

Inflow and Infiltration Property Features Inventory and Compliance Monitoring For Community Participation Programs

i4

Inflow and Infiltration / Inventory and Inspection

This new database driven computer program helps local jurisdictions track sources of inflow and infiltration into the storm water system and the injection, accidental or intentional, of storm water into local sewer systems. Below is a partial screen shot of a typical I/I Inspection.

ID: 007962. No: 002. WO#: 007 (125 W ADAMS ST)

Contact Name: <input type="text" value="Czaplicki"/>	Contact Phone: <input type="text" value="630-291-0869-"/>	Inspection Type: REAL ESTATE	Date Inspected: <input type="text" value="09/20/2007"/>
Inspection NonExmpt	Scheduled Date: <input type="text" value="09/20/2007"/>	Time: <input type="text" value="02:00 PM"/>	Inspector: D COX
			Date Closed: <input type="text" value="10/02/2007"/>

These are the original Inspection notes. [DT: Sch: 02/03/08. Some notes from the Dye Test. -dt]

Utilities in Lower Level			
	Inspection	V	Correction
<input type="checkbox"/> Access Violation	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input checked="" type="checkbox"/> Combined Sump	<input type="text" value="09/25/1990"/>	<input type="text" value="C"/>	<input type="text" value="09/28/1990"/>
<input type="checkbox"/> Diverter Valve	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input checked="" type="checkbox"/> Drain Tile	<input type="text" value="09/25/1990"/>	<input type="text" value="Y"/>	<input type="text" value="///"/>
<input checked="" type="checkbox"/> Storm Sump	<input type="text" value="09/25/1990"/>	<input type="text" value="P"/>	<input type="text" value="///"/>
<input checked="" type="checkbox"/> Unsealed Pump	<input type="text" value="09/25/1990"/>	<input type="text" value="C"/>	<input type="text" value="09/25/1990"/>
<input checked="" type="checkbox"/> Other	<input type="text" value="02/03/2008"/>	<input type="text" value="C"/>	<input type="text" value="02/03/2008"/>
<input checked="" type="checkbox"/> Bath/Shower	<input type="text" value="02/02/2008"/>	<input type="text" value="C"/>	<input type="text" value="02/02/2008"/>
<input type="checkbox"/> Floor Drains	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input type="checkbox"/> Sanitary Ejector	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input type="checkbox"/> Sink	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input type="checkbox"/> Sump Pump	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input type="checkbox"/> Toilet	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input type="checkbox"/> Washer	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>

Exterior Survey			
	Inspection	V	Correction
<input type="checkbox"/> Area Drain	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input type="checkbox"/> Down Spouts	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
Number <input type="text" value="0"/> Discharge Onto Grnd	<input checked="" type="radio"/> Y <input type="radio"/> N		
<input type="checkbox"/> Driveway Drain	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input type="checkbox"/> Footing Drains	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input type="checkbox"/> Patio Drains	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input type="checkbox"/> Stair Well Drains	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input type="checkbox"/> Grease Basin	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input type="checkbox"/> Cistern	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input type="checkbox"/> Other	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input type="checkbox"/> Sump Pump	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
Discharge Onto Grnd	<input checked="" type="radio"/> Y <input type="radio"/> N		
<input type="checkbox"/> Truck Dock Drain	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>
<input type="checkbox"/> Window Wells	<input type="text" value="///"/>	<input type="text" value=""/>	<input type="text" value="///"/>

Feature Exists	Date Inspected	Date Corrected
	Violation Status	

The above setup shows the 25 most common features found at properties that contribute to I / I. As the software is data-driven, these features can be customized. A built in pop-up calendar and a Violation Builder Wizard allow the user to quickly enter violations with a few mouse clicks.

i4

In addition to the I/I features the software tracks the profile of each property:

The screenshot shows the 'Building Information' tab in the i4 software. It features several input fields and checkboxes. The 'Building Type' is set to 'TWO STORY', 'Foundation Type' to 'FULL BASEMENT', 'Basin' to '7', and 'Pumps' to '1'. There are checkboxes for 'Check Valve', 'Clean Out', and 'Overhead Sewer'. Below these are fields for 'Date Installed', 'Type' (with radio buttons for 'Sanitary' and 'Combined'), 'Location', 'Year Built', and 'Major Mod'. There are also 'Y/N' buttons for 'Separate Storm Sewer Available' and 'Connected to Storm Sewer?'.

This screenshot shows a dropdown menu for 'Building Type'. The menu is open, displaying a list of options: 'RANCH', 'RAISED RANCH', 'RANCH', 'STRIP MALL', 'TOWNHOUSE', 'TRI LEVEL', 'TWO STORY', and 'UNKNOWN'. The 'RANCH' option is currently selected.

Each of the profile categories can be modified to reflect the jurisdiction for which it is being applied.

Existence and availability of sewer separation can be noted.

Exemptions can be driven by Year Built, Basin or other allowable factors.

Flooding History, and other profiles are also kept.

i4 will generate Courtesy and Violations Letters to the property owners and automatically merge the known violations, calculate the response date and even add applicable municipal code.

The screenshot shows the 'Ini Letter' window. It contains four buttons for printing letters, each with a corresponding file path: 'INI_COURTESY_LETTER_180_XLS_EX.DOC' for 'Print Courtesy Letter', 'INI_VIOLATIONLETTER_180_XLS_EX.DOC' for 'Print 180 Day Violation Letter', 'INI_VIOLATIONLETTER_30_XLS_EX.DOC' for 'Print 30 Day Violation Letter', and 'INI_VIOLATIONLETTER_FINAL_XLS.DOC' for 'Print Final Violation Notice Letter'.

i4 has countless other features soon to be added to our website. It has a built-in address and constituent contact database system that can be populated from water billing, plat or other existing tables. A robust query and report designer is included, as well as standard quick analysis reports and inspection work orders. Testing, such as Dye, Smoke and Televise can be scheduled, tracked and merged into open inspections, creating violation tickets, as results are determined.

Since many municipalities are just now addressing the need for this solution, the product is new. Demand for such tracking will soon grow so, to anticipate wide-scale usage, the product is intuitive, easy to learn, well documented and each aspect of the design is built on solid programming. The package was designed with helpful input from the Village of Villa Park, IL (population 22,000). It has been extensively tested and is in full production use by their public works department.

More marketing information will be made available as it is developed.