



Case Study Structure - Bollards, Sleeveless risers

The Challenge

The City has not had a team with the resources to identify issues with gas services proactively. Each department is busy with its own workload that it cannot send members out to each home in the City to see if there are issues that need rectifying, relying on homeowners and property owners to report issues as they arise. With the expansion of our locate department, I and our supervisor, Jeff Pilarski, have helped our department form new operating procedures that each locator can help identify issues with our infrastructure before it becomes an issue for another department.

The Approach

Kitchener Utilities has taken a proactive approach by training the locators on issues to escalate when they arrive at every site.

- We look into the gas riser to see if the plastic sleeve has been paved over. If it has, we escalate it to our construction and maintenance division to have repaired. To date, we have found 423 of these, many of these happened where the contractor did not have locates for the work they were doing.

- We check into the tracer wire to ensure continuity of trace.

- We look into whether or not a bollard needs to be installed if the gas service is installed on the driveway of the property. If we find one that needs a bollard to be installed, we escalate to our construction & maintenance department to do a risk assessment and installation when necessary. To date, we have identified 985 properties that may require a bollard to be installed.

- If we find out that there is a gas leak, we report it to dispatch to have a service technician come to find and repair that leak. Most are very small leaks and are limited to the gas riser but some have been found, through training, by discoloured grass around the area of the gas service tee with the main.

If we find a meter with noticeable corrosion issue, we escalate these to our cathodic department to investigate the issue and potentially replace the meter. To date we have found 92 of these issues.

-Locators have been trained in determining gas code violations and we report all issues such as gas services installed within a non-permissible distance from a door or window opening to our service department to determine whether an infraction needs to be applied.

The Outcome

Training our locators to be the eyes and ears for every other department has made our City a much safer place to live and work. Less potential issues that could be a threat to life and property. This way the City can take a more proactive approach to citizen safety rather than being reactive after the fact.

Lessons Learned

Locators can do much more than just put paint on the ground. We are versatile in our approach to damage prevention and can be used to support other departments in their efforts to have zero damages requiring expensive repairs.

Every leak, no matter how small, can affect profitability and customer safety. Having us identify these issues saves time, money and builds respect with our customers for our brand.

Quotes/ Images

Sleeveless Riser issue identified. Sleeve is still on the riser but was pushed up and paving occurred around the riser.



Bollard requirement identified. Gas meter on driveway, not protected from vehicular traffic and could be impacted.



Case Study Structure -Building Permits & Municipal Consent forms

The Challenge

The City has a finite amount of resources it can expend to ensure that everyone is working within the framework established under laws and bylaws. The locators, as field staff, are able to reinforce several different departments to ensure that all work in the City is being carried out safely and within the framework of the relevant laws and bylaws.

The Approach

This began from an Ontario One Call complaint. A contractor was digging without locates and I caught them. They said that they were digging to repair a crack in the basement that was letting in water. I reported them to One Call and requested that they call in a locate as there was gas services in the area. They did but several days later, I found a basement stairway installed in that same area and an unpermitted driveway extension. After escalation to management, it came out that the homeowner did not have a permit for the basement work that they were doing and that they had planned to rent the basement out and become landlords.

The Outcome

After giving my recommendations to Jeff Pilarski, we developed a system with our City Hall based GIS team based around the GIS data that the City collects from every department. Our locators now have access to all permits that have been applied for through City Hall so we can confirm if any outside excavation work has locates AND permits.

We have access to municipal consent forms so that we can identify if someone is abusing the Ontario One Call system by calling in large areas that they do not have permits to dig in. We can also view road occupancy permits so we can identify planned excavation work and cross check it with the Ontario One Call portal to ensure that locates were applied for and received.

We are now working towards expanding this system with work permits for boulevard work and the database of work orders for third party contractors doing work for the City such as for the operations and forestry department so that we can ensure these contractors also apply for locates before beginning their excavation work.

