



## Private Property Inflow And Infiltration Inspection Procedures For Contractors

<b>Purpose</b>	
<p>The following instructions and standards are intended for property owners and their contractors when choosing to use a private contractor to complete the Point of Sale Sanitary Sewer Service Inflow and Infiltration (I/I) Inspection. Private inspection contractors will need to complete the inspection using the City of Orono’s Inflow/Infiltration Inspection Form, available on the City website. Inspectors will require access to the basement or lowest level in the home or building and access to all sewer cleanouts, sump pump(s), and sump pump plumbing. The televised portion of the I/I inspection is to note defects in the sanitary sewer lateral, which result in infiltration and ex-filtration. The purpose of the private property inflow and infiltration (I/I) inspection is to reduce the flow of clear water into the sanitary sewer system via cross connections (inflow) from sump pumps, foundation drains, roof leaders, cisterns, and other clean water sources connected to the sanitary sewer system. In addition, the program aims to reduce indirect flow of clean water into the sanitary sewer system (infiltration) through pipe and pipe joint defects.</p>	
<b>Video / Picture Standards</b>	
<ul style="list-style-type: none"> <li>• The video report will be in a MPEG format</li> <li>• Still photos will be in a JPEG format</li> <li>• Video reports can be submitted on thumb drives or a USB hard drive.</li> <li>• Reference the start and end of each video segment as it begins.</li> <li>• Footages along the sewer service line must be shown on the video report.</li> <li>• The video camera shall be guided forward at a moderate to slow pace along the bottom of the pipe.</li> <li>• The camera shall stop at any connection.</li> <li>• The camera shall stop at any unusual instances that are viewed while in progress and provide a more detailed and longer view of the specific instance (i.e. – bad joint, dirt in lines, settlement in line, etc.).</li> </ul>	
<b>Sewer Service Inspection Criteria And Process</b>	
<ul style="list-style-type: none"> <li>• Inflow/Infiltration Compliance Inspection form must be completely filled out for the inspection to be complete.</li> <li>• The inspector is required to note all defects and footage location in the sanitary sewer lateral on the compliance inspection form and an audio description recorded on USB Thumb drive or hard drive.</li> <li>• The sewer service inspection must the service pipe from before it exits the building to the sewer main.</li> <li>• All connections must be verified by flowing water into drains, referencing the source, and reporting them on the video</li> <li>• Any connection that cannot be verified is considered to be an unknown connection and must be exposed to verify source.</li> <li>• All cleanouts are required to be opened and inspected (include photos of the opened cleanout riser); cleanout inspection requires documented footage location on the form and audio description recorded on USB Thumb drive or hard drive.</li> </ul>	<ul style="list-style-type: none"> <li>• All floor drains will need to be opened and inspected (include photos of the drain, the surrounding area, and the nearest foundation wall).</li> <li>• Any foundation drains found will need to be opened and the discharge point verified (include photos).</li> <li>• All external drains will need to be opened and the discharge point verified</li> <li>• Defects/items that require documentation include, but are not limited to:               <ul style="list-style-type: none"> <li>➢ roots</li> <li>➢ offset pipe joints</li> <li>➢ mineral deposits</li> <li>➢ unknown deposits</li> <li>➢ sag/pipe deflection</li> <li>➢ cracked pipes</li> <li>➢ chipped pipes</li> <li>➢ Pipe size transitions</li> <li>➢ length of service</li> <li>➢ location of all cleanouts</li> <li>➢ broken / damaged or missing pipe foundation drain connections (including photos).</li> </ul> </li> </ul>

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<b>Sewer Service Further Investigation Issues</b>		
<p>Properties found in need of further investigation have one or more of the following:</p> <ul style="list-style-type: none"> <li>• unable to access sewer lateral due to un-located cleanouts (behind walls, under flooring, etc)</li> <li>• unable to complete inspection of sewer lateral due to roots, solid deposition, crushed pipe, etc</li> <li>• unknown connections (unable to verify connection flowing water into sewer lateral)</li> </ul>		
<b>Sump Pump/Roof Leader Inspection Criteria And Process</b>		
<ul style="list-style-type: none"> <li>• Inflow/Infiltration Compliance Inspection form must have the “Sump Pumps” and “Foundation Drains” sections completely filled out for the inspection to be complete.</li> <li>• Every sump pump on the property is required to be inspected (including photos of the opened basket, the surrounding area, and the discharge pipe, both interior and exterior). Total number of sump pumps must be noted.</li> <li>• Sump pump discharge piping is required to be rigid pipe. Flexible pipe, shut-off valves, plumbing tees, and wyes are not allowed.</li> </ul>	<ul style="list-style-type: none"> <li>• Correctly plumbed sump pump discharges outside of the building using rigid pipe. Pipe discharge should be a minimum of 10-feet from building.</li> <li>• Sump pumps that do not discharge outside are incorrectly plumbed and are considered non-compliant.</li> <li>• Roof leaders are required to discharge outside of the building; any roof leaders and or cisterns discharging into foundation drains are non-compliant.</li> </ul>	
<b>Completed Inspection</b>		
<ul style="list-style-type: none"> <li>• Property owner is to sign the completed Inflow/Infiltration Compliance Inspection form and retain a copy for their records.</li> <li>• A copy of the completed Inflow/Infiltration Compliance Inspection form and video link is required to be delivered to the City of Orono for review.</li> <li>• The City’s Utilities Supervisor or his/her designee will review the video and compare it with the completed Inflow/Infiltration Compliance Inspection form</li> </ul>	<ul style="list-style-type: none"> <li>• The City will issue either a Certificate of Compliance or a Correction Notice once the review is complete. If a correction notice is issued, the required repairs must be made and a post-repair televised inspection must be performed in order to receive Certificate of Compliance.</li> <li>• The completed forms will be mailed to the address on the Inflow/Infiltration Compliance Inspection form, unless a different address is noted.</li> </ul>	
<b>Contractor’s Signature</b>		
<p>Contractor completing the Inflow and Infiltration Compliance Inspection has read and understands the conditions of the Private Property Inflow and Infiltration Inspection Procedures for Contractors.</p>		
Company name	Inspector name	
Copy of plumbers license On file _____ (or) Attached _____		
License number	Bond	Date
<b>Staff Use Only</b>		
Date Received	Staff Name and Signature	