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HIGHWAY STANDARDS:

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 701101-05 OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701106-02 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
- 701400-09 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-11 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701406-11 LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
- 701901-07 TRAFFIC CONTROL DEVICES
- 720006-04 SIGN PANEL ERECTION DETAILS

TOWNSHIP:
COUNTY UNIT ROAD DISTRICT

PLANS PREPARED BY:



#4 SUNSET HILLS PROFESSIONAL CENTER, EDWARDSVILLE, IL 62025
PHONE (618) 659-9102
PROJECT MANAGER: JERILYN M. HASSARD, P.E.
www.modjeski.com

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

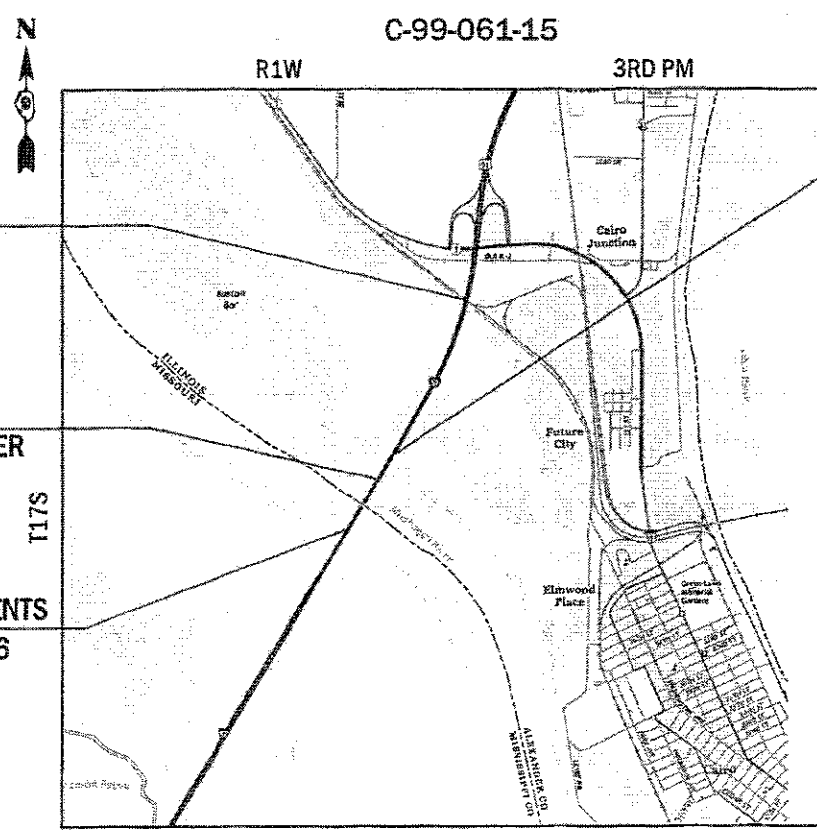
PROJECT ENGINEER: DAVID PICHE, P.E. (618) 351-5227

CONTRACT NO. 78493

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

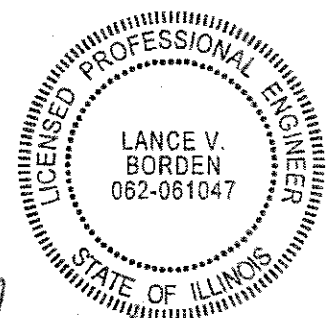
**PROPOSED
HIGHWAY PLANS**

**F.A.I. ROUTE 57 (I-57)
SECTION (02-1B-1)L-1
PROJECT NHPP-GUPA(306)
NAVIGATION AND AVIATION OBSTRUCTION LIGHTING REPAIRS
ALEXANDER COUNTY, IL AND MISSISSIPPI COUNTY, MO**



**LOCATION MAP
NOT TO SCALE**

GROSS LENGTH = 3035.66 FT. = 0.57 MILE
NET LENGTH = 3035.66 FT. = 0.57 MILE



Lance V. Borden 11/28/17
LANCE V. BORDEN ILLINOIS P.E. DATE
LICENSE EXPIRES 11/30/2019

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(02-1B-1)L-1	ALEXANDER	17	1
		ILLINOIS	CONTRACT NO. 78493	

0-99-053-15

LOCATION OF SECTION INDICATED THUS: - [Red Box] -

FUNCTIONAL CLASSIFICATION
INTERSTATE
ADT: 12,500 (2016); 14,414 (2032)
ADTT: 45%
POSTED SPEED = 70 MPH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED *Dec 16 2017*

Jeffrey J. Keenan REGION FIVE ENGINEER

Feb 2 2018

Paul P. ENGINEER OF DESIGN AND ENVIRONMENT

Feb 2 2018 DIRECTOR OF PROGRAM DEVELOPMENT

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

GENERAL NOTES:

1. GENERAL

- 1.01 ALL WORK SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE (2017 EDITION), IDOT STANDARDS AND SPECIFICATIONS, AND ALL APPLICABLE STATE AND/OR LOCAL CODES.
- 1.02 ALL EQUIPMENT, RACEWAYS, WIRING, ETC. SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER IN ACCORDANCE WITH NECA 1 (STANDARD PRACTICE OF GOOD WORKMANSHIP IN ELECTRICAL CONSTRUCTION), AND WITHOUT VIOLATING ANY REQUIRED CLEAR WORKING SPACE (NEC 110.26).
- 1.03 IN NO WAY SHALL THESE PLANS BE INTERPRETED AS REQUIRING A VIOLATION OF THE NATIONAL ELECTRICAL CODE, OR ANY OTHER APPLICABLE FEDERAL, STATE, OR LOCAL CODE OR REGULATION. IN ANY CASE OF DISPUTE BETWEEN THESE PLANS AND THE NATIONAL ELECTRICAL CODE, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.
- 1.04 THE INSTALLATION OF ALL EQUIPMENT AND MATERIALS SHALL COMPLY WITH THEIR RESPECTIVE MANUFACTURERS' RECOMMENDATIONS AND INSTALLATION PROCEDURES.
- 1.05 THE CONTRACTOR IS REQUIRED TO DELIVER A COMPLETE, WORKING, AND SAFE ELECTRICAL SYSTEM.
- 1.06 VARIATIONS FROM THESE PLANS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL. ALL CHANGES SHALL BE REFLECTED IN THE AS-BUILT DRAWINGS.
- 1.07 IN ADDITION TO THE MATERIALS, COMPONENTS, AND EQUIPMENT SHOWN ON THE PLANS. PROVIDE ALL RACEWAYS, JUNCTION AND PULL BOXES, FITTINGS, CONDUCTORS, CONNECTORS, AND OTHER ITEMS REQUIRED TO PROVIDE A COMPLETE, FUNCTIONAL, AND SAFE INSTALLATION.
- 1.08 THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR VERIFICATION OF ALL RELEVANT DIMENSIONS, EQUIPMENT SPECIFICATIONS, ELECTRICAL LOADS, CIRCUIT LOADS, AND SIMILAR INFORMATION PRIOR TO PURCHASE AND/OR FABRICATION OF EQUIPMENT OR MATERIALS, EQUIPMENT RATINGS AND/OR WIRE SIZES SHOWN ON THE PLANS SHALL BE INCREASED WHERE REQUIRED BY THE LOADS SERVED.
- 1.09 THE CONTRACTOR SHALL INVESTIGATE AND/OR VERIFY THE LOCATIONS OF ALL EXISTING FACILITIES, ABOVE GROUND AND UNDERGROUND, PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPAIRED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST.
- 1.10 THE CONTRACTOR SHALL CAREFULLY TRACE, LOCATE, IDENTIFY, AND DOCUMENT ALL EXISTING EQUIPMENT, CONDUCTORS, RACEWAYS, AND OTHER ITEMS WHICH ARE EXISTING AND TO REMAIN IN PLACE, BE RE-ROUTED, OR BE RELOCATED. THE CONTRACTOR SHALL EXERCISE CARE NOT TO DAMAGE ANY ITEMS WHICH ARE EXISTING AND TO REMAIN IN PLACE.
- 1.11 ALL EQUIPMENT, RACEWAYS, WIRING, ETC. SHOWN ON THESE PLANS, OR OTHERWISE REQUIRED, SHALL BE NEW UNLESS SPECIFICALLY NOTED OTHERWISE.
- 1.12 LOCATIONS OF RACEWAYS, CABLES, AND EQUIPMENT SHOWN ARE DIAGRAMMATIC ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR AND SUBJECT TO THE APPROVAL OF THE ENGINEER.
- 1.13 THE CONTRACTOR IS REQUIRED TO COORDINATE WITH THE LOCAL ELECTRIC UTILITY COMPANY FOR ALL ELECTRIC SERVICE INTERRUPTIONS REQUIRED BY HIS WORK.
- 1.14 WHERE DETAILS ARE NOT PROVIDED OR FULLY DEVELOPED, THE CONTRACTOR SHALL PROVIDE THE ADDITIONAL DETAIL DEVELOPMENT NECESSARY TO PROVIDE AND SUBMIT LAYOUT DRAWINGS AND SHOP DRAWINGS FOR REVIEW.
- 1.15 NO FIELD WELDING IS PERMITTED EXCEPT AS SPECIFIED IN THE CONTRACT DOCUMENTS.

2. WIRING MATERIALS & METHODS

- 2.01 RIGID CONDUITS SHALL BE SUPPORTED WITHIN 18 INCHES OF ALL TERMINATIONS AND AT REGULAR INTERVALS NOT TO EXCEED 6 FEET. FLEXIBLE CONDUITS SHALL BE SUPPORTED WITHIN 12 INCHES OF ALL TERMINATIONS AND AT REGULAR INTERVALS NOT TO EXCEED 3 FEET.
- 2.02 ALL CONDUIT CONNECTIONS TO BOXES AND ENCLOSURES WHICH DO NOT HAVE INTEGRAL THREADED HUBS SHALL UTILIZE WEATHERPROOF GROUNDING TYPE HUBS OR CONNECTORS. ALL HUBS AND CONNECTORS SHALL HAVE INSULATED THROATS OR BE PROVIDED WITH INSULATED BUSHINGS.
- 2.03 ANY CONDUIT ROUTINGS SHOWN ON THESE PLANS ARE CONCEPTUAL ONLY. ACTUAL ROUTINGS SHALL BE DETERMINED BY THE CONTRACTOR BASED ON ACTUAL CONDITIONS AND SUBMITTED TO THE ENGINEER FOR APPROVAL.
- 2.04 ALL CONDUCTORS SHALL BE STRANDED COPPER TYPE RHW-2, EXCEPT WHERE SHOWN OTHERWISE ON THE PLANS. THE MINIMUM SIZE FOR FIELD POWER AND CONTROL WIRING SHALL BE 10 AWG. CONDUCTOR INSULATION SHALL HAVE A 600V MINIMUM RATING. SIZE AS SHOWN ON PLANS.
- 2.05 CONDUCTOR FILL IN RACEWAYS SHALL NOT EXCEED 40%. MINIMUM CONDUIT SIZE SHALL BE 3/4 INCH.
- 2.06 WIRING IN ENCLOSURES, CABINETS, BOXES, ETC. SHALL BE NEATLY ROUTED AND BUNDLED WITH PVC CABLE TIES OR PLACED IN NON-METALLIC WIRING TROUGHS.
- 2.07 SPARE AND UN-TERMINATED CONDUCTORS SHALL BE CAPPED, OR CONNECTED TO SPARE TERMINAL BLOCKS WHERE AVAILABLE, AND CLEARLY IDENTIFIED AS SPARES. ONE FULL TURN OF SLACK FOR ALL SPARE CONDUCTORS SHALL BE PROVIDED IN ALL ENCLOSURES, CABINET, BOXES, ETC.
- 2.08 ONE FULL TURN OF SLACK SHALL BE PROVIDED FOR ALL CONDUCTORS IN ALL PULL BOXES, AND JUNCTION BOXES.
- 2.09 CONDUCTOR SPLICES SHALL BE MADE ONLY IN JUNCTION BOXES, OUTLET OR DEVICE BOXES, AND EQUIPMENT ENCLOSURES. SPLICES SHALL BE MADE ONLY ON TERMINAL BLOCKS, EXCEPT FOR SPLICES AT LUMINAIRES AND WIRING DEVICES WHICH SHALL UTILIZE COMPRESSION TYPE, OR SIMILAR APPROVED, CONNECTORS. LIMIT USE OF SET-SCREW TYPE CONNECTORS TO DEVICES TO BE REPLACED DURING LONG TERM MAINTENANCE. TWIST-ON (WIRENUT) TYPE CONNECTORS SHALL NOT BE USED. TERMINAL BLOCKS SHALL NOT HAVE MORE THAN TWO CONDUCTORS PER TERMINAL.
- 2.10 LAYOUT OF TERMINAL BLOCKS IN JUNCTION BOXES SHALL COMPLY WITH THE REQUIREMENTS FOR WIRE BENDING SPACE GIVEN IN NEC 312.6, EXCEPT THAT THE MINIMUM SPACE PERMITTED SHALL BE 2 INCHES. PROPOSED LAYOUTS INCLUDING ANTICIPATED LOCATIONS AND SIZES OF KNOCKOUTS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION.
- 2.11 A CONDUIT BODY OR BOX SHALL BE PROVIDED ON AT LEAST ONE SIDE OF ALL FLEXIBLE CONDUITS.
- 2.12 ALL RACEWAYS SHALL BE ARRANGED TO DRAIN. CONDUIT DRAINS SHALL BE INSTALLED IN A CONDUIT BODY AT LOW POINT OF ALL RUNS.
- 2.13 UNLESS SPECIFICALLY INDICATED OTHERWISE, CONDUIT AND CABLE ENTRANCES IN DAMP AND WET LOCATIONS SHALL BE MADE IN THE BOTTOM OF CABINETS AND/OR ENCLOSURES.
- 2.14 CONDUCTORS WITH GREEN COLORED INSULATION SHALL BE USED ONLY FOR GROUNDING CONDUCTORS. RE-IDENTIFICATION OF CONDUCTORS WITH GREEN COLORED INSULATION, SUCH AS WITH COLORED TAPE, IS NOT PERMITTED.
- 2.15 ADDITIONAL PULL BOXES MAY BE INSTALLED AS APPROVED BY THE ENGINEER TO FACILITATE CABLE PULLING AT NO ADDITIONAL COST.

