

Prepared for:

City of Holly Hill

1065 Ridgewood Avenue
Holly Hill, FL 32117-2898



CROSS CONNECTION CONTROL PLAN

For

City of Holly Hill

City of Holly Hill Approved: 7/23/2012

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1. INTRODUCTION

1.1. Purpose

The purpose of this document is to outline the City of Holly Hill Cross Connection Control (CCC) policies for all commercial, industrial, governmental, residential and miscellaneous facilities having service connections to the City of Holly Hill public water supply, and is summarized as follows:

- Protect the public water supply from contaminants and pollutants that could backflow through the service connection(s)
- Promote the elimination of actual and/or potential cross connections between the public water supply and non-potable water systems, plumbing fixtures and sources or systems containing substances of unknown or questionable quality
- Promote the elimination of actual and/or potential cross connections between the facility potable water supply and non-potable water systems, plumbing fixtures and sources or systems containing substances of unknown or questionable quality
- Provide guidance for the maintenance of a continuing program for protection from the potential of service line and internal cross connections within the facility

1.2. Legality

In accordance with the Florida Department of Environmental Protection, Water Bureau (FDEP), the City of Holly Hill proclaims this program as a continuing effort to maintain pure, clean, safe potable water. The City of Holly Hill shall comply with the Cross Connection Control Rules in the Florida Administrative Code Chapters 62-550, 62-555, and 62-610 (*Rule 62-550.200, Rule 62-550.720, Rule 62-555.330, Rule 62-555.350, 62-555.360, Rule 62-610.419, 62-610.469, 62-610.476, 62-610-491 and 62-610.660*) as appropriate.

By reference to the Florida Administrative Code (FAC), Rules 62-555.360(2), *"we hereby establish the "City of Holly Hill Cross Connection Control Program."* This program was adopted by the hereby above described organization on 7/23/2012.

1.3. Local Ordinance

Legal authority to carry out and enforce the City of Holly Hill Cross Connection Control Program is provided in the City of Holly Hill code of ordinances, Article IV, Sections 70-100 through 70-107. A copy of said ordinance can be found in Appendix A of this plan.

2. AUTHORITY/ADMINISTRATOR

The City of Holly Hill shall be the Authority and the Administrator of the Cross Connection Control (CCC) Program. This Cross Connection Control Program shall include, but not be limited to:

- Establish Authority
- Local Ordinance (See Appendix A)
- Applicable Rules and Regulations
- Inspection Process and Requirements
- Approved Backflow Prevention Devices and Assemblies
- Testing Requirements of Backflow Prevention Assemblies
- Data Management
- Reporting
- Public Education and Awareness

2.1. Inspector

The City of Holly Hill or Designated Agent (Administrator/Agent) conducting inspections on behalf of the City of Holly Hill must be designated or approved by the City of Holly Hill. The Administrator/Agent must meet both 1) an experience component and 2) a certification/training component.

Experience

Acceptable experience may include one- (1) or more of the following:

- Be employed by a Utility, Water Purveyor, Building Department, or body of jurisdiction and must meet the qualifications and training requirements as dictated by the Authority conducting inspections/surveys on behalf of the City of Holly Hill
- Have held a similar position (CCC Inspector) with a previous municipality
- One year full time experience in conducting cross connection control inspections in commercial, institutional, industrial facilities, and/or residential facilities

Inspector Certification/Training

Acceptable certification/training may include one- (1) or more of the following:

- Meet American Society of Sanitary Engineer Standards (ASSE) 5020 and completed their Cross Connection Inspector Course (40 hours)
- Possess a certificate of completion from one of the following:
 - University of Southern California (USC) Cross Connection Control Specialist Course (40 hours)
 - University of Florida TREEO Center (UFTREEO) Cross Connection Control Program Manager Course (40 hour)
 - America Society of Sanitary Engineers (ASSE) Certified Cross Connection Control Surveyor
- Other approved cross connection courses for surveying, as approved by the Authority for conducting inspections/surveys on behalf of the City of Holly Hill. Submission requirements for approvals must include the following:
 - Course outline
 - Date of attendance
 - Outline of test questions
 - Categories and grading criteria
 - Certificate of satisfactory completion

3. INSPECTIONS

3.1. Inspection

Authorized Inspectors, having proper identification, shall be permitted to enter the building/premises at any reasonable time for the purpose of inspection for the presence or absence of cross connections, testing, repair, and maintenance of any part of the plumbing system or any cross connection control device connected to the water system. The Authority shall deny or discontinue, after reasonable notice to the occupants, water service to any building/premises for refusal or failure to arrange for a cross connection inspection. The Authority shall deny or discontinue water service if there is reason to believe the building/premises pose a potential for danger to the public and/or occupants.

3.2. Responsibility of the Owner

The Owner shall be responsible for the protection of the public water supply from contamination due to backflow through the water service connection. The Authority may require Owner, at their expense, to install, alter, replace, or repair any plumbing connected to the public water system that may pose a threat to public health. Failure, refusal or the inability on the part of the Owner to correct any deficiency or violation immediately shall be unlawful and the Authority may deny or discontinue water service to the premises. The owner shall be responsible for the elimination of all unprotected cross connections, to include service line protection and any connections downstream of the service line supply to the building(s).

3.3. Service Line Protection Inspection

- a) Inspection of existing service connections, including dedicated fire and irrigation connections, to properties owned by the City of Holly Hill shall commence immediately upon implementation of the Cross Connection Control Program.
- b) Existing service connections to all commercial and industrial facilities, including dedicated fire and irrigation connections, shall be inspected at a rate of approximately 160 facilities per year until all existing facilities have been inspected. Commercial and industrial facility inspections shall be prioritized as follows:
 - 1) High Hazard commercial and industrial water customers
 - 2) Low Hazard commercial and industrial water customers
 - 3) Multifamily residential customers
- c) New service line connections should be assessed *prior* to introduction of new service to determine what method of backflow protection is required.
- d) Existing and/or new service line protection backflow prevention devices/methods shall be determined and required for certain buildings by referencing the American Water Works Association (AWWA) Manual M14, 3rd Edition, Chapters 2 and 5 and FAC Rule 62-555.360. Backflow protection selection shall be consistent with or more stringent than FDEP Rules and AWWA M14 recommendations.
- e) Failure to install backflow protection as required by the Authority may precede disciplinary action from the Authority.

3.4. Service Line Protection Inspection

- a) Existing service line connections shall be reassessed/inspected at an interval of no less than every ten- (10) years to determine if the existing backflow preventer/method is appropriate for the level of hazard, or if service line protection is required.
- b) New service line connections should be assessed *prior* to introduction of new service to determine what method of backflow protection is required.

3.5. Internal Potable Plumbing System Inspection

- a) Internal plumbing systems may require inspection at the discretion of the Utilities Manager. The facilities internal water use practices shall be reviewed to determine whether there are actual or potential cross connections to the plumbing system through which contaminants or pollutants could backflow into the public water supply and/or the facilities internal plumbing system.
- b) If a properly installed air gap or approved Reduced Pressure Backflow Prevention Assembly is **not present** immediately downstream of the service line connection, the internal plumbing systems downstream of the service line shall be reviewed for cross connections to determine the type of backflow prevention assembly required as service line protection.

3.6. Protection of the Reclaim Water Supply

- a) Industrial facilities that receive reclaim water shall be inspected to (1) ensure there are no connections between the potable water system and the reclaim water system and (2) to ensure that the reclaim water system inside the facility is properly protected in order to prevent the possible contamination of the City of Holly Hill's reclaim water distribution system.
- b) Service line protection of the reclaim water system shall be required at all industrial facilities served by reclaim water unless it is determined by the inspector/agent that there is minimal risk of a backflow event occurring that could contaminate the City of Holly Hill's reclaim water distribution system.

3.7. Inspection/Survey Forms

An *Inspection/Survey Form* shall be used in every inspection, as required, and will be filed in a location as identified in Section 3.8, along with other pertinent information accumulated. This form will be used to record both existing backflow prevention devices discovered and any requirements for additional backflow prevention devices at the time of the inspection.

3.8. Inspection Procedures

Cross connection control inspections shall be completed as follows:

- a) Identify building to be inspected and schedule inspection.
- b) Meet on-site with facility contact/owner.
- c) Explain the Cross Connection Control Program to the facility contact/owner before inspection of the facility.
- d) Inspect/Evaluate the status of service line protection – complete all inspection forms as required (See line item “e” below).
- e) Inspect the building downstream of the service line if required and complete the Inspection Form(s) as applicable/required with the following information:
 - Visually review all exposed piping and water outlets/uses downstream of the service connection if required
 - Document all existing backflow prevention assemblies, devices and methods (including make, model#, size, serial # if applicable) that are currently protecting cross connections on the *Inspection/Survey Form*
 - Describe the point of use or equipment supplied for each backflow prevention assembly, device or method on the *Inspection/Survey Form*
 - Use the *Inspection/Survey Form* to provide specific requirements for corrective action
 - Fill out an *Inspection/Survey Form* to document general findings; provide a “Compliance Status” and any follow up action to be taken. If no action is required (i.e., *Compliant*), provide a date of the next inspection due, if applicable. If the facility requires corrective action (i.e., *Non-Compliant*), provide a due date to complete corrective action(s) as designated on form.
 - Date all forms with the date of the in-field inspection
- f) In addition to the field forms, a piping diagram or schematic of the plumbing system may be requested or required.

3.9. Request for Internal Cross Connection Control Information

The Authority has the right to request specific cross connection control information to include but not limited to service line protection methods, assembly test records, CCC Program information, piping drawings, etc.

3.10. Record Keeping and Data Management Software

All data obtained from the *Inspection Forms*, *Existing Devices Forms* and *Requirements Forms* will be input into a data management system and held for a period of no less than ten- (10) years to facilitate the CCC Program. This information will include:

- Address and location
- Owner name and contact information
- Required re-inspection frequency
- Degree of hazard classification
- List of assemblies
- Location of assemblies
- Make, model, and size of assemblies
- Testing and maintenance of assemblies
- Description of other cross connections within the facility
 - Air gaps
 - Non-testable devices

Additionally, all written backflow incident reports and annual cross connection control program activities reports shall be maintained for a period of no less than ten – (10) years.

4. BACKFLOW PREVENTION ASSEMBLIES AND DEVICES

4.1. Responsibility

With respect to backflow prevention devices/assemblies or methods the City of Holly Hill shall require the following:

- a) Installation and maintenance of assemblies, devices and/or methods to protect all existing cross connections shall be the responsibility of the Owner. The City of Holly Hill may decide to utilize its resources to facilitate a bid package for local plumbing contractors to minimize owner expense for annual backflow prevention assembly testing and repair.

4.2. Approved Backflow Prevention Assemblies and Devices

- a) The City of Holly Hill accepts backflow prevention devices, assemblies and methods (downstream of service line protection) as recognized by the Florida Building Code.
- b) FDEP recognized backflow prevention device, assemblies and methods intended to protect the public water supply at the point of the service connection must conform to FAC 62-555.360 (4).
- c) New installation of Reduced Pressure Backflow Prevention Assemblies and Double Check Valve Assemblies intended for service line protection must conform to AWWA Standards C510 and C511.

