

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0344	09-00020-00-LT	DUPAGE	8	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 63402		

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUMMARY OF QUANTITIES
3	GENERAL NOTES, LEGEND AND HIGHWAY STANDARDS
4	LIGHTING PLAN
5	LIGHTING DETAILS (1 OF 4)
6	LIGHTING DETAILS (2 OF 4)
7	LIGHTING DETAILS (3 OF 4)
8	LIGHTING DETAILS (4 OF 4)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

(F.A.P. 0344) IL ROUTE 83 AND PLAINFIELD ROAD
INTERSECTION LIGHTING

SECTION NO. 09-00020-00-LT
PROJECT NO. ARA-9003 (576)
JOB NO. C-91-752-09
DUPAGE COUNTY
VILLAGE OF WILLOWBROOK

TRAFFIC DATA:

2030 ADT = 69,000 VEHICLES (NB IL RT 83)
2030 ADT = 66,000 VEHICLES (SB IL RT 83)
2030 ADT = 22,000 VEHICLES (EB PLAINFIELD RD)
2030 ADT = 23,000 VEHICLES (WB PLAINFIELD RD)

POSTED SPEED LIMIT = 45 MPH (IL RT 83)
POSTED SPEED LIMIT = 40 MPH (PLAINFIELD RD)

LIST OF STATE STANDARDS LOCATED ON SHEET NO. 3

PROJECT LOCATED IN THE
VILLAGE OF WILLOWBROOK
AND THE CITY OF DARIEN

THE CONTRACTOR SHALL BE SOLELY
RESPONSIBLE FOR JOB SITE SAFETY AS
WELL AS SUPERVISION/DIRECTION AND
MEANS/METHODS OF CONSTRUCTION.

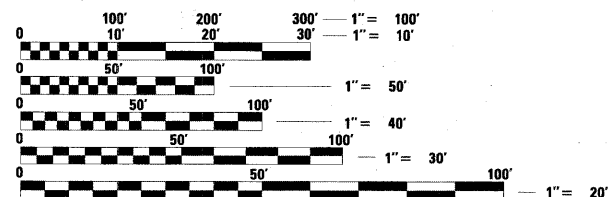
CALL JULIE 1-800-892-0123
WITH THE FOLLOWING:

COUNTY DUPAGE

CITY-TOWNSHIP DARLEN NORTH TOWNSHIP

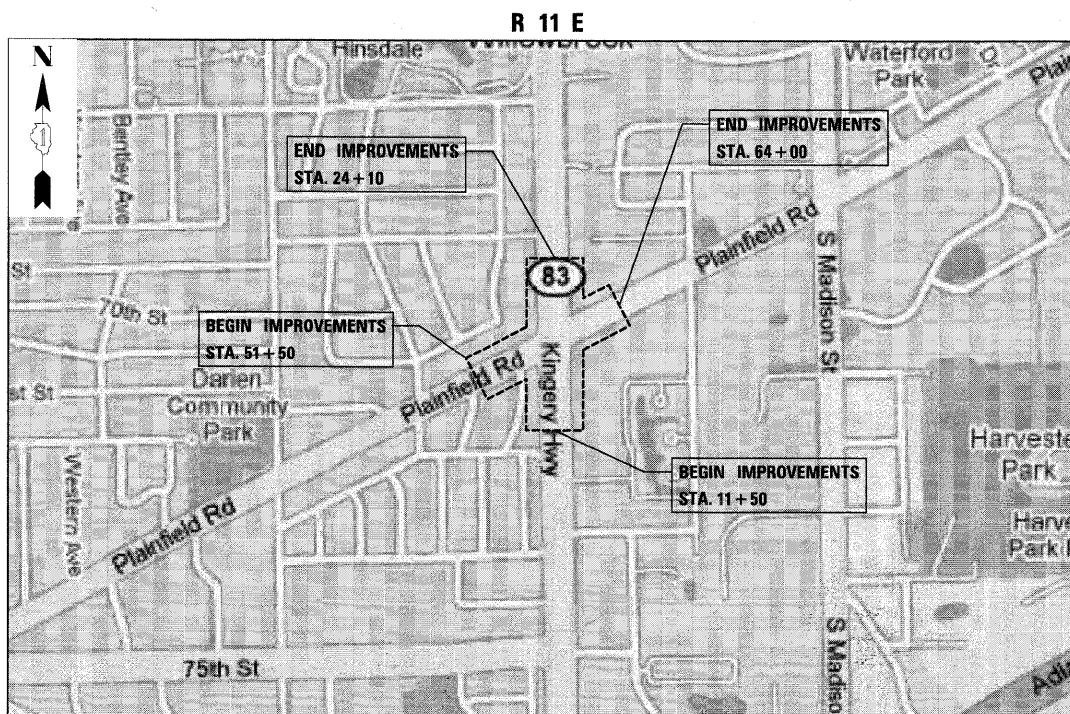
SEC. & 1/4 SEC. NO. S.E. 1/4 OF 23, T38N R11E
S.W. 1/4 OF 23, T38N R11E

48 HOURS BEFORE YOU DIG,
EXCLUDING SAT., SUN., & HOLIDAYS



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.

CONTRACT NO. 63402



LOCATION MAP

NET LENGTH OF IMPROVEMENT = 2,500 LINEAL FEET = 0.58 MILES
GROSS LENGTH OF IMPROVEMENT = 2,500 LINEAL FEET = 0.58 MILES



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED NOVEMBER 25 2009
Robert A. Napoli
VILLAGE OF WILLOWBROOK / PRESIDENT

PASSED DECEMBER 3 2009
Christopher B. Burke
DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR
BID BASED ON
LIMITED REVIEW DECEMBER 4, 2009
Diana M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER



ANTHONY J. DERICCO P.E. 11-25-09
ELECTRICAL ENGINEER DATE
Anthony J. DeRicco
ILLINOIS REGISTRATION NO. 062-057484
EXPIRATION DATE: 11-30-2011

CB CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500


PROFESSIONAL DESIGN FIRM NO. 184-001175
EXPIRATION DATE: 04/30/11

FIELD ENGINEER: MARILIN SOLOMON (847) 705-4407

SUMMARY OF QUANTITIES

CODE NO.	DESCRIPTION	UNIT	Y030-1E QUANTITY
21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	500
21301048	EXPLORATION TRENCH 48" DEPTH	FOOT	20
25000210	SEEDING, CLASS 2A	ACRE	0.1
25000400	NITROGEN FERTILIZER NUTRIENT	LB	9
25000500	PHOSPHORUS FERTILIZER NUTRIENT	LB	9
25000600	POTASSIUM FERTILIZER NUTRIENT	LB	9
25100630	EROSION CONTROL BLANKET	SQ YD	500
* 42400200	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SQ FT	325
* 44000600	SIDEWALK REMOVAL	SQ FT	325
* 44201785	CLASS D PATCHES, TYPE 1, 12 INCH	SQ YD	15
67100100	MOBILIZATION	L SUM	1
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	70
81018600	CONDUIT PUSHED, 2 1/2" DIA. GALV. STEEL	FOOT	75
81018900	CONDUIT PUSHED, 4" DIA. GALV. STEEL	FOOT	380
81400730	HANDHOLE, COMPOSITE CONCRETE	EACH	5
81702400	ELECTRIC CABLE IN CONDUIT, 600V, (XLP-TYPE USE) 3-1/C NO. 2	FOOT	85
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	60
82102400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	26
82500350	LIGHTING CONTROLLER, BASE MOUNT, 100AMP-240 VOLT	EACH	1
83050810	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15 FT. MAST ARM	EACH	26
83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	260
83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	26
X8210405	LUMINAIRE SHIELD	EACH	3
XX006937	GROUND ROD, 5/8" X 10 FT.	EACH	26
81603104	UNIT DUCT, 600 V, 1/4" HDPE, WITH 4/C #6 & 1/C #6 GND XLP TYPE USE,	FOOT	5040

