

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

**PROPOSED
 HIGHWAY PLANS**

FAP ROUTE 323 (U.S. 36)

SECTION 149L

EDGAR COUNTY

C-95-028-07

HIGHWAY LIGHTING MODERNIZATION

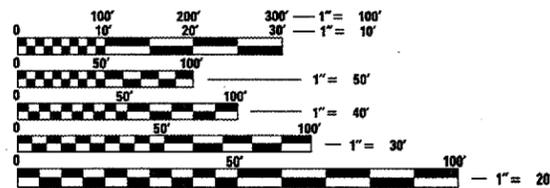
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	149L	EDGAR	9	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 70656		

D95-028-07



LOCATION OF SECTION INDICATED THUS: - [black rectangle] -

FOR INDEX OF SHEETS, SEE SHEET NO. 2
 FOR SUMMARY OF QUANTITIES SEE SHEET NO. 3

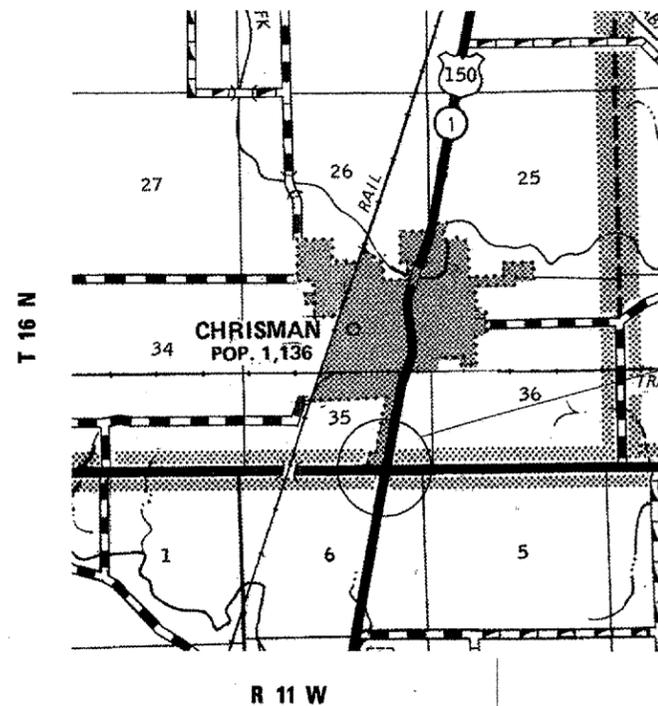


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-392-0123
 OR 811

PROJECT ENGINEER: SCOTT NEIHART
 PROJECT MANAGER: ROGER BIGGS

CONTRACT NO. 70656



U.S. 36 & U.S. 150 / IL. 1
 SECTION 149L

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED: 10/24 20 07
 [Signature] DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Dec 7, 20 07
 Eric E. Harm [Signature] ENGINEER OF DESIGN AND ENVIRONMENT

Dec 7, 20 07
 Christine M. Reed [Signature] DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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 OF THE STATE OF ILLINOIS**

GENERAL NOTES

G.N.-100

ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G.N.-105.07

EXISTING STATE-OWNED AND MAINTAINED UTILITY LINES ARE SHOWN ON THE PLANS TO INDICATE THEIR PRESENCE AND APPROXIMATE LOCATION. THE CONTRACTOR SHALL NOTIFY THE DISTRICT OPERATIONS ENGINEER TWO WEEKS PRIOR TO COMMENCING ANY EXCAVATION IN THE VICINITY OF THESE LINES. THE STATE WILL THEN LOCATE AND MARK THE HORIZONTAL LOCATIONS OF THE LINES AND PROVIDE ANY AVAILABLE INFORMATION AS TO THEIR DEPTH. SHOULD ANY OF THE LINES BE DAMAGED BY THE CONTRACTOR'S OPERATION, THE CONTRACTOR SHALL REPAIR THEM TO THE SATISFACTION OF THE ENGINEER AND AT NO COST TO THE STATE.

ALSO THERE MAY BE UTILITIES PRESENT WHICH WERE INSTALLED BY THE STATE BUT ARE MAINTAINED BY OTHERS (CITY, TOWN, ETC.) THE APPROXIMATE LOCATIONS OF THESE LINES ARE ALSO SHOWN ON THE PLANS ALONG WITH THE NAME OF THE MAINTAINING AGENCY. THE CONTRACTOR SHALL COORDINATE THE LOCATING OF THESE LINES WITH THE LOCAL AGENCY PRIOR TO COMMENCING ANY EXCAVATION OR BORING IN THEIR VICINITY. SHOULD THESE LINES BE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL REPAIR THEM TO THE SATISFACTION OF, AND AT NO COST TO, THE LOCAL AGENCY AND THE STATE.

