WELCOME

CPS Energy Quarterly Pole Attachment Workshop

May 27,2021

Safety Message of the Day

Tips for great communication in the workplace

- 1-on-1s
- Weekly team meetings
- Follow up with written notes and clear set of expectations
- Create a safe space for your team to communicate
- Keep feedback constructive

Agenda

1. **General Topics**
   - Pole Attachment Contractors
   - Pole Attachment Standards Update
   - Annual Pole Attachment Invoices
2. **Work Manager**
   - New Work Manager Update "How to"
3. **Wireline Attachment**
   - Wireline Standards
4. **Wireless Attachments**
   - GIS Design Examples
   - Wireless Antenna Violations
5. **Downtown/Residential Streetlight Project Updates**
6. **Questions**

Sr. Director, Distribution Engineering

- Previous Director, Rick Lopez, retired from CPS Energy after 30+ years of service in December
- Brian D. Bartos, P.E. has accepted the position of Sr. Director, Distribution Engineering in February 2021
- Brian previously held the position of Sr. Director, Underground and Integrated Operations from 2017-2021
- Previous to that, Brian held the position of the Pole Attachment Manger, Brian holds a tremendous amount of knowledge of the program

GENERAL TOPICS

Approved Pole Attachment Contractors

- Engineering companies are currently at our maximum approval limit
- Engineering companies seeking approval will be placed on a waiting list
- CPS Energy will conduct quarterly reviews of companies to remove any companies not submitting pole attachment applications
- Companies removed will have to re-submit a letter from their Attaching Entity stating they will be doing work for them

Engineering
1. Aeparmia Engineering ★★★
2. Amdocs ★
3. ArchComm, LLC ★
4. C&D Utility Consulting, LLC ★★★
5. Cobb Fendley ★★★
6. Davey Resource Group, Inc. ★★★
7. DeBauche Comm. & Cons. Serv., LLC ★
8. Fullerton ★★★
9. LandDev Consulting, LLC ★★★
10. LJA Engineering ★★★
11. Nexius Solutions, Inc. ★★★
12. PhaseLink Utility Solutions ★★★
13. Precision Design & Drafting Inc. ★★★
14. Quanta Utility Engineering Services ★★★
15. Telecom Staffing, LLC ★★★
16. TDC2, LLC ★
17. Texas Utility Engineering, Inc. ★★★
18. TRC, Inc. ★★★
19. TrueNet Communications ★
20. Teo Engineering Organization LLC ★
21. Jacobs Telecommunications, Inc ★
22. Rocky Mountain West Telecomm ★

★ Option 1: Pole Loading Analysis (PLA) & Application submittal

★★ Option 2: Make ready engineering

★★★ Option 3: Pole Loading Analysis (PLA), Application submittal & Make ready engineering

Pole Attachment Services -Electrical Make Ready Training Classes

- In 2020, CPS held 2 trainings with 3 contractors in each class
- Future Proposed Trainings –
  - October 25, 2021
  - Duration: 5 days – Mon - Fri
  - Location – 4514 Frank Bryant
- For more information please email poleattach@cpsenergy.com

Pole Attachment Standards V5.0 Updates

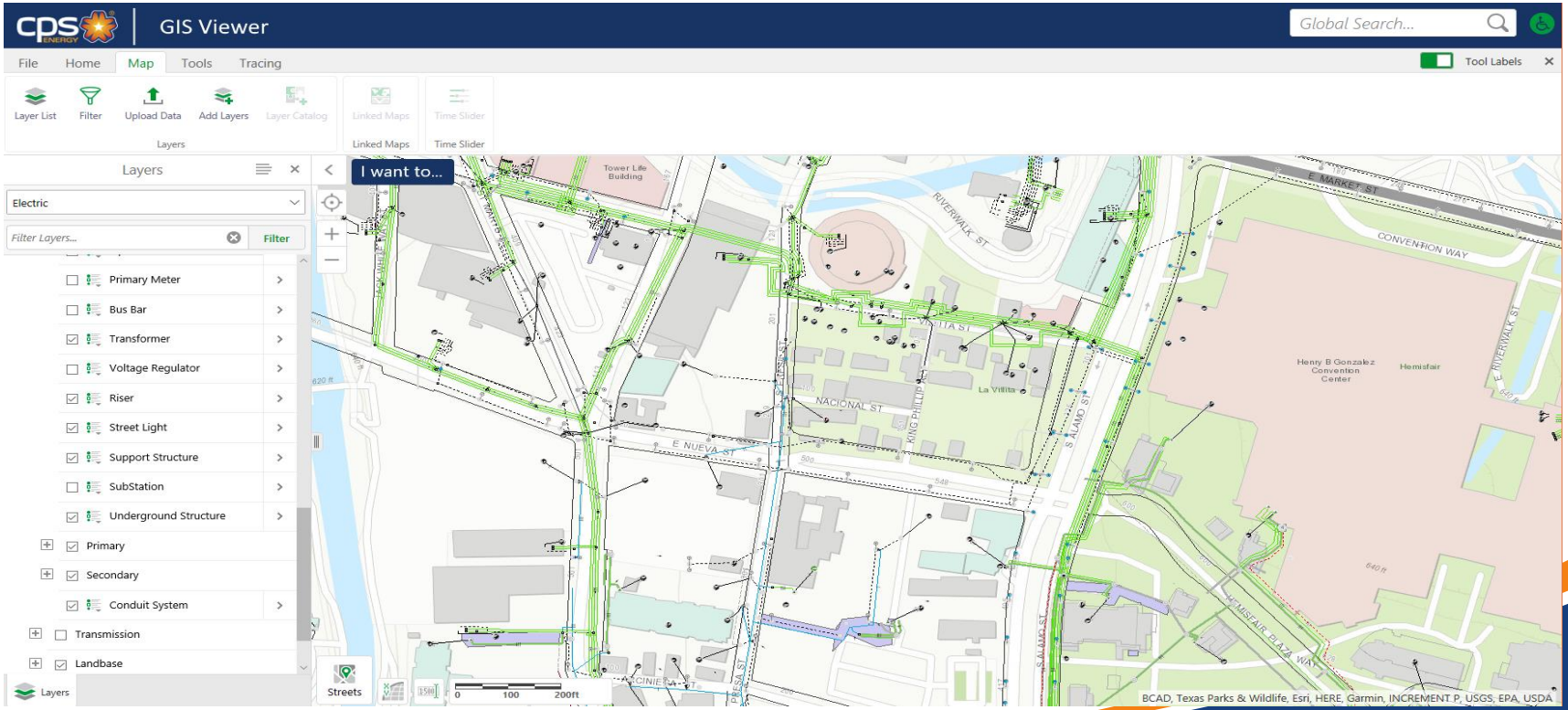
- Pole Attachment Services continues to work diligently with stakeholders to ensure the Pole Attachment Standards improve operations for all Attaching Entities
- Pole Attachment Services released the Pole Attachment Standards V5.0 on January 8, 2021
- Pole Attachment Standards V5.0 includes the downtown underground fed streetlight and the residential underground fed streetlight

