



The Art of Saving Lives

Parkade installations bring innovative solutions to community issue

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A steel forest encircling the roof of the Edmonton City Centre East (ECCE) parking garage and a central column of cables spiraling upward in an intricate pattern are features that serve to add interest and beautify an otherwise average parking structure. Yet, while parkers and passersby might assume these features are merely artistic in nature, their true purpose is far more important.

These intriguing installations originated when ECCE owner Oxford Properties Group (Oxford) asked RJC Engineers (RJC) for help in addressing a growing problem plaguing their facility. The ECCE parking garage had become the site of numerous suicide incidents and Oxford wanted prevention measures developed that did not detract from the parking garage's appearance or function.

As RJC Principal, Daryl Prefontaine, notes, "Oxford didn't want their parking structure to look like a prison... they wanted features that functioned as suicide prevention barriers, but added to the aesthetic of the structure."

This was uncharted territory for the RJC team charged with addressing the issue. The request was the first of its kind for Prefontaine's team and no building codes or guidelines existed for non-typical suicide prevention barriers. It was a challenge RJC eagerly embraced and one that took shape following a serendipitous dinner gathering.

Prefontaine was invited to a dinner meeting that included guests Jacob Dumler and James McDonough of LDW Experiences (LDW), a specialty zoo design firm. During dinner, the conversation turned to zoo projects and the unusual design challenges in this field.



RJC Engineers (from left to right): Philip Lynch, Bryce Fulton, Scott Laing, Daryl Prefontaine.

“They began talking about designing enclosures for orangutans who are extremely strong, talented climbers and I quickly realized that LDW’s expertise could be applied to the challenge presented to our team,” Prefontaine recalls.

He asked Dumler and McDonough if they would be interested in applying zoo design principles to a new challenge. Intrigued, the design duo immediately began sketching ideas and, soon after, RJC and LDW Experiences were able to submit several design options to Oxford Properties.

Two designs were chosen to move forward. The Forest Thicket Concept envisioned the installation of laser-cut, Corten steel trees of various shapes and heights around the perimeter of the rooftop parking deck. The connected branches block access and the shape of the trees do not provide sufficient foot or handholds for climbing. Additionally, the Forest Thicket adds a unique visual element to the parking structure, which is enjoyed by passersby and neighbouring office workers, including those within Oxford’s regional office in an adjacent building.

“A lot of people have expressed that the forest looks great,” reports Prefontaine. “We even have people taking selfies with it or photographing it as urban design. These people appreciate the Forest Thicket’s visual effect but do not realize its purpose, which we consider a success.”



The second design concept, the Descending Spiral, is an installation of crisscrossing cables descending the parking structure's central ramp in a repeating spiral pattern. Again, while seen by many as an artistic element, its actual purpose is to discourage jumpers by changing their perception of a potential free fall from the top deck.

Since completion in 2017, the two ECCE parking garage suicide prevention barrier projects have been embraced by the community and, at time

of print, eliminated suicide attempts. Prefontaine notes that the project's success is owed to LDW Experience's creativity, Oxford's strong support, and the RJC team's commitment to bringing these innovative concepts to reality.

"This project was very fulfilling for the RJC team. I remember hearing my team members talk while they worked out the calculations and comment that it was one of the best projects of their careers," Prefontaine adds. RJC's Suicide Prevention Barriers have garnered industry recognition. In 2018, the project was awarded the BOMA Edmonton's Pinnacle Award for Innovation. They have also inspired future suicide prevention measures projects within the Edmonton area.

In her remarks for the 2018 BOMA Awards, ECCE Property Manager Debra Edwards said, "Part of our logo says 'managed with pride', and I can say that of all the projects I have been part of in my 17 years with Oxford, the Roof Top Barriers is the one I am most proud of."

She added, "I believe this will truly be a signature project for both us and the city."

Daryl Prefontaine is a Principal with RJC Engineers. Learn more at www.rjc.ca.