Ref: **SSD-58978472**
WTJ23-142

WILLOWTREE PLANNING

ENVIRONMENTAL IMPACT STATEMENT:
KELSO CRESCENT MULTI-LEVEL WAREHOUSE, MOOREBANK

20 KELSO CRESCENT, MOOREBANK, NSW 2170
Lot 2 in DP 521146 and Lot C in DP 327378

—

Prepared by Willowtree Planning Pty Ltd
on behalf of Mapletree SR Australia Management Pty Ltd

27 March 2024

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WILLOWTREE
PLANNING

In the spirit of reconciliation and recognition, Willowtree Planning acknowledges the Traditional Owners of this Country throughout Australia and their continuing and ongoing connections to land, waters and community. We show our respect to Elders – past and present. We acknowledge that we stand on this Country which was and always will be recognised as Aboriginal Land. We acknowledge the Traditional Owners of the Lands in this Local Government Area, belonging to the local Aboriginal People, where this proposal is located upon.

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EIS DECLERATION

Declaration Form: Submission of EIS	
Project Details	
Project name	Kelso Crescent Multi-Level Warehouse, Moorebank
Application number	SSD-58978472
Address of the land on which the development is to be carried out	20 Kelso Crescent, Moorebank within Liverpool City
Proponent Details	
Proponent name	Mapletree SR Australia Management Pty Ltd
Proponent address	Suite 9.01, Level 9, 580 George Street, Sydney, NSW 2000
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Declaration by registered environmental assessment practitioner	
Name	Andrew Cowan
Registration number	135475
Organisation registered with	PIA
Declaration	The undersigned declares that this EIS: ▪ has been prepared in accordance with Part 8 of the *Environmental Planning and Assessment Regulation 2021*; ▪ contains all available information relevant to the environmental assessment of the development, activity or infrastructure to which the EIS relates; ▪ does not contain information that is false or misleading; ▪ addresses the Planning Secretary's environmental assessment requirements (SEARs) for the project; ▪ identifies and addresses the relevant statutory requirements for the project, including any relevant matters for consideration in environmental planning instruments; ▪ has been prepared having regard to the Department's *State Significant Development Guidelines - Preparing an Environmental Impact Statement*; ▪ contains a simple and easy to understand summary of the project as a whole, having regard to the economic, environmental and social impacts of the project and the principles of ecologically sustainable development; ▪ contains a consolidated description of the project in a single chapter of the EIS; ▪ contains an accurate summary of the findings of any community engagement; and ▪ contains an accurate summary of the detailed technical assessment of the impacts of the project as a whole.
Signature	
Date	7 March 2024

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GLOSSARY OF KEY TERMS

TERM	MEANING
AHD	Australian Height Datum
BAM	Biodiversity Assessment Methodology
BCA	Building Code of Australia
BC Act	*Biodiversity Conservation Act 2016*
BCBHS	Building Code and Bushfire Hazard Solutions
BC Regulation	*Biodiversity Conservation Regulation 2017*
BDAR	Biodiversity Development Assessment Report
BOS	Biodiversity Offset Scheme
CBD	Central Business District
CEMP	Construction Environmental Management Plan
CIV	Capital investment value
Council	Liverpool City Council
CTMP	Construction Traffic Management Plan
DA	Development Application
DCP	Development Control Plan
DP	Deposited Plan
DPE	Department of Planning and Environment
DPHI	Department of Planning, Housing and Infrastructure
EDC	Estimated Development Cost
EES	Environment, Energy and Science Group
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2021*
EPA	Environment Protection Authority
EPBC Act	*Commonwealth Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental Planning Instrument
EPL	Environmental Protection Licence
ESD	Ecologically Sustainable Development
FRNSW	Fire and Rescue NSW
FSR	Floor Space Ratio
GFA	Gross Floor Area
GHG	Greenhouse Gas
GSC	Greater Sydney Commission
LLEP	Liverpool Local Environmental Plan 2008
LGA	Local Government Area
MNES	Matter of National Environmental Significance
MUSIC	Model for Urban Stormwater Improvement Conceptualisation
NCC	National Construction Code
NOR	Notice of Requirements
NSW RMS	NSW Roads and Maritime Services
OEH	NSW Office of Environment and Heritage

POEO Act	*Protection of the Environment Operations Act 1997*
RL	Reduced level
SEARs	Secretary's Environmental Assessment Requirements (SSD-58978472), dated 8 June 2023
SEPP	State Environmental Planning Policy
SIDRA	Signalised & Unsignalised Intersection Design and Research Aid
Sqm or m²	Square metres
Subject site/site/study area	20 Kelson Crescent, Moorebank within Liverpool City
TfNSW	Transport for NSW
VIA	Visual Impact Assessment
VPA	Voluntary Planning Agreement
Willowtree Planning	Willowtree Planning Pty Ltd
WM Act	*Water Management Act 2000*
WMP	Waste Management Plan
WSUD	Water Sensitive Urban Design

SUMMARY

This Environmental Impact Statement (EIS) has been prepared by Willowtree Planning Pty Ltd (Willowtree Planning), on behalf of Mapletree SR Australia Management Pty Ltd. The EIS is submitted to the New South Wales (NSW) Department of Planning and Environment (DPE), in support of an application for State Significant Development (SSD), for the construction and operation of a warehouse and distribution centre, including main construction site preparation works, removal of subterranean fuel tanks, earthworks, and the provision of infrastructure at 20 Kelso Crescent, Moorebank (Lot 2 in DP 521146 and Lot C in DP 327378) as described in **PART 3** of this EIS.

In short, the proposed development involves the construction and operation of a warehouse and distribution centre (identified as the Kelso Crescent Multi-Level Warehouse, Moorebank), comprising:

- Amalgamation of Lot 2 in DP 521146 and Lot C in DP 327378;
- Removal of five (5) subterranean fuel tanks and a subterranean oil/ water separator;
- Main construction site preparation works, including the removal of 33 trees;
- Earthworks to achieve an FFL of RL 10.00 (+/-500mm)
- Provision of infrastructure comprising civil works and utilities servicing;
- Construction of five (5) warehouse buildings, split over two (2) storeys with ramp-up access, comprising:
    - Warehouse 1 at ground level – 5,700m^2
    - Warehouse 2 at ground level – 5,820m^2
    - Warehouse 3 at ground level – 5,820m^2
    - Warehouse 4 at first floor – 11,530m^2
    - Warehouse 5 at first floor – 5,820m^2
    - Total Warehousing – 34,690m^2
- Ancillary office accommodation totalling 2,400m^2;
- Multi-level car parking (118 spaces) off Kelso Crescent at the front of the subject site, subterranean car parking (62 spaces) off Seton Road at the rear of the subject site, and a total of 38 loading docks across the two (2) storeys of warehousing;
- Onsite cycle parking and end of trip facilities;
- Complementary landscaping and offset planting comprising 3,525m^2, providing 10% coverage;
- Business identification signage zones; and
- Allowance for operations up to 24 hours per day, seven (7) days per week.

The proposed development is to be located at 20 Keslo Crescent, Moorebank, more formally described as Lot 2 in DP 521146 and Lot C in DP 327378. Such land is described throughout this EIS as the 'subject site'.

The subject site is located within the Liverpool Local Government Area (LGA) and is zoned E4 General Industrial, pursuant to the *Liverpool Local Environmental Plan 2008* (LLEP 2008). The proposed development falls within the definition of 'warehouse or distribution centre', which is permissible with consent in the E4 General Industrial zone of the LLEP 2008.

The proposed development satisfies the definition of SSD pursuant to:

- Schedule 1, Clause 12 of *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP), being development for "the purpose of warehouses or distribution centres (including container storage facilities) at one location and related to the same operation" with a estimated development cost (EDC) of more than $50 million.

As such, this EIS must be prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs).

Under the *Environmental Planning & Assessment Act 1979* (EP&A Act), it is required that a request for SEARs must be made prior to the lodgement of any application for SSD. SEARs were requested for the proposed development (reference: SSD-58978472) and later issued by the NSW DPE on 8 June 2021 (refer to **Appendix 1**) in the form of industry-specific SEARs, through the Rapid Assessment Framework.

The SEARs for the proposed development outline several Key Issues to be addressed as part of this EIS, including:

1. Statutory Context
2. Capital Investment Value and Employment
3. Design Quality
4. Built Form and Urban Design
5. Visual Impact
6. Traffic, Transport and Accessibility
7. Trees and Landscaping
8. Ecologically Sustainable Development (ESD)
9. Biodiversity
10. Air Quality
11. Noise and Vibration
12. Ground and Water Conditions
13. Water Management
14. Flooding Risk
15. Hazards and Risks
16. Contamination and Remediation
17. Waste Management
18. Aboriginal Cultural Heritage
19. Environmental Heritage
20. Social Impact
21. Infrastructure Requirements and Utilities
22. Bush Fire Risk
23. Construction, Operation and Staging
24. Contributions and Public Benefit
25. Engagement

The findings of this EIS identify that the proposed development can be accommodated, subject to suitable management and mitigation measures, without any adverse environmental impacts beyond that considered appropriate by the relevant legislation.

Further, the proposed warehouse and distribution centre would be consistent with the objectives of the LLEP 2008 and the E4 General Industrial zone. The proposed development is suitable for the local context and shall not result in any significant environmental impact. As such, it is recommended that the proposed development be supported by the NSW DPE for approval, subject to reasonable and relevant conditions.

SITE CONTEXT

The subject site is legally described as Lot 2 in DP 521146 and Lot C in DP 327378, with frontages to Kelso Crescent and Seton Road. The subject site has a total area of approximately 3.52 hectares and is positioned within the Liverpool LGA.

The subject site comprises two (2) allotments located on the southern side of Kelso Crescent. The subject site is zoned E4 General Industrial pursuant to the LLEP 2008, which is intended to:

- To provide a range of industrial, warehouse, logistics and related land uses.
- To ensure the efficient and viable use of land for industrial uses.
- To minimise any adverse effect of industry on other land uses.
- To encourage employment opportunities.
- To enable limited non-industrial land uses that provide facilities and services to meet the needs of businesses and workers.
- To allow other land uses that are compatible with industry and that can buffer heavy industrial zones while not detracting from centres of activity.

The existing attributes of the subject site are noted as follows:

- The subject site exhibits a site area of approximately 3.52 hectares, and comprises the following lots:
    - Lot 2 in DP 521146 is the western portion; and
    - Lot C in DP 327378 is the eastern portion.
- The front of the subject site is accessible from the A34 via Kelso Crescent, with separate dedicated access provided from Seton Road to the rear.
- The subject site is sandwiched between industrial properties to the east and west.
- The current main occupier of the subject site is 'Adbri Masonry', which operates the subject site as a production plant.
- The subject site comprises single-storey warehouse buildings at the front (north) of the subject site, together with landscaping addressing the streetscape at Kelso Crescent. An additional warehouse building is located at the north-west portion of the subject site, with a large construction aggregate processing structure at the rear (south) of the subject site. These areas of warehousing are all linked by a network of internal circulation.
- The subject site is otherwise interspersed with significant volumes of external storage, which include building materials, construction aggregates and palettes.
- Clusters of trees are present at the centre of the subject site and along the southern boundary addressing Seton Road.
- The Moorebank Zone Substation occupies what would otherwise constitute the north-west corner of the subject site.

The existing site context is shown in **Figure 1** and Error! Reference source not found. below.

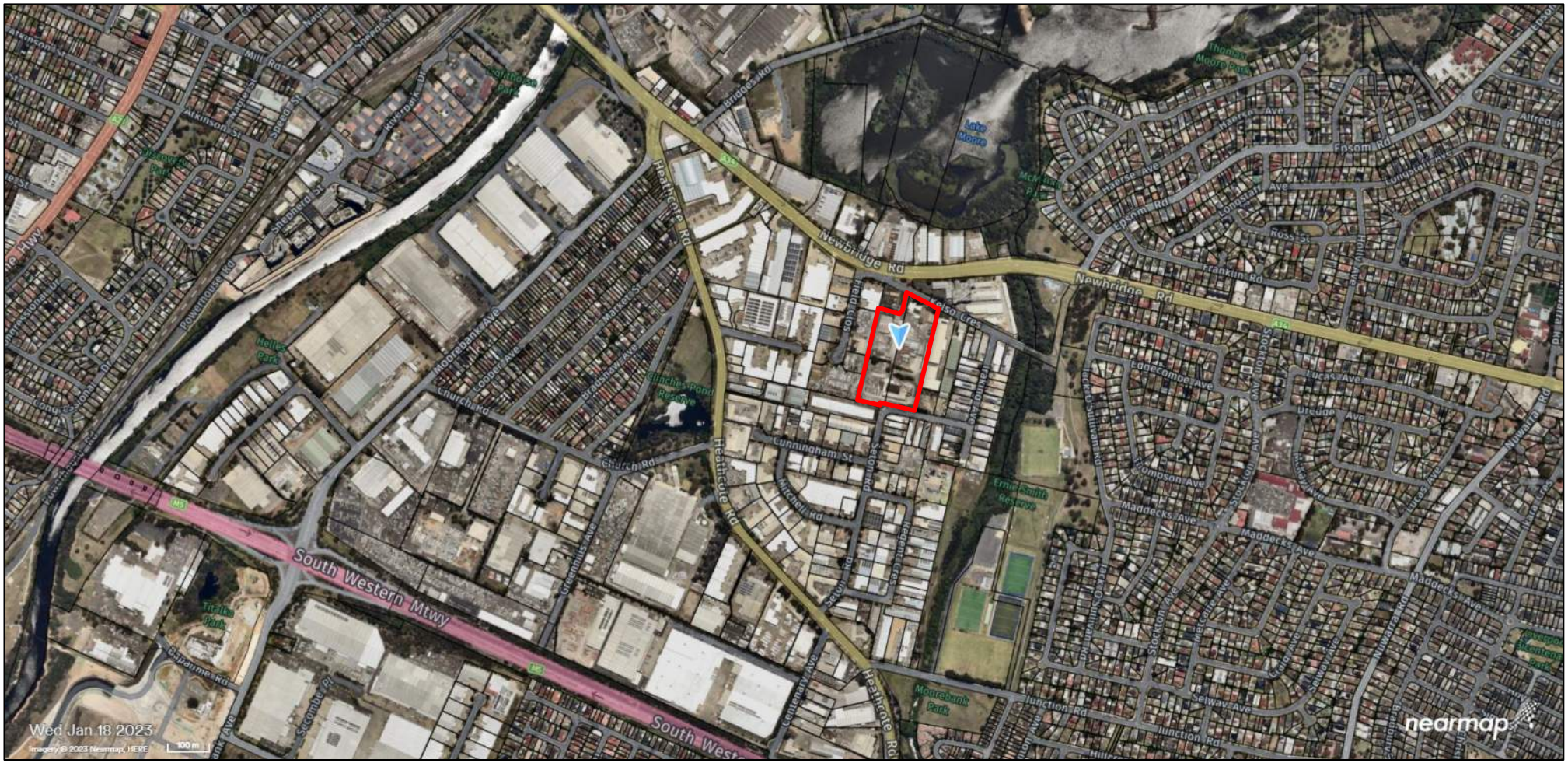


Figure 1. Site Context Map *(Source: Near Map, 2023)*

Figure 2. Cadastral Map *(Source: Six Maps, 2023)*

For further details on the current site context, reference should be made to **PART 2** of this EIS.

PROJECT DESCRIPTION

The proposed development represents the redevelopment of the subject site for a new warehouse and distribution centre.

The development consent sought under this proposed warehouse and distribution centre, comprises the following aspects of development:

- Amalgamation of Lot 2 in DP 521146 and Lot C in DP 327378;
- Removal of five (5) subterranean fuel tanks and a subterranean oil/ water separator;
- Main construction site preparation works, including the removal of 33 trees;
- Earthworks to achieve an FFL of RL 10.00 (+/-500mm);
- Provision of infrastructure comprising civil works and utilities servicing;
- Construction of five (5) warehouse buildings, split over two (2) storeys with ramp-up access, comprising:
    - Warehouse 1 at ground level – 5,700m^2
    - Warehouse 2 at ground level – 5,820m^2
    - Warehouse 3 at ground level – 5,820m^2
    - Warehouse 4 at first floor – 11,530m^2
    - Warehouse 5 at first floor – 5,820m^2
    - Total Warehousing – 34,690m^2
- Ancillary office accommodation totalling 2,400m^2;
- Multi-level car parking (118 spaces) off Kelso Crescent at the front of the subject site, subterranean car parking (62 spaces) off Seton Road at the rear of the subject site, and a total of 38 loading docks across the two (2) storeys of warehousing;
- Onsite cycle parking and end of trip facilities;

- Complementary landscaping and offset planting comprising 3,525m^2, providing 10% coverage;
- Business identification signage zones; and
- Allowance for operations up to 24 hours per day, seven (7) days per week.

PLANNING AND LEGISLATIVE FRAMEWORK

All relevant Federal and State legislation, as well as Environmental Planning Instruments (EPIs), have been considered in the preparation of this EIS. The proposed development is satisfactory in terms of its legislative context, on the basis that:

- The proposed development is permissible in the zone;
- The objectives of the zone are satisfied;
- The range of applicable SEPPs have been considered;
- Strategic policies that apply to the locality and wider region have identified that the proposed use is consistent with the strategic context of the area;
- The proposed development can satisfy the relevant provisions of the National Construction Code (NCC) and applicable Australian Standards.

Refer to **PART 4** of this EIS.

PUBLIC NOTIFICATION AND CONSULTATION

A range of authorities have been consulted with during the preparation of this EIS. These include:

- Local landowners, businesses and stakeholders in the subject site's immediate surroundings
- Department of Planning and Environment – Planning
- Department of Planning and Environment – Heritage
- NSW Environment Protection Authority (EPA)
- Transport for NSW (TfNSW)
- SafeWork NSW
- Liverpool City Council
- Sydney Water – Growth Planning Team
- Telstra
- National Broadband Network
- Endeavour Energy
- Gandangara Local Aboriginal Land Council
- All Aboriginal people and organisations identified through the response by the agencies contacted

A large number of stakeholders operating near the subject site were provided with information and an opportunity to comment on the proposed development, however, did not respond to the opportunity. This suggests limited interest in or objection to the proposed development, reflecting the suitability of the subject site for the proposed development.

The consultation process is detailed in **PART E** and **Appendix 31.**

ENVIRONMENTAL IMPACT ASSESSMENT

An assessment of environmental impact has been undertaken against the relevant planning controls and policies. Additionally, a number of expert consultants have been engaged to specifically consider relevant aspects of the proposed development. The environmental impact assessment has found that the proposed development complies with the relevant controls, and it is considered that appropriate mitigation measures can be put in place to minimise any identified risks.

The proposed development is considered acceptable in a legislative sense.

Based on the specialist studies and extensive investigations carried out for the proposed development, the following conclusions are made:

- **Statutory Context**

  The proposed development is entirely consistent with the Objects of the EP&A Act. The appropriateness of the proposed development is also demonstrated through compliance with the LLEP 2008, in that it achieves the employment generating outcomes envisaged for the subject site, with minimal impact on surrounding uses and environments.

- **Capital Investment Value and Employment**

  The proposed development would provide new employment opportunities through the provision of a warehouse and distribution centre to an otherwise dated and underutilised industrial land holding.

- **Design Quality**

  The proposed development responds to the seven (7) objectives for good design in *Better Placed*.

- **Built Form and Urban Design**

  As clearly demonstrated in the various design plans and reports, the proposed development provides a suitable urban design outcome that reflects the existing locality and is complementary to the strategic intent for the Moorebank industrial area.

  The proposed development provides high quality warehouse and distribution, and ancillary office land uses which complement the surrounding industrial context of Moorebank.

- **Visual Impact**

  Potential visual impacts have been assessed for a number of locations that are in close vicinity to the proposed development and those judged to have potentially higher sensitivity. There are a number of residential dwellings that are located to the east and south east of the development within Moorebank that are expected to receive minor or negligible visual impacts. From residential streets existing vegetation is expected to largely screen the proposed development from view.

  Views experienced by passing motorists or pedestrians in very close proximity to the site are transient, only temporary, and therefore, impacts will be less significant. Generally, locations including Kelso Crescent, Newbridge Road and Seton Road are judged to have low to very low sensitivity due to all being located within the Moorebank industrial area.

- **Traffic, Transport and Accessibility**

  The traffic generation for the proposed development will not present any adverse traffic implications on the local road network.

  The proposed car parking provision is consistent with TfNSW Guidelines; and the proposed access, internal circulation and parking arrangements accord with Australian Standard design criteria.

- **Trees and Landscaping**

  The proposed development maintains and offers tall native canopy trees, screening shrubs and groundcovers. Following maturity, these planted buffers will provide a dense screen to help to soften and screen the development.

- **Ecologically Sustainable Development (ESD)**

  Through the project's commitment to Green Star and the implementation of the initiatives noted within this EIS, the proposed development clearly demonstrates the subject site's commitment to ESD principles throughout the design, construction, and operational phases. The project design team has worked to optimise the subject site's energy performance, address the key climate related risks identified, and align to the NSW Government's commitment to carbon neutrality by 2050.

  Furthermore, the Proponent is committed to design, build and commission the office component of the proposed development to achieve a 4 Star NABERS energy rating and a 4 Star NABERS water rating in respect of the 2,400m^2 ancillary office component.

- **Biodiversity**

  The Biodiversity Assessment of the subject site has determined that the proposed development is not likely to have any significant impact on the biodiversity values of the subject site. Therefore, given the land use history, current surrounding industrial infrastructure and limited ecological value within the study area, a BDAR waiver has been formally granted and is enclosed at **Appendix 13**.

- **Air Quality**

  The Air Quality Assessment concludes that the construction phases can be adequately managed through mitigation measures so that the short-term and temporary dust related impacts are minimised.

  The findings of the operational phase assessment indicate that the operation of the proposed development is not predicted to result in any additional exceedance of the air quality criteria. Good site management practices such as the minimisation of vehicle idling whilst on site, would be sufficient to ensure that impacts are minimised during the intended operation.

- **Noise and Vibration**

  Operational noise emissions from the facility will be inaudible above the prevailing ambient noise at sensitive (residential) receiver areas, with the closest 375m from the subject site and separated by roads and other industry. The proposed development is predicted to satisfy the criteria for 24-hour operation without the need for additional acoustic treatment.

With respect to vibration, the human exposures and Peak Particle levels are predicted to be below the nominated criteria with no further treatments required. The surrounding industrial lots are predicted to comply with the criteria based on the proposed activities, with nearby industrial sites predicted to generate more vibration than the proposed development.

- **Ground and Water Conditions**

  The subject site's subsurface profile to approximately 10m BGL comprises a layer of anthropogenic fill (silty sand, silty clay and sandy clay, with varying proportions of sub-angular gravels; up to 5.1m thickness), overlying natural silty/ sandy clays. Laboratory and analytical results for the representative fill and natural soil samples were all found to comply with the adopted investigation levels applicable to commercial/ industrial land use settings.

  Groundwater was encountered at levels between 2.3m to 8m BGL. The laboratory analytical results for the representative samples were found to comply with the adopted Groundwater Investigations Levels (GILs), except for dissolved copper, nickel and zinc. Total Recoverable Hyrdocarbons (TRH) were identified, however all concentrations complied with the corresponding GILs.

  The metal and TRH concentrations were consistent with natural (background) conditions in urban environments. It is therefore considered that local groundwater conditions do not pose a risk to human health, or the environment.

- **Water Management**

  Stormwater has been designed in accordance with Chapter 6 'Water Cycle Management' of the LDCP 2008. All new stormwater will be conveyed by gravity as discharge from the subject site via Council's existing drainage system.

  There are no requirements to provide drainage infrastructure that would be handed over to another authority.

  A recycled water provision has been put in place via the inclusion of two (2) rainwater tanks.

- **Flooding Risk**

  The finished floor levels (FFL) are set to RL 10 m AHD, which is higher than 1% AEP flood level plus 500mm (RL 8.46 mA HD+500 mm).

  The flood level impacts arising from the proposed development during the 1% AEP event are within the accepted range of +/- 20mm with no adverse flood impacts over private properties within the floodplain.

- **Hazards and Risks**

  The storage of dangerous goods would not form part of the proposed development's intended operation.

- **Contamination and Remediation**

  It is concluded that widespread, or gross, contamination is not present at the subject site. The subject site is deemed to be suitable for its ongoing commercial and industrial use in accordance with Chapter 4 of the Resilience and Hazards SEPP.

However, it is acknowledged that a Remediation Action Plan (RAP) is necessary to address the removal of all remaining underground storage tanks, and the underground oil/ water separator. The RAP will also consider all hazardous materials present on the subject site.

- **Waste Management**

  A Waste Management Plan has been provided, which considers construction and operational waste measures to be undertaken for the proposed development. All buildings have considered the provision for waste management areas to ensure the effective management and disposal of waste can occur.

- **Aboriginal Cultural Heritage**

  A review of the background information, existing assessments, and database searches, together with a walkover survey of the subject area, has established that no Aboriginal sites and no areas of Potential Archaeological Deposit are located within the subject site.

- **Environmental Heritage**

  As there are no listed heritage items within the study area and the study area is not within the visual catchment of any listed heritage items, the proposed works do not have the potential to cause direct or indirect impacts to any heritage items. As such, it is concluded that a Statement of Heritage Impact and Archaeological Assessment are not required to fulfil the requirements of the SEARS.

- **Social Impact**

  Long term socio-economic impacts of the proposed development are expected to be positive, with benefits to be felt by groups extending beyond the immediate locality.

- **Infrastructure Requirements and Utilities**

  The proposed development can be adequately serviced and does not necessitate any infrastructure upgrades.

- **Construction, Operation and Staging**

  The approval strategy seeks to obtain Development Consent to complete the construction works over several construction stages upon issue of the relevant Construction Certificates; however, any such staging does not constitute staged development as defined under Section 4.22 of the EP&A Act.

- **Contributions and Public Benefit**

  The proposed development has provided all satisfactory contributions required under Section 7.11 of the EP&A Act.

- **Engagement**

  This EIS and supporting reports have been prepared in accordance with the matters prescribed by the SEARs. A comprehensive level of community and stakeholder engagement has been undertaken for the proposed development.

JUSTIFICATION FOR THE PROPOSED DEVELOPMENT

Thorough consideration of the environmental impacts of the proposed development has been undertaken in the environmental impact assessment process and in the preparation of the EIS. In assessing the impacts of the proposed development, consideration has been given to social, economic and environmental matters. As identified in this EIS, proposed development is not considered to represent an environmental risk, or a development that might be out of context with the surrounding locality.

EIS FINDINGS

The findings of this EIS demonstrate that the proposed development can proceed with consent. All assessed impacts have been examined and deemed acceptable, in relation to all the relevant legislative requirements applicable to the subject site. Furthermore, the proposed warehouse and distribution centre aligns with the objectives of the *A Metropolis of Three Cities – Greater Sydney Region Plan,* the *Western City District Plan* and the LLEP 2008.

Based on the findings of this EIS, the subject site can successfully support the proposed warehouse and distribution centre, inclusive of related development and operations, with acceptable environmental impacts. The proposed development is a much-needed redevelopment of a dated industrial site, with key strategic ties outlined in the *Western City District Plan*.

The proposed development is deemed suitable for its intended purpose, having regard to its regional and local context and would not result in any significant environmental impacts. As such, it is requested that the proposed development be approved, subject to reasonable and relevant conditions.

Based on the findings of this EIS, it is concluded that the proposed development would support the continued and targeted growth of the Moorebank industrial area. The proposed development would contribute to the retention and growth of the Moorebank industrial precinct. The proposed development is therefore considered suitable from both a local and regional context and is considered orderly and appropriate, based on social, cultural, economic and environmental matters.

Given the above reasons and the satisfaction of both of the Objects of the EP&A Act and the aims of the LLEP 2008, it is recommended that the proposed development, for the purposes of a warehouse and distribution centre, be supported subject to relevant and reasonable conditions.

PART 1 INTRODUCTION

1.1 INTRODUCTION

This EIS has been prepared by Willowtree Planning, on behalf of Mapletree SR Australia Management Pty Ltd. The EIS is submitted to the NSW DPE, in support of an application for SSD, for the Kelso Crescent Multi-Level Warehouse project (SSD-58978472), involving the construction and operation of a warehouse and distribution centre, including main construction site preparation works, removal of subterranean fuel tanks, earthworks, and the provision of infrastructure at 20 Kelso Crescent, Moorebank, more formally described as Lot 2 in DP 521146 and Lot C in DP 327378.

The particulars of this proposed development are summarised below:

- Amalgamation of Lot 2 in DP 521146 and Lot C in DP 327378;
- Removal of five (5) subterranean fuel tanks and a subterranean oil/ water separator;
- Main construction site preparation works, including the removal of 33 trees;
- Earthworks to achieve an FFL of RL 10.00 (+/-500mm);
- Provision of infrastructure comprising civil works and utilities servicing;
- Construction of five (5) warehouse buildings, split over two (2) storeys with ramp-up access, comprising:
    - Warehouse 1 at ground level – 5,700m^2
    - Warehouse 2 at ground level – 5,820m^2
    - Warehouse 3 at ground level – 5,820m^2
    - Warehouse 4 at first floor – 11,530m^2
    - Warehouse 5 at first floor – 5,820m^2
    - Total Warehousing – 34,690m^2
- Ancillary office accommodation totalling 2,400m^2;
- Multi-level car parking (118 spaces) off Kelso Crescent at the front of the subject site, subterranean car parking (62 spaces) off Seton Road at the rear of the subject site, and a total of 38 loading docks across the two (2) storeys of warehousing;
- Onsite cycle parking and end of trip facilities;
- Complementary landscaping and offset planting comprising 3,525m^2, providing 10% coverage;
- Business identification signage zones; and
- Allowance for operations up to 24 hours per day, seven (7) days per week.

The proposed development has a total EDC of $94,500,000 and would generate approximately 160 construction jobs and a total of approximately 240 operational jobs for the proposed facility, as calculated within the QS Report enclosed at **Appendix 2** of this EIS.

This EIS describes the subject site, the proposed development and facilitates an environmental assessment of its potential impacts. It also responds to the SEARs and assesses the proposed development in terms of all relevant matters set out in legislation, EPIs and associated planning policies.

The structure of this EIS has been prepared in accordance with the NSW DPE's *State Significant Development Guidelines – Preparing an Environmental Impact Statement* as follows:

- **PART 1 INTRODUCTION**
- **PART 2 STRATEGIC CONTEXT**
- **PART 3 PROJECT DESCRIPTION**
- **PART 4 STATUTORY CONTEXT**
- **PART 5 ENGAGEMENT**

- **PART 6 ASSSESSMENT OF IMPACTS**
- **PART 7 PROJECT JUSTIFICATION**

1.2 STATUTORY REQUIREMENTS

The relevant statutory requirements of the proposed development are suitably addressed in **Section 4.1.1** of this EIS.

1.3 MANDORY CONSIDERATIONS

Mandatory matters for consideration by the consent authority are outlined in **Appendix C** of this EIS.

1.4 SUPPORTING PROJECT DOCUMENTATION

Documents provided in support of the proposed development are outlined in **TABLE 1**.

TABLE 1: DOCUMENT SCHEDULE

Appendix No.	Document Title	Consultant
Appendix A	Secretary's Environmental Assessment Requirements table	-
Appendix B	Site Specific Maps and Information	-
Appendix C	Statutory Compliance Table	-
Appendix D	Community Engagement Table	-
Appendix E	Mitigation Measures Table	-
Appendix 1	Secretary's Environmental Assessment Requirements	-
Appendix 2	Cost Summary Report Cost Summary Report Letter Addendum – 08.03.2024	Currie & Brown
Appendix 3	Title Documents	Various
Appendix 4	Architectural Drawings	NettletonTribe
Appendix 5	Design Report	NettletonTribe
Appendix 6	Detail Survey Plan	Beveridge Williams
Appendix 7	Regulatory Compliance Report and Accessibility Report	McKenzie Group
Appendix 8	Visual Impact Analysis	Geoscapes
Appendix 9	Transport Assessment, including Construction Traffic Management Plan and Green Travel Plan	Genesis Traffic
Appendix 10	Landscape Plan	Geoscapes
Appendix 11	Arboricultural Impact Assessment	Urban Arbor
Appendix 12	Ecologically Sustainable Development Assessment	SLR
Appendix 13	BDAR Waiver (Request and Determination)	SLR / DPE
Appendix 14	Air Quality Assessment	Northstar
Appendix 15	Noise and Vibration Impact Assessment	Acoustic Works
Appendix 16	Construction Noise and Vibration Management Plan	Acoustic Works
Appendix 17	Geotechnical Investigation	JK Geotechnics (updating the previous work completed by EI Australia)

Appendix 18	Detailed Site Investigation	EI Australia
Appendix 19	Fire Safety Engineering Design Review	Scientific Fire Services
Appendix 20	Civil Engineering Report and Package	TTW
Appendix 21	Flood Risk Assessment	TTW
Appendix 22	Phase 1 Environmental Site Assessment	Greencap
Appendix 23	Hazardous Building Materials Register	Getex
Appendix 24	Hazardous Building Materials Work Plan	Getex
Appendix 25	Remedial Action Plan	Getex
Appendix 26	Waste Management Plan	SLR
Appendix 27	Aboriginal Cultural Heritage Assessment Report	Travers Bushfire and Ecology
Appendix 28	Statement of Heritage Impact	Travers Bushfire and Ecology
Appendix 29	Socio Economic Impact Assessment	Hill PDA
Appendix 30	Service Infrastructure Assessment	Land Partners
Appendix 31	Stakeholder Engagement Report	Hill PDA
Appendix 32	Endeavour Energy Technical Review Package	Endeavour Energy
Appendix 33	Plan of Consolidation	-
Appendix 334	Schedule 5 – Industry and Employment SEPP Assessment	Willowtree Planning
Appendix 335	Nabers Commitment Agreement to Rate (Energy and Water)	The Proponent SLR
Appendix 336	Embodied Emissions Materials Form	Currie & Brown
Whole document	Environmental Impact Statement	Willowtree Planning

In addition, the Proponent has permission from each of the listed consultants to rely on the technical reports enclosed as part of this EIS.

1.5 CAPITAL INVESTMENT VALUE

The EDC of the proposed development, in accordance with the EDC definition under the *Environmental Planning & Assessment Regulation 2021* (EP&A Regulation), is estimated to be $94,500,000.

A Quantity Surveyors (QS) Cost Summary Report, prepared by Currie & Brown, is included in **Appendix 2**.

1.6 EMPLOYMENT NUMBERS

The following employment numbers are estimated for the proposed development.

1.6.1 Construction Jobs

As documented in the QS Cost Summary Report (**Appendix 2**), based on benchmarking comparable projects of similar size and complexity, it is anticipated that 120 – 160 jobs will be created at the peak of construction activities. The comparable projects relied upon include:

- Project A – $80 million CIV with approximately 150 construction jobs during peak of activity.
- Project B – $70 million CIV with approximately 120 construction jobs during peak of activity.
- Project C – $90 million CIV with approximately 160 construction jobs during peak of activity.

1.6.2 Operational Jobs

An analysis of employment generate for the operation of the proposed development has been undertaken as part of the QS Cost Summary Report (**Appendix 2**).

It is anticipated that 200 – 240 jobs will be generated by the ongoing operation of the proposed development from 2025 onwards. This has been calculated based on the Full Time Equivalent (FTE) roles required for managing the calculated GFA of warehouse space and ancillary office accommodation as currently designed.

This calculation is based on all roles at the facility requiring office space, and applying the NCC compliance of 1 FTE per 10m^2 to the office space only. Since the development is categorised as a distribution centre, the staff numbers are between 35 – 50 per office. This results in the overall upper figure of approximately 240 FTE operational jobs arising from the proposed development (see **TABLE 2** below).

TABLE 2: OPERATIONAL JOBS CALCULATION			
	Office (Class 5) m^2	**Office Population (NCC2022 - Table D2D18 - 1 person per 10m^2)**	**Office Population (Similar Mapletree Precedent - 1 person per 10m^2)**
Office 1	500	50	**50**
Office 2	350	35	**35**
Office 3	350	35	**35**
Office 4a	500	50	**50**
Office 4b	350	35	**35**
Office 5	350	35	**35**

1.7 THE PROPONENT

See **TABLE 3** below for the Proponent's contact details.

TABLE 3: PROPONENT CONTACT DETAILS	
Company Details	Mapletree SR Australia Management Pty Ltd (ABN. 38 607 733 611)
Contact Name	Eng Khoon Tan
Position	Senior Manager, Projects, Group Development, Australia
Contact Number	+61 478 224 778
Email Address	tan.engkhoon@mapletree.com.sg

1.8 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

An application requesting industry-specific SEARs was submitted to the NSW DPE (reference: SSD-58978472). The SEARs were subsequently issued by NSW DPE on 8 June 2023 and are addressed by this EIS.

For reference, the industry-specific SEARs, as issued, are annexed in **Appendix 1** of this EIS. An overview of how the SEARs have been satisfied are outlined in **Appendix A**.

PART F of this EIS provides a detailed environmental risk assessment of all SEARs items.

This EIS is also consistent with the minimum requirements for an EIS, as set out in Division 5 of the EP&A Regulation and has considered the *State Significant Development Guidelines – Preparing an Environmental Impact Statement*.

PART 2 STRATEGIC CONTEXT

2.1 SITE LOCATION & CHARACTERISTICS

2.1.1 Site Characteristics

The subject site, as documented in this EIS, includes:

TABLE 4: SITE DETAILS		
Address	**Lot/DP**	**Lot Area**
20 Kelso Crescent (western portion)	Lot 2 in DP 521146	15,501m^2
20 Kelso Crescent (eastern portion)	Lot C in DP 327378	19,698m^2

The subject site comprises a total area of approximately 3.52 hectares, comprising two (2) allotments located between Kelso Crescent to the north (front) and Seton Road to the south (rear). The existing attributes of the subject site are noted as follows:

- The subject site exhibits a primary frontage of 87m to Kelso Crescent to the north, and a secondary frontage of 87m to Seton Road to the south.
- Vehicular access to the subject site is currently facilitated by existing access points on Kelso Crescent and Seton Road.
- The current main occupier is 'Adbri Masonry', which operates the subject site as a production plant. In its existing state, the subject site comprises single-storey warehouse buildings at the front (north) of the Site, together with landscaping addressing the streetscape at Kelso Crescent. An additional warehouse building is located at the north-west portion of the subject site, with a large construction aggregate processing structure at the rear (south) of the subject site. These areas of warehousing are all linked by a network of internal circulation.
- The subject site is otherwise interspersed with significant volumes of external storage, which include building materials, construction aggregates and palettes. Clusters of trees are present at the centre of the subject site and along the southern boundary addressing Seton Road. The Moorebank Zone Substation occupies what would otherwise constitute the north-west corner of the subject site.
- The subject site is located to the north of the Moorebank industrial area, which is bound by the A34 Newbridge Road to the north and the Anzac Creek to the east, with the Heathcote Road wrapping around to the west and south where it joins the M5 South-Western Motorway.
- The subject site benefits from the aforementioned road connections to the A34 and M5 and the Sydney CBD is 26km to the east.
- The built form and character of the area is diverse and comprises large floor-plate warehousing and distribution centres alongside strata title multi-unit complexes and older factory style buildings. Lot sizes vary from 325m^2 through to 83 hectares.
- Main land use activities include freight, transport, warehousing and wholesale supplies owing to the accessibility of the nearby M5 and M7 Motorways and now the Intermodal Terminal, a new transport connection facility for freight containers transported from Port Botany via rail.

The immediate site context is illustrated in **Figure 1** and **Figure 2** of this EIS. **Figures 3 – 6** below illustrate the main views of the subject site from the public domain.

Figure 3. View of the Main Entrance to the subject site from Kelso Crescent *(Source: Google, 2021)*

Figure 4. View of the Front of the subject site from Kelso Crescent *(Source: Google, 2021)*

Figure 5. View of the Rear of the subject site from Seton Road *(Source: Google, 2021)*

Figure 6. View of the Rear Entrance to the subject site from Seton Road *(Source: Google, 2021)*

An overview of the site characteristics are included in **TABLE 5**, as follows.

TABLE 5: SITE CHARACTERISTICS	
Component	**Description**
Address and legal description	20 Kelso Crescent, Moorebank Lot 2 in DP 521146 and Lot C in DP 327378
Site area	3.52 hectares (approx.)
Current use	The current main occupier is 'Adbri Masonry', which operates the subject site as a production plant.
Topography	The subject site possesses a moderate elevation change in the north to south direction. The northern boundary sits at an RL of 12.0m and falls to the south to an RL of 8.0m and 7.0m on Seton Road. This entails a level difference of approximately 4.5m.
Access	The front of the subject site is accessible from the A34 via Kelso Crescent, with a separate dedicated access provided from Seton Road to the rear.
Vegetation	The vegetation on the subject site mostly consists of planted trees with a weedy undergrowth. The Arboricultural Impact Assessment Report (AIA) prepared by Urban Arbor identifies a total of 40 trees on the subject site (see **Figure 7** below), of which seven are proposed for retention (five within the subject site and two on the adjoining property to the east). **Figure 7. Existing Trees at Subject Site** *(Source: Urban Arbor, 2023)*

TABLE 5: SITE CHARACTERISTICS	
Component	**Description**
	The tree species identified by the AIA include: ▪ Thirteen (13) species that are native to NSW ▪ one (1) species that is non-native to NSW ▪ seven (7) exotic tree species These species were verified during the ecology site inspection, with no species identification conflicts. Additional species recorded during the site inspection were predominately exotic species in the ground or shrub layer.
Watercourses	The subject site is located approximately 200m west of Anzac Creek and approximately 170m south of Lake Moore. The location of both is illustrated at **Figure 1** and **Figure 2**.
Wetlands	No mapped local or important wetlands occur within or close to the subject site.
Biodiversity	No areas of outstanding biodiversity value lie within the subject site. The Biodiversity Values Map (DPE 2021b) indicates no areas of biodiversity value are present within the study area. **Figure 8. Biodiversity Values Map** *(Source: NSW Legislation, 2023)*
Infrastructure	Potable water: The subject site has a frontage to a 150mm water main in Kelso Crescent, and a separate frontage to a 150mm water main in Seton Road.
	Wastewater The subject site is serviced by a Sydney Water 150mm sewer line in the south-east area of the subject site. This 150mm main then connects to a 225/ 300mm system in Seton Road.

TABLE 5: SITE CHARACTERISTICS		
Component	**Description**	
	Electricity	▪ Two padmount substations are installed on site, one with a 500kVa transformer and another with a 1,000kVa transformer. ▪ The Moorebank Zone Substation is located adjacent to the subject site. ▪ Along the western boundary of the subject site an electrical easement contains a conduit bank with one high voltage cable in part and 4 high voltage 11kv cables in part where connection to the Zone Substation adjacent to the subject site occurs. ▪ Substantial high voltage network assets exist within Kelso Crescent immediately adjacent to the subject site that serves both the adjacent zone substation and the subject site.
	Gas	Jemena has a 1,050kPa high pressure gas main constructed within Kelso Road which is available for connection.
	Telecommunications	NBN is the network provider for the area and has established underground fibre optic cables within Kelso Road.
Easements and encumbrances	The subject site is burdened by a number of easements and encumbrances, pertaining to various infrastructure services. Further details are included in **Section 2.4** of this EIS.	
Heritage	The study area has been subject to an Aboriginal Cultural Heritage Assessment Report, which concludes that no further assessment in accordance with the *National Parks and Wildlife Act 1974* is warranted. The study area is not listed on the State Heritage Register (or subject to an interim heritage order) under the *NSW Heritage Act 1977* and is not identified as an item of environmental heritage or heritage item on any EPIs.	

2.2 DEVELOPMENT HISTORY

An online search of the development applications pertaining to the subject site returned no results.

A request to Liverpool City Council was made under the *Government Information (Public Access) Act 2009* for documentation relating to previous planning approvals for the subject site.

A list of development applications for '20 Kelso Crescent' was duly provided by Liverpool City Council's Access to Information Officer in November 2022. No dates of lodgement or approval were included. The applications of relevance are set out in **TABLE 7** below:

TABLE 6. EXISTING CONSENTS	
DA Reference	**Summary**
TP-187/2014	Removal of four trees
TP-244/2006	Removal of three trees
TP-565/2003	Tree removal and pruning
D/10/1990	Proposed Expansion of Existing Factory Amenities
D/204/1989	Extensions to Office Accommodation and Display Area
B/17/1990	Lunchroom and Change Room Additions
B/1319/1989	Commercial additions
B/1445/1981	Commercial additions
B/869/1981	Commercial additions
B/998/1975	Commercial additions
B/237/1975	Factory
B/1119/1974	Commercial additions
B/2332/1973	Office Fit-out
B/2324/1973	Offices
B/32/1973	Timber Frame Shed
B/2073/1972	Factory
B/593/1972	10 Detached Storage Sheds
B/592/1972	Additions to Factory Workshop
B/251/1972	Offices Extension
B/1348/1969	Factory
B/1134/1968	Sand Washing Plant

2.3 LAND OWNERSHIP

The land that is the subject of this application, is owned by the following entities.

TABLE 7: REGISTERED LAND OWNERS	
Lot/DP	**Registered Land Owner**
Lot 2 in DP 521146	Mapletree SR Australia Management Pty Ltd
Lot C in DP 327378	Mapletree SR Australia Management Pty Ltd

Land owner's consent has been obtained from all entities.

2.4 EASEMENTS AND ENCUMBRANCES

The encumbrances noted within the Certificate of Title and Title Diagram of lots described in **Section 2.3** above are summarised in **TABLE 8**, and a copy of the relevant documents included in **Appendix 3**.

TABLE 8: ENCUMBRANCES ON TITLE	
Reference	**Description and Location**
Lot 2 in DP 521146	
(3) K522590	Easement for Transmission Line affecting the part(s) shown so burdened in the Title Diagram.

TABLE 8: ENCUMBRANCES ON TITLE	
Reference	**Description and Location**
(4) DP603565	Easement to Drain Water affecting part of the land within described shown as Drainage Easement 2m wide in DP 603565.
(5) W408682	Easement for Sewerage affecting the part of the land within described shown in DP 116704.
Lot C in DP 327378	
(4) M710146	Easement for Electricity Purposes affecting that part of the land within described as "Proposed Easement for Electricity Purposes" in Plan with M710146.
(5) N457472	Easement for Electricity Purposes affecting that part of the land within described shown as "Proposed Easement for Electricity Purposes" in Plan with N457472.

The proposed development has been designed in accordance with the abovementioned easements and encumbrances. Discussions are ongoing with Endeavour Energy regarding the reconfiguration of the electricity transmission infrastructure intersecting the subject site. These discussions are enclosed at **Appendix 32** of this EIS.

Consultation with Sydney Water has also been undertaken, as documented within **PART 5** of this EIS.

2.5 SITE CONTEXT

The Moorebank industrial area is located to the south of the Liverpool CBD. It benefits from direct access to the M5 Motorway and its north-western corner is approximately 800m from Liverpool train station.

The built form and character of the area is diverse and comprises large floor-plate warehousing and distribution centres alongside strata title multi-unit complexes and older factory style buildings. Lot sizes vary from 325m^2 through to 83 hectares.

Land use activities include freight, transport, warehousing and wholesale supplies owing to the accessibility of the nearby M5 and M7 Motorways and now the Intermodal Terminal, a new transport connection facility for freight containers transported from Port Botany via rail. See Section 2.2.2 below for further details.

Refer to **Figure 9** below for an illustration of the Moorebank Industrial Area context.

Figure 9. Site Context Map *(Source: Google Maps, 2023)*

2.5.1 Relevant Future Projects

The following relevant future projects have been identified within proximity of the subject site.

