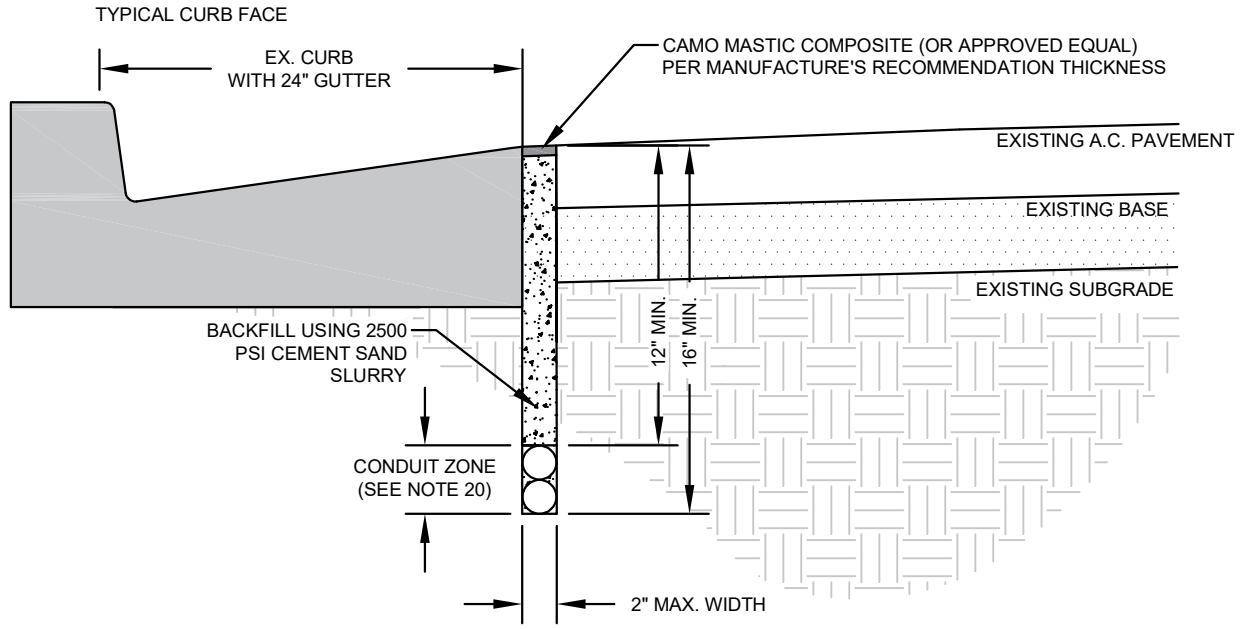
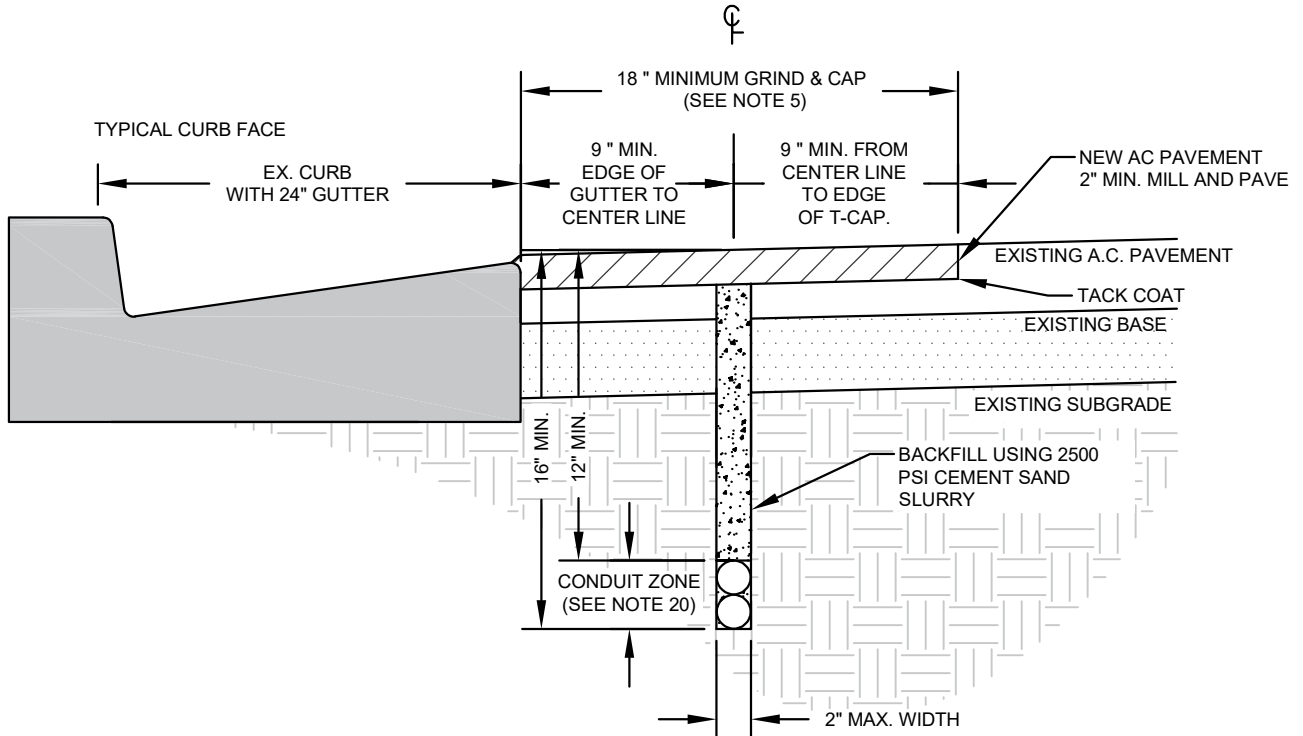