4.3. Service Line Backflow Prevention Assembly Protection

With respect to backflow prevention assemblies installed at the service line, the Authority will require the following:

- a) Service line protection shall be required in accordance with the AWWA M-14 Manual, 3rd Edition recommendations and guidelines set forth by the FDEP.
- b) Where service line protection is required the owner shall receive formal written notification detailing the requirement and instructions pertaining to the need for protection from thermal expansion (see *Containment Notification* located in Appendix C).
- c) Service connections to fire protection systems shall be required in accordance with the AWWA M-14 Manual, 3rd Edition. The continued use of UL-listed alarm check valves shall be accepted on any existing connection deemed to be a low hazard by the Authority/Agent.
- d) If an existing fire protection system requires a higher degree of protection than that of which is currently installed and additional or new backflow prevention devices are required that may effect the hydraulics of the system, the owner shall receive formal written notification detailing the requirement and the owners responsibility to hire a registered professional engineer or a certified fire-protection system contractor in order to ensure there will not be an adverse effect on the operation of the system.
- e) The installation of a Reduced Pressure Backflow Prevention Assembly as service line protection shall be required at all commercial, industrial and governmental facilities.
- f) The installation of residential Dual Checks shall be required as service line protection at all residential homes which are also served by reclaimed water.

- g) The installation of a Reduced Pressure Backflow Prevention Assembly as service line protection shall be required at all residential properties where an auxiliary water system exists. This requirement shall not apply to residential homes supplied by the City of Holly Hill reclaim water system unless the reclaim system is augmented in any way with ground water, surface water, or any other water source that does not meet the quality standards of the City of Holly Hill reclaim water system.
- h) Backflow prevention assemblies, devices or methods installed as service line protection shall be installed immediately downstream of the water meter and prior to the first branch line in the plumbing system.
- i) New Installation of Reduced Pressure Backflow Prevention Assemblies and Double Check Valve Assemblies must conform to AWWA Standards C510 and C511.
- j) The installation of Reduced Pressure Backflow Prevention Assemblies, Pressure Vacuum Breaker Assemblies and Atmospheric Vacuum Breakers below grade or in an underground pit shall be prohibited.
- k) The installation of Double Check Valve Assemblies and residential Dual Checks below grade or in an underground pit shall be accepted under the following conditions:
 - 1) If the test cocks are plugged
 - 2) If adequate drainage is provided to maintain a normally dry location
- l) Assemblies located at the service line shall be tested upon installation, upon repair, upon responding to a reported backflow incident, and on an annual basis.

4.4. Lawn Irrigation Systems

Lawn irrigation systems which are supplied from a dedicated service line shall be equipped with a Reduced Pressure Backflow Prevention Assembly immediately downstream of the water meter and prior to the first irrigation branch line. Lawn irrigation systems installed in such a manner that the supply originates downstream of the potable service line connection to a building shall be equipped with a Pressure Vacuum Breaker Assembly or Reduced Pressure Backflow Prevention Assembly at the point of origination of the system. These assemblies must be installed in accordance with the *FL Building Code* and the manufacturers' installation requirements.

4.5. Testing of Backflow Prevention Assemblies

- a) All backflow prevention assemblies and testable residential dual check valves located at the service line and downstream shall be tested upon installation, upon repair, upon responding to a reported backflow incident, and on an annual basis. Assemblies must be tested in accordance with applicable standards referenced within the *FL Building Code* (ASSE 5000 Series or CSA B64.10.1-01).
- b) Equipment used to field test assemblies must be checked for accuracy annually.
- c) Assembly test form(s) to record test results will be maintained by the Owner and submitted to the Authority as required.

- d) The Owner shall have all assemblies tested annually by a tester having completed the 40 hour University of Florida TREEO Center Backflow Prevention Assembly Tester Training and Certification Course, the University of Southern California Backflow Prevention Assembly Tester Training, or an American Society of Sanitary Engineers approved course. All testers must also complete a recertification exam at an interval not to exceed once every three years. *Per FS Sections 633.021 and 633.541, only certified fire protection contractors may test assemblies at service connections to fire protection systems.*
- e) Completed test forms shall be returned to the Authority/Administrator of this program no later than five (5) business days after testing has been completed.
- f) The City of Holly Hill shall reserve the right to direct and administer testing of any backflow prevention assemblies installed as service line protection. All costs associated with testing and any necessary repairs of these assemblies shall be the responsibility of the owner and will be added as a separate line item on the next occasion of the owners' water billing cycle.
- g) Failure to test assemblies located at the service line and submit appropriate test forms may result in termination of water service.
- h) The Authority/Administrator may at their discretion conduct random follow up site visits immediately after receipt of a completed test report to ensure that the assembly is in good working condition and that it was tested properly. In any case that a test form is deemed to be inaccurate, incomplete or fraudulent the tester may be removed from the approved testers list.

4.6. Backflow Prevention Device Maintenance and Inspection

- a) Residential dual checks installed as service line protection shall be replaced, or overhauled at an interval acceptable to the FDEP which is no longer than every five- (5) years to ensure that the device is (1) appropriate for the degree of hazard and (2) also to ensure that the backflow prevention device is working properly.
- b) Air gaps installed as service line protection shall be inspected upon installation, upon repair, upon responding to a reported backflow incident, and on an annual basis. Inspection of approved air gaps may be completed by the Authority/Administrator or an approved backflow prevention assembly tester. In any case the individual inspecting an air gap shall meet the training and qualification requirements set forth in Sections 2.1 or 4.5 (d) of this plan.
- c) Air gaps installed as service line protection shall conform to ANSI 112.1.2.

4.7. Assembly and Device Abbreviation List

Device Legend			
A.S.S.E Standard	Legend	Acronym	Testable Device
1001	Atmospheric Type Vacuum Breakers	AVB	No
1002	Anti-siphon Fill Valves (Ballcocks)	ASBC	No
1011	Hose Connection Vacuum Breaker	HBVB	No
1012	Backflow Preventer w/Intermediate Atmospheric Vent	VDCV	No
1013	Reduced Pressure Backflow Prevention Assembly	RPBP	Yes
1015	Double Check Valve Backflow Prevention Assembly	DCV	Yes
1019	Vacuum Breaker Wall Hydrants	HBIVB	No
1020	Pressure Vacuum Breaker Assembly	PVB	Yes
1022	Backflow Preventer for Carbonated Beverage Machine	VMBP	No
1024	Dual Check Valve Type Backflow Preventers	DC	No
1024	Residential Dual Check	RDC	Yes/No
1035	Laboratory Faucet Backflow Preventer	LFVB	No
1037	Pressurized Flushing Devices (Flushometers)	PFD	No
1047	RP Detector Backflow Prevention Assembly	RPDA	Yes
1048	Double Check Detector Backflow Prevention Assembly	DDCV	Yes
1052	Hose Connection Backflow Preventer	HCBP	No
1055	Chemical Dispensing Systems	AG	No
1056	Spill Resistant Vacuum Breaker Assembly	SVB	Yes
1057	Freeze Resistant Yard Hydrant W/Backflow		No
A112.1.2	Air Gap	AG	No
	Single Check Valve	SCV	No

5. NEW SERVICE INSPECTION

5.1. Procedures

All plumbing plans and permits for a proposed building shall be reviewed by the Authority, Plumbing Inspector, Building Inspector and building contractor(s). The Authority's Cross Connection Control Plan and Backflow Prevention requirements will be reviewed with the responsible party.

5.2. Inspections

The Authority/Designated Agent conducting the cross connection control inspection shall inspect the building for compliance with the Cross Connection Control Program.

5.3. Compliance

Upon completion of the cross connection control inspection and determination that the building is in compliance and has met any required actions of this plan, a certificate of occupancy and water service may be initiated as applicable.

5.4. Non-Compliance

If the building does not comply with the Cross Connection Control Program the Authority shall enforce this plan as required. The water service and the certificate of occupancy will not be initiated until compliance is achieved and approved.

6. PIPING IDENTIFICATION

6.1. Requirements

- 6.1.1. When two or more piping systems are used for water in a building extreme care should be taken not to interconnect the systems. There may be a potable water system and systems carrying lesser quality water such as for fire protection or re-use. To help prevent the possibility of two systems being interconnected, pipes must be identified adequately. Legends and color coding should be based on the American Standards Association "Scheme for Identification of Piping Systems" (ANSI Z535.1-199) or an identification plan accepted by the Authority and prominently posted throughout the facility.
- 6.1.2. Color-coding and/or labeling should not be used solely to identify the contents of pipes but should be used supplementary to the use of legends. Potable water lines must be painted and/or labeled and the words "Potable Water" put on the pipe at appropriate intervals. Pipes carrying water for fire protection must be painted or labeled. Piping systems carrying other material, or water for other purposes, must also be clearly identified with the appropriate legends and color-coding. Flow arrows should be included to indicate the direction of flow.
- 6.1.3. Buildings which do not comply with the identification of piping system requirements on the effective date of this plan, must be painted or labeled in accordance with this section. Identification must be completed as soon as reasonably possible.
- 6.1.4. When the piping system layout creates an unusual or extreme situation in a limited area of inaccessibility, the Authority may permit the use of permanently attached durable sign(s), or such segments of piping may require substitute techniques to achieve positive identification. The use of substitute techniques shall not deviate from ANSI Z535.1-199 standards and must be approved by the Authority.
- 6.1.5. All openings from which secondary water may be obtained shall have at all times a sign prominently posted within two (2) feet of the opening bearing the following warning: WATER UNSAFE FOR DRINKING. Such sign shall be at least eight (8) inches by ten (10) inches in size, prominently lettered in contrasting colors, with no letters less than one (1) inch in height. Signs are to be furnished and maintained by the owner of the secondary supply and must be of material and design acceptable to the Authority.

7. EMERGENCY RESPONSE PLAN

7.1. Emergency Response Plan Procedures

The City of Holly Hill shall develop and maintain an Emergency Response Plan (ERP) document intended to facilitate in properly responding to a backflow event. The written ERP shall be readily available to designated personnel.

Investigative actions to address an actual or potential backflow event are intended to:

- a) Protect the distribution system from the spread of a contaminant detected in the water supply
- b) Quickly restore the quality of water in the distribution system if a contaminant has entered the system through backflow
- c) Prevent any further contamination of the distribution system

The facilities investigation should include these steps:

- 1) Locate the source of contamination
- 2) Isolate the source to protect the water distribution system from further contamination
- 3) Determine the extent of the spread of contamination through the distribution system and provide timely, appropriate notification to the public and it's regulatory agencies as applicable
- 4) Take corrective action to clean the contamination from the distribution system
- 5) Complete "Backflow Incident Response Form". A sample form can be found in Section 7.3 of this plan.
- 6) Restore water service

7.2. Emergency Scenarios

Common scenarios causing unintended backflow forcing execution of Emergency Response may include the following:

- b) Main water supply pipe break
- c) Internal facility water pipe break
- d) Internal facility – unprotected cross connection allowing contaminant to flow into potable water distribution system
- e) Report of illness due to water supply contamination
- f) Report of discolored water

7.3. Sample Emergency Response Plan

BACKFLOW INCIDENT REPORT FORM

There are many backflow incidents, which occur that are not reported. This is usually because they are of short duration, are not detected, the customer is not aware they should be reported or it may not be known to whom the incident should be reported. If you have any knowledge regarding incidents, please complete the form below and return it to the Municipal Engineer at the above address.

