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August 4, 2021

VIA: ELECTRONIC FILING

Mr. Adam J. Teitzman Commission Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Re: Petition of Tampa Electric Company for Approval of Revised Underground

Residential Distribution Tariff

Dkt.: 20210064-EI

Dear Mr. Teitzman:

Attached for filing in the above docket is Tampa Electric Company's Revised Response to Question 3(a) of Staff's Third Data Request (Nos. 1-3), propounded on July 26, 2021.

Thank you for your assistance in connection with this matter.

Sincerely,

James D. Beasley

JDB/bmp Attachment

cc: All Parties of Record (w/attachment)

Holly Forrest, FPSC (w/attachment)

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing revised responses of Tampa Electric Company to Staff's Third Data Request (Nos. 1-3), have been furnished by electronic mail on this 4th day of August 2021 to the following:

Shaw Stiller
Office of General Counsel
Florida Public Service Commission
Room 390L – Gerald L. Gunter Building
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ATTORNEY

James Wohan Lang

FILED: AUGUST 2, 2021 REVISED: AUGUST 4, 2021

- 3. Please provide the Net Present Value of operational costs, including storm restoration costs, calculation, and resulting URD differential for the low- and high-density subdivisions.
 - a. Using calculations based on the historical methodology used by TECO for an average of three years for 2018, 2019, and 2020. Provide all supporting workpapers to show the calculations.
 - b. Using calculations based on an average of five years for the years 2016, 2017, 2018, 2019, and 2020. Please provide all workpapers to show the calculations.
- **A.** a. Please see attached calculations based on the historical methodology for an average of three years for 2018, 2019, and 2020.
 - b. To be provided no later than August 13, 2021.

OVERHEAD VS UNDERGROUND SUMMARY SHEET

Single Occupancy Low Density 210 Lot Subdivision Cost per Lot

ITEM	OVERHEAD	UNDERGROUND	DIFFERENTIAL
Labor	\$719.59	\$1,213.14	\$493.55
Material	\$708.94	\$1,227.97	\$519.03
TOTAL	\$1,428.53	\$2,441.11	\$1,012.58
NPV Operational Cost Including Storm Restoration and Lost Pole Attachment Revenue	\$1,363.15	\$1,216.53	-\$146.62
TOTAL Including NPV Operational Cost	\$2,791.68	\$3,657.64	\$865.96

COST PER SERVICE LATERAL OVERHEAD MATERIAL AND LABOR

Single Occupancy Low Density 210 Lot Subdivision Cost per Lot

ITEM	MATERIAL	LABOR ¹	TOTAL
Service ²	\$134.88	\$79.94	\$214.82
Primary	\$16.04	\$47.12	\$63.16
Secondary	\$121.20	\$160.21	\$281.41
Initial Tree Trim	\$0.00	\$0.00	\$0.00
Poles	\$150.71	\$278.42	\$429.13
Transformers	\$208.91	\$88.24	\$297.15
Subtotal	\$631.74	\$653.93	\$1,285.67
Stores Handling ³	\$77.20	\$0.00	\$77.20
Subtotal	\$708.94	\$653.93	\$1,362.87
Engineering		\$65.66	\$65.66
TOTAL	\$708.94	\$719.59	\$1,428.53

¹ Includes Administration, General, Energy Delivery Supervison, & Transportation

² Includes Meter

³ 12.22% of all Material

COST PER SERVICE LATERAL UNDERGROUND MATERIAL AND LABOR

Single Occupancy Low Density 210 Lot Subdivision Cost per Lot

ITEM	MATERIAL	LABOR ¹	TOTAL
Service ²	\$331.03	\$248.42	\$579.45
Primary	\$304.40	\$109.34	\$413.74
Secondary	\$79.99	\$64.92	\$144.91
Transformers	\$378.83	\$86.18	\$465.01
Pri. and Sec. Trenching	\$0.00	\$319.74	\$319.74
Service Trenching	\$0.00	\$318.88	\$318.88
Subtotal	\$1,094.25	\$1,147.48	\$2,241.73
Stores Handling ³	\$133.72	\$0.00	\$133.72
Subtotal	\$1,227.97	\$1,147.48	\$2,375.45
Engineering		\$65.66	\$65.66
TOTAL	\$1,227.97	\$1,213.14	\$2,441.11

 $^{^{\}rm l}$ Includes Administration, General, Energy Delivery Supervison, & Transportation

Includes Meter

 $^{^3}$ 12.22% of all Material

TYPICAL SINGLE OCCUPANCY LOW DENSITY 210 LOT SUBDIVISION LAYOUT
Overhead Design



TYPICAL SINGLE OCCUPANCY LOW DENSITY 210 LOT SUBDIVISION LAYOUT



OVERHEAD VS UNDERGROUND SUMMARY SHEET

Single Occupancy High Density 176 Lot Subdivision Individually Metered Cost per Lot

ITEM	OVERHEAD	UNDERGROUND	DIFFERENTIAL
Labor	\$570.46	\$1,015.10	\$444.64
Material	\$551.19	\$866.33	\$315.14
TOTAL	\$1,121.65	\$1,881.43	\$759.78
NPV Operational Cost Including Storm Restoration and Lost Pole Attachment Revenue	\$1,020.29	\$567.51	-\$452.78
TOTAL Including NPV Operational Cost	\$2,141.94	\$2,448.94	\$307.00

COST PER SERVICE LATERAL OVERHEAD MATERIAL AND LABOR

Single Occupancy High Density 176 Lot Subdivision Individually Metered Cost per Lot

ITEM	MATERIAL	LABOR ¹	TOTAL
Service ²	\$142.24	\$91.83	\$234.07
Primary	\$12.88	\$35.17	\$48.05
Secondary	\$64.40	\$106.36	\$170.76
Initial Tree Trim			\$0.00
Poles	\$113.97	\$205.55	\$319.52
Transformers	\$157.68	\$70.27	\$227.95
Subtotal	\$491.17	\$509.18	\$1,000.35
Stores Handling ³	\$60.02	\$0.00	\$60.02
Subtotal	\$551.19	\$509.18	\$1,060.37
Engineering		\$61.28	\$61.28
TOTAL	\$551.19	\$570.46	\$1,121.65

 $[\]frac{1}{2}$ Includes Administration, General, Energy Delivery Supervison, & Transportation Includes Meter

^{3 12.22%} of all Material

COST PER SERVICE LATERAL UNDERGROUND MATERIAL AND LABOR

Single Occupancy High Density 176 Lot Subdivision Individually Metered Cost per Lot

ITEM	MATERIAL	LABOR ¹	TOTAL
Service ²	\$288.33	\$260.66	\$548.99
Primary	\$138.27	\$61.14	\$199.41
Secondary	\$78.14	\$70.32	\$148.46
Transformers	\$267.25	\$68.77	\$336.02
Pri. and Sec. Trenching		\$175.02	\$175.02
Service Trenching		\$317.91	\$317.91
Subtotal	\$771.99	\$953.82	\$1,725.81
Stores Handling ³	\$94.34	\$0.00	\$94.34
Subtotal	\$866.33	\$953.82	\$1,820.15
Engineering		\$61.28	\$61.28
TOTAL	\$866.33	\$1,015.10	\$1,881.43

 $[\]frac{1}{2}$ Includes Administration, General, Energy Delivery Supervison, & Transportation Includes Meter

^{3 12.22%} of all Material

OVERHEAD VS UNDERGROUND SUMMARY SHEET

Single Occupancy High Density 176 Lot Subdivision Multi-Unit Meter Centers Cost per Lot

ITEM	OVERHEAD	UNDERGROUND	DIFFERENTIAL
Labor	NA	NA	NA
Material	NA	NA	NA
TOTAL	NA	NA	NA

Tampa Electric's URD policy does not include "per lot" charges for multi-unit meter centers. These installations are covered in Tariff Section 5 Subsection 3.4.4.

COST PER SERVICE LATERAL OVERHEAD MATERIAL AND LABOR

Single Occupancy High Density 176 Lot Subdivision Multi-Unit Meter Centers Cost per Lot

ITEM	MATERIAL	LABOR ¹	TOTAL
Service ²			\$0.00
Primary			\$0.00
Secondary			\$0.00
Initial Tree Trim			\$0.00
Poles			\$0.00
Transformers			\$0.00
Subtotal	\$0.00	\$0.00	\$0.00
Stores Handling ³			\$0.00
Subtotal	\$0.00	\$0.00	\$0.00
Engineering			\$0.00
TOTAL	\$0.00	\$0.00	\$0.00

¹ Includes Administration, General & Transportation

Tampa Electric's URD policy does not include "per lot" charges for multi-unit meter centers. These installations are covered in Tariff Section 5 Subsection 3.4.4.

² Includes Meter

³ 12.22% of all Material

COST PER SERVICE LATERAL UNDERGROUND MATERIAL AND LABOR

Single Occupancy High Density 176 Lot Subdivision Multi-Unit Meter Centers Cost per Lot

ITEM	MATERIAL	LABOR ¹	TOTAL
Service ²			\$0.00
Primary			\$0.00
Secondary			\$0.00
Transformers			\$0.00
Pri. and Sec. Trenching			\$0.00
Service Trenching			\$0.00
Subtotal	\$0.00	\$0.00	\$0.00
Stores Handling ³			\$0.00
Subtotal	\$0.00	\$0.00	\$0.00
Engineering			\$0.00
TOTAL	\$0.00	\$0.00	\$0.00

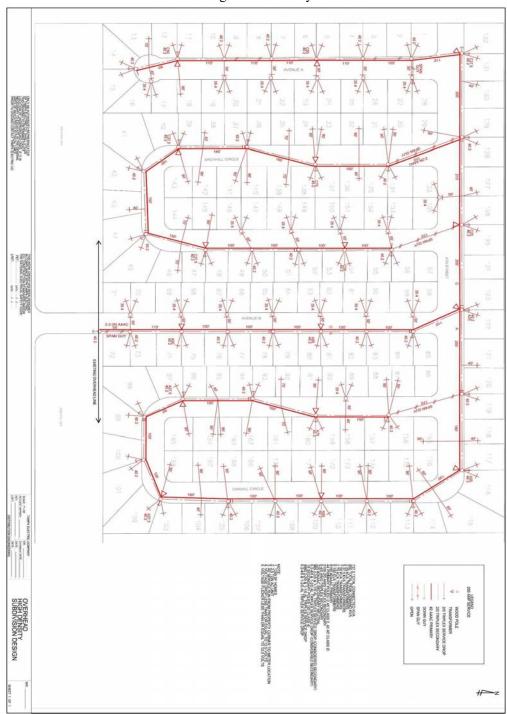
¹ Includes Administration, General & Transportation

Tampa Electric's URD policy does not include "per lot" charges for multi-unit meter centers. These installations are covered in Tariff Section 5 Subsection 3.4.4.

² Includes Meter

^{3 12.22%} of all Material

TYPICAL SINGLE OCCUPANCY HIGH DENSITY 176 LOT SUBDIVISION LAYOUT
Overhead Design - Individually Metered



<u>TYPICAL SINGLE OCCUPANCY HIGH DENSITY 176 LOT SUBDIVISION LAYOUT</u>
Underground Design - Individually Metered



AVERAGE UNDERGROUND FEEDER COSTS

Underground \$/Ft	Overhead \$/Ft	Difference \$/Ft
With Favorable Trenching		\$/Ft
\$/Ft		ψ/1 t
Additional Trenching Cost*		
(Difficult Trenching) \$/Ft		\$/Ft
* Difficult trenching charges include	underground cost of cable-in-cond	duit and rock trench adder.
Note: Above costs reflect adjustment underground estimates.	of \$ for overhead estimate	ates and \$ for
Feeder cost are not included in Tan		- •

ACTUAL OPERATIONAL DISTRIBUTION EXPENSES IN 2020

For Overhead and Underground

OVERHEAD UNDERGROUND

Operational Expense - Distribution

\$63,394,096

\$33,194,939

JOINT TRENCHING WITH OTHER UTILITIES In RESIDENTIAL DISTRIBUTION

2011- 2020 ADDITIONS

				Total	Total
				Amount	Amount
		Work		Due From	Due To
Date		Order		Other	Other
Closed	Location	Number	Footage	<u>Utility</u>	Utility

Tampa Electric did not engage in joint trenching during calendar year 2020.

JOINT TRENCHING WITH OTHER UTILITIES In RESIDENTIAL DISTRIBUTION (continued)

<u>Year</u>	Footage <u>Feet</u>	Amount Due From Other Utility	Amount Due To Other Utility
Total For 2011	0	\$0.00	\$0.00
Total For 2012	0	\$0.00	\$0.00
Total For 2013	0	\$0.00	\$0.00
Total For 2014	0	\$0.00	\$0.00
Total For 2015	0	\$0.00	\$0.00
Total For 2016	0	\$0.00	\$0.00
Total For 2017	0	\$0.00	\$0.00
Total For 2018	0	\$0.00	\$0.00
Total For 2019	0	\$0.00	\$0.00
Total For 2020	0	\$0.00	\$0.00
10-Year Total	0	\$0.00	\$0.00

4/2021 LOW DENSITY MODEL

Underground Costs (per lot)

(210 lots) With overheads filed in rate case

	MATE	ERIAL	LABO	R	TOTAL			
ITEM	COST	% CHANGE	COST	% CHANGE	COST	% CHANGE	EXPLANATION OF % CHANGE	
SERVICE	331.03	64.92%	248.42	46.79%	579.45	56.63%	Underground material up, contractor rates up	
PRIMARY	304.40	30.81%	109.34	51.40%	413.74	35.68%	Underground material up, Cable labor re-evaluation caused labor increase	
SECONDARY	79.99	84.78%	64.92	28.28%	144.91	54.32%	Underground material up, Cable labor re-evaluation caused labor increase	
TRANSFORMERS	378.83	9.14%	86.18	10.13%	465.01	9.32%	Underground material up, TEC & Contractor overhead down	
TRENCHING								
PRIMARY & SECONDARY			319.74	-12.14%	319.74	-12.14%	Contractor rates down	
SERVICES			318.88	-7.16%	318.88	-7.16%	Contractor rates down	
SUB-TOTAL	1,094.25	32.82%	1,147.48	6.48%	2,241.73	17.89%		
STORES HANDLING	133.72	16.11%			133.72	16.11%	Higher material costs produces higher handling costs	
SUB-TOTAL	1,227.97	30.77%	1,147.48	6.48%	2,375.45	17.79%		
ENGINEERING			65.66	0.00%	65.66	0.00%		
TOTAL	1,227.97	30.77%	1,213.14	6.10%	2,441.11	17.23%		
					1,216.53		nt Value of the Life Cycle Operational Cost Including Storm on and Lost Pole Attachment Revenue	
Total with NPV Factor					3,657.64	Total Including NPV of Operational Cost		

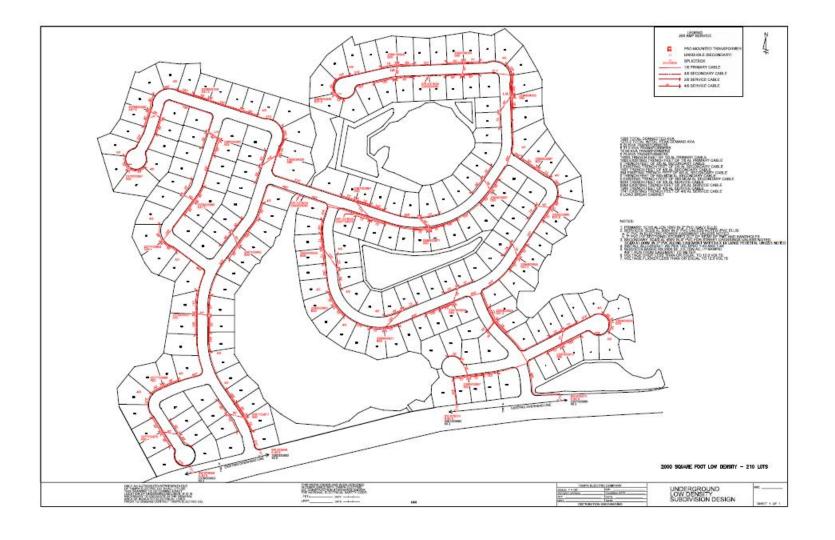
Overhead Costs (per lot)

	MAT	ERIAL	LABO)R	TOTAL			
ITEM	COST	% CHANGE	COST	% CHANGE	COST	% CHANGE	EXPLANATION OF % CHANGE	
SERVICE	134.88	70.67%	79.94	6.94%	214.82	39.69%	Material up, Labor up	
PRIMARY	16.04	15.73%	47.12	12.78%	63.16	13.52%	Material up, Labor up	
SECONDARY	121.20	11.24%	160.21	6.02%	281.41	8.21%	Material up, Labor up	
INITIAL TREE TRIM			0.00		0.00			
POLES	150.71	8.41%	278.42	8.73%	429.13	8.62%	Material up, Labor up	
TRANSFORMERS	208.91	3.31%	88.24	9.53%	297.15	5.08%	Material up, Labor up	
SUB-TOTAL	631.74	16.33%	653.93	8.22%	1,285.67	12.06%		
STORES HANDLING	77.20	1.69%			77.20	1.69%	Higher material costs produces higher handling costs	
SUB-TOTAL	708.94	14.53%	653.93	8.22%	1,362.87	11.41%		
ENGINEERING			65.66	0.00%	65.66	0.00%		
TOTAL	708.94	14.53%	719.59	7.41%	1,428.53	10.83%		
					1,363.15		nt Value of the Life Cycle Operational Cost Including Storm on and Lost Pole Attachment Revenue	
Total with NPV Factor					2,791.68	Total Including NPV of Operational Cost		

Differential Costs (per lot)

	MATERIAL		LABO	R	TOTAL	
ITEM	COST	% CHANGE	COST	% CHANGE	COST	% CHANGE
Differential (per lot)	519.03	62.19%	493.55	4.25%	1,012.58	27.62%
NPV amount					-146.62	
Differential ¹ (per lot)	0.00		0.00		865.96	-276.37%

1 Includes NPV of Operational Cost



UG Construction Cost Data Summary Low Density (210-Lot) UG Subdivision Costs

	Α	В	C (C + M)	D	E (F + L)	F (G+H+I)	G	H (G x J x TLF)	I (G x K x CLF)	J	К	L	M (D x MHR)	N (C+E)
Line #	Work Type/WR #	Description	Material and Handling	Material	Total Labor Plus Vehicles	Total Labor	Base Labor	TEC Labor Overheads	Contract Labor Overheads	TEC Work %	Contractor Work %	Vehicle	Material Handling	Total
1	Transformers													
2	924920	Install & Ground Transformers	89,275.93	\$79,554.38	12,917.76	11,552.89	6,726.81	4,286.32	539.76	60%	40%	\$1,364.87	9,721.55	102,193.69
3	Contractor	Prepare Pad Site	-	-	5,179.75	5,179.75	4,314.30	-	865.45	0%	100%	-	-	5,179.75
4			89,275.93	79,554.38	18,097.51	16,732.64	11,041.11	4,286.32	1,405.21			1,364.87	9,721.55	107,373.44
5														
6	Primary													
7	924957	Primary Line - OH-UG Takeoffs	1,615.06	\$1,439.19	1,910.80	1,708.90	995.03	634.03	79.84	60%	40%	\$201.89	175.87	3,525.85
9	925017 925022	Primary Conduit (Material Only) Primary Cable	25,221.49 44.899.79	\$22,475.04 \$40,010.51	21.050.29	18.826.15	10.961.75	6.984.83	879.57	60%	40%	\$2,224.14	2,746.45 4,889.28	25,221.49 65.950.08
10	925022	Filliary Cable	71,736.34	63,924.74	22,961.08	20,535.05	11,956.78	7,618.86	959.41	0070	40%	2,426.03	7,811.60	94,697.43
11	Secondary		71,730.34	03,924.74	22,901.00	20,555.05	11,950.76	7,010.00	959.41			2,420.03	7,011.00	94,097.43
12	925024	Secondary Cable	11,440.67	\$10.194.86	13,633.22	12.192.76	7,099.38	4,523.72	569.65	60%	40%	\$1,440.46	1.245.81	25.073.90
13	925026	Secondary Conduit (Material Only)	7,409.08	\$6,602.28	-	-	-	-	-			-	806.80	7,409.08
14			18,849.75	16,797.14	13,633.22	12,192.76	7,099.38	4,523.72	569.65			1,440.46	2,052.61	32,482.97
15	Service													
16	925028	Service Cable	26,226.15	\$23,370.30	48,611.12	48,611.12	40,489.02	-	8,122.10	0%	100%	-	2,855.85	74,837.27
17	925029	Set Meters	21,181.30	\$18,874.80	3,556.32	3,180.56	1,851.92	1,180.04	148.60	60%	40%	\$375.75	2,306.50	24,737.62
18	925030	Service Conduit Material	30,604.71	\$27,272.06									3,332.65	30,604.71
19			78,012.16	69,517.16	52,167.43	51,791.68	42,340.94	1,180.04	8,270.70			375.75	8,495.00	130,179.59
20	Trenching													
21 22	Contractor	Primary Trenching			45,216.01	45.216.01	37.661.18		7,554.83	0%	100%			45,216.01
23	Contractor	Secondary Trenching		-	5,475.70	5.475.70	4,560.80		914.90	0%	100%			5.475.70
24	TEC Inspection			_	16,452.69	15.594.97	-		-	100%	0%	857.72	-	16,452.69
25		•	-		67,144.40	66,286.68	42,221.98	-	8,469.73			857.72		67,144.40
26														
27	Contractor	Svc Trenching Pri. Prop	-	-	39,974.94	39,974.94	33,295.80	-	6,679.14	0%	100%	-	-	39,974.94
28	Contractor	Svc Trenching Rts-of-Wy	-	-	17,238.59	17,238.59	14,358.31	-	2,880.28	0%	100%	-	-	17,238.59
29	TEC Inspection	n for Service			9,750.62	9,242.42				100%	0%	508.20		9,750.62
30 31			-	-	66,964.14	66,455.94	47,654.11	-	9,559.41			508.20	-	66,964.14
32 33	Engineering	Design/Inspection/Coordination	-	-	13,788.39	13,788.39	-	-	-			-	-	13,788.39
34 35	Totals (Sum of lines Cost per Lot	4, 10, 14, 19, 25, 30, and 32) (line 34 /210 lots)	\$ 257,874.18 S \$ 1,227.97	229,793.42	\$ 254,756.18 \$ 1,213.12	\$ 247,783.15	\$ 162,314.30 \$	17,608.95	\$ 29,234.11			\$ 6,973.04	\$ 28,080.76	\$ 512,630.36 \$ 2,441.10

	Adjustment Factors			
	TEC Operations Labor Overhead Factor	TLF =	1.062	
	Contractor Labor Overhead Factor	CLF =	0.2006	
1	Current year material handling charge rate	MHR =	0.1222	

TAMPA ELECTRIC COMPANY DOCKET NO. 20210064-EI STAFF'S THIRD DATA REQUEST REQUEST NO. 3a

UG Contractor Labor Estimate - 210 lot low density										
		Prenare nad s	ito (Primary	Contractor	Labor Costs)					
		Total	Cost	Pad sites	<u>Lubor Gostar</u>					
Pad site preparation	Total	\$4,314.30	\$143.81	30						
		Primary Trend Total	ching & Cond Cost	luit (Primar Feet	ry Contractor L	abor Costs)				
		\$29,126.24	\$2.08	14003		Machine Trend	ching Cost Only			
		\$8,061.06	\$0.51	15806		2" Conduit Ins	tallation (both trenching and in existing trench)			
		\$0.00	\$0.00	14003			Illation (used exact length for labor cost not 5% extra)			
Primary Trenching S	Sub-total	\$473.88 \$37,661.18	\$157.96	3		1ø splice box	(30" x 48" x 18"), UG GR&S 6-21			
			anahina 9 C	anduit (Bris	mam, Cantraata	ur I abor Coata				
		Total	Cost	Feet	mary Contracto					
		\$3,321.76	\$2.08	1597		Machine Trenching Cost Only				
		\$0.00	\$0.51	0		2" Conduit Ins				
		\$176.00	\$0.55	320		3" Conduit Ins				
		\$1,063.04 \$0.00	\$0.64 \$0.00	1661 1597		4" Conduit Ins				
Secondary Trenching S	Sub-total	\$4,560.80	\$0.00	1597		Pull-tape Installation (used exact length not 5% extra)				
Primary Contractor Labor Total \$42,221.98										
		Service Trend	hina & Cond	uit (Primar	y Contractor L	abor Costs)				
		<u>Total</u>	Cost	Feet	,					
		\$7,473.44	\$2.08	3593			st -Trenching feet required for 2" service conduit			
		\$1,196.00	\$2.08	575			st -Trenching feet required for 3" service conduit			
		\$4,415.07	\$0.51	8657		2" Conduit Ins				
		\$1,273.80 \$0.00	\$0.55 \$0.00	2316 10973		3" Conduit Ins				
Svc Trenching Rts-of-Wy	Sub-total		\$0.00	10973		Pull-tape insta	Illation (used exact length not 5% extra)			
		Service Trend	hina & Cond	uit on Priva	ate Property (S	ervice Contra	ctor Labor Costs)			
		Total	Cost	Feet						
Svc Trenching Pri. Prop S	Sub-total	\$33,295.80	\$5.26	6330		Trenching & c	onduit labor cost - Trenching feet = 30 ft x 210 lots			
		Service Cable			abor Costs)					
_		<u>Total</u>	Cost	<u>Feet</u>						
Service Cable Labor S	Sub-total	\$40,489.02	\$2.34	17303		Installing 2/0 o	or 4/0 Cable in existing conduit from source to meter			
Service Conractor Labor	Total	\$88,143.13								
Total Contractor Lai	bor Cost	\$130,365.11								
		Inspection (T		ost)						
		TEC Labor	TEC Labor			TEC Vehicle				
		<u>Total</u>	Rate	Feet/Qty	Rate	<u>Total</u>	Inspection costs for Primary Contractor (TECO Labor Cost)			
		\$10,953.46	\$88.00	14003	\$4.84	\$602.44	Primary Inspection chg = (mach. trnch ft / 900 ft per day)*(8 hr/day)*Contractor rate			
		\$1,249.21 \$3,260.30	\$88.00 \$88.00	1597 4168	\$4.84 \$4.84	\$68.71 \$179.32	Secondary Inspection chg = (mach. trnch ft / 900 ft per day)*(8 hr/day)*Contractor rate			
Inspection costs for		\$3,260.30 \$132.00	\$88.00 \$44.00	4168	\$4.84 \$2.42	\$179.32 \$7.26	Service ROW Inspection chg = (machine trench ft / 900 ft per day)*(8 hr/day)*Contractor ra 1ø splice box (30" x 48" x 18"), UG GR&S 6-21			
	Sub-total	\$15,594.97	φ -1-1 .00	J	ψ ∠.4 ∠	\$857.72	19 Spilot Bon (00 A 40 A 10), OO ONGO 0-21			
		TEC Labor	TEC Labor		TEC Vehicle	TEC Vehicle				
		<u>Total</u>	Rate	Feet/Qty	Rate	Total	Inspection costs for Service Contractor (TECO Labor Cost)			
Inspection costs for		\$9,240.00	\$44.00	210	\$2.42	\$2.42 \$508.20 Service Private Property Inspection = .5hr x # of lots x rate				
Service Contractor S	Sub-total	\$9,242.42				\$508.20				
Total TEC Inspect	ion Cost	\$24,837.39								

Please modify the low density construction drawing legend as shown below.

