

San Antonio Water System Standard Specifications for Construction

ITEM NO. 822

Customer's Water Yard Pipe

- 822.1 DESCRIPTION:** This item shall consist of customer yard piping adjustments and installation in accordance with these specifications and as directed by the Engineer.
- 822.2 REFERENCE STANDARDS:** Reference standards cited in this Specification Item No. 822 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) Standard Specification for Construction
 3. Texas Commission of Environmental Quality (TCEQ)
 - a. TCEQ 290 Rules and Regulations for Public Regulations for Public Water Systems
 4. American Waterworks Associations
 - a. AWWA C 800 - Standard for Underground Service Line Valves and Fittings
- 822.3 SUBMITTALS:** All submittals shall be in accordance with most recent version of SAWS's General Conditions requirements. Submit the following prior to performing any work.
1. Certifications:
 - a. Per General Conditions section 5.12.2 all Contractor submittals for all pipe and other products or materials furnished under this specification shall be marked as reviewed and approved by Contractor for compliance with Contract Documents and the referenced standards.
 - b. The Manufacturer shall provide ISO 9001 Certificate by a third party.
 - c. Submit written verification from the pipe Manufacturer demonstrating compliance with the production and delivery schedule of the pipe as indicated in the Contractor's schedule.
 2. Contractor shall submit Manufacturer's product data, installation recommendations, shop drawings, and certifications.
 3. Shop Drawings:
 - a. Catalog Data Sheets for all materials confirming pipe, fittings, and other materials conform to requirements of this specification.
 - b. Pipe Supplier Information. Submit company name, contact name, and contact number.
 - c. Details of all piping systems components confirming that the pipe and fittings conform to the specified requirements.

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822.4 MATERIALS: The materials for customer water yard piping adjustments and installation shall conform to the specifications contained within the latest revision of SAWS' Material Specification Item No. 19-01 "HDPE Tubing" and 15-40, "Brass Goods."

1. Materials shall include DR 9 HDPE CTS tubing, and Certa T-Lock PVC.
2. All ¾ inch through 2 inch yard piping shall be furnished by the Contractor.
3. Use PVC schedule 80 for casing (2" and 3"), Certa T-lock PVC or steel pipe for larger casing 4" and up
4. Plastic round Customer cut-off valve boxes furnished by the Contractor shall consist of a box and cover, shall accommodate cut-off valves up to 2 inches, and shall be by a SAWS-approved manufacturer.

822.5 CONSTRUCTION:

1. Designation of Yard Piping:
 - a. New customer water yard piping shall be installed within the limits of the Customer's property in conjunction with all small service lines relocated from existing mains in the alleyways behind Customer residences to street rights-of-ways fronting Customer residences. See Standard Drawing DD-822.
 - b. Customer yard piping begins from the outlet meter connection to the point of connection within the limits of the Customer's lot or property.
 - c. "Short yard piping," shall be described as consisting of customer's yard piping that does not exceed one-half the depth of the lot.
 - d. "Long yard piping," shall be described as consisting of customer's yard piping that, when installed, exceeds one-half depth of the lot.
2. The Contractor shall also furnish all materials to include pipes, nipples, unions, couplings, tees, elbows, street ells, hose bibs, stiffner, insulation for riser pipe, caps, plugs and appurtenances required to complete the tie of Customer's new yard piping at the new point of connection and the abandonment of the Customer's old yard piping at the old point (NSP).
3. All HDPE tubing shall have a stiffner at connection.
4. Where dissimilar materials are to be connected, the Contractor shall install a PVC Schedule 80 insulator coupling.
5. Work involved with replacing existing yard piping shall consist of at a minimum several key components as listed:
 - a. Excavation of miscellaneous material encountered;
 - b. Installation of the new yard piping with 12 inches of cover minimum and in the most direct and practicable alignment;
 - c. Brass fittings;
 - d. Customer's cut-off valve and the Customer's cut-off valve box;
 - e. Reconnection of the Customer's service at the relocated meter and the new point of connection within the limits of the Customer's property
 - f. Abandoning the Customer's old yard piping by cutting and plugging the old yard piping at the old point of connection within the limits of the Customer's property;