G.N.-107.31

UTILITY LINES WERE PLOTTED FROM INFORMATION FURNISHED BY THE VARIOUS UTILITY COMPANIES INVOLVED (QUALITY LEVEL C &/OR QUALITY LEVEL D) AND THE ACCURACY SHOULD BE CONSIDERED APPROXIMATE ONLY.

UTILITY COMPANIES MAY BE ADJUSTING THEIR FACILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL COOPERATE WITH THESE ORGANIZATIONS WHILE THESE ADJUSTMENTS ARE BEING PERFORMED. J.U.L.I.E. - JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS SYSTEM (800)892-0123.

THE FOLLOWING UTILITY OWNERS MARKED WITH AN "*" BELONG TO J.U.L.I.E.:

Mr. David Pottle
* Ameren-IP (Gas)
1112 W. Anthony Drive
P.O. Box 17070
Urbana, IL 61803
(217) 383-7241

Mr. Greg Curtis
* Verizon North Central, Inc
ILL0301
212 E Grove St
Rantoul, IL 61866
(217) 892-3359

GENERAL NOTES

1. CONTRACTOR SHALL REPLACE POLES AS CLOSE AS POSSIBLE TO THE EXISTING LIGHT POLE LOCATIONS.
2. ALL POLES MUST BE LOCATED TO MAINTAIN THE REQUIRED DISTANCE TO THE OVERHEAD POWERLINES.
3. PROPOSED LIGHTING CONTROLLER AND FLASHING BEACON CONTROLLER ARE TO BE HOUSED IN THE SAME CABINET.

Mr. Steve Estes
* Ameren-IP (Electric)
1112 West Anthony Drive
P.O. Box 17070
Urbana, IL 61803-7070
(217) 383-7304

G.N.-1004.01

COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

LIST OF STANDARDS

STANDARD NO.	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-01	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
701006-02	TRAFFIC CONTROL
701301-02	TRAFFIC CONTROL
701701-05	TRAFFIC CONTROL
701901	TRAFFIC CONTROL DEVICES

INDEX OF SHEETS

1	COVER SHEET
2	GENERAL NOTES, INDEX OF SHEETS & STANDARDS IN THE PLANS
3	SUMMARY OF QUANTITIES
4	LIGHTING PLAN SHEET
5	BILL OF MATERIALS, DETAILS
6-9	DETAIL SHEETS

70656

SUMMARY OF QUANTITIES

LOCATION OF WORK:

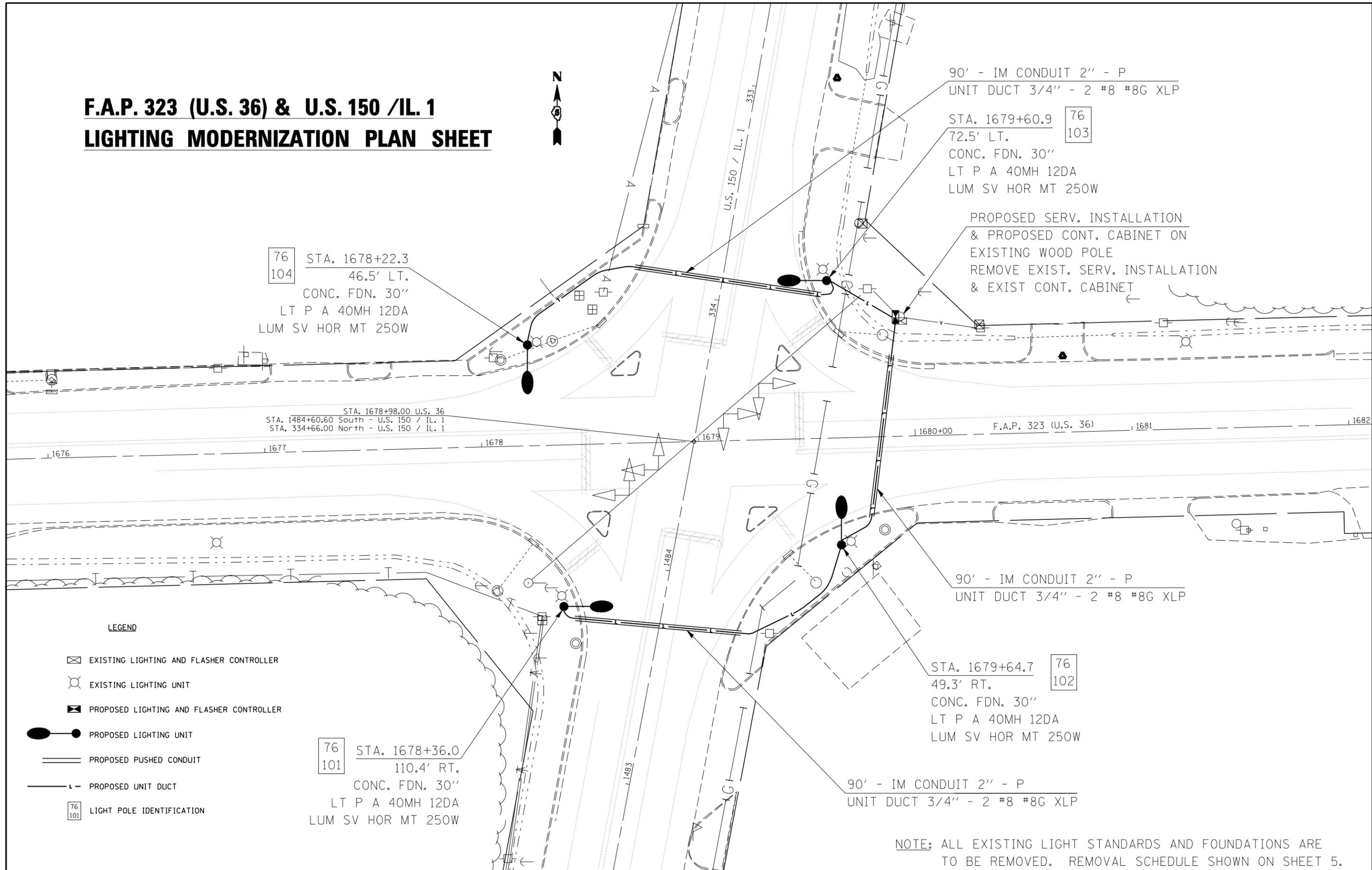
**U.S. 36 & U.S. 150 / IL 1
Edgar County
Highway Lighting
100% State
Y030-1E**

CONSTRUCTION TYPE CODE:

<u>CODE NO</u>	<u>ITEM</u>	<u>UNIT</u>	<u>TOTAL QUANTITY</u>
67100100	MOBILIZATION	L SUM	1.0
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1.0
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1.0
81020500	CONDUIT PUSHED, 2" DIA., INTERMEDIATE METAL	FOOT	270.0
81603000	UNIT DUCT, 600V, 2-1C NO.8, 1/C NO.8 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	544.0
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	244.0
82102250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	4.0
83002500	LIGHT POLE, ALUMINUM, 40 FT. M.H., 12 FT. DAVIT ARM	EACH	4.0
83600300	LIGHT POLE FOUNDATION, 30" DIAMETER	FOOT	24.0
83800505	BREAKAWAY DEVICE, COUPLING, WITH ALUMINUM SKIRT	EACH	16.0
84200500	REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	EACH	2.0
84200600	REMOVAL OF EXISTING LIGHTING UNIT, NO SALVAGE	EACH	10.0
84200800	POLE FOUNDATION, REMOVED	EACH	12.0
84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	1.0
84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1.0
X8250207	LIGHTING CONTROLLER PHOTOCELL RELAY, SPECIAL	EACH	1.0

FILE NAME = c:\projects\4502807\481\4735\plan.dgn	USER NAME = collierbw	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE. 323	SECTION 149L	COUNTY EDGAR	TOTAL SHEETS 9	SHEET NO. 3	
PLOT SCALE = 40.0000' / IN.		CHECKED -	REVISED -	SCALE:		SHEET NO. OF SHEETS		STA. TO STA.		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
PLOT DATE = 10/24/2007		DATE -	REVISED -			CONTRACT NO. 70656					

F.A.P. 323 (U.S. 36) & U.S. 150 / IL. 1 LIGHTING MODERNIZATION PLAN SHEET



76
104
STA. 1678+22.3
46.5' LT.
CONC. FDN. 30"
LT P A 40MH 12DA
LUM SV HOR MT 250W

STA. 1678+98.00 U.S. 36
STA. 1484+60.60 South - U.S. 150 / IL. 1
STA. 334+66.00 North - U.S. 150 / IL. 1