Annual Pole Attachment Invoice

- On June 15, 2021, CPS Energy will be sending the 2021 Pole Attachment Invoices to each Attaching Entities having permitted Wireline, Wireless and Banner Attachments
- CPS Energy is required to use the FCC telecom pole attachment rate formula to set the annual rates

New Internal GIS Web Link

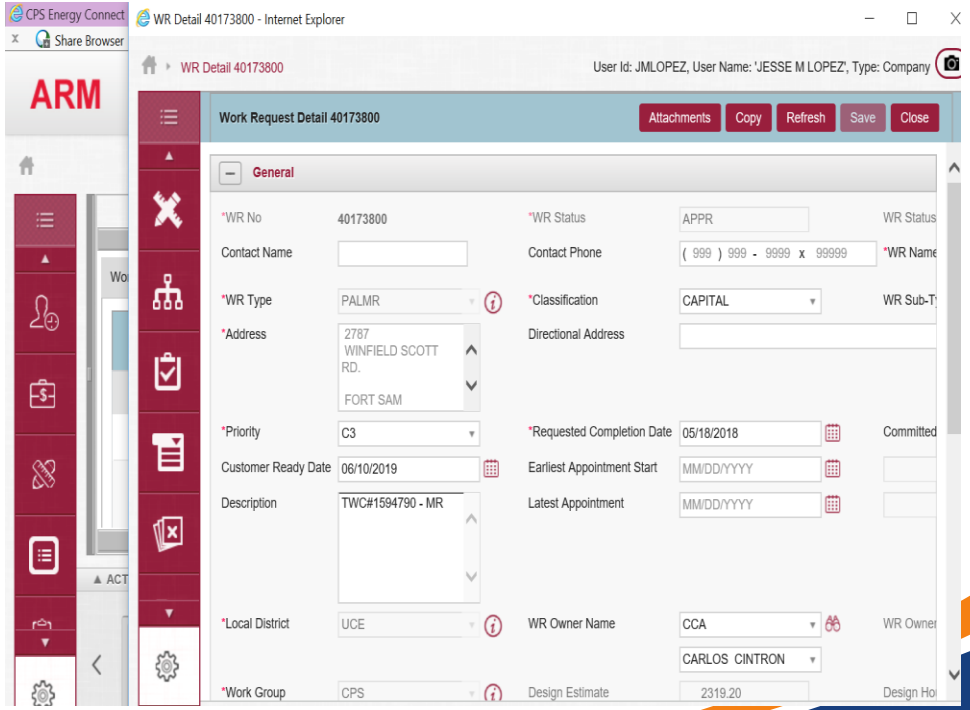
https://gisweb.cpsenergy.com/Web/index.html?viewer=GISViewer



WORK MANAGER

Work Manager System Demonstrations

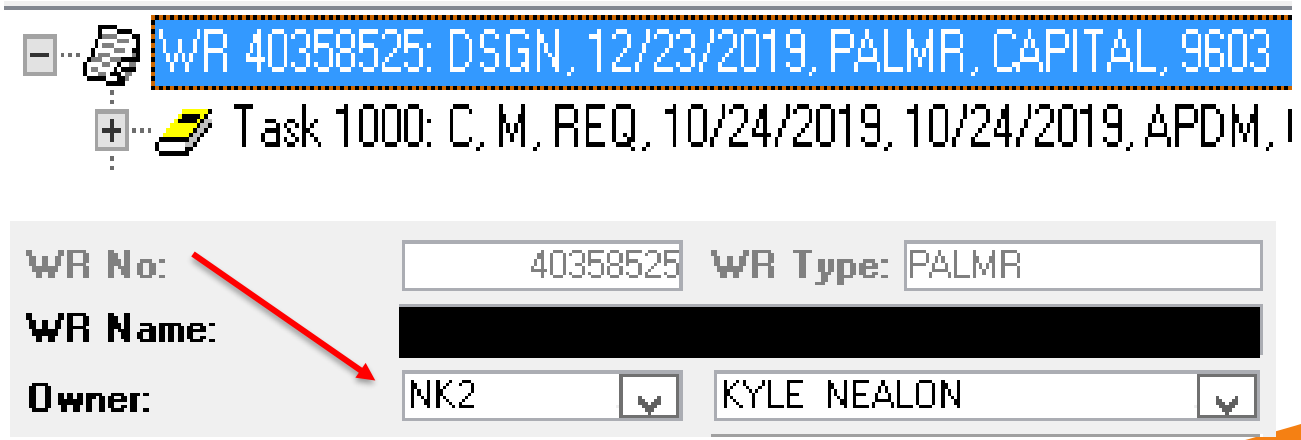
- CSI Team has two demonstrations of some general use & navigational functions within ARM 2.2
- General Navigation Basics→ Navigation→ Basics WebEx
- General Navigation Views and Tasks→ General Navigation → Views and Tasks WebEx



