

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 322 (US RTE 51)
SECTION (46,47)L-2

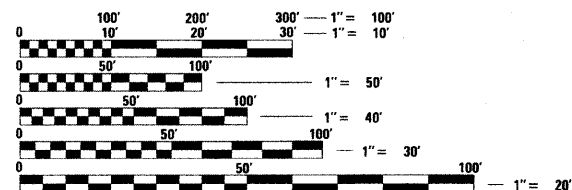
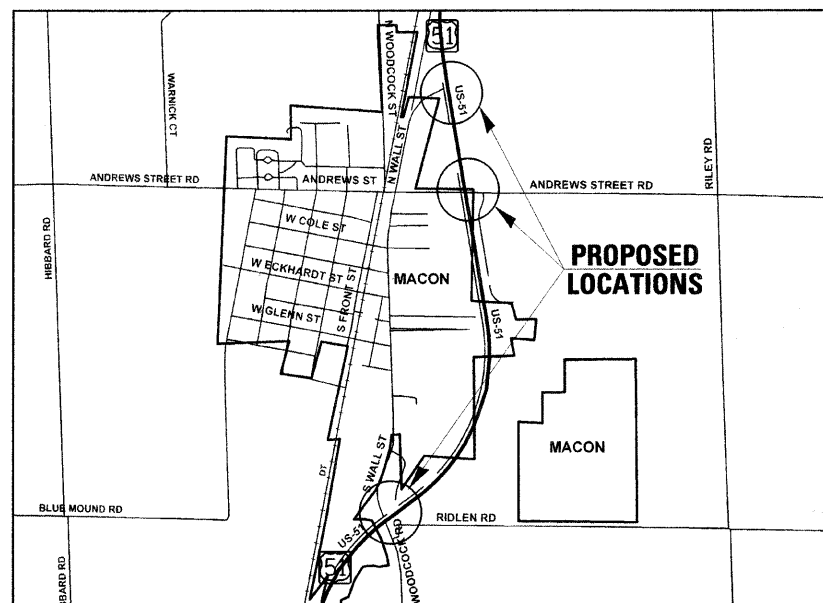
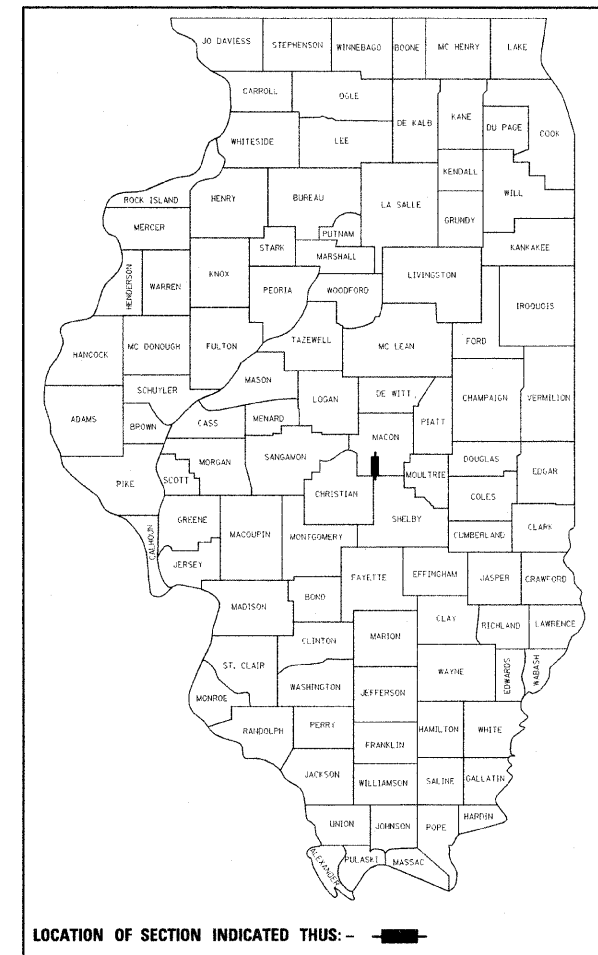
**HIGHWAY LIGHTING
MACON COUNTY**

C-97-114-08

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	(46,47)L-2	MACON	12	1
FED. ROAD DIST. NO. 7	ILLINOIS	CONTRACT NO. 74345		

FOR INDEX OF SHEETS, SEE SHEET NO. 2

D-97-061-08



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-ROB MACKLIN
PROJECT MANAGER-LYNN McCLELLAN

CONTRACT NO. 74345

GROSS LENGTH = x.xx FT. = x.xxx MILE
NET LENGTH = x.xx FT. = x.xxx MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED March 11, 20 09

Roger L. Smeeth
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 8, 20 09
Charles J. Ingersoll
ENGINEER OF DESIGN AND ENVIRONMENT

May 8, 20 09
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2007; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED JANUARY 1, 2009; AND "THE SPECIAL PROVISIONS" INCLUDED IN THE PROPOSAL.

THIS PROJECT IS LOCATED AT THREE INTERSECTION ON FAP 322 (US 51) AROUND THE CITY OF MACON, IN MACON COUNTY. THE WORK INCLUDED IN THIS SECTION CONSISTS OF THE INSTALLATION OF HIGHWAY LIGHTING AT THREE SEPARATE LOCATIONS AND ALL OTHER WORK NECESSARY TO COMPLETE THIS SECTION.

THE LOCATION OF BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE, AND ARE SHOWN FOR THE CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVE GROUND UTILITY LOCATIONS, IDENTIFICATION, AND MARKINGS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC., OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVE GROUND UTILITIES, REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CALL J.U.L.I.E. AT 1-800-892-0123.

THE CONTRACTOR IS RESPONSIBLE FOR UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THE COST OF THIS WORK IS TO BE INCLUDED WITH THE TRENCH AND BACKFILL FOR ELECTRICAL WORK PAY ITEM.

KNOWN UTILITIES LOCATED WITHIN THE LIMITS OF THIS IMPROVEMENT ARE:

AMEREN-CIPS
D. J. KENNEDY
420 NORTH 2400 EAST RD
PANA, IL 62557
PH. 217-562-1439
CELL: 217-433-0000

SUDDENLINK COMMUNICATIONS
DARREN GILLUM
127 S. MAIN
MOWEAQUA, IL 62550
CELL: 217-855-7956
darren.gillum@cebridgeus.com

CITY OF MACON
ED AUKAMP-CITY ADMINISTRATOR
285 SOUTH FRONT ST.
P. O. BOX 349
MACON, IL 62544-0349
PH. 217-764-3643

AMEREN/DIVISION IV GAS
DAVID POTTLE
711 S. 9TH. ST.
MATTOON, IL 61938
PH. 217-234-0429
CELL: 217-246-0223

INDEX OF SHEETS

1	COVER SHEET
2	INDEX OF SHEETS AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	LOCATION MAP
5	LIGHTING SCHEDULE
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7	HIGHWAY LIGHTING LOCATION #2 (ANDREWS ST INTERSECTION)
8	HIGHWAY LIGHTING LOCATION #3 (N WALL ST INTERSECTION)
9	CONTROL INSTALLATION SERVICE POLE INSTALLTION
10	LIGHT POLE FOUNDATION
11	POLE STANDARDS
12	DETAIL FOR NIGHTTIME LIGHTING INSPECTION

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 12:

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701101-02	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701421-02	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS >=45 MPH TO 55 MPH
701901-01	TRAFFIC CONTROL DEVICES

