

## CASE STUDY (GILBERTON RESIDENCE)

### SPECIFICATIONS

#### GLAZED ROOF PANELS:

Chevron 13.52 custom toughened laminated  
Chevron 6mm clear toughened/Interlayer  
Chevron 6mm solar tech neutral toughened

#### BBQ SPLASHBACK:

Chevron 6mm ultra-clear toughened

#### POOL SPLASHBACK/ LAUNDRY:

6mm Ultra Clear toughened  
Metallic finish

#### POOL FENCE:

Chevron 12mm clear toughened, with  
10mm clear toughened gates

#### SHOWER SCREENS:

10mm ultra-clear toughened, with  
sandblasted pattern

#### GLAZING:

6.38 Comfort plus laminate



# When Stone meets Glass – the Gilberton Residence

> Text by Tim Roberts, Photography by Brad Griffith Photography

Federation Glass (SA) received the State Design Award (Domestic over \$20K category) for their work on the Gilberton Residence, a luxury home with a twist. Shane Sweet, owner and operator of Federation Glass, recounts the experience of working on this lavish project, which harnesses the unique visual properties of glass and sandstone.

'Our involvement with the Gilberton Residence started when we talked to the builder, MC Resibuild Pty Ltd, onsite during the early stages,' Shane says. 'As the project unfolded, we frequently met with the builder, owner, and architect Pauline Hurren to discuss glazing

thickness, style, and performance. Our overall aim was to achieve a high u-value throughout the home, keeping the energy load as low as possible.'

Shane found this consultative process invaluable. 'We achieved an excellent result for this substantial home, centred around three glazed roofs,' he says. 'These had to allow light into the building without overheating, as well as being the correct thickness to meet building codes. The owner knew exactly what he wanted – so it was up to us, the architect and the builder to make it a reality. It was certainly a high-demand job, with many alterations required within a limited time. The client would suggest a change, the architect would draw it up, and we would help realise it.'

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(Gilberton Residence, continued)



The three glazed roofs, to the conservatory, gallery, and courtyard, are the project's signature. 'We used low-E Custom laminate glass throughout, after carefully gauging the thickness of each roof,' says Shane. 'The architect engineered the roof structure, which included timber beams, aluminium supports and a silicon seal to the custom laminate panels.' Installation of these roofs required solving a series of glazing challenges. 'Due to the sheer size of the panels, manpower and setup were major concerns during installation,' says Shane. 'Each roof was substantial – one section was a total of approximately 8–10m long, another was 20m, of glazing, the largest roof involving 6m openings. This included butt joining and silicon sealing. The individual roof panels were 3600mm long and 500–600mm wide: as an added challenge, the main roof was situated over the stairwell leading into the conservatory, which had a steep pitch of greater than 45 degrees. In all, 90 pieces of roof panels were installed throughout the Gilberton Residence.

'For this mammoth task, we had to lift the 120kg glass panels up to the top of the roof with a cherry picker, then seal them from the outside,' says Shane. 'We collaborated closely with the roofer to ensure there was no leakage, creating a durable seal with structural silicon and tape.'

Aside from these three striking central roofs, the renovation involved many other challenges. 'One of these was to fence the

massive pool area,' Shane remembers. 'To do this, we worked with the builders to make sure we supplied three fully operable soft-close gates, with 10mm toughened glass. The 12mm glazed panels surrounding the gates had to be customised, as the pool was fenced on several different levels.

'To protect the West Australian sandstone in the al fresco barbecue area surrounding the pool, we installed a large 3.5mx2.1m piece of 6mm ultra-clear toughened glass,' Shane continues. 'Ensuring the integrity of the stone was essential, so the area had to be fully sealed with custom-made stainless steel angles and silicon for maximum appeal'.

Glazing the pool room and laundry splashbacks involved yet more detailed work. 'The splashback in the pool shower room featured intricate cut outs and shapes, both requiring tempering, with the owner choosing a green metallic finish.

'The upstairs bathrooms featured sandblasted ultra-clear glazed shower screens to create privacy and softness like snow on the panels,' says Shane.

'The ensuite was challenging and rewarding due to its complex design incorporating ultra-clear glass from floor to ceiling, with internal glass partitions dividing the toilet and the shower into two separate operating cubicles. Installation of the glass panels required removal of the existing cabinetry, during which we worked closely alongside cabinetmakers and electricians.



'Protecting privacy in the ensuite, required some elaborate craftsmanship. We created a pattern that progressed from solid lines to very small stripes, making it look as if it faded in and out. We designed the full cubicle, including the doors and central divider between shower and toilet, mitred to create smooth transitions. Each bathroom also features curved mirrors and LED lighting.'

As a feature for the interior, the owner requested the installation of an imported sculpture purchased during a trip to Italy. 'The flying fish sculpture was mainly designed to be mounted on timber or concrete; however, the owner asked me to provide him with a black glass feature piece with stainless steel standoffs that could be affixed to the Western Australian sandstone wall,' Shane explains. 'To match the design with the artist's impression, I marked, glued and set the sculpture on to the painted glass which is now a major feature in his home.'

In every corner, the Gilbert Residence features elaborate glasswork. 'Extensive shape-cutting was required for the curved-topped garage doors; we also created a small roof of low-E glass directly over the cellar,' Shane notes. 'Another highlight is the glazed

jewellery cabinet, which is strikingly LED-lit for viewing. We did onsite cutting with templates, working with low-E glass in conjunction with the builder, owner and architect.'

Although modern, the Gilbert Residence retains elements of its past. 'The architect wanted all changes to complement the existing stone structure,' says Shane. 'There are five or six window frames left from the original home, to preserve its integrity.'

The acclaim received by the Gilbert Residence has already led to other opportunities for Federation Glass. 'This project has involved us extensively in everything from glazing to sandblasting to mirrors - the glass roofs were obviously a major challenge, as were the customised showers and ensuite, but we couldn't be happier with how everything turned out,' Shane reflects. 'Based on the results, the owner has asked us to do the glazing for another residence, which we're very much looking forward to taking on.'

The judges awarded the Gilbert Residence for being 'safe, energy-efficient and aesthetically pleasing, with high attention to detail.' It's an ideal description of this luxurious home for the ages. **GA**



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