



ENERGY EFFICIENCY ASSESSMENT

Project: Proposed Mixed Use Development
Job reference no: 1907135
Issue: A
Site: 76 – 78 Commercial Road, Port Adelaide
Date: 09/10/2019
Climate Zone: 5
Classification: 6

Yes: Comply

No: Non- comply

N/A: Not applicable

TBA: To be advised / confirmed



Civil - Structural - Environmental - Geotechnical - Mechanical - Electrical - Fire - Hydraulics - Lifts - Green ESD
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Application of Section J

J0.1 Performance Requirements JP1, JP2 and JP3 are satisfied by complying with—

- (a) for reducing the heating or cooling loads—
 - i. of sole-occupancy units of a Class 2 building or a Class 4 part of a building, J0.2 and J0.3; and
 - ii. of a Class 2 to 9 building, other than the sole-occupancy units of a Class 2 building or a Class 4 part, Parts J1, J2 and J3; and
- (b) for air-conditioning and ventilation, Part J5; and
- (c) for artificial lighting and power, Part J6; and
- (d) for hot water supply and swimming pool and spa pool plant, Part J7; and
- (e) for facilities for maintenance and monitoring, Part J8.

Comments:

Building classification is Class 2 & 6. Compliance with J0.1 (a) for the *sole-occupancy units* is achieved with the use of an ABCB Protocol for House Energy Rating Software. Refer to attached “Heating and Cooling Load Assessment.”

For compliance with other areas than the *sole-occupancy units* refer to this report (Common Areas as Offices, etc.)

NOTE: J1, J2 & J3 ONLY APPLIES FOR OTHER THAN THE SOLE-OCCUPANCIES UNITS (i.e. Commercial Tenancy, etc)

J1 BUILDING FABRIC

Application: Does not APPLY to **Class 7, 8 or 9b** that does not have a conditioned space or an atrium or solarium that is separated from the remainder of the building.

J1.2 Thermal Construction General:

Item	Deemed to satisfy requirement	Outcome/ Comment	Yes	No	N/A
a) Where required, insulation must comply with AS/NZS 4859.1 and be installed so that it-	(i) abuts or overlaps adjoining insulation other than at supporting members such as studs, noggins, joists, furring channels and the like where the insulation must be against the member; and (ii) forms a continuous barrier with ceilings, walls, bulkheads, floors or the like that inherently contribute to the thermal barrier; and (iii) does not affect the safe or effective operative of a service or fitting.	Compliance with required	√		
b) Where required, reflective insulation must be installed with -	(i) the necessary airspace to achieve the required R-value between a reflective side of the reflective insulation and a building lining or cladding; and (ii) the reflective insulation closely fitted against any penetration, door or window opening and (iii) the reflective insulation adequately supported by framing members; and (iv) each adjoining sheet of roll membrane being- (A) Overlapped not less than 50mm; or (B) Taped together	Compliance with required	√		
c) Where required, bulk insulation must be installed so that-	(i) it maintains its position and thickness, other than where it is compressed between cladding and supporting members, water pipes, electrical cabling or the like; and (ii) in a ceiling, where there is no bulk insulation or reflective insulation in the wall beneath, it overlaps the wall by not less than 50mm.	Compliance with required	√		
d) Thermal Properties	Roof, ceiling, wall and floor materials, and associated surfaces are deemed to have the thermal properties listed in Specification J1.2	Compliance with required	√		

J1.3 Roof and Ceiling Construction

Item	Criteria	Deemed to satisfy Requirement (Table J1.3)			Outcome
	Zone	4	5	6	
(a) Roofs Solar absorptance assumed 0.55 (Concrete slab)	Minimum Total R-Value Direction of heat flow - Downwards	3.7	<u>3.7</u>	3.7	Not Applicable (Class 2 apartments over)
Direction of heat flow		Downwards			
	Ceiling below non-conditioned space	1.6	<u>1.6</u>	1.6	Not Applicable

J1.4 Roof lights

Item	Roof Light Shaft Index (Table J1.4)	Criteria	Deemed to satisfy Requirement (Table J1.4)	Outcome	Yes	No	N/A
Roof lights 1.5% < A < 10%		SHGC Value		Not Applicable			√
		Total U-Value		Not Applicable			√
Roof lights > 10% floor area		SHGC Value	0.25 max	Not Applicable			√
		Total U-Value	1.3 max	Not Applicable			√

