



**SPECIAL 8-PAGE SUPPLEMENT**

# LONG-TERM CARE FACILITIES

SUMMER 2015 – VOLUME 3, ISSUE 3



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## Wood Offers a Long-term Solution for Long-term Care



VILLA SAINT-JOSEPH DU LAC REPLACEMENT FACILITY  
PHOTO CREDIT: STAFF OF SP DUMARESQ ARCHITECT LTD.

**There is truth to the popular saying, “Home is where the heart is.”** It’s a place where I’ve always felt most comfortable, and while I haven’t lived in my childhood home in years, a simple aroma or melody has a nostalgic way of whimsically bringing me back to that place or shared memory.

Apart from comfort, we often associate home with feelings of safety and security. As such, you can imagine the discomfort that someone may experience when they can no longer care for themselves in their home, either due to age or disability, and must relocate to receive the care they need. You can also imagine the stress of temporarily staying in a large centre – away from home – while your child is receiving medical treatment. The following special insert showcases how extensive wood use in long-term care facilities as well as temporary living spaces provides a sanctuary of warmth and peace for people in need and people in crisis.

Building codes are critical because they set standards in order to ensure that the health and safety of occupants remains a top priority. These safety measures are customized for each occupancy as they each have varying levels of requirements. For example, in a building where occupant mobility might be an issue, as in the case of long-term care facilities, the code mandates heightened safety measures (such as the inclusion of sprinklers). All buildings must meet the standards set by the building codes, regardless of the building material chosen.

### Home away from home.

Helping to make these facilities feel more like home, design teams throughout Canada are opting to use wood as the construction material of choice. As you will see through the examples in this magazine insert, exposed wood provides a warmth to the building design and ultimately creates a feeling of relaxation and comfort for the occupants.

Canada’s aging population is growing, and so too is the demand for long-term care facilities. Wood construction is an economical solution that meets this demand and offers the additional benefits of aesthetics, speedy construction through pre-fabrication techniques, and low environmental impact from Canada’s renewable resource.

When it comes to long-term care facilities and special temporary residential living, it’s best to use a building material from our Canadian home – wood.

Etienne Lalonde

Interested in attending a Wood WORKS! educational opportunity in your region? Check out the events listed in this insert and get involved with your regional Wood WORKS! today.

This Wood WORKS! magazine insert was created to help inspire design professionals throughout Canada. Do you have a project that features wood as a primary building material? Take advantage of our Wood WORKS! magazine insert and get featured today! Contact Natalie Tarini at [ntarini@cwcc.ca](mailto:ntarini@cwcc.ca), and share your story.

## Mark your CALENDARS 2015 EVENTS

### SEPTEMBER

#### Sept. 16

Wood Solutions Fair  
Edmonton, AB

#### Sept. 23

Séminaire sur le bois et  
les bâtiments à faible  
empreinte carbone  
Quebec, QC

