

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

F. A. P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00054-00-LT	COOK	19	1
STA. SEE MAP BELOW TO STA. SEE MAP BELOW				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARR - 0001(808)				

CONTRACT #63477

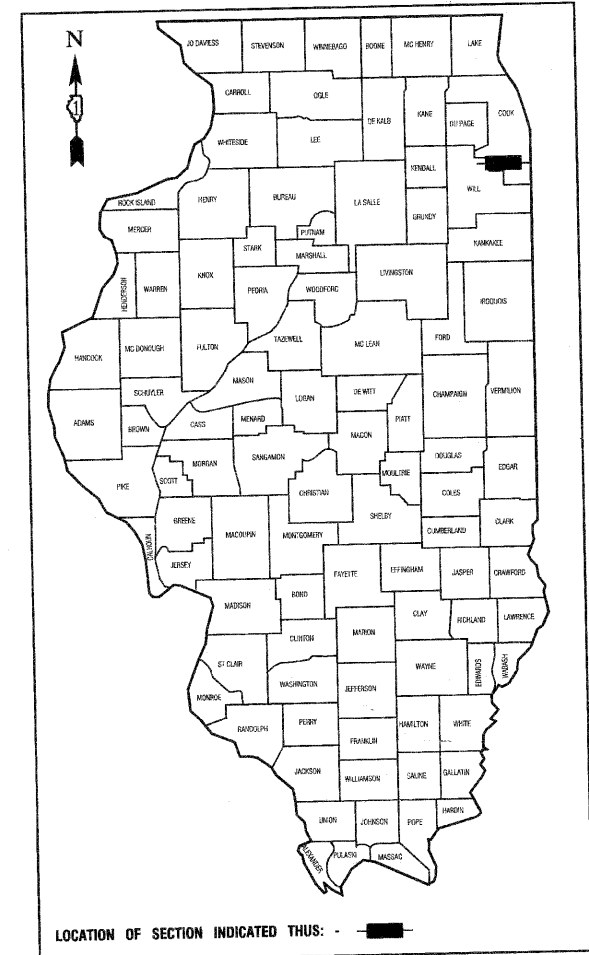
INDEX OF SHEETS

1. COVER SHEET
2. SUMMARY OF QUANTITIES
- 3.-9. STREET LIGHTING PLANS
- 10.-11. SINGLE LINE WIRING DIAGRAM
- 12.-17. DETAIL DRAWINGS
18. IDOT DISTRICT 1 DETAIL BE 305
19. IDOT DISTRICT 1 DETAIL TC 22

STATE STANDARDS

- | | |
|-----------|--|
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 701501-05 | URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED |
| 701606-06 | URBAN LANE CLOSURE, MULTILANE, 2W, WITH MOUNTABLE MEDIAN |
| 701701-06 | URBAN LANE CLOSURE, MULTILANE INTERSECTION |
| 701801-04 | LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE |
| 701901-01 | TRAFFIC CONTROL DEVICES |

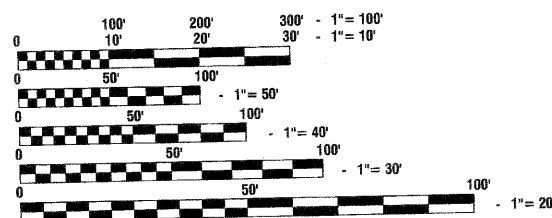
STREET LIGHTING
HARLEM AVENUE IL. 43(FAP 348)
71ST STREET TO 93RD STREET
PROJECT NO.: ARA- 00D1(808)
SECTION NO.: 06-00054-00-LT
VILLAGE of BRIDGEVIEW,
COOK COUNTY
C-91-068-10



HARLEM AVENUE URBAN ARTERIAL
ADT=42,050 (2009)
=45,000 (2030)
DESIGN SPEED=40 MPH
SPEED LIMIT= 35 MPH

SCALES

PLAN -	1"=50'
PROFILE HORIZ. -	1"=50'
PROFILE VERT. -	1"=5'
CROSS SECTIONS -	1"=10'



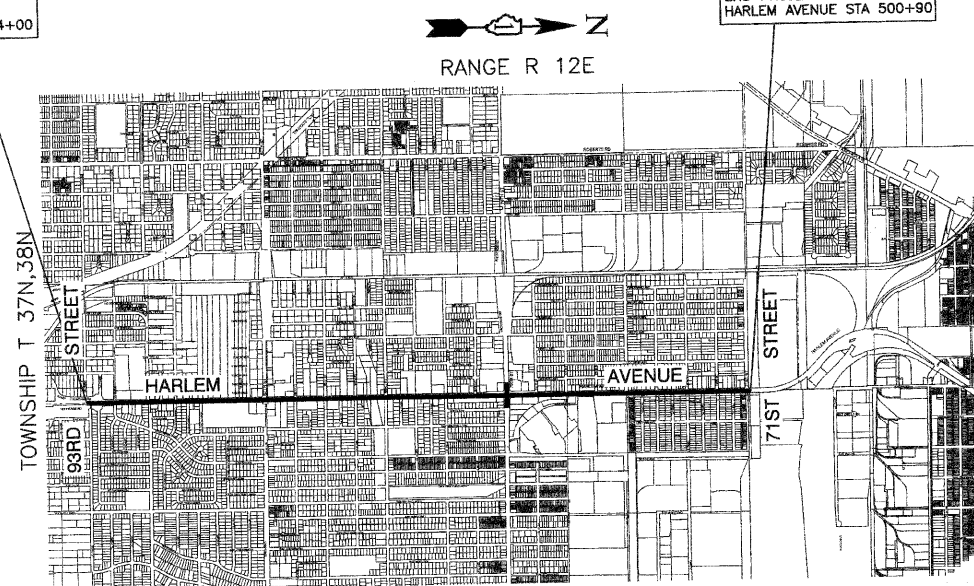
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARDS, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J. U. L. I. E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123 or 811

CONTRACT NO. 63477

BEGIN PROJECT
HARLEM AVENUE STA 354+00

END PROJECT
HARLEM AVENUE STA 500+90



LOCATION MAP

- INDICATES PROPOSED IMPROVEMENT
GROSS LENGTH=14,690 FEET=2.78 MILES
NET LENGTH=14,690 FEET=2.78 MILES

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Approved 7-16-2010
Steve Luber
President, Village of Bridgeview

Passed AUGUST 24, 2010
Charles A. ...
District 1 Engineer of Local Roads & Streets

Released for Bid
Based on Limited
Review AUGUST 24, 2010
Diane M. O'Keefe
Deputy Director of Highways, Region 1 Engineer

PRINTED BY THE AUTHORITY OF
THE STATE OF ILLINOIS

PREPARED BY OR UNDER THE
DIRECT SUPERVISION OF:

Edward J. ...
7-19-2010



LICENSE EXPIRES: 11/30/11

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDGLE, P.E., 847-705-4406 SCHAUMBURG, IL
CONSULTANTS: ROBINSON ENGINEERING, LTD. 708-331-6700

GENERAL NOTES :

- ALL WORK TO CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL CODES.
- CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES BEFORE TRENCHING OR AUGURING.
- BEFORE INSTALLING STANDARDS NEAR OVERHEAD FACILITIES CALL ComEd FOR APPROVAL OF LOCATION.
- FOR LOCATION OF EXISTING UNDERGROUND ELECTRICAL CABLE CALL ComEd.
- ALL CONDUIT TO BE 2.5" DIAMETER UNLESS OTHERWISE SPECIFIED.
- ANY TREE TRIMMING REQUIRED AS DIRECTED BY THE ENGINEER SHALL BE PERFORMED BY THE CONTRACTOR, AND THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE LIGHT POLE ITEMS.
- CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO RESTORE ANY SPECIALIZED LANDSCAPING, (i.e. DECORATIVE ROCKS, SHRUBS, PLANTS, ETC.) OR SHALL REPLACE IT, THE COST OF WHICH SHALL BE CONSIDERED INCIDENTAL TO THE LIGHT POLE ITEMS.
- A PERMIT FOR THIS PROJECT SHALL BE REQUIRED FROM THE COOK COUNTY HIGHWAY DEPARTMENT. THE PERMIT HAS BEEN APPLIED FOR BUT THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING THIS PERMIT, PERMIT BOND AND ANY OTHER ASSOCIATED FEES BEFORE CONSTRUCTION BEGINS.
- THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE LIGHTING SYSTEM. FOR THE LOCATIONS OF THE UTILITIES, CALL JULIE TOLL FREE AT 1-800-692-0123. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE EXISTING TRAFFIC SIGNAL CABLES AND CONDUITS.
- CARE IS TO BE TAKEN AS NOT TO DAMAGE ANY OF THE EXISTING TRAFFIC SIGNAL CONDUITS, DETECTORS AND EQUIPMENT. IF ANY OF THE TRAFFIC SIGNAL CONDUIT AND/OR EQUIPMENT IS DAMAGED, THE CONTRACTOR SHALL REPAIR AND/OR REPLACE THE CONDUIT AND/OR EQUIPMENT AT NO COST TO THE COUNTY, STATE, OR THE VILLAGE.
- THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENT FOR BURIED WARNING TAPE, SPECIFIED AS PART OF "TRENCH AND BACKFILL FOR ELECTRICAL WORK". THE INSTALLATION OF THE TAPE SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER PRIOR TO BACKFILLING OR DURING FLOWING OPERATIONS, AS APPLICABLE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF FINISHED GRADE. THE RESIDENT ENGINEER MAY ASSIST THE CONTRACTOR, AS APPLICABLE, BUT THE RESPONSIBILITY FOR COORDINATING THE FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATION HEIGHTS AND THE LIGHT SHALL REMAIN WITH THE CONTRACTOR.
- NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED, AS APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR WIRE MARKERS AND SHALL TAG ALL WIRE MARKERS AND SHALL TAG ALL WIRE ACCORDINGLY.
- EQUIPMENT GROUND CONDUCTORS SHALL BE SPLICED AND BONDED AT EACH LIGHT POLE OR OTHER PIECE OF EQUIPMENT.
- CONDUIT AND UNIT DUCT MUST BE POSITIONED IN THE FIELD TO AVOID CONFLICT WITH TREES, BUSHES, DRAINS AND OTHER UTILITIES AND LANDSCAPING.
- ALL DISTURBED AREAS WHERE RESTORATION IS NOT COVERED BY APPLICABLE SECTIONS OF THE SPECIAL PROVISIONS MUST BE RESTORED TO THE SATISFACTION OF THE ENGINEER. THE COST OF WHICH SHALL BE INCLUDED IN THE COST OF THE LIGHT POLE ITEMS.
- THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE LIGHTING SYSTEM. FOR THE LOCATIONS OF THE UTILITIES, CALL JULIE TOLL FREE AT 1-800-892-0123. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE EXISTING TRAFFIC SIGNAL CABLES AND CONDUITS.
- THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847)705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
- ANY SIGNS AND BANNERS ON EXISTING LIGHT POLES SHALL BE REMOVED AND REINSTALLED ON THE NEW POLES. THE CONTRACTOR AND RESIDENT ENGINEER SHALL TAKE AN INVENTORY OF THE LOCATIONS OF THE POLE MOUNTED SIGNS, AND SHALL RELOCATE THEM TO THE NEW POLES CLOSEST TO THE EXISTING POLES, PRIOR TO REMOVAL OF THE OLD POLES. THE COST OF THIS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE LIGHT POLE ITEMS.
- ALL EXCAVATED SOILS FROM HARLEM AVENUE (IL43) MUST REMAIN IN THE STATE R.O.W. AND SHALL NOT BE MOVED OFF SITE OR PLACED ELSEWHERE ON THE PROJECT UNLESS DIRECTED BY THE ENGINEER.
- SAW CUT JOINTS - THE REMOVAL AND/OR REPLACEMENT OF ANY DRIVEWAYS, PAVEMENT, CURB, SIDEWALK, ETC., SHALL BE ACCOMPLISHED BY MEANS OF A SAW CUT JOINT AT THE DIRECTION OF THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS.
- FOR IDOT MAINTAINED LIGHT POLES FINAL DECISION FOR SALVAGE OR NO SALVAGE TO BE DETERMINED DURING SITE MEETING WITH IDOT MAINTENANCE DEPARTMENT PERSONNEL. CONTRACTOR SHALL CALL IDOT TO SETUP MEETING.

SUMMARY OF QUANTITIES

S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	CONSTRUCTION TYPE CODE		
					SAFETY 0021	LANDSCAPE 0031	TRAINEES 0042
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	4839		4839	
	X213 0010	EXPLORATION TRENCH, SPECIAL	FOOT	300	300		
	25200110	SODDING, SALT TOLERANT	SQ YD	4839		4839	
	25200200	SUPPLEMENTAL WATERING	UNIT	188		188	
*	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	5225	5225		
*	44000600	SIDEWALK REMOVAL	SQ FT	5225	5225		
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12		
	67100100	MOBILIZATION	L SUM	1	1		
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1		
	70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1		
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1		
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1		
	80400100	ELECTRIC SERVICE INSTALLATION	EACH	4	4		
	80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1	1		
	81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	9300	9300		
	81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	535	535		
	81702460	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 3/0	FOOT	475	475		
	81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	22100	22100		
	82102150	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 150 WATT	EACH	2	2		
	82102250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	161	161		
	82102400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	31	31		
	83002400	LIGHT POLE, ALUMINUM, 40 FT. M.H., 10 FT. DAVIT ARM	EACH	109	109		
	83002500	LIGHT POLE, ALUMINUM, 40 FT. M.H., 12 FT. DAVIT ARM	EACH	19	19		
	83002600	LIGHT POLE, ALUMINUM, 40 FT. M.H., 15 FT. DAVIT ARM	EACH	36	36		
	83050775	LIGHT POLE, ALUMINUM, 40 FT. M.H., 15 FT. DAVIT ARM	EACH	13	13		
	83050775	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 10 FT. DAVIT ARM	EACH	5	5		
	83050805	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 12 FT. DAVIT ARM	EACH	12	12		
	83050825	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15 FT. DAVIT ARM	EACH	12	12		
	83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	1225	1225		
	83600215	LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET	FOOT	7	7		
	83600357	LIGHT POLE FOUNDATION METAL, 15" BOLT CIRCLE, 8" X 8"	EACH	18	18		
	83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	194	194		
	84200500	REMOVAL OF LIGHTING UNIT, SALVAGE	EACH	127	127		
	84200600	REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	7	7		
	84200804	REMOVAL OF POLE FOUNDATION,	EACH	134	134		
	84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	6	6		
	84500130	REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	6	6		
	82500505	LIGHTING CONTROLLER, SPECIAL	EACH	4	4		
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	52	52		
	Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	12	12		
	Z0078600	TRAINEES	HOUR	500		500	
	81603176	UNIT DUCT, 600V, 6-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/2" DIA. POLYETHYLENE	FOOT	33790	33790		

* - INDICATES SPECIALTY ITEMS

PLAN	DATE
BY	
REVISIONS	
PLOTTED	
ALIGNMENT CHECKED	
NOTE BOOK	
NO.	
FILE NAME	

PROFILE	DATE
BY	
REVISIONS	
PLOTTED	
GRADES CHECKED	
NOTE BOOK	
S.M. NOTED	



FILE NAME = 09301-QUAN-01 - P01

USER NAME =	DESIGNED -- PAP	REVISED -- 07-15-10
	CHECKED -- PKB	REVISED -- 07-30-10
PLOT SCALE = N/A	DRAWN -- MJD	REVISED -- 08-20-10
PLOT DATE = 04-28-10	CHECKED -- DWS	REVISED --

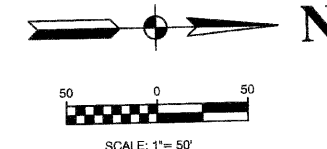
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: N/A SHEET NO. 2 OF 19 SHEETS STA. N/A TO STA. N/A

HARLEM AVENUE
STREET LIGHTING
SUMMARY OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00054-00-LT	COOK	19	2
CONTRACT NO. 63477				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARE-TE-00D1(808)				

