





CONTROLLING THE CLIMATE FOR VISITORS AND PLANTS – CHRISTCHURCH BOTANICAL GARDENS

CHALLENGE: THE ICONIC CHRISTCHURCH BOTANICAL GARDENS VISITOR CENTRE HAS A COMPLEX ROOF – a 1000m2 saw tooth design with termination points featuring glass. As the self-proclaimed 'Garden City', it was important to create a comfortable environment for both the plants and the 1.4 million visitors per annum; particularly during the colder months. The new building was designed by award winning Auckland Architect Pattersons, with design and installation of the roof taking 4 years from start to finish due to the interruption of earthquakes.

Solution

In an attempt to meet the comfort requirements, Viking Roofspec recommended installation of a Warm Roof due to its ability to insulate the building and work into the design of the saw tooth roof. The Warm Roof system comprised of a white Enviroclad membrane at 1.5mm thick adhered over polyiso insulation panels of 75mm thickness, and a vapour barrier. The Enviroclad seams are always heat welded for the ultimate in waterproofing protection.

White Enviroclad was used as it provides 92% solar reflectivity, (which provides numerous energy savings benefits). The R-Value (measure of thermal resistance) of the Warm Roof system is the highest in the construction industry and is pivotal to creating a comfortable internal environment throughout the seasons at the visitors centre.

There were a number of challenges that came to Viking's attention during the project:

- Multiple redesigns from the glass manufacturers required changes to the roof design at the termination points
- Winter weather
- Substandard plywood had to be replaced before Viking's Warm Roof solution could be installed
- Coordination of contractor and sub-trades to deliver the project on time

These were all challenges overcome by the architect, Viking and the Viking Approved Applicator, through a professional and focused approach utilising great teamwork and collaboration across the key stakeholders.

It was all about taking care of the detail to ensure a watertight finish.

Result

With the Viking Warm Roof System installed, the Christchurch Botanical Gardens visitors centre was able to acquire a great looking roof incorporated into the overall aesthetics of the building. More importantly, a watertight roof finish was achieved that protects the building and its inhabitants from the elements.

Christchurch Botanical Gardens also achieved the ultimate in quality assurance with the acquisition of a Viking Full System Warranty. This allows for greater risk minimisation as the warranty covers both the product and the installation under one process.

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