

MODULAR BUILDING INSTITUTE

# 2019 CANADIAN

COMMERCIAL MODULAR CONSTRUCTION ANNUAL REPORT



## About the Modular Building Institute

The Modular Building Institute (MBI) is the international nonprofit trade association serving the commercial modular construction industry for over 35 years.

As the Voice of Commercial Modular Construction™, MBI promotes the advantages of modular construction while advocating for the removal of barriers that limit growth opportunities.

Through its long-standing relationships with member companies, policy makers, developers, architects and contractors, MBI has become the trusted source of information for the commercial modular construction industry.

**Commercial Modular Buildings** are nonresidential factory-built building components and structures designed to meet all applicable building codes. Commonly, these buildings are constructed in accordance with the International Building Code (IBC) in the United States, the National Building Code (NBC) in Canada, or a local version modeled after these codes. In this context, prefabricated mechanical, electrical, or plumbing systems (MEP systems) are not included for industry revenue and production figures.

The commercial modular building industry is comprised of two distinct divisions, both represented by MBI.

**Relocatable Buildings (RB)** - Relocatable Buildings, as defined in the International Building Code, are a partially or completely assembled building constructed and designed to be reused multiple times and transported to different building sites. This segment of the industry maintains a fleet of relocatable buildings offered for sale or lease to customers.

**Permanent Modular Construction (PMC)** – PMC buildings are subject to the same building codes and requirements as site-built structures, depreciate in much the same manner, and are classified as real property. This segment of the industry provides construction-related services for the successful design, manufacturing, delivery, installation and finish-out of commercial and multi-family buildings.



**Cover:**

Hotel in Oliver, BC from  
Horizon North Logistics Inc.





Key-oh Lodge in Burns Lake, BC from Metric Modular



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Workforce Lodge from WillScot and Guerdon Enterprises LLC in Fort McMurray, AB



# Market Overview

Ramada Inn in  
Revelstoke, BC  
from Horizon  
North Logistics Inc.

MBI represents 60 companies based in Canada, including 26 manufacturers of modular structures. MBI estimates that there are about a total of 45 modular manufacturers in Canada fabricating for a variety of markets including residential, multi-family, commercial, educational, and industrial sectors. There are also an estimated 15 or so smaller fabrication warehouses doing renovations and modifications for various markets.





Vacation rental home in Kelowna, BC from Alta-Fab Structures Ltd.

MBI directly obtained revenue data from eight Canadian manufacturers engaged in permanent modular construction (PMC) and surveyed all Canadian member companies actively engaged in the relocatable building (RB) industry. Not all companies provided data for all calculations. For example, MBI obtained revenue data from 14 companies, employment data from 13 companies, lease fleet data from 10 companies, and capital expenditure data from six companies. When possible, this data was applied to the total number of industry participants to gauge the overall industry size in Canada.

MBI also obtained data from public sources including: SEDAR ([www.sedar.com](http://www.sedar.com)) is the official site that provides access to most public securities documents and information filed by issuers with the 13 provincial and territorial securities regulatory authorities (“Canadian

Securities Administrators” or “CSA”) in the SEDAR filing system. MBI also obtained relevant information from annual filings on the following companies:

ATCO Ltd. was incorporated under the laws of the province of Alberta and is listed on the Toronto Stock Exchange.

Horizon North Logistics Inc. is a corporation registered and domiciled in Canada and is a publicly-traded corporation, listed on the Toronto Stock Exchange under the symbol HNL.

MBI also gleaned information from SEC filings from Civeo, Willscot, and General Finance (Pac-Van, Inc.) to supplement the member survey. On average, manufacturers in Canada generated approximately \$11,012,676 in revenues and drove nearly one billion dollars in construction projects.



Affordable housing complex built as part of BC Housing's Rapid Response to Homelessness initiative located in Smithers B.C. from Nomadic Modular Structures Inc.

## Permanent Modular Construction (PMC) Division:

Countless industries regularly use permanent modular construction; including schools, banks, restaurants, hospitals, hotels, medical clinics, and housing developers. The industries that utilize our services are numerous (as measured by the North American Industry Classification System, or NAICS), but the most common categories include:

**236116 New Multifamily Housing Construction**

**236220 Commercial and Institutional Building Construction**



Modular construction helps owners and contractors address:

- **Quicker occupancy** - Streamlined construction process, in many cases 30 to 50 percent faster than with conventional construction
- **Labor Shortages** - More efficient use of skilled labor with a safer work environment
- **Predictability** – Due to the shortened construction schedule, up-front materials purchases, and reliable labor, modular projects provide a hedge against construction market uncertainty.