Please note that **Figure 10** is an excerpt from Liverpool City Council's online DA Tracker map. The red numbering denotes development applications (with the blue numbering denoting subdivision certificate applications, and the yellow numbering denoting rezoning applications). **TABLE 9** sets out those development applications considered to be relevant for the purpose of understanding the cumulative effects of this emerging context.

TABLE 9. RELEVANT AND ONGOING FUTURE PROJECTS

DA Reference	Summary
SSD-46042458 (Preparation of EIS stage)	**[X]** Proposed Paper Trade Processing Resource Recovery Facility at 49 Heathcote Road, Moorebank. This site is approximately 750m to the south of the subject site, and is located adjacent to the M5 (South-Western) Motorway. At this stage, the extent of traffic generation for the proposal is unknown; however, it is worth noting that an existing industrial warehouse already occupies the site. Therefore, Genesis Traffic does not anticipate any notable additional traffic beyond what currently exists on-site.
DA-942/2022 (Lodged 02.09.2022)	**[23]** Use of the land for the purpose of a warehouse and distribution centre at 23 Iraking Avenue, Moorebank. Site area is 913m^2. The accompanying Statement of Environmental Effects states that the site is expected to be serviced by 2-3 light vehicles and vans per day. This site is approximately 95m to the south-east of the subject site.
DA-1201/2022 (Lodged 16.12.2022)	**[32]** Construction and use of a proposed new multi-unit industrial estate at 12 Church Road, Moorebank.

	Approximately 1.1km to the south-west of the subject site.
DA-186/2023 (Lodged 12.04.2023)	**[39]** Modification to Development Consent DA-388/1986. Under Section 4.55 (2)of the Environmental Planning and Assessment Act 1979, to Increase production of concrete from 43,000 cubic metres to 150,000 cubic metres per year at 26 Seton Road, Moorebank. The accompanying SEE states that *"Traffic movements will remain largely unchanged when compared to current peak movements. The proposal will generate an additional 182 truck movements at night time hours"*, which equates to 18 additional truck movements per hour across this period. Noise and Air Quality have both been assessed. It is concluded that the proposed modification will not adversely affect residential receivers to the east, and will not have an adverse impact on air quality at the site or its surroundings. This site is approximately 82m to the south of the subject site.

Figure 10 below illustrates the location of the emerging developments identified above:

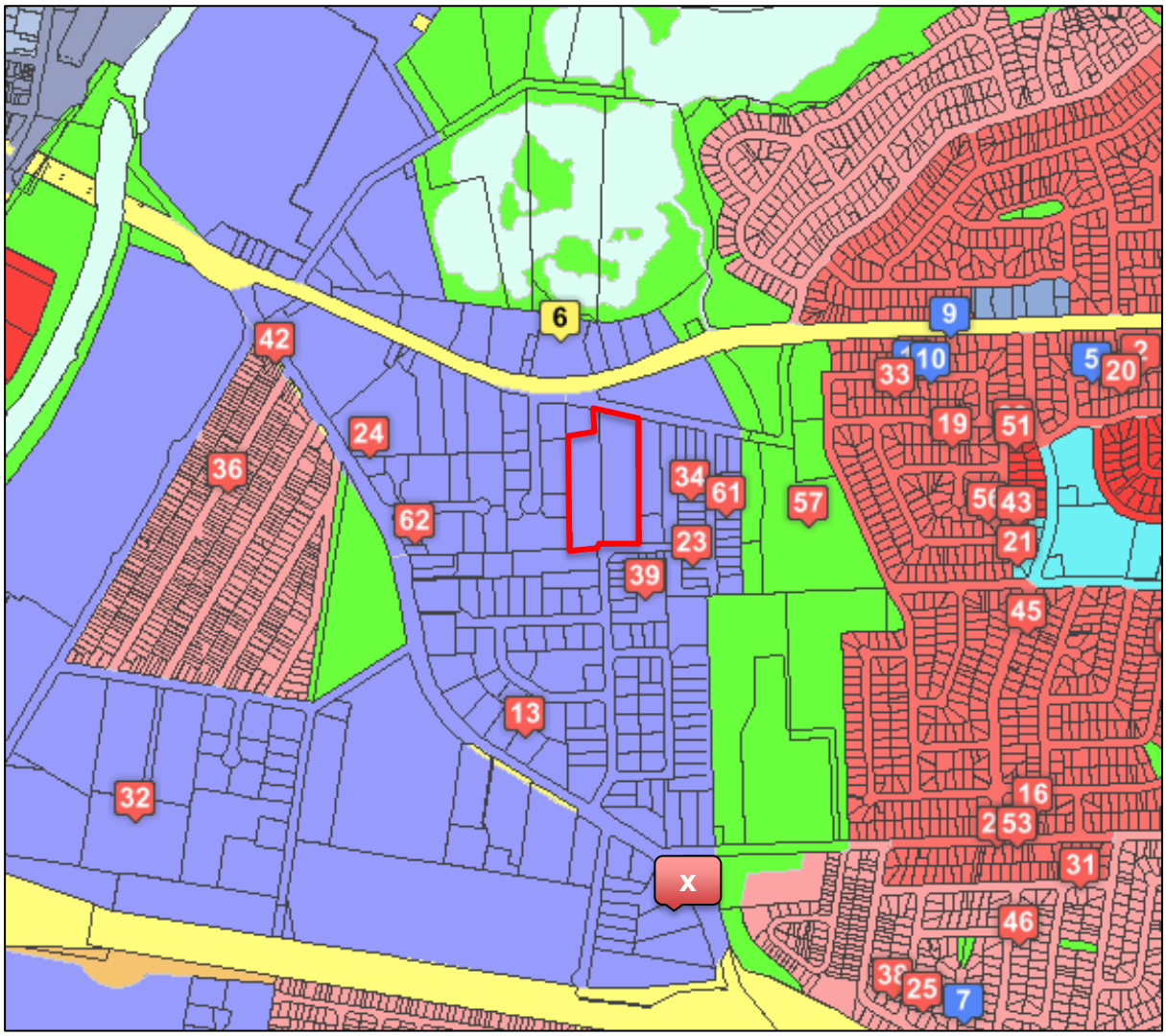


Figure 10. Current Development Applications in Moorebank *(Source: Liverpool City Council, 2023)*

The potential cumulative impacts of the project are addressed in **Section 6.2** of the EIS in accordance with the *Cumulative Impact Assessment Guidelines for State Significant Projects*.

2.6 STRATEGIC PLANNING CONTEXT

2.6.1 Greater Sydney Region Plan – A Metropolis of Three Cities

The *Greater Sydney Region Plan – A Metropolis of Three Cities* divides the Sydney Region into three (3) Cities, with a vision of growth until 2056. The Plan aims to anticipate the housing and employment needs of a growing and vastly changing population. The overall vision pursues an objective of transforming 'Greater Sydney' into a Metropolis of Three Cities, including:

- The Western Parkland City;
- The Central River City; and
- The Eastern Harbour City.

The division into three cities puts workers and the wider community closer to an array of characteristics such as, intensive jobs, 'city-scale' infrastructure and services, entertainment and cultural facilities. By managing and retaining industrial land close to city centres and transport, this will ensure critical and essential services are readily available to support local businesses and community members and residents. Once constructed and operational, the subject site would achieve economic growth and prosperity, as well as encourage employment-generating opportunities within an area zoned for such permissible purposes, that is considered relatively close in conjunction to residential communities, providing an ease of commute. The proposed development across the subject site considers the employment-generating outcomes that can be achieved for the immediate and wider localities.

The proposed development also contributes to the four (4) standardised elements communicated across for all three (3) cities, including:

- Infrastructure and collaboration – the proposed development of the subject site for the purposes of a warehouse and distribution facility would facilitate the provision of services to support the wider locality and region;
- Liveability – the proposed development encourages employment-generating opportunities and economic prosperity, which has positive influences on the wider locality;
- Productivity – the proposed development is situated within the *Western City District Plan* (refer to **Section 2.6.2** below); and,
- Sustainability – the proposed development would not exhibit or emit any detrimental impacts to its wider ecological surroundings.

In summary, the subject site and proposed development contributes to the objectives set out in the *Greater Sydney Region Plan – A Metropolis of Three Cities* by promoting minor environmental impacts and the further promotion of technological advancements and employment-generating opportunities to the wider locality and community, positioned within the Liverpool LGA.

2.6.2 Western City District Plan

The subject site forms part of the Western City District, as identified in **Figure 11** below and is subject to the provisions of the *Western City District Plan*.

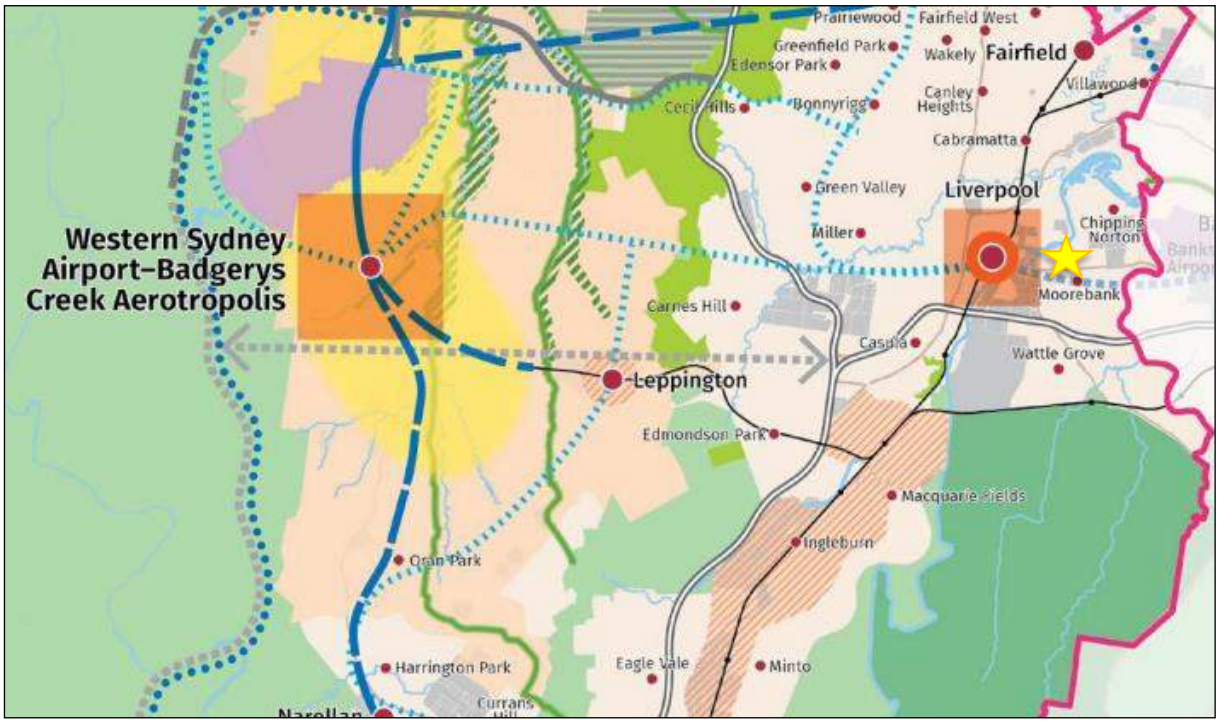


Figure 11. Western City District Plan Structure Plan *(Source: GSC, 2020)*

The subject site also forms part of the Western Parkland City (refer to **Figure 12** below), which is being established on the strength of the new international Western Sydney Airport and Badgerys Creek Aerotropolis. New city-shaping transport and the airport will make the city the most connected place in Australia.

A Western Economic Corridor will attract globally significant defence and aerospace activities and contribute to a strong trade, freight, logistics, advanced manufacturing, health, education and science economy.

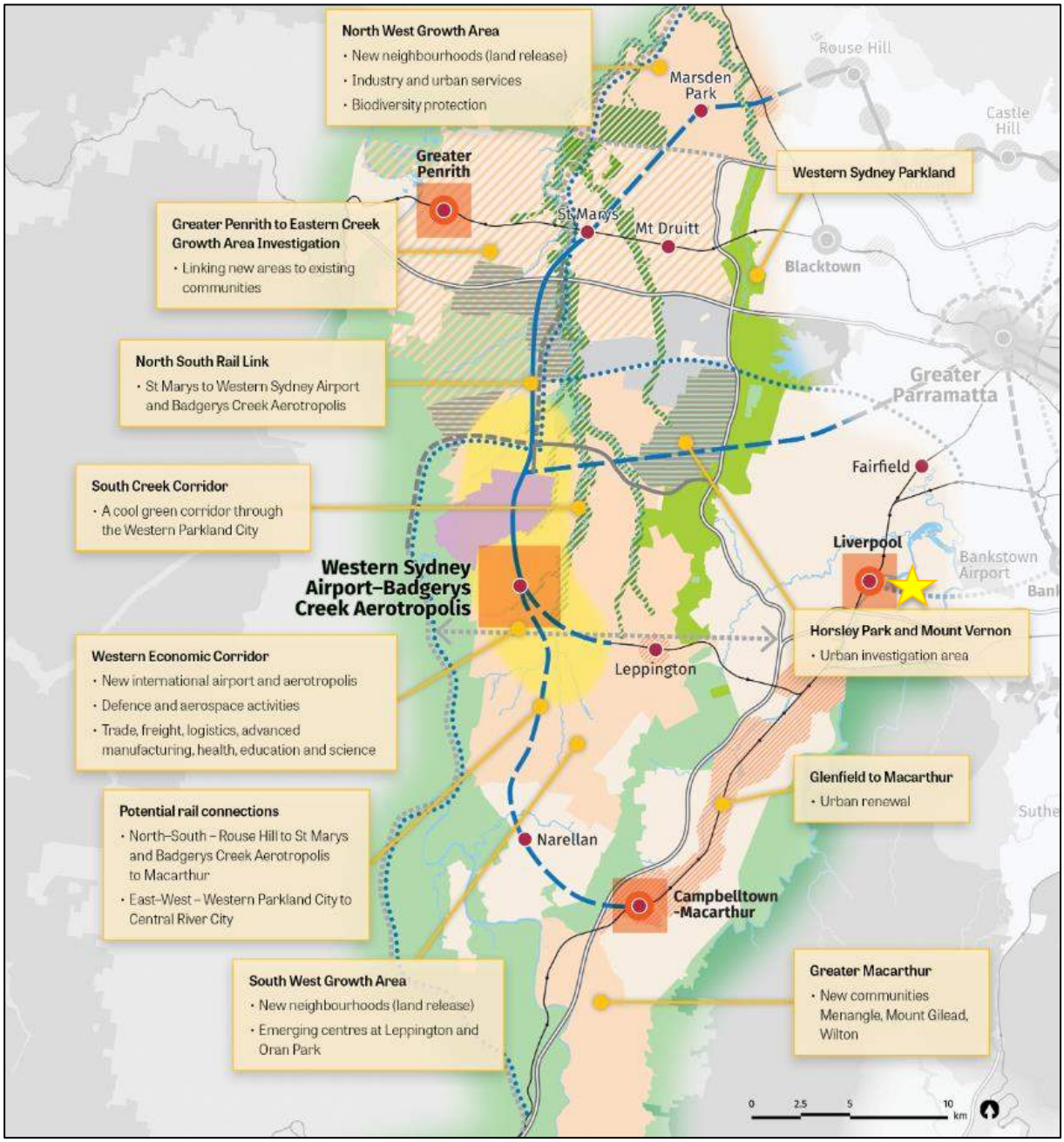


Figure 12. Western Parkland City Spatial Extent *(Source: GSC, 2020)*

The Western City District Plan is underpinned by a number of planning priorities and actions, with those of relevance listed in the sub-sections below.

2.6.2.1 **Planning Priority W7:** *Establishing the land use and transport structure to deliver a liveable, productive and sustainable Western Parkland City*

- Retaining industrial lands for port, intermodal and logistics uses from the encroachment of commercial, residential and other non-compatible uses which would adversely affect industry viability to facilitate ongoing operation and long-term growth; and
- Limiting incompatible uses in areas expected to have intense freight activity.

2.6.2.2 **Planning Priority W8:** *Leveraging industry opportunities from the Western Sydney Airport and Badgerys Creek Aerotropolis*

Leveraging off Western Sydney Airport and Badgerys Creek Aerotropolis is one of the principal objectives of the Western City District Plan, specifically in delivering a greater quantum and range of employment opportunities.

- Provide a regulatory environment that enables economic opportunities created by changing technologies; and
- Consider the barriers to the growth of internationally competitive trade sectors, including engaging with industry and assessing regulatory barriers.

2.6.2.3 **Planning Priority W10:** *Maximising freight and logistics opportunities and planning and managing industrial and urban services land*

Greater Sydney's existing industrial, manufacturing, warehousing and distribution facilities contribute to its role as Australia's manufacturing capital. These activities occur on industrial land that also accommodates urban services, freight and logistics services, and advanced manufacturing.

The Western City District has 5,436 hectares of industrial and urban services land, spread over 69 precincts. Moorebank contains 169 hectares of undeveloped land, and 324 hectares of developed land. This forms a key source of supply of the major long-term industrial/ employment land for Greater Sydney.

The retention, growth and enhancement of industrial and urban services land should reflect the needs of each of Greater Sydney's three cities, and their local context. It should provide land for a wide range of businesses that support the city's productivity and integrated economy.

The District has the potential to become a nationally significant freight and logistics hub through its connections to international, national and regional NSW transport networks. In addition to international connections via the Western Sydney Airport and the potential Western Freight Line (linking to Botany Bay), it connects Greater Sydney to places across the Great Dividing Range via the Main Western Rail Line, the Great Western Highway and the M4 Motorway transporting mineral and agricultural exports from regional NSW to ports, and to Canberra and Melbourne via the Main South Rail Line, the Southern Sydney Freight Line and Hume Highway. These links form part of the National Land Transport Network that carries freight by rail and road to and from Adelaide and Perth as well as locally and regionally to Dubbo, Newcastle, the Illawarra and Port Kembla.

Development of the Western City District provides an unprecedented opportunity for it to realise a national freight and logistics role. This is because the District has competitive advantages including the future Western Sydney Airport, existing freight infrastructure, inter-regional connections, and a substantial supply of large lots of land.

Some older industrial sites contain low buildings or constraints such as smaller lots that are unable to meet emerging freight and logistics needs. A review of older sites will identify opportunities for new industrial uses with higher job densities.

2.6.3 Liverpool Local Strategic Planning Statement 2020

The Liverpool Local Strategic Planning Statement titled 'Connected Liverpool 2040' applies to the subject site. It is Council's long-term plan to shape Liverpool's future which will help guide the development of suburbs and balance the need for housing, jobs and services as well as parks, open spaces and the natural environment.

Local Planning Priority 12 refers to 'Industrial and employment lands meet Liverpool's needs'. The Statement recognises that the prospects for industrial and employment projects in Liverpool are "strong", given proximity to transport links such as the M5 and M7, and large projects including Western Sydney International Airport and the Moorebank Intermodal Terminal. Council is committed to safeguarding existing industrial and urban services land from competing pressures.

To this end, the Council will:

- Monitor land development to ensure there is enough serviced employment and industrial land to meet future need for a number of price points from start-ups to multinationals;
- Prepare flexible planning controls to ensure businesses of the future are not unduly restricted;
- Collaborate with Transport for NSW to address the growing freight task and support actions the State Government and industry need to take for the efficient, safe and sustainable movement of freight, in line with the NSW Freight and Ports Plan 2018-2023;
- Manage the interfaces of industrial, trade and intermodal facilities to reduce adverse impacts; and
- Collaborate with Transport for NSW, DPE and private industry to support the urban consolidation of freight.

The Council also notes that land for larger industrial uses refers to the E4 General Industrial zone, and includes uses such as manufacturing, freight, logistics, warehousing and distribution.

2.6.4 Liverpool Industrial and Employment Lands Strategy 2020

This strategy guides the retention, improvement, rezoning and development of employment lands in the Liverpool Local Government Area over the next 20 years. The Strategy considers a variety of metropolitan and local level policy and incorporates the findings of a suite of recent employment lands studies. The Strategy forms part of the evidence base informing the preparation of the Liverpool Local Environmental Plan Review discussed at **Section 4.1.3.2** of this EIS.

The Industrial and Employment Lands Strategy considers that the current E4 General Industrial zone has imprecise objectives, and a broad range of permissible land uses which result in a lack of definition and a confused economic role. The zone objectives are very broad and non-specific, allowing for a range of industrial and warehouse uses.

The Strategy envisions that the E4 zone should be applied to preserve mid-size operators and large, low-impact operations including warehousing, processing and manufacturing. Distribution, logistics, transport and postal operators should be encouraged in the E4 zone precincts where they have good and direct access onto motorways or freight rail. More intrusive operators such as waste recycling, extractive industries, chemical production and refining and other hazardous and offensive industries should be encouraged to occupy lands within the E5 Heavy Industrial zone.

2.6.5 Future Transport Strategy 2056

The *Future Transport Strategy 2056* is a 40-year strategy, supported by plans for regional NSW and for Greater Sydney. The strategy and plans focus on the role of transport in delivering movement and place outcomes that support the character of the places and communities that are desired for the future.

The proposed development aligns with the strategies of the *Future Transport Strategy 2056* on the following basis:

- the subject site has access to regular public transport services;
- the subject site is accessible by active transport;

- parking provision is appropriate;
- access, servicing and internal layout will be provided in accordance with Australian Standards AS2890.1-2004 and AS2890.2-2018;
- the surrounding road network and intersections will be able to cater for the proposed development traffic.

2.6.6 Moorebank Intermodal Freight Facility

The Australian Government is facilitating the delivery of a major intermodal facility in south-west Sydney to provide a rail 'port shuttle' between Port Botany and the Moorebank precinct, a separate terminal for interstate freight and warehousing. Successive Australian Governments and NSW Governments have identified Moorebank as a key strategic location for increased intermodal capacity to serve freight logistics centres in Sydney's south-west. The site is adjacent to the existing dedicated freight railway line, the M5 motorway and close to the M7 motorway, and is approximately 1.5km to the south of the subject site.

The Moorebank intermodal freight precinct will include:

- An Import-Export (IMEX) Rail Terminal with a capacity to handle up to 1.05 million 20ft equivalent units of international containerised freight per year;
- An Interstate Rail Terminal with a capacity to handle up to 500,000 20ft equivalent units of interstate and regional freight per year;
- Up to 850,000m^2 of high specification warehousing where containers can be unpacked before delivery of their contents to their final destination;
- Auxiliary services including retail and service offerings; and
- A rail connection to the South Sydney Freight Line, which will provide direct access to the facility.

The IMEX Rail Terminal opened in 2019 and the Interstate Rail Terminal is expected to be completed by March 2025.

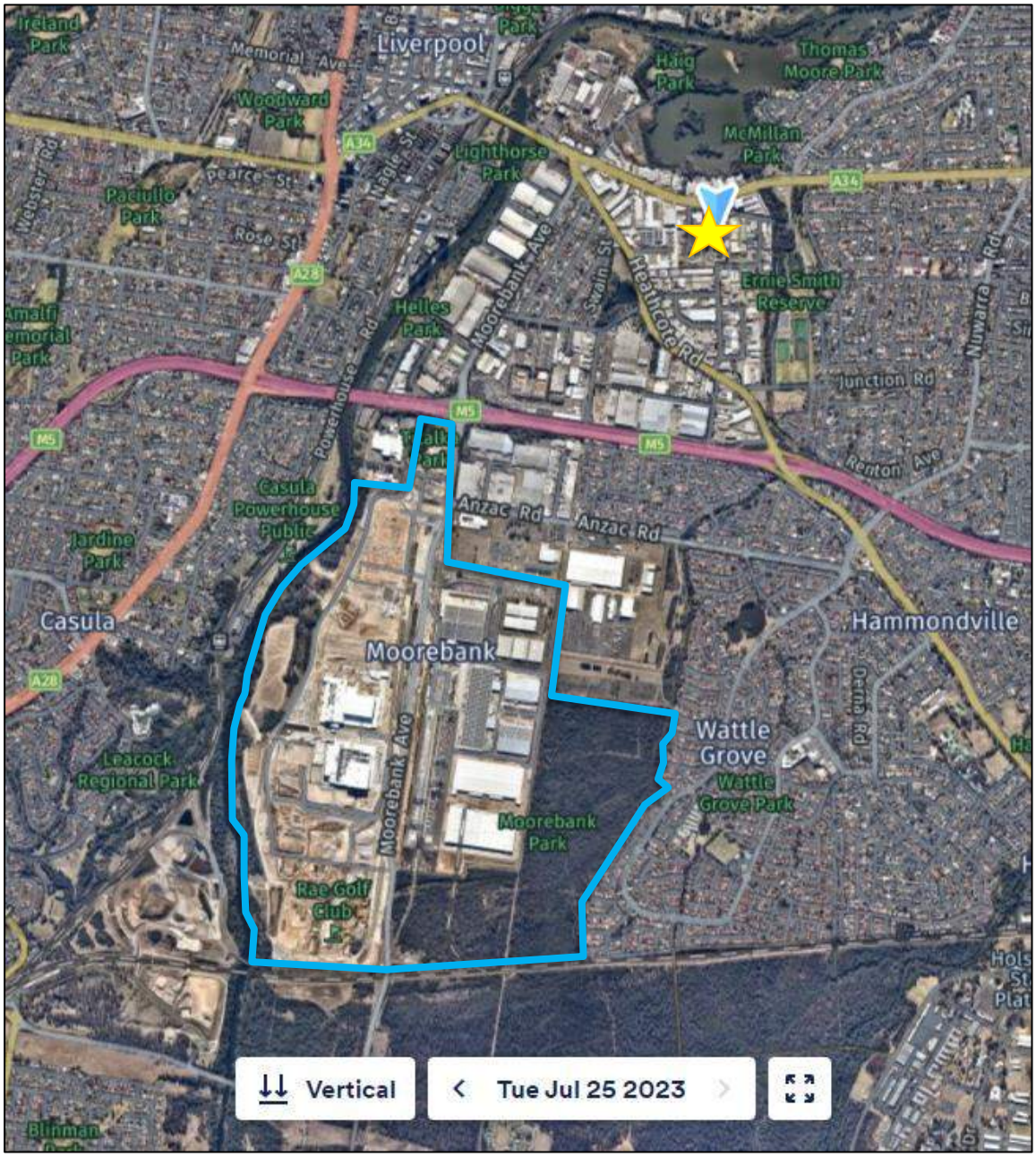


Figure 13. Site Location Relative to the Moorebank Intermodal Freight Facility *(Source: Google, 2023)*

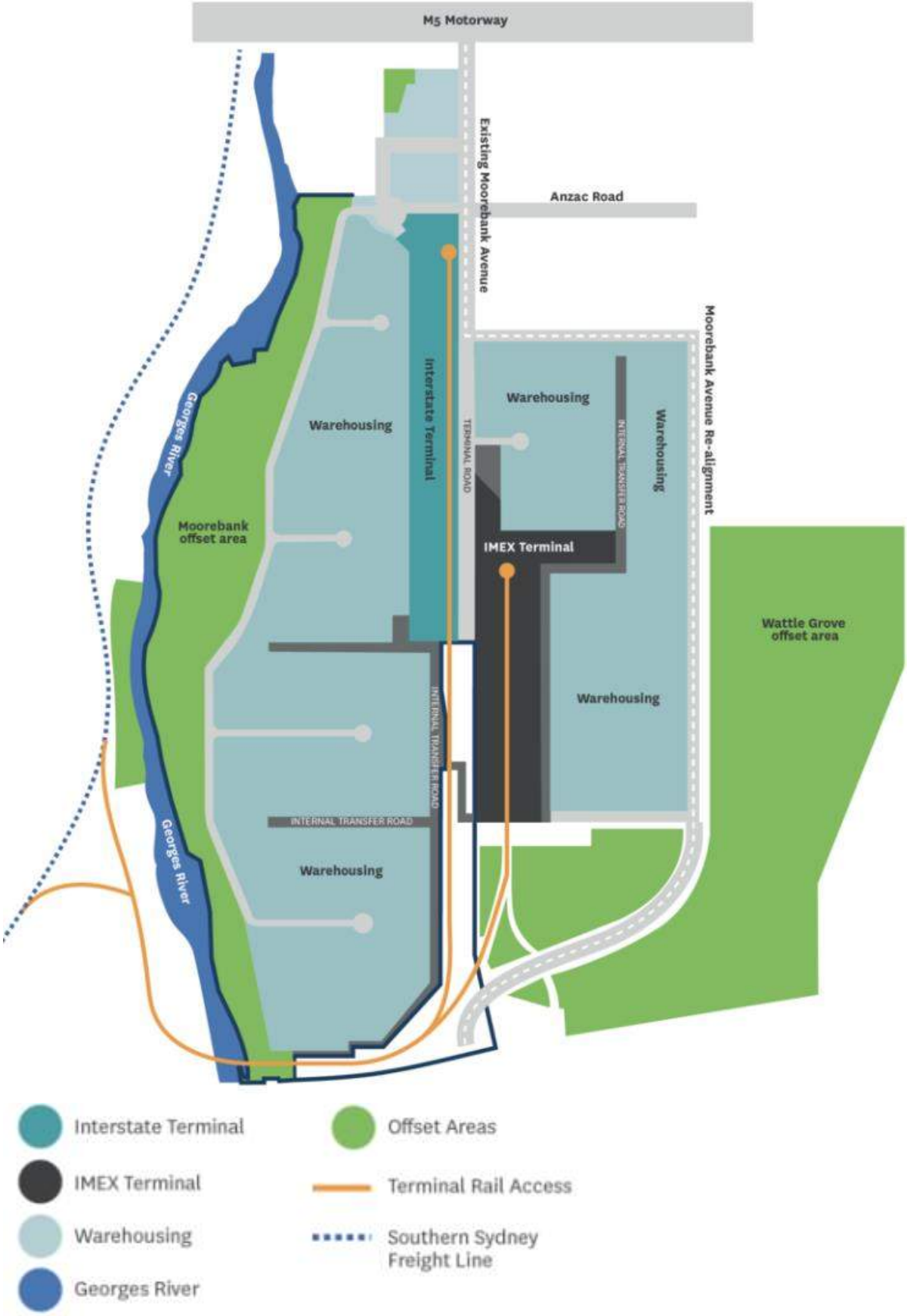


Figure 14. Moorebank Intermodal Terminal Precinct Plan *(Source: Moorebank Intermodal Company, 2022)*

2.7 SITE SUITABILITY

The subject site is located within an established industrial precinct and is zoned E4 General Industrial under the LLEP 2008. The proposed development would facilitate the intended use of the subject site for industrial purposes, which is consistent with the zoning and the surrounding context.

The proposed development falls within the definition of 'warehouse or distribution centre', being *a building or place used mainly or exclusively for storing or handling items (whether goods or materials) pending their sale, but from which no retail sales are made, but does not include local distribution premises*, which is permissible with consent in the E4 General Industrial zone, pursuant to the LLEP 2008.

The subject site is suitable for the size and scale of the development proposed and represents a quality outcome to facilitate a warehouse development that is commensurate to the surrounding area and its existing built form.

In summary, the subject site is highly suited to accommodate the intended development based on the following factors:

- The LLEP 2008 allows for the proposed development as a permissible use;
- The subject site is readily accessible via the regional road network;
- The proposed development is compatible with surrounding development and local context;
- The subject site can be serviced immediately and at no cost to Government;
- The proposed development causes minimal impact on the environment;
- The proposed built form is designed to mitigate any impacts on surrounding properties; and
- The proposed development is consistent with strategic intent of the area.

The following key elements of the subject site and proposed development are noted:

2.7.1 Visual Impact

The sensitivity of the landscape on average has been assessed within the baseline to be low. This is in part due to the surrounding character of the development already being heavily influenced by industrial development.

It is demonstrated that the proposed development will cause a change in the view for a very small minority of properties. Road users, pedestrians, and cyclists have been identified as being impacted at a low level.

Views from adjacent industrial properties to the north, west and south of the subject site shall have views to the proposed development but are to be mitigated with tall native canopy trees, screening shrubs and groundcovers are planted. Following maturity, these planted buffers will provide a dense screen to help to soften and screen the development.

The development proposes substantial landscape planting to offset the visual impact in the form of setbacks with dense tree and shrub planting. This will be most effective after 15 years for those receptors who experience direct views.

Refer to **Section 6.1.5** of this EIS for further information.

2.7.2 Infrastructure

The subject site is suitably located with access to infrastructure and utility services.

Refer to **Section 6.1.21** of this EIS for further information.

2.7.3 Transport and Traffic

The subject site forms part of an established industrial area, bounded by the A34 Newbridge Road to the north, the M5 Motorway to the south, and Heathcote Road to the west.

The capacity of the existing road network is largely determined by the capacity of its intersections to cater for peak period traffic flows. The SIDRA analysis undertaken by Genesis has found that surrounding intersections provide a good level of service, with capacity to cater for the proposed development.

Refer to **Section 6.1.6** of this EIS for further information.

2.7.4 Cultural Heritage

The subject site has been subject to a Aboriginal Cultural Heritage Assessment Report (**Appendix 27**). No known archaeological sites containing Aboriginal objects exist within the boundaries of the subject site associated with the Aboriginal Heritage Impact Permit.

Reference should be made to **Section 6.1.18** of this EIS for further detail.

2.7.5 Stormwater and Flooding

A detailed hydraulic model has been developed for the subject site based on Liverpool City Council's existing TUFLOW model, modified by adding detailed site survey and proposed design elements. The model has been used to assess local flood characteristics in existing and proposed site conditions during the 1% AEP flood events.

The Flood Risk Assessment, prepared by TTW is enclosed at **Appendix 21** of this EIS. Refer to **Section 6.1.14** of this EIS for further information.

2.7.6 Contamination and Soil Condition

A Remedial Action Plan (RAP) has been prepared to remediate the subject site. Subject to the successful implementation of the measures described in this RAP (**Appendix 25**), and its recommendations, it is concluded that the subject site can be made suitable for the intended uses and that the risks posed by contamination can be managed in such a way as to be adequately protective of human health and the environment.

Refer to **Section 6.1.16** of this EIS for further information.

Upon completion of the remediation works, a Validation Report is required to be prepared to verify remedial works were completed in accordance with the RAP.

2.7.7 Summary of Site Suitability

The subject site's consistency with applicable regional and local strategies is demonstrated in the comprehensive environmental assessment, provided in **PART 6** of this EIS, which includes an analysis of all potential impacts, which has been informed by the relevant consultant reports. Accordingly, the environmental assessment prescribes recommendations and mitigation measures (where necessary), to account for all identified potential impacts, by the proposed development. The suitability of the

subject site with regard to the proposed development, can be attributed to its ready ability to provide employment, its excellent access arrangements, its suitable contextual setting, and its minimal impact on the environment.

Accordingly, the EIS prescribes recommendations and mitigation measures (where necessary), to account for all identified potential impacts, by the proposed development. The suitability of the subject site to cater for the proposed development, can be attributed to:

- its ability to provide employment,
- its excellent access arrangements,
- its suitable contextual setting, and
- its minimal impact on the environment.

PART 2 of this EIS demonstrates the subject site's suitability for the proposed development.

PART 3 PROJECT DESCRIPTION

3.1 OBJECTIVES OF THE PROPOSAL

The aim of the proposed development is to provide a purpose-built warehouse and distribution centre, in accordance with Industry Best Practice, resulting in:

- Support the growth and transformation of the industrial sector;
- Employment generation – during construction and once the development is operational;
- Improved access to jobs for residents of the immediate community and wider locality;
- Demonstrate architectural excellence, through siting and design compatibility, with minimal visual impact; and
- Provide suitable mitigation measures where required, to minimise any unforeseen impacts arising in the future.

Mapletree SR Australia Management Pty Ltd seek to construct a warehouse and distribution centre that accommodates the needs of an array of end users. With that in mind, the design of the proposed development provides flexibility to accommodate a wide range of potential end users.

3.2 PROJECT OVERVIEW

Development consent is sought for the construction and operation of a SSD warehouse and distribution centre, pertaining to the following scope of works:

- Amalgamation of Lot 2 in DP 521146 and Lot C in DP 327378;
- Removal of five (5) subterranean fuel tanks and a subterranean oil/ water separator;
- Main construction site preparation works, including the removal of 33 trees;
- Earthworks to achieve an FFL of RL 10.00 (+/-500mm);
- Provision of infrastructure comprising civil works and utilities servicing;
- Construction of five (5) warehouse buildings, split over two (2) storeys with ramp-up access, comprising:
    - Warehouse 1 at ground level – 5,700m^2
    - Warehouse 2 at ground level – 5,820m^2
    - Warehouse 3 at ground level – 5,820m^2
    - Warehouse 4 at first floor – 11,530m^2
    - Warehouse 5 at first floor – 5,820m^2
    - Total Warehousing – 34,690m^2
- Ancillary office accommodation totalling 2,400m^2;
- Multi-level car parking (118 spaces) off Kelso Crescent at the front of the subject site, subterranean car parking (62 spaces) off Seton Road at the rear of the subject site, and a total of 38 loading docks across the two (2) storeys of warehousing;
- Onsite cycle parking and end of trip facilities;
- Complementary landscaping and offset planting comprising 3,525m^2, providing 10% coverage;
- Business identification signage zones; and
- Allowance for operations up to 24 hours per day, seven (7) days per week.

Consent is sought to develop the subject site in accordance with the following provisions.

TABLE 10: PROPOSED DEVELOPMENT PARTICULARS	
Project Element	**Development Particular**
Site Area	3.52 hectares (approx.)
General	The proposed development is considered SSD, pursuant to Schedule 1, Clause 12 of the Planning Systems SEPP.
Primary Land Use	Warehouse and Distribution Centre
Gross Lettable Floor Area (GLA)	Tenancy 1: 5,700m^2 Warehouse; 500m^2 Ancillary Offices; 155m^2 Lobby
	Tenancy 2: 5,820m^2 Warehouse; 350m^2 Ancillary Offices; 100m^2 Lobby
	Tenancy 3: 5,820m^2 Warehouse; 350m^2 Ancillary Offices; 100m^2 Lobby
	Tenancy 4: 11,530m^2 Warehouse; 850m^2 Ancillary Offices; 255m^2 Lobby
	Tenancy 5: 5,820m^2 Warehouse; 350m^2 Ancillary Offices; 100m^2 Lobby
Total GLA	34,690m^2 Warehouse; 2,400m^2 Ancillary Offices
Total Gross Floor Area (GFA)	34,410m^2
Floor Space Ratio	0.98: 1 – there is no applicable maximum FSR control.
Building Height	25.1m – the prescribed maximum building height is 30m.
Number of Stories	Two (2) storeys
Tree Removal	33 trees to be removed
Landscaping	3,560m^2 (10.1% of the site) - Planting of 67 new trees, and 7,786 shrubs and groundcovers.
Earthworks	Bulk earthworks are proposed to achieve a building pad of 10m RL (FFL of RL 10.00 (+/-500mm)), as documented in **Section 3.3.2.1**.
Car parking	180 spaces (including 2 accessible spaces)
Bicycle parking	33 bicycle spaces
Hours of Operation	24 hours per day, seven (7) days per week
Construction Hours	Standard construction hours of: Monday to Friday, 07:00 to 18:00; and Saturday, 08:00 to 13:00.
EDC	$94,500,000 (exc. GST)
Construction Jobs	Approximately 160 direct construction jobs
Operational Jobs	Approximately 240 ongoing jobs

3.3 DEVELOPMENT DESCRIPTION

3.3.1 Project Area

The project area, as assessed for SSD-58978472 is identified as 20 Kelso Crescent, Moorebank, which encompasses Lot 2 in DP 521146 and Lot C in DP 327378. The two (2) lots will be amalgamated to cater for the proposed development. The developable site area for the proposed development is 35,199m^2, which attributes to the full surveyed area of both lots.

3.3.2 Physical Layout and Design

3.3.2.1 Site Preparation Works

Main construction site preparation works are required to facilitate a suitable development platform for the proposed development; such works are described in **TABLE 11**.

TABLE 11: MAIN CONSTRUCTION SITE PREPARATION REQUIREMENTS

Project Element	Proposed Works
Demolition works	Demolition of existing buildings and structures are to be regularised pursuant to Part 7 of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*. For completeness, the following works will be subject to a Complying Development Certificate: ▪ Demolition and removal of existing buildings and structures (including retaining walls); ▪ Demolition and removal of existing pavement and concrete slab; ▪ Demolition and removal of building services; ▪ Removal and disposal of all above ground tanks; and ▪ Remediation (building and above ground). The removal of the five (5) subterranean fuel tanks and the subterranean oil/ water separator is otherwise sought as part of this SSDA.
Tree removal	The proposed development necessitates the removal of 33 trees, as illustrated in **Figure 15**, of which 18 are classified as having low retention value. The value of the trees proposed for removal are summarised as follows: ▪ Fifteen (15) are of high retention value; and ▪ Eighteen (18) are of low retention value. Section 8 of the Arboricultural Impact Assessment enclosed at **Appendix 11** of this EIS includes a full assessment schedule of all existing trees within the subject site.
Infrastructure works	The proposed development includes provision of two (2) new kiosk substations, addressing Kelso Crescent adjacent to the proposed Truck Entry.
Site remediation works	To ensure that the subject site is made suitable for the intended uses and that the risks posed by contamination can be managed in such a way as to be adequately protective of human health and the environment, site remediation works are required. Based on the findings of the previous investigations undertaken at the subject site, the following contamination issues require remediation and/ or management in order to ensure that the subject site is suitable for the proposed development:

	▪ Removal of Asbestos-Containing Material fragments on the ground surface to an approved site or facility; and ▪ Removal of hazardous building materials during demolition activities. The processes outlined in the Remedial Action Plan, enclosed at **Appendix 25** of this EIS, will be implemented to ensure the risks and impacts during remediation works are controlled in an appropriate manner.
Easement relinquishment	Subject to ongoing discussions with Endeavor Energy relating to the proposed reconfiguration of the electricity transmission infrastructure intersecting the subject site. The latest correspondence with Endeavour Energy is enclosed at **Appendix 32** of this EIS.
Bulk earthworks	Bulk earthworks are proposed to facilitate two large flat building pads for the basement at FFL 6.00 and ground level at FFL 10.00. Earthworks will also be provided to cater for hardstand and car park areas. Advice provided by JK Geotechnics within the Geotechnical Investigation (**Appendix 17**) relating to bulk earthworks highlights the following points: ▪ Excavation to a maximum depth of 2.5m below existing levels is expected to achieve the design subgrade level, and will encounter the fill and alluvial soils. ▪ All cuts should be temporarily battered back or benched at no steeper than 1V in 1H for stability considerations and to facilitate compaction of engineered fill up against the cut faces. ▪ Where sandy soils are encountered, localised slumping may occur at such a batter slope, and where such occurs, local flattening of the batters may be required. ▪ If sandy soils are exposed at subgrade level, a 150mm loose thickness layer of fine crushed rock should be placed prior to proof rolling to provide confinement to the sandy soils. ▪ If soil softening occurs after rainfall periods, then the clay subgrade should be over-excavated to below the depth of moisture softening and replaced with engineered fill. If the clay subgrade exhibits shrinkage cracking, then the surface must be moistened with a water cart and rolled until the shrinkage cracks are no longer evident, or the layer tyned, moisture conditioned and recompacted. Care must be taken not to over-water the subgrade. ▪ All fill used to remediate soft/ heaving areas, or raise site levels must be placed as engineered fill. ▪ From a geotechnical perspective, the excavated fill and alluvial soils are considered suitable for reuse as engineered fill on condition that they are 'clean' contain a maximum particle size not exceeding 70mm. ▪ Where filling is completed against temporary batter slopes, horizontal benches must be formed at no greater than 0.4m

	vertical increments so that the engineered fill can be 'keyed' into the slope. A high-level earthworks volume estimate has been completed for the proposed development, as outlined below: ▪ Cut: -42,686m^3 ▪ Fill: +13,902m^3 ▪ Net: -28,784m^3 The estimated volumes are based on the drawings prepared by TTW, enclosed at **Appendix 20** of this EIS. Final levels would be subject to variations in geotechnical conditions, final building layout and height, and drainage conditions. To facilitate these levels, retaining walls will be required at the east and west of the subject site: ▪ Three walls at the east, at a maximum height of 1.3m, will be approximately 41m, 48m and 110m in length. The intent of these walls is to retain the level of the hardstand emergency vehicle road against the existing level at the eastern boundary. ▪ The two walls at the west of the subject site will be maximum 2.4m in height and approximately 175m and 100m in length respectively. The intent of these walls is to retain the level of the driveway against the existing levels of the boundary along the west of the subject site. A bulk earthworks design plan is contained at **Figure 16** and **Appendix 20** of this EIS.

Figure 15. Proposed Tree Retention and Removal Plan *(Source: Geoscapes, 2023)*

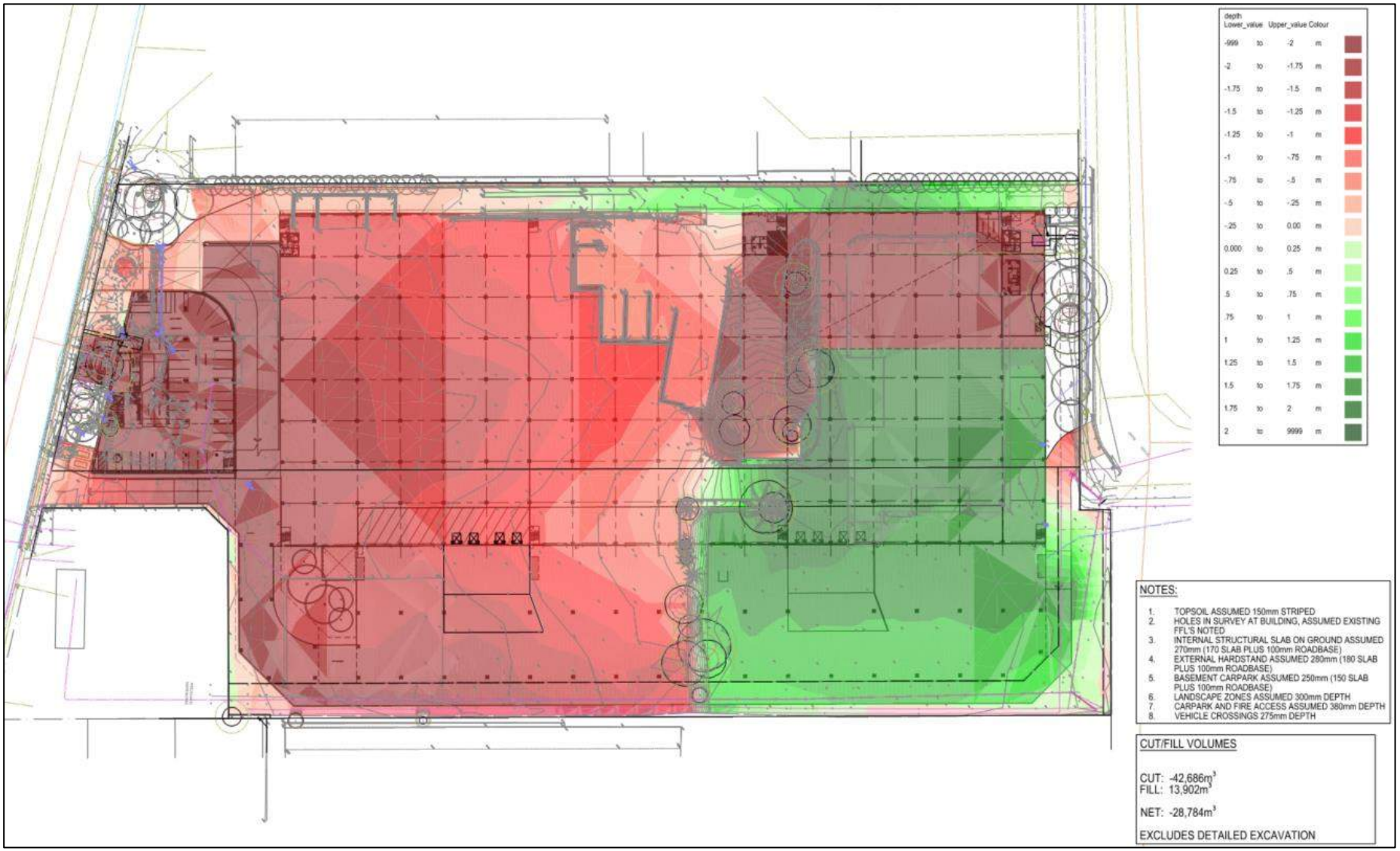


Figure 16. Proposed Bulk Earthworks Plan *(Source: TTW, 2023)*

3.3.2.2 Built Form

The Proponent is seeking to establish a state of the art multi-level warehouse and distribution centre building, comprising five (5) separate tenancies, aligned along the length of the combined lots.

