

LEE COUNTY  
DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

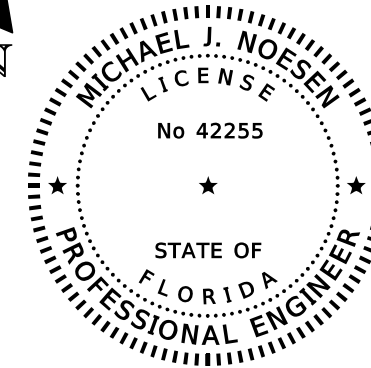
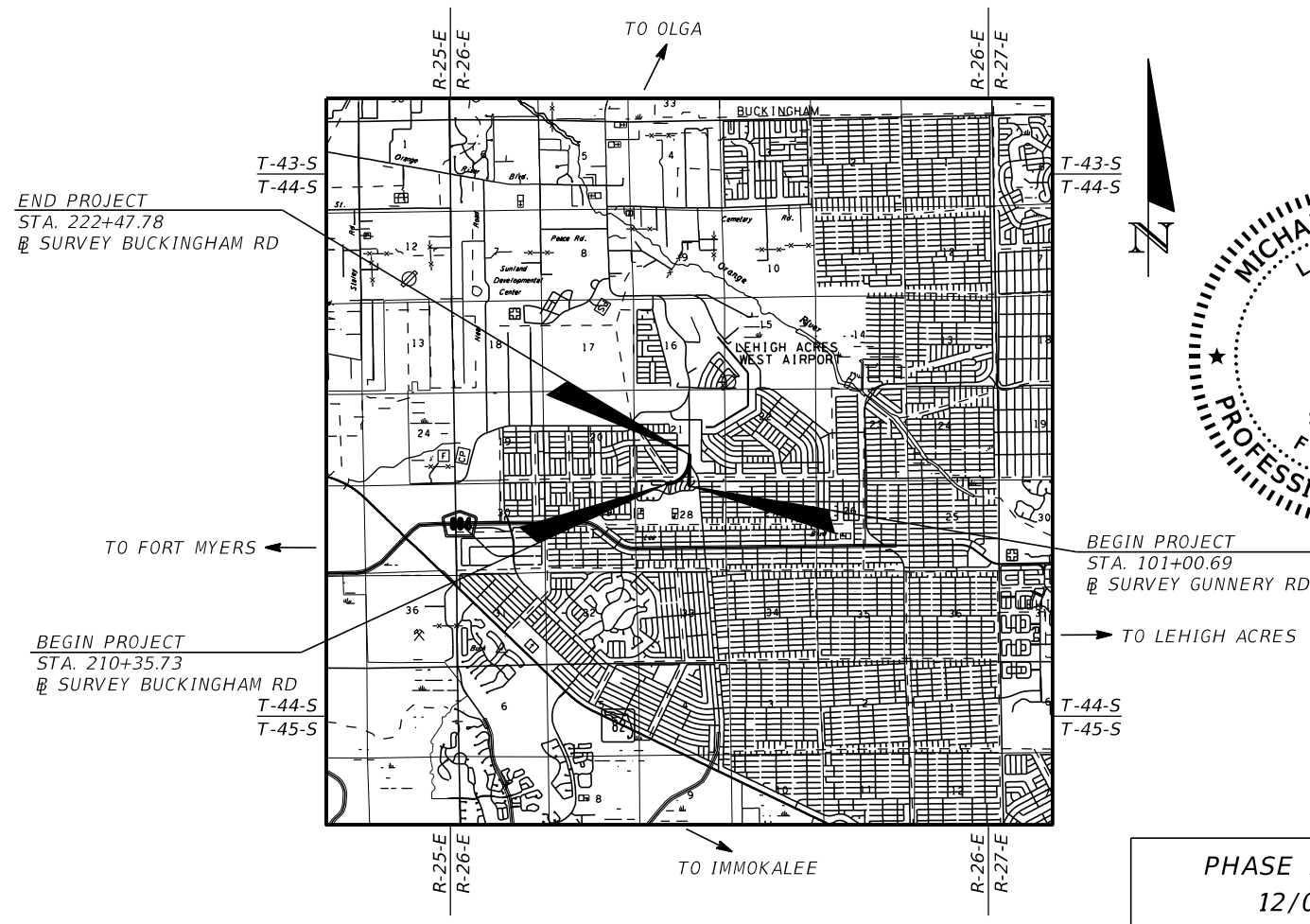
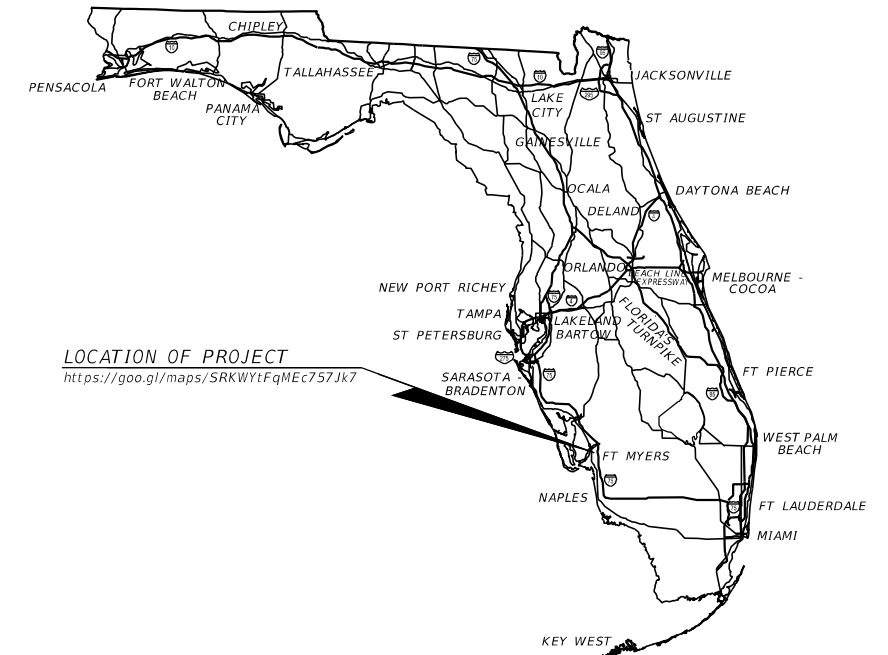
FINANCIAL PROJECT ID 442123-1-58-01  
(FEDERAL FUNDS)

BUCKINGHAM RD AT GUNNERY RD N  
INTERSECTION IMPROVEMENT (ROUNDBOUT)

LIGHTING PLANS

INDEX OF LIGHTING PLANS

SHEET NO.	SHEET DESCRIPTION
L-1	KEY SHEET
L-2	TABULATION OF QUANTITIES
L-3	GENERAL NOTES
L-4	POLE DATA AND LEGEND
L-5 - L-9	LIGHTING PLANS
L-10 - L-11	SERVICE POINT DETAILS



THIS ITEM HAS BEEN DIGITALLY  
SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL  
PRINTED COPIES OF THIS DOCUMENT ARE  
NOT CONSIDERED SIGNED AND SEALED  
AND THE SIGNATURE MUST BE VERIFIED  
ON ANY ELECTRONIC COPIES.

