NOTES:

- 1. CLEARENCE SEPARATIONS BETWEEN DRY AND WET UTILITIES SHALL BE MAINTAINED PER WATER, SEWER, AND DRAINAGE DESIGN GUIDELINES, VARIANCES WILL REQUIRE DEVIATION FROM STANDARDS.
- 2. **PERMITTING REQUIREMENTS:** ALL MICROTRENCH PERMITS REQUIRE A DEVELOPMENT SERVICES DEPARTMENT DIGITAL SUBMISSION WITH A GEOSPATIAL ALIGNMENT PER DEVELOPMENT SERVICES DEPARTMENT FORMAT REQUIREMENTS.
- 3. **CONDUIT ANCHORING**: CONTRACTOR MUST PROVIDE THEIR METHOD OF WEIGHING / ANCHORING DOWN CONDUITS IN THEIR PERMIT. TO PREVENT CONDUITS FROM FLOATING, AND TO MAINTAIN REQUIRED DEPTH FOR TOP OF CONDUIT.
- 4. MICROTRENCHING USAGE: MICROTRENCHING PER SDG-165A AND / OR SDG-165B SHALL BE ON ASPHALT STREETS ONLY. MICROTRENCHING SHALL NOT BE PERMITTED IN OR THROUGH EXISTING CONCRETE PAVED STREETS, PARKWAYS, CURB, GUTTER, CROSS GUTTER, BUS PAD, SIDEWALK, FLOATING CURB EXTENSION, BUS BULB, TRUCK PILLOW, RAISED CROSSWALK, ISLAND, MINI- ROUNDABOUT, OR SIMILAR ELEMENTS. MICROTRENCHING MAY BE PERMITTED, AT THE CITY'S DISCRETION, IN OR THROUGH EXISTING IMPROVEMENTS AND SPECIAL PAVEMENTS (SUCH AS DECORATIVE ASPHALT PAVING, AND PERPENDICULAR TO SPEED BUMPS). EXISTING IMPROVEMENTS AND SPECIAL PAVEMENTS SHALL BE RESTORED IN KIND AS APPROVED BY THE CITY.
- 5. **DAMAGE TO EXISTING IMPROVEMENTS**: CONNECTION TO SERVICE LATERALS, JUNCTION BOXES, ETC. SHALL BE DONE SUCH THAT EXISTING IMPROVEMENTS ARE NOT DISTURBED, SETTLED, OR DAMAGED. ANY DAMAGE TO EXISTING IMPROVEMENTS BY PARALLEL OR PERPENDICULAR MICROTRENCHING ACTIVITIES SHALL BE RESTORED IN KIND AS APPROVED BY THE CITY. DAMAGE TO CONCRETE CURB, GUTTER, SIDEWALK, AND PAVEMENT SHALL BE REMOVED AND RESTORED IN ACCORDANCE WITH **SDG-156**.
- 6. TRENCH CUTS: CONTRACTOR SHALL MAKE ALL REASONABLE EFFORTS TO ACHIEVE STRAIGHT AND UNIFORM CUTS WITH NEAT EDGES. SELECTION OF CUTTING WHEEL SHALL BE SUCH THAT IT MINIMIZES DAMAGE TO THE ADJACENT AC SURFACE. RADII TRENCH CUTS SHALL HAVE NO MORE THAN 3 CUTS.
- 7. MICROTRENCH WIDTH: MICROTRENCH WIDTH SHALL BE A MINIMUM OF 1 INCH AND A MAXIMUM OF 2 ½INCHES. TRENCHES WITH WIDTH GREATER THAN 2 ½INCHES MUST FOLLOW SDG-117 (NARROW TRENCH RESURFACING FOR ASPHALT CONCRETE SURFACE STREETS), WHICH REQUIRES A DIFFERENT BACKFILL MATERIAL. THE CITY MAY CHANGETHE PERMIT TO SDG-117 BY AN AS-BUILT CHANGE IF THE TRENCH EXCEEDS 2 ½ INCHES IN CONSTRUCTION.
- 8. MICROTRENCH ALIGNMENT OFFSET TO AN ADJACENT MICROTRENCH: NO MICROTRENCHING SHALL BE LESS THAN 2 FEET FROM ADJACENT MICROTRENCHES (EDGE TO EDGE). THIS MAY REQUIRE THE CONTRACTOR TO POTHOLE TO VERIFY PARALLEL UTILITIES SIZE AND TRENCH WIDTH TO ENSURE PROPER SEPARATION.
- 9. **CONDUIT PLACEMENT IN TRENCH**: THE TOP OF HIGHEST CONDUIT SHALL BE 12 INCHES MINIMUM FROM TOP OF PAVEMENT OR 4 INCHES FROM BOTTOM OF PAVEMENT SECTION TO INCLUDE ASPHALT, BASE AND CTB, WHICHEVER IS GREATER.
- 10. CONDUIT SIZE: 2 INCH MAXIMUM CONDUIT SIZE SCH 40 PVC OR EQUIVALENT HDPE PER NATIONAL ELECTRICAL CODE.
- 11. **TRENCH IDENTIFICATION:** INSTALL FOLDED WARNING / IDENTIFICATION TAPE WARNING TAPE **PER SDM-105.** EACH TRENCH SHALL BE IDENTIFIED WITH A CALLOUT ON THE PULLBOX / VAULT / JUNCTION BOX LID WITH THE NAME OF THE OWNER OF THE MICROTRENCH.
- 12. MICROTRENCH BACKFILL AND REQUIREMENTS TO OPEN THE STREET TO TRAFFIC: ALL MICROTRENCHES SHALLBECOMPLETELY BACKFILLED WITH A CEMENT SAND SLURRY 2000 PSI MINIMUM AND 2% CALCIUM CHLORIDE TO FINISH GRADE. THIS IS AN INTERIM CONDITION AND CONTRACTOR SHALL FOLLOW CURING TIME REQUIREMENTS (PER NOTE 14) TO OPEN THE STREET TO TRAFFIC PRIOR TO COMPLETING PAVING REQUIREMENTS FOR FINAL RESTORATION.
- 13. SLURRY VOID REDUCTION: CONTRACTOR SHALL USE A VIBRATOR TO ENSURE SLURRY FILL WITHOUT VOIDS.
- 14. **SLURRY CURE TIME**: ALLOW A MINIMUM OF THREE HOURS FOR SLURRY TRENCH BACKFILL CURE TIME FOR TRENCHES PARALLEL TO THE STREET BEFORE OPENING TO TRAFFIC.

