

01-20-2023 LETTING ITEM 004

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

FOR INDEX OF SHEETS & STATE STANDARDS
SEE SHEET NO. 2

FAP	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
300	IL 5	5HL-1	ROCK ISLAND	7	1

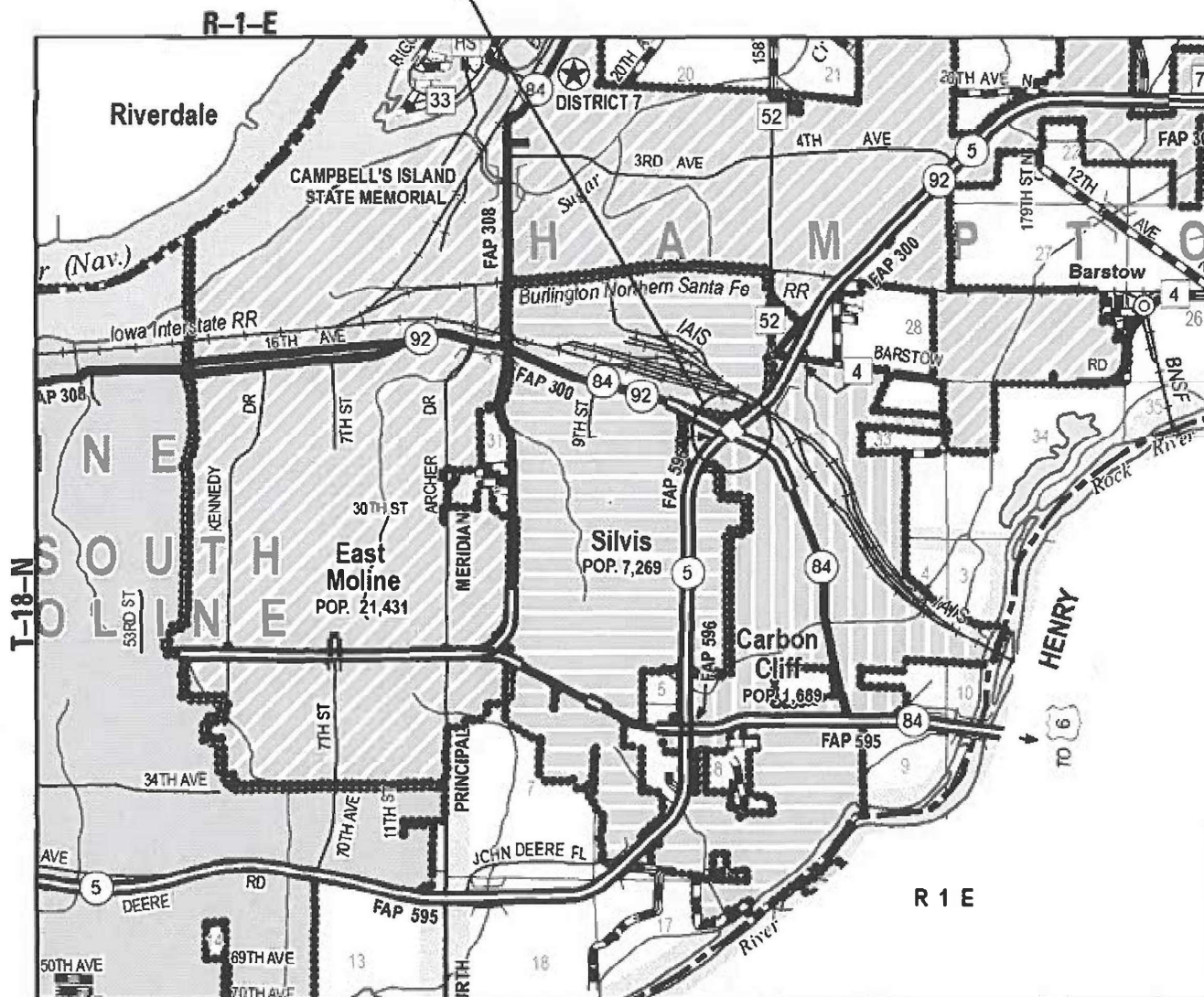
CONTRACT NO. 64N69
D-92-034-19

PROPOSED HIGHWAY PLANS

FAP 300 (IL 5) & FAP 596 (IL 5)
SECTION 5HL-1
PROJECT NHPP-4129(808)
ROCK ISLAND COUNTY
C-92-046-19



PROJECT LOCATION
IL 92 at IL 5



PROJECT ENGINEER: SCOTT KULLERSTRAND (815) 284-5468

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

CONTRACT NO. 64N69

FAP 300 IL 5 SECTION 5HL-1 ROCK ISLAND COUNTY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED October 7, 2022

[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 9, 2022

[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

December 9, 2022

[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
3. SCHEDULE OF QUANTITIES
4. LIGHTING REMOVAL PLAN - IL 92 AT IL 5
5. PROPOSED LIGHTING PLAN - IL 92 AT IL 5
6. PROPOSED LIGHTING WIRING DIAGRAMS - IL 92 AT IL 5
7. LUMINAIRE PERFORMANCE TABLE

STATE STANDARDS

- 701101-05 OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
- 701400-11 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701406-13 LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
- 701411-09 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP FOR SPEEDS > 45 MPH OR MORE
- 701426-09 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS, FOR SPEEDS > 45 MPH
- 701456-05 PARTIAL EXIT RAMP CLOSURE FREEWAY/EXPRESSWAY
