

**LIST OF STANDARDS**

- 701001-02 OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5m) AWAY
- 701006-05 OFF-RD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701501-06 URBAN LANE CLOSURE, 2L, 2W UNDIVIDED
- 701801-05 SIDEWALK, CORNER OR CROSSWALK CLOSURE
- 701901-04 TRAFFIC CONTROL DEVICES

FA.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	10-00102-00-LS	FULTON	8	1
ILLINOIS		CONTRACT NO.		

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PROPOSED**  
**HIGHWAY PLANS**  
**PROPOSED LOCAL AGENCY IMPROVEMENTS**  
**CITY OF CANTON, ILLINOIS**  
**CANTON DOWNTOWN STREET LIGHTING IMPROVEMENTS - PHASE 1**  
**SECTION 10-00102-00-LS**  
**PROJECT NO. TE-00D4(113)**  
**FULTON COUNTY**  
**C-94-041-11**

**INDEX OF SHEETS**

1. TITLE SHEET AND INDEX OF SHEETS
2. GENERAL NOTES AND SUMMARY OF QUANTITIES
3. DEMOLITION PLAN - SOUTH
4. DEMOLITION PLAN - NORTH
5. ELECTRICAL PLAN - SOUTH
6. ELECTRICAL PLAN - NORTH
7. ELECTRICAL DETAILS AND SCHEDULES
8. ELECTRICAL DETAILS AND SCHEDULES

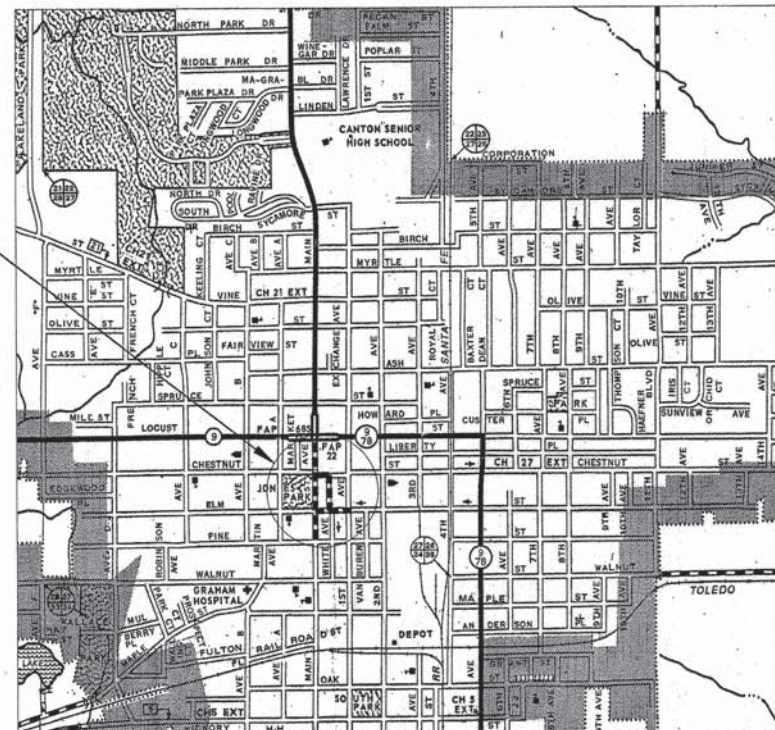
PROJECT DESCRIPTION:  
 PROVIDE NEW ORNAMENTAL STREET LIGHTING SYSTEM FOR DOWNTOWN CANTON, IL. INCLUDING ELECTRICAL SERVICE, RACEWAYS, WIRING AND ASSOCIATED EXCAVATIONS AND PATCHING.



**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
 APPROVED March 3 2015  
*Bill Timm*  
**PUBLIC WORKS DIRECTOR OF THE CITY OF CANTON, ILLINOIS**  
 PASSED February 27 2015  
*[Signature]*  
**DISTRICT FOUR ENGINEER OF LOCAL ROADS & STREETS**  
 Releasing For Bid Based on Limited Review February 27 2015  
*Harold A. Spenneth*  
**DEPUTY DIRECTOR, DIVISION OF HIGHWAYS, REGION THREE ENGINEER**

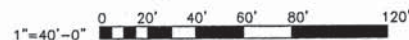
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SECTION 10-00102-00-LS  
 PROJECT LOCATION



R4E  
**LOCATION MAP**  
 NOT TO SCALE

TOTAL LENGTH OF PROJECT AND IMPROVEMENTS: 2210 FEET  
 HIGHWAY CLASS ..... URBAN COLLECTOR  
 DESIGN SPEED ..... 30 MPH  
 POLICY ..... N/A  
 VARIANCES..... NONE  
 COMMITMENTS ..... NONE



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**



**Midwest Engineering Professionals Inc.**  
 607 S. Main Street - Morton, Illinois 61550  
 Telephone: (309)266-1117 Fax: (309)266-8225  
 Email: [engineers@mepinc.biz](mailto:engineers@mepinc.biz)

IL Design Firm Registration #184-001995

**ITEM NO. 402209**  
**CONTRACT NO. 89602**  
**CATALOG NO. 034641-00**

**ENVIRONMENTAL REVIEWS**

Prior to the use of any proposed borrow areas, use areas (temporary access roads, detours, run-arounds, etc.) and/or waste areas, the Contractor shall file the required environmental resource request surveys according to Section 107.22 of the Standard Specifications. These surveys are required in order for the Department to conduct cultural and biological resource surveys for the proposed site.

The required environmental resource documentation shall include the following:

- BDE Form 2289 (Cultural and Natural Resources Review of Borrow Areas)
- BDE Form 2290 (Waste/Use Area Review)
- A location map showing the size limits and location of the use area
- Color photographs depicting the use area
- Borrow Area Entry Agreement form - D4 PI0101

Prior to any waste materials being removed from the construction site the required environmental resource surveys shall be obtained and filed by the Contractor. Excess waste products removed from the construction site shall be disposed of as required in Section 202.03 of the Standard Specifications.

Any protruding metal bars shall be removed prior to the disposal of broken concrete at approved disposal sites.

Please note that a minimum of four weeks shall be allowed for the District to obtain the required waste site environmental clearances and six weeks for the required borrow site environmental clearances.

**SUMMARY OF QUANTITIES**

CODE NO	ITEM	UNIT	TOTAL QUANTITY	SAFETY	NON PARTICIPATING
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	3324	3324	
44000600	SIDEWALK REMOVAL	SQ FT	3324	3324	
44200104	PAVEMENT PATCHING, TYPE I, 9 INCH	SQ YD	30	30	
67100100	MOBILIZATION	L SUM	1	1	
81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	370	370	
81028370	UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	50	50	
81028750	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 2" DIA.	FOOT	3755	3755	
81400730	HANDHOLE, COMPOSITE CONCRETE	EACH	18	18	
81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	4560	4560	
81702150	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2	FOOT	18640	18640	
83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	360	360	
89502300	REMOVE EXISTING CABLE FROM CONDUIT	FOOT	1710	1710	
89502380	REMOVE EXISTING HANDHOLE	EACH	15	15	
X0326654	ORNAMENTAL LIGHT UNIT, COMPLETE	EACH	60	60	
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
X8040102	ELECTRIC SERVICE INSTALLATION, SPECIAL	EACH	1	1	
XX004977	FLAG POLE INSERT	EACH	60		60
XX007797	LUMINAIRE (SPECIAL)	EACH	7	7	
XX008104	POLE MOUNTED PLANTER BASKET	EACH	60		60
XX008270	BANNER ARMS	EACH	60		60

**GENERAL NOTES**

THE CONSTRUCTION SHALL BE GOVERNED BY THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" IN ILLINOIS, CURRENT EDITION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS TO ANY UTILITY LINES AND EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED AS A RESULT OF THE WORK.

