

Thermal Comfort & BASIX Assessment

**BUILDING
SUSTAINABILITY
CONSULTANTS**

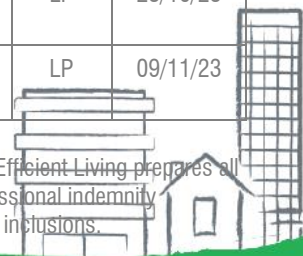


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Kuatro
Proposed Residential Development
8 Forest Road,
Warriewood NSW 2102

Issue	File Ref	Description	Author	Date
Draft	9503	Thermal Comfort and BASIX Assessment	MF	23/09/15
A	9503	Thermal Comfort and BASIX Assessment	MF	24/09/15
B	17-0068	Redesign- Thermal Comfort and BASIX Assessment	DO	24/02/17
C	18-0109	Redesign- Thermal Comfort and BASIX Assessment	AM	25/01/18
D	21-2631	Building fabric update and design changes	AA/PJC	17/12/21
E	22-4135R	Thermal Comfort and BASIX Update	HE	24/01/23
F	23-4645R	Thermal Comfort and BASIX Update	SF	29/08/23
G	23-5031R	BASIX update	MP	14/09/23
H	-	BASIX update – individual rainwater tanks to townhouses removed	LP	23/10/23
I	-	BASIX update – common area ventilation update, rainwater tank update	LP	09/11/23

This report has been prepared by Efficient Living Pty Ltd on behalf of our client Kuatro. Efficient Living prepares all reports in accordance with the BASIX Thermal Comfort protocol and is backed by professional indemnity insurance. This report takes into account our client's instructions and preferred building inclusions.



Prepared for Kuatro
1 Macquarie St, Sydney NSW 2000

Contact Jessie Farrell
Phone: 0434 415 293 Email: jessie.f@kuatro.com.au

Introduction Efficient Living has investigated the estimated thermal comfort, water and energy usage of the proposed development to be built at 8 Forest Road, Warriewood.

Heating and cooling loads for the development have been determined using BERS thermal simulation software. The report is based on the architectural drawings provided by Kuatro. For further details, refer to the individual BASIX certificates and Efficient Living inclusions summary respectively.

Analysis The BASIX assessment is divided into three sections, each independently measuring the efficiency of the development. These are Water, Thermal Comfort and Energy.

BASIX requires a minimum target of 40% for the Water section. A BERS pass or fail is required for the thermal comfort section and a minimum required energy target of 30% for the unit buildings and 40% for the townhouses.

Water The proposed development has achieved the BASIX Water target of 40%.

The water usage of the development is calculated based on the number and efficiency of permanent fixtures and appliances such as taps, showerheads and toilets, the dish washer and clothes washing machine. The size of the rain tank and number of connections has a huge impact on your water score as does the area of gardens and lawns and whether or not low water plant species are incorporated.

Thermal comfort Thermal Comfort targets are set by the Department of Planning in the form of heating and cooling caps. The buildings thermal physics is measured using BERS thermal performance assessment tools. This equates an expected level of energy consumption to heat and cool each dwelling per annum expressed in MJ (megajoules) per square meter of floor area.

Each unit has individual heating and cooling caps and a weighted average heating and cooling load for the whole development. The weighted average caps are a lot harder to achieve than the individual unit caps.

Energy The proposed development has achieved the energy target of 35% for the unit buildings and 40% for the townhouses, to pass this section.

The energy usage of the development is calculated based on the efficiency of fixed appliances that will be used. This includes the air conditioning system, hot water system, lighting, exhaust fans, cook top, oven, and clothes drying facilities.



Inclusions summary The inclusions as outlined in the table below have been incorporated in each unit to allow them to reach their environmental sustainability targets.