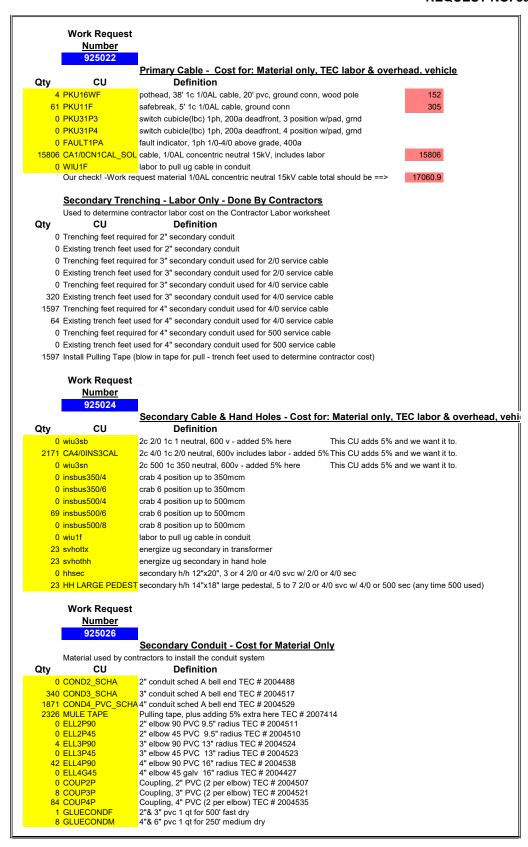
UG Material List - 1501-2500 sq ft same trench 210 lot low density

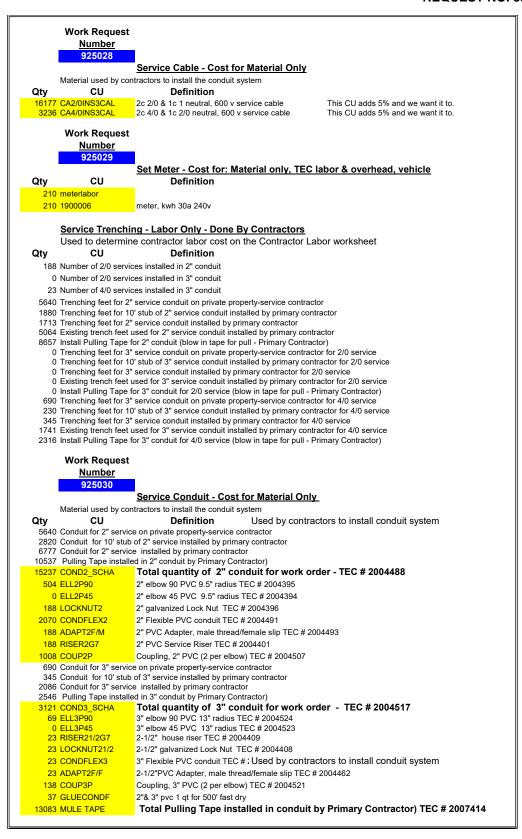
- 1250 Total Connected KVA
- 1272.2 Total initial peak demand KVA
 - 6 25 kVA Transformers
 - 8 37.5 kVA Transformers
 - 16 50 kVA Transformers
 - 0 75 kVA Transformers
- 14003 Trench Feet of 1/0 AL Primary Cable
- 1803 Existing trench feet of 1/0 AL Primary Cable
 - 0 Trench Feet of 2/0 AL Secondary Cable
 - 0 Existing trench feet of 2/0 AL Secondary Cable
- 1597 Trench Feet of 4/0 AL Secondary Cable
- 384 Existing trench feet of 4/0 AL Secondary Cable
 - 0 Trench Feet of 500 MCM AL Secondary Cable
 - Existing trench feet of 500 MCM AL Secondary Cable
- 9233 Trench Feet of 2/0 AL Service Cable
- **5064** Existing trench feet of 2/0 AL Service Cable
- 1265 Trench Feet of 4/0 AL Service Cable
- 1741 Existing trench feet of 4/0 AL Service Cable
 - 0 Load Break Cabinet

Notes:

- 1. 1501-2500 SF Homes
- 2. 3.5 Ton AC Units
- 3. 40' Service run from property corner to meter location
- 4. Voltage drop less than or equal to 12.0 volts
- 5. Voltage flicker less than or equal to 12.0 volts

UG CU Totals (Material and Labor) - 2000 sq ft - 210 lot low density Links allow this worksheet to summarize the material and CU entries from the ParkhurstPole worksheet through the BentTreePole worksheet. The totals are broken down into material construction units (CUs) for WorkPro work requests and labor inputs for the Contractor Labor worksheet. Station All Stations - This information is used to create Work Requests to obtain costs. === Blue shading indicates fields to be undated. In WorkPro search for each Work Request Number shown in the blue areas. Then copy each work request which will create a new work request number to be entered. Transfer the values from Qty and CU columns highlighted in yellow to the new WorkPro Work Requests to obtain new costs Those costs are then entered into the LDdifferentialMonth-Year.xls workbook to calculate the Low Density Differential cost. **Work Request** Number 924920 Transformers - Cost for: Material only, TEC labor & overhead, vehicle CU Definition **Total Connected KVA** Qty 0 pku51a3n 25 kva, 6 tap 250mcm n 6 pku51c3n 25 kva, 8 tap 250mcm 150 150 0 pku51a4n 37.5 kva, 6 tap 250mcm 0 150 1 pku51b4n 37.5 kva, 6 tap 500mcm 37.5 187.5 0 pku51c4n 37.5 kva, 8 tap 250mcm 0 187.5 7 pku51d4n 37.5 kva. 8 tap 500mcm 262.5 450 0 pku51a5n 50 kva, 6 tap 250mcm 0 450 0 pku51b5n 50 kva,6 tap 500mcm 0 pku51c5n 50 kva,8 tap 250mcm 0 450 16 pku51d5n 50 kva.8 tap 500mcm 800 1250 0 pku51a6n 75 kva. 6 tap 250mcm 1250 0 0 pku51b6n 75 kva, 6 tap 500mcm 0 pku51c6n 75 kva,8 tap 250mcm 1250 0 pku51d6n 75 kva, 8 tap 500mcm 1250 1 bushcover arrester open position on loop tx used as radial 1250 1 bushdummy arrester normal open tx in loop 2 bushinsert_arrester at adjacent tx to normal open in a loop 33 grdmeg1/2 meggar ground, drive rods, 1 location, 1/2" rods **Work Request** Number 924957 OH Primary - Cost for: Material only, TEC labor & overhead, vehicle Qty CU Definition 4 PKE601WF1B TEC material & labor to frame terminal pole CO & LA 4 FLOH103 Fuse meggar ground, drive rods, 1 location, 1/2" rods Primary Trenching - Labor Only Done by contractors Used to determine contractor labor cost on the Contractor Labor worksheet Definition Qtv CII 14003 Trenching feet required for 2" primary conduit 1803 Existing trench feet used for 2" primary conduit 14003 Install Pulling Tape (blow in tape for pull - trench feet used to determine contractor cost) Work Request Number 925017 Primary Conduit - Cost for Material only Material used by contractors to install the conduit system Qty CU Definition 40 COND2G Conduit, galvanized 2", 10' with coupling, for up terminal pole TEC # 2004389 16156 COND2 SCHA 2" PVC Schedule A conduit TEC # 2004488 16506 MULE TAPE Pulling tape - actual length - does not need any 5% adder TEC # 2007414 88 ELL2G90 2" elbow 90 galv 9.5" radius TEC # 2004395 2" elbow 45 galv 9.5" radius TEC # 2004394 1 ELL2G45 178 COUP2P Coupling, 2" PVC (2 per elbow) TEC # 2004507 33 GLUECONDF 2"& 3" pvc 1 qt for 500' fast dry 1ø splice box (30" x 48" x 18"), UG GR&S 6-21 3 HH1PHPRI







Contact Name:

Tampa Electric

Estimate Summary Design Number 1

Distribution Services Transformers 2000 Sq Ft

Printed Date: 3/10/2021

District: CSA

WR No. 924920

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: URD filing for 1501-2500 sq ft low density WR Description: LDUG 2000 sq ft TRANSFORMERS

INSTALLATION:	Capital	Oper./Maint.	Total	
MATERIAL:	\$79,554.38	\$0.00	\$79,554.38	
OVERHEAD:	\$11,002.38	\$0.00	\$11,002.38	
	\$90,556.76	\$0.00	\$90,556.76	
LABOR HOURS:	152.8	0	152.8	
LABOR COST:	\$6,726.81	\$0.00	\$6,726.81	
OVERHEAD:	\$8,913.02	\$0.00	\$8,913.02	
	\$15,639.83	\$0.00	\$15,639.83	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$106,196.59	\$0.00	\$106,196.59	
REMOVAL:				
MATERIAL:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
LABOR HOURS:	0	0	0	
LABOR COST:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$0.00	\$0.00	\$0.00	
TRANSFER:				
-				
LABOR HOURS:	0	0	0	
LABOR COST:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$0.00	\$0.00	\$0.00	
TOTALS:	\$106,196.59	\$0.00	\$106,196.59	

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/10/2021 Dist: CSA

WR No. 924920

Page 1 of 1

Mat	erial Numbe	er Description	Unit Price	Total Cost	Asset?		
INSTALL							
2	2003816	ARRESTER, UD, 10KV PARKING L/A, 8.40 KVR	\$144.06	\$288.12	Υ		
2	2003815	ARRESTER, URD, 10KV ELBOW L/A, 8.40 KVRM	\$63.66	\$127.32	Υ		
4	2003817	ARRESTER, URD, 10KV, BUSHING L/A, 8.40KV	\$192.51	\$770.04	Υ		
30	2077906	CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$54.00	N		
60	2078000	CLAMP,GND,TRANSFORMER,#10 SOL-#1 STR CU	\$2.31	\$138.60	N		
4	2077931	CONNECTOR, VICE CU #2 STR	\$2.38	\$9.52	N		
90	2077939	COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$430.20	N		
30	2001315	PAD, CONCRETE 40" X 45" X 4" 25- 50KVA T	\$103.25	\$3,097.50	N		
0	2001316	PAD, CONCRETE 44" X 52" X 4" 75-250KVA T	\$115.55	\$0.00	N		
30	2007395	PADLOCK, RED BRASS BODY 1/4" BRASS SHACK	\$22.97	\$689.10	N		
30	2007489	REPELLENT, FIRE ANT GRANULE 4 OZ BIFENTH	\$2.77	\$83.10	N		
120	2077980	ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$1,646.40	N		
60	2004031	STUD, GALVANIZED, 11 THREAD PER INCH ALL	\$2.47	\$148.20	N		
90	2004904	TERMINAL, SLIP FIT AL 5/8 IN 8-POS #2-50	\$17.94	\$1,614.60	N		
0	2004948	TERMINAL, SLIP FIT ALUMINUM STUD TYPE, 6	\$7.54	\$0.00	N		
0	2004954	TERMINAL, SLIP FIT ALUMINUM STUD TYPE, 6	\$16.58	\$0.00	N		
0	2004950	TERMINAL, SLIP FIT ALUMINUM STUD TYPE, 8	\$8.28	\$0.00	N		
6	2001518	TX,PM,LP,1P,25 kVA,240/120,FR3,SS	\$2,001.00	\$12,006.00	Υ		
8	2001519	TX,PM,LP,1P,37.5 kVA,240/120,FR3,SS	\$2,108.00	\$16,864.00	Υ		
16	2001520	TX,PM,LP,1P,50 kVA,240/120,FR3,SS	\$2,592.00	\$41,472.00	Υ		
0	2001521	TX,PM,LP,1P,75 kVA,240/120,FR3,SS	\$3,044.00	\$0.00	Υ		
180	2004184	WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$113.40	N		
6	2078011	WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$2.28	N		
			Total	\$79,554.38			

d_material_item_summary_test_all



Contact Name:

Estimate Summary Design Number 1

Distribution Services Term Poles - low density 2000 sq ft

Printed Date: 3/10/2021

District: CSA

WR No. 924957

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Low density URD filing - 2000 sq ft homes

WR Description: LDUG 2000 sq ft TAKEOFFS

INSTALLATION:	Capital	Oper./Maint.	Total	
MATERIAL:	\$1,439.19	\$0.00	\$1,439.19	
OVERHEAD:	\$199.05	\$0.00	\$199.05	
	\$1,638.24	\$0.00	\$1,638.24	
LABOR HOURS:	22.62	0	22.62	
LABOR COST:	\$995.03	\$0.00	\$995.03	
OVERHEAD:	\$1,318.42	\$0.00	\$1,318.42	
	\$2,313.45	\$0.00	\$2,313.45	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$3,951.69	\$0.00	\$3,951.69	
REMOVAL:				
MATERIAL:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
LABOR HOURS:	0	0	0	
LABOR COST:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$0.00	\$0.00	\$0.00	
TRANSFER:				
LABOR HOURS:	0	0	0	
LABOR COST:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$0.00	\$0.00	\$0.00	
TOTALS:	\$3,951.69	\$0.00	\$3,951.69	

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/10/2021 Dist: CSA

WR No. 924957

Page 1 of 1

Mate	erial Numbe	er Description	Unit Price	Total Cost	Asset?
INSTALL					
4	2003651	ARRESTER, LIGHTNING DISTRIBUTION CLASS 8	\$41.28	\$165.12	Υ
4	2077754	BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$4.16	N
4	2131366	BRACKET, FG, 1 PH, 1 POS, 18"	\$30.03	\$120.12	N
4	2077906	CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$7.20	N
4	2077911	CLAMP, HOT LINE CU TO CU #6 SOL- 2 STR T	\$5.73	\$22.92	N
160	2078012	CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$134.40	N
12	2004187	CONDUCTOR,BARE,#2 CU,7-STR,SOFT-DRAWN	\$0.98	\$11.76	N
4	2077837	CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$2.64	N
8	2077930	CONNECTOR, VICE CU #4 STR	\$1.91	\$15.28	N
15	2077939	COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$71.70	N
4	2003846	CUTOUT, 15KV, 100A FUSE HLDR, 300A UNVRS	\$70.74	\$282.96	Υ
4	2077793	FUSE LINK, 80A UNVRSL 100A CUTOUT 23" OA	\$6.67	\$26.68	N
4	2077822	KIT, ATTACHMENT, FOR ATTACHING "FLYING"	\$63.00	\$252.00	N
8	2077965	MOULDING, GROUND WIRE, PVC 1/2 IN X 8 FT	\$1.74	\$13.92	N
16	2077980	ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$219.52	N
4	2077789	SCREW, LAG PILOT POINT 3/8 X 3	\$0.27	\$1.08	N
40	2077997	STAPLE, SECURES 1/2" PVC MOULDING TO WOO	\$0.27	\$10.80	N
4	2077828	STIRRUP, AL BODY & CU BAIL 1/0-397	\$17.19	\$68.76	N
4	2078006	WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$0.96	N
4	2004184	WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$2.65	N
12	2078011	WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$4.56	N
			Total	\$1,439.19	



Estimate Summary Design Number 1

Distribution Services Primary conduit 2000 Sq Ft

Printed Date: 3/10/2021

District: CSA

WR No. 925017

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Low density 2000 sq ft URD filing WR Description: LDUG 2000 sq ft PRIMARY CONDUIT

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$22,475.04	\$0.00	\$22,475.04
OVERHEAD:	\$3,108.30	\$0.00	_\$3,108.30
	\$25,583.34	\$0.00	\$25,583.34
LABOR HOURS:	223.84	0	223.84
LABOR COST:	\$9,853.36	\$0.00	\$9,853.36
OVERHEAD:	\$13,055.70	\$0.00	\$13,055.70
	\$22,909.06	\$0.00	\$22,909.06
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$48,492.40	\$0.00	\$48,492.40
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$48,492.40	\$0.00	\$48,492.40

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/10/2021 Dist: CSA

WR No. 925017

Page 1 of 1

Mat	erial Numbe	Pr Description	Unit Price	Total Cost	Asset?
INSTALL					
33	2007227	CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE	\$6.22	\$205.26	N
40	2004389	CONDUIT, GALVANIZED 2 IN 10 FT WITH COUP	\$6.78	\$271.20	Υ
16156	2004488	CONDUIT, PVC 2 IN 20 FT BELL END	\$1.03	\$16,640.68	Υ
178	2004507	COUPLING, PVC 2 IN SCH 40 TEMS 13.01	\$0.60	\$106.80	N
88	2004395	ELBOW, 2" 90 DEGREE ,GALVANIZED, 24" MIN	\$34.29	\$3,017.52	N
1	2004394	ELBOW, GALV 2 INCH 45 DEG THD 15" RADIUS	\$26.25	\$26.25	N
3	2004719	HANDHOLE, SPLICING SINGLE PHASE PRIMARY	\$554.21	\$1,662.63	Υ
18157	2007414	TAPE, PULLING, POLYSTER, RATED AT 1250#,	\$0.03	\$544.70	N
			Total	\$22,475.04	
				,	



Contact Name:

Estimate Summary

Design Number 1

Distribution Services Primary cable - 2000 Sq Ft **Printed Date:** 3/11/2021

District: CSA

WR No. 925022

Date Sched: 4/1/21 Date Required: 4/21/21

Additional Information: URD Low Density 2000 PSC filing WR Description: LDUG 2000 sq ft PRIMARY CABLE

<u> </u>	<u>'</u>			
INSTALLATION:	Capital	Oper./Maint.	Total	
MATERIAL:	\$40,010.51	\$0.00	\$40,010.51	
OVERHEAD:	\$5,533.47	\$0.00	\$5,533.47	
	\$45,543.98	\$0.00	\$45,543.98	
LABOR HOURS:	249.02	0	249.02	
LABOR COST:	\$10,961.75	\$0.00	\$10,961.75	
OVERHEAD:	\$14,524.30	\$0.00	\$14,524.30	
	\$25,486.05	\$0.00	\$25,486.05	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$71,030.03	\$0.00	\$71,030.03	
REMOVAL:				
MATERIAL: OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
LABOR HOURS:	0	0	0	
LABOR COST:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$0.00	\$0.00	\$0.00	
TRANSFER:				
LABOR HOURS:	0	0	0	
LABOR COST:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00 \$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00		
SUBTOTAL:	\$0.00	\$0.00	\$0.00	
TOTALS:	\$71,030.03	\$0.00	\$71,030.03	

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/10/2021 Dist: CSA

WR No. 925022

Page 1 of 1

			raye i oi i		
Mate	rial Numbe	Description	Unit Price	Total Cost	Asset?
INSTALL					
0	2004577	ANCHOR, LEAD EXPANSION, MEDIUM DUTY, SIZ	\$0.66	\$0.00	N
0	2003157	BOLT, 1/2" - 13 X 1-1/2" 18-8 SS HEX HEA	\$2.59	\$0.00	N
0	2003167	BOLT, MACHINE GALV HEX HEAD 5/8 X 1-1/4"	\$0.18	\$0.00	N
17554	2004343	CABLE, ALUMINUM, 15KV, 1/C, 1/0 AWG SOLI	\$2.08	\$33,192.64	Υ
4	2004514	CAP, CONDUIT 2"	\$12.21	\$48.84	N
4	2004453	CAP, END CABLE 600 V CABLE RANGE .940 -	\$1.96	\$7.84	N
4	2003752	CLAMP, CONDUIT GROUND 1-1/4 IN - 2 IN CO	\$7.92	\$31.68	N
0	2077906	CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$0.00	N
80	2004488	CONDUIT, PVC 2 IN 20 FT BELL END	\$1.03	\$82.40	Υ
8	2077837	CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$5.28	N
0	2005009	CONNECTOR, LDBRK 8.3/14.4KV 200A 3POS	\$108.70	\$0.00	N
77	2077931	CONNECTOR, VICE CU #2 STR	\$2.38	\$183.26	N
0	2077939	COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$0.00	N
0	2004982	ENCLOSURE, 200A AL SWITCH MOD/1 PH DUMMY	\$1,122.04	\$0.00	Υ
61	2004642	KIT, SEALING, CABLE ACCESSORY, 1/0 - 4/0	\$9.46	\$577.06	N
0	2001315	PAD, CONCRETE 40" X 45" X 4" 25- 50KVA T	\$103.25	\$0.00	N
0	2007394	PADLOCK, GREEN, TESS, BRASS BODY, WR2	\$21.24	\$0.00	N
0	2007489	REPELLENT, FIRE ANT GRANULE 4 OZ BIFENTH	\$2.77	\$0.00	N
0	2077980	ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$0.00	N
32	2004403	STRAP, GALV 2 IN 2 HOLE	\$0.28	\$8.96	N
61	2004883	TERMINATOR, LOADBREAK 200 AMP, 1/0 SOL	\$37.76	\$2,303.36	Υ
4	2004634	TERMINATOR, POTHEAD, 1/0 TO 4/0, STEM	\$61.22	\$244.88	Υ
0	2078005	WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8	\$0.23	\$0.00	N
0	2078006	WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$0.00	N
8 2004184	WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$5.04	N	
			Total	\$40,010.50	



Estimate Summary Design Number 1

Distribution Services Contact Name: Sec Cable and Handholes 2000 sq ft **Printed Date: 3/11/2021**

District: CSA

WR No. 925024

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: URD low density 2000 homes - PSC filing WR Description: LDUG 2000 sq ft SECONDARY CABLE

INSTALLATION:	Capital	Oper./Maint.	Total	
MATERIAL:	\$10,194.86	\$0.00	\$10,194.86	
OVERHEAD:	\$1,409.95	\$0.00	\$1,409.95	
	\$11,604.81	\$0.00	\$11,604.81	
LABOR HOURS:	161.28	0	161.28	
LABOR COST:	\$7,099.38	\$0.00	\$7,099.38	
OVERHEAD:	\$9,406.70	\$0.00	\$9,406.70	
	\$16,506.08	\$0.00	\$16,506.08	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$28,110.89	\$0.00	\$28,110.89	
REMOVAL:				
MATERIAL:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
LABOR HOURS:	0	0	0	
LABOR COST:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$0.00	\$0.00	\$0.00	
TRANSFER:				
LABOR HOURS:	0	0	0	
LABOR COST:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$0.00	\$0.00	\$0.00	
TOTALS:	\$28,110.89	\$0.00	\$28,110.89	



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/10/2021 Dist: CSA

WR No. 925024

Mate	rial Numbe	r Description	Unit Price	Total Cost	Asset?
INSTALL					
0	2004351	CABLE, CONVERSE, AL, UG, 600V, 2/C, 2/0,	\$1.01	\$0.00	Υ
2605	2004354	CABLE, SWEETBRIAR, AL,UG,600V,2/C,4/0 AW	\$1.39	\$3,621.23	Υ
0	2004356	CABLE, XHHW-2,AL,UG,600V,2/C,500 MCM, 37	\$4.33	\$0.00	Υ
0	2005021	CONNECTOR, 600V URD, 4 POSITION, CONDUCT	\$16.25	\$0.00	N
0	2005022	CONNECTOR, 600V URD, 6 POSITION, CONDUCT	\$14.92	\$0.00	N
69	2005024	CONNECTOR, 600V URD, 6 POSITION, CONDUCT	\$23.41	\$1,615.29	N
0	2005025	CONNECTOR, 600V, URD, 8 POSITION, CONDUC	\$30.35	\$0.00	N
0	2005020	CONNECTOR, URD 600 V 4 POSITION #10-350M	\$10.92	\$0.00	N
23	2000241	DECAL, WARNING, NOTICE, CLEARANCE, 10" X 7"	\$3.56	\$81.88	N
23	2004714	HANDHOLE, ABOVE GRADE, LARGE DOME	\$186.22	\$4,283.06	N
23	2005212	MARKER, CURB LEXAN .040 THICK, ROUND 2.5	\$2.83	\$65.09	N
23	2007395	PADLOCK, RED BRASS BODY 1/4" BRASS SHACK	\$22.97	\$528.31	N
			Total	\$10,194.86	



Contact Name:

Estimate Summary Design Number 1

Distribution Services Secondary conduit-2000 sq ft **Printed Date:** 3/10/2021

District: CSA

WR No. 925026

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: URD low density 2000 sq ft PSC filing WR Description: LDUG 2000 sq ft SECONDARY CONDUIT

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$6,602.28	\$0.00	\$6,602.28
OVERHEAD:	\$913.09	\$0.00	\$913.09
	\$7,515.37	\$0.00	\$7,515.37
LABOR HOURS:	63.08	0	63.08
LABOR COST:	\$2,776.65	\$0.00	\$2,776.65
OVERHEAD:	\$3,679.04	\$0.00	\$3,679.04
	\$6,455.69	\$0.00	\$6,455.69
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$13,971.06	\$0.00	\$13,971.06
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$13,971.06	\$0.00	\$13,971.06



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/10/2021 Dist: CSA

WR No. 925026

Mate	erial Numbe	er Description	Unit Price	Total Cost	Asset
INSTALL		F 1	0	10141 0001	7.0001
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2007227	CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE	\$6.22	\$6.22	N
8	2007228	CEMENT, PVC GRAY MEDIUM DRY QUART W/DAUB	\$7.27	\$58.16	N
0	2004488	CONDUIT, PVC 2 IN 20 FT BELL END	\$1.03	\$0.00	Y
340	2004517	CONDUIT, PVC P & C 3 IN 20 FT	\$1.70	\$578.00	Υ
1871	2004529	CONDUIT, PVC, 4" X 20', DB-60-TC-6	\$2.78	\$5,201.38	Y
0	2004507	COUPLING, PVC 2 IN SCH 40 TEMS 13.01	\$0.60	\$0.00	N
8	2004521	COUPLING, PVC 3 IN SCH 40 TEMS 13.01	\$2.95	\$23.60	N
84	2004535	COUPLING, PVC 4 IN SCH 40 TEMS 13.01	\$4.28	\$359.52	N
0	2004511	ELBOW, CONDUIT PVC 2 IN SCH 40 90 DEG 9-	\$1.26	\$0.00	N
0	2004427	ELBOW, GALV 4 IN 45 DEG THD 16 IN RAD	\$45.37	\$0.00	N
0	2004510	ELBOW, PVC 2 IN 45 DEG 9-1/2 IN RAD SCH	\$0.94	\$0.00	N
0	2004523	ELBOW, PVC 3 IN 45 DEG 13 IN RAD SCH 40	\$3.62	\$0.00	N
4	2004524	ELBOW, PVC 3 IN 90 DEG 13 IN RAD SCH 40	\$4.52	\$18.08	N
42	2004538	ELBOW, PVC 4", 90 DEG., 16" RADIUS, SCHE	\$6.68	\$280.56	N
2559	2007414	TAPE, PULLING, POLYSTER, RATED AT 1250#,	\$0.03	\$76.76	N
			Total	\$6,602.28	



Contact Name:

Estimate Summary
Design Number 1

Distribution Services Service Cable-2000 sq ft

Printed Date: 3/11/2021

District: CSA

WR No. 925028

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Low density URD filing 2000 sq ft WR Description: LDUG 2000 sq ft SERVICE CABLE

INSTALLATION:	Capital	Oper./Maint.	Total	
MATERIAL:	\$23,370.30	\$0.00	\$23,370.30	
OVERHEAD:	\$3,232.12	\$0.00	\$3,232.12	
	\$26,602.42	\$0.00	\$26,602.42	
LABOR HOURS:	1.94	0	1.94	
LABOR COST:	\$85.46	\$0.00	\$85.46	
OVERHEAD:	\$113.22	\$0.00	\$113.22	
	\$198.68	\$0.00	\$198.68	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$26,801.10	\$0.00	\$26,801.10	
REMOVAL:				
MATERIAL:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
LABOR HOURS:	0	0	0	
LABOR COST:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$0.00	\$0.00	\$0.00	
TRANSFER:				
LABOR HOURS:	0	0	0	
LABOR COST:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$0.00	\$0.00	\$0.00	
TOTALS:	\$26,801.10	\$0.00	\$26,801.10	



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021

Dist: CSA

WR No. 925028

			•		
Mat	erial Numbe	er Description	Unit Price	Total Cos	t Asset?
INSTALL					
17795	2004351	CABLE, CONVERSE, AL, UG, 600V, 2/C, 2/0,	\$1.01	\$16,338.77	Υ
3883	2004354	CABLE, SWEETBRIAR, AL, UG, 600 V, 2/C, 4/0 AW	\$1.39	\$4,498.04	Υ
			Total	\$23,370.30	



Contact Name:

Estimate Summary Design Number 1

Distribution Services Meter Labor- 2000 sq ft

Printed Date: 3/10/2021

District: CSA

WR No. 925029

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Low density URD filing 2000 sq ft homes

WR Description: LDUG 2000 sq ft METERS

TR Boodinption: LBoo 20	00 04 11 11 = 1 = 1 10		
INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	42.07	0	42.07
LABOR COST:	\$1,851.92	\$0.00	\$1,851.92
OVERHEAD:	\$2,453.80	\$0.00	\$2,453.80
	\$4,305.72	\$0.00	\$4,305.72
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$4,305.72	\$0.00	\$4,305.72
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$4,305.72	\$0.00	\$4,305.72



Contact Name:

Estimate Summary
Design Number 1

Distribution Services Service Conduit- 2000 sq ft

Printed Date: 3/10/2021

District: CSA

WR No. 925030

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Low density URD filing for 2000 sq ft homes WR Description: LDUG 2000 sq ft SERVICE CONDUIT

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$27,272.06	\$0.00	\$27,272.06
OVERHEAD:	\$3,771.72	\$0.00	\$3,771.72
	\$31,043.78	\$0.00	\$31,043.78
LABOR HOURS:	767.62	0	767.62
LABOR COST:	\$33,791.97	\$0.00	\$33,791.97
OVERHEAD:	\$44,774.34	\$0.00	\$44,774.34
	\$78,566.31	\$0.00	\$78,566.31
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$109,610.09	\$0.00	\$109,610.09
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$109,610.09	\$0.00	\$109,610.09



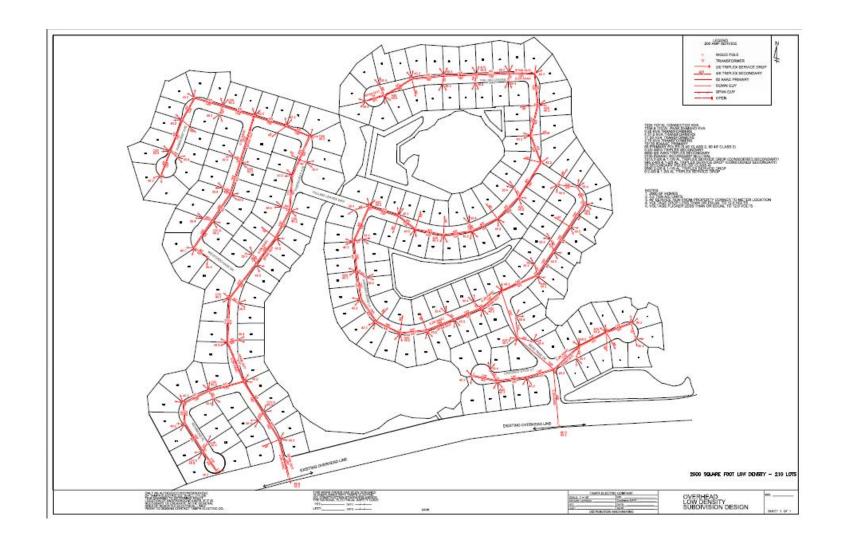
Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/10/2021 Dist: CSA