90' - IM CONDUIT 2'' - P
UNIT DUCT 3/4'' - 2 #8 #8G XLP
STA. 1679+60.9
72.5' LT.
CONC. FDN. 30"
LT P A 40MH 12DA
LUM SV HOR MT 250W

PROPOSED SERV. INSTALLATION
& PROPOSED CONT. CABINET ON
EXISTING WOOD POLE
REMOVE EXIST. SERV. INSTALLATION
& EXIST. CONT. CABINET

90' - IM CONDUIT 2'' - P
UNIT DUCT 3/4'' - 2 #8 #8G XLP

76
102
STA. 1679+64.7
49.3' RT.
CONC. FDN. 30"
LT P A 40MH 12DA
LUM SV HOR MT 250W

90' - IM CONDUIT 2'' - P
UNIT DUCT 3/4'' - 2 #8 #8G XLP

76
101
STA. 1678+36.0
110.4' RT.
CONC. FDN. 30"
LT P A 40MH 12DA
LUM SV HOR MT 250W

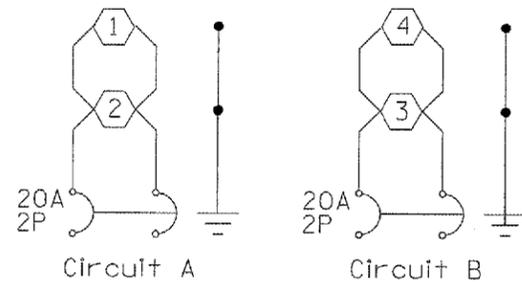
LEGEND

- EXISTING LIGHTING AND FLASHER CONTROLLER
- EXISTING LIGHTING UNIT
- PROPOSED LIGHTING AND FLASHER CONTROLLER
- PROPOSED LIGHTING UNIT
- PROPOSED PUSHED CONDUIT
- PROPOSED UNIT DUCT
- LIGHT POLE IDENTIFICATION

NOTE: ALL EXISTING LIGHT STANDARDS AND FOUNDATIONS ARE TO BE REMOVED. REMOVAL SCHEDULE SHOWN ON SHEET 5.

FILE NAME = c:\projects\d502807 (v8)\4735\plan.dgn	USER NAME = collierbw	DESIGNED - ---	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN SHEET		F.A.P. RTE. = 323	SECTION = 149L	COUNTY = EDGAR	TOTAL SHEETS = 9	SHEET NO. = 4
	PLOT SCALE = 40.0000' / IN.	CHECKED - ---	REVISED - ---				SCALE: -----	SHEET NO. -- OF -- SHEETS	STA. ----- TO STA. -----	CONTRACT NO. 10656	
PLOT DATE = 11/5/2007	DATE - -----	REVISED - ---	REVISED - ---								

CIRCUIT DETAIL



All wire size is #8 copper

REMOVE EXIST LIGHTING UNIT - NO SALVAGE

LOCATION	EACH
N. APPROACH	
STA. 334+33.4 79.4' RT.	1
* STA. 332+54.1 37.3' RT.	1
* STA. 330+24.8 37.0' RT.	1
E. APPROACH	
STA. 1679+59.3 77.7' LT.	1
STA. 1681+25.8 40.1' LT.	1
* STA. 1683+96.7 35.9' LT.	1
S. APPROACH	
* STA. 1481+95.9 38.8' RT.	1
STA. 1484+28.9 79.6' RT.	1
W. APPROACH	
* STA. 1674+03.2 35.6' RT.	1
STA. 1676+76.7 40.8' RT.	1

