

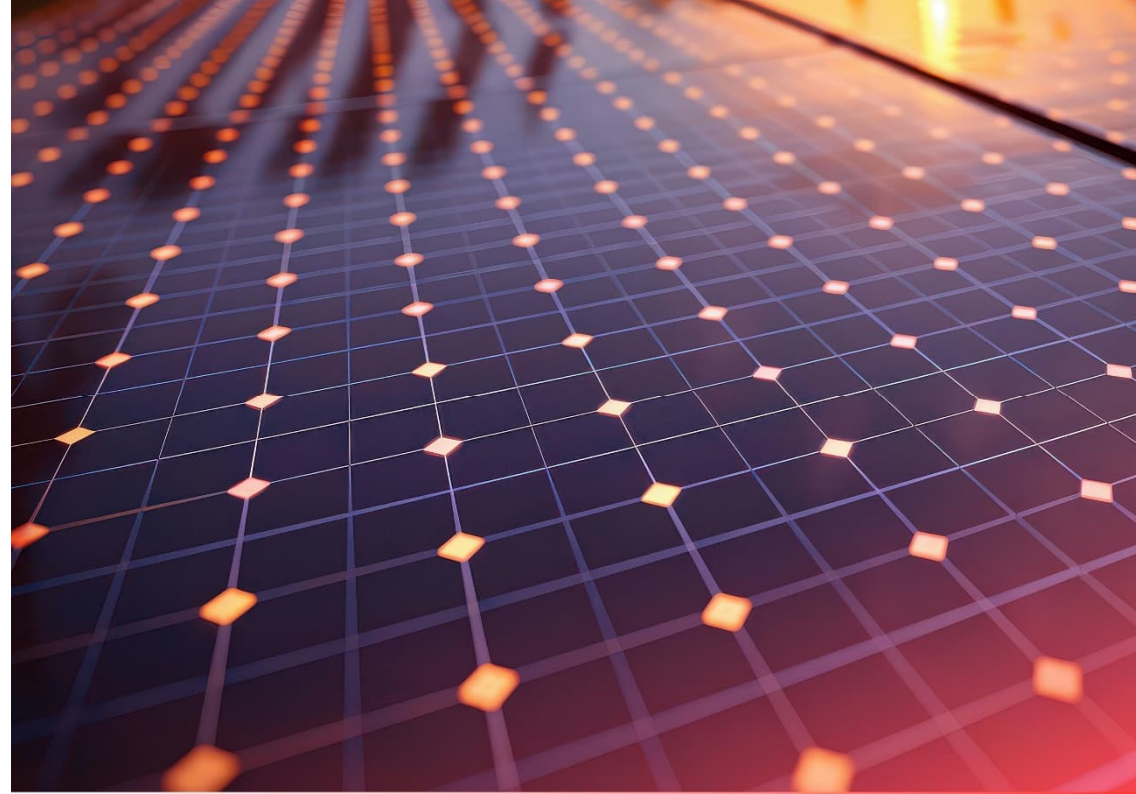
The Sir Moses Montefiore Jewish Home

Montefiore

19-25 College Cr, St Ives

ESD SSDA Report

June 2026



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Montefiore 19-25 College Cr, St Ives ESD SSDA Report

The Sir Moses Montefiore Jewish Home

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WSP acknowledges that every project we work on takes place on First Peoples lands.
We recognise Aboriginal and Torres Strait Islander Peoples as the first scientists and engineers and pay our respects to Elders past and present.

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Executive summary

This ESD SSDA Repot has been prepared by WSP to accompany a State Significant Development Application (**SSDA**) for the development of seniors housing accommodation at 19 - 25 College Crescent, St Ives, NSW, in the Ku-ring-gai Local Government Area (**LGA**). The site is legally described as Lot 2 and Lot 3 in DP616326.

This report has been prepared to address the Secretary's Environmental Assessment Requirements (**SEARs**) (SSD-98363228) issued by the Department of Planning, Housing and Infrastructure on 10th November 2025.

This report concludes that the proposed seniors housing is suitable and warrants approval subject to the implementation of the following sustainability initiatives (mitigation measures):

- **BASIX** (for Independent Living Units (ILU):
 - Satisfy BASIX minimum Energy efficiency requirements.
minimum score 61 – Building C (buildings 4-5 storeys), **60** – Buildings A & D (buildings 6-20 storeys)
 - Satisfy BASIX minimum Water efficiency requirements
minimum score 40
 - Pass BASIX Thermal Comfort requirements
 - Report BASIX Materials data
- **Façade** - The building façade will be designed to meet Section J requirements and be optimised to increase thermal comfort and daylight harvesting, where appropriate, and reduce the mechanical heating and cooling loads of the space.
- **Energy Minimization** – Implement energy efficiency measures and controls, combined with the installation of photovoltaic (PV) systems, to reduce greenhouse gas emissions and minimise peak demand. This includes:

- highly efficient centralised and electric systems for air-conditioning and domestic hot water.
- All systems will have controls to limit their use when not required.
- Appropriate metering and monitoring systems are in place, to optimise the ongoing management of the building in operation.
- **Water** - Highly efficient water fittings, fixtures and irrigational system, to maximise reductions in water consumption and supplemented with rainwater harvesting.
- **Material** - The building will be designed with low environmental impact in mind. This includes prioritising materials, where appropriate, with environmental certification and low embodied emissions. This includes reporting on materials embodied emissions for the proposed development.
- **Waste** - Developing and implementing an Operational Waste Management Plan to ensure operational waste and resources can be separated appropriately and recovered in a safe and efficient manner.
- **Health, Nature and Resilience** – Design initiatives have been adopted to improve the health and wellbeing of the occupants, enhance biodiversity and improve resilience to future climate risks.
- **Transport** – design initiatives to encourage sustainable transport options including the installation of three (3) electric vehicle bays with fast chargers and infrastructure to allow additional charges to be installed in the future

Following the implementation of the above mitigation measures, the remaining impacts are appropriate.

1 Introduction

The Sir Moses Montefiore Jewish Home has engaged WSP to conduct this report to describe the holistic Ecologically Sustainable Design strategy for the proposed Montefiore St Ives development. Specifically, this report addresses the project specific SEARs outlined in Table 1.1 below:

A State Significant Development Application (**SSDA**) has been prepared in support of the proposed seniors housing development at 19 – 25 College Crescent, St Ives. The proposed development comprises:

- Site preparation and demolition of existing structures.
 - Construction of four buildings ranging in heights from five to eight storeys comprising:
 - approximately one hundred and twenty-six (126) Independent Living Units
 - approximately forty-eight (48) residential care beds.
 - a range of resident amenities and facilities.
 - basement car parking containing approximately 260 spaces.
- Vehicular and pedestrian access from Link Road and College Crescent.
- Associated landscaping works.

This report has been prepared to address the Secretary’s Environmental Assessment Requirements (**SEARs**) and accompanying cover letter issued for the project (reference SSD-98363228) dated 10th November 2025.

Specifically, this report has been prepared to respond to the SEARs requirement issued below:

Table 1.1: SEARS Requirements

SEARS #15 REQUIREMENTS – Ecological Sustainable Development (ESD)	RELEVANT SECTIONS
Identify how ESD principles (as defined in section 193 of the EP&A Regulation) are incorporated in the design and ongoing operation of the development.	Section 2.2 Environmental Planning and Assessment (EP&A) Regulation
Where relevant, provide an assessment of the development against the standards for non-residential development set out in Chapter 3 of State Environmental Planning Policy (Sustainable Buildings) 2022.	Section 2.3 Sustainable Buildings, State Environmental Planning Policy (SEPP) Appendix A: BASIX Report

1.1 The Site

The primary area of the site is located at 19-25 College Crescent, St Ives, within the Ku-ring-gai Local Government Area and is approximately 10 kilometres north of Chatswood and 19 kilometres north of Sydney CBD. This primary site is legally described as Lot 3 in DP 616326.

A small part of site to be developed is the adjoining lot upon which the Masada College is located at 9-15 Link Road, St Ives (legally described as part of Lot 2 in DP 616326). This part of the development site will specifically be used for access purposes and provide a direct connection from the proposal to the Link Road frontage.

On this basis, the site (for the purpose of this SSDA) comprises:

- the (primary) residual land, being 14,480 square metres (accommodating the proposed buildings and associated spaces); and
- part of the adjoining land, being 1,060 square metres (accommodating the proposed access driveway and pedestrian link from the proposed buildings to the Link Road frontage)

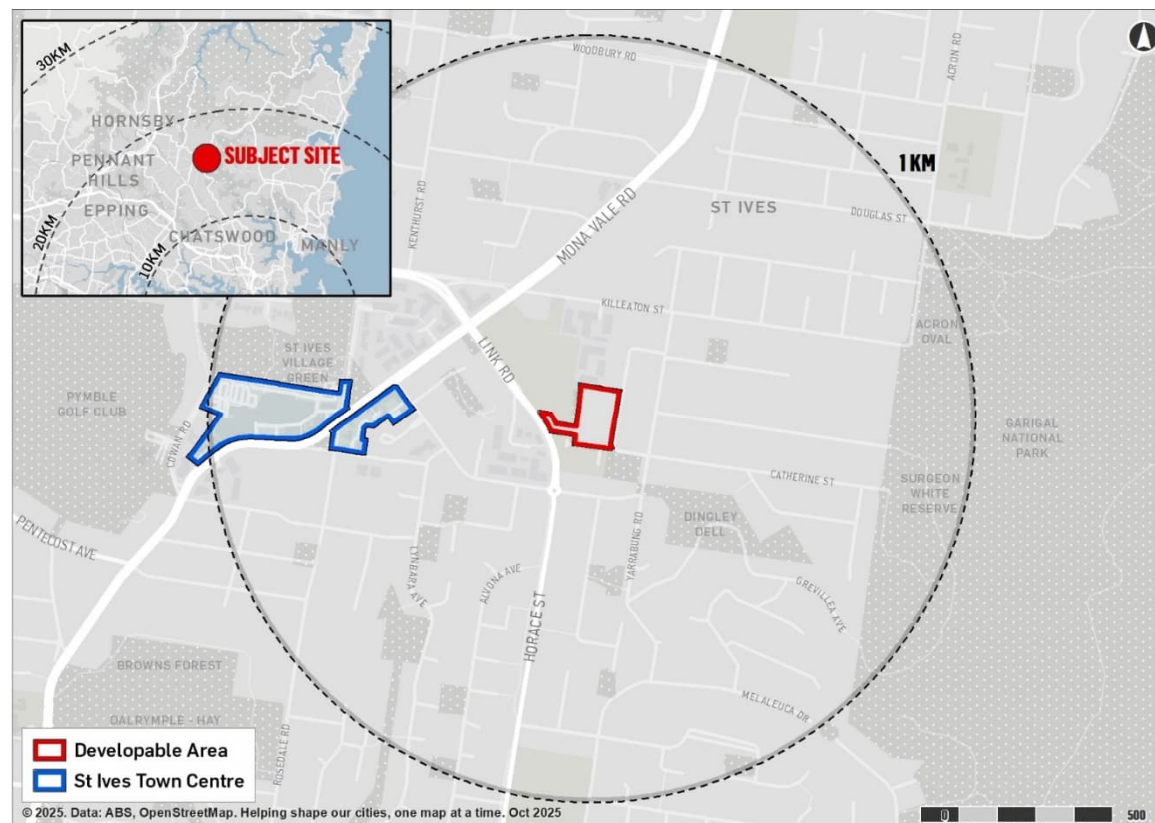
The site is zoned SP2 Infrastructure under the Ku-ring-gai LEP 2015.

