

**INDEX OF SHEETS**

SEE SHEET 2 FOR INDEX OF SHEETS

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PROPOSED**  
**HIGHWAY PLANS**

**FAI 74 (I-74)**  
**SECTION (37-24)HL-1;(48-27)HL-2**  
**HENRY, KNOX COUNTIES**

C-94-058-19

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	37-24HL-1;48-27HL-2	HENRY-KNOX	* 11	1

\* 11 + 1 = 12 TOTAL SHEETS

D-84-039-18

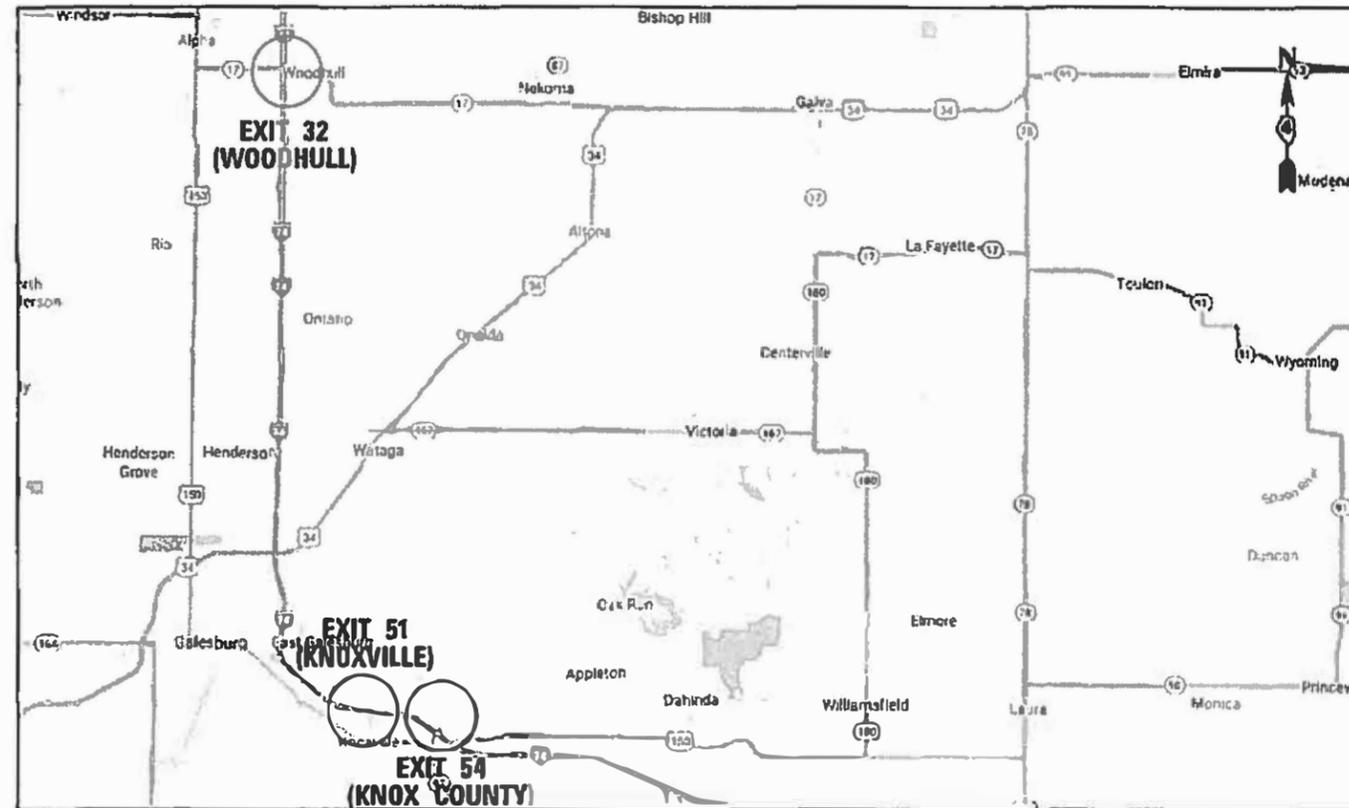


**HIGHWAY STANDARDS**

SEE SHEET 2 FOR A LIST OF APPLICABLE HIGHWAY STANDARDS

**PROJECT DESCRIPTION**

REMOVAL OF EXISTING HPS LUMINAIRES AND INSTALLATION OF LED LUMINAIRES ON EXISTING LIGHT POLES ALONG I-74 AT VARIOUS LOCATIONS IN HENRY AND KNOX COUNTIES.



J.U.I.E.  
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
 1-800-892-8113  
 OR 811

PROJECT ENGINEER: ERIC HOWALD (309) 671-4481  
 PROJECT MANAGER: BEN TELLEFSON (309) 671-4477  
 CATALOG NO. 35748-00D  
 CONTRACT NO. 68F03

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED Mar 28 2019  
Rensel A. Barnett, P.E.  
 REGION THREE ENGINEER

May 10 2019  
Paul P. Chy  
 ENGINEER OF DESIGN AND ENVIRONMENT

May 10 2019  
Paul P. Chy  
 DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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

COMMITMENTS

THERE ARE NO COMMITMENTS MADE IN CONJUNCTION WITH THIS PROJECT.

HIGHWAY STANDARDS	
STANDARD	APPLICATION
000001-07	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 4.5 M (15') AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 4.5 M (15') TO 600 MM (24') FROM PAVEMENT EDGE
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 4.5 M (15') TO 600 MM (24") FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 4.5 (15') AWAY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701456-05	PARTIAL EXIT RAMP CLOSURE, FREEWAY/EXPRESSWAY
821101-02	LUMINAIRE WIRING DIAGRAM
701901-08	TRAFFIC CONTROL DEVICES

INDEX OF SHEETS	
PAGE	DESCRIPTION
1	COVER SHEET
2	COMMITMENTS, CONSTRUCTION NOTES, INDEX OF SHEETS, AND HIGHWAY STANDARDS
3	SUMMARY OF QUANTITIES
4	SCHEDULE OF QUANTITIES
5	PROPOSED LED LUMINAIRE INSTALLATION DETAILS
6	EXISTING LIGHTING PLAN SHEETS - I-74 @ US 150/IL 97 (EXIT 54)
7-10	EXISTING LIGHTING PLAN SHEETS - I-74 @ CH 9 (EXIT 51) KNOXVILLE
11	EXISTING LIGHTING PLAN SHEETS - I-74 @ IL 17 (EXIT 32) WOODHULL

