

DARLING SQUARE SE PLOT BASIX SUMMARY & ASSUMPTIONS

SYDNEY INTERNATIONAL CONVENTION, EXHIBITION AND
ENTERTAINMENT PRECINCT (SICEEP)

ISSUED WITH BASIX CERTIFICATE 628683M_06



lendlease

Darling Square SE Plot BASIX Summary and Assumptions



Document History

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A		Preliminary Report	12-May-15
B		BASIX Certificate Issue	17-Aug-15
C		Draft Revised BASIX Certificate Issue	19-Feb-16
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F		Revised BASIX Certificate s96	16-Jun-17

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1.0 Introduction and Summary

This report summarises the assumptions made for the BASIX assessment of the Darling Square SE Plot Residential development at Haymarket Sydney.

The Building Sustainability Index (BASIX) sets energy reduction, thermal comfort and water reduction targets for new residential developments based on the average energy and water consumption of dwellings in NSW. The reduction targets range from 20 to 40%, depending on the type and location of the development. For buildings with 6 or more stories such as the Darling Square developments, a 20% reduction in energy consumption, and a 40% reduction in water use is required to pass.

For Thermal Comfort, BASIX requires a “pass” score based on heating and cooling “caps” set by BASIX; however the thermal performance of a development will affect its energy score. For example, a development that has excellent thermal performance reduces its reliance upon air conditioning, and is therefore awarded in BASIX with a positive contribution to its energy score.

The development receives the following scores:

Category	Requirement	Score Achieved
Water	40% Reduction	43%
Thermal Comfort	Pass	Pass
Energy	20% Reduction	22%

2.0 Assumptions and Commitments

Assumptions included in this section impact the performance of the development in relation to the BASIX targets.

2.1 Project Areas

The following areas have been measured from drawings issued in April 2017 by FJMT.

Site Details		
Site area	m ²	4646
Total roof area (for all buildings)	m ²	2545
Non-residential floor area	m ²	1729
Residential car spaces	No.	269
Non-residential car spaces	No.	3

Common Areas			
Space Type	SE1 Areas (m ²)	SE2 Areas (m ²)	SE3 Areas (m ²)
Car park	8800		
Storage areas in carpark	1043		
Retail	Not Applicable		
Dedicated storage areas	206		
Substation	142		
Switch room	44		
Comms room	0		
Building manager's office	14		
Waste rooms	82	21	31
Common garbage room	31		
Residential / condenser plant rooms	437	124	106
Common services plant rooms	232		
Ground floor lobbies & mail rooms	100	66	52
Podium BOH corridors	273		
Apartment corridors	2070	288	531
Fire stairs	Not Applicable		
Community room SE2	184		
Shared amenities	97		
Bike storage	103		
Building distribution room	29		

2.2 Central Systems

Central systems refer to components of the development which service numerous dwellings. The inputs for these systems contribute to the estimated water and energy consumption which determine the BASIX score for the development.

Central Systems Summary				
System	SE1	SE2	SE3	Notes
Swimming pools, spas, saunas	1			Shared swimming pool of dimensions 21m x 4.4m x 1.2m
Number of residential lifts	3	1	2	
Central on-site recycled/alternative water supply	No	No	No	No recycled water
Rainwater tank	Yes			Total tank capacity of 80 kL used for irrigation.
Central domestic hot water systems	Yes	Yes	Yes	One 'gas fired boiler' system is nominated for each building
Central cooling system	Yes	Yes	Yes	VRV with electric compressor and air cooled condenser
Central heating system	Yes	Yes	Yes	VRV with electric compressor and air cooled condenser
Fire sprinkler system	Yes	Yes	Yes	Fire test water will either be drawn from and recirculated back to a standalone fire break tank, or; Drawn from mains water and reticulated into the rainwater tank.

2.3 Water

This section outlines the assumptions made for the water consumption and water supplied by the central systems.

2.3.1 Alternative Water Supply

A common rainwater tank shared between all 3 buildings will be provided to satisfy the landscape irrigation requirements. The capacity of this tank will be increased beyond what is required to satisfy the landscape demand to ensure that there is capacity to ensure fire services test water which cannot be recirculated is diverted back to the rainwater tank to assist in meeting the irrigation demand.

2.3.2 Common Area Water Consumption

The following table summarises all of the common areas where there will be water consumption.

Common Area – Water Consumption				
Water Use	Units	SE1	SE2	SE3
Common Landscape¹				
Common area lawn	m ²		206	
Common area garden (excl. lawn)	m ²		477	
Area of garden assumed indigenous or low water use species	m ²		0	
Other common area water uses				
Taps	6 L/min 5 star WELS rating	9 taps in ground floor amenities 1 tap in L6 Community Room		
Toilets	3.5L/flush average 4 star WELS rating	11 toilets in ground floor amenities 1 toilet in L6 Community Room		
Urinals	N/A	3 urinals in Ground floor amenities		
Showerheads	>6 but <=7.5 L/min 3 star WELS rating	5 showers in Ground floor amenities		
Car washing bays	no.	None		
Sprinkler test system ²	-	Closed system		

- 1) Landscape areas measured by Lendlease Design off Construction landscape document titled 'General Arrangements Plan Revision 1 - May 2017'.
- 2) While only some of the fire services test water is recirculated, the remainder is diverted to the rainwater tank. As the BASIX tool has no option for diverting to the rainwater tank the selection of a closed system was deemed the most appropriate as opposed to a system which diverted water to the sewer.

2.3.3 Dwellings Water Consumption

The water fixtures and fittings to be installed for all dwellings in the SE1, SE2 and SE3 developments are listed below.

Dwellings – Water Consumption			
Fittings and Fixtures	Water supply	L/min	WELS rating
Showerheads	Potable mains	≤6 L/min	3 star
Toilets	Potable mains	3.5L/flush average	4 star
Kitchen taps	Potable mains	6	5 star
Bathroom taps	Potable mains	6	5 star
Dishwashers	Potable mains	-	5 Star
Clothes Washer	Potable mains	Not provided	
Landscape Irrigation	Potable mains	No private landscaping is provided	

The flow rates stated above are the maximum flow rates to ensure that the BASIX water target is achieved.

2.4 Thermal Comfort

BASIX sets maximum heating and cooling loads to be achieved by each apartment as well as average heating and cooling loads throughout the development. To achieve a 'pass' in the thermal comfort section, individual apartments must not exceed the maximum load requirements and the development must not exceed the average load requirements set by BASIX.

Below are the significant construction assumptions which impact the thermal performance assessment.

