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Metro Vancouver Consulting Engineering Firms Win Top Honours at National Awards Gala

(OTTAWA) October 23, 2018 – Metro Vancouver consulting engineers had a stellar night on Tuesday at the 2018 Canadian Consulting Engineering (CCE) Awards gala. Recognized as the industry's highest honours, the awards are presented to projects by Canadian firms that showcase the most remarkable engineering feats. “Tonight, we not only celebrate this year’s incredible projects, we celebrate the extraordinary work of consulting engineers over the past 50 years and the important role they have on the social, economic and environmental quality of life of all Canadians,” said ACEC President and CEO John Gamble. Firms from Metro Vancouver, with local and international projects, took home seven of the twenty **Awards of Excellence**, along with three additional **Special Achievement Awards**.

The evening also saw two deserving consulting engineers from Vancouver recognized for their commitment and dedication to the consulting engineering industry. For his lifetime contributions **Chris Newcomb, P.Eng., Chair of the Board of McElhanney Services Ltd.**, received the **2018 Beaubien Award**. While **Graham Lovely, P.Eng., of MCW Consultants Ltd.** a rising star in the field was awarded with the **2019 Allen D. Williams scholarship**.



Connecting Canada from coast to coast to coast while creating economic and employment opportunities

For best showcasing how engineering enhances the social, economic or cultural quality of life of Canadians **Tetra Tech Canada Inc.** and **Stantec** were honoured with the **Engineering a Better Canada Award** for their *Inuvik Tuktoyaktuk Highway* project.

The Inuvik Tuktoyaktuk Highway (ITH) is the first Canadian highway constructed on continuous permafrost. Tetra Tech and Stantec were instrumental in all phases of the project from initial planning to construction completion. Building a road on sensitive permafrost terrain, in a remote location, posed unique challenges including seasonal constraints and winter conditions, and a scarcity of materials along the project corridor to construct road embankment. For the judges the project distinguished itself not only for overcoming these challenges but for generating a partnership of two Aboriginal contractors and design firms that resulted in a transfer of technology to the local community.

Opened in November 2017, this long-anticipated road will provide essential services, reduce the cost of living, and provide a year-round, physical connection to the rest of Canada. “This highway is the final link connecting Canada from coast to coast to coast, and more than that, it gives the people of the Inuvialuit Settlement Region a vital, reliable transportation system,” said Bernie Teufele, Tetra Tech Senior Vice President. The all-season road provided immediate benefits to the region by eliminating the need to construct a seasonal winter ice road each year. It will also



provide employment opportunities through resource development and tourism along the scenic highway and create economic opportunities. “TTH connects all of Canada and adds a new gateway to Tuktoyaktuk via an all weather highway – completing a 60 year vision for the North. This is a project that truly demonstrated our values, and we are humbled by the recognition our work has received from our colleagues and industry,” said Keith Shillington, Senior Vice President, Canada Prairies & Territories, Stantec.



Connecting communities and providing accessing educational, business, and cultural opportunities

For best showcasing Canadian engineering expertise outside of Canada, **McElhanney Consulting Services Ltd.** was honoured with an **Ambassador Award** for their *Veer Kumwar Singh Bridge* project.

Bihar, India’s third most populous state, was in desperate need of another bridge crossing along the mighty Ganges River. Procurement delays and a reduced construction window mired the construction of the new four-lane bridge located in the northern area of the state, crossing approximately 4,350m of the river. McElhanney delivered a value-engineered, extradosed design which combined elements of a girder bridge and a cable-stayed bridge. Canadian engineers navigated extreme challenges to bring this iconic structure to life, including monsoons, the 2015 Nepalese earthquakes, a contractor inexperienced in this bridge type, and an extremely compressed delivery schedule. Now the world’s longest extradosed bridge at 4.35km in length, the Veer Kunwar Singh reduces the commute to cross the Ganges by 180km and is a critical piece of infrastructure supporting the impoverished region’s economic initiatives.

The project’s true legacy, according to the judges, is the technology transfer to the local community as well as the improvements to engineering and process management. “This project is dear to McElhanney’s heart; for its technical complexity which allowed our team to show the world their expertise, and for the incredibly positive effect it has had on the people and economy of northern Bihar. We sincerely thank ACEC and CCE for recognizing this project and sharing its story with our industry,” said Allan Russell, McElhanney Consulting Services Ltd. President & CEO.



Increasing system reliability, minimizing delays, and maximize safety for the 22 million travellers

For their *Vancouver International Airport Flywheel Energy Storage and Airfield Critical Power System*, **WSP’s** North Vancouver office was honoured with the **Tree for Life Award**, presented to a project that best demonstrates outstanding environmental stewardship.