WR No. 925030

Mater	ial Number	Description	Unit Price	Total Cost	Asset?
INSTALL		Pro-	<u> </u>		7100011
_				0.10.11	
23	2004492	ADAPTER,COND PVC FMLE 2" SCH 40 SOCXFPT	\$0.57	\$13.11	N
188	2004493	ADAPTOR, 2" PVC, FEMALE SLIP TO MALE THR	\$0.40	\$75.20	N
37	2007227	CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE	\$6.22	\$230.14	N
23	2004409	COND,SRVC RISER,TYPE IIPVC,40,2.5"X7'	\$12.00	\$276.00	N
15237	2004488	CONDUIT, PVC 2 IN 20 FT BELL END	\$1.03	\$15,694.11	Υ
2070	2004491	CONDUIT, PVC 2 IN 250 FT ROLL FLEXIBLE	\$1.13	\$2,339.10	N
23	2004518	CONDUIT, PVC 3 IN X 250 FT ROLL FLEXIBL	\$2.16	\$49.68	N
3121	2004517	CONDUIT, PVC P & C 3 IN 20 FT	\$1.70	\$5,305.70	Υ
188	2004401	CONDUIT, SERVICE RISER, PVC, 2"	\$4.92	\$924.96	N
754	2004507	COUPLING, PVC 2 IN SCH 40 TEMS 13.01	\$0.60	\$452.40	N
138	2004521	COUPLING, PVC 3 IN SCH 40 TEMS 13.01	\$2.95	\$407.10	N
504	2004511	ELBOW, CONDUIT PVC 2 IN SCH 40 90 DEG 9-	\$1.26	\$635.04	N
0	2004510	ELBOW, PVC 2 IN 45 DEG 9-1/2 IN RAD SCH	\$0.94	\$0.00	N
0	2004523	ELBOW, PVC 3 IN 45 DEG 13 IN RAD SCH 40	\$3.62	\$0.00	N
69	2004524	ELBOW, PVC 3 IN 90 DEG 13 IN RAD SCH 40	\$4.52	\$311.88	N
188	2004396	NUT, LOCK GALV 2 IN	\$0.54	\$101.52	N
23	2004408	NUT, LOCK GALV 2-1/2 IN	\$1.06	\$24.38	N
14391	2007414	TAPE, PULLING, POLYSTER, RATED AT 1250#,	\$0.03	\$431.74	N
			Total	\$27,272.06	



OH Construction Cost Data Summary Low Density (210-Lot) OH Subdivision Costs

	А	В	C (C + M)	D	(F + L)	F (G+H+1)	G	H (G x J x TLF)	(G x K x CLF)	J	К	L	M (D x MHR)	N (C+E)
Line #	Work Type/WR #	Description	Material and Handling	Material	Total Labor Plus Vehicles	Total Labor	Base Labor	TEC Labor Overheads	Contract Labor Overheads	TEC Work %	Contractor Work %	Vehicle	Material Handling	Total
1	Transformers													
2	925037	Install & Ground Transformers	49,232.37	\$43,871.30	18,530.21	16,572.33	9,649.44	6,148.62	774.27	60%	40%	\$1,957.87	5,361.07	67,762.58
3	Delevere													
4	Primary 925038	Install Primary Line	3,780.00	\$3,368.38	9,895.97	8,850.38	5,153.24	3,283.64	413.50	60%	40%	\$1,045.59	411.62	13,675.97
6	923030	includes Grounding Primary Takeoffs	3,700.00	φ3,300.30	5,050.51	0,000.00	3,133.24	3,203.04	413.30	00 /6	4078	φ1,043.39	411.02	15,075.57
7	Poles	includes Grounding Filmary Takeons												
8	925039	Install Poles and Guy Stubs	35,516.15	\$31,648.68	58,469.09	52,291.34	30,447.26	19,400.99	2,443.09	60%	40%	\$6,177.75	3,867.47	93,985.24
9		Includes Haul Poles Out			,			.,	,					
10	Secondary													
11	925040	Install Secondary Cable	28,563.08	\$25,452.75	33,643.82	30,089.07	17,519.72	11,163.57	1,405.78	60%	40%	\$3,554.75	3,110.33	62,206.90
12														
13	Services													
14	926547	Install Service Cable & Meters	31,785.04	\$28,323.86	16,788.28	15,014.46	8,742.35	5,570.63	701.49	60%	40%	\$1,773.82	3,461.18	48,573.32
15 16														
16	Engineering	Design/Inspection/Coordination			13,788.39	13,788.39				100%	0%			13,788.39
18	Engineening	Design/inspection/Coordination	-		13,700.39	13,700.39	•	-	-	100%	076	-	-	13,700.39
19	Tree Trim		_					_						
20														
21	Totals (Sum of lines 2	2, 5, 8, 11, 14, 17, and 19)	\$ 148,876.63	\$ 132,664.97	\$ 151,115.76	\$ 136,605.98	\$ 71,512.01 \$	45,567.45	\$ 5,738.12			\$ 14,509.79	\$ 16,211.66 \$	299,992.39
22	Cost per Lot	(line 21 / 210 lots)	\$ 708.94		\$ 719.60								\$	1,428.54

Adjustment Factors			
TEC Operations Labor Overhead Factor	TLF =	1.062	
Contractor Labor Overhead Factor	CLF =	0.2006	
Current year material handling charge rate	MHR =	0.1222	

TAMPA ELECTRIC COMPANY DOCKET NO. 20210064-EI STAFF'S THIRD DATA REQUEST REQUEST NO. 3a

Low Density - 210 Lots - Overhead Material List

This worksheet lists the totals for major materials to be listed on the associated work request print as requested by the PSC.

- 1225.0 Total Connected KVA
- 1258.9 Total peak demand KVA
 - 0 25 kVA Transformers
 - 4 37.5 kVA Transformers
 - 17 50 kVA Transformers
 - 3 75 kVA Transformers
- 10130 #2AAAC Primary
- 65 Primary Poles
- 0 2/0 AWG Triplex Secondary
- 8000 4/0 AWG Triplex Secondary
- 2135 #2AAAC Secondary Neutral
- 1515 2-2/0 & 1-1/0 AL Triplex Service Drop (considered secondary)
- 545 2-4/0 & 1-2/0 AL Triplex Service Drop (considered secondary)
- 35 Secondary Poles
- 9360 2-2/0 & 1-1/0 AL Triplex Service Drop
- 0 2-4/0 & 1-2/0 AL Triplex Service Drop

Summary of assemblies (CU's) for Low Density 2000 sq ft Overhead Design - March 2021

Work Request #1	925037	- Transformers (enter these	e Construction Units into W	'orkPro)			
	25 KVA	37.5 KVA	50 KVA	75 KVA	Stirrup	Spacer	Grounding
Assemblies ====>	PKT11W3F	PKT11W4F	PKT11W5F	PKT11W6F	ALSTRP1/0	SEWC	GRDMEG1/2
Total Quantities ==>	0	4	17	3	24	24	24

Work Request #2	925038	- Primary						
	#2 AAAC	1st span	Add'l	Fused cutout	Deadend & tap	2 way lateral	Fuse	Grounding
Assemblies ====>	WIOPA	WIO1F	WIO1A	PKP102WB3A	PKP101WA3A	PKP105WA4A	FLOH103	GRDMEG1/2
Total Quantities ==>	10130	19	43	2	7	2	2	5

Work Request #3	925039	- Poles and Guys											
Should be ====>	Pole haul	1ø tangent	1ø tangent	1ø Deadend	1ø angle <20	lø angle <20	1ø angle >20	1ø angle ≥20	3 ø	Down guys	Pole hardware	Guy wire	Down guys
Assemblies ====>	POLE_HAUL	STP101_TAN_40C2	STP101_TAN_45C2	STP401_DE_40C2	STP101_ANG_40C2	STP101_ANG_45C2	STP301_RC_40C2	STP301_RC_45C2	STP104_TAN_45C2	PKG12W2H	PKG31W1H		
Total Quantities ==>	65	12	1	11	20	1	17	1	2	56	2	70	0

Work Request #4	925040	- Secondary - From Second	lary&Neutral worksheet								
	2/0	4/0	#2 Neutral	1st span	Add'l	1st span	Add'l	Eyebolt	Eyenut	DE+Bolt	
Assemblies ====>	WIO3SB	WIO3SC	WIOPA	WIO1F	WIO1A	WIOCF	WIOCA	SEW1DEN	SEG1DEN	PKS11W	CABLEOPEN
Total Quantities ==>	0	8000	2135	9	2	33	20	4	12	30	12

More of Work Request #4		- Secondary continued	- From Secondary&Neutral v	vorksheet and SlackSecondary	(service cable) & Secondary	y Poles worksheet					
	Pole hardware	Guy wire		35' Class 4	35' Class 6	30' Class 6	Down guy				
Assemblies ====>	PKG31W1H	GUYSTR3/8	POLE_HAUL	STS11C	STS11B	STS11A	PKG11W1H	PKS21G	CA2/0TPX	CA4/0TPX	SVLABOR
Total Quantities ==>	16	1390	35	35	0	0	0	34	1515	545	34

Work Request #5	926547	- Services		
Assemblies> Total Quantities>	CA2/0TPX	CA4/0TPX	SVLABOR	METERLABOR
	9360	0	0	210



Contact Name:

Estimate Summary Design Number 1

Distribution Services LDOH 2000 sq ft Transformers **Printed Date:** 3/10/2021

District: CSA

WR No. 925037

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Used for Low Density 2000 sq ft 3.5 ton ac WR Description: LDOH 2000 sq ft TRANSFORMERS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$43,871.30	\$0.00	\$43,871.30
OVERHEAD:	\$6,067.39	\$0.00	\$6,067.39
	\$49,938.69	\$0.00	\$49,938.69
LABOR HOURS:	219.24	0	219.24
LABOR COST:	\$9,649.44	\$0.00	\$9,649.44
OVERHEAD:	\$12,785.56	\$0.00	\$12,785.56
	\$22,435.00	\$0.00	\$22,435.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$72,373.69	\$0.00	\$72,373.69
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$72,373.69	\$0.00	\$72,373.69



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/10/2021 Dist: CSA

WR No. 925037

			1 age 1 of 1				
Mate	rial Numbe	er Description	Unit Price	Total Cost	Asset?		
INSTALL							
24	2003646	ARRESTER, DISTRIBUTION, 10KV, 8.4KV MCOV	\$39.68	\$952.32	Υ		
24	2077754	BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$24.96	N		
48	2077755	BOLT,MACHINE,SQ HEAD,5/8"X12",ONE SQ NUT	\$1.16	\$55.68	N		
24	2003690	BRACKET, CUTOUT, ARRESTER & POTHEAD DWG	\$7.22	\$173.28	N		
24	2004660	BRACKET,"L" 5-5/8"IN LENGTH FOR MTG CUTO	\$10.41	\$249.84	N		
312	2004197	CABLE, HANDCOIL, COPPER, 600V, 2/0 AWG,	\$2.32	\$723.84	N		
36	2004199	CABLE, HANDCOIL, COPPER, 600V, 4/0 AWG,	\$3.75	\$135.00	N		
24	2077906	CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$43.20	N		
24	2077911	CLAMP, HOT LINE CU TO CU #6 SOL- 2 STR T	\$5.73	\$137.52	N		
48	2078000	CLAMP,GND,TRANSFORMER,#10 SOL-#1 STR CU	\$2.31	\$110.88	N		
960	2078012	CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$806.40	N		
6	2003528	CONNECTOR, 2-BOLT AL MAIN 336-500MCM TAP	\$25.78	\$154.68	N		
63	2077839	CONNECTOR, COMPRESSION H-BLOCK ACSR 1/0-	\$0.53	\$33.39	N		
24	2077837	CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$15.84	N		
3	2077845	CONNECTOR, COMPRESSION H-BLOCK ACSR 4/0	\$0.68	\$2.04	N		
96	2077930	CONNECTOR, VICE CU #4 STR	\$1.91	\$183.36	N		
72	2077939	COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$344.16	N		
42	2003516	COVER, SNAP-ON SQUEEZON CONNECTOR D DIE	\$0.39	\$16.38	N		
24	2003846	CUTOUT, 15KV, 100A FUSE HLDR, 300A UNVRS	\$70.74	\$1,697.76	Υ		
17	2077806	FUSE LINK, 10A UNVRSL 100A CUTOUT 23" OA	\$3.91	\$66.47	N		
3	2077807	FUSE LINK, 15A UNVRSL 100A CUTOUT 23" OA	\$3.93	\$11.79	N		
4	2077805	FUSE LINK, 7A UNVRSL 100A CUTOUT 23" OAL	\$3.89	\$15.56	N		
48	2077965	MOULDING, GROUND WIRE, PVC 1/2 IN X 8 FT	\$1.74	\$83.52	N		
24	2007368	PROTECTOR, WILD LIFE, SLIP-ON TYPE	\$5.35	\$128.40	N		
96	2077980	ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$1,317.12	N		
24	2077767	ROLLED BOLT, DOUBLE-ARMING, 5/8"X 16"	\$2.65	\$63.60	N		
24	2077789	SCREW, LAG PILOT POINT 3/8 X 3	\$0.27	\$6.48	N		
24	2077812	SPACER, CABLED SECONDARY	\$6.79	\$162.96	N		
240	2077997	STAPLE, SECURES 1/2" PVC MOULDING TO WOO	\$0.27	\$64.80	N		
24	2077826	STIRRUP, AL BODY & CU BAIL 2-4/0	\$10.18	\$244.32	N		
4	2001368	TX,OH,37.5 kVA,7.62/13.2Y,120/240,FR3	\$1,253.83	\$5,015.32	Υ		
17	2001369	TX,OH,50 kVA,7.62/13.2Y,120/240,FR3	\$1,463.60	\$24,881.20	Υ		
3	2001370	TX,OH,75 kVA,7.62/13.2Y,120/240,FR3	\$1,924.56	\$5,773.68	Υ		
120	2078006	WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$28.80	N		
72	2078014	WIRE, ALUMINUM, TIE, #4 BARE ANNEALED	\$0.11	\$7.92	N		
76	2004184	WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$47.63	N		
240	2078011	WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$91.20	N		
			Total	\$43,871.30			



Contact Name:

Estimate Summary Design Number 1

Distribution Services LDOH 2000 sq ft Primary

Printed Date: 3/10/2021

District: CSA

WR No. 925038

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Used for 2000 square foot design WR Description: LDOH 2000 sq ft PRIMARY

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$3,368.38	\$0.00	\$3,368.38
OVERHEAD:	\$465.86	\$0.00	\$465.86
	\$3,834.24	\$0.00	\$3,834.24
LABOR HOURS:	117.08	0	117.08
LABOR COST:	\$5,153.24	\$0.00	\$5,153.24
OVERHEAD:	\$6,828.03	\$0.00	\$6,828.03
	\$11,981.27	\$0.00	\$11,981.27
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$15,815.51	\$0.00	\$15,815.51
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
	0	0	0
LABOR HOURS: LABOR COST:			0
OVERHEAD:	\$0.00	\$0.00	\$0.00
OVERTIEND.	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00 \$0.00
VEHICLE:	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00 \$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$15,815.51	\$0.00	\$15,815.51



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/10/2021 Dist: CSA

WR No. 925038

			Page 1011				
Materia	al Number	Description	Unit Price	Total Cost	Asset?		
INSTALL							
5 2	2003646	ARRESTER, DISTRIBUTION, 10KV, 8.4KV MCOV	\$39.68	\$198.40	Υ		
9 2	2077739	BOLT, EYE, 5/8 IN. X 10 IN., GALVANIZED	\$3.12	\$28.08	N		
7 2	2077754	BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$7.28	N		
2 2	2077780	BOLT, SPOOL, 5/8" X 10", GALV. SINGLE UP	\$4.16	\$8.32	N		
5 2	2003681	BRACKET, "L", LIGHTNING ARRESTER 10 KV	\$7.95	\$39.75	N		
2 2	2003685	BRACKET, FIBERGLASS STANDOFF VERTICAL16"	\$25.98	\$51.96	N		
2 2	2004660	BRACKET,"L" 5-5/8"IN LENGTH FOR MTG CUTO	\$10.41	\$20.82	N		
18 2	2077818	CLAMP, DEADEND ACSR OR AAC #2-4/0OR .30-	\$9.12	\$164.16	N		
5 2	2077906	CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$9.00	N		
16	2077911	CLAMP, HOT LINE CU TO CU #6 SOL- 2 STR T	\$5.73	\$91.68	N		
10637	2004331	CONDUCTOR, BARE OVERHEAD, 2 AWG, AAAC, 7	\$0.15	\$1,595.48	Υ		
200 2	2078012	CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$168.00	N		
22 2	2077838	CONNECTOR, COMPRESSION H-BLOCK ACSR #2-1	\$0.41	\$9.02	N		
16 2	2077837	CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$10.56	N		
10 2	2077930	CONNECTOR, VICE CU #4 STR	\$1.91	\$19.10	N		
15 2	2077939	COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$71.70	N		
2 2	2003846	CUTOUT, 15KV, 100A FUSE HLDR, 300A UNVRS	\$70.74	\$141.48	Υ		
4 2	2077765	DOUBLE-ARMING, GALVANIZED 5/8 "X 12"	\$2.35	\$9.40	N		
2 2	2077794	FUSE LINK, 103A UNVRSL 100A CUTOUT 23" O	\$24.29	\$48.58	N		
2 2	2077954	INSULATOR, PIN TYPE, 10KV, ANSI CLASS 55	\$3.75	\$7.50	N		
2 2	2077952	INSULATOR, SPOOL, ANSI CLASS 53-3, TRANS	\$1.21	\$2.42	N		
9 2	2077959	INSULATOR, SUSPENSION, POLYMER, 25KV, AP	\$11.86	\$106.74	N		
10 2	2077965	MOULDING, GROUND WIRE, PVC 1/2 IN X 8 FT	\$1.74	\$17.40	N		
9 2	2077783	NUT, EYE, STANDARD, 1-1/2" GALVANIZED FO	\$1.51	\$13.59	N		
20 2	2077980	ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$274.40	N		
7 2	2077789	SCREW, LAG PILOT POINT 3/8 X 3	\$0.27	\$1.89	N		
50 2	2077997	STAPLE, SECURES 1/2" PVC MOULDING TO WOO	\$0.27	\$13.50	N		
2 2	2077828	STIRRUP, AL BODY & CU BAIL 1/0-397	\$17.19	\$34.38	N		
14 2	2077826	STIRRUP, AL BODY & CU BAIL 2-4/0	\$10.18	\$142.52	N		
2 2	2003613	TIE, TOP, FORMED WIRE #2 ACSR OR #2 AAAC	\$2.87	\$5.74	N		
22 2	2078006	WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$5.28	N		
4 2	2078014	WIRE, ALUMINUM, TIE, #4 BARE ANNEALED	\$0.11	\$0.44	N		
67 2	2004184	WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$42.21	N		
20 2	2078011	WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$7.60	N		
			Total	\$3,368.37			



Contact Name:

Estimate Summary Design Number 1

Distribution Services LDOH 2000 sq ft - POLES

Printed Date: 3/10/2021

District: CSA

WR No. 925039

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Used for 2000 square foot design

WR Description: LDOH 2000 sq ft POLES

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$31,648.68	\$0.00	\$31,648.68
OVERHEAD:	\$4,377.02	\$0.00	\$4,377.02
	\$36,025.70	\$0.00	\$36,025.70
LABOR HOURS:	691.7	0	691.7
LABOR COST:	\$30,447.26	\$0.00	\$30,447.26
OVERHEAD:	\$40,342.60	\$0.00	\$40,342.60
	\$70,789.86	\$0.00	\$70,789.86
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$106,815.56	\$0.00	\$106,815.56
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$106,815.56	\$0.00	\$106,815.56



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/10/2021 Dist: CSA

WR No. 925039

			Page 1011			
Materia	al Numbe	r Description	Unit Price	Total Cost	Asset?	
INSTALL						
56 2	2003632	ANCHOR,SCRW GALV 10" WING 1-1/4" ROD 8"	\$48.15	\$2,696.40	N	
37 2	077739	BOLT, EYE, 5/8 IN. X 10 IN., GALVANIZED	\$3.12	\$115.44	N	
114 2	077764	BOLT, MACHINE 3/4" X 12", GALV	\$2.41	\$274.74	N	
68 2	077754	BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$70.72	N	
40 2	077753	BOLT, MACHINE 5/8" X 8", GALV.	\$1.05	\$42.00	N	
2 2	2077780	BOLT, SPOOL, 5/8" X 10", GALV. SINGLE UP	\$4.16	\$8.32	N	
44 2	077755	BOLT,MACHINE,SQ HEAD,5/8"X12",ONE SQ NUT	\$1.16	\$51.04	N	
4 2	2003686	BRACKET, FIBERGLASS STANDOFF VERTICAL24"	\$48.88	\$195.52	N	
18 2	077818	CLAMP, DEADEND ACSR OR AAC #2-4/0OR .30-	\$9.12	\$164.16	N	
19 2	2003508	CLAMP, SUSPENSION AL ANGLE RANGE .50 TO	\$13.95	\$265.05	N	
40 2	077924	CLEVIS, STEEL LESS INSULATOR 5/8 IN PIN	\$9.38	\$375.20	N	
315 2	078012	CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$264.60	N	
60 2	077837	CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$39.60	N	
63 2	2077930	CONNECTOR, VICE CU #4 STR	\$1.91	\$120.33	N	
4 2	077765	DOUBLE-ARMING, GALVANIZED 5/8 "X 12"	\$2.35	\$9.40	N	
56 2	2003636	EXTENSION ROD, ANCHOR 1-1/4 X 72 6 FT	\$50.54	\$2,830.24	N	
36 2	077901	FIBERGLASS RIDGE-PIN	\$28.87	\$1,039.32	N	
226 2	077949	GRIP,GUY,FORMED WIRE DEADEND,3/8"EHS	\$2.27	\$513.02	N	
37 2	077862	GUARD, LINE #2 ACSR & AAAC STR 6/1, 7	\$1.95	\$72.15	N	
114 2	077951	HOOK, GUY	\$2.73	\$311.22	N	
40 2	077954	INSULATOR, PIN TYPE, 10KV, ANSI CLASS 55	\$3.75	\$150.00	N	
2 2	077952	INSULATOR, SPOOL, ANSI CLASS 53-3, TRANS	\$1.21	\$2.42	N	
58 2	077961	INSULATOR, STRAIN FIBERGLASS 36 IN 15,00	\$14.73	\$854.34	N	
37 2	077959	INSULATOR, SUSPENSION, POLYMER, 25KV, AP	\$11.86	\$438.82	N	
56 2	077979	MARKER, GUY WIRE PLASTIC 8' IN LENGTH CO	\$4.43	\$248.08	N	
60 2	002857	POLE, WOOD, 40FT CLASS 2, CCA TREATED	\$272.68	\$16,360.80	Υ	
5 2	002858	POLE, WOOD, 45 FT CLASS 2, CCA TREATED.	\$323.31	\$1,616.55	Υ	
31 2	077767	ROLLED BOLT, DOUBLE-ARMING, 5/8"X 16"	\$2.65	\$82.15	N	
114 2	2077790	SCREW, LAG 1/2" X 4", GALV., TWIST DRIVE	\$0.47	\$53.58	N	
71 2	077812	SPACER, CABLED SECONDARY	\$6.79	\$482.09	N	
21 2	2003612	TIE, PREFORMED SIDE TIE #2 ACSR OR #2 A	\$2.64	\$55.44	N	
19 2	2003613	TIE, TOP, FORMED WIRE #2 ACSR OR #2 AAAC	\$2.87	\$54.53	N	
114 2	2078002	WASHER, CURVED, MALLEABLE, 3" X 3"	\$1.22	\$139.08	N	
221 2	2078006	WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$53.04	N	
217 2	078014	WIRE, ALUMINUM, TIE, #4 BARE ANNEALED	\$0.11	\$23.87	N	
4774 2	2005879	WIRE,GUY,EHS STEEL,GALV,3/8",15.4K RBS	\$0.33	\$1,575.42	N	
			Total	\$31,648.68		



Contact Name:

Estimate Summary

Design Number 1

Distribution Services LDOH 2000 sq ft Secondary **Printed Date:** 3/10/2021

District: CSA

WR No. 925040

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Used for 2000 sq ft 3.5 TON AC design WR Description: LDOH 2000 sq ft SECONDARY

<u> </u>	<u>'</u>		
INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$25,452.75	\$0.00	\$25,452.75
OVERHEAD:	\$3,520.12	\$0.00	\$3,520.12
	\$28,972.87	\$0.00	\$28,972.87
LABOR HOURS:	397.97	0	397.97
LABOR COST:	\$17,519.72	\$0.00	\$17,519.72
OVERHEAD:	\$23,213.62	\$0.00	\$23,213.62
	\$40,733.34	\$0.00	\$40,733.34
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$69,706.21	\$0.00	\$69,706.21
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABORLIOURO	0	0	0
LABOR HOURS: LABOR COST:		\$0.00	\$0.00
OVERHEAD:	\$0.00 \$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VELUCI E.	\$0.00	\$0.00	\$0.00
VEHICLE: CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$69,706.21	\$0.00	\$69,706.21



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/10/2021 Dist: CSA

WR No. 925040

			Page	1 01 1	
Mate	erial Numbe	er Description	Unit Price	Total Cost	Asset?
INSTALL					
8	2003632	ANCHOR,SCRW GALV 10" WING 1-1/4" ROD 8"	\$48.15	\$385.20	N
34	2077739	BOLT, EYE, 5/8 IN. X 10 IN., GALVANIZED	\$3.12	\$106.08	N
24	2077764	BOLT, MACHINE 3/4" X 12", GALV	\$2.41	\$57.84	N
8	2077755	BOLT,MACHINE,SQ HEAD,5/8"X12",ONE SQ NUT	\$1.16	\$9.28	N
8400	2004339	CABLE, OVERHEAD SECONDARY, TRIPLEX, 4/0	\$1.72	\$14,448.00	Υ
1591	2004364	CABLE, SERVICE DROP AL 2-2/0 & 1-1/0 NEU	\$0.96	\$1,527.17	Υ
627	2004366	CABLE, SERVICE DROP AL 2-4/0 & 1-2/0 NEU	\$1.42	\$890.06	Υ
64	2077818	CLAMP, DEADEND ACSR OR AAC #2-4/0OR .30-	\$9.12	\$583.68	N
2242	2004331	CONDUCTOR, BARE OVERHEAD, 2 AWG, AAAC, 7	\$0.15	\$336.27	Υ
192	2077839	CONNECTOR, COMPRESSION H-BLOCK ACSR 1/0-	\$0.53	\$101.76	N
30	2077837	CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$19.80	N
30	2077931	CONNECTOR, VICE CU #2 STR	\$2.38	\$71.40	N
128	2003516	COVER, SNAP-ON SQUEEZON CONNECTOR D DIE	\$0.39	\$49.92	N
8	2003636	EXTENSION ROD, ANCHOR 1-1/4 X 72 6 FT	\$50.54	\$404.32	N
32	2077949	GRIP,GUY,FORMED WIRE DEADEND,3/8"EHS	\$2.27	\$72.64	N
24	2077951	HOOK, GUY	\$2.73	\$65.52	N
16	2077961	INSULATOR, STRAIN FIBERGLASS 36 IN 15,00	\$14.73	\$235.68	N
8	2077979	MARKER, GUY WIRE PLASTIC 8' IN LENGTH CO	\$4.43	\$35.44	N
46	2077783	NUT, EYE, STANDARD, 1-1/2" GALVANIZED FO	\$1.51	\$69.46	N
0	2002836	POLE, WOOD 30 FT CLASS 6 CCA TREATED NO	\$82.69	\$0.00	Υ
35	2002842	POLE, WOOD, 35 FT, CLASS 4, CCA TREATED.	\$141.93	\$4,967.55	Υ
35	2077767	ROLLED BOLT, DOUBLE-ARMING, 5/8"X 16"	\$2.65	\$92.75	N
24	2077790	SCREW, LAG 1/2" X 4", GALV., TWIST DRIVE	\$0.47	\$11.28	N
35	2077812	SPACER, CABLED SECONDARY	\$6.79	\$237.65	N
24	2078002	WASHER, CURVED, MALLEABLE, 3" X 3"	\$1.22	\$29.28	N
108	2078006	WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$25.92	N
105	2078014	WIRE, ALUMINUM, TIE, #4 BARE ANNEALED	\$0.11	\$11.55	Ν
60	2004184	WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$37.80	Ν
1726	2005879	WIRE,GUY,EHS STEEL,GALV,3/8",15.4K RBS	\$0.33	\$569.58	N
			Total	\$25,452.75	



Contact Name:

Estimate Summary Design Number 1

Distribution Services LDOH 2000 sq ft SERVICE

Printed Date: 3/10/2021

District: CSA

WR No. 926547

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Used for 2000 square foot design WR Description: LDOH 2000 sq ft SERVICE