- 701701-10 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701901-08 TRAFFIC CONTROL DEVICES

- 821101-02 LUMINAIRE WIRING IN POLE
- 825011-04 LIGHTING CONTROLLER PEDESTAL MOUNTED, 240V
- 830011-03 LIGHT POLE STEEL MAST ARM
- 836001-04 LIGHT POLE FOUNDATION
- 838001-01 BREAKAWAY DEVICES

LEGEND

-  PROPOSED ROADWAY LIGHTING UNIT, 40' M.H., LED HORIZONTAL MOUNT 240V LUMINAIRE, BREAKAWAY COUPLINGS ON 6' METAL FOUNDATION WITH POLE SETBACK OF 30' FROM EDGE OF PAVEMENT, UNLESS NOTED OTHERWISE.
-  PROPOSED LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240V.
-  PROPOSED UNIT DUCT, SIZE AS NOTED.
-  UNDERGROUND CONDUIT CASING, CNC, 2" DIA.
-  EXISTING LIGHTING UNIT AND FOUNDATION TO BE REMOVED (POLE NUMBER NOTED).
-  EXISTING SIGN LIGHTING UNIT TO BE REMOVED
-  EXISTING LIGHTING CONTROLLER TO BE REMOVED.

GENERAL NOTES

1. NO WORK SHALL BE ALLOWED UNTIL ALL COMPONENTS TO COMPLETE THE LIGHTING SYSTEM INSTALLATION HAVE BEEN DELIVERED.
2. EXISTING LIGHTING TO BE REMOVED SHALL REMAIN UNTIL PROPOSED LIGHTING SYSTEM IS OPERATIONAL.
3. INSTALL NEW UNIT DUCT IN UNDERGROUND CASING UNDER THE ROADWAY AS SHOWN ON PLANS.
4. PROPOSED OFFSETS ARE A NOMINAL 30' FROM EDGE OF LANE. ENGINEER WILL DETERMINE EXACT LOCATIONS.
5. SIGNS ATTACHED TO LIGHT POLES SHALL BE REMOVED, PRESERVED AND REINSTALLED. THE COST OF THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR REMOVAL OF THE LIGHTING UNIT, NO SALVAGE.
6. THE FINISH EARTHWORK SHALL HAVE A VEGETATION-SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDED. THIS SOIL WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE LIGHTING PAY ITEMS.