SECTION 1, TOWNSHIP 37, RANGE 12

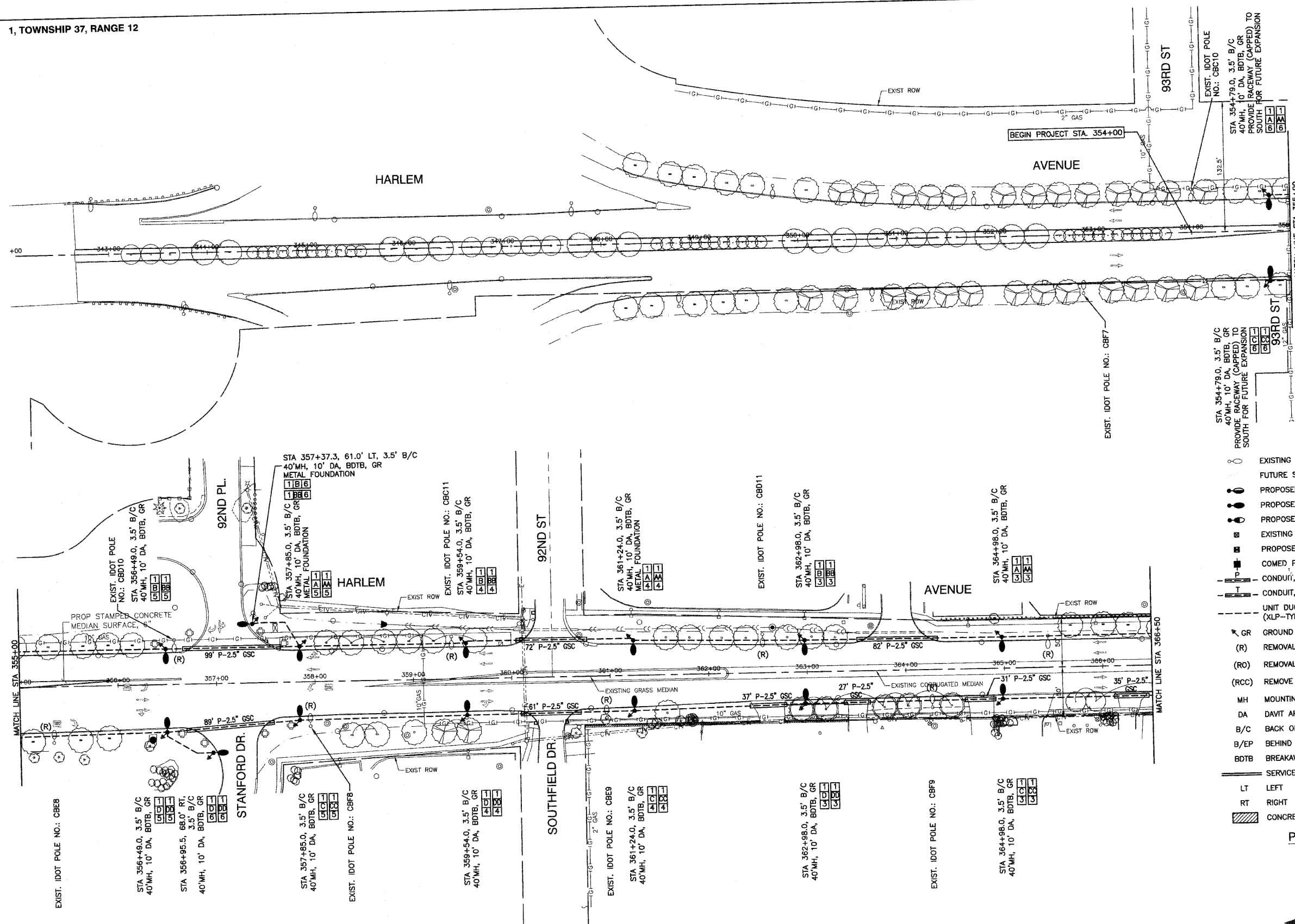


- NOTE:
1. ALL SPLICES SHALL BE MADE IN THE POLE HANDHOLE. NO UNDERGROUND SPLICES WILL BE ALLOWED.
 2. EQUIPMENT GROUND SHALL BE CONTINUOUS FROM THE LIGHTING CONTROLLER TO THE LAST POLE OF EACH CIRCUIT AND SHALL HAVE RESISTANCE CONFORMING TO IDOT SPECIFICATIONS.
 3. CONTRACTOR SHALL CONTACT KEITH KNAPP OF IDOT AT 847-221-3077 AT LEAST 24 HOURS IN ADVANCE OF IDOT LIGHT POLE AND CONTROLLER REMOVAL, TO SET APPOINTMENT FOR LIGHT POLE INVENTORY AND LOCATION OF IDOT MAINTENANCE YARD TO WHICH THE COMPONENTS WILL BE SHIPPED FOR STORAGE. THESE LIGHT POLES ARE PART OF IDOT CONTROLLER 'CB'.
 4. POLE REMOVAL SHALL INCLUDE REMOVAL OF EXISTING UNUSED CONDUCTORS. THIS SHALL BE INCLUDED IN THE PAY ITEMS FOR REMOVAL OF LIGHTING UNIT, SALVAGE AND REMOVAL OF LIGHTING UNIT NO SALVAGE.

- LEGEND:
- EXISTING STREET LIGHT
 - FUTURE STANDARD LIGHT-250W HPS
 - PROPOSED STREET LIGHT-400W HPS
 - PROPOSED STREET LIGHT-250W HPS
 - PROPOSED STREET LIGHT-150W HPS
 - EXISTING CONTROLLER TO BE REMOVED
 - PROPOSED CONTROLLER, CONSOLE TYPE
 - COMED POWER POLE FOR SERVICE CONNECTION
 - CONDUIT, PUSHED, GALVANIZED STEEL
 - CONDUIT, TRENCHED, GALVANIZED STEEL
 - UNIT DUCT, 600V, 6-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1-1/2" DIA., POLYETHYLENE
 - GR GROUND ROD, 5/8" DIA. x 10'
 - REMOVAL OF EXISTING STREET LIGHT (SALVAGE)
 - REMOVAL OF EXISTING STREET LIGHT (BY OTHERS)
 - REMOVE EXISTING CONTROL CABINET AND FOUNDATION
 - MH MOUNTING HEIGHT
 - DA DAVIT ARM
 - B/C BACK OF CURB
 - B/EP BEHIND EDGE OF PAVEMENT
 - BDTB BREAKAWAY DEVICE, TRANSFORMER BASE
 - SERVICE WIRE, 3-1/C, NO. 3/0 AWG.
 - LT LEFT
 - RT RIGHT
 - CONCRETE SIDEWALK REMOVAL AND REPLACEMENT
- POLE IDENTIFICATION
- CABINET NUMBER
 - CIRCUIT
 - POLE POSITION

PLAN	REVISIONS	DATE
NO.	PLOTTED	
	ALIGNMENT CHECKED	
	NOTE BOOK	
	CADD FILE NAME	

PROFILE	REVISIONS	DATE
NO.	PLOTTED	
	GRADES CHECKED	
	BY	
	NOTED	



FILE NAME = 09301-LIGHT-01 - P01

USER NAME =	DESIGNED -- PAP	REVISED -- 07-15-10
	CHECKED -- PKB	REVISED -- 07-30-10
PLOT SCALE = 1"=50'	DRAWN -- MJD	REVISED -- 08-20-10
PLOT DATE = 04-28-10	CHECKED -- DWS	REVISED --

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

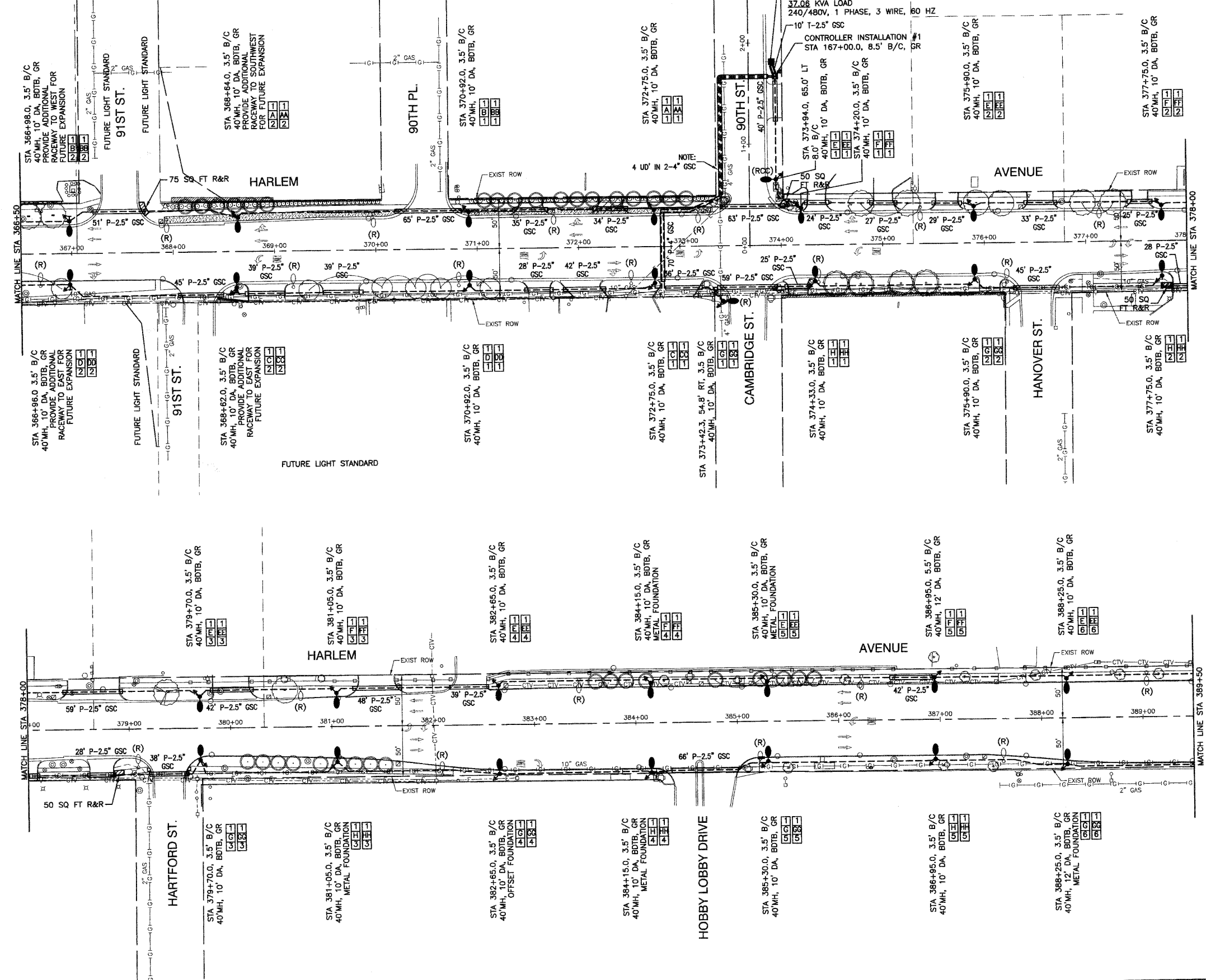
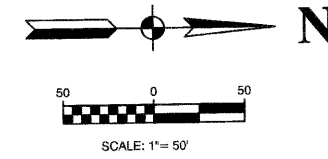
HARLEM AVENUE
71ST STREET TO 93RD STREET
STREET LIGHTING

SCALE: 1"=50' SHEET NO. 3 OF 19 SHEETS STA. 354+00 TO STA. 366+50

F.A.P. RITE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00054-00-LT	COOK	19	3
CONTRACT NO. 63477				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARE-TE-00D1(808)				



SECTION 1, TOWNSHIP 37, RANGE 12



LEGEND:

- EXISTING STREET LIGHT
- FUTURE STANDARD LIGHT-250W HPS
- PROPOSED STREET LIGHT-400W HPS
- PROPOSED STREET LIGHT-250W HPS
- PROPOSED STREET LIGHT-150W HPS
- EXISTING CONTROLLER TO BE REMOVED
- PROPOSED CONTROLLER, CONSOLE TYPE
- COMED POWER POLE FOR SERVICE CONNECTION
- CONDUIT, PUSHED, GALVANIZED STEEL
- CONDUIT, TRENCHED, GALVANIZED STEEL
- UNIT DUCT, 600V, 6-1/C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1-1/2" DIA., POLYETHYLENE
- GR GROUND ROD, 5/8" DIA. x 10'
- (R) REMOVAL OF EXISTING STREET LIGHT (SALVAGE)
- (RO) REMOVAL OF EXISTING STREET LIGHT (BY OTHERS)
- (RCC) REMOVE EXISTING CONTROL CABINET AND FOUNDATION
- MH MOUNTING HEIGHT
- DA DAVIT ARM
- B/C BACK OF CURB
- B/EP BEHIND EDGE OF PAVEMENT
- BDTB BREAKAWAY DEVICE, TRANSFORMER BASE
- SERVICE WIRE, 3-1/C, NO. 3/0 AWG.
- LT LEFT
- RT RIGHT
- CONCRETE SIDEWALK REMOVAL AND REPLACEMENT

POLE IDENTIFICATION

- CABINET NUMBER
- CIRCUIT
- POLE POSITION

- NOTE:**
1. ALL SPLICES SHALL BE MADE IN THE POLE HANDHOLE. NO UNDERGROUND SPLICES WILL BE ALLOWED.
 2. EQUIPMENT GROUND SHALL BE CONTINUOUS FROM THE LIGHTING CONTROLLER TO THE LAST POLE OF EACH CIRCUIT AND SHALL HAVE RESISTANCE CONFORMING TO IDOT SPECIFICATIONS.



DATE	BY

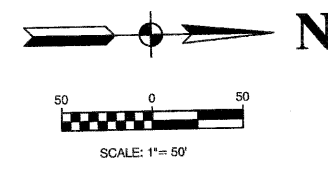
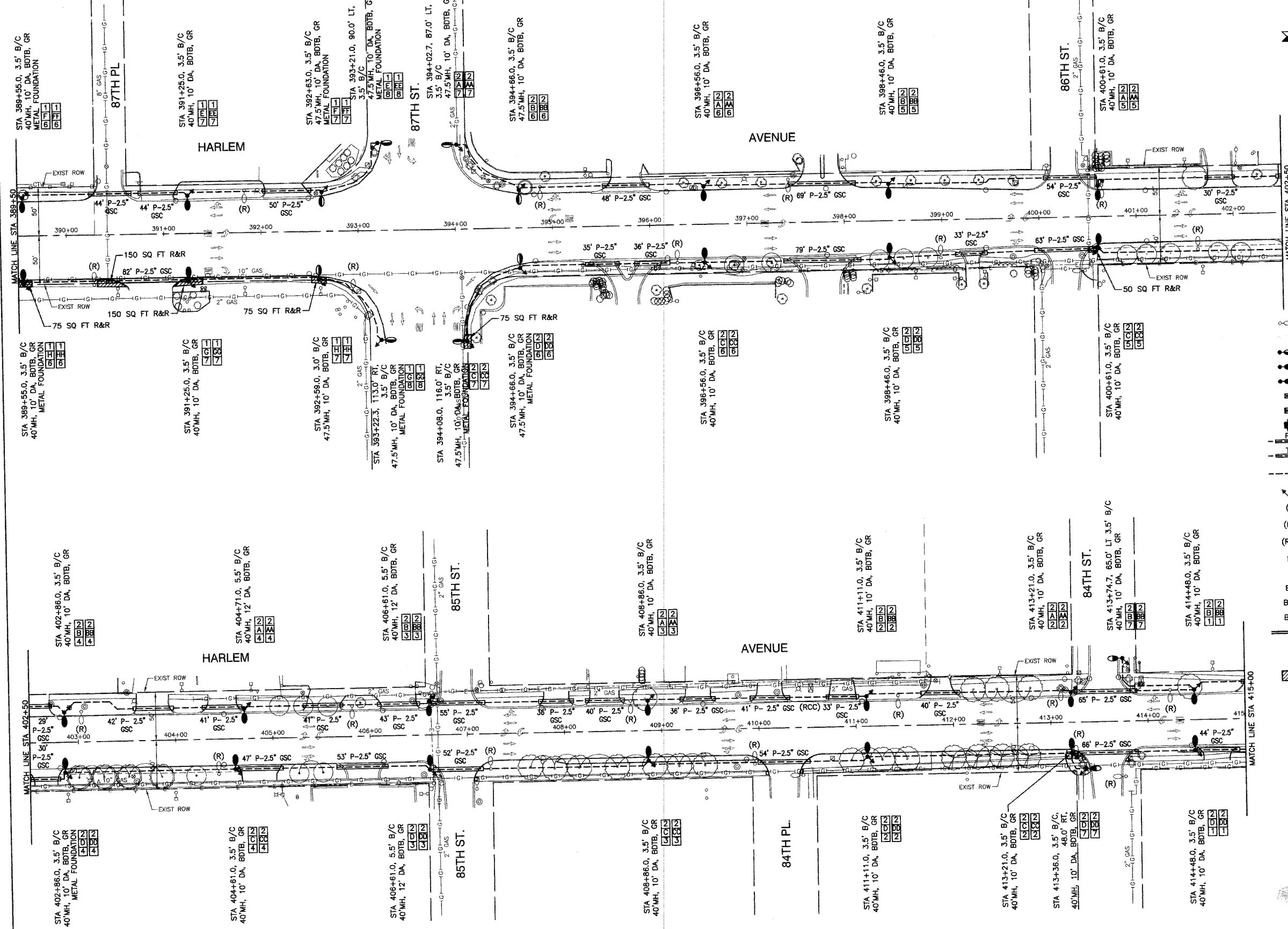
REGISTERED
PLOTTER
ALIGNMENT CHECKED
NOTE BOOK
NO.
CADD FILE NAME

DATE	BY

PROFILE
SURVEYED
PLOTTER
CHECKED
NOTE BOOK
BLM NOTED

FILE NAME = 06301-LIGHT-01 - P02	DESIGNED - PAP	REVISED - 07-15-10	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.P. RTE 348	SECTION 06-00054-00-LT	COUNTY COOK	TOTAL SHEETS 19	SHEET NO. 4	
USER NAME =	CHECKED - PKB	REVISED - 07-30-10		SCALE: 1"=50'	SHEET NO. 4	OF 19 SHEETS	STA. 366+50	TO STA. 389+50	FED. ROAD DIST. NO. 1
PLOT SCALE = 1"=50'	DRAWN - M.J.D	REVISED - 08-20-10		CONTRACT NO. 63477					
PLOT DATE = 04-28-10	CHECKED - DWS	REVISED -		FED. AID PROJECT ARE-TE-00D1(808)					

SECTION 36, TOWNSHIP 38, RANGE 12



DATE	BY

DATE	BY

LEGEND:

- EXISTING STREET LIGHT
 - FUTURE STANDARD LIGHT-250W HPS
 - PROPOSED STREET LIGHT-400W HPS
 - PROPOSED STREET LIGHT-250W HPS
 - PROPOSED STREET LIGHT-150W HPS
 - EXISTING CONTROLLER TO BE REMOVED
 - PROPOSED CONTROLLER, CONSOLE TYPE
 - COMED POWER POLE FOR SERVICE CONNECTION
 - CONDUIT, PUSHED, GALVANIZED STEEL
 - CONDUIT, TRENCHED, GALVANIZED STEEL
 - UNIT DUCT, 600V, 6-1C NO.4, 1/2" NO.6 GROUND, (XLP-TYPE USE), 1-1/2" DIA., POLYETHYLENE
 - GROUND ROD, 5/8" DIA. x 10'
 - REMOVAL OF EXISTING STREET LIGHT (SALVAGE)
 - REMOVAL OF EXISTING STREET LIGHT (BY OTHERS)
 - REMOVE EXISTING CONTROL CABINET AND FOUNDATION
 - MOUNTING HEIGHT
 - DAVIT ARM
 - BACK OF CURB
 - BEHIND EDGE OF PAVEMENT
 - BREAKAWAY DEVICE, TRANSFORMER BASE
 - SERVICE WIRE, 3-1/C, NO. 3/0 AWG.
 - LEFT
 - RIGHT
 - CONCRETE SIDEWALK REMOVAL AND REPLACEMENT
- POLE IDENTIFICATION**
- CABINET NUMBER
 - CIRCUIT
 - POLE POSITION

- NOTE:**
1. ALL SPLICES SHALL BE MADE IN THE POLE HANDHOLE. NO UNDERGROUND SPLICES WILL BE ALLOWED.
 2. EQUIPMENT GROUND SHALL BE CONTINUOUS FROM THE LIGHTING CONTROLLER TO THE LAST POLE OF EACH CIRCUIT AND SHALL HAVE RESISTANCE CONFORMING TO IDOT SPECIFICATIONS.