TOTAL = 10 EACH

REMOVE EXIST LIGHTING UNIT - SALVAGE

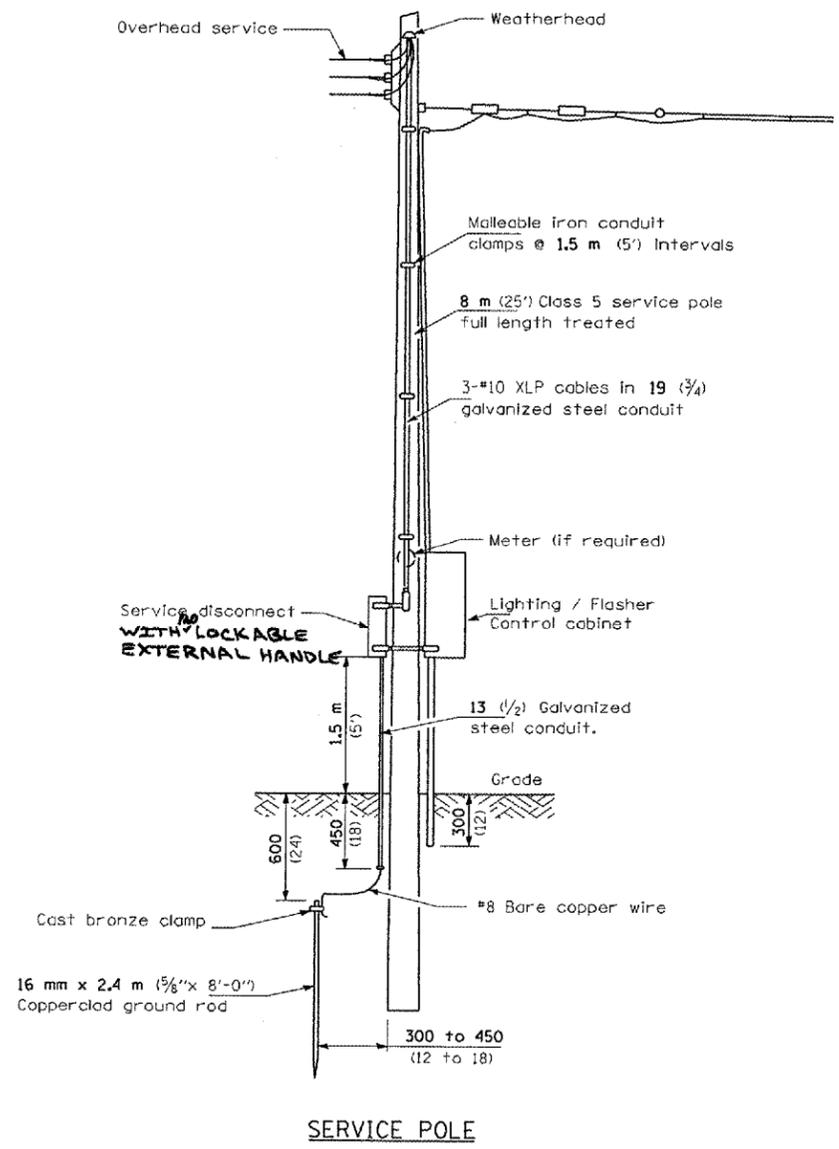
LOCATION	EACH
S. APPROACH	
* STA. 1480+12.4 38.2' RT.	1
W. APPROACH	
STA. 1678+35.2 69.4' RT.	1
TOTAL = 2 EACH	

* EXISTING LIGHTING UNIT NOT SHOWN ON PLAN SHEET.