WHERE PROPOSED CONSTRUCTION ADJUTS EXISTING APPURTENANCES, A FULL DEPTH SAWCUT SHALL BE MADE TO ACHIEVE A CLEAN BREAK BETWEEN THE PROPOSED AND THE EXISTING PAVEMENT OR SIDEWALK. THE SAWCUT IS TO BE INCLUDED IN THE COST OF THE APPLICABLE REMOVAL ITEM.

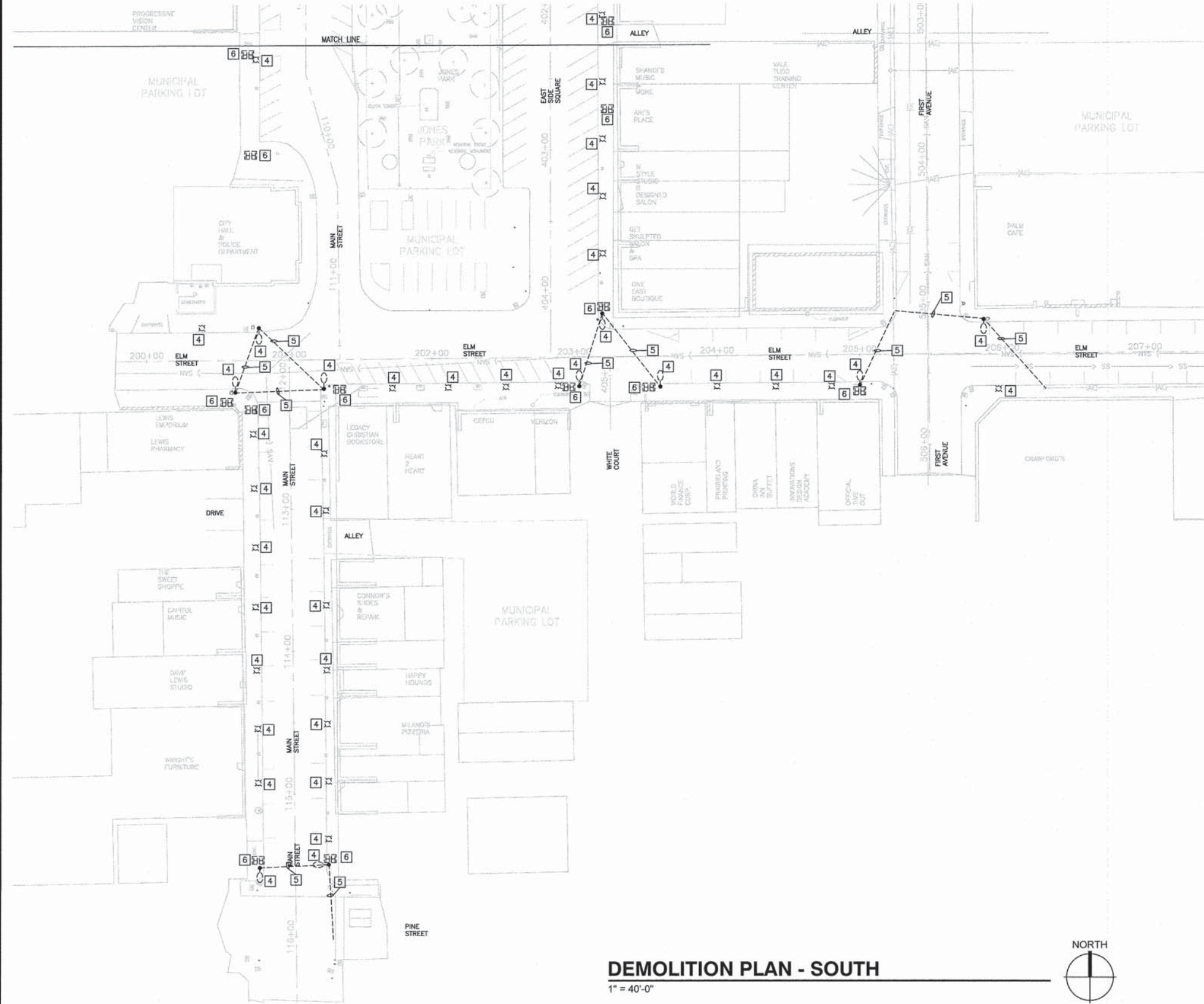
THE LOCATIONS OF EXISTING WATER MAINS, GAS MAINS, SEWERS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT THEY ARE NOT GUARANTEED. UNLESS ELEVATIONS ARE SHOWN, ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY THE UTILITY COMPANY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES AND BY FIELD INSPECTION.

ACCESS MUST BE MAINTAINED TO ALL EXISTING PROPERTIES DURING CONSTRUCTION PER ARTICLE 107.09 UNLESS ARRANGEMENTS ARE MADE IN WRITING BY THE CONTRACTOR WITH THE PROPERTY OWNERS WITH A COPY TO THE ENGINEER FOR SHORT-TERM CLOSURES.

CONTROL OF MATERIALS SHALL BE IN ACCORDANCE WITH ARTICLE 106.01.

**ELECTRICAL SYMBOLS**

	HANDHOLE
	DECORATIVE UTILITY LUMINAIRE AND POLE
	COBRA HEAD UTILITY POLE AND LUMINAIRE
	NEW LUMINAIRE AND POLE AS SCHEDULED
	UNDERGROUND RACEWAY
	UTILITY POLE
	GROUND ROD
(E)	EXISTING
A	AMPERE
C	CONDUIT
CCT	CIRCUIT
CR	GROUND
L	LIGHT / LUMINAIRE
P, Ø	POLE
V, Ø	PHASE
V	VOLTS
W	WATTS



**ELECTRICAL GENERAL NOTES**

1. LOCATIONS OF UNDERGROUND MATERIALS SHOWN ON THIS PLAN ARE BASED UPON SURFACE OBSERVATION OF EXISTING CONDITIONS AND ARE APPROXIMATE ONLY. CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES AND UNDERGROUND CIRCUITS/LINES PRIOR TO PERFORMING ANY WORK AND SHALL REPORT ANY CONFLICTS TO THE ENGINEER.
2. CONTRACTOR SHALL PROTECT ALL EXISTING WORK FROM DAMAGE DURING CONSTRUCTION AND SHALL REPAIR OR REPLACE SAME AT NO ADDITIONAL COST TO OWNER IF DAMAGED BY CONSTRUCTION ACTIVITIES.
3. THE EXISTING LIGHTING SYSTEMS TO REMAIN IN OPERATION UNTIL SUCH TIME THAT THE NEW LIGHTING SYSTEM HAS BEEN INSTALLED, TESTED AND READY FOR OPERATION. NOTIFY ENGINEER NO FEWER THAN 14 DAYS PRIOR TO INTERRUPTING ANY SYSTEMS. MINIMIZE DURATION OF DISRUPTION OF SYSTEMS. IF NECESSARY TO FACILITATE THE OWNERS USE AND OCCUPANCY OF THE EXISTING FACILITIES, TEMPORARY SUPPLIES OR PERFORMING OF WORK AFTER NORMAL WORKING HOURS SHALL BE COMPLETED WITH NO INCREASE IN CONSTRUCTION COST. PROCEED WITH SYSTEM INTERRUPTION ONLY AFTER RECEIPT OF WRITTEN AUTHORIZATION FROM OWNER.
4. FIELD CUT ALL EXISTING CONCRETE AND PAVEMENT TO ALLOW INSTALLATION OF NEW UNDERGROUND CIRCUITS. BACKFILL, PATCH, AND RESEED ALL SURFACES DAMAGED DURING CONSTRUCTION TO MATCH EXISTING CONDITIONS.