**LIGHTING PLANS**  
**ENGINEER OF RECORD:**  
MICHAEL J. NOESEN, P.E.  
P.E. LICENSE NUMBER 42255  
AYRES ASSOCIATES  
8875 HIDDEN RIVER PKWY., SUITE 200  
TAMPA, FL 33637  
813-978-8688

**LCDOT PROJECT MANAGER:**  
ALEJANDRO J. SLAIBE, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
	21	L-1

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS												TOTAL THIS SHEET		GRAND TOTAL	
			L-5		L-6		L-7		L-8		L-9		PLAN	FINAL	PLAN	FINAL		
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL						
630-2-11	CONDUIT, F& I, OPEN TRENCH	LF	200		1820		195		152		725				3092		3092	
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	LF							216						216		216	
635-2-11	PULL & SPLICE BOX, F&I, 17" X 30" COVER SIZE (LCDOT)	EA	1		15		2		2		4				24		24	
639-1-122	ELECTRICAL POWER SERVICE, F& I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS			1										1		1	
641-2-11	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II, PEDESTAL	EA			1										1		1	
715-1-12	LIGHTING CONDUCTORS, F&I, INSULATED, NO. 8 - 6	LF	672		6492		729		1296		2415				11604		11604	
715-4-13	LIGHT POLE COMPLETE, FURNISH AND INSTALL STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT	EA	1		13		2		4		2				22		22	
715-7-11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA			1										1		1	
715-500-1	POLE CABLE DISTRIBUTION SYSTEM, FURNISH AND INSTALL, CONVENTIONAL	EA	1		13		2		4		2				22		22	

PAY ITEM FOOTNOTES

- PAY ITEM 630-2-11:  
THE CONDUITS SHALL BE FITTED WITH BELL ENDS OR EQUIVALENT FITTINGS PRIOR TO THE PULLING OF ANY WIRE INTO THE CONDUITS.
- PAY ITEM 635-2-11:  
PULL BOXES DESIGNATED WITH (LCDOT) SHALL BE FOR THE PROPOSED LIGHTING SYSTEM MAINTAINED BY LEE COUNTY. THESE PULL BOXES SHALL HAVE "LCDOT STREET LIGHTING" STAMPED IN RAISED LETTERING ON THE PULL BOX COVERS AND INCLUDE A CONCRETE APRON. THE PULL BOX SHALL BE 17" X 30" AND 12" DEEP. THIS PULL BOX SHALL FOLLOW SECTION 635 IN FDOT SPECIFICATIONS.
- PAY ITEM 639-1-122:  
THIS PAY ITEM IS FOR THE COST OF ALL THE POWER SERVICE ASSEMBLY COMPONENTS FOR EACH LOAD CENTER PAID UNDER A SEPARATE PAY ITEM NUMBER.
- PAY ITEM 641-2-11:  
CONCRETE SERVICE POLE FOR THE POWER SERVICE ASSEMBLY SHALL BE 12 FEET.
- PAY ITEM 715-7-11:  
THIS PAY ITEM FOR THE LOAD CENTER SHALL INCLUDE BUT NOT LIMITED TO NEMA 4X POLE MOUNT CABINET, ADDITIONAL ENCLOSURES, PANEL BOARDS, MAIN BREAKER, CIRCUIT BREAKERS, LIGHTNING PROTECTION, PHOTO-ELECTRIC ASSEMBLY, CONTACTOR, H.O.A. SWITCH, CONDUIT AND FEEDER CONDUCTORS FROM THE POWER SERVICE ASSEMBLY TO THE LIGHTING CONTROL PANEL AND ALL MISCELLANEOUS HARDWARE FOR A COMPLETE INSTALLATION. TWO TYPE P-II CONCRETE SERVICE PEDESTALS FOR THE LOAD CENTER ASSEMBLY ARE PAID FOR SEPARATELY.  
  
THE LOAD CENTER SHALL BE A THREE WIRE, SINGLE PHASE XXXV/XXXV POWER SERVICE ASSEMBLY.

REVISIONS				MICHAEL J. NOESEN, P.E. P.E. LICENSE NUMBER 42255 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637		BUCKINGHAM RD AT GUNNERY RD INTERSECTION IMPROVEMENTS (ROUNDABOUT) FINANCIAL PROJECT ID 442123-1-58-01	TABULATION OF QUANTITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION					L-2

