

# Strata artistry

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With abundant natural light and ventilation, this new 8.6 Star apartment building is an exemplar of urban densification done well.

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## ON THE EDGE OF THE BUSY

Heidelberg shops in middle-suburban Melbourne, 11 kilometres from the city centre, EME Design's Artisan Apartments could be mistaken for just another medium-sized urban densification project. But look again and you'll find a very carefully considered, indeed, award-winning, development that prioritises direct sunlight and natural ventilation to every apartment; generous and private courtyards and balconies; terrific thermal performance; and energy efficiency. The average energy star rating of these apartments is an impressive 8.6, and none are rated below 8 Stars.

The intent was to attract people who might not normally consider living in an apartment. "We need density, but we need a mix of styles," says designer Luke Middleton. "Not everyone wants to live in a big impersonal tower." The 13 apartments in the four-storey complex range from two to four bedrooms and are arranged in two 'pods', with an open stairwell between

them to facilitate airflow. A large garden courtyard carved out of the complex's north-east side, plus careful consideration of wall angles, allows northern sun into the windows and balconies of the rear pod; new trees will grow up and blur the boundary with the established garden of the neighbouring historic church. At the front too, the facade is set at an angle on the 950-square-metre block so that it faces due north, and vegetation here will connect the building to the extensive parkland across the road.

Inside, the apartments feel more like houses than typical apartments, thanks to roofed balconies that Luke made "big enough to really live on, with a table and chairs and a barbecue"; compact but light-filled rooms; and windows that are carefully placed both to frame sky and parkland views, and to achieve the best sun angles for winter solar access. Optimising the building's orientation on the block means that the apartments' living spaces are rarely



Artisan Apartments features high thermal mass reverse concrete block construction with rendered foam insulation and suspended slabs to ensure excellent thermal performance. The sculpted design is based on passive solar principles, and the skewed plan ensures all 13 apartments have north-facing living areas and natural cross-flow ventilation.







“Judicious sloping of walls and roof allowed an additional two apartments without compromising on ceiling heights, and while maintaining amenity to neighbours,” says the designer. The resulting interesting internal angles are a popular feature among residents.

square, and some walls are gently sloped as well. Retiree Don, who lives at Artisan with wife Loris, loves this feature: “I visited a friend in his very square apartment recently and it made me realise just how brilliant the angles are.”

As for its construction, the sights were set high from the beginning. “We were aiming for a really good, efficient building with low running costs,” explains Luke. “We started with good bones – north orientation, high ceilings, concrete with its thermal mass benefit optimised with rendered rigid foam panel insulation on the outside, double glazing. The finished building is very stable in its temperature.”

It’s not easy to get a project like this off the ground, though. Considered passive solar design – which often reduces the number of apartments in a development – and investing in energy efficiency measures like double glazing can pare down the

available financial return, making it a riskier prospect for developers. The family behind Artisan, Joe Bordonaro and his son Adam, were determined to make it work, though. “How do you quantify a healthier lifestyle? That’s the problem,” says Adam. “Once people realise the difference, realise how much better these apartments are to live in, it’s easy, but getting people on board with the idea, that was the hard part.”

Don admits that it was the location and the “look of the building” that interested him and Loris in the first place. “Initially the double glazing, the insulation and so on weren’t a priority. Having lived here for 12 months though, I can’t believe how pleasant it is to live in. I’m 70 years old and it’s changed the way I think.” John, who lives on the top floor with his partner Jenny, and Ruby the golden retriever, has a similar story. “We liked the design of the building; each apartment is different. Energy





The apartments have an impressive average energy rating of 8.6 Stars thanks to the carefully considered design, orientation and strategic placement of windows and shading.

efficiency wasn't important to us when we bought, but we really value it now." He says that the small complex also promotes a good sense of community.

The Artisan team have some recommendations for others considering embarking on a sustainable strata development. "Get your early buyers to be ambassadors," says Don. Adam agrees: "Engage buyers as early as possible, and have a collaborative relationship with them. It all helps to build awareness of good design in the market, pushing demand." Luke would also like to see more understanding and support from council planning departments for developments like this that are a little out of the ordinary. That way, one day soon, they will become the norm. 