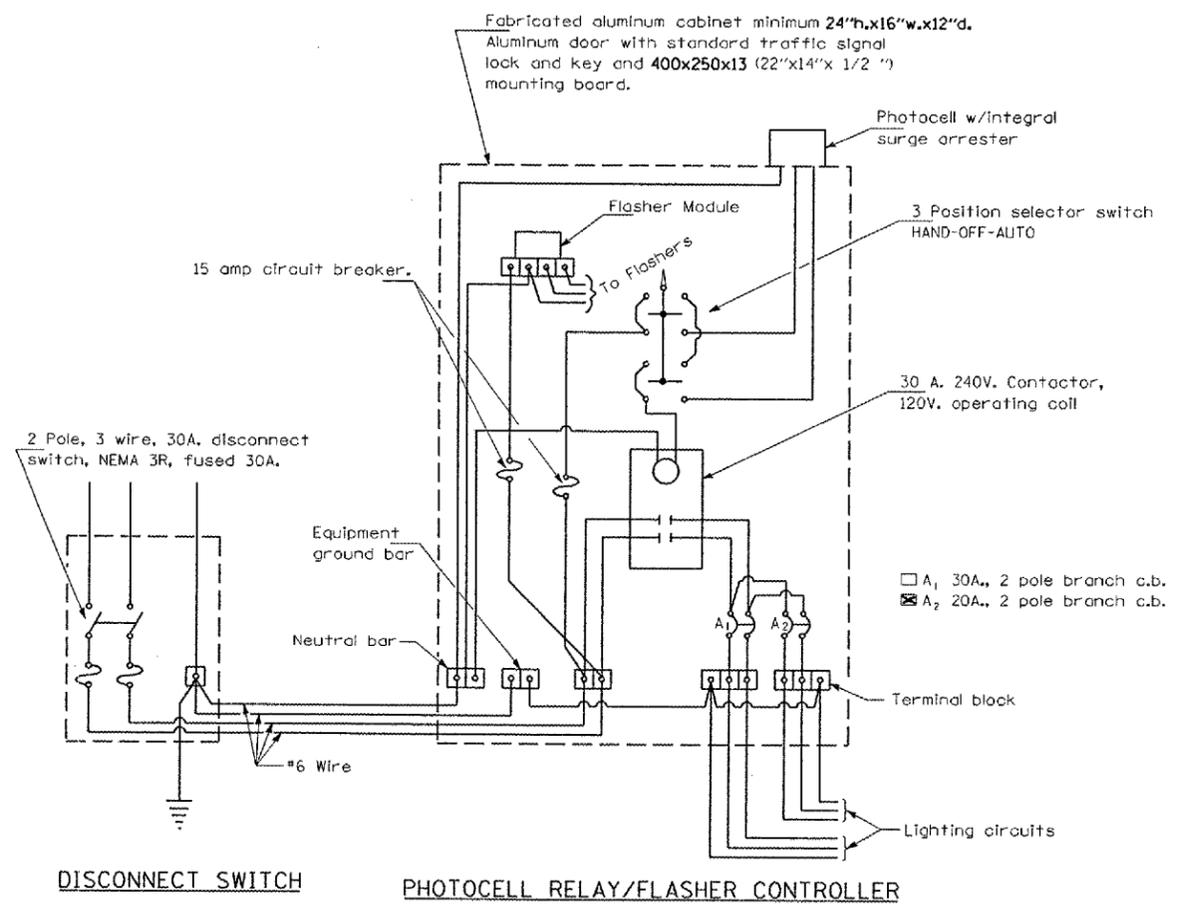
BILL OF MATERIALS

U.S. 36 & U.S. 150 / IL 1

ITEM	UNIT	QUANTITY
ELECTRIC SERVICE INSTALLATION	EACH	1
CONDUIT PUSHED, 2" DIA., INTERMEDIATE METAL	FOOT	270
UNIT DUCT, 600V, 2-1C NO.8, 1/C NO.8 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	544
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	244
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	4
LIGHT POLE, ALUMINUM, 40 FT. M.H., 12 FT. DAVIT ARM	EACH	4
LIGHT POLE FOUNDATION, 30" DIAMETER	FOOT	24
BREAKAWAY DEVICE, COUPLING, WITH STAINLESS STEEL SCREEN	EACH	16
REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	EACH	2
REMOVAL OF EXISTING LIGHTING UNIT, NO SALVAGE	EACH	10
POLE FOUNDATION, REMOVED	EACH	12
REMOVAL OF LIGHTING CONTROLLER	EACH	1
REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1
LIGHTING CONTROLLER PHOTOCELL RELAY, SPECIAL	EACH	1



NOTE: Flashing Beacon components shall be installed per standard 880001.



GENERAL NOTES

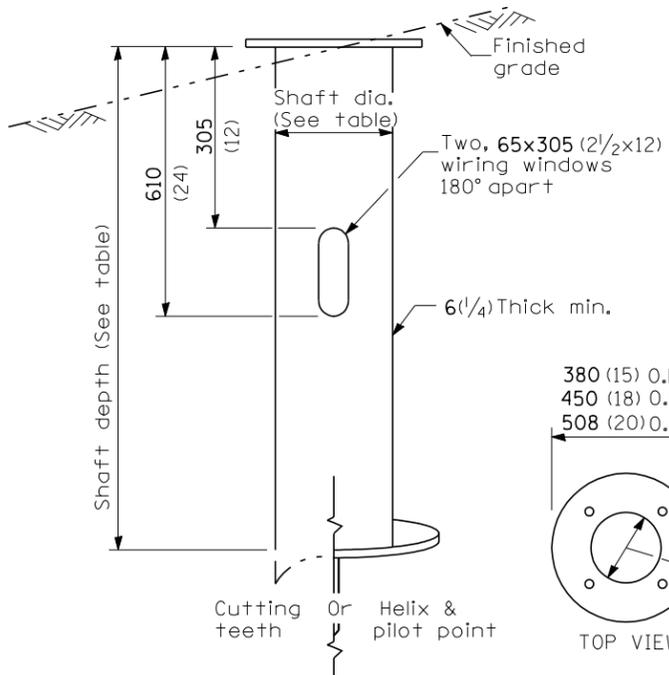
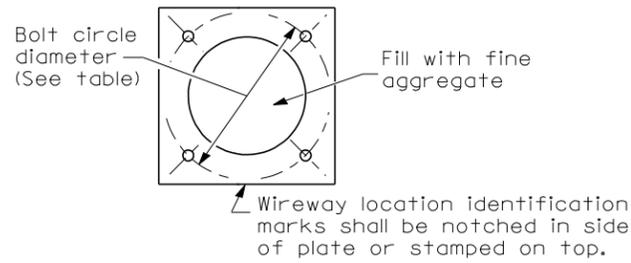
ALL EQUIPMENT SHALL BE U.L. LISTED.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

