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**CITY OF ROSEBURG  
CROSS CONNECTION  
PROGRAM PLAN  
LATEST REVISION – OCTOBER 2004**



**CITY OF ROSEBURG  
DOUGLAS COUNTY, OREGON**

**PREPARED BY:**

**CITY OF ROSEBURG  
900 SE DOUGLAS AVENUE  
ROSEBURG, OR 97470**

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City of Roseburg Cross Connection Program Plan  
October 2004

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# **SECTION 1**

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## **BACKFLOW ASSEMBLY PERMIT INSTALLATION, INSPECTION, AND TESTING REQUIREMENTS**

# CITY OF ROSEBURG

## IRRIGATION AND BACKFLOW ASSEMBLY PERMIT

- 1. Now that I've purchased my plumbing permit, what next?**  
An approved backflow assembly (handout attached) can now be installed and the device shall be tested by a certified backflow assembly tester **initially and annually** after it has been installed. (List of approved testers appears below.)
- 2. OK, I've installed the assembly, who do I call for an inspection?**  
Call the City of Roseburg, Public Works Department, 672-7701. An Engineer Tech' will come out and make sure the correct device was installed properly.
- 3. My installation was approved by the Engineer Tech, I'm ready for the next step.**  
Now you call one of the approved testers who will come out and test the assembly and send the results to the Engineer Tech, Public Works Department at City Hall. Upon acceptance, the Engineer Tech will then "Final" your plumbing permit. You're all finished! Just don't neglect to get your backflow device tested annually.

### CERTIFIED BACKFLOW ASSEMBLY TESTERS

Don Clogston Fire  
Protection Inc  
2641 Scenic Ave  
Central Point, OR 97502  
541-773-5358  
Cert. #4030

Greg Leon  
PO Box 774  
Glide, OR 97443  
496-3787  
Cert. #1025

Mack Clark  
373 NW Sweetbrier  
Roseburg, OR 97470  
672-2429  
Cert. #1434

Bruce Bateman  
Southern OR Backflow  
3040 Table Rock Road  
Medford, OR 97501  
541-779-8927

Phil Rokus  
Rokus Plumbing  
228 NE Ward St  
Roseburg, OR 97470  
673-0333

Steve Swinney w/Omlid  
Fire Sprinkler System  
1265 North 35<sup>th</sup> Street  
Springfield, OR 97478  
541-741-1775

Gerald F. Dukes  
North Umpqua Plumbing  
235 NE Bogard St  
Roseburg, OR 97470  
672-0212  
Cert. #2564

Brooks & Dobson  
Harvey & Price Co.  
2015 Nugget Way  
Eugene, OR 97403  
541-746-1621  
Cert. #1111 & 1805

Chuck Bodine,  
CB Backflow Testing  
2545 Nonpariel Rd  
Sutherlin, OR 97479  
459-9297  
Cert. #2430

City of Roseburg  
TIMBER CAPITAL OF THE NATION

JESSE J. DI STEFANO  
ENGINEERING TECHNICIAN  
CROSS CONNECTION SPECIALIST  
jdistefano@ci.roseburg.or.us