Artisan Apartments was the overall winner at the 2016 Building Designers Association of Victoria Building Design Awards, and also won the awards for Multi-residential Design and Best Environmentally Sustainable Design – Residential. And at the National Association of Building Designers 2016 awards, Artisan won Best Multi-Residential Design Over 6 Dwellings, and Best Sustainable Design.



Spacious balconies provide private outdoor living, with room enough for entertainment and gardens. The timber lining is protected from the weather; windows are shaded from summer sun; and as the complex has just four storeys, each apartment feels connected to the shared outdoor area, street, and neighbouring parkland.

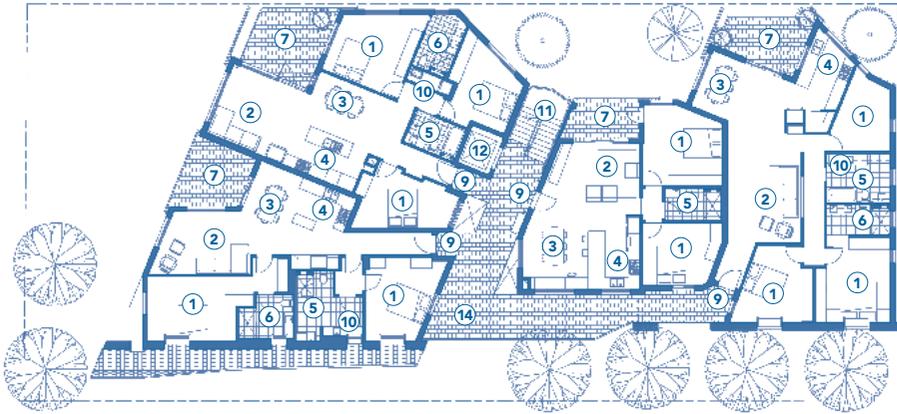


Open breezeways and stairwells provide natural cross-ventilation to public access areas. Designer Luke Middleton describes them as "elevated streets [that] allow the opportunity for neighbourly interactions". One lift services all levels, and apartments are appropriately designed for disability access and ageing in place.

➔ Artisan Apartments' distinctive, gently sloping south-west facade is clad in metal standing seam. These windows are small to reduce unwanted heat loss, but nonetheless provide natural light and ventilation to the apartments.



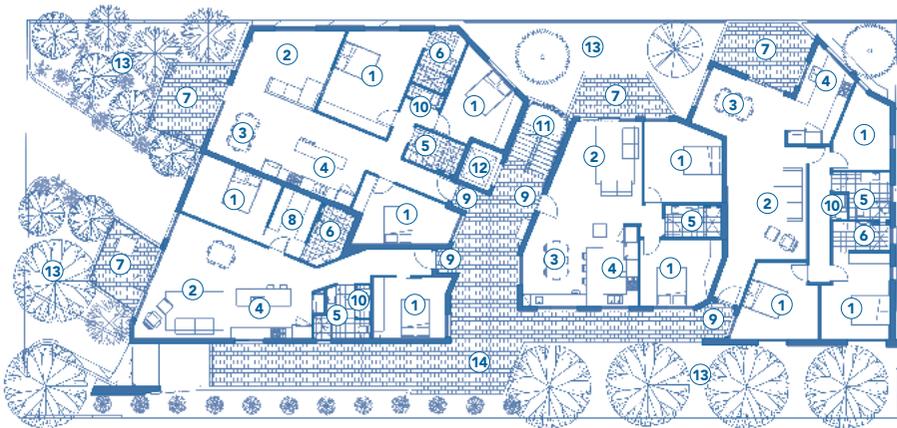
FIRST FLOOR PLAN



LEGEND

- ① Bedroom
- ② Living
- ③ Dining
- ④ Kitchen
- ⑤ Bathroom
- ⑥ Ensuite
- ⑦ Balcony
- ⑧ Robe
- ⑨ Entry
- ⑩ Laundry
- ⑪ Stair access
- ⑫ Lift
- ⑬ Food gardens
- ⑭ Communal terrace

GROUND FLOOR PLAN



Artisan Apartments has four above-ground levels and a basement for parking. Here we show the first two levels which accommodate eight of the 13 apartments. You can see how each apartment has a unique design and access to private and shared outdoor living spaces.