COMMITMENTS:

NONE AS OF DECEMBER 15, 2017

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT NINE

PREPARED BY: [Signature]
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: [Signature]
DISTRICT LAND ACQUISITION ENGINEER

EXAMINED BY: [Signature]
DISTRICT PROGRAM DEVELOPMENT ENGINEER

EXAMINED BY: [Signature]
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: [Signature]
DISTRICT PROJECT IMPLEMENTATION ENGINEER

EXAMINED BY: [Signature]
DISTRICT CONSTRUCTION ENGINEER

EXAMINED BY: [Signature]
DISTRICT MATERIALS ENGINEER

 <p>MODJESKI-MASTERS Experience great bridges.</p>	USER NAME =	DESIGNED - R.I. PETERS	REVISED -	<p>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</p>	I-57 OVER MISSISSIPPI RIVER S.N. 002-0022 GENERAL NOTES - 1			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - R.L. REED	REVISED -		57	(02-1B-1)-1	ALEXANDER	17	2			
	PLOT SCALE =	CHECKED - L.V. BORDEN	REVISED -		CONTRACT NO. 78493							
	PLOT DATE =	DATE - 11/28/2017	REVISED -		SCALE:		SHEET 1	OF 2 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	

GENERAL NOTES (CONTINUED)

3. MISCELLANEOUS MATERIALS & METHODS

- 3.01 ALL BOLTS, NUTS, WASHERS, CONCRETE ANCHORS, AND SIMILAR HARDWARE SHALL BE TYPE 316 STAINLESS STEEL, UNLESS OTHERWISE NOTED. ALL CONCRETE ANCHORS SHALL BE EPOXY ADHESIVE TYPE, UNLESS OTHERWISE NOTED.
- 3.02 ALL BOLTED AND SIMILAR CONNECTIONS SHALL UTILIZE LOCK WASHERS. CONNECTIONS WHICH DO NOT PERMIT THE USE OF LOCK WASHERS SHALL UTILIZE AN APPROVED MEDIUM STRENGTH THREADLOCKING ADHESIVE.
- 3.03 SUPPORTS FOR ELECTRICAL EQUIPMENT SHALL BE FABRICATED FROM TYPE 316 STAINLESS STEEL OR TYPE A36 STEEL HOT-DIP GALVANIZED AFTER FABRICATION, UNLESS OTHERWISE NOTED.
- 3.04 EQUIPMENT ENCLOSURES, CABINETS, BOXES, AND SIMILAR ITEMS SHALL BE INSTALLED PLUMB AND SECURELY FASTENED IN PLACE.

4. IDENTIFICATION

- 4.01 ALL CONDUCTORS SHALL BE UNIQUELY IDENTIFIED AND CLEARLY LABELED WITH MACHINE PRINTED, WEATHERPROOF, NON-SHRINK SLEEVE TYPE LABELS.
- 4.02 ALL TERMINAL BLOCKS SHALL BE CLEARLY LABELED, AT EACH TERMINAL POSITION, WITH MACHINE PRINTED LABELS.
- 4.03 ALL ELECTRICAL EQUIPMENT ENCLOSURES, PULL AND JUNCTION BOXES, AND SIMILAR ITEMS SHALL BE CLEARLY LABELED WITH ENGRAVED PLASTIC WEATHERPROOF LABELS (WHITE TEXT ON BLACK BACKGROUND) ATTACHED WITH STAINLESS STEEL HARDWARE.
- 4.04 THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING A COMPREHENSIVE WIRE NUMBERING SYSTEM AND SHALL LABEL ALL WIRES, CABLES, AND TERMINAL BLOCKS. IDENTIFICATION NUMBERS SHALL BE COORDINATED FOR CONSISTENCY AND ACCURACY WITH NUMBERS SHOWN ON THE CONTRACTOR'S WIRING DIAGRAMS AND SHOP DRAWINGS, FIELD WIRING DIAGRAMS, AND ANY OTHER DIAGRAMS SHOWING THE SAME ITEM.

5. GROUNDING & BONDING

- 5.01 PROVIDE GROUNDING AND BONDING OF ALL SYSTEMS PER NEC ARTICLE 250.
- 5.02 ALL CIRCUITS SHALL INCLUDE AN EQUIPMENT GROUNDING CONDUCTOR. EQUIPMENT GROUNDING CONDUCTORS SHALL BE SIZED EQUAL TO THE CIRCUIT CONDUCTORS, EXCEPT WHERE SHOWN OTHERWISE ON THE PLANS.
- 5.03 ALL GROUNDING TYPE HUBS AND CONNECTORS IN A BOX OR ENCLOSURE SHALL BE BONDED TOGETHER AND TO THE BOX OR ENCLOSURE WITH A STRANDED COPPER BONDING JUMPER SIZED EQUAL TO THE LARGEST EQUIPMENT GROUNDING CONDUCTOR IN THE BOX OR ENCLOSURE.
- 5.04 ALL GROUNDING CONDUCTORS WITHIN AN EQUIPMENT ENCLOSURE OR TERMINAL CABINET SHALL BE TERMINATED ON A COMMON UNINSULATED GROUNDING BAR.

6. REMOVALS, SALVAGE, & DISPOSAL

- 6.01 THE CONTRACTOR SHALL REMOVE CCTV CONTROL BOX AND CAMERA FROM THE PROJECT SITE AND DELIVER IT TO THE DISTRICT 9 TRAFFIC UNIT. CCTV CONTROL BOX AND CAMERA SHALL BE HANDLED WITH CARE AT ALL TIMES TO AVOID DAMAGE.
- 6.02 THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.
- 6.03 PERFORM ALL REMOVALS IN SUCH A MANNER AS TO AVOID DAMAGE TO EXISTING EQUIPMENT AND/OR CONDUCTORS WHICH ARE TO REMAIN.
- 6.04 THE CONTRACTOR SHALL PERFORM THE WORK WITH CARE, SO THAT ANY STRUCTURAL MATERIALS WHICH ARE TO REMAIN IN PLACE SHALL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY STRUCTURAL MATERIALS WHICH ARE TO REMAIN IN PLACE, THE DAMAGED MATERIALS SHALL BE REPLACED OR REPAIRED IN A MANNER SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.

7. WORKING DRAWINGS & SUBMITTALS

- 7.01 THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED WORKING DRAWINGS AND PRODUCT SUBMITTALS, WORKING IN COOPERATION AND COMMUNICATION WITH THE ENGINEER IN ORDER TO PROVIDE A COMPLETE, FUNCTIONAL, AND SAFE INSTALLATION IN ACCORDANCE WITH THE REQUIREMENTS AND INTENTS OF THESE PLANS, THE SPECIFICATIONS, THE CONTRACT DOCUMENTS, AND ALL APPLICABLE CODES.
- 7.02 ALL REQUIRED WORKING DRAWINGS AND PRODUCT DESCRIPTIVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. SUCH ITEMS MUST BE APPROVED BY THE ENGINEER PRIOR TO PURCHASE OF THE RELATED MATERIALS AND/OR UNDERTAKING OF THE RELATED WORK.
- 7.03 SUBMIT COMPLETE DESCRIPTIVE DATA FOR EACH ITEM OF EQUIPMENT AND MATERIAL.
- 7.04 WIRING DIAGRAMS AND SCHEMATICS PROVIDED IN THESE PLANS ARE FOR ILLUSTRATING MINIMUM REQUIREMENTS ONLY. THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR DEVELOPING ALL REQUIRED DIAGRAMS, INCLUDING FIELD INTERCONNECTION DIAGRAMS.
- 7.05 WIRING LAYOUTS AND TABULATIONS PROVIDED IN THESE PLANS ARE FOR ILLUSTRATING MINIMUM REQUIREMENTS ONLY. THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR DEVELOPING THE ACTUAL LAYOUTS AND TABULATIONS.
- 7.06 THE CONTRACTOR SHALL DEVELOP ALL FINAL MOUNTING DETAILS FOR ALL EQUIPMENT. SUCH DETAILS SHALL COMPLY WITH TYPICAL DETAILS SHOWN ON THESE PLANS.

8. MAINTAINING NAVIGATIONAL OBSTRUCTION LIGHTS IN OPERATION DURING CONSTRUCTION

- 8.01 THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CALENDAR MONTH AS MAINTENANCE OF NAVIGATION LIGHTING SYSTEM. WATERWAY AND AERIAL OBSTRUCTION LIGHTING SHALL BE OPERATIONAL AT ALL TIMES. UNITED STATES COAST GUARD SHALL BE NOTIFIED OF ALL WORK TWO WEEKS PRIOR TO START OF CONSTRUCTION.
- 8.02 THE ABOVE REQUIREMENT MAY BE ACCOMPLISHED BY ANY OF THE FOLLOWING METHODS: PROVIDING TEMPORARY WIRING AND EQUIPMENT AS A WORK AROUND CONDUIT/WIRING AND EQUIPMENT TAKEN OUT OF SERVICE, PROVIDING TEMPORARY POWER SOURCES (GENERATORS AND/OR BATTERIES), PROVIDING TEMPORARY SOLAR POWERED SELF-CONTAINED NAVIGATION AND AERIAL LIGHTS.
- 8.03 ANY TEMPORARY NAVIGATIONAL AND AERIAL OBSTRUCTION LIGHTS UTILIZED SHALL SATISFY THE REQUIREMENTS OF THE UNITED STATES COAST GUARD AND THE FEDERAL AVIATION ADMINISTRATION, RESPECTIVELY.
- 8.04 THE CONTRACTOR SHALL SUBMIT HIS PROPOSED PLAN/METHODOLOGY TO MAINTAIN THE NAVIGATIONAL AND AERIAL OBSTRUCTION LIGHTING IN SERVICE TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
- 8.05 THE CONTRACTOR SHALL ENSURE THAT NO INFRINGEMENT OF THE NAVIGATIONAL UNDERCLEARANCE OR CHANNEL OCCURS WHILE DOING WORK. ANY INFRINGEMENT SHALL BE APPROVED BY THE UNITED STATES COAST GUARD.

MR. ERIC WASHBURN,
COAST GUARD 8TH DISTRICT
1222 SPRUCE STREET, ST. LOUIS, MO 63013
(314) 269-2378

EMERGENCY CONTACT U.S.C.G. 24-HOUR WATCH CENTER
(502) 779-5422

	USER NAME =	DESIGNED - R.I. PETERS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-57 OVER MISSISSIPPI RIVER S.N. 002-0022 GENERAL NOTES - 2			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - R.L. REED	REVISED -		57	(02-1B-1)L-1	ALEXANDER	17	3			
PLOT SCALE =	CHECKED - L.V. BORDEN	REVISED -	CONTRACT NO. 78493									
PLOT DATE =	DATE - 11/28/2017	REVISED -	SCALE:		SHEET 2	OF 2	SHEETS	STA.	TO STA.	ILLINOIS	FED. AID PROJECT	

CONSTRUCTION CODE
90% FEDERAL 10% STATE 50% ILLINOIS 50% MISSOURI
LIGHTING
0021
S.N. 002-0022

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4
67100100	MOBILIZATION	L SUM	1	1
81100200	CONDUIT ATTACHED TO STRUCTURE, 3/4" DIA., GALVANIZED STEEL	FOOT	4100	4100
81300320	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 8" X 8" X 6"	EACH	4	4
81300530	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	5	5
81300915	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 20" X 20" X 8"	EACH	1	1
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	18100	18100
81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	100	100
82200605	WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED	EACH	16	16
82600105	NAVIGATION OBSTRUCTION LIGHTING CONTROLLER	EACH	1	1
82700100	TRANSFORMER, GENERAL PURPOSE	EACH	1	1
84301200	REMOVAL OF NAVIGATION OBSTRUCTION WARNING LIGHTING SYSTEM	L SUM	1	1
84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1	1

12



USER NAME *	DESIGNED - R.L. PETERS	REVISED -
	DRAWN - A.E. COOK	REVISED -
PLOT SCALE =	CHECKED - J.M. HASSARD	REVISED -
PLOT DATE =	DATE - 11/28/2017	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES	
SCALE:	SHEET 1 OF 2 SHEETS STA. TO STA.


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(02-1B-1)-1	ALEXANDER	17	4
CONTRACT NO. 78493				
ILLINOIS FED. RD PROJECT				

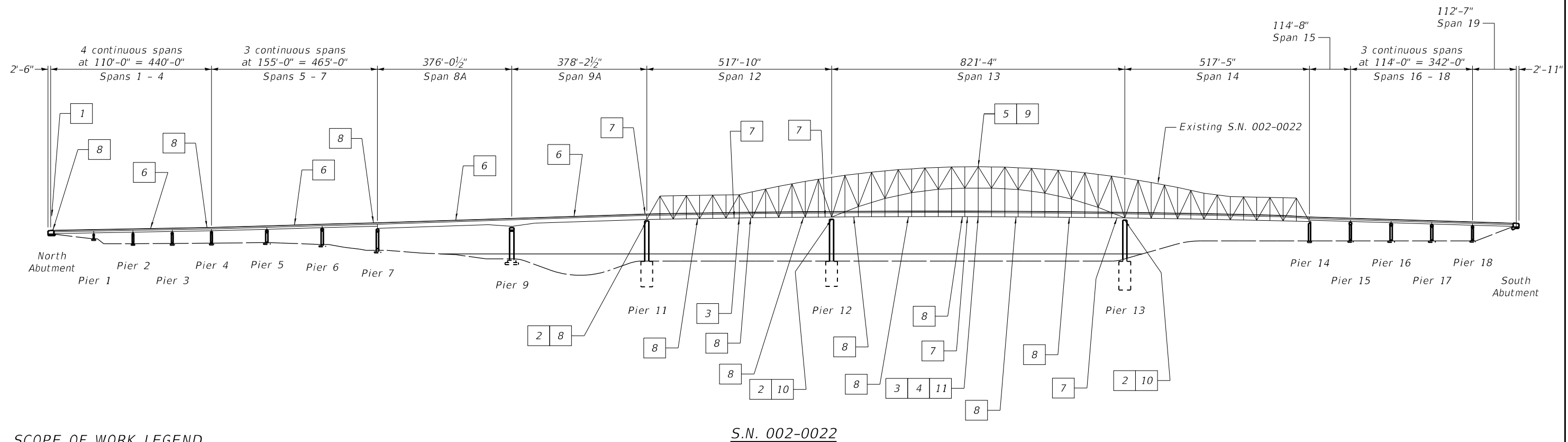
CONSTRUCTION CODE
90% FEDERAL 10% STATE 50% ILLINOIS 50% MISSOURI
LIGHTING
0021
S.N. 002-0022

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
X0325941	ACCESS LADDER	EACH	2	2
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1
X7015005	CHANGEABLE MESSAGE SIGN	CAL DAY	28	28
X8110170	REPAIR EXISTING CONDUIT ATTACHED TO STRUCTURE	L SUM	1	1
X8260112	MAINTENANCE OF NAVIGATION LIGHTING SYSTEM	CAL MO	4	4
X8220010	AVIATION OBSTRUCTION WARNING LUMINAIRE, SPECIAL	EACH	1	1
X1400294	BRIDGE GROUNDING SYSTEM	L SUM	1	1
X1400295	REFLECTOR PANEL ASSEMBLIES	L SUM	1	1

