

APPENDIX F

LANDSCAPE INTENT PLAN



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Lot 120 Eastridge Street, Stapylton

LANDSCAPE INTENT PACKAGE

FPI Queensland Pty Ltd

DEVELOPMENT PERMIT FOR MATERIAL CHANGE
OF USE – Warehouse (with ancillary office) and
Low Impact Industry, RECONFIGURATION
OF A LOT - Access easement, OPERATIONAL
WORK – Change to ground level

Lot 120 on SP329476

VANTAGE INDUSTRIAL ESTATE
STAGE 1,
LOT 120 EASTRIDGE STREET, STAPYLTON

FEBRUARY
Issue B - For Approval



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- 02** Site Characteristics & Development Proposal
- 03** Site Locality Plan
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- 05** Landscape Intent Plan
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- 09** Planting Palette
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SITE CHARACTERISTICS

The subject site 13,005m² in size, consists of a single freehold allotment owned by Australand Industrial No. 89 Pty Limited. In terms of locational context, the subject site is located within Stage 1 of Vantage Industrial Estate at Stapylton, Gold Coast.

The subject site on Lot 120 Eastridge Street, Stapylton (Lot 120 on SP329476). The overall subject site is triangular in shape, siting perpendicular to Emeri Street, within the newly created Vantage Industrial Estate. The subject land is vacant and resembles a civil construction site as it has been provisionally prepared to accommodate the Vantage industrial subdivision, through the undertaking of bulk earthworks and vegetation clearing.

DEVELOPMENT PROPOSAL

The proposed development seeks to establish an industrial warehouse with ancillary office space on the subject site. The development will provide a storage and logistical hub for various goods.

The proposed development will include the following development aspects:

- Material change of use – Warehouse (with ancillary office) and Low impact industry;
- Reconfiguring a Lot – Access easement; and
- Operational Work – Change to ground level.

Supporting documentation to be read in conjunction with this landscape intent package, is as follows;

- Preliminary Approval, Current Decision Notice MIN/2023/64- Gassman Development Perspectives
- Proposal Plans - FPI
- Code Assessment - Gassman Development Perspectives
- Traffic Impact Assessment - Rytenskiel Traffic Engineering
- Noise Impact Assessment - Acoustic Works
- Change to Ground Level and Engineering Design Plans - Gassman Development Perspectives

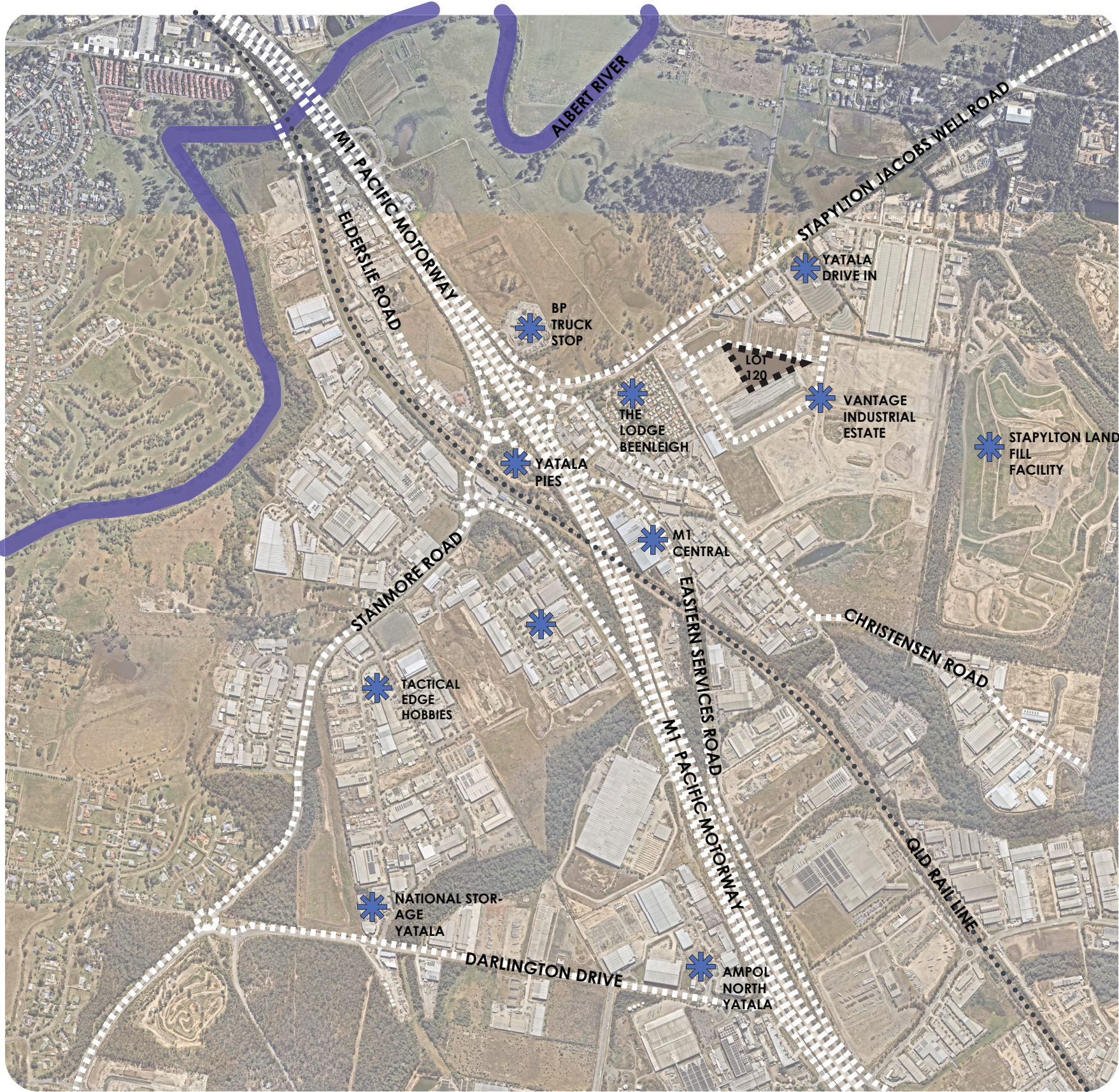


SITE LOCALITY

In terms of locational context, the subject site is located within Stage 1 of Vantage Industrial Estate at Stapylton, Gold Coast. Lot 120 is located along Eastridge Street, perpendicular to Emeri Street.

The site is situated;

- 0.5 kilometers from the Pacific Motorway, Yatala north interchange,
- 5.5 kilometers from the Beenleigh CBD
- 5 kilometres from Beenleigh Transit Centre
- 36.5 kilometers from Southport CBD
- 38.2 kilometres from Brisbane CBD



LANDSCAPE STRATEGY

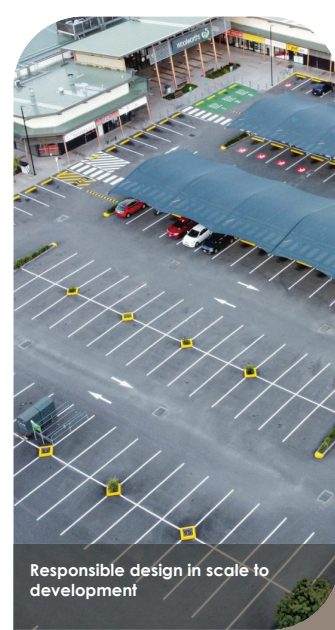
The landscape design intent for lot 120 Eastridge Street is to establish an industrial warehouse and ancillary office space, providing storage and logistical operations.

The design will respect the environmental aspects of responsible design, planning and construction which will respond to issues of biodiversity.

The scale and nature of landscaping materials and selected plant species will be appropriately selected to compliment the size of proposed warehouse and office structure nominated for the site, whilst being sensitive to available space.

Way finding will be promoted by using nominated hardscape and planting palettes, that will be reflected through the site's entirety. Clear view lines will further promote legibility.

Planting will be selected for suitability and tolerance to the varying site conditions. The planting scheme used is predominantly native species which has been nominated to soften the built form, compliment the surrounding natural ecosystems, minimize water usage and limit maintenance.



Responsible design in scale to development

To facilitate the development of functional, well serviced, amenable, and attractive warehouse. To create a sense of spaciousness defined by wide roads and buildings, and a flow of landscape between.



Integrated design

To promote a development that integrates with the surrounding environment through the use of compatible landscaping, materials, colours and building forms.



CEPTED principals

To reduce the potential for conflict between vehicle and pedestrian traffic there will be an appropriate level of separation and/or wayfinding throughout the site.



Way finding

Way finding will be promoted by using nominated hardscape, furnishing and planting and palettes, that will be reflected through the site's entirety. Clear view lines will further promote legibility.



Mass planting arrangement

The planting arrangement has been designed in a contemporary arrangement with mass planting of individual species. The arrangement will be laid in a three tier arrangement of trees, shrubs and groundcovers with accent feature planting as well as cascading species to fall over retaining wall structures.



Contemporary planting arrangement

A contemporary planting arrangement consisting of groupings of endemic species will be used to screen and frame the built form, whilst highlighting entry areas, providing shade to car parking and pedestrian paths.



Use of endemic species

The proposed planting arrangement will consist of mainly Australian native species suitable for growth within South-east Queensland. The nature of such plants are more drought tolerant and most suitable for the site.

LANDSCAPE INTENT PLAN

LEGEND

- Site Boundary
- Proposed Fencing 1
1.8m chainwire fencing
- Proposed Fencing 2
1.8m black palisade fencing to boundary
- Proposed Pylon Signage
- Site Triangles
Planting within this zone to remain low growing (max. 500mm in height). Ground-cover species nominated, refer to planting palette on page 8 for further detail.
- Streetscape
Existing approved streetscape under Lot 501 SP295994 - OPW/2020/960 to be retained. Should damage occur to turf, pavement, or street trees due to construction of this proposed development replacement will be required.
- Proposed Tree Species
Refer to planting palette on page 9 for further detail.
- Proposed Shrub Species
Refer to planting palette on pages 8 and 9 for further detail.
- Proposed Groundcover Species
Refer to planting palette on page 8 for further detail.
- Proposed Boulder Retaining Wall
Refer to civil drawing series for further information.



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Gold Coast and Logan Office
Access Business Park
76 Business Street Yatala Q. 4207
t: (07) 38073333
f: (07) 32875461
e: mail@gassman.com.au

CONCEPT PLAN



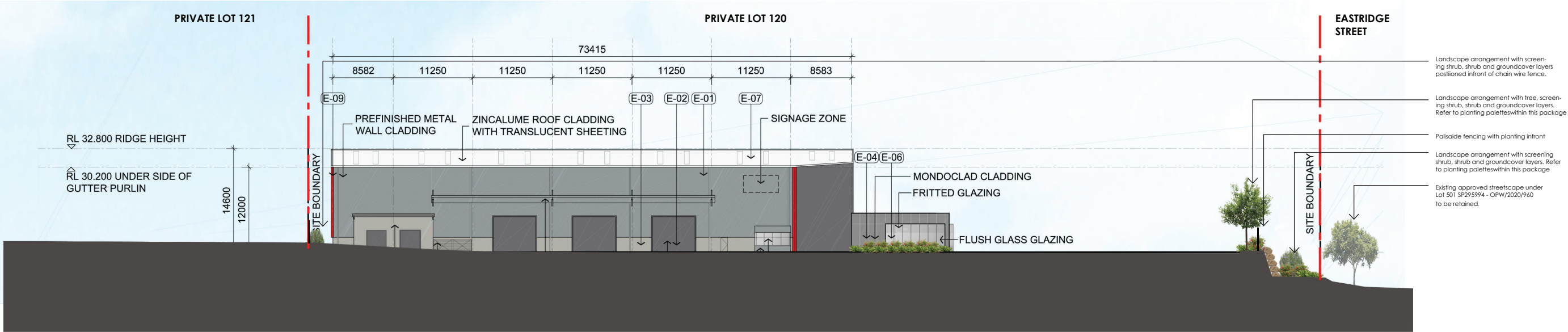
NORTH

0 1 5 10
SCALE

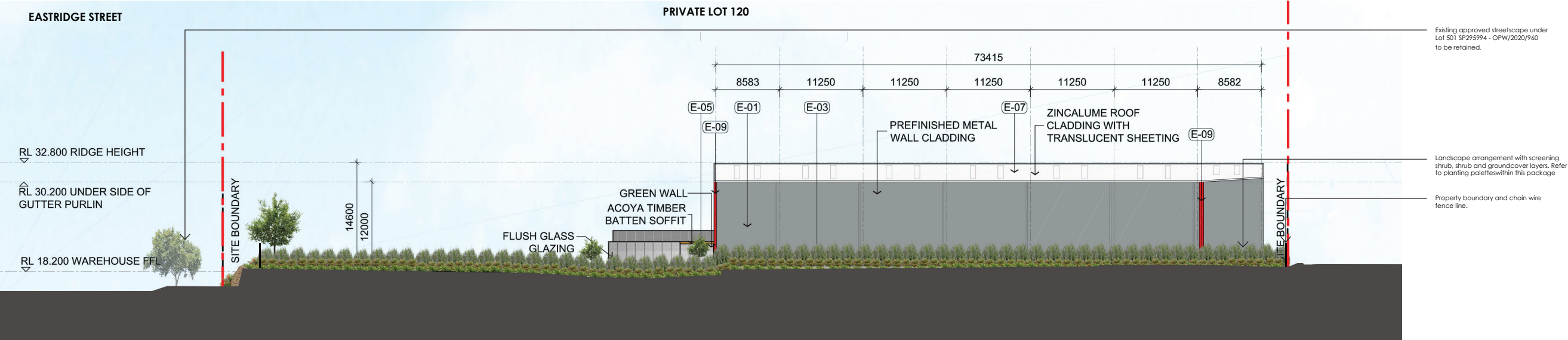
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05

ELEVATION DRAWING



EAST ELEVATION



WEST ELEVATION



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Access Business Park
76 Business Street Yatala Q. 4207
t: (07) 38073333
f: (07) 32875461
e: mail@gassman.com.au

CONCEPT PLAN



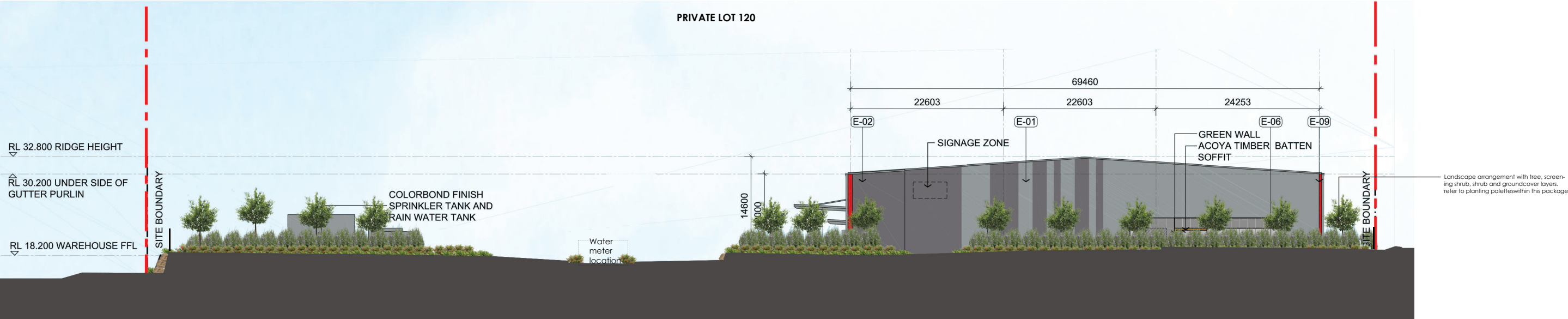
NORTH

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SCALE

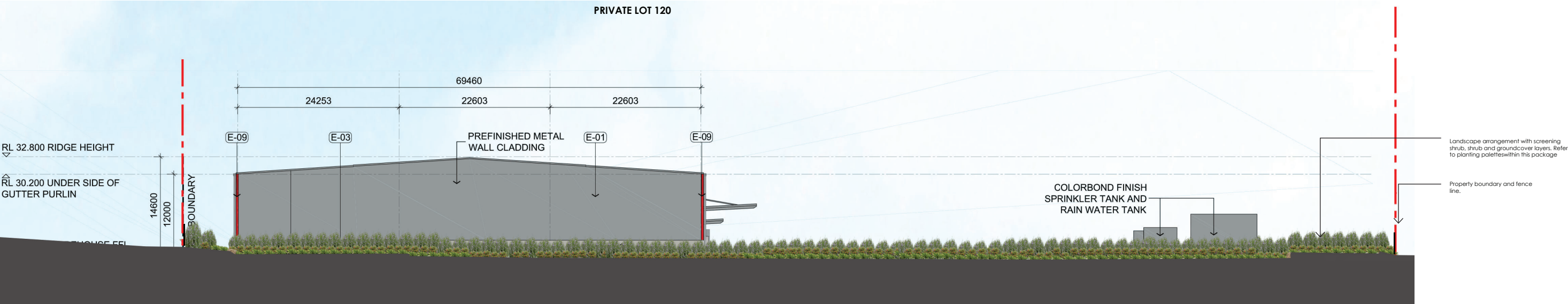
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ELEVATION DRAWING



NORTH ELEVATION



SOUTH ELEVATION



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Access Business Park
76 Business Street Yatala Q. 4207
t: (07) 38073333
f: (07) 32875461
e: mail@gassman.com.au

CONCEPT PLAN



NORTH

0 1 5 10
SCALE

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07

MATERIALS AND SOFTSCAPE GUIDE



Organic Mulch
To comply with AS4454-2012



Feature Mulch
75 - 125mm basalt spalls (grey)



Turf
A-Grade 'wintergreen' turf



Irrigation
Back to base irrigation system with drippers

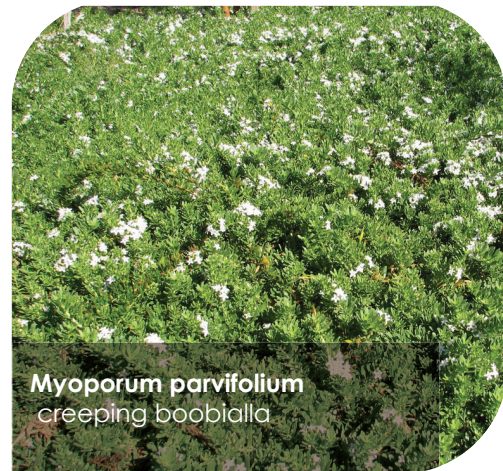


Black palisade fencing
1.8m high, set back 2m front boundary

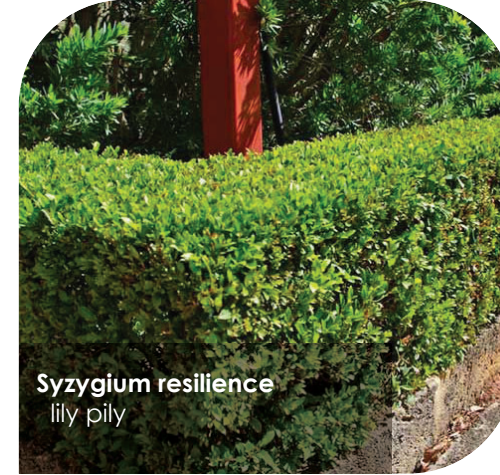


PLANTING PALETTE

GROUND COVER, TUFTING GRASS AND CLIMBING SPECIES



SHRUB SPECIES



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Access Business Park
76 Business Street Yatala Q. 4207
t: (07) 38073333
f: (07) 32875461
e: mail@gassman.com.au

PLANTING PALETTE

Date: 26.02.24
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09

PLANTING PALETTE

SHRUB SPECIES



Acmena smithii
lily pilly



Melaleuca 'claret tops'
claret tops



Philodendron 'rojo congo'
rojo congo



Philodendron xanadu
xanadu



Crinum pedunculatum
swamp lily

SCREENING SHRUB SPECIES



Callistemon endeavour
bottle brush



Grevillea moonlight
moonlight grevillea



Grevillea rosmarinifolia
rosmarinifolia



Michelia figo
port wine magnolia



Photinia 'red robin'
red robin

TREE SPECIES



Brachychiton acerifolius
illawarra flame tree



Waterhousia floribunda
weeping lilly pilly



Cupaniopsis anacardioides
tuckeroo



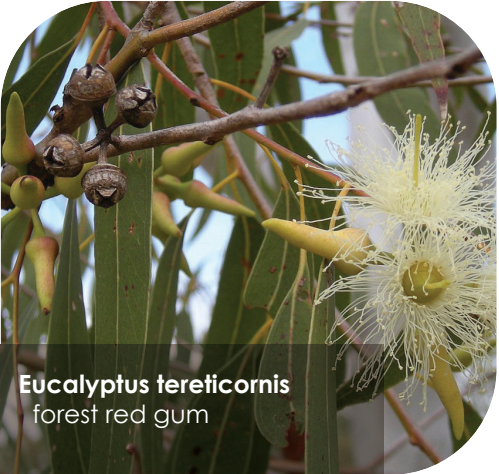
Delonix regia
poinciana



Corymbia citriodora
lemon scented gum

PLANTING PALETTE

TREE SPECIES



APPENDIX G

TRAFFIC IMPACT ASSESSMENT



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TRANSPORT IMPACT ASSESSMENT
PROPOSED WAREHOUSE DEVELOPMENT
LOT 120 VANTAGE ESTATE YATALA, STAGE 2

Prepared for
FRASERS PROPERTY INDUSTRIAL

22 FEBRUARY 2024

DOCUMENT REGISTER

RTE Reference 24021

Prepared by Luke Rytenskild, Dare Janzekovic

Document History

Version	Version date	Details	Reviewed and Authorised	
			Name / Position	Signature
1	22 February 2024	DA ISSUE	Luke Rytenskild Director RPEQ 6293	

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COMPANY INFORMATION

CRG Traffic Pty Ltd as trustee for the Rytenskild CRG Trust trading as Rytenskild Traffic Group
ABN 24 401 134 418 ACN 151 846 847 Director: Luke Rytenskild RPEQ 6293

GOLD COAST
Unit 2,
24 Surfers Avenue
Mermaid Beach QLD 4218

BRISBANE
Level 5
320 Adelaide Street
Brisbane QLD 4000

SYDNEY
Level 26
44 Market Street
Sydney NSW 2000

Phone: 1300 220020
Facsimile: 1300 087177
Email: info@rytenskildtraffic.com
Web: www.rytenskildtraffic.com

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1.0 INTRODUCTION

Rytenskild Traffic Engineering (RTE) has been engaged by Frasers Property Industrial to prepare a Transport Impact Assessment of its proposed warehouse development at Yatala.

This report forms part of a Development Application to be lodged with the City of Gold Coast. The following issues have been addressed during the study:

- Site access arrangements;
- Car parking supply and design;
- Provision for pedestrians and cyclists;
- Provision for heavy vehicles.

Responses to the Gold Coast Transport Code and Driveways and Vehicular Crossings Code are provided as appendices to this report.

2.0 SUBJECT SITE

As shown in Figure 2.1, the subject site is located within Stage 2 of the Vantage Industrial Estate. The site is situated on the southern side of Eastridge Road and is identified as Lot 120, with a total site area of approximately 13,005m².

The site is located within the Low and Medium Impact Industry zone.

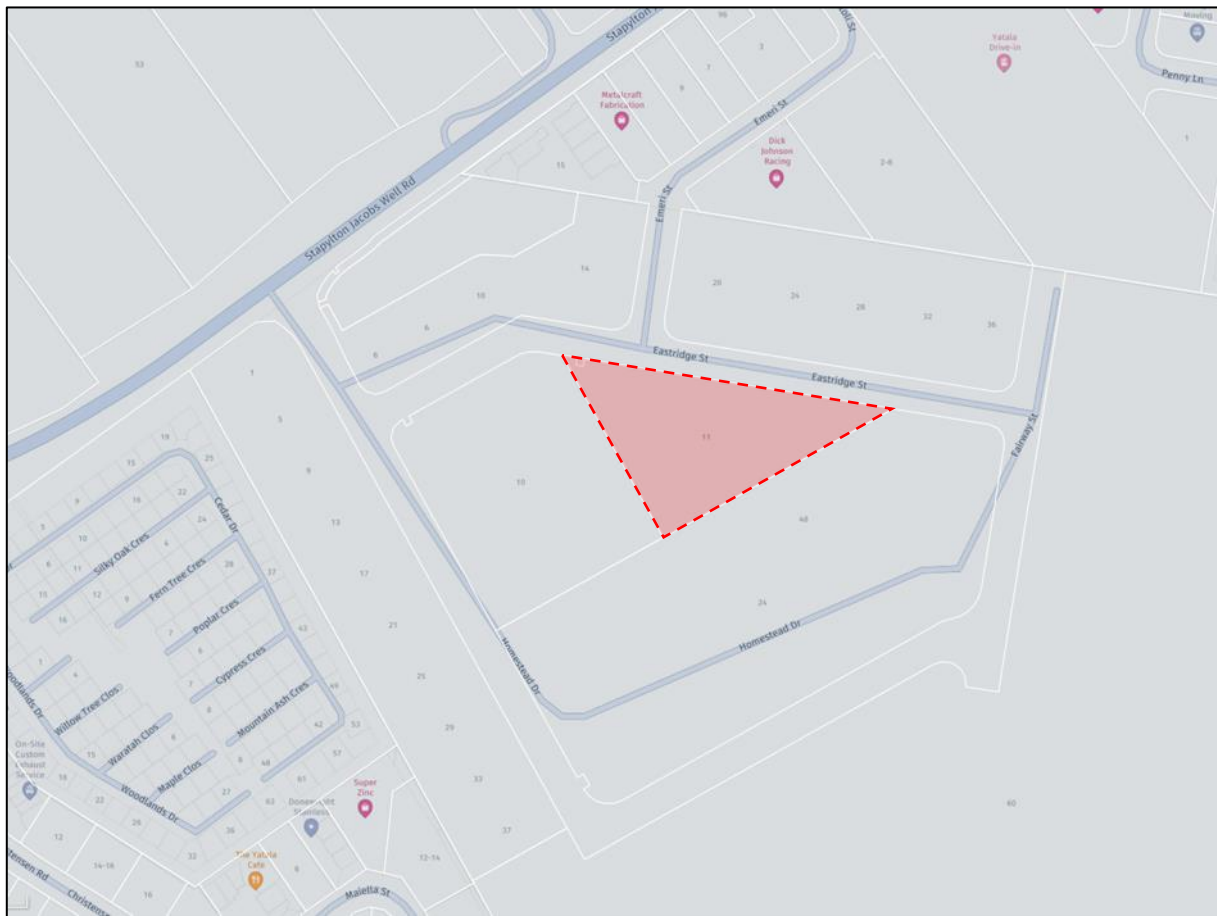


FIGURE 2.1 – LOCATION OF SUBJECT SITE

3.0 DEVELOPMENT PROPOSAL

The proposed plan of development is for a warehouse development with a floor area of approximately 4,674m².

The proposal provides a total provision of 25 car parking spaces.

Access to the development is proposed via the existing easement located to the west of the site.

The proposed site plan is shown in Figure 3.1.

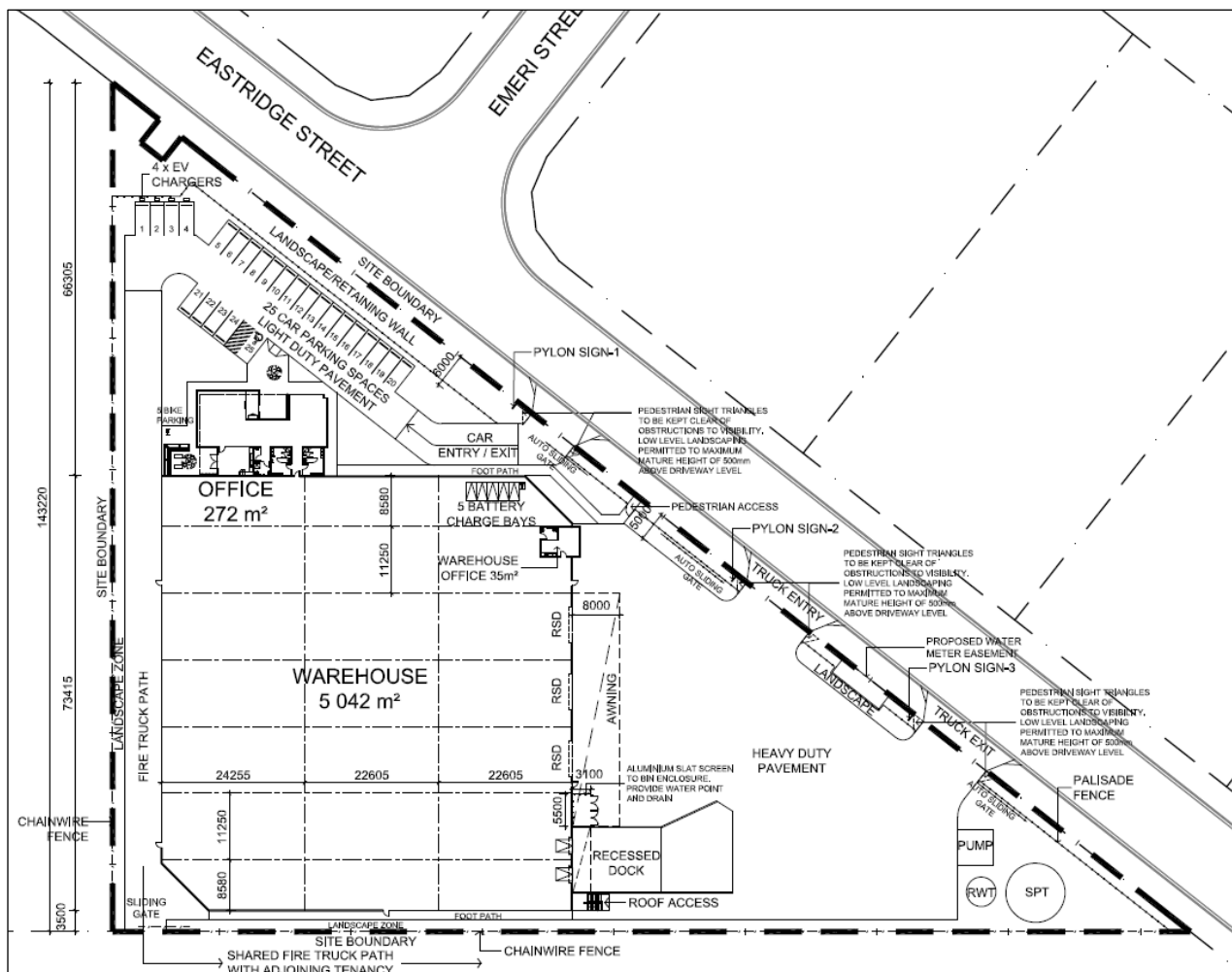


FIGURE 3.1 – PROPOSED SITE PLAN

4.0 CAR PARKING

4.1 Car Parking Supply

In accordance with the Gold Coast City Plan, the following rates are applicable to the proposed use:

Warehouse:

- 2 spaces per tenancy or lot plus
- 1 space per 50m² of GFA up to and including 500m², and
- 1 space per 100m² of GFA over 500m²

Application of the above rates to the proposal (4,674m²) results in the following requirement:

- 2 spaces +
- 10 spaces for the first 500m²
- 49 spaces for the balance of 4,174m²
- Total – 54 spaces

The proposed layout provides a total of 25 car parking spaces, and is therefore short of the above Acceptable Outcome.

The proposed supply of 25 spaces equates to approximately 1 space / 186m² of GFA, which is typical for a warehouse of the type and scale proposed. The proposal includes multiple heavy vehicle docks and so has been designed specifically for the warehousing and distribution of goods. Such developments typically have a low employee density generally comprising of less than ten warehouse staff and 3-10 office staff.

As shown in Appendix A, a review of typical warehouse developments in the Yatala area indicates a similar car parking demand to the proposed supply.

4.2 Car Parking Design

The geometric layout of the proposed parking facilities has generally been designed to comply with the relevant requirements specified in the Transport Code and AS2890.1: 2004.

The proposed car parking layout has the following dimensions:

Table 4.2 – Car Parking Design Characteristics

Design Aspect	Minimum AS2890.1 Standard	Proposed	Compliance
Parking space length: - General - PWD Bay	5.4 metres 5.4 metres	5.5 metres 5.5 metres	Compliant Compliant
Parking space width: - General - PWD Bay	2.5 metres 2.4 metres, plus 2.4m wide shared zone	2.5 metres 2.5 metres, plus 2.5m wide shared zone	Compliant Compliant
Aisle Width: - Parking aisle - Circulation aisle	5.8 metres 5.8 metres	6.2 metres 6.2 metres	Compliant Compliant
Maximum Gradient - Parking Bay - Parking Aisle - PWD Bay	1:20 (5.0%) 1:16 (6.25%) 1:40 (2.5%)	<1:20 (5.0%) <1:20 (5.0%) <1:40 (2.5%)	Compliant
Maximum Change in Grade	1:8 (12.5%) summit 1:6.67 (15.0%) sag	<1:8 (12.5%) summit <1:8 (12.5%) sag	Compliant
Height Clearance - General Min. - Absolute Min.	2.2 metres N/A	N/A	N/A
Parking Aisle Extension	1 metre beyond last bay	3.3 metres	Compliant

Dimensioned plans of the typical parking configuration at various modules throughout the site are shown in Figures 4.1 and 4.2.

