



Classifications of Improvements and Definitions

A. Jurisdictional Engineer

The local Jurisdiction's authorized representative who is appointed to carry out the provisions of the SUDAS Design Manual and the SUDAS Standard Specifications (referred to as the SUDAS Specifications).

B. Project Engineer

The person, firm, or corporation who is legally responsible for the design and/or administration of the project. The local jurisdiction may require designating a specific person as the Project Engineer.

C. Inspector or Construction Observer

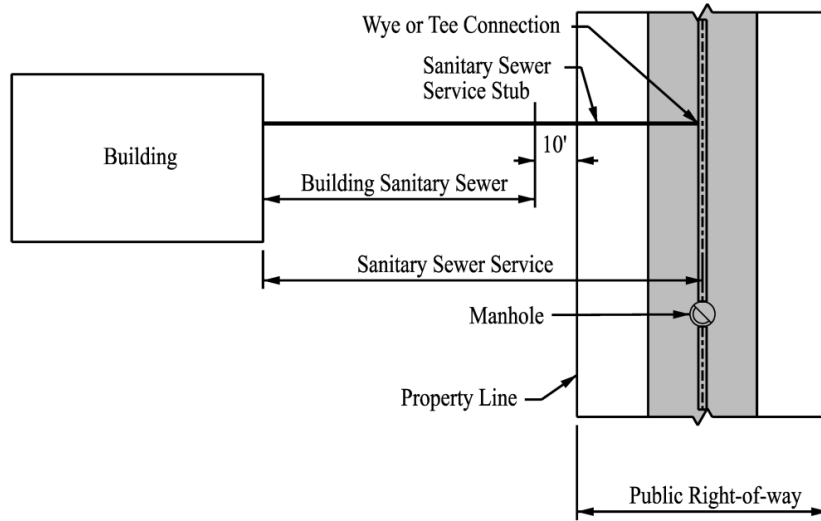
The Project Engineer or the Jurisdictional Engineer may appoint inspectors to inspect all materials used and all work done. Such inspection may extend to any or all parts of the work and to the preparation or manufacture of the materials to be used. The inspectors will not be authorized to revoke, alter, enlarge, or relax the provisions of the specifications. When an inspector is placed on a project, the inspector will keep the Project Engineer or the Jurisdictional Engineer informed as to the progress and quality of the work and the manner in which it is being done.

D. Sanitary Sewer Service Stub

The portion of the sanitary sewer service that is within the public right-of-way to a designated point beyond the right-of-way line (normally 10 feet) as specified by the Jurisdictional Engineer. The sanitary sewer stub may be constructed in conjunction with the sanitary sewer construction. Check with the local jurisdiction to determine if the sanitary sewer service stub is public or private and the exact permit and construction requirements.

Construction Standard: Jurisdiction plumbing code; Jurisdiction plumbing permit required where applicable; SUDAS Specifications.

