

[View this email in your browser](#)

Follow us on Facebook

Visit our website

Freeze-up 2019 Newsletter Mino Bimaadiziwin Partnership

Garden Hill Boreal Homebuilder students meet challenges with innovation

The weather challenges imposed by winter on the Boreal Homebuilders to build a house in Garden Hill First Nation are great. This job is particularly difficult without a foundation in place in November and December. Currently, the lakes are freezing up, not allowing concrete materials and concrete mixer truck to cross the lake for this construction. As well, at frigid temperatures concrete mixing and pouring to complete the foundation is not possible as the foundation walls would not be able to dry.

So, the big question is: How to construct the stick build house while waiting for warm weather (spring) to complete the foundation?

Hubert Wood (Project Community Instructor) suggested we should suspend the house using some beams which we can then lower on the foundation once completed during Spring 2020.

Darryl Wastesicoot (Project Lead Instructor), who is experienced in different forms of construction across Canada, developed an engineering drawing that shows what the house will look like when suspended on the foundation as well as the details of the trusses, beams, beam pockets which will hold the house on the foundation (show in diagrams below).



Figure 1: Current status of the foundation.

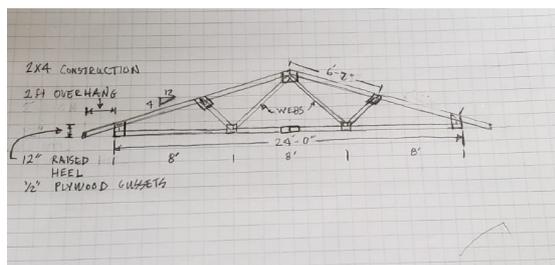


Figure 2: Diagram of the Trusses for the stick build house.

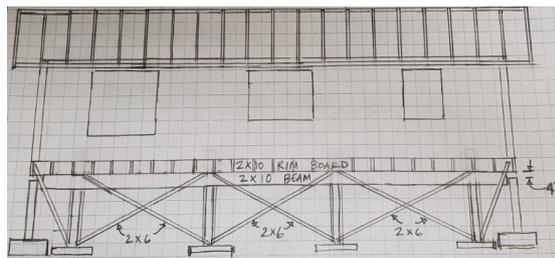


Figure 3: Side view of the beams supporting the house on foundation.

Students explore food, housing and education in Opaskwayak Cree Nation (OCN) and The Pas

Students from Natural Resources Institute, University of Manitoba and Mino Bimaadiziwin Partnership people attended the Linkages Conference at Opaskwayak Cree Nation (OCN) and The Pas on October 15-16, 2019.

The Linkages conference focused on creative, critical thinking and collaborative conversations about northern economic and human development. This focus aligns with the focus of the Mino Bimaadiziwin Partnership grant. Students not only engaged in the conversation about North Manitoba but also explored economic development activities in OCN. Dr. Wilson provided a tour of the Muskrat Hut in OCN that some partnership students (Roxanne Harper, Jason Knott and Reanna Merasty) helped to design and build. They learned about housing issues in OCN with community leaders. Lots of knowledge exchange and opportunity to grow the partnership.



Image 1: Group Discussion during the Manitoba Skills, Talent and Knowledge Strategy session



Image 2: Happy faces in front of the Muskrat Hut that some of them built in July, 2019 with Dr. Wilson, OCN.

At the leading edge of precision agriculture, OCN has a hydroponic, energy-saving Smart Farm. The OCN Smart Farm is OCN's answer to combat diabetes, food security and sovereignty by the capacity to have fresh vegetables and fruits available year-round. This Smart Farm developed as a partnership formed between the Opaskwayak Cree Nation and the Korea Agriculture Systems Technology Ltd starting in December 2015. State of the art light emitting diode (LED) pulse control technology is used for energy saving which can be plugged into a normal outlet to plug and play. This precision agriculture reduces water, fertilizer and grows all year round to produce 1700 plants in a small room by having stacked multi-layer structure to maximize the cultivation area. Environmental control of temperature, water and fertilizer *shortens cultivation time, minimizes fertilizer* and maximizes production. As a result, lettuce can be harvested three times faster than in fields in 30 days.

