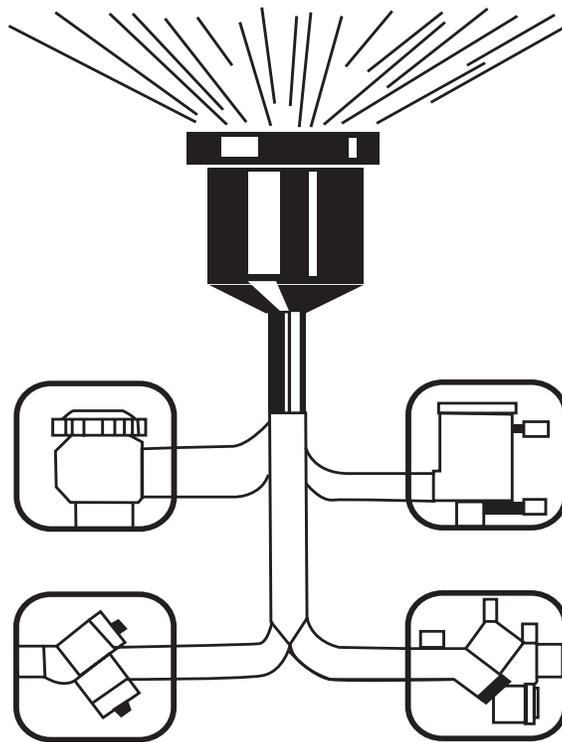




CITY OF *Yakima*
WATER DIVISION

SPECIFICATIONS FOR INSTALLATION
OF DOMESTIC SPRINKLER SYSTEMS



KEEP YOUR DOMESTIC WATER SUPPLY SAFE
Don't Let Your Irrigation System
Contaminate the Water You Drink

For more information about installing the proper backflow assembly device contact
City of Yakima Water division Cross Connection Program at (509) 575-6154

ABOVE GROUND IRRIGATION INSTALLATION

INSTRUCTIONS FOR DOMESTIC IRRIGATION SYSTEM INSTALLERS AND HOMEOWNERS

To ensure water quality, an approved backflow device must be installed for the domestic sprinkler system to provide protection against any backflow of irrigation water or pesticides into the domestic water service line. After the initial inspection by the CITY, backflow devices must be tested annually by a State Certified Backflow Assembly Tester when installed, modified, moved, or repaired to maintain water quality standards. The annual cost for testing and inspection is the responsibility of the property owner. NOTE: Galvanized piping is not permitted in domestic water services or sprinkler systems that utilize CITY OF YAKIMA domestic water. Stop and waste valves are no longer approved for inground installation on domestic irrigation systems.

BACKFLOW PREVENTION ALTERNATIVES FOR IRRIGATION SYSTEMS UTILIZING CITY DOMESTIC DRINKING WATER

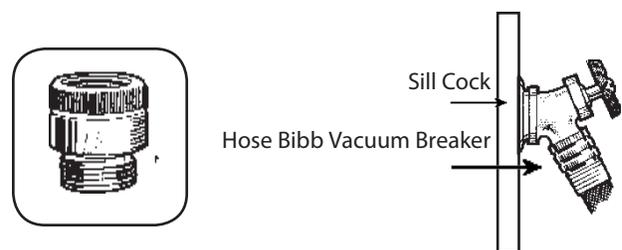
Irrigation systems make watering lawns and gardens easier and save time, but water that may be contaminated by weed killers and / or fertilizers can be back-siphoned (referred to as backflow) into your drinking water. Irrigation systems not protected by approved backflow prevention assemblies can endanger the health of a household, neighborhood or community.

ALL DOMESTIC IRRIGATION SYSTEMS – new or existing must be equipped with an approved backflow prevention assembly. Only properly installed, state-approved backflow prevention assemblies will meet the plumbing code and provide health protection for your family and neighbors. PVB & AVB are not approved for installation in the City of Yakima. The CITY OF YAKIMA WATER DIVISION can provide you with a free list of state-approved assemblies and certified testers upon request. Call (509) 575-6154 for more information.

