



# Transportation Committee

December 14, 2017



## Micro Trench Pilot Program Update

Anthony Chukwudolue, Assistant Director



# Background

**September 2016:** City Council approved micro trench pilot in Council District 6

- Allowed up to 190 miles of fiber deployment using micro trench technique

Open Trench



Directional Bore



Micro Trench





# Micro Trench Success Measures

City monitored and evaluated success for pilot based on following criteria:

1. Number of utility impacts (water, sewer, or gas strikes)
2. Pace of work and disruption to the right-of-way
3. Community support for the program

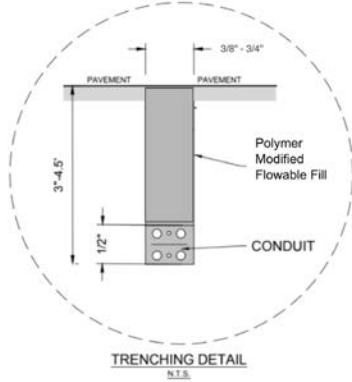




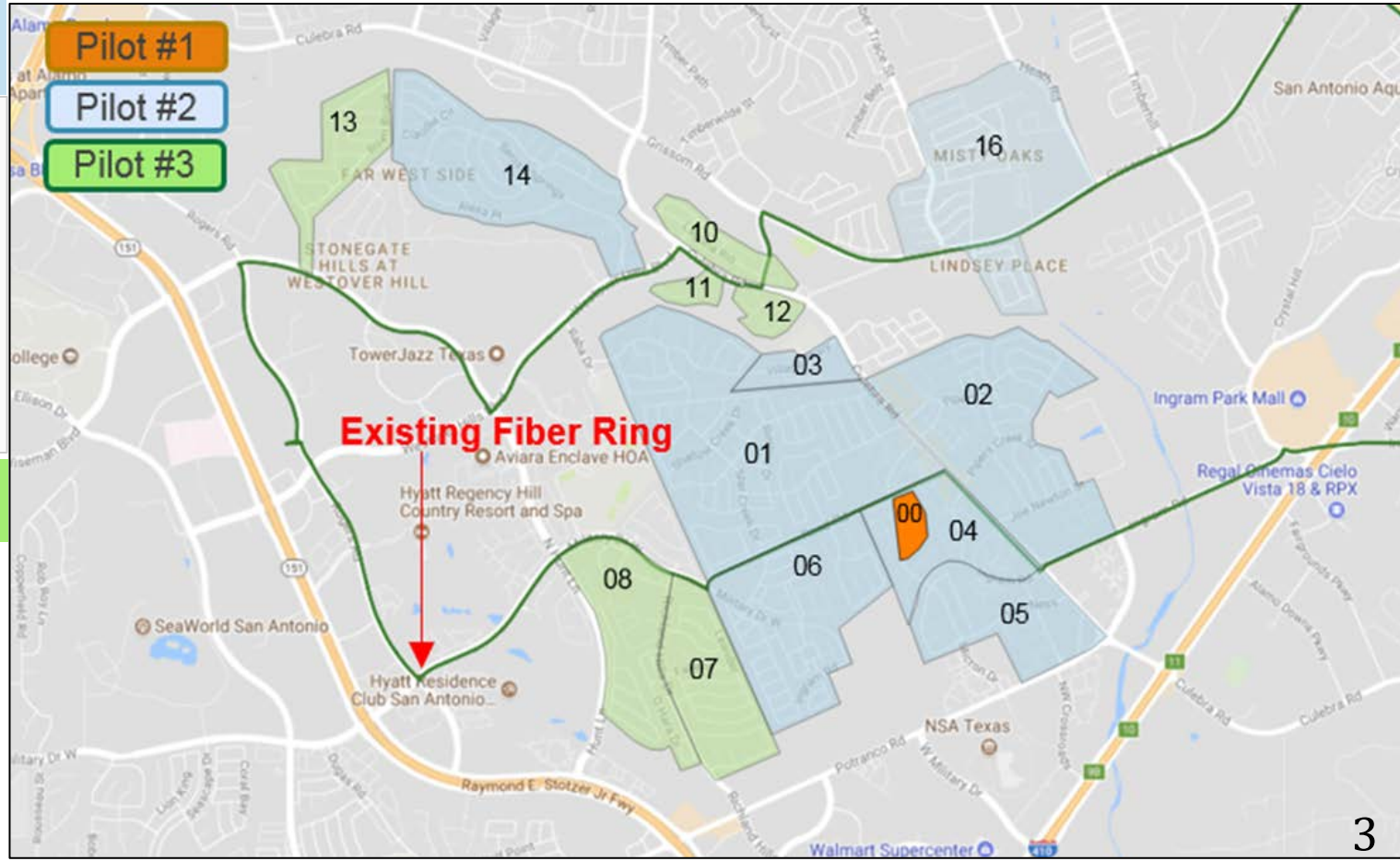
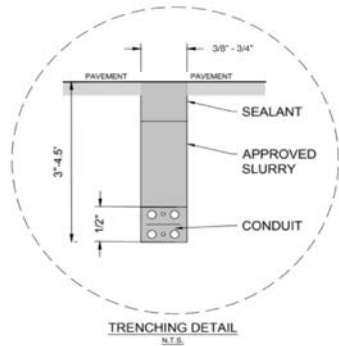


