





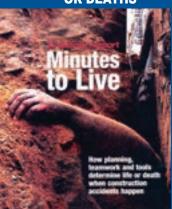
We're Proud to be the Electricians' Friend for Over 50 Years



UL Listed Made in USA Quality Innovative Products That Help Do Jobs...

### SAFER

NO WORKERS BELOW PREVENTS INJURIES OR DEATHS



Eliminates time consuming Strengthening weaker spacers & chairs with tie wire while above or down in the trench.

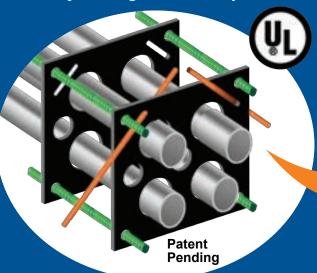
### BETTER

RATED AT 4,000 PSI TENSILE STRENGTH AT BREAK

# ewik Duct

IDPE CUSTOM TEMPLATES

In Any Configuration Required



FASTER
OVER 12X
SPACERS
& CHAIRS



When assembling above trench insert rods thru slots then lower assembled conduits and drive the rods into the trench walls from above to prevent floating during concrete pour.

**Lowering Assembled Conduits From Above** Allows Digging a Narrower Trench for Less: Excavation, Shoring (or none), Concrete and Backfill for Even Greater Savings

















Plus Many More Constantly Being Invented... Please Call With Your Ideas!



# Don't Just Mitigate, Eliminate Risk

OEC's family of companies are industry leaders in utility asset damage prevention. Our team of professionals provide risk analysis, timely subsurface utility engineering, utility locates, and innovative mapping and data application solutions to ensure damage to critical infrastructure is avoided.

Don't risk your project and reputation; visit oecorp.ca to see how we can proactively manage your project risks.

















# MARIOURIMARIA



krylonindustrial.com

### ISSUE 24 | Spring/Summer 2018

# features

### 7 President's Message

By Doug Lapp President & CEO, ORCGA

### 8 The City of Guelph's **Amalgamation** of Locates

By Derek Whiteman Lead Hand of Locates Water Services, Environmental Services, City of Guelph and Nancy Davidson, Locates Technician, City of Guelph

### 10 A Day in the Life of Ticket

By Kathryn Karn, Locates Program Administrator, City of Greater Sudbury

### 12 A Conversation with the Region of Peel

By Nectar Tampacopoulos Manager South Peel, Water Operations and Edgar Tovilla Manager of Wastewater Operations for Peel

### 17 City of Toronto **DMOG**

By Jessica Santos Third Party & Utility Review, **Engineering Review Engineering & Construction** Services, City of Toronto

#### 21 **ORCGA Genesis**

By Mike Scarland, BSc, CET Manager Emergency Response & Incident Management

# ORCGA Editor-in-Chief Jennifer Parent Manager Growth, Councils and Membership Services ORCGA

Ontario Regional Common Ground Alliance 545 North Rivermede Road Unit 102 Vaughan, ON L4K 4H1 Toll Free: 866.446.4493 Local: 905.532.9836

> NAYLOR Group Publisher Kim Davies

> > **Editor** Shelly Neal

**Project & Sales Manager** 

Marketing Account Specialist
Margaux Braund

Layout & Design Amit Kumar Singh

Maria Antonation, Ralph Herzberg, Brian Hoover

### **NAYLOR**<sup>▶</sup>

1200 Portage Avenue, Suite 200 Winnipeg, MB R36 0T5 Toll Free: 1.800.665.2456 Tel: 204.947.0222 Fax: 204.949.9092

The Ontario Regional Common Ground Alliance (ORCGA) is an Ground Alliance (ORCGA) is an organization promoting efficient and effective damage prevention for Ontario's vital underground infrastructure. Through a unified approach and stakeholder consensus ORCGA fulfills its motto of "Working Together to Build a Safer Ontario."

PUBLISHED MARCH 2018/ RGC-B0118/7805

Canadian Publications Mail Agreement #40064978



### **SERVICES:**

- Hydro Excavation Septic Systems Overhead and underground utility installation • Retaining walls
  - Foundations
     Barge services



705-654-4000

Fax: 705-654-4993 Email: kus@nexicom.net

### **Gold Sponsors**



















### **Silver Sponsors**







### **Bronze Sponsors**















































### **WELCOME TO THE TEAM**

By Doug Lapp, President & CEO

n 15 short years, the small Ontario Regional Common Ground Alliance (ORCGA) team, flanked by its Board of Directors, many dedicated committee and event volunteers, generous sponsors and committed members, established and continues to maintain programs that form the foundations of the Damage Prevention industry in Ontario and across Canada.

Originally headquartered in St. Catherines, this productive hub originated:

The Best Practices	The Damage Prevention Symposium
The Passing of Legislation (Bill 8)	Member of the Year Awards
The Damage Information Reporting Tool (DIRT) Report	Hall of Fame Awards
Ear to the Ground magazine	Excavator of the Year Awards
The Damage Prevention Technician® Program	13 Geographic Councils spanning the province
The Locate Rodeo	

These programs were developed to establish important safeguards that work to protect communities from threats to health and security, to foster an environment of safety for workers and the public, to eliminate damages to underground infrastructure, to protect that which is essential to the quality of life of all Ontario residents, businesses and institutions.

What a **truly impressive** summary of team work.

Continuing to build and recognize the efforts of our team members, I would like to congratulate key players that have made significant contributions to the Damage Prevention industry in Ontario: Kathryn Karn, City of Greater Sudbury and Karen Santucci, Utilities Kingston. Both were recently awarded the Member of Year.

Tom Kydd, Hydro One and Barry Shoppoff, Union Gas were awarded the "Jim Douglas Award of Excellence in Damage Prevention" (formerly the Hall of Fame award). Look for a special feature in the Fall issue of Ear to the Ground.