NOTICE TO CUSTOMER

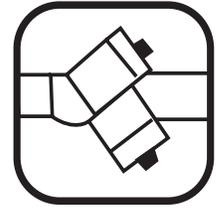
All irrigation systems supplied by Public Water Systems require a plumbing permit before installation. Permits may be obtained at City Hall, 129 North Second Street, Second Floor. Call (509) 575-6121 for more information. All piping and materials upstream (i.e., before) the backflow prevention assembly must be of a type which is approved by the International Association of Plumbing and Irrigation System Mechanical Officials. For more information contact THE CITY WATER DIVISION at (509) 575-6154.

HOSE BIBB VACUUM-BREAKER Backflow devices may be hooked up to “frost-free” hose bibbs coming from the house (no “Stop ‘n’ Waste” is required, if flow and inside noise is not a problem). Hose Bibb Vacuum Breakers are small, inexpensive devices with hose connections which are simply attached to sill cocks. **Hose Bibb Vacuum Breakers must be removed during the winter months to avoid damage due to freeze-up.**



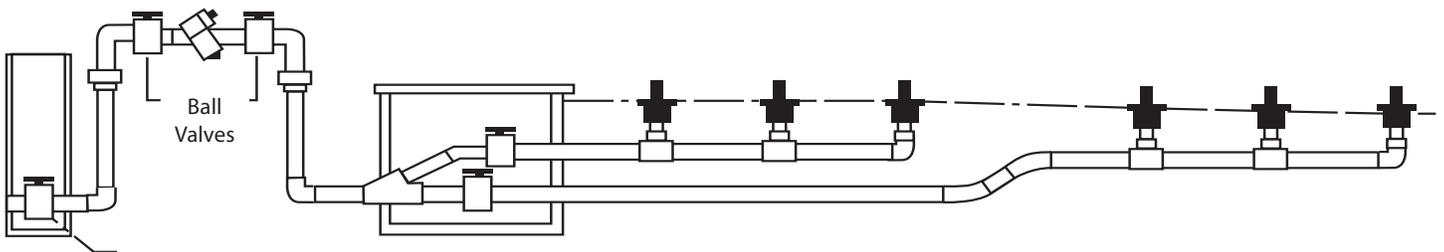
DOUBLE CHECK VALVE ASSEMBLY (DCVA)*

- highly versatile
- Only one DCVA required to serve the whole system
- Control valves can be located downstream of the DCVA
- DCVA should be installed a minimum of one foot (12") above ground level
however the CITY will permit with prior approval below ground installations of DCVA'S
- NO CHEMICALS OR FERTILIZERS MAY BE USED WITH DCVA'S
- Auxiliary water sources are NOT permitted on a DCVA
- Requires annual testing by state certified backflow assembly tester



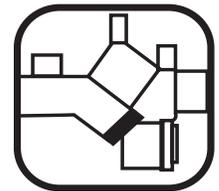
DCVA must be Washington State approved

Blowout port is NOT allowed upstream (before) a DCVA. Blowout is only allowed downstream of the DCVA.



REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY (RPPBA)*

- usually most expensive
- most complex
- allows for application of fertilizer or other chemicals into irrigation system
(No other type has this approval)

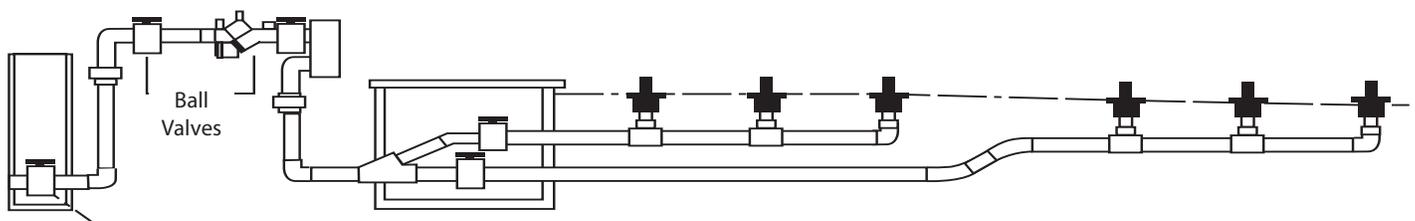


RPPBA must be Washington State approved

- Only one RPPBA required to serve the whole system
- Control valves can be located downstream of the RPPBA
- RPPBA should be installed at a minimum of one foot (12") above ground level
- Chemicals or fertilizers CAN BE introduced into the irrigation system downstream of (AFTER) a RPPBA
- Auxiliary water sources are permitted on the downstream side of (after) an RPPBA

No blowout is allowed upstream (before) a RPPBA.

