



Purpose and Scope

This gas design standard (GDS) provides requirements and installation instructions for service valves installed in curb areas. Curb valves are to be installed in accordance with Code of Federal Regulations (CFR) Title 49, Transportation, Part 192—Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards, Section (§) 192.385, “Manual service line shut-off valve installation.”

1 Installation Guidelines

- 1.1. Use an excess flow valve (EFV) instead of, or in addition to, a curb valve, when feasible. See GDS A-93.3, “Excess Flow Valves,” and criteria in Step 1.2 for additional information.
- 1.2. Use a curb valve on every new or replaced service line when any of the following conditions exist:
 - A. The total meter capacity exceeds 1000 standard cubic feet per hour, and an EFV is not required and not installed.
 - (1) Valves meeting the above criteria are critical isolation valves. See Attachment 1, “Installation Guidance” for additional guidance and requirements.
 - B. The service riser valve is not readily accessible or is inside a building, such as where the service shutoff valve is enclosed (e.g., basement, garage, or other type of obstructed location).
 - C. The service line supplies a building where approximately 100 or more people gather and where the occupancy may be transient. Examples include but are not limited to schools, hospitals, churches, places of incarceration, theaters, and transit centers.
 - D. The service line cannot be quickly squeezed off due to wall-to-wall paving, concrete, depth of cover, or other surface conditions and an EFV is not required and not installed. This includes known planned depth of cover or other surface conditions. Typically, a service line that is installed in a lawn area with normal soil conditions (e.g., no wall-to-wall paving, concrete, or other obstruction over the service line) may be quickly squeezed off.
- 1.3. Install curb valve at least 5 feet from any building, as close to the property line and gas main as practical, and in a location that should minimize the chances the valve will be paved over, or access obstructed.
- 1.4. Install valves using components listed in [Table 1](#).
 - A. Follow all instructions shown in GDS A-90.2, “Locating Wire Installation for Plastic Mains and Services.”

1.4 (continued)

B. IF the curb valve installed is a critical isolation valve (Step 1.2.A.),
THEN follow additional guidance shown in Attachment 1.

(1) Critical isolation valves must be installed with a valve extension.

Table 1. Components for Curb Valve Installations

Item	Material Specifications and Installation Guidance
1 Valve box and cover	For sidewalk or other areas not normally subjected to traffic, or in paved areas where a grade change is likely, see GDS K-40, "Plastic Valve Box for 3/4" – 4" Valves."
	For traffic areas or where grade adjustability is required, see GDS K-41, "Concrete Valve Box – Street Installation on 2" to 4" Gas Mains Incl."
	Installation of boxes is shown in GDS K-40.1, "Method of Installing Concrete Curb Boxes in Concrete Sidewalk," and GDS K-41.1, "Typical Installation of Traffic Valve Box on 2" to 4" Gas Mains Incl."
2 Plastic valve	For appropriate plastic valve and extension, see GDS F-90, "Polyethylene (PE) Valves."