Designer Responsibility

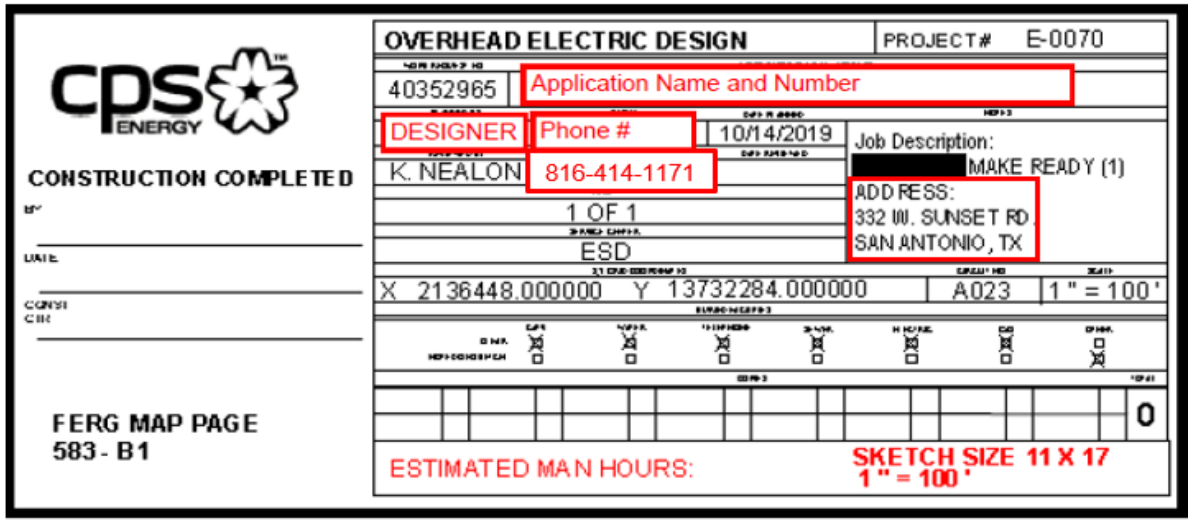
The Designer (design company) is the owner of the Work Order and GIS Design from creation through AsBuilts

- Make sure designer's initials are indicated under Work Request Owner to ensure delivery of emails as tasks are completed



GIS Design Polygon Example

The Designer must check for any other work order polygons in GIS to ensure no other jobs are replacing the pole or poles your customer is proposing attachments



WIRELINE ATTACHMENTS

Communication Fiber Placement

Attachers shall place their fiber on the same side of the pole as CPS Energy Fiber

- Failure to do so, causes a safety issue for CPS Energy linemen that have to climb these poles
- Attaching to the same side of the pole allow for a smoother transition when replacing poles

Communication Transfers

- CPS Energy continues to stress the importance of communication transfers
- CPS Energy receives numerous complaints per year regarding double wood and braced poles
- These issues pose huge safety concerns for CPS Energy
- The violation pictured to the right was reported to the Public Utility Commission of Texas which required an official response from CPS Energy

Communication Make Ready

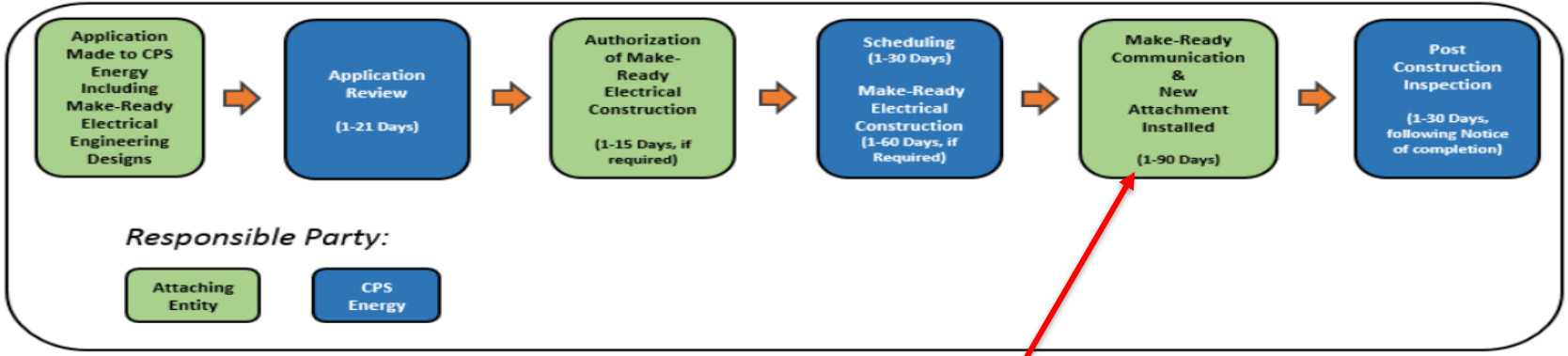


Figure B: Competitive Provider – Standard Process for Wire Attachments

Note: Even though a "Notice to Proceed (NTP)" has been issued to the Attaching Entity, ALL communication make-ready must be completed prior to attaching the new pole attachment (wireline or wireless)

Process Standards

- Attachers must inform CPS/Contractors when fiber construction is complete
- Auto-post-fiber-inspection will be implemented if no post construction communication has been sent to EN Engineering and/or TRC
- Wireline routes should follow existing CPS Energy pole lines

