

# Perspective

## Australia's Black Saturday Five Years Later

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# Black Saturday Five Years Later

It's been five years since the Black Saturday bushfires caused devastation in Victoria, Australia. Jennifer Calzini looks back at what has been achieved by the Bushfire Homes Service, an initiative for coordinating the efforts of volunteer architects who were offering help.

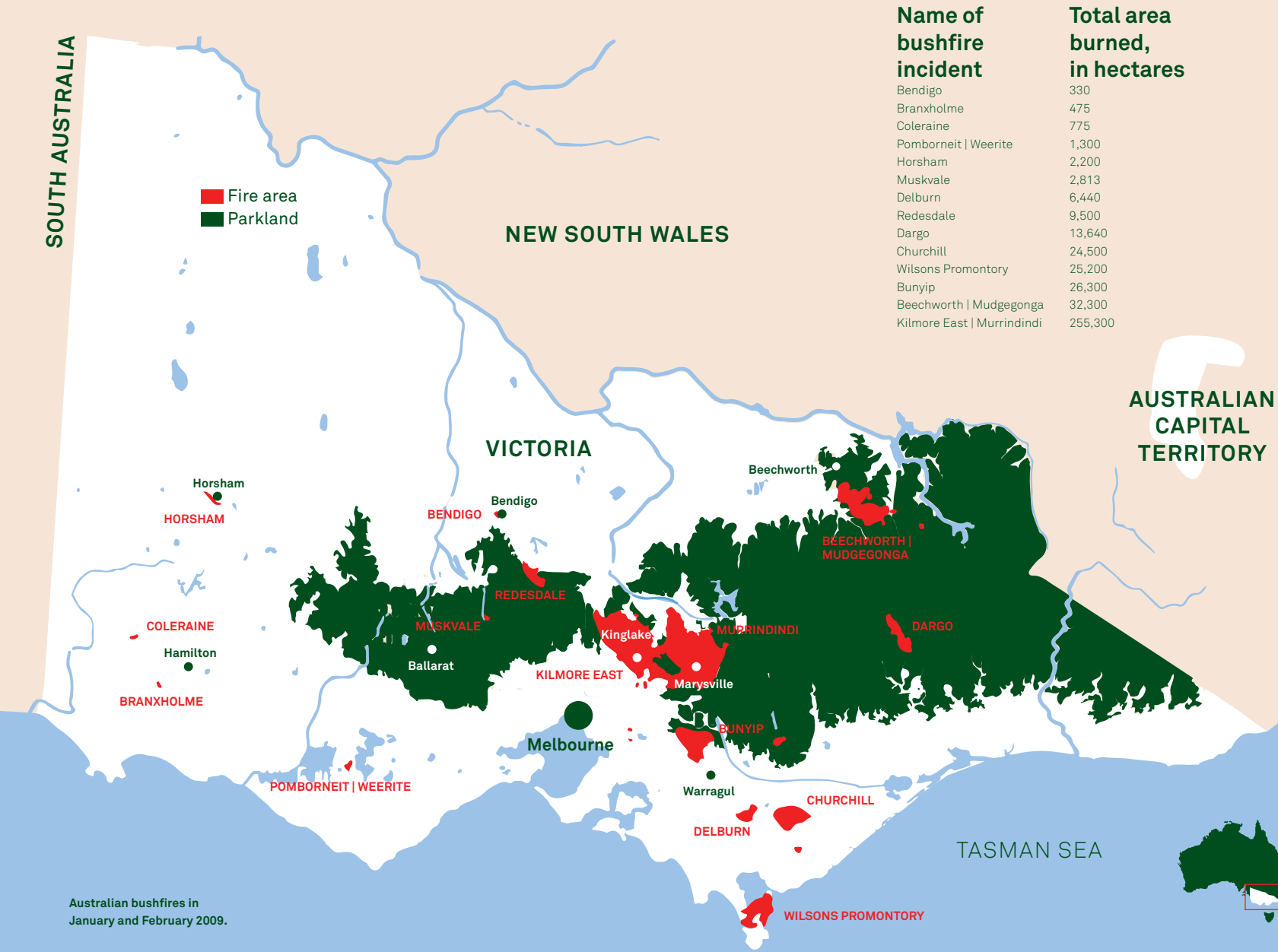
On 7 February 2009, following a prolonged heat wave that saw temperatures rise above 43 degrees C for three consecutive days, parts of Victoria reached a record-breaking 46.4 degrees, accompanied by storm-force winds. On this day, known as Black Saturday, bushfires the likes of which Victorians had not seen before ravaged several towns to the northeast of Melbourne, and 2,029 homes were lost. The tragedy also claimed the lives of 173 people who had fought the fires, sheltered in their homes or tried to reach safety.

Fire is a natural part of the Australian landscape, and many native plants have evolved to depend upon it for their regeneration. A review of the country's history shows that its first inhabitants learned to burn extensively and often, as a means of managing the fire cycles of the bush. Since European settlement, urbanization and agriculture have made this regime more difficult, and bushfires regularly threaten rural communities, towns and, increasingly, the fringes of Australia's larger cities. Black Saturday affected a large part of Victoria,

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and historical townships like Marysville and Kinglake were almost completely destroyed.

The event was followed immediately by many generous offers of emergency assistance from all sectors of the community, including the building industry. At a series of 'Built Environment Bushfire Support Roundtables' organized by the Victorian Building Commission, peak bodies representing numerous professional and trade groups, including the Australian Institute of Architects (AIA), offered a range of free services that had been volunteered by their members to help the stricken communities. Some of these services, like those of demolition and electrical contractors, were of obvious benefit. They could make damaged sites safe and were straightforward to implement. Seventy architects pledged pro bono assistance, but it was not immediately clear how these services could be made available. There was no clear precedent or road map. It was at this point that the Victorian Government Architect, together with the AIA, created the Bushfire Homes Service, an initiative for →



Bushfire Attack Levels

Australian Standard 3959–2009 classifies the different levels of bushfire intensity that a home may experience during a bushfire. These are referred to as Bushfire Attack Levels or BALs.

There are six bushfire attack levels

- BAL Flame Zone (Radiant heat level > 40 kW/m²)
- BAL 40 (Radiant heat level ≤ 40 kW/m²)
- BAL 29 (Radiant heat level ≤ 29 kW/m²)
- BAL 19 (Radiant heat level ≤ 19 kW/m²)
- BAL 12.5 (Radiant heat level ≤ 12.5 kW/m²)
- BAL Low (Minimal radiant heat)

These levels are based on

- The region where you live
- The vegetation type around your property
- The distance from your home to individual vegetation types
- The slope of your property

Bushfire attack levels can be calculated at [balreport.com.au](http://balreport.com.au)

← coordinating the efforts of volunteer architects and others who were offering help.

Thomas Alves, who helped to initiate the idea and to advance it through to the state premier, describes how the Bushfire Homes Service deliberately took its cue from the Small Homes Service of 1947, a scheme set up by the then Royal Victorian Institute of Architects. The Small Homes Service, which attempted to engage the architectural profession in the provision of public housing, addressed a significant need in the post-war period. Frequently associated with its first director, Robin Boyd, and *The Age* newspaper, through which it was promoted, the scheme sought to assist a large sector of the population by offering modern, well-designed, affordable housing. For five pounds, the prospective homebuyer could purchase a set of plans and a simple specification that would be sufficient to obtain the relevant approvals and to have the house built. This scheme succeeded in bringing modern architectural ideas to a wide audience in Victoria, and many households took advantage of the opportunity.

Some 60 years later architects were invited to submit house designs to the Bushfire Homes Service. The brief they received from the Office of the Victorian Government Architect asked for simple, economical designs that would be suitable for various types of households and site conditions. The ideal solution was a home that would combine the principles of bushfire-resistant building design (especially as codified in the new Australian Standard for residential buildings in bushfire-prone areas) with other considerations – such as environmental sustainability, function and amenity – and still be a delightful place in which to live. Eighteen submissions were chosen to be made available to the public through the initiative.

The designs addressed issues such as ember attack – a phenomenon that occurs when wind carries burning leaves and bark ahead of the actual fire, which are caught in exposed parts of buildings, starting spot fires – and the psychological dynamic of house-as-refuge. Well in advance of any bushfire season, people living in fire-prone areas need to determine their positions on the government policy ‘Prepare, Stay and Defend or Leave Early’, commonly known as ‘stay or go’. Some houses and sites might be ‘defendable’, thus enabling a well-prepared resident to save a home by taking such actions as clearing around the house, putting out spot fires and taking refuge inside as the fire front passes. In some cases, the fire

front will be impossible to resist, making the option to ‘go’ imperative. There are many complex issues involved in such decisions, but architecture does play a part in the ability to survive the kind of difficult and unpredictable situation that many faced on Black Saturday.

If success is measured by the uptake of the service, the initiative may be seen as something of a disappointment. Although the number of designs built is not yet known, enquiries in the initial stages were sparse, and it appears that not many plans were realized. Two main reasons explain the low uptake. The first one, rather straightforward, is timing. After the event, people were simply not ready to rebuild. Communities were devastated, and harrowing accounts of escape and attempts to fight the fire, described by the Victorian Bushfires Royal Commission, were still present in the communal consciousness. The Royal Commission convened soon after the fires, in the same year, and was in itself part of the recovery and healing process. Emotional recovery and community rebuilding needed to happen before physical rebuilding could take place. It took time, and some people never went back to live in the towns that had burned to the ground.

The second and more fundamental reason speaks to the role of architects in Australia. Shane Murray, professor of architecture at RMIT University, reported in 2007 that less than 10 per cent of the housing in Australia has architectural involvement, and many observers consider the figure for architectural involvement in new housing to be even smaller. The industry responsible for general housing in Australia is characterized by small-scale, cottage-based, craft-orientated building practices with little design input. For many victims of the bushfires, the concept of using architects was alien to their way of thinking.