J1.5 Walls

Table J1.5a

Item	Criteria	Deemed to satisfy Requirement (Table J1.3)			Outcome
	Zone	4	5	6	
External walls (ie. Any walls comprising part of the building envelope)	Minimum Total R-Value	2.8	<u>2.8</u>	<u>2.8</u>	Concrete precast wall panel + Air space + Insulation + internal lining R –values Outside air film: R0.04 150mm Precast Panel: R0.11 Air Space: R0.17 Plasterboard: R0.06 Indoor air film: R0.12 Total R-value: R0.5 Provide a minimum R2.3 insulation to external walls
Where the only space for insulation is provided by a furring channel, top hat section, batten or the like	Minimum Total R-Value	1.4	<u>1.4</u>	1.4	Not Applicable

Table J1.5b - An envelope wall other than an external wall – minimum Total R-value

Item	Criteria	Deemed to satisfy Requirement (Table J1.3)			Outcome
	Zone	4	5	6	
(a) With the non-conditioned space-	(i) enclosed, with mechanical ventilation of not more than 1.5 air changes per hour of outside air; and (ii) glazing not more than that required by Part J2.	NIL	<u>1.0</u>	1.0	Proposed internal wall separating the conditioned & non-conditioned space Provide a minimum insulation R1.0 to all internal walls separating conditioned & non-conditioned space
(b) For other than (a)	Minimum Total R-Value	1.8	<u>1.8</u>	1.8	Provide a minimum insulation R1.8 to all internal walls other than (a)

J1.5

Item	Deemed to satisfy requirement	Outcome/ Comment	Yes	No	N/A
(c) A wall that-	(i) Is required to achieve a minimum Total R-value; and (ii) Has lightweight external cladding such as weatherboards, fibre cement or metal sheeting fixed to a metal frame; and (iii) Does not have a wall lining or has a wall lining that is fixed directly to the same metal frame, Must have a thermal break, consisting of a material with an R-value of not less than R0.2, installed between the external cladding and the metal frame.	Not applicable.			√
(d)	For compliance with Table J1.5a and Table J1.5b, wall construction is deemed to have the thermal properties listed in Specification J1.5.	Compliance with required	√		

J1.6 Floors

Item	Deemed to satisfy requirement	Outcome/ Comment	Yes	No	N/A
Suspended Floors	A suspended floor without an in-slab heating or cooling system.	Not applicable			√
Floor	Minimum Total R-Value • Slab-on-ground	Not applicable			√



J2.5 Shading

Item	Deemed to satisfy requirement	Outcome/ Comment	Yes	No	N/A
Required shading	Construction specifications for shading: 1) capable of restricting at least 80% of summer solar radiation; and 2) is operated automatically in response to the level of solar radiation.	Not applicable		√	

J3 BUILDING SEALING

J3.2 Chimneys and Flues

Item	Deemed to satisfy requirement	Outcome/ Comment	Yes	No	N/A
Chimneys and flues	The chimney or flue of an open solid-fuel burning appliance must be provided with a damper or flap that can be closed to seal the chimney or flue.	Not Applicable			√

J3.3 Roof Lights

Item	Deemed to satisfy requirement	Outcome/ Comment	Yes	No	N/A
(a) A roof light must be sealed, or capable of being sealed when serving-	(i) A conditioned space; or (ii) A habitable room in climate zones 4, 6, 7 and 8.	Not applicable			√
(b) A roof light required by (a) must be constructed with-	(i) An imperforate ceiling diffuser or the like installed at the ceiling or internal lining level; or (ii) A weatherproof seal if it is a roof window; or (iii) A shutter system readily operated either manually, mechanically or electronically by the occupant.	Not applicable			√

