



WELCOME

**CPS Energy
Quarterly Pole Attachment
Workshop**

November 8, 2018

Confidential Information Property of CPS Energy

Housekeeping

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





Safety

https://youtu.be/dxaUj_rfK4

Agenda



CPS Energy
Quarterly Pole Attachment Workshop – November 8, 2018

CPS Energy EMC Auditorium
 4514 Frank Bryant – San Antonio

Agenda #	Item	Presenter	
1	Welcome & Introductions	Jesse Lopez	9:00 – 9:10 am
2	Safety & Agenda	Jesse Lopez	9:10 – 9:15 am
3	General Topics: <ul style="list-style-type: none"> • Engineering contractors GIS training/approval requirements • Pole attachment application rejections • Work Manager task structure • GIS Design rejections • Pole attachment standards addendums • Annual attachment connection fee • Pole attachment services dashboard update 	Jesse Lopez	9:15 – 10:20 am
4	Wireline attachments <ul style="list-style-type: none"> • NJUNS update/workshop 	Jesse Lopez	10:20 – 10:45 am
	BREAK		
	Wireless attachments		
5	Suburban city introductions “Meet and Greet”	Jesse Lopez	11:00 – 11:10 am
6	Wireless attachments <ul style="list-style-type: none"> • Update on applications submitted • Dashboard update • Wireless installation workflow • Electric service update 	Jesse Lopez	11:10 – 11:55 am
7	Pilot Project status update	Jesse Lopez	11:55 – 12:10 pm
8	Open Discussion / Questions	Attendees	12:10 – 12:20 pm
9	Final Wrap-up	Jesse Lopez	
10	Adjourn		

GENERAL TOPICS

Engineering Contractor GIS Training

- Existing approved engineering firms for Pole Attachment Services
- 2 employees per Engineering company
- 1st Training – 12/3/2018 – 12/7/2018
 - Duration: 5 days – Mon - Fri
 - Location – EMC Auditorium
 - Capacity – 10 seats
- 2nd Training – January 7, 2019



Application Rejections

- **Application missing required information**
 - CPS Energy pole number (PL#) missing on application
 - Make ready not called for on the application
 - Missing required attachments at submittal of application
- **Mistakes on Pole Loading Analysis**
 - All existing violations on pole are not fixed or new creates a new violation
 - Incorrect construction grades
 - Missing cables on pole
 - Incorrect cable tensions
 - Mid-Span clearance issues
- **21 Day application review will reset with every application rejection**
- **Contractors should NOT change the attaching entities application name**
 - Attaching Entities do not know what applications CPS Energy is referencing because the application name was changed by the engineering contractor when applying for attachment

WORK MANAGER TASK STRUCTURE

GIS Design Rejections

- **Design Issues**

- Work request number missing from Application
- Electrical make ready shown with incorrect responsible party
- Electrical make ready missed in GIS design
- GIS Design missing proper Compatible Units (CU's) and callouts
 - If a CU in the design needs to be Installed/Removed/Transferred within GIS, not just NSLC
 - Raise/Lower Neutrals & Secondary – Use (5) NSLC (per operation)

- **NEW REQUIRED GIS DESIGN ITEM**

- All WR#'s will require an additional (5) NSLC to account for construction crew travel time to the work site.
- This will become another item to reject an application.

Work Manager 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 6000 and 11100 (Update)

- **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 scheduler that the job is ready for construction at Task 11100**
 - Southwest District (SWD) – Mary Alvarez (Initials for Work Manager are AMH)
 - Northwest District (NWD) – Jennifer Ware (Initials for Work Manager are WJD2)
 - Eastside District (ESD) – Missy Wilson (Initials for Work Manager are WCL)
- **The scheduler will schedule the work and release it to construction**

Pole Attachment Standards Addendum Updates

- **Pole Attachment Services continues to work diligently with stakeholders to ensure the Pole Attachment Standards improve operations for all attaching entities**
- **Pole Attachment Services will be working on the addendums to be included in the Pole Attachment Standards to be effective January 1, 2019**
- **We remind you that the principles of Safety, Reliability, and Customer Service, which guide our Pole Attachment Services Department will be our guide for the development of our addendums**