The surrounding area is characterised by residential flat buildings, aged care facilities, educational uses and commercial/retail uses within St Ives Town Centre, which is located approximately 400 metres west of the site on Mona Vale Road.

- To the north of the site is 132-138 Killeaton Street, which comprises a residential development with six residential flat buildings.
- To the east of this development (at 142 Killeaton Street) comprises town houses and further east (at 144-146 Killeaton Street on the corner of Yarrabung Road) exists an aged care facility (Estia Healthcare). The site is bounded to the east by College Crescent, with tall street trees providing partial screening of the site. On the eastern side of College Crescent are detached houses, set back from the road and generally below street level, with significant street-front planting.
- To the south of the site is Chabad North Shore. Further south are large, detached houses along Stanley Street and Lancaster Avenue, and residential flat buildings to the south-west along Stanley Street

To the west of the site is Masada College, which includes early learning, junior and secondary schools. An easement will be created on the edge of the campus to provide vehicle access from Link Road for the development. Link Road, a four-lane regional road, runs west of the

Figure 1 Regional Context



Source: Urbis

school campus and connects to Mona Vale Road. West of Link Road are residential buildings along Newhaven Place, and further are medium and higher-density housing and commercial premises in St Ives Town Centre. This includes five-six -storey buildings along Porters Lane, St Ives Shopping Centre and St Ives Village Green. The shopping centre precinct is expected to be subject to future major redevelopment.

A map of the regional context of the site and an aerial of the site is shown in Figure 1 and Figure 2.

Figure 2 Aerial Photograph



— Source: Urbis

2 Sustainability Policy and Drivers

The proposed development includes buildings that are a mix of independent living units and residential aged care. These spaces will be subject to compliance with the following at planning and/or construction stage:

- NSW Secretary Environmental Assessment Requirements SEARs
- Environmental Planning and Assessment (EP&A) Regulation
- The Sustainable Buildings SEPP sustainability and embodied emissions reporting
- BASIX for Class 2 residential buildings
- National Construction Code (NCC) 2022 Volume 1 Section J Energy Efficiency

2.1 NSW Secretary's Environmental Assessment Requirements (SEARs)

This report addresses the SEARs Key Issue Item – 13 Ecologically Sustainable Development:

- Identify how ESD principles (as defined in section 193 of the EP&A Regulation) are incorporated in the design and ongoing operation of the development.
- Provide an assessment of the development against the standards for non-residential development set out in Chapter 3 of *State Environmental Planning Policy (Sustainable Buildings) 2022*.

2.2 Environmental Planning and Assessment (EP&A) Regulation

For this report, the ESD principles are defined in accordance with section 193 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) as follows. These have been addressed for the project in **Section 3 Sustainability Strategy** of this report with specific sections outlined below.

- The **precautionary principle [p1]** is that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation – **as outlined in Sections: 3.2 Net Zero, 3.4 Materials & 3.5 Health, Nature, Resilience**
- The principle of **inter-generational equity [p2]** is that the present generation should ensure the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations – **as outlined in Sections: 3.2 Net Zero, 3.3 Water Minimisation & 3.4 Materials**
- The principle of the **conservation of biological diversity and ecological integrity [p3]** is that the conservation of biological diversity and ecological integrity should be a fundamental consideration – **as outlined in Sections 3.5 Health, Nature, Resilience & 3.5.3 Site Native Landscaping & Biodiversity**
- The principle of **improved valuation, pricing and incentive mechanisms [p4]** is that environmental factors should be included in the valuation of assets and services – **as outlined in Section 3.2 Net Zero & Section 3.5 Health, Nature, Resilience**

2.3 Sustainable Buildings, State Environmental Planning Policy (SEPP)

The SEPP (*Sustainable Buildings*) 2022 aims to simplify and coordinate the way that we plan for and design sustainable developments in NSW to contribute to a low-carbon future. This includes aligning with the other NSW policies including the:

- Net Zero Plan
- Waste and Sustainable Materials Strategy 2041; and
- Climate Change Policy framework

Sustainable Buildings SEPP will apply to the whole development with requirements as follows:

- Chapter 2 Standards for Residential Development (BASIX) – Outlines requirements for Building Class 1 & 2 residential using the updated online BASIX tool.
- Chapter 3 Standards for Non-Residential Developments - All other building classes as outlined in the non-residential requirements below.

