

# ***CITY OF LAPEER***

## **Cross Connection Control Program**

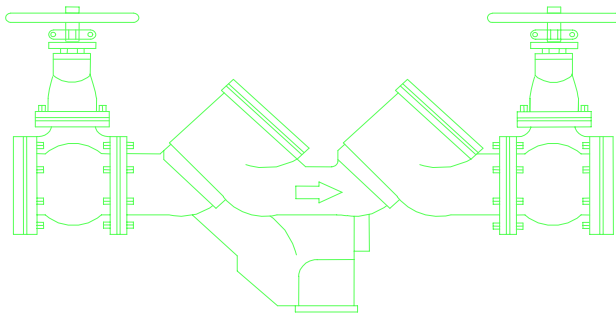


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## **1.0 INTRODUCTION**

### **1.1 History**

For many years the problem of “cross connection” has been recognized. In 1976 the Department of Environmental Quality adopted regulations requiring local health authorities and water purveyors to develop an extensive cross connection control program. The City of Lapeer offers this program to meet compliance requirements.

### **1.2 Legality**

In accordance with the State of Michigan Health Department, The City of Lapeer proclaims this program as a continuing effort to maintain pure, clean, safe potable water. By reference to the State Of Michigan Public Act 399, 1976 Rule #325.11401 through Rule #325.11407 of the Administrative Code, we hereby establish “City of Lapeer Cross Connection Control Program.” This program shall take immediate effect upon approval of the State of Michigan Department of Environmental Quality in December 1997 and adoption by the hereby above described governing body in January 2008.

**2.0 ORDINANCE**

**22.11 CROSS CONNECTION**

**(A)**

The City of Lapeer adopts by reference the Water Supply Cross Connection Control Rules of the Michigan Department of Public Health being R 325.11401 through R 325.11407 of the Administrative Code and the City of Lapeer Cross Connection Control Program. The City of Lapeer Water Department shall be the designated authority and administrator of the cross connection control program and/or plan as hereinafter described.

**(B) PLAN**

1. Pursuant to Michigan Public Act 399, 1976, and R 325.11404 of the Administrative Code, a comprehensive cross connection control plan shall be developed and submitted to the Michigan Department of Public Health, Division of Water Supply for review and approval.
  2. The plan shall outline the conduct of the City of Lapeer cross connection control program including the method for performing initial inspections, determining inspection/reinspection frequencies, back flow prevention assembly tracking and testing schedules, requirements for surveyors, annual reporting, generation of compliance/non-compliance records and notices, pertinent piping information requests, fees, and water service shut-off notices.
  3. Upon approval by the Michigan Department of Public Health, Division of Water Supply, the plan will become the instrument for providing program conduct and policies.
  4. Any changes to the approved plan will be submitted to the Michigan Department of Public Health, Division of Water Supply for review and approval before final approval by the City Commission and implementation by the Authority/Agent.
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5. The cross connection control plan will be made available to the public for review.

**(C) WATER DISCONTINUANCE**

1. The Authority/Agent, as designated in the cross connection control program, shall have the right to enter any facility receiving water from the municipal water system for the sole purpose of inspecting for cross connections. Failure or refusal on the part of the facility to allow the Authority/Agent entry shall be deemed evidence of a cross connection that is an immediate hazard to the public and, as such, the Authority/Agent will follow the steps as outlined in the approved cross connection control plan.
2. If a facility fails to correct any deficiencies identified during the cross connection inspection, or any subsequent inspection, or otherwise fails to follow the compliance steps or procedures contained in the cross connection control plan, the water service to the facility will be discontinued until such time that the deficiencies are corrected and approved by the Authority/Agent.

**(D)**

This ordinance is not intended to supersede the state plumbing code, or any other state statute, or legally adopted ordinance or code of the City of Lapeer. In any case where a provision of this ordinance is found to be in conflict with a provision of any State of Michigan or Federal statute or regulation, or any other legally adopted ordinance or code of the City of Lapeer, the provision which establishes the higher standard for the promotion and protection of the health and safety of the people shall prevail.

**E) PROHIBITIONS.**

No person in the City of Lapeer shall:

1. Connect to a public water supply system unless the proposed connection has first been approved by the Authority/Agent.
2. Steal any water meter, water pipe, other water equipment or tools, or steal any water itself which belong to the City.
3. Willfully damage or injure or suffer or permit to be injured any water meter, pipe or other water equipment or tools which belong to the City.

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4. Prevent or circumvent a water meter from measuring water used from that supplied by the City of Lapeer, or in any way hinder or interfere with the proper action of the water meter.
5. Fraudulently use water belonging to the City or wastewater belonging to the City.
6. Violate any written order of the City of Lapeer in pursuance of the provisions of this ordinance, including the cross connection control program.
7. Violate any other provisions of this ordinance, including the cross connection control program.