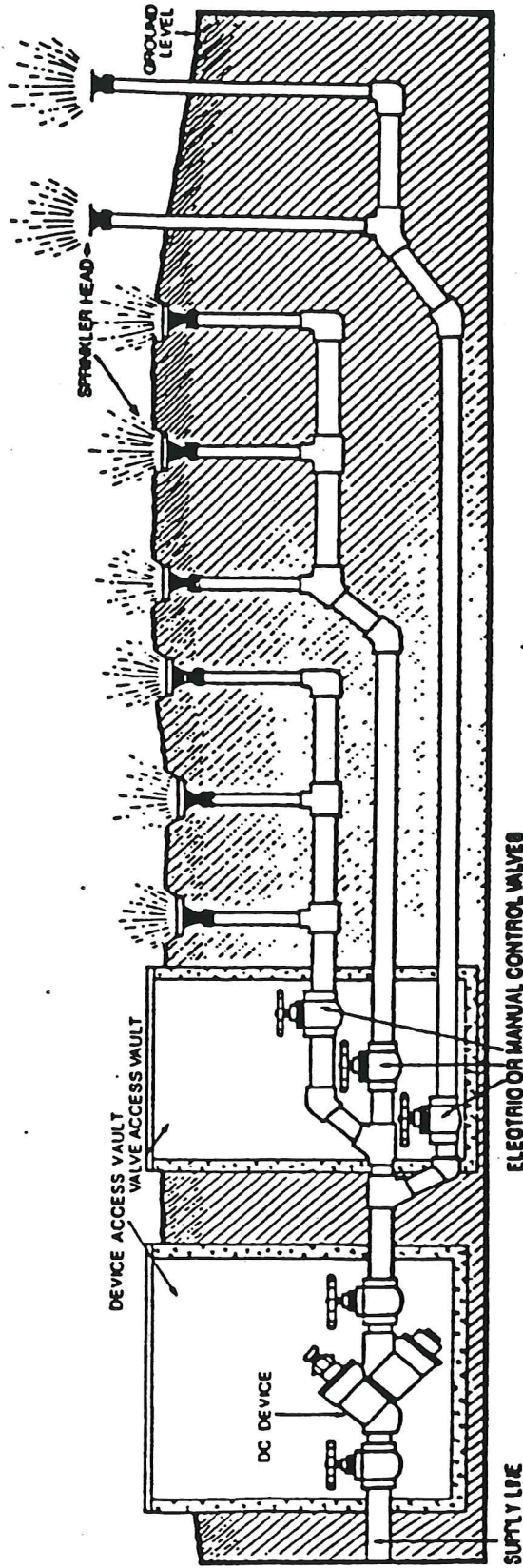


Phone (541) 672-7701  
Fax (541) 672-2785  
900 S.E. Douglas Avenue, Roseburg, Oregon 97470

• FREEZE PROTECTION

## DOUBLE CHECK BACKFLOW PREVENTION DEVICE (DC)

Double Check Backflow Prevention Device is approved on Irrigation system provided no chemicals are injected or mixed into the system. This device must be tested by a state certified tester when installed, repaired, and a minimum of once per year. The D.C. Device may be installed below ground but must have an access vault with a minimum of six inches (6") clearance on all sides (2" and smaller systems; for larger systems contact City for special details). Below ground installation are required to have all test ports plugged.

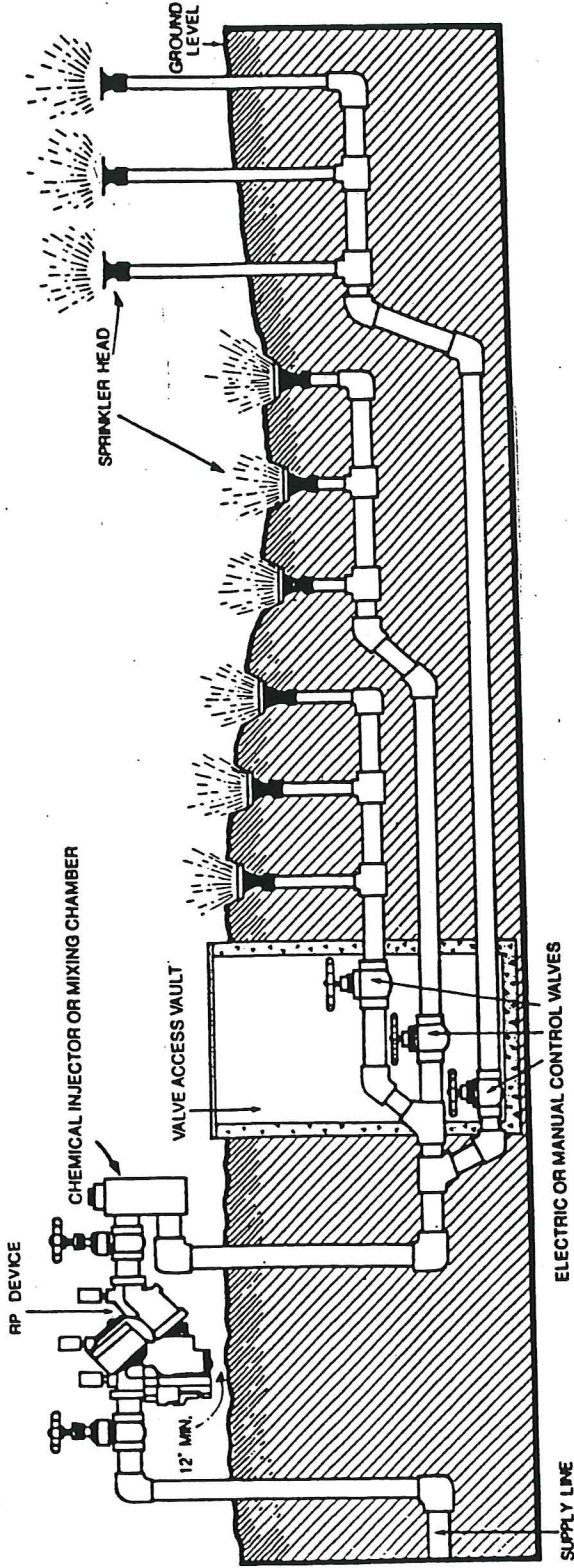


• FREEZE PROTECTION  
• ALL VALVES ARE NOT REQUIRED TO BE IN ONE LOCATION ONLY AFTER BACKFLOW PREVENTION DEVICE.