* SPECIALTY ITEMS




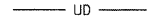

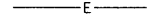


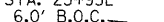








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 Rosemont, Illinois 60018
 (847) 823-0500

FILE NAME =	USER NAME = ADERICCO	DESIGNED <i>AJD</i>	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL RT. 83 AND PLAINFIELD ROAD INTERSECTION LIGHTING SUMMARY OF QUANTITIES	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
N:\WILLLOWBROOK\290244\Mech\090244_Summary.tld		DRAWN <i>KWB</i>	REVISED -			0344	09-00020-00-LT		8	2	
		CHECKED <i>AJD</i>	REVISED -			SCALE: N.T.S.		SHEET NO. 2 OF 6 SHEETS		STA. TO STA.	
		DATE <i>11-17-2009</i>	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

LIGHTING GENERAL NOTES

1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/ DIRECTION AND MEANS/METHODS OF CONSTRUCTION.
2. ALL POLE HANDHOLES SHALL FACE AWAY FROM TRAFFIC.
3. UNIT DUCT SHALL BE 1/4" DIAMETER SCH 40 HDPE WITH 4/C #6 & 1/C #6 GROUND XLP-TYPE USE CABLES, OR AS SHOWN ON PLANS.
4. LUMINAIRES SHALL BE LEVEL & HAVE A TIGHT FIT ON MAST ARMS TO THE OWNER'S SATISFACTION. THIS WORK SHALL INCLUDE FIELD ADJUSTING OF THE LUMINAIRE WHICH WILL BE INCIDENTAL TO THE "LUMINAIRE" PAY ITEM.
5. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A PERMIT FROM THE VILLAGE OF WILLOWBROOK BEFORE THE START OF WORK, ANY COST FOR PERMIT SHALL BE INCIDENTAL.
6. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS, WHICH ARE HEREBY MADE A PART HEREOF:
 - A. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS", AS PREPARED BY IDOT.
 - B. "THE NATIONAL ELECTRICAL CODE".
 - C. MUNICIPAL CODES & STANDARDS.
7. NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED SUFFICIENTLY.
8. TO MAINTAIN THE STRUCTURAL INTEGRITY OF LIGHT POLES WITH MAST ARMS, THEY SHALL NOT BE ERECTED AND LEFT TO STAND WITHOUT LUMINAIRES.
9. NO MATERIALS SHALL BE DELIVERED TO THE JOB SITE UNTIL ALL PERTINENT EQUIPMENT SUBMITTALS HAVE BEEN REVIEWED BY THE OWNER'S REPRESENTATIVE.
10. 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.
11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLES AND LIGHTING CONTROLLERS FOR EXAMINATION AND CONFIRMATION WITH THE OWNER'S REPRESENTATIVE. ALL UTILITIES SHALL BE LOCATED PRIOR TO MARKING PROPOSED LOCATIONS.
12. GROUNDING CONNECTIONS AT THE FOUNDATION SHALL BE MECHANICAL TYPE UL LISTED FOR DIRECT BURIAL USE, AS SPECIFIED, AND SHALL BE REVIEWED BY THE OWNER'S REPRESENTATIVE PRIOR TO POURING CONCRETE OR BACKFILLING, AS APPLICABLE.
13. THE INSTALLATION OF BURIED WARNING TAPE, SPECIFIED AS PART OF "TRENCH AND BACKFILL FOR ELECTRICAL WORK", SHALL BE REVIEWED BY THE RESIDENT ENGINEER PRIOR TO BACKFILLING OR DURING PLOWING OPERATIONS, AS APPLICABLE.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF THE TOP OF FOUNDATION ELEVATION WITH THE FINISHED GRADE.
15. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR TIMELY NOTIFICATION AND COORDINATION WITH THE ELECTRICAL UTILITY COMPANY FOR SERVICE TO THE PROPOSED LIGHTING SYSTEM(S).
16. THE CONTRACTOR SHALL LABEL ALL WIRES WITH WIRE MARKERS INDICATING THE CIRCUIT ID IN EVERY CONTROLLER, POLE BASE, HAND HOLE AND SPLICE/CONNECTION POINT. WIRE MARKERS SHALL BE MECHANICALLY FASTENED WHITE PLASTIC, TYPE "PLM" AS MANUFACTURED BY PANDUIT OR APPROVED EQUAL.
17. EQUIPMENT GROUND CONDUCTORS SHALL BE SPLICED AND BONDED AT EACH LIGHT POLE OR OTHER PIECE OF EQUIPMENT.
18. THE LIGHTING CONTROLLER TOGETHER WITH ALL OF ITS COMPONENTS SHALL BE UL LISTED AS AN "INDUSTRIAL CONTROL PANEL" UNDER UL508A.
19. ALL DISTURBED AREA WHERE RESTORATION IS NOT COVERED BY APPLICABLE SECTIONS OF THE SPECIAL PROVISIONS MUST BE RESTORED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE. THE WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT. SEPARATE PAYMENT WILL NOT BE MADE.
20. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS INCLUDING ALL ABOVE AND BELOW GRADE APPURTENANCES. THE CONTRACTOR SHALL REPAIR ALL DAMAGE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
21. THE WORK PERFORMED UNDER THIS CONTRACT SHALL IN NO WAY INTERFERE WITH THE NORMAL OPERATION OF ANY EXISTING UTILITY SERVICE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ITEMS OF EQUIPMENT REQUIRED TO MAINTAIN SUCH NORMAL OPERATION AT NO ADDITIONAL COST TO THE OWNER. THE COST ASSOCIATED FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONTRACT.
22. THE ELECTRICAL CONTRACTOR SHALL FURNISH TWO SETS OF FULL SIZE RECORD DRAWINGS TO THE OWNER'S REPRESENTATIVE UPON COMPLETION OF THE LIGHTING AND ELECTRICAL IMPROVEMENTS. THE DRAWINGS SHALL SHOW THE INSTALLED LOCATIONS OF ALL LIGHT POLES, UNDERGROUND CONDUITS/WIRING, HANDHOLES, JUNCTION BOXES & CONTROLLER CABINETS. THE DRAWINGS WILL BE REVIEWED BY THE OWNER'S REPRESENTATIVE.
23. THE CONTRACTOR SHALL PERFORM ELECTRICAL TESTING AND VERIFY THAT THE INSTALLTION COMPLIES WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS.

LEGEND

     	PROPOSED 400W HIGH PRESSURE SODIUM COBRA HEAD TYPE LUMINAIRE ON A 47.5' ROADWAY TYPE SPUN TAPERED ALUMINUM POLE (REFER TO LIGHT STANDARD DETAIL FOR MODEL INFORMATION) PROPOSED 100A-120/240V-1Ø LIGHTING CONTROLLER PROPOSED COMPOSITE CONCRETE HANDHOLE PROPOSED 4/C #6 & 1/C #6 GND IN 1/4" SCH 40 HDPE UNIT DUCT, BORED AND PULLED, TYP. PROPOSED UNIT DUCT INSIDE 2 1/2" OR 4" RIGID GALVANIZED STEEL (RGS) CONDUIT SLEEVE (P) PUSHED OR (T) TRENCHED PROPOSED RGS ELECTRIC SERVICE CONDUIT	 POLE NUMBER  CIRCUIT IDENTIFIER  STATION LOCATION  OFFSET (FROM BACK OF CURB)  EXISTING SANITARY SEWER  EXISTING STORM SEWER  EXISTING WATERMAIN  EXISTING GAS LINE  EXISTING OVERHEAD WIRES  EXISTING PETROLEUM PIPELINE
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LIST OF HIGHWAY STANDARDS

NO.	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
442201-03	CLASS C & D PATCHES
701606-06	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-01	TRAFFIC CONTROL DEVICES
814001-02	HANDHOLES

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS @ Ndes
PATCHING	
CLASS D PATCHES (HMA BINDER IL-19 mm)	4% @ 70 Gyr.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
 THE *AC TYPE* FOR POLYMERIZED HMA MIXES SHALL BE *SBS/SBR PG 70 -22* AND FOR NON-POLYMERIZED HMA THE *AC TYPE* SHALL BE *PG 64 -22* UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR *PERCENT OF RAP* SEE DISTRICT ONE SPECIAL PROVISIONS.



