

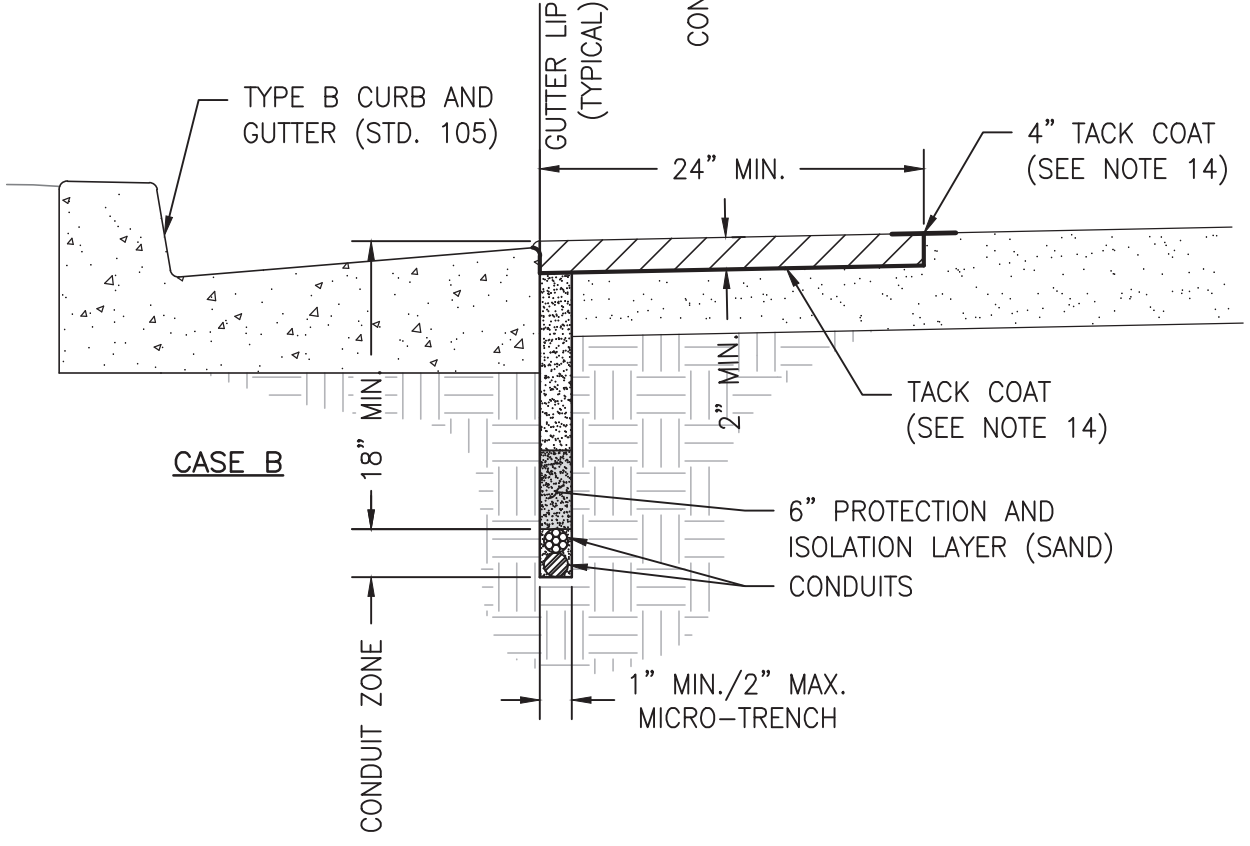


CASE A

LEGEND

-  ASPHALT CONCRETE WEARING COURSE (TYPE III-C3-PG 64-10)
-  CEMENT SLURRY



CASE B



CITY OF LAGUNA BEACH PUBLIC WORKS DEPARTMENT

REV.	DATE

MICRO-TRENCHING

APPROVED BY: 