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- g. As per Specification Item No. 804 Excavation, Trenching and Backfill, backfilling the trench with approved selected material and disposal of surplus excavated material;
 - h. As per Specification Item No. 804 Excavation, Trenching and Backfill, replacement of surfaces of all types over the completed yard piping trench with approved selected material and disposal of surplus excavation material;
 - i. Restoration of the site. Existing trees, plants or shrubbery within the Customer's property shall not be disturbed.
 - j. Any existing landscape that necessitates removal, in order for the scope of work to be completed, shall be replaced to the satisfaction of the inspector and customer at the Contractor's expense;
 - k. Acquiring any permits to do this scoped work on the customer's property.
 - l. Pressure Reducing Valve (PRV) and PRV valve box
- 6. When a manifold systems are encountered, the Contractor shall install and tie-in Customer yard piping at the existing point of connection. Lawn sprinklers are a possible indication of existing manifold systems.
 - 7. All exposed risers shall be protected from freezing temperatures by means of keeping them no less than 6 inches below ground surface to the tie-in.
 - 8. Trench excavation may be accomplished either manually, mechanically (such as usage of a "Ditch Witch"), or by other similar mechanical trenching equipment.
 - 9. If mechanical trenching equipment is utilized, depressions or damage to lawn areas caused by crawler track pads or pneumatic tires shall be repaired and restored to their original condition or better condition.
 - 10. Lawn turf over the trench shall be removed squarely to a depth of 2 inches and in lengths not to exceed 36 inches.
 - 11. Lawn turf removed and material excavated from the trench area shall not be placed directly upon existing lawn turf areas, but rather, they shall be separated and placed on building paper or plastic membrane.
 - 12. Building paper or plastic membrane shall cover the existing lawn turf adjacent and parallel to the alignment followed by the trench.
 - 13. After the installation of the yard piping, the trench shall be backfilled and adequately tamped in two compacted lifts of 5 inches and watered.
 - 14. The lawn turf shall be replaced, adequately tamped, and thoroughly watered after surplus soil is removed. If the lawn turf was damaged during removal or storage, new turf shall be installed to match the turf of the adjacent lawn at Contractor's expense.
 - 15. Customer's yard piping shall be flushed prior to final tie-in at the existing point of connection.