**(F) Penalties**

1. Any person who shall violate any of the provisions of this ordinance shall, upon conviction, be punished by a fine not to exceed \$500 or by imprisonment not to exceed 90 days, or by both such fine and imprisonment in the discretion of the court. Each day that a violation occurs shall be deemed a separate offense. As allowed by law or equity, damages recoverable for any violation of this section shall include all actual costs, court, attorney and other related legal fees plus an additional charge of one hundred percent (100%) of the total costs and/or penalties.

**History: (Amnd 07-24-08;-)**

2. In addition to the penalty described in subsection 1, at the request of the Authority/Agent, the City Attorney may bring an action for injunctive relief or other appropriate action in the name of the people of the City of Lapeer to enforce this ordinance, or an order issued pursuant to this ordinance.

### 3.0 LOCAL AUTHORITY

#### 3.1 City of Lapeer

The City of Lapeer shall be the designated Authority/Agent and administrator of the cross connection control program. This shall include, but not be limited to:

- Inspections
- Requirements
- Recommendations
- Public Relations
- Notifications
- Reports to State and Local Agencies
- Filing and Records
- Legal Requests
- Re-inspections
- Engineering
- Installations

#### 3.2 Inspector/Designated Agent

The Inspector or Designated Agent, conducting inspections/surveys on behalf of the City of Lapeer, shall be either designated by the City of Lapeer or be approved by the City of Lapeer. The individuals must meet one of the following qualifications:

- (a) 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 City of conducting inspections/surveys on behalf of The City of Lapeer.
- (b) Have held a similar position (CCC Inspector) with a previous municipality.
- (c) Meet American Society of Sanitary Engineer Standards (ASSE) 5020 and completed their Cross-Connection Inspector Course (40 hours).
- (d) Possess a certificate of completion from one of the following:
  - USC Cross Connection Control Specialist Course (40 hours).
  - TREEO Cross Connection Control Program Manager Course (40 hour).
- (e) Other approved cross connection courses for surveying, approved by the City of conducting inspections/surveys on behalf of The City of Lapeer. Submission requirements for approvals include course outline, date of attendance, outline of test questions, categories and grading criteria, and certificate of satisfactory completion. Course contact must be a minimum of 40 hours.

#### 3.3 Inspection Fee/City Inspector

The City has an inspection fee to assist with costs related to the inspection, computer system entry, and testing notification. The fee is \$10.00 every quarter-hour, equal to \$40.00 per hour.

### 3.4 Surveyors/Surveying Firms Retained by Water Users

If a facility (within the jurisdiction of the purveyor) chooses to retain, or is required by The City of Lapeer to retain, a firm for the purpose of Cross Connection Control Surveys and/or Management the firm shall meet the following qualifications:

- (a) Must have a minimum of three- (3) consecutive year's experience in Cross Connection Control Survey/Management.
- (b) Must provide documentation from previous cross connection control survey work, and show that they have been employed in cross connection control surveying on a regular basis in municipalities and/or facilities of similar characteristics.
- (c) Must provide General Liability Insurance in the amount of Three Million Dollars (\$3,000,000.00) or an amount as requested by The City of Lapeer.
- (d) The City of Lapeer must also be named as the insured.
- (e) Must provide a performance bond equal to the dollar amount of the work completed.
- (f) Must hold Worker's Compensation in accordance with State of Michigan statutes.
- (g) Must provide Vehicle Liability Insurance with limits of not less than \$1,000,000.00/\$1,000,000.00.
- (h) All employees used to conduct surveys must comply with Section 3.2.

### 3.5 Surveyor Application

On an annual basis, any surveyor conducting surveys within the City of Lapeer jurisdiction must file an application and pay an annual fee. The fee is charged in order to recover costs related to application review, computer system entry, and the distribution of requested surveyor lists. The fees are:

- (a) Initial application - A fee of \$50.00 will be charged for initial applications, and for individuals, which have let their application approval lapse for over a six-month period.
  - (b) Renewal - A fee of \$15.00 will be charged for each consecutive yearly renewal.
- \* Applications and fees received and approved do not represent the City of Lapeer's certification of approval or performance.

**City of Lapeer  
CROSS CONNECTION SURVEYOR APPLICATION**

NAME OF FIRM/INDIVIDUAL:		
MAILING ADDRESS:		
CITY:	STATE:	ZIP:
CONTACT PERSON:		
TELEPHONE NUMBER: (WORK)		(HOME)

**SURVEYOR/INSPECTOR REQUIREMENTS**

Firm/Individual must meet any one of the first six requirements along with all of the remaining requirements. Check all that apply; put N/A for those that don't:

	Meet American Society of Sanitary Engineer Standards (ASSE) 5020 - Attended ASSE Surveyor Course
	USC Cross Connection Specialist Course*
	TREEO Cross Connection Control Program Manager Course* Must provide documentation from previous cross connection control survey work, and show that they have been employed in cross connection control surveying on a regular basis in municipalities and/or facilities of similar characteristics. ** Presently or previously an approved Plumbing Inspector in State of Michigan. List where: _____ ** Equivalent Experience Determined By The City of Lapeer**
	Must provide a performance bond equal to the dollar amount of the work completed. *** Must hold Worker's Compensation in accordance with State of Michigan statutes. *** Must provide Vehicle Liability Insurance with limits of not less than \$1,000,000.00/\$1,000,000.00. ***
	Over three (3) years continuous cross connection survey experience**
	Performance/Liability Insurance (\$1,000,000 minimum)*** and name The City of Lapeer as additional insured
	* attach certificate      ** attach references      *** attach insurance certificate

I hereby acknowledge or affirm that the above information is true and accurate.  
SIGNATURE OF APPLICANT

Note: The City of Lapeer reserves the right to accept/reject any applicant based on the attached documentation provided with this application. The City of Lapeer may occasionally inspect work performed by accepted surveyor, and reserves the right to accept/reject inspections based upon these performance reviews.