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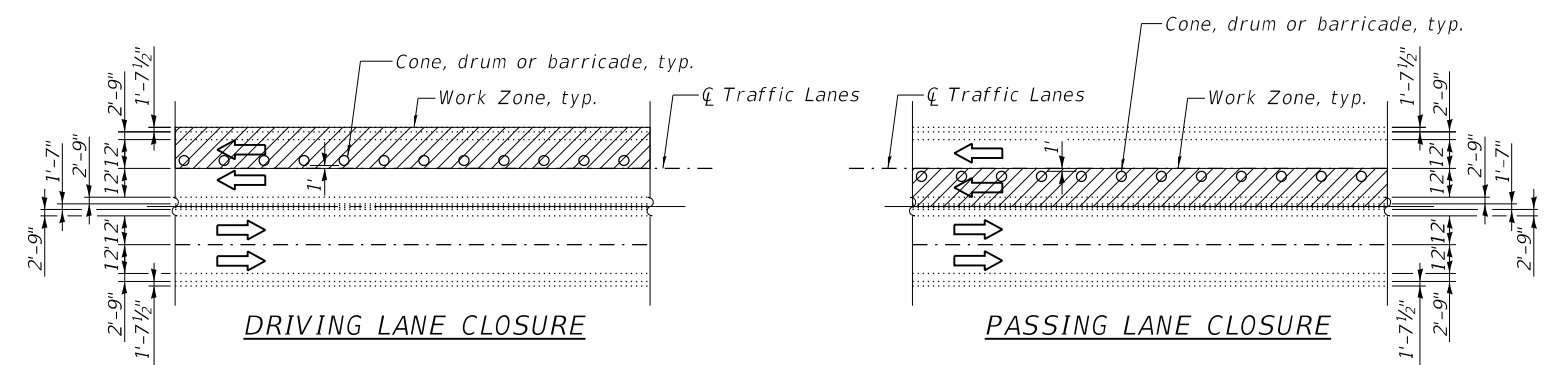
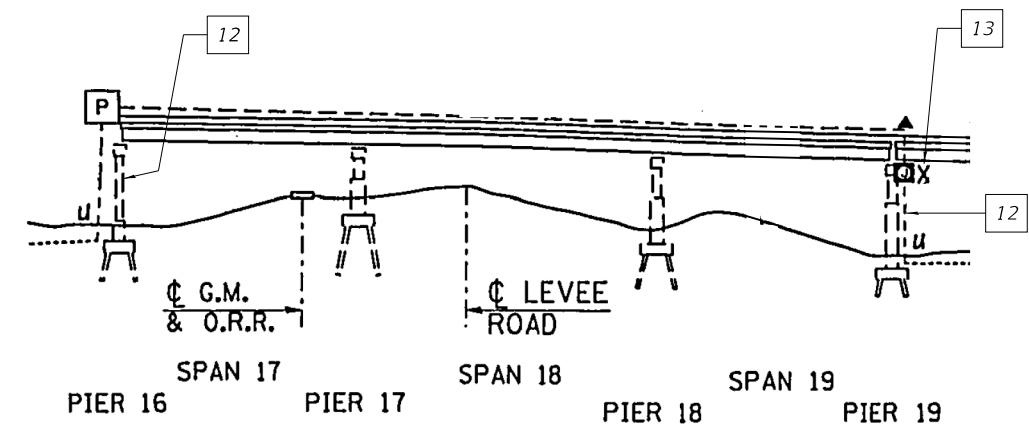
* SPECIALTY ITEM

	USER NAME * DESIGNED - R.I. PETERS DRAWN - A.E. COOK	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.J. RTE. 57	SECTION (02-1B-1)-1	COUNTY ALEXANDER	TOTAL SHEETS 17	SHEET NO. 5			
	PLOT SCALE * CHECKED - J.M. HASSARD	REVISED -					SCALE:	SHEET 2 OF 2 SHEETS	STA.	TO STA.	CONTRACT NO. 78493			
	PLOT DATE * DATE - 11/28/2017	REVISED -					ILLINOIS FED. AID PROJECT							



SCOPE OF WORK LEGEND

- 1 Replace existing Navigational Obstruction Lighting Controller with new Navigational Obstruction Lighting Controller
- 2 Replace existing Red Pier Navigational Obstruction Light with new LED Red Pier Navigational Obstruction Light (Upstream and Downstream)
- 3 Replace existing Green Span Navigational Obstruction Light with new LED Green Span Navigational Obstruction Light (Upstream and Downstream)
- 4 Replace existing White Span Navigational Obstruction Lights with new LED White Span Navigational Obstruction Lights (Upstream and Downstream)
- 5 Replace existing Aviation Obstruction Light and Assembly with new Aviation Obstruction Light and Assembly
- 6 Install new 8" x 8" x 6", NEMA 4X, Stainless Steel Pull Box
- 7 Install new NEMA 4X, Stainless Steel Junction Box (Junction box at Pier 11 shall be 20" x 20" x 8", all other junction boxes shall be 12" x 10" x 6")
- 8 Replace existing flexible expansion conduit with New 3/4" Dia. liquidtight flexible non-metallic conduit (LFNC). LFNC shall be terminated in a 8" x 8" x 6" NEMA 4X, Stainless Steel Junction Box at both the ends. (LFNC on Pier 11 and Span 13 shall terminate in 8" x 8" x 6" junction box in one end and 'JBP11E' and 'JBS13E' on other end respectively).
- 9 Install new Lightning Protection Bridge Grounding System
- 10 Install new 4' x 4' Red Reflector Panel (Upstream and Downstream)
- 11 Install new Navigational Obstruction Lighting Assembly
- 12 Repair existing conduit as described in specifications under Repair Conduit Attached to Structure
- 13 Remove existing electric service as described in specifications under Removal of Electric Service Installation



CONSTRUCTION STAGING DETAIL SKETCH

Northbound shown, Southbound similar
See Highway Standards 701401-10 and 701406-11 for more information.



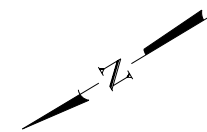
USER NAME =	DESIGNED - N.K. BHINGE	REVISED
	CHECKED - L.V. BORDEN	REVISED
PLOT SCALE =	DRAWN - R.L. REED	REVISED
PLOT DATE = 11/28/2017	CHECKED - N.K. BHINGE	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

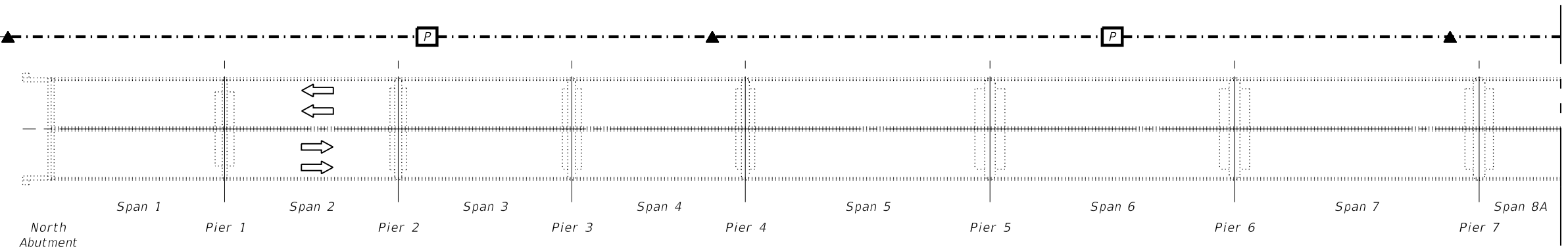
**I-57 OVER MISSISSIPPI RIVER
S.N. 002-0022 AND S.N. 002-0024
ELECTRICAL SCOPE OF WORK**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	102-1B-1XL-1	ALEXANDER	17	6
CONTRACT NO. 78493				

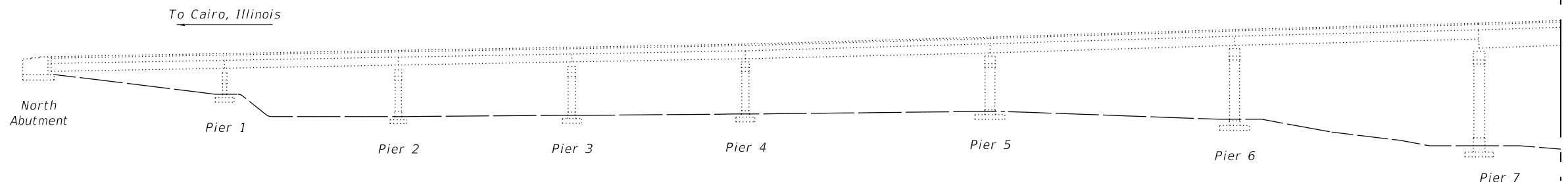
ILLINOIS FED. AID PROJECT



Existing conduit to remain, replace existing conductors
 New Navigational Obstruction Lighting Controller and disconnect switch to replace existing controller, and disconnect switch in similar location



PLAN



ELEVATION

LEGEND

- New #10 AWG 500W cord to replace existing cord in same location
- New 3/4" Dia. Rigid Steel Conduit Attached to Structure to replace existing conduit.
- New 3/4" Dia. Rigid Steel Conduit Attached to Structure to replace existing 1 1/2" Dia. Navigational Obstruction Lighting Steel Conduit in similar location
- New Junction Box, NEMA 4X, Stainless Steel (Size as shown on sheet E7, Section A-A)
- New Pull Box, NEMA 4X, Stainless Steel, 8" x 8" x 6"
- New 4' x 4' Red Reflector Panel Assembly
- New 3/4" Dia. LFNC to replace existing flexible expansion conduit at expansion joints (See note 5) (See detail on sheet E6)

- New 3/4" Dia. LFNC conduit
- New 180° LED Red Pier Navigational Obstruction Light to replace existing Navigational Obstruction Light in similar location
- New 180° LED White Span Navigational Obstruction Light to replace existing Navigational Obstruction Light in similar location
- New 360° LED Green Span Navigational Obstruction Light to replace existing Navigational Obstruction Light in similar location
- New Aviation Obstruction Light and Assembly to replace existing Aviation Obstruction Light and Assembly
- New Navigational Obstruction Light Assembly to replace existing Navigational Obstruction Light Assembly
- E East
- W West
- JB Junction Box
- P Pier
- S Span

NOTES:

1. Contractor shall field verify all existing equipment. Not all existing equipment is shown on these plans.
2. For Match Line A, see sheet E3.
3. Remove existing CCTV conduit, pull boxes, and junction boxes.
4. Conduit between existing transformer and existing controller base to remain. Replace existing conductors in this conduit with new conductors. Make connections in existing base and existing transformer. Cost shall be included with the contract unit price per each for Navigational Obstruction Lighting Controller.
5. LFNC used as an expansion fitting shall be installed according to the latest IDOT standards and specifications. All associated costs shall be included with the contract unit price per foot for Conduit Attached to Structure, 3/4" Dia., Galvanized Steel.
6. Expansion fittings shall be installed between spans 1 - 9A as required by NEC article 300.7 and cost shall be included with the contract unit price per foot for Conduit Attached to Structure, 3/4" Dia., Galvanized Steel.



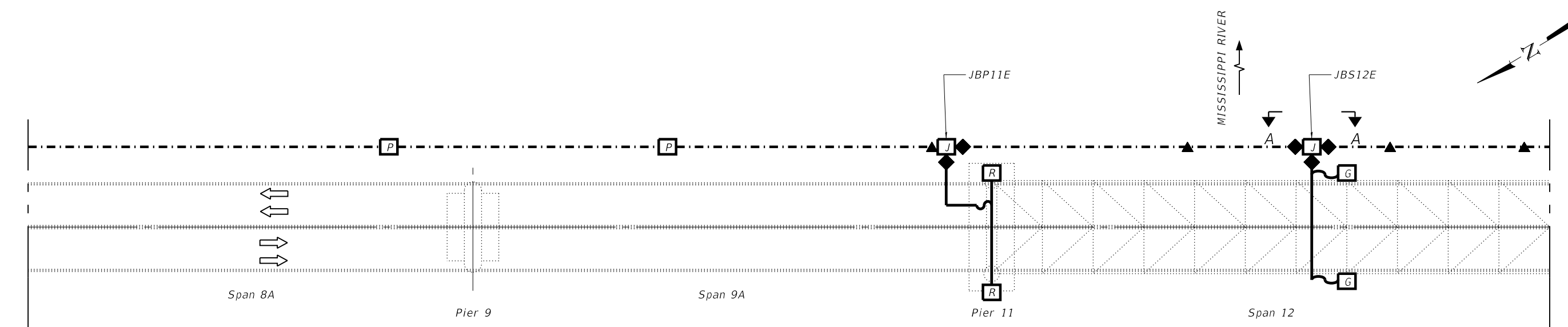
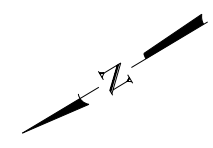
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	CHECKED - L.V. BORDEN	REVISED
PLOT SCALE =	DRAWN - R.L. REED	REVISED
PLOT DATE = 11/28/2017	CHECKED - N.K. BHINGE	REVISED

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**I-57 OVER MISSISSIPPI RIVER
 S.N. 002-0022
 ELECTRICAL PLAN AND ELEVATION - 1**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	102-1B-1L-1	ALEXANDER	17	7
CONTRACT NO. 78493				
ILLINOIS FED. AID PROJECT				

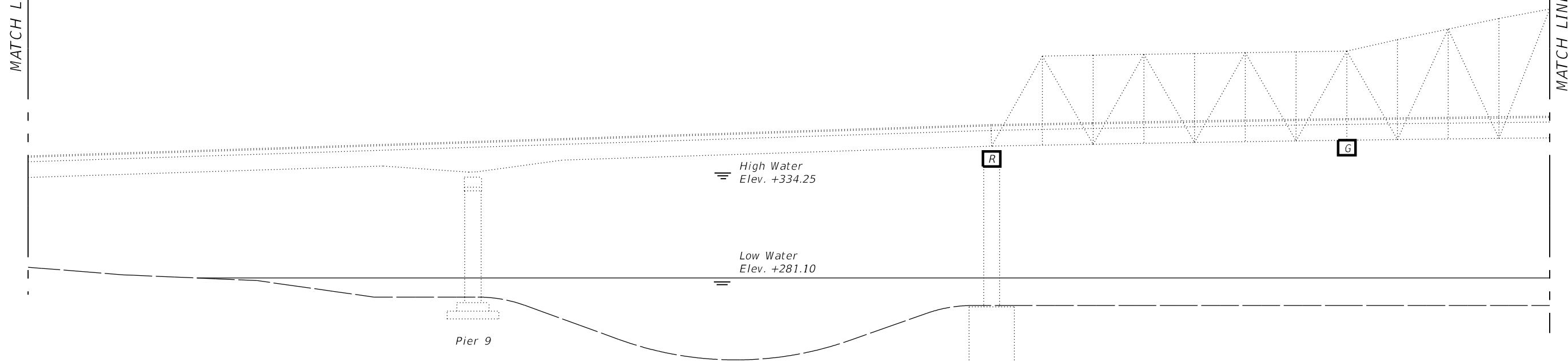
SHEET NO. E2 OF E12 SHEETS



PLAN

MATCH LINE A

MATCH LINE B



ELEVATION

NOTES:

1. Contractor shall field verify all existing equipment. Not all existing equipment shown.
2. For Legend, see sheet E2.
3. For Match Line A, see sheet E2.
4. For Match Line B, see sheet E4.
5. For Section A-A, see sheet E7.
6. Each Red Light shall show a horizontal arc of 180°, and shall be securely fastened at the end of the pier not lower than 2 feet above navigable high water to show 90° on either side of a line parallel to the axis of the channel so as to be visible from an approaching vessel.
7. Each Green Light shall show through a horizontal arc of 360°, and shall be mounted just below the outermost edge of the bridge span structure so as to be visible from an approaching vessel.
8. LFNC used as an expansion fitting shall be installed according to the latest IDOT standards and specifications. All associated costs shall be included with the contract unit price per foot for Conduit Attached to Structure, 3/4" Dia., Galvanized Steel.
9. Expansion fittings shall be installed between spans 1 - 9A as required by NEC article 300.7. and cost shall be included with the contract unit price per foot for Conduit Attached to Structure, 3/4" Dia., Galvanized Steel.
10. Remove existing CCTV conduit, pull boxes, and junction boxes.