The farm has grown over 70 different varieties of vegetables, flowers and fruits all year round since the first seeds were planted in 2016. Joan Niqunicappo, the manager of the Smart Farm explained: "We use (in the farm) a hydroponic system, utilizing recyclable water, no soil, no pesticides/chemicals, independent of weather, and all using smart technology – the opportunities were endless."

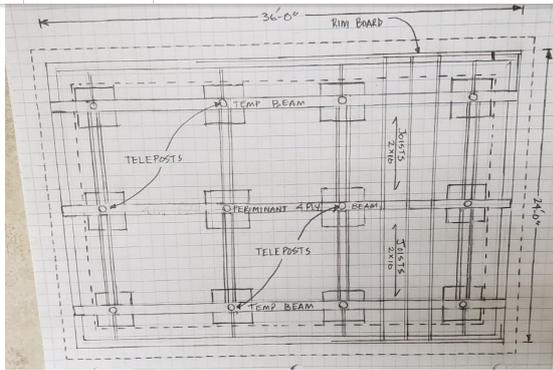


Figure 4: Diagram showing how the house will be resting on the temporary and permanent beam.

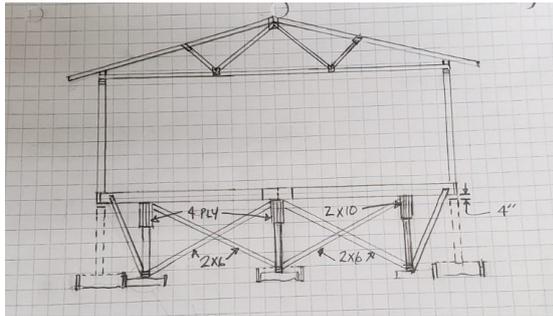


Figure 5: Front view of the house resting on the beams.

Though Darryl and Hubert have successfully applied this concept in one of their past projects, we consulted engineers to get other expert opinions on approach before a final decision was made to proceed.

The Boreal Homebuilder trainees are key players in the project. As a result, we consulted the trainees about the initiative to ensure they wanted to proceed in this way and are cognizant of the work required and the safety requirements.



Image 1 & 2: Trainees discussing the initiative among themselves; Darryl Wastesicoot (Project Lead Instructor) explaining the initiative to the trainees.

The Boreal Homebuilder trainees were keen and started constructing the trusses based on the drawings in November. Over the coming weeks in November and December, the trainees will be constructing the house based on the engineering drawings.

Article and image courtesy: Babajide Oni.

A Boreal Homebuilder student's journey to University of Manitoba.

Growing up in the remote fly-in Wasagamack First Nation in Manitoba, Roxanne Harper was always fascinated by building design. Her big goal was to be an architect and she felt the Boreal Homebuilder (BHB) post-secondary program would help her towards that goal. As part of the BHB program this year she gained confidence and certificates in Wilderness Survival, Forestry Management, Job Readiness, Small Motors, Chainsaw Safety, Proposal Writing and Home Design. During a BHB class trip to University of Manitoba with the Mino Bimaadiziwin Partnership in February 2019 she toured the architecture building and met with Access and other faculty to apply to be enrolled as a student at University of Manitoba. She is now studying a Bachelor's degree at University of Manitoba (UofM) as a 1st-year student hoping to pursue the Interior Design and Architecture program at UofM.



Image 4 & 5: Close to 50 percent of the OCN community members suffered from diabetes, according to the Opaskwayak Health Authority. Niqanicappo plans to combat chronic illnesses, such as diabetes and its complications by providing fresh options on people's dining table.



Image 6: Students did not miss the chance to take a picture with Honorable Senator Patricia Bovey.

On behalf of the students and staff, the partnership would like to thank the community of OCN, and its people for providing us such a great learning opportunity.

Article and image courtesy: A M Rezwanul Hoque

My journey through the Islands of the North as a researcher...

By Babajide Oni (Graduate Student, Natural Resources Institute, University of Manitoba, Canada)

[Subscribe](#)

[Past Issues](#)

[Translate](#) ▾

[RSS](#)

This email was sent to hoqueamr@myumanitoba.ca
[why did I get this?](#) [unsubscribe from this list](#) [update subscription preferences](#)
Northern Teaching Lodges · 39-761 Wolseley Avenue · Winnipeg, Manitoba R3G 1C5 · Canada