**KEYED NOTES**

- 1 EXISTING 2" SPARE CONDUIT STUBBED OUT 5' AND CAPPED FOR FUTURE USE.
- 2 EXISTING STREET LIGHTING CIRCUIT. REMOVE EXISTING STREET LIGHTING CONDUCTORS (2-#8 & #8 GR.). INSTALL NEW STREET LIGHTING CIRCUIT 4-#2 AND #8 GR. IN EXISTING 2" CONDUIT. LENGTH AS INDICATED.
- 3 EXISTING 2" SPARE CONDUIT TO REMAIN.
- 4 EXISTING STREET LIGHTING POLE AND FIXTURE TO BE REMOVED BY AMEREN. PATCH EXISTING CONCRETE SIDEWALK.
- 5 EXISTING AERIAL STREET LIGHTING CIRCUIT TO BE REMOVED BY AMEREN.
- 6 REMOVE EXISTING HANDHOLE. PATCH EXISTING SIDEWALK.
- 7 EXISTING STREET LIGHTING POLE AND LUMINAIRE. REPLACE EXISTING LAMP AND BALLAST ASSEMBLY WITH NEW HOLOPHANE MODEL #GPDRETRO-100-5K-AS-M-3 LED RETROFIT KIT. PROVIDE NEW WIRING, FUSE HOLDERS, FUSES, AND SURGE SUPPRESSORS IN POLE SAME AS NEW POLE INSTALLATION. PAY ITEM XX007797 LUMINAIRE (SPECIAL).
- 8 EXISTING STREET LIGHTING CIRCUIT. REMOVE EXISTING STREET LIGHTING CONDUCTORS BACK TO SOURCE (2-#8 & #8 GR.).
- 9 PROVIDE 2" SPARE CONDUIT STUBBED OUT 5' AND CAPPED FOR FUTURE USE.
- 10 2" COILABLE NON-METALLIC CONDUIT BORED AND PULLED WITH 4-#2 AWG AND #6 AWG GROUND. LENGTH AS INDICATED.
- 11 2" PVC CONDUIT IN TRENCH WITH 4-#2 AWG AND #6 AWG GROUND. LENGTH AS INDICATED.
- 12 2" PVC CONDUIT IN TRENCH EMPTY. LENGTH AS INDICATED.
- 13 EXISTING 2" PVC EMPTY CONDUIT PROVIDE 4-#2 AWG AND #6 AWG GROUND. LENGTH AS INDICATED.
- 14 EXISTING STREET LIGHTING CIRCUIT. REMOVE EXISTING STREET LIGHTING CONDUCTORS (2-#8 & #8 GR.).
- 15 3" PVC CONDUIT IN TRENCH WITH 12-#2 AWG AND #6 AWG GROUND. PROVIDE 2-2" PVC CONDUITS IN TRENCH SPARE. LENGTH AS INDICATED.
- 16 INSTALL PHOTOCELL MINIMUM 12' ABOVE GRADE WHERE DIRECTED. UTILIZE RIGID GALVANIZED STEEL CONDUIT WHERE EXPOSED OUTDOORS. PAINT CONDUIT TO MATCH EXISTING WALL SURFACE.
- 17 2" COILABLE NON-METALLIC CONDUIT BORED AND PULLED EMPTY. LENGTH AS INDICATED.
- 18 HANDHOLE SHALL BE 24" WIDE X 36" LONG MINIMUM.

**BILL OF MATERIAL FOR THIS SHEET - SOUTH DEMOLITION**

ITEM	UNIT	TOTAL QUANTITY
PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	800
SIDEWALK REMOVAL	SQ FT	800
REMOVE EXISTING HANDHOLE	EACH	12

**DEMOLITION PLAN - SOUTH**

1" = 40'-0"



**ELECTRICAL GENERAL NOTES**

1. LOCATIONS OF UNDERGROUND MATERIALS SHOWN ON THIS PLAN ARE BASED UPON SURFACE OBSERVATION OF EXISTING CONDITIONS AND ARE APPROXIMATE ONLY. CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES AND UNDERGROUND CIRCUITS/LINES PRIOR TO PERFORMING ANY WORK AND SHALL REPORT ANY CONFLICTS TO THE ENGINEER.
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**BILL OF MATERIAL FOR THIS SHEET - NORTH DEMOLITION**

ITEM	UNIT	TOTAL QUANTITY
PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	256
SIDEWALK REMOVAL	SQ FT	256
REMOVE EXISTING HANDHOLE	EACH	3



**DEMOLITION PLAN - NORTH**

1" = 40'-0"



Midwest Engineering Professionals Inc.  
 507 S. Main St., Mokena, Illinois 61550  
 Telephone: (312) 298-1117 Fax: (312) 298-8225  
 Email: engpro@engproinc.com  
 IL Design Firm Registration #154-021995

USER NAME =  
 FILE NAME =  
 PLOT SCALE = 1"=40'-0"  
 PLOT DATE = 02/23/15

DESIGNED -- WKB  
 DRAWN -- WKB  
 CHECKED -- WKB  
 DATE -- 02/23/15

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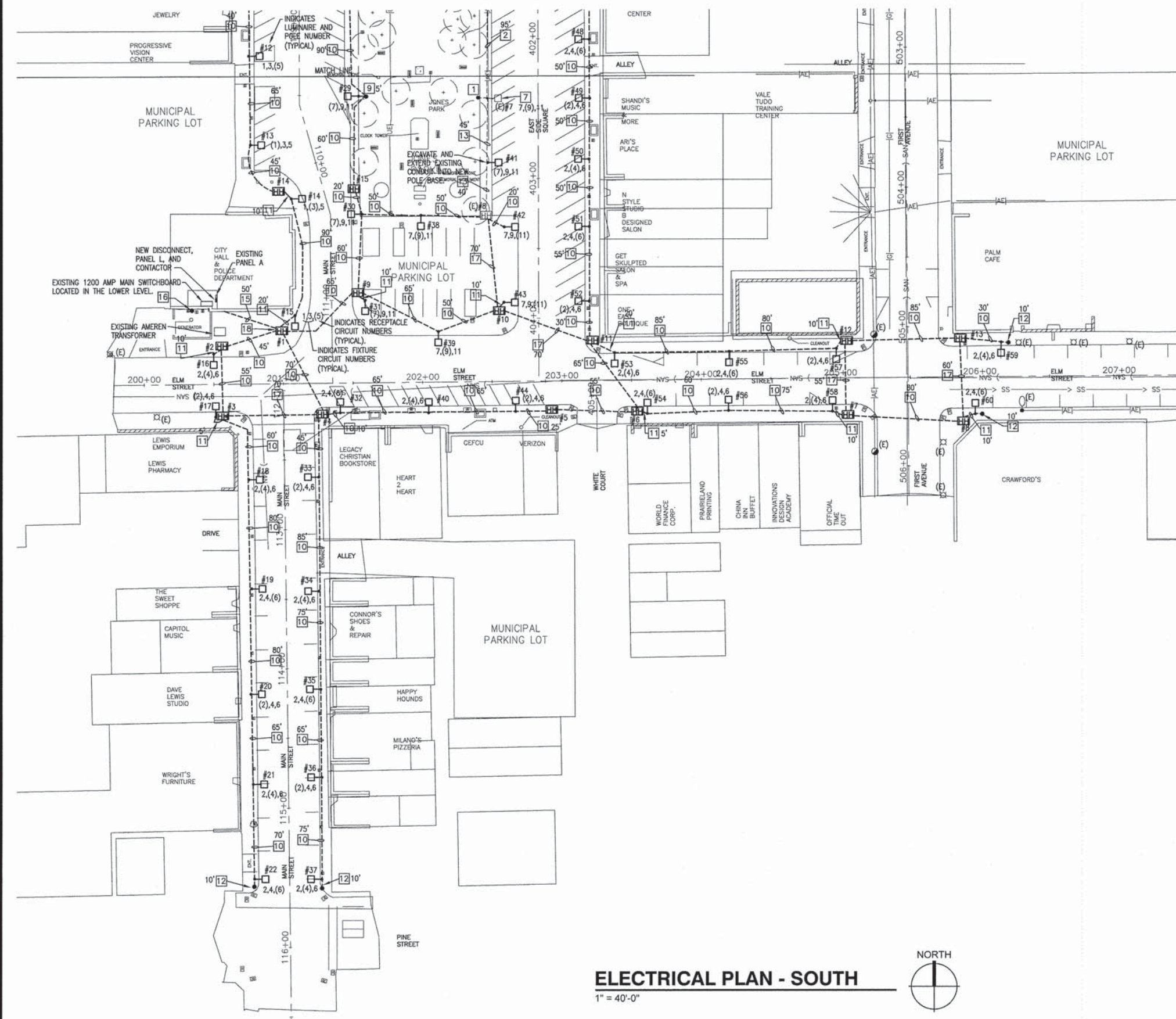
**THE CITY OF CANTON ILLINOIS**

