LOGOS CAE URBIS

Environmental Impact Statement

Final Lodgment

Prepared for

Logos Development Management Pty Ltd in Partnership with CAE and QANTAS

October 2022

URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

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Project Code	P0038875
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Urbis acknowledges the important contribution that Aboriginal and Torres Strait Islander people make in creating a strong and vibrant Australian society.

We acknowledge, in each of our offices, the Traditional Owners on whose land we stand.

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Signed Declaration

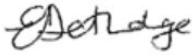
Project details		
Project name	Sydney Flight Training Centre	
Application number	SSD-47601708	
Address of the land in respect of which the development application is made	28-30 Burrows Road, St Peters Lot 2 of DP 212652 and Lot 15 of DP 32332	
Applicant details		
Applicant name	LOGOS Development Management Pty Ltd	
Applicant address	Level 29, Aurora Place, 88 Phillip Street, Sydney, NSW 2000	
Details of people by whom this EIS was prepared		
Names and professional qualifications	David Hoy Bachelor Urban and Regional Planning, University of New England Master of Commerce – Land Economy, University of Western Sydney	Erin Dethridge Bachelor of Urban Planning and Development, University of Melbourne
Address	Level 8, Angel Place, 123 Pitt Street, Sydney NSW 2000	

Declaration

The undersigned declares that this EIS:

- has been prepared in accordance with Schedule 2 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;
- contains the information required under the *Registered Environmental Assessment Practitioner Guidelines*;
- 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.

Signatures

		
Jennifer Cooper, Director (RPIA)	David Hoy, Director	Erin Dethridge, Associate Director
30 October 2022		

Glossary and Abbreviations

Reference	Description
ACHAR	Aboriginal Cultural Heritage Assessment Report
AEP	Annual Exceedance Probability
AHIMS	Aboriginal Heritage Information Management System
AIA	Arboricultural Impact Assessment
ANEF	Australian Noise Exposure Forecast
AQIA	Air Quality Impact Assessment
ARI	Average Recurrence Interval
ASS	Acid Sulphate Soils
BC Act	*Biodiversity Conservation Act 2016*
BDAR	Biodiversity Development Assessment Report
CAE	CAE Inc
CASA	Civil Aviation Safety Authority
CBD	Central Business District
CEMP	Construction Environmental Management Plan
CIV	Capital Investment Value
CMP	Conservation Management Plan
CTMP	Construction Traffic Environmental Plan
DP	Deposited Plan
DPE	New South Wales Department of Planning and Environment
DSI	Detailed Site Investigation
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPA Regulation	*Environmental Planning and Assessment Regulation 2021*
EPA	New South Wales Environment Protection Authority
EPI	Environmental Planning Instrument
ESCP	Erosion and Sediment Control Plan

Reference	Description
ESD	Ecologically Sustainable Development
Qantas FTC	Former Qantas Flight Training Centre
FTE	Full-time Equivalent
Gateway	Sydney Gateway Project
GANSW	Government Architect New South Wales
GFA	Gross Floor Area
GTP	Green Travel Plan
LVIA	Landscape and Visual Impact Assessment
LEP	Local Environmental Plan
LGA	Local Government Area
LOGOS	LOGOS Development Management Pty Ltd
LSPS	Local Strategic Planning Statement
MUSIC	Model for Urban Stormwater Improvement Conceptualisation
NML	Noise Management Level
NSW	New South Wales
NVIA	Noise and Vibration Impact Assessment
R&H SEPP	*State Environmental Planning Policy (Resilience and Hazards) 2021*
Planning Systems SEPP	*State Environmental Planning Policy (Planning Systems) 2021*
Qantas	Qantas Group
SDCP	Sydney Development Control Plan 2012
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SLEP	Sydney Local Environmental Plan 2012
SIA	Social Impact Assessment
SIDRA	Signalised & Unsignalised Intersection Design and Research Aid
Simulators	Full Motion Flight Simulators
Site	Lot 2 of DP 212652 and Lot 15 of DP 32332

Reference	Description
SoHI	Statement of Heritage Impact
SSD	State Significant Development
SSDA	State Significant Development Application
Sydney Airport	Sydney Kingsford Smith Airport
the Department	New South Wales Department of Planning and Environment (DPE)
the District Plan	*Eastern City District Plan* (2018)
the Minister	The Minister for Planning
The Region Plan	*A Metropolis of Three Cities – the Greater Sydney Region Plan (2018)*
T&I SEPP	*State Environmental Planning Policy (Transport and Infrastructure) 2021*
TfNSW	Transport for New South Wales
TIA	Transport Impact Assessment
Transport Strategy	The Future Transport Strategy
WCM	Water Cycle Management
WMP	Waste Management Plan
WSUD	Water Sensitive Urban Design

Summary

This Environmental Impact Statement has been prepared on behalf of LOGOS Development Management Pty Ltd (**LOGOS**) in partnership with CAE Inc (**CAE**) and Qantas Airways Limited (**Qantas**). It supports a State Significant Development (**SSD**) application for the construction and operation of a new flight training centre including car parking and associated infrastructure at 28-30 Burrows Road, St Peters.

Project Background

A flight training centre contains full motion flight simulators, cabin mock-ups and multimedia learning centres to train pilots and cabin crew. The facility is critical to aviation operations to ensure all flight crew comply with Civil Aviation Safety Authority (**CASA**) regulations required to fly.

For over half a century, the Qantas Group trained its pilots and cabin crew primarily at the Qantas Flight Training Centre within the Jetbase at Sydney Kingsford Smith Airport (**Sydney Airport**). This facility until earlier this year trained over 6,500 crew per year and was a key operational anchor for the airline.

In April 2022, Qantas was required to vacate the Qantas Flight Training Centre to enable its demolition and construction of the Sydney Gateway Project. The Gateway Project will improve connections to Sydney Airport and Port Botany by increasing the capacity of the surrounding road and rail network and providing a new alternative route to the domestic and international airport terminals.

A new flight training centre at 297 King Street, Mascot was approved as SSD in November 2019 (SSD-10154 following Ministerial call-in). However, due to the economic impacts of COVID-19, proceeding with the development as originally intended was unaffordable and abandoned. Qantas positioned simulators outside of the State to continue operations. However, this is not considered to be a sustainable long-term option given Sydney Airport is the largest and busiest airport in Australia and the 'home base' of Qantas.

Following a review of operating models and locations, Qantas identified an opportunity to partner with LOGOS and CAE to develop a new flight training centre. LOGOS (as the applicant) would develop the proposed facility, which would then be operated by CAE, a global provider of Flight Simulator Equipment and Training Centre Operations. CAE will lease the premises from LOGOS and Qantas will be the core customer/end user of the flight training centre.

The proposed Sydney Flight Training Centre is essential to return flight training as quickly as possible to NSW, ensuring Qantas can deliver passenger flights across Australia and beyond. The facility is required to house critical operational assets and key training infrastructure to support ultra long-range flying from NSW ("Project Sunrise") as announced by Qantas on 2 May 2022. This includes simulator and door trainer facilities which will only be housed in Sydney for the new A350 aircraft. It will also enable Jetstar to utilise the NSW facility – a first for Sydney based pilots - with the inclusion of an A320 Full Flight Simulator.

Project Objectives

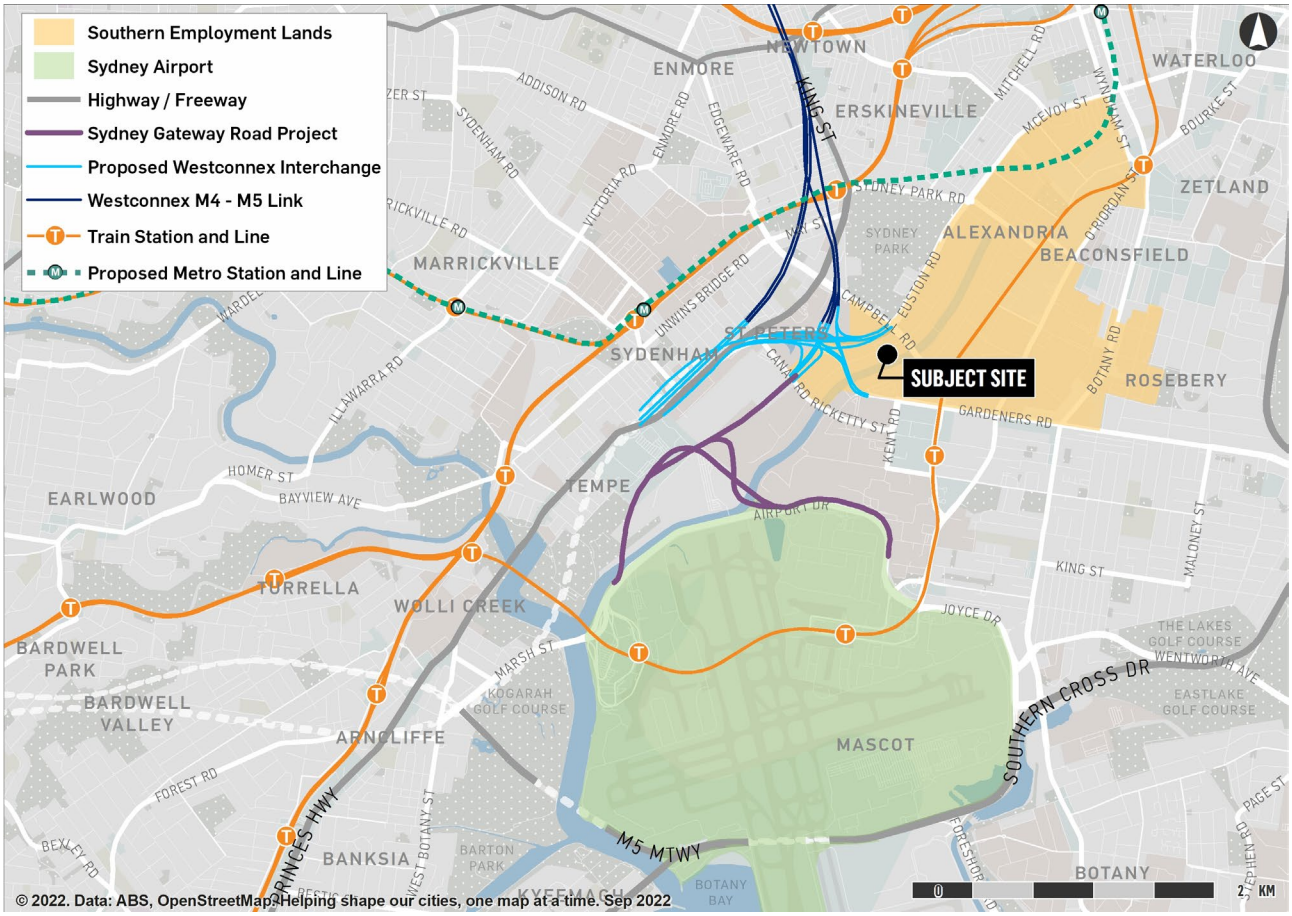
Having regard to the above background, the objectives of the Project are:

- Deliver a new flight training centre in Sydney to replace the former facility that was recently demolished to accommodate the Gateway Project and ensure airline industry users, including Qantas, have access to essential flight training infrastructure in NSW which are essential to maintain aviation safety regulations.
- Provide strategic and economic benefits to the State by the provision of critical operational assets (and associated high technology jobs) that are required to sustainably operate the Qantas Group network.
- Facilitate the availability of simulators and flight training necessary to train pilots and cabin crew for the new A350 aircraft as part of Qantas Project Sunrise, which will only operate from Sydney Airport.

Due to the complexity and importance of the Project in providing a critical component of airline operations for Qantas and other airlines, the Minister for Planning declared the Project as SSD, by notice in the NSW Government Gazette on 19 August 2022. Secretary's Environmental Assessment Requirements (**SEARs**) for the Project (refer **Appendix A**) where issued for the Project on 12 September 2022.

A location plan detailing the site and regional context is provided at **Figure 1.**

Figure 1 Location plan



Source: Urbis (2022)

Feasible Alternatives

Various project alternatives were considered for the required flight training centre. A 'do nothing' approach would fail to deliver material economic benefits to the State from a Sydney based flight training facility. The absence of a Sydney facility would also prejudice Qantas' ability to maintain the level of pilot and cabin crew training legislated by CASA. This would require pilots to travel interstate to access simulators for current aircraft and preclude the installation of 'new-to-industry' simulators in NSW that are exclusively intended to support the implementation of Project Sunrise. A do-nothing approach would force Qantas to maintain flight training simulators in Brisbane and Melbourne, which was intended only as an interim arrangement due to the Gateway Project and COVID impacts.

A number of alternative options were also considered by Qantas and LOGOS to develop the necessary facilities and infrastructure to support the required flight training. The options considered the permanent relocation of the facility interstate, the potential for offshore training and development of the facility at alternative locations close to Sydney Airport, including repurposing an existing building. The buoyant industrial property market placed significant limitations on supply of alternate suitable buildings. These options were not considered to be feasible.

The Project

The Project seeks to construct a new flight training centre. It will comprise purpose-built facilities that will enable pilots and cabin crews from Qantas and other airlines to undertake regular training and testing to meet regulatory requirements by simulating both aircraft and emergency procedural environments.

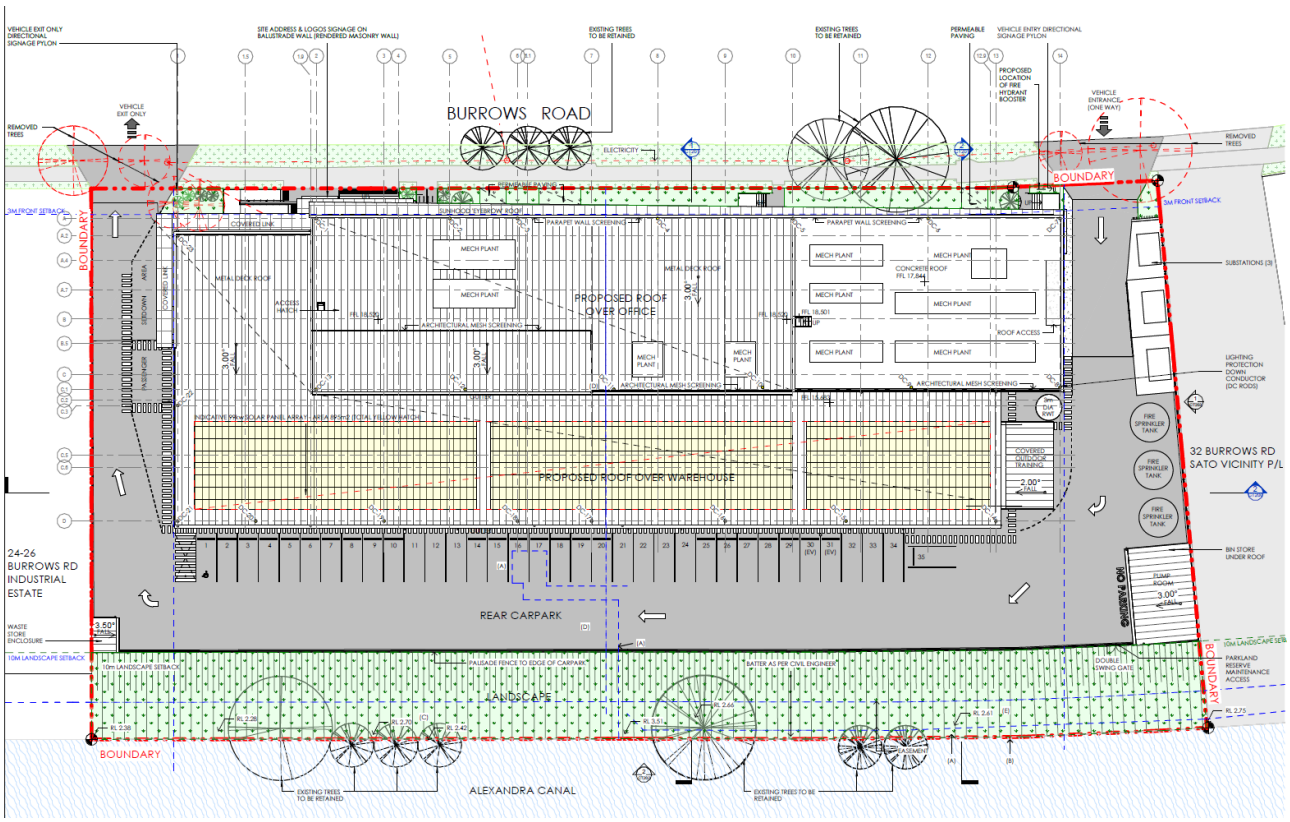
Broadly the proposed development involves:

- Construction and operation of a flight training centre within a three-storey building that will comprise the following core elements:

  - A flight training hall with eight bays that will house full motion flight simulators
  - Emergency procedures facilities including integrated procedure trainers, door trainers, slide descent tower and fire trainer
  - Ancillary spaces including classrooms, office space for flight training employees, meeting rooms, equipment room, pilots lounge, reception area, toilets, loading docks and plant
- Two new access driveways to the site from Burrows Road.
- Removal of eight trees, comprising four street trees and four trees within the north-west corner of the site.
- Other associated works including landscaping, at-grade parking and general site improvements.
- Business identification signage and wayfinding signage.
- New stormwater outlet to be installed in Alexandra Canal wall.

The Project will be undertaken in accordance with the Architectural Plans prepared by PACE Architects at **Appendix B**. The proposed site plan showing the footprint of the development is provided at **Figure 2**.

Figure 2 Proposed site plan



Source: PACE Architects (2022)

Consultation

Community and stakeholder engagement has been undertaken by Urbis and the Project Team in the preparation of the SSD application. This includes direct engagement and consultation with:

- Surrounding landowners, tenants and businesses
- Registered Aboriginal Parties (**RAPs**), including Metropolitan Local Aboriginal Land Council (**MLALC**).
- Government, agency and utility stakeholders as well as the City of Sydney Council (**CoS**) as listed within the SEARs

Only one response was received from an adjoining property owner from the community engagement activities. The issue raised regarding the existing sewer connection has been addressed and the proponent has committed to further consultation with the landowner and Sydney Water.

Each of the issues raised by the other stakeholders, including the relevant authorities, utility service providers and the MLALC, has been addressed in detail, including refinements to the architectural drawings and recommended mitigation measures to avoid, minimise or manage potential impacts.

Justification of the Project

This EIS assesses the development in accordance with relevant planning instruments and policies and outlines the mitigation measures to ensure the Project does not result in unreasonable or adverse environmental impacts.

The key issues for all components of the Project identified in the SEARs have been assessed in detail, with specialist reports underpinning the key findings and recommendations. The key environmental matters identified include:

- Traffic and access;
- Urban design, built form and design excellence;
- Public domain and landscaping;
- Potential impacts on heritage (Alexandra Canal);
- Sustainability; and
- Social and economic impacts and benefits.

It has been demonstrated that for each of the likely impacts identified in the assessment of the key issues, the impact will either be positive or mitigation measures can be adopted to ensure the proposed development is appropriate.

The Project represents a positive development outcome for the site and surrounding area for the following reasons.

The proposal is consistent with State and local strategic planning policies:

- *Greater Sydney Region Plan: A Metropolis of Three Cities*
- *Our Greater Sydney 2056: Eastern City District Plan*
- *Future Transport Strategy*
- *City Plan 2036: Local Strategic Planning Statement*
- *Better Placed*

The proposal satisfies the applicable State and local development controls:

The Project is permissible with consent and meets the relevant statutory requirements of the relevant environmental planning instruments, including

- *State Environmental Planning Policy (Planning Systems) 2021*
- *State Environmental Planning Policy (Industry and Employment) 2021*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021*
- *State Environmental Planning Policy (Resilience and Hazards) 2021*
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*
- *Sydney Local Environmental Plan 2012* (**SLEP 2012**)

The proposal responds appropriately to the opportunities and constraints presented by the site:

- The site benefits from excellent access to the regional and local road network. It is strategically located near to WestConnex and Sydney Airport.

- The proposed development is located well away from sensitive land use activities, including residential development, to avoid unacceptable amenity impacts.
- The site exhibits a generally flat topography, which is essential for a simulator hall on a single level.
- The built form and bulk of the proposed development is entirely consistent with the character of the surrounding St Peters industrial precinct and will incorporate high-quality materials and finishes. The façade design responds to design reviews by CoS and the development generally accords with the relevant controls in the SLEP 2012 and *Sydney Development Control Plan 2012*.
- The proposed development is in an established industrial area in St Peters and ensures minimal disruption to the surrounding sites during the construction phase. The design and layout utilise the existing vehicular access to the Site from Burrows Road for both light and heavy vehicles and minimises additional traffic generation on the surrounding road network through the provision of on-site parking.
- Utility services required to service the future industrial development are available within the immediate locality and additional connections can provide essential infrastructure for the flight training centre.

The proposal is highly suitable for the site:

The suitability of the site to accommodate the proposed development has been assessed in detail in the preparation of this EIS. This includes a comprehensive assessment of its consistency with the relevant strategic land use and transport policies and level of compliance with the statutory planning controls that apply to the Site and the proposed development.

Each of the planning and technical specialist assessments have been considered in assessing the suitability of the site to accommodate the flight training facility. The site is considered highly suitable for the proposed development for the following reasons:

- The construction and operation of an industrial training facility is permissible with consent and consistent with the IN1 General Industrial Zone objectives outlined in the SLEP 2012.
- The development satisfactorily addresses the relevant provisions in SLEP 2012 and Sydney Development Control Plan 2012 (**SDCP 2012**), including built form, setbacks, car parking, waste, stormwater and landscaping. Feedback from CoS has been addressed and incorporated into the design.
- The proposed development is entirely consistent with the immediate industrial precinct, will make a positive contribution to the wider Southern Employment Lands and is a vital piece of supporting infrastructure for Sydney Airport. The scale of the development is appropriate within this context and there are no significant environmental constraints that would limit the Project from being developed at the site.

The proposal is in the public interest:

- The Project will deliver significant public benefit by Qantas and its partners CAE and LOGOS reinvesting in the delivery of a modern flight training centre that provides essential support to the operational effectiveness of Qantas and other airlines that utilise Sydney Airport.
- The Project will support up to 266 direct Full-time Equivalent (**FTE**) jobs and 73 indirect FTE jobs during the construction phase, and 80 direct FTE jobs once complete and fully operational. The project enables the reinvestment and retention of highly skilled jobs in NSW.
- No adverse environmental, social or economic impacts will result from the Project. The use is compatible with adjacent land uses and subject to implementation of the recommended mitigation measures, will not have any unreasonable impacts on the visual catchment, traffic, noise and vibration or air quality during construction and ongoing operation of the development.
- The proposal aims to achieve a high level of environmental performance including:
  - achieving a minimum 5 Star Green Star rating;
  - measures that promote and support the uptake of sustainable transport options, and
  - design features that provide resilience against potential environmental risks including climate change.

- No significant issues relating the construction and operation of the facility were raised during the pre-lodgement consultation with the local community, Council, Government and agency stakeholders.
- The Project is fully funded and ‘shovel ready’ for commencement of construction as soon as possible in 2023.
- It can be concluded that on balance, the benefits of the proposal outweigh any adverse impacts and as such, the development is in the public interest.

In view of the above, it is considered that this SSD application has significant merit and should be approved subject to the implementation of the mitigation measures described in this report and supporting documents.

1. Introduction

This section of the report identifies the applicant for the project and describes the site and proposed development. It outlines the site history and feasible alternatives explored in the development of the proposed concept, including key strategies to avoid or minimise potential impacts.

1.1. Applicant Details

This EIS has been prepared by Urbis Pty Ltd on behalf of behalf of LOGOS Development Management Pty Ltd (**LOGOS**) (**the applicant**) in partnership with CAE Inc (**CAE**) and Qantas Airways Limited (**Qantas**).

Applicant details for the SSDA are listed in **Table 1**.

Table 1 Applicant details

Descriptor	**Proponent Details**
Company	LOGOS Development Management Pty Ltd
Postal Address	C/o LOGOS Property Level 29, 88 Phillip Street, SYDNEY NSW 2000
ABN	20 602 048 555
Nominated Contact	Mark Linfoot General Manager Development – NSW

1.2. Project Description

This Environmental Impact Statement (**EIS**) is submitted to the Department of Planning and Environment (**DPE**) in support of a State Significant Development Application (**SSDA**) for the construction and operation of a new flight training centre (**FTC**) including car parking and associated infrastructure at 28-30 Burrows Road, St Peters (**the site**).

The Project seeks to construct a new FTC and will comprise purpose-built facilities that will enable pilots and cabin crews from Qantas and other airlines to undertake regular training and testing to meet regulatory requirements by simulating both aircraft and emergency procedural environments.

