



# COUNTY ROAD LIGHTING STUDY CLAY COUNTY

UPWP Task 5.13

March 2026



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## Purpose

Street lighting benefits the traveling public by making other vehicles, roadway features, pedestrians, and cyclists more visible. From January 2020 to June 2025, there were 10 fatalities and 193 injury crashes on Clay County roads that occurred under dark, not-lighted conditions.

The purpose of this project is to conduct a safety-based assessment of the need for street lighting on Clay County’s roads at intersections and provide a tool for generalized estimate of the costs associated with lighting county roads based on typical configurations.

## Lighting Criteria

### Land Development Regulations

The County’s Land Development Regulations do not specifically address street lighting. Section 8 establishes the following design requirements in foot-candles (f.c.).

**Table 1. Lighting Design Standards**

Level of Activity	Average Light Level (not to exceed f.c.)	Minimum Level (f.c.)	Uniformity Ratio
High	3.6	0.9	4:1
Medium	2.4	0.6	4:1
Low	0.8	0.2	4:1

High –Civic/Recreational Fields, Fast Food, Gas/Convenience Stores Medium—Shopping Centers, Office Parks, Hospital Parking, Transportation Parking, Residential Complex Parking Low –Industrial Employee Parking, Storage Parking

Source: <https://www.claycountygov.com/home/showpublisheddocument/1276/638918079706830000>. Retrieved 12/2/25.

### Florida Green Book

Chapter 6 of the Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways Rule # 14-15.002, F.A.C. (Florida Green Book) establishes the design criteria for street lighting. The methods for designing lighting are based on

- Illuminance based on design values for the lighting provided by streetlights expressed in foot-candles (f.c.) and uniformity ratio.
- Luminance is based on the amount of light reflected from the pavement in the direction of the driver and provides reflective characteristics (R-classification). method established by the American National Standard Practice for Roadway Lighting and have been adopted by AASHTO in their Roadway Lighting Design Guide

The criteria provided in the Florida Green Book are summarized in Table 2 on the next page.

**Table 2. Illuminance and Luminance Design Values**

Classification	Off Road Light Source	Illuminance					Luminance				Veiling Luminance Ratio
		R1	R2	R3	R4	Uniformity Ratio	L-avg	Uniformity			
	Land Use	(f.c.)	(f.c.)	(f.c.)	(f.c.)	Avg/min <sup>(6)</sup>	cd/m2 (min)	<u>L-avg</u> L-min	<u>L-max</u> L-min	<u>Lv(max)</u> <u>Lavg(max)</u> <sup>(3)</sup>	
<b>Principal Arterial</b>	Commercial	1.1	1.6	1.6	1.4	3:1	1.2	3:1	5:1	0.3:1	
	Intermediate	0.8	1.2	1.2	1.0	3:1	0.9	3:1	5:1	0.3:1	
	Residential	0.6	0.8	0.8	0.8	3:1	0.6	3.5:1	6:1	0.3:1	
<b>Minor Arterial</b>	Commercial	0.9	1.4	1.4	1.0	4:1	1.2	3:1	5:1	0.3:1	
	Intermediate	0.8	1.0	1.0	0.9	4:1	0.9	3.5:1	5:1	0.3:1	
	Residential	0.5	0.7	0.7	0.7	4:1	0.6	3:1	6:1	0.3:1	
<b>Collector</b>	Commercial	0.8	1.1	1.1	0.9	4:1	0.8	3.5:1	5:1	0.4:1	
	Intermediate	0.6	0.8	0.8	0.8	4:1	0.6	4:1	6:1	0.4:1	
	Residential	0.4	0.6	0.6	0.5	4:1	0.4	6:1	8:1	0.4:1	
<b>Local</b>	Commercial	0.6	0.8	0.8	0.8	6:1	0.6	6:1	10:1	0.4:1	
	Intermediate	0.5	0.7	0.7	0.6	6:1	0.5	6:1	10:1	0.4:1	
	Residential	0.3	0.4	0.4	0.4	6:1	0.3	6:1	10:1	0.4:1	
<b>Alley</b>	Commercial	0.4	0.6	0.6	0.5	6:1	0.4	6:1	10:1	0.4:1	
	Intermediate	0.3	0.4	0.4	0.4	6:1	0.3	6:1	10:1	0.4:1	
	Residential	0.2	0.3	0.3	0.3	6:1	0.2	6:1	10:1	0.4:1	
<b>Sidewalks</b>	Commercial	0.9	1.3	1.3	1.2	3:1	Use illuminance requirements				
	Intermediate	0.6	0.8	0.8	0.8	4:1					
	Residential	0.3	0.4	0.4	0.4	6:1					
<b>Pedestrian and Bicycle Ways</b>	All	1.4	2.0	2.0	1.8	3:1					

## Crash Data

Historical crash data was obtained from January 1, 2020, to June 30, 2025, using *Signal4 Analytics*, a statewide web-based geospatial crash repository and analytical tool maintained by the University of Florida. The crash data includes location, injury severity, crash type, lighting condition, road users involved, and a bounty of other information regarding the circumstances, vehicles, and conditions surrounding each crash, as recorded by the law enforcement officers who reported them.

Roadway inventory data, which included Average Annual Daily Traffic (AADT) volumes, was obtained using geospatial data from the Florida Department of Transportation’s (FDOT). In addition, signalized intersection locations were acquired from FDOT geodatabase, with other major county-maintained intersections being manually added. Where necessary, FDOT AADT data was supplemented with Replica’s AADT records for 2024.

Crashes were assigned to specific intersections using a 250-foot buffer around each intersection. If a crash is within 250 feet of multiple intersections, it was assigned to the nearest one. Similarly, crashes were assigned to specific road segments using a 250-foot buffer around each segment. If a collision occurred within 250 feet of multiple segments, it was linked to the nearest one. Additionally, crashes within the 250 feet of an intersection were assumed to be associated with conditions present at the intersection and were not considered for the segment analysis.

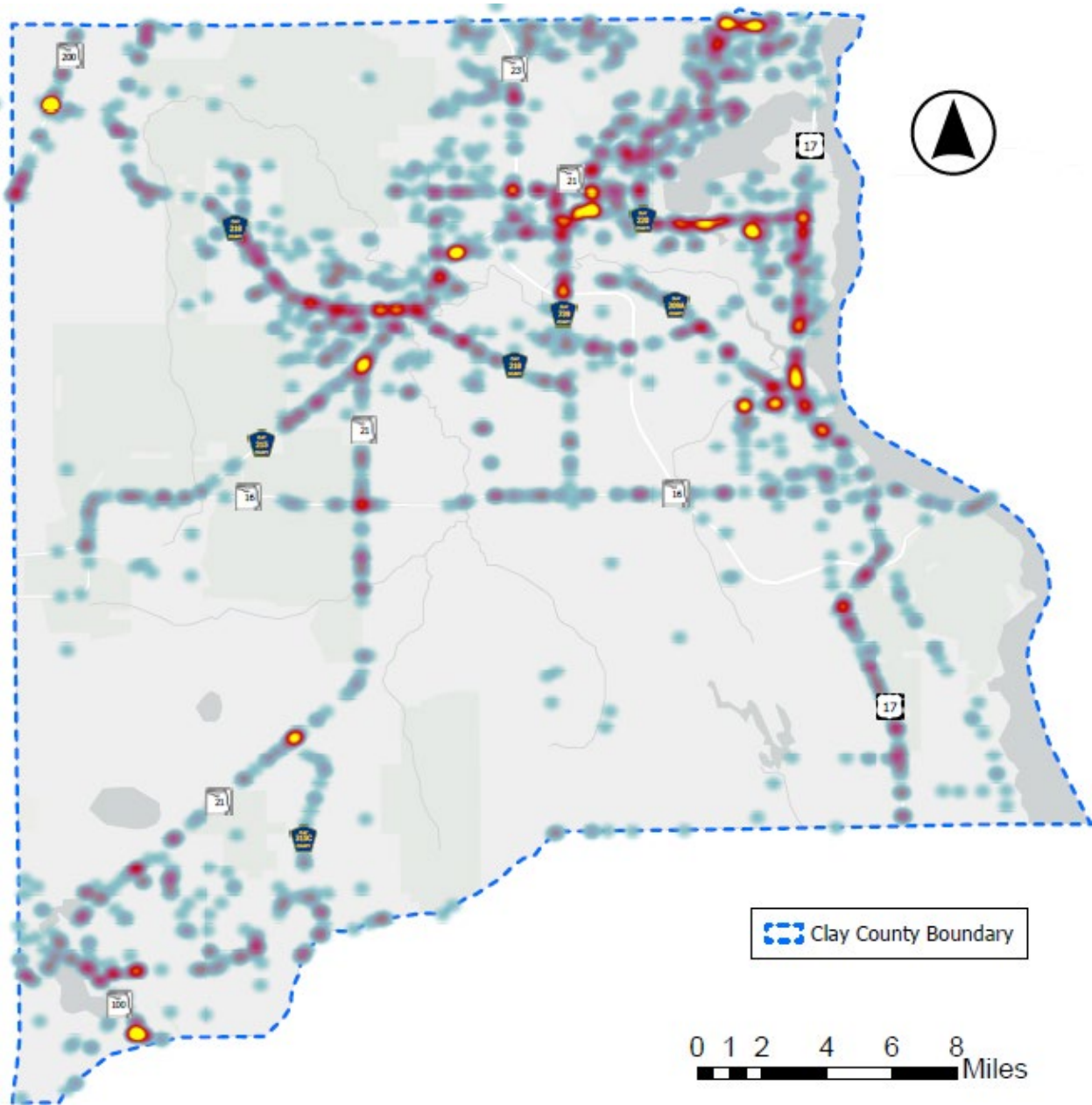
A hot spot map of the dark, not-lighted crashes is provided on Figure 1.

A summary of the crash history on county roads is provided in Table 3.

**Table 3. Crash History**

Severity	All Crashes	Dark, Not-Lighted	Percent
Fatal	21	10	47.6
Incapacitating	61	20	32.7
Non Incapacitating	312	81	25.9
Minor Injury	648	92	14.2
No Injury	3,196	455	14.2
Total	4,238	658	

Figure 1. Dark, Not Lighted Crashes



## Intersection Safety Analysis

The safety performance of county-maintained intersections under dark – not lighted conditions was assessed using two safety metrics: crash frequency and the Equivalent Property Damage Only (EPDO) values.

Intersections were ranked based on their historical crash frequency under dark – not lighted conditions. In cases where intersections had the same number of fatal and incapacitating injury crashes (KA), those with higher fatal or injury (KABC) crash frequency were ranked higher. Similarly, intersections with equal number of KABC crashes were further ranked by their overall crash frequency.

EPDO values normalize the number of crashes using relative crash costs as weights. The average unit crash cost values were gathered from the FDOT State Safety Office’s Crash Analysis Reporting System for each crash severity level in the KABCO Scale. These unit crash costs were then used to determine the crash cost relative to the crash cost of a single property damage only crash. **Table 1** summarizes unit crash costs by severity level and their EPDO value.

**Table 4: Crash Costs and Equivalent Values by Severity Level**

KABCO Index	Crash Severity	Comprehensive Crash Cost <sup>1</sup>	EPDO
<b>K</b>	Fatal	\$10,890,000	1,414
<b>A</b>	Incapacitating Injury	\$888,030	115
<b>B</b>	Non-Incapacitating Injury	\$180,180	23
<b>C</b>	Possible/Minor Injury	\$103,950	14
<b>O</b>	Property Damage Only	\$7,700	1

<sup>1</sup> Florida Department of Transportation State Safety Office’s Crash Analysis Reporting (CAR) System, analysis years 2015 through 2019. Published by FDOT State Safety Office on 2/23/2022.

An aggregate safety ranking was developed using the average rank from the two metrics: crash frequency and EPDO. Intersections were then sorted, with a lower aggregate ranking corresponding to a higher safety priority.

The county-maintained intersections where crashes were reported to occur where “dark and not lighted” are summarized in Table 5.

Based on a generalized benefit cost analysis, intersection improvements at four intersections were identified as priorities.

- CR 739 Henley Road at CR 209 Russell Road
- CR 220 at CR 220B Knight Boxx Road
- CR 220 at CR 220A Long Bay Road
- CR 220B Knight Boxx Road at CR 220A Old Jennings Road

**Table 5. Summary of Dark, Not-Lighted Intersections at County Road Intersections**

Major Road	Minor Road	DNL Fatalities	DNL Incapacitating Injury	DNL Non-Incapacitating Injury	DNL Possible/ Minor Injury	DNL No Injury	Economic Impact	Lighting Life Cycle Costs	Benefit Cost	Signal	Existing Lighting?
CR 739 Henley Rd	CR 209 Russell Rd	1	0	0	0	0	\$11.29	\$0.21	52.86	Yes	Light in NW approach
CR 220	CR 220B Knight Boxx Rd	0	0	2	1	9	\$0.55	\$0.21	2.59	Yes	Northeast quadrant
CR 220	CR 220A Long Bay Rd	0	1	0	0	1	\$0.34	\$0.13	2.60	No	No
CR 220B Knight Boxx Rd	CR 220A Old Jennings Rd	0	0	1	3	4	\$0.20	\$0.13	1.52	Yes	Light in SE quadrant
CR 224/College Drive	CR 220A Old Jennings Rd	0	0	1	0	3	\$0.21	\$0.21	0.99	Yes	Light in SW quadrant
CR 220	Sleepy Hollow Rd	0	0	1	0	2	\$0.20	\$0.21	0.95	No	No
CR 220A Old Jennings Rd	CR 220A Long Bay Rd	0	0	0	1	4	\$0.14	\$0.21	0.65	No	No
CR 209 Russell Rd	CR 209B	0	0	1	0	2	\$0.08	\$0.13	0.57	No	No
CR 15A Wells Rd	Debarry Ave	0	0	1	0	1	\$0.07	\$0.13	0.55	Yes	Light in SW and SE quadrant
CR 218	CR 739 Henley Rd	0	0	0	2	5	\$0.32	\$0.31	1.04	Yes	No
CR 209A Moody Ave	Greenridge Rd	0	0	0	1	1	\$0.04	\$0.13	0.32	No	Light in SE quadrant
CR 224A Doctors Lake Dr	Greenridge Rd	0	0	0	1	1	\$0.04	\$0.13	0.32	No	No
CR 214 Christian Camp Rd	CR 315C	0	0	0	1	1	\$0.04	\$0.13	0.32	No	No
CR 220	CR 209 Henley Rd	0	0	0	1	0	\$0.04	\$0.13	0.30	Yes	Light in NW quadrant
CR 224 College Dr	CR 209A Peoria Rd	0	0	0	1	2	\$0.16	\$0.31	0.50	Yes	Light in NE quadrant
CR 209 Russell Rd	CR 739B Sandridge Rd	0	0	0	0	4	\$0.03	\$0.21	0.15		Roundabout under construction
CR 15A Oakridge Ave	Green Cove Ave	0	0	0	0	4	\$0.01	\$0.13	0.09	No	Light in NW quadrant
CR 218	CR 217	0	0	0	0	2	\$0.01	\$0.13	0.04	No	No

DNL = crashes coded as Dark, Not Lighted

A photometric analysis was performed at each of the priority locations and a rough order of magnitude cost was estimated for each location was prepared. The photometric analysis sheets and costs are provided in Appendix A.

**Table 6. Priority Locations**

Location	Lighting Construction Costs
CR 739 Henley Road at CR 209 Russell Road	\$161,000
CR 220 at CR 220B Knight Boxx Road	\$197,600
CR 220 at CR 220A Long Bay Road	\$127,100
CR 220B Knight Boxx Road at CR 220A Old Jennings Road	\$197,600
Oakleaf Plantation Parkway at Plantation Oaks*	\$450,000

\* Upgrade needed to meet current standards.

## Roadway Segment Safety Analysis

Three safety metrics were used to evaluate the safety performance of county-maintained road segments: crash frequency, EPDO values, and crash rate.

Crash rate is a practical safety performance metric that adjusts crash frequency by accounting for road segment length and traffic exposure, typically quantified using AADT. It is expressed as the number of crashes per 100 million vehicle-miles traveled (MVMT), providing a standardized measure for comparing road segments with varying lengths and traffic volumes. The crash rate was calculated using the formula below.

$$Crash\ Rate = \frac{C \times 100,000,000}{V \times 365 \times N \times L}$$

where C is the number of crashes within the analysis period, V is the two-way AADT volume in vehicles per day, N is the number of years of crash data, and L is the road segment length in centerline miles.

An aggregate safety ranking was developed using the average rank from the three metrics: crash frequency, EPDO, and crash rate. Road segments were then sorted, with a lower aggregate ranking corresponding to a higher safety priority. The top 25 county-maintained segments with disproportionate safety issues under dark – not lighted were identified. In addition, the top 25 county-maintained segments with safety issues regardless of lighting conditions were also identified.

Table 7 identifies corridors where street lighting may be a candidate based on a high-level benefit cost analysis.

**Table 7. Candidate Corridors for Street Lighting**

Road	From	To	MAP_ID	Length (mi)	Lanes	AADT	DNL Fatalities	DNL Incapacitating Injury	DNL Non-Incapacitating Injury	DNL Possible/ Minor Injury	DNL No Injury	Cost of DNL Crashes	Benefit	Lighting Life Cycle Cost	Benefit-Cost
CR 739 Henley Rd	Russell Rd	CR 220	139	1.32	4-lane	12,500	1	0	0	2	5	\$2.23	\$17.54	\$1.16	15.11
CR 220A Old Jennings Rd	Western Terminus	SR 23	76	1.66	2-lane	3,400	1	0	0	2	5	\$2.23	\$11.55	\$1.14	10.11
CR 315	SR 16	US-17	43	4.18	2-lane	4,700	2	2	6	3	22	\$5.02	\$26.04	\$2.87	9.06
CR 209	Williams Park Rd	US-17	584	5.04	2-lane	900	1	0	1	1	8	\$2.25	\$11.65	\$3.47	3.36
CR 218	US 301	SR 16	608	20.39	2-lane	11,400	3	4	20	20	100	\$8.53	\$44.25	\$14.02	3.16
CR 219	Putnam Co Line	SR 100	570	1.01	2-lane	1,300	0	1	4	2	9	\$0.38	\$1.96	\$0.70	2.81
CR 209 Russell Rd	Henley Rd	US-17	8	7.31	2-lane	12,500	1	1	5	6	34	\$2.71	\$14.06	\$5.03	2.80
CR 220	SR 21	College Dr	517	5.48	2-lane	18,400	0	3	4	7	34	\$0.87	\$4.54	\$3.77	1.20
CR 739 Henley Rd	CR 218	CR 209 Russell Rd	35	3.26	2-lane	8,000	0	2	2	2	16	\$0.49	\$2.56	\$2.24	1.14
CR 315 Sharron Rd Springbank Rd	SR 21	SR 16	350	14.44	2-lane	200	1	0	0	0	4	\$2.18	\$11.32	\$9.93	1.14
CR 214	SR 100	CR 315	331	6.58	2-lane	5,600	0	3	8	6	25	\$0.98	\$5.10	\$4.53	1.13
CR 220B Knight Boxx Dr	CR 220	SR 21	265	1.21	2-lane	14,800	0	0	2	5	2	\$0.18	\$0.93	\$0.83	1.12

DNL = Crashes recorded as Dark Not Lighted.

## Generalized Installation Costs

A set of generalized cost estimates were developed and are summarized in Table 8. The typical installations are based on standards provided by Clay Electric. The configurations are shown on Figure 2 through Figure 5.

When preparing the estimates, LED lighting installations based on design catalogues and standards for Clay Electric, FPL and JEA were used in lieu of the High-Pressure Sodium (HPS) referenced in Clay Electric standards on the figures.

For the FPL installations we assumed a 5,000 lumen LED luminaire (B1-U0-G1) for a 100W HPS equivalent and 20,000 lumen LED luminaire (B3-U0-G4) for the 250W HPS equivalent.

We assumed a L201 luminaire for a 100W HPS LED equivalent which is a SLLED7 on the JEA rate schedule and a L301 luminaire on the JEA rate schedule for 250W HPS LED equivalent for this analysis.

Prior to implementing street lighting a design analysis is needed to determine if the proposed lighting will meet the current design criteria established in the Florida Green Book.

The typical configurations proposed by Clay Electric do not meet current criteria if there are sidewalks or pedestrian crossings in the intersection area. Appendix A includes photometric analysis of the top priority locations showing that additional lighting is needed at these locations beyond the Clay Electric typical configurations.

**Table 8. Installation Costs**

Guideline	Configuration	Pole	Estimated Construction Costs	Support Costs At 35%	Total Costs Rounded
<b>Public Road Near Driveway</b>	Single Pole	On New Pole	\$42,806.96	\$14,982.44	\$58,000
		On Existing Pole	\$14,213.64	\$4,974.77	\$19,000
<b>T-Intersection</b>	< 3,000 AADT	On New Pole	\$45,608.41	\$15,962.94	\$62,000
		On Existing Pole	\$28,109.94	\$9,838.48	\$38,000
	≥ 3,000 AADT	On New Pole	\$90,803.17	\$31,781.11	\$123,000
		On Existing Pole	\$42,377.90	\$14,832.27	\$57,000
<b>4-Way Intersection</b>	< 3,000 AADT	On New Pole	\$90,803.17	\$31,781.11	\$123,000
		On Existing Pole	\$42,377.90	\$14,832.27	\$57,000
	≥ 3,000 AADT	On New Pole	\$152,843.96	\$53,495.39	\$206,000
		On Existing Pole	\$70,913.81	\$24,819.83	\$96,000
<b>Bus Stop or Crosswalk</b>	2-Lane	On New Pole	\$45,608.41	\$15,962.94	\$62,000
		On Existing Pole	\$14,213.64	\$4,974.77	\$19,000
	4-Lane	On New Pole	\$74,105.41	\$25,936.89	\$100,000
		On Existing Pole	\$25,680.14	\$8,988.05	\$35,000
<b>Roadway Per Mile</b>	2-Lane	On New Pole	\$934,765.89	\$327,168.06	\$1,262,000
		On Existing Pole	\$508,362.69	\$177,926.94	\$686,000
	4-Lane	On New Pole	\$1,309,255.27	\$458,239.34	\$1,767,000
		On Existing Pole	\$648,317.95	\$226,911.28	\$875,000

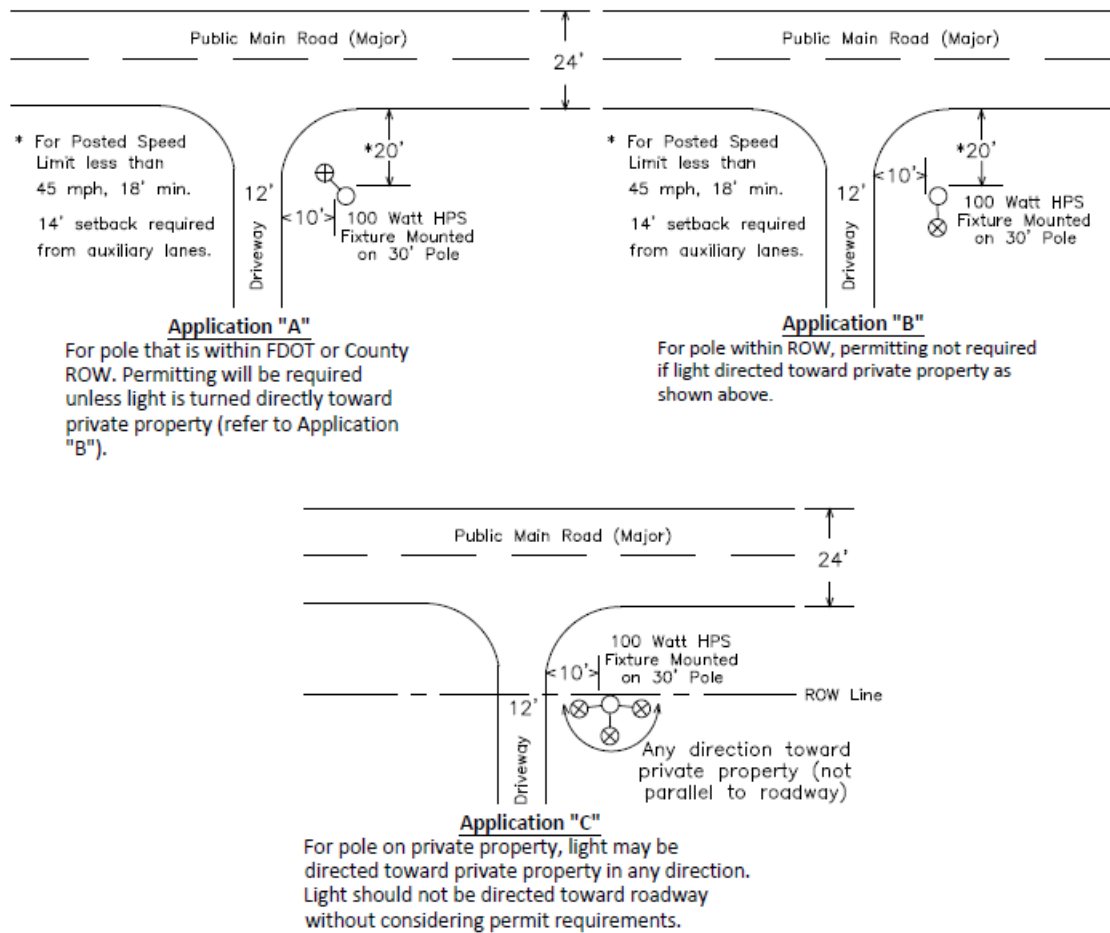
Notes:

Support costs include design, permitting and construction engineering and inspection. No right-of-way or utility adjustment costs are considered. Estimates are general in nature and will be varied based on local site conditions.

Leasing options are available for poles and luminaires based on utility company.

The estimates are provided in Appendix A.

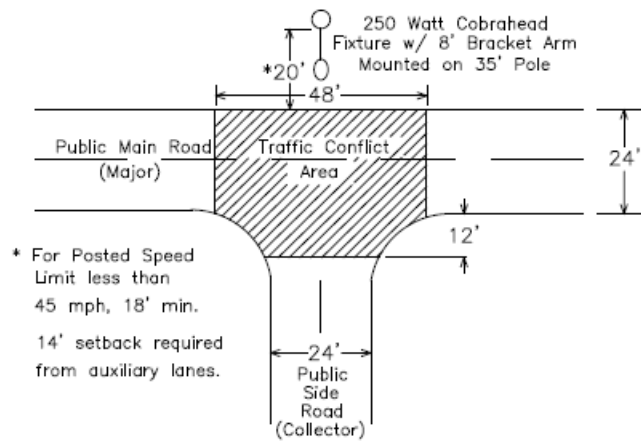
**Figure 2. Driveway on Public Roads**



**Private Driveway to Residence onto Public Roadway (Application A, B & C):**

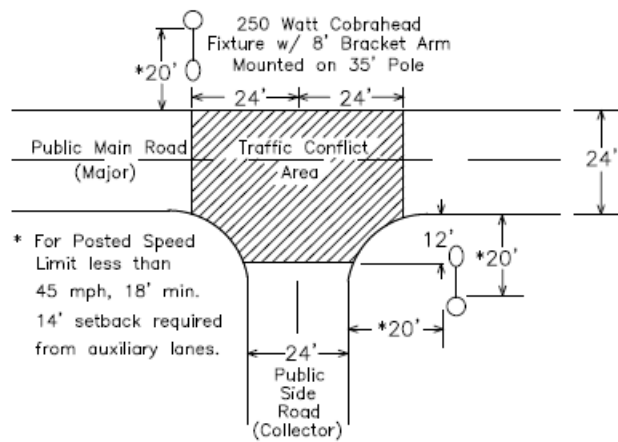
1. Lighting levels are not specified for lighting single family driveways onto public roadways (low traffic volume at miniature intersection).
2. The 100 watt light may be placed on either side of the driveway. Refer to application type for lighting direction and permitting requirement.
3. Applications "B" & "C" may be applied for lighting requests without driveways.
4. When submitting permit applications, the CEC Public Roadway Services Utility Permit Attachment "A" shall be attached.
5. \*Horizontal Clearances listed are for rural roadways (flush shoulders). For urban roadways (curb & gutter), the minimum setback shall be four (4') feet from back of curb face. Ten (10') feet recommended setback from driveway.

Figure 3. T-Intersection



**Arrangement "A"**

Traffic Volume < 3000 vehicles per Day



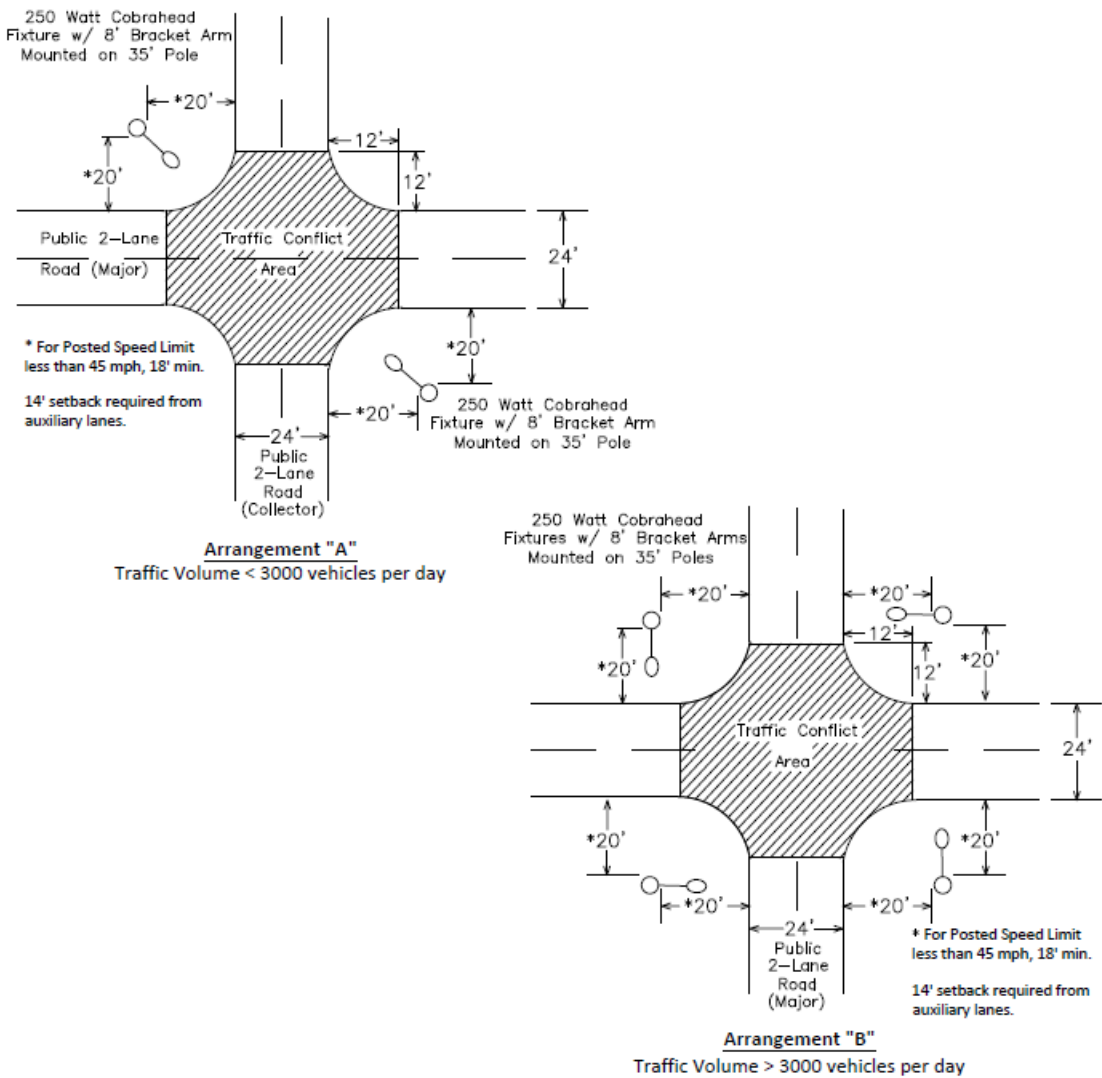
**Arrangement "B"**

Traffic Volume > 3000 vehicles per Day

NOTES: T-Intersection of Two Public Roadways (Major/Major)

1. An average foot-candle value of 1.8 is anticipated within the Traffic Conflict Area shown for Arrangement "A"; average foot-candle value of 2.9 is anticipated for arrangement "B". Note traffic volume values for each lighting arrangement.
2. Required permitting will need to be granted from the appropriate roadway agency prior to installing lighting within the public roadway. The CEC Public Roadway Lighting Services Utility Permit Attachment "A" shall be attached to the permit applications.
3. \*Horizontal Clearances listed above are for Rural roadways (flush shoulders). For Urban roadways (curb and gutter), the minimum setback shall be four (4') feet from back of face of curb.

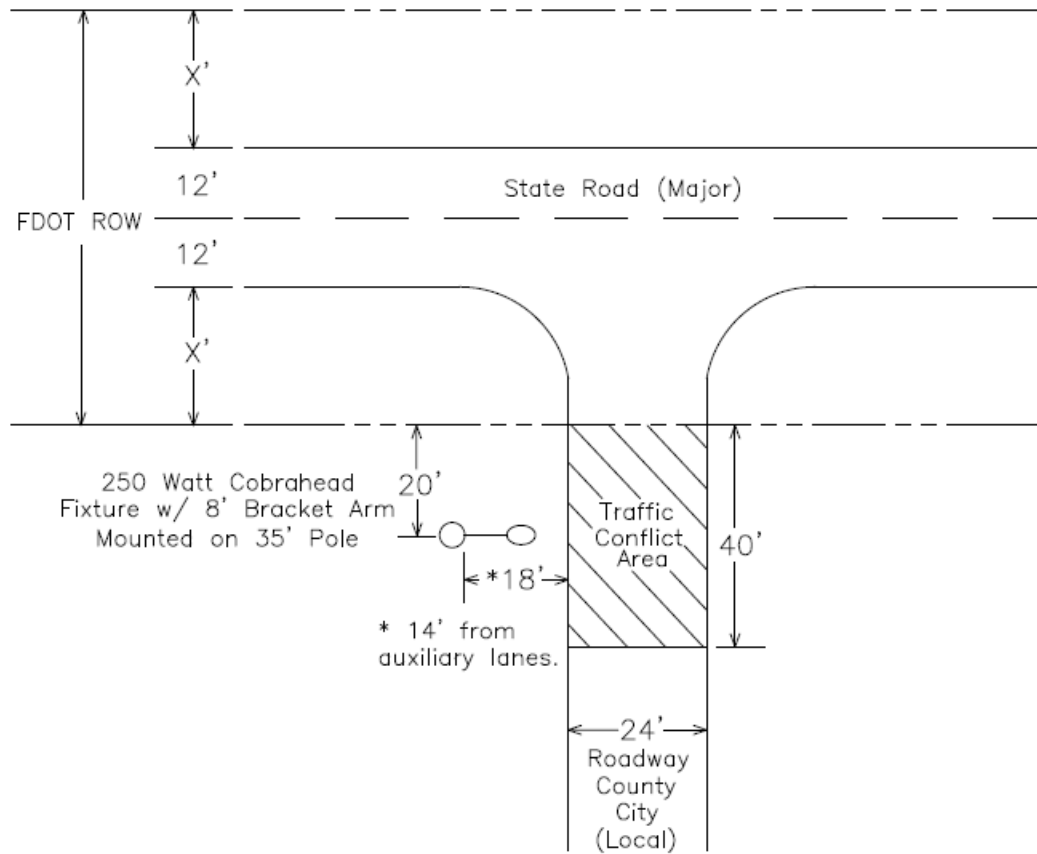
**Figure 4. 4-Way Intersection**



**NOTES: Four-Way Intersection of Two Public Roadways**

1. An average footcandle value of 2.3 is anticipated within the Traffic Conflict Area shown for Arrangement "A"; average footcandle value of 5.0 is anticipated for Arrangement "B". Note traffic volume for each lighting arrangement.
2. Required permitting will need to be granted from the appropriate roadway agency prior to installing lighting within the public roadway. The CEC Public Roadway Lighting Services Utility Permit Attachment "A" shall be attached to the permit applications.
3. \*Horizontal Clearances listed above are for Rural roadways (flush shoulders). For Urban roadways (curb and gutter), the minimum setback shall be four (4') feet from back of face of curb.

**Figure 5. Bus Stop or Crosswalk**



**NOTES: Bus Stop/Cross Walk Located in Mid-block or near Intersection (Major/ Local):**

1. Applicable for posted speed limit of less than 45 MPH for minimum setback of 18' from the edge of pavement (or travel lane line) to the pole face. Lighting pole shall be a minimum of 20' from FDOT ROW line.
2. For bus stops, the lighting pole shall be installed approximately ten (10') feet beyond the point in front of the bus when loading and unloading.
3. An average foot-candle value of 2.4 is anticipated within the forty (40') feet long "traffic conflict area" on a 24' wide two-lane roadway.
4. Permitting will need to be granted from the "local" roadway agency prior to installing lighting within the public roadway. The CEC Public Roadway Lighting Services Utility Permit Attachment "A" shall be attached to the permit application.

## Operations and Maintenance Costs

Electric utility operators in Clay County include Clay Electric, Florida Power and Light (FPL), Green Cove Springs Electric and JEA as shown on Figure 6. Streetlights within the City of Green Cove Springs are managed by the City of Green Cove Springs. Clay Electric, FPL, and JEA publish rates for street light operations and maintenance costs.

### Clay Electric

The Cooperative's standard installation includes mounting light fixture on an existing pole. A monthly fee as defined in rate schedules L and FL will be added if a new pole must be added to install the light. Where more than a standard wood pole, light fixture and service drop is required, the member will be charged for the additional cost. If a transformer must be installed for the exclusive purpose of providing service to the light, the member shall be charged the materials, labor, and overhead costs for the transformer. For Cooperative owned and installed street lighting facilities, a contribution in aid of construction (CIAC) will be required from the members for:

1. The installation cost of any new overhead distribution facilities for the exclusive purpose of providing service to the lights, exclusive of the installed cost of a standard lighting fixture itself, a standard wood pole and one span of service wire to the light.
2. The installation cost of any new underground distribution facilities for the exclusive purpose of providing service to the lights, exclusive of the installed cost of a standard lighting fixture itself, a standard wood pole, and the equivalent cost of one span of overhead service wire to the light.

As of October 2023, Clay Electric published the following effective rate schedule. ([RateSummarySchedule1023.pdf](#). Retrieved 12/1/25).

#### Subdivision Lighting Service - Rate Schedule RSL, Effective January 1, 2019

- Rate RSL-S, Six or more consumers per light..... \$1.40\*
- Rate RSL-L, Three to five consumers per light..... \$2.80\*

\*Plus current month's Power Cost Adjustment and applicable taxes.

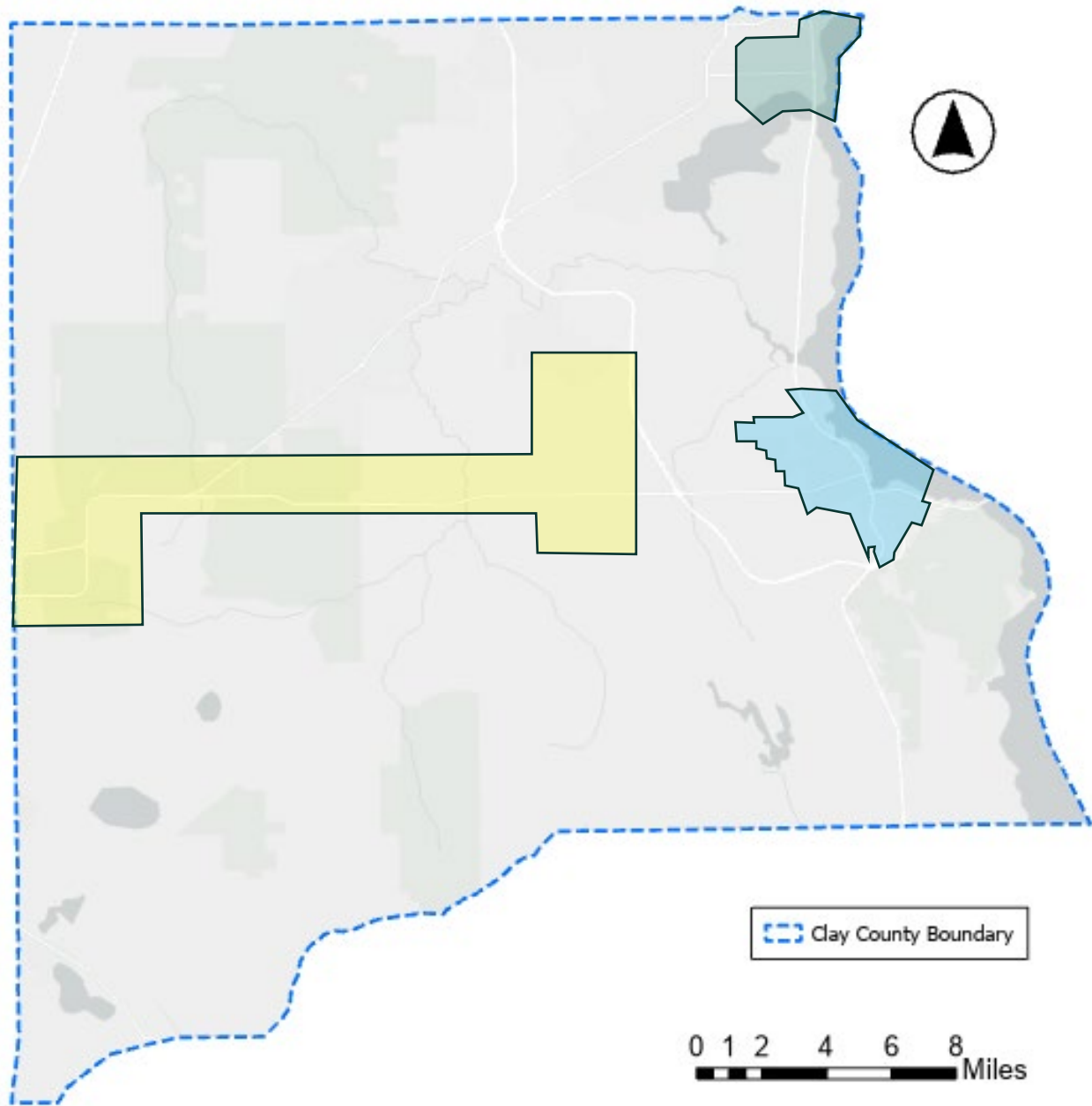
#### Outdoor Lights - Rate Schedule L (monthly) Effective January 1, 2019

- Small Light (5,000 Lumens) ..... \$7.10\*
- Large Light (17,000 Lumens) ..... \$10.35\*
- Small Flood Light (10,500 Lumens)..... \$12.35\*
- Large Flood Light (17,000 Lumens)..... \$16.35\*
- Pole Rental..... \$3.50




\*Plus current month's Power Cost Adjustment and applicable taxes.

Clay Electric does not publish a full history of their monthly power cost adjustment factors.

Figure 6. Electric Service Area



Clay Electric covers the county with the exception of the areas shown.

-  JEA
-  FPL
-  Green Cove Springs Electric

## Florida Power and Light

FPL publishes their lighting rate schedule

Monthly Rate for Maintenance and Conversion

- Maintenance per Fixture for FPL Owned Fixture and Pole \$1.45
- Maintenance per Fixture for FPL fixtures on Customer Pole \$1.16
- LED Conversion Recovery \$2.08

Monthly Rate for Poles Used Only for Lighting System

- Standard Wood pole \$5.94
- Standard Concrete pole \$8.14
- Standard Fiberglass pole \$9.61
- Decorative Concrete pole \$17.46

Electric consumption is paid based on fixture type. There are the following luminaire types provided in the FPL Lighting Solutions catalogue with the LED options available shown based on the billing tier identifier.

- Six standard roadway luminaires with two LED options each
  - C2 \$4.90
  - D2 \$5.10
  - F2 \$5.50
  - I2 \$6.10
  - K3 \$9.50
  - Q3 \$10.70
- Two modern roadway luminaires with different LED options
  - H3 \$8.90
  - L3 \$9.70
  - Q3 \$10.70
  - Q4 \$13.70

**JEA**

JEA also provides a standard rate schedule for municipal governments that is based on the lighting installation type and can be adjusted based on fuel costs are shown on

**Table 9. JEA Non-Fuel Charge Monthly O&M Costs**

Code	Service	Wattage	Type	Fixture	Monthly kWh	Monthly Non-Fuel Charge
SLHPS1	Standard	70W	HPS	CH,PT	29	\$7.09
SLHPS2	Standard	200W	HPS	CH, FL	88	\$9.65
SLHPS3	Standard	250W	HPS	CH	108	\$10.31
SLHPS4	Standard	400W	MH	CH, FL	169	\$12.69
SLMHS1	Standard	100W	MH	DA	47	\$11.80
SLMHS2	Standard	150W	MH	PT	67	\$9.26
SLMHS3	Standard	175W	MH	PT	76	\$9.57
SLMHS4	Standard	320W	MH	CH, FL	130	\$11.38
SLMHS5	Standard	150W	MH	DA	67	\$15.05
SLMHS6	Standard	400W	MH	CH, FL	164	\$12.55
SLMHS7	Standard	175W	MH	DA	76	\$15.36
SLMHE1	Historic Energy & O&M	150W	MH	DA	67	\$3.61
SLMHE2	Historic Energy & O&M	175W	MH	DA	76	\$3.92
SLMHE3	Energy & O&M	320W	MH	CH, FL, SB	130	\$5.79
SLMHE4	Energy & O&M	400W	MH	CH, FL, SB	164	\$6.96
SLLED1	Standard	40W	LED	CH	15	\$6.69
SLLED2	Standard	40W	LED	PT	16	\$7.47
SLLED3	Standard	115W	LED	CH	41	\$8.24
SLLED4	Standard	162W	LED	SB	59	\$12.51
SLLED5	Standard	275W	LED	CH	99	\$11.39
SLLED6	Standard	72W	LED	PT	26	\$8.14
SLLED7	Standard	100W	LED	DA	36	\$10.14
SLLED8	Standard	60W	LED	AC	22	\$8.33
SLLED9	Standard	150W	LED	TD	54	\$11.92
SLLED10	Standard	185W	LED	TD	54	\$11.39

- HPS = High Pressure Sodium
- LED = Light Emitting Diode
- MH = Metal Halide
- AC = Acorn
- CH = Cobra Head
- DA = Decorative Acorn
- FL = Floodlight
- PT = Post Top
- SB = Shoebox
- TD = Tear Drop

## Generalized O&M Costs

Based on the generalized cost scenarios developed, the monthly O&M costs will vary by electric provider. The costs are summarized in Table 10. The schedule for each utility is provided in Appendix B.

We assumed only an LED luminaire will be installed.

Clay Electric has a flat rate per luminaire based on an installation on the pole configuration.

For the FPL installations we assumed a 5,000 lumen LED luminaire or C2 on the cost schedule for a 100W HPS equivalent and 20,000 lumen LED luminaire or K3 on the cost schedule for the 250W HPS equivalent.

We assumed a L201 luminaire for a 100W HPS LED equivalent which is a SLLED7 on the JEA rate schedule and a L301 luminaire or SLLED5 on the JEA rate schedule for 250W HPS LED equivalent for this analysis.

**Table 10. Summary of Generalized Monthly O&M Costs (without Fuel Adjustments)**

<b>Guideline</b>	<b>Configuration</b>	<b>Pole Config.</b>	<b>Clay Electric Amount</b>	<b>FPL Amount</b>	<b>JEA Amount</b>
<b>Public Road near Driveway</b>		On New Pole	\$16.35	\$18.41	\$10.14
		On Existing Pole	\$19.85	\$18.70	\$10.14
<b>T-Intersection</b>	< 3,000 AADT	On New Pole	\$16.35	\$27.01	\$11.39
		On Existing Pole	\$19.85	\$27.30	\$11.39
	> 3,000 AADT	On New Pole	\$32.70	\$54.02	\$22.78
		On Existing Pole	\$39.70	\$54.60	\$22.78
<b>4-Way Intersection</b>	< 3,000 AADT	On New Pole	\$32.70	\$54.02	\$22.78
		On Existing Pole	\$39.70	\$54.60	\$22.78
	> 3,000 AADT	On New Pole	\$65.40	\$108.04	\$45.56
		On Existing Pole	\$79.40	\$109.20	\$45.56
<b>Bus Stop or Crosswalk</b>	2-Lane	On New Pole	\$16.35	\$27.01	\$11.39
		On Existing Pole	\$19.85	\$27.30	\$11.39
	4-Lane	On New Pole	\$32.70	\$54.02	\$22.78
		On Existing Pole	\$39.70	\$54.60	\$22.78
<b>Roadway Per Mile</b>	2-Lane	On New Pole	\$343.35	\$567.21	\$239.19
		On Existing OE Pole	\$343.35	\$573.30	\$239.19
	4-Lane	On New Pole	\$694.75	\$945.35	\$398.65
		On Existing OE Pole	\$694.75	\$955.50	\$398.65

## Conclusions

From January 2020 to June 2025, there were 10 fatalities and 193 injury crashes on Clay County roads that occurred under dark, not-lighted conditions.

This study used a lighting justification screening analysis based on historic crash data on roadways in Clay County. Each segment and intersection of county roads were analyzed.

Four intersection locations were identified as priority locations for installation of lighting improvements.

- CR 739 Henley Road at CR 209 Russell Road
- CR 220 at CR 220B Knight Boxx Road
- CR 220 at CR 220A Long Bay Road
- CR 220B Knight Boxx Road at CR 220A Old Jennings Road

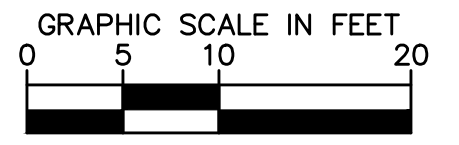
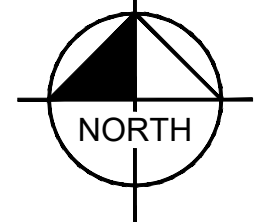
The following corridors were identified as candidates for street lighting.

- CR 739 Henley Road from Russell Road to CR 220
- CR 220A Old Jennings Road from Western Terminus to SR 23
- CR 315 from SR 16 to US-17
- CR 209 from Williams Park Road to US-17
- CR 218 from US 301 to SR 16
- CR 219 from Putnam Co Line to SR 100
- CR 209 Russell Road from Henley Road to US-17
- CR 220 from SR 21 to College Drive
- CR 739 Henley Road from CR 218 to CR 209 Russell Rd
- CR 315 Sharron Road/Springbank Road from SR 21 to SR 16
- CR 214 from SR 100 to CR 315
- CR 220B Knight Boxx Drive from CR 220 and SR 21

To assist the County staff with future requests for lighting a generalized lighting cost analysis was developed based on Clay Electric street lighting configurations that include the installation, operations, and maintenance costs. These generalized costs are only rough approximations. Detailed photometric analysis and design is needed prior to any installation.