Constructions		
Building Element	Construction	Detail / Properties
Windows	Single low-e clear glazing with aluminum frames	<p><u>Typical</u> U-Value = 5.4 W/m².K; SHGC = 0.54</p> <p><u>Apartments above substation;</u> U-Value = 3.5 W/m².K; SHGC = 0.64</p> <p><u>Level 8 & 9 SE3 Apartments 3 & 8 – East Façade only;</u> U-Value = 4.9 W/m².K; SHGC = 0.33</p> <p>Operable areas of glazing have been estimated given each proposed window/door type and</p>

Constructions		
Building Element	Construction	Detail / Properties
		necessary safety requirements to restrict opening widths
Skylights	Single clear glazing with aluminium frames	U-Value = 7.3 W/m ² .K; SHGC = 0.79
External Shading		As per DA drawing set
External walls	Precast concrete panel	R1.5 insulation, 13mm plasterboard Medium colour
External walls	Terracotta cladding	R1.5 insulation, 13mm plasterboard Medium colour
Internal walls – within units	Plasterboard on studs	
Internal walls – between units	Autoclaved Aerated Concrete blocks	AAC nominally 75mm thick 13mm plasterboard either side
Internal walls – between units and corridors / lobbies	Autoclaved Aerated Concrete blocks	AAC nominally 75mm thick 13mm plasterboard either side. R1.0 insulation between.
Internal walls – between units and fire stairs, lifts.	Concrete (200mm)	R1.0 insulation 13mm plasterboard.
Floors – between units or retail	Concrete (200mm)	Tiles in bathrooms and laundries; timber to living areas and carpet covering to bedrooms No insulation
Floors – to carpark, plant room	Concrete (200mm)	Applicable floor covering + R1.0 insulation under slab
Ceilings – between units	Plasterboard	Suspended 13mm plasterboard ceiling Floor to ceiling heights as per DA drawing set
Roof – to external	Concrete	Suspended 13mm plasterboard ceiling R3.0 + foil added internal insulation. Floor to ceiling heights as per DA drawing set Medium colour

The following table summarises the BASIX average heating and cooling load requirements with those for the proposed project. The full thermal assessment report can be found in appendix A.

BASIX Thermal Comfort Results		
	BASIX Average Load Requirement (MJ/m²)	BASIX Average Loads (MJ/m²)
Heating	40	22.5
Cooling	32	20

2.5 Energy

The energy section of BASIX calculates a percentage reduction in expected greenhouse gas emissions compared with an average NSW dwelling. As SE Plot development has over 6 storeys above ground, the project must achieve a BASIX energy reduction of at least 20%. It considers the energy demands of the central systems, as well as the energy demands of the common areas and dwellings from the domestic hot water system, the HVAC system, lifts, lights and appliances.

2.5.1 Central Systems

Central Domestic Hot Water System

It has been assumed that a central 'gas fired boiler' domestic hot water system will be installed for each building to meet the domestic hot water demand. The hot water reticulation system will be continuous flow. Insulation for both the external and internal hot water pipes has been provided with thermal resistance values as follows:

- Piping external to building: no external piping
- Piping internal to building: R 1.0 m²K/W

Central Cooling and Heating Systems

Variable refrigerant volume units have been selected for both a central cooling and heating system. The following details have been input into the BASIX tool.

Central Cooling and Heating Systems		
	Cooling	Heating
System Type	Variable refrigerant volume units	Variable refrigerant volume units
Energy Source	Electric driven compressor	Electric driven compressor and air sourced evaporator
Heat Rejection Method	Air cooled condenser	-
Unit Efficiency	Low – min COP 3.5	Low – min COP 3.5

While BASIX does not require a minimum efficiency of the VRV system, the project's Green Star commitment will require a system with a high efficiency to be selected. A minimum COP of 3.5 has been specified by the project team.

Alternative Energy Supply

No alternative energy supply system had been proposed.

Darling Square SE Plot

BASIX Summary and Assumptions



Lifts

There are 6 lift shafts in total. All lifts are gearless traction lifts with Variable Voltage Variable Frequency Drive (VVVF) motors. The number of levels each lift services has been interpreted from the plans and elevations.

Lifts				
	SE1	SE2	SE3	Notes
Number of lifts	3	1	2	Lifts assumed to have regenerative brakes
Levels served	29	8	9	Includes Ground

Other Central Systems

The following details of central systems are additional fields required by BASIX:

Other Central Systems	
Item	Details
Building Management System (BMCS)	Installed
Active Power Factor Correction (PFC)	Installed

2.6 Common Areas

2.6.1 Common Area Ventilation

The following table summarises the common areas requiring ventilation, the ventilation type and the efficiency or control measure.

Note that the efficiency measures available in BASIX are limited, so in some cases a conservative selection has been made.

Common Area Ventilation		
Area	Ventilation System Type	Efficiency Measure
Car park	Ventilation (supply + exhaust)	CO monitors + VSD fan
Storage cages open to car park	Ventilation (supply + exhaust)	CO monitors + VSD fan
Lift cars	-	-
Switch room	Ventilation exhaust only	-
Substation	No mechanical ventilation	-
Garbage rooms	Ventilation exhaust only	-
Comms room	Air conditioning system	Thermostatically controlled
Residential / condenser plant rooms	No mechanical ventilation	-
Common services plant rooms	Ventilation exhaust only	None
Storage areas	Ventilation supply only	Time clock or BMS controlled
Ground floor lobbies	Ventilation supply only	Time clock or BMS controlled
Community spaces	Air conditioning system	Time clock or BMS controlled
Hallway / lobbies apartments	Ventilation supply only	Time clock or BMS controlled
Ground floor BOH	Ventilation supply only	Time clock or BMS controlled
Building manager	Air conditioning system	Time clock or BMS controlled
Shared amenities	Ventilation exhaust only	Time clock or BMS controlled
Bike storage	Ventilation exhaust only	Time clock or BMS controlled
Building distribution room	Air conditioning system	Thermostatically controlled

2.6.2 Common Area Lighting

The BASIX tool requires inputs for the primary lighting type in each zone, where the primary lighting type is defined as the lamp type fitted to 80% or more of the light fittings to be installed. The following fittings have been set for the common areas:

Common Area Lighting		
Area	Lighting Type	Efficiency Measure
Car park	Fluorescent	Time clock and motion sensors
Storage cages open to car park	Fluorescent	Time clock and motion sensors
Lift cars	LED	Connected to lift call button
Switch room	Fluorescent	Motion sensors
Substation	Fluorescent	Manual on/off
Garbage rooms	Fluorescent	Motion sensors
Comms room	Fluorescent	Motion sensors
Residential / condenser plant rooms	Fluorescent	Motion sensors
Common services plant rooms	Fluorescent	Motion sensors
Storage rooms	Fluorescent	Motion sensors
Ground floor lobbies	LED	Motion sensors
Community spaces	LED	Motion sensors
Hallway / lobbies Apartments	LED	Motion sensors
Ground floor BOH	Fluorescent	Motion sensors
Building manager	Fluorescent	Motion sensors
Shared amenities	Fluorescent	Motion sensors
Bike storage	Fluorescent	Motion sensors
Building distribution room	Fluorescent	Motion sensors

Similar to the common area mechanical ventilation system, it is assumed that a lighting control system or connection to the BMCS via motion sensors or a time clock will be installed as a controls mechanism to ensure that lighting energy is not consumed where there are no occupants. Furthermore, it is assumed that the lighting controls in the lifts are triggered by the lift call button to avoid wasting energy in these spaces.