Blowout is only allowed downstream of the RPPBA.



IRRIGATION INSTALLATION SPECIFICATIONS

BELOW SURFACE INSTALLATION REQUIREMENTS FOR IRRIGATION SPRINKLER SYSTEMS UTILIZING DOUBLE CHECK VALVE ASSEMBLIES FOR BACKFLOW PREVENTION.

Any modifications to required backflow assembly installations must be pre-approved by the CITY OF YAKIMA WATER DIVISION. Call (509) 575-6154 for more information.

FOR DEVICES INSTALLED OUTSIDE BUILDING

A. DEVICES SIZED 3/4" TO 1"

Minimum vault size must be two jumbo Ametec meter boxes – one right side up, one upside down (see diagram) or approved equal. The assembly requires 12-inches of clearance from the wall of the vault to the test cocks. If the test cocks are located on top of the assembly, the 12-inch clearance remains in effect to allow for repair of the device. Additionally, the assembly requires 12-inches of clearance under the device. The assembly must be installed no deeper than 16-inches from the top of the lid. The assembly must be installed with two Schedule "80" PVC unions to allow for removal of the device in winter. An approved stop valve must be installed between the assembly and the meter. Installation of all blow-outs shall be located down stream of the assembly. The use of test cocks to facilitate drainage of a system is prohibited.

B. DEVICES SIZED 1-1/4" TO 2"

Minimum vault size must be 27" x 38" x 18" deep or approved equal. The assembly requires 12-inches of clearance from the wall of the vault to the test cocks. If the test cocks are located on top of the assembly, a 12-inch clearance remains in effect for repair of the device. Additionally, the assembly requires 12-inches of clearance under the device. The assembly shall be installed no deeper than 16-inches from the top of the lid. The assembly shall be installed with two Schedule "80" PVC unions to allow for the removal of the device in the winter. An approved stop valve shall be installed between the assembly and the meter. Installation of all blow-outs shall be located down stream of the assembly. The use of test cocks to facilitate drainage of a system is prohibited.

NOTE: Galvanized pipe material is not approved for use within the domestic water system. PVC pipe is not allowed inside City of Yakima meter vault or tile. This includes any repair of an existing system as well as installation within any new system.

C. DEVICES SIZED 3"

Minimum vault size must be a 48" vault with ladder. Vaults may be round, square or rectangular in shape. The assembly requires 24-inches of clearance from the wall of the vault to the test cocks. If the test cocks are located on the top of the assembly, a 24-inch clearance remains in effect to allow for repair of the device. The assembly requires twelve- to thirty- inches of clearance under the device. Adequate clearance for safe operation of the control valves shall be provided 6' minimum from tile. Installation of all blow outs shall be located down stream of the assembly. The use of test cocks to facilitate drainage of a system is prohibited.

D. DEVICES SIZED 4"

Minimum vault size must be a 60" vault with ladder. Vaults may be round, square or rectangular in shape. The assembly requires 24-inches of clearance from the wall of the vault to the test cocks. If the test cocks are located on top of the assembly, a 24-inch clearance remains in effect to allow for repair of the device. A clearance of twelve- to thirty-inches is required under the assembly. Adequate clearance for safe operation of the control valves shall be provided 6' minimum from tile. Installation of all blow outs must be located downstream of the assembly. The use of test cocks to facilitate drainage of a system is prohibited.

NOTE: Galvanized pipe material is not approved for use within the domestic water system. PVC pipe is not allowed inside City of Yakima meter vault or tile. This includes any repair of an existing system as well as installation within any new system.

