



Case Study

# Shoalhaven House



**Product Range:** Bushfire Safe Range

*Rebuild after bushfire to create a resilient, highly energy efficient, functional, and aesthetically pleasing new dwelling*

Architect: Intermode

Builder: Lime Building Group

*“Exceptional thermal performance and stringent BAL requirements on very exposed site”*



## Challenge

In the aftermath of the catastrophic Black Summer fires, the Shoalhaven homeowner sought to rebuild to optimise the aspect, achieve exceptional thermal performance and meet stringent BAL requirements, without compromising quality or design freedom.

Lift-slide sliding doors had to be custom-made in a variety of configurations with the largest being just shy of 12m wide. All sliding doors, hinged doors and fixed panes were floor-to-ceiling of 2.8m height and had to combat extremely high wind loading.



## Solution



Large lift-slide doors of almost 12m width were made to be dismantled for transport and reassembled on site.

Timber frames from FSC® certified Manilkara Bidentata hardwood contain Viridian LightBridge next™ high performance low-E glazing, within a double glazed, argon-filled system for enhanced energy efficiency and thicker glass panes for fire safety.

High exposure of the site required very high wind loading capacities for which an engineered solution was found, based on earlier testing.

German hardware, seals, and multi-point locking systems also ensure durability and security.

Extra seal details were added so as not to compromise water egress which was achieved to exceed 300pa.

The window frames had to fit in with the Shou Sugi Ban charred timber cladding and were stained in black with a thin skin coating. If not maintained, this will wear away and allow the timber to age gracefully to a silver gray. Manilkara, being a class 1 timber, is not susceptible to rot, therefore does not require painting for protection.

These windows and doors achieve compliance with all relevant Australian Standards, e.g. AS1288 / AS2047 / AS1428 / AS3959 / NCC (National Construction Code) to name just a few.

