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UTILIZATION OF ASCE STANDARD 38-02 AND SUBSURFACE UTILITY ENGINEERING PRINCIPLES ON PROJECTS IN ONTARIO

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ABSTRACT: Over the last 4 years, CI/ASCE 38-02: Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data and more specifically Subsurface Utility Engineering services have been used successfully on over 150 projects in Ontario.

One recent investigation, completed in the fall of 2004 for the City of Toronto on a watermain project along Walsh Avenue and Weston Road, revealed some significant discrepancies in the information provided by the utility companies. If not identified and corrected during the SUE investigation, this could have resulted in major delays and cost increases during construction.

The following is a summary of the processes that were followed for the Walsh Avenue and Weston Road watermain project investigation:

1. Gather available utility information.
2. Survey surface features (MH etc.).
3. Utilize geophysical equipment to determine the horizontal location of the utilities.
4. Install test holes at potential conflict locations to determine the exact size, material type, depth and orientation of the utility being investigated.
5. Compiled all data into a utility layer use on their design drawing.

The Walsh/Weston project for the City of Toronto is included in the University of Toronto (UofT) study to quantify the benefits of utilizing SUE in Ontario. The UofT study is an extension of the 1999 Purdue University Study which analyzed 71 US projects and found cost savings of \$4.62 for each \$1 spent on SUE. The UofT study shows that



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compared to the projects analyzed in the Purdue
Study.

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