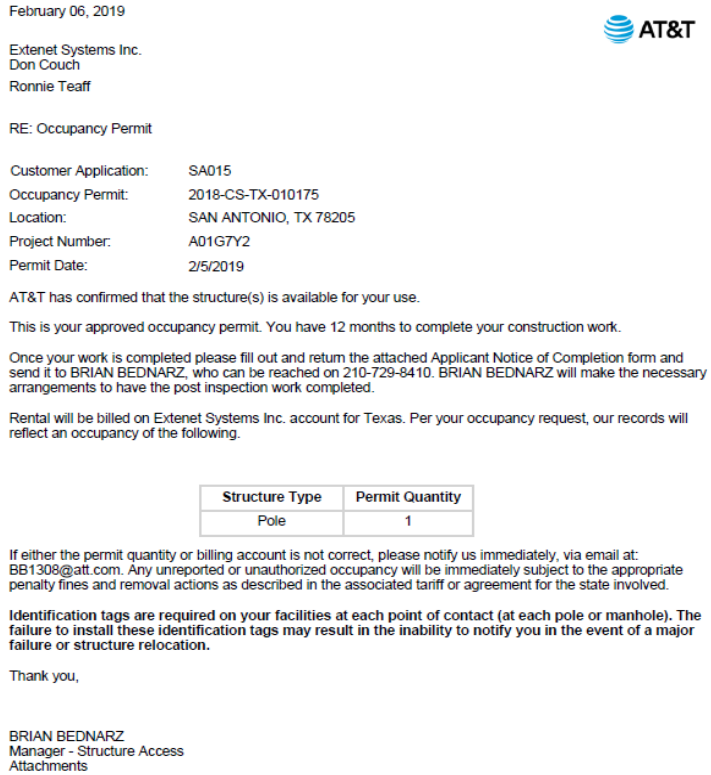
Temporary Attachment Form (B7) & Waiver Request

- Approved engineering company must coordinate site meeting with EN Engineering and/or TRC
- Pole application must be submitted with the proposed attachment height for each temporary attachment for CPS Energy to review
- A **signed** temporary attachment request must be submitted with the pole attachment application
- Waivers must be submitted with the pole attachment application or the application will be deemed incomplete and rejected
- All requests must meet NESC clearances in order to be approved for temporary attachment

AT&T Approval Letter

This applies to AT&T owned poles

- AT&T approval letter must be saved in Work Manager Task 2360 as "AT&T Pole Replacement Approval"
- Work Request detail must reflect Project "E-0069" in Work Manager



February 06, 2019

AT&T

Extenet Systems Inc.
Don Couch
Ronnie Teaff

RE: Occupancy Permit

Customer Application:	SA015
Occupancy Permit:	2018-CS-TX-010175
Location:	SAN ANTONIO, TX 78205
Project Number:	A01G7Y2
Permit Date:	2/5/2019

AT&T has confirmed that the structure(s) is available for your use.

This is your approved occupancy permit. You have 12 months to complete your construction work.

Once your work is completed please fill out and return the attached Applicant Notice of Completion form and send it to BRIAN BEDNARZ, who can be reached on 210-729-8410. BRIAN BEDNARZ will make the necessary arrangements to have the post inspection work completed.

Rental will be billed on Extenet Systems Inc. account for Texas. Per your occupancy request, our records will reflect an occupancy of the following.

Structure Type	Permit Quantity
Pole	1

If either the permit quantity or billing account is not correct, please notify us immediately, via email at: BB1308@att.com. Any unreported or unauthorized occupancy will be immediately subject to the appropriate penalty fines and removal actions as described in the associated tariff or agreement for the state involved.

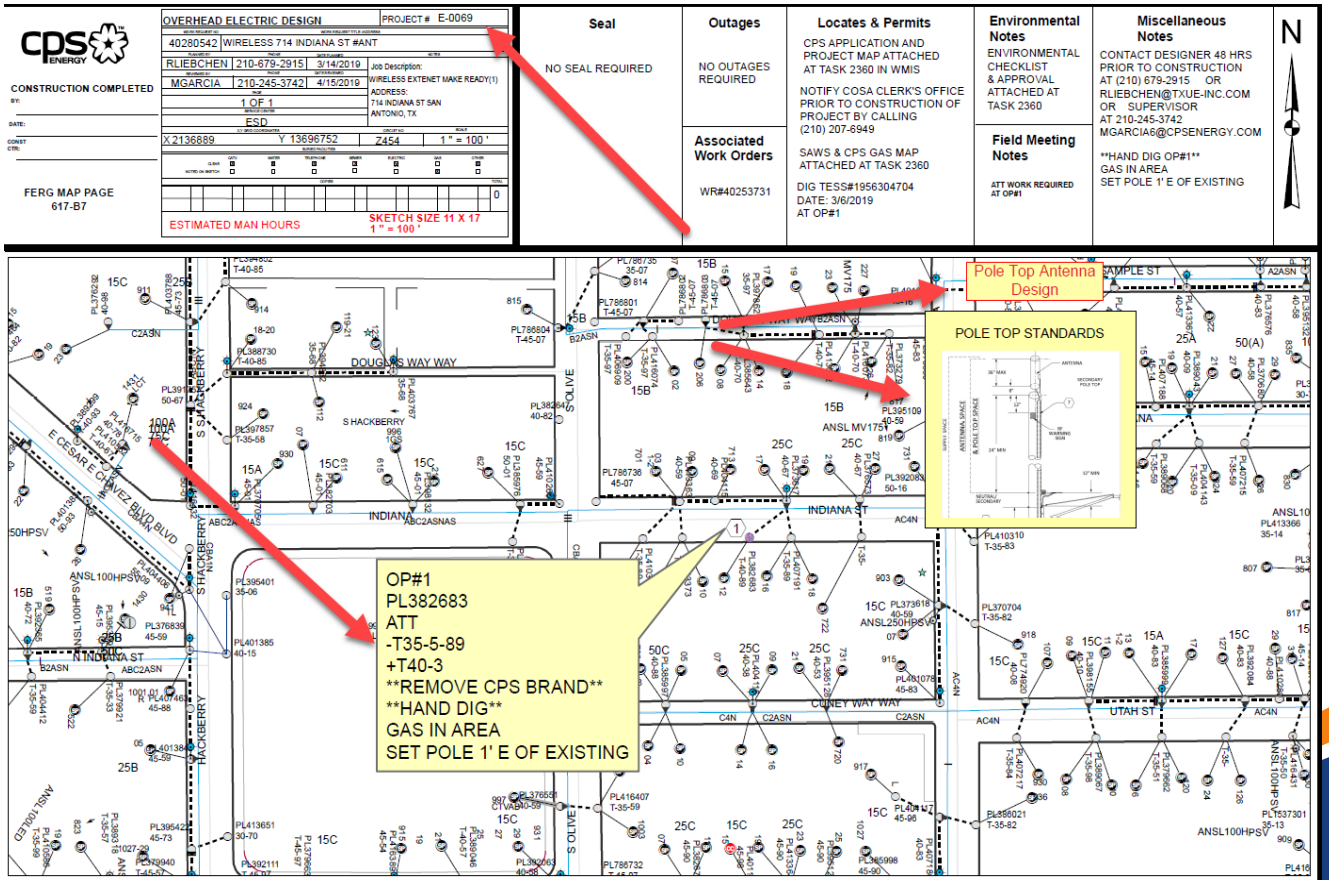
Identification tags are required on your facilities at each point of contact (at each pole or manhole). The failure to install these identification tags may result in the inability to notify you in the event of a major failure or structure relocation.

