



54A Reserve Street Wembley WA 6014

Green Sun

Developers of Sustainable Homes

SALES ENQUIRIES

Mair Projects

John Mair

Tel: 9321 5566 | Mob: 0408 917 126

54A RESERVE STREET, WEMBLEY

A FOUR BEDROOM SUSTAINABLE FAMILY HOME

'A more healthy way of life'

MAIN FEATURES

1. Individual Passive Solar Design
2. High insulation
3. Cross flow air ventilation with placing of windows
4. Northerly elevation – along LHS
5. Pelmet and curtains along northerly elevation
6. Solar panels. Maximum saving on electricity costs approximately \$2,900 p.a.
7. Economic hot water system
8. Rainwater tank to service laundry and toilets. Saves on water usage
9. The garden is fully reticulated from its own bore. Saves on water usage
10. Ceiling fans. No air conditioning is required
11. Maintains a fairly constant internal room temperature
12. Retractable shade awning over alfresco area
13. Universal access
14. The landscaped garden includes fruit trees, native plants and a raised vegetable area.
15. Nationwide House Energy Rating Scheme

Nathers Certificate: 9.1 Stars

SALES ENQUIRIES

54A RESERVE STREET IS AVAILABLE FOR SALE.

PRICE: \$1,475,000
ORDERS CAN BE MADE FOR OTHER SUSTAINABLE HOMES.

CONTACT: JOHN MAIR
MAIR PROJECTS
TEL: 9321 5566 **MOB:** 0408 917 126

DESIGNED BY

Solar Dwellings
(08) 9444 4400
Contact: Griff Morris

BUILDERS

Ventura Homes
(08) 9241 1658
Contact: Peter Grickage

DEVELOPED BY

Green Sun
(08) 9321 5566
Contact: John Mair
Mob: 0408 917 126



List of sustainability features

Passive solar design

- North facing main living areas & master room
- Glazing maximised to the north for winter solar gain
- Minimal glazing to the east and west to minimise summer heat entry.
- Ratio of the glazing north to south is specific
- North facing showers to ensuite & bathroom
- High thermal mass with double brick to all internal walls
 - Double bwk internal walls to main living areas to maintain warmth in winter
- Insulation
 - Anticon to underside of roof sheeting
 - Double brickwork with Permicav insulation to cavity
 - R4.0 batts to whole ceilings area including garage and porch
- Shade sails on the north for protection in Summer
- Pelmetts to north facing windows to maximise warmth in winter
- Bulkhead in kitchen lower volumes of air to maintain temperature
- Cross flow ventilation
- Low allergen
- Colorbond minimises retention of heat
- Airlocks to bedrooms & entry, living
- Zoned for individual performance, each zone parents/master/ensuite, family/dining, secondary bed & multi/function 3rd zone
- Designed to operate independently from passive solar airflow
- Insulated garage door
- Shape of the front of house, designed to force air through the front entry through the master
- Shape of roof worked out to speed up through the home
- Floor tiling to absorb heating

Energy Efficiency

- Pre-plumbing to WCs & laundry for future rainwater system
- Provision for future Grey Water and Black Water system
- Provision for future rainwater tank
- Energy efficient Solar Heat Pump
- Provision for future Photovoltaic system
- Pre-wired for batteries

Universal access

- Turning circle for wheelchair to the rear passage
- 870mm wide doors as standard
- 1100 mm wide passageways
- Recessed sills to all external external doors
- Stud walls in toilets can be removed for universal access
- Hobless showers



SOLAR DWELLINGS
SMARTER SUSTAINABLE HOMES

John Mair

Lot 448 (#54) Reserve Street, Wembley

Climate appropriate design

This home has been designed appropriately to the climate so that it is thermally comfortable year-round, with minimal need for active heating and cooling systems. Of the 8 climate zones across Australia, most rely on active systems to regulate a comfortable temperature, which accounts for 40% of energy consumption in the average home. This home would be expected to use approximately 10%. This is achieved through; correct orientation, correct placement of windows for access to winter sun/excluding summer sun, cross flow ventilation, insulation, and floor and wall mass ratio to glazing volume of air and room dimensions. Each of these points will be discussed in further detail below.