A swept path analysis has been prepared for the proposed parking arrangements in accordance with AS2890.1:2004, adopting a B85 design vehicle. As shown in Figures 4.3 - 4.7, such can satisfactorily negotiate the proposed arrangements and enter and exit the site in a forward gear.

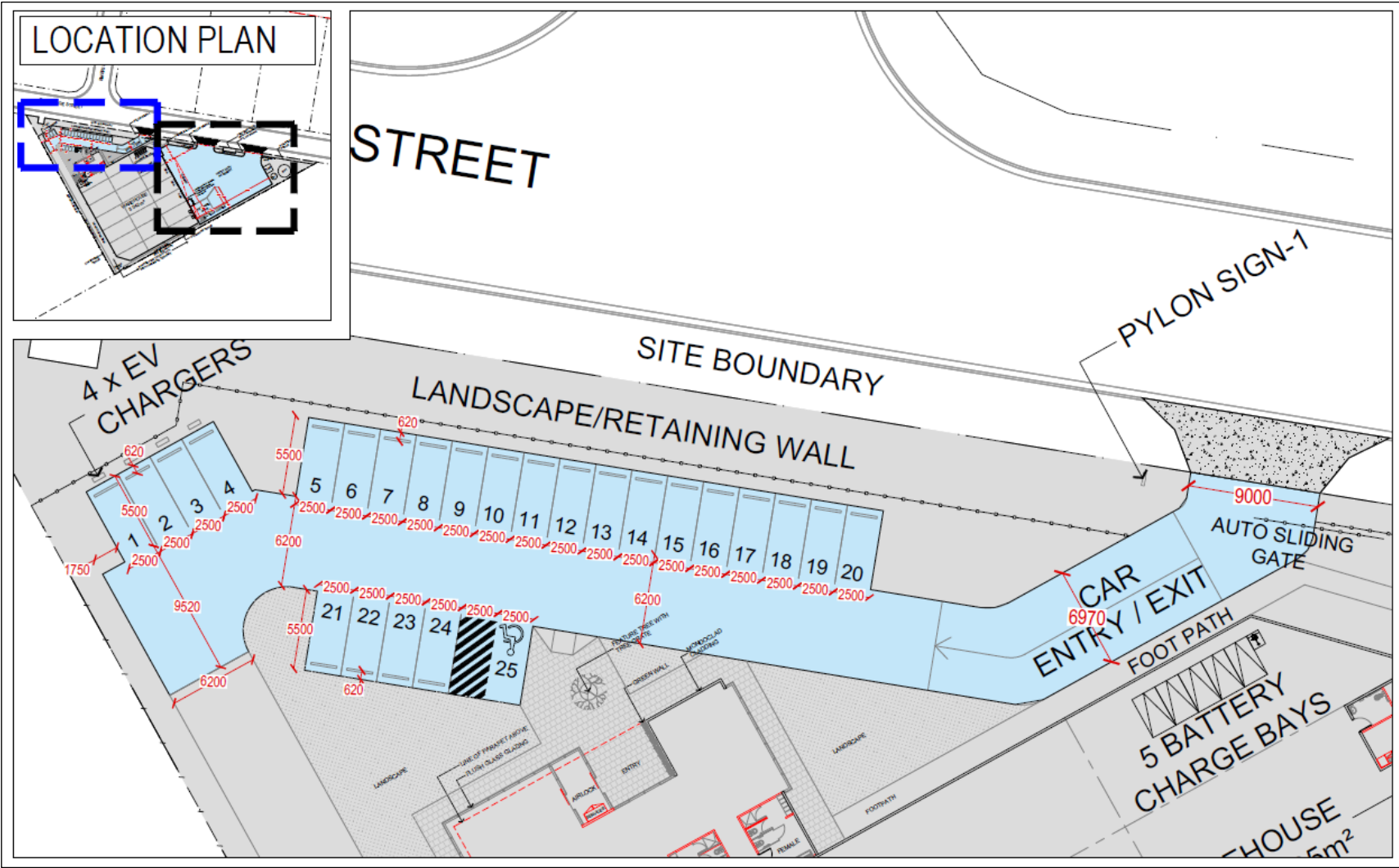


FIGURE 4.1 – DIMENSIONED CAR PARKING LAYOUT

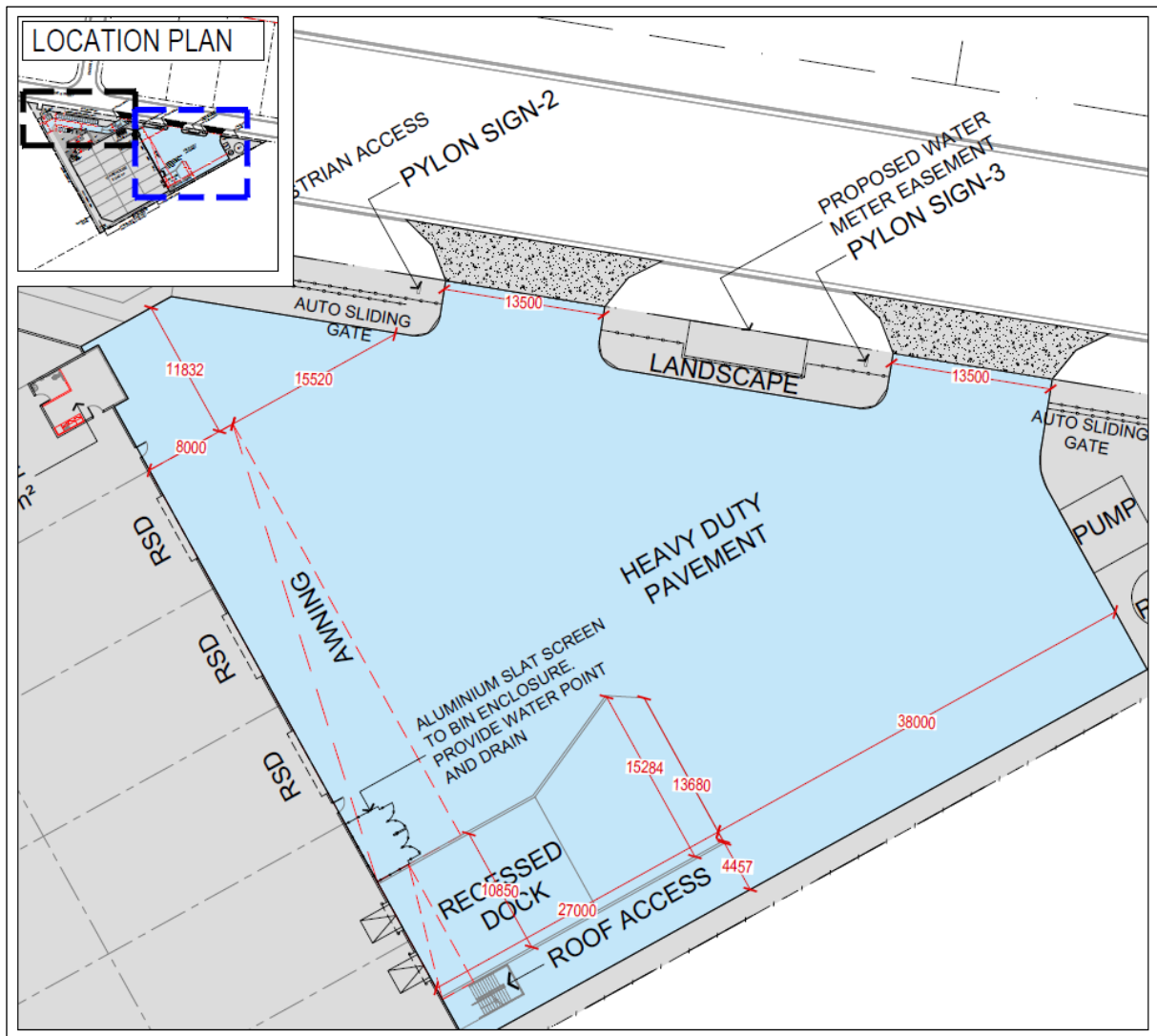


FIGURE 4.2 – DIMENSIONED CAR PARKING LAYOUT

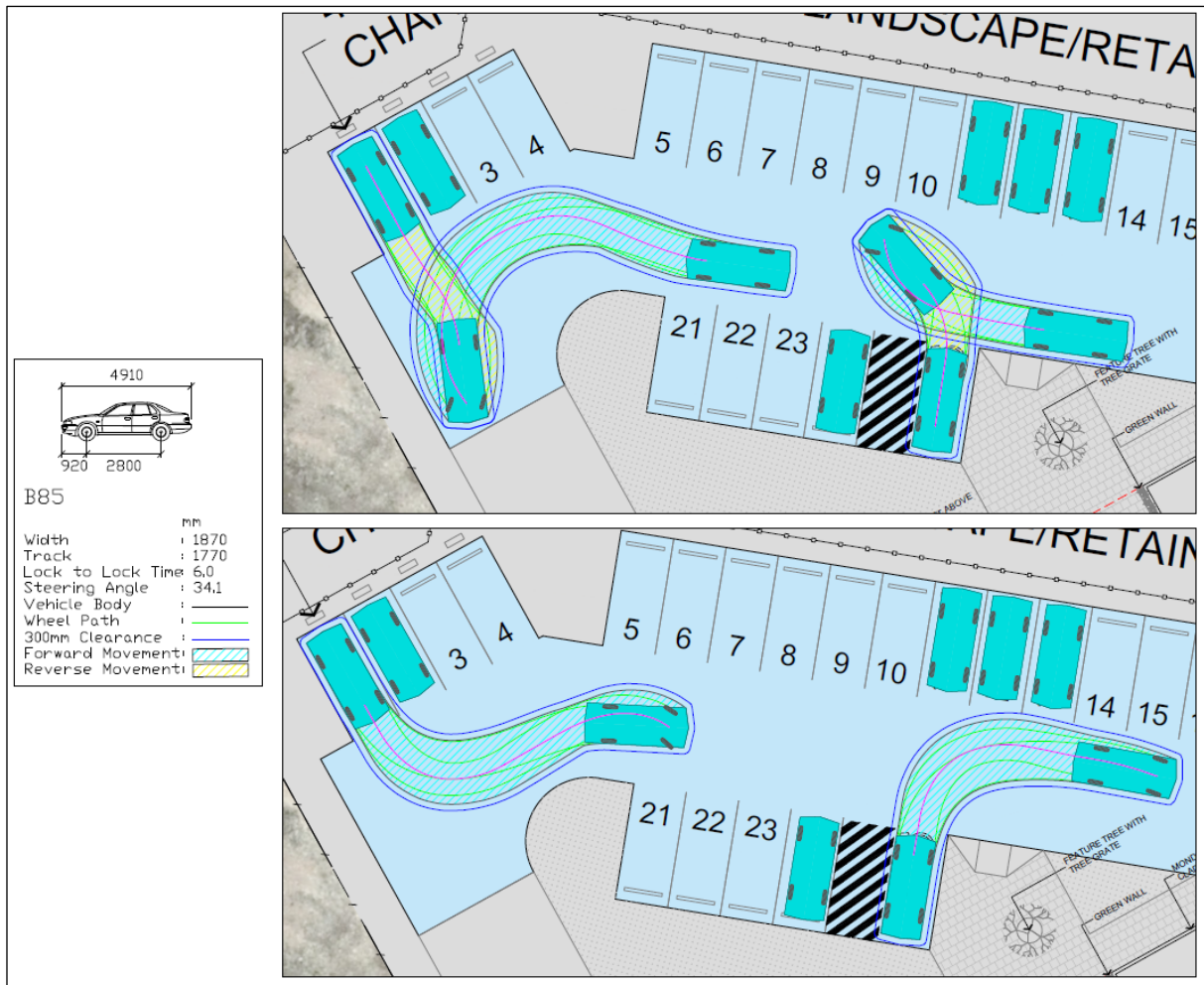


FIGURE 4.3 – 85TH PERCENTILE VEHICLE MANOEUVRING

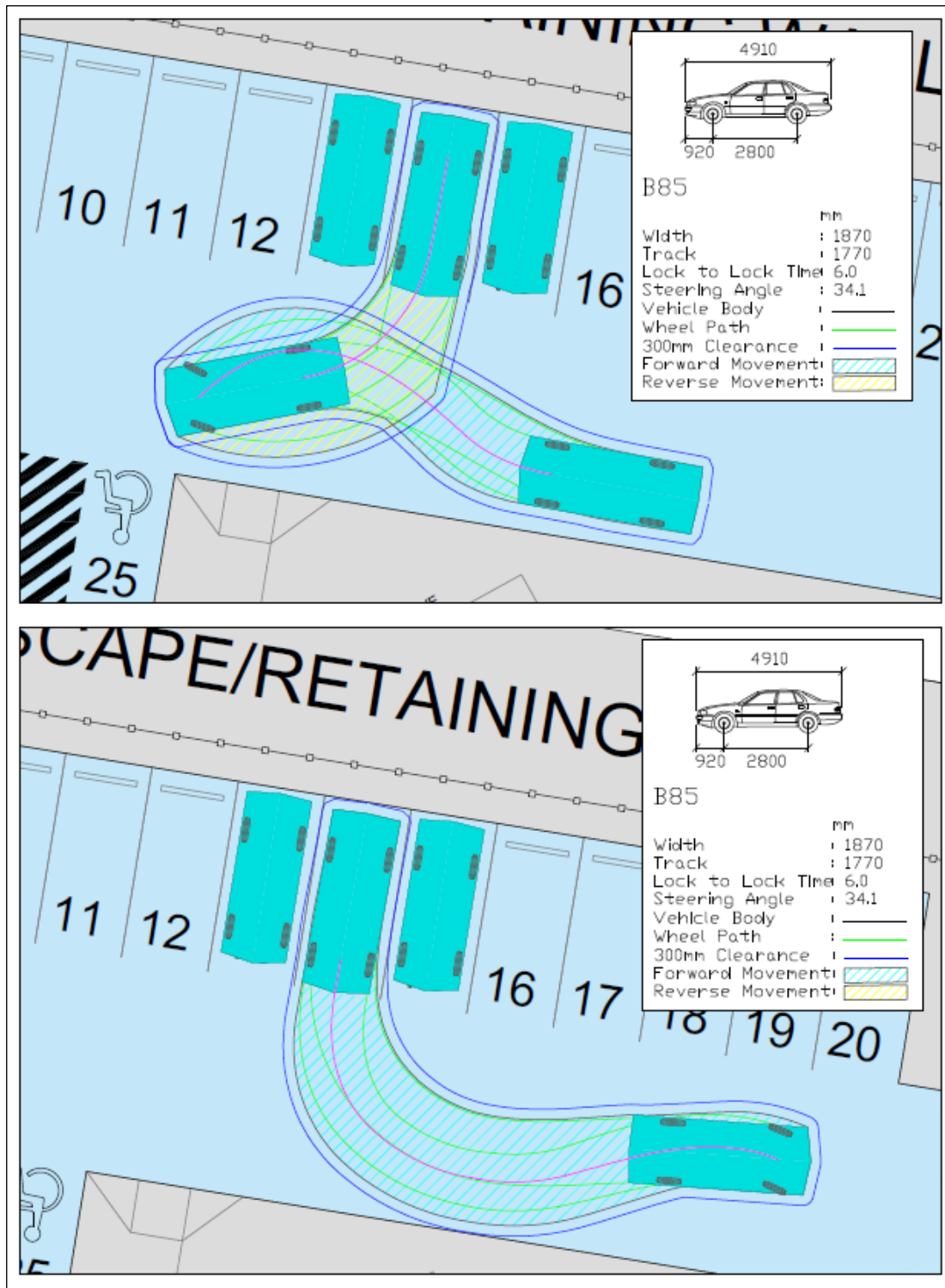


FIGURE 4.4 – 85TH PERCENTILE VEHICLE MANOEUVRING

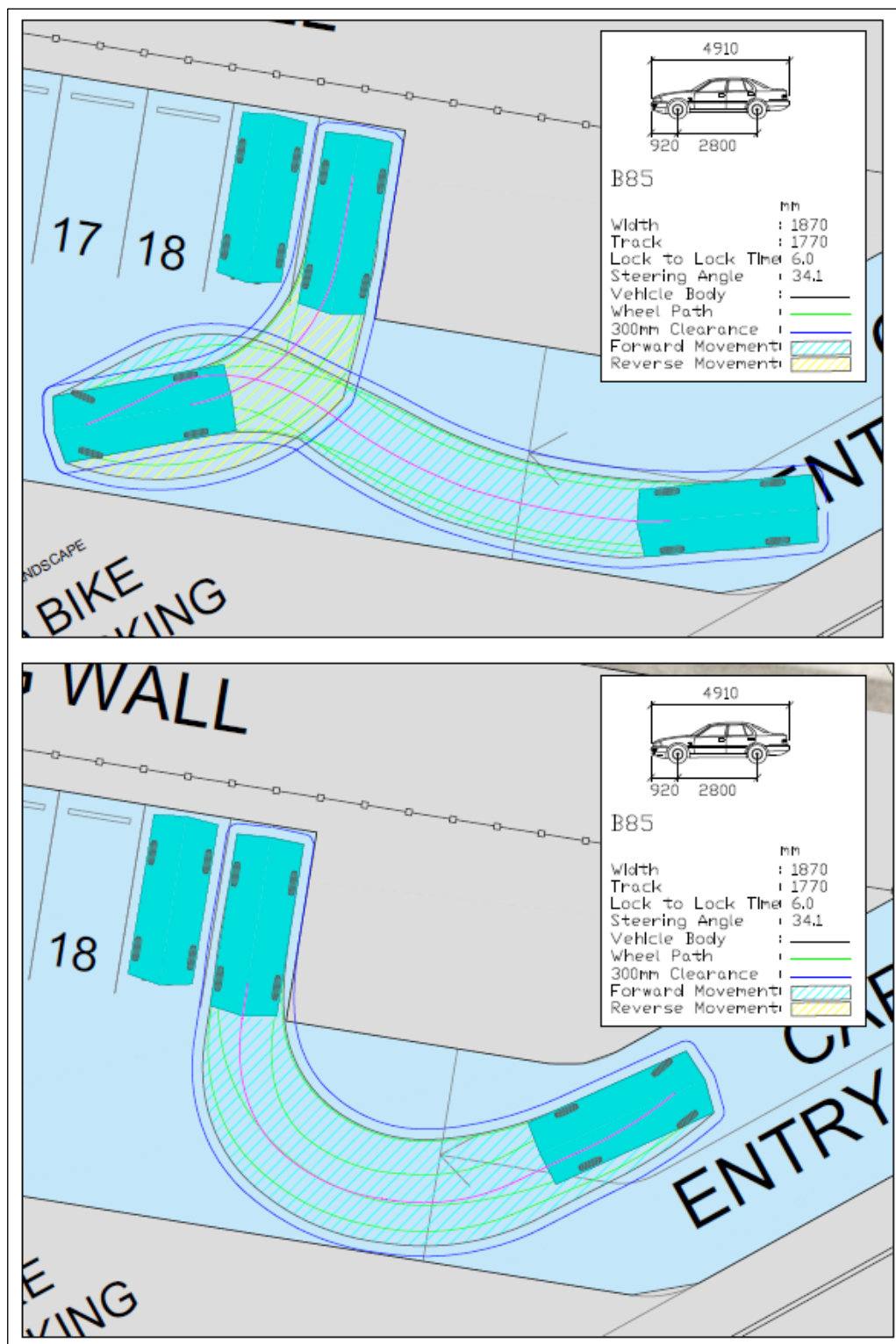


FIGURE 4.5 – 85TH PERCENTILE VEHICLE MANOEUVRING

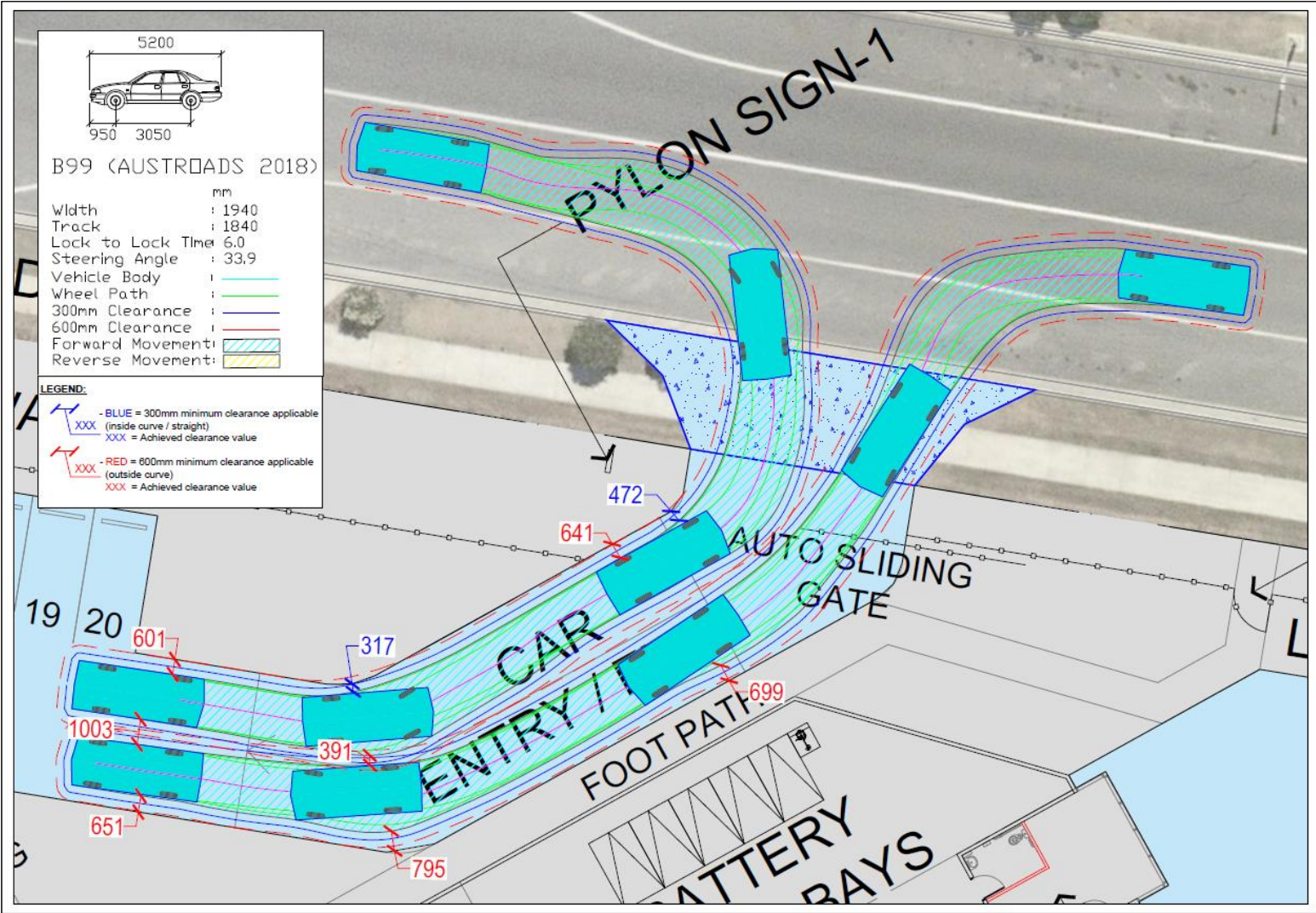


FIGURE 4.6 – SWEEP PATH OF B99 VEHICLE (CIRCULATION)

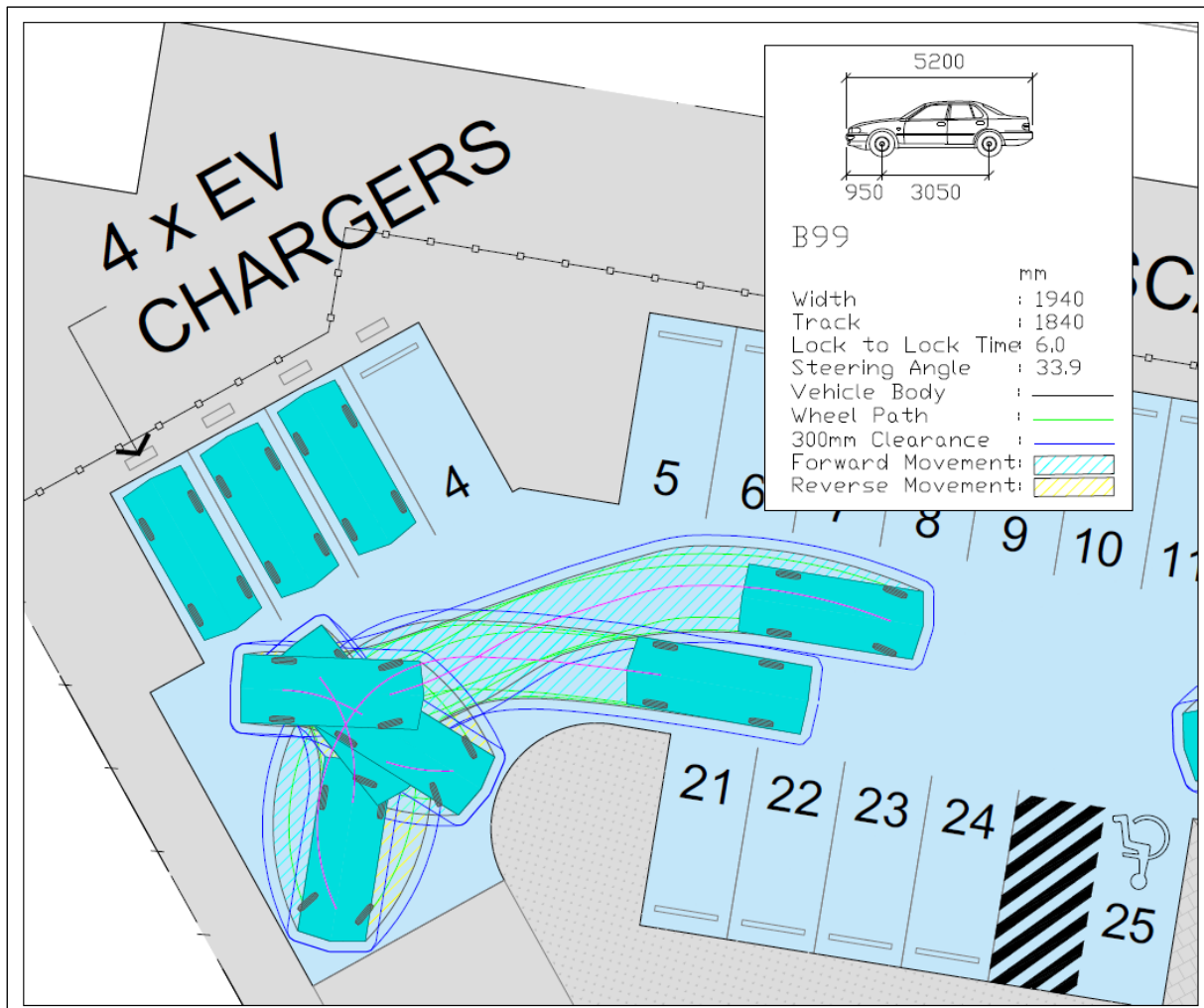


FIGURE 4.7 – SWEEP PATH OF B99 VEHICLE (TURNING)

5.0 ACCESS ARRANGEMENTS

As shown in Figures 5.1-5.3, the proposal provides separate vehicular access for light and heavy vehicles. The eastern and central crossovers will facilitate entry and exit movements exclusively for heavy vehicles, while the western crossover will accommodate two-way access for light vehicles.

As shown, the proposed vehicle crossovers have been designed in accordance with the IPWEA Standard Drawings RS-051 suitable for the intended design vehicle.

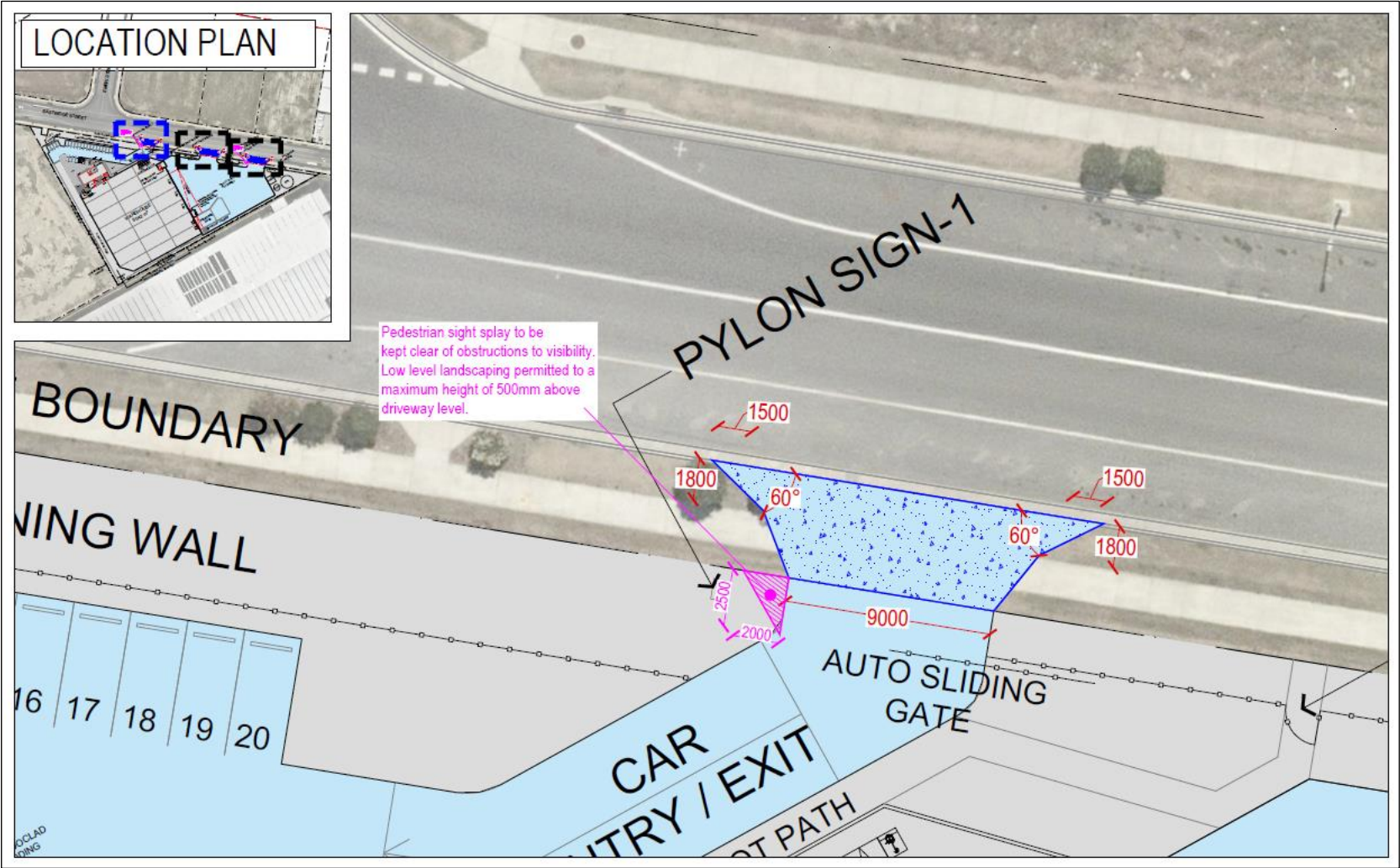


FIGURE 5.1 – ACCESS ARRANGEMENTS (LIGHT VEHICLES)

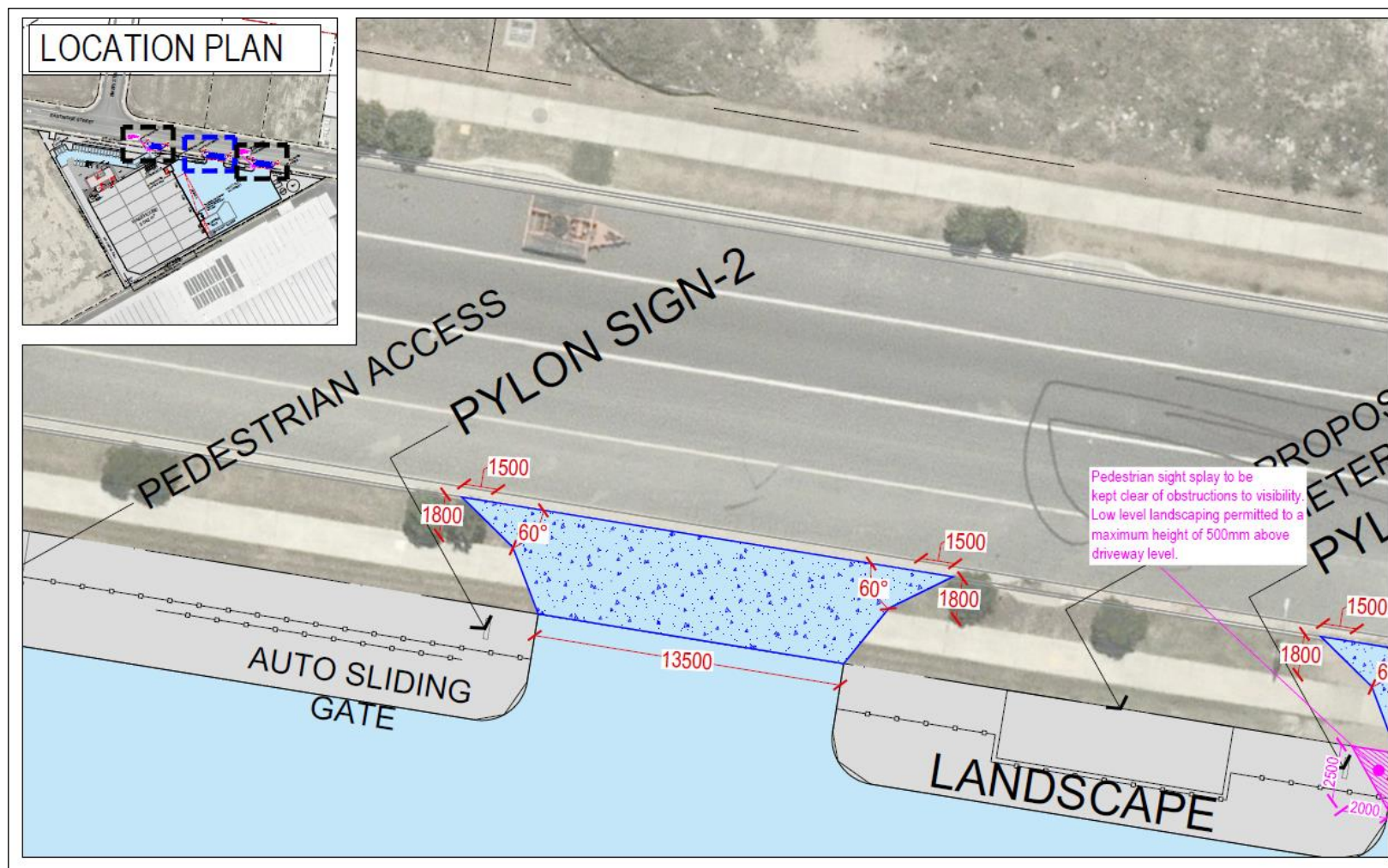


FIGURE 5.2 – ACCESS ARRANGMENTS (HEAVY VEHICLE ENTRY)

