



**BACKFLOW PREVENTION ASSEMBLY  
STANDARD INSTALLATION INSTRUCTIONS**

1. A backflow prevention assembly is considered customer plumbing. Cal Water assumes no liability and makes no warranty regarding performance of any backflow prevention assembly.
2. Backflow prevention assembly shall be only those approved for use by the State Water Resources Control Board. Backflow prevention assembly and all piping used for potable water service must be lead free (<0.25% lead). Dedicated irrigation and fire suppression services may continue to use approved low lead components.
3. Any deviation from the installation specifications described herein must receive Cal Water approval prior to installation.
4. Backflow prevention assembly shall be installed on the consumer's property, immediately after the meter, in the orientation in which it was evaluated and approved. If backflow prevention assembly cannot be placed immediately after the meter, then proposed location needs to be approved by Cal Water prior to construction. In addition, a 4" concrete cap and/or secondary pipe sleeve shall be placed around the water pipe connecting the meter and the assembly. Below ground elbows and vertical piping must be rigid metallic. Vertical clearance from the relief valve discharge to finished grade and obstructions shall be between 12" and 36". Shutoff valve operating handles must be ≤ 60" from finished grade. A minimum 18" horizontal clearance must be provided for testing and maintenance. Installation shall comply with all local ordinances pertaining to permits and property line setback requirements.
5. No outlets, tees, taps, bypass, swing joints, or other connections, temporary or permanent, shall be installed between the water meter and the backflow prevention assembly. Pressure reducing valves and/or unions may be installed upstream of the backflow prevention assembly.
6. A concrete slab and vertical supports are required on assembly sizes 3" and larger.
7. Any plumbing modification to any part of the backflow prevention assembly will render the assembly "unapproved". Unapproved assemblies will result in disruption of water service and will require replacement with an approved assembly at customer's expense.
8. Installation of a backflow prevention assembly creates a closed water system. Cal Water recommends installation of thermal expansion protection as required by the California Plumbing Code.
9. Where necessary the backflow prevention assembly should be protected from vehicle damage.
10. In freeze prone areas, protective measures are recommended. Any protective enclosure must have adequate drainage sized for the full rated discharge of the backflow prevention assembly. Enclosures that contain multiple backflow prevention assemblies must have drains sized for the combined discharge rate.
11. Water services which cannot be turned off for short durations should have backflow prevention assemblies installed in parallel.
12. Under no circumstances are the backflow prevention assembly's test ports be used for anything other than testing (i.e. no garden hose connections, tubing, irrigation timers, etc.)
13. The relief port located at the bottom of the backflow prevention assembly must be kept free of all obstructions at all times.
14. It is the customer's responsibility to ensure that the backflow prevention assembly is kept in good working order at all times, to have the assembly tested annually and after repairs, according to Cal Water requirements. Failure to perform required testing or keep the backflow prevention assembly in good working order will result in disruption of water service.
15. Contact your local Cal Water office to schedule a final inspection PRIOR to backfilling any exposed piping. Re-excavation may be required if trenches are backfilled prior to inspection by Cal Water.

**ENGINEERING**



**DEPARTMENT**

DISTRIBUTION MAP	<input type="checkbox"/>	DATE:	INIT.
PLAT MAP	<input type="checkbox"/>		
SYSTEM SCHEMATIC	<input type="checkbox"/>		
STATION SCHEMATIC	<input type="checkbox"/>		
PLAT SHT:			
SCALE:	N.T.S.		

**TITLE: REDUCED PRESSURE PRINCIPLE (RP)  
& RP DETECTOR ASSEMBLY  
FOR 3" & LARGER SERVICES**

DRAWN BY: <b>L. Peralta</b>		DESIGNED BY:	
CHECKED BY: <b>J. Graham</b>	DATE:	APPROVED BY: <i>John Graham</i>	DATE: <b>7-27-21</b>
REVISION: R4. Modified Installation Instruction Notes 4, 5, 6 & 10. Revised/Added Dimensions & Notes. 11/4/2020 W.R.			

DISTRICT: <b>All</b>
DATE: <b>11/4/2020</b>
PROJECT ID.:
DRAWING NO.: <b>CW752 R4</b>