# **Appendix A. Priority Locations**

Plotted By: Hatchiner, Brandon Sheet: Set: Clay County Standard Layout: Cr 220 @ Knight Boxx Road Existing January 27, 2026 10:13:57am K:\JAX\_IP10\04566603\_North Florida IPD\Work Orders\Lighting\_Study\Lighting\Clay County Standard CADD\01\_Cr 220 @ Knight Boxx Road Existing.dwg



HORIZONTAL			
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0.54	3.1	N/A	N/A

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

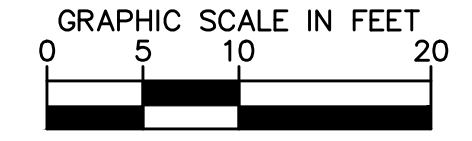
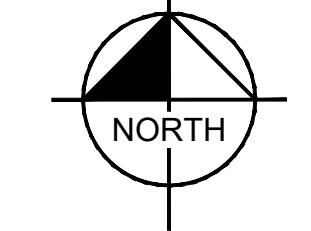
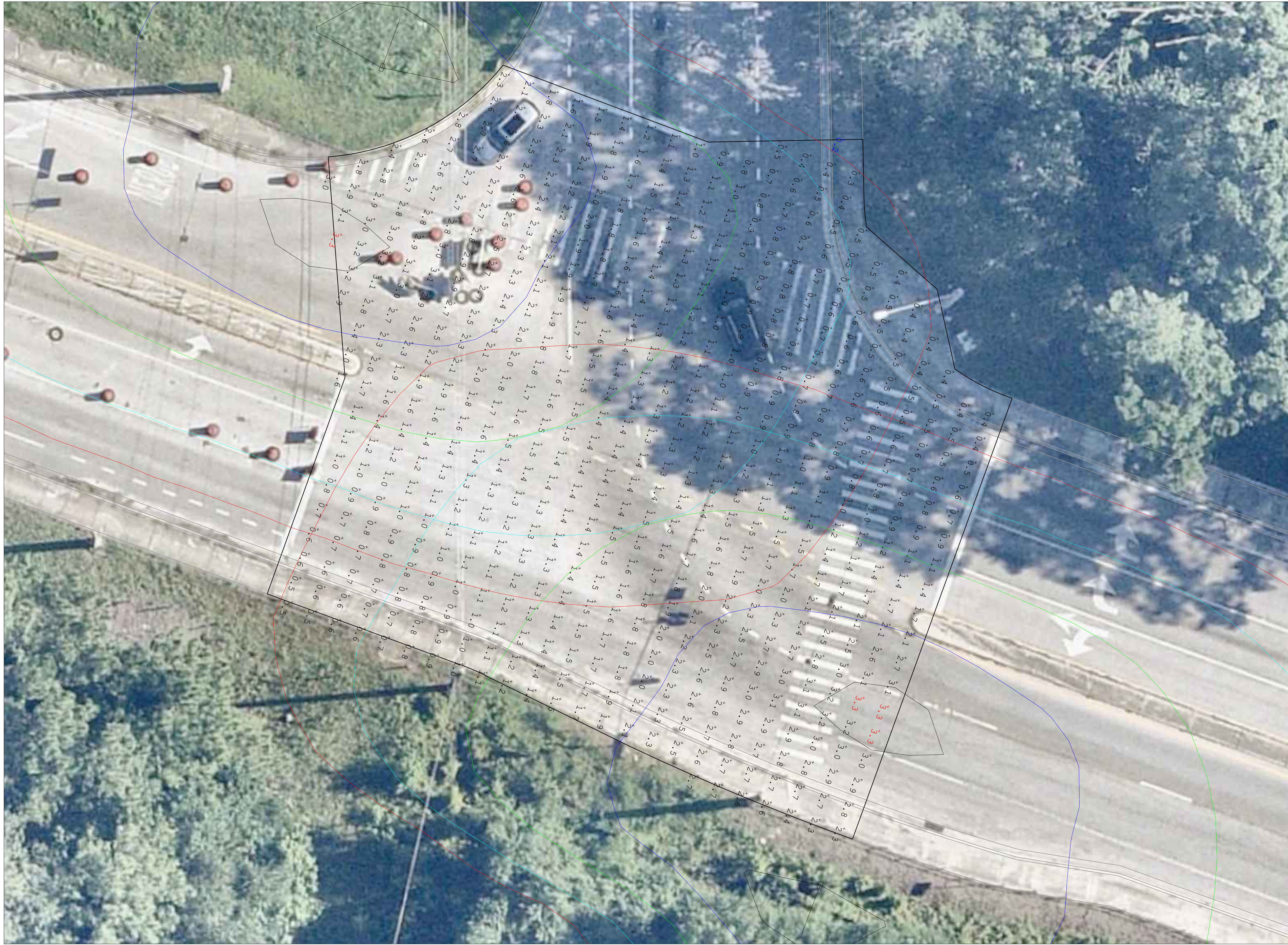
TERRY SHAW, P.E.  
 LICENSE NUMBER: 50096  
 KIMLEY -HORN & ASSOCIATES  
 12740 GRAN BAY PARKWAY, SUITE 2350  
 JACKSONVILLE, FL 32258

CLAY COUNTY LIGHTING
COUNTY
CLAY COUNTY

CR 220 @ KNIGHT BOXX ROAD EXISTING

SHEET NO.  
**L-01**

Plotted By: Hatchner, Brandon Sheet: Sst:Clay County Standard Layout: Cr 220 @ Knight Boxx Road Proposed January 27, 2026 10:14:09am K:\MAX\_IP\IO\_045656003\_North Florida IPC\Work Orders\Clay Lighting Study\Lighting\Clay County Standard CAD\CL-02\_Cr 220 @ Knight Boxx Road Proposed.dwg



HORIZONTAL			
AVERAGE	MAX	AVG./MIN.	MAX./MIN.
1.6	3.3	8	16.5

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

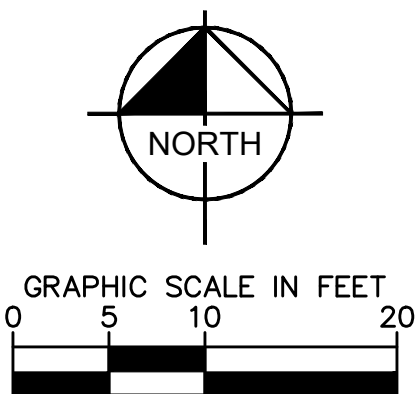
TERRY SHAW, P.E.  
 LICENSE NUMBER: 50096  
 KIMLEY -HORN & ASSOCIATES  
 12740 GRAN BAY PARKWAY, SUITE 2350  
 JACKSONVILLE, FL 32258

CLAY COUNTY LIGHTING
COUNTY
CLAY COUNTY

CR 220 @ KNIGHT BOXX ROAD PROPOSED CLAY COUNTY

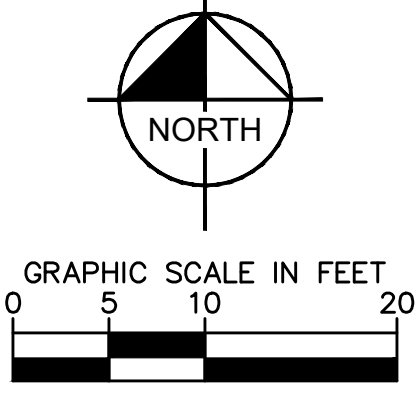
SHEET NO.  
**L-02**

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HORIZONTAL			
AVERAGE	MAX	AVG./MIN.	MAX./MIN.
2.99	4.3	4.98	7.17

REVISIONS		TERRY SHAW, P.E. LICENSE NUMBER: 50096 KIMLEY -HORN & ASSOCIATES 12740 GRAN BAY PARKWAY, SUITE 2350 JACKSONVILLE, FL 32258		CLAY COUNTY LIGHTING	CR 220 @ LONG BAY ROAD PROPOSED CLAY COUNTY	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	COUNTY		L-03
				CLAY COUNTY		



HORIZONTAL			
AVERAGE	MAX	AVG./MIN.	MAX./MIN.
0.47	3.1	N/A	N/A

REVISIONS	
DATE	DESCRIPTION

TERRY SHAW, P.E.  
 LICENSE NUMBER: 50096  
 KIMLEY -HORN & ASSOCIATES  
 12740 GRAN BAY PARKWAY, SUITE 2350  
 JACKSONVILLE, FL 32258

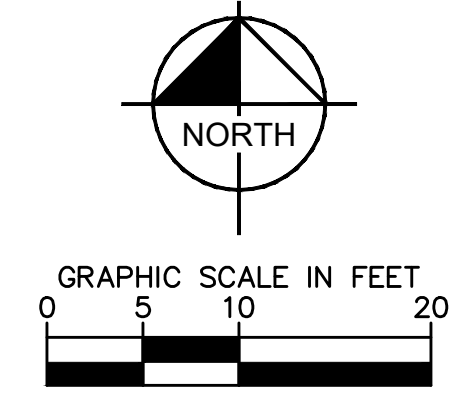
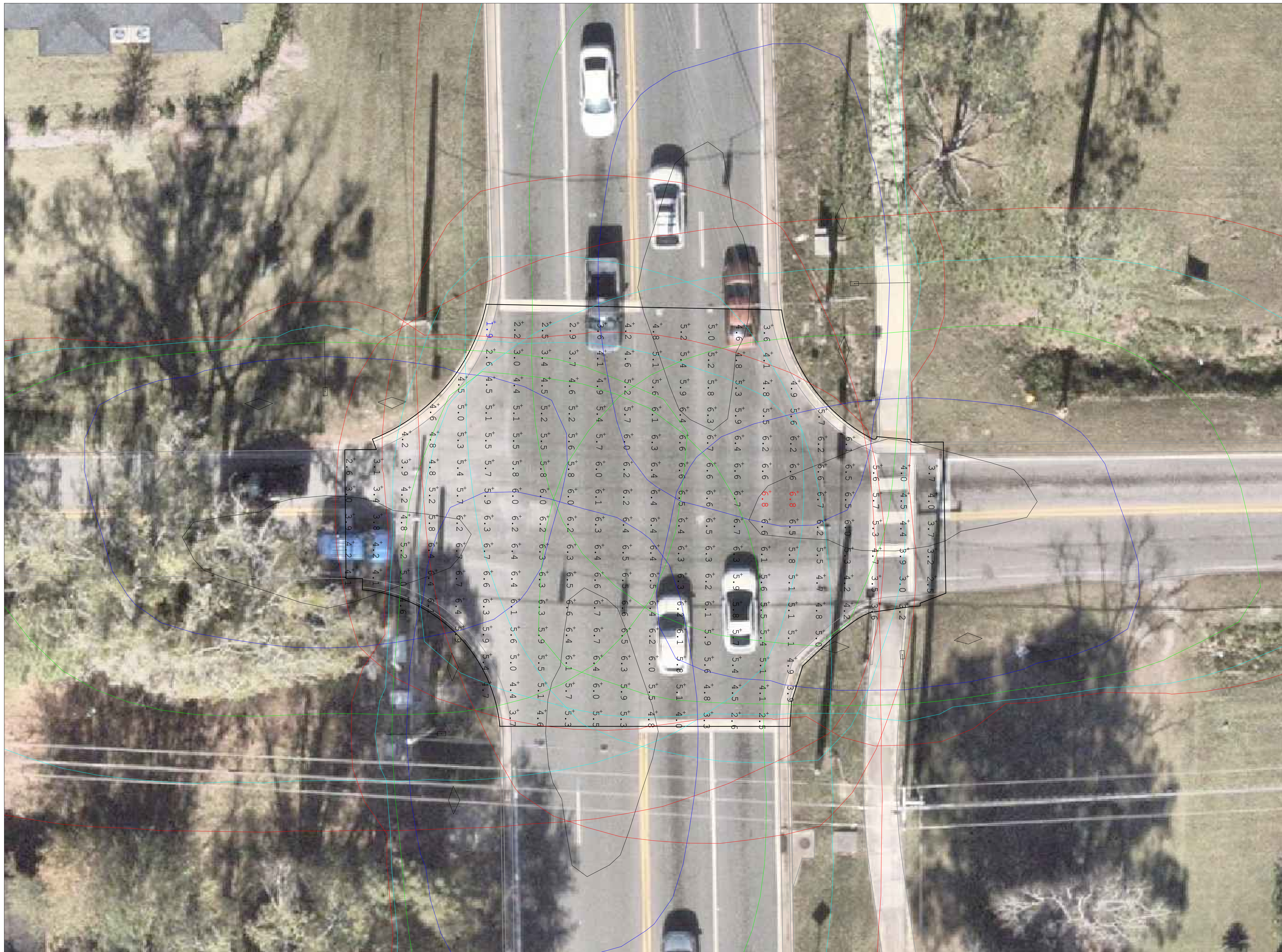
CLAY COUNTY LIGHTING
COUNTY
CLAY COUNTY

HENLEY ROAD @ RUSSELL ROAD EXISTING

SHEET NO.  
**L-04**



Plotted By: hatcher, Brendan Sheet: Sat: Clay County Standard Layout: Knight Boxx Road @ New Jennings Road January 27, 2026 10:14:56am K:\JAX - JPTO\04566603 - North Florida TPO Work Orders\Clay Lighting Study\Lighting\Clay County Standard CAD\L-06 Knight Boxx Road @ Old Jennings Road Proposed



HORIZONTAL			
AVERAGE	MAX	AVG./MIN.	MAX./MIN.
5.36	6.8	2.82	3.58

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

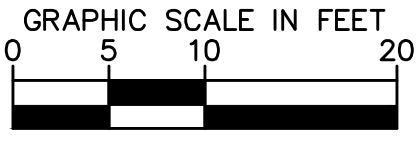
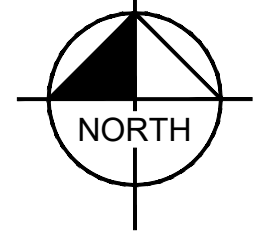
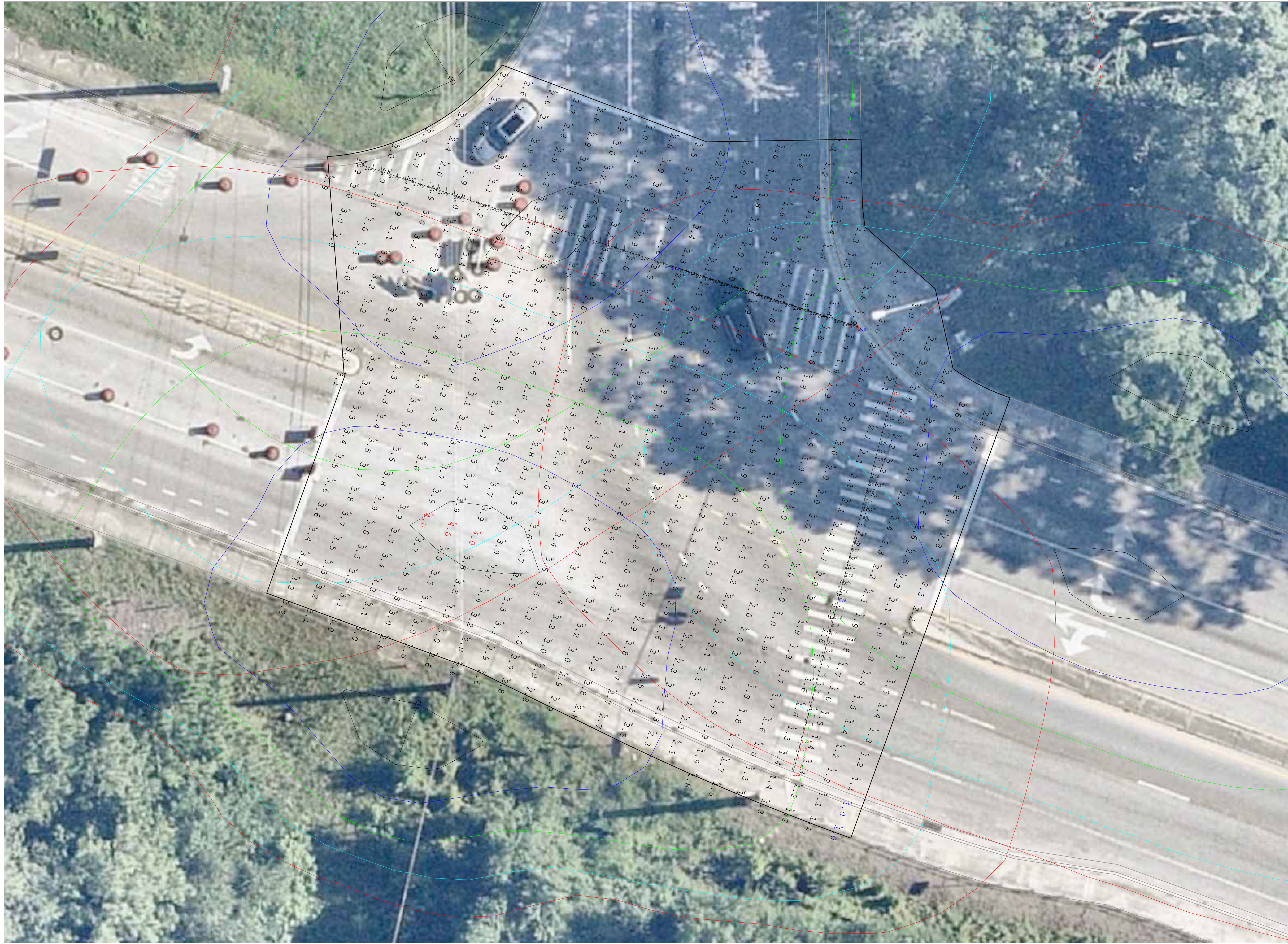
TERRY SHAW, P.E.  
 LICENSE NUMBER: 50096  
 KIMLEY - HORN & ASSOCIATES  
 12740 GRAN BAY PARKWAY, SUITE 2350  
 JACKSONVILLE, FL 32258

CLAY COUNTY LIGHTING  
 COUNTY  
 CLAY COUNTY

KNIGHT BOXX ROAD @ OLD JENNINGS ROAD  
 PROPOSED CLAY COUNTY

SHEET NO.  
**L-06**

Plotted By: Hatchner, Brendon Sheet: Sst: Clay County Standard Layout: Cr 220 Knight Boxx Road Proposed January 27, 2026 10:15:10am K:\JAX\_IP\IO\_045656003\_North Florida\_TPO\Work\_Orders\_Clay\_Lighting\_Study\Lighting\Green\_Book\_CADD\U-01\_Cr 220 Knight Boxx Road.dwg



HORIZONTAL			
AVERAGE	MAX	AVG./MIN.	MAX./MIN.
2.54	4	2.54	4.00

VERTICAL	
AREA	AVERAGE
EBL	1.53
SBL	1.02
SBT	2.86
WBL	1.94
WBT	2.62

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

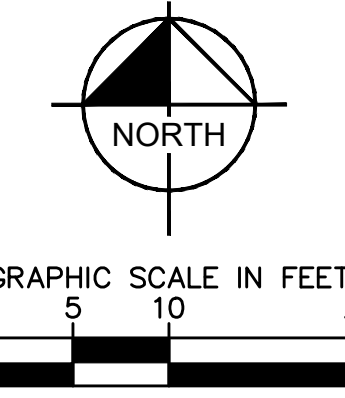
TERRY SHAW, P.E.  
 LICENSE NUMBER: 50096  
 KIMLEY -HORN & ASSOCIATES  
 12740 GRAN BAY PARKWAY, SUITE 2350  
 JACKSONVILLE, FL 32258

CLAY COUNTY LIGHTING  
 COUNTY  
 CLAY COUNTY

CR 220 @ KNIGHT BOXX ROAD PROPOSED

SHEET NO.  
**L-07**

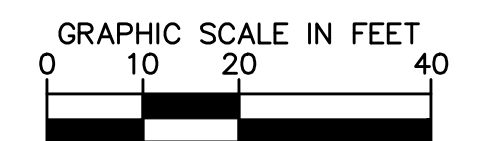
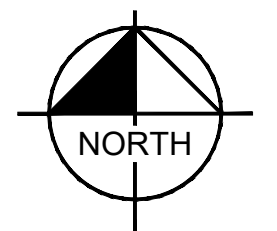
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HORIZONTAL			
AVERAGE	MAX	AVG./MIN.	MAX./MIN.
2.48	4.2	2.48	4.2

REVISIONS		TERRY SHAW, P.E. LICENSE NUMBER: 50096 KIMLEY -HORN & ASSOCIATES 12740 GRAN BAY PARKWAY, SUITE 2350 JACKSONVILLE, FL 32258		CLAY COUNTY LIGHTING		CR 220 @ LONG BAY ROAD PROPOSED	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	COUNTY			
				CLAY COUNTY			

Plotted By: Hatchiner, Brandon Sheet: Set: Clay County Standard Layout: Henley Road @ Russell Road Proposed January 27, 2026 10:15:32am K:\MAX\_IP\10\_045666001\_North Florida\_TPO\Work Orders\Clay\_Lighting\_Study\Lighting\_Study\Green\_Book\_CADD\1-03\_Henley\_Road @ Russell\_Road.dwg



HORIZONTAL			
AVERAGE	MAX	AVG./MIN.	MAX./MIN.
2.48	4.1	2.76	4.56

VERTICAL	
AREA	AVERAGE
NBR	1.1
NBT	1.9
SBT	1.47
WBL	1.03
WBR	2.65

REVISIONS							
DATE	DESCRIPTION	DATE	DESCRIPTION	TERRY SHAW, P.E. LICENSE NUMBER: 50096 KIMLEY -HORN & ASSOCIATES 12740 GRAN BAY PARKWAY, SUITE 2350 JACKSONVILLE, FL 32258		CLAY COUNTY LIGHTING	
						COUNTY	
						CLAY COUNTY	
						HENLEY ROAD @ RUSSELL ROAD PROPOSED	
						SHEET NO.	
						L-09	



**Henley Road at Russell Road**

<b>Pay Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Amount</b>
0110 1 1	CLEARING & GRUBBING	AC	0.500	\$ 49,052.02	\$ 24,526.01
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	600.00	\$ 16.18	\$ 9,708.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	4.00	\$ 1,704.05	\$ 6,816.20
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	600.00	\$ 14.27	\$ 8,562.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1.00	\$ 7,295.05	\$ 7,295.05
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	2064.00	\$ 2.13	\$ 4,396.32
0715 61342	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 12' ARM LENGTH	EA	3.00	\$ 14,855.00	\$ 44,565.00
	<b>SUBTOTAL</b>				<b>\$ 105,868.58</b>
	MOBILIZATION			15%	\$ 15,880.29
	MAINTENANCE OF TRAFFIC			15%	\$ 18,262.33
	<b>SUBTOTAL</b>				<b>\$ 140,011.20</b>
	PROJECT UNKNOWNNS			15%	\$ 21,001.68
	<b>TOTAL</b>				<b>\$ 161,012.88</b>

**CR 220 at Knight Boxx Road**

<b>Pay Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Amount</b>
0110 1 1	CLEARING & GRUBBING	AC	0.500	\$ 49,052.02	\$ 24,526.01
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	800.00	\$ 16.18	\$ 12,944.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	5.00	\$ 1,704.05	\$ 8,520.25
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	800.00	\$ 14.27	\$ 11,416.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1.00	\$ 7,295.05	\$ 7,295.05
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	2736.00	\$ 2.13	\$ 5,827.68
0715 61342	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 12' ARM LENGTH	EA	4.00	\$ 14,855.00	\$ 59,420.00
	<b>SUBTOTAL</b>				<b>\$ 129,948.99</b>
	MOBILIZATION			15%	\$ 19,492.35
	MAINTENANCE OF TRAFFIC			15%	\$ 22,416.20
	<b>SUBTOTAL</b>				<b>\$ 171,857.54</b>
	PROJECT UNKNOWNNS			15%	\$ 25,778.63
	<b>TOTAL</b>				<b>\$ 197,636.17</b>

**CR 220 at Long Bay Road**

<b>Pay Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Amount</b>
0110 1 1	CLEARING & GRUBBING	AC	0.500	\$ 49,052.02	\$ 24,526.01
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	400.00	\$ 16.18	\$ 6,472.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	4.00	\$ 1,704.05	\$ 6,816.20
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	400.00	\$ 14.27	\$ 5,708.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1.00	\$ 7,295.05	\$ 7,295.05
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	1440.00	\$ 2.13	\$ 3,067.20
0715 61342	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 12' ARM LENGTH	EA	2.00	\$ 14,855.00	\$ 29,710.00
	<b>SUBTOTAL</b>				<b>\$ 83,594.46</b>
	MOBILIZATION			15%	\$ 12,539.17
	MAINTENANCE OF TRAFFIC			15%	\$ 14,420.04
	<b>SUBTOTAL</b>				<b>\$ 110,553.67</b>
	PROJECT UNKNOWNNS			15%	\$ 16,583.05
	<b>TOTAL</b>				<b>\$ 127,136.72</b>

**Knight Boxx Road at Old Jennings Road**

<b>Pay Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Amount</b>
0110 1 1	CLEARING & GRUBBING	AC	0.500	\$ 49,052.02	\$ 24,526.01
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	800.00	\$ 16.18	\$ 12,944.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	5.00	\$ 1,704.05	\$ 8,520.25
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	800.00	\$ 14.27	\$ 11,416.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1.00	\$ 7,295.05	\$ 7,295.05
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	2736.00	\$ 2.13	\$ 5,827.68
0715 61342	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 12' ARM LENGTH	EA	4.00	\$ 14,855.00	\$ 59,420.00
	<b>SUBTOTAL</b>				<b>\$ 129,948.99</b>
	MOBILIZATION			15%	\$ 19,492.35
	MAINTENANCE OF TRAFFIC			15%	\$ 22,416.20
	<b>SUBTOTAL</b>				<b>\$ 171,857.54</b>
	PROJECT UNKNOWNNS			15%	\$ 25,778.63
	<b>TOTAL</b>				<b>\$ 197,636.17</b>

# Appendix B. Utility Schedules



*Clay Electric Cooperative, Inc.*

A Touchstone Energy® Cooperative 

**STANDARDS  
FOR  
ELECTRIC SERVICE**

**CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA  
(352) 473-8000**

**DISTRICT OFFICES**

**Gainesville**

**(352) 372-8543**

**Lake City**

**(386) 752-7447**

**Keystone Heights**

**(352) 473-4917**

**Orange Park**

**(904) 272-2456**

**Salt Springs**

**(352) 685-2111**

**Palatka**

**(386) 328-1432**

**INTRODUCTION TO**  
**STANDARDS FOR ELECTRIC SERVICE**

The Standards for Electric Service is presented to acquaint architects, developers, engineers, contractors, and members with requirements for receiving electric service.

These service standards are not intended to conflict in any manner with the National Electrical Code, the National Electrical Safety Code, or other State, County, or Cities' electrical code, but are intended to supplement these codes and to clarify certain service requirements which have been found from experience to be best for maintaining safe, satisfactory and good service to the members. It is not expected that this book of standards will cover in detail all of the conditions that arise with the many combinations possible in the construction of electric service installations. The illustrations offered are typical and intended to show the most important points in construction. Where conditions arise that this book does not cover, a representative of Clay Electric Cooperative, Inc., may be contacted to aid the member.

The Clay Electric Cooperative District Offices, listed on the title page will be glad to assist you with your request for new services, changes in existing services, or additions of new loads to existing installations.

Yours truly,

Richard K. Davis  
General Manager & CEO

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## **Definitions**

### **Accessible:**

Capable of being reached quickly without requiring the adjustment or removal of obstacles; not being closely enclosed by fences, hedges, or other obstacles, which prevent or hinder approachability.

### **Code:**

The National Electric Code, NFPA No. 70; the National Electrical Safety Code, ANSI No. C2; State or local codes having jurisdiction over an electrical installation.

### **Member:**

Any present or prospective user of electric service from the Cooperative or their authorized representative - architect, engineer, contractor, etc.

### **Cooperative:**

Clay Electric Cooperative, Inc.

### **District Office:**

An office of the Cooperative located in one of the six district service areas.

### **Load:**

The member's equipment requiring electrical power: The quantity of electric power required usually expressed in amperes, kilowatt (kW), or kilovolt - amperes (kVA).

### **Primary:**

These are the main feeder circuits extending from the Cooperative's substation to the general vicinity of the member's point of service. Primary voltages are either 7,200/12,470 or 14,400/24,900 Volts.

### **Secondary:**

This is the portion of the Cooperative system that extends from the Cooperative's distribution transformer to the service drop. Secondary voltages are usually 120/240 Volts but may be as listed in Paragraph 3.022.

### **Service:**

The supply of electric energy to a member; the wire connecting the Cooperative's wiring to the member's wiring.

### **Service Drop:**

The overhead service conductors between the Cooperative's pole and the member's point of attachment.

### **Service Entrance:**

Wires and enclosures connecting the member's service equipment to the Cooperative's service drop or other source of supply.

## SECTION 1

### GENERAL INFORMATION

#### 1.01 Application for Electric Service

An application for permanent service must be made by the member as far in advance of their occupancy as possible.

Each applicant for service must complete and sign an "Application for Membership and for Electric Service", for each individual service requested. Identification of the person responsible for the charges is required.

#### 1.02 Service Connection

1.021 Each individual service connection shall be metered and billed separately. Each dwelling shall be treated as an individual service connection. Each individual mobile home shall be treated as an individual service connection. Out buildings, pumps, etc., may be supplied from a meter on any individual service connection as described above.

1.022 Connection of services to and disconnection from the Cooperative's system (including temporary services) shall be carried out by Cooperative personnel only. With prior approval from the Cooperative, licensed electricians are permitted to disconnect service drops in order to perform necessary work on service entrance and equipment. In these instances, the Cooperative will reconnect the service drop after any required County inspections.

#### 1.03 Availability of Service

1.031 Information may be obtained at the local district office as to the availability of service at the location where it is desired. The Cooperative will make extensions to its existing facilities when required, provided the revenue to be derived shall be sufficient to afford a fair and reasonable return on the cost of making such extensions.

1.032 The Cooperative will provide service in the most economical way possible. If, at the member's request and for their benefit, the Cooperative's facilities are designed and constructed in a way which is not the most economical, the member shall be required to pay the cost differential between the two. This shall include the additional cost of materials, labor and overhead and shall be paid prior to construction of any facilities.

1.033 Three-phase power is not available in every part of the service area, especially in rural areas served underground or in isolated urban areas. Therefore, contact should be made with the Cooperative for service availability before specifying and purchasing equipment or wiring of buildings for three-phase equipment or motors of any size.

- 1.034 A combination of a minimum of 10 horsepower, with at least one motor 5 horsepower or larger is required for three-phase service to be extended.
- 1.035 Timely request for service location shall be made by the member at the nearest Cooperative District Office before construction is started. This request for service is not an application for service to the completed building.
- 1.036 The Cooperative will provide service to public or private airports in accordance with paragraph 1.031 above. However, in so providing service, the Cooperative will not build overhead lines across runways or taxiways. If member requires service across runways or taxiways the member shall pay for such service to be placed underground in accordance with formula as set forth in paragraph 5.022D.
- 1.037 The Cooperative reserves the right to refuse overhead service to areas deemed unsafe or impractical for overhead facilities. If the member requires service in these areas, the member shall pay for such service to be placed in conduit underground in accordance with the formula as set forth in paragraph 5.022D.
- 1.038 The Cooperative's distribution facilities both overhead & underground will be located along public/private road rights-of-way whenever possible to provide for the greatest accessibility for maintenance and operation.

#### 1.04 Line Extension Charges

##### 1.041 General

Line extension charges are designed to allow the Cooperative to have a reasonable assurance that adequate revenue will be provided by a new member to give a fair rate of return on the investment cost of the new distribution facilities required to serve the member.

These extension charges are based on overhead extensions. Underground extensions are handled as set forth in Section 5.

##### 1.042 Commercial Member (Demand)

Line extension charges will not apply for commercial services with overhead primary lines of 400 feet or less.

Facilities to provide electric service to a new commercial member except those with a small load or infrequent use shall be furnished by the Cooperative at a cost to the member, if any, as determined by the line extension formula.

The following line extension formula shall be used to determine the contribution in aid of construction owed by member.

$$\begin{aligned}
CIAC_{OH} = & \quad (\text{Actual or estimated job cost} \quad ) \\
& \quad (\text{for new poles, conductors} \quad ) \\
& \quad (\text{and appropriate fixtures required} \quad ) \\
& \quad (\text{to provide service, excluding} \quad ) \\
& \quad (\text{transformers, service drops,} \quad ) \\
& \quad (\text{and meters} \quad ) \\
& - \quad (6X \text{ nonfuel energy charge per} \quad ) \\
& \quad (\text{kWh X expected annual kWh} \quad ) \\
& \quad (\text{sales over the new line} \quad ) \\
& - \quad (6X \text{ expected annual demand} \quad ) \\
& \quad (\text{charge revenues from sales} \quad ) \\
& \quad (\text{over the new line} \quad )
\end{aligned}$$

This contribution in aid of construction is a one time charge, which must be paid before construction is begun on the line extension and shall be non-reimbursable.

#### 1.043 Residential and Small Commercial (Non-Demand)

For Residential (R) services, a Line Extension Charge will not apply for services with overhead primary lines of 1000 feet or less. For Non-Residential services, a Line Extension Charge will not apply for services with overhead primary lines of 400 feet or less. Right of way clearing will be absorbed by the Cooperative for these applications described above.

Facilities to provide service to new residential or small commercial members shall be furnished by the Cooperative at a cost, if any, as determined by the line extension formula.

The following line extension formula shall be used to determine the contribution in aid of construction owed by member.

$$\begin{aligned}
CIAC_{OH} = & \quad (\text{Actual or estimated job cost} \quad ) \\
& \quad (\text{for new poles, conductors} \quad ) \\
& \quad (\text{and appropriate fixtures required} \quad ) \\
& \quad (\text{to provide service, excluding} \quad ) \\
& \quad (\text{transformers, service drops,} \quad ) \\
& \quad (\text{and meters} \quad ) \\
& - \quad (6X \text{ nonfuel energy charge per} \quad ) \\
& \quad (\text{kWh X expected annual kWh} \quad ) \\
& \quad (\text{sales over the new line} \quad )
\end{aligned}$$

This contribution in aid of construction is a one time charge, which must be paid before construction begins on the line extension and shall be non-reimbursable. At a residential member's request, the Cooperative may finance the line extension charge for a period of one (1) to seven (7) years at an appropriate annual interest rate. This monthly rate will then be added to the normal monthly charge for electricity until paid in full plus interest. Financing will be for not less

than \$1000 or more than \$7500 and the term of financing will be adjusted based on the amount financed.

If a member chooses the monthly charge and, at some time up to the seven (7) year period, service to a second member is provided from the same line extension, the existing line shall be considered an "existing line" for the purpose of any calculations for the new member.

The new member shall pay line extension charges only for new lines constructed exclusively to serve their location, and this will be calculated as described in Section I.

The line extension charge applied to the existing member will be removed if the original extension to the existing member was less than one (1) mile (5,280 feet) and the second or new member has estimated usage greater than 10,000 kWh per year (833 kWh per month). If the extension was longer than one (1) mile or the estimated usage is less, a proportional amount of the charge should be removed.

#### 1.05 Temporary Service

##### 1.051 Temporary Service for Construction Purposes

No charge, except for a connect fee, will be required for the installation of a single phase temporary service for construction purposes when the installation of only a service drop is involved. When other construction, such as the installation of lift poles, transformers, etc., is required for the temporary service and will be retired when the temporary service is disconnected, the cost of construction and retirement of these temporary facilities will be charged and shall be collected before beginning work. Charges for temporary service for construction purpose shall not include the cost of any facilities, which shall become permanent.

##### 1.052 Temporary Service for Community Service

No charge for connecting or for electricity used is made to a community civic body when used for only two days or less. Examples of this type of service are for voting booths, special suppers, or entertainment for a community.

##### 1.053 Temporary Service for Commercial Purpose

When special temporary service is requested for a carnival, truck trailer shows or other similar commercial purposes, the Cooperative's cost of construction and retirement of the service, plus a deposit for the estimated electric bill must be secured before beginning work on installing the electric service.

##### 1.054 Inspection of Member's Temporary Facilities

Service entrance, meter, and other wiring for temporary installations shall be made and inspected in the same manner as permanent installations.

#### 1.06 Standby Service

The Cooperative will extend to a member an electric service, which is to provide an alternate source of electricity on a standby basis, i.e. the Cooperative's service to the member is not the normal source of electric power. The cost of such extension including the material and the labor to install and remove the required facilities shall be paid in full by the member prior to work being started. The monthly charge for a standby service shall be contracted on an individual basis to insure a reasonable return to the Cooperative on its investment to provide this service. If a member is receiving service from the Cooperative as the normal source and desires a second source from the Cooperative, the second source shall be handled as a standby service.

#### 1.07 Signs on Federal Financed Roads

The Cooperative will extend service to a sign in accordance with paragraph 1.043 above. The member will be required to pay for the electricity used under the General Service, Non-Demand rate for all signs.

The member will be required to sign a contract for a minimum on the General Service, Non-Demand rate for all signs.

An approved sign permit shall be presented to the Cooperative prior to any construction by the Cooperative.

#### 1.08 Limits of Cooperative's Liability

The Cooperative will use reasonable diligence at all times to provide dependable service at the nominal voltage but does not guarantee nor will it be liable to the member for complete or partial failure or interruption of service or fluctuation in voltage or for phase failure or reversal.

The Cooperative shall not be liable for any condition caused directly or indirectly by mechanical failure of equipment and/or facilities, by repairs or adjustments to its system or for want of supply or by riots, strikes, civil unrest, insurrections, accident litigation, interference by Federal, State or Municipal Governments, acts of God, acts of the public enemy, or any cause beyond the Cooperative's control.

After the electric energy passes the metering equipment of the Cooperative it becomes the property of the member and the Cooperative shall not be liable for loss or damage to any person or property whatsoever resulting directly or indirectly from the use, misuse, or presence of said electric energy on the member's premises.

Protection of motors against under voltage, overcurrent, phase failure or reversal and short circuit is the responsibility of the member.

## 1.09 Inspection

The wiring and equipment of the member shall be installed and maintained in accordance with the latest edition of the National Electrical Code and local requirements.

All wiring installations shall be inspected and approved by an authorized inspector before the installation is connected. Where such inspection is required by law, the Cooperative will make connection only after approval by the authorized inspecting authority.

The Cooperative reserves the right to refuse service to any new installation or disconnect service to any existing installation that is unsafe and not in accord with code standards. The Cooperative will not be responsible for defective wiring or defective equipment of the member or damage resulting from such defects.

Prior to energizing a new service or cutting on an existing service the safety of the wiring shall be verified using a Cooperative approved meter socket tester. If the tester indicates a wiring problem, the meter shall not be set and the member notified that there is a problem.

## 1.10 Member Use of Cooperative's Facilities

Member owned facilities shall not be permitted on the Cooperative's poles or other equipment.

## SECTION 2

### DEVELOPMENTS

#### 2.01 General

A residential development shall be a single family development with twelve or more lots, a multifamily development with six or more units, or a mobile home park of twelve or more units where lots are relatively small and are rented or leased by one owner.

2.012 A commercial development shall be a project under one ownership consisting of three or more meter points utilized predominately for non-residential purposes.

2.013 A complete set of plans for the development shall include the following:

1. Name, address and phone number of person responsible for the development
2. Registered survey including lots and right-of-way
3. Proposed water distribution
4. Proposed sanitary sewer system
5. Proposed storm drain and ponds
6. Proposed curb and gutter, edge of pavement, and road centerlines
7. Construction plans including electrical and load requirements - commercial and multifamily
8. Electronic set of plans should include the following:
  - CAD file in AutoDesk/AutoCad.dwg format
  - Any Layers shall be imbedded in the .dwg file and capable of editing.
  - CAD drawing should be spatially accurate with NAD 1983 State Plane Florida North FIPS 0903 Feet being the preferred coordinate system.

#### 2.02 Extension of Electric Facilities

The Cooperative will extend a distribution line to an area being developed in accordance with Section 1. When an underground extension is required to reach an area being developed, a cost difference between overhead and underground will be charged as described in Section 5. The cost shall be paid with a certified or cashiers check made payable to Clay Electric Cooperative, Inc., and payment shall be made prior to the beginning of any construction.

#### 2.03 Development Coordination

2.031 A preconstruction conference shall be held as soon as possible after the developer and the Cooperative have agreed upon service to the subdivision. The purpose of the conference is to avoid costly construction conflicts and delays in completion dates caused by the lack of overall coordination and understanding of each company's responsibilities and policies. It shall be the developer's responsibility to coordinate the work and to advise the Cooperative

as necessary for it to carry out its responsibilities as agreed upon at the preconstruction conference. It shall be the developer or general contractor's responsibility to assure the attendance of the representatives of all utilities and contractors at the preconstruction conference.

- 2.032 The developer shall be responsible for identifying lot corners and other necessary boundaries required for the Cooperative to locate its facilities within the development. Lot corners shall be marked with a metal stake or other previously accepted means. In an existing development, when the developer is unavailable, the applicant for service may be asked to locate his property corner.
- 2.033 Once a satisfactory route has been arrived upon, utility easements must be obtained across all portions of said route under private ownership, prior to the beginning of construction activities.
- 2.034 When underground electric service is extended, prior to the installation of curb and gutter and/or paving of the streets and in conjunction with the preparation of the sub grade, the developer shall notify the Cooperative that the street sub grade is being completed and the necessary property markers are installed. Any work required above normal construction practices by the Cooperative will be at the expense of the developer.
- 2.035 When served by underground electric, it shall be the developer's responsibility to have the URD cable route cleared and graded to rough grade ( $\pm$  6 inches), a final grade established, and a conduit system furnished for both the primary and secondary cables in accordance with Cooperative specifications. The specifications of the conduit system will be distributed at the utility preconstruction meeting. The installation and integrity of the conduit is the responsibility of the developer until such time that the Cooperative has successfully installed cable in the conduit. Any work required, above normal construction practices, by the Cooperative will be at the expense of the developer. Once the Cooperative has successfully installed cable in the conduit, the conduit along with any fittings, shall become the sole property of the Cooperative at no charge to the Cooperative. Should the grade be changed after the cable has been pulled into the conduits and the transformers and hand vaults set, the developer shall bear the cost of the adjustments. When all required fees have been paid, documents and easements secured, the right of way has been cleared, rough grade finished, conduits installed, and the property corners along the proposed cable route have been properly marked, the Cooperative shall be notified and construction will be started as soon as possible.
- 2.036 The Cooperative primary method of installation is to pull cable into developer installed conduit. Should the Cooperative decide that this is not feasible, open trenching installation method will be implemented. If the Cooperative encounters obstacles to productive trenching such as a rock subsoil the Cooperative will stop trenching construction and determine if the obstacle is sufficient to stop underground construction or if additional aid-to-construction will be required to proceed. The Cooperative will require approval of the developer on plan of action or additional cost before proceeding. The developer will be responsible for

supplying and installing all street crossing conduits in accordance with Cooperative specifications. The installation and integrity of the conduit crossing is the responsibility of the developer until such time that the Cooperative has successfully installed cable in the conduit. Any work required above normal construction practices by the Cooperative will be at the expense of the developer. Once the Cooperative has successfully installed cable in the conduits, the conduits, along with any fittings, shall become the sole property of the Cooperative at no charge to the Cooperative.

## 2.04 New Right of Way Clearing

### 2.041 New right of way in a development to be served overhead:

In all new developments, the developer shall clear right of way to Cooperative needs along with road clearing and land clearing operations. In established developments, the developers will be requested to clear right of way to Cooperative needs along with his road clearing and land clearing operation. If it is already past this stage before the Cooperative gets application and Cooperative has to clear right of way, the Cooperative will leave debris in as orderly a fashion as possible by windrowing or, if absolutely necessary, by cutting trunks into lengths that can be handled (6 feet).

### 2.042 New right of way involving individual property owners:

The Cooperative, at the time of obtaining easements or designing primary line, will work with the property owner to establish route with the least tree removal or trimming impact. The Cooperative's goal is to minimize tree removal and trimming. The Cooperative's goal is also not to remove all debris but leave it in as orderly a manner as possible by windrowing or cutting trunks into manageable lengths (6 feet).

### 2.043 New right of way in a development to be served underground:

Developer shall be required to clear right of way including stumps for at least all primary cable routes and all conduit installations per section 2.0355.

### 2.044 Service laterals in a development to be served underground:

It will be the individual builder's responsibility to make a formal application for service to the Cooperative at the time that the meter can and all conduits have been installed. It will also be the responsibility of the home builder to furnish and install conduit with pull string, per Cooperative specifications, from the meter can to the lot corner. At the lot corner, the home builder must connect as well as furnish material for connecting to the Cooperative's conduit system. The installation and integrity of the conduit is the responsibility of the home builder until such time that the Cooperative has successfully installed cable in the conduit. Any work required, above normal construction practices, by the Cooperative will be at the expense of the home builder.

Once the Cooperative has successfully installed cable in the conduit, the conduit, along with any fittings, shall become the sole property of the Cooperative at no charge to the Cooperative.

## SECTION 3

### TYPE AND CHARACTERISTICS OF ELECTRIC SERVICE

#### 3.01 Characteristics of Service

Electric service supplied by the Clay Electric Cooperative, Inc., is alternating current with a frequency of 60 Hertz.

#### 3.02 Types of Electric Service

##### 3.021 Voltage for Lighting - Overhead and Underground Distribution:

The nominal voltage at the point of delivery for typical lighting service is 120/240 Volts, 3-wire, single-phase.

##### 3.022 Voltage for Lighting and Power

The following service voltages will be supplied for qualifying loads upon prior approval of the Cooperative:

1. 120/240 Volts nominal, 4-wire, 3-phase Delta
2. 120/208 Volts nominal, 4-wire, 3-phase Wye
3. 120/208 Volts nominal, 3-wire, single phase
4. 240/480 Volts nominal, 4-wire, 3-phase Delta
5. 277/480 Volts nominal, 4-wire, 3-phase Wye
6. 7200/12470 Volts nominal, 4-wire, 3-phase Wye
7. 14400/24900 Volts nominal, 4-wire, 3-phase Wye

3.023 The voltage and number of phases which will be supplied depend upon the character of the load, its size, and location. It is necessary that the member consult the Cooperative regarding type of service, which can be furnished before proceeding with the purchase of equipment or installation of wiring.

#### 3.03 Service Voltage Limits

Insofar as possible, the Cooperative will design and operate its electric systems so that most service voltages are within a limit of 5% above or below the service voltage assigned. Service voltage shall be defined as the voltage at the point where the electric system of the Cooperative and the member are connected. This is usually considered the voltage at the meter socket or the service entrance point.

Upon request, the Cooperative will test the voltage supply to the member and take corrective action if it is found to be consistently outside the specified limits. The member shall be responsible for providing unusually close voltage regulation when required by the nature of the member's load.

### 3.04 Neutral Voltage

Small voltages may appear on the system neutral of the Cooperative's distribution system during the normal operation of the line. In most cases, this is not apparent to the member and causes no problems. A neutral voltage if present however, can on occasion cause problems on a dairy farm or other similar situation where animals being fed or worked with make contact with metallic objects and feel a small current caused by the voltage present.

If a member has reason to suspect that neutral voltage is causing problems with their farm operation, the Cooperative will assist the member in locating the source of the voltage. Because there are a number of possible causes for this type of problem, many of which are caused by faulty equipment owned by the member, a thorough investigation is required to isolate and correct the problem. It is recommended that the member contact a qualified electrician to inspect the wiring on his premises. (A check list is available as a guide - see Figure A.)

If, after investigation it is determined that the neutral on the Cooperative's system is contributing to the problem, the Cooperative will install a neutral isolator to separate the Cooperative's neutral from the member's grounding system. Because this is a nonstandard service which is not normally required and is not included in the standard rates charged, the member would be required to pay the cost of this installation.

## **SECTION 4**

### **SECONDARY SERVICE -OVERHEAD**

#### **4.01 Member's Service Entrance**

Beginning on 1/1/2018 and thereafter, new service wire from the point of take off to the meter location shall be underground unless otherwise approved by the Cooperative. Refer to Section 5 for Service-Underground requirements.

Service entrance wires between the Cooperative's service drop terminal and the member's service entrance should be as short as practical and enclosed in conduit. An approved type service entrance cable may be used where permitted by local code requirements, but not exposed to the exterior of the building.

The neutral conductor of each service entrance wiring shall be plainly marked at the service outlet and at the meter location.

The high leg of each 4 wire, 3 phase Delta service shall be plainly marked at the service outlet and at the metering point and preferably an orange marker should be used. The high leg shall be on the right hand side when facing meter base.

At least two feet of service entrance wire shall be left projecting from the service outlet fitting for connection to the service drop.

Where conduit is used, fittings with removable covers should be avoided in the service entrance run if possible. If such fittings cannot be avoided, they shall not be concealed.

Where a group of commercial occupancies are served from a service raceway, the covers to the pull boxes must be provided with means for sealing or locking where individual service taps are made to the raceway.

The location of the service entrance is important to both the member and the Cooperative. In order to avoid additional cost it is essential that the member contact the Cooperative as to where the service wires and meter should be attached to the building or other supporting structures.

The member's wiring shall be extended to the outside of the building wall to a point high enough to allow clearances as shown herein in Paragraph 4.03. An approved conduit extension shall be provided by the member if required to obtain specified clearances.

The member shall provide and install all material or equipment required for connecting the member's service equipment to the service drop or source of supply. The Cooperative will provide meter and meter base (meter base to be installed by the member.) There will be a contribution in aid to construction for every single phase meter base supplied by the Cooperative. This aid will be due and payable at the time the meter base is received.

#### 4.02 Service Drops - Number per Building

No building shall be supplied from more than one service drop except by special permission of the Cooperative and as permitted by the National Electrical Code or by County Code.

#### 4.03 Service Drops - Clearance

##### 4.031 General

Clearances shall conform to the National Electrical Safety Code, American National Standards Institute C2.

##### 4.032 Clearance Over Roofs

Service drops will not be installed over roofs. If the service drop exists, the service drop must meet clearance required of NESC over any newly installed roof.

Service drop conductors of 300 Volts or less to ground which do not pass over more than a maximum of 4 feet of the overhanging portion of the roof for the purpose of terminating at a service raceway mast, may be maintained at a minimum of 18 inches from any part of the roof over which they pass.

##### 4.033 Clearance from Swimming Pools

Service drop conductors shall not be installed above a swimming pool, diving structure, observation stands, towers or platforms or surrounding area extending 10 feet horizontally from the pool edge. In no instance shall the clearance in any direction to the service drop from the pool surface, edge of water surface, or base of diving platform be less than 23 feet.

Clearance in any direction from the top of the diving platform or tower to the service conductor shall be more than 15 feet.

##### 4.034 Minimum Vertical Clearance of Wires Above Ground:

	0-750 Volts To Ground	From 750 Volts to 15 kV To Ground
Roads, streets and other areas subject to truck traffic	16'	18.5'
Driveways, parking lots, and alleys	16'	18.5'
Spaces or ways accessible to pedestrians only	12'	14.5'

#### 4.04 Service Drops - Anchorage

##### 4.041 Location

The anchorage for the service drop shall be located on the building or structure at the nearest practical point to the pole and shall be mounted at such a height that the conductors will have the proper clearance as set out in Paragraph 4.034.

##### 4.042 Construction

To fasten the service drop to the building, there are various types of cable grips and anchors used depending on the type of service drop conductors being used. These secure the cable to the building by use of an eye-bolt bolted through the wall or rafters. If the building is not high enough to get the proper service drop clearances above ground, a minimum, rigid 2 inch or larger steel conduit (steel tube or E.M.T. not acceptable) should be installed from the meter socket or enclosure up through the eaves for the dual purpose of supporting the service drop and enclosing the service entrance conductors. This type of installation is referred to as a mast.

The Cooperative will furnish an eye-bolt or an insulated conduit clevis for the member to install during construction.

##### 4.043 Guying-Service Poles

As shown in Figures 1, 1A, and 4A, if the service drop is greater than 50 feet the member must guy their meter pole and install a guy marker on the guy.

#### 4.05 Service Drops - Connectors

The service drop conductors will be connected to the service entrance conductors by means of wire or cable connectors. These connectors will be furnished and installed by the Cooperative.

#### 4.06 Large Services

Because of mechanical support problems and the unsightly appearance of large overhead service conductors, large services may be run underground. The Cooperative reserves the right to make this determination.

#### 4.07 Grounding

Grounding wires shall be installed in accordance with the requirements of the National Electrical Code and local authorities having jurisdiction.

Driven 5/8" ground rods or 3/4" galvanized pipe, both of a minimum length of 8 feet must be used for grounding. Water system grounding alone is not acceptable; however, the two may be tied together for more adequate protection.

## SECTION 5

### SERVICE - UNDERGROUND

#### 5.01 Service Entrance Requirements

##### 5.011 Location

The member shall contact the Cooperative to determine the required location of the service entrance.

##### 5.012 Service Entrance Material and Installation

Underground service conductors will be installed from the Cooperative's point of take-off to the line side of the meter socket as specified herein under paragraphs for residential and commercial installations. Other material is specified in the following paragraphs as appropriate for residential or commercial.

#### 5.02 Residential: Single Phase Underground

##### 5.021 Underground Service off Overhead Line

Individual underground service off the overhead system will be installed in member furnished conduit for no charge. The installation and integrity of the conduit is the responsibility of the member until such time that the Cooperative has successfully installed cable in the conduit. Any work required, above normal construction practices, by the Cooperative will be at the expense of the member. Once the Cooperative has successfully installed cable in the conduit, along with any fittings, shall become the sole property of the Cooperative at no charge to the Cooperative. Members should refer to Figures in Appendix for proper burial depth and size of conduit.

##### 5.022 Underground Primary Extensions

The Cooperative, when requested by an applicant, will provide single phase 120/240 Volt underground electric distribution facilities for residential service as defined in paragraphs A, B, and C below at charges that reflect the annual average cost difference between overhead and underground.

The schedule of charges per meter is as follows:

- A. To single family unattached houses with a maximum average lot size of 1/2 acre and a minimum of twelve (12) units = \$520.00.
- B. To multifamily developments with one service installed to a ganged meter center with a density of six (6) units/acre, and with a minimum of twelve (12) units (If developer installs conduits per Clay specification per meter charge will be waived) = No Charge.

- C. All other single-phase underground extension and all three phase underground extensions will be in conduit and charged in accordance with the following formula:

Underground Distribution Facilities-For Residential (R) services, a Line Extension Charge will not apply for underground primary line of 400 feet or less when the member furnishes and installs the PVC conduit as specified by the Cooperative. All other underground primary installations will be in conduit installed by the Cooperative at a cost in accordance to the below formula.

$$\begin{aligned}
 \text{CIAC}_{\text{UG}} = & \text{(Estimated difference between the } & ) \\
 & \text{(cost of providing the distribution } & ) \\
 & \text{(line extension, including not only } & ) \\
 & \text{(the distribution line extension } & ) \\
 & \text{(itself but also the transformer, } & ) & +\text{CIAC}_{\text{OH}} \\
 & \text{(the service drop, and other } & ) \\
 & \text{(necessary fixtures with underground } & ) \\
 & \text{(facilities vs. the cost of } & ) \\
 & \text{(providing service using overhead } & ) \\
 & \text{(facilities } & )
 \end{aligned}$$

In no case will the  $\text{CIAC}_{\text{OH}}$  credit be less than zero.

- D. The costs above are based on the Cooperative's being able to install conduit by standard open trenching practices. Should the Cooperative encounter obstacles such as rock subsoil that prevent standard trenching operations, additional aid-to-construction may be required. If this occurs, the Cooperative will require approval of Owner or Developer before proceeding.

### 5.023 Member Owned Underground Service

The Cooperative will connect a member owned underground service under the following conditions:

- A. Service is installed in accordance with all applicable codes.
- B. The meter shall be located ahead of the service. The location of the meter will identify ownership. The member shall own and maintain all facilities behind the meter.

### 5.03 Underground Service - Commercial

#### 5.031 Underground Service (Rate classes GS, GSD, LGSD & LGSDD/LM)

The member shall install service conduit per Cooperative standards. Cooperative will install service wire free of charge.

### 5.032 Availability

Single phase underground service will be extended from either a pole or padmount transformer as is most practical at a voltage of 120/240. The 240/480 volt application may be available upon request.

Three phase underground service will be extended from either a pole or padmount transformer as is most practical. Only the following voltages are available when a padmount transformer is used:

120/240 Delta	25 kVA through 75 kVA
120/208 GRDY	75 kVA through 1000 kVA
277/480 GRDY	75 kVA and larger

### 5.033 The Cooperative will provide and install the following equipment:

- A. Transformer as required
- B. All conductor and connections on the line side of the meter when metering is self contained. This includes connections at transformer if conductor supplied by Cooperative.
- C. Current transformers, wiring and meter socket when installed on the transformer. This will only be used when one service is extended from the transformer (Figure 18).
- D. Meter
- E. Cooperative will install member furnished conduit sweeps (PVC or Metal) if they terminate in an energized transformer or enclosure. Member is to coordinate this installation with Cooperative.
- F. Cooperative will connect all conductors, even member furnished, at the transformer if transformer is energized.

### 5.034 The Cooperative will provide for the member to install the following:

- A. A three phase meter socket (standard type only) will be furnished by Clay Electric when installed on the member's building. For any single-phase meter sockets furnished there will be an aid to construction cost payable to the Cooperative at the time of receipt of meter socket.

### 5.035 The member will provide and install the following equipment:

- A. Transformer pad if required
- B. Two parallel conduit runs with pull strings for primary conductor. These shall include sweeps of at least 24" radius to turn up the pole or

into a URD enclosure. If the member furnished sweeps turn up into an energized URD enclosure the Cooperative will install. The member is to coordinate this installation with Cooperative.

**AT NO TIME IS THE MEMBER OR THEIR ELECTRICIAN TO WORK INSIDE THE COOPERATIVE'S ENERGIZED EQUIPMENT.**

The installation and integrity of the conduit is the responsibility of the member until such time that the Cooperative has successfully installed cable into the conduit. Any work required, above normal construction practices, by the Cooperative will be at the expense of the member. Once the Cooperative has successfully installed cable into the conduit, the conduit, along with any fittings, shall become the sole property of the Cooperative at no charge to the Cooperative.

- C. Conduits and pull strings are required for service conductors. This shall include ells to turn up the pole or into a URD transformer. If the member furnished ells turn up into an energized URD transformer the Cooperative will install. The member is to coordinate this installation with Cooperative. **AT NO TIME IS THE MEMBER OR THEIR ELECTRICIAN TO WORK INSIDE THE COOPERATIVE'S ENERGIZED EQUIPMENT.** The installation and integrity of the conduit is the responsibility of the member until such time that the Cooperative has successfully installed cable into the conduit. Any work required, above normal construction practices, by the Cooperative will be at the expense of the member. Once the Cooperative has successfully installed cable into the conduit, the conduit, along with any fittings, shall become the sole property of the Cooperative at no charge to the Cooperative.
  
- D. All conductor and connections on the load side of the meter. This includes service conductors if service is CT metered at the transformer. If transformer is energized the member must coordinate conductor installation and connection with Cooperative. The Cooperative will perform any work required during installation and connection at the transformer if transformer is energized. **AT NO TIME IS THE MEMBER OR THEIR ELECTRICIAN TO WORK INSIDE THE COOPERATIVE'S ENERGIZED TRANSFORMER.** The Cooperative will furnish its standard connectors for the secondary of the transformer.
  
- E. Enclosure for current transformers, if required, when CT metered at the member's building. This shall be required for CT metering when more than one service is extended from the transformer providing service. Conduit and pull string shall be provided from enclosure to meter socket. An approved means of disconnect shall be provided to separate the Cooperatives service conductors from the member's service entrance conductors and shall be located

outside adjacent to the CT enclosure. Enclosure, meter socket and disconnect shall be located as approved by the Cooperative on the outside of the building (Figure 17).

- F. Any special meter socket which is not furnished by the Cooperative shall require prior approval of the Cooperative.

## SECTION 6

### METER INSTALLATIONS

#### 6.01 Meter Location

The location of meters is an important consideration to both the Cooperative and the member. The Cooperative should always be consulted and will endeavor to select a location that will be the most suitable to both parties. Normally all metering will be outdoors.

In the event that a meter area is later enclosed, the member shall, at his expense, have the meter facilities moved to an outside location.

Meters for apartment houses, offices, or commercial buildings should, where possible, shall be outside but they may be grouped together in a meter room provided for that purpose. Meters installed outdoors should be located on the building in a place where they will be protected from mechanical injury.

Meter sockets and enclosures shall be securely mounted in a plumb and level position on a solid wall or structure. When mounted on masonry walls or structures, meter sockets and enclosures shall be secured with screws set in lead shields or with toggle bolts. Wood pegs shall not be used. The center of the meter shall not be more than 6 feet from the ground or less than 5-1/2 feet.

Meters shall be located outside on the first floor and shall be easily accessible at all times for reading and testing. Meters shall not be installed near belts or other moving machinery endangering the safety of those doing work about the meter.

The member shall furnish and install meter boards, service switches, and other equipment to form a complete wiring system. Mounting devices that are not provided with hangers for the meter equipment shall have boards installed in back of them to permit the meter equipment to be attached with wood screws. These boards shall be of a clear, soft, dressed wood at least 3/4 inch thick, free from knots and cracks and painted with a good quality paint. They shall be securely fastened to the wall in a vertical position.

A clear space of at least 60 inches shall be maintained in front of all meters for reading and testing and the Cooperative shall have the right of entry to the member's premises at reasonable hours to install, read, inspect, repair or remove meters or other system-owned equipment used to supply electricity.

## 6.02 Identification of Meters

All meter sockets or enclosures on multiple occupancy dwellings, mobile home parks, or commercial services requiring the use of more than one meter at a location shall be permanently identified as to street number, apartment number, building section or other permanent location designation which that meter serves.

## 6.03 Single Phase Meter Installations

The member may obtain a meter socket from the Cooperative or purchase a Cooperative approved meter socket from a local supplier. The metering sockets forming portions of the wiring installations shall be installed by the member as a part of their wiring. All meter sockets once installed become the property of the Cooperative. For all single-phase meter sockets furnished by the Cooperative there will be an aid to construction cost payable at the time of receipt of meter socket.

### 6.031 150 Amperes or Less

On installations where the service entrance conductors are sized for 150 amperes or less, a meter socket with a 2 inch hub can be reduced down to accommodate smaller conduits as required.

### 6.032 200 Amperes or Less, but More than 150

On installations requiring service entrance conductors to carry up to 200 amperes, the Cooperative will furnish a 200 ampere rated socket with a 2-inch hub as required. There will be an aid to construction cost for all single-phase meter sockets.

### 6.033 Over 400 Amperes

Installations of this size will necessitate the use of instrument current transformers. The Cooperative shall be consulted on all installations of this character before any work is done.

## 6.04 Four-Wire, Three-Phase Meter Installations

### 6.041 400 Amperes or Less

On installations of 400 amperes or less, the Cooperative will furnish a suitable socket type meter base.

### 6.042 Over 400 Amperes

On installations over 400 amperes the use of instrument current transformers will be necessary. The Cooperative shall be consulted on all installations of this character before any work is done.

#### 6.043 Main Disconnect Rule

There shall be a Main Disconnect on the source side of any self contained meter 480V Phase to Phase.

#### 6.05 Instrument Transformer Installations

On installations requiring the use of instrument current transformers, the member will furnish a Cooperative approved enclosure.

All wiring except that from the secondary terminals of the current transformers to the meter shall be completed by the member: Along with this the member will furnish and install all conduit and pull wire required for meter installation.

#### 6.06 Impulse Metering for Large Services

Certain large use members may wish to investigate the incorporation of impulse equipment within the meter for the explicit purpose of load monitoring and control. The Cooperative makes this convenience available and will install the necessary equipment at their metering station. The cost of such equipment and labor shall be borne by the member and only kilowatt impulse equipment will be provided. The member will have the responsibility for all other wiring beyond the metering point.

