BASIX® Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 1730673M_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 10/09/2020 published by the Department. This document is available at www.basix.nsw.gov.au

This certificate is a revision of certificate number 1730673M submitted to the consent authority or certifier on 19 December 2023 with application DA-22/2024.

It is the responsibility of the applicant to verify with the consent authority that the original, or any revised certificate, complies with the requirements of Schedule 1 Clause 2A, 4A or 6A of the Environment Planning and Assessment Regulation 2000

Secretary
Date of issue: Thursday, 11 July 2024
To be valid, this certificate must be submitted with a development application or lodged with a complying development certificate application within 3 months of the date of issue.

NSW GOVERNMENT

Project summary	
Project name	669-683 Old South Head Rd Vaucluse_02
Street address	669-683 OLD SOUTH HEAD ROAD VAUCLUSE 2030
Local Government Area	WAVERLEY
Plan type and plan number	Deposited Plan 324744
Lot no.	A
Section no.	-
No. of residential flat buildings	1
Residential flat buildings: no. of dwellings	31
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0

Project score			
Water	✔	40	Target 40
Thermal Performance	✔	Pass	Target Pass
Energy	✔	61	Target 61
Materials	✔	-46	Target n/a

Certificate Prepared by
Name / Company Name: Building & Energy Consultants Australia
ABN (if applicable): 92122407783

Description of project

Project address	
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Project type	
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Site details	
Site area (m²)	4345.03
Roof area (m²)	2064
Non-residential floor area (m²)	225
Residential car spaces	47
Non-residential car spaces	0

Common area landscape	
Common area lawn (m²)	27
Common area garden (m²)	600
Area of indigenous or low water use species (m²)	-

Assessor details and thermal loads	
Assessor number	DMN/20/1999
Certificate number	0009141350
Climate zone	56

Project score			
Water	✔	40	Target 40
Thermal Performance	✔	Pass	Target Pass
Energy	✔	61	Target 61
Materials	✔	-46	Target n/a

Description of project

The tables below describe the dwellings and common areas within the project

Residential flat buildings - Building1, 31 dwellings, 5 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
1.01	3	183.5	0	6.4	0
1.05	2	101.9	0	6.2	0
1.09	3	164.3	0	5.8	0
2.03	2	133.4	0	5.8	0
2.07	2	106.6	0	1.8	0
3.01	3	193.8	0	6.6	0
UG.01	3	183.3	0	3.5	0
UG.05	2	105.7	0	32.4	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
1.02	3	164.1	0	5.8	0
1.06	2	101.9	0	3.4	0
1.10	3	183.5	0	6.5	0
2.04	2	106.7	0	2.8	0
2.08	3	133.2	0	5.8	0
3.02	4+	228.0	0	11.6	0
UG.02	3	131.0	0	8.9	0
UG.06	3	153.3	0	31.3	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
1.03	2	133.4	0	5.8	0
1.07	2	106.6	0	2.0	0
2.01	2	146.9	0	6.4	0
2.05	2	101.9	0	3.5	0
2.09	3	164.3	0	5.8	0
3.03	4+	256.2	0	7.0	0
UG.03	3	156.1	0	3.0	0
UG.07	2	100.5	0	35.6	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
1.04	2	106.6	0	6.2	0
1.08	2	133.2	0	6.4	0
2.02	3	164.1	0	5.8	0
2.06	2	101.9	0	4.5	0
2.10	3	183.5	0	5.9	0
LG.01	4+	223.3	0	155.3	0
UG.04	2	99.7	0	9	0

Description of project

The tables below describe the dwellings and common areas within the project

Common areas of unit building - Building1

Common area	Floor area (m²)
Indoor swimming pool and/or spa/ steam rooms	179
Car park - Basement 01	1557
Cinema/Multi	34.8
Wine room	18.0
Cold water pump room	18.4
Rainwater filtration tank	24.1
Bicycle storage	58.24
Ground floor - Arrival lobby	133.0
Lift bank (No. 2)	-
Lift bank (No. 5)	-