**TYPICAL MICRO-TRENCH SECTION - OPTION A**



**TYPICAL MICRO-TRENCH SECTION - OPTION B**



NOT TO SCALE

REVISIONS:		
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1.	05/27/26	Sk

APPROVED BY:  
*Savat Khamphou*  
 SAVAT KHAMPHOU  
 CITY ENGINEER  
 RCE NO. 62019

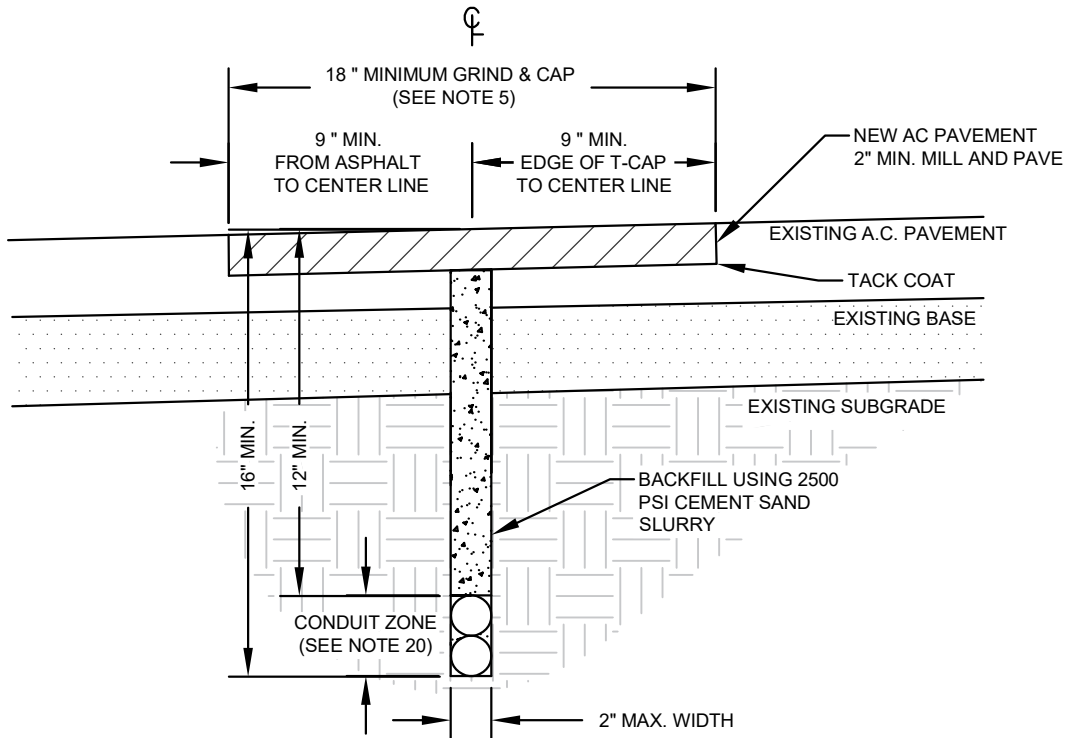
03/12/26  
 DATE

**CITY OF CORONA**

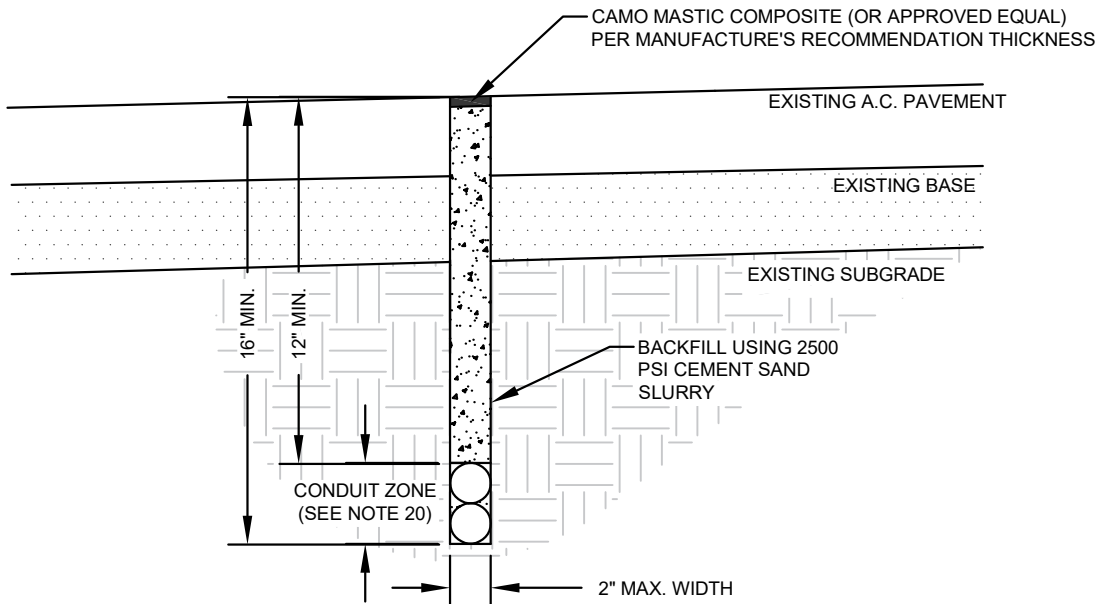
**MICROTRENCH STANDARD**

STANDARD PLAN NUMBER: 159      SHT 1 OF 4

**LATERALS OR INTERSECTION  
MICRO-TRENCH SECTION - PCI ≥ 70**



**LATERALS OR INTERSECTION  
MICRO-TRENCH SECTION - PCI < 70**



NOT TO SCALE

REVISIONS:			APPROVED BY:	DATE	CITY OF CORONA	
NO.	DATE	APPRV'D				
1.	05/27/26	Sk	Savat Khamphou	03/12/26	MICROTRENCH STANDARD	
			SAVAT KHAMPHOU CITY ENGINEER			
			RCE NO. <u>62019</u>		STANDARD PLAN NUMBER: 159	SHT 2 OF 4