Reporting Agency: _____ Report Date: _____
Reported By: _____ Position: _____
Mail Address: _____ City: _____
Province: _____ Postal Code: _____ Telephone: _____
Date of Incident: _____ Time of Occurrence: _____
General Location (Street, etc.): _____

1. Backflow Originated From:

Name of Premise: _____
Street Address: _____ City: _____
Contact Person: _____ Telephone: _____
Type of Business: _____

2. Description of Contaminant(s):
(Attach Chemical Analysis if available)

3. Distribution of Contaminant(s):

Contained within customer's property: Yes: ____ No: ____
Number of persons affected: _____

4. Effect of Contamination:

Illness reported: _____

Physical irritation reported: _____

5. Cross Connection Source of Contaminant:
(boiler, chemical pump, irrigation system, etc.)

Backflow Incident Report Form
Page 2

- 6. Cause of Backflow:**
(main break, fire flow, etc.)

- 7. Corrective Measures Taken to Restore Water Quality:**
(main flushing, disinfection, etc.)

- 8. Corrective Action Ordered to Eliminate or Protect from Cross Connection:**
(type of backflow preventer, location, etc.)

- 9. Previous Cross Connection Survey of Premise:**

Date: _____ By: _____

- 10. Type(s) of Backflow Preventer Isolating Property:**

RP: _____ RPDA: _____ DCVA: _____ DCDA: _____ PVB: _____ SVBA: _____
AVB: _____ Air Gap: _____ None: _____ Other Type: _____

- 11. Date of Latest Test of Device:** _____

- 12. Notification of Health Department:**

Date: _____ Time: _____ Person Notified: _____

Attach sheets containing any additional information, sketches, etc. to the back of this form.

8. EDUCATION AND AWARENESS

The cross connection control program staff must have a good understanding of the program. The City of Holly Hill shall ensure their cross connection control staff receives proper in-the-field training as well as classroom education focusing on terminology, backflow prevention devices/assemblies, regulations, and hydraulic concepts. In addition, cross connection control staff will be encouraged to receive continuing education to be made aware of new backflow prevention devices/assemblies, regulation changes (i.e. plumbing code updates), new water use devices that pose cross connection concerns, etc.

Furthermore, attempts to educate the public about cross connections will be made by distributing pamphlets on common residential cross connections, visiting schools, providing onsite education of facility management and maintenance staff during routine inspections, speaking at condominium association meetings, showing videos on local access channels, or posting newspaper announcements. At a minimum a Cross Connection Control informational brochure (see appendix) shall be distributed to all water customers annually. Additionally, a Backflow Prevention Assembly Testing brochure shall be included with the initial Annual Assembly Test Notice.

Cross connection staff shall also be available upon request to provide backflow prevention education to pertinent community officials and City of Holly Hill employees.

APPENDIX A - LOCAL ORDINANCE

Sec. 70-100. Cross connections prohibited.

Cross connections, as hereinafter defined, are hereby declared to be unlawful and a public nuisance punishable pursuant to section 1-15 of this Code.

(Ord. No. 2448, § 1, 12-10-96)

Editor's note: Ord. No. 2448, § 1, adopted Dec. 10, 1996, repealed the former § 70-100, and enacted a new § 70-100 as set out herein. The former § 70-100 pertained to connection of potential contaminant source to water distribution system and derived from Code 1984, § 28-46.

Sec. 70-101. Cross connection defined.

The term "cross connection" means any physical arrangement whereby a public water supply is connected, directly or indirectly, with any other water supply system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture or other device which contains or may contain contaminated water, sewage or other waste or liquid of unknown or unsafe quality which may be capable of imparting contamination to the public water supply as result of backflow. Bypass arrangements, jumper connections, removable sections, swivel or changeable devices and other temporary or permanent devices through which or because of which backflow could occur are considered to be cross connections.

(Ord. No. 2448, § 1, 12-10-96)

Sec. 70-102. Cross connection control program.

The public works director shall develop a routine cross connection control program to detect and prevent cross connections that create or may create an imminent and substantial danger to public health. In so doing, the director shall utilize the accepted practices of the American Waterworks Association guidelines, as set forth in such association's manual M14, Backflow Prevention and Cross Connection Control and Backflow Prevention, second edition.

(Ord. No. 2448, § 1, 12-10-96)

Sec. 70-103. Right to enter to inspect.

The public works director, or any employee so authorized by the director, shall have the right to enter any property, other than owner-occupied family residences, for the purpose of inspecting for cross connections. In so doing, the director or the authorized employee shall first seek the permission of the owner, operator or manager of the premises. Failure to grant such permission shall be deemed as a rebuttable presumption of a violation and shall provide the person asking such permission with probable cause to seek an inspection warrant as provided pursuant to state law.

(Ord. No. 2448, § 1, 12-10-96)

Sec. 70-104. Remedial action required.

In the event any cross connection is discovered, the public works director shall take the following action:

- (1) Order the discontinuance of potable water service to the site until the contaminant source is eliminated;
- (2) Order the elimination of the cross connection by the installation of a backflow prevention device acceptable to the Department of Health and Rehabilitative Services (HRS); or
- (3) Direct the installation of a FDEP-approved backflow prevention device by the city with the property owner to be billed for the cost thereof on the next ensuing water bill; and the failure to pay such bill subjecting the property to disconnection from the city water system.

(Ord. No. 2448, § 1, 12-10-96)

Sec. 70-105. Backflow prevention devices; new construction.

All new construction for which a building permit is issued after December 10, 1996, shall have installed on all potable water and fire prevention system lines a backflow prevention device acceptable to HRS and of a size and design permitted to be appropriate by the public works director or his designee. All construction determined to require a three-quarter-inch or one-inch dual-check device shall have such device installed by the city. All construction determined to require a reduced-pressure device, regardless of size, and other devices larger than three-quarter-inch shall have such device installed at the owner's expense, if he is either the owner-occupier of the subject residence or the owner of the subject commercial building, by a licensed plumbing contractor or by such other person as may be required by law and such installation certified by a certified backflow prevention technician licensed to operate within the city. If the owner or the plumbing contractor is so certified, he may perform both tasks. The device shall be installed at a location determined by the public utilities department and, in those cases which require installation on private property, agreed to by the property owner.

(Ord. No. 2448, § 1, 12-10-96)

Sec. 70-106. Existing development.

Backflow prevention devices acceptable to HRS shall be installed on all existing connections to the city's potable water system. Unless otherwise required by law, the installation shall be made by the owner-occupier of any subject residence, by the owner of any subject commercial building, by a licensed plumbing contractor, depending on the line size, at a location to be determined by the public utilities department and, in those cases which require installation on private property, agreed to by the property owner, and such installation certified by a certified backflow prevention technician licensed to operate within the city in accordance with the following schedule:

- (1) At the time of any site or building modification requiring site plan review and approval;
 - (2) At the time of any plumbing modification requiring a plumbing permit;
 - (3) At the time of annexation of an existing property connected to the city's potable water system;
 - (4) At the time of meter installation or replacement;
 - (5) At the time an inspection reveals a cross connection; or
 - (6) March 31, 1997, whichever shall occur first.
- (Ord. No. 2448, § 1, 12-10-96)

Sec. 70-107. Maintenance of backflow prevention devices.

All backflow prevention devices shall be inspected, tested and certified annually by a certified backflow device technician hired and paid for by the property owner or their designee. The inspections are to be completed on or before December 31 of each calendar year. The city shall charge a monthly fee set by resolution for each backflow prevention device to defray the cost of verifying the maintenance of the backflow prevention devices. These monthly charges will be added to the water bill for each customer that has a backflow prevention device. Repairs to backflow prevention devices shall be performed by a certified backflow technician. Any repairs shall be completed within ten days of the inspection revealing the need for such repairs. Nothing contained herein shall be deemed to preclude the immediate disconnection of a property from the city water system in the event the city manager, upon recommendation of the public works director, determines such action to be necessary to adequately protect the public health, safety and welfare. The owner shall have the right to request from the city manager a ten-day extension which may be granted subject to recommendation of the public works director. Failure to comply with these regulations may result in the city disconnecting utility service to the property.

(Ord. No. 2448, § 1, 12-10-96; Ord. No. 2529, § 1, 9-22-98; Ord. No. 2832, § 1, 6-24-08)

APPENDIX B - FIELD FORMS



City of Holly Hill

Cross-Connection Control Survey/Inspection Report

Facility Name	_____	Survey Date	_____
Facility Name 2	_____	Survey By	_____
Service Loc/Address	_____		
Contact Name	_____	Contact Phone	_____
Area Name	_____	Acct Number	_____
Service Type	_____	Facility Status	_____
Comments	<div style="border: 1px solid black; height: 100px;"></div>		

BFP/CC Info

# 1	Location Floor _____	Location Room _____	<input type="checkbox"/> Confinement																
	Equip Location _____		<input type="checkbox"/> UD CB 1																
			<input type="checkbox"/> Freeze Protect																
	<table border="1"><tr><td>Type</td><td>_____</td><td>_____</td></tr><tr><td>Mfr</td><td>_____</td><td>_____</td></tr><tr><td>Size</td><td>_____</td><td>_____</td></tr><tr><td>Model</td><td>_____</td><td>_____</td></tr><tr><td>Serial Num</td><td>_____</td><td>_____</td></tr></table>	Type	_____	_____	Mfr	_____	_____	Size	_____	_____	Model	_____	_____	Serial Num	_____	_____	Location ID _____	Meter # _____	Map Page _____
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		PT _____																	
		Haz. Level _____	Protection Type _____																
		Install Date _____	Status _____																
# 2	Location Floor _____	Location Room _____	<input type="checkbox"/> Confinement																
	Equip Location _____		<input type="checkbox"/> UD CB 1																
			<input type="checkbox"/> Freeze Protect																
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# 3	Location Floor _____	Location Room _____	<input type="checkbox"/> Confinement																
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			<input type="checkbox"/> Freeze Protect																
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Mfr	_____	_____																	
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		PT _____																	
		Haz. Level _____	Protection Type _____																
		Install Date _____	Status _____																

APPENDIX C - NOTICE TEMPLATES



Cross Connection Control Program Inspection Notice

January 1, 2010

Sam Samples
000 Sample Drive
City of Holly Hill, FL 32117

RE: The Sam Samples Store at 111 Test Drive

Dear Mr. Samples

The Purpose of the **City of Holly Hill** Cross Connection Control Program, as defined in Article IV, Sections 70-100 to 70-107 of the Code of Ordinances, is to help eliminate possible contamination of the public water distribution system. There are two required components of the program; 1) site inspection, and 2) testing of backflow prevention assemblies.

The City of Holly Hill will be working jointly with inspectors from Hydro Designs Inc. to conduct these inspections. Thank you in advance for your cooperation in this matter.