All ORCGA programs were developed to establish important safeguards that work to protect communities from threats to health and security, to foster an environment of safety for workers and the public, to eliminate damages to underground infrastructure, to protect that which is essential to the quality of life of all Ontario residents, businesses and institutions.

And still, as the latest edition of the DIRT Report shows, there has been an increase in damages, particularly in the Greater Toronto Area (http://orcga.com/publications/dirtreport/). As has already been reported for several years, insufficient excavation practices and no notification to the One Call Centre remain the most significant cause of events.

As the ORCGA continues to evolve, we need to tap into the strengths of our biggestteam members: The 444 municipalities throughout Ontario. As the largest buyers of construction services, and as municipal servants who, like the ORCGA, are dedicated to protecting communities from threats to health and security, Ontario municipalities can influence and progress great change.

The articles in this issue of Ear to the Ground demonstrate how the City of Greater Sudbury, the City of Guelph, the City of Toronto and the Region of Peel worked to create efficiencies, save taxpayer monies, foster an environment of safety and mitigate underground infrastructure risk.

Only by working together as a team, can we address the municipal challenges that are still evident.

# 置CITY OF GUELPH?

# AMALGAMATION OF LOCATES — Guiele



By Derek Whiteman, Lead Hand of Locates, Water Services, Environmental Services, City of Guelph and Nancy Davidson, Locates Technician, City of Guelph

he City of Guelph is located about 100 km west of Toronto and is home to over 130.000

Guelph's municipal underground infrastructure includes approximately 551 km of water mains, 532 km of sanitary mains and 484 km of storm/ drainage mains. In addition, approximately 35,000-40,000 sanitary laterals, 130 storm ponds, 50-60 storm channels and 20,000 catch basins can be found within the underground infrastructure network. City-owned fibre network cables stretch over 10 km through the city. These cables are critical to the city's emergency services communications platform. Guelph also owns and maintains decorative street lightning and is responsible for over 191 traffic light intersections. The city is dependent on a 7 km aqueduct that delivers 60 per cent of its water supply to over 40,000 residential homes and over 5,000 large water customers.

With nearly 1 billion dollars of buried infrastructure, Guelph proposed an amalgamated locates system to provide economic efficiencies and reduce the risk of potential infrastructure damage due to the number of excavations performed each year.

Prior to the Ontario Underground Notification System Act being passed and the requirement for obligated owners of underground infrastructure to become members of Ontario One Call, the City of Guelph received and executed its own locate requests for its own infrastructure. Locate requests were managed in different ways by individual departments



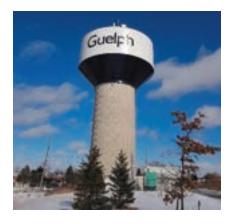
City of Guelph

within the city: Water, Wastewater and Operations. There were differences in the way locate requests were coming in, tracked and executed between departments. Requests could be received by phone, email or fax by any available customer service representative who would then send a hardcopy to dispatch available staff. Working through different supervisors was chaotic and inefficient. After-hour emergency requests were dispatched by an answering service and would require multiple staff to attend. The growing demand for a quality municipal locates division became essential in order to meet target deadlines and deliver accurate information.

In 2014, a service review team including managers, supervisors, clerical, field and support staff was put together to ensure compliance and to improve the overall program. A need for upgraded software to support the integration and service delivery with Ontario One Call was identified. Ticket management software was piloted and the city came on board with Ontario One Call by the legislative implementation date.

Over the next several months, the City of Guelph had multiple corporate review



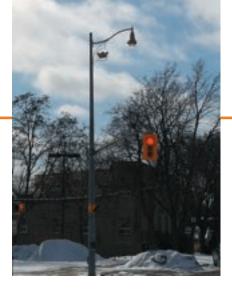


meetings to discuss in-house locating. The team had to demonstrate the benefits of an amalgamated locates program to City Council as well as the Union representing field staff. Initially, the startup of the program proved to be costly due to software fees, Ontario One Call fees, locating equipment, tablets, laptops, paint and vehicles. Previously each department absorbed these costs into their daily operations which made it difficult to track exactly what was spent on locates. Support staff was hired through reallocation and internal job postings. It was proposed that by keeping locates inhouse and hiring experienced and knowledgeable staff, the threat to damaged

infrastructure and potential service disruption to customers would be significantly mitigated. One cross trained locator could perform the locates work for all city-owned infrastructure, prepare an electronic sketch in the field and close the ticket on site. After months of discussions, the city decided to support the work associated with locating city infrastructure in-house and approved the budget and funds allocation for program development and expansion.

The corporate infrastructure locates program is administered through Water Services on behalf of Wastewater Services, Engineering Services and Operations. The division includes the following staff: a supervisor, locates technician, lead hand, three full-time locators and a part-time customer service representative. Temporary locators are brought in for assistance during busy seasons. Other city departments supporting the program include Corporate Communications and Information Technology.

Guelph uses UtiLocate 2 Software (U2) as a locate management software tool. The software receives incoming locate requests and auto-dispatches tickets to dedicated locators in specified areas



of the city. Locators are able to draw and upload their electronic sketches in the field, close tickets and transmit the completed locate back to the requestor.

The amalgamated program resulted in measurable savings by reducing the amount of time spent by staff in each of the three different service departments, reducing the amount of locators responding to one locate request and reducing the amount of overtime for emergency responses after hours. Locators have adapted to electronic sketching and are able to complete tickets more rapidly than manual drawings. With accurate data on locate requirements the program is able to fairly recover cross-departmental charges on a quarterly basis.

