

## YORKTOWN CONSOLIDATED WATER DISTRICT

1080 Spillway Road, Shrub Oak, NY 10588

Telephone: 914.245.6111

Fax: 914.245.8422

### Application and Plans for Backflow Prevention Devices

#### Must Include the Following:

1. The original signature of the Engineer and the Owner on all the application forms.
2. Letter authorizing work to be performed.
3. An address on the plans where the device is to be installed.
4. Plot plan of building.
5. Location of service line entering building.
6. A backflow prevention device from the list approved by the New York State Department of Health.
7. If RPZ device, show where the drainage will go.
8. Ball valves on both ends of backflow prevention devices up to 3" in diameter.
9. Resilient wedge or resilient seated valves on both ends of backflow prevention devices 3" in diameter and larger.
10. The backflow prevention device is to be installed after the water meter and as close to it as possible, allowing for adequate space for service or removal of both device and water meter.
11. All water meters, including those in detector check lines, must be Rockwell (Sensus) with a remote touch read head to read in thousand gallons. A pressure regulator is required to be installed before the meter.
12. All water meters greater than 1 1/2 "must have a bypass equipped with a (Sensus) touch read meter to read in thousand gallons, and wired to the outside. **Do not** bypass backflow preventer!
13. Provision for lighting.

14. Provisions for heating backflow prevention device or, at least, keeping it from freezing.
15. Must submit five (5) copies of all drawings and forms.
16. A Professional Engineer's seal on all drawings.
17. A check in the amount of \$110 per device made payable to the Town of Yorktown Water District.

NOTE: Backflow prevention devices are not to be installed without written approval from both the Westchester County Health Department and the Yorktown Water District.

A list of approved backflow assemblies can be obtained from the NYS Department Health website at:  
<http://fccchr.usc.edu//list.html>.

**REQUEST TO INSTALL AND COMPLETED WORKS  
FOR A BACKFLOW PREVENTION DEVICE**

**REQUEST TO INSTALL A BACKFLOW PREVENTION DEVICE**

**Description:** Prior to the installation of a backflow prevention device, approval must be secured from the Westchester County Department of Health.

**Applicable Codes:** Part 5, Subpart 5-1 Section 5-1.31 of the New York State Sanitary Code and Chapter 873, Article VII, Section 873.707.1 of the Laws of Westchester County, NY.

**Fees:** Chapter 873, Article XXI of the Laws of Westchester County, NY.

Applicants should contact their local water purveyor to determine the required type of backflow prevention device for their facility. A completed application packet must be submitted to the water purveyor for their original endorsement and signature. Once signed, the water purveyor will forward submittal to the Westchester County Department of Health (WCDOH) for review and approval.

All proposed installations of Backflow Prevention Devices(s) to be utilized on all domestic water services for human consumption must be Lead-Free in compliance with the amended Safe Drinking Water Act (Section 1417).

The department will only accept those backflow prevention devices/assemblies which appear on the current edition of the List of Approved Backflow Prevention Assemblies generated by the University of Southern California Foundation for Cross- Connection Control and Hydraulic Research (FCCCHR). The FCCCHR list is available for free on-line at <https://fccchr.usc.edu/list.html>

**Submittal:** When requesting approval of a project pursuant to the above provision, the following list serves as the minimum filing requirements:

- (1) A completed Form DOH 347 *Application for Approval of a Backflow Prevention Device*, plans, Engineer's Report, and specifications, in quadruplicate, are forwarded to the local water purveyor who in turn forwards the submittal to the Westchester County Department of Health. Plans and Engineer's Report must bear the original seal and original signature of a design professional (Professional Engineer or Registered Architect, licensed and registered in the State of New York).
- (2) Application fee of **\$180.00** per device. Check should be made out the Westchester County Department of Health
- (3) A separate application is required for each backflow prevention device.
- (4) A completed Certification of Resolution (if the owner is a corporation). <https://health.westchestergov.com/images/stories/pdfs/CertificateResolution-fillable.pdf>
- (5) Letter of Authorization which authorizes the design professional to file applications on behalf of owner.
- (6) The design professional's report must include the service peak water demand and a statement that the proposed device is capable of satisfying this demand.
- (7) All plans must be prepared pursuant to Title VIII, Article 142, Section 7209.2 of the New York State Education Law and bear the warning statement.
- (8) Piping for the device(s) must be shown in plan and profile views, clearly labeled, dimensioned and detailed.

