

AMENDMENT #2 TO UTILITY SERVICE REGULATIONS

16. EDWARDS AQUIFER RECHARGE ZONE PROTECTION

This Section is hereby amended in accordance with SAWS Board Resolution #04-105, approved March 16, 2004 and shall hereinafter read as follows:

16.1 ENFORCEMENT AUTHORITY

The City of San Antonio has designated SAWS as its enforcement agent for protection of the Edwards Aquifer and for watershed management over the Edwards Aquifer Recharge Zone. SAWS' President/Chief Executive Officer is further authorized to appoint qualified SAWS personnel to assure compliance with the applicable provisions of the City Code of the City of San Antonio. These individuals may take all necessary actions to file complaints with the San Antonio City Prosecutor's Office or other prosecuting authority for violations of those sections of the City Code pertaining to the Edwards Aquifer Recharge Zone.

16.2 AQUIFER PROTECTION IN GENERAL

The provisions of the City of San Antonio's Aquifer Protection Program (City Code Chapter 34, Article 6, Division 6, as amended) are hereby incorporated into these regulations by reference insofar as they apply to the San Antonio Water System and to SAWS' roles in protection of the Edwards Aquifer and in watershed management over the Edwards Aquifer Recharge Zone. SAWS will review proposed subdivision plats according to the requirements of City Code Chapter 34, Article 6, Division 6, as amended.

16.3 UTILITY SERVICE AGREEMENTS

A utility service agreement between SAWS and a developer customer pursuant to Section 5.1 specifies the manner in which the developer may acquire sufficient EDU's of capacity in SAWS' water and wastewater systems. Executing the agreement does not constitute a valid permit for purposes of obtaining Category I status pursuant to the Aquifer Protection Ordinance.

16.4 INSTALLATION AND INSPECTION OF WASTEWATER SERVICE LATERALS

16.4.1 Authority

The following procedures shall apply to all private service lateral connections to the City of San Antonio's sanitary sewer system within that portion of the Edwards Recharge Zone outside the city limit.

16.4.2 License, bond and insurance requirement

Before any person may apply for a permit as specified below, he or she shall comply with the license, bond and insurance requirements.

16.4.2.1 License Required

Before any person shall engage in the business of plumbing within the city and its extra-territorial jurisdiction, said person shall be qualified as set forth in this regulation and shall have a current master plumber's license obtained from the state board of plumbing examiners. The license shall be registered with the city by submitting the appropriate fee as set forth in the fee schedule adopted by the city of San Antonio. Where any plumbing work is being done, a master or journeyman plumber shall, at all times, be present on the job and in actual control and in charge of the work being done.

16.4.2.2 Bond and Insurance

Before any person shall engage in the business of plumbing within the city and its extra-territorial jurisdiction, such person shall either: (1) deposit with the city a certificate of insurance from an insurance company authorized and permitted to do business in the state of Texas, certifying that the applicant is insured to the amount of at least \$100,000 public liability per occurrence, \$100,000 property damage liability insurance per occurrence and product/completed operations coverage. The applicant must to be approved by the director and present a good and sufficient bond in the sum of \$5000 conditioned that the person engaged in the plumbing business will faithfully observe all the laws pertaining to plumbing and main laying. Or (2) the applicant shall provide a certificate of insurance issued by an insurance company authorized and permitted to do business in the state of Texas for commercial general liability insurance and products/ completed operations coverage for the master plumber for claims for property damage or bodily injury, regardless of whether the claim arises from a negligence claim or on a contract claim, and shall be in a coverage amount of not less than \$300,000 for all claims arising in any one-year period. Further, any persons engaged in the business of plumbing shall indemnify and hold harmless the city from any and all damages, claims, liens or losses, including, but not limited to personal injury or death and property damage, arising from any acts or omission of any character whatsoever caused by such person, his agents or employees, engaged in the plumbing business.