SIGNATURE OF CITY OF:	REVIEWING AGENT:
TITLE:	DATE:
APPLICATION FEE \$	DATE:
APPROVAL FEE SUBMISSION \$	DATE:

### 3.6 Other Applicable Laws

The City of Lapeer shall conduct this Cross Connection Control Program in accordance with all Local Plumbing Codes, Michigan Plumbing Code 2000, Michigan Residential Code 2000, State of Michigan Environmental Quality, Division of Water Supply Cross Connection Control Rules Manual, MIOSHA Safety and Health Administration Sanitation Standard 4201, Health Association Food Standards, Local District/County Health Department Standards relating to cross connection control and any other applicable laws that affect public health protection through cross connection control.

## **4.0 INSPECTIONS**

### **4.1 Rights of Inspection**

Authorized employees, having proper identification, shall be permitted to enter the premise of any owner at reasonable times for the purpose of inspection, measurement, sampling, or testing of any part of the plumbing connected to the water system. Refusal or failure to arrange for a suitable time may result in the water supply being terminated if The City of Lapeer has reason to believe there is potential for danger to the public or other occupants.

### **4.2 Responsibility of Owner**

Property owners are responsible to keep their own private water system in good repair. The City of Lapeer may require owners to alter, replace, or repair any plumbing connected to the water system that may pose a threat to public health.

### **4.3 Initial Inspections**

Initial inspections shall begin with industrial/commercial accounts classified as high hazard. After they are completed, initial inspections shall start with commercial/industrial accounts classified as moderate and low hazards.

### **4.4 Inspection Notification (regular/initial)**

A notification of an inspection will be made. The Inspection Notice will contain the following information; reason for inspection, week of inspection, return telephone number of the cross connection control inspector. The Inspection Notice will be mailed to the facility to be inspected approximately 10 to 30 days before the scheduled inspection.

The facility or City of Lapeer can request a change in inspection date. However, The City of Lapeer still reserves the right to enter any facility unannounced for the sole purpose of surveying for cross connections. Refusal of entry by the facility constitutes a violation of this program and The City of Lapeer can enforce code actions as applicable.

**4.5 Inspection Notice (Sample)**  
**Cross Connection Control Program Inspection Notice**

«LetterSentDate :Month Day, Year»

«Mailing\_Address »

**RE: «LTR\_Facility\_Name » at «[Facility]Service Address (Full)»**

Dear «Mail\_Greeting »

The Purpose of the «LTR\_H2O\_Org\_System\_Name »'s Cross Connection Control Program, as defined in the local Ordinance «LTR\_H2O\_Org\_Ordinance », 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 «LTR\_H2O\_Org\_System\_Name » 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 «LTR\_Survey\_Initial\_Date », 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 **[Insert Contact Info]** to arrange an appointment.

Any costs associated with the inspection(s) fees, 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 «LTR\_H2O\_Org\_Text\_01 ».

«LTR\_H2O\_Org\_Text\_03 »

«H2O\_Org\_Footer\_Picture »

#### **4.6 Inspection/Survey Forms**

An Inspection Data Form, Existing Devices Form and Requirements Form shall be used in every inspection, as required, and will be filed in a location as identified by the City of Lapeer along with other pertinent information accumulated.

**4.6 Inspection Field Form (Sample)**

**4.6 Existing Device Form (Sample)**

**4.6 Requirements Form (Sample)**

#### 4.7 Inspection/Survey Procedures

Cross Connection Control Inspections shall be carried out as follows:

- (a) Identify facility to be inspected and send inspection notice in advance.
- (b) Meet on-site with facility contact person.
- (c) Explain the cross connection control program to the contact person before inspection/surveying the facility.
- (d) Inspect/survey the facility and complete the survey forms with the following information:
  - Identify facility type/classification and on-going inspection frequency.
  - Individual contact data.
  - Number of potable inlets. Is protection required. Are they adequately protected.
  - Number of fire line inlets. Is protection required. Are they adequately protected.
  - Do they have a secondary source of water.
- (e) Identify isolation hazards utilizing the Inspection Data Form. A diagram of the system may be requested or required.
- (f) Physically review all exposed piping and water outlets/uses.
- (g) Complete all forms, as required, to identify situation.