**MICROTRENCHING NOTES**

1. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC) "GREENBOOK".
2. MICROTRENCHING SHALL ONLY BE USED TO INSTALL TELECOMMUNICATION CONDUITS IN AC PAVEMENT STREETS ONLY.
3. MICROTRENCHING SHALL NOT BE ALLOWED IN CONCRETE PAVED STREETS AND ALLEYS, SIDEWALKS, SWALES, SPANDRELS, APPROACHES, BUS PADS, CURBS OR GUTTERS ETC. ANY SLURRY SPILLAGE ONTO ALL ADJACENT SURFACES TO BE REMOVED.
4. BORING SHALL BE PERFORMED TO AVOID DISTURBING CURB, SIDEWALKS, SPANDRELS, OR OTHER CONCRETE IMPROVEMENTS.
5. WHERE ANGULAR CROSSING OR ANY LENGTHWISE CUTS OF A BIKEWAY OCCUR BY MICROTRENCHING, THE FINAL CAP SHALL EXTEND THE FULL WIDTH OF THE BIKEWAY.
6. THE CONTRACTOR SHALL IDENTIFY ALL EXISTING UTILITIES, INCLUDING SERVICES CONNECTIONS IN THE FIELD. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (U.S.A) AT LEAST 48 HOURS PRIOR TO START OF WORK AT 8-1-1, OR TOLL-FREE AT 1-800-422-4133. THE CONTRACTOR SHALL FURTHER SUPPLEMENT THE FINDINGS OF U.S.A. TO DETERMINE THE EXACT LOCATION(S) AND DEPTH(S) OF ALL UTILITIES BY USING A MOBILE GROUND PENETRATING RADAR SYSTEM. THE CONTRACTOR SHALL POTHOLE ALL CROSSING UTILITIES AND PARALLEL UTILITIES WITHIN 18-INCHES OF THE PROPOSED ALIGNMENT TO A DEPTH WHICH ACHIEVES POSITIVE EXPOSURE, TO DETERMINE THE EXISTING UTILITY ALIGNMENT AND ELEVATION. POTHOLES SHALL BE IMMEDIATELY BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS OR RESTORED AS DIRECTED BY THE CITY ENGINEER.
  - 6.1 ALL POTHOLING FOR MICROTRENCHING SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF CORONA STANDARD PLAN 150.
7. CONTRACTOR SHALL SUBMIT A GROUND PENETRATING REPORT PRIOR TO START OF CONSTRUCTION TO IDENTIFY ANY POTENTIAL UTILITY CONFLICTS.
8. IF EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE INSPECTOR, ENGINEER, AND UTILITY OWNER TO PERFORM THE REPAIRS PROMPTLY ACCORDING TO THEIR REQUIREMENTS AND PER ASSOCIATED CITY PERMITS.
9. ALL DAMAGED AND/OR REMOVED STRIPING, PAVEMENT LEGENDS, MARKERS, AND TRAFFIC SIGNAL LOOPS SHALL BE REPLACED.
10. MANHOLES, VALVES, AND/OR VAULTS IMPACTED BY THE AC IMPROVEMENT(S) SHALL BE RAISED AND LOWERED PER AGENCY REQUIREMENTS.
11. CONTRACTOR SHALL PROVIDE COMPACTION TEST RESULTS CERTIFIED BY A GEOTECHNICAL ENGINEER.
12. THE FOLLOWING ITEMS SHALL BE SUBMITTED TO, AND APPROVED BY PUBLIC WORKS / ENGINEERING DEPARTMENT PRIOR TO BEGINNING WORK:
  - 12.1 DETAILED SITE PLAN WHICH SHALL INCLUDE THE DISTANCE OF MICROTRENCH FROM THE EDGE OF GUTTER, AND SPECIFIC RESTORATION LIMITS BASED ON ALIGNMENT AND PAVEMENT PCI.
  - 12.2 THE MAXIMUM ASPHALT CONCRETE (AC) ROADWAY THICKNESS, BASE, DEPTH, AND WIDTH OF MICROTRENCH, DEPTH OF TOP MOST CONDUIT, AND BACKFILL MATERIAL.
  - 12.3 DETAIL SHOWING CONDUIT FROM MAIN MICROTRENCH ALIGNMENT TO LATERAL SURFACE CONNECTIONS INCLUDING TO ANY JUNCTION / PULL BOX. INCLUDE SPECIFIC INFORMATION OF DEPTH, SIZE, AND METHOD OF EXCAVATION BELOW EXISTING CURB AND GUTTER.
  - 12.4 VAULT AND/OR JUNCTION / PULL BOX SHALL BE CLEARLY IDENTIFIED ON THE PLAN.
  - 12.5 CUT SHEETS OF PROPOSED EQUIPMENT PARTICULARLY SUITABLE FOR MICROTRENCH, INCLUDING
    - 12.5.1 MICROTRENCHER CAPABLE OF MEETING TARGET DEPTH AND WIDTH IN A SINGLE PASS WITH AN INTEGRAL HOOD AND ASSOCIATED VACUUM SYSTEM. SELECTION OF CUTTING WHEEL SHALL BE SUCH THAT IT MINIMIZES DAMAGE TO THE ADJACENT AC SURFACE.
    - 12.5.2 MOBILE CONCRETE / SLURRY PLACEMENT WITH AN ON-BOARD VIBRATOR AND NARROW TROUGH TO MATCH MICROTRENCH WIDTH.
    - 12.5.3 MOBILE GROUND PENETRATING RADAR SYSTEM THAT IS CAPABLE OF LOCATING BOTH METALLIC AND NON-METALLIC PIPES AND CABLES TO A DEPTH OF 24-INCHES.
13. THE CITY ENGINEER HAS THE FINAL AUTHORITY TO DETERMINE THE RESTORATION LIMITS.

