

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.S. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	138D(I-10)	ALEXANDER	16	1
		ILLINOIS	CONTRACT NO. 78964	

FOR INDEX OF SHEETS, SEE SHEET NO. 3
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4-5

**PROPOSED
HIGHWAY PLANS**

**FAS ROUTE 944 (US 60 & 62) OVER MISSISSIPPI RIVER
SECTION 138D(I-10)
PROJECT HBFP-XFA2(979)
NAVIGATION LIGHT UPGRADE
ALEXANDER COUNTY IL /MISSISSIPPI COUNTY MO**

C-99-079-22

TRAFFIC DATA

FAS 944 (US 60 & 62)
2020 ADT = 2780
26.1% TRUCKS

TOWNSHIPS

CAIRO

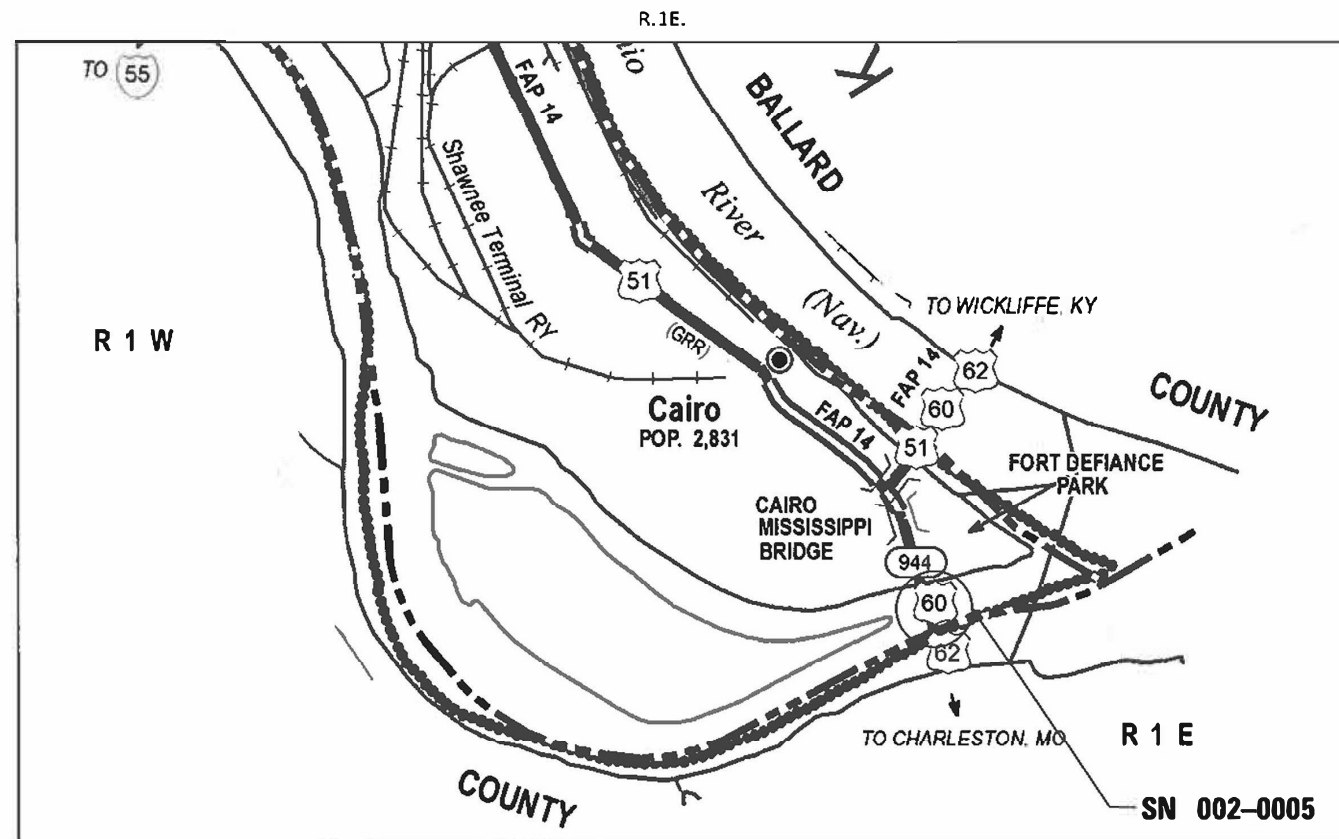
POSTED SPEED : 55 MPH

T.185

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

PROJECT ENGINEER: GRANT DETERDING

CONTRACT NO. 78964



GROSS LENGTH = 5181.4 FT.,



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Dec 14 2022

Kirk H. Brown
REGION FIVE ENGINEER

May 12, 2023 [Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

May 12, 2023 [Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

Prepared By: Charles Steier
 DISTRICT STUDIES & PLANS ENGINEER

Examined By: Nancy New
 DISTRICT LAND ACQUISITION ENGINEER

Examined By: Car Nelson
 DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: Tom Casey
 DISTRICT OPERATIONS ENGINEER

Examined By: Doris J. Turner
 DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: Doris J. Turner
 DISTRICT CONSTRUCTION ENGINEER

Examined By: Aam Wang
 DISTRICT MATERIALS ENGINEER

USER NAME = Ehren Kirby	DESIGNED *	REVISED *
DRAWN *	REVISED *	
PLOT SCALE = 100.0000' / in	CHECKED *	REVISED *
PLOT DATE = 12.7.2022	DATE *	REVISED *

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

SCALE: _____	SHEET _____	OF _____ SHEETS	STA. _____	TO STA. _____
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F.A.S. RTE. 944	SECTION 138D(1-10)	COUNTY ALEXANDER	TOTAL SHEETS 16	SHEET NO. 2
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78964	

LIGHTING LEGEND:

- ☒ R EXISTING CONTROLLER TO BE REMOVED.
- Ⓚ R EXISTING JUNCTION BOX TO BE REMOVED.
- EXISTING CABLE AND CONDUIT TO BE REMOVED.
- Ⓚ R EXISTING NAVIGATIONAL LIGHT TO BE REMOVED.
- ✉ PROPOSED NAVIGATION OBSTRUCTION LIGHTING CONTROLLER.
- Ⓚ PROPOSED JUNCTION BOX, SIZE AS NOTED ON PLAN.
- PROPOSED CABLE AND CONDUIT, SIZE AS NOTED ON PLAN.
- Ⓚ_R PROPOSED RED NAVIGATIONAL LIGHT, LED, 180°.
- Ⓚ_G PROPOSED GREEN NAVIGATIONAL LIGHT, LED, 360°.
- Ⓚ_W PROPOSED WHITE NAVIGATIONAL LIGHT, LED, 180°.

BILL OF MATERIALS:

ITEM DESCRIPTION	UNIT	QUANTITY
ELECTRIC SERVICE INSTALLATION	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	25
CONDUIT ATTACHED TO STRUCTURE, 3/4" DIA. STAINLESS STEEL	FOOT	80
CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	3,690
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 8" X 6" X 4"	EACH	4
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 12" X 6"	EACH	6
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	4,176
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	7,584
WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED	EACH	6
WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED, 180 DEGREE RED	EACH	8
WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED, 360 DEGREE GREEN	EACH	2
OBSTRUCTION WARNING LIGHTING CONTROLLER	EACH	1
REMOVAL OF OBSTRUCTION WARNING LIGHTING SYSTEM	L SUM	1
ACCESS LADDER	EACH	2
MAINTENANCE OF NAVIGATION LIGHTING SYSTEM	CAL MO	6

GENERAL NOTES:

1. THE CONTRACTOR SHALL STAGE THE REMOVAL OF THE EXISTING NAVIGATION LIGHTING AND THE INSTALLATION OF NEW NAVIGATION LIGHTING SO AS TO MAINTAIN CONTINUOUS OPERATION OF THE NAVIGATION LIGHTING SYSTEM.
2. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BIDDING. THERE WILL BE NO ADDITIONAL COMPENSATION PAID FOR CLAIMS THAT ARISE FROM A FAILURE TO FULLY INVESTIGATE EXISTING FIELD CONDITIONS.
3. THE CONTRACTOR SHALL FURNISH AND INSTALL FLEXIBLE LIQUID TIGHT CONDUIT AS REQUIRED FOR THE PROPOSED LIGHTING INSTALLATION. THE COST OF THE FLEXIBLE LIQUID TIGHT CONDUIT SHALL BE INCLUDED IN THE COST OF THE PROPOSED CONDUIT.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS REQUIRED TO ATTACH THE CONDUITS AND JUNCTION BOXES TO THE STRUCTURE, INCLUDING, BUT NOT LIMITED TO UNI-STRUT, BRACKETS, FLEXIBLE LIQUID TIGHT CONDUIT, LB CONDUIT, FITTINGS, HARDWARE, AND OTHER MISCELLANEOUS ITEMS. THESE ITEMS SHALL BE STAINLESS STEEL OR HOT-DIPPED GALVANIZED STEEL AND WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE BID PRICE FOR THE CONDUIT ATTACHED TO STRUCTURE AND JUNCTION BOX PAY ITEMS.
5. CONDUIT ATTACHMENT BRACKETS SHALL BE INSTALLED AT 8 FT. SPACINGS (MAXIMUM) ON STRUCTURES.
6. THE CONTRACTOR SHALL FURNISH AND INSTALL EXPANSION/DEFLECTION COUPLINGS (OR OTHER EQUIPMENT AND METHODS AS APPROVED BY THE ENGINEER) FOR ALL BRIDGE JOINTS AS SHOWN ON THE PLAN SHEETS AND DIRECTED BY THE ENGINEER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE PROPOSED CONDUIT.
7. ALL FLEXIBLE LIQUID TIGHT CONDUIT SHALL BE NON-METALLIC AND SHALL INCLUDE CONNECTORS WITH INTEGRAL STAINLESS STEEL KELLUM GRIPS AT THE ENDS FOR INCREASED STRENGTH AND DURABILITY.
8. ALL CONDUIT ATTACHMENT BRACKETS AND HARDWARE SHALL BE STAINLESS STEEL.
9. THE CONTRACTOR SHALL INSTALL THREAD LOCKER ON ALL ATTACHED GALVANIZED CONDUIT THREADED CONNECTIONS TO PREVENT LOOSENING THROUGH VIBRATION.