Thank you,

BRIAN BEDNARZ
Manager - Structure Access
Attachments

AT&T Pole Replacements

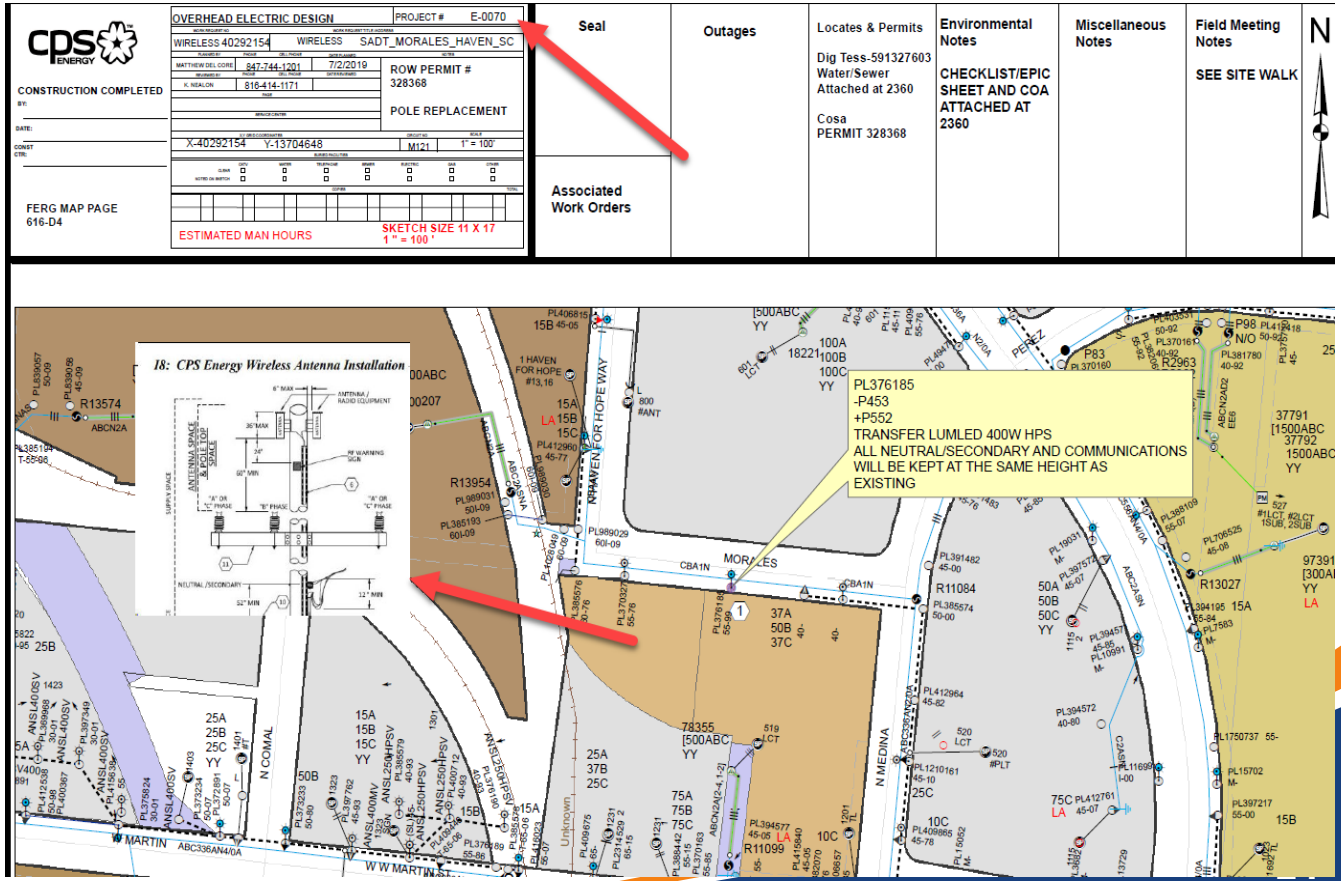
AT&T pole change out must be on “Work Request Project Type E-0069”