To further expand the program, the City of Guelph Locates Division is considering locating on private property within city owned facilities (i.e., Riverside Park). This work is currently done by external contractors. Guelph continues to work with our Geographic Information Systems department to identify and remedy data gaps including identifying individual service infrastructure, easements, traffic infrastructure mapping and decorative street lighting infrastructure.

As a refinement to the program, next steps include entering into Alternate Locate Agreements (ALAs) with other infrastructure owners. The agreements will reduce the number of field visits required and contribute to further efficiencies. With accurate data and gap analysis, advanced staff training, improved performance and accuracy of field staff and quality control of completed field work, the City will further reduce program costs in 2018 and in the future.

Although every reasonable effort is made to meet locate deadlines, full compliance is often challenging. The primary goal of this program is to attempt to achieve full compliance. The City of Guelph will continually evaluate both the field and administrative components to better preserve the integrity of existing and future city infrastructure.





# A DAY IN THE OFTICKET

By Kathryn Karn, Locates Program Administrator, City of Greater Sudbury

he City of Greater Sudbury is unique as it is situated in an area of shallow soil covering very hard bedrock.

Subdivisions built in the 1950's did not have sophisticated hardrock mining drill and blast techniques that are used today. As a result, underground infrastructure simply went around the bedrock in convoluted paths.

In addition, there is insufficient information on original as-built drawings of older sections of the city. To further complicate the situation, wastewater sewers are made of asbestos concrete and not tonable by conventional tracer units; however, can be identified by Ground Penetrating Radar if the depth equals the diameter of the pipe. For example, a 6 inch pipe can be located if it is 6 feet deep. Another hurdle in identification of infrastructure is that a high number of city water mains are made from Polyvinyl chloride to which the City only began installing tracer wire on them in 2010.

Lastly, the city assumed ownership of extensive obsolete mining infrastructure of local communities, like Copper Cliff and Levack, when they merged into the single-tier City of Greater Sudbury in 2001.

These factors make digging safely a challenge!

Kathryn Karn, Locates Program Administrator for the City of Greater Sudbury, describes a typical work day managing the process that reduces the potential for serious harm to people, utilities, property and the environment:

**TICKET STATUS NOTIFICATION SENT** 

**TICKET STATUS** SENT TO LOCATOR

TICKET **STATUS NOTIFICATION** SENT

Sudbury Hydro wants to stabilize a leaning electrical utility pole by attaching a guy wire to the pole. The wire is connected to an anchor that is driven 4 m below ground. To avoid damaging underground infrastructure near the pole, Chris MacDonald, Senior Engineering Project Coordinator, wants buried facilities to be located and marked, prior to beginning work.

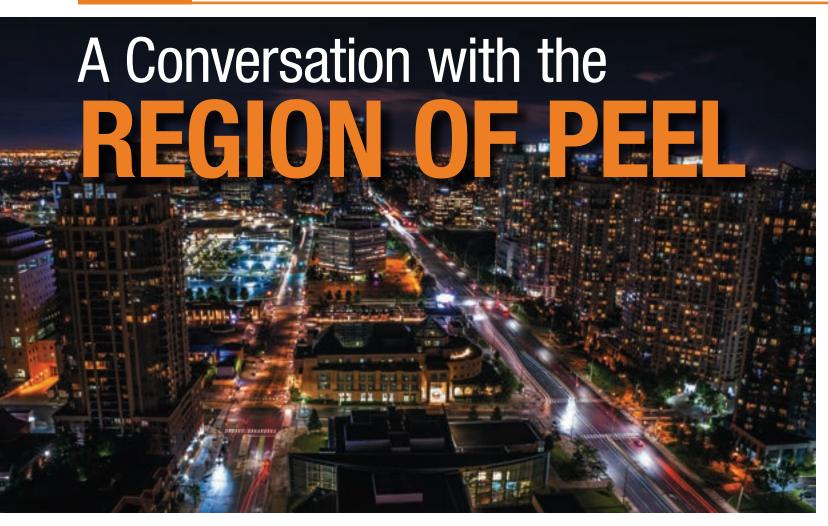
Chris submits an online locate request using the Ontario One Call Web Portal application, providing details such as city, civic address, dig street, two intersecting streets, type of excavation and an excavation map depicting the exact work area.

Ontario One Call uses the information provided to determine, and notify, which companies have buried utilities in the dig area. Ontario One Call records all information related to the locate request on a Ticket. The Ticket is sent to each registered utility owner within the vicinity of Chris' dig site. The Ticket is assigned a Ticket Number and a Ticket Status.

Kathryn receives the locate request from Ontario One Call, via the Ticket management system, Competers Utilocate (U2). She scans the information on the Ticket to determine whether the proposed excavation will conflict with Sudbury traffic signals, storm sewers, or water and wastewater facilities. Kathryn checks the as-builts and construction drawings and sees that the excavation may potentially damage a nearby watermain.

Because this site resides in old part of town with congested infrastructure and low quality as-builts, Kathryn dispatches Bruce, her in-house city locator to the site, by assigning the ticket to him and placing the ticket in his locate queue.

Bruce visits the site to mark the location City of Greater Sudbury - Number of Locates per Month in 2017 of the buried lines using water-soluble 1600 paint or flags, creates a drawing and 1400 takes measurements. Sitting in his pickup truck, Bruce includes an explanation of 1000 the markings made on the ground, a 800 drawing of buried lines in conflict with the 600 dig area and instructions on how to dig safely, all within the Ticket management system software. Lastly, Bruce marks the Ticket as completed. At any time, Chris can login to the Ontario One Call Web Portal 360 to monitor the status of his Ticket and to even follow up on outstanding information from facility owners or Locate Service Providers. Once Chris sees that Kathryn has had the city infrastructure marked, and there are no other outstanding facilities on the Ticket, he prints the locate documentation to keep on site during excavation work. Chris and his crew head out to steady the tilting utility pole and to Dig Safe! **COMPLETED STATUS COMPLETED** The City of Greater Sudbury saved \$816,000 by clearing 60% of locate tickets in 2016.



