

**STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION**

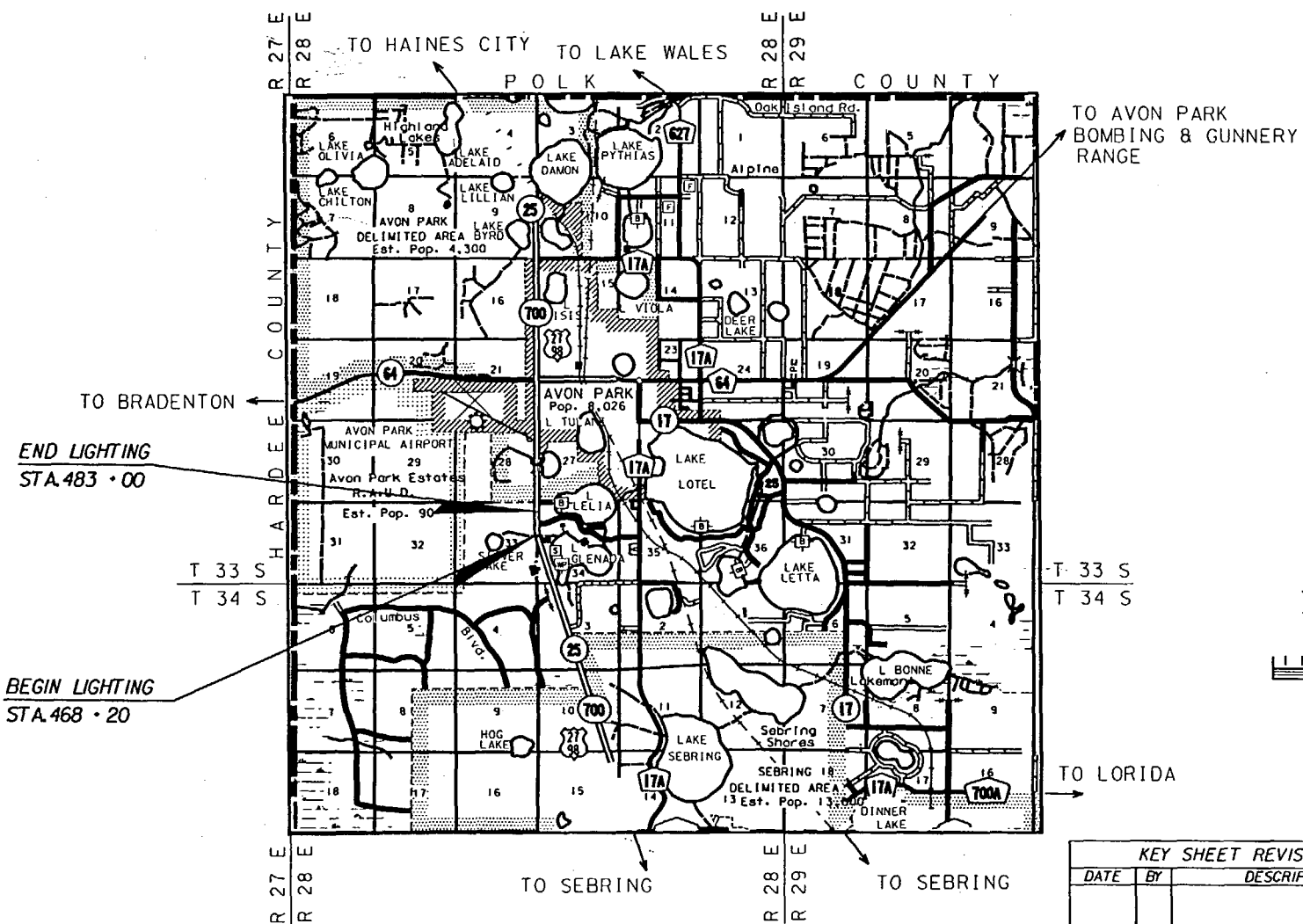
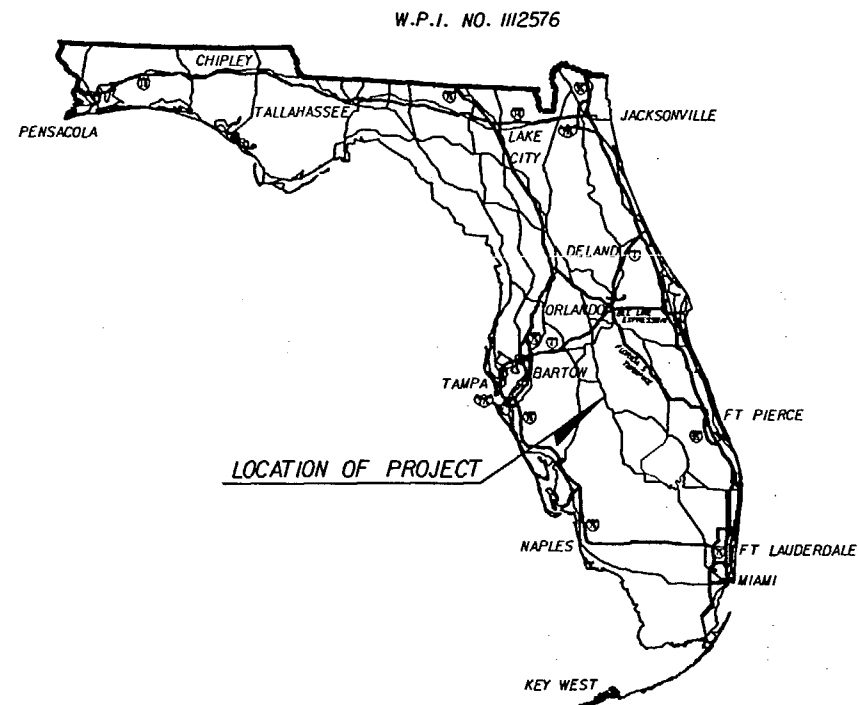
FINAL "AS-BUILT" PLANS