*Note: Not acceptable if irrigation system is connected to an alternative water source, such as well or stream.*

# REDUCED PRESSURE BACKFLOW PREVENTION DEVICE (RP)

Reduced Pressure Backflow Prevention Devices are approved on any irrigation system. The device must be set a minimum of 12" above ground level or above flood level. The device must be tested by a state certified tester when installed, repaired, and a minimum of once per year.



\* FREEZE PROTECTION  
\*\* ALL VALVES ARE NOT REQUIRED TO BE IN ONE LOCATION ONLY AFTER BACKFLOW PREVENTION DEVICE.

Note: Required if chemicals are injected or mixed into system; and/or required, if alternative water source, such as well or stream, is connected to system.

# **SECTION 2**

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## **CITY OF ROSEBURG INSTALLATION STANDARDS AND SPECIFICATIONS**

## **CITY OF ROSEBURG STANDARDS**

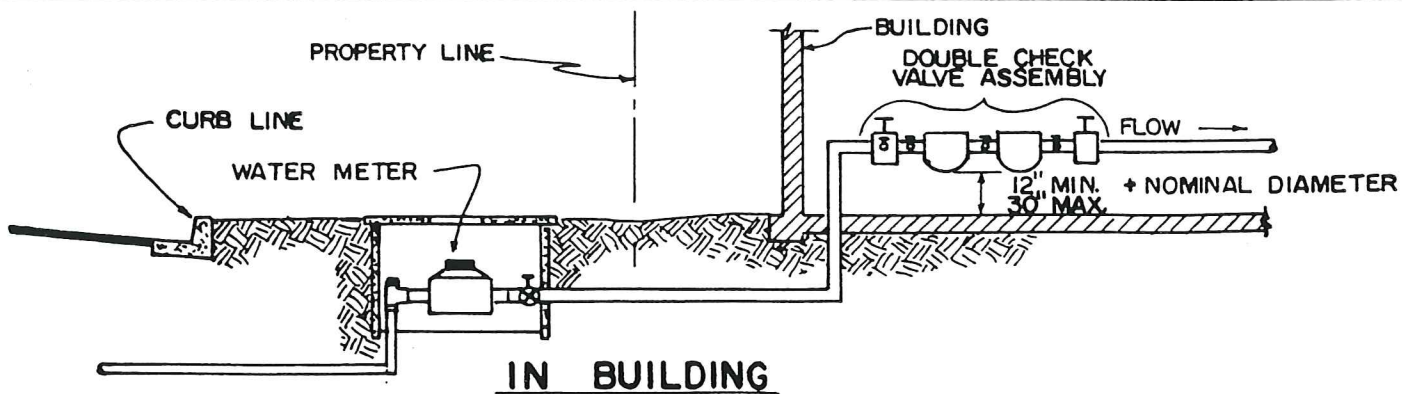
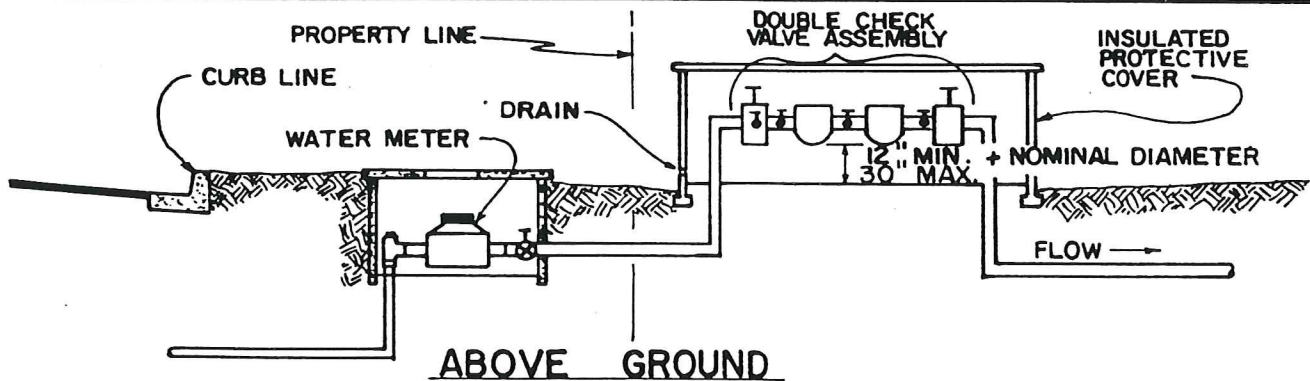
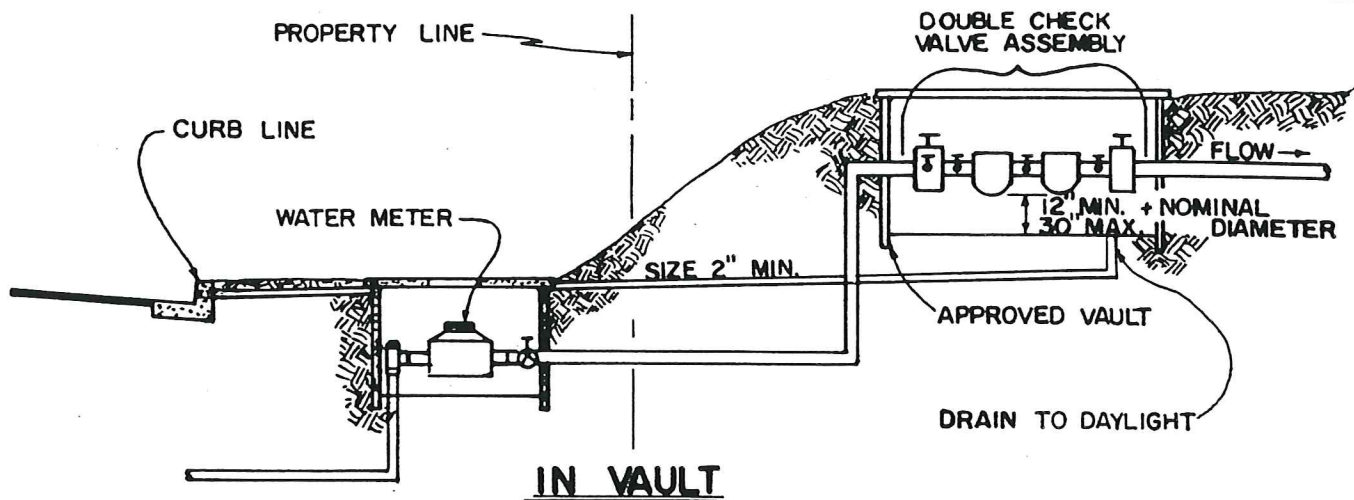
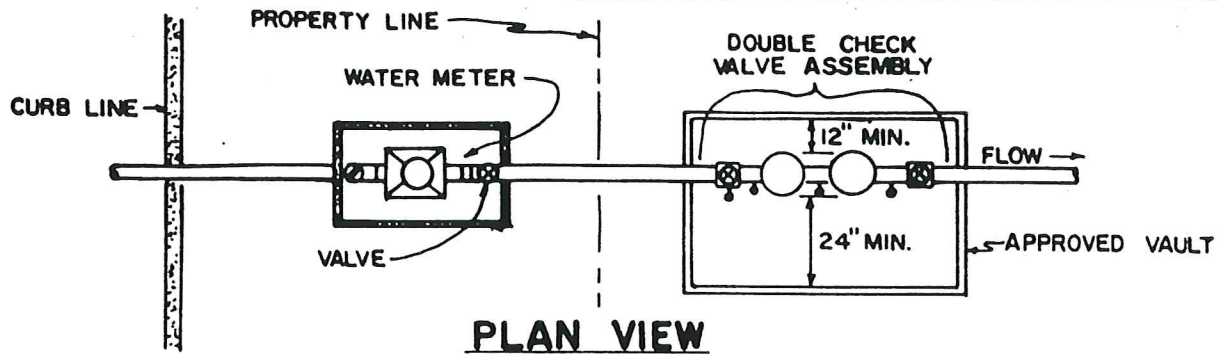