Broadly the proposed development involves:

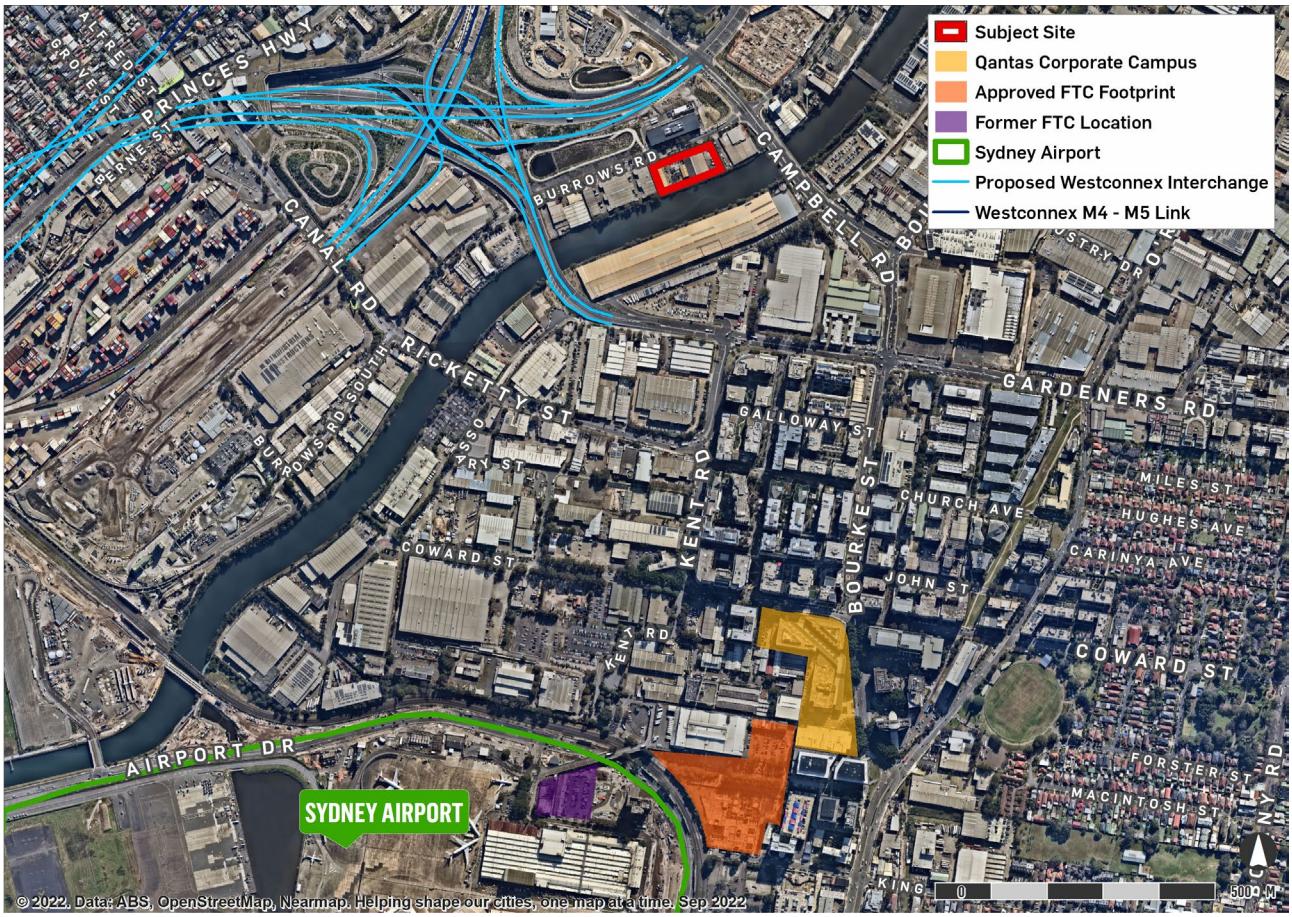
- Construction and operation of an FTC within a three-storey building that will comprise the following core elements:
  - A flight training hall with eight bays that will house full motion flight simulators
  - Emergency procedures facilities including integrated procedure trainers, door trainers, slide descent tower and fire trainer
  - Ancillary spaces including classrooms, office space for flight training employees, meeting rooms, equipment room, pilots lounge, reception area, toilets, loading docks and plant
- Two new access driveways to the site from Burrows Road.
- Removal of eight trees, comprising four street trees and four trees within the north-west corner of the site.
- Other associated works including landscaping, at-grade parking and general site improvements.
- New stormwater outlet to be installed in Alexandra Canal wall.

The key objectives of the Project are to:

- Deliver a new FTC in Sydney to replace the former facility that was recently demolished to accommodate the Gateway Project and ensure airline industry users, including Qantas, have access to essential flight training infrastructure in NSW to maintain aviation safety regulations.
- Provide strategic and economic benefits to the State from the provision of critical operational assets that are required to sustainably and efficiently operate the Qantas Group network.
- Facilitate the availability of stimulators and flight training necessary to train pilots and cabin crew for the new A350 aircraft as part of Qantas Project Sunrise. Simulators for the A350 will only be housed at the proposed FTC.

A map of the site in its regional setting is provided as **Figure 3**, including the proposed and previously approved facility (which is discussed in further detail in the following section).

Figure 3 Regional context map



Source: Urbis (2022)

1.3. Project Background

For over half a century, Qantas trained its pilots and cabin crew primarily at the Qantas FTC within the Jetbase at Sydney Airport. Until recently, this facility trained over 6,500 crew per year and was a key operational anchor for the airline.

In September 2018, Roads and Maritime Services (now part of Transport for NSW (**TfNSW**)) announced the Sydney Gateway Project (**Gateway**). The Gateway Project aims to improve connections to Sydney Airport and Port Botany by increasing the capacity of the surrounding road and rail network and providing a new alternative route to the domestic and international airport terminals. Qantas was required to vacate the FTC in April 2022 to enable the acquisition of land and widening of Qantas Drive as part of the Gateway Project.

Access to an operational flight training facility, housing full motion flight simulators (**simulators**) for pilot training and emergency procedures training for pilots and cabin crew, is critical to Qantas' business and operational continuity. Accordingly, an alternate site for a new FTC at 297 King Street, Mascot was identified. On 28 February 2019, the Minister for Planning declared the Project as SSD and subsequently, SSD-10154 was approved by the Independent Planning Commission (**IPC**) on 29 November 2019. Qantas had planned to construct this new $145 million facility in Sydney adjacent to its main Corporate Campus (company headquarters). However due to the economic impacts of COVID-19, proceeding with the development as originally intended was unaffordable and abandoned.

Following a review of operating models and locations, Qantas identified an opportunity to partner with LOGOS and CAE to develop a new FTC on land at 28-30 Burrows Road, St Peters. It is anticipated that LOGOS (as the applicant) would develop the facility. It would then be operated by CAE, a global provider of Flight Simulator Equipment and Training Centre Operations. CAE will lease the premises from LOGOS and Qantas will be the core customer/end user of the FTC.

The Project will ensure that pilots and cabin crew from Qantas and other airlines can maintain compliance with aviation safety regulations. The proposed simulators will complement the flight training facilities in other states, noting that some of the simulator models to be accommodated in Sydney are not available elsewhere as outlined in **Table 2**.

Table 2 Summary of flight simulators post Sydney construction

Flight Training Facility	Simulator Models*
Sydney	**Airbus A320**, Airbus A330, **Airbus A380, Airbus A350**, Boeing 789, **Business Jet (TBD)** and Narrow Body (TBD), other flight training devices, 4 x integrated procedures trainers (IPTs), wide body trainer, emergency procedures, training and classrooms.
Brisbane	Boeing 789, Boeing 737, Q400 and Boeing 767, other flight training devices, 1 x IPTs.
Melbourne	Boeing 738, Boeing 734, Boeing 788, Airbus 330, Q300, other flight training devices, narrow body trainer, emergency procedures, training and classrooms.

Note items in **bold** *in Table 2 are simulators unique to proposed Sydney FTC.*

Due to complexity and critical importance of the Project in supporting Qantas' operations and international standing (particularly following the announcement of "Project Sunrise" by Qantas on 2 May 2022), LOGOS together with CAE and Qantas sought Ministerial assistance to request the Project be declared as SSD. The Ministerial Call-In was formally lodged with DPE on 11 May 2022 and the Minister for Planning declared the Project as SSD, via notice in the NSW Government Gazette on 19 August 2022.

A map of the site in its regional setting is provided at **Figure 3** overleaf. It details the location of the recently demolished FTC at Sydney Airport and the 2019 approved FTC.

1.4. Related Development

At the time of preparing this EIS, the site contained two large industrial warehouse buildings, a non-functioning truck wash used for storage and areas of hardstand for deliveries and parking. The applicant has commenced the process to obtain a Complying Development Certificate (**CDC**) for the demolition of all existing buildings and structures and removal of all hardstand areas across the site.

It is also proposed to undertake remediation works to ensure the site is suitable for its intended use. These works are appropriately classified as Category 2 works and do not require development consent. Accordingly, it is proposed these works will be undertaken immediately following the demolition of the existing buildings/structures and removal of the hardstand areas as outlined above.

1.5. Restrictions and Covenants

The site is burdened by existing covenants and restrictions as detailed in the site survey at **Appendix F** and summarised below:

- Dealing BK 1938 No. 673 Covenant: Relates to Lot 15 DP32332 and requires an easement for access to the structure of Alexandra Canal. The covenant required the installation of gates in the site boundary to facilitate access along the edge of Alexandra Canal and states that no building or structure are to be constructed on the easement.
- Dealing Y401358 Covenant: Relates to the erection of fencing associated with Lot 15 DP32332.
- Dealing BK 1925 No.170 Covenant: Relates to Lot 2 DP212652 and requires an easement for access to the structure of Alexandra Canal. The dealing also requires the installation of gates in the site boundary to facilitate access along the edge of Alexandra Canal and states that no building or structure are to be constructed on the easement.
- Dealing BK 2596: A 2.44m wide drainage easement traverses the middle of the site in a north-south direction. This dealing allows the construction of buildings and structures over the easement subject to the approval from the CoS. The applicant has sought feedback from CoS to relocate the stormwater drainage running through the centre of the site and extinguish the existing easement. Evidence of this consultation is provided at **Appendix D**.

2. Strategic Context

This section of the EIS describes the way in which the Project addresses the strategic planning context relevant to the site. The strategic planning policies and guidelines identified in the SEARs that need to be addressed include:

- *NSW State Priorities*
- *Greater Sydney Region Plan: A Metropolis of Three Cities* (**Region Plan**)
- *Our Greater Sydney 2056: Eastern City District Plan* (**District Plan**)
- *Future Transport Strategy* (**Transport Strategy**)
- *City Plan 2036: Local Strategic Planning Statement*

The Project is aligned with the State, district and local strategic plans and policies applying to the site as outlined below.

2.1. Project Justification

The proposed development is aligned with the State, district and local strategic plans and policies applying to the site as outlined below.

2.1.1. NSW State Priorities

The Premier's Priorities include 14 priorities to enhance the quality of life of the people of NSW and deliver on the government's key policy priorities which include:

- A strong economy
- Highest quality education
- Well-connected communities with quality local environments
- Putting customer at the centre of everything we do
- Breaking the cycle of disadvantage

The proposed development will deliver new employment opportunities and economic investment within NSW. It will also contribute significant benefits through the delivery of skills training in aircraft operations in Sydney close to Sydney Airport and Qantas headquarters.

2.1.2. Greater Sydney Region Plan: A Metropolis of Three Cities

The Region Plan (2018) provides the overarching strategic plan for growth and change in Sydney. It is a 20-year plan with a 40-year vision that seeks to transform Greater Sydney into a metropolis of three cities. The site is located within the Eastern Harbour City and on the periphery of the regionally significant trade gateway that supports Sydney Airport.

The proposal is consistent with other relevant objectives of the Region Plan as outlined below:

- ***Objective 1. Infrastructure supports the three cities –*** The Project has arisen is in response to the Gateway Project. It is acknowledged and accepted that as a growing city Sydney's road and rail infrastructure will invariably need to be upgraded or added to in order to safe-guard future growth. The applicant supports TfNSW's investment in road and rail infrastructure to deliver the three cities but in doing so facilities such as Qantas' former FTC have been impacted. The replacement of the now demolished FTC at Sydney Airport with the new facility on the site in St Peters has facilitated the widening of Qantas Drive as part of Gateway.
- ***Objective 4. Infrastructure use is optimised*** - The site benefits from significant upgrades to road transport infrastructure through the WestConnex project, including the St Peters Interchange and the M8 Motorway (opened 2020). The future M4 and M5 Link Tunnels (opening 2023) will provide improved connections to the broader network, including 3 https://greatercities.au/metropolis-of-three-cities, downloaded 16 September 2022 between the Rozelle Interchange to the north and the Sydney Gateway

to the south. The proposed development seeks to leverage this significant government investment and deliver a new FTC in an appropriate and accessible location.

- ***Objective 15. The Eastern, GPOP and Western Economic Corridors are better connected and more competitive*** - The Project will deliver increased job opportunities within St Peters and the Eastern Economic Corridor. The development is strategically located close to Sydney Airport and will support its growth as a nationally significant trade gateway.
- ***Objective 16. Freight and logistics network is competitive and efficient –*** The Region Plan recognises that retaining internationally competitive operations at both the Airport and Port Botany is vital to the productivity of the NSW economy. The Project will ensure that airline operations, including Qantas as Australia's National Carrier, have access to a flight training facility in Sydney to support the efficient and safe operation of Sydney Airport by aircraft users.
- ***Objective 18. Harbour CBD is stronger and more competitive*** – The Region Plan identifies that passenger trips at Sydney Airport are forecast to grow from 37 million to 74 million passengers by 2033. It is critical that Qantas has access to an operational flight training facility in Sydney to ensure it can service the growing demand for Australia as an international tourism location, and Regional Financial Centre for the Asia-Pacific Region. Qantas recently announced Project Sunrise, which will see the purchase of new aircraft and the introduction of non-stop flights from eastern seaboard capital cities to London and New York from late 2025. This investment will be supported by new aircraft flight training simulators that will only be housed in Sydney.
- ***Objective 23: Industrial and urban services land is planned, retained and managed*** - The Project will deliver 6,510sqm of high-quality, modern industrial floor space, supporting the retention and management of industrial land and generating 80 direct jobs during operation.

Overall, it is considered the proposed development is entirely aligned and consistent with the Greater Sydney Region Plan and will contribute to the delivery of its objectives.

2.1.3. Our Greater Sydney 2056: Eastern City District Plan

The District Plan (2018) sets out the planning priorities and actions to manage growth and change in the Eastern City District. Given that it is a guide for implementing at a local level the directions of the Region Plan, there are substantial similarities in the relevant objectives:

The planning priorities and actions likely to have implications for the proposed development are listed and discussed below:

- ***Planning Priority E1. Planning for a city supported by infrastructure*** – The site is well-located to optimise recent major investments and upgrades in road transport infrastructure, which enhance the connectivity of the site and its associated competitive advantages, including the St Peters Interchange, M8 Motorway and the future M4 and M5 Link Tunnels. The proposed development is also well located to Sydney Airport and the Qantas headquarters, which will serve as the base to transport flight crew to the FTC by shuttle bus.
- ***Planning Priority E7: Growing a stronger and more competitive Harbour CBD*** - The proposed development will support the Eastern Economic Corridor and Sydney Airport as an international trade and tourism gateway. The site is well located and accessible to Sydney-based pilots and cabin crew and will support the international competitiveness of the airline and tourism sectors.
- ***Planning Priority E9. Growing international trade gateways*** – the District Plan recognises that it is critical to protect the Airport's function as an international gateway for passengers and freight, and to support airport-related land uses and infrastructure in the area around the Airport. The Project is an essential piece of supporting infrastructure that contributes to the Airport, maintaining its role as Australia's pre-eminent international gateway for passengers and airborne freight and replacing the former Qantas FTC that has been impacted by Gateway.
- ***Planning Priority E17 Increasing urban tree canopy cover and delivering Green Grid connections*** – The Project involves a high-quality landscape concept and the proposed tree planting will result in a 15% increase in tree canopy cover within 10 years. The Project will also facilitate future active and passive recreation along the Alexandra Canal in accordance with the Liveable Green Network provisions set out in the SLEP 2012.

Overall, the proposed development is considered entirely consistent with the planning priorities outlined within the District Plan and will contribute to the delivery of the identified actions to achieve its desired outcomes.

2.1.4. Future Transport Strategy

The refreshed 2022 version of the Transport Strategy sets out the transport vision for deliver safe, healthy, sustainable, accessible and integrated passenger and freight journeys in NSW. The Strategy replaces the earlier Future Transport 2056: Shaping the Future, which is referenced in the SEARs.

The Transport Strategy recognises the need to provide for emerging aviation technologies to help NSW take advantage of economic growth markets, particularly in Asia. Recent investment decisions by Qantas in its Project Sunrise will include investment in new flight training simulators that will be unique to NSW and will be only housed at the proposed FTC.

The Project will also leverage the site's proximity to Sydney Airport and the Qantas Corporate Campus and includes shuttle buses, bicycle parking and end of trip facilities to encourage sustainable forms of transport.

2.1.5. City Plan 2036: Local Strategic Planning Statement

City of Sydney Local Strategic Planning Statement (**LSPS**) 2036 provides the framework and vision for land use planning for the next 20 years in the City of Sydney Local Government Area (**LGA**). The LSPS seeks to implement the Region Plan and District Plan, recognising the strategic importance of the Eastern Economic Corridor and retaining and protecting industrial zoned land for industrial manufacturing and warehousing uses and urban services.

One of the Key Moves is to 'Protect and evolve business in the Southern Enterprise Area'. This is supported by Priority P3 – 'Protecting industrial and urban services in the Southern Enterprise Area and evolving businesses in the Green Square-Mascot Strategic Centre'.

The Project accords with the LSPS as it proposes to retain and redevelop an existing industrial site for the purposes of industrial uses. The development will provide 6,510sqm of industrial floor space for the FTC operations and generate up to 80 direct jobs once operations, which will support the growth of the Southern Enterprise Area.

2.2. Key Features of Site and Surrounds

2.2.1. Site Description

The site is located at 28-30 Burrows Road, St Peters within the Sydney Local Government Area (**LGA**). The site is legally described as Lot 2 of DP 212652 and Lot 15 of DP 32332 and is currently owned by LOGOS Australia Logistics Venture (**LALV**) St Peters Trust.

An aerial photograph detailing the existing site layout is provided at **Figure 4** and photographs of the current site condition are provided in **Figure 5**.

Figure 4 Aerial photograph

Source: JBS&G (2022)

Figure 5 Site photographs

Picture 1 Vehicle access to 28 Burrows Road

Picture 2 Vehicle access to 30 Burrows Road

Source: Urbis (2022)

Picture 3 Existing structures and hardstand at 28 Burrows Road

Picture 4 Frontage to Alexandra Canal

Source: Urbis (2022)

The key features of the site which have the potential to impact or be impacted by the proposed development are summarised in **Table 3**.

Table 3 Key Features of site and locality

Descriptor	**Site Details**
Land Configuration	The site has an area of 7,961sqm. It has a frontage to Burrows Road of approximately 123 metres and a depth of approximately 63.5 metres. Alexandra Canal adjoins the southern boundary of the site. The topography of the site is generally flat and has a high point of RL 2.85 within the hardstand areas and low point of RL 2.34 towards the canal. Along the street frontage to Burrows Road, levels range from RL2.67 to RL2.93. A site survey detailing the topography of the site is provided at **Appendix F**.
Land Ownership	The site is owned by the LALV St Peters Trust.
Existing Development	At the time of preparing this EIS, the site contained two large industrial warehouse buildings, a non-functioning truck wash used for storage and areas of hardstand for deliveries and parking. The applicant has initiated a CDC process to remove the existing buildings and hardstand areas (as previously discussed in **Section 1.4** of this report).
Local Context	The site is situated within an established industrial precinct and the surrounding context includes: ▪ **North**: The site has a direct road frontage to Burrows Road, close to the intersection with Campbell Road. Directly opposite the site to the north is the WestConnex Transurban MCC Main Office which comprises car parking facilities for motorists at the St Peters interchange. Sydney Park is further north on the opposite side of Campbell Parade. The nearest residences are located approximately 300 metres to the north of the Project on Campbell Road.

Descriptor	Site Details
	▪ **East**: The immediately adjoining site to the east comprises industrial development. Campbell Road and Campbell Road Bridge are further east, with additional industrial land uses on the opposite side of Alexandra Canal, including Alexandra and Rosebery. Campbell Road connects the site to the broader WestConnex road network. ▪ **South**: The site is bound to the south by Alexandra Canal, a State significant heritage item. Additional industrial land uses are located across the canal to the south, primarily comprising warehouse and distribution centres. Gardeners Road and Bourke Street provide access to Mascot and Eastlakes. Sydney Airport is further south. ▪ **West:** The immediately adjoining land comprises industrial development. The St Peters WestConnex Interchange is located to the north-west, with the Princes Highway beyond. Further west is low density residential and industrial land uses in the suburb of Sydenham. Sydenham Train Station is approximately 1.5km west of the site, providing services to the Sydney CBD. The nearest residential areas are over 300 metres to the south-east. Industrial and commercial uses are located between this residential area and the site as shown in **Figure 6**. Photographs of the surrounding land uses are provided as **Figure 7**.
Regional Context	The site is approximately 6km south-west of the Sydney Central Business District (CBD) and within the Southern Employment Lands precinct (refer **Figure 1** above). It is also approximately 1km north-west of Sydney Airport and the Sydney Gateway Road Project, which will link the new St Peters Interchange with Sydney Airport domestic and international terminals and Port Botany.
Infrastructure	The road network surrounding the site includes the WestConnex (M8 Motorway), Campbell Road, Canal Road, Ricketty Street, Gardeners Road, Euston Road and Burrows Road. The site benefits from significant upgrades to road transport infrastructure through the WestConnex project, including the St Peters Interchange and the M8 Motorway (opened 2020). The future M4 and M5 Link Tunnels (opening 2023) will provide improved connections to the broader network, including between the Rozelle Interchange to the north and the Sydney Gateway to the south.
Site Access	Vehicular access to the site is via two existing crossovers and driveways along the Burrows Road frontage. The site is within 10 minutes walking distance from bus stops located either side of Canal Road, adjacent to the intersection with Burrows Road. Bus services connect to Sydenham and Mascot train stations, providing access to the wider Sydney metropolitan area.

Descriptor	Site Details
Services	The Service Infrastructure Assessment finds that the service assets adjacent to the site (including electricity, telecommunications, sewer and potable water) provide adequate capacity to support the proposed development.
Acid Sulphate Soils (**ASS**)	The site is classified as Class 3 ASS.
Contamination	The site has been used for industrial purposes since 1955. Underground storage tanks (**USTs**) were also reported within the car parks at multiple locations, where corresponding soil and groundwater was identified to be impacted with petroleum hydrocarbons. In addition, fill based soils were reported to contain asbestos traces. Contamination is further assessed in **Section 6.7** of the EIS.
Stormwater and Flooding	The site is not identified as flood prone land under the City of Sydney Flood Prone Map. An existing formal inground drainage system carries stormwater runoff from the existing warehouse buildings and surrounds off-site for discharge into the Alexandra Canal. An existing inter-allotment drain (450mm pipe and easement) is between the two existing lots, beginning at Burrows Road and traversing south, adjacent to the common boundary of the Alexandra Canal. The pipe also collects runoff from the site. Flooding and overland flows are discussed further in **Section 6.5**.
Bushfire Prone Land	The site is not identified as bushfire prone land under the City of Sydney Bushfire Prone Map.
Flora and Fauna	A total of six trees are within the site, which comprise four native species and two weed species. There are also ten street trees along the Burrows Road frontage, comprising both native and indigenous species.
Aboriginal Heritage	No sites listed on the Aboriginal Heritage Information Management System (AHIMS) were identified within the site. In addition, there are no previously recorded Aboriginal sites or objects
European Heritage	The site is not identified as a heritage item and is not located in a heritage conservation area under Schedule 5 of the SLEP 2012. Alexandra Canal adjoins the site to the south and is a state heritage listed item (Item I3). The site is also identified near local heritage item I1405 - Warehouse “Rudders Bond Store” including interior. As part of the preparation of the Statement of Heritage Impact (refer **Appendix BB**) Artefact has confirmed that this heritage item was removed as part of the construction of WestConnex.

Figure 6 Local context plan

Source: Urbis (2022)

Figure 7 Locality photographs

Picture 5 Burrows Road Motorway Operations Complex (MOC5) directly opposite the site

Picture 6 On-street parking along Burrows Road

Picture 7 Commercial development at 26 Burrows Road

Picture 8 Industrial buildings at 30 Burrows Road

Source: Urbis (2022)

2.3. Development History

A search of the City of Sydney Online Development Application (**DA**) records and archives and the Department's Major Projects Portal was conducted. No DA history for the site has been identified.

2.4. Cumulative Impacts with Future Projects

The site is located within an established industrial precinct which is undergoing significant change associated with recent major transport infrastructure investment and the replacement of out-dated warehousing and manufacturing buildings with multi-level warehouse facilities which optimise their inner-city location.

Table 4 identifies approved and likely future developments which may be relevant in the cumulative impact assessment of the proposal.

Table 4 Surrounding future projects

Site	Application Reference	Development Description	Status and Timing
Sydney Gateway	SSI-9737	New, toll-free connection from St Peters Interchange to improve journey times to Sydney Airport, the M5 and Eastern Distributor.	Under construction. Proposed opening 2024.
Botany Rail Duplication	SSI-9714	Duplication of the existing 2.9km long freight only single rail track between Mascot and Botany, increasing capacity of the line.	Under construction. Proposed opening 2024.
WestConnex – New M5	SSI-6788	M4 & M5 tunnels.	Under construction. Proposed opening 2023.
1-3 Burrows Road, St Peters	SSD-35962232	Four-storey warehouse and distribution centre.	Prepare EIS stage. It is unclear as to when construction timing for this development is likely.
84 Burrows Road, St Peters	SSD-35784535	Proposed putrescible waste transfer station that handles up to 180,000 tonnes per annum of waste from commercial and industrial (C&I) and municipal solid waste (MSW) markets.	Prepare EIS stage. It is unclear as to when construction timing for this development is likely.
520 Gardeners Road, Alexandria	SSD-32489140	Construction, fit-out and operation of a new three-level warehouse and distribution facility.	Currently at assessment stage. Construction is proposed to be completed 2023.
76-82 Burrows Road, St Peters	D/2022/234	Proposed alterations and additions to Alexandria Material Recovery Facility.	Currently at assessment stage. It is unclear as to when construction timing for this development is likely.
45 Burrows Road (also known as 202-212 Euston Road, Alexandria	D/2020/625	Two double storey warehouse buildings.	Under construction.