#### 6.07 Time-of-Use Metering

Certain members, if eligible, may choose one of the Cooperative's time-of-use rates. The Cooperative makes these rates available and will install the necessary equipment at the metering station. The cost of this equipment installation will be borne by the Cooperative. The member will have the responsibility for providing a standard telephone line to the metering station. This phone line should be a private line and if member is using PBX equipment, the metering station should be installed preferably on a telephone line, which does not go through PBX. The Cooperative shall be consulted on all installations of this character.

## SECTION 7

### PRIMARY SERVICE

#### 7.01 General

Primary metered service is available to members who provide, install and maintain their own distribution system and equipment unless otherwise specified in the contract for service. The metering of this service will be at the primary voltage level at a voltage determined by the Cooperative. Normally primary service will be made available only to members with a minimum demand of 300 kVA.

#### 7.02 Metering

##### 7.021 Location

The member's service location for primary service is at the metering point and to be placed within access of the Cooperative. Beyond the metering is fully the member's responsibility unless otherwise specified in the contract for service. The Cooperative shall approve location.

##### 7.022 Metering in Member's Substation

At a member's request, metering will be incorporated within the member's substation or switchgear. Contact should be made as early as possible to allow for coordination of the proposed installation.

##### 7.023 Protective Equipment

Protective equipment as required on the load side of a meter installation shall be provided by the member as directed and approved by the Cooperative.

#### 7.03 Cooperative owned equipment behind Primary Meter

The Cooperative will furnish service under the GSD, GSDDT/LM, LGSD, LGSDT/LM, HLF, SS, INT, INT-T, AND INT-C at a single voltage. Equipment to supply additional voltages or additional facilities for the use of the member shall be furnished and maintained by the member. The member may request the Cooperative to furnish the additional equipment and facilities, and the Cooperative at its sole option, may furnish install, operate and maintain such additional equipment and facilities, charging the member for the use thereof at the rate of 1.75% per month of the installed cost of such additional equipment and facilities.

## SECTION 8

### MEMBER UTILIZATION EQUIPMENT

#### 8.01 General

The Cooperative builds and maintains adequate lines to supply proper service to all members using normal equipment. However, since equipment installed by one member may affect the adequate service to other members and because the misuse of some equipment would constitute a life or fire hazard, the Cooperative has prepared the following regulations covering the more common installation of utilized equipment.

The Cooperative specifies only such requirements as are necessary to safeguard both its members and the Cooperative to the end that service may be rendered with a maximum of safety and with a minimum of interruption or disturbance. The member shall consult the Cooperative for details on special equipment.

#### 8.02 Motors

In order to insure a good quality of service, the Cooperative has established certain limits for the maximum allowable starting currents of motors to be connected to their lines. Single phase motors not exceeding 5 horsepower and three phase motors not exceeding 20 horsepower may be installed without restrictions.

##### 8.021 Motors - Starting Methods

Motors larger than specified above shall require completion of a Motor Start Application, Exhibit A. These are available from the Cooperative. In the event that starting equipment is required, the maximum starting current will be specified and equipment shall be installed by the member prior to the service being connected. The number and frequency of starts may also be specified by the Cooperative.

##### 8.022 Voltage Fluctuation Due to an Existing Motor

The Cooperative shall require the member to correct voltage fluctuation exceeding 2% when affecting another member.

#### 8.03 Special Equipment

##### 8.031 Non-Standard Equipment

The member is cautioned against the purchase and use of any type of electrical equipment that is NOT OF STANDARD MANUFACTURE AND IS NOT APPROVED BY A COMPETENT AUTHORITY (such as Underwriter's Laboratories).

### 8.032 Flashing Signs

All flashing signs or lights served by the Cooperative shall be provided with the necessary type of switching equipment to eliminate undesirable flicker and radio trouble interference to other members.

### 8.033 Other Equipment

Due to the very severe operating characteristics of such equipment as electric welders (particularly of the transformer type), strip heat, furnaces, x-ray, wireless and radio broadcasting stations, the member shall apply to the Cooperative for approval to use such equipment before installation is made. When the operation of any equipment is detrimental to satisfactory operation of the Cooperative's distribution system, the Cooperative may require the installation of special protective equipment at the expense of the member.

### 8.04 Member Owned Generators

If a member purchases a portable generator, the Cooperative recommends this unit not be wired into a home's distribution panel or into a receptacle that is connected to a home's electrical system. Appliances should be plugged directly into the generator or plugged into a heavy-duty extension cord, which is plugged directly into the generator.

If a member wishes to permanently install an emergency or standby generation system, a switching and control scheme or a mechanically interlocked transfer switch shall be provided by the member to preclude the possibility that any energy generated by the member's equipment will back feed into the Cooperative's system (reference Figure 22). The member should check with the local county authorities to determine if any permits or inspections are required. Such generation systems and their associated equipment shall be installed by a Licensed Electrician. Failure to provide such safety switching equipment shall subject the member to possible disconnection of electric service by the Cooperative.

### 8.041 Meter Base Transfer Switch

There are now available several manufacturers of transfer switches that can be installed between the meter and meter base. The Cooperative does not object to the installation of these type transfer switches.

- A. The member must use a Cooperative approved meter base transfer switch. At present the only switches approved are:
  1. GenerLink  
Global Power Products  
1-800-886-3837

2. GenConnect  
Models: LG-050M210  
LG-050M213  
Electro Industries, Inc.  
1-800-922-4138

If member desires to use another brand, they must first receive approval from Cooperative. Failure to receive prior approval could subject member to possible removal of switch from meter base by Cooperative.

- B. The meter base the transfer switch is to be mounted in must be rated at 200 amperes and constructed of rigid metal (not aluminum) and firmly attached to the wall or pole.
- C. The transfer switch must be installed by a licensed electrician. The electrician must call the Cooperative notifying us he is cutting the meter seal to install the transfer switch. The electrician must install the transfer switch and meter according to manufacturer's specifications. If a new or additional meter band is needed the electrician can get one at no charge from a local Cooperative office.
- D. A Cooperative representative will reseal the meter base and inspect the installation when in the area or during the next meter reading cycle. Should the inspection reveal an improper installation the Cooperative may remove the improper transfer switch.

#### 8.05 Harmonics

The Cooperative shall require the member to correct voltage distortion when such distortion due to harmonic loads of the member equals or exceeds 5% THD of the delivery voltage.

#### 8.06 Interconnection Guidelines of Member-Owned Distributed Generation

8.061 The Cooperative entered into a Wholesale Power Contract (WPC) with Seminole Electric Cooperative, Inc. ("Seminole"), effective as of July 30, 1975, which, as amended, has a term through December 31, 2055. The WPC provides among other things that the Cooperative shall purchase from Seminole all electric power and energy which the Cooperative shall require for the operation of the Cooperative's system.

8.062 In 1978 Congress enacted the Public Utility Regulatory Policies Act of 1978 ("PURPA"). The Federal Energy Regulatory Commission ("FERC") adopted rules implementing PURPA, particularly, sections 201 and 210 that require the Cooperative and Seminole to interconnect with and to buy from and to sell to Qualifying Facilities ("QF") as defined by PURPA. As a result, the Cooperative and Seminole received permission from FERC to operate as a single entity for purposes of implementing PURPA. It is the policy of the Cooperative and

Seminole: (1) to permit any QF to interconnect with Seminole's transmission system, or the distribution or transmission system of the Cooperative; (2) to permit any QF to sell energy and capacity to Seminole; (3) to permit any QF to purchase supplementary, back-up, maintenance, and interruptible power from the Cooperative at rates that are nondiscriminatory, just and reasonable, and in the public interest; and (4) to permit any QF so requesting to wheel its energy and capacity over the distribution or transmission system of the Cooperative and/or the transmission system of Seminole, to the extent transmission or distribution capacity is available, to any electric utility purchasing such power. Seminole develops, amends, and maintains the interconnection guidelines, standard offer contracts, and applicable rate schedules. Upon a member's request, the Cooperative will furnish these documents.

8.063 Effective January 1, 2009 the Cooperative and Seminole amended the WPC to allow the Cooperative to net meter renewable energy resources located on member's premises. The terms of net metering are described in the Cooperative's rate tariffs along with an interconnection agreement. These rates and agreements may be viewed and downloaded on the Cooperative's website [www.clayelectric.com](http://www.clayelectric.com).

8.064 All other distributed generation installations not meeting paragraphs 8.062 and 8.063 and desiring to operate in parallel with the Cooperative's electrical system shall first contact the Cooperative and provide detailed equipment specifications. It is the Cooperative's policy that any such interconnection should follow the Institute of Electrical and Electronics Engineers ("IEEE") standard 1547 for Interconnecting Distributed Resources with Electric Power Systems as they may be amended from time to time. The member must certify in writing that the proposed installation meets IEEE Standard 1547.

The Cooperative after review of member's interconnection request may deny request or if approved Cooperative will prepare specific interconnection agreement for this installation. The member must execute an interconnection agreement before interconnecting.

## **SECTION 9**

### MAINTENANCE OF SERVICE

#### 9.01 Alterations and Additions

##### 9.011 Increase in Service Size

Connection to the member's premises is made with service wires, meters, transformers, and other necessary facilities to properly supply adequate electric service for the operation of the member's installation in accordance with the application. If any additional load of substantial size is added, the Cooperative shall be notified so that satisfactory service may be maintained.

To safeguard both the property of the member and that of the Cooperative, the member must not overload or overfuse any service or branch circuit.

##### 9.012 Relocation of Cooperative's Facilities

A member may request the Cooperative to relocate or rearrange its facilities to better accommodate the member. If, in the opinion of the Cooperative, such relocation is for the sole benefit of the member or is necessary because of changes on the member's premises to allow the Cooperative to maintain compliance with the National Electrical Safety Code and Section 9.04 of this Standard, and without the Cooperative receiving any benefits due to the relocation, the member will be charged the cost of the relocation.

If, in the opinion of the Cooperative, there is a mutual benefit for the member and the Cooperative for the Cooperative to relocate, the relocation will be performed by the Cooperative at no cost to the member.

#### 9.02 Protection by Member of Cooperative's Property

The member shall properly protect the Cooperative's property on a member's premises and shall permit no one but persons authorized by law to have access to Cooperative owned wiring, meters, and apparatus. In the event of any loss or damage to the property of the Cooperative caused by or arising out of carelessness, neglect, misuse by the member the cost of replacing or repairing such damage shall be paid by the member. The member shall not plant any vegetation that would interfere with the Cooperative's adjacent overhead conductors, hinder ventilation for and maintenance of any padmounted facilities or obstruct visual reading of electric meters.

### 9.03 Right of Entry

The Cooperative shall have the rights of entry to the member's premises at reasonable hours to install, read, inspect, repair or remove meters or other system-owned equipment used to supply electricity.

### 9.04 Easement Restrictions

The Cooperative restricts the use of the easement to general farming, citrus groves, or pasture purposes, as long as such does not interfere with the Cooperative's use of the easement. The easement is to be clear of all buildings, structures or other obstructions except citrus trees, low-growing shrubbery and fences that do not otherwise interfere with Cooperative's use of the easement. The Cooperative specifically prohibits the construction of any aircraft runways or taxiways, both private and public, on Cooperative's easements.

## SECTION 10

### OUTDOOR LIGHTING SERVICE

#### 10.01 General

The terms and conditions contained in this General Section 10.01 apply to all services provided in this Section 10.

Cooperative will provide public roadway lighting and area lighting services in accordance with Rate Schedules RSL, L, and FL and Cooperative policy. The lighting design will consist of suitable lighting patterns for roadway and area lighting projects using our standard fixtures and taking in account the member's request.

The Cooperative, while exercising reasonable diligence to furnish outdoor lighting services, does not guarantee continuous service, regardless of the type of service provided, and will not be liable for damages for any interruption, deficiency or failure of service, and reserves the right to interrupt service at any time necessary for repairs to lines or equipment. The member shall be solely responsible for notifying the Cooperative of any required repair and replacement services to the facilities, and such services will be provided during regular daytime working hours, Monday through Friday, as soon as practicable after verification and subject to appropriate operating policies and procedures, the availability of replacement parts and other matters beyond the control of the Cooperative. **The Cooperative specifically does not warrant or guarantee that the outdoor lighting services shall meet any lighting standard, including, but not limited to, the location of the facilities and the illumination provided.**

Member waives any claim, liability, damage (both as to persons and property, including death), costs, expenses, and attorney's fees (collectively referred to for purposes of this paragraph as "claims") that the member may have or assert against the Cooperative arising out of the service provided hereunder, or the failure, interruption, inadequacy or insufficiency of the service provided. Member shall defend, indemnify, and hold harmless the Cooperative from all claims asserted against the Cooperative arising out of the services provided hereunder, or the failure, interruption, or insufficiency of the service provided. Outdoor lighting services shall not include maintenance, monitoring, or inspection.

The Cooperative is not responsible for trimming trees that may either obstruct light output from fixture or that obstruct repair or replacement access to the light fixture. The member will be responsible for trimming trees around lights. Due to the possibility of high voltage, lines near the light the member should contact

the Cooperative before trimming any trees around the light so the Cooperative can determine if it will be safe for the member to trim the trees.

The Cooperative may remove any outdoor light fixtures and/or poles that require repeated repairs due to vandalism. The Cooperative will notify the member or agency of its intent to remove the lighting equipment. The member or agency will have the option of continuing service if it agrees to pay all excess repair expenses resulting from vandalism as determined by Cooperative.

## 10.02 Public Roadway Lighting

Cooperative will install lighting on any public roadway upon written request and approval from the city, county, state, or other governmental agency having jurisdiction. All such lighting will be covered by a contract executed by Cooperative and the authorizing government agency.

The amount of illumination required in a roadway lighting system varies based on roadway classification, pavement type, and presence of pedestrian sidewalks.

The Cooperative will exercise reasonable diligence in designing and installing roadway lighting that meets member needs as well as conforming to applicable standards such as American Association of State Highway and Transportation Officials Street lighting Guidelines (AASHTO Guidelines) or Illuminating Engineering Society (IES) standards.

The Cooperative does not guarantee these lighting levels throughout the life of the installation and will not be liable for damages for any obstructions or deterioration that would reduce the fixture output at roadway level. The member or agency responsible for roadway shall be responsible for maintenance of right-of-way to trim or remove any trees or obstacles that would reduce the fixture output at roadway level.

The Cooperative's standard installation includes mounting light fixture on an existing pole. A monthly fee as defined in rate schedules L and FL will be added if a new pole must be added to install the light. Where more than a standard wood pole, light fixture and service drop is required, the member will be charged for the additional cost. If a transformer must be installed for the exclusive purpose of providing service to the light, the member shall be charged the materials, labor, and overhead costs for the transformer.

For Cooperative owned and installed street lighting facilities, a contribution in aid of construction (CIAC) will be required from the member for:

1. The installation cost of any new overhead distribution facilities for the exclusive purpose of providing service to the lights, exclusive of

the installed cost of a standard lighting fixture itself, a standard wood pole and one span of service wire to the light.

2. The installation cost of any new underground distribution facilities for the exclusive purpose of providing service to the lights, exclusive of the installed cost of a standard lighting fixture itself, a standard wood pole, and the equivalent cost of one span of overhead service wire to the light.

This CIAC if any shall be paid by member before the commencement of any construction work by the Cooperative.

The only exception to the above design standards will be systems designed for subdivision roadways. These type roadways often contain many curves and cul-de-sacs, which make uniform lighting difficult. These will comply with the standards described in Section 10.021.

Once installed the roadway lighting will be repaired or replaced by the Cooperative. The member or governmental agency requesting the lighting shall be solely responsible for notifying the Cooperative of any lights needing repair or replacement services. These services will be provided during regular daytime working hours, Monday through Friday, as soon as practicable after verification (Cooperative goal is 3 working days) and subject to appropriate operating policies and procedures, the availability of replacement parts and other matters beyond the control of the Cooperative. These services are subject to any specific contract the Cooperative may have executed with a member or governmental agency.

#### 10.021 Subdivision Roadway Design Standard

Standard lighting practice along subdivision roadways will not adhere to AASHTO or IES guidelines due to the many varied roadway curves, cul-de-sacs and homes with close proximity to roadway.

The Cooperative's standard design on these roadways will consist of standard lighting fixtures at potential areas of conflict such as intersections, curves and cul-de-sacs. Standard light fixtures will then be installed between these conflict areas to "fill in" the roadway lighting. This typically consists of lights installed every 200 – 300 feet.

This standard does not apply to any main boulevard or collector roadway within a subdivision. Their lighting standard will be as described in 10.02 above.

This design will be done before determining which charge to use under the Cooperative's RSL rate schedule.

Should additional poles need to be added in subdivisions served by overhead distribution lines, the Cooperative shall charge the developer as applicable in the rate schedules of the Cooperative to cover the cost of the additional poles. If a transformer must be installed for the exclusive purpose of providing service to the light, the member shall be charged the total cost of the installed transformer. Where the subdivision is served by underground distribution lines, the Cooperative will furnish and install its standard lights provided the applicant for such service pays for the installed cost of such lighting system.

#### 10.022 Public Roadway Intersection Lighting

Cooperative will install lighting at any public road intersection upon written request from member and approval from the city, county, state, or other agency having jurisdiction over the public roadway. All such lighting will be covered by a contract executed by Cooperative, member and agency responsible for roadway.

Intersection shall be defined as joining of two public roadways or a private/ public driveway onto a public roadway.

The Cooperative will exercise reasonable diligence in designing and installing roadway lighting that meets member needs as well as conforming to applicable standards such as AASHTO Guidelines or IES Standards.

Typical installations are shown in Figures 23 – 25. If intersection needing lighting is not shown in Figures 23 – 25, the Cooperative will provide a design specific to members' intersection.

All other conditions of section 10.02 Public Roadway Lighting shall apply.

#### 10.023 Crosswalk/Bus Stop Lighting

The Cooperative will install lighting for these areas under the same conditions as Public Roadway Intersection Lighting Section 10.022.

Typical installations are shown in Figure 26. If crosswalk or bus stop needing lighting is not shown in figure 26, the Cooperative will provide a design specific to members' request.

#### 10.03 Residential Outdoor Lighting

The Cooperative will furnish and install any of its standard outdoor lights for a residential member provided such residential member agrees to pay a charge as applicable in the Cooperative's rate schedules L and FL.

This outdoor lighting is for year-round outdoor lighting of yards, walkways, or other areas on property owned by the requesting residential member.

**The light must be faced towards private property if installed on poles along an adjacent roadway.**

The Cooperative does not design to or guarantee minimum outdoor lighting levels based on any IES standards. These lights are located solely on direction and request of residential member for their use and pleasure.

The Cooperative will not be required to install outdoor lighting at any location where the service may be objectionable to others. If it is determined after installation that the light is objectionable, the Cooperative may terminate the service without obligation or liability.

The Cooperative's standard installation includes mounting light fixture on an existing pole. A monthly fee as defined in rate schedules L and FL will be added if a new pole must be added to install the light. Where more than a standard wood pole and service drop is required, the member will be charged for the additional cost. If a transformer must be installed for the exclusive purpose of providing service to the light, the member shall be charged the materials, labor, and overhead costs for the transformer.

The member shall be solely responsible for notifying the Cooperative that a light is not working properly or is out. The Cooperative will repair or replace the light during regular daytime working hours, Monday through Friday, as soon as practicable after verification (Cooperative goal is 7-10 working days) and subject to appropriate operating policies and procedures, the availability of replacement parts and other matters beyond the control of the Cooperative.

#### 10.04 Public/Commercial Outdoor Lighting

The Cooperative will furnish and install any of its standard outdoor lights for a commercial member or public agency in accordance with Rate Schedules L and FL and Cooperative policy. All such lighting will be covered by a contract executed by Cooperative and the commercial member or public agency.

This outdoor lighting is for year-round outdoor lighting of parking areas, storage area, boat ramps, parks, or other areas on property owned by the requesting party. **The light must be faced towards private property if installed on poles along an adjacent roadway.**

Unless required by executed contract the Cooperative does not design to or guarantee minimum outdoor lighting levels based on any IES standards. These

lights are located solely on direction and request of member or public agency for their use and pleasure.

The Cooperative will not be required to install outdoor lighting of any location where the service may be objectionable to others. If it is determined after installation that the light is objectionable, the Cooperative may terminate the service without obligation or liability.

The Cooperative's standard installation includes mounting light fixture on an existing pole. A monthly fee as defined in rate schedules L and FL will be added if a new pole must be added to install the light. Where more than a pole, light fixture and service drop is required, the member will be charged for the additional cost. If a transformer must be installed for the exclusive purpose of providing service to the light, the member shall be charged the materials, labor, and overhead costs for the transformer.

Member waives any claim, liability, damage (both as to persons and property, including death), costs, expenses, and attorney's fees (collectively referred to for purposes of this paragraph as "claims") that the member may have or assert against the Cooperative arising out of the service provided hereunder, or the failure, interruption, inadequacy or insufficiency of the service provided. Member shall defend, indemnify, and hold harmless the Cooperative from all claims asserted against the Cooperative arising out of the services provided hereunder, or the failure, interruption, or insufficiency of the service provided. Outdoor lighting services shall not include maintenance, monitoring, or inspection.

The member shall be solely responsible for notifying the Cooperative that a light is not working properly or is out. The Cooperative will repair or replace the light during regular daytime working hours, Monday through Friday, as soon as practicable after verification (Cooperative goal is 7-10 working days) and subject to appropriate operating policies and procedures, the availability of replacement parts and other matters beyond the control of the Cooperative.

**NEUTRAL VOLTAGE  
CHECKLIST**

Yes\*

No

Service Entrance Farm - Power Pole

- Connection to the Ground Rod - Loose, Corroded.....
- Covers loose.....
- Excessive rust .....

Barn Service Entrance

- Ground Rod missing at the service entrance.....
- Connection to Ground Rod - Loose, Corroded.....
- Covers loose.....
- Excessive rust.....
- Wet or Damp areas.....
- Large accumulation of feed dust on service box.....
- Frequent fuse blowing .....

Milk house

- Excessive rust on electrical boxes or conduit.....
- Water sitting on or in electrical boxes.....
- Covers missing or open to electrical boxes.....
- Wires sitting in water .....

In the Parlor or Around-The-Barn

- Pulsator wiring- Pinched Wires.....
  - Loose, Hanging wires.....
  - Scrapes, Breaks, or Cracks in insulation.....
  - Exposing the conductors.....
  - Broken Stall Cocks.....
- Excessive rust on electrical boxes or conduit.....
- Wires laying in wet or damp areas.....
- Electrical Boxes missing covers.....
- Loose, Hanging wires.....
- Broken or bend conduit.....

A General Review of all Farm Electrical Equipment

- Lights dimming when motors start.....
- Electrical shocks from any equipment.....
- Excessive rust on electrical boxes or conduit.....
- Wires, Electrical boxes, or Motors in wet or damp areas.....
- Accumulation of dust on or around electrical equipment.....
- Bent or Broken Conduit.....
- Scraped wire insulation exposing conductors.....
- Connections to service entrance Ground Rods - Loose, Corroded.....
- Extension Cords.....
- Electrical Boxes missing covers.....
- Loose, Hanging wires.....
- Motors operating irregularly under load, sparking, etc.....
- Electrical outlet missing third hole for ground.....

\*A "**Yes**" Check-mark in this space indicates a potential problem. In most instances, a qualified electrician should be contacted for repair or replacement of the electrical equipment.

Figure A Sept. 29, 2020
----------------------------

# Motor Starting Application

## The following information to be completed by the member

Applicant Name: \_\_\_\_\_ Date: \_\_\_\_\_

Application of Motor: \_\_\_\_\_  
*Irrigation Pump, Air Compressor, Elevator, etc.*

Starts Per Day: \_\_\_\_\_ Interval Between Starts: \_\_\_\_\_

Motor Phasing:  Single Phase  Three Phase

Motor Classification:  Induction  Synchronous

Motor Type: \_\_\_\_\_  
*Squirrel Cage, Wound Rotor, Shaded Pole, etc.*

Motor Horsepower: \_\_\_\_\_ NEMA Code: \_\_\_\_\_ Motor Voltage: \_\_\_\_\_

Motor Starting Assistance: \_\_\_\_\_  
*Reduced Voltage Start, Resistive Start, Auto Transformer Start, etc. If none please specify.*

If the motor will have starting assistance, explain the value. For example, if it is a reduced voltage start, give the amount of voltage reduction.

Will there be other motors starting simultaneously?  Yes  No

If "Yes", explain:

Additional Information:

\_\_\_\_\_  
*Signature of Member* *Date*

## The following information to be completed by District Engineering

Substation Name: \_\_\_\_\_ Feeder Number: \_\_\_\_\_

Map ID: \_\_\_\_\_ Is the member/location:  New?  Existing?

Transformer Bank Type: \_\_\_\_\_ Total Transformer kVA: \_\_\_\_\_

Secondary Service Length: \_\_\_\_\_ Secondary Conductor: \_\_\_\_\_

## The following information to be completed by Engineering Services

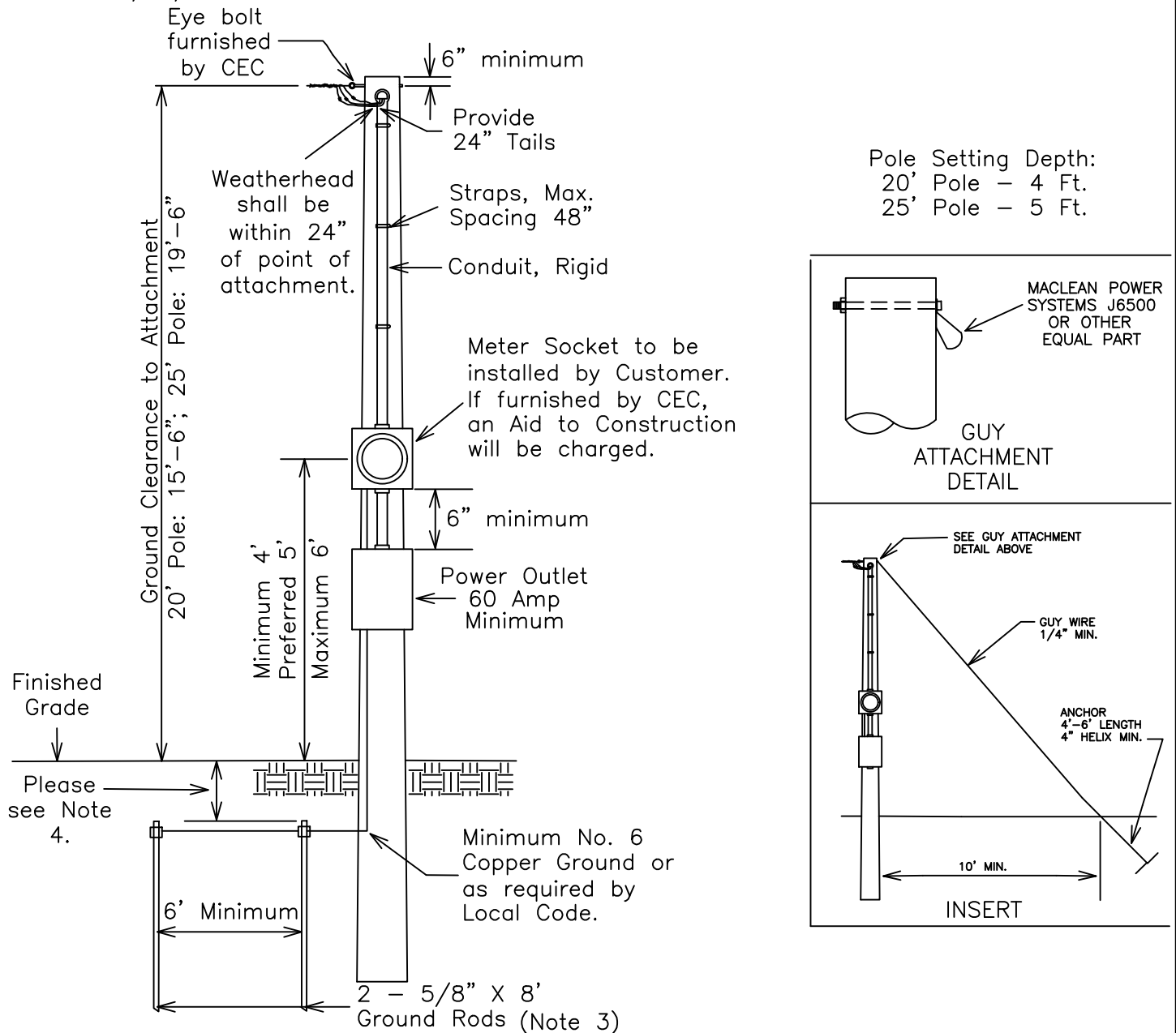
Request Status:  Accepted  Declined

Comments:

FIGURE B

Note: This form is needed for all three phase motors 20 hp and greater and for all single phase motors 5 hp and greater.

\*\*\*AS OF 1/1/2018 LAST SPAN OF SERVICE SHALL BE UNDERGROUND\*\*\*



Notes:

1. Pole shall be approved pressure treated with a minimum top circumference of 15" and a minimum length of 20 feet or as required to obtain required ground clearance. Consult CEC District Engineering for pole length requirement. Minimum Ground Clearance of service wire, including drip loop, over all driveways and other areas traversed by vehicles: 16' -0". Minimum Ground Clearance of service wire, including drip loop, over areas for pedestrians only: 12'-0".
2. If service length is 50 feet or greater, guying is required. Refer to Insert detail.
3. One 5/8" x 8' ground rod may be used if the measured resistance to ground is 25 ohms or less.
4. The upper end of the grounding rod shall be flush with or below finished grade unless the above ground end and the grounding rod conductor attachment are protected against physical damage per NEC
  - 4.1. Member Shall adhere to county code requirements in conjunction with the NEC.
5. Local codes that may exceed these requirements shall apply.
6. Satellite dishes, area lights and other member owned attachments shall be a minimum of 12" below the service drip loop. Clearance shall be measured to the highest point of attached object. The most current National Electrical Safety Code (NESC) requirements shall apply.

01/01/13

Rev. 09/20/20

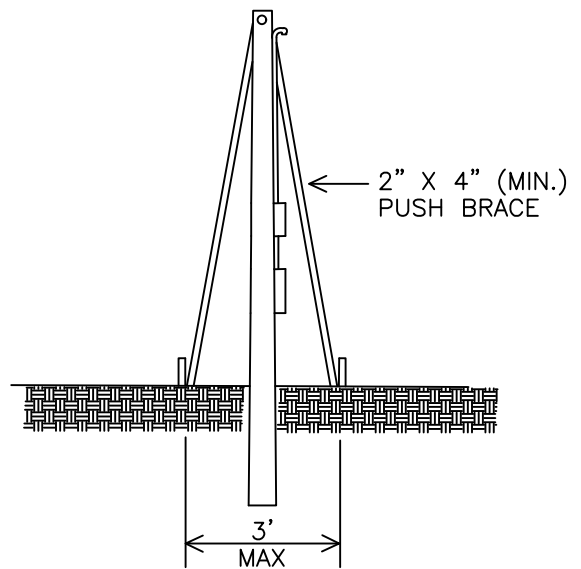
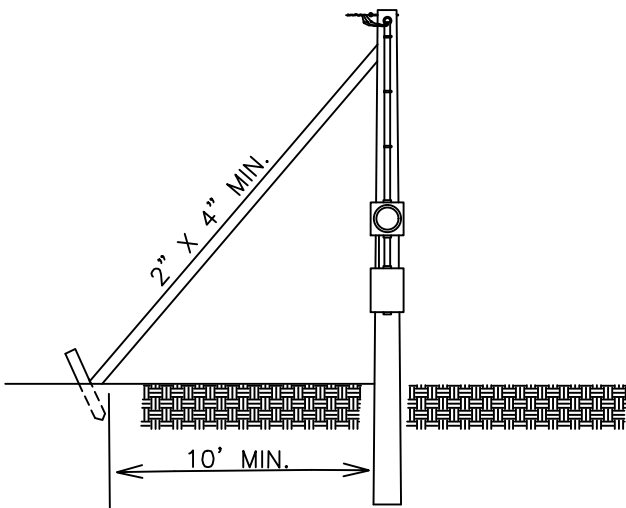
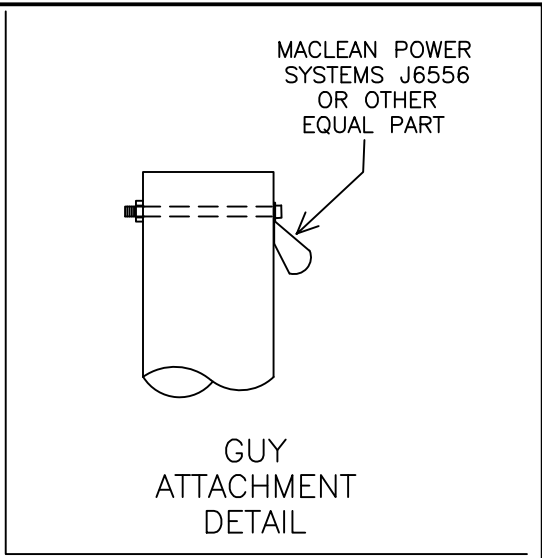
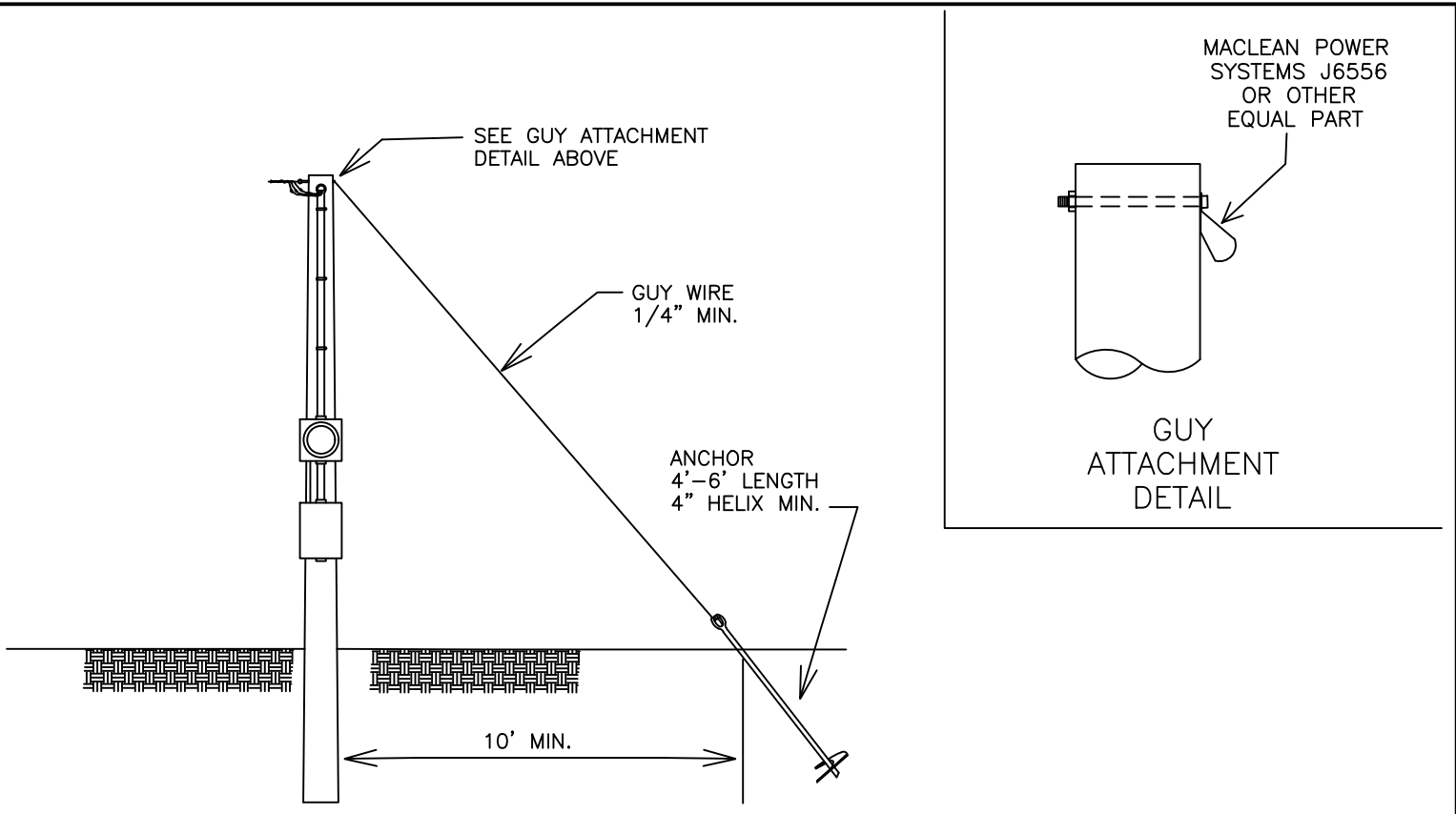
Esf1g1 2020.dwg

TYPICAL OVERHEAD TEMPORARY SERVICE

FIGURE 1

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE



NOTES:

1. POSITION BRACES SO THAT SERVICE DROP IS CENTERED.
2. GUY AND ANCHOR MUST BE IN LINE WITH SERVICE DROP.

08/28/12

Rev. 09/30/20

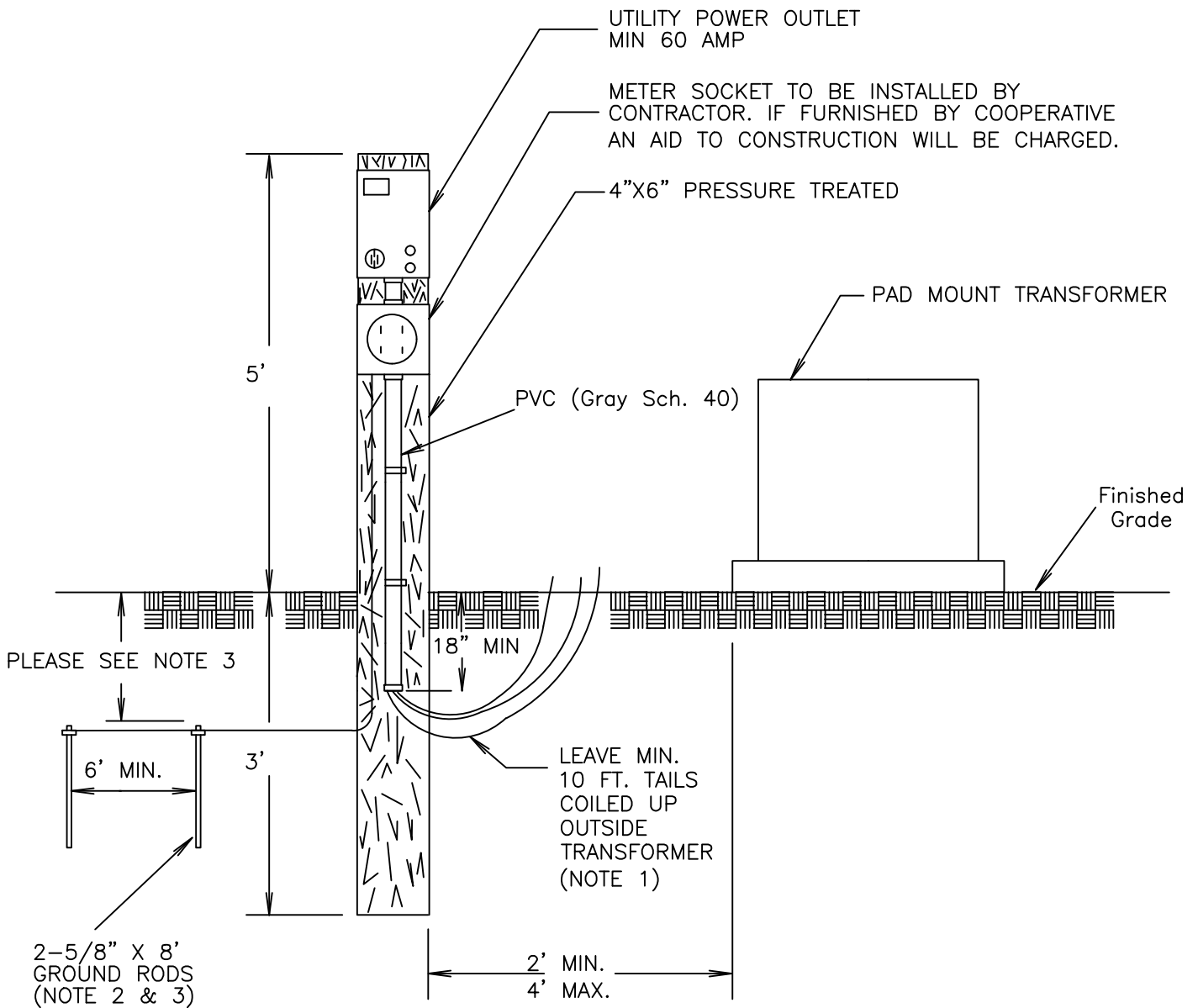
Esfig 1A 2020.dwg

TEMPORARY SERVICE POLE GUYING AND BRACING

FIGURE 1A

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE



- NOTES:
1. AT NO TIME IS MEMBER OR THEIR ELECTRICIAN TO INSTALL CONDUCTOR INSIDE ENERGIZED TRANSFORMER.
  2. ONE 5/8" X 8" GROUND ROD MAY BE USED IF MEASURED RESISTANCE TO GROUND IS 25 OHMS OR LESS.
  3. THE UPPER END OF THE GROUNDING ROD SHALL BE FLUSH WITH OR BELOW FINISHED GRADE UNLESS THE ABOVE GROUND END AND THE GROUNDING ROD CONDUCTOR ATTACHMENT ARE PROTECTED AGAINST PHYSICAL DAMAGE PER NEC.
    - 3.1. MEMBER SHALL ADHERE TO COUNTY CODE REQUIREMENTS IN CONJUNCTION WITH THE NEC.
  4. BURIED ELECTRIC ENERGIZED CABLES ARE PRESENT AND SHALL BE LOCATED PRIOR TO INSTALLATION OF TEMPORARY POLE OR GROUND RODS. FAILURE TO HAVE ELECTRIC CABLES LOCATED PRIOR TO EXCAVATING COULD RESULT IN SERIOUS INJURY. INSTALLATION OF POLE AND GROUND RODS SHALL BE TWO (2') FEET OR MORE FROM LOCATE MARKINGS.
  5. INSTALLATION MUST COMPLY WITH LOCAL CODES

11/26/07

10/06/2020

EsFig2 2020.dwg

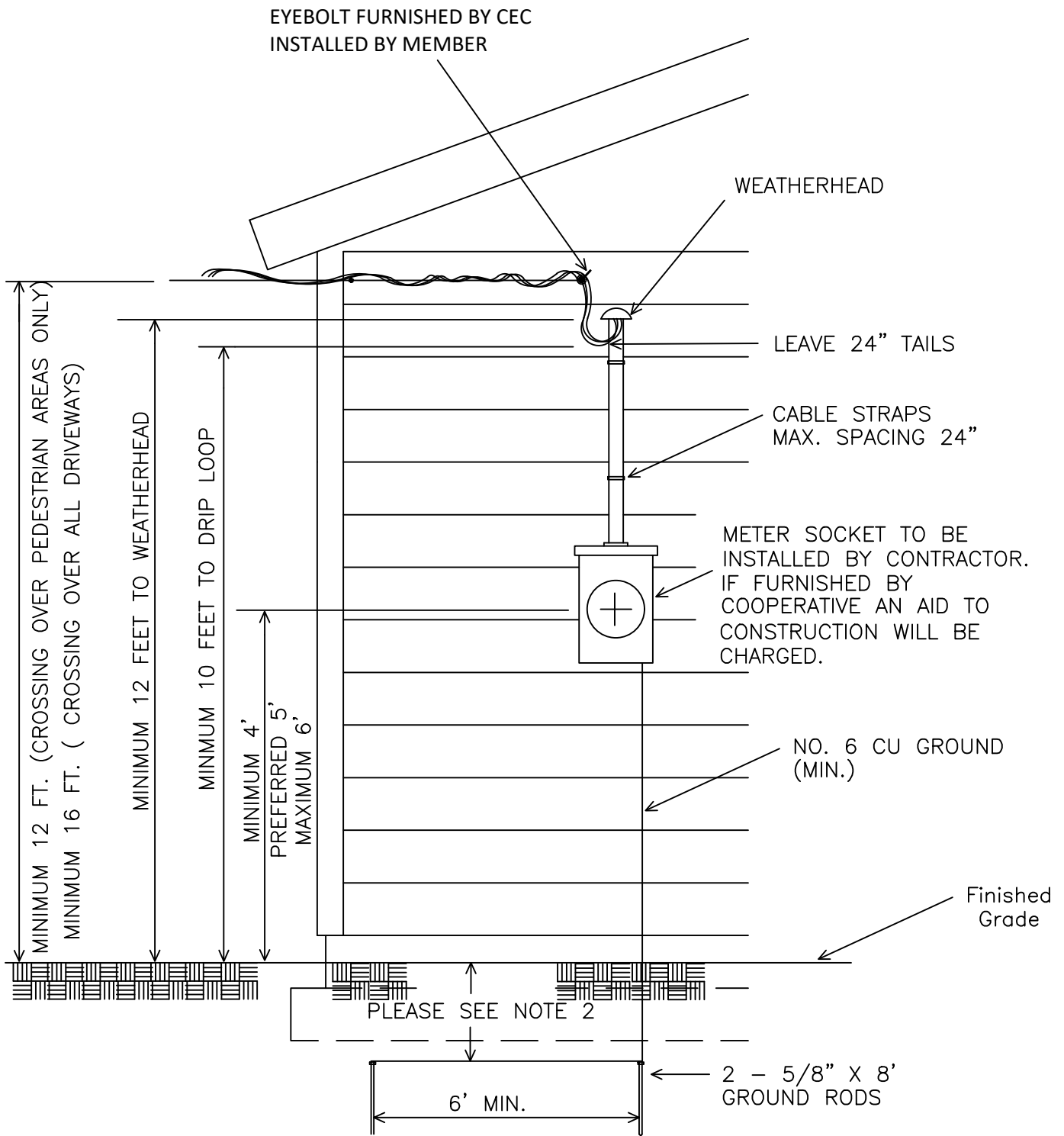
TYPICAL UNDERGROUND TEMPORARY SERVICE HOOK UP

Figure 2

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE

\*\*\*AS OF 1/1/2018 LAST SPAN OF SERVICE SHALL BE UNDERGROUND\*\*\*

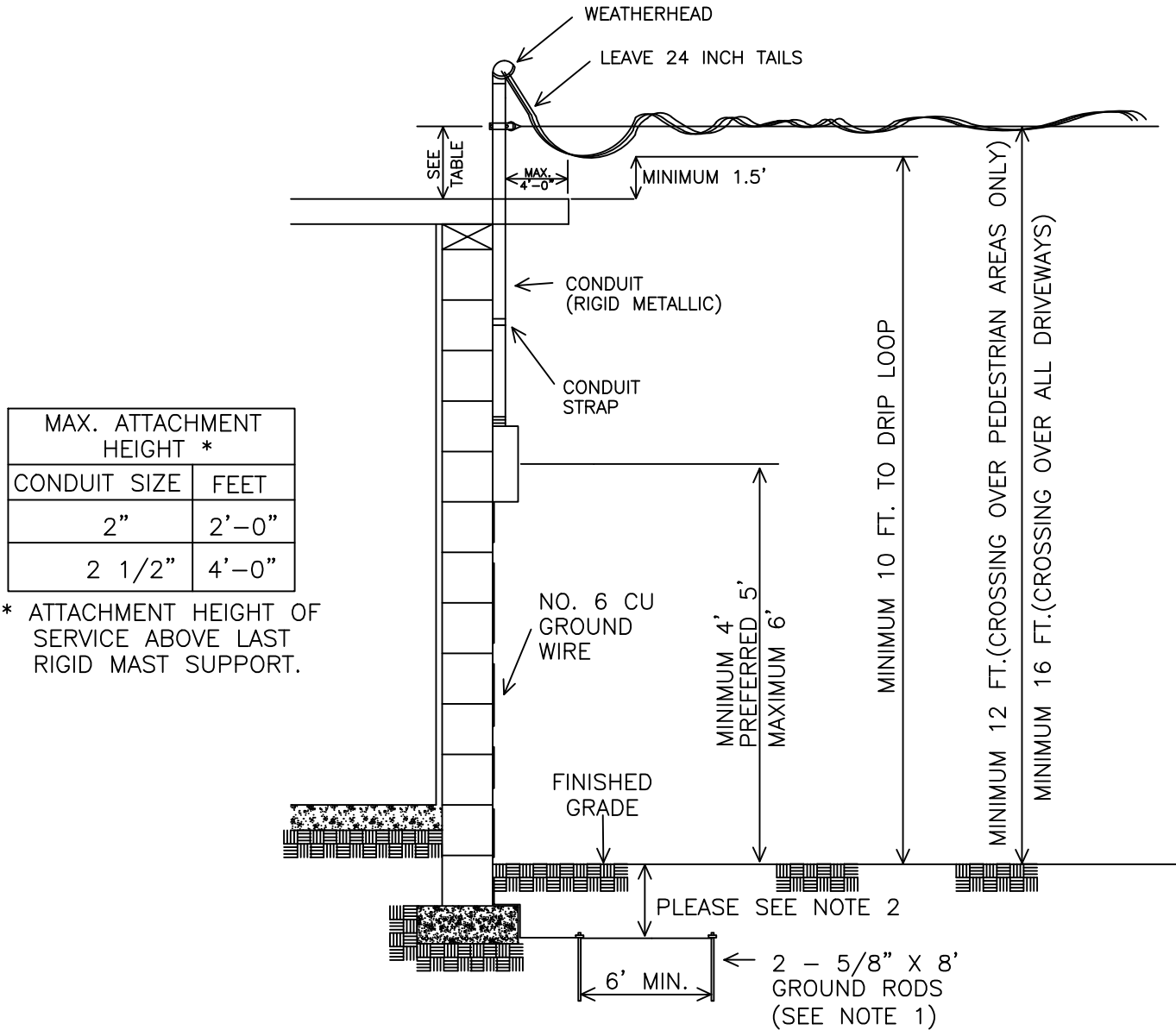


NOTES:

1. ONE 5/8" X 8' GROUND ROD MAY BE USED IF THE MEASURED RESISTANCE TO GROUND IS 25 OHMS OR LESS.
2. THE UPPER END OF THE GROUNDING ROD SHALL BE FLUSH WITH OR BELOW FINISHED GRADE UNLESS THE ABOVE GROUND END AND THE GROUNDING ROD CONDUCTOR ATTACHMENT ARE PROTECTED AGAINST PHYSICAL DAMAGE PER NEC.
- 2.1. MEMBER SHALL ADHERE TO COUNTY CODE REQUIREMENTS IN CONJUNCTION WITH THE NEC.

12/08/17	10/06/20	EsFig3 2020.dwg
TYPICAL OVERHEAD SERVICE INSTALLATION		
Figure 3	CLAY ELECTRIC COOPERATIVE, INC. KEYSTONE HEIGHTS, FLORIDA	STANDARDS FOR ELECTRIC SERVICE

\*\*\*AS OF 1/1/2018 LAST SPAN OF SERVICE SHALL BE UNDERGROUND\*\*\*

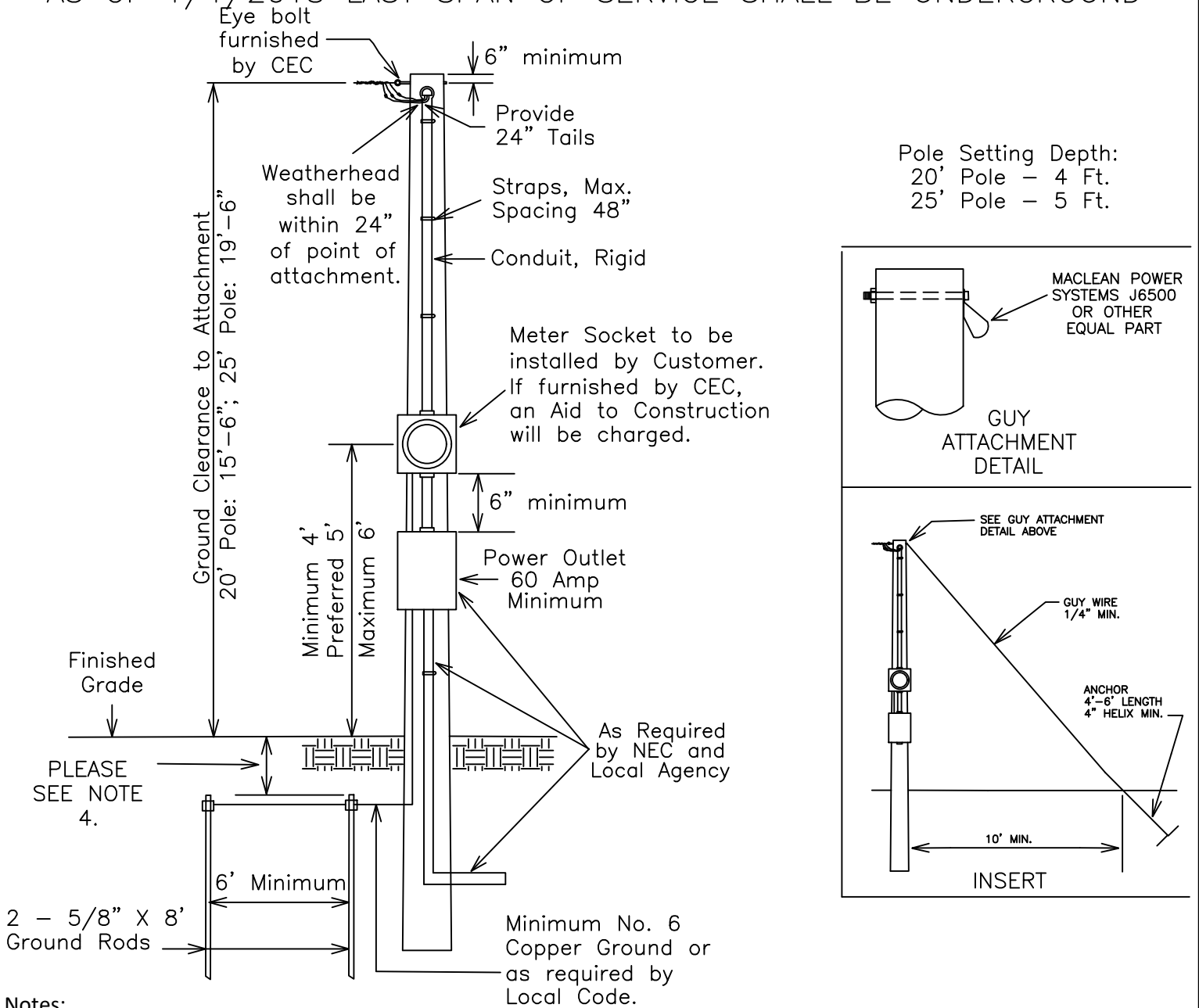


NOTES:

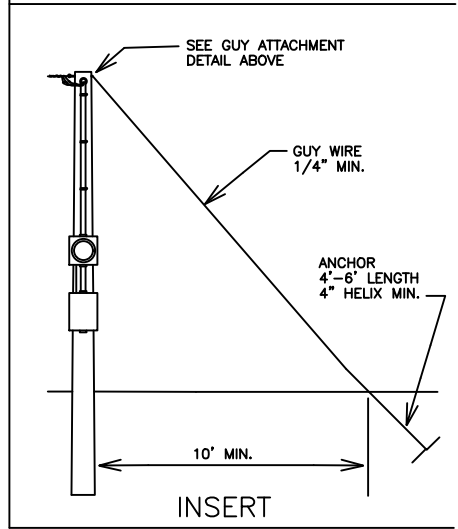
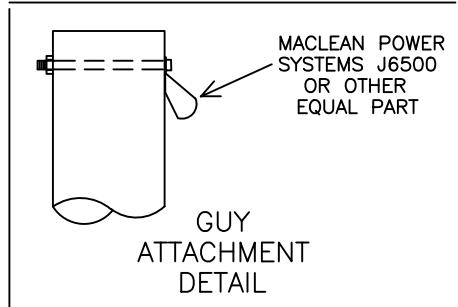
1. ONE 5/8" X 8' GROUND ROD MAY BE USED IF THE MEASURED RESISTANCE TO GROUND IS 25 OHMS OR LESS.
2. THE UPPER END OF THE GROUNDING ROD SHALL BE FLUSH WITH OR BELOW FINISHED GRADE UNLESS THE ABOVE GROUND END AND THE GROUNDING ROD CONDUCTOR ATTACHMENT ARE PROTECTED AGAINST PHYSICAL DAMAGE PER NEC.
  - 2.1. MEMBER SHALL ADHERE TO COUNTY CODE REQUIREMENTS IN CONJUNCTION WITH THE NEC. 3. SERVICE ENTRANCE CABLE MUST NOT SPAN MORE THAN 4 FEET OF ROOF IN ANY DIRECTION.

