

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55/70/64	82-1L-1	ST CLAIR	20	1
		ILLINOIS	CONTRACT NO. 76R94	

D-98-018-23



LOCATION OF SECTION INDICATED THIS: -

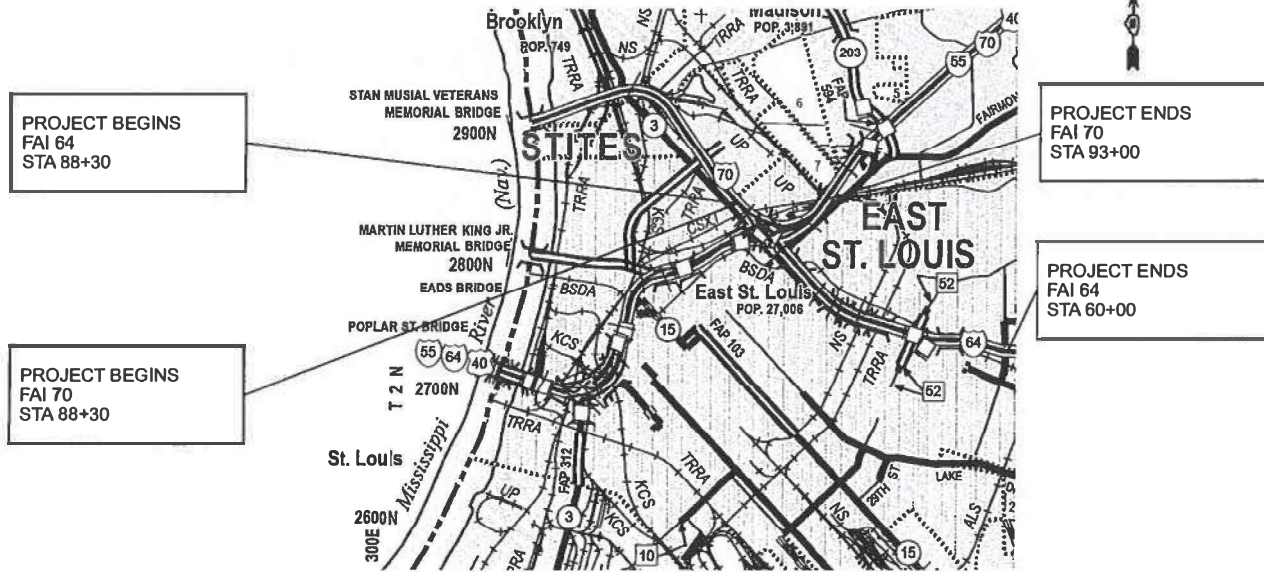
# PROPOSED HIGHWAY PLANS

F.A.I. ROUTE 55/70/64 (I-55/70/64)  
SECTION 82-1L-1  
PROJECT NHPP-AWOX(045)  
LIGHTING LUMINAIRE REPLACEMENT PLAN  
ST CLAIR COUNTY

C-98-061-23

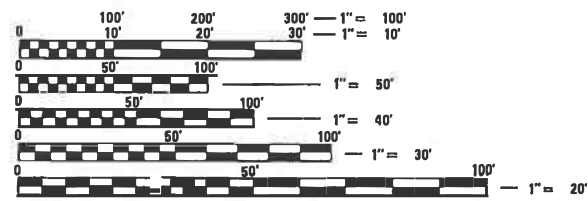
### TRAFFIC DATA

<b>I-55 SOUTH LEG</b>	<b>I-55- NORTH LEG</b>
2021 ADT = 105300 (ACTUAL)	2021 ADT = 67300 (ACTUAL)
2024 ADT = 113,500 (ESTIMATED)	2024 ADT = 70,400 (ESTIMATED)
2044 ADT = 146,000 (ESTIMATED)	2044 ADT = 90,500 (ESTIMATED)
SU = 2.4% MU = 7.5%	SU = 3.3% MU = 13.1%
<b>I-70- WEST LEG</b>	<b>I-64 - EAST LEG</b>
2021 ADT = 42000 (ACTUAL)	2021 ADT = 82900 (ACTUAL)
2024 ADT = 43,900 (ESTIMATED)	2024 ADT = 86,600 (ESTIMATED)
2044 ADT = 56,500 (ESTIMATED)	2044 ADT = 112,000 (ESTIMATED)
SU = 3.3% MU = 12.6%	SU = 3.0% MU = 9.3%



LOCATION MAP

EAST ST LOUIS  
ST CLAIR COUNTY



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: CHERYL KEPLAR  
PROJECT MANAGER: RICHARD BARBEE

CONTRACT NO. 76R94

GROSS LENGTH = 13,992 FT. = 2.65 MILE  
NET LENGTH = 13,992 FT. = 2.65 MILE

PROFESSIONAL ENGINEER'S SIGN & SEAL  
FOR SHEETS:  
*[Signature]*  
BRENDA D. LOWERY, P.E.  
EXPIRES 11-30-2025

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED *August 31, 2024*  
*[Signature]*  
REGIONAL ENGINEER

March 22, 2024  
*[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

March 22, 2024  
*[Signature]*  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

## INDEX OF SHEETS

1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS , GENERAL NOTES AND COMMITMENTS
3	SUMMARY OF QUANTITIES
4	LIGHTING GENERAL NOTES AND BILL OF MATERIALS
5-11	PROPOSED LIGHTING PLAN
12-17	PROPOSED UNDERPASS LIGHTING PLAN
18-19	SINGLE LINE DIAGRAM
20	LUMINAIRE PERFORMANCE TABLES

## COMMITMENTS

NONE

## HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
701400-12	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701406-13	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701428-01	TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
701451-05	RAMP CLOSURE FREEWAY/EXPRESSWAY
701901-09	TRAFFIC CONTROL DEVICES
821001	UNDERPASS LIGHTING WALL MOUNT
821006	UNDERPASS LIGHTING SUSPENDED
821101-02	LUMINAIRE WIRING IN POLE

## GENERAL NOTES

- ANY NOTIFICATION TO ANY AGENCY MUST BE MADE THROUGH THE CONSTRUCTION MANAGER. NOTIFICATION SHALL BE MADE TO THE AGENCIES AND UTILITIES AT LEAST 10 DAYS PRIOR TO ANY CONSTRUCTION IN THE AREA AND SHALL COMPLY WITH ALL RESTRICTIONS FOR EQUIPMENT MOVEMENTS AND CLEARANCES IN REGARDS TO THEIR FACILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF ALL EMERGENCY SERVICE, PUBLIC WORKS DEPARTMENTS AND OTHER AGENCIES AFFECTED BY THE CONTRACTOR'S WORK.
- ILLINOIS STATE LAW REQUIRES A 48 HOUR NOTICE BE GIVEN TO UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY.

UTILITIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA:

AMEREN ILLINOIS ELECTRIC  
 AT&T  
 BI-STATE DEVELOPMENT AGENCY  
 CHARTER/SPECTRUM COMM  
 CITY OF EAST ST. LOUIS  
 CLEARWAVE COMMUNICATIONS  
 IL AMERICAN WATER EAST ST. LOUIS  
 LEVEL 3 (CENTURYLINK)  
 MCI/VERIZON  
 MEDIACOM  
 SPIRE NGL INC  
 STAKE CENTER LOCATING  
 USIC LOCATING SERVICES  
 WINDSTREAM KDL/MCLEOD USA  
 ZAYO FIBER SOLUTIONS

- THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.
- THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUBCONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM IT'S FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSE WORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ECT,) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 619-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN THE MEETING WORKFORCE AND TRAINEE GOALS.

REV. - MS

MODEL: I:\MODEL\IAMES  
 FILE NAME: D:\2024\I-55-light-notes.dgn



USER NAME = mdelitche	DESIGNED - BL	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - MD	REVISED -
PLOT DATE = 1/25/2024	CHECKED - MH	REVISED -
	DATE - 01/19/24	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES & COMMITMENTS**  
**I-55 /70 /64 INTERCHANGE (TRI-LEVEL)**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	2
CONTRACT NO. 76R94				
ILLINOIS FED. AID PROJECT				

\*55/70/64

CODE NO.	I T E M	UNI T	TOTAL QUANTI TY	CONSTR. CODE	
				90% FED 10% STATE	ST. CLAI R 0021 URBAN
67100100	MOBILIZATION	L SUM	1		1
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1		1
70100820	TRAFFIC CONTROL AND PROTECTION, STANDARD 701451	L SUM	1		1
81100454	CONDUIT ATTACHED TO STRUCTURE, 1" DIA, STAINLESS STEEL	FOOT	84		84
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	252		252
82110008	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	27		27
82110016	LUMINAIRE, LED, HIGHMAST, OUTPUT DESIGNATION I	EACH	110		110
82110019	LUMINAIRE, LED, UNDERPASS, WALLMOUNT, OUTPUT DESIGNATION A	EACH	14		14
82110029	LUMINAIRE, LED, UNDERPASS, SUSPENDED, OUTPUT DESIGNATION A	EACH	30		30
X1400267	REMOVAL OF LIGHTING LUMINAIRE, NO SALVAGE	EACH	27		27
X1400273	REMOVAL OF EXISTING TOWER LUMINAIRE, NO SALVAGE	EACH	109		109

REV. - MS

MODEL: MODELNAME  
CONSULTING ENGINEERS  
FILE NAME: D:\BIB\BIB.dwg

**AMES Engineering, Inc.**  
CONSULTING ENGINEERS  
6330 Sefroni Road, Suite 4B  
Downers Grove, IL 60516

USER NAME = mdeltche	DESIGNED - BL	REVISED -
	DRAWN - MD	REVISED -
PLOT SCALE = \$\$SCALE\$	CHECKED - MH	REVISED -
PLOT DATE = 1/25/2024	DATE - 01/19/24	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
I-55 /70 /64 INTERCHANGE (TRI-LEVEL)**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	3
CONTRACT NO. 76R94				
ILLINOIS FED. AID PROJECT				

\*55/70/64

### LIGHTING GENERAL NOTES

1. MAINTENANCE OF THE EXISTING LIGHTING SYSTEMS CONNECTED TO CONTROLLER "1" AND CONTROLLER "25" OWNED BY IDOT SHALL BE TRANSFERRED TO THE CONTRACTOR PRIOR TO THE BEGINNING OF ANY WORK.
2. THE CONTRACTOR SHALL PLAN TO SHUT DOWN THE INDIVIDUAL CIRCUITS WHERE THE LUMINAIRES WILL BE REPLACED IN ORDER TO MINIMIZE TIME FROM DUSK TO DAWN WHEN THE LIGHTING WILL BE SHUT DOWN. THE ENTIRE LIGHTING CONTROLLER SHALL NOT BE SHUT DOWN AT ONE TIME FROM DUSK TO DAWN UNLESS APPROVED BY THE ENGINEER.
3. THERE ARE LOCATIONS WHERE EXISTING ROADWAY LUMINAIRES AND UNDERPASS LUMINAIRES ALONG THE ROADWAY AND RAMP ARE ON THE SAME CIRCUIT. THE CONTRACTOR SHALL COORDINATE LANE AND SHOULDER CLOSURES IN ORDER TO MINIMIZE TIME FROM DUSK TO DAWN WHEN THE CIRCUIT WILL BE SHUT DOWN IN ORDER TO MAINTAIN LIGHTING FROM DUSK TO DAWN.
4. LIGHTING SYSTEM INSTALLATION SHALL CONFORM TO THE LATEST IDOT STANDARDS AND NEC.
5. ALL ELECTRICAL EQUIPMENT AND PRODUCTS SHALL BE UL LISTED AND LABELED.

### BILL OF MATERIALS

DESCRIPTION	UNIT	QUANTITY
CONDUIT ATTACHED TO STRUCTURE, 1" DIA., STAINLESS STEEL	FOOT	84
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	252
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	27
LUMINAIRE, LED, HIGHMAST, OUTPUT DESIGNATION I	EACH	110
LUMINAIRE, LED, UNDERPASS, WALLMOUNT, OUTPUT DESIGNATION A	EACH	14
LUMINIARE, LED, UNDERPASS, SUSPENDED, OUTPUT DESIGNATION A	EACH	30
REMOVAL OF LIGHTING LUMINAIRE, NO SALVAGE	EACH	27
REMOVAL OF EXISTING TOWER LUMINAIRE, NO SALVAGE	EACH	109

### HIGHWAY STANDARD

821001	UNDERPASS LIGHTING WALL MOUNT
821006	UNDERPASS LIGHTING SUSPENDED
821101-02	LUMINAIRE WIRING IN POLE

MODEL: 41MODELNAME  
FILE NAME: D:\projects\lighting\notes and bill of material.dgn



USER NAME = mdeltche	DESIGNED - BL	REVISED -
	DRAWN - MD	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - MH	REVISED -
PLOT DATE = 2/22/2024	DATE - 01/19/24	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**


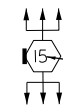


**LIGHTING GENERAL NOTES AND BILL OF MATERIALS  
I-55 /70 /64 INTERCHANGE (TRI-LEVEL)**

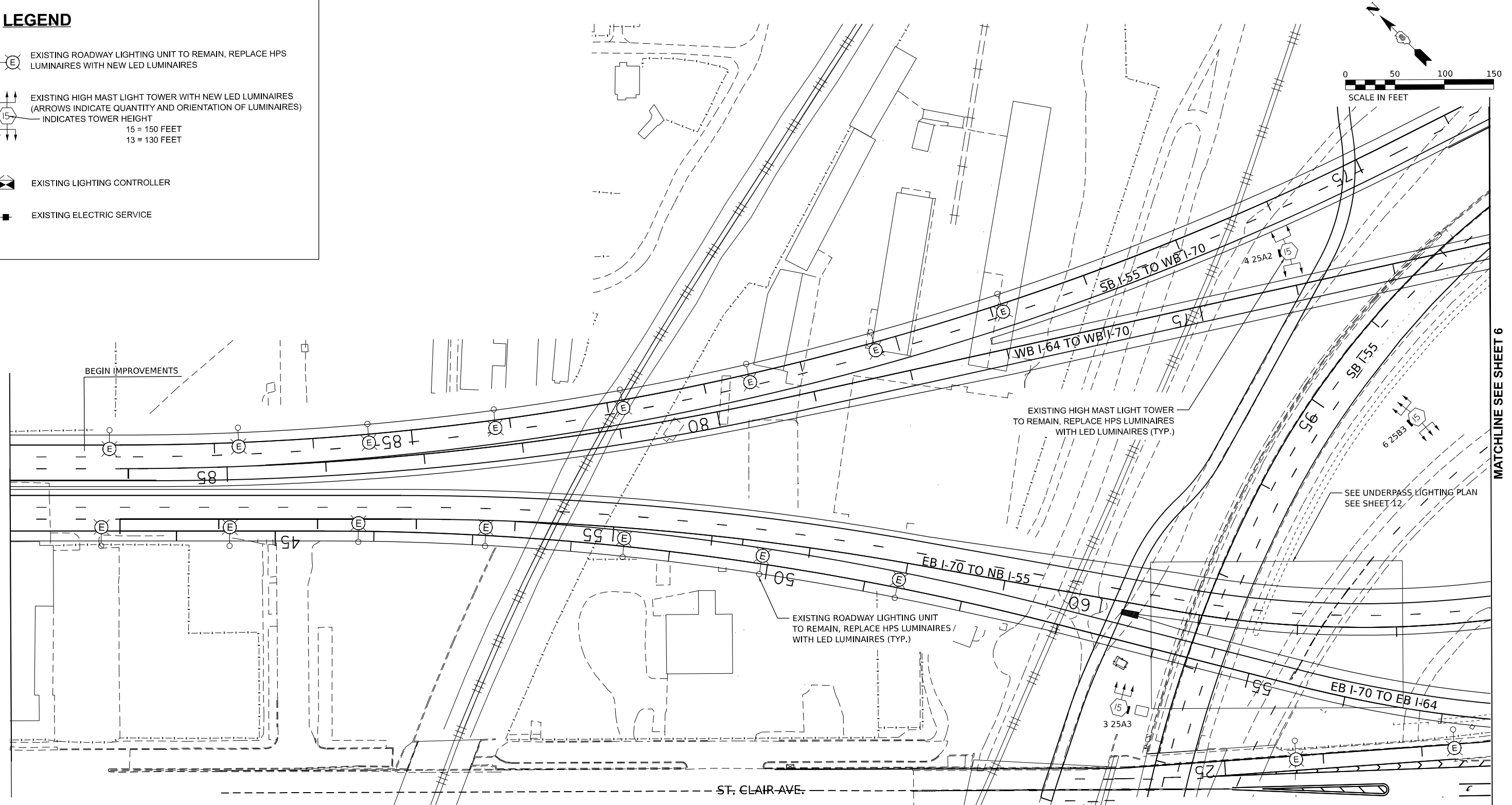
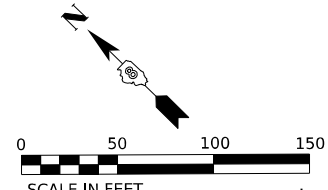
SCALE: NONE    SHEET 1 OF 1 SHEETS    STA.    TO STA.