2.3.1 Standards for Residential Development (BASIX)

Chapter 2 Standards for residential development outlines the energy, thermal, and water requirements for residential development in New South Wales. This applies to the Class 2 components of this proposed development, which includes the independent living units (ILUs), while excluding the Residential Aged Care Facility.

The assessment of residential areas is addressed through the provisions in the BASIX tool. The BASIX tool assesses Class 1 and Class 2 residential buildings including their common areas, against targets for Water, Energy, Thermal Comfort and Materials embodied impacts. Thermal Comfort is to be assessed through accredited NatHERS modelling of all dwellings.

A full BASIX summary is provided in Appendix A. It describes all commitments to achieve the required Energy, Water, Thermal Comfort and Materials scores, NatHERS passive thermal comfort modelling results and certificates, the BASIX Certificates, and stamped documentation.

2.3.2 Standards for Non-Residential Developments

Chapter 3 Standards for non-residential requirements is applied to any non-residential areas of the development and excludes the residential care facilities, as stipulated in 3.1(2)(c). However, for the purposes of this report we will show compliance of the residential aged care along with the non-residential communal areas.

The table below summarises the requirements of this chapter and further defines which requirements are to be met by the proposed development as the project isn’t classified as a large commercial or state significant development as defined in Schedules 13-15 of the *SEPP (Planning Systems)* 2022.

Table 2.1: *SEPP (Sustainable Buildings)* 2022 Chapter 3 Standards for Non-Residential Developments

MEASURE	NON-RESIDENTIAL SEPP (SUSTAINABLE BUIDLINGS) 2022 REQUIREMENTS	APPLIED TO
General Sustainability	Commenting on general performance, including water conservation, waste and energy minimization and use of renewable energy	Non-residential developments <u>Applicable to Class 9b Communal Areas</u>
Embodied Emissions Reporting	Disclose the quantities of materials and associated emissions. Describe how embodied emissions are minimised (by re-used or recycled content and low emissions construction technologies).	All non-residential developments <u>Applicable to Class 9b Communal Areas</u>
Net Zero Statement	Demonstrate that the development is designed with sufficient space and	Large commercial + certain state

	infrastructure so all energy needs can be sourced from renewables by 2035	significant developments* <u>Not Applicable</u>
Energy Performance and Offsets	Independently verify that the development has met the energy performance required by the NCC, through NABERS post occupancy assurance.	Large commercial* <u>Not Applicable</u>
Water Performance	Independently verify that the development has met a minimum 3-star NABERS water rating*	Large commercial* <u>Not Applicable</u>

*Large commercial and state significant developments, as stated in the above provisions, are defined as follows:

- Large commercial developments are defined as:
- Offices with a net lettable area (NLA) greater than 1000 square meters
- Hotels and motels with 100 rooms or more
- Service apartments with 100 apartments or more

State Significant developments are defined under Schedules 13-15 of the State Environmental Planning Policy (Planning Systems) 2022. These developments include health, education and cultural institutions, which this development classification doesn't fall under.

2.3.2.1 General Sustainability

The proposed development has considered the below sustainability requirements, per Chapter 3.2(1) of the Sustainable Buildings SEPP, with further detail of this outlined in the following sections of the report.

- Minimise waste from associated demolition and construction including by the choice and reuse of building materials, **as outlined in Section 3.4.2 Waste.**
- Reduce peak demand for electricity, including through the use of energy efficient technology, **as outlined in Section 3.2 Net Zero.**

- Reduce reliance on artificial lighting and mechanical heating and cooling through passive design, **as outlined in Section 3.2.1 Façade Configuration.**
- Generate and store renewable energy, **as outlined in Section 3.2.2 Renewable Energy**
- Metering and monitoring energy consumption, **as outlined in Section 3.2.3 Energy Metering and Monitoring.**
- Minimise potable water consumption, **as outlined in Section 3.3 Water Minimisation**

2.3.2.2 Embodied Emissions

Chapter 3.2(2) requires developments to quantify and disclose the embodied emissions by completing the NABERS embodied emissions material form, which will be completed by the Quantity Surveyor (QS) on the project. The proposed development has considered this sustainability requirement, **as outlined in Section 3.4.1 Reduction of Embodied Carbon.**

2.4 Development Control Plan (DCP)

The proposed development is located in Ku-ring-gai Local Government Area, which makes it subject to Ku-ring-gai Local Environmental Plan 2015 (LEP) and Ku-ring-gai Development Control Plan (DCP) 2026. These requirements are overridden under the SSDA process with compliance now required against the SEARs requirements; however, this report will endeavour to show how this development still aligns with these requirements.

