GENERAL TRENCH NOTES

1. Initial backfill material (see Dwg. 301A & Dwg. 301B) shall conform to requirements of the utility having jurisdiction over the installation. For sewer and storm drain pipes, initial fill shall be 3/8"(minus) clean, fractured rock chips.
2. The material to be used for intermediate backfill (see Dwg. 301A & Dwg. 301B) is dependent upon the location of the excavation and the type of native soil at that location:

a. In unpaved areas, suitable native soil (relatively dry, granular material, as approved by the Engineer) may be replaced if it can be recompacted to at least 95% of its original density (not more than 5% leftover). In planted areas the topsoil must be stockpiled separately from the subsoil, and should be replaced last.

b. In paved areas over uncemented (loose) sand, clean native material may be replaced. It can be mechanically–compacted or jetted (see below). If the trench sides begin to slough and expose voids under the pavement, the pavement must be cut further back to allow full compaction of those areas all the way up to the pavement.

c. In paved areas with anything other than uncemented sand, the intermediate fill must be Caltrans Class II Aggregate Base (3/4"maximum); see section 26 of the Caltrans Standard Specifications. It shall be compacted to approximately 95% of maximum density.

3. Fills shall be placed in loose lifts not exceeding 8 inches in thickness before compaction, except that the first lift of initial backfill over a pipe may be up to 16 inches before compaction with manually–operated "jumping jack"type of equipment. When using a compaction wheel on a backhoe or hydraulic excavator, the initial lift may be up to 36 inches before compaction and subsequent lifts may be up to 24"before compaction."
4. See Dwg. 300B for more information on compacting backfill.
5. In lieu of compacted granular material, trenches may be backfilled with Controlled–Density Fill (CDF or sand–cement slurry); plastic pipes must be sufficiently anchored to prevent floating between anchors.
6. Testing of materials and performance shall be in conformance with the methods stated in the latest edition of the State of California Department of Transportation Standard Specifications.
7. Additional thickness and lifts of asphalt concrete may be required to match existing structural section on major roads.
8. A T–cut is required around all trenches or pits in paved areas. It consists of a widening of the excavation near the top. At a level 12"below the underside of the pavement (generally at least 16"below the pavement surface) there shall be a horizontal ledge 6"wide all around the excavation.

NOTES:

a. CONTRACTOR WILL SHORE ALL TRENCHES IN CONFORMANCE WITH STATE SAFETY STANDARDS (especially Dept. of Industrial Relations, Division of Industrial Safety, Construction Safety Orders, Article 6: Excavations)."

b. EDGES OF EXCAVATIONS IN PAVED AREAS SHALL BE SAW–CUT PARALLEL AND/OR PERPENDICULAR TO PAVEMENT EDGE (CURB LINE). PATCHES WITHIN 12 INCHES OF PAVEMENT EDGE SHALL BE EXTENDED TO THE PAVEMENT EDGE. IF THERE IS A CONCRETE GUTTER AT THE PAVEMENT EDGE, THE NEW ASPHALT CONCRETE SHALL FINISH ¼"HIGHER THAN THE CONCRETE"

c. VERTICAL FACES OF PAVEMENT AND CONCRETE SHALL BE THOROUGHLY PAINTED WITH APPROVED TACK–COAT MATERIAL PRIOR TO PLACING NEW HOT MIX ASPHALT AGAINST THEM. EMULSION MATERIALS (BROWN) MUST BE ALLOWED TO CURE (TURN BLACK) BEFORE PLACING THE ASPHALT."

CITY OF PACIFICA DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	STANDARD GENERAL TRENCH NOTES				AUG 2014
					DWG. NO. 300A
		REV	DATE	BY:	