16.4.3 Permit Required

16.4.3.1 Application

A permit is required prior to connecting a private service lateral which is located outside the city limits and within the Edwards Recharge Zone to the city's sanitary sewer system. A licensed master plumber shall submit a completed application form to the San Antonio Water System (SAWS) Resource Compliance and Protection Department. At the time the application is submitted, the applicant shall pay to the San Antonio Water System the permit fee of \$ 40.00. Such fee is nonrefundable.

16.4.3.2 Payment of Impact Fees as a Condition to Connection of Private Service Laterals

Prior to issuing a permit for construction and connection of a private sewer lateral to the SAWS system on the EARZ, SAWS requires the payment of sewer impact fees.

16.4.3.3 Drawings and Specifications

Drawings and specifications, as determined by the director of SAWS Resource Compliance and Protection Department or his authorized representative, may be required from the applicant that show the connection to the system.

16.4.3.4 Approval

The San Antonio Water System Resource Compliance and Protection Department shall review the data submitted by the applicant within ten (10) working days. If it is determined that the application data do not conform with the requirements of this chapter, the applicant may revise any nonconforming aspects; however, the department shall have an additional five (5) working days from the latest date of submission to act upon the application. A permit issued shall be construed as a license to proceed with the work.

16.4.3.5 Validity

A permit shall be valid for a period of six (6) months from the date of issuance. If the work authorized by the permit is not commenced within six (6) months or if the work is suspended or abandoned for a period of six (6) months after the work is begun, then the permit shall become invalid. A new application and permit shall be required to complete the work. Any installation completed without a valid permit or not being inspected and accepted by the San Antonio Water System Resource Protection and Compliance Department will be considered an illegal wastewater connection to the SAWS wastewater collection system.

16.4.4 Installation and inspection

16.4.4.1 Construction

All private service laterals shall be installed in strict accordance with the requirements specified in Figures 1-4B as applicable.

16.4.4.2 Grinder Pump/Lift Station

SAWS jurisdiction for installation requirements includes grinder pump/lift stations in a private residence on the Edwards Aquifer Recharge Zone (EARZ) and not located on right-of-way for public use.

SAWS discourages the use of grinder pump/lift stations on the EARZ, although installation of grinder pump/lift stations in some circumstances are required. In order to meet the installation requirement to connect the grinder pump/lift station to the SAWS sanitary sewer collection system the following conditions must be completed:

- The pump size and discharge line size (minimum 2" diameter pipe) to be used at the private residence shall be according to manufacturers recommendations

(based on number of fixtures at the residence and/or other calculation criteria) and plans. Specifications and installation requirements of the system shall be verified by the Master Plumber installing the equipment.

- The pump size and discharge line size calculations, criteria and specifications are to be made available for review by SAWS (upon request by SAWS).
- Pump must be installed in a watertight pit with removable watertight lid.
- The vent must be installed as part of the house vent system.
- Installation of a 4" Back Water-Swing Check Valve on the discharge line is required.
- The 2" minimum sized discharge line must be painted yellow or marked "Sanitary Sewer" the entire length of line.
- At all locations where the sewer lateral line (either 2" or 4") is installed, if the trench that is less than 18" inches deeper than the existing natural grade, the sewer line must have a 4" thick concrete cap (min. 2,500 psi concrete) the entire width of the trench. The length of the concrete cap shall be the entire portion that is less than 18" below the existing natural grade.
- The 2" pipe must be increased to 4" schedule 40 pipe at the point where flows can travel by gravity.
- Installation of an overflow alarm or a back-up pump must be installed in the watertight pit accommodating the primary pump.
- The licensed plumber/installer is required to provide the builder with maintenance information to be ultimately submitted to the homeowner. A formal maintenance agreement is not required. However, the homeowner must be informed about operation and maintenance requirements in regard to owning/operating the grinder pump system located on the EARZ.
- All other rules, regulations or requirements pertaining to EARZ sewer lateral regulations must be met.

