

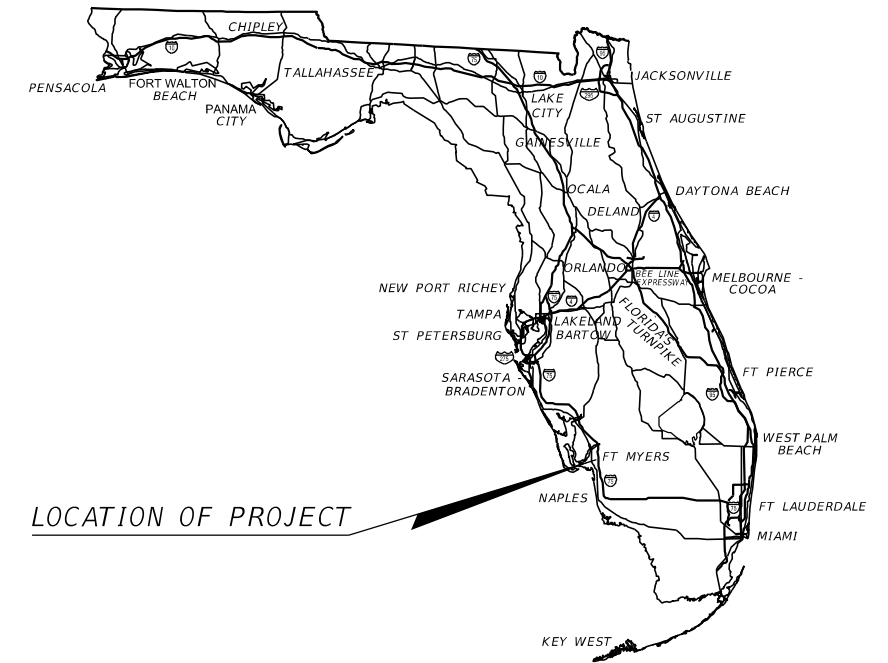
*LEE COUNTY BOARD OF  
COUNTY COMMISSIONERS*

*PUBLIC WORKS ADMINISTRATION  
DEPARTMENT OF TRANSPORTATION  
CONTRACT PLANS*

*LIGHTING AND SIGNALIZATION PLANS*

*SUMMERLIN ROAD / WINKLER  
INTERSECTION IMPROVEMENTS*

COUNTY PROJECT NO. 6211



**INDEX OF LIGHTING AND SIGNALIZATION PLANS**

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L-1	LIGHTING GENERAL NOTES
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LIGHTING AND SIGNALIZATION SHOP DRAWINGS TO BE SUBMITTED TO:

PHUC H. DUONG, P.E.  
GANNETT FLEMING, INC.  
9119 CORPORATE LAKE DRIVE., SUITE 150  
TAMPA, FL 33634

PLANS PREPARED BY:

GANNETT FLEMING, INC.  
9119 CORPORATE LAKE DRIVE., SUITE 150  
TAMPA, FL 33634  
TELEPHONE: 813-882-4366  
CERTIFICATE OF AUTHORIZATION NO. 5564

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

**GOVERNING DESIGN STANDARDS:**

Florida Department of Transportation, FY2018-19 Standard Plans for Road and Bridge Construction and applicable Interim REvisions (IRs)

Standard Plans for Road Construction and associated IRs are available at the following website: <http://www.fdot.gov/design/standardplans>

**GOVERNING STANDARD SPECIFICATIONS:**

Florida Department of Transportation, July 2018 Standard Specifications for Road and Bridge Construction at the following website: <http://www.fdot.gov/programmanagement/Implemented/SpecBooks>

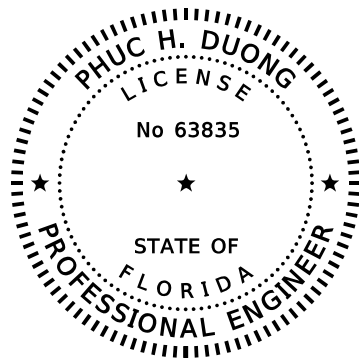
SIGNALIZATION PLANS  
ENGINEER OF RECORD: PHUC H. DUONG

P.E. NO.: 63835

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E1Q47	18	T-1

LEE COUNTY PROJECT MANAGER: LEE C. WERST

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



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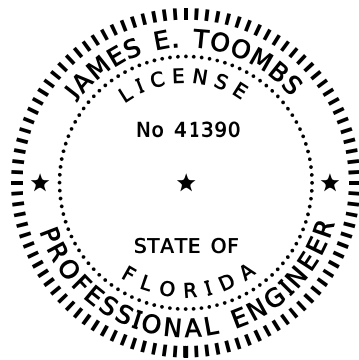
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GANNETT FLEMING  
9119 CORPORATE LAKE DR., SUITE 150  
TAMPA, FLORIDA 33634  
CERTIFICATE OF AUTHORIZATION: 5564  
PHUC H. DUONG, P.E. NO. 63835

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE  
FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

ITS PLANS

SHEET NO.	SHEET DESCRIPTION
T-1	KEY SHEET
T-2	SIGNATURE SHEET
T-3	TABULATION OF QUANTITIES
T-4	SIGNALIZATION GENERAL NOTES
T-5	SIGNALIZATION PLAN
L-1	LIGHTING GENERAL NOTES
L-2	POLE DATA AND LEGEND
L-3 TO L-4	LIGHTING PLANS



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ON THE ELECTRONIC DOCUMENTS.

AIM ENGINEERING & SURVEYING, INC.  
3802 CORPOREX PARK DRIVE, SUITE 225  
TAMPA, FLORIDA 33619  
CERTIFICATE OF AUTHORIZATION: 3114  
JAMES E. TOOMBS, P.E. NO. 41390

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE  
FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

ITS PLANS

SHEET NO.	SHEET DESCRIPTION
T-6	CONCRETE STRAIN POLE SCHEDULE

NO.	DATE	BY	REVISIONS - DESCRIPTION



GANNETT FLEMING, INC.  
9119 CORPORATE LAKE DRIVE, SUITE 150  
TAMPA, FLORIDA 33634  
PHONE: (813) 882-4366  
CERTIFICATE OF AUTHORIZATION NO. 5564

APPROVED BY:  
**PHUC H. DUONG, P.E.**  
REGISTERED PROFESSIONAL ENGINEER  
FLORIDA CERTIFICATE NO. 63835



PUBLIC WORKS DEPARTMENT  
LEE COUNTY of  
SOUTHWEST FLORIDA TRANSPORTATION  
1500 MONROE STREET FORT MYERS, FLORIDA 33901  
(239) 479-8900 www.lee-county.com/publoworks/dot11e.htm

**SIGNATURE SHEET**

SHEET NO.  
**T-2**

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			T-5		L-3		L-4													
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH																			
	2" CONDUIT	LF	45		30													75	75	
	2 - 2" CONDUIT	LF	155															155	155	
	3 - 2" CONDUIT	LF			383			20										403	403	
630-2-12	3 - 2" CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	420															420	420	
632-7-1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1															1	1	
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	5		2			1										8	8	
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA			1													1	1	
635-2-40	PULL & SPLICE BOX, ADJUST	EA						1										1	1	
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	6															6	6	
646-1-600	ALUMINUM SIGNALS POLE, REMOVE	EA	2															2	2	
650-1-14	TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS	1															1	1	
650-1-70	TRAFFIC SIGNAL, RELOCATE- INCLUDES REMOVAL AND REINSTALLATION	AS	1															1	1	
653-1-11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS	4															4	4	
653-1-60	PEDESTRIAN SIGNAL, REMOVE PED SIGNAL- POLE/PEDESTAL TO REMAIN	AS	4															4	4	
660-4-51	VEHICLE DETECTION SYSTEM- VIDEO, ADJUST/MODIFY CABINET EQUIPMENT	EA	2															2	2	
665-1-11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	6															6	6	
665-1-60	PEDESTRIAN DETECTOR, REMOVE- POLE/PEDESTAL TO REMAIN	EA	6															6	6	
671-2-40	TRAFFIC CONTROLLER, MODIFY	EA	1															1	1	
715-1-12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF			1220			380										1600	1600	
715-1-13	LIGHTING CONDUCTORS, F&I, INSULATED, NO 4	LF			1310			380										1690	1690	
715-1-13	LIGHTING CONDUCTORS, F&I, INSULATED, NO 2	LF			1190			380										1570	1570	
715-4-121	LIGHT POLE COMPLETE, F&I, WIND SPEED 130, POLE HEIGHT 40'	EA			2													2	2	
715-4-400	LIGHT POLE COMPLETE, RELOCATE	EA			1													1	1	

