

CONTRACT PLANS COMPONENTS

- ROADWAY PLANS
- SIGNING AND PAVEMENT MARKING PLANS
- SIGNALIZATION PLANS
- LIGHTING PLANS

A DETAILED INDEX APPEARS ON THE KEY SHEET OF EACH COMPONENT

INDEX OF LIGHTING PLANS

SHEET NO.	SHEET DESCRIPTION
L-1	KEY SHEET
L-2	GENERAL NOTES
L-3	LIGHTING LEGEND
L-4	LIGHTING DATA TABLE
L-5 THRU L-8	LIGHTING PLAN
L-9	SERVICE POINT DETAILS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

LIGHTING PLANS

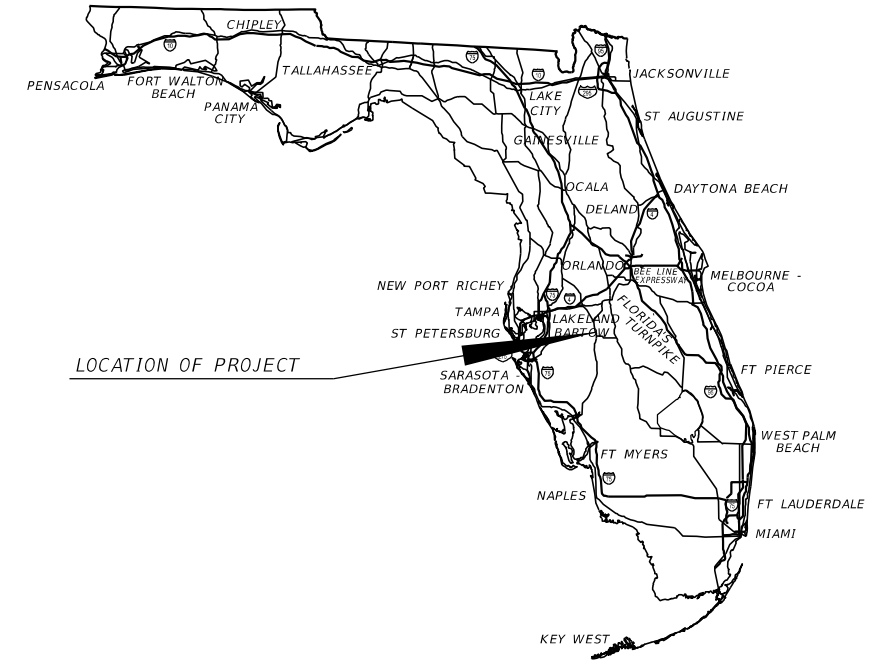
FINANCIAL PROJECT ID 449232-1-52-01

(FEDERAL FUNDS)

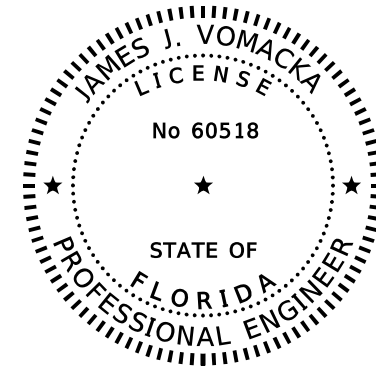
POLK COUNTY (16030)

STATE ROAD NO. 35

FROM 9TH ST NW TO N OF OAK HAMMOCK LOOP



PROJECT LOCATION URL:	https://tinyurl.com/yprd64fn
PROJECT LIMITS:	BEGIN MP 8.333 - END MP 15.959
EXCEPTIONS:	NONE
BRIDGE LIMITS:	BR#160085 MP 12.311 - MP 12.361 BR#160103 MP 12.333 - MP 12.382 BR#160012 MP 15.647 - MP 15.655
RAILROAD CROSSING:	CSX TRACK NO 626466A, MP SVE 857.11



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.

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

LIGHTING PLANS
ENGINEER OF RECORD:

JAMES J. VOMACKA, P.E.
P.E. LICENSE NUMBER 60518
PROPEL ENGINEERING, INC
2711 N VISTA PARKWAY, SUITE B7
WEST PALM BEACH, FL 33411
(561) 866-5730
CONTRACT NO.: CA154
VENDOR NO.: F463316950

FDOT PROJECT MANAGER:

MARIE CARVAJAL

GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY2024-25 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, FY 2024-25 Standard Specifications for Road and Bridge Construction at the following website: <http://www.fdot.gov/programmanagement/Implemented/SpecBooks>

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
T1903	25	L-1

GENERAL NOTES:

1. THE LOCATION OF THE POLES, CONDUCTORS, JUNCTION BOXES, AND SERVICE POLES ARE DIAGRAMMATIC ONLY AND MAY BE SHIFTED UPON APPROVAL BY THE ENGINEER TO ACCOMMODATE LOCAL CONDITIONS AND EXISTING UTILITY LOCATIONS.
2. THE LIGHTING SYSTEM WILL BE MAINTAINED BY FDOT.