COMMITMENTS:

MODOT AND KYTC CONTACT REQUIREMENTS; SEE SPECIAL PROVISIONS

CABLE/CONDUIT SCHEDULE:

- Ⓐ ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 2-1C NO.6, 1/C NO.8 GROUND IN 2" DIA., GALVANIZED STEEL CONDUIT ATTACHED TO STRUCTURE.
- Ⓑ ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 2-1C NO.8, 1/C NO.8 GROUND IN 3/4" DIA., GALVANIZED STEEL CONDUIT ATTACHED TO STRUCTURE.

INDEX OF SHEETS

- 1 COVER SHEET
- 2 SIGNATURE SHEET
- 3 (L-1) BILL OF MATERIALS, CABLE/CONDUIT SCHEDULE, GENERAL NOTES, HIGHWAY STANDARDS, INDEX OF SHEETS, JUNCTION BOX SCHEDULE, AND LIGHTING LEGEND,
- 4-5 SUMMARY OF QUANTITIES
- 6 TRAFFIC CONTROL PLAN-MESSAGE BOARD PLACEMENT
- 7 (L-2) NAVIGATION LIGHTING REMOVAL PLAN.
- 8 (L-3) NAVIGATION LIGHTING REMOVAL PLAN.
- 9 (L-4) PROPOSED NAVIGATION LIGHTING PLAN.
- 10 (L-5) PROPOSED NAVIGATION LIGHTING PLAN.
- 11 (L-6) WIRING DIAGRAM.
- 12 (L-7) LIGHTING DETAILS.
- 13 (L-8) LIGHTING DETAILS.
- 14 EXISTING / PROPOSED WHITE NAVIGATIONAL OBSTRUCTION LIGHTING ASSEMBLY
- 15 PROPOSED WHITE NAVIGATIONAL OBSTRUCTION LIGHTING ASSEMBLY DETAILS
- 16 LADDER ATTACHEMENT DETAILS

JUNCTION BOX SCHEDULE:

JB1	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 8" X 6" X 4"
JB2	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 12" X 6"

HIGHWAY STANDARDS

000001-08_STANDARDSYMBOLSABBREVIATIONS-PATTERNS-001
 001006_DECIMALOFINCH-FOOT
 701001-02_OFFRDOP-2L2W-15FTMINFROMEOP
 701006-05_OFFRDOP-2L2W-15FTTOEOP
 701901-08_TRAFCNTRLDEVICES
 826001-03_OBSTRUCTIONWARNLIGHTINGCONTROLLER240V
 BLR21-9_TYPAPPTRAFCNTRLDEVICES-CONSTRONRURALLOCALHWYS
 805001-01_ELECTRICAL SERVICE INSTALLATION DETAILS

REV. - MS

L-1

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PLOT DATE =	CHECKED -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BILL OF MATERIALS, CABLE/CONDUIT SCHEDULE, GENERAL NOTES,
 HIGHWAY STANDARDS, INDEX OF SHEETS, JUNCTION BOX SCHEDULE,
 AND LIGHTING LEGEND**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	138D(I-10)	ALEXANDER	16	3
CONTRACT NO. 78964				

SHEET OF SHEETS

ILLINOIS FED. AID PROJECT

SUMMARY OF QUANTITIES

COUNTY:	ALEXANDER CO	MISSISSIPPI CO
ROUTE:	US 60 & 62	US 60 & 62
FUNDING:	80% FEDERAL / 20% STATE	100% MISSOURI
LOCATION:	SN 002-0005	SN 002-0005
	LIGHTING	LIGHTING
	0021	0021

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	LIGHTING 0021	LIGHTING 0021
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	7	3.5	3.5
67100100	MOBILIZATION	L SUM	1	0.5	0.5
X7010238	CHANGEABLE MESSAGE SIGN (SPECIAL)	CAL MO	6	3	3
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1	0.5	0.5
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	25	12.5	12.5
81100453	CONDUIT ATTACHED TO STRUCTURE, 3/4" DIA. STAINLESS STEEL	FOOT	80	40	40
81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	3,690	1,845	1,845
81300310	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 8" X 6" X 4"	EACH	4	2	2
81300800	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 12" X 6"	EACH	6	3	3
81702120	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	4,176	2,088	2,088
81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	7,584	3,792	3,792
82200605	WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED	EACH	6	3	3
82200608	WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED, 180 DEGREE RED	EACH	8	4	4
82200609	WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED, 360 DEGREE GREEN	EACH	2	1	1

REV. - MS

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SUMMARY OF QUANTITIES - CONT

COUNTY:	ALEXANDER CO	MISSISSIPPI CO
ROUTE:	US 60 & 62	US 60 & 62
FUNDING:	80% FEDERAL / 20% STATE	100% MISSOURI
LOCATION:	SN 002-0005	SN 002-0005
	LIGHTING	LIGHTING
	0021	0021

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	LIGHTING 0021	LIGHTING 0021
82600106	OBSTRUCTION WARNINGLIGHTINGCONTROLLER	EACH	1	0.5	0.5
84301201	REMOVAL OF OBSTRUCTION WARNING LIGHTING SYSTEM	L SUM	1	0.5	0.5
X0325941	ACCESS LADDER	EACH	2	1	1
X7011800	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	0.5	0.5
X8260112	MAINTENANCE OF NAVIGATION LIGHTING SYSTEM	CAL MO	6	3	3

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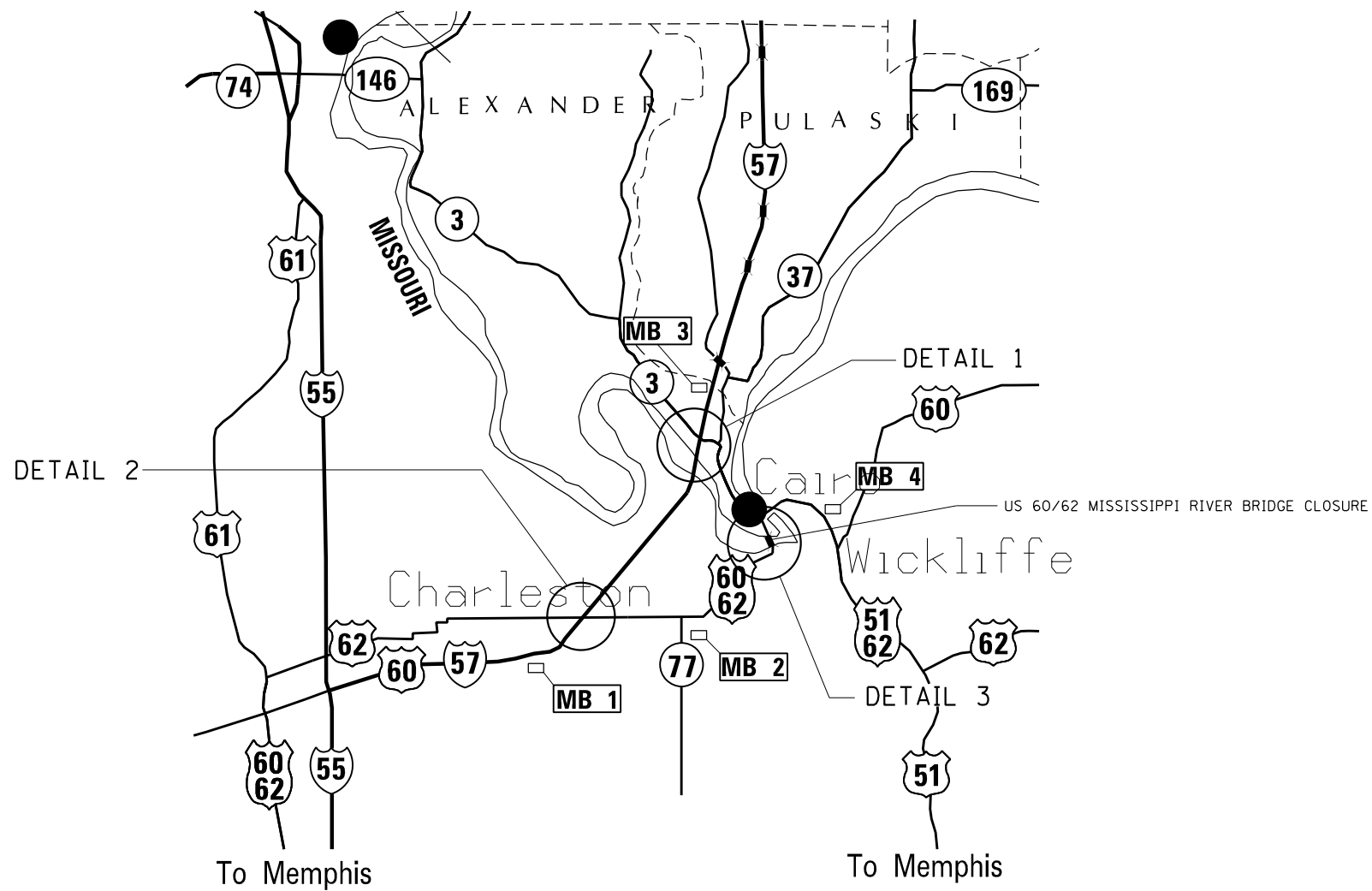
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES CONT.

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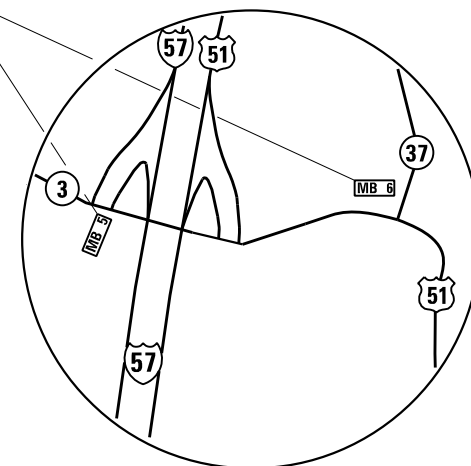
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944	138DI(10)	ALEXANDER	16	5
CONTRACT NO. 78964				
ILLINOIS FED. AID PROJECT				



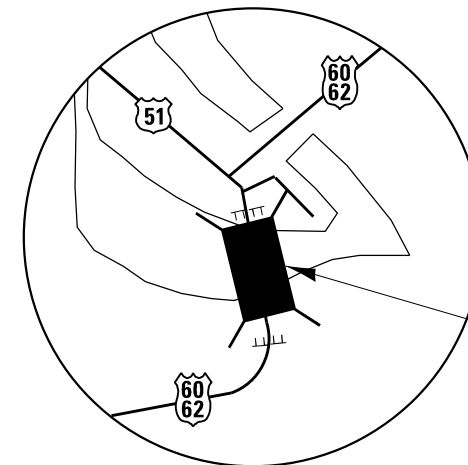
60/62 BRIDGE
TO MISSOURI
CLOSED AHEAD

USE
OTHER
ROUTES

Message Typical all signs (Illinois)
Actual message subject
to approval of the Engineer.