J3.4 External Windows and Doors

Item	Deemed to satisfy requirement	Outcome/ Comment	Yes	No	N/A
(a) A seal to restrict air infiltration must be fitted to each edge of a door, openable window or the like forming part of-	(i) The envelope of a conditioned space; or (ii) The external fabric of a habitable room or public are in climate zones 4, 5, 6, 7 and 8,	Compliance with required	√		
(b) The requirement of (a) do not apply to -	(i) A window complying with AS2047; or (ii) A fire door or smoke door; or (iii) A roller shutter door, roller shutter grille or other security	Compliance with required	√		
(c) A seal required by (a) -	(i) For the bottom edge of an external swing door, must be a draft protection device; and (ii) for the other edges of an external door or the edges of an openable window or other such opening, may be a foam or rubber compression strip, fibrous seal or the like.	Compliance with required	√		
(d) An entrance to a building, if leading to a conditioned space must have an airlock, self-closing door, revolving door or the like, other than-	(i) Where the conditioned space has a floor area of not more than 50m ² ; or (iii) Where a café, restaurant, open front shop or the like has- (A) A 3m deep un-conditioned zone between the main entrance, including an open front, and the conditioned space; and (B) At all other entrances to the café, restaurant, open front shop or the like, self-closing doors.	Compliance with required	√		

J3.5 Exhaust Fans

Item	Deemed to satisfy requirement	Outcome/ Comment	Yes	No	N/A
A miscellaneous exhaust fan, such as a bathroom or domestic kitchen exhaust fan, must be fitted with a sealing device such as a self-closing damper or the like when serving-	(a) a conditioned space; or (b) a habitable room in climate zones 4, 5, 6, 7 and 8.	Compliance with required	√		



J3.6 Construction of Roofs, Walls and Floors

Item	Deemed to satisfy requirement	Outcome/ Comment	Yes	No	N/A
(a) Roofs, ceilings, walls, floors and any opening such as a window frame, door frame, roof light frame or the like must be constructed to minimize air leakage in accordance with (b) when forming part of-	(i) the envelope; or (ii) the external fabric of a habitable room or a public area in climate zones 4, 6, 7 and 8.	Compliance with required	√		
(b) Construction required by (a) must be-	(i) Enclosed by internal lining systems that are close fitting at ceiling, wall and floor junctions; or (ii) sealed by caulking, skirting, architraves, cornices or the like.	Compliance with required	√		
(c)	The requirements of (a) do not apply to openings, grilles and the like required for smoke hazard management.	Compliance with required	√		

J3.7 Evaporative coolers –

Item	Deemed to satisfy requirement	Outcome/ Comment	Yes	No	N/A
An evaporative cooler must be fitted with a self-closing damper or the like when serving -	(a) a heated space; or (b) a habitable room or a public area of a building in climate zones 4, 5, 6, 7 and 8.	Not applicable			√



J4 AIR MOVEMENT (NOT APPLICABLE)

J4.1 Application – Applies only to a habitable room in a Class 2 & 4 building.

J5 AIR-CONDITIONING AND VENTILATION SYSTEMS

J5.2 Air-conditioning and ventilation systems

Item	Deemed to satisfy requirement	Outcome/ Comment	Yes	No	N/A
(a) The air-conditioning unit must:	(i) Be capable of being inactivated when the SOU, building or part of the building served is not occupied	Compliance with required	√		
	(ii) Where there is motorized outside air and return dampers – dampers close when ACU is deactivated	Compliance with required	√		
	(iii) When serving a sole-occupancy unit of a Class 3 building, not operate when any external door including a door opening to a balcony, patio, courtyard or the like is open for more than 1 minute; and	Not applicable			√
	(iv) Have any supply and return ductwork insulated & sealed to Specification J5.2	Compliance with required	√		
	(v) If serves more than one SOU or AC zone with different heating & cooling needs: <ul style="list-style-type: none"> o thermostatically control temp in each SOU, zone or area o not control the temp by mixing actively heated air & actively cooled air o limit reheating to not more than a 7.5 K rise in temp at the supply air rate for the space served & may be increased or decreased at the same rate that the supply air rate is respectively decreased or increased 	Not applicable			√
	(vi) Other than where a packaged air-conditioning unit is used, have a variable speed fan when its supply air quantity is varied; and	Not applicable			√
	(vii) Where the air-conditioning system provides the required mechanical ventilation, have an outdoor air economy cycle- <ul style="list-style-type: none"> (A) In climate zone 2 and 3, when the air-conditioning unit capacity is over 50kW_r; and (B) In climate zones 4, 5, 6, 7 and 8 when air-conditioning unit capacity is over 35kW_r; and 	Not applicable			√
	(viii) In a Class 3 building be capable of controlling the temperature of a SOU at a different temp during sleeping periods than other periods	Not Applicable			√

