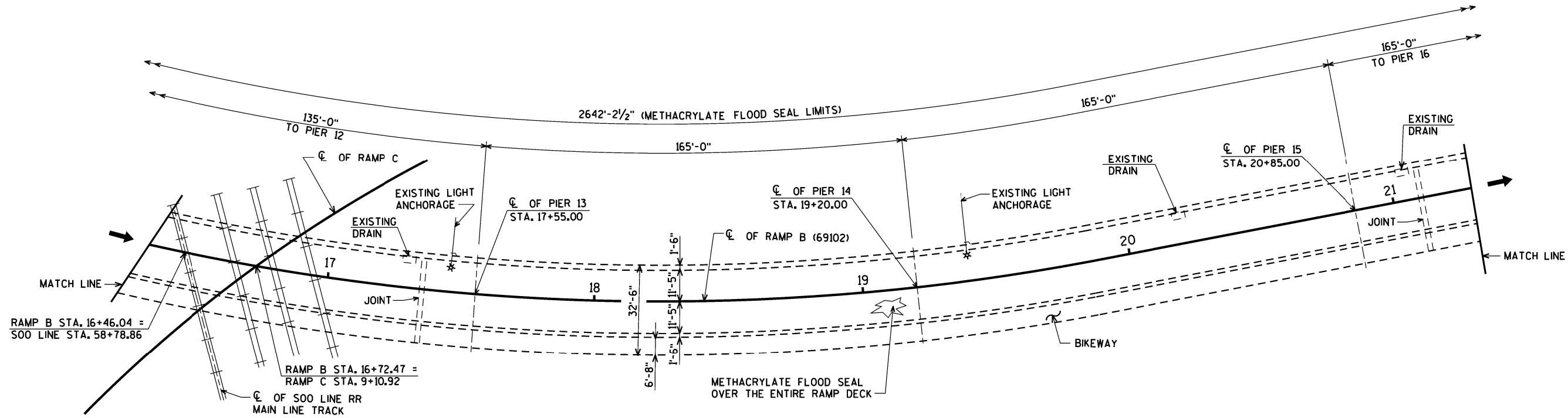
8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
GENERAL PLAN RAMP 69102		SHEET 16 OF 34	

\$PRNAME\$
I:\41410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 ramp102.dgn

STATE PROJECT NUMBER

8680-00-74



PLAN

WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL

8

8

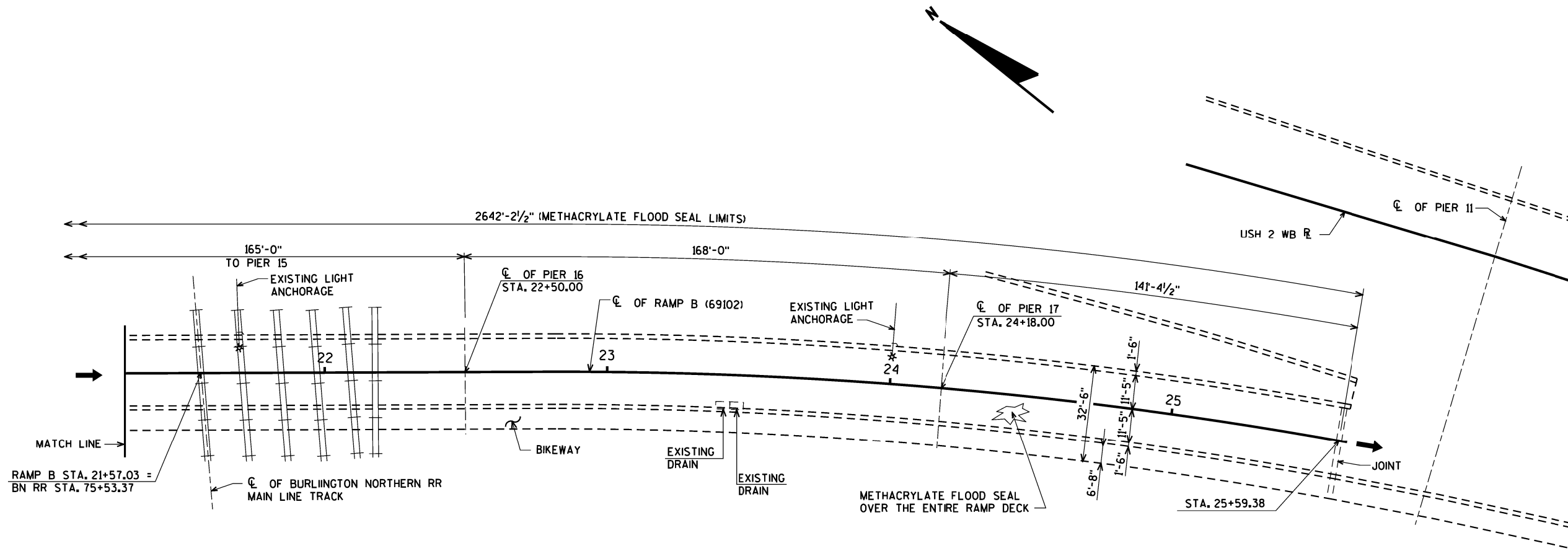
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY	CLP	PLANS CK'D.	JLB
GENERAL PLAN RAMP 69102		SHEET 17 OF 34	

\$PRNAME\$ I:\410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 ramp102.dgn

8

STATE PROJECT NUMBER

8680-00-74



PLAN
WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY	CLP	PLANS CK'D.	JLB
GENERAL PLAN RAMP 69102		SHEET 18 OF 34	



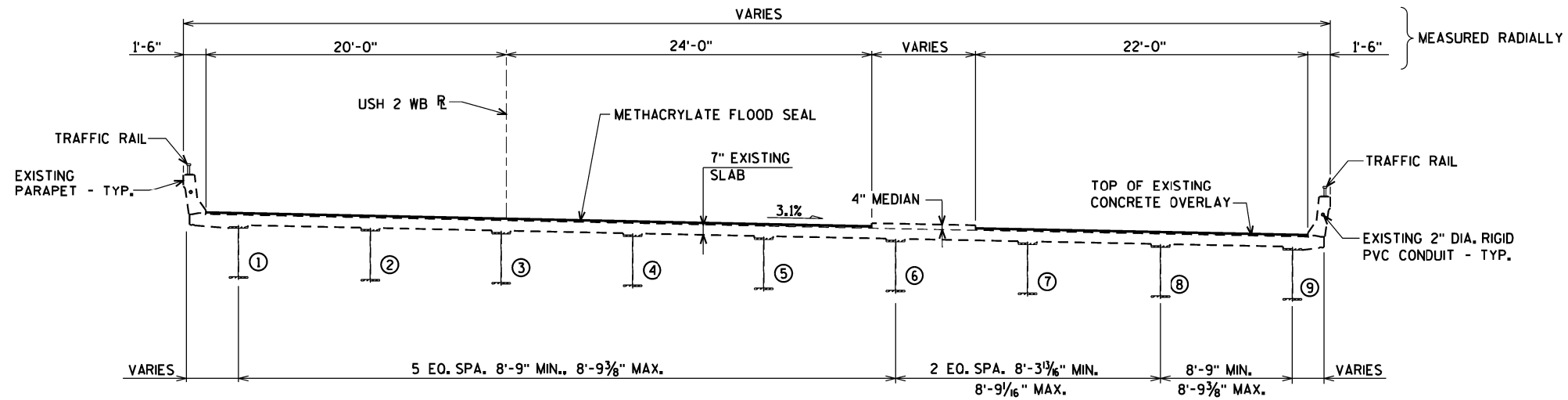
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
GENERAL PLAN RAMP 69109		SHEET 19 OF 34	

\$PRNAME\$
I:\410903.USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 TYP.dgn