#### 4.8 Exit Interview

After completing the inspection, the inspector will review with the facility contact person the cross connections found. If the cross connections can be eliminated immediately, request that it be done. The Inspector and facility contact person sign the Inspection Data Form at the end of the exit interview.

#### 4.9 First Non-Compliance Notification

After inspection, a Notice of Non-Compliance will be sent to each facility having unprotected cross connections outlining corrective procedures. The notice shall include the time allocated for compliance\*, and a list of requirements and blank device test form(s).

- \* **The City of Lapeer reserves the right to adjust the number of days allocated for compliance due to the degree of hazard of the cross connection.**

**4.10 Non-Compliance Notice (Sample)**  
**Inspection Non-Compliance Notice 1**

«LetterSentDate :Month Day, Year»

«Mailing\_Address »

**RE: «LTR\_Facility\_Name » at «[Facility]Service Address (Full)»**

Dear «Mail\_Greeting »

The purpose of the «LTR\_H2O\_Org\_System\_Name »'s Cross Connection Control Program, as defined in Ordinance «LTR\_H2O\_Org\_Ordinance », 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 «LTR\_Survey\_Last\_Date ». 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 «LTR\_Survey\_Response\_Date ». 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 «LTR\_H2O\_Org\_Text\_01 ».

«LTR\_H2O\_Org\_Text\_03 »

#### **4.11 Request for Pertinent Piping Information**

The City of Lapeer has the legal right to request pertinent piping information, piping drawings, or information relating to a specific point of use in relation to cross connections. The City of Lapeer shall issue a Pertinent Piping Information Request Notice if a facility meets any one of the following:

- (a) Facility is large in size and will take a considerable amount of time to survey/inspect.
- (b) Piping configurations are too complex or complicated to follow.
- (c) Inadequate piping identification.
- (d) Facility changes their plumbing configurations on a regular frequency.

#### **4.12 Request for Pertinent Piping Information Notice**

The notice shall contain the reason for the request, contractor requirements (Section 3.3), contracted performance insurance requirements, time allocated to submit the cross connection survey report to The City of Lapeer. Failure to comply with this request shall be enforced as required by this program.

**4.13 Request for Pertinent Piping Information Notice (Sample)  
Request for Internal Cross Connection Control Information Notice**

«Current date:Month Day, Year»

«Mailing\_Address »

**RE: «LTR\_Facility\_Name » at «[Facility]Service Address (Full)»**

Dear «Mail\_Greeting »,

The purpose of the «LTR\_H2O\_Org\_System\_Name »'s Cross Connection Control Program, as defined in Ordinance «LTR\_H2O\_Org\_Ordinance », 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 Ordinance «LTR\_H2O\_Org\_Ordinance », 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 «LTR\_H2O\_Org\_System\_Name ».

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 time table for correcting any deficiencies noted in the report.

If you have any questions or require additional information, please contact [Insert Contact Info]. Your facility's cooperation in this matter is greatly appreciated.

#### 4.14 Submission of Pertinent Piping Data

The data required for submission to conform to a pertinent piping request shall include:

- (a) Methodology used to conduct the survey.
- (b) General facility overview and concerns.
- (c) Requirements/recommendations including drawing number, requirement type, I.D. number, size, protection type, and location description/remarks.
- (d) Existing backflow preventer list including drawing number, type, size, I.D. number, manufacturer, model, serial number, protection type, valve type, strainer, temperature, location description/remarks, and test code.
- (e) Action plan for corrections along with a proposed time table for completion.
- (f) Drawings of the facility potable water piping.

Device types must correspond with the Device Legend/Abbreviations listing in Section 6.2. Information submission is to be on disk or electronically in a format compatible with The City of Lapeer's record keeping system. If information provided is a paper/hard copy format, or not electronically compatible, a fee will be assessed to the surveying individual/firm based on a standard hourly rate for data entry time incurred. The City of Lapeer will determine hourly rates.

#### 4.15 Facility Containment Notification

The protection and integrity of the water distribution system is the number one priority. When a facility is contained, The City of Lapeer has the option of continuing inspections downstream of the containment devices, or continually notifying the facility that the City of Lapeer has met their responsibility of protecting the water distribution system. However, the facility is still liable (per OSHA Sanitation Standards or state standard) for providing potable water to its employees and/or the public. Failure on the facility's part to take corrective action would constitute a violation of the Sanitation Standard thus, exposing the facility to possible legal ramifications. A Facility Containment Notice will be issued if a facility meets one of the following:

- (a) Does not comply with this plan and containment devices are not in place.
- (b) Refusal of entry by the facility.
- (c) Extremely high hazard facility and immediate measures have to be taken.
- (d) Refusal to comply with the normal steps for non-compliance.

**A copy of the facility containment notice will be forwarded to MIOSHA.**

4.15 Facility Containment Notice (Sample)  
Containment Notice

<<Date>>

<<SendTo>>

**RE: <<Facility>> at <<Address>>**

Dear <<Contact>>,

The purpose of the "[Enter name of City or Township]" 's Cross Connection Control Program, as defined in the "[Enter name of City or Township]" Ordinance <<Ordinance>>, 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.