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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0344	09-00020-00-LT	DUPAGE	8	3
CONTRACT NO. 63402				

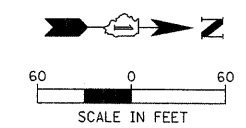
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N:\WILLOWBROOK\090244\Mech\090244.GenNotes.dwg		DRAWN <i>KWB</i>	REVISED -
	PLOT SCALE = 28'	CHECKED <i>AJD</i>	REVISED -
	PLOT DATE = 11/25/2009	DATE <i>11-17-2009</i>	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL RT. 83 AND PLAINFIELD ROAD INTERSECTION LIGHTING
GENERAL NOTES, LEGEND AND HIGHWAY STANDARDS**

SCALE: N.T.S. SHEET NO. 2 OF 6 SHEETS STA. TO STA.

FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT



- NOTES:
1. PROVIDE LUMINAIRE HOUSE SIDE SHIELDS FOR LIGHT POLES P5, P6 & P7.
 2. PROVIDE A SPARE RACEWAY IN ALL END OF RUN POLE FOUNDATIONS.

**PROJECT LIMITS
STA. 51 + 50**

**PROJECT LIMITS
STA. 11 + 50**

**PROJECT LIMITS
STA. 24 + 10**

**PROJECT LIMITS
STA. 64 + 00**

LEGEND

- PROPOSED 400W HIGH PRESSURE SODIUM COBRA HEAD TYPE LUMINAIRE ON A 47.5' ROADWAY TYPE SPUN TAPERED ALUMINUM POLE (REFER TO LIGHT STANDARD DETAIL FOR MODEL INFORMATION)
- PROPOSED 100A-120/240V-1Ø LIGHTING CONTROLLER
- PROPOSED COMPOSITE CONCRETE HANDHOLE
- UD— PROPOSED 4/C #6 & 1/C #6 GND IN 1/4" SCH 40 HDPE UNIT DUCT, BORED AND PULLED, TYP.
- RGS— PROPOSED UNIT DUCT INSIDE 2 1/2" OR 4" RIGID GALVANIZED STEEL (RGS) CONDUIT SLEEVE (P) PUSHED OR (T) TRENCHED
- E— PROPOSED RGS ELECTRIC SERVICE CONDUIT
- POLE NUMBER
- A— CIRCUIT IDENTIFIER
- S— STATION LOCATION
- O— OFFSET (FROM BACK OF CURB)
- SS— EXISTING SANITARY SEWER
- SS— EXISTING STORM SEWER
- WM— EXISTING WATERMAIN
- GL— EXISTING GAS LINE
- OW— EXISTING OVERHEAD WIRES
- PP— EXISTING PETROLEUM PIPELINE

**CAUTION
NOTICE TO CONTRACTOR**

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND/OR ELEVATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THESE PLANS. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. UNDERGROUND PETROLEUM LINES EXISTING ALONG THE NORTH AND SOUTH SIDE OF IL RT 83, THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ENGINEER OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS.

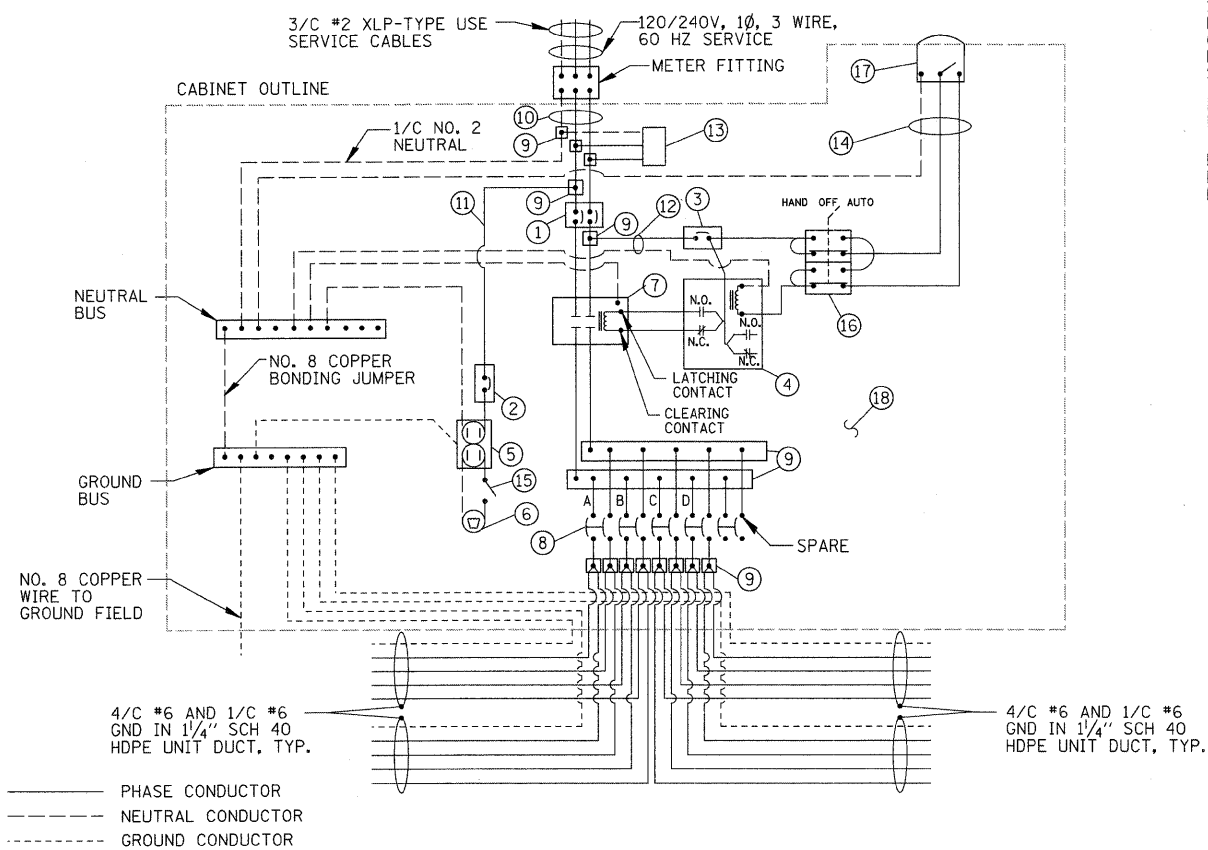
FILE NAME =	USER NAME = ADERICCO	DESIGNED = AJD	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL RT. 83 AND PLAINFIELD ROAD INTERSECTION LIGHTING LIGHTING PLAN	F.A.U. R.T.E. = 0344	SECTION = 09-00020-00-LT	COUNTY = DUPAGE	TOTAL SHEETS = 8	SHEET NO. = 4		
PLLOT SCALE = 60'	DRAWN = KWB	CHECKED = AJD	REVISED =			SCALE: 60'	SHEET NO. 3 OF 6 SHEETS	STA. TO STA.	CONTRACT NO. 63402			
PLLOT DATE = 11/25/2009	DATE = 11-17-2009					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						
						CHRISTOPHER B. BURKE ENGINEERING, LTD. 9575 W. Higgins Road, Suite 600 Rosemont, Illinois 60018 (847) 823-0500						