3/25/2024 1:20:43 PM Shuvo S:\2220010500-US17_SR35_BR\44923215201\lighting\GMNTLT01.dgn

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



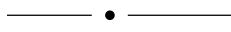
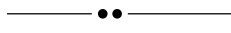


REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			<i>GENERAL NOTES</i>	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JAMES J. VOMACKA, P.E. LICENSE NUMBER 60518 PROPEL ENGINEERING, INC. 2711 N VISTA PARKWAY, SUITE B7 WEST PALM BEACH, FL 33411	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		L-2
						SR 35	POLK		

Roadway Classification	Illumination Level Average Foot Candle		Illumination Uniformity Ratio		Veiling Luminan ce Ratio
	Horizontal (H.F.C)	Vertical (V.F.C)	AVG/MIN	MAX/MIN	
Project Type					
SIGNALIZED INTERSECTION LIGHTING					
LIGHTING RETROFIT	1.5 STD 1.0 MIN	1.5 STD 1.0 MIN	4:1 OR LESS	10:1 OR LESS	N/A
CORRIDOR LIGHTING					
MAJOR ARTERIALS	1.5	N/A	4:1 OR LESS	10:1 OR LESS	N/A

DESIGN WINDSPEED 140 MPH

MINIMUM MOUNTING HEIGHT (FT)	MAXIMUM CANDELA OF LUMINAIRE		
	LONG DISTRIBUTION	MEDIUM DISTRIBUTION	SHORT DISTRIBUTION
35	20,000	25,000	30,000

LEGEND

SYMBOLS	DESCRIPTIONS
	NEW LIGHT POLE INSTALLATION. SYMBOL INCLUDES CONCRETE SLAB, PULLBOX, AND POLE CABLE DISTRIBUTION SYSTEM. REFER TO POLE DATA TABLE FOR WATTAGE.
	NEW LIGHT POLE INSTALLATION. SYMBOL INCLUDES CONCRETE SLAB, PULLBOX, AND POLE CABLE DISTRIBUTION SYSTEM. REFER TO POLE DATA TABLE FOR WATTAGE.
	2" HDPE CONDUIT, OPEN TRENCH, WITH CONDUCTORS INSIDE. RUN ONE (1) 6 AWG COPPER BOND CONDUCTOR (TW GREEN INSULATION) INSIDE CONDUIT WITH OTHER CONDUCTORS.
	2" HDPE CONDUIT, DIRECTIONAL BORE, WITH CONDUCTORS INSIDE. RUN ONE (1) 6 AWG COPPER BOND CONDUCTOR (TW GREEN INSULATION) INSIDE CONDUIT WITH OTHER CONDUCTORS. DIRECTIONAL BORE INCLUDES ONE SPARE RUN OF CONDUIT.
	PULL BOX
	NEW CONCRETE STUB POLE MOUNT W/ PROPOSED LIGHTING DISCONNECT. RATED FOR 240/480V, 1 PHASE, 3 WIRE, AND LOAD CENTER.