FINANCIAL PROJECT ID 194510-1-52-01
STATE PROJECT NO. 09030-3501
HIGHLANDS COUNTY
STATE ROAD NO. 25 (U.S. 27)

LIGHTING PLANS

INDEX OF LIGHTING PLANS

SHEET NO.	SHEET DESCRIPTION
L-1	KEY SHEET
L-2	TABULATION OF QUANTITY
L-3	POLE DATA & LEGEND
L-4	GENERAL NOTES
L-5 - L-8	PLAN SHEETS



LIGHTING PLANS
ENGINEER OF RECORD

DICKIE E. WILLARD, P.E.
FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT ONE OFFICE
801 NORTH BROADWAY
BARTOW, FLORIDA 33830
(863) 519-2245

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

Dickie E. Willard
11/16/2000

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
ROADWAY AND TRAFFIC DESIGN STANDARDS
DATED JANUARY 2000, AND
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE
CONSTRUCTION DATED 2000,
AS AMENDED BY CONTRACT DOCUMENTS.

REVISIONS

KEY SHEET REVISIONS		
DATE	BY	DESCRIPTION

LIGHTING PLANS
ENGINEER OF RECORD: DICKIE E. WILLARD, P.E.

P.E. NO.: 19768

FISCAL YEAR	SHEET NO.
01	L-1

FDOT PROJECT MANAGER: SEAN P. MASTERS

ITEM # 3-400-1-15 MISC. CONCRETE (Pads around light poles and pull boxes)								
LOCATION	TYPE	LENGTH	WIDTH	DEPTH	TOTAL	DEDUCT	PAY TOTAL	REMARKS
1-A-1	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
2-A-1	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
3-A-1	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
4-A-1	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
5-A-1	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
6-A-1	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
7-A-1	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
8-A-1	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
9-A-1	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
10-A-1	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
11-A-2	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
12-A-2	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
13-A-2	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
14-A-2	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
15-A-2	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
16-A-2	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
17-A-2	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
18-A-2	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
19-A-2	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
20-A-2	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
21-A-2	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
22-A-2	Pole & Pull box	7.50	6.00	0.50	22.50	4.20	18.30	Deduct for pole and pull box
NW Corner	Pull box	5.00	5.00	0.50	12.50	1.75	10.75	Deduct for pull box
NE Corner	Pull box	5.00	5.00	0.50	12.50	1.75	10.75	Deduct for pull box
College Dr. N.	Pull box	5.00	5.00	0.50	12.50	1.75	10.75	Deduct for pull box

SHEET NO:

L-5
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Deduct for Pull Box:

$2.33' \times 1.5' \times 0.5' = 1.75 \text{ CF}$

Deduct for Pole Bases:

$3.14159 \times 1.25^2 = 4.9087$

$\times 0.5$

2.45 CF

Total CF = 434.85

Total SY for Pay = 16.11

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL		REF. SHEET		
			L-5		L-6		L-7		L-8		PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL			
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL													
400-1-15	CLASS 1 CONCRETE (MISCELLANEOUS)	CY	7.6	4.07	13.0	6.62	6.3	4.07	2.1	1.35									29.0	16.11	29.0	16.1	
555-1-1	DIRECTIONAL BORE (LESS THAN 6")	LF	51	∅	286	371	----	∅	----	∅									337	371	337	371	
620-1-1	GROUNDING	LF	140	370	250	540	120	270	40	170									550	1350	550	1350	
630-1-22	CONDUIT (FURNISH) (UNDERGROUND)	LF	51	∅	439	622	----	∅	----	∅									490	622	490	622	
715-1-113	CONDUCTOR (INSULATED) (AWG #6)	LF	2109	2784	4461	4356	2241	1800	423	450									9234	9390	9234	9390	
715-2-114	CONDUIT (PVC SCHEDULE 40) (1 1/2")	LF	652	928	1048	930	747	600	141	150									2588	2608	2588	2608	
715-7-11	LOAD CENTER (SECONDARY VOLTAGE)	EA	----	∅	1	1	----	∅	----	∅									1	1	1	1	
715-14-11	PULL BOX (ROADSIDE)	EA	8	6	14	12	6	6	2	2									31	26	31	26	
715-500-1	POLE CABLE DISTRIBUTION SYSTEM	EA	6	6	8	8	6	6	2	2									22	22	22	22	
715-511-140	LIGHTING POLE COMPLETE (SINGLE ARM)	EA	6	6 ✓	8	8 ✓	6	6 ✓	2	2 ✓									22	22	22	22 ✓	

