



WELCOME

**CPS Energy
Quarterly Pole Attachment
Workshop**

May 10, 2018

Confidential Information Property of CPS Energy

HOUSEKEEPING



- **Sign-up Sheets**
- **Restrooms**
- **Evacuation / Staging**
- **Introductions in the room**



SAFETY



TODAYS AGENDA



CPS Energy
Quarterly Pole Attachment Workshop - May 10, 2018

CPS Energy EMC Auditorium
4514 Frank Bryant – San Antonio

Agenda #	Item	Presenter	
1	Welcome & Introductions	Jesse Lopez	9:30 – 9:40 am
2	Safety & Agenda	Jesse Lopez	9:40 – 9:45 am
3	General Topics: <ul style="list-style-type: none"> • Pole attachment approved contractors • Work Manager task structure 	Jesse Lopez	9:45 – 10:15 am
4	Wireline Attachment Topics <ul style="list-style-type: none"> • Use of NJUNS for pole transfers 	Jesse Lopez	10:15 – 10:45 am
5	Wireless Attachments Topics <ul style="list-style-type: none"> • Process workflow • Pilot project status update/next steps • Update of Appendix I – Wireless Installation Diagrams (Node Support Pole) 	Jesse Lopez	10:45 – 11:45 am
6	Open Discussion / Questions	Attendees	11:45 – 12:00 pm
7	Final Wrap-up	Jesse Lopez	
8	Adjourn		

GENERAL TOPICS

WEBSITE UPDATES



Español | Billing or Service Questions? Call 210-353-2222



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Approved Pole Attachment Contractors

In accordance with the Pole Attachment Program and the Pole Attachment Standards, please see the most recent listing for engineering, electrical distribution construction, and One-Touch Transfer construction, vegetation management contractors that have been approved by CPS Energy for the specified work.

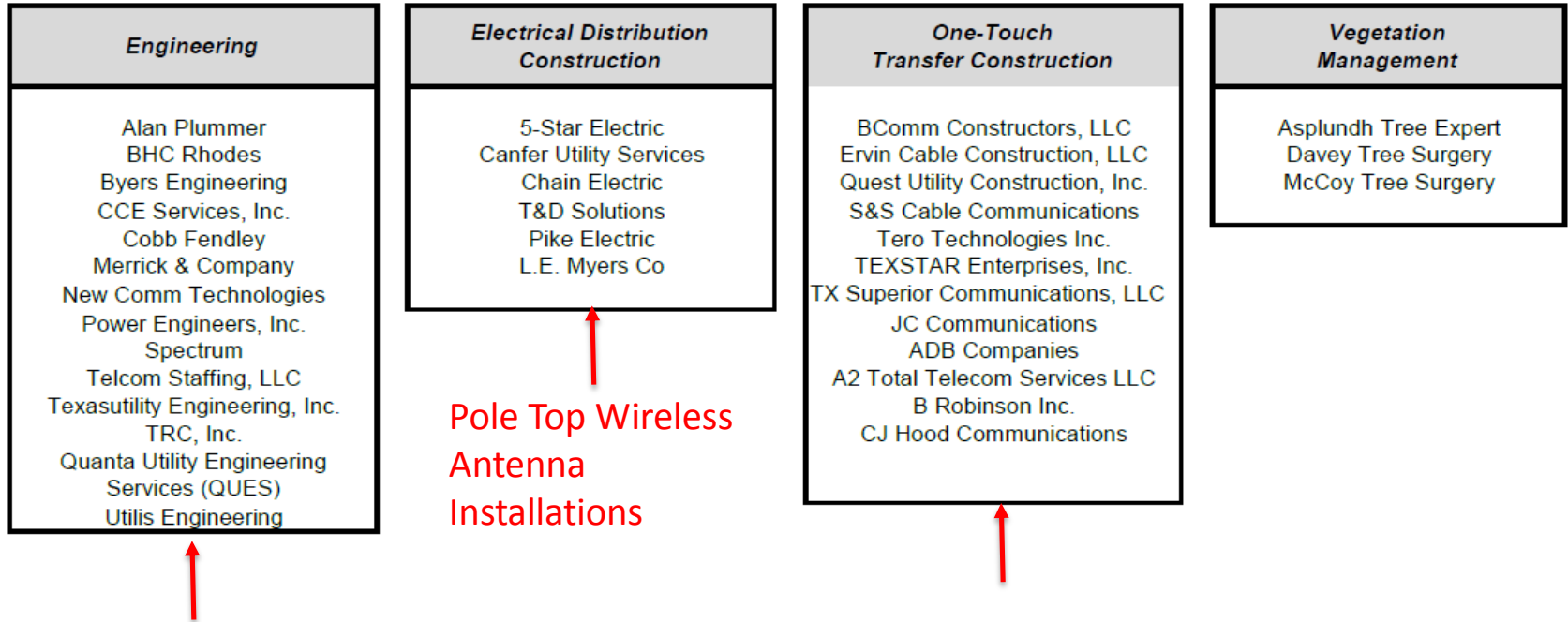
View our [Approved Contractor List](#).

CPS Energy is not a guarantor of the contractors provided on this list. CPS Energy, whether by making available a list of approved contractors, has not made and makes no representations or warranties of any nature, directly or indirectly, express or implied, as to performance of the contractors.

