



City of Hamilton

PUBLIC WORKS COMMITTEE ADDENDUM

Meeting #: 19-003
Date: February 22, 2019
Time: 9:30 a.m.
Location: Council Chambers, Hamilton City Hall
71 Main Street West

Alicia Davenport, Legislative Coordinator (905) 546-2424 ext. 2729

	Pages
6. DELEGATION REQUESTS	
6.2 Jodi Formosi and Michael Miscio, Amalatterra Inc., respecting an Alternative Waste Management Approach and Technology in Respect of the Pending RFP for the Materials Recycling Facility (for today's meeting)	
*6.2.a Added Presentation and Handouts	3
7. CONSENT ITEMS	
7.1 Intersection Control List (PW19001) (Wards 2, 3, 8, 9, 10, and 12)	
*7.1.a Amended Report and Appendices	35
*7.2 Interview Sub-Committee to the Public Works Committee Minutes - February 15, 2019	45
8. PUBLIC HEARINGS / DELEGATIONS	
8.1 Ken Rayner, Infrastructure Health & Safety Association (IHSA), respecting the Certificate of Recognition (COR™) Program (approved by the Public Works Committee on February 4, 2019) (no copy)	
*8.1.a Added Presentation and Handouts	48
12. NOTICES OF MOTION	
*12.1 Vanier Towers Social Enterprise Kitchen Project Funding (Ward 2)	96

14. PRIVATE AND CONFIDENTIAL

- *14.1 Appointments to the Hamilton Cycling Committee (distributed under separate cover)

Pursuant to Section 8.1, Sub-section (b) of the City's Procedural By-law 18-270, and Section 239(2), Sub-section (b) of the *Ontario Municipal Act*, 2001, as amended, as the subject matter pertains to personal matters about an identifiable individual, including City employees.

- *14.2 Appointments to the Keep Hamilton Clean and Green Committee (distributed under separate cover)

Pursuant to Section 8.1, Sub-section (b) of the City's Procedural By-law 18-270, and Section 239(2), Sub-section (b) of the *Ontario Municipal Act*, 2001, as amended, as the subject matter pertains to personal matters about an identifiable individual, including City employees.

City looks to expand program that snoops on residential recycling bins

SHAWN LOGAN ([HTTPS://CALGARYHERALD.COM/AUTHOR/SLOGAN72](https://calgaryherald.com/author/slogan72)) Updated: February 18, 2019



A green cart notice showing what cannot go into Calgary's composting bins was photographed on Feb. 13, 2019. Gavin Young/Postmedia

The number of city snoopers peeking into residential waste bins to ensure the proper refuse is being deposited is set to quadruple this year



COLLECTION AND TRANSFER > WASTE REDUCTION

The Environmental Impact of Valentine's Day

This video highlights the holiday's impact on the environment and eco-friendly ways to celebrate Valentine's Day.

Waste360 Staff | Feb 14, 2019

More than 124 million adults in the U.S. celebrate Valentine's Day each year. Combined, they exchange a massive amount of heart-shaped boxes, greeting cards and roses; consume a large amount of bottles of sparkling wine and chocolate; and generate an ample amount of CO₂ emissions and paper and packaging waste.



Paying for Material Recovery: What's in Your Wallet?

Despite legislative, regulatory, corporate or grassroots changes, the same question looms as large today as it has for the past 30 years.

Michele Nestor | Jan 30, 2019

Let's admit it, with or without the admonitions of the Chinese government, it was time to face that our recycling systems had become unsustainable. We need a rethink at many levels.

Regardless of what legislative, regulatory, corporate or grassroots changes are initiated, the same question looms as large today as it has for the past 30 years: How and when in the system should we recoup the funds to pay for the cost of recovery?

Notice that *who* pays is not part of the question. It's no secret that the consumer factors into every equation. The cost may be built into the product price, imposed as a fee or tax at the point of purchase or assessed at the end of life as a collection and processing fee. It may be collected as a dedicated tax or incorporated into the local tax general fund. Polluter taxes on products and hidden taxes on disposal are other examples.



FLEETS & TECHNOLOGY > SAFETY

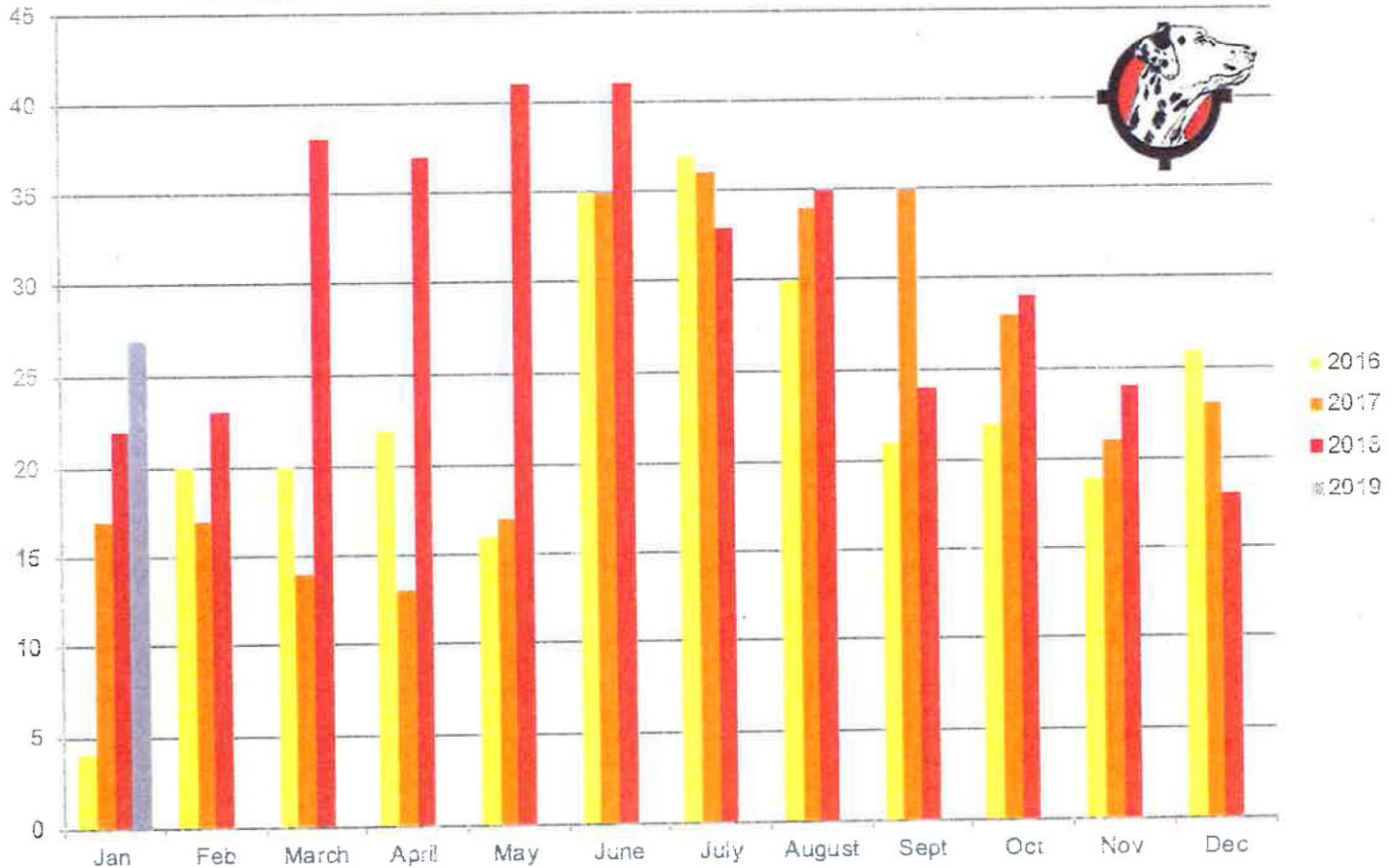
January 2019 Waste, Recycling Facility Fire Incidents Take a Turn for the Worse

This January, reported fires have increased from 17 incidents in 2017 to 27 incidents reported this year.

Ryan Fogelman | Feb 05, 2019

During the past 12 months, the waste and recycling industry has experienced 371 reported fires in both the U.S. and Canada. Based on reasonable assumptions, we can extrapolate that 1,800-plus facility fires have occurred during that time.

REPORTED WASTE & RECYCLING FACILITY FIRES IN US/CAN FEB 2016 – JAN 2019



Source: Ryan Fogelman, rfogelman@fireover.com

REPORTED WASTE & RECYCLING FACILITY FIRES IN US/CAN FEB 2018 – JAN 2019

*371 unique incidents were reported; based on reasonable assumptions, we can extrapolate that 1800+ facility fires have occurred in the past 12 mo.
 *3 Deaths
 *13 Injuries



Source: Ryan Fogelman, rfogelman@fireover.com

THINKING OUTSIDE OF THE BLUE BOX

CONSIDERATION FOR CHANGING THE PROCESSING PROTOCOL FOR HAMILTON'S MATERIAL RECYCLING FACILITY

Submitted By: AmaLaTerra inc.(Love the Earth:It's not just our name; it's what we do!)

Submitted To: Public Works, City of Hamilton

Date: February 22,2019

Delegation Members: Jodi Formosi, Michael Miscio

Relevant Background Information:

- City of Hamilton's current contract (C11-74-02) for the operation and maintenance of the City of Hamilton's Material Recycling Facility (MRF) expires March 31, 2020.
- Sorting equipment at MRF is reaching end of life and will need upgrading.
- Not all residents comply with the "Dual Stream" Blue Bin strategy for Hamilton when sorting recyclables
- Hamilton is facing a potential market collapse of recycled fibers and plastics
- City staff have reported the paper recycling market downturn will result in a \$1.2 million decrease in revenue for 2018.
- Revenues from the sale of plastics have been significantly reduced due to China's implementation of new policies on the recycled plastics on imports.
- Hamilton was subsequently forced to ban items like Styrofoam, bottle caps, black plastics and coffee cup lids from its Blue Boxes and is now landfilling these items.
- China's new standards will cost the city an estimated \$300,000 in lost revenue.

- The ban on foreign waste imports to China, previously the world's largest importer of plastic waste for recycling, has had a significant impact on Canada's exports of plastics.
- Municipalities across the country are scrambling to offload their plastics, while also finding ways to mitigate the dramatic decline in their revenues from recycling.
- Hamilton is no different in this regard, as city officials have communicated revenues decreased by approximately \$1.5M in 2018.

City of Hamilton 2018 Revenue Projection

City of Hamilton - Current Earnings for Recycling					
Year	Contract Tipping Fee	Tonnes Per Year	Total Tipping Fee Paid to Canadian Fibers	Revenue from Sale of Recyclables	Total Earnings After Tipping Fee
2017	\$ 107.75	44,200	\$ 4,762,342.14	\$ 5,000,000.00	\$ 1,037,657.86
2018	\$ 109.90	45,000	\$ 4,945,509.14	\$ 4,600,000.00	\$ (345,509.14)

- Ontario Landfills, though heavily relied upon are maturing, and the acquisition of new landfills is costly and difficult
- Hamilton is now seeking alternative methods to divert, dispose of, and/or increase profit from the collection of recyclable fibers and plastics

As per Hamilton's 2017 Datacall Report, submitted to RPRA, the following data was gleaned:

- TOTAL RESIDENTIAL WASTE GENERATED = 227,723 TONNES
- TOTAL RESIDENTIAL WASTE DIVERTED= 100,673 TONNES
- TOTAL RECYCLABLES DIVERTED=43.6%
- TOTAL ORGANICS DIVERTED=43.6%
- TOTAL MUNICIPAL GROUP WASTE DIVERSION AVERAGE=52.8%
- TOTAL HAMILTON WASTE DIVERSION=44.2% (OR 8.6 % BELOW AVERAGE)

Executive Summary:

AmaLaTerra Inc. proposes that the City of Hamilton transition to a new Processing Protocol, one where the City begins leading the Waste Diversion Movement. More specifically, we are proposing the City of Hamilton consider the utilization of a 50,000 tonne per annum (tpa) Steam Reformation Processor, to eradicate all Plastic Waste (and all other forms of Waste the City deems viable) by transforming it into Green Syn Gas for Hydrogen and/or Energy production.

In addition to the many Environmental benefits arising from the reduction of Plastic and other Waste, the incorporation of the proposed Steam Reformation Process would also achieve many cost-avoidances, as well as potential future ancillary benefits including the extension of the life of the Glanbrook Landfill, by rendering it reusable. An example of a comparable initiative occurred in 2012 when the life of the landfill was extended by 8 years, saving the city a reported \$64 million dollars.

AmaLaTerra Advantage

- Patented, Proven, Distinctive STEAM REFORMATION PROCESS (SRP) supported by many independent validations:
 - ❖ **Battelle-largest U.S. independent testing lab specializing in alternative energy**
 - ❖ **Lehder-world class air quality standards testing lab who found the SRP to emissions to be well below existing allowable levels in California, the EU and Ontario.**
 - ❖ **University of Toronto-Chemical Engineering Department**

❖ Caterpillar and Toromont-endorsed the use of the syngas produced via SRP, in their gas turbines for production of electricity

- No burn, toxins, odours or harmful emissions
- Converts all Organic Matter into Clean, Green Energy
- Transforms Waste from being a liability into a valuable Resource
- Significantly reduces Climate Change impact by removing methane from MSW
- All forms of Feedstock can be processed simultaneously without any sorting, drying, or decontaminating required
- Enclosed, self-looping system
- Effectively and efficiently resolves growing Global Waste Issues
- Assigned MOECC number and Emission testing results
- The missing link between “Managing” Waste Issues and “Solving” them

All Forms/Types of Plastics Processed

Utilizing the proposed SRP system, the most significant improvement for the City of Hamilton would be the ability to process all forms of plastics, including black coloured plastics, coffee cup lids, and polystyrenes. Hamiltonians would also be able to add anything made of plastic into their Blue Bins, including plastic bags. Even food containers, with residual waste remaining, would be acceptable.

The following image, from www.hamilton.ca, highlights the significant amount of Plastics deemed contaminated and therefore landfilled, under the City’s current protocol.

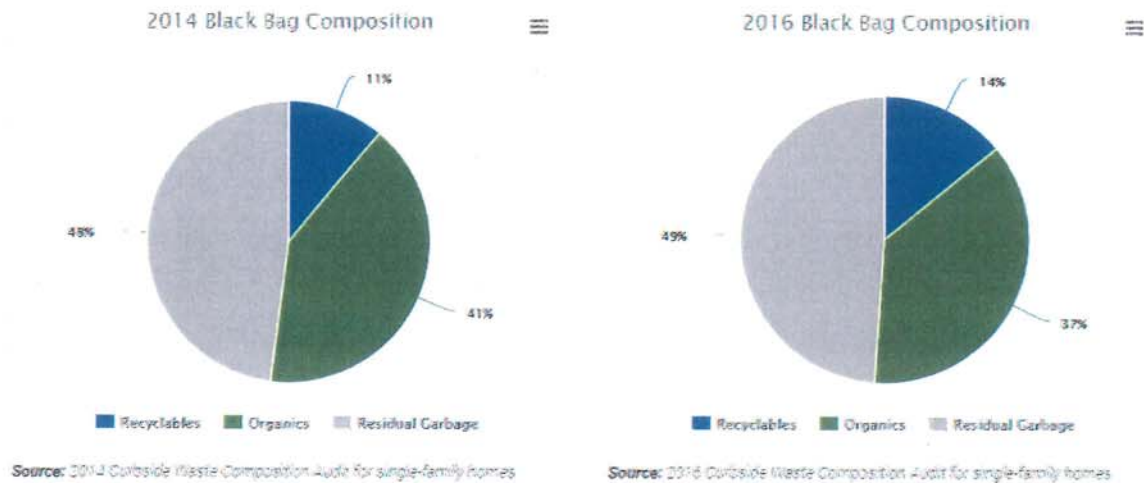


With the SRP system, all Plastics would be acceptable. This could be viewed as an evolution of Hamilton's Dual Stream" Blue Bin recycling program. The present model of having one Blue Bin for fibers and a second for restricted plastics, could evolve into one Blue Bin for fibers and a second for all forms of plastics. Hamilton would be the first municipality in the world to implement such a visionary, environmentally responsible recycling program. Furthermore, Hamilton could set the standard for the World on Waste Solutions. This in turn could not only lend further credence to Hamilton's Renaissance and re-branding but, entice other local and international governments to follow the example led by our great City.

Increased Waste Diversion:

Expanding the list of acceptable plastics would not only increase landfill diversion, but further potential additional diversion by providing the public with more simplified Blue Box instructions. Because of the current confusion regarding which Plastics are accepted, frustrated citizens do not always take the required time to recycle accurately. These individuals either make very little effort, or in the worst case scenario, make no effort at all, and opt to dispose of everything in black garbage bags.

This is evidenced in Hamilton’s curbside audits, recyclable contents within black bags increased by 27% between 2014 and 2016.



*Upon implementation of simplified recycling instructions (aka “All Plastics Accepted”), we believe residential recycling compliance in Hamilton could increase significantly. Plastic diversion from the Glanbrook landfill could also reset provincial standards while re-establishing a single-digit percentage for Recyclables, on future Black Bag Composition Audits.

Meets All Ontario Waste Management Plan Goals

By converting Blue Box, Green Bin, Hazardous, Household Waste into resources such as Hydrogen and/or Energy and/or Water while diverting it from Landfills, Hamilton would epitomize the term “Circular Economy” and serve as the Gold

Standard in solving Global Waste Issues.

Environmentally Responsible:

Eradicates waste without creating harmful emissions. Allows not only the majority of waste to be diverted from landfills but capable of processing majority of current landfilled waste, rendering the landfill reusable. In addition to significantly reducing Greenhouse Emissions, eradicated plastics are prevented from leaching into our waterways, including doing further damage to the Ocean and wildlife.

Socially Responsible

Hamiltonians would be able to take pride in being Global Waste Issue Leaders and could embrace and positively reinforce the change rather than suffer from the stigma of being judged for their recycling habits.

Financially Responsible and Viable:

AmaLaTerra's perspective is that landfills, in addition to being harmful to the environment, are the equivalent of buried money and valuable resources. We look forward to the opportunity of transforming Hamilton's Trash into Treasure.

*(Please note that due to the impending RFP, it is inadvisable for us at this time, to include specific details about Revenue Projections. If given the opportunity to be considered for the bid, we are confident in the competitive edge that our Revenue Generating/Cost Savings Business Model offers.)

More Efficient:

Processing time is reduced considerably since all feedstock, including Hazardous Waste, can be processed simultaneously without any required prior sorting, drying or cleaning.

Suitable for Current MRF Processing Facility:

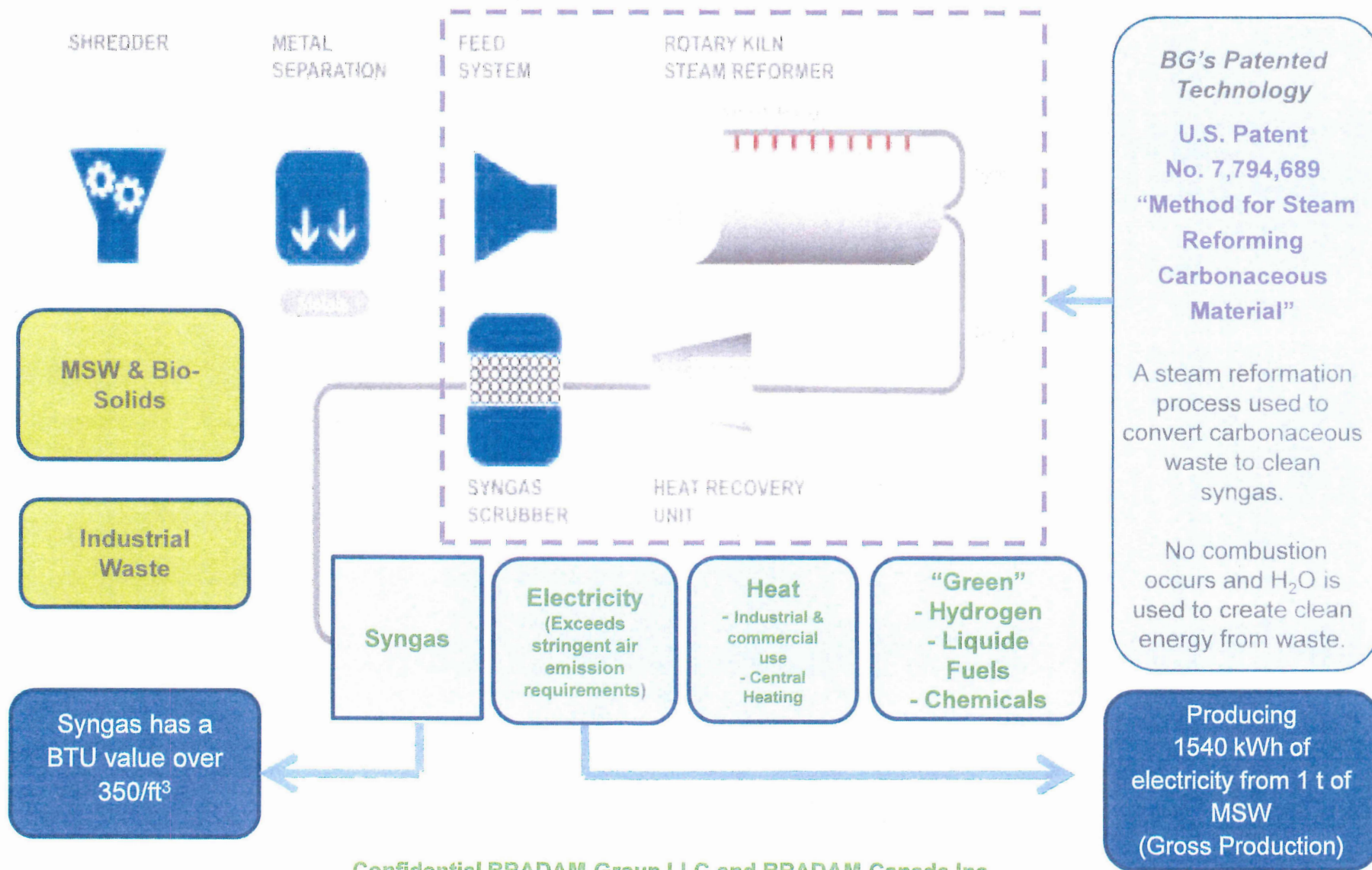
After a cursory review of the City's current Material Recovery Facility (MRF) located on Burlington Street, we believe this would be an ideal location for housing AmaLaTerra Inc.'s proposed Processing protocol. There is more than enough room within the existing rear building to house the equipment, although some modification to the height of the receiving bays may be required. Additionally, there would be significant cost savings (engineering, construction, electrical, etc) by using an existing building versus sourcing land and constructing new.

Rebranding:

As born and bred Hamiltonians, Michael and I share immense pride in our humble Immigrant beginnings. Those beginnings are directly tied to the Steel Manufacturing foundation upon which our great City was built. But a great deal of time, work and planning by City Council, City Staff and Citizens, has gone into making Hamilton an appealing destination for other attributes; like its restaurant and music scenes, along with our beautiful greenspace and waterfalls. Imagine how incredible it would be to add World Leading Smart City with a truly Circular Economy to the list.



Technology Schematic



Exceeding Air Emission Standards

Ontario MOECC A-7 Test performed by:



Global Standards Air Emission Standards



Parameter	Units	Ontario MOECC Guideline A-7 Limits	EU	California	INCINERATION	BRADAM Guideline A-7 Test
particulate matter (PM)	mg/Nm ³	14	9	16	9	0.34
cadmium	µg/Nm ³	7	46	10	7	0.04
lead	µg/Nm ³	60	n/a	140	50	0.63
mercury	µg/Nm ³	20	46	60	15	0.14
dioxins and furans	µg/Nm ³	0.08	0.092	9	0.06	0.002
hydrochloric acid (HCl)	mg/Nm ³	27	9	27	9	0.59
sulphur dioxide (SO ₂)	mg/Nm ³	56	46	56	35	8
nitrogen oxides (NO _x)	mg/Nm ³	198	183	202	121	40*
organic matter	mg/Nm ³	56	9	n/a	33	1.214
Carbon Monoxide	mg/Nm ³	40			40	2.5

*NO_x as tested on Pilot Plant flare using a standard burner was 177. Design information from Caterpillar Gas Turbines using a low NO_x burner confirms that NO_x will be lower than 40 mg/Nm³.

Concluding Comments:

Thank you for taking the time to review our Presentation. Given our understanding of your recycling efforts and challenges, we believe that AmaLaTerra Inc. would make a strong strategic partner for the City of Hamilton. We invite further discussion so that we may learn more about your current program and goals for the future.

At this time we respectfully request that the members of the Public Works Committee refer our Consideration for Change to Waste Management Director, Craig Murdoch, to be concurrently reviewed and considered, along with the other Organizations competing for the MRF Contract, once the RFP is out. At that point, AmaLaTerra will be able to confidentially share our entire vision for Hamilton's Waste Plan, including Projected Costs, Revenues and a complete Business Model.

SUPERIOR TECHNOLOGY SOLUTION

Incineration

- The Most common technology
- Applicable only for generating power and heat
- Significant air emissions
- Low energy conversion efficiency: **600 kWh/t**
- High capital cost

Gasification

- Requires preprocessing of waste feedstocks
- Partial incineration of waste
- Low quality syngas
- Generate noxious oxides
- Low energy conversion efficiency: **1000 kWh/t**

Plasma Gasification

- Operates at very high process temperatures
- Very high parasitic loads leading to high operating costs
- Challenging to operate
- Not efficient tar cleaning
- Produced syngas has low BTU value

Pyrolysis

- Low temperature process ~550°C
- Yields a mixture of syngas, pyrolysis oils and char
- Pyrolysis oil is very acidic and unstable
- Pyrolysis chars are contaminated
- Low energy conversion efficiency

Landfilling

- Most widely used form of waste disposal
- Causes odours and leachate
- methane gas and other emissions
- Challenging environmental and public health
- Growing trend toward elimination

BRADAM

BRADAM

BRADAM

BRADAM

BRADAM

- ✓ Oxygen purged process
- ✓ More efficient cleaning system
- ✓ Produce clean syngas
- ✓ High energy conversion efficiency: **1540 kWh/t**


- ✓ No oxygen used in the process
- ✓ Minimal waste preparation for processing
- ✓ Ratio of H₂/CO > 2, suitable for liquid fuel production

- ✓ Simpler operations at lower temperature
- ✓ Lower parasitic load
- ✓ Lower capital cost
- ✓ Higher heating value of syngas
- ✓ Produces less emission

- ✓ Produces mostly high quality syngas usable for a multitude of applications
- ✓ Operates at higher temperature >800°C
- ✓ Minimizes undesirable products

- ✓ Controls odours and leachate
- ✓ Diverts waste from landfills
- ✓ Prevents harmful pollutants
- ✓ Creates valued clean energy products

Clean Energy: Steam Reformation Technology

 biofuelsdigest.com/bdigest/2016/11/22/clean-energy-steam-reformation-technology/

Jim Lane

By Zoltan Kish, Ph.D., Lee Enterprises Consulting

Special to The Digest

One possible solution for clean energy production is to produce energy products from waste and biomass feedstocks by effective Biomass/Waste-to-Energy technology applications. Typically, the waste is sent to landfills and the energy in waste is essentially lost, creating mountains of trash, and emitting harmful pollutants into our air, water and soil. In a landfill the biodegradable components of waste decompose and emit methane – a greenhouse gas, which is at least 21 times more harmful than carbon dioxide and the cause of significant environmental problems [1].

In addition, landfill fires, earth movements, and groundwater flows contribute to landfill leachate, which eventually leak and contaminate nearby ecosystems. In response to global environmental challenges, there have been requirements towards Waste-to-Energy technologies to produce clean/alternative energy from waste feedstocks (e.g. Municipal Solid Waste (MSW), industrial waste, biomass waste, sewage sludge, plastics used tires, etc.) and biomass.

Both biomass and waste feedstocks contain carbonaceous materials. There are extensive biomass resources, such as forestry residues, energy crops, manufacturing wood waste, olive husks, grasses, livestock and food processing residues. Wood is the most commonly used biomass fuel. The most economic sources of wood for fuel are wood residues from manufacturers, discarded wood products diverted from landfills, and wood debris from construction and demolition activities. Fast-growing energy crops (e.g., short rotation hardwoods) show promise for the future, since they have the potential to be genetically tailored to grow fast, resist drought and be easily harvested.

The primary challenge of clean energy production is the heterogeneous nature of waste and biomass, which creates a widely varying chemical constituency of the energy products generated from these processes. Feedstocks can be converted to higher value products by the physico-chemical (including biochemical) interactions, such as thermo-chemical and/or biological processes, without or with additional reactants (e.g. water, oxygen, air, etc.) [2, 3]. The produced product type depends on the types of feedstocks and reactants, and the applied physico-chemical interaction conditions in the system. The higher value products created from waste can be transformed to various forms of clean energy correspondingly to the application/ market requirements. The steam reformation technology could successfully be used to convert biomass and waste feedstocks into clean energy products.

Steam Reformation

Steam Reformation is a thermo-chemical process and is based on carbonaceous materials reaction with steam without the participation of oxygen or air at elevated temperatures above 700°C. The main product of the reactions is a synthesis gas (syngas) containing mostly hydrogen and carbon monoxide, and a smaller amount of methane, carbon dioxide, water vapour, and other hydrocarbons. Usually, the steam reformation process is used for production of hydrogen from natural gas. Biomass/waste steam reformation is based on reactions of carbonaceous materials content of feedstocks (e.g. biomass, MSW, sewage sludge, plastics) with steam.

The steam reformation technology represents a potential alternative for the traditional waste and biomass treatments to produce higher energy content syngas, which contains no noxious oxides and higher hydrogen

concentration than products produced by gasification [3]. The chemistry is different due to the high concentration of steam as a reactant and the total exclusion of air, and therefore oxygen, from the steam reformation process. The produced pollutants should be removed to produce clean energy products. Contaminates (e.g. tar, acid gases, ammonia, and particulate matter) are easier to remove from the syngas because it is not diluted by excess air or nitrogen and products of combustion.

The steam reformation technology eliminates the formation of dioxins, furans and nitrous and sulfur oxides within the conversion process. Additionally, the steam conversion method significantly reduces the volume of the original waste feedstock converting carbonaceous materials into usable energy products.

Utilizing an indirectly heated kiln, the waste steam reformation technology is a novel and unconventional Waste-to-Energy technology, which allows for robust operation of various heterogeneous feedstocks (e.g. MSW, industrial waste, sewage sludge, biomass, plastic, used tires and medical waste) with high moisture content and significantly reduces the requirements for pre-processing feedstock [4]. The developed unique conversion of carbonaceous materials and a scrubbing/cleaning system produce clean syngas and reduce water and land contamination to protect air, water, and land. The produced syngas has a high hydrogen content syngas – up to 50% by volume, an H₂/CO ratio over 2, and a high heating value, which is typically higher than syngas produced by competitor technologies.

The high quality of the produced syngas and residual waste heat could be used to power combined cycle gas turbines, reciprocating gas engines or fuel cells for the generation of electricity and “green” hydrogen. In addition, because of high hydrogen to carbon monoxide ratio of the syngas, the technology can potentially be coupled with a Gas-to-Liquids technology (e.g. Fischer – Tropsch process) to produce higher value liquid synthetic fuels, such as synthetic diesel, methanol, and “green” chemicals. A combination of the waste (biomass) steam reformation as a Biomass/Waste-to-Gas technology with a Gas-to-Liquids technology could become an economic and environmentally viable method of the clean energy production.

Conclusion

The waste/biomass steam reformation technology has a number of advantages over traditional Waste-to-Energy technologies, including robust operation of various heterogeneous feedstocks, a production of high quality syngas, and reduction of the produced usable gas and residual waste volumes. The steam reformation of waste/biomass is more efficient than other thermo-chemical and bio-chemical technologies. The technology is able to convert both biodegradable and also non-biodegradable carbonaceous waste contents into higher value clean/renewable energy products. Therefore, the steam reforming can potentially be combined with anaerobic digestion to convert non-biodegradable product – digestate into fuels [3].

The Waste-to-Energy technology can be optimized by analysing interactions in material system and modifying physico-chemical interactions, chemical bonds and reactants to produce new products having clean usable energy content. Additionally, the goal is to separate the contaminations from the produced energy products to produce clean energy and segregate the toxic components (e.g. heavy metal compounds) in the smaller volume of the produced solid residue. If contaminants are not above the application specification limits, the main part of produced solid residue can be utilized (e.g. construction aggregate materials).

The physical-chemical interactions of waste and biomass feedstocks with steam, as a reactant, is one of the most promising pathways of energy production as a thermo-chemical conversion of feedstocks into clean and renewable energy. The biomass/waste steam reformation technology can convert various heterogeneous feedstocks and divert waste materials from landfills producing clean energy and significantly reduce environmental impacts versus other waste disposal and waste conversion methods. The steam reformation technology could change waste to a clean energy source, replace a portion of fossil fuels, and provide cost effective and environmentally sound supply of clean energy.