Table 2.2: Project Response to the *Ku-ring-gai DCP Sustainability requirements*

DCP PROVISIONS	PROJECT RESPONSE
<i>Section 23.1 Social Impact</i> seeks to ensure that development minimises	As this development is designed to meet the needs of older people there is minimal social impact to the area. The wider

adverse social impact on nearby resident and user of the site.	community will benefit due to employment opportunities and ability to utilise certain facilities within the development creating a sense of community.
<i>Section 23.2 Green Buildings</i> seeks to ensure non-residential developments not captured under the <i>SEPP (Sustainable Buildings) 2022</i> NABERS requirements minimises energy and water use through targeting a Green Star Building rating.	This requirement is not applicable as this is a residential development.
<i>Section 23.3 Sustainability of Building Materials</i> seeks to protect occupant health and comfort by improving indoor air quality, limiting pollution, and reducing urban heat island impacts, while minimising resource consumption across the building life cycle. This section aims to promote the selection of innovative, high-quality materials that balance environmental sustainability, safety, and commercial viability.	This is addressed in Section 3.5 Health, Nature, Resilience
<i>Section 23.4 Materials, Colours and Finishes</i> seeks to promote the use of durable, high-quality materials and finishes that maintain performance and value over time, supporting long-term resource efficiency. This section aims to ensure development responds appropriately to and complements the surrounding natural environment.	The Architectural design addresses these requirements. Refer to the Architectural package for more information.
<i>Section 23.5 Roof Terraces and Podiums</i> seeks to provide high quality	This is not applicable to this development as there are no roof terraces due to

private and public common open spaces	building services plant rooms and PV panels. Significant common spaces are provided on the ground floor
<i>Section 23.6 Building Services</i> seek to ensure visually intrusive service elements are located away from the streetscape.	The Building Services design addresses these requirements. In particular centralised HVAC and DHW systems have been provided with rooftop plantroom in lieu of individual units.
<i>Section 23.7 General Acoustic Privacy and Section 23.8 General Visual Privacy</i> seeks to maximise acoustic and visual privacy of the occupants and neighbouring areas.	The Architectural design addresses these requirements. Refer to the Architectural package for more information.
<i>Section 23.9 Construction, Demolition and Disposal</i> seeks to protect and preserve natural site features, existing vegetation, and sensitive ecosystems during construction and demolition, while minimising pollution, sedimentation, and impacts on downstream environments. This section aims to reduce construction and demolition waste and prevent adverse effects on water quality and neighbouring properties.	This is addressed in Section 3.4.2 Waste

2.5 National Construction Code (NCC) – Section J

In NSW, the Class 2 independent living units (ILUs) must satisfy the minimum requirements of BASIX to demonstrate that the design is compliant with Section J.

The other areas of the development, including the residential aged care facility, must satisfy the minimum compliance requirements of Section J Energy Efficiency in the National Construction Code (NCC) 2025 Volume 1 (or the release of Code in effect at time of applying for a Construction Certificate).

Table 2.3 summarises the key Section J parts for which minimum compliance is to be demonstrated.

Table 2.3 Section J compliance requirements

PARTS	REQUIREMENTS
J4 Building fabric	Thermal performance of opaque elements and glazing
J5 Building sealing	Airtightness & sealing for energy efficiency of services
J6 Air-conditioning and ventilation	Performance for all HVAC-associated services
J7 Artificial lighting and power	Efficiency measures for lighting, boiling & chilled water storage, lifts/escalators
J8 Heated water supply & swimming pool/spa plant	Heated water systems for food / sanitation to requirements of plumbing code Performance targets for pool & spa heating and pumping systems
J9 Energy monitoring & on-site distributed energy resources	Metering, monitoring & minimum facility (board & sizing) provisions, including for PV / EV / battery systems

Refer to Appendix A for compliance with the BASIX requirements for the ILUs. The other areas of the development are designed to comply with further assessments being carried out during detailed design. Finalised assessments will be provided for the Construction Certificate submission.

3 Sustainability Strategy

3.1 Overview

This Sustainability Strategy is built around focus areas of health & wellbeing through exceeding minimum thermal comfort, electrification and operational carbon minimisation/net-zero targets, climate resilience, nature and biodiversity and social sustainability goals.

The following sections detail the sustainability strategies to be implemented on the development.

A residential retirement precinct that:

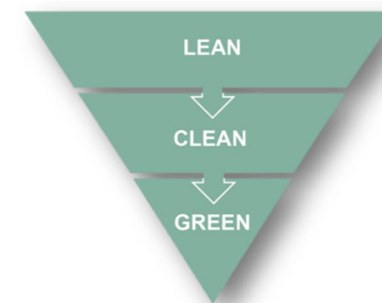
- reduces greenhouse gas emissions throughout its lifecycle from construction, through operation to disposal of assets
- fosters opportunity for healthy habitats and living for residents and the community
- is a comfortable, healthy, vibrant, and adaptive development facilitating interests, play, social and intergenerational interactions contributing to social sustainability outcomes
- is robust, flexible, responsive, integrated and resilient to potential future changes to climate and other shocks and stresses
- provides biodiversity, clean waterways, protects and enhances local species and connects people to nature
- is an exemplar custodian of water, limiting use of freshwater resources and maximising reuse opportunities
- encourages alternatives modes of low carbon transport and promotes mobility, activity and connection

3.2 Net Zero

Net zero emissions building design is an embedded requirement in legislation such as the Sustainable Buildings SEPP, a key commitment by state and federal governments and a major target in ESD rating tools like Green Star Buildings.