Common area	Floor area (m²)
Gym area (No. 1)	53.0
Comms room	13.08
Lounge, bar/cafe, library	319
Board room	26.7
Hot water pump room	41.4
Rainwater tank	23.4
Operator admin	37.4
Hallway/lobbys	329.7
Lift bank (No. 3)	-

Common area	Floor area (m²)
Car park - Basement 02	1725
Garbage rooms (GB store)	63.9
Private dinning	53.0
Meeting room	15
Fire pump & sprinkler valve room	55.1
Store rooms	769.9
Treatment rooms	40.0
Lift bank (No. 1)	-
Lift bank (No. 4)	-

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building1

(a) Buildings

(i) Materials

(b) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Performance

(c) Common areas and central systems/facilities

(i) Water

(ii) Energy

2. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water

(ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carriedout. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

1. Commitments for Residential flat buildings - Building1

(a) Buildings

(i) Materials	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the “Floor types”, “External wall types”, “Internal wall types”, “Ceiling and roof types”, “Frames” and “Glazing” tables below.			✔
(b) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all specifications included in the tables below.		✔	
(c) The applicant must construct the floors, walls, roof, ceiling and roof, windows, glazed doors and skylights of the development in accordance with the specifications listed in the tables below. In the case of glazing, a 5% variance from the area values listed in the “Frames” and “Glazing” tables is permitted.	✔	✔	✔
(d) The applicant must show through receipts that the materials purchased for construction are consistent with the specifications listed in the below tables.			✔

Floor types			
Floor type	**Area (m2)**	**Insulation**	**Low emissions option**
suspended floor above garage, frame: suspended concrete slab	255.7	polystyrene	none
suspended floor above open subfloor, frame: suspended concrete slab	149.7	polystyrene	none
floors above habitable rooms, frame: suspended concrete slab	5274.7	-	none

External wall types				
External wall type	**Construction type**	**Area (m2)**	**Low emissions option**	**Insulation**
External wall type 1	cavity brick,frame:no frame	1031.5	none	-

Internal wall types			
Internal wall type	**Construction type**	**Area (m2)**	**Insulation**
Internal wall type 1	single skin masonry, frame:no frame	2945.4	-
Internal wall type 2	cavity brick wall, frame:no frame	1962.6	-

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	**Volume (m^3)**	**Low emissions option**
-	-	-

Ceiling and roof types			
Ceiling and roof type	**Area (m^2)**	**Roof Insulation**	**Ceiling Insulation**
concrete - plasterboard internal, frame: no frame	2064	-	fibreglass batts or roll

Glazing types			Frame types				
Single glazing (m^2)	**Double glazing (m^2)**	**Triple glazing (m^2)**	**Aluminium frames (m^2)**	**Timber frames (m^2)**	**uPVC frames (m^2)**	**Steel frames (m^2)**	**Composite frames (m^2)**
-	1942.3	-	1942.3	-	-	-	-

(b) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✔	✔	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✔	✔
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✔	✔
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✔	✔
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✔	✔
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✔	✔	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✔	
(g) The pool or spa must be located as specified in the table.	✔	✔	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✔	✔	✔

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	4 star (> 6 but <= 7.5 L/min)	4 star	4 star	5 star	-	3.5 star	5 star	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	**Alternative water supply systems**	**Size**	**Configuration**	**Landscape connection**	**Toilet connection (s)**	**Laundry connection**	**Pool top-up**	**Spa top-up**
All dwellings	Central water tank (No. 1)	See central systems	See central systems	-	yes	-	-	-

(ii) Energy	**Show on DA plans**	**Show on CC/CDC plans & specs**	**Certifier check**
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✔	✔	✔
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✔	✔
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✔	✔
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✔	✔
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✔	✔	✔
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✔ ✔	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✔	

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		✔	✔
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✔	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✔	

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	Central hot water system (No. 1)	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off