LIGHTING GENERAL NOTES

1. ADHERE TO REQUIREMENTS IN "LEE COUNTY DEPARTMENT OF TRANSPORTATION PLAN SPECIFICATIONS FOR SIGNAL & STREET LIGHTING", DATE REVISED APRIL 15, 2014. CONTACT LEE COUNTY DEPARTMENT OF TRANSPORTATION (LCDOT) FOR ANY QUESTIONS REGARDING EQUIPMENT OR INSTALLATION REQUIREMENTS. FOLLOW THE FDOT GOVERNING STANDARDS AND SPECIFICATIONS FOR ALL ITEMS NOT COVERED BY LEE COUNTY SPECIFICATIONS.
2. SPARE CONDUIT AT PAVEMENT CROSSINGS SHALL BE CAPPED AT BOTH ENDS.
3. PRIOR TO ANY EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT, FOR APPROVAL EQUIPMENT SPECIFICATION OR DESIGN DATA FOR ALL MATERIAL PROPOSED FOR THE PROJECT. THE SHOP DRAWINGS AND DESIGN DATA FOR ROADWAY LIGHTING EQUIPMENT SHALL BE SUBMITTED TO THE ENGINEER OF RECORD IN ACCORDANCE WITH THE SPECIFICATIONS.
4. PROVIDE SHOP DRAWINGS OF THE PHOTOMETRIC CALCULATIONS FOR LUMINAIRES OTHER THAN THE BASIS OF DESIGN. SEE POLE DATA AND LEGEND SHEET AND PAY ITEM FOOTNOTES FOR ADDITIONAL INFORMATION. MEET ALL PHOTOMETRIC REQUIREMENTS IN THE CONTRACT DOCUMENTS.
5. THE LOCATIONS OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, ARE APPROXIMATE AND BASED ON THE INFORMATION FURNISHED TO THE ENGINEER BY THE UTILITY OWNER(S) AND ARE SHOWN AS NOTICE TO THE CONTRACTOR THAT UNDERGROUND UTILITIES EXIST. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY OWNER(S) FOR LOCATION AND STAKING OF UNDERGROUND FACILITIES BEFORE EXCAVATING.
6. BEFORE EXCAVATING, IT IS REQUIRED THAT NOTICE BE GIVEN TO SUNSHINE STATE ONE CALL OF FLORIDA, INC. (SSOCOF) AT 1-800-432-4770 A MINIMUM OF TWO (2) FULL BUSINESS DAYS BEFORE WORK BEGINS. NOT ALL UTILITY COMPANIES ARE MEMBER OF SSOCOF.
7. THE LOCATION OF THE POLES, CONDUCTORS, CONDUITS AND JUNCTION BOXES ARE DIAGRAMMATIC ONLY AND MAY BE SHIFTED WITHIN THE RIGHT-OF-WAY BY THE CONTRACTOR WITH APPROVAL FROM THE ENGINEER TO ACCOMMODATE LOCAL CONDITIONS AND EXISTING UTILITY LOCATIONS. THE MAINTENANCE SLAB ORIENTATION SHALL BE DETERMINED BY THE CONTRACTOR PER INDIVIDUAL POLE LOCATION.
8. ALUMINUM POLES, LUMINAIRES AND BASES SHALL BE FABRICATED IN ACCORDANCE WITH AASHTO'S "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", AND SHALL HAVE BEEN TESTED BY FHWA APPROVED METHODS (LATEST EDITION). CERTIFICATION FOR TESTS SHALL BE SUBMITTED WITH THE SHOP DRAWINGS.
9. ALL ELECTRICAL WORK SHALL MEET ALL REQUIREMENTS OF THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC), THE NATIONAL ELECTRICAL SAFETY CODE (NESC) AND THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ALL COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER NEC REQUIREMENTS.
10. IN ACCORDANCE WITH NEC, IDENTIFY ALL CIRCUITS AND EQUIPMENT WITH "LAMACOID TAGS". INSTALL SIMILAR TAGS OF STAINLESS STEEL IDENTIFYING THE CIRCUIT FOR EACH LUMINAIRE AT ACCESS HAND HOLE FOR EACH POLE.
11. NOTIFY FLORIDA POWER AND LIGHT (FP&L) AT LEAST THREE (3) FULL BUSINESS DAYS PRIOR TO ANY INSTALLATION THAT IS WITHIN THE DISTANCE PER CURRENT OSHA REQUIREMENTS OF ENERGIZED ELECTRICAL CONDUCTORS. FP&L, AT ITS OPTION, WILL ASSIST THE CONTRACTOR TO COVER UP ENERGIZED CONDUCTORS AT INSTALLATION SITES OR TAKE OTHER SAFETY PRECAUTIONS AS NECESSARY. EXTREME CAUTION SHALL BE EXERCISED AT ALL TIMES IN PERFORMANCE OF WORK AROUND THE PRIMARY HIGH VOLTAGE COMPONENTS.
12. OVERHEAD FACILITIES ARE TO REMAIN ENERGIZED AND IN PLACE. TABLE "A", MINIMUM CLEARANCE DISTANCES SPECIFIED IN SUBPART CC OF OSHA RULE 1926 (AS THEY PERTAIN TO CRANE/DERRICK OPERATIONS), AND/OR THOSE MINIMUM DISTANCES SPECIFIED IN 29 CRF1910.333(c)(3)(i)(A) AND (iii)(A) FOR WORK IN PROXIMITY TO POWER LINES NOT COVERED BY THIS SUBPART CC, ARE TO BE MAINTAINED.
13. THE POWER SERVICE CONDUIT AND CABLE SHALL BE INSTALLED FROM THE PROPOSED LOAD CENTER TO THE LEFT-FRONT OF THE POWER SOURCE TRANSFORMER. THIS TRANSFORMER IS LABELED WITH THE NUMBER 8 ON THE UPPER-LEFT CORNER OF THE TRANSFORMER FRONT. AS AN OPTION, INSTALL EMPTY POWER SERVICE CONDUIT TO THE LEFT-FRONT OF THE SAID TRANSFORMER AND THEN PULL THE WIRES ON AN ADVANCED STAND-BY APPOINTMENT SET-UP WITH FP&L. THE CONTRACTOR SHALL CONTACT JUAN CRUZ (FP&L) AT PHONE: (941) 423-4842 AND/OR EMAIL: JUAN.CRUZ@FPL.COM OR THE LOCAL FP&L SERVICE PLANNER A MINIMUM OF FOUR (4) WEEKS PRIOR OF PULLING THE SERVICE CABLES INTO THE FP&L TRANSFORMER. THE CONTRACTOR SHALL NOT PUSH THE CABLES INTO THE TRANSFORMER WITHOUT AN FP&L CREW PRESENT.
14. AT LOCATIONS WHERE THE PROXIMITY OF THE INSTALLATION IS CLOSE TO THE EXISTING OVERHEAD POWER, AS DETERMINED BY THE ENGINEER, A "LOW PROFILE" RIG SHALL BE REQUIRED TO DRILL THE FOUNDATION AND INSTALL THE LIGHT POLES.
15. WIRE PULLING INSTRUCTIONS: CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET AND MEET MANUFACTURERS REQUIREMENTS. USE PULLING COMPOUND PER MANUFACTURER'S REQUIREMENTS. ALL BENDS SHALL NOT BE LESS THAN RECOMMENDED BY THE NEC OR NESC FOR CABLE USED.
16. NO SCREW TYPE BASE FOUNDATIONS SHALL BE USED.
17. AT LOCATIONS WHERE UNDERGROUND UTILITIES ARE WITHIN TWO FEET OF THE LIGHT POLE FOOTER OR CONDUIT RUN, THE CONTRACTOR SHALL HAND DIG THE FIRST FOUR FEET OF THE HOLE FOR THE POLE FOUNDATION AND CONDUIT RUN.
18. THE NEW LIGHTING SYSTEM CONDUIT SHALL GO STRAIGHT TO THE PROPOSED LIGHT POLE FOUNDATION. ALL SPLICES SHALL BE DONE IN THE TRANSFORMER BASES.
19. ALL CONDUIT TRENCHES SHALL BE BACKFILLED COMPLETELY TO PROVIDE SAFE CROSSING BY THE END OF EACH WORKING DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE. THE CONTRACTOR SHALL NOT OPEN ANY AREA THAT CANNOT BE BACKFILLED IN THE SAME WORK PERIOD.
20. THE LIGHTING SYSTEM WILL BE MAINTAINED BY LEE COUNTY DEPARTMENT OF TRANSPORTATION (LCDOT) UPON FINAL ACCEPTANCE.
21. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL SIDE STREETS, PRIVATE AND COMMERCIAL DRIVEWAYS AT ALL TIMES DURING THE CONSTRUCTION OPERATION.
22. UPON PASSING THE FINAL INSPECTION, SEND A WRITTEN REQUEST TO THE FOLLOWING:  
  
LEE COUNTY DEPARTMENT OF TRANSPORTATION  
TRAFFIC ENGINEERING DEPARTMENT  
1500 MONROE STREET  
FORT MYERS, FLORIDA 33901  
PHONE: (239) 533-8580
23. WHEN REQUESTING TO TRANSFER MAINTENANCE FROM THE CONTRACTOR TO LCDOT, LCDOT WILL RESPOND WITHIN FIVE (5) WORKING DAYS TO ESTABLISH A TIME TABLE FOR THE TRANSFER OF MAINTENANCE RESPONSIBILITY.
24. WHEN CONSTRUCTION IS COMPLETE, A HARD COPY SET OF "AS-BUILT" PLANS IN ADDITION TO AN ELECTRONIC COPY (PDF) IS TO BE SUBMITTED TO:  
  
LEE COUNTY DEPARTMENT OF TRANSPORTATION  
TRAFFIC ENGINEERING DEPARTMENT  
1500 MONROE STREET  
FORT MYERS, FLORIDA 33901  
PHONE: (239) 533-8580
25. LIGHT POLES AND PULL BOXES SHALL NOT BE LOCATED IN DRAINAGE SWALES, DITCHES, WETLANDS, DRIVEWAYS, SURFACE WATER, PAVED SHOULDERS OR PEDESTRIAN RAMPS.
26. THE CONTRACTOR SHALL BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUIT OR PULL BOXES ARE TO BE INSTALLED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.
27. ALL EXCESS DIRT AND DEBRIS EXCAVATED FROM POLE FOOTER SHALL BE REMOVED DAILY TO AREAS APPROVED BY THE ENGINEER AND PAID FOR UNDER PAY ITEM 715-4-13.
28. ALL CONDUIT INSTALLATION NEAR TREES SHALL MEET ANSI 300 STANDARDS.