The proposed development has been designed to meet the SEARs criteria for Built Form and Urban Design to achieve a high-quality architectural response.

TABLE 12: BUILT FORM ELEMENTS

Project Element	Design Considerations
Development Siting	The building has been aligned with the subject site along its north-south axis to ensure the most effective and efficient use of this valuable supply of industrial land. Office accommodation with significant façade treatments is either positioned at the front and rear of the subject site to provide visual interest and activation to the streetscape, or at the eastern elevation to address the direct light. The outdoor recreational area is similarly positioned at the western aspect to address the afternoon sun.
Development Scale	The proposed development will be in keeping with the scale of its industrial context. The proposed maximum building height is 25.1m relative to a prescribed maximum building height of 30m.
Development Massing	The building is designed to provide multiple warehouses and a mezzanine level to maximise site efficiency. A total of five (5) tenancies are provided, with warehouses 1-3 located at ground floor and warehouses 4-5 located at first floor. To ensure natural light to both warehouse levels, rows of glazed windows have been incorporated across the eastern elevation (and at a height that maintains security for the warehouse occupiers).
Office Locations	Office accommodation with significant façade treatments is either positioned at the front and rear of the subject site to provide visual interest and activation to the streetscape, or at the eastern elevation to address the direct light. The office accommodation is provided at the ground floor mezzanine, first floor, and first floor mezzanine levels; and is positioned close to the areas of car parking and the end of trip facilities.
Communal Open Space	The outdoor recreational area is positioned at the western aspect to address the afternoon sun, and is intended to serve as a shared space for all occupiers within the building. This enhances the amenity of the development's occupiers, and allows for incidental connections and interactions between office and warehouse staff.
Circulation and Access	The vehicle truck movement is generally organised into a singular direction to maximise efficiency. The proposed development has been designed to accommodate 19m Semi-Trailers. All trucks will access the loading bays at ground floor via a dedicated entrance from Kelso Crescent, before leaving via a dedicated egress point on Seton Road at the rear. Trucks will access the loading bays at first floor via a separate, dedicated entrance from Kelso Crescent

	providing ramp access, before leaving via the same route to a separate, dedicated egress point. All light vehicles (cars) associated with the subject site will access the respective car parks via the northern access at Kelso Crescent and the southern access at Seton Road. Drivers will proceed to the car park and exit via the same driveways.
Materiality	High-quality materials and architectural design treatments have been proposed throughout the proposed development, with a focus on those facades presenting to the public domain to the north and south. Colours proposed for the facades of the building are typical of this type of development with more muted recessive tones applied. Varied tones of metal cladding are used predominantly on the large expanses of the warehouse, with faced brick, aluminium cladding and glazing used to highlight areas around signage or office components. High quality finishes and good articulation have been proposed that will be most visible at close range. Initially the northern and southern facades will be prominent from ground level views however, following maturity proposed landscaping within setbacks to Seton Road and Kelso Crescent will help to partially filter and soften the building.
Streetscape	To help mitigate and soften the built form particularly from visual receivers to the north, a mix of large and medium evergreen indigenous native canopy trees will be planted adjacent to Kelso Crescent. This in combination with a number of existing mature trees that are being retained will help provide visual screening of the development. Office accommodation is also positioned at the north (front) and south (rear) frontages to provide activation and visual interest to passersby and those arriving at the proposed development. This ensures an outward looking development that does not turn its back on its surrounding context and public domain.

Figure 17. Proposed Site Plan *(Source: Nettletontribe, 2023)*

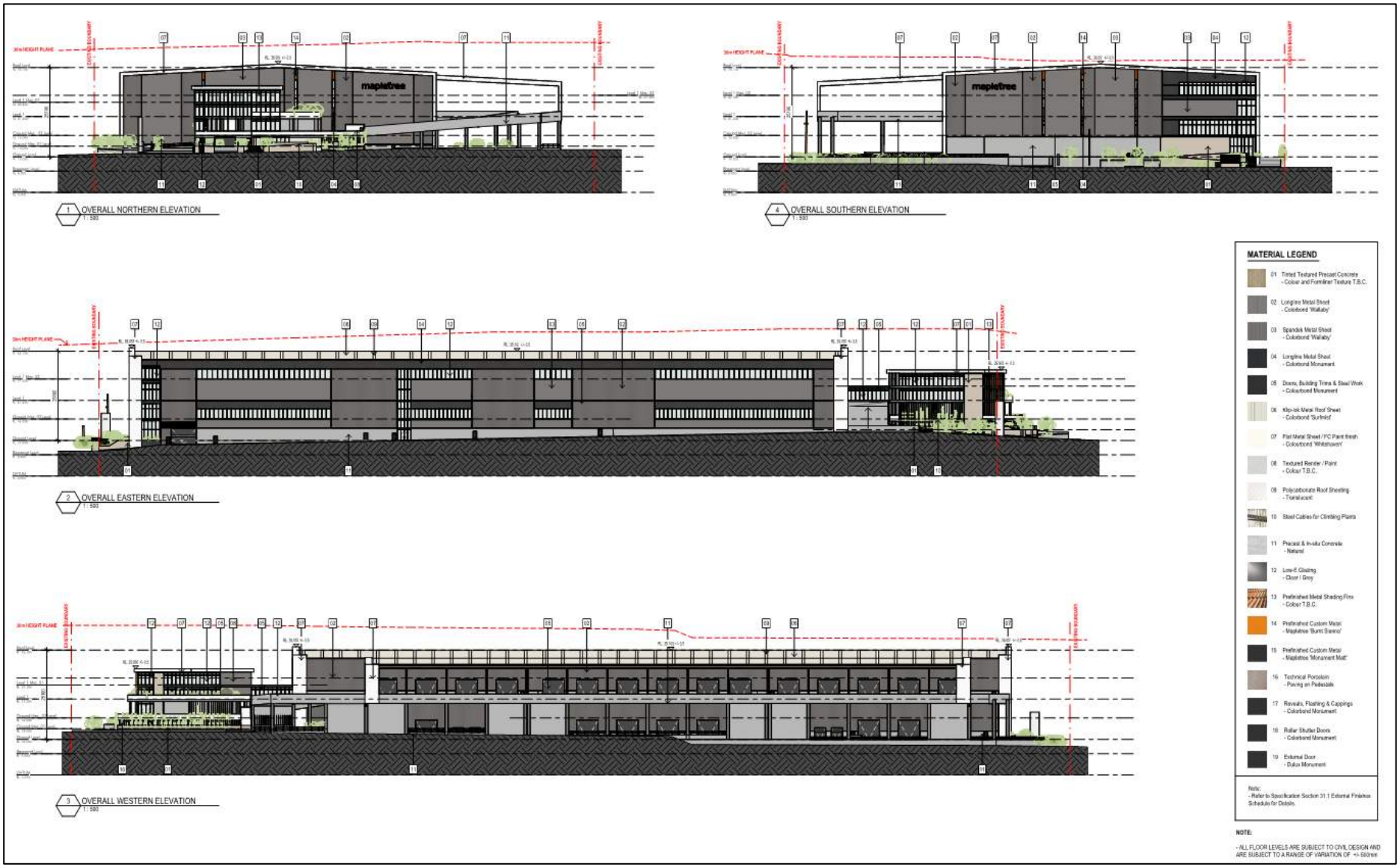


Figure 18. Proposed Elevations *(Source: Nettletontribe, 2023)*

Figure 19. Building Perspective Drawing *(Source: Nettletontribe, 2023)*

Figure 20. Proposed Building Configuration Drawing *(Source: Nettletontribe, 2023)*

3.3.3 Landscaping

Through its design considerations, the proposed development can retain five (5) trees on site, particularly within the Kelso Crescent streetscape area.

The retention of the existing trees together with the proposed tree planting will form a canopy greater than the existing buffer of trees.

The resulting landscape characteristics of the proposed development include:

- A total of 72 trees;
- A landscaped area of 3,560m^2 representing 10.1% site coverage; and
- A total canopy cover of 2,257m^2, representing 6.4% site coverage.

3.3.4 Signage

The proposed development involves business identification signage, which has been assessed under the *State Environmental Planning Policy (Industry and Employment) 2021* (Industry and Employment SEPP).

The proposed signage parameters are set out at **TABLE 13** below.

TABLE 13: SIGNAGE DETAILS			
Sign Type	**Dimensions** (Width x Height)	**No.**	**Description**
Estate Entry Sign	2.5m x 10.4m	2	Separate signs to address the main entrance and exit at Kelso Crescent and Seton Road, respectively.
Tenant Directional Sign	1.6m x 5m	2	Separate signs to address the main entrance and exit at Kelso Crescent and Seton Road, respectively.
Entry and Exit Sign	0.5m x 3m	3	To provide general wayfinding through the development.
Building Wall Sign	9m x 3m	2	Likely to comprise "Mapletree" branding. All located at first floor level
Building Wall Tenant Sign	6m x 1.5m	5	To be installed as a fascia sign to each of the warehouses by the future tenant(s).

All proposed signs are located within the boundaries of the subject site.

Signage will be considered on an estate-wide basis, such that there will be consistency in materials and finishes of the signs across the estate. Signage will be a combination of building mounted signs, and estate and tenant identification signs in landscape setbacks, at driveway entries and building entrances. The signage design will be considered as part of the landscape and architectural language of the buildings, to provide placemaking and wayfinding principles for safety and user experience throughout the estate.

As required by Clause 3.6 of the Industry and Employment SEPP, an assessment pursuant to Schedule 5 is provided at **Appendix 34** of this EIS.

3.3.5 Transport and Parking

The proposed development seeks to facilitate five (5) vehicular crossovers as follows:

- Three (3) on Kelso Crescent; and
- Two (2) on Seton Road

The proposed development accommodates the following parking on site:

- 180 car parking spaces (including 2 accessible spaces); and
- 33 bicycle spaces, together with end of trip facilities.

Full details relating to site accessibility and parking are provided at **Section 6.1.6.2** of this EIS.

3.3.6 Use and Activities

The proposed warehouse tenancies will be used for warehousing and distribution activities, which will include the following activities throughout the life of the project (construction through to operation):

- Demolition of existing buildings and infrastructure
- Removal of trees
- Remediation of land contamination
- Bulk earthworks
- Provision of servicing infrastructure
- Construction works
- Storage and handling of goods/ materials
- Transport of goods/ materials.

3.3.3.1 Hours of Operation

The facility is proposed to operate 24 hours a day, seven days a week.

3.3.3.2 Hours of Construction

Subject to conditions of consent, work associated with construction activities will generally be carried out between the following hours:

- Monday to Friday: 07:00 to 18:00;
- Saturday: 08:00 to 13:00; and
- Sunday/ Public Holidays: No work

3.3.3.3 Staff

The typical anticipated staffing requirements for the proposed development are as follows:

- Construction staff numbers are estimated to be 160 at the peak of activity.
- Operational staff numbers are estimated to be 240 at the peak of operations.

3.3.7 Timing

3.3.7.1 Staging

The approval strategy seeks to obtain Development Consent to complete the construction works over several construction stages upon issue of the relevant Construction Certificates; however, any such staging does not constitute staged development as defined under Section 4.22 of the EP&A Act, 1979.

3.3.7.2 Phases

Construction will be carried out in three (3) phases consisting of:

- Site preparation involving demolition, remediation, earthworks and infrastructure.
- Warehouse construction and fit-out.
- Site demobilisation, post-construction site rehabilitation, landscaping and finishing works.

Construction is anticipated to commence in 2024 (subject to development consent) and will involve up to a 12 to 18 month construction programme. This will include bulk earthworks, provision of services and building construction.

1.3.4.3 Sequencing

All construction access to the development would be made via the existing crossover on Kelso Crescent. Vehicles shall utilise Kelso Crescent when travelling to and from the subject site as this represents the shortest route to the local and regional road networks, minimising the impact of construction.

3.4 PROJECT NEED

The purpose of the proposed development is to provide a warehouse offering, that responds to the intended industrial character and nature of the E4 General Industrial zone and strategic umbrella of the Moorebank industrial area. The proposed development seeks to ensure:

- It is compatible with surrounding development and the local context;
- It would provide development of an otherwise dated land holding;
- It would result in minimal impact on the environment; and
- It would allow for the implementation of suitable mitigation measures, where required.

Overall, the scale of the proposed development is considered suitable, and the built form proposed would completely enhance and renew an underutilised land portion into a modernised warehouse offering.

The site design and layout of the built form proposed seeks to maintain consistency with the zone objectives under the LLEP 2008 and enhance the underlying industrial character intended for the subject site, which is zoned for such permissible land uses. This would be achieved by a resultant built form that reinforces the nature of the land use and is commensurate with the surrounding environment.

3.5 CONSIDERATION OF ALTERNATIVES

The options considered and subsequently dismissed, in arriving to the current proposed development with regard to the proposed development included:

(a) 'Do Nothing' Scenario

This option was dismissed as the objectives of the proposed development would not be met. If the proposed development was not to proceed, the subject site would not achieve its intended development outcome nor contribute to fulfilling the strategic objectives for Moorebank.

Based on the above and the justification provided within **Section 3.4**, the 'do nothing' scenario is dismissed.

(b) Development on an Alternative Site

Consideration was given to carrying out development on alternate sites, these were dismissed as the subject site resulted in the most beneficial outcomes for the proposed development.

Beneficial characteristics of the subject site for the proposed development include:

- It's location, being subject to the provisions of the E4 General Industrial zone pursuant to the LLEP 2008;
- All potential environmental impacts concerning the proposed development are able to be suitably mitigated within the subject site;
- The proximity to the regional road network and nearby Intermodal Freight Terminal provides accessibility and linkages to the broader Western Sydney area and wider regions;
- The capability for providing employment-generating opportunities (both directly and indirectly), during both the construction and operational phases;
- It's consistency with the surrounding industrial nature of the Moorebank area;
- It's large proximity (significant distance) to the nearest sensitive receivers; and
- The subject site can be developed with appropriate visual amenity achieved given its surrounding context.

(c) Different Site Configuration

The configuration of the proposed development was chosen based on the subject site's topography, road access, and the requirements of the end user, as well as the need to respond to the character of the surrounding areas.

Different site configurations were explored, with the following key considerations landing to the proposed design, as documented in **Section 3.3.2** of this EIS:

- Ensuring the most effective and efficient use of valuable industrial land;
- Retention of landscaped setback and vegetation along main street frontage to Kelso Crescent;
- Introduction of appropriate boundary setbacks from the surrounding site context;
- Appropriate layout of truck movement with compliant access to and from the Level 1 hardstand;
- Separation of truck, car, and pedestrian pathway movements;
- Appropriate location of fire services and brigade set down near the entrance to the subject site;
- Sufficient provision of carparking and bicycle parking within the subject site at safe, secure and convenient locations;
- Efficient creation and proposed operation of the shared hardstand between buildings;
- Creation of an open, raised and outdoor office amenity space at the front of the subject site;

- Appropriate isolated and conveniently located lobby spaces to access both the warehouse and office accommodation.

Notwithstanding, the proposed development is justified on the basis that it is compatible with the locality in which it is proposed, resulting in positive social and economic benefits, whilst appropriately managing and mitigating any potential environmental impacts requiring consideration. The proposed development also leverages from the availability of infrastructure.

From a locational perspective, the subject site was chosen as it would be able to accommodate a suitable platform and scale of development proposed. Accordingly, the subject site's locality is considered satisfactory from a strategic standpoint, for which the proposed development responds to the industrial character intended for the subject site and immediate locality; and the limited environmental constraints which make the subject site suitable for development for the purposes of a warehouse and distribution centre.

In light of the above information, the proposed development of a warehouse and distribution centre at the subject site would allow for the subject site and tenant objectives to be suitably met.

PART 4 STATUTORY CONTEXT

4.1 CONTROLS AND POLICIES OVERVIEW

This part of the EIS aims to highlight and address the relevant statutory requirements that are related to the proposed development, as noted below. Whilst other statutory documents have been considered in the preparation of this EIS, only those with specific triggers/ requirements that relate to the proposed development have been documented.

Commonwealth Planning Context

- *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*

State Planning Context

- *Environmental Planning and Assessment Act 1979*
- *Environmental Planning and Assessment Regulation 2021*
- *Water Management Act 2000*
- *Biodiversity Conservation Act 2016*
- *National Parks and Wildlife Act 1974*
- *Protection of the Environment Operations Act 1997*
- *State Environmental Planning Policy (Resilience and Hazards) 2021*
- *State Environmental Planning Policy (Industry and Employment) 2021*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021*
- *State Environmental Planning Policy (Planning Systems) 2021*
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*
- *State Environmental Planning Policy (Sustainable Buildings) 2022*

Local Planning Context

- *Liverpool Local Environmental Plan 2008*
- *Liverpool Development Control Plan 2008*
- *Liverpool Local Strategic Planning Statement – Connected Liverpool 2040*
- *Liverpool Contributions Plan 2018*

The proposed development has been carefully assessed against the requirements and objectives of all of the above planning statutory and policy documents, as detailed within this EIS.

4.1.1 Commonwealth Planning Context

Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), any action (which includes a development, project or activity) that is considered likely to have a significant impact on Matters of National Environmental Significance (MNES) (including nationally threatened ecological communities and species and listed migratory species), must be referred to the Commonwealth Minister for the Environment. The purpose of the referral is to allow a decision to be made about whether an action requires approval on a Commonwealth level. If an action is considered likely to have significant impact on MNES, it is declared a "Controlled Action" for which formal Commonwealth approval is required.

Referral to the Commonwealth Minister is not required. See **Section 6.1.9.3** of this EIS.

4.1.2 Statutory Requirements

The following categories are used to identify the statutory requirements of the project.

TABLE 14: STATUTORY REQUIREMENTS OVERVIEW	
Power to grant approval	In accordance with Schedule 1, Clause 12 of the Planning Systems SEPP, development that has a EDC of more than $50 million for the purpose of a warehouse or distribution centre, constitutes SSD. As noted in **Section 1.5** of the EIS, the EDC of the proposed development is in excess of $50 million. The power to grant approval lies with the Minister for Planning (NSW DPE) as the consent authority for SSD, pursuant to Section 4.5 of the EP&A Act.
Permissibility	The subject site is zoned E4 General Industrial, under the *Liverpool Local Environmental Plan 2008* (LLEP 2008). The proposed development aligns with the definition of 'warehouse or distribution centres', which is permitted with consent in the E4 General Industrial zone.
Other approvals	Consistent approvals: N/A Other approvals: Post approval, there will be a Section 138 Roads Act Approval for the vehicular cross-over works within the Kelso Crescent and Seton Road reserve areas.
Pre-condition to exercising power to grant approval	Pre-conditions to exercising the power to grant approval are outlined in **TABLE 15** below.
Mandatory matters for consideration	Mandatory matters of consideration by the consent authority are outlined in **Appendix C** of this EIS.

4.1.3 Pre-conditions

TABLE 15 outlines the pre-conditions to exercising the power to grant approval which are relevant to the project and the section where these matters are addressed within the EIS.

TABLE 15: PRE-CONDITIONS OVERVIEW			
Statutory Reference	**Pre-condition**	**Relevance**	**Addressed in EIS**
State Environmental Planning Policy (Resilience and Hazards) 2021	**Remediation of land:** The consent authority must not grant consent unless (as stipulated by Clause 4.6 of the SEPP): *(a) it has considered whether the land is contaminated, and* *(b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*	Detailed site investigations of the subject site have identified that remediation is required to make the land suitable for the proposed development.	Refer to **Section 6.1.16** of this EIS.

	(c) *if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*		
State Environmental Planning Policy (Industry and Employment) 2021	**Signage generally:** Pursuant to Clause 3.6 of the SEPP, a consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied: *(a) that the signage is consistent with the objectives of this Chapter as set out in section 3.1(1)(a), and* *(b) that the signage the subject of the application satisfies the assessment criteria specified in Schedule 5.*	The proposed development involves the provision of signage, requiring consideration of the Industry and Employment SEPP.	Refer to **Section 6.1.4** of this EIS.
State Environmental Planning Policy (Transport and Infrastructure) 2021	**Development likely to affect an electricity transmission or distribution network:** Pursuant to Clause 2.48 of the Transport and Infrastructure SEPP, before determining the application the consent authority must – *(a) give written notice to the electricity supply authority for the area in which the development is to be carried out, inviting comments about potential safety risks, and* *(b) take into consideration any response to the notice that is received within 21 days after the notice is given.*	The proposed development involves work within or immediately adjacent to an easement for electricity purposes at the western and southern boundaries.	Refer to **Section 6.1.21** and the ongoing consultation with Endeavour Energy enclosed at **Appendix 32** of this EIS.
	Traffic-generating development: Pursuant to Clause 2.122 of the Transport and Infrastructure SEPP, before determining the application the consent authority must –	The proposed development involves a warehouse and distribution centre with a site area greater than 8,000m^2, which	Refer to **Section 6.1.6** of this EIS.

	(a) give written notice of the application to TfNSW within 7 days after the application is made, and (b) take into consideration— (i) any submission that RMS provides in response to that notice within 21 days after the notice was given (unless, before the 21 days have passed, TfNSW advises that it will not be making a submission), and (ii) the accessibility of the site concerned, including— i. the efficiency of movement of people and freight to and from the site and the extent of multi-purpose trips, and ii. the potential to minimise the need for travel by car and to maximise movement of freight in containers or bulk freight by rail, and (iii) any potential traffic safety, road congestion or parking implications of the development.	constitutes traffic-generating development, as described in Schedule 3 of the Transport and Infrastructure SEPP.	

State Environmental Planning Policy (Biodiversity and Conservation) 2021	Pursuant to Clause 2.10(2) of the Biodiversity and Conservation SEPP, a permit cannot be granted to clear native vegetation in any non-rural area of the State that exceeds the biodiversity offsets scheme threshold.	A BDAR Waiver Request, prepared by SLR has determined that there is no native vegetation within the subject site. This has subsequently been granted and is enclosed at **Appendix 13**.	Refer to **Section 6.1.9** of this EIS.
State Environmental Planning Policy (Sustainable Buildings) 2022	Pursuant to Clause 3.2(1) of the new SEPP, which refers to 'Development consent for non-residential development', in deciding whether to grant development consent to non-residential development, the consent authority must consider whether the development is designed to enable the following – (a) the minimisation of waste from associated demolition and construction, including by the choice of building materials, (b) a reduction in peak demand for electricity, including through the use of energy efficient technology, (c) a reduction in the reliance on artificial lighting and mechanical heating and cooling through passive design, (d) the generation and storage of renewable energy, (e) the metering and monitoring of energy consumption, (f) the minimisation of the consumption of potable water.	The following documentation has been prepared: ▪ ESD Report/ Sustainability Management Plan, including Net Zero Statement (**Appendix 12**); ▪ Signed NABERS Agreement to Rate for Energy and Water (**Appendix 35**); ▪ Embodied Emissions Materials form (**Appendix 36**)	Refer to **Section 6.1.8** of this EIS.

	Clause 3.2(2) advises that development consent must not be granted to non-residential development unless the consent authority is satisfied the embodied emissions attributable to the development have been quantified.		
Liverpool Local Environmental Plan 2008	**Flood Planning** Pursuant to Clause 5.21 of the LLEP 2008, development consent must not be granted unless the consent authority is satisfied the development – *(a) is compatible with the flood function and behaviour on the land, and* *(b) will not adversely affect flood behaviour in a way that results in detrimental increases in the potential flood affectation of other development or properties, and* *(c) will not adversely affect the safe occupation and efficient evacuation of people or exceed the capacity of existing evacuation routes for the surrounding area in the event of a flood, and* *(d) incorporates appropriate measures to manage risk to life in the event of a flood, and* *(e) will not adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.*	The finished floor levels (FFL) are set to RL 10 m AHD, which is higher than 1% AEP flood level plus 500mm (RL 8.46 mA HD+500 mm). The flood level impacts arising from the proposed development during the 1% AEP event are within the accepted range of +/- 20mm with no adverse flood impacts over private properties within the floodplain.	Refer to **Section 6.1.14** of this EIS.
	Earthworks Pursuant to Clause 7.31 of the LLEP 2008, in deciding whether to grant development consent for earthworks, the consent authority must consider the following matters –	Bulk earthworks are proposed as part of this SSDA, requiring consideration of Clause 7.31 of the LLEP 2008.	Refer to **Section 6.1.12** of this EIS.

	(a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality, *(b) the effect of the proposed development on the likely future use or redevelopment of the land,* *(c) the quality of the fill or the soil to be excavated, or both,* *(d) the effect of the proposed development on the existing and likely amenity of adjoining properties,* *(e) the source of any fill material and the destination of any excavated material,* *(f) the likelihood of disturbing relics,* *(g) the proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area.*		

4.1.3.1 Liverpool Local Environmental Plan Review

Liverpool City Council is currently reviewing the LLEP 2008 to further align it with the Local Strategic Planning Statement and the Western City District Plan.

The subject site falls within the designated 'Moorebank – Collaboration Area', which itself is divided into two (2) sections either side of Newbridge Road. The area to the south, encapsulating the subject site, is described as 'Georges River South', an industrial precinct surrounding an established low density residential area, with the precinct comprising generally smaller industrial sites.

The Council has endorsed the following principles for managing industrial land under the new LEP which would be applicable to the subject site:

- Review and manage industrial land, whilst allowing flexibility for future development – which may include reducing the minimum lot size to 1,000m2 to encourage lighter industrial in-fill development.
- Encourage the renewal of industrial precincts – which may include the continued application of nil FSR whilst retaining the existing maximum building height development standard, or applying nil height and a sufficient FSR.
- The southern part will retain its general industrial role as envisioned by the Collaboration Area Strategy, which envisages a 'mixed industry precinct' for the Georges River South area.

Gazettal of the new Local Environmental Plan is currently forecast to occur during Q4 2024.

4.1.4 Non-Statutory Planning Context

4.1.4.1 Liverpool Development Control Plan 2008

The *Liverpool Development Control Plan 2008* (LDCP 2008) provides a non-statutory instrument to guide development in the Liverpool Local Government Area (LGA) and supports the planning controls of the LLEP 2012.

An assessment of the proposal against the relevant sections of the LDCP 2008 is provided at **TABLE 16**:

TABLE 16. LDCP 2008 DEVELOPMENT STANDARDS	
Policy / Clause	**Controls**
Part 1 – General Controls for all Development	
3. Landscaping and Incorporation of Existing Trees	Existing trees and native vegetation are to be retained, protected and incorporated into the development proposal. The proposed development incorporates 67 new trees (72 total when combined with the 5 to be retained within the front setback) and a total landscaped area of 3,560m^2, representing 10.1% of the site area.
9. Flooding Risk	***Floor Level*** <u>Where Low Flood Risk:</u> ▪ Non habitable floor levels to be as high as practical but no less than the 5% AEP flood level. ▪ All floor levels to be no lower than the 1% AEP flood plus 500mm freeboard. Freeboard may be reduced if justified by site specific assessment. <u>Where Medium Flood Risk:</u> ▪ All floor levels to be no lower than the 1% AEP flood plus 500mm freeboard. Freeboard may be reduced if justified by site specific assessment. The finished floor levels (FFL) are set to RL 10m AHD, which is higher than the 1% AEP flood level plus 500mm (RL 8.46m AHD plus 500mm). ***Building Components*** <u>Where Low/ Medium Flood Risk:</u> ▪ All structures to have flood compatible building components below the 1% AEP flood level plus 500mm freeboard or a PMF if required to satisfy evacuation criteria (see below). The finished floor levels (FFL) are set to RL 10m AHD, which is higher than the 1% AEP flood level plus 500mm (RL 8.46m AHD plus 500mm). ***Structural Soundness*** <u>Where Low Flood Risk:</u> ▪ Applicant to demonstrate that the structure can withstand the forces of floodwater, debris and buoyancy up to and including a 1% AEP flood plus 500mm freeboard. <u>Where Medium Flood Risk:</u>

	▪ Applicant to demonstrate that the structure can withstand the forces of floodwater, debris and buoyancy up to and including a 1% AEP flood plus 500mm freeboard or a PMF if required to satisfy evacuation criteria (see below). An engineer's report may be required. The Flood Risk Assessment (**Appendix 21**) demonstrates that the southern boundary of the subject site is classified as H3 and H4 flood hazards during 1% AEP storm events. It is only at H5 classifications that buildings require special engineering design and construction mitigation. As illustrated by Figure 5.11 within the enclosed Flood Risk Assessment, these hazards would not occur within the subject site, but beyond the southern boundary. ***Flood Effects*** Where Low/ Medium Flood Risk: ▪ The flood impact of the development to be considered to ensure that the development will not increase flood effects elsewhere, having regard to: (i) loss of flood storage; (ii) changes in flood levels and velocities caused by alterations to the flood conveyance; and (iii) the cumulative impact of multiple potential developments in the floodplain. An engineer's report may be required. ▪ A floodway or boundary of significant flow may have been identified in this catchment. This area is the major conveyance area for floodwaters through the floodplain and any structures placed within it are likely to have a significant impact on flood behaviour. Within this area no structures other than concessional development, open type structures or small non habitable structures (not more than 30sqm) to support agricultural uses will normally be permitted. Development outside the Boundary of Significant flow may still increase flood effects elsewhere and therefore be unacceptable. ▪ Any filling within the 1% AEP flood will normally be considered unacceptable unless compensatory excavation is provided to ensure that there is no net loss of floodplain storage volume below the 1% AEP flood. The flood impact map verifies that there are no significant changes in flood levels in the vicinity of the subject site as a result of the proposed development. Consequently, there would be no adverse impact on any private properties surrounding the subject site, aligning with the Council's flood policy. The afflux map for 1% AEP storm event for the proposed development is illustrated at Figure 5.12 within the enclosed Flood Risk Assessment. ***Car Parking and Driveway Access*** Where Low/ Medium Flood Risk – 2, 3, 6, 7, 8: ▪ The minimum surface level of a car parking space, which is not enclosed (e.g. open car parking space or carport) shall be as high as practical, but no lower than the 5% AEP flood level or the level of the crest of the road at the highest point were the site can be accessed. In the case of garages, the minimum surface level shall be as high as practical, but no lower than the 5% AEP flood.

	▪ Garages capable of accommodating more than 3 vehicles on land zoned for urban purposes, or basement car parking, must be protected from inundation by floods equal to or greater than the 1% AEP flood plus 0.1m freeboard. ▪ The level of the driveway providing access between the road and car parking space shall be no lower than 0.3m below the 1% AEP flood or such that depth of inundation during a 1% AEP flood is not greater than either the depth at the road or the depth at the car parking space. ▪ Basement car parking or car parking areas accommodating more than 3 vehicles with a floor level below the 5% AEP flood or more than 0.8m below the 1% AEP flood level; shall have adequate warning systems, signage and exits. ▪ Barriers to be provided to prevent floating vehicles leaving a site during a 1% AEP flood. The ground floor car parking at the front of the subject site (accessed from Kelso Crescent) is above RL 10m AHD, which is above the 1% AEP plus 500mm (8.46m AHD plus 500mm). The Seton Road car park entry level (at the rear of the subject site) is 9m AHD, which is higher than the 1% AEP flood plus 0.1m (RL 8.46m AHD plus 100mm). In addition, the Seton Road car park has an emergency access road to Kelso Crescent, which is flood free during the 1% AEP and can be used throughout this event. ***Evacuation*** <u>Where Low/ Medium Flood Risk:</u> ▪ Reliable access for pedestrians or vehicles required during a 1% AEP flood to a publicly accessible location above the PMF. ▪ The development is to be consistent with any relevant flood evacuation strategy or similar plan. The Seton Road car park has an emergency access road to Kelso Crescent, which is flood free during the 1% AEP and can be used throughout this event. Pedestrian evacuation is provided from the car park via stairs. ***Management and Design*** <u>Where Low/ Medium Flood Risk – 2, 3, 5:</u> ▪ Site Emergency Response Flood Plan required where floor levels are below the design floor level. ▪ Applicant to demonstrate that area is available to store goods above the 1% AEP flood level plus 500mm freeboard. ▪ No storage of materials below the design floor level which may cause pollution or be potentially hazardous during any flood. The finished floor levels of the proposed development are above the 1% AEP flood level plus 500mm freeboard.

	Fencing Where Low Flood Risk – N/A Where Medium Flood Risk: ▪ Fencing within a High Flood Risk area, Boundary of Significant Flow or floodway will not be permitted except for permeable open type fences. ▪ Fencing is to be constructed in a manner that does not obstruct the flow of floodwaters so as to have an adverse impact on flooding. ▪ Fencing shall be constructed to withstand the forces of floodwaters or collapse in a controlled manner so as not to obstruct the flow of water, become unsafe during times of flood or become moving debris. Noted, and to be addressed at detailed design stage.
12. Acid Sulfate Soils Risk	The subject site falls within Class 5 acid sulphate land and is within 500m of adjacent Class 1 and 3 land. Development Controls: 1. If acid sulfate soils are present and not likely to be disturbed, best practice measures employed to manage the quality of water leaving the site shall be detailed in the Statement of Environmental Effects (SEE) or equivalent. 2. If acid sulfate soils are present and likely to be disturbed a soil and water analysis and an assessment of the potential risk from disturbance of the acid sulfate soils shall be undertaken. The analysis and assessment shall be approved by Council prior to the issuing of development consent. 3. If acid sulfate soils are present and likely to be disturbed an acid sulfate soils management plan shall be prepared in accordance with the guidelines. The acid sulfate soils management plan shall be approved by Council prior to the issuing of development consent. 4. Any acid sulfate soils analysis, assessments and management plans shall be undertaken or prepared by an appropriately qualified professional with experience in acid sulfate soils analysis and assessments as well as the preparation of acid sulphate soils management plans. 5. Council may require monitoring reports on the implementation of an acid sulfate soils management plan to be submitted. The likelihood of acid sulfate soils being present at the subject site is 'low'. With reference to the Liverpool Acid Sulfate Soil Risk Map, the subject site land lies with an area having "no known occurrence". In such cases, acid sulfate soils are not known or expected to occur and "land management activities are not likely to be affected by acid sulfate soil materials. Based on these maps as well as the subject site's elevation (> 10m AHD), the likelihood for acid sulfate soils to be present on-site is reiterated as 'low'.

20. Car Parking and Access	***Overall Design Considerations*** ▪ Should ensure minimum length travel paths between entry/ exit points and car parking spaces. Car parking provision is located adjacent to the office accommodation, with step-free access provided to each level of the proposed development. ***Vehicular Access Arrangement and Manoeuvring Areas*** ▪ Vehicular egress and entrances must be integrated into the building design, so they are visually recessive. This can be achieved by locating the opening a small distance behind the front façade. ▪ Where practicable, adjoining buildings are to share or amalgamate vehicle access points. Internal on site signal equipment is to be used to allow shared access. Where appropriate, new buildings should provide vehicular access points so that they are capable of shared access at a later date. ▪ Vehicle access ramps parallel to the street frontage will not be permitted. ▪ Doors to vehicular access points are to be roller shutters or tilting doors set back from the building façade. ▪ Vehicular entries are to have high quality finishes to walls and ceilings as well as high standard detailing. No service ducts or pipes are to be visible from the street. The proposed development utilises the existing points of access from Kelso Crescent and Seton Road, and incorporates an additional, adjacent point of access to ensure dedicated entry and egress (and internal circulation) for trucks and cars. The main loading bays are presented along the subject site's western boundary, across two levels, ensuring minimal impact on views from public vantage points at Kelso Crescent (primary frontage) and Seton Road. Whilst the proposed development features a ramp-up access to the upper loading bays, this would be partially obscured by the multi-level office accommodation at the front of the subject site, as well as by the compliant landscaped setback and Moorebank Substation. This is demonstrated within the Visual Impact Assessment enclosed at **Appendix 8**. ***On-Site Car Parking Provision and Service Facilities*** ▪ Provide natural ventilation to underground parking areas, where possible. Ventilation grills must be: ○ integrated into the overall façade and landscape design of the development; ○ only located on the secondary streets and service lanes; and ○ oriented away from windows of habitable rooms and private open space areas ▪ Industry and Warehouses: ○ 1 space per 35m^2 of office LFA

	○ 1 space per 75m² of factory/ warehouse LFA, or 1 space per 2 employees – whichever is greater ○ Warehouse developments of >1,000m² GFA – 1 space per 250m² GFA. ○ Developments of >1,000m² LFA require occasional access for an articulated vehicle (~20m in length) ○ Disabled Car Parking – 1 per 100 spaces. ○ Cycle Parking – 1 per 10 staff, or 1 per 10 spaces if staff numbers are undetermined. *Note:* "LFA" refers to Lettable Floor Area. The proposed development includes compliant car parking and cycle parking provision, with a split provision ensuring convenient access from both Kelso Crescent and Seton Road. End of trip facilities (showers, changing facilities, and lockers) are also provided as part of both provisions, ensuring direct and convenient (step-free) access. ***Car Parking Design*** Key points to note include: ▪ An outdoor car park with 20 or more car parking spaces must include at least 1 tree per 10 car parking spaces in accordance with the stated specifications. ▪ Circulation driveways should not have car parking on them. ▪ The minimum internal driveway widths are to be 6 – 6.5m for developments serving >40 car parking spaces. ▪ Staff car parking areas should be separated and secured. ▪ Service facilities shall be conveniently located close to service entrances (or other building entrances) to discourage loading/ unloading other than in the designated areas. ▪ Areas where heavy vehicles are manoeuvring shall be separated from areas of car parking or pedestrian movement with safety being the over-riding consideration. ▪ Driveway Crossings shall be located a minimum distance from the following items: ○ 0.5m from all drainage structures on the kerb and gutter. ○ 1m from side property boundaries. ○ 6m from a kerb tangent point of a street corner. ▪ Driveway Crossings should avoid the need to remove existing street trees and any replacement trees are to be at the development's cost. ▪ All vehicles should enter and egress from the site in forward gear. The proposed development's car parking and internal access driveways fully comply with the above requirements. Please refer to Table 6-1 within the Transport Impact Assessment enclosed at **Appendix 9**. This has been re-produced at **TABLE 24** of this EIS.

Part 7 – Development in Industrial Zones	
4. Setbacks	The objective of this clause is to ensure buildings do not adversely dominate the streetscape environment of industrial areas. All buildings shall be setback in accordance with the following standards: ▪ Primary Setback (Ground Floor) – 10m ▪ Primary Setback (First Floor) – 7.5m ▪ Secondary Setback – 5m The proposed development incorporates a 10m landscaped primary setback from Kelso Crescent, and a 5m landscaped secondary setback from Seton Road.

5. Landscaped Area	The objective of this clause is to ensure areas are provided for landscaping to improve the streetscape environment of industrial areas.
	
	The following controls are therefore applicable:
	
	▪ A minimum of 10% of the site is to be landscaped at ground level.
	▪ A development with an allotment size greater than 4,000m² must provide a landscaped area along the primary and secondary frontages of an allotment in accordance with the following:
	  ○ Minimum Landscape Width (primary setback) – 10m
	  ○ Minimum Landscape Width (secondary setback) – 5m.
	
	The proposed development incorporates 67 new trees (72 total when combined with the 5 to be retained within the front setback) and a total landscaped area of 3,560m², representing 10.1% of the site area.
	
	The proposed development incorporates a 10m landscaped primary setback from Kelso Crescent, and a 5m landscaped secondary setback from Seton Road.

8. Car Parking and Access	<u>Relevant Controls:</u>
	
	▪ The layout of driveways to loading docks must enable heavy vehicles to:
	  ○ Enter and exit the site in a forward direction
	  ○ Park within designated loading areas
	  ○ When possible, loading docks are to be located in areas that:
	  ▪ Are not exposed to public streets
	  ▪ Are generally separate from and do not interfere with car parking areas.
	
	The configuration of the access driveways allows 19m semi-trailers to enter and exit the subject site in a forward direction (across both levels). The loading docks are located away from public streets and vantage points, and would not interfere with the separate provisions of car parking and those internal circulation routes.

	▪ Car parking areas are to be landscaped to provide shade and reduce the visual impact of parked cars. ▪ Provide a 2.5m wide landscape bay between every 6 – 8 car spaces. All car parking is provided internally. The front portion accessed from Kelso Crescent is provided at the ground floor of the front office building; the rear portion accessed from Seton Road is provided at basement level.

PART 5 ENGAGEMENT

An application to receive Industry-specific SEARs was submitted to NSW DPE, with the SEARs (reference: SSD-58978472) subsequently issued on 8 June 2023.

A copy of the issued SEARs is included in **Appendix 1**.

As required by item 25, project specific consultation was required with the following stakeholders:

- the relevant Department assessment team;
- any relevant local councils;
- any relevant agencies;
- the community; and
- if the development would have required an approval or authorisation under another Act but for the application of s 4.41 of the EP&A Act or requires an approval or authorisation under another Act to be applied consistently by s 4.42 of the EP&A Act, the agency relevant to that approval or authorisation.

A comprehensive level of community and stakeholder engagement has been undertaken for the proposed development. This has included notification letters to both agencies and potentially impacted stakeholders.

A Stakeholder Engagement Plan (enclosed at **Appendix 31** of this EIS) has been prepared by HillPDA in support of this application, offering a summary and analysis of all community and stakeholder consultations, distilling into themes, and those items identified in the consultation process, as significant.

This information is articulated within **Section 6.1.25** of this EIS, demonstrating that genuine consultation has already taken place with stakeholders, seeking feedback on the proposed development, in accordance with the NSW DPE's *Undertaking Engagement Guidelines for State Significant Projects*.

PART 6 ASSESSMENT OF IMPACTS

6.1 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

The SEARs (reference: SSD-58978472), issued by the NSW DPE on 8 June 2023, identify the following Key Issues:

1. Statutory Context
2. Capital Investment Value and Employment
3. Design Quality
4. Built Form and Urban Design
5. Visual Impact
6. Traffic, Transport and Accessibility
7. Trees and Landscaping
8. Ecologically Sustainable Development (ESD)
9. Biodiversity
10. Air Quality
11. Noise and Vibration
12. Ground and Water Conditions
13. Water Management
14. Flooding Risk
15. Hazards and Risks
16. Contamination and Remediation
17. Waste Management
18. Aboriginal Cultural Heritage
19. Environmental Heritage
20. Social Impact
21. Infrastructure Requirements and Utilities
22. Bush Fire Risk
23. Construction, Operation and Staging
24. Contributions and Public Benefit
25. Engagement

The abovementioned matter(s), and other necessary matters, are addressed in the following section(s).

6.1.1 Statutory Context

This section of the EIS evaluates the statutory and strategic context of the proposed development, in relation to the SEARs and addresses its specific matters.

In response to item 1 Statutory Context of the SEARs, **TABLE 17** specifies the location of each assessment of the relevant statutory and strategic documents.

TABLE 17: STATUTORY CONTEXT REVIEW

Document	Response / Location of Assessment
Address all relevant legislation, environmental planning instruments (EPIs) (including drafts), plans, policies and guidelines.	Refer to **PART 4** of this EIS.
Identify compliance with applicable development standards and provide a detailed justification for any non-compliances.	Refer to **Appendix C** of this EIS.

TABLE 17: STATUTORY CONTEXT REVIEW	
Document	**Response / Location of Assessment**
If the development is only partly State significant development (SSD) under clause 8(1) of the State and Regional Development SEPP, provide an explanation of how the remainder of the development is sufficiently related to the component that is SSD.	**N/A** – the proposed development is wholly SSD.
Address the requirements of any approvals applying to the site, including any concept approval or recommendation from any Gateway determination.	Refer to **Section 2.2** of this EIS.

6.1.2 Capital Investment Value and Employment

As required by item 2 Capital Investment Value and Employment of the SEARs, details of EDC and employment numbers associated with the proposed development have been calculated.

Reference should be made to **Section 1.5** and **Section 1.6** of this EIS.

6.1.3 Design Quality

The proposed development achieves good design in accordance with the seven (7) objectives for good design in *Better Placed*, as addressed below and documented in Nettletontribe's Urban Design Report (**Appendix 5**).

1. ***Better Fit*** – *contextual, local and of its place*

Sitting within the E4 General Industrial zone, the proposed development is heavily informed by its local character by taking design cues from other buildings of similar bulk and scale. Due to the industrial nature of the surrounding context, the proposed development will have minimal adverse impact to the neighbouring buildings and is functionally appropriate for its location.

The considerations made surrounding both the built form and intended usage of the proposed development offer a better fit for the sensitive local and natural context through an evolution of the subject site usage. Transforming a site from one engaged in pollutant industry into an innovative two storey, low-impact operations distribution centre will harmoniously integrate within the suburban and nearby natural landscape. The multi-storey form assists to compact the distribution centre design, allowing for increased contribution to the local economy with decreased land-use and impact on surrounding sites.

The 'fit' of the proposed development is further articulated through the visual analysis provided within **Section 6.1.5** of this EIS.

2. ***Better Performance*** – *sustainable, adaptable, and durable*

The proposed development employs a series of ESD initiatives, as described within **Section 6.1.8** of this EIS. The design has considered a sustainable landscape in an urban setting and sought to improve and organise the existing urban realm and streetscape, responding to the desired future character.

The built form and function have considered practical and effective sustainable measures, relating to shading, ventilation, power generation, landscaping and water. Material selections, durability and their relationships have been considered as has the detailing and weather implications to ensure the quality of the finished form and its life cycle into the future.

3. ***Better for Community*** *– inclusive, connected, and diverse*

The proposed development seeks to assist in achieving the strategic intent for the Moorebank industrial area as an evolutionary advanced manufacturing, industrial technology, freight and logistics hub, anchored by the nearby Intermodal Freight Facility, which intends to transition into a high amenity industrial precinct with greener public domain.

The redevelopment of this site, though our understanding that it has been relatively unchanged for the last 45 years and was previously used for manufacturing industries, will provide a positive service to the connection and experience within the Moorebank community. This evolution of use provides an opportunity for local economic growth. Strategically located in close proximity to the M5 and the future Moorebank Intermodal Terminal, the subject site improves connectivity and enhances the future community outlook.

4. **Beter for People** *– safe, comfortable, and liveable*

The built form has a clear identity and its uses and components have been clearly defined for ease of operations and use. Considerations for natural lighting for areas of high-density activity (Offices and Staff Recreational Areas) have been made to increase the amenity and wellbeing of users.

The evolution of site use has broader reaching positive consequences in reducing the exposure to noise and chemical pollutants to the nearby residential areas.

The proposed development also addresses all area of DDA compliance by proving appropriate access and amenity, as per AS 1428.1.

5. ***Better Working*** *– functional, efficient, and fit for purpose*

The design seeks to balance the needs of the user efficiently and effectively. Space and purpose have been designed to respond to a well thought through relationship and ease of what these spaces are used.

