



RESIDENTIAL GAS PIPING

BUILDING INSPECTION REQUIREMENTS

A plumbing permit is required to replace, add or extend any gas piping. Permits are required prior to installation or replacement of gas piping.

Following is a listing of the general requirements for gas piping based on the 2019 California Plumbing Code. This brochure is intended to provide general information, contact the Building Inspection Division for any questions or additional information.

Gas Pipe Sizing (CPC 1208.4)

If extending or tapping off an existing gas line, sizing calculations shall be completed to ensure the gas piping is adequate to serve all existing and new appliances. Provide a diagram that shows the type of material used, size, location, and length of run of the existing and proposed gas lines, and the location and BTUs of all appliances served. Building Inspection staff can assist in completing the necessary calculations.

Pipe Materials (CPC 1208.5)

Gas pipe material is allowed as follows:

| GAS PIPE ALLOWABLE MATERIALS | | |
|-----------------------------------|---------------------|------------------------------------|
| Pipe Material | Indoor Installation | Outdoor, Above Ground Installation |
| Galvanized Wrought Iron | Yes | Yes |
| Galvanized Steel | Yes | Yes |
| Black Steel | Yes | No |
| Corrugated Stainless Steel Tubing | Yes | Yes |

The installer must be certified by the manufacturer to install such material.

Underground Installation (CPC 1210.1)

Gas piping installed underground shall be a minimum of 12" in depth, 18" where external damage could occur. Underground gas piping shall be factory-coated material listed for underground gas line installation and installed in accordance with the manufacturer's requirements (or as approved by the Building Division). Fittings may be wrapped in the field with an approved material. When using non-metallic pipe, an electrically continuous corrosion-resistant tracer wire (minimum AWG 14) or tape shall be buried with the piping. One end of the tracer wire shall continue above ground, attached to a building wall or the riser.

Underground Beneath Buildings (1210.1.6)

Gas piping shall be sleeved and vented in accordance with the California Plumbing Code. Please contact the Building Division for more information.

Piping Unions (CPC 1210.3, 1212.5)

Unions (inline couplings) are only permitted downstream (after) appliance shut-off valves, meter locations, and immediately downstream on building shut-off valves. The use of right/left couplings and nipples are required in all other locations. Unions shall not be installed in a concealed location.

Shut-Off Valves (CPC 1212.5)

Shut-off valves are required ahead of all gas appliances. Valves must remain accessible from the same room as the appliance served, and shall be within 6 feet of the appliance.

Pipe Support (CPC 1210.2.4)

Pipes shall be supported as follows:

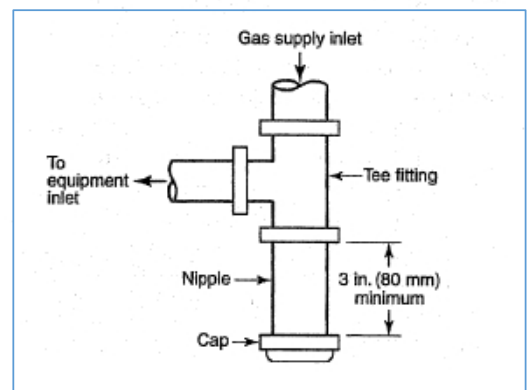
| GAS PIPE SUPPORT REQUIREMENTS (CPC Table 1210.2.4.1) | |
|--|---------------------------------|
| Size of Pipe | Pipe Support Distance (maximum) |
| 1/2" Tubing | 4 feet |
| 1/2" Steel Pipe 5/8" or 3/4" Tubing | 6 feet |
| 3/4" to 1" Steel Pipe 7/8" or 1" (Horizontal) Tubing | 8 feet |
| 1-1/4" or larger (Horizontal) Steel Pipe | 10 feet |
| 1-1/4" or larger (Vertical) Steel Pipe 1" or Larger (Vertical) Tubing | Every Floor |

Sediment Trap (CPC 1210.6)

A sediment trap is required at each water heater, boiler, and furnace, downstream of the appliance shut-off valve and as close to inlet of the equipment as practical.

Pressure Test Inspection (CPC 318.0, 1213.3)

Test pressure shall be no less than 1-1/2 times the proposed maximum working pressure, but not less than 10 psi. The test duration shall be a minimum of 15 minutes. Test gauges have a scale not greater than twice times the test pressure shall be 0.10 psi increments.



PERMIT PROCESS

Building Permit Review

1. Application for a [Building permit](#) for gas piping replacement is available on-line.

Inspections

2. Two inspections are required; a rough plumbing and a final.
 - The rough plumbing inspection should be scheduled when the new gas lines are installed, before walls are covered, and before the connection is made to the gas service. A pressure test inspection will be done and all testing equipment is to be provided by the permittee. (CPC 1213.3)
 - The final inspection should be scheduled after all the work has been completed.

Building Permit Application Requirements

- A completed Building Permit Application.

Contra Costa County Department of Conservation and Development

Application and Permit Center-30 Muir Rd., Martinez, CA 94553 - 925-655-2700, FAX 925-655-2744

Building and Planning Staff are available 8:00 a.m. to 5:00 p.m. Monday thru Thursday and 7:30 a.m. to 4:00 p.m. on Friday

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