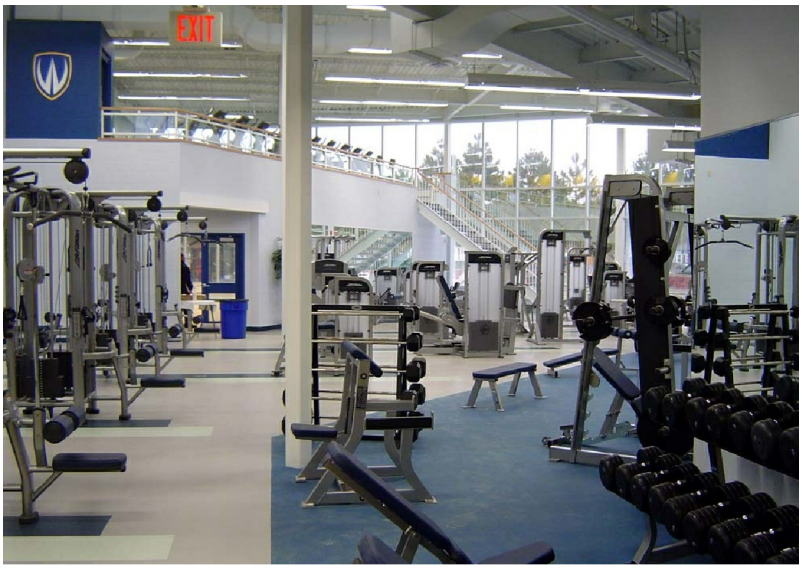
'Forge' Fitness Centre Addition / St. Denis Centre

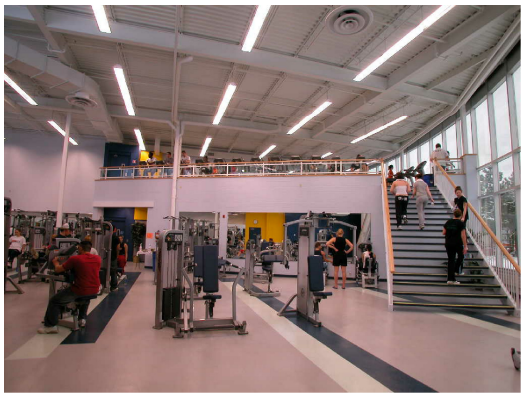
University of Windsor, Windsor, Ontario, Canada - Completed in 2005

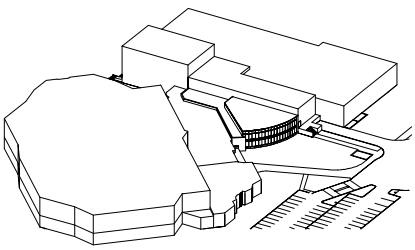
This 7,200 sq. ft. Fitness Centre Addition for the University of Windsor was designed to fit between two existing structures of varying construction. Technically, only one new wall was introduced for the addition which was designed as a striking curved glass curtain wall. Existing walls around the new space had to be carefully examined and a building envelope developed by dissecting the walls as required and installing a highly insulated, continuous building encapsulation.The interior of the space was intentionally left open and exposed. This required careful thought and detail to lay out mechanical, electrical, structural and architectural elements in an organized and coherent fashion.

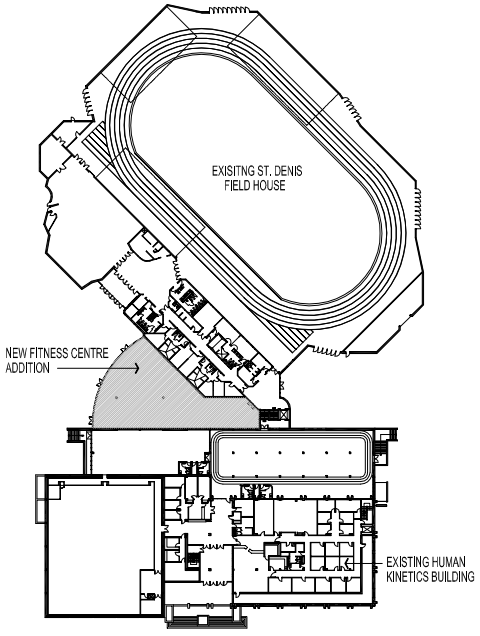
The focus of the design was to incorporate an extensive natural daylighting strategy which would minimize the electric lighting requirements for the building. The high exposed ceiling space of the fitness centre including the structural and mechanical features have been painted white to brighten the space with reflective light. The high clerestory fibreglass windows installed in raised walls built above the existing adjacent connected building to the south contribute to an extremely well lit space. The clerestory windows have specially designed angled louvre aluminum light shelves to provide deep penetration of the natural daylight which permeates the space. These light shelves also act to contol the direct sunlight not allowing it to the floor level and impacting on the users. It is due to the implementation of this daylighting strategy that during daytime hours approximately 60% of the new T8 light fixtures in the facility are generally shut down saving considerable energy.

The large two-storey east facing curtain wall allows for the harvesting of natural daylight but also provides strong visual cues of the new 'found' space due to its relative scale and captured view to the adjacent park like treed setting on the University of Windsor campus. The exterior view is drawn completely into the building through green tinted reflective glazing to soften the morning summer sun for early workout sessions. During the evening darkness the entire highly active space is on display from the nearby main entrance providing a strong fitness image for the entire athletic facility.









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