NO.	DATE	BY	REVISIONS - DESCRIPTION



GANNETT FLEMING, INC.  
9119 CORPORATE LAKE DRIVE, SUITE 150  
TAMPA, FLORIDA 33634  
PHONE: (813) 882-4366  
CERTIFICATE OF AUTHORIZATION NO. 5564

APPROVED BY:  
**PHUC H. DUONG, P.E.**  
REGISTERED PROFESSIONAL ENGINEER  
FLORIDA CERTIFICATE NO. 63835



PUBLIC WORKS  
LEE COUNTY  
SOUTHWEST  
FLORIDA  
1500 MONROE STREET  
FORT MYERS, FLORIDA 33901  
(239) 479-8900 www.lee-county.com/publoworks/dot11e.htm

**TABULATION OF QUANTITIES**

SHEET NO.  
**T-3**

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GENERAL NOTES

1. LOCATES: ONE (1) COURTESY LOCATE SHALL BE PERFORMED BY LEE COUNTY SIGNALS AT THE START OF THE PROJECT AT THE CONTRACTOR'S REQUEST. THE CONTRACTOR SHALL DOCUMENT THE LOCATION OF THE EXISTING UNDERGROUND AND ABOVE GROUND FACILITIES. AFTER THE COURTESY LOCATE, ALL LOCATES WITHIN THE PROJECT LIMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PERFORMED IN A TIMELY MANNER. TIMELY MANNER IN RESPONSE TO LOCATES IS DEFINED AS LOCATE SHALL BE PERFORMED NO LATER THAN TWENTY FOUR (24) HOURS AFTER NOTIFICATION OR AS REQUIRED BY FLORIDA STATUTE. LEE COUNTY SIGNALS WILL ADVISE THE CONTRACTOR VIA E-MAIL OR FAX OF SUNSHINE LOCATE REQUESTS WITHIN THE WORK ZONE. ANY DAMAGE INCURRED DUE TO CONTRACTOR FAILURE TO LOCATE SHALL BE REPAIRED BY THE CONTRACTOR. SHOULD LEE COUNTY FORCES BE CALLED OUT TO MAKE REPAIRS DUE TO CONTRACTOR REFUSAL OR INABILITY TO MAKE REPAIRS, THE CONTRACTOR WILL BE BILLED THE ENTIRE COST AS A "DEDUCT" ON THE NEXT PAYMENT REQUEST AND WILL TRIGGER A "VENDOR/CONTRACTOR COMPLAINT" NOTICE TO BE FILED WITH LEE COUNTY CONTRACTS AS WELL AS FDOT. BEING AN "OUT OF TOWN" CONTRACTOR DOES NOT RELIEVE THIS RESPONSIBILITY.

2. DAMAGE TO EXISTING FACILITIES: ANY DAMAGE TO LEE COUNTY FACILITIES SHALL BE REPAIRED BY THE CONTRACTOR. REPAIRS SHALL BE MADE TO ENSURE FACILITIES ARE LIKE NEW OR BETTER. ANY DAMAGE TO EXISTING COMMUNICATION LINES SHALL NECESSITATE THE REMOVAL OF ALL DAMAGED LINES AND THE REPELLING OF NEW CABLE. SPLICING OF COMMUNICATION LINES WILL NOT BE ALLOWED. CAUTION SHALL BE EXERCISED DURING EXCAVATION NEAR EXISTING LEE COUNTY FIBER OPTIC LINES, SINCE MANY ENTITIES USE THESE FACILITIES. SHOULD DAMAGE OCCUR TO FIBER OPTIC LINES, LEE COUNTY WILL DECIDE WHICH QUALIFIED FIBER OPTIC SPLICING COMPANY WILL BE USED TO MAKE REPAIRS. CONTRACTOR WILL BE RESPONSIBLE FOR ALL REPAIR COSTS INCURRED, WHETHER REPAIRS ARE MADE BY LEE COUNTY OR A THIRD PARTY.

3. EXISTING EQUIPMENT: SHALL BE RETURNED TO LEE COUNTY DOT/TRAFFIC IN GOOD OPERATING CONDITION AND IN THE SAME CONDITION AS ON THE DAY OF THE MAINTENANCE TRANSFER AT 5650 ENTERPRISE PARKWAY, FORT MYERS, FL 33905 IN A TIMELY MANNER. TIMELY MANNER FOR EXISTING EQUIPMENT IS DEFINED AS NO LATER THAN 72 HOURS AFTER DISCONNECTION. THE CONTRACTOR SHALL NOTIFY LEE COUNTY OF THE DISCONNECTION 24 HOURS IN ADVANCE TO SCHEDULE THE DELIVERY OF THE EQUIPMENT SO THAT DELIVERY TAKES PLACE DURING A REGULAR BUSINESS DAY AND HOURS. FAILURE TO PERFORM AS OUTLINED IN THIS PARAGRAPH WILL RESULT IN NO INSPECTION AT COMPLETION UNTIL CONTRACTOR IS IN COMPLIANCE WITH THIS REQUIREMENT. LEE COUNTY SIGNALS WILL WITHHOLD PAYMENT REQUESTS UNTIL LEE COUNTY PROPERTY IS DELIVERED TO 5650 ENTERPRISE PARKWAY, FORT MYERS, FL 33905.

4. CABINET/CONTROLLER/VIDEO DETECTION PREP: LEE COUNTY SIGNALS WILL ASSIST THE CONTRACTOR IN THE SETUP OF NEW SIGNAL CABINET/CONTROLLERS/CAMERAS WHEN THE FOLLOWING CONDITIONS ARE MET: DELIVERY OF EQUIPMENT TO 5650 ENTERPRISE PARKWAY BY CONTRACTOR OR SHIPPER. THE CONTRACTOR SHALL SEND A QUALIFIED TECHNICIAN TO THE SIGNAL SHOP TO SET UP THE EQUIPMENT WITH THE AID OF A SENIOR SIGNAL TECH, GIVING MINIMUM OF 48 HOURS NOTICE. AFTER SET UP, CONTRACTOR SHALL ARRANGE TO PICK UP THE EQUIPMENT WITHIN ONE WEEK. AT TIME OF REMOVAL FROM THE LEE COUNTY SIGNAL SHOP, THE EQUIPMENT SHALL BE SIGNED OUT BY THE CONTRACTOR REPRESENTATIVE AS COMPLETE. LEE COUNTY WILL NOT STORE CONTRACTOR EQUIPMENT. UNDER THESE CONDITIONS, LEE COUNTY SIGNALS WILL ASSIST THE CONTRACTOR ON "TURN ON" DAY IN THE FIELD. SHOULD THE CONTRACTOR ELECT TO SET UP, BURN IN, AND TEST THE EQUIPMENT WITHOUT LEE COUNTY ASSISTANCE, A MANUFACTURER'S REPRESENTATIVE SHALL BE ONSITE, AT CONTRACTOR'S EXPENSE, ON THE DAY OF TURN ON TO ASSIST THE CONTRACTOR AND TO VERIFY PROPER OPERATION.

