SMALL CELL NODE TECHNOLOGY: A PUBLIC WORKS PERSPECTIVE

Texas Municipal League Conference

Fort Worth, TX

October 10, 2018

2:00 pm – 3:15 pm

AMERICAN PUBLIC WORKS ASSOCIATION
APWA
Texas Chapter

PURPOSE OF APWA

- APWA has over 30,000 members
- Texas Chapter is largest chapter of APWA (63 Chapters in North America)
- Education about Public Works
- Leadership Training
- Staff development
- Credentialing (Certified Public Fleet Professional, Public Infrastructure Inspector, Stormwater Manager, Public Works Professional – Supervision, Public Works Professional – Management)

PURPOSE OF APWA

- E-Learning
- Continuing Education Credits
- Agency Accreditation (146 agencies in North America, 11 in TX)
- Public Works Institute of Texas (PWITX)
- Student and professional scholarships
- Elected Officials and City Staff – Support membership to APWA!!

INTRODUCTIONS

- **Moderator:**
  - Eric Dargan, APWA-TX Chapter President-Elect, Chief Operating Officer, City of Houston
- **Panelists:**
  - Shawn Poe, PE, CFM, APWA-TX Chapter Secretary, APWA Accreditation Council, Director of Public Works, City of Rowlett
  - Caleb Thornhill, PE, Director of Engineering, City of Plano
  - Christon Butler, Deputy Director of the Houston Permitting Center, City of Houston
  - Rick Galceran, Director of Public Works, City of Dallas
  - Richard Martinez, Assistant Director of Transportation and Public Works, City of Fort Worth
  - Scott Houston, Deputy Executive Director of Policy and General Counsel, Texas Municipal League

4G VS. 5G BACKGROUND

- How is 5G different than 4G?
- When will 5G testing and piloting begin?
- When will consumer devices be ready for 5G technology?
- Will the large macro cell sites remain after small cell node sites are installed?

SMALL CELL NODES

New cell sites needed for multiple reasons

- Coverage: Area not previously served by our network.
- Capacity: Growth in consumer demand
- In-Fill: Signal strength to meet customer demands.

