

GAME. SET. MATCH.
WINNIPEG'S NEW
DAKOTA FIELDHOUSE
WAS DESIGNED WITH
ATHLETES OF ALL AGES
AND ABILITIES IN MIND.



“When you look at everything that is up there—like security cameras, ventilation systems and fans—you can see why it was so difficult to design a nine metre ceiling.”

Dakota Community Centre has served Winnipeg's South St. Vital for more than 30 years and with its mission of “being a gathering place providing excellence in sport and recreation for everyone,” Dakota CC has become one of the largest and most successful community centre operations in the city.

During the 1990s, Dakota CC's hockey program helped to foster the emerging talents of its brightest star, Jonathan Toews of the NHL's Chicago Blackhawks. Starting out his hockey career as a Dakota Lazer, Toews went on to put his mark on the hockey world; becoming the youngest captain in Chicago Blackhawk history, earning several Stanley Cups and helping Canada take home back-to-back

gold medals at the 2010 and 2014 Winter Olympics.

When Toews brought the Stanley Cup home for the first time in 2010, it seemed only fair that the then-mayor of Winnipeg, Sam Katz, would declare that the community centre that provided Toews his introduction into hockey would bear his name to reflect his accomplishments within the sport. In 2014, the Dakota CC was officially renamed the Jonathan Toews Sportsplex (at the Dakota Community Centre), a 95,000-square-foot building that houses two indoor rinks, a gymnasium, nursery school, skate shop, weight room, strength training facility, a canteen, Dakota CC administrative offices, as well as numerous multi-purpose spaces.

Now, just three years later, Dakota CC has expanded with the October opening of the \$20.5 million Dakota Fieldhouse, which adds another 60,000 square feet of sports and recreational space to the existing Centre facilities and allows Dakota CC to further accommodate a number of activities; from volleyball to pickleball, and almost everything else in between.

“From the beginning, the entire project team has worked together to try and determine just what the Dakota Fieldhouse was supposed to be,” says Dakota CC CEO, Michele Augert. “And, while the new Dakota Fieldhouse is first-and-foremost a sport and recreation facility where people can come and play, it is also a multi-use facility with the ability to be adaptable for use



with just about any large community gathering event.”

The centre-piece of Dakota Fieldhouse is the 30,000 square feet of hardwood gymnasium floor space that is not only a suitable open space for large-scale events but is also adaptable, complete with seven retractable curtains that are able to divide the total area into several multiple configurations for a multitude of smaller use activities and sports. The floor includes overlaid court lines for volleyball (multiple courts), basketball (three International Basketball Federation (FIBA) regulation-sized courts with rear folding backstops), and badminton and pickleball (12 courts). Twelve banks of mobile, retractable bleachers provide ample seating for up to 500 enthusiastic spectators.

Dakota Fieldhouse maintains an unobstructed ceiling clearance of nine metres from floor to ceiling over all playing fields, the achievement of which proved to be a major undertaking for all those involved. In spite of the effort, however, attaining nine metres was deemed to be essential for the requirements of the various volleyball organizations, whether local, national or international.

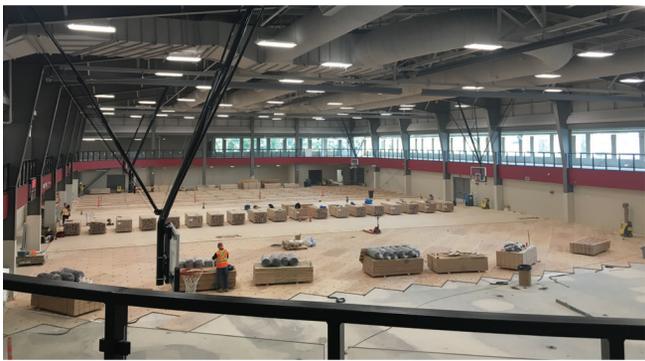
“When you look at everything that’s up there—lights, security cameras, fans and ductwork—you can see why it was a challenge to achieve a nine-metre ceiling height,” says Augert. “I truly applaud our architects and construction managers for accommodating this requirement and making sure that the

changes that needed to happen, happened while also recognizing our very tight budgetary constraints.”

The Dakota Fieldhouse lobby area includes a large reception office, along with a food concession and seating area with viewing windows into the gymnasium. Users of the new fieldhouse also appreciate the facility’s large and accessible change rooms with multiple shower facilities and washrooms, several storage areas to house sporting equipment and supplies, and a premium sound system that generates quality sound and music for a variety of events.

