

San Antonio Water System Standard Specifications for Construction

ITEM NO. 854

Sanitary Sewer Laterals

854.1 DESCRIPTION: This item shall govern sanitary sewer laterals installed in accordance with these specifications and as directed by the Engineer. This item shall also consist of the installation of a two-way sewer cleanout at the property line.

854.2 REFERENCED STANDARDS: Reference standards cited in this Specification Item No. 854 refer to the current reference standard published at the time of the latest revision date.

1. San Antonio Water System (SAWS):
 - a. Specifications for Water and Sanitary Sewer Construction
 - b. SAWS Materials Specifications
2. City of San Antonio (COSA) Specifications for Construction
3. Texas Commission of Environmental Quality (TCEQ)
 - a. Chapter 217 Design Criteria for Domestic Wastewater Systems
 - b. Chapter 213 ("Edwards Aquifer")
4. AASHTO – American Association of State Highway and Transportation Officials:
 - a. AASHTO M306: Standard Specification for Drainage, Sewer, Utility, and Related Castings.

854.3 SUBMITTALS: Contractor shall submit manufacturer's product data, instructions, recommendations, shop drawings, and certifications.

854.4 MATERIALS: The materials for sanitary sewer laterals shall conform to the specification contained in Specification Item No. 848, "Sanitary Sewers."

854.5 CONSTRUCTION:

1. Sanitary sewer laterals fittings and appurtenances shall conform to the material specifications and shall be installed by the Contractor as specified herein, or as directed by the Inspector or the Engineer and in accordance with the DD-854 Standard Drawing Series. When the lateral is within the Edwards Underground Recharge Zone, it shall be installed in accordance with Standard Drawing DD-854-EARZ.
2. Designation of Lateral: A sewer pipe located between the sanitary sewer main and the customer's premise, is designated as a "sanitary sewer lateral."
3. Lateral Installation: All lateral installations shall be performed in accordance with Specification Item No. 848, "Sanitary Sewers" and Specification Item No. 804, "Excavation, Trenching and Backfill," and as described herein.
4. For sanitary sewer mains that are 12 inch in diameter or smaller, all laterals shall be connected using the appropriate size tee/wye placed in line with the main line.
5. For mains larger than 12 inch, insert-a-tee conforming to ASTM 3034 for high pressure gaskets, or approved equal, shall be used.
6. Only one-way cleanouts are required on the termination point of a dead-end main.

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7. All PVC water main crossing sewer mains are to be SDR 18 PVC (ASTM 2241) with a minimum pressure rating of 235 psi.
8. **All sanitary sewer PVC pipe shall be green. White pipe is prohibited. Contractor will need to submit information to request an exemption to use white pipe such as letters from suppliers that pipe is not available. Once a project is awarded Contractor should bring this exemption to SAWS attention via RFI. If white pipe is approved it must have appropriate markings and be wrapped with green poly wrap.**
9. Waterline crossings and where water and sewer mains are parallel and separation distance cannot be achieved as per 30 TAC 217.53, use extra stiff pipe SDR 26 PVC (ASTM D2241) with a minimum pressure rating of 160 psi.
10. Connection to the customer's end of the lateral shall be performed using flexible coupling, or pre-approved equal.
11. All flexible couplings shall be concrete-encased to prevent movement or breakage of the steel bands.
 - i. All flexible couplings shall be concrete encased with a minimum 6 inches outside of coupling.
 - ii. All cleanouts at job sites shall have installed an approved heavy duty threaded sanitary sewer cap and cleanout box with cover as shown in detail.
 - iii. Cutting, excavation, and backfill shall be as specified herein and in accordance with applicable sections of Specification Item No. 804, "Excavation, Trenching, Backfill."

