SECTION 33 31 13 - SITE SANITARY SEWERAGE GRAVITY PIPING

PART 1 GENERAL

1.01 RELATED REQUIREMENTS

A. Section 31 23 16.13 - Trenching: Excavating, bedding, and backfilling.

1.02 REFERENCE STANDARDS


1.03 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide data indicating pipe, pipe accessories, and [____].

C. Manufacturer’s Certificate: Certify that products meet or exceed specified requirements.

D. Project Record Documents:

   1. Record location of pipe runs, connections, manholes, cleanouts, and invert elevations.

PART 2 PRODUCTS

2.01 SEWER PIPE MATERIALS

A. Provide products that comply with applicable code(s).

B. Plastic Pipe: ASTM D3034, Type PSM, Poly(Vinyl Chloride) (PVC) material, extra strength, minimum of SDR 35; inside nominal diameter per drawings, bell and spigot style solvent sealed joint end.

C. Fittings: Same material as pipe molded or formed to suit pipe size and end design, in required tee, bends, elbows, cleanouts, reducers, traps and other configurations required.

2.02 PIPE ACCESSORIES

A. Trace Wire: Magnetic detectable conductor, clear plastic covering, imprinted with "Sewer Service" in large letters.
2.03 CLEANOUT MANHOLE
   A. Lid and Frame: Cast iron construction, hinged lid.
   B. Shaft Construction and Concentric Cone Top Section: Reinforced precast Concrete pipe sections, lipped male/female dry joints, cast steel ladder rungs into shaft sections at 12 inches (300 mm); nominal shaft diameter of 36 inches (900 mm).

PART 3 EXECUTION

3.01 TRENCHING
   A. See Section 31 23 16.13 for additional requirements.
   B. Backfill around sides and to top of pipe with cover fill, tamp in place and compact, then complete backfilling.

3.02 INSTALLATION - PIPE
   A. Install pipe, fittings, and accessories in accordance with manufacturer’s instructions. Seal watertight.
      1. Plastic Pipe: Also comply with ASTM D2321.
   B. Lay pipe to slope gradients noted on layout drawings; with maximum variation from true slope of 1/8 inch (3 mm) in 10 feet (3 m).
   C. Connect to building sanitary sewer outlet and municipal sewer system, through installed sleeves.
   D. Install trace wire 6 inches (150 mm) above top of pipe; coordinate with Section 31 23 16.13.

3.03 INSTALLATION - CLEANOUTS
   A. Form bottom of excavation clean and smooth to correct elevation.
   B. Form and place cast-in-place concrete base pad, with provision for sanitary sewer pipe end sections.
   C. Establish elevations and pipe inverts for inlets and outlets as indicated.
   D. Mount lid and frame level in grout, secured to top cone section to elevation indicated.

END OF SECTION 33 31 13