A further observation is that the designs offered did not replace what had been lost. They were, in fact, a challenge to existing housing, which was more traditional. Then and now, the Bushfire Homes Service designs were at variance with most of the houses in Australia. Following Black Saturday, a community conference was held in Marysville, one of the towns badly affected by the fires, to talk about what the government’s rebuilding efforts could offer. It emerged that the community had clear and progressive ideas about the future, and that the residents of Marysville saw themselves as agents of the rebuilding. The designs offered were also progressive, but they were not necessarily what these people had in mind. Someone commented about the lack of pitched roofs, saying that none of the designs looked like ‘their house’ or reminded them of the town they remembered. Architects had responded with innovative ideas based on a new design language, and despite the community’s wish to go forward, these individuals were also seeking comfort in the familiar.

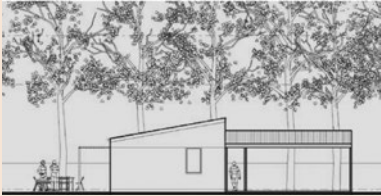
In retrospect, the initiative’s success can be measured by its contribution to a legacy of good, simple house design, as found in the story of home building in Australia. Destruction of the physical fabric of a place presents survivors with an opportunity to rebuild better than before. They have a chance to build houses that are more fire resistant and that make sense in a unique environment – ecologically sustainable houses that trap, store and reuse energy and water – while capturing the dream of life in an Australian landscape, inevitably with fire as well as other urban and rural rhythms. The designs of the Bushfire Homes Service continue to be referred to and published. They form part of a library of knowledge and creativity compiled and shared by architects, and they represent design-led research and visions. Like its precursor, the Small Homes Service, the initiative and the contributions it gathered are a positive step towards shifting perceptions of what is good housing design.←

\*Author’s note: I am indebted to Thomas Alves for his contribution to this introduction, including the information he provided about the initiative and the conversations that helped to shape the ideas expressed.

The Bushfire Homes Service offered 18 house plans prepared by volunteer architects.



46.5 Architects



Brad Hooper



Des Holmes Architects



Architects EAT (page 66)



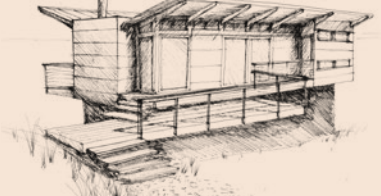
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Zen Architects



John Henry Architects



Clinton Murray in association with S2F



Metropolitan Housing Laboratory and Antarctica



Hayball



Lovell Chen Architects and Heritage Consultants



Jackson Clements Burrows Architects



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John King Architects



Clare Cousins Architects (page 74)

# ‘People need to be able to live in the bush’

Cofounder Albert Mo and associate James Coombe of Architects EAT talk about the difficulties they’ve encountered in bushfire zones.

**What was the aim of the concept you submitted to the Bushfire Homes Service, and what strategies of bushfire design did you apply?**

ALBERT MO: The building responds to the basic requirements of designing in bushfire-prone areas. We started with a rectangular form to reduce the amount of surface exposed. The three most important things to consider for bushfire design are radiant heat, ember attack and flames. At the same time you want to make sure that the house is environmentally sustainable, for example by allowing for natural ventilation. It’s also modular, so you can add on and subtract from as required. We used blockwork construction, providing thermal mass in the spine of the house. It was designed as slab-on-ground, so there are no crevices exposed to ember attack. The roof was a single span with no joins, again to avoid ember attack.

**You didn’t need to comply with the most extreme case of Bushfire Attack Level (BAL) Flame Zone in this design, but with BAL 40. Correct?**

MO: When we did this exercise, the BAL rating system and building code [for bushfire-prone areas] was very new. Since then, while working with the regulations on other projects, we’ve seen how this building might not comply. In actual fact, I don’t think many of the 18 schemes put forward to the Bushfire Homes Service would comply with the current standards. We used broad principles of bushfire design, which is all we could do.

JAMES COOMBE: It was a new area for everyone. We were breaking new ground. We relied a lot on our background knowledge of fire codes for commercial buildings. We thought

about egress, for example, which you don’t normally think about when designing a house. We also wanted to keep the cost down; that was a key concern of ours.

MO: It was a large departure from what we normally design at Architects EAT. It was a very basic, functional, utilitarian building: a principle-based design rather than a site-specific response. We did have a bit of fun with it – we specified a selection of material options, all noncombustible.

**Did many people approach you?**

MO: We were approached by only one potential client, who wanted to build our scheme on a commercial site. He owned a supermarket in Kinglake, and his house was next door. He wanted to build the house to our design and then adapt the same concept for a supermarket. But nothing ever came of it.

**How far did you move through the design process?**

MO: I went to visit the site once, and we spoke to the council. We didn’t draw anything more than was in our original proposal, but we helped him get the consultants together. Everything we did was pro bono. In the end it came down to money. He knew how much the house would cost, but reality hit when it came to the commercial part. I don’t believe he’s built anything since. But it was an interesting exercise.

**Do you think the cost involved in having an architecturally designed home was a factor in how few of these schemes were built?**

COOMBE: Yes. That’s the hard part. It’s still about the cost of architecture, unfortunately.

MO: The quantity surveyor came back with a cost of →





## Long House

The proposal is made up of two primary envelopes. The outer skin allows light and ventilation into the internal spaces, and the inner skin serves as a thermal mass and an additional layer of fire protection for the individual rooms. Between these two layers of skin is the main access corridor, set away from the prevailing wind to provide safe passage out of the house during emergencies. The basic rectilinear form of the design reduces both the amount of surfaces exposed to wind and the risk of ember attack.

← A\$300,000 [€208,000] for this house. A Metricon home can be built for A\$150,000 [€104,000]. To get these types of schemes up and running – think of Robin Boyd’s Small Homes Service [initiated in 1947, it provided designs of inexpensive houses to the public for a small fee] – an architect has to team up with a merchant builder. We have seen examples of this already happening in Melbourne. That might bring down the cost of an architecturally designed home to a price that the general public could accept. We’d give it to them as a package.

COOMBE: Yes, and we’d need to let go of our intellectual property in favour of an open source design.

**Have you worked on other projects as part of the rebuild after Black Saturday?**

MO: We’ve been looking at two other projects in bush-fire-designated areas – not areas affected by Black Saturday, though. We’ve found it very difficult.

COOMBE: After Black Saturday, everyone got scared. We even had a home in Toorak, on a suburban block, where the building surveyor asked us to put a bushfire statement together. It got ridiculous quite quickly, but now the situation is a little more relaxed.

**Can you tell us more about the two projects you mentioned? Did they go ahead?**

COOMBE: One was in Eltham and one in Skenes Creek, near Apollo Bay. Eltham is not really bush, but it has plenty of trees. And the Skenes Creek project was in a BAL Flame Zone.

MO: We went through the whole planning exercise, and the Colac Otway Shire Council basically said they didn’t want to make any decisions, so they passed it on to the CFA [Country Fire Authority] to deal with.

COOMBE: The CFA has a blanket policy: if a project’s in a Flame Zone, they do not support it. Our clients were devastated. The Australian Standard for Buildings allows for Flame Zone construction, but the CFA doesn’t.

MO: The client still has the land, but he can’t even sell it now. The CFA policy has quite a big impact on the landowner. Eltham was a less extreme case, but because we had to do so much redesigning to make the building bushfire-proof, it’s not what the client wants any more. So they’ve decided not to go ahead.

**What do you think about the new national building standards for bushfire-prone zones? Are they too strict?**

COOMBE: Through these two projects, I had to make quite a few enquiries to the Royal Commission and to government bodies set up to deal with this stuff. They had lots of community helplines organized for people unable to rebuild. There is

a lot of posturing going on. I suppose our outside view is that it’s too harsh at the moment, too legislated, too bureaucratic. There is no clear direction for these owners – they can’t build and they can’t sell. And there’s no compensation. That’s why people are still living in temporary sheds, because of how long this is all taking to work out.

**As Tom Griffiths states in his book, *Forests of Ash: An Environmental History*: ‘The eucalypts occupying rain-forest environments, however magnificent, however old their growth, may be described as “transient fire weeds”. Fire is not just any fire – but one of particular frequency, a particular intensity, a particular range.’ What he implies is that the Australian bush wants to burn and that fires reoccur in the same areas: Black Friday, Ash Wednesday and now Black Saturday. Do you think Australians need to compromise when choosing where to live?**

MO: I don’t think that someone should control their choices, but for a city that wants to be a metropolis, it’s inevitable. Yes, we are building towers in the city, but you *will* get sprawl. I don’t think you can tell people where to live.

COOMBE: It’s about education, isn’t it? I mean, where do you put the responsibility – should a building protect people, or should people protect themselves by getting out? In either case, you’re reliant on warning systems. I think people still need to be able to live in the bush, as long as it’s regulated.