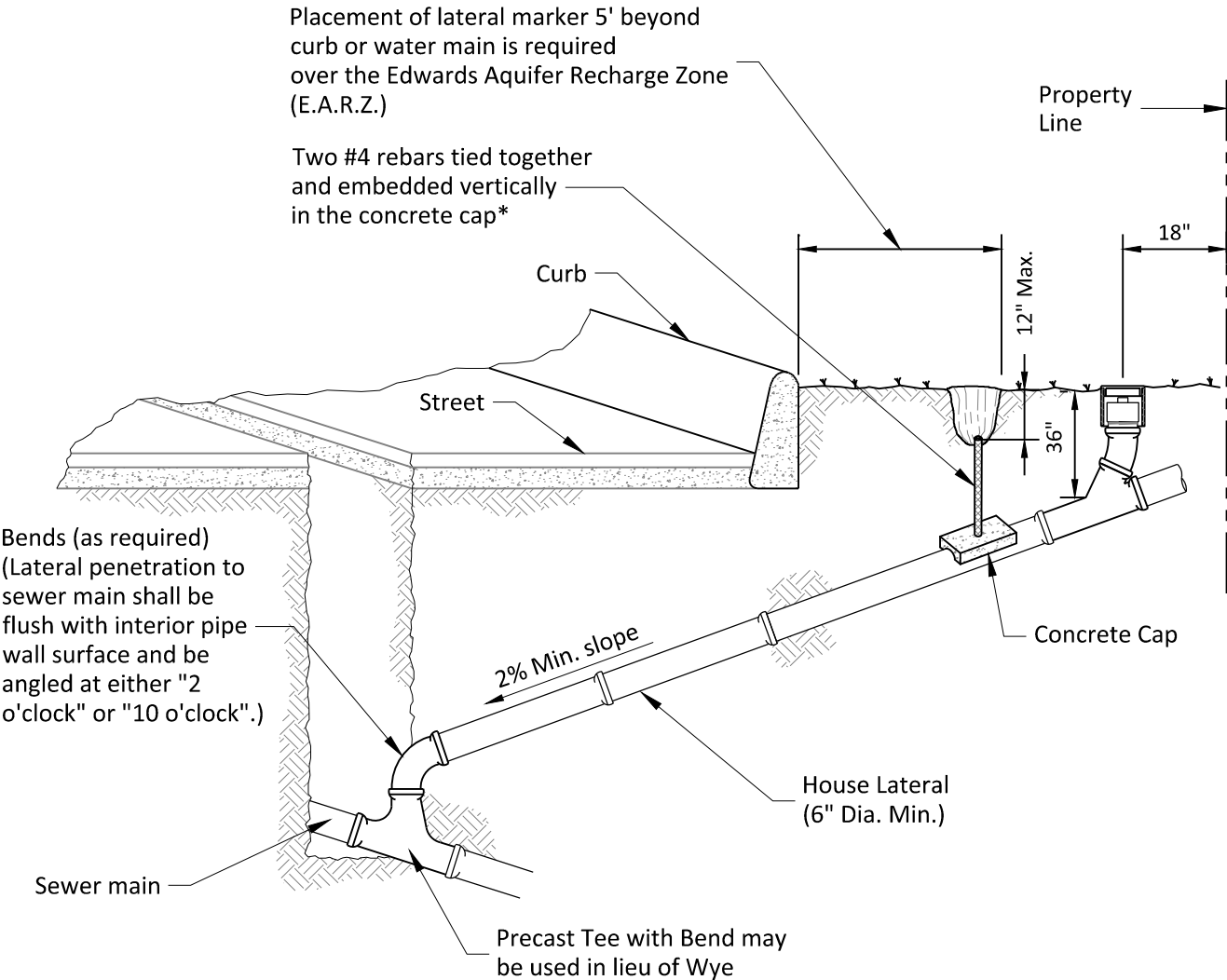
854.6 MEASUREMENT: Sanitary sewer laterals shall be measured by the linear feet installed at the various diameter sizes. The measured dimension shall be taken from the centerline of the main to the connection at or just inside the customer's property line. Measurement will be continuous through any fittings in the main.

854.7 PAYMENT: Sanitary sewer laterals shall be paid for at the contract bid price per linear foot complete in place for the type, and size constructed. Price shall be full compensation for furnishing all materials, including pipe, pipe fittings (to include wyes, tees, bends), pumping, bedding, trenching or boring, trench protection, hauling excess materials backfilling, tamping, surface restoration, concrete encasement, cutting pavement and surface structures of whatever type encountered and replacement with any type specified material and other incidentals required to complete the work.

1. Payment for the installation of the two-way clean-out or one-way clean out shall be paid per each under the applicable line item.
2. Materials paid on site will be in accordance with Table 1 of Specification Item No. 100 "Mobilization."