Annual Attachment Connection Fee

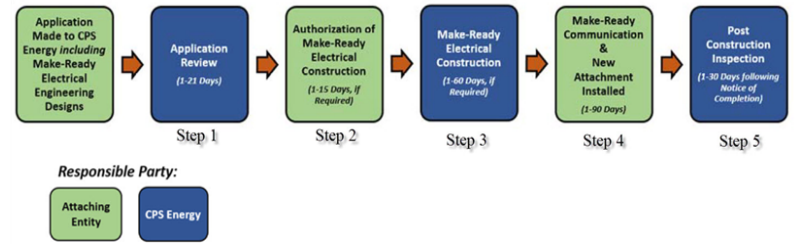
- **CPS Energy shall invoice the annual Attachment Connection to each Attaching Entity having permitted Wireline, Wireless and Banner Attachments no later than December 31st**
- **The invoice shall set forth the total number of pole feet utilized by attachments as of December 1st of the current rental year multiplied by the attachment rate**



Application Type: (All) | Year Received: (All) | Make-Ready: (All) | Application Number: (All) | MR-Work Requ.: (All) | Upg-Work Re.: (All) | Review Consultant: (All) | Attacher: (All) | Design Consultant: (All)

Step 1: (All) | Step 2: (All) | Step 3: (All) | Step 4: (All) | Step 5: (All)

Step 1	Step 2
Completed 2,960	Completed 2,647
In Progress 22	In Progress 327
Not started 1	Not Started 9

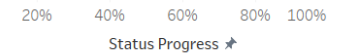


Step 3	Step 4	Step 5
Completed 2,371	Completed 806	Comple.. 464
In Progress 276	In Progress 1,565	In Progre.. 362
Not Started 336	Not Started 612	Not Star.. 2,157

Review Consultant	Application Number	MR-Work Request	Upg-Work Request	Initial Permit Review Complete	Auth for MR Work Form to Applicant	Payment	Most Recent Comp Date	NTP Sent to Applicant	Notification of Completion Received from Applicant	Post Fiber Inspection	Step 1	Step 2	Step 3	Step 4	Step 5	Status Progress
	17-0118-646 S Flores P1	40150070	Null	1/4/18	Null	Null	Null	Null	Null	Null	Completed	In Progress	Not Started	Not Started	Not Started	Not Paid
	17-0118-646 S Flores P2	Null	Null	2/1/18	Null	Null	Null	2/9/18	Null	Null	Completed	Completed	Completed	In Progress	Not Started	No Payment Required
	17-0218-Shavano Fiber Park Ph 1-Part 3	40158533	40158534	2/19/18	3/23/18	5/7/18	10/16/18	10/25/18	Null	Null	Completed	Completed	Completed	In Progress	Not Started	Good Standing
	17-0218-Shavano Fiber Park Ph 1-Part 4	40159155	Null	2/15/18	3/13/18	5/7/18	6/15/18	10/25/18	Null	Null	Completed	Completed	Completed	In Progress	Not Started	Good Standing
	17-0218-Shavano Fiber Park Ph 1-Part 5	40159156	Null	2/13/18	2/23/18	5/7/18	8/29/18	10/25/18	Null	Null	Completed	Completed	Completed	In Progress	Not Started	Good Standing
	17-0618-Network Fiber Park P1	40187578	Null	6/19/18	Null	Null	Null	Null	Null	Null	Completed	In Progress	Not Started	Not Started	Not Started	Not Paid
	17-0718-Network Fiber Park P1 REV1	40187578	Null	7/4/18	7/20/18	Null	Null	Null	Null	Null	Completed	In Progress	Not Started	Not Started	Not Started	Not Paid
	17-0718-Tri County	40208075	Null	8/2/18	Null	Null	Null	Null	Null	Null	Completed	In Progress	Not Started	Not Started	Not Started	Not Paid