822.6 MEASUREMENT: "Customer's Yard Piping" will be measured by yard piping designations, Long and Short Yard Piping.

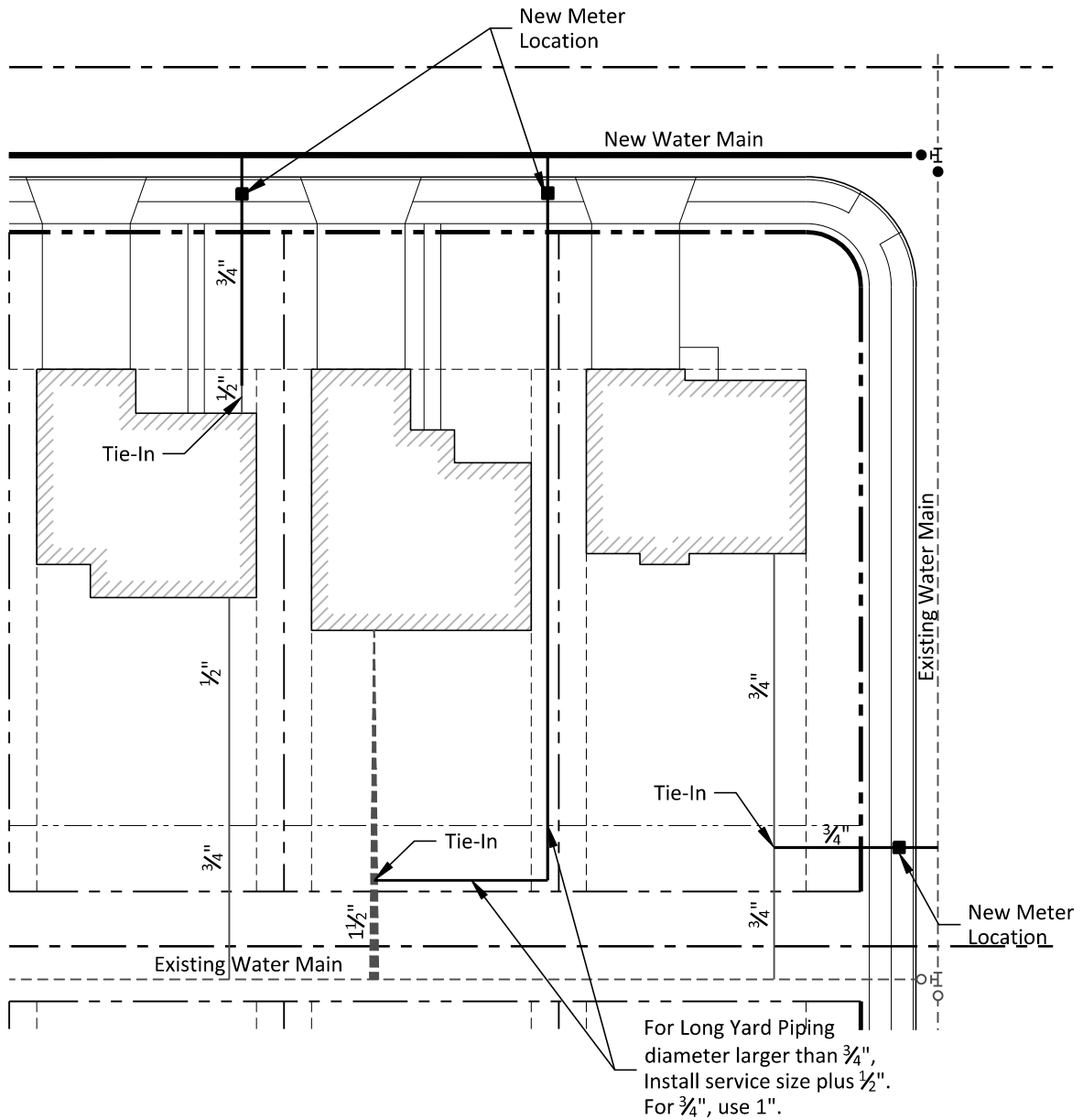
822.7 PAYMENT: Payment for "Customer's Yard Piping" will be made at the unit bid price bid per for "Short yard piping" or "Long yard piping."

- 1. Such payment shall also include: excavation, hauling and disposition of surplus material, approved backfill material, removal and replacement of Customer's lawn turf, permits, and any other surface vegetation/landscaping and surface structure

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- encountered, yard piping, stiffeners, customer cut off box and valve, and brass fittings of necessary size to complete the tie at the Customer's point of connection, PRV, Customer Valve, and required appropriate sized boxes
2. Materials paid on site will be in accordance with Table 1 of Specification Item No. 100 Mobilization

-End of Specification-



Notes:

1. Customer's yard piping consists of water supply piping and appurtenances between the customer's side of the Cut-Off Valve and Box and the nearest point of the largest existing connection within the customer's property.
2. Yard piping alignment shall be established in the field by Inspector.
3. Existing customer's yard piping to the abandoned main shall be cut and capped inside the customer's property.
4. Yard Piping pay item:
 - A. Short Yard Piping: When yard piping is less than 1/2 the depth of the lot.
 - B. Long Yard Piping: When yard piping is more than 1/2 the depth of the lot.
5. Install SCH 80 PVC Coupling at the location where dissimilar pipe material is encountered.

PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	RELOCATE SERVICE OF CUSTOMER'S YARD PIPING	APPROVED	REVISED
		JUNE 2020	August 2020
		DD-822-01	