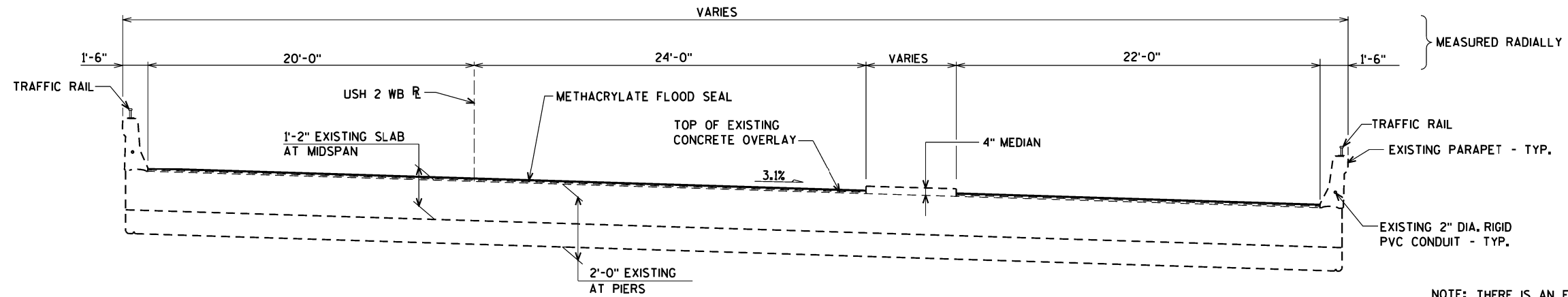
8

STATE PROJECT NUMBER

8680-00-74

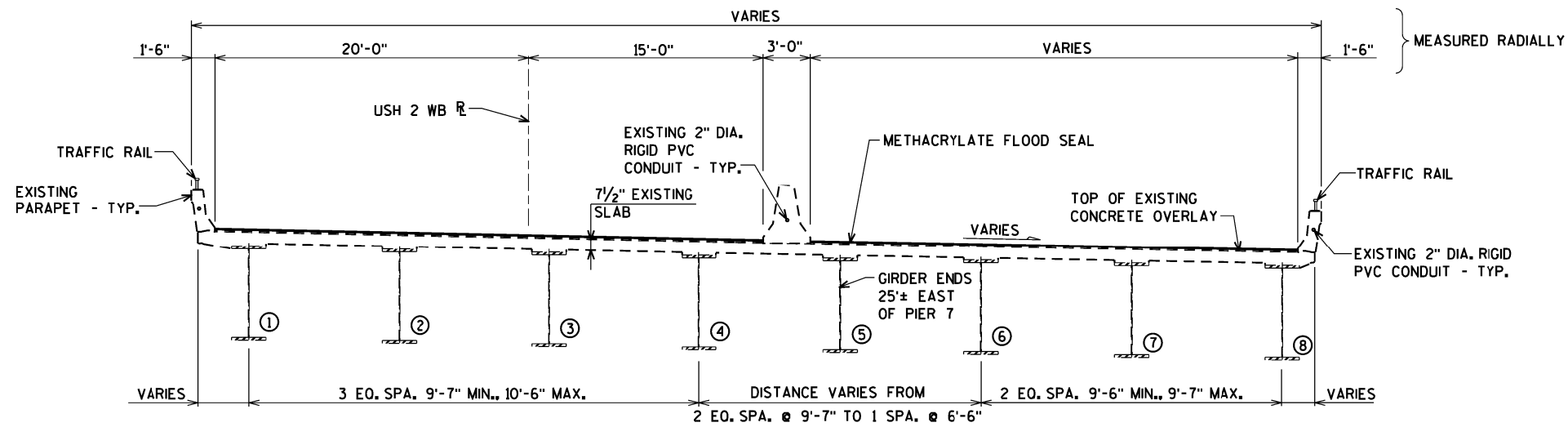


CROSS SECTION THRU ROADWAY - UNIT 1
(LOOKING EAST)



CROSS SECTION THRU ROADWAY - UNIT 2
(LOOKING EAST)

NOTE: THERE IS AN EXISTING TRANSVERSE 2" DIA.
RIGID PVC CONDUIT IN THE SLAB AT STA. 22+35±



CROSS SECTION THRU ROADWAY - UNIT 3
(LOOKING EAST)

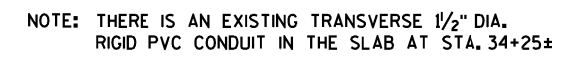
NOTE: THERE IS AN EXISTING TRANSVERSE 1 1/2" DIA.
RIGID PVC CONDUIT IN THE SLAB AT STA. 25+35±

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
CROSS SECTIONS UNITS 1 - 3			SHEET 20 OF 34



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
CROSS SECTIONS UNIT 4		SHEET 21 OF 34	

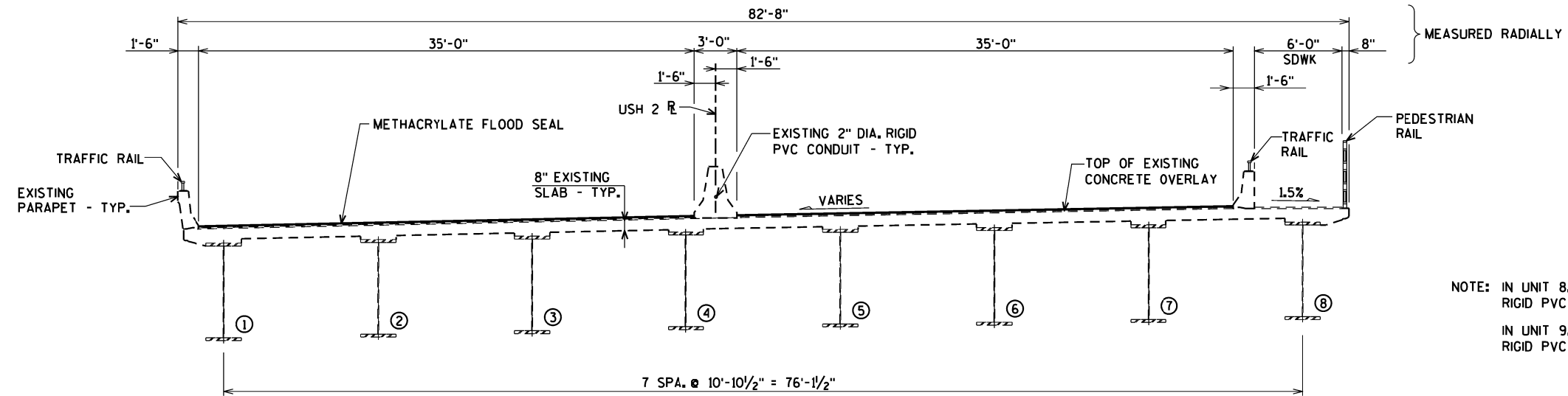


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
CROSS SECTIONS UNITS 5 & 6		SHEET 22 OF 34	

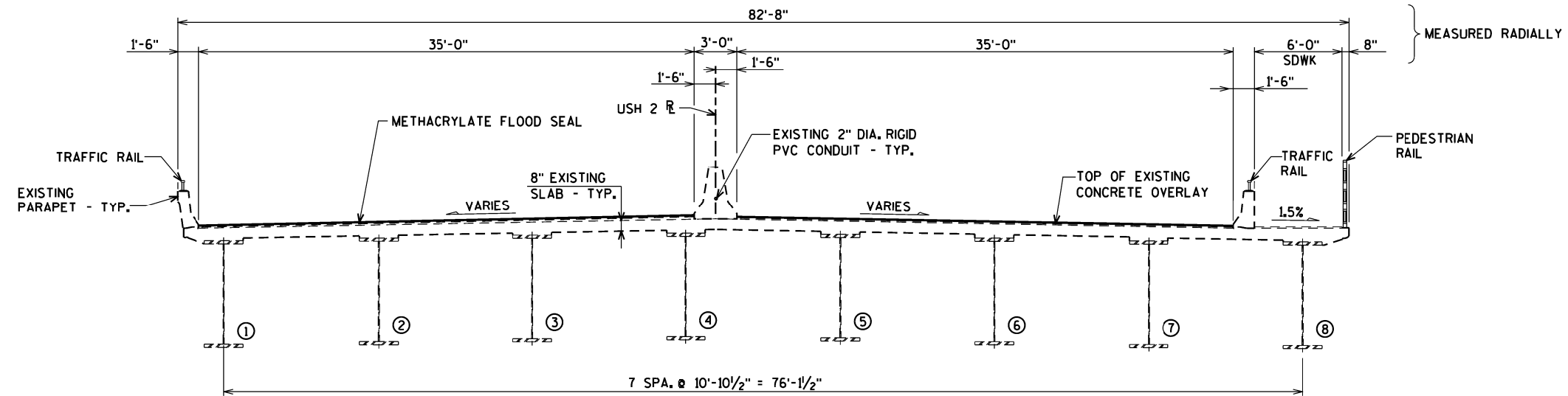
\$PRNAME\$
I:\410903.USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 TYP.dgn

STATE PROJECT NUMBER

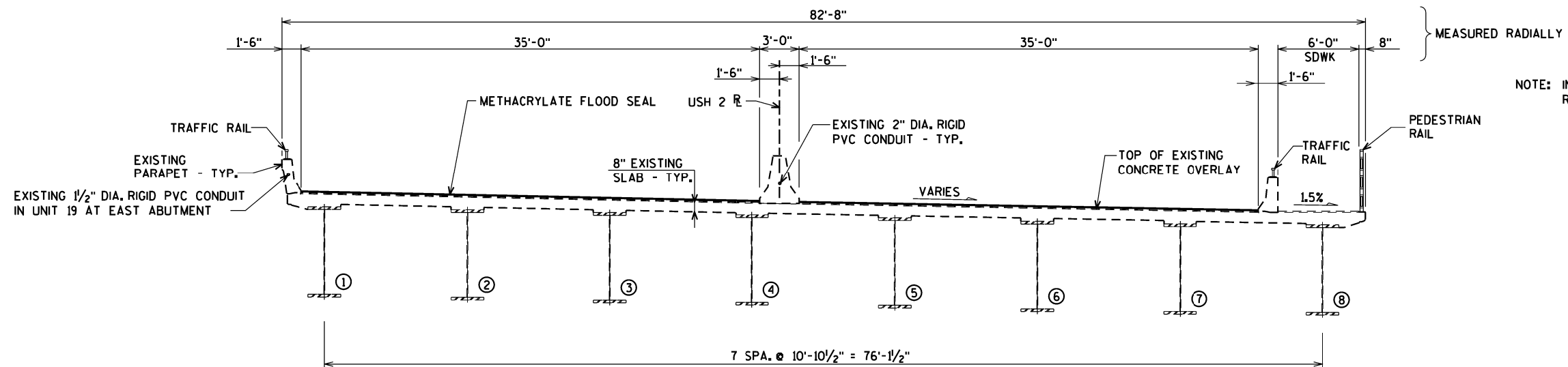
8680-00-74



NOTE: IN UNIT 8, THERE IS AN EXISTING TRANSVERSE 2" DIA. RIGID PVC CONDUIT IN THE SLAB AT STA. 52+00±
IN UNIT 9, THERE IS AN EXISTING TRANSVERSE 1 1/2" DIA. RIGID PVC CONDUIT IN THE SLAB AT STA. 54+48±



NOTE: IN UNIT 8, THERE IS AN EXISTING TRANSVERSE 2" DIA. RIGID PVC CONDUIT IN THE SLAB AT STA. 52+00±
IN UNIT 9, THERE IS AN EXISTING TRANSVERSE 1 1/2" DIA. RIGID PVC CONDUIT IN THE SLAB AT STA. 54+48±



NOTE: IN UNIT 19, THERE IS AN EXISTING TRANSVERSE 1 1/2" DIA. RIGID PVC CONDUIT IN THE SLAB AT STA. 101+51±

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
CROSS SECTIONS UNITS 7-12, 14-19			SHEET 23 OF 34



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
CROSS SECTION UNIT 13		SHEET 24 OF 34	

\$PRNAME\$
##ayres+_Active+41+410903_LSH 2 Bong Bridge Painting 86800004+Structures+Preliminary+42-0825 QUAN.dgn

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
203.0270	REMOVING STRUCTURE OVER WATERWAY DEBRIS CAPTURE B-16-38	EACH	1
509.1500	CONCRETE SURFACE REPAIR	SF	1,500
517.3001.S	STRUCTURE OVERCOATING CLEANING AND PRIMING B-16-38	EACH	1
517.4001.S	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-16-38	EACH	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY B-16-38	EACH	1
SPV.0090.01	STRIP SEAL GLAND REPLACEMENT	LF	166
SPV.0180.01	METHACRYLATE FLOOD SEAL	SY	78,510

DESIGN DATA (10/08/24 RATING OBTAINED FROM HSI)

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-28
OPERATING RATING: HS-47
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

TRAFFIC DATA:

A.D.T. = 17,900 (2021)
A.D.T. = 21,480 (2041)
R.D.S. = 60 M.P.H.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A ½" DEEP SAW CUT.

