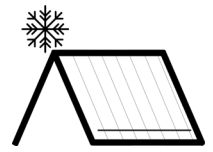




# Case Study — Bill and Helen Norrie Library

## DualGard™ & S-5-S Mini



### At-A-Glance

#### Project Name

Bill and Helen Norrie Library

#### Location

Winnipeg, Manitoba, Canada

#### Architect

LM Architectural Group

#### Engineer

XRS Engineered Solutions (provided stamp drawings for DualGard)

#### General Contractor

Gateway Construction & Engineering

#### Roofing Contractor

Claude Simard Metal Systems Ltd.

#### Roof Profile

Agway AR 38 Double-Fold Standing Seam

#### S-5! Supplier

Sky Products

#### Industry

Community

### The Situation

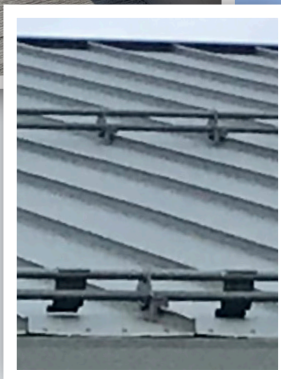
The Bill and Helen Norrie Library is located in an area of Canada that experiences heavy snow loads. The architect wanted a penetration-free, fully-engineered, aesthetically pleasing snow retention solution for the library's new standing seam metal roof that would both match the roof and last the life of the roof.

### The Result

**DualGard™** was custom-designed and engineered for this project to mitigate potential rooftop avalanches, which could pose a serious threat to staff, patrons and property below.

### Project Stats

- Roof Measured: 228 ft in length on both sides
- Roof Pitch: 5:12
- S-5! Products Supplied:
  - DualGard™ (688)
  - S-5-S Mini (1376)
  - DualPipe™ (232)
  - DualGard Endcaps and DualCollar™ stop collars (12 packages of 4)
  - DualClip™ II (342)



### The Project

Winnipeg is the capital and largest city of the province of Manitoba in Canada. It is centered on the confluence of the Red and Assiniboine rivers. The region was a trading center for indigenous people long before the arrival of Europeans.

Construction of the city's new \$9.3 million, 14,000-square-foot Bill and Helen Norrie Library began in the fall of 2019 and replaced the original library which first opened in 1961 on land purchased from the local school board. The new state-of-the-art facility includes a multi-use public space, tutorial and programming rooms, an outdoor reading deck and activities area, a children's area with three reading nook playhouses, a family literacy playground and more—all in a single floor layout.

Named after a long-serving Canadian mayor and his wife (a librarian/teacher), the building's design elements are intended to recognize the history of the area, including the indigenous land where the library is now located. The facility features a pitched metal roof, wood paneling and earth tones, along with images of the area, interpretive panels, artifacts and books.



## The Challenge

For more than one-third of the year, Winnipeg experiences heavy snowfall. The architect was concerned about snow build up and potential rooftop avalanches on the library's new slick Agway AR 38 double-fold standing seam metal roof, especially the south side of the building where there is a large public access area and an outdoor patio for seating.

The outdoor seating area is located directly under the eaves of the roof. When the spring thaw occurs, it is important to protect the library patrons from snow sliding off the roof. Therefore, the library needed a snow retention system that would provide safety and one that would precisely match the new roof.

## The Solution

Roofing Contractor, Claude Simard Metal Systems contacted long-time S-5! distributor, SkyProducts for an engineered snow retention system that could be custom powder-coated to match the roof. They chose S-5!'s **DualGard™** snow retention system.

DualGard is a complete, two-pipe aluminum, snow guard system with strength, testing and quality for almost any standing seam profile, in addition to corrugated and many trapezoidal, exposed-fastened roof profiles.

Sky Products worked with Protech-Oxyplast in Montréal, Québec to provide the perfect color matching powder-coated finish and texture—GR Grey Sandtex 1-PE-182 “c” Matte Polyester—to match the new grey metal roof.

## Long-Term Outlook

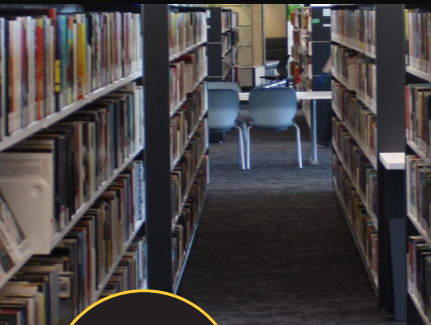
The Bill and Helen Norrie Library was able to achieve the quality look it wanted with a snow retention system that maintains the roof integrity, mitigates potential rooftop avalanches and complements the look of the roof, with a clean appearance and perfect color and finish-matching, designed and engineered to last the life of the roof.

“Snow guards can be pretty tricky and pretty risky. We wanted to use a product from a manufacturer who we knew would guarantee their products for the long-term. Not only does S-5! provide quality products, great customer service and remarkable technical support, the company has been around since 1992 and stands behind its products with a warranty like no other. As an added bonus, our engineer was able to custom-engineer the product for this project with S-5!'s web-based snow calculator.”

—Claude Simard, Owner, Claude Simard Metal Systems Ltd., Canada

## How Did the S-5! Products Help?

- The S-5! engineered system enabled the contractor to reduce the number of rows required as compared to the original design.
- Provided safety measures to patrons and property below.
- Eliminated the risk of a voided roof manufacturer warranty—no holes/no damage.
- Reduced the amount of product and cost required due to S-5! engineered system capacity.
- Provided the aesthetic solution the architect wanted.



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