CONSTRUCTION NOTES	
1.	EXISTING UTILITY LOCATION INFORMATION IS NOT SHOWN ON THE PLAN SHEETS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES AND PRIVATELY OWNED FACILITIES PRIOR TO THE INSTALLATION OF ANY COMPONENTS. THE CONTRACTOR SHALL VERIFY EXISTING FIELD CONDITIONS AND TERRAIN PRIOR TO COMMENCING WORK ON THE PROJECT.
2.	THE LOCATION OF ALL UTILITIES AND PRIVATELY OWNED FACILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE INSTALLATION OF ANY COMPONENTS.
3.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES AT HIS/HER OWN EXPENSE IF REQUIRED. THE CONTRACTOR SHALL ALSO BE LIABLE FOR ANY DAMAGE TO IDOT FACILITIES RESULTING FROM INACCURATE LOCATING.
4.	ELECTRICAL WORK SHALL CONFORM WITH NATIONAL, STATE, AND LOCAL CODES.
5.	THE CONTRACTOR SHALL PROVIDE ELECTRICAL CABLE SLACK IN ACCORDANCE WITH ARTICLE 873.03 UNLESS SPECIFIED OTHERWISE.
6.	ALL SURPLUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATION.
7.	ANY MAINTENANCE OF EXISTING ELECTRICAL FACILITIES WILL BE CONSIDERED EXTRA WORK IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
8.	THE EXISTING LIGHTING SHALL REMAIN IN OPERATION DURING THE INSTALLATION OF THE PROPOSED LUMINAIRES.
9.	REMOVAL OF EXISTING ITEMS (LUMINAIRES, WIRING, ETC.) WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE UNIT BID PRICES FOR THE PROPOSED ITEMS.
10.	THE CONTRACTOR SHALL FURNISH AND INSTALL NEW FUSEHOLDERS, FUSES, SURGE ARRESTORS, AND POLE WIRING FOR EACH LUMINAIRE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE PROPOSED LUMINAIRES.
11.	THE CONTRACTOR SHALL REMOVE HPS LAMPS FROM THE EXISTING FIXTURES PRIOR TO DISPOSAL. THE HPS LAMP SHALL BE DISPOSED OF AT A CERTIFIED RECYCLING FACILITY. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE PROPOSED LUMINAIRES.
12.	THE CONTRACTOR SHALL FURNISH 1 FT. LUMINAIRE ARMS AND INSTALL THEM ONTO THE EXISTING TENON TOP LIGHT POLES. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE PROPOSED LUMINAIRES.
13.	THE CONTRACTOR SHALL FURNISH AND INSTALL A TWIN TENON LUMINAIRE BRACKET AND INSTALL IT ON AN EXISTING LIGHT POLE AT THE LOCATIONS SHOWN ON THE PLAN SHEETS. THE BRACKET SHALL ACCOMMODATE THE INSTALLATION OF TWO ROADWAY LUMINAIRES AT 90 DEGREES. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "LUMINAIRE MOUNTING BRACKET, SPECIAL"
13.	THE CONTRACTOR SHALL FURNISH AND INSTALL NEW STAINLESS STEEL OR PERFORATED ALUMINUM SCREENING AROUND AN EXISTING LIGHT POLE. THE CONTRACTOR SHALL REMOVE THE EXISTING SCREEN AND DISPOSE OF IT OFF THE RIGHT OF WAY. THE PROPOSED SCREEN SHALL BE SECURELY Banded ON THE TOP AND BOTTOM OF THE BREAK-AWAY COUPLINGS TO PREVENT RODENT ENTRY AND NO GAPS IN EXCESS OF 0.25 INCH WILL BE ALLOWED. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "FURNISH AND INSTALL METAL SCREEN"

FILE NAME =	USER NAME = *USER*	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CONSTRUCTION NOTES AND PROJECT COMMITMENTS</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
*FILEL*		DRAWN -	REVISED -			74	(37-24)HL-1; (48-27)HL-2	HENRY-KNOX	11	2	
	PLOT SCALE = *SCALE*	CHECKED -	REVISED -			<b>CONTRACT NO. 68F03</b>					
	PLOT DATE = *DATE*	DATE -	REVISED -			SCALE:	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

## SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES				HENRY COUNTY	KNOX COUNTY
CODE	ITEM DESCRIPTION	UNIT	TOTAL QTY.	CONST. TYPE CODE 0021 VARIOUS ROUTES (100% STATE) RURAL	CONST. TYPE CODE 0021 VARIOUS ROUTES (100% STATE) RURAL
67100100	MOBILIZATION	LSUM	1.0	0.5	0.5
82110008	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	51.0	22.0	29.0
82110022	LUMINAIRE, LED, UNDERPASS, WALLMOUNT, OUTPUT DESIGNATION E	EACH	2.0	2.0	
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1.0	0.5	0.5
X8210402	LUMINAIRE MOUNTING BRACKET - SPECIAL	EACH	8.0	2.0	6.0
Z0025615	FURNISH AND INSTALL METAL SCREEN	EACH	30.0	20.0	10.0

FILE NAME =	USER NAME = *USER*	DESIGNED - _____	REVISED - _____	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*FILE*		DRAWN - _____	REVISED - _____			74	(37-24)HL-1; (48-27)HL-2	HENRY-KNOX	11	3
	PLOT SCALE = *SCALE*	CHECKED - _____	REVISED - _____					CONTRACT NO. 68F03		
	PLOT DATE = *DATE*	DATE - _____	REVISED - _____		SCALE: _____					