3/25/2024 1:20:52 PM Shuvo C:\worksets\FDOT\44923215201\Lighting\PLDTL701.dgn

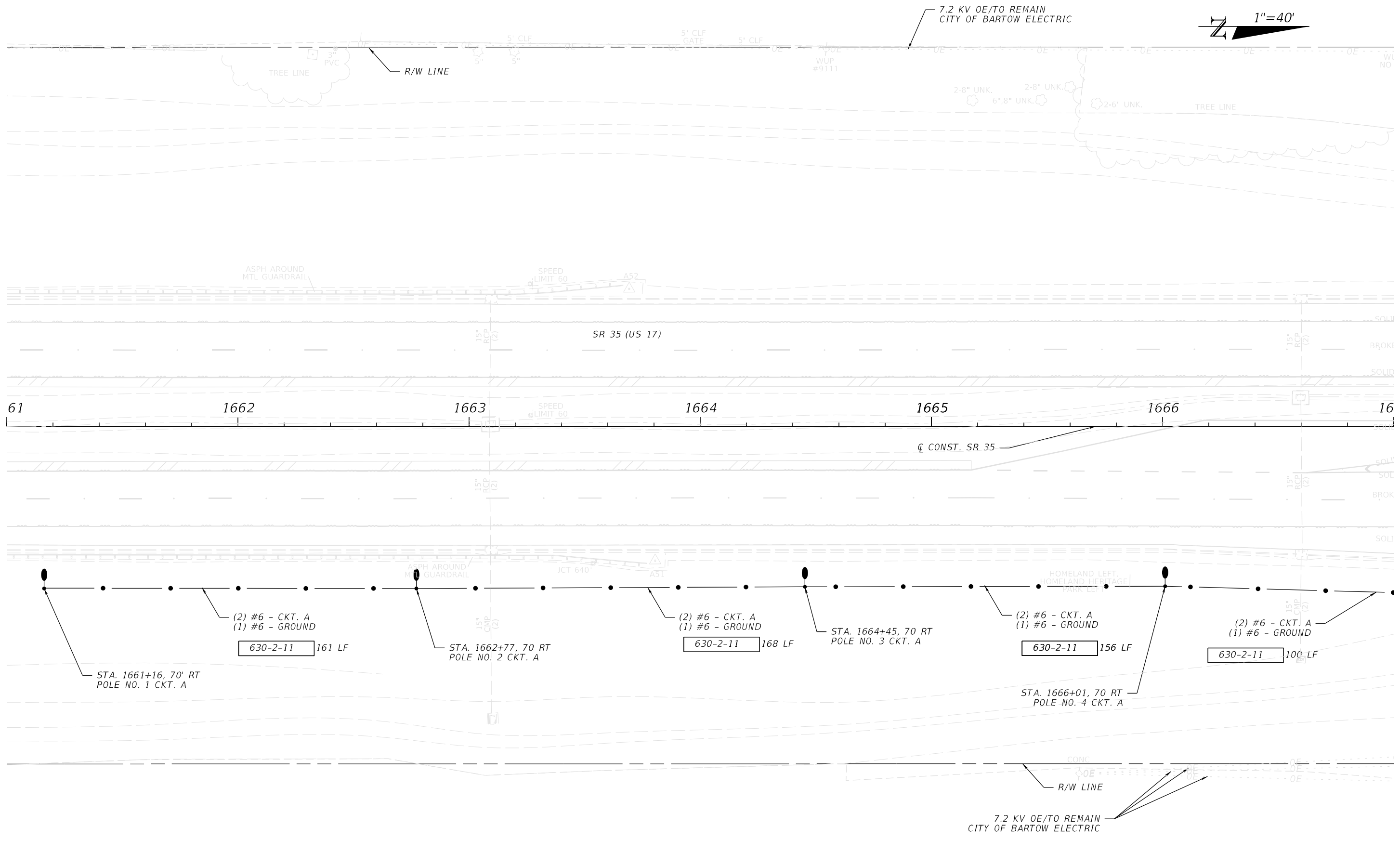
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LIGHTING LEGEND	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JAMES J. VOMACKA, P.E. LICENSE NUMBER 60518 PROPEL ENGINEERING, INC. 2711 N VISTA PARKWAY, SUITE B7 WEST PALM BEACH, FL 33411	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		L-3
						SR 35	POLK		

POLE NO.	STATION	POLE OFFSET	COORDINATES (X,Y)	ROADWAY SETBACK	POLE OWNER	MAINTAIN. AGENCY	POLE TYPE	ARM LENGTH	QUANTITY OF LUMINAIRES	LUMINIARE TYPE	LUMINIARE MODEL	LUMENS OUTPUT	IES DISTRIBUTION PATTERN	CCT	MOUNTING HEIGHT	TILT ANGLE	INPUT WATTAGE	INPUT VOLTAGE	LOAD CENTER NUMBER	CIRCUIT	FOUNDATION	PAY ITEM
1	1661+16	70' RT	714000, 1266464	27' RT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	A	A	STANDARD	715-61-252
2	1662+77	70' RT	713982, 1266624	27' RT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	A	A	STANDARD	715-61-252
3	1664+45	70' RT	713963, 1266791	26' RT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	A	A	STANDARD	715-61-252
4	1666+01	70' RT	713945.82, 1266945.876	26' RT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	A	A	STANDARD	715-61-252
5	1667+84	74' RT	713931, 1267128	31' RT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	A	A	STANDARD	715-61-252
6	1669+42	77' RT	713917.05, 1267285.201	34' RT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	A	A	STANDARD	715-61-252
7	1670+82	80' RT	713904.686, 1267424.848	37' RT	FDOT	FDOT	NEW	15	1	D XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	209	240	A	A	STANDARD	715-61-252
8	1671+97	104' RT	713919.996, 1267543.582	65' RT	FDOT	FDOT	NEW	15	1	D XXXXX R3 3K	ATBL	19,057.10	TYPE III	3000	35	0	209	240	A	A	STANDARD	715-61-252
9	1673+35	63" RT	713864.284, 1267660	20' RT	FDOT	FDOT	NEW	15	1	D XXXXX R3 3K	ATBL	19,057.10	TYPE III	3000	35	0	209	240	A	A	STANDARD	715-61-252
10	1670+58	76' LT	713751.962, 1267384.646	31' LT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	B	B	STANDARD	715-61-252
11	1671+29	78' LT	713742.22, 1267454.75	26' LT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	B	B	STANDARD	715-61-252
12	1672+71	84' LT	713722.169, 1267595.226	40' LT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	B	B	STANDARD	715-61-252
13	1673+85	75' LT	713717.34, 1267709.51	30' LT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	B	B	STANDARD	715-61-252
14	1675+64	79' LT	713694.037, 1267887.825	35' LT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	B	B	STANDARD	715-61-252
15	1677+44	68' LT	713685.43, 1268066.643	22' LT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	B	B	STANDARD	715-61-252
16	1679+35	67' LT	713665.487, 1268257.546	21' LT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	B	B	STANDARD	715-61-252
17	1681+25	66' LT	713645.492, 1268446.005	20' LT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	B	B	STANDARD	715-61-252
18	1683+14	67' LT	713624.642, 1268634.124	20' LT	FDOT	FDOT	NEW	15	1	F XXXXX R3 3K	ATBL	24,517.70	TYPE III	3000	35	0	259	240	B	B	STANDARD	715-61-252