	<p>(ix) When air flow is > 1000 L/s designed so that the total fan power of the fans in the system is in accordance with Table J5.2, except the following need not comply with this requirements:</p> <p>(A) The power for an energy reclaiming system that preconditions outdoor air.</p> <p>(B) The power for process related components such as high efficiency particulate air filters.</p> <p>(C) The power for miscellaneous exhaust systems complying with J5.5.</p>	Not applicable			√
(b) A system that provides mechanical ventilation to other than a sole-occupancy unit in a Class 2 building or a Class 4 part of a building, either as part of an air-conditioning system or as a separate ventilation system, must -	(i) Be capable of being inactivated when the building or part of the building served is not occupied.	Compliance with required	√		
	<p>(ii) When serving a conditioned space-</p> <p>(A) not provide mechanical ventilation in excess of the minimum quantity required by F4 by more than 50% other than where there is:</p> <ul style="list-style-type: none"> Additional unconditioned outside air supplied (to provide free cooling; or to balance required exhaust ventilation (such as from a toilet exhaust) or to balance exhaust from a health-care building or laboratory), or Additional exhaust ventilation needed to balance the required mechanical ventilation, or An energy reclaiming system that preconditions outside air and <p>(B) in other than climate zone 2, where the number of square metres per person is 1 or less as specified in D1.13 and the air flow rate is more than 1000L/s, have-</p> <ul style="list-style-type: none"> An energy reclaiming system that preconditions outside air; or The ability to automatically modulate the mechanical ventilation required by Part F4 in proportion to the number of occupants; and 	<p>Not applicable</p> <p>Not applicable</p>			√
	<p>(iii) When the mechanical ventilation is provided by means other than an air-conditioning system and the air flow rate is more than 1000L/s-</p> <p>(A) Have a fan power to air flow rate ratio of 0.5 W/(L/s) without filters or 0.75 W/(L/s) with filters for a general mechanical ventilation system; and</p> <p>(B) For carpark exhaust, when serving over 40 vehicles-</p> <ul style="list-style-type: none"> Be controlled by an atmospheric contaminant monitoring system in accordance with AS1668.2; and Maintain an average minimum air-change rate of 0.5 changes per hour other than when the carpark is not occupied for a period of more than 2 hours. 	Not applicable			√



(c) The requirements of (a) and (b) must not inhibit-	(i) The smoke hazard management operation of air-conditioning and mechanical ventilation systems; and	Not Applicable			√
	(ii) Essential ventilation such as for a garbage room, lift motor room, gas meter enclosure or gas regulator enclosure or the like.	Not Applicable			√
(d) The provisions of (b)(iii) do not apply to the following:	(i) The power for an energy reclaiming system than preconditions outside air.	Not Applicable			√
	(ii) The power for process related components such as high efficient particulate air filters.	Not Applicable			√
	(iii) The power for a miscellaneous exhaust system complying with J5.5.	Not Applicable			√
J5.3 Time Switch					
(a) A time switch in accordance with Specification J6 must be provided to control each of the following:	(i) An air conditioning system of more than 10kW _r ; or	Compliance with required.	√		
	(ii) A ventilation system with an air flow rate of more than 1000 L/s; or	Not Applicable			√
	(iii) Heating systems of more than 10 kW _{heating}	Compliance with required.	√		
(b) The requirements of (a) do not apply to-	(i) An air-conditioning system or ventilation system that serves only one sole-occupancy unit of- (A) a Class 2 or 3 building; or (B) a Class 4 part of a building; or (C) a Class 9c aged care building; or	Not Applicable			√
	(ii) a building where air-conditioning or ventilation is needed for 24 hour occupancy such as a manufacturing process or emergency services.	Not Applicable			√
J5.4 Heating and cooling systems					
(a) Systems that provide heating and chilling for air-conditioning systems must:	(i) Have piping vessels, heat exchangers or tanks containing heated or chilled fluid, other than those with insulation levels covered by Minimum Energy Performance Standards (MEPS), insulated in accordance with Specification J5.4 ; and	Not Applicable			√