MODEL: C:\p1\c... FILE NAME: S:\TRC\contract\leg... 02... 11:11:25 AM

USER NAME = R... DESIGNED - DRAWN - PLOT SCALE = 1/32" = 1' / in PLOT DATE = Nov-22-2022 11:11:25 AM	REVISIONS REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, HIGHWAY STANDARDS, LEGEND AND GENERAL NOTES	F.A.P. RATE = .300	SECTION = SHL 1	COUNTY = ROCK ISLAND	TOTAL SHEETS = 7	SHEET NO. = 2	CONTRACT NO. 64N69	ILLINOIS FED. AID PROJECT
--	--	---	---	--------------------	-----------------	----------------------	------------------	---------------	--------------------	---------------------------

SCHEDULE OF QUANTITIES

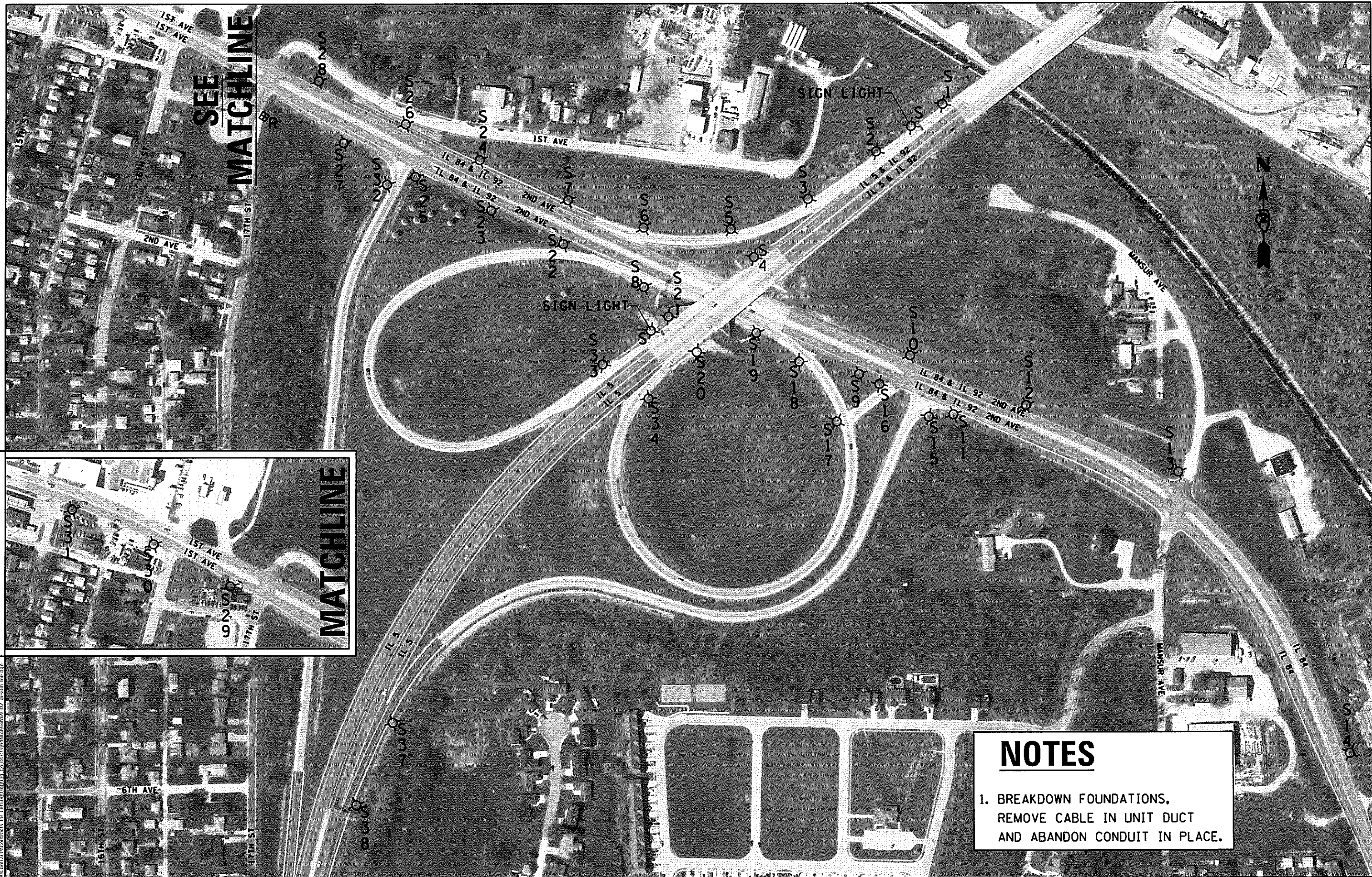
0021
URBAN
80% FED
20% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
67100100	MOBILIZATION	L SUM	1
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	6
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1
70100825	TRAFFIC CONTROL AND PROTECTION, STANDARD 701456	L SUM	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
81028750	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 2" DIA.	FOOT	715
81603010	UNIT DUCT, 600V, 2-1C NO.10, 1/C NO.10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	8195
82110008	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	17
82500330	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP	EACH	1
83060340	LIGHT POLE, GALVANIZED STEEL, 40 FT. M.H., 12 FT. MAST ARM	EACH	17
83600356	LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8 5/8" X 6'	EACH	17
83800650	BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN	EACH	68
84200600	REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	36
84200804	REMOVAL OF POLE FOUNDATION	EACH	36
84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	1
84500130	REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	1
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	9010
X8420506	REMOVAL OF EXISTING SIGN LIGHTING UNIT WITH NO SALVAGE	EACH	2
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.6