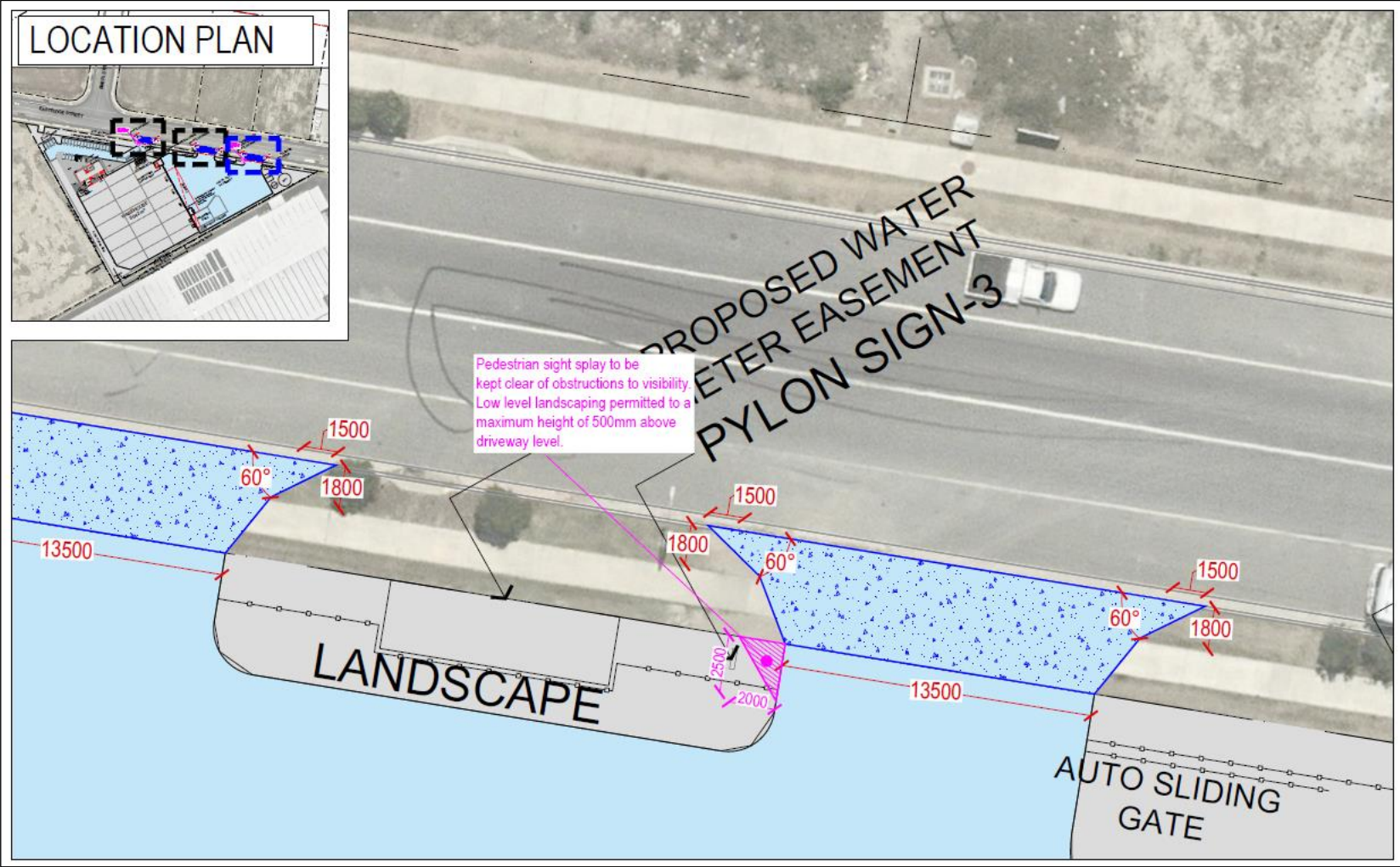


FIGURE 5.3 – ACCESS ARRANGMENTS (HEAVY VEHICLE EXIT)

6.0 PROVISION FOR HEAVY VEHICLES

The proposed plan of development has been designed to allow vehicles up to a 20 metre long Articulated Vehicle (AV) and 26 metre long B-Double vehicle to satisfactorily access and circulate through the site whilst maintaining 0.5 metres clearance to obstructions at all times.

Swept path diagrams for the required design vehicles (Waste Collection Vehicle (WCV), Articulated Vehicle (AV) and B – Double) are provided as Figures 6.1 – 6.6.

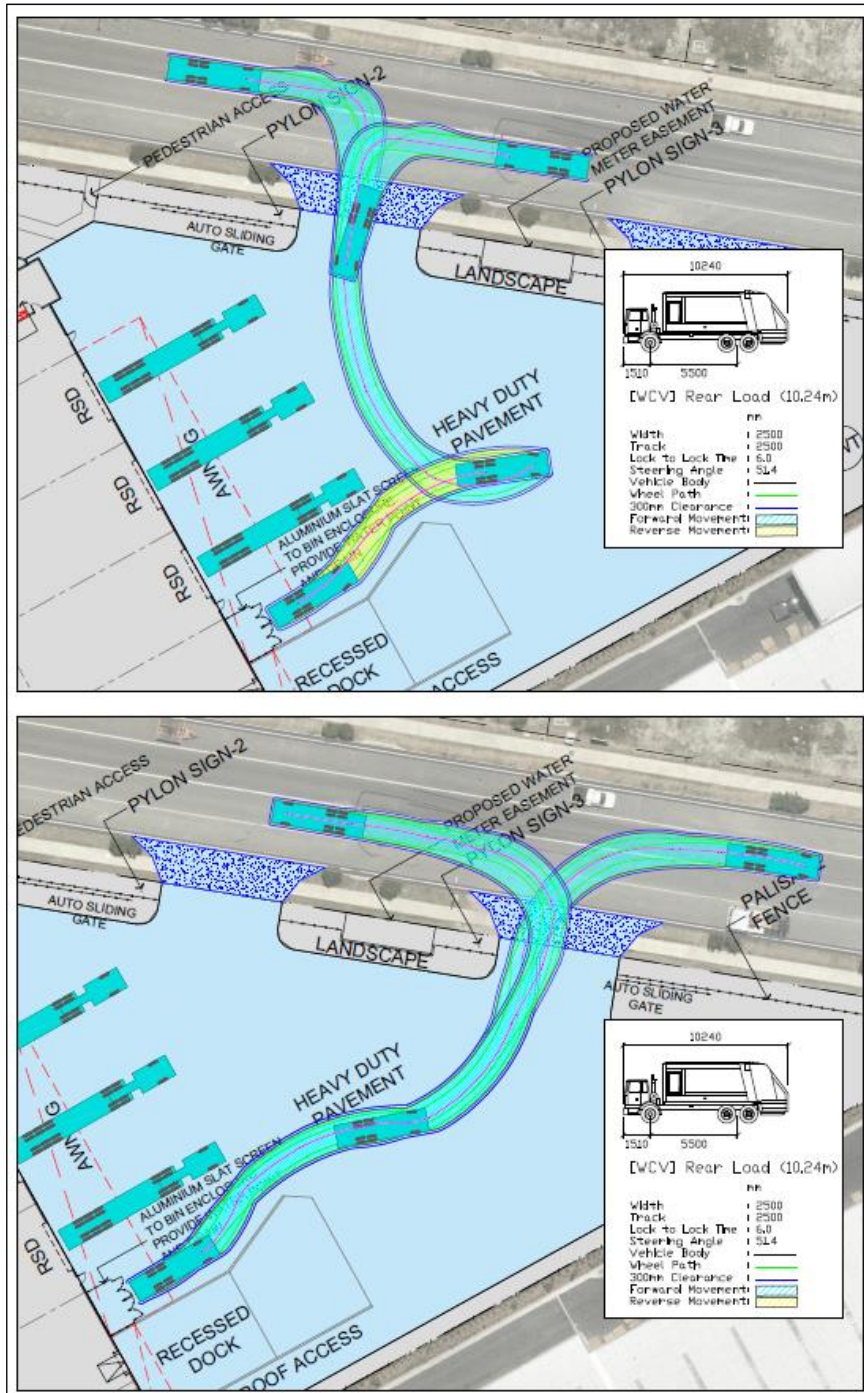
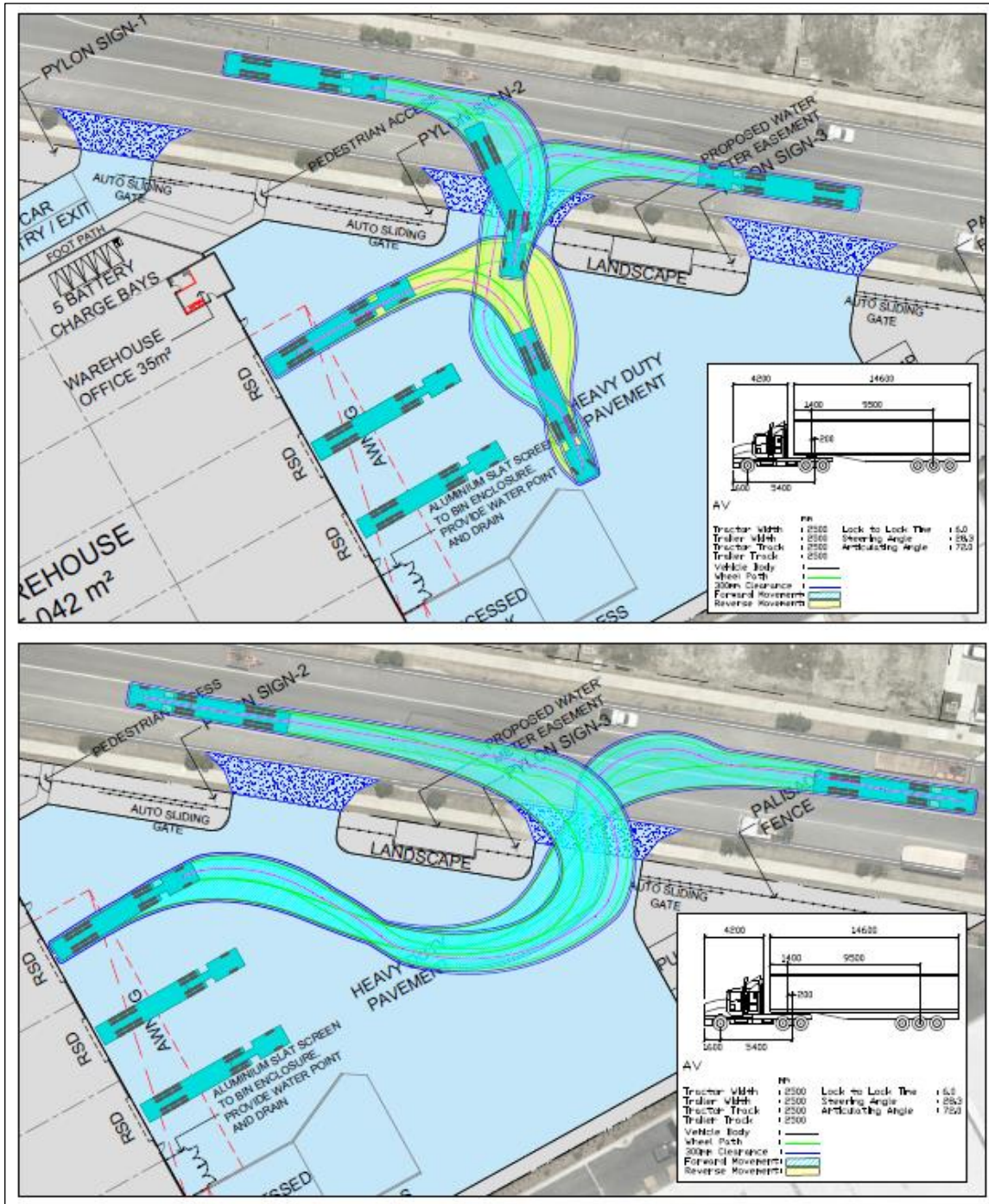
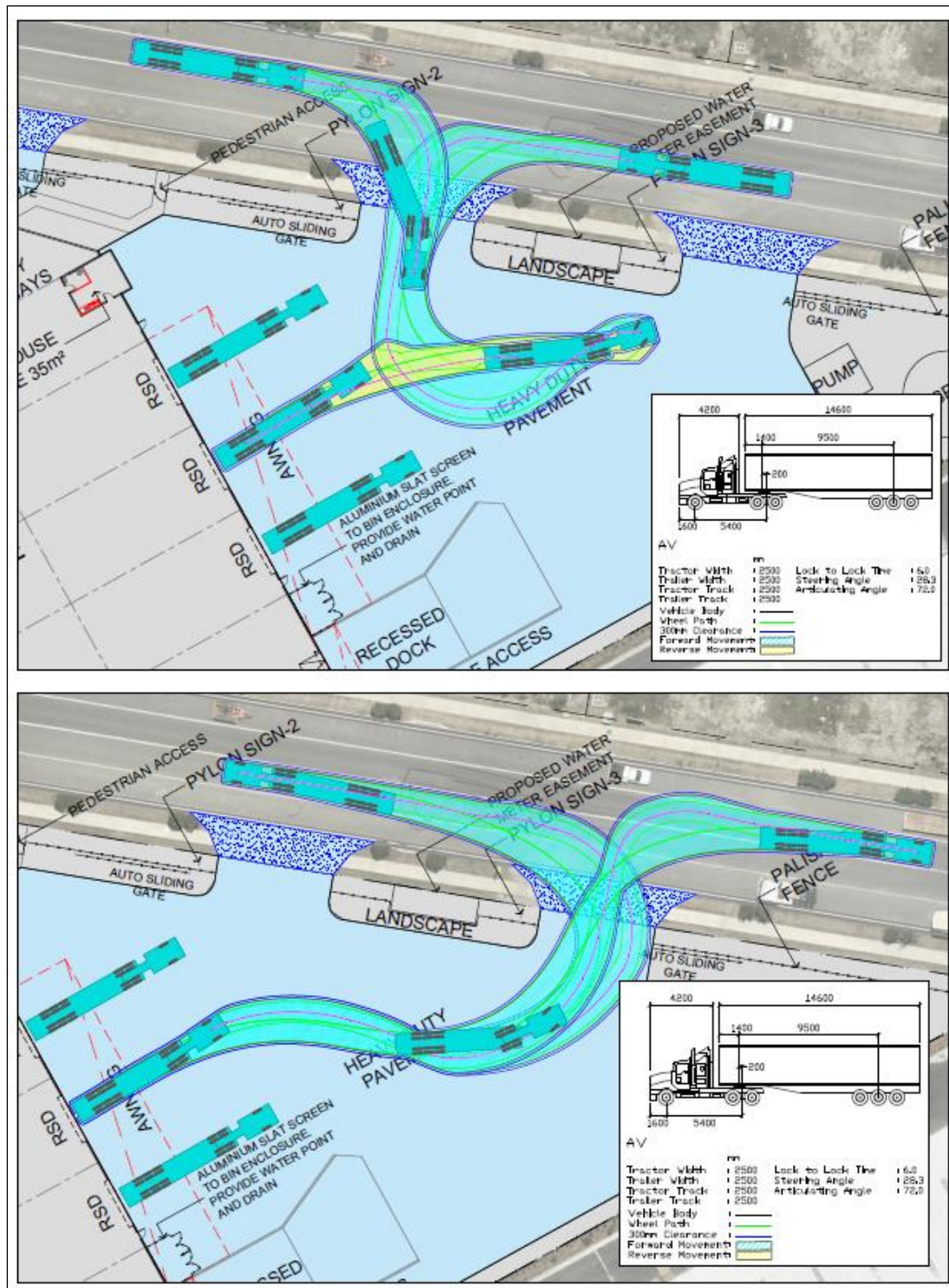


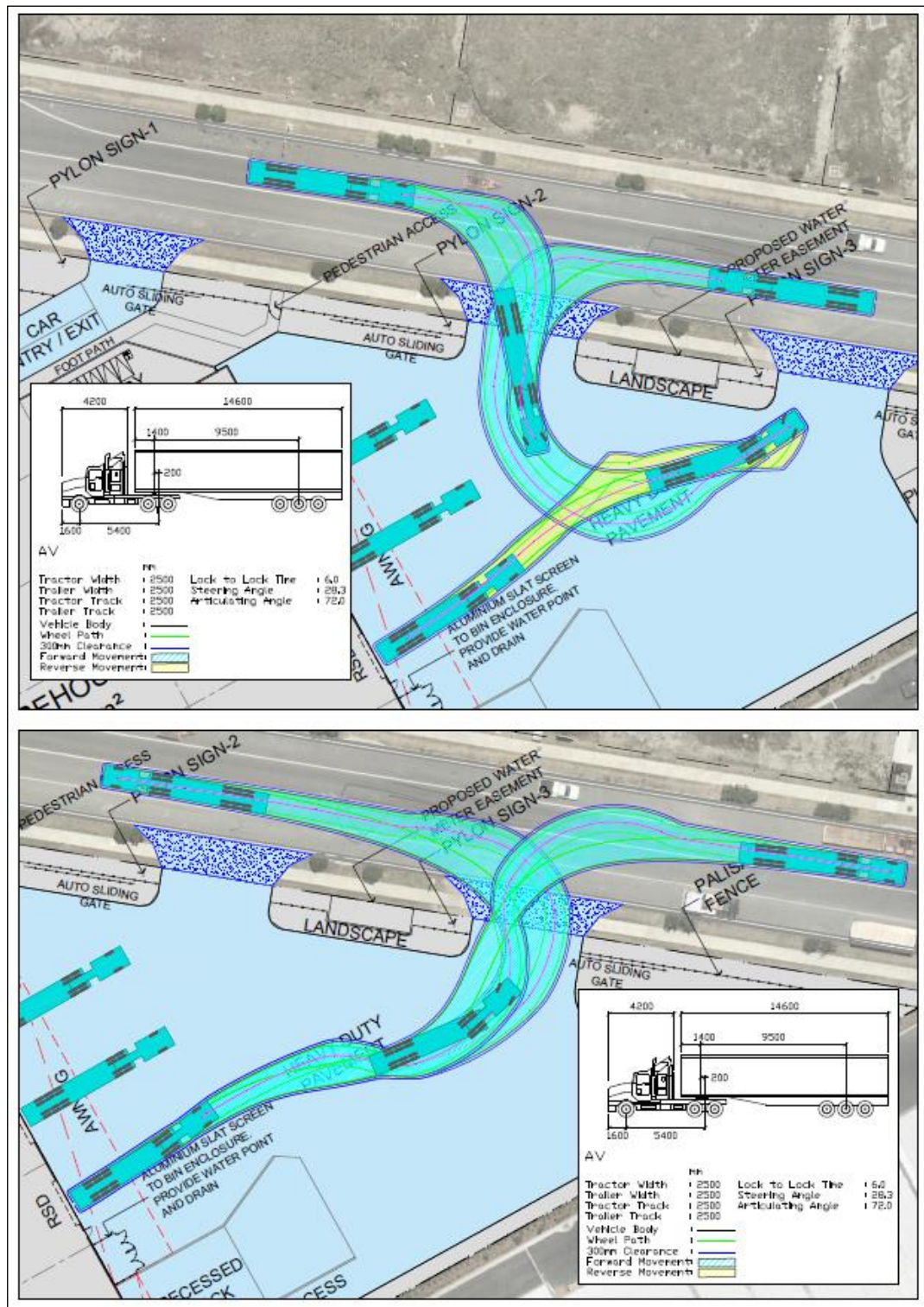
FIGURE 6.1 – ON-SITE WASTE COLLECTION VEHICLE MANOEUVRING (WCV)



**FIGURE 6.2 – ON-SITE SERVICE VEHICLE MANOEUVRING
 (20 METRE ARTICULATED VEHICLE (AV))**



**FIGURE 6.3 – ON-SITE SERVICE VEHICLE MANOEUVRING
 (20 METRE ARTICULATED VEHICLE (AV))**



**FIGURE 6.4 – ON-SITE SERVICE VEHICLE MANOEUVRING
 (20 METRE ARTICULATED VEHICLE (AV))**



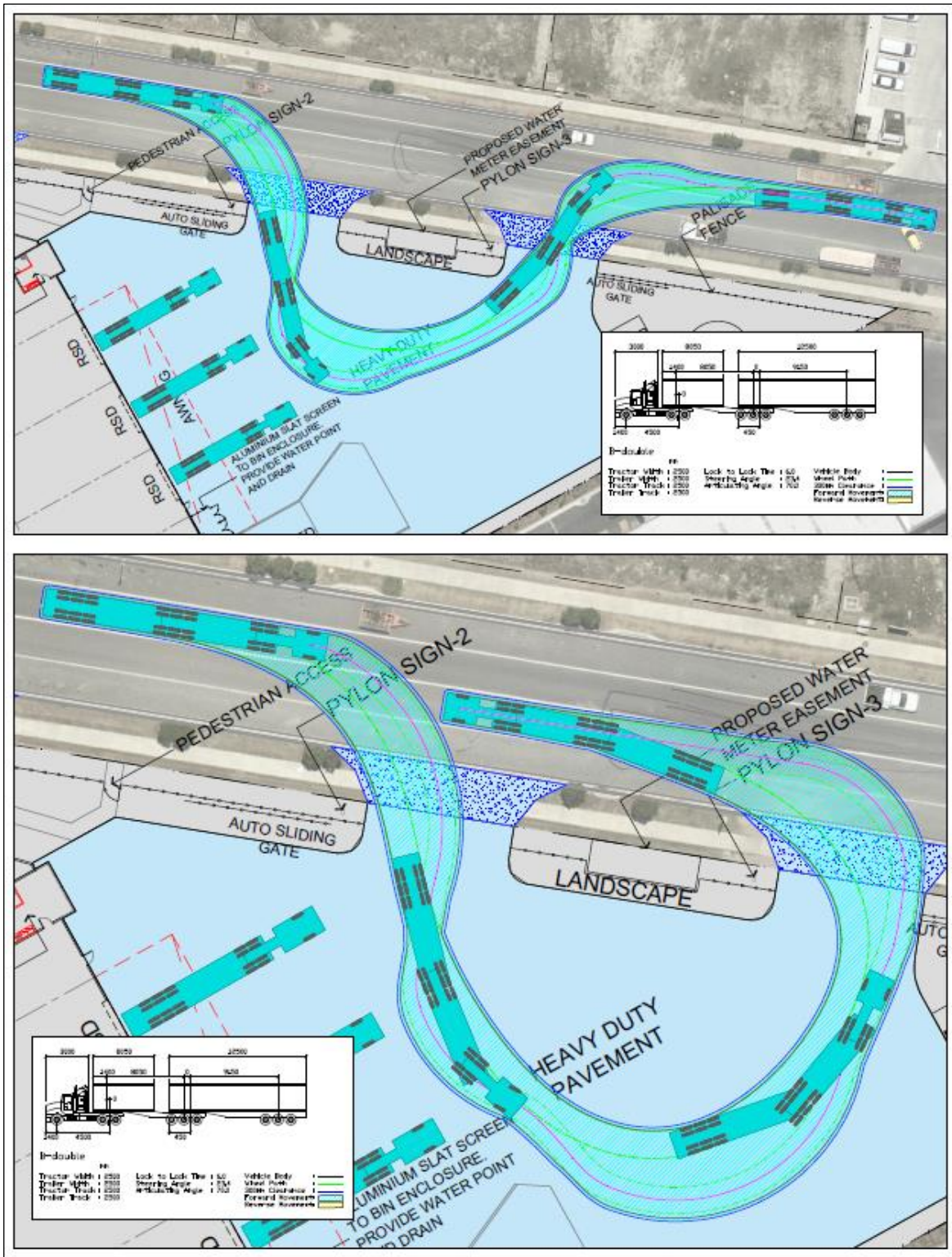


FIGURE 6.6 – ON-SITE SERVICE VEHICLE MANOEUVRING (B – DOUBLE)

7.0 PROVISION FOR PEDESTRIANS AND BICYCLES

In accordance with the Gold Coast City Plan, the following rate applies to the proposed use:

Warehouse:

1 space per 800m² of GFA plus.

Based on the above, the Acceptable Outcome for bicycle parking for the proposed development (5,314m²) is 7 spaces.

Given the location of the site and type of use proposed it is considered that only a very small number of workers would travel by bicycle. Notwithstanding the above, provisions for cyclists to store their bicycle within the warehouse facility will be available. End of trip facilities (shower and change facilities) will also be available.

The proposal provides for safe access pedestrians with a separate pathway leading from the road frontage to the building entrance, and safe movement through the car park.

8.0 SUMMARY OF CONCLUSIONS & RECOMMENDATIONS

- The subject site is located within the approved Stage 2 site of the Vantage Industrial Estate. The site is situated on the southern side of Eastridge Road and is identified as Lot 120, with a total site area of approximately 13,005m².
- The proposed plan of development is for a warehouse development with a floor area (total use area) of approximately 4,674m².
- In accordance with the Transport Code, the proposed development yields an Acceptable outcome of 61 spaces. The proposed layout provides a total of 25 car parking spaces and is therefore short of the Acceptable outcome.
- The proposed supply of 25 spaces equates to approximately 1 space / 186m² of GFA, which is typical for a warehouse of the type and scale proposed. Warehouses such as the proposed typically have a low employee density as they are mainly used for the distribution of goods. A review of typical warehouse developments in the Yatala area indicates a similar demand of that proposed.
- The geometric layout of the proposed parking facilities has generally been designed to comply with the relevant requirements specified in the Australian Standard publication AS2890.1:2004.
- The proposal provides separate vehicular access for light and heavy vehicles. The eastern and central crossovers will facilitate entry and exit movements exclusively for heavy vehicles, while the western crossover will accommodate two-way access for light vehicles.
- The proposed vehicle crossovers have been designed in accordance with the IPWEA Standard Drawings RS-051 suitable for the intended design vehicle.
- The proposed plan of development has been designed to allow vehicles up to a 20 metre long Articulated Vehicle (AV) and 26 metre B-Double to satisfactorily access and circulate through the site whilst maintaining 0.3 metres clearance to obstructions at all times.
- Bicycle facilities in accordance with the Transport code are proposed to be provided on-site for visitors and staff.

APPENDICES

- APPENDIX A – CAR PARKING DEMAND OF SIMILAR WAREHOUSE DEVELOPMENTS
APPENDIX B – TRANSPORT CODE RESPONSE
APPENDIX C – RESPONSE TO DRIVEWAYS AND VEHICULAR CROSSINGS CODE

APPENDIX A – CAR PARKING DEMAND OF SIMILAR WAREHOUSE DEVELOPMENTS

2 – 8 Emeri Street, Yatala

Monday 13th November 2023 – 4 spaces
Wednesday 12th April 2023 – 7 spaces
Wednesday 2nd November 2022 – 1 space
Tuesday 16th August 2022 – 5 spaces
Thursday 23rd June 2022 – 1 space
Wednesday 8th June 2022 – 1 space
Wednesday 8th September 2021 – 1 space

Average: 3 spaces

Car parking demand: 1 space per 1,459m²



59 Lahrs Road Ormeau QLD 4208 Australia

Tuesday 11th April 2023 – 26 spaces
Wednesday 2nd November 2023 – 25 spaces
Tuesday 16th August 2022 – 29 spaces
Thursday 23rd June 2022 – 3 spaces
Wednesday 8th September 2021 – 21 spaces
Thursday 5th August 2021 – 24 spaces

Average: 22 spaces

Car parking demand: 1 space per 130m²



18 Lahrs Road Ormeau QLD 4208 Australia

Tuesday 11th April 2023 – 15 spaces
Wednesday 2nd November 2023 – 27 spaces
Tuesday 16th August 2022 – 1 spaces
Thursday 23rd June 2022 – ? spaces
Wednesday 8th September 2021 – 39 spaces
Thursday 5th August 2021 – 18 spaces

Average: 25 spaces

Car parking demand: 1 space per 175m²



111 Lahrs Road Ormeau QLD 4208 Australia

Tuesday 11th April 2023 – 2 spaces

Wednesday 2nd November 2023 – 7 spaces

Tuesday 16th August 2022 – 6 spaces

Thursday 23rd June 2022 – ? spaces

Wednesday 8th September 2021 – 7 spaces

Thursday 5th August 2021 – 18 spaces

Average: 8 spaces

Car parking demand: 1 space per 519m²



APPENDIX B – TRANSPORT CODE RESPONSE

City Plan code template

This code template supports the preparation of a development application against either the acceptable outcome(s) or performance outcome(s) contained in the code. Development assessment rules are outlined in **Section 5.3.3** of the City Plan.

Please note:

For assessment against the overall outcomes, refer to the appropriate code.

Note: The whole of the planning scheme is identified as the assessment benchmark for impact assessable development. This specifically includes assessment of impact assessable development against this strategic framework. The strategic framework may contain intentions and requirements that are additional to and not necessarily repeated in zone, overlay or other codes. In particular, the performance outcomes in zone codes address only a limited number of aspects, predominantly related to built form. Development that is impact assessable must also be assessed against the overall outcomes of the code as well as the strategic framework.

9.4.13 Transport code

9.4.13.1 Application

This code applies to assessing a material change of use where indicated within **Part 5 Tables of assessment** unless the development is listed as accepted subject to requirements and is:

- (a) establishing in an existing lawful non-residential premises; and
- (b) involving:
 - (i) no building work (other than an internal fit-out); or
 - (ii) only minor building work; and
- (c) the development results in no loss of car parking spaces.

When using this code, reference should be made to **Section 5.3.2** and, where applicable, **Section 5.3.3**, in **Part 5**.

9.4.13.2 Purpose

- (1) The purpose of the Transport code is to ensure transport needs associated with the development of land are met.

-
- (2) The purpose of the code will be achieved through the following overall outcomes:
- (a) Development ensures that:
 - (i) on-site access, parking and facilities, manoeuvring and servicing areas are designed to:
 - (A) meet the needs of the development;
 - (B) result in a functional and efficient site layout that minimises impacts on surrounding areas and traffic movement;
 - (C) create a safe pedestrian and cyclist focussed environment; and
 - (D) promote a high quality public realm.
 - (ii) the function and capacity of the road network is not compromised and impacts on amenity, safety and operation of existing and planned roads are appropriately mitigated.
 - (b) An integrated transport system is provided that:
 - (i) is convenient, efficient and flexible, being able to accommodate major events and provide a high level of connectivity between all activity centres, urban neighbourhoods, mixed use and industrial areas, inclusive of all modes, including active transport networks;
 - (ii) supports well designed urban development, which is concentrated within activity centres and urban neighbourhoods, that is easy to access via frequent public transport, walking and cycling, thereby reducing the need to travel by car;
 - (iii) supports community and privately operated transport services as viable alternatives to the private car;
 - (iv) reduces congestion and car dependency and significantly increases levels of walking, cycling and public transport use; and
 - (v) ensures existing and future transport corridors are protected.
 - (c) Active transport networks are provided that:
 - (i) are direct, safe, pleasant and comfortable to make walking and cycling an attractive alternative to the car;
 - (ii) ensure development within centres and urban neighbourhoods, including the light rail corridor have access to high quality active transport infrastructure including paths, bicycle parking and end of trip facilities;
 - (iii) are directly connected to local attractions and services;
 - (iv) are clear and easily accessed; and
 - (v) ensure the active transport infrastructure are completed in the early stages of development.
 - (d) Public transport networks are provided that:
 - (i) are of a standard and quality to provide an attractive alternative to the car;

-
- (ii) ensure district and regional level community uses are within walking distance of public transport facilities; and
 - (iii) are clear and easily accessed.
 - (e) A road network is provided that:
 - (i) is developed and managed efficiently and meets the city's needs for the movement of people and goods, and can be safely shared by all users;
 - (ii) ensures development impacts on amenity caused by traffic and parking is consistent with the community's reasonable expectations for the intended use;
 - (iii) develops local road networks that are permeable and legible to facilitate a high level of connectivity, are safe and are shared with active and public transport;
 - (iv) ensures developments are designed for safe and efficient waste collection, carried out with minimal disruption or impact to the road network; and
 - (v) within the Coomera Town Centre area, provides an integrated network of predominantly public streets to ensure efficient movement of pedestrians, cyclists, vehicles and strong public transport connections that is guided by the indicative access and mobility outcomes in Figure 9.4.13-2 Coomera Town Centre Indicative Access and Mobility.
 - (f) Major freight corridors and haulage routes:
 - (i) are protected from incompatible uses and ensure their safe and efficient operation.
 - (g) Navigable waterways:
 - (i) support active and public transport facilities in waterfront locations for public water transport and enhance access to the city's waterways.