ITEM	SPECIFICATION	MFG./MODEL NO. OR APPROVED EQUAL
① MAIN CIRCUIT BREAKER	100 AMPERE, 2P, 240V SERVICE RATING, 22KAIC	SIEMENS NO. ED42B100
② LAMPHOLDER CIRCUIT BREAKER	20 AMPERE, 1P, 120V RATING, 22KAIC	SIEMENS NO. ED41B020
③ PHOTOELECTRIC CONTROL CIRCUIT BREAKER	15 AMPERE, 1P, 120V RATING, 22KAIC	SIEMENS NO. ED41B015
④ AUXILIARY RELAY	120 V OPERATED DPDT 60 HZ COIL 2 NO & 2 NC CONTACTS	MAGNECRAFT NO. 389 FXBXC1 - 120A
⑤ CABINET RECEPTACLE AND BOX	COMMERCIAL GRADE GFCI 20A/120V, MOUNTED IN A WEATHERPROOF CAST ALUMINUM SINGLE GANG BOX WITH WEATHERPROOF COVER	RECEPTACLE: LEVITON NO. 8899, BOX: APPLETON NO. WSM150 COVER: APPLETON NO. WHG1
⑥ CABINET LIGHT AND BOX	120V WEATHERPROOF LAMPHOLDER MOUNTED IN A CAST ALUMINUM BOX & EXT. GRADE 100W LAMP	LIGHT & BOX: RAB NO. VX100DG
⑦ CONTACTOR	100 AMPERE, 2 POLE, 120 V COIL, MECH HELD	SQUARE D NO. 8903 SQO 10 V02
⑧ BRANCH LINE CIRCUIT BREAKERS	5 - 30 AMPERE, 2P, 240V RATING, 22KAIC	SIEMENS NO. ED42B030
⑨ POWER DISTRIBUTION BLOCK	600 VOLT, INSULATED, SIZE AS REQUIRED	MARATHON
⑩ SERVICE CABLES	3-600V (XLP-TYPE USE) NO. 2	N/A
⑪ LAMPHOLDER WIRE	2-600V XLP NO. 12	N/A
⑫ CONTROL WIRE	2-600V XLP NO. 12	N/A
⑬ SURGE ARRESTOR	10 K AMPERE RATING	SQUARE D NO. SDSA 1175
⑭ PHOTOELECTRIC CONTROL WIRE	3-600V XLP NO. 12	N/A
⑮ DOOR SWITCH	20A/120V, DOOR MOUNTED SNAP ACTION TYPE PLUNGER SWITCH	OMRON NO. A-20GQ-K
⑯ HAND-AUTO-OFF CONTROL SWITCH	20A, 3 POS. MTD IN CAST ALUM. ENCLOSURE	SQUARE D NO. 9001 KYK 111
⑰ PHOTOCCELL	120V, MTD. ON CABINET, DELAY TYPE, SPST-NC	FISHER PIERCE NO. FPFA-105M
⑱ BACK PANEL	1/2" THICK SOLID PHENOLIC LAMINATE	ARBORON

NOTES:

- ALL ITEMS LISTED IN LIGHTING CONTROLLER COMPONENT SCHEDULE SHALL BE CONSIDERED INCIDENTAL TO THE PRICE BID FOR "LIGHTING CONTROLLER" INCLUDING CABINET AND FOUNDATION.
- THE LIGHTING CONTROLLER TOGETHER WITH ALL OF ITS COMPONENTS SHALL BE UL LISTED AS AN "ENCLOSED INDUSTRIAL CONTROL PANEL" UNDER UL508A.
- CONNECTION OF SURGE ARRESTOR TO LINE SIDE OF MAIN CIRCUIT BREAKER SHALL NOT BE "DOUBLE LUGGED."

LIGHTING CONTROLLER COMPONENT SCHEDULE



LIGHTING CONTROLLER WIRING DETAIL

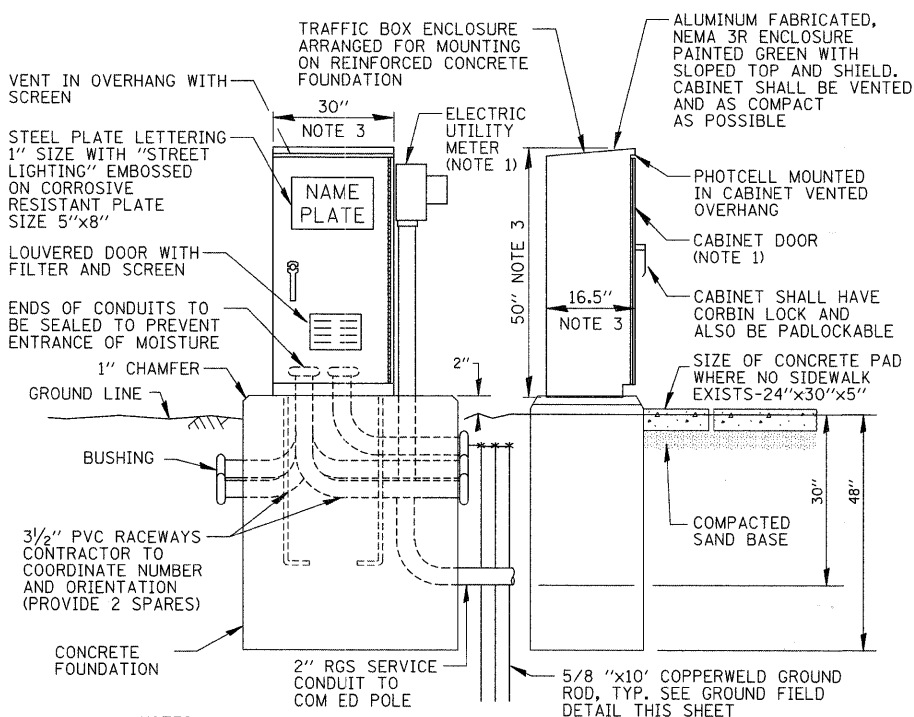
N.T.S.

CIRCUIT ID	400W ROADWAY LUMINAIRE		TOTAL CIRCUIT LOAD	
	QTY.	LOAD/FIXT. (WATTS)	(WATTS)	AMPS (VOLTS)
A	8	460 W	3,680 W	15.3A (240V)
B	6	460 W	2,760 W	11.5A (240V)
C	5	460 W	2,300 W	9.6A (240V)
D	7	460 W	3,220 W	13.4A (240V)
TOTAL	26	N/A	11,960 W	49.8A (240V)

LIGHTING CONTROLLER CIRCUIT LOADS

NOTE:

ALL CONDUCTORS IN THE UNIT DUCT RUNS SHALL HAVE INDIVIDUALLY COLOR CODED INSULATION THROUGHOUT THE ENTIRE LENGTH OF THE CONDUCTOR. THE COLOR IDENTIFICATION FOR THE SYSTEM GROUND SHALL BE GREEN. THE FOUR (4) PHASE CONDUCTORS SHALL BE IN ACCORDANCE WITH VILLAGE AND I.D.O.T. STANDARD PRACTICES FOR WIRING MULTI-CONDUCTOR CIRCUITS IN SINGLE UNIT DUCT RUNS.

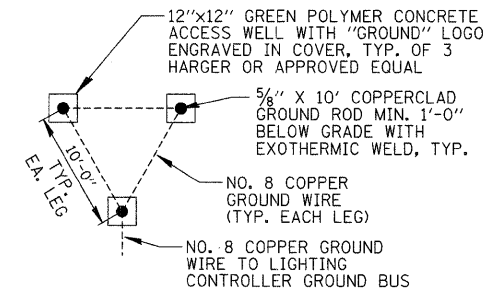


NOTES:

- SEE DETAIL THIS SHEET FOR CABINET METER FITTING & DOOR ORIENTATION.
- ALL ITEMS SHOWN ABOVE (INCLUDING FOUNDATION & GROUND FIELD) SHALL BE INCLUDED IN THE PRICE BID FOR "LIGHTING CONTROLLER", EXCEPT FOR THE SERVICE CONDUIT/WIRE WHICH WILL BE PAID FOR SEPARATELY.
- CABINET DIMENSIONS SHOWN ARE APPROXIMATE, CABINET SHALL BE AS COMPACT AS POSSIBLE, CONTRACTOR TO COORDINATE.