•	<u>'</u>			
INSTALLATION:	Capital	Oper./Maint.	Total	
MATERIAL:	\$9,449.06	\$0.00	\$9,449.06	
OVERHEAD:	\$1,306.80	\$0.00	\$1,306.80	
	\$10,755.86	\$0.00	\$10,755.86	
LABOR HOURS:	198.6	0	198.6	
LABOR COST:	\$8,742.35	\$0.00	\$8,742.35	
OVERHEAD:	\$11,583.63	\$0.00	\$11,583.63	
	\$20,325.98	\$0.00	\$20,325.98	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$31,081.84	\$0.00	\$31,081.84	
REMOVAL:				
MATERIAL:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
LABOR HOURS:	0	0	0	
LABOR COST:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$0.00	\$0.00	\$0.00	
TRANSFER:				
LABOR HOURS:	0	0	0	
LABOR COST:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$0.00	\$0.00	\$0.00	
TOTALS:	\$31,081.84	\$0.00	\$31,081.84	



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/10/2021

Dist: CSA WR No. 926547

			•		
Mate	erial Number	Description	Unit Price	Unit Price Total Cost	
INSTALL					
9828	2004364	CABLE, SERVICE DROP AL 2-2/0 & 1-1/0 NEU	\$0.96	\$9,434.88	Υ
0	2004366	CABLE, SERVICE DROP AL 2-4/0 & 1-2/0 NEU	\$1.42	\$0.00	Υ
2	2003770	CLAMP, MID SPAN ALUMINUM 1/4 IN - 1/2 IN	\$7.09	\$14.18	N
			Total	\$9,449.06	

HIGH DENSITY MODEL (176 lots)

Underground Costs (per lot)

	MATER	IAL	LABO	R	тота	.L	
ITEM	COST	% CHANGE	COST	% CHANGE	COST	% CHANGE	EXPLANATION OF % CHANGE
SERVICE	288.33	66.47%	260.66	46.99%	548.99	56.62%	Underground material up, contractor rates up
PRIMARY	138.27	29.97%	61.14	18.53%	199.41	26.23%	Underground material up, Cable labor re-evaluation caused labor increase
SECONDARY	78.14	99.59%	70.32	26.07%	148.46	56.39%	Underground material up, Cable labor re-evaluation caused labor increase
TRANSFORMERS	267.25	7.38%	68.77	11.21%	336.02	8.14%	Underground material up, TEC & Contractor overhead down
TRENCHING							
PRIMARY & SECONDARY			175.02	-11.71%	175.02	-11.71%	Contractor rates down
SERVICES			317.91	-7.46%	317.91	-7.46%	Contractor rates down
SUB-TOTAL	771.99	36.00%	953.82	7.38%	1,725.81	18.54%	
STORES HANDLING	94.34	18.89%			94.34	18.89%	Higher material costs produces higher handling costs
SUB-TOTAL	866.33	33.90%	953.82	7.38%	1,820.15	18.56%	
ENGINEERING			61.28	0.00%	61.28	0.00%	
TOTAL	866.33	33.90%	1,015.10	6.90%	1,881.43	17.84%	
					Net Present Value of the Life Cycle Operational Cost Including Sto		
					1		and Lost Pole Attachment Revenue
Total with NPV Factor					2,448.94	Total Includ	ing NPV of Operational Cost

Overhead Costs (per lot)

	MATER	RIAL	LABO	R	TOTA	ıL.		
ITEM	COST	% CHANGE	COST	% CHANGE	COST	% CHANGE	EXPLANATION OF % CHANGE	
SERVICE	142.24	70.76%	91.83	6.98%	234.07	38.39%	Material up, Labor up	
PRIMARY	12.88	19.59%	35.17	17.70%	48.05	18.20%	Material up, Labor up	
SECONDARY	64.40	10.81%	106.36	-1.55%	170.76	2.77%	Material up, Labor down	
INITIAL TREE TRIM			0.00		0.00			
POLES	113.97	8.83%	205.55	10.04%	319.52	9.61%	Material up, Labor up	
TRANSFORMERS	157.68	3.30%	70.27	11.95%	227.95	5.82%	Material up, Labor up	
SUB-TOTAL	491.17	19.93%	509.18	7.58%	1,000.35	13.31%		
STORES HANDLING	60.02	4.82%			60.02	4.82%	Higher material costs produces higher handling costs	
SUB-TOTAL	551.19	18.07%	509.18	7.58%	1,060.37	12.79%		
ENGINEERING			61.28	0.00%	61.28	0.00%		
TOTAL	551.19	18.07%	570.46	6.71%	1,121.65	12.01%		
					1,020.29	Net Present Value of the Life Cycle Operational Cost Including Storr Restoration and Lost Pole Attachment Revenue		
Total with NPV Factor					2,141.94	Total Includ	ing NPV of Operational Cost	

Differential Costs (per lot)

	MATER	RIAL	LABO	R	TOTAL		
ITEM	COST	% CHANGE	COST	% CHANGE	COST	% CHANGE	
Differential (per lot)	315.14	74.92%	444.64	7.15%	759.78	27.66%	
NPV amount	V amount				-452.78		
Differential (per lot)					307.00	-144.78%	

4/2021

Includes NPV of Operational Cost

TAMPA ELECTRIC COMPANY DOCKET NO. 20210064-EI STAFF'S THIRD DATA REQUEST REQUEST NO. 3a



UG Construction Cost Data Summary High Density (176-Lot) UG Subdivision Costs

	Α	В	С	D	E	F	G	Н	1	J	K	L	М	N
			(D+ M)		(F + L)	(G + H + I)		(G x J x TLF)	(G x K x CLF)				(D x MHR)	(C+E)
			Material and		Total Labor		Base	Operations Labor	Contract Labor	TEC	Contractor		Material	
Line #	Work Type/WR #	Description	Handling	Material	Plus Vehicles	Total Labor	Labor	Overheads	Overheads	Work %	Work %	Vehicle	Handling	Total
1	Transformers													
2	925091	Install Transformer	51,230.95	\$45,652.25	5,902.34	5,278.71	\$3,073.59	1,958.49	246.62	60%	40%	\$623.63	5,578.70	57,133.29
3	925095	Ground Transformer	1,553.57	\$1,384.40	2,747.51	2,457.21	\$1,430.74	911.67	114.80	60%	40%	\$290.30	169.17	4,301.08
4	Contracto	or Prepare Pad Site			3,453.17	3,453.17	\$2,876.20		576.97	0%	100%			3,453.17
5			52,784.53	47,036.65	12,103.01	11,189.08	7,380.53	2,870.16	938.39			913.93	5,747.88	64,887.54
6	Primary													
7	925096	Primary Line - OH-UG Takeoffs	683.67	\$609.22	710.03	635.01	\$369.74	235.60	29.67	60%	40%	\$75.02	74.45	1,393.69
8	925097	Ground OH to UG Take-offs	155.36	\$138.44	317.36	283.82	\$165.26	105.30	13.26	60%	40%	\$33.53	16.92	472.71
9	925098	Primary Conduit (Material Only)	9,381.68	\$8,360.08	-	-	-	-	-			-	1,021.60	9,381.68
10	925100	Primary Cable	17,088.65	\$ <u>15,227.81</u>	9,733.47	8,705.05	\$5,068.62	3,229.72	406.71	60%	40%	\$1,028.42	1,860.84	26,822.12
11			27,309.35	24,335.55	10,760.86	9,623.88	5,603.62	3,570.63	449.63			1,136.97	2,973.80	38,070.21
12	Secondary													
13	925103	Secondary Cable	9,649.74	\$8,598.95	12,377.13	11,069.38	\$6,445.28	4,106.93	517.17	60%	40%	\$1,307.75	1,050.79	22,026.87
14	925104	Secondary Conduit (Material Only)	5,783.11	\$ <u>5,153.37</u>									629.74	5,783.11
15			15,432.85	13,752.32	12,377.13	11,069.38	6,445.28	4,106.93	517.17			1,307.75	1,680.53	27,809.98
16	Service													
17	925106	Service Cable	18,244.13	\$16,257.47	42,893.98	42,893.98	\$35,727.12	-	7,166.86	0%	100%	-	1,986.66	61,138.11
18	925108	Set Meters	17,751.95	\$15,818.88	2,981.50	2,666.48	\$1,552.59	989.31	124.58	60%	40%	\$315.02	1,933.07	20,733.45
19	925110	Service Conduit (Material Only)	20,950.73	\$18,669.34									2,281.39	20,950.73
20			56,946.81	50,745.69	45,875.48	45,560.46	37,279.71	989.31	7,291.44			315.02	6,201.12	102,822.29
21	Trenching													
22	Contractor	Primary Trenching	-	-	17,584.53	17,584.53	\$14,646.45	-	2,938.08	0%	100%	-	-	17,584.53
23	Contractor	Secondary Trenching	-	-	4,372.98	4,372.98	\$3,642.33	-	730.65	0%	100%	-	-	4,372.98
24	TEC Inspecti	on for Primary			8,846.62	8,385.42	\$8,385.42			0%	0%	\$461.20		8,846.62
25			-	-	30,804.13	30,342.93	26,674.20	-	3,668.73			461.20	-	30,804.13
26														
27	Contractor	Svc Trenching Pri. Prop	-	-	33,344.02	33,344.02	\$27,772.80	-	5,571.22	0%	100%	-	-	33,344.02
28	Contractor	Svc Trenching Rts-of-Wy	-	-	14,437.70	14,437.70	\$12,025.40	-	2,412.30	0%	100%	-	-	14,437.70
29	TEC Inspecti	on for Service	_	_	8,169.92	7,744.00	\$7,744.00	_	-	0%	0%	\$425.92	-	8,169.92
30			-	-	55,951.64	55,525.72	47,542.20		7,983.52			425.92		55,951.64
31					, , ,	**	•							
32	Engineering	Design/Inspection/Coordination	-	_	10,785.62			-	-			_	-	10,785.62
33	5 5	· · · · · · · · · · · · · · · · · · ·												.,
34	Totals (Sum of lines	5, 11, 15, 20, 25, 30, and 32)	152,473.55		178,657.87	163.311.45	130.925.54	11.537.03	20.848.89			4.560.79	16,603.34	331.131.42
35	Cost "Per Lot" (Line 3		866.33		1,015.10	.55,511.40	.00,020.04	. 1,007.00	20,040.00			.,000.70	.0,000.04	1,881.43
	1111 : 1: Eot (Emo (000.00		.,0.0.10									.,251.10

[Adjustment Factors			
	TEC Labor Overhead Factor (excludes engineering)	TLF =	1.062	
	Contractor Labor Overhead Factor	CLF =	0.2006	
	Current year material handling charge rate	MHR =	0.1222	

High Density - 176 lot - Contractor Labor - Underground Estimate

- Update the contractor labor rates on this page. The numbers to be updated are highlighted in blue.
 Hover over the red comment symbol in the corner of the cell. That refers to the source of the information.
- 1a. Hover over the red comment symbol in the corner of the cell. That refers to the source of the information. The contractor labor rates come from the E.D. Field Construction Department - the Conduit Coordinators - Mile Cannaelli Steve Error, Jerry Jerry Mannion Rill Bayter.
- Mike Capparelli, Steve Furry, Jerry Manning, Bill Baxter.

 2. Transfer the contractors costs to the HDdifferentialMonth-Year.xls file. The numbers are highlighted in yellow.
- 2a. Hover over the red comment symbol in the corner of the cell that refers to the destination of the contractor cost.
- 3. In 2006 TEC added pad site preparation cost, a contractor cost.

Prepare pad site (Primary Contractor Labor Costs)

		<u>Total</u>	Cost	Pad sites
Pad site preparation	Total	\$2,876.20	\$143.81	20

Primary Trenching

Primary Trenching & Conduit (Primary Contractor Labor Costs)

	<u>i otai</u>	Cost	Feet	
	\$11,762.40	\$2.08	5655	Trenching Cost
	\$2,884.05	\$0.51	5655	Conduit Installation - 2"
	\$0.00	\$0.00	5655	Pull-tape Installation (used exact length for labor cost not 5% extra)
Total	\$14,646.45			

Secondary Trenching & Conduit (Primary Contractor Labor Costs)

I Otal	COSL	1 661	
\$2,706.08	\$2.08	1301	Trenching Cost
\$0.00	\$0.51	0	Conduit Installation - 2"
\$149.05	\$0.55	271	Conduit Installation - 3"
\$787.20	\$0.64	1230	Conduit Installation - 4"
\$0.00	\$0.00	1501	Pull-tape Installation (used exact length not 5% extra)

\$0.00 \$0.00 1501 Pull-tape Installation (used exact let Secondary Trenching Total \$3,642.33

Service Trenching & Conduit (Primary Contractor Labor Costs)

IUlai	CUSL	reet	
\$7,829.12	\$2.08	3764	Trenching feet required for 2" service conduit
\$0.00	\$2.08	0	Trenching feet required for 3" service conduit
\$4,196.28	\$0.51	8228	Conduit Installation - 2"
\$0.00	\$0.55	0	Conduit Installation - 3"
\$0.00	\$0.00	8228	Pull-tape Installation (used exact length not 5% extra)

\$0.00 \$0.00 Svc Trenching Rts-of-Wy **Sub-total \$12,025.40**

Service Trenching & Conduit on Private Property (Service Contractor Labor Costs)

 Svc Trenching Pri. Prop
 Sub-total
 \$27,772.80
 \$5.26
 5280
 Trenching feet and conduit = 30ft x 176

Service Cable (Service Contractor Labor Costs)

		Total	Cost	reet	
Service Cable Labor	Sub-total	\$35,727.12	\$2.34	15268	Installing 2/0 or 4/0 Cable in existing condui
Consider Labora	Total	\$75 525 32		_	

Inspection (TECO Labor Cost)

	TEC Labor	TEC Labor		TEC Vehicle	TEC Vehicle	
	<u>Total</u>	Rate	Feet/Qty	Rate	Total	Inspection costs for Primary Contractor (TECO Labor Cost)
	\$4,423.47	\$88.00	5655	\$4.84	\$243.29	Primary Inspection chg = (mach. trnch ft / 900 ft per day)*(8 hr/day)*Contractor rate
	\$1,017.67	\$88.00	1301	\$4.84	\$55.97	Secondary Inspection chg = (mach. trnch ft / 900 ft per day)*(8 hr/day)*Contractor rate
	\$2,944.28	\$88.00	3764	\$4.84	\$161.94	Service ROW Inspection chg = (machine trench ft / 900 ft per day)*(8 hr/day)*Contractor rate
Sub-total	\$8,385.42				\$461.20	

	TEC Labor	TEC Labor		TEC Vehicle	TEC Vehicle	
	Total	Rate	Feet/Qty	Rate	Total	Inspection costs for Service Contractor (TECO Labor Cost)
	\$7,744.00	\$88.00	176	\$2.42	\$425.92	Service Private Property Inspection = .5hr x # of lots x rate
Sub-total	\$7,744.00				\$425.92	

High Density - 176 Lots - Underground Material List

This worksheet lists the totals for major materials to be listed on the associated work request print as requested by the PSC.

- 750 Total Connected KVA
- 804 Total peak demand KVA
 - 0 25 kVA Transformers
- 20 37.5 kVA Transformers
- 0 50 kVA Transformers
- 0 75 kVA Transformers
- 5655 Trench Feet of 1/0 AL Primary Cable
 - 0 Existing trench feet of 1/0 AL Primary Cable
 - 0 Trench Feet of 2/0 AL Secondary Cable
 - 0 Existing trench feet of 2/0 AL Secondary Cable
- 1301 Trench Feet of 4/0 AL Secondary Cable
- 200 Existing trench feet of 4/0 AL Secondary Cable
 Trench Feet of 500 MCM AL Secondary Cable
 - 0 Existing trench feet of 500 MCM AL Secondary Cable
- 9044 Trench Feet of 2/0 AL Service Cable
- 4464 Existing trench feet of 2/0 AL Service Cable
 - 0 Trench Feet of 4/0 AL Service Cable
 - 0 Existing trench feet of 4/0 AL Service Cable
 - **0 Load Break Cabinet**

Notes:

- 1. 1250 SF Homes
- 2. 2.5 Ton AC Units
- 3. 40' Service run from property corner to meter location
- 4. Voltage drop less than or equal to 12.0 volts
- 5. Voltage flicker less than or equal to 12.0 volts

High Density - 176 Lots - Underground Material CU List

This worksheet summarizes the entries from the other worksheets (from PoleAveA through PoleOakHill) and provides the Contractor Labor worksheet with input totals to calculate contractor costs

Station All Stations - This information is used to create Work Requests to obtain costs. Transfer the values from Qty and CU columns highlighted in yellow to the WorkPro Work Requests to obtain costs. Those costs are then entered into the HDdifferential.xls workbook to calculate the High Density Differential cost. <=== Blue shading indicates fields to be updated.

Transformer Material CUs

Work Request Number

Qty	CU	Definition	Total Conr	nected KVA
0	pku51a3n	25 kva, 6 tap 250mcm	0	
0	pku51c3n	25 kva, 8 tap 250mcm	0	0
0	pku51a4n	37.5 kva, 6 tap 250mcm	0	0
0	pku51b4n	37.5 kva, 6 tap 500mcm	0	0
0	pku51c4n	37.5 kva, 8 tap 250mcm	0	0
20	pku51d4n	37.5 kva, 8 tap 500mcm	750	750
0	pku51a5n	50 kva, 6 tap 250mcm	0	750
0	pku51b5n	50 kva,6 tap 500mcm	0	750
0	pku51c5n	50 kva,8 tap 250mcm	0	750
0	pku51d5n	50 kva,8 tap 500mcm	0	750
0	pku51a6n	75 kva, 6 tap 250mcm	0	750
0	pku51b6n	75 kva, 6 tap 500mcm	0	750
0	pku51c6n	75 kva,8 tap 250mcm	0	750
0	pku51d6n	75 kva, 8 tap 500mcm	0	750
1	bushcover	Cover hot Tx bushing - at open position on loo	p tx, or at ra	dial Tx

Work Request

<u>Number</u>	Ground Pad Mounted Tx - Material CUs
925095	

CU Qty Definition

20 grdmeg1/2 meggar ground, drive rods, 1 location, 1/2" rods

1 bushdummy Parking bushing at normal open tx in loop

Work Request

Number	Primary Overhead - Material CUs
925096	

Qty CU Definition 2 PKE601WF1B TEC material & labor to frame terminal pole CO & LA 2 FLOH103

Work Request <u>Number</u>

Meggar Ground at Terminal Pole

CU Definition Qty

2 grdmeg1/2 meggar ground, drive rods, 1 location, 1/2" rods

Primary Trenching - Labor Only - Done By Contractors

labor to pull ug cable in conduit

Used to determine contractor labor cost on the Contractor Labor worksheet CU Definition Qty

5655 Trenching feet required for 2" primary conduit

0 Existing trench feet used for 2" primary conduit 5655 Install Pulling Tape (blow in tape for pull - trench feet used to determine contractor cost)

Work Request

0 wiu1f

	Number 925100	Primary Cable	
Qty	CU	Definition	
2 p	oku16wf	pothead, 38' 1c 1/0AL cable, 20' pvc, ground conn, wood pole	76
40 p	oku11f	safebreak, 5' 1c 1/0AL cable, ground conn	200
0 p	oku31p3	switch cubicle(lbc) 1ph, 200a deadfront, 3 position w/pad, grnd	
0 p	oku31p4	switch cubicle(lbc) 1ph, 200a deadfront, 4 position w/pad, grnd	
0 f	ault1pa	fault indicator, 1ph 1/0-4/0 above grade, 400a	
5655 (CA1/0CN1CAL	cable, 1/0AL concentric neutral 15kV includes labor - round up to	6524.1

60

```
Work Request
                             Primary Conduit - Material Only
         Number
                             Material used by contractors to install the conduit system
        925098
Qty
           CH
                             Definition
  20 5512000
                    Conduit, galvanized 2", 10' with coupling, for up terminal pole
5875 5522000
                    2" conduit
6095 5853530
                    Pulling tape - actual length
  48 5512220
                    2" elbow 90 galv 9.5" radius
   8 5512210
                    2" elbow 45 galv 9.5" radius
 112 5522180
                    Coupling, 2" PVC (2 per elbow)
  12 gluecondf
                    2"&3" pvc 1 qt for 500' fast dry
      Secondary Trenching - Labor Only - Done By Contractors
      Used to determine contractor labor cost on the Contractor Labor worksheet
Qty
                            Definition
   0 Trenching feet required for 2" secondary conduit
    0 Existing trench feet used for 2" secondary conduit
  71 Trenching feet required for 3" secondary conduit
 200 Existing trench feet used for 3" secondary conduit
1230 Trenching feet required for 4" secondary conduit
    0 Existing trench feet used for 4" secondary conduit
1501 Install Pulling Tape (blow in tape for pull - trench feet used to determine contractor cost)
     Work Request
         Number
                             Secondary Cable & Hand Holes
           CU
                             Definition
Qty
    0 wiu3sb
                    2c 2/0 1c 1 neutral, 600 v - added 5% here
1691 CA4/0INS3CAI 2c 4/0 1c 2/0 neutral, 600v includes labor - added 5% he 2029.2
                    2c 500 1c 350 neutral, 600v - added 5% here
   0 wiu3sn
   0 insbus350/4
                   crab 4 position up to 350mcm
   0 insbus350/6
                    crab 6 position up to 350mcm
   0 insbus500/4
                    crab 4 position up to 500mcm
  66 insbus500/6
                    crab 6 position up to 500mcm
   0 insbus500/8
                    crab 8 position up to 500mcm
                    labor to pull ug cable in conduit
   0 wiu1f
  22 syhottx
                    energize ug secondary in transformer
  22 syhothh
                    energize ug secondary in hand hole
   0 hhsec
                    secondary h/h 12"x20", 3 or 4 2/0 or 4/0 svc w/ 2/0 or 4/0 sec
  22 HH LARGE PE secondary h/h 14"x18" large pedestal, 5 to 7 2/0 or 4/0 svc w/ 4/0 or 500 sec (any time 500 u
     Work Request
                             Secondary Conduit - Material Only
         Number
        925104
                             Material used by contractors to install the conduit system
           CU
                             Definition
Qty
   0 5522000
                    2" conduit sched A bell end
 291 5523000
                    3" conduit sched A bell end
1410 5524000
                    4" conduit sched A bell end
1901 5853530
                    Pulling tape, plus adding 5% extra here
   0 5522220
                    2" elbow 90 PVC 9.5" radius
   0 5522210
                    2" elbow 45 PVC 9.5" radius
   8 5523220
                    3" elbow 90 PVC 13" radius
                    3" elbow 45 PVC 13" radius
   0 5523210
                    4" elbow 90 PVC 16" radius
  36 5524220
   0 5514300
                    4" elbow 90 galv 30" radius
   0 5514210
                    4" elbow 45 galv 16" radius
   0 5522180
                    Coupling, 2" PVC (2 per elbow)
   16 5523180
                    Coupling, 3" PVC (2 per elbow)
```

Coupling, 4" PVC (2 per elbow) 2"&3" pvc 1 qt for 500' fast dry

4"& 6" pvc 1 qt for 250' medium dry

72 5524180

1 gluecondf

6 gluecondm

```
Work Request
          Number
                              Set Meter
         925108
                              Definition
Qty
            CU
  176 meterlahor
                     meter, kwh 30a 240v
  176 1900006
       Service Trenching - Labor Only - Done By Contractors
       Used to determine contractor labor cost on the Contractor Labor worksheet
Qty
            CU
                             Definition
  176 Number of 2/0 services
 5280 Trenching feet for 2" service conduit on private property-service contractor
 1760 Trenching feet for 10' stub of 2" service conduit installed by primary contractor
 2004 Trenching feet for 2" service conduit installed by primary contractor
 4464 Existing trench feet used for 2" service conduit installed by primary contractor
 8228 Install Pulling Tape for 2" conduit (blow in tape for pull - Primary Contractor)
    0 Trenching feet for 3" service conduit on private property-service contractor
    0 Trenching feet for 10' stub of 3" service conduit installed by primary contractor
    0 Trenching feet for 3" service conduit installed by primary contractor
    0 Existing trench feet used for 3" service conduit installed by primary contractor
    0 Install Pulling Tape for 3" conduit (blow in tape for pull - Primary Contractor)
13508
 1760 Work Request
15268
         Number
                              Service Cable Material Only
          925106
                              Material used by contractors to install the conduit system
Qty
                              Definition
15268
                     2c 2/0 & 1c 1 neutral, 600 v service cable
    0 wiu3sc
                     2c 4/0 & 1c 2/0 neutral, 600 v service cable
      Work Request
15268
                              Service Conduit Material Only
         <u>Number</u>
                              Material used by contractors to install the conduit system
         925110
            CH
                              Definition
Qty
 5280 Conduit for 2" service on private property-service contractor
 3520 Conduit for 10' stub of 2" service installed by primary contractor
 6468 Conduit for 2" service installed by primary contractor
11748 Pulling Tape installed in 2" conduit by Primary Contractor)
15268 5522000
                     Total 2" conduit for work order quantity
  448 5522220
                     2" elbow 90 PVC 9.5" radius
    0 5522210
                     2" elbow 45 PVC 9.5" radius
  176 5512260
                     2" galvanized Lock Nut
  176 5522030
                     2" Flexible PVC conduit
  176 5522050
                     2" PVC Adapter, male thread/female slip
                     2" PVC Service Riser
  896 5522180
                     Coupling, 2" PVC (2 per elbow)
    0 Conduit for 3" service on private property-service contractor
    0 Conduit for 10' stub of 3" service installed by primary contractor
    0 Conduit for 3" service installed by primary contractor
    0 Pulling Tape installed in 3" conduit by Primary Contractor)
    0.5523000
                     Total 3" conduit for work order quantity
    0 5523220
                     3" elbow 90 PVC 13" radius
                     3" elbow 45 PVC 13" radius
    0.5523210
    0 5512770
                     2-1/2" house riser
    0 5523220
                     3" elbow 90 PVC 13" radius at house riser
    0 5512670
                     2-1/2" galvanized Lock Nut Used by contractors to install conduit system
    0 5523030
                     3" Flexible PVC conduit
    0 5521000
                     2-1/2"PVC Adapter, male thread/female slip
    0 5523180
                     Coupling, 3" PVC (2 per elbow)
                     2"&3" pvc 1 qt for 500' fast dry
   31 gluecondf
11748 5853530
                      Total Pulling Tape installed in conduit by Primary Contractor)
```



Estimate Summary Design Number 1

Contact Name: Tampa Electric

Distribution Services HDUG Transformers

Printed Date: 3/11/2021

District: CSA

WR No. 925091

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010

WR Description: HDUG 1250 sq ft TRANSFORMERS

·	·		
INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$45,652.25	\$0.00	\$45,652.25
OVERHEAD:	\$6,313.70	\$0.00	\$6,313.70
	\$51,965.95	\$0.00	\$51,965.95
LABOR HOURS:	69.84	0	69.84
LABOR COST:	\$3,073.59	\$0.00	\$3,073.59
OVERHEAD:	\$4,072.50	\$0.00	\$4,072.50
	\$7,146.09	\$0.00	\$7,146.09
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$59,112.04	\$0.00	\$59,112.04
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$59,112.04	\$0.00	\$59,112.04



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021 Dist: CSA

WR No. 925091

			_		
Mat	erial Numbe	er Description	Unit Price	Total Cost	Asset?
INSTALL					
1	2004816	BUSHING, PARKING, 15KV, INSULATED	\$38.70	\$38.70	N
20	2077906	CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$36.00	N
40	2078000	CLAMP,GND,TRANSFORMER,#10 SOL-#1 STR CU	\$2.31	\$92.40	N
2	2077931	CONNECTOR, VICE CU #2 STR	\$2.38	\$4.76	N
1	2004817	COVER, BUSHING 15 KV PDMT EQUIP W/FLEXIB	\$25.11	\$25.11	N
20	2001315	PAD, CONCRETE 40" X 45" X 4" 25- 50KVA T	\$103.25	\$2,065.00	N
20	2007395	PADLOCK, RED BRASS BODY 1/4" BRASS SHACK	\$22.97	\$459.40	N
20	2007489	REPELLENT, FIRE ANT GRANULE 4 OZ BIFENTH	\$2.77	\$55.40	N
40	2004031	STUD, GALVANIZED, 11 THREAD PER INCH ALL	\$2.47	\$98.80	N
9	2004948	TERMINAL, SLIP FIT ALUMINUM STUD TYPE, 6	\$7.54	\$67.86	N
6	2004954	TERMINAL, SLIP FIT ALUMINUM STUD TYPE, 6	\$16.58	\$99.48	N
45	2004950	TERMINAL, SLIP FIT ALUMINUM STUD TYPE, 8	\$8.28	\$372.60	N
20	2001519	TX,PM,LP,1P,37.5 kVA,240/120,FR3,SS	\$2,108.00	\$42,160.00	Υ
120	2004184	WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$75.60	N
3	2078011	WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$1.14	N
			Total	\$45,652.25	



Contact Name:

Estimate Summary
Design Number 1

Distribution Services HDUG GRD Transformers

Printed Date: 3/11/2021

District: CSA

WR No. 925095

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010

WR Description: HDUG 1250 sq ft GROUND TRANSFORMERS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$1,384.40	\$0.00	\$1,384.40
OVERHEAD:	\$191.46	\$0.00	\$191.46
	\$1,575.86	\$0.00	\$1,575.86
LABOR HOURS:	32.5	0	32.5
LABOR COST:	\$1,430.74	\$0.00	\$1,430.74
OVERHEAD:	\$1,895.73	\$0.00	\$1,895.73
	\$3,326.47	\$0.00	\$3,326.47
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$4,902.33	\$0.00	\$4,902.33
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$4,902.33	\$0.00	\$4,902.33



