



CREDWELL

Project 4-6 Popes Road,
Woonona, NSW
2517

Report ESD Statement

Reference 230737-ESD-r3

Date 05/06/2025

Client IRT Woonona

Contact Ashley Wark
awark@irt.org.au

Document Control

Reference/Revision	Date	Description	ESD Statement
230737-ESD-r1 <i>Draft issue for review</i>	16/08/24	Prepared by	Ben Klackin Assistant ESD Consultant
		Approved by	Padraig Healy Director
230737-ESD-r2 <i>Final issued</i>	28/04/2025	Prepared by	Ben Klackin Assistant ESD Consultant
		Approved by	Padraig Healy Director
230737-ESD-r3 <i>Final issued</i>	05/06/2025	Prepared by	Ben Klackin Assistant ESD Consultant
		Approved by	Padraig Healy Director

Contents

Document Control	2
1 Introduction	4
1.1 Introductory Statement	4
1.2 Scope of ESD Statement	4
2 Relevant Legislation	5
3 Proposed operations S193	6
4 Sustainability Approach	9
4.1 Biodiversity.....	9
4.2 Riparian Management Plan.....	10
4.3 Arbocultural Impact Assessment.....	10
4.4 Hazardous Materials	11
4.5 Climate Change Adaptation	14
4.6 Aboriginal Heritage	15
4.7 BASIX Commitments.....	15
4.8 Waste.....	17
4.9 Traffic.....	20
4.10 Wellbeing Initiatives.....	20
5 Identified Future Initiatives	21
Figure 1 - Future Initiatives	22

1 Introduction

1.1 Introductory Statement

This Ecologically Sustainable Development (ESD) Statement has been prepared by Credwell to support the upcoming operations of IRT's Senior Living Facility at 4-6 Popes Road, Woonona, NSW.

The operation of the site is undertaken in accordance with the current planning approval. The operation of the site is subject to tenant's use for; residential aged care, palliative care, dementia care, and 24/7 registered nursing staff.

On this basis, the proposed activity seeks:

- to obtain planning approval for the intended operations of the Senior Living Facilities.
- rationalise the requirements of the planning approval in order to provide an enduring, contemporary and more sustainable benchmark for the Aged Care Industry Association (ACIA).

Importantly, the proposed seniors living facilities involves a redevelopment of the existing site. By adhering to the Government's Net Zero Plan and EP&A's Section-193 stipulations, IRT have sought to meet and exceed the relevant clauses to ensure their development maximises ecological sustainability.

1.2 Scope of ESD Statement

Credwell have been engaged to assess the envisioned ESD initiatives at 4-6 Popes Road, Woonona for their relevance in the current sustainability sector and beyond.

This will include a review of intended operations and future recommendations.

Sustainable buildings/districts cover a wide-ranging set of categories that combine the design and operation of the development together into a cohesive strategy that covers environmental, social, and economic initiatives. The ESD initiatives suggested in this statement have been aligned with the definition of ESD within the Environmental Planning and Assessment Regulation 2021 Division 5 Environmental impact statements—the Act, ss 4.12(8), 5.7(1) and 5.16(2), Section 193. Within this Act, ESD identifies four governing principles on which we must align our ESD initiatives.

2 Relevant Legislation

Environmental Planning and Assessment Regulation 2021 Division 5 Environmental impact statements—the Act, ss 4.12(8), 5.7(1) and 5.16(2), Section 193 defines ESD (Ecologically sustainable development) as follows:

- (a) the precautionary principle—namely, 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.

In the application of the precautionary principle, public and private decisions should be guided by—

- careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and
 - an assessment of the risk-weighted consequences of various options,
- (b) inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,
- (c) conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,
- (d) improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as—
- polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,
 - the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,
 - environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problem.

3 Proposed operations S193

IRT'S 4-6 Popes Road, Woonona, NSW is preparing to operate at the site for years to come. Sustainability initiatives have been planned for and will be implemented at the site upon completion.