9.4.13.3 Specific benchmarks for assessment

PART B – ASSESSABLE DEVELOPMENT BENCHMARKS

Table 9.4.13-2: Transport code – for assessable development

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use	
Car parking and travel demand				
PO1 Development provides off-street car parking to accommodate the parking demand and allows for various modes of travel to reduce dependency on private vehicle usage. OR Where located in the Centre zone or the Southport Priority Development Area, development: (a) maximises the efficiency of car parking provided; (b) reduces congestion and car dependency; and (c) encourages alternative transport options such as walking, cycling and the use of public transport. Note: For an increase in scale or intensity of an existing lawful use, this PO and AO applies to the extent of the increase, provided existing car parking areas are not reduced or disturbed.	AO1 Off- street car parking spaces are provided in accordance with the identified relevant table as follows:	THE PROPOSED SUPPLY OF 25 SPACES EQUATES TO APPROXIMATELY 1 SPACE / 186M² OF GFA, WHICH IS TYPICAL FOR A WAREHOUSE OF THE TYPE AND SCALE PROPOSED. WAREHOUSES SUCH AS THE PROPOSED TYPICALLY HAVE A LOW EMPLOYEE DENSITY AS THEY ARE MAINLY USED FOR THE DISTRIBUTION OF GOODS. A REVIEW OF TYPICAL WAREHOUSE DEVELOPMENTS IN THE YATALA AREA INDICATES A SIMILAR DEMAND OF THAT PROPOSED.		
	Location	Off-street car parking rate		
	Centre zone and High density residential zone where nominated in the Transport hub area in Figure 9.4.13-1: Transport hub area	Table 9.4.13-4: Car parking rates – Centre zone and High density residential zone – Transport hub		

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
	Centre zone not nominated in the Transport hub area in Figure 9.4.13-1: Transport hub area Special purposes zone – Special development area precinct – Southport Priority Development Area All other zones	Table 9.4.13-5: Car parking rates – Centre zone – outside Transport hub area Table 9.4.13-6: Car parking rates – Southport Priority Development Area Table 9.4.13-3: Car parking rates – all zones except Centre zone or Special purpose zone – Special development area precinct – Southport Priority Development Area	
PO2 Car parking spaces for employees and visitors to the development are maximised and allow for efficient	AO2 Car parking spaces for employees and visitors to the development are accessible at all times and not restricted	THE PROPOSAL MEETS THE AO – NO RESTRICTIVE DEVICES ARE PROPOSED. GATES WILL ONLY BE CLOSED AFTER HOURS FOR SECURITY PURPOSES.	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
functioning of the site and surrounding traffic network.	by allocation of spaces, gateways, doors or similar devices.		
Servicing			
PO3 Development accommodates the required design service vehicle (including waste collection) in accordance with: (a) Table 9.4.13-8: Service vehicle requirements; and (b) Table 9.4.13-9: Minimum class of service vehicle; and (c) AS2890.2: Parking facilities Part 2: Off-street commercial vehicle facilities to allow for: (i) loading and unloading of service vehicles wholly within the site; (ii) pathways from service areas to tenancies at a width and grade that allows for unimpeded manoeuvring of goods (i.e. clear of doors, gates or landscaping); (iii) waste collection vehicles to appropriately service the development; (iv) safe pickup and set-down of passengers on-site; (v) unobstructed access to off-street parking areas; and (vi) an efficient and safe traffic network.	AO3 No acceptable outcome provided.	THE PROPOSAL MEETS THE AO – THE PROPOSAL PROVIDES ACCESS AND SERVICING BY VEHICLES UP TO THE SIZE OF A B-DOUBLE	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
PO4 Development ensures that service vehicle routes to and from the development minimise impacts on residential safety and amenity.	AO4 No acceptable outcome provided.	THE PROPOSAL MEETS THE AO	
Public transport network			
PO5 Development that attracts large numbers of people, integrates the provision of on-site public transport facilities which are connected to: (a) adjoining uses; (b) the existing road network; (c) existing or future public transport facilities; and (d) public areas.	AO5.1 On-site public transport facilities (including stops) are integrated with the following land uses: (a) Air services; (b) Educational establishment (new and existing); (c) Hospital; (d) Major sport, recreation and entertainment facility; (e) Shop (2,000m ² or greater); and (f) Tourist attraction.	N/A	
	AO5.2 Development provides safe, attractive and convenient pedestrian and cycle pathways connected to: (a) adjoining uses; (b) the existing road network; (c) existing or future public transport facilities; and (d) public areas.	N/A	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
PO6 Development within 400m walking distance of a high frequency public transport stop or rail station provides attractive, safe and convenient linkages to this infrastructure.	AO6 No acceptable outcome provided.	N/A	
Active transport network			
PO7 Off-street bicycle parking and off-street end-of-trip facilities are provided to encourage active transport and are: (a) designed to meet the needs and volumes of pedestrians and cyclists; and (b) located in safe, convenient and highly accessible areas. Note: This PO does not apply to the following uses: • Dwelling house; • Dual occupancy; or • Multiple dwelling (where there are 3 dwellings)	AO7.1 Development provides off-street bicycle parking and off-street end-of-trip facilities in accordance with Table 9.4.13-10: Bicycle parking rates and Table 9.4.13-11: End-of-trip facilities for active travel users .	N/A	
	AO7.2 Location of off-street, end-of-trip facilities are: (a) within 50m to off-street bicycle parking; and (b) clearly signed off-street bicycle parking areas.	N/A	
	AO7.3 Signage indicating location of off-street bicycle parking is: (a) clearly identifiable within the site;	N/A	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
	(b) at ground level, external to buildings; and (c) in accordance with <i>AS2890.3: Parking facilities Part 3: Bicycle parking.</i>		
	AO7.4 Off-street bicycle parking areas are: (a) clear of pedestrian movement paths; (b) visible from the street to allow casual surveillance; (c) located clear of vehicle movement; (d) well lit; (e) protected from the weather; (f) connected from the road via direct pathways/ramps; and (g) in accordance with the cycling aspects of austroads and <i>AS2890.3: Parking facilities Part 3: Bicycle parking.</i>	N/A	
PO8 Development provides pedestrian and cyclist pathways to all street frontages and set down areas, and: (a) allows for safe movement; (b) is convenient and direct; (c) is clearly identifiable; and (d) is clear of potential vehicle movements.	AO8.1 Development provides a pathway from the primary street frontage and car parking set-down areas, to connect to the main entry of the building. OR For development with 21 dwellings or more, a pathway is provided for each road frontage and car parking set-down area(s) to the main entry of the building.	N/A	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
	AO8.2 Pathways are to be designed and constructed in accordance with AS 1428.1: Design for access and mobility Part 1: General requirements for access – New building work.	N/A	
	AO8.3 Pathways are separated from vehicle movements.	N/A	
PO9 Public pathways are provided: (a) within the road reserve, adjacent to, and for the full length of, the sites road frontage; and (b) in accordance with SC6.12 City Plan policy – Land development guidelines . Note: This PO does not apply to the following uses: Dwelling house;	AO9 No acceptable outcome provided.	N/A	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
- Dual occupancy; or - Multiple dwelling (where there are 3 dwellings).			
PO10 Development contributes to the safe and efficient provision and operation of the bicycle and pedestrian network.	AO10.1 Pathways and on-road cycle lanes are designed and constructed in accordance with SC6.12 City Plan policy – Land development guidelines, Section 2 – Transport network standards.	N/A	
	AO10.2 Development does not remove or compromise existing on-road and off-road bicycle and pedestrian infrastructure and facilities.	N/A	
Roads and freight			
PO11 Public roads including upgrades are designed to an appropriate standard and are designed to: (a) prevent the need for traffic calming devices to manage vehicle design speed; (b) deter through traffic if the roads function is primarily for access; and (c) create safe conditions for pedestrians and cyclists.	AO11 New roads and upgrades to roads are designed and constructed in accordance with SC6.12 City Plan policy – Land development guidelines, Section 2 – Transport network standards.	N/A	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
PO12 Corner lots include truncations at each roadway intersection to ensure the intersection and sight lines are safe and functional.	AO12.1 Corner lots are truncated at each roadway intersection by: (a) three equal chords of a 6m radius for non-industrial lots and are dedicated to Council as public road; or (b) three equal chords of a 8m radius for industrial lots and are dedicated to Council as public road.	N/A	
	AO12.2 At roundabouts and intersections, corner truncations are wider to maintain verge widths and sight line requirements.	N/A	
PO13 New intersections: (a) are safe and do not compromise the efficiency, function, convenience of use or capacity of the road network; (b) have verge areas that provide sufficient area for safe pedestrian and cycling movement; and (c) have sufficient area to provide essential services and infrastructure, including traffic management.	AO13 New intersections are designed and constructed in accordance with <i>Austroads</i> and SC6.12 City Plan policy – Land development guidelines, Section 2 – Transport network standards .	N/A	
Ingress and egress			
PO14 All vehicles enter and exit the site in a forward gear (restricted manoeuvring is allowed for service vehicles identified in	AO14 No acceptable outcome provided.	THE PROPOSAL MEETS THE AO – THE PROPOSAL PROVIDES THREE SEPARATE CROSSOVERS ALONG EASTRIDGE STREET.	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
Table 9.4.13-8: Service vehicle requirements). Note: This PO does not apply to the following uses: • Dwelling house; • Dual occupancy; or • Multiple dwelling (where there are 3 dwellings). Editor's note – Access to State controlled roads may require additional approvals in accordance with the <i>Transport Infrastructure Act 1994</i>			
PO15 Where identified on the functional road hierarchy (as shown on the zone maps in Schedule 2) and a lot has two or more road frontages, vehicle access is provided from the road with the least on-road traffic.	AO15 No acceptable outcome provided.	N/A	
Integrated transport and land use			
PO16 Development: (a) does not compromise the function and capacity of the existing and planned road network; and (b) appropriately mitigates impacts on the safety and operation of the existing and planned road network. Note: A Traffic Impact Assessment is Council's preferred method of addressing the above Performance	AO16 No acceptable outcome is provided.	N/A	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
outcome particularly in the following instances: (a) when the development is identified as “any other use not listed in this table” or “any other undefined use” in Part 5 – Tables of assessment; (b) freight dependent development; or (c) site access is to a road identified on the Functional road hierarchy (indicated on the Zone maps in Schedule 2); (d) site access is from a road identified on the Pacific motorway service road types overlay map; (e) site access is within 100m of a signalised intersection; (f) site access is within 50m of a roundabout; or (g) a new intersection is proposed; (h) density outcomes in a Zone code are exceeded; or (i) development has the potential to increase existing background traffic (peak period or daily traffic movements) ≥ 5 percent.			
PO17 Development is not located in areas that compromise future transport corridors, including roads, public transport and active transport.	AO17 Land shown on the zone maps for the purposes of existing or future road network infrastructure, is to be dedicated to Council as public road.	N/A	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
PO18 Development within the Coomera Town Centre area provides an integrated network of predominantly public streets to ensure efficient movement of pedestrians, cyclists, vehicles and strong public transport connections. Note: Indicative access and mobility outcomes for the Coomera Town Centre area are identified on Figure 9.4.13-2.	AO18 No acceptable outcome provided.	N/A	
General			
PO19 Continuous circulation aisles are provided within carparking areas to avoid the use of the road network when accessing areas within the development.	AO19.1 All off-street car parking modules and service areas are accessed by internal circulation aisles.	THE PROPOSAL MEETS THE AO	
	AO19.2 Circulation aisles are not disconnected by car parking modules or service areas.	THE PROPOSAL MEETS THE AO	
	AO19.3 All access driveways are linked by circulation aisles and free from parking manoeuvres.	THE PROPOSAL MEETS THE AO	
	AO19.4 All vehicles can circulate throughout the site in a forward gear without performing reverse manoeuvres.	THE PROPOSAL MEETS THE AO	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
PO20 Off street car parking areas: (a) provide a legible and efficient internal layout; (b) ensure the safety and security of users; (c) are clearly distinguishable from pedestrian paths and entry points; (d) are easily negotiated by vehicles and pedestrians including persons with a disability; (e) ensure that there are no disruptions to or queues onto the public road network; (f) provide sight distances from driveways to ensure visibility between vehicles on the driveway and pedestrians on the verge; (g) are designed, marked and maintained to the current relevant standard; and (h) promote driver expectations consistent with conventional road rules (e.g. keep to the left).	AO20.1 Off street car parking provided in accordance with AS 2890.1: <i>Parking facilities – Part 1: Off-street car parking</i> , AS 2890.2: <i>Parking facilities – Part 2: Off-street commercial vehicle facilities</i> , AS/NZS 2890.6: <i>Parking facilities Part 6: Off-street parking for people with disabilities</i> and AS 1428.1: <i>Design for access and mobility Part 1: General requirements for access – New building work</i> .	THE PROPOSAL MEETS THE AO	
	AO20.2 Development does not provide pavement humps or raised platforms in queuing areas.	THE PROPOSAL MEETS THE AO – PAVEMENT HUMPS OR RAISED PLATFORMS ARE NOT PROPOSED.	
	AO20.3 Development is designed so that vehicles do not reverse across marked pedestrian crossings.	THE PROPOSAL MEETS THE AO - MARKED CROSSINGS ARE NOT PROPOSED.	
PO21 Any proposed porte-cocheres are designed to enable safe manoeuvring and access of vehicles on-site.	AO21 Any proposed porte-cocheres are designed to: (a) have a minimum vertical clearance of 4.5m;	N/A	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
	(b) accommodate vehicles entirely within the site, including the queuing of vehicles; and (c) allow vehicles to circulate in a forward direction at all times.		
PO22 Staged development is planned, designed and constructed to ensure that for each stage: (a) sufficient car parking is provided; and (b) appropriate connections to active and public transport facilities are provided.	AO22 No acceptable outcome is provided.	N/A	

APPENDIX C –RESPONSE TO DRIVEWAYS AND VEHICULAR CROSSINGS CODE

City Plan code template

This code template supports the preparation of a development application against either the acceptable outcome(s) or performance outcome(s) contained in the code. Development assessment rules are outlined in **Section 5.3.3** of the City Plan.

Please note:

For assessment against the overall outcomes, refer to the appropriate code.

Note: The whole of the planning scheme is identified as the assessment benchmark for impact assessable development. This specifically includes assessment of impact assessable development against this strategic framework. The strategic framework may contain intentions and requirements that are additional to and not necessarily repeated in zone, overlay or other codes. In particular, the performance outcomes in zone codes address only a limited number of aspects, predominantly related to built form. Development that is impact assessable must also be assessed against the overall outcomes of the code as well as the strategic framework.

9.4.2 Driveways and vehicular crossings code

9.4.2.1 Application

This code applies to assessing operational work for vehicle crossing works and material change of use for any development involving vehicle access or driveway works where indicated within **Part 5 Tables of assessment**.

When using this code, reference should be made to **Section 5.3.2** and, where applicable, **Section 5.3.3**, in **Part 5**.

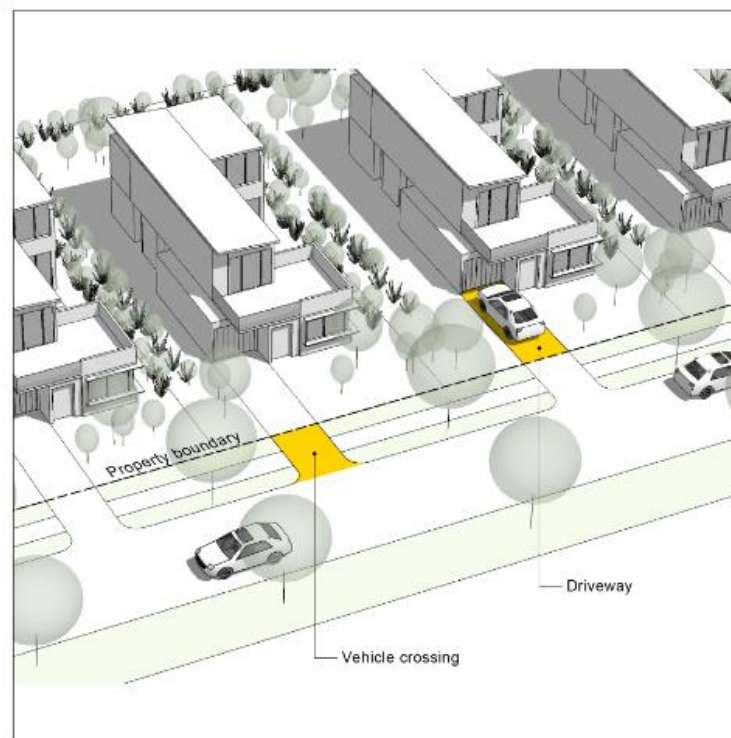


Figure 9.4.2-1

Illustration showing driveway and vehicle crossing for access to parking spaces

9.4.2.2 Purpose

- (1) The purpose of the Driveways and vehicular crossings code is to provide design standards for the construction, repair or modification to a driveway and/or a vehicular crossing and to ensure that the decisions are compatible.
- (2) The purpose of the code will be achieved through the following overall outcomes:
 - (a) Vehicular crossings provide safe access from the edge of the road carriageway to the property boundary.
 - (b) Vehicular crossings are located and constructed to avoid adverse impacts on City or utility infrastructure.
 - (c) Vehicular crossings are constructed to a standard that is consistent with a standard vehicle.
 - (d) Vehicular crossings are designed to ensure that there is minimal loss of on-street car parking spaces.
 - (e) Driveways provide safe access from the property boundary to the on-site vehicle accommodation or standing area.
 - (f) Driveways are located to ensure damage to existing street trees located within the verge is avoided.
 - (g) Driveways are located to retain space for the future planting of street trees.
 - (h) The construction, location and design of vehicular crossings and driveways prevent interference with the safe movement of vehicles or the safe use of the footpath to maintain the amenity of the area.
 - (i) The design and construction of the driveway and vehicular crossing are such that vertical and horizontal alignments provide a continuous, smooth access of good rideability and clearance for vehicles and driveway and vehicular crossing do not cause adverse stormwater drainage impacts.

9.4.2.3 Specific benchmarks for assessment

Table 9.4.2-3: Driveways and vehicular crossings code – assessable development for driveways

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
Location			
PO1 The location of the driveway is considered at the design stage of the development to ensure it does not	AO1 The design of the driveway:	THE LAYOUT AND DIMENSIONS OF THE PROPOSED VEHICLE CROSSINGS COMPLY WITH AS2890.1, A2890.2 AND IPWEA STANDARD DRAWINGS.	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
unnecessarily damage street trees and allows space for the planting of street trees within the verge.	(a) does not cause damage to street trees in the verge; and (b) retains space for the planting of street trees within the verge.		
Design			
PO2 The driveway is designed and constructed to ensure: (c) safe access for a B85 vehicle (AS2890) from the property boundary to the on-site vehicle accommodation or standing area; (d) it does not cause adverse stormwater drainage impacts on or off the site; and (e) safe pedestrian movement in the proximity of the site.	AO2 The driveway is designed in accordance with the following design standards:	THE PROPOSAL MEETS THE AO	
	Land use	Design standard	
	- Dual occupancy - Dwelling house - Multiple dwellings (where the development is for townhouses)	Queensland Development Code – NMP 1.1 - Driveways	
	All other land uses	AS/NZS 2890.1:2004 – Parking facilities – Part 1: Off-street car parking	
	OR Where particularly restrictive physical conditions exist and the above standard arrangements are not attainable, the design and construction of the proposed driveway is certified by a RPEQ having regard to the following: (f) Disability Discrimination Act 1992; (g) AS 2890.1;		

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
	(h) QUDM; and (i) Good engineering practice.		

Table 9.4.2-4: Driveways and vehicular crossings code – assessable development for vehicular crossings

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
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Construction of vehicular crossings

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
PO1 The vehicle crossing is designed and constructed to ensure: (a) safe access for a B85 vehicle (AS2890) from the road carriageway to the property boundary; (b) it does not cause adverse stormwater drainage impacts on or off the site; and (c) safe pedestrian movement in the proximity of the site.	AO1 Prior to the use commencing a vehicular crossing is constructed to provide access from the road to the property. Either: (j) The vehicular crossing is designed and constructed in accordance with the relevant vehicular crossing standards drawing in SC6.9 City Plan policy – Land development guidelines; or (k) where particularly restrictive physical conditions exist and the above standard arrangements are not attainable, the design and construction of the proposed vehicular crossing is certified by a RPEQ having regard to the following: (i) <i>Disability Discrimination Act 1992</i>; (ii) <i>AS 2890.1</i>; (iii) <i>QUDM</i>; and (iv) Good engineering practice.	WILL COMPLY	
PO2 Location and construction of the vehicular crossing avoids damage to utility services, pathways, kerbs, road pavement and seal and other municipal infrastructure.	AO2 The vehicular crossing is designed and constructed in accordance with the relevant vehicular crossing standards in SC6.9 City Plan policy – Land development guidelines .	THE PROPOSAL MEETS THE AO	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
Maximum number of vehicular crossings per site			
PO3 The number of vehicular crossings per site are minimised to avoid the loss of on-street car parking spaces and to prevent adverse interference with: (l) the safety, capacity and operations of the existing or planned road network; (m) the proposed driveway; and (n) cycleways or pedestrian footpaths.	AO3 The maximum number of vehicular crossings per site, for the following land uses, is as follows:		NO – THREE VEHICLE CROSSOVERS ARE PROPOSED TO ENSURE SATISFACTORY SEPARATION OF LIGHT AND HEAVY VEHICLES. THIS IS CONSIDERED TO BE SATISFACTORY GIVEN THE LENGTH OF THE ROAD FRONTAGE.
	Land use	Maximum number of vehicular crossings per site	
	Dwelling house	1 OR 2 - when the road frontage at the kerb is at least 40m	
	Dual occupancy Multiple dwelling	1 OR 2 - where the road frontage at the kerb is greater than 20m	
	Non-residential use	2	
Separation distances			
PO4 Vehicular crossings are appropriately separated from other vehicular crossings and side property boundaries to prevent interference with: (o) the safety, capacity and operations of the existing or planned road network;	AO4 Vehicular crossings are separated from:		THE SPACING OF THE PROPOSED VEHICLE CROSSINGS MEETS THE MINIMUM REQUIREMENTS.
	Instance	Minimum distance (m)	
	Any other vehicular crossing	3m	
	Any side property boundary:	1.5m	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
(p) adjoining properties; and (q) cycleways or pedestrian footpaths.	- for residential development of 2 dwellings or less - All other development	2m	
Location			
P05 Vehicle access to a public roadway is safe and does not compromise the efficiency, function, convenience of use or capacity of the road network.	AO5.1 The location of the vehicular crossing to a public roadway is consistent with AS2890.1 and AS2890.2.	THE PROPOSAL MEETS THE AO	
	AO5.2 No new vehicular crossings are created on roads identified on the Functional Road Hierarchy as shown on the Zone maps or the Pacific motorway service road types overlap map .	THE PROPOSAL MEETS THE AO	
P06 Vehicular crossings are located to: (r) avoid damage to existing street trees located within the verge; and (s) retain space for the future planting of street trees within the verge.	AO6 No acceptable outcome provided.	THE PROPOSAL MEETS THE AO	
Sight distances and lines			
P07 Vehicular crossings are designed to prevent conflict between vehicles with cyclists and pedestrians.	AO7.1 Safe sight distances are provided, based on the vehicle speed at the vehicular crossing.	THE PROPOSAL MEETS THE AO	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
	Note: This AO does not apply to the following uses: • Dwelling house; • Secondary dwelling; • Dual occupancy; or • Multiple dwelling (where there are 3 dwellings or less).		
	AO7.2 Vehicular crossings are designed to provide safe sight lines for vehicles exiting the vehicular crossing in accordance with AS2890.2. Where no service vehicle is required to access the site, including waste collection, the requirements for sight lines at the vehicular crossing are in accordance with AS2890.1. Note: This AO does not apply to the following uses: • Dwelling house; • Secondary dwelling; • Dual occupancy; or • Multiple dwelling (where there are 3 dwellings or less).	THE PROPOSAL MEETS THE AO	

APPENDIX H

ACOUSTIC IMPACT ASSESSMENT



gassman
development
perspectives

planning
environment
landscape
engineering
survey



Proposed Warehouse Facility
Lot 120 Eastridge Street
Stapylton

ACOUSTIC REPORT



Client:

Frasers Property Industrial

Reference:

2024026 R01B Lot 120 Stapylton Jacobs Well Road Yatala ENV

Date Issued:

23 February 2024

Document Information

Contact Details

Acoustic Works
Unit 17/10 Benson Street
Toowong QLD 4066
(07) 3393 2222
ABN: 56 157 965 056

PO Box 1271
Coorparoo DC
QLD 4151

Greg Pearce
Email: gpearce@acousticworks.com.au

Mark Enersen
Email: menersen@acousticworks.com.au

Report Register

Date	Revision	Author	Reviewer
08/02/2024	R01A	Matthew Bechara	Greg Pearce
23/02/2024	R01B	Matthew Bechara	Greg Pearce

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1. Introduction

This report is in response to a request by Frasers Property for an environmental noise assessment of a proposed warehouse development to be located on the Vantage Yatala subdivision, located at Lot 120 Eastridge Street, Stapylton. To facilitate the assessment, unattended noise monitoring was conducted in the vicinity of nearby residence to establish the criteria for onsite activities. Based on the data obtained, onsite activities were assessed to surrounding sensitive receivers with recommendations for acoustic treatments specified in this report.

2. Site Description

2.1 Site Location

The proposed site is described by the following:

Eastridge Street, Stapylton
Lot 120 on SP329476

Refer to Figure 1 for site location.

Figure 1: Site Location (Not to Scale)



A comprehensive site survey was conducted on the 1st February 2024 and identified the following:

- a) The site is currently vacant.
- b) The surrounding area consists primarily of industrial/commercial land uses.
- c) Single storey and highset dwellings are located adjacent the subdivision's western site boundary.
- d) Stapylton Jacobs Well Road separates the subdivision from agricultural/rural residential land uses to the northwest.
- e) The Pacific Motorway is located approximately 750m west of the site.

2.2 Proposal

The proposal is to construct a warehouse/industrial development on the Vantage Yatala subdivision as follows:

- Total site area of 13,005m².
- Warehouse – Total area of 5,042m².
- Office – Total area of 272 m².
- 5 Recessed Docks.
- Car park with 25 spaces.
- Proposed 24/7 hours of operation.

Refer to the Appendix for development plans.

2.3 Acoustic Environment

The surrounding area is primarily affected by existing industrial/commercial activities in the area and road traffic noise from Stapylton Jacobs Well Road and the Pacific Motorway.

3. Equipment

The following equipment was used to record noise levels:

- Rion NL42 Environmental Noise Monitor
- Pulsar 105 Sound Calibrator

The Environmental Noise Monitor holds current NATA Laboratory Certification and was field calibrated before and after the monitoring period, with no significant drift from the reference signal recorded.

4. Receivers and Noise Monitoring

4.1 Receiver Locations

The nearest residential receiver locations were identified as follows;

1. Single storey and highset dwellings fronting Cedar Drive to the west.
2. Highset dwelling at 33 Stapylton Jacobs Well Road to the northwest.
3. Residential land uses at Hillside Drive and Yellowwood Road to the north.

These locations were chosen as being representative of the nearest residential receivers to the proposed development.

Refer to Figure 2 for receiver locations.

Figure 2: Receivers and Noise Monitoring Location



4.2 Unattended Ambient Noise Monitoring

A Rion NL42 environmental noise monitor was placed onsite at 60 Stapylton Jacobs Well Road to measure existing ambient noise levels. The monitor was located in a free field position with the microphone approximately 1.4 metres above ground surface level. The noise monitor was set to record noise levels between the 11th and 24th October 2019.

The environmental noise monitor was set to record noise levels in "A" Weighting, Fast response using 15 minute statistical intervals. Ambient noise monitoring was conducted generally in accordance with Australian Standard AS1055:2018 *Acoustics – Description and measurement of environmental noise*. For the unattended noise monitoring location refer to Figure 2.

5. Measured Noise Levels

The following table presents the results from the unattended noise survey. Any periods of inclement weather or extraneous noise were omitted from the measurements prior to determining the results.

5.1 Ambient Noise Levels

The measured ambient noise levels measured at the monitoring location are as follows;

Table 1: Measured ambient noise levels – all time periods

Day	Date	L90 dB(A)		
		Day	Evening	Night
Saturday	12/10/19	53	50	45
Sunday	13/10/19	48	47	46
Monday	14/10/19	50	53	48
Tuesday	15/10/19	51	56	49
Wednesday	16/10/19	52	52	52
Thursday	17/10/19	53	55	52
Friday	18/10/19	48	50	50
Saturday	19/10/19	45	53	46
Sunday	20/10/19	49	47	46
Monday	21/10/19	49	48	46
Tuesday	22/10/19	48	49	49
Wednesday	23/10/19	47	47	49
Overall value		49	51	48

Refer to the appendix for graphical representation.

6. Noise Criteria

6.1 Environmental Noise Criteria

The noise criteria as applied by City of Gold Coast are as follows;

6.1.1 Acoustic Quality Objectives

Table 2 presents the acoustic quality objectives at noise sensitive receptors as detailed in Schedule 1 of the Environmental Protection Policy (Noise) 2008.

Table 2: Acoustic Quality Objectives at Noise Sensitive Properties

Sensitive Receptor	Time of Day	Acoustic Quality Objectives, dB(A)		
		L _{Aeq,adj,1hr}	L _{A10,adj,1hr}	L _{A1,adj,1hr}
Dwelling (outdoors)	Day and Evening (7am – 10pm)	50	55	65
Dwelling (Indoors)	Day and Evening (7am – 10pm)	35	40	45
	Night (10pm – 7am)	30	35	40

6.1.2 Background Creep

The Background Creep criteria are as follows;

Time-varying noise:

$$L_{Aeq,adj,T} \leq \text{Ambient } L_{A90,T} + 5dB(A)$$

Steady-state noise:

$$L_{A90,T} \leq \text{Ambient } L_{A90,T}$$

The time period (T) is a time interval of at least 15 minutes, or if the noise continues for less than 15 minutes, the duration of the noise source.

Based on the results of ambient noise monitoring, the project specific background creep noise limits are shown in Table 3.

Table 3: Background creep noise limits

Time Period	Noise Level Limits SPL dBA	
	L _{Aeq,adj,T}	L _{A90,T}
Day 7am – 6pm	54	49
Evening 6pm – 10pm	56	51
Night 10pm – 7am	53	48

7. Onsite Activities

7.1 Methodology

Noise predictions were determined with SoundPLAN 8.2 noise modelling software, which applied CONCAWE methodology. The CONCAWE algorithm takes into account distance, intervening terrain and buildings, screening features and meteorological conditions. For the purposes of this assessment, neutral wind conditions were applied in the noise model.

7.2 Source Levels

Source sound power levels associated with normal operation was assessed based on previous measurements of similar activities and are presented in Table 4.

Table 4: Source sound power levels

Activity	Sound power level dB(A)	Reverberant sound pressure level dB(A)
Truck passbys	104	-
Truck air brakes	112	-
Truck reverse alarm	105	-
Car passbys	77	-
Car door closure	85	-
Car start	94	-
Forklifts	90	-
Forklift reverse alarms	97	-
Voice Conversation	78	-
Internal warehouse activities	-	78

All activities include corrections for tonality and impulsiveness as per AS1055:2018, where applicable.

7.3 Predicted Noise Levels

7.3.1 Background Creep Criteria

Predicted noise levels for the site, utilising the data in Table 4, is presented in Table 5 and compared to the Background Creep criteria. A noise contour map for the site is presented in Section 7.4.

Table 5: Predicted noise levels - Background Creep LAeq 15min

Receiver	Predicted Noise Level, dB(A) Leq, 15min	Leq Compliance		
		Day	Evening	Night
Criteria		54	56	53
1. Cedar Drive (west)	31	Yes	Yes	Yes
2. 33 Stapylton Jacobs Well Rd (northwest)	32	Yes	Yes	Yes
3. Hillside Drive (northeast)	31	Yes	Yes	Yes

Compliance is predicted with the Background Creep criteria for the 24 hour operation of the site without the need for further acoustic treatment.

7.3.2 Acoustic Quality Objectives

Predicted noise levels for the modelled scenario, compared to the Acoustic Quality Objectives, are presented in Table 6. A noise contour map for the site is presented in Section 7.4.