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3. Z. Kish, *Perspectives on Waste-to-Energy Technologies*, Quasar ScienceTech, March 2016, 5p.
4. E. Dueck, Z. Kish, and D. Kirk, *Pure Steam Reforming of Municipal Solid Waste*, The International Solid Waste Association World Congress 2013, Vienna, 7th – 11th October 2013, 9p

About the author

Zoltan Kish has a Ph.D. in Chemistry/Materials Science from the N. S. Kurnakov Institute of General & Inorganic Chemistry, Academy of Sciences in Moscow, Russia. He has over 25 years of diverse industrial and academic experience and has contributed to more than 70 scientific publications. Dr. Kish has been the Director of Research & Development at two major Canadian energy companies, where he focused on Waste-to-Gas & Gas-to-Liquids technologies, gasification of biomass, waste reformation into syngas, unique scrubbing and gas cleaning systems, mass & energy balances, clean energy, catalysts, and gas chemistry for power generation and higher value products, such as hydrogen, synthetic liquid bio-fuels and chemicals. He also contributed to the advanced materials developments for many fields of applications, such as CleanTech, ceramic engine components, materials processing, and electronics. Dr. Kish provides science and technology assessments and technical due-diligence in the fields of Clean Technology & Energy, Materials Science, Chemistry, Environmental Science, Sustainable Products, and Advanced Materials Applications. He works as a consultant for Lee Enterprises Consulting and Principal of Quasar ScienceTech in Canada.

Circular Economy and Waste Conversion

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January 2018

The increasing amount of waste is one of the most demanding problems facing the world, which creates global environmental challenges. Worldwide, 2.12 billion tons of waste are generated annually, and it is expected to rise at the current trend [1]. Most of the trash ends up in landfills emitting harmful pollutants into our air, water, and soil. Therefore, waste reduction in a circular economy is vital for climate change mitigation and sustainable economic growth. The circular economy is not only based on simple recycling and reuse of the produced waste. In a circular economy, waste materials are redesigned or converted into forms retaining as high value as possible. Garbage can be converted into high-value products by mechanical/physical, thermochemical, and biochemical processes. Consequently, a circular economy should include the use of the effective waste conversion technologies based on thermochemical and biochemical processes (e.g., Waste-to-Energy, Waste-to-Gas, and Gas-to-Liquids technologies) to produce usable products. However, a circular economy should not be limited to recycling and conventional technologies, such as incineration and anaerobic digestion.



Many waste products as contaminated plastic, paper, diapers, medical waste, waste biomass, anaerobic digestion and industrial byproducts are very difficult to recycle.

Incineration is a wasteful use of resources – providing low energy conversion efficiency. In addition to thermal energy, products of the incineration process include bottom ash, fly ash, and flue gas, in which a number of regulated pollutants (e.g., mercury, lead, cadmium, etc.) are found. The produced flue gas significantly diluted and increased in volume by the nitrogen content of the excess air use. Combustion of waste is a significant source of furans and dioxins, which are highly

toxic and carcinogenic pollutants. Also, the typical gaseous pollutants in the flue gas are carbon dioxide, nitrogen oxides, sulfur oxides [2].

On the other hand, anaerobic digestion has a limit in the waste conversion. It is only suitable for the treatment of the biodegradable organic portion of waste feedstock. Non-biodegradable material – digestate remains after processing waste by anaerobic digestion. The produced digestate can be contaminated with toxic heavy metal compounds from municipal solid waste (MSW) and sewage sludge. Therefore, the by-products of the anaerobic digestion often cannot be reused without environmental contamination. The produced biogas and landfill gas are contaminated by sulfur gases (e.g., hydrogen sulfide, methyl mercaptan), siloxanes, halogenated hydrocarbons, and ammonia, which can be sources of air pollution after burning [2].

The circular economy can be based on emerging waste conversion technologies, such as steam reformation, gasification, pyrolysis, and other [2, 3]. An appropriate Waste-to-Energy technology can convert both biodegradable and also non-biodegradable carbonaceous waste contents into the higher value of clean/renewable energy products, recover materials for reuse, and divert waste from landfills to prevent contamination of air, water, and land. Higher value liquid synthetic fuels can be produced from waste materials by a combination of a Waste-to-Gas technology with a Gas-to-Liquids technology. The waste feedstock can be a cost-effective and environmentally sound supply of clean energy source and replace a portion of fossil fuels. Potentially, garbage can be transformed into various forms of clean and sustainable products, such as electricity, hydrogen, liquid synthetic fuels, “green” chemicals, and food-based products. The produced product composition depends on the type of waste feedstocks and reactants, and the applied processing conditions [2, 4]. The used waste conversion technologies should be efficient and combined with a reliable scrubbing/cleaning system to remove contaminants in order to generate clean/ renewable energy and other sustainable products, and prevent pollution of the surrounding environment. In a circular economy, effective waste conversion technology applications can play a key role to find a solution for waste disposal, clean energy and sustainable product regeneration.

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3. Z. Kish, Clean Energy: Steam Reformation Technology, Lee Enterprises Consulting, June 2016, 3p (<http://www.biofuelsdigest.com/bdigest/2016/06/22/clean-energy-steam-reformation-technology/>)
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About the Author

Dr. Zoltan Kish has a Ph.D. in Chemistry with over 25 years of diverse industrial and academic experience and contributed to more than 70 scientific publications. He has developed and managed complex research and development programs related to alternative/renewable energy, clean technologies, GHG, sustainability, and advanced materials applications, such as solar energy technology, ceramic engine & cutting tool components, materials processing, and electronics. Dr. Kish was the Director of Research & Development at two major Canadian alternative energy companies where he focused on R&D and commercialization of unique Waste-to-Energy technologies and reliable scrubbing/ cleaning systems to produce clean and sustainable energy products. In response to global environmental challenges and the need for scientific evaluations of new technologies and advanced materials applications, he has established a consulting company - Quasar ScienceTech (www.quasarsciencetech.com) to provide multidisciplinary science and technology consulting in the areas of Natural & Applied Sciences, Clean Technologies & Energy, Waste Conversion, Technical Due Diligence, Climate Change Mitigation, Circular Economy, Sustainability, Innovation, and Advanced Materials Applications.

Waste Accumulation Problems and Opportunities

Zoltan Kish, *Ph.D.*
Ouasar ScienceTech

September 2018

An incredible amount of waste is produced in Canada and around the world. We are killing our planet by dumping 2.12 billion tons of garbage every year and polluting the oceans, land, and air [1]. Consequently, we need sustainable and effective waste management to protect our environment and save our world. It is particularly important now after China banned foreign waste acceptance, and more garbage ends up in landfills and water resources creating enormous environmental problems.



In 2016, the Ontario government released its [Strategy for a Waste-Free Ontario](#) [2], diverting our wasteful ways towards an entirely circular economy, but it doesn't seem to be widely discussed. This strategy requires appropriate tools and an innovative approach to solving the tremendous waste accumulation problem. Particularly, after China stopped the import of foreign waste, the waste recycling facilities around the world cannot send recycled waste to China anymore, and municipalities are facing pileups of garbage, substantial extra costs and the risk of losing millions in revenue. The following websites reflect this problem in Canada and globally:

- https://www.washingtonpost.com/news/energy-environment/wp/2018/06/20/a-giant-wave-of-plastic-garbage-could-flood-the-u-s-in-10-years-a-study-says/?noredirect=on&utm_term=.d8f30513a28f
- <https://www.theglobeandmail.com/news/national/chinese-ban-on-foreign-recyclables-leaving-some-canadian-cities-in-the-lurch/article37536117/>
- <https://www.thespec.com/news-story/8048791-chinese-ban-dumps-on-city-s-recycling-parade/>
- <https://www.canadafibersltd.com/on-point-canada-fibers/#more-1812>
- <https://www.express.co.uk/news/uk/980704/eu-plastic-recycling-makes-pollution-worse>
- <https://www.politico.eu/article/europe-recycling-china-trash-ban-forces-europe-to-confront-its-waste-problem/>

Under the new circumstance, some municipal governments could get out of the recycling business altogether, and the recycled waste will end up in the landfills while the energy in waste is mostly lost, creating mountains of trash, emitting harmful pollutants into our air, water, and soil. In landfills, the

biodegradable components of garbage decompose and emit greenhouse gases (e.g., methane, carbon dioxide, hydrogen sulfide, ammonia), which increase global warming. Also, the toxic content of the waste contributes to landfill leachate, which eventually leaks and contaminates nearby ecosystems.

Until January 2018, the world applied a short-sighted and self-serving strategy to deal with the waste: sending waste to China and other East Asian countries and dispose of waste into landfills and the oceans. As it was written in the Bloomberg article, “Without bold new ideas and management strategies, current recycling rates will no longer be met, and ambitious goals and timelines for future recycling growth will be insurmountable” [3].

We need more effective and sustainable ways to manage the produced waste. The government could address the demand to solve the incredible waste accumulation by developing appropriate tools for the waste management challenges. One man’s trash can be another man’s treasure. For example, depending on the waste plastic composition and level of contaminations, the plastic feedstock could be effectively converted into high-value products through pyrolysis and waste steam gasification technologies. If the plastic feedstock is clean and has an appropriate composition, pyrolysis can be applied to depolymerize plastic and convert it mostly into liquid fuel. The steam gasification reformation technology is more suitable for contaminated plastic waste conversion into high energy value syngas and hydrogen. Additionally, syngas can be converted into liquid fuels and green chemicals using Gas-to Liquid catalytic process.

The advanced and effective Waste-to-Energy technology applications in combination with a reliable scrubbing/cleaning system can provide a solution for biodegradable and non-biodegradable waste disposal, clean energy production, and sustainable product regeneration. The waste, potentially, can be converted into various forms of clean energy products, such as electricity, hydrogen, liquid synthetic fuels, and “green” chemicals. Trash can be a cost-effective and environmentally sound supply of clean energy source and replace a portion of fossil fuels. High quality liquid synthetic fuels without sulfur contamination can be produced from waste materials by a combination of a Waste-to-Gas technology with a Gas-to-Liquids technology based on the Fischer–Tropsch catalytic process. Perspectives on different Waste-to-Energy technologies have been presented in the following articles [4, 5, 6].

Regrettably, incineration has been often considered as a Waste-to-Energy technology to process waste for an astonishing price and producing relatively low power. For example, a new incinerator has been built for a very high price - £1.4 billion in York and North Yorkshire in the UK. The incinerator will divert more than 230,000 tonnes of household waste but will produce only 24 MW of power [7].

Another example of an enormous and overpriced incineration facility is being built in Hong Kong. The project will cost \$4 billion by processing 3000 tonnes/day (1,050,000 tonnes/year) and produce just 489 million kWh/year of energy, which is equivalent to 57 MW of power [8]. Incineration is a very costly and inefficient way for waste conversion into electricity and generating highly toxic and carcinogenic pollutants.

In a circular economy advanced emerging waste conversion technologies (e.g., Waste-to-Energy, Waste-to-Gas, and Gas-to-Liquids technologies) can play a pivotal role in waste disposal. Efficient waste conversion technology applications can be a path to a working circular economy. Recycling is not only based on simple reusing the waste products. The purpose of recycling is to redesign and convert waste into forms retaining as high value as possible in a circular economy. Contaminated waste products are challenging to recycle and reuse. Garbage can be converted into high-value products through mechanical/physical, thermochemical, and biochemical processes. The waste can be transformed into various forms of sustainable and clean energy products utilizing effective waste conversion technologies in the circular economy [9].

Regrettably, the underlying scientific/technical basis of the business is often neglected. As a result of this, enormous and overpriced Waste-to-Energy facilities were built producing very little energy from waste. Investors (e.g., in CleanTech sectors) often make an investment decision based on shallow scientific claims, optimistic financial and psychological factors as a consequence of that the basic science of the technology is not adequately evaluated. In addition to financial data and management of the company, the underlying scientific/technology base of the business should be considered. Science is supposed to be an essential pillar of a successful and sustainable business. The success of waste conversion technology applications depend on the following main factors:

- The underlying scientific/technical basis of the waste conversion process
- Adequate preparation of the waste feedstock
- Implementation of effective cleaning/scrubbing system to remove contaminants, especially, tars
- Adequate processing and mass & energy balance modeling
- Financial data based on mass & energy balance
- Local waste availability
- Waste energy conversion efficiency
- Quantity and quality of the produced products
- Applications of the products
- Cost-effectiveness of the project

The increasing amount of waste is one of the most challenging problems facing the world, which creates global environmental challenges. Contaminated waste products (e.g., plastic, paper, diapers, medical waste, waste biomass, and industrial byproducts) are challenging to recycle and reuse in the traditional way. Therefore, we have an urgent requirement to deal with the tremendous waste accumulation. At the same time, we have a tremendous business opportunity to convert waste into usable sustainable products. The circular economy can be based on efficient waste conversion technologies, such as traditional gasification, steam gasification, pyrolysis, and anaerobic digestion. Typically, the steam gasification reformation of waste is more efficient and cost-effective than other thermo-chemical and bio-chemical technologies and able to convert both biodegradable and non-biodegradable carbonaceous waste contents into higher value clean/renewable energy products. It is essential that sustainable waste management become an integral part of urban development. With the right approach, we could have a comprehensive and cost-effective solution for waste disposal, clean energy production, and sustainable product regeneration as a combination of biodegradable and non-biodegradable waste processing.

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About the Author

Dr. Zoltan Kish has a Ph.D. in Chemistry with over 25 years of diverse industrial and academic experience and contributed to more than 70 scientific publications. He has developed and managed complex research and development programs related to alternative/renewable energy, clean technologies, GHG, sustainability, and advanced materials applications, such as solar energy technology, ceramic engine & cutting tool components, materials processing, and electronics. Dr. Kish was the Director of Research & Development at two Canadian alternative energy companies where he focused on R&D and commercialization of unique Waste-to-Energy technologies and reliable scrubbing/ cleaning systems to produce clean and sustainable energy products. In response to global environmental challenges and the need for scientific evaluations of new technologies and advanced materials applications, he has established a consulting company - Quasar ScienceTech (www.quasarsciencetech.com) to provide multidisciplinary science and technology consulting in the areas of Natural & Applied Sciences, Clean Technologies & Energy, Waste Conversion, Technical Due Diligence, Climate Change Mitigation, Circular Economy, Sustainability, Innovation, and Advanced Materials Applications.

Perspectives on Waste-to-Energy Technologies

Zoltan Kish, *Ph.D.*
Quasar ScienceTech

March 2016

Introduction

Reducing the emission of carbon dioxide and other greenhouse gases is one of the greatest environmental challenges of our time. Growing population, increased urbanization rates and economic growth could lead to a doubling in the volume of municipal solid waste (MSW) created annually by 2025, according to new research conducted by the World Watch Institute [1]. The doubling of waste would bring the volume of MSW from today's 1.3 billion tonnes per year to 2.6 billion tonnes, challenging environmental and public health management in municipalities worldwide. Typically, the waste is sent to landfills and the energy in waste is essentially lost, creating mountains of trash, emitting harmful pollutants into our air, water and soil. In a landfill the biodegradable components of waste decompose and emit methane, which is a greenhouse gas and 21 times more harmful than carbon dioxide. In addition, landfill fires, earth movements, and groundwater flows contribute to landfill leachate, which eventually leaks and contaminate nearby ecosystems. In response to global environmental challenges, there has been a requirement towards Waste-to-Energy technologies to produce alternative/ clean energy from waste feedstocks, such as MSW, industrial waste, biomass waste, sewage sludge, used tires, etc. The primary challenge of these technologies is the heterogeneous nature of MSW, which creates a widely varying chemical constituency of the energy products generated from these processes. A solution for waste disposal and clean energy production is an effective Waste-to-Energy technology application. The global market of Waste-to-Energy has significantly increased. Waste feedstock can be converted to higher value products by the physico-chemical (including biochemical) interactions, such as thermo-chemical and/or biological processes without or with additional reactants (e.g., water, oxygen, air, etc.). The produced product type depends on the types of feedstock and reactants, and the applied physico-chemical interaction conditions in the system [2]. The higher value products created from waste can be transformed into various forms of clean energy correspondingly to the application/ market requirements.

Waste-to-Energy technologies

The Waste-to-Energy technologies can be classified in the following major types.

Conventional

- *Incineration*
- *Gasification & Plasma Enhanced Gasification*
- *Pyrolysis*
- *Anaerobic Digestion*

Unconventional

- *Steam Reformation*

Incineration

The most common technology for treating waste is incineration, which is a thermo-chemical process wherein the combustible components of a solid waste stream are oxidized to produce heat energy, which can be used to create steam to generate electrical power using a steam turbine, for industrial processes, or for district heating. Incineration is the combustion of waste using an excess of oxygen (air) to ensure complete combustion at temperature above 850°C. Therefore, the products (flue gas) of the waste combustion are significantly diluted and increased in volume by the nitrogen content of the excess air use. In addition to thermal energy, products of the incineration process include bottom ash, fly ash, and flue gas, in which are found a number of regulated pollutants (e.g., mercury, lead, cadmium, etc.). The common gaseous pollutants in the flue gas are carbon dioxide, nitrogen oxides, sulfur oxides. Combustion of waste is a major source of furans and dioxins, which are highly toxic and carcinogenic pollutants. Incineration can be identified as a baseline competitor technology. However, incineration is a wasteful use of resources – providing low energy conversion efficiency.

Gasification and Plasma Enhanced Gasification

Gasification and Plasma Enhanced Gasification are thermo-chemical processes and are based on partial oxidation of the waste to convert carbonaceous materials into syngas (synthesis gas). Usually, the gasification is performed at temperature above 700°C. Pure oxygen has limited use for the partial oxidation processes as a result of high costs. Hydrogen and carbon monoxide are predominating gas products in the syngas, along with water vapor, methane, carbon dioxide, nitrogen (if air is used), and other hydrocarbons. As a result of the oxidation/ incineration component of the gasification systems that use oxidation, they will generate noxious oxides (e.g. nitrogen oxides, sulfur oxides). In addition, produced syngas is contaminated by tar, acid gases, ammonia, and particulate matter. Plasma arc gasification is a waste treatment technology that uses an electric arc to produce high temperatures (up to 7000°C) within the reactor to convert carbonaceous materials into syngas and melt the residual inorganic materials. Plasma is the fourth state of matter containing ionized gases. The content and consistency of the waste have a direct impact on performance of the plasma enhanced gasification. The tar cleaning is not efficient as a result of the inconsistency of the heat distribution produced by the plasma arc. Large amounts of inorganic materials such as poorly sorted construction waste, metals, and glass, result in increased slag production and decreased syngas production. The heat energy that is required to melt these materials is lost since the molten slag does not contribute to syngas production. The use of the plasma arc significantly increases parasitic electricity consumption and operating and capital costs of the gasification process. In addition, gasification of waste typically requires extensive and expensive waste feedstock pre-treatment and the produced syngas will be significantly diluted by the oxidation process which includes the nitrogen content of air. Therefore, the heating value of syngas produced from the partial oxidation gasification process is significantly reduced. The lower quality syngas fuel generated from partial oxidation gasification can be run in reciprocating engines, but generally cannot be used as a fuel for cleaner burning and more efficient gas turbines, due to its relatively low heating value.

Pyrolysis

Another competing Waste-to-Energy technology is pyrolysis. Pyrolysis is a thermo-chemical conversion of waste feedstock without the participation of oxygen or air at elevated temperatures (400°C – 600°C). The main products of the pyrolysis process are char, pyrolysis oil and a mixture of gases. The products are produced in different ratios depending on the reaction types, residence time, temperature, feedstock composition and size. The pyrolysis processes can be classified as slow and fast pyrolysis. The residence time for the slow pyrolysis is in the range of hours and the product yield is approximately 35% of char, 30% of pyrolysis oil, and 35% of syngas. The fast pyrolysis process is performed during very short time (~1 second) and the main product is pyrolytic oil; the product produced ratio is in the range of 12% of char, 75% of oil and 13% of gas. The slow pyrolysis is suitable for charcoal production from biomass. However, the use of the pyrolysis oil is problematic because the produced oil is very acidic, unstable, and contains significant amount of water. For electricity generation, pyrolysis systems typically cannot cool or clean the syngas before burning these mixed products (which then must include both particulate and volatilized contaminants) in a steam boiler combustion unit; otherwise they will lose the energy benefit of the condensable oils and tars. The end result is then not a lot different from simply burning contaminated wastes as during incineration. The energy recovery is then very analogous to incineration, i.e. low energy efficiency plus the additional challenge of developing a cleaning plant which must be very similar to that for incineration, in order to meet environmental emission limits.

Anaerobic Digestion

Anaerobic Digestion is a biochemical conversion of the biodegradable organic portion of waste feedstock in the absence of oxygen into biogas and remaining non-biodegradable material - digestate. Biogas comprises mainly of methane and carbon dioxide and trace amount of hydrogen, sulfur gases (e.g. hydrogen sulfide, methyl mercaptan), siloxanes, halogenated hydrocarbons, and ammonia. Usually the mixed gas is saturated with water vapour and may contain dust particles. Digestate consists of a mix of microbial biomass and undigested material (e.g. lignin, cellulose), which contains organic matter and essential plant nutrients required for plant growth. However, digestate (especially, from sewage sludge and MSW) may also contain contaminants such as heavy metals, industrial chemicals, pharmaceuticals, nano-particles, infectious pathogens, etc. The produced product content is depending on the effectiveness of the treatment process and the contamination levels of the feedstock. Depending on the operational temperature level, anaerobic digestion processes can be classified into three main types: psychrophilic (15°C - 25°C), mesophilic (30°C - 40°C), and thermophilic (50°C - 60°C). The anaerobic process is slow in comparison with thermo-chemical processes, as a result of low temperature operation. It takes many days to convert the biodegradable content of waste feedstock into biogas. The anaerobic digestion technology is best suited to the treatment of wet organic feedstocks, such as high moisture agricultural biomass, food waste, and animal wastes including manure, domestic sewage, and biodegradable components of MSW. The biogas can be used as a source of renewable energy, as a fuel in combined heat and power gas engines. During combustion, siloxanes are converted to silicon dioxide, which is a solid compound and will remain in the engine and cause considerable damage. The produced digestate can be used as a fertilizer if contaminants are not above the application specification limits. Land application of biologically treated waste is regulated in most countries to protect human health, the environment and soil functionality from detrimental impacts associated with potential contaminants.

Steam Reformation

Steam Reformation is a thermo-chemical process and is based on carbonaceous materials reaction with steam without the participation of oxygen or air at elevated temperatures above 700°C. The waste steam reformation is the waste feedstock gasification. The main product of the reactions is a syngas containing mostly hydrogen and carbon monoxide, and a smaller amount of methane, carbon dioxide, water vapour, and other hydrocarbons. Usually, the steam reformation process is used for production of hydrogen from natural gas. The steam reformation technology represents a potential alternative for the traditional waste treatments to produce higher heating content syngas, which contains no noxious oxides and higher hydrogen concentration than products produced by gasification. The chemistry is different due to the high concentration of steam as a reactant and the total exclusion of air and, therefore, oxygen from the steam reformation process. Contaminates (e.g., tar, acid gases, ammonia, and particulate matter) are easier to remove from the syngas because it is not diluted by excess air or nitrogen and products of combustion. Utilizing an indirectly heated kiln, the waste steam reformation technology is a novel and unconventional Waste-to-Energy technology, which allows for robust operation of various heterogeneous feedstocks (e.g., MSW, industrial waste, sewage sludge, waste biomass, used tires and medical waste) with high moisture content and significantly reduces the requirements for pre-processing feedstock [3]. The high quality of the produced syngas and residual waste heat can be used to power combined cycle gas turbines, reciprocating gas engines or potentially fuel cells for the generation of electricity and “green” hydrogen. In addition, because of high hydrogen to carbon monoxide ratio of the syngas, the technology can be coupled with a Gas-to-Liquids technology (e.g., Fischer - Tropsch process) to produce higher value liquid synthetic fuels, such as synthetic diesel, methanol, and “green” chemicals. A combination of the Waste Steam reformation as a Waste-to-Gas technology with a Gas-to-Liquids technology can, potentially, become an economic and environmentally viable method of the clean energy production.

Conclusion

The Waste-to-Energy technologies produce pollutants and, therefore, appropriate and effective scrubbing/cleaning systems should be applied to remove contaminants from the usable fuel products in order to produce clean renewable energy and protect land, water and air. Depending on the applied processes and processed waste feedstocks, in addition to inorganic materials, the produced solid residue may contain carbonaceous materials (e.g., carbon, tar, digestate). Despite that, all conversion methods, especially, thermo-chemical processes significantly reduce the volume of the original waste feedstock converting carbonaceous materials into usable energy products. The steam gasification reformation technology eliminates the formation of dioxins, furans and nitrous and sulfur oxides within the conversion process. In addition, the waste steam reformation technology has a number of advantages over traditional Waste-to-Energy technologies, including a significant increase of the produced syngas quality, and reduction of the process gas and residual waste volumes. The steam reformation of waste is more efficient than other thermo-chemical and bio-chemical technologies and able to convert both biodegradable and also non-biodegradable carbonaceous waste contents into higher value clean/renewable energy products. Therefore, the steam reforming can be combined with anaerobic digestion to convert digestate into fuels. The Waste-to-Energy

technologies can be optimized by analyzing interactions in material systems and modifying physico-chemical (including biochemical) interactions, chemical bonds and reactants to produce new products having clean usable energy content. The goal is to separate the contaminations from the produced energy products to produce clean energy and segregate the toxic components (e.g., heavy metal compounds) in the smaller volume of the produced solid residue. If contaminants are not above the application specification limits, the main part of produced solid residue can be utilized. For examples, the residual inorganic materials can potentially be used as a construction aggregate material and digestate can be used as a fertilizer. The physical-chemical interactions of waste feedstock with steam as a reactant is one of the most promising pathways of energy production as a thermo-chemical conversion of waste feedstock into clean and renewable energy. The waste steam reformation technology can convert various heterogeneous feedstocks and divert waste materials from landfills producing clean energy and significantly reduce environmental impacts versus other waste disposal and waste conversion methods.

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Martin White, Extension 4345
PW19001

INTERSECTION CONTROL LIST
Public Works Committee – February 22nd, 2019
PUBLIC WORKS DEPARTMENT
Roads and Traffic
Traffic Operations & Engineering Section

RECOMMENDATION

That the appropriate By-law be presented to Council to provide traffic control as follows:

Intersection		Stop Control Direction		Class	Comments / Petition	Ward	
Street 1	Street 2	Existing	Requested				
Section "A" Ancaster							
(a)	Amberly Boulevard	Concerto Court	SB	All	A	Converting to all-way stop – Cllr approved	12
Section "D" Glanbrook							
(b)	Pinehill Drive	Hyslop Avenue	NB	EB/WB	B	Converting to all-way stop – Cllr approved	9
Section "E" Hamilton							
(c)	Murray Street	Catharine Street	NB/SB	ALL	A	Converting to all-way stop – Cllr approved	2
(d)	MacNab Street	Vine Street	EB/WB	ALL	A	Converting to all-way stop – Cllr approved	2
(e)	Dunsmure Road	Belview Avenue	EB/WB	ALL	A	Converting to all-way stop – Cllr approved	3
(f)	Hudson Court	Columbia Drive	NC	SB	A	Housekeeping – missing t-type stop sign	8
Section "F" Stoney Creek							
(g)	Sunvale Place	Waterford Crescent	NB/SB	ALL	A	Converting to all-way stop – Cllr approved	10

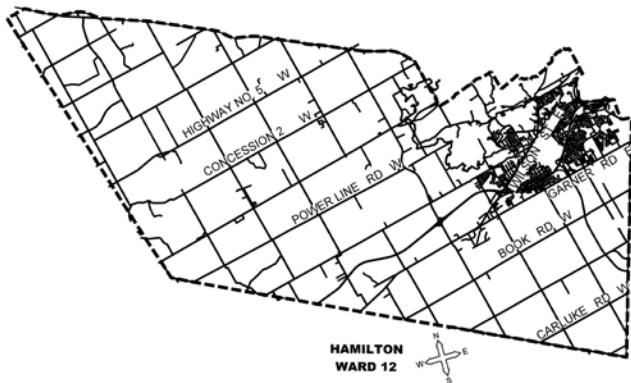
Legend

No Control Existing (New Subdivision) - **NC**

Intersection Class: **A** - Local/Local **B** - Local/Collector **C** - Collector/Collector



KEY MAP



LOCATION PLAN

PROPOSED STOP CONTROL:

Amberly Boulevard at Concerto Court

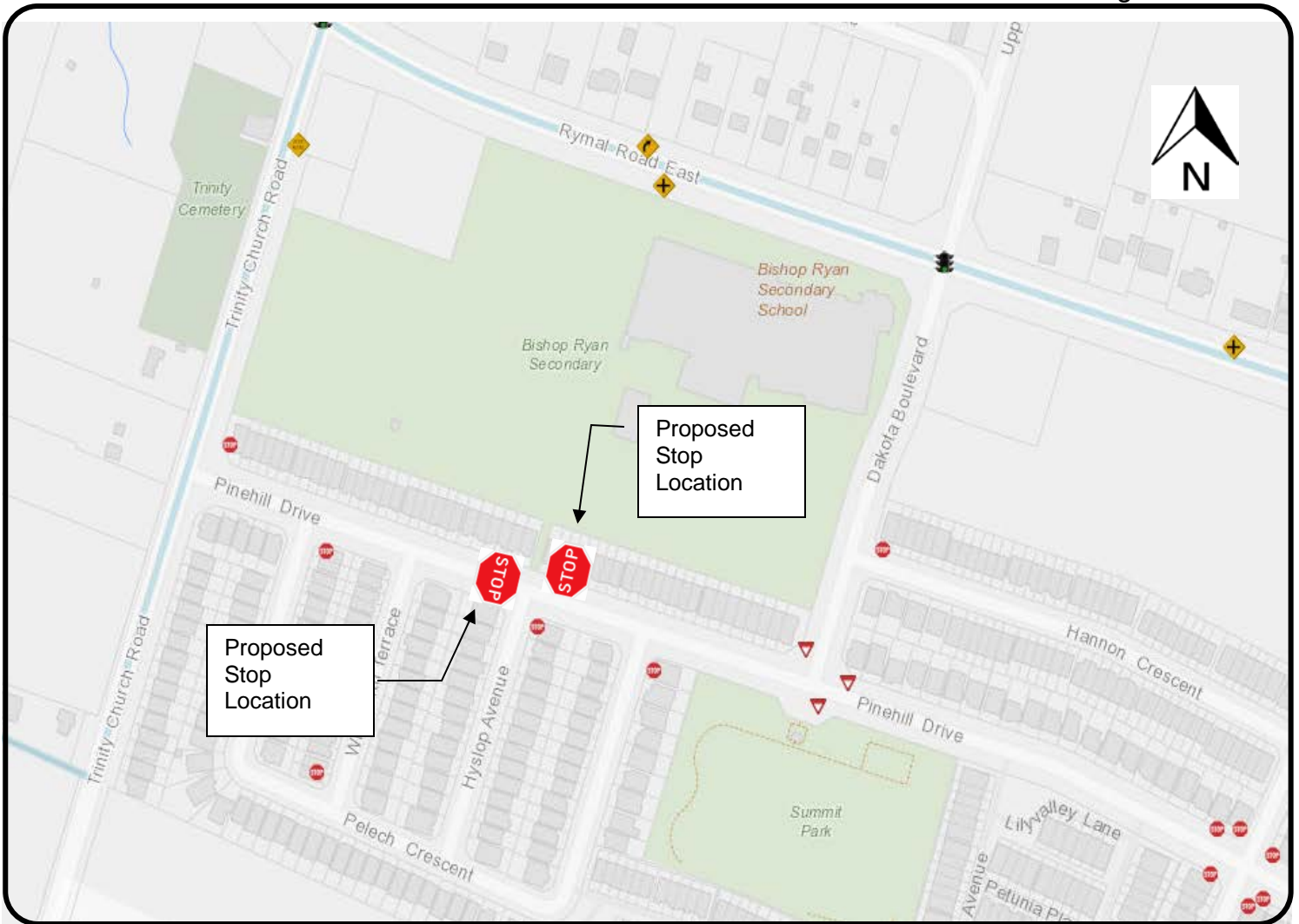
Roads and Traffic
PUBLIC WORKS DEPARTMENT

LEGEND

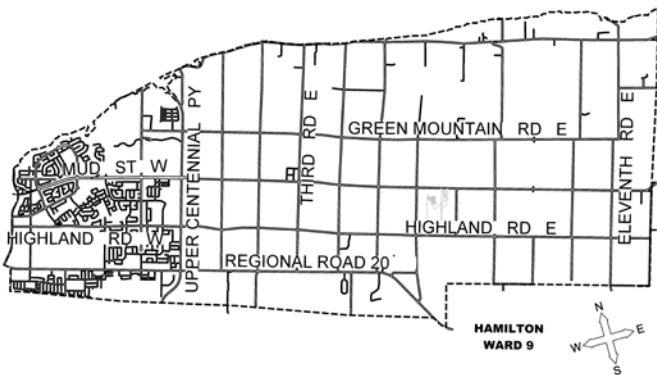
- EXISTING STOP
- PROPOSED STOP

SCALE
NOT TO SCALE

DATE
February 22, 2019



KEY MAP



LOCATION PLAN

PROPOSED STOP CONTROL:

Pinehill Drive at Hyslop Avenue

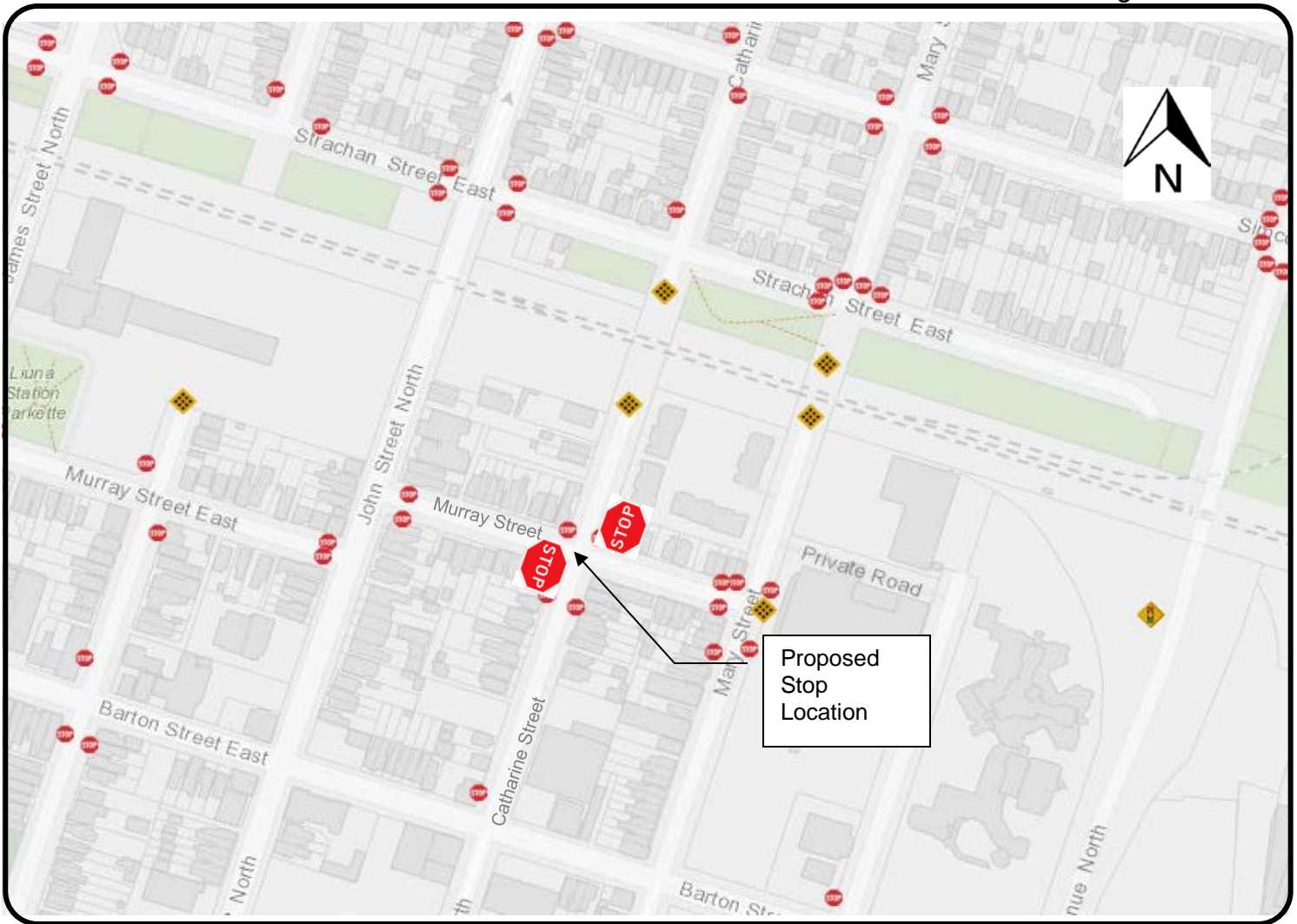
Roads and Traffic
PUBLIC WORKS DEPARTMENT

LEGEND

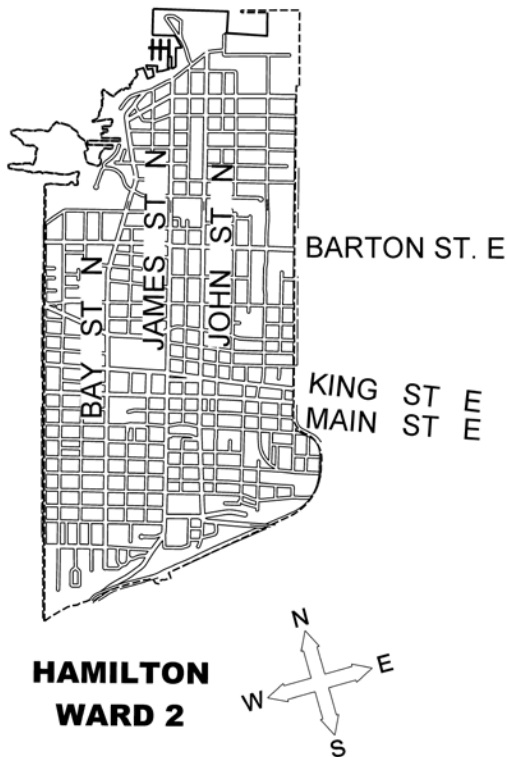
- EXISTING STOP
- ⬮ PROPOSED STOP

SCALE
NOT TO SCALE

DATE
Feb. 22, 2019



KEY MAP



**HAMILTON
WARD 2**

LOCATION PLAN

PROPOSED STOP CONTROL:

Murray Street at Catharine Street

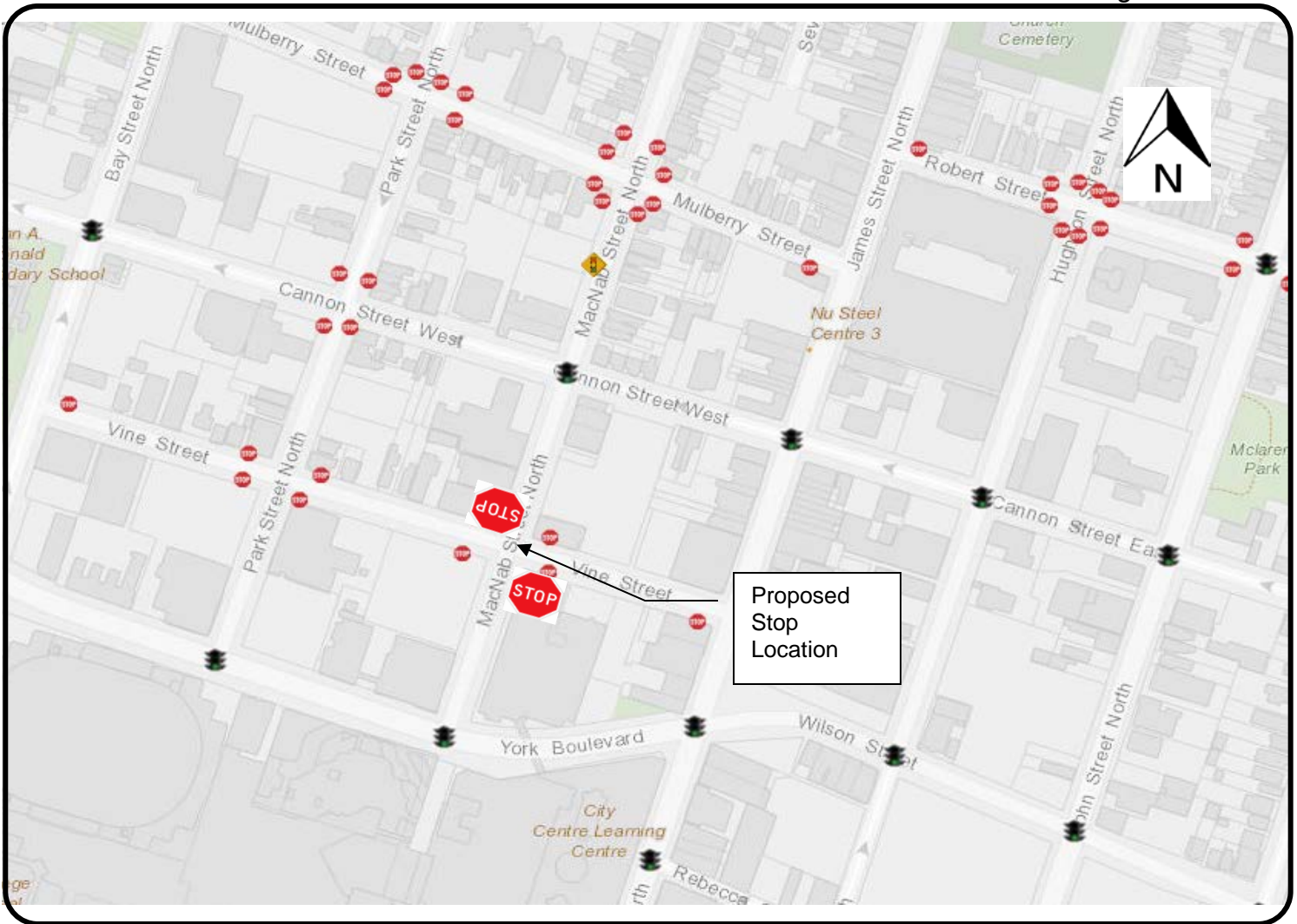
Roads and Traffic
PUBLIC WORKS DEPARTMENT

LEGEND

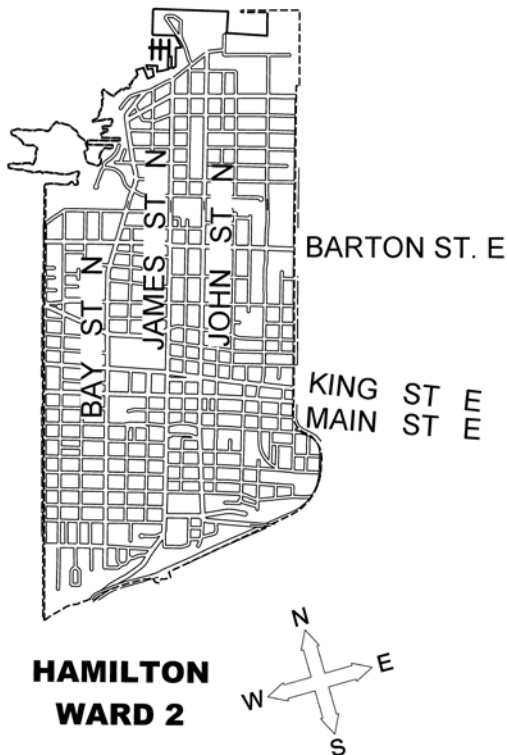
- EXISTING STOP
- PROPOSED STOP

SCALE
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DATE
February 22, 2019



KEY MAP



**HAMILTON
WARD 2**

LOCATION PLAN

PROPOSED STOP CONTROL:

MacNab Street at Vine Street

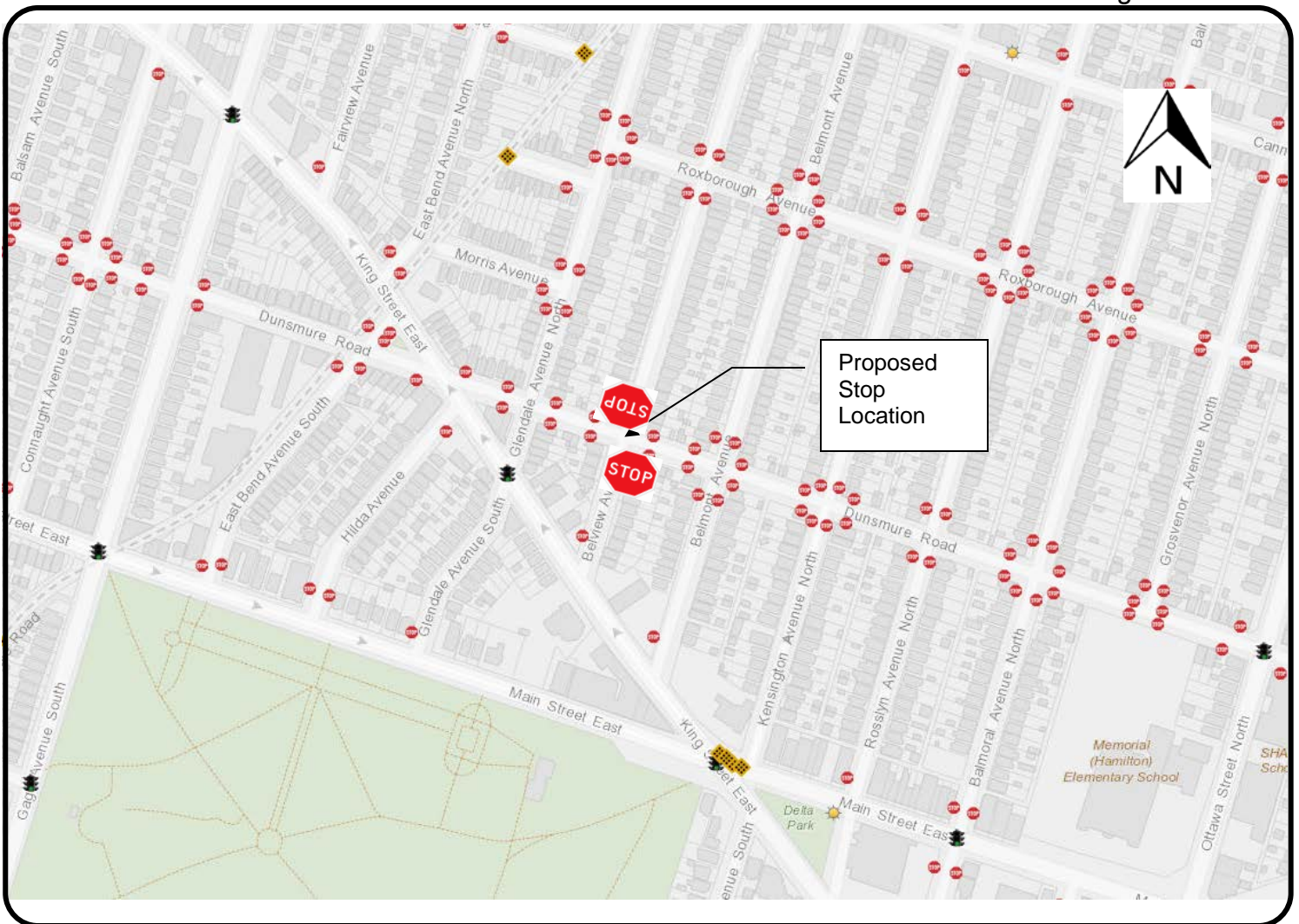
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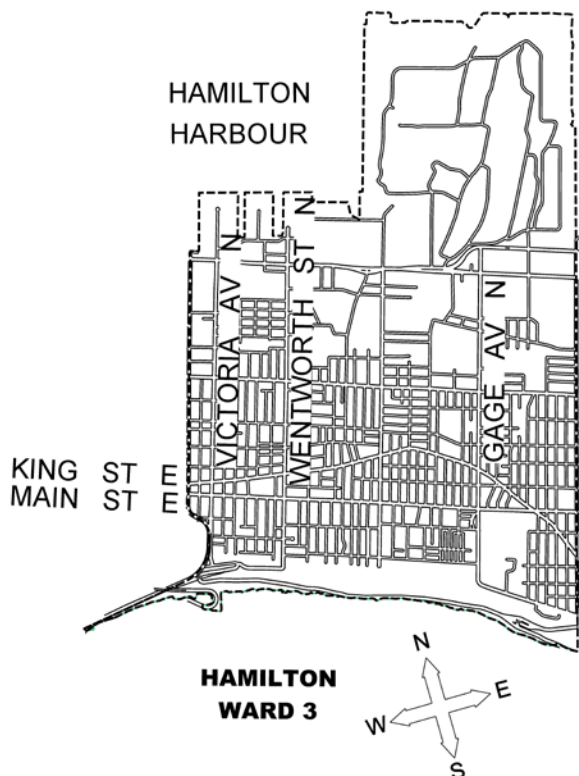
- EXISTING STOP
- PROPOSED STOP

SCALE
NOT TO SCALE

DATE
February 22, 2019



KEY MAP



LOCATION PLAN

PROPOSED STOP CONTROL:

Dunsmure Road at Belview Avenue

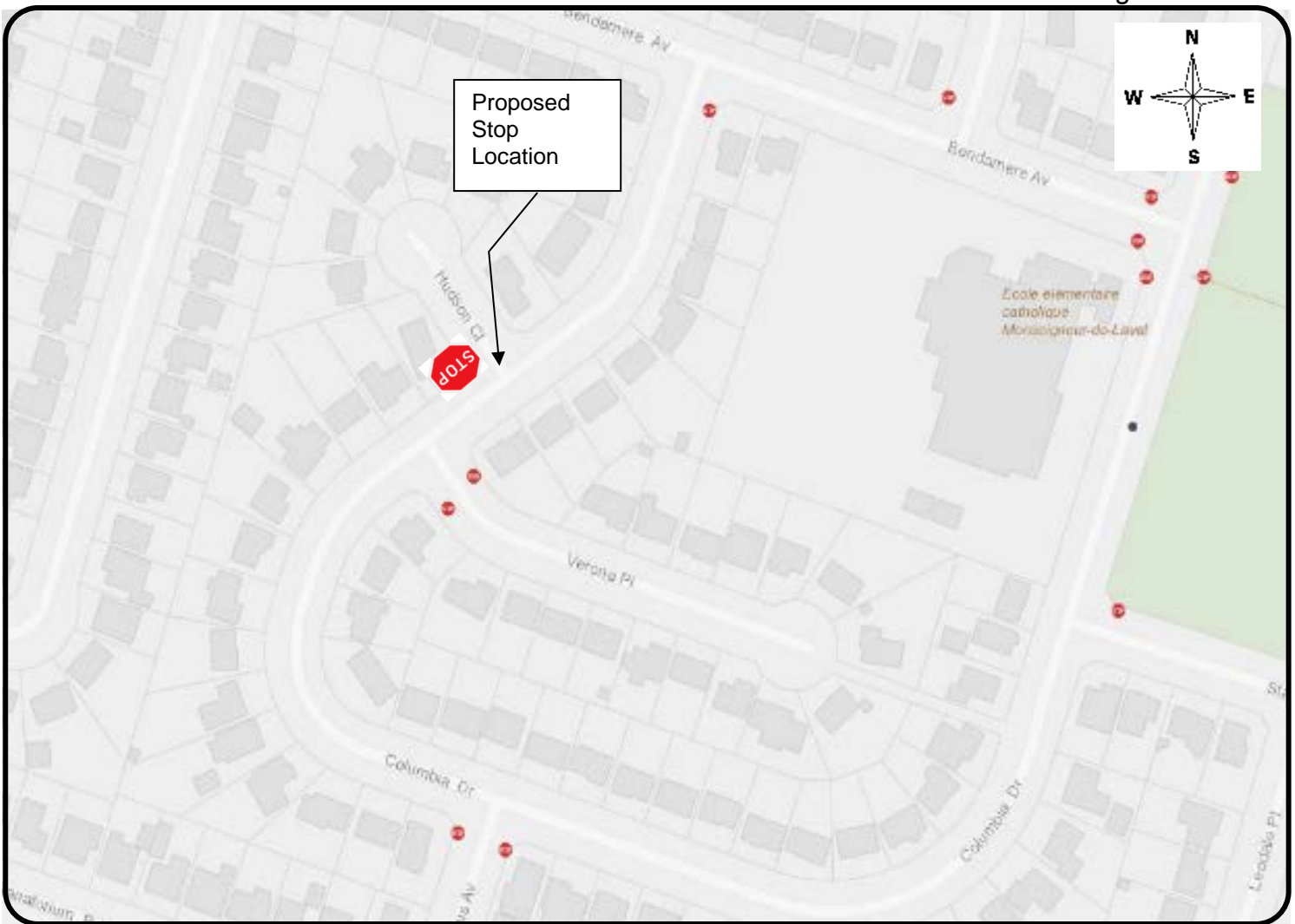
Roads and Traffic
PUBLIC WORKS DEPARTMENT

LEGEND

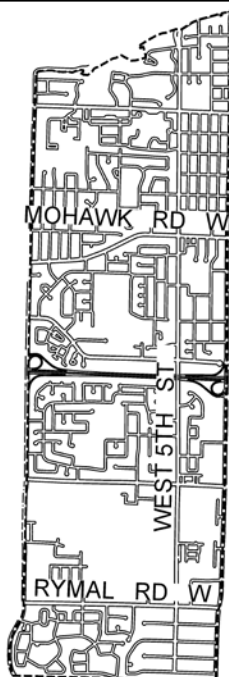
- EXISTING STOP
- PROPOSED STOP

SCALE
NOT TO SCALE

DATE
February 22, 2019



KEY MAP



HAMILTON
WARD 8




LOCATION PLAN

PROPOSED STOP CONTROL:

Hudson Court at Columbia Drive

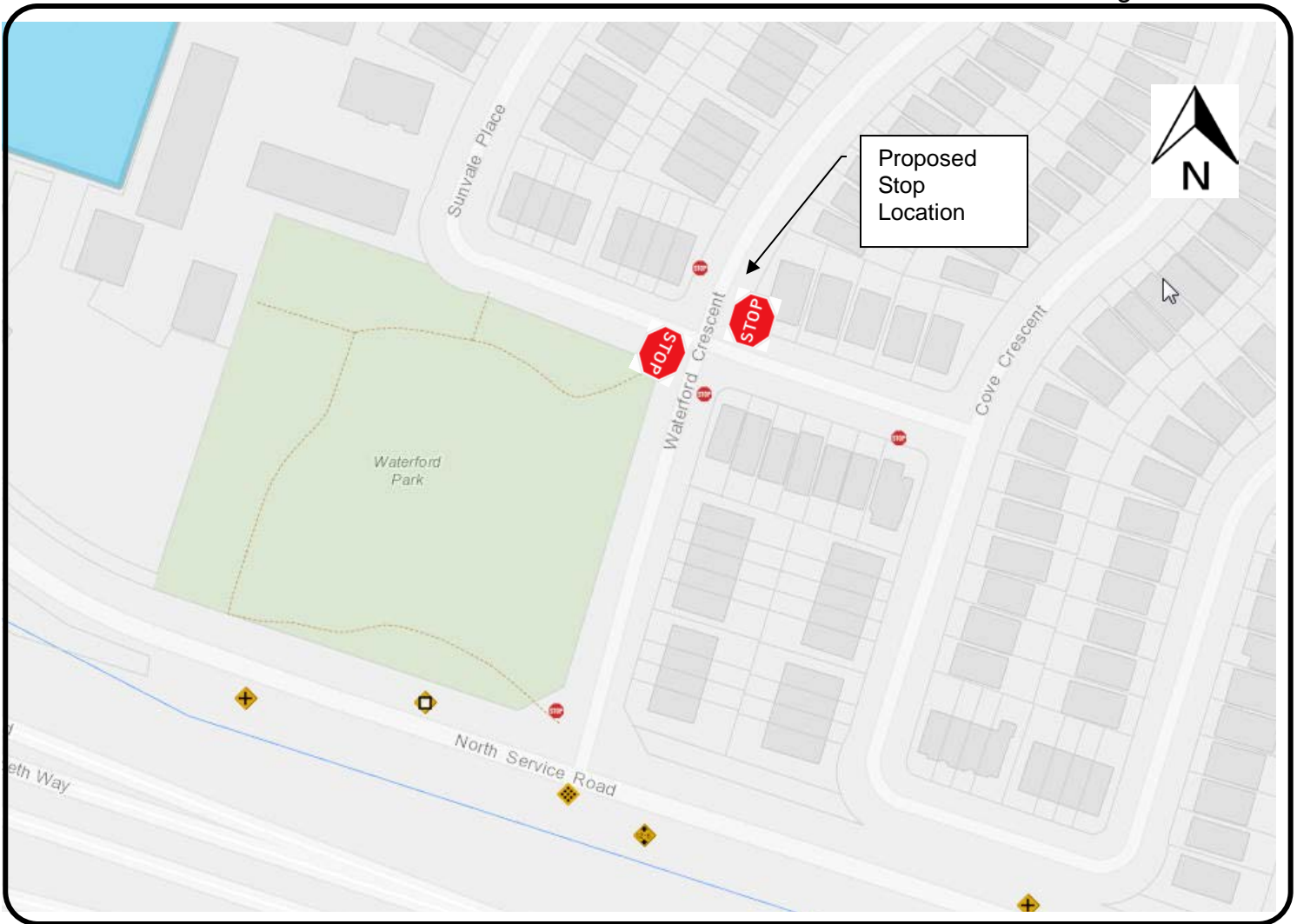
Roads and Traffic
PUBLIC WORKS DEPARTMENT

LEGEND

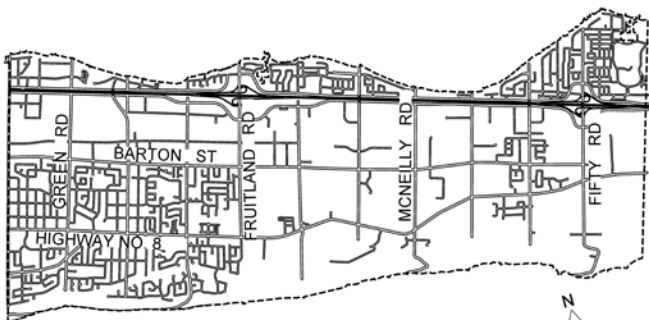
- EXISTING STOP
-  PROPOSED STOP

SCALE
NOT TO SCALE

DATE
February 22, 2019



KEY MAP



**HAMILTON
WARD 10**

LOCATION PLAN

PROPOSED STOP CONTROL:

Sunvale Place at Waterford Crescent

Transportation
PUBLIC WORKS DEPARTMENT

LEGEND

- EXISTING STOP
- PROPOSED STOP

SCALE
NOT TO SCALE

DATE
February 22, 2019

Authority: Public Works Committee
Report:
Date:
Wards: 2, 3, 8, 9, 10, 12, 15

Bill No.

CITY OF HAMILTON

BY-LAW NO. 19-

**To Amend By-law No. 01-215
Being a By-law To Regulate Traffic**

WHEREAS sections 8, 9 and 10 of the Municipal Act, 2001, S.O. 2001, c. 25, authorize the City of Hamilton to pass by-laws as necessary or desirable for the public and municipal purposes, and in particular paragraphs 4 through 8 of subsection 10(2) authorize by-laws respecting: assets of the municipality, the economic, social and environmental well-being of the municipality; health, safety and well-being of persons; the provision of any service or thing that it considers necessary or desirable for the public; and the protection of persons and property;

AND WHEREAS on the 18th day of September, 2001, the Council of the City of Hamilton enacted By-law No. 01-215 to regulate traffic;

AND WHEREAS it is necessary to amend By-law No. 01-215.

NOW THEREFORE the Council of the City of Hamilton enacts as follows:

1. Schedule 5 (Stop Control) of By-law No. 01-215, as amended, is hereby further amended by removing from Section “A” (Ancaster) thereof the following item, namely;

Amberly Boulevard	Eastbound / Westbound	Concerto Court
-------------------	-----------------------	----------------

And by adding to Section “A” (Ancaster) thereof the following item, namely;

Concerto Court	Southbound	Amberly Boulevard
----------------	------------	-------------------

Amberly Boulevard	Eastbound / Westbound	Concerto Court
-------------------	-----------------------	----------------

To Amend By-law No. 01-215
Being a By-law to Regulate Traffic

And by adding to Section “D” (Glanbrook) thereof the following items, namely;

Pinehill Drive	Eastbound / Westbound	Hyslop Avenue
----------------	-----------------------	---------------

And by adding to Section “E” (Hamilton) thereof the following items, namely;

Murray Street	Eastbound / Westbound	Catharine Street
MacNab Street	Northbound / Southbound	Vine Street
Dunsmure Road	Eastbound / Westbound	Belview Avenue
Hudson Court	Southbound	Columbia Drive

And by adding to Section “F” (Stoney Creek) thereof the following items, namely;

Sunvale Place	Eastbound / Westbound	Waterford Crescent
---------------	-----------------------	--------------------

2. Subject to the amendments made in this By-law, in all other respects, By-law No. 01-215, including all Schedules thereto, as amended, is hereby confirmed unchanged.
3. This By-law shall come into force and take effect on the date of its passing and enactment.

PASSED this 27th day of February, 2019.

F. Eisenberger
Mayor

J. Pilon
Acting City Clerk

Added Item 7.2



Hamilton

**INTERVIEW SUB-COMMITTEE TO THE PUBLIC WORKS COMMITTEE
MINUTES 19-001**

8:00 a.m.

Friday, February 15, 2019

Room 222, 2nd Floor

Hamilton City Hall

71 Main Street West

Present: Councillor N. Nann (Chair)
Councillors E. Pauls (Vice-Chair) and S. Merulla

**THE FOLLOWING ITEMS WERE REFERRED TO THE PUBLIC WORKS
COMMITTEE FOR CONSIDERATION:**

1. Appointment of Chair and Vice Chair (Item 1)

(Merulla/Pauls)

- (a) That Councillor N. Nann be appointed as Chair of the Interview Sub-Committee to the Public Works Committee for the 2018-2022 term; and
- (b) That Councillor E. Pauls be appointed as Vice-Chair of the Interview Sub-Committee to the Public Works Committee for the 2018-2022 term.

CARRIED

FOR INFORMATION:

(a) CHANGES TO THE AGENDA (Item 2)

The Clerk advised that there were no changes to the agenda.

(Pauls/Merulla)

That the agenda for the February 15, 2019 meeting of the Interview Sub-Committee to the Public Works Committee be approved, as presented.

CARRIED

(b) DECLARATIONS OF INTEREST (Item 3)

There were no declarations of interest.

(c) PRIVATE & CONFIDENTIAL (Item 5)

(Merulla/Pauls)

That the Interview Sub-Committee to the Public Works Committee move into Closed Session for Item 5.1 respecting a Review of the Applicants to the Hamilton Cycling Committee, pursuant to Section 8.1, Sub-section (b) of the City's Procedural By-law 18-270, and Section 239(2), Sub-section (b) of the *Ontario Municipal Act*, 2001, as amended, as the subject matter pertains to personal matters about an identifiable individual, including City employees.

CARRIED

(i) Review of the Applicants to the Hamilton Cycling Committee (Item 5.1)

Staff were provided with direction in Closed Session.

(Merulla/Pauls)

That the Interview Sub-Committee to the Public Works Committee move into Closed Session for Item 5.2 respecting a Review of the Applicants to the Keep Hamilton Clean and Green Committee, pursuant to Section 8.1, Sub-section (b) of the City's Procedural By-law 18-270, and Section 239(2), Sub-section (b) of the *Ontario Municipal Act*, 2001, as amended, as the subject matter pertains to personal matters about an identifiable individual, including City employees.

CARRIED

(ii) Review of the Applicants to the Keep Hamilton Clean and Green Committee (Item 5.2)

Staff were provided with direction in Closed Session.

(d) ADJOURNMENT (Item 6)

(Merulla/Pauls)

There being no further business, the Interview Sub-Committee to the Public Works Committee adjourned at 8:28 a.m.