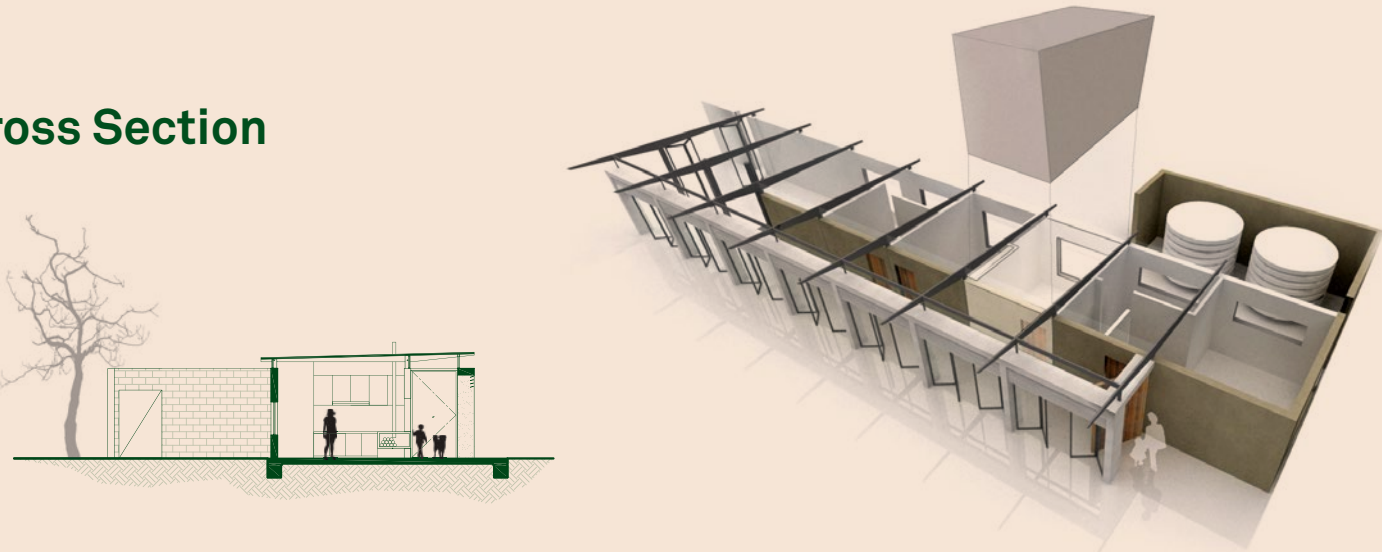
**It appears that since Black Saturday the CFA has completely revolutionized the emergency system.**

MO: Technology helps, of course. The speed of communication has accelerated, and faster communication can change the way the CFA can educate. Perhaps bushfire design should be part of our architectural education. Maybe that should be one of the principles of designing in this country.

COOMBE: That’s another year at university, at least! ←

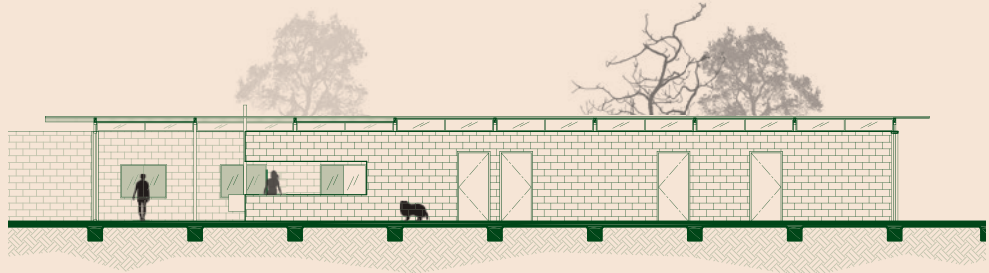
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## Cross Section



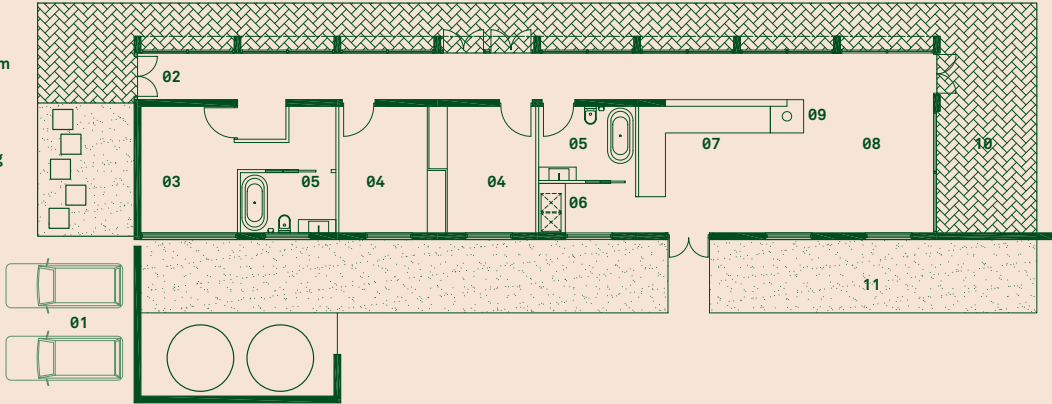
Additional cells can be added to the grid depending on the needs of the individual family.

## Long Section



## Plan

- 01 Car porch
- 02 Entrance
- 03 Master bedroom
- 04 Bedroom
- 05 Bathroom
- 06 Laundry
- 07 Kitchen | dining
- 08 Living area
- 09 Fireplace
- 10 Paving
- 11 Landscape



## Materials

**Construction** Steel frame  
**Floor** Concrete slab on ground  
**Northern external wall** Concrete  
**Southern and Western external walls** Brick veneer  
**Internal wall** Double brick veneer  
**Partition walls** Cement sheeting with steel studs  
**Windows** 5 mm toughened glass with non-combustible ember guards  
**Louvers** Aluminium  
**Roof** Zincalume  
**Doors** 35 mm solid timber, metal framed with weather strips at base

# ‘We really don’t know whether our design was built’

After fire victims had been offered a library of house designs, it was important to let them make their own decisions without feeling any pressure, says Andy Wong of John Wardle Architects.

The concept of an oval house – designed by Melbourne-based John Wardle Architects (JWA) for the Bushfire Homes Service, an initiative that responded to the disastrous fires of early 2009 – is a synthesis of ideas. With very little time to come up with a concept, residential-design specialist Andy Wong, together with principals John Wardle and Stefan Mee, led a team of ten to make the design happen. ‘We wanted to provide variance within the library of designs we envisaged would be offered by other architects,’ says Wong, adding that he and his colleagues ‘believed that a perhaps joyful and high-quality architectural option should be offered to those affected, something beyond the everyday’.

## What moved you to become involved?

ANDY WONG: There was a lot of talk about reconstruction following the fires. Beyond monetary donations, we felt this was an area to which we could contribute our specialist skills. So when we heard about the Bushfire Homes Service – the call came from the Australian Institute of Architects and the Office of the Victorian Government Architect – we jumped at the chance.

## JWA’s prototype, Seed, is a rather quirky design and one of the more unconventional responses to the pro bono initiative. What can you tell us about it?

The design was a simple response – a very basic design that gave the potential client a vague idea of what the house might look like. The floor plan was purposely conceptual. We started with intensive research to get a better understanding of good bushfire-resistant housing design before turning our

attention to creating something unique. Research favoured designs with fewer ins and outs to reduce the opportunity for embers to get caught, as well as homes that were more streamlined in form – perhaps oval or elliptical. We had speculated that a number of architects participating in the initiative might create boxier rectangular designs, and we wanted to provide an alternative.

## Bushfire Homes Service was intent on procuring a variety of designs to meet the widest possible range of user needs in the aftermath of the bushfires. How did Seed fit into that?

Guessing the demographic was the tricky thing. There was the challenge of speculating who the client might be and what the brief would include, and of hypothesizing as to the site, orientation and terrain. Our approach was to design a solution that might suit a few, conceding that it wouldn’t suit all. Seed is quite a generous four-bedroom home that targets a larger family in the country. Planning is rather conventional, with a living room downstairs that connects with the veranda and the landscape, and bedrooms upstairs.

## Why is the veranda so big?

This home was designed for rural areas, and our assumption was that it was destined for a sizable block of land, possibly vegetated. An Australian home with a rural context often has a large north-facing veranda that extends off the living room. The proportions of Seed’s veranda are also based on the idea of partially offsetting the oval shape of the house.

## How does Seed address customization for different →





# Seed House

Seed House is a generous four-bedroom home designed for a larger family in the country. The simple oval shape is meant to deflect wind, thus minimizing the danger of ember attack. The layout is conventional, with the living room downstairs and bedrooms upstairs. A big north-facing veranda forms an extension of the living room.

## ← clients and sites?

We knew we were providing a conceptual template. The base concept could then be modified and customized to a specific client and site. Seed was conceived as a house that could retain its organic form while offering the potential to shrink or grow according to the number of bedrooms needed. For homes located in areas classified as having higher bushfire attack levels, a concrete slab option could be specified in place of timber flooring on a timber frame. A choice of claddings – timber, sheet steel, stone or brick – can vary according to the fire-rating requirements and the client’s aesthetic preference.

### Given the same project today, would you do anything differently?

No, I don’t think so. We really liked the design and thought it to be a simple and appropriate architectural response. Our speculation of the demographic may have shifted, and to reflect that shift we would probably design a reduced scheme to lessen costs.

### What issues emerged from the enquiries that JWA received in the aftermath of the bushfires?

We modified the design to fit the budget of one particularly enthusiastic couple with an interest in Seed, and at the same time retained the concept. Reducing the number of bedrooms from four to two and the overall area by 30 per cent cut the cost significantly. We’re unaware of the reason why Seed

didn’t proceed to building in that instance, and we don’t know whether the client chose to relocate or to rebuild. It was important to provide people with the space they needed to make their decision without feeling any pressure.

Something completely unanticipated has been the calls we’ve received from people who did not actually lose property during the bushfires, querying if they could use the JWA plans for Seed, some for B&B purposes. As our contribution was not intended as a free house design for people who simply like the way it looks and want to use it on their bush block, it’s been difficult to know how to reply to such requests.

### How does JWA ultimately react to these calls?

When the query comes from someone who wasn’t a victim of the bushfires but who seems to think that Seed is a free template for the general public, we clarify the situation by saying that the house was designed as a direct response to the tragedy. We’re always keen to chat with anyone who wants a new architect-designed house. Should they wish to have a refined version of the Seed house, we communicate our position – that we think it’s fairer to enter a normal client-architect relationship. Fundamental to that position are benefits such as architectural detailing, material consideration, site-specific adaptation and so forth.

As part of the pro bono service, the plans were freely available on the internet. Has that made it harder for

## you to ascertain whether Seed has been built, by whom and for what purpose?

At this point, we really don’t know whether it was built. From an architecture perspective, it would be satisfying to see Seed realized somewhere for someone who had been affected by those bushfires. That said, the intention of the service was to provide a library of templates. As part of the response from our profession, plans were drawn up in good faith and provided as a quick and viable option for people who had property destroyed in the 2009 bushfires and were choosing to rebuild. If they were attracted to the organic design of Seed, they could pick it up and go with it, come to us or simply start building it.