Selection of an approved contractor to perform the specified work is the sole decision of the Attaching Entity. Any lists representing the approved contractors are of those companies and/or individuals who have performed work directly for CPS Energy and or taken the time to request CPS Energy to review their qualification to perform the specific work. It is not an endorsement by CPS Energy of any product, service, individual or company. There is no work guarantee or warranty, expressed or implied, as to the quality, cost or effectiveness of the work performed by the contractor, employees or subcontractors.

This list is related to Pole Attachment work **only** and is not inclusive of all contractors approved for work by CPS Energy.

If you have questions related to the qualifications and or request to be added to this list of approved contractor please **send us an email**.



Option 1: Pole loading analysis (PLA) & application submittal

Option 2: Make ready engineering

Option 3: Pole loading analysis (PLA), application submittal and Make ready engineering



WORK MANAGER TASK STRUCTURE

TASK RESPONSIBILITIES



- WR XXXXXXX REQ, 06/25/2018, PALMR, CAPITAL, UNKNOWN, , SAN ANTONIO, -, NONE, ,
- Task 1000: C, M, REQ, 04/24/2018, 04/24/2018, APDM, Create Work Request, 0
- Task 1040: W, M, REQ, 04/24/2018, , , Review WR Details / Assign Designer - Project - Grids, 0
- Task 2280: P, M, DSGN, 04/24/2018, , , Perform Field Survey / Obtain Data, 0
- Task 2360: P, M, DSGN, 04/24/2018, , , Design Job, 0
- Task 2400: P, M, DSGN, 04/26/2018, , , Request ROW / Easement From Customer, 0
- Task 2445: P, M, DSGN, 04/24/2018, , , Obtain Permit(s), 0
- Task 2460: P, M, DSGN, 05/03/2018, , , Perform Supervisor Review of Design, 0
- Task 2550: P, M, DSGN, 05/04/2018, , , Submit Design to Distribution Planning, 0
- Task 2570: P, M, DSGN, 05/14/2018, , DPLN, Obtain Distribution Planning Approval, 0
- Task 2605: P, M, DSGN, 05/07/2018, , , Send Contribution Charges to Customer, 0
- Task 2670: P, M, DSGN, 04/30/2018, , , Obtain ROW, 0
- Task 2680: P, M, DSGN, 05/15/2018, , , Indicate Official Revision, 0
- Task 9200: P, M, CIAC, 05/07/2018, , , Receive Customer Pre-Work Payment, 0
- Task 5000: P, M, APPR, 05/16/2018, , , Perform Supervisor Approval, 0
- Task 5100: P, M, APPR, 05/17/2018, , , Approve Work Request, 0
- Task 6000: P, M, DESFN, 05/18/2018, , , Finalize and Lock Down Design, 0
- Task 11100: P, M, REL, 05/21/2018, , , Accept Work Request for Construction, 0
- Task 12500: P, M, SCH, 05/22/2018, , , Schedule Work, 0
- Task 16100: P, M, CONST, 07/12/2018, , , Perform Field Work, 0
- Task 16500: P, M, ABRPT, 07/17/2018, , , Perform Initial Material Reconciliation, 0
- Task 16900: P, M, ABRPT, 06/19/2018, , , Receive Customer Post-Work Payment, 0
- Task 17000: P, M, ABRPT, 07/24/2018, , , Enter As-Built, 0
- Task 18200: P, M, CLOSE, 07/25/2018, , , Close Work Request, 0

LEGEND for Responsible Parties

Designer –

Attachers/Contractors

Supervisor – QUES/TRC

Manager – Jesse/CPS

TASK 2460 & 2605



- The GIS design and all tasks are completed up through Task 2445 (Obtain Permits).

+	Task 2445: P, M, DSGN, 04/24/2018, , , Obtain Permit(s), 0
+	Task 2460: P, M, DSGN, 05/03/2018, , , Perform Supervisor Review of Design, 0
+	Task 2550: P, M, DSGN, 05/04/2018, , , Submit Design to Distribution Planning, 0
+	Task 2570: P, M, DSGN, 05/14/2018, , DPLN, Obtain Distribution Planning Approval, 0
+	Task 2605: P, M, DSGN, 05/07/2018, , , Send Contribution Charges to Customer, 0
+	Task 2670: P, M, DSGN, 04/30/2018, , , Obtain ROW, 0

- QUES/TRC supervisor will review and approve the completed GIS design and complete Task 2460 (Perform Supervisor Review of Design).
- QUES/TRC will create the invoice and complete Task 2605 (Send Contribution Charges to Customer).
- Invoice will be sent to the attacher for payment before make ready construction.

CPS ENERGY INVOICE



February 23, 2018

Dear Attacher:

Enclosed please find the invoice(s) associated to the Electrical Make Ready Construction, to be completed by CPS Energy, related to the pole attachment application submitted. You may pay these charges as described below:

Bring the invoice(s) along with payment for the full amount to one of the CPS Energy Service Centers listed below:

Southside Customer Service Center
660 SW Military Dr. San Antonio TX 78221

Westside Customer Service Center
803 Castroville Rd Suite 406, San Antonio TX 78237

Northside Customer Service Center
7000 San Pedro, San Antonio TX 78216

Eastside Customer Service Center
4525 Rigsby Road Suite 112, San Antonio TX 78222

Please reference the invoice number(s) on your check to ensure that payment credit is applied to the correct work order(s). Additionally, please note that the work order(s) associated with the invoice(s) will not be scheduled for construction until after payment has been **received and processed** by CPS Energy. If you have any questions concerning this invoice(s), please contact the CPS Energy contractor that processed your application. Thank you.