16.4.4.3 Inspection

After installation, but prior to covering, all private service laterals shall be inspected by the San Antonio Water System Resource Compliance and Protection Department. The construction must be in accordance with applicable portions of Figures 1-4B. It shall be the duty of the permit applicant to provide reasonable advanced notice to the San Antonio Water System Resource Compliance and Protection Department when a lateral is ready for inspection.

16.4.4.4 Re-inspection

If the SAWS inspector finds that the installation of a private service lateral is not in accordance with the applicable portions of Figures 1-4B, the plumber shall be required to make the necessary corrections. When the corrections have been completed, a request for re-inspection shall be submitted. Each re-inspection will be charged a fee of \$50.00. Such fee is nonrefundable.

16.4.4.5 Certification

Upon satisfactory completion and inspection of a private service lateral, the San Antonio Water System Resource Compliance and Protection Department shall certify the construction to be in conformity with the applicable provisions of this regulation. The department shall provide a copy of this certification to the permit applicant, and the Texas Commission on Environmental Quality (TCEQ).

16.4.5 Penalties

16.4.5.1 Nonconforming work

Any plumber whose work does not conform to the requirements of this chapter, shall, on notice from the director of SAWS Resource Compliance and Protection Department, make the necessary changes or corrections. If the work has not been corrected after ten (10) days, the director shall refuse to issue any additional permits to such person until the work has fully complied with these requirements.

16.4.5.2 Permit revocation

The director of SAWS Resource Compliance and Protection Department may revoke a permit in event there has been any false statement or misrepresentation as to a material fact in the application or plans upon which the permit approval was based. No permit fees shall be refunded in such event.

16.4.5.3 Illegal Wastewater Connections

Any person discharging or transporting wastewater flows into SAWS wastewater system without paying applicable fees is in violation of these regulations and of the City of San Antonio's Unified Development Code. A wastewater connection or an increase in wastewater flows that results in the illegal use of SAWS wastewater collection system is sufficient evidence to constitute a violation and is punishable by a fine under the Unified Development Code.

16.4.6 LATERAL LAYOUT

16.4.6.1 Installation of private service laterals

The installation of private service laterals within the Edwards Recharge Zone shall be as depicted in Figures 1-4B as applicable.

16.4.6.2 Flexible Pipe

All flexible pipe shall conform to a minimum of ASTM Designation D-3034 (Schedule 40 or better for four (4) inch laterals and SDR-35 or better for six (6) inch laterals) with compression joint gaskets or solvent joints.

16.4.6.3 Construction Specifications

Construction specifications shall apply to the service lateral from the existing main, wye, or stub-out to the building wall, and shall include the building drain outside the wall and the building sewer.

16.4.6.4 Blasting

No blasting shall be permitted when tying a lateral into an existing sewer main.

16.4.7 Backfill

16.4.7.1 Backfill for Laterals

Backfill for laterals shall be divided into three (3) separate zones.

16.4.7.2 Bedding

Where unacceptable materials, such as water, silt, muck, trash, debris, or rock are found at the pipe-bearing level or where flexible pipe is used, the trench shall be under excavated as shown in Figure 2 and backfilled with crushed stone or gravel, one-quarter ($\frac{1}{4}$) inch to one and three-quarters ($1\frac{3}{4}$) inch in size.

16.4.7.3 Initial Backfill

The initial backfill shall extend from the bedding surface to one (1) foot above the top of the lateral. Where unacceptable materials for bedding purposes are encountered, or where flexible pipe is to be laid, the initial backfill shall be crushed stone or gravel, one quarter ($\frac{1}{4}$) inch to one and three-quarter ($1\frac{3}{4}$) inch in size. Initial backfill material shall be on the job site at the time of the inspection.

16.4.7.4 Secondary Backfill

The secondary backfill shall extend from one (1) foot above the lateral to the top of the trench. It shall consist of materials removed from the trench; however, it shall be free of brush, debris, and junk, and shall contain no stones greater than one-half the trench width.