# Pilot Summary Map

Polymer based Controlled Low Strength Materials (CLSM)  
(81 Miles)



Slurry with Sealant on Top (26  
Miles + 1 Mile in 00)





# Community Outreach

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## Construction notifications

- 30 day notification to City Council and affected NA's prior to construction
- 7 days prior, electronic signs on impacted collector or arterial streets
- 3 days prior, door hangers to impacted residents and businesses
- CD6 augmented with social media, newsletter notifications, and e-blasts

## Signage

- Construction signage to include Project Type, Utility and Contractor contact information

## Identification

- Construction crew to wear Utility Owner identifier visible to the public, i.e., vests, hard hats, etc.



# Pilot #1 - Photos



No parking signs



Micro trenching





# Pilot #1 - Photos

Micro trench



Lateral cuts in curb & sidewalk



Trench cleaning



Trench cleaning



Damaged asphalt due to high pressure water



# Pilot #1 - Photos

Fiber installation



Fiber box







# Pilot #1 - Photos

Fiber w/ insulation on top



Sealant installation

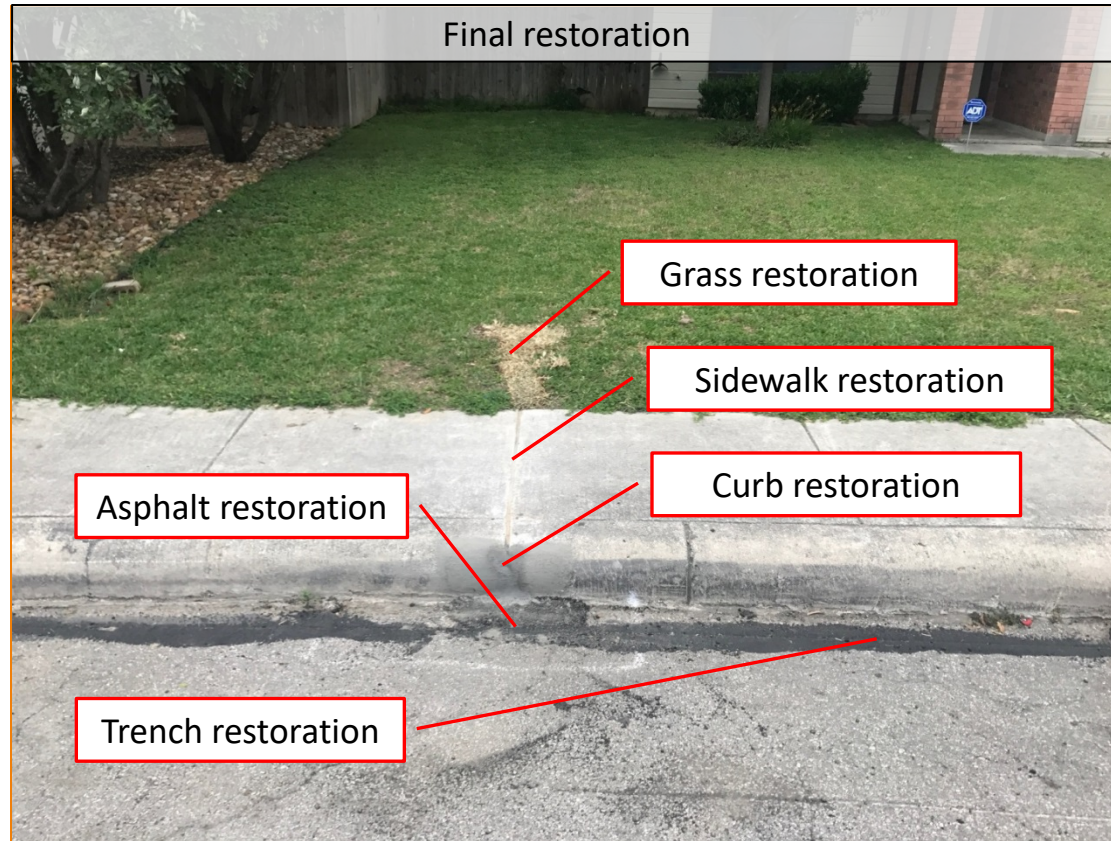


Final sealant product





# Pilot #1 - Photos







# Pilot # 2 & 3 - Photos



No parking signs



Curb & sidewalk cuts



Curb & sidewalk cuts





# Pilot # 2 & 3 - Photos

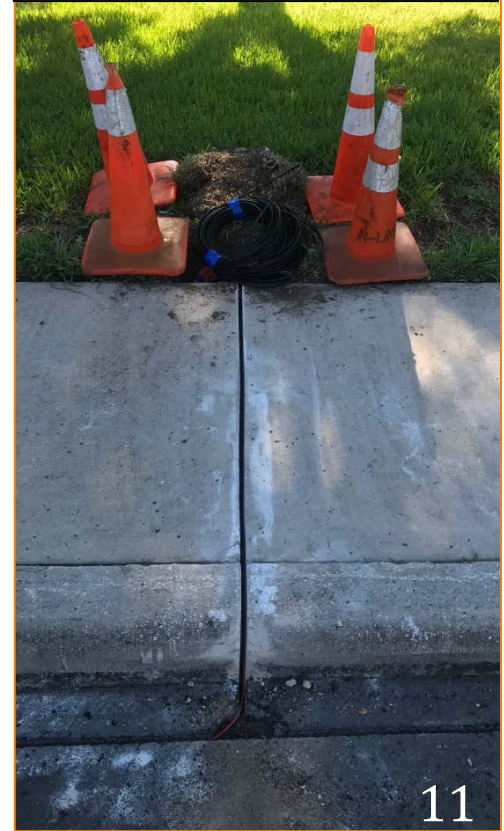
Micro trenching



Fiber installation



Fiber installation







# Pilot # 2 & 3 - Photos

Pilot #2: CLSM backfill



Pilot #2: Final CLSM product



Pilot #3: Sealant application



Pilot #3: Final sealant product



# Micro Trench Pilot Results

1. Shallow trenching typically avoided conflicts with other utilities including water, electric and gas
2. A faster, less disruptive construction technique. Work often completed in the same day, reducing construction impacts on residents
3. No significant complaints received throughout the pilot period

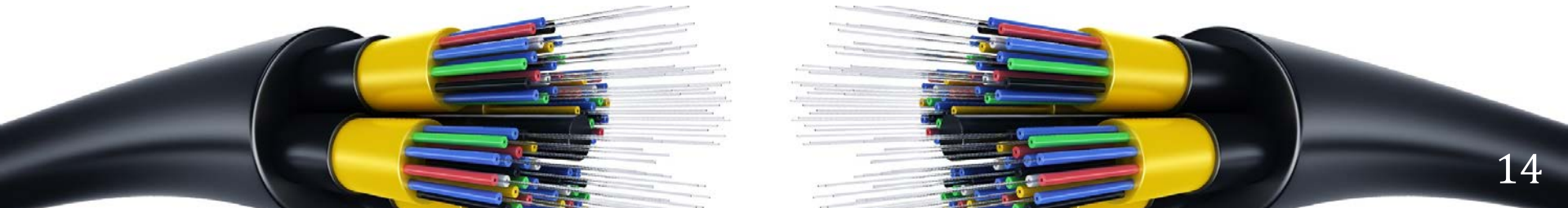




# Recommendation

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Staff recommends utilization of micro trenching and updating the Utility Excavation Criteria Manual to include the guidelines related for this construction method.





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