DETAIL 1
(SHARED COST)



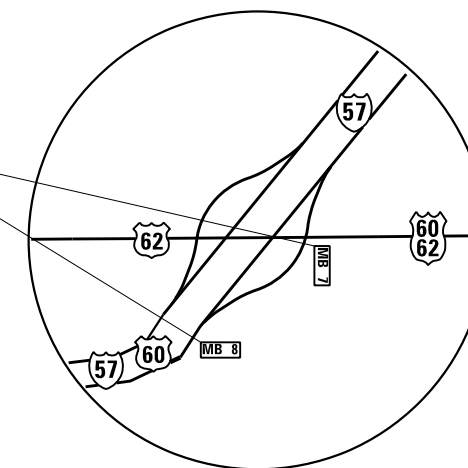
DETAIL 3
(SHARED COST)

SEE HIGHWAY STANDARD B.L.R. 21-9 FOR DETAILS
AND SIGNS, COST INCLUDED WITH TRAFFIC CONTROL AND
PROTECTION, BLR 21.

60/62 BRIDGE
TO ILLINOIS
CLOSED AHEAD

USE
OTHER
ROUTES

Message Typical all signs (Missouri/Kentucky)
Actual message subject
to approval of the Engineer.



DETAIL 2
(SHARED COST)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

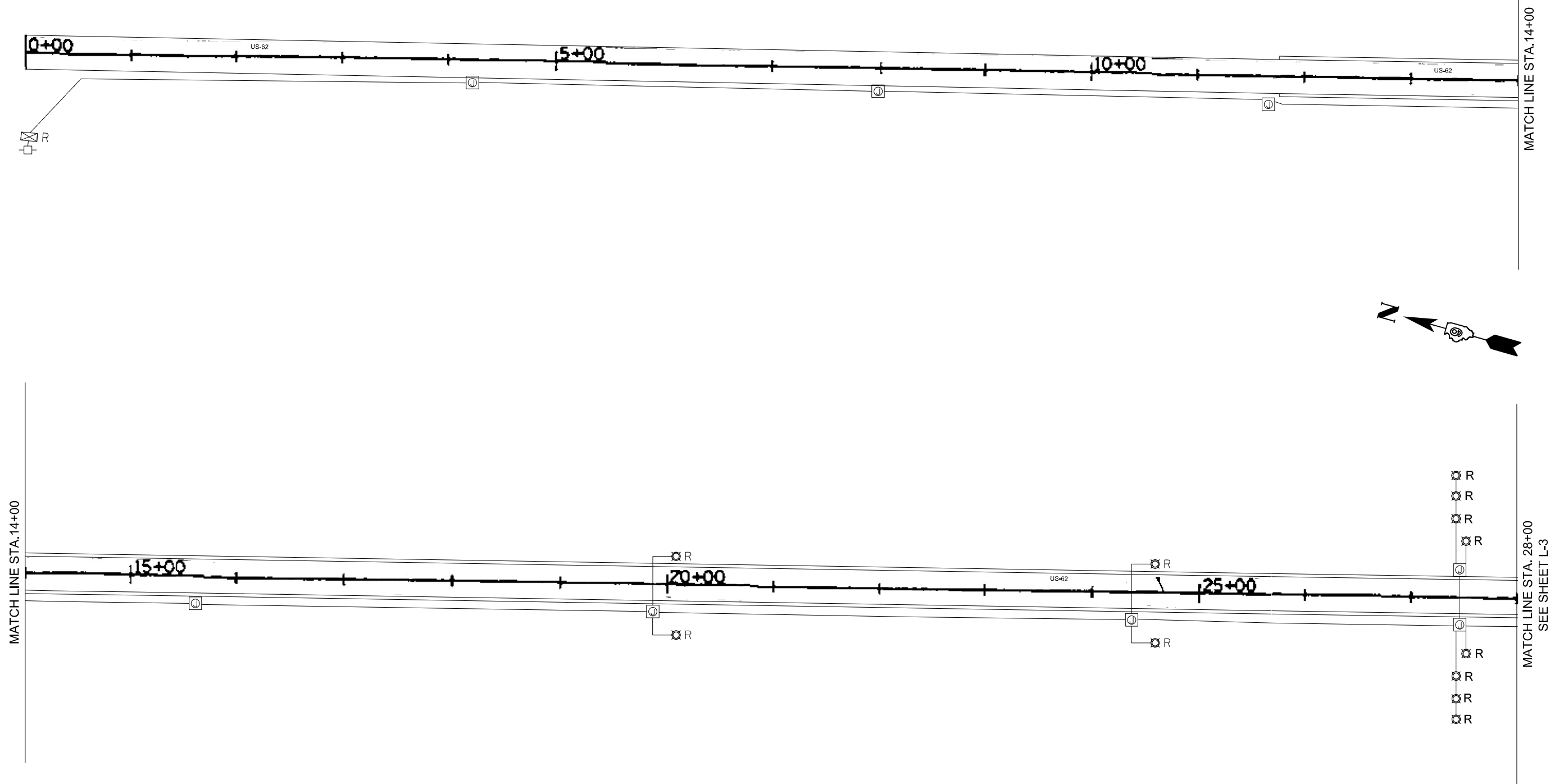
TRAFFIC CONTROL PLAN & MESSAGE BOARD PLACEMENT
SN 002-0005

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	DRAWN -	REVISED -
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PLOT DATE = 4/6/2023	DATE -	REVISED -

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	138D(I-10)	ALEXANDER	16	6
			CONTRACT NO. 78964	
ILLINOIS FED. AID PROJECT				

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NOTES:
 1. FOR LEGEND SEE SHEET L-1

REV. - MS
 L-2

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PLOT SCALE = 1"=50'	DRAWN - MRT	REVISED -
PLOT DATE =	CHECKED -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**NAVIGATION LIGHTING REMOVAL PLAN
 US-60/62 BRIDGE**

SHEET OF SHEETS

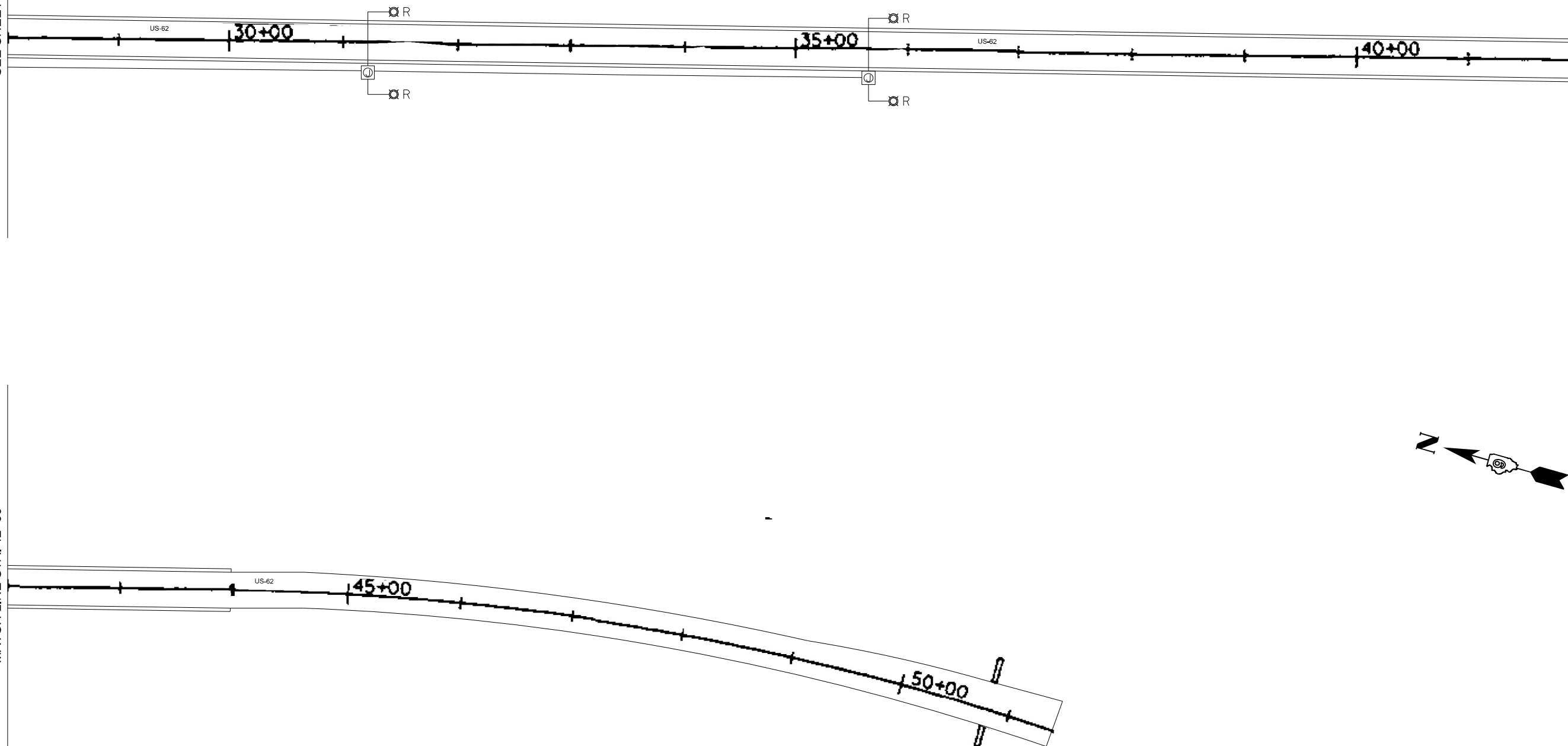
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ILLINOIS FED. AID PROJECT			CONTRACT NO. 78964	