2.7 Dwellings

2.7.1 Ventilation

Ventilation within dwellings is provided for bathrooms, kitchens and laundries. Individual exhaust fans are provided for bathroom, kitchen and laundries which are ducted to the façade.

It is assumed that the air conditioning can be classed as day-night zoned between bedrooms and living areas.

2.7.2 Lighting

The BASIX tool also takes into account energy consumption from lighting based on the lighting strategy. For each dwelling, the BASIX tool awards the number of bathrooms and kitchens that are naturally lit by either a window or skylight. BASIX awards the rooms which are primarily lit by fluorescent or LED lamps as these are more energy efficient lighting options; and further awards projects where these fittings cannot be replaced by alternatives.

It was assumed that for all rooms the primary lighting type is LEDs, and that these fittings will be specific to LEDs preventing occupants from replacing them with less efficient lamps. While the BASIX certificate will permit fluorescent or LED fittings, LEDs will be required to achieve the lighting energy targets required by Green Star.

Floor plans indicate that the majority of bathrooms and kitchens will not have access to natural light.


2.7.3 Appliances

In order to achieve the BASIX energy target, dishwashers and clothes dryers must be installed to all apartments with minimum energy star ratings as per the table below.

Dwelling Appliances		
Appliance	Input	Location
Stovetop	Gas	Whole project
Oven	Electric	Whole project
Dishwasher	3.5 star energy rating	Whole project
Clothes dryer	2 star energy rating	Whole project
Refrigerator	-	None required



3.0 Appendix A: Thermal Performance Certificate

Project Certification Number	1011175831
Certification Date	16/06/2017
Assessor Name	Christopher Mann
Assessor Number	101142
Assessor Company	Cundall
Assessor Signature	

Client Details	Lend Lease
Project Address	Lot 1 82 Hay Street Haymarkets NSW 2000

Software	FirstRate5 v 5.2.4a (FirstRate5)	Climate Zone	17
Averaged Simulated Energy: HEATING			23.2 MJ/m2 pa
Averaged Simulated Energy: COOLING			19.8 MJ/m2 pa
Averaged Simulated Energy: TOTAL			43.0 MJ/m2 pa

Averaged **NatHERS** Star Rating

5.8



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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 10 SE1 01	1011186150	74.4	4.0	13.7	28.9	5.6/10	No
Level 10 SE1 02	1011186143	74.4	4.2	10.3	19.6	7.0/10	No
Level 10 SE1 03	1011186135	74.3	3.4	11.4	22.9	6.6/10	No
Level 10 SE1 04	1011186127	71.9	2.9	11.7	23.1	6.5/10	No
Level 10 SE1 05	1011186119	49.4	4.0	10.6	12.9	7.8/10	No
Level 10 SE1 06	1011186101	73.8	3.8	15.0	25.7	5.8/10	No
Level 10 SE1 07	1011186093	60.1	3.9	25.8	20.3	5.3/10	No
Level 10 SE1 08	1011186085	50.7	4.7	33.2	17.1	4.9/10	No
Level 10 SE1 09	1011186077	50.7	4.7	40.1	17.6	4.5/10	No
Level 10 SE1 10	1011186069	42.5	3.9	33.6	13.8	5.2/10	No



Certificate Number: 563D73M67U
 Assessor Name: Christopher Mann
 Accreditation number: 101142
 Certificate date: 16 Jun 2017
 Dwelling address: 82 Hay Street, Haymarkets NSW 2000
 www.nathers.gov.au

Validation Number: 1011175831
 Validation Date: 16/06/2017
 Assessor Name: Christopher Mann
 Assessor Number: 101142
 Assessor Signature: *Christopher Mann*

Average star rating: 5.7
 NATIONWIDE HOUSE ENERGY RATING SCHEME
 www.nathers.gov.au



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Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 10 SE1 11	1011186051	43.2	3.9	30.4	20.4	4.9	No
Level 11 SE1 01	1011186267	74.4	4.0	14.7	22.5	6.2	No
Level 11 SE1 02	1011186259	74.0	4.2	10.4	19.9	6.9	No
Level 11 SE1 03	1011186242	74.3	3.4	11.4	22.9	6.6	No
Level 11 SE1 04	1011186234	71.9	2.9	11.9	23.0	6.5	No
Level 11 SE1 05	1011186226	49.4	4.0	10.8	12.8	7.8	No
Level 11 SE1 06	1011186218	73.8	3.8	15.1	25.6	5.8	No
Level 11 SE1 07	1011186200	60.1	3.9	26.0	20.1	5.3	No
Level 11 SE1 08	1011186192	50.7	4.7	33.5	16.9	4.9	No
Level 11 SE1 09	1011186184	50.7	4.7	40.4	17.6	4.5	No
Level 11 SE1 10	1011186176	42.5	3.9	34.0	13.7	5.2	No
Level 11 SE1 11	1011186168	43.2	3.9	30.8	20.4	4.9	No
Level 12 SE1 01	1011186374	74.4	4.0	14.8	22.5	6.2	No
Level 12 SE1 02	1011186366	74.0	4.2	10.5	20.2	6.9	No



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Level 12 SE1 03	1011186358	74.3	3.4	11.5	22.9	6.6	No
Level 12 SE1 04	1011186341	71.9	2.9	11.8	23.1	6.5	No
Level 12 SE1 05	1011186333	49.4	4.0	10.9	12.7	7.8	No
Level 12 SE1 06	1011186325	73.8	3.8	15.2	25.6	5.8	No
Level 12 SE1 07	1011186317	60.1	3.9	26.2	19.9	5.3	No
Level 12 SE1 08	1011186309	50.7	4.7	33.7	16.9	4.9	No
Level 12 SE1 09	1011186291	50.7	4.7	40.6	17.3	4.5	No
Level 12 SE1 10	1011186283	42.5	3.9	34.2	13.8	5.2	No
Level 12 SE1 11	1011186275	43.2	3.9	31.0	20.3	4.9	No
Level 13 SE1 01	1011186481	74.4	4.0	15.0	22.1	6.2	No
Level 13 SE1 02	1011186473	74.0	4.2	10.7	20.4	6.9	No



