

CSA S-250

Standard for Mapping of Underground Utility Infrastructure

Municipal authorities, utility facility owners and the utility construction industry are unified in their efforts to prevent accidental damage to underground utility infrastructure. Reactive measures such as the Common Ground Alliance, "Call Before You Dig" and Damage Investigation Reporting Tool have all assisted in promoting awareness of the roughly 675,000 utility strikes which occur in North America each year.

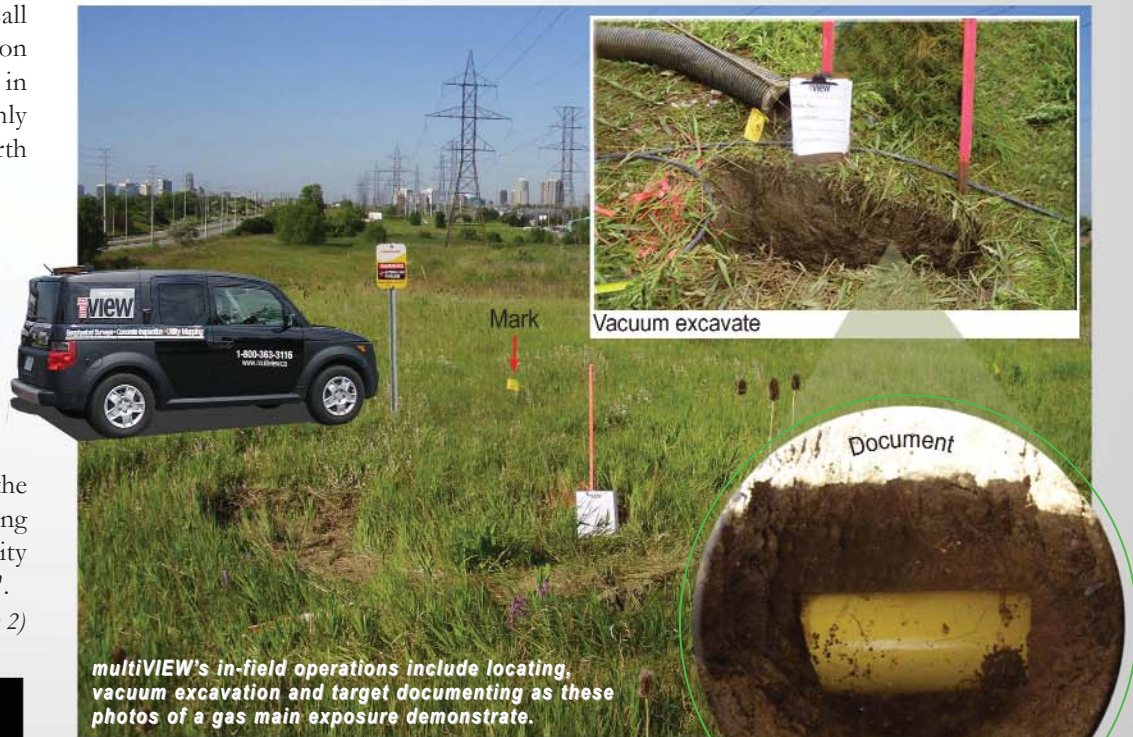
As part of a proactive effort, the Canadian Standards Association (CSA) formed a Canada-wide committee to establish 'go-forward' data recording and reporting standards that will improve the accuracy of future underground mapping records. The purpose of this Standard is to "specify the mapping requirements for the recording and depiction of underground utility infrastructure and related appurtenances".

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Feature Project

Mississauga BRT

The Bus Rapid Transit (BRT) system is a high-efficiency east-west transit corridor being constructed across the GTA. The 100 km BRT system will ultimately connect municipalities from Oakville to Pickering by providing a dedicated right-of-way for transit vehicles. The BRT in Mississauga will cover 18 kilometers connecting Winston Churchill Boulevard in the west to Renforth Drive in the east.



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Detailed design and planning of the BRT system required definition of existing buried infrastructure conflicts within the proposed right of way; a major challenge for a project this size. multiVIEW was retained to complete a subsurface utility mapping study following the ASCE 38-02 process which is currently the industry standard (see sidebar on CSA S-250).