Space has also been made as flexible and as adaptive as possible to minimise possible future modifications and maximise the life cycle of the development. Furthermore, the design of the proposed development provides flexibility to accommodate an array of potential end users.

6. ***Better Value*** *– creating and adding value*

The new development has the potential for five (5) tenancies, adding more activity and a greater range of occupiers to the area. This adds value to the space by enhancing the design and enabling more employment opportunities to arise from the new facility.

The design has successfully responded with the provision of a variety of uses, proximity to supporting amenity as well as optimising internal and external amenity for the users. The use of the multi-storey warehouse, a new industrial typology introduced to Australia, allows for an increased level of industrial and commercial activity to occur within the confines of the subject site.

As Western Sydney continues to develop, we see a need for similar building types that bring value to communities like Moorebank and that set a precedent and benchmark for future developments within the local and broader region.

7. ***Better Look and Feel*** *– engaging, inviting, and attractive*

The proposed development serves as a benchmark for future industrial developments in the Moorebank industrial precinct. It demonstrates how multi-storey developments can contribute

positively to the visual character of the place whilst maintaining optimal functionality and operational efficiency.

The contemporary form incorporates architectural features that act to 'soften the edges' on what can otherwise be quite a hard-edged building typology. The material selections are not only intended to be fit for buildings usage but are also intended to draw from and complement the surrounding context.

The 'look and feel' of the proposed development is further articulated through the visual analysis provided within **Section 6.1.5** of this EIS.

6.1.4 Built Form and Urban Design

The subject site's location is currently enclosed on all boundaries by existing industrial facilities and is currently occupied by 'Adbri Masonry', which operates the subject site as a production plant. In its existing state, the subject site comprises single-storey warehouse buildings at the front (north), together with landscaping addressing the streetscape at Kelso Crescent. An additional warehouse building is located at the north-west portion of the subject site, with a large construction aggregate processing structure at the rear (south) of the subject site. The areas of warehousing are all linked by a network of internal circulation.

The proposed development aims to consolidate and transform the subject site into a state-of-the-art multi-level warehouse and distribution facility to ensure the most efficient and effective use of this valuable supply of industrial land. The building has subsequently been aligned with the subject site along its north-south axis, and vehicle truck movement is generally organised into a singular direction.

In consideration of the surrounding context, the north (front) elevation addressing Kelso Crescent holds the most critical view from the public domain, followed by the south (rear) elevation addressing Seton Road. The office accommodation is duly positioned at the north (front) and south (rear) frontages to provide activation and visual interest to passersby and those arriving at the proposed development. This ensures an outward looking development that does not turn its back on its surrounding context and public domain. Furthermore, to help mitigate and soften the built form particularly from visual receivers to the north, a mix of large and medium evergreen indigenous native canopy trees will be planted adjacent to Kelso Crescent. This in combination with a number of existing mature trees that are being retained will help provide visual screening of the development.

In terms of massing and scale, the design response seeks to set the agenda for new warehouse and distribution centre developments in the Moorebank area, whilst ensuring a pattern of development that accords with the prescribed local development standards. The proposed maximum building height of 25.1m comfortably falls within the prescribed maximum building height of 30m, which mitigates the risk of a built form that is incongruous relative to its surroundings.

In addition to the contextual analysis, the design development process has been informed by the following site-specific design matters:

- Retention of landscaped area and vegetation along the primary and secondary street frontages;
- Appropriate layout of truck movement with compliant ramp-up access to and from the level 1 hardstand;
- Separation of truck and pedestrian pathway movements;
- Appropriate location of fire services and brigade set down close to the subject site's main entrance;
- Advantageous location of offices to utilise passive solar heating and cooling whilst allowing the main building to align with the orientation of the subject site;
- Appropriate introduction of boundary setbacks from the surrounding site context;

- Compliant inclusion of car parking, bicycle parking and end of trip facilities; and
- Appropriate isolated, conveniently located lobby spaces to access both the warehouse and office accommodation.

Reference should be made to both **Section 3.3.2** and **Appendix 5** for further assessment of the proposed development's urban and built form design.

6.1.5 Visual Impact

Geoscapes Landscape Architects has prepared a Visual Impact Assessment Report for the proposed development in accordance with the *Guidelines for Landscape and Visual Impact Assessment (GLVIA) – Third Edition*, which is enclosed at **Appendix 8** of this EIS.

6.1.5.1 Existing Environment

The existing site context is described in **PART 2** of this EIS.

The development site is currently occupied by 'Adbri Masonry' within an active industrial area, and it is typical of many such industrial uses in the immediate context. Single storey warehouses are located to the front of the subject site along Kelso Crescent with a large construction aggregate processing structure to the rear. Tree coverage is sparse, however there are some very large existing paperbark trees in the front landscape setback. The A34 (Newbridge Road) is close to the development and forms a central spine to commercial and industrial units located either side.

The built form and character of the area is diverse and comprises large floorplate warehousing and distribution centres alongside strata title multi-unit complexes and older factory style buildings.

To the east on the edge of the industrial area is Anzac Creek, which is heavily vegetated and forms a green open space link. Further east is an area of residential housing. The landscape character of the immediate surroundings can be described as generally industrial and commercial with some medium density housing. Views from residential areas to the east will need to be considered to assess any visual impacts that are created above the tree line of the Anzac Creek.

6.1.5.2 Assessment of Impacts

Geoscapes's Visual Impact Assessment Report has assessed:

- The sensitivity of existing landscape receptors and the magnitude of change as a result of the proposed development.
- The sensitivity of existing visual receptors and the magnitude of change as a result of the proposed development.
- The significance of the impact on each receptor, which is based on the sensitivity of the location combined with the predicted magnitude of change.

Visual effects are more subjective as people's perception of development varies through the spectrum of negative, neutral, and positive attitudes. In the assessment of visual effects, Geoscapes have exercised objective professional judgment in assessing the significance of effects and will assume, unless otherwise stated, that all effects are adverse, thus representing the worst-case scenario.

In accordance with the SEARs, a sample of receptors comprising those closest in proximity to the proposed development, those with vantage points at higher elevations, and those with views at further distances have been selected. Geoscapes advise that it would be impractical to provide a predicted visual impact for every single possible visual receiver, therefore a sample has been selected. For visual receptors where it was not possible to access their private land (i.e. view from a window inside a private

dwelling), a representative view for that location has been assessed in terms of the likely significance of the visual impact.

Key Views

The symbols and numbering on the following map indicate the locations from viewpoints close to nearby sensitive residential receptors and significant vantage points within the surrounding public domain.

Figure 21. Visual Analysis Viewpoint Locations *(Source: Geoscapes, 2023)*

TABLE 18: SCHEDULE OF VIEWPOINTS				
VP Number	**Address**	**Southings**	**Eastings**	**Elevation AHD**
1	Kelso Crescent, Moorebank	33°55'50.7"S	150°56'24.9"E	11.1m
2	Adjacent to 331 Newbridge Road, Moorebank	33°55'47.9"S	150°56'20.6"E	11.5m
3	Adjacent to 337 Newbridge Road, Moorebank	33°55'48.5"S	150°56'15.7"E	13.7m
4	Adjacent to 353 Newbridge Road, Moorebank	33°55'47.9"S	150°56'11.5"E	13.4m
5	Heathcote Road, Moorebank	33°55'57.1"S	150°56'02.3"E	9m
6	Seton Road, Moorebank	33°56'02.6"S	150°56'19.8"E	9.2m
7	Adjacent to 35 Gal Crescent, Moorebank	33°56'09.7"S	150°56'40.9"E	16m
8	Adjacent to 41 Jack O'Sullivan Road, Moorebank	33°56'00.4S	150°56'41.9"E	25.7m

Eight (8) viewpoint locations have been selected for photomontage and visual impact assessment. From a desktop analysis of aerial maps and drone photography, the closest residential areas with potential to see the development are to the east at an approximate distance of 500m. Viewpoints 7 and 8 were

selected as publicly accessible locations (adjacent to residential dwellings) which are expected to receive partial views of the proposed development. Residential areas to the east would be considered to have the most sensitivity to change in their views, and vegetation surrounding the Anzac Creek results in much of the existing industrial development being screened from view.

From an analysis of site photography, the surrounding topography, and fieldwork, the lower parts of the development would be completely screened from residential receivers. Only the upper parts of the development are likely to be visible, which is demonstrated by the photomontages within Section 8.0 of the Visual Impact Assessment Report.

The remainder of the viewpoints have been taken from locations in closer proximity to the development. These are considered to have lower sensitivity due to the type of receptor that experiences them. Views would most likely be experienced by cars or pedestrians, but only for a short period of time within a visual setting already highly influenced by infrastructure and industrial development.

Visual Impact Assessment

TABLE 19 provides a summary of the assessment and findings of Geoscapes's Visual Impact Assessment Report

TABLE 19: VISUAL IMPACT ASSESSMENT	
Photomontages	**Assessment**
Viewpoint 1 – Kelso Crescent	
Baseline Photo **Reference Image (Year 0)** **Reference Image (Year 15)** 	**Visual Sensitivity:** Very Low **Magnitude of Change:** Medium **Significance of Impact:** Minor Negligible This location and other locations along the length of Kelso Crescent are predominately industrial in character. Potential visual receptors at this location have views which contain industrial type facilities and therefore, these views are unlikely to be valued. The route is often used by commuters or people at their place of work and the views of the surrounding context are assumed to have little or no importance to these users. The proposed development will be clearly noticeable, and the view would be changed by its presence by introducing more bulk and scale. Views are at close range with changes over a

TABLE 19: VISUAL IMPACT ASSESSMENT	
Photomontages	**Assessment**
	noticeable horizontal and vertical extent. The 10m landscape setback will allow for significant tree planting and the development will be well screened at year 15.
Viewpoint 2 – Adjacent to 331 Newbridge Road, Moorebank	
Baseline Photo **Reference Image (Year 0)** **Reference Image (Year 15)** 	**Visual Sensitivity:** Low **Magnitude of Change:** Low **Significance of Impact:** Minor Negligible This view would most likely be experienced by either pedestrians, motorists, or users of Fernwood Fitness. Views would be transitional and only experienced for a small amount of time. The view is experienced by commuters or people at their place of work, and the existing views within the surrounding context are highly affected by industrial development. The proposed development will form a small constituent of the view, being partially visible behind existing buildings and vegetation. Views are at close range but only a small amount of the horizontal/ vertical extent of the view is affected.
Viewpoint 3 – Adjacent to 337 Newbridge Road, Moorebank	
Baseline Photo **Reference Image (Year 0)**	**Visual Sensitivity:** Low **Magnitude of Change:** Medium **Significance of Impact:** Minor

TABLE 19: VISUAL IMPACT ASSESSMENT

Photomontages	Assessment
 Reference Image (Year 15) 	This view would most likely be experienced by either pedestrians and motorists, it would be transitional, and the development site would only be visible for a small amount of time. The route is likely used by commuters or people at their place of work, and the existing views within the surrounding context are highly affected by industrial development. Volumes of traffic are expected to be high during peak hours. The proposed development will be clearly noticeable, and the view would be changed by the introduction of the development's bulk and scale. Views are at close range with changes over a noticeable horizontal and vertical extent.
Viewpoint 4 – Adjacent to 353 Newbridge Road, Moorebank	
Baseline Photo **Reference Image (Year 0)** **Reference Image (Year 15)** 	**Visual Sensitivity:** Low **Magnitude of Change:** Very Low **Significance of Impact:** Negligible This view would most likely be experienced by either pedestrians or motorists, it would be transitional and only experienced for a small amount of time. The route is used by commuters or people at their place of work, and the existing views within the surrounding context are highly affected by industrial development. Volumes of traffic are expected to be high during peak hours.

TABLE 19: VISUAL IMPACT ASSESSMENT	
Photomontages	**Assessment**
	The proposed development would form a barely noticeable component of the view, and the view whilst slightly altered would be similar to the baseline situation. Views are at medium range with a negligible part of the view affected.
Viewpoint 5 – Heathcote Road, Moorebank	
Baseline Photo **Reference Image (Year 0)** **Reference Image (Year 15)** 	**Visual Sensitivity:** Very Low **Magnitude of Change:** Low **Significance of Impact:** Negligible This view would most likely be experienced by either pedestrians or motorists turning onto Deadman Road, it would be transitional and only experienced for a small amount of time. The route is used by commuters or people at their place of work, and the existing views within the surrounding context are highly affected by industrial development. As demonstrated by the Photomontage image, the proposed development would form a minor constituent of the view being partially visible and at sufficient distance to be a small component. Views are at medium range, with a small horizontal and vertical extent of the view affected.
Viewpoint 6 – Seton Road, Moorebank	
Baseline Photo	**Visual Sensitivity:** Very Low **Magnitude of Change:**

TABLE 19: VISUAL IMPACT ASSESSMENT

Photomontages	Assessment
 Reference Image (Year 0) **Reference Image (Year 15)** 	Medium **Significance of Impact:** Minor Negligible This location is surrounded by industrial type units. Potential visual receptors at this location have views which contain industrial type facilities and therefore, these views are unlikely to be valued. The route would be used by commuters or people at their place of work and the views of the surrounding context are assumed to have little or no importance to these users. The proposed development would be clearly noticeable, and the view would be changed by its presence with the introduction of additional bulk and scale. Views are at close range with changes over a noticeable horizontal and vertical extent. The 5m landscape setback would allow for further tree planting and the development would be partially screened at year 15.
Viewpoint 7 – Adjacent to 35 Gal Crescent, Moorebank	
Baseline Photo **Reference Image (Year 0)** **Reference Image (Year 15)**	**Visual Sensitivity:** Medium **Magnitude of Change:** Very Low **Significance of Impact:** Minor Negligible

TABLE 19: VISUAL IMPACT ASSESSMENT

Photomontages	Assessment
	From elevated locations close to this viewpoint, it is likely that views towards the development would be possible from primary or secondary living spaces within individual two-storey residential dwellings. The baseline view demonstrates that some industrial development can already been seen above the tree line to Anzac Creek, however the majority is well screened. At street level, the development would form a barely noticeable component of the view, with a very low magnitude of change likely. However, some two-storey properties may see more of the development than is shown in the photomontage. From those locations it is judged that the proposed development would still form a minor constituent of the view.
Viewpoint 8 – Adjacent to 41 Jack O'Sullivan Road, Moorebank	
Baseline Photo **Reference Image (Year 0)** **Reference Image (Year 15)** 	**Visual Sensitivity:** Medium **Magnitude of Change:** Low **Significance of Impact:** Minor

TABLE 19: VISUAL IMPACT ASSESSMENT	
Photomontages	**Assessment**
	From elevated locations close to this viewpoint, it is likely that views towards the development would be possible from primary or secondary living spaces within individual two-storey residential dwellings. Commercial and residential towers from Liverpool CDB are clearly seen in the far distance of the view. The baseline view demonstrates that small view corridors exist to industrial development through the tree line of Anzac Creek, however most development is well screened. At street level, the development would form a barely noticeable component of the view with a very low magnitude of change likely. However, some two-storey properties may see more of the development than is shown in the photomontage.

It is concluded that the landscape value of the development site is 'negligible' due to the present and former use of the subject site. There are a number of residential dwellings located to the east and south-east of the subject site that are expected to receive 'minor' or 'negligible' visual impacts. From residential streets, existing vegetation is expected to largely screen the proposed development from view.

Views experienced by passing motorists or pedestrians in very close proximity to the subject site are transient, only temporary, and therefore impacts would be less significant. Generally, locations including Kelso Crescent, Newbridge Road and Seton Road are judged to have 'low' to 'very low' sensitivity due to all being located within the Moorebank industrial area.

The proposed development's setbacks provide opportunities to provide mitigation in the form of tree planting. This should contribute to softening the appearance of the development from the most sensitive receptors, and would represent a significant enhancement relative to the existing situation. In addition, the architectural team have carefully selected building materials and colours to reduce visual impacts in terms of bulk and scale. The design response is intended to blend the development into the existing industrial character.

6.1.6 Traffic, Transport and Accessibility

Genesis Traffic has prepared a Transport Impact Assessment (TIA) in response to the SEARs, which is enclosed at **Appendix 9** of this EIS. In accordance with Item 6 of the SEARs, the following subsections summarise the findings of the TIA, which includes:

- Details of all traffic types and volumes likely to be generated during construction and operation, including a description of key access and haul routes;
- An assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections (using industry standard modelling);
- Plans demonstrating how all vehicular trips likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the subject site to avoid queuing in the street network;
- Details and plans of any proposed internal road network, loading dock provision and servicing, on-site parking provisions, and sufficient pedestrian and cycling facilities, in accordance with the relevant Australian Standards;
- Swept path analysis for the largest vehicle requiring access to the development; and
- Details of re-configured and additional access points required for the development.

6.1.6.1 Existing Environment

Reference should be made to **PART 2** of this EIS for details on the strategic context of the subject site. The following provides an overview of the existing traffic environment as it relates to the subject site.

Kelso Crescent, from which the subject site has direct access, comprises an east – west local road carrying one (1) traffic lane in each direction. On-street parking is available on both sides.

Seton Road, which similarly provides direct access from the subject site, comprises a local road connecting Iraking Avenue to the north and Heathcote to the south. It has a sign posted speed limit of 50 km/hr and consists of one (1) traffic lane in each direction. On-street parking is permitted on both sides.

Roads to and from the subject site otherwise include Newbridge Road (the A34), a State Road connecting Milperra Road (east) to Terminus Street (west); Heathcote Road (the A6), a State Road connecting Newbridge Road (north) to the Princes Highway (south-east); and Iraking Avenue, a north – south local road connecting to Kelso Crescent to the north and Seton Road to the south.

In order to determine the existing traffic conditions for the surrounding road network, Genesis Traffic conducted movement counts in July 2023 at the following intersections during the AM and PM peak periods:

- Newbridge Road and Kelso Crescent and Field Close;
- Kelso Crescent and Iraking Avenue;
- Seton Road and Iraking Avenue; and
- Heathcote Road and Seton Road.

The location of these key intersections is illustrated in **Figure 22** below.

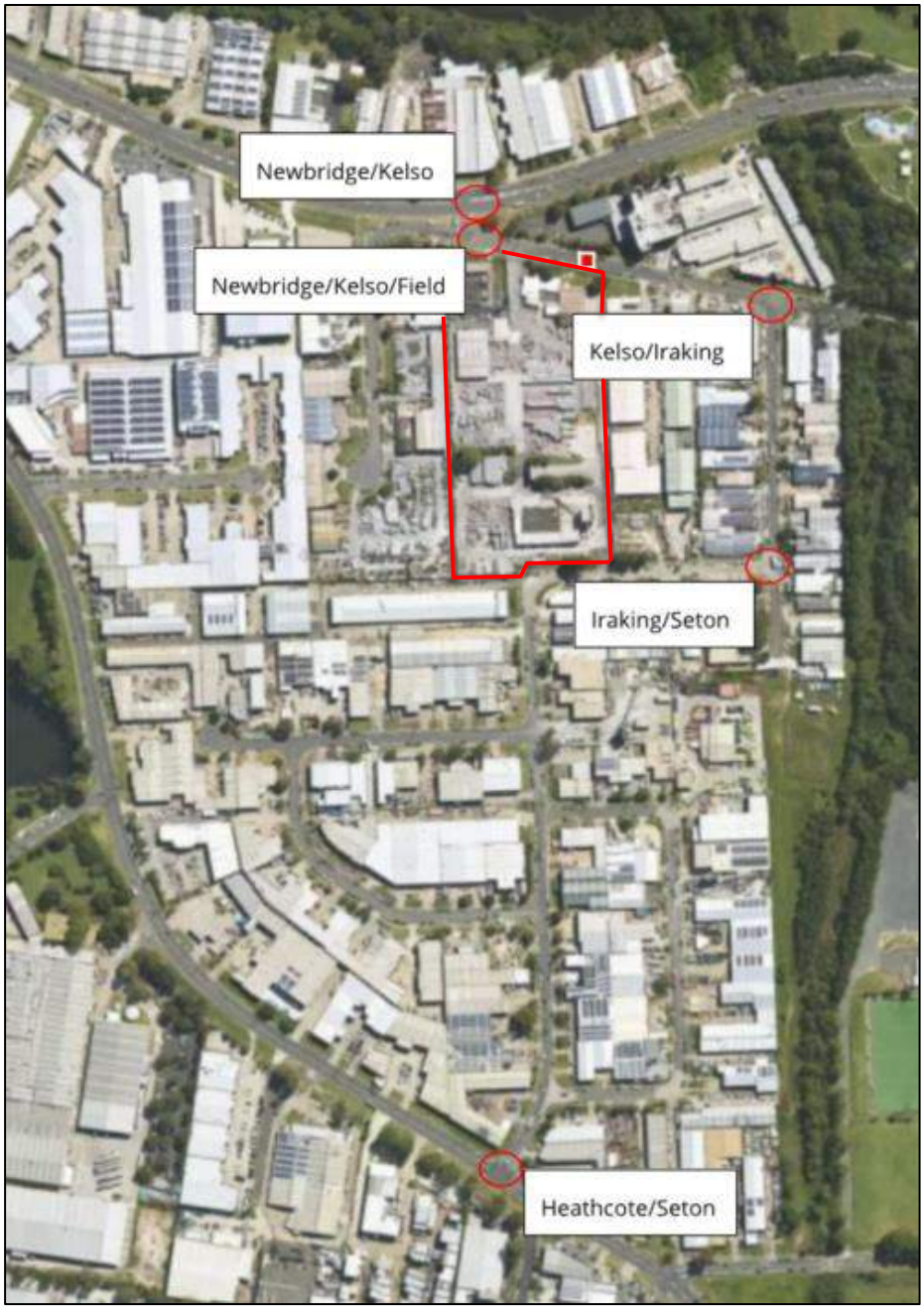


Figure 22. Location of Intersections *(Source: Genesis Traffic, 2023)*

The survey results are appended to the TIA and demonstrate the following:

- Kelso Crescent is subject to a peak hour mid-block traffic flow of approximately 218 and 165 vehicles per hour (two-way) during the AM and PM peak periods, respectively; and
- Seton Road carries 800 and 1,114 vehicles per hour in the AM and PM peak periods, respectively.

The RMS Guide to Traffic Generating Development (2002) indicates a mid-block capacity for urban roads with interrupted flow of 900 vehicles per hour per lane, each way, giving a two-way capacity of 1,800 vehicles per hour. The survey results demonstrate that the surveyed two-way peak flows on both roadways are within their capacity threshold.

The operation of the identified intersections has been assessed using the SIDRA traffic modelling program, a micro-analytical tool for intersection modelling based on collected traffic survey data. Intersection performance can be graded per the criteria listed in **TABLE 20** below.

TABLE 20: INTERSECTION PERFORMANCE – LEVELS OF SERVICE			
Level of Service	**Average Delay (seconds /vehicle)**	**Traffic Signals, Roundabout**	**Give Way and Stop Signs**
A	< 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory but accident study required
D	43 to 56	Operating near capacity	Near capacity and accident study required
E	57 to 70	At capacity. At signals, incidents would cause excessive delays. Roundabouts require other control mode	At capacity and requires other mode of control
F	> 70	Extra capacity required	Extreme delay, major treatment required

The SIDRA model results for each surveyed intersection are provided at Attachment 2 within the enclosed TIA (**Appendix 9**), and are summarised within **TABLE 21** below.

TABLE 21: EXISTING NETWORK OPERATION				
Intersection	**AM Peak**		**PM Peak**	
	Level of Service	**Average Delay**	**Level of Service**	**Average Delay**
Newbridge Road/ Kelso Crescent	**C**	33	**B**	26.7
Kelso Crescent/ Field Close	**A**	5.2	**A**	4.8
Kelso Crescent/ Iraking Avenue	**A**	5.3	**A**	5.1
Iraking Avenue/ Seton Road	**A**	5.3	**A**	5.2
Heathcote Road/ Seton Road	**A**	6.1	**B**	14.6

The SIDRA analysis demonstrates the following:

- At the AM Peak – all intersections perform with a 'good' operation, with an average delay of approximately 5 seconds per vehicle; except Newbridge Road/ Kelso Crescent, which has a 'satisfactory' operation with an average delay of 33 seconds per vehicle.
- PM Peak – all intersections perform with a 'good' operation, with an average delay of approximately 5 seconds per vehicle; except Heathcote Road/ Seton Road, which has a 'good' operation with acceptable delays at an average delay of 14.6 seconds per vehicle; and Newbridge Road/ Kelso Crescent, which has a 'good' operation with acceptable delays at an average delay of 26.7 seconds per vehicle.

The assessment outcome reveals ample spare capacity under existing traffic demand during the AM and PM peak periods.

Genesis has reviewed TfNSW's recorded crash data between 2017 and 2021 (data for 2022 onwards is not available) to better understand the existing road safety levels near the subject site and the potential implications of any increase in traffic volumes. The crash data is included within the enclosed TIA, but for the Newbridge Road/ Kelso Crescent intersection specifically, the data is summarised at **TABLE 22** below.

TABLE 22: CRASH DATA RECORD

Location	Date of Crash	Type	RUM Code	Severity/ Injury
Newbridge Road/ Kelso Crescent	2019	Two westbound vehicles rear end collision on Newbridge Road	30	Moderate
	2019	Left turn from Kelso Crescent collided by westbound vehicle on Newbridge Road	13	Minor
	2020	Lane crossing collision (same direction but not identified)	39	Moderate
	2020	Right turn from Kelso Crescent collided by an eastbound vehicle on Newbridge Road	11	Moderate
	2021	Right turn from Kelso Crescent collided by an eastbound vehicle on Newbridge Road	12	Minor

The data illustrates that five (5) crashes were recorded at the intersection of Newbridge Road and Kelso Crescent. Of these, one (1) involved a left-turning vehicle from Kelso Crescent, while another two (2) turned right from Kelso Crescent, highlighting a potential difficulty for turning vehicles at this intersection. Genesis have concluded that the recorded crashes are not highly repetitive in occurrence, and there is insufficient evidence at this stage to indicate a critical safety deficiency at the assessed locations.

6.1.6.2 Assessment of Impacts

Operational Parking

TABLE 23 demonstrates a compliant parking provision for the proposed development:

TABLE 23: PARKING ANALYSIS

Parking Element	Rate Requirement	Development Requirement	Proposed Development
Liverpool Development Control Plan 2008			
Car Parking	1 space per 250m² GFA for warehouse 1 space per 35m² GLA for ancillary office	125 spaces 69 spaces **194 spaces**	**180 spaces**

TABLE 23: PARKING ANALYSIS			
Parking Element	**Rate Requirement**	**Development Requirement**	**Proposed Development**
Bicycle Parking	1 per 10 staff/ 1 per 10 car spaces for warehouse 1 space per 200m² GFA for ancillary office (staff) 1 space per 750m² GFA for ancillary office (visitors)	18 spaces 12 spaces 3 spaces **33 spaces**	30 spaces for staff 3 spaces for visitors **33 spaces**
Bicycle End of Trip Facilities	1 change/ shower room for every 10 employee bicycle spaces 1 locker for each employee bicycle space	3 change/ shower rooms 26 lockers	4 change/ shower rooms (2 male / 2 female) 30 lockers
RMS Guide to Traffic Generating Developments (2002)			
Car Parking	1 space per 300m² GFA for warehouse 1 space per 40m² GFA for ancillary office	104 spaces 60 spaces **164 spaces**	**180 spaces**
Note: * tenants are not known at this stage, however an estimate of 174 projected employees has been used to determine the number of bicycle parking spaces for the facility. The proposed pr			

The TIA recommends providing 180 car parking spaces, achieving a suitable balance between the LDCP 2008 and the RMS requirements. In addition, the Green Travel Plan enclosed with the TIA sets out how occupants of the future development will travel to and from the subject site. The Travel Plan emphasises the use of sustainable transportation methods, further reducing onsite car parking demand, and is consistent with the Council's long-term transport planning priorities.

Access and Circulation Design

The subject site will benefit from five (5) new access driveways, being:

- Three (3) on Kelso Crescent; and
- Two (2) on Seton Road

All proposed access driveways have been designed to accord with the AS2890.1 and AS2890.2 requirements. A detailed geometrical assessment of the driveways is summarised at **TABLE 24** below.

TABLE 24: DESIGN ASSESSMENT SUMMARY			
Features	**Requirement**	**Provision**	**Compliance**
Access for Car Parking (AS2890.1:2004) – Category 2			
Access Width	6m-9m combined	Provided	Yes
Location (Category 3)	6m from any intersection tangent	Exceeds minimum requirement	Yes
Sight Distance (60km/hour)	Min 45m (50km/ hour)	Provided	Yes

TABLE 24: DESIGN ASSESSMENT SUMMARY			
Features	**Requirement**	**Provision**	**Compliance**
Sight Splays (Pedestrian)	2.5m x 2.0m	Provided	Yes
Access for 19m Long Semi Trailer (AS2890.2:2018)			
Access Driveway	12.5m (two-way on minor road)	14.5m (two-way) 9m (one-way)	Yes
Ramp Grade	Max 15.4% (1 in 6.5)	1 in 12	Yes
Rates of Change of Grades	Max 6.25% (1 in 16)	< 1 in 20	Yes
Transitions	10m	10m	Yes
Width (Single Lane)	3.5m	> 3.5m	Yes
Sight Distance (50km/ hour)	Min 83m	Provided	Yes
Vertical Clearance	4.5m	6m	Yes
Driveway/ Ramp (AS2890.1:2004)			
Ramp Grade	Max 25% (1 in 4)	1 in 11	Yes
Transitions	2.0m	5.3m	Yes
Width	5.5m	6.1m	Yes
Gradient for First 6m of Driveway	Max 5% (1 in 20)	N/A	Yes
Parking Modules (AS2890.1:2004) – User Class 1A			
Space Length	5.4m	5.5m	Yes
Space Width	2,4m	2.5m	Yes
Aisle Width	5.8m	6.2m	Yes
Height Clearance	2,2m	3.17m	Yes
Gradient	Max 5% (1 in 20)	N/A	Yes

Detailed vehicular swept paths are also included at Attachment 4 within the TIA, and demonstrate satisfactory manoeuvrability for the largest design vehicle (19m semi-trailer) intended to access the subject site.

Operational Arrangement

A detailed and tenancy-specific Operational Traffic Management Plan will be prepared prior to the building's occupation. However, the following outlines the principles of site access and circulation that will be generally consistent regardless of tenancy types.

With reference to **Figure 23** below, all light vehicles associated with the subject site will access the car park via the northern access at Kelso Crescent and the southern access at Seton Road. Drivers will proceed to the car park and exit via the same driveways.

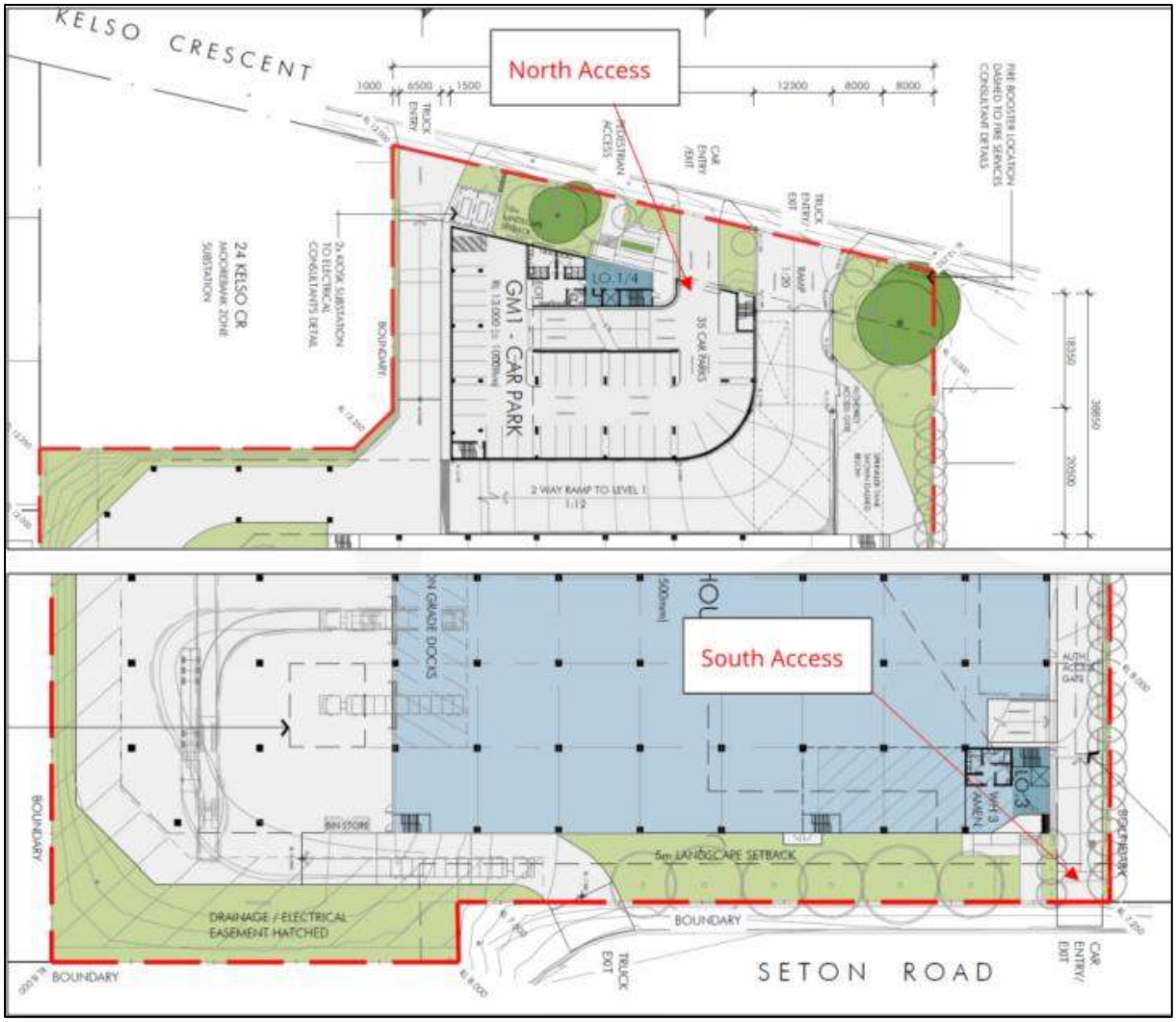


Figure 23. Car Park Access Points *(Source: Genesis Traffic, 2023)*

Truck access to the subject site comprises:

- Kelso Crescent – entry only;
- Kelso Crescent – entry and exit to Level 1 Warehouses; and
- Seton Road – exit only.

With reference to **Figure 24** below, trucks will access the loading bays at ground floor via a dedicated entrance from Kelso Crescent, before leaving via a dedicated egress point on Seton Road at the rear.

Trucks will access the loading bays at first floor via a separate, dedicated entrance from Kelso Crescent providing ramp access, before leaving via the same route to a separate, dedicated egress point.

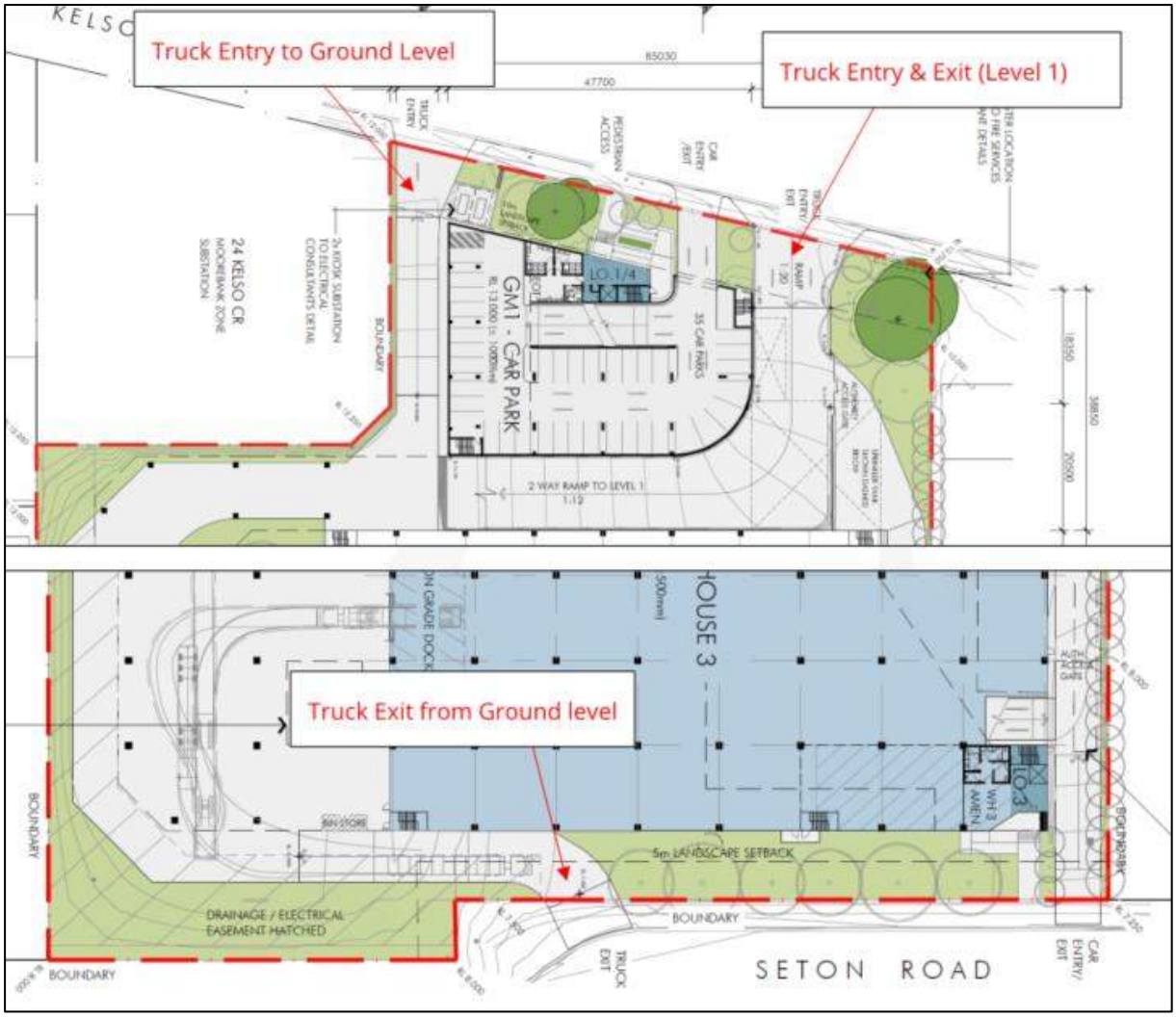


Figure 24. Truck Access and Egress Details *(Source: Genesis Traffic, 2023)*

All trucks will be capable of entering and exiting the proposed development in a forward direction. Internally, trucks will undertake up to one reverse manoeuvre to align with the loading docks before departing in a forward motion.

With specific respect to those accessing the subject site by bicycle, all cyclists are to dismount at the pedestrian access point and use the lift access provided to the cycle parking provision and end of trip facilities. There are separate provisions located at the front (from Keslo Crescent) and rear (from Seton Road) of the development. The front provision is located at 'Ground Floor Mezzanine 1' (see drawing ref. DA-501 Rev. D) and the rear provision is located at the Basement (see drawing ref. DA-111 Rev. D).

Operational Traffic Generation

Surveys undertaken by TfNSW of business parks and industrial estates in Sydney found traffic generation rates as follows:

- 0.52 vehicle trips per hour per 100m^2 GFA during the morning peak hour
- 0.56 vehicle trips per hour per 100m^2 GFA during the evening peak hour

The rates are the average of four (4) business parks and industrial estates in the Sydney metropolitan area. These developments vary in scale, composition, and nature, as indicated in Table 8-1 within the TIA.

Genesis also make reference to an approved and comparable warehouse development at 60 Wallgrove Road, Eastern Creek. That proposal involved a total GFA of 123,865m² including 5,930m² of ancillary office space. The underpinning traffic impact assessment drew a similar comparison with the RMS surveyed sites. It concluded a lower traffic generation basis of 0.16 vtph per 100m² and 0.18 vtph per 100m² in the AM and PM peaks, respectively.

Notwithstanding, the TIA has adopted the higher rates of **0.24** and **0.18** vehicle trips per hour per 100m² to provide a more conservative outcome. The calculated traffic generation outcome is summarised in **TABLE 25** below.

TABLE 25: TOTAL TRIP GENERATION DURING PEAK HOUR

Period	AM Peak (0.24 vtph per 100m²)	PM Peak (0.18 vtph per 100m²)	Daily (2.64 vehicle trips per 100m²)
Proposed development (34,410m² GFA)	+ 83 vtph	+ 62 vtph	+ 908 vehicle trips
Proportion of Cars vs Trucks			
Total	89	67	979
Cars (77%)	69	52	754
Trucks (23%)	20	15	225

It is understood that there are some activities/ uses associated with the existing industrial premises. To provide a conservative basis to this assessment, all existing traffic movements will not be discounted from the traffic impact assessment.

As required by TfNSW in its consultation advice (at Section 11 of the enclosed TIA), a sensitivity analysis evaluating the five (5) and ten (10) year horizons has also been undertaken as part of the assessment. The annual background traffic growth projection is taken to be 1.5% reflecting a relatively established land use circumstance in the immediate context. On this basis, **TABLE 26** below compares the base case (without development) and the post-development scenarios in 2023, 2028, and 2023.

TABLE 26: EXISTING VS PROPOSED NETWORK OPERATION

Intersection	AM Peak		PM Peak	
	Level of Service	Average Delay	Level of Service	Average Delay
Existing – Base Year 2023				
Newbridge Road/ Kelso Crescent	**C**	33	**B**	26.7
Kelso Crescent/ Field Close	**A**	5.1	**A**	4.8
Kelso Crescent/ Iraking Avenue	**A**	5.2	**A**	5.1
Iraking Avenue/ Seton Road	**A**	5.3	**A**	5.2
Heathcote Road/ Seton Road	**A**	6.1	**B**	14.6
Post-Development – Base Year 2023				
Newbridge Road/ Kelso Crescent	**C**	33.2	**C**	29.9

TABLE 26: EXISTING VS PROPOSED NETWORK OPERATION

Intersection	AM Peak		PM Peak	
	Level of Service	Average Delay	Level of Service	Average Delay
Kelso Crescent/ Field Close	**A**	5.2	**A**	4.8
Kelso Crescent/ Iraking Avenue	**A**	5.2	**A**	5.1
Iraking Avenue/ Seton Road	**A**	5.1	**A**	5.2
Heathcote Road/ Seton Road	**B**	6.4	**B**	15.0
Existing - 2028				
Newbridge Road/ Kelso Crescent	**D**	49.3	**C**	32.8
Kelso Crescent/ Field Close	**A**	5.1	**A**	4.8
Kelso Crescent/ Iraking Avenue	**A**	5.2	**A**	5.2
Iraking Avenue/ Seton Road	**A**	5.3	**A**	5.2
Heathcote Road/ Seton Road	**A**	6.2	**B**	15.5
Post-Development - 2028				
Newbridge Road/ Kelso Crescent	**D**	49.7	**C**	38.0
Kelso Crescent/ Field Close	**A**	5.2	**A**	4.9
Kelso Crescent/ Iraking Avenue	**A**	5.3	**A**	5.1
Iraking Avenue/ Seton Road	**A**	5.1	**A**	5.3
Heathcote Road/ Seton Road	**B**	6.5	**B**	16.2
Existing - 2033				
Newbridge Road/ Kelso Crescent	**F**	100.3	**D**	47.3
Kelso Crescent/ Field Close	**A**	5.2	**A**	4.9
Kelso Crescent/ Iraking Avenue	**A**	5.3	**A**	5.2
Iraking Avenue/ Seton Road	**A**	5.4	**A**	5.3
Heathcote Road/ Seton Road	**A**	6.3	**B**	17.3
Post-Development - 2033				
Newbridge Road/ Kelso Crescent	**F**	101.9	**E**	60.0
Kelso Crescent/ Field Close	**A**	5.2	**A**	4.9

TABLE 26: EXISTING VS PROPOSED NETWORK OPERATION				
Intersection	**AM Peak**		**PM Peak**	
	Level of Service	**Average Delay**	**Level of Service**	**Average Delay**
Kelso Crescent/ Iraking Avenue	**A**	5.3	**A**	5.2
Iraking Avenue/ Seton Road	**A**	5.1	**A**	5.3
Heathcote Road/ Seton Road	**B**	6.6	**B**	18.4

In each assessed scenario, the assessment has found that the projected traffic load resulting from the proposed development will generally retain the road network's level of service. On this basis, the assessment determines that the traffic generation of the proposed development is acceptable in the context of the local road network.

As background traffic increases in the assessed 5-year intervals, the right-turn movement from Kelso Crescent to Newbridge Road at the Newbridge Road/ Kelso Crescent intersection is expected to fail in the AM peak by 2033, with and without the proposed development.

Whilst the assessment results confirm an acceptable traffic impact on the local road network, it is important to acknowledge the current operations on the subject site, which comprise a masonry and brick manufacturing factory. These ongoing activities contribute to an existing baseline of traffic, and this will cease once the factory operations are discontinued. It is therefore reasonable to subtract these existing traffic movements from the projected traffic arising from the proposed development.

According to RMS guidelines, factory facilities typically generate a rate of 1 vehicle movement per 100m^2. Applying this rate to the existing quantum (6,000m^2 GFA) indicates an ongoing traffic output of approximately 60 vehicles movements per hour during peak periods. When comparing this with the anticipated traffic generation outlined in **TABLE 25**, it becomes evident that the proposed development will result in a relatively minor increase in traffic. Specifically, during the PM peak hours, there would only be 20 additional vehicle movements relative to the existing situation. The traffic impact during the AM peak hours is expected to remain largely consistent with the existing baseline.

Construction Traffic

A Preliminary Construction Traffic Management Plan (CTMP) has been prepared by Genesis Traffic, forming part of the TIA at **Appendix 9** of this EIS. The CTMP will be refined once a builder has been appointed and the detailed construction methodology and staging are confirmed.

TABLE 27 below indicates a preliminary phasing outline of each construction stage, including estimated vehicle types, volumes, and the approximate number of daily workers. These estimations may be subject to change following the appointment of a contractor.

TABLE 27: ESTIMATED WORKS PRORAMME			
Phase	**Estimated Period**	**No. of Trucks per day**	**No. of Workers per day**
Demolition	6 months	5-10	15
Site Establishment	1 month	1-5	10
Construction	18 months	10-30 (peak movement occurs during the concrete pour for a brief period)	50-60
Fit out	6 months	5-8	50-60

The number of vehicle trips generated during the various stages of construction is expected to be approximately 10 to 30 construction vehicles per day at the peak of activity. This represents low traffic generation, equivalent to an average of approximately 1 to 3 trucks per hour over a typical working day. Genesis Traffic have confirmed that the existing road network can readily cater for these vehicles.

The proposed works will accord the conditions of the development consent; however, it is expected that construction activities will be limited to the following time periods:

- Monday to Friday: 07:00 – 18:00;
- Saturday: 08:00 – 13:00; and
- Sunday/ Public Holiday: No work.

During construction, trucks transporting material to and from the subject site will be accommodated wholly on site, utilising the existing access points from Kelso Crescent and Seton Road. At no time during demolition, excavation and/ or construction would trucks be permitted to park on street. In addition, all vehicles associated with the works are expected to be able to turn around internally, enabling forward direction entry and exit at the subject site boundaries. The existing hardstanding within the subject site will provide the required parking capacity for construction activities.

Further details are captured within the TIA enclosed at **Appendix 9** of this EIS.