12/08/17	10/06/20	Esfig4 2020.dwg
TYPICAL OVERHEAD SERVICE INSTALLATION		
Figure 4	CLAY ELECTRIC COOPERATIVE, INC. KEYSTONE HEIGHTS, FLORIDA	STANDARDS FOR ELECTRIC SERVICE

\*\*\*AS OF 1/1/2018 LAST SPAN OF SERVICE SHALL BE UNDERGROUND\*\*\*

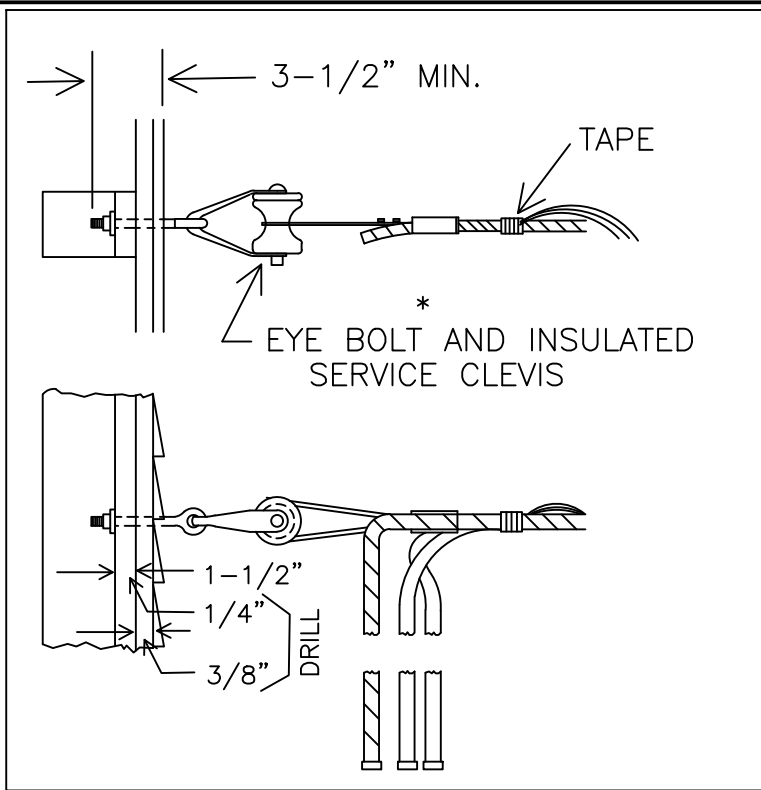


Pole Setting Depth:  
 20' Pole - 4 Ft.  
 25' Pole - 5 Ft.

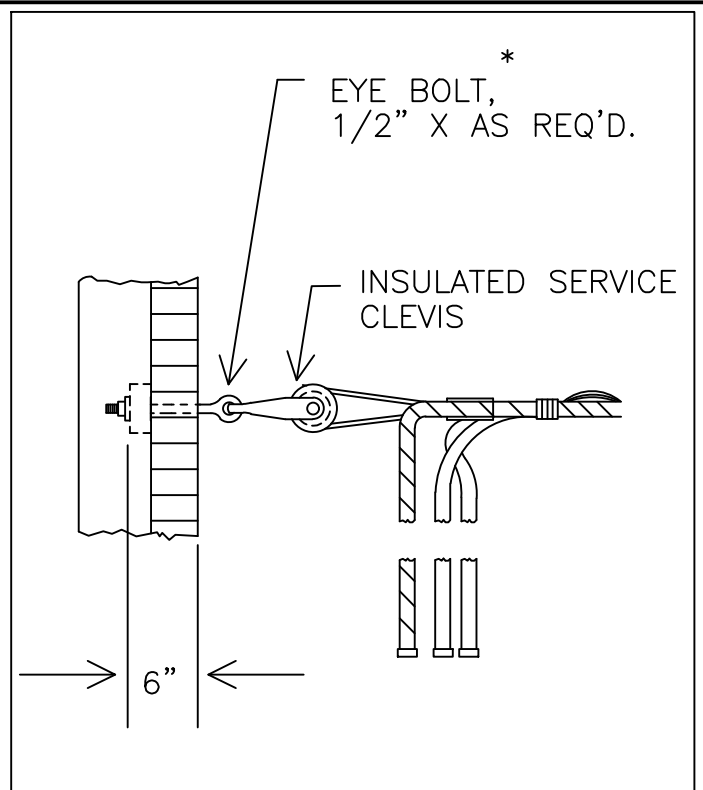


- Notes:
1. Pole shall be approved pressure treated with a minimum top circumference of 15" and a minimum length of 20 feet or as required to obtain required ground clearance. Consult CEC District Engineering for pole length requirement. Minimum Ground Clearance of service wire, including drip loop, over all driveways and other areas traversed by vehicles: 16'-0". Minimum Ground Clearance of service wire, including drip loop, over areas for pedestrians only: 12'-0".
  2. If service length is 50 feet or greater, guying is required. Refer to Insert detail.
  3. One 5/8" x 8' ground rod may be used if the measured resistance to ground is 25 ohms or less.
  4. The upper end of the grounding rod shall be flush with or below finished grade unless the above ground end and the grounding rod conductor attachment are protected against physical damage per NEC
    - 4.1. Member shall adhere to county code requirements in conjunction with the NEC.
  5. Local codes that may exceed these requirements shall apply.
  6. Satellite dishes, area lights and other member owned attachments shall be a minimum of 12" below the service drip loop. Clearance shall be measured to the highest point of attached object. The most current National Electrical Safety Code (NESC) requirements shall apply.

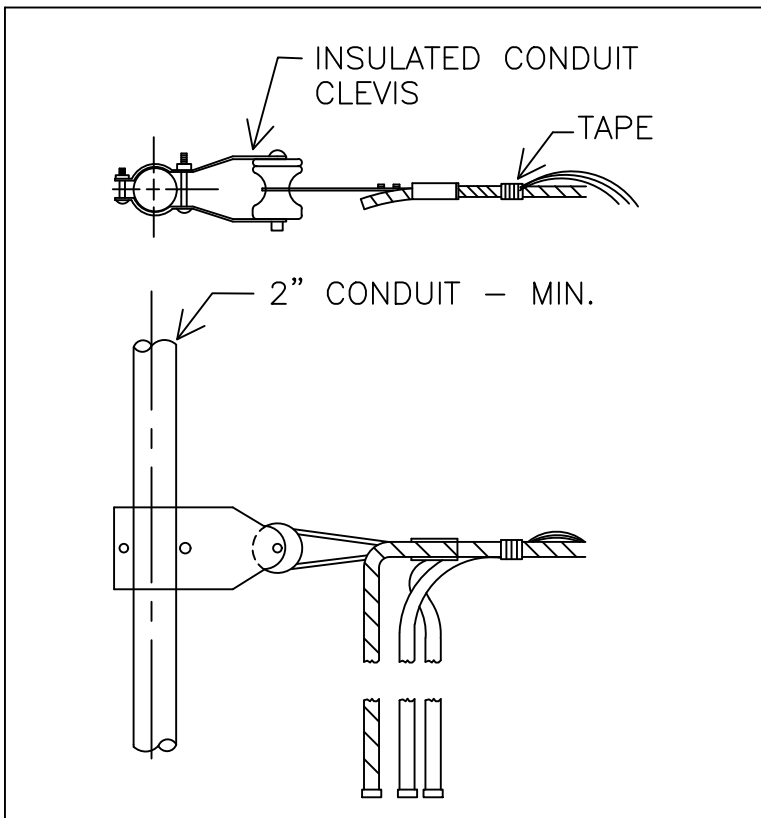
12/08/17	REV. 10/06/2020	Esfig4A 2020.dwg
TYPICAL OVERHEAD SERVICE TO MOBILE HOME, PUMP, ETC.		
FIGURE 4A	CLAY ELECTRIC COOPERATIVE, INC. KEYSTONE HEIGHTS, FLORIDA	STANDARDS FOR ELECTRIC SERVICE



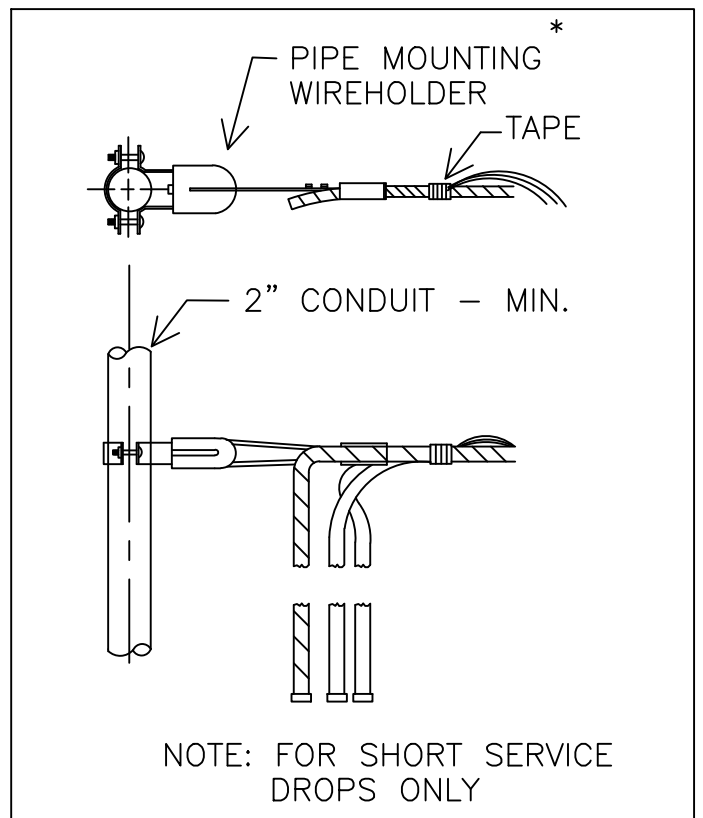
WOOD FRAME



BRICK OR MASONRY



SERVICE MAST



SERVICE MAST (LIGHT DUTY)

5/21/99

REV1. 10/06/2020

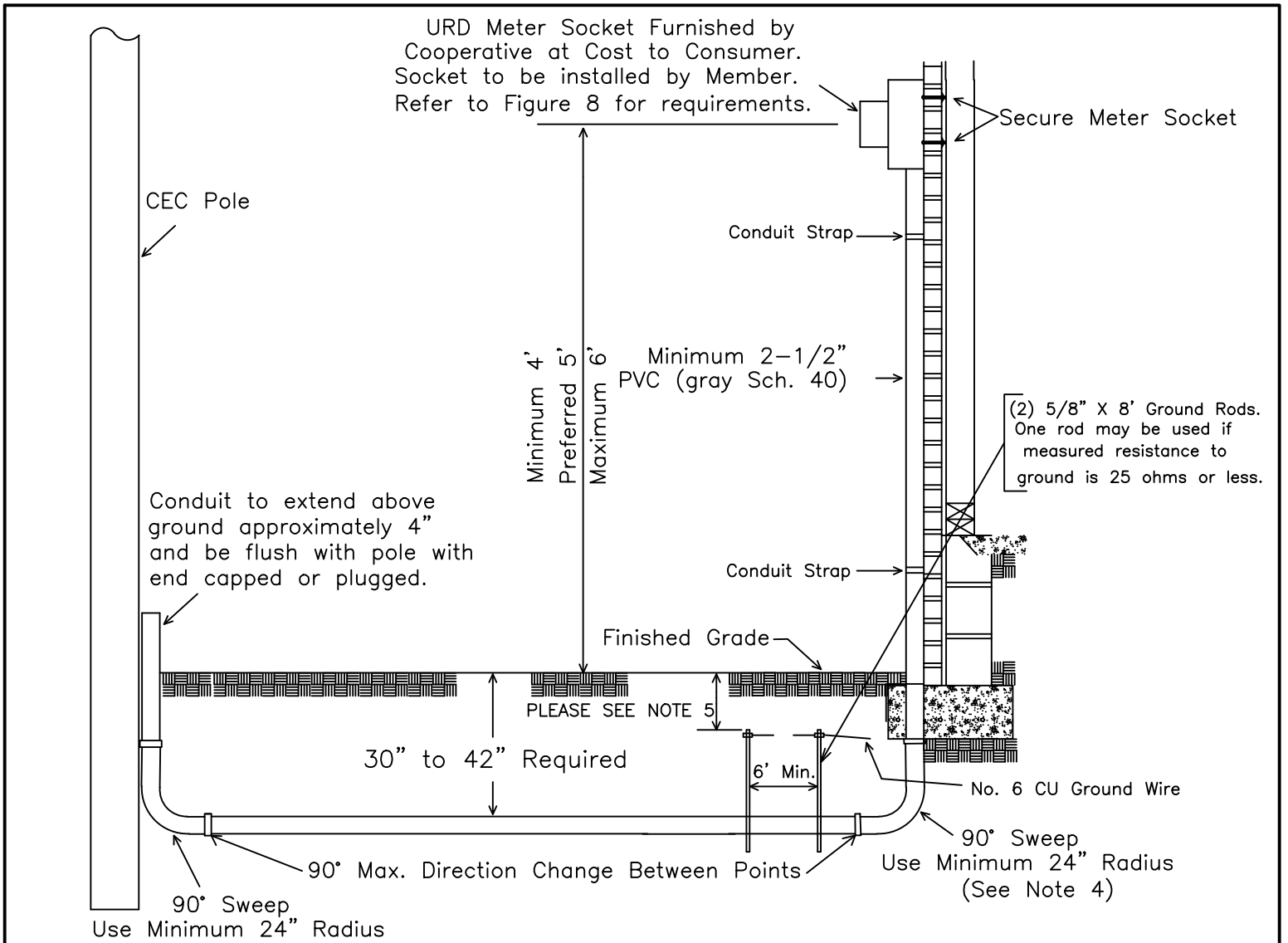
Esfig5 2020.dwg

TYPICAL OVERHEAD SERVICE ATTACHMENTS

Figure 5

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE



**Notes:**

1. Member to furnish and install continuous gray electrical conduit (schedule 40) from pole to meter. Meter location shall be located on same side of structure as pole and should be within 10 feet of closest corner to pole. A clear space of minimum 5 feet shall be maintained in front of meter location, with 3 feet of clearance on the sides. The meter location and conduit installation shall not be altered from these specifications without written CEC Engineering approval.
2. For single mobile home URD service installations, meter shall be mounted on pedestal (Refer to Figure 7A).
3. Conduit requirements:
  - a. 2-1/2" minimum (Gray Schedule 40).
  - b. 24 inch minimum radius for all sweeps (elbows).
  - c. Conduit path should be most direct route from CEC pole to meter. Preferred 180° (maximum of 270°) direction change in conduit from CEC pole to meter socket.
  - d. Pull strings (nylon builders string) shall be installed in conduit by Owner from pole to meter socket.
  - e. Member to select clear side of pole for conduit riser that does not interfere with existing utilities.
  - f. CEC Engineer shall be consulted: for service distances greater than 200 feet from pole to meter or services larger than 320 amp or homes with greater than 4200 sq. ft. (heated & cooled) living area.
4. For service down pipes with foundation conflicts, two (2) 45° sweeps (24" min. radius) may be installed with a straight piece to avoid the conflict provided minimum burial depths are maintained and sweeps are installed entirely below ground line. The down pipe shall be flush with building while above ground line.
5. The upper end of the grounding rod shall be flush with or below finished grade unless the above ground end and the grounding rod conductor attachment are protected against physical damage per NEC
  - 5.1. Member shall adhere to county code requirements in conjunction with the NEC.

12/20/17

Rev. 10/09/2020

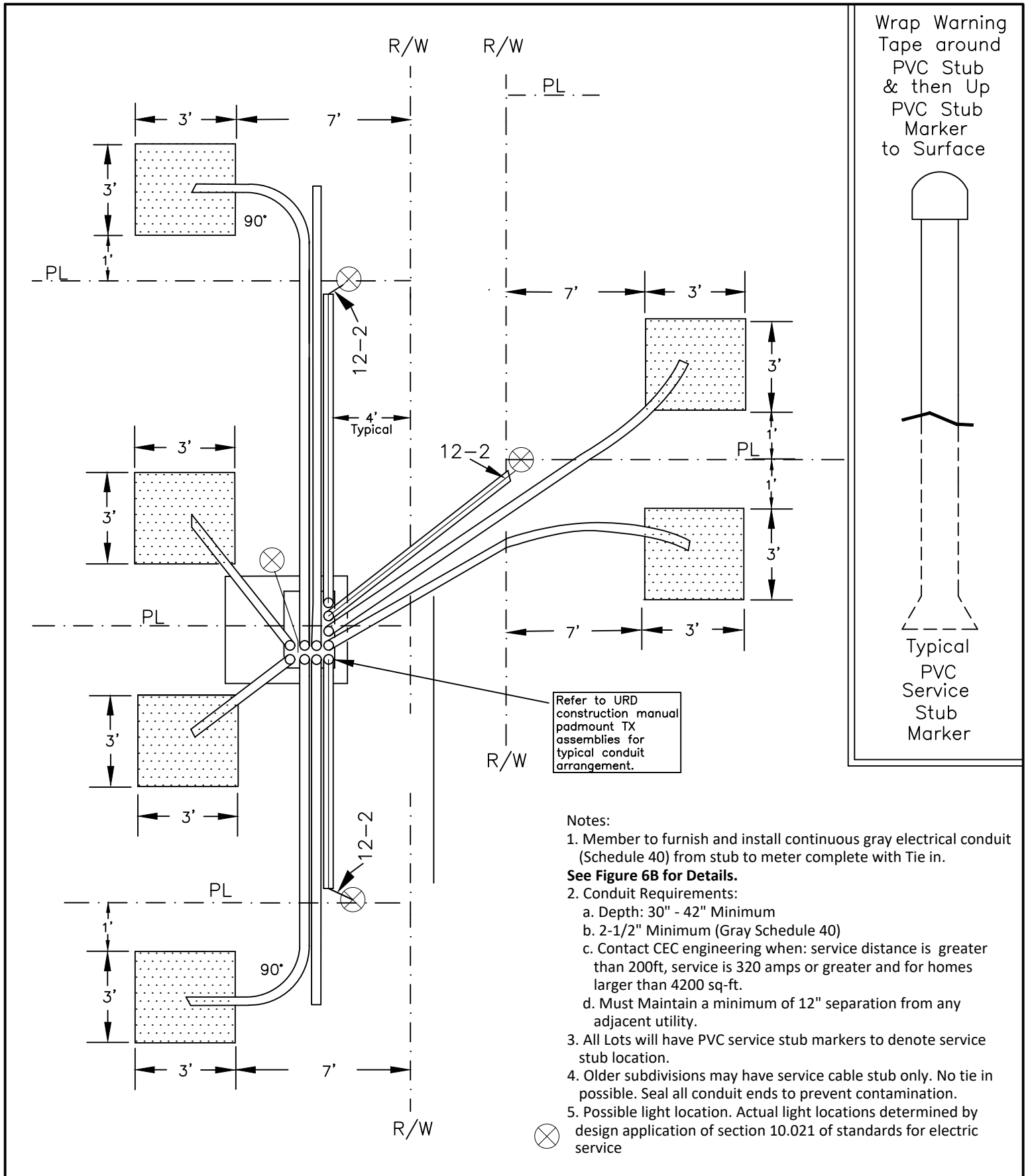
Esfig6 2020.dwg

Typical Residential Underground Service (320 Amp Max.)  
URD Service From OH Pole

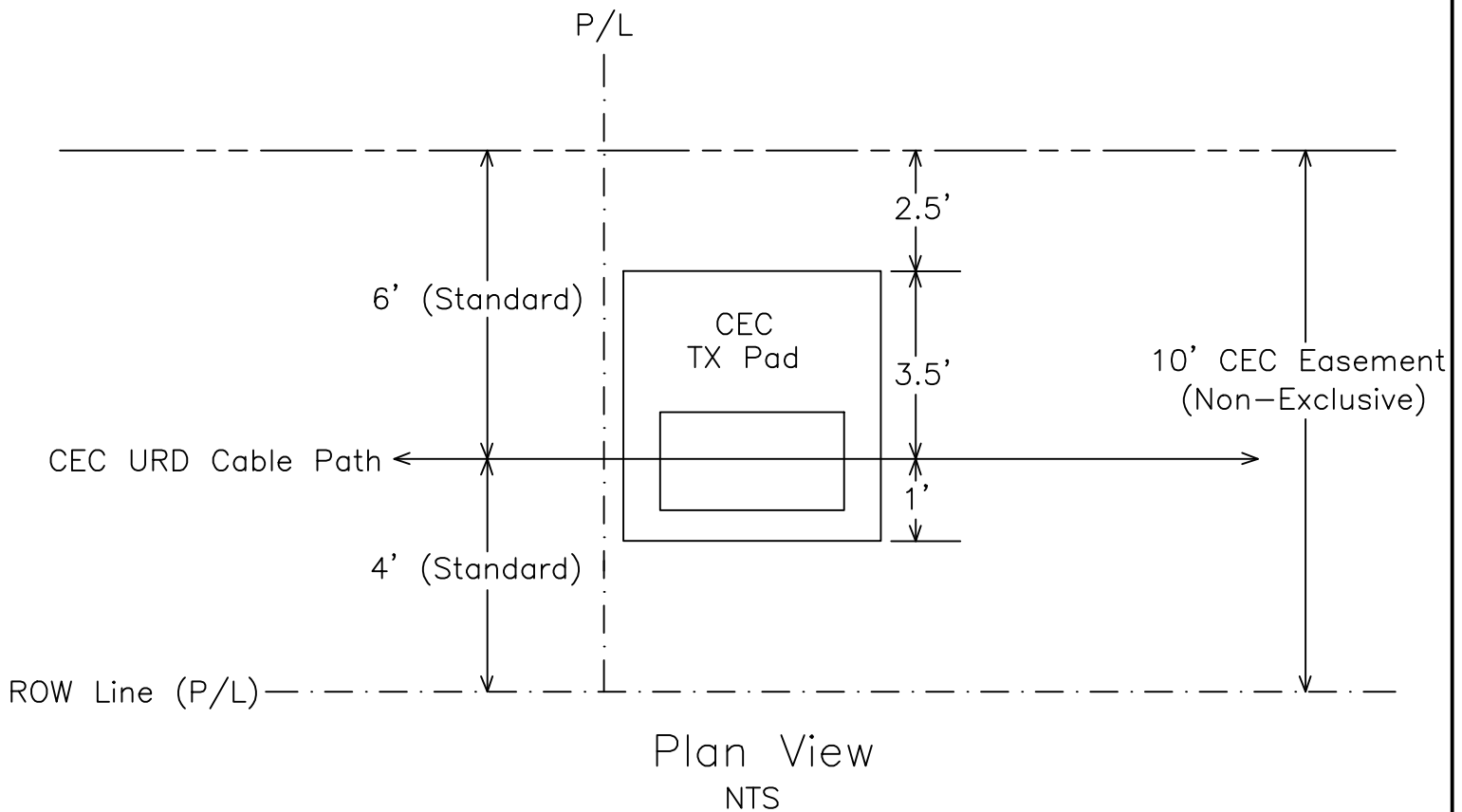
Figure 6

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE



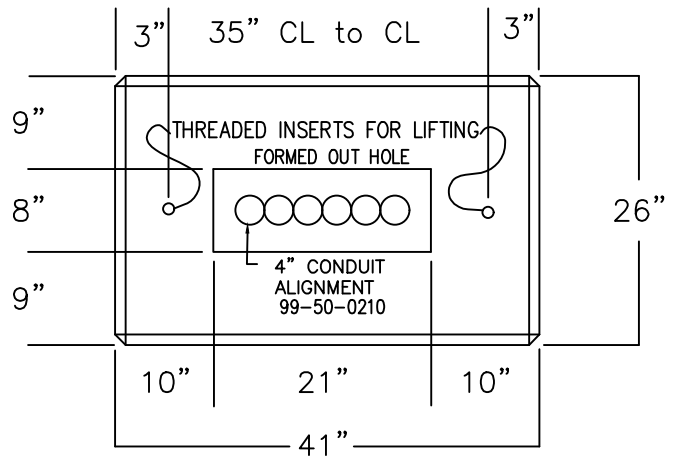
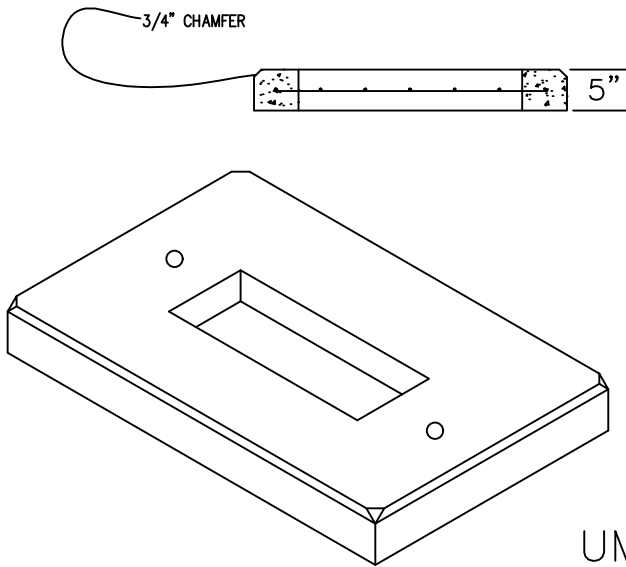
12/02/2018	Rev. 10/15/2020	Esfig 6A-1 2020.dwg
TYPICAL SERVICE CONDUIT AND LIGHT LOCATIONS FOR URD SUBDIVISIONS		
Figure 6A-1	CLAY ELECTRIC COOPERATIVE, INC. KEYSTONE HEIGHTS, FLORIDA	STANDARDS FOR ELECTRIC SERVICE



**Notes:**

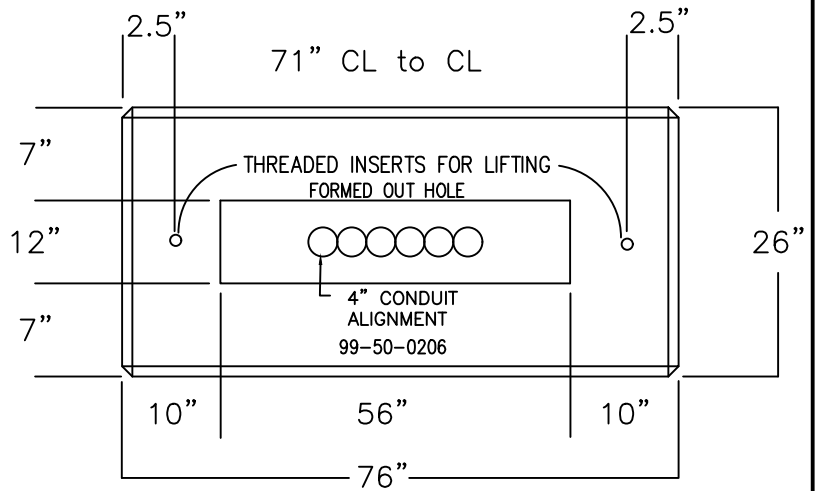
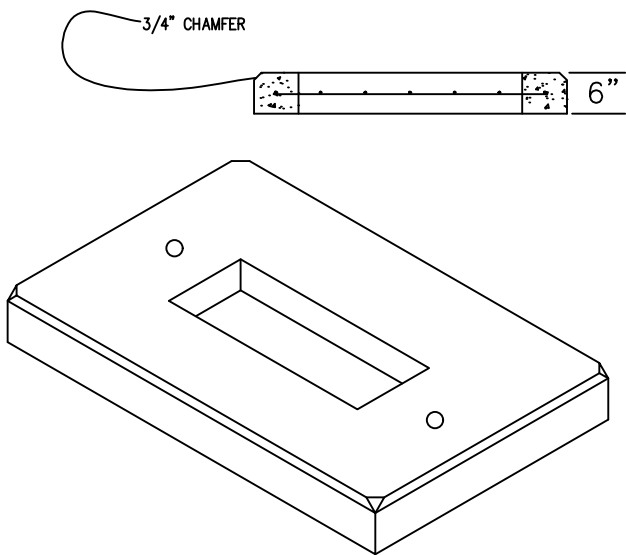
1. CEC's standard easement width requirement is 10' for URD electric facilities within a residential development. A request for exception to this must be submitted to the District Engineer. The District Engineer will forward the request to Distribution Engineering for review. A response will then be returned to the District Engineer and he will notify the Member. If an exception is approved, the Member must include the exception as part of the plan drawings. Additional guidelines and minimum requirements related to this issue are included below.
2. It should be noted that the entire width of the CEC easement shall be cleared of trees and stumps and any other obstacles in order for CEC to install the URD cable and associated electric facilities. Final grade shall be established (+/- 6").
3. All CEC electric facilities shall lie within an easement for any new developments.
4. Minimum horizontal separation requirement for CEC electric cables: Phone and CATV: 3' Gas: 5'
5. If electric service is required on both sides of the roadway, CEC easements and electric utility allocations shall be provided on both sides of roadway.

2/6/2004	Rev. 10/15/2020	Esfig 6A-2 2020.dwg
STANDARD CEC ELECTRIC UTILITY EASEMENT REQUIREMENT FOR URD RESIDENTIAL DEVELOPEMENTS		
Figure 6A-2	CLAY ELECTRIC COOPERATIVE, INC. KEYSTONE HEIGHTS, FLORIDA	STANDARDS FOR ELECTRIC SERVICE



UM1-US1-2

Pad, Concrete, 41" x 26" x 5"  
 3-Way or 4-Way Sectionalizing Enclosure (1Ø)  
 CEC No. 99-50-0210  
 Approximate Weight: 320 Pounds (.08 cy).



UM1-US3-4

Pad, Concrete, 76" x 26" x 6"  
 3-Way or 4-Way Sectionalizing Enclosure (3Ø)  
 CEC No. 99-50-0206  
 Approximate Weight: 680 Pounds (.17 cy).

Specification: Sectionalizing Enclosure Pad

1. Concrete: 3000 psi minimum at 28 days.
2. Reinforce with 6x6- W1.4 x W1.4 welded wire mesh or #3 reinforcing bars tied on 6" centers. Add #5 rebar around formed out hole.
3. Threaded 3/4" insert(s) suitable for lifting to allow for balanced pick up.
4. CEC No. to be stenciled (not embedded) on pad in minimum 2" lettering as indicated on drawing.

12/27/01

Rev 10/09/20

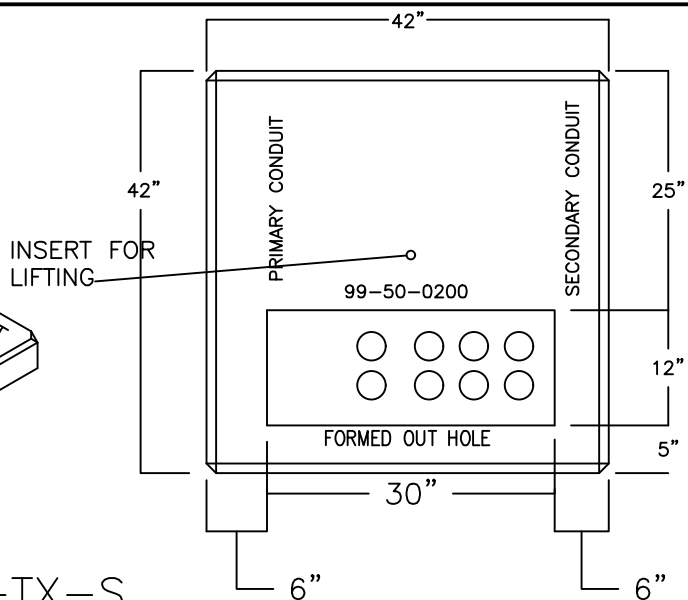
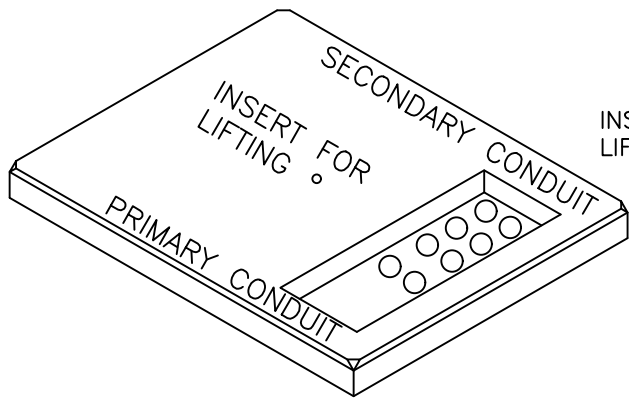
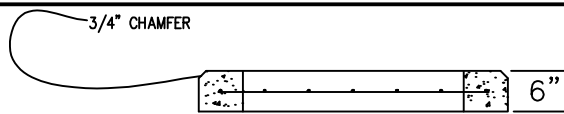
Esfig6A-3 2020.dwg

Pad Assemblies (Concrete) for 1Ø and 3Ø Sectionalizing Enclosures

Figure 6A-3

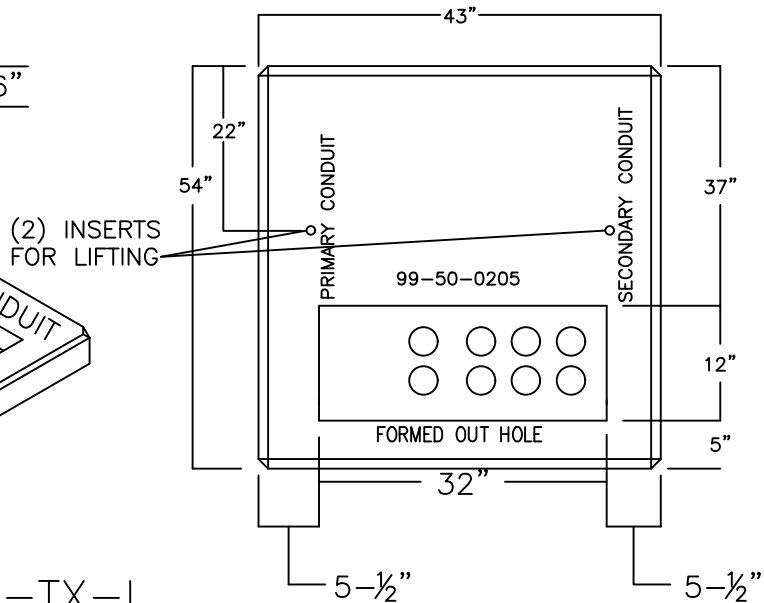
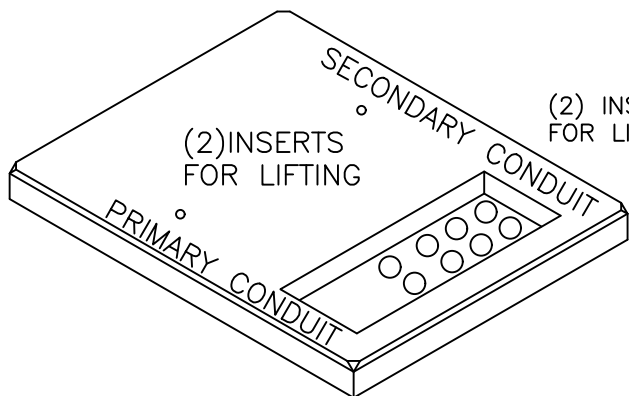
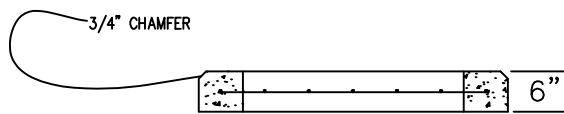
CLAY ELECTRIC COOPERATIVE, INC.  
 KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
 ELECTRIC SERVICE



UM1-TX-S

Pad, Concrete, 42" x 42" x 6"  
 25 to 75 kVA Padmount Tx (1∅)  
 CEC No. 99-50-0200  
 Approximate weight: 600 pounds (.15cy).



UM1-TX-L

Pad, Concrete, 43" x 54" x 6"  
 100 to 167 kVA Padmount Tx (1∅)  
 CEC No. 99-50-0205

Specification: Single Phase Transformer Pad

1. Concrete: 3000 psi minimum at 28 days
2. Reinforce with 6x6- W1.4 x W1.4 welded wire mesh or #3 reinforcing bars tied on 6" centers. Add #5 rebar around formed out hole.
3. Threaded 3/4" insert(s) suitable for lifting to allow for balanced pick up.
4. CEC No. to be stenciled (not embedded) on pad in minimum 2" lettering as indicated on drawing.

12/04/18

10/09/20

Esfig6A-4 2020.dwg

Pad Assemblies (Concrete) for Single Phase Padmount Transformers

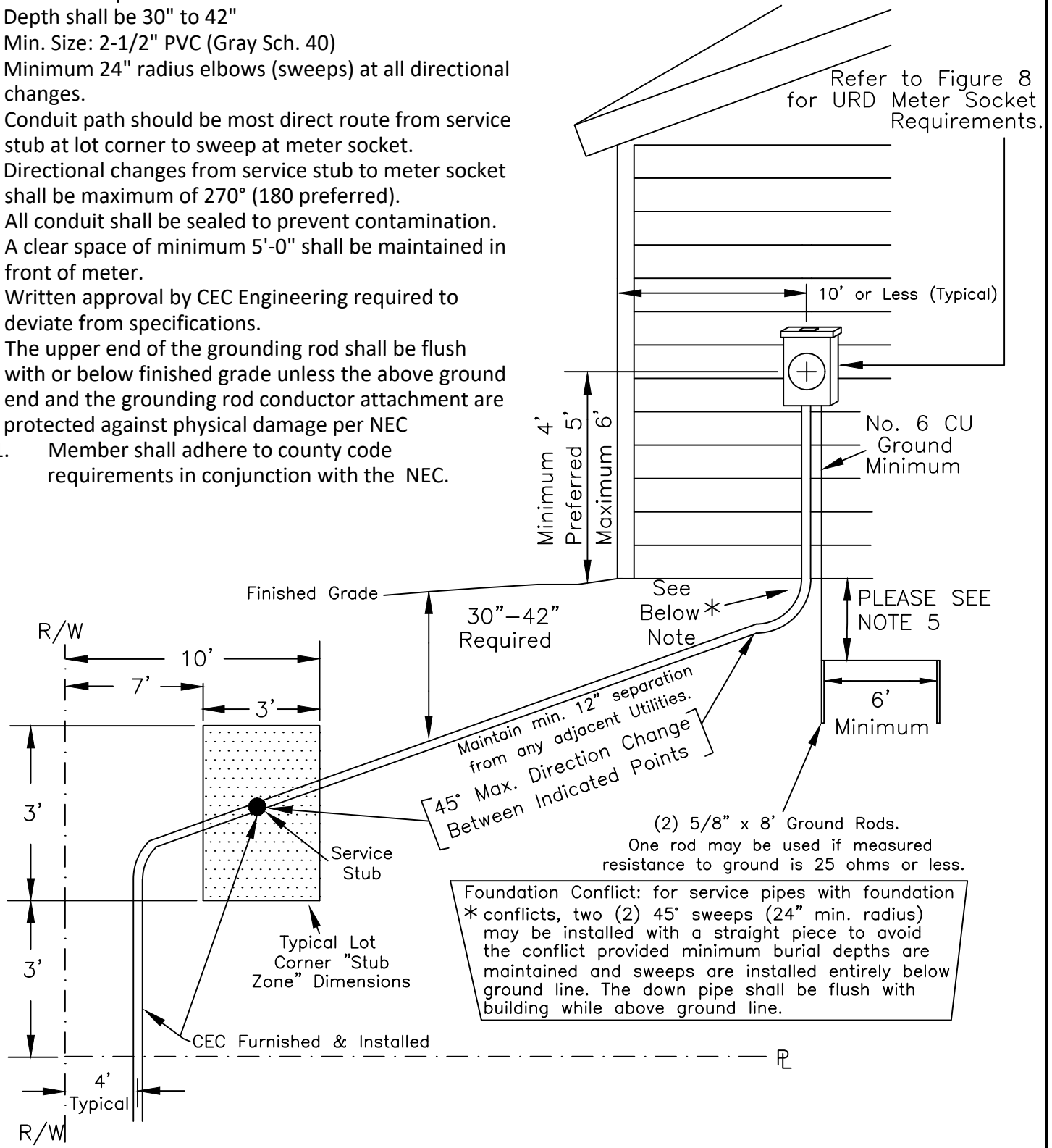
Figure 6A-4

CLAY ELECTRIC COOPERATIVE, INC.  
 KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
 ELECTRIC SERVICE

Notes:

1. Member to furnish and install continuous gray electrical conduit from service stub to meter complete with tie in.
2. Conduit Requirements:
  - a. Depth shall be 30" to 42"
  - b. Min. Size: 2-1/2" PVC (Gray Sch. 40)
  - c. Minimum 24" radius elbows (sweeps) at all directional changes.
  - d. Conduit path should be most direct route from service stub at lot corner to sweep at meter socket. Directional changes from service stub to meter socket shall be maximum of 270° (180 preferred).
  - f. All conduit shall be sealed to prevent contamination.
3. A clear space of minimum 5'-0" shall be maintained in front of meter.
4. Written approval by CEC Engineering required to deviate from specifications.
5. The upper end of the grounding rod shall be flush with or below finished grade unless the above ground end and the grounding rod conductor attachment are protected against physical damage per NEC
  - 5.1. Member shall adhere to county code requirements in conjunction with the NEC.



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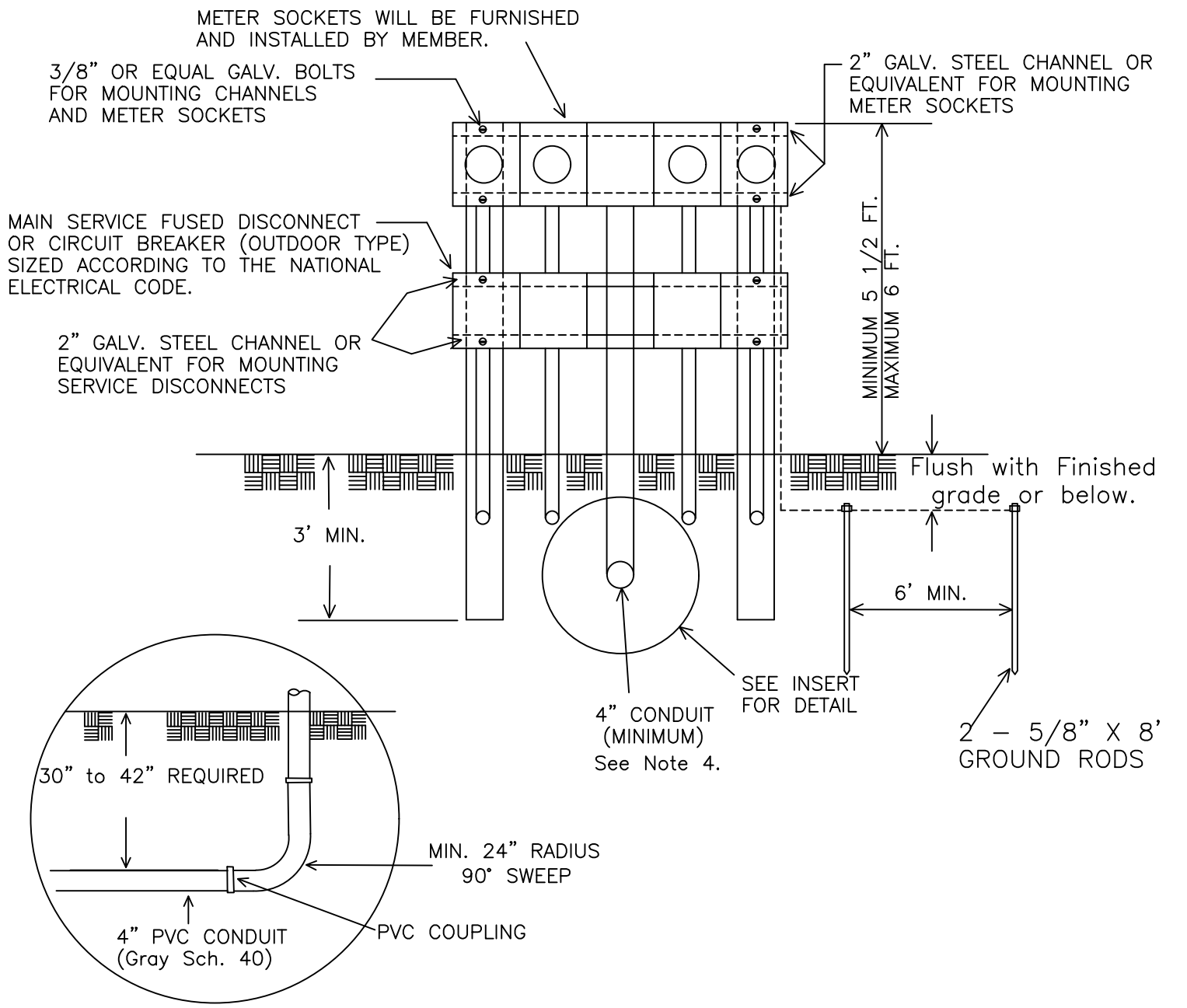
Esfig 6B 2020.dwg

CONSTRUCTION REQUIREMENTS FOR TYPICAL URD  
SUBDIVISION SERVICE (320 AMP MAX. ) TIE-IN

Figure 6B

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

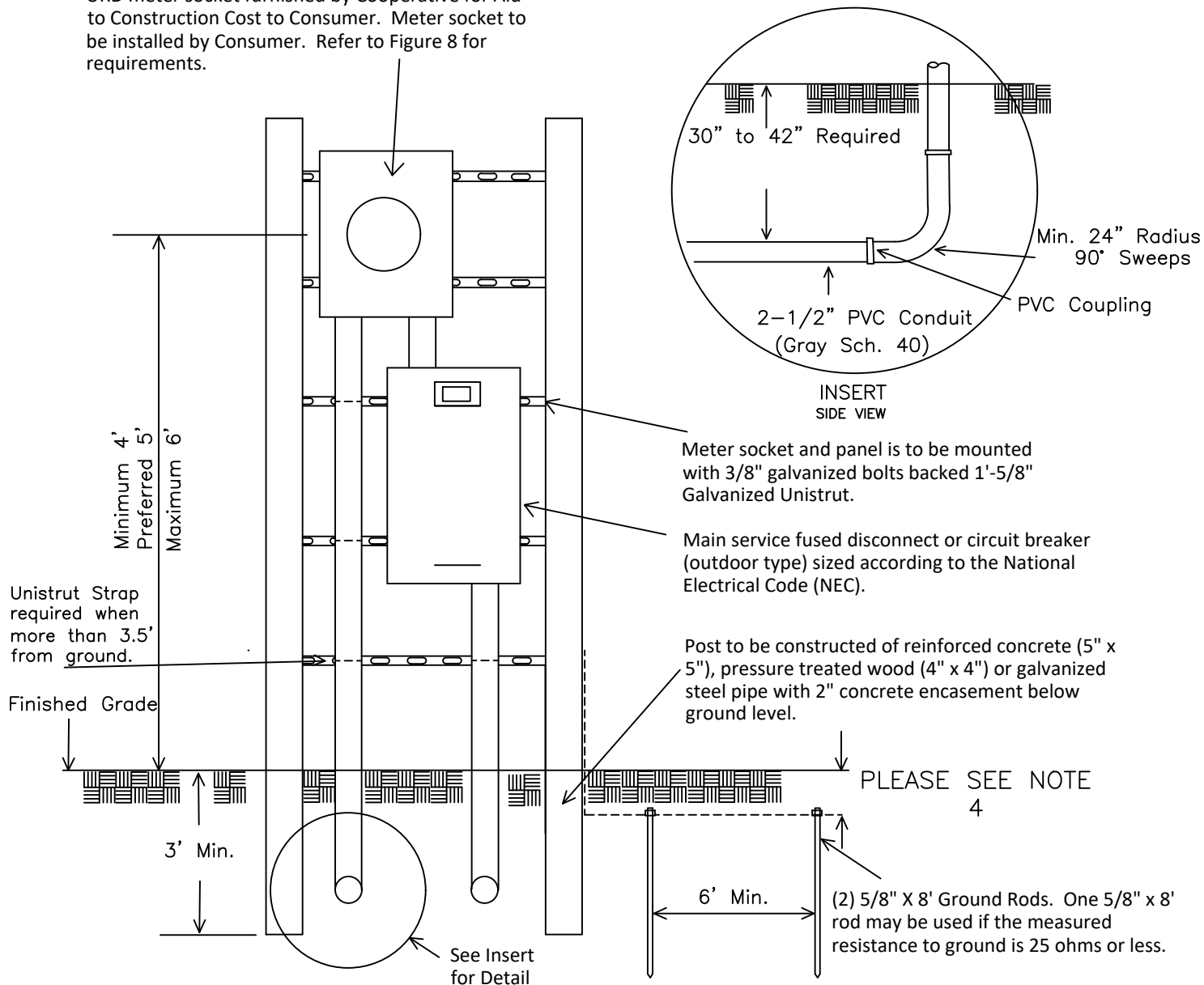
STANDARDS FOR  
ELECTRIC SERVICE



- NOTES**
1. MEMBER TO PROVIDE CONTINUOUS CONDUIT FROM CEC FACILITY TO METER COMPLETE WITH SWEEPS. CONSULT CEC ENGINEERING FOR METER LOCATION.
  2. ONE 5/8" X 8' GROUND ROD MAY BE USED IF THE MEASURED RESISTANCE TO GROUND IS 25 OHMS OR LESS.
  3. THE UPPER END OF THE GROUNDING ROD SHALL BE FLUSH WITH OR BELOW FINISHED GRADE UNLESS THE ABOVE GROUND END AND THE GROUNDING ROD CONDUCTOR ATTACHMENT ARE PROTECTED AGAINST PHYSICAL DAMAGE PER NEC.
  - 3.1. MEMBER SHALL ADHERE TO COUNTY CODE REQUIREMENTS IN CONJUNCTION WITH THE NEC.
  4. METER SOCKETS AND ALL OTHER MATERIAL TO BE FURNISHED AND INSTALLED BY MEMBER IN ACCORDANCE WITH NATIONAL ELECTRIC CODE.
  5. POST TO BE CONSTRUCTED OF REINFORCED CONCRETE 5"X5" OR 2" GALV. STEEL PIPE WITH 2" CONCRETE ENCASEMENT BELOW GROUND LEVEL.
  6. FOR A TWO (2) UNIT SERVICE, USE MINIMUM 3" PVC (Gray Sch. 40).

12/20/17	Rev. 10/15/2020	Esfig 7 2020.dwg
MOBILE HOME PARK SERVICE FOUR UNIT UNDERGROUND SUPPLY		
Figure 7	CLAY ELECTRIC COOPERATIVE, INC. KEYSTONE HEIGHTS, FLORIDA	STANDARDS FOR ELECTRIC SERVICE

URD meter socket furnished by Cooperative for Aid to Construction Cost to Consumer. Meter socket to be installed by Consumer. Refer to Figure 8 for requirements.

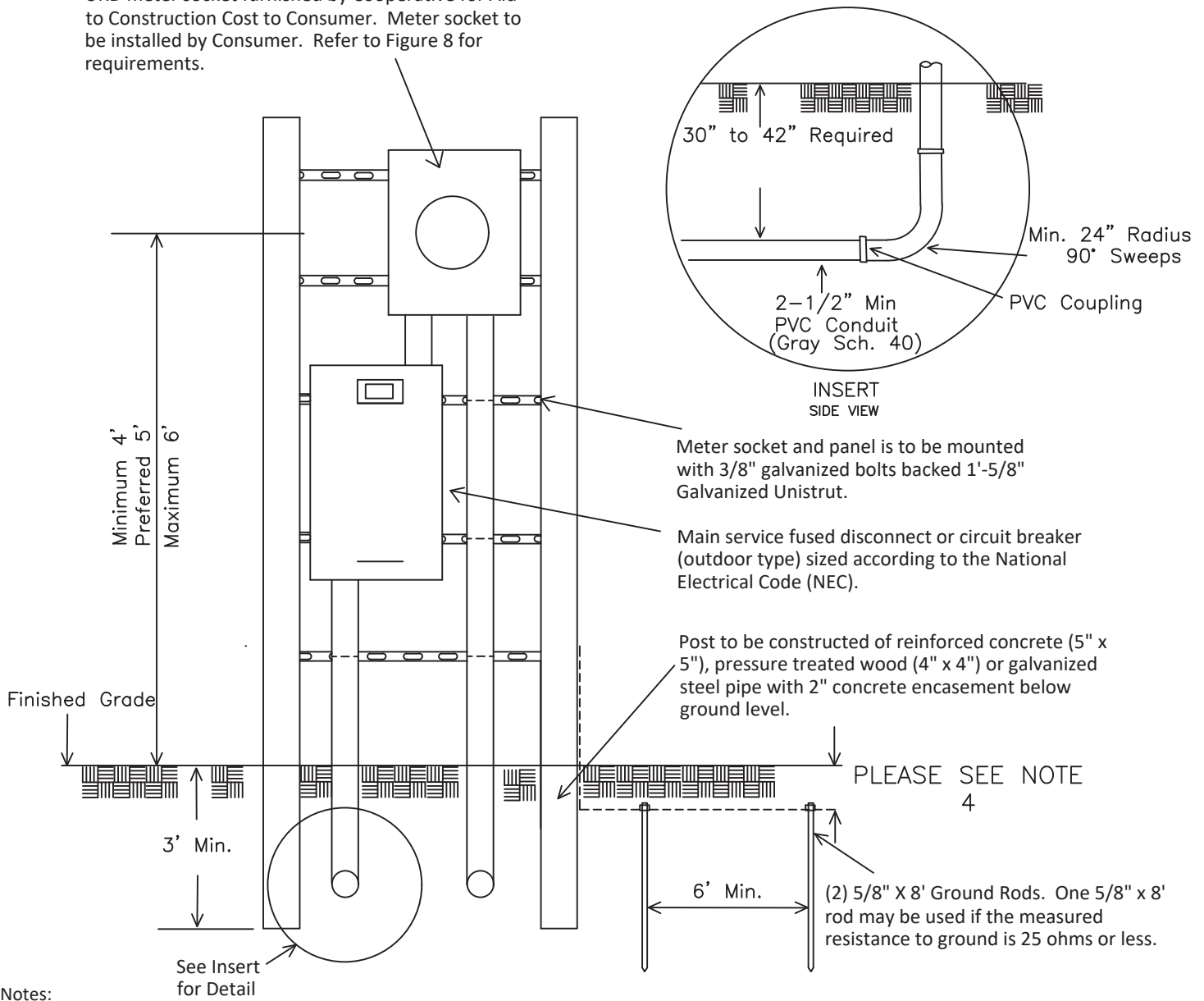


Notes:

1. Consumer to furnish and install continuous gray electrical conduit (schedule 40) from pole to meter. Meter location shall be located on same side of structure as pole. A clear space of minimum 5 feet shall be maintained in front of meter location. The meter pedestal and conduit installation shall not be altered from these specifications without written approval from CEC Engineering.
2. Conduit Requirements:
  - a. Minimum 2-1/2" PVC (Gray Schedule 40).
  - b. 24 inch minimum radius for all sweeps(elbows).
  - c. Conduit path should be most direct path from pole to meter. 270° Maximum (180° preferred) direction change in conduit from CEC pole to meter.
  - d. Pull strings (nylon builders string) shall be installed in conduit from pole to meter socket.
  - e. Consumer to select clear side of pole for conduit riser that does not interfere with existing utilities. At pole, conduit to extend above ground approximately 4" and be flush with pole with end capped or plugged.
3. Meter sockets and all other materials to be installed by Consumer in accordance with the National Electrical Code (NEC).
4. The upper end of the grounding rod shall be flush with or below finished grade unless the above ground end and the grounding rod conductor attachment are protected against physical damage per NEC.
  - 4.1. Consumer shall adhere to county code requirements in conjunction with the NEC.
5. Consult CEC Engineering for services larger than 320 amps or with service lengths greater than 200' in length.
6. Any Meter 320A or above shall be equipped with a bypass handle.

09/30/92	Rev. 10/20/20	Esfig7A 2020.dwg
SINGLE SERVICE (320 AMP MAX) UNDERGROUND SUPPLY (PEDESTAL MOUNT)		
FIGURE 7A	CLAY ELECTRIC COOPERATIVE, INC. KEYSTONE HEIGHTS, FLORIDA	STANDARDS FOR ELECTRIC SERVICE

URD meter socket furnished by Cooperative for Aid to Construction Cost to Consumer. Meter socket to be installed by Consumer. Refer to Figure 8 for requirements.