### MODULAR CONSTRUCTION SCHEDULE



### SITE BUILT CONSTRUCTION SCHEDULE



The term “modular” describes a construction method or process where individual modules stand alone or are assembled together to make up larger structures. Unlike relocatable buildings, these structures are intended to remain in one location for the duration of their useful life; thus, they are permanent. Permanent modular buildings may be wood-frame, steel, or concrete and can have as many stories as building codes allow.

Overall non-residential construction put in place for key modular markets declined 16 percent for year-end 2018 to approximately \$25 billion CAD, compared to year-end 2017. This excludes single-family residential and engineering (bridges, highways, infrastructure).

Across Canada, construction starts in the education market declined 8.6 percent to approximately \$3.76 billion. Other drivers of the decline include healthcare (43 percent decline year-over-year) and the multi-family sector (15.8 percent decline).

The administrative and office sector showed five percent growth to approximately three billion dollars. Healthcare and education markets are forecast to rebound in 2019 while the multi-family sector (Canada’s largest market opportunity) stabilizes around \$12 billion annually.

Historically, one of the key markets for the modular industry in Canada has been the industrial workforce housing sector. The modular industry provided temporary workforce housing solutions in remote regions where the energy sector was active. With the decline in oil prices in recent years, the industry has diversified into some of the above-mentioned markets more aggressively.

Construction industry activity in key modular markets is forecast to hover between \$25 and \$26 billion for the next few years according to Construct Connect Insights.



Sonder House, an affordable housing complex, in Terrace, B.C. from Nomadic Modular Structures Inc.

# Western CANADA

**(British Columbia, Alberta, Saskatchewan)**

Overall construction starts in this region dropped from approximately nine billion dollars in key markets in 2017 to \$6.6 billion in 2018. It should be noted that hospital construction account for \$1.3 billion of this decline, often indicative of a large project ending in the prior year. Overall, construction is expected to bounce back and exceed 2017 figures, topping \$10 billion annually by 2020.

Like other regions, the multi-family market is the biggest opportunity for the industry, despite a decline from \$4.1 billion in 2017 to \$3.2 billion in 2018. This market is forecast to rebound and approach five billion dollars in new construction by 2020.



The education sector declined slightly but remains fairly consistent at \$1.2 billion and is expected to reach \$1.3 billion by 2020. The office and administrative market is just below one billion dollars annually, but is forecast to double to nearly two billion dollars by 2020.

Alberta showed strong growth in construction for educational facilities in 2018, while British Columbia led the way in multi-family construction at \$2.6 billion. The multi-family market also shows the most promise for growth in Saskatchewan from \$50 million in 2017 to \$255 million by 2020.

This region, more so than Eastern Canada, was negatively impacted by the downturn in the workforce housing market. In the past, it was not uncommon for companies in the industry to more than generate 80 percent of their revenues from the workforce housing sector. In 2018, no Canadian manufacturer providing data to MBI reported greater than 20 percent of their revenue from this sector.

### **Energy Sector Not Dead Yet:**

Even though many modular manufacturers have scaled back on workforce housing for the oilfields in northern Alberta, there are still signs of life building for this sector. Alberta-based ATCO Structures and Logistics began construction on the LNG Canada workforce accommodation contract in the first quarter of 2019 and will continue work until early 2021. The 4,500-person facility is being built to house workers involved in the construction of LNG Canada's natural gas liquefaction and export facility in Kitimat, British Columbia.

### **Modular Construction Used to Address Social Issues in B.C.**

One company in the region that made the shift away from workforce housing was Horizon North. Until four years ago, Horizon North focused on constructing housing for workers in Alberta's oil patch. When the price of oil crashed, the demand for thousands of quickly built apartments at remote locations in the province also crashed.

"Instead of laying off 300 people in Kamloops, British Columbia, the company decided to pivot," said Rod Graham, chief executive of the Calgary-based company.

In 2017, the provincial government of British Columbia pledged nearly \$300 million to build 2,000 modular housing units to address homelessness. Under its "Rapid Response to Homelessness", the province is more than halfway to that goal, having delivered over 1,200 units. Because of the program's success, the province added another \$76 million to the budget in 2019 to build an additional 200 modular units.