All cross connection work shall be in conformance with Oregon Rules and Statutes relating to Cross Connection Control (OAR 333-061-0070, 0071, 0072, 0073, and 0074); Cross Connection Control Manual Accepted Procedure and Practice, Sixth Edition, December 1995, published by Pacific Northwest Section of American Water Works Association; and Manual of Cross-Connection Control, Ninth Edition, published by Foundation for Cross-Connection Control and Hydraulic Research, December 1993. In cases of conflict, Oregon Administrative Rules shall take precedence.

Following are City of Roseburg Standard Details for:

- a. Double Check Valve Assembly
- b. Reduced Pressure Principle Backflow Prevention Device
- c. Double Check Detector Assembly (Fire Service)



# TYPICAL INSTALLATION DOUBLE CHECK VALVE ASSEMBLY BACKFLOW PREVENTION DEVICE



**NOTE:**

DOUBLE CHECK VALVE ASSEMBLIES SHALL BE OF A TYPE APPROVED BY THE OREGON STATE HEALTH DIVISION AND SHALL BE INSTALLED TO ALLOW READY ACCESS FOR REPAIR AND INSPECTION.

# REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE

## Installation Requirements

These devices are required for any premises where there is any material which is dangerous to health and handled in such a manner as to permit entry into the public potable water supply. Costs of installation, including testing costs, shall be the responsibility of the customer.