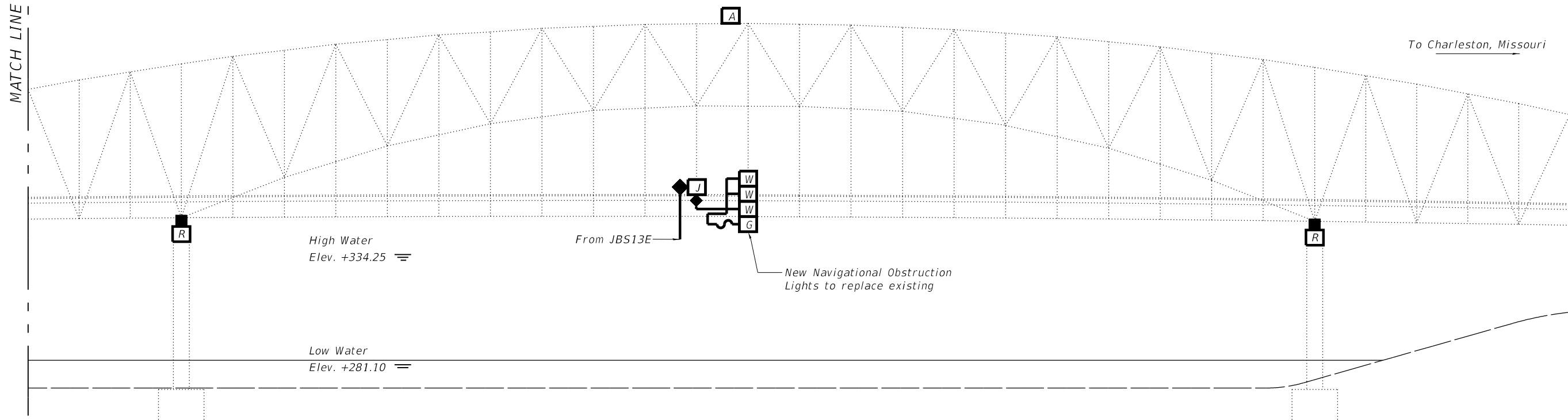
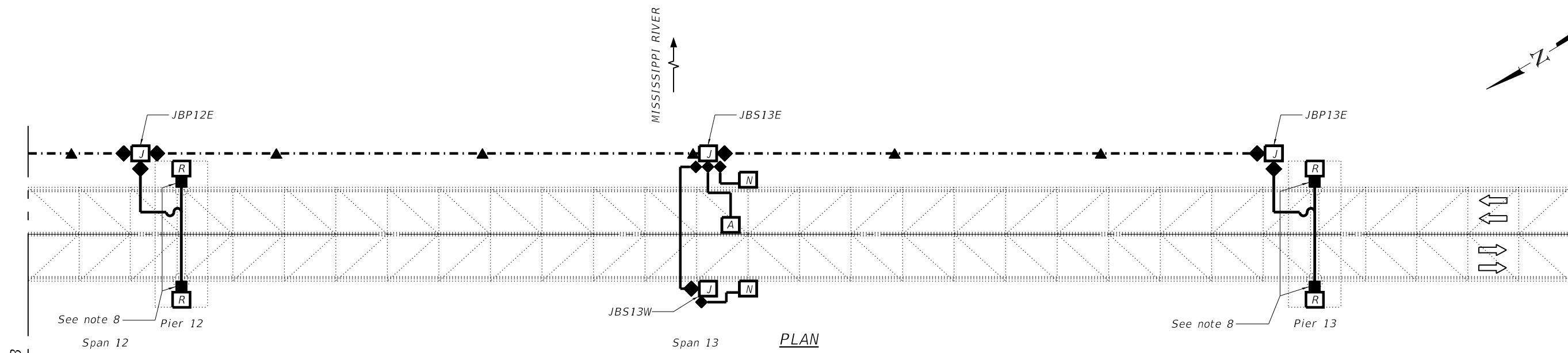
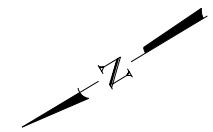


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PLOT SCALE =	DRAWN - R.L. REED	REVISED
PLOT DATE = 11/28/2017	CHECKED - N.K. BHINGE	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-57 OVER MISSISSIPPI RIVER
S.N. 002-0022
ELECTRICAL PLAN AND ELEVATION - 2**
SHEET NO. E3 OF E12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	102-1B-1XL-1	ALEXANDER	17	8
CONTRACT NO. 78493				
ILLINOIS FED. AID PROJECT				



NOTES:

1. Contractor shall field verify all existing equipment. Not all existing equipment shown.
2. For Legend, see sheet E2.
3. For Match Line B, see sheet E3.
4. Each Red Light shall show a horizontal arc of 180°, and shall be securely fastened at the end of the pier not lower than 2 feet above navigable high water to show 90° on either side of a line parallel to the axis of the channel so as to be visible from an approaching vessel.
5. Each Green Light shall show through a horizontal arc of 360°, they shall be mounted just below the outermost edge of the bridge span structure so as to be visible from an approaching vessel.
6. Each White Light shall show through a horizontal arc of 180°, and shall be mounted so that 1/2 of the horizontal arc will show on either side of a line parallel to the axis of the channel.
7. LFNC used as an expansion fitting shall be installed according to the latest IDOT standards and specifications. All associated costs shall be included with the contract unit price per foot for Conduit Attached to Structure, 3/4" Dia., Galvanized Steel.
8. Replace existing upstream reflector panel. Install new downstream reflector panel.
9. Expansion fittings shall be installed between spans 12 and 13 as required by NEC article 300.7. and cost shall be included with the contract unit price per foot for Conduit Attached to Structure, 3/4" Dia., Galvanized Steel.
10. Remove existing CCTV conduit, pull boxes, and junction boxes.



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PLOT DATE = 11/28/2017	CHECKED - N.K. BHINGE	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

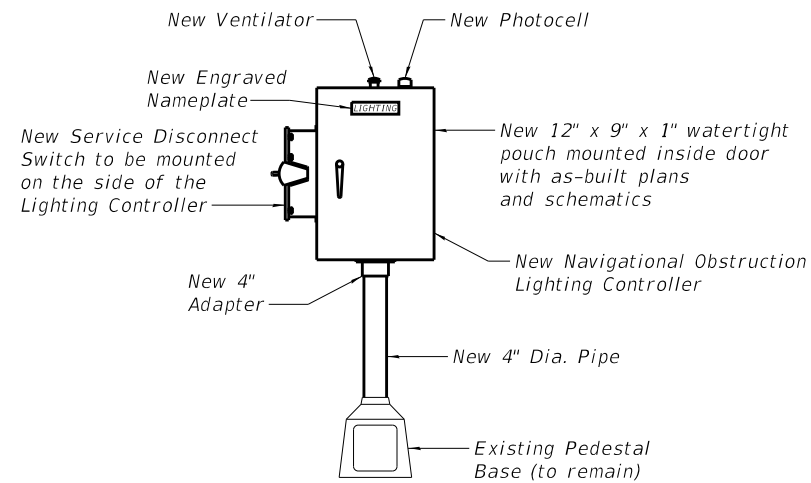
**I-57 OVER MISSISSIPPI RIVER
S.N. 002-0022
ELECTRICAL PLAN AND ELEVATION - 3**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	102-1B-1L-1	ALEXANDER	17	9
CONTRACT NO. 78493				

SHEET NO. E4 OF E12 SHEETS

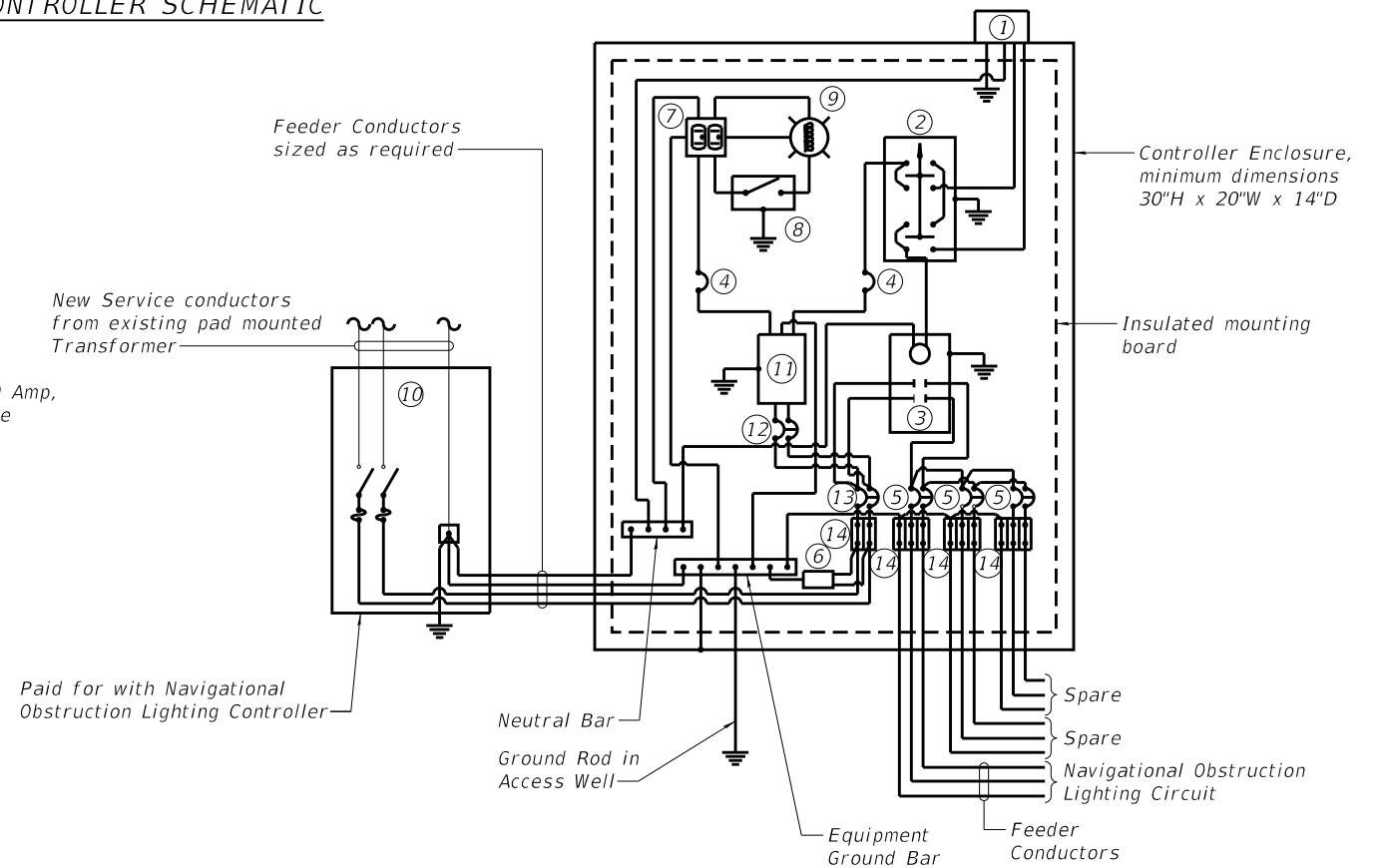
ILLINOIS FED. AID PROJECT

NEW NAVIGATIONAL OBSTRUCTION LIGHTING CONTROLLER SCHEMATIC



NAVIGATIONAL OBSTRUCTION LIGHTING CONTROLLER

- ① Photocell with Integral Surge Arrester
- ② Hand-Auto Selector Switch
- ③ 100 Amp, Electrically held Contactor
- ④ 15 Amp, 1 Pole Circuit Breaker
- ⑤ 20 Amp, 2 Pole Circuit Breaker
- ⑥ Surge Arrester
- ⑦ GFCI Duplex Receptacle
- ⑧ Single Pole, Single Throw Switch
- ⑨ Worklight, enclosed and gasketed with LED Lamp
- ⑩ Service Disconnect Switch - 2 Pole, 3-Wire, 480V, 60 Amp, Fused at 60 Amp, Solid Neutral in NEMA 4X Enclosure having lockable external handle
- ⑪ Transformer - 1 KVA, 480V Primary 120/240V Secondary, Single Phase, 60 HZ
- ⑫ 15 Amp, 2 Pole Circuit Breaker
- ⑬ 60 Amp, 2 Pole Circuit Breaker
- ⑭ Terminal Block sized for Conductors as shown on plans.