WIRELESS ATTACHMENTS

Wireless GIS Designs

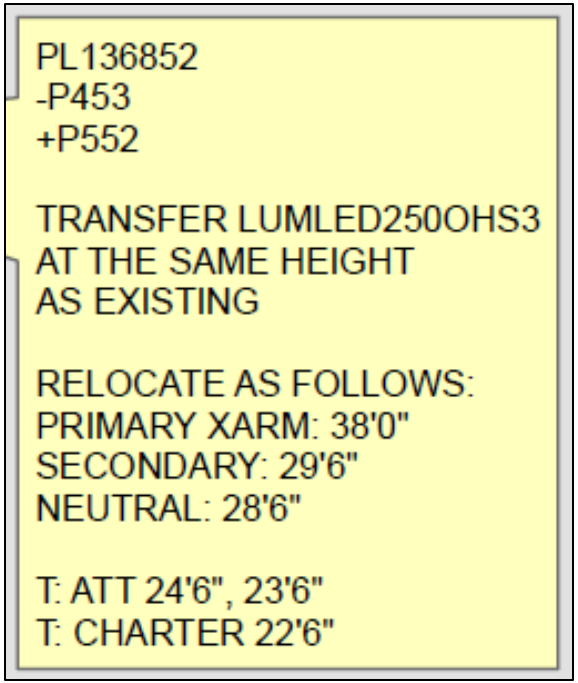
- Wireless designs must have the correct snippet on the design
- Mid-pole antenna installations need to be indicated on the design
- CPS Energy pole change outs must be on “Work Request Project Type E-0070”