CARRIED

Respectfully submitted,

Councillor N. Nann, Chair
Interview Sub-Committee to the
Public Works Committee

Alicia Davenport
Legislative Coordinator
Office of the City Clerk

City of Hamilton
Certificate of Recognition (COR™)
February 22, 2019

Ken Rayner

Over 100,000
workers trained in
*Working at Heights**

*Including ILSA training partners



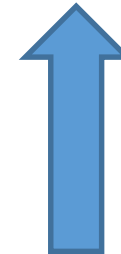
Certified by

IHSA is proud to be COR™ certified

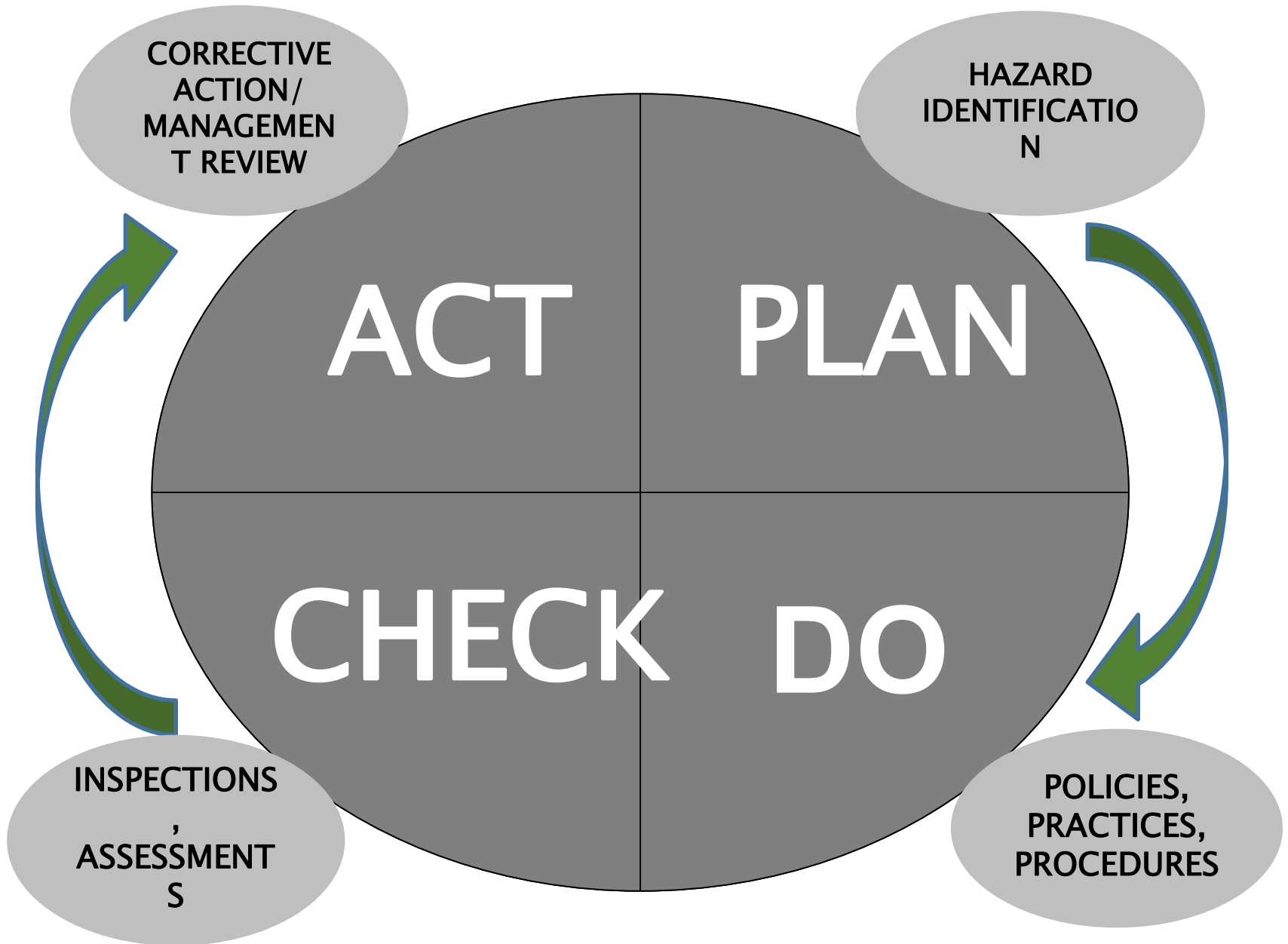
Infrastructure Health & Safety Association



Ontario

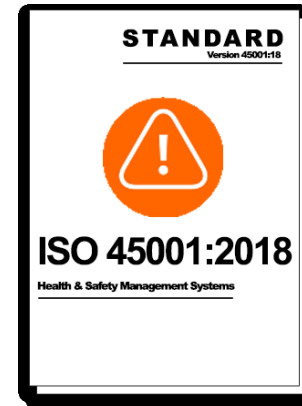


IHSA – one of 4 designated safe workplace associations under the OHSA





International Organization for Standardization



1. Health & Safety Policy Statement
2. Hazard Assessment, Analysis and Control
3. Safe Work Practices
4. Safe Job Procedures
5. Company Rules
6. Personal Protective Equipment
7. Preventive Maintenance
8. Training and Communication
9. Workplace Inspections
10. Investigations & Reporting
11. Emergency Preparedness
12. Statistics & Records
13. Legislation



-
14. Occupational Health
 15. First Aid
 16. Health & Safety Representative/Joint Health and Safety Committee
 17. Workplace Violence and Harassment
 18. Return to Work and Re-employment
 19. Management Review



Ontario buyers supporting COR™





Research study released 2015
Dr. Chris McLeod
Associate Professor
University of British Columbia



An audit-based occupational health and safety recognition program: Is certification associated with lower firm work-injury rates?



BRITISH
COLUMBIA



“What we found—Overall”

“Certified firms had, on average, a 12% lower short-term disability, long-term disability and fatality (STD, LTD, and fatality) injury rate between 2005 and 2012 compared to non-certified firms, and a 17% lower serious injury rate”.

<https://www.ihsa.ca/pdfs/cor/cor-research-brief-2015.pdf>



Research study released 2018
Dr. Chris McLeod
Associate Professor
University of British Columbia



An audit-based occupational health and safety recognition program: Is certification associated with lower firm work-injury rates in Alberta?

Alberta



“What we found—Injury rates (Overall)”

“Certified firms had, on average, a 14% lower lost time injury rate and 3% lower disabling injury rate between 2001 and 2015, compared to non-certified firms”.

<https://www.ihsa.ca/pdfs/cor/cor-research-brief-2018.pdf>

COR™ Status 2019

- 324 Certified Firms
- Over 1,500 Registered Firms
- IHSA 3rd Party Auditor Model
- COR™ Workshops
- COR™ Internal Auditor Conferences
- COR™ Support Services;
 - Internal audit gap analysis
 - External audit preparation
 - Orientation & seminars



Questions and assistance

Ken Rayner

krayner@ihsa.ca

(416) 452-2160





Alberta Construction
Safety Association



asp
construction

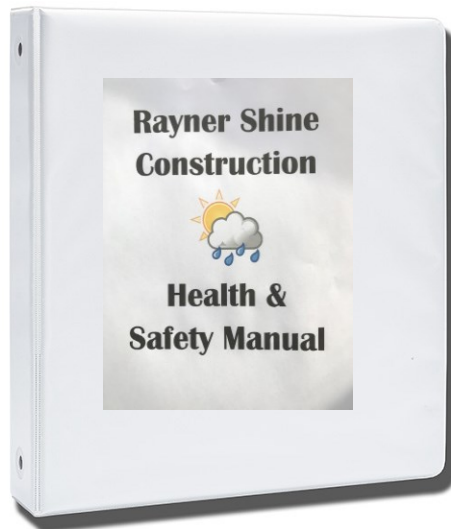


NEWFOUNDLAND
& LABRADOR
CONSTRUCTION
SAFETY
ASSOCIATION



Hazard Assessment, Analysis & Control

- Job Safety Analysis
- Safety Talk
- Workplace Inspection



- Documented procedure
- Updated assessment tools
- Team-based approach
- Hazards identified & prioritized
- Identified critical tasks
- Controls addressing hazards
- Training
- Management support
- Sub-contractor evaluation



#	Trade Name	Legal Name	Certificate #	Expiry Date
1	A & B Rail Services Ltd.	A & B Rail Services Ltd.	000166	22/11/2019
2	A C L	Aveiro Constructors Limited	000093	26/02/2021
3	A. & F. Di Carlo Construction Inc.	A. & F. Di Carlo Construction Inc.	000334	20/12/2021
4	Aardvark Drilling Inc.	Aardvark Drilling Inc.	000266	29/03/2021
5	Acapulco Pools Limited	Acapulco Pools Limited	000205	13/06/2020
6	Aecom Canada Ltd.	Aecom	000077	19/07/2020
7	Aecon Buildings	Aecon Construction Group Inc.	000003	03/03/2019
8	Aecon Construction And Materials Limited	Aecon Construction And Materials Limited	000005	25/01/2019
9	Aecon Constructors	Aecon Construction Group Inc.	000006	03/03/2019
10	Aecon Industrial	Aecon Construction Group Inc.	000004	21/12/2018
11	Aecon Materials Engineering Corp	Aecon Materials Engineering Corp	000013	09/02/2019
12	Aecon Mining Construction Services	Aecon Construction Group Inc.	000009	21/03/2019
13	Aecon Mining Inc.	Aecon Mining Inc.	000007	25/01/2019
14	Aecon Utilities	Aecon Construction Group Inc.	000001	03/03/2019
15	AGF Albrecht	AGF - Rebar Inc.	000208	07/07/2020
16	AIMI	Aecon Infrastructure Management Inc.	000137	22/06/2019
17	Ainsworth Inc.	Ainsworth Inc.	000305	17/10/2021
18	Alberici Constructors Ltd.	Alberici Constructors Ltd.	000025	20/07/2019
19	Allied Track Services Inc.	Allied Track Services Inc.	000218	14/08/2020
20	Alltrade Industrial Contractors Inc.	Alltrade Industrial Contractors Inc.	000209	07/07/2020
21	Alpeza General Contracting Inc.	Alpeza General Contracting Inc.	000222	14/09/2020
22	Amico Design Build Inc.	Amico Design Build Inc.	000295	18/09/2021
23	Amico Infrastructures (Oxford) Inc.	Amico Infrastructures (Oxford) Inc.	000116	02/11/2021
24	Amico Infrastructures Inc.	Amico Infrastructures Inc.	000268	30/04/2021
25	Anchor Shoring	GFL Infrastructure Group Inc.	000086	03/01/2021
26	Anderson Webb Limited	Anderson Webb Limited	000023	10/02/2019
27	Anscon Contracting Inc.	Anscon Contracting Inc.	000308	23/10/2021
28	Aplus General Contractors Corp.	Aplus General Contractors Corp.	000269	01/05/2021
29	Aquicon Construction Co. Ltd.	Aquicon Construction Co. Ltd.	000171	16/12/2019
30	Ashland Paving Ltd.	Ashland Paving Ltd.	000303	17/10/2021
31	Atlas-Apex Roofing Inc.	Atlas-Apex Roofing Inc.	000243	24/11/2020
32	Avertex Utility Solutions Inc	Avertex Utility Solutions Inc	000331	19/12/2021
33	Ball Construction Inc.	Ball Construction Inc.	000071	10/07/2020
34	Belor Construction Ltd.	Belor Construction Ltd.	000316	20/11/2021
35	Bennett Mechanical Installations (2001) Ltd.	Bennett Mechanical Installations (2001) Ltd.	000212	02/08/2020

#	Trade Name	Legal Name	Certificate #	Expiry Date
36	Berminghammer Foundation Equipment	Soletanche Bachy Canada Inc.	000113	PENDING *
37	Bevcon Construction & Paving Ltd.	Bevcon Construction & Paving Ltd.	000312	29/10/2021
38	Bird Management Limited & Bird Construction Inc.	Bird Management Limited & Bird Construction Inc.	000084	20/11/2020
39	Blackstone Paving & Construction Limited	Blackstone Paving & Construction Limited	000299	01/10/2021
40	Bob Hendricksen Construction Limited	Bob Hendricksen Construction Limited	000238	14/11/2020
41	Bondfield Construction Company Limited	Bondfield Construction Company Limited	000129	02/05/2019
42	Bot Construction Group	Bot Construction (Canada) Limited	000149	26/08/2019
43	Bot Construction Group	Bot Infrastructure Ltd.	000145	26/08/2019
44	Bot Construction Group	Bot Holdings Limited	000148	26/08/2019
45	Bot Construction Group	Bot Construction (Ontario) Limited	000150	26/08/2019
46	Bot Construction Group	Bot Engineering & Construction Ltd.	000144	26/08/2019
47	Bot Construction Group	Bot Civil Inc.	000151	26/08/2019
48	Bot Construction Limited	Bot Construction Limited	000146	26/08/2019
49	Bot Management Services Ltd.	Bot Management Services Ltd.	000147	26/08/2019
50	Bothwell-Accurate Co. Inc.	Bothwell-Accurate Co. Inc.	000190	02/03/2020
51	Bradco Electrical Services Ltd.	Bradco Electrical Services Ltd.	000277	13/06/2021
52	Brennan	Brennan Paving & Construction Ltd	000176	23/12/2019
53	Brennan Paving Limited	Brennan Paving Limited	000125	06/02/2022
54	Bridgecon Construction Ltd.	Bridgecon Construction Ltd.	000234	26/10/2020
55	Broadspectrum (Canada) Limited	Broadspectrum (Canada) Limited	000167	PENDING *
56	Bronte Construction	2220742 Ontario Ltd.	000225	22/09/2020
57	Buttcon	Buttcon Limited	000072	15/06/2020
58	C & M McNally Engineering Corp	C & M McNally Engineering Corp	000202	23/05/2020
59	C M S Mechanical	749496 Ontario Limited	000131	31/05/2019
60	Cambria Design Build Ltd.	Cambria Design Build Ltd.	000353	04/02/2022
61	Can Mar Contracting Limited	Can Mar Contracting Limited	000139	24/06/2019
62	Cando Rail Services Ltd.	Cando Rail Services Ltd.	000351	01/02/2022
63	Capital Paving Inc.	Capital Paving Inc.	000237	14/11/2020
64	Capital Sewer Services Inc.	Capital Sewer Services Inc.	000115	PENDING *
65	Carillion Construction Canada	Carillion Canada Inc	000029	16/08/2019
66	Ceda Field Services LP	Ceda Field Services LP	000033	24/11/2019
67	Century Group Inc.	Century Group Inc.	000206	16/06/2020
68	CG Construction Services Ltd.	CG Construction Services Ltd.	000275	28/05/2021
69	Cima Canada Inc.	Cima Canada Inc.	000287	09/08/2021
70	CIMS Limited Partnership	CIMS Limited Partnership	000074	31/10/2021

#	Trade Name	Legal Name	Certificate #	Expiry Date
71	Cintas Canada Limited	Cintas Canada Limited	000065	PENDING *
72	Clara Industrial Services Limited	Clara Industrial Services Limited	000189	27/02/2020
73	Clarkson Construction Company Limited	Clarkson Construction Company Limited	000152	26/08/2019
74	Clearway Construction Inc.	Clearway Construction Inc.	000046	04/07/2020
75	CMF General Contracting	Triumph Roofing & Sheet Metal Inc.	000345	23/01/2022
76	Coco Paving	Coco Paving Inc.	000153	06/09/2019
77	Colas Projects	Colas Projects	000282	27/06/2021
78	Colas Rail	Colas Rail	000183	08/02/2020
79	Comer Group Limited	Cromer Group Limited	000300	04/10/2021
80	Construction Demathieu & Bard (CDB) Inc	Construction Demathieu & Bard (CDB) Inc	000200	11/05/2020
81	Convergint Technologies Ltd.	Convergint Technologies Ltd.	000220	14/09/2020
82	CORAL CANADA WIDE LTD.	CORAL CANADA WIDE LTD.	000248	20/12/2020
83	CRCE Construction Ltd.	CRCE Construction Ltd.	000239	16/11/2020
84	Crossby Dewar Inc.	Crossby Dewar Inc.	000310	24/10/2021
85	Crosslinx Transit Solutions Constructors	Ellisdon Civil Ltd., Dragados Canada, Inc., Snc-Lavalin Constructors(Pacific) Inc. And Aecon Infrastructure Management Inc.	000210	25/07/2020
86	CRS Tunnelling, Inc.	CRS Tunnelling, Inc.	000298	01/10/2021
87	Cruickshank Construction Limited	Cruickshank Construction Limited	000154	PENDING *
88	CSS Wind	CSS Wind Inc.	000192	10/03/2020
89	CYMI Canada Inc.	CYMI Canada Inc.	000188	17/02/2020
90	D Crupi & Sons Limited	D Crupi & Sons	000265	26/03/2021
91	D Grant & Sons Limited	D Grant Construction Limited	000092	22/02/2021
92	Dagmar Construction Inc	Dagmar Construction Inc	000159	28/10/2019
93	Dalpro Technologies Inc.	Dalpro Technologies Inc.	000141	21/07/2019
94	Dave Boyle Excavating Ltd.	Dave Boyle Excavating Ltd.	000230	10/10/2020
95	DCC Doppelmayr Cable Car Ltd.	DCC Doppelmayr Cable Car Ltd.	000196	PENDING *
96	Deep Foundations Contractors Inc.	Deep Foundations Contractors Inc.	000066	PENDING *
97	Direct Underground Inc.	Direct Underground Inc.	000342	18/01/2022
98	DPI Construction Management	Disi-Peri MGT Inc.	000276	13/06/2021
99	Dragados Canada, Inc.	Dragados Canada, Inc.	000175	23/12/2019
100	Dufferin Construction Company A division of CRH Canada Group Inc.	CRH Canada Group Inc.	000052	30/09/2019
101	Dukon Construction Ltd.	Dukon Construction Ltd.	000323	12/12/2021
102	Duron Ontario Ltd.	Duron Ontario Ltd.	000272	03/05/2021
103	E. S. Fox Limited	E. S. Fox Limited	000020	PENDING *

#	Trade Name	Legal Name	Certificate #	Expiry Date
104	Eastern Construction Company Limited	Eastern Construction Company Limited	000078	19/09/2020
105	EBC -Civil Ontario	EBC Inc.	000317	21/11/2021
106	EBS Geostructural Inc.	EBS Geostructural Inc.	000357	07/02/2022
107	Eiffage Innovative Canada Inc.	Eiffage Innovative Canada Inc.	000301	05/10/2021
108	EKT 90 Inc.	EKT 90 Inc.	000257	22/01/2021
109	Elite Construction Inc.	Elite Construction Inc.	000088	23/01/2021
110	EllisDon Corporation	EllisDon Corporation	000030	20/07/2019
111	Energy	Siemens Canada Limited	000027	PENDING *
112	Entegrus Inc.	Entegrus Inc.	000109	09/11/2021
113	Entegrus Powerlines Inc.	Entegrus Powerlines Inc.	000108	08/11/2021
114	Entera Utility Contractors Co. Limited	1721424 Ontario Limited	000306	22/10/2021
115	Enwin Utilities	Enwin Utilities Ltd.	000219	23/08/2020
116	EPTCON LTD.	EPTCON LTD.	000226	28/09/2020
117	ESC Automation Inc.	ESC Automation Inc.	000273	14/05/2021
118	Ferpar Paving Limited	Ferpar Paving Limited	000021	13/07/2019
119	Fer-Pal Construction Ltd.	Fer-Pal Construction Ltd.	000260	13/02/2021
120	Ferrovia Agroman Canada Inc.	Ferrovia Agroman Canada Inc.	000032	17/06/2019
121	Flynn Canada Ltd - London	Flynn Canada Ltd - London	000292	05/09/2021
122	Flynn Canada Ltd - Toronto	Flynn Canada Ltd - Toronto	000258	23/01/2021
123	Fowler Construction Company Limited	Fowler Construction Company Limited	000215	09/08/2020
124	Fugro Roadware	Fugro Canada Corp.	000135	09/06/2019
125	Furfari Paving Co Ltd	Furfari Paving Co Ltd	000335	20/12/2021
126	G.S. Wark Limited	G.S. Wark Limited	000235	10/11/2020
127	Gazzola Paving Limited	Gazzola Paving Limited	000294	17/09/2021
128	GEN-PRO	1320376 Ontario Ltd.	000198	27/03/2020
129	Geo-Foundations Contractors Inc.	Keller Foundations Ltd.	000047	22/11/2019
130	Geosolv Design/Build Inc.	Geosolv Design/Build Inc.	000263	14/03/2021
131	GHD Limited	GHD Limited	000344	23/01/2022
132	Grace Instrumentation & Controls Ltd.	Grace Instrumentation & Controls Ltd.	000114	PENDING *
133	Graham Bros. Construction Limited	Graham Bros. Construction Limited	000191	09/03/2020
134	Graham Construction and Engineering LP	Graham Construction and Engineering LP	000182	03/02/2020
135	Grascan Construction Ltd	Grascan Construction Ltd	000096	22/04/2021
136	Greatario Engineered Storage System Ltd.	Greatario Industrial Storage System Ltd.	000322	12/12/2021
137	Grid Link	Grid Link Corp.	000019	09/02/2019
138	Guelph Hydro	Guelph Hydro Electric Systems Inc.	000156	30/09/2019
139	H2M Inc.	H2M Inc.	000250	21/12/2020

#	Trade Name	Legal Name	Certificate #	Expiry Date
140	Hamon Custodis-Cottrell Canada, Inc.	Hamon Custodis-Cottrell Canada, Inc.	000155	20/09/2019
141	Harris Rebar	Harris Steel ULC	000185	15/02/2020
142	Hart-Well Electrical Company Limited	Hart-Well Electrical Company Limited	000224	20/09/2020
143	Hawkins Contracting Services Limited	Hawkins Contracting Services Limited	000318	21/11/2021
144	HC Matcon Inc.	HC Matcon Inc.	000347	31/01/2022
145	HITECH STRUCTURES INC.	HITECH STRUCTURES INC.	000320	10/12/2021
146	Huron Construction Co. Limited	Huron Construction Co. Limited	000179	27/01/2020
147	IHSA	Infrastructure Health & Safety Association	000100	08/06/2021
148	IMPRESA PIZZAROTTI & C. S.P.A.	Impresa Pizzarotti & C S.p.A.	000264	21/03/2021
149	Innovative Civil Constructors Inc.	Innovative Civil Constructors Inc.	000304	17/10/2021
150	Insitu Contractors Inc.	Insitu Contractors Inc.	000143	24/08/2019
151	J. J. McGuire General Contractors Inc.	J. J. McGuire General Contractors Inc.	000255	17/01/2021
152	KAPP Infrastructure Inc.	KAPP Infrastructure Inc.	000197	27/03/2020
153	Karson Asphalt Paving Inc.	Karson Asphalt Paving Inc.	000011	25/01/2019
154	KE Electrical Ltd.	KE Electrical Ltd.	000076	PENDING *
155	Kel-Gor Limited	Kel-Gor Limited	000081	19/10/2020
156	Kenaidan Contracting Ltd.	Kenaidan Contracting Ltd.	000018	02/10/2021
157	Kenco Construction Ltd.	Kenco Construction Ltd.	000278	19/06/2021
158	King Cross Contracting Limited	King Cross Contracting Limited	000297	19/09/2021
159	King Paving & Construction Company	KPM Industries Ltd	000329	18/12/2021
160	Kingdom Construction Limited	Kingdom Construction Limited	000161	PENDING *
161	K-Line Maintenance & Construction Limited	K-Line Maintenance & Construction Limited	000015	28/09/2021
162	Lancaster Group Inc.	Lancaster Group Inc.	000256	22/01/2021
163	Langley Utilities Contracting Ltd.	Langley Utilities Contracting Ltd.	000181	PENDING *
164	Laycon Construction Services Inc.	Laycon Construction Services Inc.	000162	04/11/2019
165	LCD Mechanical Inc.	LCD Mechanical Inc.	000328	17/12/2021
166	Ledcor Construction Limited	Ledcor Construction Limited	000068	03/05/2020
167	Limen Group Const. Ltd.	Limen Group Const. Ltd.	000221	14/09/2020
168	Liqui - Force Services Inc.	Liqui-Force Services (Ontario) Inc.	000241	24/11/2020
169	Loc-Pave Construction Limited	Loc-Pave Construction Limited	000252	05/01/2021
170	LVM, Division EnGlobe Corp.	Englobe Corp.	000130	19/05/2019
171	M. Sullivan & Son	M. Sullivan & Son Limited	000270	02/05/2021
172	M.J. Dixon Construction Limited	M.J. Dixon Construction Limited	000330	19/12/2021
173	Maple Reinders Constructors Ltd.	Maple Reinders Constructors Ltd.	000042	18/05/2020
174	Maple-Crete Inc.	Maple-Crete Inc.	000349	31/01/2022

#	Trade Name	Legal Name	Certificate #	Expiry Date
175	Marbridge Construction Ltd.	Marbridge Construction Ltd.	000169	05/12/2019
176	Marel Contractors Group Inc.	Marel Contractors Group Inc.	000223	19/09/2020
177	Matheson Constructors Limited	Matheson Constructors Limited	000285	07/08/2021
178	Maxim Group General Contracting Limited	Maxim Group General Contracting Limited	000087	25/04/2021
179	Maxim Roofing Limited	Maxim Roofing Limited	000106	14/08/2018
180	Maystar General Contractors Inc.	Maystar General Contractors Inc.	000271	03/05/2021
181	McNally Construction Inc.	McNally Construction Inc.	000094	09/03/2021
182	Mellon Inc.	Mellon Inc.	000142	PENDING *
183	Melloul-Blamey Construction Inc.	Melloul-Blamey Construction Inc.	000031	16/08/2019
184	Mettko Construction Ltd	Mettko Construction Ltd	000119	02/12/2018
185	Mike Moore Construction Ltd	Mike Moore Construction Ltd	000040	PENDING *
186	Milestone Environmental Contracting Inc.	Milestone Environmental Contracting Inc.	000128	26/04/2019
187	Miller Northwest Limited	Miller Northwest Limited	000122	15/11/2021
188	Miller Paving	Miller Paving Limited	000229	10/10/2020
189	Miller Paving (North Bay) Limited	Miller Paving (North Bay) Limited	000120	09/02/2019
190	Miller Paving Northern Grant Paving	Miller Group Inc	000244	11/12/2020
191	Modern Niagara Ottawa Inc.	Modern Niagara Ottawa Inc.	000037	26/01/2020
192	Modern Niagara Toronto Inc.	Modern Niagara Toronto Inc.	000036	26/01/2020
193	Moncrief Construction Limited	Moncrief Construction Limited	000085	09/11/2020
194	Monteith & Sutherland Limited	Monteith & Sutherland Limited	000288	16/08/2021
195	Montgomery Bus Lines	Southland Transportation Ltd.	000117	PENDING *
196	MRP Builders-Engineers Inc.	MRP Builders-Engineers Inc.	000259	07/02/2021
197	MSO Construction Limited	MSO Construction Limited	000355	06/02/2022
198	Multiplex Construction Canada Limited	Multiplex Construction Canada Limited	000123	19/02/2019
199	NEI Construction Corp.	NEI Construction Corp.	000343	18/01/2022
200	Neptune Technology Group Canada Co.	Neptune Technology Group Canada Co.	000254	17/01/2021
201	Net Electric Limited	Net Electric Limited	000348	31/01/2022
202	North America Construction (1993) Ltd.	North America Construction (1993) Ltd.	000097	29/10/2021
203	North Rock Group Ltd.	North Rock Group Ltd.	000207	21/06/2020
204	Northern Mat & Bridge LP	Northern Mat and Bridge (East) LP	000211	27/07/2020
205	Nuroad Construction Limited	Nuroad Construction Limited	000337	14/01/2022
206	Nutemp Mechanical Systems Ltd.	Nutemp Mechanical Systems Ltd.	000311	29/10/2021
207	OHL Canada	OHL Construction Canada Inc.	000168	PENDING *
208	Oldcastle Building Envelope Canada Inc.	Oldcastle Building Envelope Canada Inc.	000045	18/11/2019

#	Trade Name	Legal Name	Certificate #	Expiry Date
209	Ontario Electrical Construction Company Limited	Ontario Electrical Construction Company Limited	000232	16/10/2020
210	Ontario Excavac Inc.	Ontario Excavac Inc.	000340	17/01/2022
211	Oshawa PUC Networks	Oshawa PUC Networks Inc.	000124	12/12/2021
212	Ottawa Northern Ontario Region	Black & McDonald Limited	000107	04/10/2021
213	OWS Railroad Construction & Maintenance Ltd.	OWS Railroad Construction & Maintenance Ltd.	000126	11/04/2019
214	Ozz Electric Inc.	Ozz Electric Inc.	000041	17/10/2019
215	P & C General Contracting Ltd.	P & C General Contracting Ltd.	000061	PENDING *
216	P C L Constructors Inc.	P C L Constructors Inc.	000016	25/09/2018
217	Patlon Aircraft & Industries Limited	Patlon Aircraft & Industries Limited	000253	12/01/2021
218	Pave-AI Limited	Pave-AI Limited	000174	16/12/2019
219	Pave-Tar Construction Ltd.	Pave-Tar Construction Ltd.	000352	04/02/2022
220	PCL Constructors Canada Inc.	PCL Constructors Canada Inc.	000194	16/03/2020
221	Peak Engineering & Construction Ltd	Peak Engineering & Construction Ltd	000279	20/06/2021
222	Percon Construction Inc.	Percon Construction Inc.	000043	17/01/2020
223	Peter Kiewit Sons ULC	Peter Kiewit Sons ULC	000118	02/12/2018
224	PGM Rail Services Ltd.	PGM Rail Services Ltd.	000138	PENDING *
225	Pivot Systems Ltd.	Pivot Systems Ltd.	000262	27/02/2021
226	Plan Group Inc.	Plan Group Inc.	000172	PENDING *
227	PNR Railworks Maintenance	PNR Railworks Inc.	000213	02/08/2020
228	PNR Railworks Signals 2	PNR Railworks Inc.	000336	20/12/2021
229	PNR Railworks Track 1	PNR Railworks Inc.	000236	13/11/2020
230	Pomerleau Inc.	Pomerleau Inc.	000090	01/02/2021
231	Powell (Richmond Hill) Contracting Limited	Powell (Richmond Hill) Contracting Limited	000187	17/02/2020
232	Power Generation Region	Black & McDonald	000111	14/01/2022
233	Powerline Plus	Powerline Plus Ltd.	000073	PENDING *
234	Premform Limited	Premform Limited	000267	30/04/2021
235	Pure Technologies Ltd.	Pure Technologies Ltd.	000133	PENDING *
236	QM Environmental	QM LP	000105	11/10/2021
237	Rabcon Contractors Ltd.	Rabcon Contractors Ltd.	000246	20/12/2020
238	Reid & Deleye Contractors Ltd.	Reid & Deleye Contractors Ltd.	000203	29/05/2020
239	Road Builders Haulage Ltd.	Road Builders Haulage Ltd.	000356	06/02/2022
240	Robert B. Somerville Co. Limited	Robert B. Somerville Co. Limited	000132	31/05/2019
241	Roberts Onsite Inc.	Roberts Onsite Inc.	000242	11/12/2020
242	Roma Building Restoration Limited	Roma Building Restoration Limited	000321	12/12/2021
243	Ron Lee Construction Inc	Ron Lee Construction Inc.	000127	21/04/2019

#	Trade Name	Legal Name	Certificate #	Expiry Date
244	Royalty General Construction Ltd.	Royalty General Construction Ltd.	000249	20/12/2020
245	Rutherford Contracting Ltd.	Rutherford Contracting Ltd.	000195	16/03/2020
246	Sacyr Canada Inc.	Sacyr Canada Inc.	000333	20/12/2021
247	Safway Services Canada, ULC	Safway Services Canada, ULC	000069	23/05/2020
248	Sanscon Construction Ltd.	Sanscon Construction Ltd.	000245	PENDING *
249	Sema Railway Structures Inc.	Sema Railway Structures Inc.	000233	26/10/2020
250	Semple Gooder Roofing Corporation	Semple Gooder Roofing Corporation	000170	PENDING *
251	Sierra General Contracting Inc.	Sierra General Contracting Inc.	000177	20/01/2020
252	Sierra Infrastructure	Sierra Infrastructure Inc.	000178	20/01/2020
253	Skygrid Construction Inc.	Skygrid Construction Inc.	000231	13/10/2020
254	Soncin Construction	Soncin Construction Corporation & 1405908 Ontario Limited & 2220409 Ontario Limited	000095	26/04/2021
255	Southern Ontario Electrical Utility Region	Black & McDonald Limited	000102	26/06/2021
256	Southern Ontario Mechanical Region	Black & McDonald Limited	000101	26/06/2021
257	Southland Mole of Canada Ltd.	Southland Mole of Canada Ltd.	000240	21/11/2020
258	Southwest Ontario Region	Black & McDonald Limited	000291	04/09/2021
259	Stantec Architecture Ltd.	Stantec Consulting Ltd.	000324	12/12/2021
260	Star Painting & Repairs Ltd.	Star Painting & Repairs Ltd.	000313	29/10/2021
261	Steconfer	Steconfer Global Rail Infrastructure Ltd.	000283	27/06/2021
262	Steed And Evans Limited	Steed And Evans Limited	000280	19/06/2021
263	Steelcore Construction Ltd.	Steelcore Construction Ltd.	000338	15/01/2022
264	Sterling Crane Division	Procrane Inc.	000056	30/05/2020
265	Stevens & Black Electrical Contractors Ltd.	Stevens & Black Electrical Contractors Ltd.	000289	22/08/2021
266	Strabag Inc.	Strabag Inc.	000227	28/09/2020
267	Stracor Inc.	Stracor Inc.	000286	08/08/2021
268	Struct-Con Construction Ltd.	Struct-Con Construction Ltd.	000228	PENDING *
269	Stuart Olson Construction Ltd.	Stuart Olson Construction Ltd.	000216	02/08/2020
270	Sub Terrain Underground Construction	Sub Terrain Directional Drilling Limited		
271	Sullivan Construction	M. Sullivan & Son Limited	000274	02/05/2021
272	Super Save	Acton Transport Ltd.	000173	16/12/2019
273	Super Sucker Hydro-Vac Service Inc.	Super Sucker Hydro-Vac Service Inc.	000193	14/03/2020
274	Sutherland-Schultz Ltd	Sutherland-Schultz Ltd	000022	12/07/2019
275	Symtech Innovations Ltd.	Symtech Innovations Ltd.	000217	10/08/2020
276	TACC Construction Ltd.	TACC Construction Ltd.	000140	21/07/2019
277	Tagg Industries	975866 Ontario Limited	000284	13/07/2021
278	Technicore Underground Inc.	Technicore Underground Inc.	000302	17/10/2021