Figure 1B-1.01: Example of Sanitary Sewer Service

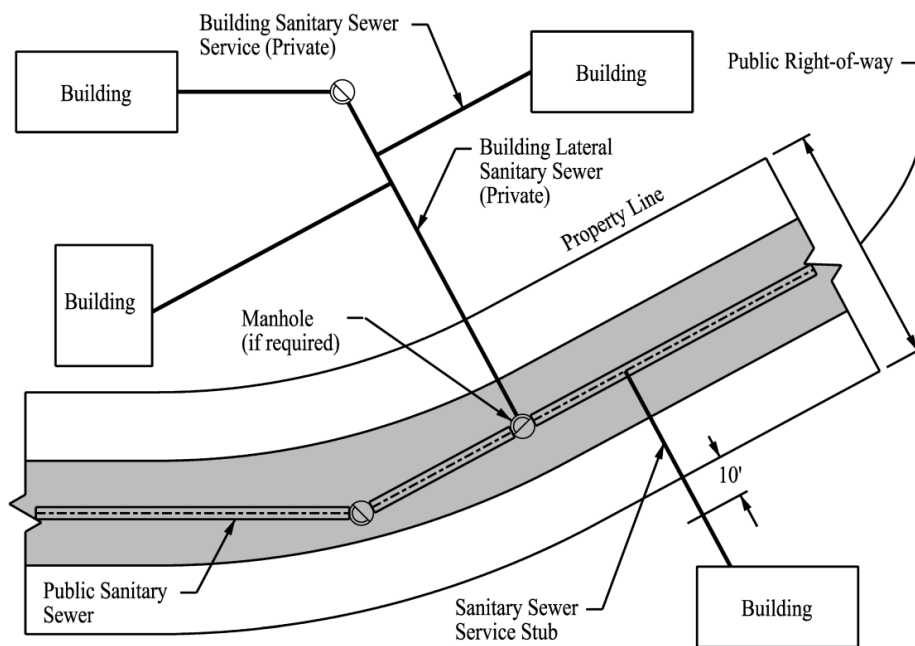


E. Private Lateral Sanitary Sewer

A sewer used to convey sanitary sewage from one or more sanitary sewer services. This sewer is limited to providing service to one owner or homeowner's association. This sewer is to be owned and maintained by a single person or entity and constructed on private property controlled by the owner or homeowner's association. For location of private lateral sanitary sewer, see Figure 1B-1.02.

Construction Standard: SUDAS Specifications; local agency plumbing permit and Iowa DNR permit may be required.

Figure 1B-1.02: Example of Lateral Sanitary Sewer



F. Main (Trunk) Sanitary Sewer

A sewer used to receive and convey sanitary sewage to another trunk sewer or a sanitary interceptor sewer. This sewer is owned and maintained by the Jurisdiction and is constructed on public property or on private property with an easement held by the Jurisdiction.

Construction Standard: SUDAS Specifications; Iowa DNR permit required.

G. Sanitary Sewer Lift Station

A facility used to convey sanitary sewage from one or more sanitary sewers that cannot be conveyed by gravity flow to the public sewer system. This facility is owned and maintained by the Jurisdiction. Warning alarms may be required to automatically communicate to locations designated by the Jurisdiction. This facility is constructed on property deeded to the Jurisdiction or on private property with an easement held by the Jurisdiction.

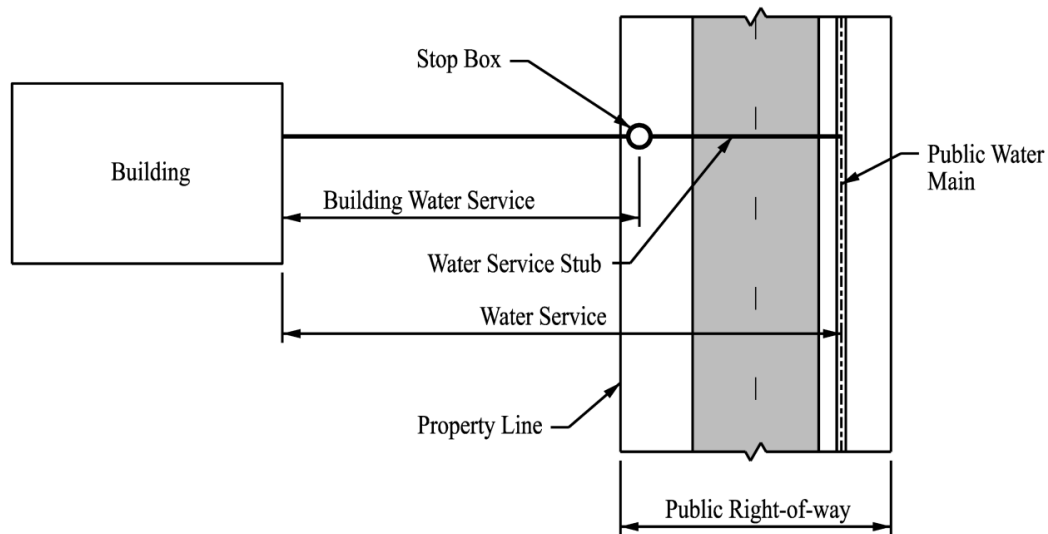
Construction Standard: SUDAS Specifications; Iowa DNR permit required.