D. P. Miller 11/14/2000

REVISIONS					STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TABULATION OF QUANTITIES	SHEET NO. L-2
DATE	BY	DESCRIPTION	DATE	BY	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					25	HIGHLANDS	194510-1-52-01		

Financial Project: 194510-1-52-01
 State Project: 09030-3501

State Road No 25 (U.S. 27) south of Avon Park

Pole Number	Station	Offset
1	469 + 48	15' from pav'd shoulder
2	470 + 97	15' from pav'd shoulder
3	472 + 46	15' from pav'd shoulder
4	473 + 95	15' from pav'd shoulder
5	475 + 16	15' from pav'd shoulder
6	476 + 33	5' from BOC
7	477 + 10	5' from BOC
8	478 + 58	5' from BOC
9	480 + 07	5' from BOC
10	481 + 57	15' from pav'd shoulder
11	468 + 97	15' from pav'd shoulder
12	470 + 43	15' from pav'd shoulder
13	471 + 95	15' from pav'd shoulder
14	473 + 50	15' from pav'd shoulder
15	474 + 97	15' from pav'd shoulder
16	474 + 39	15' from pav'd shoulder
17	477 + 90	15' from pav'd shoulder
18	479 + 41	15' from pav'd shoulder
19	480 + 92	15' from pav'd shoulder
20	482 + 42	15' from pav'd shoulder
21	31 + 45	15' from pav'd shoulder
22	32 + 90	15' from pav'd shoulder

POLE DATA

SEE REVISED TABLE
ON OPPOSITE SHEET.

POLE NO.	CIRCUIT	STATION	DIST. OR ARM	LUMINAIRE WATTAGE	M.H.	POLE SETBACK AND NOTES	FINAL
1	A-1	469 + 48	15'	400		15' FROM EOP	
2	A-1	470 + 97	15'	400		15' FROM EOP	
3	A-1	472 + 46	15'	400		15' FROM EOP	
4	A-1	473 + 95	15'	400		15' FROM EOP	
5	A-1	475 + 16	15'	400		15' FROM EOP	
6	A-1	476 + 33	15'	400		5' FROM BOC	
7	A-1	477 + 10	15'	400		5' FROM BOC	
8	A-1	479 + 41	15'	400		5' FROM BOC	
9	A-1	480 + 92	15'	400		5' FROM BOC	
10	A-1	482 + 42	15'	400		20' FROM EOP	
11	A-2	468 + 97	15'	400		15' FROM EOP	
12	A-2	470 + 43	15'	400		15' FROM EOP	
13	A-2	471 + 95	15'	400		15' FROM EOP	
14	A-2	473 + 80	15'	400		15' FROM EOP	
15	A-2	474 + 97	15'	400		15' FROM EOP	
16	A-2	476 + 39	15'	400		15' FROM EOP	
17	A-2	477 + 90	15'	400		15' FROM EOP	
18	A-2	478 + 58	15'	400		20' FROM EOP	
19	A-2	480 + 07	15'	400		20' FROM EOP	
20	A-2	481 + 57	15'	400		20' FROM EOP	
21	A-2	31 + 45	15'	400		15' FROM EOP	
22	A-2	32 + 90	15'	400		15' FROM EOP	


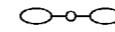












CONVENTIONAL LIGHTING DESIGN CRITERIA

Average Initial Intensity 1.5 f.c.
 Uniformity Ratio Avg./Min. 4:1 Or Less
 Max./Min. 10:1 Or Less
 Wind Speed 90 MPH