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LIGHTING DATA TABLE	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JAMES J. VOMACKA, P.E. LICENSE NUMBER 60518 PROPEL ENGINEERING, INC. 2711 N VISTA PARKWAY, SUITE B7 WEST PALM BEACH, FL 33411		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
								SR		

1"=40'

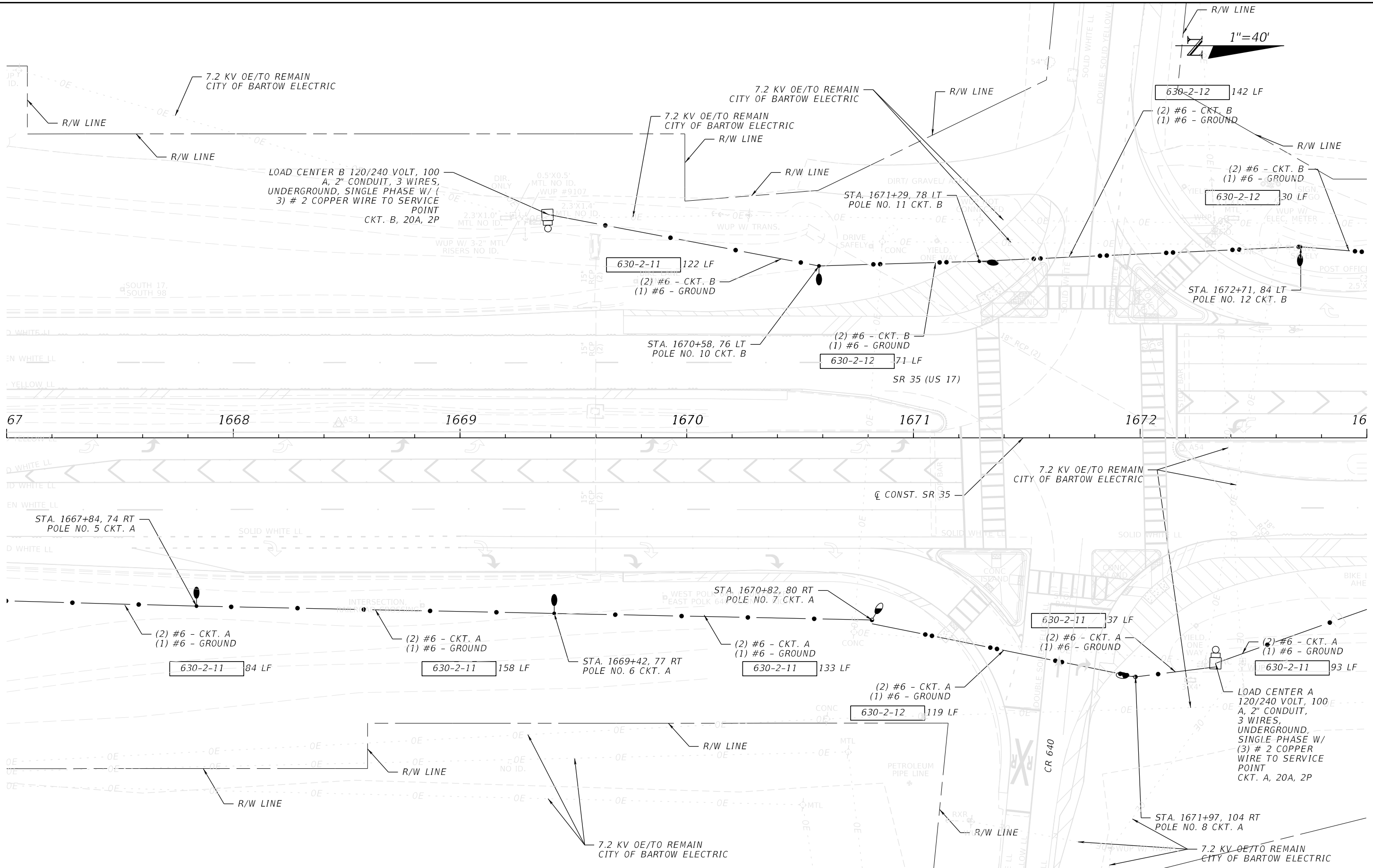
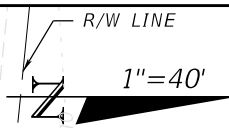