CURB-STOP VALVE SPECIFICATIONS – 3/4" TO 2"

VALVE DESCRIPTION

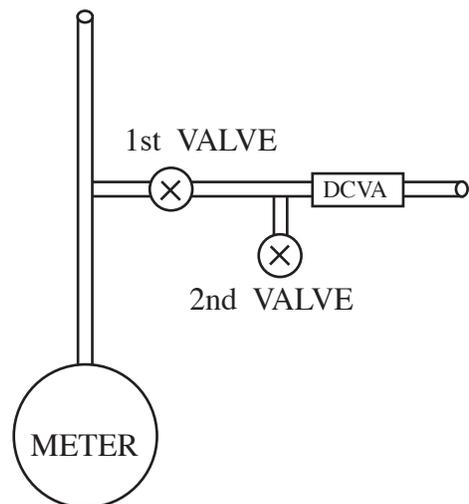
A. MATERIALS

1. All materials used in the construction of the curb stop valves must conform to AWWA Standard No. C800-84 or latest edition.

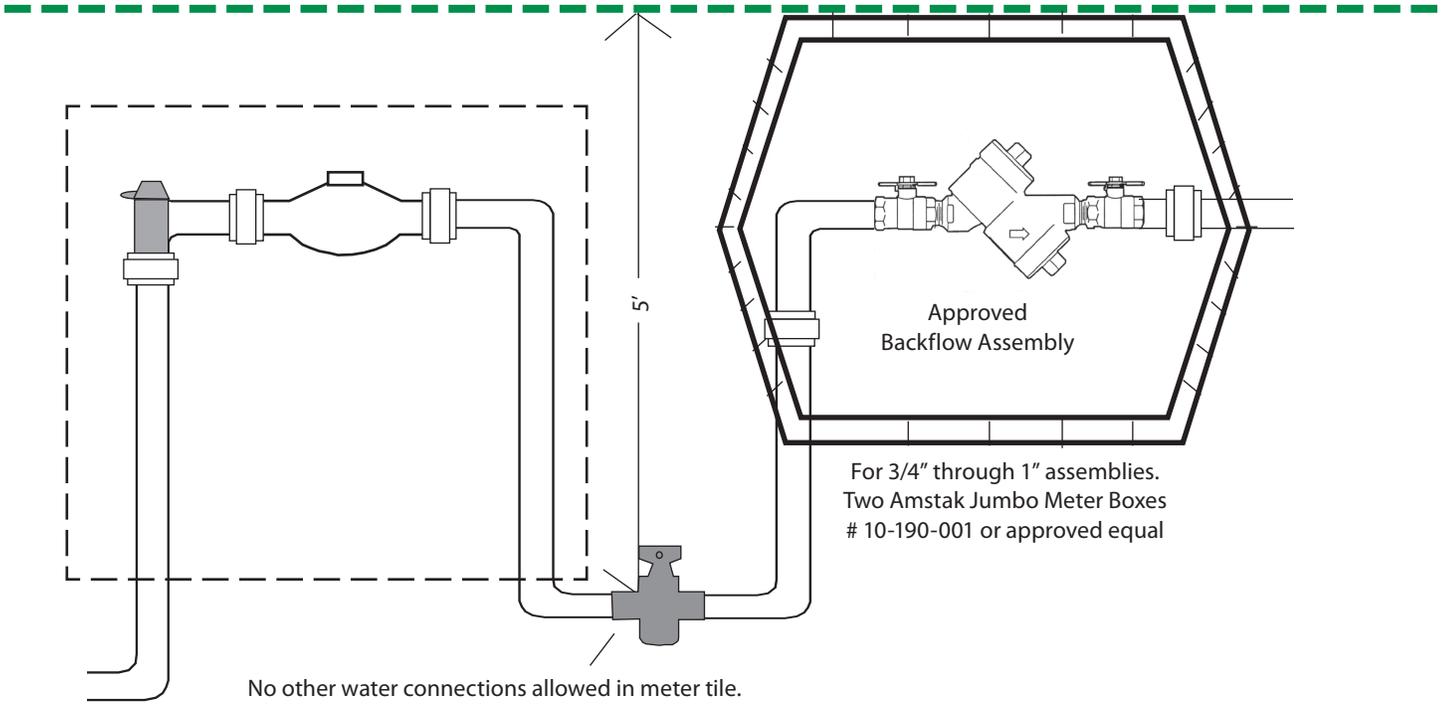
SYSTEM MAINTENANCE FOR WINTER MONTHS

During winter months to drain Irrigation System turn off first stop valve and open second stop valve.