1. All backflow prevention device assemblies must be of a type approved by the Oregon State Health Division.
2. The location of the device must be approved by the City of Roseburg Water Department prior to installation. Standard location for installation of the device is on the customer's service line at or near the property line or immediately inside the building being served.
3. The City of Roseburg Water Department shall be notified upon completion of the device installation. Each device must be visually inspected by a City inspector for proper installation.
4. A test of the backflow prevention device by a State Certified Tester will be required of the Owner at the time of installation. A copy of the test results confirming the device is functioning properly must be submitted to the City prior to the acceptance of the installation.
5. Protection from freezing must be provided for any device installed in an exposed location.
6. No part of the backflow prevention device shall be submerged in water or installed in a location subject to flooding. If installed in a vault or basement, adequate drainage shall be provided.
7. If adequate lighting is not available due to the positioning of the device, a moistureproof light fixture will be required.
8. No other usage of the backflow prevention device enclosure will be allowed, except for fire alarm connections. Access to the device shall remain clear at all times.
9. These devices shall be installed in accordance with the manufacturers' recommendations but not less than: all reduced pressure principle backflow prevention devices must be installed horizontally with at least twelve inches (12") plus the nominal diameter of the device clearance from the lowest part of the device to the slab or floor of the chamber. All devices two inches (2") through six inches (6") in size, should have a minimum of twelve inches (12") clearance on the back side and at least twenty-four inches (24") on the test cock side of the device. For devices eight inches (8") and larger the minimum clearance on the back side of the device is eighteen inches (18") and at least twenty-four inches (24") on the test cock side of the device. Adequate clearance of at least thirty-six inches (36") must be maintained above all devices of two inches (2") in size and larger, or any top cover must be removable by hand.