Table 6: Predicted noise levels - Acoustic Quality Objectives 1 hour

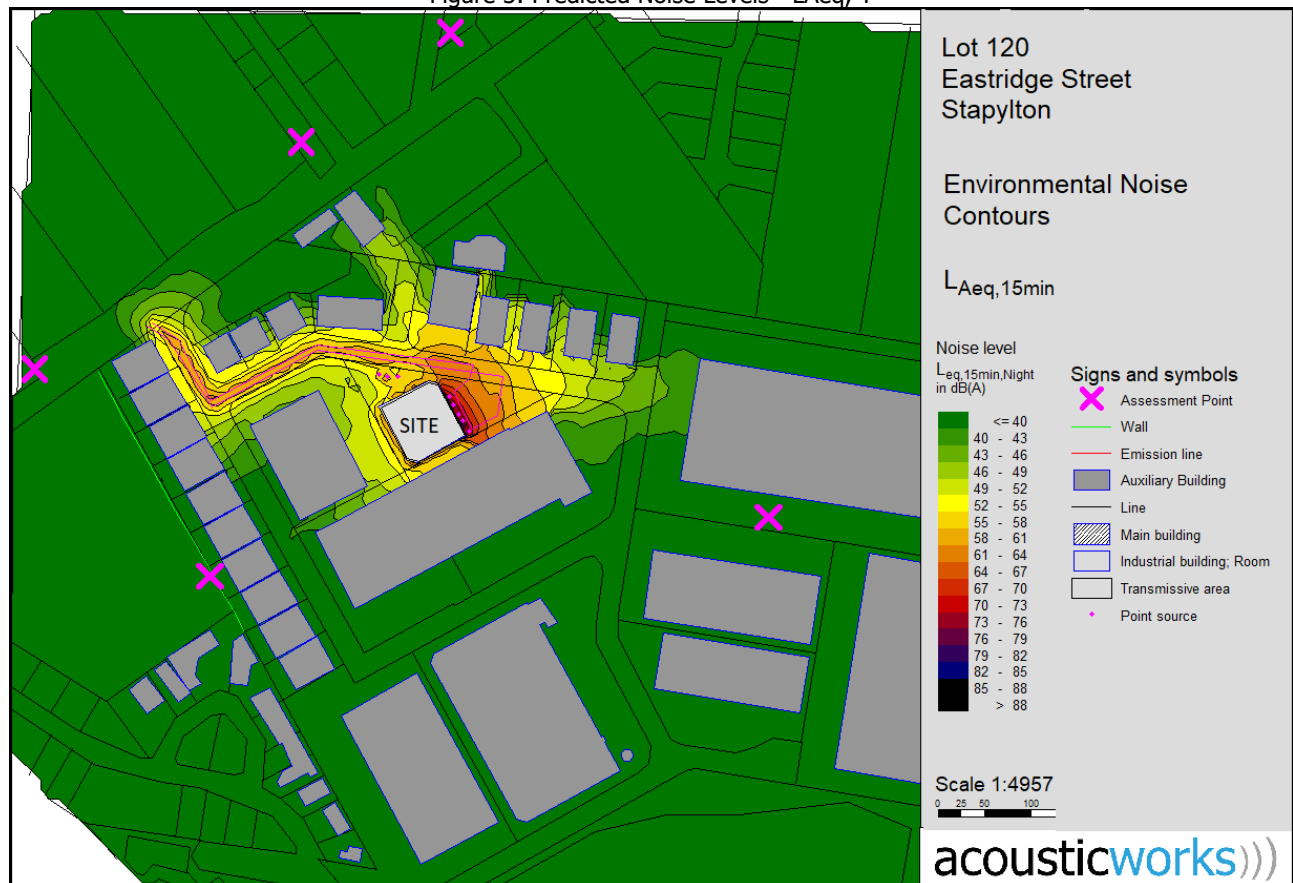
Receiver	Predicted Noise Level, dB(A) Leq, 1 hour		Predicted Noise Level, dB(A) L10, 1 hour		Predicted Noise Level, dB(A) L01, 1 hour		Leq Compliance			LA10 Compliance			LA01 Compliance		
							Day/Eve		Night	Day/Eve		Night	Day/Eve		Night
	External	Internal	External	Internal	External	Internal	External	Internal	Internal	External	Internal	Internal	External	Internal	Internal
Criteria							50	35	30	55	40	35	65	45	40
1. Cedar Drive (west)	31	21	34	24	38	28	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2. 33 Stapylton Jacobs Well Rd (northwest)	32	22	35	25	40	30	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3. Hillside Drive (northeast)	31	21	34	24	39	29	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Compliance is predicted with the external Acoustic Quality Objectives without the need for further acoustic treatment.

7.4 Noise Contour Maps

A noise contour map for the development, utilising the noise data in Table 4, is presented in Figure 3.

Figure 3: Predicted Noise Levels - LAeq, T



8. Recommendations

8.1 Onsite Activities

Compliance is predicted for the proposed 24/7 operation for the site without the need for further acoustic treatment.

8.1.1 Onsite Mechanical Plant

No information regarding any new mechanical services was available at the time of the assessment. We recommend that any new mechanical plant is designed to comply with the criteria stated in Section 6.1.2 with an assessment by qualified acoustic consultant to be conducted prior to installation.

9. Conclusion

An environmental noise assessment was conducted for the proposed warehouse facility at Lot 120 Eastridge Street, Stapylton. On the condition the recommendations detailed in Section 8 are implemented, compliance is predicted with City of Gold Coast assessment criteria.

If you should have any queries please do not hesitate to contact us.

Report Prepared By

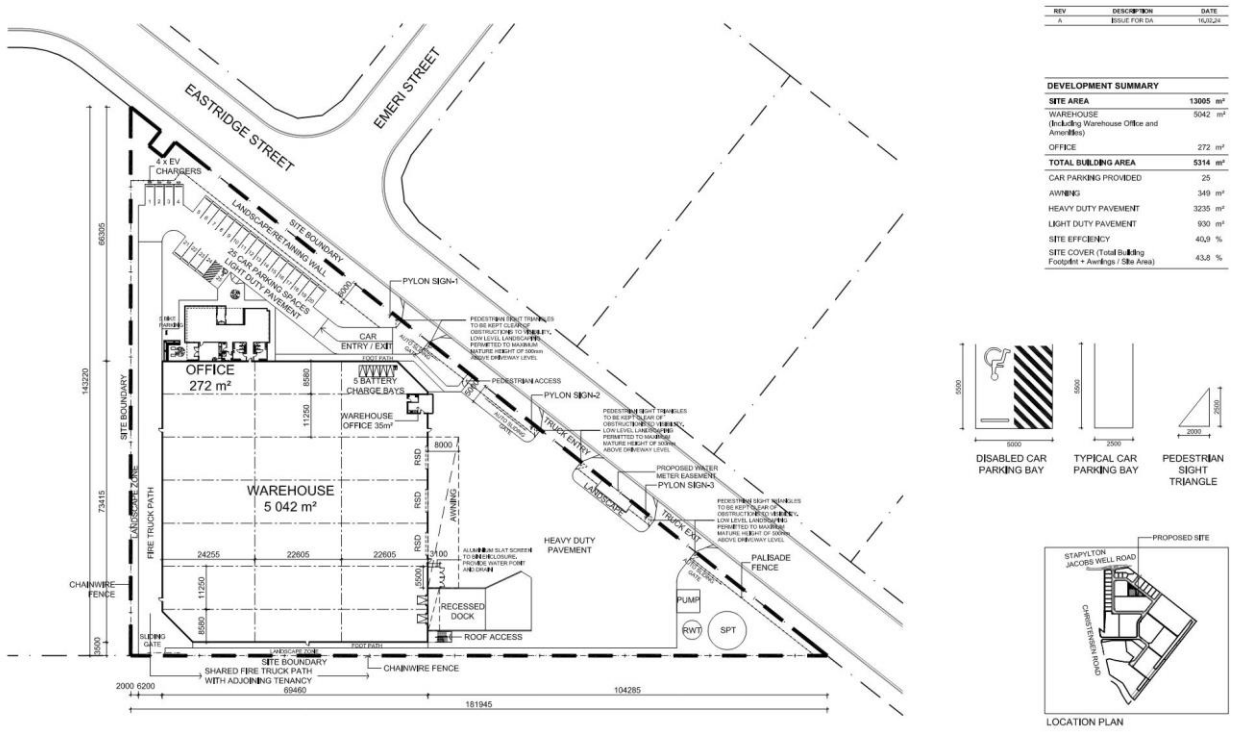


Matthew Bechara M.ArchSci MAAS
Associate Director

acousticworks)))

10. Appendices

10.1 Development Plans



FRASERS PROPERTY
FRASERS PROPERTY INDUSTRIAL
LEVEL 3, 104 MELBOURNE STREET
SOUTH BRISBANE, QLD 4101
P +61 7 3249 7600

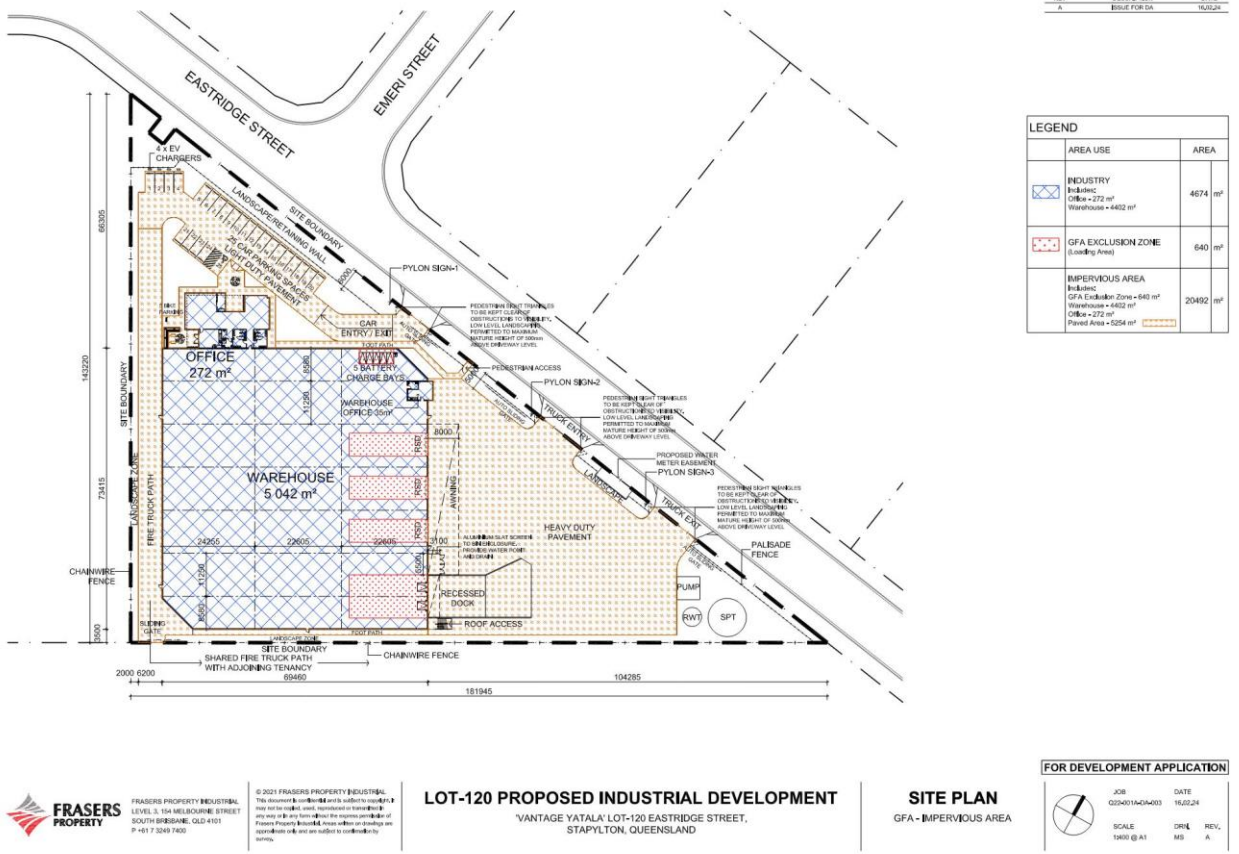
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LOT-120 PROPOSED INDUSTRIAL DEVELOPMENT
VANTAGE YATALA LOT-120 EASTRIDGE STREET,
STAPYLTON, QUEENSLAND

SITE PLAN

FOR DEVELOPMENT APPLICATION

JOB: 03501142-0402 DATE: 16/03/24
SCALE: 1:500 @ A1 DRI: MS REV: A





'VANTAGE YATALA' LOT-120 EASTRIDGE STREET,
STAPYLTON, QUEENSLAND



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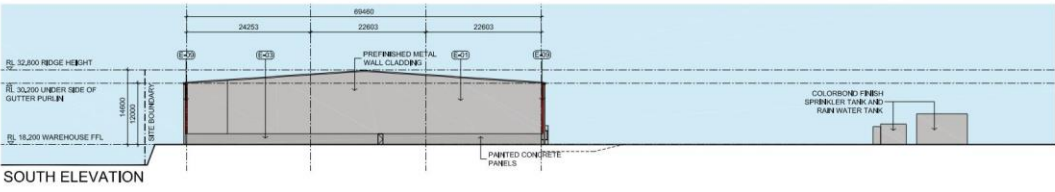
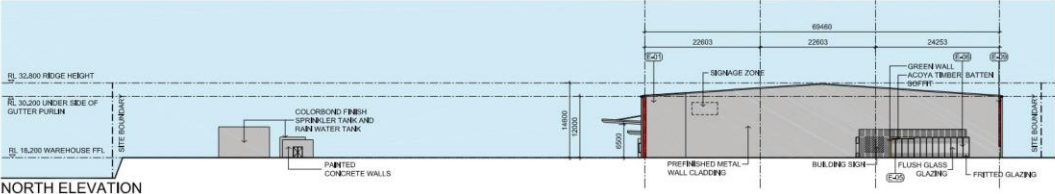
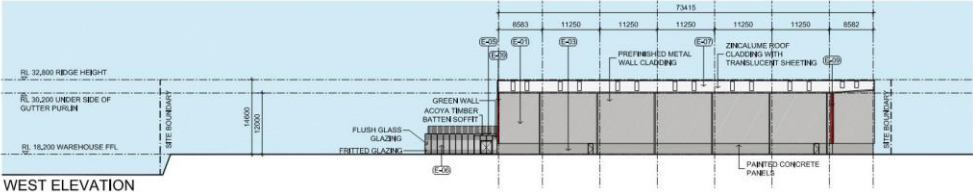
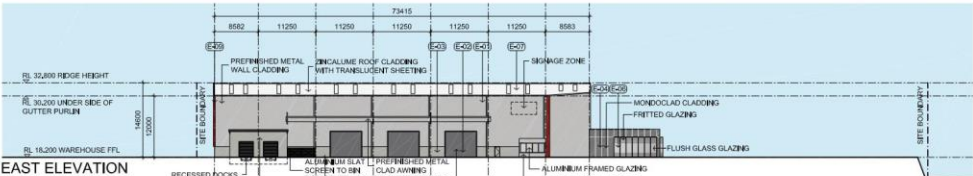
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FOR DEVELOPMENT APPLICATION



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STAPYLTON, QUEENSLAND

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SCALE	DRN
1200 @ A1	KL
	REV.
	A



REV	DESCRIPTION	DATE
A	ISSUE FOR DA	16/02/24

LEGEND

- E-01 WAREHOUSE WALL, GUTTERS, CAPPING, DOWNPIPES, SPRINKLER AND RAINWATER TANK, AWNING COLUMNS AND BRACING - COLORBOND SHALE GREY
- E-02 ROLLER SHUTTER DOORS COLORBOND BASALT MATT
- E-03 DADO PANELS, WAREHOUSE EXIT DOORS AND DOWNPIPES TO MATCH 'EAL703P'
- E-04 OFFICE WALL CLADDING MONOCLAD GRAY METALLIC
- E-05 ACQVA OR APPROVED EQUIVALENT TIMBER CLADDING
- E-06 EXTERNAL GLAZING
- E-07 WAREHOUSE AND OFFICE ROOF ZINCALUME
- E-08 AC CONDENSOR AREA SCREEN ON OFFICE ROOF TO MATCH COLORBOND SHALE GREY
- E-09 WAREHOUSE WALL CLADDING MONOCLAD RED

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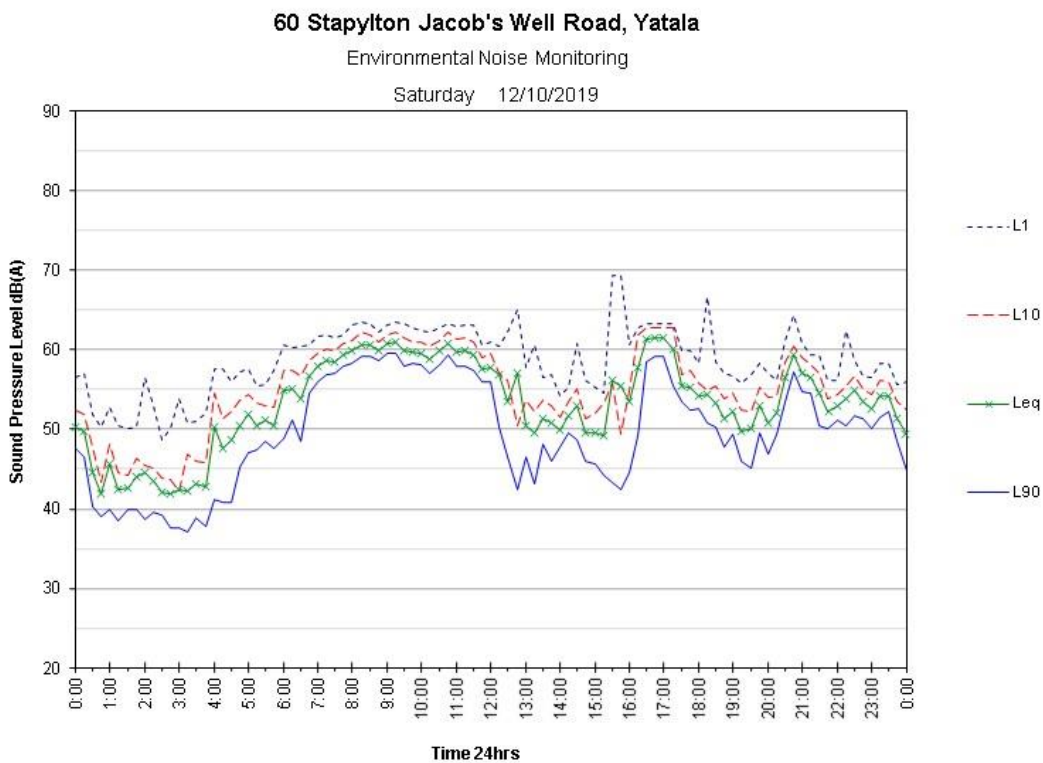
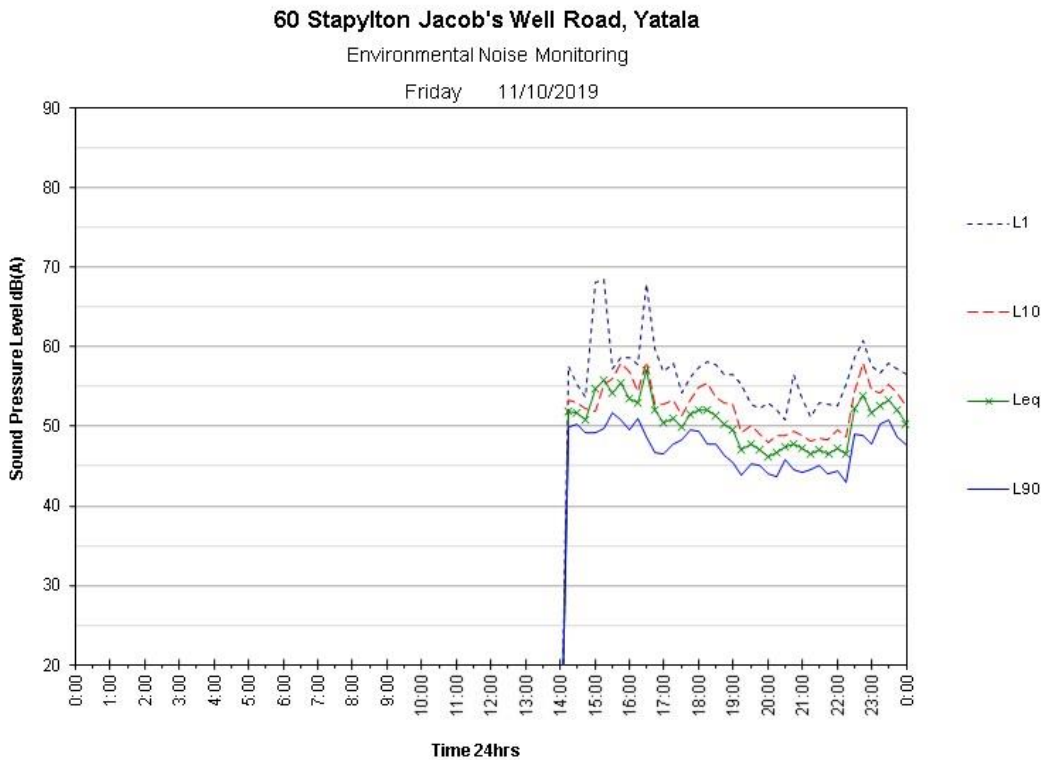
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LEVEL 3, 104 MELBOURNE STREET
SOUTH BRISBANE, QLD 4101
P +61 7 3260 7600

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LOT 120 - PROPOSED INDUSTRIAL DEVELOPMENT
VANTAGE YATALA EASTRIDGE STREET,
STAPYLTON, QUEENSLAND

ELEVATION
FINISHES

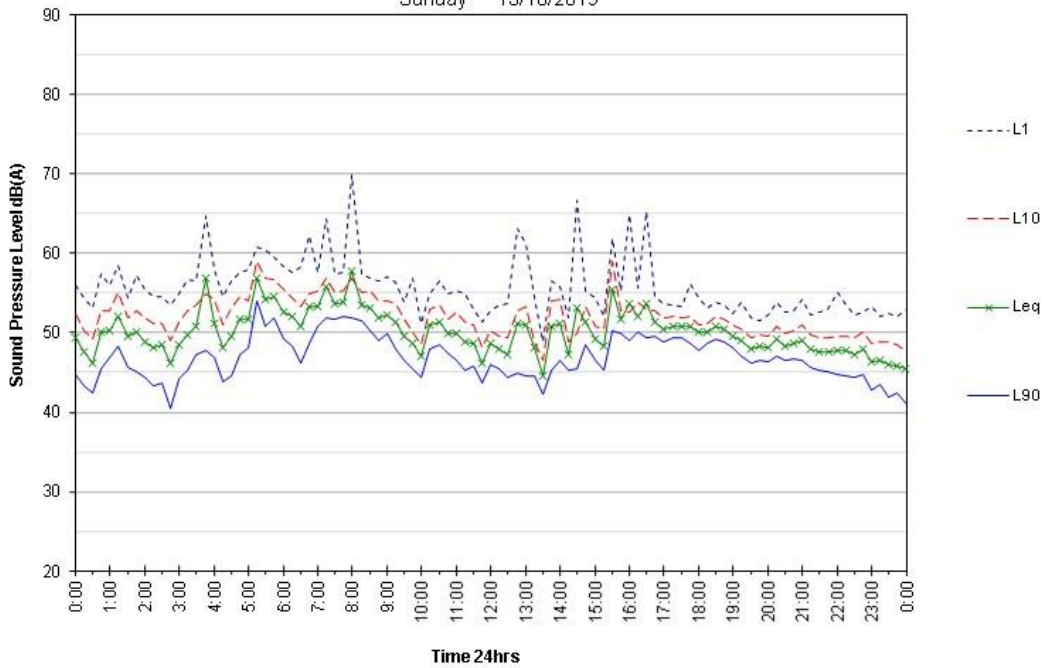
10.2 Noise Monitoring Charts



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

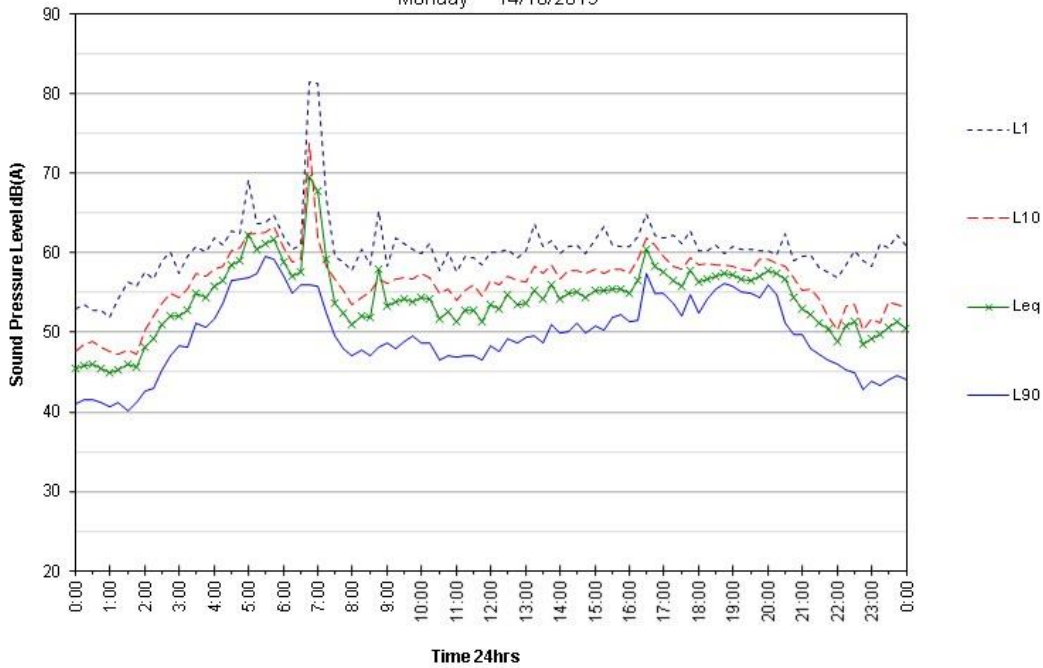
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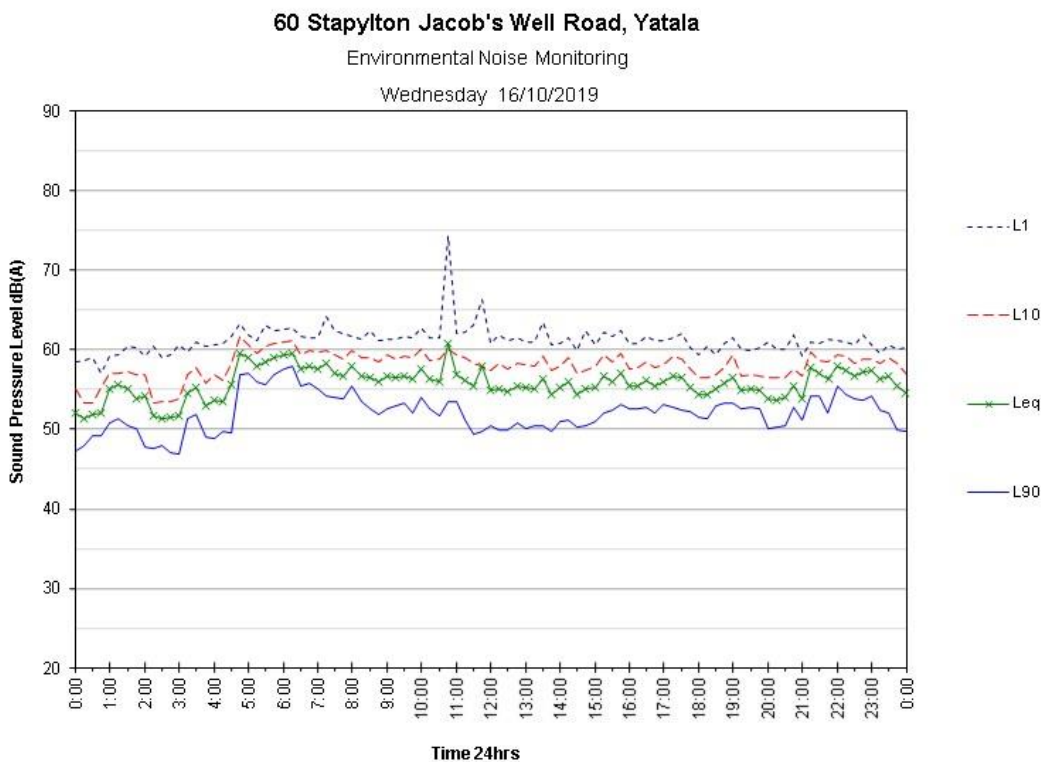
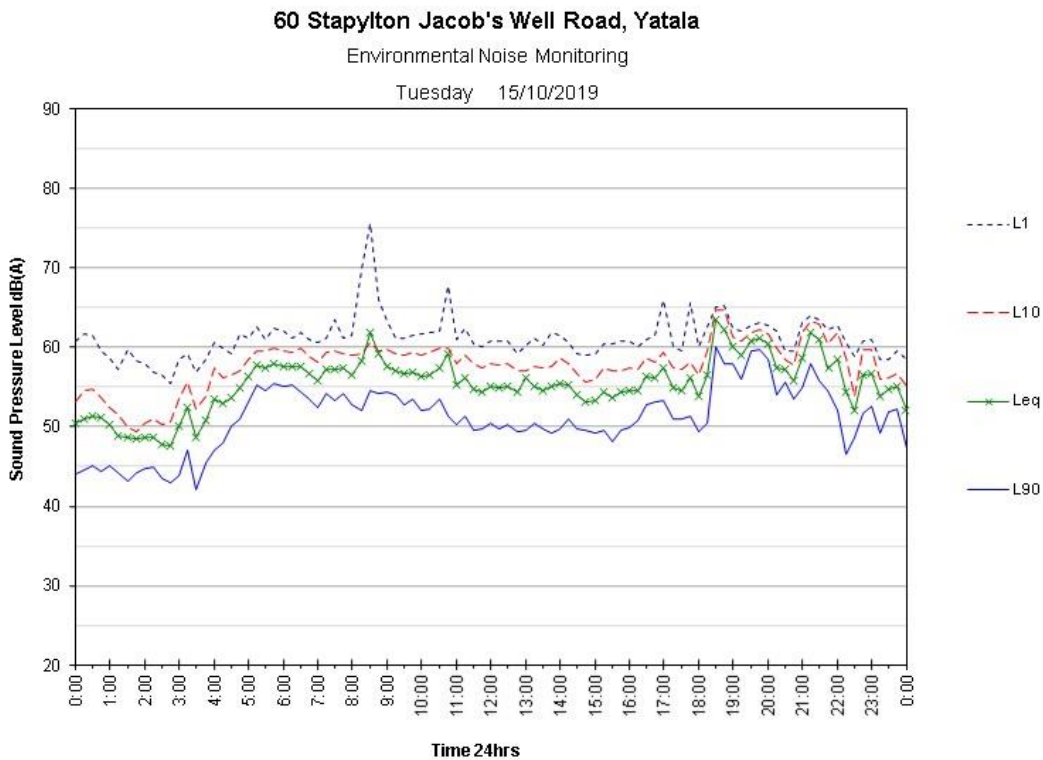