- (9) Bypass piping without cross-connection protection is prohibited. If a bypass is necessary, a backflow prevention device must be installed on such.
- (10) The backflow preventer must be installed a minimum of thirty inches (30") above the floor level or eighteen inches (18") from the floor to the bottom of discharge port (whichever is greater). Devices must be installed so that there is access for servicing and testing. Any devices installed at greater than 5'-0" off the floor must include an OSHA approved safety platform for test procedures, and this must be noted on the drawings. A device cannot be installed closer than twenty-four inches (24") from a ceiling or any vertical obstruction(s).
- (11) A minimum of twelve inches (12") of clear space shall be maintained above the shut off valve.
- (12) A minimum of thirty inches (30") is required in front of the backflow preventer. A minimum of eight inches (8") is required behind the backflow preventer. Devices in parallel must be thirty inches (30") apart.
- (13) Vertical installation of backflow preventers will be accepted if the device is approved by the State for that type of configuration. The flow direction must be denoted on the plans.
- (14) Reduced Pressure Zone (RPZ) Devices must be installed with an air gap. The air gap shall be twice (2x) the diameter of the discharge (relief valve) port. The air gap and discharge port size must be clearly noted on the drawings. All waste discharges must drain in general to a sanitary sewer or disposed of in an approved manner, which will be reviewed on a case-by-case basis. When the discharge pipe is to be connected directly to a sanitary sewer line, a P-Trap and Backwater Check Valve must be provided.
- (15) RPZ discharge piping and receptacles must meet the sizing criteria as delineated in the *supplement to the 1981 CROSS-CONNECTION Control Manual* for catastrophic failure. If this is not possible, then a discharge sensor, alarm, and automatic shutoff valve may be considered as a special circumstance by the Department of Health. All special circumstances are reviewed on a case-by-case basis.
- (16) Adequate provisions must be made for heat and light and such shall be clearly noted on the plans.
- (17) Valves must be situated on both sides of the backflow prevention device. A strainer must be placed on the feed side of all devices other than fire services utilizing Double Check Valves (DCV). These items must be clearly noted on the plans.
- (18) Site plan showing building address, building locations, cross streets, northern direction, water service and water main size and location, and device location within the premises is required.
- (19) If a building or facility has more than one backflow preventer, they may all be included on one plan, provided they are clearly located and identified. If they are all of the same make, model, and size, one typical detail may suffice, otherwise a separate detail for each shall be provided.

- (20) **For Devices Installed in Pits:** A pit must be capable of being drained by gravity to grade (daylight). The discharge piping must be of sufficient size and set at adequate grade to take the entire discharge of the RPZ. The discharge pipe shall be adequately supported and equipped with flap valve and screen to prevent the entrance of cold air, small animals and rodents and must discharge to a non-pedestrian area. The plans must clearly indicate that discharge to the outside is to a non-pedestrian area.
- (21) For more information please refer to the link to our website.  
<https://health.westchestergov.com/cross-connection-control>

Should you have any questions please call 914-864-7278 or 914- 864-7279.

Completed submittal (with water purveyor's endorsement) shall be forwarded to:

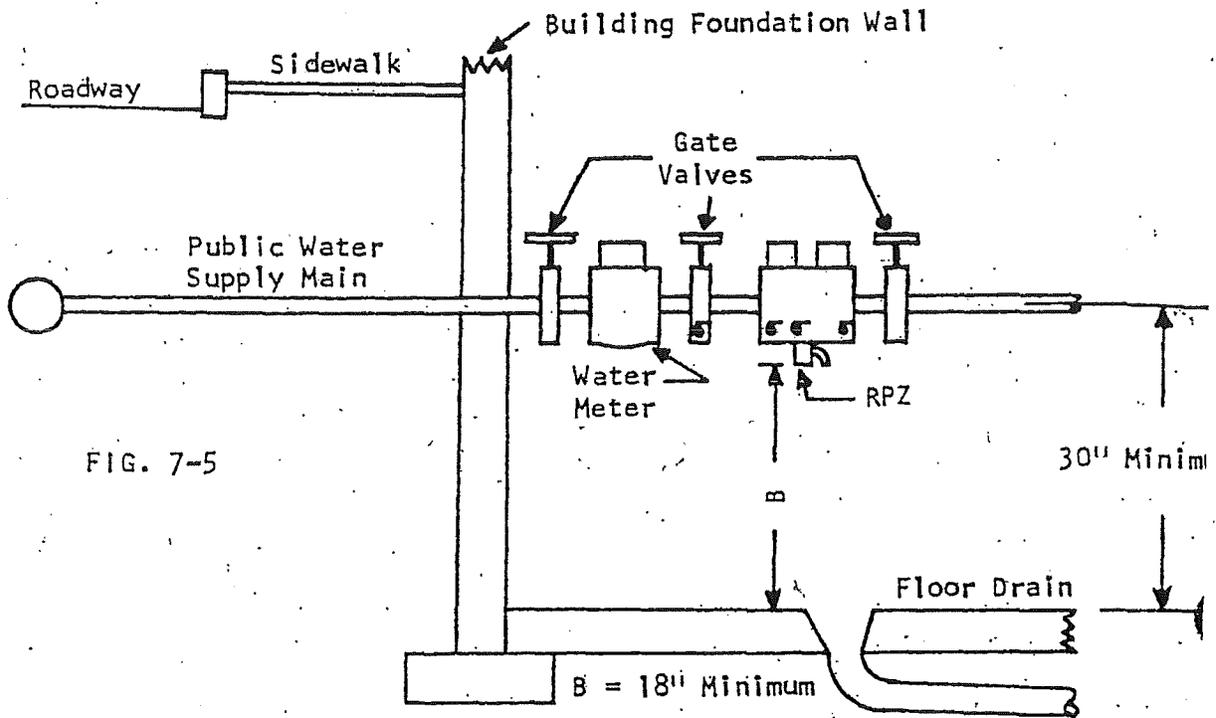
Westchester County Department of Health  
25 Moore Avenue  
Mount Kisco, NY 10549  
Attention: Natasha Court PE, Associate Engineer