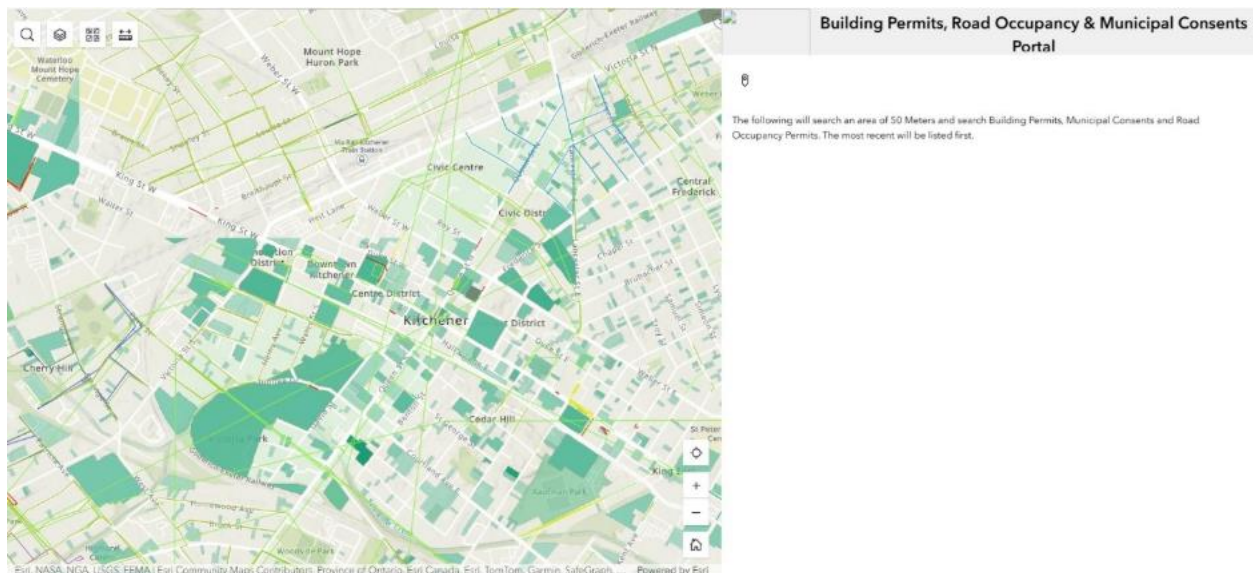
Lessons Learned

Through using this system since we have developed it, we have come across a large number of properties where excavation work was being done without permits which could affect the structural integrity of the house being worked on and neighbouring properties. This will help save the taxpayers money, time and stress in the future.

We have also come across a number of excavators who have called in very large areas in their One Call tickets but did not have permits to work the entirety of the area requested. When challenged, they have told us the actual area they needed, saying they wanted the rest “Just in case”. This has saved our locators a large amount of time that could be spent doing other locates and keeping our compliance rate high.

Through the training we have received in how to identify what may be in contravention of City building regulations, we have been able to educate homeowners into how much of their property they are allowed to pave and what work they can do without permits and point them in the direction of the correct department when they will need permits, saving them money by doing costly projects that may have to be demolished if found to be in against any building regulations.

Quotes/ Images



Case Study Structure - Continuity Checks

The Challenge

The lack of proper locate continuity checks hindered our ability to locate water services that were not properly connected at time of install. Also, once the City assumed ownership of these water mains and services, repairs to the tracer wiring on the infrastructure would

have to be done at the City's cost or an expensive legal battle to prove locatability afterwards.

The Approach

Having discovered a newly built subdivision phase where none of the water services would tone, I escalated it up to locator management and the City's engineering team. Contractor was adamant that the water mains and services were installed to the Region of Waterloo's DGMSS guidelines and had sent his locator out to confirm and he confirmed that everything was locatable. After further investigation it was found that none of the tracer wires on the clamps for each civic were shaved prior to backfilling of the trench and were unlocatable from any surface connection point.

The Outcome

A standard operating procedure was created due to my bringing this issue to attention. It is now our policy to request that the engineering firm in charge of the job hire a private contractor to do a continuity check of all water plant after installation with records kept of this check for review, if required, by the City. Also, before the City takes ownership of the newly installed plant, a continuity test must be conducted by City locate staff to determine locatability of all water services and have repairs made before the City takes ownership.