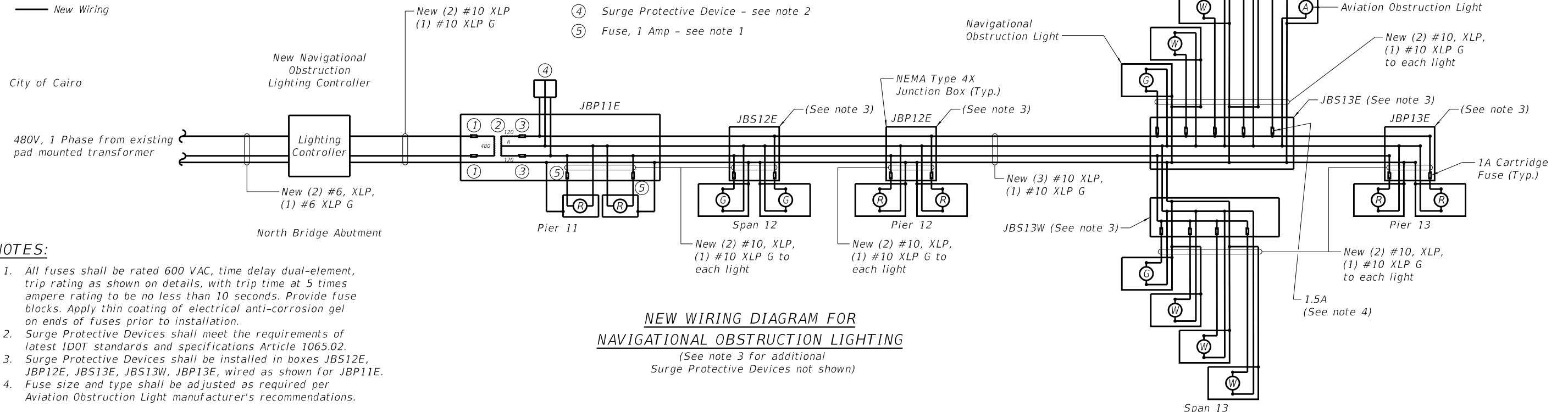
NEW NAVIGATIONAL OBSTRUCTION LIGHTING CONTROLLER WIRING DIAGRAM

LEGEND

- ⓐ 360° LED Green Navigation Light
- ⓑ 180° LED Red Navigation Light
- ⓒ 180° LED White Navigation Light
- ⓓ Aviation Obstruction LED Light
- New Wiring

JBP11E COMPONENT LEGEND

- ① Fuse, 5 Amp - see note 1
- ② Transformer, 1 KVA, 480:120/240 volts
- ③ Fuse, 5 Amp - see note 1
- ④ Surge Protective Device - see note 2
- ⑤ Fuse, 1 Amp - see note 1



NEW WIRING DIAGRAM FOR NAVIGATIONAL OBSTRUCTION LIGHTING
(See note 3 for additional Surge Protective Devices not shown)

NOTES:

1. All fuses shall be rated 600 VAC, time delay dual-element, trip rating as shown on details, with trip time at 5 times ampere rating to be no less than 10 seconds. Provide fuse blocks. Apply thin coating of electrical anti-corrosion gel on ends of fuses prior to installation.
2. Surge Protective Devices shall meet the requirements of latest IDOT standards and specifications Article 1065.02.
3. Surge Protective Devices shall be installed in boxes JBS12E, JBP12E, JBS13E, JBP13E, wired as shown for JBP11E.
4. Fuse size and type shall be adjusted as required per Aviation Obstruction Light manufacturer's recommendations.

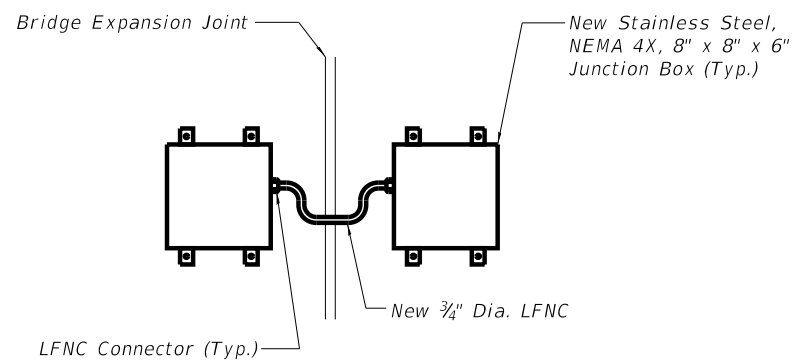
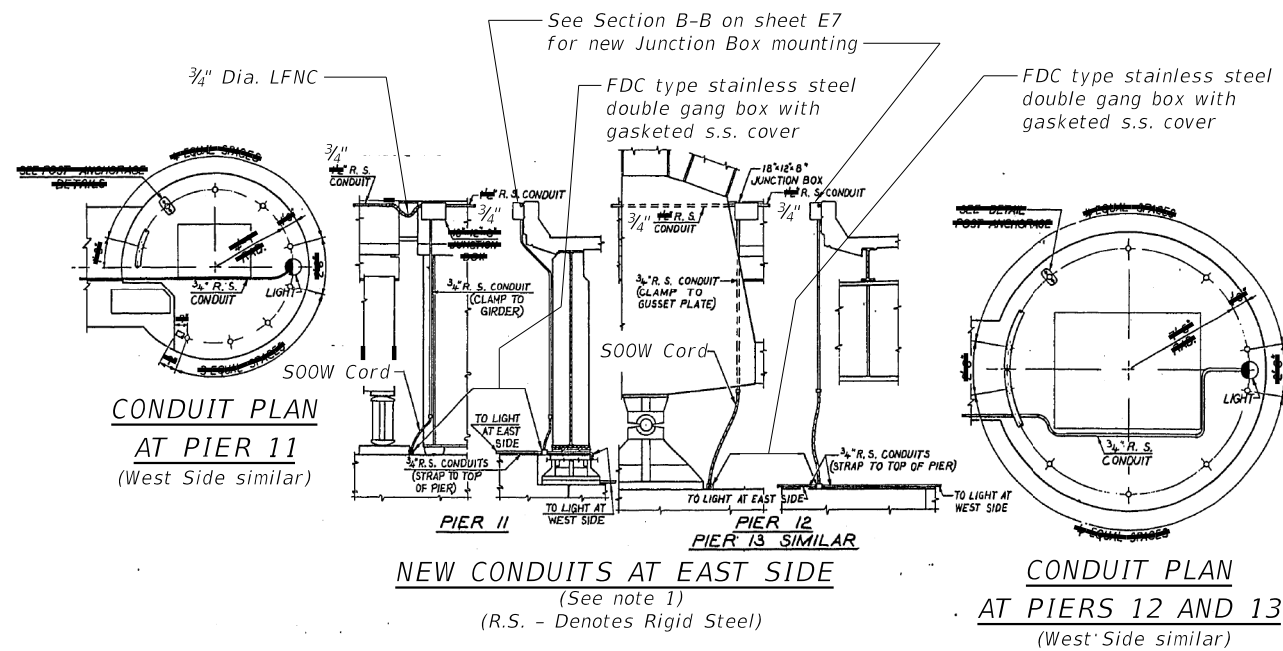


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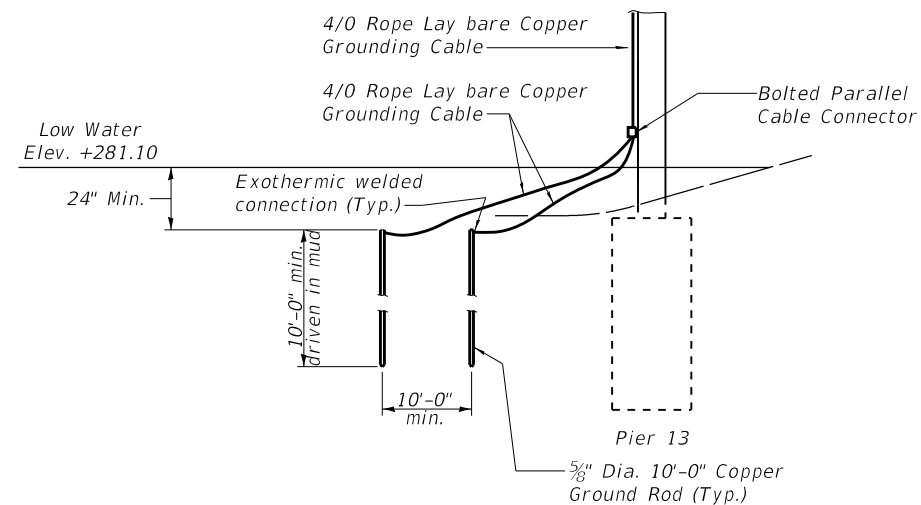
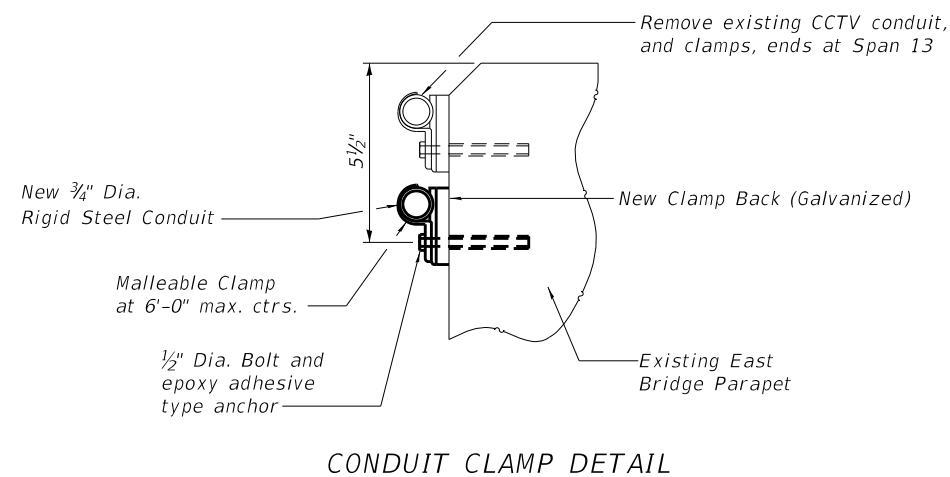
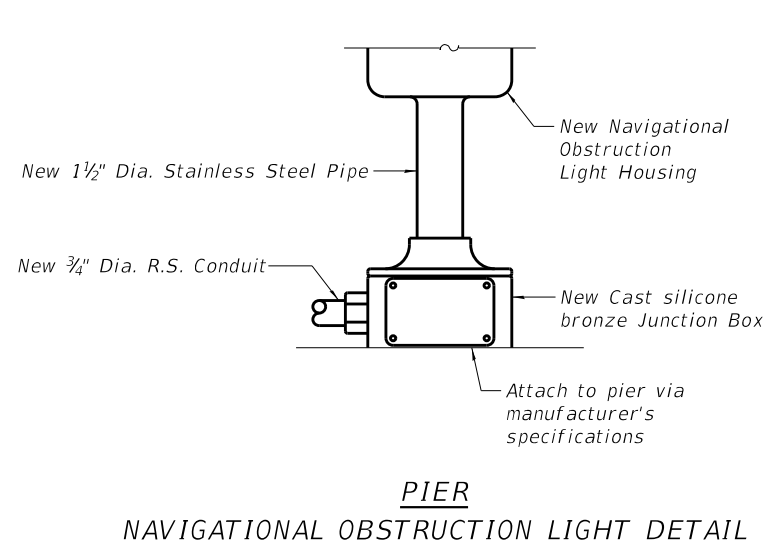
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-57 OVER MISSISSIPPI RIVER
S.N. 002-0022
ELECTRICAL LIGHTING CONTROLLER AND WIRING DIAGRAM
SHEET NO. E5 OF E12 SHEETS**

F.A.I. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	I02-IB-1L-1	ALEXANDER	17	10
CONTRACT NO. 78493				
ILLINOIS FED. AID PROJECT				



EXPANSION JOINT DETAIL
 * Use same method to bypass other obstructions (See note 2)



GROUNDING CABLE CONNECTION TO GROUND ROD DETAIL

NOTES:

1. Detail shown for conduit routing only. See sheet E7 for junction box sizes and mounting details.
2. LFNC used as an expansion fitting shall be installed according to the latest IDOT Standards and specifications. All associated costs shall be included with the contract unit price per foot for Conduit Attached to Structure, 3/4 inch Dia., Galvanized Steel.

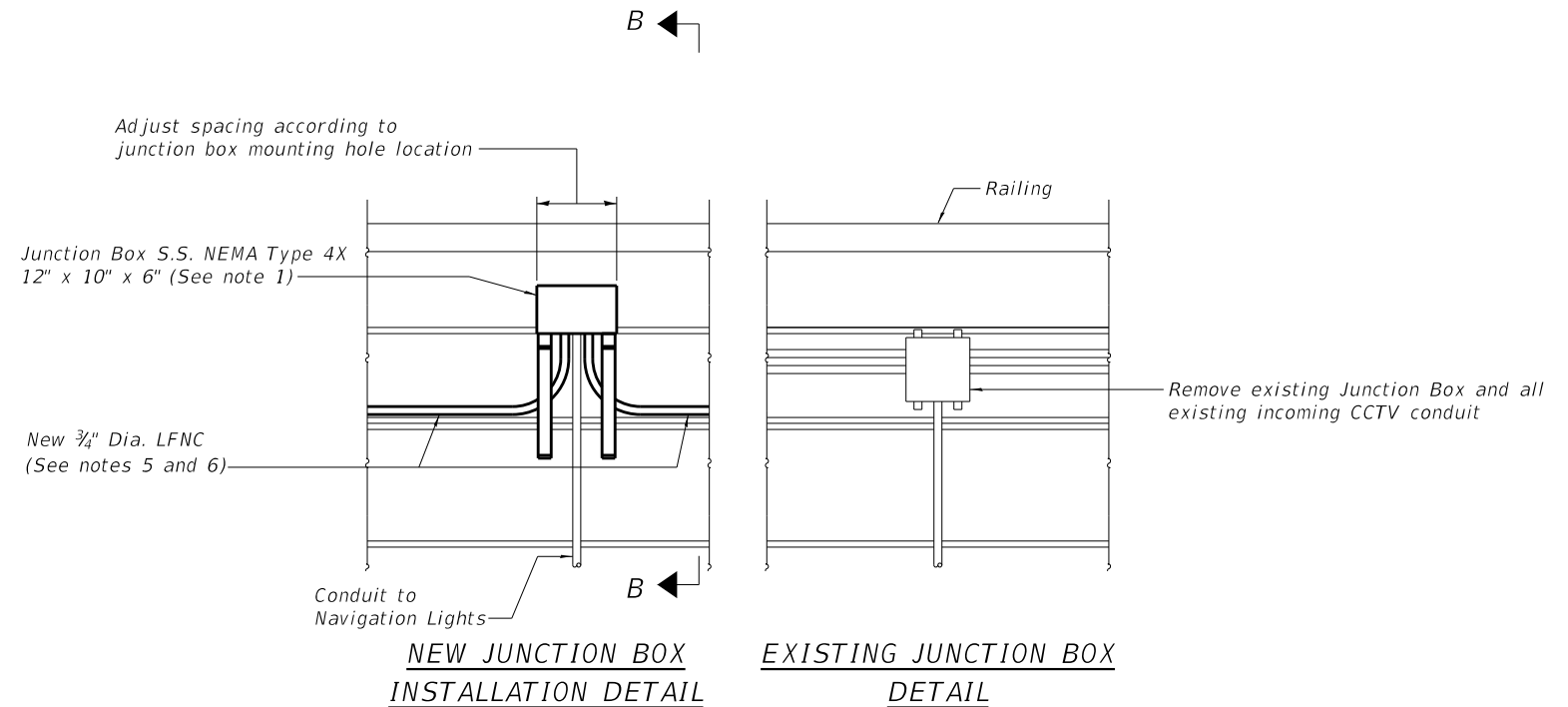
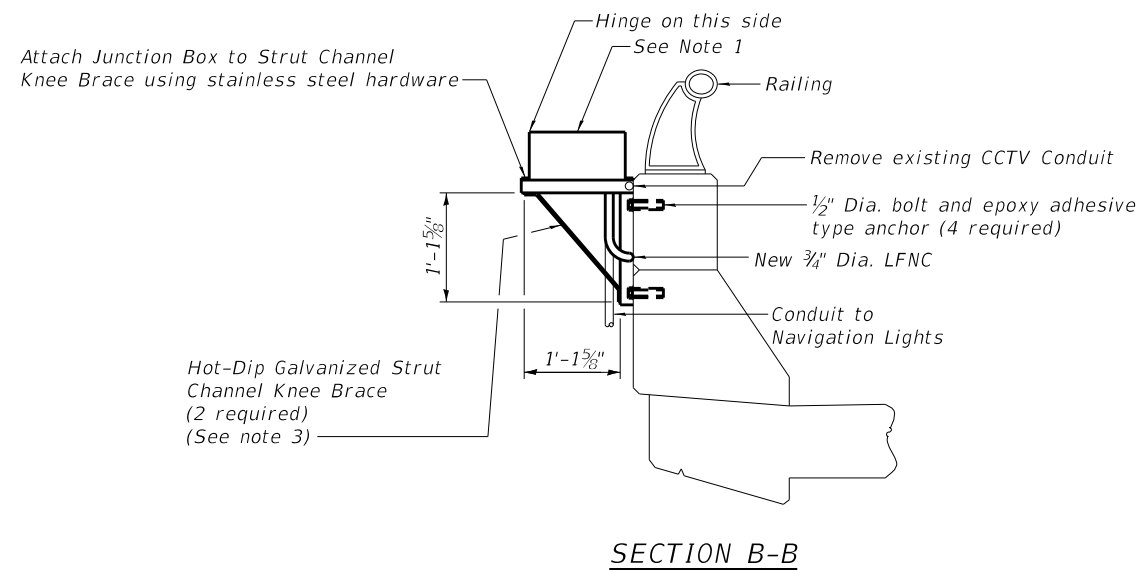