Revised 06/11/2020

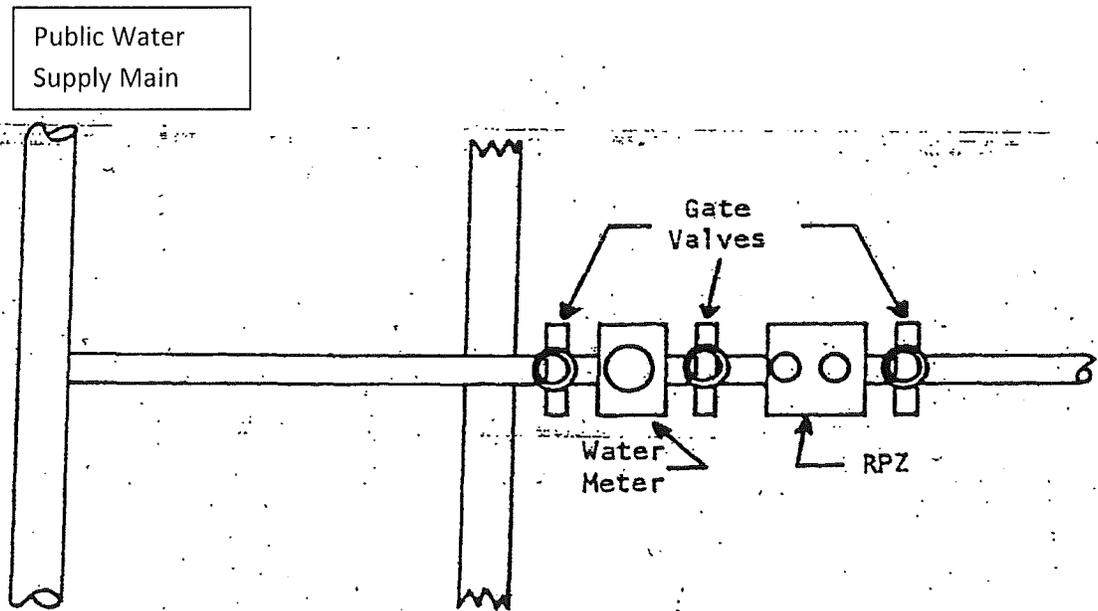
## Design Approval Criteria

- **Application**
- **Site Plan** – (to scale or w/dimensions) of facility containing:
  - General Location Map
  - Name and address of facility
  - Property line
  - Buildings
  - Size and location of public water mains
  - All fire and domestic water services
  - Meter Pit
  - Yard piping and hydrants
  - Pumper connection(s)
  - Interconnection(s)
  - Proposed location of back-flow preventers
  - Designers stamp and signature
- **Plumbing Floor Plan** – (to scale or w/dimensions indicated from walls and nearby objects)  
Plan view or partial floor plan indicating:
  - Water Services
  - Name and address of facility
  - Water meter layout
  - Proposed back-flow preventer(s)
  - Booster pump system(s)
  - Floor drain(s)
  - All nearby objects (electrical panels, boilers, chillers, storage tanks, fire pumps, fire sprinkler risers, etc.)
  - Designers stamp and signature
- **Vertical Cross-Section(s)** – of the proposed installation with elevations from the floor, ceiling, outside grade and all nearby objects.
  - Designers stamp and signature
- **Engineer's Report** – The report shall include:
  - General use of water in the facility
  - Size and descriptions of all fire and domestic and water services
  - Number of floors within the facility
  - Actual or estimated maximum flow demand
  - Pressure – existing and after the installation of back-flow preventers
  - Description of fire fighting facility – indicate the AWWA manual M-14 class of sprinkler service
  - Description of the proposed installation of the back-flow preventer with the location, drainage, lighting, heating, access to the unit, square footage of the floor level where the back-flow preventer is to be located