CONCRETE SURFACE REPAIR SHALL BE AS DETERMINED BY THE ENGINEER IN THE FIELD.

ORIGINAL CONSTRUCTION YEAR IS 1981.

THE COLOR OF THE FINISH EPOXY TOP COAT FOR THE OUTSIDE OF THE ARCH, TIED ARCH GIRDERS, STRINGERS, FLOOR BEAMS, BEARINGS, AND ALL OTHER MISCELLANEOUS STEEL IN UNIT 13 SHALL BE BLUE (FEDERAL STANDARD COLOR NO. 25240).

THE COLOR OF THE FINISH EPOXY TOP COAT FOR ALL THE INSIDE OF THE TIED ARCH GIRDERS OF UNIT 13 SHALL BE WHITE (FEDERAL STANDARD COLOR NO. 27925).

SCOPE OF WORK

CONCRETE SURFACE REPAIR ON PIERS 29 AND 30 AT LOCATIONS DETERMINED BY THE ENGINEER IN THE FIELD.

METHACRYLATE FLOOD SEAL OF THE ENTIRE DECK EXCLUDING PEDESTRIAN PATH ON B-16-38 (69100), RAMP A (69101), RAMP B (69102), AND RAMP C (69109).

REPLACING THE NEOPRENE STRIP SEAL GLAND AT JOINTS #17 AND #18.

SPOT REPAINTING OF UNIT 13 INCLUDING:

INSIDE TIE GIRDERS WITHIN 4-FEET OF HANGER CONNECTIONS.

INSIDE TIE GIRDERS WITHIN 2-FEET OF BOTTOM SPLICE PLATES.

INSIDE TIE GIRDERS BOTTOM AND TOP 6-INCHES WITHIN 2-FEET OF VERTICAL DIAPHRAMS.

OUTSIDE TIE GIRDERS WHOLE LENGTH OF TOP AND AT CORNERS.

OUTSIDE TIE GIRDERS WITHIN 2-FEET OF SPLICE CONNECTIONS.

ALL FRAMING STEEL WITHIN 6-FEET OF A DECK JOINT

FRAMING STEEL WITHIN 2-FEET OF ANY CONNECTION.

ALL FLOOR BEAMS, ENTIRE BOTTOM FLANGE AND LOWER 6-INCHES OF WEB.

ALL TIED ARCH BEARINGS.

ALL FLAT HORIZONTAL SURFACES ON FRAMING STEEL WHERE WATER CAN POOL.

ALL ARCH STEEL WITHIN 41'-8" OF THE C OF BEARING.

ANY LOCATIONS DETERMINED BY THE ENGINEER IN THE FIELD.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
DESIGN DATA, QUANTITIES AND NOTES			SHEET 25 OF 34

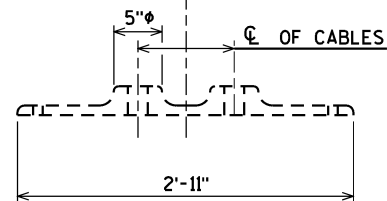
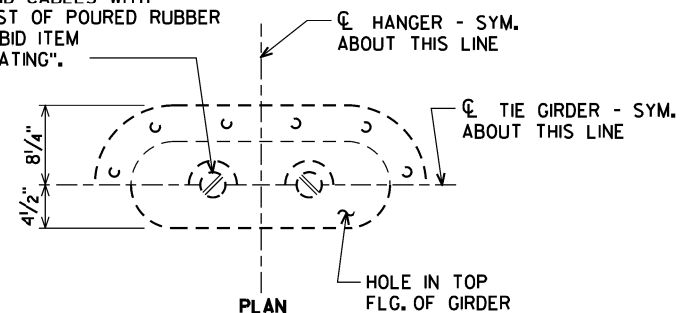
\$PRNAME\$
I:\41\410903.USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 TRUSS dtls.dgn

8

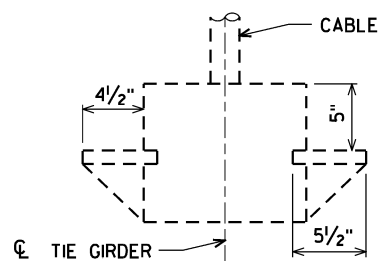
STATE PROJECT NUMBER

8680-00-74

2 5/8" DIA. HOLES FOR 2 3/8" DIA. CABLES.
RESEAL JOINT AROUND CABLES WITH
POURED RUBBER. COST OF POURED RUBBER
IS INCLUDED IN THE BID ITEM
"STRUCTURE OVERCOATING".



TIE GIRDER COVER CASTING



CABLE COLLAR DETAIL

RE-CAULK JOINT AROUND CASING.
COST INCLUDED IN THE BID ITEM
"STRUCTURE OVERCOATING".

INTERNAL VERTICAL
DIAPHRAGM INSIDE THE
TIE GIRDER OF ARCH

STRAND ANCHOR
CASTING

5 1/4"

CL HANGER

2 3/8" DIA. CABLES

RESEAL AROUND CABLES
WITH POURED RUBBER

COVER CASTING

TIE GIRDER

SEE CABLE
COLLAR DETAIL

ACCESS HOLE IN
INTERNAL VERTICAL
DIAPHRAGM

CL TIE GIRDER

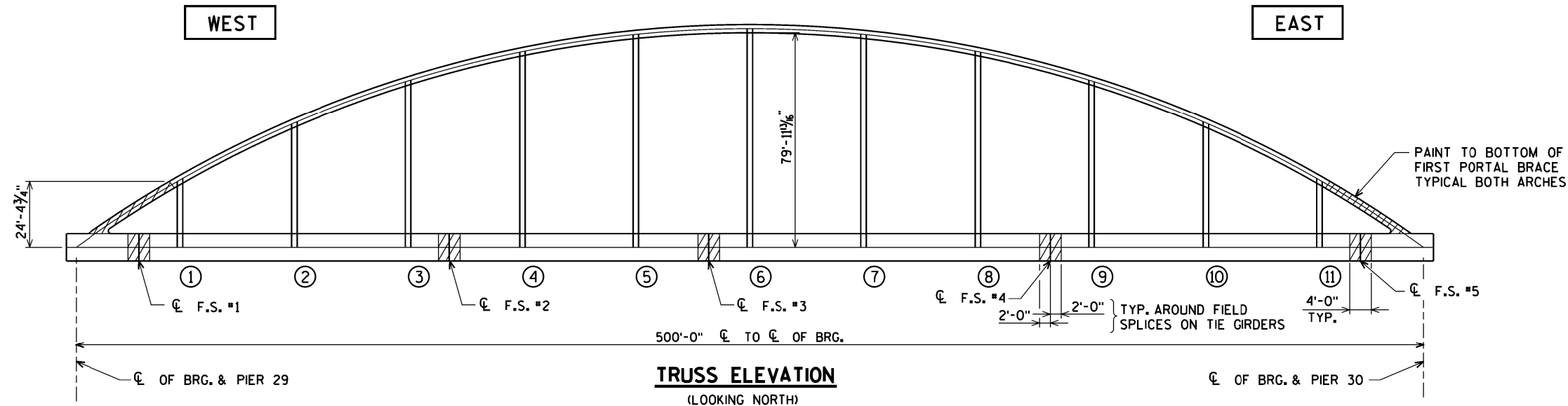
PART ELEV. OF TIE GIRDER @ CL OF HANGERS

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
HANGER DETAILS		SHEET 26 OF 34	

\$PRNAME\$
I:\41410903.USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 TRUSS dtls.dgn