PULL BOX LEGEND

LCDOT = LEE COUNTY LIGHTING PULL BOX

CONDUIT LEGEND

LC = PROPOSED LIGHTING CONDUIT FOR THE NEW LIGHTING SYSTEM  
SP = EMPTY SPARE LIGHTING CONDUIT

REVISIONS				MICHAEL J. NOESEN, P.E. P.E. LICENSE NUMBER 42255 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637		BUCKINGHAM RD AT GUNNERY RD INTERSECTION IMPROVEMENTS (ROUNDAABOUT) FINANCIAL PROJECT ID 442123-1-58-01	GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION					L-3

POLE DATA

ROUNDAABOUT LIGHTING DESIGN CRITERIA

Average Horizontal Initial Illuminance	3.0 Foot Candles
Average Vertical Initial Illuminance	2.3 Foot Candles
Uniformity Ratio Avg./Min.	4:1 or Less
Uniformity Ratio Max./Min.	10:1 or Less
Veiling Luminance Ratio	0.3:1 or Less
Wind Speed	170 MPH

POLE NO.	CIRCUIT	POLE		MOUNTING HEIGHT (FT)	ARM LENGTH (FT) *	PAY ITEM NUMBER	LUMINAIRE			
		STATION	OFFSET				WATTAGE	DISTRIBUTION	TILT (DEG)	
A	A-1	N 837428.74, W 748449.30	GUNNERY RD	N/A	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
B	A-1	N 837648.73, W 748451.19	GUNNERY RD	N/A	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
1	A-1	100+85	BL SURVEY GUNNERY RD	32', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
2	A-1	102+85	BL SURVEY GUNNERY RD	40', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
3	A-1	104+85	BL SURVEY GUNNERY RD	40', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
4	A-1	106+85	BL SURVEY GUNNERY RD	40', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
5	A-1	108+05	BL SURVEY GUNNERY RD	40', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
6	A-1	214+89	BL SURVEY BUCKINGHAM RD	40', RT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
7	A-1	214+35	BL SURVEY BUCKINGHAM RD	2', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
8	A-1	212+44	BL SURVEY BUCKINGHAM RD	25', RT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
9	A-1	109+00	BL SURVEY GUNNERY RD	32', RT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
10	A-1	109+80	BL SURVEY GUNNERY RD	12', RT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
11	A-1	110+25	BL SURVEY GUNNERY RD	24', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
12	A-1	111+25	BL SURVEY GUNNERY RD	5', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
13	A-2	210+35	BL SURVEY BUCKINGHAM RD	39', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
14	A-2	213+30	BL SURVEY BUCKINGHAM RD	82', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
15	A-2	214+90	BL SURVEY BUCKINGHAM RD	127', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
16	A-2	216+45	BL SURVEY BUCKINGHAM RD	129', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
17	A-2	217+20	BL SURVEY BUCKINGHAM RD	60', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
18	A-2	218+30	BL SURVEY BUCKINGHAM RD	43', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
19	A-2	219+75	BL SURVEY BUCKINGHAM RD	40', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0
20	A-2	221+30	BL SURVEY BUCKINGHAM RD	45', LT	40	1	715-4-12	255	SHORT, TYPE IV, FORWARD THROW, BUG: B4-U0-G5	0

LEGEND

SYMBOLS

DESCRIPTION



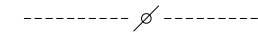
Designed for a LED luminaire with 4000k color temperature, Roadway Type IV distribution. See pay item footnotes for additional luminaire information. Luminaire shall be wired for 480 volt operation. No tilt. Lighting basis of design used curve number MGLEDM P7 40K XXXX FT with output lumens of 36,730.



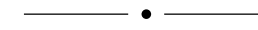
Existing pole and luminaire to remain.



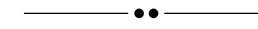
Existing pole and luminaire to be removed.



Existing conduit and conductors to remain unless noted otherwise.



Proposed open trench 2" diameter conduit with XLP conductors inside (conduit and conductor size as shown on plan sheets). Run one (1) No. 6 AWG (minimum) copper bond conductor (XLP green insulation) inside conduit with other conductors.



Proposed directional bore 2" diameter conduit with XLP conductors inside (conduit and conductor size as shown on plan sheets). Run one (1) No. 6 AWG (minimum) copper bond conductor (XLP green insulation) inside conduit with other conductors.



Pull box with concrete apron for the LCDOT maintained proposed lighting system. For specifications see Section 635 of Standard Specifications for Road and Bridge Construction.



Proposed xxV/xxV Load Center. For requirements see Index No. 639-001 of the FDOT Standard Plans.



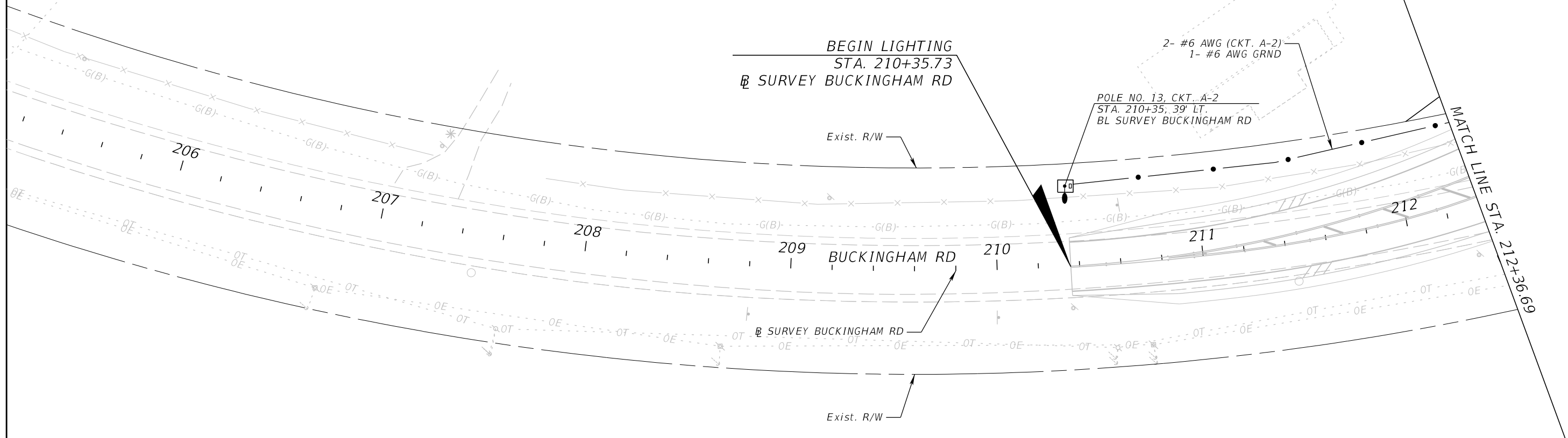
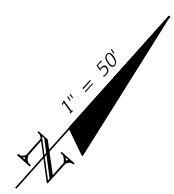
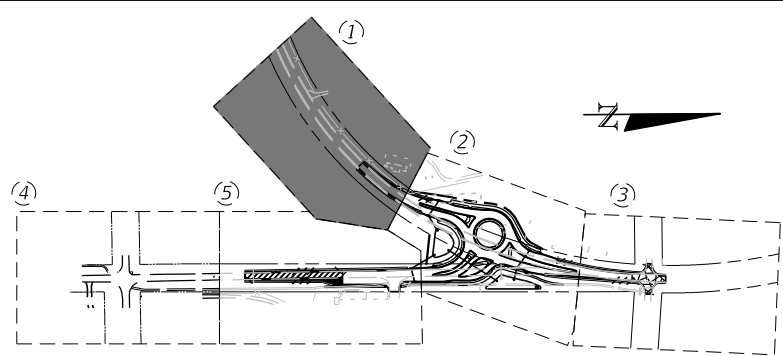
Existing FPL Transformer to be used for power source.

