



**FOR IMMEDIATE RELEASE**

## **Quebec Consulting Engineers Honoured at National Awards Gala**

**(OTTAWA) October 29, 2019** – From restoring historical sites and buildings, to relocating critical infrastructure consulting engineers from Quebec were celebrated for these outstanding achievements at the 2019 Canadian Consulting Engineering (CCE) Awards gala on Tuesday night in Ottawa.

Recognized as the industry's highest honours, the awards are presented to projects by Canadian firms that showcase the most remarkable engineering feats. “This is an opportunity to recognize the valuable contributions that Canadian consulting engineers make both here at home and around the world on a national stage,” said ACEC President and CEO John Gamble, “they highlight the role that consulting engineers play in our daily lives and the important impact that their work has on all Canadians.”



### **Balancing historical, technical, practical, operational, and sustainability considerations to achieve engineering success**

The Société québécoise des infrastructures wanted to create a prestigious public square along the banks of the St. Lawrence River. Formerly the site of an open asphalt parking lot with contaminated soil **CIMA+** and **Tetra Tech's Award of Excellence** winning *Place des Canotiers* is located within the heritage site of Old Quebec. Affected by tidal effects the flood-prone area required CIMA+ and Tetra Tech to develop innovative solutions: the storm drainage system was designed with two zones (flood-proofed and not flood-proofed), the parking structure was sealed and covered, and a mechanical chamber was built below high-tide level, freeing up the space otherwise occupied by a service building. The construction of the *Place des Canotiers* also required off-site disposal of more than 12,000 tonnes of contaminated soil.

This engineering success story was achieved through the integration and balanced combination of historical, archaeological, technical, practical, operational, sustainability and heritage development considerations. Moreover, the ten or so stakeholders involved made coordinating requirements a top priority. The jury was impressed with the site's transformation, from the remediation of contaminated soil to the design's approach to addressing tidal issues. “CIMA+, in collaboration with Tetra Tech, is very proud of winning this award which demonstrates our ability to rise to the challenge of transforming a flood prone area on contaminated soils into a beautiful symbolic place for Quebec's capital along the St. Lawrence River” said Luc Jolicoeur, Partner/Executive Vice-President/Buildings Engineering.





### Relocating crucial infrastructure while overcoming health and safety challenges

The consortium of **Norda Stelo** and **SNC-Lavalin** received an **Award of Excellence** for its *Construction of the new 112 highway (Black Lake)* project. After a landslide at the Lac d'amiante mine forced the closure of a section of Route 112 at Thetford Mines, relocating this crucial highway infrastructure was a priority for Transports Quebec (MTQ), as the road provided access to the Beauce region and highway 73. Norda Stelo and SNC-Lavalin designed and monitored the relocation and related public works, including affected above and underground utilities. The mine, built on the site of a former lake, was surrounded by several heaps of tailings that included asbestos, which required extra caution and the use of more complex construction methods. In addition, the method developed by the consortium, along with the Commission des normes, de l'équité, de la santé et de la sécurité du travail (Quebec), to deal with the asbestos present in all the excavations was entirely new for such a large-scale road project, where workers and resident safety was paramount.



Despite daunting challenges, the public now benefits from a new, safe, and sustainable, roadway. For the jury, this project was a major achievement because of the health and safety challenges associated to working in an environment with asbestos. They were also impressed by the team's ability to complete the project within \$ 10M of the planned budget and by the community benefits derived from the road's restoration. "We are proud to have contributed our expertise and knowledge to relocate and rebuild a strategic road for local communities in a semi-industrial context, where safety was paramount. We are honored to be recognized by our peers for our involvement in designing and building a safer Route 112" said Dany McCarvill, Project engineer & leader of the Norda Stelo / SNC-Lavalin joint venture.

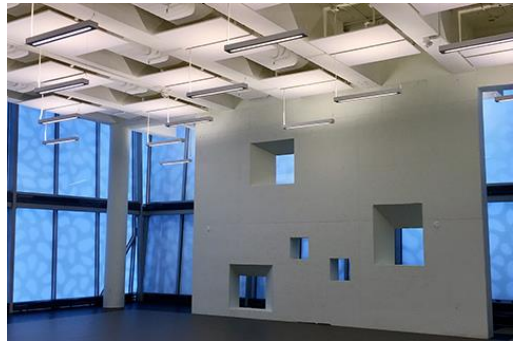
### Developing innovative solutions to ensure seamless integration between the old and the new



Located in the heart of Montreal's entertainment district (Quartier des spectacles), the Wilder-Espace Danse Building is the result of an ambitious project to retrofit a century-old building with renovations and expansions, each with different volume measurements and heights. The *Transformation of the Wilder Building* project earned an **Award of**

**Excellence** for the **SNC-Lavalin inc.** and **Bouthillette Parizeau** team who developed specific solutions for each building section, ensuring seamless integration, to create a functional whole. This project was particularly complex due to

the concurrence of various constraints which the team transformed into opportunities by proposing customized, adapted systems. To overcome the challenges associated with meeting high acoustic targets (NC-25), increased HVAC demands, and three-metre utility-free ceilings, the designers used displacement ventilation and induction for the building's periphery. These innovative approaches ensured outstanding comfort, acoustic quality, energy efficiency and simplified operations and maintenance.