5. ALL APPLICABLE INSTALLATION SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST ADDITION OF THE LEE COUNTY DEPARTMENT OF TRANSPORTATION PLAN SPECIFICATIONS. <http://www.leegov.com/dot/Documents/Traffic%20Folder/Spec%20Book/traffic%20spec%20book.pdf>

SIGNALIZATION NOTES

EXISTING EQUIPMENT OWNERS: LEE COUNTY DEPARTMENT OF TRANSPORTATION  
SIGNAL TO BE MAINTAINED BY: LEE COUNTY DEPARTMENT OF TRANSPORTATION  
FOR PAVEMENT MARKINGS, SEE PAVEMENT MARKING PLANS.

DURING TRAFFIC SIGNAL FLASHING OPERATION, THE RED ARROW INDICATION OF ALL 3-SECTION LEFT-TURN HEADS SHALL BE THE FLASHING INDICATION DISPLAYED.

AT LEAST 48 HOURS PRIOR TO BEGINNING THE TRAFFIC SIGNAL INSTALLATION, PERMITEE SHALL CONTACT THE LEE COUNTY SIGNAL OPERATIONS:  
MIKE PADGETT  
LEE COUNTY SIGNAL INSPECTOR  
5650 ENTERPRISE PKWY  
FORT MYERS, FLORIDA 33905  
PH: (239) 533-9500

CONTRACTOR TO CONTACT SUNSHINE ONE-CALL LOCATES, 48 HOURS PRIOR TO START OF WORK.

FLORIDA POWER & LIGHT COMPANY SHALL ASSIST CONTACTOR IN PERFORMING ALL NECESSARY WORK UNDER THEIR POWER LINES, SUCH AS THE INSTALLATION OF SPAN WIRES, SIGNAL CABLE, FIBERGLASS INSULATORS AND SIGNAL POLES. CONTRACTOR SHALL NOTIFY THE POWER COMPANY AT LEAST 72 HOURS PRIOR TO INSTALLATION OF THIS EQUIPMENT.

PAY ITEM NOTES


PAY ITEM 630-1-11, 630-1-12:  
SHALL INCLUDE CONDUIT, ELBOWS, SWEEPS, CONNECTING HARDWARE, TRENCHING AND BACKFILL AS INDICATED IN THE PLANS AND THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS. THE LINEAR FOOT PRICE FOR CONDUIT SHALL ALSO INCLUDE THE COST OF RESTORING CUT PAVEMENT, SIDEWALK, SOD, ETC., TO IT'S ORIGINAL CONDITION. SOD SHALL BE REPLACED IN LIKE KIND OF THE ADJACENT SURROUNDS.

PAY ITEM 646-1-11:  
PEDESTRIAN PEDESTALS SHALL BE INSTALLED USING BREAKAWAY ALUMINUM SQUARE BASE ASSEMBLIES WITH ALUMINUM DOORS. SIGNAL CABLE SHALL BE SPLICED IN BASE OF PEDESTAL (NOT IN PEDESTAL HEADS) WITH EPOXY FILLED (B-CAP). INSIDE DIAMETER OF PEDESTALS SHALL BE FOUR INCHES (4").

PAY ITEM 653-1-52:  
PEDESTRIAN SIGNALS SHALL BE SINGLE-SECTION, INTERNATIONAL SYMBOL, LED HEADS. MOUNTING HEIGHT OF PEDESTRIAN HEAD SHALL BE 9 FEET 6 INCHES ABOVE GRADE TO BOTTOM OF HEAD.

PAY ITEM 665-1-11:  
THESE ITEMS SHALL INCLUDE LABOR AND MATERIALS REQUIRED FOR INSTALLATION OF PEDESTRIAN BUTTON SIGNAL SIGN FTP-69A-06. STREET NAME SHALL BE IN ACCORDANCE WITH THE STREET NAMES SHOWN ON THE SIGNALIZATION PLAN SHEETS.

NO.	DATE	BY	REVISIONS - DESCRIPTION

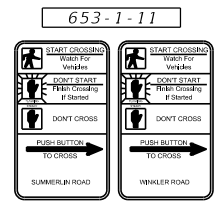
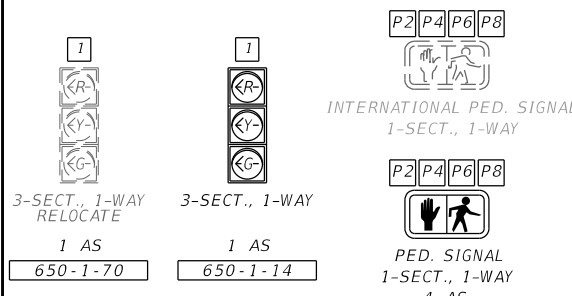
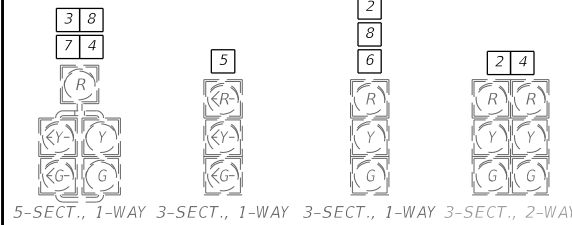
 GANNETT FLEMING, INC  
9119 CORPORATE LAKE DRIVE, SUITE 150  
TAMPA, FLORIDA 33634  
PHONE: (813) 882-4366  
CERTIFICATE OF AUTHORIZATION NO. 5564

APPROVED BY:  
**PHUC H. DUONG, P.E.**  
REGISTERED PROFESSIONAL ENGINEER  
FLORIDA CERTIFICATE NO. 63835

 PUBLIC WORKS  
LEE COUNTY DEPARTMENT  
of  
SOUTHWEST TRANSPORTATION  
FLORIDA  
1500 MONROE STREET FORT MYERS, FLORIDA 33901  
(239) 479-8900 www.lee-county.com/publworks/dot11ie.htm

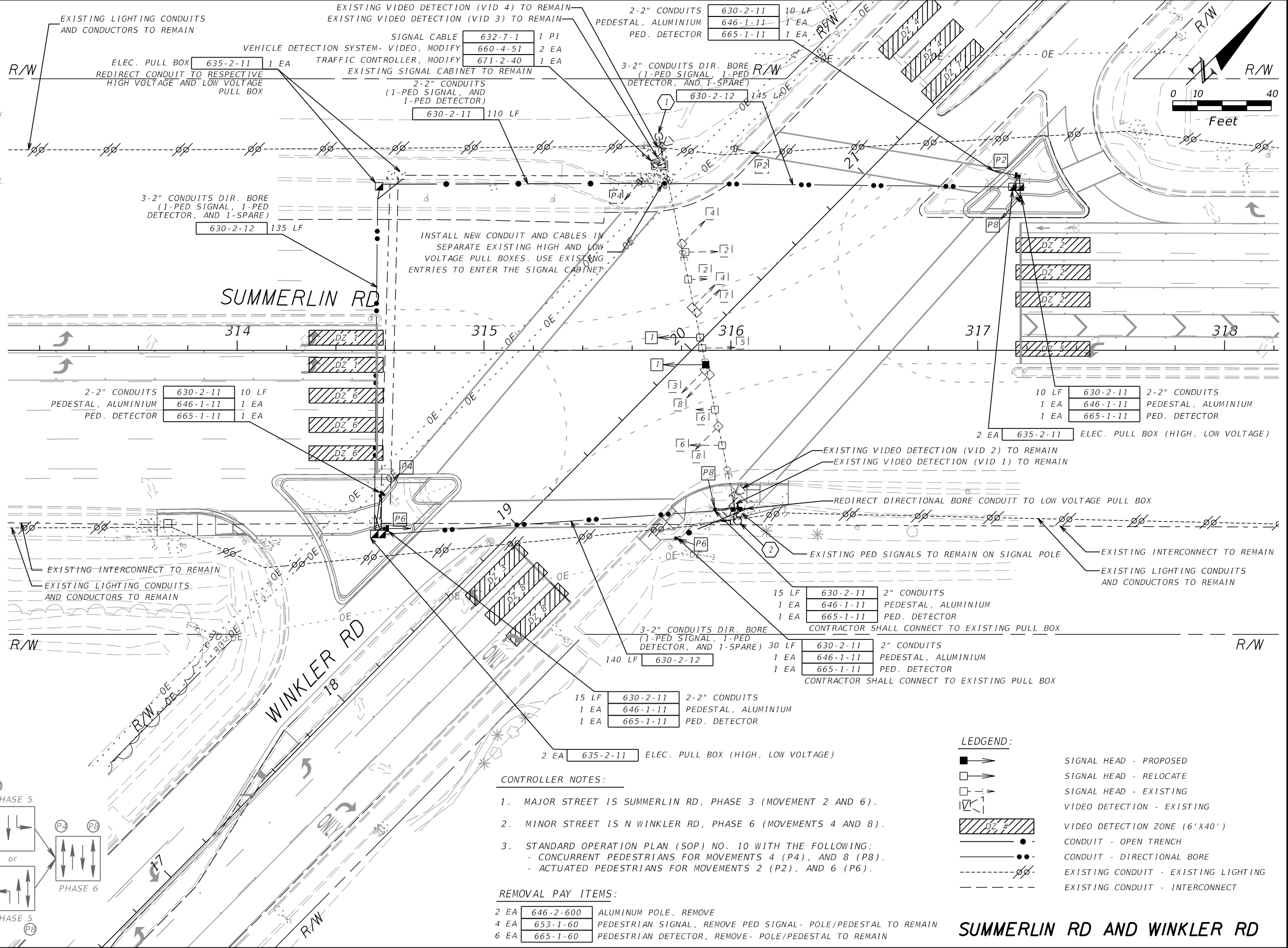
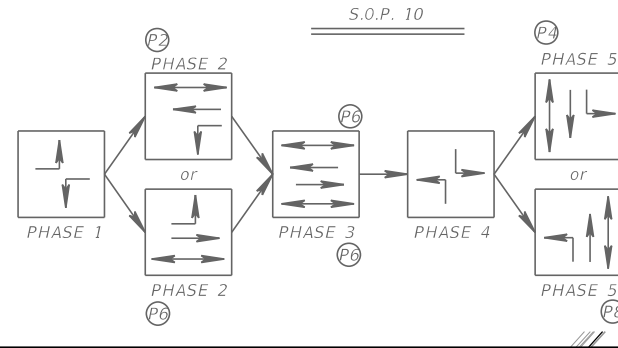
**SIGNALIZATION GENERAL NOTES**