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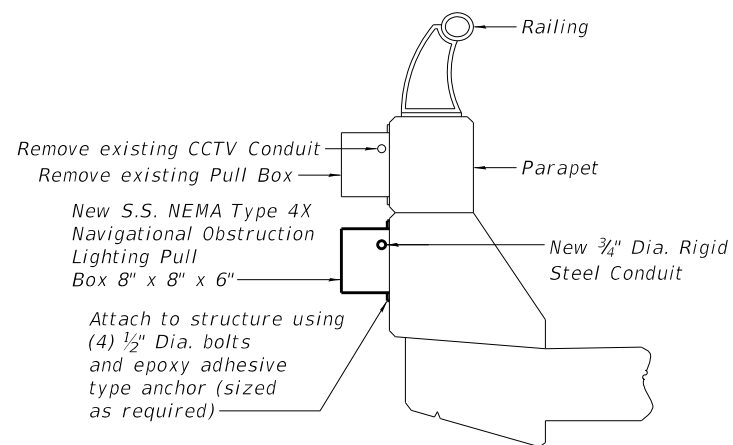
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**I-57 OVER MISSISSIPPI RIVER
 S.N. 002-0022
 ELECTRICAL MISCELLANEOUS DETAILS - 1
 SHEET NO. E6 OF E12 SHEETS**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	102-1B-1XL-1	ALEXANDER	17	11
CONTRACT NO. 78493				
ILLINOIS FED. AID PROJECT				



SECTION A-A
(Typical for Piers 11 and 12, and Spans 12 and 13)
(See note 2)



**TYPICAL SECTION THROUGH EAST PARAPET
AT PULL BOX LOCATIONS**

NOTES:

1. The Junction Box at Pier 11 shall be 20" x 20" x 8". Mounting brackets shall be spaced and sized accordingly for installation and accessibility.
2. All existing conduit and the existing junction box at Pier 13 shall be removed and the new junction box installation detail shall be followed.
3. Strut Channel knee brace shown is "B261-16 by Cooper Industries". Contractor can modify the support and submit to Engineer for approval.
4. For Section A-A, see sheet E3.
5. Expansion fittings at Pier 11 and mid Span 13 shall be installed such that LFNC will terminate on a 8" x 8" x 6" junction box on one end and on 'JBP11E' and 'JBS13E' on other end respectively.
6. LFNC and 8" x 8" x 6" junction box used as an expansion fitting at these locations will be paid for under item Conduit Attached to Structure, 3/4" Dia., Galvanized Steel. All other LFNC from 'JBP11E' and 'JBS13E' will be paid under Junction Box, Stainless Steel, Attached to Structure, 20" x 20" x 8" and Junction Box, Stainless Steel, Attached to Structure, 12" x 10" x 6" respectively.



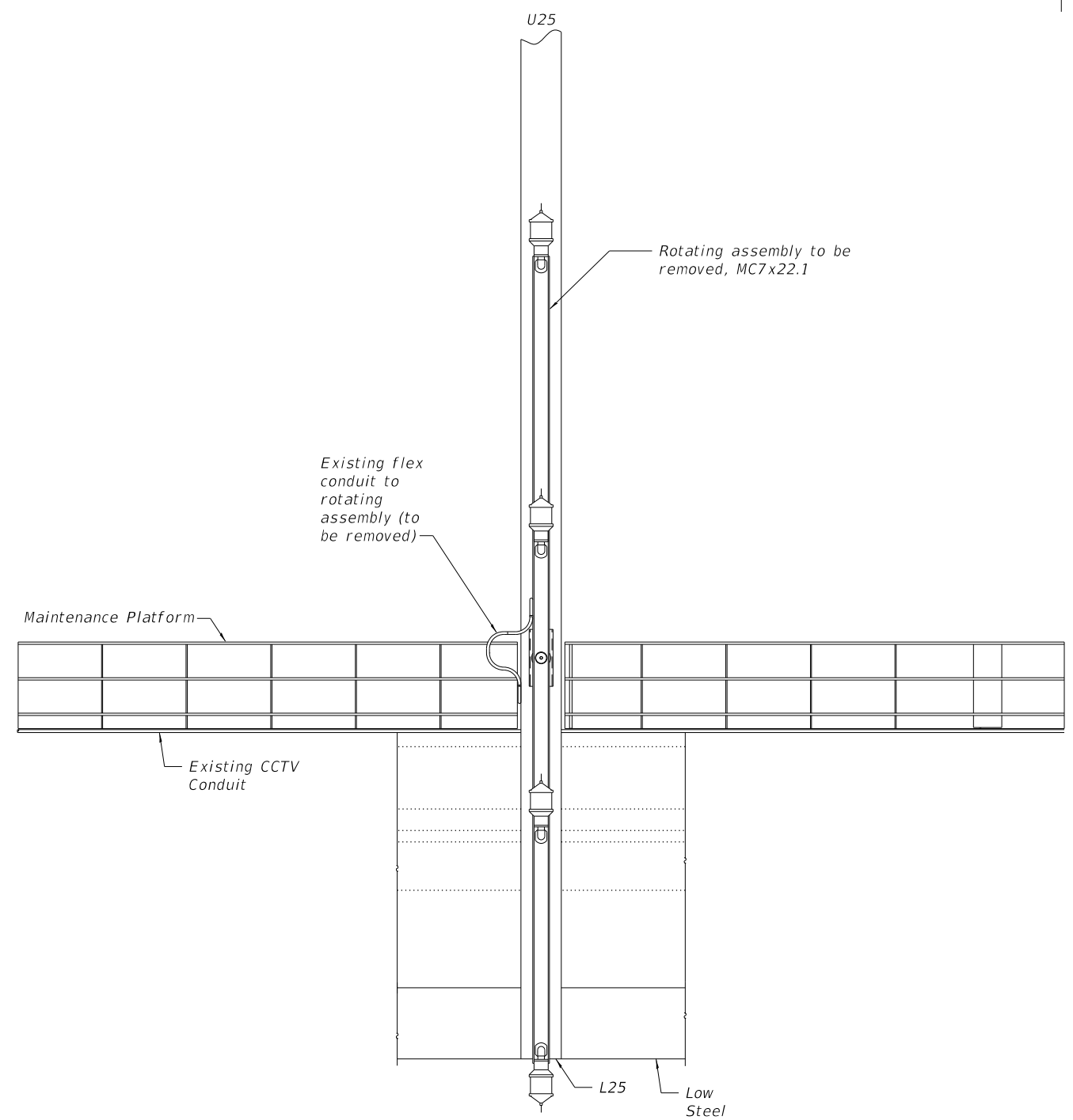
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-57 OVER MISSISSIPPI RIVER
S.N. 002-0022
ELECTRICAL MISCELLANEOUS DETAILS - 2**
SHEET NO. E7 OF E12 SHEETS

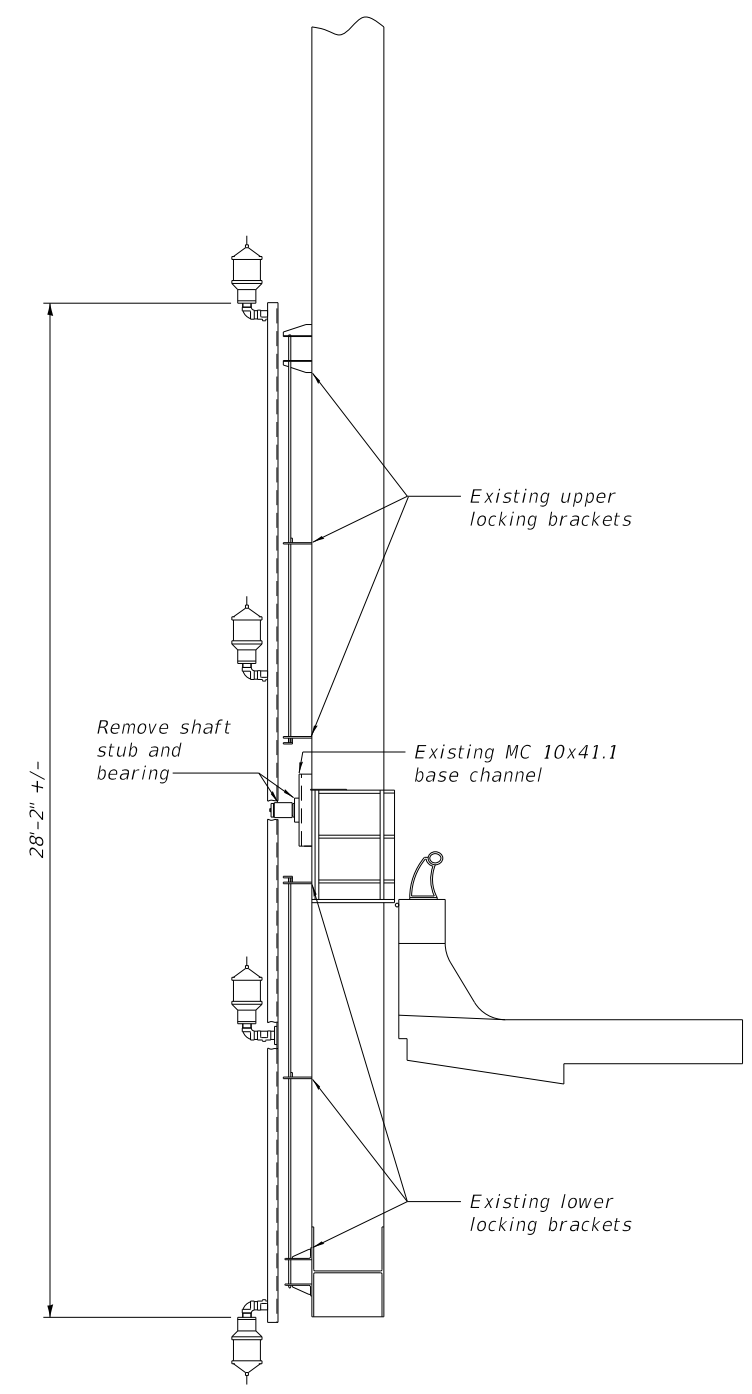
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	102-1B-11L-1	ALEXANDER	17	12
				CONTRACT NO. 78493
ILLINOIS FED. AID PROJECT				

D ←



EXISTING SPAN 13 NAVIGATIONAL OBSTRUCTION LIGHTING ASSEMBLY
(East Side shown, West Side similar)

D ←



SECTION D-D

NOTES:

1. Removal of existing Span 13 Navigational Obstruction Light Assembly and associated components shall be included in the contract lump sum price for Removal of Navigation Obstruction Warning Lighting System.
2. Contractor shall field verify dimensions and locations of existing locking brackets and attachment channel. Coordinate with the installation of new navigation obstruction lighting for possible interferences and for reuse of components.

