



Applications & Innovations

October 2018

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Applications

Precast fit for a fire brigade

Building with an inherent fire-resistant material is the best way to protect people, assets, and structures, and the Fingle Bay Rural Fire Brigade in New South Wales is leading by example. Their new \$700,000 station has been constructed using precast concrete.

[Read more](#)





Tassie precast in an international spotlight

The Dunalley House project in Tasmania has been shortlisted for the House of the Year Award at the World Architecture News Awards in London (UK). The project features precast concrete panels, which connect the building with the picturesque Dunalley Bay.

[Read more](#)

Precast for sustainable housing

This three-storey home in South Australia features a quirky design built with durable and recycled materials, including precast concrete. Take a look inside.

[Read more](#)



Concrete sharkitecture

In the US, New York's newest attraction is a precast concrete pavilion filled with hundreds of sharks.

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Curbing road accidents with precast

Precast concrete curbs are replacing conventional painted bike lanes and providing safety for cyclists and motorists.

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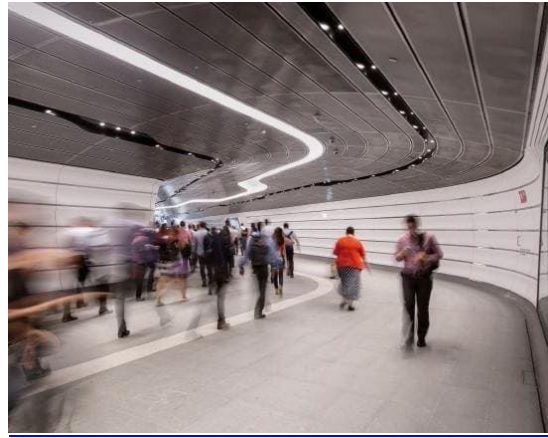


Innovations

Member project a winner at Australian Interior Design Awards

The 2018 Australian Interior Design Awards showcased projects with interior design excellence in the public and residential realms. Winner of the Sustainability Advancement Award is the Wynyard Walk, which features precast GRC panels manufactured by Asurco Contracting.

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Concrete troughs beat train noise

Specially-designed precast concrete troughs – known as u-troughs – are being installed across Victoria's Mernda rail corridor in an Australian first. The troughs allow trains to sit lower in the tracks and aim to minimise train noise.

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Redefining lightweight concrete

A precast concrete pavilion has pushed the structural boundaries for concrete. A mere 2cm thick, the structure is 3m x 3m x 3m and has been manufactured with a highly-fluid concrete mix that comprised glass beads for aggregate and 1.5cm-long steel and fibreglass fibres.

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Concrete saves lives

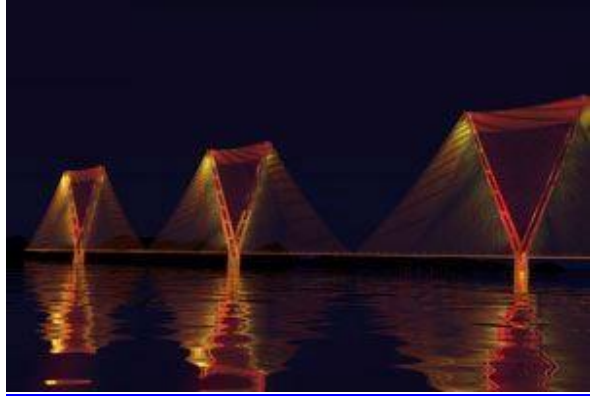
Research shows crumb rubber concrete (CRC) is able to better withstand the shock of an earthquake. Instead of using an aggregate with sand and gravel, CRC substitutes a portion of the aggregate solution with rubber tyres.

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Less material, longer spans

Research has identified bridge forms that use a new mathematical modelling technique, which could achieve longer bridge spans. The bridge forms require less material because the forces from the deck are transmitted more efficiently through the bridge superstructure to the foundations.

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Are carrots the key to stronger concrete?

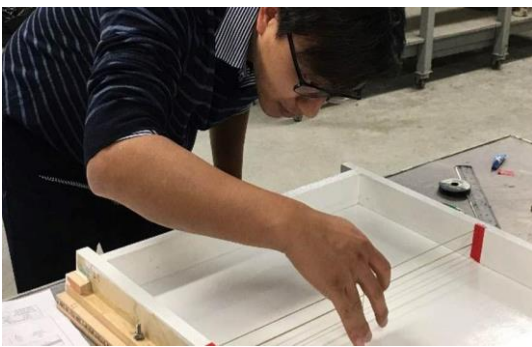
A project in the UK is looking for a way to make the construction industry more environmentally friendly. The solution may lie in a concrete composite made from vegetables, such as carrots.

[Read more](#)

Concrete out of this world

Research activities on Earth and off Earth have enhanced our understanding of concrete. Learn more about additive manufacturing concrete in this Off World Concrete webinar.

[Watch here](#)



Strengthening concrete with nanoparticles at a nano-price

Researchers in the US are working on a safer and more affordable method of combining nanoparticles with concrete. This combination could result in more durable civil concrete elements, as well as economic and environmental benefits.

[Read more](#)

Saving sand—adding waste plastic to the concrete mix

Research has shown how replacing 10% of sand in concrete with waste plastic can help reduce the vast amounts of plastic waste and deal with sand shortage in India.

[Read more](#)



Turn your home into a concrete battery

Researchers have developed a new type of concrete that is infused with potassium ions, which allow it to store electricity for long periods of time.

[Read more](#)

Carving a niche in construction

Drone photography in construction work has skyrocketed by 239% year over year. A new generation of construction workers are relying on drones as hypermobile tools to capture images of the worksite from above.

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