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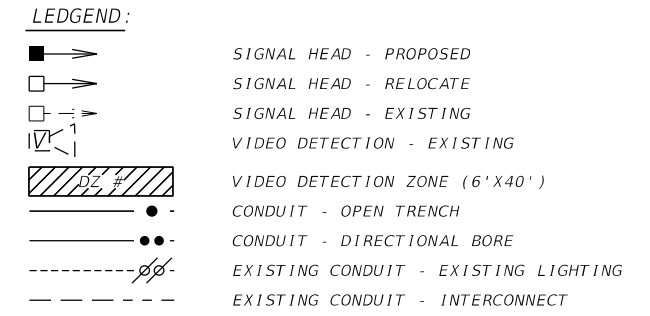


CONTROLLER TIMINGS								
TIMING FUNCTION	1	2	3	4	5	6	7	8
MOVEMENT NUMBER	1	2	3	4	5	6	7	8
MINIMUM GREEN	10	20	10	15	10	20	15	15
EXTENSION	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
MAXIMUM GREEN 1	25	80	15	40	25	80	40	40
MAXIMUM GREEN 2								
YELLOW CLEARANCE	3.5	4.3	4.3	4.3	3	4.3	4.3	4.3
ALL RED	3.0	2.0	4.0	2.0	2.0	4.0	2.0	4.0
PEDESTRIAN WALK	5	38	5	5	5	5	5	5
PED. CLEARANCE	25	38	31	38				
RECALL		MIN				MIN		

DETECTION ZONE		
ZONE	NO. OF ZONE	DELAY TIME (SEC)
DZ-1	2	
DZ-2	3	
DZ-3	1	5
DZ-4	2	
DZ-5	1	
DZ-6	3	
DZ-7	1	5
DZ-8	2	



- CONTROLLER NOTES:**
- MAJOR STREET IS SUMMERLIN RD, PHASE 3 (MOVEMENT 2 AND 6).
  - MINOR STREET IS N WINKLER RD, PHASE 6 (MOVEMENTS 4 AND 8).
  - STANDARD OPERATION PLAN (SOP) NO. 10 WITH THE FOLLOWING:
    - CONCURRENT PEDESTRIANS FOR MOVEMENTS 4 (P4), AND 8 (P8).
    - ACTUATED PEDESTRIANS FOR MOVEMENTS 2 (P2), AND 6 (P6).
- REMOVAL PAY ITEMS:**
- 2 EA 646-2-600 ALUMINUM POLE, REMOVE
  - 4 EA 653-1-60 PEDESTRIAN SIGNAL, REMOVE PED SIGNAL- POLE/PEDESTAL TO REMAIN
  - 6 EA 665-1-60 PEDESTRIAN DETECTOR, REMOVE- POLE/PEDESTAL TO REMAIN



NO.	DATE	BY	REVISIONS - DESCRIPTION

**GANNETT FLEMING, INC.**  
 9119 CORPORATE LAKE DRIVE, SUITE 150  
 TAMPA, FLORIDA 33634  
 PHONE: (813) 882-4366  
 CERTIFICATE OF AUTHORIZATION NO. 5564

APPROVED BY:  
**PHUC H. DUONG, P.E.**  
 REGISTERED PROFESSIONAL ENGINEER  
 FLORIDA CERTIFICATE NO. 63835

PUBLIC WORKS  
 LEE COUNTY  
 DEPARTMENT of SOUTHWEST FLORIDA TRANSPORTATION  
 1500 MONROE STREET FORT MYERS, FLORIDA 33901  
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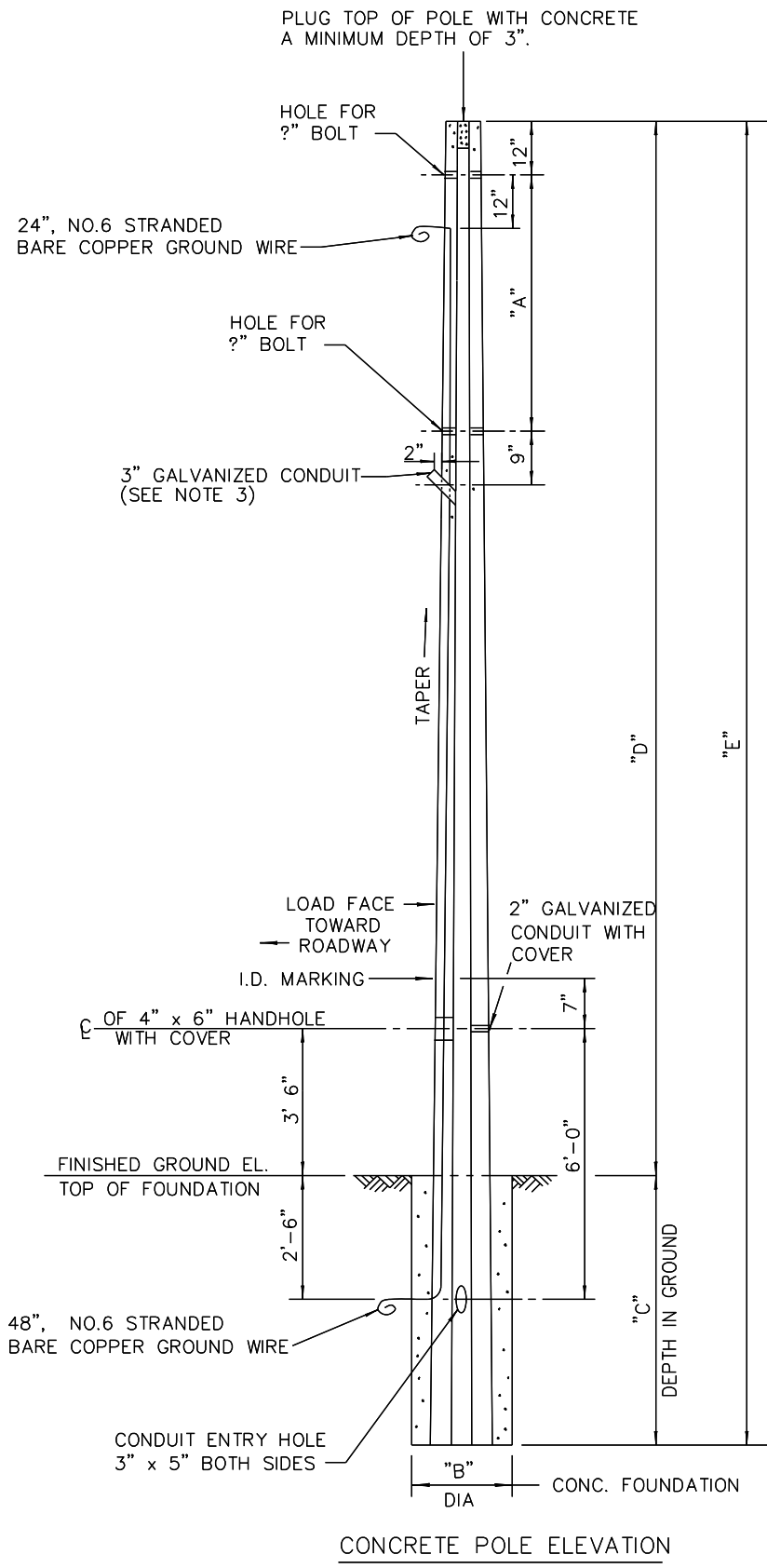
**SIGNALIZATION PLAN**