• SPECIALTY ITEMS

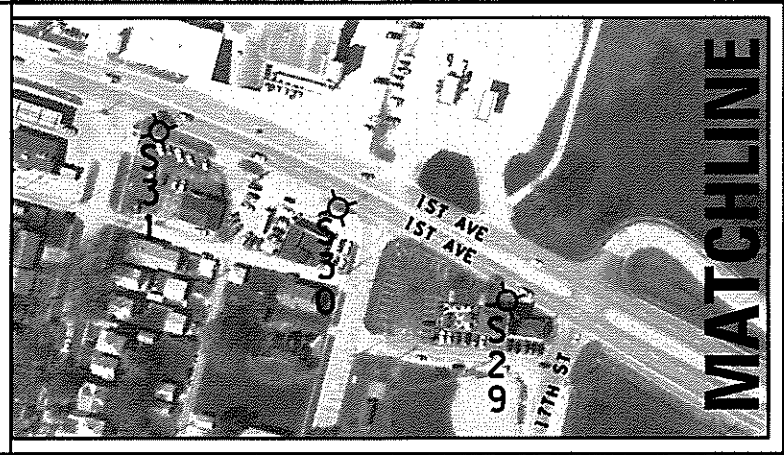
MODEL: D:\dwg\11\110001.dwg
FILE: 110001.dwg
PLOT DATE: 2022-08-03 01:09:58 PM

USER NAME = Kristine Hill	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES IL 92 AT IL 5	F.A.P. RTE. = 300	SECTION = 5HL-1	COUNTY = ROCK ISLAND	TOTAL SHEETS = 7	SHEET NO. = 3	
PLOT SCALE = 1/32" = 1' / in	CHECKED - _____	REVISED - _____			SCALE _____	SHEET _____	OF _____	SHEETS	STA. _____	TO STA. _____
PLOT DATE = Aug-03-2022 01:09:58 PM	DATE - _____	REVISED - _____			ILLINOIS FED. AID PROJECT					
CONTRACT NO. 64N69										