Given the proposed development within proximity of the site, cumulative impacts have been considered in relation to traffic, noise, air quality and visual impacts. Cumulative impacts are considered in the assessment of key impacts at **Section 6** in accordance with the Department's *Assessing Cumulative Impacts Guidelines.*

2.5. Agreements with Other Parties

The Foreshore Building Area Map (refer **Figure 8**) in *Sydney Local Environmental Plan 2012* (SLEP 2012) requires a 10 metre wide setback to be provided to the southern boundary of the site. The setback is intended to facilitate walking, cycling and active and passive recreation along the Alexandra Canal in accordance with the Liveable Green Network provisions.

This network (including public access to the site) will only be provided upon the development of other properties along Alexandra Canal. In the meantime, the City of Sydney has confirmed a restrictive covenant will be required to be registered on title to prevent buildings and structures from being constructed within the 10 metre setback. The covenant will also provide for the current land owner to manage and maintain the 10 metre setback until the Liveable Green Network can be delivered by Council.

Figure 8 Foreshore building area map

Source: SLEP 2012 and Urbis (2022)

2.6. Feasible Alternatives

Clause 192(c) of the *Environmental Planning and Assessment Regulation 2021* (**the Regulation**) requires an analysis of any feasible alternatives to the proposed development, including the consequences of not carrying out the development.

LOGOS, in consultation with Qantas and CAE, identified multiple project alternatives which were considered in respect to the identified need for the FTC. Each of these options is listed and discussed **Table 5** overleaf.

Table 5 Project alternatives

Option	Assessment
Option 1 – Do Nothing	A 'do nothing' approach in this instance would mean not replacing the former FTC that has been demolished to accommodate the Gateway Project. This was not considered to be a feasible option as it would not deliver material economic benefits to the State from a Sydney based flight training facility. The absence of a Sydney facility would require pilots to travel interstate to access simulators for current aircraft, creating operational inefficiencies for training of Sydney-based pilots and cabin crew, as required by CASA. It would also preclude the installation of 'new-to-industry' simulators in NSW that are exclusively intended to support the implementation of Project Sunrise.
Option 2 – Alternative Site #1 – Sydney	Other locations were investigated by LOGOS and Qantas as possible sites for the Project close to Sydney Airport. However, no suitable locations could be identified, noting there is a critical shortage of industrial zoned land within South Sydney (currently 0.4%). This shortage is even more pronounced in Mascot/St Peters with a vacancy rate of 0.0%. Few industrial buildings have been constructed in the last 25 years, despite significant changes in tenant and operational requirements. Many tenants have chosen to remain in outdated facilities due to the lack of alternative locations in the locality. Further, the limited sites which are available are often constrained by actual or potential environmental hazards and risks which render these sites unsuitable for further intensification or redevelopment as an FTC.
Option 3 - Alternate Site #2 – Interstate	In response to the demolition of the former FTC, Qantas positioned simulators outside of the State in Melbourne and Brisbane to continue flight training operations. However, this is not considered to be a sustainable long-term option given Sydney Airport is the largest and busiest airport in Australia and the 'home base' of Qantas.
Option 4 – Alternative Site #3 - Overseas	The ability to accommodate pilot training at other international centres was investigated by Qantas. However, these investigations concluded there is not enough capacity in the global market to accommodate the Qantas Group's needs for flight simulator training.
Option 5 – Alternative Design	The functional requirements of the FTC, delivery of the simulators and 10 metre setback from Alexandra Canal limited the potential layout options for the site. However, the design team, in collaboration with CAE/LOGOS, considered alternative options for the massing and facade treatment of the building. These alternative designs are detailed in the Design Report prepared by PACE Architects. The design options were largely abandoned given issues around the ability to control sunlight, deliver cost-effective plant and equipment on the roof-top and accommodate the corporate branding of CAE/LOGOS.
Option 6 – Current Proposal	The proposed location and siting of the development as outlined within this EIS was considered the optimal outcome for the Project. It will result in significant benefits to the State through a substantial investment in the local economy and increased skills through training of pilots and flight cabin crew who operate from Sydney Airport.

3. Project Description

The following sections of the EIS describe the proposed development, including the layout and design, main uses and activities, site preparation and staging.

3.1. Project Overview

The key components of the proposed development are summarised in **Table 6.** Architectural plans (**Appendix B**) and a Design Statement (**Appendix L**) have been prepared by PACE Architects, which provide greater detail on the Project and how the proposed development has responded to the opportunities and constraints of the site.

Table 6 Project details

Descriptor	Project Details
Project Area	The site has an area of 7,961sqm, all of which will be disturbed as a result of the proposed development. At the time of preparing this report, the existing industrial buildings and hardstand on the site had not yet been demolished. These works will be undertaken in accordance with a separate CDC.
Site Description	Lot 2 of DP 212652 and Lot 15 of DP 32332
Project Description	The Project comprises the construction and operation of a FTC and associated infrastructure. The FTC will include the installation of eight state-of-the-art full motion flight simulators. It is estimated that approximately 160 flight crew (pilots and cabin crew) will attend the facility for training on a daily basis. Pilots, Cabin Crew, Maintenance Technicians, Instructors and Contractors will frequent the facility on a 24 hour/7 day per week basis to conduct and attend training and to attend to facility/equipment breakdowns.
Gross Floor Area (GFA)	Simulator Hall GFA: 1,840sqm Training Facility GFA: 4,670sqm Total GFA: 6,510sqm
Maximum Height	Three storeys with a maximum building height of 18 metres, measured to top of roof plant
Loading Facilities	Primary loading docks in south-eastern and south-western corners will cater for all deliveries to the site and collection of waste and recycling by a private contractor appointed by CAE. Secondary loading docks are provided for installation/removal of flight simulators and delivery of hydraulics for the simulators (typically twice a year).
Parking Spaces	35 car parking spaces (including one disabled space)
Cycle Parking	24 bicycle parking spaces

Descriptor	Project Details
End of Trip Facilities	End of trip facilities on the ground floor include six showers and 12 lockers
Landscape Area	1,490sqm
Deep Soil Area	1,474sqm
Timing	Construction to commence in Q2 2023 and take approximately 12 months.
Jobs	Construction: Approximately 266 direct FTE employees and 73 indirect FTE employees Operation: 80 specialist and related full-time roles (maximum of 25-32 employees to be within the facility at any one time)
Capital Investment Value	$76,900,000.00 The CIV includes the design and construction design and construction of buildings, structures, associated infrastructure and plant and equipment, including the new simulators, relocated simulators and relocated emergency procedures assets (refer **Appendix G**).

3.2. Detailed Description

3.2.1. Project Area

The extent of the proposed works applies to all of the land within the site of 28-30 Burrows Road, St Peters (to accommodate the proposed development) and the frontage along Burrows Road (for street tree planting and vehicle access driveways).

3.2.2. Physical Layout and Design

3.2.2.1. Site Layout

The proposed site layout is largely driven by the functional requirements of the FTC, including the access requirements for the initial installation (and future replacement of the simulators). This requires access and movement through the site by articulated vehicles, including separate entry and exit points to accommodate swept paths.

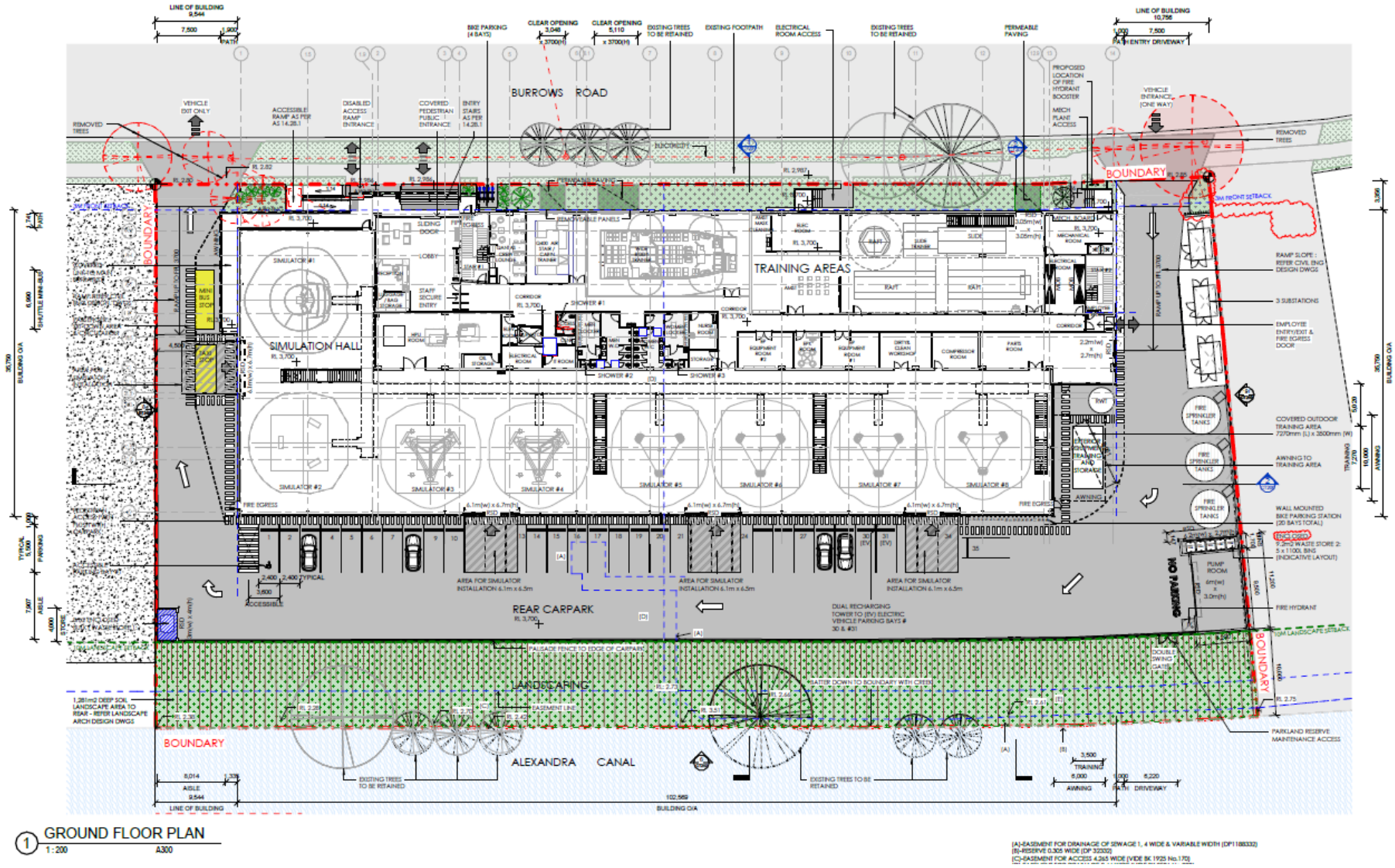
The site layout also responds to the existing site conditions and the State and local planning controls, including the requirement for a 10 metre setback from Alexandra Canal to facilitate delivery of the future Liveable Green Network, including open space and pedestrian/cycle links.

As shown in **Figure 9**, the proposal will involve:

- Construction of a three-storey industrial/warehouse style building which is setback 3 metres from Burrows Road and 25 metres from the southern boundary. The building will be approximately 101 metres long by 44 metres wide. The proposed built form is discussed in further detail in **Section 3.2.2.2**.
- At-grade car park (35 spaces) at the rear of the building (refer **Section 3.2.2.5**).
- Dedicated loading area for deliveries and waste collection in the south-eastern corner of the site. Secondary loading areas are also proposed at various points around the building to facilitate the installation, servicing and future replacement of the simulators.
- Landscaping works throughout the site, including new tree planting within the Burrows Road frontage and along the Alexandra Canal foreshore (refer Section **3.2.2.3**).

- Business identification signage and wayfinding signage (refer Section **3.2.2.4**).

Figure 9 Proposed ground floor plan



Source: PACE Architects (2022)

3.2.2.2. Design and Built Form

The FTC is comprised of one building with a total GFA of 6,510sqm but with two distinct forms that are internally connected. The two distinct forms are reflective of the different functional requirements of the proposed uses. The emergency procedures and ancillary spaces occupy the three-storey built form towards Burrows Road and have a GFA of 4,670sqm. The lower simulator hall has been sited to the rear of the site and will have a GFA of 1,840sqm. The proposed building has a maximum height of 18 metres measured from the existing ground level to the top of the parapet.

The functional and technical requirements of the building respond to its intended use. The proposed external finishes are durable, high-quality and low maintenance materials, including precast concrete, colorbond steel cladding, glazing and metal louvres. Sun shading is provided to address solar access requirements. The proposed elevations are shown in **Figure 10** and **Figure 11**.

Figure 10 Burrows Road elevation (north elevation)

Figure 11 Alexandra Canal elevation (south elevation)

Source: PACE Architects (2022)

3.2.2.3. Landscaping and Fencing

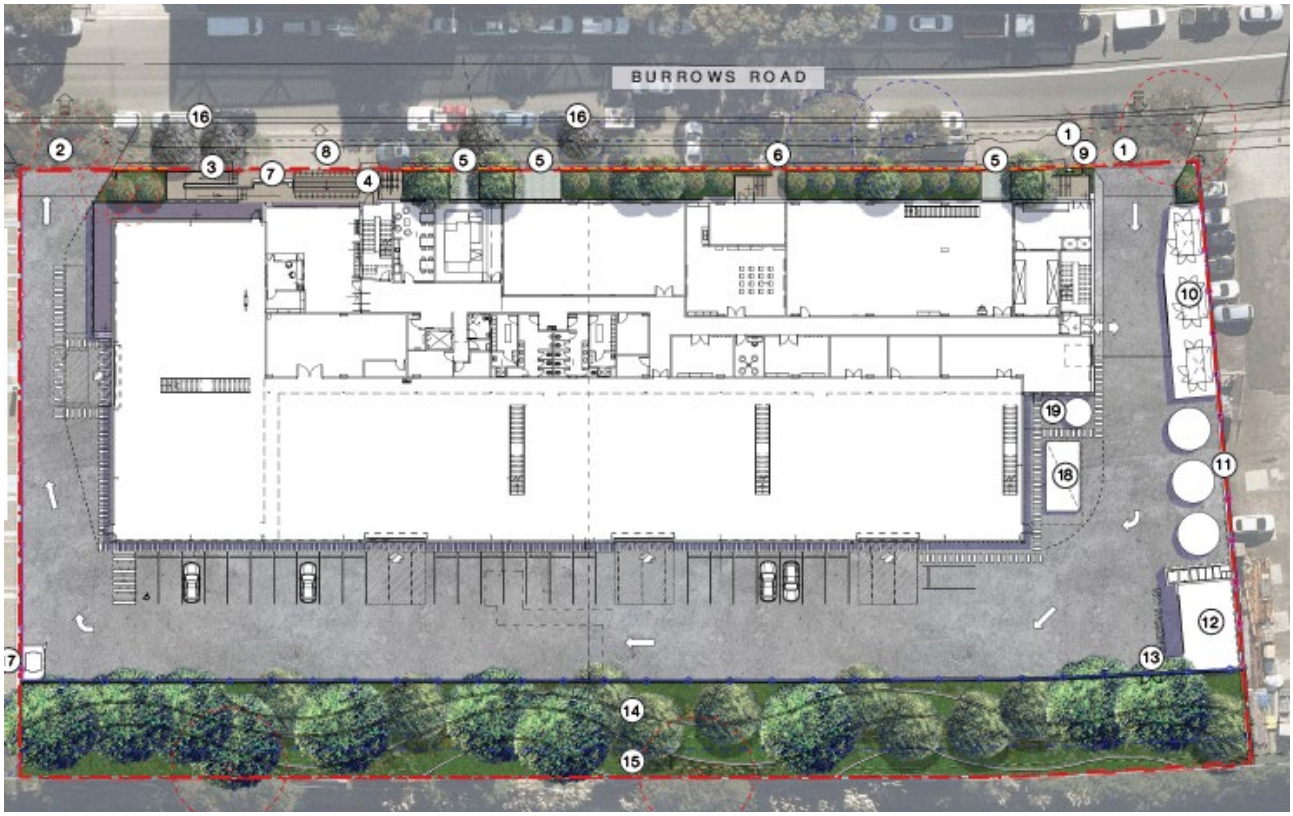
Landscaping will be undertaken in accordance with the Landscape Plans prepared by Habit8 and provided at **Appendix J**.

The proposed development will result in the removal of four street trees to accommodate the required vehicle access to the site for articulated vehicles. Subject to approval from CoS, the proposal includes two new street trees (*Cupaniopsis anacardioides*) together with 20 trees within the foreshore area as shown in **Figure 12**. This equates to replacement tree planting at a ratio of approximately 5:1.

As highlighted previously, the proposed development will include a 10 metre wide landscaped setback to Alexandra Canal in accordance with the SLEP 2012 and SDCP 2012 to facilitate a continuous public access way along the entire foreshore. Following consultation with CoS, the landscaped setback will be low-maintenance and include scattered eucalyptus and angophora trees and bands of native grasses and groundcover. A section detailing the proposed landscaped setback is provided at **Figure 13**.

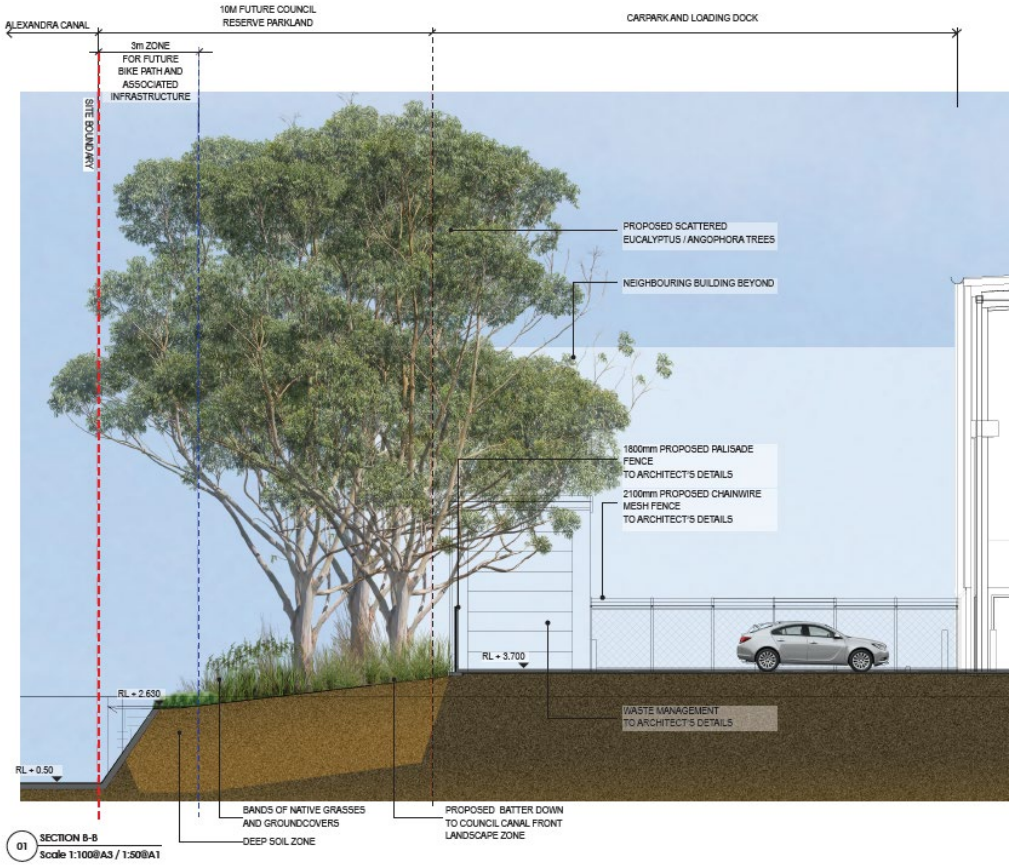
The side boundaries are to be fenced with a 2.5m high, chain-wire mesh fence. The southern boundary to the 10 metre foreshore area will include a 1.8m high palisade fence in accordance with SDCP 2012. CCTV will be installed throughout the site and will be monitored via an external security contractor.

Figure 12 Proposed landscape concept plan



Source: Habit8 (2022)

Figure 13 Proposed landscape elevation plan



Source: Habit8 (2022)

3.2.2.4. Signage

Business identification signage will be provided in accordance with the signage plans included within the architectural drawings at **Appendix B** and as summarised below:

- Four internally illuminated business identification signs on the northern frontage to Burrows Road, including:
  - LOGOS business identification sign (3.73 metres wide and 0.8 metres high) on the north-western corner of the building.
  - LOGOS business identification (930mm wide and 200mm high) and street address above the main entrance to assist visitors with wayfinding.
  - CAE business identification sign (5.8 metres by 2.2 metres) adjacent to the main entrance to the FTC.
  - Qantas business identification sign (13.026m by 2.505m) on the north-eastern corner of the building.
- An internally illuminated business identification sign (3.73 metres by 800mm) on the southern elevation facing the future public access along the Liveable Green Network.
- Two freestanding and internally illuminated business identification signs (1.8 metres high and 700mm wide), located adjacent to each driveway from Burrows Road, to facilitate customer wayfinding.

All signage is integrated with the architecture of the proposal and will not result in any adverse impacts.

3.2.2.5. Access and Parking

The FTC will utilise the new vehicle access points from Burrows Road. All vehicles will enter via the eastern driveway, with vehicles travelling in a one-way, clockwise direction through the site before existing via the western driveway.

A total of 35 car spaces (including one disabled space) will be provided during core business hours (7am to 6pm daily) for on-site employees, including office personnel, maintenance technicians, instructors and contractors. There is not expected to be more than 25-32 staff at the site at any one time. The car park will be available to pilots and cabin crew outside of core business hours (ie 6pm to 7am) subject to approval by CAE.

Otherwise, pilots and cabin crew, will use the shuttle bus service between the facility and the Qantas Corporate Campus (and potentially Sydney Airport) or taxi/Uber services. The shuttle buses will provide either 27 seats or 34 seats (depending on scheduled training) and will operate on a service frequency of up to 30 minutes between 6am and 11pm daily, providing an estimated 34 drop-offs per day. A dedicated bus stop with weather protection to the main entry is proposed on the western side of the building. Public transport and active transport are also available, with end-of-trip facilities provided within the building.

3.2.3. Uses and Activities

The FTC will operate 24 hours per day, seven days per week. The Project will generate approximately 80 jobs during operation, however, only 25-32 staff are expected to be at the site at any one time. The core business hours for the office component will be 7am to 6pm. Approximately 160 flight crew (pilots and cabin crew) will attend the facility for training on a daily basis. The internal fit-out of the FTC will comprise:

- **Flight simulator hall**: Installation of up to eight state-of-the-art full motion flight simulators with visual fidelity, motion and sound at ground level towards the rear of the site (refer **Figure 14**). This allows crew to be trained in all aspects of normal and non-normal operations, including instrument approaches and landings in all weather conditions.
- **Emergency procedures hall** located at ground level towards Burrows Road and will include:
  - Cabin evacuation emergency trainer – Full-scale cabin mock-up is used as practical training device. These facilities allow emergency situations to be accurately portrayed and allow pilots and cabin crew to handle emergency situations in both wide and narrow-bodied aircraft.
  - Slide descent tower – Enables realistic training of deployment and use of slides to evacuate aircraft for pilots and cabin crew.

- Door trainers – Enables realistic training of use of emergency exits to evacuate aircraft for pilots and cabin crew.
- Fire trainers – Enables training to address various types of fire situations that may occur on an aircraft.

- **Ancillary spaces** including classrooms, office space for flight training employees, meeting rooms, equipment room, pilots lounge, reception area, toilets, loading docks and plant.

The site preparation and ancillary works are described in further detail in the following sub-sections.