**CANTON DOWNTOWN STREET LIGHTING IMPROVEMENTS - PHASE 1**

**DEMOLITION PLAN - NORTH**

SCALE: SHEET NO. 4 OF 8 SHEETS STA. TO STA.

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10-00102-00-LS	FULTON	8	4
CONTRACT 89602			



**ELECTRICAL PLAN - SOUTH**  
1" = 40'-0"



**ELECTRICAL GENERAL NOTES**

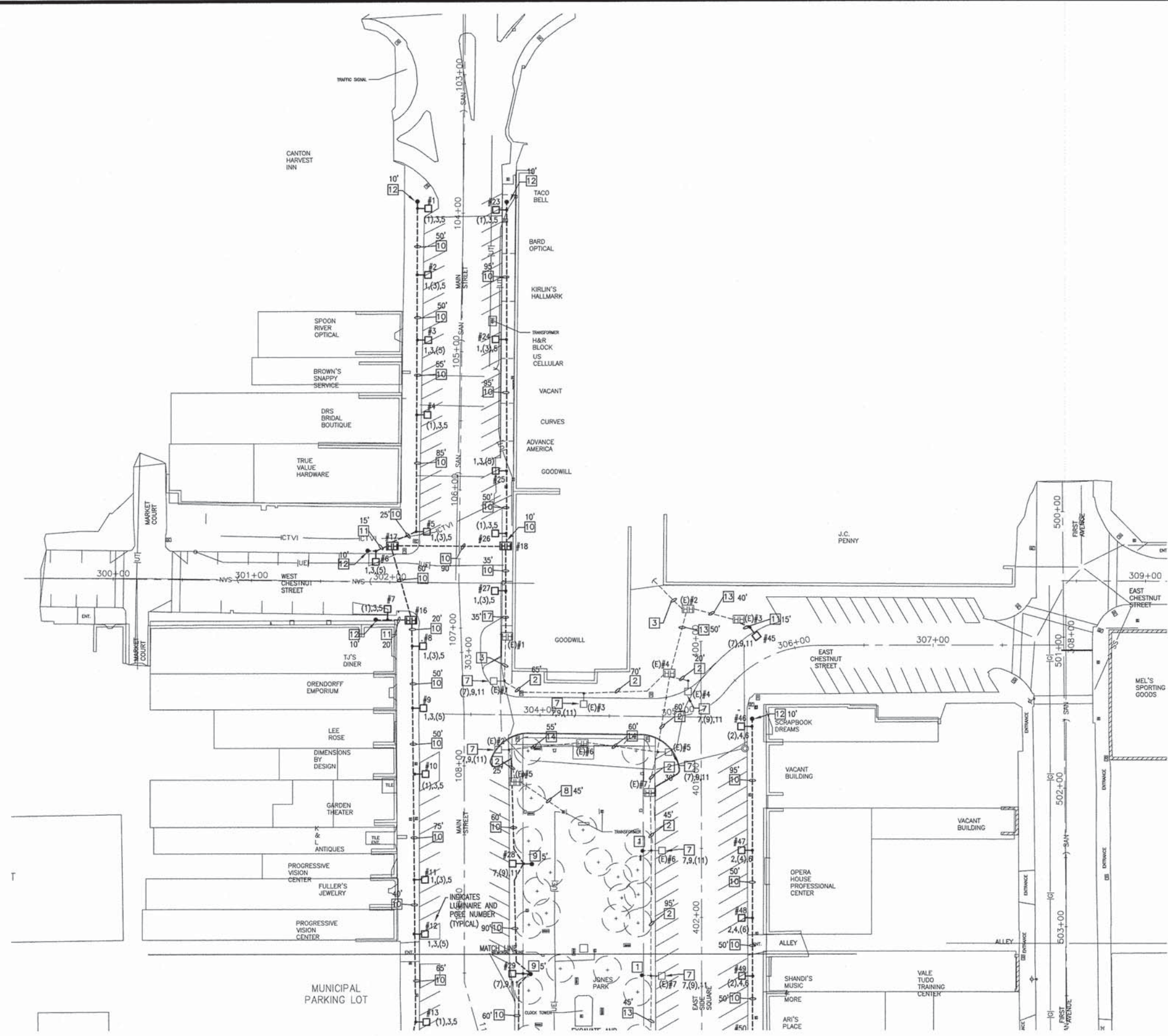
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**BILL OF MATERIAL FOR THIS SHEET - SOUTH**

ITEM	UNIT	TOTAL QUANTITY
PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	1388
SIDEWALK REMOVAL	SQ FT	1388
PAVEMENT PATCHING, TYPE I, 9 INCH	SQ YD	20
MOBILIZATION	L SUM	1
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	265
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	50
UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 2" DIA.	FOOT	2475
HANDHOLE, COMPOSITE CONCRETE	EACH	15
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	2730
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2	FOOT	11320
LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	228
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	0
ORNAMENTAL LIGHT UNIT, COMPLETE	EACH	38
TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
ELECTRIC SERVICE INSTALLATION, SPECIAL	EACH	1
FLAG POLE INSERT	EACH	38
LUMINAIRE (SPECIAL)	EACH	1
POLE MOUNTED PLANTER BASKET	EACH	38
BANNER ARMS	EACH	38



**ELECTRICAL PLAN - NORTH**

1" = 40'-0"



