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**WILLIAMS
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Engage Innovate Inspire

Williams Engineering Canada takes a big picture perspective

by NATALIE BRUCKNER-MENCHELLI

To be a visionary in business requires a clear understanding of day-to-day operations combined with a clarity for future goals, the necessary steps that will get you there and a willingness to embrace challenges and step outside the box.

These are qualities that Naseem Bashir, president and CEO of Williams Engineering Canada (WEC) and chairman of the board for the Williams Group of Companies and his team at WEC have in spades.

"I'm a strategic guy, and I spend a lot of time thinking about what is happening in the future rather than what happened in the past," says Bashir. "In our industry we need to remain agile, we need to have a long-term strategy and to hammer away at it to make sure we are prepared for what's coming down the pipeline."

Chatting with Bashir is truly inspiring. His passion for engineering services, whether that's building science, civil, electrical, structural or mechanical (all of which are offered by WEC in addition to project management) is undeniable. "My wife says I married the company first, and then I married her," laughs Bashir.



Jasper Place Library, Edmonton, AB



Jasper Place Library, Edmonton, AB



Repsol Sport Centre, Calgary, AB

PHOTOGRAPHY COURTESY WILLIAMS ENGINEERING CANADA

The trickle-down effect of this positive leadership has resulted in an engaged and highly-skilled team that spans over 10 regional offices, all of whom Bashir commends for getting WEC where it is today.

You just need to visit the WEC website to realize that this isn't hot air either. Click on the "our team" tab and you could be a little overwhelmed by the number of team members featured. "To talk about specific key members is tough as the value of the company is down to the entire team. When we employ people we look for diversity. That means we end up with very different people at the table, from HR and finance to building envelope and structural engineers. For us it's about connecting our people to our projects. These are the folks that make it happen," says Bashir.

In terms of size and offerings, WEC has come a long way since it began almost 40 years ago. When Allen Williams started his mechanical and forensic engineering firm in Edmonton, Alberta, under the name A. D. Williams Engineering, Ltd., he understood that the future of the industry required a multi-disciplinary approach. He assembled

a team of highly skilled, successful individuals who had strong ethics and integrity, and gave them ownership of their roles. It would be fair to say that Williams was well ahead of his time. He was a firm believer in both employee ownership and a healthy work-life balance – core values that remain at the very heart of the company today.

Over the next 20 years WEC expanded, both in its services to include civil, structural, building science, electrical and project management services, and in geographical locations.

WEC's second office opened in Yellowknife; a location that has played a large role in the company's evolution. "I grew up in Calgary and Edmonton, but my first job was in Yellowknife where I spent seven years. When you live in the Arctic, where winters can be defined as being dry and extremely cold, if you don't approach things sustainably you won't be able to survive long-term and your experience may be less than pleasant. You have to push the envelope of design. It makes you view things differently and those practices have helped us in business," says Bashir.



Mill Woods Library, Seniors and Multicultural Facility, Edmonton, AB



Repsol Sport Centre, Calgary, AB



4000 Main Street, Vancouver, B.C.

From there the company saw a number of opportunities in Manitoba, central Alberta, Saskatchewan and B.C, where it opened up offices in Abbotsford, then Kelowna, Victoria, and, three months ago, in Vancouver. “You could say we had a north-south phase during the 80s and 90s,” says Bashir. Admittedly not every decision has gone smoothly, but, well, that’s business. “As you grow as a company, sometimes you win and sometimes you lose. What’s important is that you learn from those mistakes. In the early stages we lost a couple of times, but again, it really depends on having the right people in the organization, and we were able to eventually open offices in most of those locations again.”

WEC has also invested a great deal of time and energy in understanding advancements being made in technology that are having huge impacts on the sector. Bashir compares the consulting industry to Moore’s Law, saying that the evolution of technology is resulting in an unprecedented rate of advancement. “The velocity of change is massive and changing daily; it has everything to do with innovation and technology. It is driving the foundation of our business today.”