By Nectar Tampacopoulos, Manager South Peel, Water Operations Edgar Tovilla, Manager of Wastewater Operations for Peel

he Ear to the Ground recently sat down with Nectar Tampacopoulos, Manager South Peel, Water Operations and Edgar Tovilla, Manager of Wastewater Operations for Peel to talk about water and wastewater facilities.

**ETG:** Underground infrastructure receives attention only when something goes wrong. How do you educate the public on the value of water services?

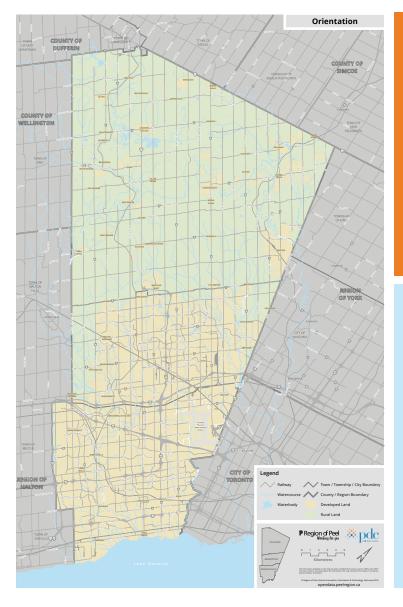
Edgar: Peel Region residents enjoy the lowest water and sewer rates in the GTA. We have been able to maintain lower rates through the efficient use of our resources, smart investments in

infrastructure and a lean organizational structure that combines a great group of professionals from our union and management groups. Our financial information is reviewed and made public after approval by Council every year.

ETG: Edgar, can you comment on the recent announcement of 30 new Region of Peel projects that will include sewage, pumping stations, as well as rehab and replacement work?

Edgar: The Region of Peel owns and operates 41 sewage pumping stations that assist to convey wastewater generated in the Regions of Peel, York, and the City of Toronto to our treatment plants. Peel Region is continually upgrading and modernizing our pumping stations to ensure we have reliability and redundancy in the system. The upcoming upgrades to 20 of those pumping stations mean that we would have the capacity to deal with current demands, and population growth. More importantly, these projects allow us to adapt to the effects of climate change such as:

- Increase of rainfall frequency, intensity, and duration
- Stormwater drainage requirements
- Increase in surface and groundwater infiltration and inflow (I/I)
- Need of early warning response systems



- Population 1,442,700
- Land mass of 1,225 square km
- 4,532 km of water mains
- 46,454 main line valves
- 329,653 residential and commercial water services
- 20,00 utility locates per year prior to becoming an Ontario One Call member
- 60,00 utility locates per year after becoming an Ontario One Call member
- 41 sewage pumping stations
- 3,780 km of sanitary sewer mains
- 20,000 sanitary maintenance holes (MH)

In addition, the Region of Peel has an attractive Environmental Education program, http:// www.peelregion.ca/pw/education-outreach/, which offers water education to youth and adults. Resources made available through this program involve:

- Plant tours and spills demonstrations, http:// www.peelregion.ca/pw/waterstory/field-trips.htm
- Water story presentations, http://www.peelregion. ca/pw/other/school/
- The Peel Children Water Festival, http://www.peelregion.ca/pw/chwaterfest/
- The Great Gulp, http://www.peelregion.ca/pw/ thegreatgulp/

Special events such as the ones listed above are designed to create awareness about the importance of water and wastewater services, source water protection, environmental protection, and the underground water infrastructure.

**ETG:** The spring and summer of 2017 saw a tremendous amount of rain in Southern Ontario. How did that impact Wastewater **Operations for Peel?** 

Edgar: Rainfall runoff overwhelms the capacity of both the sanitary and the stormwater drainage infrastructure.

The additional flows not only represent an increased risk for the capacity of our collection system, but also an increase in flows to our two sewage treatment plants, GE Booth, and Clarkson. During these situations, by maximizing the capacity of both treatment plants and diverting flows from one catchment area to another, we treat 100% of all the sewage generated in Peel, and the additional flows coming from York and Toronto. We do have a very reliable system.

ETG: Nectar, please tell us about the South Peel, Water Operations.

Nectar: I work alongside 109 dedicated staff, who ensure the provision of safe drinking water to Mississauga and Brampton. We manage and operate the system within all relevant environmental, labour and safety legislation, as well as our internal Peel service levels.

The South Peel Water Operation team works closely with our Capital group and State of Good Repair team, to ensure the existing distribution system is in good standing.

**ETG:** What is the importance of your infrastructure in the lives of people in your community?

Nectar: Safe drinking water and wastewater services are paramount in the daily lives of residents who begin their day, go to work, feed their families, run their businesses, provide safe food services, allow health professionals to do their work and to help Fire Departments keep our communities safe. It is not until we lose these services that we realize how



# THE VACALL All EXCAVATE

# COMPETITIVE EDGE

Vacall AllExcavate hydro excavators feature superior water pressure and vacuum forces to efficiently excavate around water lines, sewer lines and other underground utilities. The AllExcavate hydro excavator uses a single chassis engine to also provide power for vacuum and jetting functions – a design that slashes fuel consumption, reduces emissions and lowers cost.