PROPOSED LIGHTING CONTROLLER CABINET AND FOUNDATION

N.T.S.

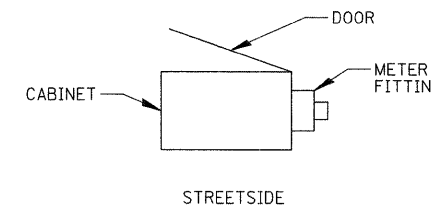


NOTES:

- ACCESS WELLS SHALL BE INCLUDED IN THE LIGHTING CONTROLLER PAY ITEM.

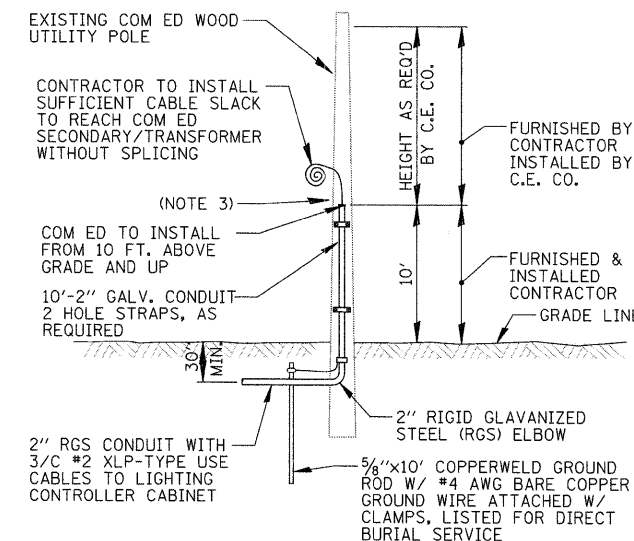
GROUND FIELD DETAIL (TYP.)

N.T.S.



CABINET METER FITTING & DOOR ORIENTATION

N.T.S.



NOTES:

- ALL WORK SHALL CONFORM TO COM ED'S BOOK OF "INFORMATION AND REQUIREMENTS FOR THE SUPPLY OF ELECTRIC SERVICE."
- FURNISHING AND INSTALLING ALL MATERIAL SHOWN ABOVE (EXCEPT FOR POLE) SHALL BE INCLUDED IN THE PRICE BID FOR "ELECTRIC SERVICE INSTALLATION". THE HORIZONTAL SERVICE CONDUIT AND WIRING FROM POLE TO CONTROLLER SHALL BE PAID FOR SEPARATELY.
- CONTRACTOR TO PROVIDE A CONDUIT BUSHING AND SEALING COMPOUND AT TOP OF RISER.

COM ED OVERHEAD CONNECTION POLE

N.T.S.

FILE NAME =	USER NAME = ADERICCO	DESIGNED = AJD	REVISED =
N:\W\LOWBROOK\09244\Mech\09244.Lite	DESIGNED BY = L1dt	DRAWN = KWB	REVISED =
	PLOT SCALE = 20'	CHECKED = AJD	REVISED =
	PLOT DATE = 11/25/2009	DATE = 11-17-2009	REVISED =

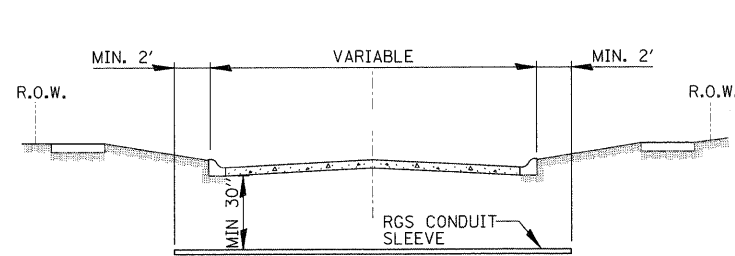
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RT. 83 AND PLAINFIELD ROAD INTERSECTION LIGHTING
LIGHTING DETAILS (1 OF 3)

SCALE: N.T.S. SHEET NO. 4 OF 6 SHEETS STA. TO STA.

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 63402				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

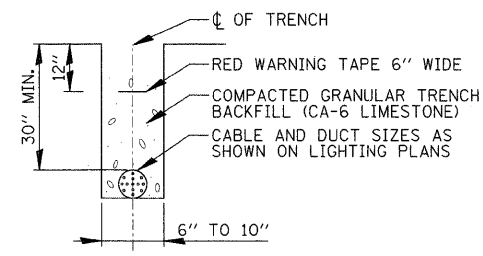


ROADWAY CROSSING

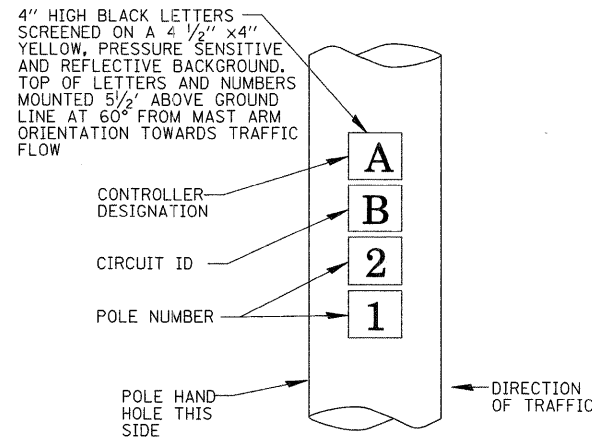
- ① SLEEVE SHALL BE HEAVY WALL RIGID GALVANIZED STEEL (RGS) CONDUIT.
- ② SLEEVE SHALL EXTEND A MINIMUM OF 2 FT. BEYOND BACK OF CURB.
- ③ SLEEVE SHALL BE A MINIMUM OF 30" BELOW ROADWAY OR CURB BOTTOM.

ELECTRIC CONDUIT INSTALLATION

N.T.S.



TRENCH CROSS SECTION

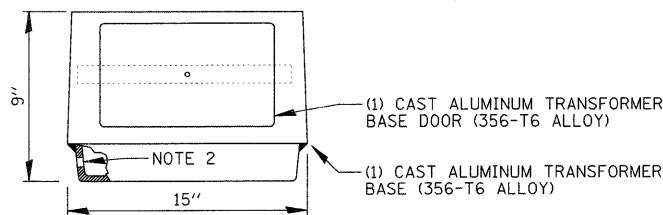


POLE IDENTIFICATION

N.T.S.

LUMINAIRE AND POLE SCHEDULE

LIGHT POLE IDENTIFIER	LUMINAIRE			LOCATION	
	WATTAGE	CKT ID	LUMINAIRE SHIELD	STATION	OFFSET
P1	400W	D	NO	56+95L	12.0' B.O.C.
P2	400W	D	NO	59+63L	6.0' B.O.C.
P3	400W	C	NO	61+50L	8.0' B.O.C.
P4	400W	D	NO	63+75L	8.0' B.O.C.
P5	400W	C	YES	51+60R	6.0' B.O.C.
P6	400W	D	YES	52+95R	6.0' B.O.C.
P7	400W	C	YES	54+40R	6.0' B.O.C.
P8	400W	D	YES	55+80R	9.5' B.O.C.
P9	400W	C	NO	56+65R	7.0' B.O.C.
P10	400W	D	NO	58+85R	6.0' B.O.C.
P11	400W	C	NO	59+63R	6.0' B.O.C.
P12	400W	D	NO	61+50R	6.0' B.O.C.
P13	400W	A	NO	23+95L	6.0' B.O.C.
P14	400W	B	NO	22+10L	6.0' B.O.C.
P15	400W	A	NO	20+05L	11.0' B.O.C.
P16	400W	B	NO	18+67L	6.0' B.O.C.
P17	400W	A	NO	16+75L	6.0' B.O.C.
P18	400W	B	NO	15+85L	6.0' B.O.C.
P19	400W	A	NO	14+10L	6.0' B.O.C.
P20	400W	A	NO	22+10R	6.0' B.O.C.
P21	400W	B	NO	20+05R	6.0' B.O.C.
P22	400W	A	NO	19+30R	10.0' B.O.C.
P23	400W	B	NO	17+30R	4.0' B.O.C.
P24	400W	A	NO	15+85R	4.0' B.O.C.
P25	400W	B	NO	14+10R	4.0' B.O.C.
P26	400W	A	NO	11+95R	6.0' B.O.C.