FILE NAME =	USER NAME = mcoellanis	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS & GENERAL NOTES				F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
es:\pwwork\pwwork\MCCLELLAN\adms35988	d774345-sh1-light.dgn	DRAWN -	REVISED -		322	(46,47)JL-2	MACON	12	2				
	PLOT SCALE = 50,0000' / 1/4"	CHECKED -	REVISED -		CONTRACT NO. 74345								
	PLOT DATE = 3/11/2009	DATE -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.	FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES			1001 STATE	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	Y030-1E		
				LIGHTING		
67100100	MOBILIZATION	L SUM	1	1		
70100310	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	L SUM	1	1		
80400100	ELECTRIC SERVICE INSTALLATION	EACH	3	3		
81021330	CONDUIT PUSHED, 2" DIA., PVC	FOOT	655	655		
81603010	UNIT DUCT, 600V, 2-1C NO.10, 1/C NO.10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	4258	4258		
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	3291	3291		
82102250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	24	24		
82500605	LIGHTING CONTROLLER PHOTOCELL RELAY	EACH	3	3		
83003600	LIGHT POLE, ALUMINUM, 45 FT. M.H., 15 FT. DAVIT ARM	EACH	24	24		
83600355	LIGHT POLE FOUNDATION METAL, 15" BOLT CIRCLE, 8" X 6"	EACH	24	24		
83800650	BREAKAWAY DEVICE, COUPLING, WITH STAINLESS STEEL SCREEN	EACH	96	96		
84200500	REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	EACH	2	2		
84200700	LIGHTING FOUNDATION REMOVAL	EACH	2	2		
84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	2	2		
84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	2	2		

FILE NAME - c:\pwork\FWIDOT\MCCLELLAN\A\dms35988	USER NAME = mclellan d774345-shd-light.dgn	DESIGNED - DRAWN -	REVISED - REVISED -
	PLOT SCALE = 50.0000' / 1"	CHECKED -	REVISED -
	PLOT DATE = 3/11/2009	DATE	REVISED -

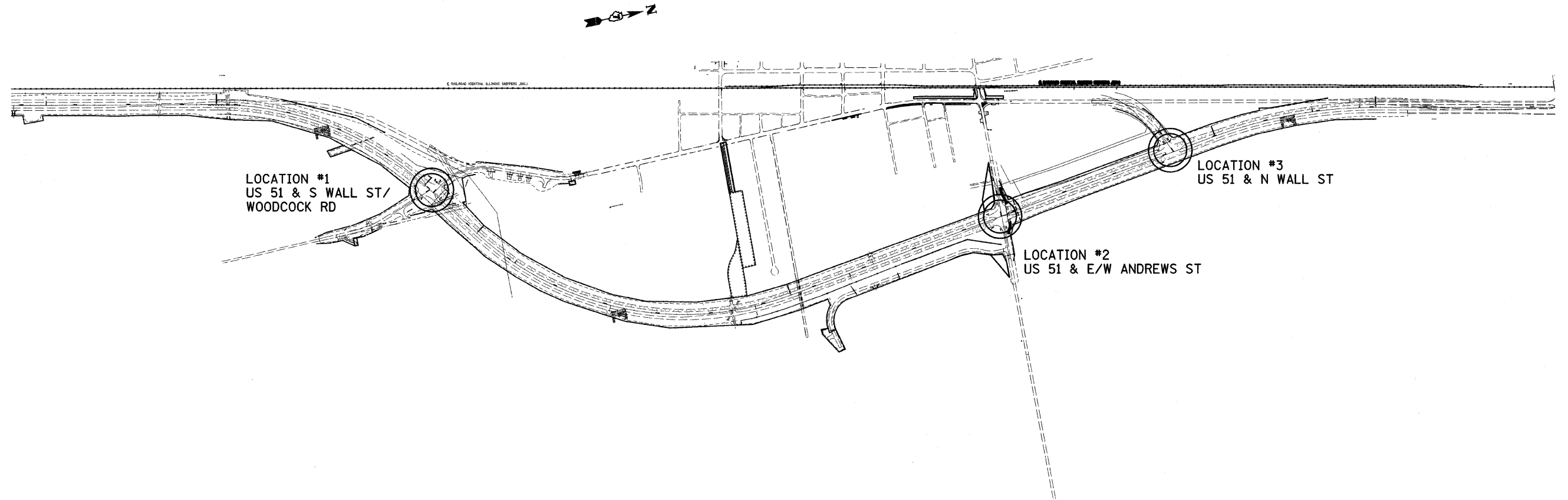
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 322	SECTION (46,47)L-2	COUNTY MACON	TOTAL SHEETS 12	SHEET NO. 3
CONTRACT NO. 74345				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

City of Macon



FILE NAME = c:\pw_work\PIWIDOT\MCCLELLANLA\dms35908	USER NAME = mclellanla d774345-sh1-right.dgn	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATION MAP			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000' / 1" IN.	CHECKED -	REVISED -					322	(46,47)L-2	MACON	12	4
	PLOT DATE = 3/11/2009	DATE -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 74345				
							FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

LIGHTING SCHEDULE

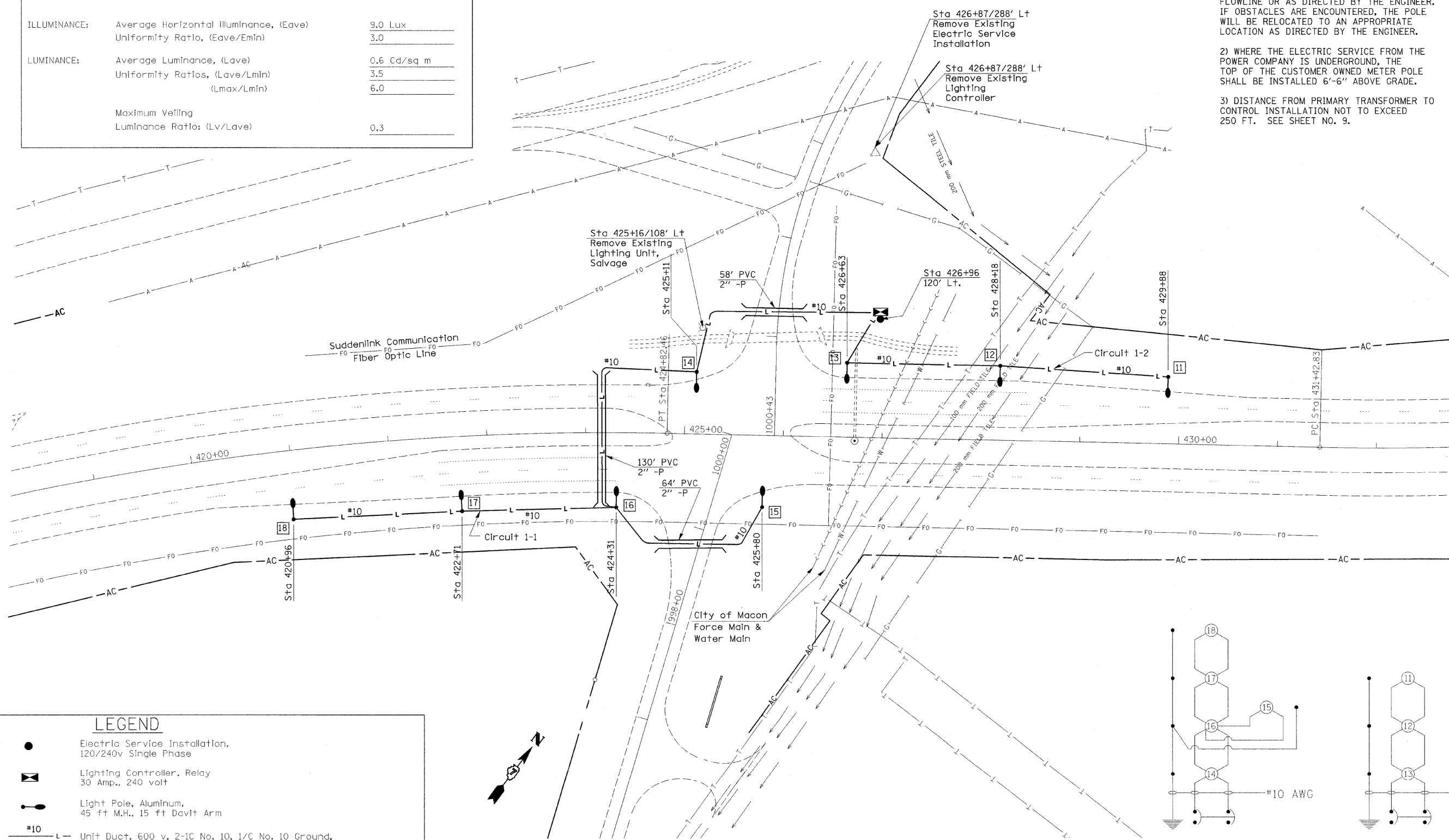
PAYITEM	LOCATION #1	LOCATION #2	LOCATION #3	TOTAL
	S WALL ST INTERSECTION	ANDREWS ST INTERSECTION	N WALL ST INTERSECTION	
ELECTRIC SERVICE INSTALLATION	1	1	1	3
CONDUIT PUSHED, 2" DIA., PVC	252	238	165	655
UNIT DUCT, 600V, 2-1C #10, 1/C #10 GROUND, (XLP-TYPE USE) 3/4" POLYETHYLENE	1470	1425	1363	4258
TRENCH AND BACKFILL FOR ELECTRICAL WORK	1114	1083	1094	3291
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	8	8	8	24
LIGHTING CONTROLLER PHOTOCELL RELAY	1	1	1	3
LIGHT POLE, ALUMINUM, 45 FT. M.H., 15 FT. DAVIT ARM	8	8	8	24
LIGHT POLE, FOUNDATION METAL, 15" BOLT CIRCLE, 8" X 6'	8	8	8	24
BREAKAWAY DEVICE, COUPLING, WITH STAINLESS STEEL SCREEN	32	32	32	96
REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	1	1	-	2
LIGHTING FOUNDATION REMOVAL	1	1	-	2
REMOVAL OF LIGHTING CONTROLLER	1	1	-	2
REMOVAL OF ELECTRIC SERVICE INSTALLATION	1	1	-	2