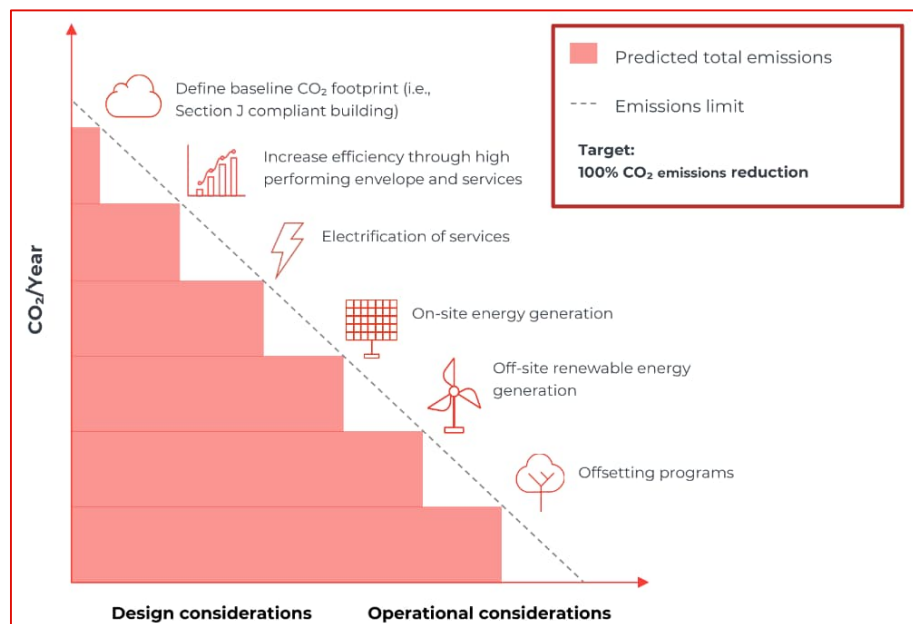
Net zero emissions can be typically achieved using:

- 1 **Lean** | To mitigate the demand for resources through prioritising passive design strategy.
- 2 **Clean** | Efficient electrified building design and operation
- 3 **Green** | Selection of onsite renewable energy and storage supplemented by offsite renewables



The following initiatives are proposed to ensure the project reduces its carbon emissions as far as possible with on-site measures:

- Full electrification of the buildings to eliminate connections for fossil fuels.
- Reduced internal loads through improved NatHERS modelling outcomes
- Highly efficient and electric appliances including induction cooktops.
- Highly efficiency lighting and exhaust systems with controls to turn off when not required.
- Highly efficient centralised systems including water-cooled cooling, air-sourced VRF for heating and heat pump system for DHW
- Installation of roof-mounted PV to offset energy demands of the building common and shared facilities.
- Embedded network opportunities for residents' energy



The independent living units (ILUs) in the development have been shown to meet the following minimum percentage reduction in energy use compared to the benchmark as established in the BASIX tool. A full BASIX summary including the energy efficiency initiatives is provided in Appendix A.

- **minimum score 61** – Building C (buildings 4-5 storeys), **60** – Buildings A & D (buildings 6-20 storeys)

3.2.1 Façade Configuration

Providing daylight and views while maintaining thermal comfort in a building is vital to the health and wellness of its occupants. To ensure the occupants of the building will have access to suitable amounts of daylight while remaining thermally comfortable, the design will optimise these factors through several strategies focusing on the façade and building envelop. A well-designed façade will also provide

resilience against prolonged heatwaves, which are predicted to occur more readily in the future.

The following strategies are proposed for the project:

- High preforming glazing with a low solar heat gain coefficient to reduce the amount of heat entering the space, while still allowing daylight to enter
- Operable façade to allow outside air to enter the dwellings
- Operable blinds/curtains in habitable spaces for occupants to be able to control the amount of light entering the space
- High ceiling heights to increase the amount of daylight entering and improving air quality through better stratification.
- Downlights and exhaust fans are proposed to be sealed to minimise air leakage.

Preliminary best practice façade analysis has been undertaken using current design through the NCC 2025 Section J façade calculator as a ‘deemed to satisfy’ approach to provide guidance on potential compliant glazing systems and minimum insulation requirements for the non-residential areas while NatHERS modelling to meet the BASIX targets has been used for the residential areas. Compliance with these codes will ensure the building is adequately thermally insulated to reduce the heating and cooling load of the building.

The façade will be further analysed as the design progresses to further optimise performance with the finalised assessments being provided with the Construction Certificate submission.