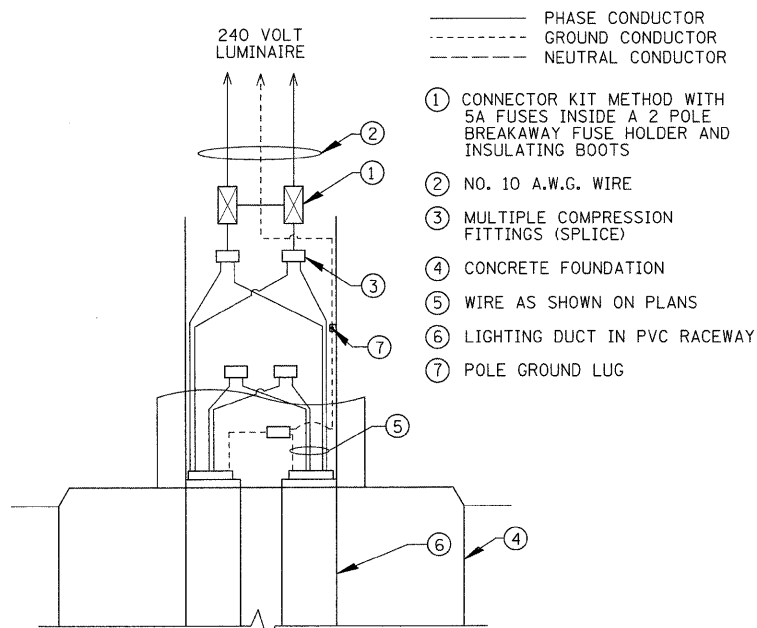


NOTES:

1. BEFORE INSTALLATION OF BREAKAWAY BASE, USER SHOULD CONSULT WITH AUTHORIZED DISTRIBUTOR REGARDING USERS PROPOSED APPLICATION, LOAD REQUIREMENTS AND INSTALLATION METHODS. FAILURES CAN RESULT FROM USERS MISAPPLICATION OR IMPROPER INSTALLATION. TO APPROACH OPTIMUM STATIC LOADS, USE THE LARGEST POSSIBLE BOLT CIRCLES. BREAKAWAY DEVICE SHALL BE IN ACCORDANCE WITH ARTICLE 1070.04(B) OF THE STANDARD SPECIFICATIONS.
2. DRILLED AND TAPPED 1/2" -13 UNC HOLE FOR GROUND CONNECTOR.

TRANSFORMER BASE DETAILS

N.T.S.



POLE HANDHOLE WIRING DIAGRAM

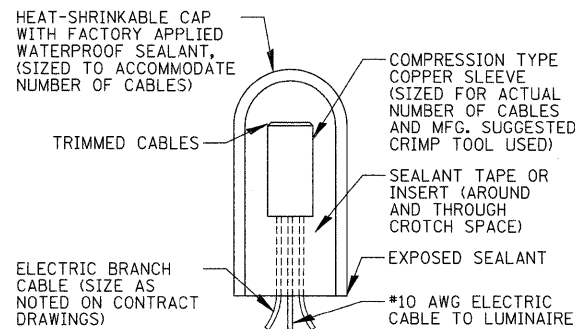
N.T.S.

LUMINAIRE MODEL NO.

MANUFACTURER A	GENERAL ELECTRIC MODEL NO. MDCA-40-S-0-A-1-2-F-MC3-1-U;
MANUFACTURER B	HUBBEL MODEL NO. RLCD-40S38-031-1-2-5FO-M53;

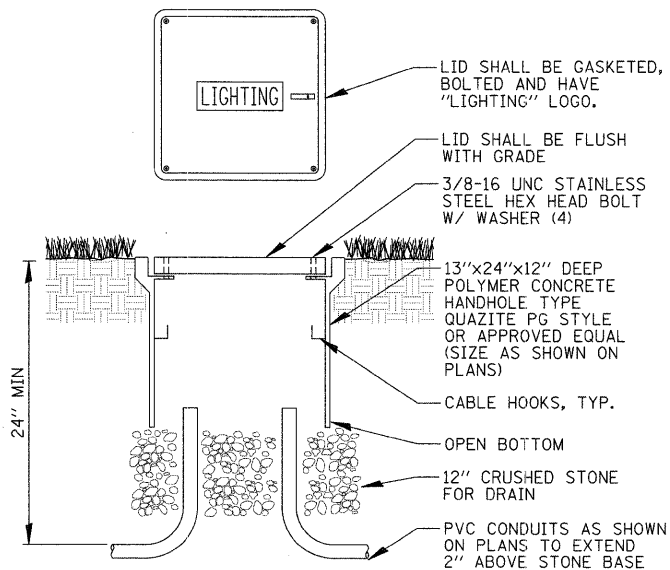
NOTES:

1. ALL LUMINAIRES SHALL HAVE A MULTI-TAP BALLAST WIRED FOR 240 VOLTS OPERATION, AND A 4 BOLT SLIPFITTER.



SPlicing ELECTRIC CABLE

N.T.S.

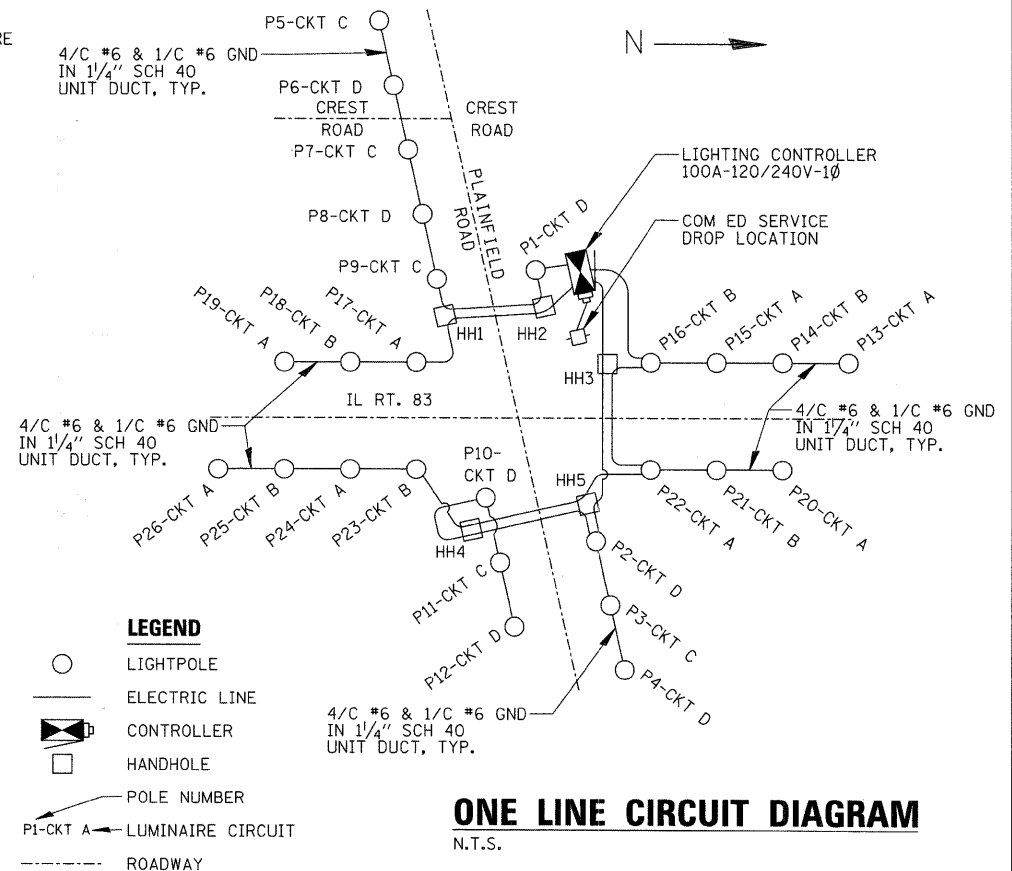


NOTES:

1. NO SPLICES ALLOWED IN CONCRETE HANDHOLES.
2. BOX & LID SHALL MEET/EXCEED ANSI TIER 15 LOADING REQUIREMENTS AND BE UL LISTED.