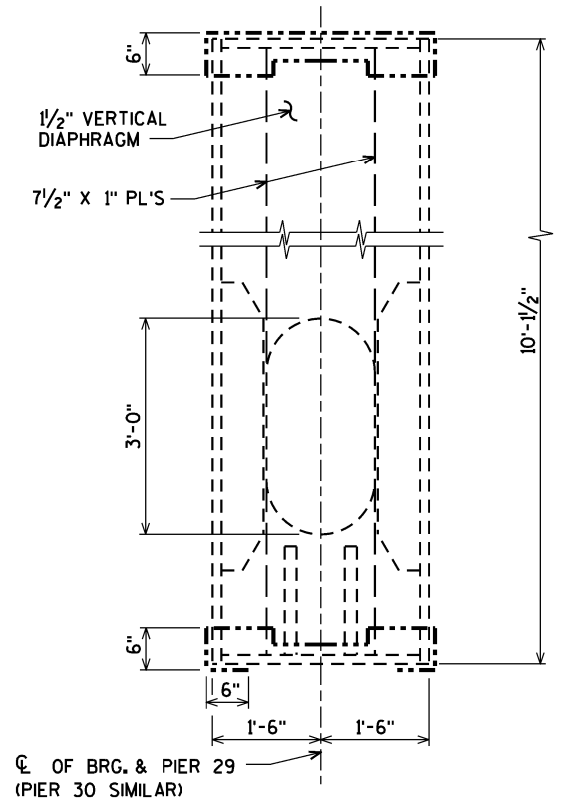
8



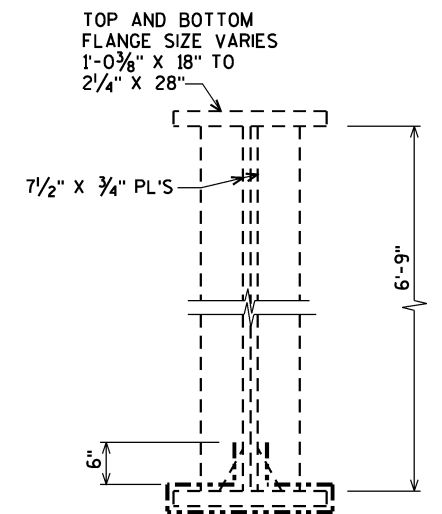
NOTE:
PAINT ALL LEVEL SURFACES WHERE WATER CAN POOL ON FRAMING MEMEBERS UNDER DECK.
PAINT ENTIRE BOTTOM FLANGE AND LOWER 6\"/>

- W16x36
- C15x33.9
- C12x20.7
- WT9x48
- WT9x35
- 4 SPA. @ 8'-4\"/>
- 2 SPA. @ 9'-6\"/>

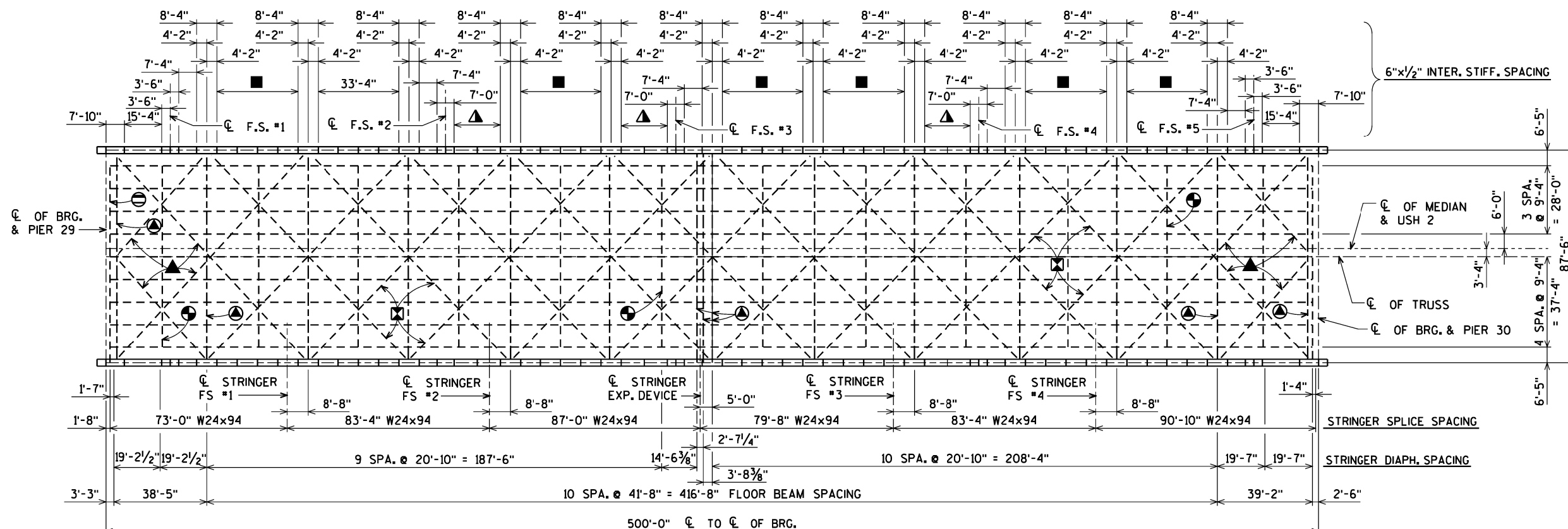
○ DENOTES CABLE NUMBER
PAINTING LIMITS
PAINTING LIMITS
F.S. = FIELD SPLICE



TIE GIRDER TYPICAL SECTION
(AT VERTICAL DIAPHRAGM)



TYPICAL SECTION THRU FLOOR BEAM



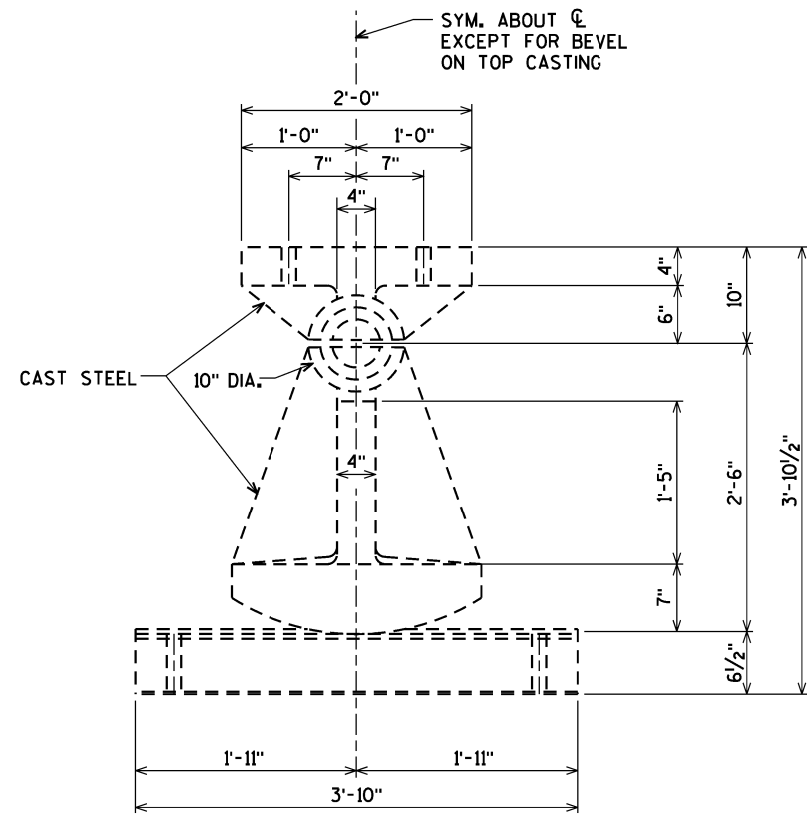
FRAMING PLAN

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38/69100			
DRAWN BY	CLP	PLANS CK'D.	JLB
TIED ARCH REPAINTING DETAILS		SHEET 27 OF 34	

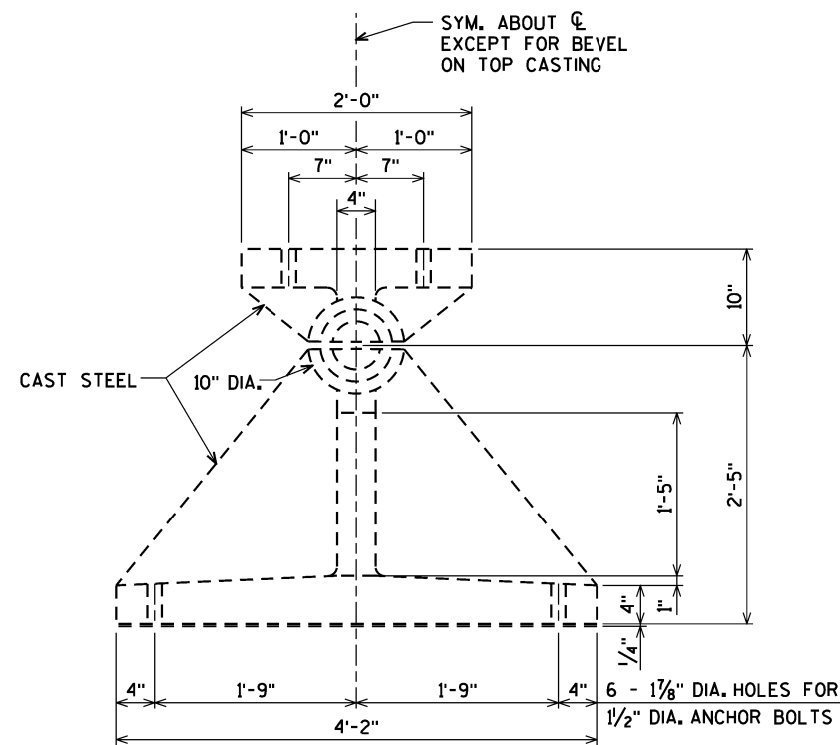
8

\$PRNAME\$
I:\410903.USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 TRUSS dtls.dgn

