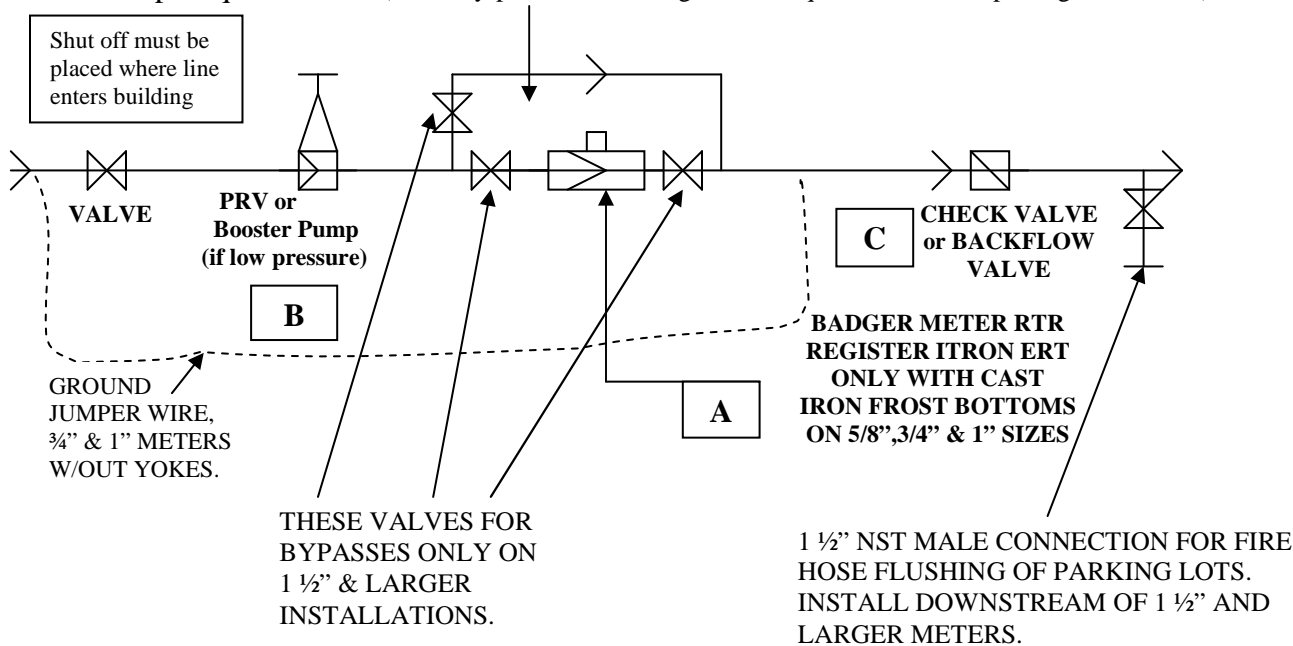


TOWN OF BRECKENRIDGE AND  
FORMER BLUE RIVER WATER DISTRICT (effective 11/7/95)  
WATER METER SPECIFICATIONS revised 3.19.14  
NEW INSTALLATIONS

Questions: Call the Water Division Office at 970.453.3378

D) Basic Setup Requirements: (Meter by-pass 1 1/2" & Larger – not required for landscape irrigation meters)



A. Meter Requirements

- Badger Meter – RTR Register – Itron ERT only with cast iron frost bottoms on 5/8", 3/4", 1" and 1 1/2" sizes.** (Gallons, **ONE GAL. READ ONLY** for 5/8", 3/4", 1" and 1 1/2"). Strainers and Badger Recordall Compound Series Dual Register are required on 2-inch and larger lines. (Available from National Meter and Automation, Inc., 9800 East Easter Ave, Ste 130, Centennial, CO 80112, (877) 212-8340 or from George T Sanders, 191 W 9th, Silverthorne, CO, 970-468-8254). Install all meters in a **horizontal** position with a suitable holding device to support piping, meter and provide electrical bond when meter is taken out for testing. (Premanufactured holding devices or yokes are available that cut down on labor time to install meter. If a yoke is not used, provide an electrical ground wire around the 5/8", 3/4" and 1" meters.) Install in the building where meter and pressure reducing valve will not freeze.
- Strainers and Badger Recordall Compound Series Dual Register meters are required on 2-inch and larger lines.** A minimum of five pipe diameters of straight, unobstructed pipe is required upstream of the meter. Install in a horizontal position with a suitable holding device to support piping and meter. Install in the building where meter and pressure reducing valve will not freeze.
- 1 1/2" NST male connection for fire hose flushing or parking lots. Install downstream of meter (1 1/2" and larger).
- Separate commercial, irrigation, and residential meters, and backflow valves for protection of users within the building, are required for mixed use buildings. One connection is OK but each use must be individually metered. Also, each residential unit must be individually metered and commercial and residential common area irrigation must be individually metered.
- For booster pump applications install the meter upstream of the pump without a PRV.

B. Pressure Reducing Valve (PRV) Requirements:

- Watts U - 5 or equivalent.
- Install upstream of the meter for all installations when the incoming pressure is greater than 60 psi. Allow for easy access to strainer and clean out plug. Pressure to be set at 40 to 75 PSI (PRV comes preset from factory for this range).
- For incoming pressures greater than 150psi, 2 PRV's are recommended (reduce pressure in stages)
- Booster Pump- if needed with pressure tank.