Metric Modular in Penticton also helped supply the first round of 2,000 homes. The initiative to build apartments for the homeless is now the inspiration for a broader move to provide affordable housing for income earners priced out of the traditional home market due to the higher cost.



# Eastern CANADA

Crossroads Hotel in Paradise,  
Newfoundland and Labrador  
from Kent Homes.

**(Atlantic Provinces, Ontario, Quebec, Manitoba)**

Overall, construction activity in the Eastern Provinces declined 11.4 percent from \$20.6 billion to \$18.3 billion in 2018. The biggest market decline was in the hospital/healthcare sector, which could indicate a larger project was completed in the prior year. Ontario led this region with 64 percent of all construction activity reported.



The multi-family sector accounted for nearly half of all regional construction activity in key markets at \$9.1 billion. However, this sector is forecasted to drop significantly over the next two years, with reductions in multi-family housing projects in Ontario as the main driver.

Construction of fire and police stations more than doubled in 2018, while the office and administrative sector showed slight growth year-over-year. The education market dropped 11.2 percent in 2018 but remains one of the largest market opportunities at just over \$2.5 billion in activity.

This region is forecasted to drop again in activity in 2019, before rebounding in 2020.

One key point to consider when evaluating modular activity in Eastern Canada is the impact of modular exports to affordable housing starved areas of the northeastern United States. One such regional factory makes about 600 apartments and hotel rooms a year, many of which have constructed for housing developments in Massachusetts.



Convenience store and restaurant in Vaughan, ON from NRB, Inc.





# Relocatable

## Buildings (RB) Division

The 40-unit complex at Main Street and Terminal Ave in Vancouver BC was completed in 100 days by Horizon North Logistics.

In Canada, a majority of industry-owned relocatable buildings are controlled by a handful of large, multi-national corporations with diverse revenue streams. It is not uncommon for a Canadian company to also generate revenue from the manufacturing of modular units, from hospitality-related services attributed to workforce housing accommodations (i.e. facility service and catering), or from construction projects such as multi-family housing developments. To the greatest extent possible, MBI separated the data and did not include revenue from construction projects nor facility services for purposes of this report. This data focuses on the leasing and sales revenue of relocatable buildings and equipment.



The Canadian relocatable building (RB) market is different than the U.S. market in many respects.

**Key Canadian RB market characteristics:**

- RB inventory concentrated in a smaller number of multi-national corporations.
- Corporations have more diverse revenue streams
- Oil, gas, and mining/extraction industry historically drove demand for RBs
- Codes and regulations outdated/misunderstood by local code officials and regulators
- Industry diversifying after latest oil downturn



## Workforce Housing

Historically, the Canadian RB market has been heavily influenced by resource extracting businesses such as the oil, gas, and mining industries. As such, companies engaged in this sector often have business interests in the United States, South America, and Australia where similar markets exist.

Within the workforce housing accommodations market there are various segments or business models that serve components of the overall value chain, including:

- Public and private firms; such as ATCO Structures & Logistics, Horizon North Logistics, Alta-Fab Structures, and Northgate Industries; that build the modular accommodations for sale. One company estimates that customer-owned rooms represent over 50 percent of the market.
- Horizon North, Black Diamond, ATCO, Royal Camp Services, and WillScot primarily own and

lease the units to customers and, in some cases, provide facility management services, usually on a shorter-term basis.

- Facility service companies, such as Aramark Corporation, Sodexo, and Compass Group, typically do not invest in and own the accommodations assets, but will provide hospitality services at third-party or customer-owned facilities.



Workforce Housing in Sunset Praire, BC from Black Diamond Group, Guerdon, Alta-Fab, and Metric Modular



**Classroom in Whistler, BC from  
Black Diamond Group**

Some companies, such as Civeo, generate revenue from serving all components of this value chain. Again, MBI separated and did not include revenue from facility services for purposes of this report.

The western market has experienced a prolonged economic downturn due to lower oil prices and delays in capital projects from large oil and gas companies. The demand for equipment rentals and workspace solutions largely depend upon the level of industry activity for oil and natural gas and mineral exploration and development and infrastructure development. The lower oil prices caused many companies to lay off workers, reducing the need for accommodations.

As such, the utilization rate for equipment in this space has declined significantly over the past few years, driving some companies to expand their markets.