Principle	Proposed Operation	Document reference
The precautionary principle	<p>Following the relevant environmental reports, there is clear evidence of action across all parties to ensure the longevity and negate damages of the local and environment and immediate surroundings of the development site.</p> <p>Across the demolition and construction stages, temporary sandbagging and damming, as well as permanent OSD reserves will ensure the protection of waterways within the site.</p> <p>Replanting in riparian zones and prevention of malpractice will allow for local ecosystems to thrive and reduce damage.</p> <p>Recycling of demolished building materials will ensure a lowered carbon footprint that would otherwise be damaging through sourcing and manufacturing.</p> <p>Identifying present hazardous materials on site and the subsequent removal will avoid spread of harmful materials into the local environment.</p>	<p>Arboricultural Impact Assessment, 2023</p> <p>Riparian Management Plan, 2023</p> <p>Aboriginal Cultural Heritage Due Diligence Assessment, 2023</p> <p>Hazardous Material Survey, 2023</p> <p>Demolition Waste Management Plan, 2023</p> <p>Heritage and Planning Report, 2023</p>

<p>Inter-generational equity</p>	<p>By installing adequate measures of construction, demolition, and ongoing operations on site, management will ensure continuity of the development within the Seniors Living community.</p> <p>Protecting the area surrounding Collins Creek will guarantee the retention of native flora and fauna, as well as protect potential archaeological remains on site.</p> <p>Identifying hazardous materials present on site and the subsequent removal will contribute to the future health and wellbeing of the users on site.</p> <p>Through proper management of the site's maintenance and operations, the site will continue to provide essential aid to all its patrons.</p> <p>Through careful heritage and planning management, surrounding areas of significance will remain intact and serve future communities to its fullest potential.</p>	<p>Preliminary Transport Review, 2023</p> <p>Arboricultural Impact Assessment, 2023</p> <p>Riparian Management Plan, 2023</p> <p>Aboriginal Cultural Heritage Due Diligence Assessment, 2023</p> <p>Hazardous Material Survey, 2023</p> <p>Operational Waste Management Plan, 2023</p> <p>Heritage and Planning Report, 2023</p>
---	--	--

<p>Conservation of biological diversity and ecological integrity</p>	<p>Conservation of biological diversity and ecological integrity has been taken into consideration to a great extent.</p> <p>The aforementioned riparian zone initiatives and waterway protection schemes will warrant the longevity of the sites flora and fauna, reinforcing its integrity.</p> <p>Active measures to lower pollution and strong emphasis on litter reduction will conserve biological diversity and ecological sprawl.</p> <p>Through the installation of EV charging stations and promotion of communal transportation, macro levels of biological diversity and ecological integrity will be guaranteed.</p>	<p>Biodiversity Development Assessment Report, 2025</p> <p>Riparian Management Plan, 2023</p> <p>Civil Stormwater Plan, 2024</p> <p>Arboricultural Impact Assessment, 2023</p> <p>Operational Waste Management Plan, 2023</p> <p>Preliminary Transport Review, 2023</p>
<p>Improved valuation, pricing and incentive mechanisms</p>	<p>Combining the site's infrastructure and careful management of environmental systems around the site, the projected valuation of the proposal will continue to grow. By exceeding the BASIX Net Zero criteria with the impending initiatives, the reduction of utility costs will benefit from the long-term targets set by IRT.</p>	<p>Riparian Management Plan, 2023</p> <p>Operational Waste Management Plan, 2023</p> <p>Geotechnical Site Investigation Report, 2024</p> <p>Civil Stormwater Plan, 2024</p>

4 Sustainability Approach

4.1 Biodiversity

Conserving biodiversity and promoting ecologically sustainable development is a key objective of the current and future proposed operations of the site.

As assessed by Ecoplanning, their Biodiversity Development Assessment Report applies to the development area, occurring within;

- Sydney Basin Bioregion.
- Illawarra IBRA Subregion
- Dapto - Wollongong Coastal Slopes landscape
- Wollongong Local Government Area (LGA).
- Land zoned R2: Low Density Residential and E2: Productivity Support under the Wollongong Local Environmental Plan 2009 (LEP).

