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APPENDIX E

LANDSCAPE INTENT PLAN

AgroBest NUTRITIONAL SYSTEMS

VantageYatala

LOT 115 EMERI STREET, STAPYLTON

AGROBEST

LANDSCAPE INTENT PACKAGE

Argobest

LOT 115 on

LOT 115 Vantage Industrial Estate,
STAPYLTON, QUEENSLAND 4207

MARCH 2022
Issue - For Approval
Revision - A

Prepared By -
Gassman Development Perspectives
Job No. 6062

gassman development perspectives

CONTENTS

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SITE CHARACTERISTICS

The subject land, Lot 115 at Frasers Industrial property / Vantage at Yatala is located within in the City of Gold Coast, in a low and medium impact industry zone, and future low and medium industry precinct.
The site is located approximately 2Km to the east of the Pacific Motorway. At the corner of Eastridge and Emeri Streets, Yatala.

PROPOSED DEVELOPMENT

The proposed development is an industrial warehouse.
The landscape design intent for Lot 115 Vantage Industrial Estate is to facilitate the development of functional, well serviced, amenable, and attractive industrial warehouse that holds regard to its local context.
The design is to be inline with City of Gold Coasts Landscape Works Code 9.4.6, as well as Fraser Properties Landscape Design Guidelines.

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SITE LOCALITY PLAN

The subject land, Lot 115 Vantage Industrial Estate is located at the corner of Emeri and East Ridge Streets Stalpytlon. The site is situated within a newly developed industrial estate - Vantage Industrial at Yatala, and is located within in the City of Gold Coast, 2KM west of the Pacific Motorway.

The zoning of the subject site is nominated as low impact industry zone (future low impact industry precinct) and Medium impact industry zone (future medium impact industry precinct).

LANDSCAPE STRATEGY

The landscape design intent for Lot 115 Vantage Industrial Estate is to facilitate the development of functional, well serviced, amenable, and attractive industrial warehouse that holds regard to its local context.

To create a sense of spaciousness defined by wide roads and buildings, and a flow of landscape between.

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

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

To ensure soft-scaping softens the built form, yet is durable and requires minimal maintenance.

To create open breakout / recreational areas for staff and visitors of the warehouse development.

The design will respect the environmental aspects of responsible design, planning and construction which will respond to issues of biodiversity, natural processes and impacts on local waterways.

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

Principals of Crime Prevention Through Environmental Design (CPTED) will be adapted via the use of planting hierarchy throughout the development. The use of plant species with low heights and trees with clear trunk to base of tree canopy will allow for passive surveillance as well as recognition of traffic and pedestrian movements.

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 and signage 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.

LANDSCAPE INTENT PLAN

LEGEND

01 

Road Corridor
Refer to GDP civil design for further detail

02 

Existing Street Trees
Existing street trees from OPW/2020/690 approval to be retained

03 

Street Trees for Removal
Existing street trees from OPW/2020/690 approval to be removed under future driveway application

04 

Proposed Street Trees
Proposed street tree planting as per GCCC Street tree planting Guidelines for Roadworks 05-103

05 

Street Verge Treatment
Existing road verge (turf and paving) to be maintained and made good if construction damage should occur

06 

Retaining Wall
Retaining wall to boundary by others.

07 

Pedestrian Sight Lines
Pedestrian sight lines of 2m x 2m at driveway entry and exit points. Low planting only proposed within these areas

08 

Groundcover Species
Groundcover species, mass planted, 140mm pot size. Refer to planting palette on page 5 for low maintenance species list in line with GCCC and Fraser Industrial Development Landscape Guidelines

09 

Shrub Species
Shrub planting, mass planted, 200mm pot size. Refer to planting palette on page 5 for low maintenance species list in line with GCCC and Fraser Industrial Development Landscape Guidelines

10 

Screening Shrub Species
Screening shrub, hedgable planted in line, 300mm pot size. Refer to planting palette on page 5 for low maintenance species list in line with GCCC and Fraser Industrial Development Landscape Guidelines

