



Whirlpool Distribution Centre

by PETER STENNING

Like so many sectors in Canada, warehousing may be in high demand, but its profit margins dictate that cost control must be a prime consideration for any new development.

Keeping costs down but maintaining a high level of quality very much informed the new Whirlpool Distribution Centre in Rocky View County's CN Calgary Logistics Park, which has the distinction of being Canada's only intermodal business park. At 425,000 square feet, the warehouse acts as Whirlpool Canada's distribution centre for finished appliances coming to Alberta from across North America.

When ground broke on the project in June of 2017, Andrew Fuller, assistant VP of domestic intermodal at CN, told the press that, "By locating at our Calgary Logistics Park, Whirlpool can provide customers with the supply chain and logistics flexibility they need to service their customers and increase their competitiveness."

Stephen Stewart, director of supply chain at Whirlpool Canada, added that the \$45-million LEED Silver facility's location "provides us direct connection to CN's rail network and transportation services, allowing us to deliver our major appliances for our retail partners more efficiently and reliably."

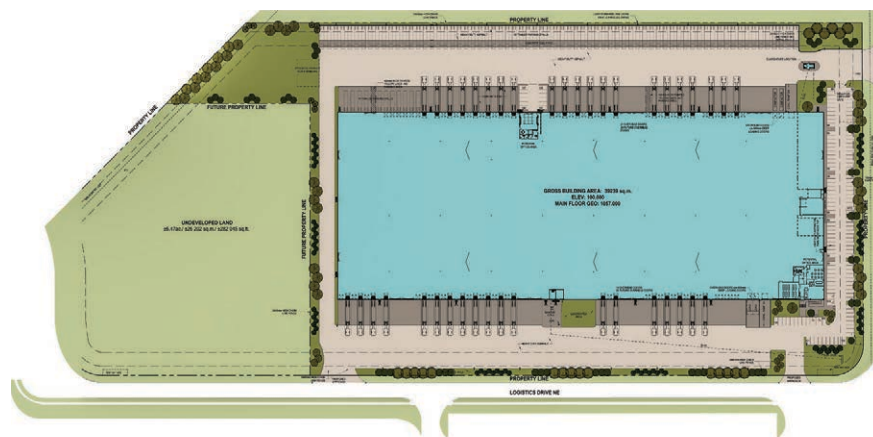
The relatively quick development of the design-build Whirlpool Distribution Centre and its equally efficient construction (ahead of schedule and under budget) is the outcome

of the facility's developers and original owners, Tribal Partners, who, with Whirlpool, worked closely with Kumlin Sullivan Architecture Studio and Traugott Building Contractors to achieve cost-effective solutions without sacrificing quality or durability.

The timely outcome of the project was also aided by the fact that the design and development team had been responsible for the creation of the Princess Auto warehouse facing the Whirlpool site. "Princess Auto was our first building in the Logistics Park, and its success facilitated the development of what would become the Whirlpool Warehouse, with both facilities making a prepossessing first impression to park visitors and acting as a gateway into the intermodal yard," says Lance Trumble, managing director, investments, at Tribal Partners.

Barry Sullivan, principal at Kumlin Sullivan, notes, "CN wanted a cohesive architectural vocabulary for the first phase of their 320-acre Logistics Park development, to visually brand the site, so to an extent the exterior of the Princess Auto and Whirlpool warehouses are similar."

To say that the Whirlpool facility was designed to withstand considerable wear and tear would be an understatement. Michael Knudsen, senior project manager at Kumlin Sullivan, explains, "Because all distribution warehouses with their racking and forklifting are prone to take the most abuse at the eight- to 12-foot



height level, the best solution was to create a facility that had precast panel walls for the first 16 feet, with insulated metal panel above.

"The alternative, to have metal panning from top to bottom, wouldn't have been economically feasible given the amount of additional framing required to protect the base from damage."

To a degree, the architects began their work by designing a generic warehouse. "That is, we started in mid-2015 and had completed about 60 percent of the drawings for a shell of a building when Whirlpool signed a 10-year lease with renewals with Tribal and CN," says Sullivan. "With the new tenants on board, we revised our plans to suit their specific needs: Whirlpool wanted a cross dock facility, meaning a warehouse basically divided in two in order to have importing and exporting of product occur at the same time." This was made possible because of the huge site (28 acres) "and a company that was very savvy in simplifying the cross docking process," according to Sullivan.

LOCATION

283080 Logistics Parkway,
Rocky View County, Alberta

OWNER/DEVELOPER

Tribal Partners

ARCHITECT

Kumlin Sullivan Architecture Studio Ltd.

GENERAL CONTRACTOR

Traugott Building Contractors

STRUCTURAL CONSULTANT

TRL & Associates Ltd.

MECHANICAL/ ELECTRICAL CONSULTANT

DBK Engineering Ltd.

LANDSCAPE ARCHITECT

L.A. West Calgary Inc.