Jesse Lopez, Manager
Pole Attachment Services
(210) 353-4381

MISCELLANEOUS CHARGES

Invoice Date 02/23/2018
Invoice Number [REDACTED]
Reference Number [REDACTED]
Customer Number [REDACTED]
Due Date 03/25/2018
Page 1/1

Reference Number : [REDACTED]

Item No	Item Details	Item Qty	Unit Price	Amount
1	RE: [REDACTED] ELECTRIC - OTHER Make Ready Electrical work for Permit# [REDACTED]	1 EA	29,424.57	29,424.57
Subtotal				\$29,424.57
Total				\$29,424.57

DETACH HERE

PLEASE PRESENT BOTH PORTIONS IF PAYING IN PERSON

DETACH HERE

CUSTOMER NUMBER [REDACTED]
Reference Invoice [REDACTED] on your payment
Balance Due
On or Before 03/25/2018 \$29,424.57

Total Amount \$ [REDACTED]
Enclosed

Check here if your address or phone number has changed. Make changes on the reverse side.

DO NOT WRITE BELOW THIS LINE

CPS ENERGY
PO BOX 2678
SAN ANTONIO TX 78289-0001

TASK 2680 & 9200



- Once QUES/TRC completes Tasks 2460 & 2605 the designer can complete tasks up through 2680 (Indicate Official Revision).
 - If the permit costs more than \$8000, a PE sealed design needs to be uploaded prior to completing Task 2680.

+	Task 2670: P, M, DSGN, 04/30/2018, , , Obtain ROW, 0
+	Task 2680: P, M, DSGN, 05/15/2018, , , Indicate Official Revision, 0
+	Task 9200: P, M, CIAC, 05/07/2018, , , Receive Customer Pre-Work Payment, 0
+	Task 5000: P, M, APPR, 05/16/2018, , , Perform Supervisor Approval, 0

- Task 9200 should stay in “working” status until CPS receives payment for the make ready construction from the attacher.
 - The designer’s WMIS initials should be placed on this Task.
- Once payment is received and processed by CPS Service Center, **Task 9200 will auto-complete and send an email to the designer.**
- Designer must notify QUES/TRC supervisor payment has been received and proceed to Task 5000 (Perform Supervisor Approval).

TASK 6000 & 11100



- Designer completes Task 6000 (Finalize and Lock Down Design).

+... Task 5100: P, M, APPR, 05/17/2018, , , Approve Work Request, 0
 +... Task 6000: P, M, DESFN, 05/18/2018, , , Finalize and Lock Down Design, 0
 +... Task 11100: P, M, REL, 05/21/2018, , , Accept Work Request for Construction, 0
 +... Task 12500: P, M, SCH, 05/22/2018, , , Schedule Work, 0

- Designer will then assign and notify a scheduler that the job is ready for construction at Task 11100.

Overhead Schedulers – Centralized – Reporting to Sharon Roemer				
Name	Service Center	Ext.	Contact For	WM Initials
Mary Alvarez	SWC	2721	OH jobs prior to accepted for construction Person to assign task 11100 to for all OH projects based on Crew Headquarters For estimated construction start dates at time of release	AMH
Missy Wilson	NWC	5409		WCL
Cortney Davis	ESC	2720		CED

- The scheduler will schedule the work and release it to construction.



WIRELINER ATTACHMENTS



USE OF NJUNS FOR POLE TRANSFERS

- On August 1, 2016 CPSE started to use NJUNS for transfers notifications
 - CPS Energy worked with attachers to set up emails addresses for each attacher on NJUNS to allow for automatic delivery of email notifications for transfers
- CPS Energy will provide required member codes for each Attaching Entity through NJUNS
- 2 Member Codes were set up
 - CPSE01: Pole Attachment Applications Make Ready Construction Notifications: to be used by attachers
 - CPSE02: CPSE Construction Projects Notifications: to be used by CPSE
 - CIVICS, Pole Replacements, System Improvements, etc.