**LEARN MORE AND REQUEST A DEMO** 

VACALL.COM / ALLEXCAVATE

800-382-8302



- **Standard CAN bus Smart Controls**
- Lifetime warranty on debris body
- Lifetime warranty on aluminum water tank
- Cold-Weather heated cabinetry
- Durable powder coating paint





VACALL GRADAL





HGACBUY





For information about AllExcavate hydro excavators or other Vacall vacuum and jetting models, please contact one these locations:



9304 Horton Rd. SW Calgary, AB T2V 2X4 **403-258-1544**  850 Rue Boucher Saint-Jean-Sur-Richelieu, QC J3B 7Z8 450-349-5846 42 St. Paul Blvd. Winnipeg, MB R2P 2W5 **204-336-0008**  189 Garden Ave. Brandford, ON N3S 0A7 **519-770-0216**  #11720-181 Street NW Edmonton, AB T5S 1M6 **780-482-1541** 

impactful and important underground infrastructure is to our community. It is essential that we maintain our infrastructure through preventative maintenance programs and state of good repair programs, and that our staff and operators are well trained and equipped to perform their duties.

### **ETG:** Did the Region of Peel previously insource locates?

Nectar: Prior to becoming an Ontario One Call member, all Regional utility locates were completed by our Operators; currently, we spilt the locates between Regional operators and a Locate Service Provider (LSP).

### **ETG:** How did the Region of Peel become aware of the Locate **Alliance Consortium (LAC)?**

Nectar: My predecessor became aware of LAC through Ontario One Call. In 2016, we initiated a successful pilot project through LAC and an LSP provider in Mississauga. Afterwards the Region joined LAC, as a partner in Damage Prevention.

### **ETG:** What is the value LAC provides to the Region of Peel? Nectar: Through the initial pilot project, the Region of Peel:

- Realized a 97% adherence to the Ontario One Call timelines by the LSP provider:
- Saw a financial cost reduction in the cost of a utility locate based on the LAC member pricing model;
- Anticipates that, going forward, other efficiencies will be discovered within our operational team, permitting our group to take on more construction related activities and deficiency repairs with our own Operators, who would have previously been completing utility locates in the field.

**ETG:** The Ontario Regional **Common Ground Alliance Damage Prevention Technician (DPT)** Program has generated interest by Peel Region. Are you looking for training internal resources, as well as outside resources?

Nectar: I am very interested in the DPT program I think it is extremely important to ensure excellent training for all operators who complete utility locates; they are tasked with the safety of our key infrastructure along with the safety of the contractors and the residents of our communities.

A program which is well defined and which I feel invests the appropriate amount of time and expertise to training such as DPT is imperative. So, yes, I am interested in providing training to our own internal operators and would like to see training for outside personnel as well.

I feel that a provincially mandated level of certification with predetermined training requirements will be essential going forward in an industry which is seeing the levels of utility locates grow. This will help to provide some guidelines in ensuring the safety of our infrastructure, and workers, and will help to turn this into a certified field and career.







# **City of Toronto DMOG**

By Jessica Santos Engineering Review, Third Party & Utility Review Engineering & Construction Services City of Toronto

s cities become increasingly digital, municipalities like Toronto have progressed from the use of hard copy drawings to limitless databases full of information, easily accessible to users.

The City of Toronto recognized the many complications that arose when providing information from separate sources and so created the process to coordinate utility mapping originating from one single source.

The Utility Mapping Unit manages the Digital Map Owners Group (DMOG), and is responsible for map generation, implementation and the maintenance of surface and underground utility map features, as well as other infrastructure.

DMOG currently consists of seven members: Bell Canada, Enbridge Gas Distribution Inc., Hydro One Networks Inc., Rogers Cable Communications Inc., Toronto Hydro Electric System Limited, the Toronto Transit Commission and the City of Toronto.

These members contribute relevant information for mapping, such as spatial data, material specifics and dates of infrastructure construction and installation.

In order to provide a comprehensive and accurate database to access digital spatial records, DMOG members share in the cost of maintaining the composite underground utility maps in the former City of Toronto.



Figure 1: City of Toronto map showing DMOG and CUMAP areas



Figure 3: Excluding Former City of Toronto map (CUMAP)

The City of Toronto is responsible for all other utilities such as sewer and water networks, as well as street furniture and any underground cables belonging to traffic signals.

DMOG maps also include relevant mapping information such as property lines, street lines, road features-such as curbs, sidewalks, and lanesvegetation, right-of-way, building envelopes, and municipal addresses. Sewer and water network information maintained in DMOG include pipe size, pipe material, maintenance holes, valves, chambers, catch basins and hydrants.

When final as-constructed drawings are received from various utilities, the



Figure 2: Example of DMOG

digital drawing database is modified to reflect the change. Some examples include abandoned facilities, new utility plants, or an upgrade to an existing utility. The modification is not unique to one utility file and all the surrounding utility files are altered to illustrate the change. Utilities are represented as double line features and has its own unique colour. It is important that DMOG files are maintained and managed in a way that displays the most up to date and accurate information to aid in primary design stages.

The Utility Mapping unit is also responsible for maintaining utility mapping in the former borough of East York and cities of Etobicoke, North York, Scarborough and York. These regions exclude the former City of Toronto and are referred to as City Utility Mapping (CUMAP).

Similar to DMOG, CUMAP documents sewer and water networks maps including pipes, pipe sizes, pipe material, catch basins, maintenance holes, valve, chambers and hydrants. CUMAP

## **Natural Gas Sewer Safety Inspections**

Natural gas pipelines installed using trenchless practices may have inadvertently penetrated sewer service lines.

Using motorized or water-jetting equipment to clear the sewer line can damage a natural gas line resulting in a gas leak, fire or explosion.

Before clearing a blocked sewer beyond the outside walls of a building, take the necessary precautions to protect yourself and others.

Always call **Ontario One Call** at 1-800-400-2255 to request a free **Natural Gas Sewer** Safety Inspection.

**Enbridge Gas Distribution Damage Prevention Department** 1-866-922-3622 enbridgegas.com/sewersafety



IRUCKS ENTER

WHEN STATION WHEN LIGHTS FLASHIN

# **DON'T SWEAT**

### SCALE HOUSE

We've got **THE** equipment solutions to abolish your payload concerns.