#	Trade Name	Legal Name	Certificate #	Expiry Date
279	Tedescon Infrastructure Ltd.	Tedescon Infrastructure Ltd.	000293	10/09/2021
280	Tee Jay Instrumentation Services	Tee Jay Instrumentation Services Ltd	000136	15/06/2019
281	TESC Contracting Company Limited	TESC Contracting Company Limited	000059	14/09/2020
282	The Murray Group Limited	The Murray Group Limited	000180	27/01/2020
283	The Sharp Group	1103458 Ontario Inc.	000184	08/02/2020
284	The State Group Inc.	The State Group Inc.	000251	PENDING *
285	The Toronto Terminals Railway Company	The Toronto Terminals Railway Company	000314	02/11/2021
286	Thirau Inc.	Thirau Inc.	000164	16/11/2019
287	Thyssenkrupp Elevators	Thyssenkrupp Elevator (Canada) Ltd.	000091	29/03/2021
288	Timbro Design Build Contractors	Timbro Refrigerated Structures Inc.	000057	24/03/2020
289	TISI Canada Inc/Team Industrial Services	TISI Canada Inc/Team Industrial Services	000110	PENDING *
290	TM3 Inc.	TM3 Inc.	000214	02/08/2020
291	TMG Builders	The Moro Group Builders Inc.	000326	12/12/2021
292	TMG Builders	1761759 Ontario Limited	000327	12/12/2021
293	TMG Construction Inc.	TMG Construction Inc.	000325	12/12/2021
294	Tom Jones Corporation	Tom Jones Corporation	000315	08/11/2021
295	Torbridge Construction Ltd.	Torbridge Construction Ltd	000261	16/02/2021
296	TORCON LTD.	TORCON LTD.	000199	13/04/2020
297	Toronto Zenith Contracting Limited	Toronto Zenith Contracting Limited	000098	06/06/2021
298	Torque Builders Inc.	Torque Builders Inc.	000089	07/03/2021
299	Trade-Mark	Trade-Mark Industrial Inc.	000165	18/11/2019
300	Triple Crown Enterprises Ltd.	Triple Crown Enterprises Ltd.	000290	23/08/2021
301	Trisan Construction	6141258 Ontario Ltd.	000281	22/06/2021
302	Trisect Construction Corporation	Trisect Construction Corporation	000247	20/12/2020
303	Tristar Electric Inc.	Tristar Electric Inc.	000008	21/03/2019
304	Utility Force Construction Inc.	Utility Force Construction Inc.	000341	17/01/2022
305	Valard Construction LP	Valard Construction LP	000158	PENDING *
306	Vanos Insulations Limited	Vanos Insulations Limited	000319	10/12/2021
307	Vaughan Paving Ltd	Vaughan Paving Ltd	000350	01/02/2022
308	VBN Paving Limited	VBN Paving Limited	000339	16/01/2022
309	Vector Corrosion Technologies Ltd.	Vector Corrosion Technologies Ltd.	000048	23/01/2020
310	Venshore Mechanical Ltd.	Venshore Mechanical Ltd.	000204	01/06/2020
311	Vias Canada, Inc	Vias Canada, Inc	000163	16/11/2019
312	Vipe Construction Ltd.	Vipe Construction Ltd.	000296	18/09/2021
313	Vixman Construction Ltd.	Vixman Construction Ltd.	000346	29/01/2022

#	Trade Name	Legal Name	Certificate #	Expiry Date
314	Voith Hydro Inc	Voith Hydro Inc	000017	10/01/2021
315	VSL Canada Ltd./VSL Canada Ltee	VSL Canada Ltd./VSL Canada Ltee	000186	15/02/2020
316	Walsh Canada	WCC Construction Canada, ULC	000075	26/10/2020
317	Walter Field Services Inc.	Walter Field Services Inc.	000157	30/09/2019
318	Ward and Burke Microtunnelling Ltd.	Ward and Burke Microtunnelling Ltd.	000309	23/10/2021
319	Wellington Organix Inc.	Wellington Organix Inc.	000079	22/09/2020
320	Wessuc Inc.	Wessuc Inc.	000307	23/10/2021
321	Westlake Industries Inc.	Westlake Industries Inc.	000054	02/11/2019
322	Westmore Poleline and Electrical Inc.	Westmore Poleline and Electrical Inc.	000201	19/05/2020
323	WSP Canada Inc.	WSP Canada Inc.	000332	20/12/2021
324	Zip Signs	Zip Signs Ltd	000134	03/06/2019

Legal Name

152610 Canada Inc.
 1610259 Ontario Ltd.
 1791949 Ontario Limited
 2331131 Ontario Inc.
 2579017 Ontario Inc.
 3-T Forming North Inc.
 3-T Lift Division Ltd.
 360 Advanced Security Corporation
 407 East Construction General Partnership
 410754 Ontario Limited
 784437 ONTARIO INC
 A & B Rail Services Ltd.
 A & G The Road Cleaners
 A C G Consulting
 A C L
 A CON Construction Limited
 A D T Security Systems
 A G Reat Construction Company Limited
 A P C I Communications Inc.
 A S P Incorporated
 A S P Residential Services Inc.
 A-Concrete Solution
 A. & F. Di Carlo Construction Inc.
 A. Wesley Paving Ltd.
 AADD Masonry
 Aardvark Drilling Inc.
 ABF Reinforcing Steel Inc.
 Abraflex (2004) Ltd.
 Acapulco Pools Limited
 Accel Construction Management Inc.
 Accel Electrical Contractors Limited
 Access Restoration Services GTA North Ltd
 Access Restoration Services Ltd.
 Acciona Infrastructure Canada Inc.
 Accurate Railroad Construction Limited
 Accuworx Inc.
 ACIER AGF INC.
 ACL Steel Ltd.
 Action Scaffold Services Div of Echafauds Plus
 Active Mechanical
 Acuren Group Inc.
 Admor Industrial Dock & Door Systems Inc
 Advanced Construction Techniques Ltd
 AEC Developments Inc.
 Aecom Canada Ltd.
 Aecon Buildings
 Aecon Construction And Materials Limited
 Aecon Constructors
 Aecon Foundations
 Aecon Industrial
 Aecon Materials Engineering Corp
 Aecon Mining Construction Services
 Aecon Mining Inc.
 Aecon Utilities
 Aegus Contracting
 Aevitas Inc.
 AGF - C&T Inc.
 AGF Raymond Rebar Incorporated
 AGI Traffic Technology Inc.
 AIM CCF Hamilton Inc.
 Aim Industrial Inc.
 Aim Waste Management Inc.
 AIMI
 Ainsworth Inc.
 Ainsworth Power Construction Inc.
 Airfield Access Inc.
 Airside Security Access Inc
 AirSource Mechanical Inc.
 AI Gordon Electric Limited
 Alberici Constructors Ltd.
 Albion Glass Company Limited
 Alfa Security Solutions Inc.
 All Canada Crane Rental Corp.
 All Canadian Display Company Ltd.
 All Professional Trades Services Inc.
 Alliance Roofing & Sheet Metal Ltd.
 Alliance Verdi Civil Inc.
 Allied Track Services Inc.
 Allied Utility Inc.
 Allstream Waste Solutions Inc.

Trade Name

Laurin & Company
 1610259 Ontario Ltd.
 1791949 Ontario Limited
 2331131 Ontario Inc.
 Jebco Cranes
 3-T Forming North Inc.
 3-T Lift Division Ltd.
 360 Advanced Security Corporation
 407 East Construction General Partnership
 Sousa Concrete
 SNYDER CONSTRUCTION
 A & B Rail Services Ltd.
 A & G The Road Cleaners
 Andrew H. Akerboom
 Aveiro Constructors Limited
 A-CON Construction Limited
 A D T Security Services Canada, Inc.
 A G Reat Construction Company Limited
 A P C I Communications Inc.
 A S P Incorporated
 A S P Residential Services Inc.
 Colautti Construction Limited
 A. & F. Di Carlo Construction Inc.
 A. Wesley Paving Ltd.
 Andrew Nusink & D'arcy Durward
 Aardvark Drilling Inc.
 ABF Reinforcing Steel Inc.
 Abraflex
 Acapulco Pools Limited
 Accel Construction Management Inc.
 Accel Electrical Contractors Limited
 Access Restoration Services GTA North Ltd
 Access Restoration Services Ltd.
 Acciona Infrastructure Canada Inc.
 Accurate Railroad Construction Limited
 Accuworx Inc.
 ACIER AGF INC./AGF STEEL INC.
 ACL Steel Ltd.
 ECHAFAUDS PLUS (LAVAL) INC.
 1246175 Ontario Limited
 Acuren Group Inc.
 Admor Industrial Dock & Door Systems Inc
 Advanced Construction Techniques Ltd
 AEC Developments Inc.
 Aecom
 Aecon Construction Group Inc.
 Aecon Construction And Materials Limited
 Aecon Construction Group Inc.
 Aecon Construction Group Inc.
 Aecon Construction Group Inc.
 Aecon Materials Engineering Corp
 Aecon Construction Group Inc.
 Aecon Mining Inc.
 Aecon Construction Group Inc.
 D.J. Gustafson Engineering Ltd.
 Aevitas-2
 AGF - C&T Inc.
 AGF Raymond Rebar Incorporated
 AGI Traffic Technology Inc.
 AIM CCF Hamilton Inc.
 Aim Industrial Inc.
 Aim Waste Management Inc.
 Aecon Infrastructure Management Inc.
 Ainsworth Inc.
 Ainsworth Power Construction Inc.
 Airfield Access Inc.
 Airside Security Access Inc
 AirSource Mechanical Inc.
 AI Gordon Electric Limited
 Alberici Constructors Ltd.
 Albion Glass Company Limited
 Alfa Security Solutions Inc.
 All Canada Crane Rental Corp.
 All Canadian Display Company Ltd.
 All Professional Trades Services Inc.
 Alliance Roofing & Sheet Metal Ltd.
 Alliance Verdi Civil Inc.
 Allied Track Services Inc.
 Allied Utility Inc.
 Allstream Waste Solutions Inc.

Registration Date & Time

Jan 29, 2019

Jan 22, 2019

Feb 05, 2019

Feb 07, 2019

Jan 16, 2019

Jan 29, 2019

Feb 04, 2019

Registration Date &
Time



Legal Name	Trade Name	Registration Date & Time
Alltrade Industrial Contractors Inc.	Alltrade Industrial Contractors Inc.	
Almon Equipment Ltd.	Almon Equipment Ltd	
Aloia Bros Concrete Contractors Ltd.	Aloia Bros Concrete Contractors Ltd.	
Alpeza General Contracting Inc.	Alpeza General Contracting Inc.	
Aluma Sarnia	Aluma Systems Inc.	
Always Roofing Ltd.	Always Roofing Ltd.	
Ambashi Engineering & Management Inc.	Ambashi Engineering & Management Inc.	
Ambient Mechanical Limited	Ambient Mechanical Limited	
Ambler & Co. Inc.	Ambler & Co. Inc.	
American Bridge Canada Company	American Bridge Canada Company	
AMG Environmental Inc.	AMG Environmental Inc.	
Amico Design Build Inc.	Amico Design Build Inc.	
Amico Infrastructures (Oxford) Inc.	Amico Infrastructures (Oxford) Inc.	
Amico Infrastructures Inc.	Amico Infrastructures Inc.	
AMOR CONSTRUCTION	176026 CANADA INC.	
Ampere Limited	Ampere Limited	
Amstel Manufacturing (1993) Inc	Amstel Manufacturing (1993) Inc	
Anacond Contracting Inc.	Anacond Contracting Inc.	
Anchor Shoring	GFL Infrastructure Group Inc.	
Anderson Webb Limited	Anderson Webb Limited	
Andritz Hydro Canada Inc.	Andritz Hydro Canada Inc.	
Ankor Engineering Systems Ltd.	Ankor Engineering Systems Ltd.	
Ansald STS Canada Inc.	Ansald STS Canada Inc.	
Anskon Contracting Inc.	Anskon Contracting Inc.	
Aplus General Contractors Corp.	Aplus General Contractors Corp.	
Apple Tree Landscape & Construction	Christopher Davis	
Applied Research Associates Inc	Applied Research Associates Inc	
Aqua Data Inc	Aqua Data Inc	
Aqua Tech Solutions Inc.	Aqua Tech Solutions Inc.	
Aqua-Tech Dewatering Company Inc.	Aqua-Tech Dewatering Company Inc.	
Aquagran Landscaping & Construction Ltd.	Aquagran Landscaping & Construction Ltd.	
Aquanorth Contracting Ltd.	Aquanorth Contracting Ltd.	
Aquarehab (Canada) Inc.	Aquarehab (Canada) Inc.	
Aquicon Construction Co. Ltd.	Aquicon Construction Co. Ltd.	
Arctic Combustion Limited	Arctic Combustion Limited	
Arguson Projects Inc.	Arguson Projects Inc.	
Aries Contracting (Ottawa) Inc.	Aries Contracting (Ottawa) Inc.	
Arimco Services Inc.	Arimco Services Inc.	
ARS Kitchener	Access Restoration Services Kitchener Ltd.	
ASCO Construction Toronto Ltd.	ASCO Construction Toronto Ltd.	
Ashland Paving Ltd.	Ashland Paving Ltd.	
Associated Engineering (Ont) Ltd.	Associated Engineering (Ont) Ltd.	
Associated Paving Company Ltd.	Associated Paving Company Ltd.	
ASTALDI CANADA ENTERPRISES INC./ENTREPRISES ASTALDI CANADA INC.	ASTALDI CANADA ENTERPRISES INC./ENTREPRISES ASTALDI CANADA INC.	
ATA Utility Contractors Limited	ATA Utility Contractors Limited	Feb 04, 2019
Atlantis Underground Services Ltd.	Atlantis Underground Services Ltd.	
Atlas Dewatering Corporation	Atlas Dewatering Corporation	
Atlas-Apex Roofing Inc.	Atlas-Apex Roofing Inc.	
Aue Structural	Marek Stutz	
Aurum	2298679 Ontario Inc.	Jan 17, 2019
Ausenco	Ausenco Engineering Canada Inc.	
Austin Powder Ltd.	Austin Powder Ltd.	
Avertex Utility Solutions Inc	Avertex Utility Solutions Inc	
Averton Residential Inc.	Averton Residential Inc.	
Axiom Millwrighting & Fabrication Inc.	Axiom Millwrighting & Fabrication Inc.	
B & D Manufacturing	451231 Ontario Limited	
B & J Contracting	1288808 Ontario Ltd.	
B B S Construction (Ontario) Ltd.	B B S Construction (Ontario) Ltd	
B-N-E Contracotrs Inc.	B-N-E Contractors Inc.	Feb 04, 2019
B.L.T Construction Services Inc.	B.L.T Construction Services Inc.	
B.L.T. Construction Services Inc.	B.L.T. Construction Services Inc.	
B4 Corrosion Inc	B4 Corrosion Inc	
Bach-Simpson Division	Wabtec Canada Inc.	
Bacon Engineering Limited	Bacon Engineering Limited	
Badger Daylighting Ltd.	Badger Daylighting Ltd.	
Ball Construction Inc.	Ball Construction Inc.	
Banner Piling & Excavating Limited	Banner Piling & Excavating Limited	
Bar-Quip Construction Limited	Bar-Quip Construction Limited	
Barlas Construction Inc.	Barlas Construction Inc.	
Barnard Construction Companies of Canada, ULC	Barnard Construction Companies of Canada, ULC	
Baroccon Wall Systems Inc.	Baroccon Wall Systems Inc.	
Basekämp Construction Corp.	Basekämp Construction Corp.	
Baseline Construction and Project Managers Inc.	Baseline Construction and Project Managers Inc.	
Baseline Constructors Inc.	Baseline Constructors Inc.	
Bass Installation	1587855 Ontario Inc.	
Baycrest General Contractors Division	929436 ONTARIO LTD.	
BBBC	Bouygues-Building Canada	
BDA INC.	BDA INC.	
Beacon Utility Contractors Limited	Beacon Utility Contractors Limited	
BEC Electric Inc.	BEC Electric Inc.	

Registration Date &
Time

Legal Name	Trade Name	Registration Date & Time
BECC Construction Group Ltd.	BECC Construction Group Ltd.	
Bechtel Canada, Co	Bechtel Canada, Co	
Belfor (Canada) Inc.	Belfor (Canada) Inc.	
Belmont Concrete Finishing Co Limited	Belmont Concrete Finishing Co Limited	
Belor Construction Ltd.	Belor Construction Ltd.	
Belterra Corporation	Belterra Corporation	
Bennett Mechanical Installations (2001) Ltd.	Bennett Mechanical Installations (2001) Ltd.	
Bennington Construction Ltd.	Bennington Construction Ltd.	
Benson Steel Limited	Benson Steel Limited	
Beralta Construction Limited	Beralta Construction Limited	
Berkim Construction Inc.	Berkim Construction Inc	
Berminghammer Foundation Equipment	Soletanche Bachy Canada Inc.	
Best Guard Security Incorporated	Best Guard Security Incorporated	
Bevcon Construction & Paving Ltd.	Bevcon Construction & Paving Ltd.	
BGL Contractors Corp.	BGL Contractors Corp.	
Bigelow	Canadian Stebbins Engineering & Mfg. CO ULC	
Biggs and Narciso Construction Services Inc.	Biggs and Narciso Construction Services Inc.	
BIOREM Technologies Inc.	BIOREM Technologies Inc.	
Bird Management Limited & Bird Construction Inc.	Bird Management Limited & Bird Construction Inc.	
Bird Mechanical Ltd	Bird Mechanical Ltd	
Blackstone Paving & Construction Limited	Blackstone Paving & Construction Limited	
Blue Bore Inc.	Blue Bore Inc.	Feb 07, 2019
Blue Star Construction Corp.	Blue Star Construction Corp.	
Blumetric Environmental	Blumetric Environmental Inc.	
BML Multi Trades Group Ltd	BML Multi Trades Group Ltd	
Boardwalk Excavating & Contracting Inc.	Boardwalk Excavating & Contracting Inc.	
Bob Hendricksen Construction Limited	Bob Hendricksen Construction Limited	
Boca Construction Ltd	Boca Construction Ltd	
Bois A. Lachance Lumber	Bois A. Lachance Lumber Ltd.	
Bomar Landscaping Inc	Bomar Landscaping Inc	Feb 04, 2019
Bond Paving & Construction Inc.	Bond Paving & Construction Inc.	
Bondfield Construction Company Limited	Bondfield Construction Company Limited	
Bot Construction Group	Bot Civil Inc.	
Bot Construction Group	Bot Construction (Canada) Limited	
Bot Construction Group	Bot Construction (Ontario) Limited	
Bot Construction Group	Bot Engineering & Construction Ltd.	
Bot Construction Group	Bot Holdings Limited	
Bot Construction Group	Bot Infrastructure Ltd.	
Bot Construction Limited	Bot Construction Limited	
Bot Management Services Ltd.	Bot Management Services Ltd.	
Bothwell-Accurate Co. Inc.	Bothwell-Accurate Co. Inc.	
Bowie Contracting Ltd.	Bowie Contracting Ltd.	
Bradanick Construction Services Inc.	Bradanick Construction Services Inc.	
Bradco Electrical Services Ltd.	Bradco Electrical Services Ltd.	
Braden-Burry Expediting Ltd.	Braden-Burry Expediting Ltd.	
Bradley Heating And Air Conditioning	Martino Contractors Ltd.	
Brampton Painting Co. Ltd.	Brampton Painting Co. Ltd.	
Brass Industrial Services Inc.	Brass Industrial Services Inc.	
Brass Industrial Services Inc.	Brass Industrial Services Inc.	
Breck-Mar Sales & Service	HTS Engineering Ltd.	
Brennan	Brennan Paving & Construction Ltd	
Brennan Paving Limited	Brennan Paving Limited	
Bridge Check Canada Ltd.	Bridge Check Canada Ltd.	
Bridgecon Construction Ltd.	Bridgecon Construction Ltd.	
Britespan Building Systems of Ontario Inc.	Britespan Building Systems of Ontario Inc.	
Broadspectrum (Canada) Limited	Broadspectrum (Canada) Limited	
Broccolini Construction (Ottawa) Inc.	Broccolini Construction (Ottawa) Inc.	
Broccolini Construction (Toronto) Inc.	Broccolini Construction (Toronto) Inc.	
Bronnenco Construction Ltd.	Bronnenco Construction Ltd.	
Bronte Construction	2220742 Ontario Ltd.	
Brook Restoration Ltd	Brook Restoration Ltd	
Brunos Contracting (Thunder Bay) Ltd.	Brunos Contracting (Thunder Bay) Ltd.	
Budget Demolition	Budget Environmental Disposal Inc.	
Budget Environmental Disposal Inc.	Budget Environmental Disposal Inc.	
Build North Construction Inc.	Build North Construction Inc.	
Building Exterior Consultants Inc.	Building Exterior Consultants Inc.	
Building Innovation Inc.	Building Innovation Inc.	
Bullseye Construction	1884695 Ontario Corp.	
Burnco Manufacturing Inc.	Burnco Manufacturing Inc.	
Buttcon	Buttcon Limited	
Buttcon East	Buttcon East Limited	
C & C Enterprises Electrical Construction Ltd.	C & C Enterprises Electrical Construction Ltd.	
C & M Electric	Crawford & Murray Electric Company Ltd	
C & M McNally Engineering Corp	C & M McNally Engineering Corp	
C E C Services Limited (Aurora)	C E C Services Limited (Aurora)	
C J Zettler & Associates Ltd.	C J Zettler & Associates Ltd.	
C M S Mechanical	749496 Ontario Limited	
C P Systems	1460973 Ontario Limited	
C. Hunter Electrical Ltd.	C. Hunter Electrical Ltd.	
C. Valley Paving Ltd.	C. Valley Paving Ltd.	

Registration Date &
Time

**Legal Name**

C&M Aquatic Management Group Ltd.
C3 Buildings & Infrastructure Inc.
Cable Control Systems Inc
Cahill Constructors Limited
Caliber Environmental Construction Services Inc.
Cambria Design Build Ltd.
Can Mar Contracting Limited
Can-Sky Roofing & Sheet Metal Inc.
Canada Building Materials Ready Mix Division
Canada Construction Limited
Canada Electric
Canada Wide Window Cleaning Inc.
Canadian Concrete Leveling
Canadian Crane Rentals Ltd.
Canadian Cutting and Coring (Toronto) Ltd.
Canadian Linen & Uniform Service
Canadian Scientific Inc.
Canadian Structural & Mechanical Ltd
Canadian Stucco & Zero Defects
Canadian Tech Air Systems Inc.
Canadian Turner Construction Company Ltd.
Canadyne Navigation
Cando Rail Services Ltd.
Cannington Construction Limited
Capital Paving Inc.
Capital Sewer Services Inc.
Capital Utility Services Inc.
Capson Electrical Ltd
Carbyne Group Inc.
Caren Clearing and Spraying Inc.
Carillion Construction Canada
Carrier Mausoleums Construction Inc.
Cartwright Drilling Inc.
Castonguay Blasting Ltd.
Catek Technical Services Inc.
CCM Contracting Ltd.
CEC Mechanical Ltd.
Ceda Field Services LP
Ceda Specialty Services LP
Cedar Springs Landscape Group Ltd
Cematrix (Canada) Inc.
Centennial Contracting Limited
Centimark Ltd.
Central Welding & Iron Works
Century Group Inc.
Century Transportation Ltd.
Cesaroni & Son Ltd
Cesaroni Contracting Inc
CFJ Nuclear Contractors Ltd.
CG Construction Services Ltd.
CH2M Hill Canada Limited
CH2M HILL Energy Canada Ltd.
Challenger Motor Freight Inc.
Chant Construction Limited
Charlotte Blake & Maciek Balmas
Chart Construction Management Inc.
Chartrand Equipment
Chisholm Fleming & Associates
Cima Canada Inc.
Cimco Refrigeration Division
CIMS Limited Partnership
Cinnos Mission Critical Incorporated
Cintas Canada Limited
City Electric Inc.
Citycore Construction Inc
Civil Underground & Excavation Company Limited
CK Engineering Inc.
Clara Industrial Services Limited
Clarkson Construction Company Limited
Clean Water Works 1
Clearwater Structures Inc.
Clearway Construction Inc.
Clifford Masonry Limited
Clifford Restoration Limited
Clow Darling Limited
CMF General Contracting
CMF Group Inc.
CMM LTD.
CMM Maintenance & Millwright Services
CO-X-CO Construction Limited

Trade Name

C&M Aquatic Management Group Ltd.
C3 Buildings & Infrastructure Inc.
Cable Control Systems Inc
Cahill Constructors Limited
Caliber Environmental Construction Services Inc.
Cambria Design Build Ltd.
Can Mar Contracting Limited
Can-Sky Roofing & Sheet Metal Inc.
St Marys Cement Inc (Canada)
Canada Construction Limited
Birnie Electric Limited
Canada Wide Window Cleaning Inc.
Don Clarke Contracting Ltd.
Canadian Crane Rentals Ltd.
Canadian Cutting and Coring
Canadian Linen & Uniform Service Co.
Canadian Scientific Inc.
Canadian Structural & Mechanical Ltd.
Mekker Construction Ltd.
Canadian Tech Air Systems Inc.
Canadian Turner Construction Company Ltd.
7305516 Canada Ltd
Cando Rail Services Ltd.
Cannington Construction Limited
Capital Paving Inc.
Capital Sewer Services Inc.
Capital Utility Services Inc.
Capson Haggarty Electrical Contractors Ltd
Carbyne Group Inc.
Caren Clearing and Spraying Inc.
Carillion Canada Inc
Carrier Mausoleums Construction Inc.
Cartwright Drilling Inc.
Castonguay Blasting Ltd.
Catek Technical Services Inc.
CCM Contracting Ltd.
CEC Mechanical Ltd.
Ceda Field Services LP
Ceda Specialty Services LP
CSL Group Ltd.
Cematrix (Canada) Inc.
Centennial Contracting Limited
Centimark Ltd.
1510610 Ontario Inc.
Century Group Inc.
Century Transportation Ltd.
Cesaroni & Son Ltd
Cesaroni Contracting Inc
CFJ Nuclear Contractors Ltd.
CG Construction Services Ltd.
CH2M Hill Canada Limited
CH2M Hill Canada Limited
Challenger Motor Freight Inc.
Chant Construction Limited
Kollectiv
Chart Construction Management Inc.
450477 Ontario Limited
R G Chisholm Limited & R M Fleming Limited & W O Chisholm Limited
Cima Canada Inc.
Toromont Industries Ltd.
CIMS Limited Partnership
Cinnos Mission Critical Incorporated
Cintas Canada Limited
City Electric Inc.
Citycore Construction Inc
Civil Underground & Excavation Company Limited
CK Engineering Inc.
Clara Industrial Services Limited
Clarkson Construction Company Limited
Clean Water Works Inc.
Clearwater Structures Inc.
Clearway Construction Inc.
Clifford Masonry Limited
Clifford Restoration Limited
Clow Darling Limited
Triumph Roofing & Sheet Metal Inc.
CMF Group Inc.
CMM LTD.
CMM Maintenance & Millwright Services
CO-X-CO Construction Limited

Feb 04, 2019

Feb 04, 2019

Jan 21, 2019

Legal Name

Cobourg Development Services Ltd.
Cobra Power Inc.
Coco Paving
Coffey Geotechnics Inc.
Colas Projects
Colas Rail
Collaborative Structures Limited
Colwis Corp.
Com-Plex Systems Ltd
Combined Air Mechanical Services
Comcor Environmental Limited
Comer Group Limited
COMFORT GENERAL CONTRACTING CORP.
Communications and Cabling Contractors Inc.
Compass Construction Resources Ltd
Compression Technology Corp.
Con-Cast Pipe Inc.
Con-Drain Company (1983) Ltd.
Con-Elco Ltd.
Con-Pro Industries Canada Ltd.
Condor Signal & Communications Inc.
Conestoga Roofing & Sheet Metal Ltd.
Consolidated Canadian Contractors
Consolidated Canadian Contractors Inc.
Construction Demathieu & Bard (CDB) Inc
Contract Glaziers
Contro Valve Equipment Inc.
Convergint Technologies Ltd.
Cooper Construction Limited
Cope Construction & Contracting Inc.
CORAL CANADA WIDE LTD.
Cordeiro Roofing Ltd.
Coreydale Contracting Co
Corix Water Products Limited Partnership
Corix Water Services Inc.
Corvin Building Maintenance Ltd.
Cosar Renovation & Repairs
Cosburn Giberson Landscape Architects Inc.
Covertite Eastern Ltd.
Covertite Kingston Ltd
Cox Construction Limited
CP Stoneman Inc.
Crane Construction
Crawford Roofing Corporation
CRCE Construction Ltd.
Credit Valley Trenching & Excavating (1993) Ltd.
Critical Air Mechanical Inc.
Crossby Dewar Inc.
Crosslinx Transit Solutions Constructors
Crozier Mechanical Inc
CRS Tunnelling, Inc.
Cruickshank Construction Limited
CSS Wind
Culliton
Curbside Construction Division
Curbx Construction Ltd
Curbx Construction Ltd.
CYMI Canada Inc.
D & A Road Services Inc.
D Crupi & Sons Limited
D Grant & Sons Limited
D M Robichaud Associates Ltd.
D M W Electrical Instrumentation Inc.
D Richard Fuller Group Incorporated
D. Martino Construction Limited
D&D Trucking & Construction Service Inc.
Dagmar Construction Inc
Dalla Bona Construction Inc.
Dalpro Technologies Inc.
Dalren Limited
Dambro Environmental Inc.
Damisona Roofing Ltd.
Data Wiring Solutions
Davan Landscape Design Build
Dave Boyle Excavating Ltd.
Davey Tree Expert Co. Of Canada Ltd.
Daytech Limited
DBB (427) INC.
DCC Doppelmayr Cable Car Ltd.
DEA Suppliers Inc.

Trade Name

Main Account
Cobra Power Inc.
Coco Paving Inc.
Coffey Geotechnics Inc.
Colas Projects
Colas Rail
Collaborative Structures Limited
Colwis Corp.
Com-Plex Systems Ltd
Combined Air Mechanical Services
Comcor Environmental Limited
Cromer Group Limited
COMFORT SEASONAL SERVICES
Communications and Cabling Contractors Inc.
Compass Construction Resources Ltd
Compression Technology Corp.
Con-Cast Pipe Inc.
Con-Drain Company (1983) Ltd.
Con-Elco Ltd.
Con-Pro Industries Canada Ltd.
Condor Signal & Communications Inc.
Conestoga Roofing & Sheet Metal Ltd.
1031644 Ontario Inc.
Consolidated Canadian Contractors Inc.
Construction Demathieu & Bard (CDB) Inc
Windsor Glass Company (1992) Limited
Contro Valve Equipment Inc.
Convergint Technologies Ltd.
Cooper Construction Limited
Cope Construction & Contracting Inc.
CORAL CANADA WIDE LTD.
Cordeiro Roofing Ltd.
Clipper Construction Limited
Corix Water Products Limited Partnership
Corix Water Services Inc.
Corvin Building Maintenance Ltd.
P. S. PAINTING LIMITED
Cosburn Giberson Landscape Architects Inc.
Covertite Eastern Ltd.
Covertite Kingston Ltd
Cox Construction Limited
CP Stoneman Inc.
1638141 Ontario Ltd.
Crawford Roofing Corporation
CRCE Construction Ltd.
Credit Valley Trenching & Excavating (1993) Ltd.
Critical Air Mechanical Inc.
Crossby Dewar Inc.
Ellisdon Civil Ltd., Dragados Canada, Inc., Snc-Lavalin Constructors(Pacific) Inc. And Aecon Infrastructure Management Inc.
Crozier Mechanical Inc
CRS Tunnelling, Inc.
Cruickshank Construction Limited
CSS Wind Inc.
Culliton Inc.
Curbside Construction Ltd.
Curbx Construction Ltd
Curbx Construction Ltd.
CYMI Canada Inc.
D & A Road Services Inc.
D Crupi & Sons
D Grant Construction Limited
D M Robichaud Associates Ltd.
D M W Electrical Instrumentation Inc.
D Richard Fuller Group Incorporated
D. Martino Construction Limited
D&D Trucking & Construction Service Inc.
Dagmar Construction Inc
Dalla Bona Construction Inc.
Dalpro Technologies Inc.
Dalren Limited
Dambro Environmental Inc.
Damisona Roofing Ltd.
DWS Data Wiring Solutions Inc
Davan Group Inc
Dave Boyle Excavating Ltd.
Davey Tree Expert Co. Of Canada Ltd.
Daytech Limited
DBB (427) INC.
DCC Doppelmayr Cable Car Ltd.
DEA Suppliers Inc.