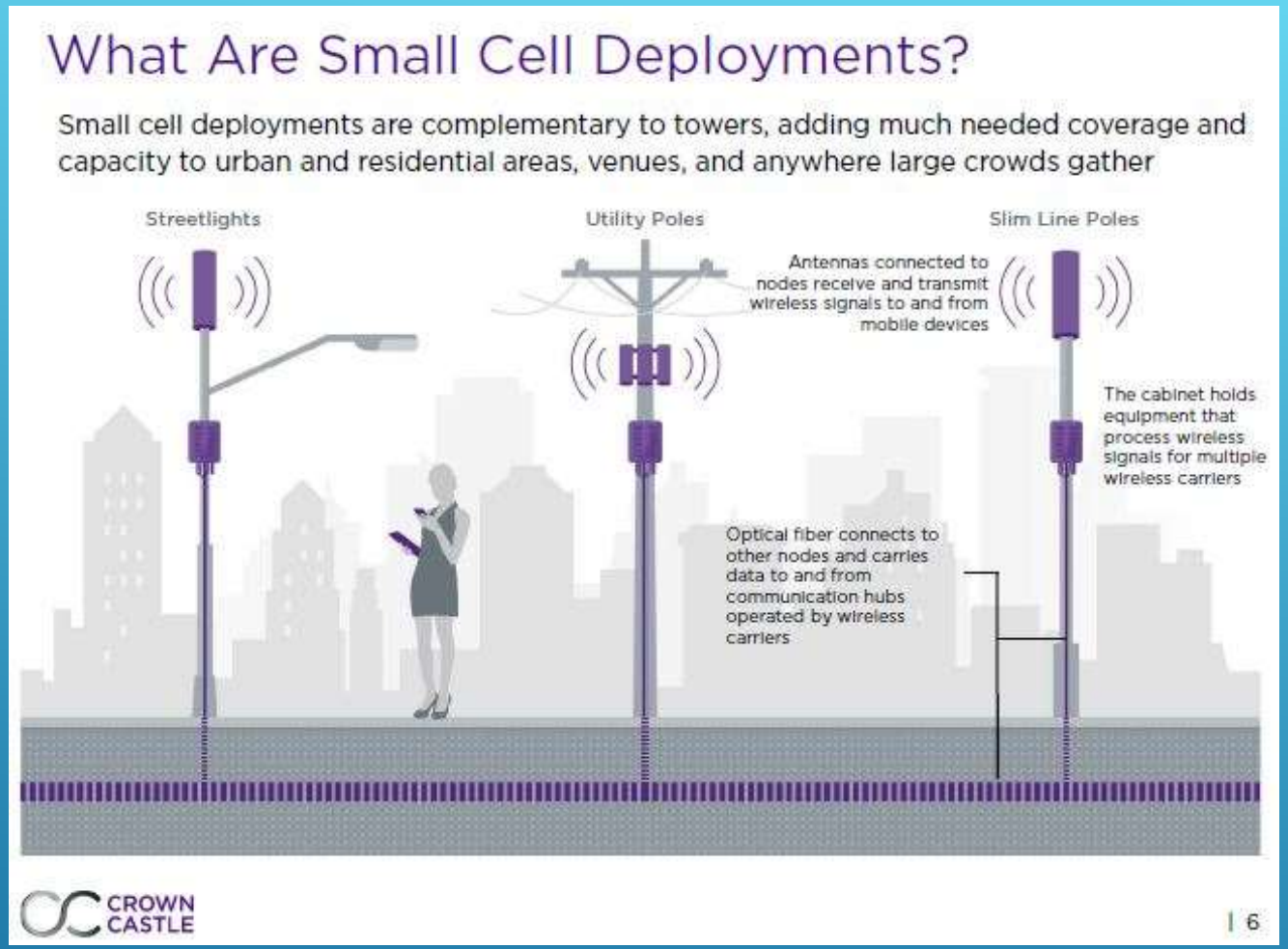
"Traditional"/Macro Cell

- Located on top of free standing towers, buildings, water tanks.
- Coverage radius measured in miles – This type of cell site covers the most people over a large area.

Small Cell

- Flexible network solutions
- Compact size
- Can be readily deployed to specific locations
- Brings densification to the network for anywhere/anytime connection to the consumers management of the Internet of Things (IoT)
- Coverage and capacity focused anywhere from 750 ft. to 2,600 ft depending on the needs of the localized community.