F.A. I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	4
CONTRACT NO. 76R94				
		ILLINOIS	FED. AID PROJECT	

\*55/70/64

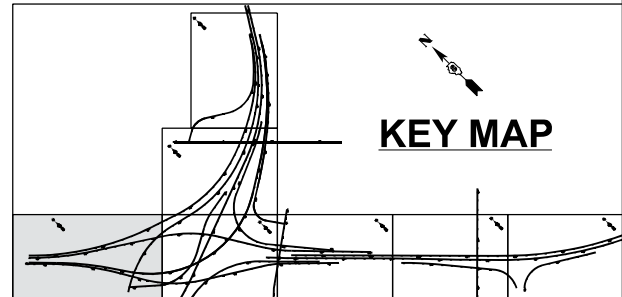
**LEGEND**

-  EXISTING ROADWAY LIGHTING UNIT TO REMAIN, REPLACE HPS LUMINAIRES WITH NEW LED LUMINAIRES
-  EXISTING HIGH MAST LIGHT TOWER WITH NEW LED LUMINAIRES (ARROWS INDICATE QUANTITY AND ORIENTATION OF LUMINAIRES) INDICATES TOWER HEIGHT  
15 = 150 FEET  
13 = 130 FEET
-  EXISTING LIGHTING CONTROLLER
-  EXISTING ELECTRIC SERVICE



MATCHLINE SEE SHEET 6

- NOTES:**
1. SEE LIGHTING GENERAL NOTES ON SHEET NO. 2.
  2. THE EXISTING 750W HPS HIGH MAST AND THE 250W HPS ROADWAY LUMINAIRES TO BE REMOVED SHALL NOT BE SALVAGED.
  3. THE REMOVAL AND REPLACEMENT OF LUMINAIRES SHALL BE SUCH THAT LIGHTING IS PROVIDED EACH NIGHT FROM DUSK TO DAWN.
  4. THE PROPOSED LED LUMINAIRES FOR THE HIGH MAST TOWERS AND FOR THE STANDARD ROADWAY LIGHTING UNITS SHALL BE 480V.
  5. THE NEW LED LUMINAIRES SHALL HAVE THE SAME ORIENTATION AS THE HPS LUMINAIRES THEY ARE REPLACING.
  6. SPLICING AND RECONNECTION OF THE NEW LED LUMINAIRES IS INCLUDED IN THE COST OF THE LUMINAIRE PAY ITEMS: HIGH MAST (82110016) AND ROADWAY (82110008).



MODEL: 4100ELMAMES  
FILE NAME: D:\76694-3-light.dgn

**AMES Engineering, Inc.**  
CONSULTING ENGINEERS  
6330 Belmont Road, Suite 4B  
Downers Grove, IL 60516

USER NAME = mdeltche	DESIGNED - BL	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - MD	REVISED -
PLOT DATE = 2/22/2024	CHECKED - MH	REVISED -
	DATE - 01/19/24	REVISED -

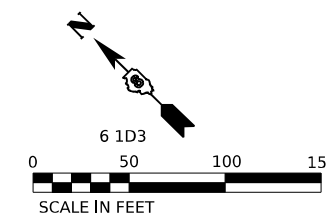
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLAN  
I-55 /70 /64 INTERCHANGE (TRI-LEVEL)**  
SCALE: 1"=50' SHEET 1 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	5
CONTRACT NO. 76R94				
ILLINOIS FED. AID PROJECT				

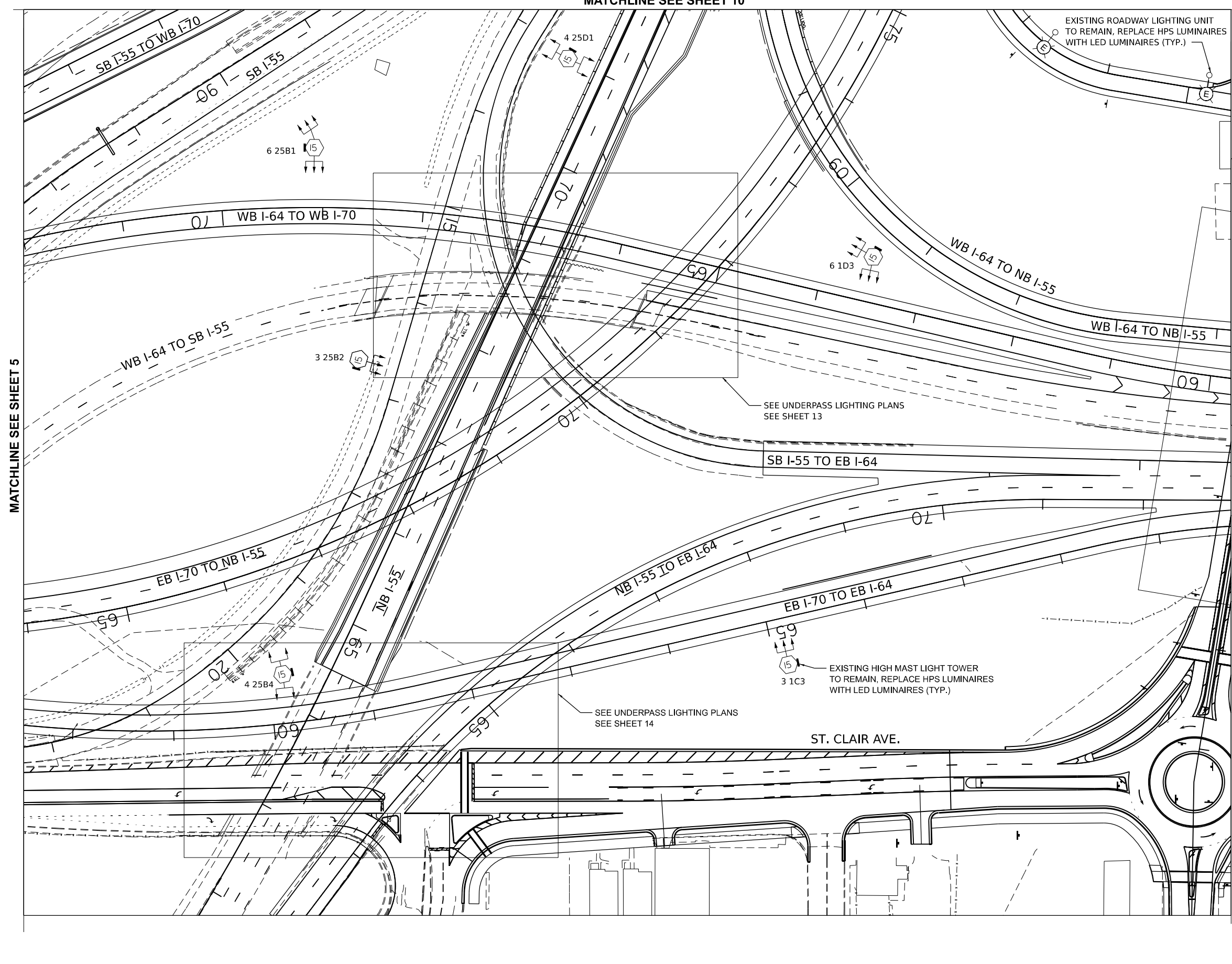


MATCHLINE SEE SHEET 10



MATCHLINE SEE SHEET 5

MATCHLINE SEE SHEET 7

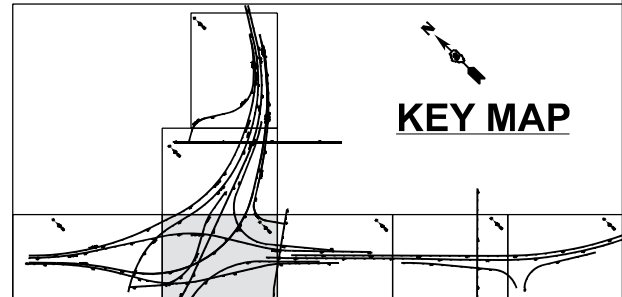


**LEGEND**

- EXISTING ROADWAY LIGHTING UNIT TO REMAIN, REPLACE HPS LUMINAIRES WITH NEW LED LUMINAIRES
- EXISTING HIGH MAST LIGHT TOWER WITH NEW LED LUMINAIRES (ARROWS INDICATE QUANTITY AND ORIENTATION OF LUMINAIRES) INDICATES TOWER HEIGHT  
15 = 150 FEET  
13 = 130 FEET
- EXISTING LIGHTING CONTROLLER
- EXISTING ELECTRIC SERVICE

**NOTES:**

1. SEE LIGHTING GENERAL NOTES ON SHEET NO. 2.
2. THE EXISTING 750W HPS HIGH MAST AND THE 250W HPS ROADWAY LUMINAIRES TO BE REMOVED SHALL NOT BE SALVAGED.
3. THE REMOVAL AND REPLACEMENT OF LUMINAIRES SHALL BE SUCH THAT LIGHTING IS PROVIDED EACH NIGHT FROM DUSK TO DAWN.
4. THE PROPOSED LED LUMINAIRES FOR THE HIGH MAST TOWERS AND FOR THE STANDARD ROADWAY LIGHTING UNITS SHALL BE 480V.
5. THE NEW LED LUMINAIRES SHALL HAVE THE SAME ORIENTATION AS THE HPS LUMINAIRES THEY ARE REPLACING.
6. SPLICING AND RECONNECTION OF THE NEW LED LUMINAIRES IS INCLUDED IN THE COST OF THE LUMINAIRE PAY ITEMS: HIGH MAST (82110016) AND ROADWAY (82110008).



MODEL: 414001.DWG  
FILE NAME: D:\76994\light.dwg

**AMES Engineering, Inc.**  
CONSULTING ENGINEERS  
6330 Belmont Road, Suite 4B  
Downers Grove, IL 60516

USER NAME = mdeltche	DESIGNED - BL	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - MD	REVISED -
PLOT DATE = 2/22/2024	CHECKED - MH	REVISED -
	DATE - 01/19/24	REVISED -

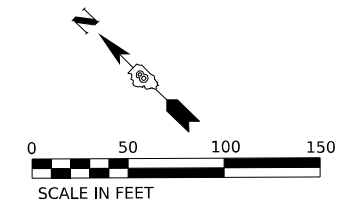
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLAN  
I-55 / 70 / 64 INTERCHANGE (TRI-LEVEL)**

SCALE: 1"=50' SHEET 2 OF 7 SHEETS STA. TO STA.

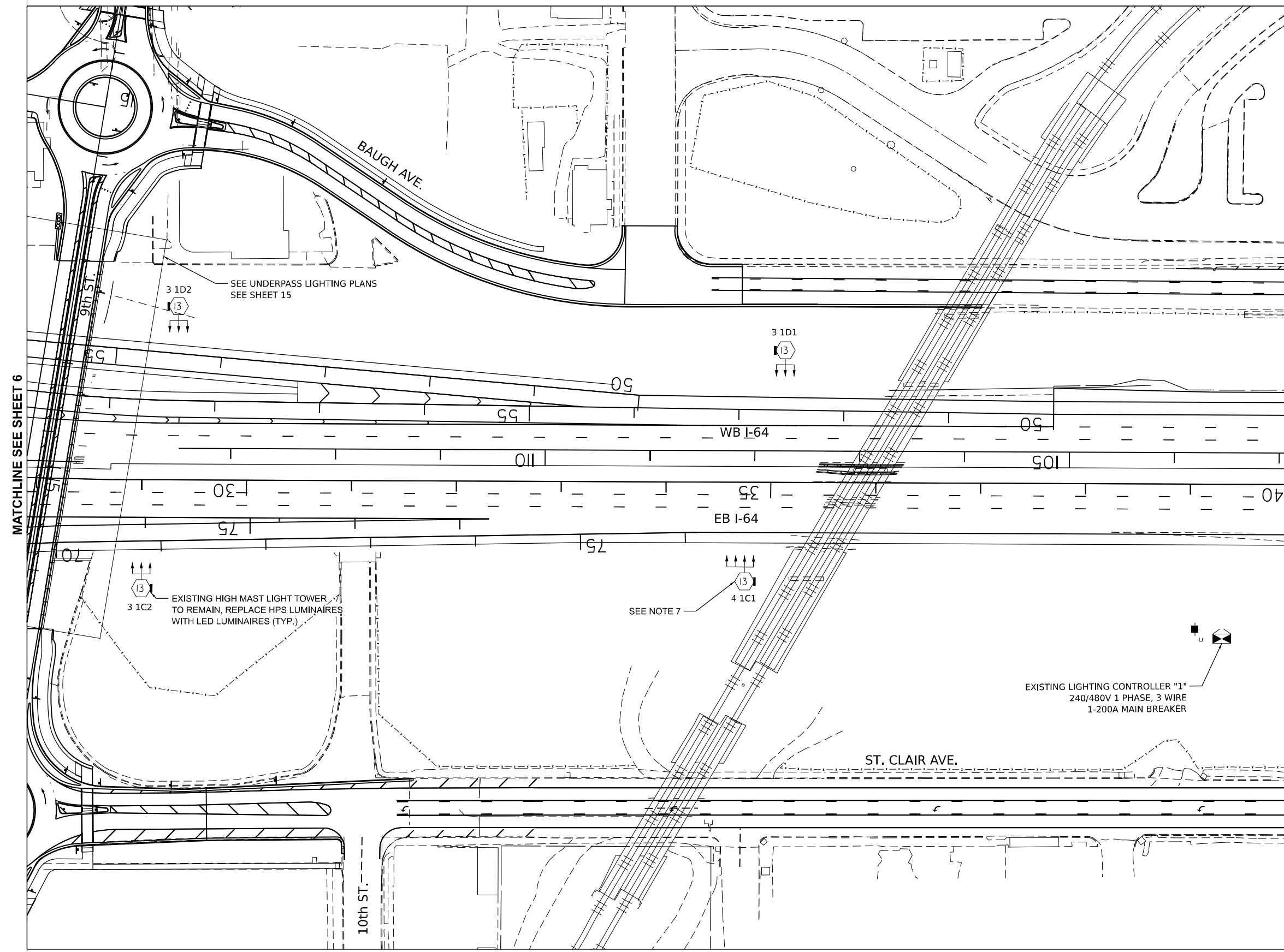
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	6
CONTRACT NO. 76R94				