The full subsurface utility mapping process calls for:

- review of existing records
- in-field designating of all identifiable buried structures
- accurate spatial positioning of all identified subsurface targets
- excavation at selected locations to expose and confirm target depth and identity
- generation of digital maps based on field information
- creation of a conflict summary

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CSA S-250 *(continued from page 1)*

The Standard is intended to promote the use and steer the advancement of mapping records during the planning, design, construction, maintenance and operation of an underground utility. Application of this Standard should ensure that accurate information about the location and nature of any underground utility is captured and available for future projects.

This Standard is being prepared by the Technical Committee on Mapping of Underground Utility Infrastructure, under the jurisdiction of the CSA Strategic Steering Committee on Structures (Design). The Technical Committee activity has been working since September 2007 and is on-track to issue a draft copy of the standard for public comment in the Fall of 2009. Further information regarding this Standard can be found at www.csa.ca ■

See us at:

CATT AGM (Centre for Advancement of Trenchless Technology)

Mississauga, ON
October 28, 2009
www.civil.uwaterloo.ca/catt/events.html

ORCGA Damage Prevention Symposium (Ontario Regional Common Ground Alliance)

London, ON
February 9 - 11, 2010
www.orcga.com

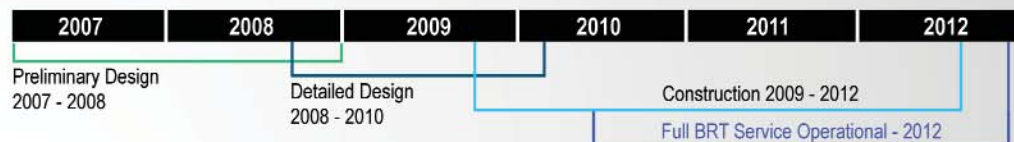
AOLS AGM (Association of Ontario Land Surveyors)

Deerhurst Resort
Huntsville, ON
February 17 - 19, 2010
www.aols.org

Tel: 1-800-363-3116
Fax: 1-866-571-5946
www.multiVIEW.ca

Mississauga BRT *(continued from page 1)*

Initial record reviews identified several possible utility conflicts. The field designating of these targets was expedited by the unique multiLOCATE® process which manages all utility locating activities and exploits multiVIEW's working relationships with major underground asset owners such as Enbridge Gas Distribution and Bell Canada.



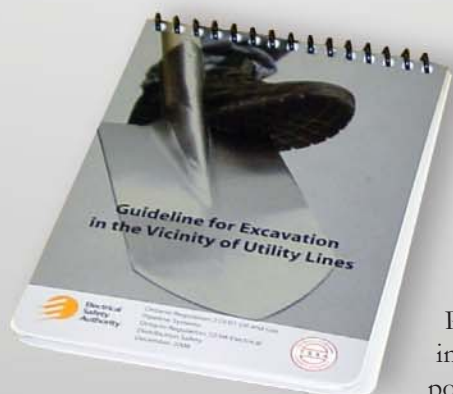
The BRT concept illustrated by an OC Transpo station in Ottawa.

The multiLOCATE® service provides a blend of private and public sanctioned locates and includes full documentation, on-site liaisons, utility inspector compliance, and feedback of positional inconsistencies to facility-owner locates.

Over the course of the project 85 targets were identified as potential design conflicts. Under the direction of multiVIEW, Badger Daylighting Inc. exposed each target to permit documentation of the precise location, elevation, composition, etc.

All information was compiled into the final digital maps. Conflicts identified between the new proposed BRT structures and existing buried utilities are now being used to revise the design plans or identify required utility relocations.

This project demonstrated the importance of using systematic subsurface utility mapping in advance of any major construction project. Many years of multiLOCATE® process development made the project expectations achievable, enabling the multiVIEW team to deliver high quality results ahead of schedule and under budget. The whole team looks forward to seeing the BRT operational in 2012! ■



Dig Safe Program

The Technical Standards and Safety Authority (TSSA) and the Electrical Safety Authority (ESA) has just issued the "Guideline for Excavation in the Vicinity of Utility Lines".

multiVIEW Locates Inc. strongly supports the Dig Safe program. Please contact us if you are interested in obtaining a copy of this handy pocket guide. ■