### Have clients become more conscious of bushfire-resistant design?

Half of JWA’s commissions are in the city and the other half in rural or coastal areas, which are commonly located in

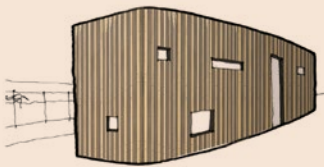
bushfire zones. Bushfire-resistant design in areas that require it is one of a multitude of factors that we discuss with clients. As climatic events appear to be increasing in ferocity, it’s not an issue that is likely to go away.

### When you look back, what factors appear to have influenced the uptake of architect-designed housing concepts by bushfire-impacted clients?

I think people just wanted something fast, something economical and something they could grasp. Maybe they wanted a solution that was immediately tangible, something that didn’t push their comfort level, something other than what they might accept under different circumstances. There wasn’t the luxury of time for people to say *wow, let’s have an oval house*. But more important than the design itself is the hope that all those who lost homes are now happily rehomed. ←

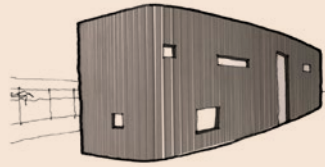
johnwardlearchitects.com

## External Cladding Options



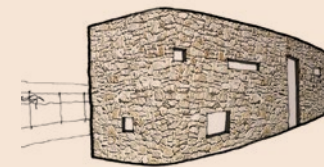
### Timber

- Suitable for levels to BAL 29
- Vertical bushfire-resistant timber boards
- Sarking to outside of wall framing
- Timber flooring on timber frame



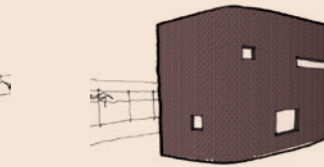
### Sheet Steel

- Suitable for levels to BAL 29
- Steel-sheet wall cladding
- Sarking to outside of wall framing
- Economical construction method
- Timber flooring on timber frame



### Stone

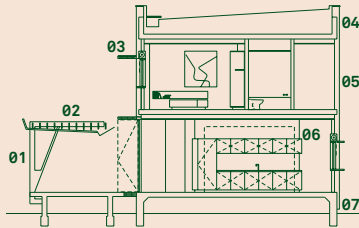
- Suitable for levels to BAL FZ
- Locally sourced stone, minimum 90 mm thick
- Bushfire shutters required for all windows and doors
- Concrete slab



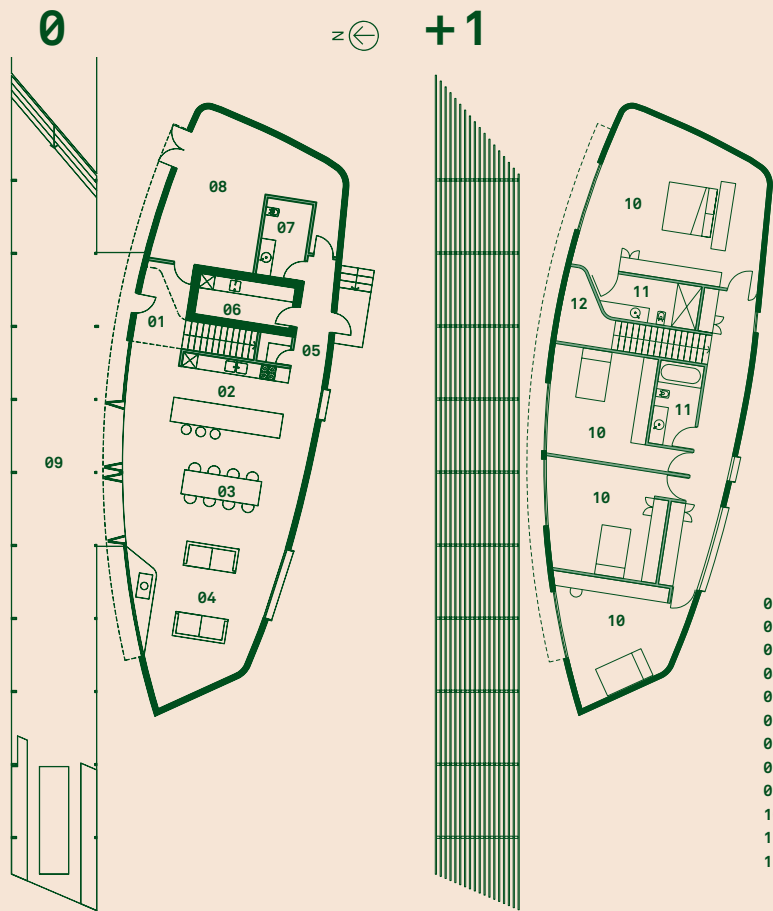
### Brick

- Suitable for levels to BAL FZ
- Economical construction method
- Bushfire shutters required for all windows and doors
- Concrete slab

## Cross Section



- 01 Steel veranda frame
- 02 Fire-resistant timber sunshading blades
- 03 Shutters to windows, BAL 29+
- 04 Bushfire sprinkler system to drench roof and walls
- 05 Timber frame with sarking
- 06 Internalized laundry built of concrete block
- 07 Timber flooring on timber framing (BAL 29) or concrete slab (BAL FZ)



- 01 Entry
- 02 Kitchen
- 03 Dining
- 04 Living
- 05 Pantry
- 06 Laundry
- 07 WC
- 08 Storage
- 09 Veranda
- 10 Bedroom
- 11 Bathroom
- 12 Void over entry

# ‘I’m interested in design that can be replicated’

Clare Cousins talks about her practice’s proposal for the Bushfire Homes Service and its outcome as a built project.

## Why did you participate in the Bushfire Homes Service?

CLARE COUSINS: Victoria’s Black Saturday claimed 173 lives, so you can imagine that a significant number of houses burnt down – I think over 2,000 homes were lost. I registered my interest in doing something to help by emailing the Victorian Chapter of the Australian Institute of Architects in February 2009. I had donated a couple of hundred dollars to one of the fundraisers, but I felt, as an architect, that I could offer more in terms of the rebuild process. The institute must have received emails from other architects offering help, and six months later I was approached about the Bushfire Homes Service initiative. They asked for four A3 pages documenting a house design that might be suitable for rebuilding in the affected area. They were clear that not every submission would be included; they were looking for designs that met specific requirements. For me, there was a drive to help with the crisis, but as a relatively new practice we also recognized the opportunity to build a new house, which we hadn’t done yet.

## What was the aim of your concept design, the Hinge House?

The new bushfire regulations were still being written at the time, so we didn’t know exactly what was required. We used the idea of the ‘shed’ as a starting point – a tough, rural building. The Hinge House is a modular design that uses standard materials. Our aim was to create a low-maintenance, easy-to-construct, affordable home.

Orientation and siting are integral to designing in

# W

## bushfire-prone areas, but your proposal was for no specific site. How did you allow for flexibility?

The idea was that you could add and subtract modules as required and ‘hinge’ the wings of the house to adapt to specific site conditions. In particular, we played with aspect versus orientation. The advantage of

the long, linear form is that you can provide aspect, view and sun orientation all at the same time.

## Material choice is an important consideration that obviously depends on the Bushfire Attack Level rating. What BAL rating was specified for the schemes, and what key design strategies protect the Hinge House from fire?

We were asked to design a project for levels up to BAL 40, which is one level below Flame Zone. I think they wanted a brief that was not too constrained. The Hinge House is clad in roof sheeting, which is readily available in various profiles and colours. We designed integrated eaves that protect against ember attack while still providing sun protection. The subfloor is also completely enclosed.

## What level of detail was required in the scheme?

They wanted documentation with enough information for a builder or draughtsman to pick it up and finish it off. The idea was that they could engage the architect but didn’t have to. We did an exploded structural diagram to show that it was quite a simple build.

## Your scheme was one of the 18 proposals chosen for the Bushfire Homes Service. Did many people approach you? →

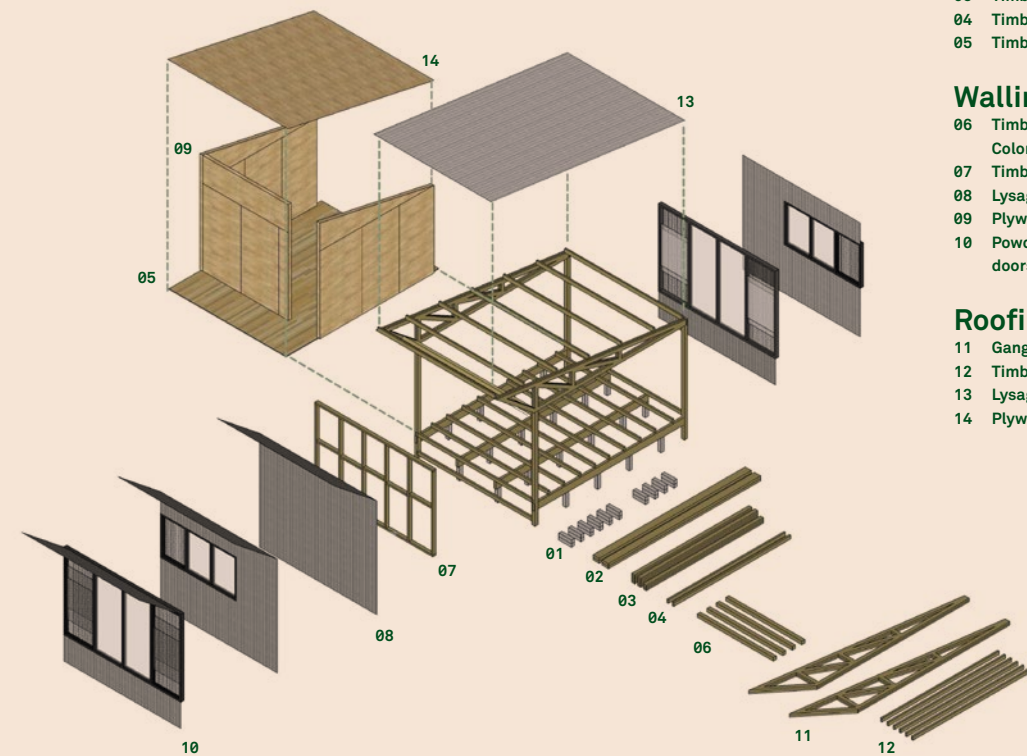




# Hinge House

Achieving a BAL 40 rating, the Hinge House demonstrates that bushfire-resistant design need not call for introverted living or be at odds with the natural environment. Clad in steel sheeting, the simple yet sculptural timber-framed house has a modular design that makes the most of conventional building techniques and standard materials. ‘Hinging’ the wings of the house allows adaptation to specific site conditions, and the corridor can be located adjacent to the eave or detached, depending on site orientation and potential views. Inside, the house exudes warmth through exposed natural finishes.