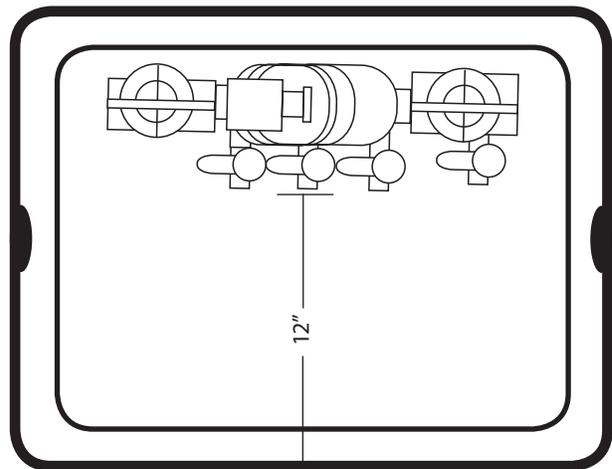
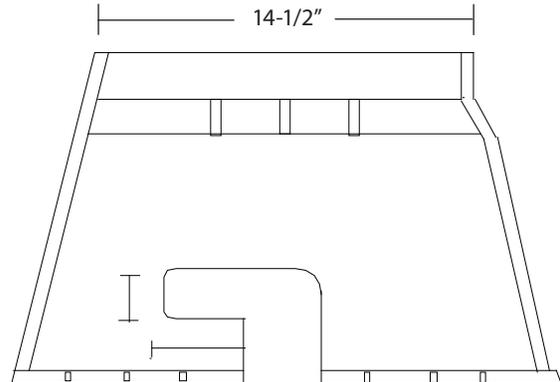
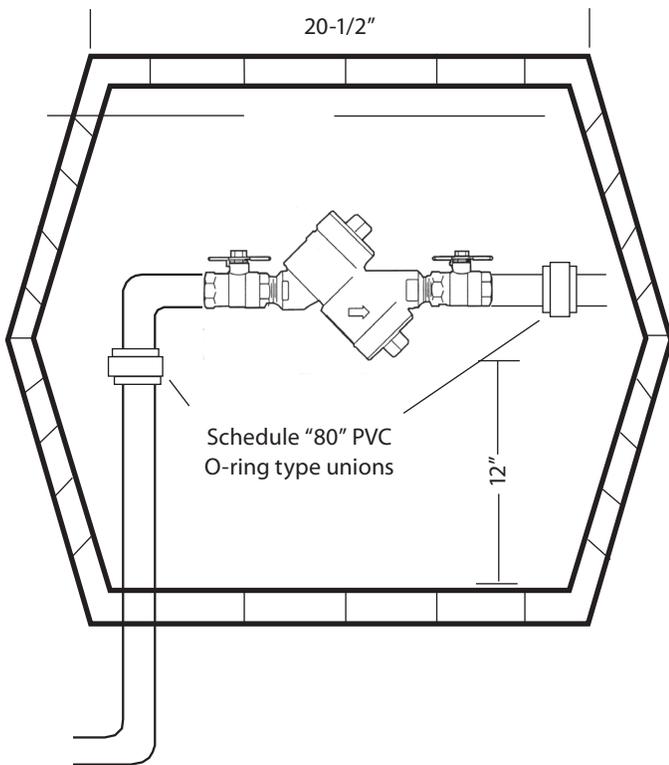
NOTE: Only stop valves are to be used as first valve.