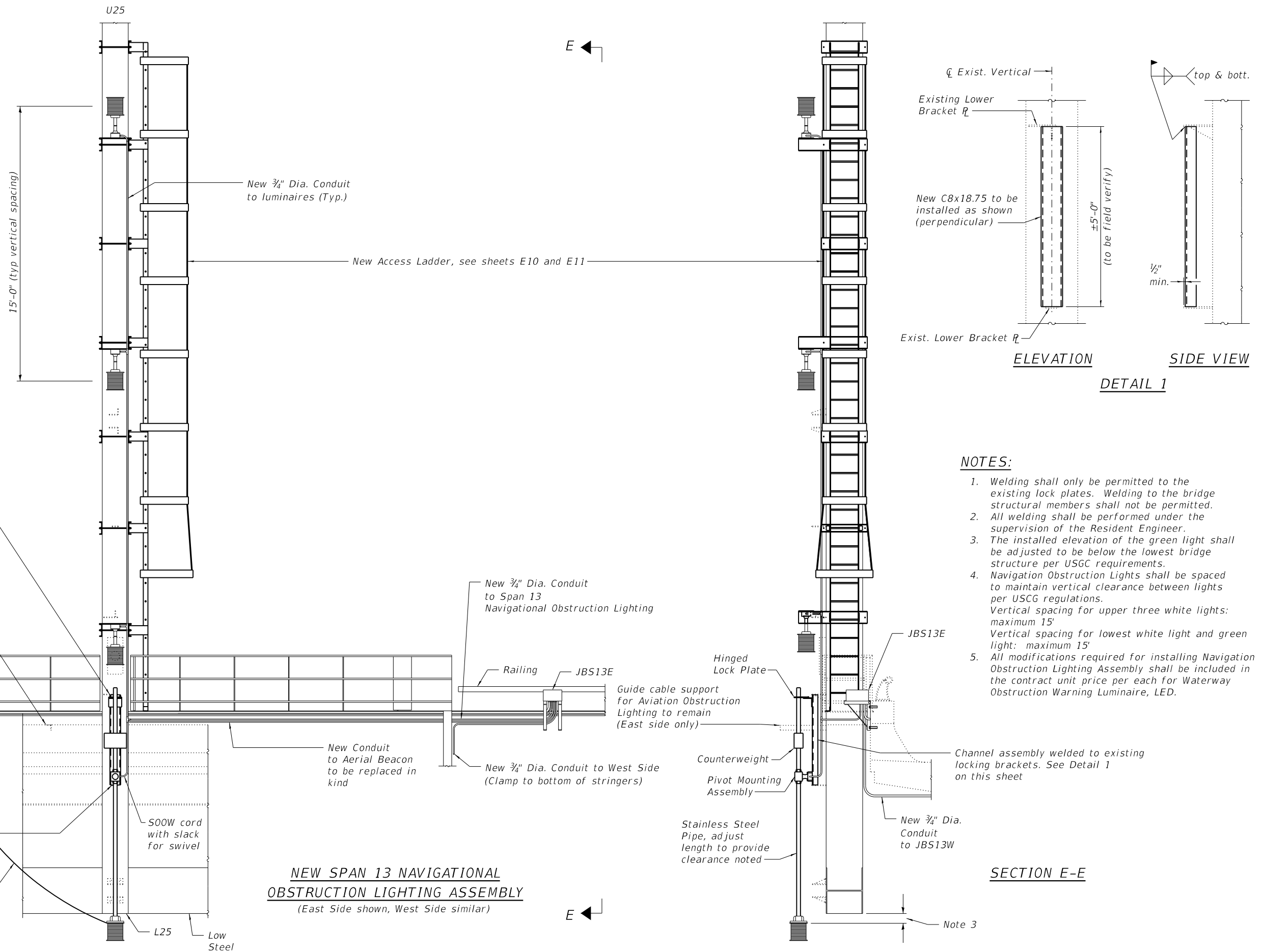


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PLOT SCALE =	DRAWN - R.L. REED	REVISED
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-57 OVER MISSISSIPPI RIVER
S.N. 002-0022
SPAN 13 EXISTING NAVIGATIONAL OBSTRUCTION LIGHTING ASSEMBLY**
SHEET NO. E8 OF E12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	102-1B-1XL-1	ALEXANDER	17	13
CONTRACT NO. 78493			ILLINOIS FED. AID PROJECT	



- NOTES:**
1. Welding shall only be permitted to the existing lock plates. Welding to the bridge structural members shall not be permitted.
 2. All welding shall be performed under the supervision of the Resident Engineer.
 3. The installed elevation of the green light shall be adjusted to be below the lowest bridge structure per USGC requirements.
 4. Navigation Obstruction Lights shall be spaced to maintain vertical clearance between lights per USGC regulations.
Vertical spacing for upper three white lights: maximum 15'
Vertical spacing for lowest white light and green light: maximum 15'
 5. All modifications required for installing Navigation Obstruction Lighting Assembly shall be included in the contract unit price per each for Waterway Obstruction Warning Luminaire, LED.

**NEW SPAN 13 NAVIGATIONAL
OBSTRUCTION LIGHTING ASSEMBLY**
(East Side shown, West Side similar)



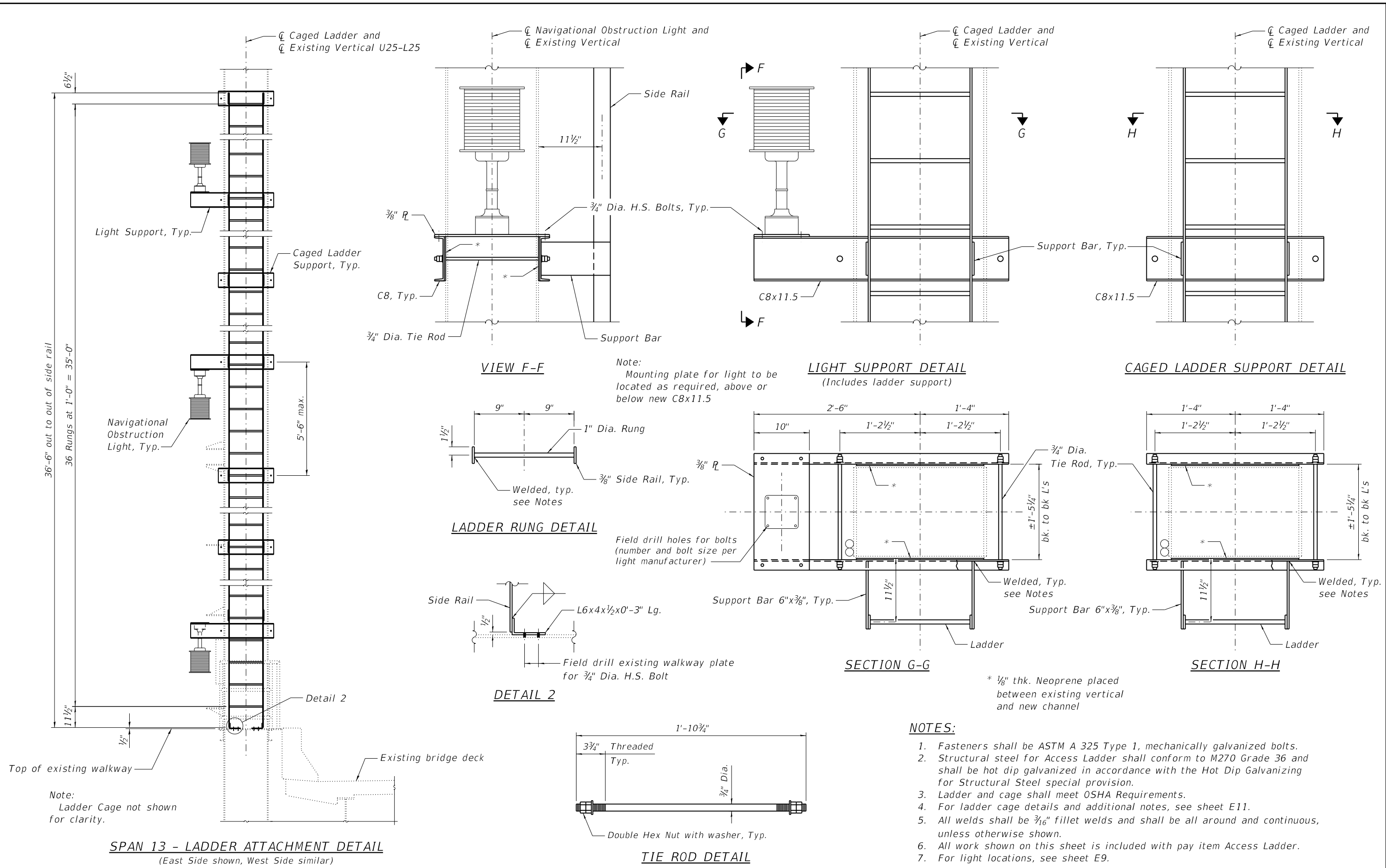
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-57 OVER MISSISSIPPI RIVER
S.N. 002-0022
SPAN 13 NEW NAVIGATIONAL OBSTRUCTION LIGHTING ASSEMBLY**
SHEET NO. E9 OF E12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	102-1B-1L-1	ALEXANDER	17	14
				CONTRACT NO. 78493

ILLINOIS FED. AID PROJECT



SPAN 13 - LADDER ATTACHMENT DETAIL
(East Side shown, West Side similar)

TIE ROD DETAIL

NOTES:

1. Fasteners shall be ASTM A 325 Type 1, mechanically galvanized bolts.
2. Structural steel for Access Ladder shall conform to M270 Grade 36 and shall be hot dip galvanized in accordance with the Hot Dip Galvanizing for Structural Steel special provision.
3. Ladder and cage shall meet OSHA Requirements.
4. For ladder cage details and additional notes, see sheet E11.
5. All welds shall be 3/16" fillet welds and shall be all around and continuous, unless otherwise shown.
6. All work shown on this sheet is included with pay item Access Ladder.
7. For light locations, see sheet E9.

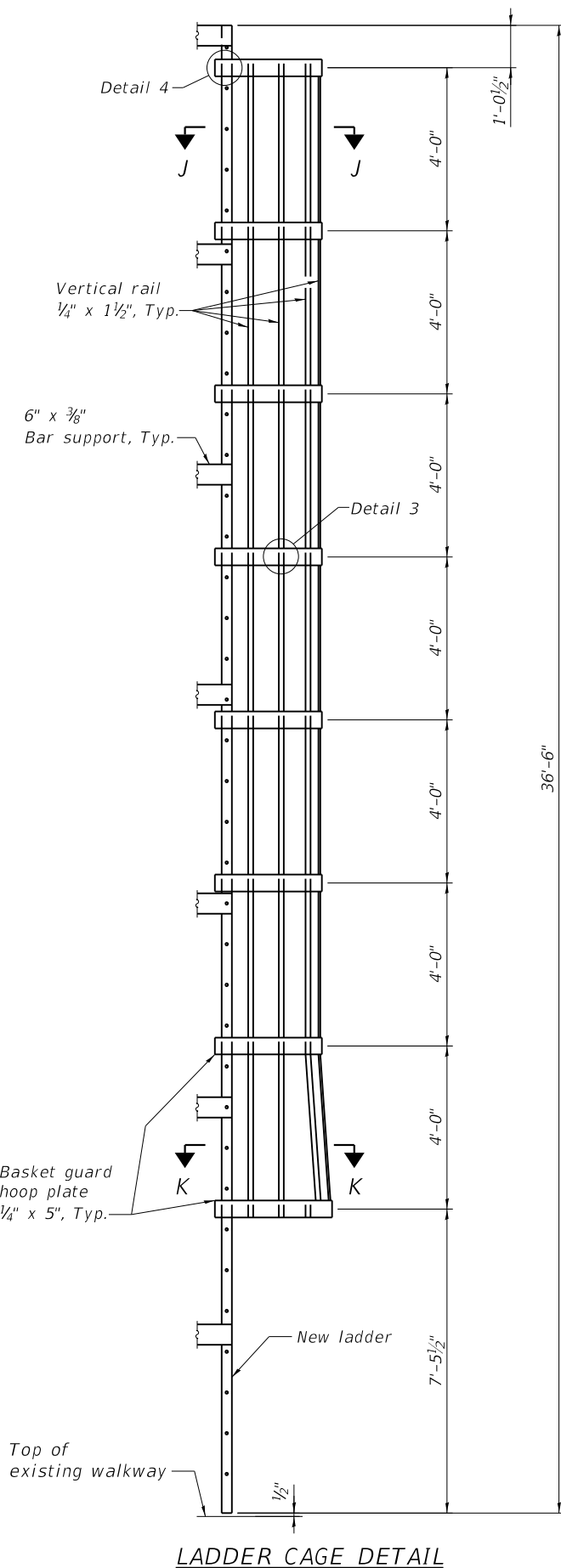


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PLOT DATE = 11/28/2017	CHECKED - J.M. HASSARD	REVISED

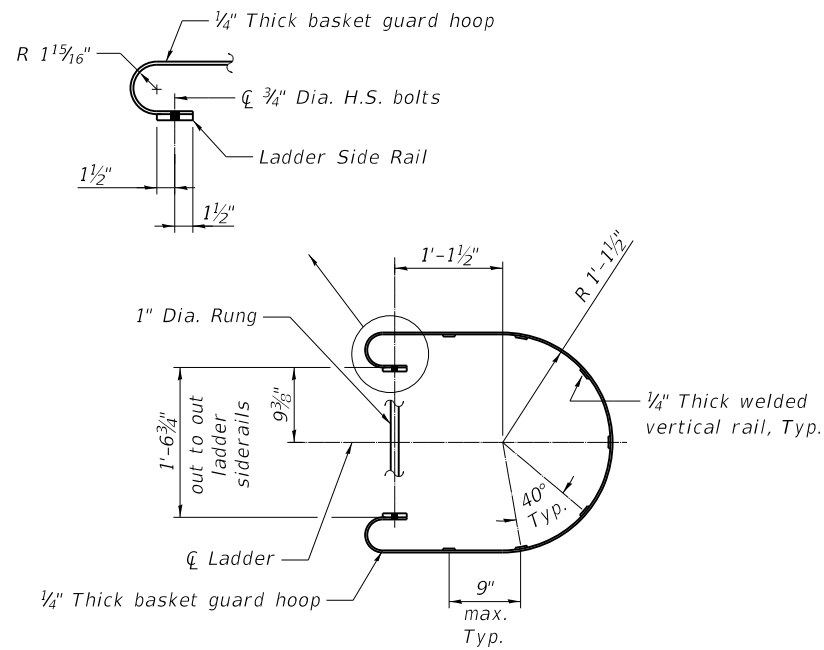
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-57 OVER MISSISSIPPI RIVER
S.N. 002-0022
SPAN 13 NAVIGATIONAL OBSTRUCTION LIGHTING ASSEMBLY DETAILS**
SHEET NO. E10 OF E12 SHEETS

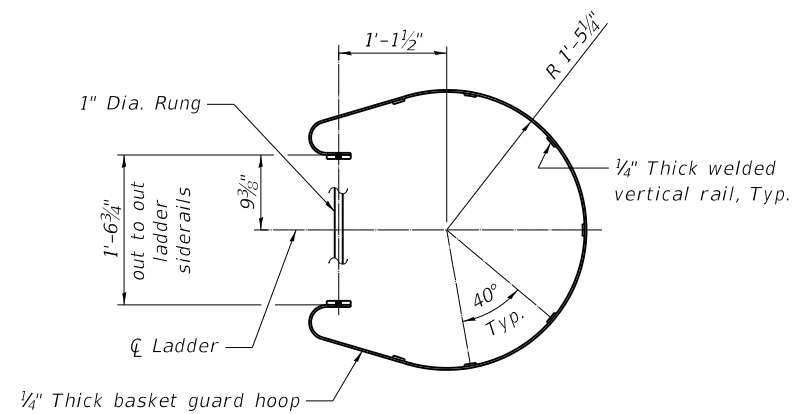
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	102-IB-1L-1	ALEXANDER	17	15
			CONTRACT NO. 78493	
ILLINOIS FED. AID PROJECT				



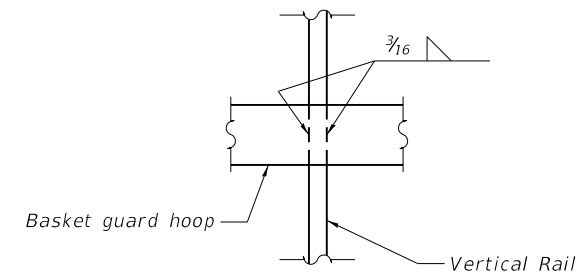
LADDER CAGE DETAIL



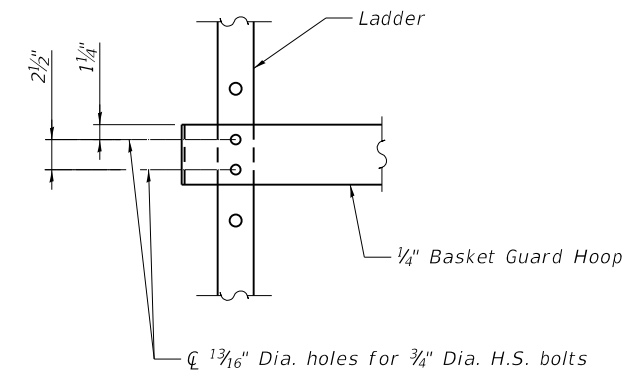
SECTION J-J



SECTION K-K



DETAIL 3



DETAIL 4

BILL OF MATERIAL

Item	Unit	Total
Access Ladder	Each	2

NOTES:

- Fasteners shall be ASTM A 325 Type 1, mechanically galvanized bolts.
- Structural steel for Access Ladder shall conform to M270 Grade 36 and shall be hot dip galvanized in accordance with the Hot Dip Galvanizing for Structural Steel special provision.
- Ladder and cage shall meet OSHA Requirements.
- For ladder details and additional notes, see sheet E10.
- All welds shall be 3/16" fillet welds and shall be all around and continuous, unless otherwise shown.
- All work shown on this sheet is included with pay item Access Ladder.