Notes:

1. Consumer to furnish and install continuous gray electrical conduit (schedule 40) from pole to meter. Meter location shall be located on same side of structure as pole. A clear space of minimum 5 feet shall be maintained in front of meter location. The meter pedestal and conduit installation shall not be altered from these specifications without written approval from CEC Engineering.
2. Conduit Requirements:
  - a. Minimum 2-1/2" PVC, 3" Preferred (Gray Schedule 40).
  - b. 24 inch minimum radius for all sweeps (elbows).
  - c. Conduit path should be most direct path from pole to meter. 270° Maximum (180° preferred) direction change in conduit from CEC pole to meter.
  - d. Pull strings (nylon builders string) shall be installed in conduit from pole to meter socket.
  - e. Consumer to select clear side of pole for conduit riser that does not interfere with existing utilities. At pole, conduit to extend above ground approximately 4" and be flush with pole with end capped or plugged.
3. Meter sockets and all other materials to be installed by Consumer in accordance with the National Electrical Code (NEC).
4. The upper end of the grounding rod shall be flush with or below finished grade unless the above ground end and the grounding rod conductor attachment are protected against physical damage per NEC.
  - 4.1. Consumer shall adhere to county code requirements in conjunction with the NEC.
5. Consult CEC Engineering for services larger than 320 amps or with service lengths greater than 200' in length.
6. Any Meter 320A or above shall be equipped with a bypass handle.
7. **All Meter Cans 480V Phase to Phase require a Main Disconnect on the source side of the meter.**

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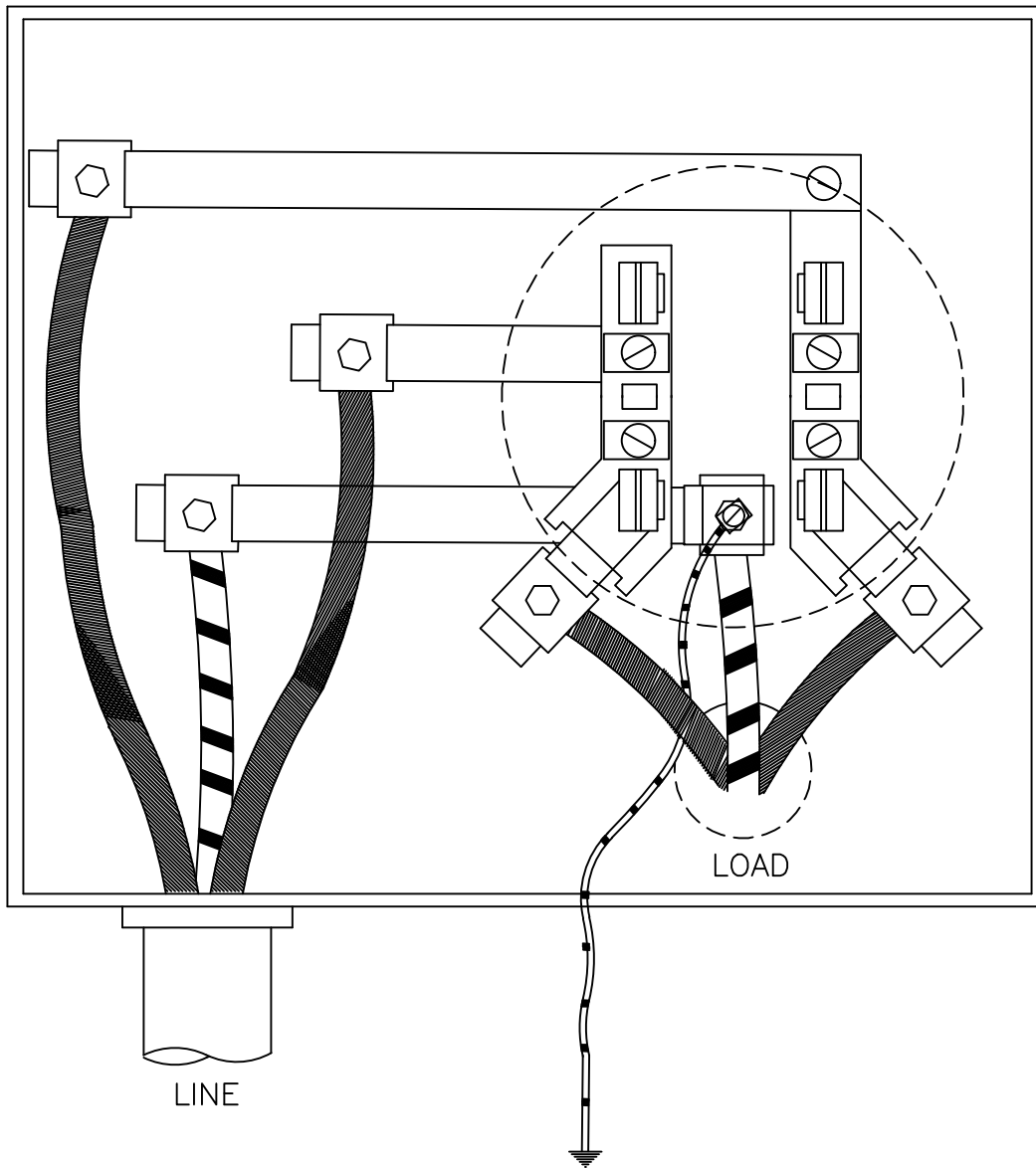
Esfig7A 2020.dwg

480V SERVICE (320 AMP MAX) UNDERGROUND SUPPLY (PEDESTAL MOUNT)

FIGURE 7B

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

FIGURE 7B

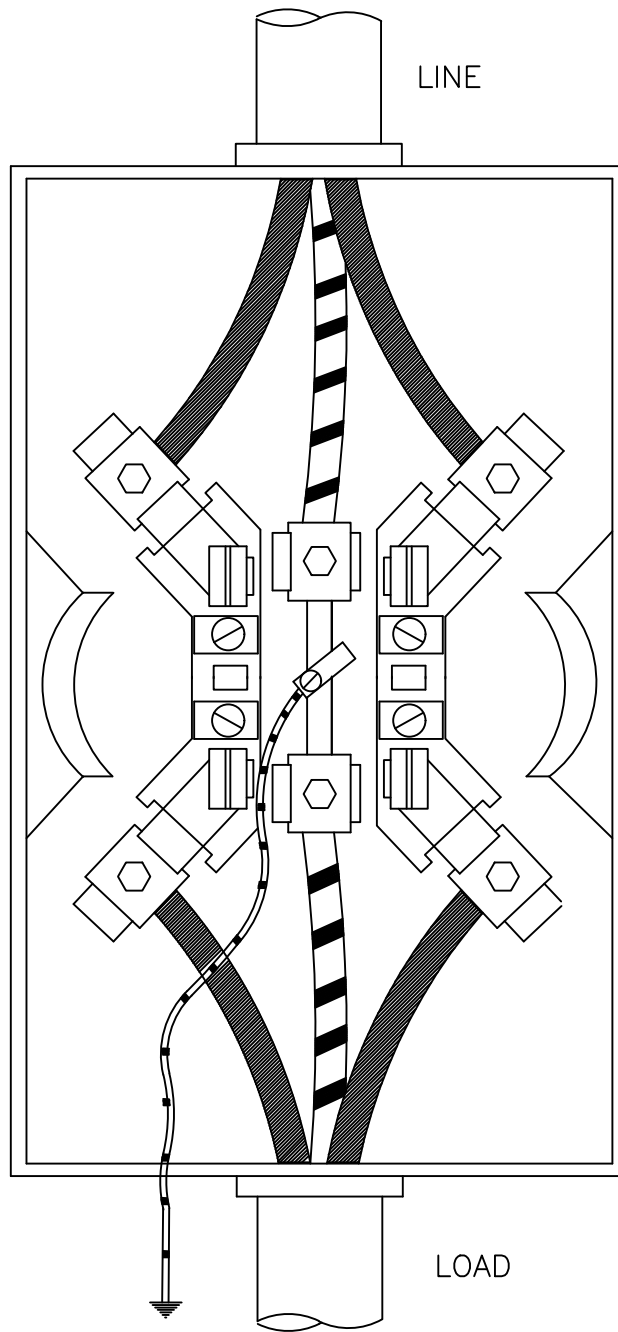


**Note: The 320A meter socket shall be equipped with a bypass handle.**

- CEC URD Meter Sockets Manufacturers(1-Phase: 4-Terminal):
- |                           |                           |
|---------------------------|---------------------------|
| 200 Amp (CEC #70-05-0150) | 320 Amp (CEC #70-19-0475) |
| Durham                    | Durham                    |
| Landis & Gyr              | Landis & Gyr              |
| Milbank                   | Milbank                   |

The above manufacturers are approved for use on 200A & 320A single phase URD services. Contact your local Clay Electric District Office to purchase or to get current catalog numbers for the approved manufacturers. Local Code which exceed these requirements shall apply. Contact the local permitting agency.

10/05/09	Rev. 10/16/2020	Esfig 8 2020.dwg
THREE WIRE-SINGLE PHASE 120/240 VOLT UNDERGROUND (URD) METER SOCKET (200A AND 320A TYPE)		
FIGURE 8	CLAY ELECTRIC COOPERATIVE, INC. KEYSTONE HEIGHTS, FLORIDA	STANDARDS FOR ELECTRIC SERVICE



CEC Overhead Meter Socket Manufacturers:

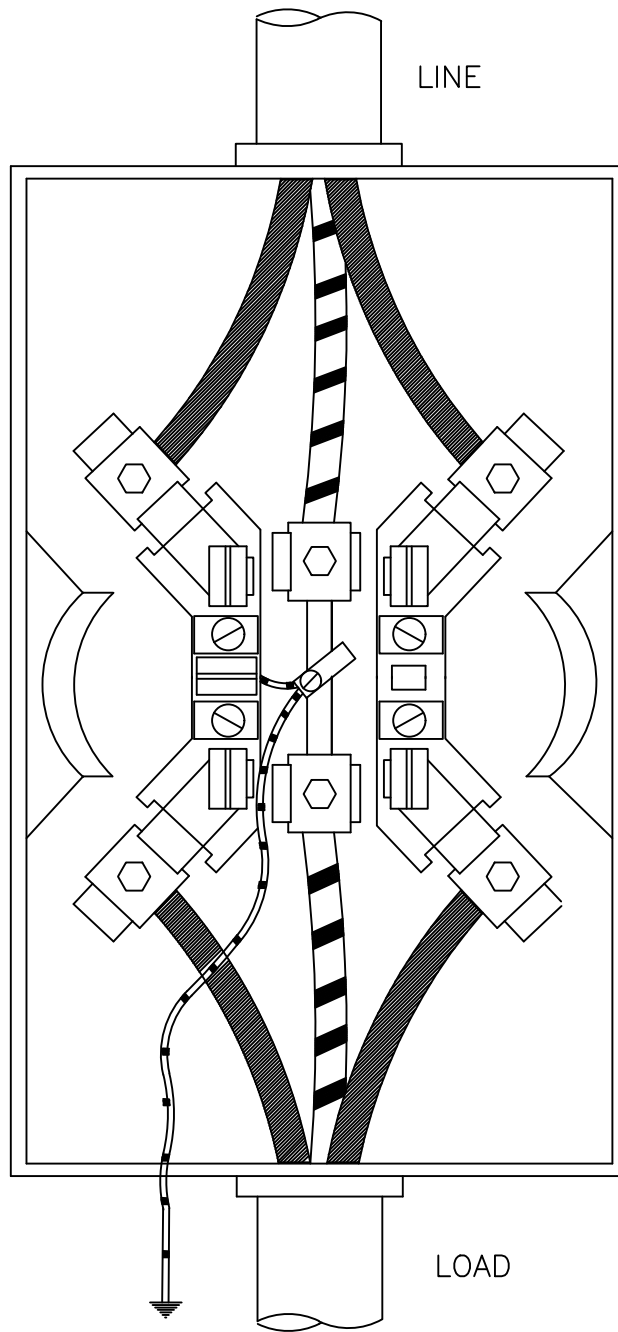
200 Amp (CEC #70-05-0150)  
 Durham  
 Landis & Gyr  
 Milbank

320 Amp (CEC #70-19-0475)  
 Durham  
 Landis & Gyr  
 Milbank

**Note: The 320A meter socket shall be equipped with a bypass handle.**

The above manufacturers are approved for use on 200A & 320A 3-wire single phase "Overhead" type services. Contact your local Clay Electric District Office to purchase or to get current catalog numbers. Local Code which shall exceed these requirements shall apply. Contact the local permitting agency.

10/05/09	Rev. 10/16/20	Esfig 9 2020.dwg
THREE WIRE-SINGLE PHASE 120/240 VOLT OVERHEAD (OH) METER SOCKET (200A AND 320A TYPE)		
FIGURE 9	CLAY ELECTRIC COOPERATIVE, INC. KEYSTONE HEIGHTS, FLORIDA	STANDARDS FOR ELECTRIC SERVICE



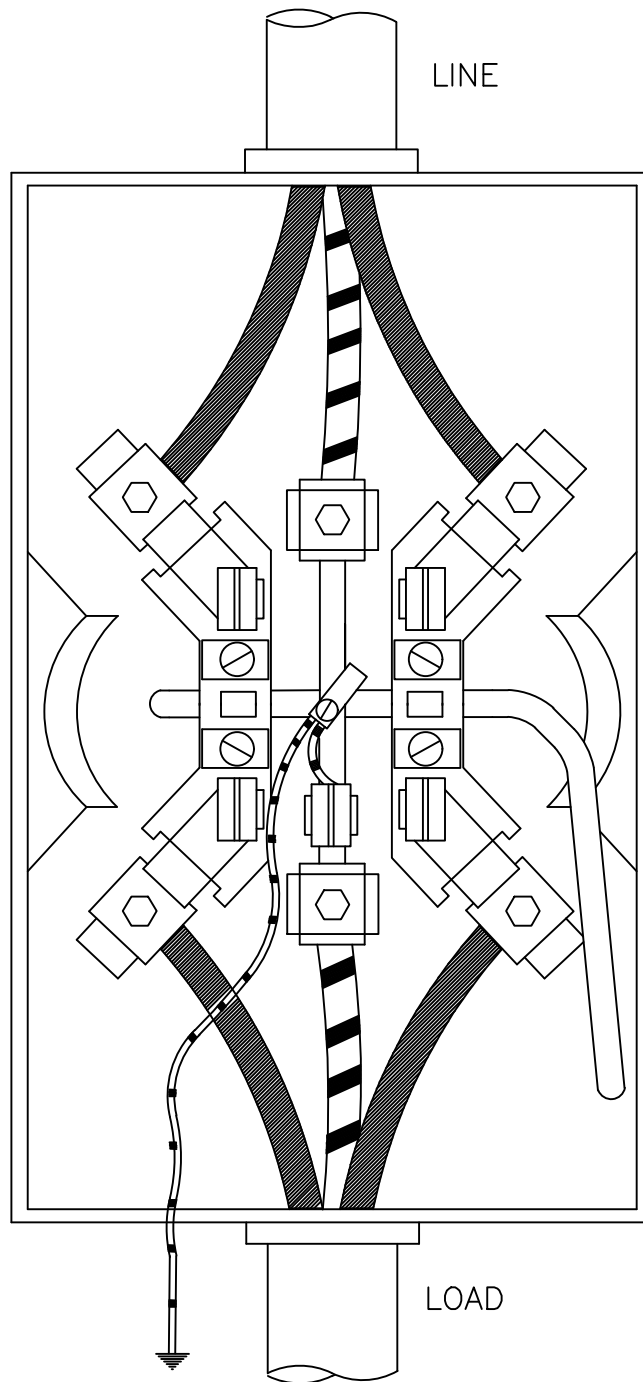
CEC Overhead Meter Socket Manufacturers:

200 Amp (CEC #70-05-0125)	320 Amp (CEC #70-05-0225)
Anchor	Durham
Durham	Landis & Gyr
Landis & Gyr	Milbank
Milbank	

**Note: The 320A meter socket shall be equipped with a bypass handle.**

The above manufacturers are approved for use on 200A & 320A 3-wire single phase "Overhead" type services. Contact your local Clay Electric District Office to purchase or to get current catalog numbers. Local Code which shall exceed these requirements shall apply. Contact the local permitting agency.

10/05/09	Rev. 10/16/20	Esf10 2020.dwg
THREE WIRE-SINGLE PHASE 120/208V Network Meter Socket (200A)		
FIGURE 10	CLAY ELECTRIC COOPERATIVE, INC. KEYSTONE HEIGHTS, FLORIDA	STANDARDS FOR ELECTRIC SERVICE



CEC Approved Meter Socket Manufacturers:

320 Amp (CEC #70-05-0225)

Landis & Gyr

Milbank

NOTES:

1. For Class 200 Meter, fifth jaw shall be in the 9 O'clock position.
2. For Class 320 Meter, fifth jaw shall be in the 6 O' Clock position.
3. **All 320A meter sockets shall be equipped with a bypass handle.**

The above manufacturers are approved for use on 320A 3-wire single phase 120/208 volt services. Contact your local Clay Electric District Office to purchase or to get current catalog numbers. Local Code which shall exceed these requirements shall apply. Contact the local permitting agency.

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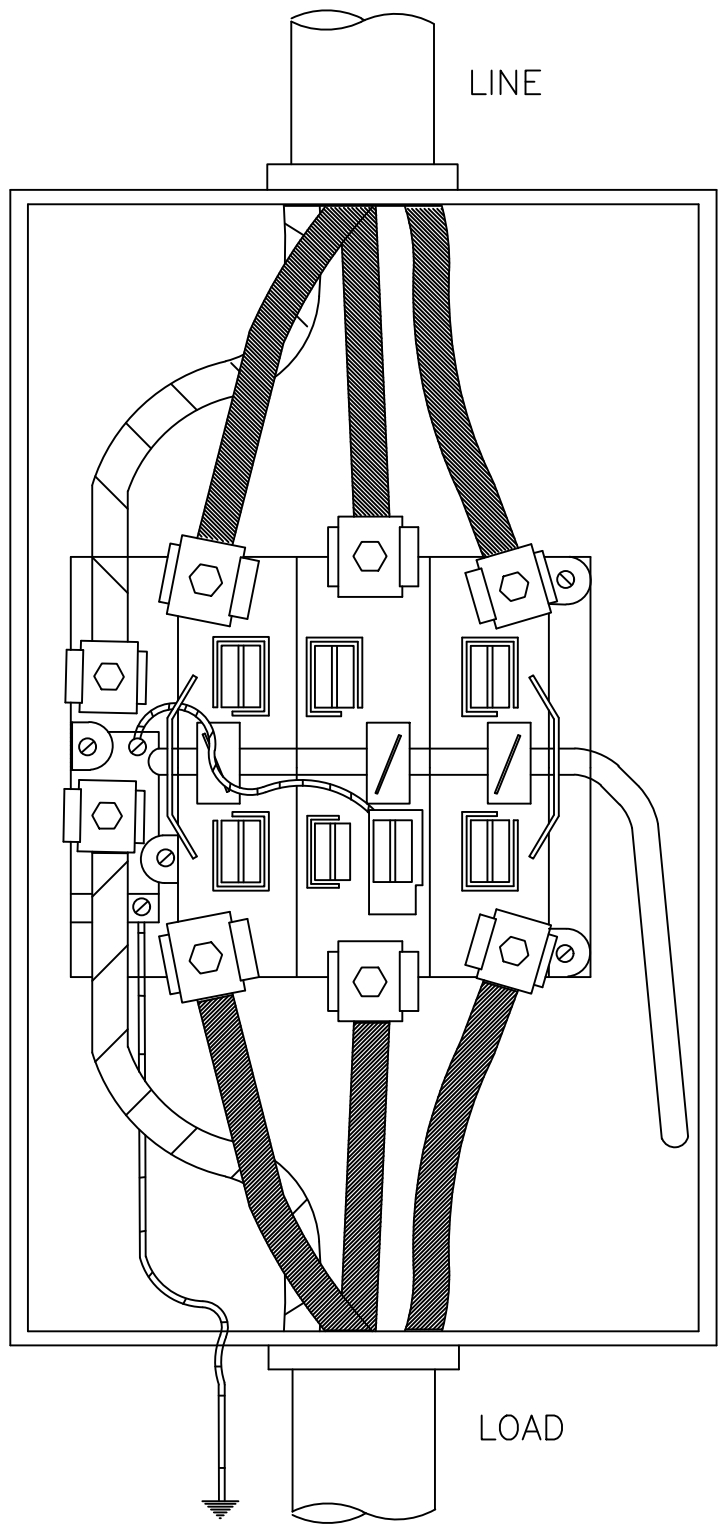
Esf10A 2020.dwg

THREE WIRE SINGLE PHASE 120/208V NETWORK METER SOCKET

FIGURE 10A

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

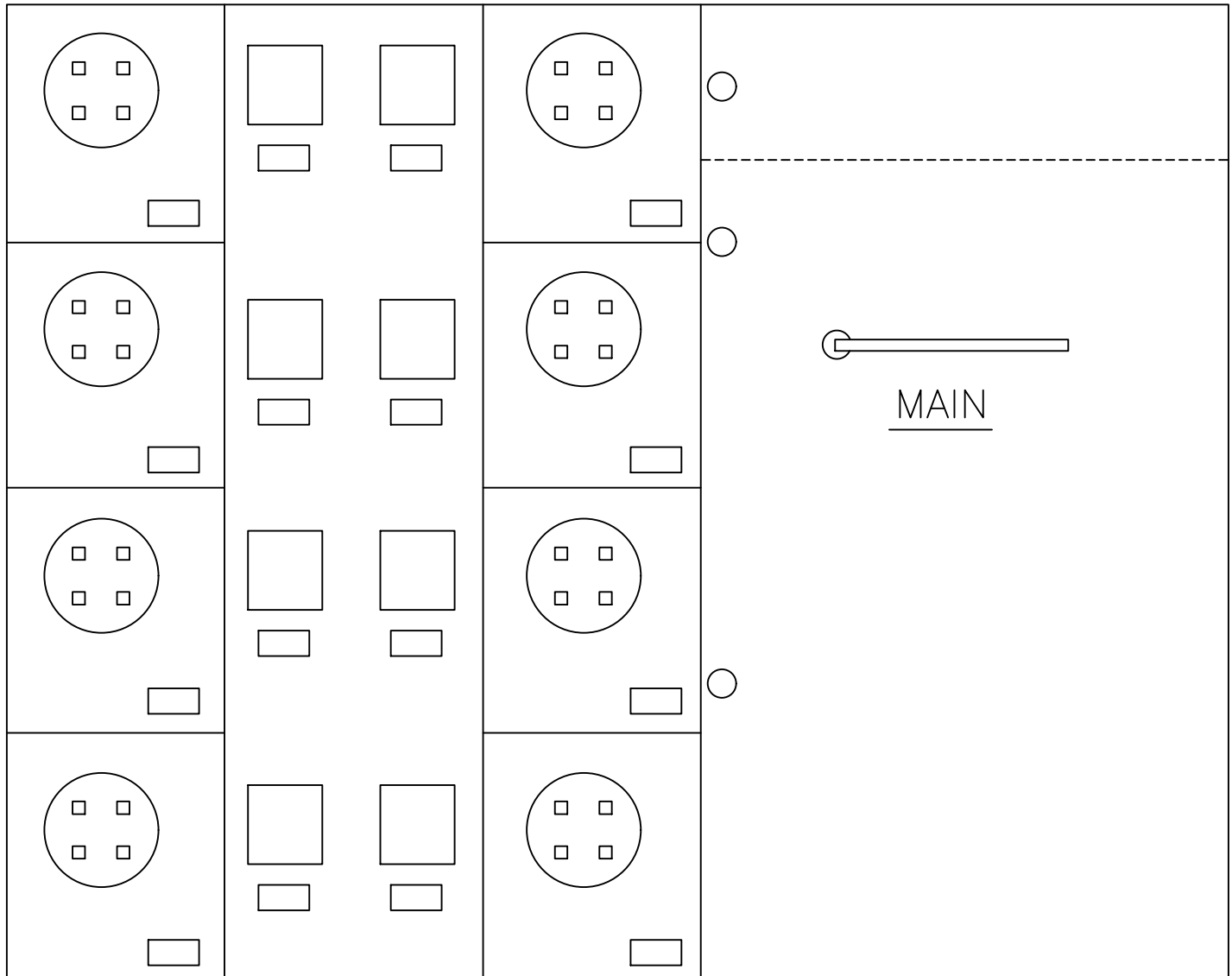
STANDARDS FOR  
ELECTRIC SERVICE



**NOTES:**

**All Meter Cans 480V Phase to Phase require a Main Disconnect on the source side of the meter.**

09/30/92	Rev. 10/16/20	Esfig 11.dwg
FOUR WIRE-THREE PHASE METER SOCKET 150 AMP AND ABOVE		
FIGURE 11	CLAY ELECTRIC COOPERATIVE, INC. KEYSTONE HEIGHTS, FLORIDA	STANDARDS FOR ELECTRIC SERVICE



NOTES:

1. METER CENTERS IF USED SHALL BE FURNISHED BY THE MEMBER WITH THE APPROVAL OF THE COOPERATIVE.
2. MAIN DISCONNECTS ARE TO BE LOCKED BY COOPERATIVE.

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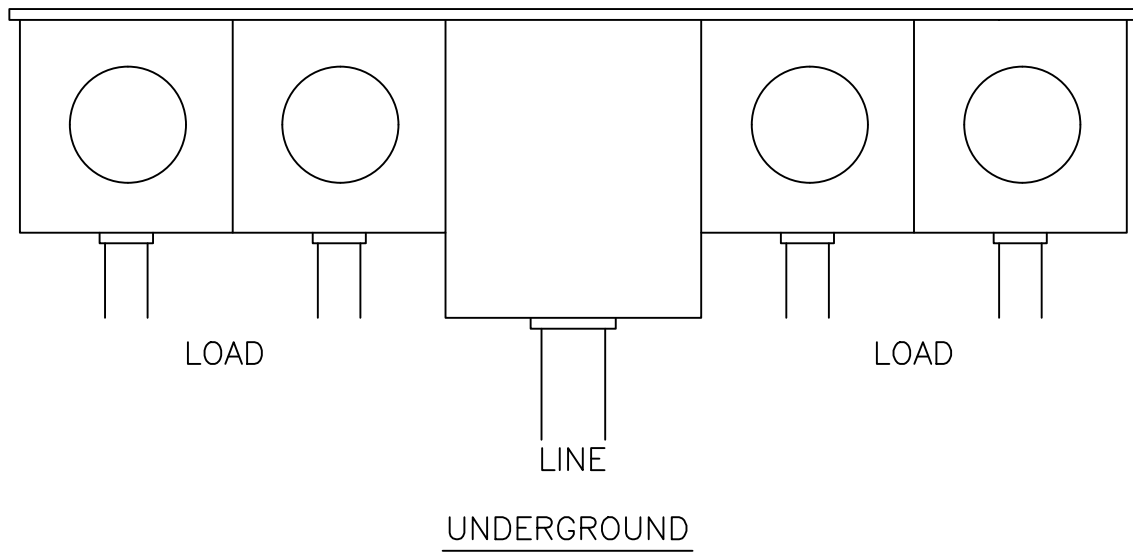
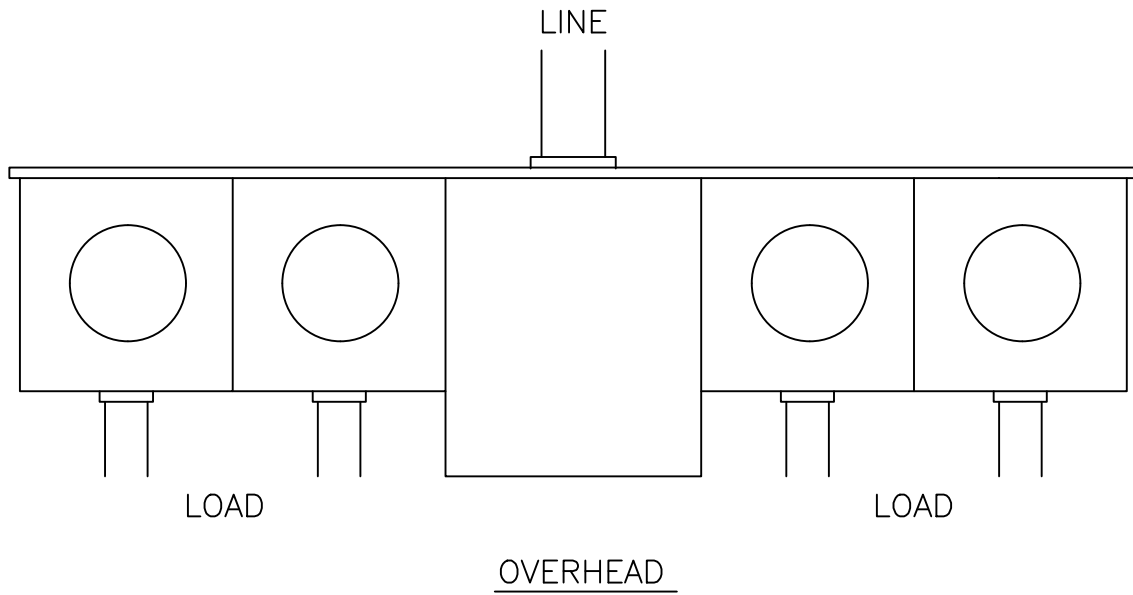
Esf12 2020.dwg

Multi-unit Meter Center

FIGURE 12

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE



**NOTE:**

1. GANG METER SOCKETS FURNISHED AND INSTALLED BY THE MEMBER.

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Esf13 2020.dwg

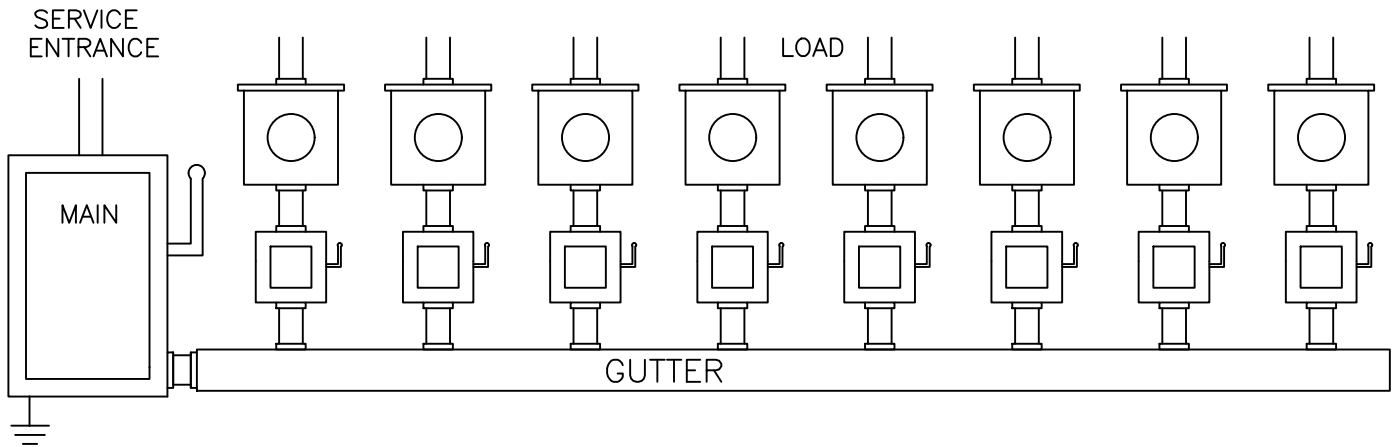
THREE WIRE SINGLE PHASE GANG INSTALLATION

FIGURE 13

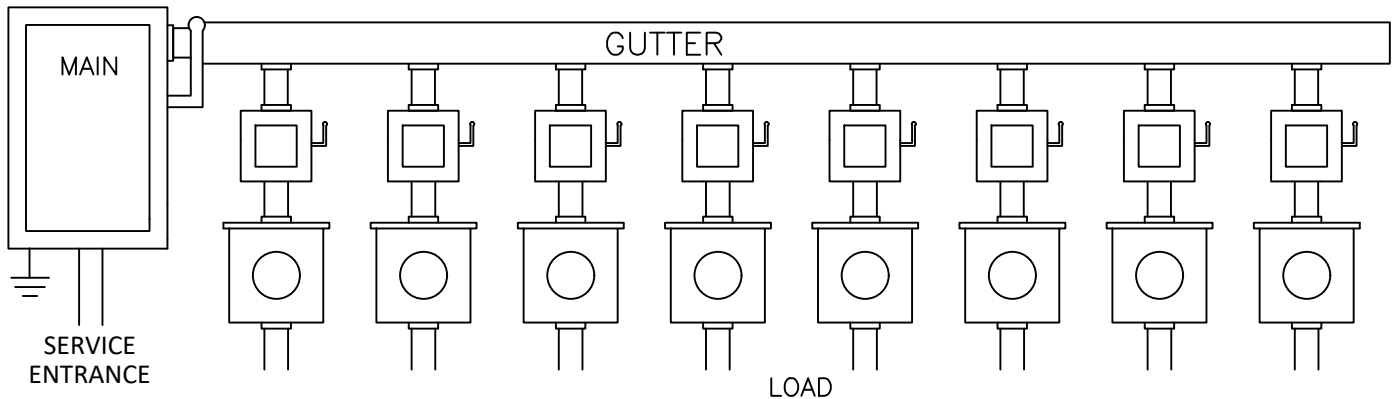
CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE

OVERHEAD



UNDERGROUND



NOTES:

1. METER SOCKETS FURNISHED AND INSTALLED BY THE MEMBER.
2. GUTTER SHALL BE LOCKABLE AND BE SEALED BY COOPERATIVE.
3. **All Meter Cans 480V Phase to Phase require a Main Disconnect on the source side of the meter.**

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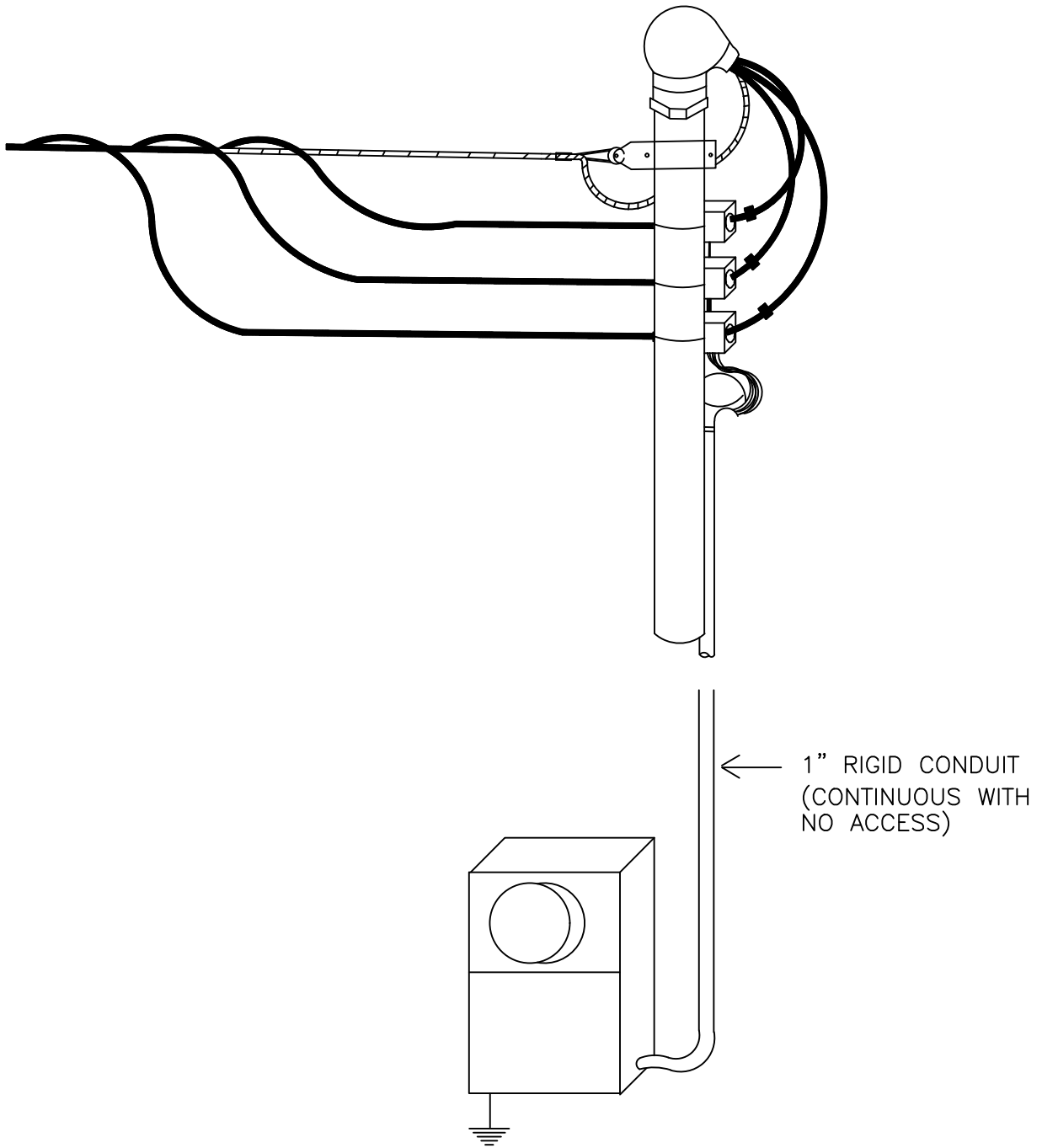
Esf14 2020.dwg

FOUR WIRE THREE PHASE GUTTER INSTALLATION

FIGURE 14

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE



NOTES:  
 METER SOCKET AND CT'S TO BE FURNISHED AND INSTALLED BY THE  
 COOPERATIVE.

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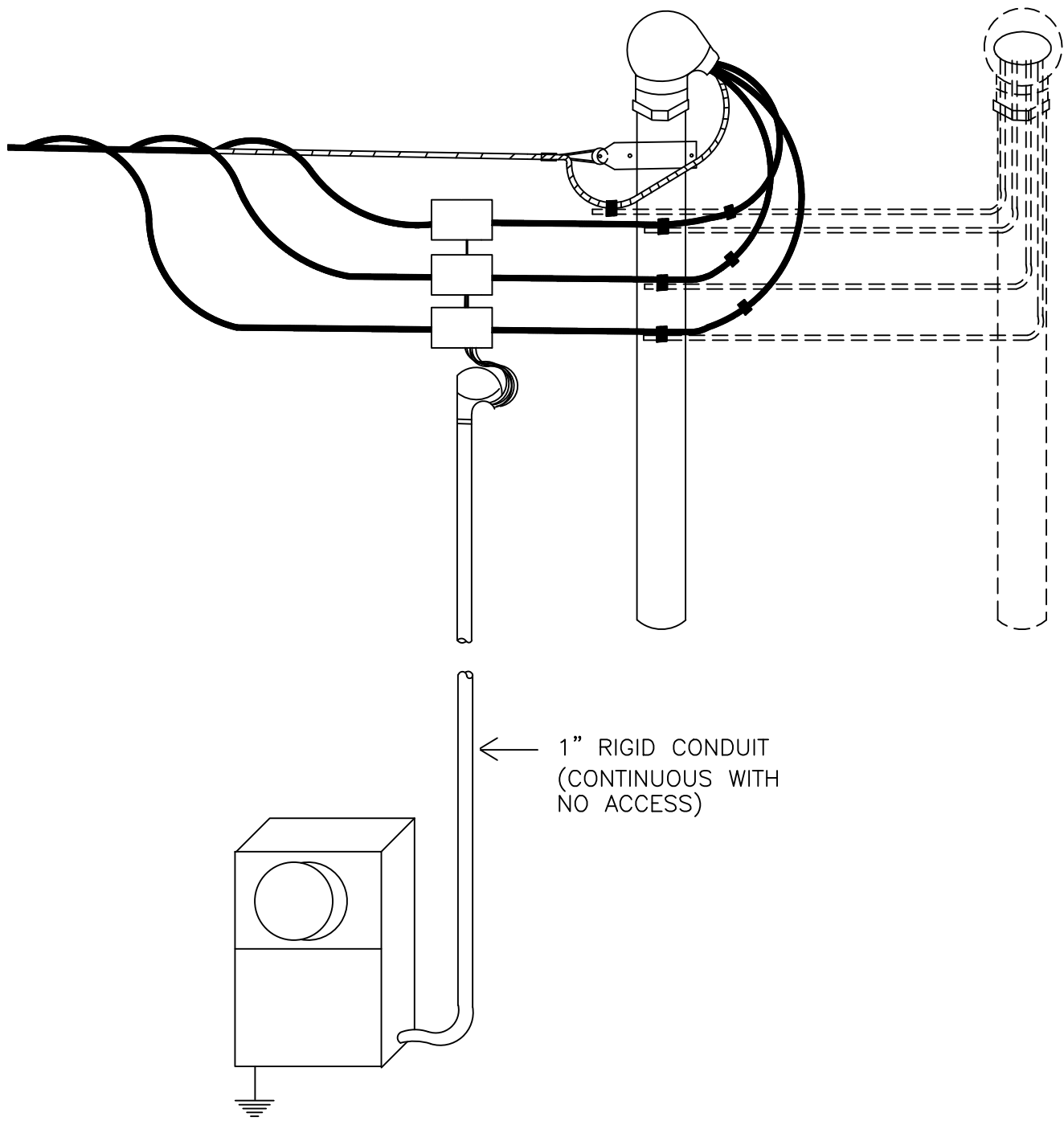
Esf15 2020.dwg

FOUR WIRE – 3 PHASE CT INSTALLATION ON MAST ARM

FIGURE 15

CLAY ELECTRIC COOPERATIVE, INC.  
 KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
 ELECTRIC SERVICE



**NOTES:**

1. METER SOCKET AND CT'S TO BE FURNISHED AND INSTALLED BY THE COOPERATIVE.

09/30/92

Rev. 12/07/20

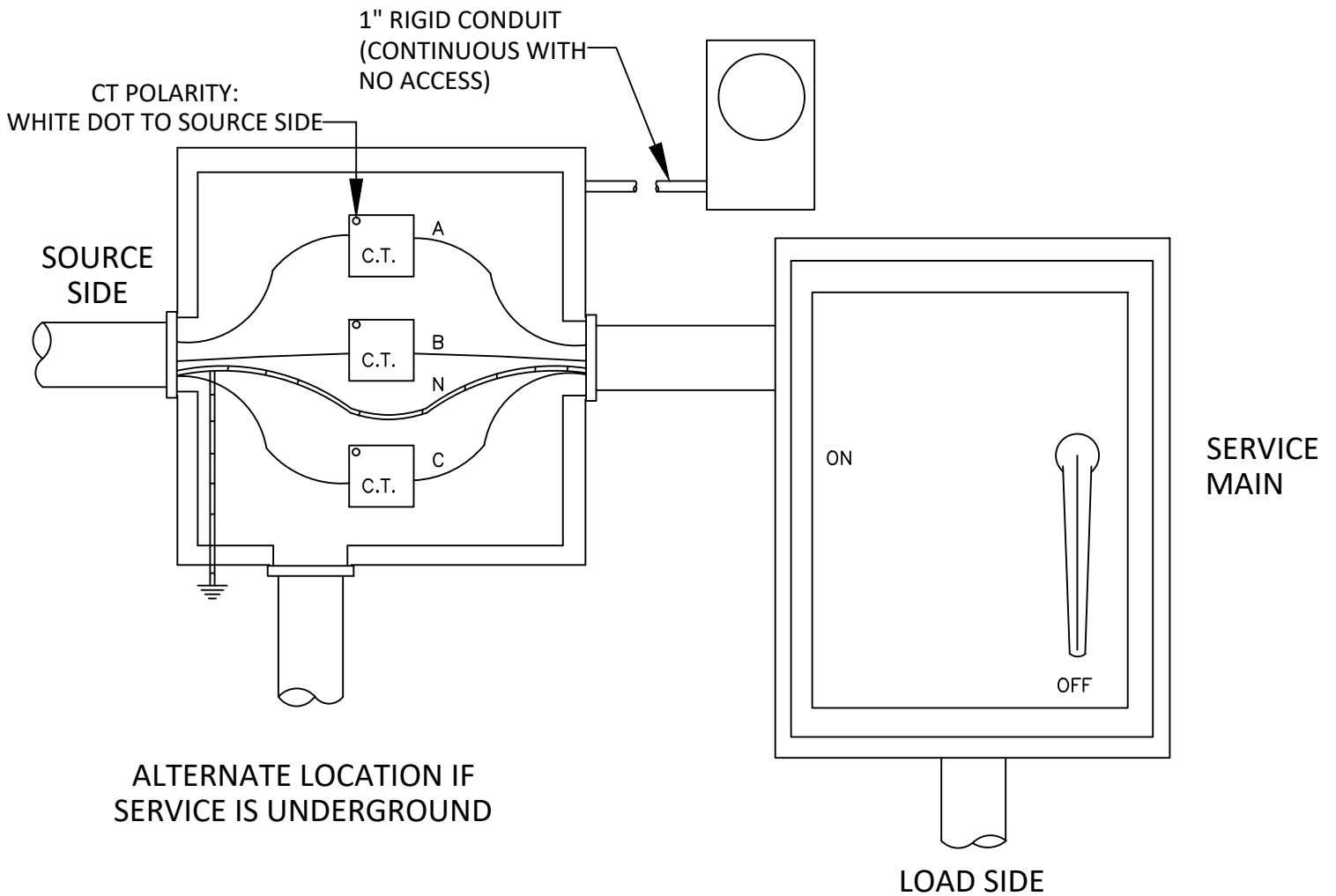
Esf16 2020.dwg

FOUR WIRE – 3 PHASE CT INSTALLATION ON BRACKET OR WALL

FIGURE 16

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE



NOTES:

1. METER SOCKET FURNISHED BY THE COOPERATIVE FOR INSTALLATION BY THE MEMBER.
2. METER SHALL BE WITHIN 10' OF THE CT CABINET.
3. CT'S FURNISHED BY THE COOPERATIVE FOR INSTALLATION BY THE MEMBER.
4. CT ENCLOSURE AND DISCONNECT SWITCH FURNISHED AND INSTALLED BY THE MEMBER.
5. ALL CONDUIT TO INCLUDE PULL STRING. THIS INCLUDES CONDUIT FOR CT WIRING TO METER SOCKET. ALL CONDUIT FURNISHED AND INSTALLED BY THE MEMBER.
6. WIRING TO THE LINE SIDE OF DISCONNECT SWITCH, INCLUDING CT WIRING TO BE FURNISHED AND INSTALLED BY COOPERATIVE.
7. 3' MINIMUM HEIGHT TO BOTTOM OF CT ENCLOSURE.
8. REFER TO FIGURE 19 FOR 3-PHASE CT METER ENCLOSURE SPECS.

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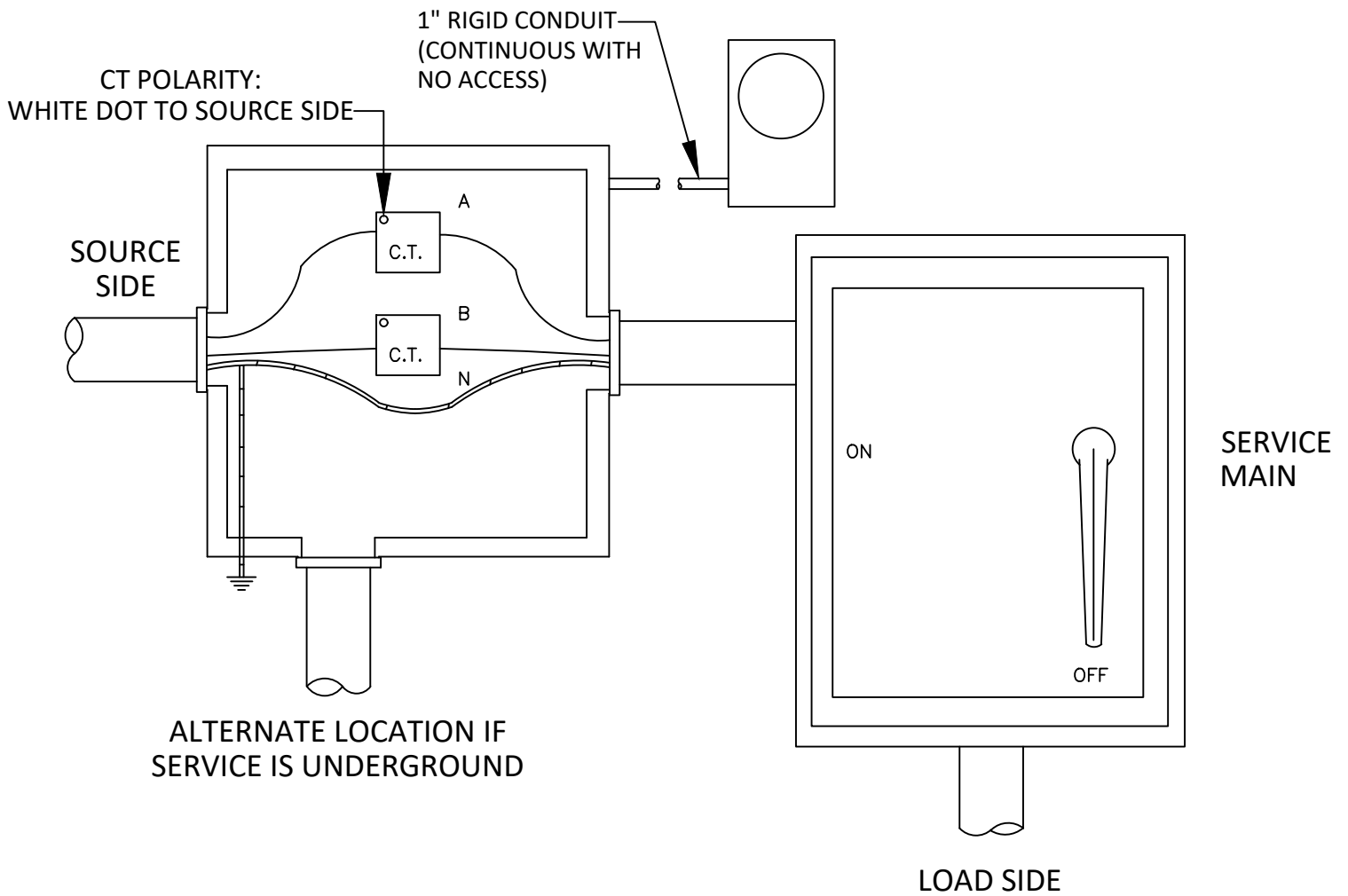
Esf17 2020.dwg

FOUR WIRE THREE PHASE CT INSTALLATION IN ENCLOSURE

FIGURE 17

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE



NOTES:

1. METER SOCKET FURNISHED BY THE COOPERATIVE FOR INSTALLATION BY THE MEMBER.
2. METER SHALL BE WITHIN 10' OF THE CT CABINET.
3. CT'S FURNISHED BY THE COOPERATIVE FOR INSTALLATION BY THE MEMBER.
4. CT ENCLOSURE AND DISCONNECT SWITCH FURNISHED AND INSTALLED BY THE MEMBER.
5. ALL CONDUIT TO INCLUDE PULL STRING. THIS INCLUDES CONDUIT FOR CT WIRING TO METER SOCKET. ALL CONDUIT FURNISHED AND INSTALLED BY THE MEMBER.
6. WIRING TO THE LINE SIDE OF DISCONNECT SWITCH, INCLUDING CT WIRING TO BE FURNISHED AND INSTALLED BY COOPERATIVE.
7. 3' MINIMUM HEIGHT TO BOTTOM OF CT ENCLOSURE.
8. REFER TO FIGURE 19A FOR 1 PHASE CT METER ENCLOSURE SPECS.

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Rev. 10/20/20

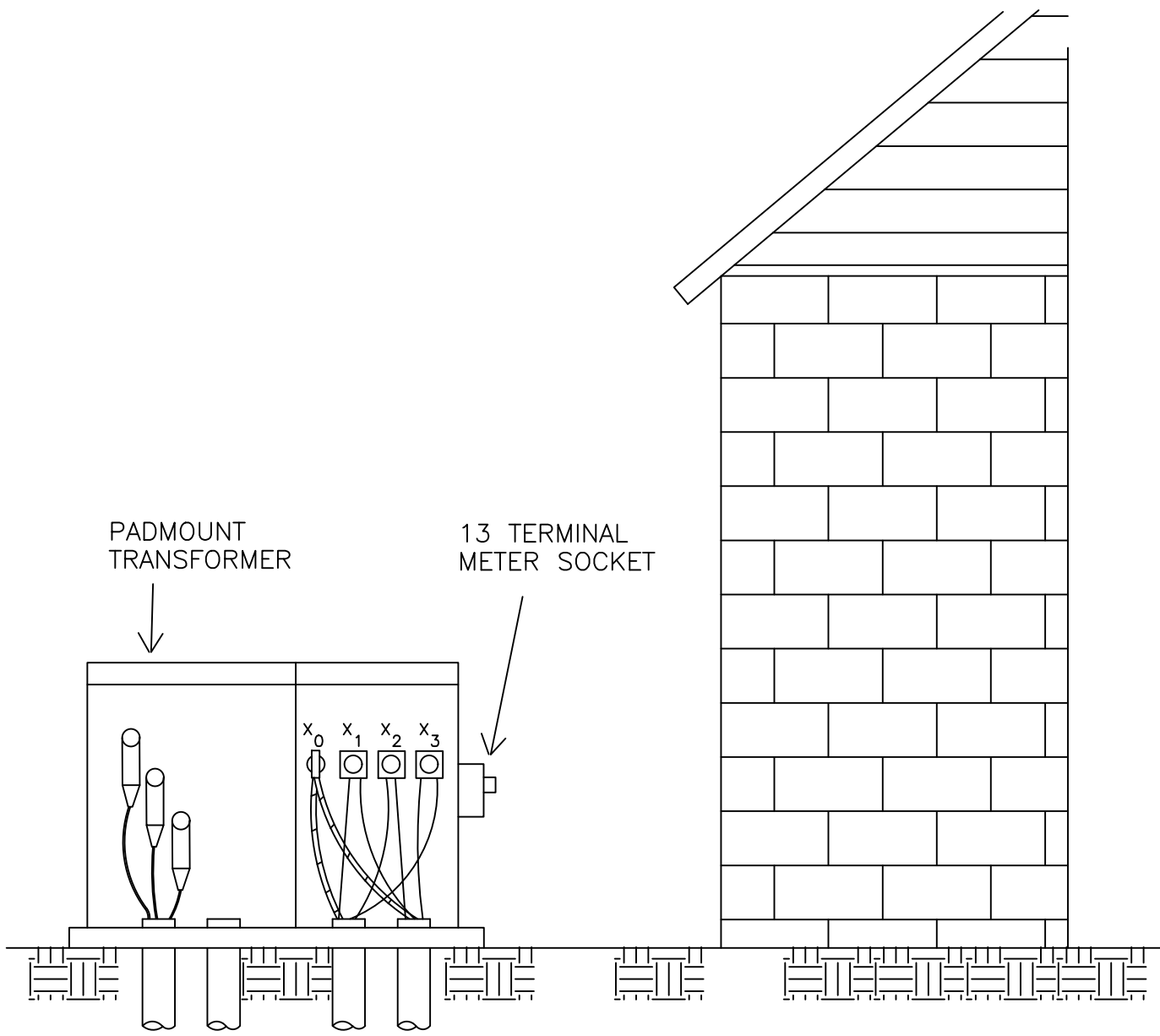
Esf17A 2020.dwg

THREE WIRE SINGLE PHASE CT INSTALLATION IN ENCLOSURE

FIGURE 17A

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE



NOTES:

1. TRANSFORMER AND PRIMARY CABLE MUST BE DE-ENERGIZED BY COOPERATIVE BEFORE WORK IS PERFORMED.
2. AT NO TIME IS MEMBER OR THEIR ELECTRICIAN TO WORK INSIDE THE COOPERATIVE'S ENERGIZED TRANSFORMER.
3. INSTALLATION SHALL BE USED WHEN ONLY ONE MEMBER IS SERVED BY THE TRANSFORMER.
4. METER, METER SOCKET, CT'S AND ASSOCIATED WIRING SHALL BE INSTALLED BY THE COOPERATIVE.
5. ALL PRIMARY AND SECONDARY CONDUIT SHALL BE FURNISHED AND INSTALLED BY THE MEMBER.
6. ALL CONDUIT TO INCLUDE PULL STRING.
7. SERVICE CONDUCTORS FROM SECONDARY SIDE OF TRANSFORMER SHALL BE FURNISHED AND INSTALLED, INCLUDING CONNECTIONS, BY THE MEMBER. COOPERATIVE WILL FURNISH ITS' STANDARD CONNECTORS ON TRANSFORMER SECONDARY.