## Exploded View



### Subfloor | Flooring

- 01 Concrete stumps
- 02 Timber bearers
- 03 Timber joists
- 04 Timber framing for subfloor enclosure cladding
- 05 Timber floorboards insulated underneath

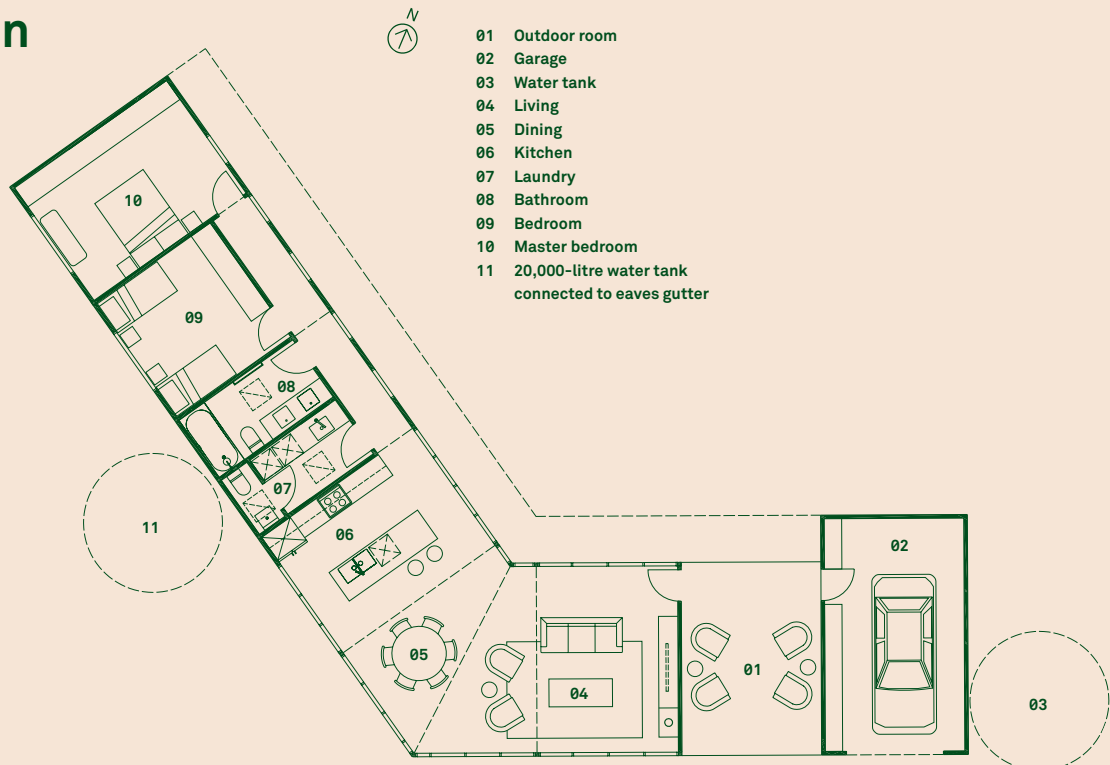
### Walling

- 06 Timber posts (external exposure wrapped in Colorbond sheeting)
- 07 Timber framing
- 08 Lysaght Spandek Colorbond steel cladding
- 09 Plywood lining
- 10 Powder-coated aluminium frames for windows and doors with 5 mm toughened glass

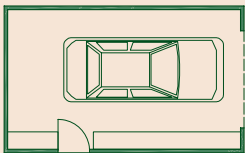
### Roofing | Ceiling

- 11 Gang-Nail timber truss
- 12 Timber purlins
- 13 Lysaght Spandek Colorbond steel roofing
- 14 Plywood with raw finish (stagger ceiling panels)

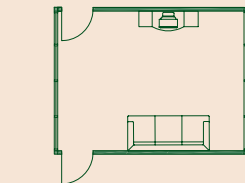
## Plan



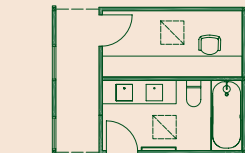
## Optional Modules



Additional garage

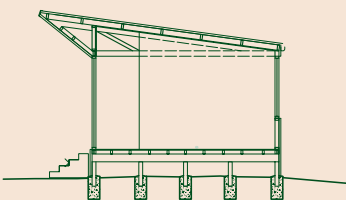


Playroom

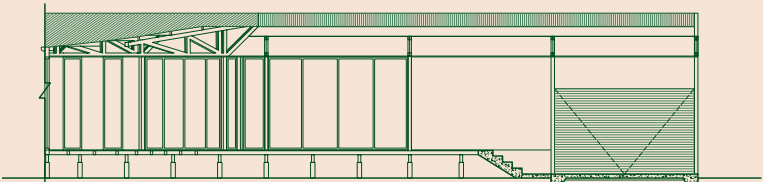


En suite | study

## Cross Section



## Long Section



← We were only contacted once. Libby and Clare, who had lost their home in Christmas Hills, contacted us in August, about six months after the fire and quite soon after the schemes were released. A Hills Hoist clothesline was the only thing that survived at Libby and Clare's block – it was such a traumatic experience for them that they weren't sure they could bring themselves to rebuild on this site, despite its spectacular aspect. The Country Fire Authority [CFA] also told them that they would never fight fire at this site again, as there is only one way in and one way out.

Libby and Clare are schoolteachers – both lovely, down-to-earth people. On my way up to the first site meeting, I'd decided that if I had a good rapport with them, I would work out a way to get involved if they wanted to go ahead. Based on this first meeting, we offered to document the project on a pro bono basis. A driving factor in this decision was that I feel passionate about minimizing the amount of speculative housing cropping up across rural Victoria. Our clients weren't concerned with aesthetics. They just wanted a comfortable and durable house from which to appreciate their spectacular view – the same thing they would've wanted without the Bushfire Homes Service. We also saw it as an opportunity to document a building efficiently, as was done in the days of Robin Boyd's Small Homes Service. We wanted to provide a set level of detail and to use as few drawings as possible. It was a good challenge.

### Why do you think Libby and Clare approached you based on your design?

The quantity surveyors had done preliminary cost assessments, excluding earthworks, for all 19 schemes. The information was available online. The Hinge House came in at A\$270,000 [€187,000], much less than some of the other schemes, which is perhaps why these clients came to me. The cost assessment was such an important step in the process, as clients always need assurance about cost.

### How did the Hinge House suit the Christmas Hills site and its BAL assessment?

The site is a very steep block, with a natural flattening along a ridgeline. A building surveyor doing pro bono BAL ratings assessed the site at BAL 29. However, the CFA wasn't going to fight fire at this site again, and as Libby and Clare had decided to rebuild, they wanted – and needed – as much fire resistance as possible. So we upgraded some of the materials and specifications closer to a BAL 40 or Flame Zone rating to give the house the best chance in a future fire. For example, we put in a 20,000-litre tank that is purely dedicated to firefighting, and we substituted the metal cladding in our plan for the Hinge House to brickwork in what we were now calling the Christmas Hills House, changing the feel of the project considerably. Because of that substitution, we had to lop off an inverted truss in the Hinge House, and it was a shame to lose that form. We were keen →



# Christmas Hills House

The Christmas Hills House is an adaptation of the Hinge House. The adapted model was designed and documented pro bono for a couple whose house was destroyed in the Black Saturday bushfires. Based on the adaptability of a hinge, the house has an orientation that provides the best solar access. Carefully reviewed materials were chosen for their fire-resistant properties, given the site's extreme vulnerability to fire. The landslip potential of this highly pragmatic design was reduced by cantilevering a section of the building over the natural slope and having the cantilever accommodate a large tank for storing rainwater.

↑ Christmas Hills is 35 km northeast of Melbourne. The hilly setting produces spectacular views.

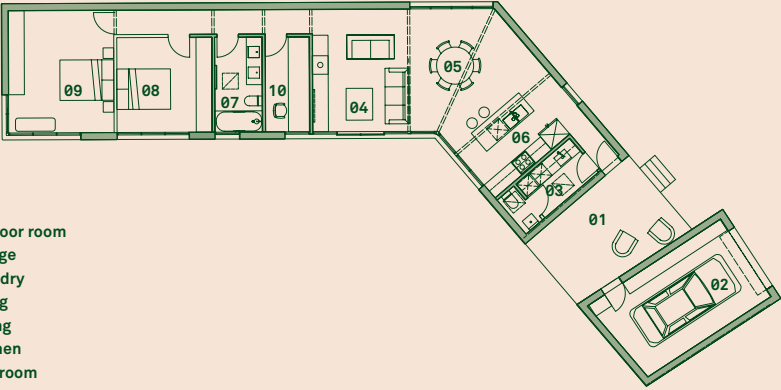
↘ The urban feel of brick is offset by two dark clay tones arranged in a banded pattern to echo the forest backdrop.

Photos Shannon McGrath



‘The Country Fire Authority told our clients that they would never fight fire at the site again’

## Plan



- 01 Outdoor room
- 02 Garage
- 03 Laundry
- 04 Living
- 05 Dining
- 06 Kitchen
- 07 Bathroom
- 08 Bedroom
- 09 Master bedroom
- 10 Study



← to avoid brickwork that would make the project feel too urban. We used different shades to create a brick pattern that reflected the backdrop of the forest.