LEGEND

SYMBOLS

DESCRIPTION

-  400 Watt high pressure sodium luminaire. Designed for medium cutoff type III distribution. Integral regulator type ballast wired for 240 volt operation. Single arm pole (mounting height 40 ft). (Use GE curve 7321 or equal.)
-  250 Watt high pressure sodium luminaire. Designed for medium semi-cutoff type III distribution. Integral regulator type ballast wired for 480 volt operation. Double arm pole (mounting height 40 ft).
-  Final position of relocated or adjusted pole and luminaire.
-  Existing pole and luminaire to remain.
-  Existing pole and luminaire to be removed.
-  120 ft high mast tower with four (4) 1000 Watt high pressure sodium luminaires, with integral auto-regulator type ballast wired for 480 volts. Poles shall be galvanized steel. The asymmetrical luminaires shall provide a "semi-cutoff" light distribution and the symmetrical luminaires shall provide a "cutoff" light distribution as defined by IES. Shields may be utilized to provide the cutoff values. The designer shall signify the direction of distribution for asymmetrical fixtures.
-  Pendant hung underdeck luminaire, 150 Watt high pressure sodium luminaire, equipped with polycarbonate refractor. Integral regulator ballast wired for 480 volts. (50% of luminaire to be below bridge beam).
-  Pter cap mounted underdeck luminaire, 150 Watt high pressure sodium luminaire, equipped with polycarbonate refractor. Integral regulator ballast wired for 480 volts.
-  Size 1/2" schedule 40 PVC conduit with THW or THWN conductors inside (conduit and conductor size as shown on plan sheets). Run one (1) 6 AWG copper bond conductor (TW green insulation) inside conduit with other conductors.
-  Size 2" rigid galvanized steel conduit, directional bored under pavement with THW or THWN conductors inside (conduit and conductor size as shown on plan sheets). Extend conduit beyond edge of pavement to pull boxes. Run one (1) 6 AWG copper bond conductor (TW green insulation) inside conduit with other conductors.
-  Size 1/2" galvanized metal conduit with THW or THWN conductors inside (conduit and conductor size as shown on plan sheets). Extend conduit beyond edge of pavement to pull boxes when installing inside conduit with other conductors.
-  Distribution point. For specifications see Index No. 17504 of Roadway And Traffic Design Standards.
-  Pull box. For specifications see Section 635 of Standard Specifications For Road And Bridge Construction.
-  Joint use pole.

[Handwritten Signature]
21 (6/20) 00

REVISIONS						STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
						25	HIGHLANDS	194510-1-52-01	L-3

GENERAL NOTES

PAY ITEM NOTES

- 620-1-1 INCLUDES THE COST OF FURNISHING AND INSTALLING 10 LF OF GROUND ROD IN EACH PULL BOX AND LIGHT POLE, AND 20 LF OF GROUND AT THE SERVICE POINT.
- 715-2-114 INCLUDES THE COST OF RESTORING SOD.

NOTES

PRIOR TO ANY EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, EQUIPMENT SPECIFICATION OR DESIGN DATA FOR ALL MATERIAL PROPOSED FOR THE PROJECT AND MUST INCLUDE SPECIFICALLY:

- A) LUMINAIRE PHOTOMETRICS
- B) POLE STRENGTH CALCULATIONS
- C) POLE FRANGIBILITY TEST RESULTS
- D) BOLT SPECIFICATIONS AND BOLT CIRCLE DIAMETER

SEVEN (7) COPIES OF SHOP DRAWINGS AND DESIGN DATA FOR HIGHWAY LIGHTING EQUIPMENT SHALL BE SUBMITTED TO THE DISTRICT LIGHTING ENGINEER AT THE FOLLOWING ADDRESS WITH A COPY OF SUBMITTAL LETTER SENT TO THE DEPARTMENTS RESIDENT CONSTRUCTION ENGINEER IN CHARGE OF THE PROJECT. ALLOW A 30-DAY TURN-AROUND FOR SHOP DRAWINGS.

DISTRICT LIGHTING ENGINEER
DEPARTMENT OF TRANSPORTATION
P.O. BOX 1249
BARTOW, FLORIDA 33831-1249

UTILITY COMPANIES

CITY OF SEBRING
PH: (863) 471-5112
ATTN: DON MCKENNA

COMCAST COMMUNICATION
PH: (863) 533-4645
ATTN: OSCAR CABANAS

FLORIDA POWER CORP.
PH: (863) 678-4409
ATTN: DOUG ELLERBE

SPRINT/UNITED TELEPHONE
PH: (863) 452-3180
ATTN: SUZANNA CREAM

D. S. Miller 11/16/2000

REVISIONS						STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			GENERAL NOTES	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		L-4
						25	HIGHLANDS	194510-1-52-01		

715-2-114 (Conduit 1 1/2")

1-A-1	141.0
2-A-1	158.0
3-A-1	166.0
11-A-2	146.0
12-A-2	152.0
13-A-2	165.0

715-1-113 (Conductor AWG#6)

1-A-1	423.0
2-A-1	474.0
3-A-1	498.0
11-A-2	438.0
12-A-2	456.0
13-A-2	495.0

715-511-140 (Light Pole Complete)

1-A-1	1
2-A-1	1
3-A-1	1
11-A-2	1
12-A-2	1
13-A-2	1

620-1-1 (Grounding)

