

ENBRIDGE PIPELINES



PROJECT OVERVIEW



Norseman Structures has been selling and manufacturing premium-end buildings since the 1960's. Our roots take us back to 1921.

In 2010, Enbridge and Norseman Structures began a partnership that required Norseman to custom design, manufacture and construct buildings to cover pump stations across Canada.



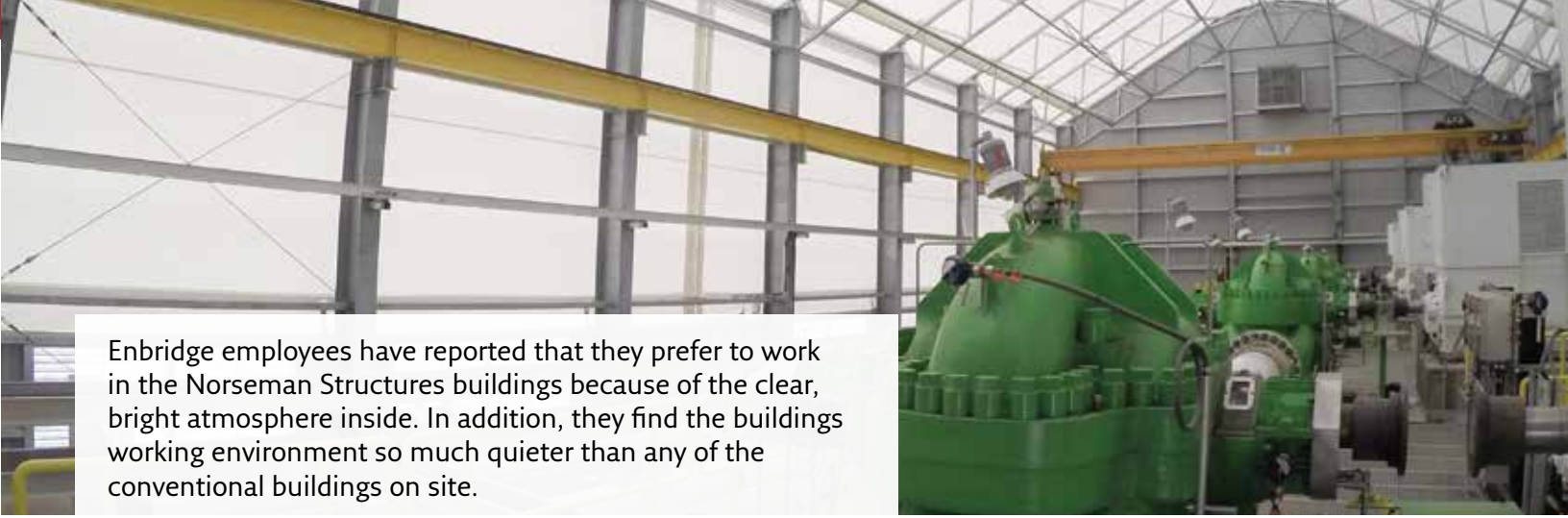
24 Buildings have been completed or are under construction
19 Buildings are scheduled for 2017/18
173,000 Square feet of buildings constructed to date

MEETING UNIQUE NEEDS WITH A CUSTOMIZED BUILDING SOLUTION

- **Range of sizes**
Buildings are 62' wide with a range of lengths from 114' to 136'.
- **High side walls**
33'-high steel side walls for unencumbered internal clearance.
- **Designed with an integrated 15-tonne bridge crane**
The structures were designed and supplied with an integrated 15-tonne bridge crane used to repair or replace pumps which would otherwise be impossible to do without removing part of a building and using an external crane to access. The cranes are attached to the building's frame and have provided a savings on foundation costs plus improved safety over a gantry crane.
- **Unique construction method**
Buildings were erected ovetop of the existing pumps.
- **Metal and fabric 'hybrid' roofing system**
The translucent fabric covers allow employees to work in a bright environment without using electricity during daylight hours.
- **Six ridge vents per building exhausts heat generated from the pumps**
Passive ventilation is provided by six roof top ridge vents (6'W x 12.5'L each) which are capable of providing twelve complete air changes per hour without using a drop of energy. If there are any leaks in the pump systems, this will allow for air exchange even in the event of a power failure. It also allows service crews to enter the building and not be overcome with hydrocarbon gases. An additional six air changes per hour are achieved by an auxiliary powered ventilation system.