SHEET NO.  
**T-5**

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POLE SCHEDULE

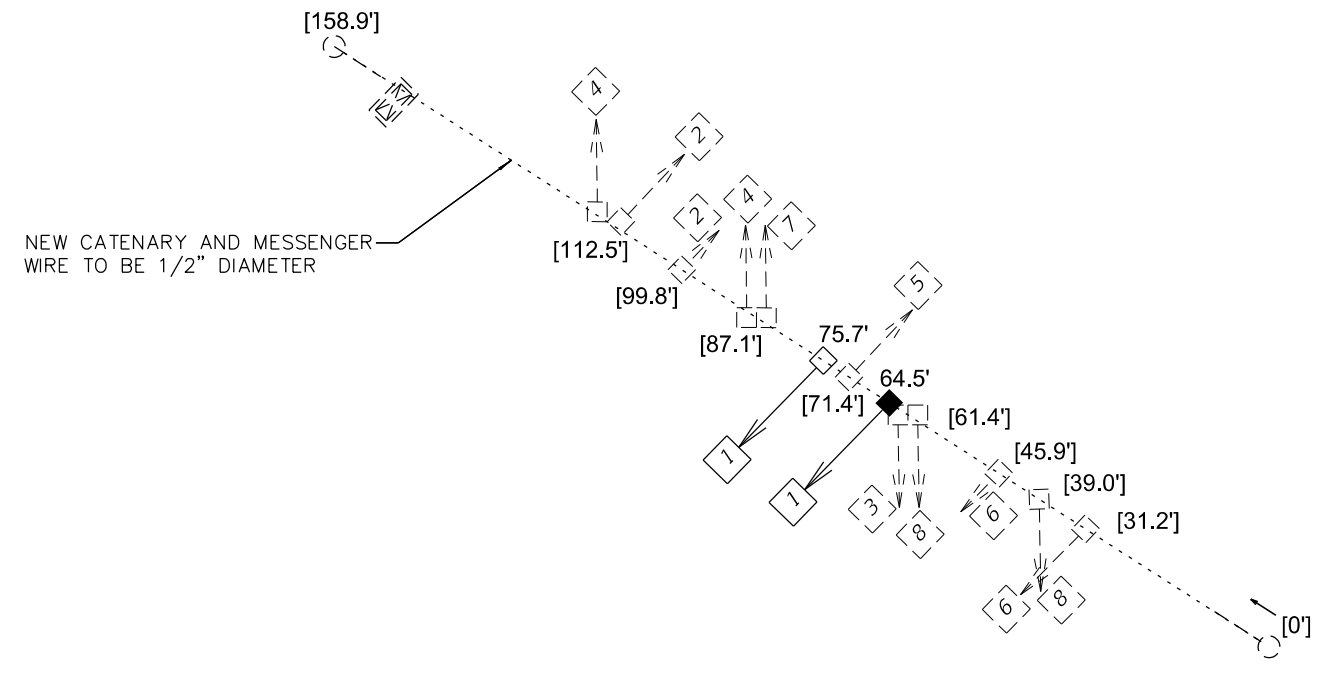
SHEET NUMBER	POLE NO.	POLE TYPE	FINISHED GROUND EL. AT POLE	PAVEMENT EL. UNDER CRITICAL HEAD	DIM. A (FT)	DIM. B (FT)	DIM. C (FT)	DIM. D (FT)	DIM. E (FT)	CATENARY WIRE DIA. (IN.)/GRADE	MESSENGER WIRE DIA. (IN.)/GRADE	FOUNDATION DESIGN ASSUMPTIONS	
												EFFECTIVE SOIL UNIT WT. (PCF)	ANGLE OF INTERNAL FRICTION (DEG.)



CONCRETE POLE ELEVATION

NOTES:

- FOR ADDITIONAL DETAILS NOT SHOWN ON THIS SHEET, REFER TO DESIGN STANDARD INDEX 17725.
- DESIGN WIND SPEED: 130 MPH.
- A PROPERLY SIZED SERVICE HEAD, (WEATHERHEAD) SHALL BE INSTALLED AND FASTENED SECURELY ONTO CONDUIT FOR EACH POLE LOCATION. AT LOCATIONS OTHER THAN SERVICE ENTRANCE, THE SERVICE HEAD FACE IS TO BE LEFT CLOSED TO OUTSIDE ATMOSPHERE. SERVICE ENTRANCE INSTALLATION PER INDEX 17727.
- FOR REPORT OF CORE BORINGS, SEE SHEETS (TBD).



LEGEND:

- SIGNAL HEAD - PROPOSED
- SIGNAL HEAD - RELOCATE
- SIGNAL HEAD - EXISTING
- ###** SIGNAL HEAD DIM. - PROPOSED
- [###]** SIGNAL HEAD DIM. - EXISTING

NO.	DATE	BY	REVISIONS - DESCRIPTION

**AIM ENGINEERING & SURVEYING, INC.**  
 3802 CORPOREX PARK DRIVE STE. 225  
 TAMPA, FLORIDA 33619  
 TELEPHONE (888) 627-4144  
 FAX (813) 664-1899  
 CERTIFICATE OF AUTHORIZATION NO. 3114

APPROVED BY:  
**JAMES E. TOOMBS, P.E.**  
 REGISTERED PROFESSIONAL ENGINEER  
 FLORIDA CERTIFICATE NO. 41390

PUBLIC WORKS DEPARTMENT  
 LEE COUNTY of SOUTH WEST FLORIDA TRANSPORTATION  
 1500 MONROE STREET FORT MYERS, FLORIDA 33901  
 (239) 479-8900 www.lee-county.com/publworks/dot11e.htm

