

**LET'S  
CHAT  
NOTL**  
OPEN HOUSE

# Niagara-on-the-Lake Hydro Inc. Underground Conversion Project

September 24, 2019





# Be Safe - Call before you Dig



## LOCATES

- They're Fast
- They're Free
- They can save your life



Available 24/7  
1.800.400.2255  
OntarioOneCall.ca



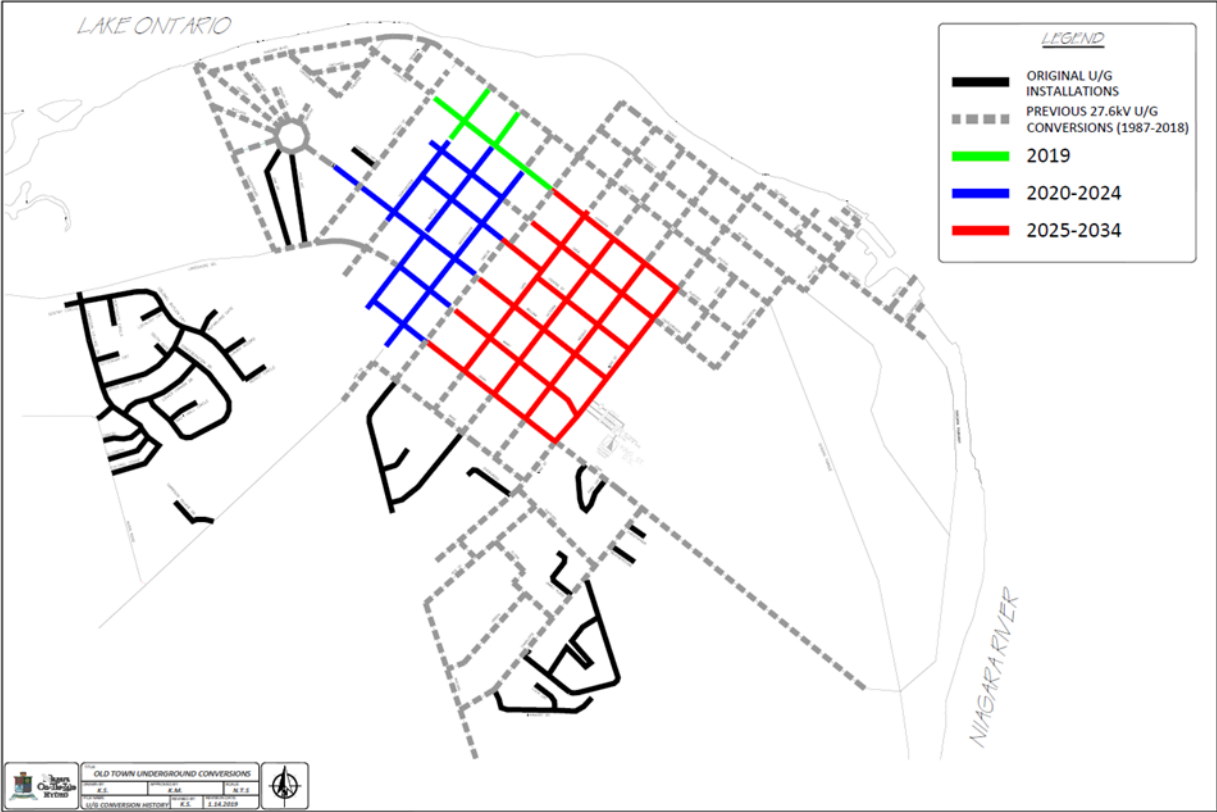
# What is the Underground Conversion Project?

- Gradual replacement of older poles and overhead wiring with underground conduit and pad-mounted transformers.
- Part of a larger project to convert all the distribution voltages from 4 kV to 27.6kV.
- Expensive to convert to underground so only do a few blocks a year.
- Started in late 1980's.