16.4.7.5 Minimum Cover

A minimum of eighteen (18) inches of cover to the existing ground level shall be maintained over the top of the lateral. If a minimum of eighteen (18) inches of cover cannot be maintained, the lateral must be either capped with four (4) inches of concrete having a minimum compression strength of twenty five hundred (2,500) pounds per square inch (see Figure 3) or sleeved by a larger diameter pipe for the entire length which is less than eighteen (18) inches below the existing ground level.

The sleeving shall be of the same material as the lateral and must have at least nine (9) inches of cover to the existing ground level. When sleeves are used in lieu of a concrete

cap, the sleeves shall be continuously jointed with compression joint gaskets or solvent joints. At locations where sleeves cannot be continuous (Example: two-way clean out), the clean out and separated sleeve joint shall be covered with concrete having a minimum compression strength of twenty five hundred (2,500) pounds per square inch.

16.4.8 Lateral connection to existing main

16.4.8.1 Illustrations

Figures 4A and 4B illustrate the acceptable manner in which to connect a lateral to an existing sanitary sewer main.

16.4.8.2 Existing wye or stub-out available

If an existing wye or stub-out is available, the service lateral shall be connected into the sanitary sewer system as shown in Figure 4A.

16.4.8.3 Wye or stub-out is not available

If a wye or stub-out is not available, the service lateral shall be connected as shown in Figure 4B. The saddle shall be permanently bonded to the existing main by the use of compounds and clamps as recommended by the manufacturer and approved by the San Antonio Water System.

16.4.8.4 Connection at existing manhole

Breaking into an existing manhole shall not be allowed as a method of connecting a private service lateral to the public sanitary sewer main.