**CONCRETE STRAIN POLE SCHEDULE**

SHEET NO.  
**T-6**

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GENERAL NOTES

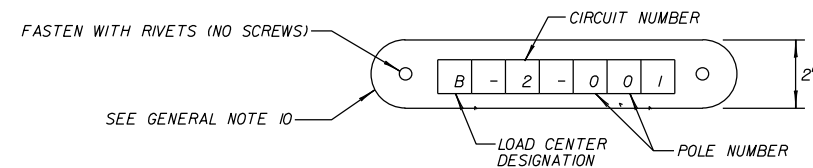
1. SPARE CONDUIT AT PAVEMENT CROSSINGS SHALL BE CAPPED AT BOTH ENDS AND TERMINATE IN PULL BOXES.
2. PRIOR TO ANY EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL EQUIPMENT SPECIFICATION OR DESIGN DATA FOR ALL MATERIAL PROPOSED FOR THE PROJECT. SEVEN (7) COPIES OF SHOP DRAWINGS AND DESIGN DATA FOR ROADWAY LIGHTING EQUIPMENT SHALL BE SUBMITTED TO THE ENGINEER OF RECORD IN ACCORDANCE WITH THE SPECIFICATIONS.
3. THE LOCATION OF EXISTING UTILITIES, AS SHOWN ON THIS PLANS, ARE APPROXIMATE AND BASED ON THE INFORMATION FURNISHED TO THE ENGINEER BY THE UTILITY OWNERS AND ARE SHOWN AS NOTICE TO THE CONTRACTOR THAT UNDERGROUND UTILITIES EXIST. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY OWNERS FOR LOCATION AND STAKING OF UNDERGROUND FACILITIES BEFORE EXCAVATING.
4. STATE OF FLORIDA STATUTE 556.105 REQUIRES THAT BEFORE EXCAVATING, NOTICE BE GIVEN TO THE UTILITY OWNER A MINIMUM OF TWO (2) FULL BUSINESS DAYS AND A MAXIMUM OF (5) FULL BUSINESS DAYS. NOT ALL UTILITY OWNER ARE MEMBER OF "SUNSHINE ONE" 1-800-432-4770.
5. THE LOCATION OF THE POLES, CONDUCTORS, CONDUITS, JUNCTION BOXES, AND SERVICE POLES ARE DIAGRAMMATIC ONLY AND MAY BE SHIFTED BY THE ENGINEER TO ACCOMMODATE LOCAL CONDITIONS AND EXISTING UTILITY LOCATIONS.
6. 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 F.H.W.A. APPROVED METHODS (1994 EDITION). CERTIFICATION FOR TESTS SHALL BE SUBMITTED WITH THE SHOP DRAWINGS.
7. REPORT TO THE ENGINEER OF RECORD FOR APPROVAL.  
ALL ELECTRICAL WORK SHALL MEET ALL REQUIREMENTS OF THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE, THE NATIONAL ELECTRICAL SAFETY CODE AND THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ALL COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER THE NATIONAL ELECTRICAL CODE REQUIREMENTS.
8. INSTALL LIGHTNING ARRESTORS, PROPERLY GROUNDED, IN POWER (SECONDARY) ENTRANCES.
9. IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, IDENTIFY ALL CIRCUITS AND EQUIPMENT WITH "LAMACOID TAGS". INSTALL SIMILAR TAGS OF STAINLESS STEEL IDENTIFYING CIRCUITS FOR EACH LUMINAIRE AT THE ACCESS HANDHOLE FOR EACH POLE.
10. CONTRACTOR SHALL MEET ALL APPLICABLE OSHA REQUIREMENT, A MINIMUM 10-FOOT DISTANCE SHALL BE MAINTAINED BETWEEN THE EQUIPMENT AND THE ELECTRICAL OVERHEAD FACILITY. ALL EXISTING OVERHEAD POWER LINES SHALL STAY IN PLACE BOTH VERTICALLY AND HORIZONTALLY. ANY WORK DONE RELATED TO THIS REQUIREMENT SHALL BE AT NO ADDITIONAL COST TO THE COUNTY.
11. PULLING INSTRUCTIONS: CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET AND MEET MANUFACTURER'S REQUIREMENTS. USE PULLING COMPOUND PER MANUFACTURER'S REQUIREMENTS. ALL BENDS SHALL NOT BE LESS THAN RECOMMENDED BY THE NATIONAL ELECTRICAL CODE OR NATIONAL ELECTRICAL SAFETY CODE FOR CABLE USED.
12. CONTRACTOR SHALL STAKE ALL POLE LOCATIONS AND REQUEST UTILITY COMPANIES TO LOCATE AND STAKE UNDERGROUND UTILITIES PRIOR TO EXCAVATING.
13. THE CONTRACTOR SHALL FURNISH AND INSTALL AN ALUMINUM IDENTIFICATION TAG ON EACH ROADWAY LIGHTING STANDARD. TAGS SHALL BE 2" x 8" IN SIZE WITH BLACK LETTERS ON A YELLOW BACKGROUND, ATTACHED WITH RIVETS, (NO SCREWS). NUMBERS SHALL BE AS SHOWN ON THE POLE DATA SHEETS AND THE POLE IDENTIFICATION TAG DETAIL. COST OF TAGS SHALL BE INCLUDED IN THE PAY ITEM.
14. DIRECTIONAL BORE OPERATIONS SHALL MEET THE REQUIREMENTS OF THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION UTILITY ACCOMMODATION GUIDE (LATEST EDITION).
15. AT LOCATIONS WHERE UNDERGROUND UTILITIES ARE IN CLOSE PROXIMITY TO THE LIGHTING POLE FOUNDATIONS OR CONDUIT RUN, AS DETERMINED BY THE CONTRACTOR, THE CONTRACTOR SHALL HAND DIG THE FIRST 4.0 FEET OF THE HOLE FOR THE POLE FOUNDATION AND CONDUIT RUN.
16. ALL CONDUIT TRENCHES SHALL BE BACK FILLED COMPLETELY TO PROVIDE SAFE CROSSING BY THE END OF EACH WORKING DAY. THE CONTRACTOR SHALL NOT OPEN ANY AREA THAT CAN NOT BE BACK FILLED IN THE SAME DAY/NIGHT OPERATION.
17. ALL EXCESS DIRT AND DEBRIS EXCAVATED FROM POLE FOUNDATIONS SHALL BE REMOVED DAILY TO AREAS APPROVED BY THE ENGINEER AT NO ADDITIONAL COST TO LEE COUNTY.
18. THE LIGHTING SYSTEM SHALL BE MAINTAINED BY THE LEE COUNTY UPON FINAL ACCEPTANCE. THE CONTRACTOR SHALL SUBMIT THE AS-BUILT PLANS TO THE ENGINEER, PRIOR TO FINAL ACCEPTANCE.
19. FOUNDATIONS FOR STREET LIGHT POLES SHALL BE A MINIMUM 30" DIAMETER, 7-FOOT LONG PRE-FORMED CONCRETE FOUNDATION WITH 2-2" CONDUITS AND 1-1" CONDUIT.
20. MINIMUM 20-FOOT GROUND ROD AT EACH STREET LIGHT POLE IS REQUIRED. THE GROUND RESISTANCE MUST BE LESS THAN 15 OHMS.
21. BREAKAWAY RECEPTACLES WITH SET SCREW CONNECTORS AND RUBBER BOOTS SHALL BE INSTALLED IN EACH POLE.