11 

Tree Species
Tree species in locations shown, in 200lt bag. Refer to planting palette on page 5 for low maintenance species list in line with GCCC and Fraser Industrial Development Landscape Guidelines

Fencing
1.8m high black powder coated palisade fencing

Fencing
1.8m high chain wire fence

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INDUSTRIAL
ESTATE

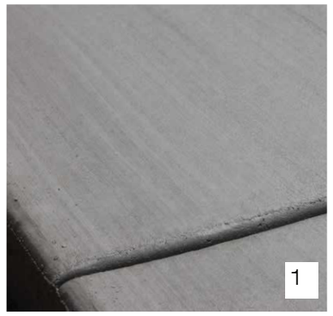
LANDSCAPE INTENT PLAN

0 5 10 20
SCALE (m)

NORTH

Date: 25.03.22
Project no: 6062
Rev: A Dwn: JS

HARDSCAPE AND FURNISHINGS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2

3

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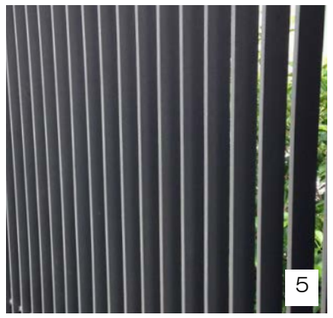
5


6


7


8


9

HARDSCAPE MATERIALS
1. Plain grey concrete
2. 150 x 150mm concrete edging in charcoal

FEATURE LANDSCAPE NODES
3. Pylon signage
4. Signage to building

FENCING
5. Black powder coated palisade fence
6. Chain wire mesh fencing

GARDEN TREATMENT & EQUIPMENT
7. Forest mulch
8. River rock gravel
9. Rainbird drip line irrigation (to gardens)

PLANTING PALETTE


1


2


3


4


5


6


7


8


9


10


11


12


13


14


15


16


17


18

TREES
1. Cupaniopsis anacardioides, tuckeroo
2. Buckinghamia celsissima, ivory curl flower
3. Harpulea pendula, tulipwood

SCREENINGSHRUBS
4. Syzygium elite, elite lily pily
5. Syzygium big red, big red
6. Viburnum obovatum, emerald lustre
7. Westringea fruitocosa, coastal rosemary
8. Grevillea firecracker, firecracker

LOW GROWING SHUBS
9. Austromyrtus dulcis, copper tops
10. Callistemon little john, little john
11. Banksia spinulosa, candle sticks
12. Acacia cognata, mini cog

GROUNDCOVERS & TUFTING GRASSES
13. Myoporum parvifolium, boobialla
14. Myoporum ellipticum, coastal boobialla
15. Dieties bicolour, spanish iris
16. Casuarina cousin it, cousin it
17. Dianella silver streak, silver streak
18. Liriope evergreen giant, turf lily

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APPENDIX F

TRAFFIC IMPACT ASSESSMENT

AgroBest NUTRITIONAL SYSTEMS

VantageYatala

rytenskild
Traffic Engineering

TRANSPORT IMPACT ASSESSMENT

PROPOSED WAREHOUSE DEVELOPMENT

LOT 115 VANTAGE INDUSTRIAL ESTATE, YATALA

Prepared for

AGROBEST

24 FEBRUARY 2022

DOCUMENT REGISTER

Document Lot 115 Vantage Yatala

RTE Reference 21482

Prepared by Luke Rytenskild, Dare Janzekovic

Document History

Version	Version date	Details	Reviewed and Authorised	
			Name / Position	Signature
1	24 February 2022	DA ISSUE	Luke Rytenskild Director RPEQ 6293	

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TABLE OF CONTENTS

1.0 INTRODUCTION

Rytenskild Traffic Engineering (RTE) has been engaged by AgroBest 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, Driveways and Vehicular Crossings Code and State Code 1 are provided as appendices to this report.

2.0 SUBJECT SITE

2.1 Location of Subject Site

As shown in Figure 2.1, the subject site is located on the north-eastern corner of the Emeri Street / Eastridge Street intersection. The site is identified as Lot 115 and has a site area of 5,804m^2. 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 comprises of a warehouse building with ancillary office facilities. The development summary is as follows.

