

SECTION 031
SPECIFICATIONS - BUILDING INLETS

1.0 Building Inlets

Building inlets shall be located as directed by the Engineer. Generally, this shall be on the sewer opposite each lot or parcel of land that is to be directly benefited by the improvement. Inlets shall be constructed using pipe tees placed in the constructed sewer. The branch-inlets of tees shall be six (6) inches in diameter and sloped with an axis at approximately forty-five (45) degrees with the horizontal, or as the Engineer directs, toward the property to be served.

The bell of the branched-tee or the end bell of the riser or stub sewer shall be fitted with a permanent type stopper sized equal to that of the pipe joint. The permanent stopper shall be of the type that will withstand the Standard Air Test for sewers as detailed in Section 039 of these Specifications. Stoppers shall be Cherne Gripper Mechanical Plugs, polyvinyl chloride (PVC) glue on caps, or an approved equal.

Unless otherwise directed by the Engineer, when the branch tees are located in the sewer line, with both tees pointing the same direction there shall be a minimum of one (1) pipe length between tees. Two sewer stubs shall not be installed in a common trench for the purpose of servicing adjoining lots.

2.0 PVC Tees

All PVC tees shall have gasketed joints and wall thickness in conformance with either standard dimension ratio SDR 26 or SDR 21. The SDR of tees shall match that of the adjoining mainline sewer.

3.0 Sewer Tapping (Detail Drawings 095-11 and 095-12)

Tapping of new sanitary sewers for building inlets shall be permitted only with written approval from the Engineer and only for sewers installed using horizontal directional-drilling methods, large diameter ductile iron pipe, high-density polyethylene (HDPE), and concrete pipe. Tapping of other pipe materials generally shall not be permitted, unless the Engineer grants specific written approval. Sanitary sewer mains shall be tapped by cutting the proper size hole with a coring bit, or method approved by the Engineer. Tapping of existing sanitary sewers shall conform the following.

Tapping of ductile iron (DI) pipe shall be permitted for pipe with a diameter of fourteen (14)-inches or larger. For six (6) inch inlets, for ductile iron sewer mains sized fourteen (14) inches in diameter through seventy-two (72) inch outside in diameter, a General Engineering Company (GENECO) Sealtite Type "U", Model "S", cast iron saddle, shall be installed for 6.275" through thirty (30) inch outside diameter pipe. GENECO Sealtite Type "CS", cast iron saddle, shall be installed for thirty (30) inch through seventy-two (72) inch outside diameter pipe. Please reference GENECO drawing number R-2970-D (Sealtite Type "CS"), dated June 1974 and GENECO R3450-D (Sealtite Type "S"), dated July 1988. For the connection larger diameter sewer laterals to mainline pipe using sewer tapping methods, the Engineer shall specify the saddle type to be used. After coring of ductile iron pipe for a tap, all exposed iron surfaces shall be sealed with a bituminous painted coating, or other coating approved by the Engineer.

Tapping of concrete pipe shall be permitted for pipe with a diameter of thirty (30)-inches or larger. For six (6)-inch inlets a GENECO Taprite "MD" sewer lateral cut-ins, Model "40A", shall be installed. Please reference GENECO drawing R3383-DR, View 2, and dated October 1985. A six (6)-inch lateral connection requires an eight (8)-inch tap. For eight (8)-inch inlets a GENECO Taprite "MD" cut-in, Model "I", drawing R3383-DR, View 2, shall be installed. An eight (8)-inch diameter sewer lateral cut-in requires a ten (10)-

inch diameter sewer lateral cut-in.

Tapping of high-density polyethylene (HDPE) pipe shall be permitted for HDPE pipe with nominal DIPS sizing from ten (10) inches to twenty-four (24) inches. For six (6) inch sewer service inlets, GENECO Sealtite Type "U" sewer pipe saddles, six (6) inch inlet, Model "S", Form "U-S", appropriately sized, shall be used to construct connections into installed HDPE pipe. Please reference GENECO drawing R-3450-D, dated July 1988. The selection of saddles associated with the connection of existing sewer service laterals to HDPE mainline sewer pipe sized greater than twenty-four (24) inches shall be that of the Engineer, exclusively.

4.0 Service Risers (See Detail Drawing 095-10)

Either a Type A or a Type B service riser shall be constructed to an elevation as directed by the Engineer. The service riser Type A shall be constructed on a building inlet with the six (6)-inch tee laid at a forty-five (45) degree angle and a forty-five (45) degree bend placed to receive the vertical riser pipe. Twenty-four (24) hours after encasement of the tee and bend, the riser may be extended and covered with a four (4)-inch concrete encasement up to the bottom of the bell of the forty-five (45) bend at the top of the riser.

The service riser Type B shall be constructed on a building inlet with the six (6)-inch tee laid at a variable angle to a maximum of forty-five (45) degrees as approved by the Engineer. Angles greater than forty-five (45) degrees shall be constructed as a Type A service riser. Tee and service riser pipe shall be bedded in approved bedding material. The end of the riser shall be sealed with a Cherne Gripper mechanical plug.

5.0 Stub Sewers

Where shown on the plans or directed by the Engineer, a six (6)-inch diameter stub sewer shall be constructed to serve the lots and parcels. The stub sewer shall be constructed of the same material as the main line sewer pipe and be connected to the mainline inlet and riser, if necessary, in accordance with these Specifications. Stub sewers shall extend toward the lots or parcels to be served as shown on the plans. In general, the stub to the lot shall have a slope of not less than 0.75% grade or more than 1.0% grade. The end of the stub shall be provided with a permanent type stopper sized equal to that of the pipe joint. Stopper shall be a Cherne Gripper mechanical plug, PVC glue on cap, or approved equal. If ductile iron pipe is used, a properly-sized ductile iron mechanical cap shall be used.

In the construction of the stub sewers not more than one-half the width of the street shall be opened at one time in order that traffic be maintained at all times. All stub sewers shall be measured from the bell of the tee or the bell of the forty-five (45) degree bend on the riser pipe.

6.0 Plugs

Plugs shall be constructed such that the existing pipe to be plugged is cut and cleaned so that a Fernco-brand flexible type coupling can be installed over the plain end. A section of equal diameter pipe, including the same SDR for PVC pipe and the same class thickness, or an equivalent pressure class thickness, for DI pipe shall then be installed at the other end of the coupling. The pipe shall be plugged by installing a cap over the open end of the pipe.

END OF SECTION