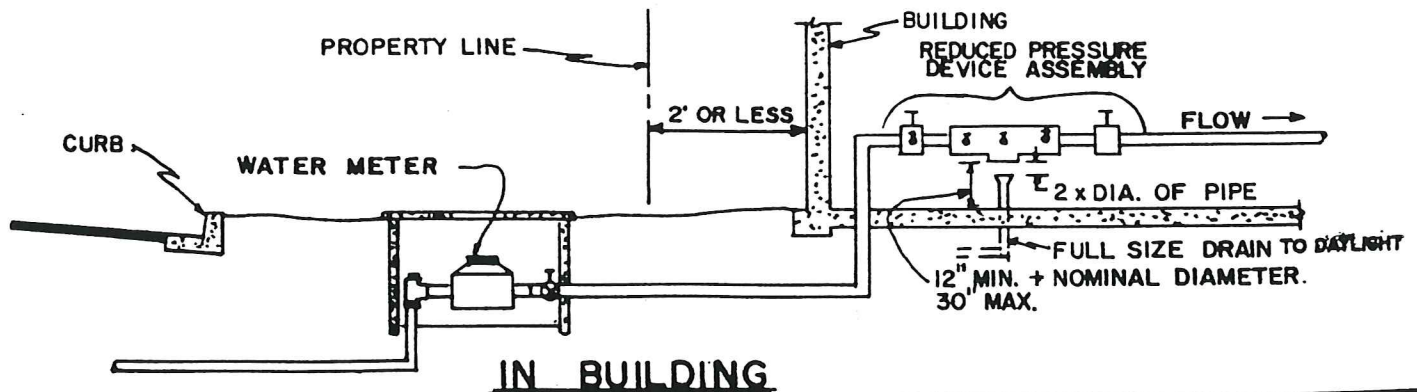
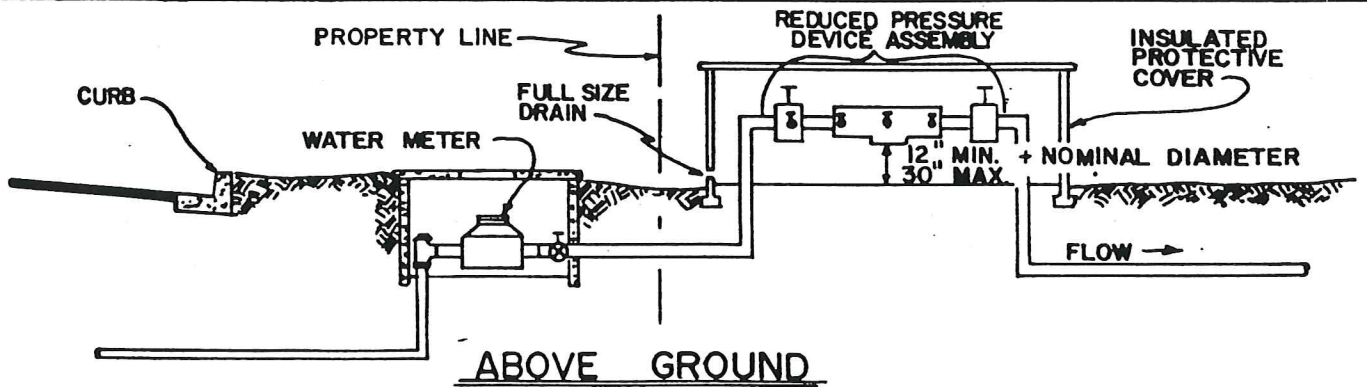
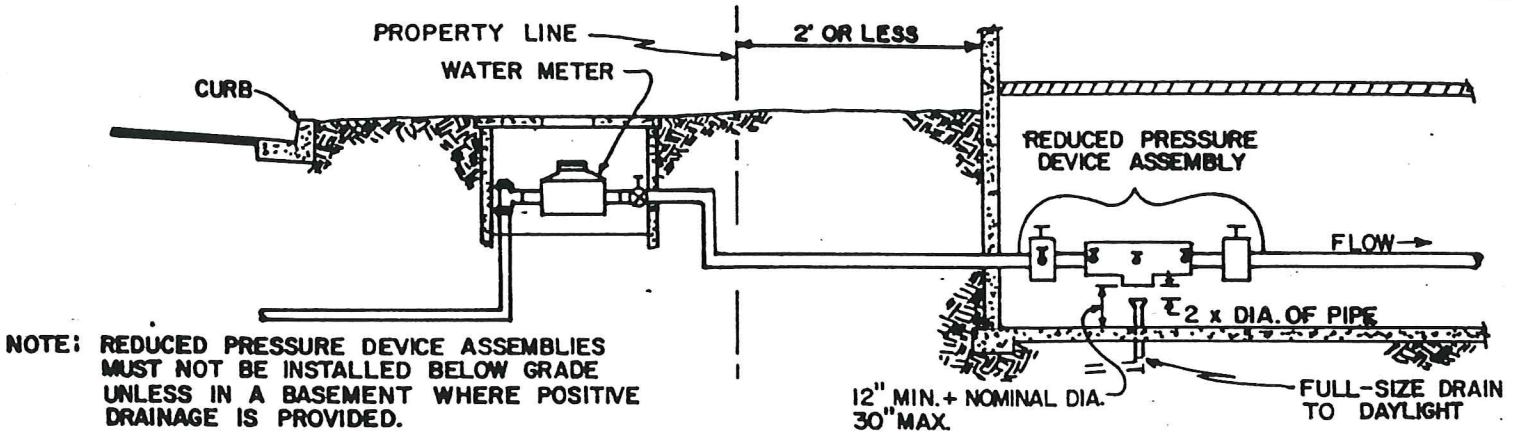
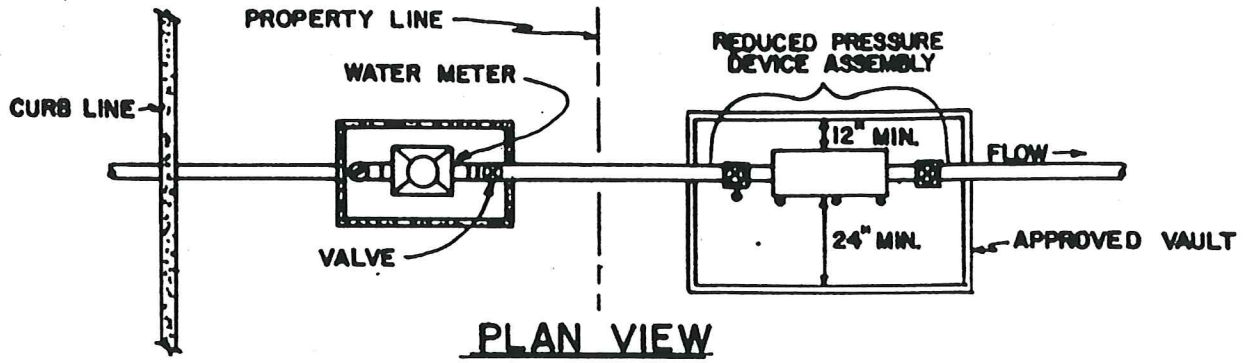
10. There must be an approved air gap of not less than two times the nominal diameter of the device located directly at the relief valve orifice.
11. Every vault shall have access through a 36-inch diamond plate access door or other adequately sized frame and cover. If entry is through the vault roof and the depth of the vault exceeds 4 feet, an approved ladder will be required to be permanently installed. Any top access cover must be removable by hand.
12. The property owner assumes all responsibility for foundation or basement wall penetration, maintenance, leaks, and damage.
13. All pipe joints shall be restrained.
14. A location plan with an elevation view of the piping arrangement of the device shall be furnished to the City of Roseburg Water Department upon request.
15. If a reduced pressure backflow prevention device is installed inside a building, then:
  - a) the device shall be readily accessible during regular working hours, 8:00 a.m. to 5:00 p.m., Monday through Friday;
  - b) if the device is installed higher than 4 feet above the floor or slab, it must be equipped with a rigidly and permanently installed scaffolding approved by the Water Department and meeting the requirements of the U.S. Occupational Safety and Health Administration regulations.