FILE NAME = 0901-LIGHT-01-P03

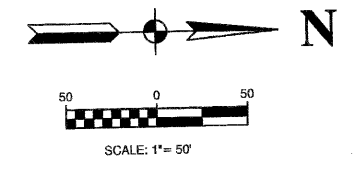
USER NAME =	DESIGNED - PAP	REVISED - 07-15-10
	CHECKED - PKB	REVISED - 07-30-10
PLOT SCALE = 1"=50'	DRAWN - MJD	REVISED - 08-20-10
PLOT DATE = 04-28-10	CHECKED - DWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HARLEM AVENUE
71ST STREET TO 93RD STREET
STREET LIGHTING
SCALE: 1"=50' SHEET NO. 5 OF 19 SHEETS STA. 389+50 TO STA. 415+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00054-00-LT	COOK	19	5
CONTRACT NO. 63477				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	ARE-TE-00D1(808)	

SECTION 36, TOWNSHIP 38, RANGE 12



LEGEND:

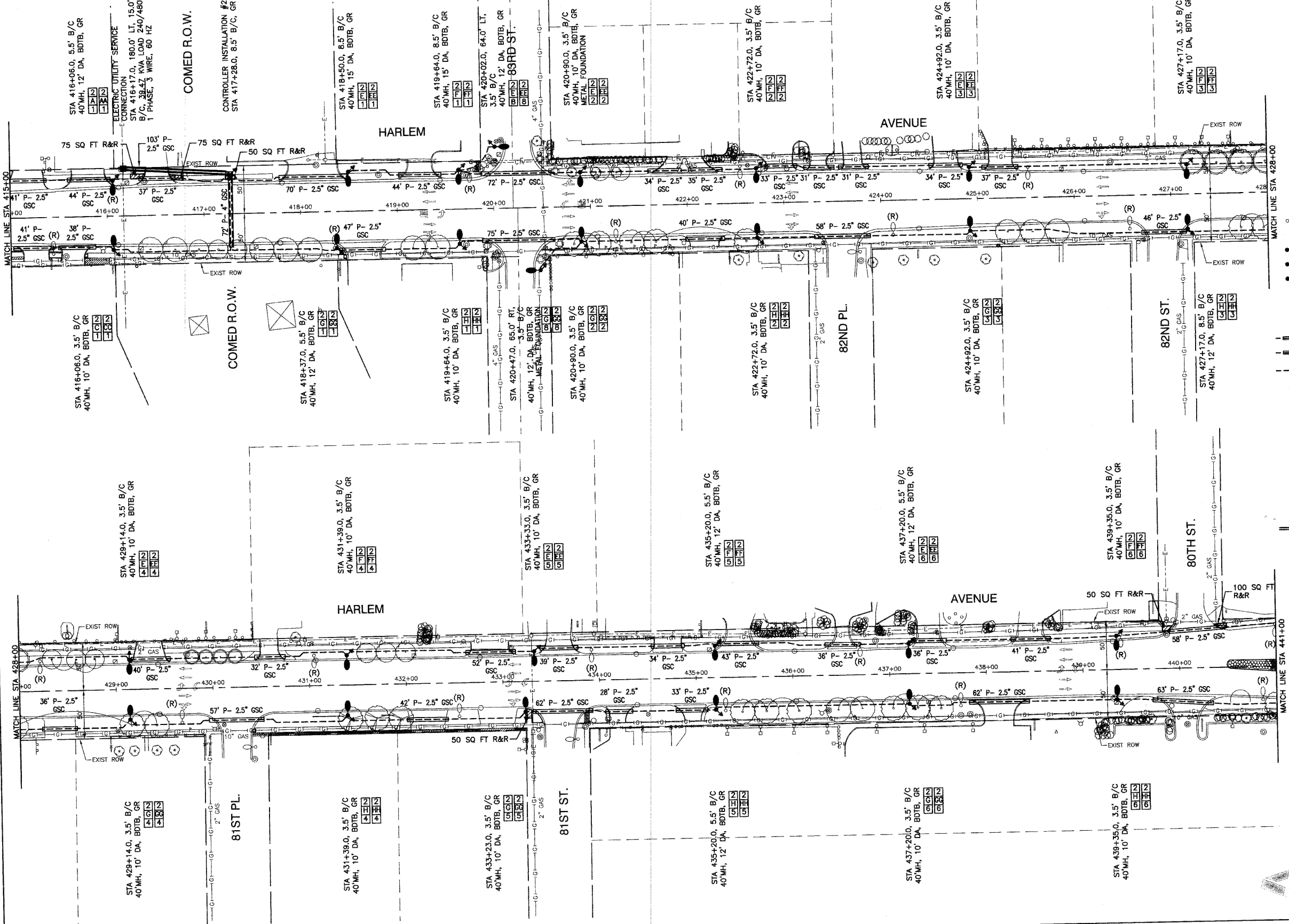
- EXISTING STREET LIGHT
- FUTURE STANDARD LIGHT-250W HPS
- PROPOSED STREET LIGHT-400W HPS
- PROPOSED STREET LIGHT-250W HPS
- PROPOSED STREET LIGHT-150W HPS
- EXISTING CONTROLLER TO BE REMOVED
- PROPOSED CONTROLLER, CONSOLE TYPE
- COMED POWER POLE FOR SERVICE CONNECTION
- CONDUIT, PUSHED, GALVANIZED STEEL
- CONDUIT, TRENCHED, GALVANIZED STEEL
- UNIT DUCT, 600V, 6-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1-1/2" DIA., POLYETHYLENE
- GR GROUND ROD, 5/8" DIA. x 10'
- (R) REMOVAL OF EXISTING STREET LIGHT (SALVAGE)
- (RO) REMOVAL OF EXISTING STREET LIGHT (BY OTHERS)
- (RCC) REMOVE EXISTING CONTROL CABINET AND FOUNDATION
- MH MOUNTING HEIGHT
- DA DAVIT ARM
- B/C BACK OF CURB
- B/EP BEHIND EDGE OF PAVEMENT
- BDTB BREAKAWAY DEVICE, TRANSFORMER BASE
- SERVICE WIRE, 3-1/C, NO. 3/0 AWG.
- LT LEFT
- RT RIGHT
- CONCRETE SIDEWALK REMOVAL AND REPLACEMENT

POLE IDENTIFICATION

- CABINET NUMBER
- CIRCUIT
- POLE POSITION

NOTE:

1. ALL SPLICES SHALL BE MADE IN THE POLE HANDHOLE. NO UNDERGROUND SPLICES WILL BE ALLOWED.
2. EQUIPMENT GROUND SHALL BE CONTINUOUS FROM THE LIGHTING CONTROLLER TO THE LAST POLE OF EACH CIRCUIT AND SHALL HAVE RESISTANCE CONFORMING TO IDOT SPECIFICATIONS.



PLAN	DESIGNED	DATE
NOTE BOOK	PLOTTED	
NO.	CHECKED	
	GOOD FILE NAME	

PROFILE	DATE
NOTE BOOK	

FILE NAME = 09301-LIGHT-01 - P04

USER NAME =	DESIGNED -- PAP	REVISED -- 07-15-10
	CHECKED -- PKB	REVISED -- 07-30-10
PLOT SCALE = 1"=50'	DRAWN -- MJM	REVISED -- 08-20-10
PLOT DATE = 04-28-10	CHECKED -- DWS	REVISED --

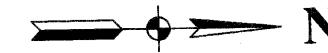
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HARLEM AVENUE
71ST STREET TO 93RD STREET
STREET LIGHTING

SCALE: 1"=50' SHEET NO. 6 OF 19 SHEETS STA. 415+00 TO STA. 441+00

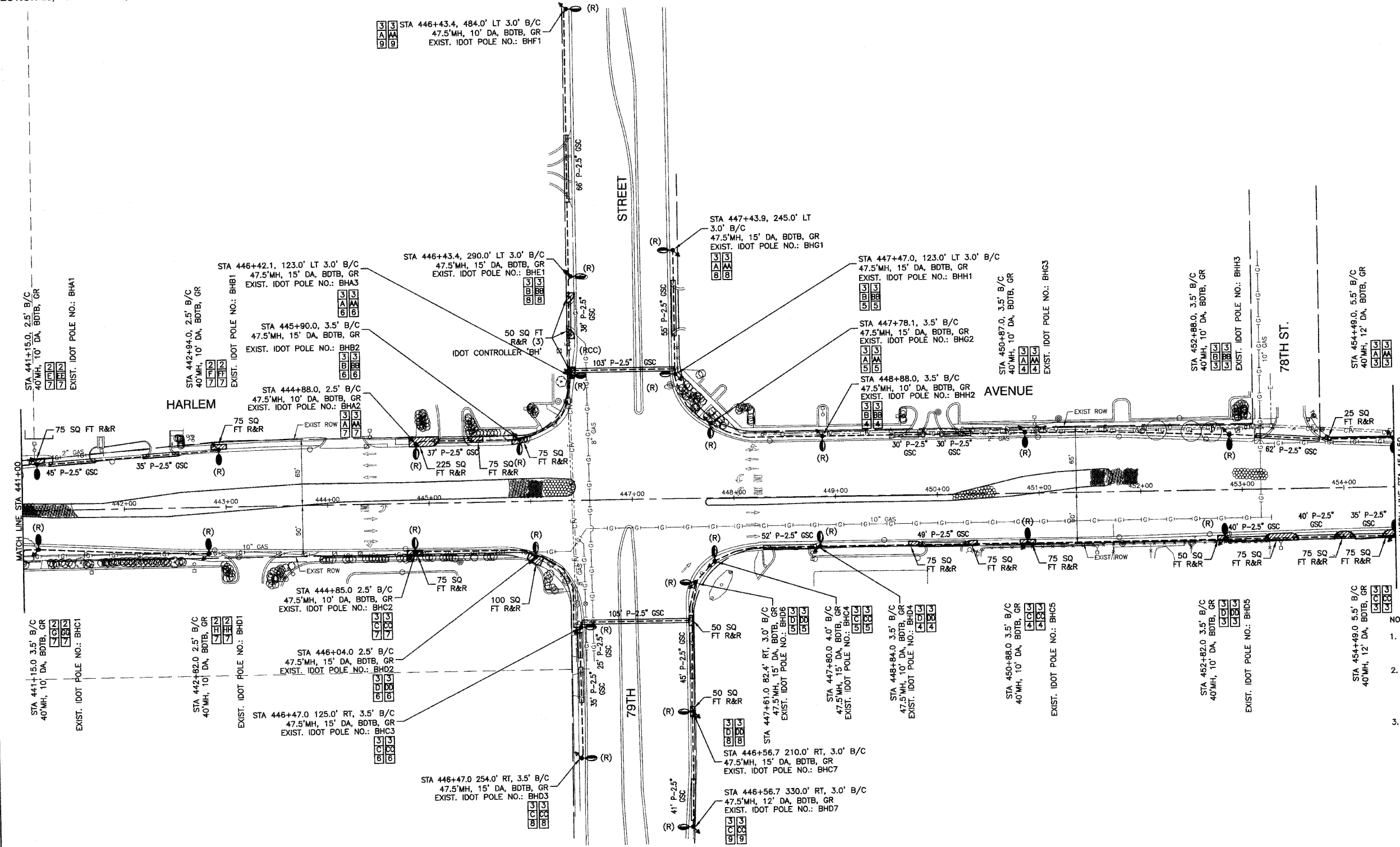
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-0054-00-LT	COOK	19	6
CONTRACT NO. 63477				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	ARE-TE-00D1(808)	

SECTION 25, TOWNSHIP 38, RANGE 12



DATE	
BY	
PLAN	DESIGNED
	CHECKED
	PLOTTED
	GRADED
	NOTE BOOK
	NO.
	FILE NAME

DATE	
BY	
PROFILE	DESIGNED
	CHECKED
	PLOTTED
	GRADED
	NOTE BOOK
	NO.
	FILE NAME

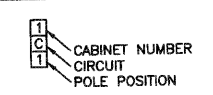


- NOTE:
1. ALL SPLICES SHALL BE MADE IN THE POLE HANDHOLE. NO UNDERGROUND SPLICES WILL BE ALLOWED.
 2. EQUIPMENT GROUND SHALL BE CONTINUOUS FROM THE LIGHTING CONTROLLER TO THE LAST POLE OF EACH CIRCUIT AND SHALL HAVE RESISTANCE CONFORMING TO IDOT SPECIFICATIONS.
 3. REMOVAL OF IDOT CONTROLLER 'BH' SHALL INCLUDE REMOVAL FROM COMED SERVICE. SERVICE CONDUCTORS AND SERVICE POLE CONDUIT TO 2.5' BELOW GRADE. CONTRACTOR SHALL CONTACT COMED REGARDING REMOVAL SERVICE. CONTRACTOR SHALL CONTACT KEITH KNAPP OF IDOT AT 847-221-3077 AT LEAST 24 HOURS IN ADVANCE OF IDOT LIGHT POLE AND CONTROLLER REMOVAL, TO SET APPOINTMENT FOR LIGHT POLE INVENTORY AND LOCATION OF IDOT MAINTENANCE YARD TO WHICH THE COMPONENTS WILL BE SHIPPED FOR STORAGE. DETERMINATION OR "SALVAGE" OR "NO SALVAGE" LIGHT STANDARDS WILL BE MADE AT THE MEETING WITH IDOT.