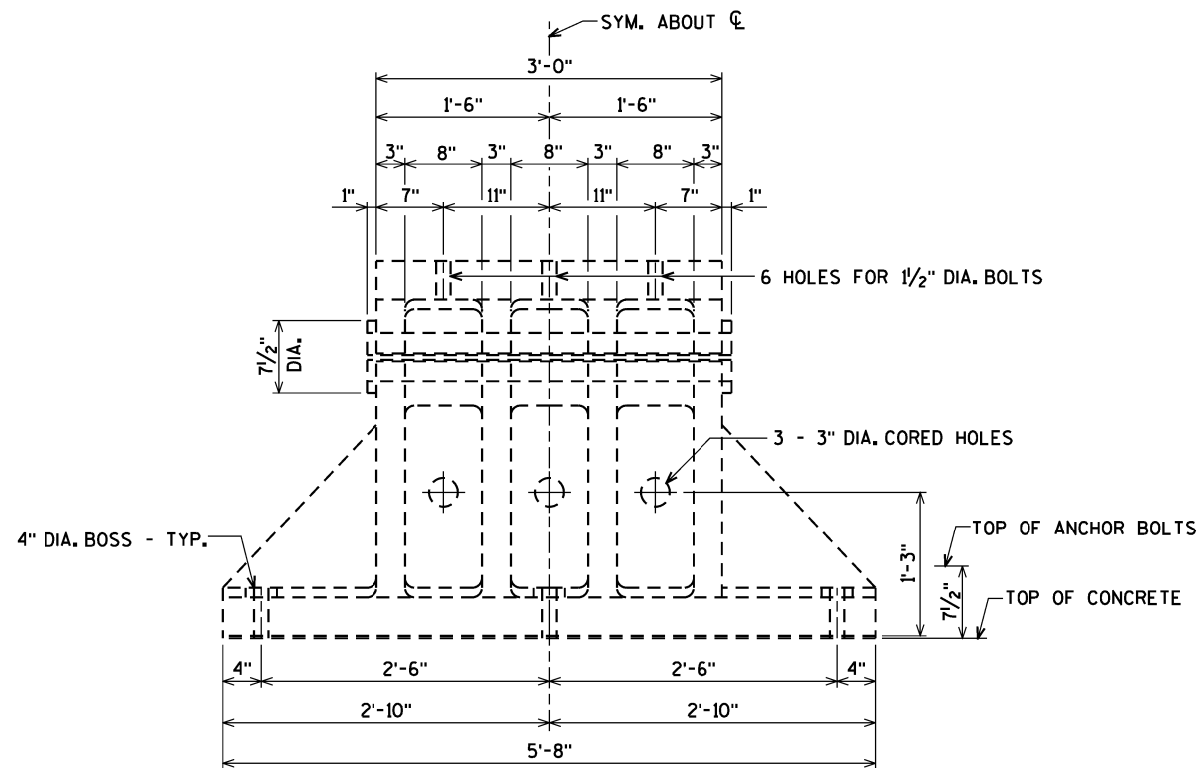
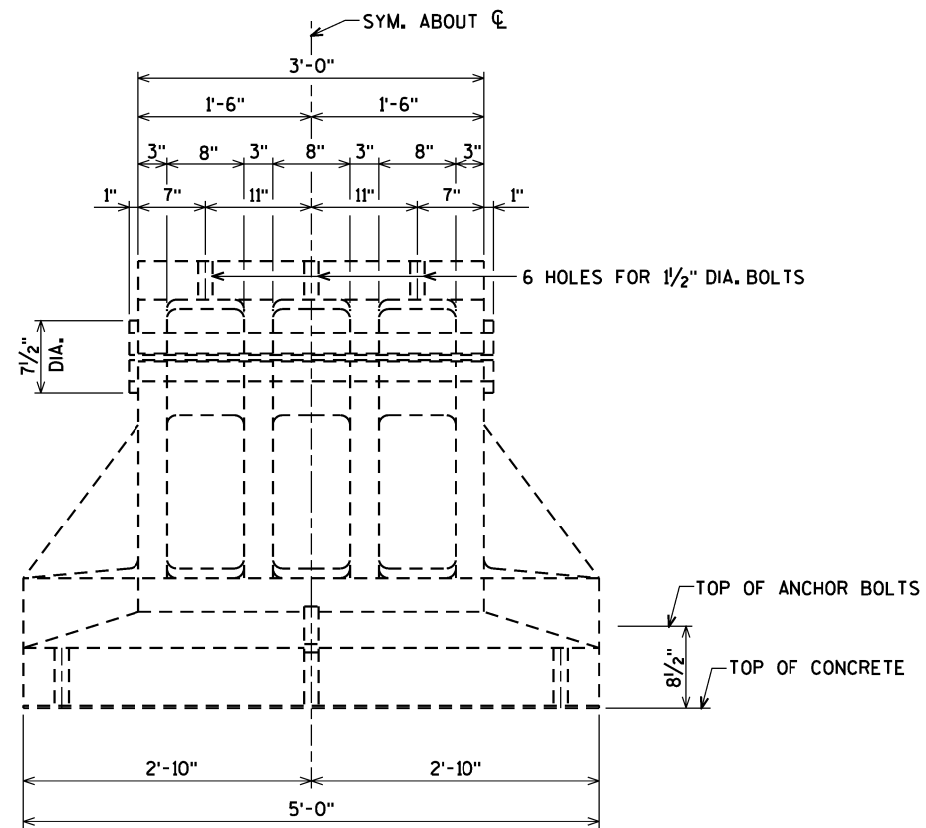
8



FIXED BEARING - PIER 29



FIXED BEARING - PIER 30



NOTE: PAINT ENTIRE BEARING ASSEMBLIES

8

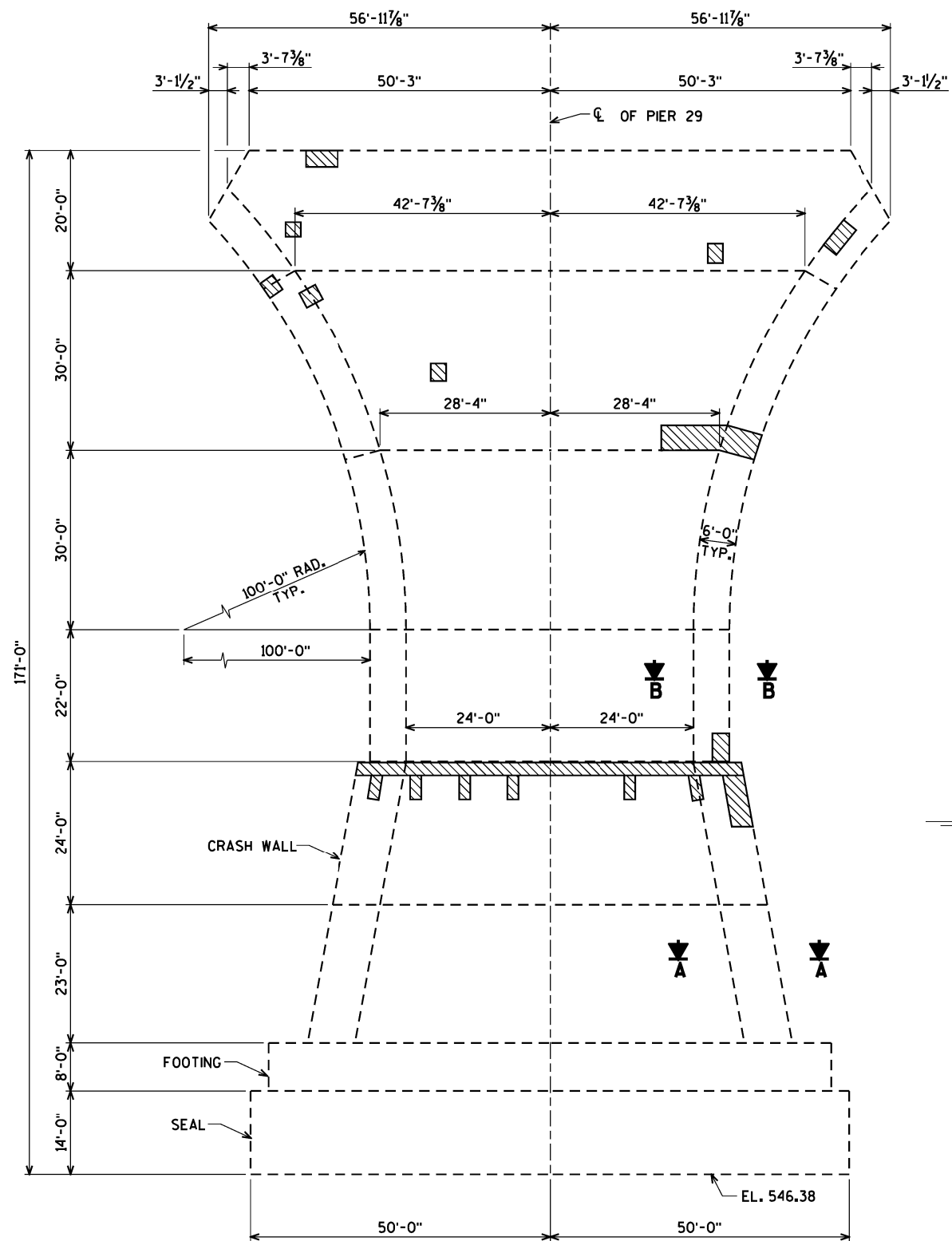
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY	CLP	PLANS CK'D.	JLB
TIED ARCH BEARINGS		SHEET 28 OF 34	