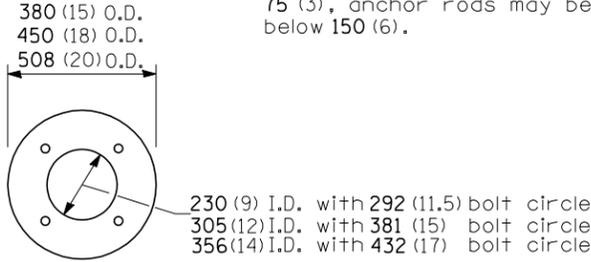
FILE NAME = c:\projects\0502807\081\1735\plan.dgn	USER NAME = collierbw	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONTROL INSTALLATION SERVICE POLE MOUNTED 120240V., 1 PHASE, 3 WIRE SERVICE				F.A.P. RTE. 325	SECTION 149L	COUNTY EDGAR	TOTAL SHEETS 9	SHEET NO. 6
	PLOT SCALE = 40,0000' / IN.	DRAWN -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 70656		
	PLOT DATE = 10/24/2007	CHECKED -	REVISED -								FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		
		DATE -	REVISED -										

LIGHT POLE MOUNTING HEIGHT	BOLT CIRCLE DIAMETER	STEEL FOUNDATION			CONCRETE FOUNDATION		
		SHAFT DIAMETER	SHAFT DEPTH	TOP PLATE (min)	SHAFT DIAMETER	SHAFT DEPTH	ANCHOR ROD LENGTH ①
<9.1 m (30')	292 (11.5)	220 (8 5/8)	1.83 m (6')	300 x 300 x 25 12 x 12 x 1	610 (24)	1.52 m (5'-0")	1.45 m (4'-9")
9.4 m - 10.7 m (31'-35')	292 (11.5)	220 (8 5/8)	1.83 m (6')	300 x 300 x 25 12 x 12 x 1	610 (24)	1.67 m (5'-6")	1.60 m (5'-3")
10.9 m - 12.2 m (36'-40')	381 (15) ③	220 (8 5/8)	1.83 m (6') ②	375 x 375 x 31 15 x 15 x 1 1/4	762 (30)	1.83 m (6'-0")	1.75 m (5'-9")
12.5 m - 13.7 m (41'-45')	381 (15) ③	220 (8 5/8)	1.83 m (6') ②	375 x 375 x 31 15 x 15 x 1 1/4	762 (30)	1.98 m (6'-6")	1.90 m (6'-3")
14.0 m - 15.2 m (46'-50')	381 (15) ③	220 (8 5/8)	2.44 m (8')	375 x 375 x 31 15 x 15 x 1 1/4	762 (30)	2.13m (7'-0")	2.00 m (6'-9")

- ① Length does not include 100(4)hook
- ② 220 mm x 2.44 m (8 5/8" x 8'-0") for Twin luminaires
- ③ Bolt circle diam. shall be 430 (17) when a TB3-17 transformer base is used



STEEL FOUNDATION

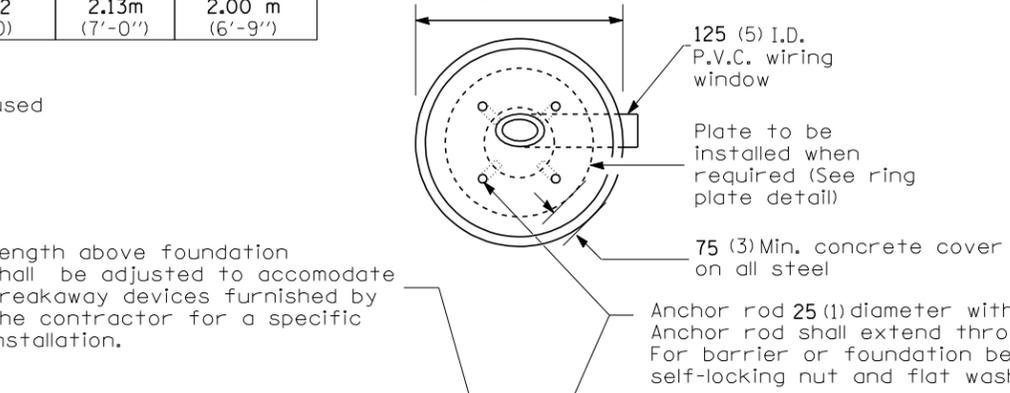
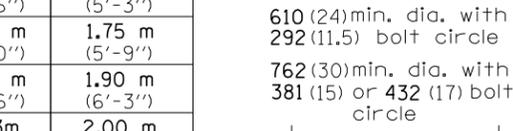


RING PLATE DETAIL
(When rock is encountered and foundation is shallower)

Length above foundation shall be adjusted to accommodate breakaway devices furnished by the contractor for a specific installation.