Figure 14 Precedent image of simulator hall

Source: CAE

3.2.3.1. Demolition

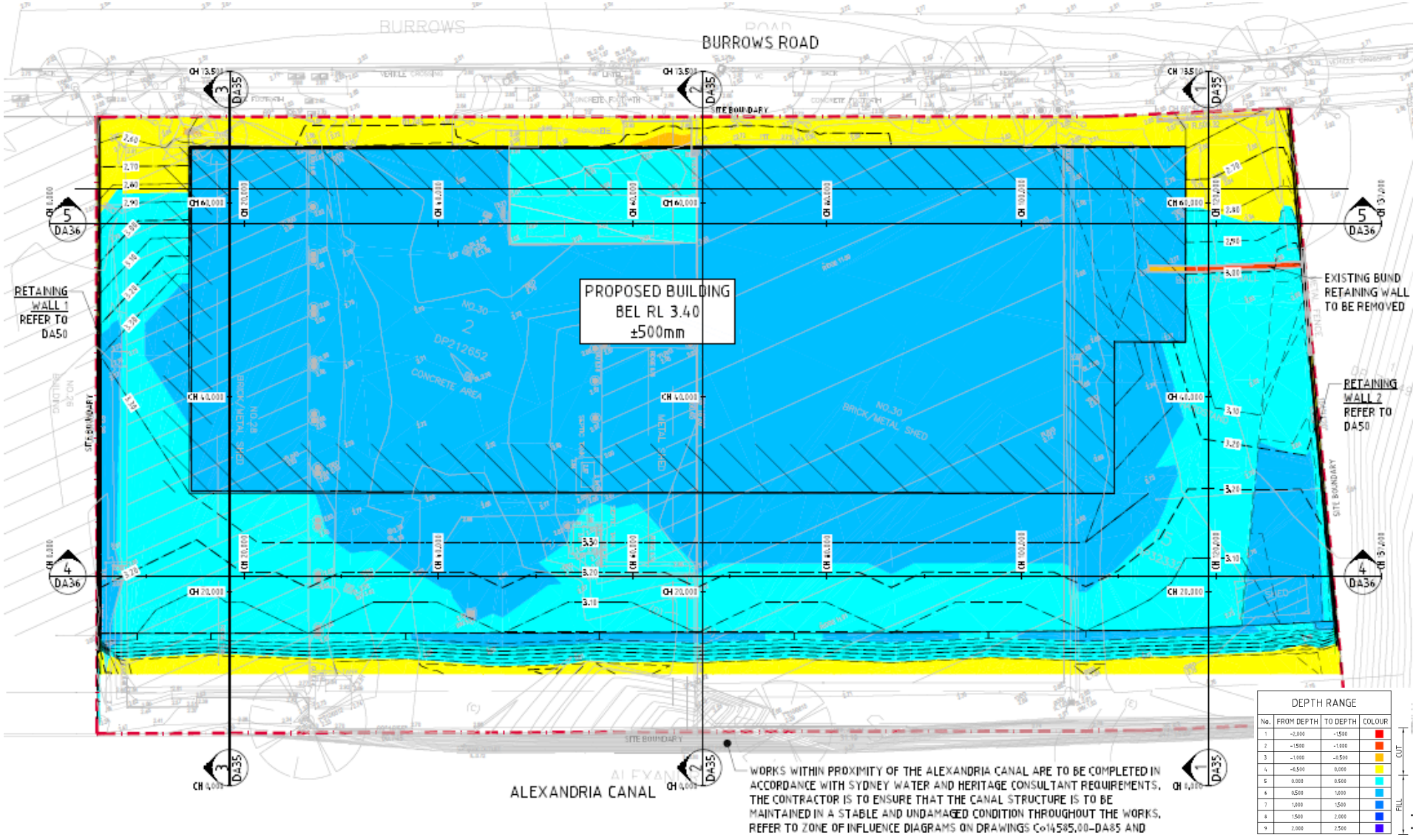
The existing buildings, structures and hardstand will be demolished in accordance with a separate CDC. On this basis, demolition of existing buildings does not form part of the SSD application.

3.2.3.2. Site Preparation and Earthworks

Site preparation will include the installation of site services and infrastructure and minor earthworks. The proposed development does not include a basement level and therefore bulk earthworks are not required.

As detailed in the cut and fill plan prepared by Costin Roe and provided at **Figure 15**, the site requires approximately 2,370m^3 of fill to raise the site and accommodate a finished floor level (**FFL**) of RL3.7m. The higher floor level has been adopted to reduce the overall residual risk of the development being affected by flooding, due to the sensitive equipment housed inside the

Figure 15 Bulk earthworks plan



Source: Costin Roe (2022)

3.2.3.3. Contamination

The remediation works have been confirmed as Category 2 works which do not require development consent. Accordingly, it is proposed to undertake the required site remediation once the demolition of the existing buildings/structures and removal of the existing hardstand areas has been completed in accordance with the relevant CDC.

3.2.3.4. Stormwater and Water Quality Management

The proposed stormwater drainage system will comprise a minor and major system to safety and efficiently convey collected stormwater run-off from the development to the legal point of discharge in accordance with CoS requirements.

The minor system will consist of a piped drainage system which has been designed to accommodate the 1 in 20-year ARI storm event. The major system will be designed to cater for storms up to and including the 1 in 100-year ARI storm event. The major system will employ the use of defined overland flow paths, such as roads and open channels, to safely convey excess run-off from the site.

The existing inter-allotment drainage pipe will be re-routed within the site to accommodate the proposed development. The pipe is also proposed to be increased from a 450mm diameter to a 525mm diameter reinforced concrete pipe to account for the reduced hydraulic efficient associated with increased length of pipe and additional changes in direction. The existing easement will be extinguished, and new easement defined along the length of the pipe.

The route of the new pipeline is proposed to remain in Burrows Road (following the line of kerb) to the western boundary of the site (as requested by CoS), then following a trajectory along the western driveway to a new connection to the Alexandra Canal. An extract of the proposed stormwater drainage plan is provided at **Figure 16**.

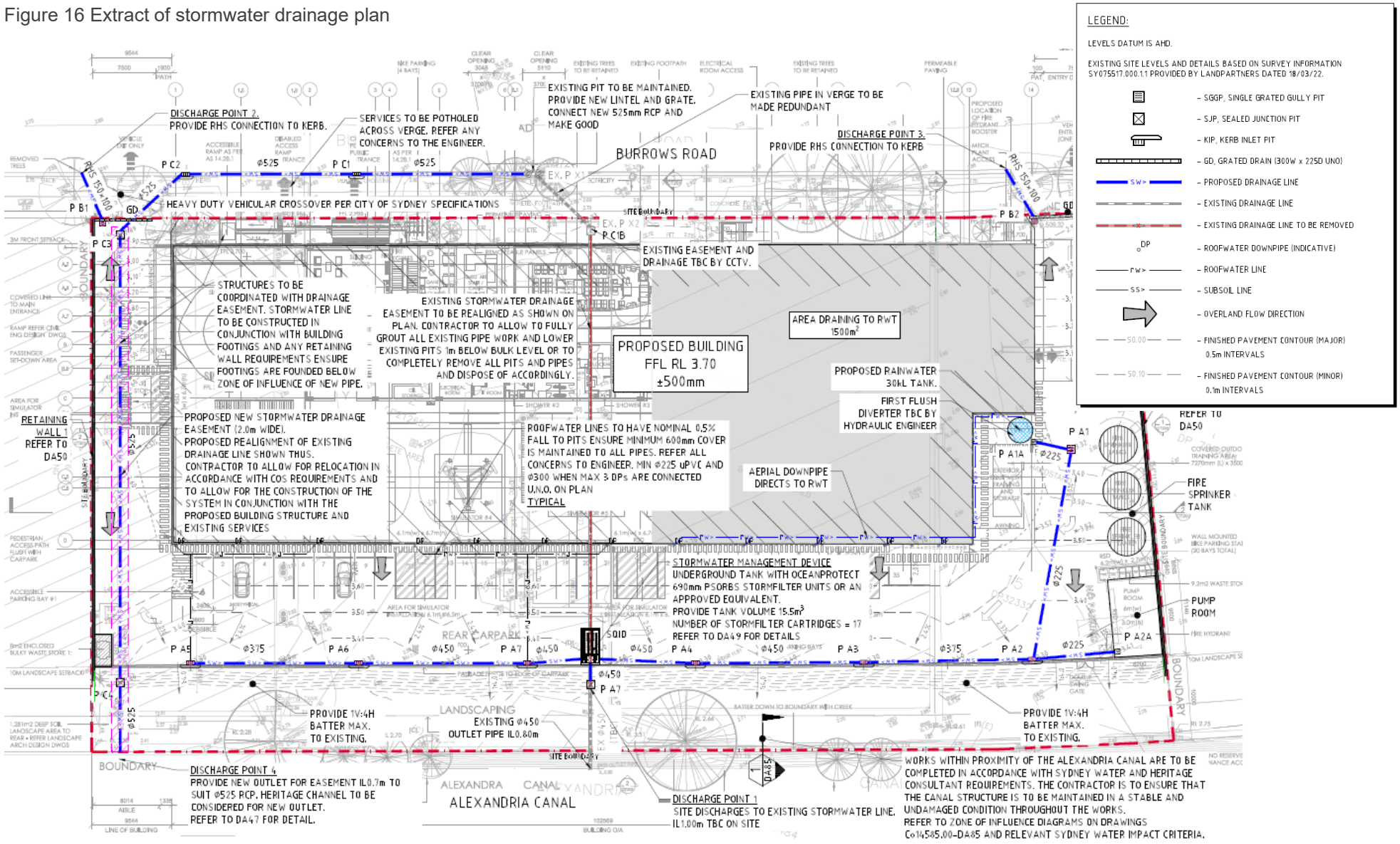
3.2.3.5. Utility Services

The proposed development requires the installation of three substations to provide for the electricity demand for the facility. The substations are located in the north-eastern corner, adjacent to the driveway, to facilitate access in accordance with Ausgrid technical specifications. The substations have been sited behind the front building line of the development and planting will be provided at the street frontage to filter views.

A fire reticulation network is proposed around the perimeter of the FTC to supply the proposed hydrants and fire sprinkler systems. The sprinkler booster is located at the rear of the development alongside the tanks. The site will also include external fire hydrants which will allow fire services and authorised users to access the main water supply in the event of a fire.

No augmentation of water or sewer service infrastructure is required or proposed to service the proposed development.

Figure 16 Extract of stormwater drainage plan

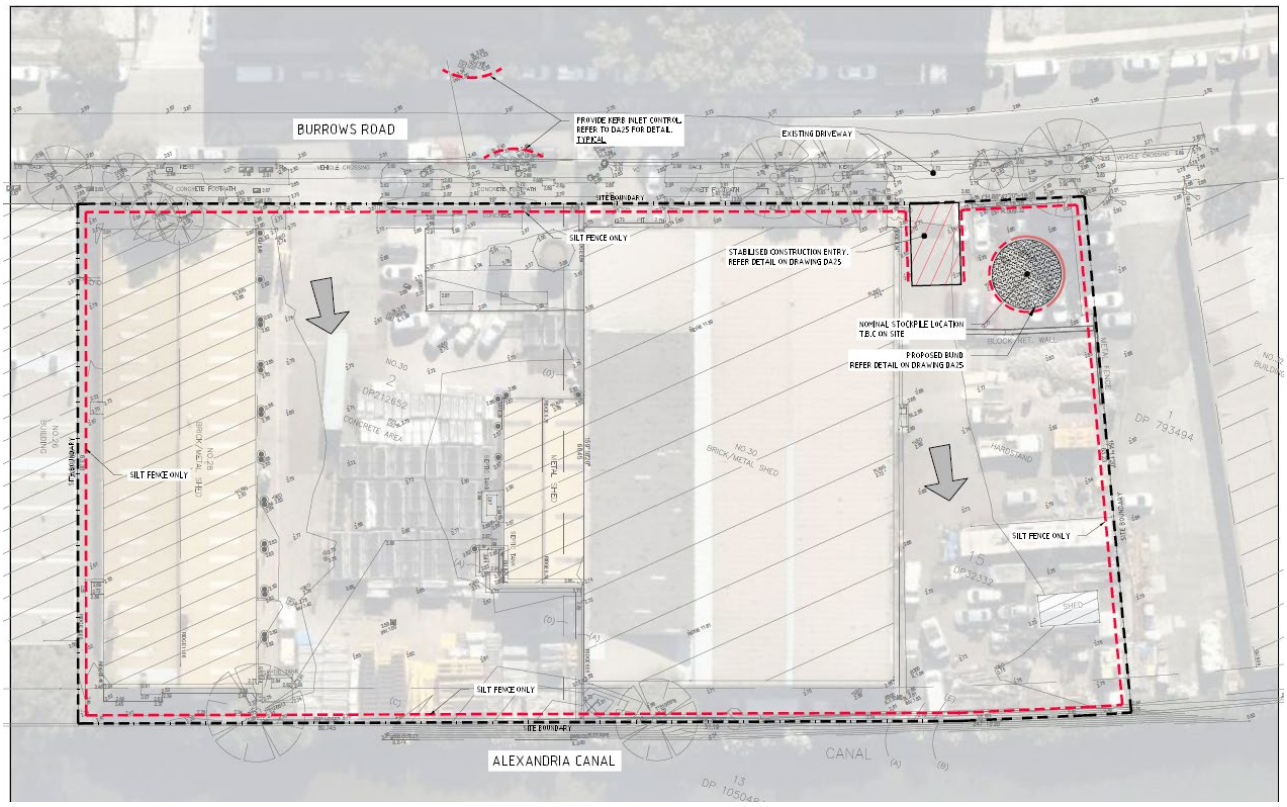


Source: Costin Roe (2022)

3.2.3.6. Sediment and Erosion Control

An erosion and sediment control plan has been prepared by Costin Roe (refer **Appendix P**) and an extract is provided at **Figure 17**. The plan details the measures that will be implemented during the construction phase including location of silt fencing and hay bales, designated stockpile locations and access control points to the site.

Figure 17 Erosion and sediment control plan



Source: Costin Roe (2022)

3.2.3.7. Construction Management

All construction vehicles will access the site via the existing crossovers to Burrows Road. Construction staff will be encouraged to use public transport to access the site.

In accordance with the Noise and Vibration Impact Assessment (refer **Appendix X**), extended construction hours are sought for the Project in order to facilitate the delivery of the Project within the timeframes proposed for operational commencement of the FTC:

The construction activities that are likely to occur during the outside of hours works (**OOHW**) periods include concrete pours, internal fitout works, including deliveries, oversized deliveries and impact piling. The standard construction hours are summarised in **Table 7** and proposed extended hours in **Table 8**.

Table 7 Standard construction hours

Day of Week	Proposed Hours
Monday to Friday	7am to 6pm
Saturday	8am to 1pm
Sunday and Public Holidays	No work

Table 8 Proposed out of hours construction works

Proposed OOHW Construction	Proposed OOHW Hours
Impact piling	OOH day and evening period Saturday: 1pm to 10pm Sunday: 8am to 10pm
Concrete pours	OOHW morning shoulder period and OOHW evening period Monday to Friday: 5am to 7am and 6pm to 10pm Saturday and Sunday: 5am to 8am and 6pm to 10pm
Internal fit-out works, including deliveries	All periods – 24 hours, 7 days a week

3.2.3.8. Site Operations

CAE have prepared a Preliminary Plan of Management (refer **Appendix H**) to ensure that the new FTC is operated and managed effectively. The Plan of Management includes details of the proposed operations, including employee numbers, hours of operation and security management procedures. The facility will operate 24 hours a day, seven days a week.

The key operational activities undertaken at the FTC will involve:

- Flight training for pilots and cabin crew
- Emergency procedures training for pilots and cabin crew
- Maintenance of flight simulators
- Ancillary office administration

Pilots, cabin crew, maintenance technicians, instructors and contractors will frequent the facility to conduct and attend training, and to attend to facility/equipment breakdowns. The proposed flight simulators will facilitate the completion of regulatory required Pilot training for licence renewals and new initial type ratings for pilots from Qantas and other airlines. The Sydney FTC will operate similarly to those facilities in other states.

3.2.3.9. Waste Management

The enclosed waste area in the south-eastern corner of the site will accommodate two general waste bins, two recycling bins and one food waste bin in accordance with the CoS requirements. A further 8m^2 storage area for bulky waste is in the south-west corner of the site.

Waste collection will occur within the southern corners of the site adjacent to the waste storage areas. A one-way flow driveway will provide access to the designated waste storage areas. Sufficient clearance is available to accommodate a 9.25 metre waste truck.

3.2.4. Development Timing

The Project will be constructed in a single stage, with individual phases as described in the previous section and as summarised below:

- Site preparation works including earthworks, utility services installation and stormwater management.
- Construction of the main building and ancillary site works including car parking, landscaping, etc.

- Progressive fit-out and occupation of the FTC to facilitate delivery of the required programme (refer below).

It Is anticipated that construction will commence in Q2 of 2023 and involves a 12-month construction and design program.

To achieve the above programme, it is requested the conditions of consent be appropriately worded to facilitate the release of Construction Certificates and Occupation Certificates for distinct phases of work. This should provide for completion of the main building structure and the staged installation and occupation of the simulators and other emergency procedures equipment within the facility.

4. Statutory Context

This section of the report provides an overview of the key statutory requirements relevant to the Site and the Project, including:

- *Biodiversity Conservation Act 2016* (**BC Act**)
- *Environmental Planning and Assessment Act 1979* (**EP&A Act**)
- *Environmental Planning Assessment Regulation 2021* (**the Regulations**)
- *State Environmental Planning Policy (Planning Systems) 2021* (**Planning Systems SEPP**)
- *State Environmental Planning Policy (Resilience and Hazards) 2021* (**R&H SEPP**)
- *State Environmental Planning Policy (Transport and Infrastructure) 2021* (**T&I SEPP**)
- *State Environmental Planning Policy (Industry and Employment) 2021* (**I&E SEPP**)
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021* (**B&C SEPP**)
- *Sydney Local Environmental Plan 2012* (**SLEP 2012**)

4.1. Statutory Requirements

Table 9 outlines the key statutory requirements in accordance with the Department's *State Significant Development Guidelines*. This section is complemented by a statutory compliance table at **Appendix C** that identifies all statutory requirements and where those requirements have been addressed in the EIS.

Table 9 Identification of statutory requirements for the Project

Statutory Relevance	**Action**
Power to grant approval	The Project was declared to be SSD in accordance with Section 4.36(3) of the EP&A Act: *The Minister may, by a Ministerial planning order, declare specified development of specified land to be State significant development, but only if the Minister has obtained and made publicly available advice from the Independent Planning commission about the State or regional planning significance of the development.* On 19 August 2022, the Minister for Planning declared the Project as SSD, via a notice in the NSW Government Gazette Number 387. The Minister for Planning or his delegate will be the relevant consent authority for the Project in accordance with Clause 4.5(a) of the EP&A Act.
Permissibility	The site is zoned IN1 General Industrial in accordance with the SLEP 2012. The proposed development is appropriately defined as an 'industrial training facility', which is permitted with consent in the IN1 Zone. This land use definition was accepted by both the DPE and IPC in their determination of the previous FTC approval in 2019. An industrial training facility is defined in the Dictionary of the SLEP 2012 as: ***Industrial training facilities** means a building or place used in connection with vocational training in an activity (such as forklift or truck driving, welding or carpentry) that is associated with an industry, rural industry,*

Statutory Relevance	Action
	extractive industry or mining, but does not include an educational establishment, business premises or retail premises. The Employment Zones Framework proposes to transfer the site to the E4 General Industrial Zone. An industrial training facility will be permitted with consent in the E4 Zone.
Other approvals The Applicant is proposing to undertake demolition of the existing buildings/structures and removal of the existing hardstand in accordance with the complying development provisions in *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*. The following Acts were considered in the assessment of SSD-47601708, but by virtue of the application being SSD and the nature of the Project, no further approval is required under the following: ▪ *NSW National Parks & Wildlife Act 1974*; ▪ *NSW Heritage Act 1977*; ▪ *NSW Roads Act 1973*; ▪ *NSW Water Management Act 2000*; ▪ *NSW Rural Fire Service Act 1997*; and ▪ *NSW Protection of the Environment Operations Act 1997*. No requirements for other approvals have been identified at this stage. The Department has recommended that the applicant seek approval from Sydney Water to ensure the proposed development does not adversely impact on Alexandra Canal. Consultation with Sydney Water is ongoing as outlined in the engagement summary at **Appendix D**.	

4.2. Pre-Conditions

Table 10 outlines the pre-conditions to exercising the power to grant approval which are relevant to the Project.

Table 10 Pre-conditions

Statutory Reference	Pre-condition	Relevance	Section in EIS
R&H SEPP - Clause 4.6(1)	A consent authority must be 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.	In accordance with R&H SEPP, a Detailed Site Investigation has been undertaken and concludes that the site is suitable for the proposed development.	**Appendix W**

Statutory Reference	Pre-condition	Relevance	Section in EIS
SLEP 2012 – Clause 6.21	Development consent for a new building or external alterations to an existing building cannot be granted unless it has been demonstrated the proposed development exhibits design excellence.	The proposed design has been refined in consultation with CoS and has adequately addressed the relevant provisions to demonstrate design excellence.	**Section 6.2** and **Appendix L**

4.3. Mandatory Considerations

Table 11 outlines the relevant mandatory considerations to exercising the power to grant approval.

Table 11 Mandatory considerations

Statutory Reference	Mandatory Consideration	Section in EIS
Consideration under the EP&A Act and Regulation		
Section 1.3	Relevant objects of the EP&A Act	**Appendix C**
Section 4.15	Relevant environmental planning instruments ▪ R&H SEPP 2021 – Coastal Management	**Appendix C**
	▪ R&H SEPP 2021 – Hazardous and Offensive Development	**Section 6.8, Appendix C** and **Appendix W**
	▪ R&H SEPP 2021 – Remediation of Land	**Section 6.7, Appendix C** and **Appendix T**
	▪ Planning Systems SEPP	**Appendix C**
	▪ T&I SEPP 2021 – Traffic Generating Development	**Appendix C**
	▪ I&E SEPP 2021 – Advertising and Signage	**Appendix C**
	▪ SLEP 2012	**Appendix C**
	Relevant draft environmental planning instruments	**Appendix C**
	Relevant planning agreement or draft planning agreement	**N/A**
	Development control plans ▪ SDCP 2012	**Appendix C**
	The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality.	**Section 7.5**

Statutory Reference	Mandatory Consideration	Section in EIS
	The suitability of the site for the development	**Section 7.6**
	The public interest	**Section 7.7**
Mandatory relevant considerations under Environmental Planning Instruments (EPIs)		
R&H SEPP clause 3.7	Departmental guidelines: ▪ *Applying SEPP 33 Guidelines*	**Section 6.8** and **Appendix W**
R&H SEPP clause 4.6(1)	A preliminary investigation is required in accordance with the contaminated land planning guidelines.	**Section 6.7** and **Appendix T**
SLEP 2012	Objectives and land uses for IN1 Zone ▪ Part 4 – Principal development standards ▪ Part 5 – Miscellaneous provisions ▪ Part 6 – Local provisions (Division 4 Design excellence) ▪ Part 7 – Additional local provisions	**Section 6 and Appendix C**
Considerations under other legislation		
BC Act – section 7.14	The likely impact of the proposed development on biodiversity values as assessed in the Biodiversity Development Assessment Report (**BDAR**). The Minister for Planning may (but is not required to) further consider under that BC Act the likely impact of the proposed development on biodiversity values.	**Section 6.16** and **Appendix FF**
Development Control Plans		
SDCP 2012	Clause 2.10 of the Planning Systems SEPP states that development control plans (whether made before or after the commencement of this Policy) do not apply to SSD. As such, there is no requirement for assessment of the Project against the SDCP 2012 for this SSDA. For completeness however, consideration has been given to the following provisions: ▪ Section 3 General Provisions ▪ Section 5.8 Southern Employment Lands	**Appendix C**

5. Community Engagement

This section of the report describes the engagement activities that have been undertaken during the preparation of the EIS for the Project.

5.1. Engagement Carried Out

Community and stakeholder engagement has been undertaken by the Project Team in the preparation of the SSDA. This included direct engagement and consultation with:

- Surrounding landowners, tenants and businesses
- Registered Aboriginal Parties (**RAPs**), including Metropolitan Local Aboriginal Land Council
- Government, agency and utility stakeholders as listed within the SEARs

The community and stakeholder engagement has addressed the requirements of the SEARs and included:

- High-level Engagement and Communication Plan
- Letterbox drop of Project Factsheet
- Dedicated 1800 number and email feedback channels

The community engagement activities were tailored to the site context, having regard to the established industrial precinct, the existing development and the closest residential and sensitive land uses being more than 300 metres from the site (refer **Figure 16)**.

A factsheet was distributed to the owners and occupants of the surrounding properties. The factsheet included an outline of the Project, the planning and consultation processes and provided information on how to give feedback and how that feedback would be used. At the time of writing the EIS, the project enquiry line had received no calls. One letter was received from an adjoining landowner via the email address.