	Cooling		Heating		Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bathrooms or toilets	Main kitchen
1.07, 1.08, 1.09, 2.03, 2.08, 2.09	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	0	yes
1.01, 1.04, 1.06, 1.10, 2.04, 2.07, 2.10, 3.01, 3.03, UG.01	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1	no

	Cooling		Heating		Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bathrooms or toilets	Main kitchen
All other dwellings	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	0	no

	Individual pool			Individual spa		Appliances other efficiency measures				
Dwelling no.	Pool heating system	Pool Pump	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Dishwasher	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	-	induction cooktop & electric oven	3.5 star	2 star	no	no

(iii) Thermal Performance	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✔		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✔	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✔	✔
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or	✔	✔	✔

(iii) Thermal Performance	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.			
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✔	✔	✔
(i) The applicant must show on The plans accompanying The development application for The proposed development, The locations of ceiling fans set out in The Assessor Certificate.	✔		
(j) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.		✔	

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
1.01	8.3	11	19.300
1.02	12.4	7.4	19.800
1.03	15.2	6.2	21.400
1.04	27.3	9.7	37.000
1.05	29.1	10.2	39.300
1.06	5.1	10.0	15.100
1.07	8.9	12.0	20.900
1.08	16.1	5.7	21.800
1.09	13.4	6.9	20.300
1.10	17.5	9.7	27.200
2.01	32.7	9.5	42.200
2.02	24.7	6.1	30.800
2.03	30.7	4.5	35.200
2.04	31.9	7.9	39.800
2.05	32.6	7.6	40.200
2.06	5.8	8.1	13.900
2.07	7.9	12.2	20.100
2.08	19.3	5.8	25.100
2.09	16.8	6.6	23.400
2.10	22.5	8.0	30.500
3.01	15.1	5.6	20.700

	Thermal loads		
Dwelling no.	**Area adjusted heating load (in MJ/m²/yr)**	**Area adjusted cooling load (in MJ/m²/yr)**	**Area adjusted total load (in MJ/m²/yr)**
3.02	27.0	5.0	32.000
3.03	28.4	11.0	39.400
LG.01	11.4	7.8	19.200
UG.01	7.7	9.9	17.600
UG.02	22.3	15.2	37.500
UG.03	28.4	11.7	40.100
UG.04	10.8	9.0	19.800
UG.05	20.8	5.3	26.100
UG.06	17.7	4.0	21.700
All other dwellings	4.0	11.0	15.000

(c) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✔	✔
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✔	✔	✔
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✔	✔	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✔	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✔	✔
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✔	✔

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	4 star (> 6 but <= 7.5 L/min)	4 star	4 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Swimming pool (No. 1)	Volume: 47.23 kLs	Location: Building1 Pool shaded: no	-
Swimming pool (No. 2)	Volume: 23.25 kLs	Location: Indoor swimming pool and/or spa/steam rooms	-
Central water tank - rainwater or stormwater (No. 1)	10000	To collect run-off from at least: - 300 square metres of roof area of buildings in the development - 0 square metres of impervious area in the development - 0 square metres of garden/lawn area in the development - 0 square metres of planter box area in the development (excluding, in each case, any area which drains to, or supplies, any other alternative water supply system).	- irrigation of 300 square metres of common landscaped area on the site
Fire sprinkler system (No. 1)	-	-	-
Fire sprinkler system (No. 2)	-	-	-

Central systems	Size	Configuration	Connection (to allow for...)
Fire sprinkler system (No. 3)	-	-	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✔	✔
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✔	✔
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✔	✔	✔