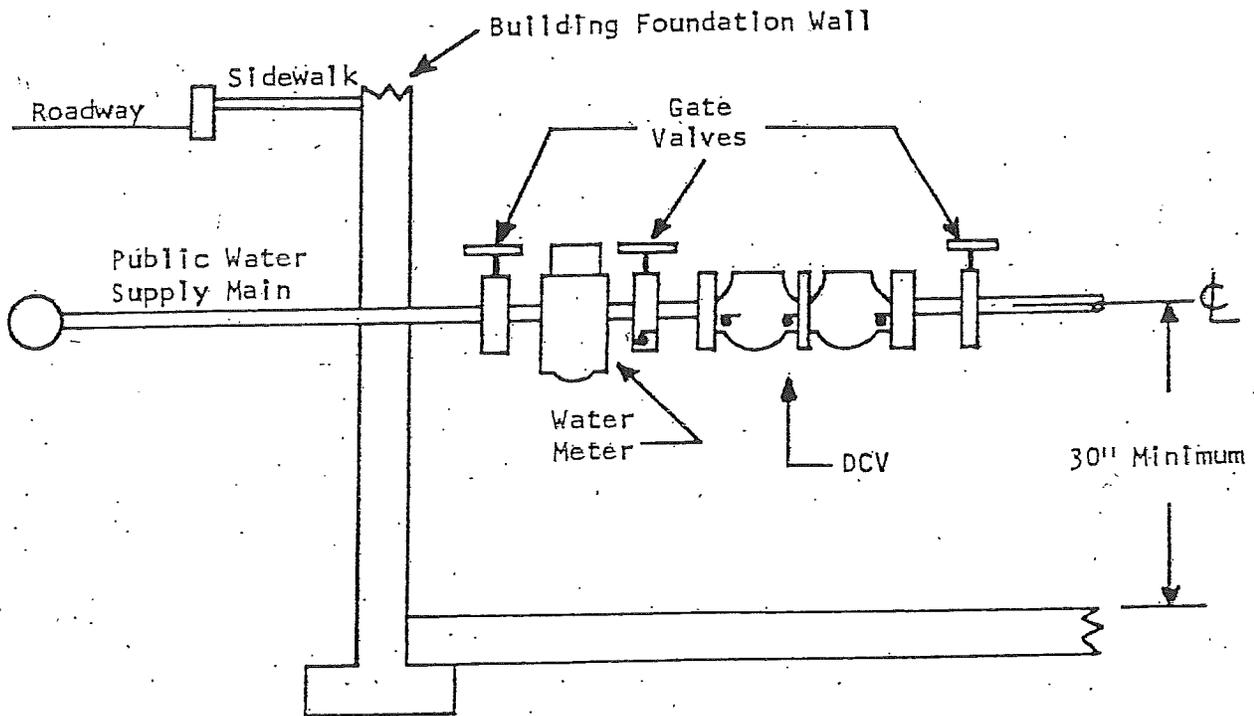
**RPZ  
INSTALLED WITHIN A FACILITY**



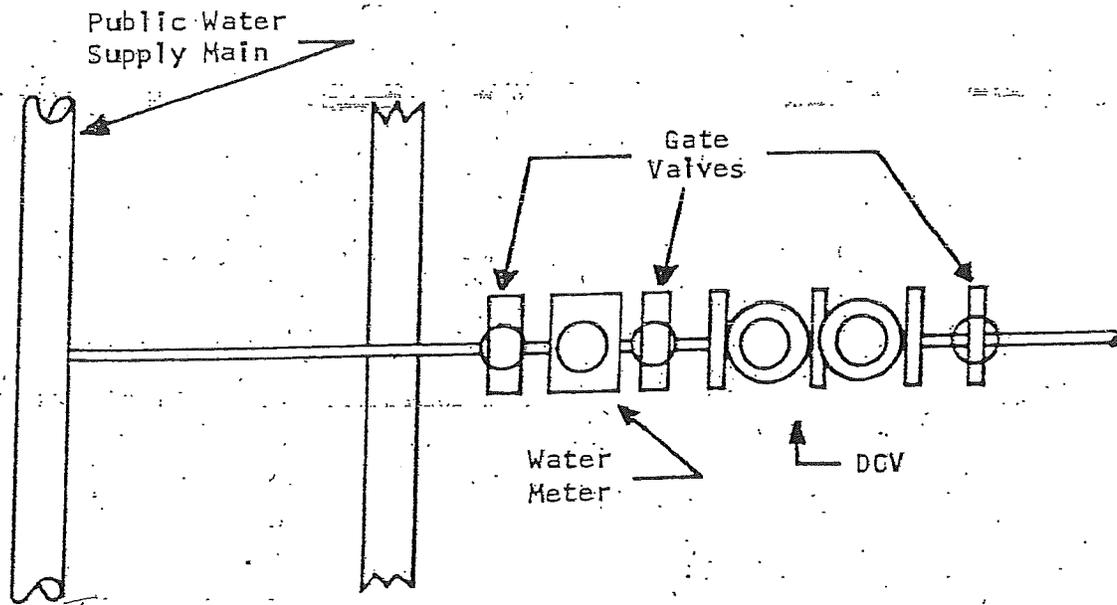
NOTE: Device to be installed above highest possible flooding.



DCV Installed  
Within a Facility



NOTE: Device to be installed above highest possible flooding.



**CERTIFICATE OF RESOLUTION  
FOR AUTHORIZATION**

The undersigned, \_\_\_\_\_ of \_\_\_\_\_

Name of Corporation \_\_\_\_\_, a corporation

Duly organized and validly existing under the laws of (State) \_\_\_\_\_

Hereby certifies that the following resolution was duly adopted by the Board of Directors, of said Corporation at a meeting duly called and held on the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

Be it resolved that the Board of Directors, or President, if there is no Board of Directors, of (Name of Corporation) \_\_\_\_\_

With Offices at: \_\_\_\_\_

Hereby authorized (Name if person authorized): \_\_\_\_\_

To execute and deliver to the Westchester County Department of Health, for and on behalf of said Corporation, and application for : \_\_\_\_\_

To execute and deliver any and all additional documents which may be appropriate or desirable in Connection therewith.

The undersigned further certifies that said resolution has not been revoked, rescinded or modified and remains in full force and effect on the date hereof.