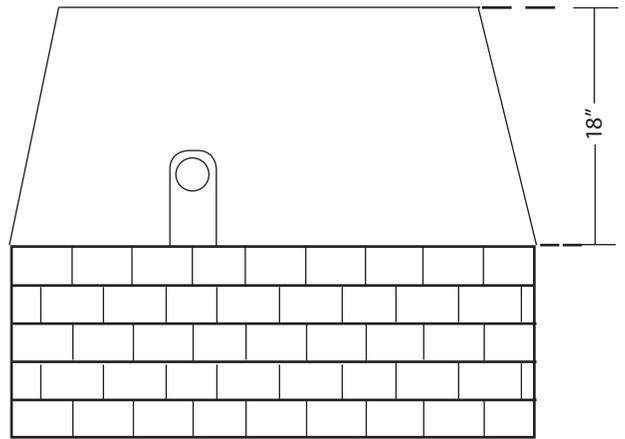
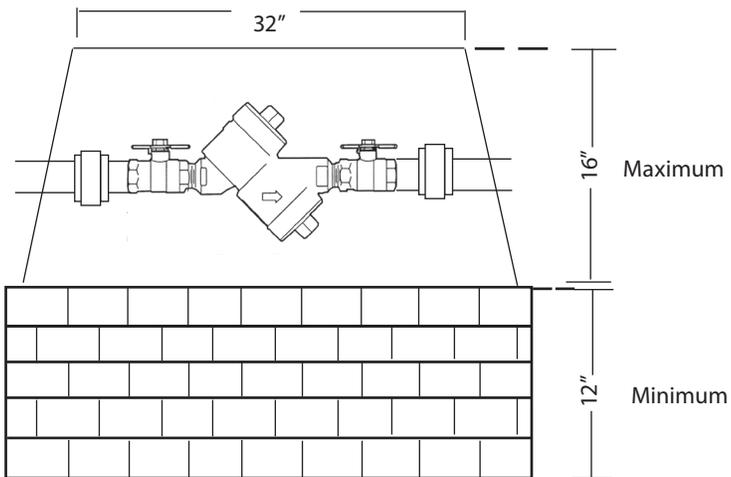
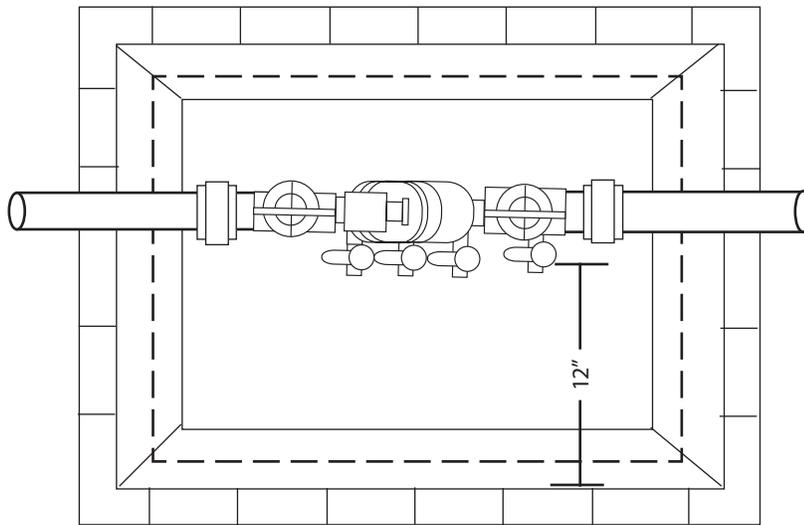
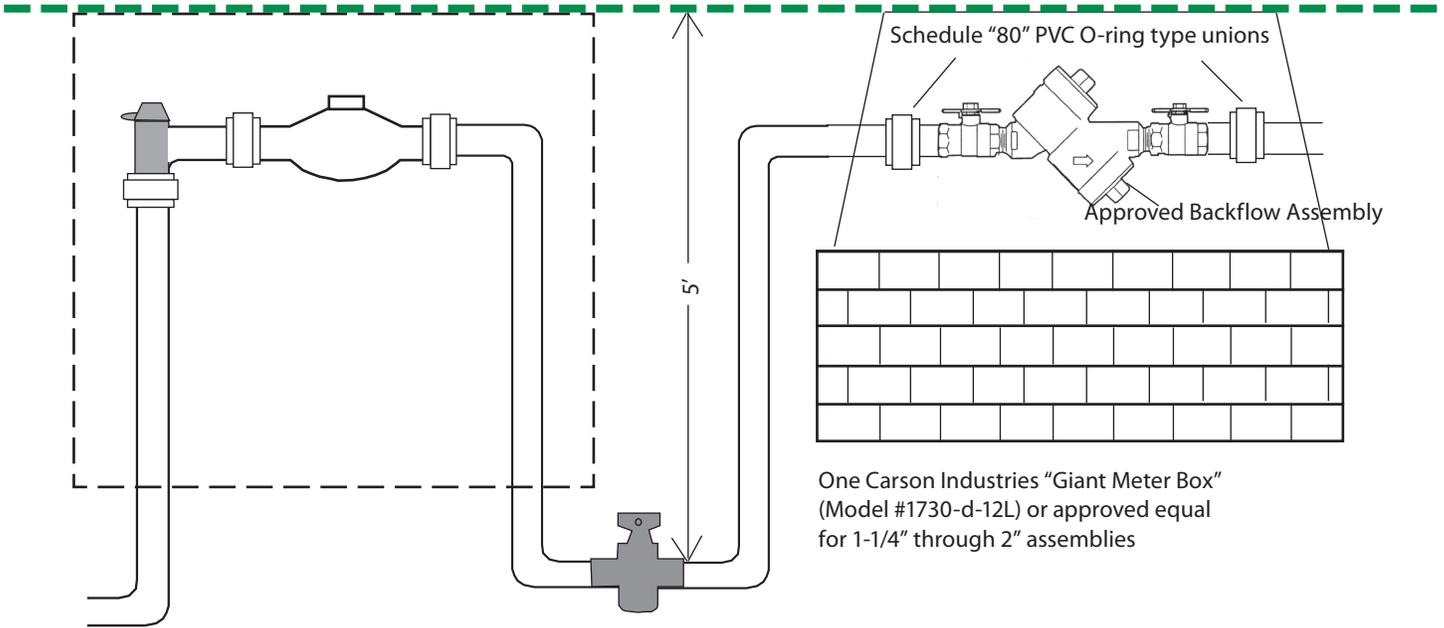
GROUND LEVEL