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021

Dist: CSA

WR No. 925095

				•		
	Mate	rial Number	Description	Unit Price	Total Cost	Asset?
INSTALL						
	60	2077939	COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$286.80	N
	80	2077980	ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$1,097.60	N
				Total	\$1,384.40	



Contact Name:

Estimate Summary
Design Number 1

Distribution Services HDUG FRAME OH Takeoff

Printed Date: 3/11/2021

District: CSA

WR No. 925096

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010 WR Description: HDUG 1250 sq ft TAKEOFFS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$609.22	\$0.00	\$609.22
OVERHEAD:	\$84.24	\$0.00	\$84.24
	\$693.46	\$0.00	\$693.46
LABOR HOURS:	8.4	0	8.4
LABOR COST:	\$369.74	\$0.00	\$369.74
OVERHEAD:	\$489.92	\$0.00	\$489.92
	\$859.66	\$0.00	\$859.66
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$1,553.12	\$0.00	\$1,553.12
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$1,553.12	\$0.00	\$1,553.12



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021 Dist: CSA

WR No. 925096

Mate	aterial Number Description	er Description	Unit Price	Total Cost	Asset?	
INSTALL						
2	2003651	ARRESTER, LIGHTNING DISTRIBUTION CLASS 8	\$41.28	\$82.56	Υ	
2	2077754	BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$2.08	N	
2	2131366	BRACKET, FG, 1 PH, 1 POS, 18"	\$30.03	\$60.06	N	
2	2077906	CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$3.60	N	
2	2077911	CLAMP, HOT LINE CU TO CU #6 SOL- 2 STR T	\$5.73	\$11.46	N	
80	2078012	CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$67.20	N	
6	2004187	CONDUCTOR,BARE,#2 CU,7-STR,SOFT-DRAWN	\$0.98	\$5.88	N	
2	2077837	CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$1.32	N	
4	2077930	CONNECTOR, VICE CU #4 STR	\$1.91	\$7.64	N	
0	2077939	COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$0.00	N	
2	2003846	CUTOUT, 15KV, 100A FUSE HLDR, 300A UNVRS	\$70.74	\$141.48	Υ	
2	2077794	FUSE LINK, 103A UNVRSL 100A CUTOUT 23" O	\$24.29	\$48.58	N	
2	2077822	KIT, ATTACHMENT, FOR ATTACHING "FLYING"	\$63.00	\$126.00	N	
4	2077965	MOULDING, GROUND WIRE, PVC 1/2 IN X 8 FT	\$1.74	\$6.96	N	
0	2077980	ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$0.00	N	
2	2077789	SCREW, LAG PILOT POINT 3/8 X 3	\$0.27	\$0.54	N	
20	2077997	STAPLE, SECURES 1/2" PVC MOULDING TO WOO	\$0.27	\$5.40	N	
2	2077828	STIRRUP, AL BODY & CU BAIL 1/0-397	\$17.19	\$34.38	N	
2	2078006	WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$0.48	N	
2	2004184	WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$1.32	N	
6	2078011	WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$2.28	N	
			Total	\$609.22		



Contact Name:

Estimate Summary

Design Number 1

Dist Svcs HDUG GRD takeoff POLE

Printed Date: 3/11/2021

District: CSA

WR No. 925097

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010

WR Description: HDUG 1250 sq ft GROUND TAKEOFFS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$138.44	\$0.00	\$138.44
OVERHEAD:	\$19.15	\$0.00	\$19.15
	\$157.59	\$0.00	\$157.59
LABOR HOURS:	3.75	0	3.75
LABOR COST:	\$165.26	\$0.00	\$165.26
OVERHEAD:	\$218.97	\$0.00	\$218.97
	\$384.23	\$0.00	\$384.23
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$541.82	\$0.00	\$541.82
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
	0	0	
LABOR HOURS:	0	0	0
LABOR COST: OVERHEAD:	\$0.00	\$0.00	\$0.00
OVERTILAD.	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$541.82	\$0.00	\$541.82



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021 Dist: CSA

WR No. 925097

				•		
	Mate	erial Number	Description	Unit Price	Total Cost	Asset?
INSTAL	.L					
	6	2077939	COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$28.68	N
	8	2077980	ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$109.76	N
				Total	\$138 44	



Contact Name:

Estimate Summary Design Number 1

Distribution Engineering HDUG Pri Conduit Material

Printed Date: 3/11/2021

District: CSA

WR No. 925098

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010

WR Description: HDUG 1250 sq ft PRIMARY CONDUIT

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$8,360.08	\$0.00	\$8,360.08
OVERHEAD:	\$1,156.20	\$0.00	\$1,156.20
	\$9,516.28	\$0.00	\$9,516.28
LABOR HOURS:	0	0	0
LABOR COST:	\$0.05	\$0.00	\$0.05
OVERHEAD:	\$0.07	\$0.00	\$0.07
	\$0.12	\$0.00	\$0.12
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$9,516.40	\$0.00	\$9,516.40
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$9,516.40	\$0.00	\$9,516.40



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021 Dist: CSA

WR No. 925098

Mate	erial Numbe	er Description	Unit Price	Total Cost	Asset?
INSTALL					
12	2007227	CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE	\$6.22	\$74.64	N
20	2004389	CONDUIT, GALVANIZED 2 IN 10 FT WITH COUP	\$6.78	\$135.60	Υ
5935	2004488	CONDUIT, PVC 2 IN 20 FT BELL END	\$1.03	\$6,113.05	Υ
108	2004507	COUPLING, PVC 2 IN SCH 40 TEMS 13.01	\$0.60	\$64.80	N
46	2004395	ELBOW, 2" 90 DEGREE ,GALVANIZED, 24" MIN	\$34.29	\$1,577.34	N
8	2004394	ELBOW, GALV 2 INCH 45 DEG THD 15" RADIUS	\$26.25	\$210.00	N
6155	2007414	TAPE, PULLING, POLYSTER, RATED AT 1250#,	\$0.03	\$184.65	N
			Total	\$8,360.08	



Contact Name:

Estimate Summary Design Number 1

Dist Svcs HDUG PRIMARY

Printed Date: 3/11/2021

District: CSA

WR No. 925100

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010

WR Description: HDUG 1250 sq ft PRIMARY CABLE

INSTALLATION:	Capital	Oper./Maint.	Total	
MATERIAL:	\$15,227.81	\$0.00	\$15,227.81	
OVERHEAD:	\$2,106.01	\$0.00	\$2,106.01	
	\$17,333.82	\$0.00	\$17,333.82	
LABOR HOURS:	115.14	0	115.14	
LABOR COST:	\$5,068.62	\$0.00	\$5,068.62	
OVERHEAD:	\$6,715.92	\$0.00	\$6,715.92	
	\$11,784.54	\$0.00	\$11,784.54	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$29,118.36	\$0.00	\$29,118.36	
REMOVAL:				
MATERIAL:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
LABOR HOURS:	0	0	0	
LABOR COST:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$0.00	\$0.00	\$0.00	
TRANSFER:				
LABOR HOURS:	0	0	0	
LABOR COST:	\$0.00	\$0.00	\$0.00	
OVERHEAD:	\$0.00	\$0.00	\$0.00	
	\$0.00	\$0.00	\$0.00	
VEHICLE:	\$0.00	\$0.00	\$0.00	
CONTRACTOR:	\$0.00	\$0.00	\$0.00	
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00	
SUBTOTAL:	\$0.00	\$0.00	\$0.00	
TOTALS:	\$29,118.36	\$0.00	\$29,118.36	



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021 Dist: CSA

WR No. 925100

er Description	Unit Price	Total Cost	• 10
		Total Cost	Asset?
CABLE, ALUMINUM, 15KV, 1/C, 1/0 AWG SOLI	\$2.08	\$13,112.53	Υ
CAP, CONDUIT 2"	\$12.21	\$24.42	N
CAP, END CABLE 600 V CABLE RANGE .940 -	\$1.96	\$3.92	N
CLAMP, CONDUIT GROUND 1-1/4 IN - 2 IN CO	\$7.92	\$15.84	N
CONDUIT, PVC 2 IN 20 FT BELL END	\$1.03	\$0.00	Υ
CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$1.32	N
CONNECTOR, VICE CU #2 STR	\$2.38	\$104.72	N
KIT, SEALING, CABLE ACCESSORY, 1/0 - 4/0	\$9.46	\$378.40	N
STRAP, GALV 2 IN 2 HOLE	\$0.28	\$2.24	N
TERMINATOR, LOADBREAK 200 AMP, 1/0 SOL	\$37.76	\$1,510.40	Υ
TERMINATOR, POTHEAD 15KV OUTDOOR 1/0 JCN	\$35.75	\$71.50	Υ
WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$2.52	N
	Total	\$15,227.81	
	CAP, CONDUIT 2" CAP, END CABLE 600 V CABLE RANGE .940 - CLAMP, CONDUIT GROUND 1-1/4 IN - 2 IN CO CONDUIT, PVC 2 IN 20 FT BELL END CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0 CONNECTOR, VICE CU #2 STR KIT, SEALING, CABLE ACCESSORY, 1/0 - 4/0 STRAP, GALV 2 IN 2 HOLE TERMINATOR, LOADBREAK 200 AMP, 1/0 SOL TERMINATOR, POTHEAD 15KV OUTDOOR 1/0 JCN	CAP, CONDUIT 2" \$12.21 CAP, END CABLE 600 V CABLE RANGE .940 - \$1.96 CLAMP, CONDUIT GROUND 1-1/4 IN - 2 IN CO \$7.92 CONDUIT, PVC 2 IN 20 FT BELL END \$1.03 CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0 \$0.66 CONNECTOR, VICE CU #2 STR \$2.38 KIT, SEALING, CABLE ACCESSORY, 1/0 - 4/0 \$9.46 STRAP, GALV 2 IN 2 HOLE \$0.28 TERMINATOR, LOADBREAK 200 AMP, 1/0 SOL \$37.76 TERMINATOR, POTHEAD 15KV OUTDOOR 1/0 JCN \$35.75 WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR \$0.63	CAP, CONDUIT 2" \$12.21 \$24.42 CAP, END CABLE 600 V CABLE RANGE .940 - \$1.96 \$3.92 CLAMP, CONDUIT GROUND 1-1/4 IN - 2 IN CO \$7.92 \$15.84 CONDUIT, PVC 2 IN 20 FT BELL END \$1.03 \$0.00 CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0 \$0.66 \$1.32 CONNECTOR, VICE CU #2 STR \$2.38 \$104.72 KIT, SEALING, CABLE ACCESSORY, 1/0 - 4/0 \$9.46 \$378.40 STRAP, GALV 2 IN 2 HOLE \$0.28 \$2.24 TERMINATOR, LOADBREAK 200 AMP, 1/0 SOL \$37.76 \$1,510.40 TERMINATOR, POTHEAD 15KV OUTDOOR 1/0 JCN \$35.75 \$71.50 WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR \$0.63 \$2.52



Estimate Summary

Design Number 1

Contact Name:

Dist Svcs HDUG SECONDARY **Printed Date:** 3/11/2021

District: CSA

WR No. 925103

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010

WR Description: HDUG 1250 sq ft SECONDARY CABLE

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$8,598.95	\$0.00	\$8,598.95
OVERHEAD:	\$1,189.23	\$0.00	\$1,189.23
	\$9,788.18	\$0.00	\$9,788.18
LABOR HOURS:	146.42	0	146.42
LABOR COST:	\$6,445.28	\$0.00	\$6,445.28
OVERHEAD:	\$8,540.02	\$0.00	\$8,540.02
	\$14,985.30	\$0.00	\$14,985.30
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$24,773.48	\$0.00	\$24,773.48
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$24,773.48	\$0.00	\$24,773.48



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021 Dist: CSA

WR No. 925103

Mate	erial Numbe	er Description	Unit Price	Total Cost	Asset?
INSTALL					
2029	2004354	CABLE, SWEETBRIAR, AL, UG, 600V, 2/C, 4/0 AW	\$1.39	\$2,820.59	Υ
45	2005022	CONNECTOR, 600V URD, 6 POSITION, CONDUCT	\$14.92	\$671.40	N
12	2005025	CONNECTOR, 600V, URD, 8 POSITION, CONDUC	\$30.35	\$364.20	N
22	2000241	DECAL,WARNING,NOTICE,CLEARANCE,10" X 7"	\$3.56	\$78.32	N
22	2004714	HANDHOLE, ABOVE GRADE, LARGE DOME	\$186.22	\$4,096.84	N
22	2005212	MARKER, CURB LEXAN .040 THICK, ROUND 2.5	\$2.83	\$62.26	N
22	2007395	PADLOCK, RED BRASS BODY 1/4" BRASS SHACK	\$22.97	\$505.34	N
			Total	\$8,598.95	



Contact Name:

Estimate Summary Design Number 1

Dist Svcs HDUG SEC CONDUIT

Printed Date: 3/11/2021

District: CSA

WR No. 925104

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010

WR Description: HDUG 1250 sq ft SECONDARY CONDUIT

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$5,153.37	\$0.00	\$5,153.37
OVERHEAD:	\$712.71	\$0.00	\$712.71
	\$5,866.08	\$0.00	\$5,866.08
LABOR HOURS:	0	0	0
LABOR COST:	\$0.03	\$0.00	\$0.03
OVERHEAD:	\$0.05	\$0.00	\$0.05
	\$0.08	\$0.00	\$0.08
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$5,866.16	\$0.00	\$5,866.16
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$5,866.16	\$0.00	\$5,866.16



Work Request Material Summary ***Includes Truck Stock***

Printed Date: 3/11/2021 Dist: CSA

WR No. 925104

Design Number 1

		Design Number 1		1 of 1	
Mate	erial Numbe	r Description	Unit Price	Total Cos	t Asset?
INSTALL					
1	2007227	CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE	\$6.22	\$6.22	N
6	2007228	CEMENT, PVC GRAY MEDIUM DRY QUART W/DAUB	\$7.27	\$43.62	N
291	2004517	CONDUIT, PVC P & C 3 IN 20 FT	\$1.70	\$494.70	Υ
1410	2004529	CONDUIT, PVC, 4" X 20', DB-60-TC-6	\$2.78	\$3,919.80	Υ
16	2004521	COUPLING, PVC 3 IN SCH 40 TEMS 13.01	\$2.95	\$47.20	N
72	2004535	COUPLING, PVC 4 IN SCH 40 TEMS 13.01	\$4.28	\$308.16	N
8	2004524	ELBOW, PVC 3 IN 90 DEG 13 IN RAD SCH 40	\$4.52	\$36.16	N
36	2004538	ELBOW, PVC 4", 90 DEG., 16" RADIUS, SCHE	\$6.68	\$240.48	N
1901	2007414	TAPE, PULLING, POLYSTER, RATED AT 1250#,	\$0.03	\$57.03	N
			Total	\$5,153.37	

HD-24



Estimate Summary

Design Number 1

Contact Name:

Dist St

Dist Svcs HDUG SERVICE CABLE **Printed Date:** 3/11/2021

District: CSA

WR No. 925106

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010

WR Description: HDUG 1250 sq ft SERVICE CABLE

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$16,257.47	\$0.00	\$16,257.47
OVERHEAD:	\$2,248.40	\$0.00	\$2,248.40
	\$18,505.87	\$0.00	\$18,505.87
LABOR HOURS:	1.53	0	1.53
LABOR COST:	\$67.48	\$0.00	\$67.48
OVERHEAD:	\$89.41	\$0.00	\$89.41
	\$156.89	\$0.00	\$156.89
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$18,662.76	\$0.00	\$18,662.76
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$18,662.76	\$0.00	\$18,662.76



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021 Dist: CSA

WR No. 925106

Mat	erial Numbe	er Description	Unit Price Total Cost Asset?
INSTALL			
16097	2004351	CABLE, CONVERSE, AL, UG, 600V, 2/C, 2/0,	\$1.01 \$16,257.47 Y
			Total \$16 257 47



Contact Name:

Estimate Summary

Design Number 1

Dist Svcs HDUG SET METERS **Printed Date:** 3/11/2021

District: CSA

WR No. 925108

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010 WR Description: HDUG 1250 sq ft METERS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	35.27	0	35.27
LABOR COST:	\$1,552.59	\$0.00	\$1,552.59
OVERHEAD:	\$2,057.18	\$0.00	\$2,057.18
	\$3,609.77	\$0.00	\$3,609.77
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$3,609.77	\$0.00	\$3,609.77
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$3,609.77	\$0.00	\$3,609.77



Estimate Summary

Design Number 1

Contact Name:

Dist Svcs HDUG SERVICE CONDUIT **Printed Date:** 3/11/2021

District: CSA

WR No. 925110

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010

WR Description: HDUG 1250 sq ft SERVICE CONDUIT

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$18,669.34	\$0.00	\$18,669.34
OVERHEAD:	\$2,581.97	\$0.00	\$2,581.97
	\$21,251.31	\$0.00	\$21,251.31
LABOR HOURS:	0	0	0
LABOR COST:	\$0.13	\$0.00	\$0.13
OVERHEAD:	\$0.19	\$0.00	\$0.19
	\$0.32	\$0.00	\$0.32
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$21,251.63	\$0.00	\$21,251.63
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$21,251.63	\$0.00	\$21,251.63

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).

HD-28



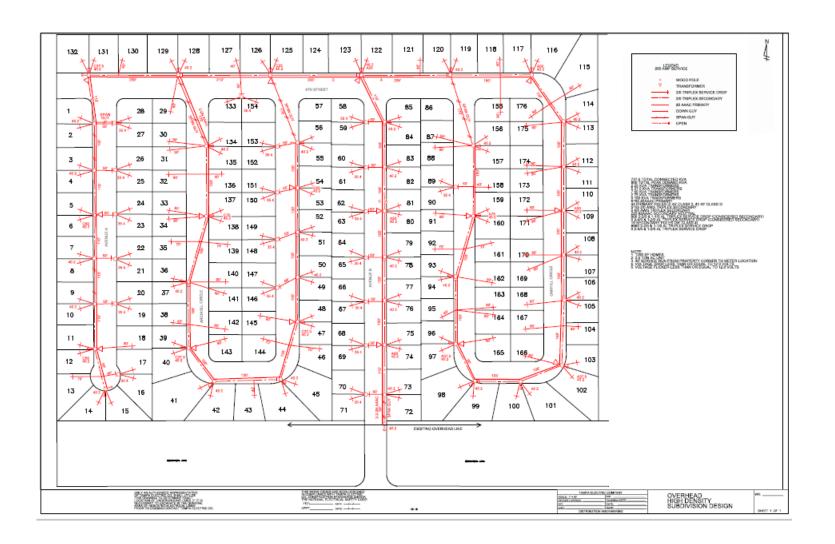
Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021 Dist: CSA

WR No. 925110

rial Numbe	er Description	Unit Price	Total Cost	Asset?
2004493	ADAPTOR, 2" PVC, FEMALE SLIP TO MALE THR	\$0.40	\$70.40	N
2007227	CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE	\$6.22	\$192.82	N
2004488	CONDUIT, PVC 2 IN 20 FT BELL END	\$1.03	\$15,789.90	Υ
2004491	CONDUIT, PVC 2 IN 250 FT ROLL FLEXIBLE	\$1.13	\$198.88	N
2004401	CONDUIT, SERVICE RISER, PVC, 2"	\$4.92	\$865.92	N
2004507	COUPLING, PVC 2 IN SCH 40 TEMS 13.01	\$0.60	\$537.60	N
2004511	ELBOW, CONDUIT PVC 2 IN SCH 40 90 DEG 9-	\$1.26	\$564.48	N
2004396	NUT, LOCK GALV 2 IN	\$0.54	\$95.04	N
2007414	TAPE, PULLING, POLYSTER, RATED AT 1250#,	\$0.03	\$354.30	N
		Total	\$18,669.34	
	2004493 2007227 2004488 2004491 2004401 2004507 2004511 2004396	2004493 ADAPTOR, 2" PVC, FEMALE SLIP TO MALE THR 2007227 CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE 2004488 CONDUIT, PVC 2 IN 20 FT BELL END 2004491 CONDUIT, PVC 2 IN 250 FT ROLL FLEXIBLE 2004401 CONDUIT, SERVICE RISER, PVC, 2" 2004507 COUPLING, PVC 2 IN SCH 40 TEMS 13.01 2004511 ELBOW, CONDUIT PVC 2 IN SCH 40 90 DEG 9- 2004396 NUT, LOCK GALV 2 IN	2004493 ADAPTOR, 2" PVC, FEMALE SLIP TO MALE THR \$0.40 2007227 CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE \$6.22 2004488 CONDUIT, PVC 2 IN 20 FT BELL END \$1.03 2004491 CONDUIT, PVC 2 IN 250 FT ROLL FLEXIBLE \$1.13 2004401 CONDUIT, SERVICE RISER, PVC, 2" \$4.92 2004507 COUPLING, PVC 2 IN SCH 40 TEMS 13.01 \$0.60 2004511 ELBOW, CONDUIT PVC 2 IN SCH 40 90 DEG 9- \$1.26 2004396 NUT, LOCK GALV 2 IN \$0.54 2007414 TAPE, PULLING, POLYSTER, RATED AT 1250#, \$0.03	2004493 ADAPTOR, 2" PVC, FEMALE SLIP TO MALE THR \$0.40 \$70.40 2007227 CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE \$6.22 \$192.82 2004488 CONDUIT, PVC 2 IN 20 FT BELL END \$1.03 \$15,789.90 2004491 CONDUIT, PVC 2 IN 250 FT ROLL FLEXIBLE \$1.13 \$198.88 2004401 CONDUIT, SERVICE RISER, PVC, 2" \$4.92 \$865.92 2004507 COUPLING, PVC 2 IN SCH 40 TEMS 13.01 \$0.60 \$537.60 2004511 ELBOW, CONDUIT PVC 2 IN SCH 40 90 DEG 9- \$1.26 \$564.48 2004396 NUT, LOCK GALV 2 IN \$0.54 \$95.04 2007414 TAPE, PULLING, POLYSTER, RATED AT 1250#, \$0.03 \$354.30



OH Construction Cost Data Summary

High Density (176-Lot) OH Subdivision Costs

	Α	В	C (D+ M)	D	E (F + L)	F (G + H + I)	G	H (G x J x TLF)	[(G x K x CLF)	J	К	L	M (D x MHR)	N (C+E)
l ine #	Work Type/WR #	Description	Material and Handling	Material	Total Labor Plus Vehicles	Total Labor	Base Labor	Operations Labor Overheads	Contract Labor Overheads	TEC Work %	Contractor Work %	Vehicle	Material Handling	Total
Eiiio ii	TTOIR TYPE/TTT	Description	Tranding	Waterial	Tius veriloies	Total Eabor	Luboi	Overneuds	Overneads	WOIK 70	VVOIR 70	Vernoie	rianding	Total
1 2 3	Transformers ######### Inst	all & Ground Transformers	31,143.07	27,751.80	12,366.93	11,060.26	6,439.97	4,103.55	516.74	60%	40%	\$1,306.67	3,391.27	43,510.00
4 5 6		all Primary Line udes Grounding Primary Takeoffs	2,544.16	2,267.12	6,190.06	5,536.03	3,223.42	2,053.96	258.65	60%	40%	\$654.03	277.04	8,734.22
7 8 9		all Poles and Guy Stubs udes Haul Poles Out	22,510.66	20,059.40	36,177.05	32,354.65	18,838.88	12,004.13	1,511.63	60%	40%	\$3,822.41	2,451.26	58,687.71
10 11 12	Secondary ############# Inst	all Secondary Cable	12,719.79	11,334.69	18,719.51	16,741.64	9,748.02	6,211.44	782.18	60%	40%	\$1,977.87	1,385.10	31,439.30
13	Services													
14	################### Inst		10,342.22	9,216.02	12,847.44	11,490.00	6,690.19	4,262.99	536.82	60%	40%	\$1,357.44	1,126.20	23,189.66
15	##################### Inst	all Meters	17,751.95	\$ <u>15,818.88</u>	3,314.51	2,666.48	1,552.59	989.31	124.58	60%	40%	648.03	1,933.07	21,066.46
16 17			28,094.16	25,034.90	16,161.95	14,156.48	8,242.78	5,252.30	661.40			2,005.47	3,059.26	44,256.11
18 19	Engineering Des	ign/Inspection/Coordination	-	-	10,785.62		-	-	-	100%	0%		-	10,785.62
	Tree Trim		-	-	-	-	-	-	-			-	-	-
22	Totals (Sum of lines 2 Cost "Per Lot" (Line 3	2, 5, 8, 11, 16, 18, and 20) 4/ 176 lots)	97,011.84 551.20	86,447.91	100,401.14 570.46	79,849.06	46,493.07	29,625.38	3,730.60			9,766.45	10,563.93	197,412.98 1,121.66

Adjustment Factors			_
TEC Labor Overhead Factor (excludes engineering)	TLF =	1.062	
Contractor Labor Overhead Factor	CLF =	0.2006	
Current year material handling charge rate	MHR =	0.1222	

High Density - 176 Lots - Overhead Material List

This worksheet lists the totals for major materials to be listed on the associated work request print as requested by the PSC.