01/25/07

Rev. 10/20/20

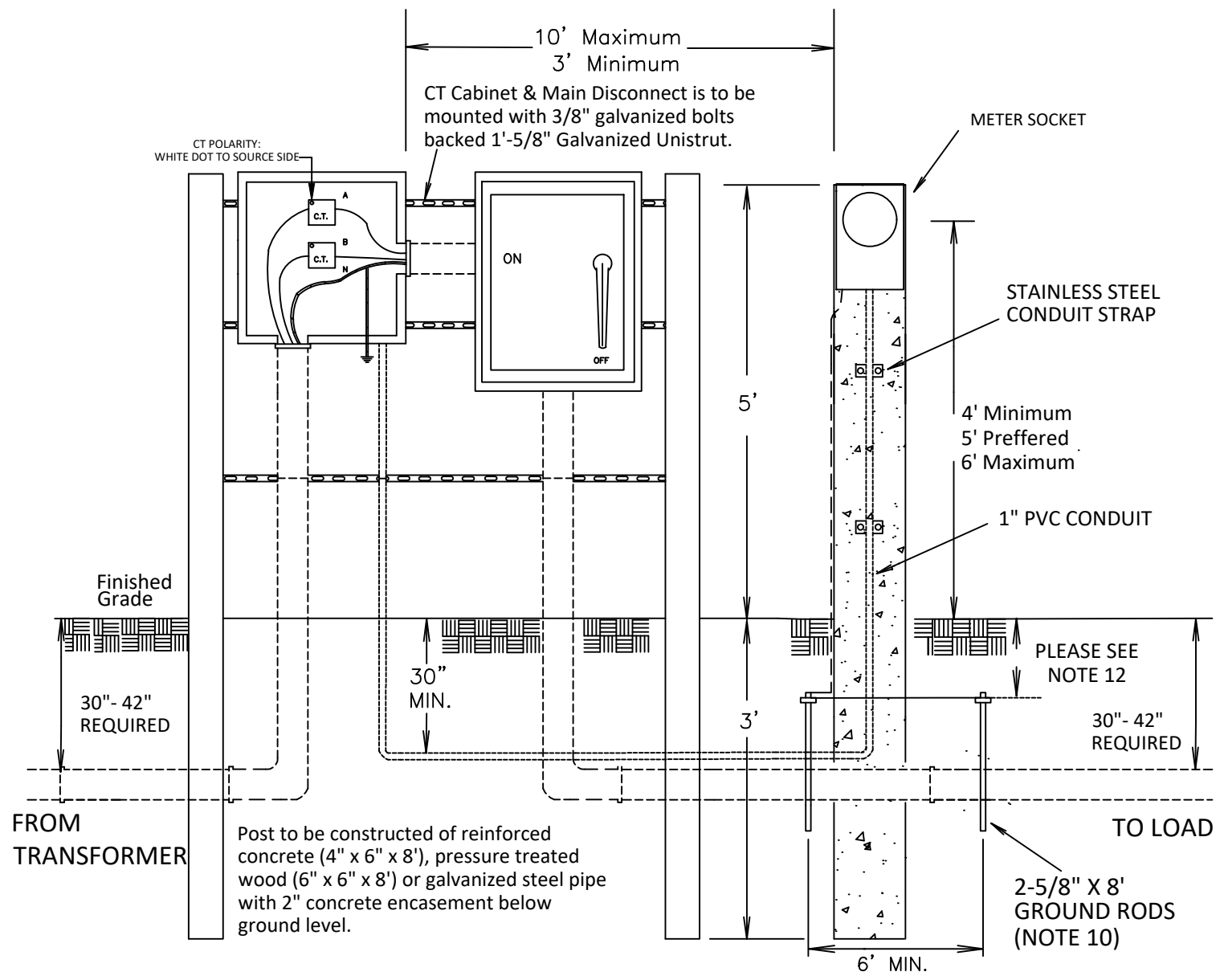
Esf18 2020.dwg

FOUR WIRE THREE PHASE CT PADMOUNT TRANSFORMER INSTALLATION

FIGURE 18

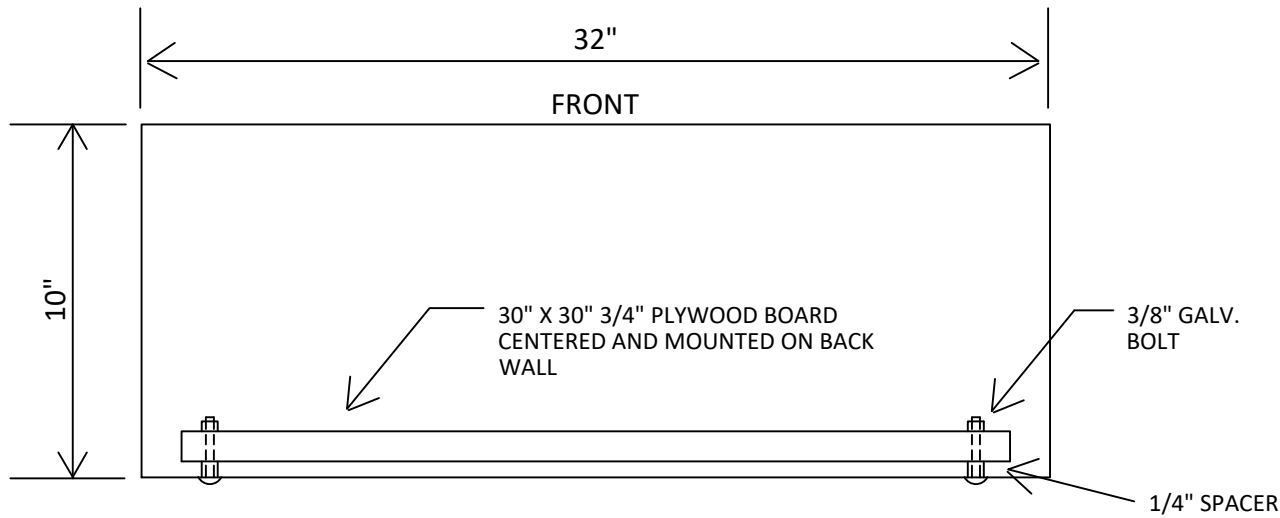
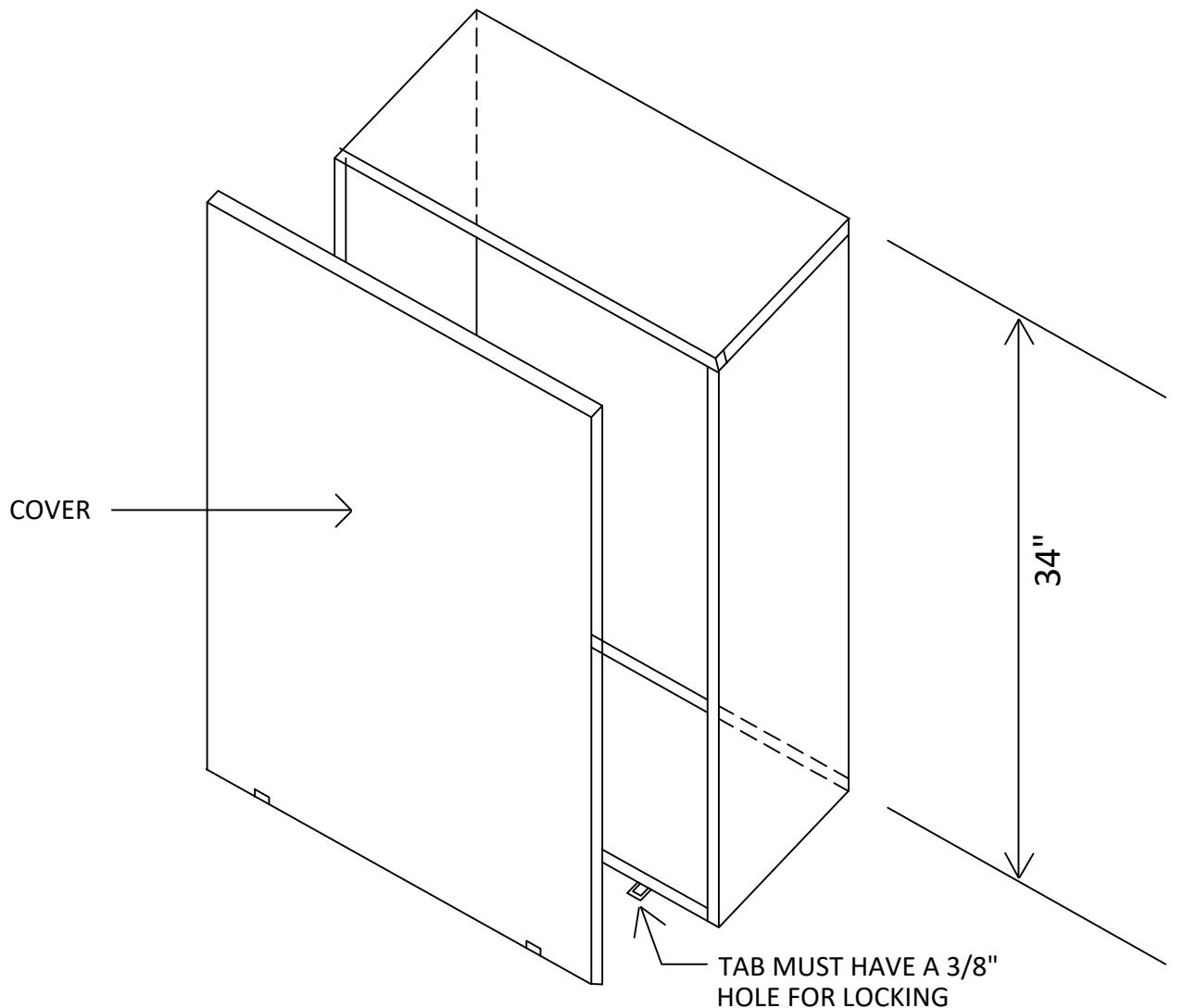
CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE



- NOTES:
1. TRANSFORMER AND PRIMARY CABLE MUST BE DE-ENERGIZED BY COOPERATIVE BEFORE WORK IS PERFORMED.
  2. AT NO TIME IS MEMBER OR THEIR ELECTRICIAN TO WORK INSIDE THE COOPERATIVE'S ENERGIZED TRANSFORMER.
  3. INSTALLATION SHALL BE USED WHEN ONLY ONE MEMBER IS SERVED BY THE TRANSFORMER.
  4. METER, CT'S AND ASSOCIATED CT WIRING SHALL BE FURNISHED AND INSTALLED BY THE COOPERATIVE. METER SOCKET FURNISHED BY THE COOPERATIVE FOR INSTALLATION BY THE MEMBER.
  5. ALL PRIMARY, SECONDARY, AND 1" PVC CT CONDUIT SHALL BE FURNISHED AND INSTALLED BY THE MEMBER.
  6. ALL CONDUIT TO INCLUDE PULL STRING.
  7. METER POLE TO BE FURNISHED AND INSTALLED BY THE MEMBER AS SPECIFIED ABOVE
  8. CONCRETE OR FIBERGLASS POST (4"x6"x8' OR 6"x6"x8') BURIAL DEPTH 3'-0" MIN.
  9. CURRENT TRANSFORMERS (CT'S) TO BE FURNISHED AND INSTALLED BY THE COOPERATIVE.
  10. SERVICE CONDUCTORS FROM SECONDARY SIDE OF TRANSFORMER SHALL BE FURNISHED AND INSTALLED, INCLUDING CONNECTIONS, BY THE MEMBER. COOPERATIVE WILL FURNISH ITS' STANDARD CONNECTORS ON TRANSFORMER SECONDARY.
  11. ONE 5/8" X 8' GROUND ROD MAY BE USED IF MEASURED RESISTANCE TO GROUND IS 25 OHMS OR LESS.
  12. THE UPPER END OF THE GROUNDING ROD SHALL BE FLUSH WITH OR BELOW FINISHED GRADE UNLESS THE ABOVE GROUND END AND THE GROUNDING ROD CONDUCTOR ATTACHMENT ARE PROTECTED AGAINST PHYSICAL DAMAGE PER NEC.
  13. MEMBER SHALL ADHERE TO COUNTY CODE REQUIREMENTS IN CONJUNCTION WITH THE NEC.

12/20/17	Rev. 10/21/20	Esf18A 2020.dwg
THREE WIRE SINGLE PHASE CT INSTALLATION AT TRANSFORMER		
FIGURE 18A	CLAY ELECTRIC COOPERATIVE, INC. KEYSTONE HEIGHTS, FLORIDA	STANDARDS FOR ELECTRIC SERVICE



**NOTE:**

1. CONSTRUCTED OF 16 GAUGE GALVANIZED STEEL OR 14 GAUGE ALUMINUM.

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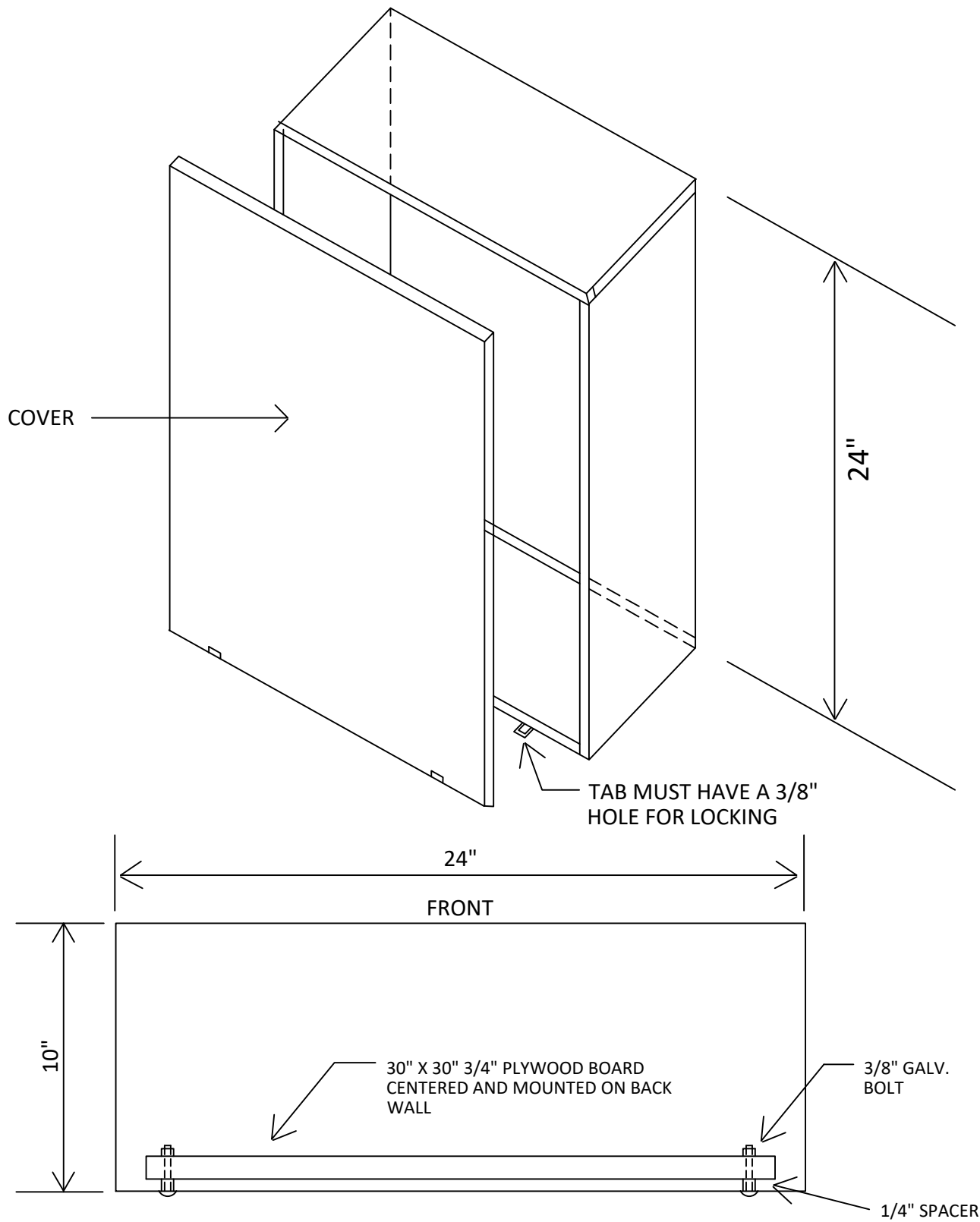
Esf19 2020.dwg

C.T. METER ENCLOSURE for 3-PHASE APPLICATIONS

FIGURE 19

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

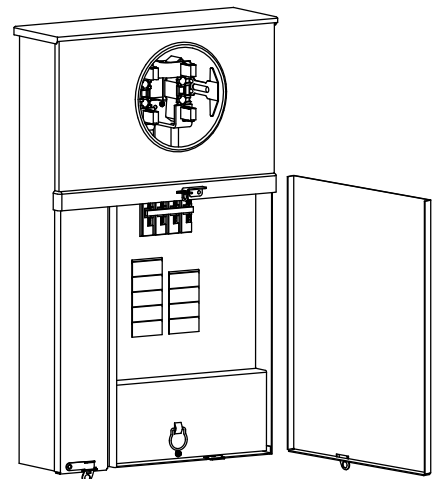
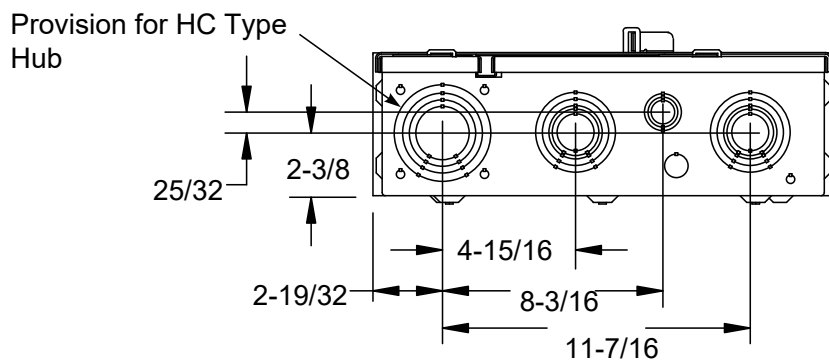
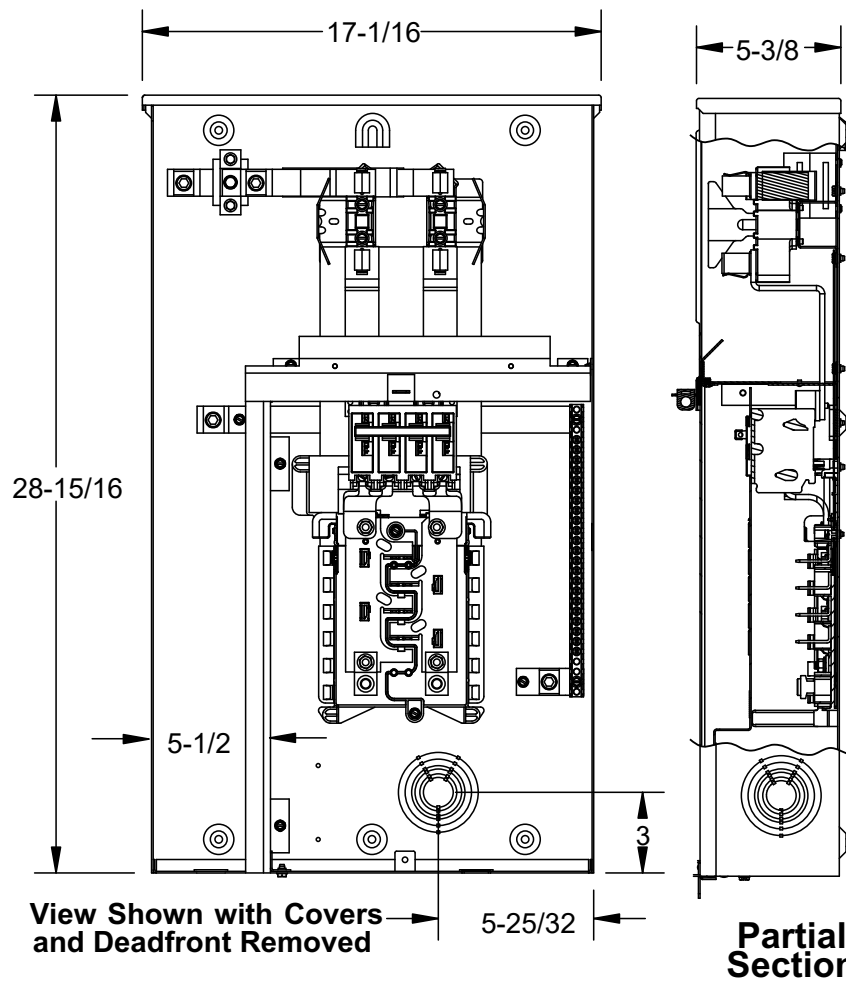
STANDARDS FOR  
ELECTRIC SERVICE



**NOTE:**

1. CONSTRUCTED OF 16 GAUGE GALVANIZED STEEL OR 14 GAUGE ALUMINUM.

09/30/92	Rev. 10/21/20	Esf19A 2020.dwg
C.T. METER ENCLOSURE for 1-PHASE APPLICATIONS		
FIGURE 19A	CLAY ELECTRIC COOPERATIVE, INC. KEYSTONE HEIGHTS, FLORIDA	STANDARDS FOR ELECTRIC SERVICE



**Approved Manufacturers:**  
**Siemens MC0816B1200RTD or Equivalent**  
**Contact CEC Engineering for approvals.**

10/21/20

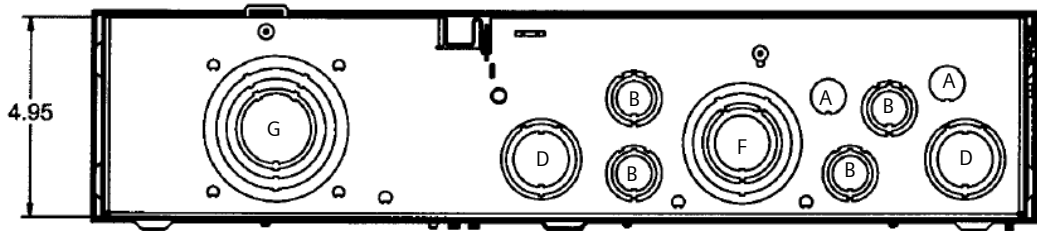
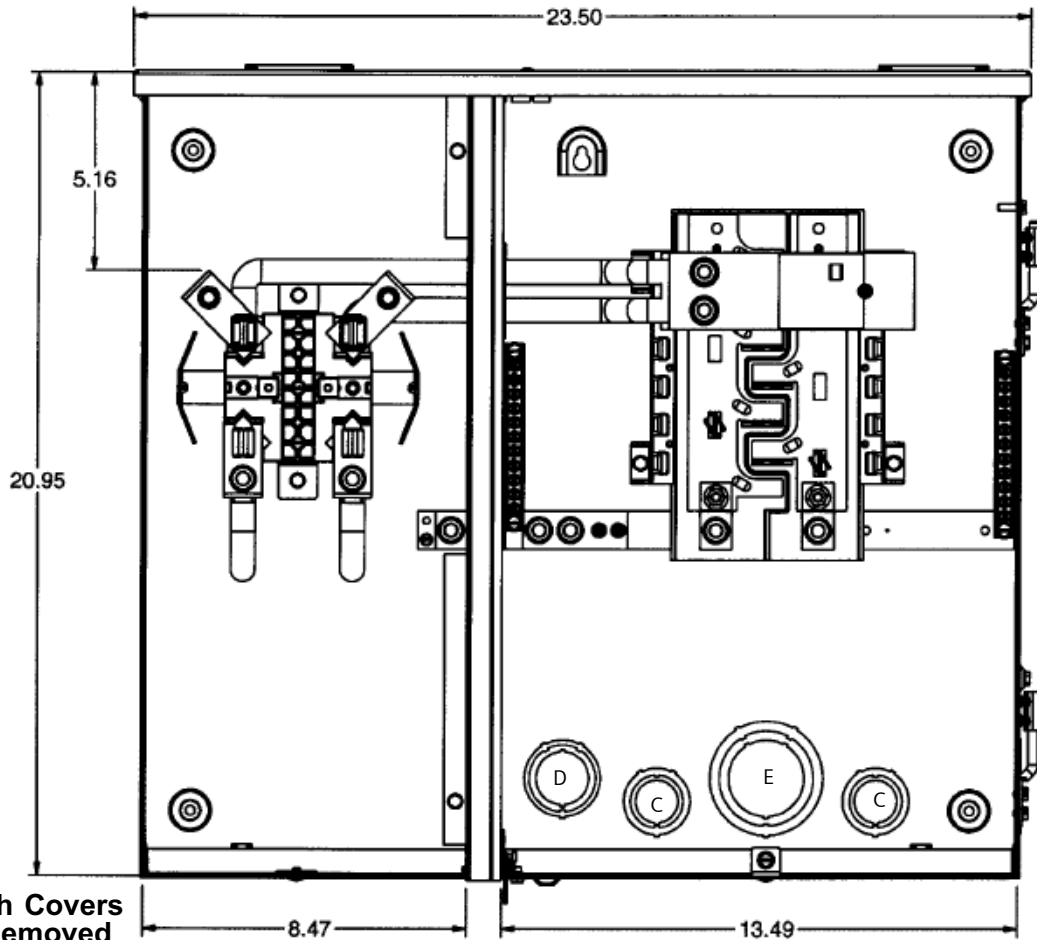
Esfig20 2020.dwg

Vertical Combo Meter Enclosure

Figure 20

CLAY ELECTRIC COOPERATIVE, INC.  
 KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
 ELECTRIC SERVICE



**Knockout Code Chart**

- A = 1/2"
- B = 1/2", 3/4", 1"
- C = 3/4", 1", 1-1/4"
- D = 1, 1-1/4", 1-1/2"
- E = 1-1/2", 2", 2-1/2"
- F = 1", 1-1/4", 1-1/2", 2", 2-1/2"
- G = 1-1/4", 1-1/2", 2", 2-1/2", 3"

**Features**

- CEC Locking Tabs Required
- Underground feed
- Feed Thru Lugs

**NOTES:**

1. All 320A meter sockets shall be equipped with a bypass handle.

**Approved Manufacturers:**

**Siemens MC0816B1150-200TH or Equivalent**  
**Contact CEC Engineering for approvals.**

**For 320A or above:**

**Siemens MC0816B1400RLTM or equivalent**  
**Contact CEC Engineering for approvals.**

02/12/2021

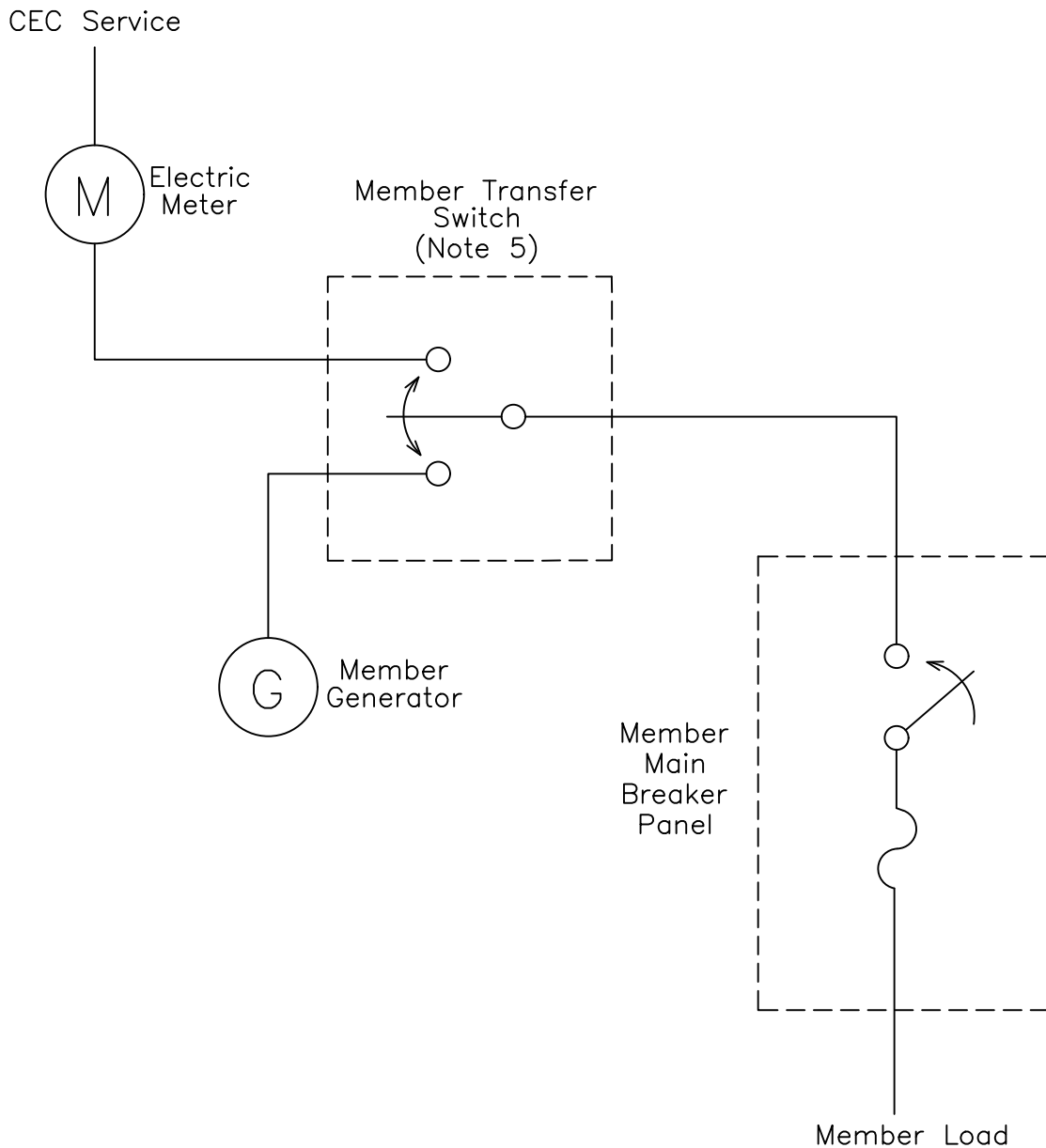
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Side-By-Side Combo Meter Enclosure

FIGURE 21

CLAY ELECTRIC COOPERATIVE, INC.  
 KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
 ELECTRIC SERVICE



**Improperly installed generation equipment can create hazards for CEC personnel, the member and the electrical equipment involved. To prevent these hazards the following notes shall be followed:**

- Notes:
1. Emergency or standby generation systems installed by the member shall have a switching control scheme or a mechanically interlocked transfer switch as to eliminate the possibility of any energy generated by the member's system being back-fed into the Cooperative's system.
  2. Emergency or standby generation systems shall be in compliance with the National Electric Code and local codes.
  3. Such generation systems and their associated equipment shall be installed by a Licensed Electrician.
  4. Member Owned Generators of the Standards for Electric Service shall be adhered to for installations of this type.(Section 8.04)
  5. Double Throw (Not Fuseable) Mechanically Interlocked Transfer Switch: For Typical Single Phase, 240VAC, 200 Amp Service

08/14/99

Rev. 10/21/20

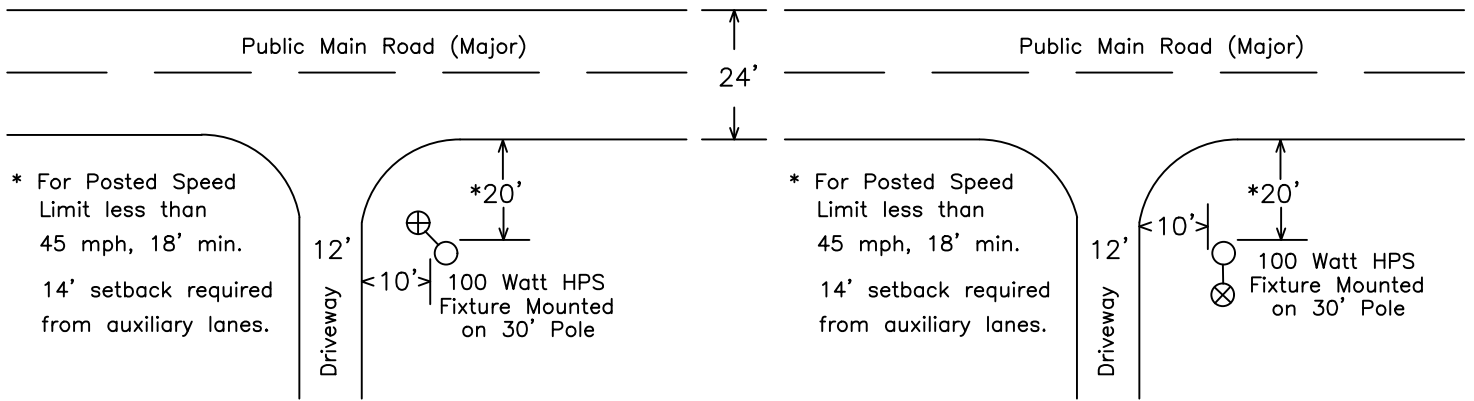
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MEMBER OWNED GENERATORS: TYPICAL INSTALLATION

FIGURE 22

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE

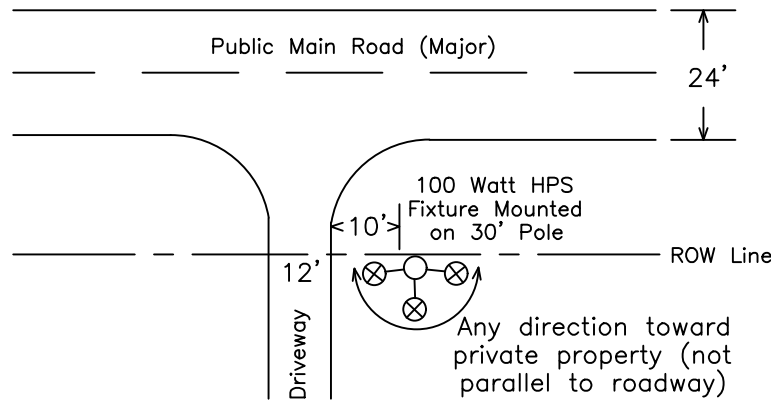


**Application "A"**

For pole that is within FDOT or County ROW. Permitting will be required unless light is turned directly toward private property (refer to Application "B").

**Application "B"**

For pole within ROW, permitting not required if light directed toward private property as shown above.



**Application "C"**

For pole on private property, light may be directed toward private property in any direction. Light should not be directed toward roadway without considering permit requirements.

Private Driveway to Residence onto Public Roadway (Application A, B & C):

1. Lighting levels are not specified for lighting single family driveways onto public roadways (low traffic volume at miniature intersection).
2. The 100 watt light may be placed on either side of the driveway. Refer to application type for lighting direction and permitting requirement.
3. Applications "B" & "C" may be applied for lighting requests without driveways.
4. When submitting permit applications, the CEC Public Roadway Services Utility Permit Attachment "A" shall be attached.
5. \*Horizontal Clearances listed are for rural roadways (flush shoulders). For urban roadways (curb & gutter), the minimum setback shall be four (4') feet from back of curb face. Ten (10') feet recommended setback from driveway.

04/08/05

Rev. 10/21/20

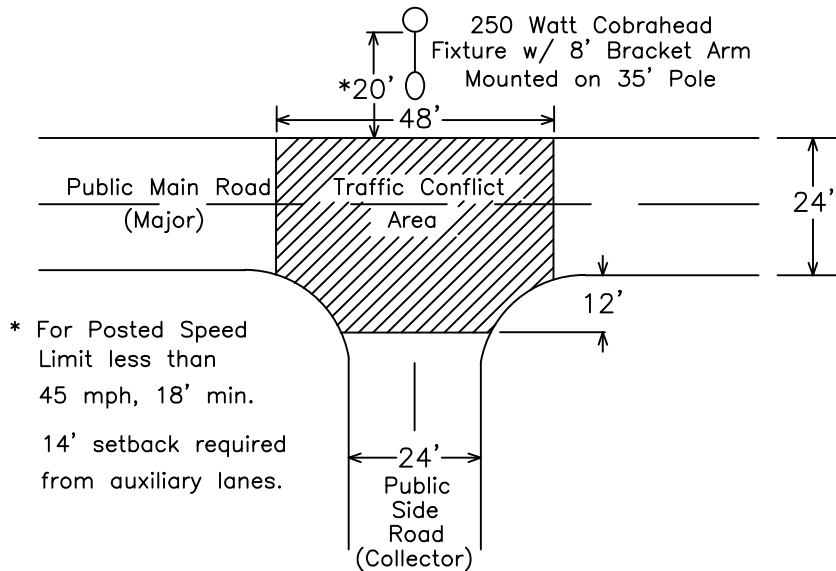
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GUIDELINE FOR LIGHTING DRIVEWAY ONTO PUBLIC ROADS

FIGURE 23

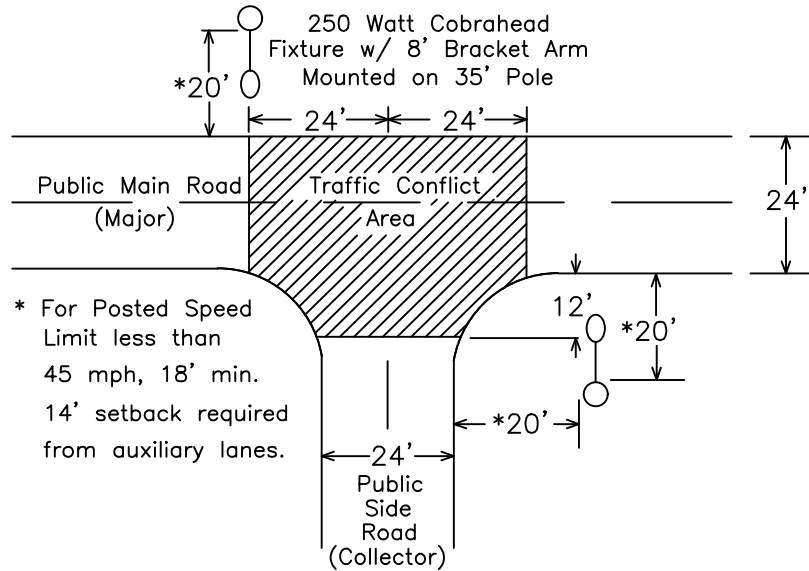
CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE



**Arrangement "A"**

Traffic Volume < 3000 vehicles per Day



**Arrangement "B"**

Traffic Volume > 3000 vehicles per Day

**NOTES: T-Intersection of Two Public Roadways (Major/Major)**

1. An average foot-candle value of 1.8 is anticipated within the Traffic Conflict Area shown for Arrangement "A"; average foot-candle value of 2.9 is anticipated for arrangement "B". Note traffic volume values for each lighting arrangement.
2. Required permitting will need to be granted from the appropriate roadway agency prior to installing lighting within the public roadway. The CEC Public Roadway Lighting Services Utility Permit Attachment "A" shall be attached to the permit applications.
3. \*Horizontal Clearances listed above are for Rural roadways (flush shoulders). For Urban roadways (curb and gutter), the minimum setback shall be four (4') feet from back of face of curb.

04/08/05

Rev. 10/21/20

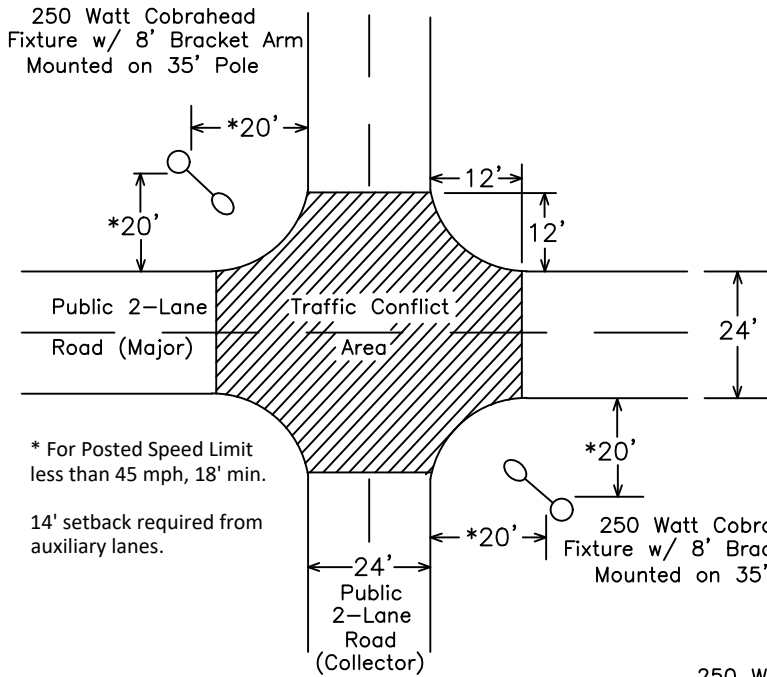
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GUIDELINE FOR LIGHTING T-INTERSECTION OF TWO PUBLIC ROADS

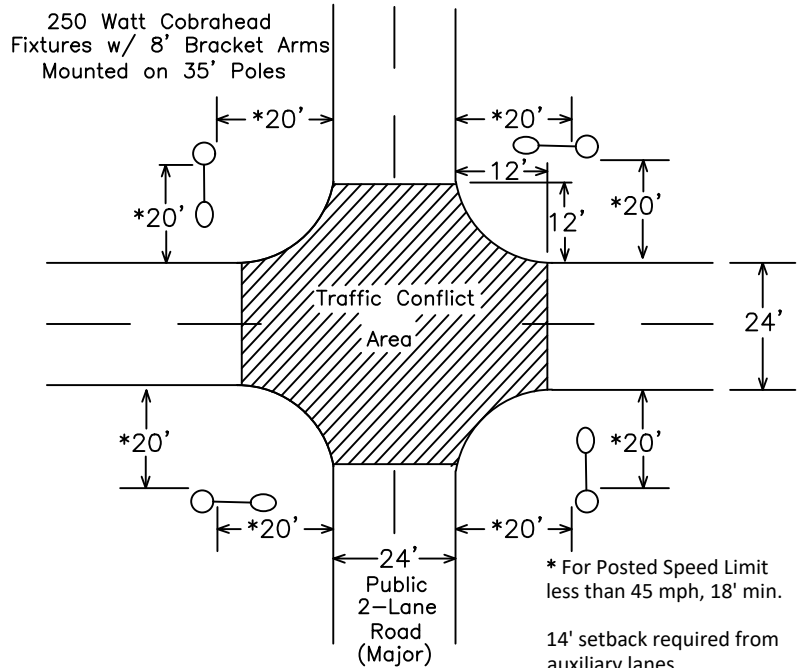
FIGURE 24

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE



**Arrangement "A"**  
Traffic Volume < 3000 vehicles per day



**Arrangement "B"**  
Traffic Volume > 3000 vehicles per day

**NOTES: Four-Way Intersection of Two Public Roadways**

1. An average footcandle value of 2.3 is anticipated within the Traffic Conflict Area shown for Arrangement "A"; average footcandle value of 5.0 is anticipated for Arrangement "B". Note traffic volume for each lighting arrangement.
2. Required permitting will need to be granted from the appropriate roadway agency prior to installing lighting within the public roadway. The CEC Public Roadway Lighting Services Utility Permit Attachment "A" shall be attached to the permit applications.
3. \*Horizontal Clearances listed above are for Rural roadways (flush shoulders). For Urban roadways (curb and gutter), the minimum setback shall be four (4') feet from back of face of curb.

04/08/05

Rev. 10/21/20

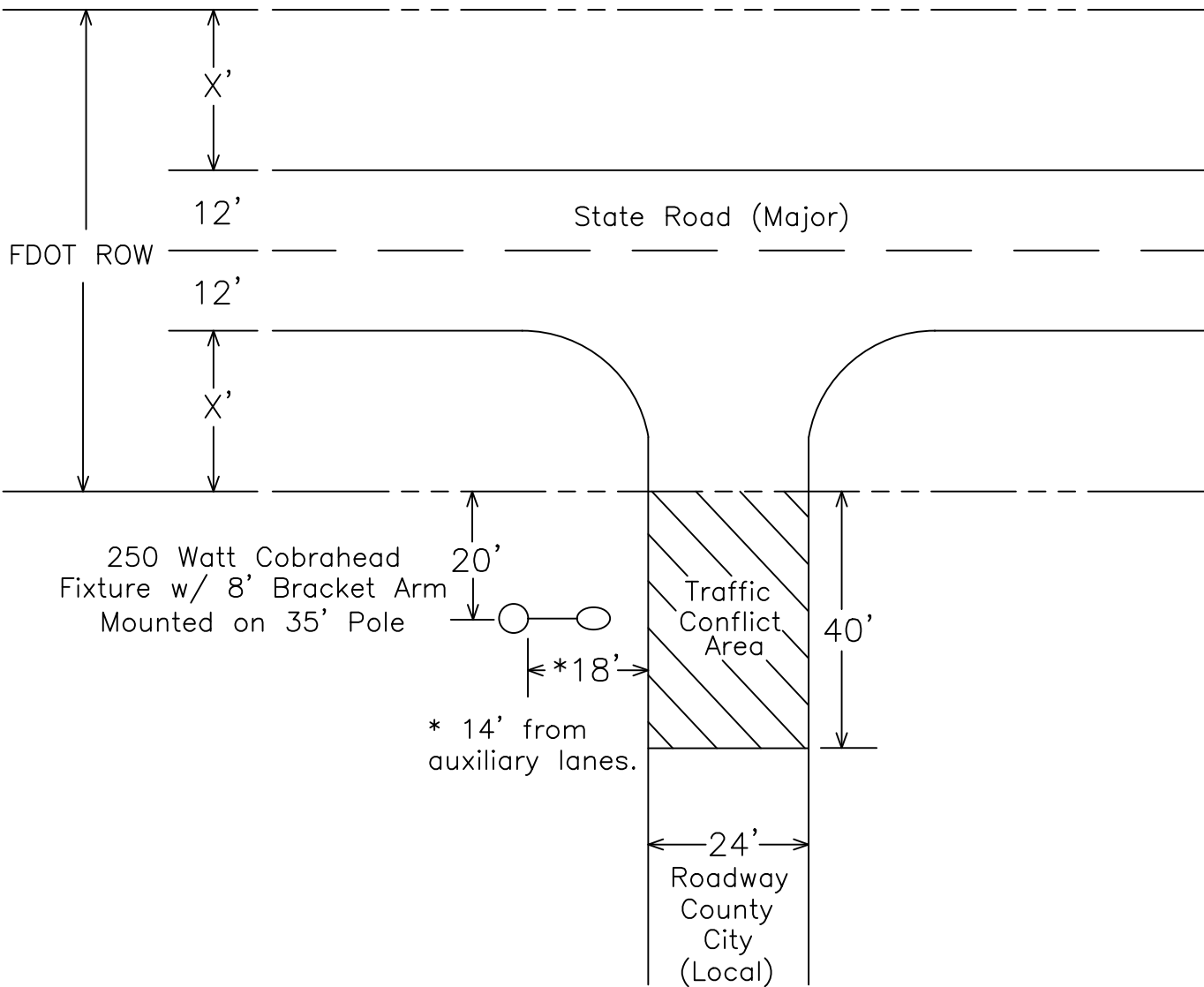
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GUIDELINE FOR LIGHTING INTERSECTION OF TWO PUBLIC ROADS

FIGURE 25

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE



**NOTES: Bus Stop/Cross Walk Located in Mid-block or near Intersection (Major/ Local):**

1. Applicable for posted speed limit of less than 45 MPH for minimum setback of 18' from the edge of pavement (or travel lane line) to the pole face. Lighting pole shall be a minimum of 20' from FDOT ROW line.
2. For bus stops, the lighting pole shall be installed approximately ten (10') feet beyond the point in front of the bus when loading and unloading.
3. An average foot-candle value of 2.4 is anticipated within the forty (40') feet long "traffic conflict area" on a 24' wide two-lane roadway.
4. Permitting will need to be granted from the "local" roadway agency prior to installing lighting within the public roadway. The CEC Public Roadway Lighting Services Utility Permit Attachment "A" shall be attached to the permit application.

04/08/05

Rev. 10/21/20

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GUIDELINE FOR LIGHTING AT BUS STOPS & CROSSWALKS

FIGURE 26

CLAY ELECTRIC COOPERATIVE, INC.  
KEYSTONE HEIGHTS, FLORIDA

STANDARDS FOR  
ELECTRIC SERVICE

**CLAY ELECTRIC COOPERATIVE, INC. DISCLAIMER AND HOLD HARMLESS  
AGREEMENT FOR THE INSTALLATION OF ELECTRIC FACILITIES**

The undersigned Consumer has requested that Clay Electric Cooperative, Inc. (Clay) install an electric meter at the Consumer's premises for the purpose of providing electric service to Consumer's \_\_\_\_\_

Description of Consumer's Property/Building

Consumer acknowledges that Florida Statute §553.73(10)(c) exempts nonresidential farm buildings from the Florida Building Code and has advised Clay that inspection of the electric wiring is not required by the local county government.

The following definitions apply to this disclaimer:

**Consumer's Facilities** means all wiring and other related electric facilities that exist between Clay's meter and all parts of the Consumer's building or other exempt agricultural applications.

**Clay** means Clay Electric Cooperative, Inc., an electric utility.

**Consumer** means the property owner or other proper applicant requesting electric service from Clay who has signed this form.

By signing below, I acknowledge that Clay will be installing or has installed an electric meter at my request to provide electric service to Consumer's Facilities. I acknowledge that Clay is responsible only for the electric meter and that Consumer's Facilities are entirely my responsibility.

By signing below, I acknowledge that Clay has not inspected Consumer's Facilities nor has Clay rendered any opinion whatsoever on Consumer's Facilities. I understand that Clay recommends that I have these facilities inspected even though these facilities are exempted from inspection requirements. I further acknowledge that Clay disclaims any liability or responsibility for anything that has been or will be done in relation to Consumer's Facilities.

By signing below, I agree to defend, indemnify, and hold harmless Clay from any liability, loss, damage, injury, claim, and attorney's fees incurred by Clay or asserted against Clay relating to any such liability to persons or property caused by Consumer's Facilities. I waive and release Clay from any claim I may have related to any loss caused to me by Consumer's Facilities. I further agree that I am responsible for any injury or damage caused to Clay, its facilities, or its agents by Consumer's Facilities.

In witness whereof, this agreement is executed by Consumer this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_

\_\_\_\_\_  
Signature of Consumer

\_\_\_\_\_  
Signature of Witness

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Address: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Company: \_\_\_\_\_

Title: \_\_\_\_\_

LIGHTINGRATE SCHEDULE: LT-1AVAILABLE:

In all areas served.

APPLICATION:

For the purpose of lighting streets and roadways, area lighting including parking lots and common areas, whether public or privately owned, and outdoorlighting.

TYPE OF INSTALLATION:

All new installations will be light emitting diodes (LED). Company-owned fixtures normally will be mounted on poles of the Company's existing distribution system and served from overhead wires. For roadway and area lighting, excluding outdoor lighting, the Company may provide special poles or underground wires at the charges specified below. In addition, the Company, at its discretion, may offer the Customer the option of Company-owned fixtures attached to poles owned by the Customer. For these installations, the customer owned poles require pre-approval by a Company representative.

Outdoor lights can only be mounted on accessible existing distribution poles facing the customer's property.

The location and the type of the facilities are, and will continue to be, easily and economically accessible to the Company equipment and personnel for both construction and maintenance.

SERVICE:

Service includes energy from dusk each day until dawn the following day and maintenance of Company -owned lighting systems. Maintenance includes replacement or repair of any circuit component to assure the facilities are operational and safe. The Company will maintain its facilities during regular daytime working hours as soon as practicable following notification by the Customer that such work is necessary. The Company shall be permitted to enter the Customer's premises at all reasonable times for the purpose of inspecting, maintaining, installing and removing any or all of its equipment and facilities.

The Company, while exercising reasonable diligence at all times to furnish service hereunder, does not guarantee continuous lighting and will not be liable for damages for any interruption, deficiency or failure of service, and reserves the right to interrupt service at any time for necessary repairs to lines or equipment.

LIMITATION OF SERVICE:

Installation shall be made only when, in the judgement of the Company, the location and the type of the facilities are, and will continue to be, easily and economically accessible to the Company equipment and personnel for both construction and maintenance. Overhead conductors will not be installed in any area designated as an underground distribution area, or any area, premises or location served from an underground source.

For outdoor lights, customer must have an active house or premise account associated with this service.

Stand-by or resale service is not permitted hereunder.

CUSTOMER CONTRIBUTIONS:

A Contribution-in-Aid-of-Construction (CIAC) will be required for:

- a) the differential cost between employing rapid construction techniques in trenching, backfilling and pole installation work where no obstructions exist, and the added cost to overcome obstructions such as sprinkler systems, paved surfaces (such as sidewalks, curbs, gutters, and roadways), landscaping, sodding and other obstructions encountered along the Lighting System installation route, including repair and replacement. If the Customer elects to perform work such as trenching and restoration, they will be reimbursed by the Company with a credit (not to exceed the total CIAC cost) for the value of this work as determined by the Company;
- b) the installation cost of any new overhead distribution facilities and/or the cost of alterations to existing distribution facilities which are required in order to serve the Lighting System less four (4) times the additional annual non-fuel energy revenue generated by the installation or alteration of the Lighting System, plus where underground facilities are installed, the differential installation cost between underground and overhead distribution facilities.

These costs shall be paid by the Customer prior to the initiation of any construction work by the Company. The Customer shall also pay any additional costs associated with design modifications requested after the original estimate has been made.

REMOVAL OR RELOCATION OF FACILITIES:

If Company owned lighting facilities are removed by Customer request, breach of the Agreement or non-payment, the Customer may be responsible to pay the net book value for the fixtures, poles, and additional lighting facility charges plus the cost to remove the facilities. These charges do not apply to conversions of Company owned non-LED to Company owned LED lights.

When the Company relocates or removes its facilities to comply with governmental requirements, either the Company or the Customer shall have the right, upon written notice, to discontinue service hereunder without obligation or liability.

Facility relocations are treated as removals of facilities from the old location and installation of the new facilities in the new location. Facilities will not be transferred and reused at a new location.

In all cases, should the Customer request termination of the Agreement, such termination will require written notice 90 days prior to the date of termination.

CONVERSION OF COMPANY OWNED NON-LED LIGHTS TO COMPANY OWNED LED LIGHTS:

For customers converting, Company owned non-LED to Company owned LED Lights, the LED Conversion Recovery Charge will apply and there will be no charge for the fixtures being removed. Any other charges for relocation or replacement of Company owned facilities would still apply.

CHANGE IN FIXTURE SIZE OR TYPE:

At the Customer's request, the Company will change to a lower or higher level of illumination when the changes are consistent with good engineering practices. A LED fixture will be the only modification from an LED or non-LED fixture request. The Customer will pay the net book value of the existing fixture, plus removal costs and will receive a credit for 4 years additional revenue generated by the larger fixtures, if applicable. If changes are required to the distribution system to support the larger lights, standard CIAC charges as described on sheet 8.736 will also apply. The Customer will pay the Company the net costs incurred in making other fixture changes.

(Continued from Sheet No. 8.735.1)

**FLORIDA POWER & LIGHT COMPANY**

**Third Revised Sheet No. 8.736.1  
Cancels Second Revised Sheet No. 8.736.1**

MONTHLY RATES FOR MAINTENANCE AND CONVERSION:

Maintenance per Fixture (FPL Owned Fixture and Pole)	\$1.45
Maintenance per Fixture for FPL fixtures on Customer Pole	\$1.16
LED Conversion Recovery	\$2.08

MONTHLY RATES FOR POLES USED ONLY FOR LIGHTING SYSTEM:

Standard Wood pole	\$5.94
Standard Concrete pole	\$8.14
Standard Fiberglass pole	\$9.61
Decorative Concrete pole	\$17.46

MONTHLY RATES FOR LEDFIXTURES\*:

Energy Tier	Charge	Fixture Tier														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	\$ -	1.50	4.50	7.50	10.50	13.50	16.50	19.50	22.50	25.50	28.50	31.50	34.50	37.50	40.50	43.50
B	\$ 0.20	1.70	4.70	7.70	10.70	13.70	16.70	19.70	22.70	25.70	28.70	31.70	34.70	37.70	40.70	43.70
C	\$ 0.40	1.90	4.90	7.90	10.90	13.90	16.90	19.90	22.90	25.90	28.90	31.90	34.90	37.90	40.90	43.90
D	\$ 0.60	2.10	5.10	8.10	11.10	14.10	17.10	20.10	23.10	26.10	29.10	32.10	35.10	38.10	41.10	44.10
E	\$ 0.80	2.30	5.30	8.30	11.30	14.30	17.30	20.30	23.30	26.30	29.30	32.30	35.30	38.30	41.30	44.30
F	\$ 1.00	2.50	5.50	8.50	11.50	14.50	17.50	20.50	23.50	26.50	29.50	32.50	35.50	38.50	41.50	44.50
G	\$ 1.20	2.70	5.70	8.70	11.70	14.70	17.70	20.70	23.70	26.70	29.70	32.70	35.70	38.70	41.70	44.70
H	\$ 1.40	2.90	5.90	8.90	11.90	14.90	17.90	20.90	23.90	26.90	29.90	32.90	35.90	38.90	41.90	44.90
I	\$ 1.60	3.10	6.10	9.10	12.10	15.10	18.10	21.10	24.10	27.10	30.10	33.10	36.10	39.10	42.10	45.10
J	\$ 1.80	3.30	6.30	9.30	12.30	15.30	18.30	21.30	24.30	27.30	30.30	33.30	36.30	39.30	42.30	45.30
K	\$ 2.00	3.50	6.50	9.50	12.50	15.50	18.50	21.50	24.50	27.50	30.50	33.50	36.50	39.50	42.50	45.50
L	\$ 2.20	3.70	6.70	9.70	12.70	15.70	18.70	21.70	24.70	27.70	30.70	33.70	36.70	39.70	42.70	45.70
M	\$ 2.40	3.90	6.90	9.90	12.90	15.90	18.90	21.90	24.90	27.90	30.90	33.90	36.90	39.90	42.90	45.90
N	\$ 2.60	4.10	7.10	10.10	13.10	16.10	19.10	22.10	25.10	28.10	31.10	34.10	37.10	40.10	43.10	46.10
O	\$ 2.80	4.30	7.30	10.30	13.30	16.30	19.30	22.30	25.30	28.30	31.30	34.30	37.30	40.30	43.30	46.30
P	\$ 3.00	4.50	7.50	10.50	13.50	16.50	19.50	22.50	25.50	28.50	31.50	34.50	37.50	40.50	43.50	46.50
Q	\$ 3.20	4.70	7.70	10.70	13.70	16.70	19.70	22.70	25.70	28.70	31.70	34.70	37.70	40.70	43.70	46.70
R	\$ 3.40	4.90	7.90	10.90	13.90	16.90	19.90	22.90	25.90	28.90	31.90	34.90	37.90	40.90	43.90	46.90
S	\$ 3.60	5.10	8.10	11.10	14.10	17.10	20.10	23.10	26.10	29.10	32.10	35.10	38.10	41.10	44.10	47.10
T	\$ 3.80	5.30	8.30	11.30	14.30	17.30	20.30	23.30	26.30	29.30	32.30	35.30	38.30	41.30	44.30	47.30
U	\$ 4.00	5.50	8.50	11.50	14.50	17.50	20.50	23.50	26.50	29.50	32.50	35.50	38.50	41.50	44.50	47.50
V	\$ 4.20	5.70	8.70	11.70	14.70	17.70	20.70	23.70	26.70	29.70	32.70	35.70	38.70	41.70	44.70	47.70
W	\$ 4.40	5.90	8.90	11.90	14.90	17.90	20.90	23.90	26.90	29.90	32.90	35.90	38.90	41.90	44.90	47.90
X	\$ 4.60	6.10	9.10	12.10	15.10	18.10	21.10	24.10	27.10	30.10	33.10	36.10	39.10	42.10	45.10	48.10
Y	\$ 4.80	6.30	9.30	12.30	15.30	18.30	21.30	24.30	27.30	30.30	33.30	36.30	39.30	42.30	45.30	48.30
Z	\$ 5.00	6.50	9.50	12.50	15.50	18.50	21.50	24.50	27.50	30.50	33.50	36.50	39.50	42.50	45.50	48.50
AA	\$ 5.20	6.70	9.70	12.70	15.70	18.70	21.70	24.70	27.70	30.70	33.70	36.70	39.70	42.70	45.70	48.70
BB	\$ 5.40	6.90	9.90	12.90	15.90	18.90	21.90	24.90	27.90	30.90	33.90	36.90	39.90	42.90	45.90	48.90
CC	\$ 5.60	7.10	10.10	13.10	16.10	19.10	22.10	25.10	28.10	31.10	34.10	37.10	40.10	43.10	46.10	49.10
DD	\$ 5.80	7.30	10.30	13.30	16.30	19.30	22.30	25.30	28.30	31.30	34.30	37.30	40.30	43.30	46.30	49.30
EE	\$ 6.00	7.50	10.50	13.50	16.50	19.50	22.50	25.50	28.50	31.50	34.50	37.50	40.50	43.50	46.50	49.50

\* Catalog of available fixtures and the assigned billing tier for each can be viewed at [www.FPL.com/partner/builders/lighting.html](http://www.FPL.com/partner/builders/lighting.html)

The non-fuel energy charge is 3.410¢ per kWh; where the kWh is calculated as (wattage x 353.3 hours per month) / 1000

SPECIAL PROVISIONS:

Where the Company provides fixtures or poles other than those referenced above, the monthly charges, as applicable shall be computed as follows:

Charge: 1.28% of the Company's average installed cost of the pole, light fixture, or both.