1-A-1	50.0
2-A-1	110.0
3-A-1	70.0
11-A-2	120.0
12-A-2	10.0
13-A-2	10.0

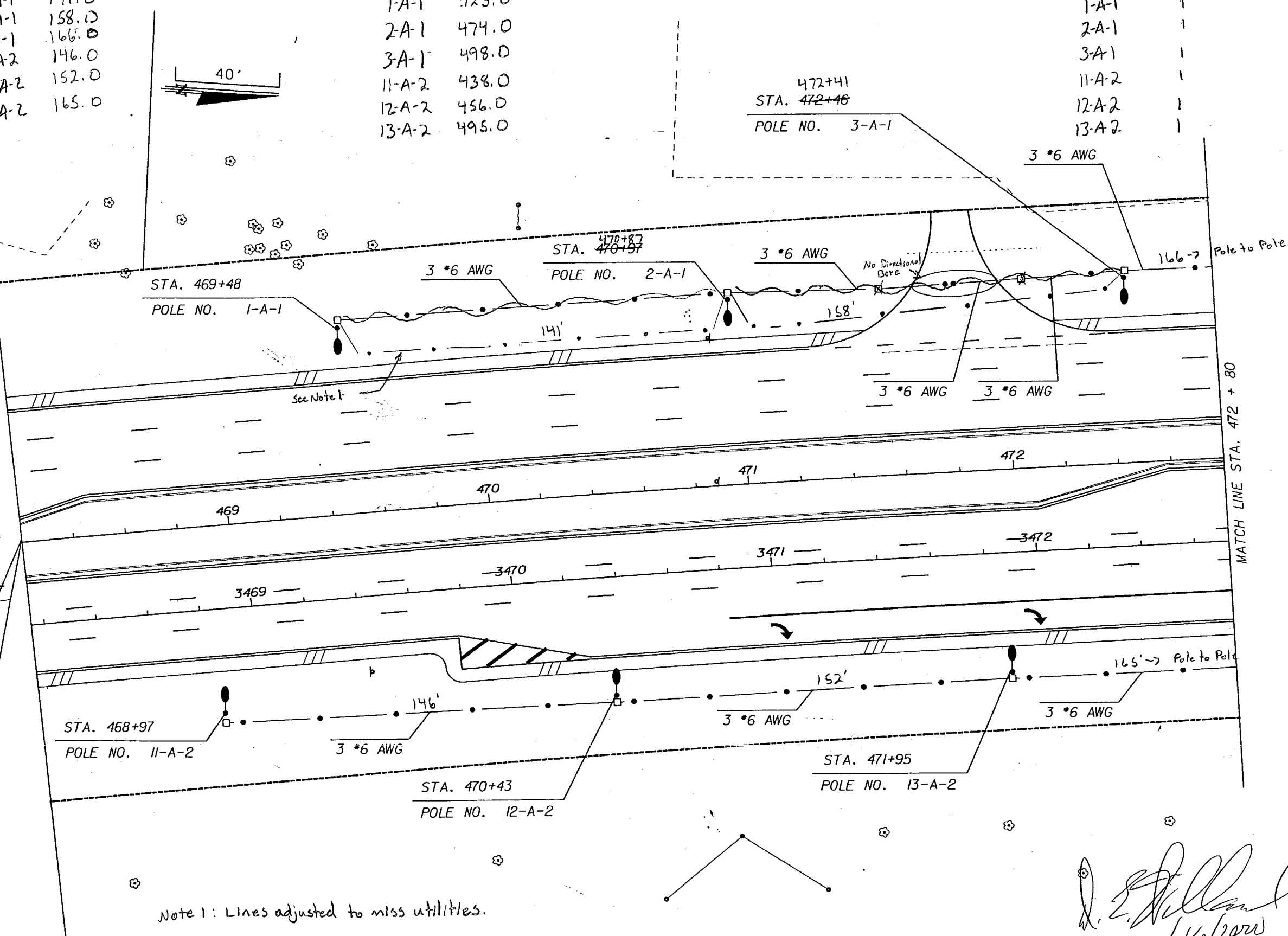
715-500-1 (Pole Cable Dist. System)

1-A-1	1
2-A-1	1
3-A-1	1
11-A-2	1
12-A-2	1
13-A-2	1

715-14-11 (Pull box Roadside)