-End of Specification-

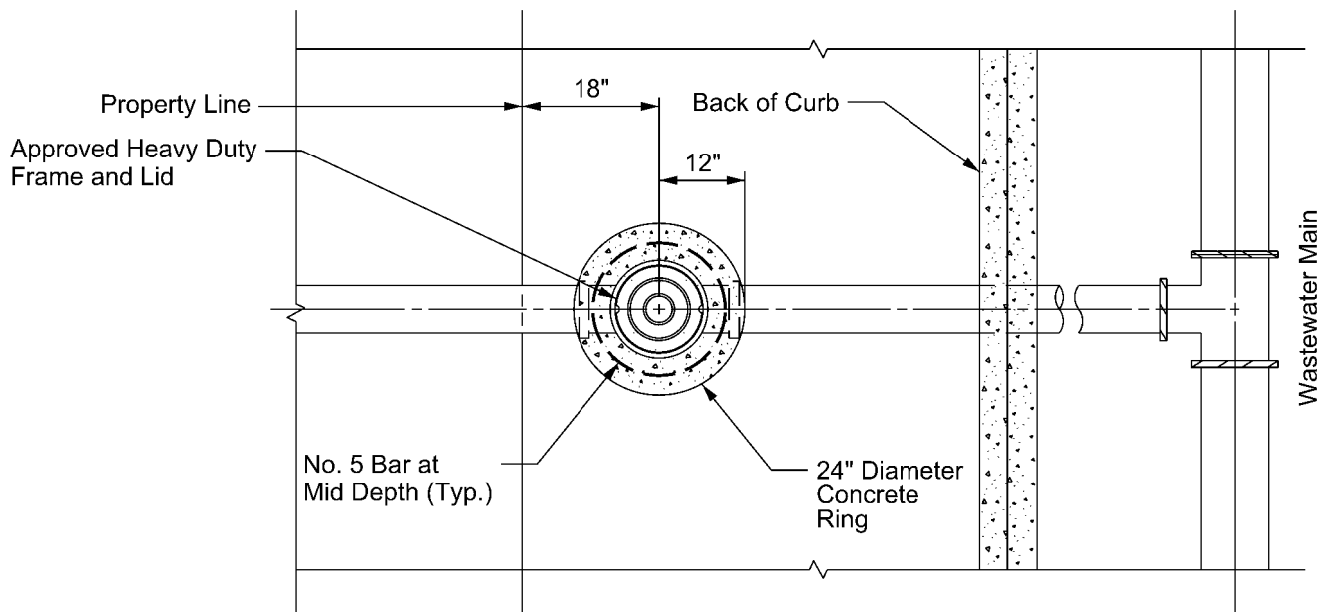
Depth and grade of service laterals as shown, are typical only. Actual depth, alignment and grade of service laterals shall be determined by the Engineer based on the elevations of the sewer main, street, natural ground and building to be serviced.