\* POLE TENON

<table border="1"> <thead> <tr> <th colspan="4">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				REVISIONS				DATE	DESCRIPTION	DATE	DESCRIPTION					MICHAEL J. NOESEN, P.E. P.E. LICENSE NUMBER 42255 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637		BUCKINGHAM RD AT GUNNERY RD INTERSECTION IMPROVEMENTS (ROUNDAABOUT) FINANCIAL PROJECT ID 442123-1-58-01	SHEET NO. L-4
REVISIONS																			
DATE	DESCRIPTION	DATE	DESCRIPTION																

POLE DATA AND LEGEND

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MICHAEL J. NOESEN, P.E.  
 P.E. LICENSE NUMBER 42255  
 AYRES ASSOCIATES  
 8875 HIDDEN RIVER PKWY,  
 SUITE 200  
 TAMPA, FL 33637

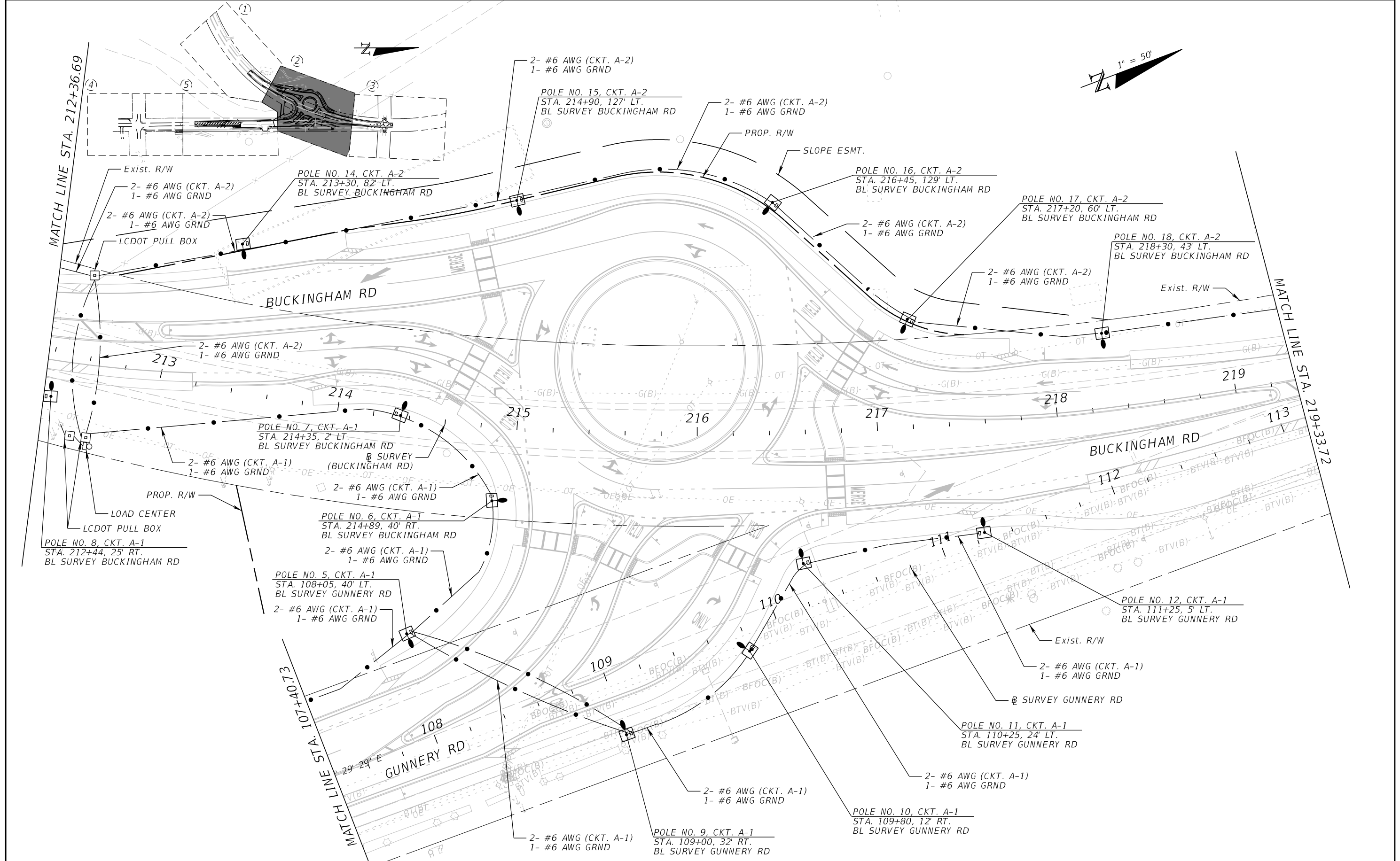


BUCKINGHAM RD AT GUNNERY RD  
 INTERSECTION IMPROVEMENTS  
 (ROUNDAABOUT)  
 FINANCIAL PROJECT ID  
 442123-1-58-01

**LIGHTING PLAN (1)**

SHEET NO.  
 L-5

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MICHAEL J. NOESEN, P.E.  
P.E. LICENSE NUMBER 42255  
AYRES ASSOCIATES  
8875 HIDDEN RIVER PKWY,  
SUITE 200  
TAMPA, FL 33637