**LIMITS OF REMOVAL, TRENCH WIDTH, AND LOCATION**

14. MICROTRENCH SHALL BE CONSTRUCTED WITH CONTINUOUS UNIFORM STRAIGHT AND NEAT EDGES.
15. MICROTRENCH ALIGNMENTS SHALL BE CONSTRUCTED WITH 50-FOOT MINIMUM STRAIGHT SEGMENTS AND SHALL CONSIST OF RUNS PARALLEL TO THE STREET CENTERLINE. STREET CROSSING MAY BE DONE PROVIDED THE ALIGNMENT IS PERPENDICULAR TO THE STREET CENTERLINE TO THE EXTENT POSSIBLE.
16. THE CENTERLINE OF THE MICROTRENCH SHALL BE ALIGNED AT THE EDGE OF GUTTER PER OPTION A. SHOULD FIELD OBSTRUCTIONS (E.G., MANHOLES, VALVES, OR OTHER OBJECTS) NECESSITATE A DEVIATION FROM THE GUTTER LIP, THE CONTRACTOR IS REQUIRED TO FOLLOW OPTION B AS THE MANDATORY ALTERNATIVE. ALL OPTION B INSTALLATIONS SHALL INCLUDE AN 18-INCH MINIMUM "GRIND AND CAP" RESTORATION WITH A 2-INCH MINIMUM AC MILL AND PAVE.
17. FOR ASPHALT BERM SECTIONS, THE CENTERLINE OF THE MICROTRENCH SHALL BE OFFSET A MINIMUM OF 9 INCHES FROM THE EDGE OF THE AC BERM. INSTALLATION SHALL REQUIRE THE USE OF OPTION B, CONSISTING OF AN 18-INCH MINIMUM GRIND AND CAP (T-CAP) CENTERED OVER THE TRENCH TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE BERM AND TRAVEL LANE.
18. THE MICROTRENCH WIDTH SHALL BE A MINIMUM OF 1-INCH AND A MAXIMUM OF 2-INCHES.
19. THE CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 16-INCHES BELOW THE EXISTING AC PAVEMENT SURFACE, AT LEAST 1-INCH BELOW THE BOTTOM OF THE AC PAVEMENT.
20. EXPANSION OF THE TRENCH WHEN EXISTING CONDITIONS OF THE ASPHALT CONCRETE WARRANT SHALL BE APPROVED BY THE CITY ENGINEER.
21. UP TO TWO (2) VERTICALLY STACKED CONDUITS CAN BE PLACED WITHIN A MICROTRENCH.