### OCTOBER

#### Oct. 27

Wood Solutions Fair  
Vancouver, BC

### NOVEMBER

#### Nov. 12

Ontario Wood WORKS!  
Awards Night  
Toronto, ON

#### Nov. 24

Wood Solutions Fair  
Toronto, ON

#### Nov. 24

Wood Design Luncheon Conference  
Kelowna, BC

#### Nov. 26

Wood Design Luncheon Conference  
Victoria, BC

2016

### JANUARY

#### Jan. 22

International Wood Symposium  
Vancouver, BC



BRITISH COLUMBIA

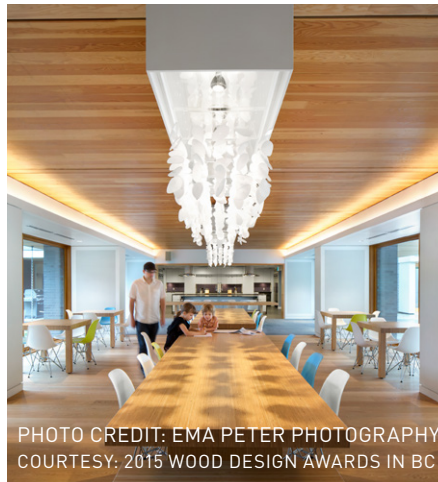
PHOTO CREDIT: ED WHITE PHOTOGRAPHICS  
COURTESY: 2015 WOOD DESIGN AWARDS IN BC

## Ronald McDonald House BC

Vancouver, BC

Ronald McDonald House BC (RMHBC) provides a “home away from home” for out-of-town families with children receiving medical treatment at BC Children’s Hospital. At the outset of the project it was clear to the design team that a warm and calming atmosphere was vital to the success of the new building. Key to this discussion was that an exposed wood structure, a strong connection to exterior landscaped spaces and a variety of other wood features would be fundamental to achieving this goal. The community living room and shared dining rooms feature exposed structural roof panels made from Douglas fir cross-laminated timber (CLT) panels. These nine-ply CLT panels span 30 feet and are key visual elements when visitors first enter the house.

The remaining structural system uses CLT wall panels with wood I-joists supporting plywood flooring. Using CLT panels as wall elements provides the gravity and lateral stability systems in one. As a solid panel product, they have abundant strength available to accommodate unusual load requirements for most building types. Although CLT wall panels have been used in Europe for a number of years in platform construction, this building may be the first to use CLT walls in

PHOTO CREDIT: EMA PETER PHOTOGRAPHY  
COURTESY: 2015 WOOD DESIGN AWARDS IN BC

a ‘tilt-up’, balloon-frame application. The construction methodology is to lay a series of panels flat on the ground, attaching beam ledgers as necessary, before tilting the entire assembly up into position. As solid wood panels are relatively lightweight, wall lengths of more than 10 meters can be erected at once.

Several parameters in particular led to

the development of this new construction methodology, including durability, clear spans and speed of erection. The design team believes the speed of erection and cost-competitiveness will see further application beyond residential structures. Timber tilt-up could provide particular advantages in the following building types, including warehouses, industrial buildings, retail stores and residential buildings. It is hoped that the benefits of this building method – speed of erection, competitive cost and adaptability of use – will see it adopted and applied by the construction sector on an equal footing with existing methods such as tilt-up precast concrete, steel frame and masonry.

Winner: Institutional Wood Design:  
Large – 2015 Wood Design Awards in BC

Michael Green, Principal, Architect AIBC  
FRAIC AIA, Michael Green Architecture

Jury: ...a refined technical solution using exposed CLT panels and wood I-joists, achieving a peaceful and welcoming place of refuge... a “home away from home.”

**ARCHITECT**  
Michael Green  
Architecture

**STRUCTURAL  
ENGINEER**  
Equilibrium  
Consulting Inc.

**GENERAL  
CONTRACTOR**  
ITC Construction  
Group



ALBERTA

PHOTO CREDITS: JAMES WILLIAMSON (STANTEC)



## Park Place Seniors Village

Medicine Hat, Alberta

Park Place Seniors Village in Medicine Hat, AB, needed a distinctive design to ensure residents would feel comfortable and safe in their seniors' housing community. Stantec was called on to provide the architectural and structural engineering services for the development of this 88,000-sq.ft. new construction.

It was an ambitious challenge to fulfill the design needs of the project. The community needed to include 84 beds for supportive living care including residents living with dementia, while planning for future expansion.

Seniors' housing communities need to be inviting; residents must be able to identify with and make sense of their

surroundings. A sensitive environment is shaped by balancing the technical requirements of the design with the comfort of residents to create a place that is inviting and feels like home. Residents react differently to their surroundings and their physical environment has an effect on both clinical measurements as well as mental and physical well-being.

The residential units were arranged into single-storey, 14-bed cottages for supportive living care, and a two-storey wing with 21 beds per floor for SL4 level supportive living. The design creates a stress-free environment. With familiar spaces that encourage social interaction, including areas connecting

to the outdoors, residents feel at home and at ease.

Wood was chosen as the main building material for the superstructure. This cost-effective material suits the residential cottages and provides a warm and welcoming environment. Monitoring the budget meant a community could be developed creatively using sustainable materials, resulting in a familiar home environment.