# SCHEDULE OF QUANTITIES

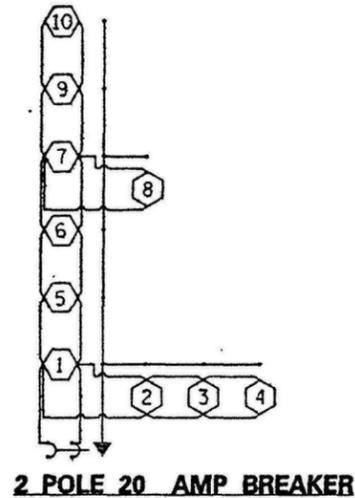
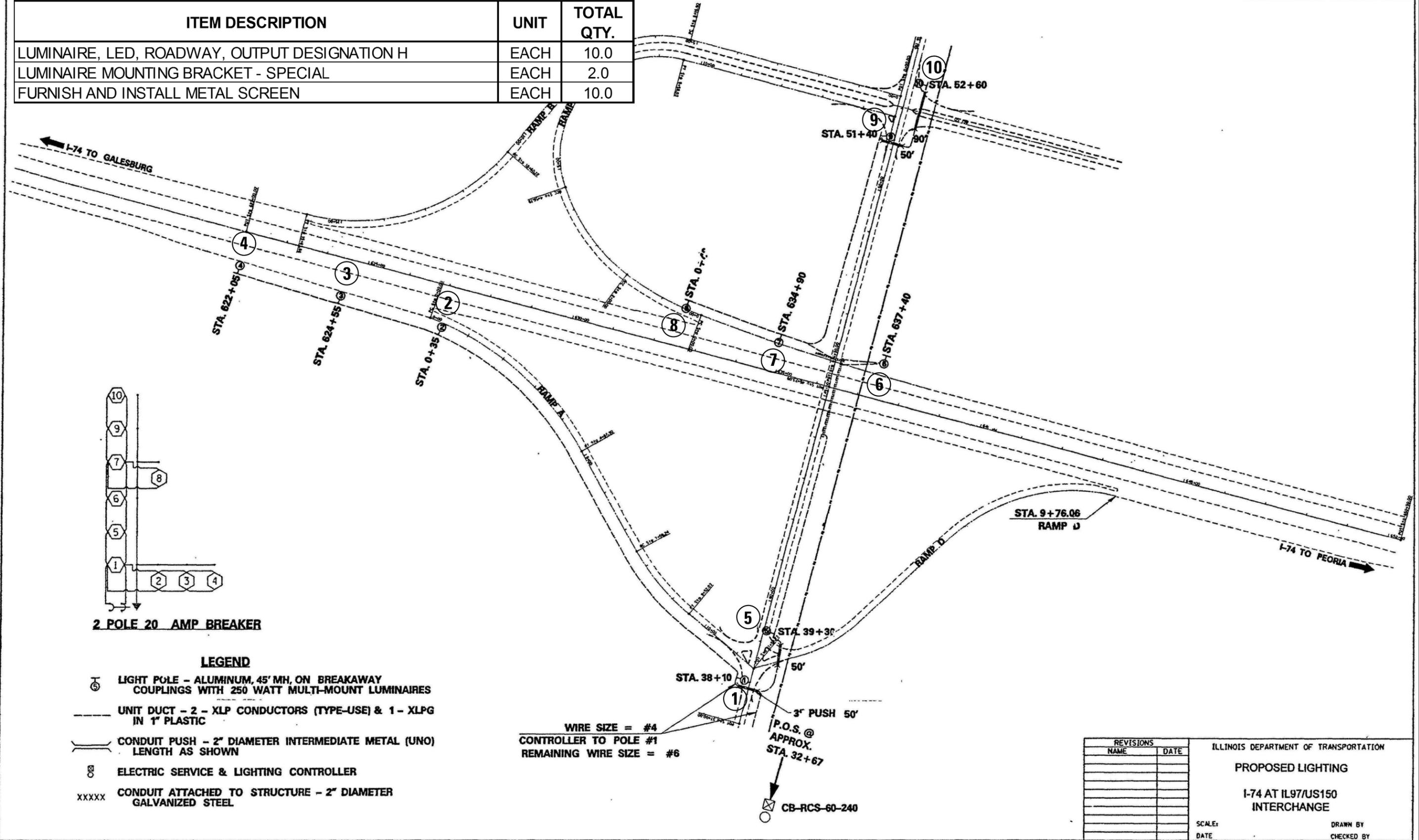
SCHEDULE OF QUANTITIES			HENRY COUNTY	KNOX COUNTY	
			I-74 @ IL 17 (EXIT 32) WOODHULL	I-74 @ CH 9 (EXIT 51) KNOXVILLE	I-74 @ US 150/IL 97 (EXIT 54)
ITEM DESCRIPTION	UNIT	TOTAL QTY.			
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	51.0	22.0	19.0	10.0
LUMINAIRE, LED, UNDERPASS, WALLMOUNT, OUTPUT DESIGNATION E	EACH	2.0	2.0		
TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1.0	0.30	0.33	0.33
LUMINAIRE MOUNTING BRACKET - SPECIAL	EACH	4.0	2.0		2.0
FURNISH AND INSTALL METAL SCREEN	EACH	30.0	20.0		10.0

ROUTE	LOCATION	EX. LUMINAIRE MOUNTING HEIGHT	EX. LUMINAIRE TYPE AND WATTAGE	EX. LUMINAIRE VOLTAGE	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	LUMINAIRE, LED, UNDERPASS, WALLMOUNT, OUTPUT DESIGNATION E	PROP. LUMINAIRE MOUNTING BRACKET - SPECIAL	NOTES	TRAFFIC CONTROL NOTES
I-74	US 150/IL 97 (EXIT 54)	45 FT. (POLES)	HPS, 250W, MULTIMOUNT	240V	10		2	FURNISH 1 FT. ARM AND INSTALL ON EX. TENON TOP LIGHT POLES, FURNISH AND INSTALL NEW SURGE ARRESTOR, FUSEHOLDER, FUSES, AND LUMINAIRE WIRING	HIGHWAY STANDARD 701456, LANE RESTRICTIONS FROM 8:30AM TO 3:30PM ONLY
I-74	CH 9 (EXIT 51) KNOXVILLE	45 FT. (POLES)	HPS, 250W, MULTIMOUNT	240V	19			FURNISH 1 FT. ARM AND INSTALL ON EX. TENON TOP LIGHT POLES, FURNISH AND INSTALL NEW SURGE ARRESTOR, FUSEHOLDER, FUSES, AND LUMINAIRE WIRING	FURNISH FLAGGER TO STOP TRAFFIC ON CH 9 AS NEEDED FOR SHORT TERM DURATION, LANE RESTRICTIONS FROM 8:30AM TO 3:30PM ONLY
I-74	IL 17 (EXIT 32) WOODHULL	45 FT. (POLES)	HPS, 250W, MULTIMOUNT	240V	22	2	2	FURNISH 1 FT. ARM AND INSTALL ON EX. TENON TOP LIGHT POLES, FURNISH AND INSTALL NEW SURGE ARRESTOR, FUSEHOLDER, FUSES, AND LUMINAIRE WIRING	HIGHWAY STANDARD 701301, LANE RESTRICTIONS FROM 8:30AM TO 3:30PM ONLY

**BILL OF MATERIALS**  
I-74 @ US 150/IL 97 (EXIT 54)

ITEM DESCRIPTION	UNIT	TOTAL QTY.
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	10.0
LUMINAIRE MOUNTING BRACKET - SPECIAL	EACH	2.0
FURNISH AND INSTALL METAL SCREEN	EACH	10.0

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	27HL-1	KNOX	11	5
STA. _____		TO STA. _____		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



- LEGEND**
- LIGHT POLE - ALUMINUM, 45' MH, ON BREAKAWAY COUPLINGS WITH 250 WATT MULTI-MOUNT LUMINAIRES
  - UNIT DUCT - 2 - XLP CONDUCTORS (TYPE-USE) & 1 - XLPG IN 1" PLASTIC
  - CONDUIT PUSH - 2" DIAMETER INTERMEDIATE METAL (UNO) LENGTH AS SHOWN
  - ELECTRIC SERVICE & LIGHTING CONTROLLER
  - XXXXX CONDUIT ATTACHED TO STRUCTURE - 2" DIAMETER GALVANIZED STEEL