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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 13 SE1 03	1011186465	74.3	3.4	11.7	22.6	6.6	No
Level 13 SE1 04	1011186457	71.9	2.9	12.0	23.3	6.4	No
Level 13 SE1 05	1011186440	49.4	4.0	11.1	12.6	7.8	No
Level 13 SE1 06	1011186432	73.8	3.8	15.4	25.9	5.8	No
Level 13 SE1 07	1011186424	60.1	3.9	26.4	19.7	5.3	No
Level 13 SE1 08	1011186416	50.7	4.7	34.0	16.7	4.9	No
Level 13 SE1 09	1011186408	50.7	4.7	40.9	17.3	4.4	No
Level 13 SE1 10	1011186390	42.5	3.9	34.5	13.7	5.1	No
Level 13 SE1 11	1011186382	43.2	3.9	31.3	20.1	4.9	No
Level 14 SE1 01	1011186598	74.4	4.0	15.1	22.0	6.2	No
Level 14 SE1 02	1011186580	74.0	4.2	10.7	20.1	6.9	No
Level 14 SE1 03	1011186572	74.3	3.4	11.8	22.9	6.5	No
Level 14 SE1 04	1011186564	71.9	2.9	12.1	22.9	6.4	No
Level 14 SE1 05	1011186556	49.4	4.0	11.2	12.7	7.8	No



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Level 14 SE1 06	1011186549	73.8	3.8	15.5	25.6	5.8	No
Level 14 SE1 07	1011186531	60.1	3.9	26.5	19.7	5.3	No
Level 14 SE1 08	1011186523	50.7	4.7	34.2	16.6	4.9	No
Level 14 SE1 09	1011186515	50.7	4.7	41.1	17.3	4.4	No
Level 14 SE1 10	1011186507	42.5	3.9	34.7	13.7	5.1	No
Level 14 SE1 11	1011186499	43.2	3.9	31.5	19.9	4.9	No
Level 15 SE1 01	1011186705	74.4	4.0	15.2	22.0	6.2	No
Level 15 SE1 02	1011186697	74.0	4.2	10.8	19.5	6.9	No
Level 15 SE1 03	1011186689	74.3	3.4	11.9	22.8	6.5	No
Level 15 SE1 04	1011186671	71.9	2.9	12.2	22.8	6.4	No
Level 15 SE1 05	1011186663	49.4	4.0	11.3	12.8	7.7	No



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Certification Date	16/06/2017

Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 15 SE1 06	1011186655	73.8	3.8	15.5	26.1	5.7	No
Level 15 SE1 07	1011186648	60.1	3.9	26.5	19.5	5.3	No
Level 15 SE1 08	1011186630	50.7	4.7	34.3	16.6	4.9	No
Level 15 SE1 09	1011186622	50.7	4.7	41.2	17.1	4.4	No
Level 15 SE1 10	1011186614	42.5	3.9	34.9	13.8	5.1	No
Level 15 SE1 11	1011186606	43.2	3.9	31.6	19.8	4.9	No
Level 16 SE1 01	1011186812	74.4	4.0	15.4	22.2	6.2	No
Level 16 SE1 02	1011186804	74.0	4.2	11.0	19.9	6.9	No
Level 16 SE1 03	1011186796	74.3	3.4	12.0	22.4	6.6	No
Level 16 SE1 04	1011186788	71.9	2.9	12.4	22.6	6.5	No
Level 16 SE1 05	1011186770	49.4	4.0	11.5	12.6	7.7	No
Level 16 SE1 06	1011186762	73.8	3.8	15.7	25.9	5.7	No
Level 16 SE1 07	1011186754	60.1	3.9	26.7	19.2	5.3	No
Level 16 SE1 08	1011186747	50.7	4.7	34.7	16.3	4.9	No



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Level 16 SE1 09	1011186739	50.7	4.7	41.6	17.0	4.4	No
Level 16 SE1 10	1011186721	42.5	3.9	35.2	13.4	5.1	No
Level 16 SE1 11	1011186713	43.2	3.9	32.0	19.3	4.9	No
Level 17 SE1 01	1011186929	74.4	4.0	15.5	22.4	6.1	No
Level 17 SE1 02	1011186911	74.0	4.2	11.1	19.6	6.9	No
Level 17 SE1 03	1011186903	74.3	3.4	12.1	22.0	6.6	No
Level 17 SE1 04	1011186895	71.9	2.9	12.4	23.2	6.4	No
Level 17 SE1 05	1011186887	49.4	4.0	11.6	12.6	7.7	No
Level 17 SE1 06	1011186879	73.8	3.8	15.8	25.9	5.7	No
Level 17 SE1 07	1011186861	60.1	3.9	27.0	19.2	5.3	No
Level 17 SE1 08	1011186853	50.7	4.7	34.8	16.2	4.9	No



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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 17 SE1 09	1011186846	50.7	4.7	41.7	16.6	4.4	No
Level 17 SE1 10	1011186838	42.5	3.9	35.4	13.5	5.1	No
Level 17 SE1 11	1011186820	43.2	3.9	32.1	19.7	4.9	No
Level 18 SE1 01	1011187034	74.4	4.0	15.6	22.5	6.1	No
Level 18 SE1 02	1011187026	74.0	4.2	11.1	20.0	6.9	No
Level 18 SE1 03	1011187018	74.3	3.4	12.3	22.6	6.5	No
Level 18 SE1 04	1011187000	71.9	2.9	12.4	22.8	6.4	No
Level 18 SE1 05	1011186994	49.4	4.0	11.7	12.6	7.7	No
Level 18 SE1 06	1011186986	73.8	3.8	15.9	25.3	5.8	No
Level 18 SE1 07	1011186978	60.1	3.9	27.0	19.3	5.3	No
Level 18 SE1 08	1011186960	50.7	4.7	35.0	16.3	4.9	No
Level 18 SE1 09	1011186952	50.7	4.7	41.9	16.6	4.4	No
Level 18 SE1 10	1011186945	42.5	3.9	35.5	13.4	5.1	No
Level 18 SE1 11	1011186937	43.2	3.9	32.3	19.5	4.9	No