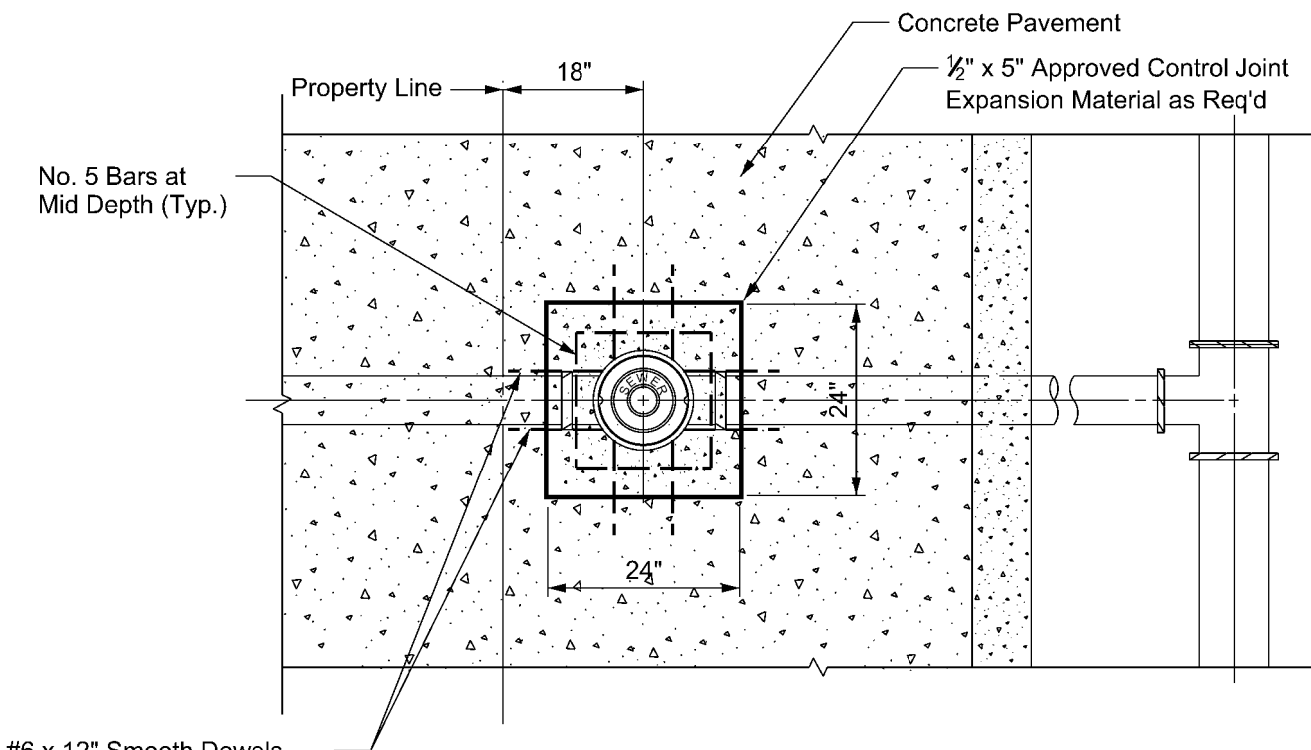
HOUSE LATERAL DETAIL

Note:
A minimum of 3' of cover to subgrade is necessary, otherwise concrete encasement will be required.

PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	HOUSE LATERAL DETAIL (IN THE E.A.R.Z.)	APPROVED	REVISED
		March 2008	December 2018
		DD-854-EARZ	SHEET 1 OF 1



PLAN - UNPAVED



#6 x 12" Smooth Dowels
2 On Each Side, Equally
Spaced. Grease One End.
All Dowels to be Installed
Straight and Level, As Req'd

PLAN - PAVED

*Approved Frame & Lid
(Heavy Duty)

FOR NEW DEVELOPMENT
CLEAN-OUTS MAY NOT BE PLACED
IN PAVED AREAS I.E. SIDEWALKS,
DRIVEWAYS, OR PARKING LOTS,
AND MUST BE LOCATED A MINIMUM
OF 6" FROM ALL PAVED AREAS.