SEE
MATCHLINE

MATCHLINE



NOTES

1. BREAKDOWN FOUNDATIONS, REMOVE CABLE IN UNIT DUCT AND ABANDON CONDUIT IN PLACE.

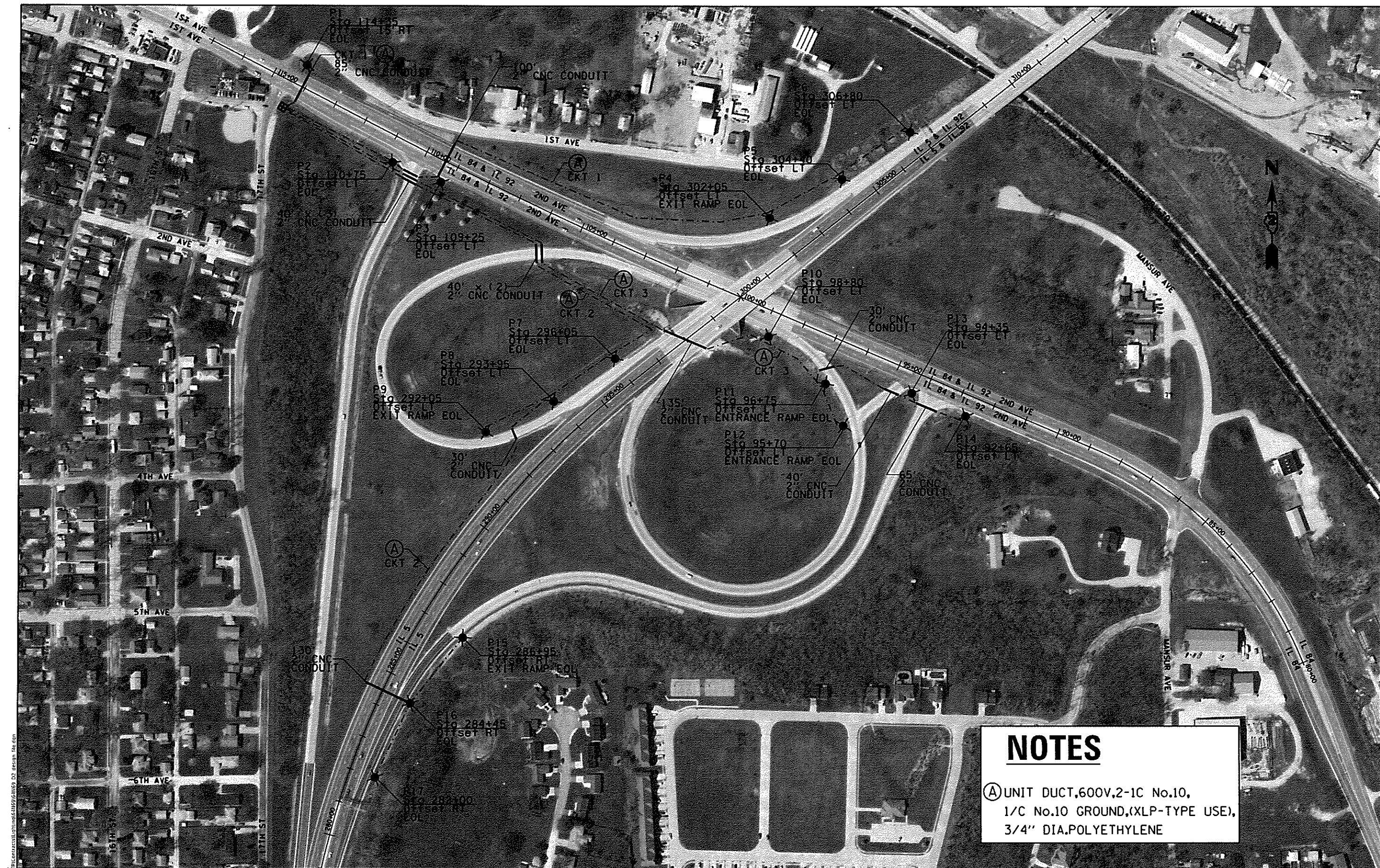
MODEL: D:\p4\...
 FILE NAME: 5-17-2022\...
 CONTRACT: 64N69