LEGEND:

- EXISTING STREET LIGHT
- FUTURE STANDARD LIGHT-250W HPS
- PROPOSED STREET LIGHT-400W HPS
- PROPOSED STREET LIGHT-250W HPS
- PROPOSED STREET LIGHT-150W HPS
- EXISTING CONTROLLER TO BE REMOVED
- PROPOSED CONTROLLER, CONSOLE TYPE
- COMED POWER POLE FOR SERVICE CONNECTION
- CONDUIT, PUSHED, GALVANIZED STEEL
- CONDUIT, TRENCHED, GALVANIZED STEEL
- UNIT DUCT, 600V, 6-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1-1/2" DIA., POLYETHYLENE
- ⌘ GR GROUND ROD, 5/8" DIA. x 10'
- (R) REMOVAL OF EXISTING STREET LIGHT (SALVAGE)
- (RO) REMOVAL OF EXISTING STREET LIGHT (BY OTHERS)
- (RCC) REMOVE EXISTING CONTROL CABINET AND FOUNDATION
- MH MOUNTING HEIGHT
- DA DAVIT ARM
- B/C BACK OF CURB
- B/EP BEHIND EDGE OF PAVEMENT
- BDTB BREAKAWAY DEVICE, TRANSFORMER BASE
- SERVICE WIRE, 3-1/C, NO. 3/0 AWG.
- LT LEFT
- RT RIGHT
- CONCRETE SIDEWALK REMOVAL AND REPLACEMENT

POLE IDENTIFICATION



FILE NAME = 09301-LIGHT-01 - P05

USER NAME =	DESIGNED — PAP	REVISED — 07-30-10
	CHECKED — PKB	REVISED — 08-20-10
PLOT SCALE = 1"=50'	DRAWN — MJD	REVISED —
PLOT DATE = 04-28-10	CHECKED — DWS	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

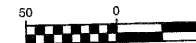
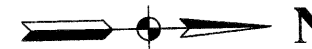
HARLEM AVENUE
71ST STREET TO 93RD STREET
STREET LIGHTING

SCALE: 1"=50' SHEET NO. 7 OF 19 SHEETS STA. 441+00 TO STA. 454+50

F.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00054-00-LT	COOK	19	7
CONTRACT NO. 63477				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARE-TE-00D1(809)				



SECTION 25, TOWNSHIP 38, RANGE 12

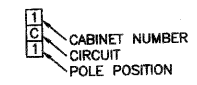


SCALE: 1" = 50'

LEGEND:

- EXISTING STREET LIGHT
- FUTURE STANDARD LIGHT-250W HPS
- PROPOSED STREET LIGHT-400W HPS
- PROPOSED STREET LIGHT-250W HPS
- PROPOSED STREET LIGHT-150W HPS
- EXISTING CONTROLLER TO BE REMOVED
- PROPOSED CONTROLLER, CONSOLE TYPE
- COMED POWER POLE FOR SERVICE CONNECTION
- CONDUIT, PUSHED, GALVANIZED STEEL
- CONDUIT, TRENCHED, GALVANIZED STEEL
- UNIT DUCT, 600V, 6-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1-1/2" DIA., POLYETHYLENE
- GR GROUND ROD, 5/8" DIA. x 10'
- (R) REMOVAL OF EXISTING STREET LIGHT (SALVAGE)
- (RO) REMOVAL OF EXISTING STREET LIGHT (BY OTHERS)
- (RCC) REMOVE EXISTING CONTROL CABINET AND FOUNDATION
- MH MOUNTING HEIGHT
- DA DAVIT ARM
- B/C BACK OF CURB
- B/EP BEHIND EDGE OF PAVEMENT
- BDTB BREAKAWAY DEVICE, TRANSFORMER BASE
- SERVICE WIRE, 3-1/C, NO. 3/0 AWG.
- LT LEFT
- RT RIGHT
- CONCRETE SIDEWALK REMOVAL AND REPLACEMENT

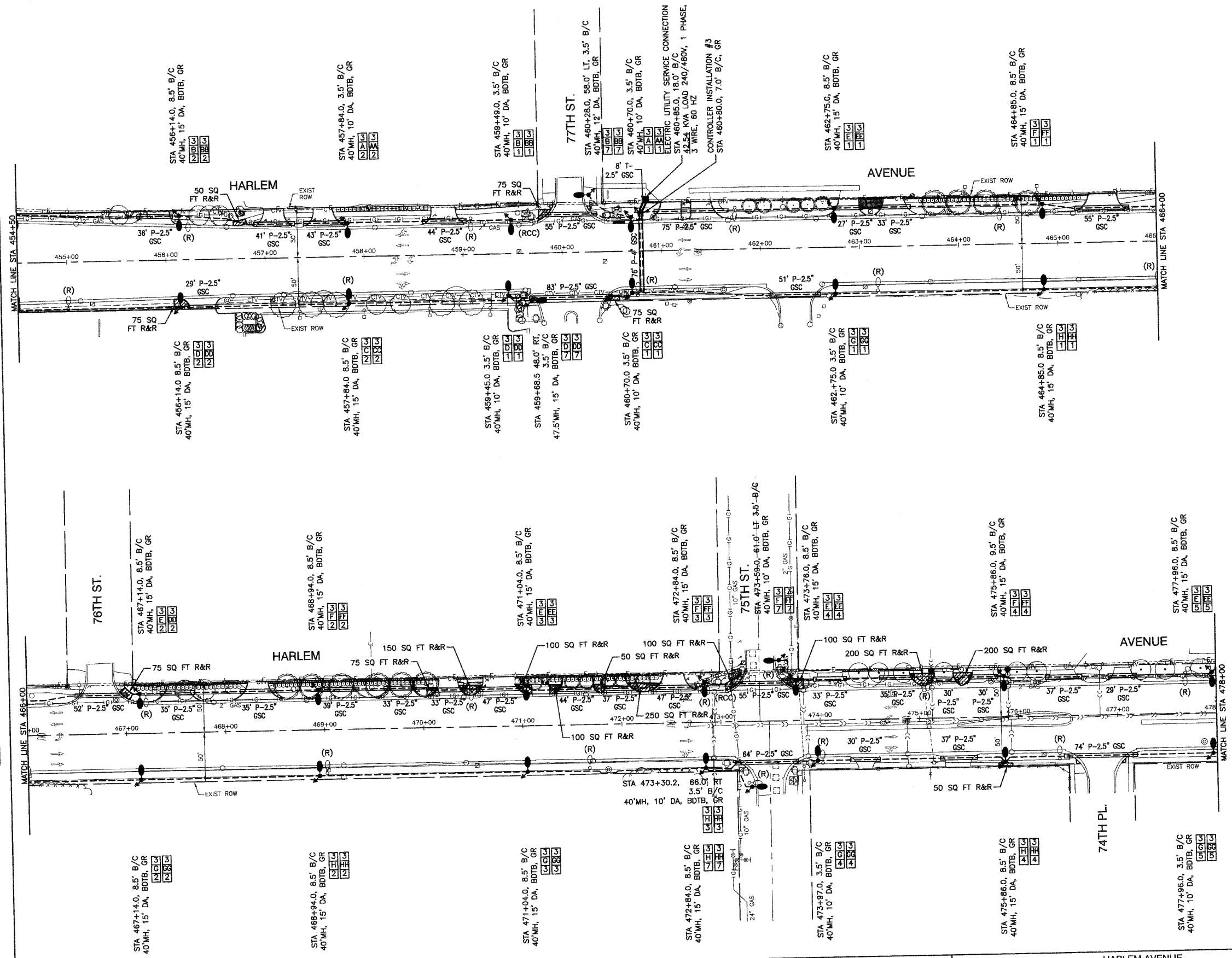
POLE IDENTIFICATION



- NOTE:
- ALL SPLICES SHALL BE MADE IN THE POLE HANDHOLE. NO UNDERGROUND SPLICES WILL BE ALLOWED.
 - EQUIPMENT GROUND SHALL BE CONTINUOUS FROM THE LIGHTING CONTROLLER TO THE LAST POLE OF EACH CIRCUIT AND SHALL HAVE RESISTANCE CONFORMING TO IDOT SPECIFICATIONS.

DATE	
BY	
REVISIONS	
PLANNED	
NOTE BOOK	
ALIGNMENT CHECKED	
GRADES CHECKED	
DATE	
BY	

DATE	
BY	
REVISIONS	
PROFILE	
NOTE BOOK	
GRADES CHECKED	
DATE	
BY	



FILE NAME = 09301-LIGHT-01 - P06

USER NAME =	DESIGNED -- PAP	REVISIONS -- 07-30-10
	CHECKED -- PKB	REVISIONS -- 08-20-10
PLOT SCALE = 1"=50'	DRAWN -- MJD	REVISIONS --
PLOT DATE = 04-28-10	CHECKED -- DWS	REVISIONS --

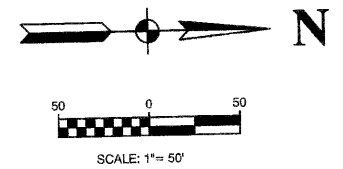
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HARLEM AVENUE
71ST STREET TO 93RD STREET
STREET LIGHTING
SCALE: 1"=50' SHEET NO. 8 OF 19 SHEETS STA. 454+50 TO STA. 478+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00054-00-LT	COOK	19	8
CONTRACT NO. 63477				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARE-TE-00D1(808)				

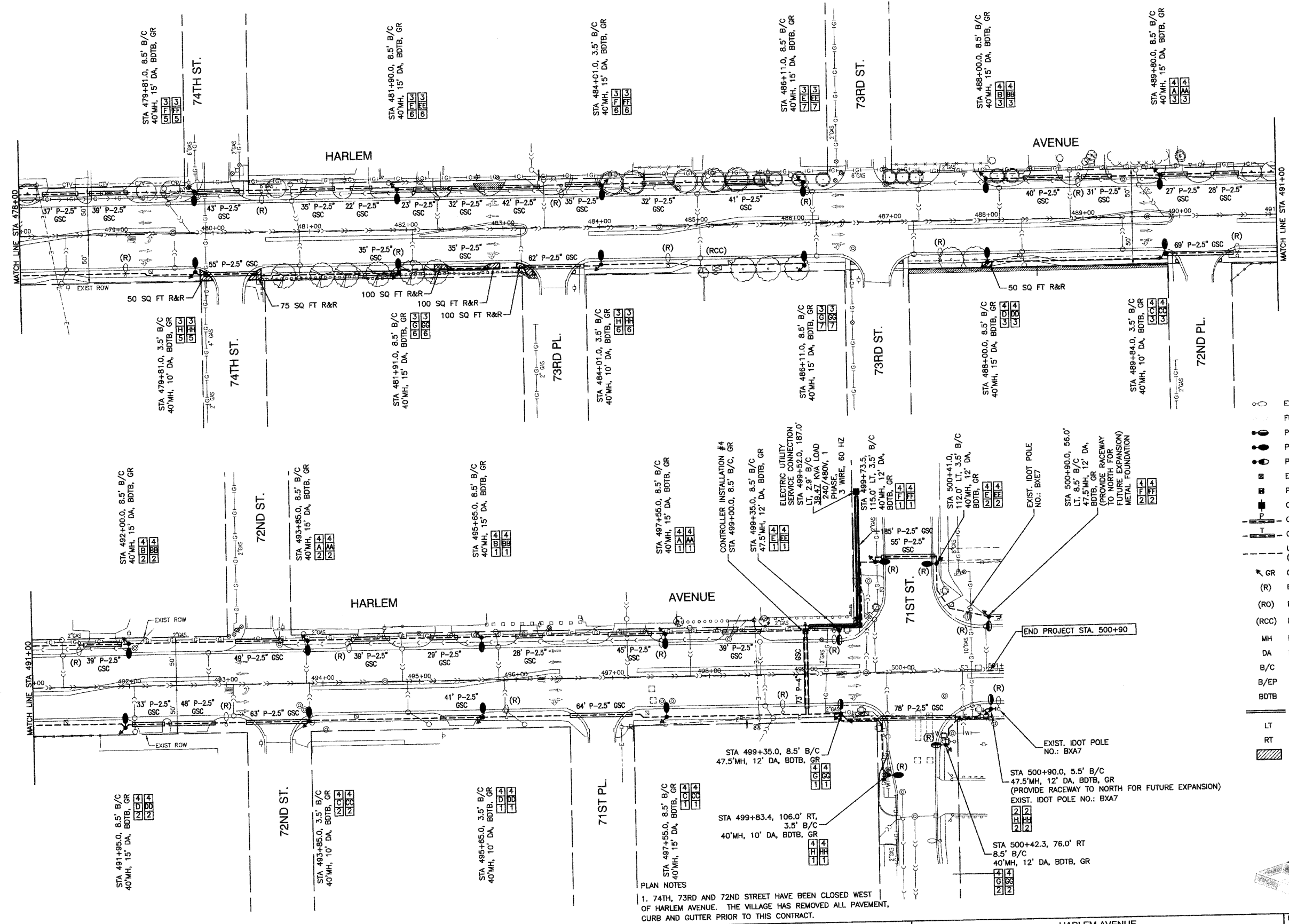


SECTION 24, TOWNSHIP 38, RANGE 12



PLAN	DESIGNED	DATE
BY	PKB	
REVISIONS	PLOTTED	
ALIGNED	CHECKED	
NOTE BOOK	GRADES CHECKED	
NO.	B.M. NOTED	
	DATE	

PROFILE	DESIGNED	DATE
BY	PKB	
REVISIONS	PLOTTED	
ALIGNED	CHECKED	
NOTE BOOK	GRADES CHECKED	
NO.	B.M. NOTED	
	DATE	



- NOTE:
1. ALL SPLICES SHALL BE MADE IN THE POLE HANDHOLE. NO UNDERGROUND SPLICES WILL BE ALLOWED.
 2. EQUIPMENT GROUND SHALL BE CONTINUOUS FROM THE LIGHTING CONTROLLER TO THE LAST POLE OF EACH CIRCUIT AND SHALL HAVE RESISTANCE CONFORMING TO IDOT SPECIFICATIONS.
 3. CONTRACTOR SHALL CONTACT KEITH KNAPP OF IDOT AT 847-221-3077 AT LEAST 24 HOURS IN ADVANCE OF IDOT LIGHT POLE REMOVAL. TO SET APPOINTMENT FOR LIGHT POLE INVENTORY AND LOCATION OF IDOT MAINTENANCE YARD TO WHICH THE COMPONENTS WILL BE SHIPPED FOR STORAGE. THESE LIGHTS ARE PART OF IDOT CONTROLLER 'BX'. DETERMINATION WILL BE MADE AT THE MEETING WHETHER THE IDOT LIGHTS WILL BE SALVAGED OR NOT.

- LEGEND:
- EXISTING STREET LIGHT
 - FUTURE STANDARD LIGHT-250W HPS
 - PROPOSED STREET LIGHT-400W HPS
 - PROPOSED STREET LIGHT-250W HPS
 - PROPOSED STREET LIGHT-150W HPS
 - EXISTING CONTROLLER TO BE REMOVED
 - PROPOSED CONTROLLER, CONSOLE TYPE
 - COMED POWER POLE FOR SERVICE CONNECTION
 - CONDUIT, PUSHED, GALVANIZED STEEL
 - CONDUIT, TRENCHED, GALVANIZED STEEL
 - UNIT DUCT, 600V, 6-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1-1/2" DIA., POLYETHYLENE
 - GR GROUND ROD, 5/8" DIA. x 10'
 - (R) REMOVAL OF EXISTING STREET LIGHT (SALVAGE)
 - (RO) REMOVAL OF EXISTING STREET LIGHT (BY OTHERS)
 - (RCC) REMOVE EXISTING CONTROL CABINET AND FOUNDATION
 - MH MOUNTING HEIGHT
 - DA DAVIT ARM
 - B/C BACK OF CURB
 - B/EP BEHIND EDGE OF PAVEMENT
 - BDTB BREAKAWAY DEVICE, TRANSFORMER BASE
 - SERVICE WIRE, 3-1/C, NO. 3/0 AWG.
 - LT LEFT
 - RT RIGHT
 - ▨ CONCRETE SIDEWALK REMOVAL AND REPLACEMENT
- POLE IDENTIFICATION
- 1 CABINET NUMBER
 - 2 CIRCUIT
 - 3 POLE POSITION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HARLEM AVENUE
71ST STREET TO 93RD STREET
STREET LIGHTING

FILE NAME = 06301-LIGHT-01 -P07

USER NAME =	DESIGNED — PAP	REVISED — 07-15-10
	CHECKED — PKB	REVISED — 08-20-10
PLOT SCALE = 1"=50'	DRAWN — MJD	REVISED —
PLOT DATE = 04-28-10	CHECKED — DWS	REVISED —

SCALE: 1"=50' SHEET NO. 9 OF 19 SHEETS STA. 478+00 TO STA. 500+90

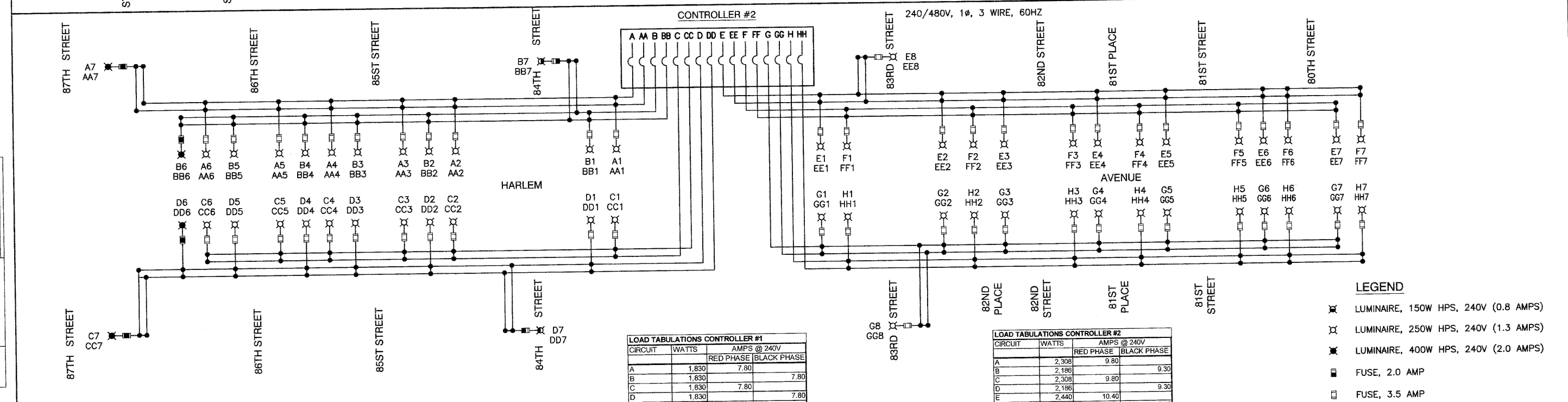
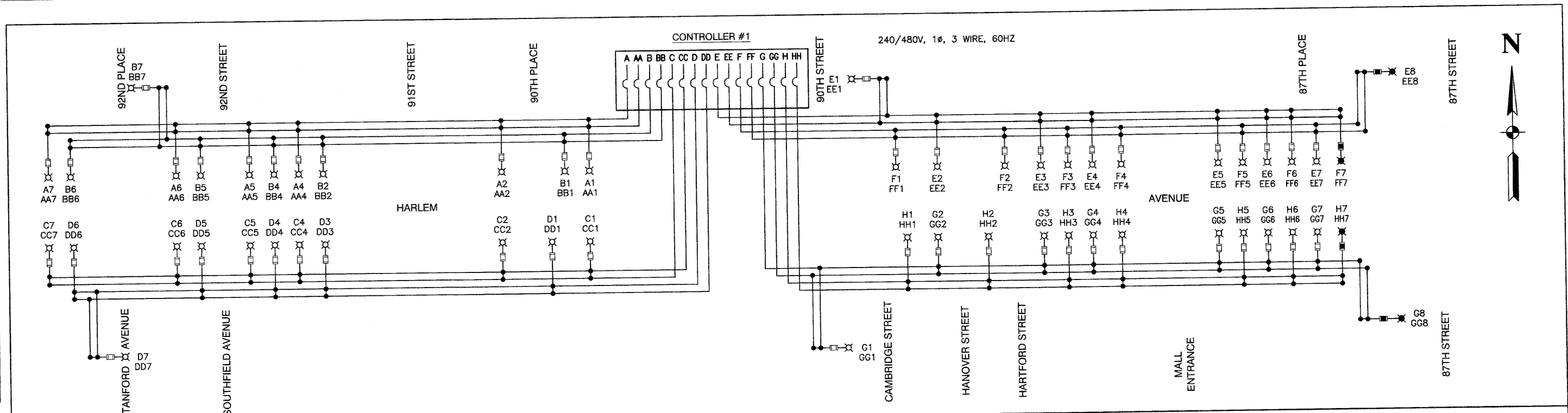
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00054-00-LT	COOK	19	9
CONTRACT NO. 63477				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	ARE-TE-00D1(809)	



PLAN NOTES
1. 74TH, 73RD AND 72ND STREET HAVE BEEN CLOSED WEST OF HARLEM AVENUE. THE VILLAGE HAS REMOVED ALL PAVEMENT, CURB AND GUTTER PRIOR TO THIS CONTRACT.