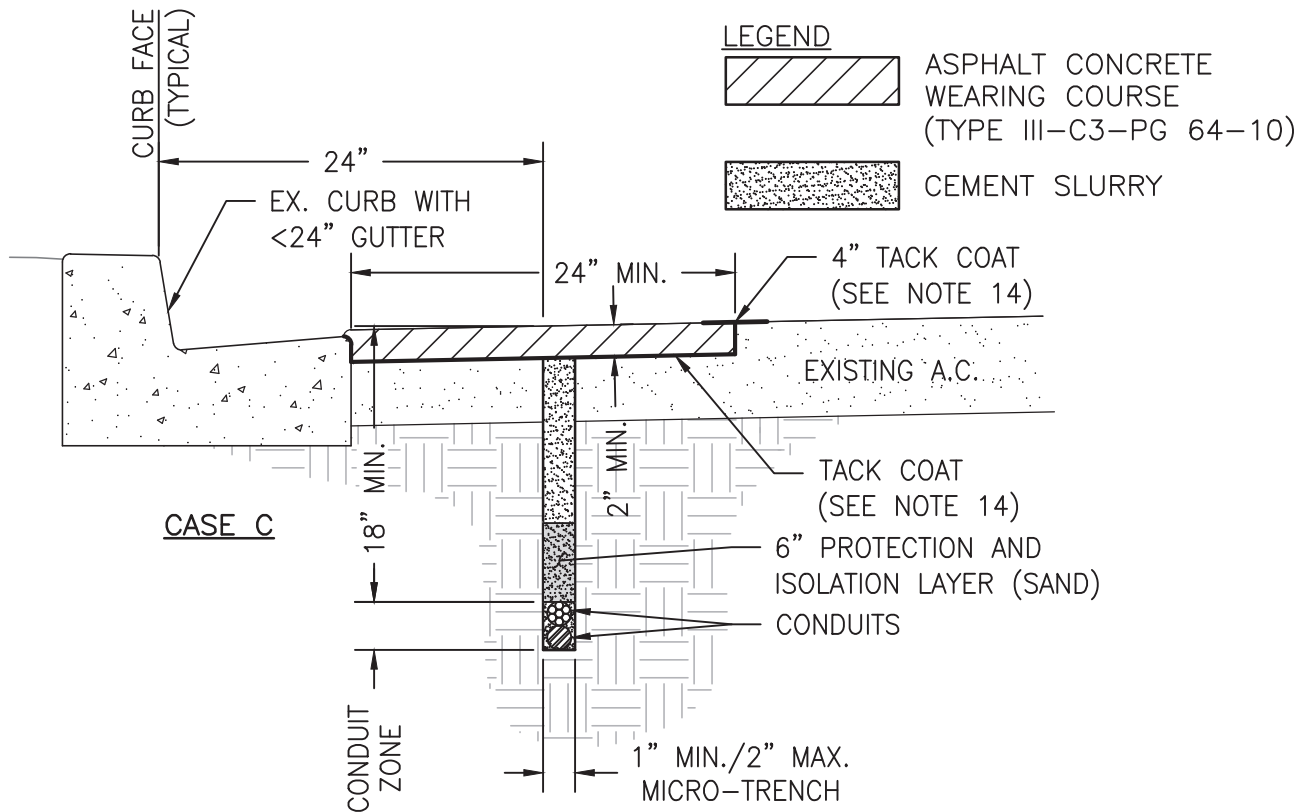
03/29/2022

MARK A. TRESTIK, CITY ENGINEER, R.C.E. 53708 DATE

STANDARD PLAN

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NOTES:

1. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC) "GREENBOOK"
2. MICRO-TRENCHING SHALL ONLY BE USED TO INSTALL TELECOMMUNICATION CONDUITS.
3. MICRO-TRENCHING SHALL NOT BE ALLOWED IN CONCRETE PAVED STREETS, ALLEYS, SIDEWALKS, PARKWAYS, CURBS OR GUTTERS. ANY SLURRY SPILLAGE ONTO ALL ADJACENT SURFACES TO BE REMOVED.
4. MICRO-TRENCHING BORING SHALL BE CONSTRUCTED TO AVOID DISTURBING UNDER CURB, SIDEWALKS, SPANDRELS OR OTHER CONCRETE IMPROVEMENTS.
5. STREETS SLURRY SEALED OR OVERLAYED IN THE PAST FIVE YEARS REQUIRE SPECIAL STREET RESTORATION. REPAIR SHALL BE TO THE FULL STREET WIDTH OR AS APPROVED BY THE ENGINEER.
6. THE CONTRACTOR SHALL IDENTIFY ALL EXISTING UTILITIES, INCLUDING SERVICE 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 LOCATIONS AND DEPTHS OF ALL UTILITIES BY USING A MOBILE GROUND PENETRATING RADAR SYSTEM. THE CONTRACTOR SHALL POT HOLE ALL CROSSING UTILITIES AND PARALLEL UTILITIES WITHIN 18-INCHES OF THE PROPOSED ALIGNMENT TO A DEPTH OF 6-INCHES BELOW THE BOTTOM OF THE MICRO-TRENCH, 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 ENGINEER.