Thermal mass wall & floor with slab on ground construction

Thermal mass is the ability of a material to absorb and store heat energy. Materials such as concrete, bricks and tiles have a high thermal mass and are ideal for Perth climate due to its high diurnal temperature swings. When coupled with good design, thermal mass minimized large diurnal swings keeping internal temperatures within a comfortable range for around 95% of the year without the need for artificial heating and cooling.

Passive solar heating and cooling

Design for passive solar heating aims to keep out summer sun and let in winter sun while ensuring the building's overall thermal performance retains heat in winter but excludes it in summer. The building is orientated to within 15 degrees of north in rectilinear design. The north side housing the main living areas will capture the winter sun on tiled mass floors and internal brick walls. In summer, these mass walls thermally coupled to the floor mass absorb infiltrated heat minimizing overall temperature increases, the heat is then extracted by good cross flow ventilation which is explained further below.

Natural air flow to all rooms

This home has been designed to take best advantage of the cooling breezes from the southwest to the northeast by good placement of windows and doors to maximise airflow through all rooms. The shape and design of the roof also increases the airflow through the building by removing the built-up heat, particular in the vertical mass (internal brick walls).

Universal access design

Universal access design considers better access up to the building transitioning into the building and movement and flow inside of the building. Utility areas such as kitchen, bathroom, and laundry also allow better access and usability for those with varying accessibility needs. Flush thresholds have been used minimizing trip points particularly in showers, wider doorways and hallways add to this whilst also allowing good access for furniture, prams etc.

Insulation

Correct placement of insulation under the roof, in the ceiling and in the walls, have been used for maximum protection in summer infiltration and winter heat loss. Also, draps with built-in pelmets to complete the insulation of the building.



SOLAR DWELLINGS

SMARTER SUSTAINABLE HOMES

Multi-functional and multi-generational

Multi-functional and multi-generational design principles have also been used to have this home function well for most families from young couples without children transitioning to their first child through to retirement. This has been done by careful zoning of the overall building with specific placement of bedrooms, living areas and utility areas.

Low energy lighting

The home is designed for good day lighting with good placement of windows, so lighting should not need to be turned on during daylight hours. Outside of daylight hours all lighting has been designed to minimize energy usage by specific selection of LED lights with consideration for mood, task lighting and for the need for better lighting.

Low maintenance materials

Put simply, a 'sustainable' material is one that does not impact negatively on non-renewable resources, the natural environment or human health. In the selection of any material, it is important to consider the lifespan, embodied energy and maintenance of the material. Facebrick for example requires little to no maintenance for the lifespan of the builder. Materials for this building have been chosen to minimize their impact whilst using common sense with cost effective materials, couple with good design.

Low VOC design

Volatile organic compounds (VOCs) are organic chemicals that have a high vapour pressure at ordinary room temperature. High levels are found in most paints, cabinetry, glues, surface treatments, furniture and certain flooring. The reduction of VOCs in the home is particularly important for occupants that suffer from allergies. The final selection of these products has been considered to minimize the effects of the occupants.

Water wise appliances and fixtures

There are a range of water wise appliances and fixtures on the market. The installation of greywater or rainwater harvesting system will help to reduce your households water consumption and dependency on mains water. All fixtures and fittings have been considered to minimize water usage in the building.

Water wise low maintenance garden

Consideration has been given to provide an edible nontoxic water wise garden. Landscaping the block to develop a microclimate reduces the ambient temperature around the building and creates a more inviting space for occupants.

A water-wise low maintenance garden, couple with a greywater system will greatly reduce the reliance on mains water.

PV and battery

The building has been wired for photovoltaics and batteries, with provision for an electric vehicle charging station.

9.1 stars

This has been rated 9.1 stars. Achieving a 10 star rating is possible through further investment in quality materials and products.