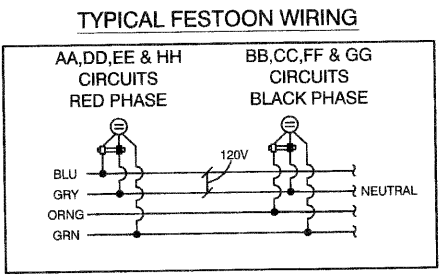
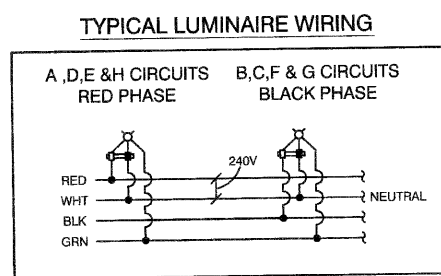
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DESIGNED	
CHECKED	
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DATE	

DATE	
BY	
REVISION	
NOTED	
PLANNED	
DESIGNED	
CHECKED	
DRAWN	
DATE	



CIRCUIT	WATTS	AMPS @ 240V	
		RED PHASE	BLACK PHASE
A	1,830		7.80
B	1,830		7.80
C	1,830		7.80
D	1,830		7.80
E	2,613	11.10	
F	2,308		9.80
G	2,613	11.10	
H	2,308		9.80
LUMINAIRE SUBTOTAL	17,162	37.80	35.20
AA	1,800		7.50
BB	1,800		7.50
CC	1,800		7.50
DD	1,800		7.50
EE	2,400	10.00	
FF	2,100		8.75
GG	2,400	10.00	
HH	2,100		8.75
GFCI SUBTOTAL	16,200	35.00	32.60
CAB TOTAL	33,362	72.80	67.70
TOTAL AMPS @ 240 V		140.60	

CIRCUIT	WATTS	AMPS @ 240V	
		RED PHASE	BLACK PHASE
A	2,308	9.80	
B	2,198		9.30
C	2,308	9.80	
D	2,198		9.30
E	2,440	10.40	
F	2,135		9.10
G	2,440	10.40	
H	2,135		9.10
LUMINAIRE SUBTOTAL	18,138	40.40	36.80
AA	2,100		8.75
BB	2,100		8.75
CC	2,100		8.75
DD	2,100		8.75
EE	2,400	10.00	
FF	2,100		8.75
GG	2,400	10.00	
HH	2,100		8.75
GFCI SUBTOTAL	17,400	37.50	35.00
CAB TOTAL	35,538	77.90	71.80
TOTAL AMPS @ 240 V		149.70	

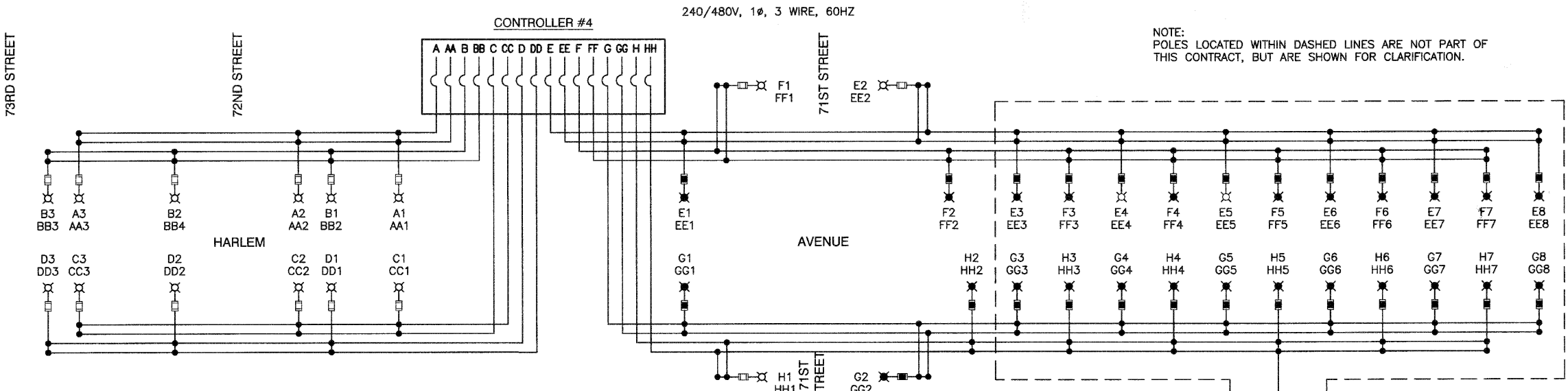
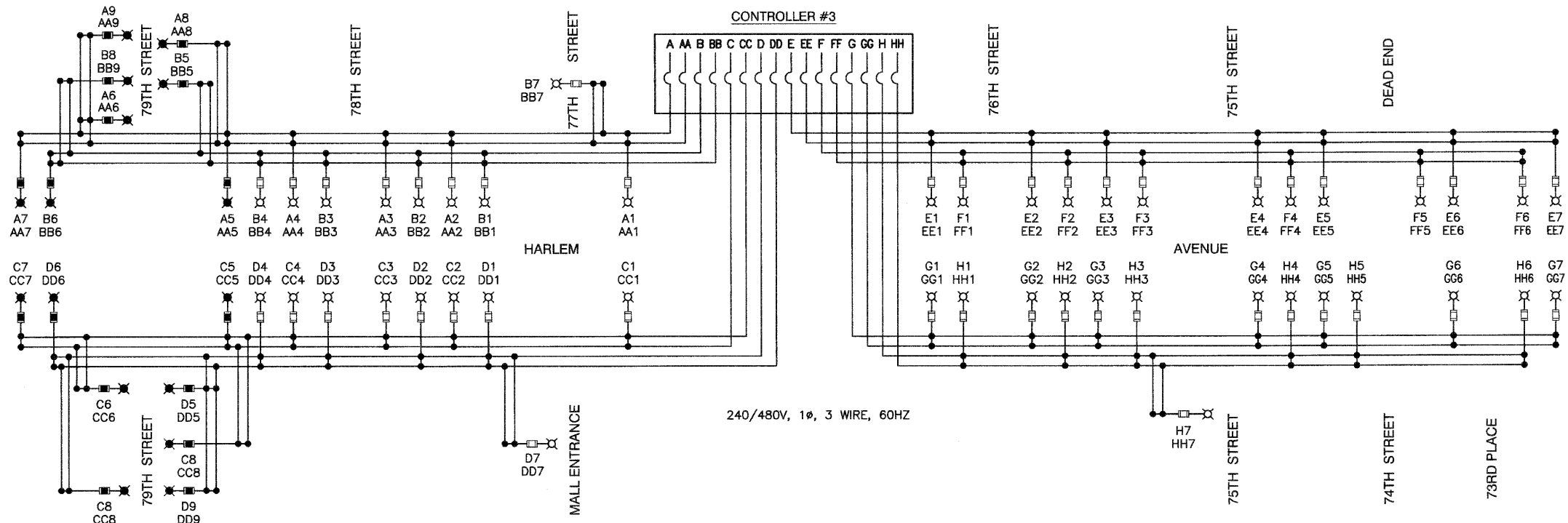


- LEGEND**
- ⊗ LUMINAIRE, 150W HPS, 240V (0.8 AMPS)
 - ⊗ LUMINAIRE, 250W HPS, 240V (1.3 AMPS)
 - ⊗ LUMINAIRE, 400W HPS, 240V (2.0 AMPS)
 - FUSE, 2.0 AMP
 - FUSE, 3.5 AMP
 - FUSE, 4.0 AMP
 - A1 LUMINAIRE CIRCUIT, 240V
 - AA1 GFCI CIRCUIT, 120V (2.5 AMPS EACH)
 - ⌋ CIRCUIT BREAKER
 - CONNECTION

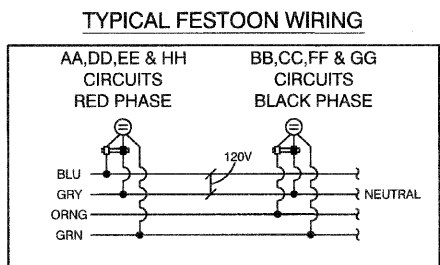
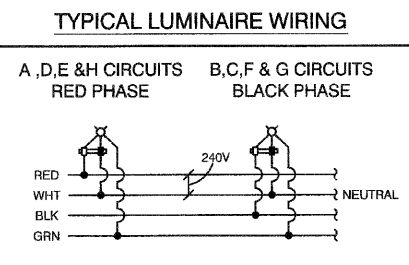


DATE	BY
REVISION	BY
PLAN	NO.
NOTE BOOK	NO.
REVISION	BY
DATE	BY

DATE	BY
REVISION	BY
PROFILE	NO.
NOTE BOOK	NO.
REVISION	BY
DATE	BY



NOTE: POLES LOCATED WITHIN DASHED LINES ARE NOT PART OF THIS CONTRACT, BUT ARE SHOWN FOR CLARIFICATION.



LOAD TABULATIONS CONTROLLER #3

CIRCUIT	WATTS	AMPS @ 240V	
		RED PHASE	BLACK PHASE
A	3,610	15.20	11.20
B	2,654		
C	3,132	13.20	12.50
D	2,959		
E	2,135	9.10	7.80
F	1,830		
G	2,135	9.10	
H	2,135		9.10
LUMINAIRE SUBTOTAL	20,590	46.60	40.60
AA	2,700	11.25	
BB	2,100		8.75
CC	2,400	10.00	
DD	2,400		10.00
EE	2,100	8.75	
FF	1,800		7.50
GG	2,100	8.75	
HH	2,100		8.75
GFCI			
SUBTOTAL	17,700	38.76	35.00
CAB TOTAL	38,290	85.36	75.60
TOTAL AMPS @ 240 V		160.95	

LOAD TABULATIONS - CONTROLLER #4

CIRCUIT	WATTS	AMPS @ 240V	
		RED PHASE	BLACK PHASE
A	915	3.90	
B	915		3.90
C	915	3.90	
D	915		3.90
E	3,651	15.30	
F	3,173		15.30
G	3,824	16.00	
H	3,173		17.30
LUMINAIRE SUBTOTAL	18,915	39.10	40.40
AA	900	3.75	
BB	900		3.75
CC	900	3.75	
DD	900		3.75
EE	2,400	10.00	
FF	2,400		10.00
GG	2,400	10.00	
HH	2,400		10.00
GFCI SUBTOTAL	13,200	27.50	27.50
CAB TOTAL	32,115	66.60	67.90
TOTAL AMPS @ 240V		134.50	

- LEGEND**
- ⊗ LUMINAIRE, 150W HPS, 240V (0.8 AMPS)
 - ⊗ LUMINAIRE, 250W HPS, 240V (1.3 AMPS)
 - ⊗ LUMINAIRE, 400W HPS, 240V (2.0 AMPS)
 - FUSE, 2.0 AMP
 - FUSE, 3.5 AMP
 - FUSE, 4.0 AMP
 - A1 LUMINAIRE CIRCUIT, 240V
 - AA1 GFCI CIRCUIT, 120V (2.5 AMPS EACH)
 - ⌋ CIRCUIT BREAKER
 - CONNECTION



FILE NAME = 0901-LIGHT-02 - SLWD02	USER NAME =	DESIGNED - PAP	REVISED - 07-15-10
		CHECKED - PKB	REVISED - 07-30-10
		DRAWN - MJD	REVISED - 08-20-10
		CHECKED - DWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HARLEM AVENUE 71ST STREET TO 93RD STREET SINGLE LINE WIRING DIAGRAM		F.A.P. RTE. 348	SECTION 06-0054-00-LT	COUNTY COOK	TOTAL SHEETS 19	SHEET NO. 11
SCALE: N/A	SHEET NO. 11 OF 19 SHEETS	STA. N/A	TO STA. N/A	CONTRACT NO. 63477		

F.A.P. RTE. 348	SECTION 06-0054-00-LT	COUNTY COOK	TOTAL SHEETS 19	SHEET NO. 11
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARE-TE-00D1(808)				

LUMINAIRE: FINISH TO BE BLACK
 250 WATT HIGH PRESSURE SODIUM LAMP
 240 VOLT BALLAST
 I.E.S. TYPE: MC II LIGHT DISTRIBUTION MEDIUM FULL CUTOFF TYPE 2 OR
 LENS TYPE: FLAT
 INITIAL LAMP LUMENS: 28,000
 LAMP LIFE: 24,000 HOURS

LUMINAIRE: FINISH TO BE BLACK
 400 WATT HIGH PRESSURE SODIUM LAMP
 240 VOLT BALLAST
 I.E.S. TYPE: MC II LIGHT DISTRIBUTION MEDIUM FULL CUTOFF TYPE 2 OR
 LENS TYPE: FLAT
 INITIAL LAMP LUMENS: 50,000
 LAMP LIFE: 24,000 HOURS

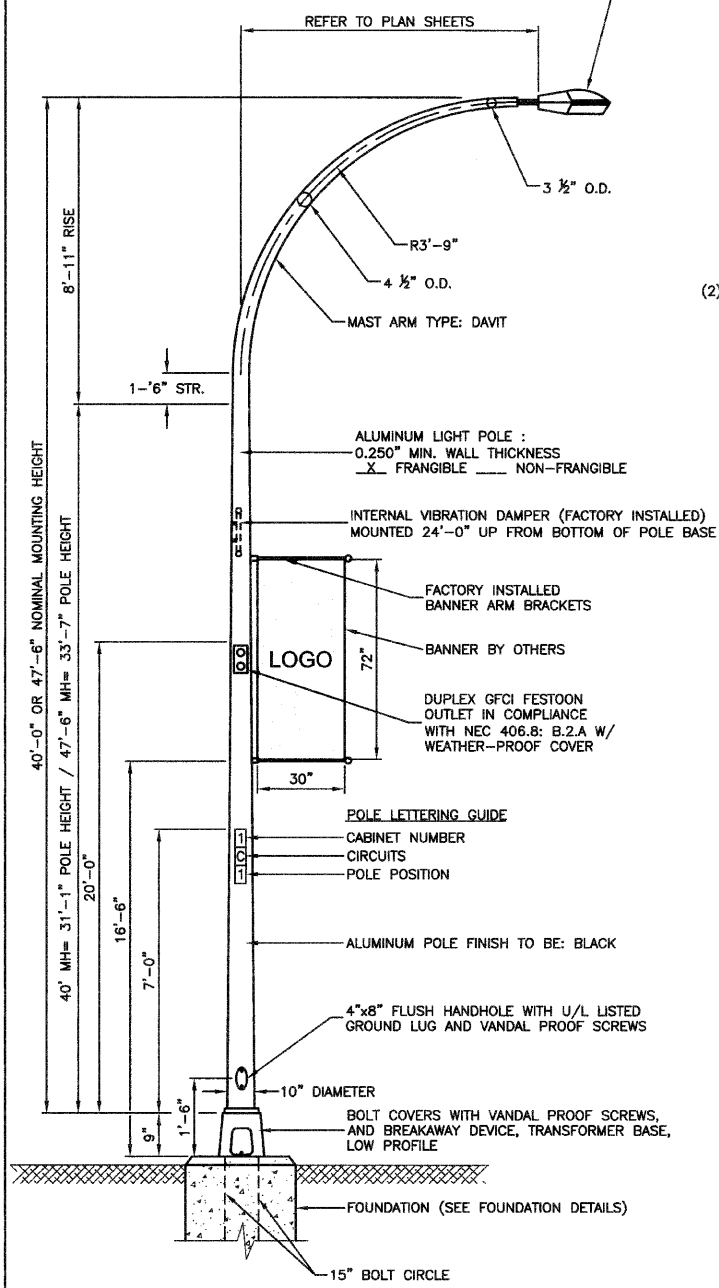
LUMINAIRE: FINISH TO BE BLACK
 150 WATT HIGH PRESSURE SODIUM LAMP
 240 VOLT BALLAST
 I.E.S. TYPE: MC III LIGHT DISTRIBUTION MEDIUM FULL CUTOFF TYPE 3
 LENS TYPE: FLAT
 INITIAL LAMP LUMENS: 18,000
 LAMP LIFE: 24,000 HOURS