H. Water Service Stub

The water service stub is comprised of the piping and related appurtenances including the corporation, installed from the public water main to the stop box or as specified by the Jurisdictional Engineer. For location of the water service stub, see Figure 1B-1.03.

Construction Standard: SUDAS Specifications. Jurisdiction plumbing permit required where applicable.

Figure 1B-1.03: Example of Water Service



I. Private Water Main

A private water main is used to distribute water for domestic and fire fighting purposes to only one owner or homeowner's association. This private water main is to be owned and maintained by only one party and constructed on private property controlled by the owner or homeowner's association. Approval for the use of private water mains must be obtained from the Jurisdiction. Metering of water flowing through the private water main will be subject to Jurisdiction's water metering requirements.

Construction Standard: SUDAS Specifications; Jurisdiction Water Works and/or Rural Water Association Standards; Iowa DNR and Jurisdiction plumbing permit where applicable.

J. Water Main

A water main is used to distribute water to consumers for domestic, industrial, and fire fighting purposes. The main is owned by the Jurisdiction, water works, or an approved public/private water utility corporation or association.

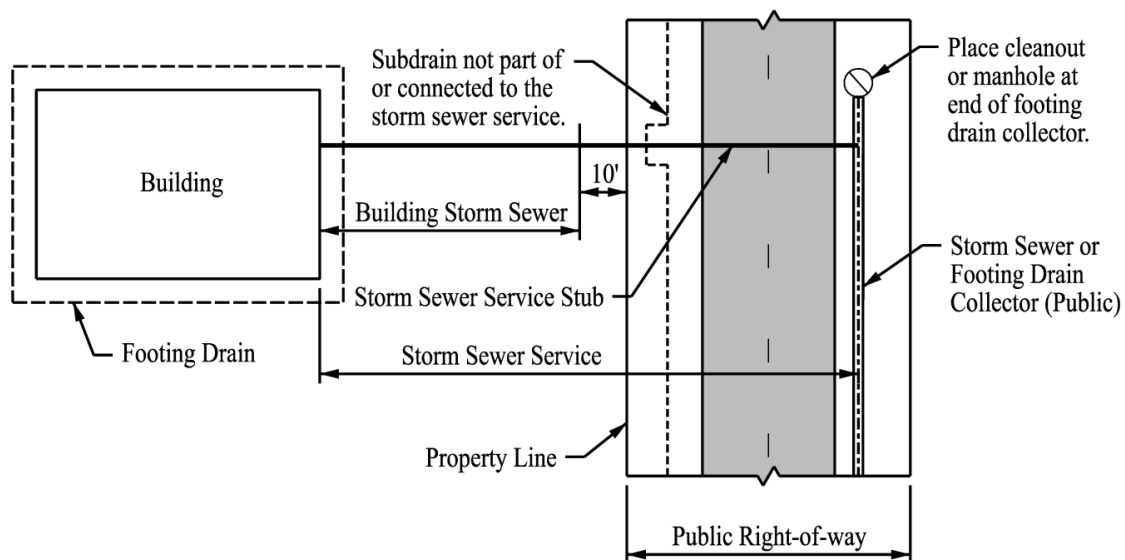
Construction Standard: SUDAS Specifications; Iowa DNR permit required.

K. Storm Sewer Service Stub

The portion of the storm sewer service that is within the public right-of-way to a designated point beyond the right-of-way line (normally 10 feet) as specified by the Jurisdictional Engineer. The storm sewer service stub may be public or private. Verify with the Jurisdiction. The storm sewer service stub may be constructed in conjunction with the footing drain collector or storm sewer construction. For location of the storm sewer service stub, see Figure 1B-1.04.

Construction Standard: SUDAS Specifications; Jurisdiction plumbing code; Jurisdiction plumbing permit may be required where applicable.