3/25/2024 1:21:20 PM Shuro C:\Worksets\FDOT\44923215201\Lighting\PLANLT01.dgn

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

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JAMES J. VOMACKA, P.E. LICENSE NUMBER 60518 PROPEL ENGINEERING, INC. 2711 N VISTA PARKWAY, SUITE B7 WEST PALM BEACH, FL 33411		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
						SR 35	POLK	449232-1-52-01	L-5

LIGHTING PLAN



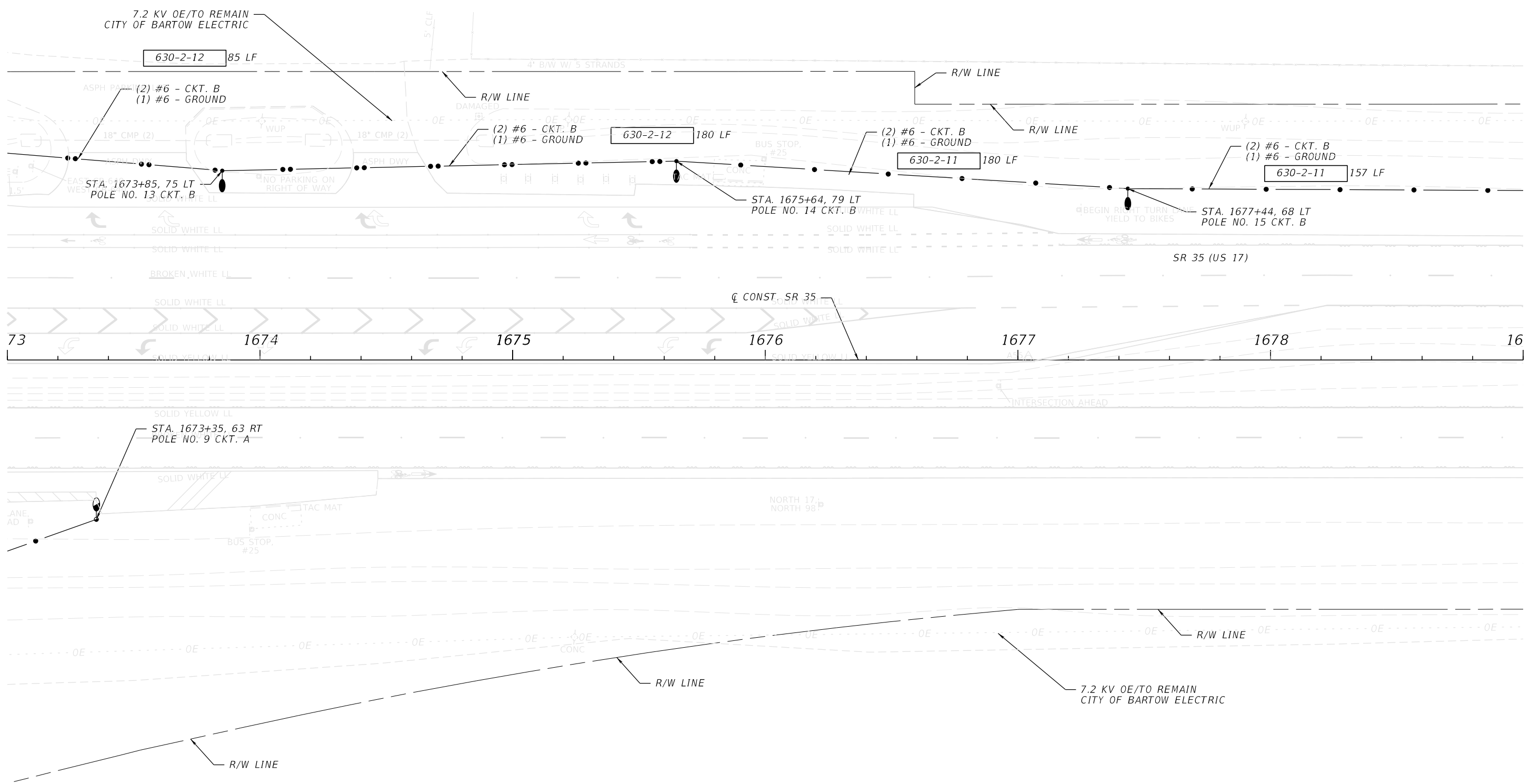
3/25/2024 1:21:23 PM Shuro S:\2220010500-US17_SR35_3R\44923215201\Lighting\PLANLTO1.dgn

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				JAMES J. VOMACKA, P.E. LICENSE NUMBER 60518 PROPEL ENGINEERING, INC. 2711 N VISTA PARKWAY, SUITE B7 WEST PALM BEACH, FL 33411	SR 35	POLK	449232-1-52-01	L-6