USER NAME = ditzersa	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = 250.0000 ' / 1" .	CHECKED - _____	REVISED - _____
PLOT DATE = Feb-09-2022 11:24:59 PM	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING REMOVAL PLAN	
IL 92 AT IL 5	
SCALE: _____	SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A.P. RTE. 300	SECTION 5HL-1	COUNTY ROCK ISLAND	TOTAL SHEETS 7	SHEET NO. 4
CONTRACT NO. 64N69				
ILLINOIS FED AID PROJECT				



NOTES

Ⓐ UNIT DUCT, 600V, 2-1C No.10,
 1/C No.10 GROUND, (XLP-TYPE USE),
 3/4" DIA. POLYETHYLENE

MODEL: Default
 FILE NAME: S:\Projects\Lighting\64N69\64N69.dwg
 USER: design
 PLOT DATE: Aug-03-2022 01:10:38 PM

USER NAME = Kwiktime Hill	DESIGNED -	REVISED -
PLOT SCALE = 261.7538' / in.	DRAWN -	REVISED -
PLOT DATE = Aug-03-2022 01:10:38 PM	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

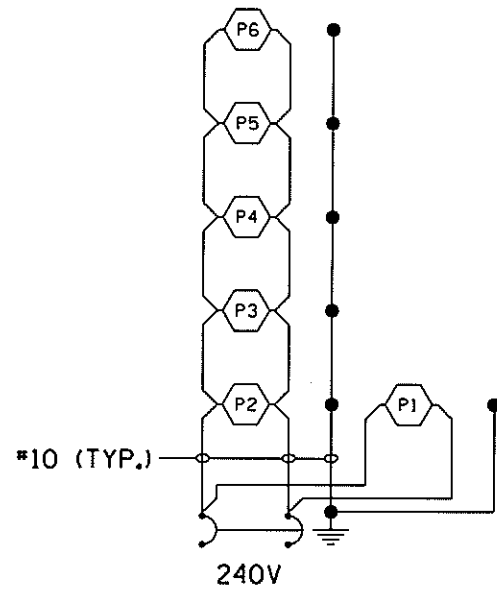
PROPOSED LIGHTING PLAN
IL 92 AT IL 5

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

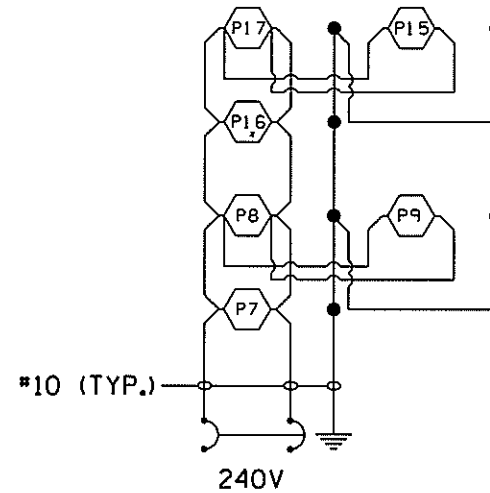
F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
300	5HL-1	ROCK ISLAND	7	5
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64N69	

PROPOSED LIGHTING WIRING DIAGRAMS

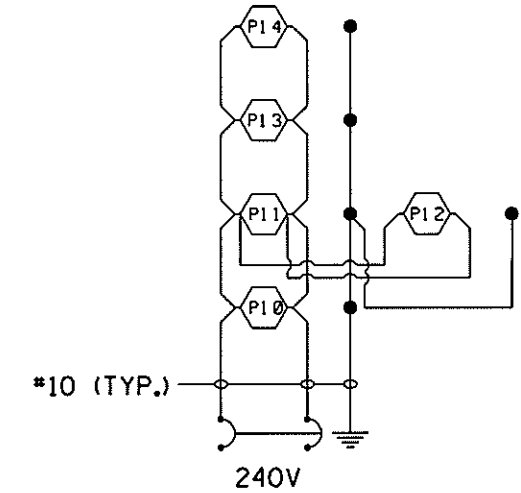
PROPOSED LIGHTING CONTROLLER
IL-92 AT IL-5
240V



2 POLE 30 AMP BREAKER
CKT #1






2 POLE 30 AMP BREAKER
CKT #2



2 POLE 30 AMP BREAKER
CKT #3

LEGEND

-  PROPOSED LED LUMINAIRE. NUMBER INSIDE CIRCLE INDICATES FIXTURE NUMBER.
-  GROUND ROD
-  PROPOSED CABLE (SIZE AS NOTED)

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.