NOMINAL WATTAGE	FUSE SIZE
150	2.0 AMP
250	3.5 AMP
400	5.0 AMP
FESTOON OUTLET	6.0 AMP

LUMINAIRE FUSE SIZE TABLE

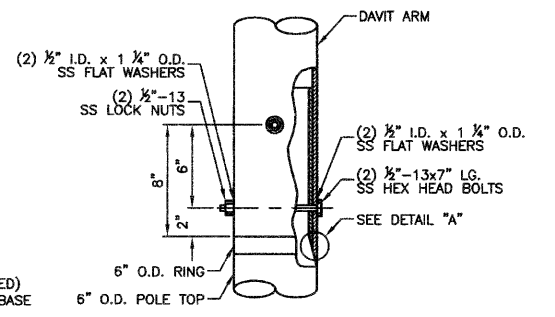
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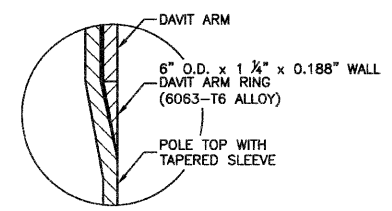


- NOTES:**
- THE LIGHTING UNITS SHALL MEET ASHTO DESIGN CRITERIA. DESIGN FOR 90 M.P.H. WIND WITH 30% GUST AND 75 POUND LUMINAIRE HAVING AN E.P.A. OF 1.6 SQ. FT. AND PROPER ICE LOADING.
 - ALUMINUM ALLOY 6063-T6 SHALL BE USED.

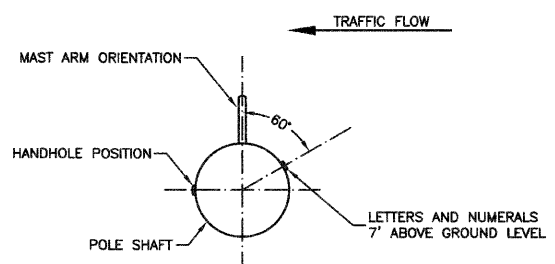
TYPICAL POLE INSTALLATION (40' MH & 47.5' MH)



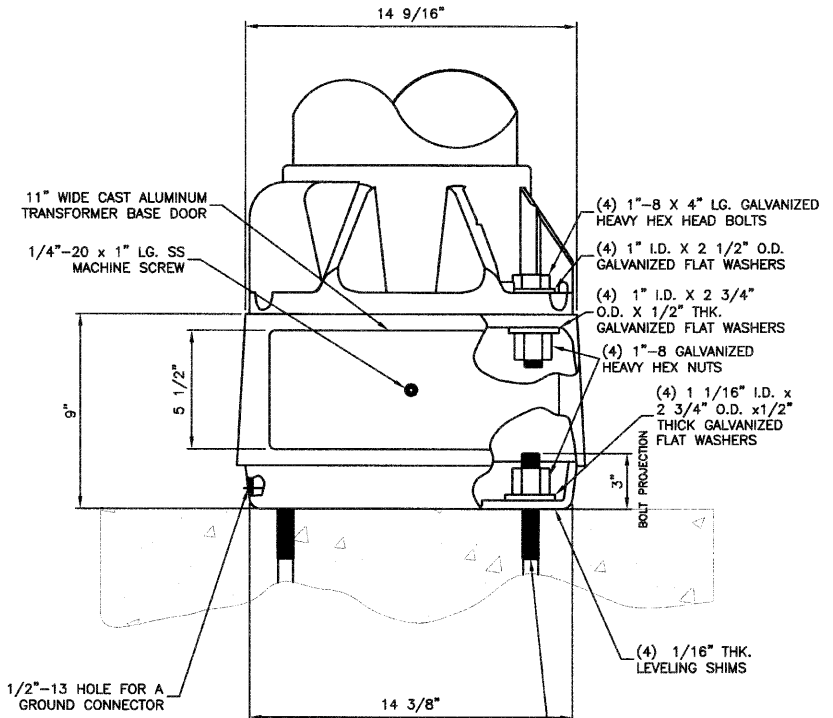
CONNECTION DETAIL



DETAIL "A"



POSITION OF HANDHOLE AND NUMERALS ON POLE

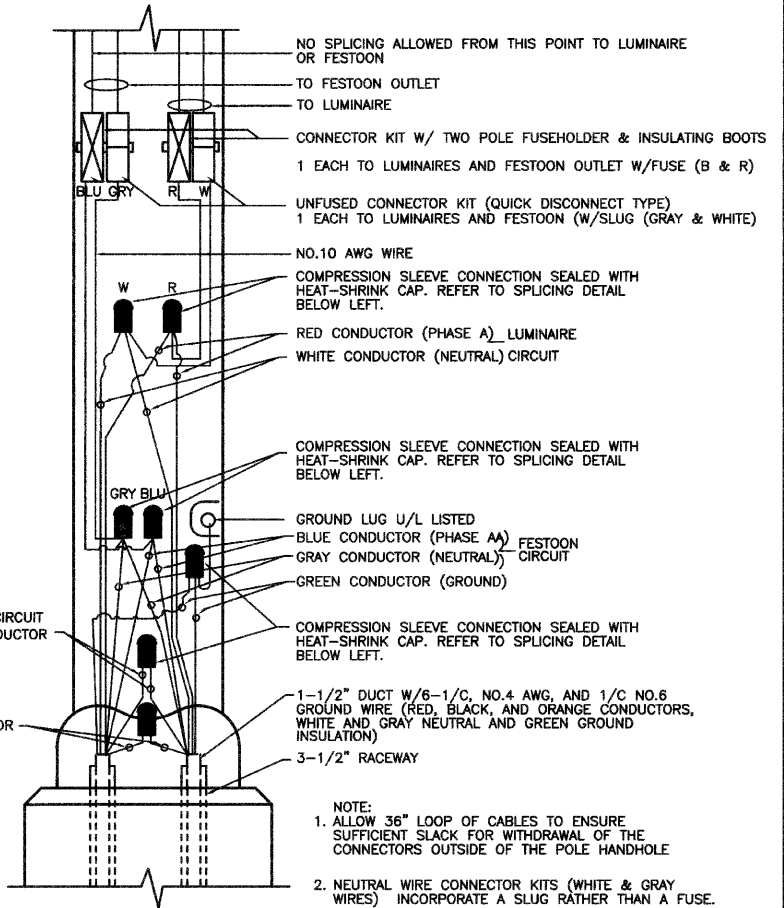


TOP DETAIL

BOTTOM DETAIL

TRANSFORMER BASE DETAIL, 15" BOLT CIRCLE

- NOTES:**
- BREAKAWAY DEVICE TO BE ASHTO APPROVED.
 - TRANSFORMER BASE AND LIGHTPOLE TO BE LEVELED AS ONE UNIT WITHOUT USING LEVELING SHIMS IF REQUIRED.
 - ALUMINUM ALLOY FINISH TO BE BLACK.



POLE HANDHOLE WIRING DIAGRAM (TYPICAL FOR LUMINAIRE INSTALLATION) (WITH FESTOON)

FILE NAME =	09301-LIGHT-02 - P01
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USER NAME =	DESIGNED -- PAP	REVISED -- 07-30-10
	CHECKED -- PKB	REVISED -- 08-20-10
PLOT SCALE = N/A	DRAWN -- MJD	REVISED --
PLOT DATE = 04-28-10	CHECKED -- DWS	REVISED --

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

HARLEM AVENUE
 71ST STREET TO 93RD STREET
 STREET LIGHTING POLE DETAILS

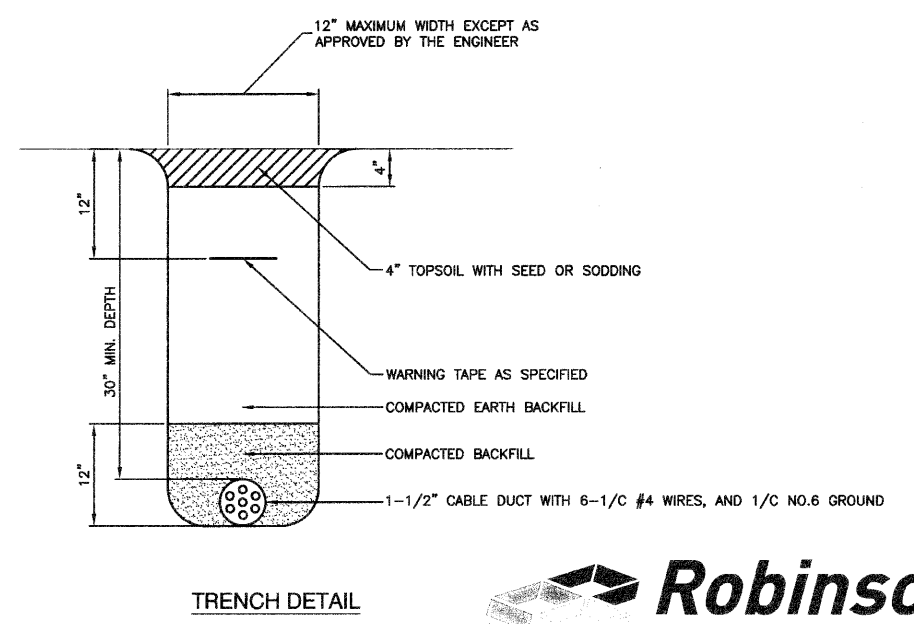
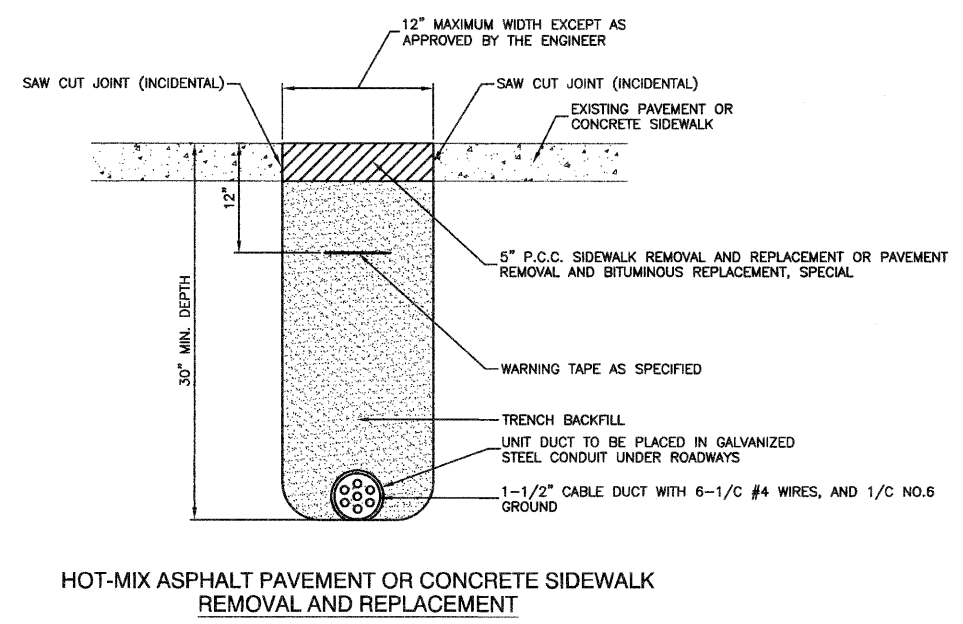
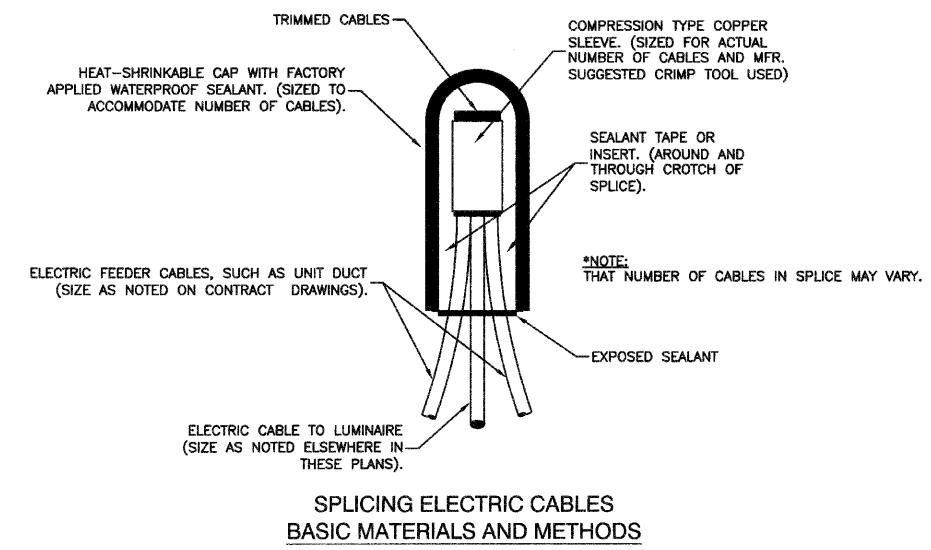
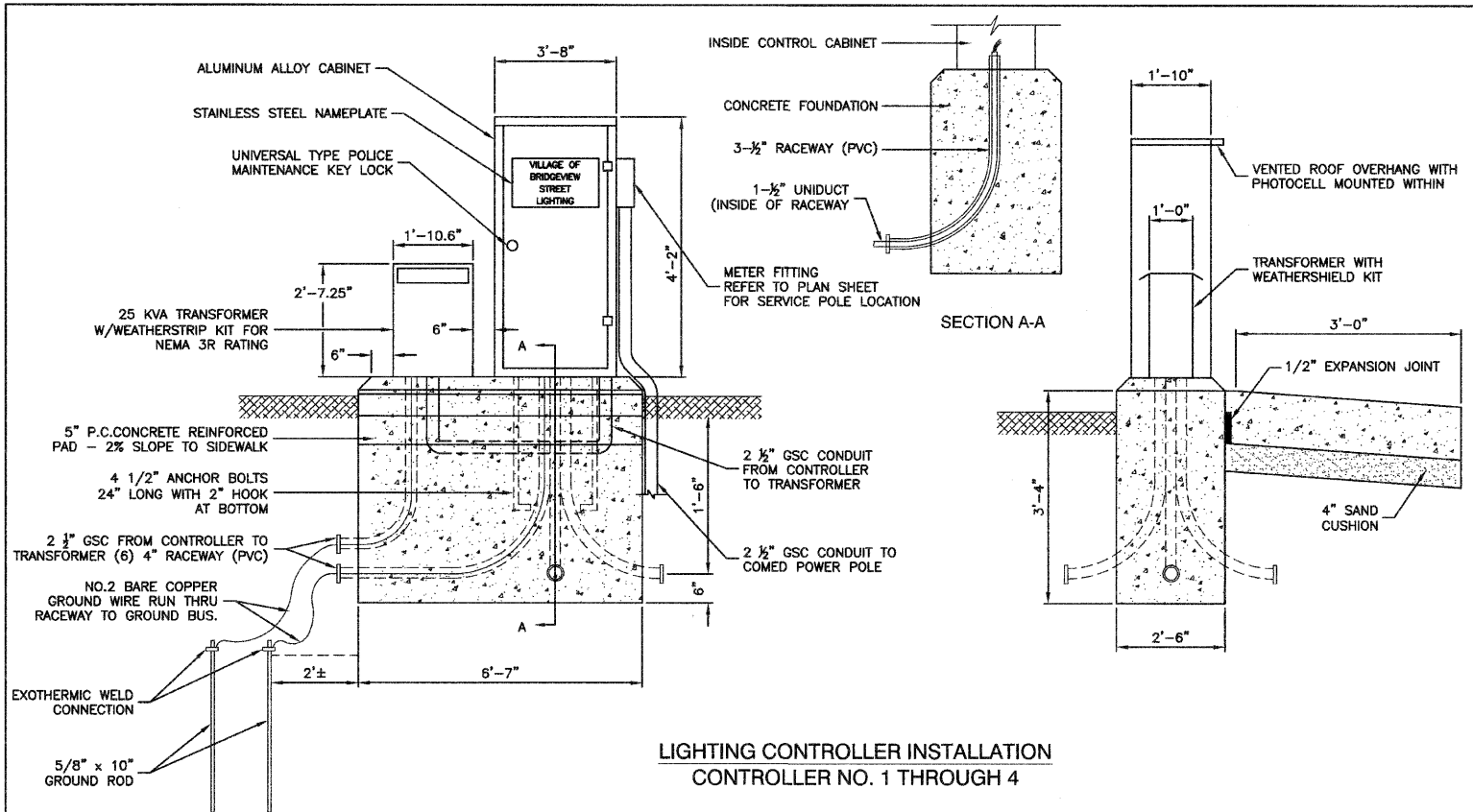
SCALE: N/A SHEET NO. 12 OF 19 SHEETS STA. N/A TO STA. N/A