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MATCH LINE STA. 28+00
 SEE SHEET L-2

MATCH LINE STA. 42+00

MATCH LINE STA. 42+00



NOTES:

1. FOR LEGEND SEE SHEET L-1

L-3

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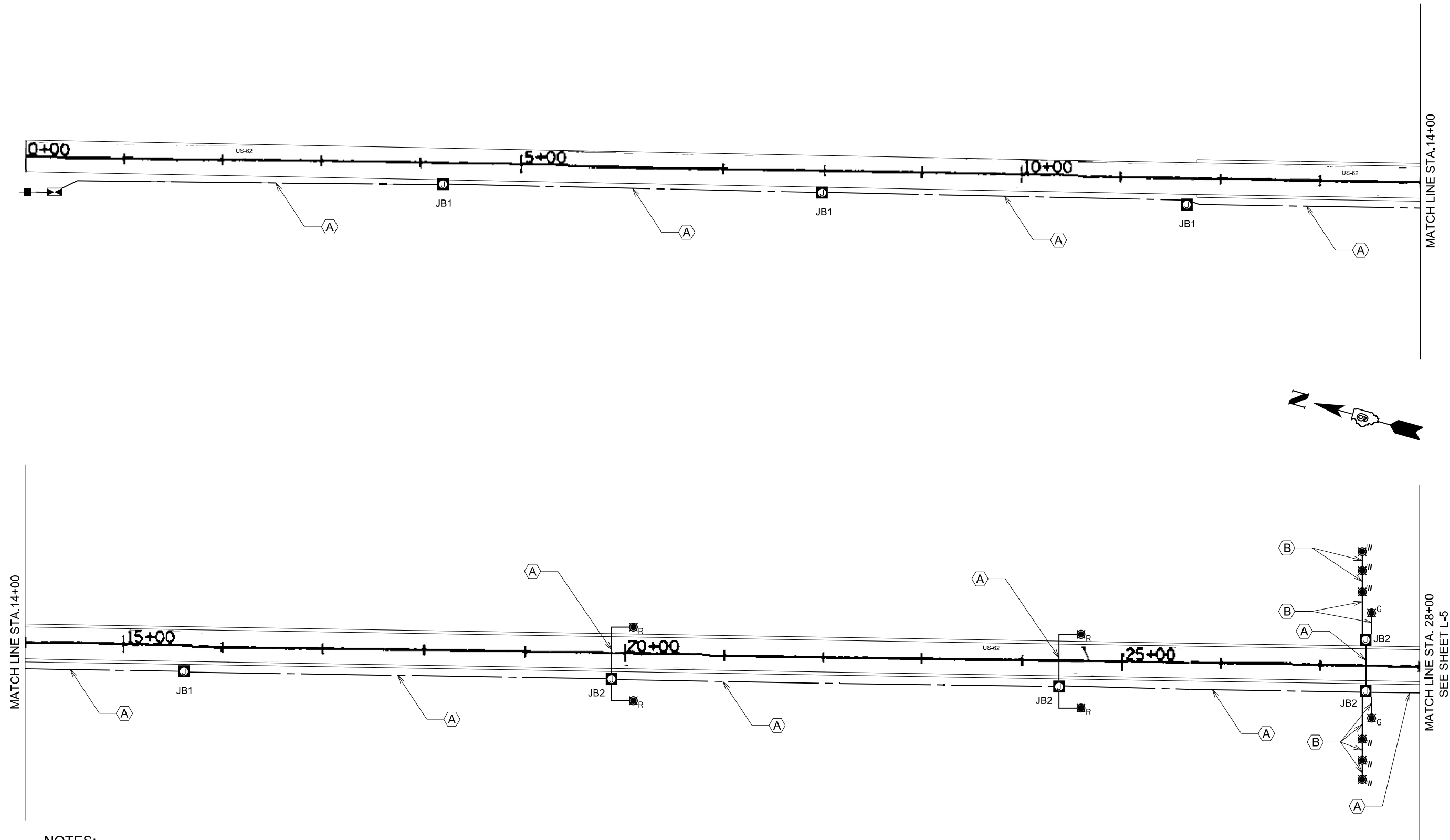
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

NAVIGATION LIGHTING REMOVAL PLAN
 US-60/62 BRIDGE

SHEET OF SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	138D(I-10)	ALEXANDER	16	8
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78964	

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NOTES:

1. FOR LEGEND SEE SHEET L-1
2. SEE SHEET L-7 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS.
3. THE CONTRACTOR SHALL INSTALL LIQUID TIGHT FLEXIBLE CONDUIT AT BRIDGE EXPANSION JOINTS AS DIRECTED BY THE ENGINEER. THE COST OF THE LIQUID TIGHT FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, 2"DIA., GALVANIZED STEEL" PAY ITEM.

L-4

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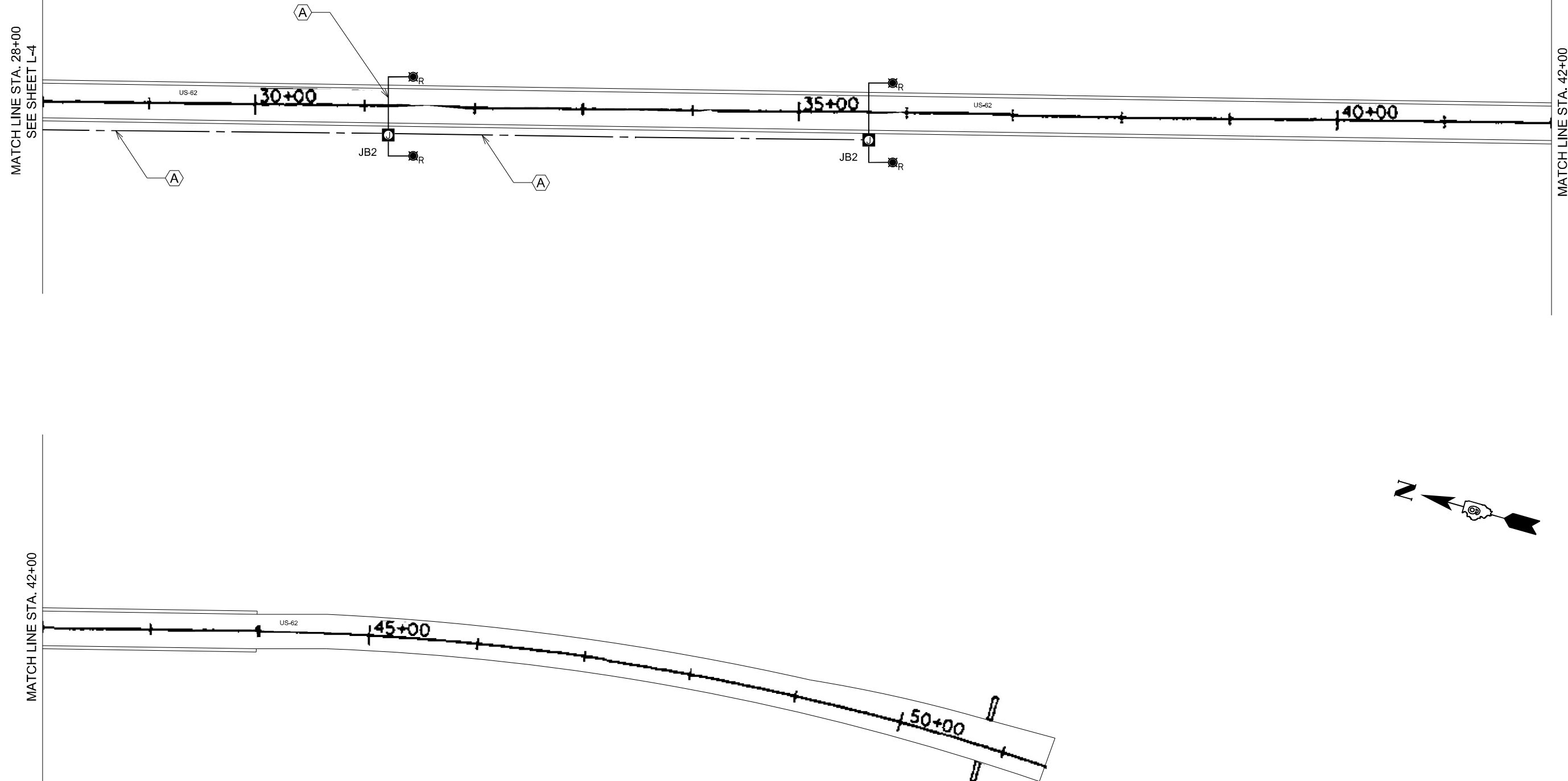
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED NAVIGATION LIGHTING PLAN
 US-60/62 BRIDGE**

SHEET 2 OF SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	138D(I-10)	ALEXANDER	16	9
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78964	

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NOTES:

1. FOR LEGEND SEE SHEET L-1
2. SEE SHEET L-7 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS.
3. THE CONTRACTOR SHALL INSTALL LIQUID TIGHT FLEXIBLE CONDUIT AT BRIDGE EXPANSION JOINTS AS DIRECTED BY THE ENGINEER. THE COST OF THE LIQUID TIGHT FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, 2"DIA., GALVANIZED STEEL" PAY ITEM.