	(ii) Where water is circulated by pumping at greater than 2 L/s: (A) Be designed so that the total of the pump power to the pump is in accordance with Table J5.4a; and (B) Have the pump capable of varying its speed in response to varying load when it is rated at more than 3kW of pump power, except where the pump is needed to run at full speed for safe or efficient operation; and	Not Applicable			√
	(iii) If the system contains not more than one boiler, chiller or coil, be capable of stopping the flow of water to those not operating	Not Applicable			√
(b) A heater-	(i) For heating a space via water, such as a boiler, that is part of an air-conditioning system, must- (A) Achieve a thermal efficiency complying with Table J5.4b when tested in accordance with BS 7190; and (B) Use reticulated gas where it is available at the allotment boundary; and	Not Applicable			√
	(ii) for heating a space other than via water, must be- (A) A solar heater; or (B) A gas heater; or (C) An oil heater if reticulated gas is not available at the allotment boundary; or (D) A heat pump heater; or (E) A solid-fuel burning heater; or (F) A heater using reclaimed heat from another process such as reject heat from refrigeration plant; or (G) A combination of 2 or more of (A) to (F); and	Not Applicable			√
	(iii) that is fixed space heating appliance installed outdoors, must be controlled to automatically turn off when not needed by an outdoor air temperatures sensor, timer, motion detector, or the like.	Not Applicable			√
(c)	Package air-conditioning equipment with a capacity of not less than 65kW _r , including a split unit and a heat pump, must have an energy efficiency ratio complying with Table J5.4c when tested in accordance with AS/NZS 3823.1.2 at test condition T1.	Not Applicable			√

(d)	A refrigerant chiller up to 350 kW capacity that is part of air-conditioning system, must have an energy efficiency ratio complying with Table J5.4d when determined in accordance with ARI550/590	Not Applicable			√
(e)	The fan motor of an air cooled condenser that is part of an air-conditioning system, other than one that is part of package air-conditioning equipment in (c) or that is part of a Liquid Chilling Package, using the vapour compression cycle in (d), must not use more than 42 W of fan power, for each kW of heat rejected from the refrigerant when determined in accordance with ARI 460.	Not Applicable			√
(f) The fan of a cooling tower that is part of an air-conditioning system must not use more than-	(i) If a propeller or axial fan, 310 W of motor shaft power for each L/s of cooling water circulated; and	Not Applicable			√
	(ii) If a centrifugal fan, 590 W of motor shaft power for each L/s of cooling water circulated	Not Applicable			√
(g) The fan of a closed circuit cooler that is part of an air-conditioning system must not use more than-	(i) If a propeller or axial fan, 500 W of motor shaft power for each L/s of cooled fluid circulated; and	Not Applicable			√
	(ii) If a centrifugal fan, 670 W of motor shaft power for each L/s of cooled fluid circulated	Not Applicable			√
(h) The fan of an evaporative condenser that is part of an air-conditioning system must not use more than-	(i) If a propeller or axial fan, 18 W of motor shaft power for each kW of heat rejected; and	Not Applicable			√
	(ii) If a centrifugal fan, 22 W of motor shaft power for each kW of heat rejected.	Not Applicable			√
(i)	The spray water pump of a closed circuit cooler or evaporative condenser must not use more than 150 W of pump motor shaft power for each L/s of spray water circulated	Not Applicable			√

J5.5 Miscellaneous exhaust systems					
Miscellaneous exhaust systems with an air flow rate of more than 1000L/s that is associated with equipment having a variable demand such as a stove in a commercial kitchen or a chemical bath in a factory must:	<ul style="list-style-type: none"> Have the means for the operator to: <ul style="list-style-type: none"> Reduce the energy used (such as a variable speed fan) and, Stop the motor when the system is not needed; and Be designed to minimize the exhausting of conditioned air. <p>❖ Does not apply:</p> <ul style="list-style-type: none"> Within a SOU of Class 2, 3 building, Class 4 part of a building or Class 9c aged care building; or Where additional exhaust ventilation is needed to balance the required outside air for ventilation; Where the air flow must be maintained for safe operation. 	Not Applicable			√

J6 ARTIFICIAL LIGHTING & POWER

J6.2 Interior Artificial Lighting

For a Class 5, 6, 7, 8, 9a or 9b building:

- (a) The aggregate design illumination power load must not exceed the sum of the allowances obtained by multiplying the area of each space by the maximum illumination power density in Table J2.6b.