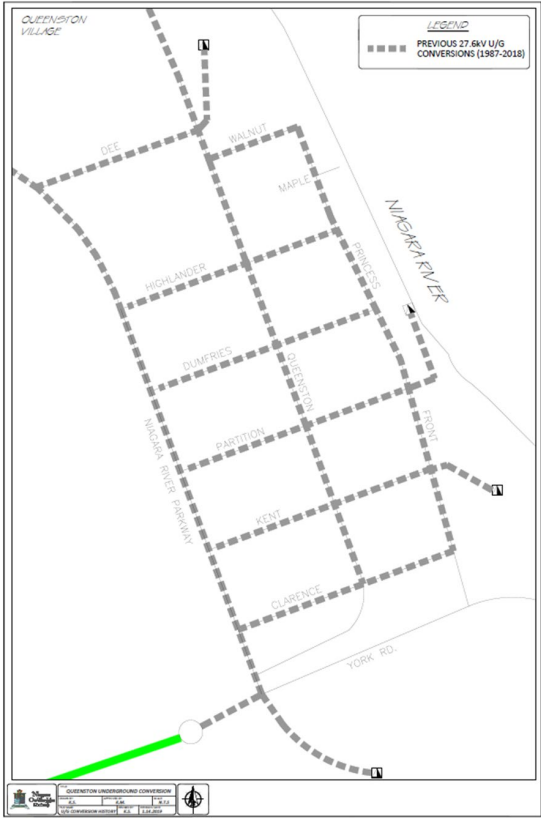


# What is the Underground Conversion Project?

Old Town



Queenston





# Why are we doing this?

- Equipment is getting old and needs to be replaced.
- Converts the primary voltage from 4 kV to 27.6 kV which is more efficient and consistent with the rest of the NOTL system.
- Underground systems are safer and less susceptible to outages.
- No tree trimming needed with an underground system.
- An underground system has better aesthetics.



# Overhead vs Underground look





# Steps to Underground Conversion #1

1. Select the area to be converted.
2. Inspect the area and plan the project.
3. Discuss with Bell, Cogeco, NRBN and the Town who may all be joint users of the poles.
4. Obtain Town approval.
5. Letters to customers advising of work and offering underground connections.
6. Locates.
7. Select a qualified contractor.



# Steps to Underground Conversion #2

8. Install the pipes, wire and transformers.
9. Obtain electrical permits from ESA.
10. Connect the houses and businesses.
11. Restoration of disturbed construction areas.
12. Remove the old wire and transformers from the poles.
13. Bell, Cogeco, NRBN and the Town transfer their services to the underground system.
14. Remove the old poles.





# How an area to be converted is chosen?

- We are generally moving towards King St.
- Review with Town any activity they have planned to avoid too much construction in one area or to take advantage of other developments.
- Review condition of poles to see if conversion needed sooner than later.
- Area to be converted must be connected to 27.6 kV system.
- Want to incorporate local interests.



# Key factors in planning the conversion

- Mix of aesthetic and electrical factors.
- Locate transformers so that they are accessible but not intrusive on any one property.
- Locate underground wiring so minimal disruption of property and vegetation.
- Assess existing services and whether they will be connected above ground or underground afterwards.
- Minimize road crossings.



# Underground to House Opportunity

- NOTL Hydro will offer each customer with an above ground connection to their house in the area being converted a highly discounted cost to move the service underground.
- NOTL Hydro will pay the cost to bring the service to the nearest corner of the building. This is frequently the location of the meter. The customer is responsible for paying the cost of the connection at the house (usually around \$1,000).
- In normal circumstances, the customer would be responsible for the full cost of this (usually \$3,000 - \$5,000).



# Installation: Trenching vs Directional Bore





# Why can it take so long to remove the old poles?

- Old poles cannot be removed until all the services have been removed from the pole.
- This includes Bell Canada and Town streetlights.
- These organizations have their own timing and budget issues.
- NOTL Hydro cannot force them to expedite their transfer to the underground.



# Current Timeline





# What feedback is NOTL Hydro looking for?

- The timetable provided on the map is tentative and subject to change.
- If many residents on a particular street indicate a strong preference to have their street converted earlier or later, NOTL Hydro will try to adjust its timetable.
- The ability to make this timing adjustments is subject to certain engineering and planning constraints.



# For further Information

- Please call at (905) 468-4235
- Write to us at [contact@NOTLHydro.com](mailto:contact@NOTLHydro.com)
- Visit us at [www.NOTLHydro.com](http://www.NOTLHydro.com)





# Questions

**Questions on this or  
any other subject.**



# Transformer Wraps



King St. and Ricardo S.