MODEL: Default
FILE NAME: S:\3110\Contract\Lighting\64N69\64N69.dwg

USER NAME - Kristine Hill	DESIGNED -	REVISED -
PLOT SCALE - 1/8" = 1'-0"	DRAWN -	REVISED -
PLOT DATE - Aug 03 2022 01:11:12 PM	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING WIRING DIAGRAMS
IL 92 AT IL 5

SCALE	SHEET	OF	SHEETS	STA	TO STA	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
						300	5HL:1	ROCK ISLAND	7	6
									CONTRACT NO. 64N69	
ILLINOIS FED. AID PROJECT										

LUMINAIRE PERFORMANCE TABLE

PROJECT

DATE	CONTRACT NUMBER	SECTION NUMBER	COUNTY
6/17/2020	64N68	5HL-1	ROCK ISLAND

MARKED ROUTE NUMBER	MUNICIPALITY
IL-92 AT IL-5	ROCK ISLAND

ROADWAY

LANE WIDTH	*OF LANES	MEDIAN WIDTH	I.E.S SURFACE CLASSIFICATION	O-ZERO VALUE
12	2	N/A	R3	0.07

STRUCTURE

MOUNTING HEIGHT	ARM LENGTH	SET BACK	NUMBER OF LUMINAIRES (HIGHMAST & SIGN LIGHTING ONLY)
40 FT	12 FT	30 FT	N/A

LUMINAIRE

DESCRIPTION	I.E.S. LATERAL DISTRIBUTION	I.E.S. VERTICAL DISTRIBUTION
LED, ROADWAY, OUTPUT DESIGNATION H	TYPE III	MEDIUM
TOTAL LIGHT LOSS FACTOR (LLF)	BUG RATING	SHIELDS
0.7	U = 0	N/A
		DIMMING PROTOCOL
		0-10V

LAYOUT

SPACING (TO NEAREST 5 FT)	CONFIGURATION (OPPOSITE, STAGGERED, 1 SIDED, OR MEDIUM)
230 FT	SINGLE SIDED

PERFORMANCE

AVERAGE ILLUMINANCE, E_{AVE} (FC)	UNIFORMITY RATIO, E_{AVE} / E_{MIN}		
0.6	3.0		
AVERAGE LUMINANCE, L_{AVE} (CD/M ²)	UNIFORMITY RATIO, L_{AVE} / L_{MIN}	UNIFORMITY RATIO, L_{MAX} / L_{MIN}	VEILING LUMINANCE RATIO, L_v / L_{MIN}
N/A	N/A	N/A	0.4:1

LIGHT TRESSPASS

DISTANCE TO ROW (BEHIND POLE)	MAX. HORIZONTAL ILLUMINANCE AT ROW, E	MAX. VERTICAL ILLUMINANCE AT ROW, E
N/A	N/A	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 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 ABOVE.

CALCULATIONS SHALL BE PERFORMED WITH 2 LANES IN ONE DIRECTION ONLY

INITIAL LUMENS MAY EXCEED THE VALUES GIVEN IN TABLE IN ART. 1067.06 OF THE PROJECT SPECIAL PROVISIONS "LUMINAIRE, LED (BOE)" (25, 200 LUMENS).

PERFORMANCE CRITERIA SHALL BE HELD TO ONE SIGNIFICANT DIGIT.

MODEL: D:\evill...
FILE NAME: S:\TRC\contracts\contracts\lighting\contracts\561616\64N68_02.dwg (line.dwg)