WIRE SIZE = #4  
CONTROLLER TO POLE #1  
REMAINING WIRE SIZE = #6

3" PUSH 50'

P.O.S. @ APPROX. STA. 32+67

CB-RCS-60-240

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**PROPOSED LIGHTING**

**I-74 AT IL97/US150 INTERCHANGE**

SCALE: \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
DATE \_\_\_\_\_ CHECKED BY \_\_\_\_\_

FILE NAME = _____	USER NAME = \$USER\$	DESIGNED - _____	REVISED - _____
\$FILE\$		DRAWN - _____	REVISED - _____
	PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
	PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING LIGHTING PLANS  
I-74 & US 150/IL 97 (EXIT 54)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(37-24)HL-1; (48-27)HL-2	HENRY-KNOX	11	6
SCALE: _____		STA. _____ TO STA. _____		
ILLINOIS		FED. AID PROJECT		

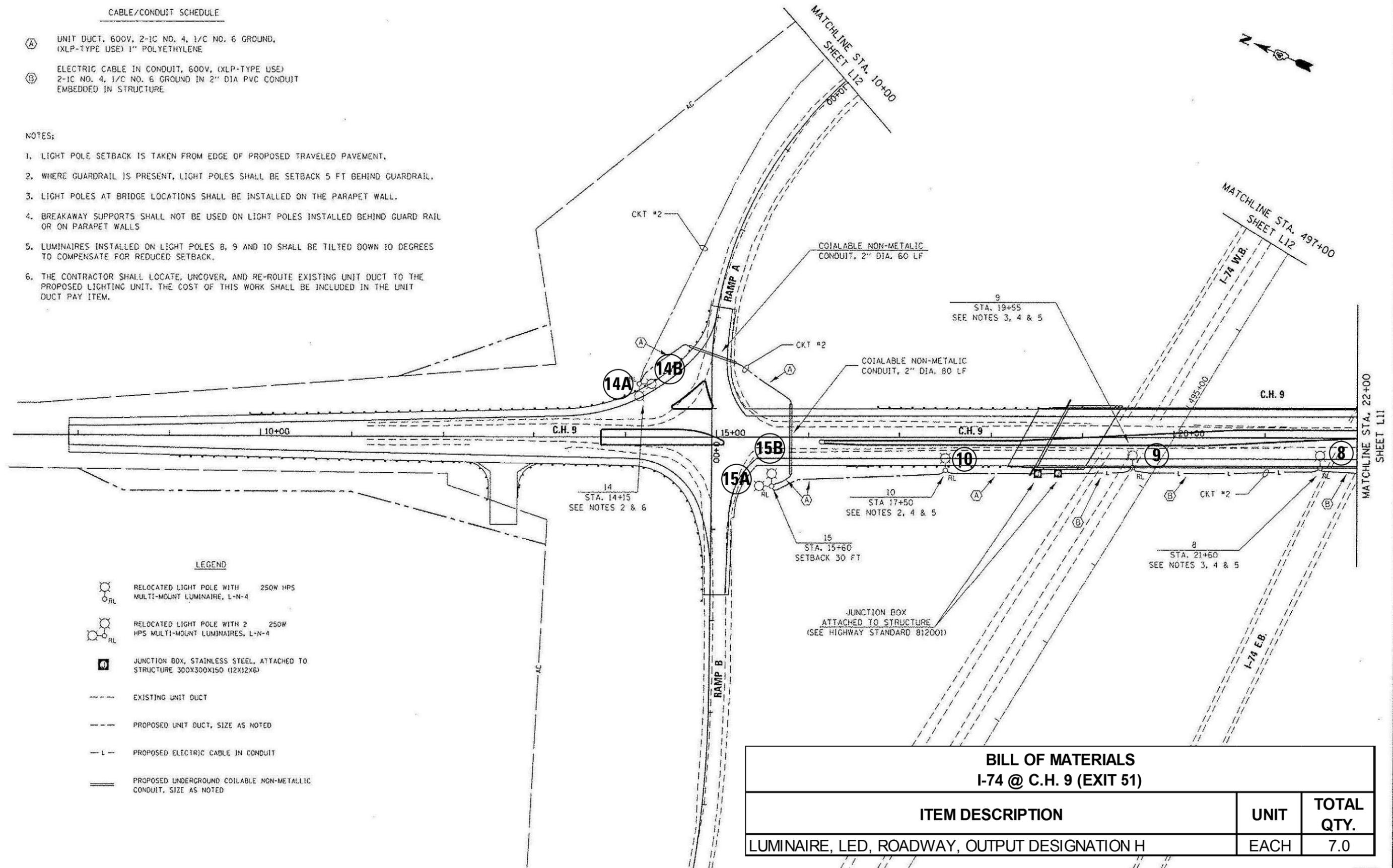
CONTRACT NO. 68F03

CABLE/CONDUIT SCHEDULE

- (A) UNIT DUCT, 600V, 2-1C NO. 4, 1/2C NO. 6 GROUND, (XLP-TYPE USE) 1" POLYETHYLENE
- (B) ELECTRIC CABLE IN CONDUIT, 600V, (XLP-TYPE USE) 2-1C NO. 4, 1/2C NO. 6 GROUND IN 2" DIA PVC CONDUIT EMBEDDED IN STRUCTURE

NOTES:

1. LIGHT POLE SETBACK IS TAKEN FROM EDGE OF PROPOSED TRAVELED PAVEMENT.
2. WHERE GUARDRAIL IS PRESENT, LIGHT POLES SHALL BE SETBACK 5 FT BEHIND GUARDRAIL.
3. LIGHT POLES AT BRIDGE LOCATIONS SHALL BE INSTALLED ON THE PARAPET WALL.
4. BREAKAWAY SUPPORTS SHALL NOT BE USED ON LIGHT POLES INSTALLED BEHIND GUARD RAIL OR ON PARAPET WALLS
5. LUMINAIRES INSTALLED ON LIGHT POLES 8, 9 AND 10 SHALL BE TILTED DOWN 10 DEGREES TO COMPENSATE FOR REDUCED SETBACK.
6. THE CONTRACTOR SHALL LOCATE, UNCOVER, AND RE-ROUTE EXISTING UNIT DUCT TO THE PROPOSED LIGHTING UNIT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT DUCT PAY ITEM.