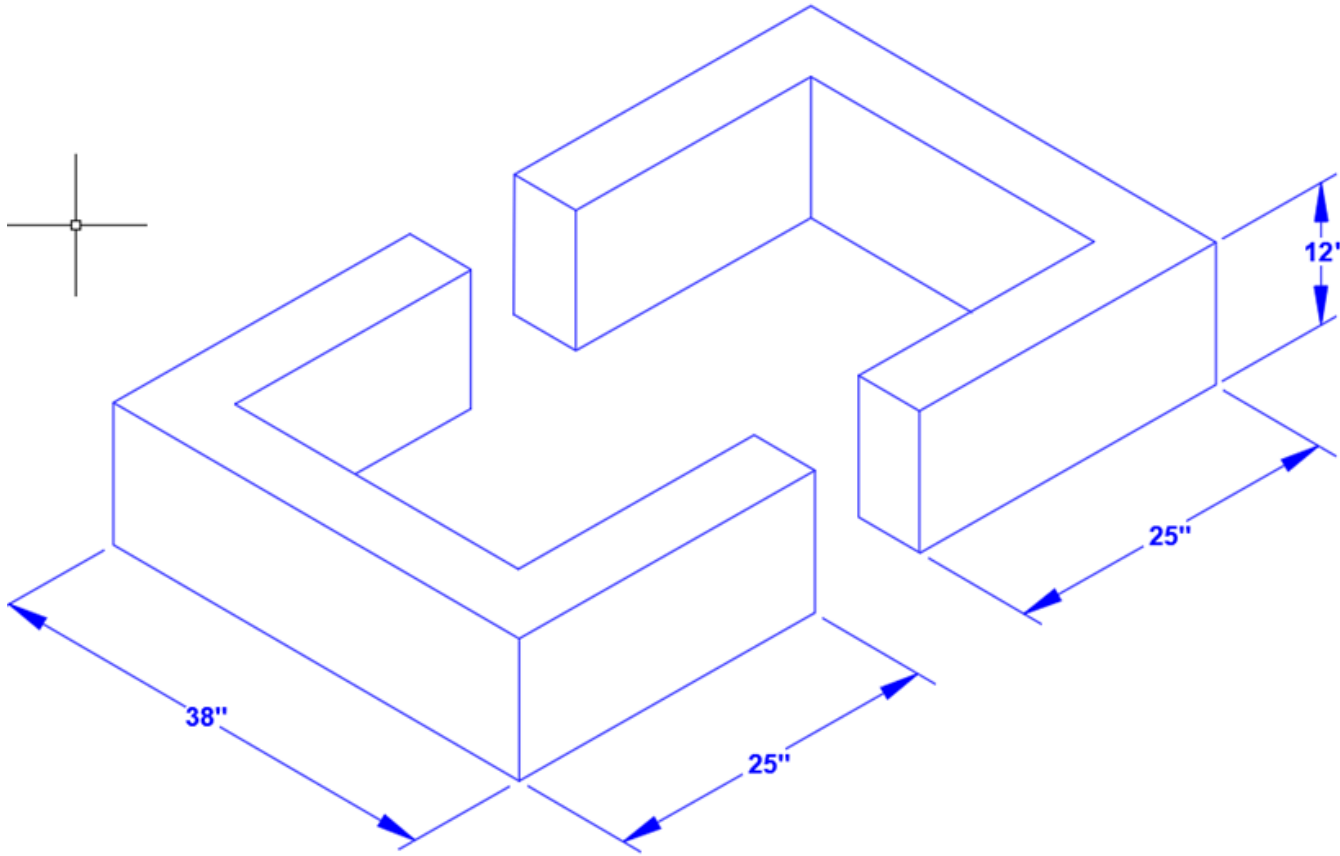
Memorial Park  
- off King St.



Front St. and Victoria St.



# Raising Transformer Boxes



Concrete sleeves are being created that will be insert between the transformer box and the concrete pad.

This will be dependent on the existing cable having enough slack.



# Raising Transformer Boxes



The inside of a transformer.

There is still clearance of around 6 inches above the bottom of the transformer.