Single, tandem & tri-axle trucks engineered for MAXIMUM PRODUCTIVITY & COMPLIANCE.



SALES | RENTALS | USED | PARTS | SERVICE | TRAINING | 1.800.263.1262 | jjei.com



Figure 5: Example of DMOG viewer



Figure 4: Example of CUMAP

areas also include transportation networks, street furniture and signalized intersections. Currently, the mapping of other utilities is not shown in the CUMAP area, with intentions that in the future all utilities will be mapped in areas outside the former City of Toronto area.

Ideally, DMOG is created for providing users with the information needed to continue sustaining, and at the same time, revamping information for the future. Engineers, as well as other city and utility workers are reliant on this information to aid in the primary design stages on several on-going in house projects. DMOG and CUMAP can also be purchased

by home owners, general public and consulting companies to aid in various construction projects.

DMOG Viewer is an intranet-based mapping application used for planning and preliminary purposes. The Viewer displays DMOG and CUMAP utility data in a web browser enabling users to search the City of Toronto by municipal address and street intersection. The ability to display road features, street fixtures and vegetation areas is essential for knowing what existing infrastructure is available, so additions, improvements, and repairs can be made. DMOG and CUMAP can also be purchased by home owners, general public and consulting companies to aid in various construction projects.

DMOG is recognized as a leader in the development of mapping systems with the objective of standardizing records for all existing surface and underground plan and utilities within the City of Toronto boundaries.

Together with the City of Toronto, DMOG will continue to work as a system of inter-utility access to mapping and data records for users.



### www.OrderConstruction DocumentsHere.ca

Our online store can be your one stop shop: Order the CCA/CCDC documents you need and pay on line.

Order today at:

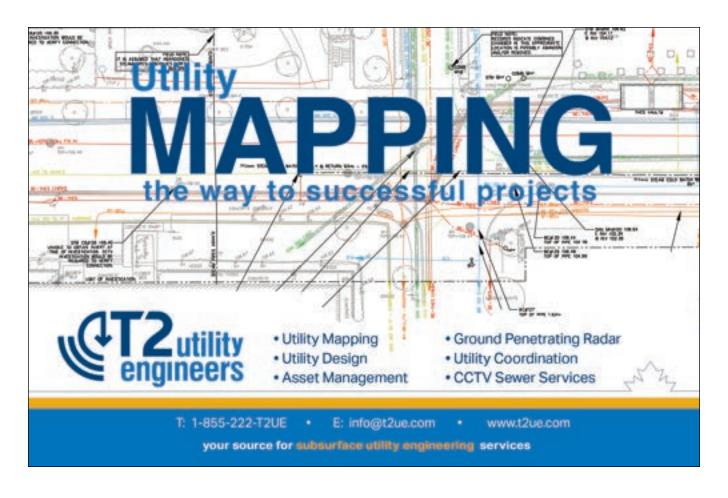
www.OrderConstructionDocumentsHere.ca

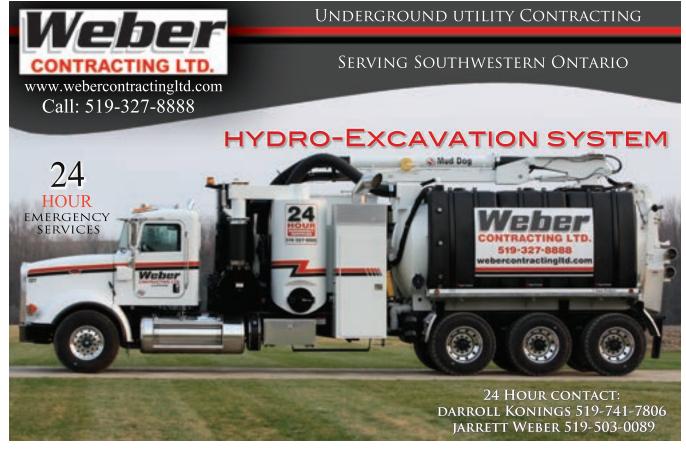
A Service Provided By



**ONTARIO GENERAL CONTRACTORS ASSOCIATION** 

www.ogca.ca





# **ORCGA GENESIS**

By Mike Scarland, BSc, CET Manager Emergency Response & Incident Management

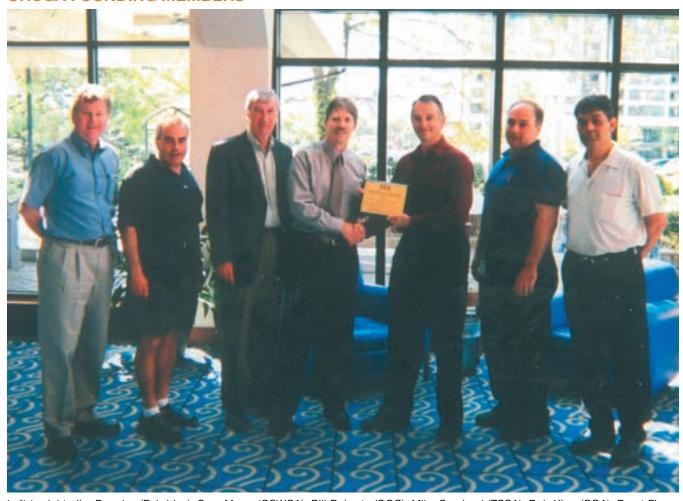
n light of its 15 year anniversary, the Ontario Regional Common Ground Alliance (ORCGA) approached me, as one of the co-founders, to revisit the genesis of this amazing organization. So much has been accomplished through the ORCGA and its members that it is difficult to imagine the chaotic situation that existed in the excavation industry only a short time ago.