Thermal comfort Average heating loads are 20% below allowable BASIX targets
Average cooling loads are 48% below allowable BASIX targets

Glazing Doors/windows Aluminium framed single clear glazing to all units & townhouses:
Type A: awning + hinged
U-Value: 6.7 (equal to or lower than) and SHGC: 0.57 ($\pm 10\%$)
Type B: sliding + fixed
U-Value: 6.7 (equal to or lower than) and SHGC: 0.70 ($\pm 10\%$)

Glazing upgrade:
Type B: sliding
U-Value: 5.6 (equal to or lower than) and SHGC: 0.41 ($\pm 10\%$)
Given values are NFRC, total window values

Roof Concrete roof
Default colour modelled

Ceiling Suspended plasterboard ceiling with soffit insulation $R_{\text{SYSTEM}2.2}$
No ceiling insulation
Note: There will be no loss of ceiling insulation due to the installation of downlights as insulation is to be installed such that the downlights do not infringe on the insulation zone.

External wall 75mm Hebel with R1.5 insulation (insulation only value)
Metal cladding with R1.5 insulation (insulation only value)
200mm concrete with R0.9 insulation (insulation only value)
Default colour modelled

Inter tenancy walls Townhouses: 200mm concrete with plasterboard lining
Units: Framed with plasterboard lining, 200mm concrete with plasterboard lining where concrete walls/columns shown on drawings
Minimum system R-value for walls to common corridors of $R_{\text{SYSTEM}0.8}$



Walls with-in dwellings Plasterboard on studs with no insulation

Floors Concrete – R0.9 subfloor insulation required to units with garage below
No insulation required between levels

Floor coverings Default floor coverings modelled

BASIX water inclusions Score – 40/40 (Units) and 41/40 (Townhouses)

Fixtures

Units

Townhouses

Showerheads:	Mid (>6L but <=7.5 L/min)	Mid (>6L but <=7.5 L/min)
Toilets:	4.0 star	4.0 star
Kitchen taps:	5.0 star	6.0 star
Bathroom vanity taps:	5.0 star	6.0 star

Appliances within units

Dishwashers:	5.0 star	N/A
Clothes washers:	4.5 star to units 2, 4, 8, 12, 15, 18 and 26	N/A

Rainwater storage

Total storage capacity of 10,000L
To collect from a combined roof area of 600m²
To be connected to common area landscaping and private townhouse landscaping

Fire sprinkler systems

No BASIX restriction

BASIX energy inclusions

Score – 35/35 (Units) and 41/40 (Townhouses)

Hot water system

Units: Central hot water system - gas-fired boiler. Specification: Piping insulation (ringmain & supply risers) (a) Piping external to building: R1.0 (~38mm); (b) Piping internal to building: R1.0 (~38mm)
Townhouses: Central hot water system - gas-fired boiler. Specification: Piping insulation (ringmain & supply risers) (a) Piping external to building: R1.0 (~38mm); (b) Piping internal to building: R1.0 (~38mm)

Lift motors

All lifts to have gearless traction with VVVF motor



Appliances & other efficiency measures	Units	Townhouses
Cooking:	Gas cooktop & electric oven	Gas cooktop & electric oven
Dishwashers:	4.0 star	N/A
Clothes washers:	3.5 star to units 2, 4, 8, 12, 15, 18 and 26	N/A
Clothes dryers:	7.0 star	N/A
Fridge space	Well ventilated fridge space	
Heating & cooling within units and townhouses	All units and terraces to have individual, single phase, reverse cycle air conditioning to living areas and at least 1 bedroom	
	Units	Townhouses
Cooling EER:	EER 3.0 - 3.5	EER 3.0 - 3.5
Heating EER (COP):	EER 3.0 - 3.5	EER 3.0 - 3.5
Day night zoning required		
Artificial lighting within units	At least 80% of all light fittings with-in each room are to have fluorescent or LED globes.	
Ventilation within units	Bathroom – Individual fan, ducted to roof or façade – manual on / manual off switch Laundry – Individual fan, ducted to roof or façade – manual on / manual off switch Kitchen range hood – Individual fan, ducted to roof or façade – manual on / manual off switch	
Artificial lighting to common areas	Underground car park area – Fluorescent lights with zoned switching and motion sensors Lifts – LED lights connected to lift call button Garbage rooms – Fluorescent lights with motion sensor Covered fitness area – compact fluorescent lights with time clocks Pool Plant – compact fluorescent with motion sensor Adaptable AC – LED lights with manual on/off switch Lobbies and common area hallways – LED lights with zoned switching and motion sensors	