6.1.6.3 Management and/or Mitigation Measures

A detailed CTMP will be required as part of the Construction Environmental Management Plan (CEMP) for the project, as documented in the planned management and mitigation measures outlined in **Appendix E** of this EIS.

6.1.7 Trees and Landscaping

6.1.7.1 Existing Environment

The subject site currently contains an extensive impervious area, with the following landscaped areas:

- A landscaped front setback from Kelso Crescent with established trees;
- An informal landscaped rear setback from Seton Road with established trees;
- Smaller trees and shrubs aligning the western boundary of the subject site; and
- A cluster of trees and shrubs interspersed across the rear central portion of the subject site.

A total of 40 trees were assessed as part of the Arboricultural Impact Assessment, prepared by Urban Arbor, which is enclosed at **Appendix 11** of this EIS.

A total of two (2) trees were assessed in adjoining properties. Refer to **Figure 25** below:

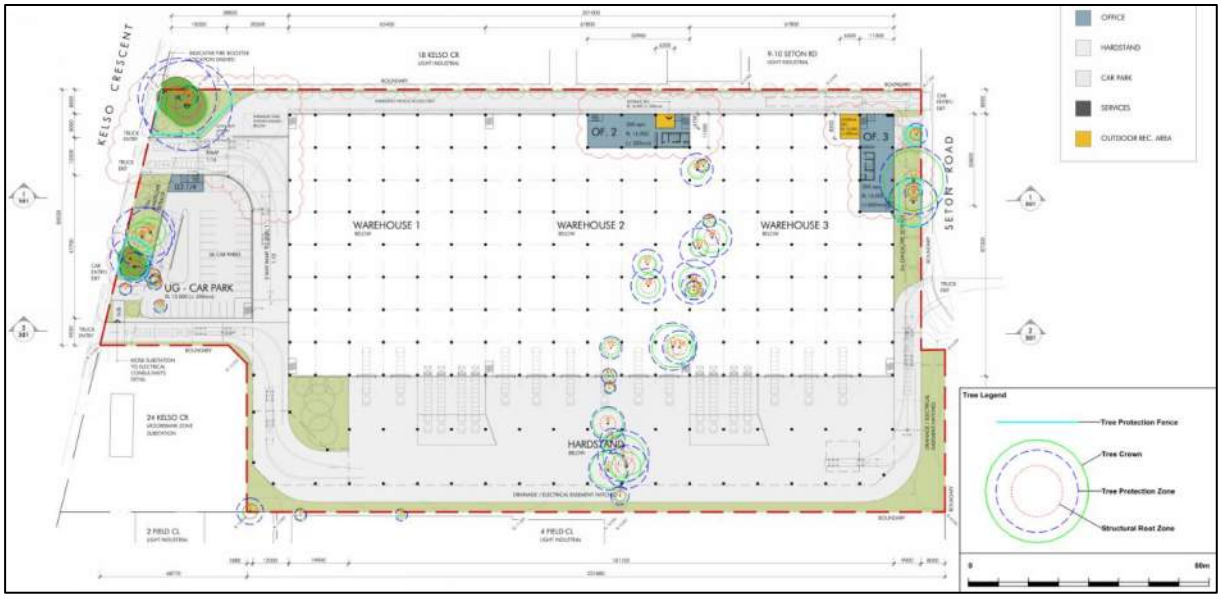


Figure 25. Location of Existing Trees at the Subject Site *(Source: Urban Arbor, 2023)*

6.1.7.2 Assessment of Impacts

The following criteria have been considered to determine the impact arising from the proposed development on the existing trees at the subject site:

- Existing ground levels (RL);
- Footprint of the proposed development, temporary structures, and laydown areas;
- Extent of the TPZ / SRZ (structural root zone);
- Incursion into the TPZ including any cut, fill, benching and shoring activities beyond the development footprint;
- Incursions to the tree canopy from the building or temporary structures (scaffolding); and
- Existing site and soil conditions.

The impacts of the proposed development are summarised in **TABLE 28** below:

TABLE 28: TREE IMPACT ASSESSMENT OVERVIEW

Impact	Reason	Category A		Category Z	Total
		AA	A	Z	
Trees recommended to be removed	Building construction, new surfacing and/ or proximity, or trees in poor condition	7, 17 (Two trees)	5, 6, 9, 12, 13, 15, 24, 27, 28, 36, 37 (Eleven trees)	1, 4, 8, 10, 11, 14, 16, 18, 19, 20, 21, 22, 23, 25, 26, 29, 30, 31, 32, 33 (Twenty trees)	**33 trees**
Trees recommended to be retained	Removal of existing surfacing/ structures and/ or installation of new surfacing/ structures will not impact the viability of the trees	38, 39 (Two trees)	34, 35 (Two trees)	2, 3, 40 (Three trees)	**7 trees**

The proposed development necessitates the removal of 33 trees, as illustrated in **Figure 15**, of which 4 trees are an exempt species, and one (1) is recommended for removal as it is in poor condition owing to advanced decline.

This leaves a total of 25 trees that require development consent for their removal.

The value of the trees requiring consent for removal are summarised as follows:

- 13 are of high retention value; and
- 20 are of low retention value.

A Tree Protection Management Plan is included at **Appendix B** of this EIS.

To offset the impacts arising from the tree loss, a site-wide Landscape Plan incorporating the planting of 67 replacement trees has been prepared and is enclosed at **Appendix 10** of this EIS.

In accordance with the NSW Government Architect's Greener Places Framework, the proposed development has been designed to be a high performing, multi-functional landscape which seeks to maintain existing landscape features (where possible). Through its design considerations the proposed development has managed to retain 7 trees on or adjacent to the subject site, particularly within the Kelso Crescent front setback streetscape area.

The retention of existing trees and proposed tree planting will form a canopy screen greater than the existing buffer of trees.

The resulting landscape characteristics of the proposed development include:

- A landscaped area of 3,560m^2 representing 10.1% site coverage;
- A total of 67 new trees; and
- A total canopy cover of 2,257m^2, representing 6.4% site coverage.

6.1.7.3 Management and/or Mitigation Measures

TPZ encroachments should be offset and mitigated using a range of possible measures to ensure impacts are minimised and that retained trees remain viable post construction. Mitigation measures should be increased relative to the level of encroachment within the TPZ.

AS 4970-2009 outlines the types of TPZ encroachment and mitigation measures required to ensure long term viability, which are summarised in **TABLE 29** below.

TABLE 29: TREE IMPACT MITIGATION MEASURES

Encroachment Type	Mitigation Measures
Nil	▪ Where indirect or inadvertent encroachments may occur due to haul routes or machinery movement, tree protection should be installed.
Minor	▪ The area lost to encroachment must be offset elsewhere and contiguous to the TPZ. ▪ Detailed root investigations should not be required. ▪ Tree protection must be installed and maintained.
Major	▪ The Project Arborist must demonstrate the tree(s) will remain viable.

TABLE 29: TREE IMPACT MITIGATION MEASURES	
Encroachment Type	**Mitigation Measures**
	▪ Root investigations using non-destructive methods may be required to clarify or confirm the impacts to trees to be retained. ▪ The area lost to encroachment must be offset elsewhere and contiguous to the TPZ. ▪ All works and excavations within the TPZ must be supervised by the Project Arborist. ▪ Tree protection must be installed and maintained for the duration of the project. ▪ Additional measures such as mulching or temporary irrigation may be required.

These measures are documented at Section 11 of the AIA enclosed at **Appendix 11** of this EIS, and **Appendix E** of this EIS.

6.1.8 Ecologically Sustainable Development (ESD)

6.1.8.1 Assessment of Impacts

The principles of ESD as outlined in Clause 193 of the EP&A Regulation have been carefully considered in **Section 7.1.5** of this EIS.

The specific objectives of the Sustainability Management Plan, prepared by SLR and enclosed at **Appendix 12** of this EIS, are as follows:

- To encourage energy use minimisation through the implementation of energy efficiency measures;
- To promote improved environmental outcomes through energy management;
- To ensure the appropriate management of high energy consumption aspects of the project;
- To identify energy savings procedures for overall cost reduction, greenhouse gas emission reduction and effective energy management (reflecting the Government's goal of net zero emissions by 2050);
- To assist in ensuring that any environmental impacts during the operational life of the development comply with DPIE's development consent conditions and other relevant regulatory authorities; and
- To ensure the long-term sustainability of resource use through more efficient and cost-effective energy use practices for the life of the development.

Based on the assessments undertaken by SLR, the proposed development is estimated to consume 857.06 MWh of energy annually. This is expected to be offset partially by the planned installation of a 300kW PV solar system at the roof of the warehouse, which would save approximately 416.1 MWh of energy usage per year. This is equivalent to an estimated greenhouse gas CO_2 emission saving of approximately 341,202 kg per annum.

By implementing all energy efficiency measures described in Section 6 of the Sustainability Management Plan, the proposed development is predicted to achieve a 44.6% GHG emission reduction when compared with the 2022 NCC Reference Building. Similarly, by installing 4 star rated toilets, urinals and taps and the proposed rainwater harvesting facility, the proposed development would reduce its potable water demand by at least 5,073.3 litres per day.

Overall, through the implementation of the initiatives noted within the Sustainability Management Plan, the project clearly demonstrates the subject site's commitment to ESD principles throughout the design, construction, and operation of the proposed development.

Additionally, the project design team has worked to optimise the subject site's energy performance, address key climate related risks posed to the subject site, align the project to the NSW Government's commitment to carbon neutrality by 2050, and benchmarked the project to industry best practice sustainability.

A Net Zero Statement is included at Appendix C of the Sustainability Management Plan. The proposed development is fossil fuel free and on track to achieve a net zero status.

The Proponent is committed to design, build and commission the office component of the proposed development to achieve a 4 Star NABERS energy rating and a 4 Star NABERS water rating in respect of the 2,400m^2 ancillary office component. A signed NABERS Agreement to Rate (for Energy and Water) is enclosed at **Appendix 35** and the completed Embodied Emissions Materials form is enclosed at **Appendix 36** of this EIS. These relate to the 2,400m^2 ancillary office floorspace within the proposed development.

6.1.9 Biodiversity

SLR has prepared a Biodiversity Development Assessment Report (BDAR) Waiver Request in accordance with the requirements of the *Biodiversity Assessment Method 2020* and the *Biodiversity Conservation Act 2016*. The SEARs require the preparation of a BDAR Report unless a waiver is granted, or the site is biodiversity certified.

The subject land is not biodiversity certified and contains limited biodiversity values. As such, the Proponent sought to waive the requirements for the preparation of a BDAR. The BDAR Waiver Request has subsequently been granted by DPE and is enclosed at **Appendix 13** of this EIS.

6.1.9.1 Existing Environment

Vegetation

The subject land is not mapped by the Biodiversity Values Map and Threshold Tool as containing biodiversity values. Regional scale mapping indicates that there is no native vegetation (or Plant Community Type 'PCT') within the subject site or immediately adjoining properties. An ecological site inspection undertaken by SLR on 17 August 2023 confirmed that there is no native vegetation or PCT present on the subject site.

No hollow-bearing trees, microbat habitat or other resources of potential importance to native fauna are present on the subject site. The landscaped and exotic vegetation on the subject land is disjunct from any patches of native vegetation. It is unlikely that this artificial habitat is important to any migration movements of any protected species. The planted trees and exotic vegetation along with the man-made structures on the subject land provide marginal artificial habitat for mobile threatened species.

Threatened Species Habitat

A licensed search of the BioNet Wildlife Atlas database for records of threatened species within 10 km of the subject site was undertaken on 15 August 2023. The search detected 5,205 records of 50 species. Most of the threatened species recorded are not likely to occur on the subject land due to geographic limitations, lack of suitable habitats and the disturbed and modified nature and condition of the subject site.

The existing manmade structures on the subject land are regularly used and show no evidence of use by any threatened species known to utilise this potential habitat (i.e. microbats roosts).

Based on the results of an ecological site inspection, the areas of vegetation and the buildings to be removed provide marginal artificial habitat for threatened species and removal of these features is not likely to result in a significant impact on threatened species.

6.1.9.2 Assessment of Impacts

The development proposes the removal of the existing man-made structures, planted trees and exotic vegetation on the subject land. The development includes the construction of warehouse distribution centre, including five warehouse tenancies over two storeys, ancillary office accommodation, multilevel carparking and associated infrastructure. The development does not propose the construction of any turbines that may cause harm to any protected birds or bats. It is therefore unlikely to result in a significant impact to the flight paths of any threatened species.

The subject land currently contains very limited and negligible biodiversity values. The proposed development is designed to avoid and minimise impacts on biodiversity values, by the retention of existing planted trees where possible.

6.1.9.3 Impacts on MNES:

The proposed development does not involve the removal of native vegetation, although does include the removal of planted native trees and occasional Kidney Weed *Dichondra repens*. The cultivated vegetation potentially represents marginal habitat for highly mobile threatened species, such as microbats and birds.

With respect to remaining impacts:

- Due to the slow speeds of vehicles travelling across the subject site and the lack of evidence for and low likelihood of resident threatened species, impacts of vehicle strikes on threatened species of animal are considered negligible and equivalent to existing vehicle traffic conditions.
- As detailed in Section 4.4 of the BDAR Waiver Request (**Appendix 13**), the potential for microbat habitat within the buildings and structures on site was determined to be marginal due to the consistent use and maintained nature of the buildings. Impacts on threated species associated with the demolition of human-made structures are highly unlikely.
- The potential impact on threatened species habitat due to removal of planted trees is likely to be negligible. The development involves the removal of two BC Act and EPBC Act listed vulnerable species of tree (Narrow-leaved Black Peppermint *Eucalyptus nicholii*). However, as described in Section 4.4 of the BDAR Waiver Request, these two trees are planted and do not represent a relevant example of the threatened species.
- There are no relevant impacts on threatened species habitat associated with non-natural waterbodies.

6.1.9.4 Management and/or Mitigation Measures

Based on the results of the ecological site inspection, the landscaped vegetation and man-made structures to be removed provide marginal artificial habitat for any threatened species potential utilising the subject land. SLR advise that the removal of these features is not likely to result in a significant impact on any threatened species, populations or ecological communities. As such, it is requested that the requirement for a BDAR (as per the SEARs) be waived for this project application.

6.1.10 Air Quality

An Air Quality Impact Assessment (AQIA) has been prepared by Northstar and is enclosed at **Appendix 14** of this EIS.

Construction phase activities would involve demolition, earthworks, construction works and associated vehicle traffic. The associated risks of impacts have been assessed using the published Guidance on the Assessment of Dust from Demolition and Construction, developed in the United Kingdom by the Institute of Air Quality Management, and adapted by Northstar Air Quality Pty Ltd for use in Australia. This methodology has been used in a similar context in numerous other similar air quality impact assessment studies.

The prediction of potential impacts associated with operational activities has been performed in general accordance with the requirements of the New South Wales Environment Protection Authority Approved Methods for the Modelling and Assessment of Air Pollutants in NSW document, using an approved and appropriate dispersion modelling technique. The estimation of emissions has been performed using referenced emission factors.

6.1.10.1 Existing Environment

To inform the AQIA, a number of existing environmental conditions were assessed as documented in **TABLE 30** below:

TABLE 30: EXISTING ENVIRONMENTAL CONDITIONS – AQIA

Aspect of the Environment	Description
Local Meteorology	
Data Point	The meteorology experienced within an area can govern the generation (in the case of wind-dependent emission sources), dispersion, transport and eventual fate of pollutants in the atmosphere. The meteorological conditions surrounding the subject site have been characterised using data collected by the Australian Government Bureau of Meteorology (BoM) at the following, surrounding automatic weather stations (AWS): Site name | Source | Approximate location (mE, mS) | Approximate distance (km) Bankstown Airport AWS -Station #066137 | BoM | 313 855 | 6 245 099 | 4.6 Holsworthy Aerodrome AWS – Station #067161 | BoM | 310 553 | 6 236 779 | 5.4 **Figure 26. Details of Meteorological Monitoring Surrounding the Subject Site** *(Source: North Star, 2023)* Data from Bankstown Airport AWS for the period 2018-2022 (the most recent five years of completed data) have been analysed for use in this study.
Wind	The wind roses presented re-produced below indicate that from 2018 to 2022, winds at Bankstown Airport AWS demonstrate generally similar wind distribution patterns across the years assessed, with predominant south-westerly wind direction with north-westerly and south-easterly components also evident.

TABLE 30: EXISTING ENVIRONMENTAL CONDITIONS – AQIA

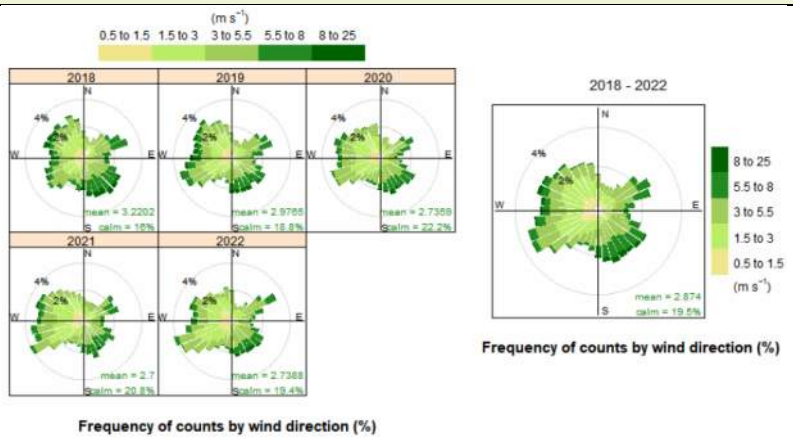
Aspect of the Environment	Description
	 **Figure 27. Annual Wind Roses – Bankstown Airport AWS (2018-2022)** *(Source: North Star, 2023)* The majority of wind speeds experienced at the Bankstown Airport AWS between 2018 and 2022 are generally in the range 1.5 meters per second (m•s-1) to 5.5 m•s-1 with the highest wind speeds (greater than 8 m•s-1) occurring from mostly north-westerly directions. Winds of this speed are rare and occur during 2.3 % of the observed hours during the years while calm winds (< 0.5 m•s-1) occur during 19.5 % of hours on average across the years 2018-2022. An analysis of the correlation coefficients between each year for wind speed, wind direction and particulate matter data distribution was performed to select a representative year for the meteorological modelling (refer to Appendix C of the AQIA). Following this analysis, the year 2020 was selected as the most representative year for further assessment. To provide a characterisation of the meteorology which would be expected at the subject site, a meteorological modelling exercise has also been performed. A summary of the inputs and outputs of the meteorological modelling assessment, including validation of those outputs is presented in Appendix C of the AQIA.
Local Air Quality	
Ambient Air Quality	When assessing the impact of any particular source of emissions on the potential air quality at a location, the impact of all other sources of an individual pollutant should also be assessed. These 'background' (sometimes called 'baseline') air quality conditions will vary depending on the pollutants to be assessed and can often be characterised by using representative air quality monitoring data. Two AQMS have been identified proximate to the subject site, operated by DPE. These locations (listed by proximity) are summarised below: AQMS location | Distance to site (km) | 2020 data | Measurements: PM_{10} | $PM_{2.5}$ | TSP | NO_2 | O_3 Liverpool | 3.0 | ✓ | ✓ | ✓ | × | ✓ | ✓ Chullora | 10.6 | ✓ | ✓ | ✓ | × | ✓ | ✓ **Figure 28. Closest AQMS to the Subject Site** *(Source: North Star, 2023)* The closest representative AQMS with data available for the year 2020 (consistent with the meteorological modelling) is noted to be located at Liverpool.

TABLE 30: EXISTING ENVIRONMENTAL CONDITIONS – AQIA

Aspect of the Environment	Description
	Correspondingly, PM and NO_2 data from Liverpool for the year 2020 have been adopted for use in this assessment. A summary of the air quality monitoring data and assumptions used to produce this AQIA are presented below:

Pollutant	Averaging Period	Units	Measured Value	Notes
Particles (as TSP)	Annual	$\mu g \cdot m^{-3}$	42.7	Estimated on a TSP:PM_{10} ratio of 2.0551: 1
Particles (as PM_{10})	24-hour	$\mu g \cdot m^{-3}$	Daily varying	The 24-hour maximum PM_{10} concentration in 2020 was 195.1 $\mu g \cdot m^{-3}$
	Annual	$\mu g \cdot m^{-3}$	20.8	
Particles (as $PM_{2.5}$)	24-hour	$\mu g \cdot m^{-3}$	Daily varying	The 24-hour maximum $PM_{2.5}$ concentration in 2020 was 73.6 $\mu g \cdot m^{-3}$
	Annual	$\mu g \cdot m^{-3}$	9.1	
Nitrogen dioxide (NO_2)	1-hour	$\mu g \cdot m^{-3}$	98.4	Hourly maximum 1-hr average in 2020
	Annual	$\mu g \cdot m^{-3}$	22.0	Annual average in 2020
Photochemical oxidants (as ozone)	1-hour	$\mu g \cdot m^{-3}$	218.3	Hourly maximum 1-hr average in 2020
	Annual	$\mu g \cdot m^{-3}$	34.3	Annual average in 2020

Note: Reference should be made to Appendix D

Figure 29. Summary of Background Air Quality Used in AQIA *(Source: North Star, 2023)*

It is noted that although impacts of ozone (O_3) have not been considered in this assessment, O_3 data have been adopted to assist in calculating the conversion of NO_x to NO_2 for the dispersion modelling assessment (refer to Section 5.2.3 of the AQIA).

Topography	The subject site is located within an area which has a relatively flat surface terrain with little height variation. The elevation of the subject site is approximately 10m AHD. The topography between the subject site and the nearest identified sensitive receptor locations is relatively consistent with elevation variances of less than 10 m within the immediate locality. In dispersion modelling terms, the topography is relatively uncomplicated, and does not need to be explicitly accounted for in the dispersion modelling exercise.
Receiver Environment	
Identified Receivers	The immediate context of the subject site contains industrial activities within the E4 General Industrial zone, with the nearest sensitive (residential) receptor identified is approximately 359m to the north-east on Whelan Avenue. To inform the AQIA, the following receivers have been considered, as illustrated below. The nearest industrial receivers are located within 350m of the subject site and therefore, an assessment of dust impacts is considered necessary under the guideline.

TABLE 31: RECEPTOR LOCATIONS USED IN THE AQIA

ID	Location	Land Use	Coordinates (UTM)	
			mE	mS
R1	Kelso Crescent, Moorebank	Industrial	309 588	6 243 642
R2	Kelso Crescent, Moorebank	Industrial	309 577	6 243 576

TABLE 30: EXISTING ENVIRONMENTAL CONDITIONS – AQIA

Aspect of the Environment	Description				
	R3	Kelso Crescent, Moorebank	Industrial	309 600	6 243 439
	R4	Iraking Avenue, Moorebank	Industrial	309 679	6 243 382
	R5	Seton Road, Moorebank	Industrial	309 576	6 243 314
	R6	Seton Road, Moorebank	Industrial	309 470	6 243 327
	R7	Field Close, Moorebank	Industrial	309 374	6 243 465
	R8	Field Close, Moorebank	Industrial	309 388	6 243 561
	R9	Field Close, Moorebank	Industrial	309 412	6 243 608
	R10	Newbridge Road, Chipping Norton	Industrial	309 477	6 243 704
	R11	Whelan Avenue, Chipping Norton	Residential	309 762	6 243 895
	R12	Jack O'Sullivan Road, Moorebank	Residential	309 962	6 243 543
	R13	Swain Street, Moorebank	Residential	308 941	6 243 508
	R14	Metcalfe Avenue, Moorebank	Childcare	310 362	6 242 953

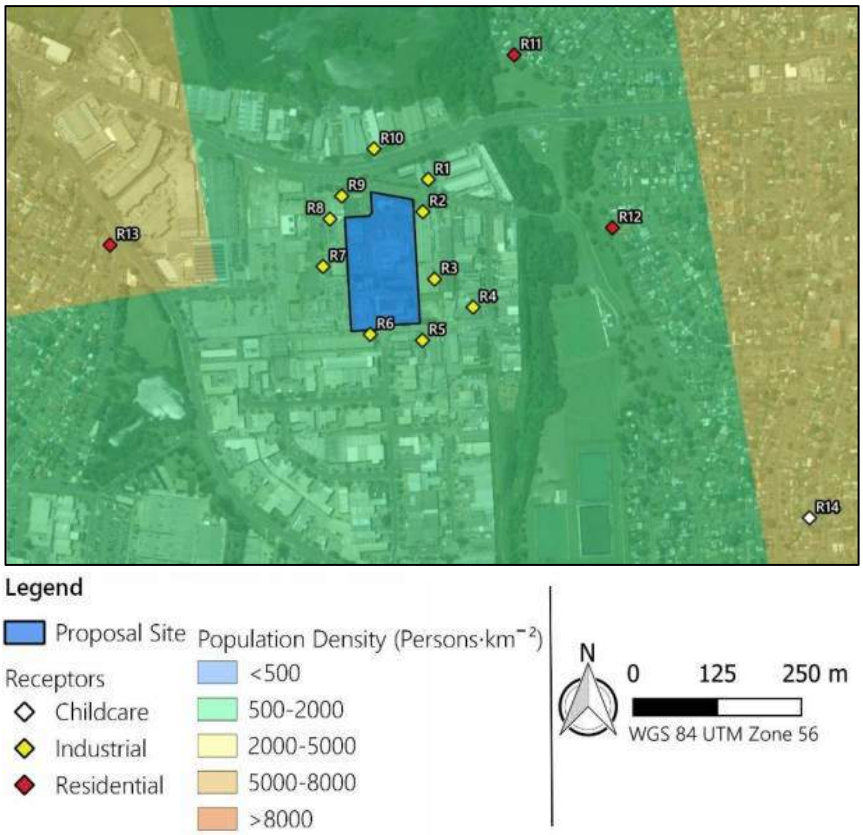


Figure 30. Receptor Locations Used in the AQIA *(Source: North Star, 2023)*

6.1.10.2 Assessment of Impacts

Construction:

Modelling of dust from construction proposals is generally not considered appropriate, as there is a lack of reliable emission factors from construction activities upon which to make predictive assessments, and the rates would vary significantly, depending upon local conditions. In lieu of a modelling assessment, the construction-phase impacts associated with the proposed development have been assessed using a risk-based assessment procedure. The advantage of this approach is that it determines the activities that pose the greatest risk, which allows the Construction Environmental Management Plan (CEMP) to focus controls to manage that risk appropriately and reduce the impact through proactive management.

For this risk assessment, Northstar has adapted a methodology presented in Guidance on the Assessment of Dust from Demolition and Construction developed in the United Kingdom by the Institute of Air Quality Management (IAQM, 2014). Reference should be made to Appendix E within the AQIA for the methodology.

The risks summarised in **Figure 31** below illustrate that for demolition activities, there is a 'medium' risk of adverse dust soiling impacts and a 'high' risk of human health impacts. All other construction phase activities are associated with 'low' risks of dust soiling impacts and medium risks of health impacts if no mitigation measures were to be applied to control emissions associated with construction-phase activities.

Impact	Sensitivity of area	Dust emission magnitude					Preliminary risk				
		Demolition	Earthworks	Construction	Track-out	Const. traffic	Demolition	Earthworks	Construction	Track-out	Const. traffic
Dust soiling	Low	Large	Large	Large	Large	Large	Med.	Low	Low	Low	Low
Human health	Med	Large	Large	Large	Large	Large	High	Med.	Med.	Med.	Med.

Note: Med. = Medium

Figure 31. Risk of Air Quality Impacts from Construction Activities *(Source: North Star, 2023)*

Operation:

The significant sources of emissions associated with the proposed operations of the subject site are identified as:

- Truck movements on paved roads; and
- Diesel exhaust from idling vehicles.

In relation to emissions associated with idling trucks at the subject site, trucks are assumed to be idling at all docking locations at all times, which is considered to be conservative. In reality, given the proposed layout of the subject site, the likelihood of trucks idling at all docks at all times is considered low.

The results of the dispersion modelling assessment advise the following:

- The performance of the proposed development does not result in any additional exceedances of the annual average particulate matter impact assessment criteria. The existing $PM_{2.5}$

background is already in exceedance of the relevant criterion, and the operation of the proposed development is predicted to result in minimal impacts at all surrounding receptors.

- The performance of the proposed development does not result in any additional exceedances of the 24-hour average particulate matter impact assessment criteria.
- The performance of the proposed development does not result in any exceedances of the criteria for combustion related pollutants.

Based on the findings of the AQIA, it is considered that the level of activity being performed at the subject site would result in the achievement of all air quality criteria, even following the adoption of potential worst-case operating conditions. The existing background annual average $PM_{2.5}$ concentration is shown to be exceeding the criteria even without the operation of the proposed development. Impacts associated with the proposed development are minimal and would not result in the exacerbation of that existing exceedance.

6.1.10.3 Management and/ or Mitigation Measures

Construction:

For almost all construction activity, the adapted methodology notes that the aim should be to prevent significant effects on receptors through the use of effective mitigation and experience shows that this is normally possible.

Given the size of the subject site, the distance to sensitive receptors and the activities to be performed, residual impacts associated with fugitive dust emissions from the proposed development would be anticipated to be 'negligible', should the implementation of the mitigation measures outlined in Appendix E of the AQIA be performed appropriately.

Operation:

Accounting for the background air quality assumptions, and adopting worst-case assumptions in relation to truck idling, the assessment does not predict any additional exceedances of the respective criteria as a result of the operation of the proposed development, for the pollutants assessed.

Good site management practices, including the observation of speed limits on site, and the minimisation of vehicle use (through avoidance of engine idling) would be sufficient to ensure that off-site impacts are minimised.

6.1.11 Noise and Vibration

Pursuant to item 11 of the SEARs, the EIS is required to provide a Noise and Vibration Impact Assessment (NVIA) in accordance with the relevant EPA guidelines. The assessment must detail construction and operational noise and vibration impacts on nearby sensitive receivers and structures, and outline the proposed management and mitigation measures that would be implemented.

In response, a NVIA prepared by Acoustic Works is enclosed at **Appendix 15** of this EIS; and a Construction Noise and Vibration Management Plan (CNVMP) prepared by Acoustic Works is enclosed at **Appendix 16** of this EIS.

6.1.11.1 Existing Environment

To inform the NVIA, a number of existing environmental conditions were assessed as documented in **TABLE 32** below:

TABLE 32: EXISTING ENVIRONMENTAL CONDITIONS – NVIA

Aspect of the Environment	Description
Receiver Environment	
Identified Receivers	The immediate context of the subject site contains industrial activities within the E4 General Industrial zone. With reference to **Figure 32** below, the nearest sensitive receptors comprise the residential dwellings located to the east on the eastern side of Jack O'Sullivan Road [2]; and the residential dwellings located to the west on the western side of Heathcote Road [3]. **Figure 32. Receiver and Noise Monitoring Locations** *(Source: Acoustic Works, 2023)* These locations were chosen as being representative of the nearest sensitive receivers to the proposed development.
Noise Environment	
Background Noise Levels	Unattended noise monitoring was conducted at Noise Monitor A and B between 19 – 28 June 2023 by Acoustic Works. Noise monitors were located in a free field position with the microphone approximately 1.4 metres above ground surface level. The measured rating background noise levels (RBL) were determined in accordance with the NSW Noise Policy for Industry with levels for the different monitoring locations presented per **Figure 33** below:

Day	Date	Monitor 1 Background L90 dB(A)			Monitor 2 Background L90 dB(A)		
		Day	Evening	Night	Day	Evening	Night
Monday	19/06/2023	-	48.3	45.2	-	43.9	43.1
Tuesday	20/06/2023	48.8	51.1	46.9	51.1	45.0	44.3
Wednesday	21/06/2023	43.0	47.1	42.7	51.2	44.0	41.5
Thursday	22/06/2023	42.7	45.5	41.4	50.9	43.7	43.0
Friday	23/06/2023	49.0*	48.5*	44.7*	49.8	46.9*	45.9*
Saturday	24/06/2023	46.9	47.1	42.5	45.7	43.9	42.1
Sunday	25/06/2023	46.3	48.2	39.8	45.3	41.5	37.4
Monday	26/06/2023	52.0	49.9	44.9	49.6	43.4	41.5
Tuesday	27/06/2023	50.2	47.2	43.3	49.4	43.9	41.3
RBL		48	48	43	50	44	42

Figure 33. Ambient Background Noise Level *(Source: Acoustic Works, 2023)*

TABLE 32: EXISTING ENVIRONMENTAL CONDITIONS – NVIA	
Aspect of the Environment	**Description**
	RBL data affected by extraneous noise was removed from the data prior to processing. Full noise monitoring plots are provided in the NVIA.
Road Traffic Noise Levels	The existing annual average daily traffic volume for **Newbridge Road** is approximately 71,710 vehicles per day based on peak hour traffic counts provided by Genesis Traffic. Additional vehicle movements to and from the proposed development are expected along Newbridge Road. The existing annual daily traffic volume for **Moorebank Avenue** is approximately 30,182 vehicles per day (with approximately 7% Heavy Vehicles) based peak hour traffic counts provided by Genesis Traffic. Additional vehicle movements to and from the proposed development are expected along Moorebank Avenue.

The Noise Policy for Industry sets out the acceptable noise levels for various locations. Determination of which residential receiver category applies is described in Table 2.3 of the policy, and the relevant provisions are summarised in **TABLE 33** below.

TABLE 33: RECEIVER CATEOGRY (TABLE 2.3 OF THE NOISE POLICY FOR INDUSTRY)			
Receiver Category	**Typical Planning Zoning – Standard Instrument**	**Typical Existing Background Noise Levels**	**Description**
Rural Residential	RU1 – Primary Production RU2 – Rural Landscape RU4 – Primary Production Small Lots R5 – Large Lot Residential E4 – Environmental Living	Daytime RBL <40 dB(A) Evening RBL <35 dB(A) Night RBL <30 dB(A)	**Rural** – an area with an acoustical environment that is dominated by natural sounds, having little or no road traffic noise and generally characterised by low background noise levels. Settlement patterns would be typically sparse. Note: Where background noise levels are higher than those presented in column 3 due to existing industry or intensive agricultural activities, the selection of a higher noise amenity area should be considered.
Suburban Residential	RU5 – Village RU6 – Transition R2 – Low Density Residential R3 – Medium Density Residential E2 – Environmental Conservation E3 – Environmental Management	Daytime RBL < 45 dB(A) Evening RBL <40 dB(A) Night RBL <35 dB(A)	**Suburban** – an area that has local traffic with characteristically intermittent traffic flows or with some limited commerce or industry. This area often has the following characteristic: evening ambient noise levels defined by the natural environment and human activity.

TABLE 33: RECEIVER CATEOGRY (TABLE 2.3 OF THE NOISE POLICY FOR INDUSTRY)			
Receiver Category	**Typical Planning Zoning – Standard Instrument**	**Typical Existing Background Noise Levels**	**Description**
Urban Residential	R1 – General Residential R4 – High Density Residential B1 – Neighbourhood Centre (Boarding Houses and Shop-Top Housing) B2 – Local Centre (Boarding Houses) B4 – Mixed Use	Daytime RBL > 45 dB(A) Evening RBL >40 dB(A) Night RBL >35 dB(A)	**Urban** – an area with an acoustic environment that: ▪ is dominated by 'urban hum' or industrial source noise, where urban hum means the aggregate sound of many unidentifiable, mostly traffic and/or industrial related sound sources; ▪ has through-traffic with characteristically heavy and continuous traffic flows during peak periods; and ▪ is near commercial districts or industrial districts; and ▪ has any combination of the above.

To determine the appropriate receiver category, the following observations were made:

- The nearby residential receivers are zoned R2 Low Density Residential and R3 Medium Density Residential, which corresponds with typical planning zoning of the 'suburban' category.
- The measured RBL values (**Figure 33**) correspond with the typical existing background noise levels of the 'urban' category.
- The acoustic environment of the surrounding area is dominated by 'urban hum' and is located near industrial districts, which corresponds with the description of the 'urban' category.

The nearest residential receivers are therefore assessed against the 'suburban' criteria.

With reference to **Figure 32**, Acoustic Works has established the project-specific noise criteria as follows:

TABLE 34: PROJECT-SPECIFIC NOISE CRITERIA			
Time Period	**Receivers 1 to 2**	**Receiver 3**	**Receivers 4 to 7**
	Criteria $L_{eq\ (15\ min)}$ dB(A)	**Criteria $L_{eq\ (15\ min)}$ dB(A)**	**Criteria $L_{eq\ (15\ min)}$ dB(A)**
Day (0700 – 1800 Mon – Sat; 0800 – 1800 Sun)	53	53	70
Evening (1800 – 2200)	43	43	70
Night (2200 – 0700 Sun – Fri; 2200 – 0800 Sat)	38	38	70
Sleep Disturbance Noise Levels	43	42	N/A

6.1.11.2 Assessment of Impacts

Construction Noise

The assessment of impacts relating to construction noise and vibration is included within the CNVMP, enclosed ay **Appendix 16** of this EIS.

Based on the relevant codes and standards together with the measured background noise levels, the applicable construction/ demolition noise limits would be as follows:

TABLE 35: APPLICABLE NOISE LIMITS FOR CONSTRUCTION WORK

Time	Criterion LAeq (15 min)			Assessment Location
	Receivers 1 to 2	Receiver 3	Receivers 4 to 7	
During standard construction hours	58 dBA noise affected	60 dBA noise affected	75 dBA	External
	75 dBA highly noise affected	75 dBA highly noise affected		External
Outside standard construction hours (daytime only)	53 dBA	55 dBA	75 dBA	External

Predicted noise associated with the early works and construction of the proposed development has been assessed based on the source noise levels and procedures contained in AS2436-2010, as well as the results of previous noise measurements and assessments conducted by Acoustic Works. Calculations have been completed based on the early works and construction activities being at the closest relevant distance to each existing receiver.

Furthermore, the calculations assume that all noise sources would be operating simultaneously, at the closest point to the receiver in each case. In practice, this would generally not occur as the process would either be spread over the subject site or occur on different days. The predicted noise levels represent the expected worst-case noise emissions due to site works.

With reference to Table 9 within the CNVMP, the early works noise levels are predicted to comply with the noise affected limit at the residential receiver locations. Similarly, with reference to Table 10 within the CNVMP, the early works noise levels are predicted to comply with the noise affected limit at the industrial receiver locations.

With reference to Table 11 within the CNVMP, the construction works noise levels are predicted to comply with the noise limit at the residential receiver locations. Similarly, with reference to Table 12 within the CNVMP, the construction works noise levels are predicted to comply with the noise limit at the industrial receiver locations.

Construction Vibration

Based on the relevant codes and standards, Acoustic Works has determined that the applicable vibration limit would be as follows:

TABLE 36: APPLICABLE VIBRATION LIMITS

Location	Daytime ($m/s^{1.75}$)
Workshops	0.80

Potential vibration impacts were assessed to determine typical levels within a set distance of the activity to the receiver, with a predicted maximum combined Peak Particle Velocity of level of 5-9mm/s which is dependent on the equipment in operation and its proximity to the receiver. The level of impact may change depending on the ground composition, e.g. stone/rock or concrete would allow higher levels of ground vibration than soft soil.

With specific regard to piling, based on the separation distance to the nearest receivers to the east and west, the maximum vibration level due to piling is expected to be approximately 2-6mm/s. The maximum vibration level due to piling at all other receivers is expected to be less than 4mm/s, which is predicted to be within the criteria.

The methods to be used during construction may exceed the relevant vibration limits at the nearest industrial receivers. Acoustic Works have subsequently provided a number of recommendations which are set out within the CNVMP enclosed at **Appendix 16**, and summarised at **Section 6.1.11.3** of this EIS.

Operational Noise

Noise associated with the development was assessed using 3D SoundPLAN modelling, showing the predicted worst-case 15-minute noise impacts associated with typical onsite activities such as trucks (19m semi-trailers), forklifts, reverse alarms, mechanical plant and carpark activities.

Noise levels were based on previous measurements of similar activities. Car park activities were calculated in accordance with the ISO-9613-2:1996 (Parkplatzlärmstudie 2007) methodology. Predictions include corrections for the prevailing meteorological conditions in accordance with the ISO-9613-2:1996, and are set out in **TABLE 37** below.

TABLE 37: ITEMISED NOISE SOURCES

Source Description	Source Type	Source Height above Finished Floor Level (m)	Sound Power Level	Reverberant Sound Pressure Level
Semi-Trailer Truck Accelerated Passby	Line	3.6	60.1dbA/m	-
Semi-Trailer Truck Acceleration/ Deceleration on Ramp	Line	3.6	66dBA/m	
Semi-Trailer Reverse Alarm	Line	1.5	61.0dbA/m	-
Semi-Trailer Engine Starting	Point	1.5	100.0dbA/m	-
Semi-Trailer Engine Idling	Point	1.5	98.0dbA/m	-
Semi-Trailer Truck Venting Airbrake	Point	1.5	110.0dbA/m	-
Semi-Trailer Truck Door Closure	Point	1.5	99dbA/m	-
Mechanical Plant Deck	Point	2	79dbA/m	-
Forklift (Average Work over 240 seconds)	Point	1.5	90dbA/m	-
Indoor Industrial Activities	Area	-	-	78dB(A)
Car starting	Point	0.5	84dbA/m	-
Car door closure	Point	0.5	83dbA/m	-
Car driving on asphalt <30km/h	Line	0.5	47dbA/m	-

The noise source levels at the receiver locations are shown in **TABLE 38** below.

TABLE 38: ITEMISED NOISE SOURCES

Receiver	Project Specific Criteria $L_{eq\,15\,min}$ dBA			Predicted Noise Impacts $L_{eq\,15\,min}$ dBA			Complies (Yes/ No)		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
1	53	43	38	32	31	29	Yes	Yes	Yes
2	53	43	38	34	32	31	Yes	Yes	Yes
3	53	43	38	37	36	36	Yes	Yes	Yes
4	70	70	70	64	63	62	Yes	Yes	Yes
5	70	70	70	67	67	67	Yes	Yes	Yes
6	70	70	70	57	55	55	Yes	Yes	Yes
7	70	70	70	51	50	50	Yes	Yes	Yes

Compliance with the cumulative impact criteria is predicted for all onsite activities at the receiver locations during the proposed operating hours without the need for further treatment. **Figure 34**, **Figure 35**, and **Figure 36** below present a graphical representation of the predicted noise levels.

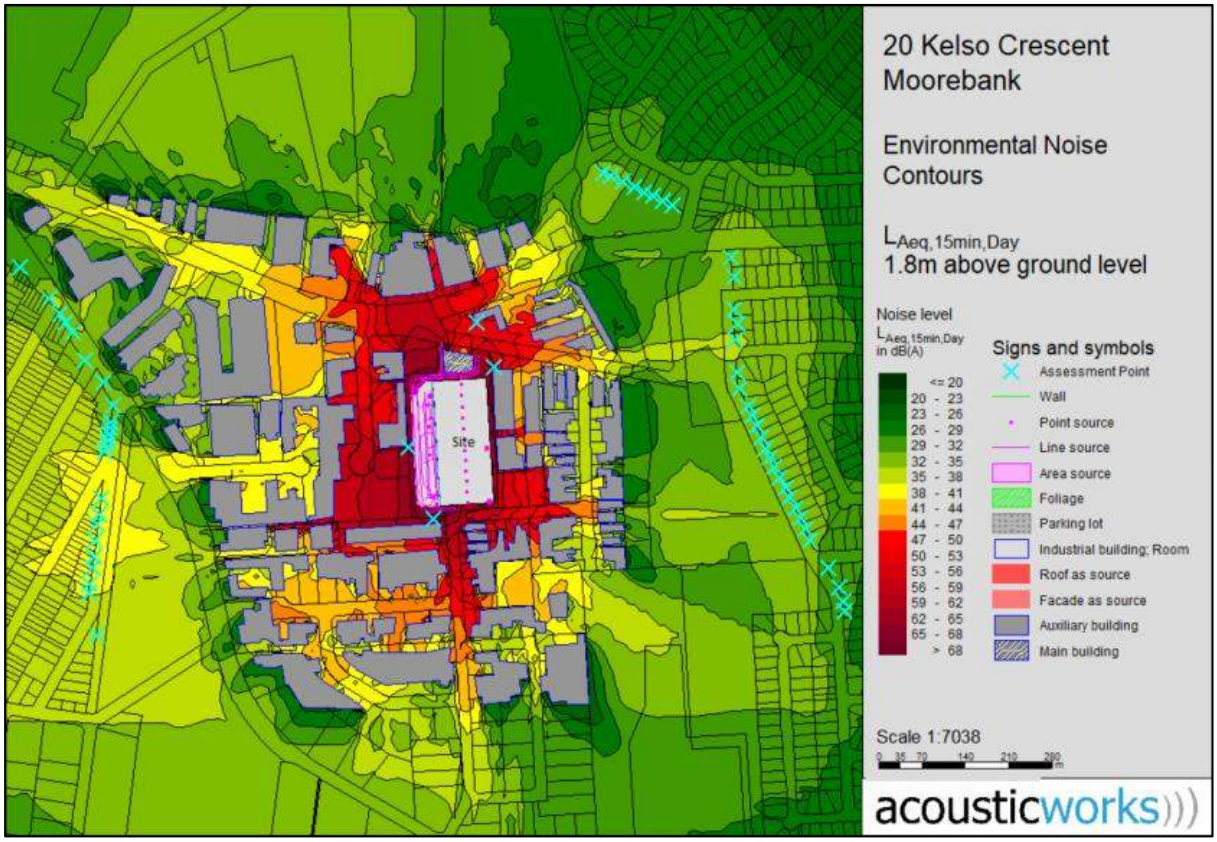


Figure 34. Environmental Noise Contours – LAeq 15 min Day – 1.8m above ground level *(Source: Acoustic Works, 2024)*

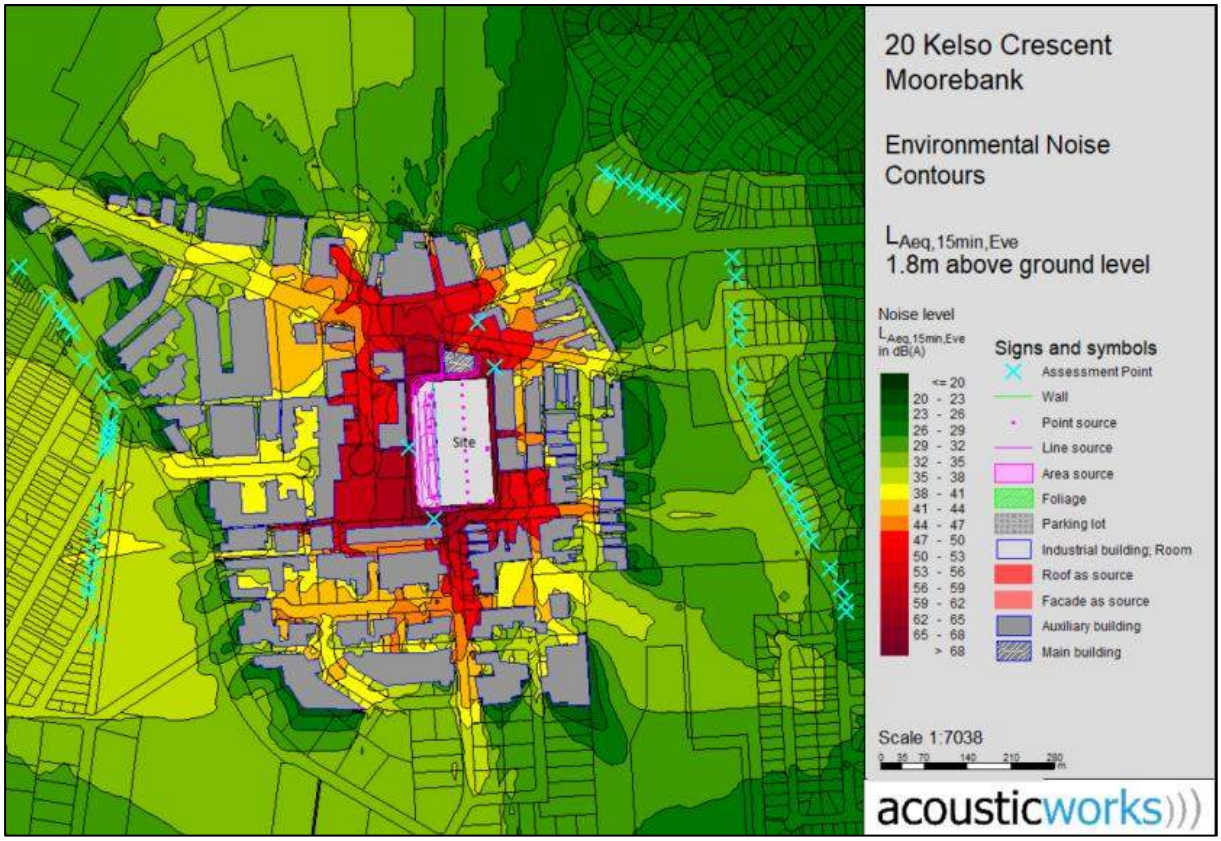


Figure 35. Environmental Noise Contours – LAeq 15 min Evening – 1.8m above ground level *(Source: Acoustic Works, 2024)*

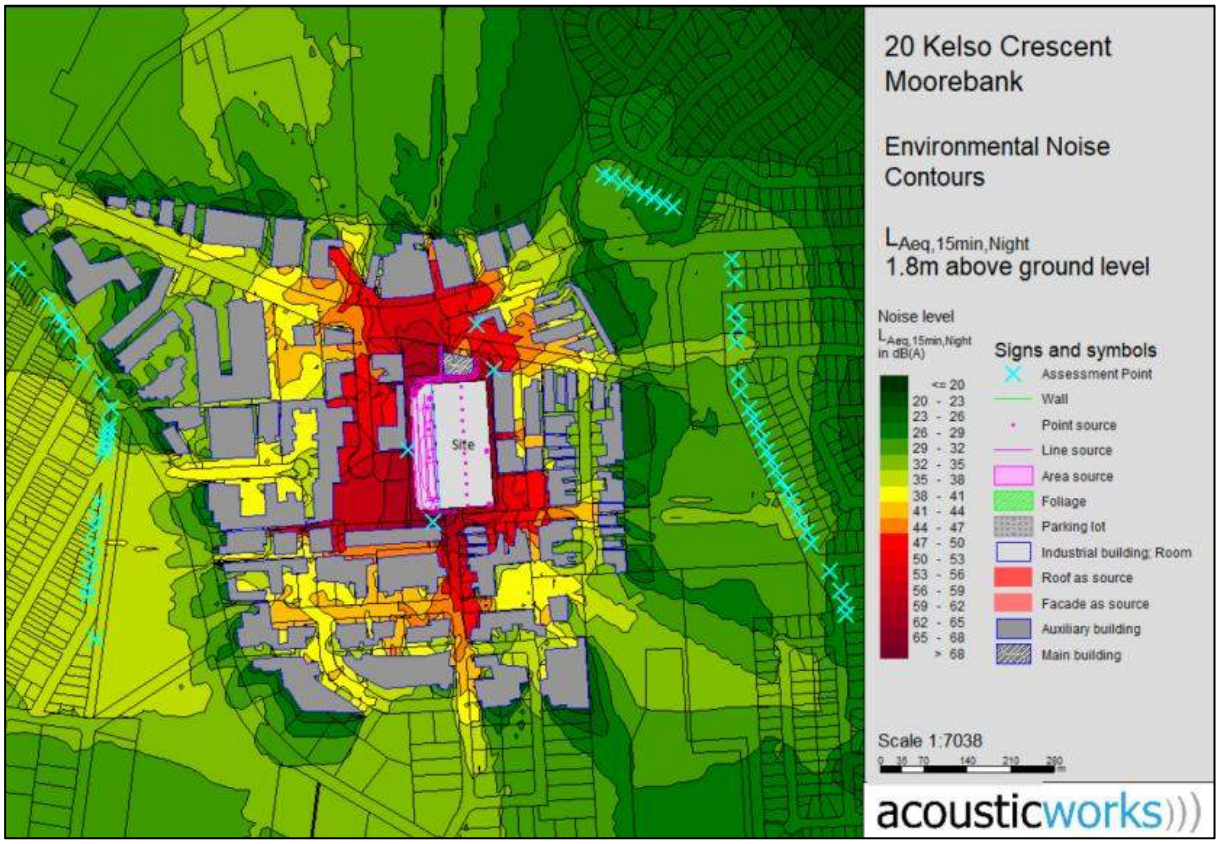


Figure 36. Environmental Noise Contours – LAeq 15 min Night – 1.8m above ground level *(Source: Acoustic Works, 2024)*

The noise source levels and predicted levels of noise at the receiver locations are shown in **TABLE 39** below. The calculations were undertaken to determine if noise impacts are predicted to comply with the sleep disturbance criteria for 24/7 operation.