234 nulls

Payment Status
■ No Payment Required ■ Good Standing ■ Not Paid



WIRELINING ATTACHMENTS

NJUNS Update

- **WebEx application training conducted by NJUNS on August 23, 2018**
- **Meeting with SMEs from CPS Energy and Attaching Entities**
- **Meeting will be held at the end of November to start developing a best practice NJUNS document**
- **Monthly WebEx session will be setup to ensure data is being entered properly by all parties**



BREAK

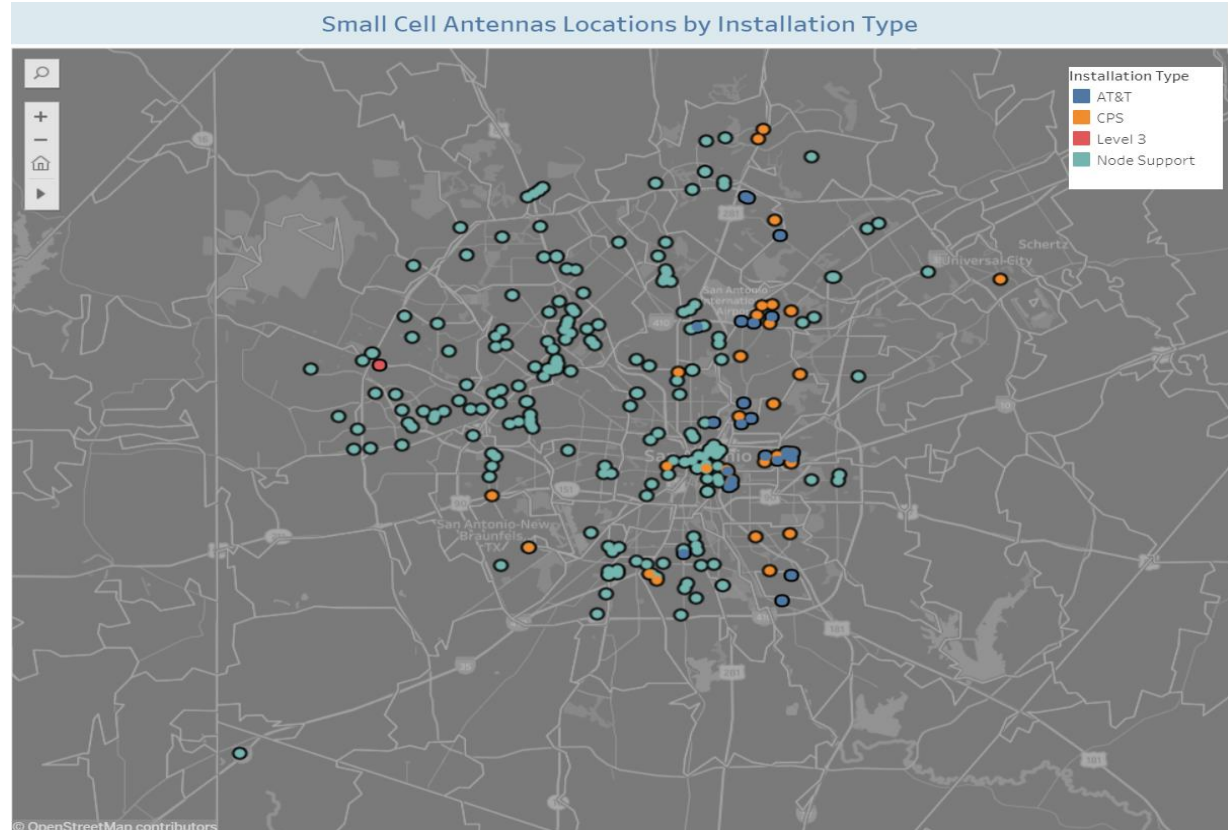
WIRELESS ATTACHMENTS

Partnership With Suburban Cities

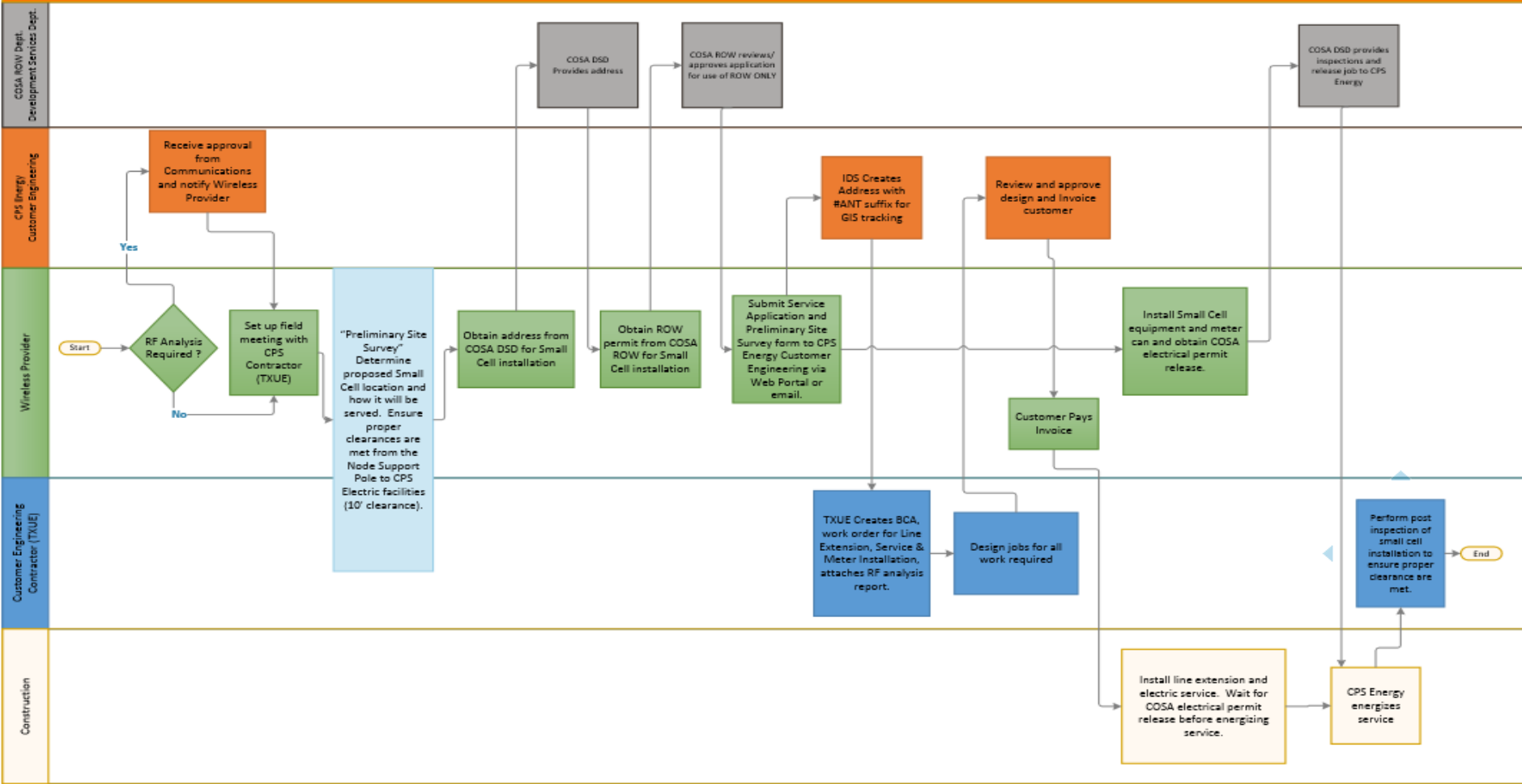
- **Our goal is to partner with Suburban Cities in the successful development of standards and Small Cell installation processes**
- **Ideally, a common set of standards and processes can be developed for overall consistency and standardization throughout our service territory**
 - One set of standards and processes for Small Cell companies to follow regardless of which city they are working in
 - One set of standards and processes for CPS Energy to coordinate with Small Cell companies and with individual Suburban Cities
 - Common ground among Suburban Cities in standards and processes facilitates future collaboration on Small Cell related issues

