

Residential Remodel Building Permit Requirements **Tankless Water Heater New Installation or Replacement**

Important notes about building permit request submissions

- All permit applications must be submitted online using the [Customer Access](#) portal.
- There is no need to email us when you submit documents. Staff is notified automatically within one business day of your submission.
- Submit documents as PDF file type only.
- Please include the following:
 1. List the site address on all documents and plans.
 2. Include the owner's name on all documents.
- Permit review will be delayed if the required documents are not submitted online, if they are not submitted as PDFs, or if the documentation is missing information.
- All submitted documents will become a public permanent record of the property. It is in your best interest that the submitted PDFs are of the highest quality and detail, in case you or somebody else needs to refer to them in the future.

General guidelines

- The manufacturer's installation instructions must be met if more restrictive than code requirements.
- Piping must be installed per the manufacturer's installation instructions including connection methods, alignment, and bedding, and installed in a manner that the labeling is visible at the time of the inspection.
- All equipment and appliances must be listed for the intended use and labeled when required by Plumbing, Mechanical, Fuel Gas, and Electrical Codes.
- All fixtures, equipment, and appliances must be listed for the intended use and labeled when required by Code and must be as specified or as approved by submittal to the Architect or Engineer. All gas equipment and appliances will be approved only for the manufacturer's intended use.

- All gas appliances and associated components must be installed according to the manufacturer's installation instructions. Therefore, the installation instructions, normally included on the product wrapper, must be provided at the time of inspection.
- The potable hot water temperature must be controlled as required by the Plumbing Code. All work on the potable water system must be done by a licensed plumber.
- All electrical work must be done by a State of Colorado licensed Electrician.
- Equipment location, access, combustion air, gas supply, and venting must be per Code or the manufacturer's installation instructions must be met if more restrictive than code requirements.
- All electrical wiring must be installed as per the 2020 National Electrical Code (NEC).

Required documents

Attach the following to the online application:

1. [Provide a gas pipe isometric](#) with applicable codes from the 2021 International Residential Code (IRC) or International Fuel Gas Code (IFGC).
2. Provide manufacturer's instructions for the new tankless water heater.
3. The Electrical Inspector may require additional electrical drawings from the Electrical Contractor, or an Electrical Engineer based on the conditions encountered on site for the existing house panel.

Important additional requirements for a successful inspection

- Download, print and have the following documents ready for the inspector from the [Customer Access](#) portal:
 - A color copy of all final stamped permit documents (i.e., all the ones reviewed and approved – these documents are found in the Customer Access portal and will have the file name marked as "FINAL").
 - A copy of the review comments.
- Trade personnel must be on site for partial inspections.
- At the time of the inspection the following must be visible:
 - Piping labeling

- All equipment and appliance labels, as required by Plumbing, Mechanical, Fuel Gas, and Electrical Codes
- All fixtures, equipment, and appliance labels, when required by Code.
- All gas appliances and associated components' installation instructions must be provided at the time of inspection.

Residential dwelling code compliance and mandatory requirements when installing or replacing a tankless water heater

In addition to the above-required documents, please ensure the residential dwelling abides by the following code requirements:

- The codes and standards referenced by the International Plumbing Code (IPC), International Mechanical Code (IMC), IFGC, and International Energy Conservation Code (IECC) shall be considered as part of the requirements of those codes to the prescribed extent of each such reference.
- Residential gas piping must comply with Chapter 24 of the 2021 IRC.
- Please review [County Adopted Codes and Amendments](#)
- Requirements not covered by the above-mentioned codes: requirements necessary for the strength, stability, or proper operation of an existing or proposed system, or for the public safety, health, and general welfare, not specifically covered by this code, shall be determined by the code official.
- Maintain all rated assemblies and provide protection of penetrations in accordance with Section 714 of the International Building Code (IBC).
- Provide combustion air to all gas-fired appliances in accordance with IFGC 304.
- Connection to appliances: appliances shall be connected to the piping system in accordance with IFGC 411.1.
- Cold Water Line Valve: the cold water branch line from the main water supply line to each hot water storage tank or water heater shall be provided with a valve in accordance with IPC 503.1.

- The manufacturer's equipment sizing information must provide documentation of compliance with 2021 IPC 604.3 - Water supply system design criteria: "The water service and water distribution systems shall be designed, and pipe sizes shall be selected such that under conditions of peak demand, the capacities at the point of outlet discharge shall not be less than shown in Table 604.3."