1.5. For more detail regarding 1 "Valve box and cover" and 2 "Plastic valve," see Figure 1.

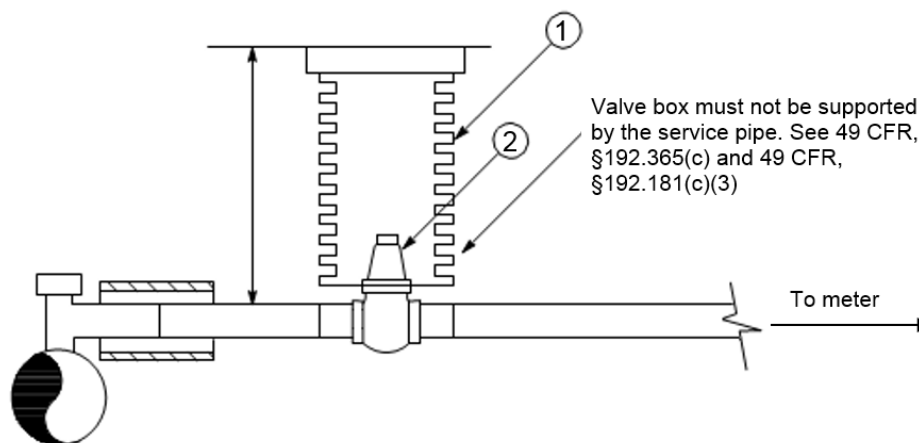


Figure 1. Curb Valve Installation, Distribution System

1.6. IF a curb valve is installed,
THEN complete the following steps:

- A. Complete the gas service record (GSR), per Utility Procedure TD-9500P-14, "Gas Service Records."
- B. Add an electronic marker system (EMS) marker to the curb valve installation location. Refer to GDS M-60, "Approved Locate and Mark Instruments, Equipment, Accessories, and Products."
- C. Map the information.
- D. Retain records per the Record Retention Schedule.

Target Audience

Personnel in the following areas: gas distribution engineering, estimating, gas maintenance and construction (M&C), general construction (GC), distribution mapping, and new business inspection personnel. Personnel involved in distribution pipeline connection training and qualification programs.

Definitions

Curb valve	Valve installed on a service line, below grade, upstream of the riser valve.
Replaced service line	A gas service line where the fitting that connects the service line to the main is replaced or the piping connected to this fitting is replaced.
Service line	A distribution line that transports gas from a common source of supply to an individual customer, to two adjacent or adjoining residential or small commercial customers, or to multiple residential or small commercial customers served through a meter header or manifold. A service line ends at the outlet of the customer meter or at the connection to a customer's piping, whichever is further downstream, or at the connection to customer piping if there is no meter.

Compliance Requirement / Regulatory Commitment

Code of Federal Regulations (CFR) Title 49, Transportation, Part 192—Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards, Section 192.181(c)(3), “Distribution line valves”

49 CFR, §Section 192.361(a), “Service lines: Installation”

49 CFR, §192.365(c), “Service lines: Location of valves”

49 CFR, §192.383(a), “Excess flow valve installation”

49 CFR, §192.385(b), “Manual service line shut-off valve installation”

References

Gas Design Standard A-90.2, “Locating Wire Installation for Plastic Mains and Services”

Gas Design Standard A-93.3, “Excess Flow Valves”

Gas Design Standard F-90, “Polyethylene (PE) Valves”

Gas Design Standard K-40, “Plastic Valve Box for 3/4" – 4" Valves”

Gas Design Standard K-40.1, “Method of Installing Concrete Curb Boxes in Concrete Sidewalk”

Gas Design Standard K-41, “Concrete Valve Box – Street Installation on 2" to 4" Gas Mains Incl.”

Gas Design Standard K-41.1, “Typical Installation of Traffic Valve Box on 2" to 4" Gas Mains Incl.”

References (continued)

Gas Design Standard M-60, "Approved Locate and Mark Instruments, Equipment, Accessories, and Products."

Utility Procedure TD-9500P-14, "Gas Service Records"

Appendices

NA

Attachments

Attachment 1, "Installation Guidance"

Revision Notes

Revision 5 has the following changes:

1. Added information, Step 1.1 to encourage additional use of EFVs where ever feasible.
2. Updated wording in Step 1.2 to allow for reference of other procedures.
3. Emphasized in Step 1.3 that consideration should be given to maintenance accessibility when choosing curb box location.
4. Moved additional install guidance to Step 1.4 to add references to GDS A-90.2 and the new Attachment 1.
5. Added Attachment 1 to clarify Department of Transportation (DOT)-required installation and maintenance guidelines.
6. Added additional definitions and regulatory commitment information for clarity.
7. Added distribution mapping personnel to the Target Audience.

Asset Type: Distribution Services

Function: Design

Document Contact: [Gas Design Standard Responsibility List](#)