ILLINOIS FED. AID PROJECT  
\*55/70/64



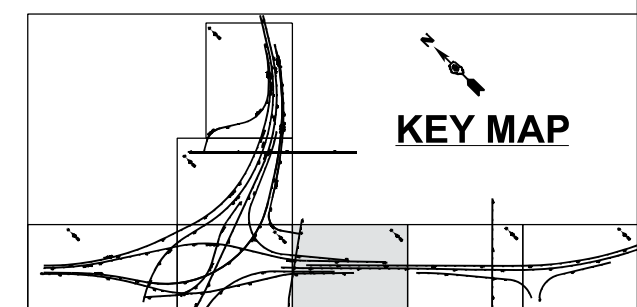
**LEGEND**

- EXISTING ROADWAY LIGHTING UNIT TO REMAIN, REPLACE HPS LUMINAIRES WITH NEW LED LUMINAIRES
- EXISTING HIGH MAST LIGHT TOWER WITH NEW LED LUMINAIRES (ARROWS INDICATE QUANTITY AND ORIENTATION OF LUMINAIRES) INDICATES TOWER HEIGHT  
15 = 150 FEET  
13 = 130 FEET
- EXISTING LIGHTING CONTROLLER
- EXISTING ELECTRIC SERVICE



**NOTES:**

1. SEE LIGHTING GENERAL NOTES ON SHEET NO. 2.
2. THE EXISTING 750W HPS HIGH MAST AND THE 250W HPS ROADWAY LUMINAIRES TO BE REMOVED SHALL NOT BE SALVAGED.
3. THE REMOVAL AND REPLACEMENT OF LUMINAIRES SHALL BE SUCH THAT LIGHTING IS PROVIDED EACH NIGHT FROM DUSK TO DAWN.
4. THE PROPOSED LED LUMINAIRES FOR THE HIGH MAST TOWERS AND FOR THE STANDARD ROADWAY LIGHTING UNITS SHALL BE 480V.
5. THE NEW LED LUMINAIRES SHALL HAVE THE SAME ORIENTATION AS THE HPS LUMINAIRES THEY ARE REPLACING.
6. SPLICING AND RECONNECTION OF THE NEW LED LUMINAIRES IS INCLUDED IN THE COST OF THE LUMINAIRE PAY ITEMS: HIGH MAST (82110016) AND ROADWAY (82110008).
7. AN ADDITIONAL LED LUMINAIRE HAS BEEN ADDED TO THIS HIGH MAST LIGHTING TOWER.



**KEY MAP**

MODEL: 4100ELUMAINES  
FILE NAME: D:\76694-3-light.dgn

**AMES Engineering, Inc.**  
CONSULTING ENGINEERS  
6320 Belmont Road, Suite 4B  
Downers Grove, IL 60516

USER NAME = mdeltche	DESIGNED - BL	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - MD	REVISED -
PLOT DATE = 2/22/2024	CHECKED - MH	REVISED -
	DATE - 01/19/24	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

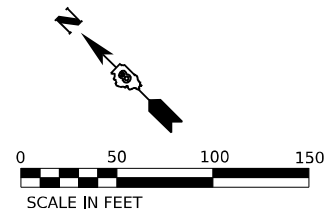
**PROPOSED LIGHTING PLAN  
I-55 /70 /64 INTERCHANGE (TRI-LEVEL)**

SCALE: 1"=50' SHEET 3 OF 7 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	7

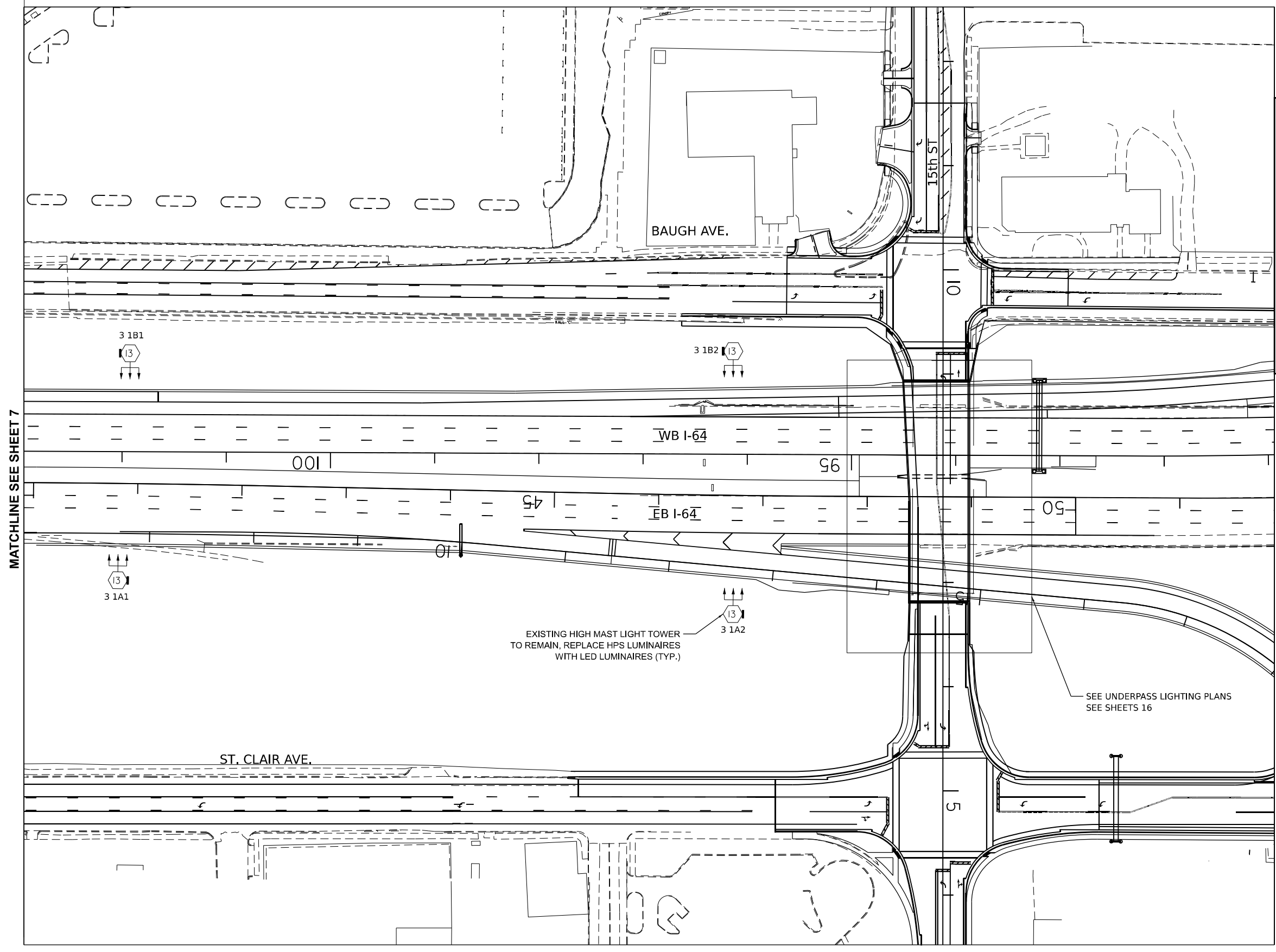
CONTRACT NO. 76R94  
ILLINOIS FED. AID PROJECT

\*55/70/64



**LEGEND**

- EXISTING ROADWAY LIGHTING UNIT TO REMAIN, REPLACE HPS LUMINAIRES WITH NEW LED LUMINAIRES
- EXISTING HIGH MAST LIGHT TOWER WITH NEW LED LUMINAIRES (ARROWS INDICATE QUANTITY AND ORIENTATION OF LUMINAIRES)  
 INDICATES TOWER HEIGHT  
 15 = 150 FEET  
 13 = 130 FEET
- EXISTING LIGHTING CONTROLLER
- EXISTING ELECTRIC SERVICE

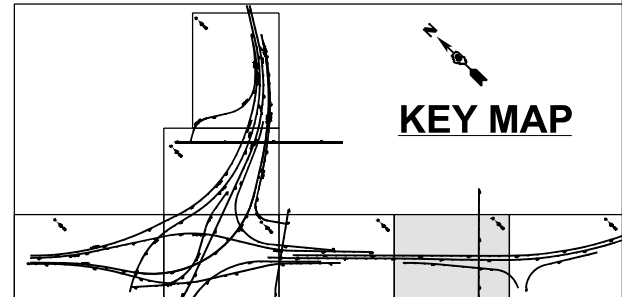


EXISTING HIGH MAST LIGHT TOWER TO REMAIN, REPLACE HPS LUMINAIRES WITH LED LUMINAIRES (TYP.)

SEE UNDERPASS LIGHTING PLANS SEE SHEETS 16

**NOTES:**

1. SEE LIGHTING GENERAL NOTES ON SHEET NO. 2.
2. THE EXISTING 750W HPS HIGH MAST AND THE 250W HPS ROADWAY LUMINAIRES TO BE REMOVED SHALL NOT BE SALVAGED.
3. THE REMOVAL AND REPLACEMENT OF LUMINAIRES SHALL BE SUCH THAT LIGHTING IS PROVIDED EACH NIGHT FROM DUSK TO DAWN.
4. THE PROPOSED LED LUMINAIRES FOR THE HIGH MAST TOWERS AND FOR THE STANDARD ROADWAY LIGHTING UNITS SHALL BE 480V.
5. THE NEW LED LUMINAIRES SHALL HAVE THE SAME ORIENTATION AS THE HPS LUMINAIRES THEY ARE REPLACING.
6. SPLICING AND RECONNECTION OF THE NEW LED LUMINAIRES IS INCLUDED IN THE COST OF THE LUMINAIRE PAY ITEMS: HIGH MAST (82110016) AND ROADWAY (82110008).



MODEL: 41002LUMS FILE NAME: DPT6684-light.dgn

**AMES Engineering, Inc.**  
CONSULTING ENGINEERS  
6330 Belmont Road, Suite 4B  
Downers Grove, IL 60516

USER NAME = mdeltche	DESIGNED - BL	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - MD	REVISED -
PLOT DATE = 2/22/2024	CHECKED - MH	REVISED -
	DATE - 01/19/24	REVISED -

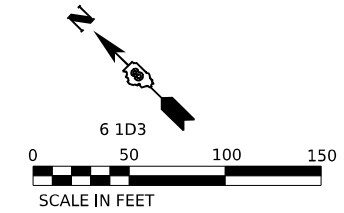
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLAN  
I-55 /70 /64 INTERCHANGE (TRI-LEVEL)**  
SCALE: 1"=50' SHEET 4 OF 7 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	8

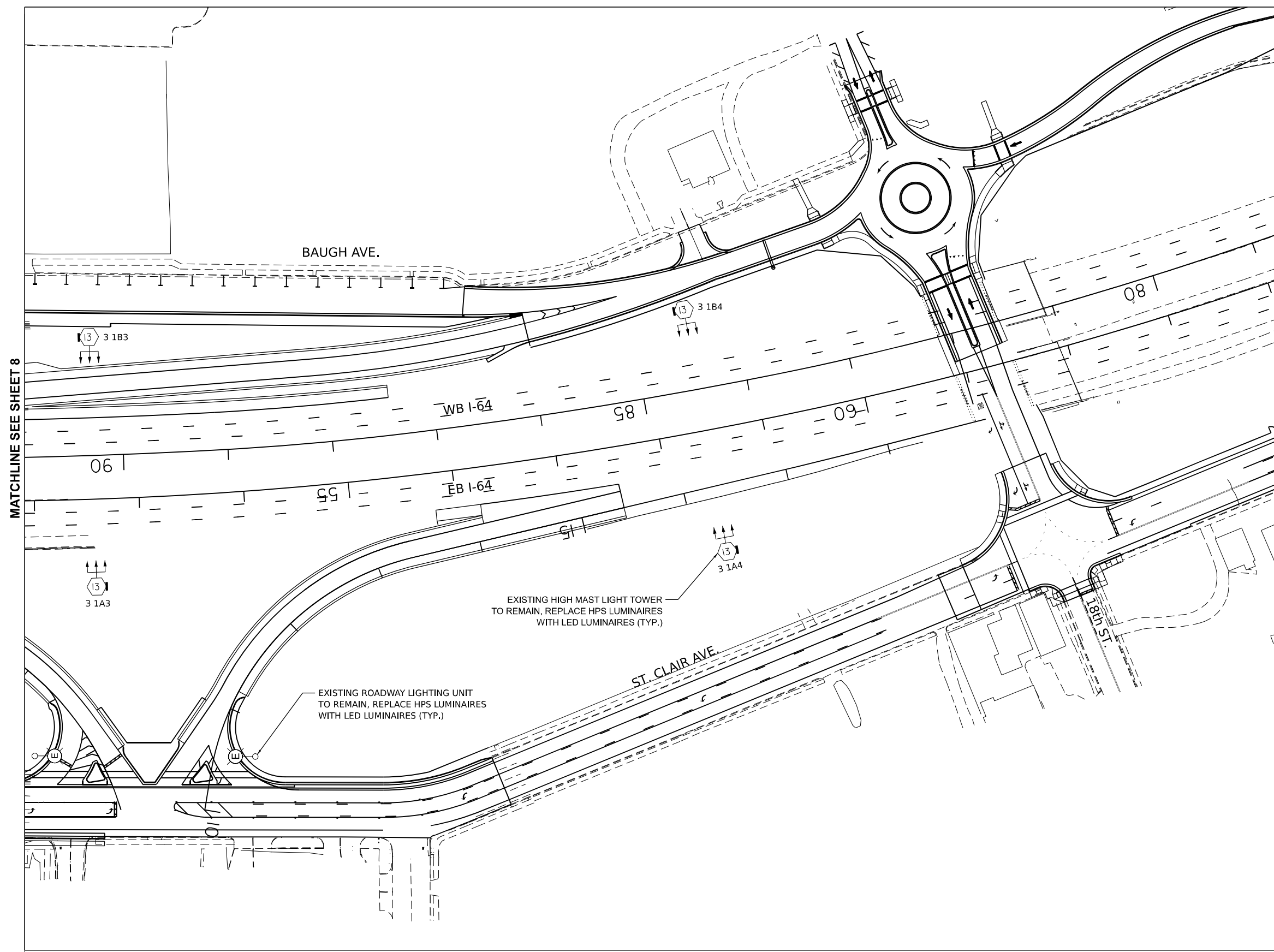
CONTRACT NO. 76R94  
ILLINOIS FED. AID PROJECT  
\*55/70/64





**LEGEND**

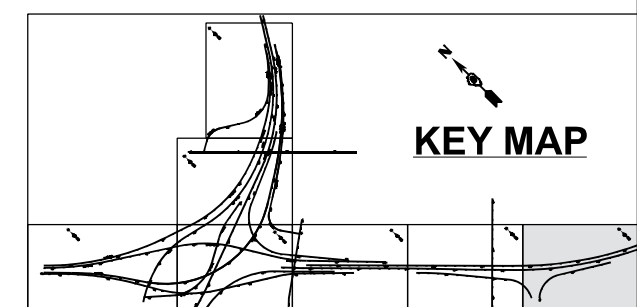
- EXISTING ROADWAY LIGHTING UNIT TO REMAIN, REPLACE HPS LUMINAIRES WITH NEW LED LUMINAIRES
- EXISTING HIGH MAST LIGHT TOWER WITH NEW LED LUMINAIRES (ARROWS INDICATE QUANTITY AND ORIENTATION OF LUMINAIRES)  
INDICATES TOWER HEIGHT  
15 = 150 FEET  
13 = 130 FEET
- EXISTING LIGHTING CONTROLLER
- EXISTING ELECTRIC SERVICE