Lessons Learned

- Not all companies hire ORCGA certified locators to do their continuity checks and issues can arise when untrained staff are given responsibility to locate large projects that the City will inherit. With our new operating procedures, we can ensure that deficient water services are repaired before paving work occurs on the property, leaving unsightly holes in the driveway for the new homeowner. Also it is written in the text of the contract that all continuity tests done by private contractors must be done by ORCGA certified locators.
- The City would have had to spend a substantial amount of money over the next number of years having to make each water service that could be deficient locatable. With this new policy I helped to introduce, it will save the taxpayers of Kitchener a large amount of taxpayer money that would otherwise had to be spent on repair work

Quotes/ Images



Case Study Structure - One Call complaints

The Challenge

Contractors digging without locates in the City of Kitchener, exposing our gas and water services and above grade gas & water valves to potential damages.

The Approach

Through educational enforcement, stopping by the site and explaining to the contractor or homeowner the danger of excavating without locates and the potential fines and/or jail time that could result in damaging utility infrastructure, most had not heard of Ontario One Call before. Those that admit they did were under the mistaken belief that shallow excavation practises by private contractors or homeowners did not require locates.

The Outcome

Since starting the positive education and enforcement programs, the City of Kitchener has seen a noticeable increase in contractors and homeowners requesting utility locates

before their excavation begun. Many have thanked me afterwards and continue to call in many tickets for the work they previously did without them.

Lessons Learned

- Digging with locates has increased substantially in our area.
- Our construction and maintenance crews have had to replace less damaged curb stops as these are located through an Ontario One Call ticket.
- Through my social media engagements with the people of my geographic area on Facebook and Reddit, word of this work has spread throughout the community and is raising awareness of safe excavation practises and Ontario One Call.

Quotes/ Images



Case Study Structure - U2 and drawing standard

The Challenge

Before my joining Kitchener Utilities, there was no drawing Standard Operating Procedure. Also, there was no tracking of individual locates as all locates were done either through email or carbon copy paperwork.

The Approach

With consultations with management, we developed a standard operating procedure for locate drawing standards in line with the Ontario Regional Common Ground Alliance standards so our locates will resemble those of other LSP's in the area such as G-Tel and CLI. Also, I brought in Competers to provide us with our Utilocate software for ticket management and completion after being given permission to find a software vendor that matched our needs.

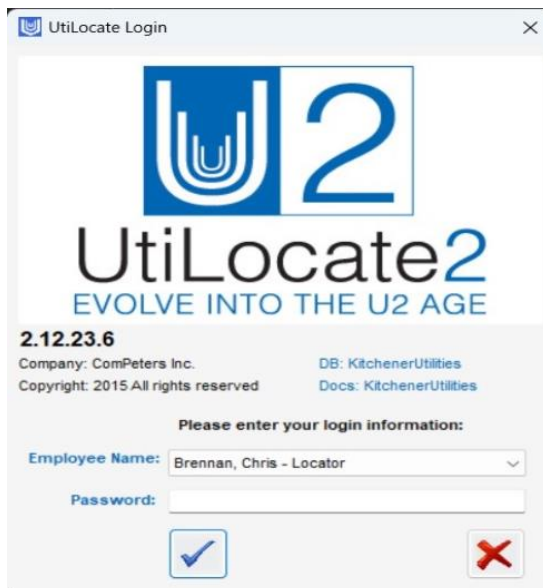
The Outcome

- Locates became much more legible and defensible in court in the event of a damage.
- Our locates became easier to read by those who had called in a locate request, helping to mitigate issues based on what had previously been very different locate drawing styles between us and area LSP's.
- Having a digital locate software package helped cut down on administration time constraints searching for tickets that had been done before to recycle drawings for relocates or for quality audit checks when damages occur for internal investigations.
- Having access to every completed locate helped other locators identify where damage to tracer wires or other above ground plant such as valves and curb stops may have happened due to excavation and/or subsequent corrosion etc.

Lessons Learned

- Digital software helps us maximize our time spent locating and is more environmentally friendly than paper carbon copies.
- Contractors are happier to receive locates that look standardized across all utilities when requesting locates.