From the washrooms to the concession area and water fountains, each facet of Dakota Fieldhouse has been carefully designed with an exceptional

The Dakota CC’s new \$20.5 million Fieldhouse adds another 60,000 square feet of sport and recreational space. Photos courtesy of the Dakota Community Centre.



TOP

Residents were concerned about noise and increased traffic from heavy machinery. This was addressed by restricting construction traffic to a single back lane directly to the site.

FAR RIGHT

The original design included rubberized sports flooring but the Community Club decided to add wood floors after consultations with local sporting associations. This created one of the biggest challenges of the build.

INSET

A 200 metre, three-lane walking/running track circles the top of the facility.

attention to providing greater accessibility. The Venue meets—or exceeds—all City of Winnipeg Accessibility Design Standards.

Living up to its goal as a multi-use facility, Dakota Fieldhouse features a health and wellness studio that provides more than 1,000 square feet of private space for activities such as yoga, and includes a dedicated sound system, mirrors and storage cubbies for personal items

And above the gymnasium floor at the mezzanine level is a 200 metre, three-lane walking/running track, three customizable 60 metre sprinting tracks, and a small fitness and weight-training area that permits the community to come indoors and round out their fitness needs. As an example of the facility's demand within the community, within a week of the mezzanine level opening on November 1, more than 325 new members signed up with Dakota CC to use it; a benchmark only reached without any specific advertising, beyond the Grand Opening/Open House on October 12.

As a provincially-funded project, the design of Dakota Fieldhouse mandated that certain minimum requirements for

sustainability were stipulated, as part of Manitoba's Green Building Policy. As such, Dakota Fieldhouse was built with modern, recycled materials that aimed to meet stringent Hydro POWER SMART and LEED® Silver Certification Standards, a difficult accomplishment for a building of this type.

"It is such a big open space, it is difficult to get an extremely good performance or really improve on the performance when compared to normal, non-sustainable buildings," says Marten Duhoux of ft3 Architecture, Landscape, Interior Design. "Along with the construction manager, we had to work really hard to make sure that the mechanical systems and the building envelope performed extremely well."

One of the aspects of Dakota Fieldhouse that makes it truly unique when compared to similar-use buildings is the amount of sunlight flowing indoors as typically, gyms are constructed without windows in order limit the amount of glare on the field of play. Not so, for Dakota Fieldhouse.

"The track up on on the Dakota Fieldhouse mezzanine level has allowed us to increase and take advantage of the natural light that comes into the building," says Duhoux. "The windows that ring the track are positioned further back, filtering the sunlight and taking care of any glare issues on the gymnasium floor. The benefit of this many windows is also that the mezzanine and track area have great views and a lot of light where we can really use it."

The original design of the Dakota Fieldhouse called for the installation of a rubberized sports floor, but after more research and further discussion with various sport associations—such as basketball, volleyball and wheelchair sports—Dakota CC determined that a hardwood floor would be necessary in meeting the needs of these important and special user groups. This change of flooring materials created one of the biggest challenges for the design team, as the design change was made well into the construction schedule.

"Most wood floors sit on a sleeper system and are about four-and-a-half inches thick, which was too thick for our needs," says David Dulko, Business Development Manager at Bird Construction. "This forced us to do some research and seek out a low-profile wood floor and we eventually came across a system that was about an inch-and-a-half thick. It was a little more costly but it was the only way we could do it because our floors were already poured and we could only make minor adjustments at that point."

Also, because of the wood used in the gymnasium flooring, additional consideration had to be given to the facility's environmental controls in order to better mitigate the impact of humidity.

"The use of wood on the floor meant that we needed to be able to properly control the humidity levels in the building throughout the year," says Dulko. "So, we installed a computerized control system attached to



“Needless to say, we wanted to make sure we preserved as much of the existing forest as possible,” says Augert. “For the trees we did remove, we were able to avoid any penalties by agreeing to a re-forestation plan that required us to put \$85,000 back in planting new trees for the facility. This is something that the public has come to embrace as these new trees and shrubs have created, from a landscaping perspective, a very aesthetically pleasing look for Dakota Fieldhouse.”

The Dakota Fieldhouse received financial support through private community donations (of which Jonathan Toews provided a transformational gift of \$1 million), provincial funding (\$7 million), and money from the city (\$6.7 million). So far, the finished project has been overwhelmingly positive from all parties.