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaires.

ILLUMINANCE:	Average Horizontal Illuminance, (Eave)	9.0 Lux
	Uniformity Ratio, (Eave/Emin)	3.0
LUMINANCE:	Average Luminance, (Lave)	0.6 Cd/sq m
	Uniformity Ratios, (Lave/Lmin)	3.5
	(Lmax/Lmin)	6.0
	Maximum Veiling Luminance Ratio: (Lv/Lave)	0.3

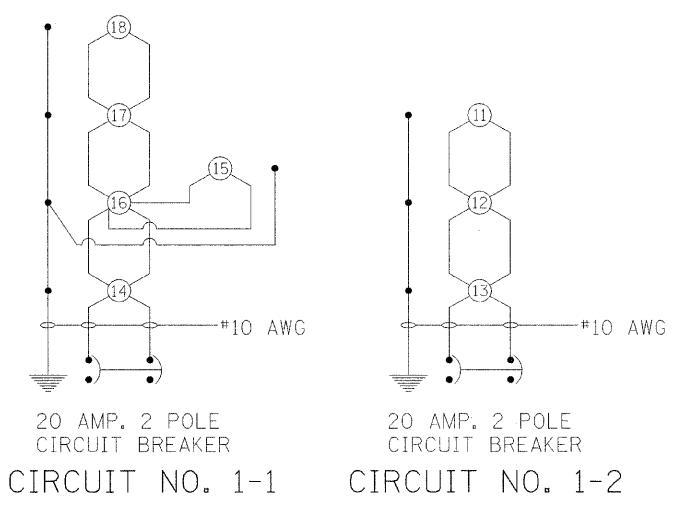
- NOTE:
- 1) POLES TO BE OFFSET 15' FROM EDGE OF PAVEMENT, FURTHER IF IN FLOWLINE OF DITCH. IN THAT CASE, MOVE FURTHER BACK AND OUT OF THE FLOWLINE OR AS DIRECTED BY THE ENGINEER. IF OBSTACLES ARE ENCOUNTERED, THE POLE WILL BE RELOCATED TO AN APPROPRIATE LOCATION AS DIRECTED BY THE ENGINEER.
 - 2) WHERE THE ELECTRIC SERVICE FROM THE POWER COMPANY IS UNDERGROUND, THE TOP OF THE CUSTOMER OWNED METER POLE SHALL BE INSTALLED 6'-6" ABOVE GRADE.
 - 3) DISTANCE FROM PRIMARY TRANSFORMER TO CONTROL INSTALLATION NOT TO EXCEED 250 FT. SEE SHEET NO. 9.



LEGEND

- Electric Service Installation, 120/240v Single Phase
- ⊠ Lighting Controller, Relay 30 Amp., 240 volt
- ⊙ Light Pole, Aluminum, 45 ft M.H., 15 ft Davit Arm
- #10 — Unit Duct, 600 v, 2-1C No. 10, 1/C No. 10 Ground, (XLP-Type Use), 3/4" Polyethylene
- — — Conduit

LENGTH — XX' PVC — TYPE OF MATERIAL
DIAMETER — X"-P — PUSHED



PERFORMANCE REQUIREMENTS

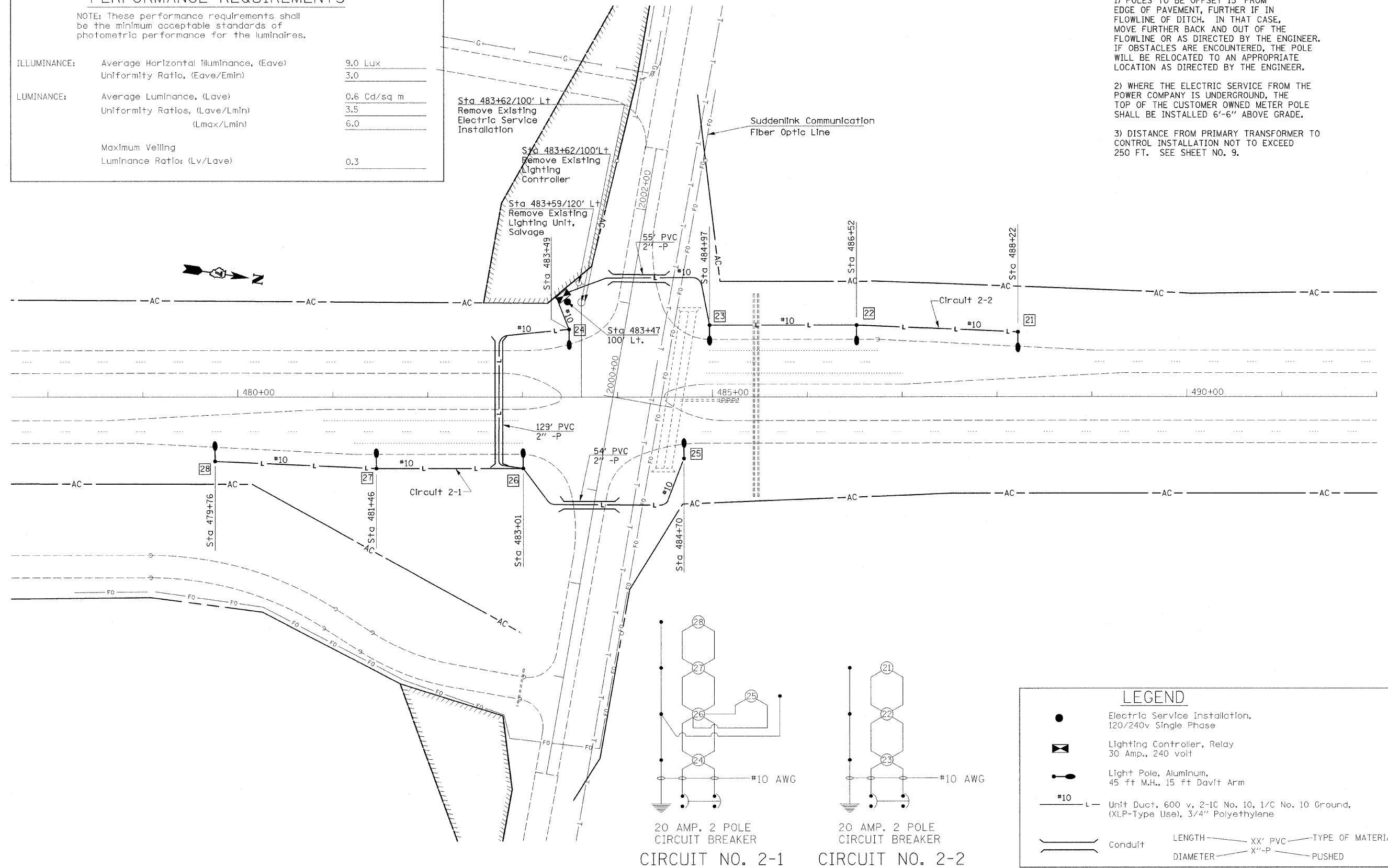
NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaires.