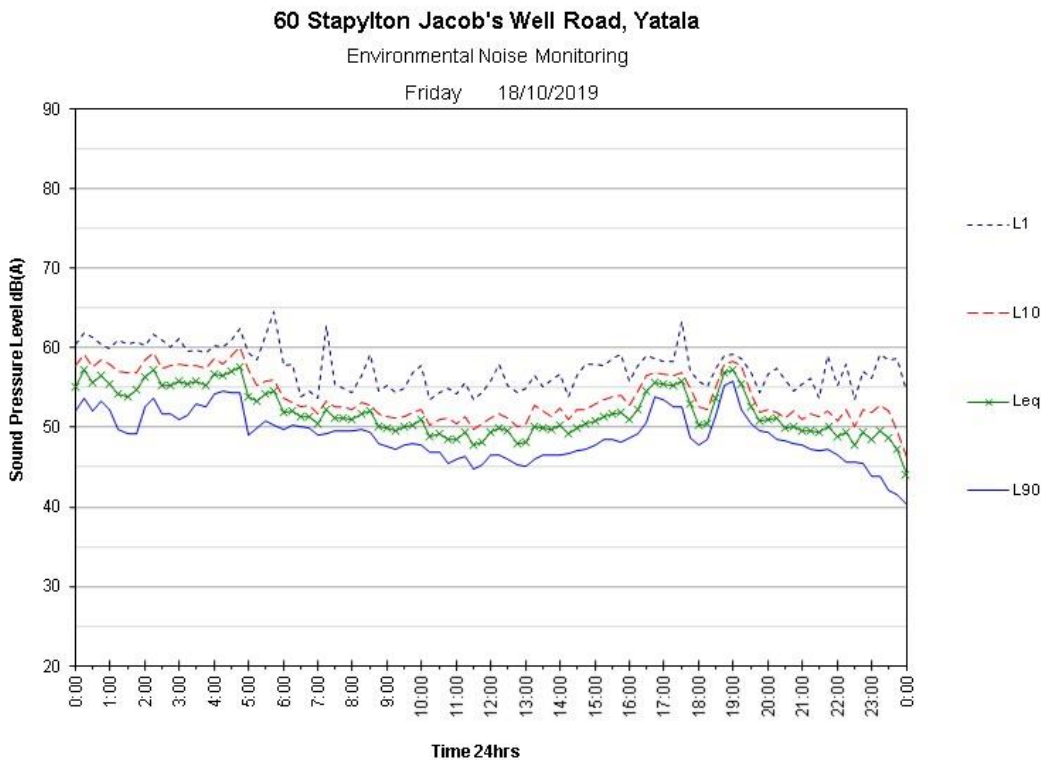
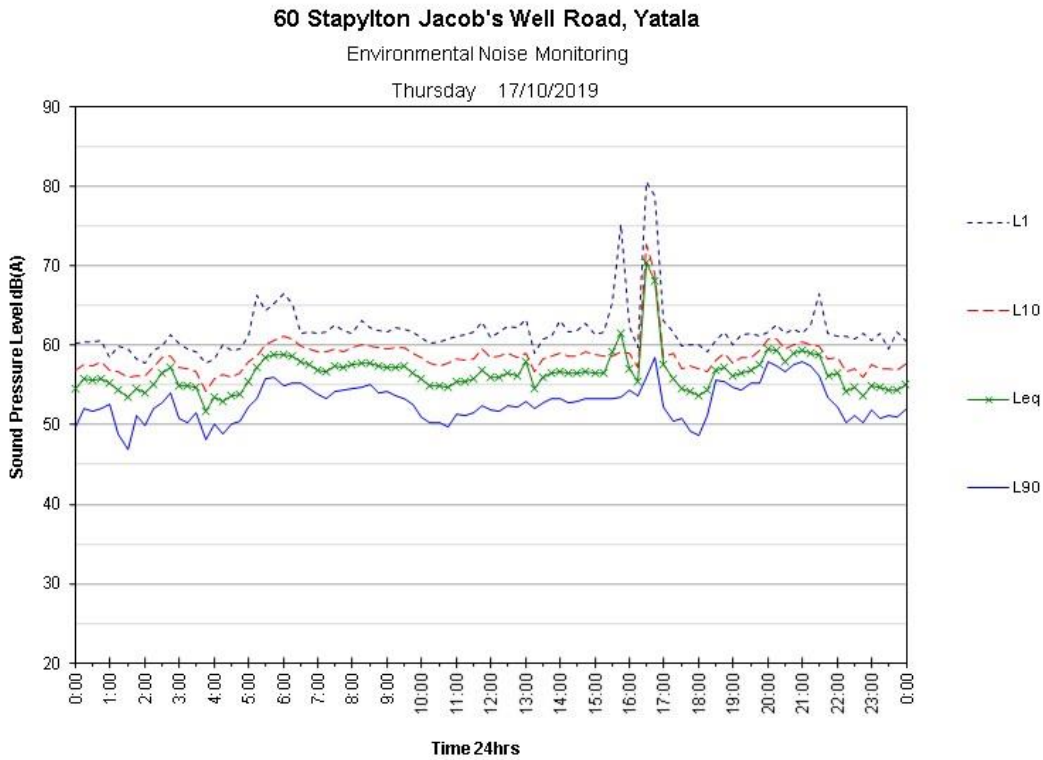
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Environmental Noise Monitoring

Monday 14/10/2019



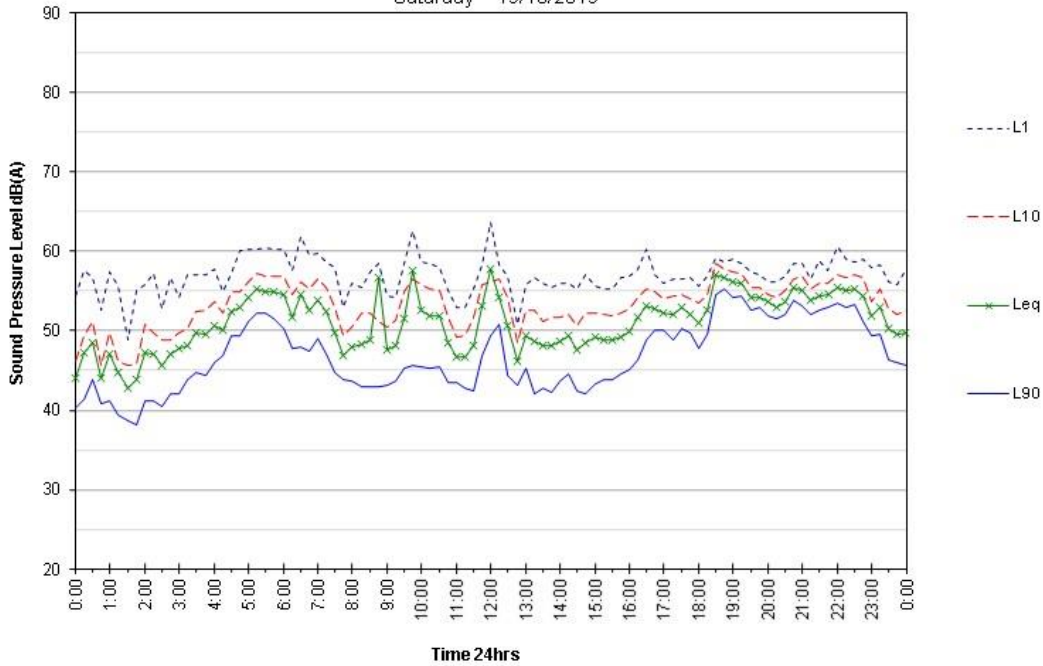




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Environmental Noise Monitoring

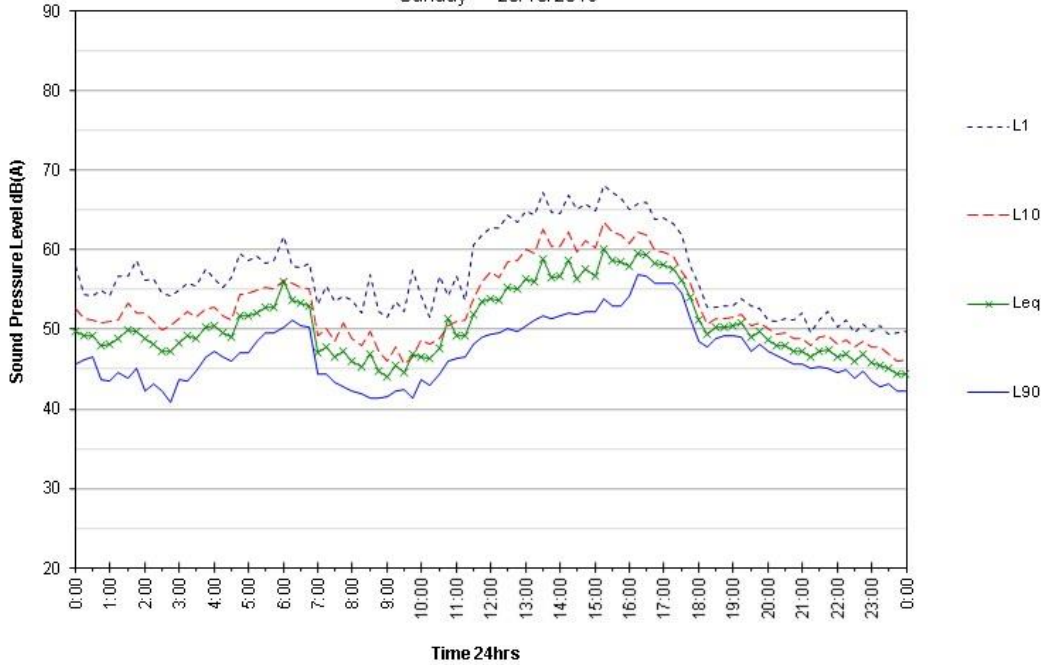
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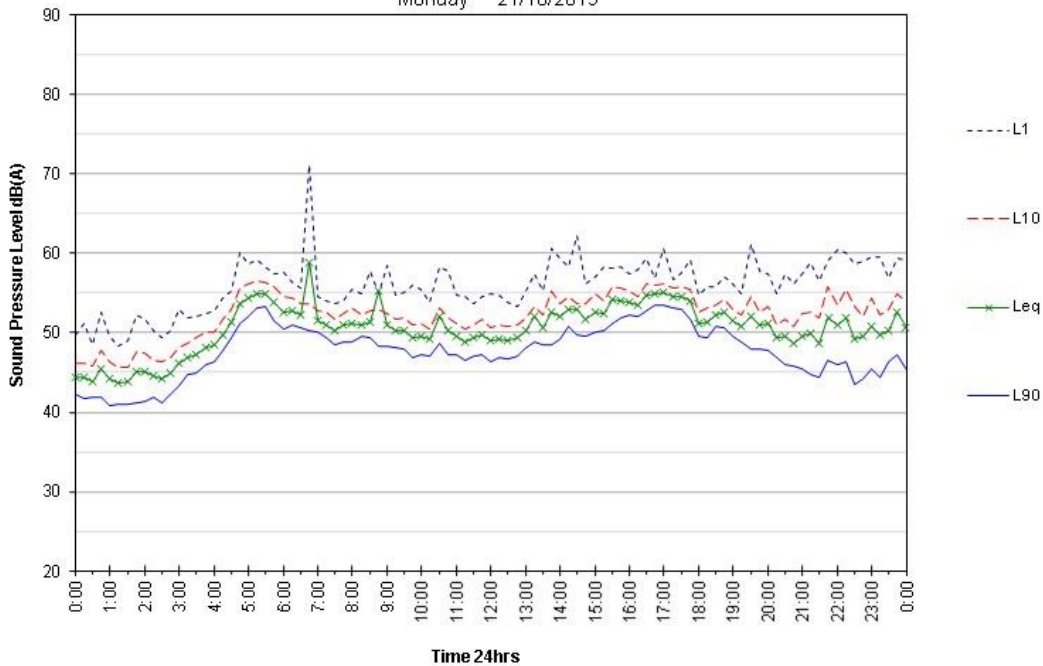
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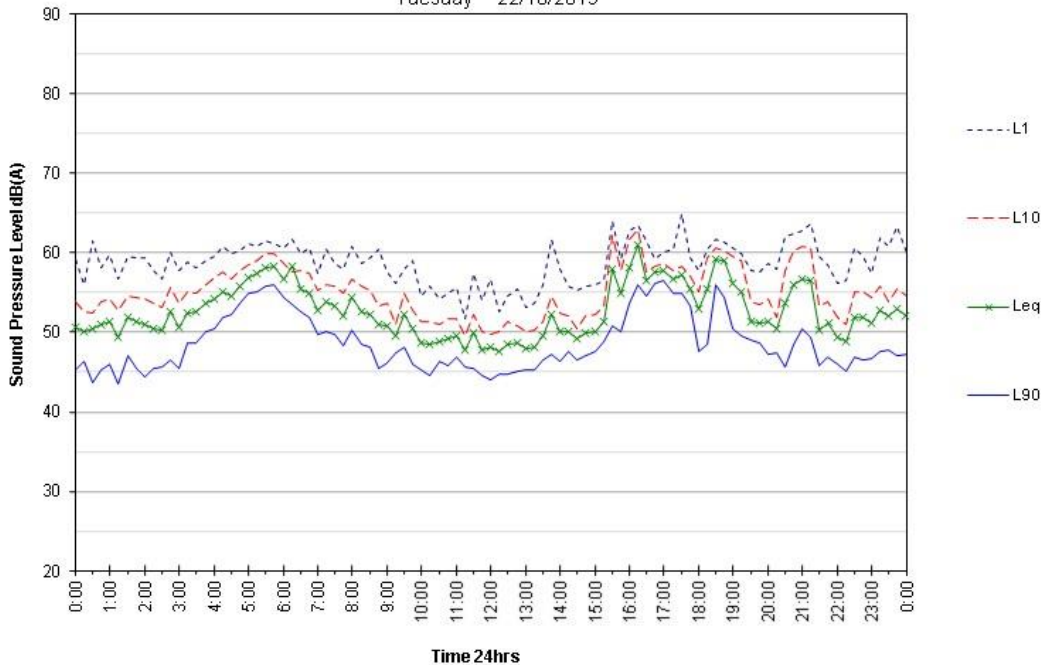
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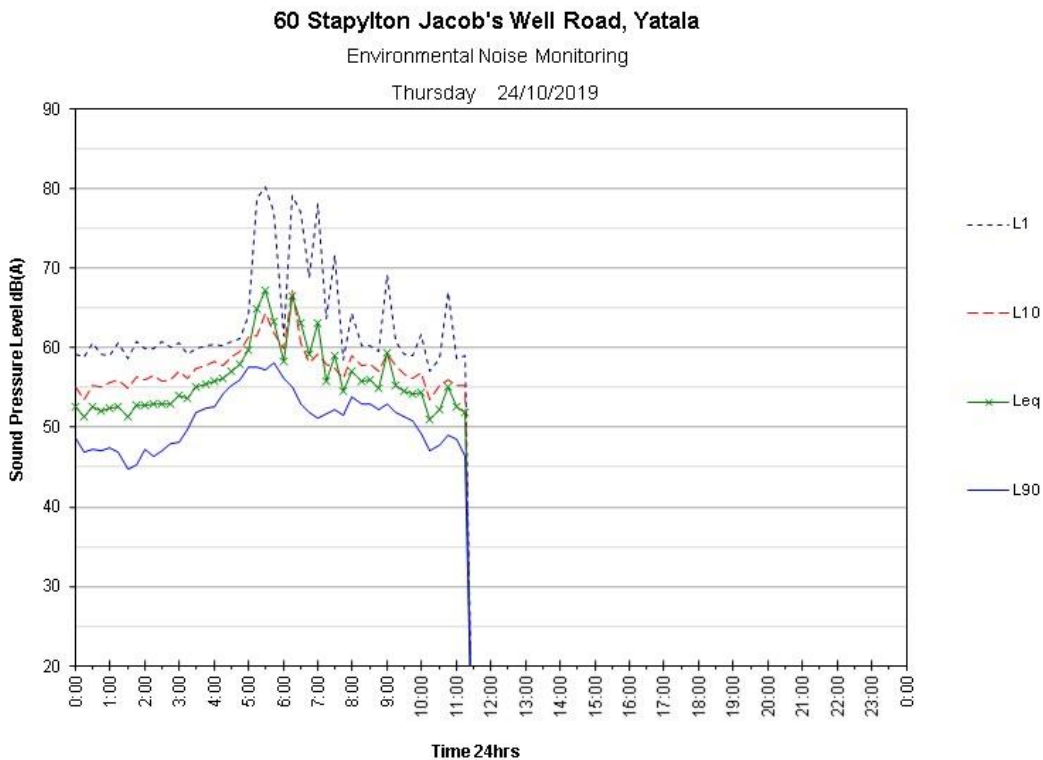
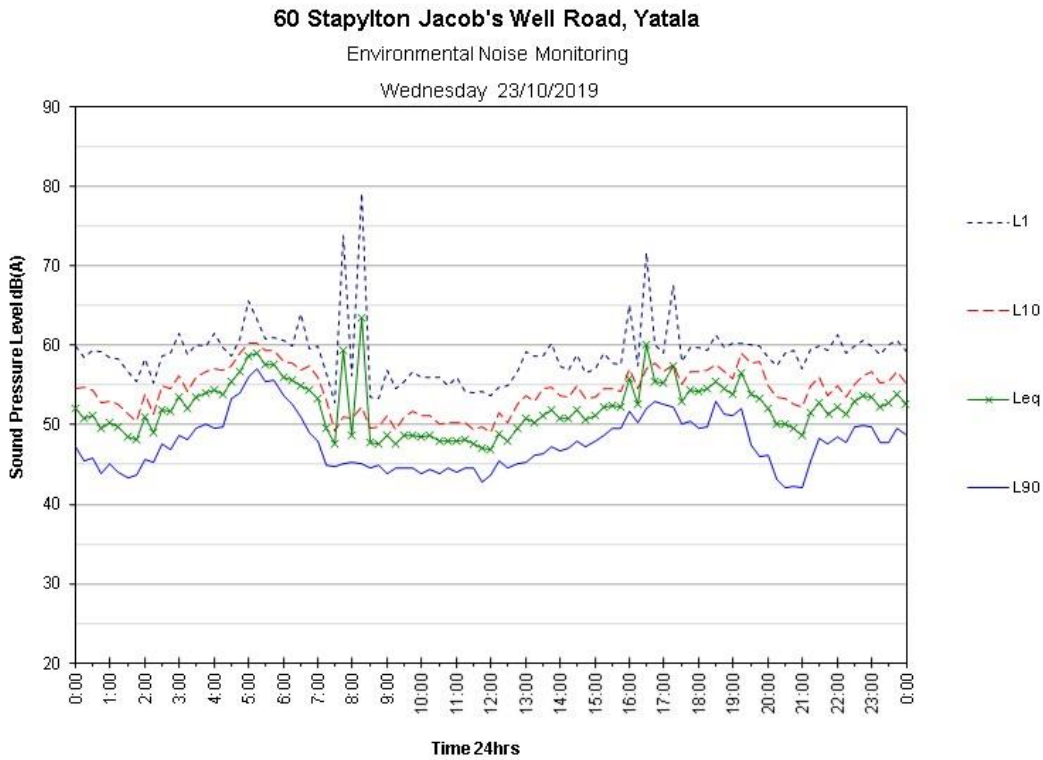


60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

Tuesday 22/10/2019





APPENDIX I

ENGINEERING SERVICES REPORT



gassman
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survey

ENGINEERING SERVICES REPORT

DEVELOPMENT APPLICATION FOR
MATERIAL CHANGE OF USE -
WAREHOUSE (WITH ANCILLARY
OFFICE) AND LOW IMPACT INDUSTRY

ADDRESS

11 Eastridge Street, Stapylton

REAL PROPERTY DESCRIPTION

Lot 120 on SP329476

PREPARED FOR

FPI Queensland Pty. Ltd.

February 2024



gassman
development
perspectives

project coordination
urban + regional planning
landscape + urban design
engineering services
environmental management
visualisation + spatial services
surveying services
advisory services

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Postal Address:	PO Box 392 Beenleigh. Q. 4207	Document Title:	Engineering Services Report
Phone:	+61 7 3807 3333	Author:	Thais Prata
Fax:	+61 7 3287 5461	Client:	FPI Queensland Pty Ltd
Email:	mail@gassman.com.au	Client Contact:	-
Web:	www.gassman.com.au	Client Reference:	N/A

Revision / Checking History

No.	Author	Reviewer
DRAFT	Thais Prata	Mitchell Gassman
1.	Thais Prata	Mitchell Gassman

Approval for Issue

Rev. No.	Name	Position	Signature	Date
1.	Mitchell Gassman	Civil Project Engineer RPEQ 16939		23 February 2024

Final Distribution

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Council of the City of Gold Coast (Assessment Manager)	1 electronic copy
GDP File	1 electronic copy

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1.0 INTRODUCTION

Gassman Development Perspectives (GDP) has been engaged by FPI Queensland Pty Ltd (Client) to prepare an Engineering Services Report over land situated at 11 Eastridge Street, Stapylton, QLD 4207 (Lot 120 on SP329476) being the 'subject site'.

This report has been prepared for submission to Gold Coast City Council (Council) as part of a development application requesting a Development Permit for a Material Change of Use (with ancillary office) and Low Impact Industry.

The proposal seeks to establish an industrial facility over Lot 120, created within existing Stage 1 of the Vantage Yatala Industrial Estate. This development will be in the form of a warehouse and seeks to provide for a future industrial user within the Vantage Yatala estate, as well as being equipped with an office/administration space, refer to **Appendix A** for the proposed Site Plan.

An extract of the proposed development is shown within **Figure 1.1** below. The purpose of this report is to supply information relating specifically to civil engineering infrastructure, services and issues over the subject site and how proposed warehouse can be managed through either the use of existing or minor augmentation to the existing Vantage Stage 1 civil infrastructure.

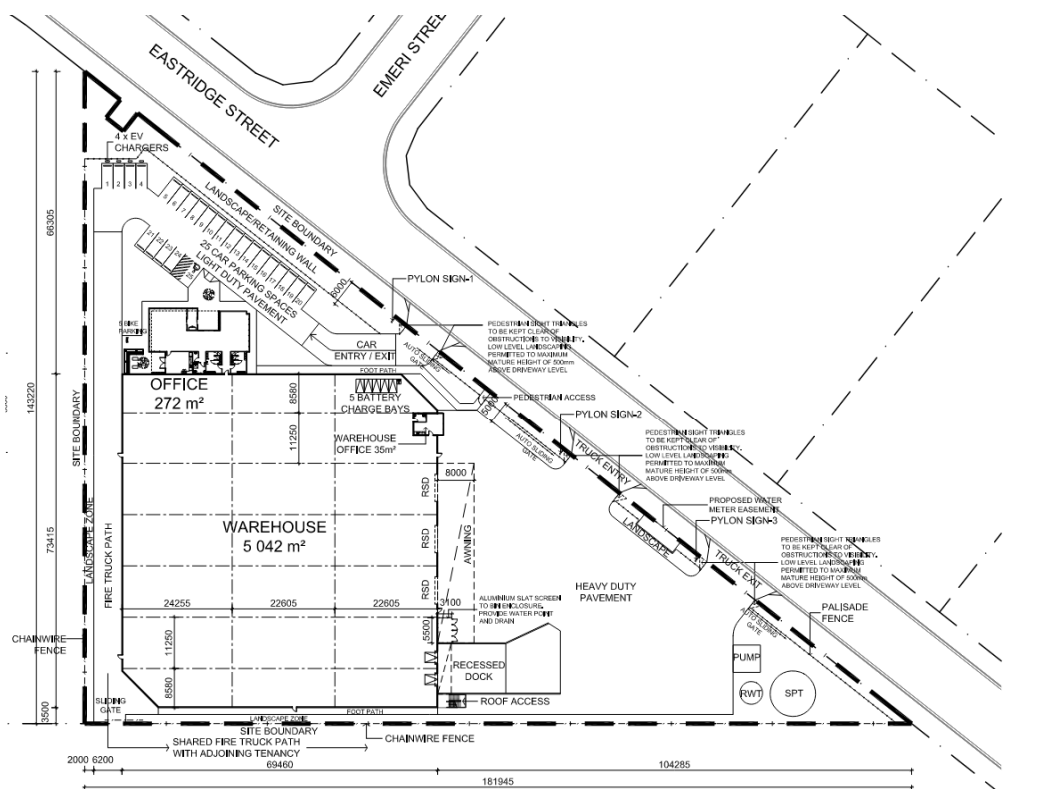


Figure 1.1: Proposed Plan of Development, Source: FPI Site Plan

2.0 SITE DESCRIPTION

2.1 SITE LOCATION

The subject site is located within the City of Gold Coast Council's (Council) local government boundaries, in Council's "Future Low Impact Industry" zone precinct. The subject site is bounded by Eastridge Street to the north, Lot 122 to the west and Lot 121 to the south which are either utilised for or intended to be utilised for industrial (refer to **Figure 2.1**).



Figure 2.1: Site Locality Plan, Source: QLD Globe (February 2024)

2.2 LAND ENCUMBRANCES

There are no existing encumbrances over the subject site.

2.3 EXISTING LAND USES

The subject land is currently vacant, cleared, and with civil construction prepared to accommodate future uses and developments, via bulk earthworks and the inclusion of lot-based civil infrastructure.

2.4 TOPOGRAPHY

The overall development site has undergone significant earthworks and civil works as part of delivery of Vantage Yatala Stage 1 which provides the current generally flat and serviced industrial Lot 120 which grades out towards Eastridge Street.

2.5 EXISTING VEGETATION

The subject site is clear of vegetation.

2.6 CONTAMINATED LAND

The subject site is not known to be contaminated.

3.0 EARTHWORKS

Due to the existing topography of the development site major bulk earthworks were undertaken as part of Stage 1 of the development to provide generally flat pads suitable for the intended industrial use based on the ROL-approved lot layout (Council Ref: COM/2020/262).

A further detailed bulk earthworks strategy has been developed for the specific Lot 120 layout by Gassman Development Perspectives in order to establish suitable grades for access, hardstand and carparking are achieved along with suitable collection and outfall of stormwater drainage in line with the development's overarching SWMP. A copy of the detailed bulk earthworks strategy and site grading is contained within **Appendix C** of this report.

4.0 ROADWORKS AND ACCESS

Stage 1 of Vantage Yatala which contains Lot 120 gains access via two (2) locations being the existing approved road network State-controlled Stapylton Jacobs Well Road via a signalised intersection along with a secondary connection to the local road network (Christensen Road) through recently constructed stage 2A of the development. Due to the subject site's proximity to Exit 38 of the M1 Motorway the conceptual design of the Christensen Road external intersection has included access provisions for A-Double vehicular movements into the development. The Stage 1 road network of Vantage Yatala, including Eastridge Street, is a gazetted B-Double route with NHVR.

In accordance with the superseded planning scheme approval in place over the development site, the public road network fronting Lot 120 is constructed in accordance with the typical cross section shown on Council standard drawing 05-02-004 for an Industrial Collector Street (refer **Figure 4.1** below). The development's road geometry is designed and constructed to accommodate A-Double vehicular movements.

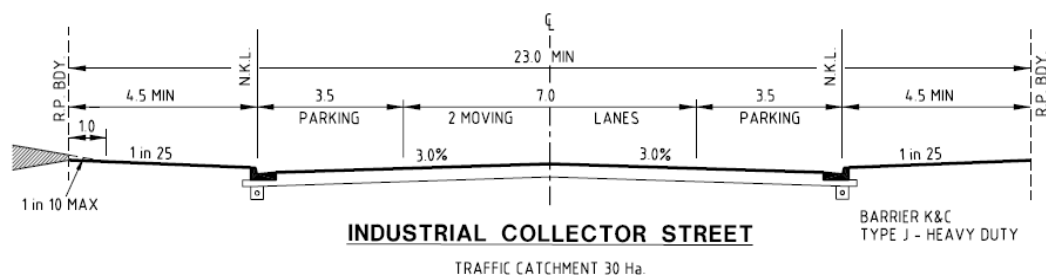


Figure 4.1: Proposed Internal Roads Cross Section, Source: CoGC Std Dwg 05-02-004

Lot 120 and its proposed warehouse facility has a single frontage to Eastridge Street as demonstrated within the proposed site plan contained within **Appendix A**. All proposed vehicular crossovers are located in compliant locations and sized to suit the industrial nature in which they will be used. The proposed finished surface levels for the warehouse shown in **Appendix B** ensure compliant grades are achieved throughout the proposed warehouse carparks and surrounding hard stand areas as per AS2890.2 Off-street commercial vehicle facilities.

5.0 INFRASTRUCTURE SERVICES

5.1 SEWERAGE

Lot 120 has an existing 150mm diameter property connection available to utilise in connecting to CoGC's gravity sewer infrastructure network, as demonstrated in **Figure 5.1** below. This existing sewer infrastructure is live and On Maintenance with CoGC as part of Vantage Yatala Stage 1 civil works. The location of the existing sewer network connection relative to the proposed site layout is shown in the Civil Servicing Strategy Plan contained within **Appendix B**.

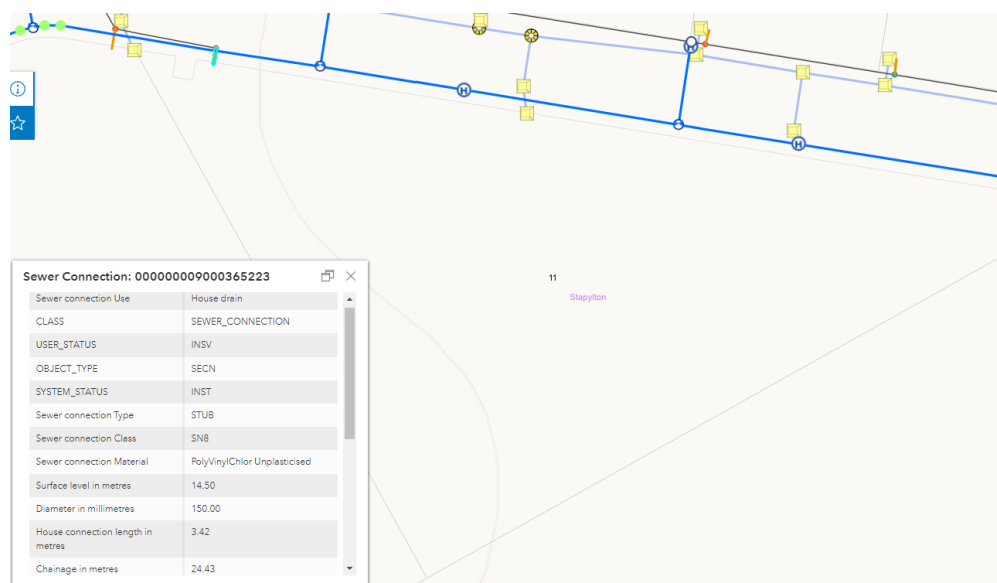


Figure 5.1: Sewer - CoGC Infrastructure Assets Map, Source: February 2024

5.2 WATER SUPPLY

The subject site is currently connected to CoGC Water Infrastructure network, as **Figure 5.2** below. This potable water reticulation network is live and On Maintenance with CoGC and as part of Stage 1 of the Vantage Yatala Industrial Estate (Council Ref: MIN/2021/95, Decision Notice dated 21 June 2021). The existing provisions of the industrial development facilitate the proposed warehouse lot layout and as such no augmentation of the existing potable water main is required to facilitate the development.

Suitable spatial provisions for the location of the above ground water meters and their associated access easement requirements needed to service the subject lot from a potable and fire main perspective. The proposed connection location is noted within the Engineering Servicing Strategy Plan contained within **Appendix B**.

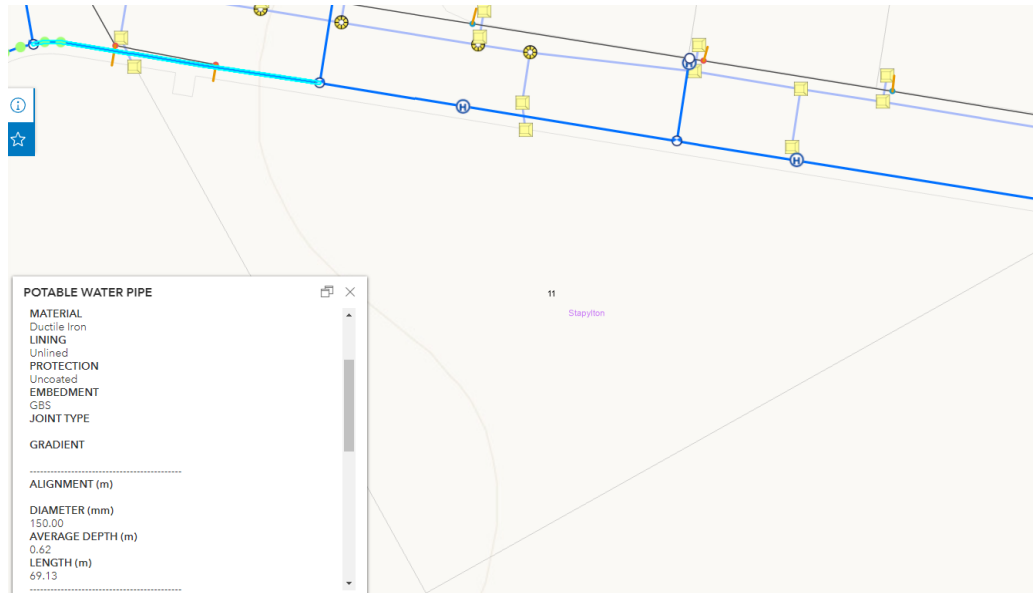


Figure 5.2: Water - CoGC Infrastructure Assets Map, Source: February 2024

5.3 ELECTRICITY AND TELECOMMUNICATIONS

Stage 1 of the Vantage Yatala industrial development has underground reticulated electrical and telecommunications (NBN) networks approved and constructed by the relevant service authorities including electrical and communications reticulation to Lot 120's road verge frontage. Lot 120 currently has a truncation in the northern corner of the allotment containing a pad mount transformer installed as part of the wider subdivision creation.

The adequacy of this infrastructure in its current form along with the necessity for any augmentation or upgrades to cater for the proposed use will be confirmed through the detailed design process by the appointed electrical consultant.

6.0 SITE BASED STORMWATER MANAGEMENT

A stormwater drainage network will be constructed within the Lot 120 extent to ensure the proposed warehouse facility and associated hardstand areas discharge to the OPW-approved (Council-ref: MIN/2021/95) Legal Points of Discharge (LPoD) on Eastridge Street. A preliminary layout of this internal network and how it connects to the existing Vantage Yatala stormwater drainage network is shown on the Civil Servicing Strategy Plan contained within **Appendix B**.

6.1 STORMWATER QUANTITY

A Site Based Stormwater Management Plan (SWMP) has been prepared by Gassman Development Perspectives (Version 5, dated 27 January 2022) and approved by Council as part of the Reconfiguration of Lot approval covering Lots 120-122 within the development (Council Ref: COM/2020/13). This report demonstrates that attenuation measures are able to be incorporated into the proposed development at a regional level to ensure there is no adverse impacts to downstream properties, waterways or infrastructure occur as a result of an increase in peak stormwater flow rates discharging from the subject site upon development.

This is achieved through the detailed design and implementation of appropriately sized detention basin for Stage 1 that comply with City of Gold Coast Council's Land Development Guidelines along with the Queensland Urban Drainage Manual (QUDM). It is noted that there is no increase in overall size in contributing catchment to the Stage 1 which would trigger the need to augment the regional stormwater quantity measures in place for the development.