C. Check & Backflow Valve:

- Watts 600 series, Ford H series, NIBCO 250 WOG, or equivalent (spring assist with rubber or Teflon seat). (Pressure relief device should be downstream of check valve.) – Residential only.
- All commercial(non-residential) domestic, irrigation, & fire sprinkler lines require approved backflow valve assemblies. The assembly must be tested and the test report provided to water staff at the time of the c.o. inspection. For a list of certified backflow testers, visit our website at [www.townofbreckenridge.com](http://www.townofbreckenridge.com) SEE WATER DIVISION FOR DETAILS. **BACKFLOW DEVICE ON DOMESTIC LINE MUST BE LEAD FREE.**
- All commercial and residential landscape irrigation and hot tub/pool facilities must have approved backflow device.

D. Vault Installation Application:

- Contact the meter suppliers as mentioned above for pit style adaptors for landscape irrigation vaults and boxes. Remote Pit ERT's are required.

II) Maintenance Responsibilities

- The Town will maintain the accuracy and operation of the meter by periodic testing or replacement. The Town will repair meter leaks.
- The customer or owner of the building will be responsible for other leaks, the pressure reducing valve, and protection of the PRV and meter from freezing. The Water Ordinance states: "Individual service lines and other facilities extending from the stop-and-waste valve to the water using unit(s) including excavation, backfill and maintenance, shall be performed by owner at owner's expense, at all times keep all pipes, fixtures and appliances on his property tight and in good working order so as to prevent waste of water."

- III) Installation: **The PRV, meter, and check valve are required to be supplied and installed by the owner-builder.**  
Install meter **horizontal** and no more than 4 feet above the floor. Allow a minimum clearance of 12 inches from walls and 24 inches of working area from adjacent appertenances in the meter room.
- IV) Inspection: A Water Division representative must inspect the water meter after it is installed before the Certificate of Occupancy is signed.

**WATER LINE PRESSURE TEST AND CONNECTION REQUIREMENTS - NEW INSTALLATIONS**  
All service lines from the main to the building will be inspected by a Water Division representative before backfilling.

**A TWO WORKING DAY NOTICE IS REQUIRED FOR INSPECTIONS.  
CALL 970-547-4304, WATER DIVISION, TO SCHEDULE INSPECTIONS.**

- I) Leakage test by visual check of each joint before backfilling.  
A. Test by turning full main pressure into the water line and visually check all connections from the valve to the building.  
B. **This test can be done by temporarily plugging the water line at the point it would enter the building before backfilling the trench.**
- II) Pressure/Leakage test after backfilling.  
A. Test in accordance with the standard allowable leakage formula.  
B. This test is done after backfilling.  
C. Test pressure will be normal operating pressure plus 50%. (Minimum is 150 PSI).  
D. Air tests are acceptable if freezing problems will be encountered prior to getting heat into the building or if connections are done in the winter.
- III) Connection to the Water Main  
A. A water checklist information form must be completed when the building permit is obtained.  
B. All of the excavation is an owner/builder responsibility, but must be inspected by a Water Division representative before backfilling. Soft, K copper is required for ¾" service lines. For 1", 1 ½" & 2", polyethylene (PE) pipe is required (Type PE 3408, SDR-9, PC200, AWWA Std. C901-88). McDonald style v-box, arch base, 1" upper section with shut off rod.  
C. It is required to have all taps privately contracted. The Water Division can provide names of tapping contractors. All taps must be inspected by the Water Division.  
D. All taps shall be wet taps. No water mains will shut down for connections.  
E. No water taps are permitted from November 1 to May 1.  
F. An encroachment permit for excavating in streets, alleys and easements must be completed prior to tap.  
G. A two working day notice is required by the Water Division prior to the tap or locations.  
H. Minimum depth of cover shall be nine (9) feet. Shallower depths may be permitted with special approval and special insulation.  
I. 12 inches of ¾" clean bedding around corporation tap or tapping valve.  
J. Clay dams in the pipe bedding are recommended to prevent ground water from travelling into building.

### **REQUIREMENTS-RECOMMENDATIONS - WATER CONSERVATION DEVICES - NEW BUILDINGS**

- I) **REQUIRED:**  
A. Low flush toilets – 1.6 gallons per flush maximum  
B. Shower saving devices – 2.4 gallons per minute maximum  
C. Faucet Aerator – 1.5 gallons per minute maximum  
D. Pressure Reducing Valve - 40-75 PSI **REQUIRED**
- II) **RECOMMENDED:**  
A. Insulate hot water pipes  
B. Self-closing faucets in public facilities  
C. Waterless urinals

### **CONSTRUCTION WATER REQUIREMENTS**

The Water Division will turn on the service line for construction water. There is no fee assessed and a water meter is not required for construction water at this time. Fire hydrants are **NOT** permitted to be used for construction water except by special approval. **WINTER CONSTRUCTION WATER MUST COME FROM THE BUILDING SERVICE LINE PROTECTED WITH HEAT TAPE IF THE HEAT IS NOT ON.** All large projects must, instead, install a ¾" yard hydrant on the main service/fire hydrant water lines for construction water. The ¾" yard hydrant must have a ¾" service/curb stop valve with a McDonald valve box on the water line to it so that the yard hydrant can be abandoned when the project is completed.