SEE ADDITIONAL NOTES ON SHEET 2

SHEET 1 OF 4

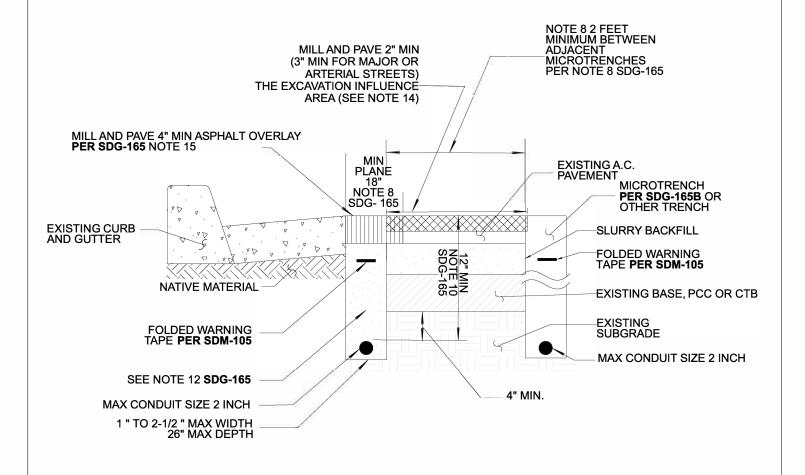
					DRAWING NUMBER SDG-165
UPDATED	FM	R. AMEN	12/23	GENERAL MICROTRENCH NOTES	Tho.E. 01047 BATE
UPDATED	RC	R. AMEN	10⁄22		Alaine James 12/15/2023 COORDINATOR R.C.E. 81047 DATE
REDRAFTED	CD	J. NAGELVOORT	09/18		10.
ORIGINAL	HY	M. GIBSON	05/17	CITY OF SAN DIEGO – STANDARD DRAWING	OF SAN DIEGO STANDARDS COMMITTEE
REVISION	BY	APPROVED	DATE	OLTY OF CAN DIFOC. OTANDARD BRAWING	RECOMMENDED BY THE CITY

NOTES (CONTINUED):

- 15. **FINAL MICROTRENCH RESTORATION**: WITHIN 7 DAYS OF PLACING THE SLURRY BACKFILL TO GRADE, MILL THE SLURRY BACKFILL AND EXISTING PAVEMENT A MINIMUM WIDTH OF 18 INCHES INCLUDING THE EXCAVATION INFLUENCE AREA PER TABLE 1 IN SDG-105 TO A DEPTH OF 4 INCHES AND RESURFACE WITH 1/2 INCH TYPE III CLASS C2 ASPHALT. TACK ALL EDGES OF THE MILLED AREA WITH ASPHALTIC EMULSION.
- 16. **FINAL MICROTRENCH RESTORATION WHEN ADJACENT TO ANOTHER MICROTRENCH**: WHEN RESTORING A MICROTRENCH SEPARATED BY 2 FEET (EDGE TO EDGE) FROM ANY ADJACENT MICROTRENCH THE MICROTRENCH RESTORATION SHALL FOLLOW NOTE 15 FOR TRENCH RESTORATION AND **SDG-107** FOR FULL LIMITS OF THE PERMITTED ALIGNMENT TO MAINTAIN INFLUENCE AREA INTEGRITY.
- 17. MICROTRENCHING IN BIKE LANES: FOR THE WORK IN THE BIKE LANE, CONTRACTOR SHALL PROVIDE A POTHOLING PLAN FOR REVIEW WITH THE ENGINEER FOLLOWING PRE-CONSTRUCTION MEETING. THE BIKE LANE SHALL BE FULLY CLOSED AND APPROPRIATE TRAFFIC CONTROL PLAN AND SIGNAGE USED. MICROTRENCHING IN THE BIKE LANE REQUIRES THAT SLURRY BACKFILL BE COMPLETED BEFORE END OF APPROVED WORKDAY WITH CURING TIME PER NOTE 14. RESTORATION TO THE TRENCH SHALL BE PER NOTE 15.
- 18. **FINAL MICROTRENCH RESTORATION IN BIKE LANES**: THE CONTRACTOR SHALL RESTORE FULL WIDTH OF BIKE LANE TO THE FACE OF CURB AND PLACE 2 INCHES MIN OR 3 INCHES MIN (MAJOR OR ARTERIAL STREETS) THICKNESS OF ASPHALT PER **SDG-107**.