	Common area ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/ BMS
Indoor swimming pool and/or spa/steam rooms	ventilation (supply + exhaust)	time clock or BMS controlled	light-emitting diode	manual on / manual off	-
Gym area (No. 1)	air conditioning system	time clock or BMS controlled	light-emitting diode	manual on / manual off	-
Car park - Basement 02	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	motion sensors	-
Car park - Basement 01	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	motion sensors	-
Comms room	ventilation supply only	interlocked to light	light-emitting diode	manual on / manual off	-
Garbage rooms (GB store)	ventilation exhaust only	-	light-emitting diode	motion sensors	-
Cinema/Multi	air conditioning system	time clock or BMS controlled	light-emitting diode	manual on / manual off	-
Lounge, bar/cafe, library	air conditioning system	time clock or BMS controlled	light-emitting diode	manual on / manual off	-
Private dinning	air conditioning system	time clock or BMS controlled	light-emitting diode	manual on / manual off	-
Wine room	air conditioning system	time clock or BMS controlled	light-emitting diode	manual on / manual off	-
Board room	air conditioning system	time clock or BMS controlled	light-emitting diode	manual on / manual off	-
Meeting room	air conditioning system	time clock or BMS controlled	light-emitting diode	manual on / manual off	-
Cold water pump room	ventilation supply only	interlocked to light	light-emitting diode	manual on / manual off	-
Hot water pump room	ventilation supply only	interlocked to light	light-emitting diode	manual on / manual off	-

	Common area ventilation system		Common area lighting		
Common area	**Ventilation system type**	**Ventilation efficiency measure**	**Primary type of artificial lighting**	**Lighting efficiency measure**	**Lighting control system/ BMS**
Fire pump & sprinkler valve room	ventilation supply only	interlocked to light	light-emitting diode	manual on / manual off	-
Rainwater filtration tank	no mechanical ventilation	-	light-emitting diode	manual on / manual off	-
Rainwater tank	no mechanical ventilation	-	light-emitting diode	manual on / manual off	-
Store rooms	no mechanical ventilation	-	light-emitting diode	manual on / manual off	-
Bicycle storage	no mechanical ventilation	-	light-emitting diode	motion sensors	-
Operator admin	air conditioning system	time clock or BMS controlled	light-emitting diode	manual on / manual off	-
Treatment rooms	air conditioning system	time clock or BMS controlled	light-emitting diode	manual on / manual off	-
Ground floor - Arrival lobby	ventilation supply only	time clock or BMS controlled	light-emitting diode	motion sensors	-
Hallway/lobbys	ventilation supply only	time clock or BMS controlled	light-emitting diode	motion sensors	-
Lift bank (No. 1)	-	-	light-emitting diode	connected to lift call button	-
Lift bank (No. 2)	-	-	light-emitting diode	connected to lift call button	-
Lift bank (No. 3)	-	-	light-emitting diode	connected to lift call button	-
Lift bank (No. 4)	-	-	light-emitting diode	connected to lift call button	-
Lift bank (No. 5)	-	-	light-emitting diode	connected to lift call button	-

Central energy systems	Type	Specification
Swimming pool (No. 1)	Heating source: electric heat pump	Pump controlled by timer: yes
Swimming pool (No. 2)	Heating source: electric heat pump	Pump controlled by timer: yes
Sauna (No. 1)	Heating source: electric infrared	Efficiency measure: controlled by BMS
Lift bank (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 4 number of levels from the bottom of the lift shaft to the top of the lift shaft: 7 number of lifts: 2 lift load capacity: >= 1001 kg but <= 1500kg
Lift bank (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 4 number of levels from the bottom of the lift shaft to the top of the lift shaft: 7 number of lifts: 2 lift load capacity: >= 1001 kg but <= 1500kg

Central energy systems	Type	Specification
Lift bank (No. 3)	gearless traction with V V V F motor	Number of levels (including basement): 1 number of levels from the bottom of the lift shaft to the top of the lift shaft: 2 number of lifts: 1 lift load capacity: >= 1001 kg but <= 1500kg
Lift bank (No. 4)	gearless traction with V V V F motor	Number of levels (including basement): 3 number of levels from the bottom of the lift shaft to the top of the lift shaft: 6 number of lifts: 2 lift load capacity: >= 1001 kg but <= 1500kg
Lift bank (No. 5)	gearless traction with V V V F motor	Number of levels (including basement): 3 number of levels from the bottom of the lift shaft to the top of the lift shaft: 6 number of lifts: 2 lift load capacity: >= 1001 kg but <= 1500kg
Central hot water system (No. 1)	solar – electric boosted	Solar collector area (minimum, in square metres): 100 Piping insulation (ringmain & supply risers): (a) Piping external to building: R0.6 (~25 mm); (b) Piping internal to building: R0.6 (~25 mm)

2. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✔	✔
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✔	✔	✔
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✔	✔	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✔	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✔	✔
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✔	✔

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	4 star (> 6 but <= 7.5 L/min)	4 star	4 star	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✔	✔
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✔	✔
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✔	✔	✔

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 70 peak kW
Other	-	-

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✔" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✔" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✔" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

NatHERS - THERMAL COMFORT SUMMARY

Address: *669-683 Old South Head Road Vaucluse 2030*		Date: *11/07/2024*
Software: *BERS Pro v5.0*	Certificate No.: *0009141350*	Star rating: 7.3

Building Elements	Material	Detail
External walls	Cavity brick	
Internal walls	Single skin brick	-
Common walls between units	Cavity brick	-
Common walls between units and lift shafts	200mm Concrete	-
Common walls between units and fire stairs	200mm Concrete	-
Ceilings	Plasterboard	R3.5 insulation *(product value)* to ceilings of top floor units
Floors	Concrete	• APT LG.01: R2.0 insulation *(product value)* – floor suspended over Basement • APT 01.05: R2.0 insulation *(product value)* – floor suspended to outside air
Floor finishes	Tiles/stone – living & wet areas, Timber - bedrooms	-
Roof	Concrete	-
Windows/Doors	***Awning windows:*** Aluminium frame, double glazed low e	U value 4.30 or less and SHGC 0.47 +/- 10%
	Sliding doors & fixed windows: Aluminium frame, single glazed clear	U value 4.30 or less and SHGC 0.53 +/- 10%

U and SHGC values are according to NFRC. Alternate products may be used if the U value is the same or lower and the SHGC is within 10% of the above figures. This also applies to changes to the type and thickness of glass required to meet Bushfire and acoustic regulations.

Ceiling fans: 1200mm ceiling fans to bedrooms and living

Lighting: Units have been rated with non-ventilated LED downlights as per NatHERS certificates.

Note: In some climate zones, insulation should be installed with due consideration of condensation and associated interaction with adjoining building materials.

Note: Self-closing damper to bathroom, powder, ensuite and laundry exhaust fans.

Note: Additional insulation may be required to meet acoustic requirements

This Development must comply with Section J of the BCA

Building & Energy Consultants Australia dissolves itself from any responsibility associated with the selection of insulation, sarking type materials, thermal breaks and other componentry which fail to comply with the fire safety requirement provisions under Part C of the BCA

Nationwide House Energy Rating Scheme®
Class 2 Summary
NatHERS® Certificate No. 0009141350

Generated on 11 Jul 2024 using BERS Pro v5.1.7 (3.22)

Property

Address	669-683 Old South Head Road, Vaucluse , NSW , 2030
Lot/DP	Lot - DP -
NatHERS Climate Zone	56 Mascot (Sydney Airport)

Accredited assessor

Name	Thomas Ruck
Business name	Building & Energy Consultants Australia
Email	thomas@beca.net.au
Phone	9533 2588
Accreditation No.	DMN/20/1999
Assessor Accrediting Organisation	Design Matters National

Thermal performance Star rating

Verification

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

NCC heating and cooling maximum loads (MJ/m²/p.a.)