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Level 19 SE1 01	1011187141	74.4	4.0	15.7	22.3	6.1	No
Level 19 SE1 02	1011187133	74.0	4.2	11.1	19.9	6.9	No
Level 19 SE1 03	1011187125	74.3	3.4	12.3	22.3	6.5	No
Level 19 SE1 04	1011187117	71.9	2.9	12.6	22.9	6.4	No
Level 19 SE1 05	1011187109	49.4	4.0	11.8	12.5	7.7	No
Level 19 SE1 06	1011187091	73.8	3.8	16.0	25.0	5.8	No
Level 19 SE1 07	1011187083	60.1	3.9	27.3	19.2	5.3	No
Level 19 SE1 08	1011187075	50.7	4.7	35.1	16.3	4.9	No
Level 19 SE1 09	1011187067	50.7	4.7	42.1	16.5	4.4	No
Level 19 SE1 10	1011187059	42.5	3.9	35.7	13.3	5.1	No
Level 19 SE1 11	1011187042	43.2	3.9	32.5	19.4	4.9	No



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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 2 SE1 01	1011184379	68.9	7.5	14.1	28.4	5.6	No
Level 2 SE1 02	1011184387	57.6	4.2	18.8	32.7	4.9	No
Level 2 SE1 03	1011184395	48.0	2.8	14.6	20.9	6.4	No
Level 2 SE2 01	1011184361	98.5	6.1	25.5	26.7	4.9	No
Level 2 SE2 02	1011184353	75.4	3.6	13.0	14.6	7.3	No
Level 2 SE2 03	1011184346	75.4	3.6	22.3	13.3	6.4	No
Level 2 SE2 04	1011184338	47.5	3.4	21.4	13.8	6.4	No
Level 2 SE3 01	1011184452	68.1	3.8	10.4	35.1	5.4	No
Level 2 SE3 02	1011184445	45.5	3.9	26.3	26.7	4.8	No
Level 2 SE3 03	1011184437	46.8	3.9	30.4	25.8	4.6	No
Level 2 SE3 04	1011184429	44.8	3.2	28.2	24.3	4.8	No
Level 2 SE3 05	1011184411	45.1	3.9	28.4	28.3	4.6	No
Level 2 SE3 06	1011184403	51.9	3.5	19.3	25.5	5.4	No
Level 20 SE1 01	1011187257	74.4	4.0	15.9	22.1	6.1	No
Level 20 SE1 02	1011187240	74.0	4.2	11.2	19.8	6.9	No
Level 20 SE1 03	1011187232	74.3	3.4	12.3	22.5	6.5	No
Level 20 SE1 04	1011187224	71.9	2.9	12.5	23.0	6.4	No
Level 20 SE1 05	1011187216	49.4	4.0	11.9	12.5	7.7	No
Level 20 SE1 06	1011187208	73.8	3.8	16.1	24.8	5.8	No



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Level 20 SE1 07	1011187190	60.1	3.9	27.5	19.2	5.3	No
Level 20 SE1 08	1011187182	50.7	4.7	35.3	16.2	4.9	No
Level 20 SE1 09	1011187174	50.7	4.7	42.2	16.6	4.4	No
Level 20 SE1 10	1011187166	42.5	3.9	35.9	13.3	5.1	No
Level 20 SE1 11	1011187158	43.2	3.9	32.6	19.0	4.9	No
Level 21 SE1 01	1011187364	74.4	4.0	16.0	22.1	6.1	No



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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 21 SE1 02	1011187356	74.0	4.2	11.2	19.8	6.9	No
Level 21 SE1 03	1011187349	74.3	3.4	12.4	22.3	6.5	No
Level 21 SE1 04	1011187331	71.9	2.9	12.6	22.5	6.4	No
Level 21 SE1 05	1011187323	49.4	4.0	12.0	12.3	7.7	No
Level 21 SE1 06	1011187315	73.8	3.8	16.2	24.6	5.8	No
Level 21 SE1 07	1011187307	60.1	3.9	27.6	19.1	5.3	No
Level 21 SE1 08	1011187299	50.7	4.7	35.4	16.3	4.9	No
Level 21 SE1 09	1011187281	50.7	4.7	42.4	16.5	4.4	No
Level 21 SE1 10	1011187273	42.5	3.9	36.1	13.2	5.1	No
Level 21 SE1 11	1011187265	43.2	3.9	33.3	19.2	4.9	No
Level 22 SE1 01	1011187471	74.4	4.0	16.0	21.8	6.2	No
Level 22 SE1 02	1011187463	74.0	4.2	11.2	19.4	6.9	No
Level 22 SE1 03	1011187455	74.3	3.4	12.5	22.1	6.5	No
Level 22 SE1 04	1011187448	71.9	2.9	12.7	23.1	6.4	No



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Level 22 SE1 05	1011187430	49.4	4.0	12.1	12.4	7.7	No
Level 22 SE1 06	1011187422	73.8	3.8	16.2	24.2	5.9	No
Level 22 SE1 07	1011187414	60.1	3.9	27.8	19.1	5.3	No
Level 22 SE1 08	1011187406	50.7	4.7	35.6	16.2	4.9	No
Level 22 SE1 09	1011187398	50.7	4.7	42.7	16.5	4.4	No
Level 22 SE1 10	1011187380	42.5	3.9	36.2	13.4	5.0	No
Level 22 SE1 11	1011187372	43.2	3.9	33.0	19.2	4.9	No
Level 23 SE1 01	1011187588	74.4	4.0	16.6	21.6	6.1	No
Level 23 SE1 02	1011187570	74.0	4.2	11.4	19.2	6.9	No
Level 23 SE1 03	1011187562	74.3	3.4	12.6	22.6	6.4	No
Level 23 SE1 04	1011187554	69.6	3.8	8.3	18.4	7.4	No



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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m ² /y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 23 SE1 05	1011187547	49.4	4.0	12.1	12.3	7.7	No
Level 23 SE1 06	1011187539	73.8	3.8	16.3	24.1	5.9	No
Level 23 SE1 07	1011187521	60.1	3.9	28.0	19.1	5.2	No
Level 23 SE1 08	1011187513	50.7	4.7	35.7	16.2	4.9	No
Level 23 SE1 09	1011187505	50.7	4.7	42.7	16.4	4.4	No
Level 23 SE1 10	1011187497	42.5	3.9	36.4	13.4	5.0	No
Level 23 SE1 11	1011187489	43.2	3.9	33.1	19.2	4.9	No
Level 24 SE1 01	1011187695	74.4	4.0	16.7	21.1	6.1	No
Level 24 SE1 02	1011187687	74.0	4.2	11.4	19.5	6.9	No
Level 24 SE1 03	1011187679	74.3	3.4	12.6	22.2	6.5	No
Level 24 SE1 04	1011187661	69.6	3.8	8.3	18.6	7.4	No
Level 24 SE1 05	1011187653	49.4	4.0	12.2	12.2	7.7	No
Level 24 SE1 06	1011187646	73.8	3.8	16.3	24.2	5.9	No
Level 24 SE1 07	1011187638	60.1	3.9	28.0	19.1	5.2	No



