



## **Clothes Washer Graywater Pre-Plumbing and Stub-Out for New Residential Construction**

**These requirements, or an equivalent alternate method and/or material approved by the Building Official, are applicable in all new detached single family dwellings and duplexes.**

There are two basic approaches to installing the pre-plumbing and stub-out for a future clothes washer graywater system in newly constructed dwelling units. Both methods are installed adjacent to the regular clothes washer standpipe to allow the clothes washer to drain into the regular sewer standpipe (leading to the building sewer) or be diverted to a graywater stub-out on the exterior of the building. The following are the two methods:

**Configuration #1** involves a separate graywater standpipe installed adjacent to the regular clothes washer standpipe. This can be done by installing an additional outlet box dedicated for the graywater standpipe. The following installation requirements apply:

- The standpipe shall be vented (an air admittance valve is acceptable) and trapped, and all plumbing materials shall be 2-inch in size.
- The standpipe shall have a 2-inch overflow pipe leading downward to the regular washer sewer standpipe.
- The graywater standpipe outlet box shall be as close as possible to the sewer standpipe so that the flexible washing machine wastewater discharge pipe can be manually moved between the two outlet box drainage pipes to either flow into the sewer or to a future graywater system attached to the stub-out.
- The plumbing system must have a minimum ¼” per foot slope towards the exterior stub-out.

**Configuration #2** uses a 3-Way Diverter Valve connected to the end of the flexible washing machine wastewater discharge pipe. The valve position directs the graywater to either the regular standpipe leading to the sewer or to the graywater sub-out. The following installation requirements apply:

- The diverter valve and all additional plumbing materials shall be minimum 1-inch in size or greater.
- The graywater stub-out shall have a vacuum breaker installed at the highest point in the connection, either inside or outside.
- The diverter valve must be accessible and securely fastened to the interior wall at the clothes washer.

**The following general requirements apply to both configurations:**

- Permanent labeling.
  - Regular standpipe leading to the building sewer and diverter valve in position to feed into the sewer standpipe must be permanently labeled “Building Sewer.”

- Standpipe dedicated to feed the graywater stub-out and diverter valve in the position to feed the graywater stub-out must be permanently labeled “Graywater to Landscape.”
- Exterior graywater stub-outs must be permanently labeled “GRAYWATER STUB-OUT. CAUTION- UNSAFE WATER. DO NOT DRINK.”
- Sections of the graywater piping 5-feet or longer must be labeled “CAUTION: NON-POTABLE WATER, DO NOT DRINK.”
- An operation and maintenance manual shall be provided. Directions shall indicate the manual is to remain with the building throughout the life of the system and indicate that upon change of ownership or occupancy, the new owner or tenant shall be notified the structure contains a graywater stub-out or system.
- Stub-out
  - Must extend a minimum of 3-inches outward past the exterior wall.
  - Must have a rubber cap with a stainless steel tightening draw band to keep it closed when not conducting graywater.
  - Exterior stub-outs should measure between 18-inches and 48-inches above finished exterior grade. The higher the better to assist with the gravity flow of the system but not to exceed 48” above finished exterior grade.
  - The stub-out should be as close to the largest area of landscaping as possible.
- All exterior materials shall be protected from UV rays by a latex paint, except for the vacuum breaker device.
- All work and materials used shall conform to the California Plumbing Code in effect at the time of installation.
- Both ends of the graywater stub-out plumbing need to be identified on the plans.
- The graywater plumbing and stub-out is required wherever the clothes washer outlet box is installed in the building.