Comment: The lighting design does not exceed the maximum illumination power density

J6.3 Interior Artificial Lighting and Power Control

Item	Deemed to satisfy requirement	Outcome/ Comment	Yes	No	N/A
a) Artificial lighting of a room or space	Must be individually operated by switch or other control device	Compliance with required	√		
b) Motion detector	An occupant activated device, such as room security device, a motion detector in accordance with Specification J6, or the like, must be provided in the sole-occupancy unit of a Class 3 building, other than where providing accommodation for people with a disability or the aged, to cut power to the artificial lighting, air-conditioner, local exhaust fans and bathroom heater when the sole-occupancy unit is unoccupied.	Not Applicable			√
c) An artificial lighting switch or control device in (a) must	(i) if an artificial lighting switch, be located in a visible position- (A) In the room or space being switched, or (B) in an adjacent room or space from where the lighting being switch is visible; and	Compliance with required	√		
	(ii) For other than a single functional space such as an auditorium, theatre, swimming pool, sporting stadium or warehouse- (A) Not operate lighting for an area of more than 250m ² if in a Class 5 building or a Class 8 laboratory; or (B) Not operate lighting for an area of more than- • 250m ² for a space of not more than 2000m ² ; or • 1000m ² for a space of more than 2000m ² , if in a Class 3, 6, 7, 8 (other than a laboratory) or 9 building.	Not Applicable			√
d) 95% of the lighting in a building or storey of a building, other than a Class 2 or 3	i) A time switch in accordance with Specification J6 or	Compliance with required	√		

building or a Class 4 part, of more than 250m ² must be controlled by-	ii) An occupant sensing device such as – (A) A security key card reader; or (B) A motion detector in accordance with Specification J6.	Compliance with required	√		
e) Artificial light in a natural lighting zone adjacent to windows in a storey of a Class 5,6 or 8 building, of more than 250m ² must be separately controlled from artificial lighting not in a natural lighting zone except where-	(i) the room containing the natural lighting zone is less than 20m ² ; or	Not Applicable			√
	(ii) the room's natural lighting zone contains less than 4 luminaires; or	Not Applicable			√
	(ii) the luminaires in the natural lighting zone are not more than 70% of the luminaires in the room.	Compliance with required	√		
f) The requirements of (a), (b), (c), (d) and (e) do not apply to the following:	(i) Emergency lighting in accordance with Part E4.	Compliance with required	√		
	(ii) Where artificial lighting is needed for 24-hour occupancy such as for a manufacturing process, parts of a hospital, an airport control tower or within a detention centre.	Not Applicable			√
g) The requirements of (d) do not apply to the following:	(i) Artificial lighting in a space where the sudden loss of artificial lighting would cause an unsafe situation such as in a patient care area in a Class 9a building or in a Class 9c aged care building.	Not Applicable			√
	(ii) A heater where the heater also emits light, such as in bathrooms.	Not Applicable			√

J6.4 Interior decorative and display lighting

(a) Interior decorative and display lighting, such as for a foyer mural or art display, must be controlled-	(i) separately from other artificial lighting; and	Not Applicable			√
	(ii) by a manual switch for each area other than when the operating times of the displays are the same in a number of areas such as in a museum, art gallery or the like, in which case they may be combined; and	Not Applicable			√
	(iii) by a time switch in accordance with Specification J6 where the display lighting exceeds 7kW.	Not Applicable			√
(b) Window display lighting	Must be controlled separately from other display lighting.	Not Applicable			√

J6.5 Artificial lighting around the perimeter of a building

a) Artificial lighting around the perimeter of a building, must-	i) be controlled by- (A) either a daylight sensor or (B) a time switch that is capable of switching on and off electric power to the system at variable pre-programmed times and on variable pre-programmed days; and	Compliance with required	√		
	ii) when the total perimeter lighting load exceeds 100W, (A) have an efficacy of not less than 60 lumens/ W or (B) Be controlled by a motion detector in accordance with Specification J6	Compliance with required	√		
	(iii) when used for decorative purposes, such as façade lighting or signage lighting, have a separate time switch in accordance with Specification J6.	Compliance with required	√		
(c) The requirements of (a)(iii) do not apply to the following:	(i) Emergency lighting in accordance with Part E4.	Compliance with required	√		
	(ii) Lighting around a detention centre.	Not Applicable			√

J6.6 Boiling water and chilled water storage units

a)	Power supply to a boiling water and chilled water storage unit must be controlled by a time switch in accordance with Specification J6.	Compliance with required	√		
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J7 HOT WATER SUPPLY