TABLE 39: SLEEP DISTURBANCE – PREDICTED L_{Amax} NOISE LEVELS (NEAREST RESIDENTIAL RECEIVERS)

Receiver	Sleep Disturbance Criteria L_{amax} dBA	Predicted Noise Impacts L_{amax} dBA	Complies (Yes/ No)
1	58	37	Yes
2	58	37	Yes
3	57	44	Yes

Compliance is predicted for all onsite activities at the receiver locations during the proposed operating hours on the condition the recommendations detailed in Section 11 of the NVIA are implemented.

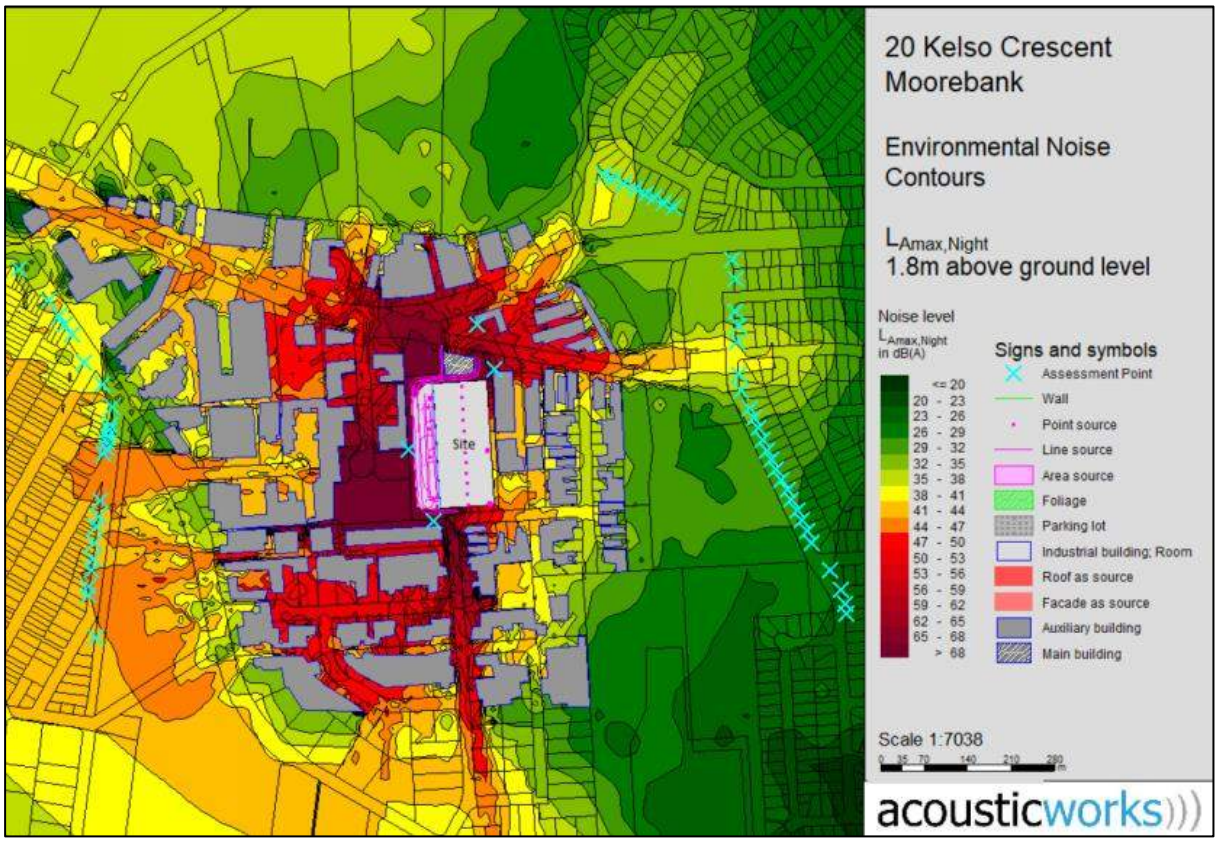


Figure 37. Environmental Noise Contours – LAmax Night – 1.8m above ground level *(Source: Acoustic Works, 2024)*

In terms of road traffic noise, the existing annual average daily traffic volume for **Newbridge Road** is estimated to be approximately 71,710 vehicles per day based on peak hour traffic counts provided by Genesis Traffic. Additional vehicle movements to and from the proposed development are expected along Newbridge Road.

Section 3.4.1 of the RNP states the following regarding noise generation:

> *"For existing residences and other sensitive land uses affected by additional traffic on existing roads generated by land use developments, any increase in the total traffic noise level should be limited to 2 dB above that of the corresponding 'no build option'".*

An increase of 2dB would be approximately equal to a 60% increase in traffic along Newbridge Road, or 114,736 additional vehicles. The proposed development is expected to generate approximately 979 additional vehicles per day. Compliance is therefore predicted with the Road Noise Policy criterion of +2dB(A).

Similarly, the existing annual average daily traffic volume for Moorebank Avenue is approximately 30,182 vehicles per day (with approximately 7% Heavy Vehicles) based on peak hour traffic counts provided by Genesis Traffic. An increase of 2dB would be approximately equal to a 60% increase in traffic along Moorebank Avenue, or 48,291 additional vehicles. As the proposed development is predicted to generate 979 vehicles per day (noting that not all vehicles would use Moorebank Avenue, compliance is predicted with the Road Noise Policy criterion of +2db(A).

Operational Vibration

Vibration associated with truck activity and onsite activities is predicted to comply with the relevant NSW guidelines at the nearest sensitive receivers. Acoustic Works recommend that any vibrating equipment used onsite is adequately isolated to prevent vibration issues to nearby receivers and is reviewed by a qualified acoustic consultant. If complaints are received for vibration, Acoustic Works recommend that the nominated management controls are implemented.

After a review of the proposed development in relation to vibration impacts, Acoustic Works provide the following recommendations:

- The nearest residential receivers are located over 375m away from the site and are separated by roads and other industry. The human exposures and Peak Particle levels are predicted to be below the relevant criteria identified at Section 7.4 of the NVIA with no further treatments required.
- The surrounding industrial lots are predicted to comply with the criteria based on the proposed activities, with nearby industrial sites predicted to generate more vibration than the proposed development.
- If complaints are received for onsite activities from any of the sensitive receivers, Acoustic Works recommends that compliance monitoring is undertaken, as detailed in **Section 6.1.11.3** below.

6.1.11.3 Management and/or Mitigation Measures

Construction Noise

Section 9 of the enclosed CNVMP details the general acoustic treatments and management principles that are recommended for the proposed development. These include:

- Compliance with the following construction hours:
  - Monday to Friday: 0700 – 1700
  - Saturday: 0800 – 1300
  - No work on Sundays or public holidays
- If further noise mitigation is required, acoustic barriers around the perimeter of the subject site can be installed during the works. If further noise reductions are required, additional screening can be installed around noise sensitive areas.
- Workers or delivery trucks do not congregate at or outside the site before 0700. This is an important factor in managing noise from the subject site.
- Assign the task of managing noise emissions to a person (the 'responsible person') that is likely to be present on-site most of the time that activity is occurring (usually the Site Manager). This person would be responsible for handling noise complaints, and ensuring that work does not

commence before the specified allowable times. The name and contact details of the 'responsible person' should be displayed outside the principal construction office.

- If complaints arise regarding noise, the complaint will be directed to the 'responsible person', who will determine the source of the noise, and take immediate steps to investigate further or mitigate the noise as required. This may involve moving the noise source further away from affected premises, replacing the equipment, installing high performance silencers, or in some cases, engaging a qualified acoustic consultant to provide specialist control advice.
- The Responsible Person should notify the adjacent industrial premises of the intention to commence work that may cause adverse impacts on surrounding occupants. If plant is to be operated in close proximity to sensitive receivers, the Responsible Person should advise the occupants of the premises the length of time that the plant will be in operation proximate to the property boundary.

The Noise Management Plan is described in detail at Section 9.1 of the enclosed CNVMP, with recommendations for noise monitoring provided at Section 9.2.

Construction Vibration

Acoustic Works recommend that a strict management plan is implemented to allow for a proactive approach to addressing complaints, including vibration monitoring of activities when CFA piling works are underway.

Vibration monitoring is recommended at the eastern and western site boundaries (2-8 Field Close and 18 Kelso Crescent) during pilling to monitor and manage any potential impacts to occupants and should be located in line with the nearest point of the building to the development. This would also allow construction methods to be altered or time restrictions if needed, depending on the measured levels of vibration.

Due to the proximity of the proposed piling activities in relation to nearby buildings (specifically to the east and west at 2-8 Field Close and 18 Kelso Crescent), it is recommended that vibration monitoring is undertaken at this location for the duration of the piling. To minimise exceedances, monitoring equipment shall include SMS alert to the site manager and project staff including the acoustic consultant. Where an alert indicates exceedance of the criteria, use of the onsite plant responsible for the vibration shall cease until the cause is identified and mitigated.

Section 13.2 of the enclosed CNVMP sets out alternative construction methods that be required if vibration exceedances occur; whilst Section 13.3 sets out the Vibration Management Plan principles that will be implemented at the subject site during construction. This is similar in content to the Noise Management Plan principles discussed above.

In addition, Acoustic Works recommend that the following numbered locations in **Figure 38** be subject to a dilapidation assessment before works proceed.

Figure 38. Dilapidation Assessment Locations *(Source: Acoustic Works, 2023)*

The corresponding neighbouring industrial sites are:

- Site 1 – 2-8 Field Close
- Site 2 – 19-21 Seton Road
- Site 3 – 18 Kelso Crescent
- Site 4 – 3 Kelso Crescent

Based on an inspection of the surrounding industrial buildings, the maximum allowable levels would be a peak particle velocity of 10mm/s. All monitors installed onsite shall be set to a maximum limit of 6mm/s to provide adequate warning, and to avoid exceedances of the maximum noise limits.

In terms of vibration levels arising from construction activities, Acoustic Works provides the following recommendations with respect to the most sensitive (industrial) receivers:

- **The industrial premises located adjacent to the western boundary of the subject site at 2-8 Field Close** – given the proximity of the proposed development to the building, it is recommended that vibration monitoring is conducted during piling. Vibration is not predicted to occur at levels that would cause cosmetic damage to the neighbouring building on the condition that vibration occurs below 10mm/s. it is recommended that a dilapidation assessment is undertaken prior to works being conducted.
- **The industrial premises located adjacent to the eastern site boundary at 18 Kelso Crescent** – given the proximity of the proposed development to the building, it is recommended that vibration monitoring is conducted during piling. Vibration is not predicted to occur at levels that would cause cosmetic damage to the neighbouring building on the condition that vibration occurs below 10mm/s. it is recommended that a dilapidation assessment is undertaken prior to works being conducted.
- **The industrial premises located adjacent to the southern and eastern site boundary at 19 Seton Road and 9-11 Seton Road** – given the proximity of the proposed development to the building, it is recommended that proactive monitoring of any issues in relation to complaints is undertaken to ensure no adverse impacts are experienced by the tenants. Potentially, high vibration impacts may occur depending on the type of equipment in use onsite, this would

most likely occur during piling. Vibration is not predicted to occur at levels that would cause cosmetic damage to the neighbouring building on the condition that vibration occurs below 10mm/s. it is recommended that a dilapidation assessment is undertaken prior to works being conducted.

Standard recommendations for the mitigation and management of construction noise and vibration are also documented within **Appendix E** of this EIS.

Operational Noise

Although the NVIA concludes that 24-hour operation of the subject site will comply with the assessment criteria without the need for further treatment, the noise mitigation and management measures included within **Appendix E** of this EIS should be implemented to ensure noise impacts from the project are minimal.

Acoustic Works has also prepared CNVMP, enclosed at **Appendix 16** of this EIS, which details the recommendations and management practices to be implemented as part of the intended operation of the subject site.

If noise complaints are received from nearby receivers, noise monitoring with audio shall be conducted for a period of seven (7) weeks, with a monitor placed onsite and at the receiver from which the complaint was received. The monitors shall record simultaneously, with attended measurements also conducted onsite and at the complaining receiver. The monitoring data and audio shall be examined by a suitably qualified person to verify that the offending noise originated at the subject site.

If noise generated by the subject site has resulted in complaints, Acoustic Works recommend an acoustic assessment is conducted to determine suitable mitigation strategies and/or acoustic treatments.

Operational Vibration

To ensure that any required vibration monitoring is effective (should complaints be received), Acoustic Works recommend the following:

- All vibration monitors will be set to a maximum measurement interval of 5 minutes and record over the period commencing over the entire day and be located onsite and at the sensitive receiver location.
- The contractor shall provide a list of relevant management staff (including mobile phone numbers) working on the project to be notified of exceedance of the nominated vibration levels.
- All vibration monitors will be fitted with an internal SMS warning system (allow the unit to send SMS notification of vibration levels when the nominated level is exceeded). The SMS warning from the vibration monitors will go out to all staff who have provided their mobile numbers for use for notifications from the vibration monitor.
- The vibration monitor will be set to provide vibration impact warnings at 2/3 of the criteria for human exposure and peak particle velocity, this will allow staff to be notified of vibration levels and take a proactive approach before the criteria is exceeded. The Acoustic consultant will also have a minimum of 2 staff nominated on the warning system.
- The vibration monitors will be installed with additional battery packs to extend the operation of the monitor to a minimum of 6 weeks without recharge.
- Attended vibration measurements will be undertaken for the affected site regardless of warning or notification, the vibration monitor will be downloaded on a monthly basis with a monthly report provided to the contractor. The report will be suitable for submission to council.

Overall, the proposed development can be supported on the basis of noise and vibration.

6.1.12 Ground and Water Conditions

Geotechnical investigations were previously undertaken by EI Australia in 2022 to inform the disposal of the subject site. A new assessment was completed by the Proponent in January 2024 and has been undertaken by JK Geotechnics, with the subsequent refreshed Geotechnical Investigation enclosed at **Appendix 17** of this EIS.

6.1.12.1 Existing Environment

Surface Conditions:

Based on the site investigation undertaken by EI Australia, JK Geotechnical, the existing site survey plan, and available documentary evidence including historical aerial photography, the following surface conditions at the subject site are noted:

- The subject site is occupied by a masonry factory with several metal industrial warehouse buildings.
- The building structure appears to be in a 'fair' condition based on a cursory inspection of the exterior walls.
- The areas surrounding the buildings are covered mostly by asphalt or a gravely fill surface.
- The remaining areas of the subject site are occupied by concrete pavement., which is in a 'fair' condition with minor cracking.
- The subject site had continuously been used for commercial purposes since 1928, with possible activities including grazing and market (orchard) gardening, wool pressing, tile manufacture, and the storage of building materials.
- The subject site is located on the low south side of Kelso Crescent within gently (0° to 10°) south dipping topography with levels varying from RL 12.10 at the north-west corner, to RL 7.33 at the south-east corner.

Subsurface Conditions:

With reference to **Figure 39**, the subsurface conditions encountered within JK Geotechnics' borehole investigations are summarised below.

Pavers, reinforced concrete, and asphaltic concrete were penetrated from the surface in all the boreholes except for BH3 and BH10.

Fill comprising both clayey and granular soils were encountered from the surface (BH3 and BH10) or beneath the pavements, in all boreholes, to depths between 0.3m and 1.3m. In BH2, the fill was assessed to be poorly compacted based on the result of the Standard Penetration Test, with the fill in the remaining locations being of insufficient thickness to allow testing.

The alluvial soils comprised both sands and clays. The clays were predominantly of very stiff and hard strength, with some clays of stiff strength. The sands were predominantly of between medium dense and very dense relative density, but with some very loose and loose sands also encountered. There was significant variability in thickness and interlayering of the clayey and sandy soils across the subject site.

Siltstone (shale) bedrock was encountered in all boreholes from depths between 13.54m (BH9) and 18.31m (BH1) and extended to the borehole termination depths. In BH2, BH3, BH6, BH8 and BH9, the upper 0.2m to 0.8m of the bedrock was extremely weathered and of hard (soil strength). Below the

upper extremely weathered bedrock (where present) the bedrock was initially of low and medium strength, improving to medium and high strength with depth.

Relatively few defects, comprising inclined joints, weathered seams, and bedding partings were encountered in the bedrock, with the frequency of the defects generally decreasing with depth.

More detailed descriptions of the subsurface conditions encountered at each borehole location are available within the borehole logs provided at Appendix E of the Geotechnical Investigation, prepared by JK Geotechnics, enclosed at **Appendix 17** of this EIS.

Groundwater:

Groundwater observations were made during and on completion of drilling each borehole. Groundwater monitoring wells were installed at BH8, BH9 and BH10, to a depth of 6m below the surface level. Each groundwater monitoring well comprised a machine slotted 50mm diameter PVC standpipe, and the well installation details are presented on the relevant borehole logs. JK Geotechnics subsequently revisited site three (3) weeks following the installation of the wells to measure standing water levels.

Groundwater seepage was observed in the soil profile in the boreholes during drilling at between 4.3m (BH2) and 16.6m (BH5) depth. Whilst standing water was measured in the boreholes on completion of the coring, as water is injected into the borehole during coring, these levels are not considered representative. About three weeks after the completion of drilling, on 3 January 2024, standing water was measured in the installed wells at between 2.9m (BH9) and 5.5m (BH8) depth (between RL5.0m and RL5.3m AHD).

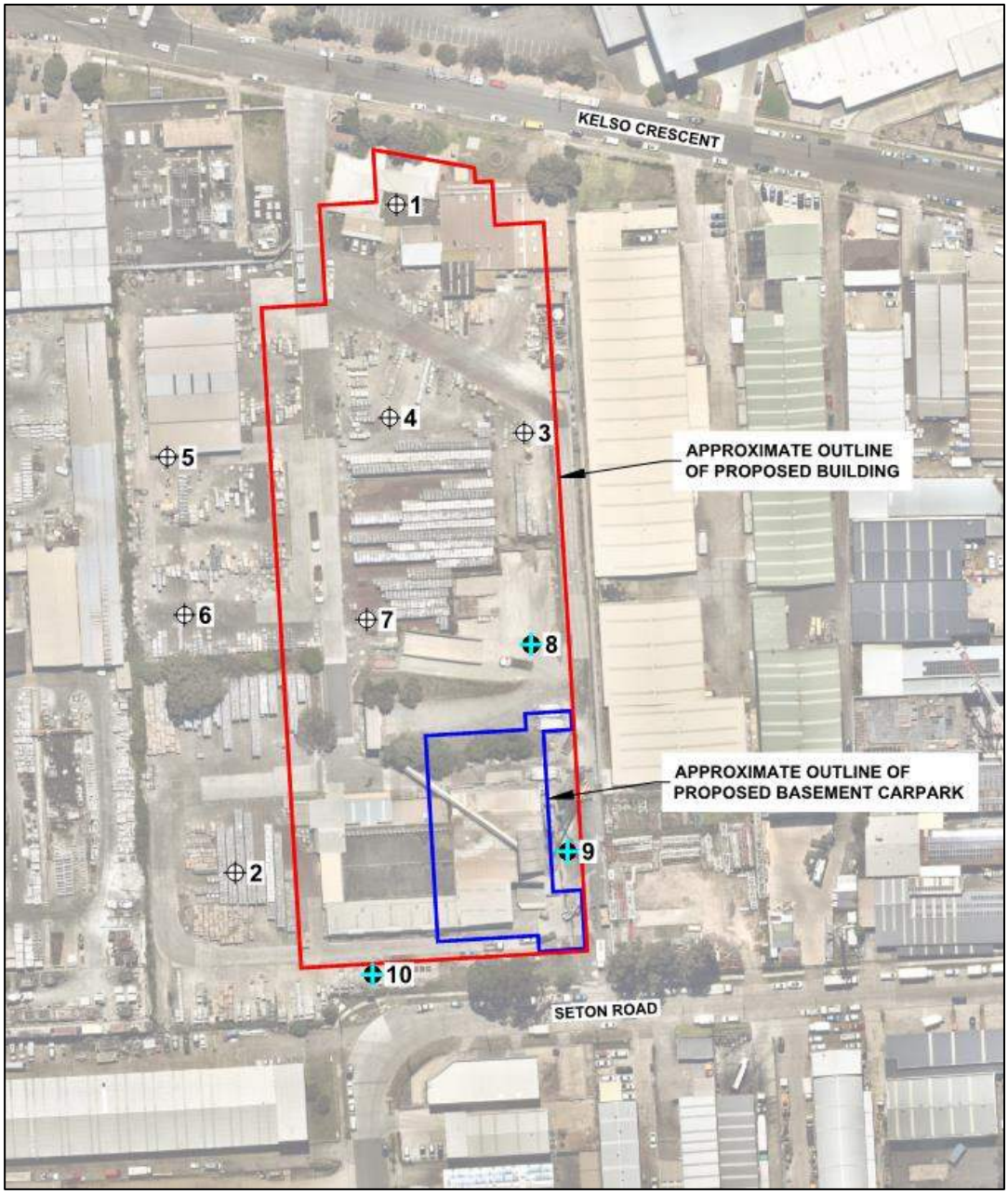


Figure 39. Borehole Location Plan *(Source: JK Geotechnical, 2024)*

6.1.12.2 Recommendations

Earthworks

Cut and fill slopes after site preparation should be battered to no steeper than a safe angle of 1 Vertical (V) to 1 Horizontal (H) for stability considerations and to facilitate compaction of engineered fill up against the cut faces. Where sandy soils are encountered, localised slumping may occur at such a batter slope, and where such occurs, local flattening of the batters may be required. If sandy soils are exposed at subgrade level, a 150mm loose thickness layer of fine crushed rock should be placed prior to proof rolling to provide confinement to the sandy soils.

If soil softening occurs after rainfall periods, then the clay subgrade should be over-excavated to below the depth of moisture softening and replaced with engineered fill. If the clay subgrade exhibits shrinkage cracking, then the surface must be moistened with a water cart and rolled until the shrinkage

cracks are no longer evident, or the layer tyned, moisture conditioned and recompacted. Care must be taken not to over-water the subgrade.

From a geotechnical perspective, the excavated fill and alluvial soils are considered suitable for reuse as engineered fill on condition that they are 'clean' and contain a maximum particle size not exceeding 70mm.

Where filling is completed against temporary batter slopes, horizontal benches must be formed at no greater than 0.4m vertical increments so that the engineered fill can be 'keyed' into the slope.

Further detailed recommendations are provided by GK Geotechnical at Section 4 of the Geotechnical Investigation enclosed at **Appendix 17**. The recommendations provided by JK Geotechnic within the Geotechnical Investigation have been incorporated into the Civil Engineering design prepared by TTW, enclosed at **Appendix 20** of this EIS.

Groundwater Considerations

At the location of the proposed basement, groundwater was measured at the installed wells at between RL5.0m and RL5.3m, which is at least 0.5m below the expected bulk excavation level for the basement. However, excavation for the lift pits and services would likely extend to below groundwater level.

At BH10, the groundwater was in a sandy soil, but in BH8 and BH9, the groundwater was in a clayey soil. Where a clayey soil is present, any seepage would be expected to be at a slow rate and would be controlled using conventional sump/ pump techniques. However, where the groundwater is in a sandy soil, spear points around the perimeter of excavations below the groundwater would be required to locally lower the groundwater level to below the base of such excavations.

Given the limited extent of any excavations which would extend below the groundwater level, and the short construction duration of those elements below groundwater level, the volume of water to be pumped is expected to be very limited. It is also possible that the sand lenses are discontinuous, and that the available water would be quickly drained, after which there would be an effectively dry excavation with no, or very little additional de-watering required.

JK Geotechnics recommend that all elements of the proposed building below the basement level, e.g. the lift pits, be designed as tanked/ waterproofed structures. JK Geotechnics also consider that the basement floor slab and retaining walls can be designed as conventional drained structures.

Given the encountered subsurface profile, JK Geotechnics consider there is a low risk of groundwater rising to above the level of the basement carpark. However, as a contingency against a possible rise in groundwater level, it is recommended that the floor slab and basement retaining walls incorporate drainage, discharging to a sump for pumped disposal.

As the basement would be above groundwater level, and all elements below groundwater level would be tanked, it is concluded that the proposed development would not be adversely affected by groundwater. Similarly, it is not expected that the proposed development would have an adverse effect on the surrounding structures, properties, or on regional groundwater flows.

During construction, any groundwater seepage into all excavations should be monitored by the site foreman, and if seepage is observed, the geotechnical engineer should be asked to provide additional advice as appropriate.

Foundations

Given the expected magnitude of the column loads for the proposed development, piles to the underlying siltstone bedrock are expected to be required. Due to the high groundwater table and

collapsing nature of the sandy soils, Continuous Flight Auger (CFA) piles would be required, however, cased bored piles could also be considered.

JK Geotechnics advise that slab-on-grade construction would be appropriate for the proposed building, including the basement level, provided that the subgrade has been prepared in accordance with the recommendations described at Section 4 of the Geotechnical Investigation enclosed at **Appendix 17** of this EIS.

6.1.13 Water Management

6.1.13.1 Existing Environment

The subject site is currently 90% impervious, and this is proposed to remain with the proposed development incorporating 10% landscaped coverage.

A Liverpool City Council stormwater network exists to the south of the subject site along Seton Road. Two existing pits sit just inside the subject site boundary at the southern end, and the fall of the subject site would suggest these pits connect to the Council network on Seton Road.

6.1.13.2 Stormwater Quantity

Stormwater has been designed in accordance with Chapter 6 'Water Cycle Management' of the LDCP 2008. All new stormwater is required to be conveyed by gravity as discharge from the subject site via Council's existing drainage system, and the existing catchment conditions are to be maintained where practical. The proposed stormwater design comprises the following:

- Roof catchments will be collected in roof gutters and conveyed by downpipes to an in-ground pipe system.
- Surface stormwater flows will be conveyed by site grading and collected by Surface Inlet Pits (SIP).
- In-ground stormwater will be conveyed to on-site stormwater detention (OSD) and water quality treatment devices.
- The subject site is split into two catchments which flow to the respective OSD tanks. The area of these catchments is 16,545m^2 (92% impervious) and 18,575m^2 (90% impervious), comprising of mostly roof and hardstand.
- A preliminary DRAINS model has been provided to show that two OSDs with chamber volumes 181m^3 (orifice diameter of 470mm) and 220m^3 (orifice diameter of 470mm) will be required for the developed site to meet the pre-development site discharge for the 10% Annual Exceedance Probability (AEP)-year, 5% AEP and 1% AEP storm events. Calculations are based on an approximately 90% impervious site.

The associated catchment areas are illustrated in **Figure 40** below.

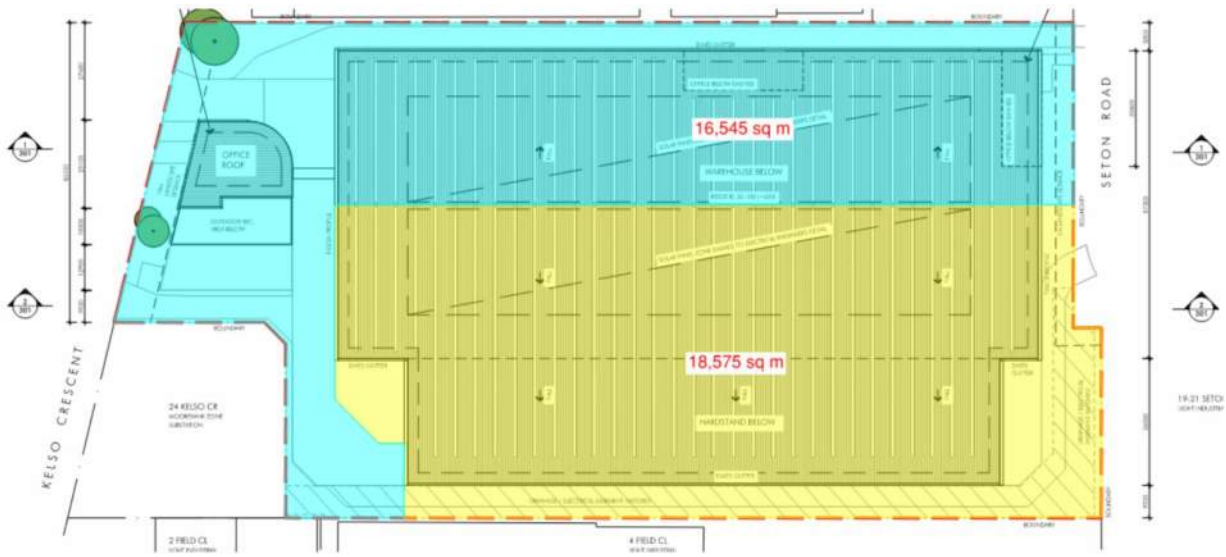


Figure 40. Catchment Areas *(Source: TTW, 2023)*

Full details are included within the Civil Engineering Report prepared by TTW, which is enclosed at **Appendix 20** of this EIS.

6.1.13.3 Stormwater Quality

The LDCP 2008 outlines the following water quality targets for industrial developments involving new or additional gross floor area of greater than 100m^2. The post development stormwater runoff quality shall be improved to achieve the following reduction targets when compared to the pre-development levels:

- 45% reduction in the baseline annual pollutant load of total nitrogen.
- 65% reduction in the baseline annual pollutant load of total phosphorus.
- 85% reduction in the baseline annual pollutant load of total suspended solids.
- 90% reduction in the baseline annual pollutant load of litter and vegetation larger than 5mm, through the provision of gross pollutant traps.

The proposed water quality treatment train has been modelled using MUSIC (Model for Urban Stormwater Improvement Conceptualisation) to ensure that Council pollutant reduction targets are satisfactorily met by the proposed development. Water quality targets will be met through incorporation of the following treatment devices:

- Three (3) Ocean Protect PSorb 690mm Filter Cartridges, or equivalent product;
- One (1) Ocean Protect Jellyfish JF-3250-28-5, or equivalent product;
- Four (4) Gross Pollutant Traps and Surface Pit Inserts;
- One (1) 60,000L Rainwater Tank; and
- One (1) 50,000L Rainwater Tank.

6.1.13.4 Stormwater Quality During Construction

A Soil and Erosion Control Plan has been prepared for the subject site and is included in Appendix A of the Civil Engineering Report. The typical measures to be implemented will include:

- Provision of sediment and erosion controls at locations downstream of construction areas (e.g. sediment fences, sediment basins, and others as required);

- Provision of stormwater diversions around the construction site for run-off from upstream undisturbed area;
- Identification of stockpile locations;
- Identification and locations of sediment control barriers;
- Protection of existing stormwater using geotextile filters, sandbags or similar;
- Identification of work staging to limit the area and duration of soils exposure; and
- Identification of suitable locations for construction vehicle access and wheel wash facilities.

These recommendations will be incorporated within the CEMP for the project.

6.1.14 Flooding Risk

6.1.14.1 Existing Environment

Several previous investigations have examined flooding conditions in the Anzac Creek and the broader Georges River floodplain. The most recent and relevant study is the Anzac Creek Floodplain Risk Management Study and Plan (2008), which advises that the Moorebank industrial area appears to be one of the most severely affected areas in terms of flooding frequency and inundation depth. This is due to its low-lying topography, its close proximity to the Anzac Creek, and its susceptibility to backwater flooding from the Georges River.

The design events that were modelled in this study included the 5-year Average Recurrence Interval (ARI), 20-year ARI, 50-year ARI, 100-year ARI, and the Probable Maximum Flood (PMF). Various storm durations were tested to determine the duration that resulted in peak flood conditions within the catchment. It was discovered that a critical storm duration of 9 hours was generally applicable across the catchment for the considered design events, except for the PMF, for which a critical duration of 1 hour was identified.

The report includes maps depicting flood levels, depth, velocity, and risk. It should be noted that the Anzac Creek Flood Study focuses solely on mainstream flooding and does not extensively examine the characteristics of local catchment flooding. As a result, the study does not account for local overland flooding that extends beyond the boundaries of mainstream floods.

The Council's TUFLOW model has been used as the basis to determine flood extents, levels, depths, velocities and hydraulic hazard during the critical 1% Annual Exceedance Probability (AEP) in both existing and proposed site conditions.

Liverpool City Council has provided three models with blockage levels ranging from 25% to 100%. A comparison has been conducted for the 1% AEP 9-hour storm to identify the deepest flooding in the vicinity of the subject site. This is included within the Flood Risk Assessment prepared by TTW, enclosed at **Appendix 21** of this EIS. Based on this comparison it has been determined that the 25% blockage represents the worst-case scenario.

The Council's existing model with a 25% blockage has been employed to generate flood maps for a 1% AEP storm event to verify the consistency between the modelling results and the data provided within the Anzac Creek Floodplain Risk Management Study and Plan. **Figure 41** below illustrates the existing modelling results for a 1% AEP event obtained directly from the Council's model without any modifications.

Figure 41. Existing 1% AEP Flow Depths and Levels (From the Council's Model without any Modification) *(Source: TTW, 2023)*

The results indicate a high level of consistency between the model outcomes and the findings presented in the Anzac Creek Floodplain Risk Management Study and Plan.

6.1.14.2 Assessment of Impacts

In its 'proposed' condition, the proposed development is completely blocked out from the Digital Elevation Model to analyse the impact on flood conditions. The post-development flow depths and levels for the 1% AEP 9-hour storm event are illustrated in **Figure 42** and **Figure 43**, respectively.

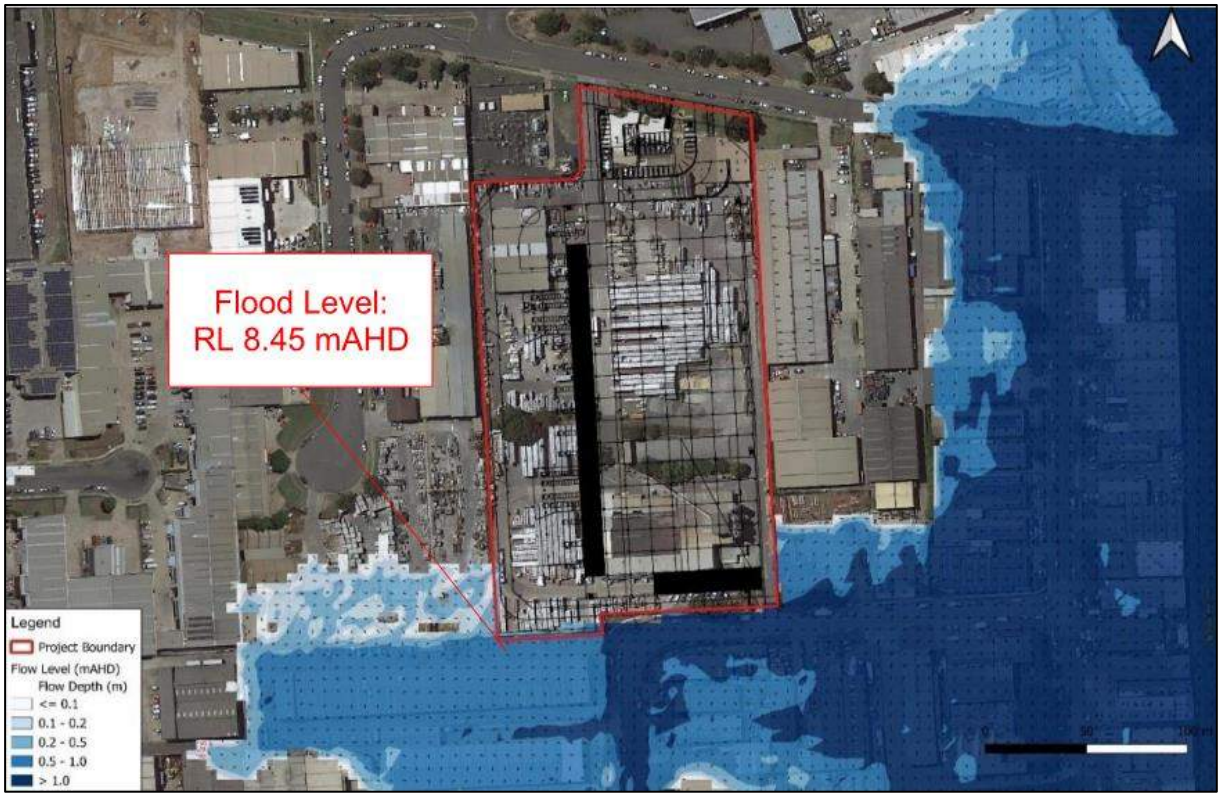


Figure 42. Post Development 1% AEP Flood Depths and Level *(Source: TTW, 2023)*

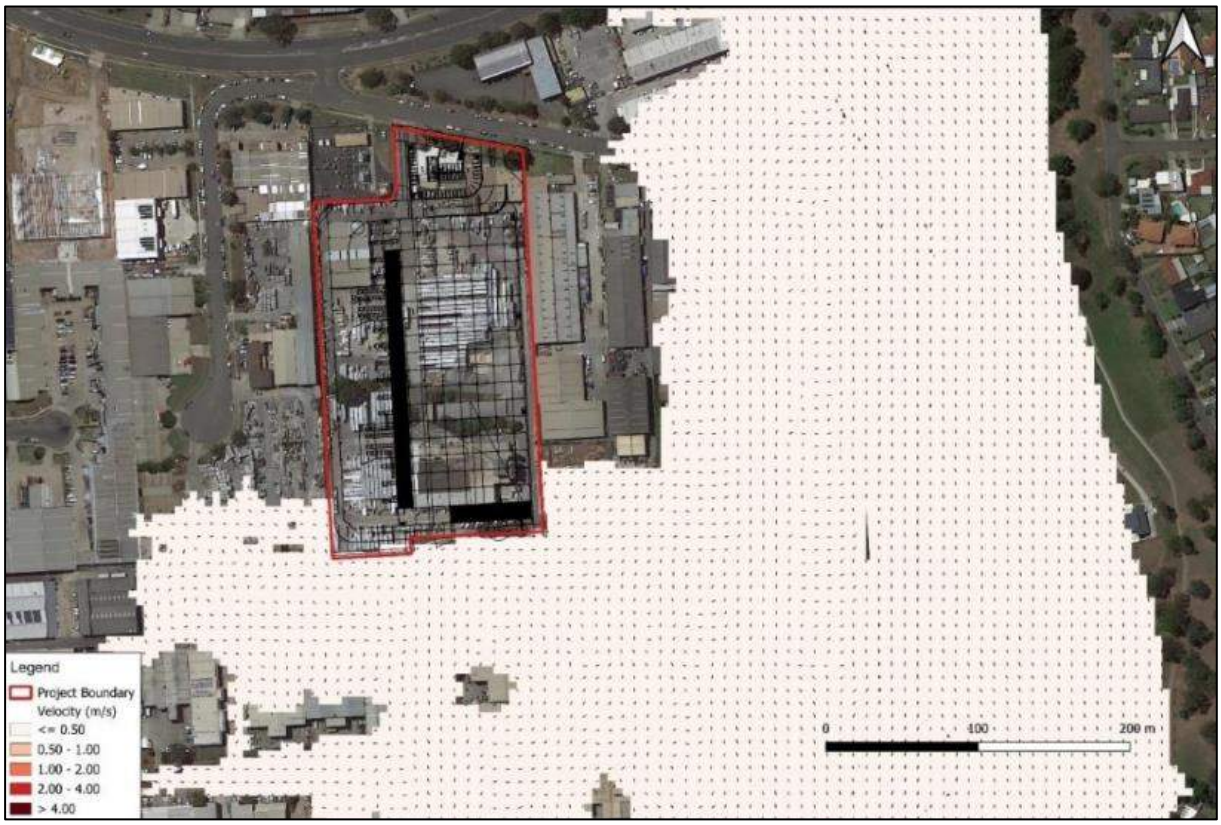


Figure 43. Post Development 1% AEP Flood Velocities *(Source: TTW, 2023)*

The flood modelling results reveal that the proposed flood level at the southern boundary of the subject site is RL 8.46m AHD. Additionally, there is no significant flood impact on the surrounding developments

due to the new development. This is primarily because the flood storage removed by the new development is negligible compared to the vast floodplain storage capacity.

A calculation in the GIS package shows that the existing flooded area within the proposed development is approximately 9,225m^2. This floodwater fills approximately 7,500m^3 of floodplain volume. **Figure 44** below illustrates the flooded area in the existing scenario which has been used for this calculation.

Figure 44. Flooded Area Considered for Volume Calculation *(Source: TTW, 2023)*

Due to instabilities with the Council model, it has not been possible to prepare a PMF flood map for the proposed development. TTW have therefore relied on the Flood Map prepared for the Anzac Creek Floodplain Risk Management Study and Plan. This demonstrates a viable evacuation route from the subject site to a safe refuge 130m to the north-west, via Kelso Crescent and Field Close. **Figure 45** below illustrates the PMF flood extent and the proposed flood evacuation to the stated refuge point.