**ELECTRICAL GENERAL NOTES**

1. LOCATIONS OF UNDERGROUND MATERIALS SHOWN ON THIS PLAN ARE BASED UPON SURFACE OBSERVATION OF EXISTING CONDITIONS AND ARE APPROXIMATE ONLY. CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES AND UNDERGROUND CIRCUITS/LINES PRIOR TO PERFORMING ANY WORK AND SHALL REPORT ANY CONFLICTS TO THE ENGINEER.
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3. THE EXISTING LIGHTING SYSTEMS TO REMAIN IN OPERATION UNTIL SUCH TIME THAT THE NEW LIGHTING SYSTEM HAS BEEN INSTALLED, TESTED AND READY FOR OPERATION. NOTIFY ENGINEER NO FEWER THAN 14 DAYS PRIOR TO INTERRUPTING ANY SYSTEMS. MINIMIZE DURATION OF DISRUPTION OF SYSTEMS. IF NECESSARY TO FACILITATE THE OWNERS USE AND OCCUPANCY OF THE EXISTING FACILITIES, TEMPORARY SUPPLIES OR PERFORMING OF WORK AFTER NORMAL WORKING HOURS SHALL BE COMPLETED WITH NO INCREASE IN CONSTRUCTION COST. PROCEED WITH SYSTEM INTERRUPTION ONLY AFTER RECEIPT OF WRITTEN AUTHORIZATION FROM OWNER.
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**KEYED NOTES**

- 1 EXISTING 2" SPARE CONDUIT STUBBED OUT 5' AND CAPPED FOR FUTURE USE.
- 2 EXISTING STREET LIGHTING CIRCUIT. REMOVE EXISTING STREET LIGHTING CONDUCTORS (2-#8 & #8 GR.). INSTALL NEW STREET LIGHTING CIRCUIT 4-#2 AND #8 GR. IN EXISTING 2" CONDUIT. LENGTH AS INDICATED.
- 3 EXISTING 2" SPARE CONDUIT TO REMAIN.
- 4 EXISTING STREET LIGHTING POLE AND FIXTURE TO BE REMOVED BY AMEREN. PATCH EXISTING CONCRETE SIDEWALK.
- 5 EXISTING AERIAL STREET LIGHTING CIRCUIT TO BE REMOVED BY AMEREN.
- 6 REMOVE EXISTING HANDHOLE. PATCH EXISTING SIDEWALK.
- 7 EXISTING STREET LIGHTING POLE AND LUMINAIRE. REPLACE EXISTING LAMP AND BALLAST ASSEMBLY WITH NEW HOLOPHANE MODEL #GPDRETRO-100-5K-AS-M-3 LED RETROFIT KIT. PROVIDE NEW WIRING, FUSE HOLDERS, FUSES, AND SURGE SUPPRESSORS IN POLE SAME AS NEW POLE INSTALLATION. PAY ITEM XX007797 LUMINAIRE (SPECIAL).
- 8 EXISTING STREET LIGHTING CIRCUIT. REMOVE EXISTING STREET LIGHTING CONDUCTORS BACK TO SOURCE (2-#8 & #8 GR.).
- 9 PROVIDE 2" SPARE CONDUIT STUBBED OUT 5' AND CAPPED FOR FUTURE USE.
- 10 2" COILABLE NON-METALLIC CONDUIT BORED AND PULLED WITH 4-#2 AWG AND #6 AWG GROUND. LENGTH AS INDICATED.
- 11 2" PVC CONDUIT IN TRENCH WITH 4-#2 AWG AND #6 AWG GROUND. LENGTH AS INDICATED.
- 12 2" PVC CONDUIT IN TRENCH EMPTY. LENGTH AS INDICATED.
- 13 EXISTING 2" PVC EMPTY CONDUIT PROVIDE 4-#2 AWG AND #6 AWG GROUND. LENGTH AS INDICATED.
- 14 EXISTING STREET LIGHTING CIRCUIT. REMOVE EXISTING STREET LIGHTING CONDUCTORS (2-#8 & #8 GR.).
- 15 3" PVC CONDUIT IN TRENCH WITH 12-#2 AWG AND #6 AWG GROUND. PROVIDE 2-2" PVC CONDUITS IN TRENCH SPARE. LENGTH AS INDICATED.
- 16 INSTALL PHOTOCELL MINIMUM 12' ABOVE GRADE WHERE DIRECTED. UTILIZE RIGID GALVANIZED STEEL CONDUIT WHERE EXPOSED OUTDOORS. PAINT CONDUIT TO MATCH EXISTING WALL SURFACE.
- 17 2" COILABLE NON-METALLIC CONDUIT BORED AND PULLED EMPTY. LENGTH AS INDICATED.
- 18 HANDHOLE SHALL BE 24" WIDE X 36" LONG MINIMUM.

**BILL OF MATERIAL FOR THIS SHEET - NORTH**

ITEM	UNIT	TOTAL QUANTITY
PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	880
SIDEWALK REMOVAL	SQ FT	880
PAVEMENT PATCHING, TYPE I, 9 INCH	SQ YD	10
MOBILIZATION	L SUM	0
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	105
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	0
UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 2" DIA.	FOOT	1280
HANDHOLE, COMPOSITE CONCRETE	EACH	3
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	1830
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2	FOOT	7320
LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	132
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1710
ORNAMENTAL LIGHT UNIT, COMPLETE	EACH	22
TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	0
ELECTRIC SERVICE INSTALLATION, SPECIAL	EACH	0
FLAG POLE INSERT	EACH	22
LUMINAIRE (SPECIAL)	EACH	6
POLE MOUNTED PLANTER BASKET	EACH	22
BANNER ARMS	EACH	22

THE CITY OF CANTON ILLINOIS

CANTON DOWNTOWN STREET LIGHTING IMPROVEMENTS - PHASE 1

ELECTRICAL PLAN - NORTH

SCALE: SHEET NO. 6 OF 8 SHEETS STA. TO STA.

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10-00102-00-LS	FULTON	8	6
			CONTRACT 89602

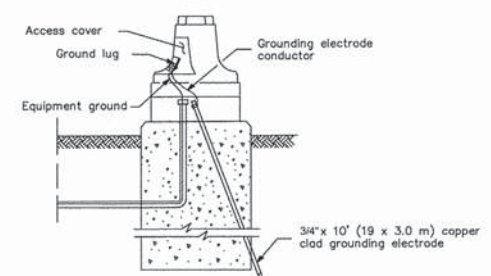
Midwest Engineering Professionals Inc.  
107 S. Main St., Morton, Illinois 61550  
Telephone: (312) 350-1117 Fax: (312) 298-8225  
Email: engineers@midwestpe.com

USER NAME =  
FILE NAME =  
PLOT SCALE = 1"=40'-0"  
PLOT DATE = 02/23/15

DESIGNED -- WKB  
DRAWN -- WKB  
CHECKED -- WKB  
DATE -- 02/23/15

REVISED  
REVISED  
REVISED  
REVISED

PANELBOARD SCHEDULE															
120 / 208 VOLTS		3 PHASE		4 WIRE		100 AMPS									
<input type="checkbox"/> MAIN BREAKER	<input type="checkbox"/> FLUSH MOUNTED	<input type="checkbox"/> 200% NEUTRAL		<input type="checkbox"/> FEED THRU LUGS											
<input checked="" type="checkbox"/> MAIN LUGS	<input checked="" type="checkbox"/> SURFACE MOUNTED	<input type="checkbox"/> ISOLATED GROUND BAR		<input checked="" type="checkbox"/> INTEGRAL TVSS											
USE	AMP	POLE	CCT #	LOAD (KVA)			LOAD (KVA)			CCT #	AMP	POLE	USE		
				A	B	C	A	B	C						
SITE LIGHTING	30	3	3	1.7			1.7			2.5	2.5	6	30	3	SITE LIGHTING
			5	1.5			1.5					8			
SITE LIGHTING	30	3	9									10	30	3	SPARE
			11									12			
SPACE			13									14			SPACE
SPACE			15									16			SPACE
SPACE			17									18			SPACE
SPACE			19									20			SPACE
SPACE			21									22			SPACE
SPACE			23									24			SPACE
SPACE			25									26			SPACE
SPACE			27									28			SPACE
SPACE			29									30			SPACE
				3.2	3.2	3.2	2.5	2.5	2.5						
				5.7	5.7	5.7	< TOTALS								
INTEGRATED EQUIPMENT RATING				22000 AMPS RMS SYMMETRICAL				TOTAL CONNECTED LOAD				17,100 VA			
20" INCH WIDE CABINET												48 AMPS			