USE OF NJUNS FOR POLE TRANSFERS

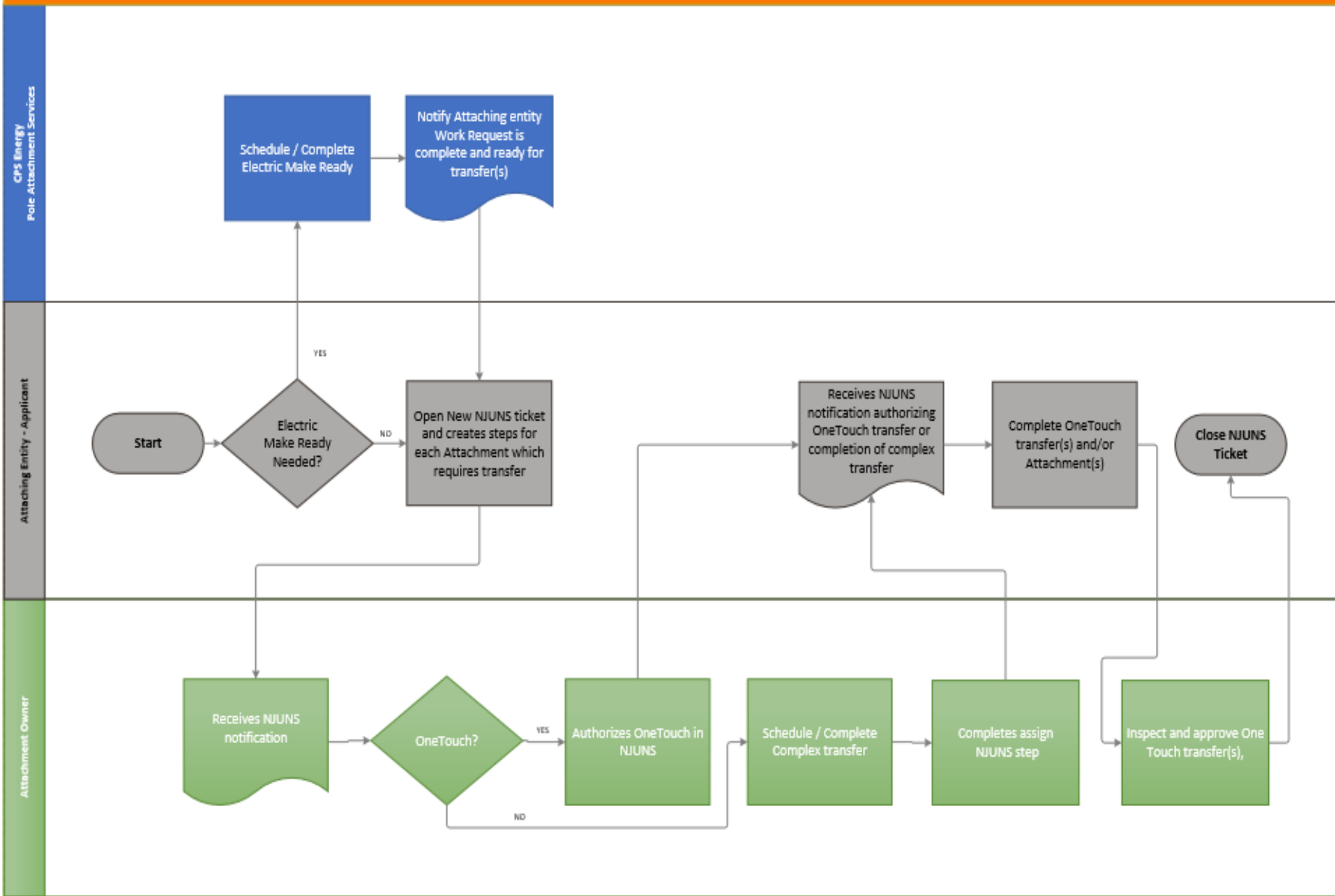
- CPS Energy allows 3 types of NJUNS transfer notifications to be used:
 - Simple Transfer Notification Process
 - Complex Transfer Notification Process
 - Internal CPS Energy Project Notification Process



ONE TOUCH

- One touch is only used for simple transfer, meaning no splicing or cutting of third party facilities.
- Can only be done by an approved One touch contractor.
- Applicant requesting the One touch transfer must follow the notification process described in the Pole Attachment Standards.
 - 21 day notice required through NJUNS CPS01
 - 3rd party attacher can accept or decline the One touch transfer if critical pole
 - Attacher notifies 3rd party attacher One touch is complete & ready to inspect

Joint Use Attachment: National Joint Utilities Notification System (NJUNS): One-Touch Transfer Process Flow