COMPOSITE CONCRETE HANDHOLE

N.T.S.



LEGEND

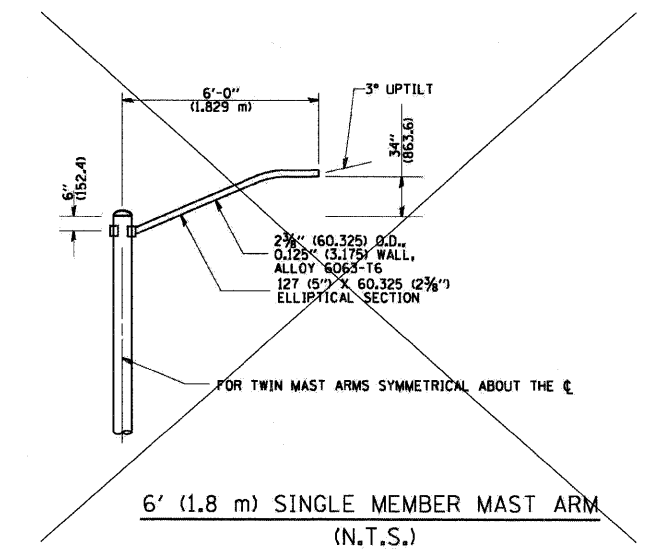
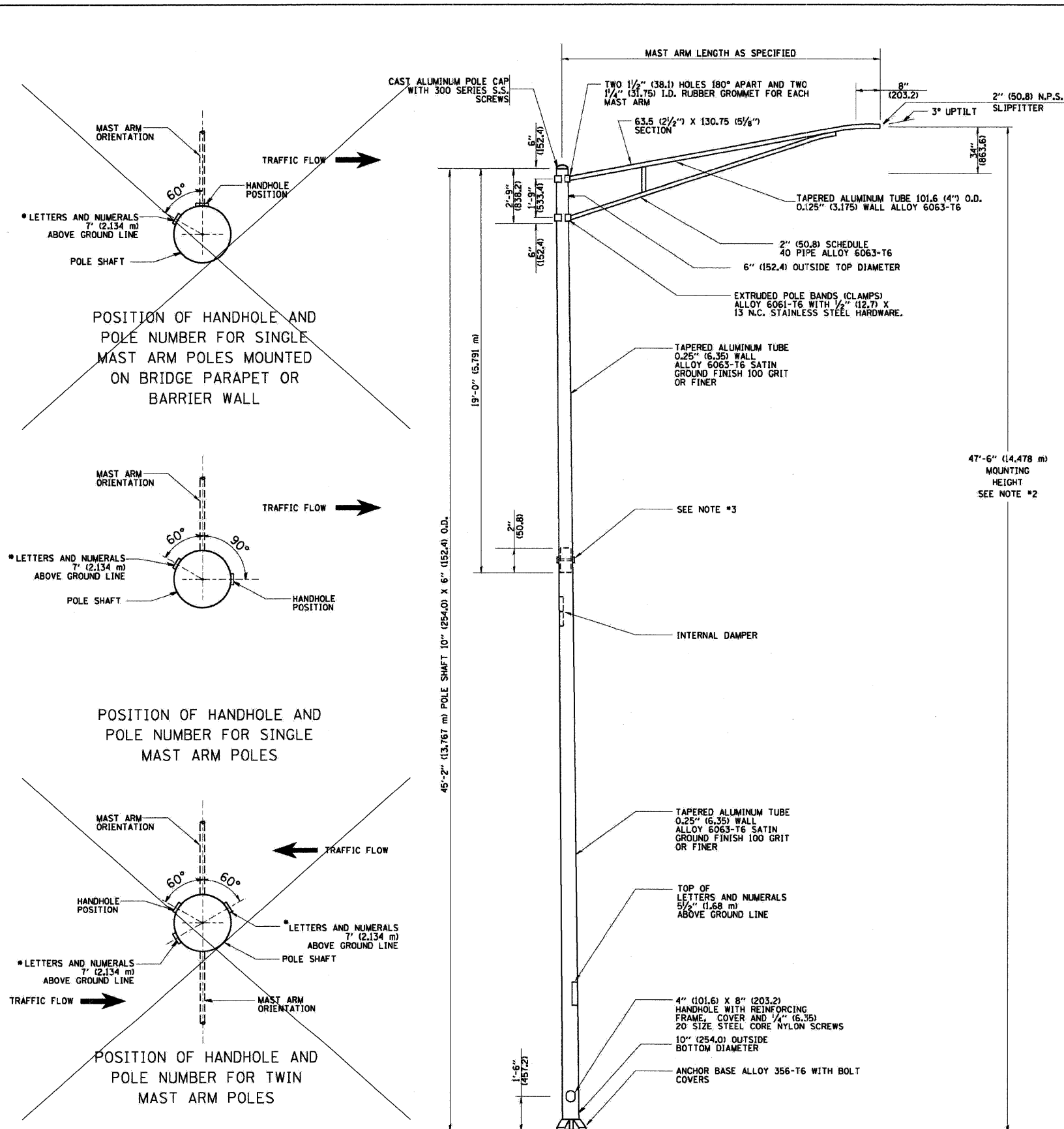
- LIGHTPOLE
- ELECTRIC LINE
- ◻ CONTROLLER
- ◻ HANDHOLE
- POLE NUMBER
- ◁ LUMINAIRE CIRCUIT
- ROADWAY

ONE LINE CIRCUIT DIAGRAM

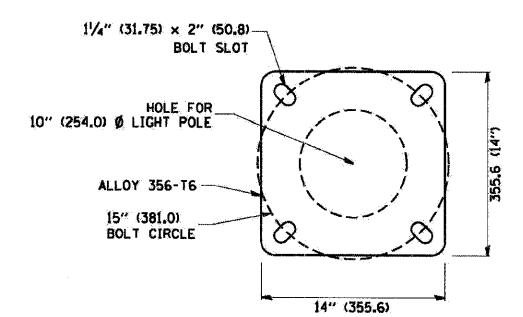
N.T.S.