The layout of the Hinge House didn't change, other than the plan being flipped. Our clients wanted two bedrooms, but they also wanted a study. We moved the modules of the Hinge House around to satisfy the planning brief and added a couple of half modules as required.

**The house was enlarged, the materials were changed and a cantilever was added. How did this affect the cost of the build?**

The house came in at A\$440,000 [€305,000], excluding GST [goods and service tax]. This covered all the groundworks, including a septic tank.

**Did you also design the landscaping for this project? If so, how does it respond to the risk of bushfire?**

There were some existing retaining walls that needed repairing. Those walls already did a reasonable job of protecting the house from radiant heat from below. We're currently considering the addition of an external pergola – perhaps a steel pergola in the forecourt, facing the view. Pergolas and decks are counted as fuel sources, which is why we're thinking of making it out of steel.

**It's unfortunate that yours was one of only a few Bush-fire Homes Service schemes built. Why do you think that was?**

Apparently there were plenty of enquiries but limited follow-through. Perhaps there wasn't enough information or detail in the schemes. If someone were to take a three-dimensional render to a builder, it wouldn't be enough information. I'm not saying the builder wouldn't want to give it a go – but it might end up in the 'too-hard basket'. We tried to design a scheme that could be built without us.

**We've seen a lot of initiatives aimed at disaster areas lately, from the donation of tents and shipping containers to the gift of free designs. What do you think works?**

What they've done in Christchurch is fantastic – Shigeru Ban's church replacing the cathedral, for example. People get disbanded after traumatic events, and I believe that what's important is to bring the community together.

**On reflection, are you happy that you participated?**

Disasters are often a good reason to think about doing pro bono work. If you invest time in designing something, who knows? It might be repeated multiple times. You learn from every project you do. Earlier this year we had a call from a guy who is planning to relocate to the Grampians, and he wants to build a Hinge House there. He hasn't yet bought the site, but I like the thought of doing that. I'm interested in design that can be replicated – and in seeing how disasters can lead to broader housing solutions. ←

clarecousins.com.au

# ‘We need to review our defence plans’

Kim Irons of Irons McDuff thinks there are broader strategic issues to be examined, beyond the design of fire-resistant homes.

As a volunteer with the Country Fire Authority (CFA), Kim Irons – a principal of Irons McDuff Architecture, located in Barwon Heads on Victoria’s Bellarine Peninsula – references her knowledge of fire behaviour to inform her building designs for regional and coastal locations. And while fire-resistant design and Australian Standard 3959-2009 exist to help thwart or reduce potential fire damage, Irons shares her concerns about the encroachment of urban sprawl on the natural environment, which she considers another frontier in need of a big picture focus.

## What role did you play in recovery efforts after the January-February 2009 Victorian bushfires?

KIM IRONS: Initially I was involved in various firefighting efforts that occurred for several weeks beyond Black Saturday. Emotionally, it was quite draining – returning home each time, particularly from Kinglake West [a severely hit town 83 km northeast of Melbourne], where I had direct connection with people who had lost relatives in the fires. After getting in touch with the Australian Institute of Architects [AIA] to ask if there was anything we could do as a profession, I submitted a prototype, Butterfly House, to the Bushfire Homes Service initiative.

## When did you start to understand the scale of the devastation?

There had been some reporting of the devastation unfolding on media throughout the day. But it was ultimately a telephone call instead of the usual pager communication from the captain of our local fire brigade that made me realize we were facing a dire level of threat not seen before.

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## At what point did you join the CFA and why?

As part of a previous practice, I’d designed a number of houses and schools in bushfire-prone areas. Watching smoke in the distance from a city workplace had made me feel useless during fire events. So when I moved to Barwon Heads from Melbourne eight years ago, I saw being involved in the CFA as a way

of engaging with my local community.

## In what way has firefighting influenced your approach to bushfire-resistant design?

Learning more about the nature of bushfire and witnessing its effect have given me an acute understanding of why 2009 was so devastating. The tragedy heightened my sensitivity as to how a fire might potentially play out. During the development of a proposal, knowing that it’s worse to be surrounded by bush than by grass, I sometimes wonder why the standard set indicates a particular BAL rating in one instance and not in another.

Australian Standard 3959-2009, which was implemented soon after the January-February 2009 bushfires in Victoria, was a response to bushfires that had occurred in Canberra several years prior. More than five years on, I think there is an opportunity for those standards to be reviewed to reflect the unprecedented nature of the 2009 fires and be cleared of possible misinterpretations.

## Seemingly, the response of Irons McDuff Architecture was in waiting.

Stowed in a sketchbook in my bottom drawer was an idea for a shack that I had drawn up years ago. Thanks to its →





## Butterfly House

Butterfly House is named after its pitched roof, which supports solar panels for power and hot-water supply. The skillion has a single central gutter that feeds water to a tank. The building, which sits on an elevated platform to make it suitable for sloped sites, can be prefabricated off site and craned onto the platform. The subfloor is clad directly to the underside of the joists, to form an enclosure beneath the floor for storage. Northern orientation is possible on three sides. A regular grid allows flexible distribution of windows to suit site and orientation.

← steel structure and its almost timeless form, Butterfly House is suitable for any location and is flexible enough for most orientations. Essentially, it's a simple, rational, well-ordered approach to the design of a house. The intent of the butterfly roof is spatial expansion up and out towards the landscape, with views of the sky. A single central gutter feeds into a rainwater tank, and glazing along the veranda side of the house is covered when shutters are lowered to protect the interior from fire.

### Did it need modification to meet the latest building regulations for bushfire-prone locations?

Some adaptation was required to ensure compliance with a BAL 40 rating. We used steel for the exposed frame and selected noncombustible cladding materials, toughened glazing and aluminium window frames.

### What type of enquiry did you field?

While Butterfly House didn't lead to immediate built work, it did generate important discussions with those who had lost their homes, as did visits to the bushfire-affected areas. Generally speaking, we tried to help people understand their options, to describe the stages needed to get to a particular point, and to explain what their next step should or could be. If

people did wish to proceed with building on their site, we talked through the process with them, so they could make an informed decision about whether or not to go ahead.

One family was keen to replicate their previous house. In this instance we found that their original drawings could still be sourced. We told them that a local drafting service would best meet their needs. For another client, a referral from the Bushfire Homes Service, I drew up an alternative response at their request, which did proceed to built form. We created a model for the client's daughter to ease the stress of losing her previous home and to help provide a sense of ownership with regard to the new one.

### After interacting with victims, how did you assess their readiness to engage with the Bushfire Homes Service?

For bushfire victims, a new home is a need suddenly thrust upon them, not a desire. They had lost their homes, their township, family and friends. People were at different stages of grieving and recovering from trauma, and it takes an extraordinarily long time to work through that. I gained a sense that many were working directly with local builders to resolve housing problems. Another factor was a shortfall in insurance coverage

or a total lack of insurance. Typically, building a new house or renovating an existing home is a long process that can be overwhelming if you haven't been there before.

While it was useful to have the online catalogue, another bushfire victim made it clear that he and his neighbours were not accustomed to picking up the telephone and asking for charity. During my visits to the bushfire locations, I found that people would take the initiative and approach me for advice, but when I left my card, a call was unlikely. I went to one community information day that was very well attended. In light of the multitude of issues facing victims, our attendance as a group of architects at an event like that – as representatives of the AIA – could lead to more people interacting with the architects.

### Is it possible to design a house that can withstand the power of the bushfires that raged on Black Saturday?

One of the prime challenges is to appreciate the critical issue of wind. You can use noncombustible materials, but it's very difficult to make a fireproof dwelling. There are no guarantees. Unfortunately, climatic changes seem to be indicating

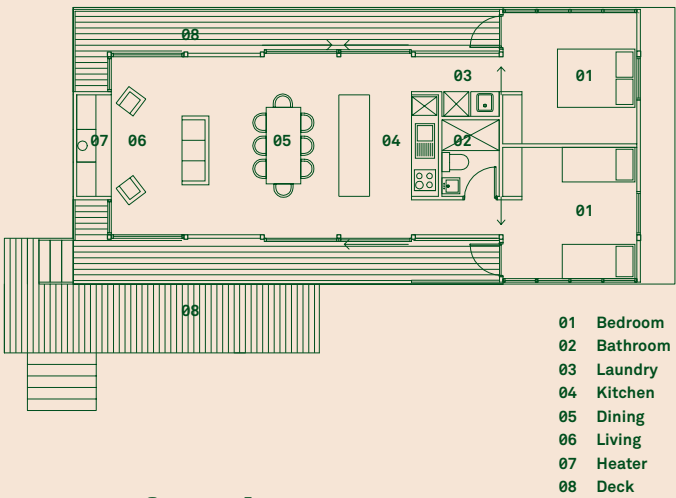
that it will happen again: our summers are getting drier and the winds are strengthening. Meeting with people who had lost their homes in bushfire-affected areas – standing where fire had destroyed everything – drilled home the fact that conditions on Black Saturday were highly unusual, even in places where particular properties had low fire-risk ratings.