Within the resource sector, liquefied natural gas (or LNG) provides some new opportunities for growth. Around 2008, dramatic changes



in the North American natural gas market began, driven by surging U.S. unconventional natural gas production (mostly from shale gas). This changed the outlook for LNG imports. Natural gas production increased, North American prices fell significantly, and the expected need for imported LNG collapsed. In fact, LNG exports began to be questioned.

As unconventional gas production increases, the U.S. is becoming increasingly self-sufficient with respect to natural gas. Pipeline exports from Canada to the U.S. are decreasing. With ample unconventional resources, industry has shifted its focus from importing LNG into North America to exporting LNG from

North America. The export of LNG could facilitate Canadian natural gas production growth and result in significant investment, jobs, and economic growth.

Eighteen LNG export facilities have been proposed in Canada – 13 in British Columbia, two in Quebec and three in Nova Scotia. Since 2011, 24 LNG projects have been issued long-term export licenses. Canada's only operational LNG terminal (an import terminal) is Canaport LNG's regasification import terminal located in Saint John, New Brunswick (Source: Natural Resources Canada).



## Current Markets

Today, customers of relocatable buildings include a diversified client base of general contractors, real estate developers, manufacturers, commercial businesses, education providers, financial institutions, government agencies, and companies involved in the resource industry. Common product offerings include “single wide” office units, storage units, large multi-unit office complexes, classroom facilities.

The market for relocatable buildings varies from Eastern to Western Canada, with workforce housing supporting the oil industry still a significant driver in the west. In the east, the market is more diverse including support structures for natural resource industries as well as educational facilities.

MBI expects to see greater diversification away from the resource

sector and into markets such as construction site offices, educational units, and retail units. These markets typically generate a recurring revenue stream with average lease durations of 12 months or greater; return the original equipment cost through revenue within four years on average; and require lower maintenance costs than units used for the resource sector.



Promotional pop-up in Winnipeg, MB from Corner Cast Construction Inc. |



## Recent Developments

A recent industry effort to develop a national standard for relocatable buildings will help to provide greater predictability and certainty for end users of these products in Canada.

Today, only the Alberta Building Code (ABC) has requirements that specifically address any relocatable buildings. These requirements were first included in the 1977 ABC and are substantially unchanged. The application of the requirements is limited to Group C (residential excluding buildings with dwelling units), Group D (business and personal services), and Group F Division # (low hazard industrial), and only when serving a workforce in a “temporary location.”

Municipalities and districts in the Provinces of British Columbia and Saskatchewan have been accepting relocatable buildings that comply with ABC Part 10. However, the Province of Alberta has recently stated their concerns about these requirements as being “outdated.”

Typically, each municipality is left to interpret how current building code



requirements do or do not apply to relocatable buildings. There are numerous requirements in the National Building Code (NBC) and the provincial/territorial building codes/regulations that should not apply to relocatable buildings or should be less stringent. Conversely, there are also requirements that should be more stringent.

Based on Part 10 of the Alberta Building Codes, CAN/UL2600 is a national standard for the construction of RBs. The industry is working to get this standard adopted into the National Building Codes and at the local levels.

**Relocatable  
transitional housing  
in Vancouver, BC  
from Horizon North  
Logistics Inc.**



## Key Findings

- » On average, manufacturers in Canada generated approximately \$11,012,676 in revenues and drove nearly one billion dollars in construction projects.
- » Diversification of Markets – workforce housing no longer the dominant market
- » Estimated market share for Canada is 3.60 percent based on 45 manufacturers
- » MBI obtained data from 14 companies collectively owning about 35,000 relocatable building units in Canada, or 70 percent of the estimated 50,000 industry-owned relocatable units. MBI estimates there are an additional 50,000 relocatable units owned privately by schools, construction companies, and other entities not available for lease.
- » The average annual corporate revenue attributable to the relocatable buildings sector in 2018 was \$30,603,775.
- » Overall, utilization rate of RBs decreased to 60.6 percent, from 65.1 percent the prior year, exclusive of workforce housing rentals.
- » Including workforce housing lowers the overall utilization rate to 49.5 percent, as that sector has been in decline for the past few years.
- » In 2018, Canadian companies invested over \$50,000,000 in capital expenditures for relocatable buildings.
- » The RB sector of the modular industry directly employs between 4,000-5,000 people and paid between \$12 - \$15 million in federal taxes in Canada in 2018 (excluding local, provincial, property, and payroll taxes).



# Thank you to our 2019 MBI Corporate Sponsors

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