737.5 Total Connected KVA

800 Total peak demand KVA

2 25 kVA Transformers

5 37.5 kVA Transformers

7 50 kVA Transformers

2 75 kVA Transformers

0 100 kVA Transformers

6165 #2AAAC Primary

44 Primary Poles

5155 2/0 AWG Triplex Secondary

0 4/0 AWG Triplex Secondary

225 #2AAAC Secondary Neutral

965 2-2/0 & 1-1/0 AL Triplex Service Drop (considered secondary)

0 2-4/0 & 1-2/0 AL Triplex Service Drop (considered secondary)

19 Secondary Poles

8960 2-2/0 & 1-1/0 AL Triplex Service Drop

0 2-4/0 & 1-2/0 AL Triplex Service Drop

Summary of assemblies (CU's) for High Density Overhead Design - March 2021

Work Request #1	925111	- Transformers (enter thes	e Construction Units into V	VorkPro)				
	25 KVA	37.5 KVA	50 KVA	75 KVA	100 KVA	Stirrup	Spacer	Grounding
Assemblies ===>	PKT11W3F	PKT11W4F	PKT11W5F	PKT11W6F	PKT11W7F	ALSTRP1/0	SEWC	GRDMEG1/2
Total Quantities ==>	2	5	7	2	0	16	16	16
·								

Work Request #2	925112	- Primary							
	#2 AAAC	1st span	Additional	1st span	Additional	Fused cutouts	DE & TAP	Fuses	Grounding
Assemblies ====>	WIOPA	WIO2F	WIO2A	WIO1F	WIO1A	PKP208WB3A	PKP101WA3A	FLOH103	GRDMEG1/2
Total Quantities ==>	6165	1	7	3	32	1	4	2	3
il									

Work Request #3	925113	- Poles and Guys											
Should be ====>	Pole haul	2ø Deadend	2 ø tangent	2 ø Corner	1ø Deadend	1ø angle <20	1ø angle <20	1ø Tangent	1ø angle >20	3 ø	Down guys	Pole hardware	Guy wire
Assemblies ===>	POLE HAUL	STP402 DE 40C2	STP103 TAN 40C2	STP302 RC 40C2	STP401 DE 40C2	STP101 ANG 40C2	STP101 ANG 45C2	STP101 TAN 40C2	STP301 RC 40C2	STP104E4B	PKG12W2H	PKG31W1H	GUYSTR3/8
Total Quantities ==>	44	1	6	1	4	5	2	13	11	1	29	4	340

Work Request #4	925114	- Secondary - From Second	lary&Neutral worksheet										
	35' CL 4	0	2/0	4/0	#2 Neutral	Labor	Labor	Eyebolt	Eyenut	DE+Bolt		Pole hardware	Guy wire
Assemblies ====>	STS11C	POLE HAUL	WIO3SB	WIO3SC	C2AAAC	WIOCF	WIOCA	SEW1DEN	SEG1DEN	PKS11W	CABLEOPEN	PKG31W1H	GUYSTR3/8
Total Quantities ==>	0	0	5155	0	225	6	37	2	2	8	14	8	565
,													

More of Work Request	t #4	- Secondary continued - F	rom Secondary&Neutral v	worksheet and SlackSecondar	ry (service cable) & Second	dary Poles worksheet				
		35' Class 4	Deadend	Clamp	2/0 triplex	4/0 triplex	0	Down guys	Pole hardware	Guy wire
Assemblies ===>	POLE HAUL	STS11C	PKS21G	CLMIDSPAN	CA2/0TPX	CA4/0TPX	SVLABOR	PKG11W1H	PKG31W1H	GUYSTR3/8
Total Quantities ==>	19	19	35	3	965	0	19	1	2	50

Work Request #5	927142	- Services		
	2/0 triplex	4/0 triplex	Clamp	
Assemblies	CA2/0TPX	CA4/0TPX	CLMIDSPAN	SVLABOR
Quantities	8960	0	26	0

Work Request #5	927163 - Set Meter
Assemblies	METERLABOR
Quantities	176



Estimate Summary Design Number 1

Distribution Services HDOH TRANSFORMER **Contact Name:** Tampa Electric

Printed Date: 3/11/2021

District: CSA

WR No. 925111

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010

WR Description: HDOH 1250 sq ft TRANSFORMERS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$27,751.80	\$0.00	\$27,751.80
OVERHEAD:	\$3,838.05	\$0.00	\$3,838.05
	\$31,589.85	\$0.00	\$31,589.85
LABOR HOURS:	146.26	0	146.26
LABOR COST:	\$6,439.97	\$0.00	\$6,439.97
OVERHEAD:	\$8,532.90	\$0.00	\$8,532.90
	\$14,972.87	\$0.00	\$14,972.87
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$46,562.72	\$0.00	\$46,562.72
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$46,562.72	\$0.00	\$46,562.72



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021 Dist: CSA

Page 1 of 1

WR No. 925111

Mate	erial Number	Description	Unit Price	Total Cost	Asset?
INSTALL					
16	2003646	ARRESTER, DISTRIBUTION, 10KV, 8.4KV MCOV	\$39.68	\$634.88	Υ
14	2077754	BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$14.56	N
32	2077755	BOLT,MACHINE,SQ HEAD,5/8"X12",ONE SQ NUT	\$1.16	\$37.12	N
16	2003690	BRACKET, CUTOUT, ARRESTER & POTHEAD DWG	\$7.22	\$115.52	N
16	2004660	BRACKET,"L" 5-5/8"IN LENGTH FOR MTG CUTO	\$10.41	\$166.56	N
208	2004197	CABLE, HANDCOIL, COPPER, 600V, 2/0 AWG,	\$2.32	\$482.56	N
24	2004199	CABLE, HANDCOIL, COPPER, 600V, 4/0 AWG,	\$3.75	\$90.00	N
16	2077906	CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$28.80	N
16	2077911	CLAMP, HOT LINE CU TO CU #6 SOL- 2 STR T	\$5.73	\$91.68	N
32	2078000	CLAMP,GND,TRANSFORMER,#10 SOL-#1 STR CU	\$2.31	\$73.92	N
640	2078012	CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$537.60	N
4	2003528	CONNECTOR, 2-BOLT AL MAIN 336-500MCM TAP	\$25.78	\$103.12	N
42	2077839	CONNECTOR, COMPRESSION H-BLOCK ACSR 1/0-	\$0.53	\$22.26	N
16	2077837	CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$10.56	N
2	2077845	CONNECTOR, COMPRESSION H-BLOCK ACSR 4/0	\$0.68	\$1.36	N
64	2077930	CONNECTOR, VICE CU #4 STR	\$1.91	\$122.24	N
48	2077939	COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$229.44	N
24	2003516	COVER, SNAP-ON SQUEEZON CONNECTOR D DIE	\$0.39	\$9.36	N
16	2003846	CUTOUT, 15KV, 100A FUSE HLDR, 300A UNVRS	\$70.74	\$1,131.84	Υ
7	2077806	FUSE LINK, 10A UNVRSL 100A CUTOUT 23" OA	\$3.91	\$27.37	N
2	2077807	FUSE LINK, 15A UNVRSL 100A CUTOUT 23" OA	\$3.93	\$7.86	N
2	2077804	FUSE LINK, 5A UNVRSL 100A CUTOUT 23" OAL	\$3.90	\$7.80	N
5	2077805	FUSE LINK, 7A UNVRSL 100A CUTOUT 23" OAL	\$3.89	\$19.45	N
32	2077965	MOULDING, GROUND WIRE, PVC 1/2 IN X 8 FT	\$1.74	\$55.68	N
16	2007368	PROTECTOR, WILD LIFE, SLIP-ON TYPE	\$5.35	\$85.60	N
64	2077980	ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$878.08	N
16	2077767	ROLLED BOLT, DOUBLE-ARMING, 5/8"X 16"	\$2.65	\$42.40	N
16	2077789	SCREW, LAG PILOT POINT 3/8 X 3	\$0.27	\$4.32	N
16	2077812	SPACER, CABLED SECONDARY	\$6.79	\$108.64	N
140	2077997	STAPLE, SECURES 1/2" PVC MOULDING TO WOO	\$0.27	\$37.80	N
2	2001367	TX,OH,25 kVA,7.62/13.2Y,120/240,FR3	\$1,046.46	\$2,092.92	Υ
5	2001368	TX,OH,37.5 kVA,7.62/13.2Y,120/240,FR3	\$1,253.83	\$6,269.15	Υ
7	2001369	TX,OH,50 kVA,7.62/13.2Y,120/240,FR3	\$1,463.60	\$10,245.20	Υ
2	2001370	TX,OH,75 kVA,7.62/13.2Y,120/240,FR3	\$1,924.56	\$3,849.12	Υ
80	2078006	WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$19.20	N
48	2078014	WIRE, ALUMINUM, TIE, #4 BARE ANNEALED	\$0.11	\$5.28	N
50	2004184	WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$31.75	N
160	2078011	WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$60.80	N
			Total	\$27,751.80	



Estimate Summary Design Number 1

Contact Name: Tampa Electric

Distribution Services HDOH PRIMARY

Printed Date: 3/11/2021

District: CSA

WR No. 925112

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010 WR Description: HDOH 1250 sq ft PRIMARY

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$2,267.12	\$0.00	\$2,267.12
OVERHEAD:	\$313.55	\$0.00	\$313.55
	\$2,580.67	\$0.00	\$2,580.67
LABOR HOURS:	73.22	0	73.22
LABOR COST:	\$3,223.42	\$0.00	\$3,223.42
OVERHEAD:	\$4,271.04	\$0.00	\$4,271.04
	\$7,494.46	\$0.00	\$7,494.46
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$10,075.13	\$0.00	\$10,075.13
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$10,075.13	\$0.00	\$10,075.13

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).

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Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021 Dist: CSA

WR No. 925112

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Mate	rial Numbe	r Description	Unit Price	Total Cost	Asset?
INSTALL					
3	2003646	ARRESTER, DISTRIBUTION, 10KV, 8.4KV MCOV	\$39.68	\$119.04	Υ
2	2077738	BOLT, 5/8" X 8" EYE GALV RTS 12,400 LBS.	\$2.99	\$5.98	N
4	2077739	BOLT, EYE, 5/8 IN. X 10 IN., GALVANIZED	\$3.12	\$12.48	N
2	2077744	BOLT, MACHINE 1/2 INCH X 7 INCH	\$0.92	\$1.84	N
4	2077754	BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$4.16	N
1	2077756	BOLT,MACHINE,SQ HEAD,5/8"X14",ONE SQ NUT	\$1.29	\$1.29	N
3	2003681	BRACKET, "L", LIGHTNING ARRESTER 10 KV	\$7.95	\$23.85	N
2	2004660	BRACKET,"L" 5-5/8"IN LENGTH FOR MTG CUTO	\$10.41	\$20.82	N
8	2077818	CLAMP, DEADEND ACSR OR AAC #2-4/0OR .30-	\$9.12	\$72.96	N
3	2077906	CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$5.40	N
9	2077911	CLAMP, HOT LINE CU TO CU #6 SOL- 2 STR T	\$5.73	\$51.57	N
3	2077813	CLAMP, SLACK SPAN DEADEND #2 ACSR - 2/0	\$10.09	\$30.27	N
6473	2004331	CONDUCTOR, BARE OVERHEAD, 2 AWG, AAAC, 7	\$0.15	\$971.00	Υ
120	2078012	CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$100.80	N
11	2077838	CONNECTOR, COMPRESSION H-BLOCK ACSR #2-1	\$0.41	\$4.51	N
7	2077837	CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$4.62	N
6	2077930	CONNECTOR, VICE CU #4 STR	\$1.91	\$11.46	N
9	2077939	COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$43.02	N
1	2002955	CROSSARM, 5' DEADEND COMPOSITE	\$116.70	\$116.70	N
2	2003846	CUTOUT, 15KV, 100A FUSE HLDR, 300A UNVRS	\$70.74	\$141.48	Υ
2	2077794	FUSE LINK, 103A UNVRSL 100A CUTOUT 23" O	\$24.29	\$48.58	N
1	2077954	INSULATOR, PIN TYPE, 10KV, ANSI CLASS 55	\$3.75	\$3.75	N
2	2003882	INSULATOR, POLYMER VERTICAL LINE POST 25	\$50.80	\$101.60	N
4	2077959	INSULATOR, SUSPENSION, POLYMER, 25KV, AP	\$11.86	\$47.44	N
6	2077965	MOULDING, GROUND WIRE, PVC 1/2 IN X 8 FT	\$1.74	\$10.44	N
5	2077783	NUT, EYE, STANDARD, 1-1/2" GALVANIZED FO	\$1.51	\$7.55	N
1	2077971	PIN, CROSSARM 5/8" X 6-1/2" BOLT, 1" LEA	\$5.16	\$5.16	N
12	2077980	ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$164.64	N
3	2077789	SCREW, LAG PILOT POINT 3/8 X 3	\$0.27	\$0.81	N
30	2077997	STAPLE, SECURES 1/2" PVC MOULDING TO WOO	\$0.27	\$8.10	N
2	2077828	STIRRUP, AL BODY & CU BAIL 1/0-397	\$17.19	\$34.38	N
7	2077826	STIRRUP, AL BODY & CU BAIL 2-4/0	\$10.18	\$71.26	N
2	2004029	STUD-LINEPOST INSULATOR 3/4"X5/8 7"BOLT	\$4.09	\$8.18	N
1	9999999	USED AS A STOCK NUMBER PLACEHOLDER	\$0.00	\$0.00	N
4	2078005	WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8	\$0.23	\$0.92	N
13	2078006	WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$3.12	N
2	2008135	WASHER, LOCK T316SS 1/2 IN	\$0.18	\$0.36	N
3	2004184	WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$1.89	N
15	2078011	WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$5.70	N
			Total	\$2,267.12	



Estimate Summary Design Number 1

Distribution Services HDOH POLES **Contact Name:** Tampa Electric

Printed Date: 3/11/2021

District: CSA

WR No. 925113 Date Sched: 4/1/21

Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010 WR Description: HDOH 1250 sq ft POLES

<u> </u>			
INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$20,059.40	\$0.00	\$20,059.40
OVERHEAD:	\$2,774.22	\$0.00	\$2,774.22
	\$22,833.62	\$0.00	\$22,833.62
LABOR HOURS:	427.97	0	427.97
LABOR COST:	\$18,838.88	\$0.00	\$18,838.88
OVERHEAD:	\$24,961.48	\$0.00	\$24,961.48
	\$43,800.36	\$0.00	\$43,800.36
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$66,633.98	\$0.00	\$66,633.98
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR HOOKS. LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$66,633.98	\$0.00	\$66,633.98

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).

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Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021 Dist: CSA

> WR No. 925113 Page 1 of 1

Materi	al Number	Description	Unit Price	Total Cost	Asset?
INSTALL					
29	2003632	ANCHOR,SCRW GALV 10" WING 1-1/4" ROD 8"	\$48.15	\$1,396.35	N
20	2077739	BOLT, EYE, 5/8 IN. X 10 IN., GALVANIZED	\$3.12	\$62.40	N
62	2077764	BOLT, MACHINE 3/4" X 12", GALV	\$2.41	\$149.42	N
40	2077754	BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$41.60	N
19	2077753	BOLT, MACHINE 5/8" X 8", GALV.	\$1.05	\$19.95	N
1	2077780	BOLT, SPOOL, 5/8" X 10", GALV. SINGLE UP	\$4.16	\$4.16	N
45	2077755	BOLT,MACHINE,SQ HEAD,5/8"X12",ONE SQ NUT	\$1.16	\$52.20	N
8	2003686	BRACKET, FIBERGLASS STANDOFF VERTICAL24"	\$48.88	\$391.04	N
7	2077818	CLAMP, DEADEND ACSR OR AAC #2-4/0OR .30-	\$9.12	\$63.84	N
13	2003508	CLAMP, SUSPENSION AL ANGLE RANGE .50 TO	\$13.95	\$181.35	N
19	2077924	CLEVIS, STEEL LESS INSULATOR 5/8 IN PIN	\$9.38	\$178.22	N
105	2078012	CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$88.20	N
25	2077837	CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$16.50	N
21	2077930	CONNECTOR, VICE CU #4 STR	\$1.91	\$40.11	N
2	2077765	DOUBLE-ARMING, GALVANIZED 5/8 "X 12"	\$2.35	\$4.70	N
29	2003636	EXTENSION ROD, ANCHOR 1-1/4 X 72 6 FT	\$50.54	\$1,465.66	N
27	2077901	FIBERGLASS RIDGE-PIN	\$28.87	\$779.49	N
120	2077949	GRIP,GUY,FORMED WIRE DEADEND,3/8"EHS	\$2.27	\$272.40	N
22	2077862	GUARD, LINE #2 ACSR & AAAC STR 6/1, 7	\$1.95	\$42.90	N
3	2077863	GUARD, LINE 2/0 ACSR & AAAC STR 6/1, 7	\$2.68	\$8.04	N
62	2077951	HOOK, GUY	\$2.73	\$169.26	N
35	2077954	INSULATOR, PIN TYPE, 10KV, ANSI CLASS 55	\$3.75	\$131.25	N
1	2077952	INSULATOR, SPOOL, ANSI CLASS 53-3, TRANS	\$1.21	\$1.21	N
33	2077961	INSULATOR, STRAIN FIBERGLASS 36 IN 15,00	\$14.73	\$486.09	N
19	2077959	INSULATOR, SUSPENSION, POLYMER, 25KV, AP	\$11.86	\$225.34	N
29	2077979	MARKER, GUY WIRE PLASTIC 8' IN LENGTH CO	\$4.43	\$128.47	N
42	2002857	POLE, WOOD, 40FT CLASS 2, CCA TREATED	\$272.68	\$11,452.56	Υ
2	2002858	POLE, WOOD, 45 FT CLASS 2, CCA TREATED.	\$323.31	\$646.62	Υ
23	2077767	ROLLED BOLT, DOUBLE-ARMING, 5/8"X 16"	\$2.65	\$60.95	N
62	2077790	SCREW, LAG 1/2" X 4", GALV., TWIST DRIVE	\$0.47	\$29.14	N
48	2077812	SPACER, CABLED SECONDARY	\$6.79	\$325.92	N
7	2003612	TIE, PREFORMED SIDE TIE #2 ACSR OR #2 A	\$2.64	\$18.48	N
28	2003613	TIE, TOP, FORMED WIRE #2 ACSR OR #2 AAAC	\$2.87	\$80.36	N
62	2078002	WASHER, CURVED, MALLEABLE, 3" X 3"	\$1.22	\$75.64	N
156	2078006	WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$37.44	N
146	2078014	WIRE, ALUMINUM, TIE, #4 BARE ANNEALED	\$0.11	\$16.06	N
2776	2005879	WIRE,GUY,EHS STEEL,GALV,3/8",15.4K RBS	\$0.33	\$916.08	N
			Total	\$20,059.40	



Estimate Summary

Design Number 1

Contact Name:

Dist Eng
HDOH SECON

Dist Eng HDOH SECONDARY **Printed Date:** 3/11/2021

District: CSA

WR No. 925114

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010
WR Description: HDOH 1250 sq ft SECONDARY

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$11,334.69	\$0.00	\$11,334.69
OVERHEAD:	\$1,567.60	\$0.00	\$1,567.60
	\$12,902.29	\$0.00	\$12,902.29
LABOR HOURS:	221.46	0	221.46
LABOR COST:	\$9,748.02	\$0.00	\$9,748.02
OVERHEAD:	\$12,916.13	\$0.00	\$12,916.13
	\$22,664.15	\$0.00	\$22,664.15
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$35,566.44	\$0.00	\$35,566.44
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$35,566.44	\$0.00	\$35,566.44

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).

HD-40



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021 Dist: CSA

WR No. 925114

			raye	1 01 1	
Mate	rial Numbe	er Description	Unit Price	Total Cost	Asset?
INSTALL					
1	2003632	ANCHOR,SCRW GALV 10" WING 1-1/4" ROD 8"	\$48.15	\$48.15	N
10	2077739	BOLT, EYE, 5/8 IN. X 10 IN., GALVANIZED	\$3.12	\$31.20	N
11	2077764	BOLT, MACHINE 3/4" X 12", GALV	\$2.41	\$26.51	N
1	2077755	BOLT,MACHINE,SQ HEAD,5/8"X12",ONE SQ NUT	\$1.16	\$1.16	N
5413	2004338	CABLE, OVERHEAD SECONDARY, TRIPLEX, 2/0	\$1.15	\$6,224.72	Υ
1013	2004364	CABLE, SERVICE DROP AL 2-2/0 & 1-1/0 NEU	\$0.96	\$972.77	Υ
43	2077818	CLAMP, DEADEND ACSR OR AAC #2-4/0OR .30-	\$9.12	\$392.16	N
3	2003770	CLAMP, MID SPAN ALUMINUM 1/4 IN - 1/2 IN	\$7.09	\$21.27	N
236	2004331	CONDUCTOR, BARE OVERHEAD, 2 AWG, AAAC, 7	\$0.15	\$35.45	Υ
129	2077839	CONNECTOR, COMPRESSION H-BLOCK ACSR 1/0-	\$0.53	\$68.37	N
8	2077837	CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$5.28	N
8	2077931	CONNECTOR, VICE CU #2 STR	\$2.38	\$19.04	N
86	2003516	COVER, SNAP-ON SQUEEZON CONNECTOR D DIE	\$0.39	\$33.54	N
1	2003636	EXTENSION ROD, ANCHOR 1-1/4 X 72 6 FT	\$50.54	\$50.54	N
12	2077949	GRIP,GUY,FORMED WIRE DEADEND,3/8"EHS	\$2.27	\$27.24	N
11	2077951	HOOK, GUY	\$2.73	\$30.03	N
10	2077961	INSULATOR, STRAIN FIBERGLASS 36 IN 15,00	\$14.73	\$147.30	N
1	2077979	MARKER, GUY WIRE PLASTIC 8' IN LENGTH CO	\$4.43	\$4.43	N
37	2077783	NUT, EYE, STANDARD, 1-1/2" GALVANIZED FO	\$1.51	\$55.87	N
19	2002842	POLE, WOOD, 35 FT, CLASS 4, CCA TREATED.	\$141.93	\$2,696.67	Υ
19	2077767	ROLLED BOLT, DOUBLE-ARMING, 5/8"X 16"	\$2.65	\$50.35	N
11	2077790	SCREW, LAG 1/2" X 4", GALV., TWIST DRIVE	\$0.47	\$5.17	N
19	2077812	SPACER, CABLED SECONDARY	\$6.79	\$129.01	N
11	2078002	WASHER, CURVED, MALLEABLE, 3" X 3"	\$1.22	\$13.42	N
50	2078006	WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$12.00	N
57	2078014	WIRE, ALUMINUM, TIE, #4 BARE ANNEALED	\$0.11	\$6.27	N
16	2004184	WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$10.08	N
657	2005879	WIRE,GUY,EHS STEEL,GALV,3/8",15.4K RBS	\$0.33	\$216.81	N
			Total	\$11,334.69	



Contact Name:

Estimate Summary
Design Number 1

Distribution Services HDOH SERVICE

Printed Date: 3/11/2021

District: CSA

WR No. 927142

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010 WR Description: HDOH 1250 sq ft SERVICE

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$9,216.02	\$0.00	\$9,216.02
OVERHEAD:	\$1,274.57	\$0.00	\$1,274.57
	\$10,490.59	\$0.00	\$10,490.59
LABOR HOURS:	151.98	0	151.98
LABOR COST:	\$6,690.19	\$0.00	\$6,690.19
OVERHEAD:	\$8,864.50	\$0.00	\$8,864.50
	\$15,554.69	\$0.00	\$15,554.69
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$26,045.28	\$0.00	\$26,045.28
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$26,045.28	\$0.00	\$26,045.28



Work Request Material Summary ***Includes Truck Stock***

Design Number 1

Printed Date: 3/11/2021

Dist: CSA

WR No. 927142

Mate	Material Number Description		Unit Price	Total Cost	Asset?
INSTALL					
9408	2004364	CABLE, SERVICE DROP AL 2-2/0 & 1-1/0 NEU	\$0.96	\$9,031.68	Υ
0	2004366	CABLE, SERVICE DROP AL 2-4/0 & 1-2/0 NEU	\$1.42	\$0.00	Υ
26	2003770	CLAMP, MID SPAN ALUMINUM 1/4 IN - 1/2 IN	\$7.09 Total	\$184.34 \$9.216.02	N



Contact Name:

Estimate Summary

Design Number 1

Dist Svcs HDOH METERS **Printed Date:** 3/11/2021

District: CSA

WR No. 927163

Date Sched: 4/1/21 Date Required: 4/1/21

Additional Information: Full PSC Filing 10/2010 WR Description: HDOH 1250 sq ft METERS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	35.27	0	35.27
LABOR COST:	\$1,552.59	\$0.00	\$1,552.59
OVERHEAD:	\$2,057.18	\$0.00	\$2,057.18
	\$3,609.77	\$0.00	\$3,609.77
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$3,609.77	\$0.00	\$3,609.77
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$3,609.77	\$0.00	\$3,609.77

Differential costs for single phase (1ø) services from an overhead source

OVERHEAD SERVICE

OH Service Cable - Material Per Foot Cost
This cost includes all service clamps, connectors and connector covers required. The per foot cost is a material only number.

				(Materiai		OH Service
				Handling)		Material Cost
Action	<u>Description</u>	Material		Overhead		Per Foot
install	76' - 1ø - 2/0 AWG Triplex	\$92.14	+	\$11.26	= \$103.40 ÷ 76 =	\$1.36
install	76' - 1ø - 4/0 AWG Triplex	\$140.93	+	\$17.22	= \$158.15 ÷ 76 =	\$2.08

OH Service Cable - Fixed Cost

Fixed Cost = TEC labor plus Contractor labor cost to install the service cable, includes labor plus overheads and vehicle plus the Net Present Value of Operation Cost with Storm Cost.

\$106.81 OH Service - Net Present Value of Operation Cost with Storm Cost Labor cost to install 2/0 triplex service cable \$151.14 Labor cost to install 4/0 triplex service cable \$151.92

OH SERVICE CABLE - Cost Table

Installation Cost

OH Description			Fixed	Per Foot
1ø - 2/0 AWG Triplex	\$106.81	+\$151.14=	\$257.95	\$1.36
1ø - 4/0 AWG Triplex	\$106.81	+\$151.92=	\$258.73	\$2.08

OH Service - Poles

This is the cost to haul a service pole to the site and install an overhead service pole.

Action	<u>Description</u>	<u>Total</u>
install	Accessible 35' wood pole	\$801.36
	Average cost to install a service pole	\$801.36

REQUEST NO. 3a

UNDERGROUND SERVICE

UG Service from an OH Source - Per Foot Cost

This is the material cost of the conduit and cable in the trench, plus the contractor labor to dig the trench and install the conduit and cable in the trench, plus the cost of the TEC inspector.

								Contractor		
		UG Cable		UG Conduit		Teco		labor		UG Cable
		Material		Material		Inspection		Machine		Machine
		Cost		Cost		Labor		Trench		Trench Total
Action	<u>Description</u>	Per Foot		Per Foot		Per Foot		Per Foot		Cost Per Foot
install	1ø - 2/0 AWG Triplex	\$1.19	+	\$1.45	+	\$1.16	+	\$9.17	=	\$12.98
install	1ø - 4/0 AWG Triplex	\$1.56	+	\$2.36	+	\$1.16	+	\$9.17	=	\$14.26

UG SERVICE CABLE TO METER FROM OH SOURCE - Fixed Cost

This is the cost for the material down the pole and the material at the house riser to the meter can, plus the contractor cost to install the conduit, cable and make the connection on the pole, plus the Net Present Value of Operation Cost with Storm Cost.

UG Service - Net Present Value of Operation Cost with Storm Cost

				(Material						Total
				Handling)		Contractor		NPV		Fixed
<u>Action</u>	<u>Description</u>	<u>Material</u>		Overhead		<u>Labor</u>		OC + SC		Cost
install	1ø - 2/0 AWG Tpx - 2" conduit	\$93.50	+	\$11.42	+	\$87.62	+	\$83.87	=	\$276.41
install	1ø - 4/0 AWG Tpx - 3" conduit	\$160.21	+	\$19.58	+	\$87.62	+	\$83.87	=	\$351.28

\$83.87

UG Service Cable from an OH Source - Cost Table

UG Service Cable from an OH Source to a meter can Installation Cost **OH Service Equivalent** Installation Cost **Differential Cost** Cable & Conduit With Machine Trench Fixed Per Foot Description Fixed Per Foot Fixed Per Foot 1Ø - 2/0 AWG Triplex \$1.36 1ø - 2/0 AWG Triplex \$276.41 \$12.98 \$257.95 \$18.46 \$11.62 1ø - 4/0 AWG Triplex \$351.28 \$14.26 1Ø - 4/0 AWG Triplex \$258.73 \$2.08 \$92.54 \$12.18

Differential costs for single phase (1ø) services from an overhead source

Fixed		1ø UG Secondary or 1ø UG service in conduit from OH source
Charge	Cost/ft	(Base Charge + service length times Cost/ft)
\$18.46	\$11.62	1ø 2/0 AWG, 100 ft or less, machine trench, /ft (differential) - a service 100' or less is one that would not have a service pole if it was overhead
\$92.54	\$12.18	1ø 4/0 AWG, 100 ft or less, machine trench, /ft (differential) - a service 100' or less is one that would not have a service pole if it was overhead
(\$782.90)	\$11.62	1ø 2/0 AWG, greater than 100 ft, machine trench, /ft (differential) - a service greater than 100' is one that would require a service pole if it was overhead
(\$708.82)	\$12.18	1ø 4/0 AWG, greater than 100 ft, machine trench, /ft (differential) - a service greater than 100' is one that would require a service pole if it was overhead

System

Average

System

System

Conversion Cost - Conversions of single phase (1ø) OH Services to UG Services

The "Conversion Cost" is the sum of: 1) the cost to remove whatever overhead facilities exist;

2) the cost of the remaining book value for those overhead facilities.

After paying the cost to remove and the book value, the Customer essentially becomes a new Customer and is charged the differential cost for his new underground service. The OH Service Cable Removal Cost and the Handy Whitman depreciation tables below are used to calculate the Conversion Cost. The total cost for a customer to convert his overhead service to underground service is the applicable Differential Cost for the new underground service plus the conversion cost.

1) the cost to remove whatever overhead facilities exist

Action	Average length service	Cost	<u>%</u>	Cost
remove	1ø - #2 AWG Triplex	\$87.60	10%	\$8.76
remove	1ø - 2/0 AWG Triplex	\$87.60	70%	\$61.32
remove	1ø - 4/0 AWG Triplex	\$87.60	20%	\$17.52
	System Average cost to remove average length 1ø service			\$87.60
		Total		System
		Removal	System	Average
Action	Service length with a service pole	Cost	<u>%</u>	Cost
remove	1ø - #2 AWG Triplex	\$147.57	10%	\$14.76
remove	1ø - 2/0 AWG Triplex	\$147.57	70%	\$103.30
remove	1ø - 4/0 AWG Triplex	\$147.57	20%	\$29.51
remove	30' wood pole, drive hook	\$303.06	50%	\$151.53
remove	35' wood pole, drive hook	\$313.38	50%	\$156.69
	System Average cost to remove average long 1ø service with service pole			\$455.79

Total

Removal

Total

2) the cost of the remaining book value for those overhead facilities.