LIGHTING PLAN

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

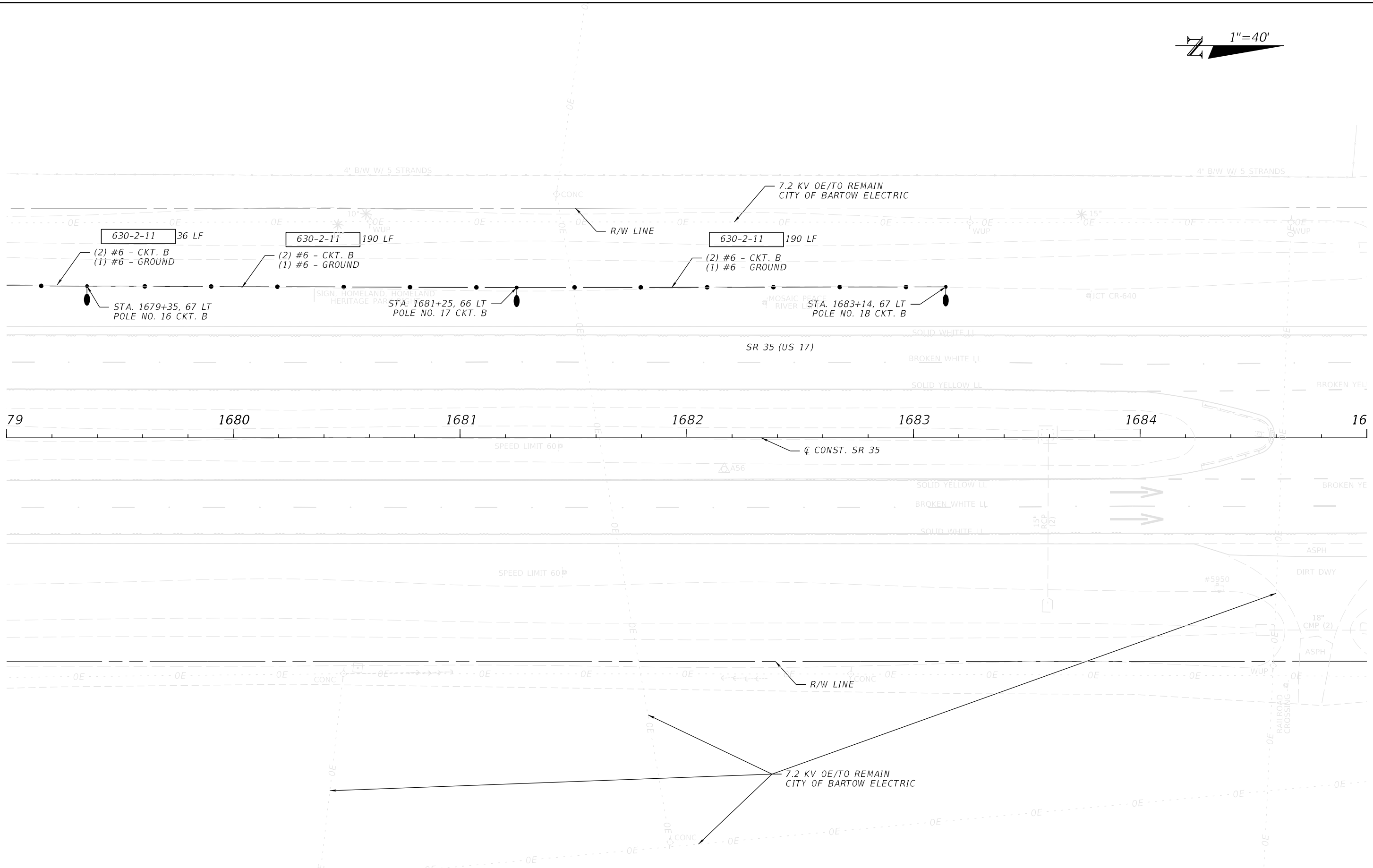
1"=40'



3/25/2024 1:21:24 PM Shuro C:\work\sets\FDOT\44923215201\Lighting\PLAN\LT01.dgn

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


REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JAMES J. VOMACKA, P.E. LICENSE NUMBER 60518 PROPEL ENGINEERING, INC. 2711 N VISTA PARKWAY, SUITE B7 WEST PALM BEACH, FL 33411		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
						SR 35	POLK	449232-1-52-01	
LIGHTING PLAN									L-7



3/25/2024 1:21:25 PM Shuvo S:\2220010500-US17_SR35_3R\44923215201\lighting\PLANLTO1.dgn

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

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				JAMES J. VOMACKA, P.E. LICENSE NUMBER 60518 PROPEL ENGINEERING, INC. 2711 N VISTA PARKWAY, SUITE B7 WEST PALM BEACH, FL 33411	SR 35	POLK	449232-1-52-01	LIGHTING PLAN L-8