Quotes/ Images



List of accomplishments

Locators: Looking towards the next generation of Damage Prevention.

Started in G-Tel in 2014

- Began as a locator in June of 2014. Hired by current general manager of G-Tel, Jason Meyer. Was given large projects from an early point in my career due to trust from management and trainers.
- Trained in locating all underground utilities as well as Sewer Safety Investigations.
- Began training and onboarding of new staff in 2015, many of whom now work for large companies like Enbridge and in our Kitchener Utilities department.
- Was part of the first crew to train other members when G-Tel adopted Competers U2 over the existing Teldig.
- Was part of the first batch of locators brought in for training when new contracts were being introduced such as when G-Tel took over Waterloo North Hydro, now Enova.
- Was among the first of the locators in the Region of Waterloo area to be trained in Enbridge damage investigation and took oncall duties from Cambridge to Wiarton while more staff were being trained to cover regional oncall.

Started in KU in 2021

- Helped to bring in new drawing standards and digital ticket management system
- Began the process of continuity testing on all newly installed water, whether new or reconstruction projects and created new Standard Operating Procedures for third party continuity checks to be done post installation with subsequent continuity checks by KU staff before ownership transfer.
- Began the process of reporting Sleeveless risers, 444 currently reported of which I did 101, where bollards are required to be installed on driveways where current unprotected gas mains exist.
- Introduced system of awareness to report all suspected gas leaks by locators to the dispatch department to have investigated and repaired.

- Began reporting private hydrant locations to further aid Kitchener Fire Department in their work.
- Began reporting enclosed gas meters to have engineering go to site to have corrected or when structures are build on top of the existing gas service.
- Began reporting shallow gas and water services and mains for engineering to follow up on to have rectified.
- Began reporting corrosion issues on our gas services to our cathodic department to have investigated and potentially replace corroded meters.
- Made recommendations to engineering how new ways to connect tracer wires of water services to ensure locatability in all seasons. (Tracer wire connection from basement to wall unit on side of house where current water meter reader is, that way connection at curb stop would not be required and a better locate signal would be gotten from end of tracer wire going out to the main)
- Helped onboarding of new hires when initial expansion of locate department happened.
- Helped with the expansion of our GPS ability, nagging continuously until we got some units to start our expansion of the program and helped with its introduction.
- Education of homeowners and contractors on the Ontario One Call Act and its subsequent legislation through online education on social media, joined local Kitchener Facebook, Instagram and Reddit groups to help spread awareness of the legislation.
- Education of and reporting of breaches of the One Call Act at point of contact in the field. Educate the homeowners and the contractors on the law itself as well as the various provincial groups, fines and penalties that may be applied to those breaking the law, putting peoples lives, livelihoods and properties at risk. To this date, have reported over 686 (220 so far in 2026, 466 in 2025) (As of 31st August) contractors and homeowners for digging without locates.
- Have build up a network of concerned citizens, contractors, operations, forestry and construction and maintenance workers and private LSP locators to actively report people who are digging without locates.
- Reporting of unpermitted work being done on residential, commercial and industrial properties to relevant City departments.
- Worked with Jeff Pilarski and the GIS team to build an integrated system for all municipal consent, work permits, Building permits, road closure permits and future work orders by different City departments to ensure all parties have utility locates or to be used as evidence when found to have valid permits but no locates.

- Trained a significant amount of locators for G-Tel when working there, some of which now work for companies like Enbridge.
- We report damaged curb stops to our Construction & Maintenance department to help with reaction times to shut off water in case of a flooded basement issue arising.
- Have completed over 129 record updates for water (49 personally) and 6,073 gas record updates (508 personally) to update our GIS system where asbuilt information was not available.
- As well as all of the above, completed the following Ontario One Call locates since May of 2021. All of the numbers mentioned in this document are reflective of the work done by our 8 locators.

	Department Total	Personal Total
Standard Locates	9,511	3,081
Project Locates	5954	2,671
Planning Locates	418	184
Priority 0 Locates	21	9
Emergency Locates	596	114