

DEVELOPMENT PROJECT AT 61 BROOKES STREET, BOWEN HILLS

STATEMENT OF PROPOSED SUPERIOR DESIGN OUTCOMES – Amended November 2019

SUPERIOR DESIGN OUTCOME	SUPPORTING FACTS AND CIRCUMSTANCES
1.0 Sustainable Design and Architecture	
1.1 NatHERS 7 star rating	- Passive and active ESD principles incorporated into the project to achieve average of at least 7 star NatHERS rating to all units through considered design approach. - Places building at best practice and well in excess of current industry standard of 5 stars. - Benefits include ongoing sustainable building use and operation which results in lower energy consumption, reduced building carbon footprint and lower impact on global warming.
1.2 Construction impact	- Minimise basement and general site excavation in response to site geology (i.e. extremely hard rock) in order to: - reduce construction noise for adjacent business, residents and the adjacent funeral chapel - reduce vibration arising from excavation for the adjoining heritage premises and - reduce construction timeframes. - Delivering this SDO contributed an additional 5 storeys to the total built form of the - 1 storey of non-residential uses at the ground level for activation and CPTED elements and 4 storeys of podium carparking - sleeved to the Brookes Street frontage of the site by non-residential uses and vertical landscaping. - Delivery of this SDO also necessitated podium carparking. To offset impacts from podium car parking (i.e. activation and passive surveillance (CPTED) of Brookes Street), the development delivers non-residential activities at ground level, mezzanine level, Level 1 and Level 2. This response was considered a separate SDO (see SDO1.5)

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1.3 High ratio of per dwelling landscape amenity	▪ An average of 3.2m² of vertical and horizontal landscaping per residential dwelling unit located and configured to complementing and enhance the quality and amenity of communal open space areas and the public realm ▪ The landscaping will incorporate - ▫ a large rooftop communal open space vertical garden with landscaping visible in the skyline ▫ level 5 landscaping, visible from the public realm ▫ 3 storey vertical gardens to the Brookes Street podium facade ▫ podium planting to the Exhibition Street building facade ▫ significant subtropical ground plane planting to the Brookes Street building frontage. ▪ Benefits include: ▫ increase of urban habitat from traditionally underutilised spaces ▫ reduction in heat loading to the building ▫ improved amenity to areas of communal open space ▫ improved pedestrian and visual amenity to Brookes Street ▫ improved skyline amenity when viewed from surrounding development and the public realm
1.4 Living walls	▪ Greening of building facades and roof walls to reduce heat loading by the building and reduced noise levels inside the building.
1.5 Brookes Street activation, CPTED elements and additional communal recreation opportunities.	▪ Retail / café uses over two levels to Brookes Street (not required by the development scheme) ▪ These uses sleeve 2 storeys of podium car parking - contributing to activation of the public realm and improving the CPTED elements of the development ▪ An additional X m2 of communal recreation space in the form of a resident gymnasium, pilates room and music /arts room, on Level 1 and Level 2.