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1.	05/27/26	<i>SK</i>	SAVAT KHAMPHOU CITY ENGINEER	DATE	<b>STANDARD PLAN NUMBER: 159</b>	
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- 23. ANCHORS / SPACERS SHALL BE PLACED AT A MAXIMUM OF 10-FEET APART ALONG THE ALIGNMENT TO ENSURE THE CONDUIT DOES NOT RISE FROM THE BOTTOM OF THE MICROTRENCH.
- 24. PRIOR TO ANY OPEN TRENCHING OR BORE PIT DIGGING WITHIN 10-FEET OF ANY TREE, THE CITY LANDSCAPE INSPECTOR MUST BE CALLED OUT BEFORE ANY TRENCHING OR DIGGING IS ALLOWED AND DURING TRENCHING AND DIGGING OPERATIONS.

**BACKFILL**

- 25. FOR OPTION B AND LATERALS OF PCI ≥ 70 PAVEMENT, MICRO TRENCH TO BE BACK FILLED FLUSH TO FINISHED SURFACE WITH CEMENT SLURRY (2500 PSI). COLD PLANE ASPHALT AND CEMENT SLURRY TO A MINIMUM DEPTH OF 2-INCHES AND REPLACE WITH ASPHALT CONCRETE WEARING COURSE. THE MINIMUM COLD PLANE WIDTH SHALL BE 18 INCHES. MATCHING SLURRY COLOR TO BE THE BEST EXTENT POSSIBLE.
  - 25.1. FOR OPTION A AND LATERALS OF PCI < 70 PAVEMENT, TOP OF TRENCH SHALL BE SEALED WITH CAMO MASTIC COMPOSITE (OR APPROVED EQUAL) PER MANUFACTURER'S RECOMMENDED THICKNESS
- 26. COMMENCEMENT OF SURFACE PREPARATION SUCH AS GRINDING / CHIPPING FOR ASPHALT CONCRETE PAVING REPLACEMENT WILL OCCUR NO SOONER THAN 48 HOURS AFTER SLURRY BACKFILL OR TRENCH. FIELD CONDITIONS OR MATERIAL USED MAY NECESSITATE A LONGER WAIT AS DETERMINED BY THE CITY INSPECTOR.
- 27. TEMPORARY BACKFILL, PAVEMENT RESTORATION, AND SAFETY MEASURES. AS SOON AS BACKFILL HAS CURED, AND NO LONGER THAN 30 CALENDAR DAYS, THE ASPHALT CONCRETE SHALL BE GROUND AND CAPPED AS FOLLOWS. TEMPORARY OR FINAL BACKFILL SHALL BE EXPEDITED TO PROTECT THE PAVEMENT STRUCTURE, PARTICULARLY IN AREAS WHERE BICYCLES AND MOTOR VEHICLES APPROACH OR TRAVEL NEAR THE SHOULDER.
  - 27.1. PRIOR TO PLACING ADJACENT ASPHALT CONCRETE, TACK COAT ALL EDGES WITH D2 OR PG 70-10 PAVING ASPHALT IMMEDIATELY BEFORE PAVING.
  - 27.2. APPLY A 4-INCH-WIDE BAND OF TACK COAT CENTERED ON THE VERTICAL JOINT ALONG THE PERIMETER OF TRENCH REPAIR.
  - 27.3. WHENEVER EXCAVATION 2-INCHES OR MORE IN DEPTH EXISTS OR IS MADE WITHIN 2 FEET OF THE TRAVELED WAY, INCLUDING BIKE LANES OR SHOULDERS, THE CONTRACTOR SHALL INSTALL APPROPRIATE ADVANCE WARNING SIGNS, INCLUDING "LOW SHOULDER" OR "OPEN TRENCH" SIGNS, IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLAN, WATCH MANUAL, AND CALIFORNIA MUTCD.
  - 27.4. ADDITIONAL WARNING SIGNS SHALL BE PLACED BEYOND EVERY INTERSECTING STREET, AS REQUIRED BY THE CITY INSPECTOR, AND SHALL REMAIN IN PLACE UNTIL THE PAVEMENT SURFACE IS RESTORED FLUSH AND SAFE FOR VEHICULAR AND BICYCLE TRAFFIC.