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	15	ATBL_F_XXXXX_R3_3K	Single	N.A.	1.000	ATBL_F_XXXXX_R3_3K
	3	ATBL_D_XXXXX_R3_3K	Single	N.A.	1.000	ATBL_D_XXXXX_R3_3K

Luminaire Location Summary						
LumNo	Label	X	Y	Z	Orient	Tilt
1	ATBL_D_XXXXX_R3_3K	713904.686	1267424.848	35	155	0
2	ATBL_F_XXXXX_R3_3K	713722.169	1267595.226	35	0	0
3	ATBL_F_XXXXX_R3_3K	713684	1267473	35	90	0
4	ATBL_D_XXXXX_R3_3K	713915	1267542.776	35	270	0
7	ATBL_F_XXXXX_R3_3K	713754.646	1267397.087	35	0	0
8	ATBL_D_XXXXX_R3_3K	713860.008	1267675	35	180	0
9	ATBL_F_XXXXX_R3_3K	713917.05	1267285.201	35	180	0
10	ATBL_F_XXXXX_R3_3K	713931	1267128	35	180	0
12	ATBL_F_XXXXX_R3_3K	713945.82	1266945.876	35	180	0
13	ATBL_F_XXXXX_R3_3K	713717.34	1267709.51	35	180	0
14	ATBL_F_XXXXX_R3_3K	713982	1266624	35	180	0
15	ATBL_F_XXXXX_R3_3K	714000	1266464	35	180	0
16	ATBL_F_XXXXX_R3_3K	713712.353	1267708.867	35	0	0
17	ATBL_F_XXXXX_R3_3K	713694.037	1267887.825	35	0	0
18	ATBL_F_XXXXX_R3_3K	713685.43	1268066.643	35	0	0
19	ATBL_F_XXXXX_R3_3K	713665.487	1268257.546	35	0	0
20	ATBL_F_XXXXX_R3_3K	713645.492	1268446.005	35	0	0
21	ATBL_F_XXXXX_R3_3K	713624.642	1268634.124	35	0	0

Vertical Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
EB THRU	Illuminance	Fc	1.21	1.40	1.10	1.10	1.27
FREEFLOW RIGHT NB	Illuminance	Fc	1.64	2.10	1.10	1.49	1.91
FREEFLOW RIGHT SB	Illuminance	Fc	1.51	1.80	0.80	1.89	2.25
NB THRU	Illuminance	Fc	1.60	2.10	1.30	1.23	1.62
SB THRU	Illuminance	Fc	1.65	2.90	0.70	2.36	4.14
WB THRU	Illuminance	Fc	1.59	2.30	0.70	2.27	3.29

Horizontal Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
SR 35 and CR 640	Illuminance	Fc	1.82	3.40	0.40	4.55	8.50
NB APPROACH	Illuminance	Fc	1.68	3.90	0.70	2.40	5.57
SB APPROACH	Illuminance	Fc	1.65	4.00	0.50	3.30	8.00

3/25/2024 1:21:25 PM Shuvo C:\Worksets\FDOT\4492321-5201\Lighting\PLANLTO1.dgn

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JAMES J. VOMACKA, P.E. LICENSE NUMBER 60518 PROPEL ENGINEERING, INC. 2711 N VISTA PARKWAY, SUITE B7 WEST PALM BEACH, FL 33411		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
						SR 35	POLK	449232-1-52-01	
									L-9