The final result is an attractive, functional and efficient building with LEED® Silver certification. The jury was drawn to this project for several reasons. First, for achieving LEED® certification for an existing envelope which is a challenge in and of itself. Secondly, for the innovations of its HVAC system, which optimizes living space and improves occupant comfort through individual room control and noise reduction. “Together, our team overcame every challenge and seized every opportunity to make this project a real success for our client. The transformation of the Wilder building was about being innovative to save energy and water and ultimately support sustainability. I am truly obliged for this great honor and recognition given by the jury” said Pierre Hénault, P. Eng. PMP, Vice-president Mechanical & Electrical, Engineering, Design & Project Management, SNC-Lavalin inc.

### Applying pure and applied sciences to reduce environmental footprints



This year two of **BBA**'s projects were honoured with an **Award of Excellence**, the first being the *CO<sub>2</sub> Capture and Valorization* project. CO<sub>2</sub> Solutions chose BBA to design and build the first commercial version of its “industrial lung” at the Resolute Forest Products (RFP) plant in Saint-Félicien. The technology captures CO<sub>2</sub> emissions directly from industrial chimneys and purifies them using carbonic anhydrase, an enzyme similar to the one found in the human respiratory tract. The purified CO<sub>2</sub> can then be used by Les Serres Toundra's greenhouses to support cucumber growth.

BBA designed all the equipment used in the project: the pre-treatment process to condition the CO<sub>2</sub> prior to its capture, the equipment related to CO<sub>2</sub> Solutions technology, and the equipment that dries and compresses the gas between capture and delivery to the greenhouses. The jury described this project as transformational for its potential impact on the treatment of CO<sub>2</sub>, especially on an international scale. They appreciated the intersection of biology with what would traditionally be a technical solution. “We’re very proud to have contributed to this ingenious project, which combines both pure and applied sciences. The possibility of recycling air emissions to grow vegetables opens the door to other projects that will help reduce our environmental footprint,” said André Allaire, President of BBA, “to paraphrase the words of the great Neil Armstrong: This project may be one small step for humans, but it’s surely a giant leap for mankind!”



In November, follow ACEC's national and international award winning [#20DaysOfExcellence](#) in Engineering campaign on social media. Visit [www.acec.ca/20daysofexcellence](http://www.acec.ca/20daysofexcellence) to view videos of the winning projects and to learn more about the impact of consulting engineering on our quality of life.

### About award-winning firms

**BBA**, - At BBA, engineering, environmental and field experts team up to quickly and accurately pinpoint the needs of industrial clients. [www.bba.ca](http://www.bba.ca)

**Bouthillette Parizeau** specializes in mechanical and electrical engineering consulting services, offering highly innovative, energy efficient and cost-effective design and systems that live up to the client's standards. [www.bpa.ca](http://www.bpa.ca)

**CIMA+** is one of the largest consulting engineering firms in Canada, offering a wide range of services, including urban infrastructure, transportation, buildings, industry, power, telecommunications, project management, urban planning, geomatics and environmental sciences. Founded in 1990, CIMA+ now employs over 2,150 people in 30 offices and has ranked as Best Employer in Canada for 20 years. [www.cima.ca](http://www.cima.ca)

**Norda Stelo**, founded in Quebec in 1963, Norda Stelo is a consulting engineering and construction firm operating on a global scale. With thousands of realizations in more than 50 countries, they specialize in integrated projects and support their clients every step of the way. [www.norda.com](http://www.norda.com)

**SNC-Lavalin inc:** Founded in 1911, SNC-Lavalin is a global fully integrated professional services and project management company and a major player in the ownership of infrastructure. From offices around the world, SNC-Lavalin's employees think beyond engineering to provide comprehensive end-to-end project solutions – including capital investment, consulting, design, engineering, construction management, sustaining capital and operations and maintenance. [www.snclavalin.com](http://www.snclavalin.com)

### About Awards co-sponsors

**ACEC** represents companies in Canada that provide professional engineering services to both public and private sector clients. These services include the planning, design and execution of all types of engineering projects, as well as providing independent advice and expertise in a wide range of engineering and engineering-related fields. For more information about ACEC and the 2019 Canadian Consulting Engineering Awards, please visit [www.acec.ca](http://www.acec.ca).

**Canadian Consulting Engineer** is a privately-owned magazine for professional engineers working as consultants in the construction field. It is a division of Annex Publishing & Printing Inc. The award-winning projects are described in full in the October-November 2019 issue of *Canadian Consulting Engineer* at <http://www.canadianconsultingengineer.com/digital-edition/>.

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### **Multimedia (photos, project descriptions, videos)**

BBA (CO2 Capture and Valorization) project [page](#) & [photo](#)

CIMA+ & Tetra Tech project [page](#) & [photo](#)

Norda Stelo & SNC-Lavalin project [page](#) & [photo](#)

SNC-Lavalin inc. & Bouthillette Parizeau project [page](#) & [photo](#)

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