RICHMOND OVAL

Date Opened: **December 12, 2008**
Total Cost of Project: **$178 Million**
Total Capacity: **8,000**

Sport Architecture
(Canada)

THE 2010 WINTER OLYMPICS, HELD IN VANCOUVER AND WHISTLER, BRITISH COLUMBIA, CANADA, ENERGIZED THE COUNTRY FROM COAST TO COAST. FUTURE OLYMPIC HOST CITY ORGANIZERS WATCHED CLOSELY TO SEE HOW THEY COULD DUPLICATE THE OVERWHELMING SUCCESS.

One of the featured facilities of the Games that has remained as a legacy structure is the Richmond Olympic Oval, where speed skaters broke records before the sold out crowds. Today, the Richmond Olympic Oval has been converted into 103,000 square feet of top-tier, multi-sport facilities. With 23,000 square feet of workout area in the Fitness Center, Mondo Ramflex provides flooring that is both sustainable and attractive to club users.

FUTURE FLEXIBILITY

Since the 1988 Winter Games in Calgary, Alberta, Canada, all Olympic long-track speed skating facilities have been huge, indoor facilities. The exception to this was the venue in Albertville in 1992. Built solely to host Olympic speed skating events, these facilities often faced significant revenue and operations challenges after the Games. To be cost effective, an indoor Olympic long-track speed skating venue must be convertible for other uses. Such is the case with the Richmond Olympic Oval, which is now a multi-use sports facility. The first-class nature of the Oval draws people to Richmond from municipalities around Metro Vancouver and beyond.

Emphasizing lightness, transparency and translucence, the interiors of the Richmond Olympic Oval in mitigate its large scale. This welcoming design reflects the openness, accessibility and fun, creating an atmosphere that draws users back on a regular basis.

Situated on the Middle Arm of the Fraser River, the Oval is the centerpiece of a new, urban, mixed-use waterfront neighborhood. It has become an international destination and meeting place, offering diverse indoor and outdoor recreational activities, shopping and services.

OUTSTANDING DESIGN REVITALIZED

The Oval is organized around three levels. The lower level provides support functions and parking, while the upper level offers a mezzanine for fitness programs, with stunning views of the Coast Mountains and the Fraser River.

State-of-the art strength machines, free weights, stretching and core development are available, plus a large selection of cardio equipment. Mondo flooring was installed in this area due to its durability and ease of maintenance. “Mondo Ramflex was initially installed in the facility for use at the 2010 Olympic Games, and further added to once the building was converted post-Games,” says Larry Podhora, vice president, Cannon Design.

On the second level, a clear-span arch structure of approximately 330 feet houses the two Olympic-sized ice rinks with an adaptive board system that will make it possible to transform the ice into multiple configurations. These include international or North American hockey, figure skating, short track speed skating and sledge hockey. At any time, the facility can revert to the 400 meter long-track speed skating oval.

The Court Zone area features six hardwood courts for basketball, indoor soccer, volleyball, badminton and handball.

Also available at the facility is a 200 meter training track for walking, jogging or sprint activities. This area contains the multi-sport composite court area in the middle of the track for enhanced sport and event programming flexibility.

To add even more fun to the fitness choices, the Oval is home to the Freedom Climber, a rotating, non-motorized climbing wall.

The Richmond Olympic Oval also offers rehabilitation choices at the LifeMark Sports Medicine center. This facility will be the largest, most comprehensive, personal rehabilitation care and sports medicine clinic in British Columbia. Services offered include physiotherapy, sports medicine treatments, massage therapy and acupuncture.

LOCAL PRODUCTS CREATE STURDY SOPHISTICATION

The Oval's main structure is composed of 15 composite wood glue-laminated (Glulam) arches, spanning an unprecedented 100 meters in length. Locally harvested Douglas Fir lumber was formed into a V-shaped composite design to achieve the span, with 30 concrete buttresses.

The roof deck and the secondary structural panels in the Oval span 15 meters between the Glulam arches. The arches were made with regionally harvested, pine-beetle–killed wood, nailed together to form a V-shaped wood box. They were then arched to create the vaulted ceiling panels forming the "Wood Wave."

For several years, pine tree forests in British Columbia have been devastated by a pine-beetle epidemic. However, this disaster has turned into the development of a new, sought-after wood product. This became a positive option for the Richmond Olympic Oval as designers took advantage of the unique, blue colored wood. The entire 100 meter-by-200 meter area of the roof structure allowed for a distinctively beautiful surface to be produced with ordinary domestic lumber at substantial cost savings.

IN A CLASS OF ITS OWN

The Richmond Olympic Oval is a model for cutting edge sustainable design, breaking new ground for sports and wellness facilities. In addition to creating direct environmental and social benefits, the building's Green design earned LEED Silver certification. This is a highly unusual achievement for a facility of this type (refrigeration) and size. It is expected to yield significant operational cost savings over the building's lifespan.

The 20,000 square meter roof integrated heating, ventilating, air conditioning, plumbing, acoustical, electrical and lighting systems, resulting in an elegant, clean surface appearance. Sprinkler pipes and sprinkler heads were also integrated into the Wood Wave ceiling panels and the arches.