Small Cell Applications

Installation..	City	
AT&T	San Antonio	4
	San Antonio	9
	San Antonio	10
	San Antonio	3
CPS	San Antonio	8
	San Antonio	19
	San Antonio	11
Level 3	San Antonio	1
Node Support	San Antonio	81
	Helotes	1
	Leon Valley	4
	Live Oak	1
	Lytle	1
	San Antonio	114
	San Antonio	8
Grand Total		275



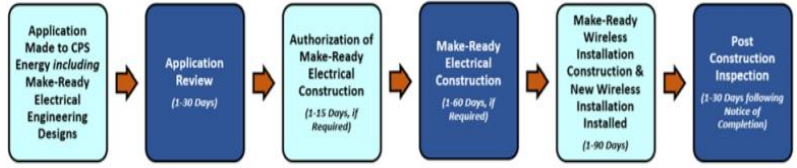
Wireless Installation: Node Support Pole / Non CPS Energy Pole



Application Type: Wireless | Year Received: 2018 | Make-Ready: (All) | Application Number: (All) | MR-Work Request: (All) | Upg-Work Request: (All) | Review Consultant: TRC | Attacher: (All) | Design Consultant: Cobb Fendley

Step 1: Completed | Step 2: (All) | Step 3: (All) | Step 4: (All) | Step 5: Not Started

Step 1	Step 2	Step 3	Step 4	Step 5
Completed 54	Completed 52 In Progress 2			
		Completed 38 In Progress 14 Not Started 2	In Progress 38 Not Started 16	Not Started 54



Responsible Party:



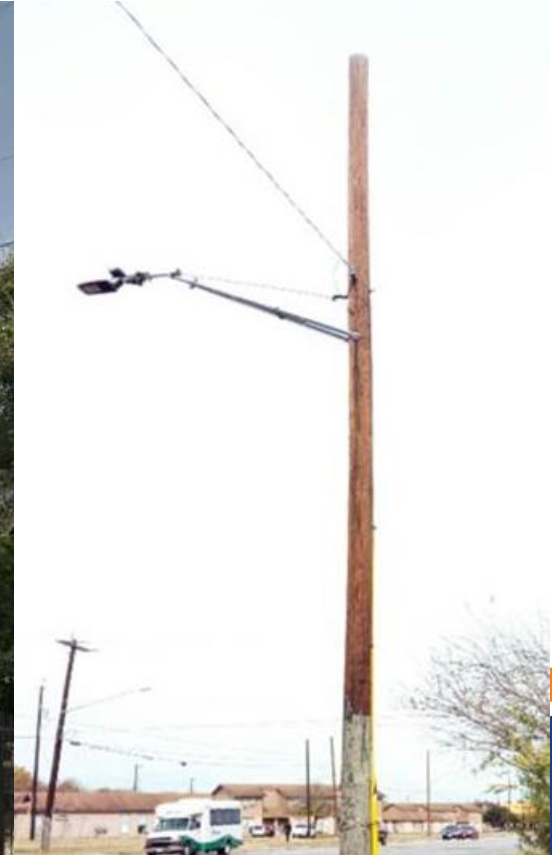
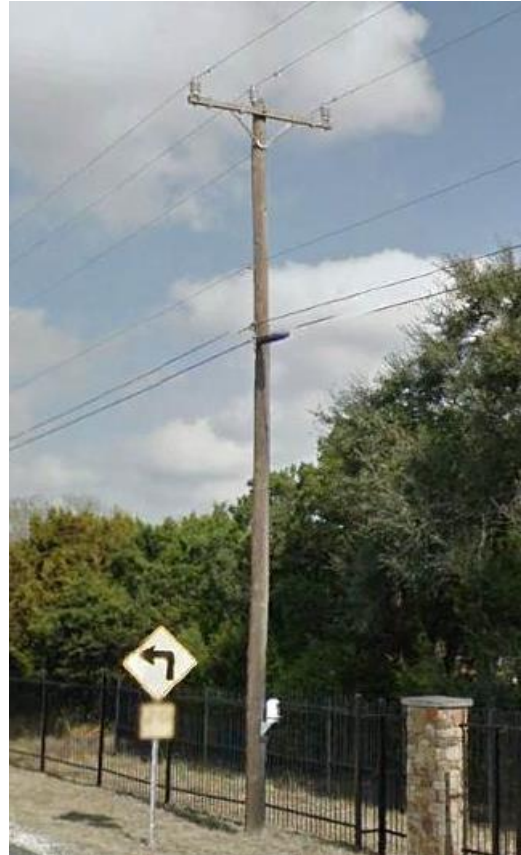
Review Consultant	Application Number	MR-Work Request	Upg-Work Request	Initial Permit Review Complete	Auth for MR Work Form to Applicant	Payment	Most Recent Comp Date	NTP Sent to Applicant	Notification of Completion Received from Applicant	Post Fiber Inspection	Step 1	Step 2	Step 3	Step 4	Step 5
	50-2017-MRSTX029612	40200006	Null	6/12/18	6/25/18	6/29/18	7/31/18	8/1/18	Null	Null	Completed	Completed	Completed	In Progress	Not Started
	50-2017-MRSTX029697	40211511	Null	8/23/18	8/23/18	Null	Null	Null	Null	Null	Completed	In Progress	Not Started	Not Started	Not Started
	50-2018-MRSTX029681	40171461	Null	6/14/18	6/19/18	6/22/18	8/27/18	9/14/18	Null	Null	Completed	Completed	Completed	In Progress	Not Started
	50-2018-MRSTX029754	Null	40171278	6/15/18	6/15/18	Null	8/31/18	9/14/18	Null	Null	Completed	Completed	Completed	In Progress	Not Started
	50-2018-MRSTX029773	40170999	Null	6/15/18	6/19/18	Null	Null	Null	Null	Null	Completed	In Progress	Not Started	Not Started	Not Started

Pole Top Antenna Installation

- **Must be installed by an approved Electrical Distribution Construction Contractor**
 - **Overhead Distribution pole**
 - **Overhead fed streetlight pole**

Electrical Distribution Construction

5-Star Electric
Canfer Utility Services
Chain Electric
T&D Solutions
Pike Electric
L.E. Myers Co



Electric Service rejections

- **Service Lateral Shall be installed through the light pole concrete base**



Electric Service rejections

- **Pull Boxes Are Not Permitted Before The Meter Socket. Underground Service shall be installed external to the pole in the concrete base**
- **Underground Service Lateral is Not permitted to be stubbed up in the center of the pole. Unmetered Service lateral shall Not be routed through a pull box**



Electric Service rejections cont...

Hand hole shall be obstructed by service lateral riser



Conduit in and out of hand holes

Transition from PVC to Carflex without fittings



Electric Service rejections cont...

Conduit
Stub-
Up



6' Max
4' Min

Lessons Learned

Reality: Communications Contractor \neq Electrician \neq Linemen



PILOT PROJECT UPDATE

Project Status

- **Underground Network has completed the service design for 6 of the 8 pilot project locations**
 - The last two sites are 95% complete
- **Projected construction completion dates:**
 - Team 1 – March 15, 2019
 - Team 2 – Both sites on hold
 - Team 3 – March 15, 2019
 - Team 4 – December 20, 2018



Metering Update

- **Standards and Specification team created the material number for the smart meter**
- **Accuracy test – Completed**
- **SAP Setup – Completed**
- **UIQ software upgrade – Completed**
- **Proximity and functionality testing of the meter - Completed**
- **Currently working with EIT on the configuration of the new material and register group in our system in order for billing to complete their testing**





Thank You