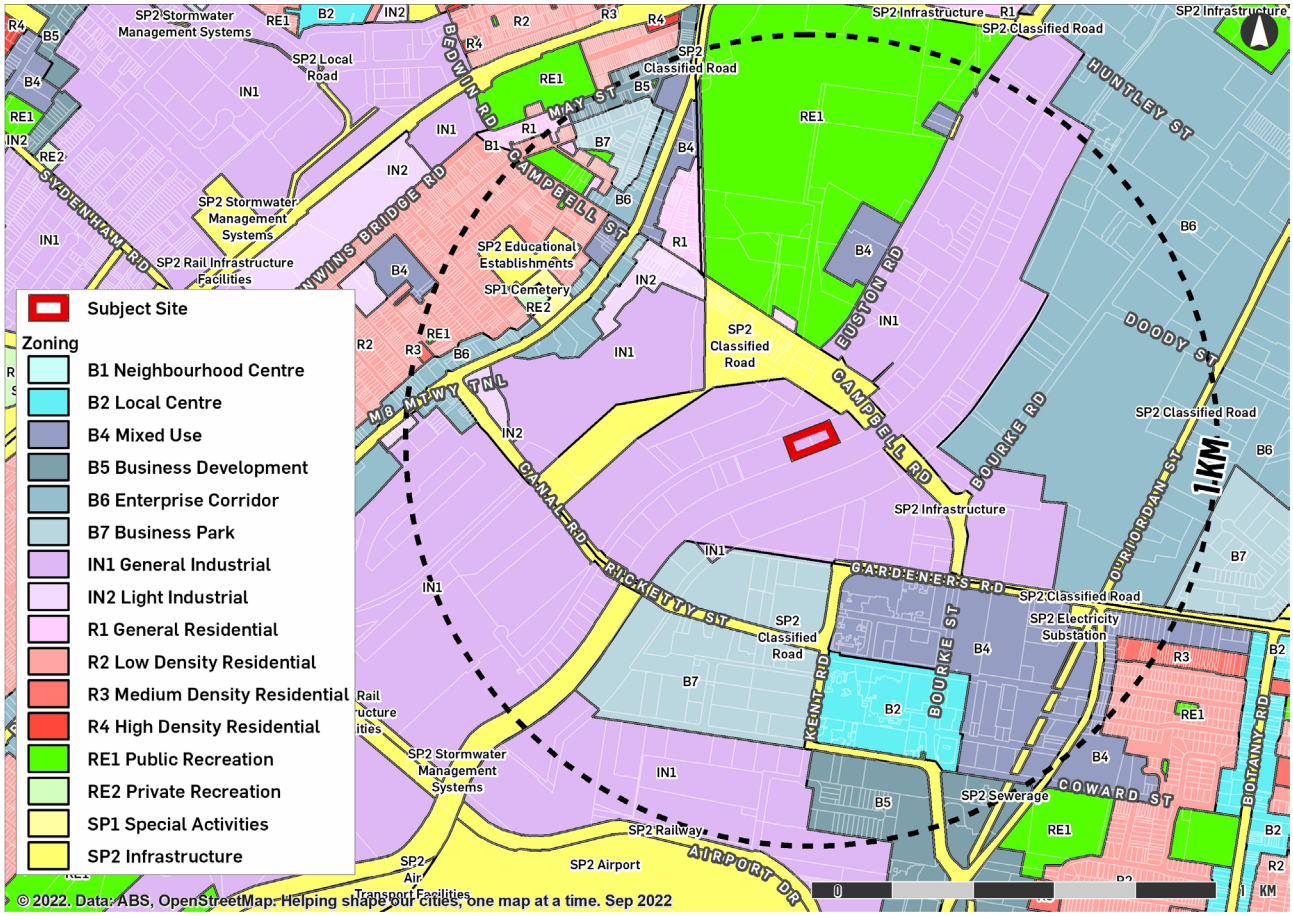
A Scoping Meeting was held with DPE prior to requesting the SEARs. Consultation was also undertaken with CoS to understand their key issues and matters that needed to be considered in the final siting and design of the proposed FTC facility. Other Government, agency, utility providers and key stakeholders consulted during the preparation of the SSDA included:

- DPE (Environment and Heritage Group)
- Heritage NSW
- Sydney Water
- Transport for NSW (**TfNSW**)
- NSW Fire and Rescue
- Ausgrid
- Registered Aboriginal Parties (**RAP**) for the study area

The engagement activities are consistent with the community participation objectives in the Undertaking Engagement Guidelines for State Significant Projects and complied with the community engagement requirements in the SEARs.

In accordance with the Regulations, the EIS will be placed on formal public exhibition once DPE has reviewed the EIS and deemed it ‘adequate’ for this purpose. Following this exhibition period, the applicant will respond to any matters raised by notified parties.

Figure 18 Location of residential and sensitive land uses



Source: Urbis (2022)

5.2. Community Views

At the time of writing the EIS, the project enquiry line had received no calls and only one response from an adjoining landowner via the email address. The land owner requested further consultation regarding an existing sewer easement of the adjoining property. The applicant has committed to working with Sydney Water to determine an appropriate solution.

The outcomes of the consultation and the relevant responses are detailed in the Community and Stakeholder Consultation Outcomes Report prepared by Urbis at Appendix I and the engagement summary at **Appendix D**.

5.3. Engagement To Be Carried Out

LOGOS will continue to keep stakeholders and the community informed of the project approval process through the exhibition and determination phases by:

- Providing information through a letterbox drop on how the community's views have been addressed
- Enabling the community to seek clarification about the project through the two-way communication channels.

The post-approval engagement activities will be documented in the Construction Management Plan to be developed for the Project.

6. Assessment of Impacts

This section of the report assesses and responds to the environmental impacts of the Project and taking account of the matters for consideration outlined within the SEARs.

The assessment of the potential impacts has been provided in accordance with the DPE *State Significant Development Guidelines – Preparing an Environmental Impact Statement - Appendix B* (December 2021). The SSD guidelines provided that the summary of the impacts is to be proportionate to the likely scale and nature of the impacts of the project. A 'standard' assessment has been applied to this proposal having regard to the following matters:

- **Locality Context**: the site is located within an established industrial precinct and adjacent to a major transport interchange. The closest residential and sensitive land uses are located over 300 metres from the site (refer **Figure 16)** and are highly unlikely to be affected by the proposal.
- **Existing Development**: at the time of preparing this EIS, the site contained two large industrial warehouse buildings, a non-functioning truck wash used for storage and areas of hardstand for deliveries and parking. It is expected the previous land use activities would contribute to the existing baseline data regarding traffic, noise and other associated impacts.
- **Scale and Nature of Proposal**: the proposed development is permitted within the IN1 zone and has been sited and designed to comply with the relevant controls for the site. The primary land use activities are located within the proposed building and are unlikely to create significant additional impacts that would adversely affect the existing amenity of the industrial locality.

The 'standard' assessment approach requires the EIS to simply set out the findings of the assessment and identify the key mitigation measures proposed to ensure compliance with the relevant standards or performance measures. This approach has been adopted for each of the relevant issues to be addressed in the following sub-sections of the report.

Further detailed information is appended to the EIS, including:

- SEARs compliance table identifying where the SEARs have been addressed in the EIS (**Appendix A**).
- Statutory compliance table identifying where the relevant statutory requirements have been addressed (**Appendix C**).
- Engagement summary table identifying where the issues raised by the community during consultation have been addressed (**Appendix D**).
- Proposed mitigation measures for the project which are additional to the measures built into the physical layout and design of the project (**Appendix E**).

The detailed technical reports and plans prepared by specialists and appended to this EIS are individually referenced within the following sections.

6.1. Traffic and Transport

A Transport and Accessibility Impact Assessment (**TIA**) has been prepared by Colston Budd Rogers & Kafes Pty Ltd (**CBRK**) to examine the traffic implications of the Project and is provided at **Appendix K**. The TIA assessed the anticipated transport implications of the Project during the construction and operational phases.

6.1.1. Construction Traffic Impacts

The site will generate additional traffic movements in the form of:

- Light vehicle movements generated by construction personnel travelling to and from work
- Heavy vehicle movements generated by:
  - Trucks removing construction waste from the site
  - Delivery vehicles bringing raw materials, plant, and equipment to the site

The estimated daily number of heavy vehicles accessing the site during intensive construction periods will be up to 30 to 40 trucks per day during peak periods or an average of 6 to 8 trucks per hour, over a standard 10-hour workday. The peak is likely to occur during concrete pours which are a very limited part of the construction program. To manage the potential traffic impacts, the contractor will implement the following measures:

- Ensure that construction vehicles travel to and from the site along the designated truck routes;
- Traffic controllers to manage the movement of construction vehicles on and off the site.
- Control the size of construction vehicles.
- Ensure that trucks do not park within surrounding streets. All construction vehicles are to be accommodated on-site.
- Co-ordinate and manage the arrival of trucks and the delivery of construction material to and from the site.
- Ensure that all truck drivers are advised of the construction traffic management procedures.

The construction contractor (FDC Constructions) has provided estimates of the average number of workers accessing the site per day at different construction stages, which are as follows

- Site preparation and enabling works: 15 persons per day.
- Construction of the new processing facility: 75 persons per day.

A Preliminary Draft Construction Traffic Management Plan (**CTMP**) is appended to the TIA at **Appendix K**. The CTMP outlines the key principles for how construction may be carried out on the site, subject to detailed design and review post determination.

Subject to conditions of consent, works associated with construction of the FTC will be carried out between the following hours:

- Standard construction hours (Monday to Friday): 7am to 6pm
- Standard construction hours (Saturday): 8am to 1pm
- Standard construction hours (Sunday and Public Holidays): no works

In addition, the following extended working hours are proposed for impact piling, concrete pours and internal fitout works including deliveries:

Impact piling

- Monday to Friday: 6pm to 10pm
- Saturday: 1pm to 10pm
- Sunday: 8am to 10pm

Concrete pouring

- Monday to Friday: 5am to 7am and 6pm to 10pm
- Saturday: 5am to 8am and 6pm to 10pm
- Sunday: 5am to 10pm

Internal fitout including deliveries

- Monday to Sunday: 24 hours, 7 days a week

Prior to commencement of construction of the Project, a detailed CTMP will be prepared which will assess the proposed access and operation of construction traffic associated with the proposed development with respect to safety and capacity.

During construction, trucks removing spoil and transporting material to the site will be provided access via the existing site access driveways off Burrows Road and will be accommodated within an on-site

construction compound. Access arrangement of these vehicles will be managed by qualified traffic controllers.

General traffic movements of surrounding roads and access to adjacent properties will be maintained during construction. Trucks movements will be restricted to designated truck routes and no trucks will be permitted to part on-street in the vicinity of the site during the demolition, excavation or construction phases.

All construction workers will not be allowed to park their vehicles within the site. To ensure that the surrounding street network does not become filled with workers parking their vehicles, public transport timetables will be made available to all construction workers to encourage the use of public transport services. Appropriate on-site storage facilities will be provided for the storage of tools.

Pedestrian and cycle routes will be maintained during construction. No construction material will be parked no will material or equipment be stored on public footpaths adjacent to the site. In accordance with SafeWork NSW requirements, Traffic controllers will manage pedestrian and cycle movement as trucks enter and exit from the site.

6.1.2. Parking

The SLEP 2012 provides a maximum car parking rate for the proposed development of 65 car parking spaces. The proposal includes 35 car spaces (including one accessible space) for FTC employees and contractors, and therefore complies with the requirement. This provision is equivalent to a parking rate of one space per 150m^2 GFA of office area and is significantly less than the Sydney LEP 2012 maximum allowable provision of one space 75m^2 GFA. The proposed parking provision therefore satisfies Council's LEP maximum provision and is considered appropriate for the site.

In addition, the development will incorporate 24 bicycle parking spaces within the rear car park and along the front boundary of Burrows Road. The proposed changerooms will have showers for employees to satisfy the end-of-trip requirements and support travel modes other than cars. In addition, a shuttle bus service between the site and the Qantas Corporate Campus will also be provided in line with the Preliminary Operational Management Plan.

6.1.3. Vehicle Access Arrangements

The proposal involves modifications to the existing access arrangements on Burrows Road to provide for two new access driveways and extinguishment of the existing driveways. One-way vehicle movement around the site is proposed, with entry via the eastern driveway and exit via the western driveway.

Heavy vehicles generated by the Project will primarily comprise medium (8.8m) and large (12.5m) rigid trucks. An articulated vehicle will be required to install or replace flight simulators. However, this is only anticipated to occur once or twice a year once the FTC is operational.

Swept paths accompany the TIA and demonstrate that vehicle movements to and around the site can be accommodated. Vehicles will access the site from the eastern entry driveway and travel around the building to the loading area along the perimeter of the simulator hall to load/unload the equipment. The vehicle will then depart the site using the western exit driveway. A traffic management plan will be prepared prior to the installation and/or replacement of the simulators to manage the movement of articulated vehicles.

6.1.4. Operational Traffic Generation

Traffic generation for the proposed development has been provided the TIA. While the FTC is proposed to operation 24 hours a day, 7 days a week, traffic generated by the project will have its greatest impact during the weekday morning and afternoon peak periods.

The results of the traffic counts outlined within the TIA indicate that the existing network is producing the following traffic flow in peak periods:

- Canal Road and Ricketty Street traffic flows are between 2,100 to 2,220 vehicles per hour, two-way during the weekday morning and afternoon peak periods
- Campbell Road traffic flows are between 1,650 and 1,750 vehicles per hour, two-way during the weekday morning and between 1,850 and 1,950 during weekday afternoon peak periods

- Burrows Road traffic flows are approximately 115 per hour, two way trips west of Campbell Road and 200 to 3000 vehicles per hour, two way east of Canal Road during the weekday morning and afternoon peak periods.

The results of the SIDRA modelling indicate the existing network is currently performing adequately. The intersection of Canal Road/Ricketty Street/Burrows Road is operating with average delays of the less than 20 seconds per vehicle during the weekday morning and afternoon peak periods. This indicates that the intersection has good operation with acceptable delays during the AM and PM peak. Similarly, the priority controlled intersection of Campbell Road/Burrows Road is operating with average delays of less than 15 seconds per vehicle during peak periods. This indicates that the intersection has good operation with acceptable delays during the AM and PM peak

The upgraded facility is anticipated to be operational by 2024. Based on the SIDRA modelling undertaken as part of the TIA, the intersections at Canal Road/Ricketty Street/Burrows Road and Campbell Road/Burrows Road will still be operating at a satisfactory level during both peaks once the development is operational. Impacts of the site access points on the road network will remain negligible.

The site is within an established industrial precinct. In 2024, when the FTC becomes operational, the roundabout at the intersections of Canal Road/Ricketty Street/Burrows Road and Campbell Road/Burrows Road will still be operating at a satisfactory level during the AM and PM peak. On this basis, there are no road upgrades or infrastructure works required to facilitate the Project.

6.1.5. Green Travel Plan

A Green Travel Plan (**WTP**) has been by CBRK as part of the TIA and is provided at **Appendix K.** The GTP seeks to encourage and facilitate the use of alternative and sustainable modes of transport and to reduce single-occupancy car travel for journeys to and from the site.

The GTP includes an audit of the existing transport facilities and existing travel patterns, setting travel mode targets for the future development. The GTP sets out measures and action strategies that can be implemented by the future development to seek to achieve the mode targets. In this regard, the primary objectives of the Green Travel Plan will be to:

- Promote the use of sustainable transport nodes to construction workers and employees accessing the site during the construction and operation phases of the development.
- Provide sufficient car parking for frequent users of the site and ensure the ability provide alternative travel modes for staff and visitors in the form of bicycle parking, airport shuttle bus and end of trip facilities.
- Reduce the growth of greenhouse gas emission by reducing car-based travel to the site.
- Encourage healthier travel options for staff and visitors, such as walking and cycling.
- Reduce traffic impacts and traffic congestion on the surrounding road network by reducing the number of vehicles travelling to and from the site.

6.2. Urban Design and Visual

A Design Statement has been prepared by PACE Architects and is provided at **Appendix L**. The Design Statement articulates the design qualities of the proposed development and demonstrates how the Project achieves design excellence in accordance with the SLEP 2012.

The building form and design addresses the urban design constraints of the site and the functional requirements of the FTC. The operational and regulatory requirements regarding safety training and emergency procedures have driven the building design ‘from within’, whilst a clear understanding of the industrial context and site parameters has influenced an appropriate contextual design response.

The materiality has been designed to include clean, simple lines which clearly expresses the function of the building and be compatible with the surrounding development in the industrial precinct. Detailed consideration has been given to the façade facing Burrows Road, including strong vertical emphasis to provide ‘visual relief’ to the length of the building as shown in **Figure 19.** The contemporary materials, which include precast concrete, colorbond steel cladding, glazing and metal louvres, fit well within industrial character of the area and the materiality will contribute to building articulation and create visual interest.

Figure 19 Artist Impressions of Proposed FTC

Picture 9 View south-east

Picture 10 View south-west

Source: Morphmedia

6.2.1. Design Excellence

Clause 6.21 of the SLEP 2012 outlines the requirements for development to achieve design excellence. The objective of the clause is to deliver the highest standard of sustainable architectural, urban and landscape design. As outlined in **Table 12** and the Design Statement at **Appendix L**, the proposed development satisfies the relevant matters for consideration and on this basis, it is considered that the Project exhibits design excellence.

Table 12 SLEP Clause 6.21 design excellence assessment

Matters for Consideration	Response
▪ *whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,*	The proposed FTC represents a considered design solution to a series of complex technical and functional need requirements associated with the operation of the FTC. The site is located in an industrial precinct and the Project represents an appropriate response to this context and typology. The design will provide a high standard of architectural design, with the Burrows Road façade suitably articulated to 'break up' the massing of the development. The materials and detailing of the facade will also make a positive contribution to the streetscape and neighbouring sites. The design respects the future vision for the Liveable Green Network by the inclusion of the required 10 metre landscaped setback along the Alexandra Canal boundary.
▪ *whether the form and external appearance of the proposed development will improve the quality and amenity of the public domain,*	The proposal has been designed to present an attractive appearance to the street and surrounding public domain. The front setback is fully landscaped (except for the driveways and pedestrian entrance) to visually screen the built form at the pedestrian level. Glazing has been used to highlight the main entrance and on the upper level of the northern elevation to provide visual interest along the Burrows Road frontage, while providing a simple built form which is consistent and compatible with the industrial character of the locality. Detailed consideration has also been given to the southern elevation and landscaped setback based on its visibility to Alexandra Canal and future public access.
▪ *whether the proposed development detrimentally impacts on view corridors,*	The design is appropriately integrated with the surrounding built form and will not have a detrimental impact on any view corridors. The proposal positively contributes to viewsheds along Alexandra Canal via the inclusion of a 10 metre landscape setback from the canal consistent with the CoS vision for an open space corridor and public access way.
▪ *how the proposed development addresses the following matters:* – *the suitability of the land for development,* – *the existing and proposed uses and use mix,* – *any streetscapes constraints,*	The proposal addresses each of the relevant design excellence matters as summarised below: ▪ The suitability of the site to accommodate the proposed development has been assessed in **Section 7.6**. The proposal is entirely compatible and consistent with the existing and likely future character of the industrial precinct. ▪ The proposed land use activities are appropriate for the site based on its proximity to Sydney Airport and the built

Matters for Consideration	Response
– *the bulk, massing and modulation of buildings,* – *street frontage heights* – *environmental impacts, such as sustainable design, overshadowing and solar access, visual and acoustic privacy, noise, wind and reflectivity* – *the achievement of the principles of ecologically sustainable development,* – *pedestrian, cycle, vehicular and service access and circulation requirements, including the permeability of any pedestrian network],* – *the impact on, and any proposed improvements to, the public domain,* – *achieving appropriate interfaces at ground level between the building and the public domain,* – *excellence and integration of landscape design.*	form requirements to accommodate the proposed FTC operations and functionality. ▪ The design has incorporated the design feedback provided by CoS and produced a building that has resolved the site constraints and embraced the opportunities to achieve a simple coherent outcome, which enhances the existing streetscape. ▪ The scale and siting of the built form responds to the functionality of the site and integration with the surrounding context to deliver a state-of-the-art facility that responds to the local community context and the wider social context. The use itself will create ongoing training and employment opportunities for pilots and cabin crew. ▪ The front parapet to Burrows Road sits below the 18 metre height control and will be sit comfortably within the streetscape. ▪ The nearest sensitive receptors are those along Gardeners Road and Campbell Road. The design of the setbacks and proposed landscaping softens the appearance of the development to the most sensitive receptors. The proposed development includes a 10 metres setback to the Alexandra Canal to facilitate the future public reserve and this will also minimise construction and on-going environmental impacts to the State heritage-listed canal. ▪ Environmental design principles are adopted within the building design generally, addressing thermal performance, amenity, durability and performance. The applicant is committed to achieving a 5 Star Green Star rating. ▪ The development appropriately manages the heavy vehicle access requirements through the provision of two separate access points to the site. The driveways are appropriately separated to manage pedestrian safety. ▪ The design appropriately satisfies the requirements in relation to parking and service access. Pedestrian movements around the site will be well-defined and will be complemented with wayfinding signage. ▪ Consistent with CoS recommendations, the Project will involve upgrades to the public domain including new concrete footpath, turf verges and street lighting to meet current CoS standards. ▪ As highlighted previously, the function of the development limits opportunities for active frontages and entries at ground level. The main entry to the building will be readily

Matters for Consideration	Response
	identifiable and the street frontage adopts a well-resolved landscape design to improve the interface with the public domain and soften the appearance of the built form.

Having regard to the above, it is considered the proposed development provides for a high level of design quality and will have a positive impact on the site and the streetscape.

6.2.2. Better Placed

Better Placed was produced by the Government Architect for NSW (**GANSW**) and seeks to promote and foster well-designed built environments. It presents a collection of expectations and objectives that aspire to shape design and in turn deliver good design outcomes for NSW.

The proposed development is consistent with the Better Placed objectives as it will:

- Be integrated into the industrial context and character of the surrounding area (Objective 1). The design of the building has been informed by feedback from the CoS.
- Incorporate sustainability measures to improve the environmental performance of the development (Objective 2). The building has been designed to achieve a 5 Star Green Star rating.
- Capable of complying with relevant accessibility provisions to ensure equitable access (Objective 3). The building is designed to enable equitable access in accordance with the BCA requirements.
- Be fit for purpose in response to engineering and logistical requirements (Objective 5). The building is designed to satisfy the specific user needs of CAE who will be the operators of the centre. This includes high level tolerances to avoid vibration risk, which is essential for the effective use of the simulators.
- Contribute to the economy each year by delivering required flight training services to support Qantas and other airlines (Objective 6). The facility will employ 80 persons and operate 365 days/year.
- Incorporate architectural treatments and high-quality landscaping to achieve design excellence (Objective 7). As per Objective 1, the proposed architectural and landscape treatment is responsive to pre-lodgement feedback received from CoS.

These objectives are reflected in the proposed design and the suitability of the site as addressed throughout the EIS.

6.2.3. Accessibility

An Access Report has been prepared by Design Confidence and is provided at **Appendix M.** The report considers the Project's compliance with the BCA, *Disability (Access to Premises – Buildings) Standards 2010*, relevant Australian Standards and *Disability Discrimination Act 1992*.

Based on the report, it is expected that the proposed development can comply with relevant accessibility provisions, either by meeting the deemed-to-satisfy requirements or via a performance-based approach.

6.3. Visual Impacts

A Landscape and Visual Impact Assessment (**LVIA**) of the proposed development has been prepared by Habit8 and is provided at **Appendix N**. The LVIA assesses the visual impact of the development on nearby public and private receivers and significant vantage points in the public domain along Burrows Road.

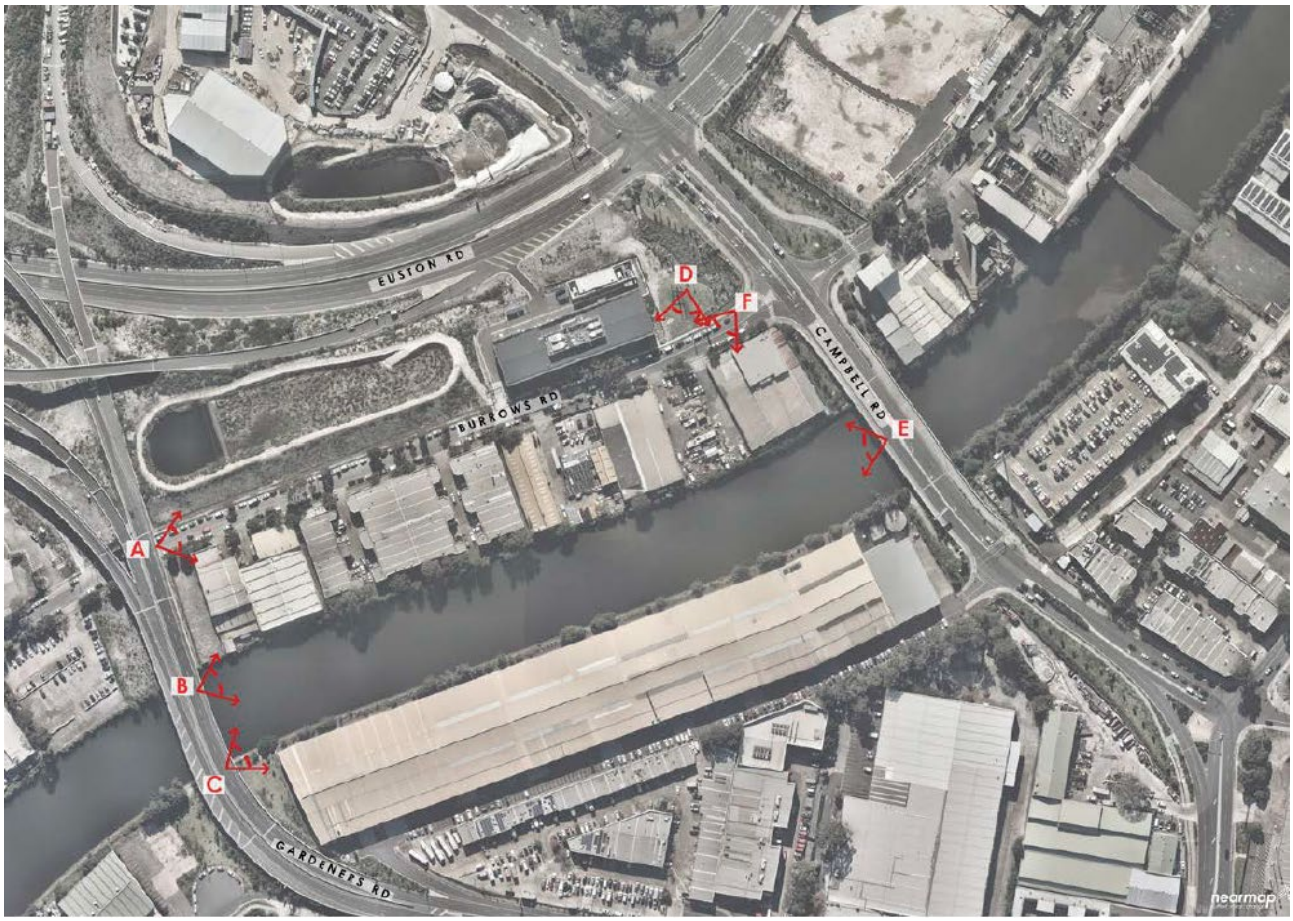
The existing visual catchment is summarised as follows:

- The immediate visual context is characterised by industrial warehouse and commercial buildings of varying height, bulk and scale. Larger-scale built forms exist immediately north and east of the site. These buildings occupy the majority of their respective sites and include visible areas of hardstand and limited screen or ameliorative planting.
- There are no sensitive or important public domain view locations within the immediate visual catchment.

