# 711 WALL DRAINS AND CLEANOUTS

## 711.01 DESCRIPTION

Work for wall drains and cleanouts shall include furnishing complete in place: 8 inch diameter perforated vitrified clay or PVC pipe carefully laid and sloped to drain to outlets, 6 inch cast iron or ductile iron pipe risers to cleanouts, 8 inch diameter cast iron or ductile iron sewer connect pipe, pipe fittings, cleanout boxes and covers, and the connection to the sewer system in the locations and as shown in the contract documents.

## 711.02 MATERIALS

Pervious backfill – 805.02

Perforated pipe – 808.03, Class 3 or 808.02(B)

Mortar – 806.05(B)(4)

Cast iron pipe – 809.03

Ductile iron pipe – 809.01

Pipe fittings – 809.01(B)(2)

## 711.03 CONSTRUCTION REQUIREMENTS

**(A) GENERAL.** Abutments and walls shall first be backfilled to a line approximately 6 inches below the bottom of the wall drainpipe. A minimum of 6 inches of pervious backfill shall be provided around the pipe. The pipe shall be carefully laid with perforations down.

Each section of the pipe shall have a firm bearing throughout its length and be true to the line and grade required. Wall drains shall be kept free from accumulations of silt, debris and other foreign matter during their construction and shall be free of such accumulations at the time of their final acceptance. Prior to final acceptance the Chief Engineer may require that the drain system be checked by flushing water from a hose inserted into the cleanout, through the system. In the absence of a clear flow at the discharge end, the Chief Engineer shall require replacement of that part of the system not functioning properly. All junctions, including connections with existing sewers, shall be made with regular wye connections and sharp turns shall be made with elbows.

The connection of the sewer connection pipe to the sewer structure shall be as directed by the Chief Engineer.

**(B) JOINTS.**

**(1) CLAY PIPE.** Pipe shall be placed with bells upgrade and with spigot ends fully entered into adjacent bells. After the spigot has been firmly and properly inserted into the bell end of the preceding pipe, a gasket of hemp or jute, of such length as to reach entirely around the pipe and of such thickness as to bring the 2 pipes to the same grade shall be saturated in neat cement grout and thoroughly caulked into the annular space in one continuous piece. After the pipes have been caulked and

centered, the remaining annular space shall be entirely filled with mortar. Special care shall be taken so that the bottom and sides as well as the top of the joint are properly filled with mortar. If in making any joints, previously cemented joints are broken, the broken joints shall be removed and replaced at the expense of the Contractor.

Mortar and concrete shall be allowed to set before any backfill is placed and before any walking is allowed upon the connections. The greatest of care must be exercised so that the pipes, haunches and bonding are not disturbed.

**(2) PVC PIPE.** Adhesive formulated for joining PVC pipe shall be approved by the Chief Engineer prior to use. Adhesive shall be applied so that the entire contact surfaces of adjoining pipes are coated. Adhesive shall be allowed 4 hours to set before commencing backfill unless otherwise indicated by the manufacturer.

**(3) IRON PIPE.** Joints for iron pipe shall be as specified in 710.03.

**711.04 MEASURE AND PAYMENT**

The unit of measure of Wall Drains and Cleanouts will be the lump sum. Payment will include all labor, materials, tools, equipment and incidentals necessary to complete the work as specified herein.