L-5

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PLOT SCALE = 1"=50'	DRAWN - MRT	REVISED -
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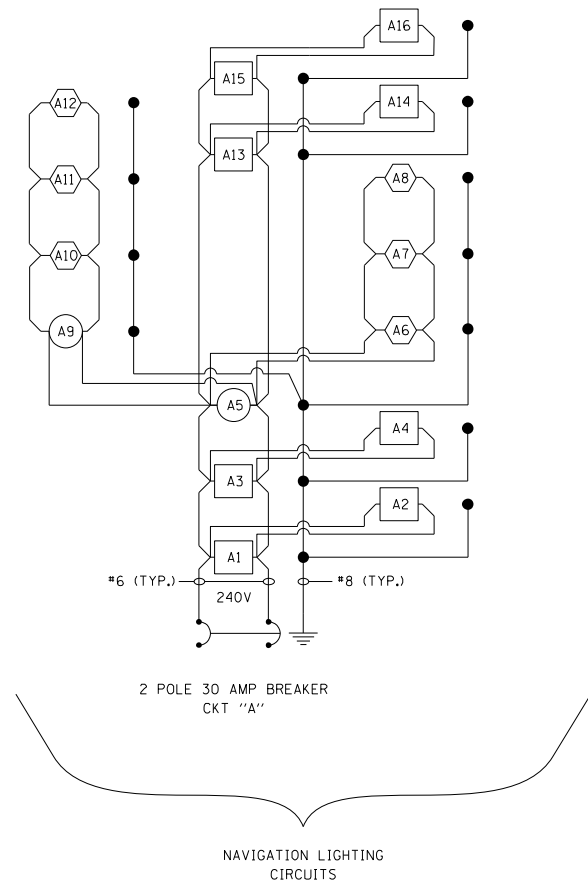
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED NAVIGATION LIGHTING PLAN
 US-60/62 BRIDGE**

SHEET OF SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	138D(I-10)	ALEXANDER	16	10
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78964	

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NAVIGATION OBSTRUCTION LIGHTING CONTROLLER
 CAIRO BRIDGE AT ILLINOIS END OF BRIDGE
 BASE MOUNT, 240V

LEGEND

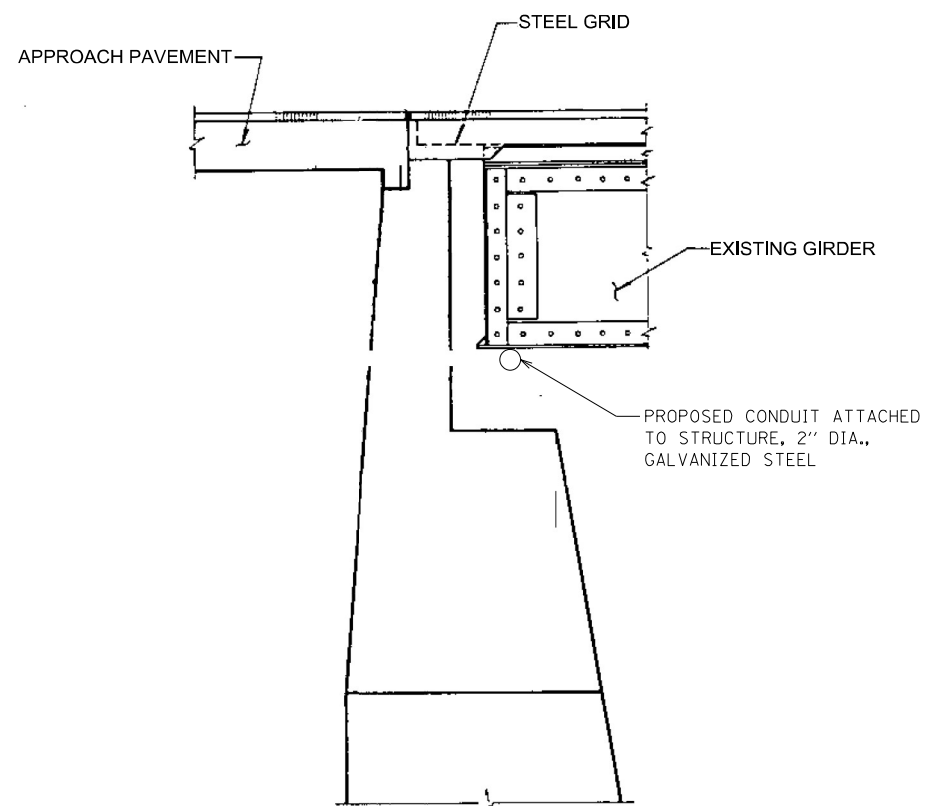
- A# PROPOSED WHITE WATERWAY OBSTRUCTION WARNING LUMINAIRE.
- A# PROPOSED GREEN WATERWAY OBSTRUCTION WARNING LUMINAIRE.
- A# PROPOSED RED WATERWAY OBSTRUCTION WARNING LUMINAIRE.
- GROUND ROD.

NOTES:

1. ALL NECESSARY REVISIONS TO THE WIRING SHOWN ON THIS SHEET SHALL BE MADE AT NO ADDITIONAL COST TO THE DEPARTMENT AND TO THE SATISFACTION OF THE ENGINEER.

	USER NAME =	DESIGNED - MKR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WIRING DIAGRAM	F.A.S. RTE. 944	SECTION 138D(I-10)	COUNTY ALEXANDER	TOTAL SHEETS 16	SHEET NO. 11
	PLOT SCALE =	DRAWN - MRT	REVISED -			CONTRACT NO. 78964				
	PLOT DATE =	CHECKED -	REVISED -		SHEET OF SHEETS	ILLINOIS FED. AID PROJECT				

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**TYPICAL SECTION THRU
 NORTH AND SOUTH ABUTMENTS**



CONDUIT ATTACHED TO STRUCTURE DETAIL

NOTES:

1. ATTACH 2 INCH DIA GRS CONDUIT TO THE BOTTOM OF THE LOWER CORD IN THE TRUSS SPAN. THE CONDUIT SHALL BE SUPPORTED BY CONDUIT CLAMPS AT MAXIMUM SPACING INTERVALS OF 5 FT. CONDUIT SHALL BE SECURELY FASTENED WITHIN 3 FT. OF EACH JUNCTION BOX AND CONDUIT BODY.



TYPICAL WHITE NAVIGATION LIGHT DETAIL

USER NAME =	DESIGNED - MKR	REVISED -
	CHECKED - MKR	REVISED -
PLOT SCALE =	DRAWN - MRT	REVISED -
PLOT DATE =	CHECKED -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

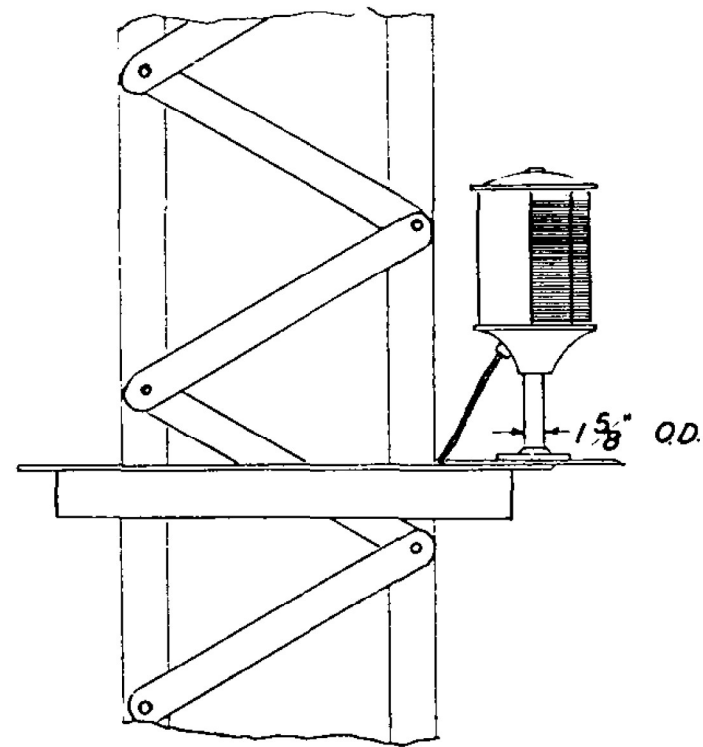
NAVIGATION LIGHTING DETAILS

SHEET OF SHEETS

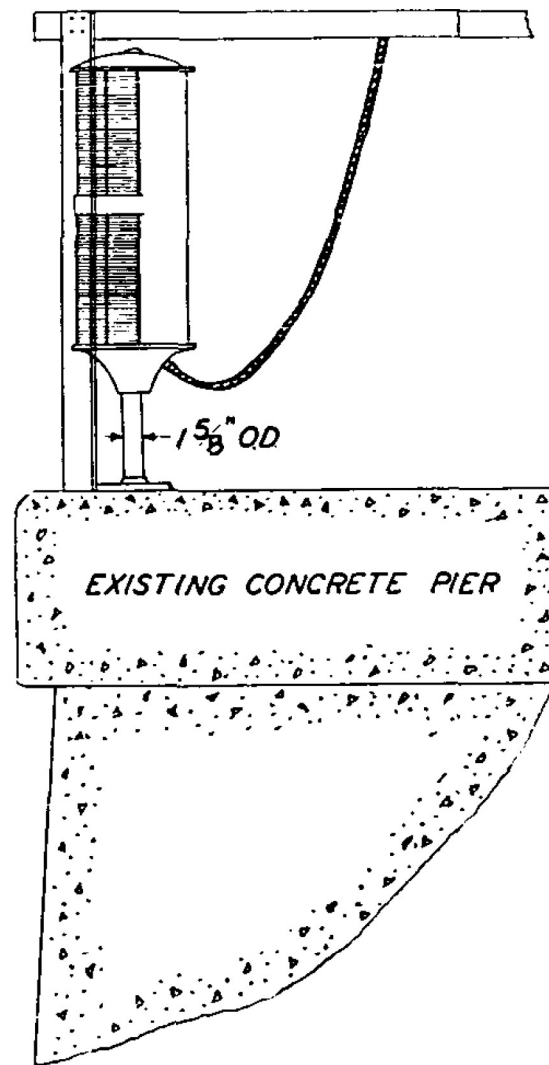
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	138D(I-10)	ALEXANDER	16	12
			CONTRACT NO. 78964	
ILLINOIS FED. AID PROJECT				

PROPOSED NAVIGATION LIGHTING INSTALLATION SHALL UTILIZE THE EXISTING NAVIGATION LIGHTING DETAILS SHOWN BELOW. SEE SHEET L-7 FOR ADDITIONAL DETAILS.