“Everyone who is coming through the door is absolutely in awe of its possibilities, its adaptability, and its ‘wow’ factor,” says Randy Anderson, Program

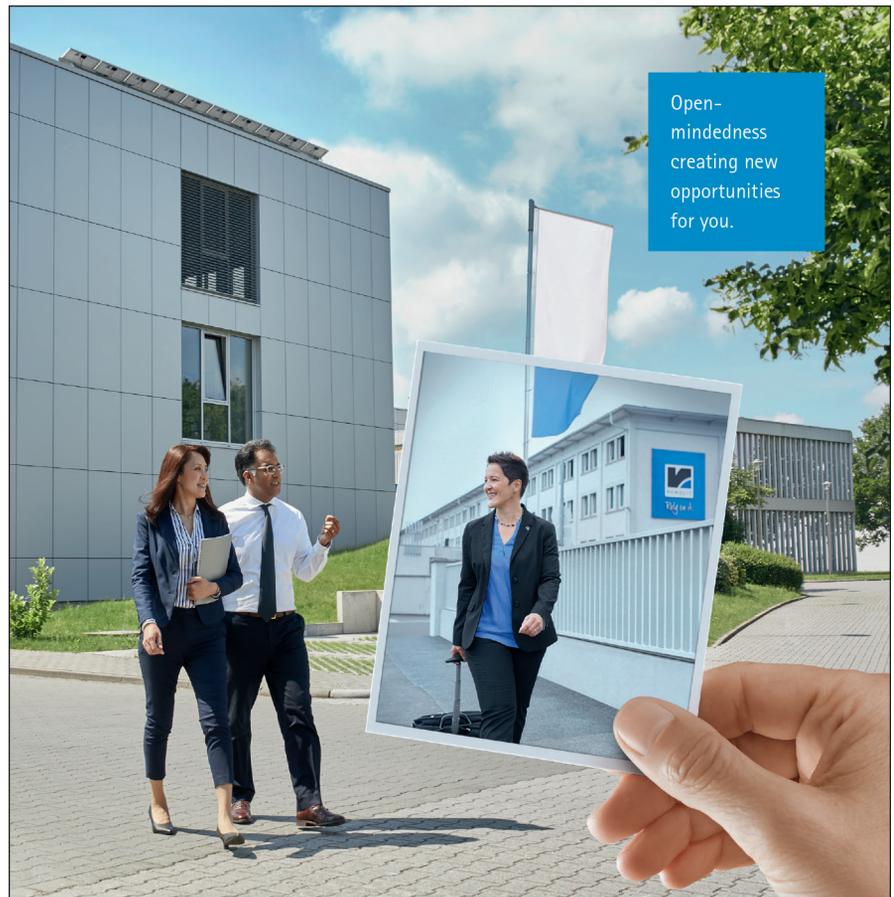
Manager at Dakota CC. “While it is aesthetically impressive to look at, it’s the technical aspects for all levels of sport that truly sets Dakota Fieldhouse apart, not only for the upper echelon of sports but also for the four-year-olds coming in for physical literacy and for older adults. There is nothing like it here in the city or the province. Dakota Fieldhouse has exceeded our expectations in what we set out to accomplish. It has really been everything that we thought it could be, and more.”

the mechanical system that automatically monitors and adjusts conditions as they change with the different seasons.”

Initially when the project was announced, there was some concern coming from the public as it related to any disruption that the construction of Dakota Fieldhouse would cause to the neighbourhood, specifically in regards to increased traffic and noise pollution. Open house meetings were set up as a way to help alleviate these concerns and, as takeaways from these meetings, several suggestions were later implemented by the construction team.

“We were able to restrict construction traffic to a single back lane that virtually came directly into the site,” says Dulko. “By reducing the traffic in other parts of the community, we were able to simply focus on the eight or so houses that we impacted. In addition, we made a commitment to the city and to the neighbourhood that we would come back once the project was complete and make sure that we cleaned everything up to the way it was before.”

The area in which Dakota Fieldhouse is situated lies within an old growth forest directly adjacent to the existing Jonathan Toews Sportsplex. This location turned out to be a significant issue for the project in regards to both the cost of tree removal as determined by the City of Winnipeg’s Urban Forestry department and satisfying the concerns of those interested in the overall health of the forest.



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