As a result of this knowledge, WEC has an extremely impressive portfolio of innovative projects. One such example is the Repsol Sports Centre in Calgary for which WEC provided building science, electrical, mechanical, project management and structural services.

WEC was initially involved in an investigation of the existing building to determine an appropriate roof replacement strategy and advise on lifecycle upgrades. “The building, which was originally built in 1983, has a fabric roof that never worked. When it warmed up outside, it would rain inside the building because of condensation. We were tasked with ripping off the roof and giving the building new life. Technically it was a complicated building, and on top of that it was semi-wiped out during the Calgary floods, so we helped the client through that,” says Bashir.

Design objectives were understandably complex as this project involved the expertise from multiple fields of engineering. The mechanical systems on Repsol Sports Centre for the 1.8-metre-diameter fabric duct supply and return air system is said to be unprecedented and may be the only one of its kind in the world. The equipment required additional structural support to be installed into the architectural elements of the building. Supporting the massive equipment and preventing vibrations within the steel framing was a significant feat of engineering and is one of the project’s most noteworthy accomplishments to date.

From a design perspective, Bashir says that one of the finest examples is the Jasper Place Library in Edmonton; a beautiful architectural masterpiece. As the mechanical and electrical engineers on this project, WEC ensured all of the ductwork and wiring was under the raised floor to allow for easy reconfigurations of the space. The availability of the floor plenum and the high ceilings allowed the WEC mechanical team to use thermal displacement ventilation for optimal effectiveness and energy efficiency.

Over in B.C., WEC has been working on a number of mixed-use projects, which Bashir is excited about. An example of this is the mixed-use, four-storey 4000 Main

Street. WEC provided mechanical schematic design, design development and complete mechanical permit and construction documents for the heating, ventilation and plumbing design. The building residential mechanical systems consist of electric baseboard heat, gas fired high-efficiency domestic hot water boiler plant and acoustically lined corridor ventilation transfer intakes.

But when you mention WEC and innovation it would be remiss not to talk about the many energy and resources projects that WEC has been involved in. For the Con Mine Site in Yellowknife the team was tasked with conducting a feasibility study for the use of warm groundwater for building heating. The groundwater is in the process of filling up the soon to be decommissioned gold mine. Then there’s the Giant Mine, a now abandoned gold mine located on the Ingraham Trail just outside of Yellowknife, where WEC’s role during the project was to provide the quality air monitoring survey inside the buildings during decontamination work and outside the buildings for perimeter monitoring.

“We believe that decommissioning a mine should not only focus on preventing or mitigating environmental degradation and protecting public health and safety, but it should also provide alternative options to conserve the land for future generations and use. To take a mine that has been in place for 60 or 70 years and turn it back into something you can ride your bike on is quite incredible,” says Bashir.

It is obvious that WEC believes in diversity of projects as much as it does in diversity of its employees; a recipe that results in the company’s success and undoubtedly its continued success for many years to come.

“Even though we may not geographically diversify, our plan is to add depth to the organization rather than breadth. We will have a laser focus on balancing the needs of our three primary stakeholders: shareholders, clients and people.”

Bashir adds that with the digital transformation on hyper drive, the company is prepared. “Tech is influencing the engineering business. When we look at the jobs that will be available to people in the next five years it is all about the right technology base and automation. Computers can do a lot of things, but you can’t teach them empathy. We firmly believe in educating our team members on soft skills such as communication, teamwork, adaptability and problem solving to become higher skilled problem solvers.”

He adds that for the industry as a whole, we will start to see an intersection and integration of various skillsets; rather than the division of roles, there will be more intensive collaboration. “When we slice projects into many pieces, there are way too many cooks. A project is not about satisfying your own needs, but the needs of the project, and this will come with greater integration of roles.”

Ultimately, the future for WEC lies in its mission statement: Engage, innovate, inspire. To continue to engage by listening to clients’ needs and determining the best solution; to innovate by staying ahead of technological trends and this rapidly changing industry; and to inspire by employing skilled team members who have the ability to solve problems creatively and deliver amazing projects. It’s fair to say WEC has all bases covered. **A**