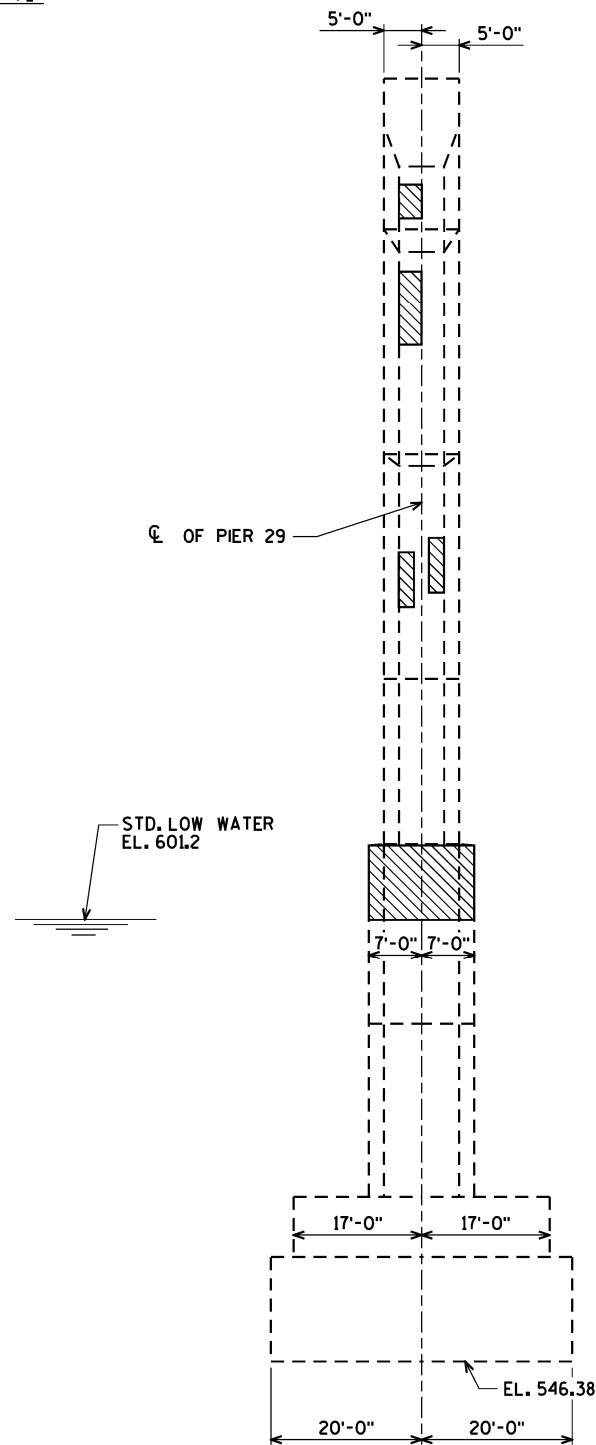
F.S. = FIELD SPLICE

\$PRNAME\$
I:\410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 pier 29_30.dgn

8

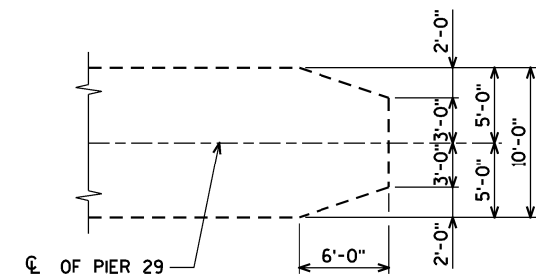


ELEVATION - PIER 29
(LOOKING EAST)

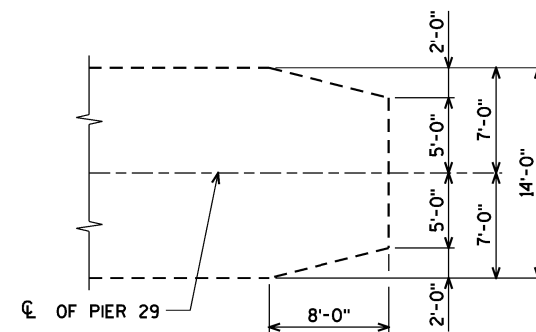


END VIEW - PIER 29
(LOOKING NORTH)

 CONCRETE SURFACE REPAIR BASED ON
AUGUST 2024 VISUAL FIELD INSPECTION



SECTION B-B



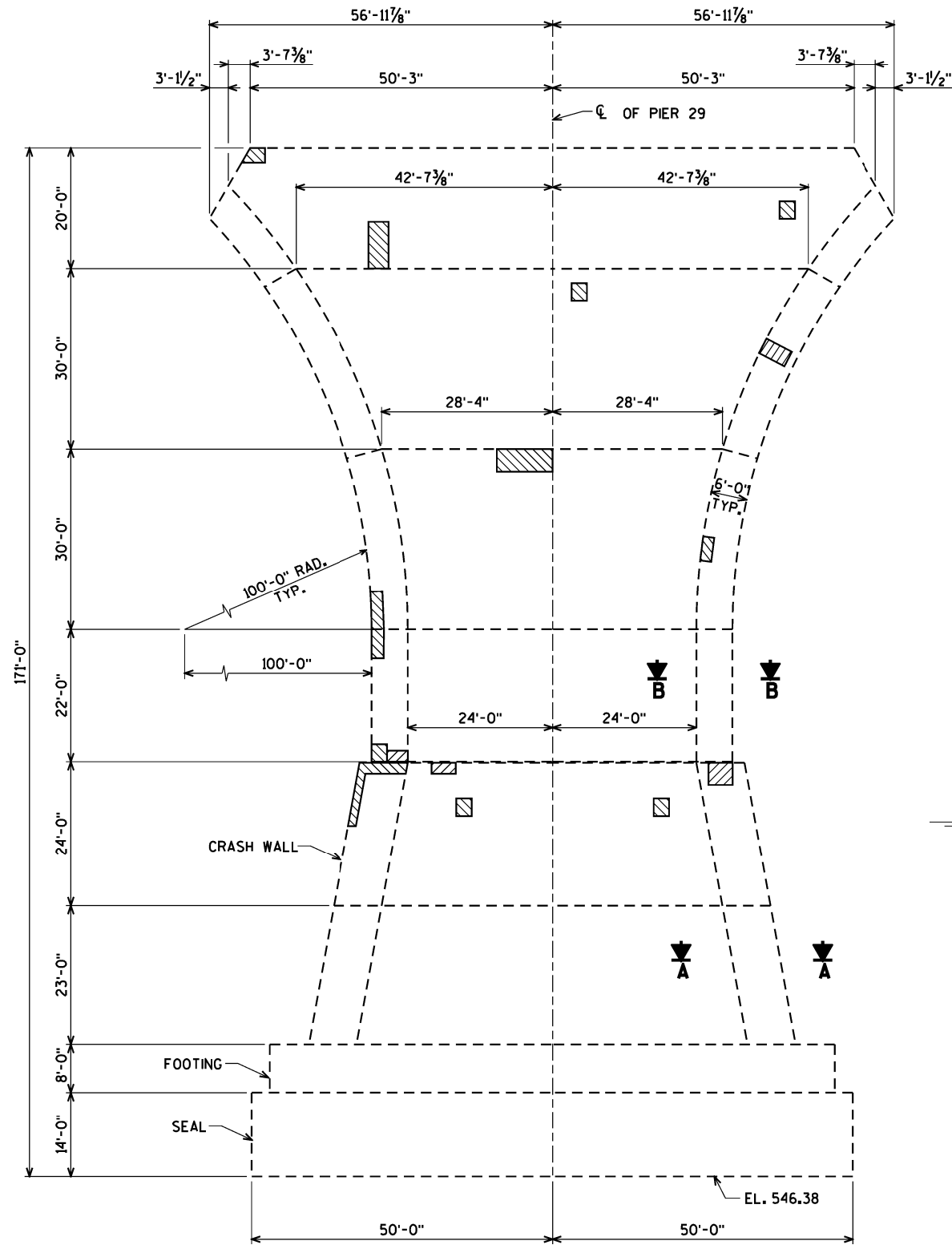
SECTION A-A

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
PIER 29		SHEET 30 OF 34	

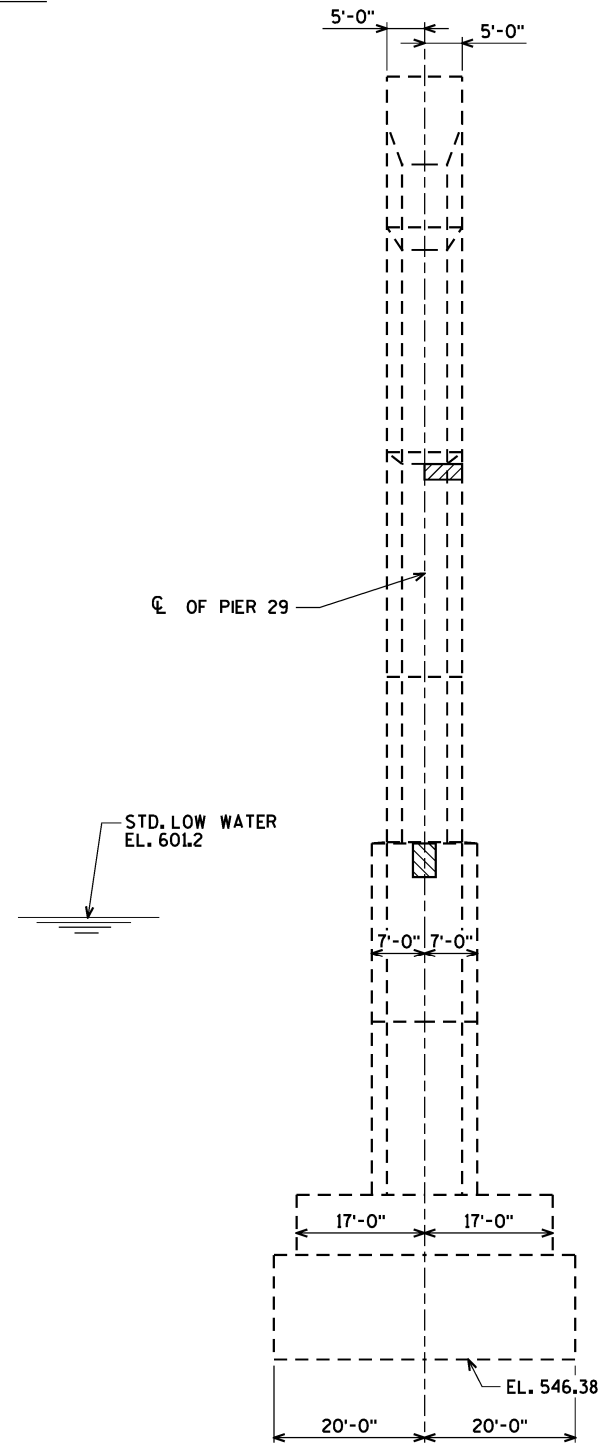
8

\$PRNAME\$
I:\41\410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 pier 29_30.dgn

8



ELEVATION - PIER 29
(LOOKING WEST)



END VIEW - PIER 29
(LOOKING SOUTH)