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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 25 SE1 08	1011187737	50.7	4.7	35.9	16.1	4.9	No
Level 25 SE1 09	1011187729	50.7	4.7	41.7	16.2	4.5	No
Level 25 SE1 10	1011187711	42.5	3.9	36.5	13.1	5.0	No
Level 25 SE1 11	1011187703	43.2	3.9	33.3	19.4	4.8	No
Level 26 SE1 01	1011187919	74.4	4.0	16.7	20.9	6.2	No
Level 26 SE1 02	1011187901	74.0	4.2	11.8	18.6	6.9	No
Level 26 SE1 03	1011187893	74.3	3.4	13.2	20.9	6.6	No
Level 26 SE1 04	1011187885	69.6	3.8	8.6	18.3	7.4	No
Level 26 SE1 05	1011187877	49.4	4.0	8.8	12.9	8.0	No
Level 26 SE1 06	1011187869	73.8	3.8	16.4	23.8	5.9	No
Level 26 SE1 07	1011187851	60.1	3.9	28.5	19.0	5.2	No
Level 26 SE1 08	1011187844	50.7	4.7	36.0	16.0	4.9	No
Level 26 SE1 09	1011187836	50.7	4.7	41.8	16.1	4.5	No
Level 26 SE1 10	1011187828	42.5	3.9	36.7	13.2	5.0	No



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Level 26 SE1 11	1011187810	43.2	3.9	33.4	19.2	7.8	No
Level 27 SE1 01	1011188024	74.4	4.0	16.8	21.0	6.1	No
Level 27 SE1 02	1011188016	74.0	4.2	13.0	20.5	6.6	No
Level 27 SE1 03	1011188008	74.3	3.4	13.8	20.6	6.6	No
Level 27 SE1 04	1011187992	69.6	3.8	8.7	18.7	7.3	No
Level 27 SE1 05	1011187984	49.4	4.0	8.9	13.0	8.0	No
Level 27 SE1 06	1011187976	73.8	3.8	16.5	23.6	5.9	No
Level 27 SE1 07	1011187968	60.1	3.9	28.6	18.9	5.2	No
Level 27 SE1 08	1011187950	50.7	4.7	36.2	16.0	4.9	No
Level 27 SE1 09	1011187943	50.7	4.7	42.0	16.1	4.4	No
Level 27 SE1 10	1011187935	42.5	3.9	36.9	13.0	5.0	No



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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 27 SE1 11	1011187927	43.2	3.9	33.6	19.2	4.8	No
Level 28 SE1 01	1011188123	91.4	3.9	14.3	16.4	6.9	No
Level 28 SE1 02	1011188115	98.5	3.6	10.6	11.6	7.9	No
Level 28 SE1 03	1011188107	83.6	3.4	5.6	12.6	8.4	No
Level 28 SE1 04	1011188099	74.9	3.4	7.2	14.7	8.0	No
Level 28 SE1 05	1011188081	73.8	3.8	17.6	23.0	5.8	No
Level 28 SE1 06	1011188073	60.1	3.9	30.1	23.4	4.8	No
Level 28 SE1 07	1011188065	50.7	4.7	36.3	15.9	4.9	No
Level 28 SE1 08	1011188057	50.7	4.7	35.6	14.7	4.9	No
Level 28 SE1 09	1011188040	42.5	3.9	37.0	13.1	4.9	No
Level 28 SE1 10	1011188032	43.2	3.9	35.7	22.7	4.4	No
Level 29 SE1 01	1011188222	91.4	3.9	24.9	18.4	5.6	No
Level 29 SE1 02	1011188214	98.5	3.6	20.3	14.9	6.4	No
Level 29 SE1 03	1011188206	83.6	3.4	13.1	15.5	7.2	No



Certificate Number: 563D73M67U
Assessor Name: Christopher Mann
Accreditation number: 101142
Certificate date: 16 Jun 2017
Dwelling address: 82 Hay Street, Haymarkets NSW 2000
www.nathers.gov.au

5.7
Average star rating
NATIONWIDE HOUSE ENERGY RATING SCHEME
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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 3 SE1 05	1011184544	43.3	3.6	48.6	17.1	4.1	No
Level 3 SE1 06	1011184551	43.3	3.4	49.6	14.1	4.2	No
Level 3 SE1 07	1011184569	32.6	4.3	49.8	23.1	3.8	No
Level 3 SE1 08	1011184577	43.6	3.4	49.6	15.3	4.2	No
Level 3 SE1 09	1011184585	46.3	3.5	43.6	17.0	4.4	No
Level 3 SE2 01	1011184494	98.5	6.1	26.5	26.1	4.8	No
Level 3 SE2 02	1011184486	75.4	3.6	13.7	14.3	7.3	No
Level 3 SE2 03	1011184478	75.4	3.6	21.2	14.0	6.4	No
Level 3 SE2 04	1011184460	47.5	3.4	22.4	13.4	6.4	No
Level 3 SE3 01	1011184668	65.5	3.8	7.7	30.9	6.0	No
Level 3 SE3 02	1011184650	45.5	3.9	10.7	29.9	5.8	No
Level 3 SE3 03	1011184643	46.8	3.9	12.2	32.7	5.4	No
Level 3 SE3 04	1011184635	44.6	4.3	11.4	28.0	5.9	No
Level 3 SE3 05	1011184627	45.1	3.9	9.6	23.9	6.6	No
Level 3 SE3 06	1011184619	48.1	4.5	11.2	21.3	6.8	No
Level 3 SE3 07	1011184601	59.1	3.7	21.3	27.4	5.1	No
Level 3 SE3 08	1011184593	66.8	4.6	46.2	12.4	4.4	No
Level 4 SE1 01	1011184718	69.0	7.4	17.7	20.4	6.1	No
Level 4 SE1 02	1011184726	57.5	4.2	27.8	16.3	5.4	No
Level 4 SE1 03	1011184734	55.7	4.4	34.0	16.3	4.9	No
Level 4 SE1 04	1011184742	44.0	3.6	28.1	23.9	4.9	No
Level 4 SE1 05	1011184759	43.2	3.6	27.5	13.9	5.8	No
Level 4 SE1 06	1011184767	43.6	3.4	28.0	13.2	5.8	No
Level 4 SE1 07	1011184775	32.6	4.3	33.5	19.0	4.8	No
Level 4 SE1 08	1011184783	43.6	3.4	27.2	13.2	5.9	No