DEVELOPMENT DETAILS		
SITE	5804m2	
PROPOSED GBA	ALLOWED	ACTUAL
GROUND FLOOR WAREHOUSE GBA		2673m2
GROUND FLOOR ADMIN GBA		381m2
FIRST FLOOR GBA		491m2
TOTAL BLDG. AREA (GBA)		3545m2
PROPOSED GFA	ALLOWED	ACTUAL
GROUND FLOOR GFA		2595m2
FIRST FLOOR GFA		428m2
TOTAL GFA		3023m2
SITE COVERAGE	70%	55.4%
HARDSTAND		1954m2
LANDSCAPING		463m2

The proposed warehouse has been purpose designed for AgroBest. The warehouse will be used to unload, store and distribute plant nutritional systems nationally.

A total of 40 car parking spaces are proposed to be provided.

Access is proposed to be gained via three separate vehicle crossovers at the following locations:

- Southeastern crossover: Entry/exit for light vehicles for carparking.
- Southwestern crossover: Entry/exit for light and heavy vehicle.
- Western crossover: Entry only for light and heavy vehicle access.

The proposed site plan is shown in Figure 3.1.

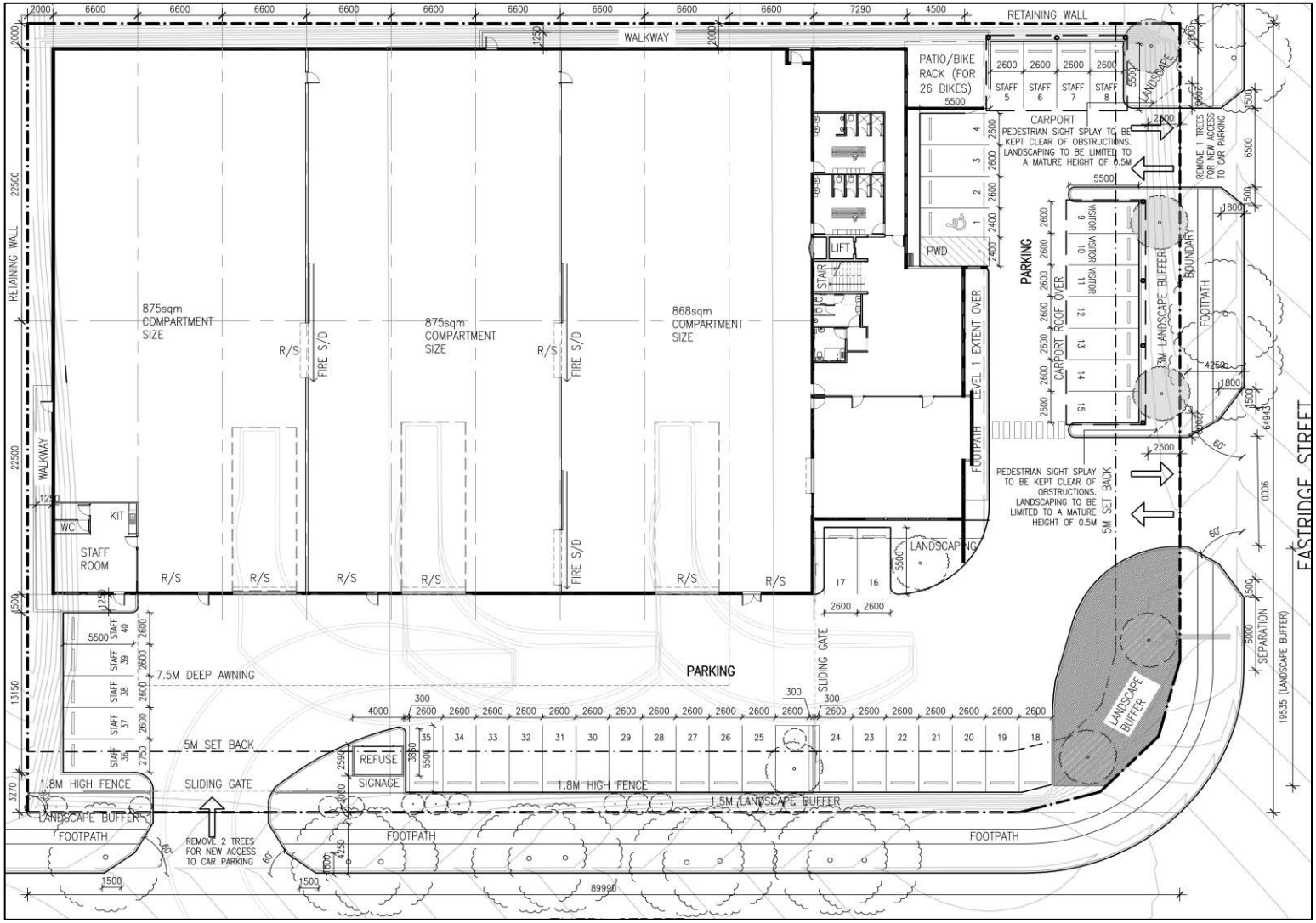


FIGURE 3.1 – PROPOSED SITE PLAN

4.0 CAR PARKING

4.1 Car Parking Supply

In accordance with the *M38 Industrial Place Code – AS8.1.2*, the following rate applies to the proposed use:

Warehouse:
2 spaces per tenancy or lot plus
1 space per 50m^2 of GFA up to and including 500m^2, and
1 space per 100m^2 of GFA over 500m^2

Application of the above rates to the proposal results in the following requirement:

2 spaces +
10 spaces for the first 500m^2
26 spaces for the balance of 2523m^2
Total – 38 spaces

The proposed supply of 40 spaces therefore meets the Acceptable Outcome.

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: - Staff - Visitors - PWD Bay	 2.4 metres 2.5 metres 2.4 metres	 2.6 metres 2.5 metres 2.4 metres	 Compliant 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	N/A	N/A

The proposed dimensions of the car parking area are shown as Figures 4.1 and 4.2. Swept paths of typical car parking spaces are shown in Figures 4.3 and 4.4.