MATCHLINE SEE SHEET 8

**NOTES:**

1. SEE LIGHTING GENERAL NOTES ON SHEET NO. 2.
2. THE EXISTING 750W HPS HIGH MAST AND THE 250W HPS ROADWAY LUMINAIRES TO BE REMOVED SHALL NOT BE SALVAGED.
3. THE REMOVAL AND REPLACEMENT OF LUMINAIRES SHALL BE SUCH THAT LIGHTING IS PROVIDED EACH NIGHT FROM DUSK TO DAWN.
4. THE PROPOSED LED LUMINAIRES FOR THE HIGH MAST TOWERS AND FOR THE STANDARD ROADWAY LIGHTING UNITS SHALL BE 480V.
5. THE NEW LED LUMINAIRES SHALL HAVE THE SAME ORIENTATION AS THE HPS LUMINAIRES THEY ARE REPLACING.
6. SPLICING AND RECONNECTION OF THE NEW LED LUMINAIRES IS INCLUDED IN THE COST OF THE LUMINAIRE PAY ITEMS: HIGH MAST (82110016) AND ROADWAY (82110008).



**KEY MAP**

MODEL: 4100ELUMAINES  
FILE NAME: D:\76694-2-light.dgn

**AMES Engineering, Inc.**  
CONSULTING ENGINEERS  
6330 Belmont Road, Suite 4B  
Downers Grove, IL 60516

USER NAME = mdeltche	DESIGNED - BL	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - MD	REVISED -
PLOT DATE = 2/22/2024	CHECKED - MH	REVISED -
	DATE - 01/19/24	REVISED -

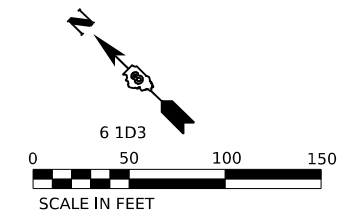
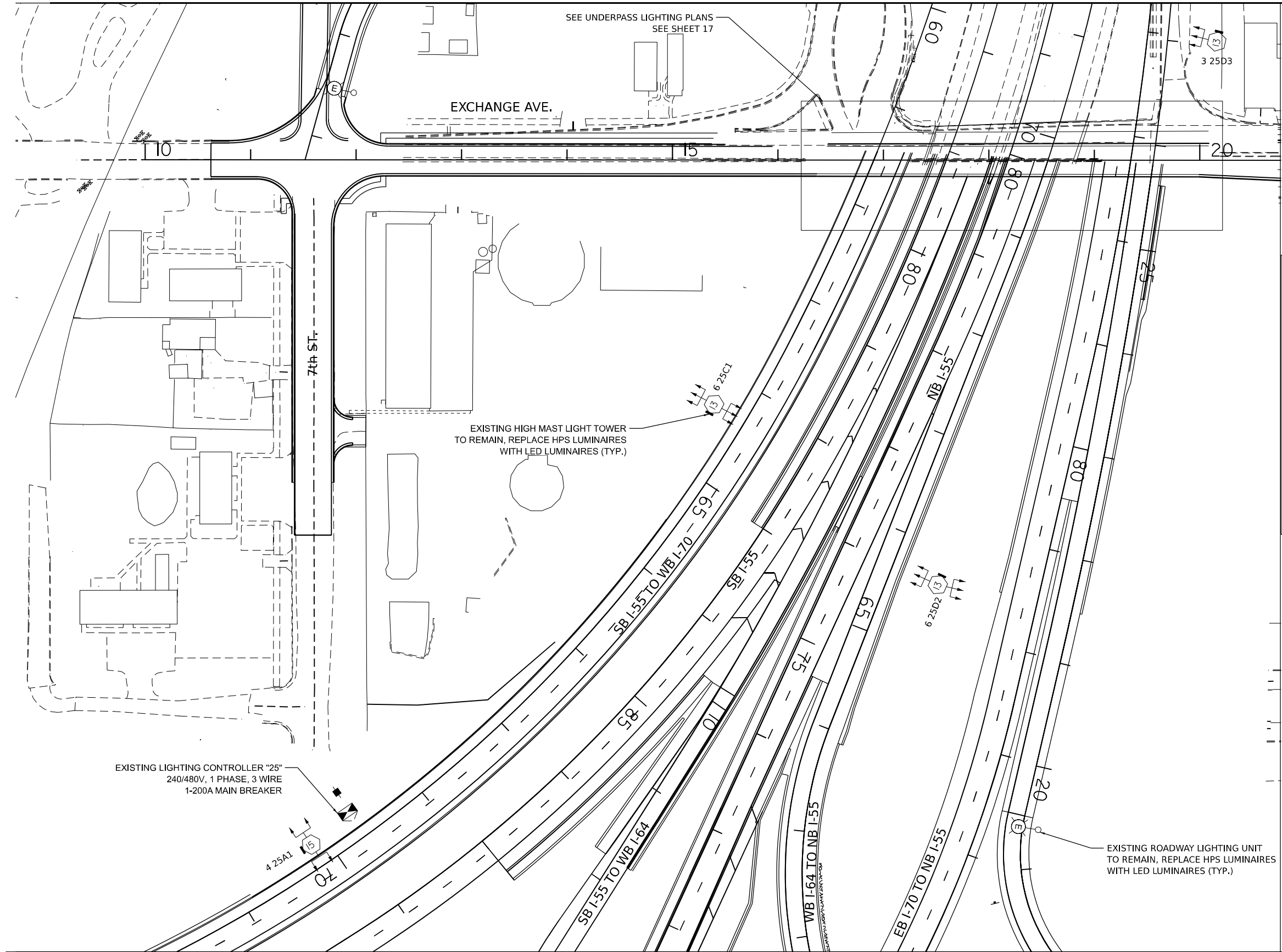
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLAN  
I-55 / 70 / 64 INTERCHANGE (TRI-LEVEL)**  
SCALE: 1"=50' SHEET 5 OF 7 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	9

CONTRACT NO. 76R94  
ILLINOIS FED. AID PROJECT  
\*55/70/64

MATCHLINE SEE SHEET 11

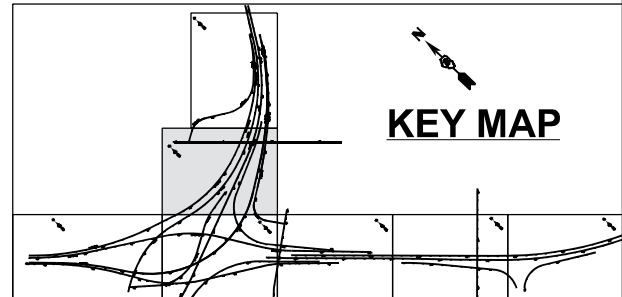


**LEGEND**

- EXISTING ROADWAY LIGHTING UNIT TO REMAIN, REPLACE HPS LUMINAIRES WITH NEW LED LUMINAIRES
- EXISTING HIGH MAST LIGHT TOWER WITH NEW LED LUMINAIRES (ARROWS INDICATE QUANTITY AND ORIENTATION OF LUMINAIRES) INDICATES TOWER HEIGHT  
15 = 150 FEET  
13 = 130 FEET
- EXISTING LIGHTING CONTROLLER
- EXISTING ELECTRIC SERVICE

**NOTES:**

1. SEE LIGHTING GENERAL NOTES ON SHEET NO. 2.
2. THE EXISTING 750W HPS HIGH MAST AND THE 250W HPS ROADWAY LUMINAIRES TO BE REMOVED SHALL NOT BE SALVAGED.
3. THE REMOVAL AND REPLACEMENT OF LUMINAIRES SHALL BE SUCH THAT LIGHTING IS PROVIDED EACH NIGHT FROM DUSK TO DAWN.
4. THE PROPOSED LED LUMINAIRES FOR THE HIGH MAST TOWERS AND FOR THE STANDARD ROADWAY LIGHTING UNITS SHALL BE 480V.
5. THE NEW LED LUMINAIRES SHALL HAVE THE SAME ORIENTATION AS THE HPS LUMINAIRES THEY ARE REPLACING.
6. SPLICING AND RECONNECTION OF THE NEW LED LUMINAIRES IS INCLUDED IN THE COST OF THE LUMINAIRE PAY ITEMS: HIGH MAST (82110016) AND ROADWAY (82110008).



MATCHLINE SEE SHEET 6

MODEL: 41MODELNAME  
FILE NAME: D:\76694\light.dgn

**AMES Engineering, Inc.**  
CONSULTING ENGINEERS  
6330 Belmont Road, Suite 4B  
Downers Grove, IL 60516

USER NAME = mdeltche	DESIGNED - BL	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - MD	REVISED -
PLOT DATE = 2/22/2024	CHECKED - MH	REVISED -
	DATE - 01/19/24	REVISED -

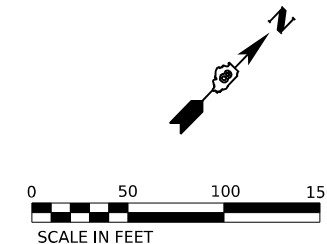
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLAN  
I-55 /70 /64 INTERCHANGE (TRI-LEVEL)**

SCALE: 1"=50' SHEET 6 OF 7 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	10
CONTRACT NO. 76R94				
ILLINOIS FED. AID PROJECT				

\*55/70/64

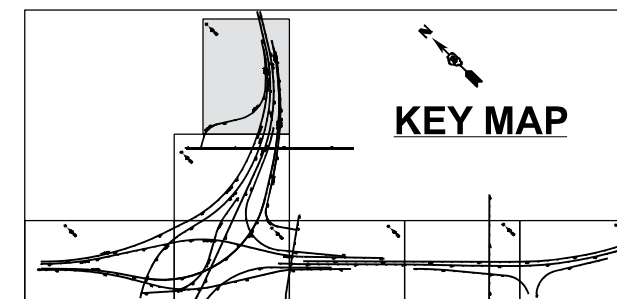


**LEGEND**

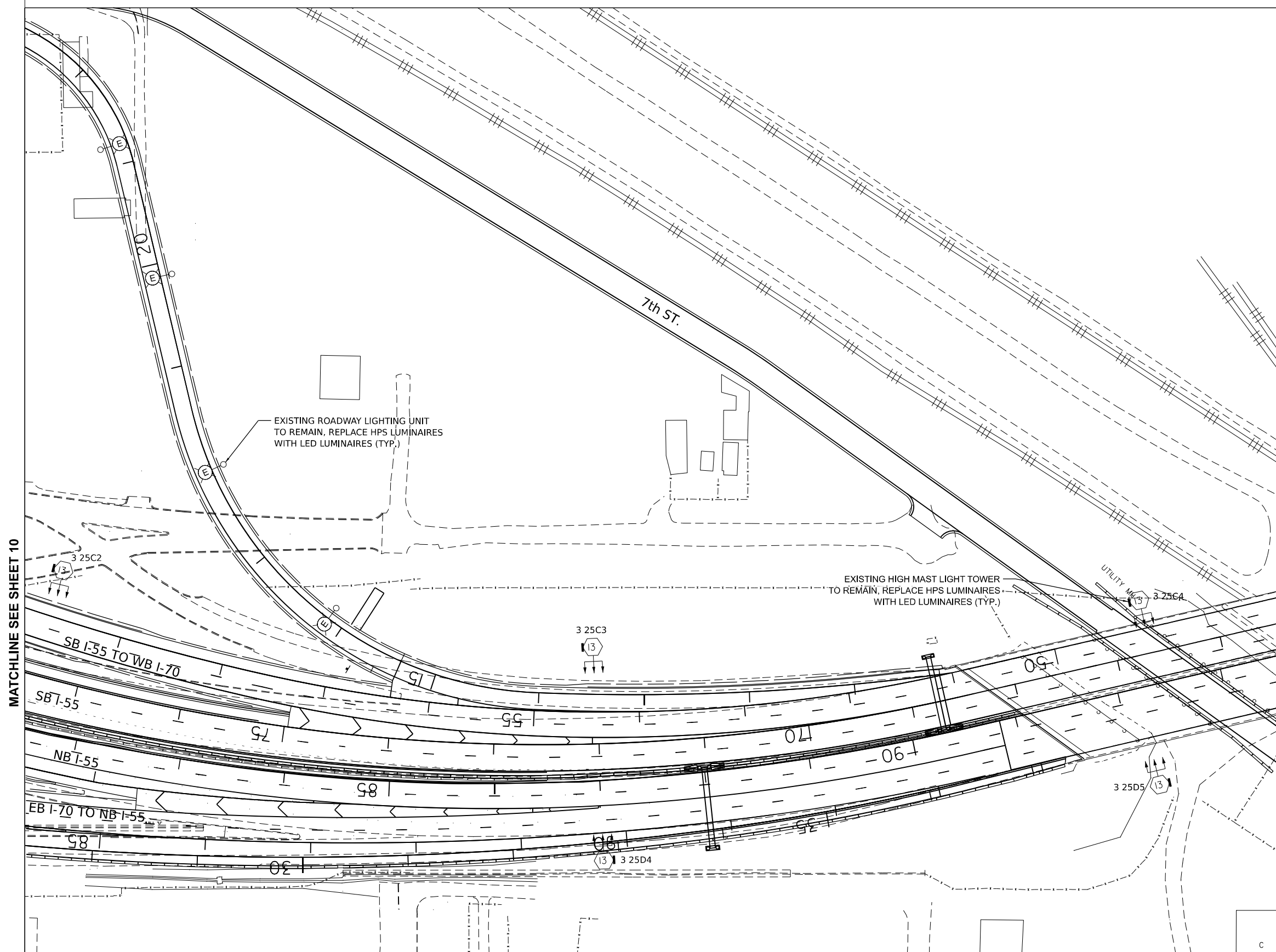
- EXISTING ROADWAY LIGHTING UNIT TO REMAIN, REPLACE HPS LUMINAIRES WITH NEW LED LUMINAIRES
- EXISTING HIGH MAST LIGHT TOWER WITH NEW LED LUMINAIRES (ARROWS INDICATE QUANTITY AND ORIENTATION OF LUMINAIRES)  
INDICATES TOWER HEIGHT  
15 = 150 FEET  
13 = 130 FEET
- EXISTING LIGHTING CONTROLLER
- EXISTING ELECTRIC SERVICE

**NOTES:**

1. SEE LIGHTING GENERAL NOTES ON SHEET NO. 2.
2. THE EXISTING 750W HPS HIGH MAST AND THE 250W HPS ROADWAY LUMINAIRES TO BE REMOVED SHALL NOT BE SALVAGED.
3. THE REMOVAL AND REPLACEMENT OF LUMINAIRES SHALL BE SUCH THAT LIGHTING IS PROVIDED EACH NIGHT FROM DUSK TO DAWN.
4. THE PROPOSED LED LUMINAIRES FOR THE HIGH MAST TOWERS AND FOR THE STANDARD ROADWAY LIGHTING UNITS SHALL BE 480V.
5. THE NEW LED LUMINAIRES SHALL HAVE THE SAME ORIENTATION AS THE HPS LUMINAIRES THEY ARE REPLACING.
6. SPLICING AND RECONNECTION OF THE NEW LED LUMINAIRES IS INCLUDED IN THE COST OF THE LUMINAIRE PAY ITEMS: HIGH MAST (82110016) AND ROADWAY (82110008).



