

Shellharbour Workers Club Extension

Caroline Pidcock Architects + Richard Goodwin Architects

Winner of the 2004 RAI A Blacket Award

Goodwin's experience with steel attachment roofs of a sculptural nature has combined with Pidcock's commitment to ESD and integrated design to produce architecture of lasting resonance.

Architects' statement

The new verandah completely transforms the Shellharbour Workers Club. It provides, for the first time, external areas with direct access from almost anywhere in the club. Largely intended for outdoor seating for five hundred people eating and drinking, it is also designed to solve future tobacco smoke issues. At the southern end, the verandah will be used as an outdoor addition to the large function room used for weddings and parties.

Located in a traditional steel making area, the use of steel was a logical choice. The design incorporates the need for light and ventilation across the deep verandah and photovoltaic panels, which require setting at a particular angle.

The resulting architecture transforms the existing building through its environmentally

sustainable design with dramatic sculptural forms. These forms blend the existing building grid with complex warping geometries. The roof folds and opens to orient solar glass to the sun and bring dappled light deep into the balcony area. The project shows how powerful the iconic Australian verandah can be when adapted and used in a contemporary commercial situation.

The floor of the verandah is a cantilevered concrete slab with a grid system based on the existing building. The Lysaght Tapered Longline 300 roof and support system are made from lightweight sculptural steel that lightens the look of the existing solid building and allows it to better interact with the landscape.

Using a truss form, which repeats and mirrors itself, made the pleated skirt form of the roof possible. By opening cuts within the



roof surface at the building grid lines, the roof is able to present integrated photovoltaic cells at the right angle down the eastern elevation. Mirrored trusses to the northern elevation allow light to penetrate the deep verandah and combine with inclined panels of conventional photovoltaic cells. The verandah's roofs incorporate photovoltaics that generate up to 22 kilowatts of electricity in full sunlight and about 25,000 kw hours/year. The trusses employ elegantly profiled steel intersections, which taper to a single pipe diameter. The warping forms translate the open inclined glass edges back to the horizontal form of the original roof. Without the subtleties of the Tapered Longline product this roof could not have been constructed. The trusses and support steel are all fabricated in MS CHS with careful attention to profiled intersections and a variety of steel tube diameters.





Principal Steel Components

Roof: Lysaght Tapered Longline 300 roof sheeting made from COLORBOND® steel
Column and trusses: Steel CHS

Architects: Caroline Pidcock + Richard Goodwin
Project Manager: Craig Roussac, Big Switch Projects

Structural Consultant: Partridge Partners

Hydraulic Consultant: Warren Smith & Partners

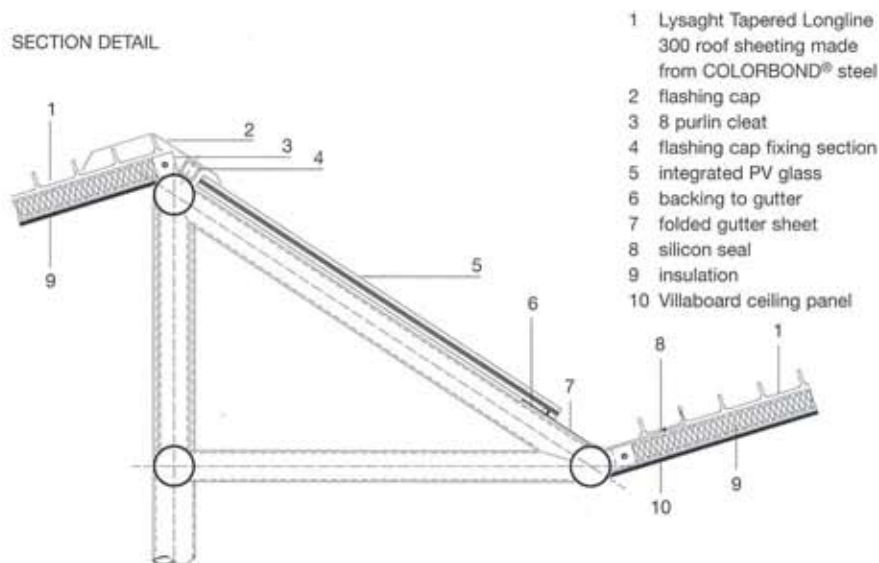
Builder: Edwards Construction

Photographer: Anthony Browell

RAIA NSW Chapter Award Jury Citation

Through this project the local community not only benefits from robust architecture, but also gains a state-of-the-art publicly accessible example of renewable energy generation and rainwater collection. The verandah is probably the most extensive building-integrated photovoltaic and rainwater collection project in the Illawarra region and therefore makes a significant contribution to regional architecture. The Shellharbour Worker's Club board and the project manager Big Switch Projects should be commended for their support of this bold and innovative project. ▶

SECTION DETAIL



Colorbond® Galvaspan® Zinalume®

For more information on products by BlueScope Steel either call 1 800 022 999 or visit www.bluescopesteel.com.au

COLORBOND® steel is proud to support Australian architecture. COLORBOND® is the principal sponsor of the RAIA Awards Program, a major sponsor of the 2003 National Convention, sponsor of the Student Biennale and the sole sponsor of the RAIA website www.architecture.com.au