F.A.P. RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00054-00-LT	COOK	19	12
CONTRACT NO. 63477				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARE-TE-00D1(808)				



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FILE NAME = 06301-LGHT-02 - P06	USER NAME =	DESIGNED - PAP	REVISED - 07-15-10
		CHECKED - PKB	REVISED - 07-30-10
		DRAWN - MJD	REVISED - 08-20-10
		CHECKED - DWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HARLEM AVENUE 71ST STREET TO 93RD STREET STREET LIGHTING DETAILS		F.A.P. R.T.E. 348	SECTION 06-00054-00-LT	COUNTY COOK	TOTAL SHEETS 19	SHEET NO. 14
SCALE: N/A	SHEET NO. 14 OF 19 SHEETS	STA. N/A	TO STA. N/A	CONTRACT NO. 63477		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARE-TE-00D1(808)						

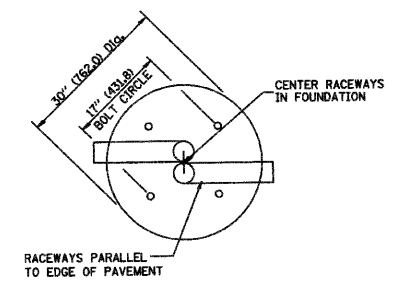
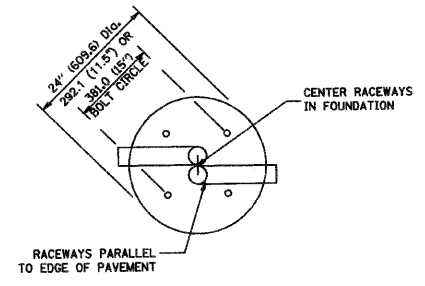


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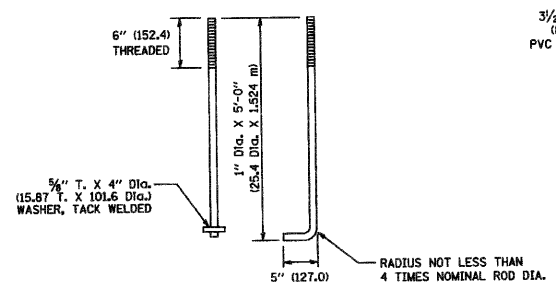
LIGHT POLE FOUNDATION DEPTH TABLE
35 FT. TO 47.5 FT. MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SQ.FT.	9'-6" (2.93 m)	10'-0" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SQ. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)

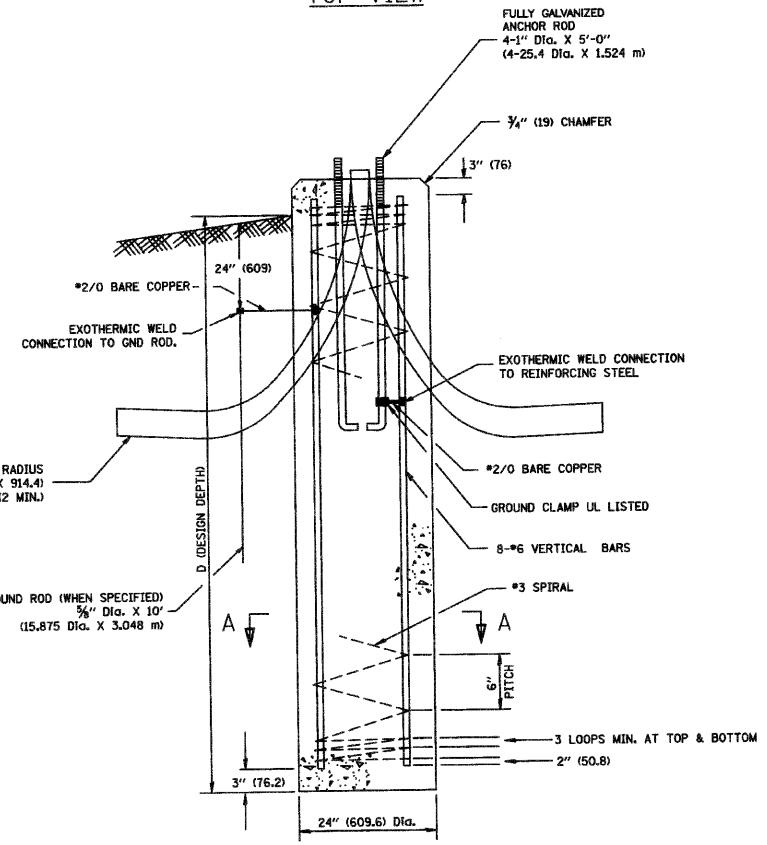


TOP VIEW

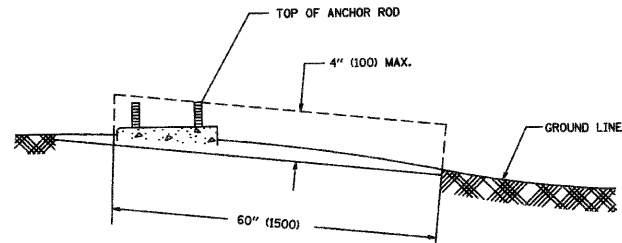
TOP VIEW



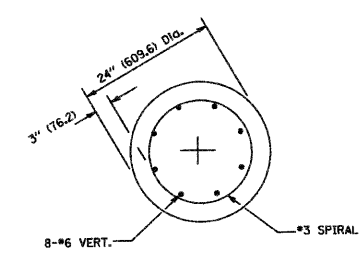
ANCHOR ROD DETAIL



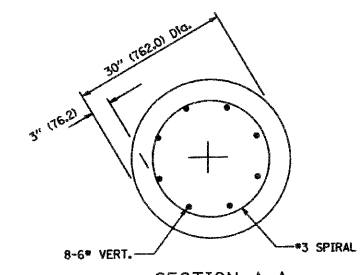
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 M) CHORD ACROSS THE FOUNDATION. WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 MM).
- THE CONCRETE SHALL BE CLASS SL CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 238, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UMG MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 MM) WITH A MINIMUM OF 3 INCHES (75 MM) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 MM) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 MM) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 MM) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 MM) ABOVE THE TOP OF THE FOUNDATION.



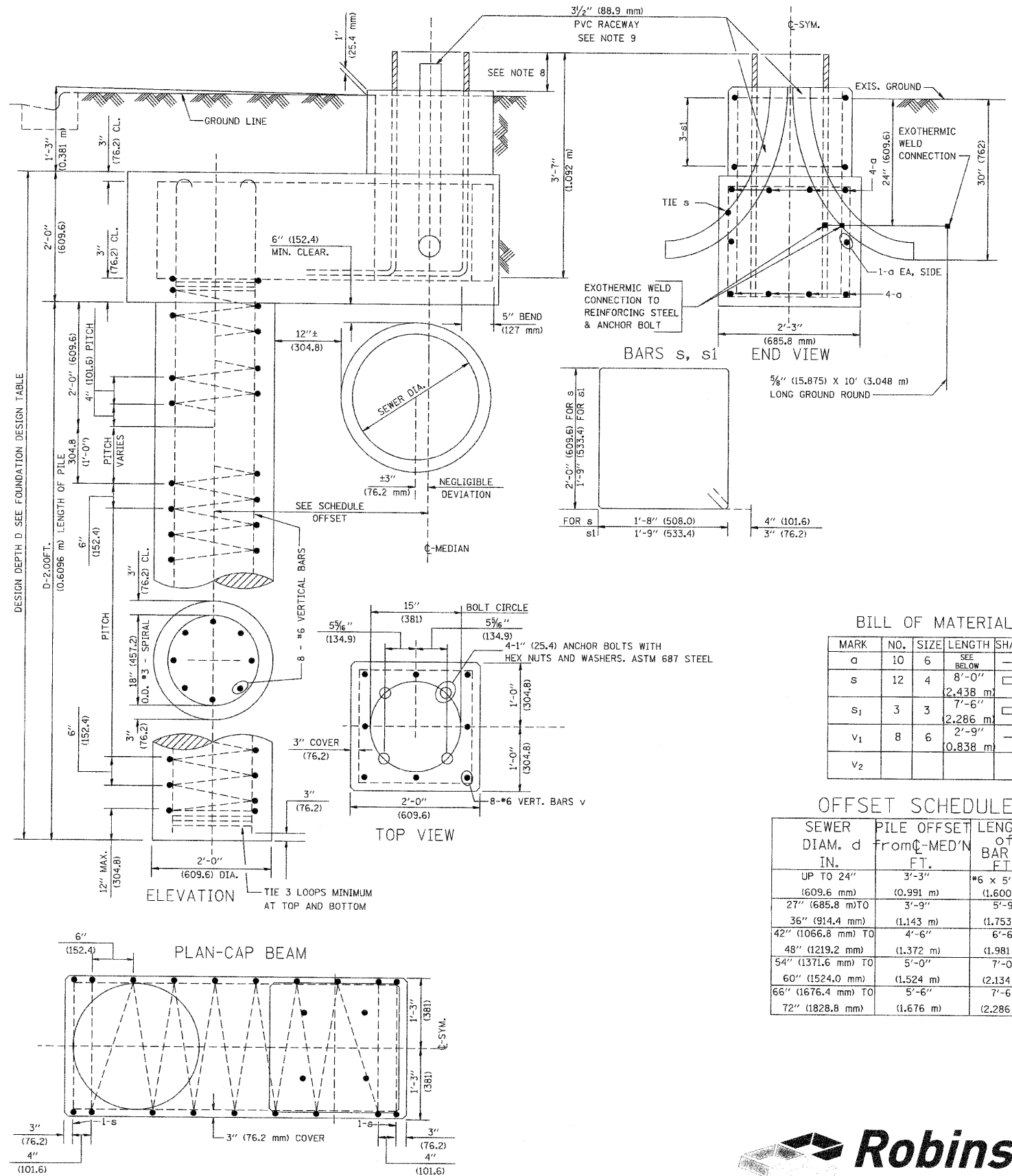
FILE NAME = 09301-LIGHT-02 - P06	USER NAME =	DESIGNED — PAP	REVISIONS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HARLEM AVENUE 71ST STREET TO 93RD STREET STREET LIGHTING DETAILS	F.A.P. RTE. 348	SECTION 06-00054-00-LT	COUNTY COOK	TOTAL SHEETS 19	SHEET NO. 15		
	PLOT SCALE = N/A	DRAWN — MJD	REVISIONS			SCALE: N/A	SHEET NO. 15 OF 19 SHEETS	STA. N/A	TO STA. N/A	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT ARE-TE-00D1(808)
	PLOT DATE = 04-28-10	CHECKED — DWS	REVISIONS			CONTRACT NO. 63477						

35 FT. TO 47.5 FT. MOUNTING HEIGHT
FOUNDATION DESIGN TABLE

TYPE OF SOIL	DESIGN DEPTH OF FOUNDATION		REINFORCEMENT IN FOUNDATION			
	SINGLE ARM D	TWIN ARM D	SINGLE ARM		TWIN ARM	
			VERT BARS	SPIRAL	VERT BARS	SPIRAL
SOFT CLAY	13'-0" (3.962 m)	15'-0" (4.572 m)	8-#6X12'-6" (3.810 m)	#3X122' (37.186 m)	8-#6X14'-3" (4.343 m)	#3X141' (42.977 m)
MEDIUM CLAY	9'-6" (2.896 m)	10'-9" (3.277 m)	8-#6X9'-0" (2.743 m)	#3X90' (27.432 m)	8-#6X10'-0" (3.048 m)	#3X100' (30.480 m)
STIFF CLAY	7'-0" (2.134 m)	8'-0" (2.438 m)	8-#6X6'-6" (1.981 m)	#3X66' (20.112 m)	8-#6X7'-6" (2.286 m)	#3X76' (23.165 m)
LOOSE SAND	9'-0" (2.743 m)	10'-0" (3.048 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)	8-#6X9'-6" (2.896 m)	#3X94' (28.651 m)
MEDIUM SAND	8'-3" (2.515 m)	9'-0" (2.743 m)	8-#6X8'-0" (2.438 m)	#3X78' (23.774 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)
DENSE SAND	7'-9" (2.362 m)	9'-0" (2.743 m)	8-#6X7'-6" (2.286 m)	#3X73' (22.250 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)
ROCK OR SOLIDIFIED SLAG	5'-0" (1.524 m)	5'-0" (1.524 m)	NONE	NONE	NONE	NONE

NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE.
- EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24" (609.6 mm) OR 30" (762.0 mm) IN DIAMETER.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS. IF LIGHT POLE IS MOUNTED WITHOUT BREAKAWAY DEVICE, ANCHOR BOLTS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENTION WITH ENGINEER.
- RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
- THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERECTED.



BILL OF MATERIAL

MARK	NO.	SIZE	LENGTH	SHAPE
a	10	6	SEE BELOW	—
s	12	4	8'-0" (2,438 m)	□
s1	3	3	7'-6" (2,286 m)	□
v1	8	6	2'-9" (0,838 m)	—
v2				

OFFSET SCHEDULE

SEWER DIAM. d IN.	PILE OFFSET from C-MED'N FT.	LENGTH of BAR a FT.
UP TO 24" (609.6 mm)	3'-3" (0.991 m)	#6 x 5'-3" (1.600 m)
27" (685.8 mm) TO	3'-9" (1.143 m)	5'-9" (1.753 m)
36" (914.4 mm) TO	4'-6" (1.372 m)	6'-6" (1.981 m)
42" (1066.8 mm) TO	5'-0" (1.524 m)	7'-0" (2.134 m)
48" (1219.2 mm) TO	5'-6" (1.676 m)	7'-6" (2.286 m)
54" (1371.6 mm) TO	6'-0" (1.828 m)	8'-0" (2.438 m)
60" (1524.0 mm) TO	6'-6" (1.981 m)	8'-6" (2.591 m)
66" (1676.4 mm) TO	7'-0" (2.134 m)	9'-0" (2.743 m)
72" (1828.8 mm) TO	7'-6" (2.286 m)	9'-6" (2.896 m)

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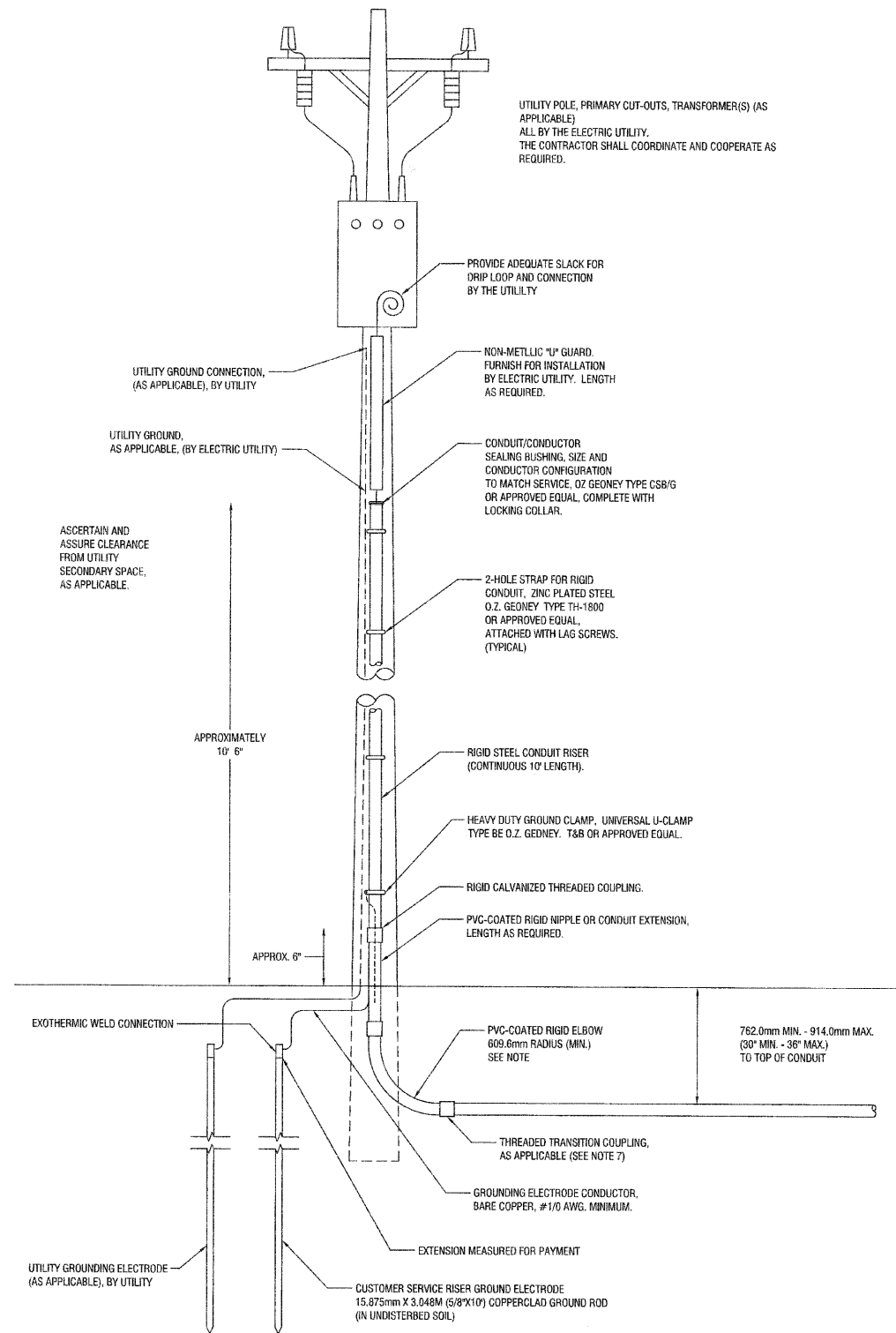
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DATE	BY	REVIEWED	DATE
		ALIGNMENT CHECKED	
		PT. OF WAY CHECKED	
		ROAD FILE NAME	
PLAN		NOTE BOOK NO.	

