Innovative Construction Techniques: Balancing Speed of Deployment with Right of Way Integrity

NATOA Annual Conference

September 21, 2021

1:45 to 2:30

Panel Introductions

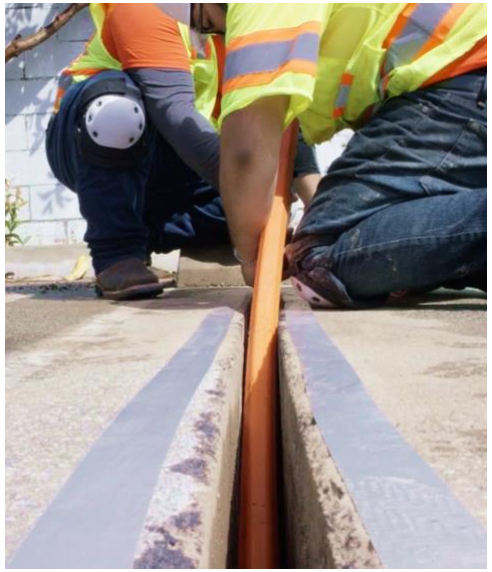
- Moderator: Brian Roberts, Policy Analyst, City & County ofSan Francisco
- Douglas Patterson Douglas Patterson, Region Director – Construction, Crown Castle
- Ed Poppit, Consulting Engineer, Austin
- Paloma Amayo-Ryan, ROW Management | Program Manager, Austin Transportation Department
- Andy Creel, Senior OSP Engineering Manager, Google Fiber Central Texas

What is microtrenching?

- Doug
- What is microtrenching? What are the advantages for carriers and local governments?

MicroTrenching is an innovative way to construct fiber networks. MicroTrenching is faster in deployment, smaller and less disruptive to the roadways from installation to restoration compared to traditional construction techniques.

Installation



Cable Placement

Restoration

Balance

- Ed
- We understand that Austin has allowed google fiber to make extensive use of microtrenching to deploy its fiber to the prem network. How did you balance the interest in accommodating the rapid expansion of high speed internet with protecting streets?

Rules

- Paloma
- Did Austin modify its excavation code or rules or did it grant an exemption?

Constraints

- Ed
- What types of microtrenching do you allow, what depth, width restoration do you require?
- What types of microtrenching do you allow, what depth, width restoration do you require? In your view, what are the most critical concerns for a community seeking to accommodate microtrenching.
- Are there types of streets in Austin that are less suitable for microtrenching? If so, please explain?

Colaboration

- Andy
- Do you have any examples of a successful strategy for working with public works officials to demonstrate the efficacy of a new construction technique?

Reinstatement

- Doug
- What are some examples of challenges with respect to reinstatement/restoration? How did you resolve these?

MicroTrench Reinstatement

- Rapid setting concrete cement slurry mixed on site and applied in one pass
- Free flowing and self-consolidating so no compaction is required
- Designed for use with both asphalt and concrete
- Can fill to grade or fill most of the way and then apply an over-band top layer.




Different Uses

- Doug(no slide needed)
- Crown Castle typically installs backbone fiber for wireless companies or institutional clients which demand greater capacity, but have a more limited scope than a fiber to the prem project, explain how these are different.

Intra City Harmony

- Paloma
- What stakeholders were as you considered microtrenching in Austin? How did you break down silos?

Lessons Learned

- Andy
- Do you have any lessons learned from applying alternative construction techniques in real world settings?

Complications

- Paloma
- What types of issues have come up during the implementation of microtrenching in Austin, how were these identified and resolved?

What’s next?

- Andy & Doug(no slide needed)
- What do you see as the most promising innovative construction technique that may not be widely known?