J7.2 Hot Water Supply

Item	Deemed to satisfy requirement	Outcome/ Comment	Yes	No	N/A
Hot water supply	A hot water supply system for food preparation and sanitary purposes, other than a solar hot water supply system in climate zones 1, 2 and 3, must be designed and installed in accordance with Section 8 of AS/NZS 3500.4.	Compliance with required	√		

J7.3 Swimming pool heating and pumping

(a) Heating for a swimming pool must be by-	(i) a solar heater not boosted by electric resistance heating; or	Not Applicable			√
	(ii) a heater using reclaimed energy; or	Not Applicable			√
	(iii) a gas heater; or	Not Applicable			√
	(iv) a heat pump; or	Not Applicable			√
	(v) a combination of 2 or more of (i), (ii), (iii) and (iv)	Not Applicable			√
(b) Where some or all of the heating required by (a) is by a gas heater or a heat pump, the swimming pool must have-	(i) a cover other than when located in a conditioned space; and	Not Applicable			√
	(ii) a time switch in accordance with Specification J6 to control the operation of the heater.	Not Applicable			√
(c)	A time switch must be provided in accordance with Specification J6 to control the operation of a circulation pump for a swimming pool.	Not Applicable			√
(d)	For the purpose of J7.3, a swimming pool does not include a spa pool.	Not Applicable			√



J7.4 Spa pool heating and pumping

(a) Heating for a spa pool having a capacity of 680L or more must be by-	(i) a solar heater; or	Not Applicable			√
	(ii) a heater using reclaimed energy; or	Not Applicable			√
	(iii) a gas heater; or	Not Applicable			√
	(iv) a heat pump; or	Not Applicable			√
	(v) a combination of 2 or more of (i), (ii), (iii) and (iv)	Not Applicable			√
(b) Where some or all of the heating required by (a) is by a gas heater or a heat pump, the spa pool must have-	(i) a cover; and	Not Applicable			√
	(ii) a push button and a time switch in accordance with Specification J6 to control the operation of the heater.	Not Applicable			√
(c)	A time switch must be provided in accordance with Specification J6 to control the operation of a circulation pump for a spa pool having a capacity of 680L or more.	Not Applicable			√

J8 ACCESS FOR MAINTENANCE

J8.2 Access for Maintenance

Item	Deemed to satisfy requirement	Outcome/ Comment	Yes	No	N/A
Access for Maintenance	Access must be provided to all prescribed plant, equipment and components that require maintenance in accordance with Part I2.	Compliance with required	√		

J8.3 Facilities for energy monitoring

(a)	A building or sole-occupancy unit with floor area of more than 500m ² must have the facility to record the consumption of gas and electricity.	Not Applicable			√
(b) A building with a floor area of more than 2,500m ² must have the facility to record individually the energy consumption of-	(i) air-conditioning plant including, where appropriate, heating plant, cooling plant and air handling fans; and	Not Applicable			√
	(ii) artificial lighting; and	Not Applicable			√
	(iii) appliance power; and	Not Applicable			√
	(iv) central hot water supply; and	Not Applicable			√
	(v) internal transport devices including lifts, escalators and travelators where there is more than one serving the building; and	Not Applicable			√
	(vi) other ancillary plant.	Not Applicable			√
(c)	The provision of (b) do not apply to a Class 2 building with a floor area of more than 2,500m ² where the total area of the common areas is less than 500m ² .	Not Applicable			√



STATEMENT OF COMPLIANCE TO BCA ENERGY EFFICIENCY SECTION J

Engineer: MARIO DE LORENZO
Qualification / title: BUILDING SERVICES ENGINEER
Company: TMK CONSULTING ENGINEERS
Property location: 76 – 78 COMMERCIAL ROAD, PORT ADELAIDE SA 5015
Project description: MIXED USE DEVELOPMENT
Job Reference Number: 1907135_EER ISSUE: A
Supporting Documentation: BCA 2016, SPECIFICATION, DRAWINGS & SUPPORTING CALCULATION.
Method of Compliances: DEEMED TO SATISFY PROVISIONS
Area of assessment: BCA SECTION J

Signature

Signed:*Mario De Lorenzo*..... Date:.....09/10/2019.....



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