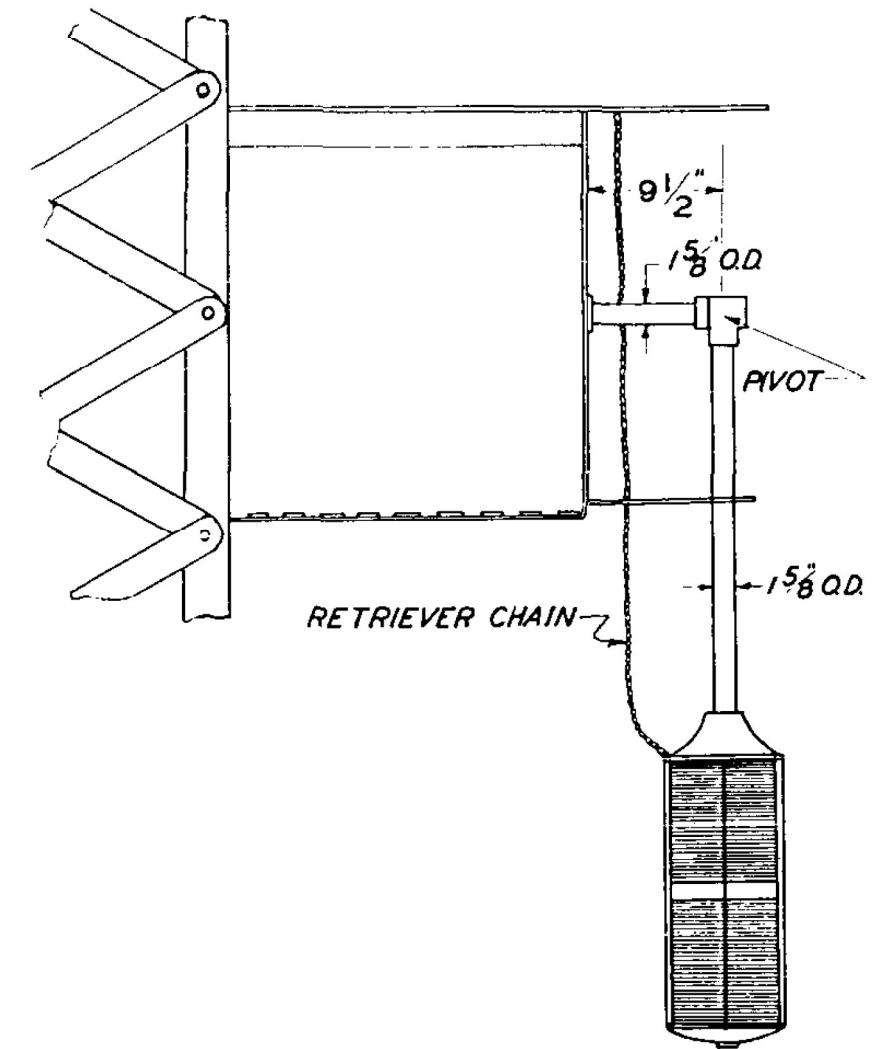
5



WHITE LIGHTS



RED LIGHTS



GREEN LIGHTS

DETAILS OF EXISTING NAVIGATION LIGHTS

MODEL: Default
FILE NAME: S:\Projects\3505 - Various Lighting Projects Statewide - EIM\Project Work\Electrical\District 9\Cairo\CADD\Sheet\DS 78964-sh-Navlight_Details-02.dgn

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	CHECKED - MKR	REVISED -
PLOT SCALE =	DRAWN - MRT	REVISED -
PLOT DATE =	CHECKED -	REVISED -

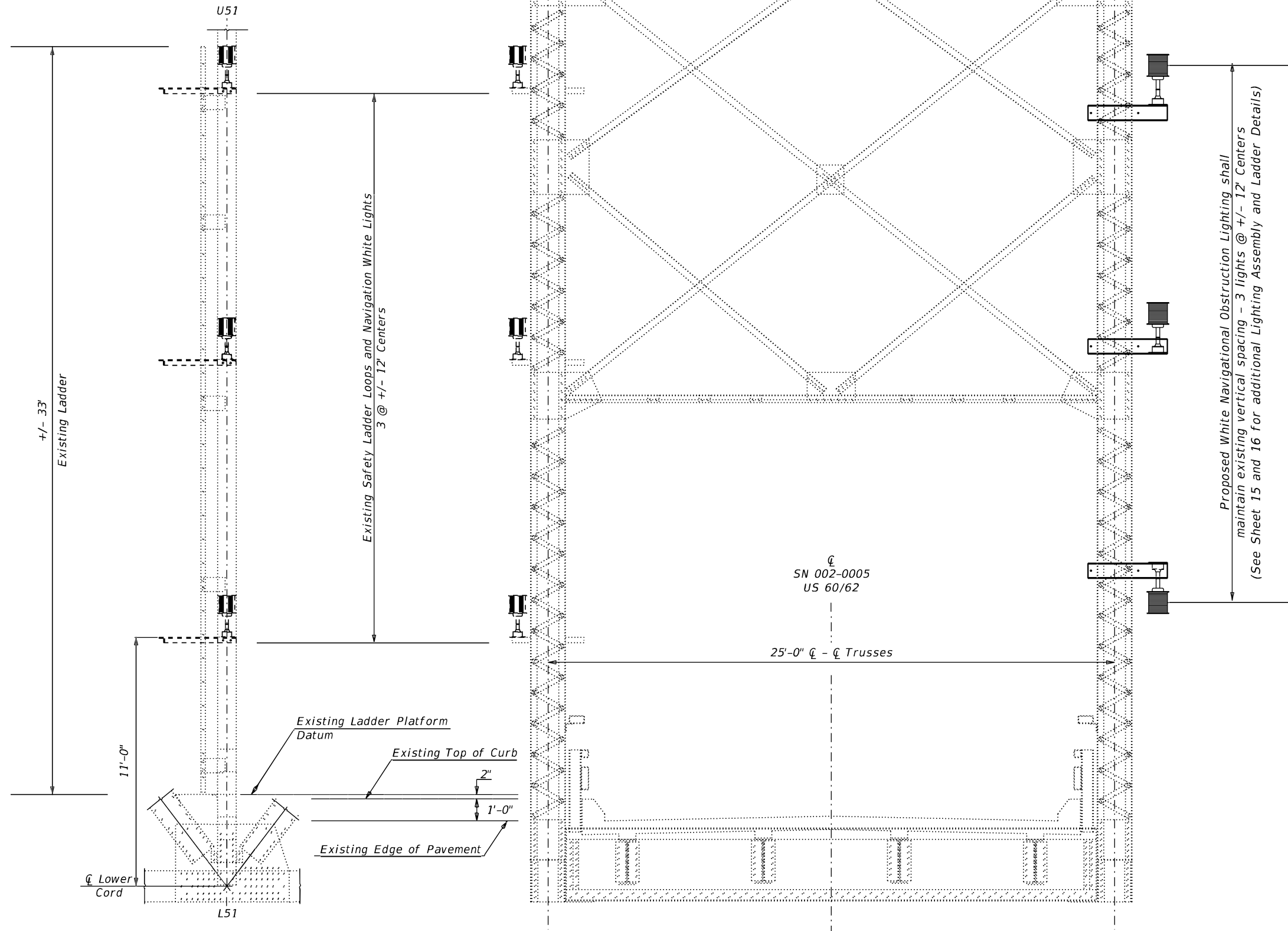
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NAVIGATION LIGHTING DETAILS

SHEET OF SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	138D(I-10)	ALEXANDER	16	13
CONTRACT NO. 78964				
ILLINOIS FED. AID PROJECT				

U 51 Existing (Typ. U/S & D/S) U 51 Proposed (Typ. U/S & D/S)



NOTES:

1. Removal of existing Vertical Member 51 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.
3. Welding shall only be permitted to the existing lock plates. Welding to the bridge structural members shall not be permitted.
4. All welding shall be performed under the supervision of the Resident Engineer.
5. The installed elevation of the green light shall be adjusted to be below the lowest bridge structure per USCG requirements.
6. Navigation Obstruction Lights shall be spaced to maintain vertical clearance between lights per USCG regulations.
Vertical spacing for upper three white lights: maximum 15'
Vertical spacing for lowest white light and green light: maximum 15'
7. 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.

EXISTING VERTICAL MEMBER 51 NAVIGATIONAL OBSTRUCTION LIGHTING ASSEMBLY
(Typical Upstream and Downstream)

Note: Ladder not shown for clarity.

MODEL: Ladder Details
 FILE NAME: P:\Public\aw_bentley.com\PROJECTS\78964\CADD\CADD\Sheet\078964_Sheets.dgn

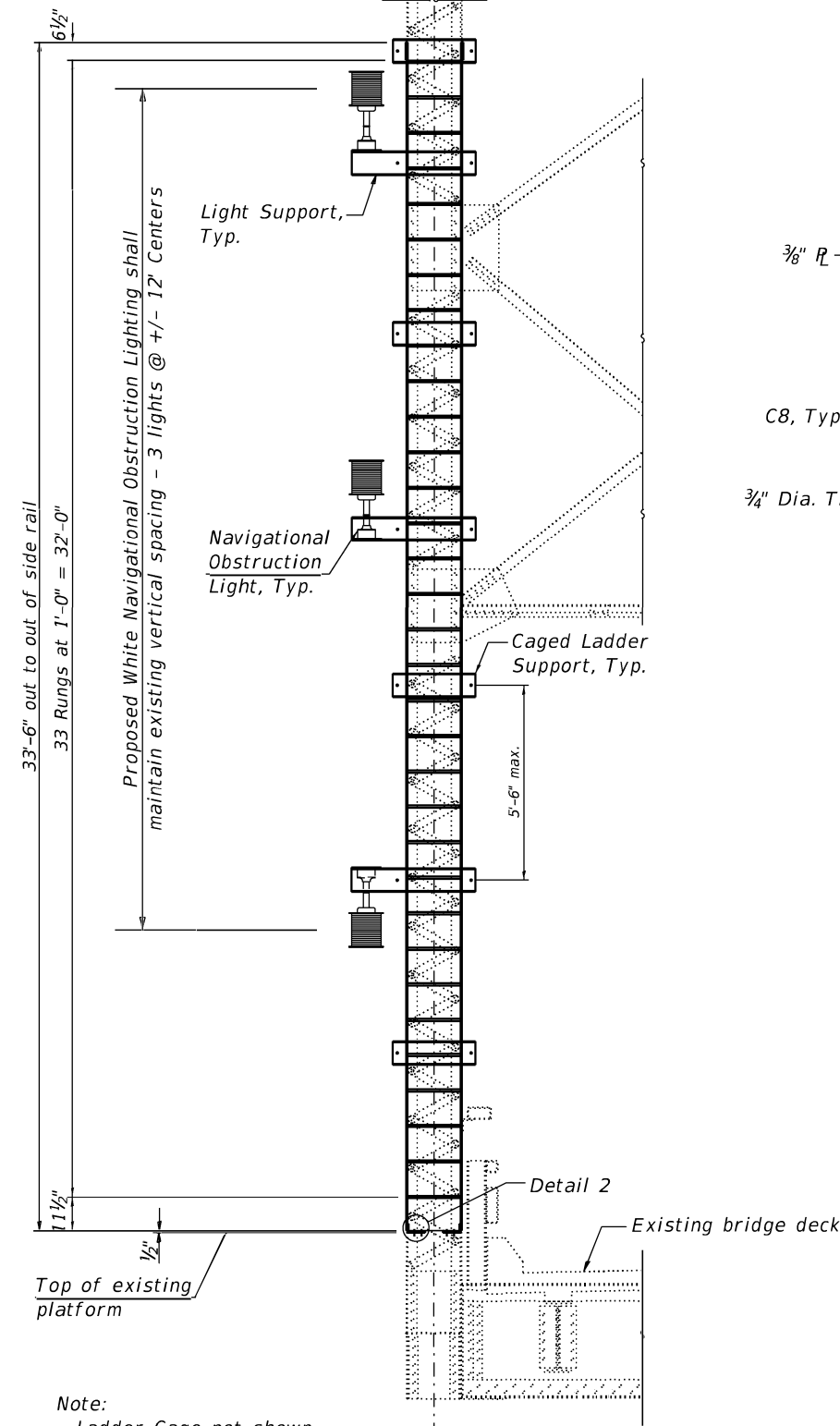
USER NAME = Ehren.Kirby	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = 100.0000' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = 4/7/2023	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