**Comment [m1]:** 9-11-01: Standard item. Do not modify.

**As authorized by Ordinance <<Ordinance>>, 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. **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 [Enter Contact Info]

#### **4.17 Compliance Notification**

If upon the inspection or re-inspections, a facility has no cross connections, or has eliminated any existing or potential cross connections, a Compliance Notice will be mailed to the facility. The Compliance Notice will be sent upon identification of compliance status.

**4.18 Compliance Notice (Sample)**  
**Cross Connection Control Program Inspection Compliance Notice**

«Current date:Month Day, Year»

«Mailing\_Address »

**RE: «LTR\_Facility\_Name » at «[Facility]Service Address (Full)»**

Dear «Mail\_Greeting »

The purpose of the «LTR\_H2O\_Org\_System\_Name »'s Cross Connection Control Program, as defined in Ordinance «LTR\_H2O\_Org\_Ordinance », 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 «LTR\_Survey\_Comp\_Date :Month Day, Year». 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 Ordinance «LTR\_H2O\_Org\_Ordinance ».** 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 «LTR\_H2O\_Org\_Text\_01 ».

«LTR\_H2O\_Org\_Text\_03 »

## **5.0 PERIODIC FOLLOW-UP**

### **5.1 Continuing - Inspections Frequency**

Periodic follow-up shall be scheduled from the list of inspections made, and shall be influenced by the degree of hazard existing within the facility. Degree of hazard shall be determined by use of Chart I and Chart II (Section 11.0). Time allocated for Chart III and evaluation determine periodic follow-up by The City of Lapeer (Section 11.0).

### **5.2 Continuing - Inspections Frequency Determination**

Based upon the "degree of hazard" the periodic follow-up frequency shall be from annually to once every five years as determined by The City of Lapeer.

High = Medical, Manufacturing, Car Washes, Mortuaries, Labs, Water Treatment, Garages, Greenhouses/Nurseries etc.

Medium = Public Meeting Places, Schools, Food Establishments, Grocery Stores etc.

Low = Retail Outlets (water closets only), Residential, Apartment Complexes etc.

### **5.3 Follow-up - Inspection Procedure**

Repeat procedure of an inspection, making it as brief as possible. Check to see that required protection has been installed and is working (visual test only). Conduct the periodic follow-up the same way as outlined in Section 4.1 - 4.6 and also include the following:

- (a) Maintaining the original inspection schedule. A time table for periodic follow-up shall be maintained according to Chart I & II entitled "degree of hazard" involved (initial inspection only).
- (b) The area of periodic follow-up will be dealt with by means of examination and evaluation of "records". Records - meaning device test/maintenance reports and previous inspection reports.
- (c) Periodic follow-ups for compliance to code are made at the end of period given for compliance.

### **5.4 Non-Compliance Notification #2**

After periodic follow-up a second notice of non-compliance will be sent to each facility not having completed the requirements as outlined by The City of Lapeer. The notice will be accompanied with a Requirements List and Blank Device test form(s) (if applicable). The facility will be given an additional number of days, as determined by inspectors, for compliance and follow-up inspection. The City of Lapeer reserves the right to adjust the number of days allocated for compliance due to the degree of hazard of the cross connection.

**5.5 Non-Compliance Notice #2 (Sample)**  
**Inspection Non-Compliance Notice 2**

«LetterSentDate :Month Day, Year»

«Mailing\_Address »

**RE: «LTR\_Facility\_Name » at «[Facility]Service Address (Full)»**

Dear «Mail\_Greeting »

The purpose of the «LTR\_H2O\_Org\_System\_Name »'s Cross Connection Control Program, as defined in Ordinance «LTR\_H2O\_Org\_Ordinance », 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 «LTR\_Survey\_Last\_Date ». 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 «LTR\_Survey\_Response\_Date ». 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 «LTR\_H2O\_Org\_Text\_01 ».

«LTR\_H2O\_Org\_Text\_03 »

**5.6 Follow-up Inspection**

Repeat procedures outlined in Section 5.3.

### **5.7 Water Shut-Off Notification**

After the set time limit has passed for the non-complying facility to contact The City of Lapeer, a Water Shut Off Notice will be sent registered mail, return receipt requested or other means of service as deemed necessary by The City of Lapeer. The water shut off date will be at the discretion of The City of Lapeer.

### **5.8 Termination of Water Service**

Termination of water service will be for any of the following reasons:

- (a) Immediate health threat.
- (b) Gross non-compliance (i.e.: Failure to test devices and submit device test forms or refusal to comply).
- (c) Refusal of entry.

**Termination procedures to be determined by The City of Lapeer.**

**5.9 Water Shut-off Notice (Sample)**  
**Cross Connection Control Program Inspection Shut-Off Notice**

«LetterSentDate :Month Day, Year»

«Mailing\_Address »

**RE: «LTR\_Facility\_Name » at «[Facility]Service Address (Full)»**

Dear «Mail\_Greeting »

The purpose of the «LTR\_H2O\_Org\_System\_Name » Cross Connection Control Program, as defined in Ordinance «LTR\_H2O\_Org\_Ordinance », 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 «LTR\_Survey\_Last\_Date :Month Day, Year». 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 Ordinance «LTR\_H2O\_Org\_Ordinance », the water supply to the above noted premises will be discontinued as of «LTR\_Survey\_Response\_Date ». Water service may not be resumed until corrective measures have been addressed.**

Upon completion of the required corrective action, please contact [nser Contact Info] to schedule a compliance review.