CONCRETE SURFACE REPAIR BASED ON
AUGUST 2024 VISUAL FIELD INSPECTION

STATE PROJECT NUMBER

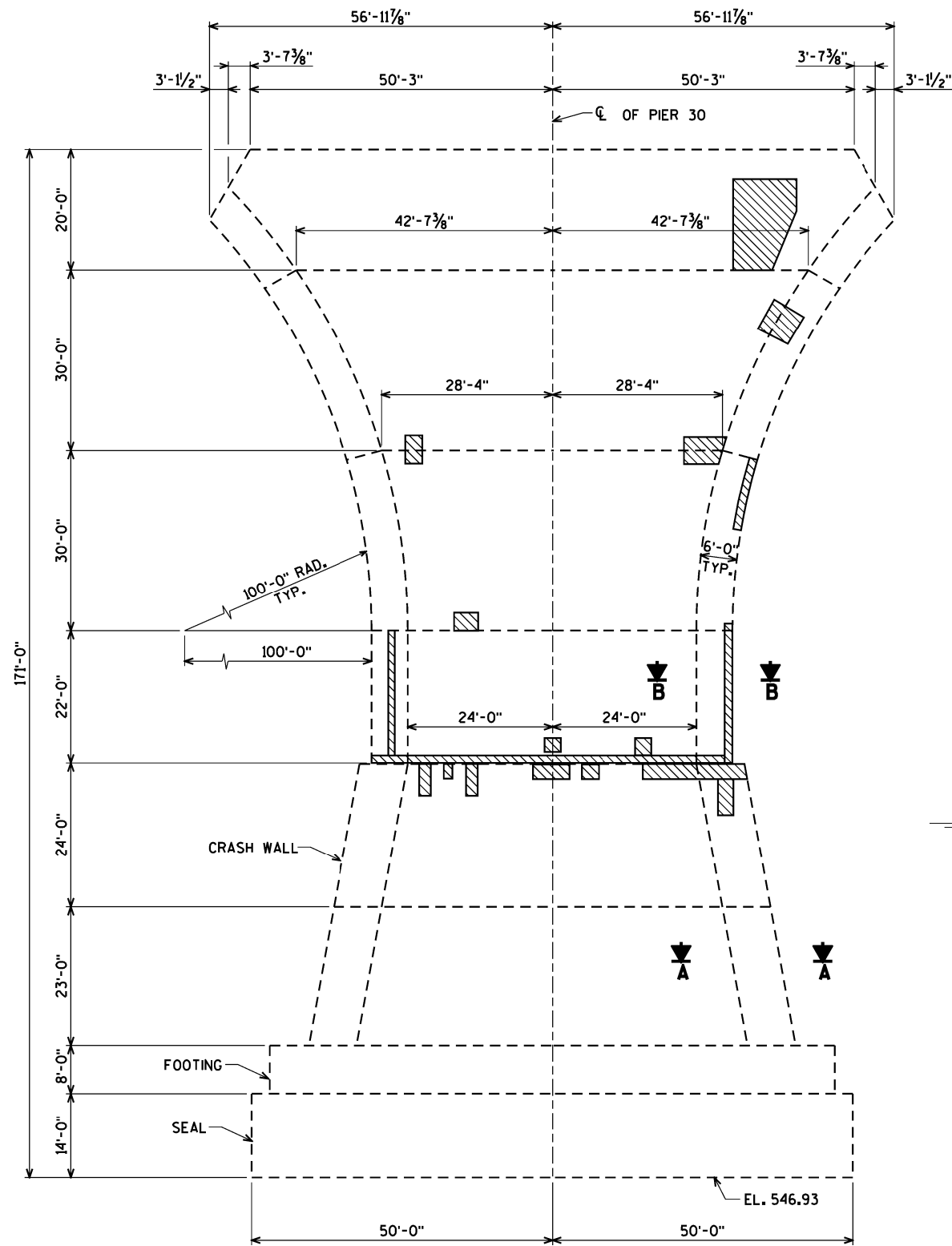
8680-00-74

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY	CLP	PLANS CK'D.	JLB
PIER 29		SHEET 31 OF 34	

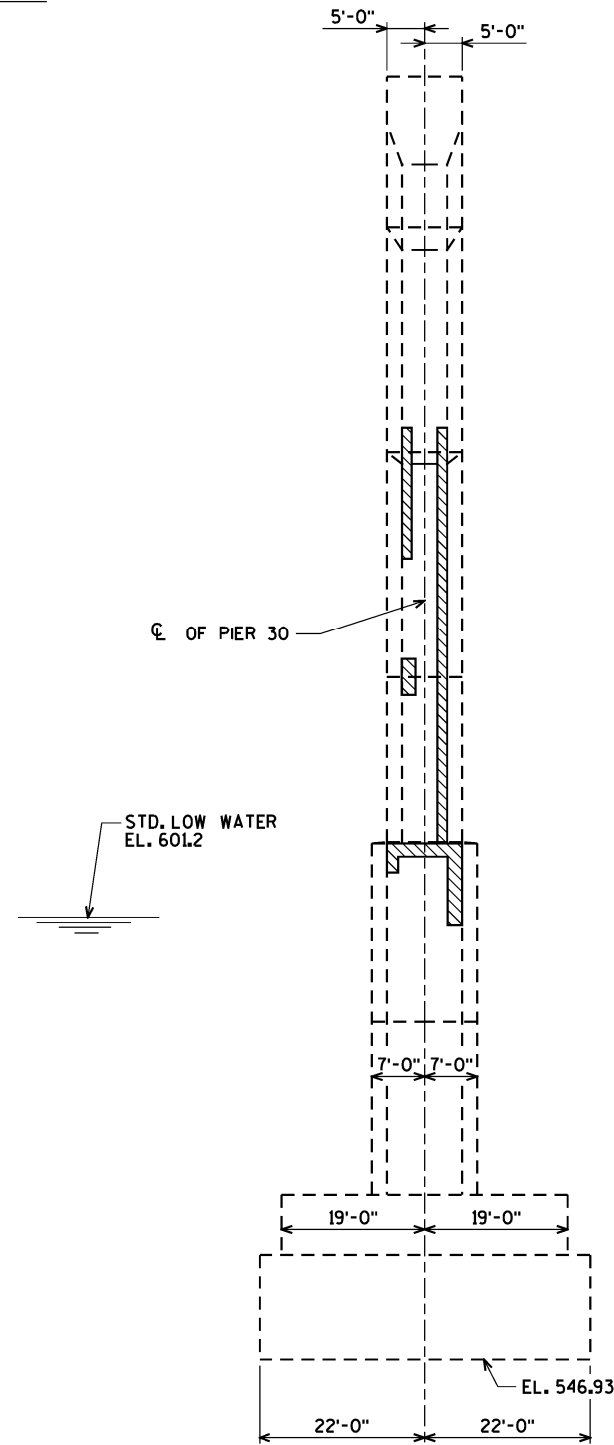
8

\$PRNAME\$
I:\41410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 pier 29_30.dgn

8

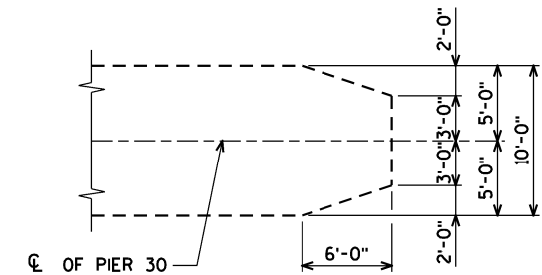


ELEVATION - PIER 30
(LOOKING EAST)

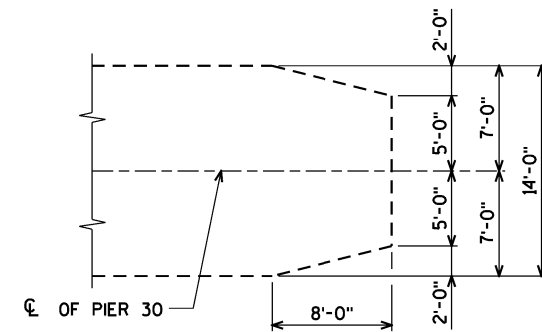


END VIEW - PIER 30
(LOOKING NORTH)