GROUNDING A POLE/POST



HEAVY-DUTY COMPRESSION TERMINAL



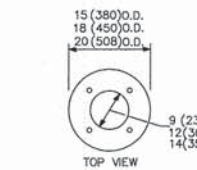
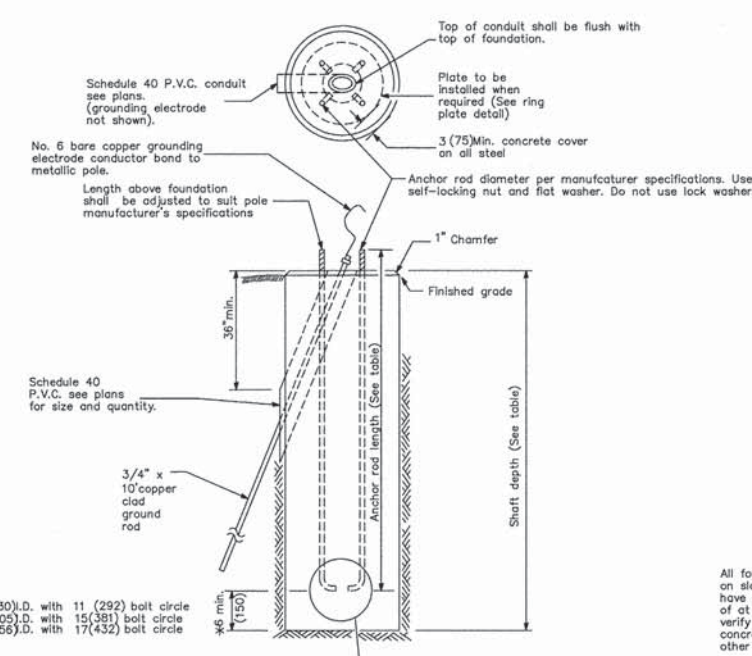
HEAVY-DUTY GROUND ROD CLAMP

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

TRAFFIC SIGNAL GROUNDING & BONDING

CONCRETE FOUNDATION				
LIGHT POLE MOUNTING HEIGHT	BOLT CIRCLE DIAMETER PER MFR.	SHAFT DIAMETER	SHAFT DEPTH	ANCHOR ROD LENGTH(Ø)
14'		24	6'-0"	5'-9"

Ø Length does not include hook.



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

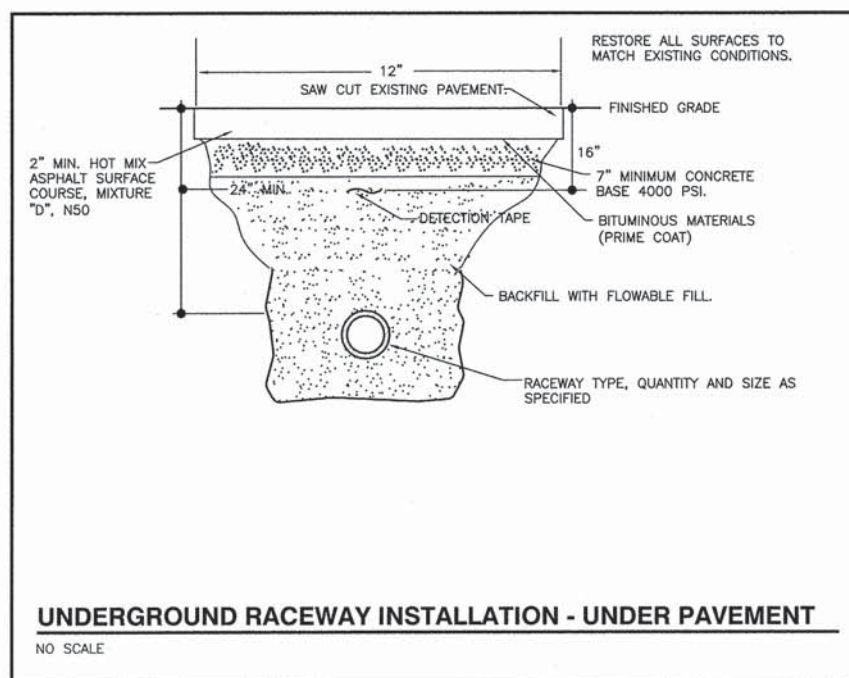
\* If the required anchor rod length above top of foundation is less than 3 (75) anchor rods may be lowered below 6 (150)

CONCRETE FOUNDATION

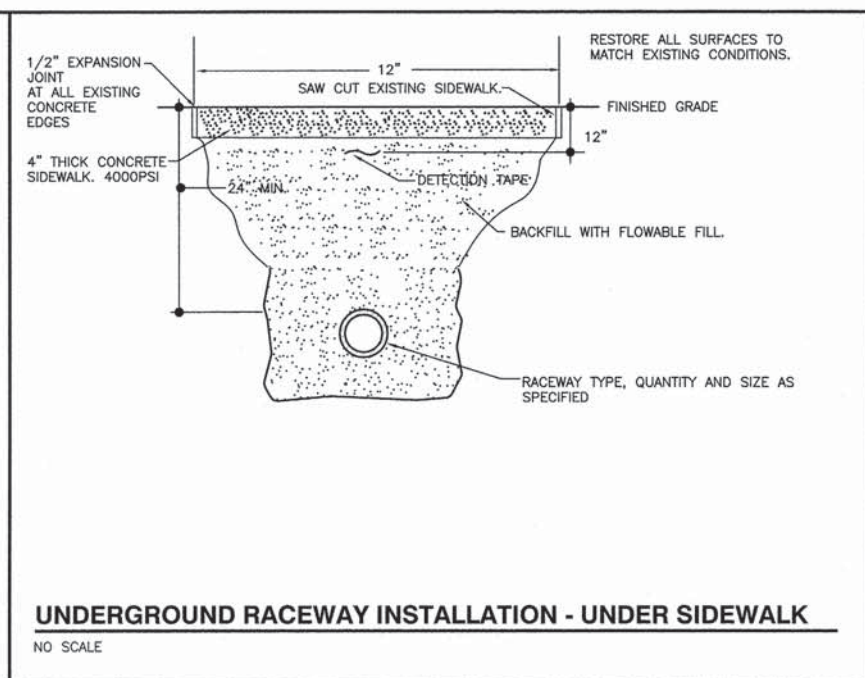
Pole Foundation Setback: Install poles where directed by Engineer.

GENERAL NOTES  
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 and notify the Engineer if other conditions are encountered.  
All dimensions are in inches (millimeters) unless otherwise shown.