DATE	BY	REVIEWED	DATE
		GRADES CHECKED	
		B.M. NOTED	
PROFILE		NOTE BOOK NO.	



UTILITY POLE, PRIMARY CUT-OUTS, TRANSFORMER(S) (AS APPLICABLE)
ALL BY THE ELECTRIC UTILITY.
THE CONTRACTOR SHALL COORDINATE AND COOPERATE AS REQUIRED.

PROVIDE ADEQUATE SLACK FOR DRIP LOOP AND CONNECTION BY THE UTILITY

NON-METALLIC "U" GUARD FURNISH FOR INSTALLATION BY ELECTRIC UTILITY. LENGTH AS REQUIRED.

CONDUIT/CONDUCTOR SEALING BUSHING, SIZE AND CONDUCTOR CONFIGURATION TO MATCH SERVICE. OZ GEORNEY TYPE CSB/G OR APPROVED EQUAL, COMPLETE WITH LOCKING COLLAR.

2-HOLE STRAP FOR RIGID CONDUIT, ZINC PLATED STEEL O.Z. GEORNEY TYPE TH-1800 OR APPROVED EQUAL, ATTACHED WITH LAG SCREWS. (TYPICAL)

RIGID STEEL CONDUIT RISER (CONTINUOUS 10' LENGTH).

HEAVY DUTY GROUND CLAMP, UNIVERSAL U-CLAMP TYPE BE O.Z. GEORNEY, T&B OR APPROVED EQUAL.

RIGID GALVANIZED THREADED COUPLING.

PVC-COATED RIGID NIPPLE OR CONDUIT EXTENSION, LENGTH AS REQUIRED.

PVC-COATED RIGID ELBOW 609.6mm RADIUS (MIN.) SEE NOTE

762.0mm MIN. - 914.0mm MAX. (30" MIN. - 36" MAX.) TO TOP OF CONDUIT

THREADED TRANSITION COUPLING, AS APPLICABLE (SEE NOTE 7)

GROUNDING ELECTRODE CONDUCTOR, BARE COPPER, #1/0 AWG. MINIMUM.

EXTENSION MEASURED FOR PAYMENT

CUSTOMER SERVICE RISER GROUND ELECTRODE 15.875mm X 3.048M (5/8"X10) COPPERCLAD GROUND ROD (IN UNDISTURBED SOIL)

UTILITY GROUNDING ELECTRODE (AS APPLICABLE), BY UTILITY

ASCERTAIN AND ASSURE CLEARANCE FROM UTILITY SECONDARY SPACE, AS APPLICABLE.

UTILITY GROUND CONNECTION, (AS APPLICABLE), BY UTILITY

UTILITY GROUND, (BY ELECTRIC UTILITY)

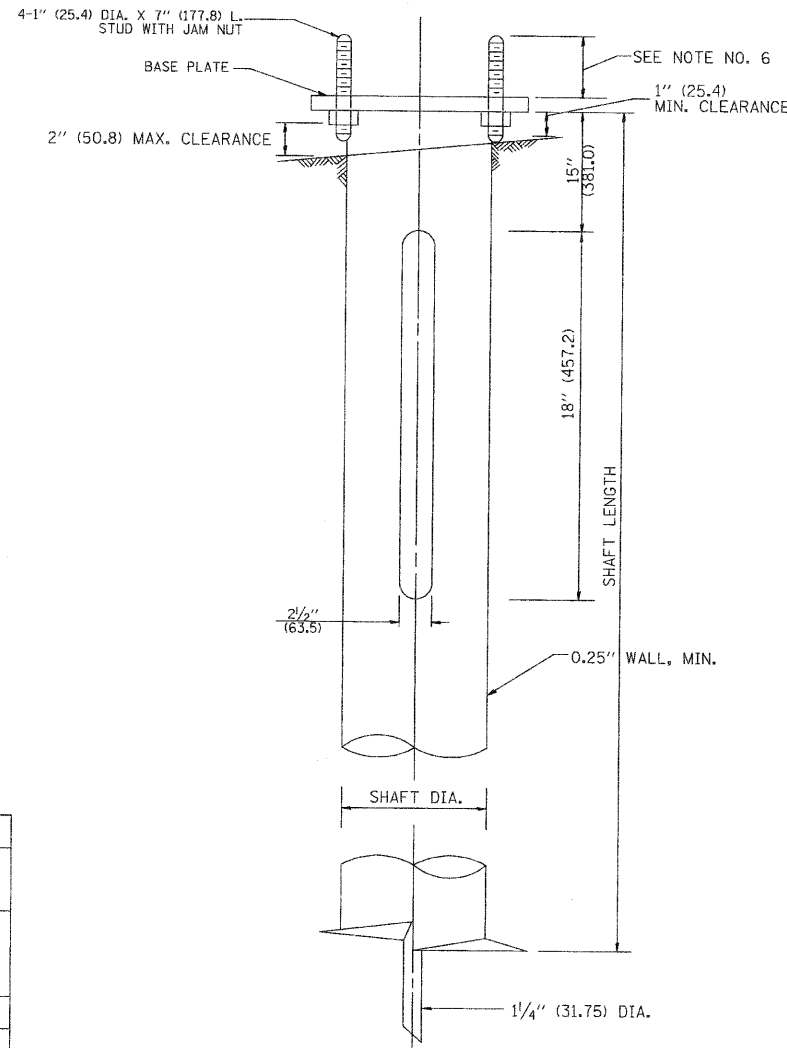
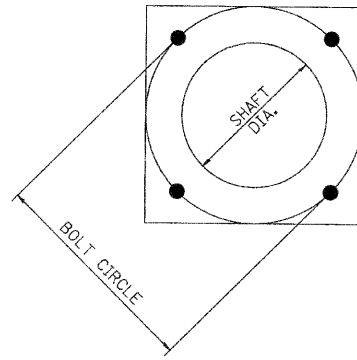
NOTES:

- SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
- UNLESS OTHERWISE INDICATED, ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF ELECTRIC UTILITY SERVICE INSTALLATION.
- CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED.
- PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MF RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
- THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY "U" GUARD INSTALLATION AND SERVICE CONNECTION.
- THE SERVICE METER SOCKET, AS APPLICABLE, MOUNTED ELSEWHERE AS INCLUDED SHALL BE INCLUDED AND PAID AS PART OF THE ELECTRICAL UTILITY SERVICE INSTALLATION PAY ITEM.
- THE SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT (IN CONCRETE), THE COUPLING SHALL BE A METALLIC TO NON-METALLIC ADAPTER. WHEN THE RACEWAY IS ENCASED IN CONCRETE, THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
- PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS. THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISION TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY, FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION.

SERVICE CONNECTION FOR CONTROL CABINETS



FILE NAME = 09301-LGHT-02 - P08	USER NAME =	DESIGNED -- PAP	REVISED --	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HARLEM AVENUE 71ST STREET TO 93RD STREET STREET LIGHTING DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = N/A	CHECKED -- PKB	REVISED --			348	06-00054-00-LT	COOK	19	17	
	PLOT DATE = 04-28-10	DRAWN -- MJD	REVISED --			SCALE: N/A SHEET NO. 17 OF 19 SHEETS STA. N/A TO STA. N/A					
		CHECKED -- DWS	REVISED --			CONTRACT NO. 63477					
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARE-TE-00D1(808)											



HELIX FOUNDATION SIZE

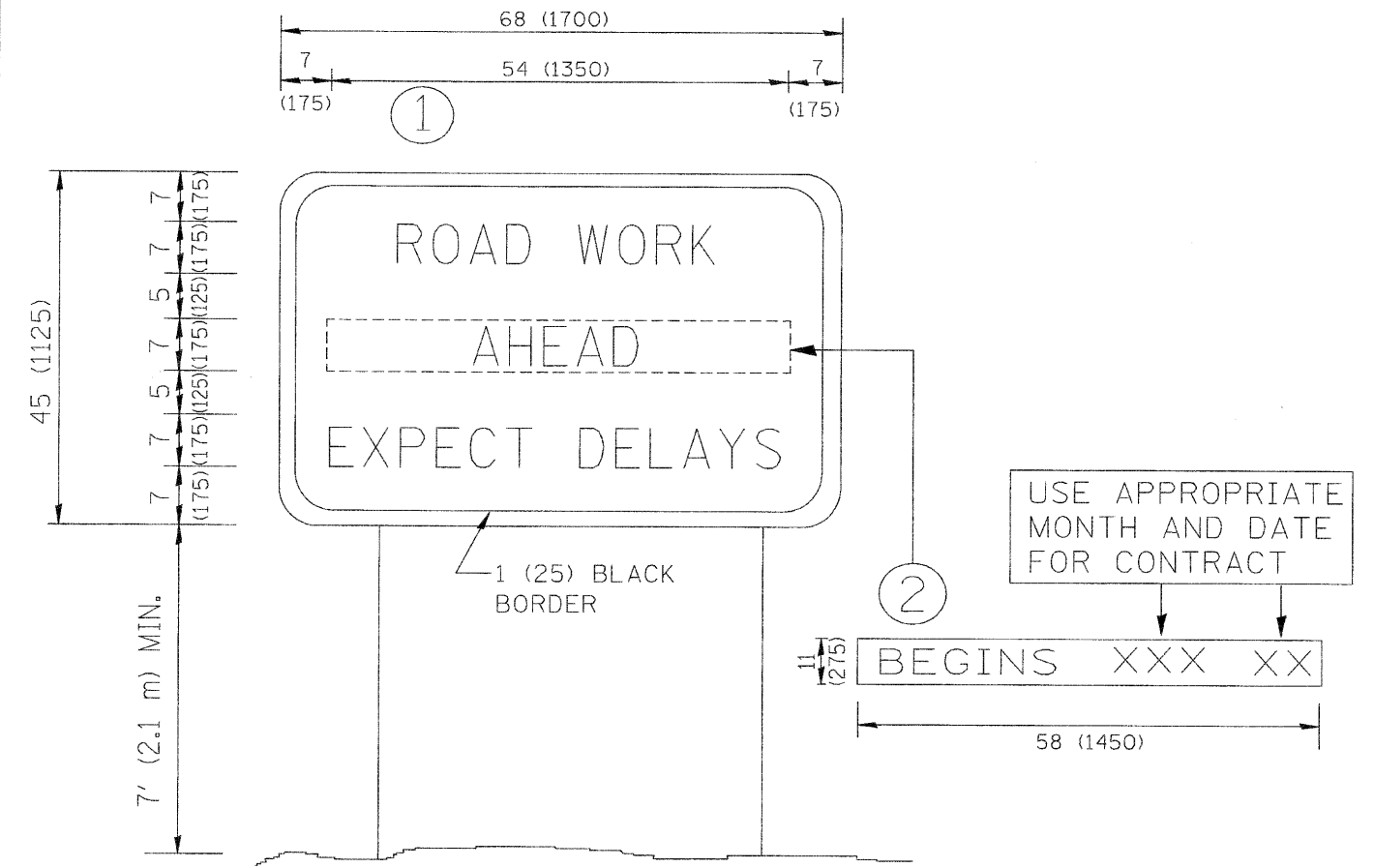
POLE MOUNTING HEIGHT	BOLT CIRCLE	SHAFT DIAMETER	SHAFT LENGTH	BASEPLATE
30 FT.	1 1/2"	8 5/8"	6 FT.	12"x12"x1"
31 FT.-35 FT.	1 1/2"	8 5/8"	6 FT.	12"x12"x1"
36 FT.-40 FT.	15"	8 5/8"	6 FT.	15"x15"x1 1/4"
41 FT.-45 FT.	15"	8 5/8"	6 FT.	15"x15"x1 1/4"
46 FT.-50 FT.	15"	10"	8 FT.	15"x15"x1 1/4"

METAL HELIX FOUNDATION MATERIALS

ITEM	MATERIAL REQUIREMENT
BASEPLATE	AASHTO M 270M, GRADE 36 (M270M, GRADE 250)
SHAFT	ASTM A 252, GRADE 2 (PHOSPHOROUS 0.04% MAXIMUM, SULFUR 0.05% MAXIMUM)
HELIX SCREW	AASHTO M 183 (ASTM A 635)
PILOT POINT	AASHTO M 270 (ASTM A 575)
ANCHOR RODS/STUDS	AASHTO M 314 (ASTM F 1554)
HEXAGON NUTS	AASHTO M 291M (ASTM A 563) GRADE DH, OR AASHTO M 292 (ASTM A 194) GRADE 2H
WASHERS	AASHTO M 293 (ASTM F 436)

NOTES:

1. ALL DIMENSION IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. ALL MATERIAL SHALL BE GALVINIZED ACCORDING TO AASHTO M111, UNLESS OTHERWISE SPECIFIED.
3. ALL WELDS SHALL BE CONTINUOUS AND NOT LESS THAN 1/4" (6.35 mm) FILLET WELDS. THE WELDED FOUNDATION SHALL BE CAPABLE OF WITHSTANDING 10,000 FT/LBS (13558.18 n.m) OF INSTALLATION TORQUE APPLIED ABOUT THE AXIS OF THE FOUNDATION.
4. THE HELIX FOUNDATION SHAFT SHALL BE INSTALLED VERTICAL AND THE BASE PLATE SHALL BE IN LEVEL. THE BREAKAWAY COUPLINGS AND HARDWARE SHALL NOT BE USED TO ALIGN THE POLE INSTALLATION.
5. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE INSTALLATION OF THE LIGHT POLE.
6. THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF THE BASE PLATE WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS.
7. ANY VOIDS WITHIN THE METAL FOUNDATION SHALL BE FILLED WITH FINE AGGREGATE.
8. METAL FOUNDATIONS SHALL BE INSTALLED IN UNDISTURBED SOIL. PREDRILLING A PILOT HOLE AND/OR BACKFILLING AROUND THE FOUNDATION IS NOT ALLOWED.
9. THE METAL FOUNDATION SHALL NOT BE INSTALLED TO A TORQUE WHICH EXCEEDS THE MANUFACTURER'S MAXIMUM TORQUE RATING NOR SHALL IT BE INSTALLED TO AN INSTALLATION TORQUE VALUE OF LESS THAN 3,500 FT LB (4,750 KNM). METAL FOUNDATIONS THAT ARE NOT INSTALLED TO FULL INSTALLATION DEPTH OR DO NOT ACHIEVE THE MINIMUM INSTALLATION TORQUE SHALL BE REMOVED AND REPLACED WITH A CONCRETE FOUNDATION AT NO ADDITIONAL COST.
10. THE BASEPLATE SHALL BE PERPENDICULAR TO THE SHAFT AXIS ($\pm 1^\circ$) AND THE HOLE CENTERLINE SHALL BE CONCENTRIC (± 0.188) TO THE SHAFT AXIS.
11. THE PILOT POINT AND SHAFT AXIS SHALL BE CONCENTRIC (± 0.125) AND IN LINE ($\pm 2^\circ$).
12. THE BASEPLATE SHALL BE STAMPED WITH THE MANUFACTURERS NAME AND DATE OF MANUFACTURE.



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = 06901-DTIS-TC22 - TC-22	USER NAME = geglienobt	DESIGNED --	REVISED -- R. MIRS 09-15-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARTERIAL ROAD INFORMATION SIGN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 50.000' / IN.	CHECKED --	REVISED -- R. MIRS 12-11-97			348	06-00054-00-LT	COOK	19	19	
	PLOT DATE = 1/4/2008	DRAWN --	REVISED -- T. RAMMACHER 02-02-99			TC-22		CONTRACT NO. 63477			
		CHECKED --	REVISED -- C. JUCIUS 01-31-07			SCALE:		SHEET NO. 19 OF 19 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARE-TE-00D1(808)