PROPERTY OF
SAN ANTONIO WATER SYSTEM
SAN ANTONIO, TEXAS

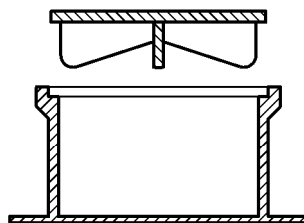
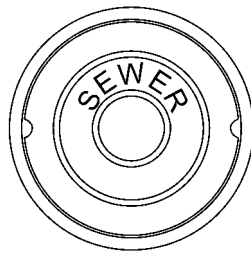
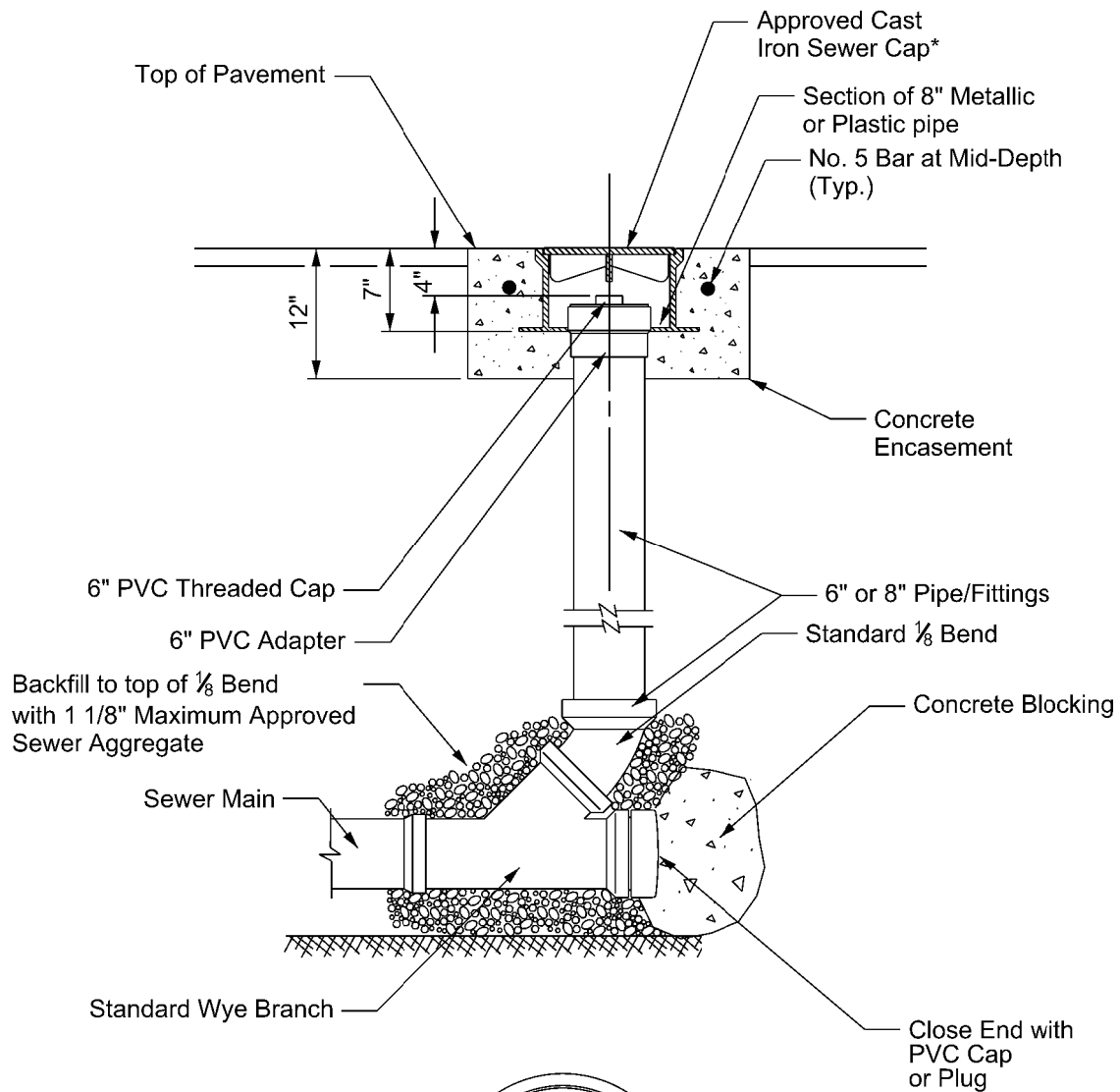
TYPICAL CLEANOUT DETAIL

APPROVED
MARCH 2008

REVISED
AUG 2019

DD-854-02

SHEET
2 OF 3



*Approved Frame & Lid
(Heavy Duty)

Note: Depending upon the type of service that an 8 inch lateral (on a dead end main) is providing, a standard manhole in lieu of this cleanout may be required. Consult with the SAWS Inspector.

PROPERTY OF
SAN ANTONIO WATER SYSTEM
SAN ANTONIO, TEXAS

TYPICAL CLEANOUT DETAIL
(ON DEAD-END MAIN)