Book Value Assumptions:

0.036 1. Average depreciation 2. Age of pole & service, yrs. 11 3. Handy Whitman Ratio, total dist.plant, 2007/2017 0.74 $Book\ Value = (System\ Value\ Today)\ x\ (Handy\ Whitman\ Ratio)\ x\ (1\ -\ (Std\ Dep.\ x\ Age))$

		Installation	System	Average
Action	Average length service	<u>Cost</u>	<u>%</u>	Cost
install	1ø - #2 AWG Triplex	\$219.14	10%	\$21.91
install	1ø - 2/0 AWG Triplex	\$254.54	70%	\$178.18
install	1ø - 4/0 AWG Triplex	\$310.07	20%	\$62.01
	System Average cost to install average length 1ø service			\$262.11
	Book Value for average length 1ø service			\$117.48
		Total		System
		Installation	System	Average
Action	Service length that requires a service pole	Cost	<u>%</u>	Cost
install	1ø - #2 AWG Triplex	\$377.23	10%	\$37.72
install	1ø - 2/0 AWG Triplex	\$447.11	70%	\$312.98
install	1ø - 4/0 AWG Triplex	\$555.30	20%	\$111.06
install	35' wood pole, cable spacer	\$606.95	50%	\$303.48
	Haul pole to job site	\$194.41	100%	\$194.41
	System Average cost to install average long 1ø service with service pole			\$959.65
	Book Value for average long 1ø service with service pole			\$430.12

	Remove	Book value	Conversion
1ø Conversion Cost from OH to UG service	Cost	Cost	Cost
1ø Average Service - 100 ft or less(Svc without pole) = (book value + removal)	\$87.60	\$117.48	\$205.08
1ø Average Long Service- Greater than 100 ft (svc with one pole) = (book value + removal)	\$455.79	\$430.12	\$885.91

Tariff Sheet No. 5.516 (3.7.2)

	Current			CPI -U		P	roposed
	Deposit					[Deposit
Density Class	2018		2018	2019	2020		2021
Urban commercial or residential (\$/mile)	\$	9,896	2.40%	1.80%	0.80%	\$	10,391
Rural commercial or residential (\$/mile)	\$	5,657	2.40%	1.80%	0.80%	\$	5,940
Per Lot Subdivisions (\$/lot)	\$	47	2.40%	1.80%	0.80%	\$	49

Table I OPERATING COSTS

	OPERATING COSTS								
								3-Yr Average Allocated	3-Yr Average Allocated
						ОН	UG	Allocated Overhead	Underground
		2018 Actual \$	2019 Actual \$	2020 Actual \$	3-Yr Average \$	Ratio	Ratio	\$	\$
Overhead - Blanket Account D-CRR-Voltage-OH (NEW)	New SAP/Funding project CRR-02630, CRR-02879	\$173.845	\$236,000	\$263.090	\$224.312	100.0%	0.0%	\$224.312	\$0
PRE - Dist Line - Fault Indicators	PRE-05080	\$5,602		\$13,005	\$8,528	100.0%	0.0%	\$8.528	\$0
Distr - Maint - Corrective - OH Line	CRR-02682, CRR-03641, PRE-04820	\$9,965,721	\$11,118,166	\$10,246,537	\$10,443,475	100.0%	0.0%	\$10,443,475	\$0
Distribution - Maint - OH System Improvements Distribution - Maint - Mgmt & Coordination		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	100.0%	0.0%	\$0 \$0	\$0 \$0
Distribution - Maint - Might & Coordination Distr - Maint - Preventative - OH Line	PRE-02805, PRE-02627	\$6,761,430		\$6,448,231	\$7,450,028	100.0%	0.0%	\$7,450,028	\$0 \$0
Distr - Maint - Trouble - OH Storm	CRR-02625, CRR-07052	\$2,215,981	\$7,584,782	\$687,761	\$3,496,175	100.0%	0.0%	\$3,496,175	\$0
Distr - Maint - Pole Inspect & Change-Outs	PRE-02624	\$15,267,786		\$11,097,693	\$15,438,414	100.0%	0.0%	\$15,438,414	\$0
Distr - Maint - Damage Replacement - OH Line CRR - Dist Line - Reclosers / Trip-savers	CRR-02629, CRR-07072 CRR-12716	\$1,689,413 \$229,616		\$2,655,044 \$512,584	\$2,127,277 \$327,438	100.0% 100.0%	0.0%	\$2,127,277 \$327,438	\$0 \$0
Distr - Maint - Capacitors	PRE-02631, CRR-02628	\$435,897	\$131,914	\$298,534	\$288,782	100.0%	0.0%	\$288,782	\$0
Distr - Maint - Trouble - Non-Storm		\$0		\$0	\$0	0.0%	0.0%	\$0	\$0
Distr - Maint - Tree Trimming - Planned Distr - Env - Train/Permit/Inspect/Audit/Protect		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	0.0% 100.0%	0.0%	\$0 \$0	\$0 \$0
Distr - Maint - Tree Trimming - Unplanned		\$0	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0
Distr - Maint - Pole Reinforcements	PRE-03670	\$467,400		\$434,229	\$434,379	100.0%	0.0%	\$434,379	\$0
Distr - Maint - Pole CLAs & Change-Outs	PRE-03640	\$254,663 \$0	\$84,313 \$0	\$67,705 \$0	\$135,560 \$0	100.0%	0.0%	\$135,560	\$0
Distr - Maint - Infrared Thermography Distr - Maint - Services - OH Line	CRR-02680	\$0 \$774,551		\$966,573	\$877,709	100.0%	0.0%	\$0 \$0	\$0 \$0
	Subtotal	\$38,241,906		\$33,690,986	\$41,252,076			**	*-
Understand Blanket Account									
Underground - Blanket Account D-CRR-Voltage-UG	CRR-03814	\$7,589	\$10,670	\$23,632	\$13,964	0.0%	100.0%	\$0	\$13,964
D-PRE-Transformers-UG	PRE-03623	\$3,504,752	\$1,551,277	\$2,084,383	\$2,380,137	0.0%	100.0%	\$0	\$2,380,137
Distr - Maint - Corrective - UG Line	CRR-02644, CRR-03642	\$13,068,396		\$10,427,986	\$11,416,595	0.0%	100.0%	\$0	\$11,416,595
Distribution - Maint - UG System Improvements Distribution - Maint - Mamt & Coordination		\$0 \$0	0	\$0 \$0	\$0 \$0	0.0%	100.0%	\$0 \$0	\$0 \$0
Distr - Maint - Preventative - UG Line	PRE-02809, PRE-02646	\$1,084,178		\$9,506,194	\$4,858,073	0.0%	100.0%	\$0	\$4,858,073
Distr - Maint - Network Corrective	CRR-02636	\$77,136	\$250,177	\$33,100	\$120,138	0.0%	100.0%	\$0	\$120,138
Distr - Maint - Network Preventative Distr - Maint - Capacitors - UG	PRE-04357 CRR-02651, PRE-03813	\$762,566 \$12,430	\$1,290,770 \$396	\$25,243 \$53,629	\$692,860 \$22,152	0.0%	100.0%	\$0 \$0	\$692,860 \$22,152
Distr - Maint - Capacitors - GG Distr - Maint - UG Cable Rplcmnt - Planned	CRR-02649	\$3,724,487	\$3,944,431	\$2,906,062	\$3,524,993	0.0%	100.0%	\$0	\$3,524,993
Distr - Maint - Trouble - UG Storm	CRR-02645	\$838,010	\$629,674	\$265,878	\$577,854	0.0%	100.0%	\$0	\$577,854
Distr - Maint - Damage Replacement - UG Line Distr - Maint - UG Cable Rolcmnt - Unplanned	CRR-02652	\$586,171 \$0	\$1,105,493 \$0	\$1,211,387 \$0	\$967,684 \$0	0.0%	100.0%	\$0 \$0	\$967,684
Distr - Maint - UG Cable Rpicmnt - Unplanned Distr - Maint - Services - UG Line	CRR-02679	\$1,089,934		\$812,991	\$932,817	0.0%	0.0%	\$0 \$0	\$0 \$0
	Subtotal	\$24,755,648	\$24,415,665	\$27,350,485	\$25,507,266			**	*-
Overhead OSM Assessed									
Overhead - O&M Account D-CRR-Voltage-OH (NEW)	CRR-02630, CRR-02879	\$38,513	\$61,979	\$45,644	\$48,712	100.0%	0.0%	\$48,712	\$0
Distr - Maint - Corrective - OH Line	CRR-02858, CRR-02682	\$5,989,559	\$6,759,090	\$7,002,950	\$6,583,866	100.0%	0.0%	\$6,583,866	\$0
Distribution - Maint - OH System Improvements		\$0	\$0	\$0	\$0	100.0%	0.0%	\$0	\$0
Distribution - Maint - Mgmt & Coordination Distr - Maint - Preventative - OH Line	PRE-02627, PRE-02867, PRE-02868	\$0 \$98,503	\$0 \$176,940	\$0 \$124,407	\$0 \$133,283	100.0% 100.0%	0.0%	\$0 \$133,283	\$0 \$0
Distr - Maint - Trouble - OH Storm	CRR-02625, CRR-02877	\$1,308,631	\$1,221,253	\$593,755	\$1,041,213	100.0%	0.0%	\$1,041,213	\$0
Distr - Maint - Pole Inspect & Change-Outs	PRE-04039, PRE-02859 CRR-02861, CRR-02629	\$1,929,160		\$904,908	\$1,597,692	100.0%	0.0%	\$1,597,692	\$0 \$0
Distr - Maint - Damage Replacement - OH Line Distr - Maint - Capacitors	CRR-02628, CRR-02629 CRR-02628, CRR-02857	\$178,520 \$190,258	\$257,726 \$149,581	\$184,081 \$29,990	\$206,775 \$123,276	100.0% 100.0%	0.0%	\$206,775 \$123,276	\$0 \$0
Distr - Maint - Trouble - Non-Storm	CRR-02876	\$2,387,796	\$2,807,237	\$2,814,800	\$2,669,944	0.0%	0.0%	\$0	\$0
CRR - Dist Line - Storms - OH - Restoration	CRR-10852	\$0 \$7	\$13,636	\$0	\$4,545	0.0%	0.0%	\$0	\$0
CRR - Dist Line - Reclosers / Trip-savers Distr - Maint - Tree Trimming - Planned	CRR-12716 PRE-04067	\$10,316,539	\$6,425 \$13,767,350	\$137 \$16,990,720	\$2,190 \$13,691,536	0.0%	0.0%	\$0 \$0	\$0 \$0
Distr - Env - Train/Permit/Inspect/Audit/Protect	OPS-04740, PRE-04060	\$21,039	\$13,489	\$26,923	\$20,484	100.0%	0.0%	\$20,484	\$0
Distr - Maint - Tree Trimming - Unplanned	CRR-03621	\$1,562,584	\$2,222,800	\$2,026,699	\$1,937,361	0.0%	0.0%	\$0	\$0
Distr - Maint - Pole Reinforcements Distr - Maint - Pole CLAs & Change-Outs	PRE-04062	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	100.0% 100.0%	0.0%	\$0 \$0	\$0 \$0
Distr - Maint - Infrared Thermography		\$0	\$0	\$0	\$0	100.0%	0.0%	\$0	\$0
Distr - Maint - Services - OH Line	CRR-02680, CRR-02871	\$786,519		\$839,741	\$811,488	0.0%	0.0%	\$0	\$0
	Subtotal	\$24,807,628	\$30,224,718	\$31,584,755	\$28,872,367				
Underground - O&M Account									
D-PRE-Transformers-UG	PRE-03623	\$3,479		\$0	\$1,160	0.0%	100.0%	\$0	\$1,160
Distr - Maint - Corrective - UG Line Distribution - Maint - UG System Improvements	CRR-02860, CRR-02644	\$1,548,934 \$0	1,449,637 \$0	\$1,710,255 \$0	\$1,569,609 \$0	0.0%	100.0% 100.0%	\$0 \$0	\$1,569,609 \$0
Distribution - Maint - OG System Improvements Distribution - Maint - Mgmt & Coordination		\$0 \$0		\$0	\$0	0.0%	100.0%	\$0 \$0	\$0 \$0
Distr - Maint - Preventative - UG Line	PRE-02869, PRE-02809, PRE-02646, PRE-02870	\$306,486	\$300,272	\$220,874	\$275,877	0.0%	100.0%	\$0	\$275,877
Distr - Maint - Network Corrective Distr - Maint - Network Preventative	CRR-02636, CRR-02863 PRE-02864	\$20,524 \$513,913	\$7,379 \$635,686	\$5,573 \$660,604	\$11,159 \$603,401	0.0%	100.0% 100.0%	\$0 \$0	\$11,159 \$603,401
Distr - Locate Facilities	PRE-04063	\$760,468		\$948,183	\$873,551	0.0%	100.0%	\$0 \$0	\$873,551
Distr - Maint - UG Cable Rplcmnt - Planned	CRR-03635, CRR-02649	\$127,829	\$71,431	\$23,766	\$74,342	0.0%	100.0%	\$0	\$74,342
Distr - Maint - Trouble - UG Storm D-CRR-Capacitors-UG	CRR-02878 CRR-02651	\$120,874 \$0	\$29,492 \$773	\$19,316 \$0	\$56,561 \$258	0.0%	100.0% 100.0%	\$0 \$0	\$56,561 \$258
D-CRR-Storms-UG	CRR-02651 CRR-02645	\$0 \$0		\$0 \$0	\$258 \$0	0.0%	100.0%	\$0 \$0	\$258 \$0
Distr - Maint - Damage Replacement - UG Line	CRR-02862, CRR-02652	\$103,901	\$173,424	\$174,701	\$150,675	0.0%	100.0%	\$0	\$150,675
Distr - Maint - UG Cable Rplcmnt - Unplanned Distr - Maint - Services - UG Line	CRR-02679, CRR-02872	\$0 \$423,145		\$0 \$712,258	\$0 \$596,499	0.0%	100.0%	\$0 \$0	\$0 \$0
Disti - Mallit - Scivices - US Line	Subtotal	\$3,929,552		\$4,475,530	\$4,213,091	0.0%	0.076	\$0	
							•	\$50,129,670	\$28,191,041

<u>Table II</u> PRIMARY VOLTAGE SYSTEM

	2018 Actual \$	2019 Actual \$	2020 Actual \$	3-Yr Average \$	OH Ratio	UG Ratio	Allocated Overhead \$	Allocated Underground \$
Distribution - Maint - Trouble Calls - Non-storm Blanket O&M	\$0 \$2,387,796	\$0 \$2,807,237	\$0 \$2,814,800	\$0 \$2,669,944	77.7% 77.7%	22.3% 22.3%	\$0 \$2,074,547	\$0 \$595,398
Operating Cost Total from Table I			(A	A) 3 Yr Avg Annua	l Operatio	onal Cost	\$50,129,670 \$52,204,216	\$28,191,041 \$28,786,439
			,	,, o 11 200 2000 au	. орогин	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	402,201,210	420,100,100
Distr - Maint - Tree Trimming - Planned	2018 Actual \$	2019 Actual \$	2020 Actual \$	3-Yr Average \$	OH Ratio	UG Ratio	Allocated Overhead \$	Allocated Underground \$
Blanket O&M	\$0 \$10,316,539	\$0 \$13,767,350	\$0 \$16,990,720	\$0 \$13,691,536	96.1% 96.1%	3.9% 3.9%	\$0 \$13,157,894	\$0 \$533,642
Distr - Maint - Tree Trimming - Unplanned Blanket O&M	\$0 \$1,562,584	\$0 \$2,222,800	\$0 \$2,026,699	\$0 \$1,937,361	96.1% 96.1%	3.9% 3.9%	\$0 \$1,861,851	\$0 \$75,511
			(B) 3	Yr Avg Annual Li	ne Cleara	nce Cost	\$15,019,745	\$609,153
Annual Estimated Storm Costs Storm Damage Annual Accrual Percent for Distribution Lines & Substations Percent for Substations Percent for Distribution Lines Overall Distribution Percent Storm Cost Distribution Lines	\$43,133	\$7,219,800	\$794,787	\$ 2,685,907 (C) Estimated A	96.0%	4.0%_	\$2,578,471 \$2 ,578,471	\$107,436 \$107 ,436
				(C) Estimated A	innuai St	orm Cost	\$2,578,471	\$107,436
Pole Attachment Revenue	\$4,429,688	\$4,495,861	\$4,591,960 (D) 201	\$4,505,836 0 Annual Pole Att		0.0% _ Revenue	\$4,505,836 \$4,505,836	\$0 \$0
<u>Table III</u> <u>SERVICE CONDUCT</u>	OR							
Distr - Maint - Services - OH Line Blanket O&M	\$774,551 \$786,519	\$892,002 \$808,204	\$966,573 \$839,741	\$877,709 \$811,488	100.0% 100.0%	0.0% 0.0%	\$877,709 \$811,488	\$0 \$0
Distr - Maint - Services - UG Line Blanket O&M	\$1,089,934 \$423,145	\$895,524 \$654,095	\$812,991 \$712,258	\$932,817 \$596,499	0.0% 0.0%	100.0% 100.0%	\$0 \$0	\$932,817 \$596,499
			(4	A) 3 Yr Avg Annua	l Operatio	onal Cost	\$1,689,197	\$1,529,316
Table IV ALLOCATION FACTO	<u>DRS</u>							
Line Clearance 2020 No. of company owned distribution poles 2020 No. of Terminal Poles on System	418,770 16,322	96.1% 3.9%						
Distribution - Maint - Trouble Calls - Non-storm	2020	2020 Overhead	2020 Underground					
No Outage Events (N) Outage Sys Avg Duration (L-Bar) Trouble Calls Weighted Avg Proportion (N) X (L-Bar) Allocation Percentage	Entire System 9,810 166.49 1,633,267	System 8,018 158.36 1,269,730 77.7%	System 1,792 202.88 363,561 22.3%					
Service Count (Based on Metered Accounts)	No of Services	(Based on Mete	ered Accounts)					
Overhead Single & Three Phase (Excluding Multi-Family) Underground Single Phase (Excluding Multi-Family)	246,960 284,735							

<u>Table V (A)</u> <u>NET PRESENT VALUE LIFECYCLE COST CALCULATION</u> (Primary Voltage System - Installation of Facilities In Subdivisions)

Assumptions: Inflation Rate 0.80 % 6.70 % 35 Yrs 2.1 % Discount Rate Book Life Pole Attach Revenue Increase

2 52,621,850 (4,602,149) \$48,019,701 - 2,599,098 \$47,440,300 \$45,004,406 \$22,301 3 53,042,825 (4,700,520) \$48,342,305 - 2,619,891 \$44,763,012 \$42,461,812 \$2,301 4 53,467,168 (4,800,993) \$48,666,174 - 2,640,880 \$42,236,077 \$40,062,122 \$2,173, 5 53,894,905 (4,903,615) \$48,991,290 - 2,661,977 \$39,851,082 \$37,797,337 \$2,053, 6 54,266,064 (5,008,429) \$49,317,635 - 2,683,273 \$37,600,085 \$35,659,902 \$1,940, 7 54,760,673 (5,115,484) \$49,645,188 - 2,704,739 \$35,475,585 \$33,642,685 \$1,832, 8 55,198,758 (5,036,509) \$0,303,839 - 2,726,377 \$33,470,501 \$31,739,851 \$1,731, 9 55,640,348 (5,366,509) \$0,303,839 - 2,770,173 \$29,792,208 \$28,246,857 \$1,635, 11		Overhead System								
2 52,621,850 (4,602,149) \$48,019,701 - 2,599,098 \$47,440,300 \$45,004,406 \$22,301 3 53,042,825 (4,700,520) \$48,342,305 - 2,619,891 \$44,763,012 \$42,461,812 \$2,301 4 53,467,168 (4,800,993) \$48,666,174 - 2,640,880 \$42,236,077 \$40,062,122 \$2,173, 5 53,894,905 (4,903,615) \$48,991,290 - 2,661,977 \$39,851,082 \$37,797,337 \$2,053, 6 54,266,064 (5,008,429) \$49,317,635 - 2,683,273 \$37,600,085 \$35,659,902 \$1,940, 7 54,760,673 (5,115,484) \$49,645,188 - 2,704,739 \$35,475,585 \$33,642,685 \$1,832, 8 55,198,758 (5,036,509) \$0,303,839 - 2,726,377 \$33,470,501 \$31,739,851 \$1,731,31,339,851 \$1,731,31,339,851 \$1,731,31 \$1,635,541,55 \$6,567,083 \$5,096,072 - 2,770,173 \$29,792,208 \$28,246,857 \$1,545,415	Yr	3 Yr Avg Annual	3 Yr Avg Annual Pole Attachment	3 Yr Avg Annual Operational Cost Incl Lost Attachment	3 Yr Avg Annual Line Clearance	Estimated Annual Storm		PV Incl Storm	NPV Excl Storm	NPV Storm Only
2 52,621,850 (4,602,149) \$48,019,701 - 2,599,098 \$47,440,300 \$45,004,406 \$22,301 3 53,042,825 (4,700,520) \$48,342,305 - 2,619,891 \$44,763,012 \$42,461,812 \$2,301 4 53,467,168 (4,800,993) \$48,666,174 - 2,640,880 \$42,236,077 \$40,062,122 \$2,173, 5 53,894,905 (4,903,615) \$48,991,290 - 2,661,977 \$39,851,082 \$37,797,337 \$2,053, 6 54,266,064 (5,008,429) \$49,317,635 - 2,683,273 \$37,600,085 \$35,659,902 \$1,940, 7 54,760,673 (5,115,484) \$49,645,188 - 2,704,739 \$35,475,585 \$33,642,685 \$1,832, 8 55,198,758 (5,036,509) \$0,303,839 - 2,726,377 \$33,470,501 \$31,739,851 \$1,731,31,339,851 \$1,731,31,339,851 \$1,731,31 \$1,635,541,55 \$6,567,083 \$5,096,072 - 2,770,173 \$29,792,208 \$28,246,857 \$1,545,415	1	\$ 52,204,216	\$ (4.505.836)	\$ 47.698.380	\$ -	\$ 2.578.471	\$	50.276.851	\$47,698,380	\$2,578,471
3 53,042,825 (4,700,520) \$ 48,342,305 - 2,619,891 \$ 44,763,012 \$ 42,461,812 \$ 2,201,4 4 53,467,168 (4,800,993) \$ 48,961,790 - 2,661,977 \$ 39,851,082 \$ 37,797,337 \$ 2,2173,35 5 53,894,905 (4,903,615) \$ 48,991,290 - 2,661,977 \$ 39,851,082 \$ 37,797,337 \$ 2,053,60 6 54,326,064 (5,008,429) \$ 49,317,635 - 2,683,273 \$ 37,600,085 \$ 35,659,902 \$ 1,940, 7 54,760,673 (5,115,484) \$ 49,645,188 - 2,704,773 \$ 33,470,501 \$ 31,738,951 \$ 1,331,399 9 55,640,348 (5,336,509) \$ 50,303,839 - 2,748,188 \$ 31,578,146 \$ 229,422,343 \$ 1,635, 10 56,545,155 (5,567,083) \$ 50,987,072 - 2,792,233 \$ 28,106,727 \$ 26,648,826 \$ 1,459, 12 56,986,428 (5,686,079) \$ 51,303,349 - 2,814,674 \$ 26,516,074 \$ 22,317,30,99 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>\$2,435,893</td></t<>										\$2,435,893
4 53,467,168 (4,800,993) \$ 48,666,174 - 2,640,850 \$ 42,236,077 \$40,062,122 \$2,173,55 5 53,894,905 (4,903,615) \$ 48,991,290 - 2,661,977 \$3,851,082 \$37,797,337 \$2,053,659,902 \$1,940,077 7 54,760,673 (5,115,484) \$49,645,188 - 2,704,739 \$35,475,585 \$33,442,685 \$1,832, 8 55,198,758 (5,224,828) \$49,973,930 - 2,726,377 \$33,470,501 \$31,738,951 \$1,731, 9 55,640,348 (5,336,509) \$50,303,839 - 2,748,188 \$31,578,146 \$29,942,343 \$1,635, 10 56,085,471 (5,450,577) \$50,684,884 - 2,770,173 \$29,792,208 \$28,246,857 \$1,545, 11 56,534,155 (5,567,083) \$50,967,072 - 2,770,173 \$29,792,208 \$28,246,857 \$1,545, 12 56,986,428 (5,686,079) \$51,634,700 - 2,837,191 \$25,114,937 \$23,712,024 \$					_					\$2,301,200
5 53,894,905 (4,903,615) \$ 48,991,290 - 2,661,977 \$ 39,851,082 \$37,797,337 \$2,053,66 6 54,326,064 (5,008,429) \$ 49,317,635 - 2,683,273 \$ 37,600,085 \$35,659,902 \$1,940, 7 54,760,673 (5,115,484) \$ 49,645,188 - 2,704,739 \$35,475,585 \$33,642,685 \$1,832, 8 55,198,758 (5,224,828) \$ 49,973,930 - 2,776,377 \$ 33,470,501 \$31,738,951 \$1,731, 9 55,640,348 (5,336,509) \$ 50,303,839 - 2,776,173 \$ 29,792,208 \$28,246,857 \$1,545, 11 \$66,534,155 (5,567,083) \$ 50,967,072 - 2,792,335 \$ 28,106,727 \$26,646,826 \$1,459, 12 \$56,986,428 \$ (5,697,079) \$ 51,300,349 - 2,837,191 \$ 25,014,937 \$23,712,024 \$1,302, 14 \$ 57,901,858 \$ (5,931,757) \$ 51,970,101 - 2,859,888 \$ 23,598,300 \$22,367,431 \$1,230,		, ,			_	, ,	\$, ,	. , ,	\$2,173,955
6 54,326,064 (5,008,429) \$ 49,317,635 - 2,683,273 \$ 37,600,085 \$35,659,902 \$1,940, 7 54,760,673 (5,115,484) \$49,645,188 - 2,704,739 \$ 35,475,585 \$33,642,685 \$1,832, 8 55,198,758 (5,224,828) \$49,973,930 - 2,726,377 \$33,470,501 \$31,738,951 \$1,731, 9 55,640,348 (5,336,509) \$50,303,839 - 2,770,173 \$29,922,208 \$28,246,857 \$1,545, 10 56,085,471 (5,450,577) \$50,634,894 - 2,770,173 \$29,792,208 \$28,246,826 \$1,459, 12 56,986,428 (5,686,079) \$51,300,349 - 2,814,674 \$26,516,074 \$25,136,899 \$1,379, 13 57,442,319 (5,807,619) \$51,634,700 - 2,859,888 \$23,598,300 \$22,367,431 \$1,230, 14 57,901,856 (5,931,757) \$51,970,101 - 2,869,888 \$23,598,300 \$22,367,203 \$1,162,					_					\$2,053,746
7 54,760,673 (5,115,484) \$ 49,645,188 - 2,704,739 \$ 35,475,585 \$33,642,685 \$1,832,835,193,758 8 55,198,758 (5,224,828) \$ 49,973,930 - 2,726,377 \$ 33,470,501 \$31,738,951 \$1,731,193 10 56,640,348 (5,336,509) \$ 50,303,839 - 2,748,188 \$ 31,578,146 \$29,942,343 \$1,635,516 10 56,085,471 (5,450,577) \$ 50,634,894 - 2,770,173 \$ 29,792,208 \$28,246,857 \$1,545,511 11 56,584,155 (5,567,083) \$ 50,967,072 - 2,792,335 \$28,106,727 \$26,646,826 \$1,459,313 12 56,986,428 (5,686,079) \$ 51,300,349 - 2,814,674 \$26,516,074 \$25,136,899 \$1,379,313 13 57,442,319 (5,807,619) \$ 51,634,700 - 2,837,191 \$25,014,937 \$23,712,024 \$1,302,414 15 58,365,073 (6,058,481) \$52,306,525 16,792,293 2,882,768 \$29,034,846 \$27,872,313					_				. , ,	\$1,940,183
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24 62,704,372 (7,328,846) \$ 55,375,526 18,040,758 3,097,094 \$ 17,216,931 \$16,520,027 \$696,5 25 63,206,007 (7,485,500) \$ 55,720,507 18,185,084 3,121,871 \$ 16,244,245 \$15,585,876 \$668,3 26 63,711,655 (7,645,502) \$ 56,066,152 18,330,565 3,146,846 \$ 15,326,227 \$14,704,264 \$621,272 27 64,221,348 (7,808,925) \$ 56,412,423 18,477,209 3,172,021 \$ 14,459,818 \$13,872,246 \$587,5 28 64,735,119 (7,975,841) \$ 56,759,278 18,625,027 3,197,397 \$ 13,642,128 \$13,087,045 \$555,0 29 65,253,000 (8,146,324) \$ 57,106,675 18,774,027 3,222,976 \$ 12,870,426 \$12,346,038 \$524,3 30 65,775,024 (8,320,452) \$ 57,454,572 18,924,220 3,248,760 \$ 12,142,139 \$11,646,746 \$495,3 31 66,301,624 (8,679,953) \$ 58,151,681 19,228,218 3,300,948 \$ 10,806,21										\$737,695
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26 63,711,655 (7,645,502) \$ 56,066,152 18,330,565 3,146,846 \$ 15,326,227 \$14,704,264 \$621,527 64,221,348 (7,808,925) \$ 56,412,423 18,477,209 3,172,021 \$ 14,459,818 \$13,872,246 \$587,528 64,735,119 (7,975,841) \$ 56,759,278 18,625,027 3,197,397 \$ 13,642,128 \$13,087,045 \$555,029 65,253,000 (8,146,324) \$ 57,106,675 18,774,027 3,222,976 \$ 12,870,426 \$12,346,038 \$524,330 65,775,024 (8,320,452) \$ 57,454,572 18,924,220 3,248,760 \$ 12,142,139 \$11,646,746 \$495,331 66,301,224 (8,498,302) \$ 57,802,922 19,075,613 3,274,750 \$ 11,454,833 \$10,986,833 \$468,031,234 66,831,634 (8,679,953) \$ 58,151,681 19,228,218 3,300,948 \$ 10,806,211 \$10,364,090 \$442,133 67,366,287 (8,865,487) \$ 58,500,800 19,382,044 3,327,356 \$ 10,194,106 \$9,776,432 \$417,634 67,905,217 (9,054,987) \$ 58,850,230 19,537,100 3,353,974 \$ 9,616,471 \$9,221,892 \$394,55										\$658,368
27 64,221,348 (7,808,925) \$ 56,412,423 18,477,209 3,172,021 \$ 14,459,818 \$13,872,246 \$587,5 28 64,735,119 (7,975,841) \$ 56,759,278 18,625,027 3,197,397 \$ 13,642,128 \$13,087,045 \$555,0 29 65,253,000 (8,146,324) \$ 57,106,675 18,774,027 3,222,976 \$ 12,870,426 \$12,346,038 \$524,3 30 65,775,024 (8,320,452) \$ 57,454,572 18,924,220 3,248,760 \$ 12,142,139 \$11,646,746 \$495,3 31 66,301,224 (8,498,302) \$ 57,802,922 19,075,613 3,274,750 \$ 11,454,833 \$10,986,833 \$468,0 32 66,831,634 (8,679,953) \$ 58,151,681 19,228,218 3,300,948 \$ 10,806,211 \$10,364,090 \$442,1 33 67,366,287 (8,865,487) \$ 58,500,800 19,382,044 3,327,356 \$ 10,194,106 \$9,776,432 \$417,6 34 67,905,217 (9,054,987) \$ 58,850,230 19,537,100 3,353,974 \$ 9,616,471 \$9,221,892 \$394,5										\$621,964
28 64,735,119 (7,975,841) \$ 56,759,278 18,625,027 3,197,397 \$ 13,642,128 \$13,087,045 \$555,027 29 65,253,000 (8,146,324) \$ 57,106,675 18,774,027 3,222,976 \$ 12,870,426 \$12,346,038 \$524,3 30 65,775,024 (8,320,452) \$ 57,454,572 18,924,220 3,248,760 \$ 12,142,139 \$11,646,746 \$495,3 31 66,301,224 (8,498,302) \$ 57,802,922 19,075,613 3,274,750 \$ 11,454,833 \$10,986,833 \$468,0 32 66,831,634 (8,679,953) \$ 58,151,681 19,228,218 3,300,948 \$ 10,806,211 \$10,364,090 \$442,1 33 67,366,287 (8,865,487) \$ 58,500,800 19,382,044 3,327,356 \$ 10,194,106 \$9,776,432 \$417,6 34 67,905,217 (9,054,987) \$ 58,850,230 19,537,100 3,353,974 \$ 9,616,471 \$9,221,892 \$394,5										\$587,572
29 65,253,000 (8,146,324) \$ 57,106,675 18,774,027 3,222,976 \$ 12,870,426 \$12,346,038 \$524,3 30 65,775,024 (8,320,452) \$ 57,454,572 18,924,220 3,248,760 \$ 12,142,139 \$11,646,746 \$495,3 31 66,301,224 (8,498,302) \$ 57,802,922 19,075,613 3,274,750 \$ 11,454,833 \$10,986,833 \$468,0 32 66,831,634 (8,679,953) \$ 58,151,681 19,228,218 3,300,948 \$ 10,806,211 \$10,364,090 \$442,1 33 67,366,287 (8,865,487) \$ 58,500,800 19,382,044 3,327,356 \$ 10,194,106 \$9,776,432 \$417,6 34 67,905,217 (9,054,987) \$ 58,850,230 19,537,100 3,353,974 \$ 9,616,471 \$9,221,892 \$394,5							\$			\$555,082
30 65,775,024 (8,320,452) \$ 57,454,572 18,924,220 3,248,760 \$ 12,142,139 \$11,646,746 \$495,333 31 66,301,224 (8,498,302) \$ 57,802,922 19,075,613 3,274,750 \$ 11,454,833 \$10,986,833 \$468,633 32 66,831,634 (8,679,953) \$ 58,151,681 19,228,218 3,300,948 \$ 10,806,211 \$10,364,090 \$442,1 33 67,366,287 (8,865,487) \$ 58,500,800 19,382,044 3,327,356 \$ 10,194,106 \$9,776,432 \$447,6 34 67,905,217 (9,054,987) \$ 58,850,230 19,537,100 3,353,974 \$ 9,616,471 \$9,221,892 \$394,5										\$524,389
31 66,301,224 (8,498,302) \$ 57,802,922 19,075,613 3,274,750 \$ 11,454,833 \$10,986,833 \$468,0 32 66,831,634 (8,679,953) \$ 58,151,681 19,228,218 3,300,948 \$ 10,806,211 \$10,364,090 \$442,1 33 67,366,287 (8,865,487) \$ 58,500,800 19,382,044 3,327,356 \$ 10,194,106 \$9,776,432 \$417,6 34 67,905,217 (9,054,987) \$ 58,850,230 19,537,100 3,353,974 \$ 9,616,471 \$9,221,892 \$394,5										\$495,393
32 66,831,634 (8,679,953) \$ 58,151,681 19,228,218 3,300,948 \$ 10,806,211 \$10,364,090 \$442,1 33 67,366,287 (8,865,487) \$ 58,500,800 19,382,044 3,327,356 \$ 10,194,106 \$9,776,432 \$417,6 34 67,905,217 (9,054,987) \$ 58,850,230 19,537,100 3,353,974 \$ 9,616,471 \$9,221,892 \$394,5							\$			\$468,000
33 67,366,287 (8,865,487) \$ 58,500,800 19,382,044 3,327,356 \$ 10,194,106 \$9,776,432 \$417,6 34 67,905,217 (9,054,987) \$ 58,850,230 19,537,100 3,353,974 \$ 9,616,471 \$9,221,892 \$394,5										\$442,122
34 67,905,217 (9,054,987) \$ 58,850,230 19,537,100 3,353,974 \$ 9,616,471 \$9,221,892 \$394,5							\$			\$417,674
										\$394,579
		, ,							. , ,	\$372,761