- No residential development is located within the immediate visual catchment of the site with the closest residents located more than 300m to the north-west.
- The most visual sensitive receptors are those along Gardeners Road and Campbell Road.
- From the public domain along Burrows Road, views of the proposed development would be limited to short periods of time and generally from moving view situations.
- The visual sensitivity of the landscape in the area is low and proposed development is considered appropriate in its broader context. The design of setbacks and provision of dense canopy tree planting will soften the appearance of the development from the receptors that afford views the site

Photomontages from six viewpoints were prepared as part of the LVIA (refer **Figure 20**) and represent a range of viewpoints from which the proposed development may have a visual impact. Photomontages from eye level, car level and 8m high level have been generated to represent as closely as possible views from these receptor locations. The existing and proposed views from the most visible viewpoints to the site (Locations C, D and E) are included in **Figure 21, Figure 22** and **Figure 23**. Additional photomontages detailing the proposed screen planting based on 15 year growth are also provided.

Figure 20 View location map



Source: Habit8

Figure 21 Viewpoint C

Picture 11 Existing view

Picture 12 Proposed view – 0 years

Picture 13 Proposed view – 15 years

Source: Habit8

Figure 22 Viewpoint D

Picture 14 Existing view

Picture 15 Proposed – 0 years

Picture 16 Proposed – 15 years

Source: Habit8

Figure 23 Viewpoint E

Picture 17 Existing view

Picture 18 Proposed view – 0 years

Picture 19 Proposed view – 15 years

Source: Habit8

The LVIA concludes the Project will cause a change in the view for a small number of properties. Views from adjacent industrial properties to the west, east and south, and the commercial/office building to the north will have views to the proposed development. However, these views will be mitigated with tall native canopy trees, and screening shrubs and groundcovers. Following maturity (from 15 years onwards), these planted buffers will provide a dense screen to help soften and screen the development.

Wider reaching views to the site from residential areas north-west of the site have also been considered. However, the separation distance means the views of the site and the proposed development are negligible. Further, the proposed development does not block views to any scenic or important features, including to or from heritage items.

Passing motorists, cyclists and pedestrians will experience a medium change in view. However, Burrows Road is not on the major cycleway route and is not highly pedestrianised due to industrial truck movements and the lack of close by services and facilities.

Overall, the LVIA considers the proposed development to be acceptable in visual impact terms. No mitigation measures are recommended. It is acknowledged the proposed landscaping and tree planting within the front and rear setbacks will enhance the site appearance and streetscape over time as shown in **Picture 16**.

6.4. Landscaping

6.4.1. Tree Removal and Retention

An Arboricultural Impact Assessment (**AIA**) has been prepared by Canopy Consulting and is provided at **Appendix O**. The report assesses the identified trees within and around the site which may be impacted by the proposed development. The report details the condition of each tree and makes recommendations for removal or retention based on the proposed development.

A total of 17 trees were surveyed and assessed for the report, including six trees within the site, 10 street trees and one tree within an adjoining property. None of the 17 existing trees are listed on the CoS Significant Tree Register and the site is not mapped as having terrestrial biodiversity.

The proposed development will require the removal of eight trees, comprising four street trees and four trees within the north-western corner of the site, to accommodate the new vehicle access points. The installation of the simulators requires heavy vehicle access around the building and it is not feasible to redesign the

vehicle access to retain the existing street trees. The location of the trees to be removed is shown in **Figure 24** and significance of the trees to be removed is summarised below:

- None are High Retention Value
- Two (T2 & T12) are Medium Retention Value
- Six (T3, T4, T11, T13, T14 & T15) are Low Retention Value

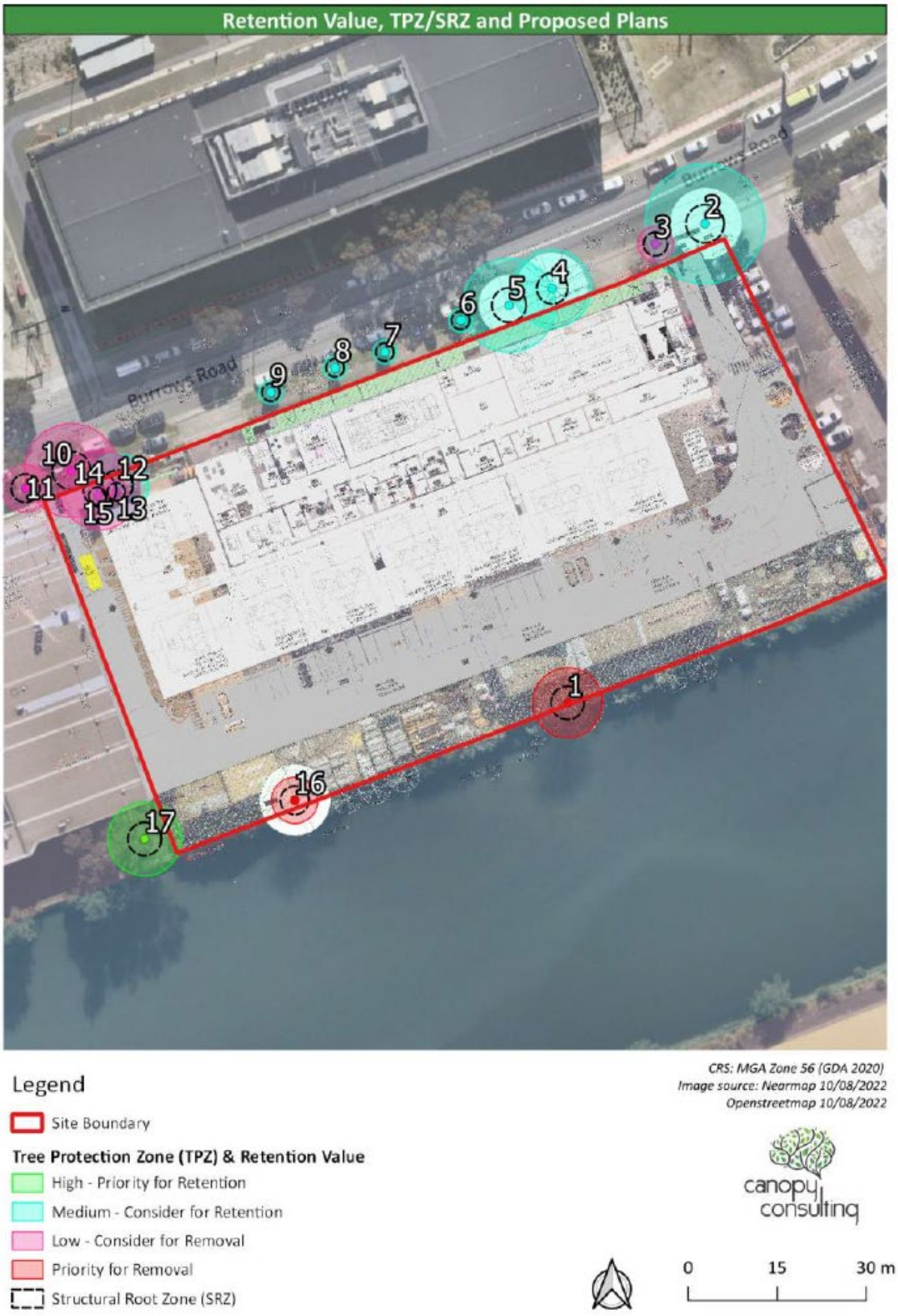
The loss of these trees is to be mitigated through the planting of an additional 19 trees within street frontage to Burrows Road and 20 trees within the foreshore area along the canal. Subject to approval from CoS, the proposal also includes two new street trees (*Cupaniopsis anacardioides*).

A further two trees along the southern boundary will be removed. However, these trees are environmental weeds and have been identified as a priority for removal in accordance with the SDCP 2012.

The remaining trees will be retained and protected for the duration of construction works and associated activities. Specific mitigation measures to protect the retained trees during the construction phase are summarised below:

- A project Arborist with a minimum of AQF Level 5 certification is to be appointed prior to site establishment, demolition, or any site activities.
- Tree Nos. T4 and T5 are to be retained and protected with the following measures:
- Trunk protection is to be installed.
- Demolition is to be supervised by the project arborist.
- Landscaping works are to not require a significant increase or decrease (+- 100mm) in grade.
- Works are to be designed to have the least impact on tree roots.
- Trees T6-9 are be retained and protected with trunk protection only.
- Tree 17 is to be retained and protected with the existing boundary fence line to serve as protection fencing.
- Trees marked for removal are to be physically marked with paint prior to site establishment as per the approved Tree Protection Management Plan.
- Tree removal is to be carried out prior to the erection of protection fencing. Under no circumstances are trees marked for retention within protection areas to be damaged. Vehicles and heavy machinery used by contractors are also to be kept clear of these protection areas.
- Stumps to be removed from within protection areas are to be removed in a manner that avoids damaging or disturbing roots of trees to be retained. This may include stump grinding or careful ‘picking' of the stumps with machinery.
- Tree T4 will require pruning to clear the proposed building facade and provide clearance for scaffolding. Pruning should be in accordance with AS 4373-2007: Pruning of Amenity Trees (Standards Australia, 2007). Trees are to be dismantled and/or removed in such a manner as to avoid damage to adjacent or understory vegetation and structures. All pruning works should be completed by a minimum AQF Level 3 Arborist or under direct supervision thereof.
- Compliance inspections are recommended to be completed on a quarterly basis through the construction stage.

Figure 24 Tree removal plan



Source: Canopy Consulting (2022)

6.4.2. Landscaping Design

Landscape Plans for the proposed development have been prepared by Habit 8 and are provided at **Appendix J**.

The landscaping strategy for the site seeks to incorporate appropriate plantings to enhance the amenity and streetscape presentation of the site and the overall completed development. This is shown through new plantings along the Burrows Road frontage that are integrated into the development and the landscaped foreshore area along Alexandra Canal as required by the SDCP 2012.

The proposal includes:

- A balance of locally native trees and other Australian natives to optimise ecological values and contribute to urban heat island impact mitigation.
- A combination of large and small tree species, with larger species providing structure to the development and surrounding public domain and smaller species reducing visual impacts around driveways and entry points.
- Low maintenance planting along the canal foreshore including bands of native grasslands and shrubs. Allowance has also been made for a 3m zone to accommodate the future pedestrian and cycle path and associated infrastructure consistent with CoS future plans for the canal foreshore.
- Integrated landscape, planting and Water Sensitive Urban Design (**WSUD**) principles will be incorporated to enhance amenity and landscape performance, including permeable paving.

The Project will achieve a 15% canopy coverage within 10 years in accordance with the SDCP 2021. The landscape design also exceeds the 15% deep soil area (18% proposed) through a combination of landscape areas and permeable paving areas.

6.5. Flood Risk

A Flood Risk Assessment has been included in the Civil Engineering Report prepared by Costin Roe and is provided at **Appendix P**. The Flood Risk Assessment has been prepared having regard to the relevant CoS flood planning documentation including:

- *Alexandra Canal Catchment 2014 Flood Study*
- *Alexandra Canal Catchment 2020 Flood Study*
- *M5 EIS SSI-6788 Flood Impact Assessment*
- CoS *Floodplain Management Policy*

Review of these reports shows the site to be free of flooding and overland flow to the 0.2% Annual Exceedance Probability (**AEP**) event. Notwithstanding this, some minor ponding (depth less than 0.3m with velocity below than 0.5m/s) was observed on the edge of the site within Burrows Road. The ponding water is considered by Costin Roe to be associated with gutter flow and is noted to be clear of the site. The site is shown to be clear of any significant flow paths and is not affected by mainstream flooding associated with the Alexandra Canal.

As the site is not subject to flooding or overland flow, no detailed modelling or flood impact assessments are necessary for the development. Flood risk for and from the development is considered low to negligible, and the development meets current CoS Floodplain Management Policy.

Given the sensitive equipment to be installed on the ground floor of the FTC, the FFL of the proposed building has been set at RL3.7m, which is 0.6m above the 0.2% AEP. The higher floor level has been adopted to reduce the overall residual risk of the facility being affected by flooding and the meets the CoS minimum flood planning requirements of 1% AEP. The FFL is also a minimum of 0.5m above the gutter level to ensure the site is not affected by nuisance runoff and gutter flows in Burrows Road.

6.6. Soils And Water

6.6.1. Surface and Groundwater Impacts

Surface and ground water impacts have been addressed in the Civil Engineering Report prepared by Costin Roe Consulting and provided at **Appendix P**.

The proposed stormwater system will ensure suitable management of surface water runoff including water sensitive urban design (**WSUD**) elements to manage quality of runoff in accordance with CoS load-based pollution reduction objectives. Groundwater is noted to be 1.5-1.7 metres below existing ground level.

The proposed development will not impact on groundwater resources given:

- The development does not include bulk earthworks and the site will be filled by 0.5-0.8 metres.
- Minor excavations will not extend below the groundwater level at localised areas.

6.6.2. Geotechnical

A Geotechnical Investigation has been prepared by PSM Consult Pty Ltd (**PSM**) and is provided at **Appendix Q**. This report considers the subsurface context of the site to accommodate the proposed development and geotechnical implications.

The investigation included cone penetrometer tests (**CPT**) to depths between 12.05m to 15.17m and one borehole to a depth of 17.1m. Groundwater was detected in the boreholes between a depth of 1.5 m to 1.7 m (approximately 1.28 RL to 1.03 RL). This was considered to be consistent with the local area.

The geotechnical investigation undertaken by PSM identified the presence of an interbedded clay and sand alluvium between 1 – 6m depth which include layers of clay up to 2m thick in places. It is considered that these layers are compressible and can undergo significant settlement when loaded. On this basis, the following recommendations were identified:

- The proposed FTC, being an industrial building, is likely to need support on piles founded on the underlying bedrock unit which was encountered 12.0m and 15.1m in depth.
- The carpark and hardstand areas are typically subject to lesser loads and may be supported on a slab on ground but will require careful consideration for the interbedded alluvium on total and different settlements.

The proposed development will have limited impacts on the soil resources, noting the following considerations:

- The site is currently occupied by low-rise industrial units.
- The site will continue to be used for industrial purposes.
- The development does not involve major earthworks and the subgrade levels will be maintained.
- Any additional earthworks to raise the level of the site will require imported fill.

6.6.3. Acid Sulphate Soils

An Acid Sulphate Soils Management Plan (**ASSMP**) was prepared by JBS&G to document procedures to be implemented to manage potential environmental risk and is provided at **Appendix R**.

The ASSMP sets out management procedures and mitigation measures to appropriately manage the potential environmental impacts associated with disturbance of ASS/PASS during the proposed site construction works. The objectives of the ASSMP are to document:

- The known and anticipated site sub-surface characteristics expected to be encountered during future excavation works and for consideration in development of future investigative and management activities;
- A monitoring and sampling strategy to be implemented prior to and during the proposed ground disturbance activities such that ASS/PASS may be appropriately identified and managed during the excavation works;

- Evaluation of potential ASS/PASS management opportunities and constraints resulting in the identification of a preferred management strategy(ies); and
- Procedures for the management and validation of ASS during future site excavation works to minimise the potential for adverse environmental impacts resulting from the ASS/PASS disturbance activities.

JBS&G has concluded the implementation of the following management and mitigation measures will minimise the environmental risk associated with the disturbance of the PASS materials:

- Management by neutralisation – addition of chemicals that react with the produced acid to ensure that acid is not released from the treated material.
- Full oxidation and leachate collection – excavation and exposure of the soils to promote full oxidation.
- Separation techniques – including the removal of fine ASS particles including pyrite and monoculists from coarser grained soil particles.
- Selection of preferred management strategies – including the application of neutralisation chemicals, neutralisation of exposed excavation faces during staged treatment works and neutralisation of groundwater seepage and drainage leachate produced during the excavation and treatment works.
- General site management strategies:
  - pre-disturbance works
  - naturalisation chemicals
  - treatment area design
  - excavation works
  - treatment of excavated PASS material
  - water management during treatment
  - validation of treated PASS material
  - site condition monitoring
  - removal of neutralised ASS material from site

6.6.4. Stormwater and Wastewater Management, WSUD and Erosion and Sediment Control

A Civil Engineering Report has been prepared by Costin Roe Consulting and is provided at **Appendix P**. The civil engineering assessment includes a Water Cycle Management (**WCM**) Strategy to guide stormwater management across the development.

A summary of the how each of the WCM objectives will be achieved are described below.

- Stormwater Quantity Management: Sydney Water has confirmed that on-site detention is not required as the site is fully developed and existing trunk drainage systems are available for discharge based on the fully developed site.
- Stormwater Quality Management: The Model for Urban Stormwater Improvement Conceptualisation (**MUSIC**) modelling undertaken by Costin Roe demonstrates that development on the site is capable of meeting the nominated pollutant reduction targets as outlined in the SDCP 2012 and summarised in **Table 13**.

Table 13 Stormwater treatment targets and results

Pollutant	Required Reduction	Modelled Reduction	Compliant
Gross pollutant	90%	100%	Yes
Total suspended solids	85%	87.3%	Yes
Total phosphorus	60%	65.9%	Yes
Total nitrogen	45%	49%	Yes

Source: Costin Roe (2022)

- Flood Management: As discussed in more detail in **Section 6.5**, that the site is shown to be clear of any significant local overland flow paths for events up to the 1% AEP event.
- Water Demand Reduction / Rainwater Reuse: Rainwater reuse measures will be provided as part of this development design. Rainwater reuse will be required to reduce demand on non-potable uses, subject to Greenstar requirements. The reduction in demand will target non-potable uses such as toilet flushing and irrigation.
- Stormwater Management During Construction: A construction stormwater management plan and associated Erosion and Sediment Control Plan (**ESCP**) will be implemented in accordance with CoS' requirements and Landcom NSW's *Management Urban Stormwater, Soils and Construction (Blue Book)*. The ESCP is included in the Civil Plans at **Appendix P.**

An existing in-ground drainage pipe is currently on-site which carries stormwater runoff from the existing warehouse buildings to the point of discharge into the Alexandra Canal. An existing inter-allotment drain is located between the two existing lots and collects runoff from the site.

Following consultation with CoS, the proposed stormwater draining system for the development will comprise a minor and major system to safety and efficiently convey collected stormwater run-off from the development to the legal point of discharge.

The minor system is to consist of a piped drainage system which has been designed to accommodate the 1 in 20-year ARI storm event. This results in the piped system being able to convey all stormwater runoff up to and including the 1 in 20-year event. The major system will be designed to cater for storms up to and including the 1 in 100-year ARI storm event. The major system will employ the use of defined overland flow paths, such as roads and open channels, to safely convey excess run-off from the site.

The proposed development will require the diversion of the existing 450mm diameter inter-allotment drainage system. The pipe will also be increased to a 525mm diameter reinforced concrete pipe to account for the reduced hydraulic efficient associated with increased length of pipe and additional changes in direction. It is expected that the existing easement through the site will be extinguished, and a new easement defined along the length of the pipe.

The following mitigation measures will be implemented during the construction stage to manage erosion and sediment control:

- Sediment fences located around the perimeter of the site to ensure no untreated runoff leaves the site. Sediment fences should also be located around the existing drainage channels to minimise sediment migration into waterways and sediment basins.
- Stabilised site access at one location at the entry to the works area. This will limit the risk of sediment being transported on Burrows Road and other public roads.
- Minimise the extent of disturbed areas across the site at any one time.
- Progressive stabilisation of disturbed areas or previously completed earthworks to suit the proposal once trimming works are complete.
- Regular monitoring and implementation of remedial works to maintain the efficiency of all controls.

6.7. Contamination

A Detailed Site Investigation (**DSI**) and Remediation Action Plan (**RAP**) have been prepared by JBS&G and are provided at **Appendix S** and **Appendix T** respectively. These reports have been prepared to understand the site conditions and identify the remediation works required to confirm the site is appropriate for future development

The DSI has identified that the site is currently occupied by existing industrial warehouses and areas of hardstand. The DSI notes previous uses on the site included a mechanics workshop operation that included spray booths and a truck wash. Underground storage tanks (**UST**) were reported within the carparks at multiple locations, where corresponding soil and groundwater was identified to be impacted with petroleum hydrocarbons. In addition, fill based soils were reported to contain asbestos and isolated polychlorinated biphenyls (**PCB**) impacts.

Five groundwater monitoring wells identified medium to heavy chain petroleum hydrocarbon (**TRH**) impacts across the site, which were associated with USTs, pipes, bowsers, sumps and pits, as well as surface oil staining in the south-eastern portion of the site. The highest hydrocarbon concentrations were reported in the south-eastern portion of the site and indicates the potential presence of light non-aqueous phase liquids impacts within proximity to this location.

All other constituents within groundwater (including heavy metals, chlorinated hydrocarbons, PFAS) were reported at concentrations either below detection limits or not considered to pose a risk to on or off-site receptors and therefore did not require further assessment and/or management.

Results from a sub-slab vapour investigation that included the installation of 42 probes reported contaminant concentrations below laboratory detection limits or the adopted guideline values for the assessment. This indicated that the identified TRH impacts within soil and groundwater as well as other potential volatile contamination sources underlying the site, do not pose an unacceptable health risk for the proposed development.

Based on the findings of the DSI and to address the requirements of the SEARs, a RAP was prepared to address remediation of:

- Asbestos impacted fill, which is likely to be present at depths ranging from 0.3-0.9m.
- Isolated PCB impacts within fill materials in the north-western portion of the site.
- The removal of fuel storage infrastructure to allow for the restoration of background groundwater quality to the extent practicable.

JBS&G have confirmed that the required remediation is appropriately categorised as Category 2 remediation work which does not require development consent to be obtained. On this basis, the remediation works do not form part of the SSDA. LOGOS propose to undertake the remediation work once the demolition works have been completed in accordance with the CDC. The completion of the remediation works in accordance with the RAP and as listed below will ensure the site is suitable for the proposed development:

- Pre-remediation activities:
  - ground penetrating radar survey
  - hardstand removal and surface inspection
  - delimitation of TRH impacts
- Excavation of PCB impacted soil;
- Removal of residual operational infrastructure and impacted soils;
- Removal of UPSS/UTSs and associated impacted soils;
- Excavation of hydrocarbon-stained soils and associated impacts;
- Bioremediation;
- Constrains on excavation and stockpiling;
- Onsite containment/capping arrangements; and

- Implementation of a validation plan.

The DSI and RAP have been peer reviewed by an NSW EPA Accredited Site Auditor and a letter of interim advice certifying that the RAP is practical, and the site will be suitable after remediation for the proposed use is provided at **Appendix U**.

In addition, a Long-Term Environmental Management Plan (**LTEMP**) has been prepared by JBS&G and is provided at **Appendix V**. The LTEMP has been prepared to further ensure the future management of the environmentally impacted soils and groundwater at the site. The proposed strategies within this document are endorsed by the applicant, and the applicant supports the implementation of the LTEMP as a condition of consent to ensure long term management of the site.

6.8. Hazards & Risk

An assessment against Chapter 3 of the R&H SEPP has been prepared by Riskcon Engineering and is provided at **Appendix W**.

The analysis includes a review of the proposed quantity and type of Dangerous Goods (**DGs**) stored at the site as well as the amount of vehicle movements against the threshold quantities identified in the guidelines *Applying SEPP 33 - Hazardous and Offensive Development Application Guidelines*. It is noted that the former State Environmental Planning Policy No. 33 (**SEPP 33**) has been consolidated into the R&H SEPP, however the SEPP 33 guidelines remain applicable.

The storage of DGs at the site were assessed against the R&H SEPP thresholds as outlined in **Table 14**.

Table 14 Quantities stored & SEPP 33 threshold

Class	Description	Proposed Maximum Quantity	SEPP Threshold	Exceedance
2.1	Liquefied petroleum gas (**LPG**)	20kg	10,000kg	N
3	Flammable liquid	10kg	5,000kg	N

Source: Riskcon (2022)

The expected transport movements of DGs will not exceed the R&H SEPP transport thresholds. The DGs to be stored on site are to be used for maintenance purposes and will be used infrequently and in small volumes. The presence of the FTC will therefore not adversely increase the transportation of DGs within the local area.

In summary, the identified proposed quantities for DGs did not exceed the R&H SEPP thresholds and the required separation distance from the site boundaries is satisfied. Subsequently, the R&H SEPP does not apply to the Project and a Preliminary Hazard Analysis does not need to be prepared.