Ventilation
to common areas

Underground car park area – supply & exhaust air with a carbon monoxide monitor & VSD fan

Garbage rooms – Exhaust air, running continuously

Covered fitness area – ventilation supply air only, time clock or BMS controlled

Pool Plant – ventilation supply air only, continuous

Adaptable AC – no mechanical ventilation

Ground floor lobbies and hallways of Buildings A, B, C & D – Naturally ventilated

Level 1 and Level 2 lobbies and hallways of Buildings A & D – Supply air, time clock or BMS controlled

Level 1 and Level 2 lobbies and hallways of Buildings B & C – Naturally ventilated

Alternative energy

No BASIX requirement for alternative energy

Report Contact

Sian Fishwick

Phone: 0427996791 Email: sian@efficientliving.com.au



Issued in accordance with BASIX Thermal Comfort Simulation Method

Certificate # 0006938500 and 0006938520

Accreditation # HERA10033

Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
Townhouses							
01	4	222	7	31.8	23.1	5.7	None
02	4	171	0	37.1	41.7	4.4	None
03	4	171	0	32.4	38.2	4.7	None
04	4	171	0	38	41.3	4.3	None
05	4	171	0	46.6	51.9	3.7	Glazing upgrade to TH05-FG18
06	4	171	0	45.3	48.2	3.8	Glazing upgrade to TH06-FG18
07	4	171	0	32.4	37.7	4.8	None
08	4	171	0	38.3	40.9	4.3	None
09	4	171	0	48	51.4	3.6	Glazing upgrade to TH09-FG18
10	4	171	0	45	49.4	3.8	Glazing upgrade to TH10-FG18
11	4	171	0	32.3	38.2	4.8	None
12	4	171	0	38	41.4	4.3	None
13	4	177	0	33	37.8	4.7	None
14	4	201	3	50.5	51.4	3.6	None
Building A							
01	3	121	0	47.4	22.6	4.8	None
02	3	121	0	35.7	21.8	5.5	None
03	3	126	0	22.6	16.2	7	None
04	1	81	0	33.8	19.5	5.8	None
05	2	94	7	37	21.5	5.4	None
06	3	126	0	44.1	15.8	5.4	None
07	3	121	0	30.5	38.6	4.8	None
08	3	121	0	21.6	38.5	5.4	None
09	3	126	0	9.8	30.6	6.9	None
10	3	131	0	6.7	30.4	7.1	None
11	2	94	7	18.6	32.8	5.9	None
12	3	126	0	26.1	23.3	6.1	None
13	4	133	0	51.2	37.2	3.9	None
14	3	121	0	25.8	29	5.7	None
15	3	126	0	17.8	23	6.9	None
16	3	131	0	16.6	26.9	6.6	None
17	2	94	7	39.6	23.4	5.2	None
18	3	126	0	46.7	31.8	4.4	None
Building B							
19	3	121	0	27.4	22.3	6.1	None