Lot 900 on SP316137 to the north of Lot 120 contains the regional bio-retention basin constructed as part of Stage 1 of Vantage Yatala for which Lot 120 is part of the contributing catchment.

6.2 STORMWATER QUALITY

A suitable stormwater treatment drain was implemented as part of the construction of Vantage Stage 1. A Site Based Stormwater Management Plan (SWMP) has been prepared by Gassman Development Perspectives (Version 5, dated 27 January 2022) approved by Council as part of the Reconfiguration of Lot approval covering Lots 120-122 within the development (Council Ref: COM/2020/13) outlining how all necessary steps to ensure that the quality of stormwater discharging from the subject site meets the necessary standards to comply with City of Gold Coast Council's Water Sensitive Urban Design (WSUD) requirements, Queensland Urban Drainage Manual (QUDM) and the performance objectives of the Queensland State Planning Policy (SPP). This SWMP demonstrates stormwater quality measures for the development are to be implemented at a regional level

7.0 CONCLUSION

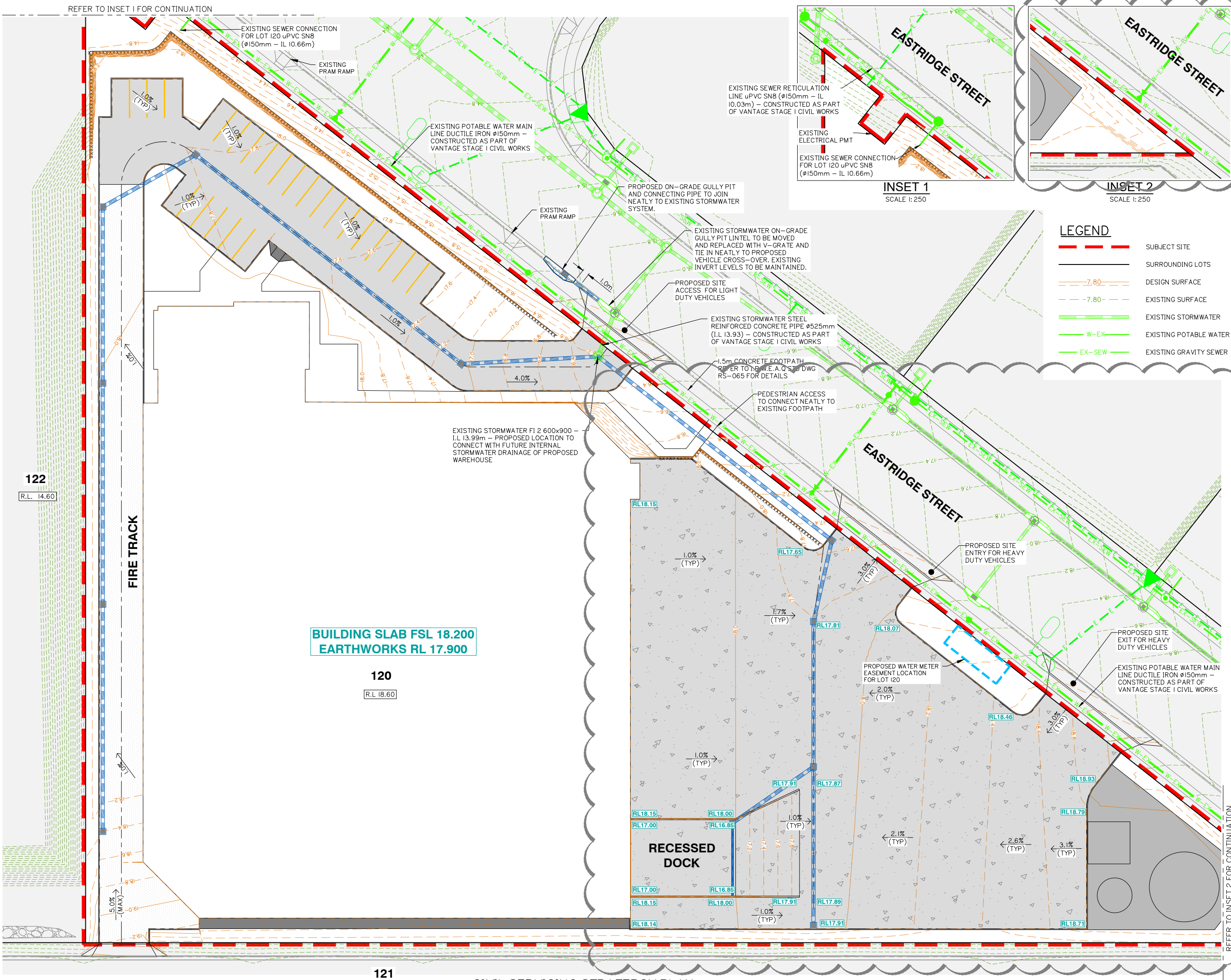
Gassman Development Perspectives have prepared this Engineering Services Report to support an application for a Development Permit for a Material Change of Use (with ancillary office) and Low Impact Industry over Lot 120 on SP329476 (11 Eastridge Street, Stapylton).

The above reporting demonstrates that proposed warehouse development can be undertaken through the construction of Civil Engineering infrastructure and services that meet the requirements of City of Gold Coast City Council's Land Development Guidelines and associated Australian Standards.

Appendix A – Lot 120 Site Plan - Proposed Industrial Development

Appendix B – Lot 120 Civil Servicing Strategy Plan

G:\Projects\6181\ENGINEERING\ASAD\CURRENT\SP\6181 ENG SP 001.dwg



Client:

FRASERS PROPERTY
QUEENSLAND (PTY LTD)

Project:

LOT 120 EASTRIDGE
STREET WAREHOUSE

Site Address:

LOT 120 on SP329476
EASTRIDGE STREET
STAPYLTON

RPD:

Lot: 120
Plan: SP329476
Local Authority: CoCG

Level Datum: -
Meridian: -
PSM: -
RL: -

FOR INFORMATION

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THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES.

Drawing Title:

CIVIL SERVICING
STRATEGY PLAN

B	23/02/24	VXO RELOCATED	JH	MG
A	12/02/24	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	JH	MG
			DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

Scale:



1:250 (FULL SIZE A1)
1:500 (HALF SIZE A3)

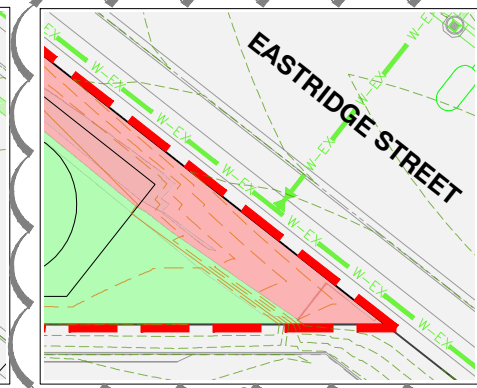
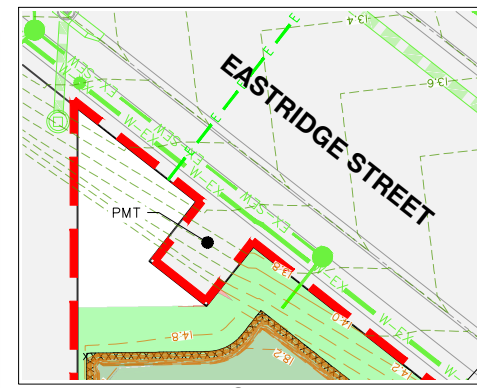
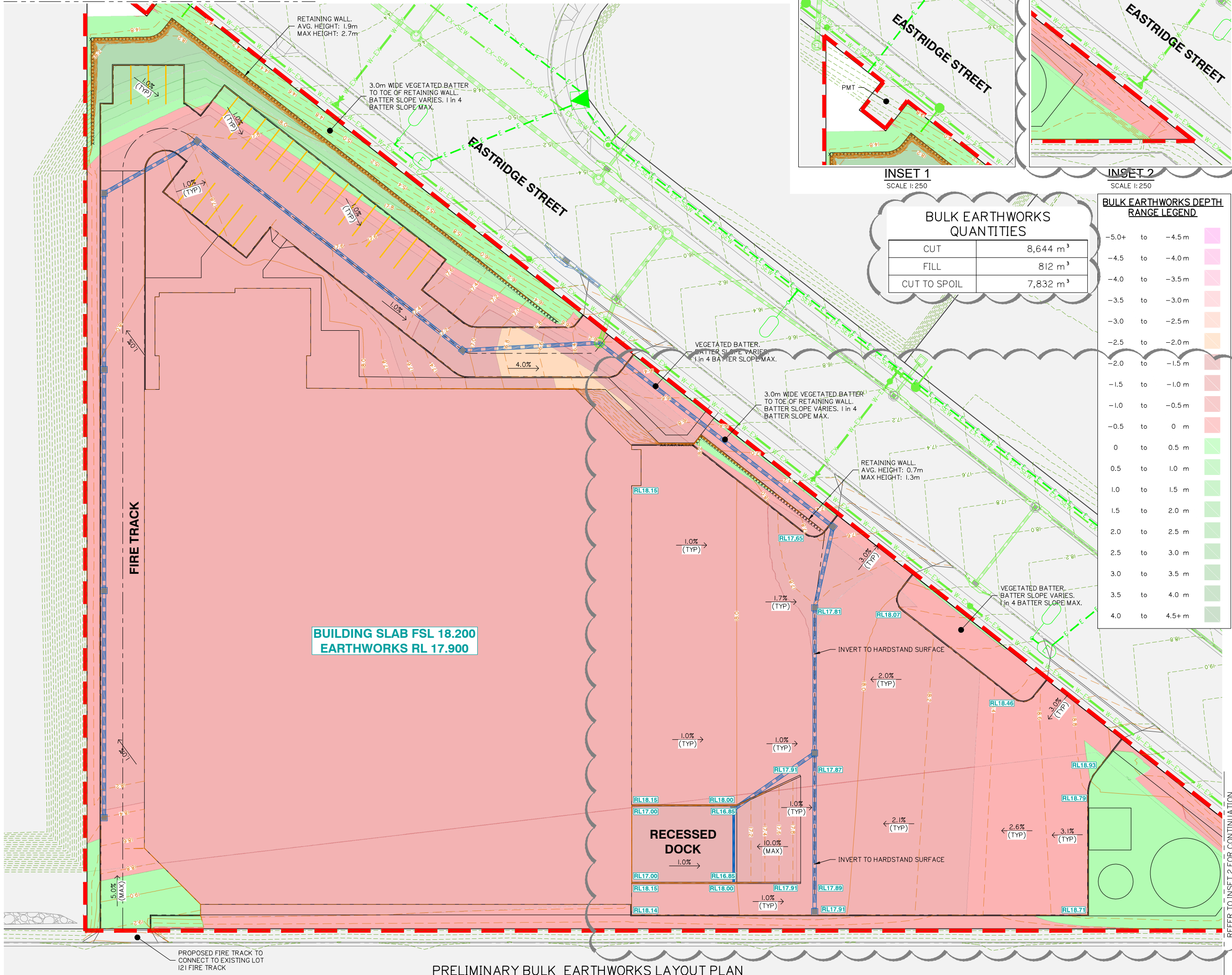
PROJECT NORTH POINT



Project No:	6181	
Designed:	JH	Drafted: JH
Approved:		MG
RPEQ		16939
Signed:		
Date:		23/02/2024
Drawing No:	6181 ENG SP 001	Revision: B

Appendix C – Lot 120 Detailed Earthworks Strategy Plan

REFER TO INSET 1 FOR CONTINUATION



BULK EARTHWORKS QUANTITIES	
CUT	8,644 m ³
FILL	812 m ³
CUT TO SPOIL	7,832 m ³

BULK EARTHWORKS DEPTH RANGE LEGEND	
-5.0+ to -4.5 m	
-4.5 to -4.0 m	
-4.0 to -3.5 m	
-3.5 to -3.0 m	
-3.0 to -2.5 m	
-2.5 to -2.0 m	
-2.0 to -1.5 m	
-1.5 to -1.0 m	
-1.0 to -0.5 m	
-0.5 to 0 m	
0 to 0.5 m	
0.5 to 1.0 m	
1.0 to 1.5 m	
1.5 to 2.0 m	
2.0 to 2.5 m	
2.5 to 3.0 m	
3.0 to 3.5 m	
3.5 to 4.0 m	
4.0 to 4.5+ m	

Client:

**FRASERS PROPERTY
QUEENSLAND (PTY LTD)**

Project:

**LOT 120 EASTRIDGE
STREET WAREHOUSE**

Site Address:

**LOT 120 on SP329476
EASTRIDGE STREET
STAPYLTON**

RPD:

Lot: 120
Plan: SP329476
Local Authority: CoCG

Level Datum: -
Meridian: -
PSM: -
RL: -

FOR INFORMATION

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Drawing Title:

**PRELIMINARY BULK
EARTHWORKS LAYOUT
PLAN**

Rev	Date	Description	JH	MG
B	23/02/24	VXO RELOCATED	JH	MG
A	12/02/24	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	JH	MG

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

Scale:

0 2.5 5.0 7.5 10 12.5m

1:250 (A1) 1:500 (A3)

PROJECT NORTH POINT	
Project No. 6181	
Designed: JH	Drafted: JH
Approved:	MG
RPEQ	16939
Signed:	
Date:	23/02/2024
Drawing No: 6181 ENG SK 001	Revision: B

APPENDIX J

ENGINEERING CHANGE TO GROUND LEVEL PLANS



gassman
development
perspectives

planning
environment
landscape
engineering
survey

OPERATIONAL WORKS FOR CHANGE TO GROUND LEVEL

DRAWING INDEX		
DRAWING No.	REV No.	DRAWING TITLE
6181 ENG BE 001	A	DRAWING INDEX AND LOCALITY PLAN
6181 ENG BE 002	A	GENERAL NOTES
6181 ENG BE 004	A	LEGEND
6181 ENG BE 010	A	EXISTING SURFACE LAYOUT PLAN
6181 ENG BE 050	A	SEDIMENT AND EROSION CONTROL TYPICAL DETAILS
6181 ENG BE 051	A	SEDIMENT AND EROSION CONTROL PLAN
6181 ENG BE 100	A	BULK EARTHWORKS CUT AND FILL PLAN
6181 ENG BE 120	A	FINISHED SURFACE LEVEL PLAN
6181 ENG BE 150	A	FINISHED SURFACE LEVEL CROSS SECTIONS
6181 ENG BE 200	A	RETAINING WALL CONTROL LINE AND SETOUT TABLES
6181 ENG BE 210	A	RETAINING WALL TYPICAL DETAILS
6181 ENG BE 211	A	RETAINING WALL LONGITUDINAL SECTIONS



LOCALITY PLAN
SCALE 1:2000 (A1)

CLIENT



FPI QUEENSLAND PTY. LTD.

VantageYatala

SITE ADDRESS

LOT 120 on SP316137
EASTRIDGE STREET
STAPYLTON, QLD 4207

1. CONTRACT DOCUMENTATION
ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATION AND CoGC STANDARD DRAWINGS AND SPECIFICATIONS.
2. DATUM
LEVELS SHOWN ON THE PLANS ARE A.H.D.
3. SURVEY SETOUT
THE SURVEY SET OUT INFORMATION TO ALLOW THE CONTRACTOR TO ACCURATELY SET OUT THE WORKS HAS BEEN ESTABLISHED ON SITE BY THE PRINCIPAL'S SURVEYOR. THE CONTRACTOR IS NOT TO SCALE FROM THESE PLANS AS A MEANS OF OBTAINING SETOUT INFORMATION.
4. EXISTING SURVEY CONTROL STATIONS
IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT EXISTING SURVEY CONTROL STATIONS ARE NOT DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES. SHOULD THE CONTRACTOR IDENTIFY ANY CONFLICT BETWEEN EXISTING SURVEY CONTROL AND THE REQUIRED CONSTRUCTION ACTIVITIES THE SUPERINTENDENT IS TO BE NOTIFIED IMMEDIATELY.
5. EXISTING SERVICES
THE LOCATION OF EXISTING SERVICES WHERE SHOWN ON THE PLANS ARE INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE RELEVANT SERVICE AUTHORITIES TO ASCERTAIN THE EXACT LOCATION OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORKS AND TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO THE EXISTING SERVICES.
6. SITE ACCESS
THE CONTRACTOR SHALL ONLY GAIN ACCESS TO THE SITE VIA ACCESS LOCATIONS APPROVED BY THE SUPERINTENDENT. FREEDOM OF ACCESS TO OTHER WORK AREAS ON THE SITE SHALL BE MAINTAINED AT ALL TIMES.
7. PROVISION FOR TRAFFIC
PROVISION FOR TRAFFIC ON LOCAL ROADS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND CoGC COUNCIL REQUIREMENTS.
8. WORK EXTENT
THE CONTRACTOR IS TO RESTRICT ACTIVITIES TO THOSE AREAS DESIGNATED AS WORKS AREAS UNDER THE CONTRACT. AT NO TIME IS THE CONTRACTOR TO ENTER ADJOINING PROPERTIES OR CONTRACT AREAS WITHOUT THE WRITTEN AUTHORISATION OF THE SUPERINTENDENT.
9. TESTING
ALL TESTING IS TO BE CARRIED OUT BY AN APPROVED N.A.T.A TESTING AUTHORITY IN ACCORDANCE WITH THE PROJECT SPECIFICATION AND REQUIREMENTS OF CoGC COUNCIL.
10. "AS CONSTRUCTED" SURVEY
"AS CONSTRUCTED" SURVEY SHALL BE CARRIED OUT BY THE PRINCIPAL'S SURVEYOR AS WORK PROCEEDS. THE CONTRACTOR IS TO PROVIDE ADEQUATE NOTICE TO THE PRINCIPAL'S SURVEYOR ON WHEN THIS IS REQUIRED TO ENSURE COMPLIANCE WITH THE REQUIREMENTS OF CoGC COUNCIL.
11. MAINTENANCE OF SITE CONDITION
AT THE COMPLETION OF WORKS THE SITE IS TO BE LEFT IN A CLEAN AND TIDY CONDITION TO THE SATISFACTION OF THE SUPERINTENDENT AND CoGC.

1. PRECEDENCE
EARTHWORKS SPECIFICATION PREPARED BY PROJECT GEOTECHNICAL ENGINEER TO TAKE PRECEDENCE OVER STANDARD COUNCIL EARTHWORKS NOTES.
2. TOPSOIL STRIPPING
TOPSOIL SHALL BE STRIPPED PREPARED BY PROJECT GEOTECHNICAL ENGINEER TO TAKE PRECEDENCE OVER STANDARD COUNCIL EARTHWORKS NOTES.
3. EARTHWORKS LEVELS
EARTHWORKS LEVELS SHOWN ON THE DRAWING ARE TO FINISHED SURFACE LEVELS AND INCLUDE 100mm OF TOPSOIL. THE CONTRACTOR SHALL VERIFY BENCH MARK LEVELS AND ADVISE THE SUPERINTENDENT OF ANY DISCREPANCY BEFORE COMMENCEMENT OF CONSTRUCTION.
4. UNDESIRABLE MATERIAL
THE ENTIRE SITE/WORK AREAS SHALL BE CLEARED OF ALL UNDESIRABLE MATTER. THIS SHALL INCLUDE DEAD TIMBER, GRASS, OLD FOUNDATIONS, CONCRETE, MASONRY REMAINS, GARBAGE, DEBRIS AND ALL OTHER OBSTRUCTIONS TO THE WORKS UNLESS NOTED OTHERWISE. HOLES LEFT BY THE REMOVAL OF ANY OF THE ABOVE SHALL BE FILLED WITH APPROVED COMPACTED MATERIAL WITH PROPERTIES AT LEAST SIMILAR TO INSITU SOILS.
5. COMPACTION STANDARD
FILL MATERIAL SHALL BE COMPACTED TO THE FOLLOWING STANDARD, WHERE DRY DENSITY RATIO IS DETERMINED IN ACCORDANCE WITH AS 1289 USING STANDARD COMPACTION METHODS.
 - a. 100% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 80% IN COHESIONLESS MATERIAL FOR ROAD SUBGRADE.
 - b. 98% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 65% IN COHESIONLESS MATERIAL FOR ALL AREAS OTHER THAN THE ROADWAY AND BUILDING PADS.
 - c. 98% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 70% IN COHESIONLESS MATERIAL FOR BUILDING PADS.
5. PAVEMENT DEPTHS
EARTHWORKS VOLUMES DO NOT INCLUDE DESIGN PAVEMENT DEPTHS AS INDICATED ON THE TYPICAL BULK EARTHWORKS ROAD SECTION.
6. TESTING
ALL EARTHWORKS TO BE CARRIED OUT UNDER LEVEL 1 SUPERVISION IN ACCORDANCE WITH AUSTRALIAN STANDARDS AS 3798 UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT. ALL COMPACTION TESTING SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A TESTING AUTHORITY.
7. ROCK
THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR EARTHWORKS RATES UNLESS SCHEDULED OTHERWISE WITHIN THE CONTRACT DOCUMENT.

9. DAMS AND PONDS
WHERE POSSIBLE, WATER FROM DAMS AND PONDS SHALL BE MAINTAINED AND UTILISED FOR CONSTRUCTION PURPOSES AND DUST SUPPRESSION. DAMS AND PONDS NOT TO BE RETAINED SHALL BE DEWATERED, CLEARED OF ANY FOREIGN MATTER AND ORGANIC MATERIAL WITH THIS MATERIAL TO BE REMOVED OFF SITE.
9. RETAINING STRUCTURES
THE DESIGN AND STRUCTURAL CERTIFICATION OF RETAINING STRUCTURES SHALL BE UNDERTAKEN BY THE CONTRACTOR'S STRUCTURAL ENGINEER (RPEQ) IN CONSULTATION WITH THE PROJECT'S CIVIL ENGINEER AND LANDSCAPE CONSULTANT. THE CONTRACTOR IS RESPONSIBLE FOR THE SUBMISSION AND APPROVAL COORDINATION OF THE ASSOCIATED DRAWINGS AND CERTIFICATION TO GoGC. A COPY OF THIS SUBMISSION IS TO BE PROVIDED TO THE SUPERINTENDENT.
10. TOPSOIL REPLACEMENT
ALL BATTERS AND ALLOTMENT CUT & FILL AREAS SHALL BE TOP SOILED FROM ONSITE STOCKPILES. IF DIRECTED BY THE SUPERINTENDENT THE TOPSOIL SHALL BE SCREENED PRIOR TO PLACING. THE CONTRACTOR SHALL ALLOW IN THEIR RATE FOR SCREENING AND THE DISPOSAL OF REJECT MATERIAL TO TIP OFFSITE INCLUDING ALL FEES. THE CONTRACTOR MUST ENSURE THAT THE STRIPPING SHALL BE UNDERTAKEN IN SUCH A MANNER AS TO AVOID CONTAMINATION BY OVER CUTTING. IF TOPSOIL IS CONTAMINATED BY OVER CUTTING AND DETERMINED NOT SUITABLE FOR REUSE BY THE SUPERINTENDENT, THE CONTRACTOR SHALL BEAR THE COST OF REMOVAL FROM SITE OF ALL CONTAMINATED TOPSOIL AND THE COST TO SUPPLY AND IMPORT SUITABLE TOPSOIL FOR RE-SREADING.
11. GRASSING / SEEDING
ALL CUT & FILL AREAS AND DISTURBED AREAS SHALL BE GRASSED OR SEEDED TO THE SATISFACTION OF THE SUPERINTENDENT.
12. STOCKPILES
ALL MATERIAL/ TOPSOIL ARISING FROM WORKS ON SITE SHALL BE COMPACTED TO AN APPROPRIATE STANDARD WITHIN THE FILL AREAS OF FUTURE STAGES AS NOMINATED BY THE SUPERINTENDENT. THE CONTRACTOR IS NOT TO CREATE STOCKPILES OF SURPLUS MATERIALS UNLESS WRITTEN AUTHORIZATION IS RECEIVED FROM THE SUPERINTENDENT.

- a. THE OBJECTIVES OF THE EROSION AND SEDIMENT CONTROL PROGRAM ARE:
 - a. ALLOW STORMWATER TO PASS THROUGH THE SITE IN A CONTROLLED MANNER AT NON-EROSIVE FLOW VELOCITIES.
 - b. MINIMISE SOIL EROSION FROM WATER AND WIND
 - c. MINIMISE ADVERSE EFFECTS OF SEDIMENT RUNOFF.
 - d. MINIMISE OR PREVENT ENVIRONMENTAL HARM ASSOCIATED WITH DISCHARGE FROM THE CONSTRUCTED SITE.
 - e. ENSURE THAT THE VALUE AND USE OF RESIDENTIAL AND INDUSTRIAL PROPERTIES ADJACENT TO THE DEVELOPMENT ARE NOT DIMINISHED AS A RESULT OF THE MIGRATION OF SEDIMENT FROM THE DEVELOPMENT.
2. THE EROSION AND SEDIMENT CONTROL PROGRAM SHALL COMPLY WITH THE ENVIRONMENTAL BEST ENGINEERING GUIDELINES FOR QUEENSLAND CONSTRUCTION SITES, THE CURRENT INSTITUTION OF ENGINEERS AUSTRALIA AND LOCAL AUTHORITY GUIDELINES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTIONS INCLUDING THE MAINTENANCE PERIOD. NOTWITHSTANDING THE FINISHED EARTHWORK DESIGN SHOWN ON THE DRAWINGS THE CONTRACTOR IS RESPONSIBLE TO IMPLEMENT ADDITIONAL SEDIMENT CONTROL MEASURES AND DEVICES USING BEST PRACTICES AS NECESSARY TO MINIMISE THE QUANTITY LEAVING THE SITE DURING CONSTRUCTION AND UPON COMPLETION OF EARTHWORKS.
3. THE CONTRACTOR IS TO FOLLOW CONSTRUCTION PHASE AS OUTLINED IN THE CONSTRUCTION SEQUENCE/SILT MANAGEMENT PROGRAM. ALL SEDIMENT CONTROL DEVICES SHALL BE MONITORED, CLEANED AND/OR REPLACED WHENEVER THE ACCUMULATED SEDIMENT REDUCES THE CAPACITY BY 50%. ALL PERIMETER BANK/SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET. AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS AND PROTECT ANY DOWNSTREAM CONSTRUCTION AND GULLY INLETS. INLETS TO HAVE SILT PROTECTION IN ACCORDANCE WITH KERB INLET PROTECTION DETAIL AT LOCATIONS SHOWN OR AS INDICATED BY THE ENGINEER.
4. PRIOR TO THE COMMENCEMENT OF EARTHWORKS, THE CONTRACTOR IS TO CARRY OUT SOIL TESTING (IF REQUIRED BY SUPERINTENDENT) TO DETERMINE THE DISPERSIVE CHARACTERISTICS OF THE SOIL AND RESULTS TO BE GIVEN TO THE ENGINEERS SO THE FINALIZATION OF THE EROSION AND SEDIMENT CONTROL PLAN CAN BE COMPLETE.
5. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN LOCATIONS AGREED WITH THE SUPERINTENDENT. CLEARING OF SITE AND STOCKPILE AREAS TO BE AS DIRECTED BY THE SUPERVISING ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST AT ALL TIMES INCLUDING WEEKENDS AND PUBLIC HOLIDAYS.
6. SUITABLE ACCESS SHALL BE PROVIDED TO ALLOW MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES (IT IS TO BE NOTED THAT CLEARING SHALL ONLY OCCUR IN AREAS WHERE THERE IS NO OTHER ALTERNATIVE TO GAIN ACCESS TO THE LOCATION OF THE SEDIMENT CONTROL DEVICES). APPROVAL FOR REMOVAL OF PROTECTED SIZE VEGETATION MUST BE OBTAINED PRIOR TO CLEARING.
7. ROCK BUNDS TO BE PLACED AROUND ALL HEADWALLS DURING CONSTRUCTION.
8. 0.8m TURF IS TO BE PLACED BEHIND ON ALL BATTERS WITHIN PRIVATE OPEN SPACE STEEPER THAN 1:4 UNLESS OTHERWISE NOTED. THE EXTENT OF GRASSING SHALL BE DETERMINED BY THE ENGINEER AND SHALL BE SEED, AS SPECIFIED, WITHIN 7 DAYS OF FINAL TRIMMING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT GRASS STRIKE RATES ARE ACHIEVED AT ON AND OFF MAINTENANCE INSPECTION IN ACCORDANCE WITH COUNCIL REQUIREMENTS.
9. TURF IS TO BE PLACED FROM BACK OF KERB TO ROAD RESERVE BOUNDARY ON ALL ROADS AFTER EARTHWORKS ARE COMPLETE.
10. GEO-FABRIC LINING OF CHANNELS AND CHECK DAMS MAY BE REQUIRED SUBJECT TO THE SITE CONDITIONS.
11. FILLING AND OR MAINTENANCE OF EXISTING AND OR SEDIMENT BASINS MAY REQUIRE FLOCCULATION.
12. BATTERS WITHIN PUBLIC OPEN SPACE TO BE VEGETATED IN ACCORDANCE WITH THE APPROVED OPEN SPACE MANAGEMENT PLAN (OSMP).
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN OUT GPT'S, SEDIMENT FOREBAYS AND ALL OTHER SEDIMENT CONTROL DEVICES DURING CONSTRUCTION AND PRIOR BOTH ON AND OFF MAINTENANCE INSPECTIONS WITH CoGC. THE CONTRACTOR SHALL ALLOW FOR THE COST OF THESE WORKS WITHIN THEIR SUBMITTED TENDER PRICE.

- a. ERECT SITE SIGNAGE, CONSTRUCT ENTRY AND EXIT POINT AS INDICATED CONSTRUCT VEHICLE WASH-DOWN AREA AND ASSOCIATED SILT MANAGEMENT DEVICES.
- b. CONSTRUCT SITE OFFICE AND STORAGE COMPOUND AREA
- c. ERECT SILT FENCE AT LOW POINTS OF THE SITE AS DEMONSTRATED
- d. ERECT TEMPORARY TREE PROTECTION FENCING FOR VEGETATION TO BE RETAINED IN ACCORDANCE WITH AN OPW (TREE CLEARING) APPROVAL OR IN ACCORDANCE WITH AS4570 PROTECTION OF TREES ON DEVELOPMENT SITE.
- e. CONSTRUCT ROCK CHECK DAMS AND SILT FENCE DOWN STREAM OF THE BASIN.
- f. CONSTRUCT BASIN TO FULL DEPTH.
- g. CONSTRUCT BALANCE OF BASIN IN CONJUNCTION WITH CLEARING AND BULK EARTHWORKS OPERATIONS.
- h. BASIN TO BE UTILISED AS A TEMPORARY SEDIMENT BASIN. DO NOT FILL IN FILTRATION MATERIAL UNTIL CONSTRUCTION OF DEVELOPMENT IS COMPLETE.
2. CLEARING AND BULK EARTHWORKS

THERE SHALL BE NO CLEARING OF PROTECTED SITE VEGETATION WITHOUT AN APPROVED TREE CLEARING PLAN WHICH SHALL BE IN ACCORDANCE WITH AS4970.

SILT FENCE, SAND BAGS AND EARTH RILLS WITHIN ROADS TO BE ERECTED AS INDICATED OR REQUIRED DURING CLEARING & EARTHWORKS.

SUPERINTENDENT TO CONFIRM THE EXTENT OF CLEARING PRIOR TO COMMENCEMENT OF WORKS.
3. CONSTRUCTION OF SEWER/ROOFWATER / STORMWATER / SERVICES

EXCAVATED MATERIAL TO BE PLACED ON HIGH SIDE OF TRENCH AND TO PROTECT PIPE WORK AND DIRECT SURFACE MATERIAL AWAY FROM EXCAVATIONS.

TOPSOIL AND GRASS SEED AREAS IN ALLOTMENTS IMMEDIATELY AFTER COMPLETING THE SEWER AND ROOFWATER DRAINAGE CONSTRUCTION.

DEPRESS GROUND AROUND TEMPORARY FIELD INLETS TO CREATE SILT POND.
4. CONSTRUCTION – SEDIMENT BASINS

SEDIMENT BASIN TO BE CONSTRUCTED TO THE EARTHWORK PROFILES SHOWN.

STORMWATER OUTLET PIPES TO BE TEMPORARY BLOCKED OFF UNTIL DECOMMISSIONING OF SEDIMENT BASIN (SUBSEQUENT TO CONSTRUCTION OF ALL STAGES).

PLACE SPOIL FROM SEDIMENT BASIN INTO ALLOCATED AREAS AS ENGINEERED FILL IN ACCORDANCE WITH THE STAGING ORDER.

SEDIMENT BASIN SHALL ONLY BE REMOVED AFTER APPROVAL BY SUPERINTENDENT AND COUNCIL.
5. CONSTRUCTION – STOCKPILING

TEMPORARY SILT FENCE TO BE ERECTED 5m FROM TOE OF BATTER ON LOW SIDE OF STOCKPILING.

STOCKPILE SITE TO BE CLEARED OF ADJACENT PROPERTY BOUNDARIES SO AS NOT TO CAUSE NUISANCE TO ADJOINING PROPERTIES.

NO STOCKPILES ARE TO BE LOCATED WITHIN THE DRIP ZONE OR STRUCTURAL ROOT ZONE OF ANY RETAINED VEGETATION.
6. CONSTRUCTION – ROADWORKS

SILT FENCES TO ALLOTMENTS TO BE ERECTED.