In 1997, the damage prevention efforts in North America were very fractured. Many separate groups were meeting to discuss improvements, but without all the players at the table, it simply resulted in fragmented action plans. That year, Ontario One Call formed the Ontario Damage Prevention Committee (comprised of utilities and locate organizations). In 1999, I was working at TSSA, and we established

the Third Party Damage Prevention Task Force comprised of Enbridge, Union Gas, COCA, Landscape Ontario, CSAO, OSWCA and TSSA. These two groups amalgamated afterwards.

During this timeframe in the U.S., a new movement was taking place with strong federal backing. The U.S. Congress passed a law which instructed the USDOT to conduct a study of best practices nationwide for enhancing

### **ORCGA FOUNDING MEMBERS**



Left to right: Jim Douglas (Enbridge), Sam Morra (OSWCA), Bill Roberts (OOC), Mike Scarland (TSSA), Bob Kipp (CGA), Brent Fleury (Bell Canada) and Andy Antoniou (Union Gas).



### YOUR TURNKEY PRE-ENGINEERING UTILITY INVESTIGATION AND NETWORK DESIGN PROVIDER

design · build · connect

### **Subsurface Utility Engineering Services**

Telecon's Subsurface Utility Engineering (SUE) services include the identification, location, and characterization of existing utility infrastructure; thereby, detecting any potential unknowns beneath the surface relative to records, limiting potential disturbances to utility customers, and avoiding costly and time consuming utility conflicts.

### **Other Services**

- **Contract Inspections**
- Pole Line Inspections / ESA / Audits / Survey
- Manhole / Chamber Inspections
- Telecom Cable Network / Civil Design
- Specializing in FTTx Design, and EF&I Telecom Solutions

### Contact our expert team:

#### **Andrew Oliveira**

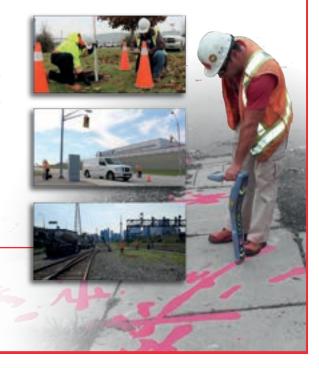
Senior Project Manager Subsurface Utility Engineering T 289 657-8217

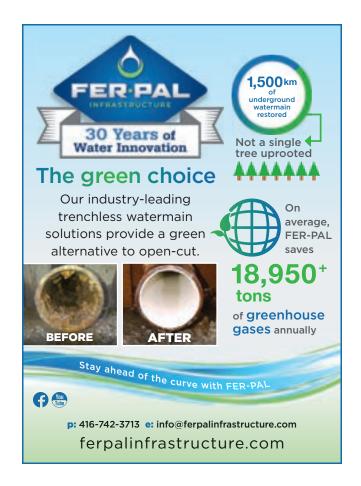
E andrew.oliveira@telecon.ca

#### Dan Kornblum

Director, Engineering Underground Infrastructure Engineering T 289 657-8235

E dan.kornblum@telecon.ca







worker safety, protecting vital underground infrastructure, and ensuring public safety during excavation activities. The Office of Pipeline Safety (OPS; now PHMSA) invited stakeholders from underground damage prevention industries to a kick-off meeting in Arlington, VA, on August 18, 1998 to begin development of best practices.

One of the most controversial elements of the process for determining a best practice was the use of the consensus process. All stakeholder groups must agree that they could live with the practice. If one group disagreed, the practice would not become a best practice. This single element of the process is what arguably gives the CGA and the best practices their integrity and ensures that all elements of an issue are vetted comprehensively.

PHSMA decided that the work should be continued and that the Best Practices document should become a living document. On June 15, 2000, the work of the team was completed when the Common Ground Alliance received its incorporation as a company.

The Canadian Gas Association was asked to have members participate in these Best Practice sessions, and Jim Douglas, Enbridge, and Andy Antoniou, Union Gas, were nominated to represent the distribution pipeline stakeholders for Canada. Jim and Andy participated as more and more Best Practices were agreed to with broad industry members at the table, and then as the CGA began accepting charter members for various states.

In Ontario in 2002, the Third Party Damage Prevention Task Force was struggling to make headway. Despite the broad stakeholder representation that had never existed before, this group still lacked the involvement of many key stakeholders, and the formal structure to initiate new practices.

Jim and Andy approached me about the potential of applying for the first CGA Charter outside of the U.S. This one was a proverbial 'no brainer'. The OSWCA, Union Gas, Enbridge, Ontario One Call and Bell Canada all applied as cofounding members of the newly incorporated Ontario Common Ground Alliance to the CGA.

This required a significant number of activities in a short time by this small group. We needed to incorporate the new company, develop/Copyright a logo, establish by-laws and a company structure including a Board and Board Sub Committees, Mission and Vision Statements, bank accounts and associated accounting practices. This was new grounds for most of us on the Board. Sounds funny now, but I took the Directors Education Program at Rotman just to ensure I was clear on both the

company and my obligations in my role as Chair of the Board and President.

The CGA accepted our application, and the first full Board meeting of the new company was set for April 2003. The founding members realized that the key to getting broad industry buyin would be to produce a set of Ontario Best Practices with all the necessary stakeholders at the table. The U.S. Best Practices could be used as a template, but the different legal structures between Canada and the US required

### Are Your Projects Being Negatively Impacted By Locate Equipment Inaccuracy And Equipment Downtime?

Are You Tired of Working With Inferior **Equipment With a High Repair Rate and** Less Than Timely Product Support?

If you answered "Yes" to one or both of these statements, then you need to give us a call today to find out how to get the best Locate Equipment, Training, and Service in the industry ... supported by TUE



Call Us Today at 905 634 0669 For a Free Locate Equipment Assessment



for Life!

www.tueinc.ca



) Radiodetection



changes. In June 2003, the fledgling ORCGA held its first meeting, and started to create Best Practice Committees.