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Thermal performance specifications							
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		Con.	Uncon.	Heat	Cool (Sens & Lat)		
20	3	126	0	18.6	15.9	7.3	None
21	2	86	7	25.5	15.6	6.8	None
22	3	119	0	48.2	20.4	4.9	None
23	3	127	0	41.1	12.5	5.8	None
24	3	131	0	37	27.9	5.1	None
25	3	121	0	14.2	35.3	6.1	None
26	3	126	0	8.6	28.1	7.2	None
27	2	86	7	12	28.6	6.9	None
28	3	119	0	30.7	33.2	5.1	None
29	3	127	0	22.9	19.2	6.7	None
30	3	131	0	21.1	38.6	5.4	None
31	3	121	0	21.8	30.9	5.9	None
32	3	126	0	17.2	22.9	6.9	None
33	2	86	7	22.3	23.6	6.4	None
34	3	119	0	50.9	36.1	4	None
35	3	127	0	43.9	26	4.8	None
36	3	131	0	41.6	50.8	3.9	None
Building C							
37	3	131	0	26.3	18.7	6.5	None
38	3	132	0	28.6	18.2	6.4	None
39	3	131	0	65	28.3	3.8	None
40	3	129	0	43.9	26.4	4.8	None
41	3	131	0	13.6	32.8	6.4	None
42	3	132	0	12.4	33.6	6.4	None
43	3	142	0	40.6	34.2	4.5	None
44	3	129	0	25.2	38.6	5.1	None
45	3	131	0	23.5	27	6	None
46	3	132	0	24.5	28	5.9	None
47	3	142	0	61.8	38.2	3.6	None
48	3	129	0	43.5	46.3	3.9	None
Building D							
49	3	121	0	46.1	22.5	4.9	None
50	2	87	0	50.6	20.4	4.7	None
51	3	118	0	44.9	32.2	4.4	None
52	3	112	7	21.4	18.9	6.9	None
53	3	127	0	18.9	13.3	7.4	None

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Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
54	3	121	0	26.1	20.7	6.3	None
55	3	121	0	27.4	34	5.3	None
56	2	87	0	32.6	30	5.2	None
57	3	118	0	27.6	45.1	4.6	None
58	3	112	7	7.8	34.7	6.7	None
59	3	127	0	7.2	21.7	7.8	None
60	3	121	0	12.8	36.6	6.1	None
61	3	121	0	44.3	41.5	4.1	None
62	2	87	0	50	42.6	3.9	None
63	3	118	0	46.2	52.5	3.7	None
64	3	112	7	17.9	27.9	6.4	None
65	3	127	0	14.4	21.6	7.2	None
66	3	121	0	21.9	33.3	5.7	None

Nationwide House Energy Rating Scheme — Multiple Class1-dwelling summary NatHERS Certificate No. 0006938500

Generated on 29 Aug 2023 using BERS Pro v4.4.1.5 (3.21)

Property

Address 8 Forest Road,
Warriewood , NSW , 2102

Lot/DP 1/5055

NatHERS climate zone 56

Accredited assessor



Tracey Cools

Efficient Living

admin@efficientliving.com.au

02 9970 6181

Accreditation No. HERA10033

Assessor Accrediting Organisation HERA



Verification



To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate?p=pYzfuPiQH. When using either link, ensure you are visiting hstar.com.au

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (MJ/m ² /p.a.)	Cooling load (MJ/m ² /p.a.)	Total load (MJ/m ² /p.a.)	Star rating
<u>0008350894-03</u>	TH01	31.8	23.1	54.8	5.7
<u>0008350902-03</u>	TH02	37.1	41.7	78.8	4.4
<u>0008350928-03</u>	TH03	32.4	38.2	70.6	4.7
<u>0008350936-03</u>	TH04	38	41.3	79.2	4.3
<u>0008350944-03</u>	TH05	46.6	51.9	98.4	3.7

National Construction Code (NCC) requirements

Continued Over

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at www.abcb.gov.au.

State and territory variations and additions to the NCC may also apply.