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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 4 SE1 09	1011184791	46.3	3.5	22.6	13.9	6.3	No
Level 4 SE2 01	1011184700	98.5	6.1	30.5	20.8	4.9	No
Level 4 SE2 02	1011184692	75.4	3.6	16.4	12.3	7.2	No
Level 4 SE2 03	1011184684	75.4	3.6	24.2	12.4	6.3	No
Level 4 SE2 04	1011184676	47.5	3.4	26.4	11.6	6.1	No
Level 4 SE3 01	1011184874	65.5	3.8	8.3	22.4	6.9	No
Level 4 SE3 02	1011184866	45.1	3.9	11.8	24.0	6.4	No
Level 4 SE3 03	1011184858	46.6	3.9	17.4	25.0	5.7	No
Level 4 SE3 04	1011184841	44.6	4.3	11.3	18.9	6.9	No
Level 4 SE3 05	1011184833	45.1	3.9	13.4	20.5	6.6	No
Level 4 SE3 06	1011184825	48.3	4.5	11.6	16.5	7.2	No
Level 4 SE3 07	1011184817	59.1	3.7	8.2	22.7	6.9	No
Level 4 SE3 08	1011184809	66.8	4.6	24.7	11.4	6.4	No
Level 5 SE1 01	1011184924	69.0	7.4	26.2	27.2	4.8	No
Level 5 SE1 02	1011184932	58.8	4.2	31.9	22.6	4.7	No
Level 5 SE1 03	1011184940	56.0	4.4	32.2	15.5	5.2	No
Level 5 SE1 04	1011184957	44.0	3.6	30.3	24.0	4.7	No
Level 5 SE1 05	1011184965	43.2	3.6	28.6	14.1	5.6	No
Level 5 SE1 06	1011184973	43.6	3.4	28.4	12.8	5.8	No
Level 5 SE1 07	1011184981	32.6	4.3	40.0	20.8	4.4	No
Level 5 SE1 08	1011184999	43.6	3.4	28.5	13.0	5.7	No
Level 5 SE1 09	1011185004	46.3	3.5	23.5	13.5	6.2	No
Level 5 SE2 01	1011184916	98.5	6.1	31.1	19.9	4.9	No
Level 5 SE2 02	1011184908	75.4	3.6	16.8	12.3	7.1	No
Level 5 SE2 03	1011184890	75.4	3.6	24.6	12.2	6.3	No



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Certification Date	16/06/2017



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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 5 SE2 04	1011184882	47.5	3.4	27.0	11.4	6.1	No
Level 5 SE3 01	1011185087	65.5	3.8	9.0	23.2	6.8	No
Level 5 SE3 02	1011185079	45.0	3.9	10.9	23.9	6.5	No
Level 5 SE3 03	1011185061	45.3	3.7	10.8	21.2	6.8	No
Level 5 SE3 04	1011185053	44.6	4.3	11.9	24.1	6.4	No
Level 5 SE3 05	1011185046	44.1	3.7	8.9	21.2	6.9	No
Level 5 SE3 06	1011185038	48.3	4.5	12.3	17.2	7.1	No
Level 5 SE3 07	1011185020	59.1	3.7	8.5	22.4	6.9	No
Level 5 SE3 08	1011185012	66.8	4.6	24.9	11.1	6.4	No
Level 6 SE1 01	1011185236	86.4	2.3	40.2	15.6	4.6	No
Level 6 SE1 02	1011185228	49.6	3.9	44.2	18.0	4.3	No
Level 6 SE1 03	1011185210	69.6	3.8	25.3	18.9	5.4	No
Level 6 SE1 04	1011185202	69.6	3.8	18.0	21.1	5.9	No
Level 6 SE1 05	1011185194	47.2	3.9	23.2	19.3	5.7	No
Level 6 SE1 06	1011185186	62.1	4.0	33.0	22.9	4.6	No
Level 6 SE1 07	1011185178	46.0	3.4	48.9	30.1	3.6	No
Level 6 SE1 08	1011185160	40.0	8.2	29.2	17.9	5.2	No
Level 6 SE1 09	1011185152	40.0	8.2	30.6	19.3	5.0	No
Level 6 SE1 10	1011185145	35.6	3.8	32.7	20.0	4.8	No
Level 6 SE1 11	1011185137	39.9	3.7	48.2	24.8	3.8	No
Level 6 SE2 01	1011185129	98.5	6.1	31.7	19.9	4.9	No
Level 6 SE2 02	1011185111	75.4	3.6	17.2	12.2	7.1	No
Level 6 SE2 03	1011185103	75.4	3.6	25.1	12.1	6.2	No
Level 6 SE2 04	1011185095	47.5	3.4	27.3	11.0	6.1	No
Level 6 SE3 01	1011185335	65.5	3.8	10.6	23.6	6.6	No



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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m ² /y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 6 SE3 02	1011185327	45.2	3.9	10.9	19.3	6.9	No
Level 6 SE3 03	1011185319	45.2	3.7	9.7	21.3	6.9	No
Level 6 SE3 04	1011185301	44.6	4.3	15.7	22.9	6.0	No
Level 6 SE3 05	1011185293	44.0	3.7	8.5	21.3	7.0	No
Level 6 SE3 06	1011185285	48.4	4.5	12.6	18.2	6.9	No
Level 6 SE3 07	1011185277	59.6	3.7	10.2	25.4	6.4	No
Level 6 SE3 08	1011185269	53.1	3.2	46.3	20.5	4.1	No
Level 6 SE3 09	1011185251	40.9	2.9	42.3	16.9	4.4	No
Level 6 SE3 10	1011185244	68.4	3.0	49.7	17.2	4.1	No
Level 7 SE1 01	1011185483	74.3	4.0	23.3	20.9	5.4	No
Level 7 SE1 02	1011185475	74.0	4.2	13.3	13.8	7.4	No
Level 7 SE1 03	1011185467	74.3	3.4	11.8	17.2	7.1	No
Level 7 SE1 04	1011185459	71.9	2.9	8.6	17.7	7.4	No
Level 7 SE1 05	1011185442	49.4	4.0	7.1	12.3	8.3	No
Level 7 SE1 06	1011185434	73.8	3.8	16.0	23.2	5.9	No
Level 7 SE1 07	1011185426	60.1	3.9	28.1	20.9	5.1	No
Level 7 SE1 08	1011185418	50.7	4.7	32.1	18.4	4.9	No
Level 7 SE1 09	1011185400	50.7	4.7	35.6	16.9	4.8	No
Level 7 SE1 10	1011185392	42.5	3.9	27.7	13.7	5.8	No
Level 7 SE1 11	1011185384	43.1	3.9	31.1	22.2	4.8	No
Level 7 SE2 01	1011185376	98.5	6.1	33.5	20.5	4.8	No
Level 7 SE2 02	1011185368	75.4	3.6	19.0	12.2	6.9	No
Level 7 SE2 03	1011185350	75.4	3.6	29.6	12.1	5.7	No
Level 7 SE2 04	1011185343	47.5	3.4	28.3	11.0	5.9	No
Level 7 SE3 01	1011185582	68.4	3.0	25.4	21.0	5.3	No