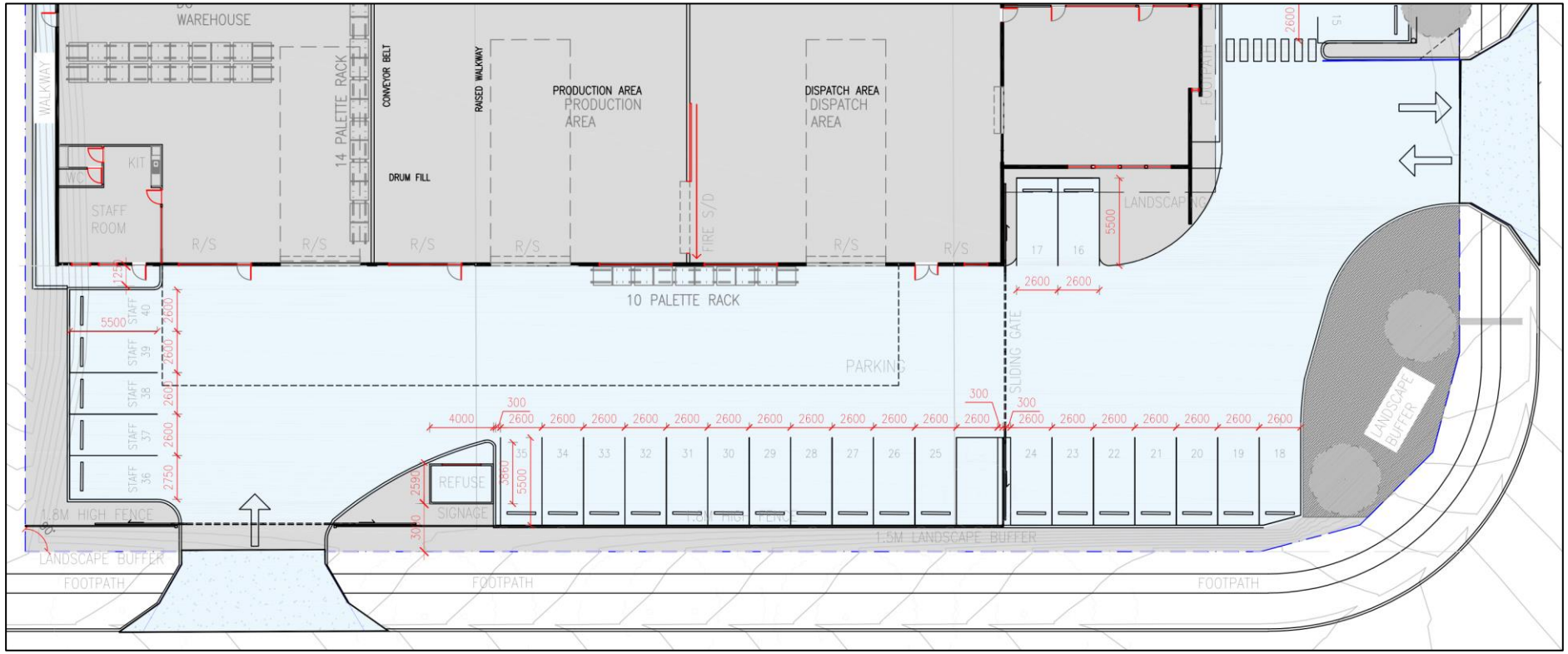


FIGURE 4.1 – DIMENSIONED CAR PARKING LAYOUT (SOUTHERN CAR PARK)