The Vancouver International Airports north airfield lighting distribution system was in need of replacement. It was aging, near its end of life, and was expensive to operate and maintain. WSP was engaged as the prime consultant for the design and construction of a new critical back-up power system. Flywheel energy storage technology, combined with a 625 kVA dual conversion online uninterruptible power supply system, was selected and designed to mitigate power outages while transferring between generator and utility power. The power system also consisted of two new 600 kW redundant high-efficiency generators and an intelligent power switchgear distribution system.

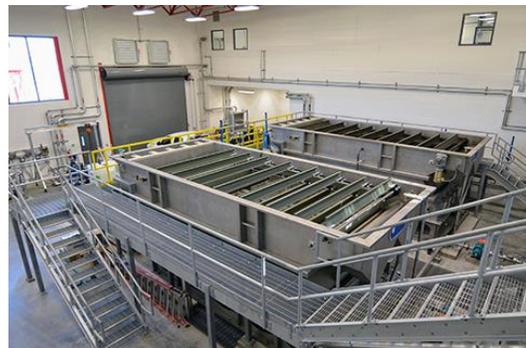
The innovative solution of using a flywheel uninterruptible power supply (UPS) system is highly reliable, environmentally sustainable, minimizes electrical noise, and is easy to operate and maintain which greatly impressed the jury. “We strive to enhance our future through innovative and sustainable design in all our projects. It is an honour and privilege to be recognized as such with these Awards of Excellence, and our hope is that this will inspire others to think outside the box in developing sustainable future ready solutions,” said Gurjit Sangha, P.Eng. - Vice President W&WW, Western Canada.



Using high end technology in providing isolated communities with innovative facilities

The same **WSP** office also took home another **Award of Excellence** for their *Town of Ladysmith Wastewater Treatment Plant Upgrade*. Prior to 2017, the Town of Ladysmith’s Wastewater Treatment Plant discharged primary treated effluent into Ladysmith Harbour, putting the local ecology and shellfish resources at risk. Starting in 2007, WSP facilitated a Liquid Waste Management Plan (LWMP) process for the Town, involving extensive consultation with regulatory agencies, the local community, and the Stz’uminus First Nation.

The LWMP established the roadmap for the wastewater treatment upgrade program, which was implemented in three phases over eight years. As space restrictions on the treatment plant site required an innovative approach, a moving bed biofilm reactor (MBBR) secondary treatment process, combined with dissolved air flotation (DAF) for solids separation, was selected for the upgrade which was applauded by the judges. The upgrade has greatly improved effluent quality to meet regulatory standards, by ensuring that the Town’s wastewater is treated to a high standard, this project has ensured that the community, the local Stz’uminus First Nation, the shellfish industry and ultimately shellfish consumers are being protected.



Pushing the envelop on sustainability across the board

WSP’s Vancouver office also won an **Award of Excellence** for their *Vancouver Convention Centre West Sustainability Consulting and LEED® Platinum Project Management*. With the ambitious goal of becoming the world’s most sustainable convention centre, Vancouver Convention Centre engaged WSP to provide strategic sustainability consulting and project management of their pursuit of LEED® for Existing Buildings: Operations and Maintenance (LEED®-EB) for the West building.

The project required an unusual approach due to the building’s complexity and atypical systems, coupled with the voluntary registration under the newest, most stringent version of the standard. The Centre achieved LEED® version 4 and



the highest award level, Platinum, making it the world's first double LEED® Platinum convention centre, and Canada's first LEED® Platinum existing building certified under version 4. This project "pushed the envelope on sustainability across the board," said Maeri Machado, P.Eng., LEED® AP, WELL AP, Director BC, Sustainability and Energy, WSP. The jury was impressed with the project because it exemplifies how enhancements to existing sustainability measures are possible to achieve higher LEED® recognition. "It goes a long way to demonstrate that we continue to be leaders in greening existing buildings and helping our clients position their buildings as leading edge," confirmed Ms. Machado.



Balancing environmental and stakeholder concerns while providing increased capacity and efficiencies

Vancouver firm **COWI North America**, and **HDR** were also presented with an **Award of Excellence** for their *St. Croix River Crossing*, the longest extradosed bridge in the United States. The firms were responsible for the main river bridge and associated bridge approach design. The extradosed bridge form, which combines segmental box girder and cable-stay bridge technology, is unique in optimizing environmental and visual footprints while being sustainable and constructible. The optimization of visual and environmental footprints while ensuring a one-hundred-year design life is what intrigued the judges.



Situated between Minnesota and Wisconsin the St. Croix River Crossing not only balances environmental and stakeholder concerns, it provides increased capacity to 55,000 vehicles a day, significantly reduces delays and provides greater access to jobs and development - Kevin Western, MnDOT State Bridge Engineer.