**In WITNESS WHEREOF**, the undersigned has duly executed this certificate on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

**OFFICER'S SIGNATURE:** \_\_\_\_\_

**TITLE:** \_\_\_\_\_

**ACKNOWLEDGEMENT**

**STATE OF** \_\_\_\_\_ )

**COUNTY OF** \_\_\_\_\_ ): ss:



One this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, before me personally came \_\_\_\_\_ of \_\_\_\_\_ the corporation referred to in the within Certificate of Resolution, who being by duly sworn did depose and say that (s)he is \_\_\_\_\_ of said corporation and that (s)he signed his/her name thereto.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
County

## Application for Approval of Backflow Prevention Devices

|  |  |       |   |   |                           |  |
|--|--|-------|---|---|---------------------------|--|
| <b>PRINT OR TYPE ALL ENTRIES EXCEPT SIGNATURES</b><br>Please completed items 1 through 12a + Block and Lot Numbers |  |       |   | Block #                                     | Lot #                     | FOR DEPARTMENT USE ONLY<br>Log No.   |
| 1. Name of Facility  |  |       | 2. City, Village, Town  |   | 3. County                 |  |
| 4. Location of Facility<br><small style="margin-left: 100px;">Street</small>                                       |  |       | City  | state                                       | zip                       |  |
| 4a. Phone Numbers  |  |       | 5. Contact Person   |   |                           |  |
| 5. Approx. Location of Device(s)   |  |       | 6. Mfg. Model #   |   | Size of Device(s)         |  |
| # of Fire Services   |  |       | # of Domestic Services  |   | # of Combined Services    |  |
| Total # of Services  |  |       | Total # of Buildings  |   |                           |  |
| 7. Name of Owner   |  | Title |   | Phone Number                                |                           | 8. Nature of works<br><input type="checkbox"/> Initial Device Installation<br><input type="checkbox"/> Replace Existing Device           |
| Full Mailing Address<br>Address <small style="margin-left: 100px;">street</small>                                  |  |       |   |   |                           | 8a.<br><input type="checkbox"/> New Service<br><input type="checkbox"/> Existing Service   |
| City   |  |       | state   |   | zip                       |  |
| Owner's Signature  |  |       |   | Date  |                           | 8b.<br><input type="checkbox"/> New Building<br><input type="checkbox"/> Existing Building<br><input type="checkbox"/> Major Renovations |
| M / D / Y  |  |       |   |   |                           |  |
| 9. Name of Design Engineer or Architect  |  |       |   |   |                           | 10. NYS License #  |
| Street<br>Address  |  |       |   |   |                           | <input type="checkbox"/> PE <input type="checkbox"/> RA <input type="checkbox"/> Other   |
| City   |  |       |   |   |                           | 10a. Telephone Number(s)   |
| State  |  |       | Zip   |   |                           | Date   |
| Signature  |  |       |   |   |                           | M / D / Y  |
| Original Ink signature and seal required on all copies   |  |       |   |   |                           |  |
| 11. Water System Pressure (psi) at Point of Connection   |  |       | 12. Estimate Installation Cost                                      |   | 12a. Estimate Design Cost |  |
| Max Avg Min  |  |       |   |   |                           |  |
| 13. Degree of Hazard   |  |       | List of processes or reasons that lead to degree of hazard checked: |   |                           |  |
| <input type="checkbox"/> Hazardous   |  |       | _____   |   |                           |  |
| <input type="checkbox"/> Aesthetically Objectionable   |  |       | _____   |   |                           |  |
| 14. Public water supply name   |  |       |   | Name of supplier's designate representative |                           |  |
| Mailing Address  |  |       |   | Title                                       |                           |  |
| street   |  |       |   | _____                                       |                           |  |
| City   |  | state |   | Signature                                   |                           |  |
| zip  |  |       |   | M / D / Y                                   |                           |  |
| Telephone No. ( )  |  |       |   |   |                           |  |

Note: All applicants must be accompanied by plans, specifications and an engineer's report describing the project in detail. The project must first be submitted to the water supplier, who will forward it to the local public health engineer. This form must be prepared in quadruplicate with four copies of all plans, specifications and descriptive literature.