Figure 1B-1.04: Example of Storm Sewer Service Stub



L. Private Storm Sewer

A private storm sewer is used to convey stormwater from private property to a public storm sewer, natural drainage way, or other acceptable outlet. These sewers should be designed to fit within the Jurisdiction's overall drainage system. Easements are to be obtained when crossing other private property. Drainage area limits for private storm sewers of large sites will be examined on a case by case basis by the Jurisdiction. This sewer is located on private property and maintained by only one party or homeowner's association. For location of private storm sewer, see Figure 1B-1.05.

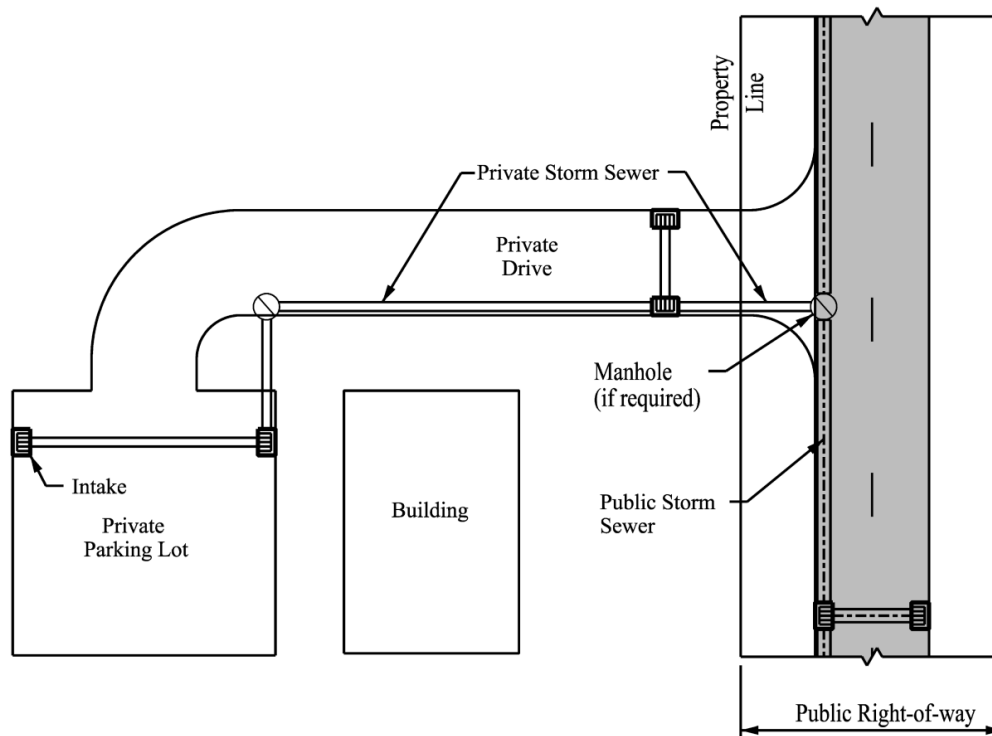
Construction Standard: SUDAS Specifications; Jurisdiction plumbing permit may be required; federal and state permits may be required.

M. Storm Sewer

A storm sewer is used to convey stormwater runoff to an acceptable outlet. This sewer is owned and maintained by the Jurisdiction and constructed on public property or on private property with an easement held by the Jurisdiction. For location of storm sewer, see Figure 1B-1.05.

Construction Standard: SUDAS Specifications; Federal and State permits may be required.