Balancing the need for flood protection with impacts to stakeholders, the community, and the environment

Burnaby firm **Kerr Wood Leidal Associates Ltd.** was also recognized with an **Award of Excellence** for their *Squamish Integrated Flood Hazard Management Plan* project. In 2014, the District of Squamish retained Kerr Wood Leidal Associates Ltd. to lead a ground-breaking, three-year study to assess and mitigate an extensive range of overlapping flood hazards. The resulting Integrated Flood Hazard Management Plan (IFHMP) looks beyond traditional floodplain mapping to systematically consider the interplay of physical, economic, social, and environmental risks, greatly impressing the judges. It also identifies an array of mitigation choices that balance the need for flood protection with impacts to stakeholders, the community, and the environment.

The project's engineering innovations included Western Canada's most detailed floodplain-scale hydraulic model as well as a GIS-based method for generalizing dike breach model results to account for all possible breach locations. The project also takes an unprecedented comprehensive approach to incorporating future development and anticipated key aspects of the World Meteorological Organization's 2017 guidelines for Integrated Flood Management. "Kerr Wood Leidal Associates is honoured to receive an Award of Excellence for the Squamish Integrated Flood Hazard Management Plan. By recognizing our team's innovative contribution, this award highlights the importance of integrated, systems-based risk



management solutions in building sustainable and resilient communities,” said David Roche, M.A.Sc., P.Eng. Project Manager.

In November, follow the [#20DaysOfExcellence](#) in engineering campaign on social media and at www.acec.ca/20daysofexcellence to watch videos of other award-winning projects like these and to learn more about the impact of consulting engineering on our quality of life.

About award-winning firms

COWI North America provides bridge engineering services and multi-disciplinary project management throughout North America, having delivered over 2,000 bridge and transportation projects worldwide over the last 45 years. HDR specializes in engineering, architecture, environmental and construction services. With over 200 locations and 10,000 employees worldwide, they inspire positive change and push open the door to what's possible every day. www.cowi.com

Kerr Wood Leidal Associates Ltd. is a consulting engineering firm specializing in water infrastructure. Services include industry-leading water resources, stormwater, sanitary and water engineering services for the municipal infrastructure and resource development fields. KWL’s many award-winning projects include integrated flood hazard management planning, wastewater infrastructure planning, pump stations, water treatment plants, stormwater management, and creek hazard mitigation works. www.kwl.ca

McElhanney Consulting Services Ltd. established in 1910, has more than 25 offices in Western Canada, and a satellite office in Florida that specializes in long-span bridge design. An ISO-certified and employee-owned firm, McElhanney offers more than 20 integrated services including engineering, surveying, mapping, planning, environmental, and landscape architecture services. McElhanney is honoured to be part of the Canada’s Best Managed Companies program, which recognizes excellence in Canadian privately-owned companies. www.mcelhanney.com

Stantec - Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of place and of belonging. That's why at Stantec, we always design with community in mind. We care about the communities we serve—because they're our communities too. We're designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe. www.stantec.com

Tetra Tech Canada Inc. - Leading with Science® - Tetra Tech is a leading provider of consulting and engineering services. The Company supports government and commercial clients by providing innovative solutions focused on water, environment, infrastructure, resource management, energy, and international development. With more than 17,000 associates worldwide, Tetra Tech's capabilities span the entire project life cycle. www.tetrattech.com

WSP is one of the world's leading professional services consulting firms. We design and deliver lasting solutions in the Buildings, Transportation, Infrastructure, Oil & Gas, Environment, Geomatics, Energy, Resources and Industry sectors, as well as project delivery and strategic consulting services. With over 8,000 talented people across Canada and 42,000 globally, we engineer projects that will help societies grow for generations to come. www.wsp.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 2018 Canadian Consulting Engineering Awards, please visit www.acec.ca.

Canadian Consulting Engineer is a bi-monthly magazine for engineers in the construction industry. It is a division of Annex Publishing & Printing Inc. The award-winning projects are described in full in the October-November 2018 issue of *Canadian Consulting Engineer* at <http://www.canadianconsultingengineer.com/digital-edition/>.

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Multimedia (photos, project descriptions, videos)

[COWI North America and HDR project photo](#)
[COWI North America and HDR project page](#)

[Kerr Wood Leidal Associates Ltd. project photo](#)
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[McElhanney Consulting Services Ltd. project photo](#)
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[Tetra Tech Canada Inc. and Stantec project photo](#)
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[WSP \(Town of Ladysmith Wastewater Treatment Plant Upgrade\) project photo](#)
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