3.2.2 Renewable Energy

Onsite renewables will be integral in addressing the energy demands of the project and reducing the afternoon peak energy demand due to the residential use of the development. PV panels are proposed to be installed on the available rooftop which is currently on Buildings A, B and C. The final installed capacity of PVs will depend on detailed calculations and available roof area.

Battery storage isn't proposed for this development as excess electricity will not be generated from the PV system due to the base load electricity needs of a multi-unit residential development.

3.2.3 Energy Metering and Monitoring

Electrical sub metering is to be provided for significant end uses such as lighting, MSSB/HVAC and each unit. Metering of energy consumption can assist considerably in ensuring that energy used in operation is measured and monitored so that it can be reduced.

The meters will be connected to a central BMS or similar logging system, which will record the energy use and be capable of producing reports to enable the effective monitoring of energy consumption.

3.3 Water Minimisation

Water scarcity is a major concern for Australia's growing population due to changing weather patterns that are occurring because of climate change. The water strategy for the development will be to:

- 1 **Conserver** | To reduce consumption using efficient fixtures, fitting and appliances.
- 2 **Clean** | supply non-potable uses with water from alternative sources such as rainwater.
- 3 **Control** | Implement metering of all large water uses and monitor to identify any leaks or unusual uses.

To achieve water efficiency there will be a heavy emphasis on the efficiency of the water fixtures and fittings, however still maintaining an acceptable level of flow. Recommended WELs ratings and their associated maximum flow rates are provided in Table 3 below:

Table 3 Recommended Water Fixtures Performance

FITTING / FIXTURE	WELS RATING	FLOW RATE
Toilets	5 Star	Average 4L/flush
Bathroom taps	6 Star	4.5L/min
Kitchen taps	5 Star	6L/min
Shower heads	4 Star	>6.0 but <= 7.5 L/min
Washing Machines	-	Not supplied
Dishwashers	4 Star	

Other water efficiency measure for the development include:

- Use of native vegetation as opposed to exotic species in applicable areas, which encourage native wildlife and have lower water requirements.
- Use of a water efficient irrigation system, such as drip irrigation, to reduce water consumption.
- Provision of a rainwater tank to collect water from the building rooftops, providing water for uses such as toilets in the ground floor communal areas, landscaping and car washing.

Residential areas of the development have demonstrated they meet the minimum 40% reduction in potable water use compared to the benchmark as established in the BASIX tool. A full BASIX summary including the water efficiency initiatives is provided in Appendix A.

3.4 Materials

3.4.1 Reduction of Embodied Carbon

Reduced embodied carbon emissions impacts in the construction of the building, through materials selection and efficiency in design and procurement. The design will consider the following initiatives:

- Consideration of materials and products supplied under Environmental Product Declarations (EPDs) or be certified as sustainable or ‘environmentally friendly’ by a recognised third-party certification scheme
- Structural design optimisation for minimised inputs of high emissions intensity materials such as steel and concrete,
- Materials reuse and local materials manufacture and sourcing

Developments are required to disclose the embodied emissions via the NABERS embodied emissions material form. The form tabulates measurements for key materials in the substructure, superstructure and façade of the building. The form has been completed by the quantity surveyor for the proposed development. The completed form is included in the State Significant Development Application (SSDA) submission.

3.4.2 Waste

The development aims to reduce waste through the construction and operation of the building through good design and practices as follows:

- Construction policies will be put in place to target a minimum of 80% of demolition and construction waste to be diverted from landfill.
- Developing and implementing an Operational Waste Management Plan to ensure operational waste and resources can be separated appropriately and recovered in a safe and efficient manner.

- Waste, recycling, and green waste will be demarcated to accommodate separate collection services.

3.5 Health, Nature, Resilience

3.5.1 Health & Wellbeing

The development has adopted the following opportunities for promoting health and wellbeing for residents in the building design:

- Achieving improved minimum average NatHERS performance, with heating and cooling loads improving on the performance limits for thermal comfort and provide resilience against prolonged heatwaves.
- Providing indoor planting
- Ensuring a high level of lighting comfort through the application of appropriate lighting levels and the installation of appropriate luminaires.
- Improving indoor air quality through specifying low/ultra-low VOC finishes and low/no formaldehyde engineered timber products
- Design for optimal connection to the outside environment for views, daylight and opportunity to experience atmospheric and sensory changes in the outdoor world
- Openable windows, balcony access, opportunity for casual interaction between residents and with outdoor views and connections to nature and outdoor air.
- Access to gardens.

3.5.2 Urban Heat Island Effect

Urban heat island effect is a phenomenon where developed areas experience higher temperatures compared to rural areas due to more human-modified landscapes that often incorporate darker colours that absorb solar radiation.

To help minimise the heat island effect, and provide resilience against prolonged heat waves, the development incorporates the following design initiatives:

- Extensive and strategic planting of trees throughout the ground floor areas
- Light coloured paving and materials in view of the direct sunlight
- Integrated shading in the building structure i.e. around the pool areas.
- While Photovoltaic (PV) panels themselves have a high solar absorptance value which doesn't help to reduce the heat island effect. PV panels do help by shading the building's roof structure and result in flow-on sustainability benefits as they provide low-emission energy production. Therefore, PV panels are still desired within the overall design.

