Special Provision to Special Specification 7016
Water and Sanitary Sewer Systems

Special Specification 7016 "Water and Sanitary Sewer Systems," is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 3.2 Materials is supplemented by the following:

3.2.4. High Density Polyethylene (HDPE). High-density, high molecular weight polyethylene pipe material meeting requirements of Type III, Class C, Category 5, Grade P34, as defined in ASTM D 1248. Material meeting requirements of cell classification in accordance with ASTM D 3350 are also suitable for making pipe products under these specifications.

3.2.4.1. Furnish pipe and fittings that are homogeneous throughout and free from visible cracks, holes, foreign inclusions, or other injurious defects. Provide pipe as uniform as commercially practical in color, opacity, density, and other physical properties.

3.2.4.2. Materials other than those specified in the above paragraph may be used as part of profile construction, e.g. as core tube to support shape of profile during processing, provided that these materials are compatible with base polyethylene material and are completely encapsulated in finished product and in no way compromise performance of pipe products in intended use. Examples of suitable material include polyethylene and polypropylene.

3.2.4.3. Furnish solid wall pipe for sanitary sewer force mains or reclaimed water lines with minimum working pressure rating of 150 psi, and with inside diameter equal to or greater than nominal size indicated on drawings.

3.2.4.4. Install pipe in accordance with the manufacturer's recommended installation procedures and ASTM D 2774. HDPE pipe is not approved in applications requiring augering of pipe. Do not store pipe uncovered in direct sunlight. Allow pipe to reach ground temperature before each individual pipe section is terminally connected. Join sections of HDPE pipe into continuous lengths above ground by thermal butt fusion method in accordance with AWWA C906 and pipe manufacturer's recommendations for specified service. Fusion joints: meeting minimum requirements of manufacturer for cool down time and other fusing requirements. Socket fusion and extrusion welding or hot gas welding will not be accepted. Comply with pipe manufacturer's recommendations for cutting pipe. After cutting, leave end of pipe in accordance with manufacturer's recommendations.

3.2.4.5. Furnish solid wall pipe with plain end construction for heat joining (butt fusion) conforming to ASTM D 2657. Utilize controlled temperatures and pressures for joining to produce fused leak-free joint.

3.2.4.6. Furnish profile-wall gravity sanitary sewer pipe with bell-and-spigot end construction conforming to ASTM 3212. Joining will be accomplished with elastomeric gasket in accordance with manufacturer's recommendations. Use integral bell-and-spigot gasketed joint designed so that when assembled, elastomeric gasket, contained in machined groove on pipe spigot, is compressed radically in pipe bell to form positive seal. Design joint to avoid displacement of gasket when installed in accordance with manufacturer's recommendations.

3.2.4.7. Gaskets should meet requirements of ASTM F 477. Use gasket molded into circular form or extruded to proper section and then spliced into circular form. Use gaskets of properly cured, high-grade elastomeric compound. Basic polymer shall be natural rubber, synthetic elastomer, or blend of both.

3.2.4.8. Use lubricant for assembly of gasketed joints which has no detrimental effect on gasket or on pipe, in accordance with manufacturer's recommendations.

Section 3.3 Measurement is supplemented by the following:

3.3.4. Water Main (HDPE). This Item will be measured in place by the linear foot of HDPE pipe along the center line of pipe as installed

Section 3.4 Payment is supplemented by the following:

3.4.4. Water Main (HDPE). The work performed and the materials furnished in accordance with this Item and measured as provided under “Measurement” will be paid for at the unit price bid for “Water Main (HDPE)” of the type and size specified. This price is full compensation for furnishing all required materials, including all pipe, valves, fittings and accessories; welded joint restraint systems; and all appurtenances defined herein to include, but not limited to the following items: gate valves, tapping sleeves and valves, butterfly valves with manholes, air/vacuum release valves, blow-off valve assemblies, valve/access manholes, bonnet boxes, concrete collars, end plugs, bends, tees, couplings, reducers, marking tape, concrete thrust blocks, and all other items for the project not indicated as being covered under the other specific bid items shown on the proposal; furnishing all required labor, including testing, coordination, traffic control, potholing, excavation, including hand-digging, if needed; embedment and backfilling; compaction and compaction testing; disinfection, pressure testing, dewatering of groundwater, where required; cutting, capping, and connection of new water main to existing water lines.

All fittings and appurtenances shown on the plans will not be paid for directly but will be subsidiary to the water pipe installation.

Cutting and restoring pavement will be paid for in accordance with Item 400, "Excavation and Backfill for Structures". Flowable fill will be paid for in accordance with Item 401, "Flowable Fill". Trench excavation protection will be paid for in accordance with Item 402, "Trench Excavation Protection".