ILLUMINANCE:	Average Horizontal Illuminance, (Eave)	9.0 Lux
	Uniformity Ratio, (Eave/Emin)	3.0
LUMINANCE:	Average Luminance, (Lave)	0.6 Cd/sq m
	Uniformity Ratios, (Lave/Lmin) (Lmax/Lmin)	3.5 6.0
	Maximum Veiling Luminance Ratio: (Lv/Lave)	0.3

NOTE:
1) POLES TO BE OFFSET 15' FROM EDGE OF PAVEMENT, FURTHER IF IN FLOWLINE OF DITCH. IN THAT CASE, MOVE FURTHER BACK AND OUT OF THE FLOWLINE OR AS DIRECTED BY THE ENGINEER. IF OBSTACLES ARE ENCOUNTERED, THE POLE WILL BE RELOCATED TO AN APPROPRIATE LOCATION AS DIRECTED BY THE ENGINEER.

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LEGEND

- Electric Service Installation, 120/240v Single Phase
- ⊠ Lighting Controller, Relay 30 Amp., 240 volt
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- #10 Unit Duct, 600 v, 2-1C No. 10, 1/C No. 10 Ground, (XLP-Type Use), 3/4" Polyethylene
- Conduit LENGTH — XX' PVC — TYPE OF MATERIAL
DIAMETER — X"-P — PUSHED

FILE NAME =	USER NAME = mclellanla	DESIGNED -	REVISED -
cd:\pw\work\PWIDOT\MCCLELLANLA\dms35908	d774345-sh1-light.dgn	DRAWN -	REVISED -
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/11/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

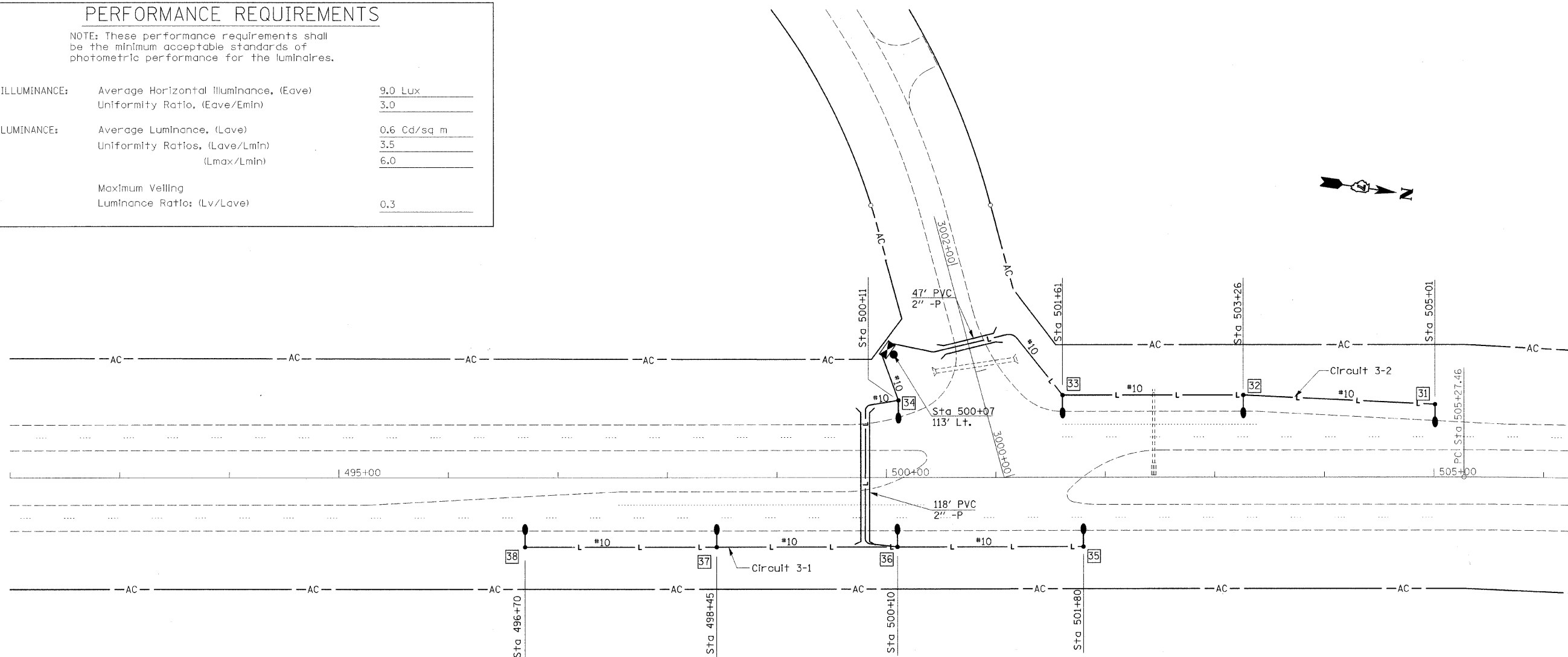
HIGHWAY LIGHTING LOCATION 2			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	(46,47)L-2	MACON	12	7
CONTRACT NO. 74345				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

PERFORMANCE REQUIREMENTS

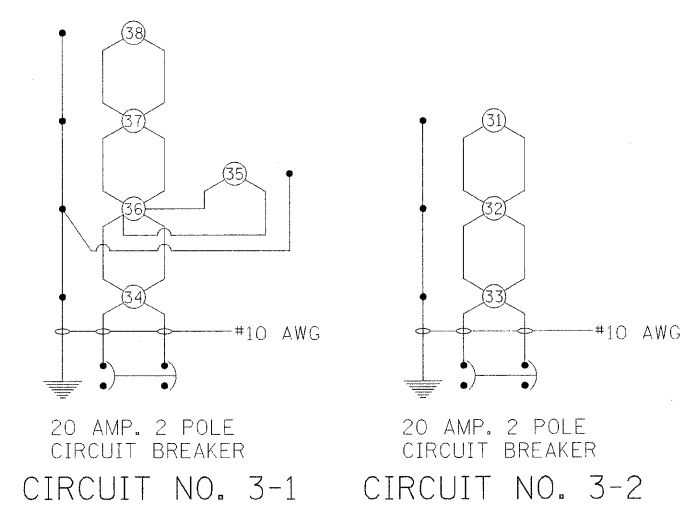
NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaires.