1-A-1	1
2-A-1	1
3-A-1	1
11-A-2	1
12-A-2	1
13-A-2	1

BEGIN LIGHTING
STA. 468 + 20

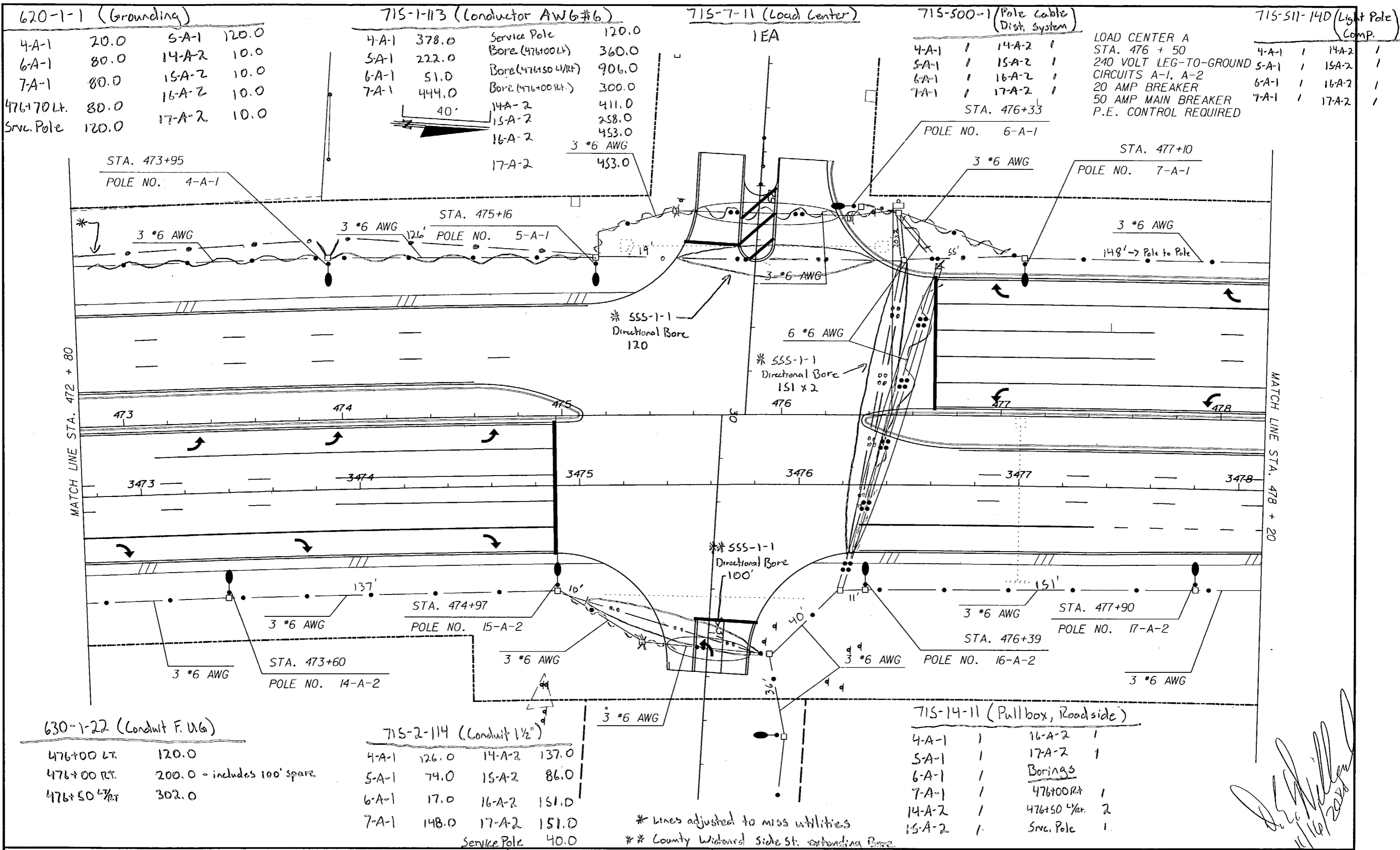


Note 1: Lines adjusted to miss utilities.

[Signature]
11/16/2020

REVISIONS						STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
						25	HIGHLANDS	194510-1-52-01	
PLAN SHEET									L-5

\$DATE\$ \$TIME\$ \$FILES\$



620-1-1 (Grounding)

4-A-1	20.0	5-A-1	120.0
6-A-1	80.0	14-A-2	10.0
7-A-1	80.0	15-A-2	10.0
		16-A-2	10.0
476+70 Lt.	80.0	17-A-2	10.0
Srv. Pole	120.0		

715-1-113 (Conductor AWG #6)

4-A-1	378.0	Service Pole	120.0
5-A-1	222.0	Bore (476+00 Lt.)	360.0
6-A-1	51.0	Bore (476+50 4/Rt)	906.0
7-A-1	444.0	Bore (476+00 Rt.)	300.0
		14-A-2	411.0
		15-A-2	258.0
		16-A-2	453.0
		17-A-2	453.0

715-7-11 (Load Center)

1EA

715-500-1 (Pole Cable Dist. System)

4-A-1	1	14-A-2	1
5-A-1	1	15-A-2	1
6-A-1	1	16-A-2	1
7-A-1	1	17-A-2	1

STA. 476+33

715-511-14D (Light Pole Comp.)

4-A-1	1	14-A-2	1
5-A-1	1	15-A-2	1
6-A-1	1	16-A-2	1
7-A-1	1	17-A-2	1

LOAD CENTER A
 STA. 476 + 50
 240 VOLT LEG-TO-GROUND
 CIRCUITS A-1, A-2
 20 AMP BREAKER
 50 AMP MAIN BREAKER
 P.E. CONTROL REQUIRED

630-1-22 (Conduit F. U.G.)