MATCHLINE SEE SHEET 10



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLAN  
I-55 / 70 / 64 INTERCHANGE (TRI-LEVEL)**

SCALE: 1"=50'      SHEET 7 OF 7 SHEETS      STA.      TO STA.

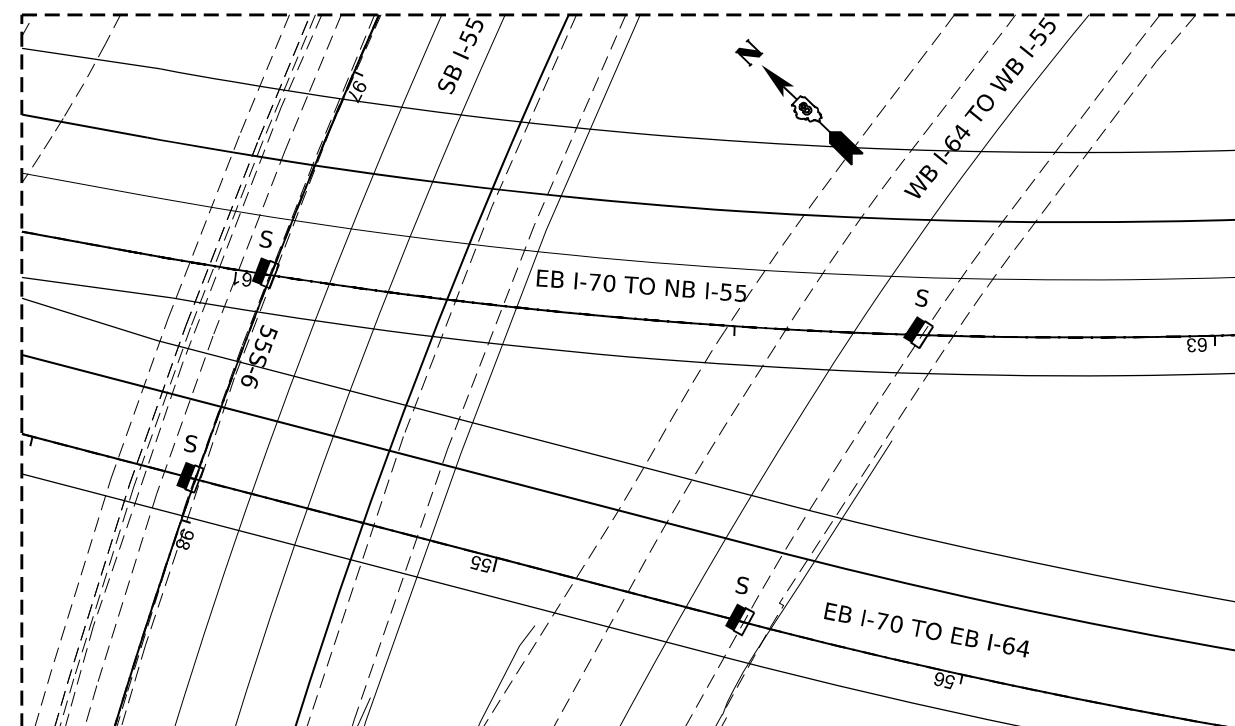
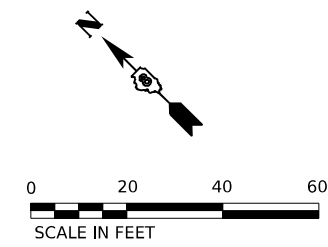
USER NAME = mdeltche	DESIGNED - BL	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - MD	REVISED -
PLOT DATE = 2/22/2024	CHECKED - MH	REVISED -
	DATE - 01/19/24	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	11
CONTRACT NO. 76R94				

\*55/70/64

MODEL: 41MODELNAME  
CONSULTING ENGINEERS  
FILE NAME: D:\76R94-1-light.dgn

**AMES Engineering, Inc.**  
CONSULTING ENGINEERS  
6330 Belmont Road, Suite 4B  
Downers Grove, IL 60516



**RAMP EB 70 TO NB 55 AND TO EB 64 UNDERPASS LIGHTING**

**NOTES:**

1. THE EXISTING UNDERPASS LUMINAIRES SHALL BE EXCHANGED WITH THE PROPOSED LED LUMINAIRES.
2. SUSPENDED LUMINAIRES SHALL BE DISCONNECTED AND REMOVED WHEN THE PROPOSED LED LUMINAIRES ARE READY TO BE INSTALLED AND RECONNECTED TO THE EXISTING CONDUIT AND CABLE.
3. PROPOSED LUMINAIRES SHALL BE RECONNECTED TO THE EXISTING CIRCUIT WHEN THE EXISTING HPS LUMINAIRE IS REMOVED.
4. THE PROPOSED LUMINAIRES ON THIS SHEET SHALL BE RECONNECTED TO LIGHTING CONTROLLER "25" AND FED FROM TOWER 25B3.
5. THE LUMINAIRES SHALL BE INSTALLED PER IDOT STANDARDS.
6. IF EXISTING CONDUIT AND CABLE LEADING TO THE LUMINAIRE IS DETERMINED TO BE DAMAGED DURING THE INITIAL INSPECTION, IT SHALL BE REPLACED AS NEEDED TO MAKE THE NEW CONNECTION. THIS COST SHALL BE PER THE QUANTITY OF CONDUIT (81100454) AND CABLE (81702110) REQUIRED.

**LEGEND**

PROPOSED LED UNDERPASS LUMINAIRE TO REPLACE EXISTING SUSPENDED UNDERPASS LUMINAIRE

MODEL: 41MODELNAME  
CONSULTING ENGINEERS  
FILE NAME: D:\B\82-1L-1-light-cop-underpass.dgn



USER NAME = mdeltche	DESIGNED - BL	REVISED -
	DRAWN - MD	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - MH	REVISED -
PLOT DATE = 2/22/2024	DATE - 01/19/24	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

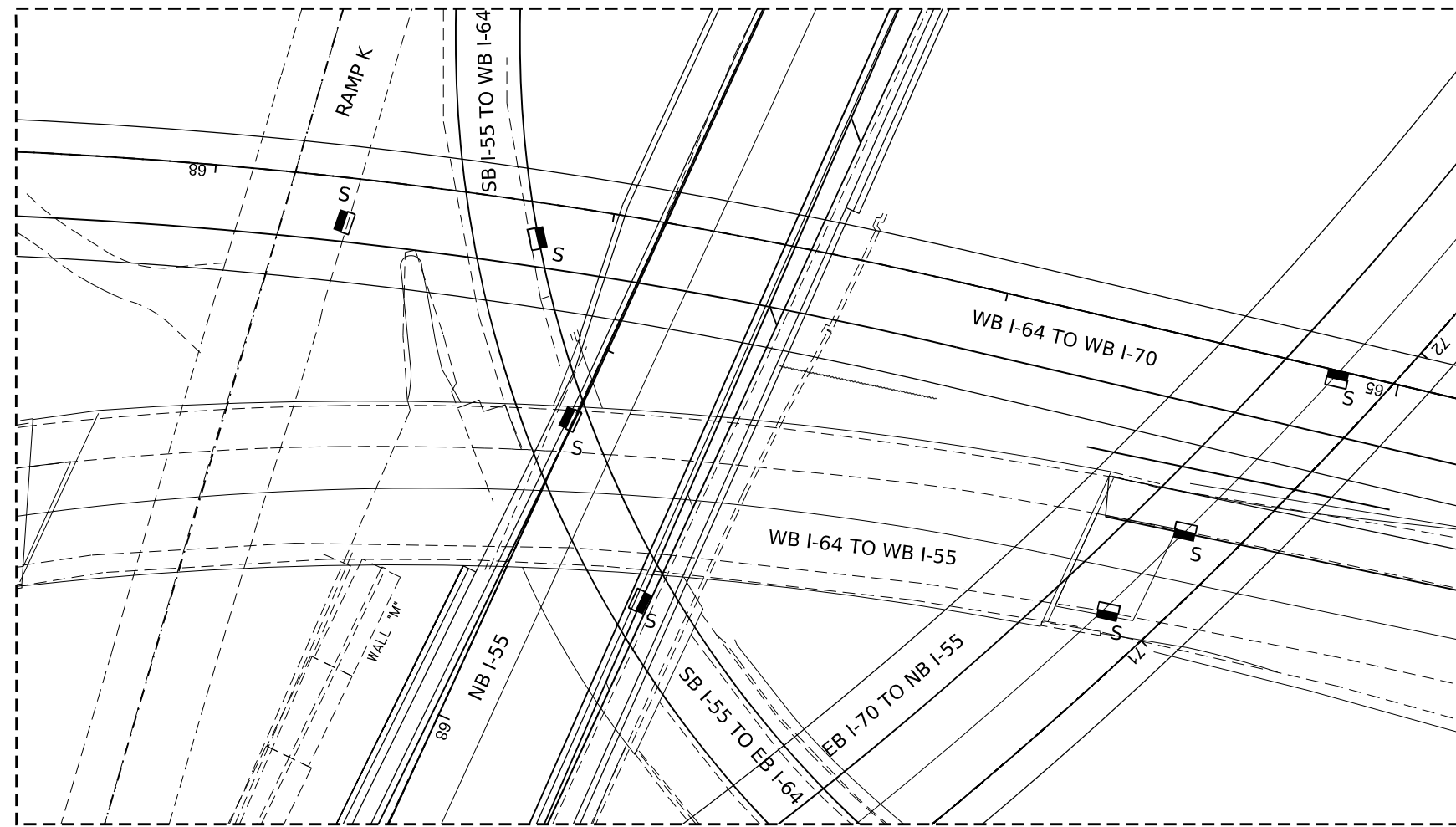
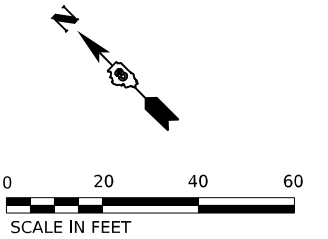
**PROPOSED UNDERPASS LIGHTING PLAN  
I-55 /70 /64 INTERCHANGE (TRI-LEVEL)**

SCALE: 1"=20' SHEET 1 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	12
CONTRACT NO. 76R94				
ILLINOIS FED. AID PROJECT				

\*55/70/64





**RAMP WB 64 TO WB 70, NB I-55 AND RAMP EB 70 TO NB 55**

**NOTES:**

1. THE EXISTING UNDERPASS LUMINAIRES SHALL BE EXCHANGED WITH THE PROPOSED LED LUMINAIRES.
2. SUSPENDED LUMINAIRES SHALL BE DISCONNECTED AND REMOVED WHEN THE PROPOSED LED LUMINAIRES ARE READY TO BE INSTALLED AND RECONNECTED TO THE EXISTING CONDUIT AND CABLE.
3. PROPOSED LUMINAIRES SHALL BE RECONNECTED TO THE EXISTING CIRCUIT WHEN THE EXISTING HPS LUMINAIRE IS REMOVED.
4. THE PROPOSED LUMINAIRES OVER RAMP K AND SB I-55 TO WB I-64 AND WELL AS THE LUMINAIRES OVER NB I-55 SHALL BE RECONNECTED TO CONTROLLER "25" AND FED FROM TOWER 25D1.
5. THE PROPOSED LUMINAIRES UNDER EB I-70 TO NB I-55 SHALL BE RECONNECTED TO CONTROLLER "1" AND FED FROM TOWER 1D3.
6. THE LUMINAIRES SHALL BE INSTALLED PER IDOT STANDARDS.
7. IF EXISTING CONDUIT AND CABLE LEADING TO THE LUMINAIRE IS DETERMINED TO BE DAMAGED DURING THE INITIAL INSPECTION, IT SHALL BE REPLACED AS NEEDED TO MAKE THE NEW CONNECTION. THIS COST SHALL BE PER THE QUANTITY OF CONDUIT (81100454) AND CABLE (81702110) REQUIRED.