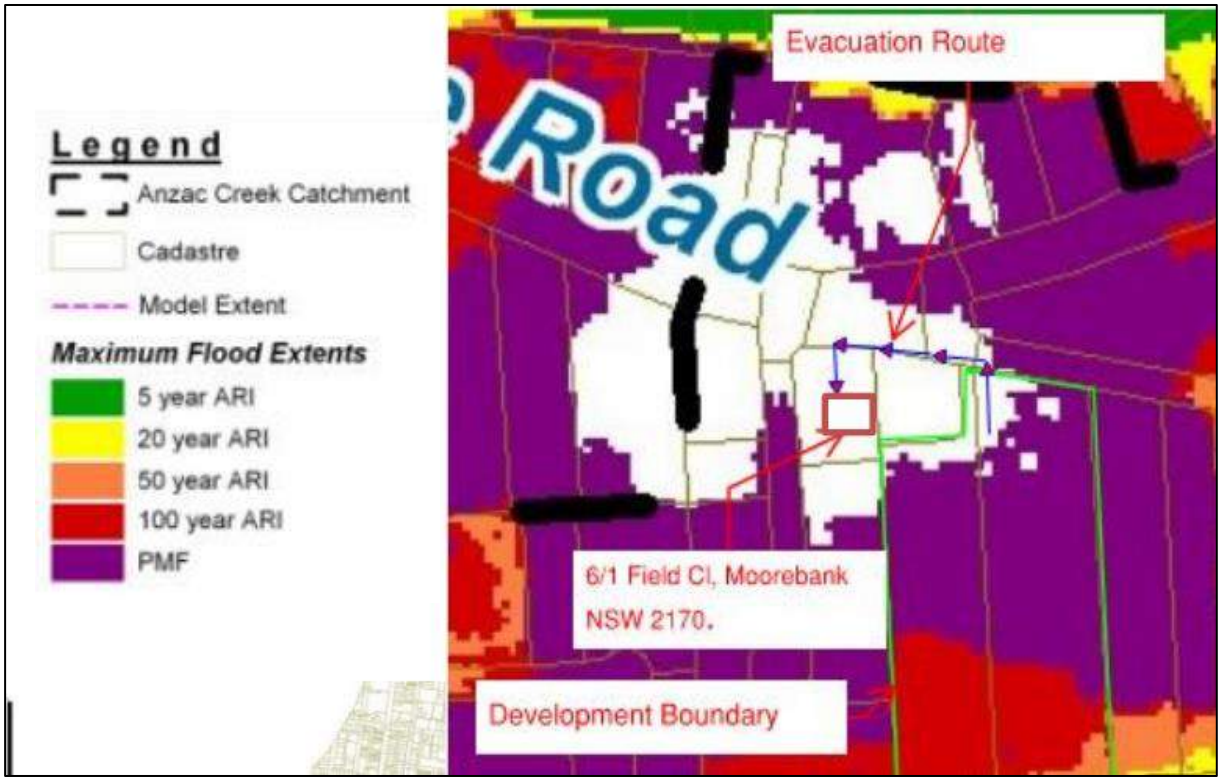


Figure 45. PMF Flood Extent and Proposed Evacuation Route *(Source: TTW, 2023)*

6.1.14.3 Management and/ or Mitigation Measures

A detailed hydraulic model has been developed for the subject site based on Council's existing TUFLOW model, modified by adding detailed site survey and proposed design elements. The model has been used to assess the local flood characteristics in both the existing and proposed site conditions during the 1% AEP flood events. The modelling has concluded that:

- For the proposed conditions, the flood level is currently at RL 8.46m ADH. To meet the necessary requirements, FFL should be set at least at RL 8.46m ADH + 500 mm.
- Flood level impacts of the proposed development during the 1% AEP event are within the accepted range of +20mm / -20mm with no adverse flood impacts over private properties within the floodplain. This is primarily because the flood storage lost to the new development is negligible compared to the vast floodplain storage capacity.
- By 2090, it is estimated that climate change will lead to an increase in flood levels of approximately 200mm during a 1% AEP storm at the subject site.
- The site assessment confirms that there is a reliable pedestrian access route available during a 1% AEP flood. This access leads from the development to a secure refuge located 130m to the northwest, along Kelso Crescent and Field Close.
- The Seton Road car park entry level is set to RL 9m AHD, which is higher than the 1% AEP flood plus 0.1m freeboard in accordance with the LDCP 2008.

Appropriate measures are further documented within the planned management and mitigation measures at **Appendix E** of this EIS.

6.1.15 Hazards and Risks

The proposed development does not seek consent for the storage of any dangerous or hazardous materials, as this SSDA constitutes a speculative warehouse and distribution centre only. No further

assessment under Chapter 3 of the *State Environmental Planning Policy (Resilience and Hazards) 2021* (Resilience and Hazards SEPP) is required.

6.1.16 Contamination and Remediation

In accordance with Chapter 4 of the Resilience and Hazards SEPP, assessments have been undertaken to determine if the subject site is contaminated and requires remediation to be made suitable for its intended purpose.

The following documents have been prepared and are summarised in the following subsections:

- Detailed Site Investigation (ref. E25764.E02 Rev. 0), prepared by EI Australia and enclosed at **Appendix 18**
- Phase 1 Environmental Site Assessment (ref. J180072), prepared by Greencap and enclosed at **Appendix 22**
- Hazardous Building Materials Register (ref. 12450.01.HMSR), prepared by Getex and enclosed at **Appendix 23**
- Hazardous Building Materials Work Plan (ref. 12450.01.HMWP), prepared by Getex and enclosed at **Appendix 24**
- Remedial Action Plan (ref. 12450.01.RMAP), prepared by Getext and enclosed at **Appendix 25**

6.1.16.1 Existing Environment

The subject site history review completed by EI Australia (included within the Detailed Site Investigation enclosed at **Appendix 18**) indicates that the subject site has continuously been used for commercial purposes since 1928. Possible activities have included grazing and market (orchard) gardening, wool pressing, tile manufacture, and the storage of building materials.

Over the course of its commercial function, a diverse range of dangerous/ hazardous goods have been stored on the premises, including explosives, gases, and flammable liquids (e.g. petrol, diesel and liquid petroleum gases in both above ground storage tanks and underground storage tanks). At least five (5) underground storage tanks are likely to have been installed, albeit in different states (i.e. in operation and abandoned).

The potential sources of site contamination are considered to include:

- Former and current on-site commercial activities;
- The operation of petrol/ diesel and liquid petroleum gas storage tanks, both above ground and underground, as well as an oil/ water separator;
- Imported fill materials of unknown origin and quality, used to grade and level the subject site;
- Weathering of exposed building fabrics containing hazardous substances (including bonded 'asbestos-containing material' sheeting, lead-based paints and metallic surfaces) and/ or the deposition of such in-site soils from uncontrolled demolition practices;
- Application of pesticides around building (footing) perimeters;
- Leaks from vehicles in the driveway and parking areas; and
- Off-site migration from neighbouring commercial properties.

6.1.16.2 Assessment of Impacts

Phase 1 Environmental Site Assessment

Greencap was commissioned to complete a Phase 1 Environmental Site Assessment of the subject site for due diligence purposes. This investigation assessed the current contamination status of the subject site and its suitability for its continued commercial/ industrial land use in accordance with the requirements of the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (as amended in 2013). The assessment involved a search of available desktop information and a site inspection.

The findings of this assessment, which is enclosed at **Appendix 22** of this EIS, included but are not limited to:

- The existing buildings on the subject site were confirmed as being constructed from asbestos-containing materials based upon their age and the results of an Asbestos Audit Report completed in 2017. Fragments of asbestos-containing materials were also found at surface level along the subject site's eastern boundary.
- Unverified fill was observed across the subject site, which was used for site elevation, but no asbestos was detected from soil sample locations. Contaminant concentrations in the representative fill and natural soil samples were all below the corresponding investigation levels applicable to commercial/ industrial land use settings.
- At least five underground storage tanks are likely to have been installed, all of which may still be present, albeit in different states (i.e. in operation and abandoned). An underground storage tank was confirmed to be located at the front site entrance driveway by ground penetrating radar surveys. However, no decommissioning report is available, and an in-situ validation assessment for each previously in-situ abandoned underground storage tank should be undertaken.

Based on the findings of the Phase 1 Environmental Site Assessment, the subject site is deemed to be suitable for its proposed on-going use as a commercial/ industrial logistics facility, in accordance with Chapter 4 of the Resilience and Hazards SEPP.

Detailed Site Investigation

EI Australia have completed a Detailed Site Investigation to determine the environmental condition and contamination status of the subject site. The key findings are as follows:

- The subject site is free of statutory notices and licensing agreements issued under the *Contaminated Land Management Act 1997* and the *Protection of the Environment Operations Act 1997*. In addition, it has not been included on the *List of NSW Contaminated Sites Notified to the EPA*.
- No visual evidence of contamination, including fragments of fibre cement sheeting or oil-like staining, have been observed on the surface at the subject site.
- No unusual (suspicious or hydrocarbon) odour has been detected on any part of the subject site.
- The subsurface profile to approximately 10m below ground level is generalised as a layer of anthropogenic fill (silty sand, silty clay and sandy clay, with varying proportions of sub-angular gravels; up to 5.1m thickness), overlying natural silty/ sandy clays. Weathered shale is expected at depth.
- The likelihood of acid sulfate soils being present at the subject site is 'low'. With reference to the *Liverpool Acid Sulfate Soil Risk Map*, the subject site land lies with an area having "no known

occurrence". In such cases, acid sulfate soils are not known or expected to occur and "land management activities are not likely to be affected by acid sulfate soil materials. Based on these maps as well as the subject site's elevation (> 10m AHD), the likelihood for acid sulfate soils to be present on-site is reiterated as 'low'.

- The depth to groundwater ranges between 2.3 – 8m below ground. The inferred hydraulic gradient is south-westerly, flowing towards Clinches Pond. Local groundwater conditions are acidic (pH 4.64 – 6.14), brackish, and non-oxidising.
- Contaminant concentrations in the representative fill and natural soil samples are all below the corresponding investigation levels applicable to commercial and industrial land use settings. Asbestos-containing materials have not bee detected in any of the examined soils or soil samples.
- Contaminant concentrations in the representative groundwater samples have been found to comply with the corresponding investigation levels, except for dissolved copper, nickel and zinc. Local groundwater conditions do not pose a risk to human health, or the environment, at least with respect to the identified contaminants of potential concern.

Overall, EI Australia concludes that widespread, or gross, contamination is not present at the subject site. The subject site is deemed to be suitable for ongoing commercial and industrial use in accordance with Chapter 4 of the Resilience and Hazards SEPP. However, it is acknowledged that a Remediation Action Plan (RAP) is necessary to address the removal of all remaining underground storage tanks, and the underground oil/ water separator. The RAP will also consider all hazardous materials present on the subject site.

The Proponent has subsequently commissioned Getex to prepare the RAP enclosed at **Appendix 25** of this EIS, which has full regard to both the Phase 1 Environmental Assessment and the Detailed Site Investigation. A separate Hazardous Building Materials Register and Hazardous Buildings Materials Work Plan (enclosed at **Appendix 23** and **Appendix 24**, respectively) have also been prepared to inform the intended remediation of the subject site.

6.1.16.3 Management and/or Mitigation Measures

The RAP enclosed at **Appendix 25** of this EIS has been developed to provide a conceptual working plan detailing the removal of the bonded asbestos-containing material fragments on the ground surface; the removal of the underground fuel tanks; the removal of the underground oil/ water separator; and the removal of hazardous building materials during demolition.

Subject to the successful implementation of the measures detailed within the RAP, Getex consider that the subject site would be safe and suitable for its intended use, and that the risks posed by contamination can be managed in such a way as to be adequately protective of human health and the environment.

6.1.17 Waste Management

6.1.17.1 Management and/or Mitigation Measures

In accordance with the SEARs, a Waste Management Plan has been developed by SLR, forming **Appendix 26** of this EIS. The Waste Management Plan suitably addresses the likely waste streams generated during the works, provide indicative estimations of waste quantities, and propose management, reuse, recycling and disposal procedures during the demolition, excavation, construction and operational works of the redevelopment works within the subject site.

Construction Waste

A variety of waste types are expected to be generated during the site preparation and construction phases of the project. It is expected that actual waste quantities and composition will vary depending on the outcomes of detailed design, materials and specification, and construction planning and methods.

Strategies that would be implemented to minimise waste generation and maximise reuse and recycling are outlined below.

A. Avoidance and Reduction of Waste

The demolition, excavation and construction contractor will be required to avoid waste generation, and endeavour to reuse materials where possible, thereby minimising waste generation. During the construction phase, waste generation will be avoided through strategic selection of materials during design and purchasing, considering options to reduce waste generation for the project. This includes consideration of procurement of materials which are prefabricated, use minimal packaging, and are suitable for reuse across the site. Selection of construction materials will also consider the use of recycled items where practicable.

B. Reuse and Recycling

The effective management of construction materials and construction and demolition waste, including options for reuse and recycling where applicable and practicable, will be conducted. Only wastes that cannot be cost effectively reused or recycled are to be sent to landfill or appropriate disposal facilities.

For waste materials onsite, measures to separate waste streams will be implemented. This includes segregating wastes into appropriate dedicated bins or areas for reclamation on site or transportation to a designated recycling facility. Concrete waste and waste rinse water are not to be disposed of at the site and rinse waters are required to be prevented from entering surface waters, including natural and artificial watercourses. If material containing asbestos is identified and cannot be safely removed/ encapsulated, off-site disposal is the most appropriate option. The construction contractor will then liaise with a licensed asbestos removalist to determine a suitable disposal facility. Measures for dealing with hazardous waste (asbestos) are outlined in the Waste Management Plan and documented within the planned management and mitigation measures in **Appendix E** of this EIS.

C. Treatment and Disposal

Project wastes may require treatment to stabilise them for appropriate disposal to reduce the risk of harm to human health or the environment. These materials are not suitable for reuse or recycling and must be segregated and disposed of via a suitably qualified contractor. Wastes would only be sent to landfill or disposal facilities where the prioritised management methods in the hierarchy cannot be effectively implemented. The construction contractor would liaise with the local council to determine appropriate disposal locations for potential waste streams.

D. Other Considerations

To ensure waste is not unintentionally tracked off-site, the vehicles or trailers used to transport waste or excavated spoil from the site will be covered before leaving the subject site, to prevent spillage or escape of dust, waste or spoil from the vehicle or trailer. Any mud, splatter, dust and other material that is likely to be released from the wheels, underside or body of vehicles, or plant leaving the site will also be removed through a shaker bay or wash down area prior to leaving the subject site.

Operational Waste

As the LDCP 2008 has no operational waste generation rates for industrial facilities, SLR has adopted the 'Offices' and 'Warehouse' waste generation rates from Penrith City Council's *'Industrial, Commercial and Mixed-Use Waste Management Guidelines'* for estimating the type and quantities of waste generated from the operational activities of the Development. The operational waste generation rates used are shown in **TABLE 40** below.

TABLE 40: OPERATIONAL WASTE GENERATION RATES

Type of Premises	General Waste Generation (L/ 100m2/ day)	Recycling Generation (L/100m2/ day)
Warehouse	10	10
Offices	10	10

From the table above, it is estimated that the proposed development will produce approximately 24,283L of general waste per week for the assumed five warehouse spaces, and 1,680L of waste per week for the assumed five ancillary office spaces. The amount of recycling estimated per week is approximately 24,283L for the assumed five warehouse spaces, and 1,680L for the assumed five ancillary office spaces. This culminates if a waste generation of approximately 25,963L per week and a recycling generation of approximately 25,963L per week for the assumed site activities.

This current estimate is based on generic office and warehouse/distribution centre uses. It is expected that actual waste quantities and composition will depend on the final activities at the subject site.

Due to the unknown future occupants of the warehouses located on site, any waste storage systems implemented are subject to change. Each individual warehouse tenancy has been allotted its own policy compliant provision of separate waste and recycling bins, together with a dedicated waste storage area. If any of the warehouses are used by a third party, they will be required to provide their own operational waste management plan (OWMP) to ensure any waste is dealt with appropriately.

Strategies that would be implemented to minimise waste generation and maximise reuse and recycling are outlined below.

A. Waste Movements, Collection and Servicing

Tenants will place waste in the bins in the waste storage areas. Front lift collection vehicles will enter the site in a forward direction and drive onto the bins, lift them into the collection vehicle, place them back in position and reverse off the bin before exiting the site in a forward direction.

Arrangements will be in place so that the waste and recycling storage rooms are not accessible to the general public.

B. Signage

The waste storage and collection areas will be provided with appropriate signage. These signs will clearly identify waste management procedures and provisions to contractors, tenants and visitors will be distributed around the development.

Colour-coded and labelled bin lids are necessary for identifying bins. Bins will be designed and colour-coded in accordance with the Australian Standard AS 4123: Mobile Garbage Containers.

All signage will conform to the relevant Australian Standard and use labels approved by the NSW EPA.13 The design and use of safety signs for waste rooms and enclosures will comply with Australian Standard

AS 1319 Safety Signs for the Occupational Environment and clearly describes the types of materials designated for each bin.

C. Cleaning, Maintenance and Security

Regular cleaning of waste and recycling storage areas will be undertaken by tenants. Tenants will erect and maintain suitable signage in waste storage areas. All waste storage areas will be secured and access only available to tenants, facilities managers and collection contractors.

6.1.18 Aboriginal Cultural Heritage

6.1.18.1 Existing Environment

A search of the Heritage NSW AHIMS database was undertaken on 20 June 2023 (Client Service ID: 793105) with a buffer of 1km by Travers Bushfire & Ecology. Zero Aboriginal sites and zero Aboriginal Places were identified in the search.

A walkover survey of the subject site was undertaken on 11 July 2023, which focused on examining ground surface exposures for evidence of stone artefacts and classifying landforms. As a result of the visual inspection, no Aboriginal sites and no areas of Potential Archaeological Deposit were identified.

Aboriginal community consultation commenced in October 2023, with the following registering as Registered Aboriginal Parties (RAPs) for the project:

- A1 Indigenous Services
- Amanda Hickey Cultural Services
- Butucarbin Aboriginal Corporation
- Corroboree Aboriginal Corporation
- Cubbitch Barta
- Didge Ngunawal Clan
- Gadu CHTS
- Guntawang Aboriginal Resources Incorporated
- Kamilaroi Yankuntjatjara Working Group
- Konanggo Aboriginal Cultural Heritage Services
- Mundawari Heritage Consultants
- Wailwan Aboriginal Group
- Wallanbah Aboriginal Site Conveyancing
- Wurrumay Pty

In accordance with Step 4.1.6 of the Consultation Requirements, a list of the RAPs was forwarded to Heritage NSW and Gandangara LALC on 25 October 2023.

In accordance with Step 4.3 of the Consultation Requirements a copy of the draft assessment methodology was sent to the RAPs by email on 17 October 2023 requesting a response by 14 November 2023.

The draft ACHAR was sent for RAP review on 15 November 2023. Any comments received have been included in Appendix 1 of the enclosed ACHAR (**Appendix 27**) following the closing date for review on 13 December 2023.

Based on the background research, register searches, Aboriginal community consultation, and an archaeological survey, it has been concluded that no known or unknown Aboriginal sites will be subject to direct or indirect impacts as a result of the proposed development.

6.1.18.2 Management and/or Mitigation Measures

As no Aboriginal sites or Potential Archaeological Deposits (PAD) were identified during the assessment, no conservation or protection measures are required and the proposed works can proceed with caution. Relevant cultural heritage inductions and an unexpected finds procedure should be implemented:

- The individual or persons responsible for the management of onsite works will ensure that all site personnel are made aware of the statutory legislation protecting Aboriginal sites and places of significance. Of particular importance is the National Parks and Wildlife Amendment (Aboriginal Object and Aboriginal Places) Regulation 2010, under the NPW Act.
- Unexpected Aboriginal objects remain protected by the NPW Act. If any such objects, or potential objects, are uncovered in the course of the activity, work in the vicinity must cease and Heritage NSW and Gandangara LALC must be contacted for advice.

If suspected human remains are discovered and/or harmed in, on or under the land within the study area, the following actions must be undertaken:

- The remains must not be harmed/further harmed
- Immediately cease all works at that location
- Secure the area to avoid further harm to the remains
- Notify the NSW Police and the Environment Line (Heritage NSW) on 131 555 as soon as practicable and provide any details of the remains and their location
- Do not recommence any work at that location unless authorised in writing by Heritage NSW.

6.1.19 Environmental Heritage

6.1.19.1 Existing Environment

No part of the subject site is included on any statutory or non-statutory heritage lists. The closest listed heritage item relative to the subject site is Clinches Pond, which is at the corner of Heathcote and Church Roads. Clinches Pond is listed on the LLEP 2008 as item I56, and is located approximately 450m to the southwest of the subject site as illustrated in **Figure 46** below. The subject site is located beyond the visual catchment of Clinches Pond.

Figure 46. Clinches Pond Relative to the Subject Site *(Source: Travers Bushfire & Ecology, 2023)*

6.1.19.2 Assessment of Impacts

As there are no listed heritage items within the subject site, and the subject site is not within the visual catchment of any listed heritage items, the proposed development does not have the potential to cause and direct or indirect impacts to any heritage items. As such, Travers Bushfire & Ecology have concluded that a Statement of Heritage Impact and Archaeological Assessment is not required to fulfil the requirement of the SEARs. This is confirmed within the Statement of Heritage Impact prepared by Travers Bushfire & Ecology enclosed at **Appendix 28** of this EIS.

6.1.20 Social Impact

6.1.20.1 Assessment of Impacts and Mitigation Measures

A robust Socio-Economic Impact Assessment has been prepared by Hill PDA, as enclosed at **Appendix 29** of this EIS. A summary of the social impact evaluation and mitigation responses is provided below.

Construction

TABLE 41: CONSTRUCTION PHASE – SOCIAL IMPACT EVAULATION AND MITIGATION REPSONSE			
Detail	**Standard Measures**	**Project-Specific Mitigation**	**Residual Impact Significance**
Dust	Construction phase air quality impacts shall be minimised or avoided by incorporation of appropriate dust suppression and air quality control measures at various stages of the project.	Implement the recommended controls from the AQIA.	Unlikely + Minor = Low
Tree Clearing	Retain street trees where possible.	Implement the Landscape Plan, increasing the setback plantings and street tree canopy.	Almost certain + Minimal = Low
Noise and Vibration	When planning construction work that will generate significant noise or vibration, consider: ▪ Substitution by an alternative process. ▪ Restricting times when work is carried out. ▪ Screening or enclosures. Utilisation of temporary supports where deemed necessary. Carry out demolition activity in accordance with the approved work hours.	Implement the recommended controls from the Noise and Vibration Impact Assessment for noise and vibration as required.	Unlikely + Minor = Low
Vehicle Movements and Access	Manage access to/ from adjacent properties. Restrict construction vehicle movements to designated routes to/ from the site. Manage and control construction vehicle activity in the vicinity of the site. Provide an appropriate and convenient environment for pedestrians and minimise the impact on pedestrian movements.	Implementation of recommended measures from the preliminary Construction Traffic Management Plan.	Unlikely + Minor = Low

TABLE 41: CONSTRUCTION PHASE – SOCIAL IMPACT EVAULATION AND MITIGATION REPSONSE			
Detail	**Standard Measures**	**Project-Specific Mitigation**	**Residual Impact Significance**
	Maintain appropriate capacity for pedestrians at all times on footpaths adjacent to the site. Maintain appropriate public transport access. Carry out demolition activity in accordance with the approved work hours. Ensure dedicated parking is provided for workers, or that they are encouraged to travel via alternative means (e.g. public transport, shuttle to external parking site).		
Employment	Construction activity will draw resources from surrounding areas and thereby generate economic activity in Liverpool LGA as well as from outside the LGA.	The EDC has been determined in the QS Report by Currie and Brown as $94,500,000. Much of this expenditure would flow to businesses and workers in the area through wages, procurement, and indirect expenditure. Currie and Brown project that the proposed development will generate 120-160 jobs at the height of construction activities.	Likely + Moderate = High
Community Engagement	Standard engagement mechanisms as part of SSDA process.	Implement the Stakeholder Management Plan as part of the CEMP once finalised. Implement the recommended controls from the Noise and Vibration Impact Assessment for noise and vibration as required.	Unlikely + Minor = Low
Heritage	Engagement with the Local Aboriginal Land Council. Adherence to requirements under AHIP (if required).	Implementation of recommended measures from the Aboriginal Cultural Heritage	Unlikely + Minor (positive) = Low (positive)

TABLE 41: CONSTRUCTION PHASE – SOCIAL IMPACT EVAULATION AND MITIGATION REPSONSE			
Detail	**Standard Measures**	**Project-Specific Mitigation**	**Residual Impact Significance**
		Assessment Report (ACHAR).	

Operation

TABLE 42: OPERATIONAL PHASE – SOCIAL IMPACT EVAULATION AND MITIGATION REPSONSE			
Detail	**Standard Measures**	**Project-Specific Mitigation**	**Residual Impact Significance**
Employment	None (positive)	The QS Report prepared by Currie and Brown projects that the proposed development will generate 200-240 jobs during operation from 2025 onwards.	Likely + Moderate (positive) = High (positive)
Landscaping	None (positive)	N/A	Likely + Minimal = Low (positive)
Noise	Locating mechanical equipment as far as practicable from noise sensitive receivers.	Implement the recommended controls from the Noise and Vibration Impact Assessment for noise and vibration as required.	Unlikely + Minimal = Low
Demand for Childcare	N/A	Your Kids Our Kids Childcare Centre is the nearest childcare centre to the subject site, located approximately 1 kilometre southeast of the site. Any increase in demand would likely be absorbed by this facility, or other childcare centres located northwest of the site near Liverpool Station.	Unlikely + Minimal = Low
Parking Availability	Parking is to be constructed in accordance with the relevant requirements for the uses on site. Information regarding public transport options is to be made available for workers on site.	The LDCP 2008 requires 1 parking space per 250m^2 GFA for warehouse; and 1 space per 35m^2 GLA for ancillary offices. The proposed development will meet the parking requirements by providing 180 car parking spaces. The proposed development also	Unlikely + Minor = Low

TABLE 42: OPERATIONAL PHASE – SOCIAL IMPACT EVAULATION AND MITIGATION REPSONSE			
Detail	**Standard Measures**	**Project-Specific Mitigation**	**Residual Impact Significance**
		provides 33 bicycle parking spaces.	
Traffic	Alternative transport options (e.g. cycling) are to be provided in accordance with the relevant requirements. Information regarding public transport options is to be made available for workers on site.	The TIA has identified that the traffic generation of the proposed development will not present any adverse traffic implications on the local road network.	Unlikely + Minor = Low
Passive Surveillance	None (positive)	The proposed development would be constructed and operated to be secure and well-illuminated.	Possible + Minimal (positive) = Low (positive)

The potential social and economic impacts of a proposed warehouse and distribution centre at the subject site can be summarised as follows:

- Compared to the base case or current site use, the proposed development would support a more intensified economic outcome for the subject site with a total anticipated job generation of 240 FTE roles.
- By providing employment and investment, the proposed development would contribute to employment opportunities within the region, as well as additional services and amenity for residents.
- The proposed development may have impacts on visual, noise, and air quality amenity during construction and operation. However, these impacts are expected to be managed through the application of appropriate mitigation measures.
- The proposed development may impact the health and wellbeing of surrounding residents due to changes in noise, vibration, and air quality levels. These impacts may be mitigated by adopting the suggestion of the relevant specialist reports.
- There are a limited number of sensitive receivers in the vicinity of the subject site, largely due to the subject site's location within an industrial area. Additionally, residential properties are largely separated by Ernie Smith Reserve to the east and Clinches Pond Reserve to the west.
- Community consultation has been undertaken by Hill PDA, with a variety of relevant agencies and stakeholders engaged with. Being in a largely industrial area, no significant social impacts have been identified to date.
- Potential impacts to decision-making systems may be mitigated by further consultation, as well as maintaining pathways for further community feedback.
- Impacts to culture through damage to items of Aboriginal or historical significance were found to be unlikely due to the extremely disturbed nature of the subject site, and the mitigation measures specified in the ACHA (once finalised) are adequate to reduce the potential impacts if any unexpected finds occur during construction.

- Potential impacts to the site's surroundings through changes to the built and natural environments would be mitigated through the retention of 7 existing trees and the planting of 67 additional through landscaping woks alongside the subject site's boundaries. This would also help to mitigate views from adjacent properties and passing pedestrians and motorists, while impacts to views from residential receivers are negligible.
- Cumulative impacts from other nearby developments have been considered for the proposed development. While temporary construction impacts would likely accumulate between the different developments, cumulative positive permanent impacts would also exist. Increased levels of development in the local area may have cumulative impacts associated with impacts on amenity, traffic and access. However, the proposed development, alongside other proposals, would help to provide a strong centre for employment, economic investment and services for the surrounding region.

The assessment in this report demonstrates that the likely socio-economic benefits of the proposed development exceed potential negative socio-economic impacts. Overall, the proposed development is supported.

6.1.21 Infrastructure Requirements and Utilities

6.1.21.1 Existing Environment

The existing service infrastructure is documented in **TABLE 5** and accurately plotted on the detailed Site Survey enclosed at **Appendix 6** of this EIS.

6.1.21.2 Assessment of Impacts

The following table provides an overview of the servicing requirements of the proposed development, together with any identified impacts to existing infrastructure, as documented by Land Partners in their Service Infrastructure Assessment (**Appendix 30**).

TABLE 43: INFRASTRUCTURE REQUIREMENTS	
Infrastructure Service	**Assessment**
Potable Water	The estimated potable water demand is as follows: ▪ Average Day Demand – 15.6kl/ day ▪ Max Day Demand – 33kl/ day The subject site has a frontage to a 150mm water main in Kelso Crescent. A pressure and flow enquiry has been lodged with Sydney Water for this main. The subject site also has a frontage to a 150mm water main in Seton Road, however the existing connections to the facility currently operated on the subject site are from the main in Kelso Crescent.
Wastewater	The estimated wastewater demand is 12.6kl/ day (average dry weather flow). The subject site is serviced by a Sydney Water 150mm sewer line in the south-east area of the site. This 150mm main then connects to a 225/ 300mm system in Seton Road. Adequate capacity exists within the existing Sydney Water reticulation system to service the proposed development.
Electricity	The estimated electrical demand is 2.158MVa.

TABLE 43: INFRASTRUCTURE REQUIREMENTS	
Infrastructure Service	**Assessment**
	Two padmount substations are installed on the subject site, one with a 500kVa transformer and another with a 1,000kVa transformer. The Moorebank Zone Substation is located adjacent to the subject site. An existing high voltage system adjacent to the site will cater for the level of demand anticipated for the proposed development. Along the western boundary of the subject site, an electrical easement contains a conduit bank with one high voltage cable in part and four high voltage 11kv cables in part where connection to the Zone Substation adjacent to the subject site occurs. Substantial high voltage network assets exist within Kelso Crescent immediately adjacent to the subject site that serves both the adjacent one substation and the subject site.
Gas	Jemena has a 1,050kPa high pressure gas main constructed within Kelso Crescent, which is available for connection.
Telecommunications	NBN is the network provider for the area and has established underground fibre optic cables within Kelso Crescent.

There is expected to be no other impact on existing infrastructure at the subject site.

6.1.22 Bush Fire Risk

The subject site is not identified as bush fire prone land, nor within the vicinity of bush fire prone land, as such no further assessment is required.

6.1.23 Construction, Operation and Staging

Details of construction, operation and staging are outlined in **Section 3.3** of this EIS.

6.1.24 Contributions and Public Benefit

Pursuant to the *Liverpool Development Contributions Plan – Established Areas 2018*, the proposed development would be levied infrastructure contributions at a rate of 1% of the development cost.

Based on the EDC of $94,500,000, a total infrastructure contribution of $945,000 would be payable.

6.1.25 Engagement

A detailed Engagement Plan was developed in consultation with the Proponent, and in accordance with DPE's *'Undertaking Engagement Guidelines for State Significant Projects'*. It committed to the delivery of a considered, open, and evidence-based approach. Some key components of the Engagement Plan are summarised below.

6.1.25.1 Engagement Carried Out

Stakeholders were divided into two groups according to the level or type of impact from the proposed development:

- Tier 1 Stakeholders – surrounding occupants (predominantly businesses) including potential sensitive receivers; and

- Tier 2 Stakeholders – relevant agencies and organisations.

Each stakeholder group was then analysed in detail to ensure that the engagement would be proportionate to the scale and potential impacts of the proposed development and appropriate to the communication needs of each group.

The division of stakeholders into groups has been undertaken to allow different engagement methods to be used for each stakeholder group, as each stakeholder group requires tailored and appropriate engagement.

Details of stakeholder groups are provided in **TABLE 44** below.

TABLE 44: PROJECT STAKEHOLDERS

Stakeholders	Description	Method of Engagement
Tier One	▪ Sensitive land uses in the immediate vicinity of the proposed development. ▪ Could be impacted during construction by noise, dust, movement of construction vehicles, increased traffic volumes. ▪ Could be impacted during operational phase by traffic, noise, changes in local character, views, and vistas. ▪ Construction traffic movement could present a risk to pedestrian safety. Tier One stakeholders are occupants of: ▪ 1-5 Cunningham Street Moorebank ▪ 1-8 Field Close, Moorebank ▪ 4-40 Seton Road, Moorebank ▪ 317-351 Newbridge Road, Moorebank ▪ 12-24 Kelso Street, Moorebank ▪ 1-2 Mitchell Street, Moorebank ▪ 3-21 Iraking Street, Moorebank ▪ 34-42 Regent Street, Moorebank	▪ Letterbox drop of 336 Community Update leaflets distributed on 18 July 2023, which included an invitation to provide submissions. ▪ Leaflet to community stakeholders contained a QR code directing to the Engagement Portal. ▪ The associated online survey was available for 28 days.
Tier Two	▪ Build relationships with Government agencies and utility providers to support the long-term delivery objectives of the project. ▪ Enable Government agencies involved in the development approval process to have input to the formulation of the proposed development prior to lodgement of the SSDA. ▪ Local Council has a thorough understanding of local matters and an	▪ Project details distributed to agencies and organisations via email. ▪ Where required, stakeholders were followed-up with phone calls to prompt a response. ▪ Emailed communications to agencies and organisations contained a QR code directing to the Engagement Portal.

TABLE 44: PROJECT STAKEHOLDERS		
Stakeholders	**Description**	**Method of Engagement**
	interest in development outcomes on the site. ▪ Potential for capacity constraints to utility providers. ▪ Enable matters relating to utility installation to be considered in project design. ▪ Build relationships with the Aboriginal community. ▪ Understand the diversity of interests within the Aboriginal Community as they relate to the proposed development. ▪ Inform the project team of the level of interest within the Aboriginal community and highlight the topics to discuss during further engagement. Tier Two stakeholders included: ▪ Department of Planning and Environment (DPE) – Planning ▪ Department of Planning and Environment (DPE) – Heritage ▪ NSW Environment Protection Authority (EPA) ▪ Transport for NSW ▪ SafeWork NSW ▪ Liverpool City Council ▪ Sydney Water – Growth Planning Team ▪ Telstra / NBNCo ▪ Endeavour Energy ▪ NBN ▪ Gandangara Local Aboriginal Land Council.	

A comprehensive table of community engagement is included within **Appendix D** of this EIS, along with a copy of the full Engagement Report prepared by Hill PDA at **Appendix 31**.

6.1.25.2 Responses Received

TABLE 45 below provides an overview of the responses received from the engagement activities undertaken.

TABLE 45: RESPONSES RECEIVED	
Action	**Responses**
Website and Online Survey	▪ As of 10 September 2023, the project portal had registered: o 115 total project page views; and o 70 unique visitors. ▪ 1 survey response was submitted.
Phone/ Email Submissions	▪ As of 10 September 2023, no stakeholders had contacted Hill PDA's engagement team via phone or email.
Email Letter to Agencies and Organisations	▪ 9 agencies were contacted.
1620 Phone Line	▪ No calls were received on the designated project phone line.

The lack of responses to the online survey, with only a single response received, and the absence of any email or phone submissions following the letters sent via email suggest that the occupants of businesses near the subject site are not significantly concerned about the proposed development.

6.1.25.3 Community Views

The subject site is situated within the industrial precinct in Moorebank. Owing to the industrial nature of the subject site, the neighbouring businesses were identified as the key community stakeholders. Engagement with neighbouring businesses was undertaken via letter box drop, which included project information, including links to a community survey, the online site, and the major projects portal.

Outcomes from the community stakeholder engagement are detailed in **TABLE 46** below.

TABLE 46: SUMMARY OF ISSUES RAISED BY THE COMMUNITY		
Action	**Detail**	**Response(s)**
Parking	Survey response indicated concern regarding a perceived lack of existing parking on Kelso Crescent.	▪ The Preliminary Construction Traffic Management Plan (CTMP) provided in the TIA at **Appendix 9** includes provisions relating to construction worker parking. ▪ The proposed development incorporates a policy compliant provision of car and bicycle parking.
Congestion	Traffic congestion on Kelso Crescent and surrounding streets was identified as a concern. One survey response indicated that truck movements and the unloading/reloading of trucks along Kelso Crescent causes delays. The survey response referred to Smash Repair located opposite the proposed site, and noted existing	▪ The Preliminary Construction Traffic Management Plan (CTMP) is provided in the TIA at **Appendix 9.** ▪ The CTMP includes provisions relating to construction traffic vehicle movements and parking, including: o Site access and circulation – construction vehicles to use existing vehicle driveways to access the subject site.

TABLE 46: SUMMARY OF ISSUES RAISED BY THE COMMUNITY		
Action	**Detail**	**Response(s)**
	delays caused by loading and unloading.	○ All vehicles are expected to be able to turn around internally, enabling forward direction entry and exit. ○ Onsite parking – construction workers may park in hardstand area on the subject site. ○ Vehicle movements will occur during standard work hours and are to have a staggered arrival schedule occurring outside of peak hours, where possible. ○ Truck loading or unloading will occur within the Works Zone, or within the site boundaries. ▪ Overall, the TIA concluded that traffic generation of the proposed development will not present any adverse traffic implications on the local road network.

6.1.25.4 Agency Views

Of the agencies and infrastructure providers consulted, none raised any objection to the proposed development. Infrastructure agencies that responded to Hill PDA's request for input suggested that the proposed development would be adequately serviced by existing infrastructure. The Proponent has responded to feedback from agencies, and this is reflected in the EIS documentation. Other agencies suggested that they would provide detailed input on the proposed development upon formal exhibition.

A detailed analysis of the key issues arising from the community engagement is included within **Appendix D** of this EIS.

6.1.25.5 Engagement to be Carried Out

Overall, the findings of this Engagement Report suggest a generally low level of stakeholder concern in relation to the proposed development. The stakeholder concerns that have arisen have been addressed by the Proponent.

Ongoing consultation and engagement will be undertaken through all future stages of the project.

The SSDA will be submitted to DPE and placed on public exhibition. Formal notification of the proposed development will be undertaken by DPE during the assessment period, with the Proponent committed to responding to all relevant issues and queries arising during this period through DPE's formal response to submissions process.

During construction, engagement will be undertaken with relevant parties and will include notification of the commencement of works and consultation on works with the potential for impact on nearby receivers. The Proponent and their contractors will continue to engage and work with all relevant agencies and authorities to meet all regulatory requirements and ensure compliance with conditions of consent.

6.2 CUMULATIVE ASSESSMENT

As documented at **Section 2.5.1** of this EIS, four (4) potentially relevant future projects have been identified within the vicinity of the subject site. It should be noted that none of the identified applications has been approved at time of writing. The following cumulative assessment is based on the existing environment with impacts arising from the subject site and the identified future projects considered where relevant.

6.2.1 Cumulative Visual Analysis

The subject site has been assessed based on the character and context in which it is currently located. It has been concluded that the significance of the impact upon the landscape from the proposed development is minor. This is in part due to the surrounding character of the development already being heavily influenced by industrial development.

6.2.2 Cumulative Traffic Analysis

Additional traffic arising from the proposed warehouse and distribution centre has been assessed at **Section 6.1.6** of this EIS. A phone enquiry with Liverpool City Council revealed that no recent Development Applications had been lodged and approved in the subject site's vicinity. Nevertheless, **Section 2.5.1** of this EIS notes a number of development schemes that are under either documentation or assessment.

Genesis Traffic has confirmed that the nearby potential traffic-generating developments referenced are not of substantial nature, and do not warrant further assessment. However, it is acknowledged that TfNSW only requires the consideration of approved developments when conducting cumulative assessments.

6.2.3 Cumulative Noise and Vibration Analysis

Given the distance and the proximity of major roadways, operational noise from the proposed warehouse and distribution centre will be inaudible above the prevailing ambient noise at all surrounding residential receivers. Additionally, operational noise emissions to surrounding industrial sites will achieve the amenity level recommended under the NPfI.

As required by the NSW RNP consideration has also been given to the additional traffic generated by the proposed development and the potential cumulative impacts resulting from increased traffic on arterial and sub-arterial roads within the vicinity of existing residential areas.

Based upon the estimated traffic projection, the additional traffic generated by the proposed warehouse development will not result in any significant increase in the existing levels of road traffic noise on the road network surrounding the project.

6.2.4 Cumulative Air Quality Analysis

A qualitative assessment of the operational phase was carried out and it was concluded that the impacts of the proposed operation, at residential and industrial/commercial receivers, are likely not to be significant.

With the proposed development only involving warehousing and distribution activities, the operations are not considered to contribute to the cumulative emissions for the area.

6.3 PLANNED MANAGEMENT AND MITIGATION MEASURES

Mapletree SR Australia Management Pty Ltd plans to undertake the construction and operation of the proposed multi-level warehouse and distribution centre, in accordance with the planned management and mitigation measures outlined within **Appendix E** of this EIS.

PART 7 JUSTIFICATION OF THE PROJECT

7.1 JUSTIFICATION

The proposed development is justified on environmental, social and economic grounds and is compatible with the locality in which it is proposed. The proposed development would enhance the subject site from an otherwise vacant landholding to a productive employment generating facility.

This EIS is submitted on the following basis.

7.1.1 Supports State, Regional and Local Planning Objectives

The proposed development is consistent with the objectives, provisions and vision contained within *A Metropolis of Three Cities – Greater Sydney Region Plan*; the *Western City District Plan*; the *Liverpool Local Strategic Planning Statement 2020*; and the *Future Transport Strategy 2056*. The proposed development would contribute to employment generation in an area already earmarked for employment through both State and Regional planning policies.

The subject site forms part of the Moorebank industrial area, being identified as a significant employment precinct in the Western City District, which can be used as a base to leverage the opportunities from Western Sydney Airport, the nearby Intermodal Freight Facility, existing freight infrastructure, and inter-regional connections. These competitive advantages all provide an unprecedented opportunity for the Western City District to realise a national freight and logistics role, with enhanced productivity and a substantial provision of local jobs.

This proposed development aligns with Planning Priority W10 of the Western City District Plan, which aims to retain and manage established industrial land in Liverpool, as it seeks to reinvigorate an otherwise dated and inefficient industrial site to cater for industry advancements and best practice for warehousing and distribution, and associated land uses.

Similarly, the proposed development fully accords with Local Planning Priority 12 of Liverpool's Local Strategic Planning Statement, which recognises that the prospects for industrial and employment projects in Liverpool are "strong" given the proximity to transport links such as the M5 and M7, and large projects including the aforementioned Airport and Intermodal Freight Terminal.

In addition, the need for warehousing and distribution was given a burning platform by changes to business as usual catalysed by COVID-19. The NSW DPE recognises warehouse and distribution centres as a type of development 'well-placed' to support the economic recovery from COVID-19. Warehouse and distribution centres were included as one infrastructure asset encouraging investment and job-generating development in NSW DPE's Productivity Acceleration Package.

7.1.2 Demonstrates an Appropriate Use of a Permissible Development

The proposed development would retain and contribute to the growth of new industry for the immediate locale and the wider region. The proposed development would be a highly appropriate and compatible (given its contiguousness to other existing warehousing and industrial developments) response to the strategic goals and objectives of the Moorebank industrial area, which all envisage employment-generating land uses at this location.

The permissibility of the subject site for development as a warehouse and distribution centre is prescribed by the LLEP 2008, which describes such development as permitted with consent in the E4 General Industrial zone.

The subject site's consistency with applicable regional and local strategies is demonstrated in the comprehensive environmental assessment, provided in **PART 6** of this EIS, which includes an analysis

of all potential impacts, which has been informed by the relevant consultant reports. Accordingly, the environmental assessment prescribes recommendations and mitigation measures (where necessary), to account for all identified potential impacts, by the proposed development. The suitability of the subject site with regard to the proposed development, can be attributed to its ready ability to provide employment, its excellent access arrangements, its suitable contextual setting, and its minimal impact on the environment.

7.1.3 Minimises Environmental Impacts

Specialist consultants have assessed the potential impacts of the proposed development, determining that it could be undertaken with minimal environmental impacts. The commissioned reports (as listed in **TABLE 1** have collectively concluded that no significant risk to the locality would result from the proposed development. Where impacts have been identified, these fully-developed strategies are set out in detail for management and mitigation. These measures are described in **PART 6** of this EIS.

7.1.4 Creates Compatibility with Surrounding Development

The proposed development is compatible with existing land uses on adjacent lands, all of which provide very similar industrial functions. All are within the immediate vicinity of the proposed development. Detailed investigations undertaken, as part of this application, conclude that no significant environmental cumulative impacts, would occur from the proposed facility.

7.1.5 Delivers Ecologically Sustainable Development

The principles of ESD as outlined in Clause 193 of the EP&A Regulation have been carefully considered in the formulation of the proposed development are addressed as follows:

7.1.5.1 Precautionary Principle

Through the implementation of environmental management and an assessment of the building's operational maintainability, the proposed development attempts to incorporate adaptability and resilience into the project design. The concept behind the precautionary principle is to create spaces that can both; accommodate for changes, which may eventuate in the future, and avoid the risk of serious or irreversible damage to the environment.

After careful assessment by both the project team and expert consultants, it is concluded that no unmanageable threat or irreversible damage to the environment, would result from the proposed development.

7.1.5.2 Inter-generational Equity

The project team and expert consultants have examined the overall effects of the proposed development, on both the natural environment and the existing built environment within the vicinity of the subject site.

Through the inclusion of the 300kW PV solar system; 110kL rainwater tanks for rainwater harvesting and re-use for landscape irrigation and toilet flushing; low VOC paints, carpet and sealant for offices; and low carbon construction materials including recycled steel, green cement and recycled concrete aggregate, the project demonstrates a strong commitment to the preservation of environmental health, diversity and productivity of the local area.

This detailed assessment has concluded that no unreasonable use of resources, affectation of environmental processes or prevention of the use of land for future generations would occur from the proposed development. The proposed development would improve the status of the subject site and

contribute to the economies of the region through both substantial investment and new employment, thereby improving the inter-generational equity.

7.1.5.3 Conservation of Biological Diversity and Ecological Integrity

Through the planting of native vegetation, improvement of stormwater runoff from the subject site and use of integrated landscaping, the project will act to improve, conserve and support the local biological diversity and integrity.

The proposed development will ensure any direct and indirect impacts on biodiversity are avoided, minimised and mitigated through the implementation of relevant best management practices and subject to the proposed development's consent conditions.

7.1.5.4 Improved Valuation, Pricing and Incentive Mechanisms

The proposed development would enable operational efficiencies for the end user, through the provision of tailored design outcomes.

7.1.5.5 Environmental Management

The proposed development implements significant and elaborate measures that avoid, contain and address any possible air quality, noise, waste and pollution impacts, through avoidance, better design and management. This is exemplified through the measures, which would be implemented throughout both the construction and operational phases of the proposed development, outlined within **PART 6** of this EIS.

APPENDIX A
SEARS TABLE

HOW THE SEARS HAVE BEEN SATISFIED	
Issue and Assessment Requirements	**Satisfied by**
1. Statutory Context	
▪ Address all relevant legislation, environmental planning instruments (EPIs) (including drafts), plans, policies and guidelines.	Refer to **PART 4** of this EIS.
▪ Identify compliance with applicable development standards and provide a detailed justification for any non-compliances.	Refer to **Appendix C** of this EIS.
▪ If the development is only partly State significant development (SSD) under clause 8(1) of the State and Regional Development SEPP, provide an explanation of how the remainder of the development is sufficiently related to the component that is SSD.	**N/A** – the proposal is wholly SSD.
▪ Address the requirements of any approvals applying to the site, including any concept approval or recommendation from any Gateway determination.	N/A – Refer to **Section 2.2** of this EIS.
2. Estimated Development Cost and Employment	
▪ Provide a detailed calculation of the estimated development cost (EDC) of the development prepared by a AIQS Certified Quantity Surveyor or RICS Chartered Quantity Surveyor in accordance with *Planning Circular PS 21-020: Calculation of Capital Investment Value*. The calculation of the estimated EDC is to be accurate at the date of application and include details of all components and assumptions from which it is derived.	Refer to **Section 1.5** and **Appendix 2** of this EIS.
▪ Provide an estimate of the retained and new jobs that would be created during the construction and operational phases of the development, including details of the methodology to determine the figures provided.	Refer to **Section 1.6** and **Appendix 2** of this EIS.
3. Design Quality	
▪ Demonstrate how the development will achieve: – design excellence in accordance with any applicable EPI provisions. – good design in accordance with the seven objectives for good design in *Better Placed*.	Refer to **Section 6.1.3** and **Appendix 5** of this EIS.
▪ Where required by an EPI or concept approval, demonstrate that the development has been subject to a competitive design process, or reviewed by the State Design Review Panel (SDRP) consistent with the *NSW SDRP: Guidelines for Project Teams.* Recommendations are to be addressed prior to lodgement.	**N/A** – the proposal is not subject to a competitive design process, and is not to be reviewed by the SDRP.
4. Built Form and Urban Design	
▪ Explain and illustrate the proposed built form, including a detailed site and context analysis to justify the proposed site planning and design approach.	Refer to **Section 3.3.2**, **Section 6.1.4**, **Appendix 4**, **Appendix 5** and **Appendix 6** of this EIS.