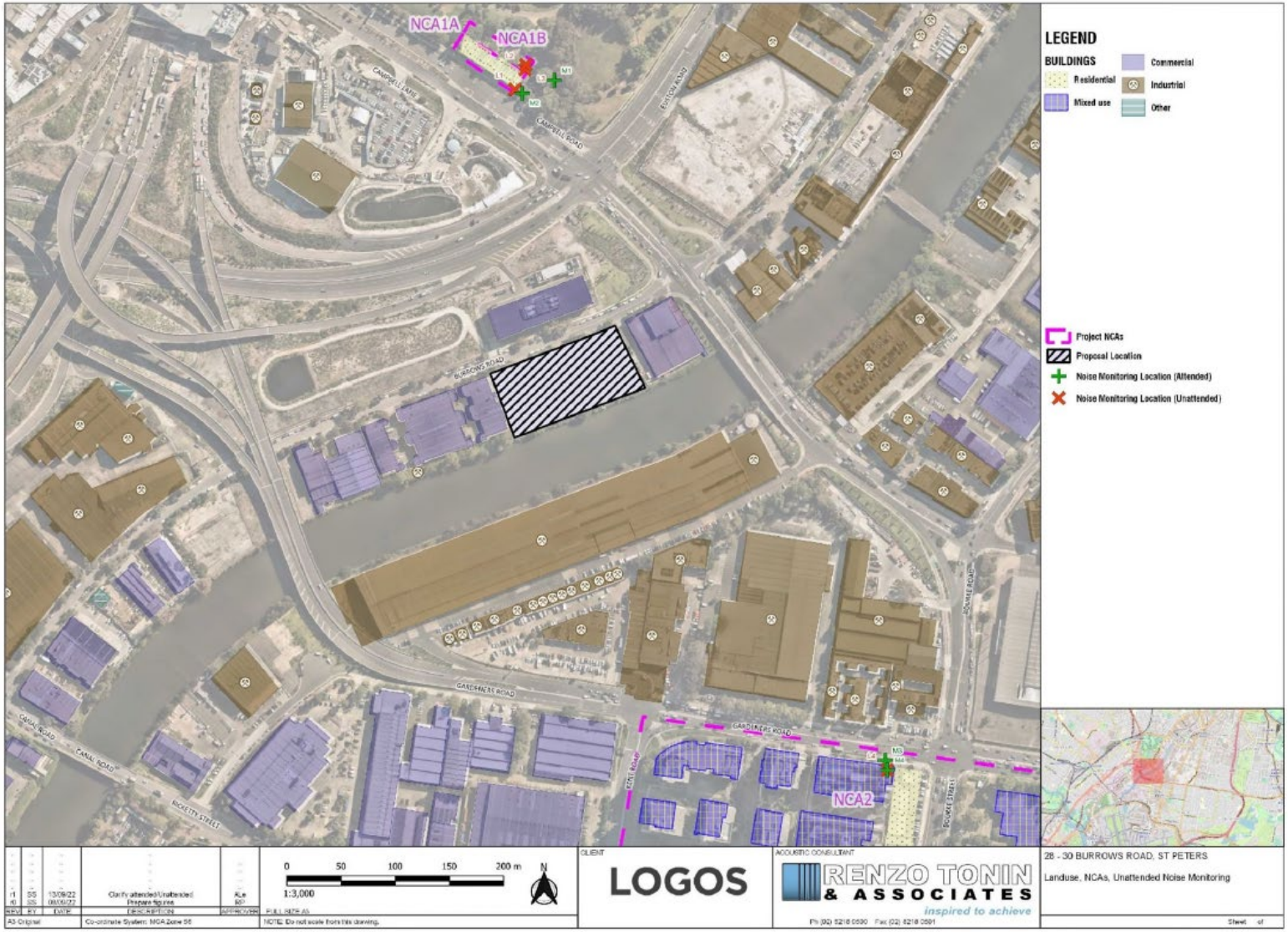
6.9. Noise and Vibration

A Noise and Vibration Assessment (**NVIA**) has been prepared by Renzo Tonin and is provided at **Appendix X**. The assessment considers the potential noise and vibration impacts that may result from the construction and operation of the proposed development.

The land uses in Burrows Road and further south across Alexandra Canal comprise a mix of industrial and commercial receivers. The nearest residential receivers to the site are approximately 300 metres to the north on Campbell Road and 320 metres to the south-east at the corner of Gardeners Road and Kent Road. A set of representative receiver locations have been selected to assess the potential acoustic impacts of the development, considering the large number of receivers surrounding the site (refer **Figure 25**).

The NVIA considers the existing noise environment, including attended and unattended noise monitoring in various locations around the site and meteorological conditions. The background noise monitoring undertaken in the preparation of the NVIA found that at each of the noise monitoring locations, the existing noise environment was dominated by road traffic noise levels.

Figure 25 Sensitive receivers and noise monitoring locations



Source: Renzo Tonin (2022)

6.9.1. Construction Noise and Vibration

The NVIA involved a quantitative assessment of construction and vibration impacts to determine whether mitigation would be required, and to determine appropriate management controls. The predicted noise levels are conservative, based on when the plant or equipment are closest to the receiver. Noise level calculations consider attenuation due to distance between the construction works and the receiver locations.

The Project is seeking approval for construction to occur during out of hours work (**OOHW**) periods for certain types of works, including impact piling, concrete pours, internal fit-out works and deliveries. Justification for undertaking these construction works outside the standard construction hours is provided in **Table 15**.

Table 15 Proposed out of hours construction works

Proposed OOHW Construction	**Justification for Works Outside Standard Hours**
Impact piling	Given the close proximity of the nearby commercial receivers to the site, it is likely that impacts from construction noise and human comfort vibration impacts would potentially exceed the relevant noise and vibration management levels. There are limited alternative techniques, source mitigation or path mitigation options for the driven piles because of site specific factors (ie. contamination). Extending the construction hours for impact piling works over the weekend day periods, or into the evening period would allow for more effective management of noise and vibration impacts from these works.
Concrete pours	For concrete pours during hotter months, deliveries are proposed to commence during the early morning period (from 5:00am) to avoid the hottest time of the day when concrete pours are not able to occur. Large concrete slabs require an extended time period to complete, and as such this would require commencing early in the morning period to complete during the day. This would also be for worker welfare. To mitigate potential impacts during these OOHW periods, the assessment of concrete pours during OOHW periods has been assumed that the concrete truck can be setup so that there is no direct line of sight to the residential properties on Campbell Road (ie the WestConnex Transurban MCC Main Office or the proposed building can shield the concrete truck).
Internal fit-out works, including deliveries	Fit-out works are proposed to occur during out of hours periods once the building shell has been completed. This would occur inside the building and therefore noise impacts are not expected, however deliveries may be required. This would assist with reducing the overall construction program, and potentially reduce the construction intensity during standard hours, and as such reduce the potential construction impacts and nearby sensitive receivers.
Oversized deliveries	Some larger deliveries may occur also after hours. This is due to road restrictions for oversized deliveries, including the initial installation (and future replacement of the simulators).

Source: Renzo Tonin (2022)

The findings of the NVIA conclude:

- During standard daytime hours, the predicted noise levels generally comply with the identified noise management levels (**NMLs**) for nearby affected residential receivers. Based on a 'worst-case' scenario, high noise generating plant and equipment (such as impact piling) may exceed the NMLs by up to 17dB(A) however this is only expected to occur where there is a direct line of site to the residential properties in Campbell Road. For a large portion of the site, the WestConnex Transurban MCC Main Office provides shielding to these properties.
- The commercial and industrial receivers surrounding the site are generally predicted to experience construction noise above the relevant NMLs for most construction activities. During the worst case scenario for impact piling near the boundaries of the site, noise levels are predicted to be more than 30 dB(A) above the NML at the adjacent commercial receivers. Given the large exceedances predicted at the nearby commercial receivers, there is an opportunity to conduct these high noise generating activities outside standard hours on the weekend and in the evening periods to manage these impacts.
- Where works are undertaken outside the standard construction hours, provided the activities are managed so as to occur in acoustically shielded locations, the impacts can generally be managed so as to achieve the NMLs at nearby residential receivers. This demonstrates that the use of OOH periods to manage impacts to adjacent non-residential receivers should be considered further as part of further design development during the construction stage.
- Given that the nearest residence to the proposal is located approximately 300 metres to the north and all potentially impacted residences are subject to high traffic noise levels from surrounding major roads, there is an opportunity to extend the standard construction hours for the proposal whilst complying with the relevant construction noise management levels at these nearby residences.
- Construction related road traffic noise is expected to achieve the requirements of the NSW *Road Noise Policy* and is not expected to cause any adverse impacts at nearby receivers.
- There is potential for cumulative noise impacts from the construction phase of the Project when combined with other concurrent construction projects as outlined in **Table 5** of this report. Accordingly, mitigation and management measures are recommended to minimise cumulative impacts.
- A number of vibration intensive construction activities are likely to be required such as impact piling and hydraulic hammers. Due to the close proximity to nearby commercial receivers a further review of potential vibration impacts and construction methodology, along with impact mitigation and management approaches, would be required during further design development phases to ensure that potential vibration impacts are adequately mitigated and managed.
- Particular care is required to appropriately manage potential construction vibration impacts on the State heritage listed Alexandra Canal. Given the contamination of the site, alternate piling methodologies such as bored piles are not appropriate. Where impact piling is required, the determination of a suitable vibration limit for the Alexandra Canal, along with suitable management measures where this limit cannot be practicably achieved, will be determined in consultation with Sydney Water to appropriately manage potential construction vibration impacts on the canal structure.
- The nearest residential property is approximately 300 metres from the site. The minimum working distance for impact piling is 230 metres and accordingly, there are no residences within the minimum working distance for human comfort.

Mitigation measures have been recommended by Renzo Tonin to provide feasible and reasonable solutions to reduce noise and vibration impacts to sensitive receivers during the construction phase. The measures are fully detailed in Section 4.3.4.1 and Section 4.4.3 of the NVIA and include the following practices:

- Provide appropriate respite periods when noise intensive works are undertaken or during periods of high noise impacts.
- Use quieter and less noise/vibration emitting construction methods where feasible and reasonable.
- Simultaneous operation of noisy plant within discernible range of a sensitive receiver is to be avoided.
- Noise-emitting plant to be directed away from sensitive receivers.
- Any equipment not in use for extended periods during construction work must be switched off.

- Non-tonal reversing beepers (or an equivalent mechanism) must be fitted and used on all construction vehicles and mobile plant regularly used on site and for any out of hours work.
- Where possible reduce noise from mobile plant through additional fittings including:
  - Residential grade mufflers.
  - Air Parking brake engagement is silenced.
- Any construction hoarding shall be installed on each worksite shall be constructed as a noise barrier, where practicable to provide shielding to the nearest affected receivers.
- Stationary noise sources should be enclosed or shielded whilst ensuring that the occupational health and safety of workers is maintained
- Where works are to be completed as OOHW outside the construction hoarding area, relocatable noise barriers e.g. acoustic blankets hung from temporary construction fencing would be used, where practicable.
- Where practicable, a mobile noise screen/tent would be used to reduce noise from moving plant items e.g. concrete saw.
- The Construction Environmental Management Plan (**CEMP**) prepared prior to the commencement of construction should include construction noise and vibration management and be regularly updated to account for changes in noise management issues and strategies.
- Periodic notification (monthly letterbox drop and website notification) detailing all upcoming construction activities delivered to sensitive receivers at least 7 days prior to commencement of relevant works.
- All employees, contractors and subcontractors are to receive an environmental induction.
- Construction heavy vehicles and delivery vehicles should be scheduled during standard construction hours where feasible and reasonable.
- Vibration testing of actual equipment on site should be carried out prior to their commencement of site operation to determine site specific acceptable minimum working distance to the nearby sensitive receiver/structures location/s.
- If works are proposed within the cosmetic damage minimum working distance, prior to starting work a building/structure condition survey would be carried out on items within the minimum working distances and vibration limits determined to manage cosmetic damage.
- Dilapidation surveys must be conducted at all receivers and structures within the vibration minimum working distances for the construction site for cosmetic damage prior to commencement of activities with the potential to cause property damage.

6.9.2. Operational Noise and Vibration

The NVIA considered the following sources of operational noise from the proposed development:

- Building services and mechanical plant and equipment
- Bus and passenger vehicle movement and car parking

At this stage of the Project, appropriate detail for mechanical plant and equipment is not available. The quantitative assessment was therefore undertaken based on indicative mechanical plant and equipment. The assessment includes adjustments for annoying noise characteristics, for example where the character of the industrial noise is assessed as particularly annoying at a receiver location.

Subject to the inclusion of a 1.8m high solid screen on the rooftop along the north façade of the building, noise levels are predicted to comply with the Noise Policy for Industry (**NPfI**) noise goals at all nearby assessment receivers for all assessment periods. Without the inclusion of the 1.8m high screen, there is a predicted exceedance of up to 4dB(A) during adverse meteorological conditions at 34 Campbell Road, Alexandria.

Potential increases in road traffic noise by vehicles generated by the Project on public roads has been reviewed. The road traffic noise level contributions from the vehicle movements associated with the Project

are not expected to increase existing traffic noise levels by more than 2 dB(A) and therefore would meet the NSW Road Noise Policy requirements.

The site is located within the 20 to 25 ANEF contour for Sydney Airport. The proposal has been assessed in accordance with Australian Standard AS2021:2015 and considered to be acceptable, with no further assessment required.

The following in-principle noise management measures should be considered during detailed design and to manage potential noise impacts during the operational phase:

- Acoustic assessment of mechanical services equipment should be undertaken during the detailed design phase of the development to ensure that the cumulative noise of all noise generating items and operations as part of typical operations (ie. building services and mechanical plant cumulatively with other noise sources such as trucks and loading activities) does not exceed the applicable noise criteria. This includes the detailed specification and location of mechanical plant on site.
- Noise control treatment can affect the operation of the mechanical services system. An acoustic engineer should be consulted during the initial design phase of mechanical services system to reduce potential redesign of the mechanical system.
- Mechanical plant noise emission can be controlled by appropriate mechanical system design and implementation of common engineering methods, which may include:
  - procurement of 'quiet' plant
  - strategic positioning of plant away from sensitive neighbouring premises to maximise intervening acoustic shielding between the plant and sensitive neighbouring premises
  - commercially available acoustic attenuators for air discharge and air intakes of plant
  - acoustically lined and lagged ductwork
  - acoustic barriers between plant and sensitive neighbouring premises
  - partial or complete acoustic enclosures over plant
- Fans shall be mounted on vibration isolators and balanced in accordance with Australian Standard 2625 'Rotating and Reciprocating Machinery – Mechanical Vibration'.

Overall, it is considered that the potential noise impacts of the proposal are acceptable, subject to implementation of the recommended mitigation measures during the construction and operational phases of the development.

6.10. Air Quality

An Air Quality Impact Assessment (**AQIA**) has been prepared by SLR and is included at **Appendix Y**. The assessment provides analysis of the air quality impact of the proposed development on surrounding sensitive receivers during the construction and operation of the proposed development.

The site is located within an established industrial precinct and therefore the surrounding area comprises a mix of industrial and commercial receivers. The nearest sensitive residential receives for the purposes of the AQIA are located 300 metres to the north on Campbell Road.

6.10.1. Construction Impacts

The main air quality impacts associated with construction works (including remediation works) relates to emissions of fugitive dust. The potential for dust to be emitted during the construction works will be directly influenced by the nature of the activities being performed at any given time. Generally, the activities that are most likely to lead to short-term emissions of dust include:

- Grading;
- Loading and unloading of materials;
- Combustion emissions from fixed and mobile equipment;
- Wheel-generated dust from vehicles travelling on unpaved surfaces; and

- Wind erosion of exposed surfaces.

The AQIA assessed the air quality impacts associated with the construction phase using a risk-based assessment procedure. This determines the activities that pose the greatest risk, which allows the CEMP to focus controls to manage that risk appropriately and reduce the impact through proactive management.

Subject to the implementation of the recommended mitigation measures listed below, the results indicate that there will be negligible adverse dust and human health impacts at sensitive receiver locations during the construction phase.

- Avoid scabbling (roughening of concrete surfaces) if possible.
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving the site are covered to prevent escape of materials during transport.
- Record all inspections of haul routes and any subsequent action in a site logbook.
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

6.10.2. Operational Impacts

During the operational phase, the main air quality impacts relate to emissions of products of combustion and particulate matter from vehicles accessing and idling at the site. These emissions will be of a similar nature to existing emissions from traffic on Burrows Road and Campbell Road. The scale and magnitude of emissions from the Project is anticipated to be significantly lower compared to the estimated annual average daily traffic on Burrows Road and Campbell Road.

A risk-based approach was undertaken to assess the risk of air emissions from the site impacting surrounding sensitive receivers. Given the limited on-site car parking and very low vehicle movements anticipated on the site, the air quality impacts arising from the proposed development during the operational phase is considered negligible.

The site is located approximately 500 metres northeast from the WestConnext M8 and M4-M5 tunnel ventilation outlets and therefore potential air quality impacts within the proposed development from emissions from the ventilation outlets was considered. Emissions from the M8 tunnel outlet were sourced from hourly varying stack concentration and exhaust air flowrate data recorded by the Continuous Emission Monitoring System (CEMS) operated by WestConnex for the 2021 calendar year. Stack monitoring data for the M4-M5 link tunnel, located approximately 400 metres northeast of the site were not available at the time of preparing the AQIA, however it was assumed that air emissions for the M4-M5 ventilation stacks would be like that recorded for M8 tunnel ventilation stack.

Based on the modelling undertaken by SLR, it was concluded that:

- No exceedances of the relevant ambient air quality criteria for NO_2 would be expected at the ground and elevated levels of the proposed building.
- No exceedances of the relevant ambient air quality criteria for PM_{10} would be expected at the ground and elevated levels of the proposed building.
- Predicted incremental annual average $PM_{2.5}$ concentrations showed compliance with the relevant criterion at all levels of the proposed building.
- Given the predicted minimal incremental impact associated with the operation of the ventilation outlets and conservative assumptions adopted for this assessment, any changes to the above conclusion is unlikely with the increase in annual average daily traffic in future (eg. 10 year horizon).

The potential cumulative impacts of the proposal were considered having regard to sources of other air emissions in the area, including the Westconnex M5 Project. However, it was considered these would not result in cumulative impacts based on the negligible air quality impacts associated with the Project and/or the distance of the site from other sources of air emissions.

No mitigation measures have been identified as being required for the operational phase with respect to air emissions.

6.11. Waste

A Waste Management Plan (**WMP**) has been prepared by JBS&G and is provided at **Appendix Z**. The WMP identifies all potential waste likely to be generated by the proposed development during the construction and operational phases, including descriptions on how the waste is to be handled, processed, and disposed of, or re-used and recycled. The WMP has been prepared in accordance with the SDCP 2012 and the CoS *Guidelines for Waste Management in new Developments 2018*.

As highlighted previously, demolition of the existing buildings will be undertaken in accordance with a separate CDC. On this basis, waste associated with the demolition of the buildings has not been considered as part of the WMP.

6.11.1. Construction Waste

Table 16 details the estimated volume of waste and recycling to be generated during the construction phase of the Project.

Table 16 Expected waste generation - construction

Waste to be Generated	Estimated Volume - Construction
Hard material	283m^3
Timber	213m^3
Plastics	133 m^3
Cement Sheet	80m^3
Gypsum material	53m^3
Metals	53m^3
Paper/card	36m^3
Vegetation	27m^3
Soil	9m^3
Other (brick, plasterboard etc.)	3m^3

Source: JBS&G

Effective management of construction materials and construction 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. Waste materials produced from demolition and construction activities are to be separated at the source and stored separately on-site before transport to waste facility.

The WMP recommends the following mitigation measures during the construction phase of the project:

- Avoidance and reduction of waste – The excavation (if required) and construction contractor will be required to avoid waste generation, and endeavour to reuse materials where possible.

- Reuse and recycling – 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. During construction, contractors will consider opportunities for reuse of materials in areas in proximity to the site or local construction activities where practicable.
- Treatment and disposal – The construction contractor will liaise with CoS to determine appropriate disposal locations for potential waste streams which may require treatment and disposal. These materials will not be reused or recycled.
- Waste Stream Management options – All waste streams will be required to be separated and stored appropriately to ensure each type of waste is handled appropriately. The numbers and size of waste storage bins, containers, stockpile areas and loading zones on site will be determined by the excavation (if required) and construction contractor.

6.11.2. Operational Waste

In consultation with the CoS, the calculation of operational waste is based on the floor area of the office spaces at Levels 1 and 2 of the FTC. On this basis, the predicted waste generation during the operation of the facility is outlined in **Table 17**.

Table 17 Operational waste collection details

Type of waste	Bin Size	Collection Frequency	Number of bins	Estimated volume / week
General Waste	1,100 LMGB	2	2	3,685 L
Recycling Waste	1,1000 LMGB	2	2	6,142 L
Food Waste	1,1000 LMGB	1	1	1,228 L
TOTAL	-	-	5 bins	11,055 Litres

Source: JBS&G

The bins will be stored at the waste store area in the south-eastern corner of the site. The enclosed waste area will accommodate 2 general waste bins, 2 recycling bins and 1 food waste bin in accordance with the CoS requirements. A further 8m^2 storage area for bulky waste is in the south-western corner of the site.

Waste collection will occur within the southern corner of the site, adjacent to the waste storage area. The swept path movements for the expected 9.25 metre waste collection vehicle can be accommodated, with ingress and egress in a forward movement via the one-way driveway. It is expected that waste collection will be undertaken by a private contractor two times per week.

Site specific waste management measures have been developed in line with the waste hierarchy outlined in the WMP and in accordance with relevant legislative requirements and guidelines. The WMP identifies all potential waste likely to be generated by the proposed development during its construction and operational phases, including descriptions on how the waste is to be handled, processed, and disposed of, or re-used and recycled as consistent with CoS requirements.

6.12. Infrastructure Requirements

A Service Infrastructure Assessment for the proposed development has been prepared by Land Partners and is provided at **Appendix DD**. The existing site infrastructure and the need for upgrades are summarised in **Table 18.**

The Service Infrastructure Assessment finds the existing service assets provide adequate capacity to support the proposed development as summarised below in **Table 18**. All required services will be delivered through the service utility organisation asset creation pathways and funded by the proponent. The required infrastructure will be coordinated with the project team to ensure the assets are constructed and commissioned prior to Occupation Certificate approval.

Table 18 Existing and proposed infrastructure

Infrastructure	Availability
Electricity	The site benefits from proximity to substantial overhead and underground electrical assets existing in Burrows Road. Three chamber substations will be required to supply the development with electricity through connection to current electrical network adjacent to the subject site.
Telecommunications	Substantial fibre-optic cable systems exist in Burrows Road. Telecommunications services will be provided to the proposed development via the existing private structured cabling system. The site will be well serviced by NBN Co existing fibre optic systems.
Sewer	The site is served by a private sewer system via a private pressure sewer main which transports wastewater (through easements) to a wet well holding tank at the north-west corner of Lot 13 DP32332 (on the neighbouring property). The wet well then discharges by a pumped rising main to Sydney Water's existing wastewater reticulation system in Campbell Road. Due to the site's location along Alexandra Canal, submission and approval for any works on the wall of the Canal would need to be submitted to Sydney Water, prior to commencement on site, as part of the building plan approval process with Sydney Water. This will be dealt with during design phase of the project.
Potable Water	The existing site is serviced by a 500mm trunk water main in Burrows Road. Existing offtakes with valving systems are provided along this 500mm trunk water main which ensure connections to properties along Burrows Road. The site is serviced by an existing offtake which has sufficient capacity to service the proposed development.
Gas	No gas reticulation is required to service the proposed development.

6.13. Fire and Incident Management

A Fire Safety Strategy has been prepared by Affinity Fire Engineering for the FTC and is provided at **Appendix DD**. The report provides high-level solutions for a fire safety system which satisfies the requirement of the National Construction Code (NCC) and which will be further developed in the detailed design stage.

The Fire Safety Strategy demonstrates how the proposed building design and fire safety systems can minimise the risk of exposing building occupants to hazardous conditions in the event of a fire and would minimise the risk of fire spreading from one room to another. The assessment has been prepared in accordance with the following guidelines:

- Australian Building Codes Board, "NCC - Building Code of Australia – Volume One, 2019

- Fire Brigade Intervention Model (FBIM) [13] as per the Fire Services State and Territory Acts and Regulations.

The Fire Safety Strategy provides design guidelines for the proposed development to satisfy the performance requirement of the BCA. The Strategy provides design measures for fire resistant construction, construction materials, separation of equipment, required alarm systems, fire equipment and fire brigade intervention measures.

The Strategy concludes that the proposed development is able to satisfy the relevant requirements and specifications of the BCA given that the design incorporates the design measures outlined in the Fire Safety Strategy.

6.14. Aboriginal Cultural Heritage

An Aboriginal Cultural Heritage Assessment Report (**ACHAR**) has been prepared by Artefact for the Project and is provided at **Appendix AA**. The ACHAR documents the process of investigation, Aboriginal community consultation and assessment with regards to Aboriginal cultural heritage and Aboriginal archaeology. The assessment has been prepared in accordance with the following guidelines:

- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (Department of Environment, Climate Change and Water.
- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (Office of Environment and Heritage 2011).
- *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010b).
- *The Australia ICOMOS Charter for Places of Cultural Significance*, The Burra Charter, 2013.

Artefact initiated consultation with the RAPs on behalf of the applicant in June 2022 to facilitate preparation of ACHAR. The consultation was undertaken in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* and the requirements of Clause 60 of the *National Parks and Wildlife Regulation 2019*. During August 2022, the RAPs were provided with written details of the Project and the draft ACHAR for review. All feedback was recorded and is summarised in the ACHAR.

The ACHAR utilises a predictive model to estimate the nature and distribution of evidence of Aboriginal land use at the site. The predictive model considers the variables that may influence the location, distribution and density of sites, features or artefacts within the area. Variables relate to the environment and topography, such as soils, landscape features, slope, landform and cultural resources.