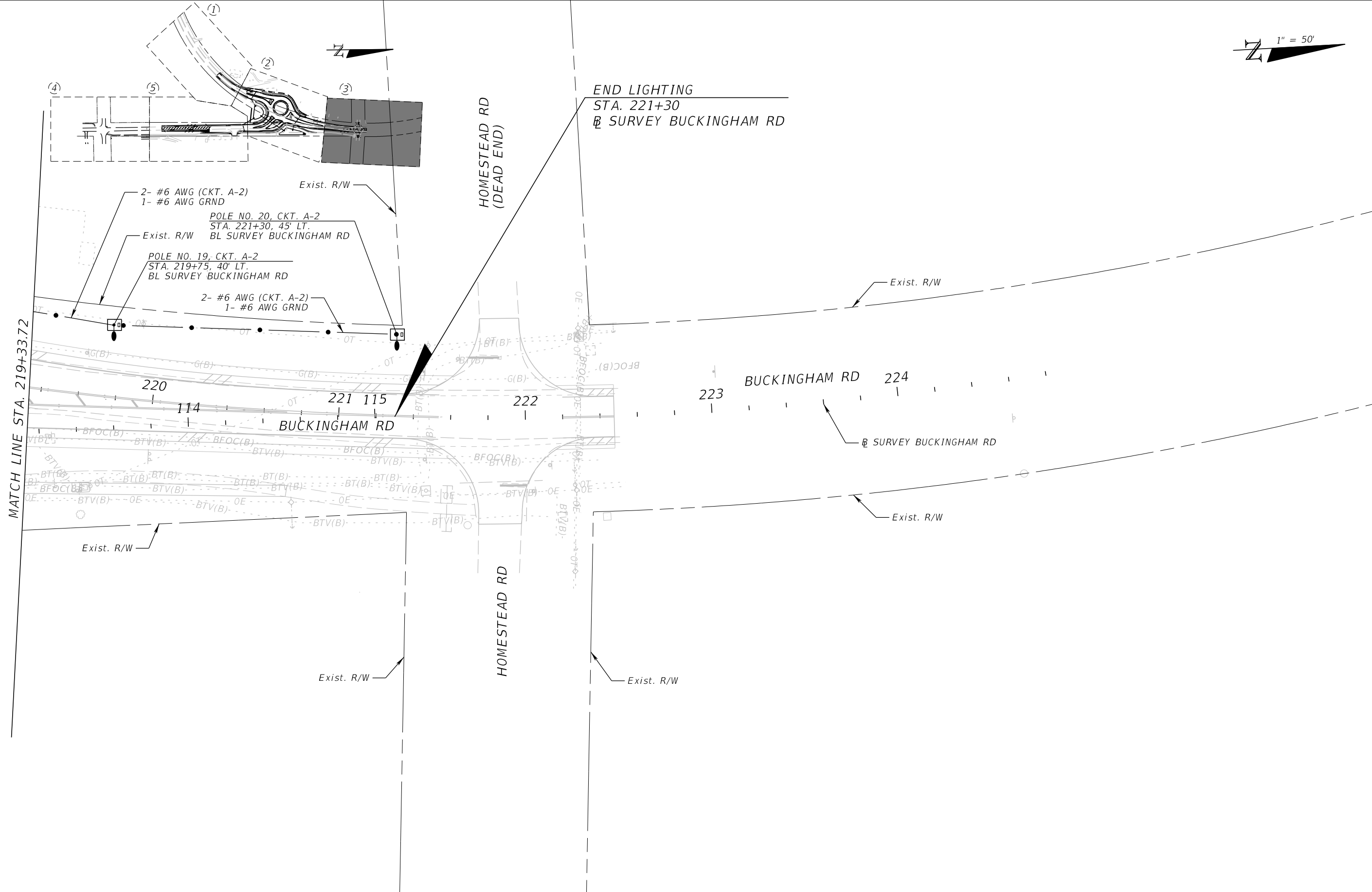


**BUCKINGHAM RD AT GUNNERY RD  
INTERSECTION IMPROVEMENTS  
(ROUNDAABOUT)**  
FINANCIAL PROJECT ID  
442123-1-58-01

**LIGHTING PLAN (2)**

SHEET NO.  
L-6

1" = 50'



MATCH LINE STA. 219+33.72

END LIGHTING  
STA. 221+30  
BL SURVEY BUCKINGHAM RD

2- #6 AWG (CKT. A-2)  
1- #6 AWG GRND

POLE NO. 20, CKT. A-2  
STA. 221+30, 45' LT.  
BL SURVEY BUCKINGHAM RD

POLE NO. 19, CKT. A-2  
STA. 219+75, 40' LT.  
BL SURVEY BUCKINGHAM RD

2- #6 AWG (CKT. A-2)  
1- #6 AWG GRND

HOMESTEAD RD  
(DEAD END)

BUCKINGHAM RD 224

BUCKINGHAM RD

HOMESTEAD RD

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MICHAEL J. NOESEN, P.E.  
P.E. LICENSE NUMBER 42255  
AYRES ASSOCIATES  
8875 HIDDEN RIVER PKWY,  
SUITE 200  
TAMPA, FL 33637

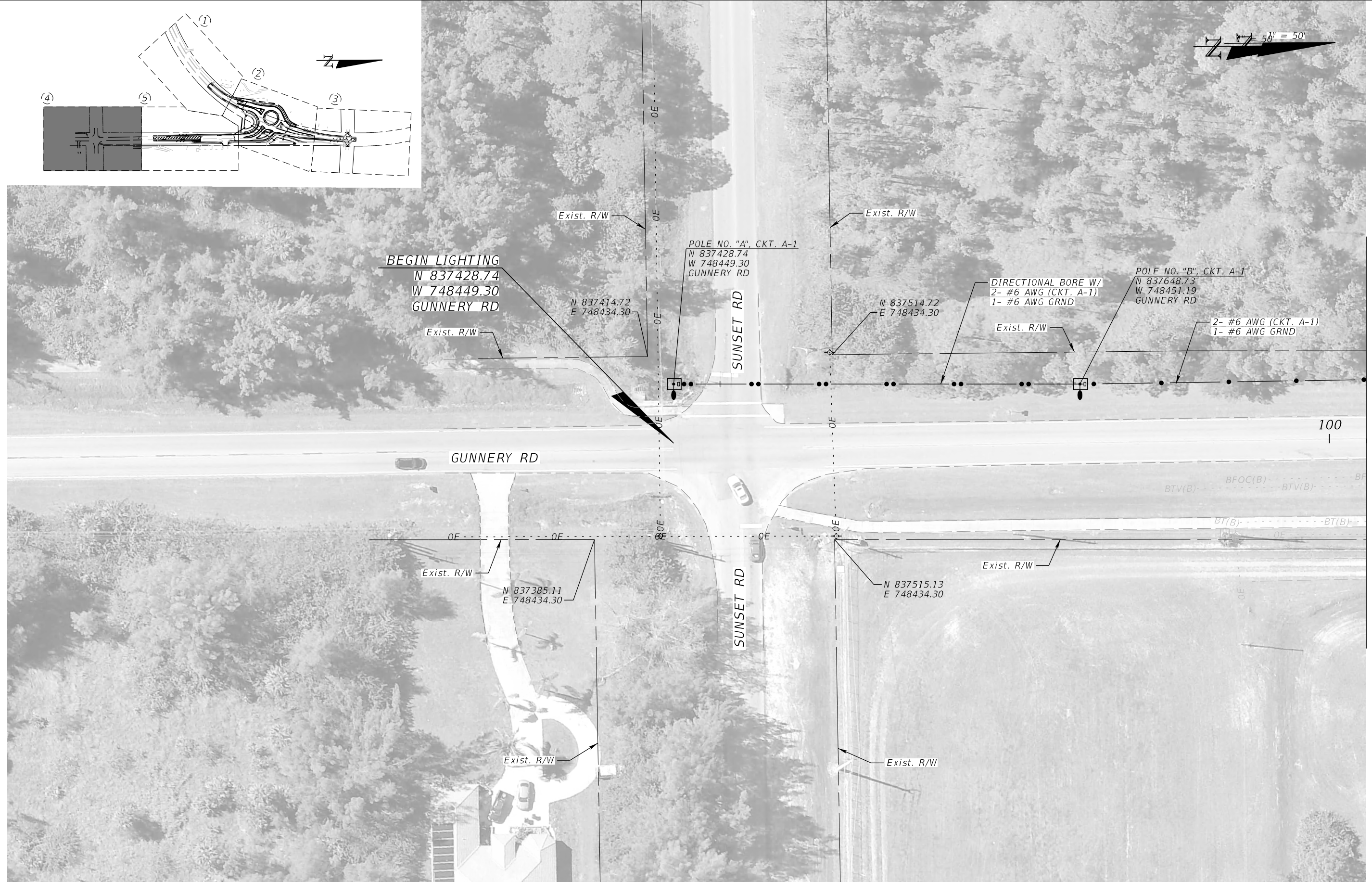
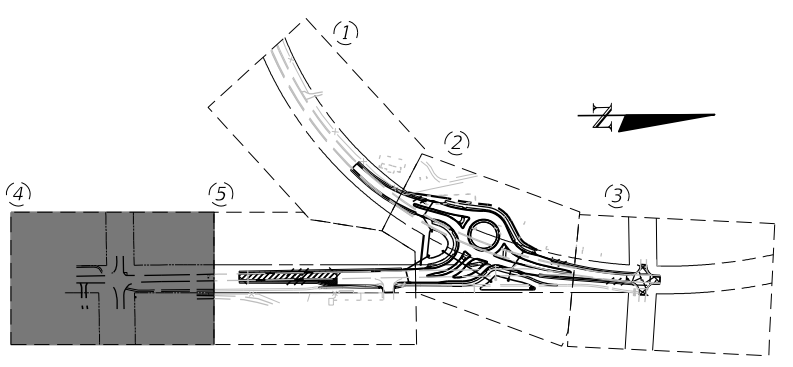