Summary of all dwellings (continued)

Certificate number and link	Unit Number	Heating load (MJ/m ² /p.a.)	Cooling load (MJ/m ² /p.a.)	Total load (MJ/m ² /p.a.)	Star rating
<u>0008350951-03</u>	TH06	45.3	48.2	93.5	3.8
<u>0008350969-03</u>	TH07	32.4	37.7	70.1	4.8
<u>0008350977-03</u>	TH08	38.3	40.9	79.2	4.3
<u>0008350985-03</u>	TH09	48	51.4	99.4	3.6
<u>0008350993-03</u>	TH10	45	49.4	94.4	3.8
<u>0008351009-03</u>	TH11	32.3	38.2	70.4	4.8
<u>0008351017-03</u>	TH12	38	41.4	79.5	4.3
<u>0008351025-03</u>	TH13	33	37.8	70.8	4.7
<u>0008351033-03</u>	TH14	50.5	51.4	101.9	3.6

Explanatory notes

About this report

This summary rating is the average rating of all NCC Class 2 dwellings in a development. The individual dwellings' ratings are a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate the energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances, or energy production of solar panels. For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

Accredited Assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO). AAOs have specific quality assurance processes in place, and continuing professional development requirements, to maintain a high and consistent standard of assessments across the country.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content, input and creation of the NatHERS Certificate is by the assessor. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

Nationwide House Energy Rating Scheme — Class 2 summary

NatHERS Certificate No. 0006938520

Generated on 29 Aug 2023 using BERS Pro v4.4.1.5 (3.21)

Property

Address 8 Forest Road,
Warriewood , NSW , 2102

Lot/DP 1/5055

NatHERS climate zone 56

Accredited assessor



Tracey Cools

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Summary of all dwellings

Certificate number and link	Unit Number	Heating load (MJ/m ² /p.a.)	Cooling load (MJ/m ² /p.a.)	Total load (MJ/m ² /p.a.)	Star rating
0008351074-03	01	47.4	22.6	70	4.8
0008351082-03	02	35.7	21.8	57.6	5.5
0008366528-02	03	22.6	16.2	38.7	7
0008351108-03	04	33.8	19.5	53.4	5.8
0008351116-09	05	37	21.5	58.4	5.4

National Construction Code (NCC) requirements

Continued Over

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State and territory variations and additions to the NCC may also apply.

Summary of all dwellings (continued)

Certificate number and link	Unit Number	Heating load (MJ/m ² /p.a.)	Cooling load (MJ/m ² /p.a.)	Total load (MJ/m ² /p.a.)	Star rating
<u>0008366536-02</u>	06	44.1	15.8	59.9	5.4
<u>0008351124-03</u>	07	30.5	38.6	69.1	4.8
<u>0008351132-03</u>	08	21.6	38.5	60.1	5.4
<u>0008366544-02</u>	09	9.8	30.6	40.4	6.9
<u>0008351140-06</u>	10	6.7	30.4	37.1	7.1
<u>0008366551-02</u>	11	18.6	32.8	51.4	5.9
<u>0008366569-02</u>	12	26.1	23.3	49.5	6.1
<u>0008351157-03</u>	13	51.2	37.2	88.5	3.9
<u>0008351165-03</u>	14	25.8	29	54.8	5.7
<u>0008366577-02</u>	15	17.8	23	40.8	6.9
<u>0008366585-02</u>	16	16.6	26.9	43.5	6.6
<u>0008366593-02</u>	17	39.6	23.4	63	5.2
<u>0008366601-02</u>	18	46.7	31.8	78.4	4.4
<u>0008351173-03</u>	19	27.4	22.3	49.7	6.1
<u>0008351090-27</u>	20	18.6	15.9	34.4	7.3
<u>0008351181-09</u>	21	25.5	15.6	41.2	6.8
<u>0008351199-09</u>	22	48.2	20.4	68.6	4.9
<u>0008351207-09</u>	23	41.1	12.5	53.6	5.8
<u>0008351215-09</u>	24	37	27.9	64.9	5.1
<u>0008351223-03</u>	25	14.2	35.3	49.6	6.1
<u>0008366619-02</u>	26	8.6	28.1	36.7	7.2
<u>0008366627-02</u>	27	12	28.6	40.6	6.9
<u>0008366635-02</u>	28	30.7	33.2	63.9	5.1
<u>0008366643-02</u>	29	22.9	19.2	42.1	6.7
<u>0008366650-02</u>	30	21.1	38.6	59.7	5.4
<u>0008351231-03</u>	31	21.8	30.9	52.7	5.9
<u>0008366668-02</u>	32	17.2	22.9	40.1	6.9
<u>0008366676-02</u>	33	22.3	23.6	45.9	6.4