KERB INLET PROTECTION TO BE PROVIDED TO ALL GULLIES.
7. CONSTRUCTION – ALLOTMENTS

TOPSOIL AND SEED ALLOTMENTS.

SILT FENCES TO ALLOTMENTS TO BE RE-ERECTED.

COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATE THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT RIMMING).
8. POST CONSTRUCTION – ALLOTMENTS

TOPSOIL AND GRASS SEED ALL ALLOTMENTS.

COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATES THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT TRIMMING).
9. POST CONSTRUCTION – BASIN

BASIN TO CONTINUE ACTING AS SEDIMENT BASIN UNTIL COMPLETION OF ALL STAGES.
10. POST CONSTRUCTION – ROAD RESERVES

TOPSOIL AND TURFING IS TO BE PROVIDED BEHIND KERB.
11. MAINTENANCE (PRE TO POST CONSTRUCTION)

THE SILT FENCES ARE TO BE INSPECTED WEEKLY.

ANY REPAIRS REQUIRED ARE TO BE EFFECTED IMMEDIATELY.

SILT AFTER RAIN IS TO BE CLEARED FROM STREETS AND ALLOTMENTS IMMEDIATELY AND CORRECTIVE ACTION TAKEN TO AVOID A RE-OCCURRENCE OF THE FAILURE.
12. BASIN CONSTRUCTION

PRIOR TO COMMENCING CONSTRUCTION OF THE DETENTION BASIN THE DIVERSION OF SURFACE WATER FROM THE PROPOSED WORK AREAS, USING MEASURES SUCH AS OPEN DRAINS/SUMPS, ARE REQUIRED TO AID IN SITE DE-WATERING.

BASIN TO CONTINUE ACTING AS SEDIMENT BASIN UNTIL 85% OF CATCHMENT CONSTRUCTION IS COMPLETE.

THE CLAY FILLING FOR THE BASIN WALLS SHALL BE PLACED IN HORIZONTAL LAYERS OF 200mm THICKNESS AND COMPACTED TO DENSITY RATIO WITHIN THE RANGE 98%-102% STANDARD COMPACTION (AS 1289.5.1.1). PLACEMENT MOISTURE CONTENT SHOULD BE WITHIN THE RANGE OMC -1% TO OMC -2% (WHERE OMC = OPTIMUM MOISTURE CONTENT FOR STANDARD COMPACTION). CONTRACTOR TO PROVIDE SAFETY FENCING TO BASIN DURING CONSTRUCTION AND APPROPRIATE SIGNAGE (PERMANENT OR TEMPORARY).



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Client: FRASERS PROPERTY FPI QUEENSLAND PTY. LTD.																																																																									
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Site Address: VANTAGE YATALA Lot-120 EASTRIDGE STREET STAPYLTON, QLD 4207																																																																									
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6181 ENG BE 002	A																																																																								

Client:



Project:

LOT-120 PROPOSED INDUSTRIAL DEVELOPMENT

Site Address:

VANTAGE YATALA Lot-120
EASTRIDGE STREET
STAPYLTON, QLD 4207

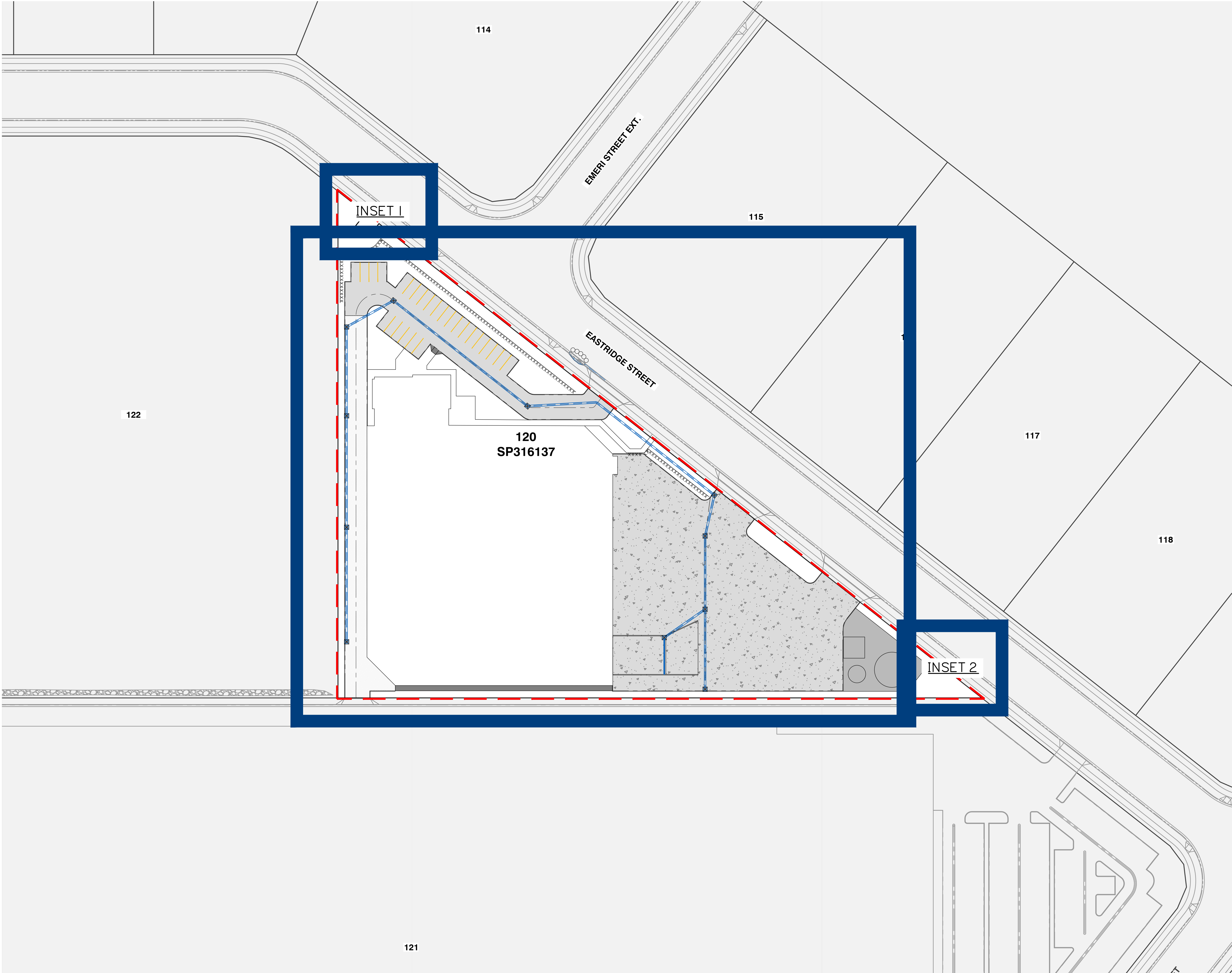
RPD:

Lot: 120
Plan: SP316137
Local Authority: CoGC

Level Datum: AHD
Meridian: -
PSM: -
RL: -

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A	27/02/24	ORIGINAL ISSUE	ML	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.

CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED

A3 REDUCED

Scale:

0

10

20

30

40m

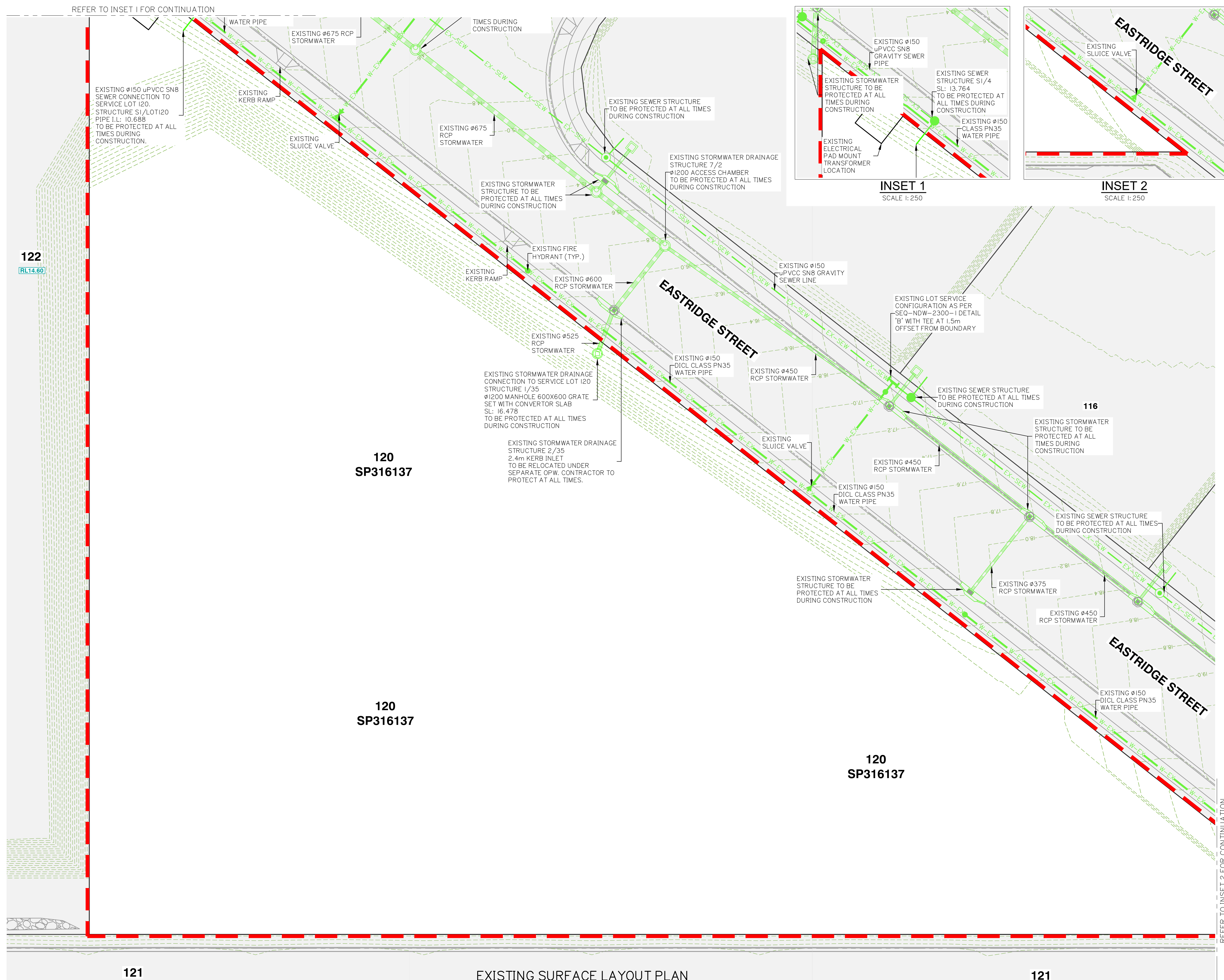
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1:1000 (A3)

PROJECT NORTH POINT

	
Project No. 6181	
Designed: JH	Drafted: ML
Approved:	MG
RPEQ	16939
Signed:	
Date:	27/02/2024
Drawing No: 6181 ENG BE 005	Revision: A

KEY PLAN LAYOUT



Client:



FPI QUEENSLAND
PTY. LTD.

Project:

LOT-120 PROPOSED INDUSTRIAL DEVELOPMENT

Site Address:

VANTAGE YATALA Lot-120
EASTRIDGE STREET
STAPYLTON, QLD 4207

RPD:

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Drawing Title:

EXISTING SURFACE LAYOUT PLAN

[illegible]

A	27/02/24	ORIGINAL ISSUE	ML	MG
ev	Date	Description	DRN	CHK
DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.			A1 UNREDUCED	
CULVERT AND PIPE SIZES IN MILLIMETRES			A3 REDUCED	

Scale:



0 5 10 15 20m
1:250 (A1) 1:500 (A3)

PROJECT NORTH POINT



Project No. 6181

Designed: JH	Drafted: ML
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Approved:	MG
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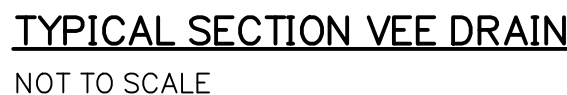
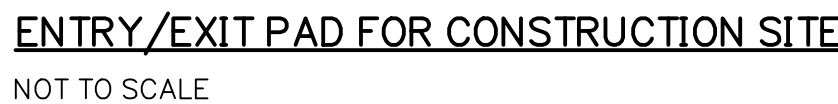
PEQ	16939
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Signed:	
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Date:	27/02/2024
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Drawing No:	Revision
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6181 ENG BE 010 A



1. CHAIN WIRE MESH PANELS WITH SHADE CLOTH (IF REQUIRED) ATTACHED, HELD IN PLACE WITH CONCRETE FEET.
2. ALTERNATIVE PLYWOOD OR WOODEN PALING FENCE PANELS. THIS FENCING MATERIAL ALSO PREVENTS BUILDING MATERIALS OR SOIL ENTERING THE TPZ.
3. MULCH INSTALLATION ACROSS SURFACE OF TPZ (AT THE DISCRETION OF THE PROJECT ARBORIST.) NO EXCAVATION, CONSTRUCTION ACTIVITY, GRADE CHANGES, SURFACE TREATMENT OR STORAGE OF MATERIALS OF ANY KIND IS PERMITTED WITHIN THE TPZ.
4. BRACING IS PERMITTED WITHIN THE TPZ. INSTALLATION OF SUPPORTS SHOULD AVOID DAMAGING ROOTS.
5. NO CONSTRUCTION CONTRACTOR IS NOT TO UNDERTAKE ANY PRUNING OF TREES. TREE MANAGEMENT IS TO BE UNDERTAKEN BY A SUITABLY QUALIFIED ARBORIST.
6. NO STOCKPILE/S ARE PERMITTED WITHIN THE ZONE OF ANY RETAINED VEGETATION WITHOUT SUPERVISION AND AUTHORIZATION OF THE SUPERVISING ARBORIST.
7. NO CLEARING OF PROTECTED SIZE VEGETATION IS TO OCCUR WITHOUT APPROVAL FROM LOGAN CITY COUNCIL.

DETERMINING THE TPZ

THE RADIUS OF THE TPZ IS CALCULATED FOR EACH TREE BY MULTIPLYING ITS DBH X 12 = TRUNK DIAMETER MEASURED AT 1.4M ABOVE GROUND. RADIUS IS MEASURED FROM THE CENTRE OF THE STEM AT GROUND LEVEL.

A TPZ SHOULD NOT BE LESS THAN 2M NOR GREATER THAN 15M (EXCEPT WHERE CROWN PROTECTION IS REQUIRED).
THE TPZ OF PALMS, OTHER MONOCOTS, CYCADS AND TREE FERNS SHOULD NOT BE LESS THAN 1M OUTSIDE THE CROWN PROJECTION.

PROTECTIVE FENCING

NOT TO SCALE

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Client:



FPI QUEENSLAND
PTY. LTD.

Project:

LOT-120 PROPOSED
INDUSTRIAL
DEVELOPMENT

Site Address:

VANTAGE YATALA Lot-120
EASTRIDGE STREET
STAPYLTON, QLD 4207

RPD:

Lot: 120
Plan: SP316137
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Drawing Title:

SEDIMENT AND EROSION CONTROL TYPICAL DETAILS

[illegible]

A Rev	27/02/24 Date	ORIGINAL ISSUE Description	ML DRN	MG CHK
DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.			A1 UNREDUCED	
CULVERT AND PIPE SIZES IN MILLIMERES			A3 REDUCED	

PROJECT NORTH POINT

Project No. 6181

Designed: JH | Drafted: ML

Approved: _____ MG

RPEQ	16939
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Signed:	
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Date: 27/02/2024

Drawing No: _____ Revisor _____

6181 ENG BE 050 A

SEDIMENT AND EROSION CONTROL TYPICAL DETAILS

[illegible]

A	27/02/24	ORIGINAL ISSUE	ML	M
Rev	Date	Description	DRN	CH
DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.			A1 UNREDUCED	
CULVERT AND PIPE SIZES IN MILLIMERES			A3 REDUCED	

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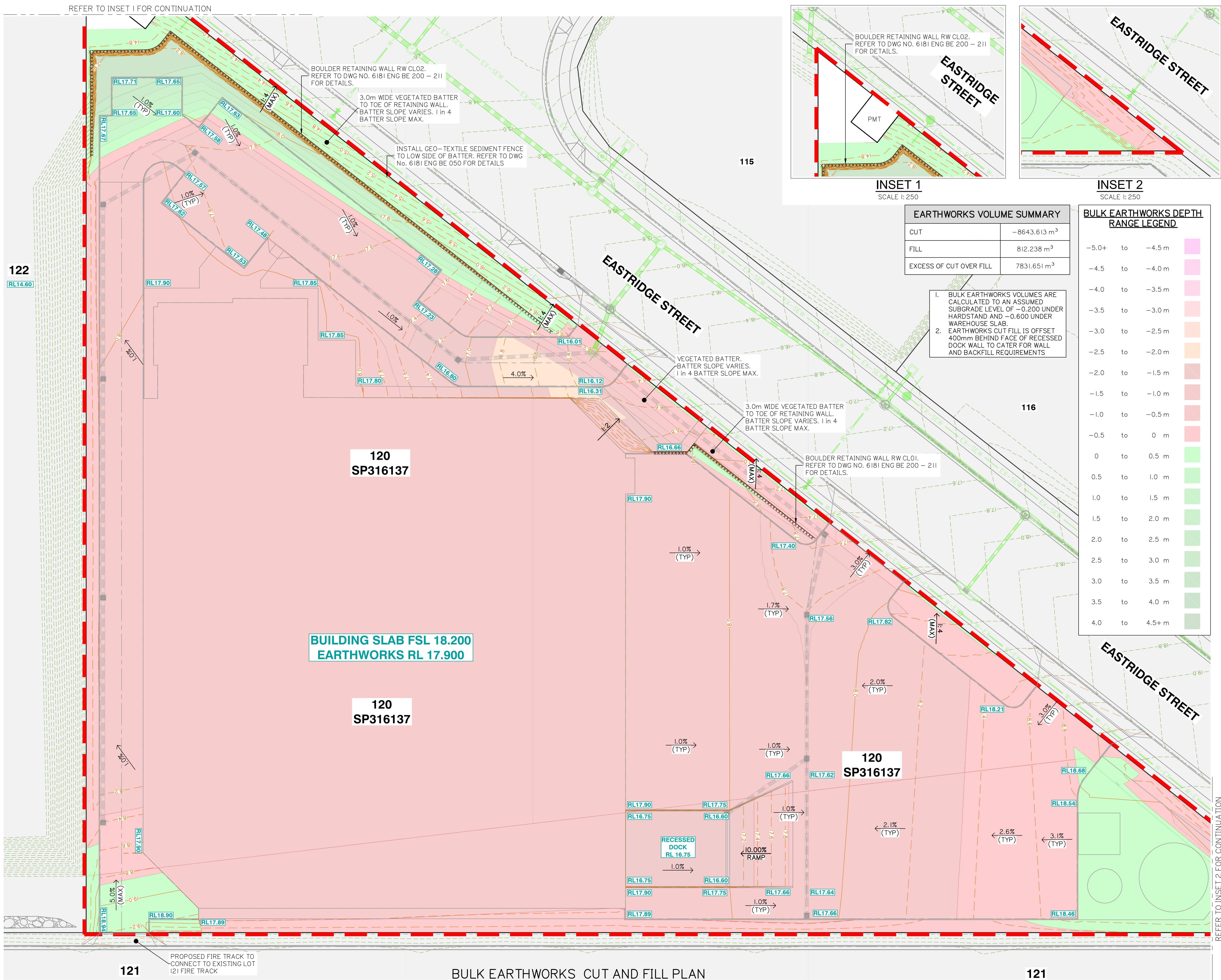


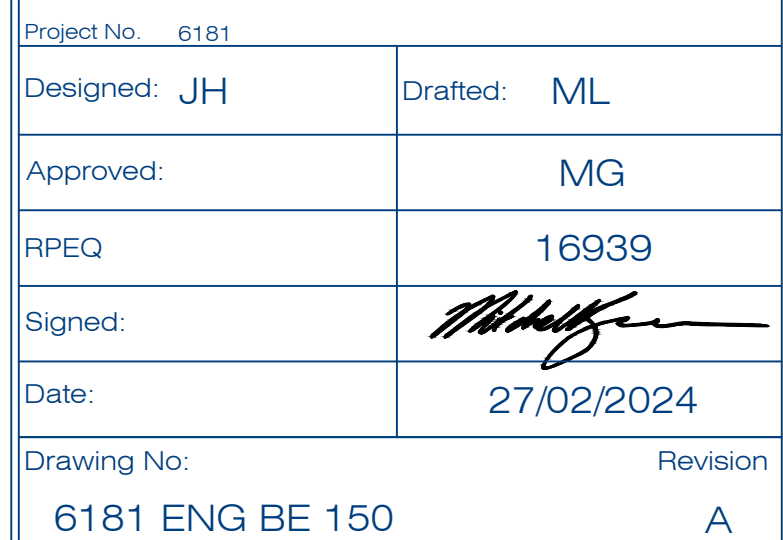
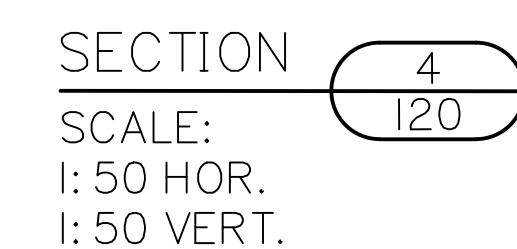
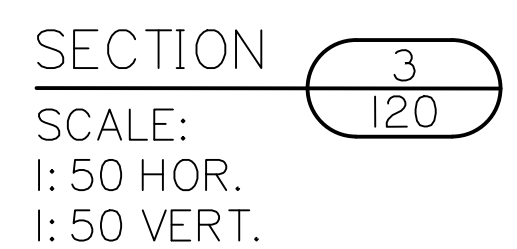
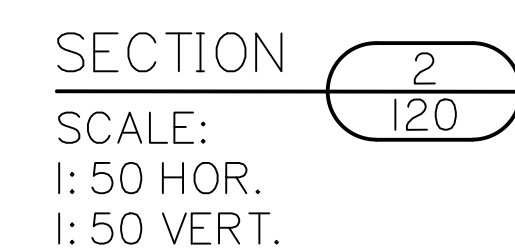
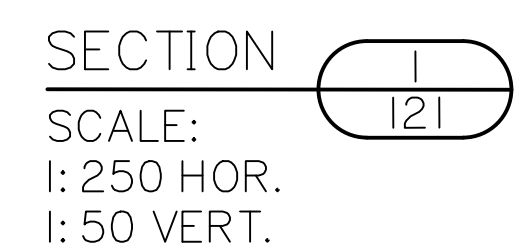
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PROJECT NORTH POINT

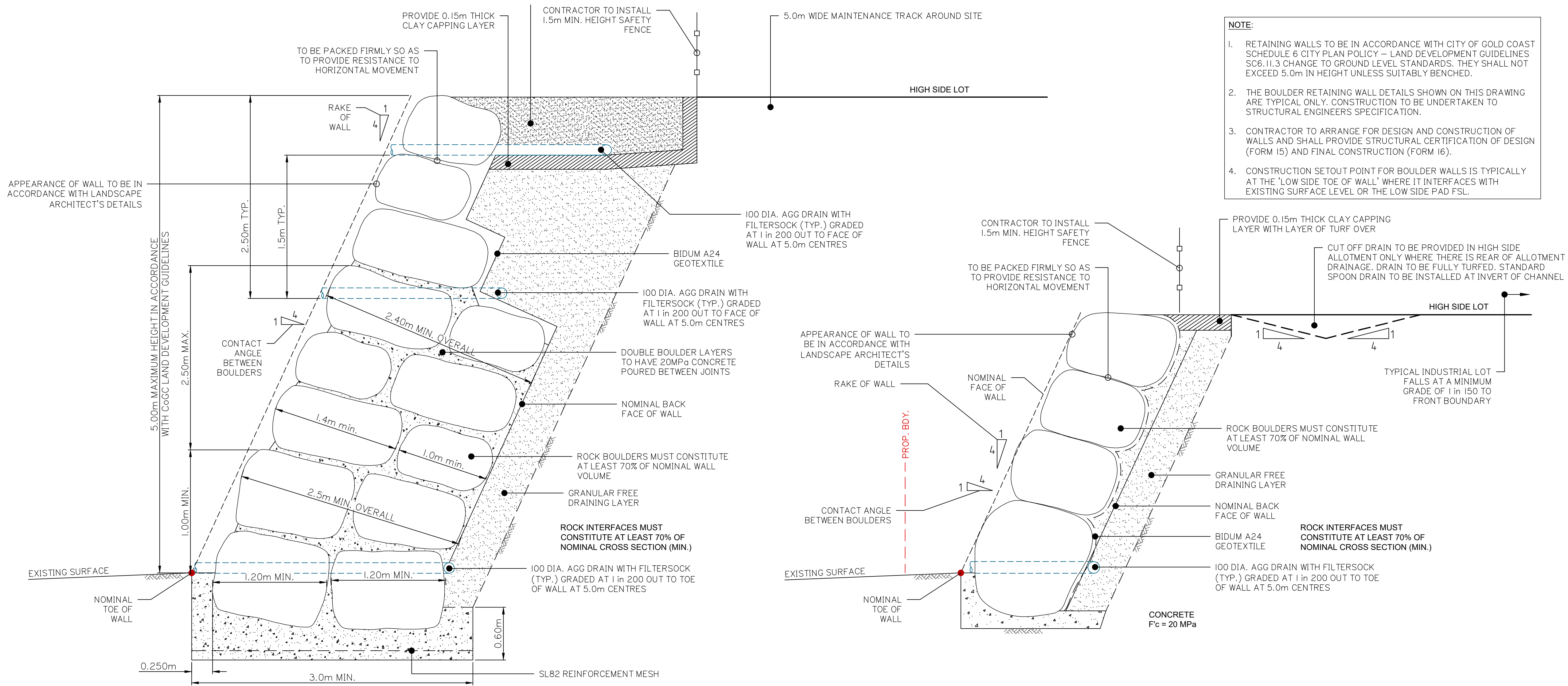


Project No:	6181
Designed: JH	Drafted: ML
Approved:	MG
PEQ	16939
Signed:	
Date:	27/02/2024
Drawing No:	Revised:
6181 ENG BE 100	A



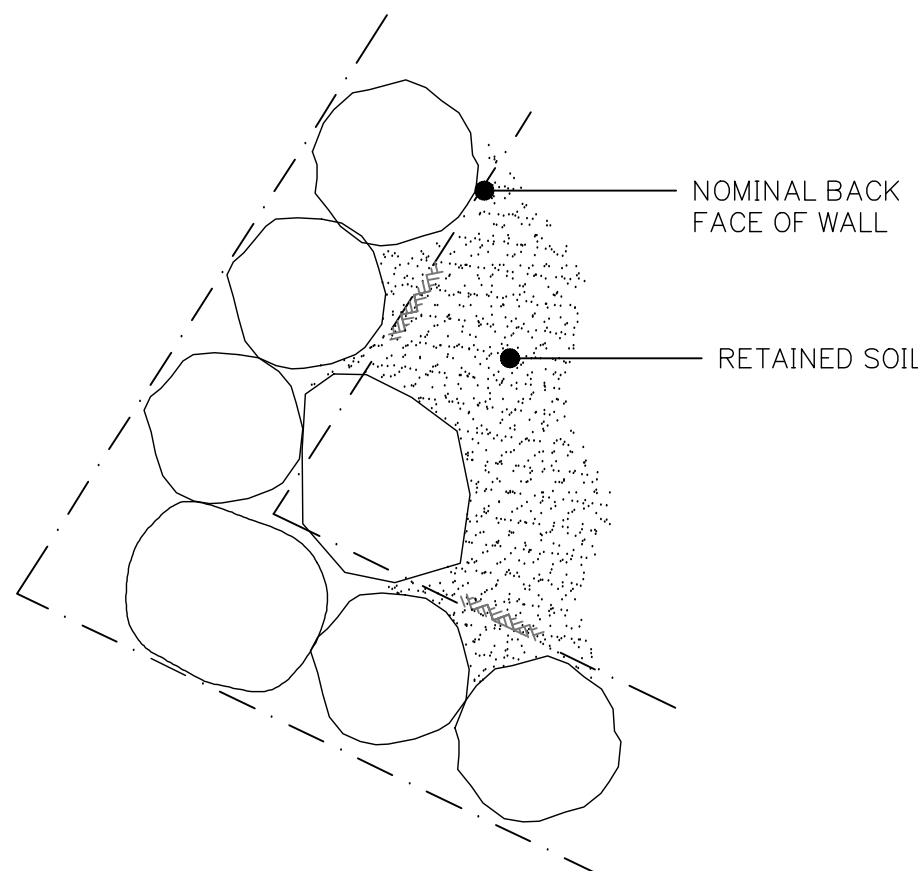
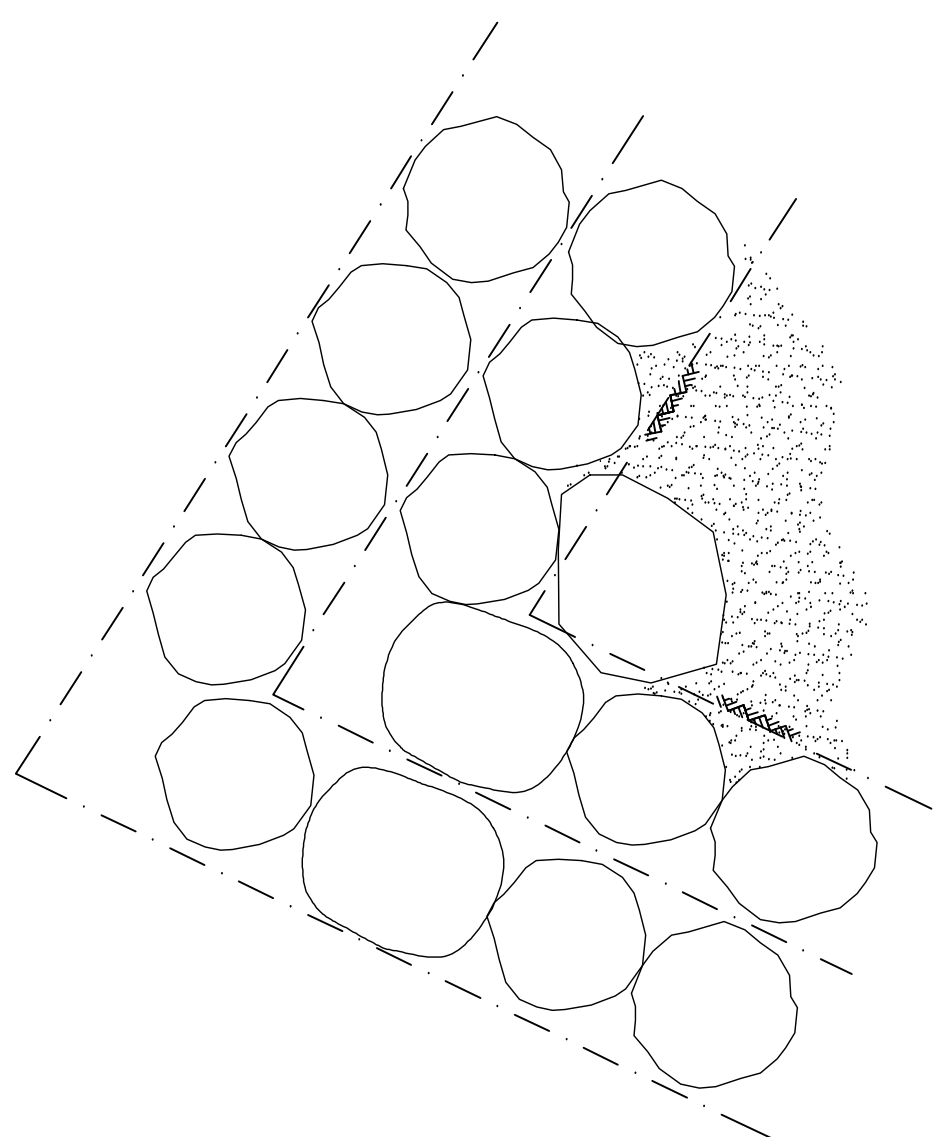


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TYPICAL SECTION OF:
BOULDER RETAINING WALL (2.5m to 5.0m MAXIMUM HEIGHT)

TYPICAL SECTION OF:
BOULDER RETAINING WALL (2.5m HEIGHT)



RETAINING WALL TYPICAL DETAILS

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

LOT-120 PROPOSED
INDUSTRIAL
DEVELOPMENT

Site Address:

VANTAGE YATALA Lot-120
EASTRIDGE STREET
STAPYLTON, QLD 4207

RPD:

Lot: 120
Plan: SP316137
Local Authority: CoGC

Level Datum: AHD
Meridian: -
PSM: -
RL: -

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Drawing Title:

RETAINING WALL
TYPICAL DETAILS

A	12/02/24	ORIGINAL ISSUE	ML	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE. A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES A3 REDUCED

Scale:

NOT TO SCALE

PROJECT NORTH POINT

Project No. 6181	
Designed: JH	Drafted: ML
Approved:	MG
RPEQ	16939
Signed:	
Date:	12/02/2024
Drawing No: 6181 ENG BE 210	Revision A