The BDAR area consists of a small portion of Collins Creek, a third order watercourse and dense riparian vegetation. The riparian vegetation exists directly adjacent to the creek with a high proportion of weeds including priority weed Lantana, environmental weed Coral Tree and Trad.

During field investigation Collins Creek consisted of mostly still or slow flowing pools. Aquatic vegetation present is minimal, and water appeared to be highly turbid after a visual inspection.

Ecoplanning have outlined the following as potential ecological impacts;

- Invasion of exotic species, weeds, pests and pathogens.
- Stockpile/compound road construction.
- Works around and within watercourses.
- Noise, vibration, light and vehicular movements.
- General earthmoving and vegetation removal resulting in soil disturbance, erosion, and the mobilisation of sediment.
- Open excavation works

The BDAR outlines strategies to minimise impacts on vegetation, detail management requirements for retained vegetation, and specify tree protection measures such as fencing. It should also include rehabilitation plans with identified flora species and management measures, along with schedules for inspection, monitoring, and corrective actions. Weed management activities, a seed collection and revegetation strategy, and a review of suitable flora species for revegetation should be incorporated. Additionally, the plan should identify native flora suitable for seed collection and describe planting densities and compositions for revegetation efforts within the area.

This adaptive management of the BDAR involves an integrated process of monitoring, reviewing, and then responding to the health and condition of the plantings as well as the status of the weed species to identify any alterations to the design and maintenance of works that may be required to ensure the objectives of the BDAR are achieved.

Additional Commitments:

Stormwater management strategies will also be implemented as outlined in the ecologist's report. Commitments to conduct a hazardous materials survey have been met, along with a riparian assessment and management plan installed.

4.2 Riparian Management Plan

IRT's commissioned Riparian Assessment and Management Plan seeks to protect natural waterways and riparian vegetation during demolition, recommending the following;

- Protect retained trees according to Australian Standard AS4970 – 2009 and the Arboricultural Impact Assessment (Matthew Reed Trees 2023) during all site activities.
- Follow the Biodiversity Development Assessment Report (BDAR) (Ecoplanning Pty Ltd) for revegetating and rehabilitating the riparian corridor of Collins Creek if disturbed.
- Cease work and contact an ecologist if unexpected threatened species are identified.
- Minimise soil transportation to reduce the spread of weeds within and around the study area.
- Implement measures to prevent the spread of two identified priority weeds in the Wollongong City Council LGA.
- Install erosion and sediment control measures at all sites to protect water bodies and surrounding biodiversity.

4.3 Arbocultural Impact Assessment

In contingency with the Riparian Management Plan, the Arbocultural Impact Assessment of the site outlines that all tree protection measures must be in place prior to demolition. The details of this assessment are as follows;

Replacement Trees:

- Large-maturing tree species (e.g. Turpentines, etc.) provide four-times more benefits than smaller trees and require decades of nurturing to attain such stature
- Tree species grown to AS2303-2018: *Tree stock for landscape use* specifications and chosen from local council guidelines should be planted to replace any trees to be removed
- Planting-location-planning is required as trees require adequate above ground 'space' & below ground (soil) volume to realise their mature dimensions
- Replacement plantings require to be carefully nurtured until protected by local council protections (i.e. until greater than 3-5m in height)

Activities prohibited in tree protection zones (TPZ):

- Physical damage to any part of a tree
- Machine excavation including trenching
- Excavation for silt fencing
- Cultivation
- Storage
- Preparation of chemicals, including cement products
- Parking of vehicles or plant
- Refuelling
- Dumping of waste
- Wash down and cleaning of equipment
- Placement of fill
- Lighting of fires
- Soil level changes, and
- Temporary or permanent installation of utilities and signs