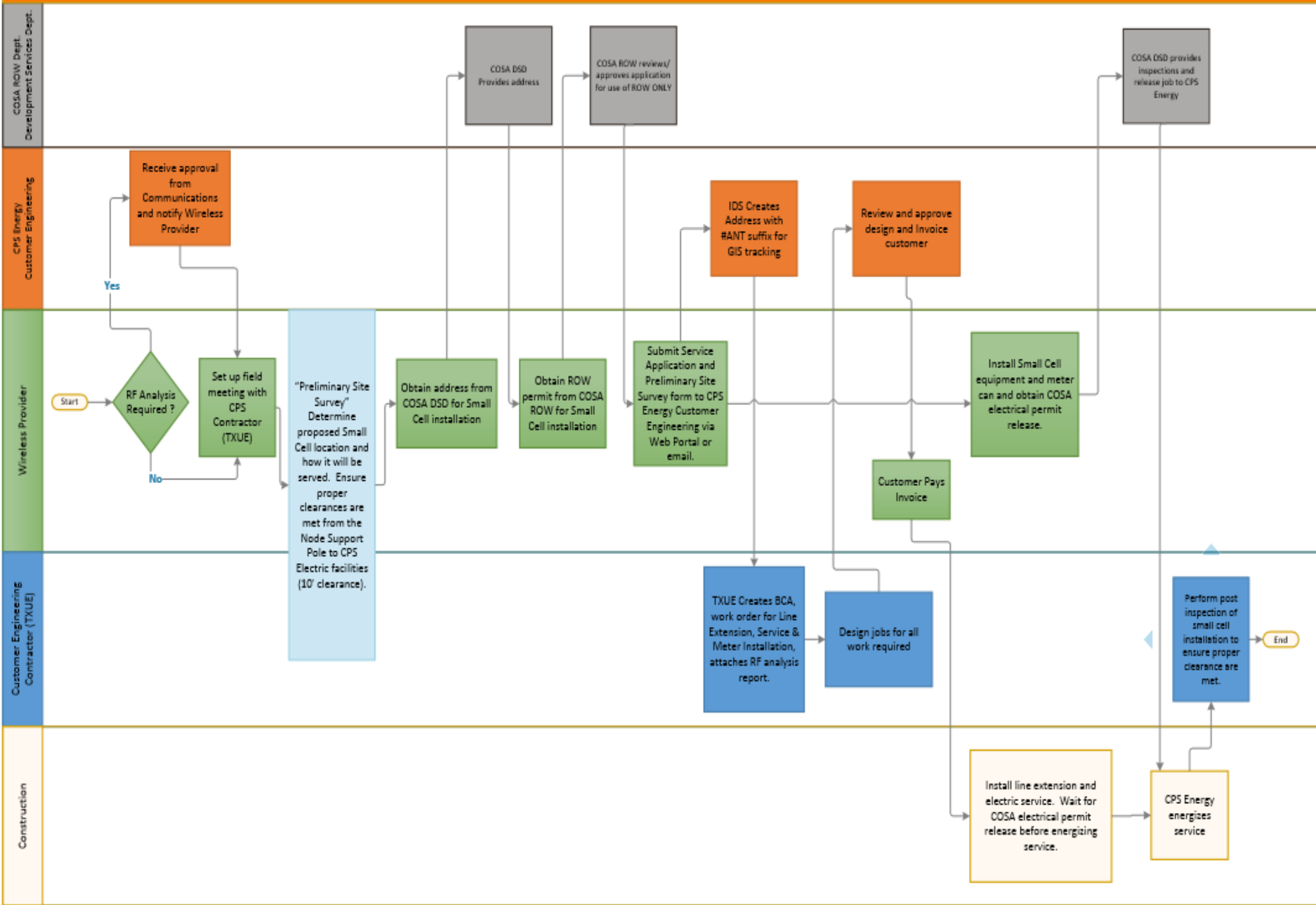
NEXT STEPS

- Pole Attachment Services will work with attachers to set up and update NJUNS information to have the ability to create tickets.
- Training from NJUNS will need to be scheduled for CPS Energy and attachers.