NPV = (Annual Cost)/(1+(Discount Rate/100))^(Year -1)

<u>Table V (B)</u> <u>NET PRESENT VALUE LIFECYCLE COST CALCULATION</u> (Primary Voltage System - Installation of Facilities In Subdivisions)

Assumptions: Inflation Rate Discount Rate Book Life 0.80 % 6.70 % 35 Yrs 2.1 % Pole Attach Revenue Increase

			Undergrou	nd	System			
	(A) 3 Yr Avg Annual Operational	(B) 3 Yr Avg Annual Line Clearance	(C) Estimated Annual Storm Cost		(<u>A)+(B)+(C)</u> PV Incl Storm	NF	(A)+(B) PV Excl Storm	(C) NPV Storm
Yr	Cost (\$)	Cost (\$)	<u>(\$)</u>		<u>(\$)</u>		<u>(\$)</u>	Only (\$)
1 2	\$ 28,786,439 29,016,730	\$ - -	\$ 107,436 108,296	\$	28,893,875 27,296,182	\$	28,786,439 27,194,686	\$107,436 \$101,496
3 4 5	29,248,864 29,482,855 29,718,718	-	109,162 110,035 110,916	\$ \$ \$	25,786,833 24,360,945 23,013,901	\$ \$ \$	25,690,950 24,270,363 22,928,328	\$95,883 \$90,581 \$85,573
6 7	29,956,468 30,196,119	-	111,803 112,697	\$ \$	21,741,342 20,539,150	\$ \$	21,660,501 20,462,779	\$80,841 \$76,371
8	30,437,688 30,681,190	-	113,599 114,508	\$	19,403,433 18,330,516	\$	19,331,285 18,262,358	\$72,148 \$68,158
10 11	30,926,639 31,174,052	-	115,424 116,347	\$ \$	17,316,926 16,359,383	\$ \$	17,252,537 16,298,554	\$64,390 \$60,829
12 13	31,423,445 31,674,832	-	117,278 118,216	\$	15,454,787 14,600,211	\$	15,397,322 14,545,923	\$57,466 \$54,288
14 15	31,928,231 32,183,657	681,042	119,162 120,115	\$	13,792,889 13,304,917	\$	13,741,603 13,256,467	\$51,286 \$48,450
16 17 18	32,441,126 32,700,655 32,962,260	686,490 691,982 697,518	121,076 122,045 123,021	\$ \$ \$	12,569,219 11,874,201 11,217,614	\$ \$ \$	12,523,447 11,830,961 11,176,765	\$45,771 \$43,240 \$40,849
19 20	33,225,959 33,491,766	703,098 708,723	124,005 124,997	\$ \$	10,597,334 10,011,352	\$ \$	10,558,743 9,974,895	\$38,591 \$36,457
21 22	33,759,700 34,029,778	714,392 720,107	125,997 127,005	\$ \$	9,457,772 8,934,802	\$ \$	9,423,331 8,902,266	\$34,441 \$32,536
23 24	34,302,016 34,576,432	725,868 731,675	128,021 129,046	\$	8,440,751 7,974,017	\$	8,410,013 7,944,980	\$30,737 \$29,038
25 26	34,853,044 35,131,868	737,529 743,429	130,078 131,119	\$	7,533,092 7,116,548	\$ \$	7,505,660 7,090,633	\$27,432 \$25,915
27 28	35,412,923 35,696,226	749,376 755,371	132,168 133,225	\$ \$	6,723,037 6,351,285	\$ \$	6,698,555 6,328,157	\$24,482 \$23,128
29 30	35,981,796 36,269,651	761,414 767,506	134,291 135,365	\$	6,000,090 5,668,313	\$	5,978,240 5,647,672	\$21,850 \$20,641
31 32	36,559,808 36,852,286	773,646 779,835	136,448 137,539	\$	5,354,883 5,058,783	\$	5,335,383 5,040,362	\$19,500 \$18,422
33 34	37,147,105 37,444,281	786,074 792,362	138,640 139,749	\$	4,779,057 4,514,798	\$	4,761,654 4,498,357	\$17,403 \$16,441
35	37,743,836	798,701	140,867 SUM	\$ \$	4,265,151 454,637,392	\$	4,249,619 452,959,789	\$15,532 \$ 1,677,603

<u>Table VI (A)</u> NET PRESENT VALUE LIFECYCLE COST CALCULATION (Services)

Assumptions: Inflation Rate Discount Rate Book Life 0.80 % 6.70 % 35 Yrs 2.1 % Pole Attach Revenue Increase

Overhead System										
Yr	(A) 3 Yr Avg Annual Operational Cost (\$)	(D) 3 Yr Avg Annual Pole Attachment Revenue (\$)	<u>O</u> <u>Co</u>	(A)+(D) 3 Yr Avg Annual perational st Incl Lost ttachment evenue(\$)	(B) 3 Yr Avg Annual Line Clearance Cost (\$)	(C) Estimated Annual Storm Cost (\$)		+(B)+(C)+ (D) V Incl Storm (\$)	(A)+(B)+(D) NPV Excl Storm (\$)	(C) NPV Storm Only (\$)
1	\$ 1,689,197	\$ -	\$	1,689,197	\$ -	\$ -	\$	1,689,197	\$1,689,197	\$0
2	1,702,710	· -	\$	1,702,710	· -	-	\$	1,595,792	\$1,595,792	\$0
3	1,716,332	_	\$	1,716,332	_	_	\$	1,507,552	\$1,507,552	\$0
4	1,730,062	_	\$	1,730,062	_	_	\$	1,424,192	\$1,424,192	\$0
5	1,743,903	_	\$	1,743,903	_	_	\$	1,345,441	\$1,345,441	\$0
6	1,757,854	_	\$	1,757,854	_	_	\$	1,271,044	\$1,271,044	\$0
7	1,771,917	_	\$	1,771,917	_	_	\$	1,200,762	\$1,200,762	\$0
8	1,786,092	_	\$	1,786,092	_	_	\$	1,134,365	\$1,134,365	\$0
9	1,800,381	-	\$	1,800,381	-	-	\$	1,071,640	\$1,071,640	\$0
10	1,814,784	-	\$	1,814,784	-	-	\$	1,012,384	\$1,012,384	\$0
11	1,829,302	_	\$	1,829,302	_	_	\$	956,404	\$956,404	\$0
12	1,843,937	-	\$	1,843,937	-	-	\$	903,519	\$903,519	\$0
13	1,858,688	_	\$	1,858,688	_	_	\$	853,559	\$853,559	\$0
14	1,873,558	-	\$	1,873,558	-	-	\$	806,361	\$806,361	\$0
15	1,888,546	-	\$	1,888,546	-	-	\$	761,773	\$761,773	\$0
16	1,903,655	-	\$	1,903,655	-	-	\$	719,651	\$719,651	\$0
17	1,918,884	-	\$	1,918,884	-	-	\$	679,858	\$679,858	\$0
18	1,934,235	-	\$	1,934,235	-	-	\$	642,265	\$642,265	\$0
19	1,949,709	-	\$	1,949,709	-	-	\$	606,751	\$606,751	\$0
20	1,965,307	-	\$	1,965,307	-	-	\$	573,200	\$573,200	\$0
21	1,981,029	-	\$	1,981,029	-	-	\$	541,505	\$541,505	\$0
22	1,996,877	-	\$	1,996,877	-	-	\$	511,562	\$511,562	\$0
23	2,012,852	-	\$	2,012,852	-	-	\$	483,275	\$483,275	\$0
24	2,028,955	-	\$	2,028,955	-	-	\$	456,553	\$456,553	\$0
25	2,045,187	-	\$	2,045,187	-	-	\$	431,307	\$431,307	\$0
26	2,061,548	-	\$	2,061,548	-	-	\$	407,458	\$407,458	\$0
27	2,078,041	-	\$	2,078,041	-	-	\$	384,928	\$384,928	\$0
28	2,094,665	-	\$	2,094,665	-	-	\$	363,643	\$363,643	\$0
29	2,111,422	-	\$	2,111,422	-	-	\$	343,535	\$343,535	\$0
30	2,128,314	-	\$	2,128,314	-	-	\$	324,539	\$324,539	\$0
31	2,145,340	-	\$	2,145,340	-	-	\$	306,594	\$306,594	\$0
32	2,162,503	-	\$	2,162,503	-	-	\$	289,641	\$289,641	\$0
33	2,179,803	-	\$	2,179,803	-	-	\$	273,625	\$273,625	\$0
34	2,197,241	-	\$	2,197,241	-	-	\$	258,495	\$258,495	\$0
35	2,214,819	_	\$	2,214,819	_	_	\$	244,201	\$244,201	\$0

NPV = (Annual Cost)/(1+(Discount Rate/100))^(Year -1)

<u>Table VI (B)</u> NET PRESENT VALUE LIFECYCLE COST CALCULATION (Services)

Assumptions: Inflation Rate Discount Rate Book Life 0.80 % 6.70 % 35 Yrs 2.1 % Pole Attach Revenue Increase

	Underground System								
Yr	(A) 3 Yr Avg Annual Operational Cost (\$)	(B) 3 Yr Avg Annual Line Clearance Cost (\$)	(C) Estimated Annual Storm Cost (\$)		A)+(B)+(C) V Incl Storm (\$)	<u>NP</u>	(A)+(B) V Excl Storm (\$)	(C) NPV Stori Only (\$)	
1	\$ 1,529,316	\$ -	\$ -	\$	1,529,316	\$	1,529,316	\$0	
2	1,541,550	-	-	\$	1,444,752	\$	1,444,752	\$0	
3	1,553,883	-	-	\$	1,364,864	\$	1,364,864	\$0	
4	1,566,314	-	-	\$	1,289,394	\$	1,289,394	\$0	
5	1,578,844	-	-	\$	1,218,096	\$	1,218,096	\$0	
6	1,591,475	-	-	\$	1,150,741	\$	1,150,741	\$0	
7	1,604,207	-	-	\$	1,087,111	\$	1,087,111	\$0	
8	1,617,041	-	-	\$	1,026,999	\$	1,026,999	\$0	
9	1,629,977	-	-	\$	970,211	\$	970,211	\$0	
10	1,643,017	_	_	\$	916,563	\$	916,563	\$0	
11	1,656,161	_	_	\$	865,881	\$	865.881	\$0	
12	1,669,410	-	_	\$	818,002	\$	818,002	\$0	
13	1,682,765	_	_	\$	772,771	\$	772,771	\$0	
14	1,696,228	_	_	\$	730,040	\$	730,040	\$0	
15	1,709,797	_	_	\$	689,672	\$	689,672	\$0	
16	1,723,476	_	_	\$	651,537	\$	651,537	\$0	
17	1,737,264	_	_	\$	615,510	\$	615,510	\$0	
18	1,751,162	_	_	\$	581,475	\$	581,475	\$0	
19	1,765,171	_	_	\$	549.322	\$	549.322	\$0	
20	1,779,292	-	_	\$	518,947	\$	518,947	\$0	
21	1,793,527	_	_	\$	490.252	\$	490.252	\$0	
22	1,807,875	-	-	\$	463,143	\$	463,143	\$0 \$0	
23	1,822,338	-	-	\$	437,534	\$	437,534	\$0 \$0	
23	1,836,917	-	-	Ф \$	437,334	\$	413,340	\$0 \$0	
2 4 25		-	-	э \$		э \$,		
25 26	1,851,612	-	-	\$ \$	390,485	\$	390,485	\$0 \$0	
26 27	1,866,425	-	-	\$	368,893		368,893		
	1,881,356	-	-		348,495	\$	348,495	\$0 \$0	
28	1,896,407	-	-	\$	329,225	\$	329,225	\$0 \$0	
29	1,911,578	-	-	\$	311,020	\$	311,020	\$0 \$0	
30	1,926,871	-	-	\$	293,822	\$	293,822	\$0 \$0	
31	1,942,286	-	-	\$	277,575	\$	277,575	\$0 ***	
32	1,957,824	-	-	\$	262,227	\$	262,227	\$ 0	
33	1,973,487	-	-	\$	247,727	\$	247,727	\$0	
34	1,989,275	-	-	\$	234,029	\$	234,029	\$0	
35	2,005,189	-	<u>.</u>	\$	221,088	\$	221,088	\$0	
			SUM	\$	23,880,057	\$	23,880,057	\$	-

Table VII Net Present Value of Operational Costs Per Mile & Per Service Calculations

	Overhead		
Primary Voltage System NPV Life Cycle Cost System Miles OH NPV Life Cycle Cost / Mile	Incl Storm	Excl Storm	Storm Only
	\$858,275,756	\$818,013,292	\$40,262,465
	6,246	6,246	6,246
	\$137,412.06	\$130,965.94	\$6,446.12
Services NPV Life Cycle Cost Number of Services NPV Life Cycle Cost / Service	Incl Storm \$26,376,573 246,960 \$106.81	Excl Storm \$26,376,573 246,960 \$106.81	\$0 246,960 \$0.00
	Underground		
Primary Voltage System NPV Life Cycle Cost System Miles OH NPV Life Cycle Cost / Mile	Incl Storm	Excl Storm	Storm Only
	\$454,637,392	\$452,959,789	\$1,677,603
	5,715	5,715	5,715
	\$79,551.60	\$79,258.06	\$293.54
Services NPV Life Cycle Cost Number of Services NPV Life Cycle Cost / Service	Incl Storm	Excl Storm	\$1 Storm Only
	\$23,880,057	\$23,880,057	\$0
	284,735	284,735	284,735
	\$83.87	\$83.87	\$0.00
Primary Voltage System NPV Life Cycle Cost / Mile	Differential Incl Storm -\$57,860.46	Excl Storm -\$51,707.88	Storm Only -\$6,152.58
Services NPV Life Cycle Cost / Service	Incl Storm	Excl Storm	Storm Only
	-\$22.94	-\$22.94	\$0.00

Table VIII Net Present Value of Operational Costs Per Lot Calculations

Low Density Subdivision Overhead

		<u> </u>	Incl Storm	Excl Storm	Storm Only
	Number of Lots	Miles of Line	\$ / Lot	\$ / Lot	\$ / Lot
Primary Voltage System ¹	210	1.92	\$1,256.34	\$1,197.40	\$58.94
Services	NA	NA	\$106.81	\$106.81	\$0.00
Primary & Service			\$1,363.15	\$1,304.21	\$58.94
		Underground			
Primary Voltage System ¹	210	2.99	\$1,132.66	\$1,128.48	\$4.18
Services	NA	NA	\$83.87	\$83.87	\$0.00
Primary & Service			\$1,216.53	\$1,212.35	\$4.18
Primary & Service		Differential	-\$146.62	-\$91.86	-\$54.76

High Density Subdivision

		Overhead			
			Incl Storm	Excl Storm	Storm Only
	Number of Lots	Miles of Line	\$ / Lot	\$ / Lot	\$ / Lot
Primary Voltage System ¹	176	1.17	\$913.48	\$870.63	\$42.85
Services	NA	NA	\$106.81	\$106.81	\$0.00
Primary & Service			\$1,020.29	\$977.44	\$42.85
		Underground			
Primary Voltage System ¹	176	1.07	\$483.64	\$481.85	\$1.78
Services	NA	NA	\$83.87	\$83.87	\$0.00
Primary & Service			\$567.51	\$565.72	\$1.78
Primary & Service		<u>Differential</u>	-\$452.78	-\$411.72	-\$41.07

Note
1. Formula = (NPV Life Cycle Cost / Mile) x (Miles of Line) / (Number of Lots)

<u>Table IX</u> 2020 O&M - FORM 13

·						
					2020 Allocated	
			OH	UG		Underground
Overhead Blades Assessed		2020 Actual \$	Ratio	Ratio	\$	\$
Overhead - Blanket Account D-CRR-Voltage-OH (NEW)		\$263,090	100.0%	0.0%	\$263,090	\$0
PRE - Dist Line - Fault Indicators		\$13,005	100.0%	0.0%	\$13,005	\$0 \$0
Distr - Maint - Corrective - OH Line		\$10,246,537	100.0%	0.0%	\$10,246,537	\$0
Distribution - Maint - OH System Improvements		\$0	100.0%	0.0%	\$0	\$0
Distribution - Maint - Mgmt & Coordination			100.0%	0.0%	\$0	\$0
Distr - Maint - Preventative - OH Line		\$6,448,231		0.0%	\$6,448,231	\$0
Distr - Maint - Trouble - OH Storm		\$687,761		0.0%	\$687,761	\$0
Distr - Maint - Pole Inspect & Change-Outs			100.0%	0.0%	\$11,097,693	\$0
Distr - Maint - Damage Replacement - OH Line Distr - Maint - Capacitors		\$2,655,044 \$298,534	100.0% 100.0%	0.0%	\$2,655,044 \$298,534	\$0 \$0
Distr - Maint - Trouble - Non-Storm		\$0	0.0%	0.0%	\$0	\$0
Distr - Maint - Tree Trimming - Planned		\$0	0.0%	0.0%	\$0	\$0
Distr - Env - Train/Permit/Inspect/Audit/Protect		\$0	100.0%	0.0%	\$0	\$0
Distr - Maint - Tree Trimming - Unplanned		\$0	0.0%	0.0%	\$0	\$0
Distr - Maint - Pole Reinforcements		\$434,229	100.0%	0.0%	\$434,229	\$0
Distr - Maint - Pole CLAs & Change-Outs Distr - Maint - Infrared Thermography		\$67,705 \$0	100.0% 100.0%	0.0%	\$67,705 \$0	\$0 \$0
Distr - Maint - Illifated Thermography Distr - Maint - Services - OH Line		\$966,573	0.0%	0.0%	\$0	\$0
Blot Maint Colvidor Cir Ellio	Subtotal		0.070	0.070	ΨÜ	Ų.
Underground - Blanket Account						
D-CRR-Voltage-UG		\$23,632		100.0%	\$0	\$23,632
D-PRE-Transformers-UG Distr - Maint - Corrective - UG Line		\$2,084,383 \$10,427,986	0.0% 0.0%	100.0% 100.0%	\$0 \$0	\$2,084,383 \$10,427,986
Distribution - Maint - UG System Improvements		\$10,427,980	0.0%	100.0%	\$0	\$10,427,980
Distribution - Maint - Mgmt & Coordination		\$0		100.0%	\$0	\$0
Distr - Maint - Preventative - UG Line		\$9,506,194		100.0%	\$0	\$9,506,194
Distr - Maint - Network Corrective		\$33,100		100.0%	\$0	\$33,100
Distr - Maint - Network Preventative		\$25,243	0.0%		\$0	\$25,243
Distr - Maint - Capacitors - UG		\$53,629	0.0%	100.0%	\$0 \$0	\$53,629
Distr - Maint - UG Cable Rplcmnt - Planned Distr - Maint - Trouble - UG Storm		\$2,906,062 \$265,878	0.U% 0.0%	100.0% 100.0%	\$0 \$0	\$2,906,062 \$265,878
Distr - Maint - Damage Replacement - UG Line		\$1,211,387		100.0%	\$0	\$1,211,387
Distr - Maint - UG Cable Rplcmnt - Unplanned		\$1,211,387		100.0%	\$0	\$1,211,367
Distr - Maint - Services - UG Line		\$812,991	0.0%	0.0%	\$0	\$0
	Subtotal	\$27,350,485				
Overhead - O&M Account						
D-CRR-Voltage-OH (NEW)		\$45,644		0.0%	\$45,644	\$0
Distr - Maint - Corrective - OH Line		\$7,002,950		0.0%	\$7,002,950	\$0
Distribution - Maint - OH System Improvements			100.0%	0.0%	\$0	\$0
Distribution - Maint - Mgmt & Coordination			100.0%	0.0%	\$0	\$0
Distr - Maint - Preventative - OH Line Distr - Maint - Trouble - OH Storm		\$124,407 \$593,755	100.0% 100.0%	0.0%	\$124,407 \$593,755	\$0 \$0
Distr - Maint - Pole Inspect & Change-Outs		\$904,908	100.0%	0.0%	\$904,908	\$0
Distr - Maint - Damage Replacement - OH Line		\$184,081		0.0%	\$184,081	\$0
Distr - Maint - Capacitors			100.0%	0.0%	\$29,990	\$0
Distr - Maint - Trouble - Non-Storm		\$2,814,800	0.0%	0.0%	\$0	\$0
CRR - Dist Line - Storms - OH - Restoration		\$0	0.0%	0.0%	\$0	\$0
Distr - Maint - Tree Trimming - Planned		\$16,990,720	0.0%	0.0%	\$0	\$0
Distr - Env - Train/Permit/Inspect/Audit/Protect		\$26,923	100.0%	0.0%	\$26,923	\$0
Distr - Maint - Tree Trimming - Unplanned Distr - Maint - Pole Reinforcements		\$2,026,699 \$0	0.0%	0.0%	\$0 \$0	\$0 \$0
Distr - Maint - Pole CLAs & Change-Outs		\$0	100.0%	0.0%	\$0	\$0
Distr - Maint - Infrared Thermography		\$0	100.0%	0.0%	\$0	\$0
Distr - Maint - Services - OH Line		\$839,741	0.0%	0.0%	\$0	\$0
	Subtotal	\$31,584,618				
Underground - O&M Account						
D-PRE-Transformers-UG		\$0	0.0%	100.0%	\$0	\$0
Distr - Maint - Corrective - UG Line		\$1,710,255	0.0%		\$0	\$1,710,255
Distribution - Maint - UG System Improvements		\$0		100.0%	\$0	\$0
Distribution - Maint - Mgmt & Coordination		\$0		100.0%	\$0	\$0
Distr - Maint - Preventative - UG Line		\$220,874		100.0%	\$0	\$220,874
Distr - Maint - Network Corrective Distr - Maint - Network Preventative		\$5,573 \$660,604	0.0%	100.0% 100.0%	\$0 \$0	\$5,573 \$660,604
Distr - Maint - Network Preventative Distr - Locate Facilities		\$948,183	0.0%		\$0 \$0	\$948,183
Distr - Maint - UG Cable Rplcmnt - Planned		\$23,766	0.0%	100.0%	\$0	\$23,766
Distr - Maint - Trouble - UG Storm		\$19,316	0.0%	100.0%	\$0	\$19,316
D-CRR-Capacitors-UG		\$0	0.0%	100.0%	\$0	\$0
D-CRR-Storms-UG		\$0	0.0%	100.0%	\$0	\$0
Distr - Maint - Damage Replacement - UG Line		\$174,701	0.0%	100.0%	\$0	\$174,701
Distr - Maint - UG Cable Rplcmnt - Unplanned Distr - Maint - Services - UG Line		\$0 \$712,258	0.0%	100.0% 0.0%	\$0 \$0	\$0 \$0
Disti - Waliti - Octologa - OO Elife	Subtotal		0.070	0.070	ΨΟ	90
					\$41,124,487	\$30,300,766
Distribution - Maint - Trouble Calls - Non-storm						
Blanket		\$0	77.7%	22.3%	\$0	\$0
O&M		\$2,814,800	77.7%	22.3%	\$2,187,100	\$627,700
Distr - Maint - Tree Trimming - Planned						
Blanket		\$0	96.1%	3.9%	\$0	\$0
O&M		\$16,990,720	96.1%	3.9%	\$16,328,489	\$662,231
Distr - Maint - Tree Trimming - Unplanned						
Blanket O&M		\$0 \$2,026,699	96.1% 96.1%	3.9% 3.9%	\$0 \$1,947,706	\$0 \$78,993
		,,		3.570	+ .,5 ., , 00	-10,000
Distr - Maint - Services - OH Line						
Blanket		\$966,573	100.0%	0.0%	\$966,573	\$0
O&M		\$839,741		0.0%	\$839,741	\$0
Distr - Maint - Services - UG Line						
Blanket		\$812,991		100.0%	\$0	\$812,991
O&M		\$712,258	0.0%	100.0%	\$0	\$712,258
			м с	Far: **	600 001 111	622 404 555
		2020 O8	kM Cost -	Form 13	\$63,394,096	\$33,194,939

OC-8

ENERGY DELIVERY "2021" ADDER STUDY Provided by ED Business Planning

	<u>Toolkit</u>
	Distribution CIAC
Total Corporate Accounting FRINGE Rates per Activity A&G (for PSTEW)	72.62%
Other "Operating Labor" related adders:	40.0004
Non-Productive Time*	13.00%
Energy Delivery (Supervisory/Administrative)	15.18% 0.00%
Energy Delivery Engineering Small Tools *	5.39%
TOTAL Other "Labor" related Adders	33.58%
TOTAL Fully Loaded "Labor" adders	106.20%
Fleet* as a % of Labor (rate of settled labor w/ fringe)	14.81%
Fleet* as a % of Labor (rate excluding 37% fringe)	20.29%
"Material" related adders:	
Stores Carrying Cost (ED Stores Clearing) *	4.30%
Stores Carrying Cost (WH Space, Taxes, Insurance & Obsolete Mat)	4.83%
Stores Carrying Cost (Cost of Money - PDR only)	0.00%
Self Help *	3.09%
TOTAL "Material" related Adders	12.22%
Other "Contractor" related adders:	
Energy Delivery (Supervisory/Administrative/Engineering)	20.06%
TOTAL Fully Loaded "Contractor" adders	20.06%
* When determining final bill true up or calculating pay-after invoice using actual results, exclude these items, which will already be included in actuals	