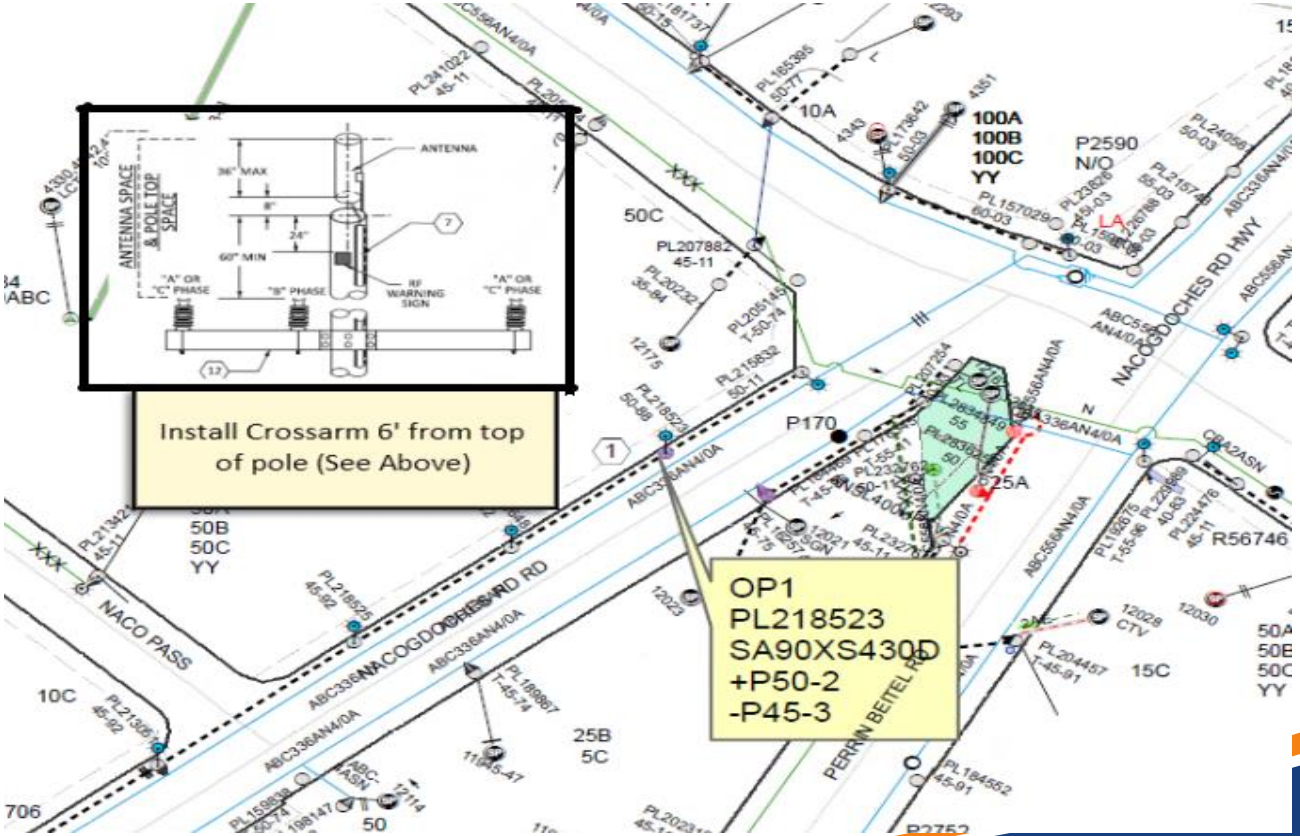
Wireless GIS Design Notes

Wireless Design Callouts – Must show heights of lowest controlling electrical

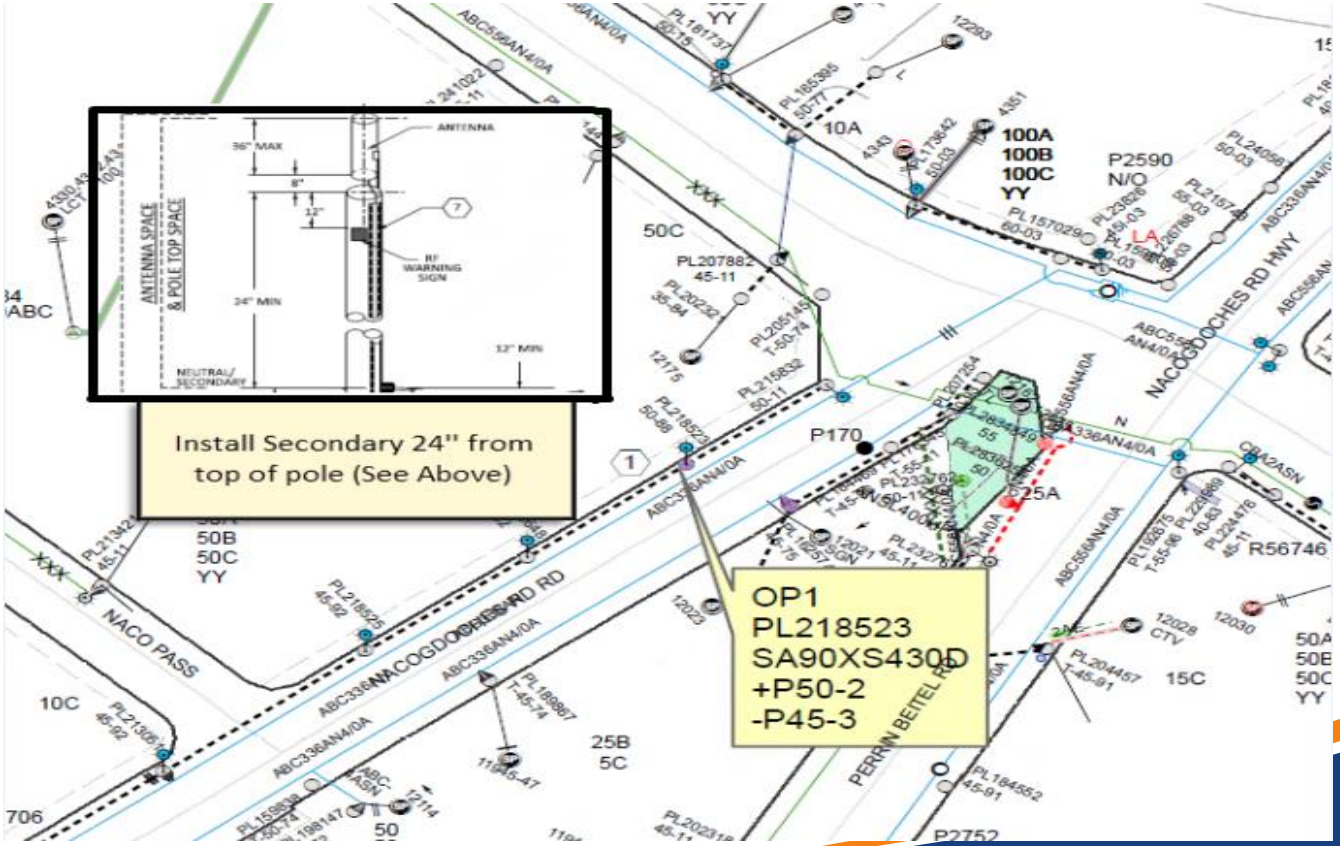
- Lowest electrical must be shown to ensure all NESC clearances are met
- Attaching Entities must maintain 40” clearance from lowest CPS electrical



GIS Design 1


ANTENNA SPACE & POLE TOP SPACE
ANTENNA
36" MAX
8"
24"
60" MIN
"A" OR "C" PHASE
"B" PHASE
RF WARNING SIGN
"A" OR "C" PHASE
Install Crossarm 6' from top of pole (See Above)
OP1
PL218523
SA90XS430D
+P50-2
-P45-3
NACOGDOCHES RD
NACO PASS
PERRIN BEITEL RD
P170
P2590
N/O
100A
100B
100C
YY
10A
50C
50B
50C
YY
10C
15C
25A
25B
5C
R56746

GIS Design 2


ANTENNA
36" MAX
8"
12"
24" MIN
12" MIN
ANTENNA SPACE & POLE TOP SPACE
RF WARNING SIGN
NEUTRAL/ SECONDARY
Install Secondary 24" from top of pole (See Above)
OP1
PL218523
SA90XS430D
+P50-2
-P45-3
100A
100B
100C
YY
P2590
N/O
10A
50C
P170
25A
50B
50C
YY
10C
25B
5C
15C
50A
50B
50C
YY
NACOGDOCHES RD HWY
NACO PASS
PERRIN BEITEL RD
R56746
P2752

Wireless Antenna Installation Violations

- EN Engineering and/or TRC are working with the wireless providers and customer engineering to start making the necessary adjustments on the weather head violations
- Clearance violations due to weather head installed too low
  - 40” clearance not met to the communication companies
- Communication companies fiber make ready needs to be done prior to the wireless antenna installation, using the one-touch process for simple transfers

DOWNTOWN DECORATIVE STREETLIGHT PROJECT UPDATE

Downtown Underground Fed Streetlights Update

Team 1 update (construction completion date)

