

MAIN FLOOR NISICHAWAYASIHK MULTIPLEX PHASE 1 & PHASE 2



Above: the floor plan for the new recreation complex. Right: the site of the new recreation complex for the Nisichawayasihk Cree Nation in Nelson House, Manitoba. The project is slated for completion in August 2018.



FLOORPLAN: AYSHKUM ENGINEERING PHOTO COURTESY OF T.L. PENNER CONSTRUCTION

New Recreation Complex in Nelson House

When completed in August 2018, this recreation multiplex will be a strong addition to this northern area – with community involvement being a key part of the project

By Lisa Kopochinski

DISPLAY

MULTIPURPOSE

THEATRE

CULTURAL ACTIVITIES
TEACHING

hen completed next August, the new recreation complex for the Nisichawayasihk Cree Nation in Nelson House, Man. will be an inspiring and wonderful addition to this northern Cree-speaking community.

Not only will this new 17,500-square-foot, two-level building contain a gymnasium (the main attraction), a multipurpose room, play area for small children, offices and a track on the second floor overlooking the gym, but it will also house a fully functional commercial kitchen.

"The kitchen will serve the needs of gatherings in the community hall, but is also intended as a teaching kitchen, to teach the youth of the community about nutrition and how to prepare the wild game that is harvested during hunting season," said Jim Kacki of Ayshkum Engineering Inc., a Winnipeg firm composed of planners, architects and civil engineers. "The teaching kitchen is a unique facility and was an idea of the multiplex committee."

Ayshkum Engineering was initially hired to do a site study, programming and schematic design. The study phase consisted of working with the community's multiplex committee to develop a program of needs (i.e., what should be included in the facility), a budget estimate, conduct a site assessment and do preliminary schematic plans.

"Once the community agreed on an area program and preferred site, we were then hired to develop the plan, produce working drawings and specifications for tendering to contractors, then do contract administration and site inspections during construction," said Kacki.

Ayshkum Engineering – which began working on the project in May 2016 – collaborated with Tower Engineering Group Inc. of Winnipeg, which was tasked with structural, mechanical and electrical engineering for the project. Virden-based T.L Penner Construction Inc. is the general contractor.

History spanning 10,000 years

Located approximately 80 kilometres west of Thompson, and accessible by the mixed paved and gravel Provincial Road 391, this rural community of 4,200 has a history spanning 10,000 years, when the people of Nisichawayasihk (who are largely ancestral descendants of Indigenous Cree peoples) populated the Canadian Shield region of northern and central Canada since the retreat of the glaciers.

Approximately 2,500 members of the Nisichawayasihk Cree Nation live in Nelson House, with the remaining 1,700 or so living off reserve lands. A large and widespread community, few can argue that this new project is a welcome addition to the area.

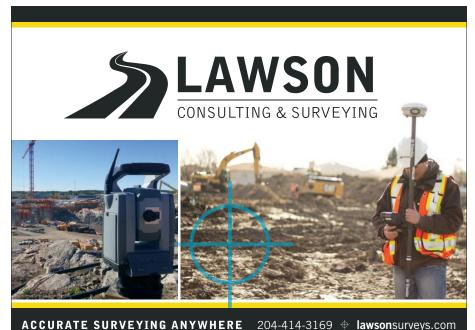
Unique aspects

The total square footage of the new recreation complex is 17,540 square feet, consisting of a 11,270-square-foot main floor, and 6,270 square feet for the second floor, says Zac Penner, whose company,



"Given the different uses within the building, it is definitely a community project that will provide something for everyone."

- Zac Penner, T. L. Penner Construction







Phone: (204) 633-2567 | **Fax:** (204) 694-5622 | www.arnasons.ca P.O. Box 48, Group 200, RR#2 Winnipeg, MB R3C 2E6



T. L. Penner Construction, was responsible for the entire project, and worked with many subcontractors to complete various parts of the project.

The architectural design of the project is quite unique in that there is an abundance of natural light on both floors. The super structure is composed of steel beams, concrete grade beams, a hollow core concrete floor and concrete block walls as the main floor structure.

Steel beams and columns comprise the second floor and roof structure, while the exterior will be a combination of prefinished metal siding, split-faced concrete block and glass curtainwall. A handicap lift will provide universal access to all parts of the building.

"Given the different uses within the building, it is definitely a community project that will provide something for everyone," said Penner.

As for challenges, he says, thankfully, there haven't been any major ones yet.

"Our biggest risk is the weather, given the time of year and the stage the project is at," said Penner. "We have the right people for the job and expect to be able to overcome any potential challenges."

Kacki adds that winter construction is always a challenge.

"The contractor is using modern technology of running heated glycol in tubes inside the concrete to facilitate concrete curing in the winter months. This is an improvement over the older method of heating the air in tarpaulin tents around the concrete."

Additionally, soil tests originally showed uneven sloping bedrock hills and valleys.

"This was overcome by steel piles with special 'shoes' that bite into the bedrock, preventing the piles from slipping and



AYSHKUM ENGINEERI

angling during the process of pile driving," said Kacki. "Inspections during piling demonstrated that this worked successfully."

With the first phase of the project spanning 16,000 square feet, future phases include a weight room, a large area for fitness classes, a multipurpose room for activities such as dance classes, boxing, etc. Baseball fields and a hockey arena are directly adjacent to the new multiplex, which helps strengthen the recreational hub that already exists.

In addition to the already aforementioned art room, music room, small film theatre and technology room/Internet café, a unique feature is the special room that will be devoted for cultural activities and teachings about traditions and culture.

Another unique aspect of this project – from a design perspective – is the second floor running track, which will cantilever out of the building at the front with an all-glass wall.

"This will bring lots of natural light into the building," said Kacki. "In addition, it will provide interest for those running around the track and showcase the track to passersby, hopefully encouraging use of the facility."

Another interesting feature is the three 40-foot solar ducts on the roof (Solar DUCT, by Conserval Energy Inc., a Canadian company).

"They capture heat from the sun and transfer it directly to the air, which is fed into the rooftop air handling units," said Kacki. "The suppliers estimate that the savings in energy use will result in a payback of the initial cost of the units in eight to nine years."

"We are always looking at ways to provide employment opportunities to the local community," said Penner. "Nelson House has several journeymen tradesmen in variety of trades such as electricians, plumbers, carpenters, etc. We also have several CARM

members involved – Cabinet Coral, Central Manitoba Interiors and Hay Decorating."

In essence, when completed next year in August, this multiplex will be a strong addition to this area, with community involvement being a key part of the project. ■