ILLUMINANCE:	Average Horizontal Illuminance, (Eave)	9.0 Lux
	Uniformity Ratio, (Eave/Emin)	3.0
LUMINANCE:	Average Luminance, (Lave)	0.6 Cd/sq m
	Uniformity Ratios, (Lave/Lmin)	3.5
	(Lmax/Lmin)	6.0
	Maximum Velling	
	Lumiance Ratio: (Lv/Lave)	0.3



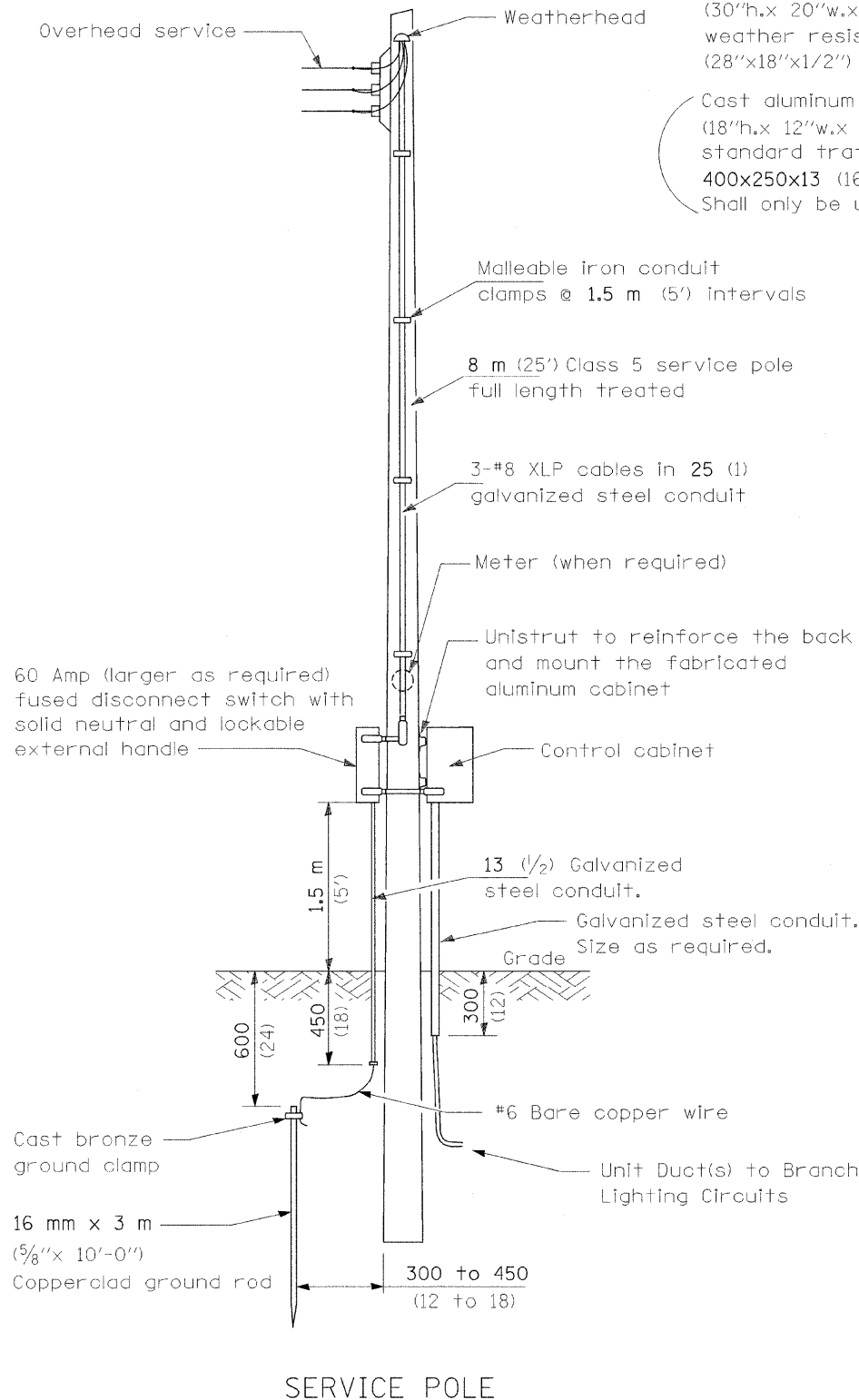
LEGEND

●	Electric Service Installation, 120/240v Single Phase
⊠	Lighting Controller, Relay 30 Amp., 240 volt
⊙	Light Pole, Aluminum, 45 ft M.H., 15 ft Davit Arm
-#10-	Unit Duct, 600 v, 2-1C No. 10, 1/C No. 10 Ground, (XLP-Type Use), 3/4" Polyethylene
—	Conduit
—XX' PVC	LENGTH — TYPE OF MATERIAL
—X"-P	DIAMETER — PUSHED



NOTE:
 1) POLES TO BE OFFSET 15' FROM EDGE OF PAVEMENT, FURTHER IF IN FLOWLINE OF DITCH. IN THAT CASE, MOVE FURTHER BACK AND OUT OF THE FLOWLINE OR AS DIRECTED BY THE ENGINEER. IF OBSTACLES ARE ENCOUNTERED, THE POLE WILL BE RELOCATED TO AN APPROPRIATE LOCATION AS DIRECTED BY THE ENGINEER.
 2) WHERE THE ELECTRIC SERVICE FROM THE POWER COMPANY IS UNDERGROUND, THE TOP OF THE CUSTOMER OWNED METER POLE SHALL BE INSTALLED 6'-6" ABOVE GRADE.
 3) DISTANCE FROM PRIMARY TRANSFORMER TO CONTROL INSTALLATION NOT TO EXCEED 250 FT. SEE SHEET NO. 9.

