Gift Lake Learning Centre

Gift Lake, AB

Completed in 2015, the Gift Lake Learning Centre houses Settlement Daycare/Headstart Programs, a K-9 school and Northern Lakes College for the Gift Lake Metis Settlement. One of the great opportunities with this project was to bring three important partners together. These partners each contributed to the vision and the details of the design to ensure the facility is tailored to the needs of the community. With these partners working together, the project vision was to develop a "diapers to diplomas" complex, facilitating education for a wide age range of learners: day care and pre-school, K-9, and post-secondary. It has been recognized by the provincial government and adopted as a prototype of a response to a Northern Alberta community.

Sustainable Sites

Parking capacity is limited and bicycle parking is provided to encourage users to use alternative transportation. Open space around the school is maintained for the building users and community to enjoy and light pollution is reduced for the health of neighbors. Though less visible, sediment is removed from stormwater on site and the building roof is reflective which lessens it's heat island effect.

Water Efficiency

Low maintenance and drought-resistant native grasses are used throughout the site and do not require irrigation, thereby reducing the potable water demand of the project. Low-flow and high efficiency plumbing fixtures reduce water consumption by over 43% as compared to a baseline building.

Energy and Atmosphere

A tight building envelope with optimized thermal insulation and high performance glazing help to reduce heating and cooling requirements in this building. High efficiency heating and cooling units use variable speed drives and recover heat from exhaust air to reduce natural gas and electricity consumption. These strategies resulted in an energy use reduction of 29% compared to a baseline building. The building was also commissioned, which ensures proper function of the systems and training of staff to use the equipment for the life of the building.

Materials and Resources

Recyclables are collected and stored on site by students and janitorial staff. Due to the remote nature of the community, diversion strategies for different materials has been developed by the building users. Over 80% of construction waste was diverted from landfills and the materials that make up the building contain over 20% recycled content.

Indoor Environment Quality

Building heating and ventilation systems are designed to provide a comfortable indoor environment, while enhanced air filtration at mechanical units improves indoor air quality. Ductwork was protected from moisture and contamination during construction and building materials including building adhesives, sealants and paints were selected based on their low levels of volatile organic compounds. Recessed floor mats at the main entrances reduce the amount of dirt and particulate pollutants entering the building, while physically separated housekeeping and printing areas minimize the impact of any hazardous gases and chemicals in the building. Light and temperature controls can be found in most regularly occupied spaces and 90% also have access to quality views of the outdoors.

Innovation in Design Process

The interior lighting uses low-wattage, long life and low-mercury content fluorescent and LED luminaires. The building has dedicated spaces for the daycare and college as well as the K-9 school. The school offers guided tours with a focus on sustainable features.

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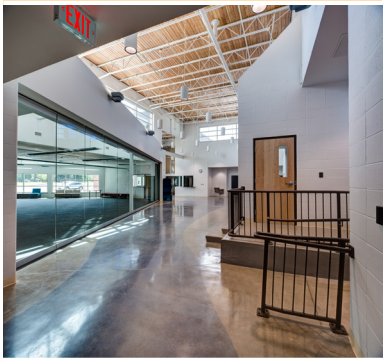

Green Features

- Reduced parking and bicycle racks
- Efficient water fixtures
- Efficient mechanical systems
- Light and temperature controls
- Joint use - School/ College/Settlement

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