## **SECTION 33 31 13**

#### SANITARY SEWAGE SYSTEM

## **PART 1 - GENERAL**

#### 1.1 DESCRIPTION

A. This is a general specification, which applies to the furnishing of all plant, labor, equipment, appliances and materials and in performing all operations in connection with the construction of sanitary sewers, together with the manholes, cleanout structures and other incidentals, in accordance with the plans and these specifications.

#### 1.2 RELATED WORK

SECTION 31 78 00 - PIPE BORING, JACKING, TUNNELING, & ENCASEMENT

SECTION 31 23 33 - EXCAVATING, TRENCHING, & BACKFILL

SECTION 33 05 01 - PVC PIPE & FITTING

SECTION 33 05 02 - DUCTILE IRON PIPE

SECTION 33 39 13 - MANHOLES

SECTION 33 39 14 - SEWER SERVICES

#### 1.3 MEASUREMENT AND PAYMENT

A. Payments will be made at the price bid per foot for furnishing and installing pipe, which bid price will include all costs for the complete pipe installation, including line fittings, trenching, and backfill, embedment, compaction or tamping, sterilization, testing, final cleanup, and all other work not otherwise provided for in bid proposal. Pipe will be measured (by horizontal distance) from center of fitting to center of fitting, or end of pipe without deduction for the length of intermediate fittings.

#### 1.4 SUBMITTALS

A. All submittal requirements are listed with the material specifications

## **PART 2 – PRODUCTS**

# 2.1 TESTING REQUIREMENTS

See: SECTION 33 01 30.13 - TESTING FOR SANITARY SEWAGE GRAVITY SYSTEM

## **PART 3 – EXECUTION**

## 3.1 GENERAL

Construction methods for each material are specified in the material specifications.

### A. MINIMUM DEPTH

The desired depth for sanitary sewer pipe shall be six feet (6') as measured from the outside top of pipe vertically to finished ground or pavement surface elevation. The minimum depth shall be two feet (2'). Where the cover is 3.5' or less, ductile iron pipe should be used and cement stabilized sand backfill required where erosion may occur.