SHEET 2 OF 4

UPDATED	FM	H. AMEN	12/23	GENERAL WICKOTRENCH NOTES	DRAWING SDG-165
UPDATED	RC FM	R. AMEN	10/22	GENERAL MICROTRENCH NOTES	COORDINATOR R.C.E. 81047 DATE
		J. NAGELVOORT	09/18		Alaine James 12/15/2023
ORIGINAL	HY	M. GIBSON	05/17	CITY OF SAN DIEGO – STANDARD DRAWING	OF SAN DIEGO STANDARDS COMMITTEE
REVISION	BY	APPROVED	DATE	CITY OF CAN DIFCO CTANDADD DDAWING	RECOMMENDED BY THE CITY



LEGEND ON PLANS:

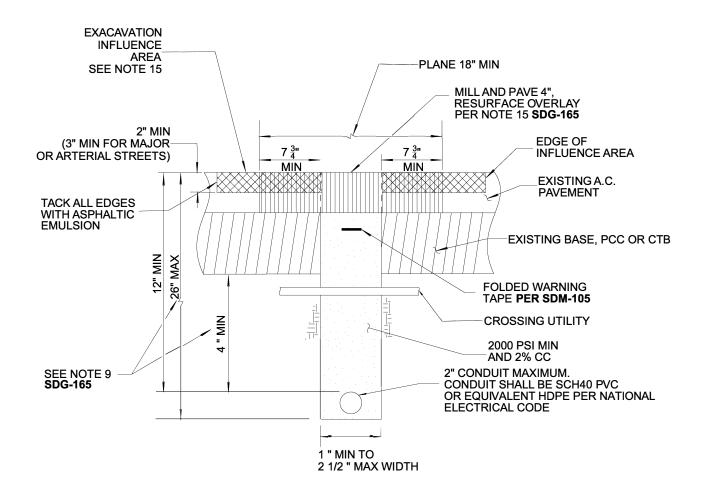
— MTC — MICROTRENCH CONDUIT (MTC)

NOTES:

- 1. APPLICABLE WHERE CONCRETE GUTTER IS VISIBLE OR EXPOSED.
- 2. SHALL NOT BE APPLICABLE AT STREET INTERSECTIONS OR ALONG MEDIAN CURBS.
- 3. TRENCH LOCATION SHALL BE AT THE EDGE OF CURB.

SHEET 3 OF 4

REVISION	BY	APPROVED M. GIBSON	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE
ORIGINAL	HY	IVI. GIDOOIV	05/17		
REDRAFTED	CD	J. NAGELVOORT	09/18		10-1-0
UPDATED	ED	R. AMEN	10/22	MICROTRENCH FOR DRY UTILITIES AT EDGE OF CURR AND GUTTER	Alaine James 12/15/2023 COORDINATOR R.C.E. 81047 DATE
UPDATED	FM	R. AMEN	12/23		11.0.2.0047
					DRAWING SDG-165A
					NUMBER SDG-103A



NOTES:

- 1. SHALL APPLY TO ALL MICROTRENCHING AT STREET INTERSECTIONS.
- 2. TRENCH LOCATION SHALL BE AT LEAST 9 INCHES FROM LIP OF GUTTER.
- 3. TRENCH SHALL BE AT LEAST 12 INCHES FROM ANY EXISTING CONCRETE STRUCTURE.

SHEET 4 OF 4

REVISION	BY HY	APPROVED M. GIBSON	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE
ORIGINAL	HY	W. GIDOON	05/17		_
REDRAFTED	CD	J. NAGELVOORT	09/18		
UPDATED	RC	R. AMEN	10/22	MICROTRENCH FOR DRY UTILITIES	Alaine James 12/15/2023 COORDINATOR R.C.E. 81047 DATE
UPDATED	FM	R. AMEN	12/23		/
				AWAY FROM EDGE OF CURB AND GUTTER	DRAWING SDG-165B
					NUMBER SDG-103B