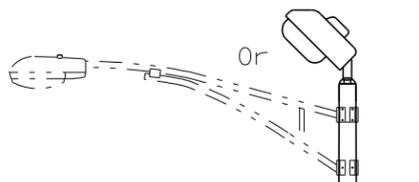
Use dirt removed from foundation to meet 1.52m (5 ft.) chord fill around foundation top. Grade dirt level with bottom of concrete chamfer.

- ④ If the required anchor rod length above top of foundation is less than 75 (3), anchor rods may be lowered below 150 (6).



Cast bronze clamp
16 mm x 3 m (5/8" x 10')
Copperclad grounding electrode. When foundation is set in rock, install ground electrode in cable trench.

CONCRETE FOUNDATION

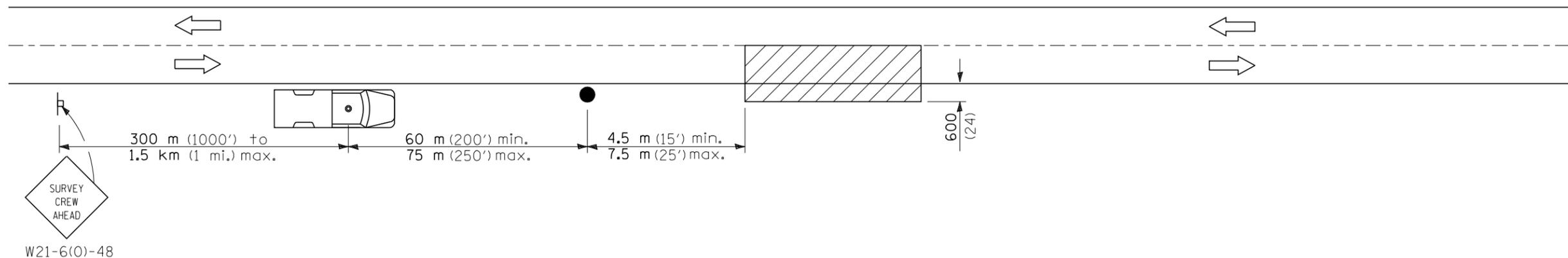


Pole Foundation Setback:
For horizontal mounted luminaires, setback shall be a minimum of 6.1 m (20') from edge of pavement.
For vertical mount luminaires, setback shall be a minimum of 9 m (30') from edge of pavement. Poles shall be located 1.5 m (5') behind guardrail or other protective barriers, or as directed by the Engineer.

Notes:

- 1) Wireway may be on front, back or side of foundation as required by the trenching. Place door of transformer base on wireway side to minimize the number of unit duct bends.
- 2) Top of schedule 40 125 (5) I.D. PVC wiring window, shall be flush with the top of foundation for drainage.
- 3) All foundations are designed to be located on slopes not exceeding 2:1 where soils have an unconfined compressive strength of at least 1.0 TSF. The contractor shall verify the soil strength during drilling for concrete foundations or by monitoring installation resistance on steel foundations and notify the engineer if other conditions are encountered.
- 4) Anchor rod shall be increased to 31 (1 1/4) diameter for 15.24 (50') mounting height or above.
- 5) TB3-17 transformer base is not to be used on metal foundation

All dimensions are in millimeters (inches) unless otherwise shown.



SYMBOLS



Work area



Sign on portable or permanent support



Truck with flashing amber light and dual emergency flashers



Flagger with traffic control sign

TYPICAL APPLICATIONS

Utility operations

All dimensions are in millimeters (inches)
unless otherwise shown.

FILE NAME = c:\projects\d502807 (v8)\4735\plan.dgn	USER NAME = collierbw	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAIL FOR NIGHTTIME LIGHTING INSPECTION			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000' / IN.	DRAWN -	REVISED -					323	149L	EDGAR	9	9
PLOT DATE = 10/24/2007	CHECKED -	REVISED -	CONTRACT NO. 70656									
	DATE -	REVISED -	SCALE:		SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		