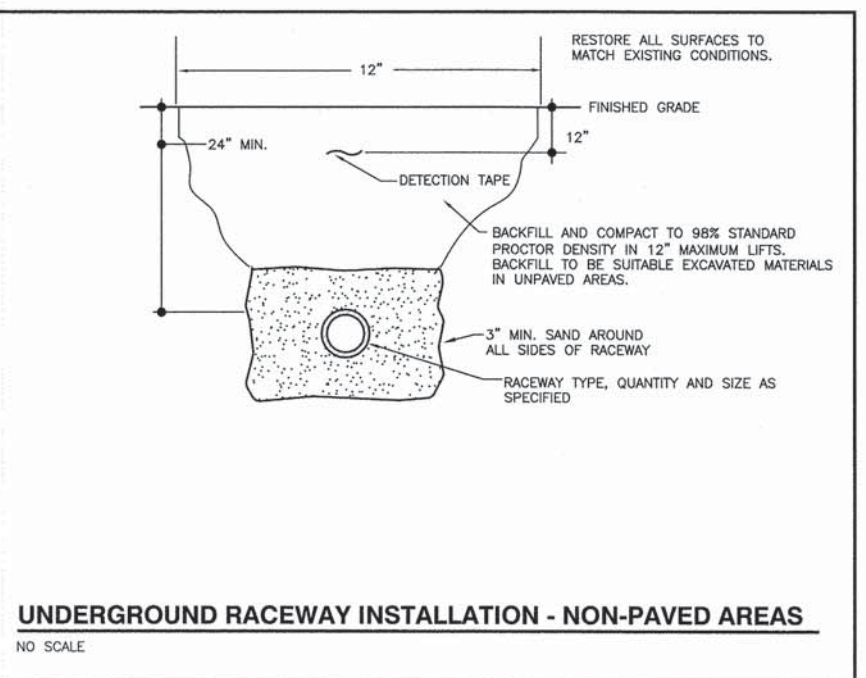
LIGHT POLE FOUNDATION



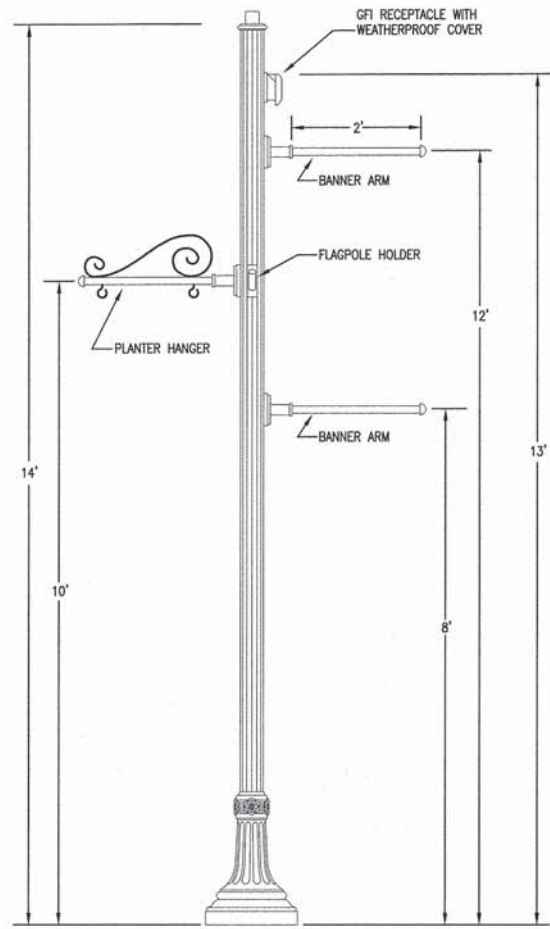
UNDERGROUND RACEWAY INSTALLATION - UNDER PAVEMENT  
NO SCALE



UNDERGROUND RACEWAY INSTALLATION - UNDER SIDEWALK  
NO SCALE



UNDERGROUND RACEWAY INSTALLATION - NON-PAVED AREAS  
NO SCALE



**POLE AND WIRING DETAIL**

NO SCALE

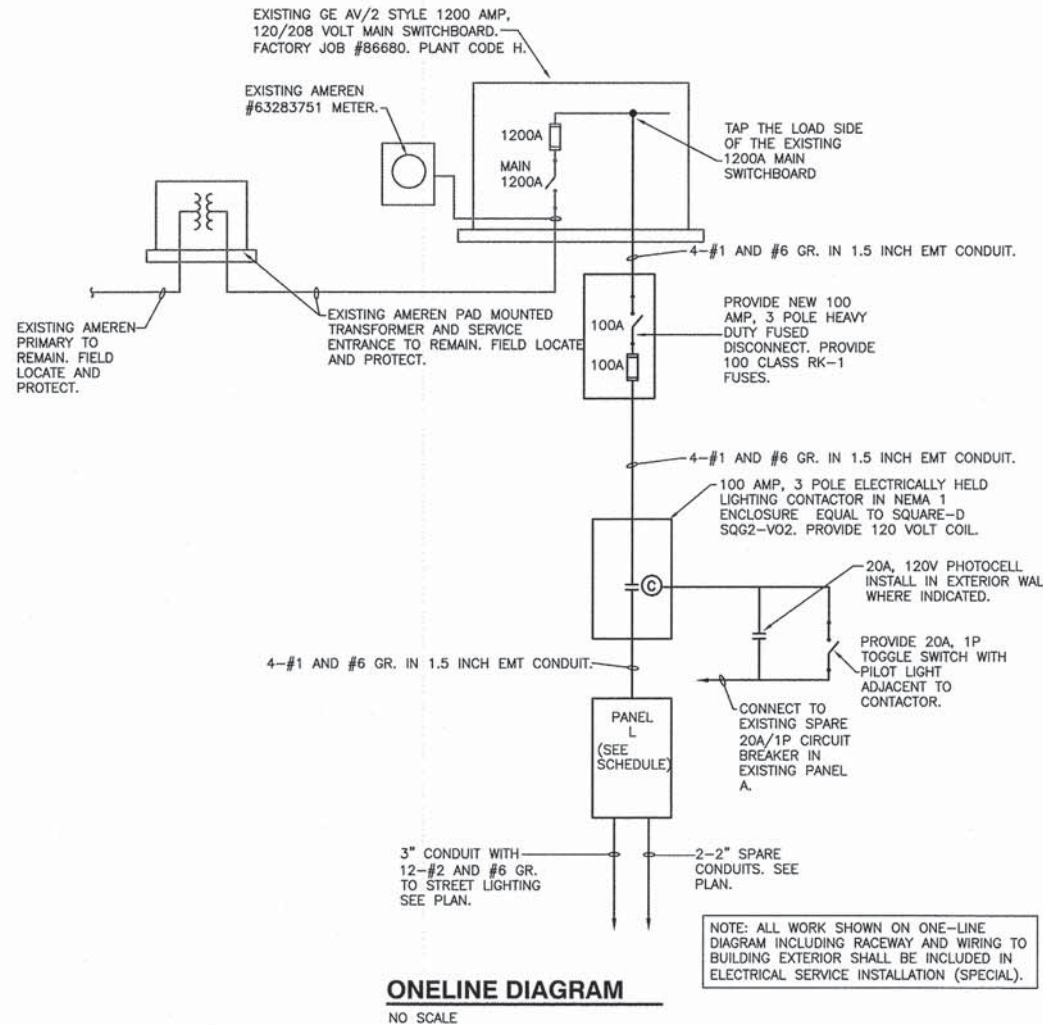
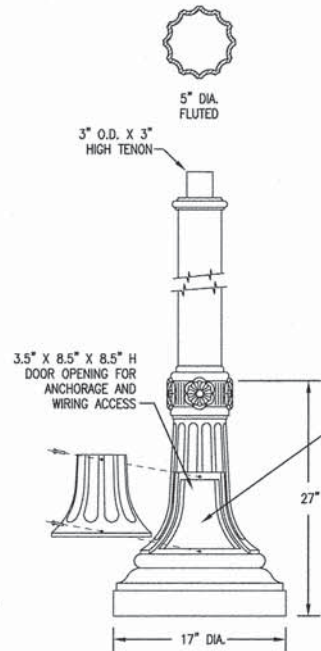
**SPECIFICATIONS**