TOTAL SIZE

425,000 square feet

TOTAL COST

\$45 million

The architects' decision to go precast with the lower portion of the warehouse proved fortuitous. "If we had gone with reinforced metal panel that meant every door would have had to have a frame, but precast eliminated this need and resulted in a considerable savings, given that Whirlpool wanted

40 trailer dock doors on the north side of the building, with an expansion capability of 102 doors in total."

Extensive glazing on the north and south sides of the warehouse gave the massive structure a visual appeal as well as brought natural light into the office and staffing areas (thus contributing to LEED points, as would LED lighting and motion sensors throughout the facility). "Whirlpool also opted for an SBS roofing membrane that, compared to the EPDM membrane for the Princess Auto roof, would be easier to repair and would cause less heat build-up," says Knudsen.

Trumble says of working towards LEED Silver standards, "It has become a lot easier considering the new energy standards required in buildings almost matches the designation. Declining costs of advanced technology is also to our advantage. When we did the modelling for the Princess Auto, we determined that payback on investment for LED lighting would be seven years. With Whirlpool, it was only 2.5 years."

Construction began in 2017 with Traugott Building Contractors having to level the entire site – an undertaking that required a massive amount of fill (material had to be transported from various sites in order to fill the

volume beneath the 425,000-square-foot floor slab).

Construction also had to take into account rainwater collection from the roof. An underground tank 18-feet wide and 270-feet long was situated just 4.5 feet below the surface of the truck court, built like a series of egg crates for structural integrity (the waffle structure was more affordable than the extensive bracing a normal tank would have required).

Taylor McNamee, landscape architect at L.A. West Calgary Inc., worked with a small crew to create a

naturalized green zone to the northwest, "and we also consulted with an irrigation specialist to ensure that all the rainwater collected in the underground tank would irrigate the entire site," he says. Parking lot buffering was achieved with the planting of native species such as spruce and pine trees.

Due to the slow down in the local construction market, the pricing for construction of the Whirlpool distribution centre came down about 15 percent. Access to a talented pool of trades also increased due to the reduction in construction projects, allowing Tribal to

deliver the building to Whirlpool ahead of schedule and under budget.

Today, Whirlpool Warehouse is fully operational and the team is proud to have received the NAIOP Rex Award for Industrial Lease of the Year for this project. "This award truly recognizes the development team's success in creating the most optimal distribution warehouse for Whirlpool; a building that maximizes the integration of modern warehouse design to benefit the significant advantage of location within the most modern intermodal facility in Canada," says Trumble. **A**



PHOTOGRAPHY COURTESY TRIBAL PARTNERS

WE CREATE AWARD WINNING IMAGES

ARCHITECTURE • INTERIORS • AERIAL



ROBERT
STEFANOWICZ
PHOTOGRAPHY

WWW.ROBERTSTEFANOWICZ.COM
PHONE 604 727 5518
ROBERT@ROBERTSTEFANOWICZ.COM
VANCOUVER CANADA



Superior Sprinkler Co. Ltd.

Superior Sprinkler Company Limited
formed in 1986 is a complete one-source sprinkler
and fire protection solution.

Main Office

5195 Bradco Blvd., Mississauga, ON L4W 2A6
Phone: 905-602-5798 Fax: 905-602-6322

www.superiorsprinkler.ca

Members of



Award
ARCHITECTURE | DESIGN | CONSTRUCTION

April 2019
ANNUAL INDUSTRY FEATURE:
Green Roofs & Walls

Book your ad space now: | Dan Chapman 604.473.0316
Alexander Sugden 604.473.0358



**RCI
COATINGS**

Sandblasting & Painting Specialists

**Proud to be part of the
Whirlpool Distribution Centre
project!**

**Congratulations to the whole team
on a successful job.**

Phone: 403.235.2541 • Fax: 403.235.2545
info@rcicoatings.ca • www.rcicoatings.ca

#137, 2432 48th St. SE
Calgary, AB T2B 1M4



We're proud to be the Prime Consultant for Tribal Partners on the Whirlpool Distribution Centre - an exciting LEED Silver project.

KUMLIN | SULLIVAN
ARCHITECTURE STUDIO LTD. (403) 283 - 8361
kumlinsullivan.com

**Pleased to contribute to the
Whirlpool Distribution Centre
project!**

**Congratulations to the whole team on
another successful project.**

Specializing in Custom Commercial Metal Siding and Roofing.



**Phone: 403-203-9304
Toll free: 1-888-303-9304
www.weatherguardmetals.ca**



**A PROUD PROJECT PARTNER OF
Tribal Partners' Whirlpool Distribution Centre DEVELOPMENT**

Our clients want something better. Better solutions through collaboration fueled by ideas that apply value engineering and engage the latest building technologies. Better results that go beyond on-time, on-budget, and meeting requirements; those that enhance their building's marketability. Better experience, risk management, and fiscal responsibility that provides the peace of mind only a leading building contractor can deliver. We are that partner. We are better.

Traugott
Cambridge • Calgary • Vancouver

Over 50 Years of Building Success

traugott.com