**LEGEND**

PROPOSED LED UNDERPASS LUMINAIRE TO REPLACE EXISTING SUSPENDED UNDERPASS LUMINAIRE

MODEL: 4100ELUMAINES  
CONSULTING ENGINEERS  
FILE NAME: D:\76694\light\cop-underpass.dgn

**AMES Engineering, Inc.**  
CONSULTING ENGINEERS  
6330 Belmont Road, Suite 4B  
Downers Grove, IL 60516

USER NAME = mdeltche	DESIGNED - BL	REVISED -
	DRAWN - MD	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - MH	REVISED -
PLOT DATE = 2/22/2024	DATE - 01/19/24	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

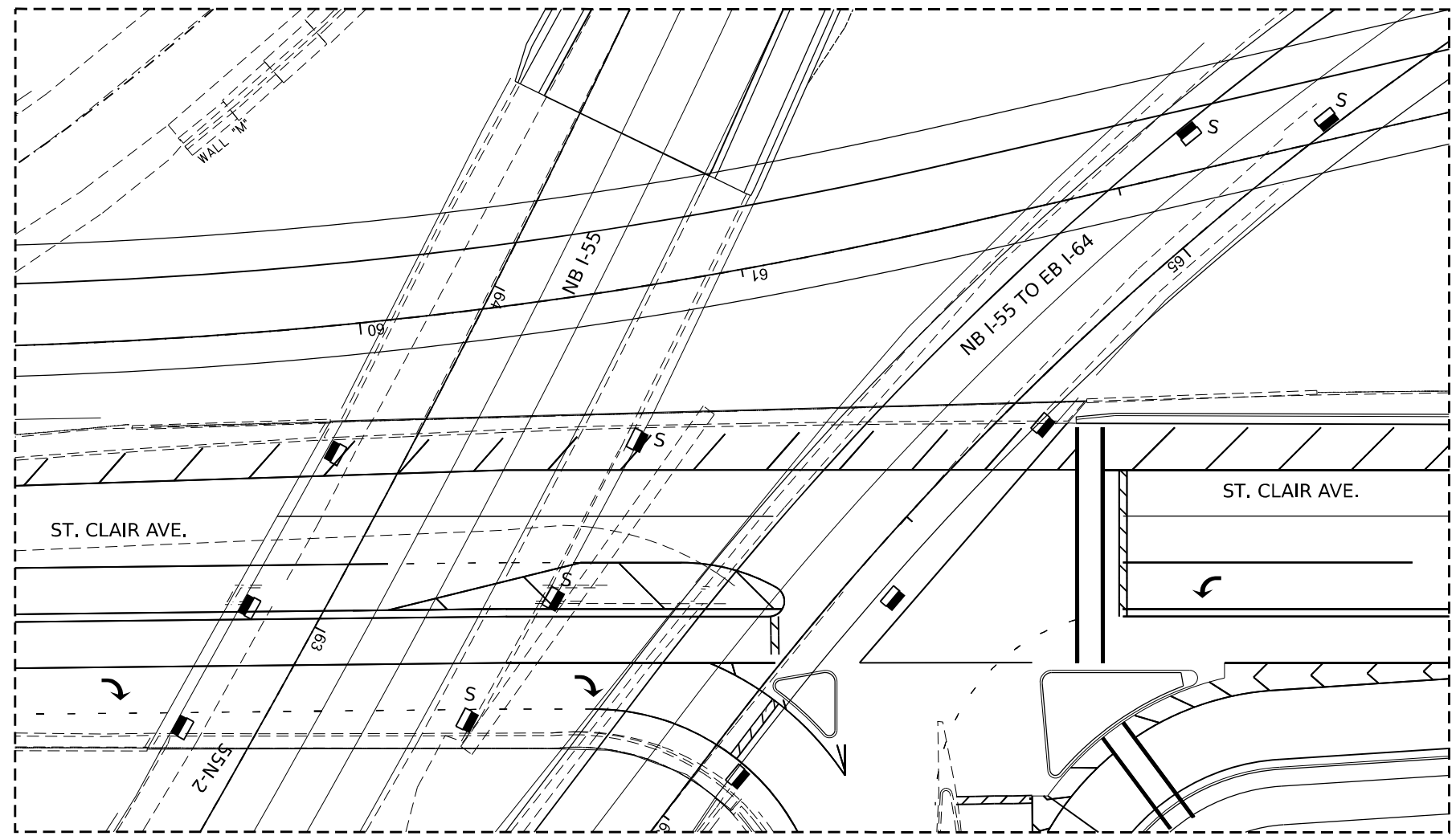
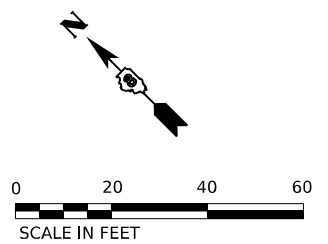
**PROPOSED UNDERPASS LIGHTING PLAN  
I-55 /70 /64 INTERCHANGE (TRI-LEVEL)**

SCALE: 1"=20'

SHEET 2 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	13
			CONTRACT NO. 76R94	
		ILLINOIS	FED. AID PROJECT	

\*55/70/64



ST. CLAIR AVE. AND RAMP NB 55 UNDERPASS LIGHTING

NOTES:

1. THE EXISTING UNDERPASS LUMINAIRES SHALL BE EXCHANGED WITH THE PROPOSED LED LUMINAIRES.
2. LUMINAIRES ATTACHED TO ABUTMENTS AND PIERS SHALL DISCONNECTED AND REMOVED WHEN THE PROPOSED LED LUMINAIRES ARE READY TO BE INSTALLED AND RECONNECTED TO THE EXISTING CONDUIT AND CABLE.
3. SUSPENDED LUMINAIRES SHALL BE DISCONNECTED AND REMOVED WHEN THE PROPOSED LED LUMINAIRES ARE READY TO BE INSTALLED AND RECONNECTED TO THE EXISTING CONDUIT AND CABLE.
4. PROPOSED LUMINAIRES SHALL BE RECONNECTED TO THE EXISTING CIRCUIT WHEN THE EXISTING HPS LUMINAIRE IS REMOVED.
5. THE PROPOSED LUMINAIRES ON THIS SHEET SHALL BE RECONNECTED TO LIGHTING CONTROLLER "1" AND FED FROM TOWER 1C3.
6. THE LUMINAIRES SHALL BE INSTALLED PER IDOT STANDARDS.
7. IF EXISTING CONDUIT AND CABLE LEADING TO THE LUMINAIRE IS DETERMINED TO BE DAMAGED DURING THE INITIAL INSPECTION, IT SHALL BE REPLACED AS NEEDED TO MAKE THE NEW CONNECTION. THIS COST SHALL BE PER THE QUANTITY OF CONDUIT (81100454) AND CABLE (81702110) REQUIRED.

**LEGEND**

- PROPOSED LED UNDERPASS LUMINAIRE TO REPLACE EXISTING SUSPENDED UNDERPASS LUMINAIRE
- PROPOSED LED UNDERPASS LUMINAIRE TO REPLACE EXISTING UNDERPASS LUMINAIRE ATTACHED TO STRUCTURE

MODEL: 41MODEL.NAMES CONSULTING ENGINEERS 6330 Belmont Road, Suite 4B Downers Grove, IL 60516 FILE NAME: D:\76694-3-light-corp-underpass.dgn

**AMES Engineering, Inc.**  
CONSULTING ENGINEERS  
6330 Belmont Road, Suite 4B  
Downers Grove, IL 60516

USER NAME = mdeltche	DESIGNED - BL	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - MD	REVISED -
PLOT DATE = 2/22/2024	CHECKED - MH	REVISED -
	DATE - 01/19/24	REVISED -

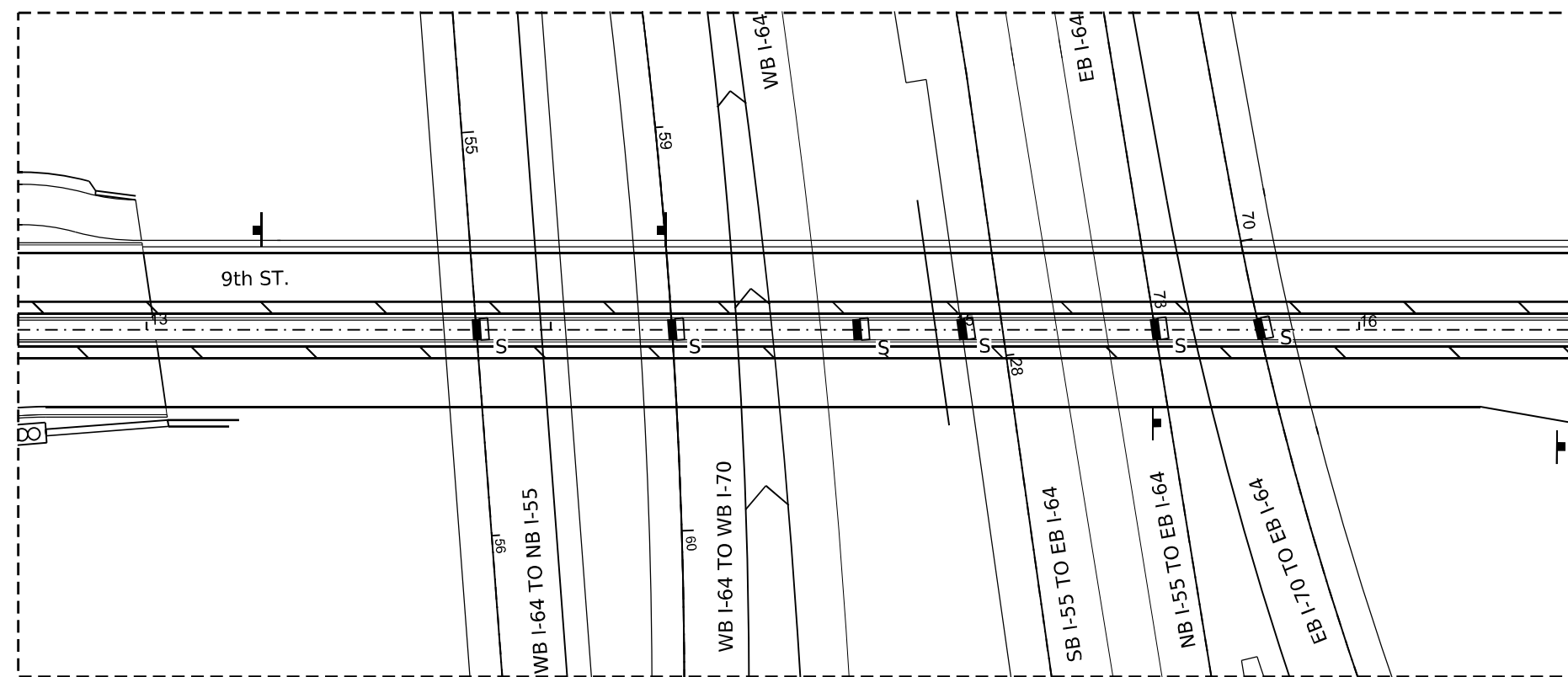
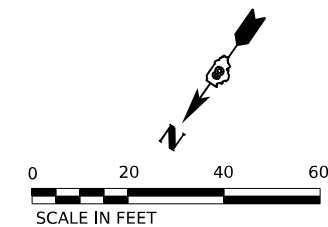
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED UNDERPASS LIGHTING PLAN  
I-55 /70 /64 INTERCHANGE (TRI-LEVEL)**

SCALE: 1"=20' SHEET 3 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	14
CONTRACT NO. 76R94				
ILLINOIS FED. AID PROJECT				

\*55/70/64



**9TH ST. UNDERPASS LIGHTING**

**NOTES:**

1. THE EXISTING UNDERPASS LUMINAIRES SHALL BE EXCHANGED WITH THE PROPOSED LED LUMINAIRES.
2. SUSPENDED LUMINAIRES SHALL BE DISCONNECTED AND REMOVED WHEN THE PROPOSED LED LUMINAIRES ARE READY TO BE INSTALLED AND RECONNECTED TO THE EXISTING CONDUIT AND CABLE.
3. PROPOSED LUMINAIRES SHALL BE RECONNECTED TO THE EXISTING CIRCUIT WHEN THE EXISTING HPS LUMINAIRE IS REMOVED.
4. THE PROPOSED LUMINAIRES ON THIS SHEET SHALL BE RECONNECTED TO LIGHTING CONTROLLER "1" AND FED FROM TOWER 1C3.
5. THE LUMINAIRES SHALL BE INSTALLED PER IDOT STANDARDS.
6. IF EXISTING CONDUIT AND CABLE LEADING TO THE LUMINAIRE IS DETERMINED TO BE DAMAGED DURING THE INITIAL INSPECTION, IT SHALL BE REPLACED AS NEEDED TO MAKE THE NEW CONNECTION. THIS COST SHALL BE PER THE QUANTITY OF CONDUIT (81100454) AND CABLE (81702110) REQUIRED.

**LEGEND**

PROPOSED LED UNDERPASS LUMINAIRE TO REPLACE EXISTING SUSPENDED UNDERPASS LUMINAIRE

MODEL: 41402LUMAINES  
 FILE NAME: D:\76694\lighting\9th-st-underpass.dgn

**AMES Engineering, Inc.**  
 CONSULTING ENGINEERS  
 6330 Belmont Road, Suite 4B  
 Downers Grove, IL 60516

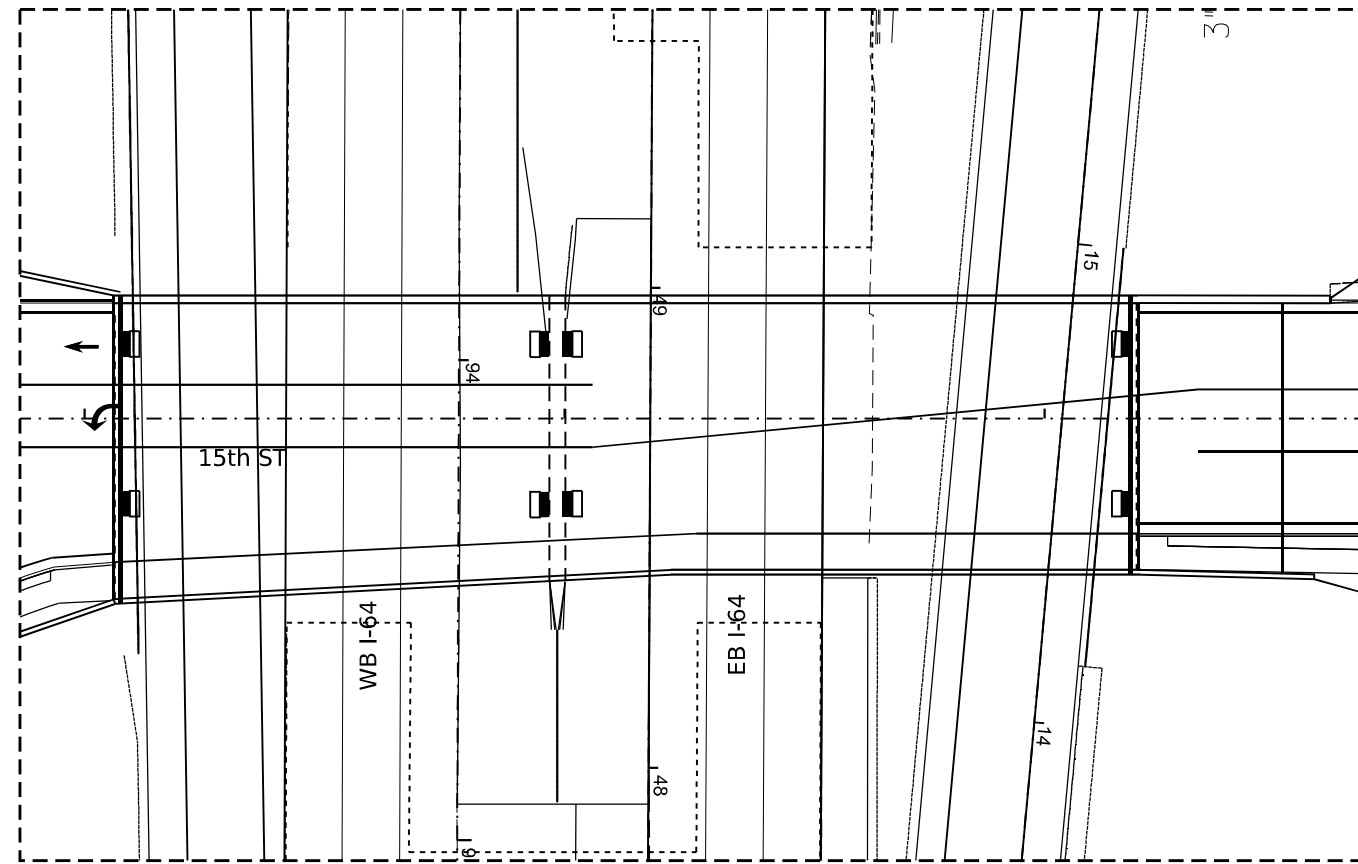
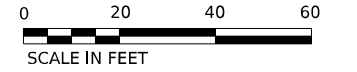
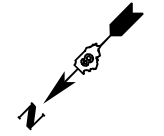
USER NAME = mdeltche	DESIGNED - BL	REVISED -	
	DRAWN - MD	REVISED -	
PLOT SCALE = \$SCALE\$	CHECKED - MH	REVISED -	
PLOT DATE = 2/22/2024	DATE - 01/19/24	REVISED -	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PROPOSED UNDERPASS LIGHTING PLAN**  
**I-55 /70 /64 INTERCHANGE (TRI-LEVEL)**