As part of this program, an inspection of your facility's internal water system is to be completed. Inspectors will be reviewing your water system for connections that could possibly contaminate the water distribution system. The inspection is tentatively scheduled for **February 1, 2010**. Our inspector will do their best to be on site this day however we may be on site a day or two before or after the scheduled date. The inspection must be completed during normal business hours 8:00 AM to 5:00 PM. If you need a more specific time please call 1.800.690.6651 to arrange an appointment.

Any costs associated with the replacement, modification, installation and/or testing of backflow prevention assemblies is the responsibility of the property owner/manager and/or occupant.

You will be notified following the inspection if modification(s) and/or testing of backflow prevention assemblies are necessary. We look forward to working with you in protecting the drinking water supply. If you have any questions or concerns, please contact **Hydro Designs, Inc. at 1.800.690.6651**.



Cross Connection Control Program Inspection Compliance Notice

January 1, 2010

Sam Samples
000 Sample Drive
City of Holly Hill, FL 32117

RE: The Sam Samples Store at 111 Test Drive

Dear Mr. Samples

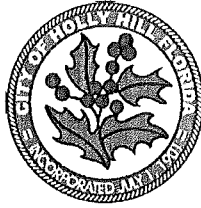
The Purpose of the **City of Holly Hill** Cross Connection Control Program, as defined in Article IV, Sections 70-100 to 70-107 of the Code of Ordinances, is to help eliminate possible contamination of the public water distribution system. There are two required components of the program; 1) site inspection, and 2) testing of backflow prevention assemblies.

As part of this program, an inspection of your facility's internal water distribution system was completed on **February 1, 2010**. Inspectors reviewed your water distribution system for any piping or connections that could possibly contaminate the water distribution system.

Your facility was either found compliant and/or the necessary changes made to comply with Article IV, Sections 70-100 to 70-107 of the Code of Ordinances. This inspection is valid until your facility's next scheduled inspection date. You will receive future notice for your next inspection date.

If your facility has backflow prevention assemblies requiring testing, you will be receiving additional notice detailing test requirements.

If you have any questions or require additional information, please contact **Hydro Designs, Inc. at 1.800.690.6651.**



Containment Notice

January 1, 2010

Sam Samples
000 Sample Drive
City of Holly Hill, FL 32117

RE: The Sam Samples Store at 111 Test Drive

The purpose of the **City of Holly Hill** Cross Connection Control Program, as defined in Article IV, Sections 70-100 to 70-107 of the Code of Ordinances is to help eliminate possible contamination of the public water distribution system.

"Containment" is the installation of a backflow prevention device, or a testable assembly between the facility and the public water distribution system. Containment assures there is no chance for water of questionable quality to leave your facility and to enter the public water distribution system.

As authorized by Article IV, Sections 70-100 to 70-107 of the Code of Ordinances the containment devices on the attached list are to be installed immediately after the municipal water meter and before the first tap. If a by-pass around the backflow prevention assembly is required, the by-pass shall also be protected with a backflow prevention assembly of equal protection. Please note that the installation of a containment device will create a closed system. Proper installation of an expansion tank or other means to protect your piping system from the effects of thermal expansion may be necessary. Your facility has 30 days to install the assemblies shown on the attached pages.

Please be advised that the installation of containment devices does not relieve your facility of the responsibility of providing potable water to its employees and visitors. In order to comply with applicable laws, and to ensure the integrity of your internal water distribution system, a comprehensive cross connection inspection should be completed. If you have any questions, please contact Hydro Designs, Inc. at 1.800.690.6651 ext. 5026



Cross Connection Control Program Containment Compliance Notification

January 1, 2010

Sam Samples
000 Sample Drive
City of Holly Hill, FL 32117

RE: The Sam Samples Store at 111 Test Drive

Dear Samples,

A Cross Connection Control inspection was performed at your facility. At that time, it was determined that your facility's potable water system is "contained" by an approved, properly installed backflow prevention device or assembly at the main inlet which is intended to minimize the potential backflow threat to the City of Sample's public water system. Therefore, your facility has met the intent of the inspection portion of the City of Holly Hill Cross Connection Program as defined in Article IV, Sections 70-100 to 70-107 of the Code of Ordinances. Compliance with the inspection portion of the program requirements shall remain in effect until your facility's next scheduled inspection date.

However, to fully meet the intent of the CCC Program, two- (2) items must be addressed:

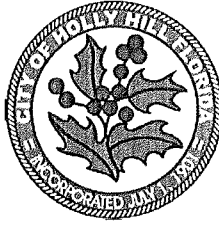
1. Inspection of the facility: **Completed**
2. Successful annual testing of any existing testable backflow prevention assemblies within your facility.

This facility will be in **Compliance** with the Cross Connection Control Program when the existing backflow prevention assemblies are tested this year and at yearly intervals hereafter. When it is necessary to test such assemblies your facility will receive a notification letter, test forms to be completed by a certified tester for each identified testable assembly, and a list of certified testers within your facility's area. Upon the successful testing of the backflow prevention assembly, please submit a copy of the completed test record(s) to Hydro Designs.

Note however it is still possible for existing cross connections within your facility to potentially affect the water quality within your internal plumbing system. The installation of an approved backflow preventer at the main inlet does not relieve your facility of the responsibility of providing potable water to your employees and the public. In order to comply with all applicable codes and laws, it is recommended that your facility:

- Have a cross connection control survey of the potable water piping system performed within your facility
- Ensure all piping systems downstream of the containment device/assembly are labeled properly
- Ensure backflow prevention assemblies connected to the potable water supply within your facility are tested annually

If you have any questions or require additional information, please contact Hydro Designs, Inc. at 800.690-6651.



Request for Internal Cross Connection Control Information Notice

January 1, 2010

Sam Samples
000 Sample Drive
City of Holly Hill, FL 32117

RE: The Sam Samples Store at 111 Test Drive

Dear Mr. Samples,

The purpose of the **City of Holly Hill** Cross Connection Control Program, as defined in Article IV, Sections 70-100 to 70-107 of the Code of Ordinances, is to help eliminate possible contamination of the public water distribution system. There are two required components of the program; 1) site inspection, and 2) testing of backflow prevention assemblies.

As specified by Article IV, Sections 70-100 to 70-107 of the Code of Ordinances, your facility is required to supply potable water free of existing and/or potential cross connections to its employees and/or the public. Due to the complexity of your internal piping, an inspection of the potable water piping system is necessary to determine if there are any existing and/or potential cross connections. This inspection must be completed by an individual or firm acceptable to the City of Holly Hill.

The Potable Water Cross Connection Survey Report is to be submitted within 30 days from the date of this notice. Accompanied with the Potable Water Piping Cross Connection Survey Report shall be an Action Plan and timetable for correcting any deficiencies noted in the report.

If you have any questions or require additional information, please contact Hydro Designs, Inc. at **1.800.690.6651**. Your facility's cooperation in this matter is greatly appreciated.



Inspection Non-Compliance Notice 1

January 1, 2010

Sam Samples
000 Sample Drive
City of Holly Hill, FL 32117

RE: The Sam Samples Store at 111 Test Drive

Dear Mr. Sam Samples,

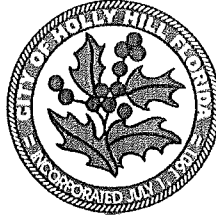
The purpose of the **City of Holly Hill** Cross Connection Control Program, as defined in Article IV, Sections 70-100 to 70-107 of the Code of Ordinances, is to help eliminate possible contamination of the public water distribution system. There are two required components of the program; 1) site inspection, and 2) testing of backflow prevention assemblies.

An inspection of your facility's internal water distribution system was completed on December 1, 2009. Inspectors reviewing your water system found connections that could possibly contaminate the public water distribution system. A list of requirements is enclosed.

Requirements on this list must be addressed using only State approved backflow prevention devices. A licensed plumber should be able to assist you with acquiring approved backflow prevention devices. Some backflow prevention devices (assemblies) also require testing by a State Certified Tester. We suggest that the licensed plumber installing the testable assemblies also have the state certification to test assemblies. ***All testable assemblies must be tested immediately at the time of installation.***

These requirements must be completed by February 1, 2010. After the requirements and devices have been installed (if applicable) please call the number below on or before the date listed above to schedule a compliance inspection. Failure to do so will result in future non-compliant notices.

To arrange for a compliance review or if you require additional information, please contact **Hydro Designs, Inc.** at 800.690.6651.



Inspection Non-Compliance Notice 2

January 1, 2010

Sam Samples
000 Sample Drive
City of Holly Hill, FL 32117

RE: The Sam Samples Store at 111 Test Drive

Dear Mr. Sam Samples,

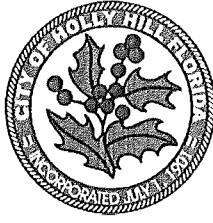
The purpose of the **City of Holly Hill** Cross Connection Control Program, as defined in Article IV, Sections 70-100 to 70-107 of the Code of Ordinances, is to help eliminate possible contamination of the public water distribution system. There are two required components of the program; 1) site inspection, and 2) testing of backflow prevention assemblies.

As part of this program, an inspection of your facility's internal water distribution system was completed on December 1, 2009. Inspectors reviewing your water system found connections that could possibly contaminate the public water distribution system. A letter of notification was previously sent to you outlining the required corrective measures. For your reference, a duplicate list of requirements is enclosed.

Requirements on this list must be addressed using only State approved backflow prevention devices. A licensed plumber should be able to assist you with acquiring approved backflow prevention devices. Some backflow prevention devices (assemblies) also require testing by a State Certified Tester. We suggest that the licensed plumber installing the testable assemblies also have the state certification to test assemblies. ***All testable assemblies must be tested immediately at the time of installation.***

These requirements must be completed by February 1, 2010. After the requirements and devices have been installed (if applicable) please call the number below on or before the date listed above to schedule a compliance inspection. Failure to do so will result in future non-compliant notices.

To arrange for compliance review or if you require additional information, please contact **Hydro Designs, Inc. at 800.690.6651.**



Cross Connection Control Program Inspection Shut-Off Notice

January 1, 2010

Sam Samples
000 Sample Drive
City of Holly Hill, FL 32117

RE: The Sam Samples Store at 111 Test Drive

Dear Mr. Sam Samples,

The purpose of the **City of Holly Hill** Cross Connection Control Program, as defined in Article IV, Sections 70-100 to 70-107 of the Code of Ordinances, is to help eliminate possible contamination of the public water distribution system.

As part of this program, an inspection of your facility's internal water distribution system was completed on December 1, 2009. Inspectors reviewing your water system found connections that could possibly contaminate the public water distribution system. Two- (2) previous letters of notification were sent to you outlining the required corrective measures. For your reference, a duplicate list of requirements is attached.

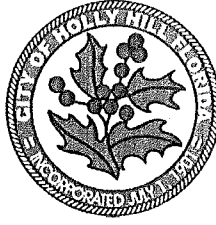
We presently have no record or notification from you that corrective action has been completed. If you have already completed the requirements, please call the number below to schedule a compliance inspection.

You are hereby notified that in accordance with Article IV, Sections 70-100 to 70-107 of the Code of Ordinances, the water supply to the above noted premises will be discontinued as of February 15, 2010. Water service may not be resumed until corrective measures have been addressed.

Upon completion of the required corrective action, please contact Hydro Designs, Inc. on or before the above date at 1.800.690.6651 to schedule a compliance review.