BUCKINGHAM RD AT GUNNERY RD  
INTERSECTION IMPROVEMENTS  
(ROUNDAABOUT)  
FINANCIAL PROJECT ID  
442123-1-58-01

**LIGHTING PLAN (3)**

SHEET NO.  
L-7

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MICHAEL J. NOESEN, P.E.  
 P.E. LICENSE NUMBER 42255  
 AYRES ASSOCIATES  
 8875 HIDDEN RIVER PKWY,  
 SUITE 200  
 TAMPA, FL 33637

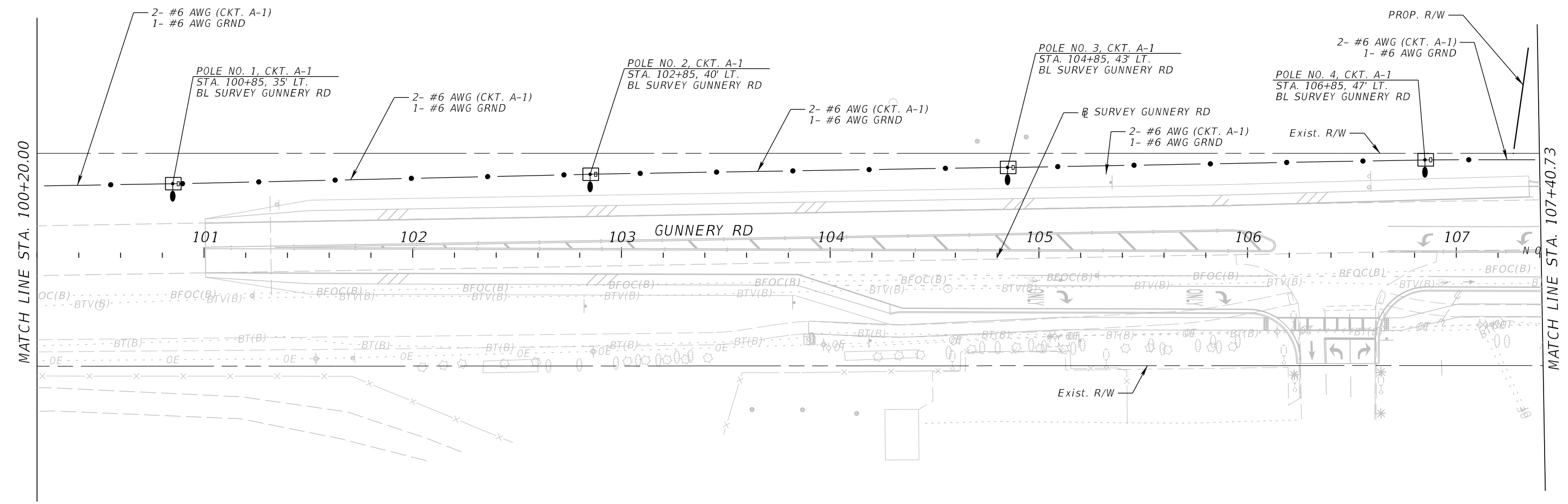
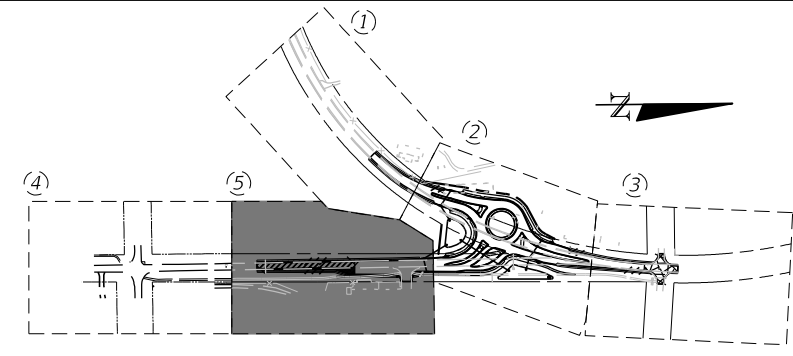


BUCKINGHAM RD AT GUNTERY RD  
 INTERSECTION IMPROVEMENTS  
 (ROUNDAABOUT)  
 FINANCIAL PROJECT ID  
 442123-1-58-01

**LIGHTING PLAN (4)**

SHEET NO.  
 L-8





REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MICHAEL J. NOESEN, P.E.  
 P.E. LICENSE NUMBER 42255  
 AYRES ASSOCIATES  
 8875 HIDDEN RIVER PKWY,  
 SUITE 200  
 TAMPA, FL 33637