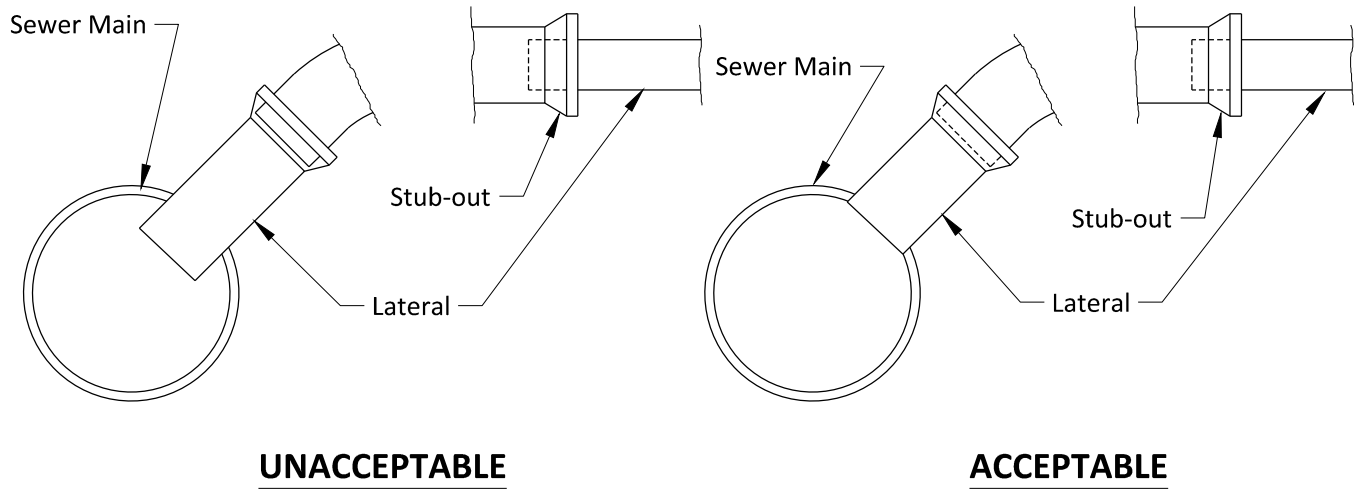
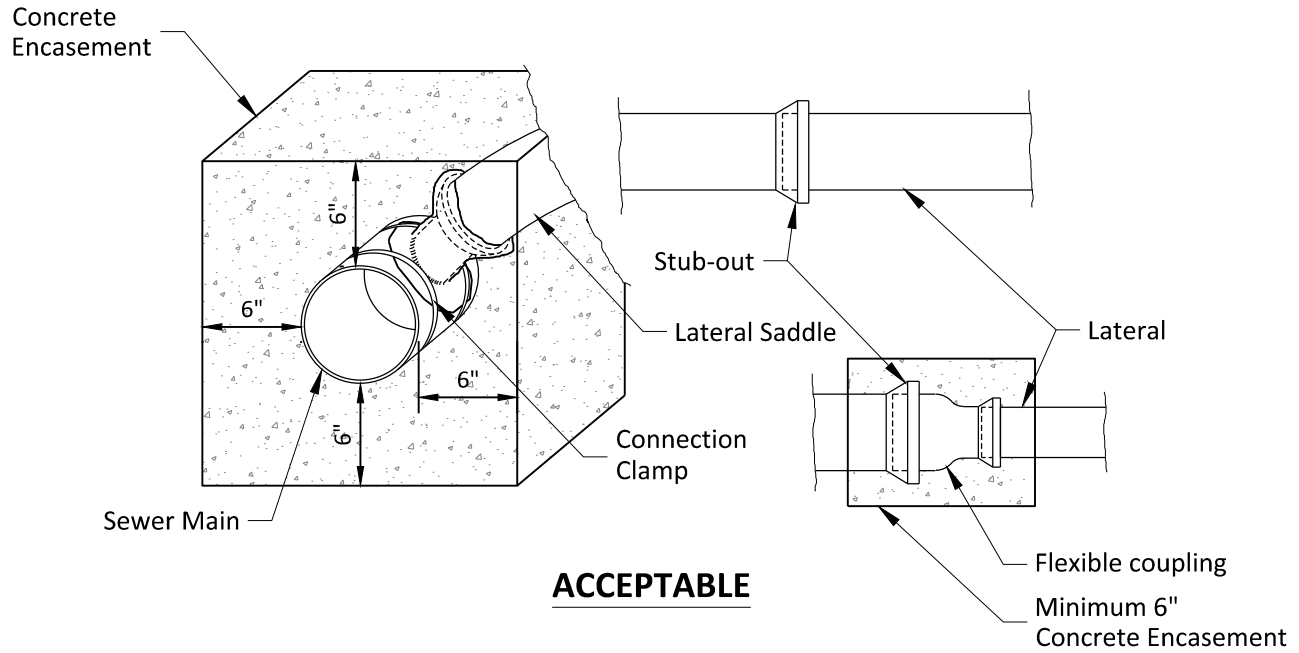
APPROVED
MARCH 2008

REVISED
AUG 2019

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SHEET
3 OF 3

LATERAL CONNECTION TO EXISTING SEWER MAIN



Note:

The saddle shall be permanently bonded to the existing main by the use of compounds or clamps as recommended by the manufacturer.