LEGEND

- RELOCATED LIGHT POLE WITH MULTI-MOUNT LUMINAIRE, L-N-4 250W HPS
- RELOCATED LIGHT POLE WITH 2 HPS MULTI-MOUNT LUMINAIRES, L-N-4 250W
- JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 300X300X150 (12X12X6)
- EXISTING UNIT DUCT
- PROPOSED UNIT DUCT, SIZE AS NOTED
- PROPOSED ELECTRIC CABLE IN CONDUIT
- PROPOSED UNDERGROUND COILABLE NON-METALLIC CONDUIT, SIZE AS NOTED

BILL OF MATERIALS I-74 @ C.H. 9 (EXIT 51)		
ITEM DESCRIPTION	UNIT	TOTAL QTY.
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	7.0

FILE NAME =	USER NAME = *USER*	DESIGNED -	REVISED -
*FILE#		DRAWN -	REVISED -
	PLOT SCALE = *SCALE*	CHECKED -	REVISED -
	PLOT DATE = *DATE*	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING LIGHTING PLANS  
I-74 & C.H. 9 (EXIT 51) KNOXVILLE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(37-24)HL-1; (48-27)HL-2	HENRY-KNOX	11	7
CONTRACT NO. 68F03				
ILLINOIS FED. AID PROJECT				

SCALE: \_\_\_\_\_ STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

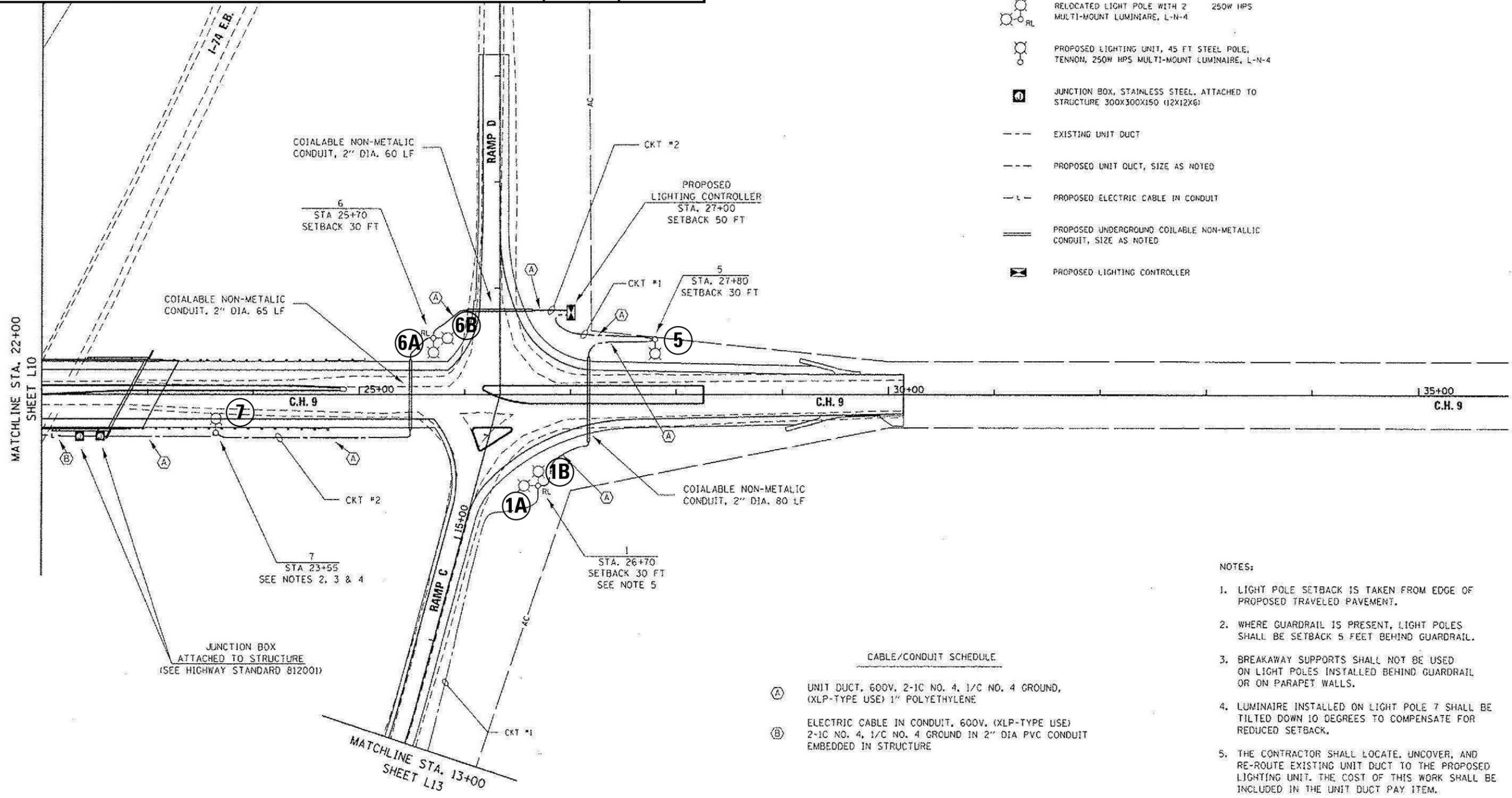
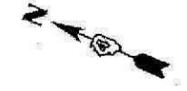
REV.  
L10

**BILL OF MATERIALS  
I-74 @ C.H. 9 (EXIT 51)**

ITEM DESCRIPTION	UNIT	TOTAL QTY.
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	6.0

**LEGEND**

-  RELOCATED LIGHT POLE WITH MULTI-MOUNT LUMINAIRE, L-N-4 250W HPS
-  RELOCATED LIGHT POLE WITH 2 MULTI-MOUNT LUMINAIRE, L-N-4 250W HPS
-  PROPOSED LIGHTING UNIT, 45 FT STEEL POLE, TENNON, 250W HPS MULTI-MOUNT LUMINAIRE, L-N-4
-  JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 300X300X150 (12X12X6)
-  EXISTING UNIT DUCT
-  PROPOSED UNIT DUCT, SIZE AS NOTED
-  PROPOSED ELECTRIC CABLE IN CONDUIT
-  PROPOSED UNDERGROUND COILABLE NON-METALLIC CONDUIT, SIZE AS NOTED
-  PROPOSED LIGHTING CONTROLLER