4.4 Hazardous Materials

The Hazardous Materials survey conducted at 4-6 Popes Road, NSW has evidenced presence of asbestos containing materials (ACB), synthetic mineral fibres (SMF), Lead-containing paints detected above 0.1% w/w, and potential PCB-containing materials. Reditus Consulting has recommended the following;

For ACM;

- As outlined in SafeWork NSW Code of Practice: How to Safely Remove Asbestos (2020), removal of up to 10m² of non-friable asbestos or ACM is not required to be completed by a licenced Class A or B asbestos removal contractor.
- All works associated with the disturbance and removal of asbestos containing materials at this site must be undertaken in accordance with the SafeWork NSW Code of Practice: How to Safely Remove Asbestos (2020).
- Should greater than 10 m² of bonded ACM be identified on site during future inspection of inaccessible areas or encountered during demolition works, a Class A or B Asbestos Removal Contractor must be engaged to prepare an asbestos removal control plan for the proposed works and completed in accordance with SafeWork NSW Code of Practice: How to Safely Remove Asbestos (2020).
- Identified friable asbestos must be removed by a Class A licensed asbestos removal contractor in accordance with SafeWork NSW Code of Practice: How to Safely Remove Asbestos (2020) – Section 1.2

For SMF;

- During removal of SMF, airborne monitoring for SMF is recommended to be completed to meet requirements of
- NSW Work Health and Safety Regulation 2011, however, it is noted that SMFs are currently not on the schedule of substances requiring health surveillance.
- The following national standards and codes of practice are applicable:
- Standard for Synthetic Mineral Fibres [NOHSC:1004(1990)].
- Code of Practice for Safe Use of Synthetic Mineral Fibres [NOHSC:2006(1990)].
- Preferred removal method using hand tools, not power tools, and wet or dampen the material before cutting. If power tools are used exhaust ventilation should be installed.

For Lead Paint;

- The following national standards and codes of practice are applicable:
 - Australian Standard: Guide to lead paint management, Part 2: Residential and commercial buildings (AS 4361.2 - 2017).
 - SafeWork NSW (Nov 2019) Code of Practice, Demolition Work.
- Any works which may disturb potential lead-based paint systems should be completed in accordance with the requirements of AS4361.2-2017 Guide to Lead Paint Management, Part 2: Residential and Commercial buildings.
- PPE including AS 1716 approved respirators with P1 (dust) or P2 (dust and fumes) filters and coveralls should be worn to prevent exposure to airborne lead.
- Lead Paint materials should be kept in a wet condition during the removal operations with a manually controlled, consistent low-pressure spray.
- As per Clause 49 and 50 of NSW WHS Regulation 2017, occupational monitoring for lead should be carried out during any demolition operations.
- Following completion of demolition operations, a clearance inspection and sampling program should be carried out and a Clearance Certificate issued.
- The materials containing lead-based paint may be demolished and disposed of at an appropriate NSW EPA licensed landfill. These materials should not be recycled unless the recycling facility has been notified of the presence of lead paint and deem the material acceptable under their licence conditions for disposal /recycling at the facility

For Polychlorinated Biphenyls (PCB);

- Workers may be exposed to PCBs when dismantling electrical capacitors and transformers or when cleaning up spills and leaks. Appropriate control measures should be implemented when handling damaged capacitors to ensure that any spillage does not contact workers and is appropriately cleaned up and disposed of.
- All work must be planned and executed in a manner that minimises the number of persons involved, the degree of handling of PCB and the amount of waste material produced.
- Any equipment or parts potentially containing PCBs should be placed in a polyethylene bag and then placed into a marked sealable metal container, which is appropriately labelled. Leaking capacitors must be treated as if containing PCB unless it can be established that this is not the case.
- If PCBs cannot be transported immediately for disposal, all containers should be stored in a protected area which prevents any discharge of PCBs to the environment.
- PPE including gloves made of materials that are resistant to PCBs (e.g., polyethylene, nitrile rubber or neoprene), should be provided to workers and worn when there is any likelihood of exposure to PCBs.
- Waste disposal of PCB waste (defined as PCB concentrations of >50mg/kg in building materials) are regulated under the PCB Chemical Control Order 1994, which contains condition relating to disposing of PCB waste. The NSW EPA has prepared a Guideline for the Management of Materials Containing PCBs Below Fifty Milligrams Per Kilogram which contains 'good practice' procedures for the disposal, transport and storage of materials containing PCBs below 50 milligrams per kilogram. All waste must be disposed of in accordance with the NSW EPA (2014) Waste Classification guidelines.