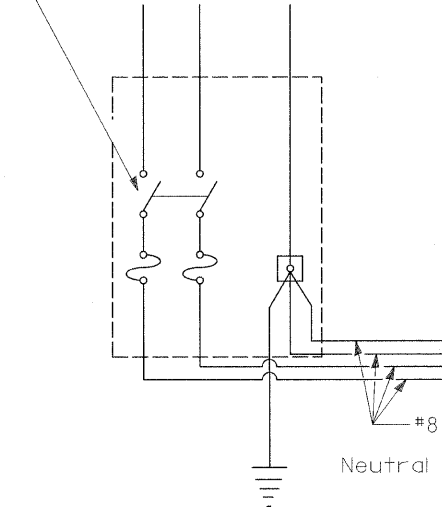
120/240V., 1 PHASE, 3 WIRE SERVICE



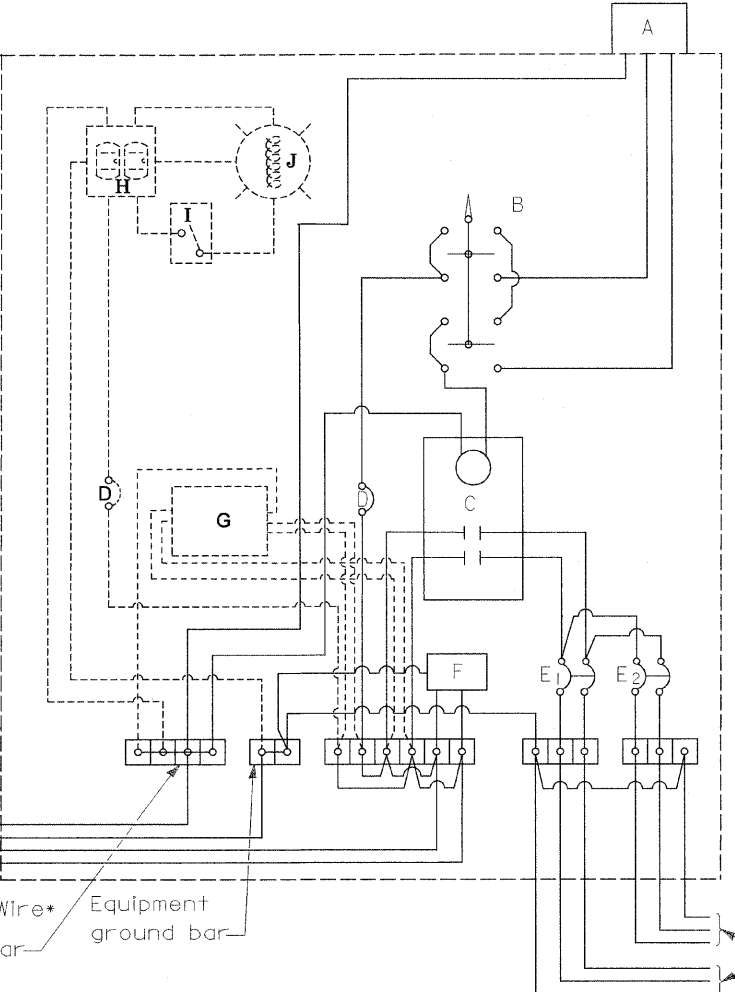
Fabricated aluminum cabinet 760h.x510w.x355d.* (30"h.x 20"w.x 14"d.). Aluminum door with weather resistant lock and key and 710x460x13* (28"x18"x1/2") mounting board.

Cast aluminum cabinet 450h.x300w.x200d. (18"h.x 12"w.x 8"d.). Aluminum door with standard traffic signal lock and key and 400x250x13 (16"x10"x1/2") mounting board. Shall only be used when specified.

2 Pole, 3 wire, 60A.* disconnect switch, NEMA 3R, fused 30A.*



DISCONNECT SWITCH



PHOTOCELL RELAY

- A Photocell with integral surge arrester
 - B 3 Position selector switch HAND-OFF-AUTO
 - C 60 amp+ electrically held contactor
 - D 15 amp, 1 pole, circuit breaker
 - E 20 amp+, 2 pole, branch circuit breaker. Two spare breakers are required but are not shown
 - F Surge arrester
 - G Transformer (see notes), 1 KVA*, 240/480V primary, 120/240V sec, single phase
 - H GFCI duplex receptacle
 - I Single pole, single throw switch
 - J Shielded security fixture with 100W lamp
- (* = Size larger as needed)

GENERAL NOTES

Wiring shall be panel board fashion. All bends shall be right angles. All runs shall be vertical or parallel to panel board. Wires shall be grouped or laced.

All control installation components shall be U.L. listed.

Label equipment ground and neutral.

Locate service pole and control installation adjacent to R.O.W. line with a minimum distance of 9 m (30') from the edge of pavement. Exact location shall be established by the Engineer.

The total distance between the control installation and primary transformer shall not exceed 76 m (250').

For 480 V service, a step down transformer (dashed lines) is required.

Add receptacle, light, and switch in control cabinet, when specified.

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

240 V. SERVICE
 480 V. SERVICE

FILE NAME =	USER NAME = mclellanla	DESIGNED -	REVISED - Corrected 1/19/06
cs:\pw_work\PWIDOT\MCCLELLANLA\dms35908	0774345-shd-light.dgn	DRAWN -	REVISED - 1/17/08 Service disconnect
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - 2/03/08 SA wiring, cabinet notes
	PLOT DATE = 3/11/2009	DATE -	REVISED -

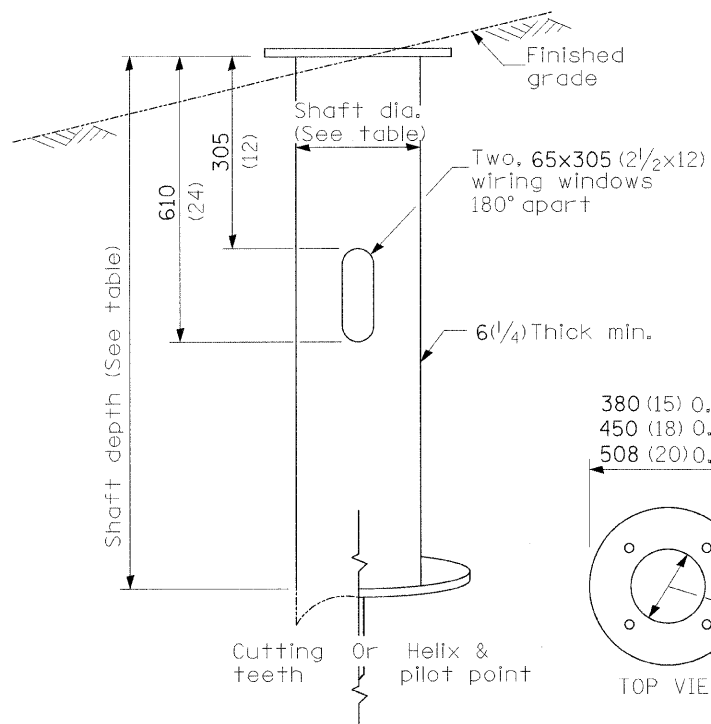
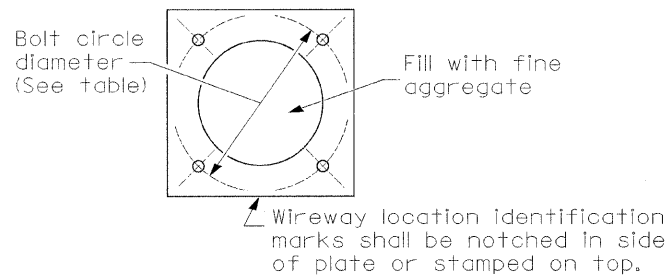
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTROL INSTALLATION SERVICE POLE MOUNTED			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	(46,47)L-2	MACON	12	9
CONTRACT NO. 74345				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

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)	2.13 m (7'-0")	2.00 m (6'-9")

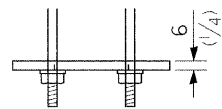
- ① Length does not include 100(4)hook
 ② 220 mm x 2.44 m (8 5/8" x 8'-0") for Twin luminaires
 ③ Bolt circle diam. shall be 430 (17) when a TB3-17 transformer base is used



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.

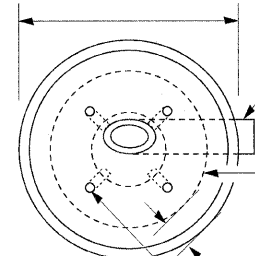
Use dirt removed from foundation to meet 1.52m (5 ft.) chord fill around foundation top. Grade dirt level with bottom of concrete

125 (5) I.D. P.V.C. wireway window. Fill with fine aggregate

- 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.

