

INNOVATING INFRASTRUCTURE

Aesthetically pleasing infrastructure not only enhances the visual appeal of our surroundings but also carries significant sustainability benefits for people and the environment. Well-designed infrastructure tends to foster a sense of pride and connection within communities, encouraging greater care and stewardship.

When people feel a sense of ownership and admiration for their surroundings, they are more inclined to support and maintain these structures, thereby extending their lifespan and reducing the need for frequent renovations or replacements.

Two ventilation and service buildings at either end of the new platform 14 of Sydney's Central Station boast an incredibly durable yet innovative finish that delivers a visual connection between the past and present. The buildings feature artwork designed by renowned Bundjalung artist Dr Bronwyn Bancroft. They are part of a \$955 million transformation of the 117-year-old station, undertaken by Laing O'Rourke for Sydney Metro. It was one of the largest upgrades to be undertaken on Australia's busiest railway station in decades.

The contemporary representation of Connection to Country, 'Time Travellers', displays serpentine-like imagery that is symbolic of one of the many creation stories that have been handed down by First Nation's people for more than 60,000 years.

The artwork has been achieved using stained bricks that have been inlaid into 216 precast panels during the manufacturing process. National Precast Master Precaster Waeger Constructions manufactured the panels, while Industry Supplier member ECOTONE was responsible for the colourful staining, which resulted in a coloured glazed brick look.

National Precast CEO Sarah Bachmann says that staining offers a modern alternative to painting and this project shows its versatility.

"Infrastructure like the new Central Station buildings, is a prime example of one of the applications of the staining



Stain bricks inlaid into curved precast panels feature artwork designed by renowned Bundjalung artist Dr Bronwyn Bancroft. Image: Sydney Metro.

PROJECT: Central Station Metro
LOCATION: Sydney, NSW
MASTER PRECASTER: Waeger Constructions
STAINING: ECOTONE

revolution. In this case, the inlaid bricks have been stained, but in many other projects, the precast itself is stained – with or without using form liners to create pattern," says Bachmann. "Traditionally used most commonly to colour correct brickwork and in more recent times cast insitu concrete, staining is now frequently used on precast as well to achieve amazing statements in colour, from translucent, to opaque, to metallic finishes. It is incredibly

chip over time, ensuring a longer-lasting finish that retains its vibrancy for years. Additionally, stains can be artistically applied and customised to achieve various effects, from translucent hues that reveal the concrete's texture to more opaque tones for a solid colour.

Stained concrete has another advantage of being more resistant to fading from UV exposure from weather conditions, making it a practical choice for both indoor and

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durable and can be applied in the factory to maximise the benefits of off-site manufacturing, for both infrastructure and buildings projects."

As with brickwork, staining precast can be used to colour correct as it penetrates the surface. When used to its full potential, staining can create rich, natural-looking colours that blend seamlessly with the concrete, providing a more authentic appearance compared to paint. Unlike paint, stained precast won't peel, flake or

outdoor applications. Its low maintenance requirements and eco-friendly formulations add to the appeal, making stained precast concrete a versatile and sustainable choice for architectural and design projects.

"Staining precast offers a range of advantages that enhance both aesthetic appeal and durability. In this case, the end result is the look and feel of a traditional brick façade, but with all the efficiencies and durability of precast concrete," Bachmann says. ■