# Report on Test and Maintenance of Backflow Prevention Device

|               |  |   |
|---------------|--|---|
| <b>PART A</b> | <b>Please use a separate form for each device.</b> | For the year _____  |
|               |  | <input type="checkbox"/> Initial test - Complete entire form<br><input type="checkbox"/> Annual test - Complete Part A only |

|                           |                   |              |             |           |
|---------------------------|-------------------|--------------|-------------|-----------|
| Public Water Supply _____ | Account No. _____ | County _____ | Block _____ | Lot _____ |
|---------------------------|-------------------|--------------|-------------|-----------|

|                                   |                          |
|-----------------------------------|--------------------------|
| Facility Name _____               | Location of Device _____ |
| Address _____                     | _____                    |
| Street _____ City _____ Zip _____ | _____                    |

|                    |                    |   |             |                        |                     |
|--------------------|--------------------|---|-------------|------------------------|---------------------|
| Device Information | Manufacturer _____ | Type <input type="checkbox"/> RPZ<br><input type="checkbox"/> DCV | Model _____ | Size (in inches) _____ | Serial Number _____ |
|--------------------|--------------------|---|-------------|------------------------|---------------------|

|  |                   |                   |                                    |                         |
|--|-------------------|-------------------|------------------------------------|-------------------------|
|  | Check Valve No. 1 | Check Valve No. 2 | Differential Pressure Relief Valve | Line Pressure _____ psi |
|--|-------------------|-------------------|------------------------------------|-------------------------|

|   |  |  |                      |   |  |  |  |  |  |  |   |   |   |  |  |  |
|---|--|--|----------------------|---|--|--|--|--|--|--|---|---|---|--|--|--|
| <b>Test before repair</b>                         | Leaked <input type="checkbox"/><br>Closed tight <input type="checkbox"/> | Leaked <input type="checkbox"/><br>Closed tight <input type="checkbox"/> | Opened at _____ psid | Date<br><table style="width:100%; border: none;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> </tr> <tr> <td style="text-align: center;">M</td> <td style="text-align: center;">D</td> <td style="text-align: center;">Y</td> <td colspan="3"></td> </tr> </table> |  |  |  |  |  |  | M | D | Y |  |  |  |
|   |  |  |                      |   |  |  |  |  |  |  |   |   |   |  |  |  |
| M   | D  | Y  |                      |   |  |  |  |  |  |  |   |   |   |  |  |  |
| Pressure drop across first check valve _____ psid |  |  |                      |   |  |  |  |  |  |  |   |   |   |  |  |  |

|  |   |   |   |  |  |  |   |   |   |
|--|---|---|---|--|--|--|---|---|---|
| <b>Describe repairs and materials used</b> |   |   | Repaired by<br>Name _____<br>Lic # _____<br>Date repaired:<br><table style="width:100%; border: none;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> </tr> <tr> <td style="text-align: center;">M</td> <td style="text-align: center;">D</td> <td style="text-align: center;">Y</td> </tr> </table> |  |  |  | M | D | Y |
|  |   |   |   |  |  |  |   |   |   |
| M  | D | Y |   |  |  |  |   |   |   |

|                   |   |                                       |                      |   |  |  |  |   |   |   |
|-------------------|---|---------------------------------------|----------------------|---|--|--|--|---|---|---|
| <b>Final test</b> | Closed tight <input type="checkbox"/>             | Closed tight <input type="checkbox"/> | Opened at _____ psid | Date<br><table style="width:100%; border: none;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> </tr> <tr> <td style="text-align: center;">M</td> <td style="text-align: center;">D</td> <td style="text-align: center;">Y</td> </tr> </table> |  |  |  | M | D | Y |
|                   |   |                                       |                      |   |  |  |  |   |   |   |
| M                 | D   | Y                                     |                      |   |  |  |  |   |   |   |
|                   | Pressure drop across first check valve _____ psid |                                       |                      |   |  |  |  |   |   |   |

|                          |                     |  |
|--------------------------|---------------------|--|
| Water Meter Number _____ | Meter Reading _____ | Type of Service: (check one)<br><input type="checkbox"/> Domestic <input type="checkbox"/> Fire <input type="checkbox"/> Other _____ |
|--------------------------|---------------------|--|

Remarks (Describe deficiencies: bypasses, outlets before the device, connections between the device and point of entry, missing or inadequate airgaps, etc.)