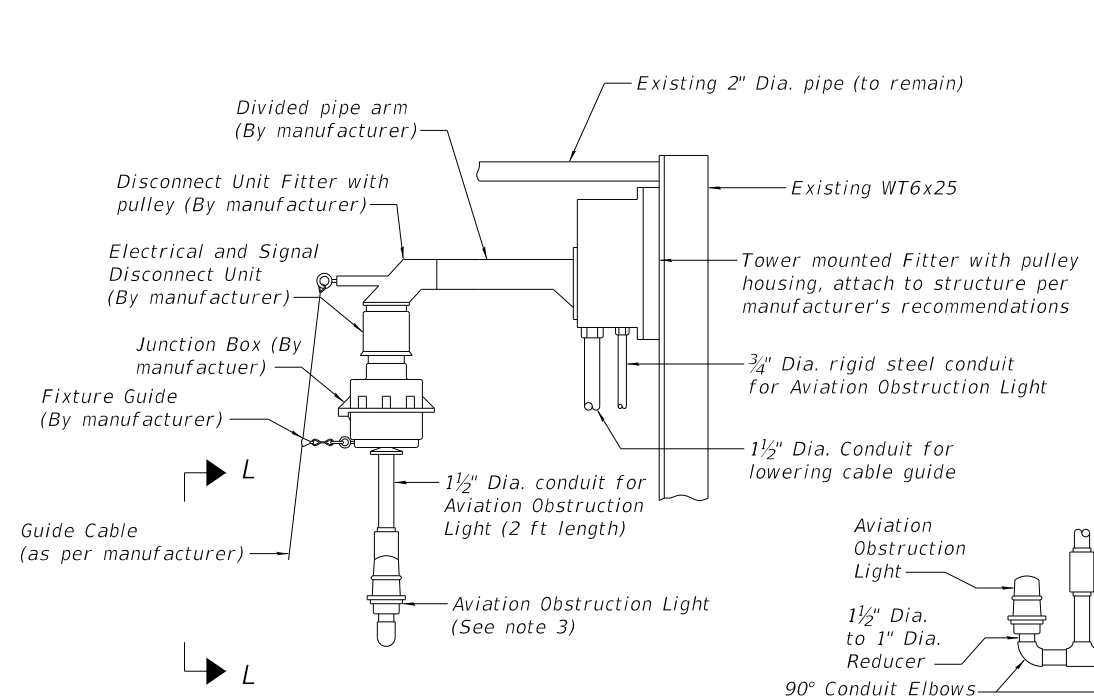


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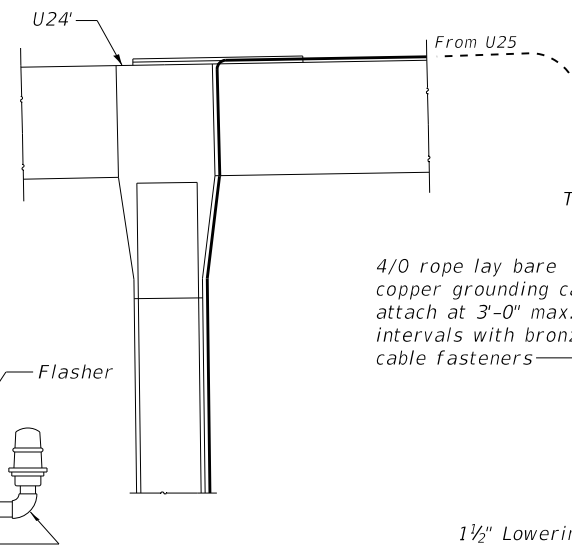
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-57 OVER MISSISSIPPI RIVER
S.N. 002-0022
SPAN 13 LADDER ATTACHMENT DETAILS
SHEET NO. E11 OF E12 SHEETS

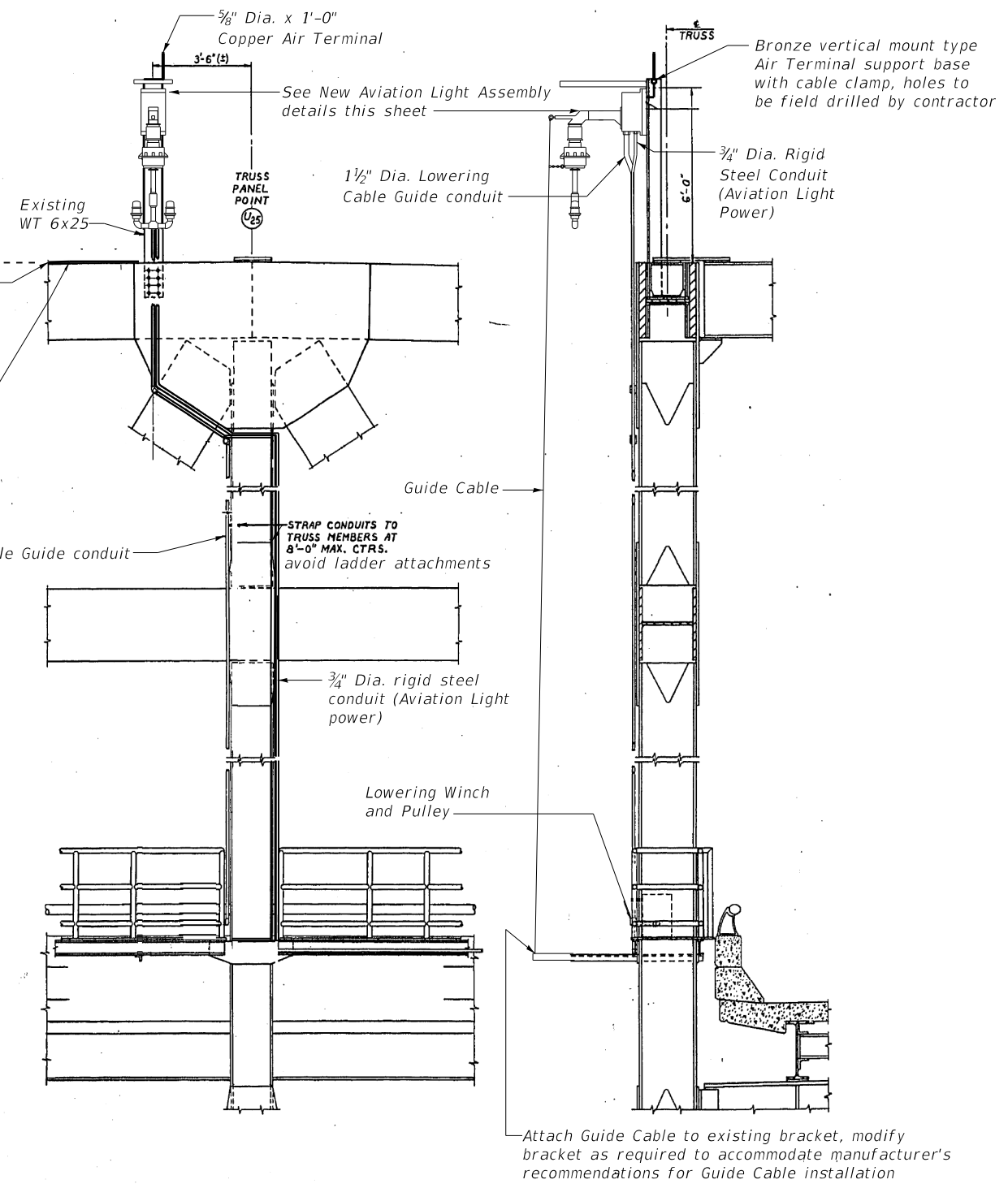
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	102-1B-11L-1	ALEXANDER	17	16
			CONTRACT NO. 78493	
ILLINOIS FED. AID PROJECT				



NEW AVIATION OBSTRUCTION LIGHT ASSEMBLY



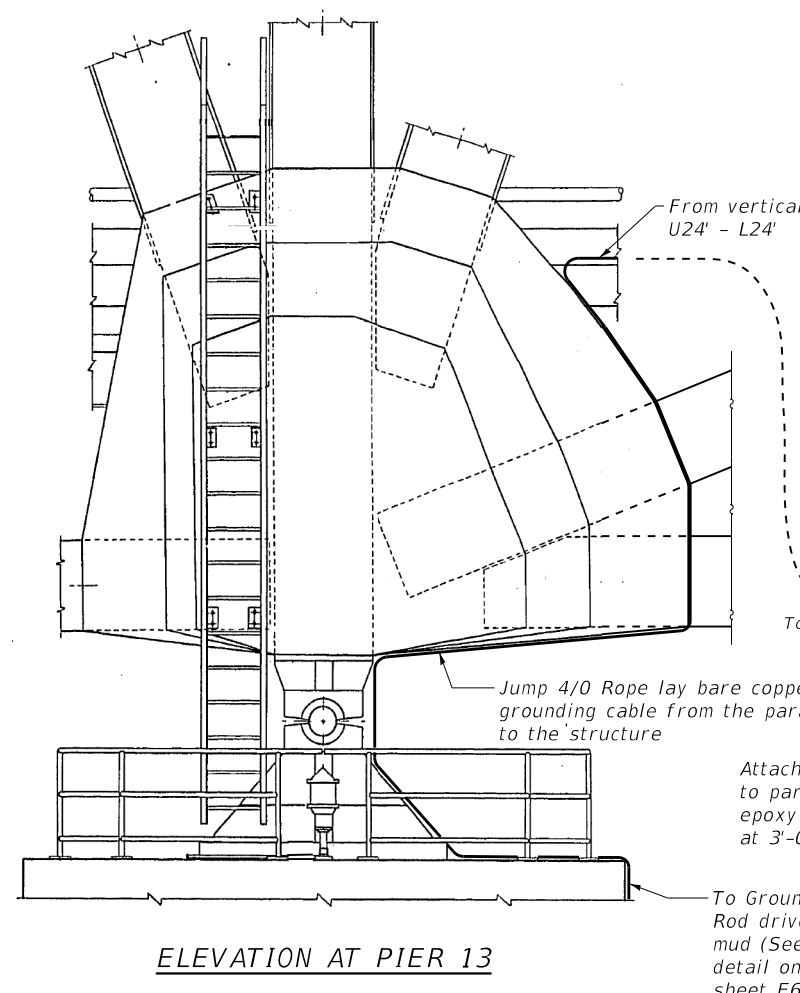
VIEW L-L



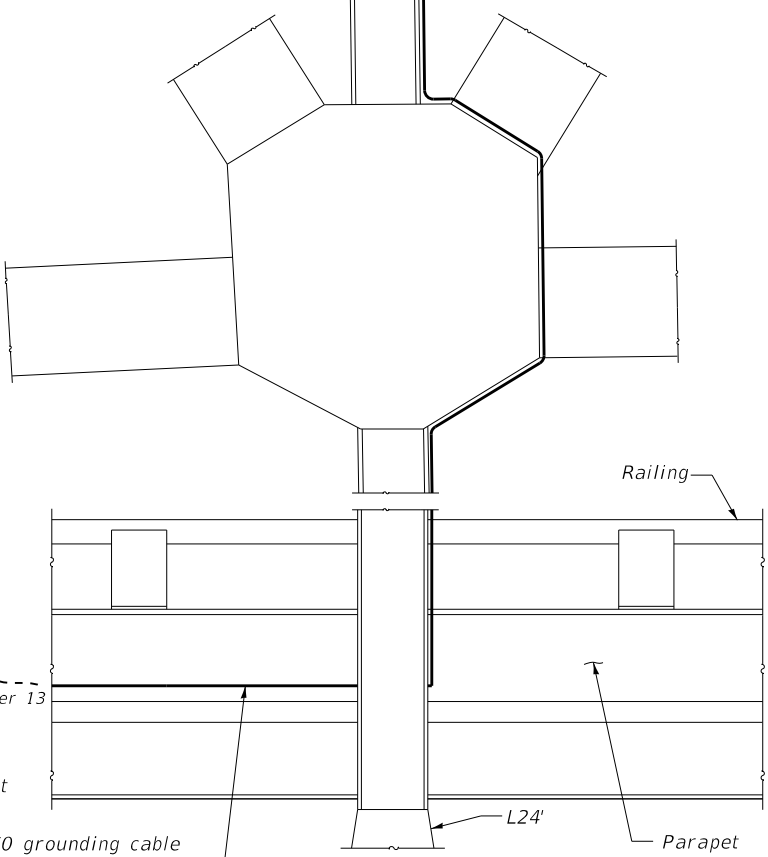
NEW AVIATION OBSTRUCTION LIGHTING AND LIGHTNING PROTECTION ELEVATION AT VERTICAL U25-L25
On East Side of Bridge

NOTES:

1. Removal of existing Aviation Obstruction Light, Conduit and Wire, and Lowering System shall be included in the contract lump sum price for Removal of Navigation Obstruction Warning Lighting System.
2. Locations for New Aviation Obstruction Lighting components are similar to existing components.
3. Aviation Obstruction Light shown for bidding purposes only. The type and number of Aviation Obstruction Lights required is pending approval from F.A.A.
4. All cost for lightning protection and grounding work shown shall be included with the contract lump sum price for Bridge Grounding System.



ELEVATION AT PIER 13



ELEVATION AT VERTICAL U24' - L24'



USER NAME =	DESIGNED - N.K. BHINGE	REVISED
	CHECKED - L.V. BORDEN	REVISED
PLOT SCALE =	DRAWN - R.L. REED	REVISED
PLOT DATE = 11/28/2017	CHECKED - N.K. BHINGE	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-57 OVER MISSISSIPPI RIVER
S.N. 002-0022
AVIATION OBSTRUCTION LIGHTING AND LIGHTNING PROTECTION DETAILS**
SHEET NO. E12 OF E12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	102-1B-1L-1	ALEXANDER	17	17
CONTRACT NO. 78493				

ILLINOIS FED. AID PROJECT