SCALE: 1"=20'    SHEET 4 OF 6 SHEETS    STA.    TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	15
CONTRACT NO. 76R94				
ILLINOIS FED. AID PROJECT				



**15TH ST. UNDERPASS LIGHTING**

**NOTES:**

1. THE EXISTING UNDERPASS LUMINAIRES SHALL BE EXCHANGED WITH THE PROPOSED LED LUMINAIRES.
2. LUMINAIRES ATTACHED TO ABUTMENTS AND PIERS SHALL DISCONNECTED AND REMOVED WHEN THE PROPOSED LED LUMINAIRES ARE READY TO BE INSTALLED AND RECONNECTED TO THE EXISTING CONDUIT AND CABLE.
3. PROPOSED LUMINAIRES SHALL BE RECONNECTED TO THE EXISTING CIRCUIT WHEN THE EXISTING HPS LUMINAIRE IS REMOVED.
4. THE PROPOSED LUMINAIRES ON THIS SHEET SHALL BE RECONNECTED TO LIGHTING CONTROLLER "1" AND FED FROM TOWER 1C3.
5. THE LUMINAIRES SHALL BE INSTALLED PER IDOT STANDARDS.
6. IF EXISTING CONDUIT AND CABLE LEADING TO THE LUMINAIRE IS DETERMINED TO BE DAMAGED DURING THE INITIAL INSPECTION, IT SHALL BE REPLACED AS NEEDED TO MAKE THE NEW CONNECTION. THIS COST SHALL BE PER THE QUANTITY OF CONDUIT (81100454) AND CABLE (81702110) REQUIRED.

**LEGEND**

- PROPOSED LED UNDERPASS LUMINAIRE TO REPLACE EXISTING UNDERPASS LUMINAIRE ATTACHED TO STRUCTURE

MODEL: 41MODELNAME CONSULTING ENGINEERS 6330 Belmont Road, Suite 4B Downers Grove, IL 60516 FILE NAME: D:\76694\light\cop-underpass.dgn



USER NAME = mdeltche	DESIGNED - BL	REVISED -
	DRAWN - MD	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - MH	REVISED -
PLOT DATE = 2/22/2024	DATE - 01/19/24	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED UNDERPASS LIGHTING PLAN  
I-55 /70 /64 INTERCHANGE (TRI-LEVEL)**

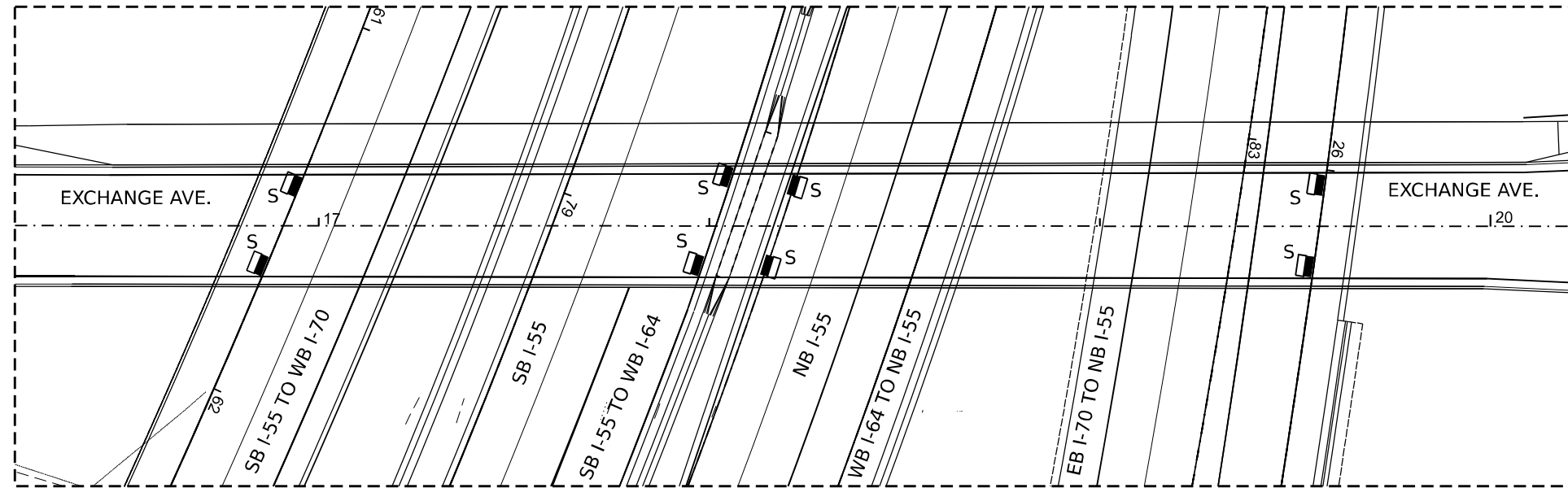
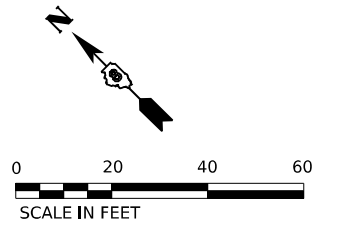
SCALE: 1"=20'

SHEET 5 OF 6 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	16
CONTRACT NO. 76R94				
ILLINOIS FED. AID PROJECT				

\*55/70/64






EXCHANGE AVE. UNDERPASS LIGHTING

NOTES:

1. THE EXISTING UNDERPASS LUMINAIRES SHALL BE EXCHANGED WITH THE PROPOSED LED LUMINAIRES.
2. SUSPENDED LUMINAIRES SHALL BE DISCONNECTED AND REMOVED WHEN THE PROPOSED LED LUMINAIRES ARE READY TO BE INSTALLED AND RECONNECTED TO THE EXISTING CONDUIT AND CABLE.
3. PROPOSED LUMINAIRES SHALL BE RECONNECTED TO THE EXISTING CIRCUIT WHEN THE EXISTING HPS LUMINAIRE IS REMOVED.
4. THE PROPOSED LUMINAIRES ON THIS SHEET SHALL BE RECONNECTED TO LIGHTING CONTROLLER "1" AND FED FROM TOWER 1C3.
5. THE LUMINAIRES SHALL BE INSTALLED PER IDOT STANDARDS.
6. IF EXISTING CONDUIT AND CABLE LEADING TO THE LUMINAIRE IS DETERMINED TO BE DAMAGED DURING THE INITIAL INSPECTION, IT SHALL BE REPLACED AS NEEDED TO MAKE THE NEW CONNECTION. THIS COST SHALL BE PER THE QUANTITY OF CONDUIT (81100454) AND CABLE (81702110) REQUIRED.

LEGEND

 PROPOSED LED UNDERPASS LUMINAIRE TO REPLACE EXISTING SUSPENDED UNDERPASS LUMINAIRE

MODEL: 4100ELUMAINES  
FILE NAME: D:\PROJECTS\lighting\prop-underpass.dgn

**AMES Engineering, Inc.**  
CONSULTING ENGINEERS  
6330 Belmont Road, Suite 4B  
Downers Grove, IL 60516

USER NAME = mdeltche	DESIGNED - BL	REVISED -
	DRAWN - MD	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - MH	REVISED -
PLOT DATE = 2/22/2024	DATE - 01/19/24	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED UNDERPASS LIGHTING PLAN  
I-55 /70 /64 INTERCHANGE (TRI-LEVEL)**

SCALE: 1"=20'















SHEET 6 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	17
			CONTRACT NO. 76R94	
			ILLINOIS FED. AID PROJECT	

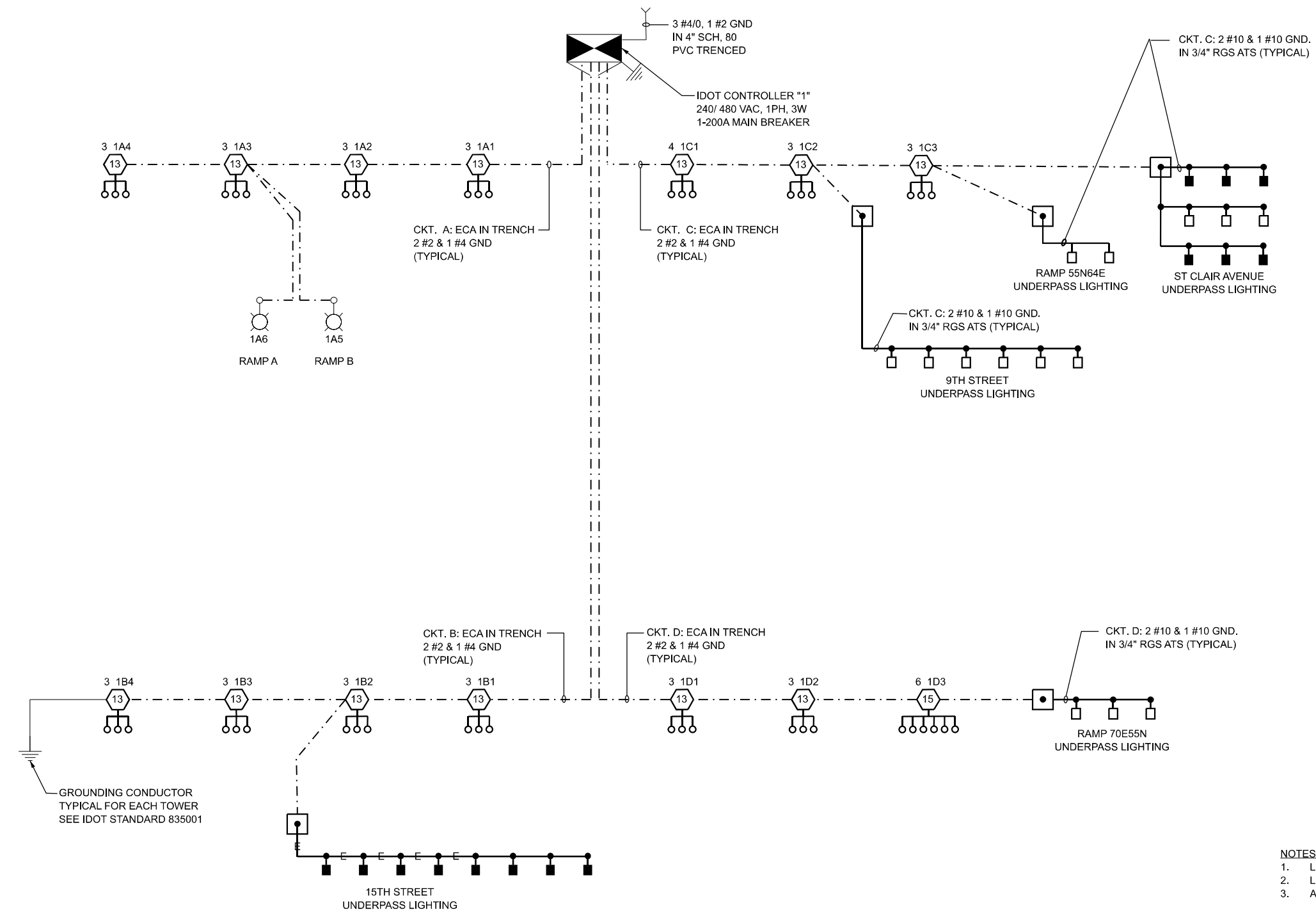
\*55/70/64



**LEGEND**

-  HIGH MAST LIGHT TOWER
-  LED LUMINAIRE (429W)
-  3 1A1 HIGH MAST TOWER DESIGNATION
-  UNDERPASS LIGHTING UNIT, LED LUMINAIRE (95W) (SUSPENDED)
-  UNDERPASS LIGHTING UNIT, LED LUMINAIRE (95W) (ATTACHED TO STRUCTURE)
-  IDOT CONTROLLER
-  GROUND ROD
-  ELECTRIC UTILITY SERVICE
-  IA2 LUMINAIRE DESIGNATION
-  GROUND MOUNTED CONVENTIONAL LIGHTING UNIT, 1-LED LUMINAIRE (190W)
-  25A7 LUMINAIRE DESIGNATION
-  PARAPET WALL MOUNTED CONVENTIONAL LIGHTING UNIT, 1-LED LUMINAIRE (190W)
-  JUNCTION BOX
-  SIGN STRUCTURE LIGHTING

LOAD TABLE		
CIRCUIT	AMPS	WATTS
A	12.76	5512
B	13.64	5892
C	13.64	5892
D	12.54	5417
TOTAL	52.3	22.713



- NOTES:**
1. LIGHTING SYSTEM, INCLUDING WIRING INSTALLED ON A PREVIOUS CONTRACT.
  2. LUMINAIRES FOR HIGH MAST, ROADWAY AND UNDERPASS LUMINAIRES REPLACED WITH LED.
  3. AN ADDITIONAL LUMINAIRE SHALL BE ADDED TO HIGH MAST TOWER 1C1.