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2.0 Energy Use and Consumption	
2.1 Centralised energy consumption monitoring and management	▪ Prepare and distribute to building managers and tenants, a Building Users Guide advising of the building management systems that are available to: ▫ monitor and control mechanical, electrical and security systems ▫ reduce energy demand ▫ improve water efficiency ▫ reduce waste (i.e. waste management and recycling) ▫ improve user awareness of energy use and cost and empower management and reduce consumption. ▪ The guide will identify those systems that provide individual unit energy consumption data ▪ Use of EPCM contracts for PVT, HVAC integration, HWS, lighting for lower OPEX.
2.2 Air conditioning efficiency and control	▪ HVAC split system load lopping air conditioning specified as DRED type and linked to BMS / Energex for load and consumption control (for living areas only). ▪ Individually controlled systems. ▪ Usage monitoring (energy consumption data) linked to the Origin Energy Portal. ▪ Use of inverter technology to minimise power usage. ▪ Individual toilet exhaust to each apartment to minimise conditioned air loss through exhaust system.
2.3 Lighting efficiency and control	▪ Average lighting will be provided with efficiency better than 5.0 w/m². ▪ To ensure the lighting is not over-designed consuming excess raw materials and excess energy the lighting will be designed to meet the minimum appropriate requirements without excess spill or over lighting. ▪ A typical 80m² unit with 20% fluorescent iron core lighting and 80% incandescent lighting will have an efficiency of 15.2 W/m² (Approximately 26,400kwh over 15 years). ▪ The project will utilise 100% LED and electronic ballasted fluorescent lighting or better in the residences with an efficiency of 4.4w/m² (Approximately 7,700kwh per unit over 15 years). ▪ To provide greater flexibility for light switching, making it easier to light only occupied areas and thus reduce the environmental impact, the lighting control will be as follows: ▫ All non-public individual or enclosed spaces have individual switches; ▫ Switching function that is clear and easily accessible by building occupants and managers.

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2.4 Roof level solar and battery system	▪ Rooftop solar PVT linked to compact lithium ion storage batteries and a DC/AC rectifier unit to increase proportion of energy sourced through renewables ▪ Capture and store energy to feed the hot water system and rooftop energy consumption (pool heating and lighting) ▪ Deliver an 'energy neutral' rooftop.
2.5 Car park natural ventilation	▪ Achieve natural ventilation to four (4) levels of podium car parking ▪ Avoids mechanical exhaust ventilation and significantly reduces building energy consumption of between \$30,000 and \$60,000 operating costs per year.
2.6 Hot water system	▪ Central gas hot water system with consumption metering for each apartment to be provided by the Origin Energy Portal.
2.7 Thermal performance	▪ High level thermal performance has been achieved by the development incorporating: ▫ The building orientation maximising the northern aspect, while treating west-facing units with deep balconies and operable screening. ▫ Deep balconies, sun-shading and overhangs providing protection from solar heat gain. ▫ High performance insulation in all external walls and ceiling spaces below an external roof. ▫ Ceiling fans in all living spaces and all bedrooms. ▫ Operable windows. ▫ Vertical landscaping elements (i.e. green walls to complement the rooftop recreation area)
3.0 Community and Resident Engagement	
3.1 Public realm enhancement	▪ Creation of a public node / realm at the building frontage through: ▫ Integration of public and private land and widening of the building entry to maximise the 'public realm' space ▫ Provision of seating, shelter and significant landscaping, to provide a climatically responsive and comfortable space
3.2 Public art	▪ Provision of dynamic architecture, including: ▫ Sculptural / structural elements to enhance the visual quality of the podium facades ▫ Detailed precast panel elements specifically to northern façade of podium and all frontages of the tower. ▪ Provision of public art opportunities in locations such as booster cupboard and select walls on rooftop terrace. ▪ Engage with local artists to commission works.
3.3 Free public wifi	▪ Provision of free wifi to the following locations: ▫ Ground level public realm, retail and building foyer ▫ Rooftop for residents and their guests

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3.4 Rooftop recreation	▪ The creation of a high quality recreation space for residents and public guests including: ▫ A green wall ▫ Yoga / exercise / stretching / well-being deck ▫ Swimming pool / recreation deck; ▫ Outdoor dining solutions ▫ Multiple lounge areas ▫ Communal fire pit ▫ Communal garden spaces / micro farming opportunities
3.5 Arts room	▪ Inclusion of the 'Arts Room', a large scale, insulated room located on the southern side of the podium used as a multi-purpose space offering a range of potential recreational activities for resident and guests including: ▫ Music rehearsal / performance / production ▫ Art creation / gallery space ▫ Film production / presentation ▫ Interactive tech activities – ie virtual golf / “Wii” or similar interactive computer games etc. ▫ Conference / meeting space ▫ General function space