AT&T



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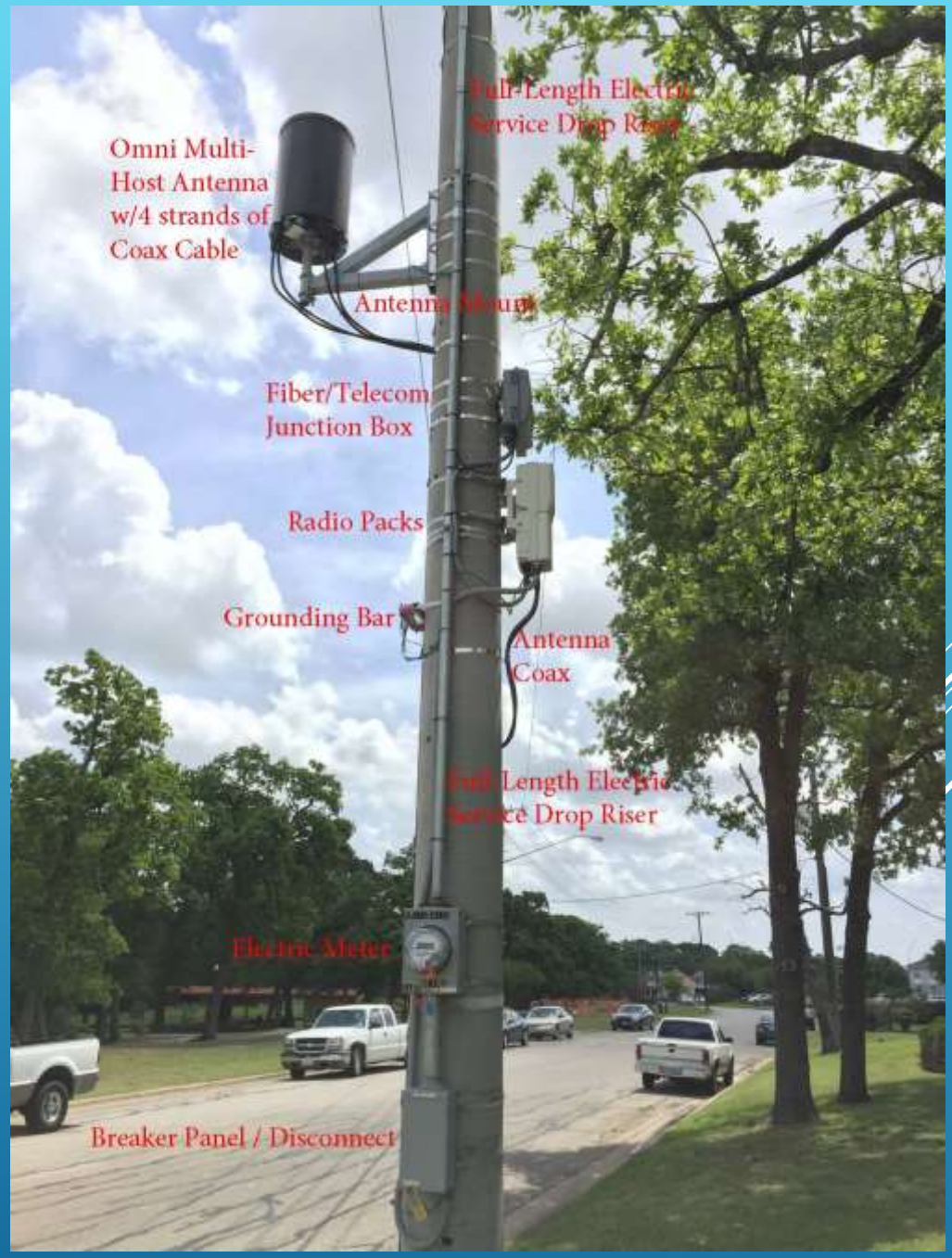

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SMALL CELL NODES

LEGISLATIVE BACKGROUND

- Senate Bill 1004 was passed and was effective September 1, 2017
  - Requires use of City right-of-way
  - Limits the permit fee for each node
  - Sets specific timeframes for review process
  - Does allow cities to adopt a design manual, attachment agreement, & design districts
- STREAMLINE – Streamlining The Rapid Evolution And Modernization of Leading-edge Infrastructure Necessary to Enhance small cell deployment act (Senate Bill 3157)
  - Federalize municipal right-of-way authority and compensation
  - Providing that fees must be "competitively neutral, technology neutral, and nondiscriminatory; publicly disclosed; and based on actual and direct costs." This provision would eliminate market-based rents for small cell nodes. (Editor's note: The fee currently in place under Texas law limits a rental fee to $250 per node annually. A lawsuit has been filed by numerous Texas cities to challenge the state cap.)
  - Limiting local authority over "small personal wireless facilities (e.g. small cell nodes)" to "objective and reasonable…structural engineering standards based on generally applicable codes; safety requirements; or aesthetic or concealment requirements."
  - Imposing federal "shot clock" requirements for approval of small cell nodes, including a deemed granted provision for applications not acted upon by the local government in the stated period.
  - FCC released Small Cell Order on September 5, 2018

ROUNDTABLE DISCUSSION

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QUESTIONS?

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