The mixed use of wood, steel, and concrete materials results in an aesthetically pleasing, sturdy structure that can easily adapt to future changes in functionality. Exposed glulam members were used in feature areas throughout to create open spaces and connections to the outdoors including the connecting corridors, sunroom, the central marketplace, and the main entrance of the building. The exposed structural wood provides a sense of continuity that ties the residences together while creating a home-like environment. The richness and warmth of wood was carried through the interior design by using solid maple doors, handrails, and bumper rails, and in the wooden millwork and ceilings. Wood interiors feel like home and the finishes are easy to maintain.

Success is in the detail: Experience in wood design, combined with an understanding of evidence-based design, make this a place to call home.

**CLIENT**  
Park Place  
Seniors Living

**ARCHITECT**  
Stantec  
Architecture Ltd.

**STRUCTURAL  
ENGINEER**  
Stantec Consulting Ltd.

**GENERAL CONTRACTOR**  
Clark Builders

**GLULAM SUPPLIER**  
Western Archrib

## ONTARIO



PHOTO CREDIT: GRAEME OXBY

## Extendicare Timmins

Timmins, Ontario

Extendicare Timmins is a 180-bed, 115,000-sq.ft. long-term care residence located in downtown Timmins. The architecture of the two-storey facility was inspired by the aesthetic of a grand hotel, yet the building maintains a strong residential character that fits comfortably within the surrounding neighborhood.

Residents live in one of three Home Areas. Each Home Area is comprised of a 30-bed cluster that is grouped around one of three internal courtyards. Shared social spaces are filled with natural light and the courtyards and abundant walking trails allow residents to fully enjoy their surroundings.

Each cluster has its own lounges, dining areas and activity spaces. Extendicare Timmins offers many home-like amenities including a private dining room for residents and families, a guest room for overnight visitors, a library, an internet café, a kitchenette, and a games room. A fireplace lounge evokes a traditional, warm environment for residents, visitors, and staff.

For Extendicare Timmins, wood construction had several advantages. Like many buildings today, the facility was developed under a tight budget with demanding timelines. The speed, ease, and economy that wood construction can bring to a project factored heavily in the decision to use wood for the superstructure. The use of a prefabricated panelized system for the walls further shortened the construction period.

In addition to the regular challenges of budget and timeline, the project also had a site-specific issue: extremely difficult, silty, clay soil conditions that required a light structure to minimize the potential for differential settlement. "Due to very poor soil conditions on site, the design process was a delicate analytical balancing act between building foundation types, loads, costs, and bearing elevations," explains Andrew Bayne, Principal at Read Jones Christoffersen Consulting Engineers.

"Readily available wood frame, with a low relative self-weight, helped solve the problem by allowing a quick thin raft slab foundation to be built close to finished grade while maintaining applied peak soil pressures of less than 30kPa."

Wood, which weighs less than steel and concrete, wasn't just the lightest design solution, it was also the most economical one. "When compared against alternative construction methods, the relative lightness of the wood superstructure helped us resolve the challenge presented by the site's poor soil conditions in the most cost-effective way," says Santiago Kunzle, Principal at Montgomery Sisam Architects. "Building with wood also allowed us to easily achieve a residential character for the building which is essential to help de-institutionalize the facility and evoke a traditional, warm environment for staff, residents and visitors."

### ARCHITECTS

Montgomery Sisam  
Architects Inc.,  
Architecture49 Inc.

### STRUCTURAL ENGINEER

Read Jones  
Christoffersen  
Consulting Engineers

**GENERAL  
CONTRACTOR**  
Ball Construction



## Résidence Gérard-Blanchet

Desbiens, Quebec

Located in Desbiens, in Saguenay-Lac-Saint-Jean, Résidence Gérard-Blanchet is the first multi-residential building in Quebec to be built of solid wood panels. Completed in December, 2011, the residence provides 20 community housing units for semi-autonomous senior citizens.