«LTR\_H2O\_Org\_Text\_04 »

## 6.0 BACKFLOW PREVENTION DEVICES

### 6.1 Responsibility

The City of Lapeer will require the following:

- (a) Installation and maintenance of backflow prevention assemblies shall be the responsibility of the facility owner, occupant or legally responsible party.
- (b) All testable assemblies will be tested upon installation and on an annual basis or as determined by The City of Lapeer.
- (c) The City of Lapeer may require additional testing for any of the following reasons:
  - Loss of water flow/pressure to the facility.
  - Repair or maintenance to the water distribution system at or near the facility.
- (d) Device test form(s) for records will be generated by The City of Lapeer and sent to the facility of said assemblies.
- (e) The facility shall be required to have said assemblies tested by a certified tester whom has successfully completed the Michigan Plumbing & Heating Mechanical Contractors Association Testers Course. The completed required device test form(s) must be returned to The City of Lapeer within the time frame established by The City of Lapeer.
- (f) Only City of Lapeer device test forms will be accepted.

6.2 Device Abbreviation List

<b>CITY OF LAPEER DEVICE LEGEND/ABBREVIATIONS</b>	
ABBREVIATION	DESCRIPTION
AFHBVB	Anti-Frost Hose Bibb Vacuum Breaker
AG	Air Gap
AGD	Air Gap Device
ASBC	Anti-Siphon Ball Cock
AVB	Atmospheric Vacuum Breaker
CAP	Device and/or piping requires a cap
DC	Dual Check
DCV	Double Check Valve Assembly
DDCV	Double Detector Check Valve
ET	Expansion Tank
FAUCET	Faucet
FVB	Fixture Vacuum Breaker
HA	Hammer Arrestor
HB	Hose Bibb
HBIVB	Hose Bibb w/Integrated Vacuum Breaker
HBVB	Hose Bibb Vacuum Breaker
LABEL	Pipe requires labeling
LFDC	Lab Faucet Dual Check
LFVB	Lab Faucet Vacuum Breaker
PLUG	Device and/or piping requires a plug
PVB	Pressure Vacuum Breaker
REMOVE	Device removal required
REPAIR	Device is in need of repair
REPLACE	Requires replacement
REPLUMB	Requires relocation and/or new piping
RPBP	Reduced Pressure Backflow Preventer Assembly
RPDA	Reduced Pressure Detector Assembly
SC	Single Check Valve
VDCV	Vented Double Check Valve
VMBP	Vending Machine Backflow Preventer
ABBREVIATIONS LEGEND	
ILGBLE	Illegible
INACC	Inaccessible
NA	Not Available
OTHER	Other (Not a typical manufacturer)

**6.3 A.S.S.E. Approved Devices**

#### 6.4 Tester Application

On an annual basis, any approved tester conducting tests within the City of Lapeer's jurisdiction must file an application and pay an annual fee. The fee is charged in order to recover costs related to application review, computer system entry and the distribution of requested tester lists. The fees are:

- (a) Initial application - A fee of **\$10.00** will be charged for initial applications, and for individuals which have let their application approval lapse for over a six-month period.
- (b) Renewal - A fee of **\$10.00** will be charged for each consecutive yearly renewal.
- \* Applications and fees received and approved do not represent the City of Lapeer's certification of approval or performance.

**6.4 Tester Application (Sample)**

## **6.5 Testing Notification (containment/isolation devices)**

The City of Lapeer will generate a notice that will inform the facility that their respective backflow prevention assemblies (whether for isolation at point of use or containment of the facility) need to be tested by certified tester whom has successfully completed the Michigan Plumbing & Heating Mechanical Contractors Association Testers Course. The notice will be sent prior to the actual test date for the assemblies. The notice will be accompanied with the required device test form(s). The return address for The City of Lapeer shall be printed on the notice along with the telephone number and the date for returning the required device test form(s).

**6.6 Test Form (Sample)**

**6.7 Test Notice (annual testing of isolation devices/containment devices) (Sample)  
TEST FORM DUE NO LATER THAN: «ResponseDueDate :Month Day, Year:Month Day, Year»**

«Mailing\_Address »

**RE: «LTR\_Facility\_Name » at «[Facility]Service Address (Full)»**

**Dear «Mail\_Greeting »**

The purpose of the «LTR\_H2O\_Org\_System\_Name »'s Cross Connection Control Program, as defined in Ordinance «LTR\_H2O\_Org\_Ordinance », 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. A partial listing is attached for reference.