The removal of hazardous materials positively impacts the environment by preventing soil and water contamination, protecting wildlife, and improving air quality. This process also facilitates the safe recycling and reuse of materials, ensures compliance with environmental regulations, and reduces health risks for both workers and future residents, contributing to a safer and more sustainable development.

4.5 Climate Change Adaptation

A key component of ESD strategy is the acknowledgment of climate change factors; most appropriately for 4-6 Popes Road, Woonona being flood and bushfire risk.

Flood Management/ Waterway Protection:

The consideration of flood risk has been carefully identified by IRT and ACOR Consultants. Through stormwater management systems such as inlet traps, OSD tanks, and OSD cartridges, the seniors living facility will be equipped with adequate infrastructure in the case of extensive rainfall or flood.

Strategies taken by IRT:

- OSD tanks strategically placed in key flood-prone areas to alleviate further flooding
- RL of buildings and site roads are at least 1 metre above unbuilt/flood prone land
- Temporary sand-bag sediment traps located throughout nearby waterways until construction is completed
- Rock check dam in catch drains spread out in 30m intervals
- Emergency Evacuation Plan in the event of a flood

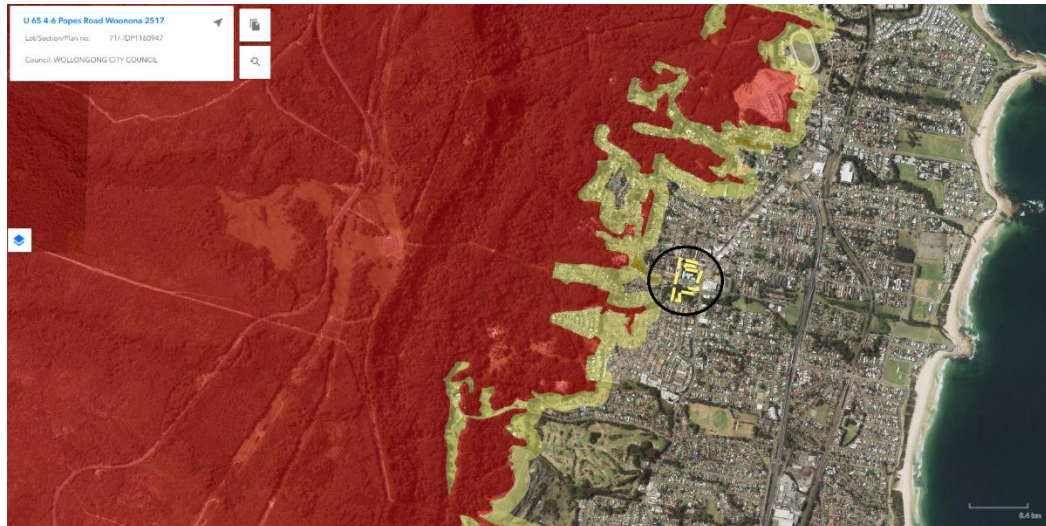
Bushfire Management:

As per the Wollongong DCP and LEP Bushfire Map, 4-6 Popes Road, Woonona is in close proximity to bushfire-prone land to the site's West. The vegetation properties of this adjacent bushfire risk may include;

- Forests
- Woodlands
- Heathland
- Pine plantations
- Wetlands
- Grasslands
- Scrublands
- Rainforests
- Mallee

As per AS3959 – 2009 and Wollongong DCP, the Illawarra/Shoalhaven region has been administered a Fire Danger Index (FDI) score of 100 meaning that IRT must consider appropriate measures to manage the risk of bushfires within/nearby the chosen site.