NatHERS Certificate



9.1 Stars

BERS Pro v4.3.0.2c (3.13)

Date: 02-October-2018
Climate File: 13
Location: WEMBLEY WA 6014
Conditioned Area: 168.20 m²
Unconditioned Area: 49.00 m²
Adjusted Heating: 7.60 MJ/m²
Adjusted Cooling: 8.70 MJ/m²
Adjusted Total: 16.30 MJ/m²


Assessor: Taryn Cox
Sign: *Taryn Cox* Date: 02/10/18
Address: Lot 488 (#54) Reserve Street
WEMBLEY WA 6014
NCFA: 168.2m² NUCFA: 49.0m²
Adjusted Heating: 7.60 MJ/m²
Adjusted Cooling: 8.70 MJ/m²
Adjusted Total: 16.30 MJ/m²

9.1
Stars

Project Details

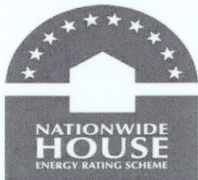
Lot Number: 488
House Number: 54
Street Name: Reserve Street
Suburb: WEMBLEY WA Post Code: 6014

Client Details

Name: Ventura ID
Street Name: 7A / 20 Walters Drive
Suburb: OSBORNE PARK WA Post Code: 6017

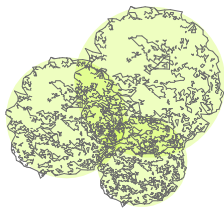
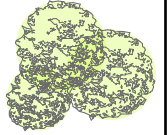
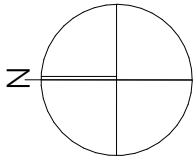
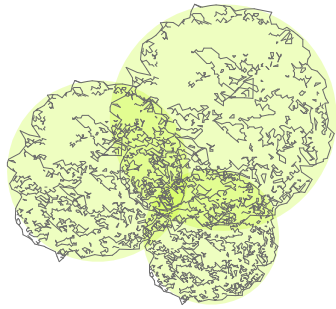
Assessor Details

Name: Taryn Cox Assessor Signature: *Taryn Cox*
Company: Coxeco
Address: 2 Cornwall Close, MORLEY WA Post Code: 6062
Email: taryn@coxeco.com.au
Phone: (08) 9379 9518 Mobile: 0428 799 518



This assessment has been completed by a Thermal Performance Assessor that is qualified to use this latest NatHERS approved software to produce this House Energy Rating. This energy assessment has been conducted using NatHERS Principles and NatHERS software in Regulation mode.

Changes to the Proposed Building including but not limited to the Design, building fabric, insulation type and R values, roof colour, floor coverings, building sealing from vents and exhaust fans and Lighting plans causing the inclusion of recessed downlights which would affect the ceiling insulation penetrations and neighbouring buildings, could effect the heating and cooling loads that determines energy compliance and should be re-assessed and the amendments reported to the Building Permit Authority.



SURVEY-STRATA PLAN
78255
SHEET 1 OF 1 SHEETS

PLAN OF
LOT 448 ON PLAN 3185

CERTIFICATE OF TITLE
VOL. 586 FOL. 104
LOCAL GOVERNMENT
TOWN OF CAMBRIDGE
FIELD RECORD
144841

NAME OF SCHEME
54 RESERVE STREET,
WEMBLEY
ADDRESS OF PARCEL
54 RESERVE STREET,
WEMBLEY WA 6014

MANAGEMENT STATEMENT **YES** NO
SURVEYOR'S CERTIFICATE - REG 54

I, hereby certify that this plan is accurate and is a correct representation of the:
(a) survey; and/or
(b) calculations from measurements recorded in the field records.
[delete if inapplicable]
undertaken for the purposes of this plan and that it complies with the relevant written law(s) in relation to which it is lodged.

LICENSED SURVEYOR DATE

LOGGED

DATE FEE PAID ASSESS No.

EXAMINED

DATE

WESTERN AUSTRALIAN PLANNING COMMISSION
W.A.P.C. REF: 1057-17
Certificate of Approval of W.A.P.C. under Section 25B(2) of Strata Titles Act 1985

Delegated under S.18 P&D Act 2005 DATE

PLAN APPROVED

INSPECTOR OF PLANS AND SURVEYS DATE

(S. 18 Licensed Surveyors Act 1909)

IN ORDER FOR DEALINGS

SUBJECT TO

FOR REGISTRAR OF TITLES DATE

REGISTERED

APPLICATION

DATE REGISTRAR OF TITLES SEAL



Landgate

WESTERN AUSTRALIA

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THIS COPY IS AN UNLOADED VERSION.
SUBJECT TO EXAMINATION AT LANDGATE,
LOT NUMBERS, DIMENSIONS & AREAS
MAY ALTER.

VER.	AMENDMENT	AUTHORISED BY	DATE

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P 3185

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