610 (24) min. dia. with 292 (11.5) bolt circle
 762 (30) min. dia. with 381 (15) or 432 (17) bolt circle



125 (5) I.D. P.V.C. wiring window

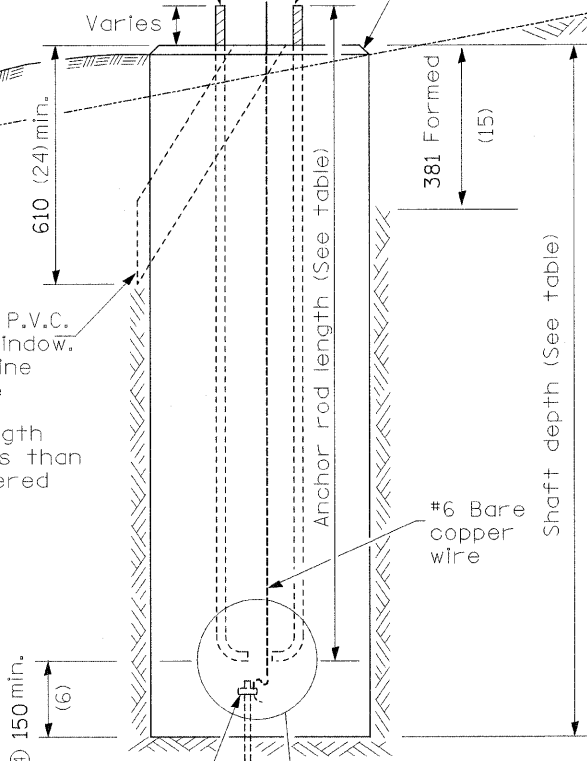
Plate to be installed when required (See ring plate detail)

75 (3) Min. concrete cover on all steel

Anchor rod 25 (1) diameter with 230 (9) threads. Anchor rod shall extend through nut 25 (1). For barrier or foundation behind guardrail, use self-locking nut and flat washer. Do not use lock washer.

19 (3/4) Chamfer

Finished grade

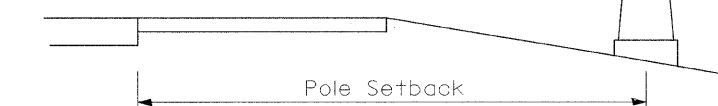


CONCRETE FOUNDATION

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:

- 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.
- Top of schedule 40 125 (5) I.D. PVC wiring window, shall be flush with the top of foundation for drainage.
- 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.
- Anchor rod shall be increased to 31 (1 1/4) diameter for 15.24 (50') mounting height or above.
- TB3-17 transformer base is not to be used on metal foundation

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

FILE NAME =	USER NAME = mclellanla	DESIGNED -	REVISED - 10/7/02 Bridge Office depth cal.
c:\pwork\VP\WIDOT\MCCLELLANLA\dms35908	d774345-sh-lightdgn	DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/11/2009	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

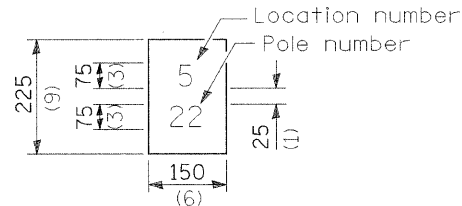
LIGHT POLE FOUNDATION

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	(46,47)IL-2	MACON	12	10
CONTRACT NO. 74345				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

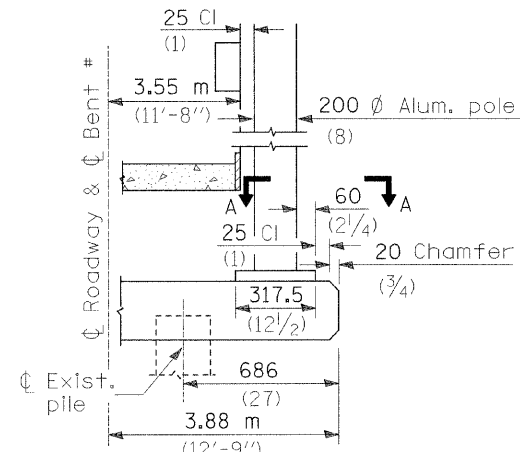
"Install and orient arm bracket over pole tenon and firmly hand tighten the two set screws. Use third hole in arm bracket as a guide to drill a 8.3 (2/4) diameter hole through tenon. Install and tighten self-tapping screw. Tighten set screws an additional (1/4 to 3/8) turn with hex key (not provided). Install locknuts on set screws if threaded projection allows."

Pole shall meet AASHTO Standard Specifications for 128.72 km (80 mph) wind loading and 40.82 kg (90 lb.), .37 m² (4.0 sq. ft.) E.P.A. luminaire.

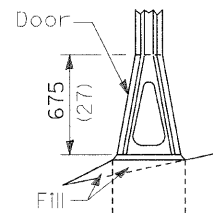


The contractor shall furnish and install a light pole identification of each new light pole, as shown above, incidental to the respective light pole pay item. The numerals shall be 75 (3) series "D", black, screened on silver-white type B pressure sensitive reflective sheeting conforming to the requirements of section T602.01 of the Standard Specifications for Traffic Control Items. The numerals shall conform to the FHWA "Standard Alphabets for Highway Signs".

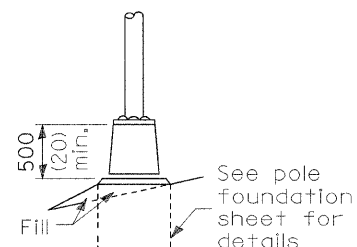
The light pole identification shall be applied to sign base material as specified in section 1085.05 of the Standard Specifications, approximately 180 (7) above the adjacent pavement grade visible to approaching traffic in accordance with Highway Standard 2319.



BENT #
(Looking)

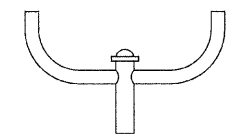


STAINLESS STEEL FLAIR BASE

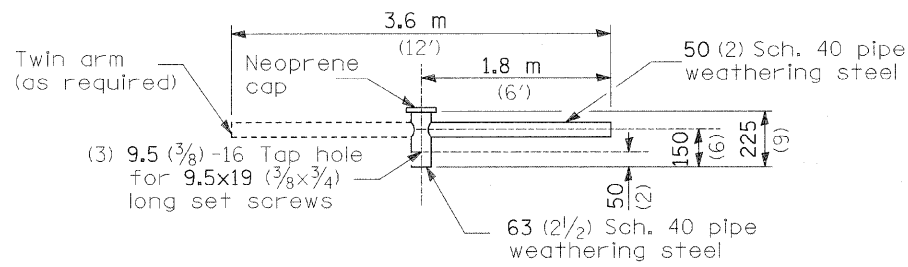


TRANSFORMER BASE

FRANGIBLE

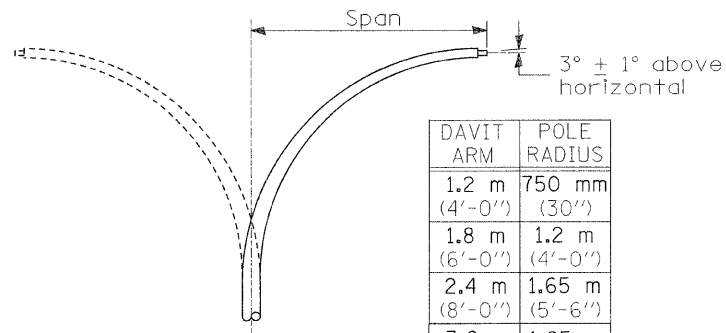


TWIN TENON



TENON MOUNT BRACKET ARM

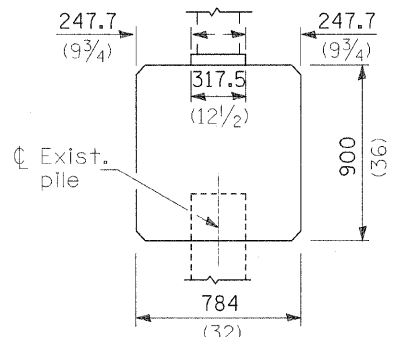
NOTE: Single or twin arm assembly shall be tilted 3° above horizontal.