SEWER LATERAL LAYOUT

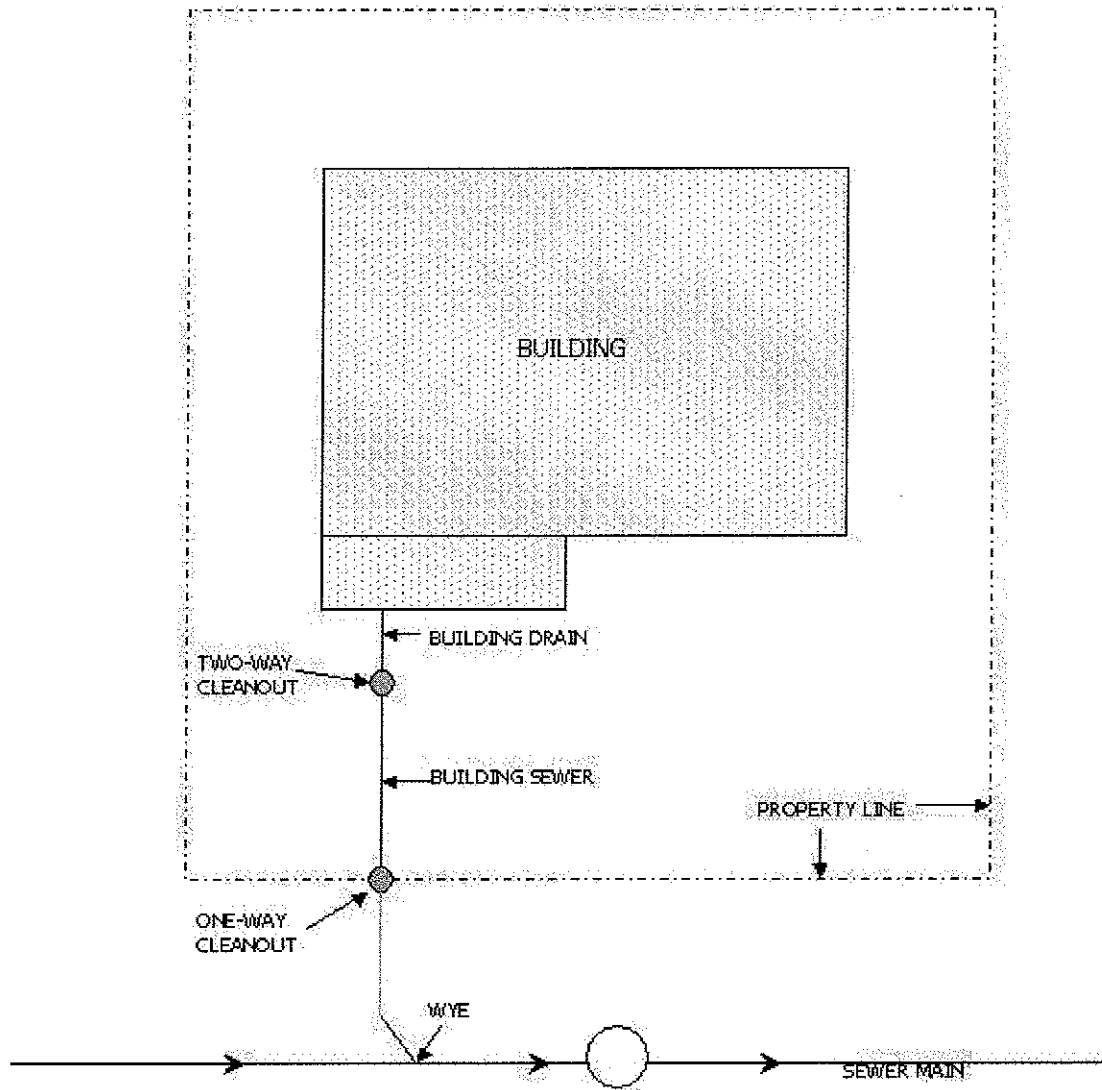


FIGURE 1

SEWER LATERAL CROSS-SECTION

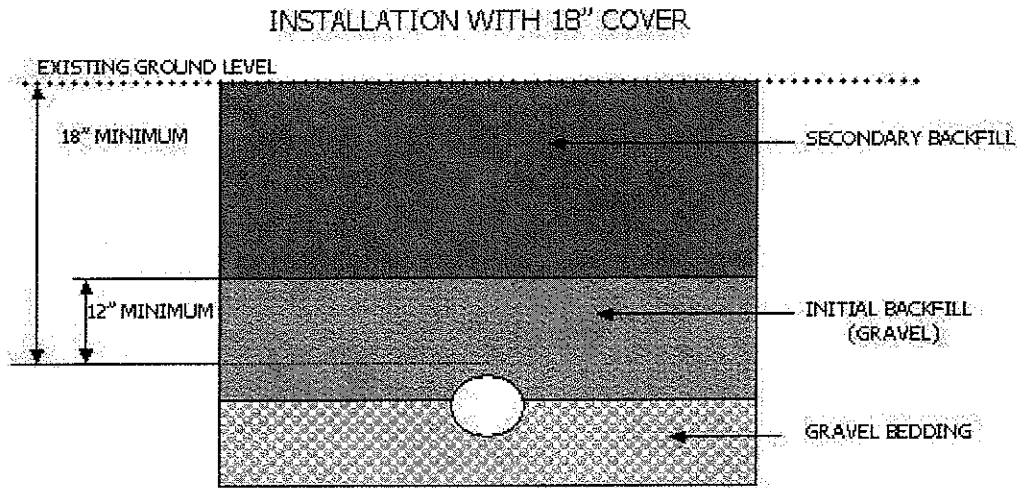


Figure 2

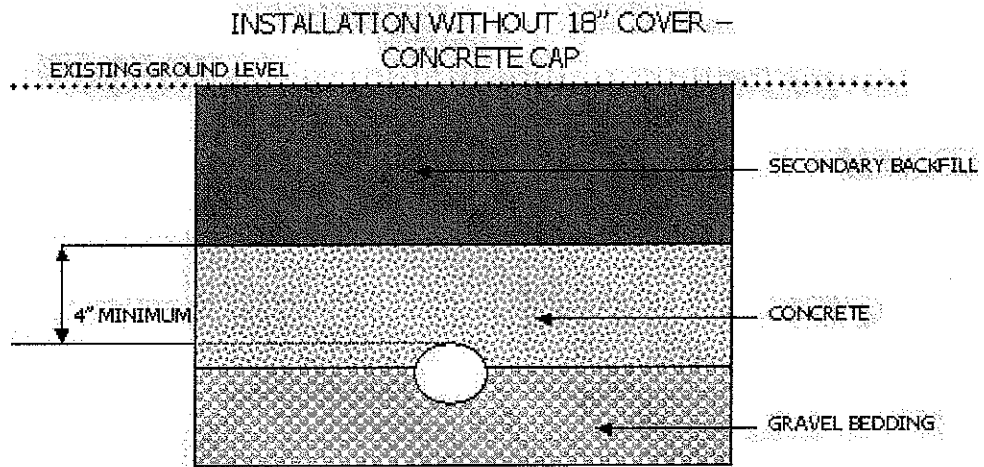


Figure 3