22. NO SPLICING PERMITTED IN PULL BOXES UNLESS APPROVED BY LEE COUNTY TRAFFIC ENGINEERING. SPLICE ONLY BY USE OF USPA INLINE SPLICE.
23. SURGE ARRESTORS SHALL BE INSTALLED AT EACH POLE. USE 10# STRANDED WIRE TO FEED STREET LIGHT HEAD FROM POLE BASE (HOT-HOT/NEUTRAL-GROUND).
24. ALL CONDUCTORS INSTALLED FROM LOAD CENTER PULLED THROUGH CONDUITS TO EACH STREET LIGHT POLE ON A 480 VOLT 2-WIRE SYSTEM SHALL HAVE THE FOLLOWING COLOR DESIGNATIONS: BLACK (HOT), WHITE (NEUTRAL), AND GREEN (GROUND). ALL CONDUCTORS SHALL BE CONTINUOUS IN COLOR FROM THE LOAD CENTER TO EACH STREET LIGHT POLE. THE UTILIZATION OF PHASE TAPE OR TAGS TO IDENTIFY THE HOT, NEUTRAL, OR GROUND CONDUCTORS SHALL NOT BE SUBSTITUTED FOR CONTINUOUS BLACK, WHITE, AND GREEN COLORED INSULATION.
25. ALL APPLICABLE INSTALLATION SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST ADDITION OF THE LEE COUNTY DEPARTMENT OF TRANSPORTATION PLAN SPECIFICATIONS.  
<http://www.leegov.com/dot/Documents/Traffic%20Folder/Spec%20Book/traffic%20spec%20book.pdf>
26. LEE COUNTY ROADWAY LIGHTING CONTACT:  
  
5650 ENTERPRISE PARKWAY  
FT MYERS, FL 33905  
239-533-9514


ROADWAY LIGHTING ITEM NOTES:

1. PAY ITEM 715-1-12, 715-1-13:  
SHALL INCLUDE CONDUCTORS AS INDICATED IN THE PLANS AND THE LEE COUNTY DEPARTMENT OF TRANSPORTATION PLAN SPECIFICATIONS. PAYMENT SHALL BE MADE BASED ON LINEAR FOOT OF SINGLE CONDUCTOR.
2. PAY ITEM 630-2-11, 630-2-12:  
SHALL INCLUDE CONDUIT, ELBOWS, SWEEPS, CONNECTING HARDWARE, TRENCHING AND BACKFILL AS INDICATED IN THE PLANS AND THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS. THE LINEAR FOOT PRICE FOR CONDUIT SHALL ALSO INCLUDE THE COST OF RESTORING CUT PAVEMENT, SIDEWALK, SOD, ETC., TO IT'S ORIGINAL CONDITION. SOD SHALL BE REPLACED IN LIKE KIND OF THE ADJACENT SURROUNDS.
3. ITEM 715-4-121: SHALL INCLUDE THE POLE, LUMINAIRE WITH LAMP, ANCHOR BOLTS WITH LOCK NUTS AND WASHERS, FRANGIBLE BASE, AND FOUNDATION AS INDICATED IN THE DESIGN STANDARDS. THE COST OF BREAK-AWAY WATERTIGHT, IN-LINE FUSE HOLDERS, THE STRAIN RELIEF, AND THE SURGE ARRESTOR PER DESIGN STANDARDS INDEX 17500, IS ALSO INCLUDED.

ROADWAY LIGHTING POLE IDENTIFICATION TAG DETAIL (N.T.S.)



NO.	DATE	BY	REVISIONS - DESCRIPTION


**GANNETT FLEMING, INC.**  
 9119 CORPORATE LAKE DRIVE, SUITE 150  
 TAMPA, FLORIDA 33634  
 PHONE: (813) 882-4366  
 CERTIFICATE OF AUTHORIZATION NO. 5564

APPROVED BY:  
**PHUC H. DUONG, P.E.**  
 REGISTERED PROFESSIONAL ENGINEER  
 FLORIDA CERTIFICATE NO. 63835


**PUBLIC WORKS**  
**LEE COUNTY**  
 DEPARTMENT  
 of  
**SOUTHWEST**  
**FLORIDA**  
 TRANSPORTATION  
 1500 MONROE STREET  
 FORT MYERS, FLORIDA 33901  
 (239) 479-8900 [www.lee-county.com/publoworks/dot11e.htm](http://www.lee-county.com/publoworks/dot11e.htm)

**LIGHTING GENERAL NOTES**

SHEET NO.  
**L-1**

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## POLE DATA

POLE NO.	CIRCUIT	STATION	LUMINAIRE WATTAGE	MOUNTING HEIGHT	POLE SETBACK	PAY ITEM
1	B-6	305+88	400	40'	BOF ADJACENT TO BOS	715-4-12I
2	B-6	307+97	400	40'	BOF ADJACENT TO BOS	715-4-12I
3	B-6	310+00	400	40'	BOF ADJACENT TO BOS	715-4-400

BOF = BACK OF FOUNDATION  
 BOS = BACK OF SIDEWALK

## LEGEND

### SYMBOLS

### DESCRIPTION



HOLOPHANE MONGOOSE 400 WATT HIGH PRESSURE SODIUM LUMINAIRE CATALOG NUMBER G400HP48LWFG P. LUMINAIRE SPECIFICATIONS: 480 VOLT INPUT, FLAT GLASS, LOW TILT, TENON MOUNT, GRAY FINISH AND PROTECTED STARTER FOR HPS. IES CURVE NUMBER 49396. POLE MOUNTING HEIGHT 40 FEET WITH 5 DEGREE TILT. POLE TYPE HAPCO B78230 POLE.



UNDERGROUND CONDUIT, 2" HDPE CONDUIT (GRAY) WITH USE/XLP CONDUCTORS INSIDE (CONDUIT AND CONDUCTOR SIZE AS SHOWN ON LIGHTING PLAN SHEETS). CONDUIT SHALL CONTAIN TWO (2) CONDUCTOR WIRES FOR 480 VOLT SYSTEM FURNISHED BY FPL FOR STREET LIGHTING IN LEE COUNTY.



DIRECTIONAL BORE, 2" HDPE CONDUIT (GRAY) WITH USE/XLP CONDUCTORS INSIDE (CONDUIT AND CONDUCTOR SIZE AS SHOWN ON LIGHTING PLAN SHEETS). CONDUIT SHALL CONTAIN TWO (2) CONDUCTOR WIRES FOR 480 VOLT SYSTEM FURNISHED BY FPL FOR STREET LIGHTING IN LEE COUNTY.



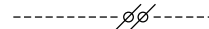
PULL BOX. FOR SPECIFICATIONS SEE LEE COUNTY DEPARTMENT OF TRANSPORTATION PLAN SPECIFICATIONS.



INTERCONNECT PULL BOX. FOR SPECIFICATIONS SEE LEE COUNTY DEPARTMENT OF TRANSPORTATION PLAN SPECIFICATIONS.



SQUARE D NIGHT-MASTER LOAD CENTER NUMBER D8903-SQH63-V06 WITH BUSSMAN FUSE BLOCK NUMBER R60030-2CR. FOR REQUIREMENTS SEE LEE COUNTY DEPARTMENT OF TRANSPORTATION PLAN SPECIFICATIONS.