Registration Date & Time

Jan 29, 2019

Feb 07, 2019

Feb 11, 2019

Jan 16, 2019

Jan 16, 2019

Jan 21, 2019

Feb 01, 2019

Feb 04, 2019

Jan 16, 2019

Registration Date &
Time



Legal Name	Trade Name	Registration Date & Time
Dean Construction Company Limited	Dean Construction Company Limited	
DeAngelo Brothers Corporation	DeAngelo Brothers Corporation	
Decew Construction Inc.	Decew Construction Inc.	Jan 16, 2019
Deciantis Construction Limited	Deciantis Construction Limited	
Deep Foundations Contractors Inc.	Deep Foundations Contractors Inc.	
DeFaveri Group Contracting Inc.	DeFaveri Group Contracting Inc.	
Delsan-A.I.M. Environmental Services Inc.	Delsan-A.I.M. Environmental Services Inc.	
Deltro Electric Ltd.	Deltro Electric Ltd.	
Demolition Plus	2145675 Ontario Ltd.	
Dependable Mechanical Systems Inc.	Dependable Mechanical Systems Inc.	
Deric Construction, Ontario Division Inc.	Deric Construction, Ontario Division Inc.	
Design Electronics	828324 Ontario Limited	
Design Roofing & Sheet Metal Ltd.	Design Roofing & Sheet Metal Ltd.	
Designed Roofing Inc.	Designed Roofing Inc.	
DESO Construction Limited	DESO Construction Limited	
Di Cocco Contractors	Di Cocco Contractors 2015 Inc.	
Dibco - CRS, A Joint Venture	Dibco - CRS Inc.	
Dibco Underground Limited	Dibco Underground Limited	
Dig-Con International	Digregorio International Paving & Construction Limited	
Dinardo C Group Inc	Dinardo C Group Inc	
Dineen Construction Corporation	Dineen Construction Corporation	
Diplock Floor Ltd.	Diplock Floor Ltd.	
Direct Drilling Ltd.	Direct Drilling Ltd.	
Direct Underground Inc.	Direct Underground Inc.	
DNN Contracting Inc.	DNN Contracting Inc.	
Dogwood Maintenance Ltd	Dogwood Maintenance Ltd	Feb 04, 2019
Dol Excavating & Grading Inc.	Dol Excavating & Grading Inc.	
Dol Turf Restoration Ltd	Dol Turf Restoration Ltd	Feb 07, 2019
Dom-Meridian Construction Ltd.	Dom-Meridian Construction Ltd.	
Done Rite Plaza Maintenance and Sons Ltd.	Done Rite Plaza Maintenance and Sons Ltd.	
Doran Contractors Limited	Doran Contractors Limited	
Double T Earthmoving	Double T Earthmoving	
Douglas Alexander Gullett	Northwinds Construction	
DPI Construction Management	Disi-Peri MGT Inc.	
DPSL Group Limited	DPSL Group Limited	
Dragados Canada, Inc.	Dragados Canada, Inc.	
Drainstar Contracting Ltd.	Drainstar Contracting Ltd.	
DRD Construction Services	587435 Ontario Inc.	
DRYIT.CA	2099106 Ontario Limited	
Dufferin Construction Company (Cayuga)	Holcim (Canada) Inc.	
Dufferin Construction Company (London)	Holcim (Canada) Inc.	
Dufferin Construction Company A division of CRH Canada Group	CRH Canada Group Inc.	
Duke's Royal Guard Inc.	Duke's Royal Guard Inc.	
Dukon Construction Ltd.	Dukon Construction Ltd.	
Duncor Enterprises Inc.	Duncor Enterprises Inc.	
Dundas Power Line Ltd	Dundas Power Line Ltd	Jan 17, 2019
Duplex Electrical	Duplex Electrical	
Durham Combustion Limited	Durham Combustion Limited	
Duron Ontario Ltd.	Duron Ontario Ltd.	
DVC	1099708 Ontario Inc.	
Dynamic Energy Services Inc.	Dynamic Energy Services Inc.	
Dynex Construction Inc.	Dynex Construction Inc.	
E & D Services	Aluma Systems Inc.	
E T Construction Inc	E T Construction Inc	
E-Tech Electrical Services Inc.	E-Tech Electrical Services Inc.	
E. I. Du Pont Canada Company/La Compagnie E. I. Du Pont Canada	E. I. Du Pont Canada Company/La Compagnie E. I. Du Pont Canada	
E. S. Fox Limited	E. S. Fox Limited	
E.C. Power & Lighting Ltd	E.C. Power & Lighting Ltd	
Eagle Restoration Inc.	Eagle Restoration Inc.	
Earth Boring Co. Limited	Earth Boring Co. Limited	
Eastern Construction Company Limited	Eastern Construction Company Limited	
EBC -Civil Ontario	EBC Inc.	
EBS Geostuctural Inc.	EBS Geostuctural Inc.	
ECL Engineered Coatings Ltd.	ECL Engineered Coatings Ltd.	
Ecoh	Ecoh Management Inc.	Jan 21, 2019
eCompliance Management Solutions Inc.	eCompliance Management Solutions Inc.	
Edanshield Construction Inc.	Edanshield Construction Inc.	
Edgeway Paving Ltd.	Edgeway Paving Ltd.	
EHV Power ULC	EHV Power	
Eiffage Innovative Canada Inc.	Eiffage Innovative Canada Inc.	
Eileen Roofing Inc.	Eileen Roofing Inc.	
EKT 90 Inc.	EKT 90 Inc.	
El-Con Construction Inc	El-Con Construction Inc	
Element 20	Element 20 Safety Consulting Ltd.	
Elevator One Inc.	Elevator One Inc.	
Elgin Contracting and Restoration Ltd.	Elgin Contracting and Restoration Ltd.	
Elirpa Construction & Materials Limited	Elirpa Construction & Materials Limited	
Elite Construction Inc.	Elite Construction Inc.	
Elite Environmental Group Inc.	Elite Environmental Group Inc.	
EllisDon Corporation	EllisDon Corporation	

Legal Name

Embross North America Ltd.
 Emcom Construction Ltd.
 Emcon Services Inc.
 Emergency Response Support Services Inc.
 Empipe Solutions Ltd
 Empire Restoration Inc.
 Empire Roofing Corporation
 Enco Air Leakage Services Ltd.
 Energy
 Energy Network Services Inc.
 ENGIE Multi Tech Ltd.
 Engie Services Inc.
 Enhanced Security Specialists Inc.
 Enkompass Power and Energy Corp.
 Ennova Facades Inc.
 Entegrus Inc.
 Entegrus Powerlines Inc.
 Entegrus Services Inc.
 Entera Utility Contractors Co. Limited
 Envirotek Sealing & Fiberglassing Inc.
 Enwin Utilities
 EPTCON LTD.
 ESC Automation Inc.
 Esposito Bros Construction Ltd.
 Etobicoke Div
 Evergreen Power Ltd.
 Execway Construction Ltd.
 EXP SERVICES INC.
 Exquisite Painting & Decorating Inc.
 Ezee-Flow Plumbing And Mechanical
 F C M Construction Limited
 Facca Incorporated
 Fairway Electrical Services Incorporated
 Fantastic Kitchens Ltd.
 FBM Canada GSD, Inc.
 Fellmore Electrical Contractors Ltd
 Fer-Pal Construction Ltd.
 Ferdom Construction
 Ferguson Electric Company Ltd
 Fermar Paving Limited
 Ferpac Paving Inc.
 FERRO Canada Inc.
 Ferrovia Agroman Canada Inc.
 Fiber-Con Network Infrastructures Inc.
 Fidelity Engineering & Construction Inc
 Finn Way General Contractor Inc.
 First Elements Incorporated
 First Student
 Firwin Corp
 Fitzpatrick Electrical Contractors Inc.
 Flat Iron Building Group Inc.
 Flint Demolition
 Flow Kleen Utilities
 Fluid Construction & Project Management Inc.
 Fluor Driver Inc.
 Flynn Canada Ltd - Hamilton
 Flynn Canada Ltd - Kitchener
 Flynn Canada Ltd - London
 Flynn Canada Ltd - Ottawa
 Flynn Canada Ltd - Toronto
 Flynn Canada Ltd. - Sudbury
 Foran's Roofing & Sheet Metal Limited
 Forest Landscape Contractors
 Forest Paving Ltd.
 Forest Ridge Landscaping Inc.
 Forma-Con Construction
 Fortis Construction Group Inc.
 Forward Signs Inc.
 Fountain Tire (Timmins) Ltd.
 Four Seasons Site Development Ltd.
 Fourwinds Construction Inc.
 Fowler Construction Company Limited
 Fox Contracting Ltd.
 Franklin Terrazzo Company Inc.
 Frecon Construction Limited
 Fred Trotter Construction Limited
 Fresco Construction
 Frontier Group of Companies Inc.
 Fugro Roadware
 Fuller Industrial Corporation

Trade Name

Embross North America Ltd.
 Emcom Construction Ltd.
 Emcon Services Inc.
 Emergency Response Support Services Inc.
 Empipe Solutions Ltd
 Empire Restoration Inc.
 Empire Roofing Corporation
 Enco Air Leakage Services Ltd.
 Siemens Canada Limited
 Energy Network Services Inc.
 ENGIE Multi Tech Ltd.
 Engie Services Inc.
 Enhanced Security Specialists Inc.
 Enkompass Power and Energy Corp.
 Ennova Facades Inc.
 Entegrus Inc.
 Entegrus Powerlines Inc.
 Entegrus Services Inc.
 1721424 Ontario Limited
 875528 Ontario Inc
 Enwin Utilities Ltd.
 EPTCON LTD.
 ESC Automation Inc.
 Esposito Bros Construction Ltd.
 Canadian Linen And Uniform Service Co.
 Evergreen Power Ltd.
 Execway Construction Ltd.
 EXP SERVICES INC.
 Exquisite Painting & Decorating Inc.
 785277 Ontario Ltd.
 F C M Construction
 Facca Incorporated
 Fairway Electrical Services Incorporated
 Fantastic Kitchens Ltd.
 FBM Canada GSD, Inc.
 Fellmore Electrical Contractors Ltd
 Fer-Pal Construction Ltd.
 741127 Ontario Limited
 Ferguson Electric Company Ltd
 Fermar Paving Limited
 Ferpac Paving Inc.
 FERRO Canada Inc.
 Ferrovia Agroman Canada Inc.
 Fiber-Con Network Infrastructures Inc.
 Fidelity Engineering & Construction Inc
 Finn Way General Contractor Inc.
 First Elements Incorporated
 First Canada Ulc
 Firwin Corp
 Fitzpatrick Electrical Contractors Inc.
 Flat Iron Building Group Inc.
 Flint Demolition
 Flow Kleen Utilities
 Fluid Construction & Project Management Inc.
 Fluor Driver Inc.
 Flynn Canada Ltd - Hamilton
 Flynn Canada Ltd - Kitchener
 Flynn Canada Ltd - London
 Flynn Canada Ltd - Ottawa
 Flynn Canada Ltd - Toronto
 Flynn Canada Ltd. - Sudbury
 Foran's Roofing & Sheet Metal Limited
 Forest Contractors Ltd.
 Forest Paving Ltd.
 Forest Ridge Landscaping Inc.
 1428508 Ontario Ltd.
 Fortis Construction Group Inc.
 Forward Signs Inc.
 Fountain Tire (Timmins) Ltd.
 Four Seasons Site Development Ltd.
 Fourwinds Construction Inc.
 Fowler Construction Company Limited
 Fox Contracting Ltd.
 Franklin Terrazzo Company Inc.
 Frecon Construction Limited
 Fred Trotter Construction Limited
 Fresco Enterprises Inc.
 Frontier Group of Companies Inc.
 Fugro Canada Corp.
 Fuller Industrial Corporation

Registration Date & Time

Feb 04, 2019

Jan 17, 2019

Legal Name

Furfari Paving Co Ltd
 Furmar Dixie Road
 G Gordon Enterprises
 G-Tel Engineering Inc.
 G. Cooper Equipment Rentals Limited
 G.S. Wark Limited
 Ganotec Inc.
 Ganotec Inc.
 Garage Supply Contracting Inc.
 Garrison Creek Construction Inc.
 Garritano Bros Ltd.
 Gateman-Millooy
 Gay Company Limited
 Gazzola Paving Limited
 GDA Services Incorporated
 GDB Constructeurs
 Gen-eer Construction Ltd.
 GEN-PRO
 Geo Stabilization International Inc.
 Geo-Environmental Drilling Inc.
 Geo-Foundations Contractors Inc.
 Geo. A. Kelson Company Limited
 Geopac
 George Armstrong Co. Limited
 George Stone & Sons Inc.
 Georgian Paving Ltd.
 Geosolv Design/Build Inc.
 Geosyntec Consultants International Inc.
 Gerrits Drilling & Engineering
 GFL Excavating
 GGC INC.
 GHD Contractors Limited
 GHD Limited
 Giffels Constructors Inc
 Gillam Group Inc.
 Gillanders Construction Inc
 Gio Contracting Inc.
 Gio Crete Construction Ltd.
 GK Engineering & Technical Services Inc.
 Glidepath Systems Ltd.
 Global Sewer Services
 GM Blueplan Engineering Limited
 GMP Contracting
 Golder Associates Ltd. _ 1
 Goodmen Corporation
 Gordon Barr Limited
 Govan Brown Management Inc.
 GOWING CONTRACTORS (2018) LTD.
 Gowing Contractors Ltd.
 GPEC
 Grace Instrumentation & Controls Ltd.
 Graceview Enterprises Inc.
 Graebeck Construction Ltd
 Graham Bros. Construction Limited
 Graham Construction and Engineering LP
 Graham Entertainment Projects, A JV
 Graham Infrastructure LP
 Grascan Construction Ltd
 Grassmere Construction Ltd.
 Great Northern Insulation Contracting Ltd.
 Greatario Engineered Storage System Ltd.
 Greco Construction Co.
 Green Frog Construction Inc.
 Green Propeller Design Inc.
 Greenferd Construction Inc.
 Greenloc Environmental Hoarding Inc.
 Greyhound Canada
 Greyleith Engineering & Construction (Canada) Ltd.
 Greystone Project Management Inc.
 Grid Link
 Grimsby Utility Construction Inc.
 Ground Breakers Contracting Ltd.
 Groundtrax Inc
 Groundwork Drilling Inc.
 Groupe Piche Construction (Ontario) Inc.
 GRRC Roofing
 GTA Central
 GTA North
 GTA South
 Guelph Hydro

Trade Name

Furfari Paving Co Ltd
 1648133 Ontario Ltd.
 894882 ONTARIO INC.
 G-Tel Engineering Inc.
 G. Cooper Equipment Rentals Limited
 G.S. Wark Limited
 Ganotec Inc.
 Ganotec Inc.
 Ganotec Inc.
 Garage Supply Contracting Inc.
 Garrison Creek Construction Inc.
 Garritano Bros Ltd.
 Gateman-Millooy Inc.
 Gay Company Limited
 Gazzola Paving Limited
 GDA Services Incorporated
 1468792 Ontario Inc.
 Gen-eer Construction Ltd.
 1320376 Ontario Ltd.
 Geo Stabilization International Inc.
 Geo-Environmental Drilling Inc.
 Keller Foundations Ltd.
 Geo. A. Kelson Company Limited
 Geopac Inc.
 George Armstrong Co. Limited
 George Stone & Sons Inc.
 Georgian Paving Ltd.
 Geosolv Design/Build Inc.
 Geosyntec Consultants International Inc.
 Gerrits Drilling 2014 Inc.
 GFL Excavating Corp.
 GGC INC.
 GHD Contractors Limited
 GHD Limited
 Giffels Constructors Inc
 Gillam Group Inc.
 Gillanders Construction Inc
 Gio Contracting Inc.
 Gio Crete Construction Ltd.
 GK Engineering & Technical Services Inc.
 Glidepath Systems Ltd.
 1522854 Ontario Incorporated
 GM Blueplan Engineering Limited
 2274084 Ontario Ltd.
 Golder Associates Ltd.
 Goodmen Corporation
 Gordon Barr Limited
 Govan Brown Management Inc.
 GOWING CONTRACTORS (2018) LTD.
 Gowing Contractors Ltd.
 6834973 Canada Inc.
 Grace Instrumentation & Controls Ltd.
 Graceview Enterprises Inc.
 Graebeck Construction Ltd
 Graham Bros. Construction Limited
 Graham Construction and Engineering LP
 Graham Construction & Engineering Inc.
 Graham Infrastructure LP
 Grascan Construction Ltd
 Grassmere Construction Ltd.
 Great Northern Insulation Contracting Ltd.
 Greatario Industrial Storage System Ltd.
 F GRECO & SONS LTD.
 Green Frog Renovation Enterprise Inc.
 Green Propeller Design Inc.
 Greenferd Construction Inc.
 Greenloc Environmental Hoarding Inc.
 Greyhound Canada Transportation ULC
 Greyleith Engineering & Construction (Canada) Ltd.
 Greystone Project Management Inc.
 Grid Link Corp.
 Grimsby Utility Construction Inc.
 Ground Breakers Contracting Ltd.
 Groundtrax Inc
 Groundwork Drilling Inc.
 Groupe Piche Construction (Ontario) Inc.
 George Roque Roofing Corp
 GFL Environmental Inc.
 GFL Environmental Inc.
 GFL Environmental Inc.
 Guelph Hydro Electric Systems Inc.

Registration Date &
 Time



Jan 21, 2019

Jan 21, 2019

Jan 29, 2019

Jan 17, 2019

Jan 21, 2019

Feb 11, 2019

Jan 16, 2019

Jan 16, 2019

Registration Date &
Time



Legal Name	Trade Name	Registration Date & Time
Guild Electric Limited	Guild Electric Limited	
H.I.R.A. Limited	H.I.R.A. Limited	
H2 Ontario Inc.	H2 Ontario Inc.	
H2M Inc.	H2M Inc.	
Haldimand County Hydro Inc.	Haldimand County Hydro Inc.	
Hall Construction Inc.	Hall Construction Inc.	
Halton Crushed Stone Limited	Halton Crushed Stone Limited	
Hamon Custodis-Cottrell Canada, Inc.	Hamon Custodis-Cottrell Canada, Inc.	
Hank Deenen Landscaping Limited	Hank Deenen Landscaping Limited	
Harbridge & Cross Limited	Harbridge & Cross Limited	
Hard Rock Sewers Watermain Ltd.	Hard Rock Sewers Watermain Ltd.	
Harold Sutherland Construction Ltd.	Harold Sutherland Construction Ltd.	
Harrington and Associates Ltd.	Harrington and Associates Ltd.	
Harris Canada System	Harris Canada Systems, Inc	
Harris Rebar	Harris Steel ULC	
Harrison Muir Inc.	Harrison Muir Inc.	
Hart-Well Electrical Company Limited	Hart-Well Electrical Company Limited	
Harvie Construction Inc.	Harvie Construction Inc.	
Hastings Painting Corporation	Hastings Painting Corporation	
Hastings Utilities Contracting Ltd.	Hastings Utilities Contracting Ltd.	
Hatch Corporation	Hatch Corporation	
Hatch Mott Macdonald	Hatch Mott Macdonald Ltd.	
Hawkins Contracting Services Limited	Hawkins Contracting Services Limited	
Hayman Construction	Hayman Construction Inc.	
Hazmasters Inc.	Hazmasters Inc.	
HC Matcon Inc.	HC Matcon Inc.	
Health and Safety Advisors	Health and Safety Advisors	
Health Care Solutions Inc.	Health Care Solutions Inc.	
Heather & Little Limited	Heather & Little Limited	
Hendrix Hotel & Restaurant Equipment & Supplies Ltd.	Hendrix Hotel & Restaurant Equipment & Supplies Ltd.	
Hermanns Contracting Limited	Hermanns Contracting Limited	
Hertz Equipment Rental	Matthews Equipment Rental	
Herzog Contracting of Canada Ltd.	Herzog Contracting of Canada Ltd.	
Herzog Railroad Services of Canada Ltd.	Herzog Railroad Services of Canada Ltd.	
Hi-Rise Mechanical Contracting Inc.	Hi-Rise Mechanical Contracting Inc.	
Highland Water Well Drilling Inc.	Highland Water Well Drilling Inc.	
Highpoint Environmental Services Inc.	Highpoint Environmental Services Inc.	
HIL	Huinink Infrastructure Ltd.	
Hil-Com Inc.	Hil-Com Inc.	
Hillsdale Structures Limited Partnership	Hillsdale Structures Limited Partnership	
HITECH STRUCTURES INC.	HITECH STRUCTURES INC.	
Hoelscher Dewatering Inc.	Hoelscher Dewatering Inc.	
Holaco Installations Limited	Holaco Installations Limited	
Horizon Sheet Metal Ltd.	Horizon Sheet Metal Ltd.	Jan 17, 2019
Horizontal Div	Marathon Drilling Co Ltd /Forage Marathon Co Ltee	
Horizontal Div	Marathon Underground Constructors Corporation	Jan 16, 2019
Houston Construction Ltd.	Houston Construction Ltd.	
Hudson Restoration Inc.	Hudson Restoration Inc.	
Huinink Construction	Huinink Construction	
Huinink Corp.	Huinink Corp.	
Hunter Electric	2275708 Ontario Ltd.	
Huron Construction Co. Limited	Huron Construction Co. Limited	
Hy-Grade Precast Concrete Ltd.	Hy-Grade Precast Concrete Ltd.	
Hydro Excavating Services Ltd	Hydro Excavating Services Ltd	
Hydro One Networks Inc.	Hydro One Networks Inc.	
Hydro Tech Inc.	Hydro Tech Inc.	
HydroPlumb Mechanical Ltd.	HydroPlumb Mechanical Ltd.	
I & I Construction Services Limited	I & I Construction Services Limited	
ICI Construction Health and Safety Consultancy	HEIDI BROOKES	
ICON Digital Productions Inc.	ICON Digital Productions Inc.	
IHSA	Infrastructure Health & Safety Association	
IL Duca Contracting Inc.	IL Duca Contracting Inc.	
Impact Electrical and Mechanical Limited	Impact Electrical and Mechanical Limited	
IMPRESA PIZZAROTTI & C. S.P.A.	Impresa Pizzarotti & C S.p.A.	
iN4Structure Ltd.	iN4Structure Ltd.	
Index Construction Inc.	Index Construction Inc.	
Industrial Roofing Services Limited	Industrial Roofing Services Limited	
Industrial Waste Division	Tomlinson Environmental Services Ltd	
Infinity Millwork Installations Inc.	Infinity Millwork Installations Inc.	
Innovative Civil Constructors Inc.	Innovative Civil Constructors Inc.	
Inscan Contractors Inc	Inscan Contractors Inc	
Insitu Contractors Inc.	Insitu Contractors Inc.	
Insituform Canada	Insituform Technologies Limited	
Insulcana Contracting Ltd.	Insulcana Contracting Ltd.	
Integra Technologies Limited	Integra Technologies Limited	
Integrated Building & Design Corporation	Integrated Building & Design Corporation	
Inter All Ltd	Inter All Ltd	Feb 11, 2019
Inzola Construction Inc.	Inzola Construction Inc.	
Ipac Paving Ltd.	Ipac Paving Ltd.	
IRA McDonald Construction Limited	IRA McDonald Construction Limited	

Registration Date &
Time



Legal Name	Trade Name	Registration Date & Time
IRC Building Sciences Group Inc.	IRC Building Sciences Group Inc.	
IS2 Workforce Solutions	IS2 Workforce Solutions Inc.	
Isotope Tracer Technologies Inc.	Isotope Tracer Technologies Inc.	
IST	Innovative Steam Technologies Inc.	
J C R Contracting Ltd.	J C R Contracting Ltd.	Jan 16, 2019
J D Barnes Limited	J. D. Barnes Limited	
J M R Electric Ltd	J M R Electric Ltd	
J McCrossan Excavation	JMX Contracting Inc.	
J R Clarke & Associates Ltd.	Inflector Environmental Services	
J. J. McGuire General Contractors Inc.	J. J. McGuire General Contractors Inc.	
J. Y. Moreau Electrique Inc.	J. Y. Moreau Electrique Inc.	
J.D. Barnes	J.D. Barnes Limited	
Jacobs Canada Inc.	Jacobs Canada Inc.	
Jacques Daoust Coatings Management Inc.	Jacques Daoust Coatings Management Inc.	
James Donn Piling Ltd.	James Donn Piling Ltd.	Jan 17, 2019
James Kemp Construction Limited	James Kemp Construction Limited	
James Lathem Excavating Limited	James Lathem Excavating Limited	
Jarliian Construction Inc.	Jarliian Construction Inc.	
Jason Dery	Extel Services Inc	
Jasper Construction Corp.	Jasper Construction Corp.	
Jeviso Construction Corporation	Jeviso Construction Corporation	
Jilani and Asuncion Consulting Engineers	Jilani and Asuncion Consulting Engineers	
Jobi Construction Ltd	Jobi Construction Ltd	
Joe Pace & Sons Contracting Inc.	Joe Pace & Sons Contracting Inc.	
John's Torch Repairs & Custom Works Inc.	John's Torch Repairs & Custom Works Inc.	
Johnson Controls Canada LP	Johnson Controls Canada LP	
JR Certus Construction Co. Ltd.	JR Certus Construction Co. Ltd.	
JSR Rebar Installation Ltd.	JSR Rebar Installation Ltd.	
K & L Construction (Ontario) Ltd.	K & L Construction (Ontario) Ltd.	
K D M Erectors	1231576 Ontario Limited	
K-Line Maintenance & Construction Limited	K-Line Maintenance & Construction Limited	
K. G. Wilkes & Associates Canada Inc.	K. G. Wilkes & Associates Canada Inc.	Jan 18, 2019
K. Mulrooney Trucking Ltd.	K. Mulrooney Trucking Ltd.	
K.I.B. Building Restoration Inc.	K.I.B. Building Restoration Inc.	
K.P.C. Power Electrical Ltd.	K.P.C. Power Electrical Ltd.	
Kamrus Construction	Kamrus Construction Limited	
KAPP Infrastructure Inc.	KAPP Infrastructure Inc.	
Karson Asphalt Paving Inc.	Karson Asphalt Paving Inc.	
KBR Wabi Ltd.	KBR Wabi Ltd.	
KE Electrical Ltd.	KE Electrical Ltd.	
Keith's Plumbing & Heating	Keith's Plumbing & Heating Inc.	
Kel-Gor Limited	Kel-Gor Limited	
Keller Foundations Ltd	Keller Foundations Ltd	
Kenaidan Contracting Ltd.	Kenaidan Contracting Ltd.	
Kenco Construction Ltd.	Kenco Construction Ltd.	
Kenon Builders	Kenon Builders Inc.	
Kenstruct Ltd.	Kenstruct Ltd.	
Kieswetter Excavating Inc.	Kieswetter Excavating Inc.	
Kinesik Engineered Products Inc.	Kinesik Engineered Products Inc.	
King Cross Contracting Limited	King Cross Contracting Limited	
King Koating Roofing Inc.	King Koating Roofing Inc.	Jan 16, 2019
King Paving & Construction Company	KPM Industries Ltd	
Kingdom Construction Limited	Kingdom Construction Limited	
Kinley Construction of Canada, Inc.	Kinley Construction of Canada, Inc.	
Kintetsu World Express (Canada) Inc.	Kintetsu World Express (Canada) Inc	
Kiwi Newton Construction	Newton Group Ltd	
Klenzoid Canada Inc.	Klenzoid Canada Inc.	
Kneeshaw Electrical Services Inc	Kneeshaw Electrical Services Inc	
Koler Construction	Koler Construction Inc.	
Kon-Strutt Construction	1108575 Ontario Ltd.	Jan 17, 2019
Kone Inc.	Kone Inc.	
Krypton Steel Inc.	Krypton Steel Inc.	
KSL Construction Services Ltd.	KSL Construction Services Ltd.	
Kudlak-Baird (1982) Limited	Kudlak-Baird (1982) Limited	Jan 16, 2019
Kudlak-Baird (1982) Limited	Kudlak-Baird (1982) Limited	Feb 11, 2019
L H North Ltd.	L H North Ltd.	
L.L.S.R	GFL Environmental Inc.	
L.T.L. Contracting Ltd.	L.T.L. Contracting Ltd.	
Laing O'Rourke Canada Ltd.	Laing O'Rourke Canada Ltd.	
Lake Of The Woods Electric (Kenora) Ltd.	Lake Of The Woods Electric (Kenora) Ltd.	
Lakehead Insulation Inc.	Lakehead Insulation Inc.	
Lakeside Contracting Company Limited	Lakeside Contracting Company Limited	
Lakeside Process Controls Ltd.	Lakeside Process Controls Ltd.	
LamSar Inc.	LamSar Inc.	
Lancaster Group Inc.	Lancaster Group Inc.	
Lancorp Construction Co Ltd.	Lancorp Construction Co Ltd.	
Landform Civil Infrastructures	Landform Civil Infrastructures Inc.	
Landmark Municipal Services ULC	Landmark Municipal Services ULC	
Landmark Structures Co.	Landmark Structures Co.	
Landscape Impressions	Daniel Fargiuele	

Registration Date &
Time

Legal Name	Trade Name	Registration Date & Time
Landscape Planning Ltd.	Landscape Planning Ltd.	
Langley Utilities Contracting Ltd.	Langley Utilities Contracting Ltd.	
Laurin & Company	152610 Canada Inc	
Laycon Construction Services Inc.	Laycon Construction Services Inc.	
Layfield Canada Ltd.	Layfield Canada Ltd.	
Layfield Environmental Systems Ltd	Layfield Environmental Systems Ltd	
LCD Mechanical Inc.	LCD Mechanical Inc.	
Ledcor Construction Limited	Ledcor Construction Limited	
Lee Sand & Gravel Division	North York Sand And Gravel Limited	
Leone Fence Co Ltd.	Leone Fence Co Ltd.	
Les Constructions Beauce-Atlas Inc	Les Constructions Beauce-Atlas Inc	
Lexsan Electrical	Lexsan Electrical Inc.	
LGL Limited	LGL Limited	
Life Construction Inc	Life Construction Inc	Feb 06, 2019
Lift Depot Ltd.	Lift Depot Ltd.	
Liftsafe Engineering & Service Group Inc.	Liftsafe Engineering & Service Group Inc.	
Limen Group Const. Ltd.	Limen Group Const. Ltd.	
Link - Line Contractors Ltd.	Link - Line Contractors Ltd.	
Lions Group Inc.	Lions Group Inc.	
Liqui - Force Services Inc.	Liqui-Force Services (Ontario) Inc.	
Lisbon Paving Company Limited	Lisbon Paving Company Limited	
Litek Mechanical Services Inc.	Litek Mechanical Services Inc.	
Loc-Pave Construction Limited	Loc-Pave Construction Limited	
Lockwall Forming Ltd.	Lockwall Forming Ltd.	
Lombardi Construction	Lombardi Construction Inc.	
Lomco Limited	Lomco Limited	
London Div	Canadian Linen And Uniform	
London Hydro Inc.	London Hydro Inc.	Jan 15, 2019
London Hydro Inc.	London Hydro Inc.	
Lopes Limited	Lopes Limited	
Lorneville Mechanical Contractors Ltd.	Lorneville Mechanical Contractors Ltd.	
Louis W. Bray Construction Limited	Louis W. Bray Construction Limited	
LTL Directional Drilling Services Ltd	LTL Directional Drilling Services Ltd	
LVM, Division EnGlobe Corp.	Englobe Corp.	
Lyn Mechanical Ltd.	Lyn Group Inc.	
Lystek International Inc	Lystek International Inc	
M & G Steel Ltd.	M & G Steel Ltd.	
M. Sullivan & Son	M. Sullivan & Son Limited	
M.J. Dixon Construction Limited	M.J. Dixon Construction Limited	
Maaten Construction Limited	Maaten Construction Limited	
Mackay Mackay & Peters Ltd	Mackay Mackay & Peters Ltd	
Madsen Controls Inc.	Madsen Controls Inc.	
Magnetite Canada Inc.	Magnetite Canada Inc.	
Magneto Electric Service Co Ltd	Magneto Electric Service Co Ltd	
Magnum Protective Services Ltd.	Magnum Protective Services Ltd.	
Main Infrastructure Ltd.	Main Infrastructure Ltd.	
Malfar Mechanical Inc.	Malfar Mechanical Inc.	
Man-Shield (NWO) Construction Limited Partnership	Man-Shield (NWO) Construction Limited Partnership	
Manners Glass Services Limited	Manners Glass Services Limited	
Manufact Technical Writing Inc.	Manufact Technical Writing Inc.	
Maple Industries Inc.	Maple Industries Inc.	
Maple Reinders Constructors Ltd.	Maple Reinders Constructors Ltd.	
Maple-Crete Inc.	Maple-Crete Inc.	
Mapleridge Mechanical Contracting Inc.	Mapleridge Mechanical Contracting Inc.	
Mar-King Construction Company	Mar-King Construction Company	
Marant Construction Limited	Marant Construction Limited	
Marbridge Construction Ltd.	Marbridge Construction Ltd.	
Marcon Demolition & Environmental Services Inc.	Marcon Demolition & Environmental Services Inc.	Jan 30, 2019
Marcotte Disposal Inc.	Marcotte Disposal Inc.	
Marel Contractors Group Inc.	Marel Contractors Group Inc.	
Margell Mechanical Contractors Limited	Margell Mechanical Contractors Limited	
Marko Karakas	Kramer Inc.	
Marnoch Facilities Maintenance	Marnoch Electrical Services Inc	
Martinway Contracting	Martinway Contracting Ltd.	
Martinway Developments Limited	Martinway Developments Limited	
Mass. Electric Construction Canada Co.	Mass. Electric Construction Canada Co.	
Massicotte Construction Ltd.	Massicotte Construction Ltd.	
Matheson Constructors Limited	Matheson Constructors Limited	
Maxim Group General Contracting Limited	Maxim Group General Contracting Limited	
Maxim Roofing Limited	Maxim Roofing Limited	
Maystar General Contractors Inc.	Maystar General Contractors Inc.	
McCormick-Campbell Steel Services Inc.	McCormick-Campbell Steel Services Inc.	
McGonigal Construction Ltd.	McGonigal Construction Ltd.	
Mcintosh Perry Consulting Engineers Ltd.	Mcintosh Perry Consulting Engineers Ltd.	Jan 16, 2019
McIntosh Perry Limited	McIntosh Perry Limited	
Mcintosh Perry Surveying Inc.	Mcintosh Perry Surveying Inc.	Jan 16, 2019
Mckay-Cocker Sales Company	Mckay-Cocker Construction Limited	
McLean Chimney Company Ltd.	McLean Chimney Company Ltd.	
McLean Taylor Construction Limited	McLean Taylor Construction Limited	
McNally Construction Inc.	McNally Construction Inc.	

