Case Study: Viking GM Lybra SBS and Viking WarmRoof







THE FINISHED ROOFS REMAINED BEAUTIFULLY JUXTAPOSED IN THE NATURAL SNOWY ENVIRONMENT - A LOOK THE DEPARTMENT OF CONSERVATION WAS STEADFAST ABOUT MAINTAINING.

WARM AND WATER-TIGHT FOR ALL SEASONS – 'HAPPY VALLEY', WHAKAPAPA

CHALLENGE: BUILT IN THE 1980s, THE BISTRO/CAFÉ AND SKI RENTAL BUILDINGS HAD SERVICED COUNTLESS CUSTOMERS AT HAPPY VALLEY - THE BEGINNERS' AREA OF THE WHAKAPAPA SKI FIELDS. THE ORIGINAL ROOFING MEMBRANE HAD COME TO THE END OF ITS LIFE; HAVING SURVIVED OVER 30 BRUTAL VOLCANIC PLATEAU WINTERS. WEATHER-TIGHTNESS ISSUES WERE INCREASING AND MAINTENANCE WAS BECOMING MORE CHALLENGING. THE TIME HAD WELL-AND-TRULY COME TO BRING THESE BUILDINGS UP TO A STANDARD THAT WOULD NOT ONLY SATISFY THE REQUIREMENTS OF THE CUSTOMERS AND STAFF, BUT ALSO BRING THE BUILDING IN TO LINE WITH D.O.C.'S COVENANTS, AS THIS AREA IS A WORLD HERITAGE LISTED NATIONAL PARK.

Solution

Viking Roofspec was asked to supply a warrantable solution that would meet these requirements. A Viking Warm Roof System was proposed, with Viking GM Lybra SBS torch-on membrane as the waterproofing component of the system. A Warm Roof was specified as it would insulate the building from the temperature extremes and a Warm Roof also moves the dew point to the outside of the roof, meaning there would be no more condensation build-up inside.

Lybra SBS two-layer torch-on was chosen as it's been formulated to manage extreme climates. SBS is rubberised asphalt with elastomeric properties, which copes with the stresses caused by greater temperature extremes. This means it won't crack; especially during the cold winter months; as it has a cold flexibility down to -15 degrees Celsius before fracturing – a perfect solution for this environment.

The existing membrane was used as the vapour barrier and the rigid Kingspan polyiso insulation panels were mechanically fixed to this existing membrane to ensure it remained securely anchored to the building. The two-layer Lybra SBS membrane was then torch-applied directly on to the insulation panels. The snow rails, which are used for point-loading, were redesigned to ensure these roofs manage the enormous amount of weight during the winter. This project was completed efficiently and effectively by one of Viking's membrane Approved Applicators, whose attention to detail ensured that the new roofing system was a vast improvement on the original roof in terms of both weather-tightness and energy efficiency.

Result

Enthusiastic skiers could now try on equipment and enjoy a coffee in a dry and warm environment. An added bonus was that the finished roofs remained beautifully juxtaposed in the natural snowy environment – a look the Department of Conservation was steadfast about maintaining.

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