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

**«LTR\_H2O\_Org\_System\_Name »  
C/o Hydro Designs, Inc.  
5700 Crooks Road, Suite 100  
Troy, MI 48098**

Completed test forms are to be returned by «**ResponseDueDate** ». Please retain a copy of the device test results for your records.

If you have any questions or require additional information, please contact «**LTR\_H2O\_Org\_Text\_01** »

## **6.8 Testing Notification #2**

After the initial time has expired, and the facility has not returned their respective device test form(s), The City of Lapeer may send a Second Testing Notice. The Second Testing Notice may be accompanied with the required device test form(s). The Second Test Notice will require the device test form(s) to be returned to The City of Lapeer within five (5) to thirty (30) days or sooner, if ordered by the City of Lapeer.

## 6.9 Test Notice #2 (Sample)

### Test Notice #2

**TEST FORM DUE NO LATER THAN: «ResponseDueDate :Month Day, Year:Month Day, Year»**

«Mailing\_Address »

**RE: «LTR\_Facility\_Name » at «[Facility]Service Address (Full)»**

**Dear «Mail\_Greeting »**

The purpose of the «LTR\_H2O\_Org\_System\_Name »'s Cross Connection Control Program, as defined in Ordinance «LTR\_H2O\_Org\_Ordinance », 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 Michigan Registered Tester. A partial listing is attached for reference.

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

**«LTR\_H2O\_Org\_System\_Name »  
C/o Hydro Designs, Inc.  
5700 Crooks Road, Suite 100  
Troy, MI 48098**

Completed test forms are to be returned by «**ResponseDueDate** ». Please retain a copy of the device test results for your records.

If you have any questions or require additional information, please contact «**LTR\_H2O\_Org\_Text\_01** ».

«LTR\_H2O\_Org\_Text\_03 »

#### **6.10 Testing Shut-Off Notice**

If after the prescribed time limits for testing are not met, as outlined herein, the facility shall be deemed to be in non-compliance. A water shut-off notice will be sent registered mail return receipt requested or other means of service deemed necessary by The City of Lapeer. The water shut-off date will be at the discretion of The City of Lapeer.

## 6.11 Testing Shut-Off Notice (Sample)

### Testing Shut-Off Notice

**TEST FORM DUE NO LATER THAN: «ResponseDueDate :Month Day, Year:Month Day, Year»**

«LetterSentDate :Month Day, Year»

«Mailing\_Address »

**RE: «LTR\_Facility\_Name » at «[Facility]Service Address (Full)»**

**Dear «Mail\_Greeting »**

The purpose of the «LTR\_H2O\_Org\_System\_Name »'s Cross Connection Control Program, as defined in Ordinance «LTR\_H2O\_Org\_Ordinance », 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. A partial listing is attached for reference.

**You are hereby notified that in accordance with Ordinance «LTR\_H2O\_Org\_Ordinance », the water supply to the above noted premises will be discontinued as of «ResponseDueDate ». 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 Hydro Designs, Inc. at **248.786.1789**, or mailed to the following address:

«LTR\_H2O\_Org\_System\_Name »  
C/o Hydro Designs, Inc.  
5700 Crooks Road, Suite 100  
Troy, MI 48098

If you have any questions or require additional information, please contact «LTR\_H2O\_Org\_Text\_01 ».

## **7.0 New Service Inspections**

### **7.1 Procedures**

The City of Lapeer shall review with the contractor and project engineer the plumbing plans, explain the requirements for backflow prevention, and set a date for an on-site inspection before water service is initiated.

### **7.2 Inspections**

The City of Lapeer shall inspect the facility for compliance.

### **7.3 Records**

The City of Lapeer shall record the inspection in compliance with standard inspection procedures and this plan.

### **7.4 Non-Compliance**

If the facility does not comply with this plan, The City of Lapeer shall enforce this plan as required, and the water service will not be initiated until compliance is achieved and approved.

### **7.5 Compliance**

If upon the on-site survey/inspection The City of Lapeer determines that compliance has been met then the required actions of this plan shall be completed.

## 8.0 PIPING IDENTIFICATION

### 8.1 Requirements

- 8.1.1 When two or more piping systems are used for water in a building or industrial plant, 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. To help prevent the possibility of two systems being interconnected, pipes should be identified adequately. Legends and color-coding should be based on the American Standards Association "Scheme for Identification of Piping Systems" (ANSI A13.1-1981) or an identification plan accepted by The City of Lapeer and prominently posted throughout the facility.
- 8.1.2 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 should be painted and/or labeled and the words "Potable Water" put on the pipe to appropriate intervals. Pipes carrying water for fire protection should be painted or labeled. Piping systems carrying other material, or water for other purposes, should also be clearly identified with the appropriate legends and color-coding.
- 8.1.3 Those premises, which do not comply with the identification of piping system requirements on the effective date of this ordinance, must be painted or labeled in accordance with this section. Identification must be completed as soon as reasonably possible, or in all cases within one (1) year after the effective date of this ordinance.
- 8.1.4 When the piping system layout creates an unusual or extreme situation in a limited area of inaccessibility, The City of Lapeer 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 A13.1-1981 standards and must be approved by The City of Lapeer.
- 8.1.5 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 City of Lapeer.