Registration Date &
Time



Legal Name	Trade Name	Registration Date & Time
Med2Spec Inc.	Med2Spec Inc.	
Meehan's Industrial Maintenance Ltd.	Meehan's Industrial Maintenance Ltd.	
Mellon Inc.	Mellon Inc.	
Melloul-Blamey Construction Inc.	Melloul-Blamey Construction Inc.	
Melrose Paving Co Ltd.	Melrose Paving Co Ltd.	
Memme Construction	Memme Excavation Company Limited	
Merit Contractors Niagara	Merit Contractors Niagara Ltd.	
Metric Contracting Services Corporation	Metric Contracting Services Corporation	
Metro Asphalt Interlocking & Paving	2198271 Ontario Ltd.	
Metro Asphalt Sealer & Repairs Ltd.	Metro Asphalt Sealer & Repairs Ltd.	
MetroCan Design & Build Inc.	MetroCan Design & Build Inc.	
Mettko Construction Ltd	Mettko Construction Ltd	
MHI	KNYMH INCORPORATED	
Michael + Clark Construction Inc.	Michael + Clark Construction Inc.	
Midland Courier	Midland Transport Limited	
Midome Construction Services Ltd	Midome Construction Services Ltd	
Mike Moore Construction Ltd	Mike Moore Construction Ltd	
Milestone Environmental Contracting Inc.	Milestone Environmental Contracting Inc.	
Miller Northwest Limited	Miller Northwest Limited	
Miller Paving	Miller Paving Limited	
Miller Paving (North Bay) Limited	Miller Paving (North Bay) Limited	
Miller Paving Northern Grant Paving	Miller Group Inc	
Miller Transit Limited	Miller Transit Limited	
Miller Waste Systems	Miller Paving Limited	
Mirtren Construction Limited	Mirtren Construction Limited	
Mitchell Demolition Inc.	Mitchell Demolition Inc.	
MJ. K. Construction Inc.	MJ. K. Construction Inc.	
MMA Construction Ltd.	2490179 Ontario Ltd.	
MN Dynamic Construction Ltd.	MN Dynamic Construction Ltd.	
Modern Niagara Ottawa Inc.	Modern Niagara Ottawa Inc.	
Modern Niagara Toronto Inc.	Modern Niagara Toronto Inc.	
Moncrief Construction Limited	Moncrief Construction Limited	
Mondial Development Ltd.	Mondial Development Ltd.	
Mondo Contracting Canada Inc.	Mondo Contracting Canada Inc.	
Montana Electrical Contractors Ltd.	Montana Electrical Contractors Ltd.	
Monteith & Sutherland Limited	Monteith & Sutherland Limited	
Monteith Building Group Ltd.	Monteith Building Group Ltd.	
Montgomery Bus Lines	Southland Transportation Ltd.	
Mopal Construction Ltd	Mopal Construction Ltd	
Moretti Excavating Limited	Moretti Excavating Limited	
Morrison Hershfield Limited	Morrison Hershfield Limited	
Morrison Hershfield Managers Inc.	Morrison Hershfield Managers Inc.	
Mortenson Canada Corporation	Mortenson Canada Corporation	
MRP Builders-Engineers Inc.	MRP Builders-Engineers Inc.	
MSB Mechanical Ltd.	MSB Mechanical Ltd.	
MSO Construction Limited	MSO Construction Limited	
MTM2 Contracting Inc.	MTM2 Contracting Inc.	
Mulder Construction & Materials Ltd.	Mulder Construction & Materials Ltd.	
Multiplex Construction Canada Limited	Multiplex Construction Canada Limited	
Multiseal Inc.	Multiseal Inc.	
Multiservice Electric Ltd.	Multiservice Electric Ltd.	Jan 16, 2019
Multiurethanes Ltd	Multiurethanes Ltd	
Multiview Locates Inc	Multiview Locates Inc	
Multivista Construction Documentation	1764129 Ontario Ltd.	
Municipal Sewer Services Inc.	Municipal Sewer Services Inc.	Jan 21, 2019
Munro Ltd.	Munro Ltd.	
NAK Design Strategies Inc.	NAK Design Strategies Inc.	
Nanometrics Inc	Nanometrics Inc	
National Structures 2011 Inc.	National Structures 2011 Inc.	
Naylor Group Incorporated	Naylor Group Incorporated	
NC Traffic Management Inc.	NC Traffic Management Inc.	
Nedlaw Roofing Limited	Nedlaw Roofing Limited	
NEI Construction Corp.	NEI Construction Corp.	
Nekison Engineering & Contractors Limited	Nekison Engineering & Contractors Limited	
Nelmar Drywall Company Limited	Nelmar Drywall Company Limited	
Nelson Environmental Inc.	Nelson Environmental Inc	
Neptune Technology Group Canada Co.	Neptune Technology Group Canada Co.	
Net Electric Limited	Net Electric Limited	
Network Sewer and Watermain Ltd.	Network Sewer and Watermain Ltd.	
Network Underground Utilities Inc.	Network Underground Utilities Inc.	
New Point Construction Inc.	New Point Construction Inc.	
New-Alliance Ltd.	New-Alliance Ltd.	
Newman Bros Limited	Newman Bros Limited	
Newpark Contracting Inc.	Newpark Contracting Inc.	Jan 16, 2019
Niacon Limited	Niacon Limited	
Nith Valley Construction (2008) Ltd.	Nith Valley Construction (2008) Ltd.	
Nor-Lag Coatings Ltd.	Nor-Lag Coatings Ltd.	
Norlon Builders London Limited	Norlon Builders London Limited	
Norterra Organics Ltd.	Norterra Organics Ltd.	
Nortex Roofing Ltd.	Nortex Roofing Ltd.	

Legal Name

North America Construction (1993) Ltd.
 North America General Contractor Ltd.
 North River Construction Inc.
 North Rock Group Ltd.
 North Tunnel Constructors ULC
 North Wind Portage Canada ULC
 Northec Construction Inc.
 Northern Concrete Cutting & Coring Inc.
 Northern Mat & Bridge LP
 Northern Painters And Custom Decorating Services
 Northern Transmission Services, Ltd.
 Northland Paving Ltd
 Northwind Solutions Group Inc.
 Novaquip Lifting Systems Inc.
 Noveen Engineering Inc.
 NRB Inc.
 Nuroad Construction Limited
 Nusens Niche Contracting Services Inc.
 Nutemp Mechanical Systems Ltd.
 O J C R Construction Ltd.
 O'Connor Electric Ltd.
 Obayashi Canada Ltd.
 Oben Build Inc.
 Ocean HVAC Systems Inc.
 Ocean Mechanical Inc.
 Ogilvie Electric Inc.
 OHL Canada
 OLAR Limited
 Oldcastle Building Envelope Canada Inc.
 On Track Safety Ltd.
 ON-CITE Solutions
 ONIT Construction Inc.
 Onsite Contracting Inc.
 Ontario Clean Water Agency
 Ontario Cutting & Coring Limited
 Ontario Electrical Construction Company Limited
 Ontario Excavac Inc.
 Ontario Land Surveyors
 Ontario Trap Rock
 Onyx Fire Protection Services Inc.
 Onyx Mechanical Ltd.
 Onyx-Fire Protection Services Inc.
 Onyx-Sprinkler Installations Inc.
 Operations Management International Canada Inc
 Orin Contractors Corp
 OSC Constructors ULC
 Oscar Renda Contracting Of Canada, Inc.
 Oshawa PUC Networks
 Otis Canada Inc.
 Ottawa Div
 Ottawa Greenbelt Construction Company Limited
 Ottawa Northern Ontario Region
 OWS Railroad Construction & Maintenance Ltd.
 Oxford Sand & Gravel Limited
 Ozz Electric Inc.
 P & C General Contracting Ltd.
 P C L Constructors Inc.
 P H E Contractor Sales Ltd
 Pachino Construction Company Ltd.
 Pacific Paving
 Panasonic Eco Solutions Canada Inc.
 Panson Electrical Services Ltd.
 Parkeyes International Group Inc.
 Parsons
 Patlon Aircraft & Industries Limited
 Patrick Cassidy & Associates Inc.
 Patterned Concrete Ontario Inc.
 Pave Krete Construction
 Pave-1 Construction Ltd.
 Pave-Al Limited
 Pave-Tar Construction Ltd.
 Paynel Electrical Contractors Limited
 PBW High Voltage Ltd.
 PCL Constructors Canada Inc.
 PCR Contractors Inc.
 Peak Engineering & Construction Ltd
 Pegah Construction Ltd.
 Peltar Paving and General Contracting Company Limited
 Peninsula Construction Inc.
 Pennorth Group Limited

Trade Name

North America Construction (1993) Ltd.
 North America General Contractor Ltd.
 North River Construction Inc.
 North Rock Group Ltd.
 North Tunnel Constructors ULC
 North Wind Portage Canada ULC
 Northec Construction Inc.
 Northern Concrete Cutting & Coring Inc.
 Northern Mat and Bridge (East) LP
 Concco Group Ltd
 Northern Transmission Services, Ltd.
 Northland Paving Ltd
 Northwind Solutions Group Inc.
 Novaquip Lifting Systems Inc.
 Noveen Engineering Inc.
 NRB Inc.
 Nuroad Construction Limited
 Nusens Niche Contracting Services Inc.
 Nutemp Mechanical Systems Ltd.
 O J C R Construction Ltd.
 O'Connor Electric Ltd.
 Obayashi Canada Ltd.
 Oben Build Inc.
 Ocean HVAC Systems Inc.
 Ocean Mechanical Inc.
 Ogilvie Electric Inc.
 OHL Construction Canada Inc.
 OLAR Limited
 Oldcastle Building Envelope Canada Inc.
 On Track Safety Ltd.
 ON-CITE Solutions
 ONIT Construction Inc.
 Onsite Contracting Inc.
 Ontario Clean Water Agency
 Ontario Cutting & Coring Limited
 Ontario Electrical Construction Company Limited
 Ontario Excavac Inc.
 Callon Dietz Incorporated
 R. W. Tomlinson Limited
 Onyx Fire Protection Services Inc.
 Onyx Mechanical Ltd.
 Onyx-Fire Protection Services Inc.
 Onyx-Sprinkler Installations Inc.
 Operations Management International Canada Inc
 Orin Contractors Corp
 OSC Constructors ULC
 Oscar Renda Contracting Of Canada, Inc.
 Oshawa PUC Networks Inc.
 Otis Canada Inc.
 Canadian Linen And Uniform Service Co.
 Ottawa Greenbelt Construction Company Limited
 Black & McDonald Limited
 OWS Railroad Construction & Maintenance Ltd.
 Oxford Sand & Gravel Limited
 Ozz Electric Inc.
 P & C General Contracting Ltd.
 P C L Constructors Inc.
 P H E Contractor Sales Ltd
 Pachino Construction Company Ltd.
 Pacific Paving Limited
 Panasonic Eco Solutions Canada Inc.
 Panson Electrical Services Ltd.
 Parkeyes International Group Inc.
 Parsons Inc.
 Patlon Aircraft & Industries Limited
 Patrick Cassidy & Associates Inc.
 Patterned Concrete Ontario Inc.
 1707219 Ontario Ltd.
 Pave-1 Construction Ltd.
 Pave-Al Limited
 Pave-Tar Construction Ltd.
 Paynel Electrical Contractors Limited
 PBW High Voltage Ltd.
 PCL Constructors Canada Inc.
 PCR Contractors Inc.
 Peak Engineering & Construction Ltd
 Pegah Construction Ltd.
 Peltar Paving and General Contracting Company Limited
 Peninsula Construction Inc.
 Pennorth Group Limited

Registration Date & Time

Jan 18, 2019

Jan 17, 2019

Feb 05, 2019

Jan 21, 2019

Jan 16, 2019

Jan 16, 2019

Registration Date &
Time



Legal Name	Trade Name	Registration Date & Time
Percon Construction Inc.	Percon Construction Inc.	
Performcrete Inc	Performcrete Inc	
Peter Kiewit Sons ULC	Peter Kiewit Sons ULC	
PGC Services Inc.	PGC Services Inc.	
PGC Services London Inc.	PGC Services London Inc.	
PGG Canada	Babcock And Wilcox Power Generation Group Canada Corp.	
PGM Rail Services Ltd.	PGM Rail Services Ltd.	
Phoenix Restoration Division	Phoenix Restoration Inc.	
Pinchin Ltd.	Pinchin Ltd.	
Pine Valley Enterprises Inc	Pine Valley Enterprises Inc	
Pipe-All Plumbing & Heating Ltd.	Pipe-All Plumbing & Heating Ltd.	
Pipeflo Contracting Corp.	Pipeflo Contracting Corp.	
Pipetek Infrastructure Services Inc.	Pipetek Infrastructure Services Inc.	
Pivot Systems Ltd.	Pivot Systems Ltd.	
Pivotal Projects	WSP Projects Inc.	
Plan Group Inc.	Plan Group Inc.	
Platecon Projects Ltd	Platecon Projects Ltd	Feb 08, 2019
Platinum Construction Corporation	Platinum Construction Corporation	
Platinum Electrical Contractors Inc	Platinum Electrical Contractors Inc	
Platinum Track Services	Platinum Track Services	
PNR Railworks Maintenance	PNR Railworks Inc.	
PNR Railworks Signals 2	PNR Railworks Inc.	
PNR Railworks Track 1	PNR Railworks Inc.	
Pollard Enterprises Ltd.	Pollard Enterprises Ltd.	
Poly-Mor Canada Inc	Poly-Mor Canada Inc	
Pomerleau Inc.	Pomerleau Inc.	
Powell (Richmond Hill) Contracting Limited	Powell (Richmond Hill) Contracting Limited	
Power Generation Region	Black & McDonald	
Powerline Plus	Powerline Plus Ltd.	
Powertel Utilities Contractors Limited	Power Tel Utilities Contractors Limited	
Prairie Plumbing Limited	Prairie Plumbing & Heating Limited	
Praxy Cladding Corp	Praxy Cladding Corp	
Praztek Construction	2124140 Ontario Inc.	
Pre-Eng Contracting Ltd.	Pre-Eng Contracting Ltd.	
Precise ParkLink Inc.	Precise ParkLink Inc.	
Premform Limited	Premform Limited	
Prestressed Systems Incorporated	Prestressed Systems Incorporated	
Priestly Demolition Inc.	Priestly Demolition Inc.	
Primary Construction Inc.	Primary Construction Inc.	
PrimeTech Building Services Ltd.	PrimeTech Building Services Ltd.	
Primrose Contracting (Ontario) Inc.	Primrose Contracting (Ontario) Inc.	
Pro Insul Limited	Pro Insul Limited	
Pro-Green Demolition Ltd.	Pro-Green Demolition Ltd.	
Process Mechanical Installations	Process Group INC.	Jan 18, 2019
Procon Constructors Inc.	Procon Constructors Inc.	
Prodigy Retail Construction Inc.	Prodigy Retail Construction Inc.	
Profile Drilling Inc.	Profile Drilling Inc.	Jan 25, 2019
Progressive Engineering & Construction	Progressive Engineering & Construction	
Proteck Roofing & Sheet Metal Inc.	Proteck Roofing & Sheet Metal Inc.	
Provincial Industrial Roofing And Sheet Metal Company Limited	Provincial Industrial Roofing And Sheet Metal Company Limited	
Pure Technologies Ltd.	Pure Technologies Ltd.	
PW Transit	Diversified Transportation Ltd.	
PW Transit Canada Ltd.	PW Transit Canada Ltd.	
PW Transportation Ltd.	PW Transportation Ltd.	
Q X Ltd.	Q X Ltd.	
QM Environmental	QM LP	
Quad Pro Construction Inc	Quad Pro Construction Inc	
QUALITY ALLIED ELEVATOR	965046 ONTARIO INC	Jan 15, 2019
Quality Allied Elevator	965046 Ontario Ltd	Jan 21, 2019
Quattro Access Solutions Inc.	Quattro Access Solutions Inc.	
Quinan Construction Limited	Quinan Construction Limited	
Quinn Digital Asset Protection Inc.	Quinn Digital Asset Protection Inc.	
Quinn Roofing Solutions Inc.	Quinn Roofing Solutions Inc.	
R & M Construction	560789 Ontario Limited	
R C White General Contractor	R C White Ltd	
R.V. Anderson Associates Limited	R.V. Anderson Associates Limited	Jan 16, 2019
R.W. Tomlinson Limited	R.W. Tomlinson Limited	
R&B Construction Services Inc.	R&B Construction Services Inc.	
RA Crete-Scape Ltd	RA Crete-Scape Ltd	
Rabcon Contractors Ltd.	Rabcon Contractors Ltd.	
Rafat General Contractor Inc.	Rafat General Contractor Inc.	
Rail Cantech Inc.	Rail Cantech Inc.	
RailTerm Maintenance Services	10262595 Canada Inc.	
Rain for Rent Canada ULC	Rain for Rent Canada ULC	
Rainbow General Contracting	932904 Ontario Inc	
Rally Engineering Inc.	Rally Engineering Inc.	
RAM Contracting Ltd	R.A.M. Contracting Ltd	
Rankin Construction Inc.	Rankin Construction Inc.	Jan 18, 2019
Rapid Plumbing Inc.	Rapid Plumbing Inc.	
RCG Group Inc.	RCG Group Inc.	

Legal Name	Trade Name	Registration Date & Time
RDK Concrete Cutting & Coring Inc.	RDK Concrete Cutting & Coring Inc.	
Rea Construction	Rea Investments Limited	
Red Lake Plumbing and Heating Inc.	Red Lake Plumbing and Heating Inc.	
Redline Communications Inc.	Redline Communications Inc.	
Redspire Architectural Glass Inc	Redspire Architectural Glass Inc	Jan 29, 2019
Redspire Architectural Glass Inc.	Redspire Architectural Glass Inc.	
Regal Security Inc.	Regal Security Inc.	
Reid & Deleye Contractors Ltd.	Reid & Deleye Contractors Ltd.	
Reinders & Rieder Ltd.	Reinders & Rieder Ltd.	
Relamping Services Canada Limited	Relamping Services Canada Limited	
Remo General Contracting Ltd.	Remo General Contracting Ltd.	
RENOKREW	1568796 Ontario Inc.	
Res Erect	859006 Ontario Inc.	
Res Precast Inc.	Res Precast Inc.	Feb 04, 2019
Resource Contracting Inc.	Resource Contracting Inc.	
Resource Studio Inc	Resource Studio Inc	Feb 06, 2019
Resource Studio Inc.	Resource Studio Inc.	Jan 17, 2019
Rexton Electrical Contracting Limited	Rexton Electrical Contracting Limited	
RHI Canada Inc	RHI Canada Inc	
Rhinotek Solutions Inc.	Rhinotek Solutions Inc.	
Ritestar Limited	Ritestar Limited	
RJW Stonemasons Ltd	RJW Stonemasons Ltd	
Road Builders Haulage Ltd.	Road Builders Haulage Ltd.	
Road-Ex Contracting Ltd	Road-Ex Contracting Ltd	
Roadlast Asphalt & Sealing Maintenance Inc	Roadlast Asphalt & Sealing Maintenance Inc	
Robert B. Somerville Co. Limited	Robert B. Somerville Co. Limited	
Roberts Onsite Inc.	Roberts Onsite Inc.	
Robertson & Hachfield Limited	Robertson & Hachfield Limited	
Robertson Bright	Robertson Bright Inc	
Robly Mechanical Maintenance Ltd.	Robly Mechanical Maintenance Ltd.	
Rochon Building Corporation	Rochon Building Corporation	
Rocky Mountain Equipment Canada Ltd	Rocky Mountain Equipment Canada Ltd	
Rocky River Construction Limited	Rocky River Construction Limited	
Rodan Energy Solutions Inc.	Rodan Energy Solutions Inc.	
Rogol Electric Company Limited	Rogol Electric Company Limited	
Roma Building Restoration Limited	Roma Building Restoration Limited	
ROMAG Contracting Ltd.	ROMAG Contracting Ltd.	
Ron Lee Construction Inc	Ron Lee Construction Inc.	
Rondar Inc.	Rondar Inc.	
Roni Excavating Limited	Roni Excavating Limited	
Ross & Anglin Ontario Limited	Ross & Anglin Ontario Limited	
Rossclair Contractors Inc.	Rossclair Contractors Inc.	
Roto-Mill Inc.	Roto-Mill Inc.	
Royal Custom Contracting	Royal Painting & Contracting Ltd.	
Royal Fence Limited	Royal Fence Limited	
Royal Ready Construction Limited	Royal Ready Construction Limited	
Royal Ready-Mix Inc	Royal Ready-Mix Inc	
Royalty General Construction Ltd.	Royalty General Construction Ltd.	
Rumble Foundations (Ontario) Ltd.	Rumble Foundations (Ontario) Ltd.	
Ruscio Masonry & Construction Ltd.	Ruscio Masonry & Construction Ltd.	
Rutherford Contracting Ltd.	Rutherford Contracting Ltd.	
Rymall Construction Inc.	Rymall Construction Inc.	
S & T Electrical Contractors Ltd.	S & T Electrical Contractors Ltd.	
S. Llewellyn & Associates Limited	S. Llewellyn & Associates Limited	
S.A. Sutcliffe Excavating Ltd.	S.A. Sutcliffe Excavating Ltd.	
S.E.M. Medical Contractors	2184440 Ontario Limited	
Sacchetti Construction Ltd.	Sacchetti Construction Ltd.	
Sacyr Canada Inc.	Sacyr Canada Inc.	
Safe Line	Safe Line Management Systems Inc.	
Safety First Consulting	Safety First Consulting	
Safway Services Canada, ULC	Safway Services Canada, ULC	
Saldon Constuction Inc.	Saldon Constuction Inc.	
Sam Rabito Construction Ltd.	Sam Rabito Construction Ltd.	
Sanscon Construction Ltd.	Sanscon Construction Ltd.	
Sarnia Wolverine MFG Ltd-1	Sarnia Wolverine MFG Ltd.	
Schedule 2	Corporation of the Town of Milton	
Schneider Electric Canada Inc.	Schneider Electric Canada Inc.	
Schouten Excavating Inc.	Schouten Excavating Inc.	
Schreiber Brothers Limited	Schreiber Brothers Limited	
Scott Builders Inc.	Scott Builders Inc.	
Scott Industrial Services	Scott Environmental Group Limited	
Scott Steel Erectors	Scott Steel Erectors Inc.	
SCS Consulting Group Ltd	SCS Consulting Group Ltd	
Seeback Roofing & Sheet Metal Limited	Seeback Roofing & Sheet Metal Limited	
Seferian Design Group Limited	Seferian Design Group Limited	
Selectra Inc.	Selectra Inc.	
Sema Railway Structures Inc.	Sema Railway Structures Inc.	
Semple Gooder Roofing Corporation	Semple Gooder Roofing Corporation	
Sersa Total Track Ltd.	Sersa Total Track Ltd.	
Service Plus Aquatics Inc.	Service Plus Aquatics Inc.	



Legal Name

SERVICES DE FORAGE ORBIT GARANT INC.
 Servocraft Limited
 Sharon Layout & Design Ltd
 Sheridan Electric Services Ltd
 Shurway Contracting Ltd.
 Sice Canada Inc.
 Sidewalks Plus Ltd.
 Sierra Bridge Inc.
 Sierra General Contracting Inc.
 Sierra Infrastructure
 Sign Fix Limited
 Silver Birch Contracting Ltd.
 Simply Sparkling Cleaning Services
 Skygrid Construction Inc.
 Skylark Logistics Inc.
 Skyward Towers Inc.
 Skyway Canada
 Slipform Construction
 Smith and Long Limited
 Smiths Construction
 SNC-Lavalin Constructors (Pacific) Inc.
 Snyder Construction
 Somerville Construction
 Sona Constructor Inc.
 Soncin Construction
 Sousa Ready Mix
 South Central Inc.
 Southern Ontario Electrical Utility Region
 Southern Ontario Mechanical Region
 Southland Mole of Canada Ltd.
 Southwest Ontario Region
 Southwest Power Corporation
 Southwestern Energy Inc.
 Spark Power High Voltage Services Inc.
 Sparkav Ltd.
 Specified Roofing
 Spectre Construction & Management Inc.
 Spectrum Mechanical(2009) Ltd.
 Springbank Mechanical Systems Limited
 Sproule Specialty Roofing Limited
 SRS Conveyors
 SST Group of Construction Companies Limited
 St Clair Mechanical Inc.
 Stahle Construction Inc
 Stampa Steel Erectors Ltd.
 Standard And Workman Corp.
 Stantec Architecture Ltd.
 Star Painting & Repairs Ltd.
 Stay-Brite Building Solutions Inc.
 Stealth Metal Recycling
 Steconfer
 Steed And Evans Limited
 Steelcore Construction Ltd.
 Steeplejack Services (Eastern) Ltd.
 Sterling Crane Division
 Steven Blair Contracting Ltd.
 Stevens & Black Electrical Contractors Ltd.
 Stewart Overhead Door Company Limited
 STM Construction Ltd.
 Storage Systems Construction Corp.
 Strabag Inc.
 Stracor Inc.
 Straightline Group Incorporated
 Strongbar Industries Inc.
 Struct-Con Construction Ltd.
 Structform Hardrock Civil Ltd
 Structform International Limited
 Structural Contracting Ltd.
 Structural Floor Finishing Limited
 Structural Roofing and Waterproofing Limited
 Stuart Olson Construction Ltd.
 Stuart Olson Industrial Constructors Inc.
 Stucor Construction Ltd.
 Sub Terrain Underground Construction
 Sullivan Construction
 Summit Pipeline Services ULC
 Summit Window Services Limited
 Super Save
 Super Save Disposal (Ontario) Inc.
 Super Sucker Hydro-Vac Service Inc.

Trade Name

SERVICES DE FORAGE ORBIT GARANT INC.
 Servocraft Limited
 Sharon Layout & Design Ltd
 Sheridan Electric Services Ltd
 Shurway Contracting Ltd.
 Sice Canada Inc.
 Sidewalks Plus Ltd.
 Sierra Bridge Inc.
 Sierra General Contracting Inc.
 Sierra Infrastructure Inc.
 Sign Fix Limited
 Silver Birch Contracting Ltd.
 SSC Maintenance Services Inc.
 Skygrid Construction Inc.
 Skylark Logistics Inc.
 Skyward Towers Inc.
 Skyway Canada Limited
 1458451 Ontario Limited
 Smith and Long Limited
 Miller Group Inc.
 SNC-Lavalin Constructors (Pacific) Inc.
 784437 Ontario Inc
 671860 Ontario Inc.
 Sona Constructor Inc.
 Soncin Construction Corporation & 1405908 Ontario Limited & 2220409 Ontario Limited
 Sousa Ready Mix Inc.
 South Central Inc.
 Black & McDonald Limited
 Black & McDonald Limited
 Southland Mole of Canada Ltd.
 Black & McDonald Limited
 Southwest Power Corporation
 Southwestern Energy Inc.
 Spark Power High Voltage Services Inc.
 Sparkav Ltd.
 Specified Roofing
 Spectre Construction & Management Inc.
 Spectrum Mechanical(2009) Ltd.
 Springbank Mechanical Systems Limited
 Sproule Specialty Roofing Limited
 Well Products Limited
 SST Group of Construction Companies Limited
 St Clair Mechanical Inc.
 Stahle Construction Inc
 Stampa Steel Erectors Ltd.
 Standard And Workman Corp.
 Stantec Consulting Ltd.
 Star Painting & Repairs Ltd.
 Stay-Brite Building Solutions Inc.
 DS Commercial Inc.
 Steconfer Global Rail Infrastructure Ltd.
 Steed And Evans Limited
 Steelcore Construction Ltd.
 AGF Access Inc.
 Procrane Inc.
 Steven Blair Contracting Ltd.
 Stevens & Black Electrical Contractors Ltd.
 Stewart Overhead Door Company Limited
 STM Construction Ltd.
 Storage Systems Construction Corp.
 Strabag Inc.
 Stracor Inc.
 Straightline Group Incorporated
 Strongbar Industries Inc.
 Struct-Con Construction Ltd.
 Structform Hardrock Civil Ltd
 Structform International Limited
 Structural Contracting Ltd.
 Structural Floor Finishing Limited
 Structural Roofing and Waterproofing Limited
 Stuart Olson Construction Ltd.
 Stuart Olson Industrial Constructors Inc.
 Stucor Construction Ltd.
 Sub Terrain Directional Drilling Limited
 M. Sullivan & Son Limited
 Summit Pipeline Services ULC
 Summit Window Services Limited
 Actton Transport Ltd.
 Super Save Disposal (Ontario) Inc.
 Super Sucker Hydro-Vac Service Inc.