▪ Demonstrate how the proposed built form (layout, height, bulk, scale, separation, setbacks, interface and articulation) addresses and responds to the context, site characteristics, streetscape and existing and future character of the locality.	Refer to **Section 3.3.2**, **Section 6.1.4, Appendix 4** and **Appendix 5** of this EIS.
▪ Demonstrate how the building design will deliver a high-quality development, including consideration of façade design, articulation, materials, finishes, colours, any signage and integration of services.	Refer to **Section 3.3.2**, **Section 6.1.4, Appendix 4** and **Appendix 5** of this EIS.
▪ Assess how the development complies with the relevant accessibility requirements.	Refer to **Section 6.1.4** and **Appendix 7** of this EIS.
5. Visual Impact	
▪ Provide a visual analysis of the development from key viewpoints, including photomontages or perspectives showing the proposed and likely future development.	Refer to **Section 6.1.5** and **Appendix 8** of this EIS.
▪ Where the visual analysis has identified potential for significant visual impact, provide a visual impact assessment that addresses the impacts of the development on the existing catchment.	Refer to **Section 6.1.5** and **Appendix 8** of this EIS.
6. Traffic, Transport and Accessibility	
▪ Provide a transport and accessibility impact assessment, which includes: – details of all traffic types and volumes likely to be generated during construction and operation, including a description of key access and haul routes. – an assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections (using industry standard modelling). – plans demonstrating how all vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the street network. – details and plans of any proposed internal road network, loading dock provision and servicing, on-site parking provisions, and sufficient pedestrian and cyclist facilities, in accordance with the relevant Australian Standards. – swept path analysis for the largest vehicle requiring access to the development. – details of road upgrades, infrastructure works, or new roads or access points required for the development if necessary.	Refer to **Section 6.1.6** and **Appendix 9** of this EIS.
▪ Provide a Construction Traffic Management Plan detailing predicted construction vehicle movements, routes, access and parking arrangements, coordination with other construction occurring in the area, and how impacts on	Refer to **Section 6.1.6** and **Appendix 9** of this EIS.

existing traffic, pedestrian and bicycle networks would be managed and mitigated.	
7. Trees and Landscaping	
▪ Provide a detailed site-wide landscape plan, that: – identifies the number and location of trees to be removed and retained, and how opportunities to retain significant trees have been explored and/or informs the plan. – details the proposed site planting, including location, number and species of plantings, heights of trees at maturity and proposed canopy coverage. – demonstrates how the proposed development would: ○ contribute to long term landscape setting in respect of the site and streetscape. ○ mitigate the urban heat island effect and ensure appropriate comfort levels on-site. ○ contribute to the objective of increased urban tree canopy cover. ○ maximise opportunities for green infrastructure, consistent with Greener Places and having regard to any bush fire risk.	Refer to **Section 6.1.7** and **Appendix 10** of this EIS.
8. Ecologically Sustainable Development (ESD)	
▪ 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.	Refer to **Section 6.1.8** and **Appendix 12** of this EIS.
▪ Demonstrate how the development will meet or exceed the relevant industry recognised building sustainability and environmental performance standards.	Refer to **Section 6.1.8** and **Appendix 12** of this EIS.
▪ Demonstrate how the development minimises greenhouse gas emissions (reflecting the Government's goal of net zero emissions by 2050) and consumption of energy, water (including water sensitive urban design) and material resources.	Refer to **Section 6.1.8** and **Appendix 12** of this EIS.
9. Biodiversity	
▪ Assess any biodiversity impacts associated with the development in accordance with the *Biodiversity Conservation Act 2016* and the *Biodiversity Assessment Method 2020*, including the preparation of a Biodiversity Development Assessment Report (BDAR), unless a waiver is granted, or the site is on biodiversity certified land.	A BDAR Waiver is sought from NSW DPE, refer to **Section 6.1.9** and **Appendix 13** of this EIS.
▪ If the development is on biodiversity certified land, provide information to identify the site (using associated mapping) and demonstrate the proposed development is consistent with the relevant biodiversity measure conferred by the biodiversity certification.	**N/A** – the subject site is not biodiversity certified land.
10. Air Quality	
▪ Identify significant air emission sources at the proposed development (during construction and operation), assess their potential to cause adverse off-site impacts, and detail	Refer to **Section 6.1.10** and **Appendix 14** of this EIS.

proposed management and mitigation measures that would be implemented. Where air emissions during operation have the potential to cause adverse off-site impacts, provide a quantitative air quality impact assessment prepared in accordance with the relevant NSW Environment Protection Authority (EPA) guidelines.	
11. Noise and Vibration	
▪ Provide a noise and vibration assessment prepared in accordance with the relevant EPA guidelines. The assessment must detail construction and operational noise and vibration impacts on nearby sensitive receivers and structures and outline the proposed management and mitigation measures that would be implemented.	Refer to **Section 6.1.11, Appendix 15** and **Appendix 16** of this EIS.
12. Ground and Water Conditions	
▪ Assess potential impacts on soil resources and related infrastructure and riparian lands on and near the site, including soil erosion, salinity and acid sulfate soils	Refer to **Section 6.1.12** and **Section 6.1.6** of this EIS.
▪ Provide a Surface and Groundwater Impact Assessment that assesses potential impacts on: – surface water resources (quality and quantity) including related infrastructure, hydrology, dependent ecosystems, drainage lines, downstream assets and watercourses. – groundwater resources in accordance with the Groundwater Guidelines.	Refer to **Section 6.1.12**, **Appendix 17** and **Appendix 18** of this EIS.
13. Water Management	
▪ Provide an Integrated Water Management Plan for the development that: – is prepared in consultation with the local council and any other relevant drainage or water authority. – outlines the water-related servicing infrastructure required by the development (informed by the anticipated annual and ultimate increase in servicing demand) and evaluates opportunities to reduce water demand (such as recycled water provision). – details the proposed drainage design for the site including any on-site detention facilities, water quality management measures and the nominated discharge points, on-site sewage management, and measures to treat, reuse or dispose of water. – demonstrates compliance with the local council or other drainage or water authority requirements and avoids adverse downstream impacts.	Refer to **Section 6.1.13** and **Appendix 20** of this EIS.
▪ Where water and drainage infrastructure works are required that would be handed over to the local council, or other drainage or water authority, provide full hydraulic details and detailed plans and specification of proposed works that have been prepared in consultation with, and	**N/A** – the proposed development does not include drainage works that are required to be handed over to Council or the water authority.

comply with the relevant standards of, the local council or other drainage or water authority.	
14. Flooding Risk	
▪ Identify any flood risk on-site having regard to adopted flood studies, the potential effects of climate change, and any relevant provisions of the *NSW Floodplain Development Manual*.	Refer to **Section 6.1.14** and **Appendix 21** of this EIS.
▪ Assess the impacts of the development, including any changes to flood risk on-site or off-site, and detail design solutions and operational procedures to mitigate flood risk where required.	Refer to **Section 6.1.14** and **Appendix 21** of this EIS.
15. Hazards and Risks	
▪ Where there are dangerous goods and hazardous materials associated with the development provide a preliminary risk screening in accordance with Chapter 3 of SEPP (Resilience and Hazards) 2021.	**N/A** – the proposed development does not include the storage of any dangerous or hazardous materials.
▪ Where required by SEPP (Resilience and Hazards) 2021, provide a Preliminary Hazard Analysis prepared in accordance with *Hazardous Industry Planning Advisory Paper No.6 – Guidelines for Hazard Analysis and Multi-Level Risk Assessment.*	**N/A** – the proposed development does not include the storage of any dangerous or hazardous materials.
▪ If the development is adjacent to or on land in a pipeline corridor, report on consultation outcomes with the operator of the pipeline, and prepare a hazard analysis.	**N/A** – the subject site is not adjacent to or on land in a pipeline corridor.
16. Contamination and Remediation	
▪ In accordance with Chapter 4 of SEPP (Resilience and Hazards) 2021, assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable (or will be suitable, after remediation) for the development.	Refer to **Section 6.1.16, Appendix 22, Appendix 23, Appendix 24 and Appendix 25** of this EIS.
17. Waste Management	
▪ Identify, quantify and classify the likely waste streams to be generated during construction and operation.	Refer to **Section 6.1.17** and **Appendix 26** of this EIS.
▪ Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.	Refer to **Section 6.1.17** and **Appendix 26** of this EIS.
▪ Identify appropriate servicing arrangements for the site.	Refer to **Section 6.1.17** and **Appendix 26** of this EIS.
▪ If buildings are proposed to be demolished or altered, provide a hazardous materials survey.	**N/A** – the proposal involves a completely new build. Demolition is subject to a separate approval pathway.
18. Aboriginal Cultural Heritage	
▪ Provide an Aboriginal Cultural Heritage Assessment Report prepared in accordance with relevant guidelines, identifying, describing and assessing any impacts for any Aboriginal cultural heritage values on the land.	Refer to **Section 6.1.18** and **Appendix 27** of this EIS.

19. Environmental Heritage	
▪ Where there is potential for direct or indirect impacts on the heritage significance of environmental heritage, provide a Statement of Heritage Impact and Archaeological Assessment (if potential impacts to archaeological resources are identified), prepared in accordance with the relevant guidelines, which assesses any impacts and outlines measures to ensure they are minimised and mitigated.	Refer to **Section 6.1.19** and **Appendix 28** of this EIS.
20. Social Impact	
▪ Provide a Social Impact Assessment prepared in accordance with the *Social Impact Assessment Guidelines for State Significant Projects*.	Refer to **Section 6.1.20** and **Appendix 29** of this EIS.
21. Infrastructure Requirements and Utilities	
▪ In consultation with relevant service providers: – assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site. – identify any infrastructure upgrades required on-site and off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained. – provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development.	Refer to **Section 6.1.21** and **Appendix 30** of this EIS.
22. Bush Fire Risk	
▪ If the development is on bush fire prone land, provide a bush fire assessment that details proposed bush fire protection measures and demonstrates compliance with *Planning for Bush Fire Protection*.	**N/A** – the subject site does not comprise bush fire prone land.
23. Construction, Operation and Staging	
▪ If staging is proposed, provide details of how construction and operation would be managed and any impacts mitigated.	Refer to **Section 6.1.23** of this EIS.
24. Contributions and Public Benefit	
▪ Address the requirements of any relevant contribution plan(s), planning agreement or EPI requiring a monetary contribution, dedication of land and/or works-in-kind and include details of any proposal for further material public benefit.	Refer to **Section 6.1.24** of this EIS.
▪ Where the development proposes alternative public benefits or a departure from an existing contributions framework, the local council, the Department and relevant State agencies are to be consulted prior to lodgement and details, including how comments have been addressed, are to be provided.	**N/A** – the proposed development does not seek an alternative arrangement from the existing contributions framework.
25. Engagement	

▪ Detail engagement undertaken and demonstrate how it was consistent with the *Undertaking Engagement Guidelines for State Significant Projects*. Detail how issues raised and feedback provided have been considered and responded to in the project. In particular, applicants must consult with: – the relevant Department assessment team. – any relevant local councils. – any relevant agencies. – the community. – if the development would have required an approval or authorisation under another Act but for the application of s 4.41 of the EP&A Act or requires an approval or authorisation under another Act to be applied consistently by s 4.42 of the EP&A Act, the agency relevant to that approval or authorisation.	Refer to **Section 6.1.25** and **Appendix 31** of this EIS.

APPENDIX B
DETAILED MAPS AND PLANS

SD-58978472

APPENDIX C
STATUTORY COMPLIANCE TABLE

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
Considerations under the EP&A Act and EP&A Regulation				
Environmental Planning and Assessment Act 1979	Section 1.3 – Objects of the Act	*(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,*	The proposed development is appropriately located in an existing industrial area of strategic importance. The suitability of the subject site and the proposed development would see social and economic benefits for the area, without impacts to the State's natural and other resources.	**N/A**
		(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	The proposed development facilitates ecologically sustainable development.	Refer to **Section 6.1.8** of the EIS.
		(c) to promote the orderly and economic use and development of land,	As well as fulfilling a significant role in satisfying market needs and improving the operational efficiencies of industrial and warehouse land uses within NSW, the proposed development also demonstrates a logical redevelopment of a dated industrial site. The subject site's economic development is both logical and orderly for the following reasons: ▪ it delivers employment-generating opportunities in both the construction and operational phases in an area already designated by both State and Regional policies for employment and advancement.	**N/A**

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
			▪ It provides both a new economically and ecologically sustainable development, delivering new industry best-practice in industrial construction. ▪ It provides a genuine and obvious transition from existing industrial development, further reinforcing the notion of orderly development, within an area already designated for such purposes. ▪ It implements best-practice sustainability measures to promote ecologically sustainable development. ▪ It includes increased provisions for landscaping, helping to revitalise and naturally landscape a substantial canopy cover across the site, further minimising the potential impacts of the Urban Heat Island Effect, by further reducing the site's microclimate. ▪ It improves water-quality for stormwater in accordance with the requirements of Council's engineering guidelines.	
		(d) to promote the delivery and maintenance of affordable housing,	Not applicable – this objective is not applicable to the proposed development, as the proposal does not seek consent for housing.	**N/A**
		(e) to protect the environment, including the conservation of threatened and other	The subject site's biodiversity has been suitably assessed, including impacts to threatened and	Refer to **Section 6.1.9** of the EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
		species of native animals and plants, ecological communities and their habitats,	other species of native animals and plants, ecological communities and their habitats.	
		(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	Both environmental and Aboriginal cultural heritage has been suitably assessed, finding that: ▪ the proposed development does not impact on any items of historical heritage, and ▪ the entirety of the subject site is considered to be of 'low' archaeological potential to contain Aboriginal cultural heritage and there would be no harm to known heritage values by the proposed works.	Refer to **Section 6.1.18** and **6.1.19** of the EIS.
		(g) to promote good design and amenity of the built environment,	The vision of the proposed development is to create a quality built form with integrated landscaping. The proposed development is considered to promote both good design and improved amenity, through the use of new-age materials and innovative contemporary design. Colours proposed for the facades of the building are typical of this type of development with more muted recessive tones applied, that will transition well from the existing neighbouring developments. The proposed development can be seen to promote both good design and at the same time improving the amenity of the built	Refer to **Section 6.1.3** and **6.1.4** of the EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
			environment through activation of the site by enhanced landscaping across the site. Through both the use of new-age materials and an innovative contemporary design, the proposed development allows the built form to connect with the natural landscape, to tie the built-form elements into a relatable thematic nexus to the natural environment, using industry-best-practice.	
		(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	The proposed development would be implemented through best-industry practice standards and measures. The proposal has been designed in accordance with the NCC. This incorporates into the design, all statutory and functional requirements, regarding access, egress and fire, which are deemed necessary to safeguard the safety of building occupants and the longevity of the development.	**N/A**
		(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	This proposal is SSD, which devolves the environmental planning and assessment of the application to NSW DPE. Notwithstanding, the proposal has also been informed by engagement with Council.	**N/A**
		(j) to provide increased opportunity for community participation in environmental planning and assessment.	Community and stakeholder engagement has been undertaken for the proposed development. This has included meetings and notification letters to both agencies and all potentially impacted stakeholders.	Refer to **PART 5** and **Section 6.1.25** of the EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
	Section 4.15(1)(a) – Matters for consideration—general	*(i) any relevant environmental planning instrument, and*	The EPIs relevant to the proposed development include: ▪ *State Environmental Planning Policy (Planning Systems) 2021* ▪ *State Environmental Planning Policy (Resilience and Hazards) 2021* ▪ *State Environmental Planning Policy (Industry and Employment) 2021* ▪ *State Environmental Planning Policy (Transport and Infrastructure) 2021* ▪ *State Environmental Planning Policy (Biodiversity and Conservation) 2021* ▪ *Liverpool Local Environmental Plan 2008*	Refer below.
		(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and	Draft EPIs relevant to the proposed development include: ▪ *State Environmental Planning Policy (Sustainable Buildings) 2022* ▪ *Liverpool Local Environmental Plan Review*	Refer below.
		(iii) any development control plan, and	Despite the relevance of Clause 2.10 of the *State Environmental Planning Policy (Planning Systems) 2021*, the *Liverpool Development Control Plan 2008* has been considered and assessed.	Refer to **Section 4.1.4.1** of this EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
		(iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and	Not applicable – no planning agreements apply to the subject site or proposed development.	**N/A**
		(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph),	-	Refer below.
	Section 4.15(1)(b) – Matters for consideration—general	*the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,*	**-**	Refer to **PART 6** of this EIS.
	Section 4.15(1)(c) – Matters for consideration—general	*the suitability of the site for the development,*	**-**	Refer to **Section 2.7** of this EIS.
	Section 4.15(1)(d) – Matters for consideration—general	*any submissions made in accordance with this Act or the regulations*	Part of the forthcoming exhibition and response to submissions phases	**N/A**
	Section 4.15(1)(e) – Matters for consideration—general	*the public interest*	**-**	Refer to **Section 6.1.25** of this EIS.
Environmental Planning and Assessment Regulation 2021	Clause 190 – Form of environmental impact statement	*(1) An environmental impact statement must contain the following information—* *(a) the name, address and professional qualifications of the person who prepared the statement,*	**-**	Refer to **WHOLE EIS.**

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
		(b) the name and address of the responsible person, *(c) the address of the land—* *(i) to which the development application relates, or* *(ii) on which the activity or infrastructure to which the statement relates will be carried out,* *(d) a description of the development, activity or infrastructure,* *(e) an assessment by the person who prepared the statement of the environmental impact of the development, activity or infrastructure, dealing with the matters referred to in this Division.*		
		(2) The person preparing the statement must have regard to— *(a) for State significant development—the State Significant Development Guidelines, or* *(b) for State significant infrastructure—the State Significant Infrastructure Guidelines.*	-	Refer to **WHOLE EIS.**
		(3) An environmental impact statement must also contain a declaration by a relevant person that— *(a) the statement has been prepared in accordance with this Regulation, and*	-	Refer to **EIS DECLERATION** on **page ii** of this EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
		(b) the statement contains all available information that is relevant to the environmental assessment of the development, activity or infrastructure, and *(c) the information contained in the statement is not false or misleading, and* *(d) for State significant development or State significant infrastructure—the statement contains the information required under the Registered Environmental Assessment Practitioner Guidelines.*		
	Clause 191 – Compliance with environmental assessment requirements	*The environmental impact statement must comply with the environmental assessment requirements notified under section 176 or the Act, section 5.16(4).*	The SEARs (reference: SSD-58978472), issued by the NSW DPE on 8 June 2023, identify the following Key Issues: 1. Statutory Context 2. Capital Investment Value and Employment 3. Design Quality 4. Built Form and Urban Design 5. Visual Impact 6. Traffic, Transport and Accessibility 7. Trees and Landscaping 8. Ecologically Sustainable Development (ESD) 9. Biodiversity 10. Air Quality	Refer to **PART 6** of this EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
			11. Noise and Vibration 12. Ground and Water Conditions 13. Water Management 14. Flooding Risk 15. Hazards and Risks 16. Contamination and Remediation 17. Waste Management 18. Aboriginal Cultural Heritage 19. Environmental Heritage 20. Social Impact 21. Infrastructure Requirements and Utilities 22. Bush Fire Risk 23. Construction, Operation and Staging 24. Contributions and Public Benefit 25. Engagement	
Considerations under EPIs				
State Environmental Planning Policy (Planning Systems) 2021	Part 2.2 – State Significant Development	*(1) Development is declared to be State significant development for the purposes of the Act if—* *(a) the development on the land concerned is, by the operation of an environmental planning instrument, not permissible without development consent under Part 4 of the Act, and* *(b) the development is specified in Schedule 1 or 2.*	In accordance with Schedule 1 of the Planning Systems SEPP, development that has a EDC of more than $50 million for the purpose of a Warehouse or Distribution Centre constitutes State Significant Development. The EDC of the proposed development is more than $50 million.	Refer to **Section 1.5** of this EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
State Environmental Planning Policy (Resilience and Hazards) 2021	Clause 4.6 – Contamination and remediation to be considered in determining development application	*(1) A consent authority must not consent to the carrying out of any development on land unless—* *(a) it has considered whether the land is contaminated, and* *(b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and* *(c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*	Detailed site investigations of the subject site have identified that remediation is required to make the land suitable for the proposed development.	Refer to **Section 6.1.16** of this EIS.
State Environmental Planning Policy (Industry and Employment) 2021	Clause 3.6 – Granting consent for signage	*A consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied—* *(a) that the signage is consistent with the objectives of this Chapter as set out in section 3.1(1)(a), and* *(b) that the signage the subject of the application satisfies the assessment criteria specified in Schedule 5.*	The proposal seeks consent for signage, which necessitates assessment against Chapter 3 and Schedule 5 of the Industry and Employment SEPP.	Refer below and **Appendix 34** of this EIS.
	Clause 3.11 – Matters for consideration	*A consent authority (other than in a case to which subsection (2) applies) must not grant consent to an application to display an advertisement to which this Chapter applies*	-	Refer below and **Appendix 34** of this EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
		unless the advertisement or the advertising structure, as the case requires— *(a) is consistent with the objectives of this Chapter as set out in section 3.1(1)(a), and* *(b) has been assessed by the consent authority in accordance with the assessment criteria in Schedule 5 and the consent authority is satisfied that the proposal is acceptable in terms of its impacts, and* *(c) satisfies any other relevant requirements of this Chapter.*		
	Clause 3.1 – Aims, objectives etc.	*(1) (a) to ensure that signage (including advertising) –* *(i) is compatible with the desired amenity and visual character of an area, and* *(ii) provides effective communication in suitable locations, and* *(iii) is of high quality design and finish.*	Signage will be considered on an estate-wide basis, such that there will be consistency in materials and finishes of the signs across the estate. Signage will be a combination of building mounted signs, and estate and tenant identification signs in landscape setbacks, at driveway entries and building entrances. The signage design will be considered as part of the landscape and architectural language of the buildings, to provide placemaking and wayfinding principles for safety and user experience throughout the estate.	Refer to **Appendix 4**, **Appendix 5**, **Appendix 8** and **Appendix 34** of this EIS.
State Environmental Planning Policy (Transport and Infrastructure) 2021	Division 5, Subdivision 2 – Development likely to affect an electricity transmission or	*(2) Before determining a development application (or an application for modification of a consent) for development to which this section applies, the consent authority must—*	The proposed development involves works within 5m of an exposed overhead electricity power line, as such consideration of Subdivision 2 is required.	Refer to **Section 6.1.21** and **Appendix 32** of this EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
	distribution network	*(a) give written notice to the electricity supply authority for the area in which the development is to be carried out, inviting comments about potential safety risks, and* *(b) take into consideration any response to the notice that is received within 21 days after the notice is given.*		
	Clause 2.122 – Traffic generating development	*(1) This section applies to development specified in Column 1 of the Table to Schedule 3 that involves –* *(a) new premises of the relevant size or capacity, or* *(b) an enlargement or extension of existing premises, being an alteration or addition of the relevant size or capacity.* *[...]* *(4) Before determining a development application for development to which this section applies, the consent authority must—* *(a) give written notice of the application to TfNSW within 7 days after the application is made, and* *(b) take into consideration—* *(i) any submission that RMS provides in response to that notice within 21 days after the notice was given (unless, before the 21 days have passed, TfNSW advises that it will not be making a submission), and*	The proposed development involves a Warehouse and Distribution Centre with a site area greater than 8,000m^2, which constitutes traffic-generating development, as described in Schedule 3 of the Transport and Infrastructure SEPP.	Refer to **Section 6.1.6** of this EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
		(ii) the accessibility of the site concerned, including— *(A) the efficiency of movement of people and freight to and from the site and the extent of multi-purpose trips, and* *(B) the potential to minimise the need for travel by car and to maximise movement of freight in containers or bulk freight by rail, and* *(iii) any potential traffic safety, road congestion or parking implications of the development.*		
State Environmental Planning Policy (Sustainable Buildings) 2022	Clause 3.2 – Development consent for non-residential development	*(1) In deciding whether to grant development consent to non-residential development, the consent authority must consider whether the development is designed to enable the following—* *(a) the minimisation of waste from associated demolition and construction, including by the choice and reuse of building materials,* *(b) a reduction in peak demand for electricity, including through the use of energy efficient technology,* *(c) a reduction in the reliance on artificial lighting and mechanical heating and cooling through passive design,* *(d) the generation and storage of renewable energy,*	Through the implementation of the initiatives noted within the Sustainability Management Plan, the project demonstrates the subject site's commitment to the principles of Ecologically Sustainable Development throughout the design, construction, and operation of the proposed development.	Refer to **Section 6.1.8** and **Appendix 12** of this EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
		(e) the metering and monitoring of energy consumption, *(f) the minimisation of the consumption of potable water.* *(2) Development consent must not be granted to non-residential development unless the consent authority is satisfied the embodied emissions attributable to the development have been quantified.*		
Liverpool Local Environmental Plan 2008	Clause 4.3 – Height of Buildings	*(2) The height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map.*	The prescribed Maximum Building Height for the subject site is 30m.	Refer to **Appendix 4** of this EIS.
	Clause 4.4 – Floor Space Ratio	*(2) The maximum floor space ratio for a building on any land is not to exceed the floor space ratio shown for the land on the Floor Space Ratio Map.*	There is no applicable Floor Space Ratio development standard for the subject site.	**N/A**
	Clause 5.21 – Flood Planning	*(2) Development consent must not be granted to development on land the consent authority considers to be within the flood planning area unless the consent authority is satisfied the development—* *(a) is compatible with the flood function and behaviour on the land, and* *(b) will not adversely affect flood behaviour in a way that results in detrimental increases in the potential flood affectation of other development or properties, and*	The requirements of Council and the NSW Floodplain Development Manual have been addressed and are met for the proposed development.	Refer to **Section 6.1.14** and **Appendix 21** of this EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
		(c) will not adversely affect the safe occupation and efficient evacuation of people or exceed the capacity of existing evacuation routes for the surrounding area in the event of a flood, and *(d) incorporates appropriate measures to manage risk to life in the event of a flood, and* *(e) will not adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.* *(3) In deciding whether to grant development consent on land to which this clause applies, the consent authority must consider the following matters—* *(a) the impact of the development on projected changes to flood behaviour as a result of climate change,* *(b) the intended design and scale of buildings resulting from the development,* *(c) whether the development incorporates measures to minimise the risk to life and ensure the safe evacuation of people in the event of a flood,* *(d) the potential to modify, relocate or remove buildings resulting from development if the surrounding area is impacted by flooding or coastal erosion.*		

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
	Clause 7.7 – Acid Sulphate Soils	*(2) Development consent is required for the carrying out of works described in the Table to this subclause on land shown on the Acid Sulfate Soils Map as being of the class specified for those works.* [For land within Class 5, this applies to] *Works within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum by which the watertable is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.* *(3) Development consent must not be granted under this clause for the carrying out of works unless an acid sulfate soils management plan has been prepared for the proposed works in accordance with the Acid Sulfate Soils Manual and has been provided to the consent authority.* *(4) Development consent is not required under this clause for the carrying out of works if—* *(a) a preliminary assessment of the proposed works prepared in accordance with the Acid Sulfate Soils Manual indicates that an acid sulfate soils management plan need not be carried out for the works, and* *(b) the preliminary assessment has been provided to the consent authority and the consent authority has confirmed the*	The likelihood of acid sulfate soils being present at the subject site is 'low'. With reference to the Liverpool Acid Sulfate Soil Risk Map, the subject site land lies with an area having "no known occurrence". In such cases, acid sulfate soils are not known or expected to occur and "land management activities are not likely to be affected by acid sulfate soil materials. Based on these maps as well as the subject site's elevation (> 10m AHD), the likelihood for acid sulfate soils to be present on-site is reiterated as 'low'.	Refer to **Section 6.1.16** of this EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
		assessment by notice in writing to the person proposing to carry out the works.		
	Clause 7.31 - Earthworks	*(2) Development consent is required for earthworks unless—* *(c) the work is exempt development under this Plan or another applicable environmental planning instrument, or* *(d) the work is ancillary to other development for which development consent has been given.* *(3) Before granting development consent for earthworks, the consent authority must consider the following matters—* *(a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality,* *(b) the effect of the proposed development on the likely future use or redevelopment of the land,* *(c) the quality of the fill or the soil to be excavated, or both,* *(d) the effect of the proposed development on the existing and likely amenity of adjoining properties,* *(e) the source of any fill material and the destination of any excavated material,* *(f) the likelihood of disturbing relics,* *(g) the proximity to and potential for adverse impacts on any watercourse,*	Bulk earthworks are proposed as part of this SSDA, requiring consideration of Clause 7.31 of the LLEP 2008.	Refer to **Section 6.1.12** and **Appendix 20** of this EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
		drinking water catchment or environmentally sensitive area.		
Considerations under other legislation				
Commonwealth Environment Protection and Biodiversity Conservation Act 1999	Division 1 — Requirements relating to matters of national environmental significance	*Division 1—Requirements relating to matters of national environmental significance.*	Relevant and potential MNES listed under the EPBC Act include both PCTs 849 and 1800. The proposed development would not result in potential significant impacts to MNES.	Refer to **Section 6.1.9** and **Appendix 13** of this EIS.
Biodiversity Conservation Act 2016	Section 7.9 – Biodiversity assessment for State significant development or infrastructure	*(1) This section applies to—* *(a) an application for development consent under Part 4 of the Environmental Planning and Assessment Act 1979 for State significant development, and* *(b) an application for approval under Division 5.2 of the Environmental Planning and Assessment Act 1979 to carry out State significant infrastructure.* *(2) Any such application is to be accompanied by a biodiversity development assessment report unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values.* *(3) The environmental impact statement that accompanies any such application is to include the biodiversity assessment required by the environmental assessment*	SLR have prepared a Biodiversity Assessment Report (BDAR) Waiver Request, as required by the SEARs.	Refer to **Section 6.1.9** and **Appendix 13** of this EIS.

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY				
Statutory document	**Section reference**	**Mandatory consideration**	**Relevance**	**Section in the EIS**
		requirements of the Planning Agency Head under the Environmental Planning and Assessment Act 1979.		

APPENDIX D
COMMUNITY ENGAGEMENT TABLE

COMMUNITY ENGAGEMENT TABLE			
Stakeholder Group	**Organisations**	**Matters Raised**	**Satisfied by**
Indigenous community	Gandangara Local Aboriginal Land Council and Identified RAPs.	▪ Contacted via email by HillPDA on 2 August 2023. ▪ An Aboriginal Cultural Heritage Assessment, prepared by Travers Archaeology, assessed the site as demonstrating low archaeological sensitivity and potential for Aboriginal objects and/or in situ archaeological deposits, concluding that , the proposed works within the study area will not impact on identified Aboriginal objects or areas where Aboriginal objects are likely to occur beneath the ground surface. ▪ In addition, Aboriginal community consultation commenced in October 2023, with a number registering as Registered Aboriginal Parties (RAPs) ▪ In accordance with Step 4.1.6 of the Consultation Requirements, a list of the RAPs was forwarded to Heritage NSW and Gandangara LALC on 25 October 2023. ▪ In accordance with Step 4.3 of the Consultation Requirements a copy of the draft assessment methodology was sent to the RAPs by email on 17 October 2023 requesting a response by 14 November 2023. ▪ The draft ACHAR was sent for RAP review on 15 November 2023. Any comments received have been included in Appendix 1 of the enclosed ACHAR (Appendix 27) following the closing date for review on 13 December 2023. ▪ Based on the background research, register searches, Aboriginal community consultation, and	▪ Following the Unexpected finds policy outlined in Section 7.1 of the ACHAR, consultation with the identified RAPs should continue for the reminder of the project. ▪ Sensitive mitigation measures to address unexpected Aboriginal finds are set out at **Section 6.1.18.2**.

COMMUNITY ENGAGEMENT TABLE			
Stakeholder Group	**Organisations**	**Matters Raised**	**Satisfied by**
		an archaeological survey, it has been concluded that no known or unknown Aboriginal sites will be subject to direct or indirect impacts as a result of the proposed development.	
NSW Government agencies	Department of Planning and Environment (DPE) – Planning	▪ Preliminary scoping meeting was held on 12 May 2023 with Willowtree Planning and DPE. Key matters raised included understanding the existing operation at the subject site in terms of potential contamination and trip generation. ▪ Request for SEARs was submitted by Willowtree Planning to DPE on 18 May 2023. ▪ SEARs were subsequently issued by DPE on 8 June 2023.	▪ Discussions informed project design, request for SEARs, and the EIS.
	Department of Planning and Environment (DPE) – Heritage	▪ Travers Bushfire and Ecology contacted the Heritage division regarding the necessity of a Statement of Heritage Impact and Archaeological Assessment. ▪ Travers Bushfire and Ecology concluded that no Statement of Heritage Impact or further Archaeological Assessment was required as the proposed development does not have the potential to cause direct or indirect impact to any heritage items.	▪ None required
	Transport for NSW	▪ Transport for NSW were contacted by Genesis Traffic during the preparation of the Transport Impact Assessment. ▪ A package of the proposed development's particulars was issued to TfNSW via its official	▪ Requirements outlined via email have been addressed through the Transport Impact Assessment (**Appendix 9**).

COMMUNITY ENGAGEMENT TABLE			
Stakeholder Group	**Organisations**	**Matters Raised**	**Satisfied by**
		development portal (development.sydney@transport.nsw.gov.au) on 7 August 2023.	
	SafeWork NSW	▪ EI Australia, in preparing the Detailed Site Investigation, contacted SafeWork NSW to confirm the storage licences for various dangerous/ hazardous goods products.	▪ None required
Infrastructure providers	Endeavour Energy	▪ Written correspondence between Endeavour Energy and Mapletree as part of initial scoping exercise to confirm underground Endeavour assets detected. ▪ A Technical Review was submitted by Land Partners as part of the Service Infrastructure Assessment. ▪ A Technical Enquiry was lodged by Mapletree regarding the removal of the 33kV overhead line. ▪ A Connection Offer for a standard connection service was received from Endeavour Energy on 26 June 2023.	▪ Email response was received on 14 June 2023, which included a rejection of plans to reconfigure the 33kV network (overhead lines) and reuse this 33kV feeder 501 to supply the customer at a later date. ▪ Refer to **Appendix 32** of this EIS for latest correspondence between the Proponent and Endeavour Energy.
	Sydney Water – Growth Planning Team	▪ This was undertaken by Land Partners. ▪ A Pressure Enquiry was lodged by Land Partners as part of the preparation of the Service Infrastructure Assessment.	▪ None required
	NBNCo	▪ Written correspondence dated 6 September 2022 confirmed NBN facilities in the vicinity of the subject site. ▪ Further notification correspondence is to be sent in September 2023.	▪ None required

COMMUNITY ENGAGEMENT TABLE			
Stakeholder Group	**Organisations**	**Matters Raised**	**Satisfied by**
Local Government	Liverpool City Council	▪ A Pre-Lodgement meeting was held on 28 June 2023. ▪ Liverpool City Council advised that they will comment on the proposed development via the formal SSDA agencies review upon lodgement. ▪ Overall, LCC was supportive of the proposed development, in particular the design response. ▪ Key matters discussed included traffic generation, the flood risk constraint, and the landscaping requirements for the subject site. ▪ LCC was separately contacted by TTW for the relevant Flood Studies and associated modelling, together with the requirements for On-Site Stormwater Detention to assist with the preparation of the Flood Risk Assessment.	▪ None required
Community	Neighbouring businesses (primarily industrial)	**Parking** ▪ The single survey response received indicated concern regarding a perceived lack of existing car parking on Kelso Crescent.	▪ The Preliminary Construction Traffic Management Plan includes (within **Appendix 9**) includes provisions relating to construction worker parking. ▪ The proposed development fully accords with the parking requirements set out within the LDCP 2008 by providing multi-level car parking (149 spaces) off Kelso Crescent at the front of the subject site and subterranean car parking (65 spaces) off Seton Road at the rear of the subject site.

COMMUNITY ENGAGEMENT TABLE			
Stakeholder Group	**Organisations**	**Matters Raised**	**Satisfied by**
		Congestion ▪ Traffic congestion on Kelso Crescent and surrounding streets was identified as a concern. One survey response indicated that truck movements and the unloading/reloading of trucks along Kelso Crescent causes delays. ▪ The single survey response referred to a smash repair located opposite the proposed site, and noted existing delays caused by loading and unloading.	▪ A Preliminary Construction Traffic Management Plan (CTMP) is provided within the Transport Impact Assessment, enclosed at **Appendix 9**. ▪ The CTMP includes provisions relating to construction traffic vehicle movements and parking, including: o Site access and circulation – construction vehicles to use existing vehicle driveways to access the subject site. o All vehicles are expected to be able to turn around internally, enabling forward direction entry and exit. o Onsite parking – construction workers may park in the hardstand areas on the site. o Vehicle movements will occur during standard work hours and are to have a staggered arrival schedule occurring outside of peak hours, where possible. o Truck loading or unloading will occur within the Works Zone, or within the site boundaries. ▪ Overall, the TIA concludes that the traffic generation of the proposed development

COMMUNITY ENGAGEMENT TABLE			
Stakeholder Group	**Organisations**	**Matters Raised**	**Satisfied by**
			will not present any adverse traffic implications on the local road network.

APPENDIX E
MITIGATION MEASURES TABLE

By:	Mapletree SR Australia Management Pty Ltd
In relation to:	State Significant Development Application (SSD-58978472) For Kelso Crescent Multi-Level Warehouse, Moorebank
Site:	20 Kelso Crescent, Moorebank Lot 2 in DP 521146 and Lot C in DP 327378

Mapletree SR Australia Management Pty Ltd (Mapletree), plan to undertake the construction and operation of the proposed warehouse and distribution centre, in accordance with the following planned management and mitigation measures.

PLANNED MANAGEMENT AND MITIGATION MEASURES FOR SSD-58978472		
ID	**Management / Mitigation Measure**	**Timing**
Administrative Commitments		
A1	**Commitment to Minimise Harm to the Environment** Mapletree will commit to implement all reasonable and feasible measures, to prevent and/or minimise any harm to the environment, that may result from the construction or operation of the proposed development	Prior to construction, during construction, and during operation.
A2	**Terms of Approval** Mapletree will carry out the project generally in accordance with the: (a) Environmental Impact Statement; (b) Drawings and Plans; (c) Management and Mitigation Measures; (d) Any Conditions of Approval. If there is any inconsistency between the above, the Conditions of Approval shall prevail to the extent of the inconsistency.	Prior to construction, during construction, and during operation.
A3	**Occupation Certificate** Mapletree will ensure that Occupation Certificates are obtained prior to the occupation of the facilities.	Prior to operation.
A4	**Compliance** Mapletree will ensure compliance with any reasonable requirement(s) of the Secretary of the NSW DPE arising from the assessment of: (a) Any reports, plans, programs, strategies or correspondence that are submitted in relation to this Approval; and (b) The implementation of any recommended actions or measures contained in reports, plans, programs, strategies or correspondence submitted by the Project Team as part of the application for Approval.	Prior to construction, during construction, and during operation.

PLANNED MANAGEMENT AND MITIGATION MEASURES FOR SSD-58978472		
ID	**Management / Mitigation Measure**	**Timing**
A5	**Structural Adequacy** Mapletree will ensure that all new buildings and structures on the subject site are constructed in accordance with the relevant requirements of the National Construction Code.	During construction.
A6	**Construction Environmental Management Plan** Prior to the commencement of construction, Mapletree would prepare a Construction Environmental Management Plan (CEMP) that addresses the following: (a) Air Quality; (b) Noise and Vibration; (c) Waste Classification; (d) Erosion and Sediment Control; (e) Asbestos Removal Control; (f) Traffic Management; and (g) Community Consultation and Complaints Handling.	Prior to construction.
A7	**Site Induction** All staff employed on the site by the construction contractor will be required to undergo a site induction.	Prior to construction.
A8	**Operation of Plant and Equipment** Mapletree will ensure that all plant and equipment used on-site, is maintained, and operated in proper and efficient manner, and in accordance with the relevant Australian Standards.	During construction and operation.
A9	**Monitoring the State of Roadways** Mapletree will monitor the state of roadways leading to and from the subject site during construction, and will take all necessary steps to clean up any adversely impacted road pavements as directed by Liverpool City Council.	During construction.
A10	**Waste Receipts** Mapletree will ensure that a permanent record of receipts for the removal of both liquid and solid waste from the subject site is kept and maintained up to date at all times. Such records will be made available to authorised persons upon request.	During construction and operation.
A11	**Complaints Handling** Mapletree will prepare an Operational Complaints Handling Protocol for the development, prior to the commencement of operations.	Prior to operation.

PLANNED MANAGEMENT AND MITIGATION MEASURES FOR SSD-58978472		
ID	**Management / Mitigation Measure**	**Timing**
A11	**Dilapidation Assessment** Mapletree will undertake a Dilapidation Assessment of identified neighbouring industrial properties in accordance with Section 13 of the Construction Noise and Vibration Management Plan, prepared by Acoustic Works.	Prior to construction
A12	**Construction Vibration Monitoring and Management** Mapletree will implement the construction vibration monitoring and management procedures in accordance with Section 9 of the Construction Noise and Vibration Management Plan, prepared by Acoustic Works.	During construction
A13	**Construction Noise Monitoring and Management** Mapletree will implement the construction noise monitoring procedure and Construction Noise Management Plan in accordance with Section 13 of the Construction Noise and Vibration Management Plan, prepared by Acoustic Works.	During construction
Specific Environmental Commitments		
Air Quality		
AQ1	Air quality mitigation and monitoring will form part of the CEMP, to be prepared for the project, as outlined in **A6**.	Prior to construction.
Noise and Vibration		
N1	Mapletree will implement the Compliance Vibration Monitoring Procedure in accordance with Section 11.2 of the Noise and Vibration Assessment, prepared by Acoustic Works.	During operation
N2	Mapletree will implement the Noise Management Plan in accordance with Section 11.3 of the Noise and Vibration Assessment, prepared by Acoustic Works.	During operation
Traffic and Transport		
TT1	Mapletree will finalise and implement the Construction Traffic Management Plan (CTMP).	Prior to and during construction.
Remediation		
R1	A Work Health and Safety Management Plan shall be prepared by the remedial contractor, containing procedures and requirements that are to be implemented as a minimum during the works, in addition to the Contingency Plan.	Prior to remediation works.
R2	Site remediation shall be carried out in accordance with the approved Remedial Action Plan.	Prior to operation
R3	Upon completion of the remediation works, a Validation Report is required to be prepared to verify remedial works	Prior to operation

PLANNED MANAGEMENT AND MITIGATION MEASURES FOR SSD-58978472		
ID	**Management / Mitigation Measure**	**Timing**
	were completed in accordance with the Remedial Action Plan.	
Cultural Heritage		
H1	An Unexpected Finds Policy will be developed, in the unlikely event that relics are identified during ground disturbing works.	Prior to construction.
H2	Unexpected Aboriginal objects remain protected by the *National Parks and Wildlife Act 1974*. If any such objects, or potential objects, are uncovered in the course of the activity, all work in the vicinity will cease immediately. A qualified archaeologist would be contacted to assess the find and Heritage NSW and Metropolitan Local Aboriginal Land Council would be notified.	During construction.
H3	If human remains, or suspected human remains, are found in the course of the activity, all work in the vicinity will cease, the site would be secured, and the NSW Police and Heritage NSW would be notified	During construction.
H4	All relevant staff, contractors and subcontractors will be made aware of their statutory obligations for heritage under the NSW *Heritage Act 1977* and best practice as outlined in *The Burra Charter 2013*, during site inductions.	Prior to construction.
Socio-Economic		
SE1	Mapletree will notify surrounding businesses and residents one (1) week before commencement of construction activities. Notices should include: ▪ Details of the proposal, including contact details of the management team ▪ Hours and expected period of construction ▪ Details regarding process should businesses or residents have concerns, questions or complaints	Prior to construction.
SE2	Mapletree will set up a feedback process to manage and respond to stakeholder concerns, questions, or complaints. Mapletree will ensure that this process is clear and accessible to stakeholders such as surrounding businesses and residents.	Prior to and during construction.
SE3	Mapletree will prioritise engaging with local businesses, where practicable, e.g. site induction for visiting workers to include profile of surrounding food and beverage retailers.	During construction.
Waste Management		
WM1	Effective management of construction materials and construction and demolition waste, including options for reuse and recycling where applicable and practicable, would be conducted. Only wastes that cannot be cost effectively reused or recycled will be sent to landfill or appropriate disposal facilities.	During construction.

PLANNED MANAGEMENT AND MITIGATION MEASURES FOR SSD-58978472		
ID	**Management / Mitigation Measure**	**Timing**
WM2	Waste materials produced from site preparation and construction activities will be separated at the source and stored separately on-site.	During construction.

WM3	The Site Manager or equivalent role will:
	▪ Arrange for suitable waste collection contractors to remove any construction waste from site;
	▪ Ensure waste bins are not filled beyond recommended filling levels;
	▪ Ensure that all bins and loads of waste materials leaving site are covered;
	▪ Maintain waste disposal documentation detailing, at a minimum:
	  ○ Descriptions and estimated amounts of all waste materials removed from site;
	  ○ Details of the waste and recycling collection contractors and facilities receiving the waste and recyclables;
	  ○ Records of waste and recycling collection vehicle movements, for example, date and time of loads removed, licence plate of collection vehicles, tip dockets from receiving facility;
	  ○ Waste classification documentation for materials disposed to off-site recycling or landfill facilities;
	▪ Ensure lawful waste disposal records are readily accessible for inspection by regulatory authorities such as Liverpool City Council, SafeWork NSW or NSW EPA; and
	▪ Remove waste during hours approved by Council.
		During construction.

WM4	Site inductions, as required under **A7** will ensure the following training is covered: ▪ Legal obligations and targets; ▪ On-site emergency response procedures; ▪ Waste priorities and opportunities for reduction, reuse, and recycling; ▪ Waste storage locations and separation of waste; ▪ Procedures for suspected contaminated and hazardous wastes; ▪ Waste related signage; ▪ The implications of poor waste management practices; and ▪ Responsibilities and reporting, including identification of personnel responsible for waste management and individual responsibilities.	Prior to construction.
Vegetation Management		

PLANNED MANAGEMENT AND MITIGATION MEASURES FOR SSD-58978472		
ID	**Management / Mitigation Measure**	**Timing**
VM1	The approved Tree Protection Management Plan shall be implemented, and tree protection measures must be installed and maintained, as required and to the satisfaction of the project arborist.	Prior to and during construction
VM2	Site inductions, as required under **A7** will ensure that the following training is covered: ▪ Understanding of the Tree Protection Management Plan	Prior to construction
VM3	Inspections shall be conducted by the project arborist at several key points during the construction in order to ensure that protection measures are being adhered to during construction stages and decline in tree health or additional remediation measures can be identified.	During construction
VM4	All earthworks within the identified tree protection zones of the trees to be retained, shall be supervised by the project arborist.	Prior to and during construction
ESD		
E1	CHH will target a Certified Four (4) Star Green Star Design & As-Built v1.0 Rating.	Prior to construction, during construction, and during operation.