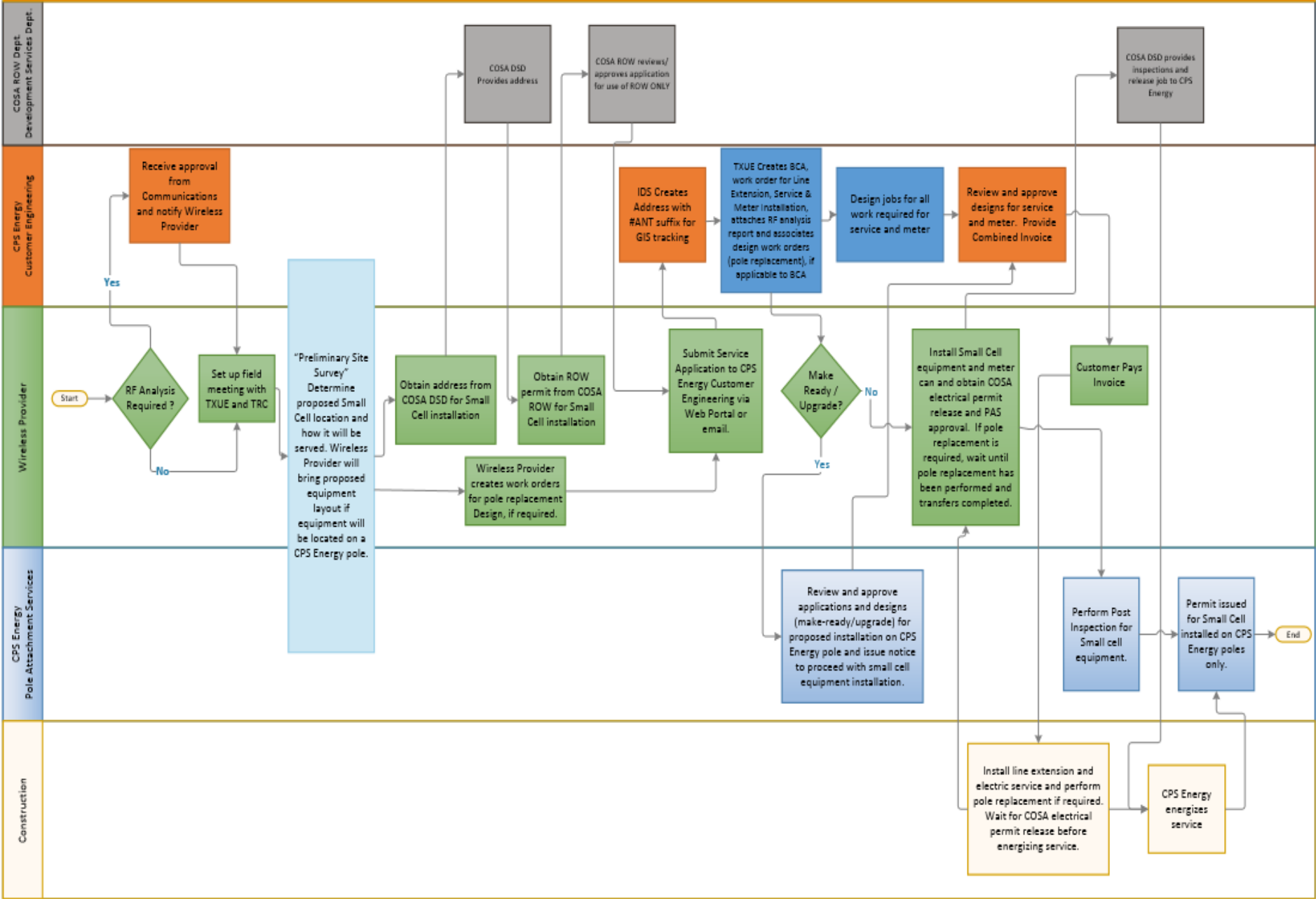


WIRELESS ATTACHMENTS

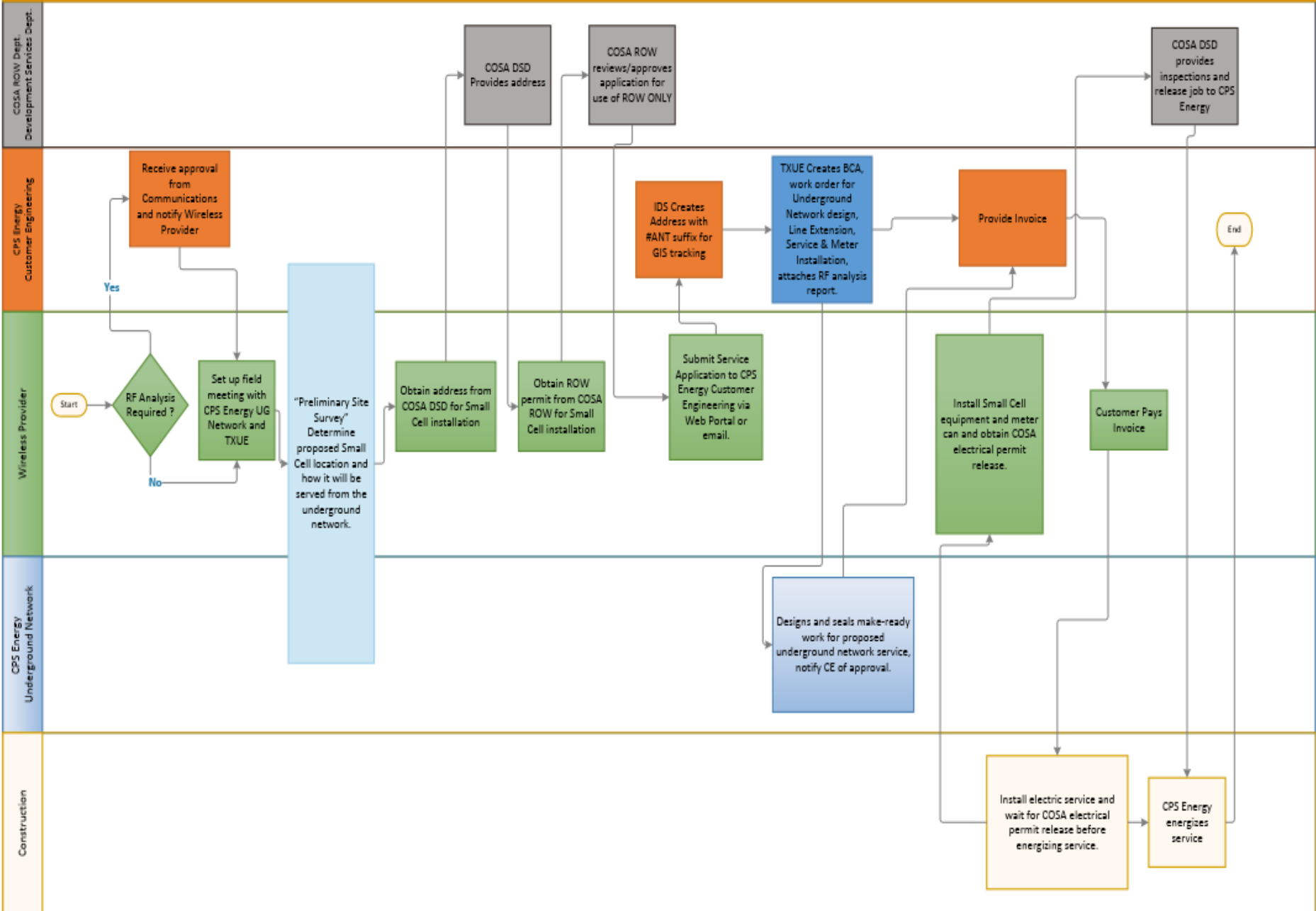
Wireless Installation: Node Support Pole / Non CPS Energy Pole



Wireless Installation: CPS Energy Pole



Wireless Installation: CPS Energy Downtown Network





PILOT PROJECT FOR SMALL CELL INSTALLATIONS IN DOWNTOWN SAN ANTONIO UPDATE

CHALLENGES

- Eliminate the installation of ground cabinets housing meters and small cell equipment that would be installed on COSA owned traffic light poles.
- Ground cabinets would diminish the charm of our downtown corridors.
- Limited Rights of Way