476+00 LT.	120.0
476+00 RT.	200.0 - includes 100' spare
476+50 4/Rt	302.0

715-2-114 (Conduit 1 1/2")

4-A-1	126.0	14-A-2	137.0
5-A-1	74.0	15-A-2	86.0
6-A-1	17.0	16-A-2	151.0
7-A-1	148.0	17-A-2	151.0
		Service Pole	40.0

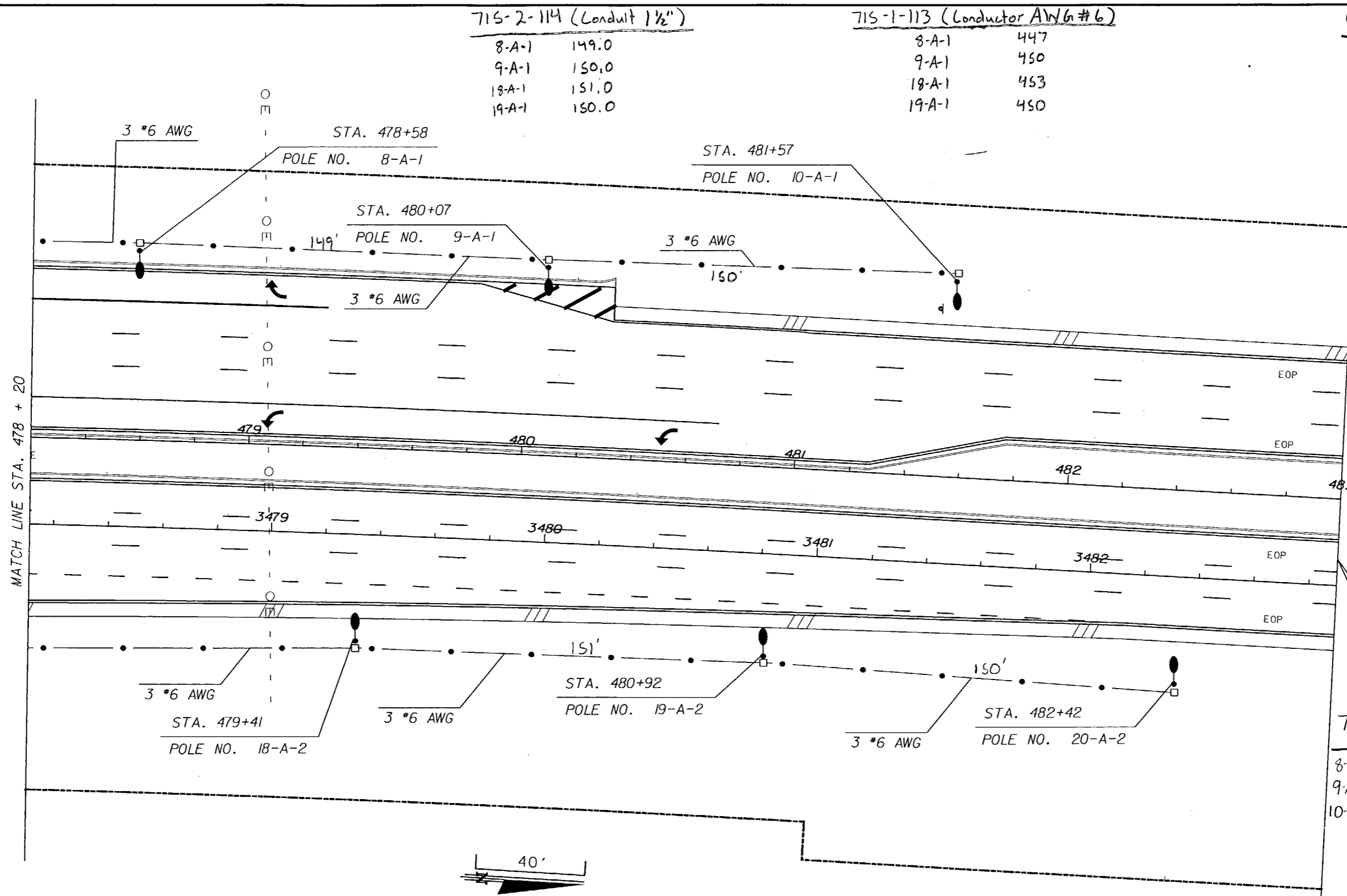
715-14-11 (Pullbox, Roadside)

4-A-1	1	16-A-2	1
5-A-1	1	17-A-2	1
6-A-1	1	Borings	
7-A-1	1	476+00 Rt	1
14-A-2	1	476+50 4/Rt	2
15-A-2	1	Srv. Pole	1

* Lines adjusted to miss utilities
 ** County Widened Side St. extending Bore

[Signature]
 11/16/2008

REVISIONS						STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
						25	HIGHLANDS	194510-1-52-01	L-6



715-2-114 (Conduit 1 1/2")

8-A-1	149.0
9-A-1	150.0
18-A-1	151.0
19-A-1	150.0

715-1-113 (Conductor AWG #6)

8-A-1	447
9-A-1	450
18-A-1	453
19-A-1	450

620-1-1 (Grounding)

8-A-1	80.0
9-A-1	90.0
10-A-1	70.0
18-A-2	10.0
19-A-2	10.0
20-A-2	10.0

715-511-140 (Light Pole Complete)

8-A-1	/	18-A-2	/
9-A-1	/	19-A-2	/
10-A-1	/	20-A-2	/

715-14-11 (Pull boxes)