Registration Date & Time

Jan 16, 2019

Jan 21, 2019

Jan 17, 2019

Feb 06, 2019

Jan 16, 2019

Jan 22, 2019

Registration Date &
Time



Legal Name	Trade Name	Registration Date & Time
Superior Boiler Works and Welding Limited	Superior Boiler Works and Welding Limited	
Supply Point Inc.	Supply Point Inc.	
Sure General Contractors Inc.	Sure General Contractors Inc.	
Sutherland-Schultz Ltd	Sutherland-Schultz Ltd	
Symtech Innovations Ltd.	Symtech Innovations Ltd.	
Synergy Formwork	9090-5092 Quebec Inc.	
Synergy Underground Utilities Inc.	Synergy Underground Utilities Inc.	
T R Hinan Contractors Inc.	T R Hinan Contractors Inc.	
T.A. Andre and Sons (Ontario) Limited	T.A. Andre and Sons (Ontario) Limited	
TACC Construction Ltd.	TACC Construction Ltd.	
Tagg Industries	975866 Ontario Limited	
Taggart	Taggart Construction Limited	
Tal Trees Power Services Corp.	Tal Trees Power Services Corp.	
Tambro Construction Ltd.	Tambro Construction Ltd.	
Taranis Contracting Group	Taranis Contracting Group Ltd.	
TASC	Total Access Solutions Corp (TASC)	
Tascan Corp.	Tascan Corp.	
Technica Mining	Technica Group Inc.	
Technicore Underground Inc.	Technicore Underground Inc.	
Tectonic Infrastructure Inc.	Tectonic Infrastructure Inc.	
Tedescon Infrastructure Ltd.	Tedescon Infrastructure Ltd.	
Tee Jay Instrumentation Services	Tee Jay Instrumentation Services Ltd	
Telecon Design Inc.	Telecon Design Inc.	
Telstorm Corporation	Telstorm Corporation	
TEMA Paving Ltd.	TEMA Paving Ltd.	
Terco Construction Limited	Terco Construction Limited	
Terrafix Environmental Technology Inc.	Terrafix Environmental Technology Inc.	
Terrapex Environmental Ltd.	Terrapex Environmental Ltd.	
Terraplan Landscape Architects Ltd.	Terraplan Landscape Architects Ltd.	
TESC Contracting Company Limited	TESC Contracting Company Limited	
TGA General Contracting & Restoration Inc.	TGA General Contracting & Restoration Inc.	
The Atlas Corporation	The Atlas Corporation	
The Barclay Construction Group Inc.	The Barclay Construction Group Inc.	
The Bentley Group Contracting Inc.	The Bentley Group Contracting Inc.	Jan 16, 2019
The Cannington Group Inc.	The Cannington Group Inc.	
The Graff Company ULC	The Graff Company ULC	
The Jesslin Group Limited	The Jesslin Group Limited	
The MBTW Group Inc.	The MBTW Group Inc.	
The Murray Group Limited	The Murray Group Limited	
The Pentacon Group	The Pentacon Construction Group Inc.	
The Restorers Group Inc.	The Restorers Group Inc.	
The Sharp Group	1103458 Ontario Inc.	
The Solar Group Inc	The Solar Group Inc	
The State Group Inc.	The State Group Inc.	
The Toronto Terminals Railway Company	The Toronto Terminals Railway Company	
The Valve Automation Center Inc.	The Valve Automation Center Inc.	
The Ventin Group Ltd.	The Ventin Group Ltd.	
Thermo Design Insulation Ltd.	Thermo Design Insulation Ltd.	
Thermo Energy Systems Inc	Thermo Energy Systems Inc	
Thirau Inc.	Thirau Inc.	
Thomkess Crane Rentals	1731393 Ontario Ltd.	
Thompson Boiler Works Inc.	Thompson Boiler Works	
Thorncrete	Thorncrete Construction Limited	
Thorpe Canada Corporation	Thorpe Canada Corporation	
Thrush Construction and Electrical Inc.	Thrush Construction and Electrical Inc.	
Thurber Management Ltd.	Thurber Management Ltd.	Jan 16, 2019
Thyssenkrupp Elevators	Thyssenkrupp Elevator (Canada) Ltd.	
Tiltran Power Services Corp	Tiltran Power Services Corp	
Timbel Limited	Timbel Limited	
Timbro Design Build Contractors	Timbro Refrigerated Structures Inc.	
TISI Canada Inc/Team Industrial Services	TISI Canada Inc/Team Industrial Services	
Titan Door & Dock Systems Ltd	Titan Door & Dock Systems Ltd	
Titanium Contracting Inc.	Titanium Contracting Inc.	Feb 04, 2019
Tito Construction Ltd.	Tito Construction Ltd.	
TM3 Inc.	TM3 Inc.	
TMG Builders	1761759 Ontario Limited	
TMG Builders	The Moro Group Builders Inc.	
TMG Construction Inc.	TMG Construction Inc.	
Todd Brothers Contracting Limited	Todd Brothers Contracting Limited	
Tom Jones Corporation	Tom Jones Corporation	
Tom Veert Contracting Limited	Tom Veert Contracting Limited	
Tomlinson Enterprises	Tomlinson Enterprises Ltd.	
Tomlinson Environmental Services Ltd.	Tomlinson Environmental Services Ltd.	
Tomlinson Ready Mix	R. W. Tomlinson Limited	
Tomlinson Waste Management Inc.	Tomlinson Waste Management Inc.	
Topline Electrical Limited	Topline Electrical Limited	
Torbear Contracting Inc.	Torbear Contracting Inc.	
Torbridge Construction Ltd.	Torbridge Construction Ltd	
Torcom Construction Inc.	Torcom Construction Inc.	
TORCON LTD.	TORCON LTD.	

Legal Name

Toromont Cat
 Toronto Zenith Contracting Limited
 Torque Builders Inc.
 Total Meter Services Inc.
 Total Power
 Trade Name
 Trade Name
 Trade Tech (2010) Industries
 Trade-Mark
 Trademark Safety & Rescue Ltd.
 Tradeworks Interiors Canada Corp.
 Trans-Canada Construction
 Transelec Common Inc.
 Traugott Building Contractors Inc.
 Tresman Steel Industries Ltd.
 Tri-Phase Environmental Inc.
 Tribury Construction (1995) Inc.
 Tribury Constructors Inc.
 Trilinks Communications Inc.
 TRIMATRIX CONSTRUCTION INC.
 Trinity Roofing Ltd.
 Trinity Services Ltd
 Trinox Corporation
 Trio Roofing Systems Inc.
 Triple Crown Enterprises Ltd.
 Trisan Construction
 Trisect Construction Corporation
 Trist Construction Limited
 Tristar Electric Inc.
 Tritan Inc.
 Triumph Aluminium Sheet Metal Inc.
 TRP Construction
 Turbinepros R. E. Services, Ltd.
 Turbo Gen Works Inc
 Twin Contracting
 UC Access Inc.
 United Contracting Inc.
 United Wrecking Inc.
 Unlimited Building Solutions Inc.
 Upper Canada Construction
 Upper Canada Installations
 Upper Canada Road Services Inc.
 Upper Canada Specialty Hardware Limited
 Urbacon Buildings Group Inc.
 Urbacon Limited
 Urban Electrical Contractors
 Utility Force Construction Inc.
 Valard Construction LP
 Van Horne Construction Limited
 Van Pelt Construction Inc.
 Vanderlande Industries Canada Inc.
 Vanguard Mechanical Inc.
 VanMar Constructors Ontario Inc.
 Vanos Insulations Limited
 Varcon Construction CO. Ltd
 Varcon Construction Corporation
 Vaughan Paving Ltd
 VBN Paving Limited
 Vector Construction Ltd.
 Vector Corrosion Technologies Ltd.
 Velco Plumbers Limited
 Venshore Mechanical Ltd.
 Veolia ES Canada Industrial Services Inc.
 Veridian Connections Inc.
 Viana Roofing & Sheet Metal Limited
 Vias Canada, Inc
 Viola Management Inc.
 Vipe Construction Ltd.
 Vipond
 Vital Industrial Solutions Inc.
 Vixman Construction Ltd.
 Voith Hydro Inc
 VR Mechanical Solutions Inc.
 VSL Canada Ltd./VSL Canada Ltee
 W S Morgan Construction Limited
 W. S. Nicholls Construction Inc.
 W.A. Stephenson Mechanical Contractors Limited
 Wallwin Electric Services Limited
 Walsh Canada
 Walter Field Services Inc.

Trade Name

Toromont Industries Ltd
 Toronto Zenith Contracting Limited
 Torque Builders Inc.
 Total Meter Services Inc.
 Total Power Limited
 Legal Name
 Legal Name
 Trade Tech Industries Inc.
 Trade-Mark Industrial Inc.
 Trademark Safety & Rescue Ltd.
 Tradeworks Interiors Canada Corp.
 373044 Ontario Limited
 TCI
 Traugott Building Contractors Inc.
 Tresman Steel Industries Ltd.
 Tri-Phase Environmental Inc.
 Tribury Construction (1995) Inc.
 Tribury Constructors Inc.
 Trilinks Communications Inc.
 TRIMATRIX CONSTRUCTION INC.
 Trinity Roofing Ltd.
 Trinity Services Ltd
 Trinox Corporation
 Trio Roofing Systems Inc.
 Triple Crown Enterprises Ltd.
 6141258 Ontario Ltd.
 Trisect Construction Corporation
 Trist Construction Limited
 Tristar Electric Inc.
 Tritan Inc.
 Triumph Aluminium Sheet Metal Inc.
 1014542 Ontario Limited
 Turbinepros R. E. Services, Ltd.
 Turbo Gen Works Inc
 855758 Ontario Limited
 UC Access Inc.
 United Contracting Inc.
 United Wrecking Inc.
 Unlimited Building Solutions Inc.
 UCC Group Inc.
 957742 Ontario Limited & 869136 Ontario Limited & Yonge Investments 1989 Ltd.
 Upper Canada Road Services Inc.
 Upper Canada Specialty Hardware Limited
 Urbacon Buildings Group Corp.
 Urbacon Limited
 1086289 Ontario Inc.
 Utility Force Construction Inc.
 Valard Construction LP
 Van Horne Construction Limited
 Van Pelt Construction Inc.
 Vanderlande Industries Canada Inc.
 Vanguard Mechanical Inc.
 VanMar Constructors Ontario Inc.
 Vanos Insulations Limited
 Varcon Construction CO. Ltd.
 Varcon Construction Corporation
 Vaughan Paving Ltd
 VBN Paving Limited
 Vector Construction Ltd.
 Vector Corrosion Technologies Ltd.
 Velco Plumbers Limited
 Venshore Mechanical Ltd.
 Veolia ES Canada Industrial Services Inc.
 Veridian Connections Inc.
 Viana Roofing & Sheet Metal Limited
 Vias Canada, Inc
 Viola Management Inc.
 Vipe Construction Ltd.
 Vipond Inc.
 Vital Industrial Solutions Inc.
 Vixman Construction Ltd.
 Voith Hydro Inc
 VR Mechanical Solutions Inc.
 VSL Canada Ltd./VSL Canada Ltee
 W S Morgan Construction Limited
 W. S. Nicholls Construction Inc.
 W.A. Stephenson Mechanical Contractors Limited
 Wallwin Electric Services Limited
 WCC Construction Canada, ULC
 Walter Field Services Inc.

Registration Date & Time

Date
 Registration Date

Feb 06, 2019

Jan 23, 2019

Jan 16, 2019

Feb 04, 2019

Jan 16, 2019

Legal Name

WAN Communications
 Ward and Burke Microtunnelling Ltd.
 Ward Group
 Waterdon Construction Limited
 Waterloo Manufacturing Company Limited
 Wawasakonese Manpower Services
 Weld Right Corp
 Wellington Organix Inc.
 Wessuc Inc.
 Westbury National Show Systems Ltd.
 Western Mechanical Electrical Millwright Services Ltd.
 Westlake Construction Inc.
 Westlake Industries Inc.
 Westmore Poleline and Electrical Inc.
 Westower Communications Ltd.
 Whiskey Jack Cranes
 Whitby Hydro Energy Corporation
 Wiens Underground Electric Ltd.
 Wilco Contractors Superior Inc.
 Wildon Wiring Limited
 Williams Scotsman of Canada Inc.
 Windsor Factory Outlet Mall Ltd
 Windspec Inc
 Wm Groves Limited
 Wood Environment & Infrastructure Solutions
 Workforce
 WSP Canada Group Limited
 WSP Canada Inc.
 Wyndale Paving Co Ltd
 X-L-Air Energy Services Ltd
 X-Rail Signals Verification and Maintenance Inc.
 ZGemi Inc.
 Zilli Construction Ltd.
 Zip Signs
 Zublin Inc

Trade Name

Wide Area Network Communications Corp
 Ward and Burke Microtunnelling Ltd.
 2555040 Ontario Inc.
 Waterdon Construction Limited
 Waterloo Manufacturing Company Limited
 2328378 Ontario Inc.
 Weld Right Corp
 Wellington Organix Inc.
 Wessuc Inc.
 Westbury National Show Systems Ltd.
 Western Mechanical Electrical Millwright Services Ltd.
 Westlake Construction Inc.
 Westlake Industries Inc.
 Westmore Poleline and Electrical Inc.
 Westower Communications Ltd.
 Whiskey Jack Cranes
 Whitby Hydro Energy Corporation
 Wiens Underground Electric Ltd.
 Wilco Contractors Superior Inc.
 Wildon Wiring Limited
 Williams Scotsman of Canada Inc.
 Windsor Factory Outlet Mall
 Windspec Inc
 Wm Groves Limited
 Wood Canada Limited
 1783178 Ontario Inc
 WSP Canada Group Limited
 WSP Canada Inc.
 Wyndale Paving Co Ltd
 X-L-Air Energy Services Ltd
 X-Rail Signals Verification and Maintenance Inc.
 ZGemi Inc.
 Zilli Construction Ltd.
 Zip Signs Ltd
 Zublin Inc

Registration Date &
 Time



Jan 21, 2019

An audit-based occupational health and safety recognition program: Is certification associated with lower firm work-injury rates?

Background

The Partners in Injury and Disability Prevention Program, established by WorkSafeBC (the workers' compensation system in BC, Canada), is a voluntary program that recognizes and rewards employers who exceed legislative and regulatory requirements in implementing occupational health and safety (OHS) and return-to-work programs. The intent is to reduce workplace injuries and assist injured workers in making an early, safe return to meaningful work. WorkSafeBC first piloted the program in 2002 in the construction sector, then expanded to the oil and gas sector in 2004 and to all industry sectors in 2006. Employers who pass an audit of their OHS practices receive a Certificate of Recognition (COR) and are eligible for a rebate of 10% of their WorkSafeBC premium.

Voluntary audit-based certification as a way of recognizing or encouraging effective OHS practices is a common approach of regulators in Canada and internationally. However, there has been little research examining whether these programs lead to improved OHS outcomes. We evaluated whether COR certification was associated with lower firm-level injury rates in BC by comparing certified firms to non-certified, but eligible, firms from 2002 to 2012.

Based on research presented in:

McLeod C, Quirke W, Koehoorn M. (2015). [Evaluation of the effect of an audit-based occupational health and safety recognition program on firm work-injury rates in British Columbia, Canada. Final Report to WorkSafeBC.](#) Vancouver: Partnership for Work, Health and Safety, University of BC.

Approach

We used an observational research design. Certification is voluntary and firms self-select into the program. Participating firms, by the very nature of choosing to become certified, are different than non-participating firms. Self-selection into voluntary programs is a central challenge in assessing whether program participation has a “causal” effect (i.e., that any changes in injury rate are due to participation in the program and not due to other factors). We used a difference-in-difference evaluation methodology that can identify change attributed to an intervention (the COR program). This approach utilizes a control group (the non-certified firms) and identifies two differences: (1) the difference between the certified and non-certified firms pre-intervention and (2) the difference between the certified and non-certified firms post-intervention. The impact of the intervention is the sum of these two differences.



What we found

Overall

Certified firms had, on average, a 12% lower short-term disability, long-term disability and fatality (STD, LTD, and fatality) injury rate between 2005 and 2012 compared to non-certified firms, and a 17% lower serious injury rate. We found no difference in the health care only claim rate.

Over time

Certification was associated with a lower injury rate for both STD, LTD and fatalities and for serious injuries across all years of the study. In the years with the largest number of certified firms (2009 to 2012), the reduction in the STD, LTD and fatalities injury rate ranged between 10% and 16% and the reduction in the serious injury rate ranged between 14% and 17%.

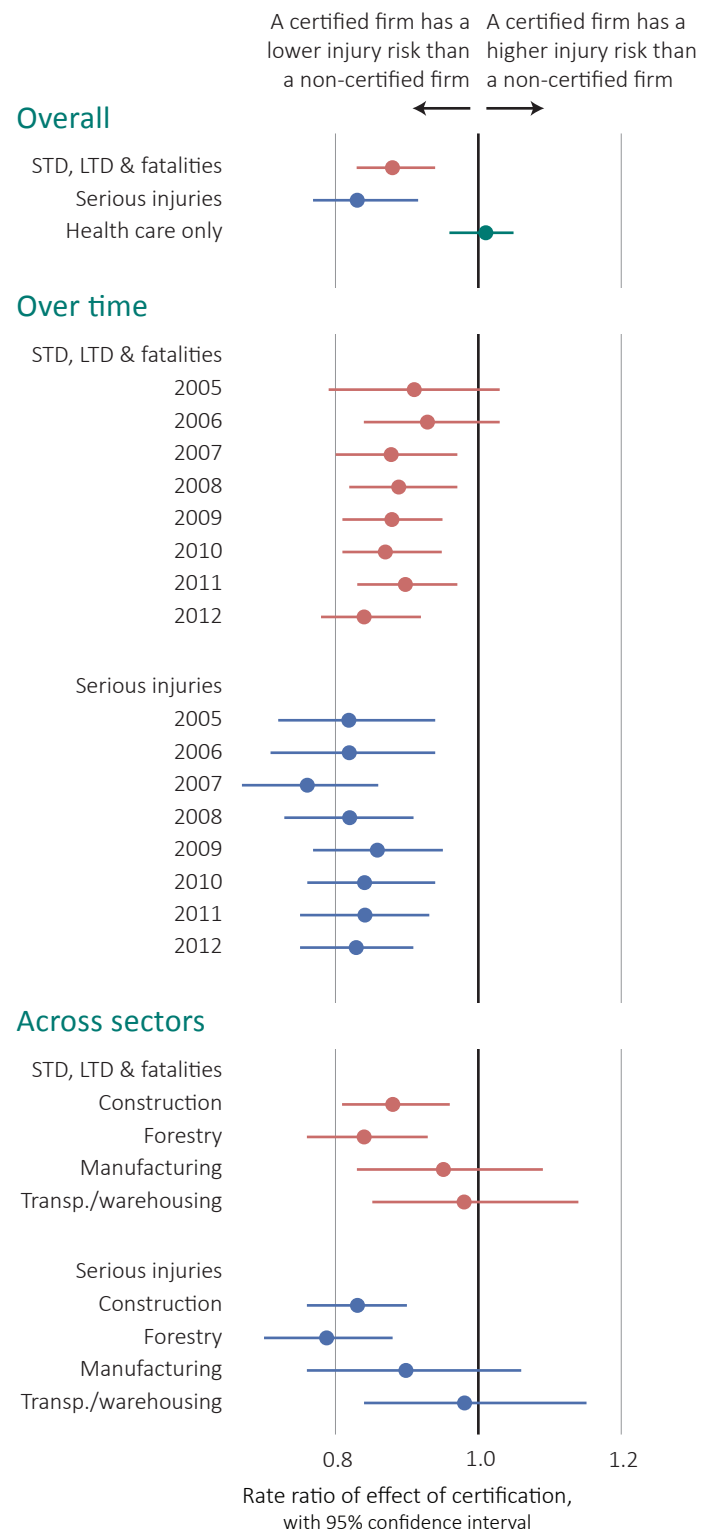
Across sectors

We examined construction, forestry, manufacturing and transportation/warehousing firms separately. Certified firms in construction and forestry had, on average, 12% and 16% lower STD, LTD and fatality rates and 16% and 21% lower serious injury rates compared to non-certified firms, respectively. The reduction in these injury rates was largest between 2009 and 2012 for construction firms, while the reduction was similar between 2007 and 2012 for forestry firms. Small reductions or no differences in injury rates were observed between certified and non-certified firms in manufacturing and transportation/warehousing.

What are serious injuries?

Short-term (at least one day of time loss) or long-term disability claims with at least one of: long duration (>28 days of wage loss); high costs (equivalent to 28 days of wage loss); serious medical diagnosis (e.g., fractures); or fatality.

Figure | Effect of COR certification on injury rates, by type of injury rate, over time, and across sectors



Injury rate estimates below 1.0 indicate that certified firms have lower injury rates than non-certified firms. Smaller estimates indicate correspondingly lower rates. Where confidence intervals cross 1.0, the difference in the injury rate may be due to chance.

What this means

COR program participation is associated with lower injury rates, particularly in the construction and forestry sectors and in the years 2009 to 2012. Our interpretation of this finding is that the COR audit process is effective at identifying firms with lower work injury risk; however, caution should be exercised in inferring that certification itself caused any reduction in injury risk. While the difference-in-difference evaluation design attempts to account for pre-certification differences in injury risk between certified and non-certified firms, we cannot rule out that certification served as a marker for existing OHS practices (or other factors) that drove changes in injury risk once a firm became certified.

Future research should be focused in three areas: (1) ongoing monitoring of the effectiveness of the program; (2) investigation of how the certification process facilitates change in firm OHS practices; and (3) assessment of the audit tool to improve its efficiency and to incorporate evolving OHS best practices.

More information

Please contact Chris McLeod, PWHS Co-Lead, at chris.mcleod@ubc.ca with questions about the methods, results, or interpretation of this evaluation, or to request a copy of the full report. General enquiries should be directed to Suhail Marino, PWHS Program Manager, at suhail.marino@ubc.ca.

An audit-based occupational health and safety recognition program: Is certification associated with lower firm work-injury rates in Alberta?

Background

In the mid-1990s Alberta initiated the Partnerships in Injury Reduction (PIR) Program, a voluntary program that awards Certificates of Recognition (COR) to employers that have developed an occupational health and safety (OHS) management system and met established standards. PIR operates through the combined efforts of the Workers' Compensation Board of Alberta, the Alberta Ministry of Labour, industry partners, safety associations, employers, and labour groups. It was designed to encourage injury prevention and the development of effective workplace health, safety and disability management systems—and is based on the concept that when employers and workers build effective health and safety systems, the human and financial costs of workplace injuries and illnesses can be reduced. COR-certified firms in Alberta can receive up to a 20% reduction in their workers' compensation premiums if they reduce their claim costs below predicted targets.

Voluntary audit-based certification as a way of recognizing or encouraging effective OHS practices is a common approach of regulators in Canada and internationally. However, there has been little research examining whether these programs lead to improved OHS outcomes. This study aimed to determine:

Based on research presented in:

McLeod C, Macpherson R, Quirke W, Koehoorn M, Aderounmu A. (2018). *Is COR associated with lower firm-level injury rates? An evaluation of the effect of an audit-based occupational health and safety recognition program on firm work-injury rates in Alberta, Canada. Final Report to Alberta Ministry of Labour.* Vancouver: Partnership for Work, Health and Safety, University of BC.

1. If COR certification is associated with lower firm-level injury rates, and;
2. If COR audit scores are associated with firm-level injury rates.

Approach

To answer the first question, we combined a “difference-in-differences” (DiD) observational research design with a matching approach. Firms were matched on observable characteristics at baseline (including industry subsector, firm size, industry rate, year) and DiD was statistically modelled to estimate the effect of COR certification on two work-related injury rates (lost time injuries and disabling injuries) for 2001-2015. In addition to matching COR and non-COR firms at baseline, regression models were adjusted for the industry subsector, firm size, industry rate, industry rate adjustment, year, and whether the address of the firm was in Alberta or elsewhere.



Regression modelling was performed to examine the overall impact of COR, and also its impact by time period, industry sector, and firms with a regular COR vs. small employer COR (SECOR).

To answer the second question, the analysis was restricted to COR firms with audit score data between 2006 and 2015. The average audit score in a given year was categorized into five categories (100%, 95-99%, 90-94%, and 80-84%) and regression modelling techniques were used to examine the association between the average audit score category and firm-level lost time and disabling injury rates. The regression models adjusted for industry sector, firm size, industry rate, industry rate adjustment, and year.

What we found—Injury rates

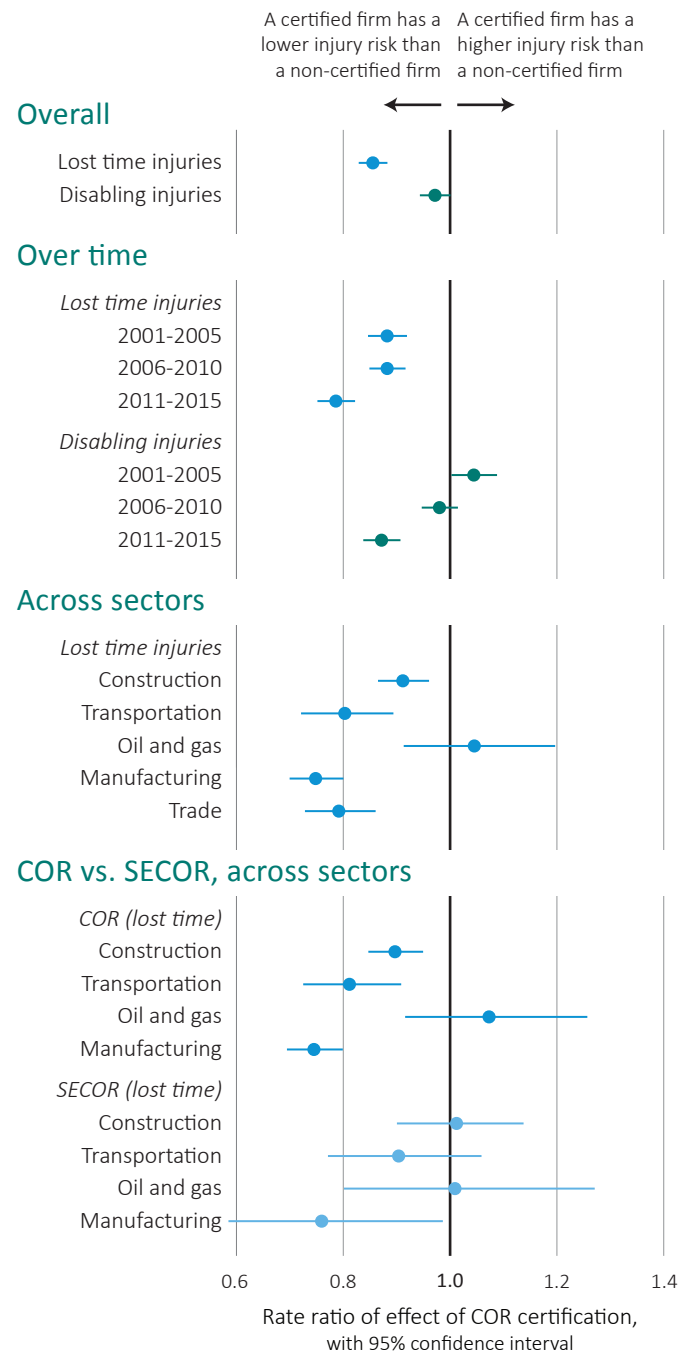
Overall

Certified firms had, on average, a 14% lower lost time injury rate and 3% lower disabling injury rate between 2001 and 2015, compared to non-certified firms.

Over time

Certification was associated with a lower lost time and disabling injury rate over time. Lost time injuries decreased by 12% for COR firms in the first two time-periods (2001-2005 and 2006-2010) and by 21% in the most recent period (2011-2015). The rate of disabling injuries increased in 2001-2005 but decreased by 2% in 2006-2010 and 13% in 2011-2015. (See Figure 1.)

Figure 1 | Effect of COR certification on injury rates, overall, over time, across sectors, and by COR vs. SECOR



Injury rate estimates below 1.0 indicate that certified firms have lower injury rates than non-certified firms. Where confidence intervals cross 1.0, the difference in the injury rate may be due to chance.

What are lost time injuries?

Lost time injuries are occupational injury or disease claims that cause the worker to have time away from work beyond the day of injury. This includes claims receiving reimbursement of full or partial lost wages due to occupational illness or injury, or payment for permanent loss of function.

What are disabling injuries?

Disabling injuries include both lost time injuries and non-lost time injuries that required modified duties.

Across sectors and over time

Reductions in the risk of lost time injuries were observed in all industries, except oil and gas, and forestry. Similar reductions were observed for disabling injuries. The greatest effect of COR was observed in manufacturing (25% reduction in lost time injuries, 11% reduction in disabling injuries), trade (21% reduction in lost time injuries, 10% reduction in disabling injuries), and transportation (20% reduction in lost time injuries, 10% reduction in disabling injuries). The reduction in these injury rates was largest in recent years.

COR vs. SECOR

Certification via a regular COR audit (businesses with 10 or more employees) was consistent with findings from the full sample. Certification via a Small Employer Certificate of Recognition (SECOR) audit (up to 10 employees) had little or no effect on reducing lost time and disabling injuries. (See Figure 1.)

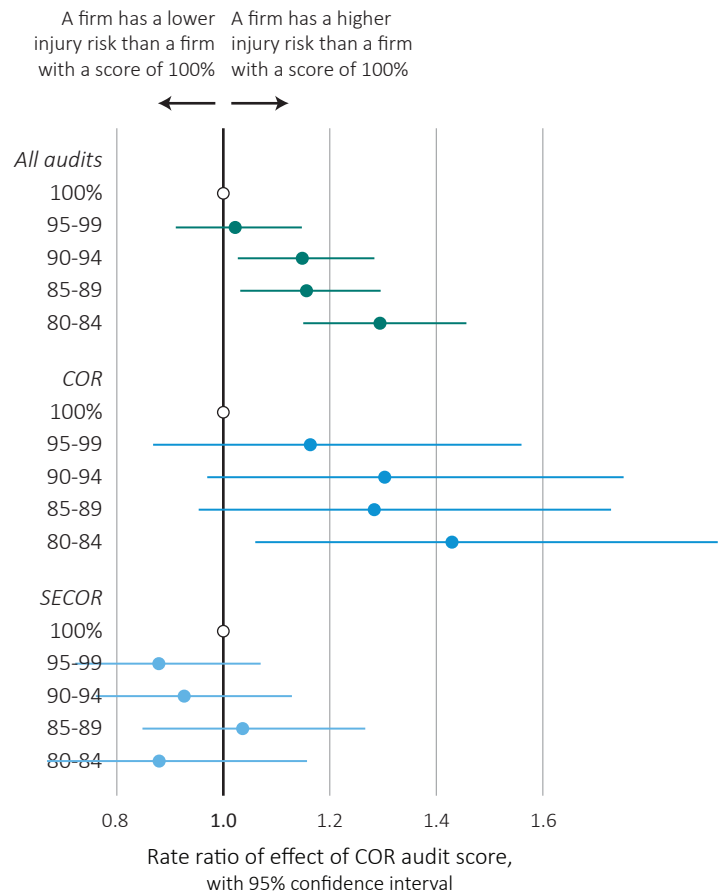
What we found—Audit scores

Audit scores were highly skewed towards 100% and this was driven by SECOR-certified firms. For both lost time and disabling injuries, injury rates increase as audit scores decrease. (See Figure 2). This association is seen overall for all COR and for the three largest certifying partners: Alberta Construction Safety Association (ACSA); Energy Safety Canada (ESC), and Alberta Association for Safety Partnerships (AASP).

What this means

COR program certification is associated with lower injury rates, particularly in the manufacturing, trade and transportation sectors and in the years 2011 to 2015. Our interpretation of this finding is that the COR audit process is effective at identifying firms

Figure 2 | Effect of COR audit score on the lost time injury rate in certified firms, for all audits, COR audits, and SECOR audits, 2006-2015



Injury rate estimates above 1.0 indicate that certified firms with an audit score in the stated range have higher injury rates than certified firms with an audit score of 100. Where confidence intervals cross 1.0, the difference in the injury rate may be due to chance.

with lower work injury risk; however, caution should be exercised in inferring that the certification itself caused any reduction in injury risk. While the difference-in-difference evaluation design attempts to account for pre-certification differences in injury risk between certified and non-certified firms, we cannot rule out that certification served as a marker for existing OHS practices (or other factors) that drove changes in injury risk once a firm became certified.

The implications of our study are threefold:

1. The difference in COR effectiveness on lost time and disabling injuries indicates that a broader range of work injury measures need to be examined, including the effect on overall work injuries as well as component injuries such as medical aid only through to fatalities;
2. We found no association of SECOR certification or audit score on firm injuries. This finding, coupled with similar research in British Columbia (on the distribution of audit scores among small firms and via internal auditing), indicates that OHS management systems certification is not effective in all circumstances and that validity of the audit may vary by audit and auditor type. Improvements to the COR program could focus on these areas; and
3. Our study found that COR certification was effective when comparing COR-certified firms to similar non-certified firms. These findings may not generalize to firms with different characteristics, sectors or jurisdictions. The effectiveness of COR certification may be context- and firm-dependent and relate to quality of the audit, auditor and certification process, as well as the ability of a firm to adopt OHS policies and practices.

More information

Please contact Chris McLeod, Partnership for Work, Health and Safety Co-Director, at chris.mcleod@ubc.ca with questions about the methods, results, or interpretation of this evaluation, or to request a copy of the full report. General enquiries should be directed to Suhail Marino, Partnership for Work, Health and Safety Director of Privacy and Operations, at suhail.marino@ubc.ca.

Added Item 12.1

CITY OF HAMILTON

NOTICE OF MOTION

Public Works Committee: February 22, 2019

MOVED BY COUNCILLOR J. FARR.....

Vanier Towers Social Enterprise Kitchen Project Funding (Ward 2)

WHEREAS, an exciting kitchen partnership project that will support the development of a community social enterprise designed to build employment opportunities for residents and participants of Vanier Towers is contemplated by the staff, residents and Board of Directors of City Housing Hamilton;

WHEREAS, this innovative kitchen project is in partnership with Wesley Urban Ministries who has private benefactors financially supporting a back area community hydroponic container garden that will grow fruits and vegetables to be integrated in to the meal preparation and overall food security strategy;

WHEREAS, approximately \$50,000 of in-kind dollars have been donated to this effort;

WHEREAS, City Housing Hamilton (CHH) resident engagement and empowerment is a priority for the City Housing Board of Directors and the approximate 15,000 residents; and,

WHEREAS, the Annual Capital budget for CHH is 8 Million dollars yet at the same time, capital needs exceed 15 million annually and therefore CHH has regularly welcomed additional funding from other capital sources like Area Rating Ward Funds;

THEREFORE, BE IT RESOLVED:

- (a) That funding in the amount of \$150,000 from the Ward 2 Area Rating Reserve (#108052) be dedicated toward the Vanier Towers Social Enterprise kitchen project; and,
- (b) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents, with such terms and conditions in a form satisfactory to the City Solicitor.