Sincerely,

Don Ray
Utilities Superintendent
City of Holly Hill



Annual Test Notice

TEST FORM DUE NO LATER THAN: March 31, 2010

January 1, 2010

Sam Samples
000 Sample Drive
City of Holly Hill, FL 32117

RE: The Sam Samples Store at 111 Test Drive

Dear Mr. Sam Samples,

The purpose of the **City of Holly Hill** Cross Connection Control Program, as defined in Article IV, Sections 70-100 to 70-107 of the Code of Ordinances, is to help eliminate possible contamination of the public water distribution system. There are two required components of the program; 1) site inspection, and 2) testing of backflow prevention assemblies.

This correspondence addresses testing of backflow prevention assemblies, and is independent of previous correspondence pertaining to site inspection(s). Periodic testing of backflow prevention assemblies is required to ensure proper working order.

Our records indicate it is time for testing of backflow prevention assemblies at your facility. The enclosed preprinted test forms are the only test forms that will be accepted. Testing should be completed in advance of the completion date noted to allow for repair(s) should they be necessary. **Testing of backflow prevention assemblies must be completed by a State approved certified tester. Backflow prevention assemblies installed on fire protection systems must be tested by a certified fire-protection system contractor.** A partial listing is attached for reference.

Following completion of assembly testing and/or repairs, completed test forms may either be faxed to 248.786.1789, or mailed to the following address:

**City of Holly Hill
C/o Hydro Designs, Inc.
5700 Crooks Road
Troy, MI 48098**

Backflow prevention assemblies within the City of Holly Hill are required to be tested on an annual basis. Our records indicate that we have not received the annual test reports on the following backflow assemblies enclosed with this letter.

Completed test forms are to be returned by March 31, 2010. Please retain a copy of the device test results for your records.

If you have any questions or require additional information, please contact Hydro Designs, Inc. at 800.690.6651.



Test Notice #2

TEST FORM DUE NO LATER THAN: April 30, 2010

March 30, 2010

Sam Samples
000 Sample Drive
City of Holly Hill, FL 32117

RE: The Sam Samples Store at 111 Test Drive

Dear Mr. Sam Samples,

The purpose of the **City of Holly Hill** Cross Connection Control Program, as defined in Article IV, Sections 70-100 to 70-107 of the Code of Ordinances, is to help eliminate possible contamination of the public water distribution system. There are two required components of the program; 1) site inspection, and 2) testing of backflow prevention assemblies.

This is your **second notice** pertaining to testing of backflow prevention assemblies, and is independent of previous correspondence pertaining to site inspection(s). Periodic testing of backflow prevention assemblies is required to ensure proper working order.

Our records indicate 1) it is time for testing of backflow prevention assemblies at your facility and that 2) you have not yet returned the previously provided test forms. For your convenience, we have enclosed additional preprinted test forms. **Testing of backflow prevention assemblies must be completed by a State approved certified tester. Backflow prevention assemblies installed on fire protection systems must be tested by a certified fire-protection system contractor.** A partial listing is attached for reference.

Following completion of assembly testing and/or repairs, completed test forms may either be faxed to 248.790.1789, or mailed to the following address:

**City of Holly Hill
C/o Hydro Designs, Inc.
5700 Crooks Road
Troy, MI 48098**

Completed test forms are to be returned by April 30, 2010. Please retain a copy of the device test results for your records.

If you have any questions or require additional information, please contact Hydro Designs, Inc. at 800.690.6651.



Testing Shut-Off Notice

TEST FORM DUE NO LATER THAN: May 31, 2010

April 30, 2010

Sam Samples
000 Sample Drive
City of Holly Hill, FL 32117

RE: The Sam Samples Store at 111 Test Drive

Dear Mr. Sam Samples,

The purpose of the **City of Holly Hill** Cross Connection Control Program, as defined in Article IV, Sections 70-100 to 70-107 of the Code of Ordinances, is to help eliminate possible contamination of the public water distribution system. There are two required components of the program; 1) site inspection, and 2) testing of backflow prevention assemblies.

This is your **third notice** pertaining to testing of backflow prevention assemblies, and is independent of previous correspondence pertaining to site inspection(s). Periodic testing of backflow prevention assemblies is required to ensure proper working order.

Our records indicate that you have not yet returned the previously provided test forms. For your convenience, we have enclosed additional preprinted test forms. **Testing of backflow prevention assemblies must be completed by a State approved certified tester. Backflow prevention assemblies installed on fire protection systems must be tested by a certified fire-protection system contractor.** A partial listing is attached for reference.

You are hereby notified that in accordance with Article IV, Sections 70-100 to 70-107 of the Code of Ordinances, the water supply to the above noted premises will be discontinued as of May 31, 2010. Water service may not be resumed until testing of backflow prevention assemblies has been completed.

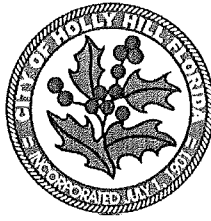
Following completion of assembly testing and/or repairs, completed test forms may either be faxed to 800.786.1789, or mailed to the following address:

**City of Holly Hill
C/o Hydro Designs, Inc.
5700 Crooks Road
Troy, MI 48098**

Please retain a copy of the device test results for your records. If you have any questions or require additional information, please contact the undersigned at 000.000.0000.

Sincerely,

Don Ray
Utilities Superintendent
City of Holly Hill



BACKFLOW PREVENTION ASSEMBLY TESTING AND MAINTENANCE PROGRAM ENROLLMENT

Many business and home owners have backflow prevention assemblies (BPA's) installed either at their service connection (at the water meter) and/or within their building or home. These BPA's must be tested on an annual basis. In the past, you have received notices to have these devices tested. And, it was your responsibility to hire a qualified contractor and return the test form to the City. The City of Holly Hill recognizes that the cost to test these BPA's, obtaining an approved contractor, and submitting the test results can be a burden.

Therefore, the City of Holly Hill has developed the BACKFLOW PREVENTION ASSEMBLY TESTING AND MAINTENANCE PROGRAM to assist business and home owners in reducing the cost of testing, and repair of the BPA's, eliminating the hassle of hiring a contractor, and making sure that the results of the required BPA testing are submitted to the City of Holly Hill.

1.1 HOW THE PROGRAM WORKS

The City of Holly Hill has hired a management firm to obtain bids from local contractors who are certified, licensed, and insured to work on BPA's. These contractors were asked to bid against each other to test the BPA's within the City. This bidding process has established base prices for testing and repair of residential and commercial backflow prevention devices. By enrolling in this program, you will be notified that your BPA will be tested by one of the selected contractors who will contact you to schedule a time for the test.

For device testing for the year 2012 and 2013 –

The cost of the test will be worked into your water bill in the form of a \$3.00 monthly backflow prevention charge. This results in an annual device test fee of \$36.00. If your BPA requires repair, the costs for those services will be your responsibility, however they have also been competitively bid through this program.

You may enroll in the program at time; the first month's fee will be adjusted to balance to a \$36.00 annual fee. For example, enrollment is established in March 2012 and the March bill has already been issued. The next ensuing water bill (April) will include a \$12.00 backflow prevention charge (January - \$3.00, February - \$3.00, March - \$3.00, April - \$3.00). The May water bill will then fall into the schedule of the \$3.00 monthly charge for the remainder of 2012 and 2013.

All of the BPA testing will be coordinated through our contractor Hydro Designs, Inc. (HDI). If you have any questions about this program or prefer not to participate please contact HDI at 1.800.690.6651, extension 5025, and ask for Amy Lynn. If you do not return the attached enrollment form, you will be notified, via letter, to have your BPA tested. You will then be responsible for getting your BPA tested and for the submittal of the approved BPA Test Form to HDI. **If you choose to opt out you assume all responsibility for compliance with the City of Holly Hill's Cross Connection Control Ordinance.** For your convenience the relevant sections of the City Ordinance are included here.

Chapter 70 (Utilities), Article IV (Water System), Division 1 (Generally):

Sec. 70-104. Remedial action required.

The city manager, upon recommendation of the public works director, reserves the right to cause a backflow prevention assembly to be field tested and the cost assigned to the property owner.

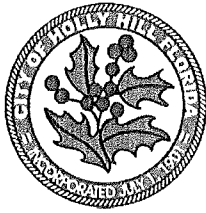
In the event any cross connection is discovered, the public works director shall take the following action:

- (1) Order the discontinuance of potable water service to the site until the pollution or contamination source is eliminated;
- (2) Order the property owner to eliminate the cross connection by the installation of a backflow prevention device acceptable to the City's Cross Connection Control Plan; or
- (3) Direct the installation of a backflow prevention device as described in the City's Cross Connection Control Plan by the city with the property owner to be billed for the cost thereof; and the failure to pay such bill subjecting the property to disconnection from the city water system.

Sec. 70-107. Maintenance of backflow prevention devices.

All backflow prevention devices shall be inspected, tested and certified upon initial installation and recertified annually within 30 days of the installation date by a licensed contractor approved by the City's public works department hired and paid for by the property owner or their designee. The property owner shall keep records on his testing, maintenance, and repair activities related to cross connection control and shall make such records available upon request. Copies of all testing, maintenance, and repair records shall be sent to the City's Customer Service Department and the City's designated Cross Connection Control Program coordinator. The City of Holly Hill reserves the right to direct and administer testing of any backflow prevention assembly installed on the City of Holly Hill public potable water supply. If testing of any backflow prevention assembly is directed by the City of Holly Hill the expense for such testing will be billed directly to the property owner. The city shall charge a monthly fee set by resolution for each backflow prevention device to defray the cost of verifying the maintenance of the backflow prevention devices.

These monthly charges will be added to the water bill for each customer that has a backflow prevention device. Repairs to backflow prevention devices shall be performed by a licensed contractor approved by the City's public works department. Any repairs shall be completed within ten days of the inspection revealing the need for such repairs. Nothing contained herein shall be deemed to preclude the immediate disconnection of a property from the city water system in the event the city manager, upon recommendation of the public works director, determines such action to be necessary to adequately protect the public health, safety and welfare. The owner shall have the right to request from the city manager a ten-day extension which may be granted subject to recommendation of the public works director. Failure to comply with these regulations may result in the city disconnecting utility service to the property.



**BACKFLOW PREVENTION ASSEMBLY TESTING
AND MAINTENANCE PROGRAM
ENROLLMENT FORM**

If you would like to enroll your property in the City of Holly Hill's Backflow Prevention Assembly Testing and Maintenance Program, please complete the attached enrollment form and return to:

Via Standard Mail or Hand Delivery:
City of Holly Hill Utility Billing
Attn: BPA Testing & Maintenance Program
1065 Ridgewood Avenue
Holly Hill, FL 32117

Via Fax:
(386)248-9458
Include Fax Cover with the following information:
City of Holly Hill Utility Billing
Attn: BPA Testing & Maintenance Program

Via Email:
ub@hollyhillfl.org
Subject: Attn: BPA Testing & Maintenance Program

Via Website:
You may complete the online version of the attached form and submit using the City of Holly Hill website by visiting www.hollyhillfl.org and clicking on: Applications and Forms → Utility Services → BPA Testing & Maintenance Program



**BACKFLOW PREVENTION ASSEMBLY TESTING
AND MAINTENANCE PROGRAM
ENROLLMENT FORM**

Please use a separate form for each device.