Standard maintenance fees to apply  
Standard non-fuel Energy Charge to apply

ADDITIONAL LIGHTING CHARGE:

Any special or additional lighting charges, which are required by the Company, will be billed in addition to the above rates.

Charge: 1.28% of the Company's average installed cost of the additional lighting facilities.

As of January 1, 2022, the factor pertaining to Underground Conductor will be closed to new customers.  
Underground Conductor 4.865¢ per foot

BILLING

During the initial installation period:

- Facilities in service for 15 days or less will not be billed;
- Facilities in service for 16 days or more will be billed for a full month.

For outdoor lights only, the Company has the right at any time to remove the light for non-payment and decline new request to customers with prior non-payment activity.

WILLFUL DAMAGE:

Upon the second occurrence of willful damage to any Company-owned facilities, the Customer will be responsible for the cost incurred for repair or replacement. If the lighting fixture is damaged, based on prior written instructions from the Customer, the Company will:

- a) If a commercially available and Company approved device exists, install a protective shield. The Customer shall pay \$280.00 for the shield plus all associated costs. However, if the Customer chooses to have the shield installed before the second occurrence, the Customer shall only pay the cost of the shield; or
- b) Replace with a like unshielded fixture. For this, and each subsequent occurrence, the Customer shall pay the estimated costs of the replacement fixture; or
- c) Terminate service to the fixture. In this case, the lighting facilities will be removed from the field and from billing; the Customer will pay the lighting facilities charges for the remaining period of the currently active term of service plus the cost to remove the facilities.

Option selection shall be made by the Customer in writing and apply to all fixtures which the Company has installed on the Customer's behalf on the same account. Selection changes may be made by the Customer at any time and will become effective ninety (90) days after written notice is received.

(Continued on Sheet No. 8.738)

(Continued from Sheet No. 8.737)

OTHER CHARGES

See Billing Adjustments section, Sheet No. 8.030, for additional applicable charges.

SPECIAL CONDITIONS:

Customers whose lights are turned off during sea turtle nesting season will receive a credit equal to the non-fuel charges associated with the fixtures that are turned off.

TERM OF SERVICE:

Service for outdoor lighting will be established for a minimum of one (1) year unless terminated by either the Company or the Customer.

All other services, besides outdoor lighting mentioned above, will require a Lighting Agreement.

Lighting agreements will have an initial term of ten (10) years with automatic, successive five (5) year extensions unless renegotiated or terminated in writing by either the Company or the Customer at least ninety (90) days prior to the current term's expiration. In the event of the sale of the real estate property upon which the facilities are installed, upon the written consent of the Company, the contract may be assigned by the Customer to the Purchaser. No assignment shall not relieve the Customer from its obligations hereunder until such obligations have been assumed by the assignee and agreed to by the Company.

Term of service begins upon execution of the Lighting Agreement.

All governmental or commercial / industrial customer contracts to be executed by property owner or governing body.

All existing contract terms prior to January 1, 2022 will be honored.

RULES AND REGULATIONS:

Service under this schedule is subject to orders of governmental bodies having jurisdiction and to the currently effective "General Rules and Regulations for Electric Service" on file with the Florida Public Service Commission. In case of conflict between any provision of this schedule and said, "General Rules and Regulations for Electric Service", the provision of this schedule shall apply.



# ELECTRIC TARIFF DOCUMENTATION

## VOLUME 2

JEA  
225 N. Pearl St.  
Jacksonville, Florida 32202  
(904) 665-6000

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### DESCRIPTION OF TERRITORY SERVED

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JEA furnishes retail electric service to the major portion of Duval County, including the City of Atlantic Beach and the Town of Baldwin. In addition, JEA provides retail electric service to the Town of Orange Park, to parts of St. Johns and Clay Counties.

Submitted to the Public Service Commission

Approved by the JEA Board  
**March 25, 2025**



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## RATE SCHEDULES



RS  
RATE SCHEDULE RS

---

**Residential Service**

---

**Available**

In all territory served by JEA.

**Applicable**

To any residential customer in a single-family individual house, apartment, or mobile home for domestic, non-commercial purposes. All service hereunder will be rendered through a single metering installation. Resale of energy purchased under this rate schedule is not permitted.

**Character of Service**

JEA's standard voltage levels.

**Rate per Month**

Basic Monthly Charge: \$19.25

Energy Charge Tier 1 (First 1,000 kwh): \$0.07237 per kWh

Energy Charge Tier 2 (>1,000 kwh): \$0.08987 per kWh

**Fuel Charge**

As stated in the Fuel Charge (Sheet No. 20.0)

**Minimum Bill**

\$19.25 per month Basic Monthly Charge.

**Term and Conditions**

- (a) Service will be made available under this rate schedule upon the execution of a service agreement governing how JEA's current billing system calculates charges for the specific service supplied to the customer.
- (b) Service hereunder shall be subject to the Rules and Regulations of JEA.



GS  
RATE SCHEDULE GS

---

**General Service**

---

**Available**

In all territory served by JEA.

**Applicable**

To any service agreement whose service is not provided by any other rate schedule, for all electrical requirements at a single location. All service hereunder will be rendered through a single metering installation. Resale of energy purchased under this rate schedule is not permitted.

**Character of Service**

JEA's standard voltage levels.

**Rate per Month**

Basic Monthly Charge: \$25.00

Energy Charge: \$0.06813 per kWh

**Fuel Charge**

As stated in the Fuel Charge (Sheet No. 20.0)

**Minimum Bill**

\$25.00 per month Basic Monthly Charge

**Primary Service Discount**

Where customer contracts for service at 4,160 volts or higher, a discount of 0.10 cent per kilowatt hour shall be allowed, when the customer provides all equipment necessary for service from JEA's existing primary lines.

**Terms and Conditions**

- (a) Service will be made available under this rate schedule upon the execution of a service agreement or upon application for service accompanied by payment of deposit or bond as required by JEA.
- (b) Service Agreements will be placed on this rate schedule initially on the basis of estimated load (based on past experience or connected load survey). Thereafter, when the service agreement incurs an integrated 15-minute demand of 75 kW or higher four (4) or more months out of twelve consecutive monthly billing periods ending with the current billing period, such service agreement will be reclassified to the General Service Demand rate schedule and billed thereon commencing with such billing month.
- (c) Service hereunder shall be subject to the Rules and Regulations of JEA.



GST  
RATE SCHEDULE GST

## General Service Time of Day (Optional)

### Available

In all territory served by JEA.

### Applicable

To any service agreement whose service is not provided by any other rate schedule, for all electrical requirements at a single location. All service hereunder will be rendered through a single metering installation. Resale of energy purchased under this rate schedule is not permitted.

### Character of Service

JEA's standard voltage levels.

### Rate per Month

Basic Monthly Charge: \$25.00

### Energy Charge:

\$0.13776 per kWh during On-Peak hours

\$0.04535 per kWh during Off-Peak hours

### Definition of Billing Period

On-Peak periods shall be defined as follows:

6 a.m.-10 a.m. – November through March; weekdays only

6 p.m.-10 p.m. – November through March; weekdays only

12 p.m.-9 p.m. – April through October; weekdays only

All other periods shall be defined as Off-Peak, including weekends, New Year's Day, Memorial Day, July 4<sup>th</sup>, Labor Day, Thanksgiving Day and Christmas Day.

### Fuel Charge

As stated in the Fuel Charge (Sheet No. 20.0)

### Minimum Bill

\$25.00 per month Basic Monthly Charge

### Primary Service Discount

Where customer contracts for service at 4,160 volts or higher, a discount of \$0.10 cent per kilowatt hour shall be allowed, when the customer provides all equipment necessary for service from JEA's existing primary lines.

(Continued on Sheet No. 5.2)



(Continued from Sheet No. 5.1)

**Terms and Conditions**

- (a) Service under this rate will be made available at the option of the General Service customer, subject to the availability of TOD metering equipment.
- (b) Customer has the option of terminating service under this rate schedule at any time without assessment of disconnection charges. Any customer requesting to return to optional TOD rate on the same premises shall remain on the TOD rate for a period of not less than twelve (12) consecutive months.
- (c) Service Agreements will be placed on this rate schedule initially on the basis of estimated load (based on past experience or connected load survey). Thereafter, when the service agreement incurs an integrated 15-minute on-peak demand of 75 kW or higher four (4) or more months out of twelve consecutive, monthly billing periods ending with the current billing period, such service agreement will be reclassified to the Optional General Service Demand TOD rate schedule and billed thereon commencing with such billing month.
- (d) Service hereunder is subject to the Rules and Regulations of JEA.



GSD  
RATE SCHEDULE GSD

**General Service Demand**

---

**Available**

In all territory served by JEA.

**Applicable**

To any service agreement where the measured monthly billing demand is 75 kW or more four (4) or more months out of twelve consecutive monthly billing periods ending with the current billing period. Resale of energy purchased under this rate schedule is not permitted.

**Character of Service**

JEA's standard voltage levels.

**Rate per Month**

The charge per month shall consist of the total of basic monthly, demand, and energy charges as follows:

	<u>(COM30)</u>		<u>(COM31)</u>
Basic Monthly Charge:	\$223.00 per Month	Basic Monthly Charge:	\$223.00 per Month
Demand Charge:	\$8.40 per kW of billing demand	Demand Charge:	\$0.00 per kW of billing demand
Excess Reactive Demand Charge:	As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)	Excess Reactive Demand Charge:	Not applicable
Energy Charge:	\$0.03286 per kWh plus Fuel Charge	Energy Charge:	\$0.07411 per kWh plus Fuel Charge

**Fuel Charge**

As stated in the Fuel Charge (Sheet No. 20.0)

**Minimum Bill**

\$223.00 Basic Monthly Charge plus the demand charge as computed above.

**Determination of Billing Demand**

The Billing Demand for the month shall be the maximum integrated 15-minute metered kW demand in the month.

**Determination of Reactive Demand**

As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)

(Continued on Sheet No. 6.1)



(Continued from Sheet No. 6.0)

**Primary Service Discount**

A discount of \$0.59 per kW of Billing Demand and 0.10 cent per kWh will be allowed for service taken at 4,160 volts or higher, when the customer provides all of the equipment required to take service at JEA's existing primary lines.

**Terms and Conditions**

- (a) Service will be made available under this rate schedule upon the execution of a service agreement or upon application for service accompanied by payment of deposit or bond as required by JEA.
- (b) Service hereunder shall be subject to the Rules and Regulations of JEA.
- (c) Should the Metered Demand be less than 75 kW for any 12-month period, the service agreement may be reclassified to Rate Schedule GS, at the option of JEA.
- (d) Should the customer demonstrate that the future Metered Demand is expected to be reduced below the applicable demand then the customer's service agreement may be reclassified to Rate Schedule GS, at the option of JEA.
- (e) Customer has the option of terminating service under the COM31 rate schedule at any time. Any customer requesting to return to the COM31 rate on the same premises shall remain on the COM31 rate for a period of not less than twelve (12) consecutive months.



GSDT  
RATE SCHEDULE GSDT

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**General Service Demand Time of Day (Optional)**

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**Available**

In all territory served by JEA.

**Applicable**

To any service agreement where the measured monthly On-Peak billing demand is 75 kW or more four (4) or more months out of twelve consecutive monthly billing periods ending with the current billing period. Resale of energy purchased under this rate schedule is not permitted.

**Character of Service**

JEA's standard voltage levels.

**Rate per Month**

The charge per month shall consist of the total of the basic monthly, demand and energy charges as follows:

Basic Monthly Charge:

\$223.00 per month

Demand Charge:

\$8.53 per kW of On-Peak Demand  
\$4.93 per kW of Additional Off-Peak Demand

Excess Reactive Demand (KVAR) Policy:

As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)

Energy Charge:

\$0.06428 per kWh during On-Peak hours  
\$0.02173 per kWh during Off-Peak hours  
Plus applicable Fuel Charge

**Definitions of Billing Periods**

On-Peak periods shall be defined as follows:

6 a.m.-10 a.m. – November through March; weekdays only  
6 p.m.-10 p.m. – November through March; weekdays only  
12 p.m.-9 p.m. – April through October, weekdays only

(Continued on Sheet No. 6.3)



(Continued from Sheet No. 6.2)

All other periods shall be defined as Off-Peak, including weekends, New Year's Day, Memorial Day, July 4<sup>th</sup>, Labor Day, Thanksgiving Day and Christmas Day.

**Fuel Charge**

As stated in the Fuel Charge (Sheet No. 20.0)

**Minimum Bill**

\$223.00 Basic Monthly Charge plus demand charges as computed above.

**Determination of Billing Demand**

The billing demand for the month shall be the maximum integrated 15-minute metered kW demand in the month.

**Determination of On-Peak and Off-Peak Demand**

The On-Peak Demand for the month shall be the maximum integrated 15-minute metered kW demand during the On-Peak period. The Off-Peak Demand for the month shall be the maximum integrated 15-minute metered kW demand during the Off-Peak period.

**Determination of Additional Off-Peak Demand**

The Additional Off-Peak Demand for the month shall be the amount by which the Off-Peak Demand exceeds the On-Peak Demand.

**Primary Service Discount**

A discount of \$0.59 per kW of Billing Demand and 0.10 cent per kWh will be allowed for service taken at 4,160 volts or higher, when the customer provides all of the equipment required to take service at JEA's existing primary lines.

**Terms and Conditions**

- (a) Service under this rate will be made available at the option of the General Service Demand customer, subject to the availability to TOD metering equipment accompanied by payment of deposit or bond as required by JEA.
- (b) Customer has the option of terminating service under this rate schedule at any time without assessment of disconnection charges. Any customer requesting to return to optional TOD rate on the same premises shall remain on the TOD rate for a period of not less than twelve (12) consecutive months.
- (c) Should the On-Peak Demand be less than 75 kW for any 12-month period, the customer may be reclassified to Rate Schedule GST, at the option of JEA.
- (d) Should the customer demonstrate that the future On-Peak Demand is expected to be reduced below the applicable demand then the customer's service agreement may be reclassified to Rate Schedule GST, at the option of JEA.
- (e) Service hereunder shall be subject to the Rules and Regulations of JEA





GSLD  
RATE SCHEDULE GSLD

## General Service Large Demand

### Available

In all territory served by JEA where service can be rendered from the transmission facilities of JEA.

### Applicable

To any service agreement where the measured monthly billing demand is 1,000 kW or more four (4) or more months out of twelve consecutive monthly billing periods ending with the current billing period. Resale of energy purchased under this rate schedule is not permitted.

### Character of Service

JEA's standard voltage levels.

### Rate per Month

The charge per month shall consist of the total of the basic monthly, demand and energy charges follows:

Basic Monthly Charge: \$925.00 per month

Demand Charge: \$12.16 per kW for all kW of Billing Demand

Excess Reactive Demand Charge: As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)

Energy Charge: \$0.02898 per kWh

### Fuel Charge

As stated in the Fuel Charge (Sheet No. 20.0).

### Minimum Bill

\$925.00 Basic Monthly Charge plus the demand charge as computed above, plus any special service charges as defined in the agreement.

### Determination of Billing Demand

The Billing Demand for the month shall be the maximum integrated 15-minute metered kW demand in the month, as may be adjusted per sheet No. 5.1, but not less than any applicable contract minimum demand.

### Determination of Reactive Demand

As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)

(Continued on Sheet No. 7.1)



(Continued from Sheet No. 7.0)

**Primary Service Discount**

A discount of \$0.59 per kW of Billing Demand and 0.10 cent per kWh will be allowed for service taken at 4,160 volts or higher, but less than 69,000 volts, when the customer provides all of the equipment required to take service at JEA's existing primary lines.

**Transmission Service Discount**

A discount of \$1.93 per kW of Billing Demand and 0.25 cent per kWh will be allowed for service taken at 69,000 volts or higher, but less than 230,000 volts, when the customer provides all of the equipment required to take service at JEA's existing transmission lines. A discount of \$2.56 per kW of Billing Demand and 0.32 cent per kWh will be allowed for service taken at 230,000 volts or higher.

**Terms and Conditions**

- (a) Service will be made available under this rate schedule upon the execution of a service agreement or upon application for service accompanied by payment of deposit or bond as required by JEA.
- (b) Service hereunder shall be subject to the Rules and Regulations of JEA.
- (c) Should the Metered Demand be less than 1,000 kW for any 12-month period, the customer may be reclassified to Rate Schedule GSD, at the option of JEA.
- (d) Should the customer demonstrate that the future Metered Demand is expected to be reduced below the applicable demand then the customer's service agreement may be reclassified to Rate Schedule GSD, at the option of JEA.



GSLDT  
RATE SCHEDULE GSLDT

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**General Service Large Demand Time of Day (Optional)**

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**Available**

In all territory served by JEA where service can be rendered from the transmission facilities of JEA.

**Applicable**

To any service agreement where the measured monthly On-Peak billing demand is 1,000 kW or more four (4) or more months out of twelve consecutive monthly billing periods ending with the current billing period. Resale of energy purchased under this rate schedule is not permitted.

**Character of Service**

JEA's standard voltage levels.

**Rate per Month**

The charge per month shall consist of the total of the basic monthly, demand, and energy charges as follows:

Basic Monthly Charge: \$925.00 per month

Demand Charge:

\$12.31 per kW of On-Peak Demand

\$7.13 per kW of Additional Off-Peak Demand

Excess Reactive Demand Charge: As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)

Energy Charge:

\$0.05193 per kWh during On-Peak hours

\$0.01696 per kWh during Off-Peak hours

**Definition of Billing Periods**

On-Peak periods shall be defined as follows:

6 a.m.-10 a.m. – November through March; weekdays only

6 p.m.-10 p.m. – November through March; weekdays only

12 p.m. – 9 p.m. – April through October; weekdays only

(Continued on Sheet No. 7.3)



(Continued from Sheet No. 7.2)

All other periods shall be defined as Off-Peak, including weekends, New Year's Day, Memorial Day, July 4<sup>th</sup>, Labor Day, Thanksgiving Day and Christmas Day

**Fuel Charge**

As stated in the Fuel Charge (Sheet No. 20.0)

**Minimum Bill**

\$925.00 Basic Monthly Charge plus the demand charges computed above, plus any special service charges as defined in the agreement.

**Determination of Billing Demand**

The Billing Demand for the month shall be the maximum integrated 15-minute metered kW demand, but not less than any applicable contract demand.

**Determination of On-Peak and Off-Peak Demand**

The On-Peak Demand for the month shall be the maximum integrated 15-minute metered kW demand during the On-Peak period. The Off-Peak Demand for the month shall be the maximum integrated 15-minute metered kW demand during the Off-Peak period.

**Determination of Additional Off-Peak Demand**

The Additional Off-Peak Demand for the month shall be the amount by which the Off-Peak Demand, as may be adjusted per sheet No. 5.1, exceeds the On-Peak Demand.

**Determination of Reactive Demand**

As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0).

**Primary Service Discount**

A discount of \$0.59 per kW of Billing Demand and 0.10 cent per kWh will be allowed for service taken 4,160 volts or higher, but less than 69,000 volts, when the customer provides all of the equipment required to take service at JEA's existing primary lines.

**Transmission Service Discount**

A discount of \$1.93 per kW of Billing Demand and 0.25 cent per kWh will be allowed for service taken at 69,000 volts or higher, but less than 230,000 volts, when the customer provides all of the equipment required to take service at JEA's existing transmission lines. A discount of \$2.56 per kW of Billing Demand and 0.32 cent per kWh will be allowed for service taken at 230,000 volts or higher.

**Terms and Conditions**

- (a) Service under this rate will be made available at the option of the General Service Large Demand customer, subject to the availability to TOD metering equipment accompanied by payment of deposit or bond as required by JEA.

(Continued on Sheet No. 7.4)



(Continued from Sheet No. 7.3)

- (b) Customer has the option of terminating service under this rate schedule at any time without assessment of disconnection charges. Any customer requesting optional TOD rate for the second time on the same premises shall remain on the TOD rate for a period of not less than twelve (12) consecutive months.
- (c) Should the On-Peak Demand be less than 1,000 kW for any 12-month period, the service agreement may be reclassified to Rate Schedule GSDT, at the option of JEA.
- (d) Should the customer demonstrate that the future On-Peak Demand is expected to be reduced below the applicable demand then the customer's service agreement may be reclassified to Rate Schedule GSDT, at the option of JEA.
- (e) Service hereunder shall be subject to the Rules and Regulations of JEA.



GSLDHLF  
RATE SCHEDULE GSLD-HLF

## General Service Large Demand – High Load Factor (Optional)

### **Available**

In all territory served by JEA.

### **Applicable**

To any service agreement that meets the following conditions:

- (a) Measured monthly billing demand is 700 kW or greater and
- (b) Customer uses 475 kWh per kW of Ratcheted Demand or greater for six (6) or more billing periods out of the last twelve (12) consecutive billing periods.

Resale of energy purchased under this rate schedule is not permitted.

### **Character of Service**

JEA's standard voltage levels.

### **Rate per Month**

The charge per month shall consist of the basic monthly, demand, energy, and fuel charges as follows:

Basic Monthly Charge: \$925.00 per month

Demand Charge: \$12.16 per kW for all kW of Billing Demand

Excess Reactive Demand Charge: As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)

Energy Charge:

For the first 350 kWh per kW of Ratcheted Demand: \$0.02898 per kWh

For the next 200 kWh per kW of Ratcheted Demand: \$0.02141 per kWh

For all energy above 550 kWh per kW of Ratcheted Demand: \$0.00899 per kWh

Fuel Charge: as stated in the Fuel Charge (Sheet No. 20.0), where all energy up to 350 kWh per kW of Ratcheted Demand is priced at the GSLD levelized charge and all additional energy is priced at the GSLD off-peak charge.

### **Primary Service Discount**

A discount of \$0.59 per kW of Billing Demand and 0.10 cent per kWh will be allowed for service taken at 4,160 volts or higher, but less than 69,000 volts, when the customer provides all of the equipment required to take service at JEA's existing primary lines.

(Continued on Sheet No. 7.6)



(Continued from Sheet No. 7.5)

**Transmission Service Discount**

A discount of \$1.93 per kW of Billing Demand and 0.25 cent per kWh will be allowed for service taken at 69,000 volts or higher, but less than 230,000 volts, when the customer provides all of the equipment required to take service at JEA's existing transmission lines. A discount of \$2.56 per kW of Billing Demand and 0.32 cent per kWh will be allowed for service taken at 230,000 volts or higher.

**Minimum Bill**

\$925.00 Basic Monthly Charge.

**Definition of Billing Demand**

The maximum integrated 15-minute metered kW demand in the billing period.

**Definition of Ratcheted Demand**

The greater of the Billing Demand in the current month or the highest Billing Demand occurring in the previous eleven months.

**Determination of Reactive Demand**

As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)

**Terms and Conditions**

- (a) Service will be made available under this rate schedule upon application for service accompanied by payment of deposit or bond as required by JEA.
- (b) Service hereunder shall be subject to the Rules and Regulations of JEA.
- (c) Should the Billing Demand fall below 700 KW, the customer may be reclassified to Rate Schedule GSD, at the option of JEA. Should customer use fall below 475 kWh per KW of Ratcheted Demand, the customer may be reclassified to Rate Schedule GSLD, at the option of JEA.
- (d) Selection of the GSLD-HLF rate will require the customer to relinquish all JEA Rider service agreement(s) currently in effect with no penalty to either party.
- (e) Selection of the GSLD-HLF rate on the service agreement will preclude the election of any JEA Rider, except Rider EDP.



ISXLD  
RATE SCHEDULE ISXLD

## Interruptible Service Extra Large Demand (Closed to New Customers)

### Available

In all territory served by JEA where service can be rendered from JEA transmission voltage facilities having adequate capacity to serve the load.

### Applicable

To any customer with measured monthly billing demand of 50,000 kW or greater eight (8) or more billing periods out of the last twelve (12) consecutive billing periods. All service hereunder will be rendered through a single metering installation and may be completely interrupted by JEA. Resale of energy purchased under this rate schedule is not permitted.

Customers taking service under this rate schedule are required to execute a service agreement contract.

### Character of Service

JEA's 69,000 voltage level or higher

### Limitation of Service

Interruptible service is electric service that can be interrupted either automatically or manually at the sole discretion of JEA. Interruptible service under this rate schedule is subject to interruption during any time period that electric power and energy delivered hereunder from JEA's available generating resources is required (a) to maintain service to JEA's firm power customers and firm power sales commitments, (b) to supply emergency Interchange service to another utility for its firm load obligations only, (c) in connection with maintenance outages on JEA's system, or (d) when JEA operates the peaking generators or purchases power at a cost that exceeds that of operating its peaking generators

### Rate per Month

The charge per month shall consist of the total of the basic monthly, demand, energy, peaking, and fuel charges as follows:

Basic Monthly Charge: \$1,500.00 per month

Demand Charge: \$12.16 per kW for all kW of Billing Demand

Demand Interruptible Credit: \$5.14 per kW

Excess Reactive Demand Charge: As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)

(Continued on Sheet No. 8.1)



(Continued from Sheet No. 8.0)

**Energy Charge:**

- For the first 300 kWh per kW of Ratcheted Demand: 1.762 cent per kWh
- For the next 65 kWh per kW of Ratcheted Demand: 1.599 cent per kWh
- For all energy above 365 kWh per kW of Ratcheted Demand: 1.511 cent per kWh

**Fuel Charge**

As stated in the Fuel Charge (Sheet No. 20.0)

**Transmission Service Discount**

A discount of \$1.93 per kW of Billing Demand and 0.25 cent per kWh will be allowed for service taken at 69,000 volts or higher, but less than 230,000 volts, when the customer provides all of the equipment required to take service at JEA's existing transmission lines. A discount of \$2.56 per kW of Billing Demand and 0.32 cent per kWh will be allowed for service taken at 230,000 volts or higher.

**Minimum Bill**

The dollar amount of the minimum bill shall be specified in the Service Agreement.

**Definition of Billing Demand**

The maximum integrated 15-minute metered kW coincident peak demand in the billing period unless otherwise specified in the Service Agreement. In no event shall Billing Demand be less than 50,000 kW.

**Definition of Coincident Peak Demand**

The time at which the combined value of multiple service points is the highest (which is not necessarily the peak demand for each individual service point, or the time of overall JEA system peak demand). All service points eligible for coincident peak demand billing are managed via contacts between JEA and the customers.

**Definition of Ratcheted Demand**

The greater of the Billing Demand in the current month or the highest Billing Demand occurring in the previous eleven months.

**Determination of Reactive Demand**

As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0).

**Buy-Through Provision**

Customers served under this rate schedule may elect to participate in the optional Buy-Through Provision. JEA will solicit power and energy purchases from other sources on the customer's behalf during periods when JEA would otherwise interrupt the customer's electrical loads. Customer may request enrollment in the Buy-Through Provision (or re-enrollment after withdrawing) by making written request to JEA, to which JEA shall respond within thirty (30) days. Should JEA not be able to arrange Buy-Through power, the customer may, at its option, arrange for reliable delivery to JEA of the amount of power to be interrupted, which JEA will sell to the customer. The customer must notify JEA of the power provider in sufficient time for JEA to establish a contract with the provider, if none exists. When JEA is successful in making said purchases, Customer shall pay JEA's cost of purchasing such power plus 3 mils per kWh in lieu of the otherwise-applicable energy charge listed in Rate Schedule ISXLD. Customer may withdraw from participation by providing one year's advance written notice to JEA.

(Continued on Sheet No. 8.2)



(Continued from Sheet No. 8.1)

**Term and Conditions**

- (a) Service will be made available under this rate schedule upon execution of a Service Agreement accompanied by payment of deposit or bond as required by JEA.
- (b) Service hereunder shall be subject to the Rules and Regulations of JEA.
- (c) Should the Billing Demand be reduced below the applicable demand of 50,000 kW, JEA may, at its option, reclassify the service agreement to Rate Schedule GSLD.
- (d) In addition to the Limitation of Service described above, JEA may further interrupt electric service upon 30 days advance notice to test the availability and operability of interruptible capacity irrespective of JEA system capacity availability or operating conditions.
- (e) Selection of the ISXLD rate schedule will require an existing customer to relinquish all JEA Riders on that service agreement currently in effect with no penalty to either party and will preclude election of any JEA Rider on that service agreement.
- (f) In the event interruption of service is due to Limitation of Service (d), customers will be notified electronically no later than 4:00pm Eastern Time of the time periods which interruption will be in effect for the following day.



GSXLD-TOU  
RATE SCHEDULE GSXLD-TOU

## General Service Extra Large Demand TOU (Experimental)

### Available

In all territory served by JEA where service can be rendered from JEA transmission voltage facilities having adequate capacity to serve the load.

### Applicable

To any service agreement with combined On-peak and Off-peak monthly billing demand of 50,000 kW or greater four (4) or more billing periods out of twelve (12) consecutive billing periods ending with the current billing period. Resale of energy purchased under this rate schedule is not permitted.

Customers taking service under this rate schedule are required to execute a service agreement contract.

### Character of Service

JEA's 69,000 voltage level or higher

### Rate per Month

The charge per month shall consist of the total of the basic monthly, demand, energy, and fuel charges as follows:

Basic Monthly Charge: \$1,500.00 per month

Demand Charge:

\$13.62 per kW of On-Peak Demand

\$11.14 per kW of Additional Off-Peak Demand

Demand Interruptible Credit: \$5.14 per kW

Excess Reactive Demand (Kvar) Charge: As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)

Energy Charge:

\$0.01984 per kWh during On-Peak hours

\$0.01680 per kWh during Off-Peak hours

(Continued on Sheet No. 8.4)



(Continued from Sheet No. 8.3)

### **Definition of Billing Periods**

On-Peak periods shall be defined as follows:

6 a.m.-10 a.m. – November through March; weekdays only

6 p.m.-10 p.m. – November through March; weekdays only

12 p.m.-9 p.m. – April through October; weekdays only

All other periods shall be defined as Off-Peak, including weekends, New Year's Day, Memorial Day, July 4<sup>th</sup>, Labor Day, Thanksgiving Day and Christmas Day

### **Fuel Charge**

As stated in the Fuel Charge (Sheet No. 20.0)

### **Minimum Bill**

The dollar amount of the minimum bill shall be specified in the Service Agreement.

### **Definition of Billing Demand**

The Billing Demand for the month shall be the maximum integrated 15-minute metered kW demand in the month, but not less than any applicable contract minimum demand. In no event shall Billing Demand be less than 50,000 kW.

### **Determination of On-Peak and Off-Peak Demand**

The On-Peak Demand for the month shall be the maximum integrated 15-minute metered kW demand during the On-Peak period. The Off- Peak Demand for the month shall be the maximum integrated 15-minute metered kW demand during the Off-Peak period.

### **Determination of Additional Off-Peak Demand**

The Additional Off-Peak Demand for the month shall be the amount by which the Off-Peak Demand, as may be adjusted per sheet No. 8.1, exceeds the On-Peak Demand.

### **Determination of Reactive Demand**

As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0).

### **Transmission Service Discount**

A discount of \$1.93 per kW of Billing Demand and 0.25 cent per kWh will be allowed for service taken at 69,000 volts or higher, but less than 230,000 volts, when the customer provides all of the equipment required to take service at JEA's existing transmission lines. A discount of \$2.56 per kW of Billing Demand and 0.32 cent per kWh will be allowed for service taken at 230,000 volts or higher.

### **Term and Conditions**

- (a) Service will be made available under this rate schedule upon execution of a Service Agreement accompanied by payment of deposit or bond as required by JEA.
- (b) Service hereunder shall be subject to the Rules and Regulations of JEA

(Continued on Sheet No. 8.5)



(Continued from Sheet No. 8.4)

- (c) Should the Combined On and Off Peak Billing Demand Total be reduced below the applicable demand of 50,000 kW, any amount below the minimum demand will be charged at the Additional Off-peak rate.
  
- (d) Selection of the TOU-RTP-DA rate schedule will require an existing customer to relinquish all JEA Riders on that service agreement currently in effect with no penalty to either party and will preclude election of any JEA Rider on that service agreement.
  
- (e) JEA and the customer may agree for JEA to provide additional services, including related water, sewer and energy services, vary the term of service, with a maximum total length of ten (10) years, and modify terms and conditions. As mutually agreeable, negotiated services, terms and conditions shall be set forth in the associated Service Agreement contract.



SS-1  
RATE SCHEDULE SS-1

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## Standby and Supplemental Service

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### Available

In all territory served by JEA.

### Applicable

To any service agreement, at a point of delivery, whose electric service requirements for the load are supplied or supplemented from the customer's generation equipment at that point of service and who requires standby and supplemental service from JEA. A service agreement is required to take service under this rate schedule if the customer's total generation capacity is 50 kW or greater and the full load requirement is 75 kW or greater four (4) or more months out of twelve (12) consecutive billing periods ending with the current billing period. For purposes of determining applicability of this rate schedule, the following definitions shall be used:

**Standby Service:** Electric energy or capacity supplied by JEA to replace energy or capacity ordinarily generated by the customer's own generation equipment during periods of either scheduled (maintenance) or unscheduled (backup) outages of all or a portion of the customer's generation.

**Supplemental Service:** Electric energy or capacity supplied by JEA in addition to that which is normally provided by the customer's own generation equipment.

**Full Load Requirement:** The sum of the metered demand and the kW nameplate rating of the customer's generating unit(s).

Customers taking service under this rate schedule are required to execute an interconnection agreement. This rate schedule does not apply to existing customers who own generating capacity covered by JEA's Net Metering Policy. For the purposes of this rate schedule an existing customer is one who has physically connected to JEA and executed an interconnection agreement prior to the original effective date of this rate schedule (January 1, 2015).

### Character of Service

JEA's primary and secondary voltage levels.

### Rate per Month

The charge per month shall consist of the basic monthly, demand, energy, and fuel charges as follows:

**Basic Monthly Charge:** per the applicable time of day rate schedule.

**Facilities Demand Charge:** The applicable demand charge as provided below:

GSDT: \$0.93 per kW of Contract Demand Primary  
GSDT: \$1.25 per kW of Contract Demand Secondary  
GSLDT: \$0.89 per kW of Contract Demand Primary  
GSLDT: \$0.96 per kW of Contract Demand Secondary

(Continued on Sheet No. 9.1)



(Continued from Sheet No. 9.0)

**Standby Demand Charge:** The sum of the on-peak demand charge less the Facilities Demand Charge above multiplied by the reliability adjustment factor which is equal to the assumed reliability factor set forth in the interconnection agreement but not less than 0.1, and divided by 0.7. For generators 5 MW and larger the reliability factor shall be one (1) minus the annual generating unit operating hours divided by the hours in the year (8760 for non-leap years and 8784 for leap years) divided by 0.7. The standby demand charge is applied to the kW nameplate rating of the generating unit(s).

The calculation for the Standby Demand Charge is:

$$\text{SDC} = (\text{OPDC} - \text{FDC}) * \text{RAF} / 0.7$$

Where:

SDC = Standby Demand Charge

OPDC = On Peak Demand Charge per the applicable time of day rate schedule

FDC = Facilities Demand Charge

RAF = Reliability Adjustment Factor

0.7 = System Peak Coincident Factor

**Supplemental Demand Charge** The on-peak demand charge per the applicable time of day rate schedule less the Facilities Demand Charge above. The supplemental demand charge is applied to the Metered Demand.

**Excess Reactive Demand Charge:** per applicable time of day rate schedule.

**Energy Charge:** per applicable time of day rate schedule.

**Fuel Charge:** as stated in the Fuel Charge (Sheet No. 20.0). Charge per applicable time of day rate schedule.

**Primary Service Discount:** A discount of 0.10 cent per kWh will be allowed for service taken at 4,160 volts or higher, when the customer provides all of the equipment required to take service at JEA's existing primary lines. (Demand Discount is included in the rates charged above)

**Minimum Bill:** The Basic Monthly charge per the applicable time of day rate schedule.

**Metered Demand:** The maximum integrated 15-minute on peak and off-peak metered kW demand measured during the month.

**Contract Demand:** The kW demand as stated in the interconnection agreement.

**Determination of Excess Reactive Demand:** As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0).

### **Terms and Conditions**

(a) Service is available under this rate schedule upon execution of an interconnection agreement accompanied by payment of deposit or bond as required by JEA and satisfaction of JEA Facility Interconnection Requirements.

(Continued on Sheet No. 9.2)



(Continued from Sheet No. 9.1)

- (b) Service herein shall be subject to the Rules and Regulations of JEA.
- (c) Customers receiving service under this rate schedule will be required to give JEA a written notice at least sixty (60) months prior to reclassification to any other standard JEA rate schedule unless it can be shown that such reclassification is in the best interests of the customer, JEA, and JEA's other rate payers



SL  
RATE SCHEDULE SL

**Street Lighting**

**Available**

In all territory served by JEA.

**Applicable**

To any Public Agency (State, County or Municipal governments) and to Owner's Associations for automatically controlled lighting of public thoroughfares and to JEA's private residential customers who are owners of the property in question for automatically controlled area lighting.

**Character of Service**

Dusk-to-dawn automatically controlled lighting owned, operated and maintained by JEA, and governed by JEA's Management Directive for Street Lighting, MD909.

**Schedule of Rates**

Rate Code	Service Type	Wattage & Type	Fixture Types	Monthly kWh	Monthly Non-Fuel Charge \$/ Fixture*
SLHPS1	Standard	70W HPS	CH,PT	29	\$7.09
SLHPS2	Standard	200W HPS	CH, FL	88	\$9.65
SLHPS3	Standard	250W HPS	CH	108	\$10.31
SLHPS4	Standard	400W MH	CH, FL	169	\$12.69
SLMHS1	Standard	100W MH	DA	47	\$11.80
SLMHS2	Standard	150W MH	PT	67	\$9.26
SLMHS3	Standard	175W MH	PT	76	\$9.57
SLMHS4	Standard	320W MH	CH, FL	130	\$11.38
SLMHS5	Standard	150W MH	DA	67	\$15.05
SLMHS6	Standard	400W MH	CH, FL	164	\$12.55
SLMHS7	Standard	175W MH	DA	76	\$15.36
SLMHE1	Historic Energy & O&M	150W MH	DA	67	\$3.61
SLMHE2	Historic Energy & O&M	175W MH	DA	76	\$3.92
SLMHE3	Energy & O&M	320W MH	CH, FL,SB	130	\$5.79
SLMHE4	Energy & O&M	400W MH	CH, FL, SB	164	\$6.96
SLLED1	Standard	40W LED	CH	15	\$6.69
SLLED2	Standard	40W LED	PT	16	\$7.47
SLLED3	Standard	115W LED	CH	41	\$8.24
SLLED4	Standard	162W LED	SB	59	\$12.51
SLLED5	Standard	275W LED	CH	99	\$11.39
SLLED6	Standard	72W LED	PT	26	\$8.14
SLLED7	Standard	100W LED	DA	36	\$10.14
SLLED8	Standard	60W LED	AC	22	\$8.33
SLLED9	Standard	150W LED	TD	54	\$11.92
SLLED10	Standard	185W LED	TD	54	\$11.39

HPS = High Pressure Sodium    LED = Light Emitting Diode    MH = Metal Halide  
 AC = Acorn    CH = Cobra Head    DA = Decorative Acorn    FL = Floodlight  
 PT = Post Top    SB = Shoebox    TD = Tear Drop

\*Monthly Fixture charge is valid for bills of 30 days only. The charge will vary depending on the actual number of days billed.

(Continued on Sheet No. 10.1)



(Continued from Sheet No. 10.0)

Energy Only (Rate Code ENERGY97) the monthly charge shall be computed as follows:

Total Wattage (including Ballast) x 360 Hours x \$0.03325

**Types of Service**

The types of service are defined as follows:

(a) **STANDARD SERVICE:**

(Applicable Rate Codes SLHPS1-4, SLMHS1-7, SLLED1-7). In addition to Energy and O&M service, as described below, this service also includes an ownership cost for the initial installation of the fixture assembly including bracket, accessories, and labor. The applicable rates are for both overhead and underground fed lighting systems. Underground systems and fixture types not listed above require a contribution-in-aid-of construction to cover the differential cost between overhead versus underground systems and standard versus non-standard fixture types.

(b) **ENERGY ONLY SERVICE:**

(Applicable Rate Code ENERGY97). This service shall apply to those lights where special arrangements have been made with JEA and applies to those decorative standards which are supplied and installed by others in the Downtown area. Maintenance and replacement of the standard shall be on a contractual or cost plus basis.

**Fuel Charge**

As stated in the Fuel Charge (Sheet No. 20.0). The Fuel Charge is applied to the Monthly kWh.

**Terms and Conditions**

The following Terms and Conditions apply to Lighting Service:

- (a) Monthly charges for all Rate Codes are based upon JEA having an existing source of electrical power to each lighting installation
- (b) Monthly charges are based on an overhead service. An initial charge will be required for all underground installations, unless facilities charge is applied
- (c) Prior to installation of area lighting facilities. JEA's private residential customers who are owners of the property in question, shall execute a contract for lighting service with JEA. The initial term for such contracts shall be three (3) years. In the event the light is removed prior to the expiration of the first three (3) year contract, either at the customer's request or for non-payment of a bill, a "Take-Down" fee shall be assessed the customer. All charges due under this contract shall be applicable to any service agreement the customer may then or thereafter have with JEA.



OS  
RATE SCHEDULE OS

## Unmetered Miscellaneous Service for Traffic Signalization and Other Uses

### **Available**

In all territory served by JEA.

### **Applicable**

To any service agreement whose service is not provided by any other rate schedule, for his entire electric requirements at a single location. Consumption hereunder will be calculated based upon electric rating of component(s). Resale of energy purchased under this rate schedule is not permitted. Rate Code TRAF98 hereunder shall be applicable to unmetered traffic signalization installations. Rate Code SMPWRS99 hereunder shall be applicable to unmetered shot spotter and small cell towers.

### **Character of Service**

Single-phase 60 Hertz, at 120/208 volts: other voltages as required and if available.

### **Rate per Month**

Rate Code SMPWRS99 - \$5.75 Facilities Charge per installation, plus \$0.03633 per calculated KWH

Rate Code TRAF98 - \$1.40 Facilities Charge per installation, plus \$0.03633 per calculated KWH

To these codes shall be added the applicable Fuel Charges and any other adjustment.

### **Fuel Charge**

As stated in the Fuel Charge (Sheet No. 20.0).

### **Minimum Bill**

The Facilities Charge plus applicable energy charge including adjustments.

### **Terms and Conditions**

- (a) All procurement, erection, operation and maintenance expenses for installations served under this rate schedule shall be the responsibility of the owner thereof.
- (b) Service will be available under this rate schedule upon the execution of a service agreement or upon application for service accompanied by payment of deposit or bond as required by the JEA.
- (c) Service Agreements will be placed on this rate schedule initially on the basis of calculated load. Thereafter, should the character of service be materially changed, such service agreement will be reclassified to the then applicable rate schedule and billed thereon commencing with such billing month.
- (d) Service hereunder shall be subject to the Rules and Regulations of JEA.



## RIDER SCHEDULES



GSXLD  
RIDER GSXLD

### General Service Extra Large Demand Rider

**Available**

In all territory served by JEA.

**Applicable**

To any customers who have executed a ten (10) year General Service Extra Large Demand Electric Service Agreement contract with JEA and whose existing account is no less than 25,000 kW demand or whose existing multiple accounts in aggregate are no less than 25,000 kW demand. Resale of energy purchased under this rider/rate schedule is not permitted.

**Character of Service**

JEA's standard voltage levels.

**Rate per Month**

For customers executing an General Service Extra Large Demand Electric Service Agreement contract the charges per month listed below will apply to the customer's respective accounts

**Rates for Contracted Accounts under Rate Schedules GS, GSD, and GSLD**

	GSXLD-GS	GSXLD-GSD	GSXLD-GSLD
Basic Monthly Charge	\$25.00	\$223.00	\$925.00
Demand Charge per kW	Not Applicable	\$6.98	\$10.06
Energy Charge per kWh	\$0.05572	\$0.02372	\$0.02088
Fuel Charge	See Sheet No. 20.0	See Sheet No. 20.0	See Sheet No. 20.0
Energy Only Charge per kWh	Not Applicable	\$0.05289	Not Applicable
Excess kVar Charge per Excess kVar	Not Applicable	See Sheet No. 23.0	See Sheet No. 23.0

**Fuel Charge**

As stated in the Fuel Charge (Sheet No. 20.0).

**Minimum Bill**

Will be the applicable Basic Monthly Charge as listed above, plus any special service charges as defined in the agreement.

**Multiple Account Option**

Customers with two (2) or more existing service agreements with an Aggregate Load totaling 25,000 kW or more are eligible for service under this rate schedule.

(Continued on Sheet No. 12.1)



(Continued from Sheet No. 12.0)

**Definition of Aggregated Load**

The sum of the highest billing demands for each account for the past 12 months.

**Determination of Billing Demand**

The Billing Demand for the month shall be either the totalized or the non-totalized maximum integrated 15-minute metered kW demand in the month.

**Determination of Reactive Demand**

As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)

**Primary Service Discounts**

A discount of \$0.59 per kW of Billing Demand and 0.10 cent per kWh will be allowed for service taken at 4,160 volts or higher, but less than 69,000 volts, when the customer provides all the equipment required to take service at JEA's existing primary lines.

**Transmission Service Discount**

A discount of \$1.93 per kW of Billing Demand and 0.25 cent per kWh will be allowed for service taken at 69,000 volts or higher, but less than 230,000 volts, when the customer provides all of the equipment required to take service at JEA's existing transmission lines. A discount of \$2.56 per kW of Billing Demand and 0.32 cent per kWh will be allowed for service taken at 230,000 volts or higher.

**Term of Service**

Service under this rider shall be for a minimum initial term of 10 years from the commencement of service. Customers desiring to terminate service under this rate schedule after the initial five (5) years will be required to give JEA a minimum of sixty (60) months' notice prior to the transfer to JEA's standard rates, or if allowed by law, receive service from another provider of electricity. Should the customer elect to terminate the General Service Extra Large Demand Electric Service Agreement contract with JEA with less than the required five (5) years notice, then the customer shall pay an amount equal to the monthly kW demand charge times the customer's average billing demand for the most recent 12 months for the remainder of the contract term.

(Continued on Sheet No. 12.2)



(Continued from Sheet No. 12.1)

**Terms and Conditions**

- (a) Service hereunder shall be subject to the Rules and Regulations of JEA.
- (b) The customer may not purchase electricity from another entity during the period the accounts are under contract.
- (c) The customer must maintain a minimum aggregate load of 25,000 kW in a 12-month period to remain eligible for this rate.
- (d) Election of JEA's General Service Extra Large Demand Rider will preclude the election of any other Rider.
- (e) Customer must maintain a minimum aggregate electric demand of 25,000 kW for one JEA billing within any 12-month period. In the event that such aggregate demand is not maintained by the customer, JEA will require the customer to select one of the following options:
  - 1. Terminate service under this Rider and pay termination fees applicable to cancellation with less than 36-month notice; or
  - 2. Revert to the conditions of the General Service Large Demand Rate Schedule
- (f) JEA and the customer may agree for JEA to provide additional services, including related water, sewer, and energy services, and modify terms and conditions. As mutually agreeable, negotiated services, terms and conditions shall be set forth in the General Service Extra Large Demand Rider Electric Service Agreement contract.



(For Future Use)



MA  
RIDER MA

## **Multiple Account Load Factor Improvement Rider**

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### **Available**

In all territory served by JEA.

### **Applicable**

To customers whose services are eligible for Rate Schedules GS, GSD, and GSLD, and whose combined kW demand is 1,000 kW or more for four (4) or more months out of twelve consecutive monthly billing periods ending with the current billing period. This rider is not available to any pooling or other purchasing arrangement in which entities that would otherwise be individual customers totalize their electricity purchases through any other customer. Resale of energy purchased under this rider is not permitted.

### **Character of Service**

JEA's Standard voltage levels.

### **Rate per Month**

The charge per month shall be the energy, demand, and excess reactive demand charges as listed under JEA's GSLD Rate Schedule plus a \$1,000 per month basic monthly charge and a monthly \$223.00 per account site fee.

### **Definition of Combination**

The combination of meters shall mean the combining of the separate consumption and registered kW demand for the customer with three or more service locations throughout JEA's service territory.

### **Determination of Billing Demand**

The Billing Demand for the month shall be the coincidental maximum integrated 15-minute metered kW demand in the month.

### **Terms and Conditions**

- (a) Service hereunder shall be subject to the Rules and Regulations of JEA.
- (b) JEA will install demand meters on accounts receiving service under JEA's General Service (GS) Rate Schedule who are totalized.
- (c) Time of Day billing is not available with Rider MA.
- (d) The customer may add a qualifying service agreement at any time. However, if the customer deletes a service agreement that is under the MA Rider, that service agreement may not be restored to the MA Rider for a period of 12 months.
- (e) If the customer's aggregate load falls below 699 kW, the customer's participation in this Rider may be terminated.



- (f) Customer taking service under this rider will be subject to having their coincident peak demand adjusted if there is an indication of a power factor of less than 90% lagging based on metering. Any demand adjustments will be based on the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)



EDP  
RIDER EDP

### Economic Development Program Rider

**Available**

To new and existing customers receiving service in all territory served by JEA. Application for service under this Rider will not be accepted after September 30, 2028.

**Applicable**

To new or existing Customers who have executed an Economic Development Program Electric Service Agreement contract with JEA on or after October 1, 2013, and whose new or modified account qualifies for electric service under Rate Schedule GSD, GSDT, GSLD, GSLDT, or GSLDHLF. New or incremental existing metered demand under this rider must be a minimum of 300 kW at a single site of delivery and the Customer must employ an additional work force of at least 15 full-time employees in JEA’s service territory. This rider applies to new or incremental metered demand and additional employees on or after October 1, 2013. JEA reserves the right to accept or not accept any application for the Economic Development Program Rider (EDP).

**Character of Service**

JEA’s standard voltage levels.

**Rate per Month**

Customers executing an Economic Development Program Electric Service Agreement contract on or after October 1, 2013 shall receive a discount for new or incremental metered demand based on the percentages listed below. The discounts below will be applied to the electric charges including demand and energy. The adjustment will not apply to other charges, including basic monthly charges, fuel charge, excess KVAR charge, penalties, service charges, Gross Receipts Tax or other applicable taxes including franchise fees. For existing Customers, the adjustment will only be applied to the charges above the base metered demand and energy as defined in “Definition of Baseline.”

Year	Less than 5 MW Discount	For 5MW or greater Discount*	Less than 5MW Discount in Targeted Areas	For 5MW or greater Discount in Targeted Areas*
Year 1*	30%	30%	35%	35%
Year 2	25%	30%	30%	35%
Year 3	20%	30%	25%	35%
Year 4	15%	25%	20%	30%
Year 5	10%	20%	15%	25%
Year 6	5%	15%	10%	20%
Year 7	0%	10%	0%	15%
Year 8	0%	5%	0%	10%
Year 9	0%	0%	0%	0%

\*Year 1 can be extended as outlined in General Provisions (g) below

(Continued on Sheet No. 15.01)



(Continued from Sheet No. 15.0)

**Definition of Incremental Metered Demand**

The portion of the customer's metered demand which has increased by a minimum of 300 kW as a result of expansion or new construction at a single site of delivery.

**Definition of Baseline**

JEA will establish a baseline usage for each qualifying existing customer. Such base usage will reflect the billed peak kW and highest kWh consumption for the 12-month period immediately preceding the Customer's application for service.

**Definition of Targeted Area**

Identified as the City of Jacksonville's Economically Distressed Areas and industrial-zoned properties as defined by the city and/or county property appraiser's websites in all territory served by JEA. As the areas may change from time to time, JEA will recognize the areas deemed to be a Targeted Area at the time of application.

**General Provisions**

- (a) Customers must submit to JEA an application for service under this Rider. JEA must approve such application before the Customer may execute a Service Agreement contract and start service hereunder.
- (b) At the time of application for this Rider, the application must include the estimated amount of increased metered demand, nature of the increase and estimated timing of when the new metered demand will start and also specify the total number of full-time employees that will be employed in JEA's service territory by the Customer.
- (c) The Customer must notify JEA in writing when either the planned increase in metered demand has been met or, at the option of the Customer, when the minimum 300 kW increase has been met. JEA may monitor the Customer's metered demand for up to the next three months following the receipt of the Customer notification to confirm the baseline usage is exceeded by at least 300 kW.
- (d) Additionally, the Customer must provide evidence annually that the number of full-time employees in JEA's service territory reported at the time of application has increased by the minimum required as stated under the EDP Application and continues at such level.
- (e) When both the new metered demand and the additional employee requirements have been met, the Customer must execute an Economic Development Program Rider Service Agreement contract within 12 months from the commencement of the incremental metered demand.
- (f) Year 1 discount will apply to the next twelve full billing cycles following execution of the Economic Development Program Rider Service Agreement contract.
- (g) With acceptable documentation, customers adding more than 5,000 kW of new metered demand may elect to extend Year 1 discount up to an additional 24 months to accommodate site construction to achieve the metered demand stated on their EEDP application.
- (h) Customer adding service in Targeted Areas (as may be changed from time to time) will receive the discounts according to the schedule shown above.

(Continued on Sheet No. 15.02)



(Continued from Sheet No. 15.01)

**Term of Service**

- (a) Service under this rider shall be for at least six (6) years but not more than eight (8) years for projects greater than 5,000 kW, from the commencement of service and will terminate at the end of the final year.
- (b) JEA may terminate service under this Rider if the Customer fails to maintain the full-time employees and/or the Customer fails to take the required amount of metered demand specified in the Economic Development Program Rider Service Agreement contract. If JEA elects to terminate the Economic Development Program Rider Service Agreement contract for noncompliance with Rider EDP, the Customer is no longer entitled to discounts provided by Rider EDP.
- (c) Customers desiring to terminate service under this rider will be required to give JEA thirty (30) days written notice. If the Customer elects to terminate the Economic Development Program Rider Service Agreement, the Customer is no longer entitled to discounts provided by Rider EDP.

**Terms and Conditions**

- (a) Service hereunder shall be subject to the Rules and Regulations of JEA.
- (b) Service under this Rider shall not be available where the service is provided solely or predominately for:
  - 1. Multi-tenant residential or commercial properties
  - 2. Any service deemed "Temporary"
- (c) A name change or other superficial change at an existing location, where the ownership and/or control over the premise is not changed, will not be considered as a new Customer.
- (d) If a change of ownership of the same business occurs after the Customer has initiated an Economic Development Program Rider Service Agreement contract, the successor Customer may be allowed to continue the balance of the agreement provided there are no reductions in employment or metered demand.
- (e) This Rider is not available for load shifted between service delivery points within JEA's service territory.
- (f) This Rider is not available for renewal or extension beyond the date listed in the Economic Development Program Rider Service Agreement contract.
- (g) Election of this Rider will preclude the election of any other JEA Rider, with the exception of JEA SolarSmart or SolarMax Riders.
- (h) Customer must maintain their JEA account in a current status. JEA retains the right to terminate this Rider at any time if Customer is classified as a "Collection Accounts Subject to Disconnection" as defined in JEA Standard Operating Procedure Commercial Credit and Collections.