MODEL: 4100ELMAMES CONSULTING ENGINEERS 6330 Belmont Road, Suite 4B Downers Grove, IL 60516

**AMES Engineering, Inc.**  
CONSULTING ENGINEERS  
6330 Belmont Road, Suite 4B  
Downers Grove, IL 60516

USER NAME = mdeltche	DESIGNED - BL	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - MD	REVISED -
PLOT DATE = 2/22/2024	CHECKED - MH	REVISED -
	DATE - 01/19/24	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

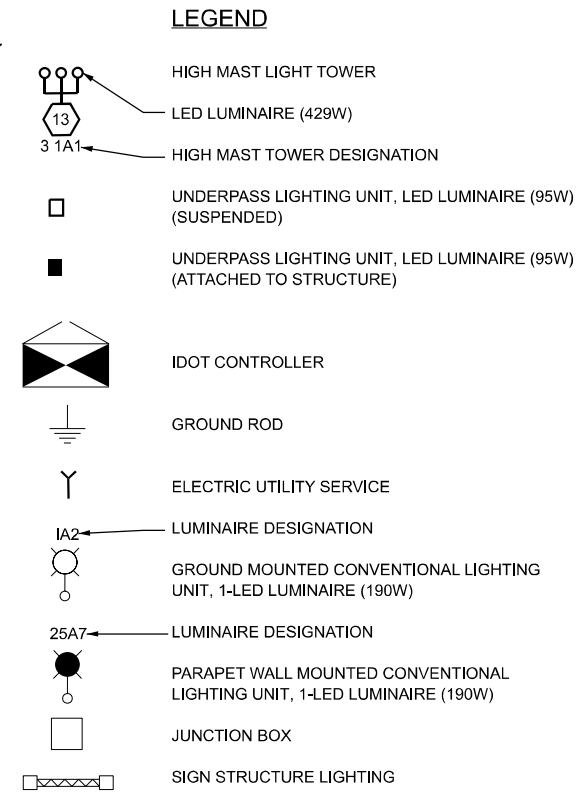
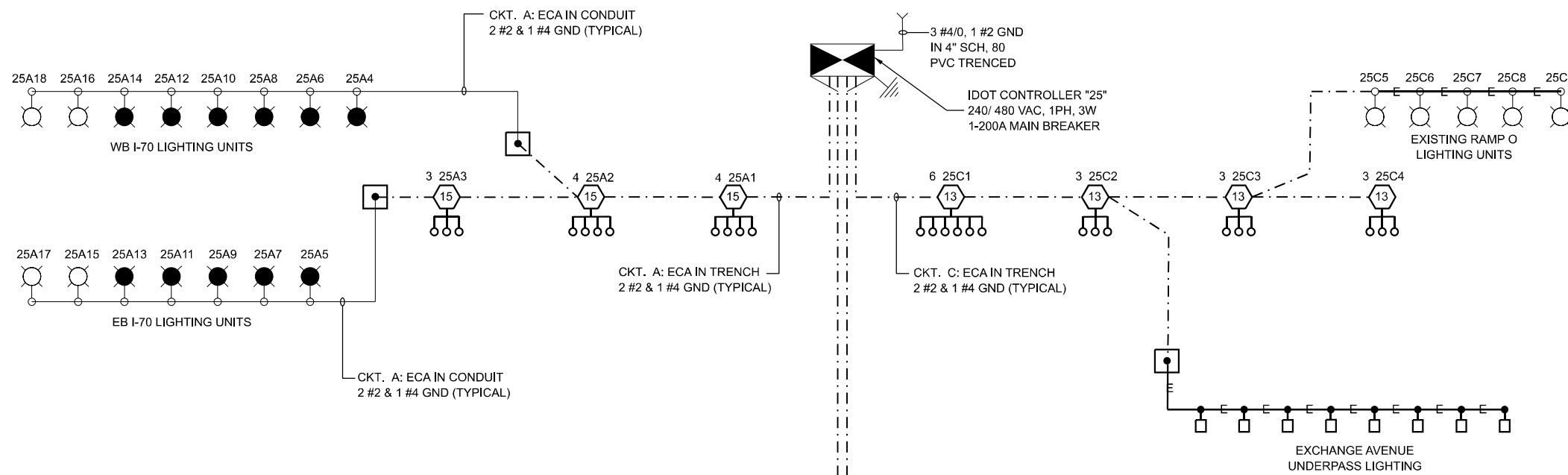
**IDOT CONTROLLER "1"**

**SINGLE LINE DIAGRAM  
I-55 /70 /64 INTERCHANGE (TRI-LEVEL)**

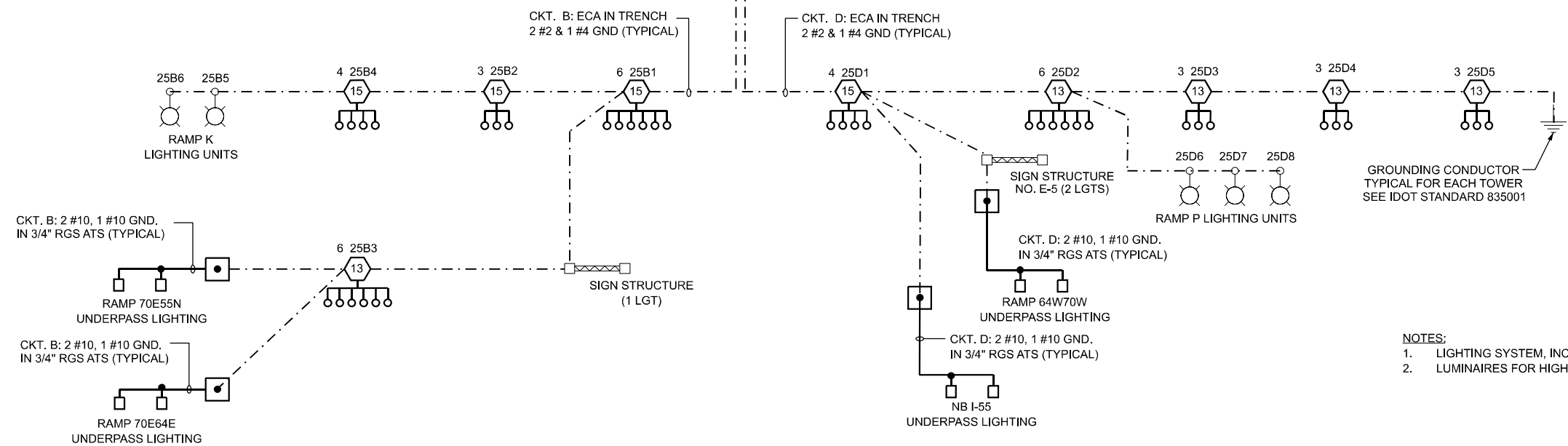
SCALE: SHEET OF SHEETS STA. TO STA.

F.A. I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	18
CONTRACT NO. 76R94				
ILLINOIS FED. AID PROJECT				

\*55/70/64



LOAD TABLE		
CIRCUIT	AMPS	WATTS
A	17.49	7556
B	17.6	7603
C	18.81	8126
D	21.01	9076
TOTAL	74.91	32,361



NOTES:  
 1. LIGHTING SYSTEM, INCLUDING WIRING INSTALLED ON A PREVIOUS CONTRACT.  
 2. LUMINAIRES FOR HIGH MAST, ROADWAY AND UNDERPASS LUMINAIRES REPLACED WITH LED.

**IDOT CONTROLLER "25"**

MODEL: 4100ELMAMES CONSULTING ENGINEERS 6350 Belmont Road, Suite 4B Downers Grove, IL 60516

AMES Engineering, Inc.  
 CONSULTING ENGINEERS  
 6350 Belmont Road, Suite 4B  
 Downers Grove, IL 60516

USER NAME = mdeltche	DESIGNED - BL	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - MD	REVISED -
PLOT DATE = 2/22/2024	CHECKED - MH	REVISED -
	DATE - 01/19/24	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

SINGLE LINE DIAGRAM			
I-55 /70 /64 INTERCHANGE (TRI-LEVEL)			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A. I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	19
CONTRACT NO. 76R94				
ILLINOIS FED. AID PROJECT				

**Illinois Department of Transportation** Luminaire Performance Table

**Project**  
 Date: 06/23/23 Contract Number: 76R94 Section Number: 82-IL-1 County: St. Clair  
 Marked Route Number: I-55/70/64 Municipality: East St. Louis

**Roadway**  
 Lane Width: 16ft # of Lanes: 1 Median Width: N/A I.E.S. Surface Classification: R3 Q-Zero Value: 0.07

**Structure**  
 Mounting Height: 50ft Arm Length: 15ft Set-Back: 15ft Number of Luminaires (Highmast & Sign Lighting Only): N/A

**Luminaire**  
 Description: Roadway Luminaire, Output Designation G I.E.S. Lateral Distribution: Type III I.E.S. Vertical Distribution: Medium  
 Total Light Loss Factor (LLF): 0.7 B-U-G Rating: U=0 Shields: N/A Dimming Protocol: 0-10V

**Layout**  
 Spacing (to Nearest 5 ft): 160ft Configuration (Opposite, Staggered, 1 Sided, or Median): One Row

**Performance**  
 Average Illuminance,  $E_{ave}$  (fc): 0.9 Uniformity Ratio,  $E_{ave}/E_{min}$ : 3.0  
 Average Luminance,  $L_{ave}$  (cd/m<sup>2</sup>): 0.6 Uniformity Ratio,  $L_{ave}/L_{min}$ : 3.5 Uniformity Ratio,  $L_{max}/L_{min}$ : 6.0 Veiling Luminance Ratio,  $L_v/L_{ave}$ : less than or equal to 0.3:1

**Light Trespass**  
 Distance to ROW (behind pole): N/A Max. Horizontal Illuminance at ROW,  $E_h$ : N/A Max. Vertical Illuminance at ROW,  $E_v$ : N/A

**Notes**  
 1. Set-Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.  
 2. Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.  
 3. Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.  
 4. Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

Calculations shall be performed with one lane in one direction only.  
 Compliance with performance criteria shall be held to one significant digit.  
 This performance table refers to pay item number 82110007

Printed 11/21/23 BDE 5630 (04/10/19)

**Illinois Department of Transportation** Luminaire Performance Table

**Project**  
 Date: 06/23/23 Contract Number: 76R94 Section Number: 82-IL-1 County: St. Clair  
 Marked Route Number: I-55/70/64 Municipality: East St. Louis

**Roadway**  
 Lane Width: 12ft # of Lanes: 4 Median Width: 35 I.E.S. Surface Classification: R3 Q-Zero Value: 0.07

**Structure**  
 Mounting Height: 130ft Arm Length: 0ft Set-Back: 45ft Number of Luminaires (Highmast & Sign Lighting Only): 3

**Luminaire**  
 Description: Highmast, Output Designation I I.E.S. Lateral Distribution: Type IV I.E.S. Vertical Distribution: Short  
 Total Light Loss Factor (LLF): 0.7 B-U-G Rating: U=0 Shields: N/A Dimming Protocol: 0-10V

**Layout**  
 Spacing (to Nearest 5 ft): 580ft Configuration (Opposite, Staggered, 1 Sided, or Median): Two Rows, Opposite

**Performance**  
 Average Illuminance,  $E_{ave}$  (fc): 0.9 Uniformity Ratio,  $E_{ave}/E_{min}$ : 3.0  
 Average Luminance,  $L_{ave}$  (cd/m<sup>2</sup>): 0.6 Uniformity Ratio,  $L_{ave}/L_{min}$ : 3.5 Uniformity Ratio,  $L_{max}/L_{min}$ : 6.0 Veiling Luminance Ratio,  $L_v/L_{ave}$ : less than or equal to 0.3:1

**Light Trespass**  
 Distance to ROW (behind pole): N/A Max. Horizontal Illuminance at ROW,  $E_h$ : N/A Max. Vertical Illuminance at ROW,  $E_v$ : N/A

**Notes**  
 1. Set-Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.  
 2. Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.  
 3. Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.  
 4. Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

Calculations shall be performed with four lanes in one direction only.  
 Compliance with performance criteria shall be held to one significant digit.

Printed 06/23/23 BDE 5630 (04/10/19)

**Illinois Department of Transportation** Luminaire Performance Table

**Project**  
 Date: 01/18/24 Contract Number: 76R94 Section Number: 82-IL-1 County: St. Clair  
 Marked Route Number: I-55/70/64 Municipality: East St. Louis

**Roadway**  
 Lane Width: 12ft # of Lanes: 4 Median Width: N/A I.E.S. Surface Classification: R3 Q-Zero Value: 0.07

**Structure**  
 Mounting Height: 17ft Arm Length: N/A Set-Back: 10ft Number of Luminaires (Highmast & Sign Lighting Only): N/A

**Luminaire**  
 Description: Underpass Luminaire, Output Designation A I.E.S. Lateral Distribution: Type II I.E.S. Vertical Distribution: Short, Medium  
 Total Light Loss Factor (LLF): 0.7 B-U-G Rating: U=0 Shields: N/A Dimming Protocol: 0-10V

**Layout**  
 Spacing (to Nearest 5 ft): 40ft Configuration (Opposite, Staggered, 1 Sided, or Median): Two Rows Opposite

**Performance**  
 Average Illuminance,  $E_{ave}$  (fc): 0.9 Uniformity Ratio,  $E_{ave}/E_{min}$ : 3.0  
 Average Luminance,  $L_{ave}$  (cd/m<sup>2</sup>): 0.6 Uniformity Ratio,  $L_{ave}/L_{min}$ : 3.5 Uniformity Ratio,  $L_{max}/L_{min}$ : 6.0 Veiling Luminance Ratio,  $L_v/L_{ave}$ : less than or equal to 0.3:1

**Light Trespass**  
 Distance to ROW (behind pole): N/A Max. Horizontal Illuminance at ROW,  $E_h$ : N/A Max. Vertical Illuminance at ROW,  $E_v$ : N/A

**Notes**  
 1. Set-Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.  
 2. Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.  
 3. Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.  
 4. Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

Compliance with performance criteria shall be held to one significant digit.  
 This performance table refers to pay item number 82110019.  
 The luminaires shall be tilted to an angle of 15 degrees.

Printed 01/18/24 BDE 5630 (04/10/19)

**Illinois Department of Transportation** Luminaire Performance Table

**Project**  
 Date: 01/18/24 Contract Number: 76R94 Section Number: 82-IL-1 County: St. Clair  
 Marked Route Number: I-55/70/64 Municipality: East St. Louis

**Roadway**  
 Lane Width: 12ft # of Lanes: 4 Median Width: N/A I.E.S. Surface Classification: R3 Q-Zero Value: 0.07

**Structure**  
 Mounting Height: 17ft Arm Length: N/A Set-Back: 10ft Number of Luminaires (Highmast & Sign Lighting Only): N/A

**Luminaire**  
 Description: Underpass Luminaire, Output Designation A I.E.S. Lateral Distribution: Type II I.E.S. Vertical Distribution: Short, Medium  
 Total Light Loss Factor (LLF): 0.7 B-U-G Rating: U=0 Shields: N/A Dimming Protocol: 0-10V

**Layout**  
 Spacing (to Nearest 5 ft): 40ft Configuration (Opposite, Staggered, 1 Sided, or Median): Two Rows Opposite

**Performance**  
 Average Illuminance,  $E_{ave}$  (fc): 0.9 Uniformity Ratio,  $E_{ave}/E_{min}$ : 3.0  
 Average Luminance,  $L_{ave}$  (cd/m<sup>2</sup>): 0.6 Uniformity Ratio,  $L_{ave}/L_{min}$ : 3.5 Uniformity Ratio,  $L_{max}/L_{min}$ : 6.0 Veiling Luminance Ratio,  $L_v/L_{ave}$ : less than or equal to 0.3:1

**Light Trespass**  
 Distance to ROW (behind pole): N/A Max. Horizontal Illuminance at ROW,  $E_h$ : N/A Max. Vertical Illuminance at ROW,  $E_v$ : N/A

**Notes**  
 1. Set-Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.  
 2. Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.  
 3. Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.  
 4. Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

Compliance with performance criteria shall be held to one significant digit.  
 This performance table refers to pay item number 82110029.

Printed 01/18/24 BDE 5630 (04/10/19)

MODEL: 4100LUMINAMES  
 FILE NAME: 0876694-82-light-luminaire.dgn



USER NAME = mdeltche	DESIGNED - BL	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - MD	REVISED -
PLOT DATE = 2/22/2024	CHECKED - MH	REVISED -
	DATE - 01/19/24	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>LUMINAIRE PERFORMANCE TABLE</b>			
<b>I-55 /70 /64 INTERCHANGE (TRI-LEVEL)</b>			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A. I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-1L-1	ST. CLAIR	20	20
CONTRACT NO. 76R94				
ILLINOIS FED. AID PROJECT				