**VAULTS AND SERVICE CONNECTIONS**

- 28. CONNECTION TO SERVICE LATERALS, JUNCTION BOXES, ETC., SHALL BE DONE SUCH THAT THE CURB AND GUTTER ARE NOT DISTURBED, SETTLED, OR DAMAGED. REMOVAL LIMITS OF SIDEWALK SHALL FOLLOW APPLICABLE STANDARDS AND REQUIREMENTS AS APPROVED BY THE CITY ENGINEER.
- 29. THE USE OF HYDRO-JETTING IS NOT PERMITTED. TRENCHLESS METHODS SHALL NOT CREATE A VOID TWO TIMES GREATER THAN THE CONDUIT. VOID(S) SHALL BE COMPACTED AND BACKFILLED WITH APPROVED CONTROLLED LOW-STRENGTH MATERIAL (CLSM).
- 30. AS-BUILTS, GROUND PENETRATION MONITORING REPORT AND A POST-CONSTRUCTION VIDEO INCLUSIVE OF MICRO TRENCH IMPROVEMENTS AND ANY SEWER LATERAL CROSSING SHALL BE SUBMITTED BY THE CONTRACTOR TO THE CITY ENGINEER.
- 31. NO UTILITY FACILITIES, INCLUDING BUT NOT LIMITED TO JUNCTION BOXES, PULL BOXES, VAULTS, OR CABINETS, SHALL BE INSTALLED WITHIN THE CONCRETE SIDEWALK AREA. ALL SUCH FACILITIES SHALL BE PLACED WITHIN THE PARKWAY OR AN APPROVED UTILITY EASEMENT.

**IDENTIFICATION**

- 32. EACH MICROTRENCH SHALL INCLUDE A TRACER WIRE AND SHALL BE IDENTIFIED WITH A METAL IDENTIFICATION TAG LISTING THE OWNER, YEAR OF CONSTRUCTION, AND INCLUDE THE WORDS, "NOT A SURVEY POINT". IF THE WORK IS MORE THAN 50-FEET IN LENGTH, PLACE THE TAG NEAR
- 33. EACH END OF THE MICRO TRENCH AND AT INTERVALS NOT TO EXCEED 50-FEET. PROVIDE A GIS LAYER OF DEPLOYED FIBER LINE.

**ADDITIONAL REQUIREMENTS**

- 34. CITY SHALL APPROVE THE LOCATION OF ALL EQUIPMENT (I.E. CABINETS, PULL-BOX, ETC.) IN THE PUBLIC RIGHT-OF-WAY.
- 35. DEPOSITS FOR PLAN CHECK REVIEW AND INSPECTION(S) SHALL BE MADE TO THE CITY PRIOR TO PERMIT ISSUANCE.
- 36. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO START OF CONSTRUCTION.
- 37. **PROHIBITION OF PAVEMENT CUTTING:** ASPHALT CONCRETE PAVEMENT LESS THAN THREE (3) YEARS OLD SHALL NOT BE CUT EXCEPT FOR EMERGENCY REPAIRS OR AS SPECIFICALLY APPROVED IN WRITING BY THE CITY ENGINEER. ANY CUTS ON A STREET UNDER MORATORIUM WILL BE SUBJECT TO THE FOLLOWING MINIMUM RESTORATION LIMITS: 100' MINIMUM 0.10' GRIND AND OVERLAY WITH LIKE MATERIAL FROM THE CURB TO CURB OR MEDIAN WHEN APPLICABLE. A 12" TEE CUT AROUND ALL TRENCHES AND APPLICATIONS OF TYPE II SLURRY FOR THE BLOCK MAY BE USED IN-LIEU OF GRINDING AND OVERLAYING THE ENTIRE LIMITS. THESE SITUATIONS WILL BE REVIEWED ON A CASE BY CASE BASIS. ADDITIONAL RESTORATION MAY BE REQUIRED AS DIRECTED BY THE PUBLIC WORKS DIRECTOR.

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