

# CSA S250 Mapping of Underground Utilities

Until recently, accurately recording the presence and location of utility infrastructure was not formally required, nor carried out in a consistent manner. Many of the map records that currently exist are inaccurate, obsolete or in formats incompatible between utilities, making sharing position data for one organization's pipes relative to another's cables extremely difficult.

## Application of the CSA S250 should result in:

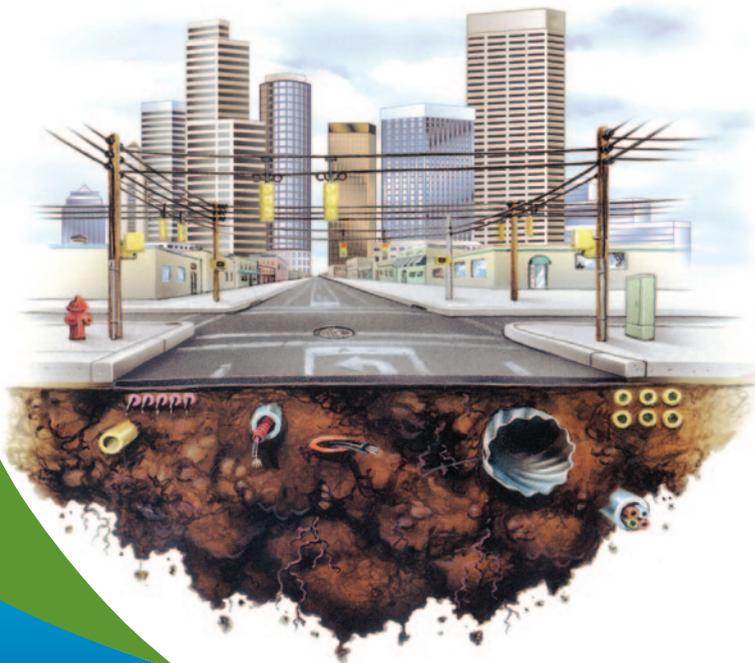
- Reduced injuries to workers and the public
- Improved management of utility records
- Improved as-built drawings
- Decreased costs in the design phase of utilities
- Improvement in timelines to update systems
- Fewer infrastructure damages
- Less environmental incidents
- Accurate capture of underground utility infrastructure data for future projects

CSA S250 *Mapping of Underground Utility Infrastructure* is derived from mapping best practices and internal utility company mapping standards. It encourages a management systems approach to mapping and record keeping by establishing:

- Governance for utility infrastructure records management and mapping
- Procedures for improved mapping accuracy
- A uniform format for utility feature descriptions
- Processes for notification of GIS errors and practices when sharing data

Developed by a balanced committee of industry subject matter experts, regulators and end user groups, CSA S250 can help municipalities and their service providers to:

- Increase accuracy and reliability, and enhance record keeping in locating and mapping underground infrastructure
- Improve the safety of company and contractor employees, and the general public by reducing the potential for utility hits or strikes and service interruptions
- Reduce utility design costs by sharing accurate and complete utility records in a timely fashion among key stakeholders during the planning, circulation and permitting processes





**CSA S250** can help take the guesswork out of locating underground utilities

### CSA S250 Mapping of Underground Utility Infrastructure covers these topics:

- Management programs, types, characteristics and lifecycle of mapping records
- Accountabilities and responsibilities of the owner, the locator and the excavator
- Reliability and accuracy of mapping records: methods of positioning and accuracy of as-built records
- Feature descriptions: symbols, line style, colour, data structure
- Specific utility requirements for different types, such as telecom systems, water systems, electrical systems, etc.

### Standard applies to:

Municipalities, surveyors, utilities, planners, designers, installers and contractors of underground utilities.

#### RELATED TRAINING PRODUCTS

*Mapping of Underground Utility Infrastructure*  
Video Training – Overview of the CSA S250 Standard (First Edition)

#### LEARN MORE

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### About CSA Group

**CSA Group** is an independent, not-for-profit membership association dedicated to safety, social good and sustainability. Its knowledge and expertise encompass standards development; training and advisory solutions; global testing and certification services across key business areas including hazardous location and industrial, plumbing and construction, medical, safety and technology, appliances and gas, alternative energy, lighting and sustainability; as well as consumer product evaluation services. The CSA certification mark appears on billions of products worldwide. For more information about CSA Group visit [www.csagroup.org](http://www.csagroup.org)