8-A-1	/	18-A-2	/
9-A-1	/	19-A-2	/
10-A-1	/	20-A-2	/

715-500-1 (Pole Cable Dist. System)

8-A-1	/	18-A-2	/
9-A-1	/	19-A-2	/
10-A-1	/	20-A-2	/

MATCH LINE STA. 478 + 20

END LIGHTING
STA. 483 + 00

[Signature]
11/16/2020

REVISIONS					STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	ROAD NO.	COUNTY	
						25	HIGHLANDS	194510-1-52-01

PLAN SHEET

L-7

715-1-113 (Conductor AWG #6)

21-A-2 450.0

620-1-1 (Grounding)

21-A-2 90.0
22-A-2 80.0

715-14-11 (Pull box Roadside)

21-A-2 1
22-A-2 1

715-2-114 (Conduit 1 1/2")

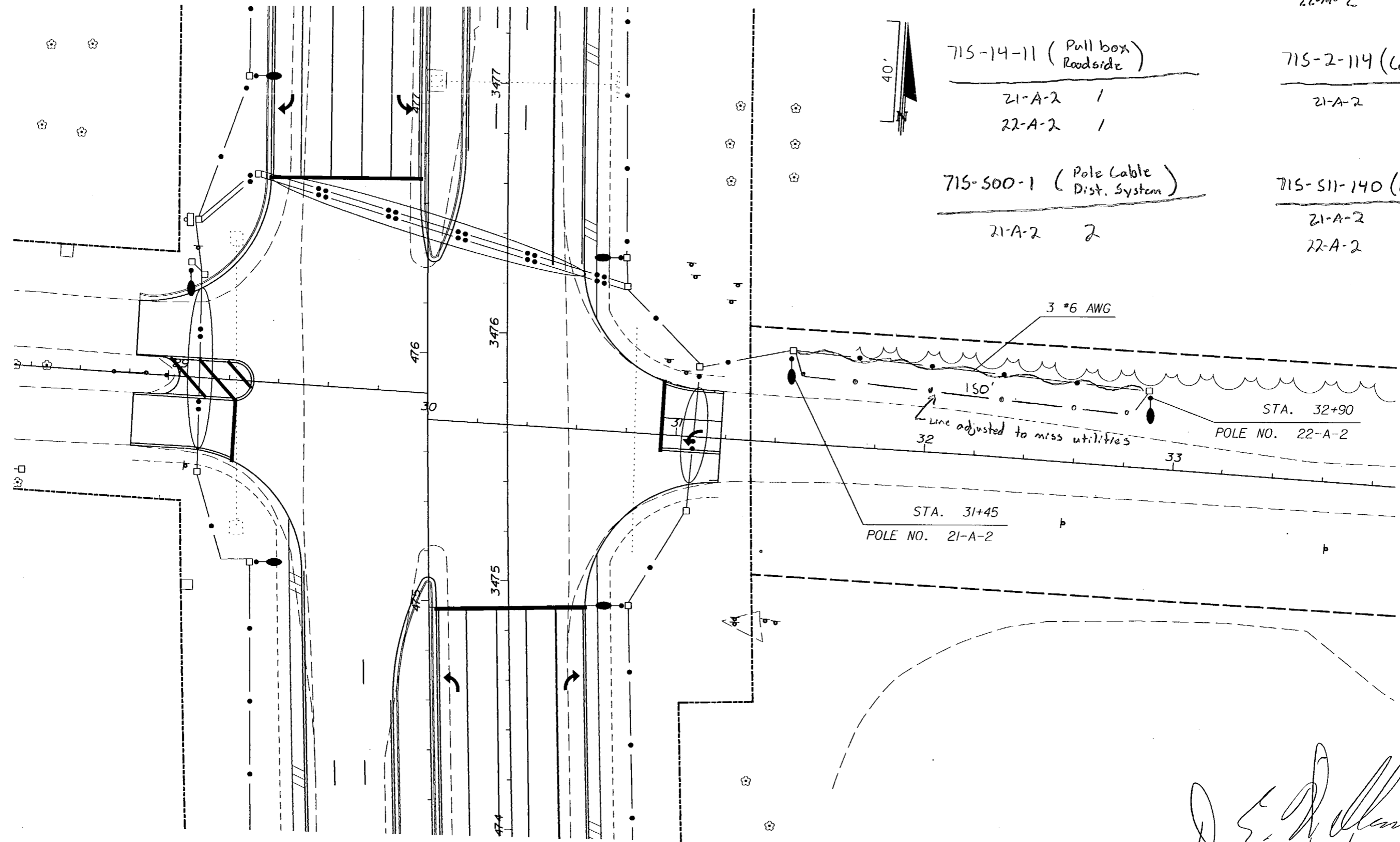
21-A-2 150.0

715-500-1 (Pole Cable Dist. System)

21-A-2 2

715-511-140 (Light Pole Lamp)

21-A-2 1
22-A-2 1



D. E. [Signature]
11/16/2025

REVISIONS						STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
						25	HIGHLANDS	194510-1-52-01	L-8