Account Information	
ACCOUNT NO.	
PROPERTY ADDRESS	
NAME ON THE ACCOUNT	
FACILITY NAME	
PROPERTY OWNER	
PROPERTY OWNER ADDRESS	

Device Information	
LOCATION OF DEVICE	
MANUFACTURER	
SIZE	
SERIAL NUMBER	

I acknowledge that by signing this form I am consenting to the following:

1. An additional \$3.00 per month fee will be added to my water bill for the calendar year of 2012 and 2013. This fee is to allow for the testing and maintenance of the above listed backflow prevention assembly to be coordinated by the City of Holly Hill's consultant, Hydro Designs, Inc.
2. The first month's fee after enrollment is established will be adjusted to balance to a \$36.00 annual fee.

Print Name

Date

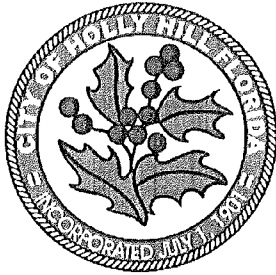
Signature

If submitted electronically you may be required to sign in person at a later date

Phone Number

FOR OFFICE USE ONLY	
Date Enrollment Received via Mail / Counter / Fax / Email / Online	_____
Date Entered into Account	_____
Date HydroDesign, Inc Notified	_____

APPENDIX D - TEST FORM



Backflow Prevention Assembly Test Form

Owner of Property: _____

Contact Person: : _____

Device Address: _____

Permit Number: _____

Exact Location: _____

Manufacturer: _____

Test Date: _____

Model Number: _____

Device Type: _____

Size: _____

Serial Number: _____

Use: (circle) Containment Isolation Domestic Fire Irrigation Process

Line PSI	Reduced Pressure Backflow Preventer Double Check Valve Assembly			Pressure Vacuum Breaker	
	Check Valve No.1	Check Valve No.2	Relief Valve	Check Valve	Air Inlet
Initial Test	Closed Tight <input type="checkbox"/> Leaked <input type="checkbox"/>	Closed Tight <input type="checkbox"/> Leaked <input type="checkbox"/>	Opened at _____PSID Did Not Open <input type="checkbox"/>	Closed Tight <input type="checkbox"/> Leaked <input type="checkbox"/>	Opened at _____PSID Did Not Open <input type="checkbox"/>
PASS <input type="checkbox"/> FAIL <input type="checkbox"/>	_____PSID	_____PSID		_____PSID	
Repairs Remarks	Cleaned <input type="checkbox"/> Replaced <input type="checkbox"/>	Cleaned <input type="checkbox"/> Replaced <input type="checkbox"/>	Cleaned <input type="checkbox"/> Replaced <input type="checkbox"/>	Cleaned <input type="checkbox"/> Replaced <input type="checkbox"/>	Cleaned <input type="checkbox"/> Replaced <input type="checkbox"/>
Final Test	Closed Tight <input type="checkbox"/> Leaked <input type="checkbox"/>	Closed Tight <input type="checkbox"/> Leaked <input type="checkbox"/>	Opened at _____PSID Did Not Open <input type="checkbox"/>	Closed Tight <input type="checkbox"/> Leaked <input type="checkbox"/>	Opened at _____PSID Did Not Open <input type="checkbox"/>
PASS <input type="checkbox"/> FAIL <input type="checkbox"/>	_____PSID	_____PSID		_____PSID	
No. 2 Shutoff Valve Condition: Closed Tight <input type="checkbox"/> Leaked <input type="checkbox"/>					
Notes:					
Certification: On this date, the above device was tested per applicable codes and the required performance standards.					
Test Type:		Gauge No.	Calibration Date:		
Tester Name:		Testing Firm:	Tester Certification No.		
Tester Signature: _____			Date: _____		
Contact Signature: _____			Date: _____		

APPENDIX E - DEFINITIONS

Air Gap: The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet conveying water or waste to a tank, plumbing fixture, receptor, or other assembly and the flood level rim of the receptacle. These vertical, physical separations must be at least twice the diameter of the water supply outlet and at no time less than 1 inch.

Approved: Accepted by the authority responsible as meeting an applicable specification stated or cited in this plan or as suitable for the proposed use.

Auxiliary Water System: Any water system on or available to the premises other than the purveyor's approved public water supply.

Backflow: The undesirable reversal of flow in a potable water distribution system as a result of a cross connection.

Backflow Preventer: An assembly, device or method designed to prevent backflow.

Backflow Prevention Assembly: A mechanical backflow preventer used to prevent backward flow of contaminants or pollutants into a potable water distribution system. An assembly has a resilient seated, full flow shut-off valve before and after the backflow preventer making it testable in line.

Backflow Prevention Device: A mechanical backflow preventer without shut-off valves. Typically these devices are not testable in the field.

Backpressure: A pressure, higher than the supply pressure, caused by a pump, elevated tank, boiler, or any other means that may cause backflow.

Backsiphonage: Backflow caused by negative or reduced pressure in the supply piping.

Contaminant: Any foreign substance (liquid, solid or gas) that degrades the quality of water and creates a health hazard.

Cross Connection: A connection or potential connection between any part of a potable water system and any other environment containing other substances in a manner that, under any circumstances, would allow such substances to enter the potable water system. Other substances may be gases, liquids, or solids, such as chemicals, waste products, steam, water from other sources (potable or non-potable), or any matter that may change the color or add an odor to the water.

Owner: Person or entity receiving service from the public water distribution system.

Pollutant: Any foreign substance (liquid, solid or gas) that degrades the quality of water as to constitute a non-health hazard or impair the usefulness of the water.

Potable Water: Water that is safe for human consumption as described by the public health official having jurisdiction.

Non-Potable Water: Water that is not safe for human consumption or of questionable quality.

Reclaimed Water: Water that, as a result of treatment of wastewater, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is not safe

for human consumption.

Service Line Protection: Installation of an approved backflow prevention device, assembly or method at the point of service in order to confine potential contamination caused by a cross connection within the facility where it arises; also referred to as containment.