### Beyond offering victims individual house designs, what else needs to be done?

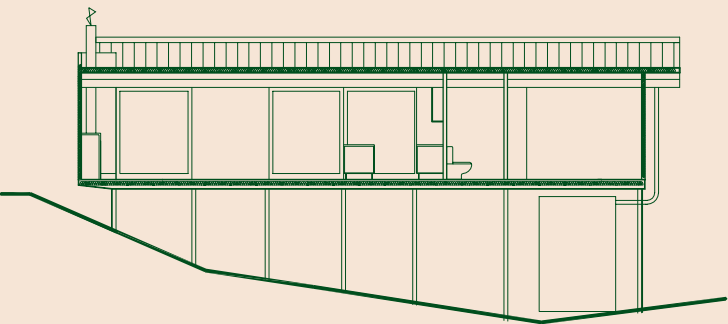
The Bushfire Homes Service provided an opportunity for architects to pitch in and sent a message to people who were thinking about rebuilding, letting them know that help was there if they needed it – including access to designs that could be turned around quickly. I do recognize the need for an examination of broader strategic issues, such as urban growth on fringes adjacent to fire-prone areas and a review of defence plans for townships in these locations. Of particular concern are those people who are moving into what they believe is an urban area, unaware that it borders on a rural environment – this is a situation with potentially disturbing ramifications.←

[ironsmcduff.com.au](http://ironsmcduff.com.au)

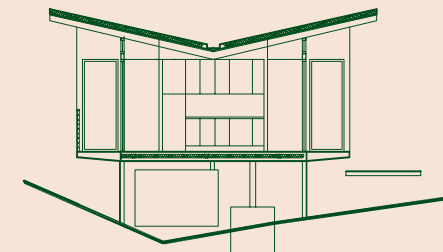
## Plan



## Long Section



## Cross Section



### Schedule of materials to meet Bushfire Attack Level 40

**Structure** Steel portal frame with options for steel or timber joists, purlins and stud frame; steel frame to deck; enclosed and insulated subfloor

**Soffits** Fibre cement sheet  
Walls: sarked and insulated frame with 9 mm fibre cement sheet, metal cladding or aluminium composite panel

**Windows** Aluminium framed, double glazed to south, low-E glazed to north incorporating minimum 5 mm toughened glass; aluminium-framed bronze-mesh flyscreens for all windows

**External doors** Aluminium framed, double glazed to south, low-E glazed to north with minimum 6 mm toughened glass to external faces; aluminium-framed bronze-mesh flyscreens for all doors

**Roofing** Sarked and insulated frame with metal deck roof sheeting; Zincalume gutters and downpipes

**Decking** Noncombustible composite decking made from wood fibre and high-density polyethylene

# ‘Providing official community refuges is a contentious undertaking’

After contributing to the Bushfire Homes Service, Julie Firkin started looking into community centres that double as fire refuges.

Julie Firkin was working in New York on 11 September 2001, and she had just launched her own architecture studio in Melbourne when the Victorian bushfires of early 2009 destroyed over 2,000 homes and resulted in 173 deaths. Pro bono participation following both events not only helped Firkin to personally process what had happened; her projects also acted as a catalyst for communities on both continents to pave a way forward.

**How would you compare your architectural input in the wake of September 11 with your contribution following the bushfires?**

JULIE FIRKIN: The Bushfire Homes Service had a target with more clearly defined goals, whereas a lot of very different ideas emerged during my experience as a volunteer community-workshop facilitator for Imagine NY, a forum organized by the Municipal Arts Society. In New York I worked with a landscape architect, facilitating several discussions with interested members of the public – our aim was to formulate a broad vision and to reimagine what could become of the World Trade Center site. One recurring theme – to treat at least part of the site as sacred

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and as a memorial – may have influenced the eventual redevelopment. As it turned out, my bushfire-resistant concept, Horizon House, became the first project in my residential portfolio as a solo practitioner – after I’d worked for around ten years on large mixed-use commercial and one-off projects with firms in Melbourne, New York, London, Basel and Boston.

**What was your approach to the design of a house for an unknown client, site and location?**

In some ways, not knowing the client provided the freedom to design a kind of ideal response, but in other ways it was difficult. The design for a site, including landscape, is especially important in helping to prevent bushfire attack, but the nature of this project precluded that. I focused on sustainable design and asked that the home be orientated north, to make it an effective passive solar house. In prototyping a single-level three-bedroom house with a standard open-plan kitchen, dining and living area, I had a family in mind.

The house is designed to be almost see-through, to emphasize the horizon line. I was cognizant of trying to balance →





## Horizon House

Forming a continuous line of defence against bushfires is the combination of three protective elements: a simple continuous roof, concrete walls and roller shutters. Together they create a noncombustible, streamlined barrier. Gaps between materials have been kept to a minimum. The span of the roof covers the load-bearing perimeter walls and contributes to the flexibility of the interior organization of the house. The architects have left room for extending the house without impairing its formal linear expression and undulating roofline. When the risk of fire is not present, the shutters can be rolled up, allowing sunlight and fresh air to reach the heart of the house and opening the interior to panoramic views. As well as maximizing the benefits of living in a natural environment, the house has an energy-efficient and sustainable passive solar design that is aided by its north-facing orientation.

← bushfire-resistant design principles with a desire to open the house to views as much as possible. Avoiding a complicated profile and re-entrant corners was a key consideration, as I wanted to allow wind and rain to assist in washing away debris that might otherwise be ignited by embers.

### Have you learned anything since the 2009 bushfires that could have influenced the design?

In view of tests carried out by the CSIRO [Commonwealth Scientific and Industrial Research Organisation], which showed simple and inexpensive materials to be really effective, today I'd opt for fibre cement sheet cladding rather than the precast concrete panels I originally specified. For better protection against embers, I'd also replace the timber structure with a noncombustible steel structure.

### With the benefit of hindsight, any thoughts on what a future collective response from your professional body could entail?

As an architect it was great to be able to contribute to the Bushfire Homes Service. I did receive several enquiries from people who had seen my submission and called to seek advice.

Questions related to the best place to locate a building on their site and to materials I might recommend.

At the time of the bushfires, there would have been so many pressures on victims, money being one – it's no surprise that a lot of people didn't approach the architects involved in the initiative. The perception that architect design adds cost may have been a contributing factor. People were also welcome to take the design from the Bushfire Homes Service website without provisos. Perhaps as an adjunct to the service, a bunch of architects could make themselves available in a local hall to provide free consultation or to lead group sessions. I'd be really happy to do that.

### More recently, you've organized a design studio with architecture students from Monash University for the purpose of designing community centres that double as fire refuges. How did that evolve?

I'm always interested in innovation and in new solutions, as opposed to architects who find a groove and do what they do well all of the time. It was obvious from media reports that people in bushfire-affected areas had a lack of community

refuges to go to. In speaking to the CSIRO, I discovered that providing official community refuges is a contentious undertaking, because authorities generally encourage people in high-risk areas to evacuate, and with a refuge to go to, they might decide to stay. Nevertheless, new codes and standards for community bushfire refuges are being developed.

Following the fires, some 52 locations were identified by the state premier and the chief officer of the CFA [Country Fire Authority] as being at the highest risk for bushfire. These locations became candidates for the development of New Township Protection Plans. In setting up the design studio, I selected Forrest, a beautiful hamlet in the Otway hinterlands, as the working site. Each student was asked to design a unique concept that would serve as a community refuge during fire season and a public amenity at other times. They explored the broadest possible variety of building types – town halls, schools, visitors centres – and, as part of the process, sat in on a town meeting and sought input from a local council. Should the opportunity arise for that township to gain a refuge, both council and community will have access to 15 design concepts as a source of inspiration for further discussion.

### What is it that makes a building a suitable refuge?

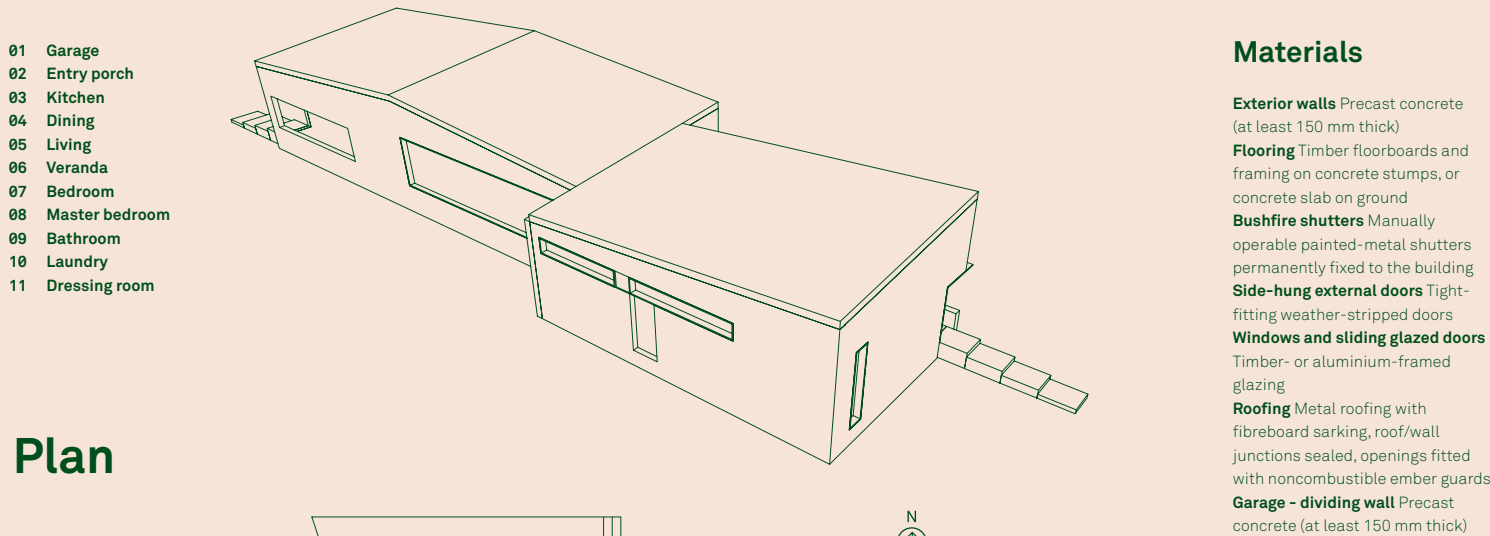
To encourage people to use a refuge, you should offer them a place that is safe and that looks safe. Because refuges are costly to build and may be inhabited for only a few days a year, it makes sense to combine the protective function with some kind of public amenity that can be used for the rest of the year. Horizon House is also a dual-mode building, with metal shutters that can be closed tightly to provide protection against fire and opened completely at other times.