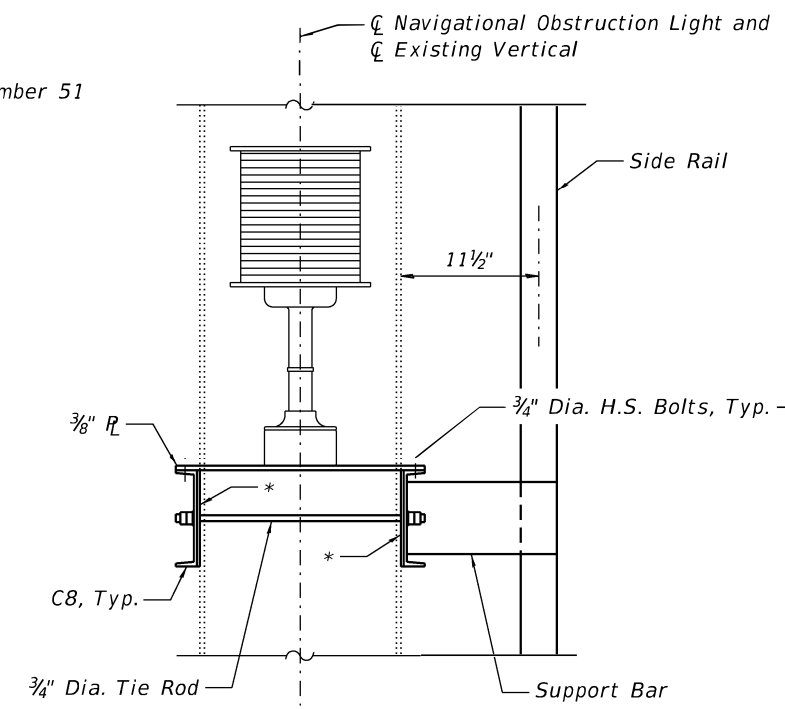
**S.N. 002-0005 - VERTICAL MEMBER 51
EXISTING /PROPOSED WHITE
NAVIGATIONAL OBSTRUCTION LIGHTING ASSEMBLY**

SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	138D(I-10)	ALEXANDER	16	14
			CONTRACT NO. 78964	
ILLINOIS FED. AID PROJECT				

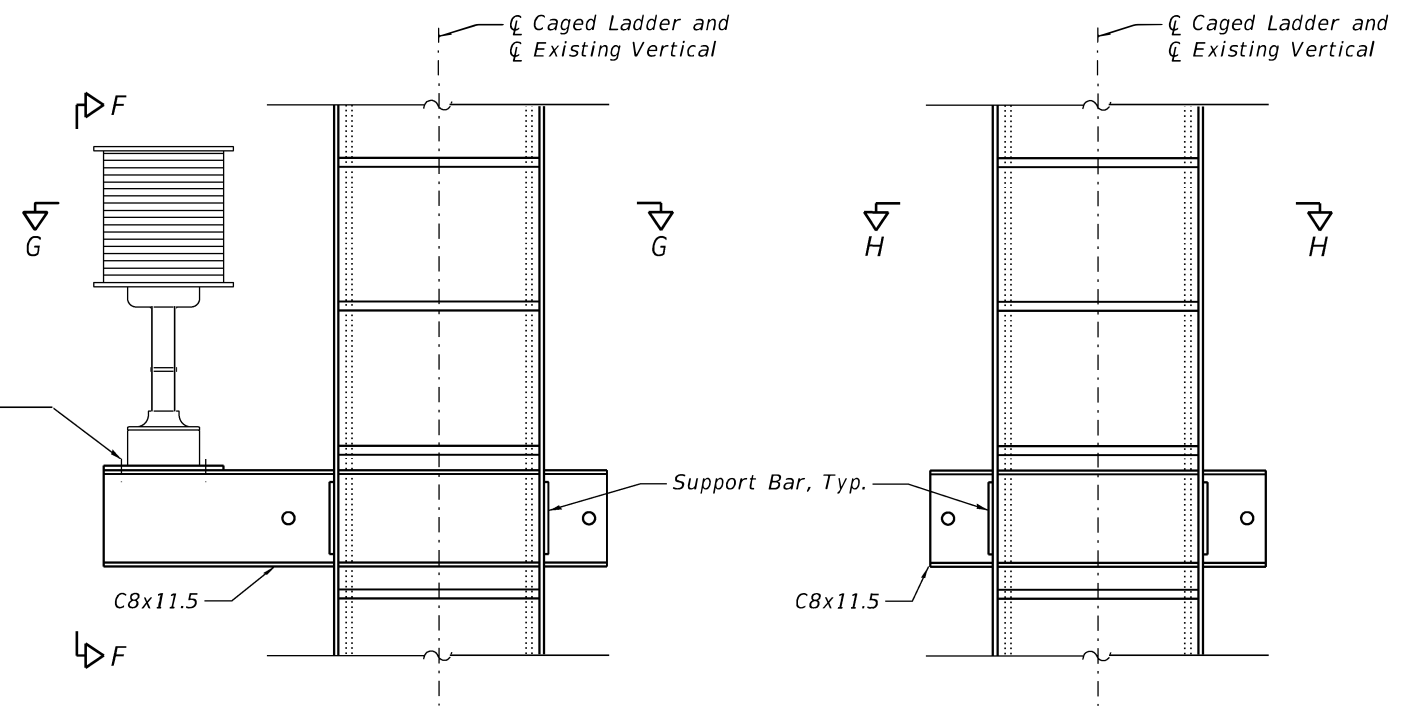


VERTICAL MEMBER 51 - LADDER ATTACHMENT DETAIL
(Typical Upstream and Downstream)



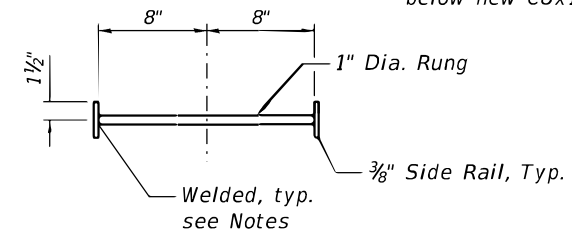
VIEW F-F

Note:
Mounting plate for light to be located as required, above or below new C8x11.5

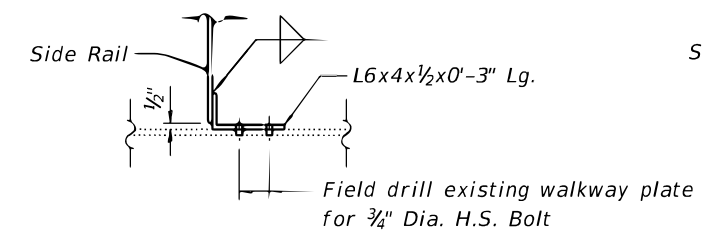


LIGHT SUPPORT DETAIL
(Includes ladder support)