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

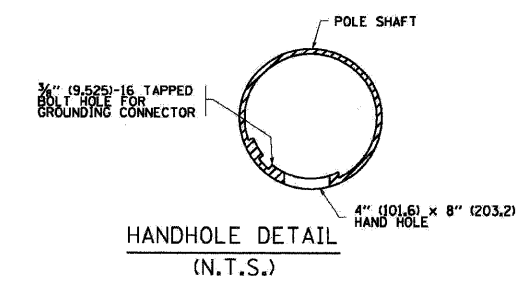
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0344	09-00020-00-LT	DUPAGE	7	8
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



- NOTES:**
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 - MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TOWER TO THE BOTTOM OF THE ANCHOR BASE.
 - TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
 - THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
 - THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
 - LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
 - LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
 - LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



LIGHT POLE BASE PLATE DETAIL
15 INCH (381.0) BOLT CIRCLE



REVISIONS	
NAME	DATE
R. TOMSONS	9-6-00
R. TOMSONS	8-12-03

ILLINOIS DEPARTMENT OF TRANSPORTATION

ALUMINUM LIGHT POLE
47'-6" (14.478 m)
MOUNTING HEIGHT

SCALE: NONE
DATE: 1/19/2007

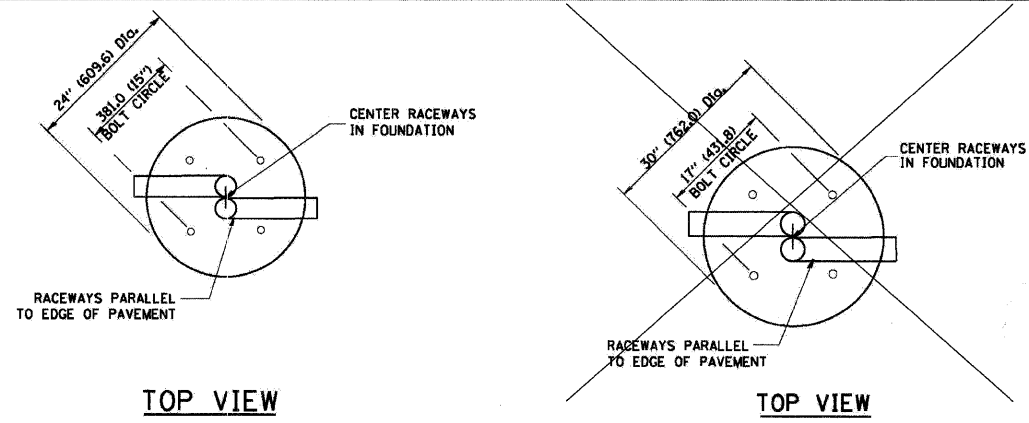
DRAWN BY
CHECKED BY
BE-400
REVISION DATE: 09/02/03

PLOT DATE = 1/19/2007
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USER NAME = ulrichd

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0344	09-00020-00-LT	DUPAGE	8	8
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

LIGHT POLE FOUNDATION DEPTH TABLE
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) 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'-9" (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)

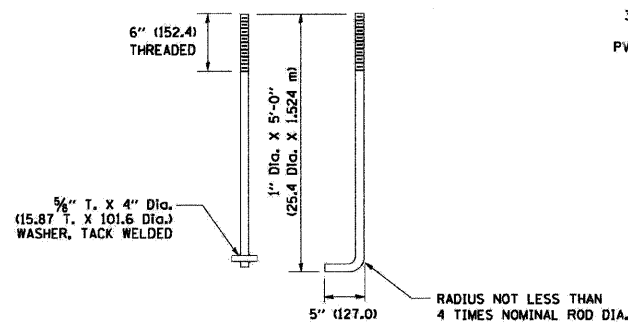


TOP VIEW

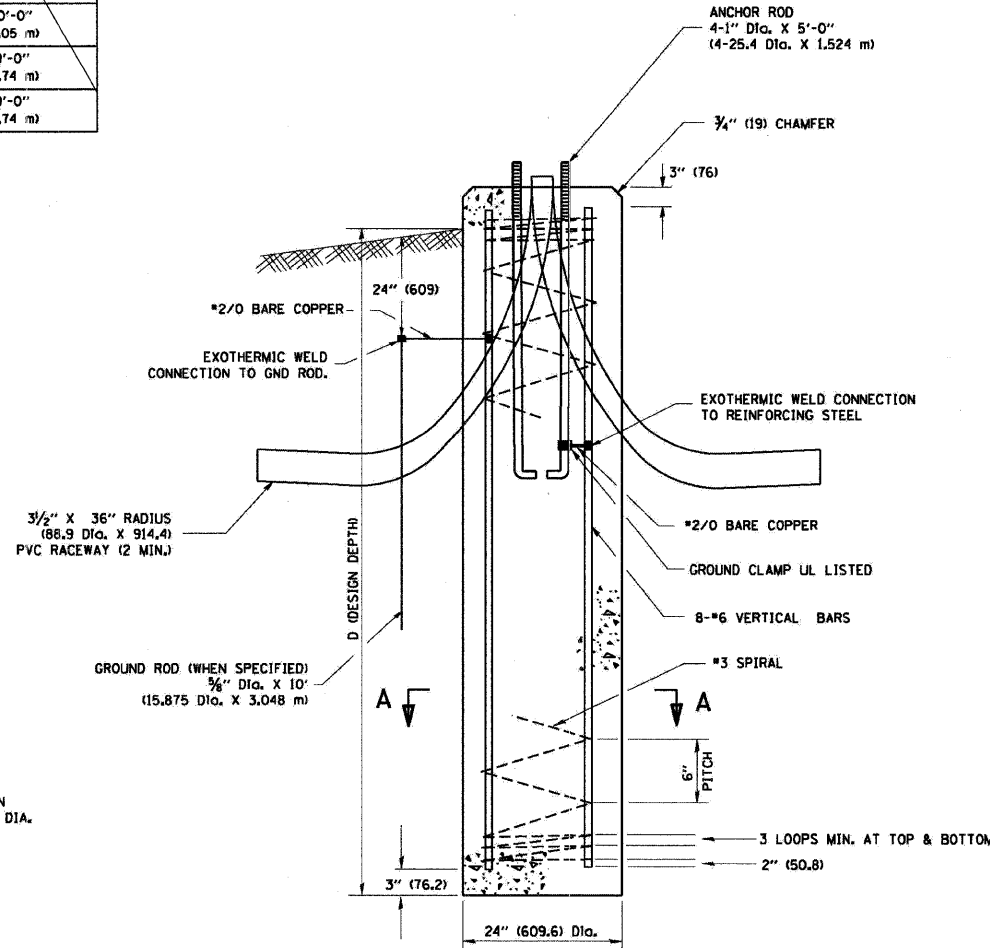
TOP VIEW

NOTES

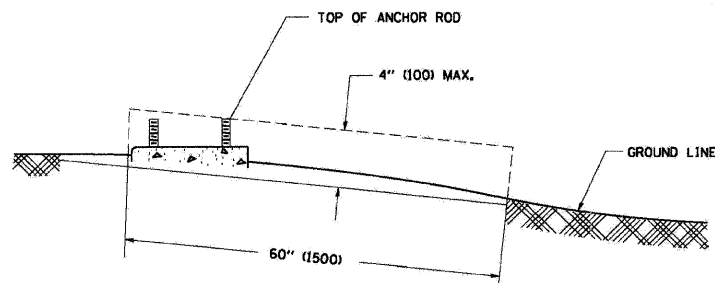
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, 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 S1. 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 298, 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.



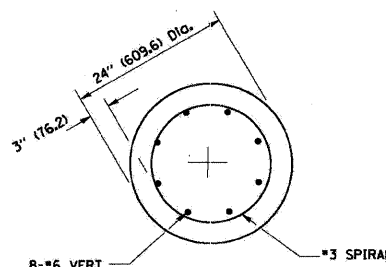
ANCHOR ROD DETAIL



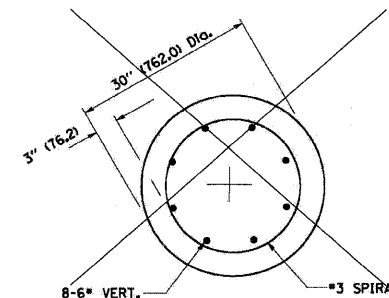
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

REVISIONS	
NAME	DATE
	04/22/02

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHT POLE FOUNDATION
40' (12.192 m) TO 47 1/2' (14.478 m) M.H.
15" (381) BOLT CIRCLE

SCALE: NONE
DRAWN BY
CHECKED BY
BE301

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