Any implications of proximity of bushfire zoning should be investigated or confirmed if required. A BAL (Bushfire Attack Level) Report is required as per the Section 100B of the Rural Fires Act 1997, which mandates that the NSW Rural Fire Service must issue a bushfire safety authority before development takes place.



4.6 Aboriginal Heritage

IRT's commissioned Aboriginal Heritage Survey was completed by Austral Archaeology, finding low-to-moderate archaeological potential within the site.

The site features Collins Creek to the south of the proposed development. Austral have outlined this as the only site of moderate archaeological potential by citing the Dharawal people as possible freshwater people, and those that may have used this area. There is potential for one item of evidence, a potential scar tree. This is a tree which has had bark removed by Aboriginal Australians for the creation of bark canoes, shelters, weapons such as shields, tools, traps, containers or other artefacts.

Additionally, the study area has a sloped landform towards the very northwest, which then becomes a flat for the rest of the area. Flat landforms were ideal for past Aboriginal occupation, suggesting these areas may have archaeological potential.

4.7 BASIX Commitments

IRT will utilise the advised Water efficiency and Energy efficiency strategies at 4-6 Popes Road, Woonona, NSW.

- 6000L rain-water tanks will be installed and are maintained to provide rainwater to garden irrigation along with any excess diverted to units throughout the buildings.
- Inclusion of 70% low-water use/ indigenous planting
- Water-efficient and Energy-efficient appliances;
 - 2.5 Star Energy and Water Dishwasher
 - 4 Star Kitchen and Bathroom Taps
 - 4 Star Shower-heads
- The electrification of cooktop and oven appliances.
- Solar-Electric boosted heating system for the pool.
- Electric boosted central hot water system.
- 3 Star AC units
- 80 kW peak is the minimum solar panel system requirements from BASIX.

Additional BASIX/ ESD considerations had been discussed in meeting minutes which have sought to push beyond the BASIX minimum requirements. These considerations included;

- Reusing rainwater for appliances; toilet flushing and washing machines.
- Integrating PV into electrified communal lighting & ventilation.
- Incorporating PV for EV charging.
- Utilising materials and finishes with low embodied carbon.
- Planting low-water-use species on site and increasing biodiversity.
- Adhering to the maximum PV capacity: the maximum is peak 480 kW PV panels, approx. Twelve Hundred panels to be applied to the allocated roof area connected to base building meter.
- Potential for further connection of PV to individual units to be considered.

4.8 Waste

Hazardous Disposal: As outlined by Reditus Consulting;
For Lead Paints:

- Identified Amount: 115m2
- Disposal/Management: Removal by Demolition Contractor in accordance with Demolition Management Plan to an NSW EPA suitably licenced landfill facility

For ACM:

- Identified Amount: 79.65m2
- Disposal/Management: Removal by Demolition Contractor in accordance with Demolition Management Plan to an NSW EPA suitably licenced landfill facility

For PCB:

- Identified Amount: 220 Lights
- Disposal/Management: Removal by Demolition Contractor in accordance with Demolition Management Plan to an NSW EPA suitably licenced landfill facility

For SMF:

- Identified Amount: 72m2 (located within Insulation, Vinyl, Plaster)
- Disposal/Management: Removal by Demolition Contractor in accordance with Demolition Management Plan to an NSW EPA suitably licenced landfill facility

Demolition Waste Management Plan:

As part of Elephant Foot Company's consulting, they have aligned IRT's Waste Diversion Targets in accordance with the NSW WARR Strategy 2014-2021. These targets include;

- Increasing construction and demolition recycling rates to 80%
- Increasing waste diverted from landfill to 75%
- Reducing litter by 40%
- Reduce illegal dumping incidents by 30%

The following table illustrates the anticipated volumes of materials generated at this development during the demolition stage. Volumes have been advised by IRT.

