♦ Innovation

New system raises the roof on value

An Australian-developed system for installing steel roofing is rapidly gaining acceptance for its ability to streamline installations, reinforce safety onsite from falls and allow for greater design freedom when aesthetics matter.

Since the SafeBridge system was introduced in 2010, it has been adopted on approximately 150 jobs nationally.

More under-roof room

A major advantage of the system is that it can be used for greater purlin depths of 300mm or more to support thicker bulk insulation that accommodates higher thermal ratings (R rating) for buildings.

This was the case for the High Street Plaza shopping centre in Toowoomba that required a R4.9 rating so bigger purlins were specified to get more insulation under the roof. The project was a \$20 million revamp/rebuild which incorporated a westerly facing glass façade requiring special consideration of the roof insulation. A tailor-made SafeBridge insulation system was developed in conjunction with CSR/Bradford to achieve the required R rating within budget.

The challenge for Queensland disaster centres was to achieve a high R value in cyclonic areas on steep roof pitches. All the recent cyclone shelters constructed in Queensland were built using the system because the other systems weren't deemed strong enough to withstand cyclonic forces.

As SafeBridge allows the roof deck to be attached directly to the purlins without another member (traditional dry laying principle) the structure was not compromised in design and allowed these centres to be used as school gymnasiums.

The system was fitted on pitched roof structures safely and in a timely fashion.

Safety from falls

The system relies on a unique safety mesh delivery system where the wire mesh is rolled out in between the purlins on a trolley which operates on the top of the purlins so roofers are protected throughout installations from falls whilst enabling laying of roofing and staying off the purlins.

The John Holland group satisfied its 'no walking on purlins' policy using a SafeBridge work method on Enoggera Army Barracks in Brisbane and other jobs.

The barracks was a large project that relied on the system and its documentation to ensure no safety incidents occurred during the roofing process. This was the basis of a safety award won by the John Holland team on this site work.

Design freedom

The system developers have worked with CSR/Bradford to achieve an aesthetic look which allows builders the option to avoid using suspended ceilings.

The current retail landscape is moving toward the 'naked' warehouse look underroof using lighting grids to get customers eyes on their

merchandise. Using black, white or silver facings on the insulation, the SafeBridge system allows designers the freedom to achieve this aesthetic look.

A good example of this is Dan Murphy's stores which have used the system to get a black ceiling warehouse effect taking fuller advantage of the innate visual properties of steel roofing materials. Woolworths' and McDonalds' next generation stores have a white underside.



Space efficiencies

A large 13000sqm retail space in Toowoomba saved on the whole job and reduced the cubic metres in the building by using the SafeBridge system, enabling them to save over \$100,000 on a fire sprinkler system.

The Carrara Commonwealth Games project on the Gold Coast innovatively used the SafeBridge system to install all the steel components such as purlins, bridging and brackets on the ground first and lifted large areas of installed purlins and bridging up to the structural steel, reducing the time spent by workers at dangerous heights.