We also recognized the need to get all stakeholders together in one place to share thoughts and suggestions and gain momentum. In March 2004, we held the first ORCGA Symposium with over 300 attendees. By this stage it was evident that the ORCGA had hit an industry nerve, but running the company on volunteers was creating constraints. The Board initially explored the idea of contracting a company that would provide an Executive Director for events, and an office site and phone answering service. However, we finally agreed that we needed someone who could be the permanent 'face' of ORCGA. We needed someone who had instant credibility in the industry, a passion for damage prevention, and someone who could understand all stakeholder positions.

In May 2004, we hired Jim Douglas, who had retired from Enbridge the previous fall, to the new position of Executive Director. Jim oversaw the completion and publication of the Best Practices in September 2004. Ultimately, Jim became the ORCGA President, creating and implementing a number of aggressive action plans to expand the value to ORCGA members.

For those who are relatively new to ORCGA - welcome to a very powerful voice in Ontario. For those who are long standing members, thanks for all your hard work over the years to bring safe excavation practices to where they are today.



### **UTILITY CONTRACTORS ASSOCIATION OF ONTARIO**

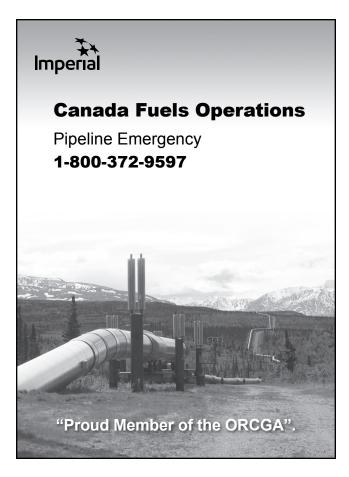
Representing underground telecommunications and power contractors in Ontario since 1971

- Employee safety training
- Electrical safety
- Construction safety
- Labour relations

"Proud member of ORCGA"

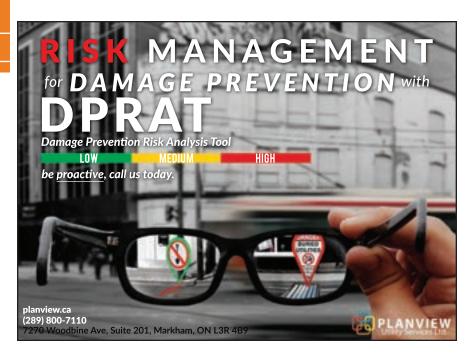
#### Contact:

Barry Brown, Executive Director, UCA of Ontario 905.847.7305 www.uca.on.ca



### INDEX OF ADVERTISERS

Avertex Utility Solutions Inc22 www.avertex.ca
Bob Robinson & Son Construction26 www.bobrobinsonconstruction.com
Cable Master Inc
Canadian Cutting & Coring24 www.cancut.ca
Cubex Ltd
Drain-All Ltd26 www.drainall.com
Enbridge Gas Distribution
Fer-Pal Construction22 www.ferpalinfrastructure.com
Hetek Solutions, Inc
Hood Excavac Services Inc19 www.hoodexcavac.ca
Hydro One NetworksInside Back Cover www.hydroone.com
Imperial 0il24 www.imperialoil.ca
Jacques Bédard Excavation Ltd26 www.bedardexcavation.ca
Joe Johnson Equipment Inc
Kawartha Utility Services5 www.kawarthautilityservices.ca
Maple-Crete Inc
Oakville Enterprises Corporation3 www.oecorp.ca
Olameter IncInside Back Cover www.olameter.com
Ontario General Contractors Association19 www.ogca.ca
PGC Services
Planview Utility Services Ltd25 www.planview.ca



### **ENTERING**

### Our 25th Year in Business

Call Cable Master for all your Locating, Radar Scanning, Fault Finding, and Equipment Needs



3M™ Dynatel™ Locating and Marking Equipment

Accurate, Dependable, Field Proven











Electronic Marking System pinpoint accuracy



Cable Master Inc. 160 Pary Dt. 46A, Newmarket, ON, L3Y 786 905-715-7303 | Toll Free: 877-715-7303 Fax: 905-715-7305 nfo@cablemasterinc.com www.cablemasterinc.com











### Jacques Bédard Excavation Ltd.

3006 10th Line Road, Navan, ON K4B 1H8 Ph: (613) 824-3208 Ext 204 Fax: (613) 824-4321

For 48 years, Jacques Bédard Excavation Ltd, has earned the trust and repeat business of Ottawa's excavation needs. Additional services: Drainage, Back-filling, Grading, Retaining walls, Sewer and Water Projects.









on 1 call.com 1-800-400-2255

### CRITICAL SAFETY MESSAGE FROM HYDRO ONE.

### **CALL BEFORE YOU DIG!**

Calling Ontario One Call to obtain underground locates prior to excavation reduces accidents. Most importantly, it helps to protect public and worker safety throughout the province.

Hydro One is proud to be a member of Ontario One Call.



Partners in Powerful Communities

HydroOne.com

### Map as you Locate with our VM Maps Free app For iOS and Android

The solution to affordable real-time utility mapping is in the "VM-MAP" application from Vivax-Metrotech. Now with the push of a button add an additional layer of confirmation to a locale.

- · Real-time utility mapping
- Plug-and-play Bluetooth/GPS
- · Easily pairs with most devices
- Email in KML and CSV file format
- Easy integration into GIS mapping softwar











### VIVAX METROTECH



### Call us for your no obligation on-site demonstration!

Vivax Canada Inc. 41 Courtland Ave Un 6 Concord, Ontario L9S0E2

Tel. 289-846-3010

Email:CanadaSales@vxmt.com www.vivax-metrotech.com