Table 3: Demolition Waste Conversion

Material	Volume (m3)	*Tonnes (t)	**Appx. Percentage Recovered
Excavation Material	-	-	99.8%
Green waste	17	2.6	80%
Bricks	521	625.2	100%
Tiles	1.6	1.6	100%
Concrete	1313	1969.5	100%
Timber	198	37.6	33%
Plasterboard	344	68.8	50%
Metals	54	27	100%
Asbestos	20	6.2	0%
Other waste	-	-	50%
Totals	2468.6	2738.5	

Operational Waste Management Plan:

Through IRT's implementation of Elephant Foot's Operational Waste Management Plan, they will be adhering to the following objectives of the Wollongong Council in relation to the protection and enhancement of both the natural and built environments.

- Encourage development which facilitates waste minimisation and complements waste services offered by Council or private contractors;
- Reduce the demand for waste disposal;
- Maximise reuse and recycling of building materials and household, industrial and commercial waste;
- Provide appropriately located, sized and accessible waste storage facilities;
- Ensure waste management systems are compatible with collection services;
- Support the principles of Ecologically Sustainable Development (ESD)
- Avoid illegal dumping of waste.

In order to achieve and exceed council expectations, IRT will be installing a series of waste disposal procedures as disclosed by Elephant Foot. They will initiate;

- 5 x Single waste chutes will be installed (one in each building) with access on each residential level of each core. Residents will wrap or bag their general waste before placing in the chute. Bagged waste should not exceed 3kg in weight, or 35cm x 35cm x 35cm.
- The general waste will discharge from the chute into 1100L in the chute discharge rooms located on the basement level. General waste will not be compacted.
- A separate cupboard for the storage of 240L MGBs will be provided next to each waste chute for the storage of commingled recyclables. Residents will be responsible for loosely placing their recyclables into the 240L MGBS. Recyclables must not be bagged.
- FOGO waste services will be implemented by council in future. During this time residents will be responsible for taking their FOGO waste to the FOGO bin located in each buildings' bin room, using the lifts. The chute discharge area will be caged off for the safety of residents.
- Refer to the private contractor guidelines for the types of materials accepted in the general waste and recycling streams.

IRT have also introduced a bin summary that quantifies bin collection frequencies and total number of bins present on site for the duration of their operations.

- General Waste: 11 x 1100L MGBs collected 1 x weekly
- Recycling: 24 x 240L MGBs collected 1 x weekly
- FOGO Waste: 7 x 240L MGBs collected 1 x weekly
- Service Bins: 5 x 1100L MGBs All garden waste is appropriately handled in accordance with the Biodiversity Management Plan, intended to be mulched and reused.

In the pursuit of pollution prevention, building management shall be responsible for the following to minimise dispersion of site litter and prevent stormwater pollution to avoid impact to the environment and local amenity;

- Promoting adequate waste disposal into the bins
- Securing all bin rooms (whilst affording access to staff/contractors)
- Prevent overfilling of bins, keep all bin lids closed and bungs leak-free
- Taking action to prevent dumping or unauthorised use of waste areas
- Require collection contractor/s to clean up any spillage when clearing bins

Food Waste Management:

- Each buildings bin room will be provided with 240L MGBs for food waste. The residents will be responsible for walking their food waste down to their Communal Food Waste Room and placing their food waste into the bins.
- Food waste must be contained in accordance with Wollongong Council's future food waste collection service procedures (for example a compostable liner).
- Upon moving in, the residents of each dwelling will be provided with a caddy for separating and containing food waste within their kitchens.
- Building management is responsible for ensuring that the Bin Rooms and FOGO bins are washed down frequently and ensuring that hygiene and odour is maintained.