The following conclusions were drawn from the assessment:

- A search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken on 24 April 2022 and no AHIMS sites were identified within a 1km radius of the site.
- No previously unrecorded Aboriginal sites or objects were identified within the study area during survey.
- The study area has been heavily disturbed by historical development activities.
- Based on the predictive model, the study area was assessed as having nil to low potential to retain intact archaeological deposits that may contain Aboriginal objects.
- The consultation process has found that the nearby Gooly'yari (Cooks) River is of high cultural significance to the Aboriginal community.
- As there are no Aboriginal objects of places within the study area, the proposed works will not generate cumulative impacts to Aboriginal archaeological material.

The following mitigation measures are recommended in the ACHAR which will need to be implemented in the construction phases of the project:

Archaeological Finds Procedures

If unanticipated suspected Aboriginal objects are uncovered at any time throughout the life of the project, the following steps should be undertaken:

- Cease all activity within the vicinity of the find
- Leave the material in place and protect it from harm
- Take note of the details of the material and its location, take a photograph of the find in situ, preferably with a scale
- Inform the site manager/ area supervisor, who would then inform the superintendent/ principal

Once the find has been secured, a suitably qualified archaeologist will be contacted to assess the significance of the find and determine management requirements.

If the find is identified as a genuine Aboriginal object:

- Heritage NSW and Registered Aboriginal Parties (RAPs) must be notified and consulted
- A methodology for long-term storage of the find must be developed in consultation with RAPs
- The Aboriginal object should be registered on AHIMS
- Further archaeological mitigation may be required prior to works recommencing.

Works should not recommence until written consent is received from the project archaeologist.

An unexpected finds policy should be implemented in the event that human skeletal remains or Aboriginal objects are identified during construction.

Human Remains Procedure

If suspected human skeletal remains are uncovered at any time throughout the life of the project the following steps should be undertaken:

- Cease all activity in the vicinity of the find
- Leave the remains in place and protect them from harm
- Notify NSW Police
- Engage a forensic anthropologist and archaeologist where required
- Notify Heritage NSW via the Environment Line 131555 to provide details of the remains and their location
- Excavation activity will not recommence unless authorised in writing by Heritage NSW.

6.15. European Heritage

6.15.1. Archaeology

The archaeological potential of the site is discussed within the Statement of Heritage Impact (**SoHI**) prepared by Artefact and is provided at **Appendix BB**.

The site has been assessed in accordance with the *Bickford Criterion E Research Potential Table for "Assessing the Research Significant of Historic Sites".* The assessment determines that the site does not achieve historical significance, associated significance, aesthetic significance, social significant, rarity or representativeness at a local level.

While the site and associated industrial warehouse structures are representative of the 20th century industrial warehouses, they have no outstanding features that demonstrate the principle characterises of significant building types. The existing buildings on site do not possess uncommon, rare or endangered aspects. The SoHI identifies that no potential archaeological remains surrounding the site are likely to have any research potential and would not meet the threshold for local significance.

The site does not meet the threshold for local historical, aesthetic, associative or social significance and does not meet the local threshold for research potential, rarity or representativeness. The following mitigation measures have been identified in order to minimise potential impacts to the archaeological remains:

- An Unexpected Finds Procedure is required for the proposed development. In the case that an unexpected find was to occur, a stop works procedure would be put in place. A heritage specialist will then be contacted immediately to address the unexpected find and determine next steps.
- In conjunction, should significant historical archaeological 'relics,' or other significant remains not predicted within the SoHI, be identified during any minor excavation, there may be a requirement to notify Heritage NSW under section 146 of the Heritage Act. Additional archaeological reporting and management, including consultation with Heritage NSW, may be required prior to works being able to proceed.

6.15.2. Built Heritage

The SoHI at **Appendix BB** has assessed the potential heritage impacts of the proposed development on the heritage items located in the vicinity of the site, including:

- Item I3 Alexandra Canal, which adjoins the site to the south and is a state heritage listed item.
- I1405 - Warehouse "Rudders Bond Store", which is identified across Burrows Road to the north. The SoHI confirms that this heritage item was removed as part of the construction of WestConnex in early 2017.

Given that the archaeological resource of the Alexandra Canal would not reach the threshold for local significance under the criterion of research potential and the Rudders Bond Store has been demolished, the potential for significant archaeological resource of built heritage features is limited.

The following mitigation measures have been identified for the construction of the proposed development:

- Where the works could impact original and highly significant heritage fabric, only tradespersons with experience in working with heritage materials should undertake works
- The methods, tools and materials used should not cause inadvertent damage to original and highly significant heritage fabric within the study areas. Should unexpected damage to significant historic fabric occur, the advice of a heritage specialist should be sought before repairs are made
- All works are to be undertaken in accordance with the principles and objectives of the Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (the Burra Charter)
- Where options exist for alternative installation methodologies and materials, that achieve the desired functional outcome, preference should be given to the option that has the least deleterious impact on significant heritage fabric.
- A Photographic Archival Recording (PAR) report should be prepared for the site to document significant fabric and heritage significant views and vistas that would be impacted in accordance with the Alexandra Canal CMP Policy. The PAR provides a detailed photographic recording of the existing fabric.
- A heritage induction for all contractors undertaking the works is required. This heritage induction must be prepared and delivered by a qualified heritage specialist and ensure that all contractors are aware of the nearby heritage listings and understand the heritage significance of said listings, as well as areas to avoid and steps to take if any unexpected damage occurs during works.
- Although it is considered unlikely, if any artefacts are found during the construction process, they should be incorporated into the interpretation strategy for the entirety of Alexandra Canal in accordance with Policy 86 of the Alexandra Canal CMP.

6.16. Biodiversity

A BDAR Waiver request was prepared by Anne Clements & Associates (refer **Appendix F**F) and was submitted to DPE's Environment and Heritage Group for consideration on 21 September 2022. A BDAR Waiver was granted by the Secretary of DPE on 24 October 2022 (refer **Appendix FF**).

At the time of preparing this EIS, the site contained two large industrial buildings and large areas of hardstand. As outlined in the BDAR Waiver, there is almost a complete absence of native vegetation and

native fauna habitat on and adjoining the site. Existing vegetation is limited to the immediate area adjoining Alexandra Canal, which includes exotic species with the exception of a single 2 metre high native *Casuarina glauca* tree growing in the sandstone wall of the canal, just outside the site. No threatened fauna, threatened ecological communities or their habitats were identified to occur on site.

Existing site infrastructure was also assessed for its potential to provide roosting habitat for threatened microbats. No signs of roosting activity were observed, and no potential roost locations were identified. Accordingly, removal of existing infrastructure is unlikely to result in any impacts to threatened microbats. Based on the small area of urban native and exotic vegetation to be removed and low likelihood of microbat roosting habitat, no threatened biota is likely to be impacted by the proposed development.

Having regard to the above, the proposed development will not result in any significant impacts to biodiversity values and a BDAR waiver was sought in accordance with s.7.9(2) of the BC Act.

6.17. Ecologically Sustainable Development

An Ecologically Sustainable Development (**ESD**) report has been prepared by E-Lab Consulting and is included at **Appendix GG**. The report outlines the energy efficiency measures adopted for the Project to minimise greenhouse gas and carbon emissions, and provides an overview of how the proposal responds to sustainable planning through the integration of best practice design principles.

E-Lab Consulting has identified seven key themes to minimise consumption of resources and in particular, energy and water. **Table 19** details the relevant ESD initiatives proposed as part of the development. It is expected that these initiatives will be further developed during detailed design and tracked throughout the project lifecycle.

Table 19 ESD Initiatives

Category	**Initiative**
Energy	▪ Electrification – no gas is to be used on site, enabling a 'net zero ready' development and allowing for the benefits of decarbonisation of the grid. ▪ Efficient lighting – highly efficient LED lighting proposed throughout to meet the requirements of NCC 2019 Section J. Controls to be motion sensor, time clocks and zoned switching. ▪ Renewable energy – solar panels to be installed on the roof to offset grid use. ▪ Controls, energy metering, and monitoring – energy meters and monitoring systems to be provided with an overall preference for natural ventilation and adaptive cooling and shading. ▪ Hot water – to be provided by a solar photovoltaic (PV) system heat pump.
Water Consumption and Water Sensitive Urban Design (**WSUD**)	▪ Sanitary fixtures – low-flow water fixtures to be installed to ensure the following ratings: - Taps – 6-star WELS - Toilets – 4-star WELS - Urinals – 6-star WELS (0.8 L per flush) - Showers – 30star WELS (<9 L/min) ▪ Landscape irrigation - underground surface drip systems, moisture sensors, and the use of native plants in the landscaping plan ▪ Recycled water and rainwater – irrigation needs to be supplied from on-site rainwater tanks captured from the building roof.

Category	Initiative
Materials	▪ Construction waste – minimum 90% diversion from landfill target during demolition and construction. ▪ Low Volatile Organic Compounds (**VOC**) and low formaldehyde materials – paints, adhesives, sealants, floor coverings, carpets and engineered wood will be selected appropriately. ▪ Best-practice polyvinyl chloride (**PVC**) – cables, pipes, flooring, and blinds will be selected and specified to be best practice PVC. ▪ Best practice steel – where possible, steel will be supplied from a sustainable steel manufacturer.
Comfort & Quality	▪ Visual comfort – maximising high-quality light into internal spaces. ▪ Acoustic excellence – designing the building to be protected from noise from external sources through delicate material selection, acoustic attenuation, and designing the shape of the building and openings. ▪ Thermal comfort – mix of vernacular design, overhangs, adaptive comfort and high levels of insulation in the roof and facades. ▪ Lighting comfort – use of high colour rendering index LED lighting throughout development. ▪ Generous natural planting – greenery through natural planting throughout the development.
Urban Heat Island Mitigation	▪ Gardens with drought tolerant planting. ▪ Light coloured external materials and roof. ▪ Plant trees with wide canopies (the development will have minimum 15% canopy cover).
Section J NCC 2019	The non-residential components of the development will be subject to compliance with Section J of the NCC 2019 Amendment 1 Code. The code places performance requirements on the building envelope and services. The Project will demonstrate compliance via verification method JV3 – verification using a reference building (energy modelling). The design of the building fabric will need to demonstrate compliance with this clause through modelling of the building against a reference case.
Sustainable Transport	A GTP accompanies the SSDA and seeks to encourage and facilitate the use of alternative and sustainable modes of transport.

Source: E-Lab Consulting (2022)

The proposal is seeking to achieve a 5-star Green Star rating and the applicant has a clear commitment to implement the initiatives throughout the design, construction, and operational phases of the Project.

6.18. Socio-Economic

6.18.1. Social Impacts

A Social Impact Assessment (**SIA**) has been prepared by Urbis and is provided at **Appendix HH**. The SIA identifies and analyses the potential positive and negative social impacts associated with the proposal and has been prepared in consultation with CoS.

The SIA assesses the direct and indirect social impacts of the proposal on the existing community and identified stakeholder groups. The SIA identifies the following positive and neutral to low impacts associated with the development:

Positive Impacts

- Continued provision of education and training in the aircraft operations: Since the closure of the previous Qantas flight training facility in April 2022, pilots and crew have travelled interstate to access suitable flight training facilities. The proposal will result in a high positive impact on airline workers by supporting the provision of education and training in aircraft operations in NSW in close proximity to an existing established industry centre which includes Sydney Airport and Qantas headquarters.
- Construction and operational employment opportunities: The construction and operation of the FTC is likely to have a short term low positive impact for construction workers and a long term high positive impact for operational workers on-site and as well as those employed as part of Qantas' Project Sunrise, which is reliant on the proposed FTC.
- Improved visual amenity: The Project will improve the visual amenity of the streetscape and will likely result in a high positive impact. The proposal will replace industrial warehouses and large areas of hardstand with a built form that exhibits a high-quality design and integrates landscaping. The proposed development is appropriate to the streetscape and will enhance the public domain in this location.
- Facilitate future public open space: The proposed development includes a 10m landscaped setback along the foreshore of Alexandra Canal. This area will assist in the future delivery of the Liveable Green Network along the canal as set out in the SDCP 2012.

Neutral to Low Impacts

- Impacts on Aboriginal cultural heritage: based on the analysis of the ACHAR (**Appendix AA**), the proposal is likely to have a neutral impact on Aboriginal cultural heritage for the local Aboriginal community.
- Noise impacts from construction and operation: based on the analysis in the NVIA (**Appendix X**) and the implementation of the proposed mitigation and management measures, the construction and operation noise are likely to have a neutral impact on surrounding residents and businesses.
- Safe and convenient access to and from the site: based on the analysis of the TIA and Work Travel Plan (**Appendix K**), the proposal will have a neutral impact on safe and convenient access for future employees and visitors.

The SIA has identified a potential medium negative impact associated with the general wellbeing of employees due to the lack of a dedicated communal open space within the site (and in accordance with SDCP 2012). However, the site is located just over 200 metres from the public open space available in Sydney Park to the north of the site. On this basis and given the future public reserve along the Alexandra Canal, a dedicated communal open space is not considered necessary and the wellbeing of employees will be suitably managed.

Overall, the SIA finds that the Project is likely to have a low positive impact on the local community and future workers on site.

6.18.2. Economic Impacts

The Project will have a significant positive economic impact for the State economy and Sydney region, including innovation, skills training and job creation. These benefits were clearly recognised by the Minister in his decision to 'call-in' the Project and declare it to be of State significance in accordance with Section 4.36(3) of the EP&A Act.

As it currently stands there is now no FTC operating in NSW, which represents a significant loss of industry specific skills, knowledge and capacity. The Project will contribute to long-term employment generation by reinstating and retaining both the FTC infrastructure and the highly skilled and specialised jobs required to operate the facility. In the short term, the construction of the facility will provide economic benefits in the form of demand for construction jobs.

The proposed FTC will become the largest such facility spread across the eastern seaboard capital cities and include 'new-to-industry' simulators required to support the effective implementation and operation of Project Sunrise that was announced by Qantas on 2 May 2022. This announcement included significant investment by Qantas in new aircraft which will create over 1,000 jobs. Access to flight simulators is critical to the success of this investment in new aircraft and new simulators and door trainers to support this investment in new aircraft will be exclusively housed in Sydney.

The Project provides an opportunity to deliver an advanced and modern FTC that will be operated by CAE, an international company that specialises in simulation technologies, modelling technologies and training services to airlines and currently trains approximately 100,000 pilots worldwide. CAE is a Canadian based multi-national operator of flight training services. CAE operate in 35 countries employing over 11,000 staff and have an existing presence in Australia, currently providing services to the Defence sector.

In summary, the Project will have positive economic impacts given it will:

- Reinstate NSW flight training facilities including simulators in a new state-of-the-art facility operated by global training provider CAE. The Project will create 80 jobs, and replace those lost since the former FTC closed in Sydney in May 2022.
- Support the operation of Qantas, which is headquartered in NSW, including essential support for its flight operations, a proportion of which will be uniquely provided in NSW.
- Result in a $76 million investment in the proposed development with direct and indirect benefits for the State and local economy during the construction and operational phases of the project.

6.19. Development Contributions

The relevant S7.11 Plan for the site is the *City of Sydney Development Contributions Plan 2015*. The applicable contribution rate is $4,443.00 per net additional worker within the Southern Employment Lands, indexed at the time of payment.

Based on an existing General Industrial GFA of approximately 3,340 sqm and the proposed General Industrial GFA of 6,510sqm, the net increase in workers is 52 workers. The estimated contributions payable based on current published rates are:

- Open space: $91,560.47
- Community facilities: $14,234.70
- Traffic and transport: $116,229.93
- Stormwater drainage: $45,961.19
- Total payable: $267,986.28

7. Justification of the Project

This section of the report provides a comprehensive justification of the Project having regard to its economic, environmental and social impacts, including the principles of ecologically sustainable development.

It assesses the potential benefits and impacts of the proposed development, considering the interaction between the findings in the detailed assessments and the compliance of the Project within the relevant controls and policies.

7.1. Project Design

The Project seeks to construct a new FTC. It will comprise a purpose-built facility that will enable pilots and cabin crews from Qantas and other airlines to undertake regular training and testing to meet regulatory requirements by simulating both aircraft and emergency procedural environments.

Whilst the built form and design of the proposed development is largely dictated by the functional needs, there is a clear recognition of the industrial context and site parameters which have informed the design response. The Burrows Road facade has been refined following consultation and design reviews by CoS and the development generally accords with the relevant controls in the SLEP 2012 and SDCP 2012.

On balance, it is considered the proposed design of the development achieves a simple coherent outcome that provides a high level of design quality.

7.2. Strategic Context

The strategic merit of the Project is consistent with that previously established for the approved FTC (SSD-10154). The proposed FTC remains consistent with the objectives set out in the Region Plan and District Plan.

The development is to be located on strategically important employment land close to the Sydney Airport and will support the functioning of Sydney Airport as an international trade gateway.

Presently there are now no flight training facilities in NSW which is operationally unsustainable. The proposed FTC will complement and support FTC facilities established by Qantas in Brisbane and Melbourne. It will provide space for single site simulators (e.g. A380) that are not available interstate and support new and unique flight training infrastructure to support Qantas' recent announced investment in new aircraft as part of Project Sunrise (e.g. A350).

7.3. Statutory Context

The relevant State and local environmental planning instruments are listed in **Section 4** and assessed in **Appendix C**. The assessment concludes that the Project complies with the relevant provisions within the relevant instruments as summarised below:

- The proposed development has been assessed and designed in respect to the relevant objects of the EP&A Act as defined in Section 1.3 the Act and addressed in **Appendix C**.
- This EIS has been prepared in accordance with the SEARs as required by Schedule 2 of the EP&A Regulations.
- Consideration is given to the relevant matters for consideration as required under the BC Act and the SSD is supported by a BDAR Waiver.
- This SSDA pathway has been undertaken in accordance with the Planning Systems SEPP as the proposed development has been declared SSD by the Minister for Planning.
- Concurrence from TfNSW will be required as per the T&I SEPP for 'traffic generating development'.
- The proposal satisfactorily responds to the relevant provisions under the SLEP 2012 as detailed in **Appendix C**. The proposed development is consistent with the objectives of the IN1 zone and permitted with consent. The proposal also complies with the applicable height and FSR controls.
- The proposed development has been assessed in accordance with the R&H SEPP and the development complies with the relevant clauses.

- The proposal generally accords with the relevant provisions of the SDCP 2012 and in particular those relating to the Southern Employment Lands as outlined in **Appendix C**.

7.4. Consultation

Community and stakeholder engagement has been undertaken by the Applicant and Urbis in the preparation of the SSDA. This included direct engagement and consultation with:

- Adjoining landowners and occupants.
- Government, agency, utility services and other key stakeholders.

This engagement was consistent with the community participation objectives in the *Undertaking Engagement Guidelines for State Significant Projects* and complied with the community engagement requirements.

Feedback obtained by Government, agencies and utility stakeholders have been incorporated into the design and assessment in the EIS. Only limited community feedback had been provided at the time of preparing the EIS, however, the concern raised will continue to be addressed via further consultation with the relevant land owner and Sydney Water.

In accordance with the Regulations, the EIS will be placed on formal public exhibition once DPIE has reviewed the EIS and deemed it 'adequate' for this purpose. Following this exhibition period, the applicant will respond to any matters raised by notified parties.

7.5. Likely Impacts of the Proposal

The potential environmental, economic and social impacts arising from the proposed development have been assessed as outlined below:

- **Natural Environment**: the proposal addresses the principles of ecologically sustainable development **(ESD**) in accordance with the requirements at Clause 194 of the Regulations and as outlined below:
  - Precautionary principle: the precautionary principle relates to uncertainty around potential environmental impacts and where a threat of serious or irreversible environmental damage exists, lack of scientific certainty should not be a reason for preventing measures to prevent environmental degradation.
    - This EIS has not identified any serious threats of environmental damage that cannot be adequately mitigated or addressed based on current scientific standards and best practices. In this regard, the proposed development can be considered generally consistent with the precautionary principle.
    - Through the implementation of environmental management and an assessment of the building's operational maintainability, the Project attempts to incorporate adaptability and resilience into the project design. The key concepts that inform the precautionary principle is to create spaces for projects that can be responsive to changes in the external environment which may eventuate in the future, and avoid the risk of serious or irreversible damage to the environment.
  - Intergenerational equity: The needs of future generations are considered in decision making and that environmental values are maintained or improved for the benefit of future generations. The proposed development is intended to benefit both the current and future generations by;
    - Providing for new local employment opportunities during the construction and operational phases.
    - Delivering state of the art training facilities to maintain and enhance the industry specific skills, knowledge and capacity of pilots and cabin crew.
    - Adopting impact mitigation measures to ensure environmental values are maintained and improved as a result of the development for future generations.
  - Conservation of biological diversity and ecological integrity: As demonstrated in **Section 6** and throughout the EIS, the proposed development will not result in any significant impacts on biological and ecological integrity of surrounding land, subject to the implementation of mitigation measures.

The planting of native vegetation, increasing tree canopy coverage, improvement of stormwater runoff from the site and use of integrated landscaping, will facilitate a development that will conserve and support local ecological diversity and integrity.

– Improved valuation, pricing and incentive mechanisms: this requires the holistic consideration of environmental resources that may be affected as a result of the development including air, water and the biological realm. It places a high importance on the economic cost of environmental impacts and places a value on waste generation and environmental degradation.

The development will not have any unacceptable environmental impacts in relation to air quality, water quality or waste management. The effects of the development will be acceptable and managed accordingly by the proposed mitigation measures as required.

Overall, the proposal will not have any unacceptable impacts on the natural environment. The ESD Report (**Appendix GG**) identifies sustainability initiatives including energy savings, energy efficiency and waste minimisation.

- **Built Environment**: Subject to the various mitigation measures recommended by the specialist consultants, no adverse environmental impacts will result from the Project in terms of traffic, noise and vibration, air quality or views during construction and ongoing operation of the FTC. Based on the assessment of noise, air quality and traffic, the Project will not result in any adverse cumulative impacts.
- **Social**: The Project will have positive social impacts as it will contribute to long-term employment generation and will reinstate the industry specific skills, knowledge and capacity associated with flight training within NSW.
- **Economic**: The Project has significant economic impacts by reinstating flight training facilities within NSW, which will result in investment and economic benefit to the Sydney Region and State economy. In the short term, the construction of the facility will create demand for construction jobs and services.

The potential impacts can be mitigated, minimised or managed through the measures discussed in detail within **Section 6** and as summarised in **Appendix E** to this EIS.

7.6. Suitability of the Site

The suitability of the site to accommodate the proposed development has been assessed in detail in the preparation of this EIS. This includes a comprehensive assessment of its consistency with the relevant strategic land use and transport policies and level of compliance with the statutory planning controls that apply to the Site and the proposed development.

Each of the planning and technical specialist assessments have been considered in assessing the suitability of the site to accommodate the flight training facility. The site is considered highly suitable for the proposed development for the following reasons:

- The proposal will allow the construction and operation of an industrial training facility within the site, which is permissible with consent and consistent with the IN1 General Industrial Zone objectives outlined in the SLEP 2012.
- The development satisfactorily addresses the relevant provisions in SLEP 2012 and SDCP 2012, including built form, setbacks, car parking, waste, stormwater and landscaping. Feedback from CoS has been appropriately addressed and incorporated into the design of the Project.
- The proposed development is entirely consistent with the immediate industrial precinct, will make a positive contribution to the wider Southern Employment Lands and is a vital piece of supporting infrastructure for Sydney Airport. The scale of the development is appropriate within this context and there are no significant environmental constraints that would limit the Project from being developed at the site.

7.7. Public Interest

The proposed development is considered in the public interest for the following reasons:

- The Project, will deliver significant public benefit, namely facilitating the Government's delivery of the Gateway infrastructure (via the initial removal of the former FTC) and by Qantas and its partners CAE

and LOGOS reinvesting in the delivery of a modern FTC that provides essential support to the operational effectiveness of Qantas and other airlines that utilise Sydney Airport.

- The Project will accommodate up to 266 direct and 73 indirect FTE jobs during the construction phase, and 80 direct FTE jobs once complete and fully operational. The project enables the reinvestment and retention of highly skilled jobs in NSW.
- No adverse environmental, social or economic impacts will result from the proposal, given the use is compatible with adjacent land uses. Subject to the various mitigation measures recommended by the specialist consultants, the Project will not have any unreasonable impacts on the local context in terms of visual impacts, traffic, noise and vibration or air quality during construction and ongoing operation of the development.
- The proposal aims to achieve a high level of environmental performance including:
  - achieving a minimum 5 Star Green Star rating;
  - measures that promote and support the uptake of sustainable transport options, and
  - design features that provide resilience against potential environmental risks including climate change.
- No significant issues relating the construction and operation of the FTC were raised during the pre-lodgement consultation with the local community, Council, Government and agency stakeholders.
- The Project is fully funded and ‘shovel ready’ for commencement of construction as soon as possible in 2023.
- It can be concluded that on balance, the benefits of the proposal outweigh any adverse impacts and as such, the development is in the public interest.

Having considered all relevant matters, we conclude that the proposed development is appropriate for the Site and approval is recommended, subject to appropriate conditions of consent Including the implementation of stated mitigation measures.

Disclaimer

This report is dated 30 October 2022 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd **(Urbis)** opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of LOGOS Development Management Pty Ltd **(Instructing Party)** for the purpose of Environmental Impact Statement **(Purpose)** and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

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