SEWER LATERAL CONNECTION TO EXISTING MAIN WITH WYE OR STUB-OUT

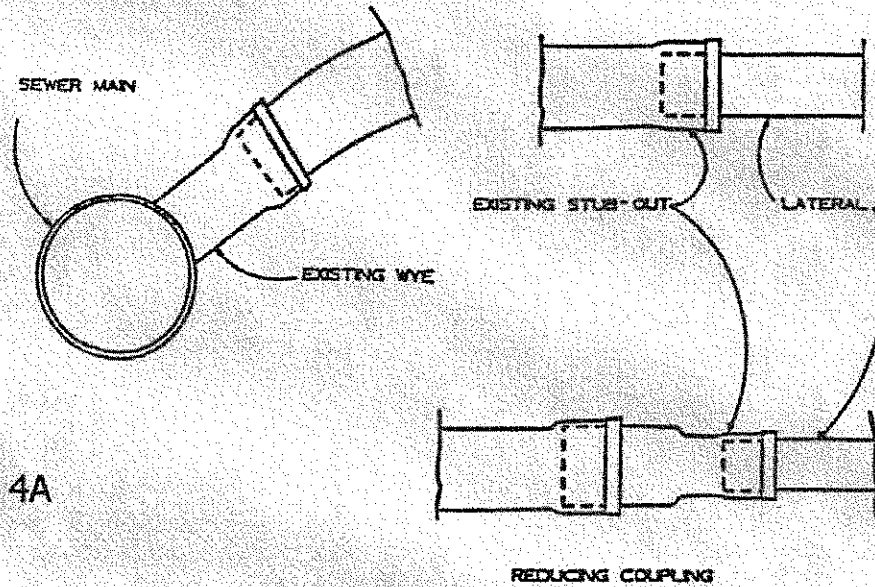


Figure 4A

SEWER LATERAL CONNECTION TO EXISTING MAIN WITHOUT WYE OR STUB-OUT

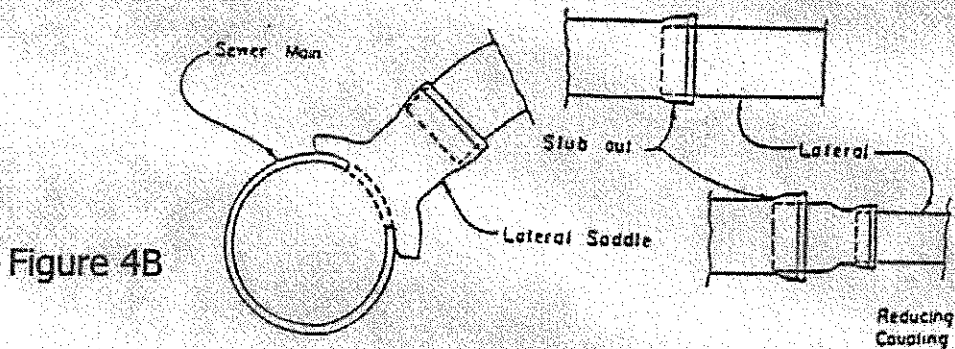


Figure 4B