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled block average	18.4	8.4
Maximum block limit	N/A	N/A

National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

Whole of Home performance rating

No Whole of Home performance rating conducted for this summary certificate or not completed for all dwellings

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) [MJ/m²/p.a.]	Cooling load (load limit) [MJ/m²/p.a.]	Total load [MJ/m²/p.a.]	Star Rating	Whole of Home Rating
0009141037	1.01	8.3 (N/A)	11.0 (N/A)	19.4	8.2	0
0009141060	1.02	12.4 (N/A)	7.4 (N/A)	19.7	8.1	0

Summary of all dwellings (continued)

Certificate number and link	Unit Number	Heating load (load limit) [MJ/m^2/p.a.]	Cooling load (load limit) [MJ/m^2/p.a.]	Total load [MJ/m^2/p.a.]	Star Rating	Whole of Home Rating
0009141094	1.03	15.2 (N/A)	6.2 (N/A)	21.4	7.9	0
0009141128	1.04	27.3 (N/A)	9.7 (N/A)	37.0	6.1	0
0009141169	1.05	29.1 (N/A)	10.2 (N/A)	39.3	5.9	0
0009141193	1.06	5.1 (N/A)	10.0 (N/A)	15.1	8.6	0
0009141227	1.07	8.9 (N/A)	12.0 (N/A)	21.0	8	0
0009141250	1.08	16.1 (N/A)	5.7 (N/A)	21.8	7.9	0
0009141284	1.09	13.4 (N/A)	6.9 (N/A)	20.3	8.1	0
0009141318	1.10	17.5 (N/A)	9.7 (N/A)	27.2	7.3	0
0009141342	2.01	32.7 (N/A)	9.5 (N/A)	42.1	5.7	0
0009141045	2.02	24.7 (N/A)	6.1 (N/A)	30.8	6.9	0
0009141078	2.03	30.7 (N/A)	4.5 (N/A)	35.2	6.4	0
0009141102	2.04	31.9 (N/A)	7.9 (N/A)	39.8	5.9	0
0009141136	2.05	32.6 (N/A)	7.6 (N/A)	40.2	5.8	0
0009141151	2.06	5.8 (N/A)	8.1 (N/A)	13.8	8.8	0
0009141185	2.07	7.9 (N/A)	12.2 (N/A)	20.2	8.1	0
0009141219	2.08	19.3 (N/A)	5.8 (N/A)	25.2	7.4	0
0009141235	2.09	16.8 (N/A)	6.6 (N/A)	23.4	7.7	0
0009141268	2.10	22.5 (N/A)	8.0 (N/A)	30.5	6.9	0
0009141292-01	3.01	15.1 (N/A)	5.6 (N/A)	20.7	8	0
0009141326	3.02	27.0 (N/A)	5.0 (N/A)	32.1	6.7	0
0009141052	3.03	28.4 (N/A)	11.0 (N/A)	39.4	5.9	0
0009141086	LG.01	11.4 (N/A)	7.8 (N/A)	19.2	8.2	0
0009141110	UG.01	7.7 (N/A)	9.9 (N/A)	17.5	8.4	0
0009141144	UG.02	22.3 (N/A)	15.3 (N/A)	37.6	6.1	0
0009141177	UG.03	28.4 (N/A)	11.7 (N/A)	40.2	5.8	0
0009141201	UG.04	10.8 (N/A)	9.0 (N/A)	19.8	8.1	0
0009141243	UG.05	20.8 (N/A)	5.3 (N/A)	26.1	7.4	0
0009141276	UG.06	17.7 (N/A)	4.0 (N/A)	21.6	7.9	0
0009141300	UG.07	4.0 (N/A)	11.0 (N/A)	15.0	8.6	0

Explanatory notes

About this ratings

The thermal performance star rating in this Certificate is the average rating of all NCC Class 2 dwellings in an apartment block. Individual unit ratings are listed in the ‘Summary of all dwellings’ section of this Certificate.

NatHERS ratings use computer modelling to evaluate a home’s energy efficiency and performance. They use localised climate

data and standard assumptions on how people use their home to predict the energy loads and societal cost. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads.
For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

Accredited Assessors

For high quality NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.
Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.
Licensed assessors in the Australian Capital Territory (ACT) can produce assessments for regulatory purposes only, using endorsed software, as listed on the ACT licensing register.
Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in certificates is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.
The predicted annual energy use, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.
Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, behaviour, appliance performance, indoor air temperature and local climate.
Not all assumptions made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.