Others:

- IRT's Seniors Living Facilities will implement a strict non-smoking policy on site, in adherence to their wellbeing initiatives.
- Problem Waste including chemical waste, liquid wastes, toner cartridges lightbulbs, eWaste and batteries will be disposed of, and recycled under the guise of the building manager and the appropriate contractor.
- Liquid Waste: Liquid wastes such cleaning products, chemicals, paints, and cooking oil, etc., will be stored in a secure space that is bunded and drained to a grease trap in accordance with State government authorities and legislation.
- IRT are intending on implementing Battery Electric Bin Movers, those that are equipped with solar charging, reducing reliance on non-renewable energy sources for the maintenance of the Seniors Living development.

4.9 Traffic

As one of the biggest sources of GHG emissions, transportation plays a major role in climate change. Through the careful consideration of parking access, communal public transport, and EV carparking availability, IRT will continue to contribute towards the government mandated Net Zero targets and use external means to reduce emissions. In doing so, it will lead to a higher quality of life for senior residents, staff, and visitors by protecting the environment and ensuring a more sustainable future.

The surrounding road network and conditions include Popes Road with unrestricted kerbside parking, Campbell Street with unrestricted kerbside parking, and the Princess Highway with no permitted kerbside parking, with variable traffic speeds between 50km/h and 60km/h.

Through the outlined sustainability targets and traffic conditions, IRT will commit to;

- Providing a communal shuttle bus service for elderly resident transportation
- Providing a total of 173 parking spaces throughout the facility (excluding Camelia Lodge visitors)
- Despite the DCP requirement allocating 20% of parking spaces to include charging stations for; Residential Aged Care, Independent Living Units, Social and Wellness Centres as well as 10% for Commercial Areas. See *table below*:

Table 3: Electric Vehicle Charging Requirement

Land Use	Building Class	Car Parking Provision	DCP Parking Rate	Electric Vehicle Charging Requirement
Residential Aged Care Facility	9	29	20% of car parking spaces	6
Independent Living Units	9	106	20% of car parking spaces	21
Social and Wellness Centre	9	4	20% of car parking spaces	1
Commercial	6	21	10% of car parking spaces	2

IRT will adhere to the current NCC 2022 section J9D4 mandate providing 100% of the car parking spaces associated with a Class 2 buildings with Electric Vehicle charging provisions.

4.10 Wellbeing Initiatives

IRT's wellbeing initiatives will place users at the centre of its focus, it will encourage the following;

- Good quality and tuneable lighting
- Acoustic comfort
- Mold resistant materials
- Low-VOC paints and finishes, lowering the exposure to toxins
- Pest Management measures
- Ceiling fans
- Smoke free policy
- Clean air and natural ventilation
- Operable window shading
- Daylight access

5 Identified Future Initiatives

Figure 1 on the next page outlines future initiatives which are recommended for implementation at 4-6 Popes Road, Woonona, NSW.

Potential further development of IRT's sustainability initiatives will target the Net Zero Action Plan outlined by Greenstar by 2050. The initiatives will adhere to chosen recommendations by Greenstar, these may include and are not limited to:

- Optimising the efficiency of appliances
- Green wall or green roof
- Further inclusion of solar panels and battery storage
- More efficient glazing e.g. Double Glazed or Argon Filled window specifications
- Any additions to be designed for disassembly
- Any additions to achieve greater thermal mass
- Any additions to include low-embodied carbon materials
- The installation of electric vehicle charging stations

Alternative initiatives targeting sustainability may include;

- Optimising rainwater run-off and guttering solutions
- Optimising the efficiency of piping channels
- Any excess water to be diverted to bore water storage
- Efficiency and quality of water filtering systems
- Including further installation of external shading devices
- Regenerative outdoor fitness equipment
- Advanced ventilation systems

Figure 1 - Future Initiatives

Alignment with principles	Recycling of demolished materials	Riparian restoration following works	Policy for low TVOC paints, adhesives & sealers	Solar Panels to offset operational energy	No smoking/vaping policy	Electric Vehicle Charging	Defibrillator	Policy of Organic Waste Recycling
Precautionary	★	★	★		★		★	
Inter generational equity	★	★	★	★	★	★	★	★
Conservation of biodiversity		★		★		★		★
Improved mechanisms for valuation	★			★		★		