Certificate number and link	Unit Number	Heating load (MJ/m ² /p.a.)	Cooling load (MJ/m ² /p.a.)	Total load (MJ/m ² /p.a.)	Star rating
<u>0008366684-02</u>	34	50.9	36.1	87	4
<u>0008366692-02</u>	35	43.9	26	69.9	4.8
<u>0008366700-02</u>	36	41.6	50.8	92.4	3.9
<u>0008351256-09</u>	37	26.3	18.7	45	6.5
<u>0008351264-07</u>	38	28.6	18.2	46.7	6.4
<u>0008351272-03</u>	39	65	28.3	93.3	3.8
<u>0008351280-07</u>	40	43.9	26.4	70.3	4.8
<u>0008366718-02</u>	41	13.6	32.8	46.4	6.4
<u>0008366726-02</u>	42	12.4	33.6	46	6.4
<u>0008351298-05</u>	43	40.6	34.2	74.8	4.5
<u>0008366734-02</u>	44	25.2	38.6	63.8	5.1
<u>0008366742-02</u>	45	23.5	27	50.5	6
<u>0008366759-02</u>	46	24.5	28	52.5	5.9
<u>0008366767-02</u>	47	61.8	38.2	100	3.6
<u>0008366775-02</u>	48	43.5	46.3	89.8	3.9
<u>0008351306-09</u>	49	46.1	22.5	68.6	4.9
<u>0008351314-03</u>	50	50.6	20.4	71.1	4.7
<u>0008351322-08</u>	51	44.9	32.2	77.1	4.4
<u>0008351330-09</u>	52	21.4	18.9	40.3	6.9
<u>0008351348-09</u>	53	18.9	13.3	32.1	7.4
<u>0008351355-09</u>	54	26.1	20.7	46.9	6.3
<u>0008366783-02</u>	55	27.4	34	61.4	5.3
<u>0008351363-06</u>	56	32.6	30	62.7	5.2
<u>0008366791-02</u>	57	27.6	45.1	72.7	4.6
<u>0008366809-02</u>	58	7.8	34.7	42.5	6.7
<u>0008366817-02</u>	59	7.2	21.7	28.9	7.8
<u>0008366825-02</u>	60	12.8	36.6	49.4	6.1
<u>0008366833-02</u>	61	44.3	41.5	85.8	4.1
<u>0008366841-01</u>	62	57.2	53.9	111	3.3
<u>0008366858-01</u>	63	46.9	58.1	105	3.4
<u>0008366866-02</u>	64	17.9	27.9	45.8	6.4

Certificate number and link	Unit Number	Heating load (MJ/m ² /p.a.)	Cooling load (MJ/m ² /p.a.)	Total load (MJ/m ² /p.a.)	Star rating
<u>0008366874-02</u>	65	14.4	21.6	36	7.2
<u>0008366882-02</u>	66	21.9	33.3	55.2	5.7
Average		29.87	28.90	58.78	5.63

Explanatory notes

About this report

This summary rating is the average rating of all NCC Class 2 dwellings in a development. The individual dwellings' ratings are a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate the energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances, or energy production of solar panels. For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

Accredited Assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO). AAOs have specific quality assurance processes in place, and continuing professional development requirements, to maintain a high and consistent standard of assessments across the country.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content, input and creation of the NatHERS Certificate is by the assessor. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.