PILOT PROJECT OUTCOME

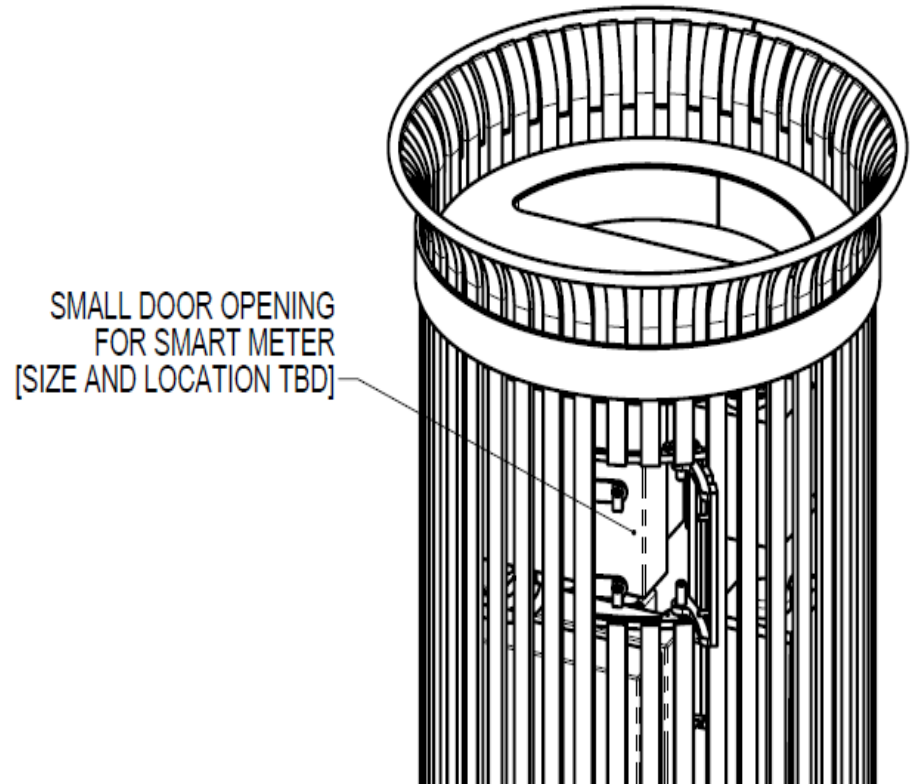
- Determine if alternative metering or monitoring devices can be integrated into customer equipment to eliminate the need for standard meter enclosures on traffic poles and ground cabinets.



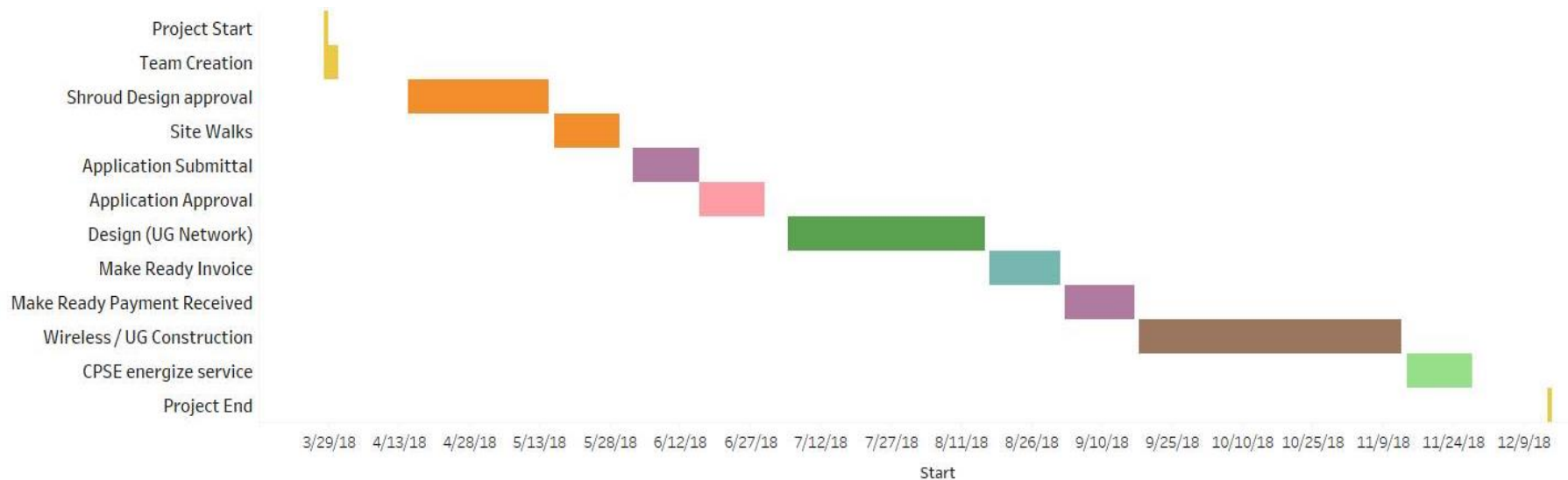
DESIGN PROPOSAL



- City of San Antonio Right of Way, Traffic and Sanitation have agreed on the trash (Recycling) can shroud design.
- CPS Energy Service and Meter team is working with each wireless provider to incorporate the smart meter/disconnect in the shroud.



Activity	Start	Due Date	Allowed Days	Owner	Progress	Days Late
Project Start	3/28/2018	3/28/2018	1	CPSE (PAS)	Completed	0
Team Creation	3/28/2018	3/31/2018	3	CPSE (PAS)	Completed	0
Shroud Design approval	4/15/2018	5/15/2018	30	All	In Progress	0
Site Walks	5/16/2018	5/30/2018	14	All	Not Started	0
Application Submittal	6/2/2018	6/16/2018	14	Wireless Provider	Not Started	0
Application Approval	6/16/2018	6/30/2018	14	COSA / CPSE (CE)	Not Started	0
Design (UG Network)	7/5/2018	8/16/2018	42	CPSE (Network)	Not Started	0
Make Ready Invoice	8/17/2018	9/1/2018	15	CPSE (CE)	Not Started	0
Make Ready Payment Received	9/2/2018	9/17/2018	15	Wireless Provider	Not Started	0
Wireless / UG Construction	9/18/2018	11/13/2018	56	Wireless Provider/CPSE	Not Started	0
CPSE energize service	11/14/2018	11/28/2018	14	COSA / CPSE Metering	Not Started	0
Project End	12/14/2018	11/29/2018	1	CPSE (PAS)	Null	0