BUCKINGHAM RD AT GUNNERY RD  
 INTERSECTION IMPROVEMENTS  
 (ROUNDBOUT)  
 FINANCIAL PROJECT ID  
 442123-1-58-01

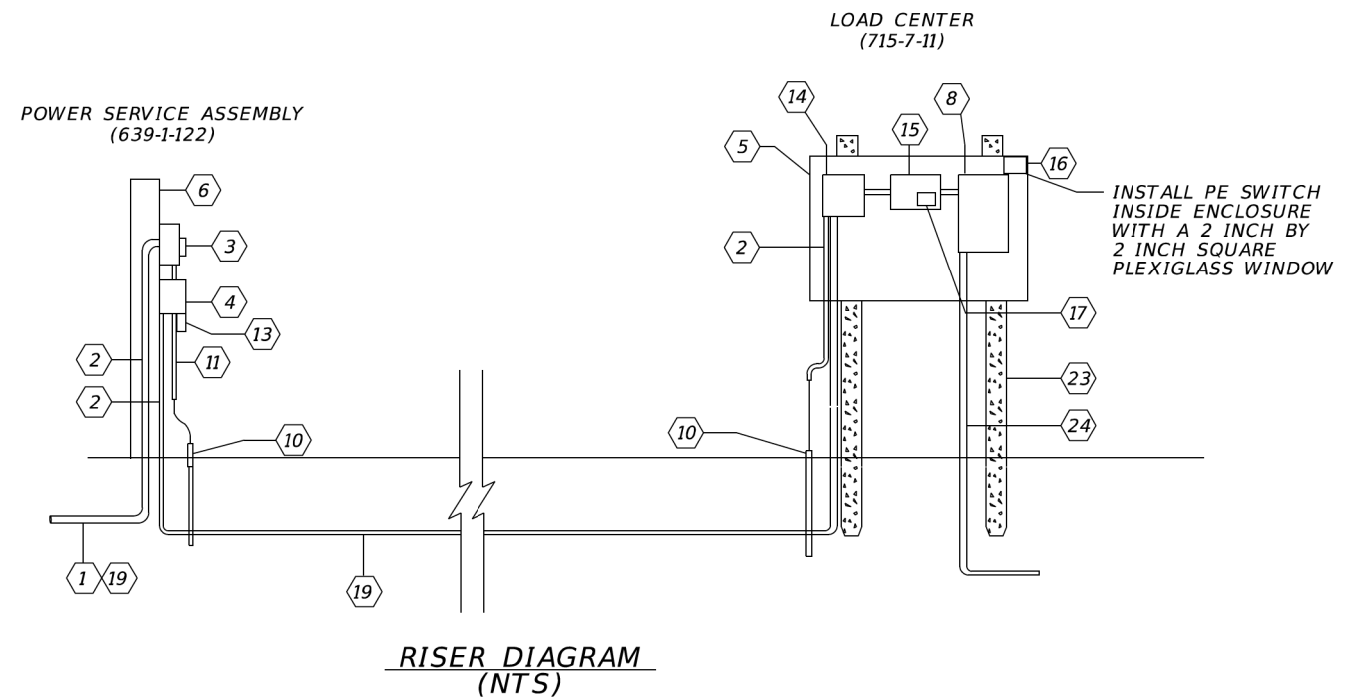
**LIGHTING PLAN (5)**

SHEET NO.  
 L-9

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES

- ① xx/xxV SINGLE PHASE 3-WIRE FPL ELECTRIC DISTRIBUTION UNDERGROUND.
- ② INSULATED #2 COPPER FEEDER CONDUCTORS IN RIGID GALVANIZED STEEL CONDUIT.
- ③ METER SOCKET BY CONTRACTOR. METER BY POWER COMPANY.
- ④ SERVICE MAIN DISCONNECT: 600V, 2-POLE HEAVY DUTY NEMA 3R WITH ENCLOSED BREAKER.
- ⑤ POST-MOUNTED 4X CABINET WITH LOCKABLE HINGED DOOR. SIZE PER EQUIPMENT REQUIREMENT.
- ⑥ 12' PEDESTAL CONCRETE POLE.
- ⑧ ELECTRICAL PANEL, xx/xxV, SINGLE PHASE. 3-WIRE WITH GROUND BAR AND CIRCUIT BREAKERS. SEE PANEL SCHEDULE FOR MORE INFORMATION.
- ⑩ COPPER CLAD GROUND ROD  $\frac{3}{8}$ -INCH DIA. 40 FEET LONG.
- ⑪ FPL REQUIRED SIZED INSULATED COPPER GROUND WIRE IN 1-INCH RIGID GALVANIZED STEEL. BOND THE SERVICE NEUTRAL TO GROUND AT SERVICE MAIN DISCONNECT.
- ⑬ LIGHTNING ARRESTOR MOUNTED ON OUTSIDE OF ENCLOSURE.
- ⑭ MAIN CIRCUIT BREAKER 2-POLE xx/xxV. SEE DISTRIBUTION POINT DESCRIPTION ON LIGHTING PLAN SHEETS FOR SIZE.
- ⑮ 2-POLE, ELECTRICALLY HELD CONTACTOR WITH SAME AMPACITY RATING AS MAIN CIRCUIT BREAKER.
- ⑯ PHOTO ELECTRIC CELL SWITCH - 120V RATED, INSIDE ENCLOSURE.
- ⑰ 'HAND-OFF-AUTOMATIC' SELECTOR SWITCH (PART OF LIGHTING CONTACTOR).
- ⑲ UNDERGROUND FEEDER CONDUIT INSULATED #2 COPPER FEEDER CONDUCTORS.
- ⑳ 12' CONCRETE PEDESTAL POLES WITH GALVANIZED UNISTRUT TO SUPPORT ELECTRICAL EQUIPMENT.
- ㉑ CONDUIT(S) WITH CONDUCTORS FOR THE LIGHTING CIRCUITS. THE CONTRACTOR SHALL DETERMINE THE NUMBER OF NECESSARY CONDUIT DROPS.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MICHAEL J. NOESEN, P.E.  
P.E. LICENSE NUMBER 42255  
AYRES ASSOCIATES  
8875 HIDDEN RIVER PKWY,  
SUITE 200  
TAMPA, FL 33637



BUCKINGHAM RD AT GUNNERY RD  
INTERSECTION IMPROVEMENTS  
(ROUNDBOUT)  
FINANCIAL PROJECT ID  
442123-1-58-01

**SERVICE POINT DETAILS (1)**

SHEET NO.  
L-10

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PANEL "A" SCHEDULE

Panel ID: <u>Proposed Load Center "A"</u>	Main Breaker: <u>100 A</u>
Location: <u>STA. 212+60, RT., BL SURVEY BUCKINGHAM RD</u>	Voltage: <u>480</u>
Mounting: <u>Surface</u>	Single Phase, 3-wire

	CIRCUIT DESCRIPTION	LOAD (KVA)	BREAKER	POLE	BUS	POLE	BREAKER	LOAD (KVA)	CIRCUIT DESCRIPTION	
1	A-1	4.284	40	2	A	2	40	2.448	A-2	2
3					B					4
5					A					6
7					B					8
9					A					10
11					B					12
13					A					14
15					B					16
17					A					18
19					B					20
21					A					22
23					B					24

NOTES

- SAFETY SWITCH - 100 AMP F/A 100 AMP

TOTAL DEMAND            6.732 KVA  
 TOTAL DEMAND AMPS    11.22 AMPS

NO. OF LIGHT POLES    22

<table border="1"> <thead> <tr> <th colspan="4">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				REVISIONS				DATE	DESCRIPTION	DATE	DESCRIPTION					MICHAEL J. NOESEN, P.E. P.E. LICENSE NUMBER 42255 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637		BUCKINGHAM RD AT GUNNERY RD INTERSECTION IMPROVEMENTS (ROUNDAABOUT) FINANCIAL PROJECT ID 442123-1-58-01	SERVICE POINT DETAILS (2)	SHEET NO. L-11
REVISIONS																				
DATE	DESCRIPTION	DATE	DESCRIPTION																	