Not To Scale
Measurements Accurate



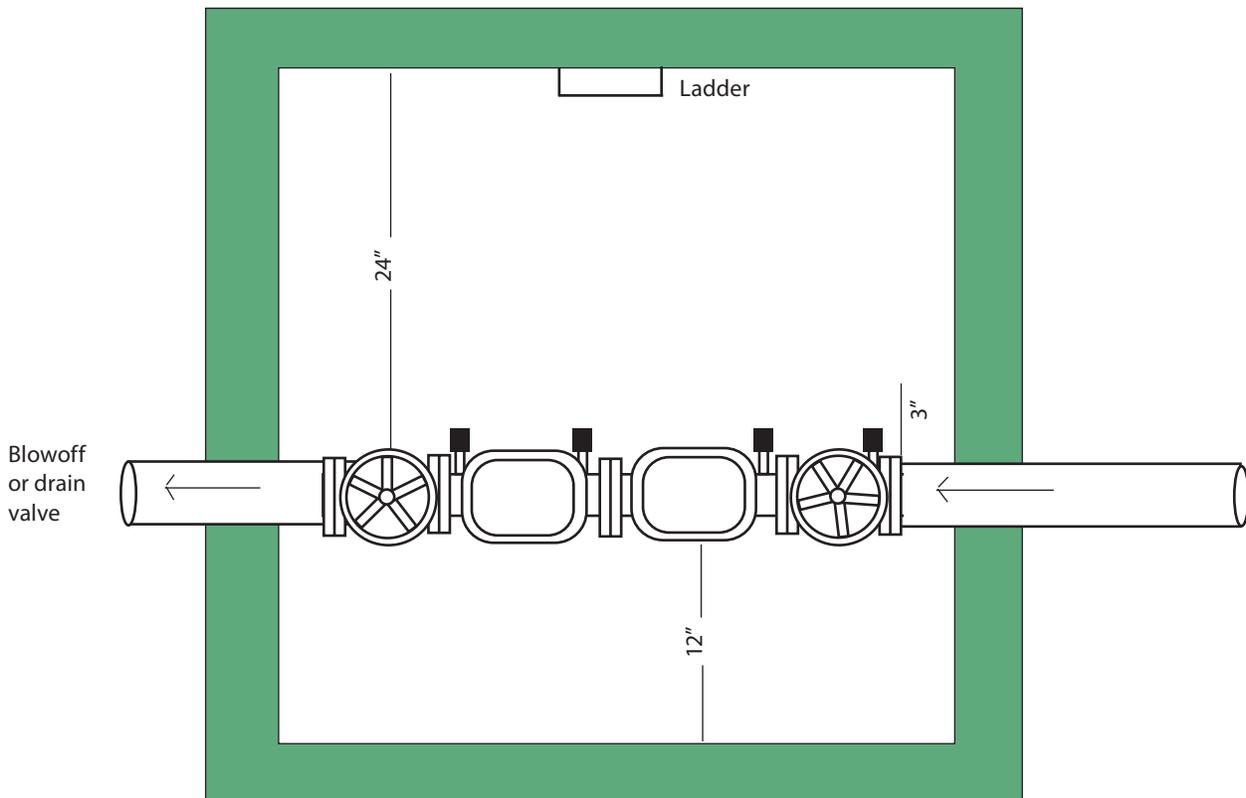
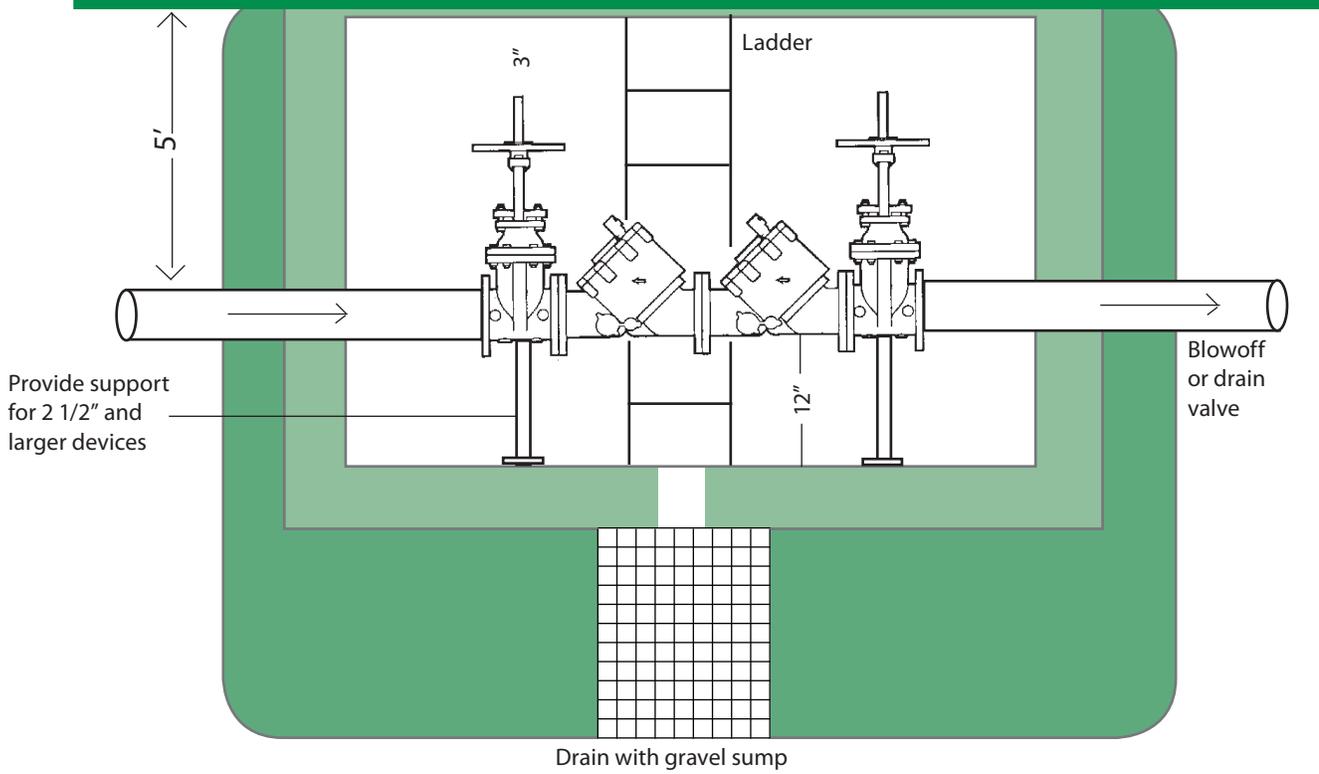
GROUND LEVEL



MINIMUM CLEARANCES FOR DCVA INSTALLATION

NOTE: Pipe Depth

Removable cover with minimum 24" access opening



NOTE: Bottom and side clearances apply when devices are installed inside building