Figure 1B-1.05: Example of Public and Private Storm Sewers

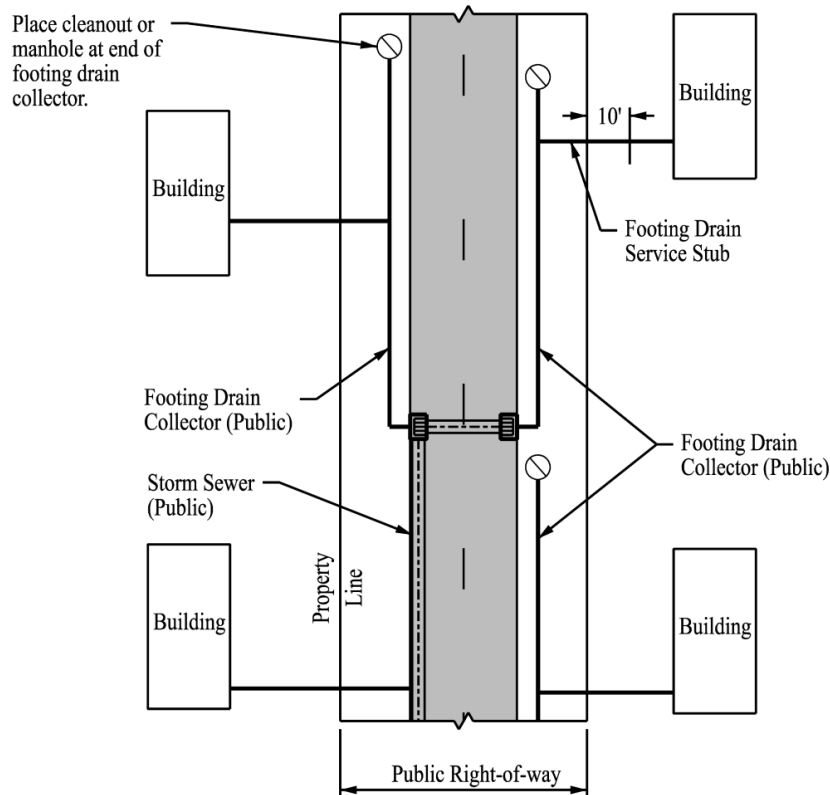


N. Footing Drain Collector

A footing drain collector is used to convey ground water from private footing drains to a public storm sewer or drainage way. This footing drain collector is owned and maintained by the Jurisdiction and constructed on public property or on private property with an easement held by the Jurisdiction. For location of footing drain collector, see Figure 1B-1.06.

Construction Standard: SUDAS Specifications.

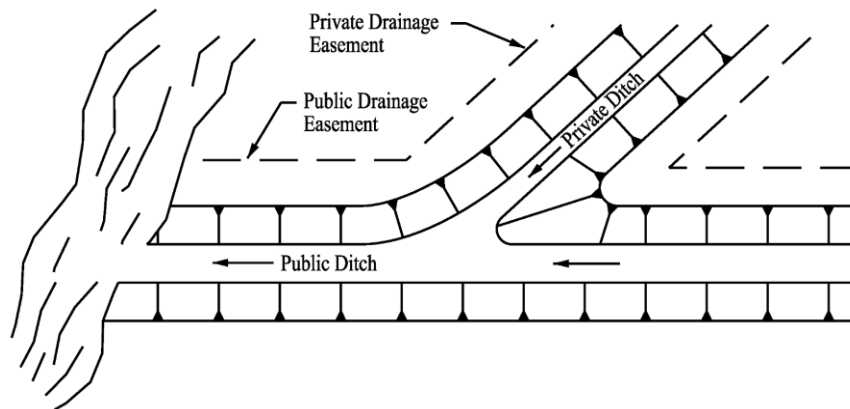
Figure 1B-1.06: Example of Footing Drain Sewer



O. Private Ditch

An open drainage way, swale, or manmade channel used to convey stormwater drainage to the public drainage system. Private ditches may be allowed on a case-by-case basis. The channel should be designed to accommodate the Jurisdiction's overall drainage system needs with respective easements that will serve more than one property and will be located on private property and maintained by one party or homeowner's association. Take care to provide good grades to prevent low points, but also do not create erosion. The ditch may discharge directly into a stream or other waterway. For location of private ditch, see Figure 1B-1.07.

Construction Standard: SUDAS Specifications; Federal and State permits may be required.