EEDP

RIDER EEDP

## Enhanced Economic Development Program Rider

### Available

To new and existing customers receiving service in all territory served by JEA. Application for service under this Rider will not be accepted after September 30, 2028.

### Applicable

To new or existing Customers whose industry is on the Florida Target Industry list and who have executed an Enhanced Economic Development Program Electric Service Agreement contract with JEA on or after June 27, 2023, and whose new or modified account qualifies for electric service under Rate Schedule GSD, GSDD, GSDDT, GSDDT, GSDDT, or GSDDHFL. New or incremental existing metered demand under this rider must be a minimum of 500 kW and an additional work force of at least 50 full-time employees, or greater than 3,000 kW and an additional work force of at least 15 full-time employees, at a single site of delivery in JEA's service territory. This rider applies to new or incremental metered demand and additional employees on or after June 27, 2023. JEA reserves the right to accept or not accept any application for the Enhanced Economic Development Program Rider (EEDP).

### Character of Service

JEA's standard voltage levels.

### Rate per Month

Customers executing an Enhanced Economic Development Program Electric Service Agreement contract on or after June 27, 2023 shall receive a discount for new or incremental metered demand based on the percentages listed below. The discounts below will be applied to the electric charges including demand and energy. The adjustment will not apply to other charges, including basic monthly charges, fuel charge, excess KVAR charge, penalties, service charges, Gross Receipts Tax or other applicable taxes including franchise fees. For existing Customers, the adjustment will only be applied to the charges above the base metered demand and energy as defined in "Definition of Baseline."

Year	Less than 5MW Discount	For 5MW or greater Discount*	Less than 5MW Discount in Targeted Areas	For 5MW or greater Discount in Targeted Areas*
Year 1	45%	45%	50%	50%
Year 2	40%	45%	45%	50%
Year 3	35%	45%	40%	50%
Year 4	30%	40%	35%	45%
Year 5	25%	35%	30%	40%
Year 6	20%	30%	25%	35%
Year 7	15%	25%	20%	30%
Year 8	10%	20%	15%	25%
Year 9	5%	15%	10%	20%
Year 10	0%	10%	0%	15%
Year 11	0%	5%	0%	10%
Year 12	0%	0%	0%	0%

\*Year 1 can be extended as outlined in General Provisions (g) below

(Continued on Sheet No. 15.11)



(Continued from Sheet No. 15.10)

**Definition of Incremental Metered Demand**

The portion of the customer's metered demand which has increased by a minimum of 500 kW as a result of expansion or new construction at a single site of delivery.

**Definition of Baseline**

JEA will establish a baseline usage for each qualifying existing customer. Such base usage will reflect the billed peak kW and highest kWh consumption for the 12-month period immediately preceding the Customer's application for service.

**Definition of Florida's Target Industry**

Those industries identified as Target Industries by Florida Department of Commerce, JaxUSA Partnership and the City of Jacksonville's Office of Economic Development. As of the effective date of this tariff, the industries designated as Target Industries are Manufacturing, Defense/Aerospace, Life Sciences, Logistics/Distribution, Information Technology, Financial/Business Services and Headquarters. Retail activities, utilities, mining and other extraction or processing businesses, and activities regulated by the Division of Hotels and Restaurants of the Department of Business and Professional Regulation, are statutorily excluded from consideration. Because the industries designated as Target Industries may change from time to time, JEA will recognize the designation in effect at the time of application.

**Definition of Targeted Area**

Identified as the City of Jacksonville's Economically Distressed Areas and industrial-zoned properties as defined by the city and/or county property appraisers' websites in all territory served by JEA. As the areas may change from time to time, JEA will recognize the areas deemed to be a Targeted Area at the time of application.

**General Provisions**

- (a) Customers must submit to JEA an application for service under this Rider. JEA must approve such application before the Customer may execute a Service Agreement contract and start service hereunder.
- (b) At the time of application for this Rider, the application must include the estimated amount of increased metered demand, nature of the increase and estimated timing of when the new metered demand will start, and also specify the total number of full-time employees that will be employed in JEA's service territory by the Customer.
- (c) The Customer must notify JEA in writing when either the planned increase in metered demand has been met or, at the option of the Customer, when the minimum 500 kW increase has been met. JEA may monitor the Customers metered demand for up to the next three months following the receipt of the Customer notification to confirm the baseline usage is exceeded by at least 500 kW.
- (d) Additionally, the Customer must provide evidence annually that the number of full-time employees in JEA's service territory reported at the time of application has increased by the minimum required as stated under the Applicable Agreement and continues at such level.

(Continued on Sheet No. 15.12)



(Continued from Sheet No. 15.11)

- (e) When both the new metered demand and the additional employee requirements have been met, the Customer must execute an Enhanced Economic Development Program Rider Service Agreement contract within 12 months from the commencement of the incremental metered demand.
- (f) Year 1 discount will apply to the next twelve full billing cycles following execution of the Enhanced Economic Development Program Rider Service Agreement contract.
- (g) With acceptable documentation, Customers adding more than 5,000 kW of new metered demand may elect to extend Year 1 discount up to an additional 24 months to accommodate site construction to achieve the metered demand stated on their EEDP application.
- (h) Customer adding service in Targeted Areas (as may be changed from time to time) will receive the discounts according to the schedule shown above.

#### **Term of Service**

- (a) Service under this rider shall be for at least nine (9) years but not more than eleven (11) years for projects greater than 5,000 kW, from the commencement of service and will terminate at the end of the final year.
- (b) JEA may terminate service under this Rider if the Customer fails to maintain the full-time employees and/or the Customer fails to take the required amount of metered demand specified in the Enhanced Economic Development Program Rider Service Agreement contract. If JEA elects to terminate the Enhanced Economic Development Program Rider Service Agreement contract for noncompliance with Rider EDP, the Customer is no longer entitled to discounts provided by Rider EDP. If the Customer fails to maintain either requirement for the Enhanced Economic Development Program but meets the requirements for the Economic Development Program (EDP) Rider, JEA may, at its discretion, downgrade the customer to the EDP Program Rider.
- (c) Customers desiring to terminate service under this rider will be required to give JEA thirty (30) days written notice. If the Customer elects to terminate the Economic Development Program Rider Service Agreement, the Customer is no longer entitled to discounts provided by Rider EDP.

#### **Terms and Conditions**

- (a) Service hereunder shall be subject to the Rules and Regulations of JEA.
- (b) Service under this Rider shall not be available where the service is provided solely or predominately for:
  - Multi-tenant residential or commercial properties
  - Any service deemed "Temporary"
- (c) A name change or other superficial change at an existing location, where the ownership and/or control over the premise is not changed, will not be considered as a new Customer.
- (d) If a change of ownership of the same business occurs after the Customer has initiated an Economic Development Program Rider Service Agreement contract, the successor Customer may be allowed to continue the balance of the agreement provided there are no reductions in employment or metered demand.

(Continued on Sheet No. 15.13)



(Continued from Sheet No. 15.12)

- (e) This Rider is not available for load shifted between service delivery points within JEA's service territory.
- (f) This Rider is not available for renewal or extension beyond the date listed in the Enhanced Economic Development Program Rider Service Agreement contract.
- (g) Election of this Rider will preclude the election of any other JEA Rider, with the exception of JEA SolarSmart or SolarMax Riders.
- (h) Customer must maintain their JEA account in a current status. JEA retains the right to terminate this Rider at any time if Customer is classified as a "Collection Accounts Subject to Disconnection" as defined in JEA Standard Operating Procedure Commercial Credit and Collections.



ES  
Revenue Codes ES

RIDER ES  
**Economic Stimulus Rider (Experimental)**

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**Available**

Service is available throughout the service territory served by JEA until such time as JEA may terminate this Economic Stimulus program. This Rider is available to qualifying commercial or industrial customers for service under the applicable JEA Rate Schedule GSLD. Customers desiring to take electric service under this Rider must make a written application for service. Customers requesting service under this Rider must execute a Service Agreement before September 30, 2028.

**Applicable**

Electric service provided under this optional Rider shall be applicable to projected electric service requirements which JEA has determined that:

1. Customer would not be served by JEA but for this Rider; and
2. Customer qualifies for such service under the terms and conditions set forth within this Rider.
3. Customer would seek service in jurisdiction outside of the State of Florida

Applicable Load shall be recognized:

New Load not previously served by JEA. Applicable Load must be served at a single site and must exceed a minimum level of demand as determined from the following provisions:

New Load: 1,000 kW or more of new Metered Demand.

Any customer receiving service under this Rider must provide the following documentation, the sufficiency of which shall be determined by JEA:

- 1) Legal attestation by the customer (through an affidavit signed by an authorized representative of the customer) attesting to the requirement of this Rider that without the use of this Economic Stimulus Rider the New Load would not be served by JEA; and
- 2) Documentation demonstrating to JEA's satisfaction that there is a viable lower cost alternative to serve the customer electric service needs.

Each customer shall enter into a Service Agreement contract with JEA to purchase the customer's entire requirements for electric service at the service location set forth in the Service Agreement contract.

**Character of Service**

This experimental Rider is offered in conjunction with the rates, terms and conditions of the JEA Rate Schedule GSLD.

**Limitation of Service**

Standby and sale for resale are not permitted under this Rider.

(Continued on Sheet No. 16.01)



(Continued from Sheet No. 16.0)

**Rate per Month**

Unless specifically noted in this Rider or within the Service Agreement contract, the charges assessed for electric service shall be those found within the otherwise applicable JEA Rate Schedule GSLD.

**Additional Basic Monthly Charge**

\$250.00 per month

**Demand and Energy Charges**

The charges under this Rider may include the Demand and/or Energy Charges as set forth in the otherwise applicable Rate Schedule GSLD. The specific charges or procedure for calculating the charges under this Rider shall be set forth in a negotiated Service Agreement contract and shall at a minimum recover all incremental costs JEA incurs in serving the customer and contribute to JEA's fixed costs.

**Terms and Conditions**

- 1) Negotiated charges are to be determined by the consistent application of the following factors: (1) customers' load characteristics; (2) alternative power supply; (3) customer credit quality; (4) economic impact; (5) length of term of the Service Agreement; and (6) JEA's excess electric system capacity.
- 2) Negotiated terms and conditions associated with the Monthly Charges shall be set forth in the Service Agreement contract and may be applied during all or a portion of the term of the Service Agreement contract.
- 3) Service hereunder shall be subject to the Rules and Regulations of JEA.



CS  
RIDER CS

## Curtable Service Rider (Closed to New Customers)

### Available

In all territory served by JEA.

### Applicable

To customers eligible for Rate Schedule GSLD who have executed a Curtable Service Agreement contract with JEA. The customer agrees during a period of requested curtailment to curtail a minimum load of 200 kW. All service hereunder will be rendered through a single metering installation. Resale of energy purchased under this rider is not permitted. JEA reserves the right to limit the total load served under this rider.

### Character of Service

JEA's standard voltage levels.

### Limitation of Service

Curtable service under this rate schedule is subject to curtailment during any time period that electric power and energy delivered hereunder from JEA's available generating resources is required to (a) maintain service to JEA's firm power customers and firm power sales commitments, or (b) supply emergency interchange service to another utility for its firm load obligations only, and (c) when JEA operates the peaking generators or purchases power at a cost that exceeds that of operating its peaking generators.

### Rate per Month

The following charges are applicable to the curtable portion of the customer's load only. The kW demand and kWh consumption not exceeding the Contracted Non-Curtable demand shall be billed according to the terms and conditions of JEA's standard General Service Large Demand Rate Schedule.

Basic Monthly Charge: \$1,800.00 per month

Demand Interruptible Credit: \$5.14 per kW

#### Option A:

Demand Charge: \$14.41 per kW

Energy Charge: As stated in the applicable rate schedule

#### Option B:

Demand Charge: \$14.41 per kW

Energy Charge: As stated in the applicable rate schedule

(Continued on Sheet No. 17.1)



(Continued from Sheet No. 17.0)

**Excess Reactive Demand Charge**

As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)

**Fuel Charge**

As stated in the Fuel Charge (Sheet No. 20.0).

**Minimum Bill**

\$1,800.00 Basic Monthly Charge, plus any special charges as defined in the agreement.

**Definition of Billing Demand**

The Billing Demand for the month shall be the maximum integrated 15-minute metered kW demand in the month, as may be adjusted per Sheet No. 23.0.

**Definition of Curtailable Service**

Curtailable Service is the electric service that can be reduced or interrupted upon request of JEA but solely at the discretion of the customer.

**Definition of Contracted Non-Curtailable Demand**

The Contracted Non-Curtailable Demand for the month shall be the maximum integrated 15-minute metered kW demand that the Customer shall have requested and JEA shall have agreed to supply.

**Definition of Reactive Demand**

As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)

**Primary Service Discounts**

A discount of \$0.59 per kW of Billing Demand and 0.10 cent per kWh will be allowed for service taken at 4,160 volts or higher, but less than 69,000 volts, when the customer provides all the equipment required to take service at JEA's existing primary lines.

**Transmission**

A discount of \$1.93 per kW of Billing Demand and 0.25 cent per kWh will be allowed for service taken at 69,000 volts or higher, but less than 230,000 volts, when the customer provides all the equipment required to take service at JEA's existing transmission lines. A discount of \$2.56 per kW of Billing Demand and 0.32 cent per kWh will be allowed for service taken at 230,000 volts or higher.

(Continued on Sheet No. 17.2)



(Continued from Sheet No. 17.1)

### **Term of Service**

Service under this rider shall be for a minimum initial term of 3 years from the commencement of service. Customers desiring to terminate service under this rate schedule and/or transfer to a firm rate schedule are required to give JEA a minimum of thirty-six (36) months' notice prior to the transfer. For contracts executed prior to December 31, 1997, JEA may waive this notice requirement upon JEA's determination that there is sufficient capacity to provide firm service to the customer and that allowing the customer to receive firm service will have no adverse effect on JEA's availability of providing firm service to JEA's existing and projected firm customers for the early termination period. For contracts executed after December 31, 1997, if the Customer elects to terminate this Agreement by furnishing JEA with less than thirty-six (36) months written notice, Customer shall pay an amount equal to 36 months of GSLD rate demand charges.

### **Terms and Conditions**

- (a) Service will be made available under this rider upon execution of a Curtailable Service Agreement contract accompanied by payment of deposit or bond as required by JEA.
- (b) Service hereunder shall be subject to the Rules and Regulations of JEA.
- (c) JEA reserves the right to modify terms and conditions of service under this rate schedule at any time. JEA may terminate this rider upon 6 months written notice after having held a public hearing.
- (d) If the customer increases the electrical load, which requires JEA to increase facilities installed for the specific use of the customer, an additional term of service may be required under this rate at the discretion of JEA.
- (e) Customers taking service under another rate schedule who elect to transfer to this rate will be accepted on a first-come first-served basis. Required equipment to control curtailments will be installed accordingly.
- (f) If the maximum 15-minute kW demand established during any period of requested curtailment exceeds the customer's non-curtailable demand, then penalty charges will be assessed. The amount above the non-curtailable demand will be rebilled based on the difference in charges between JEA's GSLD rate and the CS rate for:
  - 1. The prior 12 months or
  - 2. The number of months since the prior curtailment period, or
  - 3. The period of time on the CS rate, whichever is less.

The dollar amount will be weighted by the ratio of the difference between the customer's non-curtailable demand and the maximum demand during the curtailment to the average peak during the appropriate period as specified above. A penalty charge of \$15.00 per kW for the current month will also be assessed. JEA's credit and collection policy will be applied for any adjustment made to the bill.



(Continued on Sheet No. 17.3)



(Continued from Sheet No. 17.2)

- (g) Optional Time of Day billing is not allowed for the Rider CS.
- (h) Election of JEA's Curtailable Service Rider will preclude the election of any other JEA Rider for the Curtailable load.
- (i) JEA and the customer may agree for JEA to provide additional services including related water, sewer and energy services, vary the term of service, with a maximum length of ten (10) years, and modify terms and conditions. As mutually agreeable, negotiated services, terms and conditions shall be set forth in the Curtailable Service Agreement contract.

**Buy-Through Provision**

Customers served under this schedule may elect to have JEA minimize interruptions as described in "limitation of service" by purchasing power and energy from other sources during periods of normal interruption. Such election must be made in writing to JEA and shall be in effect until 12 months after JEA is notified in writing that the customer no longer desires this optional provision. Should JEA not be able to arrange Buy-Through power, then the customer may, at its option, arrange for reliable delivery to JEA of the amount of power to be interrupted JEA will then sell this purchased power to the customer. The customer must notify JEA of the power provider in sufficient time for JEA to establish a contract with the provider if none exists. When JEA is successful in making such purchases, the customer will be required to pay JEA's cost of such purchase plus 3 mil per kWh, in lieu of the otherwise applicable energy charge listed in this schedule.



IS  
Rider IS

## Interruptible Service Rider

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### **Available**

In all territory served by JEA.

### **Applicable**

To customers eligible for Rate Schedule GSLD, GSLD-TOU, or GSXLD-TOU, whose service agreements have an average load factor equal to or exceeding 35%, and who have executed an Interruptible Service Agreement contract with JEA. JEA reserves the right to limit the total load served under this rider. All service hereunder will be rendered through a single metering installation and may be completely interrupted by JEA. Resale of energy purchased under this rider is not permitted.

### **Character of Service**

JEA's standard voltage levels, or higher.

### **Limitation of Service**

Interruptible service under this rider is subject to interruption during any time period that electric power and energy delivered hereunder from JEA's available generating resources is required to (a) maintain service to JEA's firm power customers and firm power sales commitments, or (b) supply emergency Interchange service to another utility for its firm load obligations only, or (c) when JEA operates the peaking generators or purchases power at a cost that exceeds that of operating its peaking generators.

### **Rate per Month**

The charge per month shall consist of the total of the basic monthly, demand, and energy charge as follows:

Basic Monthly Charge: \$1,800.00 per month

Demand Interruptible Credit: \$5.14 per kW

#### **Option A & B:**

Demand Charge: As stated in the applicable rate schedule

Energy Charge: As stated in the applicable rate schedule

(Continued on Sheet No. 18.1)



(Continued from Sheet No. 18.0)

**Excess Reactive Demand Charge**

As stated in the Excess Reactive Demand (KVAR) policy (Sheet 23.0)

**Fuel Charge**

As stated in the Fuel Charge (Sheet No. 20.0)

**Minimum Bill**

\$1,800.00 Basic Monthly Charge, plus any special service charges as defined in the agreement.

**Determination of Billing Demand**

The Billing Demand for the month shall be the maximum integrated 15-minute metered kW demand in the month, as may be adjusted per sheet No. 23.0.

**Definition of Average Load Factor**

Average Load Factor = 
$$\frac{12 \text{ month average consumption (kWh)}}{12 \text{ month average demand (kW)} \times 730 (\text{Hours per month})}$$

**Definition of Interruptible Service**

Interruptible Service is electric service that can be interrupted either automatically or manually at the discretion of JEA.

**Determination of Excess of Reactive Demand**

As stated in the Excess Reactive Demand (KVAR) Policy (Sheet No. 23.0)

**Primary Service Discount**

A discount of \$0.59 per kW of Billing Demand and 0.10 cent per kWh will be allowed for service taken at 4,160 volts or higher, but less than 69,000 volts, when the customer provides all the equipment required to take service at JEA's existing primary lines.

**Transmission Service Discount**

A discount of \$1.93 per kW of Billing Demand and 0.25 cent per kWh will be allowed for service taken at 69,000 volts or higher, but less than 230,000 volts, when the customer provides all of the equipment required to take service at JEA's existing transmission lines. A discount of \$2.56 per kW of Billing Demand and 0.32 cent per kWh will be allowed for service taken at 230,000 volts or higher.

(Continued on Sheet No. 18.2)



(Continued from Sheet No. 18.1)

**Terms of Service**

Service under this rider shall be for a minimum initial term of 3 years from the commencement of service. Customers desiring to terminate service under this rate schedule and/or transfer to a firm rate schedule are required to give JEA a minimum of thirty-six (36) months notice prior to the transfer. For contracts executed prior to December 31, 1997, JEA may waive this notice requirement upon JEA's determination that there is sufficient capacity to provide firm service to the customer and that allowing the customer to receive firm service will have no adverse effect on JEA's availability of providing firm service to JEA's existing and projected firm customers for the early termination period. For contracts executed after December 31, 1997, if the Customer elects to terminate this Agreement by furnishing JEA with less than thirty-six (36) months written notice, Customer shall pay an amount equal to 36 months of GSLD rate demand charges.

**Buy-Through Provision**

Customers served under this schedule may elect to have JEA minimize interruptions as described in "limitation of service" by purchasing power and energy from other sources during periods of normal interruption. Such election must be made in writing to JEA and shall be in effect until 12 months after JEA is notified in writing that the customer no longer desires this optional provision. Should JEA not be able to arrange Buy-Through power, then the customer may, at its option, arrange for reliable delivery to JEA of the amount of power to be interrupted. JEA will sell this power to the customer. The customer must notify JEA of the power provider in sufficient time for JEA to establish a contract with the provider, if none exists. When JEA is successful in making such purchases, the customer will be required to pay JEA's cost of such purchase plus 3 mil per kWh, in lieu of the otherwise applicable energy charge listed in this schedule.

**Terms and Conditions**

- (a) Service will be made available under this rate schedule upon the execution of an Interruptible Service Agreement contract accompanied by payment of deposit or bond if required by JEA.
- (b) Service hereunder shall be subject to the Rules and Regulations of JEA.
- (c) JEA reserves the rights to modify terms and conditions of service under this rate schedule at any time and may terminate this schedule upon six (6) months written notice after having held a public hearing.
- (d) Customers taking service under another rate schedule who elect to transfer to this rate will be accepted on a first-come first-served basis. Required equipment to control interruptions will be installed accordingly. Service under this rate schedule shall commence with the first full billing period following the date of equipment installation.
- (e) JEA reserves the right to interrupt electric service once each calendar year, upon 30 days advance notice, in order to test the availability and operability of interruptible capacity irrespective of JEA system capacity availability or operating conditions.
- (f) Election of JEA's Interruptible Service Rider will preclude the election of any other JEA Rider.

(Continued on Sheet No. 18.3)



(Continued from Sheet No. 18.2)

- (g) JEA and the customer may agree for JEA to provide additional services, including related water, sewer and energy services, vary the term of service, with a maximum total length of ten (10) years, and modify terms and conditions. As mutually agreeable, negotiated services, terms and conditions shall be set forth in the Interruptible Service Agreement contract.
- (h) In the event interruption of service is due to Limitation of Service, customers will be notified electronically no later than 4:00pm Eastern Time of the time periods which interruption will be in effect for the following day.



Solar Smart

## JEA SolarSmart Rider

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### Available

In all territory served by JEA.

### Applicable

Available upon request to any customer that meets the following conditions:

- (a) No delinquent account balance
- (b) Not currently served under a time-of-day rate schedule

### Rate per Month

The charge per month shall consist of the basic monthly, demand (where applicable), energy, fuel charges per the applicable rate schedule as modified below:

Fuel Charge: JEA SolarSmart kWh will be billed at the JEA SolarSmart Rate of \$0.075 per kWh.

Remaining kWh will be billed at the Levelized Fuel Rate as stated in the Fuel Charge (Sheet No. 20.0).

Definition of JEA SolarSmart kWh: The elected percentage of total kWh per billing period rounded to the nearest kWh.

### Terms and Conditions

- (a) Customers may elect to receive up to 100% of their energy from JEA solar energy sources.
- (b) Customers may enroll at any time but must remain on JEA SolarSmart for at least one (1) billing period after enrollment. A customer may cancel any time thereafter and enroll again at a later date.
- (c) No refund or adjustments of JEA SolarSmart charges will be made if service is canceled.
- (d) Energy produced from JEA solar energy sources may not be specifically delivered to the customer.
- (e) Any Fuel Credit, approved by JEA's Board, will be calculated using the total kWh less JEA SolarSmart kWh in the month a credit is given.



Solar Max

## JEA SolarMax Rider (Closed to New Customers)

### Available

In all territory served by JEA.

### Applicable

Available upon request to any customer that enters into a JEA SolarMax Rate Agreement (Agreement) and meets the following conditions:

- (a) Minimum 7,000,000 kWh of annual solar power purchases requested at time of Agreement execution
- (b) No delinquent account balance
- (c) Not taking service under a residential, time of day, or streetlight rate schedule

### Rate per Month

Charges per month shall consist of the basic monthly, demand, energy, and fuel charges per the applicable rate schedule as modified below:

Fuel Charge: JEA SolarMax kWh will be billed at the price set forth in the Agreement  
Remaining kWh not selected as JEA SolarMax will be billed at the Levelized Fuel Rate as stated in the Fuel Charge (Sheet No. 20.0).

Definition of JEA SolarMax kWh: The elected percentage of total kWh per billing period rounded to the nearest kWh as set forth in the Agreement

### Terms and Conditions

- (a) Customers may elect to receive up to 100% of their energy from JEA solar energy sources.
- (b) Customers may enroll at any time.
- (c) New solar installations are subject to JEA's system limitations and operational limits of solar power within JEA's service territory.
- (d) Energy produced from JEA solar sources may not be specifically delivered to the customer.
- (e) Any Fuel Credit, approved by JEA's Board, will be calculated using the total kWh less the JEA SolarMax kWh in the month a credit is given.



## CHARGES, ENERGY AUDITS, AND POLICIES



## Fuel Charge

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JEA Pricing Policy determined that the Fuel Charge will be set monthly for full recovery of actual energy expenditures including direct fuel expenses, fuel procurement, fuel handling, residual disposal expense, less any proceeds from the sale of residuals, byproduct expenses directly utilized in managing the facilities used to prepare the byproduct for its final disposition, fuel hedging activities including gains and losses on settlement of fuel hedges, power purchase energy charges such as fuel, and renewable energy that is not considered generation available for JEA's current capacity plans. The Fuel Charge shall also include recovery of prior positive or negative variances.

The said energy charge stated in each rate schedule for each kilowatt hour billed in accordance with JEA's normal billing cycle shall be increased by the fuel charge per kilowatt hour as indicated on [www.jea.com/My\\_Account/Rates/](http://www.jea.com/My_Account/Rates/)



RETAIL SERVICE CHARGES

## Retail Service Charges

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1. A \$10.00 service charge will be added to electric bills for the establishment of each initial service connection. Same day service is available at that charge, however, if same day service is requested after twelve noon, the service charge is \$25.00.
2. A \$14.00 service charge will be added to electric bills for reconnection of services to customers who have been disconnected for non-payment of bills or unauthorized consumption.
3. A \$25.00 service charge will be added to electric bills for special order disconnects for services that cannot be disconnected at the meter due to meter inaccessibility, or services that have been cut off for any reason and found to have been restored without JEA authorization.
4. Upon request, JEA will test a customer's meter for accuracy. If the meter does not test within JEA acceptable accuracy range of + or - 2%, JEA will bear the full cost of the test. If the meter tests within JEA acceptable accuracy range, however, the customer will be required to pay for the full cost of the testing. This service charge will be added to the electric bill.
5. In general, JEA will do all necessary construction at no cost to the customer when an extension of an existing line is found to be necessary and the major portion of an anticipated extension will be built on public rights-of-way. Where these guidelines clearly do not apply, JEA shall determine the total cost of standard and non-standard construction required. For standard construction cost, JEA may charge the customer all costs in excess of 30 times the estimated annual nonfuel revenue for Residential accounts; 4 times for non-Residential accounts. For non-standard construction cost, JEA may charge the customer all cost in excess of 3 times the estimated monthly nonfuel revenue for all accounts.
6. JEA will require a contribution-in-aid-of-construction by a developer for underground utilities in an amount not to exceed the difference in costs between an underground system and an equivalent overhead system. JEA's Policy and Procedure for underground distribution should be referenced for further information.
7. Temporary service will not be provided unless the customer has obtained the necessary building/construction permit. For temporary metered electric service, a minimum \$75.00 service charge will be assessed. Temporary non-metered service may be available in Duval County only. The Temporary non-metered charge of \$200 per service will cover all costs and consumption; consumption will not be metered by JEA. This fee is payable to JEA at the time the permit for construction is obtained.



## Energy Audits

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Upon request JEA will perform the following energy audits:

### **Standard Residential Audit**

An inspection of a customer's residence will be made for free of charge to identify energy consuming equipment and ways to save energy.

### **Class "A" Computer Assisted Audit**

A \$15.00 fee will be charged for this analysis. Audit will focus on economic analysis of major conservation opportunities for residential customers. A written report will be provided which will show estimated cost of recommended changes or additions.

### **Commercial Consultation**

JEA will conduct mini-surveys free of charge to answer specific energy use questions.

### **Commercial Energy Audit**

A \$15.00 fee will be charged for this audit which will include a detailed analysis of energy related factors of building energy efficiencies. The results of the audit will be presented in report form.

### **Large Demand Audit**

A \$100.00 fee will be charged for this commercial survey. The audit will only be offered to customers with a demand equal or greater than 1,000 kW. The results of the audit will include information on ways to maintain the comfort and production levels while reducing energy expenditures. The results of the audit will be presented in report form.



KVAR

## Excess Reactive Demand (KVAR) Policy

Effective October 1, 2006:

This policy applies to accounts receiving service under GSD, GSDT, GSLD, GSLDT, GSXLD, IS, CS, and the Multiple Account Rider as applied to any of these rates.

The customer's utilization equipment shall not result in a target power factor (TPF) at the point of delivery of less than ninety percent (90%) lagging at the time of maximum demand. Should this TPF be less than ninety percent (90%) lagging during any month, JEA may adjust the readings taken to determine the Total Demand.

If TPF is less than ninety percent (90%) lagging then the Billing Demand (BD) is calculated using the following formula:

$BD = \text{Maximum measured 15-minute demand (kW)} \times (TPF / PF)$

PF = power factor calculated per the following formula

$$PF = \text{COS(ATAN(kVar/kW))}$$

kVar in the above formula is the kVar measured coincident with the maximum 15-minute kW demand used in the formula. For GSDT, GSLDT, and GSXLD-TOU the off-peak demand will be used for determining Excess Reactive Demand.

Excess Reactive Demand Charges are the following:

GSD: \$8.40 for Excess Reactive Demand

GSDT: \$4.93 for Excess Reactive Demand

GSLD: \$12.16 for Excess Reactive Demand

GSLDT: \$7.13 for Excess Reactive Demand

GSLDHLF: \$12.16 for Excess Reactive Demand

ISXLD: \$12.16 for Excess Reactive Demand less any applicable Interruptible Demand Credit

GSXLD: \$10.06 for Excess Reactive Demand

GSXLD-TOU: \$11.14 for Excess Reactive Demand less any applicable Interruptible Demand Credit

CS: \$14.41 for Excess Reactive Demand less any applicable Demand Credit

IS: \$12.16 for Excess Reactive Demand less any applicable Interruptible Demand Credit

## Net Metering

Effective October 1, 2009

Net metering is authorized for residential and commercial customers in accordance with

JEA's Distributed Generation Policy.



## TAXES AND FEES



FF

### Franchise Fee Adjustment

(Atlantic Beach, Baldwin, Jacksonville, Orange Park & Clay County, FL)

Legal Authority

Rule 25-6.100, Florida Administrative Code, effective May 16, 1983.

Applicable

To any electric service account located in an area that requires JEA to pay a Franchise Fee for providing electric service within that area.

The Town of Orange Park, Clay County, the City of Atlantic Beach, and the Town of Baldwin areas are 6% Franchise Fee areas. The City of Jacksonville is a 3% Franchise Fee area.

Rate Per Month

The charge per month shall be a pro-rata share of the total Franchise Fee required by the Franchise area plus taxes associated with the Franchise Fee.

The Franchise Fee required by the 6% areas is six (6) percent of the total electric charges. The tax associated with the Franchise Fee is the State of Florida Gross Receipts Tax (2.5% of gross receipts).

The Franchise Fee Adjustment for 6% Franchise areas is calculated as follows for collection purposes:

$$\frac{\text{(Franchise Fee)}}{(1 - \text{Gross Receipts Tax} - \text{Franchise Fee})} =$$

$$\frac{.06}{(1 - .025 - .06)} = \frac{.06}{0.915} =$$

.065574 or 6.5574% of the total electric charges.

The Franchise Fee for residential customers in Jacksonville shall be 3% of the total electric charges. The Franchise Fee for commercial customers in Jacksonville shall be 3% of the total electric charges up to an annualized billing amount of \$2,400,000. For collection purposes the Franchise Fee will not be adjusted for gross receipts tax.

Billing

In accordance with Rule 25-6.100, Florida Administrative Code, the Franchise Fee Adjustment amount shall be separately stated on each customer billing.



PST

## Public Service Tax

### Legal Authority

Chapter 792, Ordinance Code, City of Jacksonville, Florida; Section 166.231, Florida Statutes as amended by Senate Bill #1-D of 1978 and as further amended by Senate Bill #28-D of 1982.

### Applicable

To any electric service account located within the corporate limits of the City of Jacksonville with the exception of accounts of the United States of America, State of Florida, County of Duval, City of Jacksonville, other City Authorities, and churches used for religious purposes. The Public Service Tax is not applicable to electric service accounts located outside Duval County or within the two urban service districts of Atlantic Beach and Baldwin, and to sales for resale.

### Rate per Month

The charge per month shall be 10% of the taxable portion of Base Revenue

### Determination of Taxable Base Revenues

Taxable Base Revenue shall be the total electric service charges as determined by the applicable rate schedule plus the Gross Receipts Tax plus Franchise Fee less the energy charges for non-taxable fuel cost component within the base rate.

### Collection of Taxes for Others

JEA collects a public service tax on any electric service accounts it serves in the Atlantic Beach, Orange Park and Baldwin urban service districts and unincorporated Clay County. This public service tax is collected on behalf of, and remitted to, the Cities of Atlantic Beach, Orange Park, Baldwin and Clay County, respectively. Currently, the monthly public service tax is 5% for Atlantic Beach, 10% for Baldwin and Orange Park, and 4% on usage above 500 kWh for Clay County of the taxable portion of base residential revenues.

### Determination of Taxable Fuel Revenues

Currently the taxable fuel component within the fuel rate is 0.511 cents per kilowatt hour consumption for all rate schedules. The table below displays the off-peak and on-peak taxable fuel component for time-of-use (TOU) rates that corresponds to each service type.

Service Type	Off-Peak TOU	On-Peak TOU
Residential	N/A	N/A
General Service	0.496 cents per kWh	0.545 cents per kWh
General Service Demand	0.496 cents per kWh	0.547 cents per kWh
General Service Large Demand	0.497 cents per kWh	0.547 cents per kWh





GRT

**GROSS RECEIPTS TAX**  
**(FRANCHISE AREAS - Atlantic Beach, Baldwin, Orange Park & Clay County, FL)**

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Legal Authority Chapter 203, Florida Statutes.

Applicable To any electric service account in a 6% franchise area with the exception of sales for resale.

Rate Per Month The Gross Receipts Tax is calculated as follows for collection purposes:

$$\frac{\text{(Gross Receipts Tax)}}{(1 - \text{Gross Receipts Tax} - \text{Franchise Fee})} = \frac{.025}{(1 - .025 - .06)} = \frac{.025}{0.915}$$

.027322 or 2.7322% of the total electric charges.

Billing In accordance with Chapter 203, Florida Statutes, the Gross Receipts Tax shall be separately stated on each customer billing.



## DISCLAIMER



## Disclaimer

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JEA will use reasonable diligence at all times to provide continuous service at the agreed nominal voltage, and JEA shall not be liable to the customer for complete or partial failure or interruption of service, or for fluctuation in voltage, resulting from causes beyond its control, or through the ordinary negligence of its employees, servants, or agents, nor shall JEA be liable for the direct or indirect consequences of interruptions or curtailments made in accordance with the provisions of JEA's rate schedules for interruptible, curtailable, and load management service. JEA shall not be liable for any act or omission caused directly or indirectly by strikes, labor troubles, accidents, litigation, shutdowns or repairs or adjustments, interference by federal, state, municipal governments, acts of God, or other causes beyond JEA's control.



## CONTRACTS AND AGREEMENTS



## Electrical Power Contracts and Agreements

Party	Expiration Date
Anheuser-Busch, Inc, - Cogeneration	August 4, 1987*
AT&T - Pole Attachments	December 1, 2013*
Stone Container Corporation (Westrock)	October 10, 1996*
Navy Utilities Contract	July 8, 1996*
Baptist Medical Center - Cogeneration	April 19, 1986*
City of Jacksonville Beach, FL - Backup electric service	June 1, 1988*
Ring Power Corporation - Landfill Cogeneration	July 7, 1989*

\*Contracts with self-renewing clauses



### JEA SolarMax Rate Agreement

In accordance with the following terms and conditions, \_\_\_\_\_ (hereinafter called the Customer), requests on this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ from JEA, solar power purchases from \_\_\_\_\_ installation located in \_\_\_\_\_, Florida.

(a) Customer agrees to one of the following terms for solar energy purchases

- a. \_\_\_\_\_ 5 years
- b. \_\_\_\_\_ 10 years
- c.

(b) Percent of total monthly energy elected to come from JEA Solar Sources \_\_\_\_\_ %.

(c) Price in ¢/kWh for elected JEA SolarMax kWh for the term of the Agreement:

Year	1	2	3	4	5	6	7	8	9	10
PPA Price										
Administrative Cost Recovery										
Total ¢/kWh										

**JEA Agrees:**

1. To provide kWh identified above, in accordance with the terms of JEA’s currently effective JEA SolarMax Rider on file at the Florida Public Service Commission (FPSC) or any successive JEA SolarMax Rider approved by the FPSC.

**The Customer Agrees:**

1. To be responsible for paying, when due, all bills rendered by JEA pursuant to JEA’s currently effective JEA SolarMax Rider on file at the FPSC or any successive JEA SolarMax Rider approved by the FPSC, for service provided in accordance with this Agreement.

**It Is Mutually Agreed That:**

1. This Agreement shall be for a term as selected above from the date of initiation of service. The date of initiation of service shall be the latter of the first day of the Customer billing period following the commercial operating date of the installation, or the date of this Agreement.
2. JEA shall assign to the Customer all Renewable Energy Credits associated with the JEA SolarMax kWh purchased by the Customer and are thereby the possession of the Customer.
3. This Agreement shall be transferable to facilities with a similar load owned or leased by the Customer upon (90) ninety days advance written notice to JEA.
4. The Customer’s ability to continue receiving the JEA SolarMax Rider terminates upon the termination of this Agreement.

(Continued on Sheet No. 30.1)



(Continued from Sheet No. 30.0)

- 5. This Agreement shall inure to the benefit of, and be binding upon the successors and assigns of the Customer and JEA.
- 6. This Agreement is subject to JEA's Electric Tariff Documentation, as now written, or as may be hereafter revised, amended or supplemented. In the event of any conflict between the terms of this Agreement and the provisions of the JEA Electric Tariff Documentation, the provisions of the Electric Tariff Documentation shall control, as now written, or as may be hereafter revised, amended or supplemented.

IN WITNESS WHEREOF, the parties hereby caused this Agreement to be executed by their duly authorized representatives to be effective as of the day and year first written above.

Rates and Terms Accepted:

JEA

\_\_\_\_\_  
Customer (print or type name of Organization)

\_\_\_\_\_

\_\_\_\_\_  
Signature (Authorized Representative)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print or type name)

\_\_\_\_\_  
(Print or type name)

Title:  
\_\_\_\_\_

Title:  
\_\_\_\_\_

# Appendix C. Generalized Costs

**Driveway - On New Pole**

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0110 1 1	CLEARING & GRUBBING	AC	0.010	\$ 49,052.02	\$ 490.52
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	50.00	\$ 16.18	\$ 809.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	2.00	\$ 1,704.05	\$ 3,408.10
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	50.00	\$ 14.27	\$ 713.50
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1.00	\$ 7,295.05	\$ 7,295.05
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	270.00	\$ 2.13	\$ 575.10
0715 61342	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 12' ARM LENGTH	EA	1.00	\$ 14,855.00	\$ 14,855.00
	<b>SUBTOTAL</b>				<b>\$ 28,146.27</b>
	MOBILIZATION			15%	\$ 4,221.94
	MAINTENANCE OF TRAFFIC			15%	\$ 4,855.23
	<b>SUBTOTAL</b>				<b>\$ 37,223.44</b>
	PROJECT UNKNOWNNS			15%	\$ 5,583.52
	<b>TOTAL</b>				<b>\$ 42,806.96</b>

**Driveway - On Existing Power Pole**

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	50.00	\$ 16.18	\$ 809.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	2.00	\$ 1,704.05	\$ 3,408.10
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	50.00	\$ 14.27	\$ 713.50
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	270.00	\$ 2.13	\$ 575.10
0715 5 32	LUMINAIRE & BRACKET ARM- GALV STEEL, FURNISH & INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE	EA	1.00	\$ 3,840.00	\$ 3,840.00
	<b>SUBTOTAL</b>				<b>\$ 9,345.70</b>
	MOBILIZATION			15%	\$ 1,401.86
	MAINTENANCE OF TRAFFIC			15%	\$ 1,612.13
	<b>SUBTOTAL</b>				<b>\$ 12,359.69</b>
	PROJECT UNKNOWNNS			15%	\$ 1,853.95
	<b>TOTAL</b>				<b>\$ 14,213.64</b>

**T-Intersection - Arrangement A**

< 3,000 AADT On New Pole

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0110 1 1	CLEARING & GRUBBING	AC	0.010	\$ 49,052.02	\$ 490.52
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	100.00	\$ 16.18	\$ 1,618.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	2.00	\$ 1,704.05	\$ 3,408.10
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	100.00	\$ 14.27	\$ 1,427.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1.00	\$ 7,295.05	\$ 7,295.05
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	420.00	\$ 2.13	\$ 894.60
0715 61342	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 12' ARM LENGTH	EA	1.00	\$ 14,855.00	\$ 14,855.00
	SUBTOTAL				<b>\$ 29,988.27</b>
	MOBILIZATION			15%	\$ 4,498.24
	MAINTENANCE OF TRAFFIC			15%	\$ 5,172.98
	<b>SUBTOTAL</b>				<b>\$ 39,659.49</b>
	PROJECT UNKNOWNNS			15%	\$ 5,948.92
	<b>TOTAL</b>				<b>\$ 45,608.41</b>

**T-Intersection - Arrangement B**

≥ 3,000 AADT On New Pole

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0110 1 1	CLEARING & GRUBBING	AC	0.200	\$ 49,052.02	\$ 9,810.40
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	200.00	\$ 16.18	\$ 3,236.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	3.00	\$ 1,704.05	\$ 5,112.15
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	200.00	\$ 14.27	\$ 2,854.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1.00	\$ 7,295.05	\$ 7,295.05
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	792.00	\$ 2.13	\$ 1,686.96
0715 61342	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 12' ARM LENGTH	EA	2.00	\$ 14,855.00	\$ 29,710.00
	SUBTOTAL				<b>\$ 59,704.56</b>
	MOBILIZATION			15%	\$ 8,955.68
	MAINTENANCE OF TRAFFIC			15%	\$ 10,299.04
	<b>SUBTOTAL</b>				<b>\$ 78,959.28</b>
	PROJECT UNKNOWNNS			15%	\$ 11,843.89
	<b>TOTAL</b>				<b>\$ 90,803.17</b>

**T-Intersection - Arrangement A**

< 3,000 AADT    On Existing Pole

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	100.00	\$ 16.18	\$ 1,618.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	2.00	\$ 1,704.05	\$ 3,408.10
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	100.00	\$ 14.27	\$ 1,427.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1.00	\$ 7,295.05	\$ 7,295.05
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	420.00	\$ 2.13	\$ 894.60
0715 5 32	LUMINAIRE & BRACKET ARM- GALV STEEL, FURNISH & INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE	EA	1.00	\$ 3,840.00	\$ 3,840.00
	<b>SUBTOTAL</b>				<b>\$ 18,482.75</b>
	MOBILIZATION			15%	\$ 2,772.41
	MAINTENANCE OF TRAFFIC			15%	\$ 3,188.27
	<b>SUBTOTAL</b>				<b>\$ 24,443.43</b>
	PROJECT UNKNOWNNS			15%	\$ 3,666.51
	<b>TOTAL</b>				<b>\$ 28,109.94</b>

**T-Intersection - Arrangement B**

≥ 3,000 AADT    On Existing Pole

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	200.00	\$ 16.18	\$ 3,236.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	3.00	\$ 1,704.05	\$ 5,112.15
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	200.00	\$ 14.27	\$ 2,854.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1.00	\$ 7,295.05	\$ 7,295.05
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	792.00	\$ 2.13	\$ 1,686.96
0715 5 32	LUMINAIRE & BRACKET ARM- GALV STEEL, FURNISH & INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE	EA	2.00	\$ 3,840.00	\$ 7,680.00
	<b>SUBTOTAL</b>				<b>\$ 27,864.16</b>
	MOBILIZATION			15%	\$ 4,179.62
	MAINTENANCE OF TRAFFIC			15%	\$ 4,806.57
	<b>SUBTOTAL</b>				<b>\$ 36,850.35</b>
	PROJECT UNKNOWNNS			15%	\$ 5,527.55
	<b>TOTAL</b>				<b>\$ 42,377.90</b>

**4-Way Intersection - Arrangement A**

< 3,000 AADT On New Pole

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0110 1 1	CLEARING & GRUBBING	AC	0.200	\$ 49,052.02	\$ 9,810.40
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	200.00	\$ 16.18	\$ 3,236.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	3.00	\$ 1,704.05	\$ 5,112.15
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	200.00	\$ 14.27	\$ 2,854.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1.00	\$ 7,295.05	\$ 7,295.05
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	792.00	\$ 2.13	\$ 1,686.96
0715 61342	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 12' ARM LENGTH	EA	2.00	\$ 14,855.00	\$ 29,710.00
	<b>SUBTOTAL</b>				<b>\$ 59,704.56</b>
	MOBILIZATION			15%	\$ 8,955.68
	MAINTENANCE OF TRAFFIC			15%	\$ 10,299.04
	<b>SUBTOTAL</b>				<b>\$ 78,959.28</b>
	PROJECT UNKNOWNNS			15%	\$ 11,843.89
	<b>TOTAL</b>				<b>\$ 90,803.17</b>

**4-Way Intersection - Arrangement B**

≥ 3,000 AADT On New Pole

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0110 1 1	CLEARING & GRUBBING	AC	0.200	\$ 49,052.02	\$ 9,810.40
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	400.00	\$ 16.18	\$ 6,472.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	5.00	\$ 1,704.05	\$ 8,520.25
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	400.00	\$ 14.27	\$ 5,708.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1.00	\$ 7,295.05	\$ 7,295.05
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	1536.00	\$ 2.13	\$ 3,271.68
0715 61342	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 12' ARM LENGTH	EA	4.00	\$ 14,855.00	\$ 59,420.00
	<b>SUBTOTAL</b>				<b>\$ 100,497.38</b>
	MOBILIZATION			15%	\$ 15,074.61
	MAINTENANCE OF TRAFFIC			15%	\$ 17,335.80
	<b>SUBTOTAL</b>				<b>\$ 132,907.79</b>
	PROJECT UNKNOWNNS			15%	\$ 19,936.17
	<b>TOTAL</b>				<b>\$ 152,843.96</b>

**T-Intersection - Arrangement A**

&lt; 3,000 AADT    On Existing Pole

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	200.00	\$ 16.18	\$ 3,236.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	3.00	\$ 1,704.05	\$ 5,112.15
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	200.00	\$ 14.27	\$ 2,854.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1.00	\$ 7,295.05	\$ 7,295.05
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	792.00	\$ 2.13	\$ 1,686.96
0715 5 32	LUMINAIRE & BRACKET ARM- GALV STEEL, FURNISH & INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE	EA	2.00	\$ 3,840.00	\$ 7,680.00
	<b>SUBTOTAL</b>				<b>\$ 27,864.16</b>
	MOBILIZATION			15%	\$ 4,179.62
	MAINTENANCE OF TRAFFIC			15%	\$ 4,806.57
	<b>SUBTOTAL</b>				<b>\$ 36,850.35</b>
	PROJECT UNKNOWNNS			15%	\$ 5,527.55
	<b>TOTAL</b>				<b>\$ 42,377.90</b>

**T-Intersection - Arrangement B**

≥ 3,000 AADT    On Existing Pole

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	400.00	\$ 16.18	\$ 6,472.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	5.00	\$ 1,704.05	\$ 8,520.25
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	400.00	\$ 14.27	\$ 5,708.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1.00	\$ 7,295.05	\$ 7,295.05
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	1536.00	\$ 2.13	\$ 3,271.68
0715 5 32	LUMINAIRE & BRACKET ARM- GALV STEEL, FURNISH & INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE	EA	4.00	\$ 3,840.00	\$ 15,360.00
	<b>SUBTOTAL</b>				<b>\$ 46,626.98</b>
	MOBILIZATION			15%	\$ 6,994.05
	MAINTENANCE OF TRAFFIC			15%	\$ 8,043.15
	<b>SUBTOTAL</b>				<b>\$ 61,664.18</b>
	PROJECT UNKNOWNNS			15%	\$ 9,249.63
	<b>TOTAL</b>				<b>\$ 70,913.81</b>

**Per Mile On New Pole per Mile (4-lane)**

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0110 1 1	CLEARING & GRUBBING	AC	1.000	\$ 49,052.02	\$ 49,052.02
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	5280.00	\$ 16.18	\$ 85,430.40
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	36.00	\$ 1,704.05	\$ 61,345.80
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	5280.00	\$ 14.27	\$ 75,345.60
0715500 1	POLE CABLE DISTRIBUTION SYSTEM, FURNISH AND INSTALL, CONVENTIONAL	EA	35.00	\$ 819.51	\$ 28,682.85
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	19284.00	\$ 2.13	\$ 41,074.92
0715 61342	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 12' ARM LENGTH	EA	35.00	\$ 14,855.00	\$ 519,925.00
	<b>SUBTOTAL</b>				<b>\$ 860,856.59</b>
	MOBILIZATION			15%	\$ 129,128.49
	MAINTENANCE OF TRAFFIC			15%	\$ 148,497.76
	<b>SUBTOTAL</b>				<b>\$ 1,138,482.84</b>
	PROJECT UNKNOWNNS			15%	\$ 170,772.43
	<b>TOTAL</b>				<b>\$ 1,309,255.27</b>

**Driveway - On New Pole per Mile (2-lane)**

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0110 1 1	CLEARING & GRUBBING	AC	1.000	\$ 49,052.02	\$ 49,052.02
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	5280.00	\$ 16.18	\$ 85,430.40
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	22.00	\$ 1,704.05	\$ 37,489.10
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	5280.00	\$ 14.27	\$ 75,345.60
0715500 1	POLE CABLE DISTRIBUTION SYSTEM, FURNISH AND INSTALL, CONVENTIONAL	EA	21.00	\$ 819.51	\$ 17,209.71
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	17907.00	\$ 2.13	\$ 38,141.91
0715 61342	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 12' ARM LENGTH	EA	21.00	\$ 14,855.00	\$ 311,955.00
	<b>SUBTOTAL</b>				<b>\$ 614,623.74</b>
	MOBILIZATION			15%	\$ 92,193.56
	MAINTENANCE OF TRAFFIC			15%	\$ 106,022.60
	<b>SUBTOTAL</b>				<b>\$ 812,839.90</b>
	PROJECT UNKNOWNNS			15%	\$ 121,925.99
	<b>TOTAL</b>				<b>\$ 934,765.89</b>

**Per Mile - On Existing Poles (4-Lane)**

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	5280.00	\$ 16.18	\$ 85,430.40
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	36.00	\$ 1,704.05	\$ 61,345.80
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	5280.00	\$ 14.27	\$ 75,345.60
0715500 1	POLE CABLE DISTRIBUTION SYSTEM, FURNISH AND INSTALL, CONVENTIONAL	EA	35.00	\$ 819.51	\$ 28,682.85
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	19284.00	\$ 2.13	\$ 41,074.92
0715 5 32	LUMINAIRE & BRACKET ARM- GALV STEEL, FURNISH & INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE	EA	35.00	\$ 3,840.00	\$ 134,400.00
	<b>SUBTOTAL</b>				<b>\$ 426,279.57</b>
	MOBILIZATION			15%	\$ 63,941.94
	MAINTENANCE OF TRAFFIC			15%	\$ 73,533.23
	<b>SUBTOTAL</b>				<b>\$ 563,754.74</b>
	PROJECT UNKNOWNNS			15%	\$ 84,563.21
	<b>TOTAL</b>				<b>\$ 648,317.95</b>

**Per Mile - On Existing Pole (2-lane)**

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	5280.00	\$ 16.18	\$ 85,430.40
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	22.00	\$ 1,704.05	\$ 37,489.10
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	5280.00	\$ 14.27	\$ 75,345.60
0715500 1	POLE CABLE DISTRIBUTION SYSTEM, FURNISH AND INSTALL, CONVENTIONAL	EA	21.00	\$ 819.51	\$ 17,209.71
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	17907.00	\$ 2.13	\$ 38,141.91
0715 5 32	LUMINAIRE & BRACKET ARM- GALV STEEL, FURNISH & INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE	EA	21.00	\$ 3,840.00	\$ 80,640.00
	<b>SUBTOTAL</b>				<b>\$ 334,256.72</b>
	MOBILIZATION			15%	\$ 50,138.51
	MAINTENANCE OF TRAFFIC			15%	\$ 57,659.28
	<b>SUBTOTAL</b>				<b>\$ 442,054.51</b>
	PROJECT UNKNOWNNS			15%	\$ 66,308.18
	<b>TOTAL</b>				<b>\$ 508,362.69</b>

Number of poles based on FDOT LRE for new two lane roadway or new four-lane roadway urban

**Bus Stop or Crosswalk**

4-Lane            New Pole

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0110 1 1	CLEARING & GRUBBING	AC	0.200	\$ 49,052.02	\$ 9,810.40
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	100.00	\$ 16.18	\$ 1,618.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	3.00	\$ 1,704.05	\$ 5,112.15
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	100.00	\$ 14.27	\$ 1,427.00
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	492.00	\$ 2.13	\$ 1,047.96
0715 61342	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 12' ARM LENGTH	EA	2.00	\$ 14,855.00	\$ 29,710.00
	<b>SUBTOTAL</b>				<b>\$ 48,725.51</b>
	MOBILIZATION			15%	\$ 7,308.83
	MAINTENANCE OF TRAFFIC			15%	\$ 8,405.15
	<b>SUBTOTAL</b>				<b>\$ 64,439.49</b>
	PROJECT UNKNOWNNS			15%	\$ 9,665.92
	<b>TOTAL</b>				<b>\$ 74,105.41</b>

**Bus Stop or Crosswalk - On Existing Pole**

4-Lane

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	100.00	\$ 16.18	\$ 1,618.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	3.00	\$ 1,704.05	\$ 5,112.15
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	100.00	\$ 14.27	\$ 1,427.00
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	492.00	\$ 2.13	\$ 1,047.96
0715 5 32	LUMINAIRE & BRACKET ARM- GALV STEEL, FURNISH & INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE	EA	2.00	\$ 3,840.00	\$ 7,680.00
	<b>SUBTOTAL</b>				<b>\$ 16,885.11</b>
	MOBILIZATION			15%	\$ 2,532.77
	MAINTENANCE OF TRAFFIC			15%	\$ 2,912.68
	<b>SUBTOTAL</b>				<b>\$ 22,330.56</b>
	PROJECT UNKNOWNNS			15%	\$ 3,349.58
	<b>TOTAL</b>				<b>\$ 25,680.14</b>

**Bus Stop or Crosswalk**

2 Lane                  New Pole

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0110 1 1	CLEARING & GRUBBING	AC	0.010	\$ 49,052.02	\$ 490.52
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	100.00	\$ 16.18	\$ 1,618.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	2.00	\$ 1,704.05	\$ 3,408.10
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	100.00	\$ 14.27	\$ 1,427.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1.00	\$ 7,295.05	\$ 7,295.05
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	420.00	\$ 2.13	\$ 894.60
0715 61342	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 12' ARM LENGTH	EA	1.00	\$ 14,855.00	\$ 14,855.00
	<b>SUBTOTAL</b>				<b>\$ 29,988.27</b>
	MOBILIZATION			15%	\$ 4,498.24
	MAINTENANCE OF TRAFFIC			15%	\$ 5,172.98
	<b>SUBTOTAL</b>				<b>\$ 39,659.49</b>
	PROJECT UNKNOWNNS			15%	\$ 5,948.92
	<b>TOTAL</b>				<b>\$ 45,608.41</b>

**Bus Stop or Crosswalk - On Existing Pole**

2-Lane

Pay Item	Description	Unit	Quantity	Unit Cost	Amount
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	50.00	\$ 16.18	\$ 809.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	2.00	\$ 1,704.05	\$ 3,408.10
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	50.00	\$ 14.27	\$ 713.50
0715 1 12	LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6	LF	270.00	\$ 2.13	\$ 575.10
0715 5 32	LUMINAIRE & BRACKET ARM- GALV STEEL, FURNISH & INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE	EA	1.00	\$ 3,840.00	\$ 3,840.00
	<b>SUBTOTAL</b>				<b>\$ 9,345.70</b>
	MOBILIZATION			15%	\$ 1,401.86
	MAINTENANCE OF TRAFFIC			15%	\$ 1,612.13
	<b>SUBTOTAL</b>				<b>\$ 12,359.69</b>
	PROJECT UNKNOWNNS			15%	\$ 1,853.95
	<b>TOTAL</b>				<b>\$ 14,213.64</b>