### Should people reside in areas that top the scale in terms of bushfire risk?

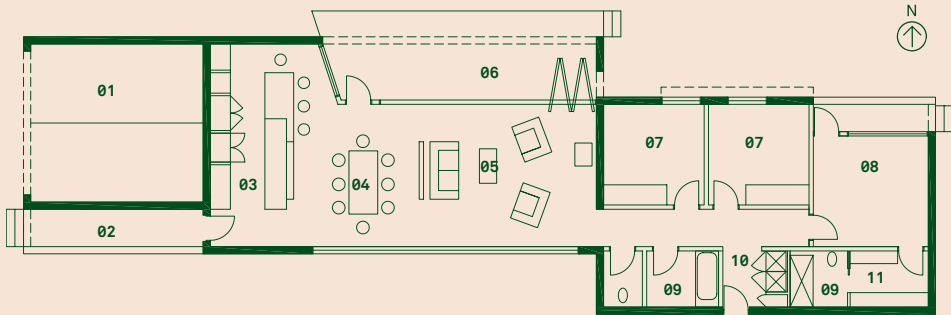
I would love to have a house surrounded by big trees, and I think it would be terrible if people couldn't do that at all. But maybe those who make that decision need to take on some of the responsibility for protecting themselves. It's not reasonable to expect the CFA to risk lives by sending firefighters into extremely dangerous areas. One of the conundrums that people may need to come to terms with if they choose to live in the bush is the presence of trees: a highly effective way to protect a building from being destroyed by bushfire is to clear away the trees and scrub that surround it. ←

j-f-a.com.au

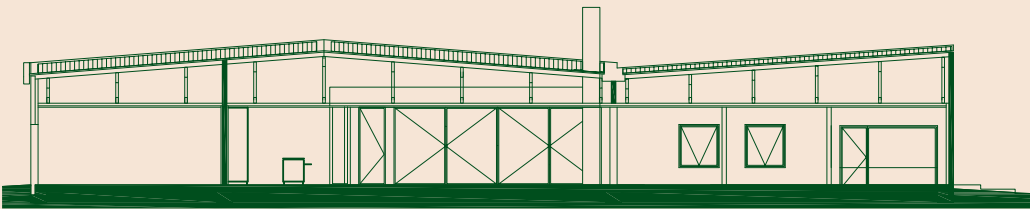
## Perspective



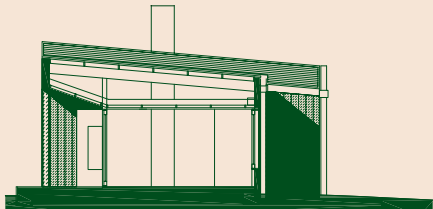
## Plan



## Long Section



## Cross Section



# ‘The hall is the synthesis of everyone involved’

Ninotschka Titchkosky of BVN Donovan Hill recounts how the Narbethong Community Hall was rebuilt.

What is the role of architects in post-disaster scenarios? The answer seems obvious when reconstruction, both strategic and material, is central to reviving devastated communities. Rarely are architects visible entities at these moments, however, despite the many skills they bring and the plethora of competitions that are waged for the design of disaster shelters, housing and communities. This is what makes the Narbethong Community Hall such a unique case. The reasons behind its success are conventional – committed clients, strong partnerships and a beautiful site. But it is also a heart-warming tale of community struggle, generosity and hope: a pro bono project in a small country town in Australia, devastated by bushfires, that led to an award-winning piece of architecture.

Australia has its fair share of natural disasters, but what became known as the 2009 Black Saturday bushfires was an unprecedented event in terms of both damage and loss of life. One hundred and seventy-three lives were lost and over 2,000 homes destroyed. Narbethong is a small community of 300 people in Victoria's Yarra Valley. In one day the bushfires destroyed the majority of its built fabric and burnt the local hall to the ground.

The project owes its beginning to the perseverance of a group of locals led by Jennifer Wood, who contacted Emer-

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gency Architects. Her initiative led to a conversation with Ninotschka Titchkosky of BVN Donovan Hill, one of Australia's largest architectural practices. Talking with Titchkosky, I realize how much pride went into a project that incorporates what she calls ‘the great synthesis of individuals involved’. Although she doesn't hesitate to commend the commitment of oth-

ers, it's clear that she was a driving force in the project. At the opening of the hall, a committee member described the experience: ‘We thought she would just build something usable – we had no idea that she would put so much effort into it and treat us so seriously and so generously.’

All successful projects are built on the strengths of personal relationships, but in a situation where people are not getting paid, goodwill is all the more important. Titchkosky and the Narbethong Community Hall Committee understood that inspiring others to believe in the project was going to be essential to its realization. The long list of pro bono collaborators and those that gave their services and products at heavily reduced costs are testament to their aim. Among those devoting time and energy were friends of Titchkosky's, such as Peter Bowtell of Arup and Juliet Moore of Edwards Moore.

Titchkosky recalls ‘what should have been a relatively simple project of rebuilding a small community hall’. She →





# Narbethong Community Hall

The rebuilding of the hall presented an opportunity to create an improved public space for the community and a new typology for community buildings. The previous hall was a basic timber structure built more than 50 years ago. It lacked adequate facilities and was not designed to capture the beautiful landscape aspects of the site. The outside of the building is made up of floor to ceiling double glazing wrapped in a bronze mesh fire resistant screen while internally, the primary material is local timber.

← points out that the community faced ‘a huge amount of hurdles’ – some even emerging from government funding and Red Cross donations – which necessitated help from Titchkosky and her team. ‘The sad thing,’ she says, ‘is that ordinary members of the community would have had almost no chance of navigating it alone.’

Although funding was made available for reconstruction, it was accompanied by typical governmental bureaucracy. Consequently, big-city construction systems were deployed at small-project sites spread across the country. At the same time, the disaster motivated a revision of building codes for bushfire-prone areas – regulations that continually turned design development for the Narbethong project on its head. The situation wasn’t helped by the committee’s desire to integrate timber into the new hall as an important symbol of the town’s history.

An example of what Titchkosky sees as the ‘tenacity of all those involved in the project to overcome hurdles’ was a government funding stipulation that one company be used to rebuild the disaster areas – the construction company that had submitted the winning bid. This thwarted the Narbethong committee’s plan to support local tradespeople who had lost their livelihoods. The conflict of interests led to the development of an entirely new financial structure, which made the committee responsible for the funds. The ensuing procurement and construction processes were carried out in collabo-

ration with the Victorian Bushfire Reconstruction Authority, but in line with the committee’s ideals.

Good architects have the ability to envision ‘another reality’ and, in so doing, to show their clients what the future could look like. Titchkosky’s involvement in the project from the word go allowed her to help develop the brief beyond the clients’ original expectations and to provide the imagery and framework needed to get additional funding. She modestly admits that ‘the design inspired them to pretty much double the money they were going to get for the rebuild’. The result is a completely different kind of community hall from what anyone had in mind at the outset.

Typological transformations in architecture tend to be sited in urban areas, and it’s refreshing to see the rigour that has gone into rethinking the regional community centre. The programme is surprisingly complex. Narbethong has only one public building, and this is it. From births to deaths, public meetings to theatre events, mothers groups to marriages, it all happens here.

Titchkosky explains that the most radical aspect of the new design involved ‘exploding’ a single-directional space to create a flexible open-plan interior. ‘They used to have a very traditional hall with a rectangular format, a stage at the front, and a kitchen behind the stage. It was very cold and had no outlook.’ Despite ‘stunning’ surroundings, the interior ‘had no connection to the landscape’. She says the hall was often used

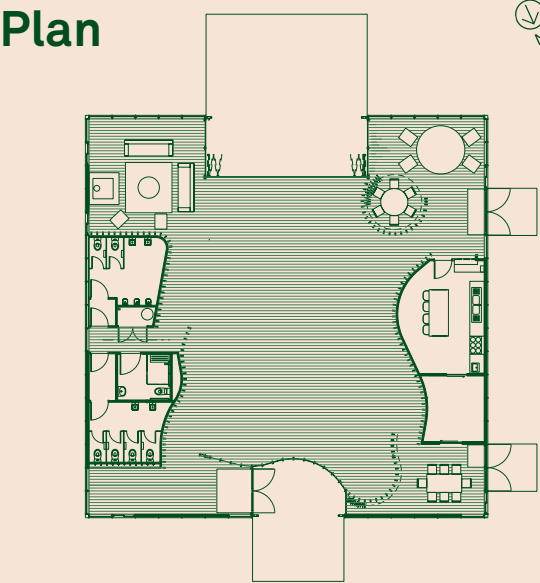
for small community groups, ‘a mothers group of six people in a hall big enough for 100’. She talked to the committee about using a square format ‘that would be more adaptable for their purposes’, with timber screens for partitioning the hall into smaller and larger areas.

Another key design concept was that of a building that could unfold outwards to embrace its surroundings. What had originally been an entirely enclosed, inward-looking building had the potential to provide extraordinary views of the Black Spur landscape.

The building also has to ‘protect itself’, she says, in the event of another bushfire. To meet this goal – and despite the tight budget – the architects employed innovative technologies, including the bronze-mesh fire-retardant screen that wraps floor-to-ceiling double glazing around the entire perimeter of the building. Allowing the building to ‘bunker down’, such measures also enable the hall to celebrate the ‘timber town’ history of Narbethong.

Architecture takes on new meaning after appalling devastation. The process that goes into the rebuilding of a community – a collaborative, experimental and often inspirational project – can be an important cathartic experience for those living there. Even a single building may assume the symbolic resonance of survival. The Narbethong Community Hall does not rest on iconic language, however, but on a serious engagement with what the building does, how it’s used and experienced. It invests the architecture with purpose and potential. ←

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‘Ordinary members of the community would have had no chance of navigating the hurdles alone’



Photos John Gollings

The Narbethong Community Hall was a pro bono project involving the collaboration of many people and organizations: Emergency Architects, BVN Architecture, Arup, Contour, Rodney Vapp & Associates, BSGM, Douglas and Partners, Rodney Aujard & Associates with the Victorian Bushfire Reconstruction Authority, DSE, Murrindindi Shire and the Narbethong Community Hall Committee, and the generous services of Edwards Moore and Hedger Construction.