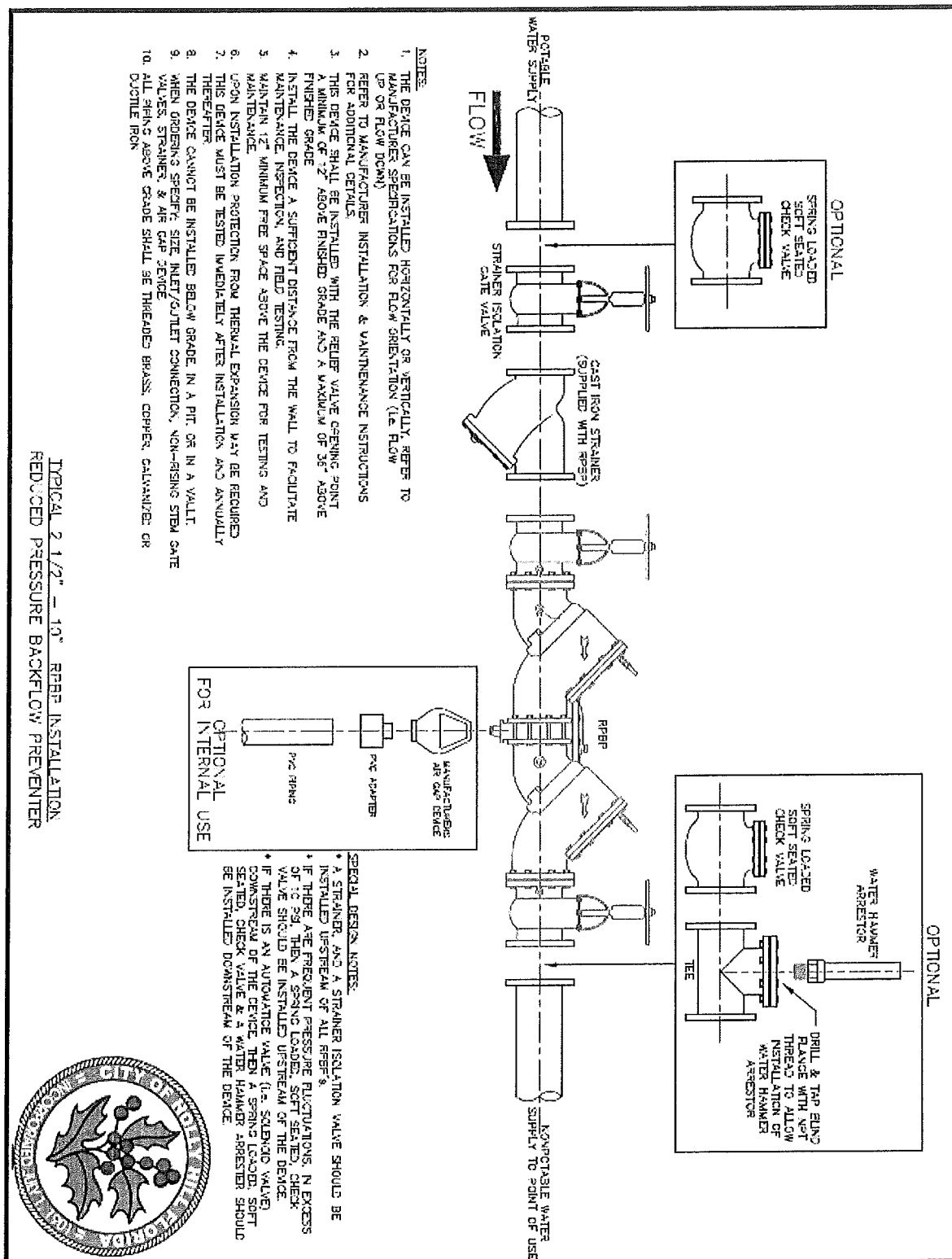
APPENDIX F – FACILITIES REQUIRING SERVICE LINE PROTECTION

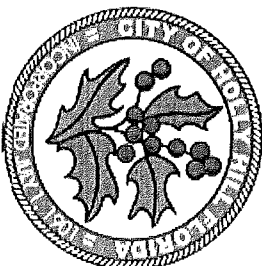
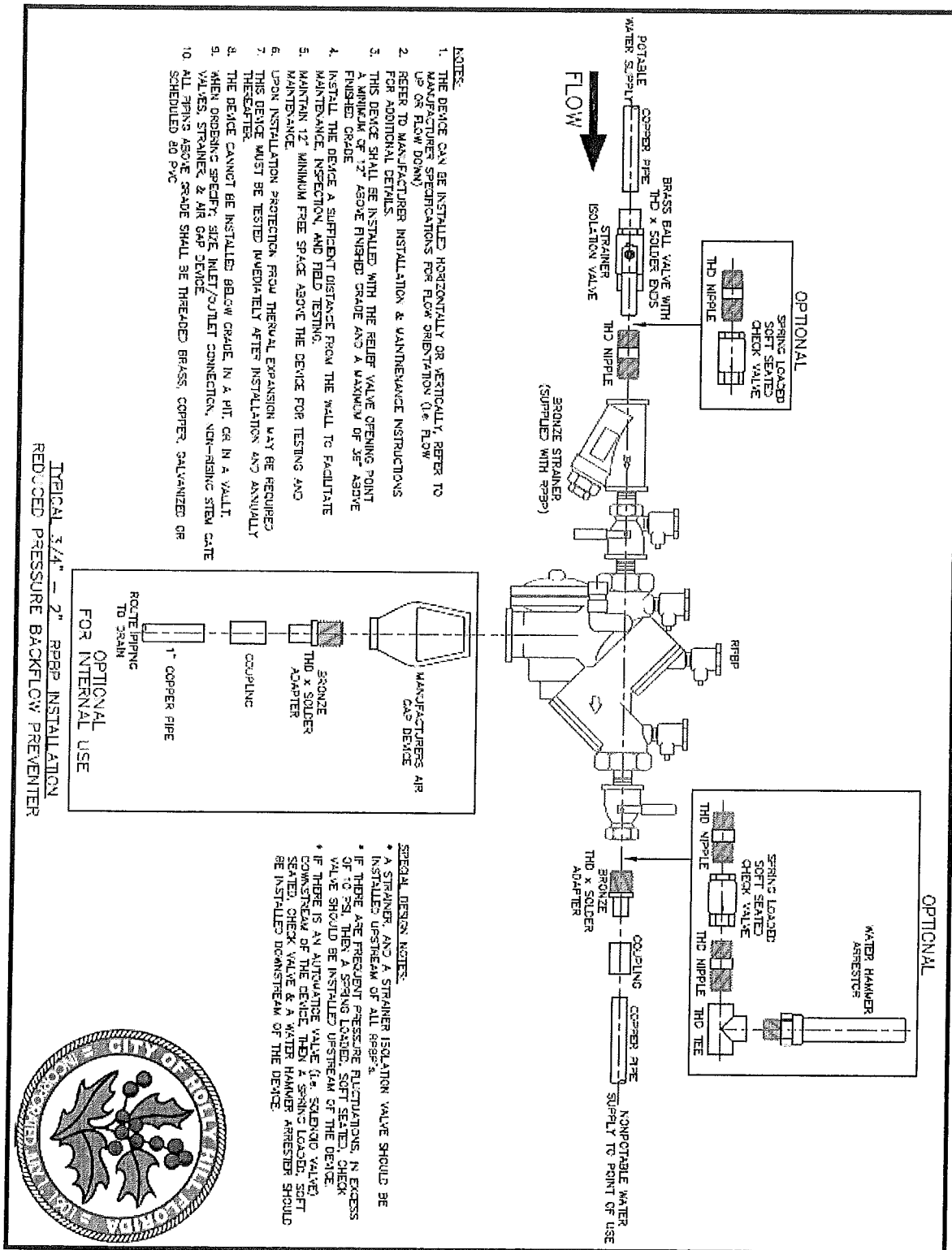
The information provided in this section is only a partial listing of typical facility types requiring service line protection. Other types of facilities which are not on this list may be required to install service line protection at the discretion of the Authority. The City of Holly Hill requires service line protection at all commercial, industrial and institutional facilities.

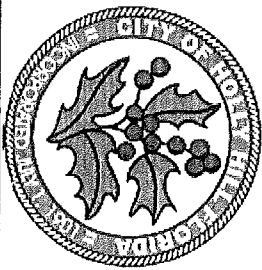
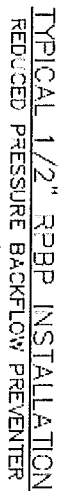
1. Hospitals and Medical Facilities
2. Dental Clinics
3. Mortuaries/Funeral Homes
4. Nursing homes
5. Animal hospitals/Veterinary Clinics
6. Laboratories
7. Sewage treatment plants, sewage pumping stations, storm water pumping stations
8. Chemical plants
9. Dyeing plants
10. Metal plating industries
11. Tanneries
12. Petroleum processing or storage plants
13. Slaughterhouses/Poultry processing plants
14. Food or beverage processing plants
15. Piers, docks, waterfront facilities
16. Photo development plants
17. Car washes
18. Laundromats
19. Public swimming pools
20. Where reclaimed water is being provided to the premises.
21. Farms where water is used for other than household purposes
22. Premises with internal cross-connections that are not correctable or with intricate plumbing arrangements which make it impractical to determine if cross-connections exist
23. Premises where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a cross-connection survey.
24. Premises having a repeated history of cross-connections being established or re-established.

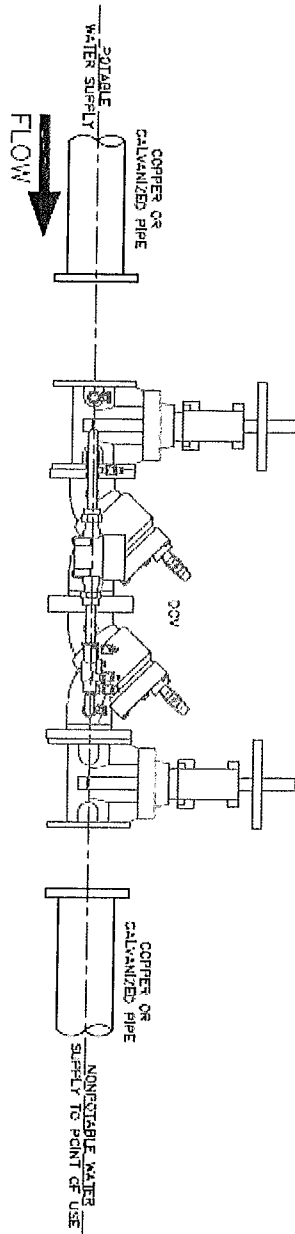
APPENDIX G – INSTALLATION SCHEMATICS

Drawings contained in this section are only "typical" installations for reference purposes. All new installations must be installed per code and manufacturer specifications



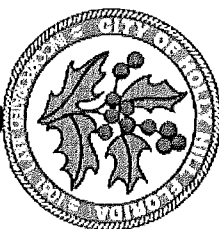




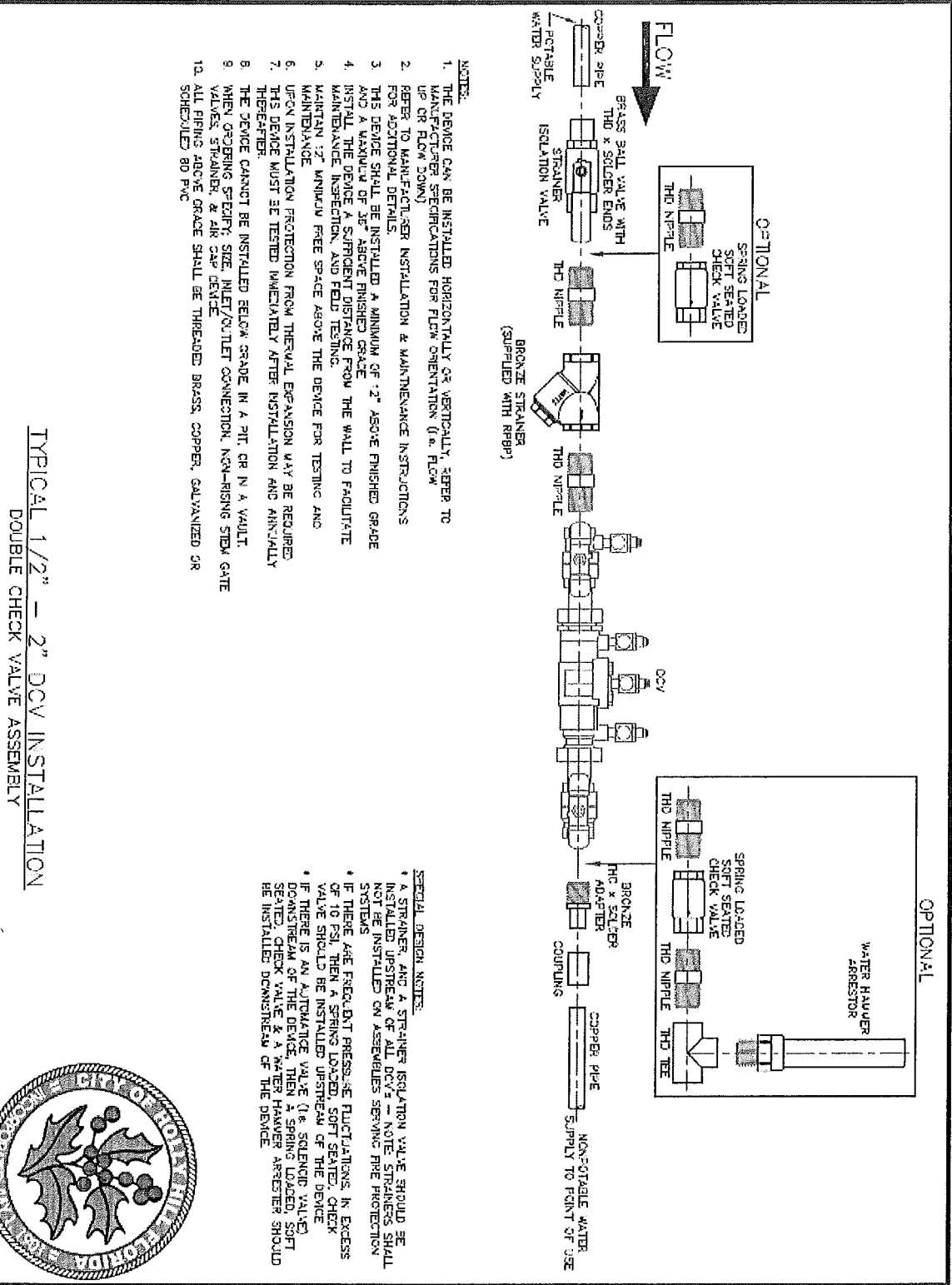


- NOTES:**
1. THE DEVICE CAN BE INSTALLED HORIZONTALLY OR VERTICALLY. REFER TO MANUFACTURER'S SPECIFICATIONS FOR FLOW ORIENTATION (i.e. FLOW UP OR FLOW DOWN).
 2. REFER TO MANUFACTURER'S INSTALLATION & MAINTENANCE INSTRUCTIONS FOR ADDITIONAL DETAILS.
 3. THIS DEVICE SHALL BE INSTALLED A MINIMUM OF 12" ABOVE FINISHED GRADE AND A MAXIMUM OF 36" ABOVE FINISHED GRADE.
 4. INSTALL THE DEVICE A SUFFICIENT DISTANCE FROM THE WALL TO FACILITATE MAINTENANCE, INSPECTION, AND FIELD TESTING.
 5. MAINTAIN 12" MINIMUM FREE SPACE ABOVE THE DEVICE FOR TESTING AND MAINTENANCE.
 6. UPON INSTALLATION PROTECTION FROM THERMAL EXPANSION MAY BE REQUIRED.
 7. THIS DEVICE MUST BE TESTED IMMEDIATELY AFTER INSTALLATION AND ANNUALLY THEREAFTER.
 8. THE DEVICE CANNOT BE INSTALLED BELOW GRADE IN A PIT, OR IN A WALL.
 9. WHEN ORDERING SPECIFY: SIZE, INLET/OUTLET CONNECTION, NON-RISING STEM GATE VALVES, STRAINERS, & AIR CAP DEVICE.
 10. ALL PIPING ABOVE GRADE SHALL BE THREADED, BRASS, COPPER, GALVANIZED OR DUCTILE IRON.