- Site 1 – Complete

Team 2 update

- Site 1 – Complete

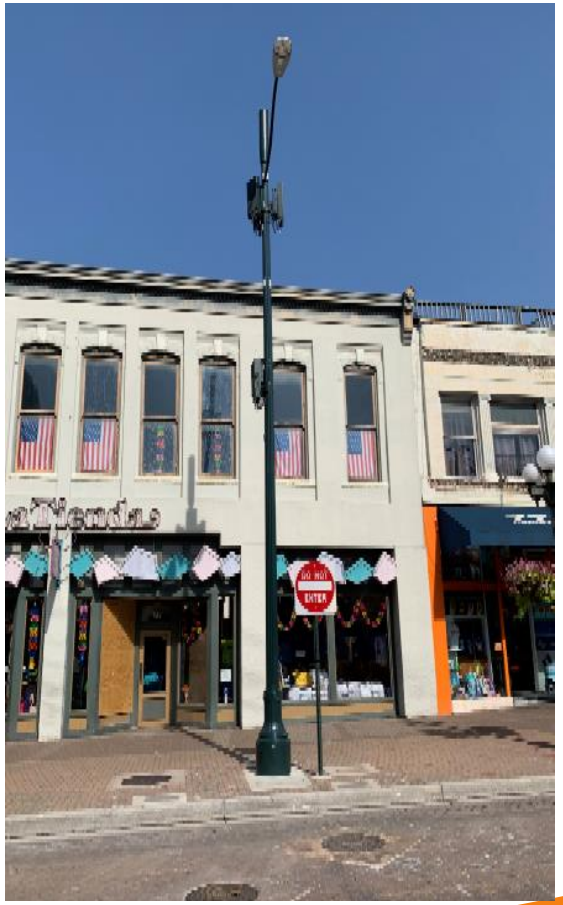
Team 3 update

- Site 1– Complete

Verizon (Modus) completed the mock up at our EDS training yard on February 5, 2020

Final Mock Up

Verizon Site 1 - 205 Alamo Plaza



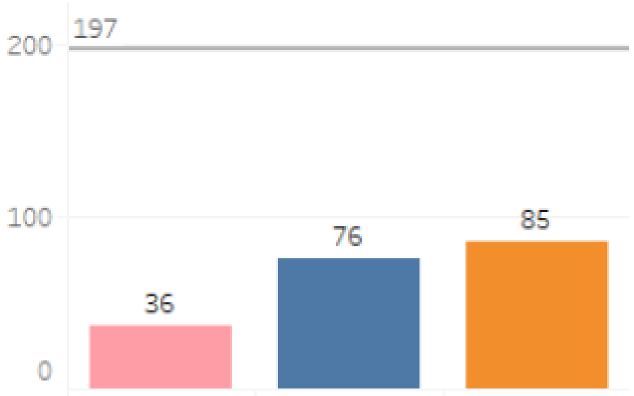
Verizon Site 1 – 205 Alamo Plaza Meter/Disconnect

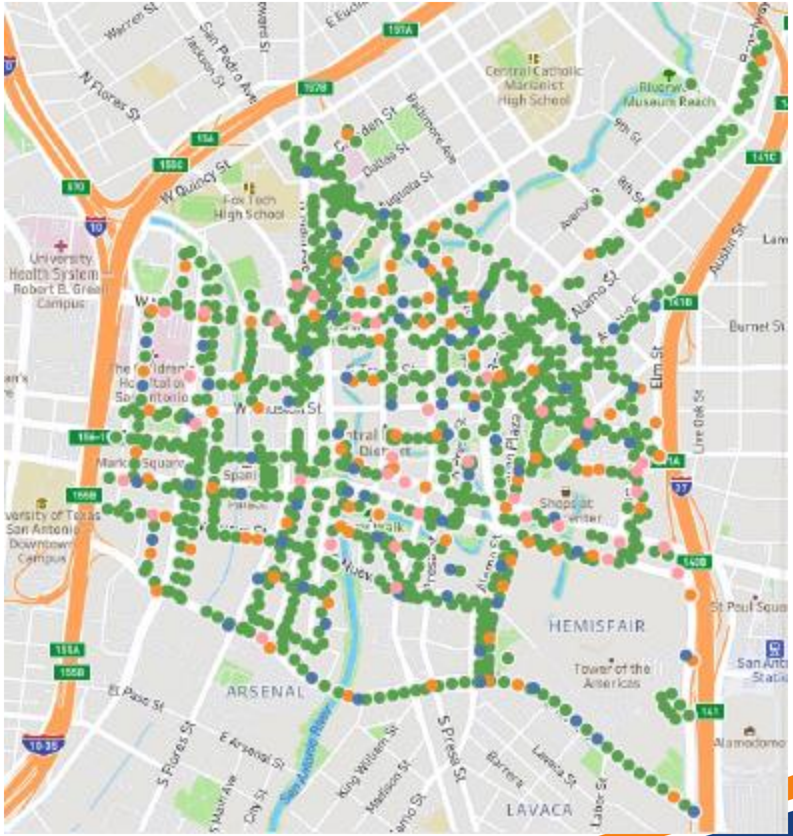
AT&T Site 1 – 123 West Market Street

AT&T Site 1 - Meter/Disconnect

T-Mobile Site 1 – 321 E Nueva St

Dashboard for Downtown Streetlights

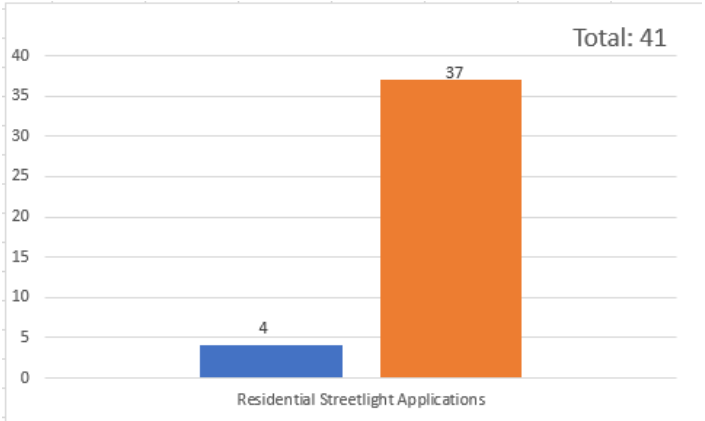




RESIDENTIAL UNDERGROUND FED STREETLIGHTS

Dashboard for Residential Streetlights

The residential streetlight application process was released in V5.0 of the Pole Attachment Standards



AT&T Photosims – 4G only

Existing CPS Energy Pole

Metallic Silver

Verizon Photosims – 4G/5G

Existing CPS Energy Pole

Metallic Silver

Questions?

Thank You