**DESCRIPTION:** The lighting post shall be all aluminum, one-piece construction, with a classic tapered and fluted base design. The shaft shall be 5" dia. fluted.  
**MATERIALS:** The base shall be heavy wall cast aluminum produced from certified ASTM 356.1 ingot per ASTM B-179-95a or ASTM B26-95. The straight shafts shall be extruded from aluminum, ASTM 6061 alloy, heat treated to T6 temper. All hardware shall be temper resistant stainless steel.  
**CONSTRUCTION:** The shaft shall be double welded to the base casting and shipped as one piece for maximum structural integrity. All exposed welds below 8' shall be ground smooth. All welding shall be per ANSI/AWS D1.2-90. All welders shall be certified per Section 5 of ANSI/AWS D1.2-90.

**FURNISH THE FOLLOWING OPTIONAL EQUIPMENT FOR ALL POLES**

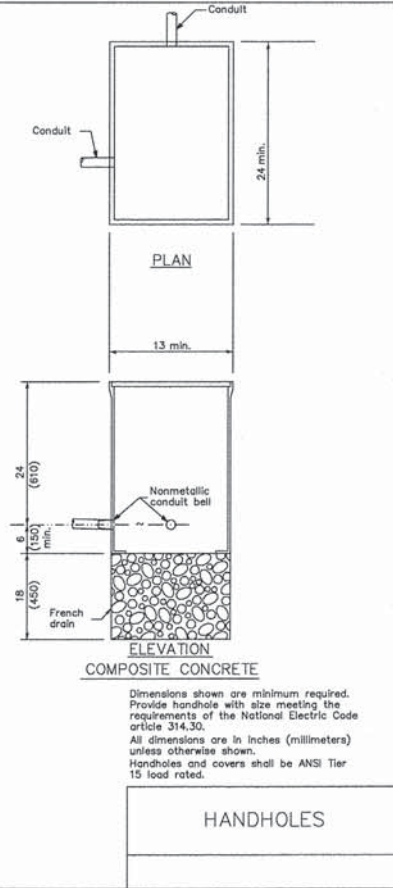
1. GFI receptacle with weatherproof in-use cover mounted flush in the pole at mounting height as indicated.
2. Banner Arms - 24" long, 1" dia. pipe with half sphere cap, mounting height as indicated. Provide two per pole.
3. Flagpole holder - suitable for 1" dia. flagpole. Mounting height as indicated.
4. Provide vibration dampeners as recommended by the pole manufacturer.

PROVIDE BREAKAWAY FUSEHOLDERS EQUAL TO IDEAL MODEL 65 FOR ALL THREE PHASE CONDUCTORS. PROVIDE 3 AMP FUSES FOR THE TWO LIGHTING PHASE CONDUCTORS. PROVIDE 15 AMP FUSE FOR THE RECEPTACLE CONDUCTOR. FUSES SHALL BE EQUAL TO BUSSMANN TYPE KTK. PROVIDE SURGE SUPPRESSOR EQUAL TO DITEK DTK-DL SERIES. PROVIDE SURGE SUPPRESSION FOR ALL PHASE AND NEUTRAL CONDUCTORS. PROVIDE BREAKAWAY TAP EQUAL TO IDEAL MODEL 20 FOR THE NEUTRAL CONDUCTOR. UTILIZE #10 AWG FROM TAPS TO FIXTURE DRIVER/RECEPTACLE. SEE PLANS FOR CIRCUIT NUMBERS.



**ONELINE DIAGRAM**

NO SCALE

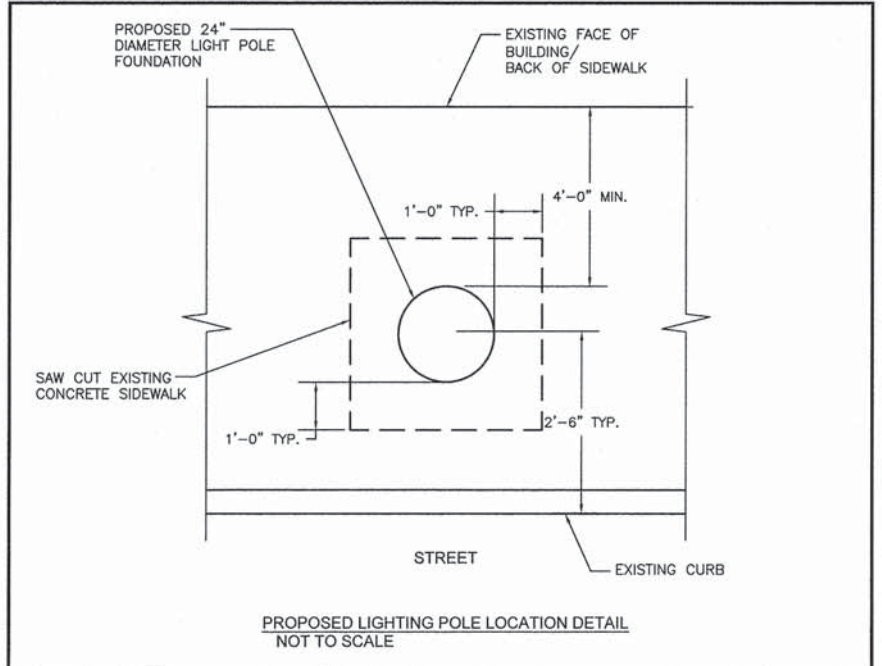


**ELEVATION**

**COMPOSITE CONCRETE**

**HANDHOLES**

Dimensions shown are minimum required. Provide handhole with size meeting the requirements of the National Electric Code article 314.30. All dimensions are in inches (millimeters) unless otherwise shown. Handholes and covers shall be ANSI Tier 15 load rated.



**PROPOSED LIGHTING POLE LOCATION DETAIL**

NOT TO SCALE

**LUMINAIRE SCHEDULE**

MARK	MANUFACTURER	CATALOG NO.	QTY/TYPE LAMPS	MOUNTING	VOLTAGE	INPUT WATTS	REMARKS
LT1	HOLOPHANE	GPD-100-5K-AS-M-B-3-N-R-A w/ POLE #NYA14F5J17-ABG/BK	100 WATT LED	POLE MOUNTED ON CONCRETE BASE-SEE DETAIL	208V	100	EXTERIOR "ACORN STYLE" LUMINAIRE WITH MULTI-VOLTAGE DRIVER AND ASYMMETRIC DISTRIBUTION. PROVIDE 14" DECORATIVE POLE CAPABLE OF SUPPORTING FIXTURE IN 80 MPH WIND WITH 1.3 GUST FACTOR. SEE DETAIL FOR ADDITIONAL REQUIREMENTS.

**GENERAL NOTES**

1. MANUFACTURERS MODEL NUMBERS MAY NOT BE TOTALLY COMPLETE. CONTRACTOR SHALL PROVIDE FIXTURES WITH ALL OPTIONS, ACCESSORIES, ETC. NOTED IN THE REMARKS COLUMN AND/OR INDICATED WITHIN THIS SCHEDULE.
2. VERIFY ALLPOLE/FIXTURE LOCATIONS WITH ENGINEER.