**NOTES:**

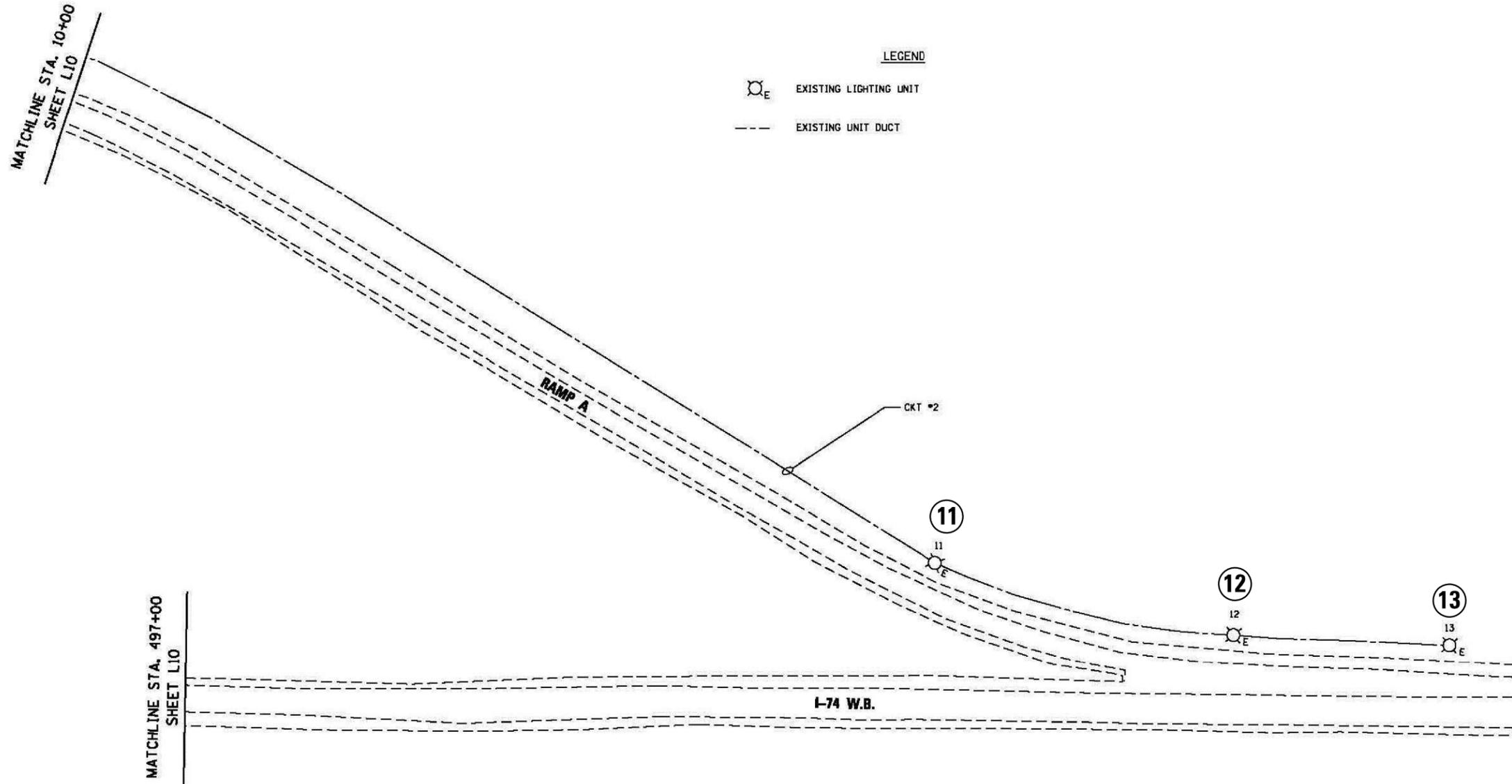
1. LIGHT POLE SETBACK IS TAKEN FROM EDGE OF PROPOSED TRAVELED PAVEMENT.
2. WHERE GUARDRAIL IS PRESENT, LIGHT POLES SHALL BE SETBACK 5 FEET BEHIND GUARDRAIL.
3. BREAKAWAY SUPPORTS SHALL NOT BE USED ON LIGHT POLES INSTALLED BEHIND GUARDRAIL OR ON PARAPET WALLS.
4. LUMINAIRE INSTALLED ON LIGHT POLE 7 SHALL BE TILTED DOWN 10 DEGREES TO COMPENSATE FOR REDUCED SETBACK.
5. THE CONTRACTOR SHALL LOCATE, UNCOVER, AND RE-ROUTE EXISTING UNIT DUCT TO THE PROPOSED LIGHTING UNIT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT DUCT PAY ITEM.

**CABLE/CONDUIT SCHEDULE**

- (A) UNIT DUCT, 600V, 2-1C NO. 4, 1/2 NO. 4 GROUND, (XLP-TYPE USE) 1" POLYETHYLENE
- (B) ELECTRIC CABLE IN CONDUIT, 600V, (XLP-TYPE USE) 2-1C NO. 4, 1/2 NO. 4 GROUND IN 2" DIA PVC CONDUIT EMBEDDED IN STRUCTURE

REV.  
L11

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EXISTING LIGHTING PLANS I-74 &amp; C.H. 9 (EXIT 51) KNOXVILLE</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN -	REVISED -			74	(37-24)HL-1; (48-27)HL-2	HENRY-KNOX	11	8	
PLOT SCALE = \$SCALE\$		CHECKED -	REVISED -			CONTRACT NO. 68F03					
PLOT DATE = \$DATE\$		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					



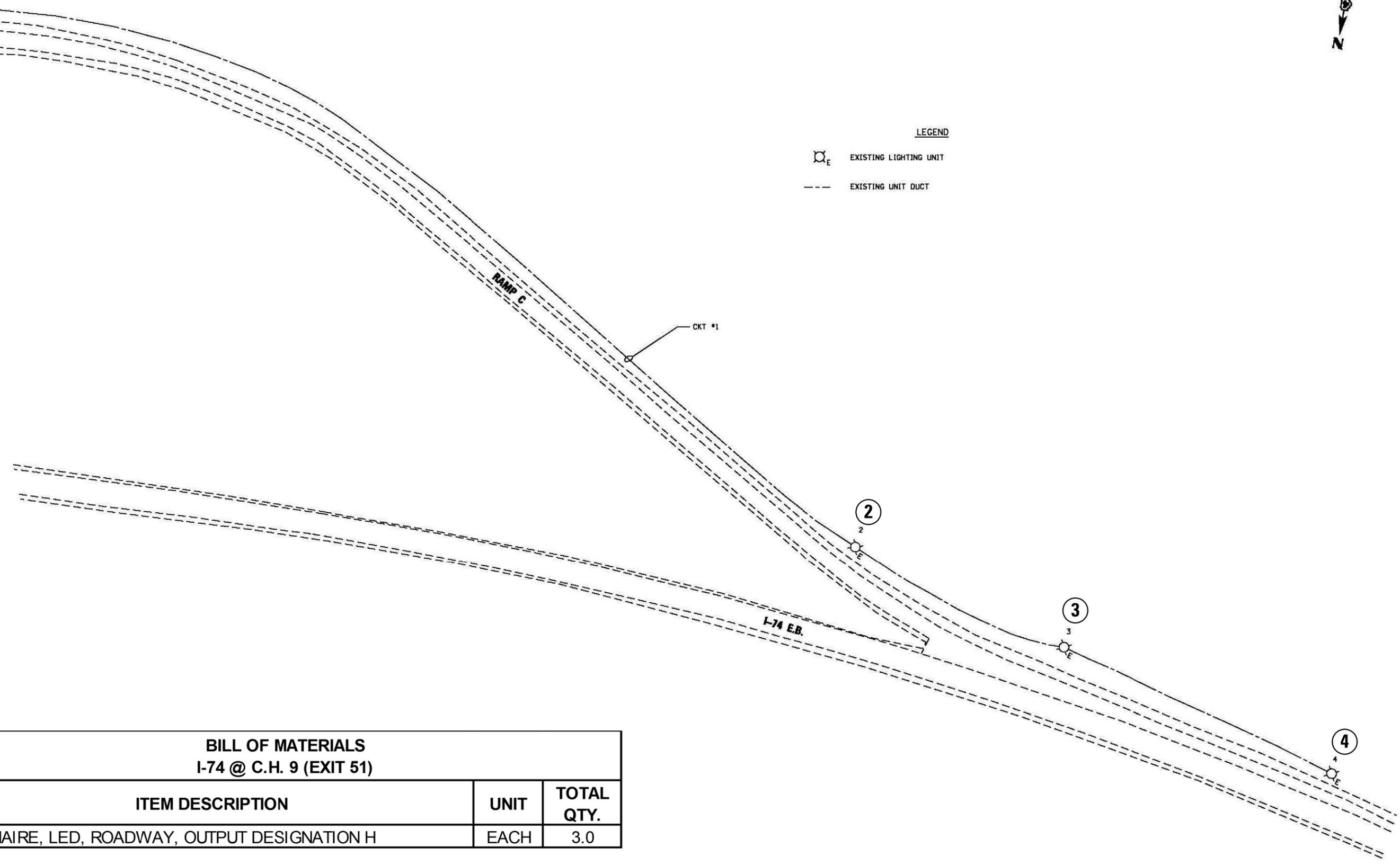
**LEGEND**  
 ○<sub>E</sub> EXISTING LIGHTING UNIT  
 - - - EXISTING UNIT DUCT