TYPICAL 2 1/2" - 10" DCV INSTALLATION
DOUBLE CHECK VALVE ASSEMBLY



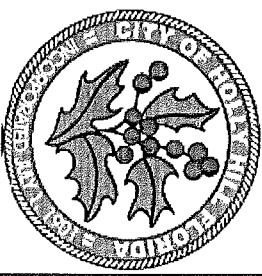
- SPECIAL DESIGN NOTES:**
- * A STRAINER AND A STRAINER ISOLATION VALVE SHOULD BE INSTALLED UPSTREAM OF ALL DCV's - NOTE: STRAINERS SHALL NOT BE INSTALLED ON ASSEMBLIES SERVING FIRE PROTECTION SYSTEMS
 - * IF THERE ARE FREQUENT PRESSURE FLUCTUATIONS, IN EXCESS OF 10 PSI, THEN A SPRING LOADED, SOFT SEATED, CHECK VALVE SHOULD BE INSTALLED UPSTREAM OF THE DEVICE
 - * IF THERE IS AN AUTOMATIC VALVE (i.e. SOLID VALVE) DOWNSTREAM OF THE DEVICE, THEN A SPRING LOADED, SOFT SEATED, CHECK VALVE & A WATER HAMMER ARRESTER SHOULD BE INSTALLED DOWNSTREAM OF THE DEVICE.

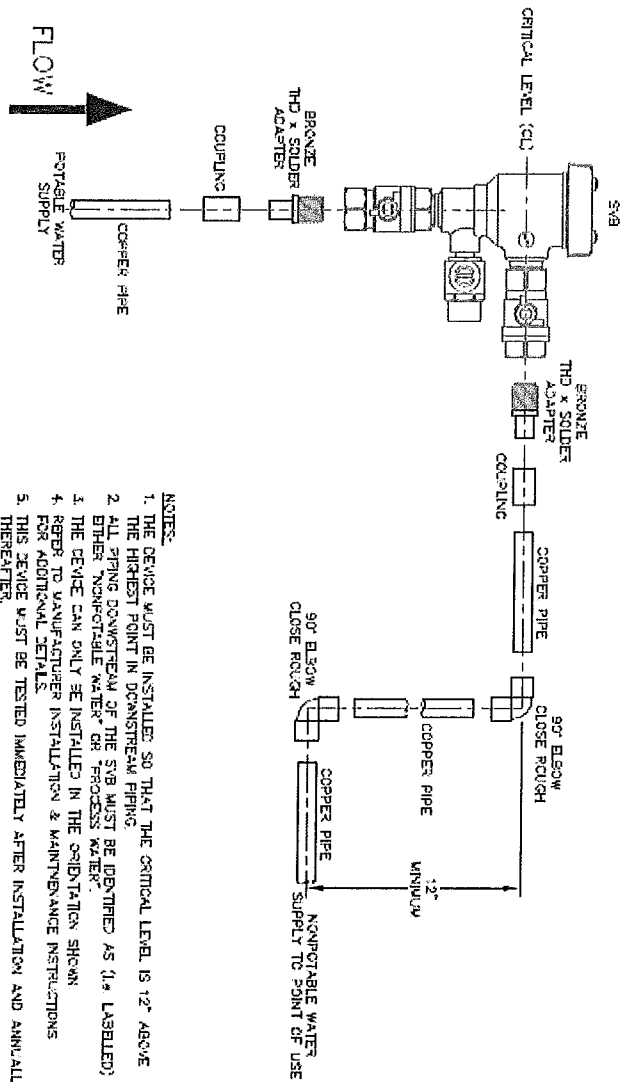


- NOTES:
1. THE DEVICE CAN BE INSTALLED HORIZONTALLY OR VERTICALLY (REFER TO UP OR FLOW DOWN)
 2. REFER TO MANUFACTURER INSTALLATION & MAINTENANCE INSTRUCTIONS FOR ADDITIONAL DETAILS
 3. THIS DEVICE SHALL BE INSTALLED A MINIMUM OF 12" ABOVE FINISHED GRADE AND A MINIMUM OF 36" ABOVE FINISHED GRADE
 4. INSTALL THE DEVICE A SUFFICIENT DISTANCE FROM THE WALL TO FACILITATE MAINTENANCE INSPECTION AND FIELD TESTING
 5. MAINTAIN 12" MINIMUM FREE SPACE ABOVE THE DEVICE FOR TESTING AND MAINTENANCE
 6. UPON INSTALLATION PROTECTION FROM THERMAL EXPANSION MAY BE REQUIRED
 7. THIS DEVICE MUST BE TESTED IMMEDIATELY AFTER INSTALLATION AND ANNUALLY THEREAFTER
 8. THE DEVICE CANNOT BE INSTALLED BELOW GRADE IN A PIT OR IN A VAULT
 9. WHEN OPENING SPECIFY SIZE INLET/OUTLET CONNECTION, NON-RISING STEM GATE VALVES, STRAINER, & AIR CAP DEVICE
 10. ALL PIPING ABOVE GRADE SHALL BE THREADED BRASS, COPPER, GALVANIZED OR SCHEDULED 80 PVC

- SPECIAL DESIGN NOTES:
- A STRAINER AND A STRAINER ISOLATION VALVE SHOULD BE INSTALLED UPSTREAM OF ALL DCV's - NOTE: STRAINERS SHALL NOT BE INSTALLED ON ASSEMBLIES SERVING FIRE PROTECTION SYSTEMS
 - IF THERE ARE FREQUENT PRESSURE FLUCTUATIONS, IN EXCESS OF 10 PSI, THEN A SPRING LOADED, SOFT SEATED, CHECK VALVE SHOULD BE INSTALLED UPSTREAM OF THE DEVICE
 - IF THERE IS AN AUTOMATIC VALVE (i.e. SILENCER VALVE) DOWNSTREAM OF THE DEVICE, THEN A SPRING LOADED, SOFT SEATED, CHECK VALVE & A WATER HAMMER ARRESTER SHOULD BE INSTALLED DOWNSTREAM OF THE DEVICE

TYPICAL 1 1/2" - 2" DCV INSTALLATION
DOUBLE CHECK VALVE ASSEMBLY



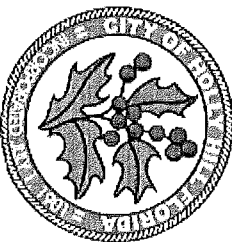


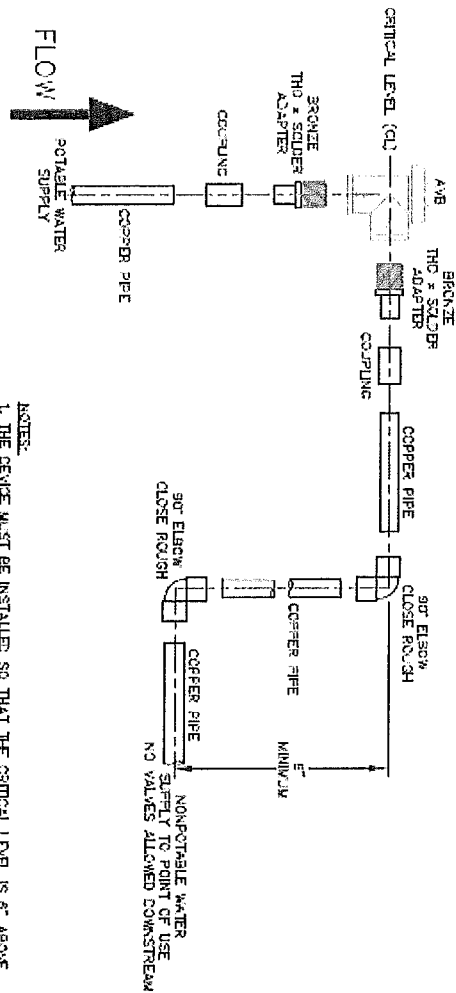
NOTES:

1. THE DEVICE MUST BE INSTALLED SO THAT THE CRITICAL LEVEL IS 12" ABOVE THE HIGHEST POINT IN DOWNSTREAM PIPING.
2. ALL PIPING DOWNSTREAM OF THE SVB MUST BE IDENTIFIED AS (1) "NONPOTABLE WATER" OR "PROCESS WATER".
3. THE DEVICE CAN ONLY BE INSTALLED IN THE ORIENTATION SHOWN FOR ADDITIONAL DETAILS.
4. REFER TO MANUFACTURER INSTALLATION & MAINTENANCE INSTRUCTIONS HEREINAFTER.
5. THIS DEVICE MUST BE TESTED IMMEDIATELY AFTER INSTALLATION AND ANNUALLY THEREAFTER.
6. INSTALL THE DEVICE NO MORE THAN 5' ABOVE GROUND LEVEL (OR MEZZANINE/PLATFORM LEVEL) TO FACILITATE MAINTENANCE, INSPECTION, AND FIELD TESTING.
7. INSTALL THE DEVICE A SUFFICIENT DISTANCE FROM THE WALL TO FACILITATE MAINTENANCE, INSPECTION, AND FIELD TESTING.
8. MAINTAIN 8" MINIMUM FREE SPACE ABOVE THE DEVICE FOR TESTING AND MAINTENANCE.
9. THE DEVICE CANNOT BE INSTALLED BELOW GRADE, IN A FIT, OR IN A VAULT.
10. WHEN ORDERING SPECIFY: SIZE INLET/OUTLET CONNECTION, & QUARTER TURN BALL VALVES.

TYPICAL SVB INSTALLATION

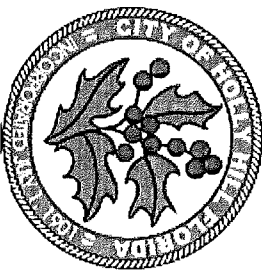
SPILL PROOF VACUUM BREAKER





- NOTES:
1. THE DEVICE MUST BE INSTALLED SO THAT THE CRITICAL LEVEL IS 6" ABOVE THE HIGHEST POINT IN DOWNSTREAM PIPING.
 2. NO VALVES ARE ALLOWED DOWNSTREAM OF THE AVB.
 3. ALL PIPING DOWNSTREAM OF THE AVB MUST BE IDENTIFIED AS (I.E. LABELLED) EITHER "NONPOTABLE WATER" OR "PROCESS WATER".
 4. THE DEVICE CAN ONLY BE INSTALLED IN THE OPERATION SHOWN.
 5. REFER TO MANUFACTURER INSTALLATION & MAINTENANCE INSTRUCTIONS FOR ADDITIONAL DETAILS.
 6. WHEN ORDERING SPECIFY SIZE & INLET/OUTLET CONNECTION.

TYPICAL AVB INSTALLATION ATMOSPHERIC VACUUM BREAKER



APPENDIX H - 2007 FLORIDA PLUMBING CODE

APPENDIX I – AWWA M-14 MANUAL, 3rd EDITION