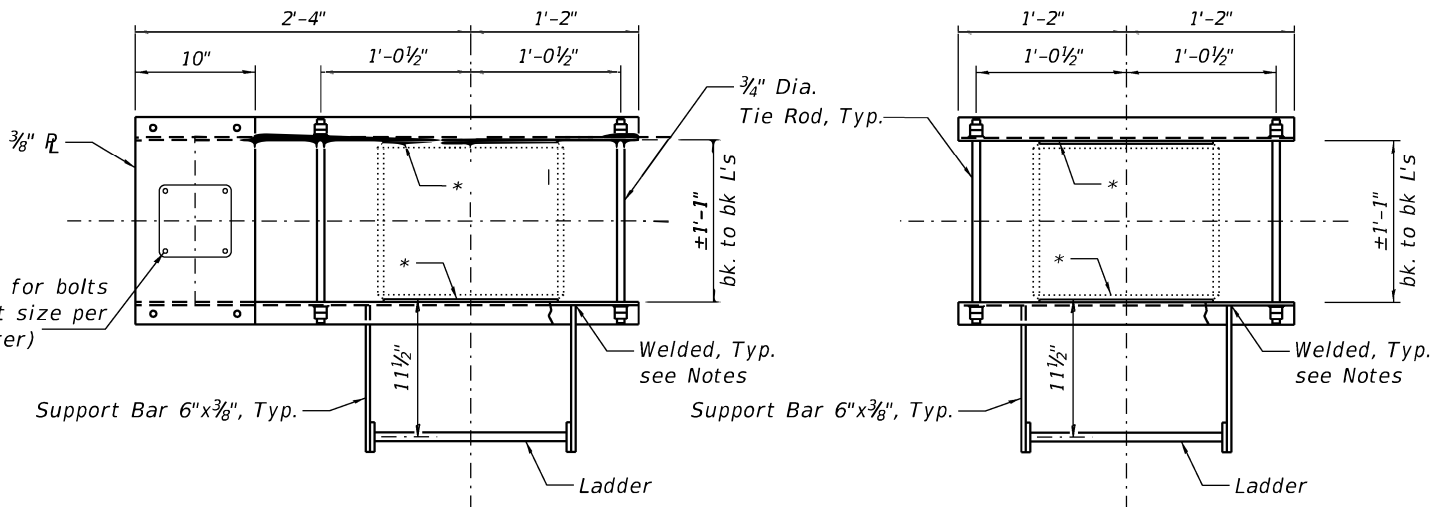
CAGED LADDER SUPPORT DETAIL



LADDER RUNG DETAIL



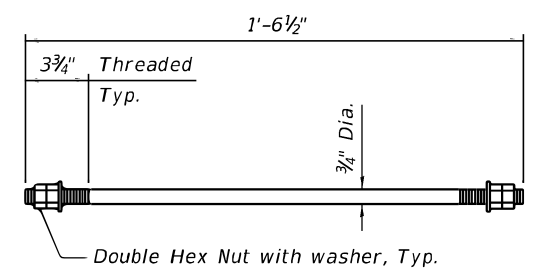
DETAIL 2



SECTION G-G

SECTION H-H

* 1/8" thk. Neoprene placed between existing vertical and new channel



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 16.
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, also see sheet 14.

MODEL: Ladder Details
FILE NAME: P:\Public\awberley\com\PHWDOT\Documents\DOT Office\District 9\Projects\78964\CADD\data\CAD\Sheets\078964_Sheets.dgn

USER NAME = Ehren.Kirby	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = 100.0000' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = 4/7/2023	DATE - _____	REVISED - _____

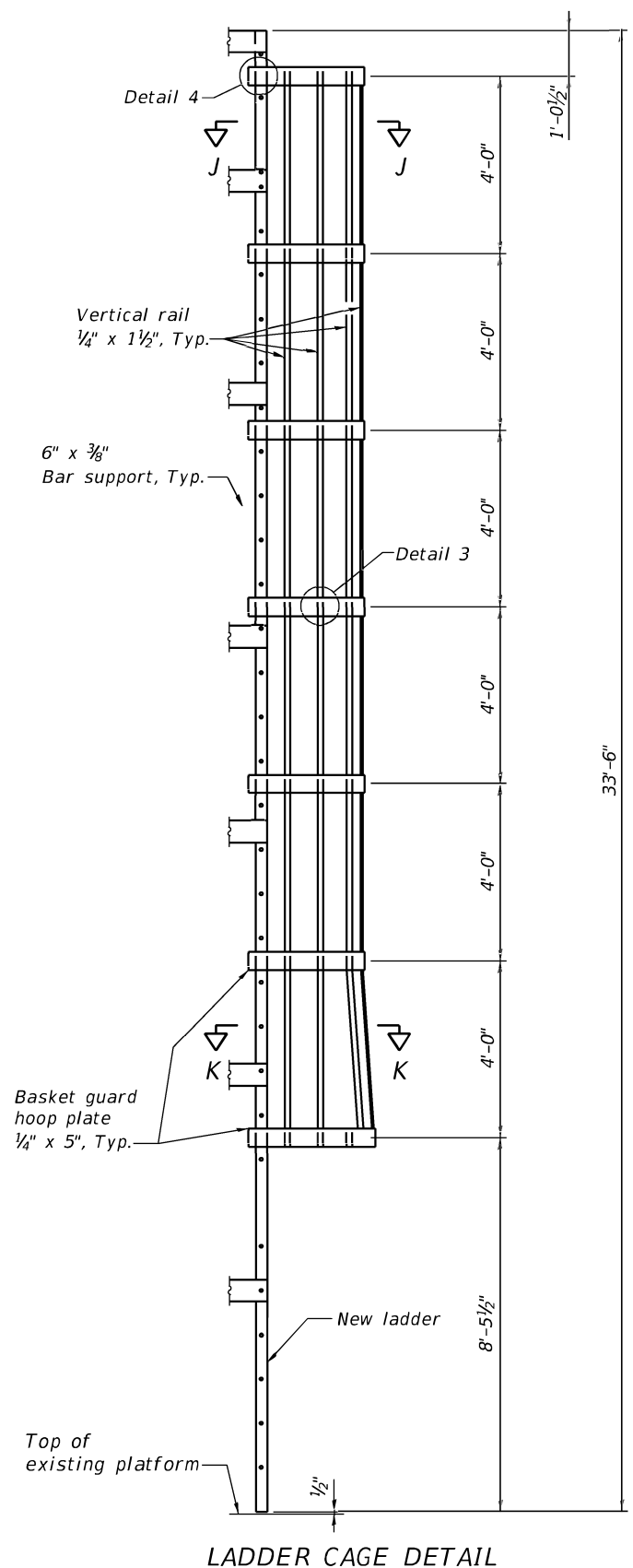
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**S.N. 002-0005 - VERTICAL MEMBER 51
WHITE NAVIGATIONAL OBSTRUCTION LIGHTING ASSEMBLY DETAILS**

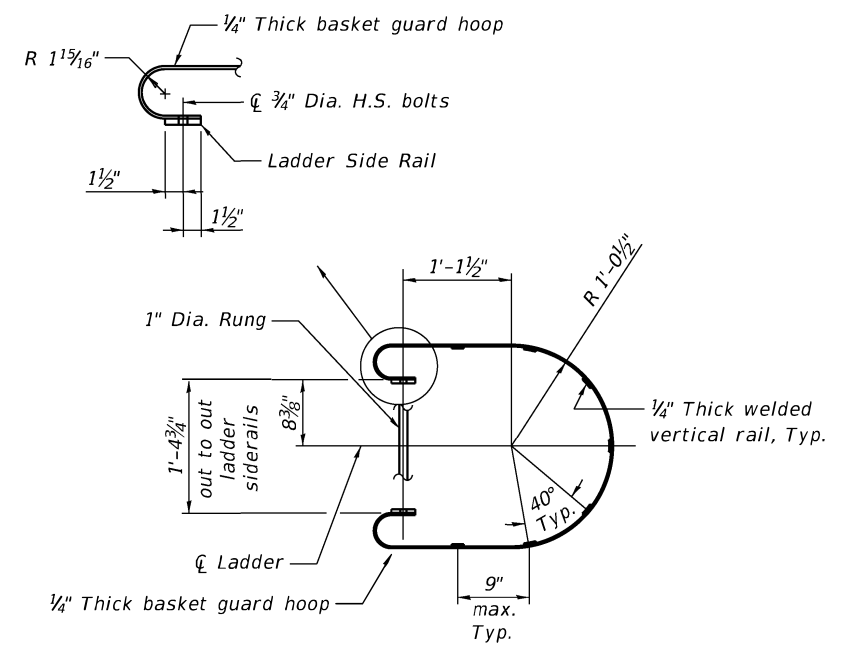
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F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	138DI(1-10)	ALEXANDER	16	15
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78964	

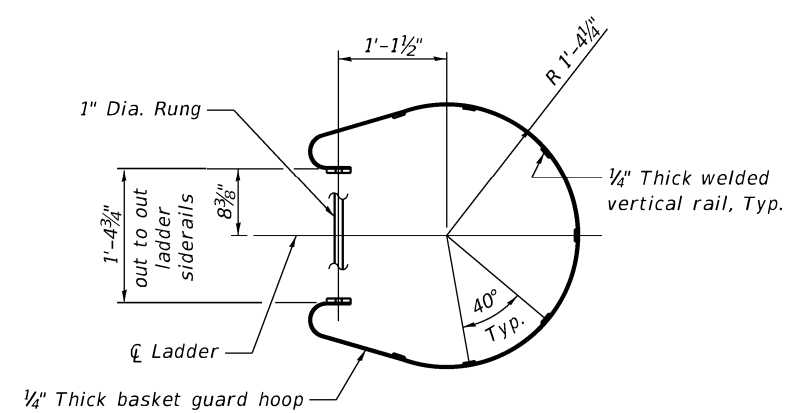
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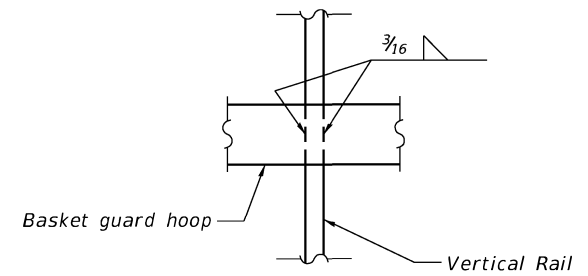
LADDER CAGE DETAIL



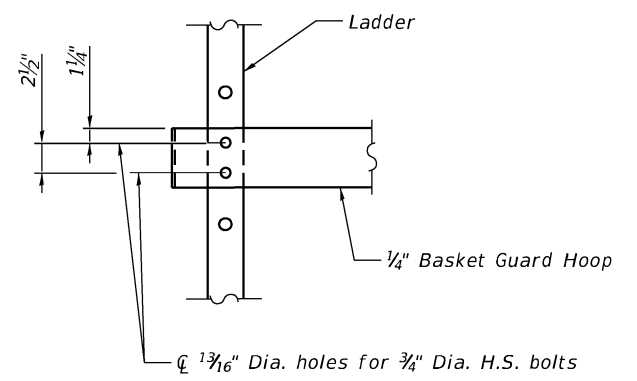
SECTION J-J



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 sheets 14 & 15.
- 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.

USER NAME = Ehren Kirby	DESIGNED - _____	REVISED - _____
PLOT SCALE = 100.0000' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = 4/7/2023	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

S.N. 002-0005 - VERTICAL MEMBER 51
LADDER ATTACHMENT DETAILS

SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	138DI(1-10)	ALEXANDER	16	16
			CONTRACT NO. 78964	
ILLINOIS FED. AID PROJECT				