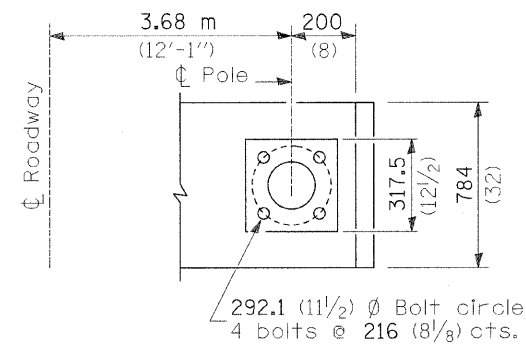
DAVIT ARM

DAVIT ARM-TWIN

DAVIT ARM	POLE RADIUS
1.2 m (4'-0")	750 mm (30")
1.8 m (6'-0")	1.2 m (4'-0")
2.4 m (8'-0")	1.65 m (5'-6")
3.6 m (12'-0")	1.65 m (5'-6")



BRIDGE PIER MOUNT



SECTION A-A

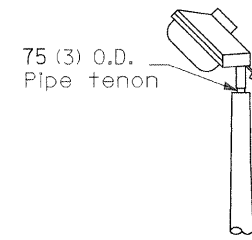
Surge protectors (metal oxide-varistor type) 2-1/c #10 XLP-USE cable to each luminaire

For each luminaire use 2 pole fused quick disconnect unless single pole type is specified

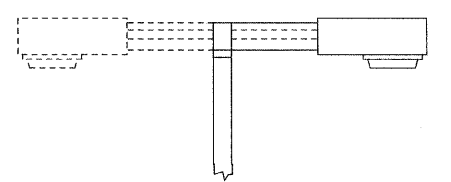
ANCHOR

METAL OR CONCRETE

Details for underground distribution if required

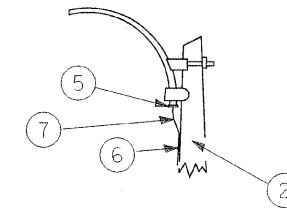


TENON

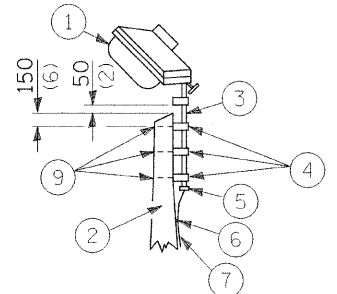


SHORT BRACKET

SHORT BRACKET - TWIN



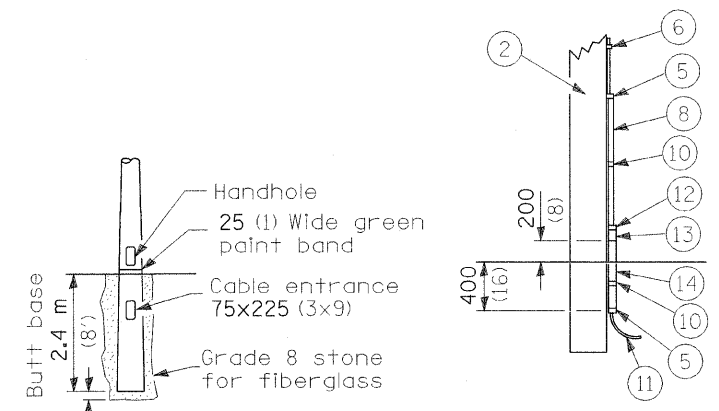
MAST ARM



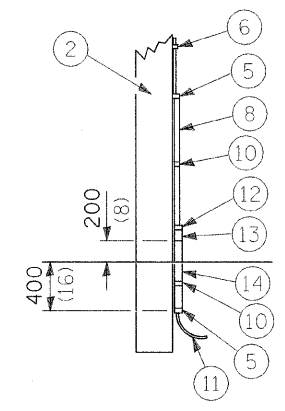
TENON

- ① Luminaire
- ② Wood pole, class 3 or better
- ③ 63 (2 1/2) Galv. steel conduit
- ④ Single offset pole band
- ⑤ Conduit bushing
- ⑥ Cable clamps on 600 (24) centers
- ⑦ 2/c #12 Type use cable
- ⑧ 25 (1) Galv. steel conduit 3.0 m (10') in length

- ⑨ 16 (5/8) Ø hot dipped galvanized bolt with flat washer & locknut (3 req'd)
- ⑩ Conduit clamps on 900 (36) centers
- ⑪ Unit duct
- ⑫ Threaded reducer
- ⑬ "C" Condulet, threaded
- ⑭ 40 (1 1/2) Galv. steel conduit for 1 unit duct or 75 (3) galv. steel conduit for 2 or 3 unit ducts.



BUTT BASE

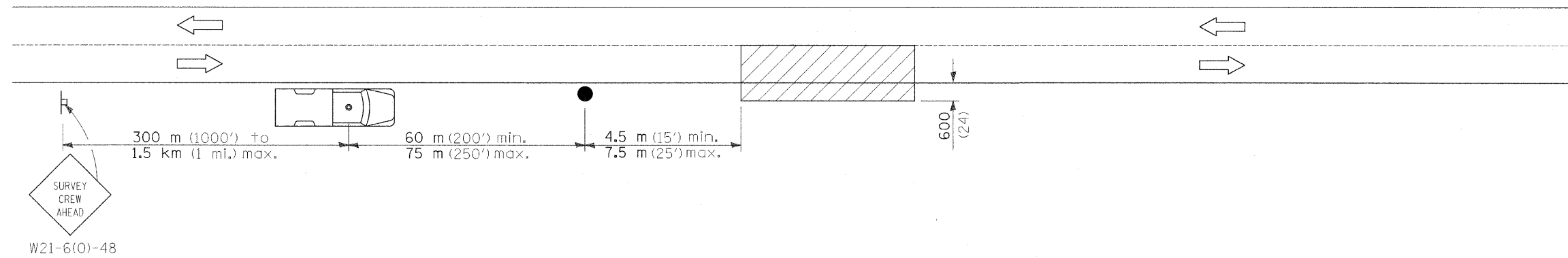


POLE, WOOD

POLE LENGTH	DEPTH IN GROUND
19.8 m (65')	3.6 m (12')
18.0 m (60')	3.0 m (10')
16.8 m (55')	2.7 m (9')
16.0 m (50')	2.4 m (8')
13.7 m (45')	2.1 m (7')
12.0 m (40')	2.0 m (6.5')
10.7 m (35')	1.8 m (6')
9.0 m (30')	1.7 m (5.5')

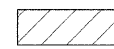
All dimensions are in millimeters (inches) unless otherwise shown.


FILE NAME =	USER NAME = mclellanla	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	POLE STANDARDS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ci:\pw_work\PWIDOT\MCCLELLANLA\dms35908	0774345-shl-light.dgn	DRAWN -	REVISED -			322	(46,47)JL-2	MACON	12	11	
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	REVISED -			CONTRACT NO. 74345					
PLOT DATE = 3/11/2009	DATE -	REVISED -	REVISED -			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					
SCALE:						SHEET NO. OF SHEETS STA. TO STA.					




W21-6(0)-48

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:\pw_work\PWIDOT\MCCLELLANLA\dms35908	USER NAME = mcclellanla d774345-sh1-light.dgn	DESIGNED - DRAWN -	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAIL FOR NIGHTTIME LIGHTING INSPECTION			F.A.P. RTE. 322	SECTION (46,47)L-2	COUNTY MACON	TOTAL SHEETS 12	SHEET NO. 12
								SCALE:	SHEET NO.	OF	SHEETS	STA.
PLOT SCALE = 50.0000" / IN.		CHECKED -	REVISED -		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT							
PLOT DATE = 3/11/2009		DATE -	REVISED -									