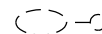
EXISTING CONDUIT



EXISTING PULL BOX



RELOCATE EXISTING POLE AND LUMINAIRE



EXISTING POLE AND LUMINAIRE

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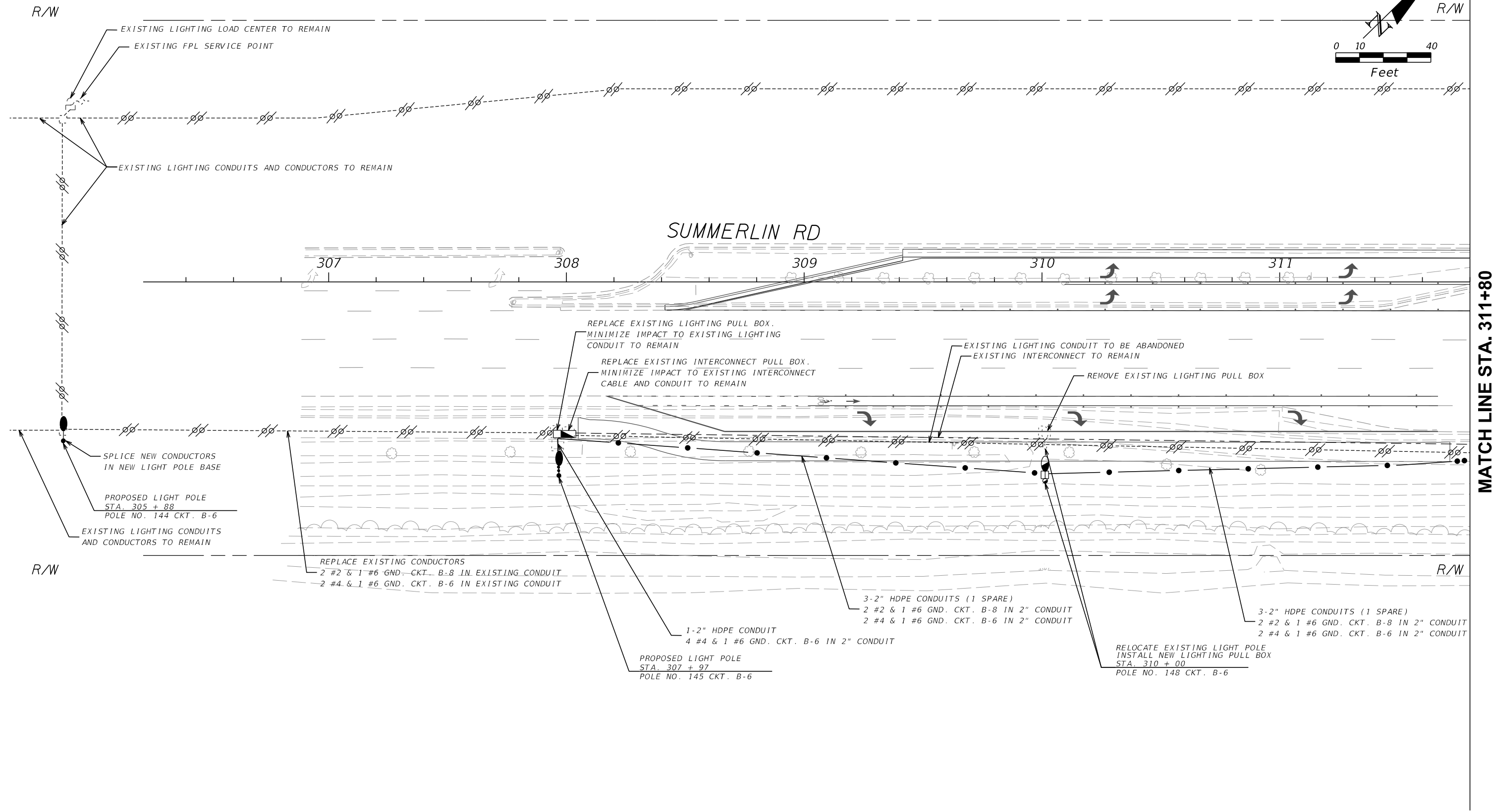
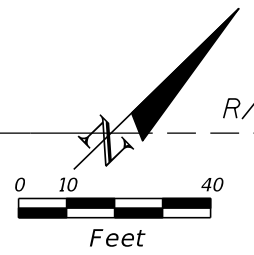
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 of  
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 FLORIDA  
 1500 MONROE STREET FORT MYERS, FLORIDA 33901  
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## POLE DATA AND LEGEND

SHEET NO.

L-2





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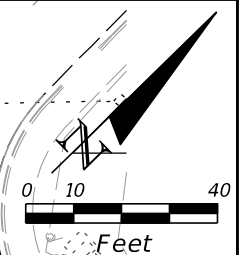
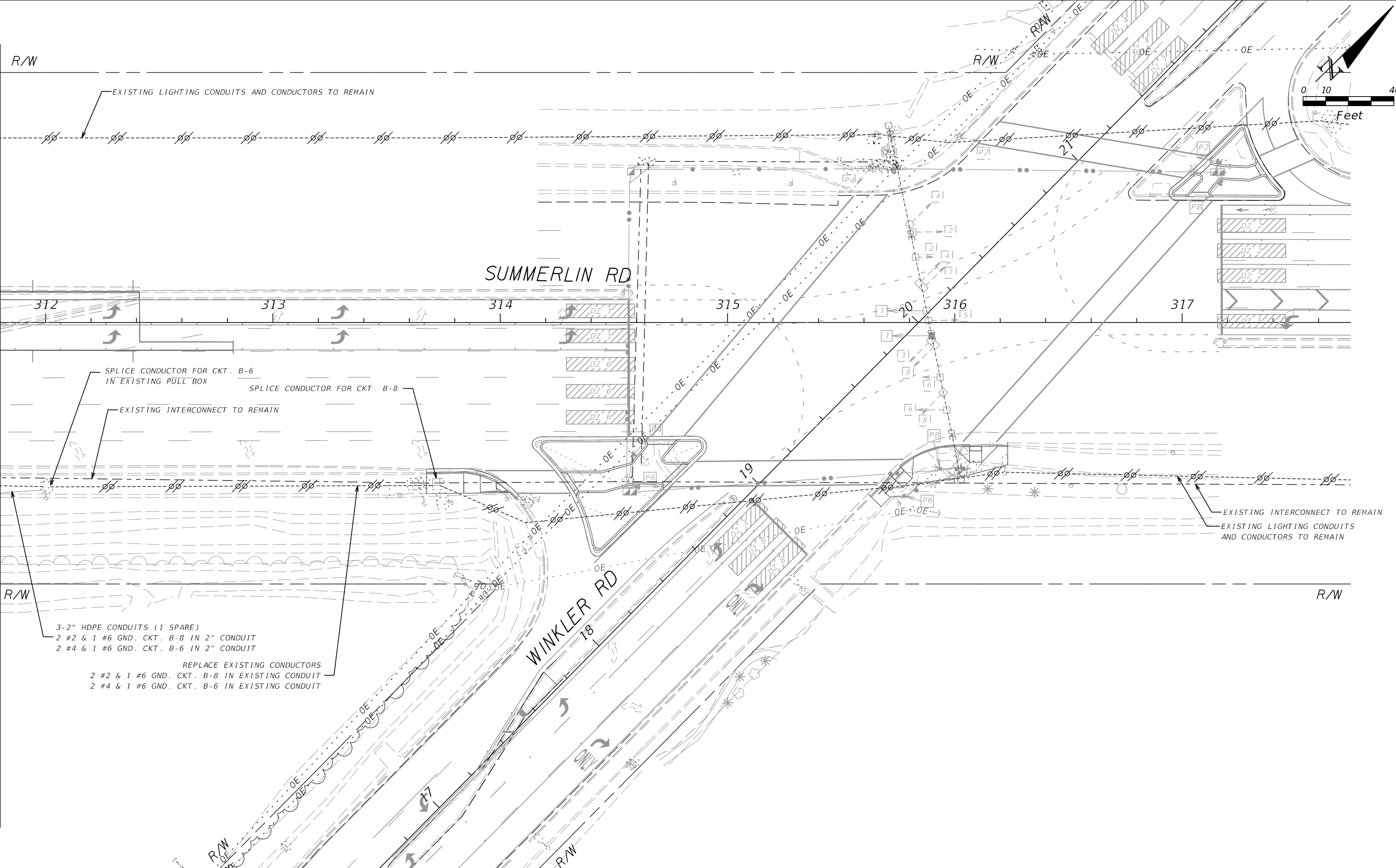
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# LIGHTING PLAN

MATCH LINE STA. 311+80

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MATCH LINE STA. 311+80



R/W

R/W

R/W

R/W

EXISTING LIGHTING CONDUITS AND CONDUCTORS TO REMAIN

SPLICE CONDUCTOR FOR CKT. B-6  
IN EXISTING PULL BOX

SPLICE CONDUCTOR FOR CKT. B-8

EXISTING INTERCONNECT TO REMAIN

EXISTING INTERCONNECT TO REMAIN  
EXISTING LIGHTING CONDUITS  
AND CONDUCTORS TO REMAIN

3-2" HDPE CONDUITS (1 SPARE)  
2 #2 & 1 #6 GND. CKT. B-8 IN 2" CONDUIT  
2 #4 & 1 #6 GND. CKT. B-6 IN 2" CONDUIT

REPLACE EXISTING CONDUCTORS  
2 #2 & 1 #6 GND. CKT. B-8 IN EXISTING CONDUIT  
2 #4 & 1 #6 GND. CKT. B-6 IN EXISTING CONDUIT

NO.	DATE	BY	REVISIONS - DESCRIPTION



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# LIGHTING PLAN

SHEET NO.  
**L-4**

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