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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 7 SE3 02	1011185574	74.3	2.9	20.2	14.9	6.4	No
Level 7 SE3 03	1011185566	39.3	2.7	14.3	37.3	4.9	No
Level 7 SE3 04	1011185558	41.8	3.6	18.4	33.7	4.9	No
Level 7 SE3 05	1011185541	39.4	3.0	14.7	37.1	4.9	No
Level 7 SE3 06	1011185533	40.8	3.2	17.8	34.8	4.8	No
Level 7 SE3 07	1011185525	40.7	4.0	14.4	35.3	5.0	No
Level 7 SE3 08	1011185517	45.5	3.9	30.1	24.9	4.7	No
Level 7 SE3 09	1011185509	53.1	3.2	39.0	19.4	4.4	No
Level 7 SE3 10	1011185491	41.1	2.9	28.1	17.1	5.4	No
Level 8 SE1 01	1011185731	74.4	4.0	17.2	23.7	5.8	No
Level 8 SE1 02	1011185723	74.0	4.2	10.7	19.3	6.9	No
Level 8 SE1 03	1011185715	74.3	3.4	11.0	23.9	6.5	No
Level 8 SE1 04	1011185707	71.9	2.9	10.6	24.3	6.5	No
Level 8 SE1 05	1011185699	49.4	4.0	9.1	14.5	7.8	No
Level 8 SE1 06	1011185681	73.8	3.8	15.4	27.7	5.6	No
Level 8 SE1 07	1011185673	60.1	3.9	24.1	22.1	5.3	No
Level 8 SE1 08	1011185665	50.7	4.7	30.6	18.6	5.1	No
Level 8 SE1 09	1011185657	50.7	4.7	37.3	18.4	4.6	No
Level 8 SE1 10	1011185640	42.5	3.9	30.7	15.3	5.3	No
Level 8 SE1 11	1011185632	43.2	3.9	27.7	22.7	4.9	No
Level 8 SE2 01	1011185624	134.1	3.0	35.2	37.6	3.8	No
Level 8 SE2 02	1011185616	112.4	3.9	20.7	34.4	4.7	No
Level 8 SE2 03	1011185608	112.4	3.9	28.8	33.8	4.3	No
Level 8 SE2 04	1011185590	165.8	2.4	41.5	38.8	3.5	No
Level 8 SE3 01	1011185830	72.7	3.0	25.2	19.9	5.4	No



Certificate Number: 563D73M67U
 Assessor Name: Christopher Mann
 Accreditation number: 101142
 Certificate date: 16 Jun 2017
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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 8 SE3 02	1011185822	69.4	5.7	22.4	20.5	5.6	No
Level 8 SE3 03	1011185814	57.8	1.8	18.8	38.5	4.5	No
Level 8 SE3 04	1011185806	48.7	4.1	12.8	18.7	6.9	No
Level 8 SE3 05	1011185798	47.0	3.4	9.9	18.2	7.2	No
Level 8 SE3 06	1011185780	47.4	3.9	10.9	19.9	6.9	No
Level 8 SE3 07	1011185772	48.4	4.5	11.8	20.3	6.8	No
Level 8 SE3 08	1011185764	62.1	3.3	11.7	40.7	4.9	No
Level 8 SE3 09	1011185756	56.9	3.2	41.9	16.5	4.4	No
Level 8 SE3 10	1011185749	41.1	2.9	31.7	16.4	5.2	No
Level 9 SE1 01	1011185947	74.4	4.0	14.2	23.8	6.1	No
Level 9 SE1 02	1011185939	74.0	4.2	9.8	20.0	7.0	No
Level 9 SE1 03	1011185921	74.3	3.4	10.7	24.3	6.5	No
Level 9 SE1 04	1011185913	71.9	2.9	10.6	24.4	6.5	No
Level 9 SE1 05	1011185905	49.4	4.0	9.3	14.7	7.8	No
Level 9 SE1 06	1011185897	73.8	3.8	14.8	28.9	5.5	No
Level 9 SE1 07	1011185889	60.1	3.9	26.0	20.2	5.3	No
Level 9 SE1 08	1011185871	50.7	4.7	30.9	18.3	5.1	No
Level 9 SE1 09	1011185863	50.7	4.7	37.6	18.2	4.6	No
Level 9 SE1 10	1011185855	42.5	3.9	31.3	15.2	5.3	No
Level 9 SE1 11	1011185848	43.2	3.9	28.0	22.6	4.9	No
Level 9 SE3 01	1011186044	72.7	3.0	25.1	19.9	5.4	No
Level 9 SE3 02	1011186036	69.6	5.7	29.4	20.6	4.9	No
Level 9 SE3 03	1011186028	57.9	1.8	17.3	37.3	4.7	No
Level 9 SE3 04	1011186010	48.7	4.1	20.2	19.7	5.9	No
Level 9 SE3 05	1011186002	47.0	3.4	15.7	18.9	6.5	No



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Sole-Occupancy Unit (SOU) Thermal Performance Specifications

Unit Number	Certificate Number	Floor Area		Simulated Loads (area adjusted MJ/m2/y)		NatHERS	Rated with Downlights
		Conditioned	Unconditioned	Heating	Cooling	Star Rating	
Level 9 SE3 06	1011185996	47.3	3.9	17.4	21.1	6.1	No
Level 9 SE3 07	1011185988	48.4	4.5	18.7	21.0	5.9	No
Level 9 SE3 08	1011185970	62.1	3.3	12.1	39.8	4.9	No
Level 9 SE3 09	1011185962	57.1	3.2	46.1	18.8	4.2	No
Level 9 SE3 10	1011185954	41.1	2.9	40.0	17.6	4.5	No



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