

SECTION UC-300
GRAVITY SEWER PIPE FOUNDATION

PART 1 - GENERAL

1.01 WORK INCLUDED

The work under this Section includes the installation of gravity sewer pipe foundations.

1.02 RELATED SECTIONS

Section 01016 - Safety Requirements and Protection of Property
Section 01100 - Special Project Procedures
Section 02315 - Trenching and Backfilling for Piping Systems

PART 2 - PRODUCTS

2.01 Material: See Part 2 of Section 02315

PART 3 - EXECUTION

3.01 GENERAL

- A. Excavation shall proceed in accordance with Section 02315, "Trenching and Backfilling for Piping Systems".
- B. Gravity sewers shall be constructed using Vitrified Clay, Poly Vinyl Chloride (PVC) (SDR 35 or AWWA C900) pipe and fittings or ductile iron pipe and fittings, as shown on the approved Plans (See Section 15060, "Piping and Fittings" for D.I.P. or Section UC-250, "Gravity Sewer Systems" for PVC).

3.02 FOUNDATIONS FOR V.C. AND D.I.P. AT DEPTH OVER 10 FT. OR BELOW WATER

- A. Sewer pipe constructed at a depth greater than 10 feet, or with a trench bottom below groundwater, shall have a rockbed foundation, in accordance with Section 02315. The trench shall be excavated to a depth of at least 6 inches below the bottom of the pipe, the trench backfilled with a layer of rockbed firmly compacted, the pipe solidly bedded and additional rockbed firmly packed and thoroughly compacted under and around the pipe up to the springline.
- B. See Subsection 3.03, below, for sewer pipe constructed at a depth less than 10 feet and trench bottom above groundwater.

3.03 FOUNDATIONS FOR V.C. AND D.I.P. AT DEPTH ABOVE 10 FT. AND ABOVE WATER

Pipe constructed at cut ranges less than 10 feet, and the trench bottom is above ground water, shall be installed according to the following conditions:

A. Installation in Rock Bottom

Where rock is encountered at the bottom of a trench in which pipe is to be installed, the excavation shall be extended to a depth at least 6 inches below the bottom of the pipe and shall be backfilled with selected backfill material in 6-inch layers, with each layer being firmly compacted, and with the final layer carefully graded and compacted at the proper elevation to provide continuous support for the pipe barrels. Where pipe bells will be located, depressions shall be excavated in the trench bottom to provide clearance under the bell or socket.

B. Installation in Soil Bottom

Where rock is not encountered at the bottom of a trench excavation, and the soil is satisfactory for pipe foundation, in the opinion of the Engineer, excavation shall be halted at an elevation slightly above that for bedding the pipe, and the pipe bed carefully excavated by hand in the undisturbed trench bottom to provide continuous bearing for the pipe barrels and clearance under the bells or sockets, or machine excavation may extend slightly below the elevation for bedding the pipe with the trench bottom carefully backfilled and compacted as specified.

3.04 FOUNDATIONS FOR PVC GRAVITY SEWERS

Embedment material (for bedding, haunching and initial backfill) shall be Class I in stable soil conditions, and Class II in unstable soil conditions, as modified herein.

- A. Class I materials shall be angular, 1/4 to 3/4 inch graded stone including washed and graded limerock.
- B. Class II materials shall be well graded coarse sands and gravels with the following gradation requirements:

<u>Sieve Size</u>	<u>Percent Passing By Weight</u>
3/4	100
3/8	85-100
#8	40-60
#30	5-30
#100	0-2

END OF SECTION