Given the many advantages of cross-laminated timber, project architect Christian Côté says the use of a CLT structure is an appealing solution for medium-density multi-residential buildings. In addition to the obvious ecological qualities, the prefabricated panels allow for a more rapid installation of the structure. In the case of the Résidence Gérard-Blanchet, only 17 days were required to erect the three-storey structure. In addition, architecturally, the panels serve to reduce the height of a building, facilitating its integration into the surrounding environment. The use of CLT also ensured that the structure respected the maximum height of 30 feet allowed by local municipal regulations and that its dimensions were well adapted to the limited size of the land, which demanded a three-storey building.

CLT panels are also just as strong as concrete, but lighter, and are therefore able to provide excellent seismic resistance. This feature helps to absorb the vibrations caused by passing trains which run in close proximity of the building. In addition to offering resistance to seismic events, a CLT structure also improves the building envelope's thermal resistance and offers increased fire resistance.

Left exposed in the hallways and on the ceiling, the wood structure also creates a warm atmosphere, contributing to the residents' quality of life. This architectural choice also reduces the costs of the interior finishes.

Made possible with an investment of more than \$3.1 million by the Société d'habitation du Québec (SHQ) and its community partners, the project was designed to meet the Novoclimat energy performance standards, a government program which promotes the construction of new, high energy efficient homes. Offering superior thermal performance, the CLT panels provide a 16 per cent reduction in the energy required to heat the building.



**ARCHITECT**  
Christian Côté  
architecte

**STRUCTURAL ENGINEER**  
Nordic Engineered Wood  
and WSP Canada Inc.  
(formerly Dessau)

**GENERAL CONTRACTOR**  
Construction  
Unibec Inc.

**WOOD PRODUCT SUPPLIER**  
Nordic Engineered  
Wood



PHOTO CREDITS: STAFF OF SP DUMARESQ ARCHITECT LTD.

## Villa Saint-Joseph Du Lac Replacement Facility

Dayton, Nova Scotia



The Villa Saint-Joseph Du Lac Replacement Facility is a 79-resident nursing home located in the small town of Dayton, on Nova Scotia's southern coast. The new facility is a 79,000-sq.ft. addition to the existing building, formerly the Lakeside Inn, a hotel owned and operated by the Canadian Pacific Railway in the early 1930s. In the 1960s, the hotel was closed and the building was purchased by Les Religieuses Hospitalières de Saint-Joseph for conversion into a care home.

The new facility is a departure from the traditional nursing home institutional model, taking on a resident-centered model. The design of the facility embodies the Eden alternative approach to care of the elderly, one in which the living environment is designed to provide residents with the maximum level of independence and foster development and growth. Broken up into "neighborhoods," the new addition consists of three wings, each containing two neighborhoods of up to 13 residents. Each group of resident suites surrounds a common living and dining room, complete with a fully functional kitchen for resident use. The existing building, which is currently a care home, will be renovated to provide a multi-purpose room, chapel and staff

spaces for the new resident wings.

The entire new addition is framed in wood, with pre-fabricated wood panels used for the exterior walls. Pre-fabricated wall panels were chosen for their cost savings over traditional stick frame construction, as well as to reduce the framing time and minimize exposure to the weather over the winter months. The 10 to 12 ft.-wide panels were built in New Brunswick, wrapped and shipped to the site. The roof trusses and floor joists were also pre-fabricated and pre-engineered off-site. Natural maple and cedar were used extensively throughout the interior of the building for their warmth and tactile qualities, increasing the homey feel of the facility. All of the handrails, door and window trim are built of solid maple. The resident tub and shower rooms have walls clad in red cedar, which softens and contrasts the colder ceramic wall tile.

Villa Saint-Joseph Du Lac Replacement Facility was designed to provide a high standard of long-term care while preserving an historical landmark. The use of wood construction was an optimal choice given the unique challenges of the site and its use throughout the interior makes it feel less like an institution and more like home.

**OWNER**  
The Villa Saint  
Joseph Du Lac

**ARCHITECT**  
SP Dumaresq  
Architect Ltd.

**STRUCTURAL  
ENGINEER**  
BMR Structural  
Engineering

**PRE-FABRICATED  
WALL SUPPLIER**  
Atlas Structural  
Systems

## NATIONAL PARTNERS

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