## **9.0 REPORTS**

### **9.1 Annual Report**

The City of Lapeer shall submit an annual report to the State of Michigan Department of Environmental Quality, Drinking Water and Radiological Protection Division, (MDEQ) on an annual basis. The report shall be in the format provided by the MDEQ and submitted within the time frame established.

**9.2 City of Lapeer Annual Report (Sample)**

### 9.3 Monthly Reports

The City of Lapeer may keep a monthly record (during The inspection/survey period) of the following reports:

#### Period Reports

- (a) Inspections Completed by Date
- (b) Inspections Not Completed by Date
- (c) Inspection Notices Sent by Date
- (d) Tests Over-Due

#### Schedule Reports

- (a) Inspection Schedule by Inspection type
- (b) Inspection Notices Scheduled by Date
- (c) Testing Notices Scheduled by Date
- (d) Test Schedule by Date

**9.3 Inspections Completed by Date (Sample)**

**9.3 Inspections Not Completed by Date (Sample)**

**9.3 Inspections Notices Sent by Date (Sample)**

**9.3 Tests Over-Due (Sample)**

**9.3 Inspection Schedule by Inspection Type (Sample)**

**9.3 Inspection Notices Scheduled by Date (Sample)**

**9.3 Testing Notices Scheduled by Date (Sample)**

**9.3 Test Schedule by Date (Sample)**

**10 REGULATIONS**

**10.1 State of Michigan Department of Environmental Quality Drinking Water and Radiological Protection Division Cross Connection Control Rules Manual**

## 10.2 Environmental Protection Agency Cross Connection Control Manual

**10.3 Michigan Plumbing Code 2000**

## 10.4 Michigan Residential Code 2000

**10.5 MIOSHA Safety & health Administration Standard**

**10.6 State of Michigan Department of Environmental Quality Environmental Health Food Standards**

**10.7 ANSI Specifications**

11.0 CHARTS

DEGREE OF HAZARD AND RECOMMENDED PREVENTION CHART I

DIRECT WATER CONNECTIONS WHICH MAY BE SUBJECT TO BACKPRESSURE:	DEGREE OF HAZARD			RECOMMENDED TYPE OF BACKFLOW PREVENTOR			
	High	Low		Air-Gap	Reduced Pressure Device	Pressure Vacuum Breaker	Atmospheric Vacuum Breaker
<b>A. Pumps, tanks and lines handling toxic chemicals:</b>							
1. Sewage and bacterial contamination	X			X	X		
2. Toxic substances	X			X	X		
3. Non-toxic substances		X		X	X		
<b>B. Water connections to steam and steam boiler:</b>							
1. Boiler or steam connection to toxic substances	X			X	X		
2. Boiler or steam connection to non-toxic substances (boiler blow-off through approved air gap)		X		X	X		

CHART II

DIRECT OR INDIRECT WATER CONNECTIONS NOT SUBJECT TO BACKPRESSURE:	DEGREE OF HAZARD			RECOMMENDED TYPE OF BACKFLOW PREVENTOR			
	High	Low	Minor	Air-Gap	Reduced Pressure Device	Pressure Vacuum Breaker	Atmospheric Vacuum Breaker
A. Sewer connection waste line (not subject to waste stoppages)	X			X	X	X	X
B. Submerged low inlets to receptacles containing toxic substances	X			X	X	X	X
C. Submerged low inlets to receptacles containing non-toxic substances		X		X	X	X	X
D. Lawn sprinkler systems	X			X	X	X	X
E. Coils or jackets used as heat exchangers, compressors, degreasers or other equipment:							
1. In sewer lines	X			X	X		
2. In toxic substances	X			X	X	X	X
G. Flush valve toilets	X						X
H. Toilet and urinal tanks		X		X			X
I. Trough urinals		X					X
J. Valved outlets or fixtures with hose attachments which may become cross connected:							
1. Toxic substances	X			X	X	X	X
2. Non-toxic substances		X		X	X	X	X

## TIME INTERVALS FOR PERIODIC FOLLOW-UP

CHART III

TYPE OF CROSS CONNECTION	Annually	3 Years	5 Years
<b>Secondary water systems:</b>			
1. Critical equipment	X		
2. No critical equipment	X		
<b>Submerged inlets:</b>			
1. Correction at service line		X	
2. Correction on internal system Reduced Pressure Backflow preventer - isolate portion of system		X	
<b>Refrigeration, Heating and/or Cooling systems</b>		X	
<b>Treated Water</b>		X	
<b>Minimal Water uses - Commercial or Retail Space</b>			X
Piping systems not likely to change or be updated			X

The above schedule for periodic follow-up apply basically to determining that the protective device is in place and working properly and that no additional cross connections exist.

It is further suggested that mechanical devices depended upon for protection be tested and maintained at least once a year.

**SUMMARY OF FACILITY TYPES**  
**CHART IV**

City of Lapeer to insert report from C-4 - Summary of Facility Types.