CONCRETE SURFACE REPAIR BASED ON
AUGUST 2024 VISUAL FIELD INSPECTION



SECTION B-B



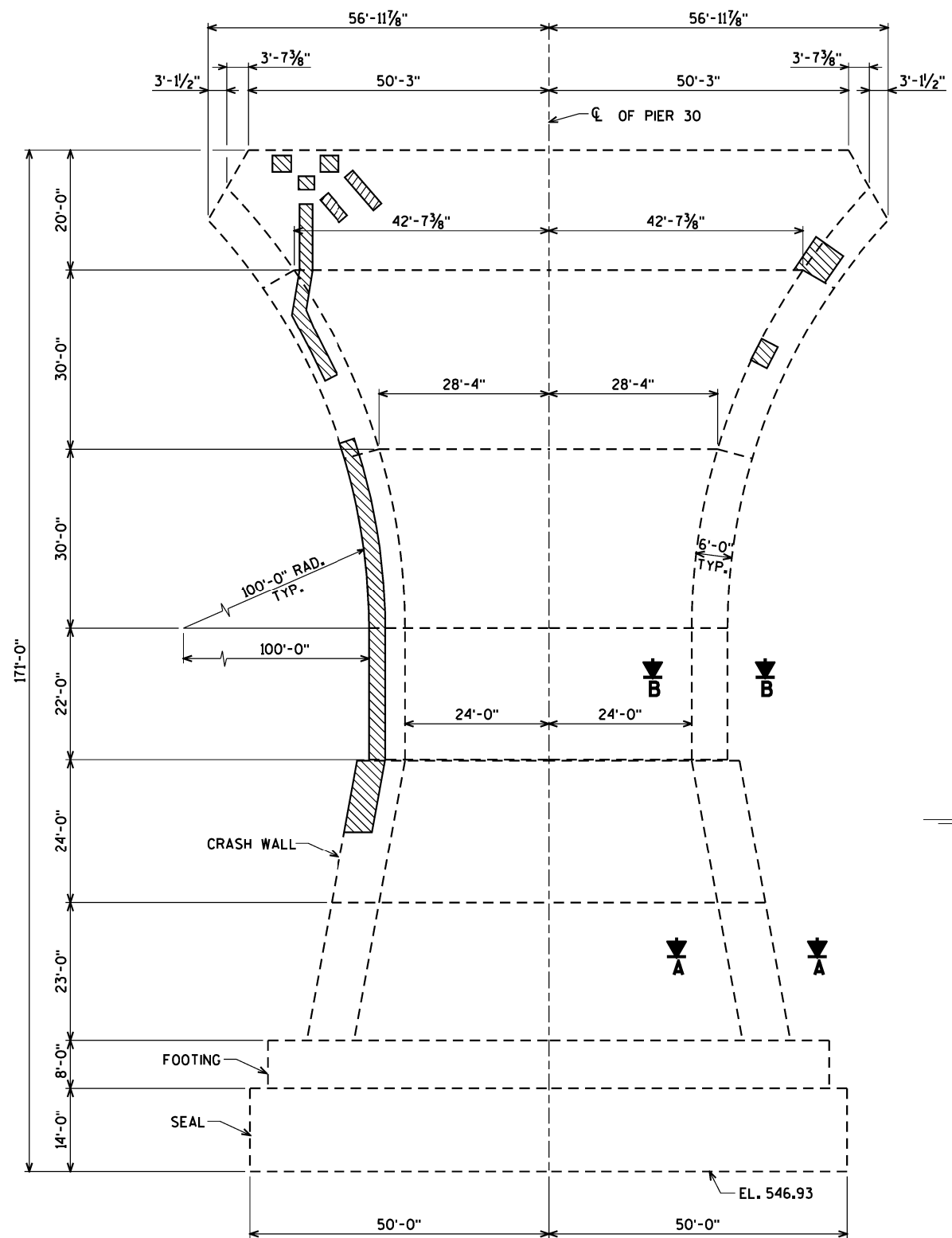
SECTION A-A

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
PIER 30		SHEET 32 OF 34	

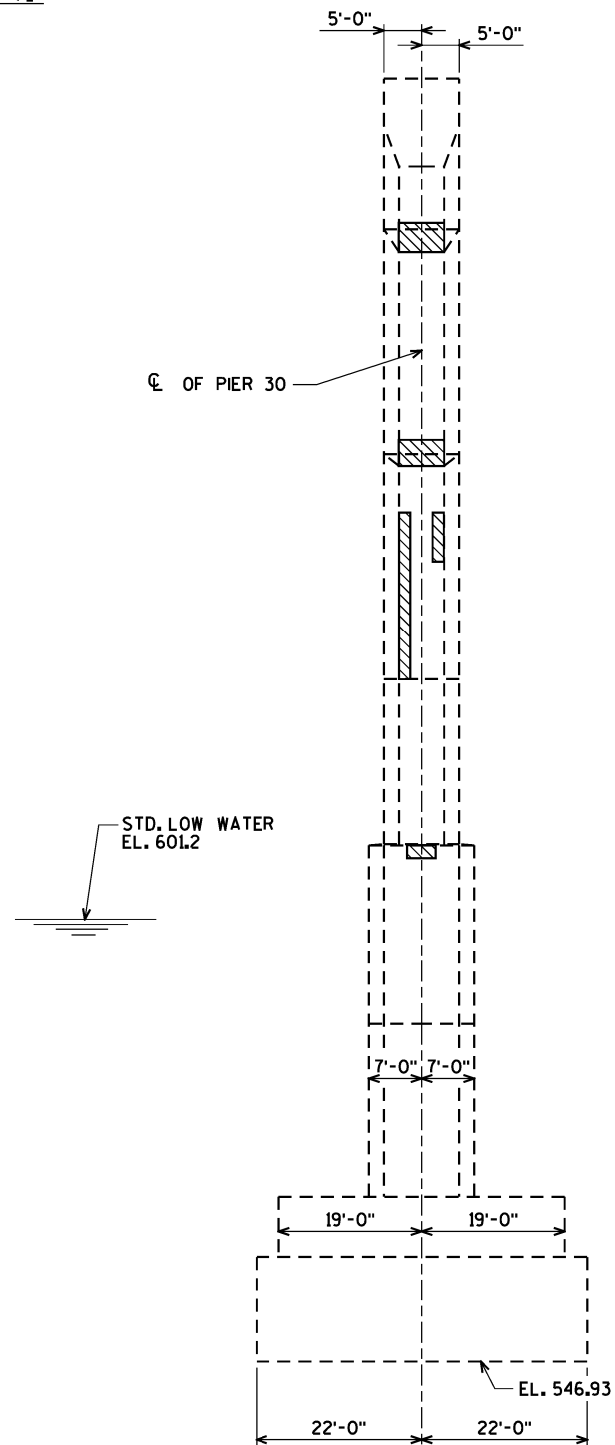
8

\$PRNAME\$
I:\410903_USH 2 Bong Bridge Painting 86800004\Structures\Preliminary\24 42-0825 pier 29_30.dgn

8



ELEVATION - PIER 30
(LOOKING WEST)



END VIEW - PIER 30
(LOOKING SOUTH)

 CONCRETE SURFACE REPAIR BASED ON
AUGUST 2024 VISUAL FIELD INSPECTION

STATE PROJECT NUMBER

8680-00-74

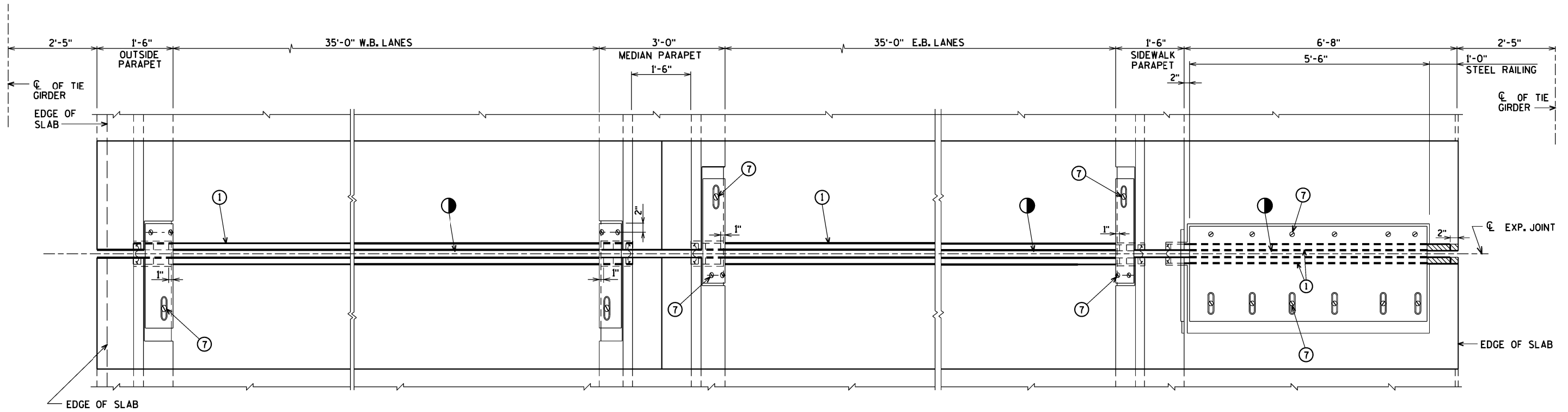
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
PIER 30		SHEET 33 OF 34	

8

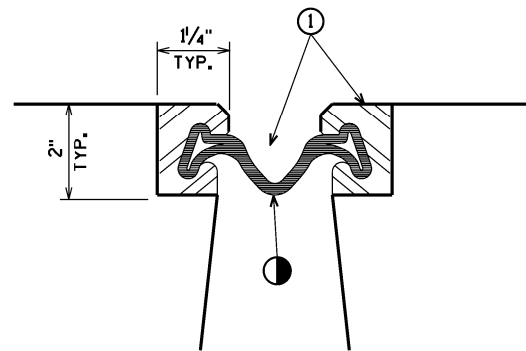
\$PRNAME\$
I:\410903_USH 2 Bong Bridge Painting 86800004\Structures\ Preliminary\24 42-0825 EXPJT 17 & 18 ss.dgn

STATE PROJECT NUMBER

8680-00-74



PART PLAN AT JOINT 17
(JOINT 17 SHOWN, JOINT 18 SIMILAR)



SECTION THRU JOINT

- 1 EXISTING NEOPRENE STRIP SEAL GLAND TO BE REMOVED AND REPLACED. EXISTING STRIP SEAL GLAND IS 4", 82'-8"± LENGTH AT JOINTS #17 AND #18. DO NOT SPLICE THE NEW STRIP SEAL GLANDS. FURNISH THE STRIP SEAL GLANDS IN LENGTHS SUITABLE FOR CONTINUOUS ONE-PIECE INSTALLATION AT EACH JOINT LOCATION PER THE SPECIAL PROVISIONS. REMOVING AND REPLACING STRIP SEAL GLANDS REQUIRES REMOVING COVER PLATES AT SIDEWALK AND PARAPETS. REUSE COVER PLATES AT SIDEWALK AND PARAPETS. REUSE COVER PLATES AND REINSTALL NEW BOLTS. THIS WORK IS INCLUDED IN THE BID ITEM "STRIP SEAL GLAND REPLACEMENT".

LEGEND

- 1 NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
- 7 3/4" DIA. x 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANIT-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY	CLP	PLANS CK'D.	JLB
STRIP SEAL GLAND REPLACEMENT JOINTS 17 & 18			SHEET 34 OF 34