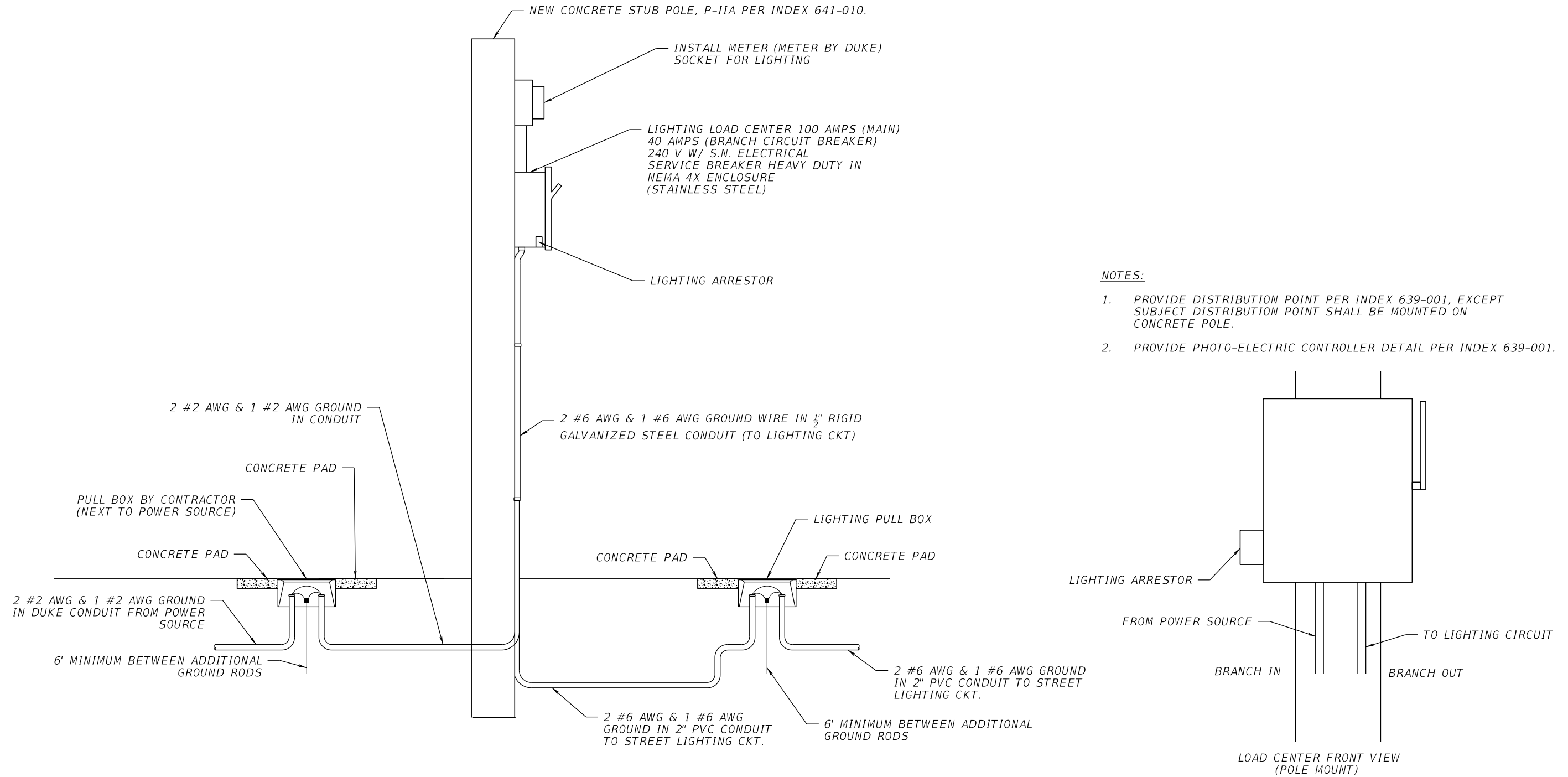
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

LOAD CENTER "A" (POLE MOUNTED)
240, SINGLE PHASE, 3 WIRE
STA 1672+33, 99' RT

LOAD CENTER DESIGNATION	MAIN & CIRCUIT BREAKER SIZES (2P)	TOTAL DEMAND LOADS (AMPS)	TOTAL DESIGN LOAD (AMPS)	OVERCURRENT DESIGN LOAD (VA)	SERVICE ENTRANCE & BRANCH CIRCUIT CONDUCTOR SIZE
A (LIGHTING)	100 AMPS (MAIN) 40 AMPS (BRANCH)	9.09	11.36	2726	2 #2 AWG, 1 #2 AWG (GRD) 2 #6 AWG, 1 #6 AWG (GRD) BRANCH
TOTAL CONNECTED LOAD (VA)			9.09		
OVERCURRENT DESIGN LOAD (KVA)			2.7263999999999995		

LOAD CENTER "B" (POLE MOUNTED)
240, SINGLE PHASE, 3 WIRE
STA 1669+39.04, 98' LT

LOAD CENTER DESIGNATION	MAIN & CIRCUIT BREAKER SIZES (2P)	TOTAL DEMAND LOADS (AMPS)	TOTAL DESIGN LOAD (AMPS)	OVERCURRENT DESIGN LOAD (VA)	SERVICE ENTRANCE & BRANCH CIRCUIT CONDUCTOR SIZE
C1 (LIGHTING)	100 AMPS (MAIN) 40 AMPS (BRANCH)	9.72	12.15	2916	2 #2 AWG, 1 #2 AWG (GRD) 2 #6 AWG, 1 #6 AWG (GRD) BRANCH
TOTAL CONNECTED LOAD (VA)			9.7200000000000006		
OVERCURRENT DESIGN LOAD (KVA)			2.9159999999999999		



NOTES:

1. PROVIDE DISTRIBUTION POINT PER INDEX 639-001, EXCEPT SUBJECT DISTRIBUTION POINT SHALL BE MOUNTED ON CONCRETE POLE.
2. PROVIDE PHOTO-ELECTRIC CONTROLLER DETAIL PER INDEX 639-001.

3/25/2024 1:21:35 PM Shuvo C:\worksets\FDOT\44923215201\Lighting\SRPTL101.dgn

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

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JAMES J. VOMACKA, P.E. LICENSE NUMBER 60518 PROPEL ENGINEERING, INC. 2711 N VISTA PARKWAY, SUITE B7 WEST PALM BEACH, FL 33411			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR 35	POLK	449232-1-52-01	SERVICE POINT DETAILS			