

How to Obtain a Permit for Private Underground Fire Service and Hydrants

INFORMATION BULLETIN

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This Information Bulletin covers the procedure for obtaining a permit to install private underground fire service mains and fire hydrants per the National Fire Protection Association (NFPA) 24 Standard. Private fire service mains include the portion of the underground fire service main from the property line to the structure or fire hydrants. Portions of the underground fire service main from the public right of way to the property line are reviewed and inspected through a separate public right-of-way permit. An underground fire service is required for all new fire sprinkler system installations.

I. Submittal Requirements

The following plans and documents shall be submitted when applying for a private underground fire service main and/or fire hydrant permit.

A. Forms/Documents

PDF copies of the following forms and documents must be submitted at the time of Permit application.

1. Project Contacts Information Form

A Project Contacts Information Form (DS-345) must be submitted with all projects.

2. Fire Permit Fee Worksheet

The Fee Worksheet is located on Page 4 of Information Bulletin 506, Fire Permit Fees.

3. Hydrant Flow Request Form/Water Supply Information

When hydraulic calculations are required to verify available on-site fire flow, water supply information for the public water distribution system supplying the onsite private fire mains must be provided.

For projects located within the City of San Diego Public Utilities Department water service district, provide a completed Hydrant Flow Request Form (DS-160) obtained from the City of San Diego Development Services staff within the last 6 months. For new developments with no existing water supply infrastructure provide a copy of the approved water study for the development. See Information Bulletin 180, How to Obtain Hydrant Flow Data for further information.

For projects located in areas served by Water Districts other than the City of San Diego Public Utilities Department, provide water supply information obtained from the Water District serving the project site that is no more than 6 months old.

B. Plans

- C. All submittals for private underground fire service main and/or fire hydrant projects must include plans that are drawn to scale and are of sufficient clarity to indicate the location and extent of the proposed work. These plans must be prepared by the Installing Contractor or by a California-licensed Fire Protection or Civil Engineer. The plans shall provide the following information, as applicable:

- A. All information required in NFPA 24, Section 4.1, Plans.

- B. Associated building permit number(s), where applicable.

- C. Detailed scope of work.

- D. Type of construction and occupancy per the California Building Code and types of fire suppression systems being installed for all buildings on the site.

- E. A Fire Flow analysis for the site prepared in accordance with California Fire Code Appendices B & C.

- F. Location, make, and model of cross-connection control device (s).

- G. Installing contractor's license type and number or registered professional engineer's stamp and signature. The following California contractor's license classifications are acceptable: C-16, C-34, C-36 and General Engineering Contractors (A).

- H. Details for fire hydrants, protection posts, concrete thrust blocks, pipe bedding and trench backfill, and RPDA backflow prevention using the current edition of the City of San Diego Standard Drawings for Public Works Construction, Chapter 11, Water Systems.

- D. Plans shall use single line diagrams for piping, showing only the City main and the proposed and/or existing underground fire service that is part of the proposed scope of work.

E. Manufacturer's Data Sheets

Provide PDF copies of manufacturers' data sheets for all portions of the private fire service main system including, but not limited to:

- A. Piping, fittings and valves.

- B. Restraining devices.

- C. Cross-connection control device.

- D. Meters.

- E. Fire hydrants.

F. Hydraulic Calculations

- G. Where Required

Hydraulic calculations must be provided when required by Fire Department Policy.

2. Details

Provide hydraulic calculations per NFPA 24, Chapter 11, Hydraulic Calculations for the hydraulically most demanding hydrants necessary to provide the required fire flow. The maximum flow per hydrant shall be assumed to be 1,000 gpm. Hydraulic calculations shall include all pipe, valves, fittings and other appurtenances from all flowing hydrants back to the effective point of the water supply information provided by the City of San Diego staff or the Water Authority providing water service to the project site. This will typically be the point of connection for the public fire hydrant closest to the project site.

3. Fire Pumps

Where a fire pump is installed to boost the pressure in the on-site private fire main system, the fire pump performance curve shall be included in the calculations. Using separate supply calculations to shift the effective supply point to the discharge side of the fire pump will not be an acceptable alternative to including the fire pump performance curve as an integral part of each calculation.

II. Other Requirements

- A. Connection to the City's water mains requires a separate right-of-way permit. See Information Bulletin 166, "How to Obtain a Permit for Water, Sewer or Fire Service".

- B. The installation of a cross-connection control device on fire service mains must be in accordance with Information Bulletin 113, "How to Obtain Approval for Cross-Connection Controls." The device must be located on private property as close to the property line as possible. All alternate locations must obtain approval from Development Services Department (DSD) Water and Sewer Development Review staff.

- C. For overhead fire suppression systems, see Information Bulletin 139, "How to Obtain a Permit for a Fire Sprinkler System". When submitting overhead fire suppression systems for review, an approved underground fire service drawing will be required prior to plans being approved.

III. Review Process Options

The following review process options are available for private underground fire service main and/or fire hydrant projects. Submit these projects electronically through the online portal. Select the Deferred Fire Submittal record for projects deferred to Accela Building Permit projects (PRJ-xxxxxx). Select the Fire Permit record for projects deferred to PTS Building Permit projects (PTS-0xxxxx). Where a Building Permit project, either Accela or PTS, has not yet been established, the private underground fire service main and/or fire hydrant project should be a standalone project, select the Fire Permit record for these standalone projects. Failure to identify that your project is deferred to a building permit, or failure to reference the correct building permit number will delay review and issuance of your project.

- A. Rapid Review

The following types of projects can be reviewed as a Rapid Review project:

- Simple fire service projects with a single point of connection to the public water distribution system, serving a single fire suppression system, and with no more than one on-site private fire hydrant.

- B. Submitted Review

All other projects must be submitted for plan review. Options for service include Standard and Express Plan Check.

IV. Fees

Plan Check fees for standalone projects and deferred projects must be paid before the review is started. Fire sprinkler fees will be charged based on Information Bulletin 506, Fire Permit Fees. For your convenience, DSD offers online payments. Payment may also be made in person by cash, check, debit card, Visa, or MasterCard credit card. Checks shall be drawn in the exact amount on US banks and made payable to "City Treasurer."

Express Plan Check is available for Fire Permits upon payment of an Express Plan Check administrative fee plus 1.5 times the regular plan check fee. The Express fee includes the initial review and up to two rechecks. Express Plan Check provides review times 40% - 50% faster than standard review times.

Please note that plan check fees and other administrative fees are non-refundable. See the Refund Policy noted within Refund Application Form DS-721 for additional refund information.

V. Inspections

See Information Bulletin 120, Project Inspections, for information regarding project inspections for private underground fire service main and/or fire hydrant projects. Note that a Fire Underground Final is required for all projects regardless of the length of the underground fire main or the number of hydrants installed.