BILL OF MATERIALS I-74 @ C.H. 9 (EXIT 51)		
ITEM DESCRIPTION	UNIT	TOTAL QTY.
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	3.0

MATCHLINE STA. 13+00  
SHEET L11



**LEGEND**  
 EXISTING LIGHTING UNIT  
 EXISTING UNIT DUCT



BILL OF MATERIALS I-74 @ C.H. 9 (EXIT 51)		
ITEM DESCRIPTION	UNIT	TOTAL QTY.
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	3.0

FILE NAME = *FILEL*	USER NAME = *USER*	DESIGNED - ____	REVISED - ____
		DRAWN - ____	REVISED - ____
		CHECKED - ____	REVISED - ____
		DATE - ____	REVISED - ____

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING LIGHTING PLANS  
I-74 & C.H. 9 (EXIT 51) KNOXVILLE  
SCALE: \_\_\_\_\_ STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(37-24)HL-1; (48-27)HL-2	HENRY-KNOX	11	10
CONTRACT NO. 68F03				
ILLINOIS FED. AID PROJECT				

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	37-24HL	HENRY	10	3
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

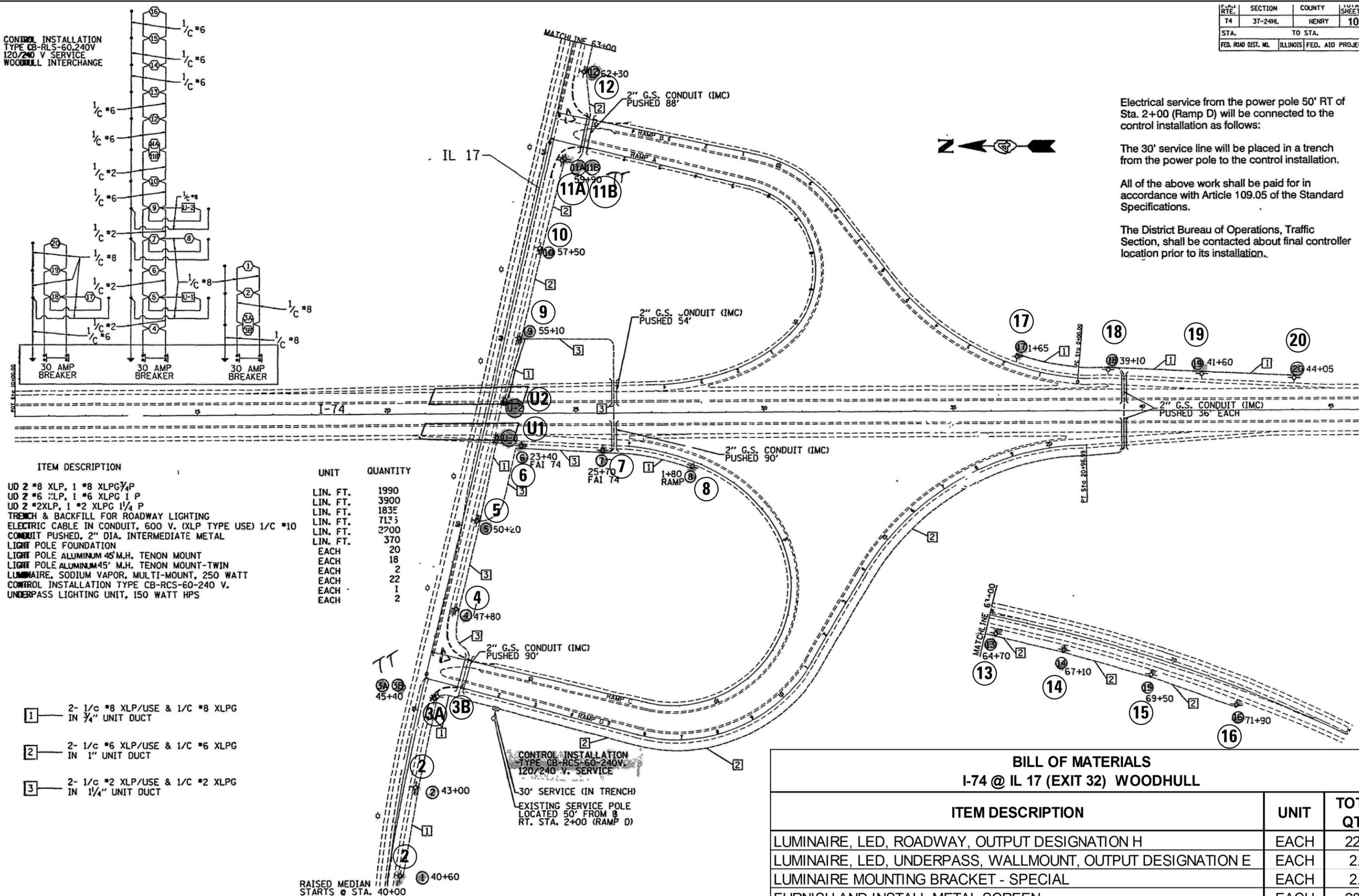
CONTROL INSTALLATION  
TYPE CB-RCS-60-240V  
120/240 V SERVICE  
WOODHULL INTERCHANGE

Electrical service from the power pole 50' RT of Sta. 2+00 (Ramp D) will be connected to the control installation as follows:

The 30' service line will be placed in a trench from the power pole to the control installation.