Certification: This device  meets,  does NOT meet, the requirements of an acceptable containment device at the time of testing  
 I hereby certify the foregoing data to be correct.

|                  |                            |                 |                                   |
|------------------|----------------------------|-----------------|-----------------------------------|
| Print Name _____ | Certified Tester No. _____ | Signature _____ | Expiration Date _____/_____/_____ |
|------------------|----------------------------|-----------------|-----------------------------------|

Property owners (or owners agent) certification that test was performed:

|                  |             |                 |                                    |
|------------------|-------------|-----------------|------------------------------------|
| Print Name _____ | Title _____ | Signature _____ | (_____) _____ - _____<br>Telephone |
|------------------|-------------|-----------------|------------------------------------|

|               |   |  |
|---------------|---|--|
| <b>PART B</b> | Certification that installation is in accordance with the approved plans. | (To be completed by the design engineer or architect or water supplier.) |
|---------------|---|--|

I hereby certify that this installation is in accordance with the approved plans.

|                      |                   |  |  |  |  |  |  |  |   |   |   |  |  |  |                     |
|----------------------|-------------------|--|--|--|--|--|--|--|---|---|---|--|--|--|---------------------|
| Name _____           | Title _____       | Date <table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> </tr> <tr> <td style="text-align: center;">m</td> <td style="text-align: center;">d</td> <td style="text-align: center;">y</td> <td colspan="3"></td> </tr> </table> |  |  |  |  |  |  | m | d | y |  |  |  | NYS DOH Log # _____ |
|                      |                   |  |  |  |  |  |  |  |   |   |   |  |  |  |                     |
| m                    | d                 | y  |  |  |  |  |  |  |   |   |   |  |  |  |                     |
| License Number _____ | Phone (   ) _____ |  |  |  |  |  |  |  |   |   |   |  |  |  |                     |

|  |                                     |
|--|-------------------------------------|
| Representing _____<br>Address _____<br>City _____ State _____ Zip _____<br>Signature _____ | Describe minor installation changes |
|--|-------------------------------------|

NOTE: Send one completed copy to the designated health department representative and one copy to the water supplier within 30 days of the testing device. Notify owner and water supplier immediately if device fails test and repairs cannot immediately be made. DOH- 1013(9/91)

**INSTRUCTIONS FOR COMPLETING DOH-1013 (9/91)  
REPORT ON TEST AND MAINTENANCE OF BACKFLOW PREVENTION DEVICE**

**PART A - To Be Completed by Certified Tester**

- Indicate the test year and whether initial or annual test.
- Complete public water supply name, customer account number (if available) and county.
- Complete block and lot (if available) for New York City Metropolitan area tests.
- Complete facility name, address and specific location of device (e.g., meter room, etc.)
- Complete device information including manufacturer, type, model, size and serial number.
- Complete section •Test Before Repair• and indicate:
  - Whether check valve #1 leaked or closed tight. For RPZ devices, the pressure drop across the check valve must be at least 5.0 psid.
  - Whether check valve #2 leaked or closed tight.
  - Opening of RPZ differential pressure relief valve - must be at least 2.0 psid or device must be failed and/or repaired.
  - Complete water system line pressure in psi and indicate test date.
- Describe any repairs and materials used and the name and license number of the repairer and indicate repair date.
- Complete •final test• section only if repairs have been made.
- Indicate the water meter number/meter reading and the type of service (describe •other• e.g., boiler feed, irrigation line, etc.)
- Complete the Remarks section if there are any deficiencies.
- Complete the certification indicating if the device meets or does not meet the requirements at the time of testing - print and sign your name and indicate certificate number and expiration date.
- Have the property owner (or owner's agent) certify that test was performed.

**PART B - To Be Completed By Design Engineer, Architect or Water Supplier for initial Tests Only**

- Complete name, title, license number, phone number, company name and address.
- Sign and date form and indicate NYSDOH (or local health department/water supplier).
- Describe minor installation changes.

After completion, submit copies of test reports to the supplier of water, customer, State or local health department and retain copies for the tester's personal records.