3.5.2.1 Tree Canopy Cover

Extensive tree canopy cover throughout the precinct will support a breadth of human health and well-being outcomes and environmental benefits.

The heat island mitigating effect of canopy cover and cooling benefits have positive physiological and psychological outcomes for people, as well as secondary factors such as extending the material life of pavements and helping reduce the demand for mechanical air conditioning by mitigating heat increases in the local microclimate.

3.5.3 Site Native Landscaping & Biodiversity

Views of, and connections to, substantial nature zones in the precinct enhance biodiversity and support health and wellbeing to deliver nature-positive outcomes for the development.

Landscaping that is native to the area should be able to survive on available rainfall without the need for supplementary irrigation (beyond the plant establishment phase). Using native drought resistant plants in landscaping on site will reduce the site's water needs and inherently make the site more resilient to potential future droughts and provide habitat, shelter and food source for native animals.

The project will be designed to protect and enhance local ecological communities and habitat connections. The development will include biodiversity measures within public realm and building design. This includes looking at water-sensitive urban design and water-quality outcomes that support ecological function.

This has been adopted into the landscaping design.

3.5.4 Stormwater

An integrated site stormwater strategy offers efficiency in planning for onsite water treatment and detention. Integration of passive stormwater management strategies within building and landscaping design can reduce the overall need for hard stormwater infrastructure or offer additional levels of resilience against future rainfall and flooding events.

Water Sensitive Urban Design (WSUD) seeks to manage site stormwater flows with natural detention and filtration systems, integrating green infrastructure initiatives into the public realm such as bioswales, raingardens, constructed wetlands, ponds, sedimentation basins and permeable pavement. Such systems can also be integrated with site wastewater flows and treatment systems and in addition to providing a water treatment function, add to the aesthetic of the site and support biodiversity.

Refer to the Integrated Stormwater Management Plan prepared by the Civil Engineer for the project for further details of how the stormwater is managed for this site.

3.6 Sustainable Transport

The development promotes sustainable transport, through the consideration of existing public transport infrastructure, in addition to the facilitation of multiple sustainable transport options included within the development itself.

The project will incorporate the following ecological sustainable transport design initiatives:

- Appropriate and legible wayfinding and considerate design to promote walkability around the site.
- Infrastructure includes safe, well-lit, wide, pathways that accommodate the different speeds and needs of alternative transport modes.
- Appropriate level and mix of parking provision within the development, having regard to the demand, inclusivity, and accessibility; thereby avoiding parking over/undersupply impacts
- Facilitating access to the site by means of active transport modes (i.e. cycling and walking) will encourage emission free transport and support healthy lifestyles.
- Three (3) fast charging bays have been included in the design with infrastructure for future chargers to be installed.
- Gordon Train Station is 7-minutes' drive away and is served by two main Sydney Train lines:
 - The T1 North Shore and Western Line; and
 - The T9 Northern Line

3.6.1 Electric Vehicle Infrastructure

Rapid adoption of electric vehicles is forecast as cost and availability of electric vehicles improves substantially, coupled with supportive public policy settings. The development is supporting the adoption of electric vehicles with charging infrastructure on site, and providing that energy from renewable sources such as photovoltaic energy, will facilitate the transition and reduce indirect emissions from the site's transportation impacts. Including electric vehicle charging infrastructure also allows vehicles to participate in a potential future central energy system, adding resiliency and efficiency to the grid.

3.6.2 Public Transport Access

The development is near existing public transport options such as:

- 10-minute walk to a bus stop on the main road, Mona Vale Road, providing buses every 30minutes into the city (194 QVB York St)
- 3-minute walk to a bus stop (582 Gordon Station), providing a 15- minute bus ride to Gordon train station.

4 Conclusion

This ESD SSDA Report has set out the sustainable design requirements and strategy for the development of the seniors housing accommodation at 19 - 25 College Crescent, St Ives, NSW. The site is in the Ku-ring-gai Local Government Area (**LGA**) and is legally described as Lot 2 and Lot 3 in DP616326.

The proposed sustainability strategy aligns with the ESD standards as established in the Secretary's Environmental Assessment Requirements (**SEARs**) (SSD-98363228) issued by the Department of Planning, Housing and Infrastructure on 10th November 2025 and other policies relating to the development.

This has been achieved through a holistic approach to sustainable design detailed in this report, with a strong focus on resource minimisation and resilience. Further analysis will be undertaken to ensure the appropriateness of these strategies for the development in the design development stage.

This report concludes that the proposed seniors housing is suitable and warrants approval subject to the implementation sustainability initiatives (mitigation measures) as outlined in this report.

5 Limitations

This Report is provided by WSP Australia Pty Limited (WSP) for Sir Moses Montefiore Jewish Home (Client) in response to specific instructions from the Client and in accordance with WSP's proposal dated July 2025 and agreement with the Client dated September 2025 (Agreement).

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Appendix A

BASIX Summary Report



The BASIX summary report, document *PS228535-WSP-ESD-REP rev02 Montefiore BASIX Summary*, is provided as a separate attachment to this report, due to the size of the document that includes all certificates and stamped plans.