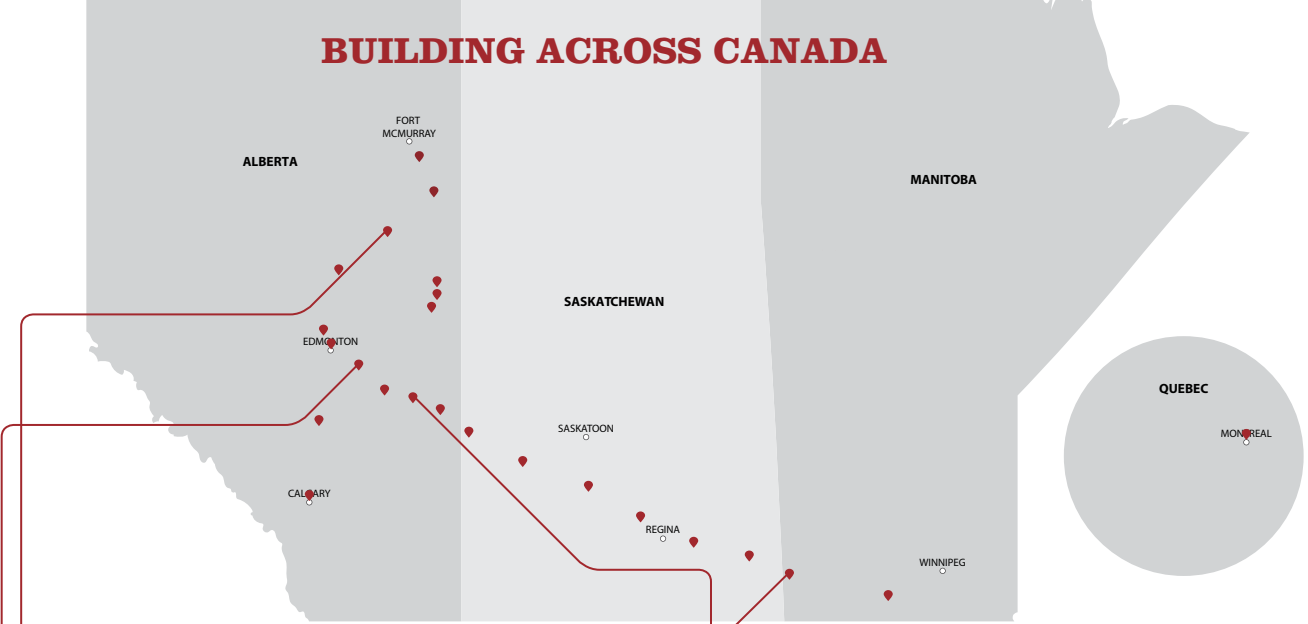
“Our Norseman project teams worked closely with Enbridge’s Major Projects group during the planning stage. These efforts are paying off with efficient, safe work on site helping Enbridge meet their tight cost and schedule constraints. The teamwork between Enbridge and Norseman has been great.”

Rob Wilson, Senior VP of Construction for Norseman Structures



Enbridge employees have reported that they prefer to work in the Norseman Structures buildings because of the clear, bright atmosphere inside. In addition, they find the buildings working environment so much quieter than any of the conventional buildings on site.

BUILDING ACROSS CANADA



Designed to accommodate an integrated 15-tonne bridge crane



33' high steel side walls



Six ridge vents (6'W x 12.5'L each) per building exhausts heat generated from the pumps



Buildings were erected overtop of the existing pumps

WHO IS NORSEMAN STRUCTURES

FIERCELY RELIABLE

Two simple words that define who we are. Reflecting the unparalleled quality of our world-class products and the unmatched commitment you can expect from our professional engineering, manufacturing, project management and construction teams every step of the way.

ENGINEERING, MANUFACTURING AND DESIGN

We are committed in our passion to provide you with the safest, most durable, well-built structures engineered to withstand whatever challenges Mother Nature sends your way.

PROJECT MANAGEMENT AND CONSTRUCTION SERVICES

Norseman Structures delivers added value through industry-leading project management and construction support services. Count on a seamless sales process, quick delivery, qualified installation and a responsive, reliable service team. Even on the most remote job site.



A FULL TURNKEY SOLUTION

- Standard or custom-designed buildings tailored to your specifications
- Engineer-stamped drawings
- Project planning teams
- Full documentation support
- Foundations, doors, mechanical and electrical
- Experienced, safety-certified construction crews
- On-site technical representatives

STANDARD AND CUSTOMIZED BUILDING SOLUTIONS FOR

- Warehousing
- Vehicle Maintenance
- Workshops
- Salt/Sand Storage
- Fabrication Facilities
- Sports Arenas
- Equipment Storage



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Fiercely Reliable™