All of the above work shall be paid for in accordance with Article 109.05 of the Standard Specifications.

The District Bureau of Operations, Traffic Section, shall be contacted about final controller location prior to its installation.



ITEM DESCRIPTION	UNIT	QUANTITY
UD 2 #8 XLP, 1 #8 XLPG 3/4 P	LIN. FT.	1990
UD 2 #6 XLP, 1 #6 XLPG 1 P	LIN. FT.	3900
UD 2 #2XLP, 1 #2 XLPG 1 1/4 P	LIN. FT.	1835
TRENCH & BACKFILL FOR ROADWAY LIGHTING	LIN. FT.	7135
ELECTRIC CABLE IN CONDUIT, 600 V. (XLP TYPE USE) 1/C #10	LIN. FT.	2200
CONDUIT PUSHED, 2" DIA. INTERMEDIATE METAL	LIN. FT.	370
LIGHT POLE FOUNDATION	EACH	20
LIGHT POLE ALUMINUM 45' M.H. TENON MOUNT	EACH	18
LIGHT POLE ALUMINUM 45' M.H. TENON MOUNT-TWIN	EACH	2
LUMINAIRE, SODIUM VAPOR, MULTI-MOUNT, 250 WATT	EACH	22
CONTROL INSTALLATION TYPE CB-RCS-60-240 V.	EACH	1
UNDERPASS LIGHTING UNIT, 150 WATT HPS	EACH	2

- 1 - 2- 1/c #8 XLP/USE & 1/c #8 XLPG IN 3/4" UNIT DUCT
- 2 - 2- 1/c #6 XLP/USE & 1/c #6 XLPG IN 1" UNIT DUCT
- 3 - 2- 1/c #2 XLP/USE & 1/c #2 XLPG IN 1 1/4" UNIT DUCT

BILL OF MATERIALS I-74 @ IL 17 (EXIT 32) WOODHULL		
ITEM DESCRIPTION	UNIT	TOTAL QTY.
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	22.0
LUMINAIRE, LED, UNDERPASS, WALLMOUNT, OUTPUT DESIGNATION E	EACH	2.0
LUMINAIRE MOUNTING BRACKET - SPECIAL	EACH	2.0
FURNISH AND INSTALL METAL SCREEN	EACH	20.0

FILE NAME =	USER NAME = *USER*	DESIGNED -	REVISED -
*FILE#		DRAWN -	REVISED -
	PLOT SCALE = *SCALE*	CHECKED -	REVISED -
	PLOT DATE = *DATE*	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING LIGHTING PLANS I-74 & C.H. 9 (EXIT 51) KNOXVILLE	
SCALE: _____	STA. _____ TO STA. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(37-24)HL-1; (48-27)HL-2	HENRY-KNOX	11	11
CONTRACT NO. 68F03				
ILLINOIS FED. AID PROJECT				

ILLINOIS DEPARTMENT OF TRANSPORTATION  
LUMINAIRE PERFORMANCE TABLE  
LED REPLACEMENT FOR 250W HPS MULTI-MOUNT LUMINAIRE  
(REPLACEMENT LUMINAIRE SHALL BE MOUNTED HORIZONTALLY)

GIVEN CONDITIONS		
ROADWAY DATA	Lane Width	12 FT
	Number of lanes (in one direction Only)	3
	Median Width	0 FT
	I.E.S. Surface Classification	R3
	0-Zero Value	0.07
LIGHT POLE DATA	Mounting Height	45 FT
	Luminaire Overhang From Edge of Pavement (White Line)	-30 FT
LUMINAIRE DATA	Luminaire Type	LED
	I.E.S. Vertical Distribution	MEDIUM
	BUG Rating	U = 0
	I.E.S. Lateral Distribution	TYPE III OR IV
	Total Light Loss Factor	0.684
LAYOUT DATA	Spacing	145 FT
	Configuration	SINGLE SIDED

NOTES:

- Total light loss factor is the product of "Lumen Depreciation" (LDD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment Factors" (EF) = 0.95.

PERFORMANCE REQUIREMENTS		
ILLUMINANCE:	AVERAGE ILLUMINANCE: ( $E_{AVE}$ )	0.9 fc TO 1.4 fc
	UNIFORMITY RATIO: ( $E_{AVE}/E_{MIN}$ )	≤ 3.0:1
LUMINANCE:	AVERAGE LUMINANCE: ( $L_{AVE}$ )	0.6 cd/m <sup>2</sup> to 0.9 cd/m <sup>2</sup>
	UNIFORMITY RATIO: ( $L_{AVE}/L_{MIN}$ )	≤ 3.5:1
	UNIFORMITY RATIO: ( $L_{MAX}/L_{MIN}$ )	≤ 6.0:1
	MAX VEILING LUMINAICE RATIO: ( $L_V/L_{AVE}$ )	≤ 0.3:1

ILLINOIS DEPARTMENT OF TRANSPORTATION  
LUMINAIRE PERFORMANCE TABLE  
LED REPLACEMENT FOR 150W HPS UNDERPASS LUMINAIRE

GIVEN CONDITIONS		
ROADWAY DATA	Lane Width	12 FT
	Number of lanes (in one direction Only)	2
	Median Width	0 FT
	I.E.S. Surface Classification	R3
	0-Zero Value	0.07
LIGHT POLE DATA	Mounting Height	16 FT
	Luminaire Overhang From Edge of Pavement (White Line)	-20 FT
LUMINAIRE DATA	Luminaire Type	LED
	I.E.S. Vertical Distribution	MEDIUM
	BUG Rating	U = 0
	I.E.S. Lateral Distribution	TYPE III OR IV
	Total Light Loss Factor	0.684
LAYOUT DATA	Spacing	60 FT
	Configuration	SINGLE SIDED

NOTES:

- Total light loss factor is the product of "Lumen Depreciation" (LDD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment Factors" (EF) = 0.95.

PERFORMANCE REQUIREMENTS		
LUMINANCE:	AVERAGE LUMINANCE: ( $L_{AVE}$ )	0.6 cd/m <sup>2</sup> to 0.9 cd/m <sup>2</sup>
	UNIFORMITY RATIO: ( $L_{AVE}/L_{MIN}$ )	≤ 3.5:1
	UNIFORMITY RATIO: ( $L_{MAX}/L_{MIN}$ )	≤ 6.0:1
	MAX VEILING LUMINAICE RATIO: ( $L_V/L_{AVE}$ )	≤ 0.3:1