# Artisan Apartments

—Specifications

## Credits

### DESIGNER

EME design

### BUILDER

DCS Built

### PROJECT TYPE

Multi-residential

### PROJECT LOCATION

Heidelberg, VIC

### COST

\$2100 per square metre

### SIZE

940 sqm building;  
13 apartments (8 x 2  
bedroom, 4 x 3 bedroom,  
1 x 4 bedroom)  
21 basement car parks, with  
storage

### BUILDING STAR RATING

8 to 9.1 Stars (8.6 Star  
average across apartments)

## Sustainable Features

### RENEWABLE ENERGY

– Apartment building designed with a large flat, unshaded roof area to accommodate solar PV, at the discretion of the body corporate.

### WATER SAVING

– Rainfall collected in a 20,000 litre water tank in the basement for use on gardens  
– WELS 4-star rated bathroom and kitchen fittings throughout.

### PASSIVE DESIGN / HEATING & COOLING

– Floor plan devised from rigorous solar analysis to provide public spaces and every apartment with natural cross ventilation  
– Design to ensure all apartments, primary living areas, balconies and windows are oriented to the north  
– High thermal mass concrete construction, with rendered foam insulation; insulation to suspended slabs to ensure maximum potential for thermal mass  
– Building avoids inefficient walls of glass, with views framed (and shaded) to achieve optimal thermal performance; reduction of glazing to eastern, western and southern aspects  
– Strategic placement of windows to optimise winter solar gain; sun shading to appropriate windows on northern elevations.

### ACTIVE HEATING & COOLING

– High efficiency Mitsubishi SR Series inverter reverse-cycle heating and cooling.

### BUILDING MATERIALS

– External timber: pre-finished Blackbutt lining supplied by Precise Timber Innovations  
– Floors: Blackbutt (dark scheme) or Tasmanian Oak (light scheme)  
– Structural BC grade plywood  
– Insulation: Knauf Earthwool R6.0 roof and R3.5 walls  
– RMAX orange board (57mm) for basement ceiling insulation  
– RMAX Thermapanel for wall cladding, fixed to battens to allow air gap  
– VM Zinc, Pigmento, used for roof  
– Macrender to external walls  
– Exterior doors from Melbourne Fire Doors  
– Post tension table slabs to provide a solid concrete structure. Post tension chosen to improve the performance of concrete as the table/flat form enables flexibility for services and cleaner underfloor insulation installation.

### WINDOWS & GLAZING

– Ecoclassic double-glazed windows and doors.

### LIGHTING

– LED lighting throughout: 24V extra-low voltage LED strip to kitchen from Sunny Lighting; 13W LED downlights from Gentech Lighting; Contour LED

to bathroom from Martec; Tito 17 pendant from Telbix  
– Sensor activated LED/fluorescent lighting to all public spaces including landscaping.

### PAINTS, FINISHES & FLOOR COVERINGS

– Intergrain Natural stain pre-finish to external timber, Beach House Grey  
– Intergrain internal timber finishes  
– Classic ceramic tiles internal for bathrooms  
– Pod pavers for balconies and public spaces  
– Rendell Plush carpets, Victoria Carpets

### HOT WATER

– Rinnai Demand Duo 6 star, combines instantaneous gas with storage to provide high short-term demand.

### OTHER ESD FEATURES

– Balconies sized to provide outdoor dining and space for balcony gardens (original design had integrated gardens to all balconies and public walkways)  
– Generous landscape zones for communal productive gardens  
– Jantec ceiling fans for car park ventilation  
– Design principles to ensure flexibility for a range of residents and accessibility needs.