Figure 1B-1.07: Example of Private Ditch and Public Ditch

P. Ditch

A natural channel improvement or manmade channel required by the Jurisdiction as a component of a planned drainage system that conveys stormwater drainage across public property or public easement. Public ditches should be designed to accommodate the Jurisdiction's overall drainage systems needs. The use of buried storm sewer in or nearby the private ditch that will accommodate low flows of minor storms is encouraged. Public ditches are owned by the Jurisdiction or within an easement held by the Jurisdiction. For location of ditch, see Figure 1B-1.07.

Construction Standard: SUDAS Specifications; contact Iowa DNR for potential 401 Water Quality and NPDES permit requirements; U.S. Army Corps of Engineers for 404 permit.

Q. Private Runoff Detention

A basin used for on-site stormwater runoff storage and controlled release. The detention facility should be designed to accommodate the Jurisdiction's overall drainage system needs with the intent to not increase the existing rate of discharge from the site. (See Chapter 2 for details).

Construction Standard: SUDAS Specifications - Jurisdictional Engineer's Approval; Iowa DNR permit may be required.

R. Runoff Detention

A basin used to meet the Jurisdiction's stormwater management plan goals. These facilities should be designed to accommodate the Jurisdiction's overall drainage system needs. This detention basin is located on public or private property (with easements) and is maintained by the Jurisdiction.

Construction Standard: SUDAS Specifications; Federal and Iowa DNR permits may be required.

S. Entrances

Access to private property is the responsibility of the property owner. Any change in existing property use that requires a modification to the entrances will be the responsibility of the owner to obtain an entrance permit.

Construction Standard: SUDAS Specifications; Jurisdiction permit required.

T. Private Street

A street that is restricted to use by only one owner or homeowner's association and is available for use by emergency vehicles. This classification of street is located on private property and maintained by only one party or homeowner's association. Private streets should meet all applicable geometric requirements for the given operating speed and pavement thickness requirements for the type of traffic, but may be deficient in other elements, such as right-of-way width. (See Chapter 5 for details). Approval for the use of private streets must be obtained from the Jurisdiction.

Construction Standard: SUDAS Specifications; Jurisdiction permit may be required.

U. Public Street

This classification of street is owned and maintained by the Jurisdiction and constructed on dedicated street right-of-way. (See Chapter 5 for detailed description of each roadway system element).

Construction Standard: SUDAS Specifications.

V. Franchise Utility

A Jurisdiction may grant a franchise to erect, maintain, and operate underground and overhead plant and systems. These systems could be for electric light and power, heating, telephone, cable television, water works, gas, or other utilities within the Jurisdiction. Construction of said facilities could be in the public right-of-way. Location of franchised utilities should take into account the future right-of-way needs based on the ultimate classification of the street. If easements are obtained for the utilities, it is recommended these easements be obtained in the name of the jurisdiction. All franchise utility installations should abide by the same design and construction requirements as other improvements.

W. Public and Non-franchised Utility

The Jurisdiction may allow the installation of public and non-franchised utilities in public right-of-way upon review of the proposed improvements and approval by the Jurisdiction. Such improvements may include, but not be limited to, water mains constructed by a water board, electric facilities constructed by an electric board, stormwater facilities, storm sewers, fiber optic lines, communication lines, irrigation systems, and other miscellaneous installations.

Ensure the installation of such facilities in public right-of-way does not damage or infringe on the usefulness of existing facilities. Upon receipt of a written notice from the Jurisdiction, the owner of a public and non-franchised utility must remove the utility from the Jurisdiction's right-of-way or relocate it within the right-of-way.

X. Utility Conflicts

Franchised, public, and non-franchised utilities are expected to cooperate in relocation of facilities that are in conflict. It is critical that the utilities be given as much advance notice as possible. The Project Engineer should coordinate with each utility agency or company to determine location and elevation of all utilities located within the project area. If any existing utilities conflict with the proposed project, the Project Engineer should contact the utility company and work to resolve the conflict in order to keep the project on schedule. If the conflicts are unable to be resolved, the Project Engineer should bring the matter to the attention of the Jurisdictional Engineer.