

Raw, Subtle, Elegant: The Sands House, Torquay

Project: The Sands House

Location: Torquay, VIC

Master Precaster: Otway Precast

Engineer: Harrington Gumienik and Partners

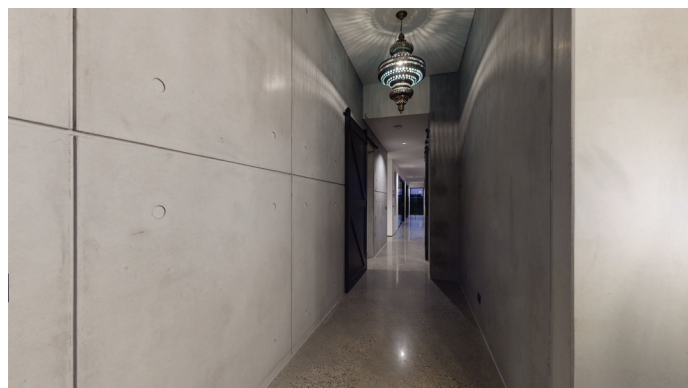
Architect: James Dean and Associates
Architects

The recently completed Sands House in the coastal region of Torquay, Victoria features a bespoke application of precast concrete in a residential context. The architecturally designed residence features floor to roof glazing, exposed steel and polished concrete floors, all of which are framed by unadulterated precast concrete walls.

Precast concrete walling has realised the architect's vision of consistent, expressed materials and consistent surface finishes. Such elegant details of the Sands House are exaggerated by the surrounding scrubby coastal landscape.

James Dean and Associates Architects engaged National Precast Master Precaster Otway Precast for both the supply and installation of 31 precast concrete walls. Each precast wall element includes a fillet along its vertical edges, resulting in articulated gaps between panels.

To emulate the formwork holes of an in-situ concrete wall, Otway Precast has cast a subtractive hole pattern repeating across each wall's face that emulates the board formed style popularised by Japanese architect Tadao Ando. The precast manufacturer opted to use custom-cut HDPE plastic



formwork to maintain a consistent finish quality across the set of supplied elements.

As per the architect's specifications, these small details result in the Sands House expressing the look and feel of in-situ concrete construction without sacrificing site efficiency or finish quality that would likely arise from in-situ concrete.

Precast concrete walling can provide an unmatched surface quality and lustre in both residential and commercial architectural applications. The Sands House is a prime example of off-form precast concrete used in an architectural finish.

The ability for precast concrete to be coloured with pigments, patterned, or finished to varying levels of coarseness is why it is such a versatile medium for architects. As precast concrete is manufactured in a factory-controlled environment, the appearance of all elements remains consistent across the project.

The 31 precast walls in the Sands House meet not only the design specifications of the architect and client, but also integrate meticulously with the structural system of the building. Each wall panel has a loadbearing capacity and provides an engineered fixing solution for the roof structure. To the specification of engineer Harrington Gumienik and Partners, the roof structure integrates via through-wall plates and inverted dowels.

Off-form precast concrete walls have provided a material sensibility to The Sands House in Torquay. Both the subtle faux-formwork holes and carefully considered fillets have aligned precast concrete with the architects raw and elemental design philosophy that is evident throughout the entire house. This application of precast concrete has integrated well with the building's structural system and has offered a low cost, efficient construction timeline due to the integrated supply and installation solution provided by Otway Precast.

The thermal, structural, and architectural capabilities of precast concrete positions itself as an invaluable material for a safer, cleaner future.pieces including the base, chamber and lid.

