



# DESIGN AND BUILD WITH CONFIDENCE

## The Light Vault House: a jewel in a concrete box

### Background

The owners' original brief to architect Glen Chamberlain was to recreate a 'concrete bunker' - not exactly a form you'd expect to sit well with the residents and planning authorities of this conservative, bayside neighbourhood.

#### AT A GLANCE

**Architecture:** Chamberlain Architects

**Builder:** TDRM Constructions

**Images:** Derek Swallwell

### The Challenge

In many ways, the Light Vault House is a challenging piece of architecture. It sits on an exposed street corner in the Melbourne suburb of Brighton, its simple, brutalist form in stark contrast to the surrounding architecture.

And yet the real challenge for Chamberlain and his team was not so much the exterior, but what goes on inside – how to introduce light, how to create a natural flow and transition, and - most importantly – how to ensure function didn't lose out to form.

### Solution/Outcome

The metaphor Chamberlain and his team quickly adopted for the project was that of a jewellery box – a rather austere outer form belying a treasure within. You get a

taste of what's to come from the dramatic, sculptured entrance way, the timber front door shrouded by dark, powder-coated steel.

But it's not until you step inside that you truly begin to appreciate the thoughtfulness and beauty of this design.

The dramatic, 6.5 metre high entrance void is all concrete - insitu, off-form walls and polished flooring, punctuated by a concrete-formed stairway that leads up to the bedroom level. The stairs and balustrade are framed by the same black steel used around the front door.

For all intents and purposes, it is the concrete bunker that the clients so passionately wanted. But rather than appearing cold and austere, the concrete walls are washed with light from a narrow skylight that runs the length of the entrance void. The surface texture of the concrete, including its formwork lines and bolt holes, is exposed and accentuated in all its raw beauty.

The brutality of the material is further softened as your look down and past a section of timber batten ceiling to a window-framed view of a central outside courtyard. The eye is immediately drawn to a leafy green tree – a clever juxtaposition of the built and natural environments.

This planted courtyard serves not just as visual relief, but as another source of internal light. The timber batten ceiling also marks the beginning of the transition from the entranceway to the living areas.

Together with the polished concrete floor, it leads you

along an enclosed accessway that runs down one side of the courtyard to the rear living space, comprising kitchen, dining and family areas. The timber battens serve a dual purpose – visual contrast and noise dampening.

“In the double height entry void the acoustics are quite resonant, adding to the drama of the space,” Chamberlain says.

“Then as you reach the timber ceiling the whole sound of the space changes and it becomes really quiet and soft. It’s very unexpected because people just see the concrete and think it must be very intense the whole way through. That’s not the case.”

*“In the double height entry void the acoustics are quite resonant, adding to the drama of the space.”*

Glen Chamberlain - Chamberlain Architects

On the outside of the home, Chamberlain and his team have been able to deliver the same monolithic impact of insitu concrete by using concrete blockwork finished in a smooth-set cement render.

“Most people don’t realise it’s rendered blockwork. It’s still concrete walling, just a different type,” Chamberlain says.

“The budget didn’t extend to using it (insitu concrete) for the building’s façade. By adopting this solution, we were able to use it internally where it would have the most impact.”

Chamberlain says much of the beauty of the Light Vault House stems from the use of a limited palette of materials. For us, it’s always about how can we wind things back and use less,” he says.

It’s a simple philosophy, but one that is perfectly expressed in this project.

### BENEFITS OF USING CONCRETE:

- Off-form, in-situ internal walls and polished floors at ground level
- Concrete block wall façade with smooth-set cement render
- Low maintenance, cost efficient and durable