We are advising that the installation of these devices will alter the delivery pressure and flow of the services. We recommend the following procedures in sizing and installation: Check the following:

1. Water main pressure
2. Meter pressure loss
3. Proposed backflow device pressure loss and flow capacity
4. Residual pressure downstream of the proposed backflow device with your requirements.

Additional information is available upon request at the City of Roseburg, Water Department.

# TYPICAL INSTALLATION REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE ASSEMBLY



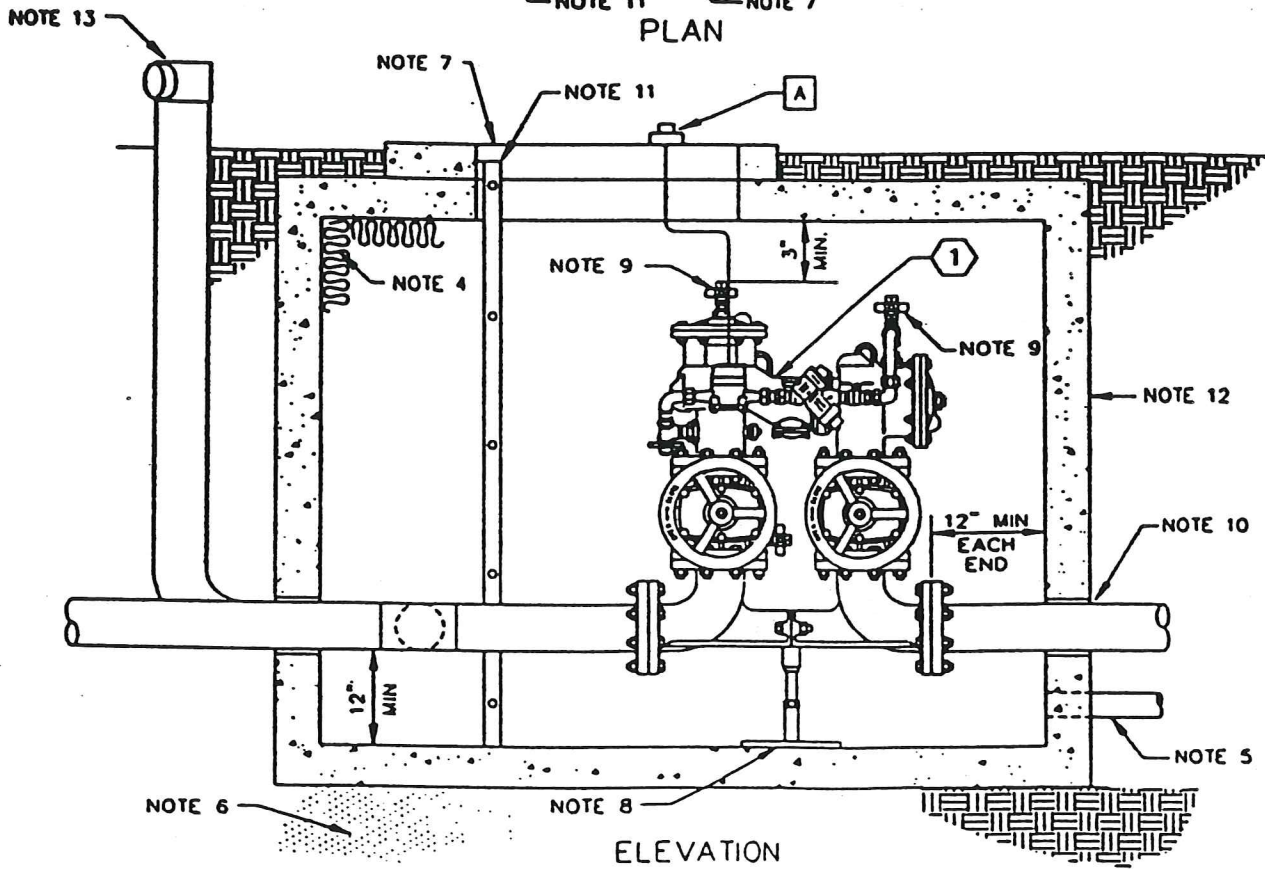
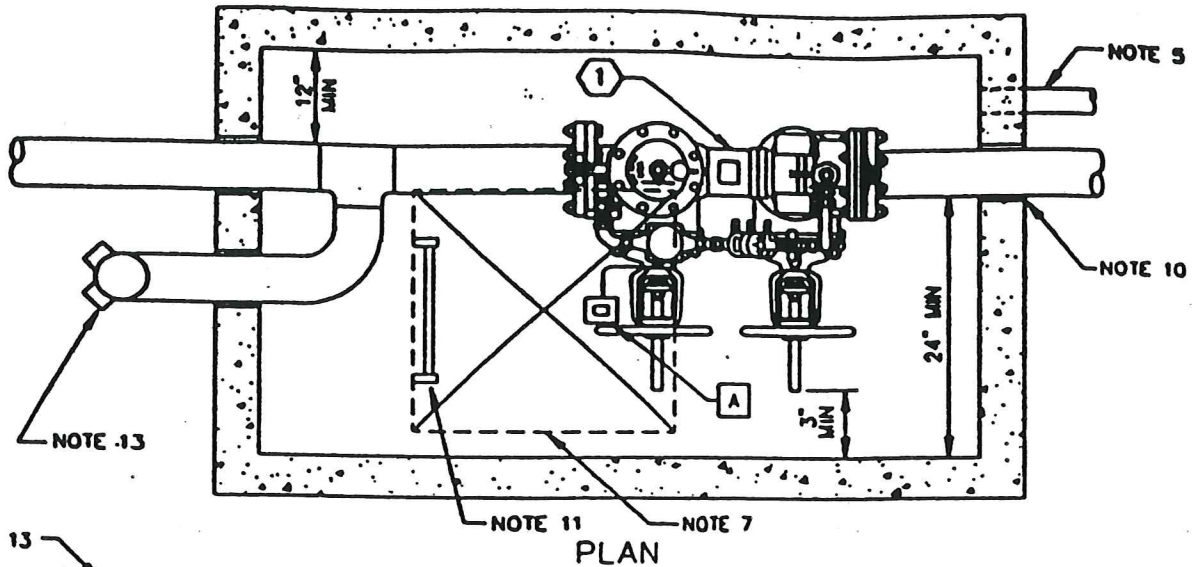
**NOTE:** REDUCED PRESSURE DEVICE ASSEMBLIES SHALL BE OF A TYPE APPROVED BY THE OREGON STATE HEALTH DIVISION AND SHALL BE INSTALLED TO ALLOW READY ACCESS FOR REPAIR AND INSPECTION. WHEN INSTALLED INSIDE A BUILDING, PROVISIONS FOR DRAINAGE DISCHARGE FROM THE RELIEF VALVE SHALL BE REQUIRED. THE AIR GAP IN THE FULL SIZE DRAIN LINE MUST BE IMMEDIATELY BELOW THE DEVICE.