CITY OF LAGUNA BEACH PUBLIC WORKS DEPARTMENT

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MICRO-TRENCHING

APPROVED BY: *Mark A. Trestik* 03/29/2022

MARK A. TRESTIK, CITY ENGINEER, R.C.E. 53708 DATE

STANDARD PLAN
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NOTES (CONTINUED):

7. 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.
8. THE FOLLOWING ITEMS SHALL BE SUBMITTED TO, AND APPROVED BY THE ENGINEER PRIOR TO BEGINING WORK:
 - a. DETAILED SITE PLAN INCLUDING THE LENGTH OF MICRO-TRENCH AND LOCATION RELATIVE TO EDGE OF PAVEMENT/ CURB FACE/ BERM.
 - b. TYPICAL MICRO-TRENCH DETAIL THAT INCLUDES WIDTH, PINS, DEPTH OF COVER, AND BACKFILL MATERIAL.
 - c. DETAIL SHOWING CONDUIT FROM MAIN MICRO-TRENCH 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.
 - c.1. VAULT AND/OR JUNCTION/PULL BOX SHALL BE CLEARLY IDENTIFIED ON THE PLAN.
 - d. CUT SHEETS OF PROPOSED EQUIPMENT PARTICULARLY SUITABLE FOR MICRO-TRENCHING, INCLUDING:
 - d.1. MICRO-TRENCHER 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.
 - d.2. MOBILE CONCRETE/SLURRY PLACEMENT WITH AN ON-BOARD VIBRATOR AND NARROW TROUGH TO MATCH MICRO-TRENCH WIDTH.
 - d.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.
 - d.4. OTHER SITE-SPECIFIC ITEMS AS REQUIRED BY THE ENGINEER.
8. MICRO-TRENCH SHALL BE CONSTRUCTED WITH CONTINUOUS UNIFORM STRAIGHT AND NEAT EDGES. MICRO-TRENCH ALIGNMENTS SHALL BE CONSTRUCTED WITH 50 FT. 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.
9. EXPANSION OF THE TRENCH WHEN EXISTING CONDITIONS OF THE ASPHALT CONCRETE WARRANT SHALL BE APPROVED BY THE ENGINEER.
10. UP TO TWO (2) VERTICALLY STACKED CONDUITS CAN BE PLACED WITHIN A MICRO-TRENCH.
11. 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 MICRO-TRENCH.
12. MICRO-TRENCH TO BE BACK FILLED FLUSH TO THE 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. MINIMUM COLD PLANE WIDTH SHALL BE 24 INCHES. MATCHING OF SLURRY COLOR TO THE BEST EXTENT POSSIBLE.



CITY OF LAGUNA BEACH PUBLIC WORKS DEPARTMENT

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NOTES (CONTINUED):

13. COMMENCEMENT OF SURFACE PREPARATION SUCH AS GRINDING/CHIPPING FOR ASPHALT CONCRETE PAVING REPLACEMENT WILL OCCUR NO SOONER THAN 48 HOURS AFTER SLURRY BACKFILL OF TRENCH. FIELD CONDITIONS OR MATERIAL USED MAY NECESSITATE A LONGER WAIT AS DETERMINED BY THE INSPECTOR.
14. AS SOON AS BACKFILL HAS CURED, WITHIN 30 CALENDAR DAYS, ASPHALT CONCRETE SHALL BE GROUND AND CAPPED AS FOLLOWS:
 - a. TACK COAT ALL EDGES WITH EITHER SS-1H EMULSIFIED ASPHALT OR PG 64-10 PAVING ASPHALT IMMEDIATELY BEFORE THE ADJOINING ASPHALT CONCRETE IS PLACED.
 - b. APPLY A 4" WIDE BAND OF TACK COAT CENTERED ON THE VERTICAL JOINT ALONG THE PERIMETER OF TRENCH REPAIR.
15. AS-BUILTS, GROUND PENETRATION MONITORING REPORT AND A POST-CONSTRUCTION VIDEO INCLUSIVE OF MICRO-TRENCH IMPROVEMENTS AND ANY SEWER LATERAL CROSSINGS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER.
16. EACH MICRO-TRENCH 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 EACH END OF THE MICRO-TRENCH AND AT INTERVALS NOT TO EXCEED 50 FEET.



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