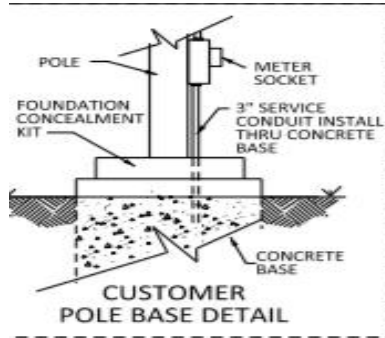
METERING TEAM UPDATE

- Standards and Specification team initiated the creation of the material number for the smart meter.
- Twelve smart meter units (12) have been received by metering team.
 - 10 units will be used for production
 - 2 units will be used for testing – start setting up May 14, 2018.
 - Testing environment will consist of adding load to the units and collecting data for analysis.
- Billing team will be brought in once we understand the data coming from smart meter.

NEXT STEPS

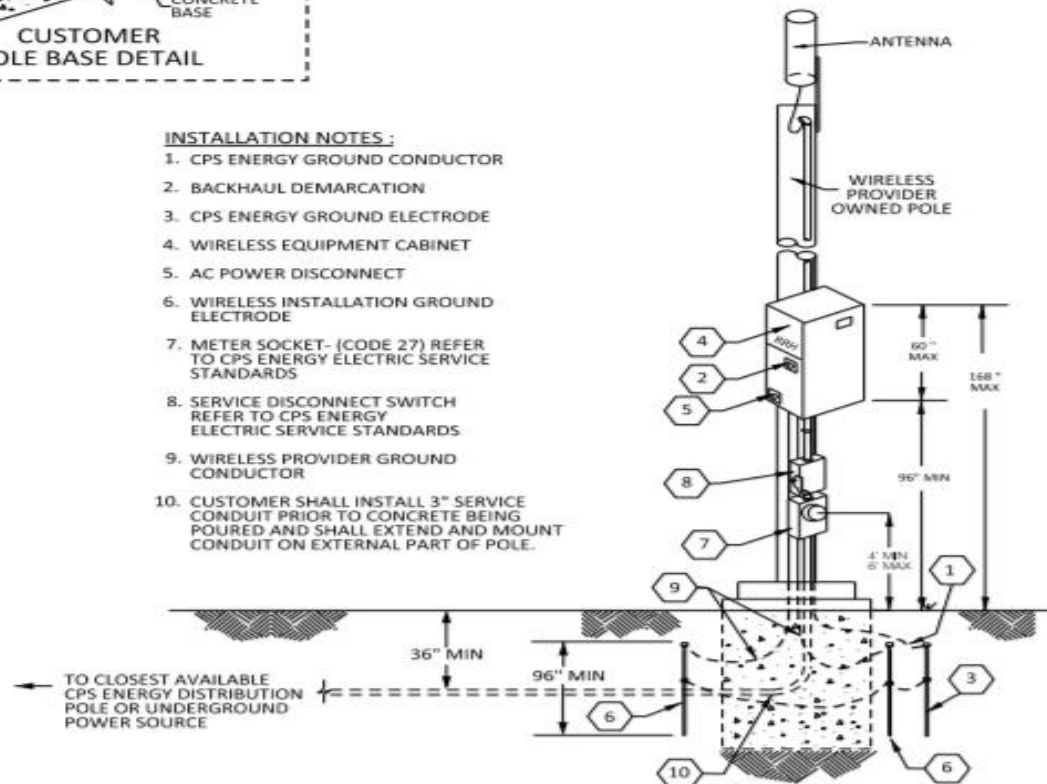
- Finalize the shroud design for all wireless providers with COSA and CPS Energy.
- Finalize the traffic light pole antenna installation design for all wireless providers to move to application submittal process.
- Schedule site walks so everyone is on board and get final approval.
- Wireless providers to start filling out CPS Energy service application with all required information.
- Metering team will start testing and evaluating smart meter data.

UPATE APPENDIX I - WIRELESS INTALLATION DIAGRAMS



GENERAL NOTES :
ALL WIRELESS INSTALLATIONS WILL BE METERED AND SHALL COMPLY WITH CPS ENERGY'S ELECTRIC SERVICE STANDARDS AND ALL OTHER APPLICABLE CODES.

- INSTALLATION NOTES :**
1. CPS ENERGY GROUND CONDUCTOR
 2. BACKHAUL DEMARCATION
 3. CPS ENERGY GROUND ELECTRODE
 4. WIRELESS EQUIPMENT CABINET
 5. AC POWER DISCONNECT
 6. WIRELESS INSTALLATION GROUND ELECTRODE
 7. METER SOCKET- (CODE 27) REFER TO CPS ENERGY ELECTRIC SERVICE STANDARDS
 8. SERVICE DISCONNECT SWITCH REFER TO CPS ENERGY ELECTRIC SERVICE STANDARDS.
 9. WIRELESS PROVIDER GROUND CONDUCTOR
 10. CUSTOMER SHALL INSTALL 3" SERVICE CONDUIT PRIOR TO CONCRETE BEING POURED AND SHALL EXTEND AND MOUNT CONDUIT ON EXTERNAL PART OF POLE.



← TO CLOSEST AVAILABLE CPS ENERGY DISTRIBUTION POLE OR UNDERGROUND POWER SOURCE

QUESTIONS?

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Thank You..

San Antonio, Texas