**DOUBLE CHECK DETECTOR ASSEMBLY (DCDA)  
MINIMUM BACKFLOW PROTECTION FOR FIRE SERVICE**

*NOTE: RP TYPE DEVICE MUST BE USED FOR SPRINKLER SYSTEM WITH  
CHEMICAL ADDITION – DISCUSS WITH PUBLIC WORKS DEPARTMENT*

1. **Detector double check vault or enclosure shall be installed at point of service, or in an alternate location approved by City of Roseburg for their respective service area, but no more than 10 feet from point of service.**
2. **Detector double check assembly may be installed vertically, provided that the assembly:**
  - A. **Is internally spring loaded (not weighted checks)**
  - B. **Is 4" or smaller**
  - C. **Is recommended by the manufacturer for vertical installations**
  - D. **Has the normal flow upward**
3. **All clearances apply to outside and in-building installation.**
4. **Insulation – freeze protection to be insulation and/or heat source to keep enclosure at a minimum temperature of 40° F (NFPA 13-4-5.4.1.1).**
5. **Alternate methods may be approved by City of Roseburg. Allowable alternatives may include:**
  - A. **Dry well**
  - B. **Sump pump**
  - C. **Bore – sighted drain to daylight**
6. **Compacted gravel or undisturbed base.**
7. **Hatch, Minimum 3' x 3', spring assisted galvanized or aluminum diamond plate.**
8. **All assemblies 2 ½" and larger shall have flange supports.**
9. **Assemblies installed below ground level shall have watertight plugs or caps installed on the test cocks.**
10. **Watertight grout will be used to seal openings.**
11. **If vault depth exceeds 4', use OSHA approved ladder (OAR CH 437, Division 2, 1910.27).**
12. **Reinforced concrete vault (ASTM C-875).**
13. **Fire Department pumper connection per local fire code.**

**ITEM 1 = Approved detector double check assembly including factory supplied shutoff valves.**



Double Check Detector Assembly