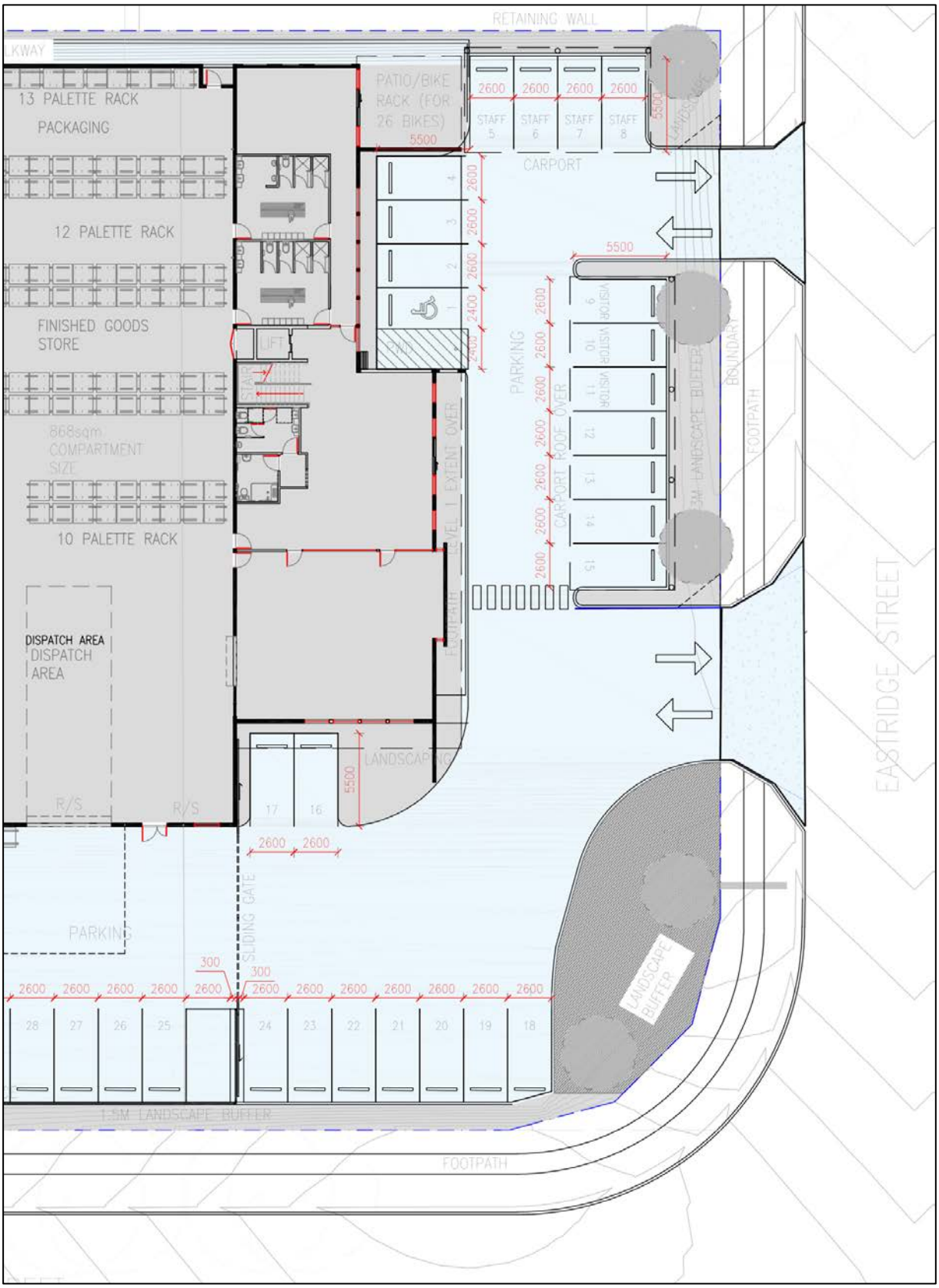
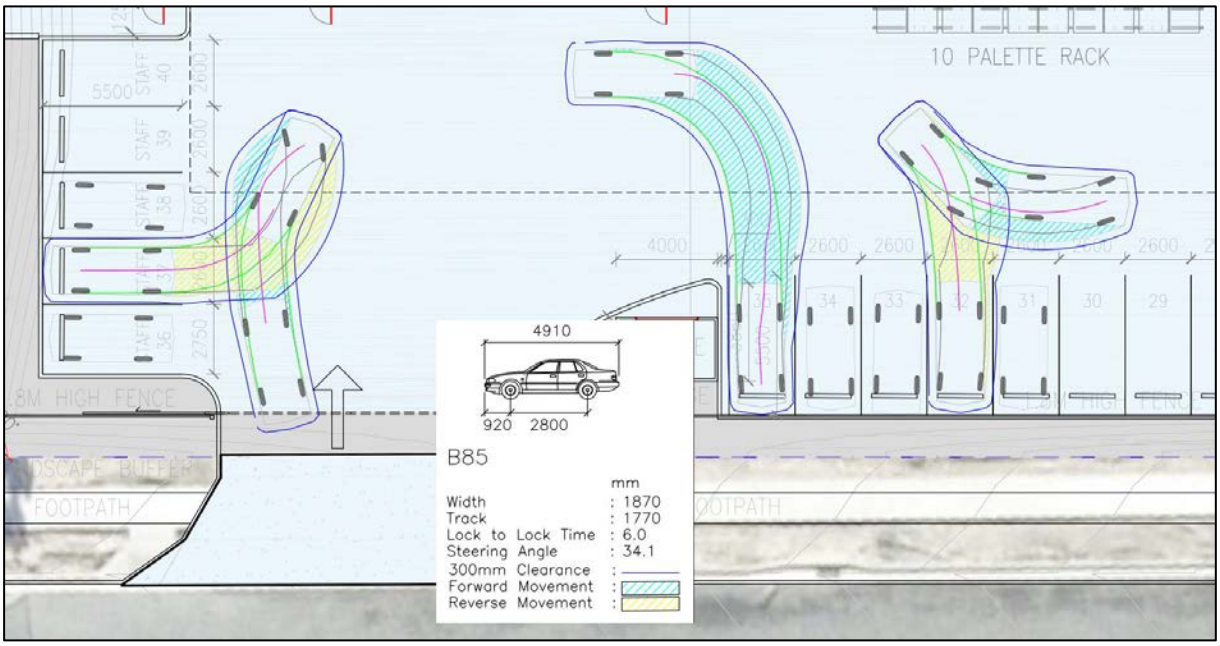


FIGURE 4.2 – DIMENSIONED CAR PARKING LAYOUT (NORTHERN CAR PARK)



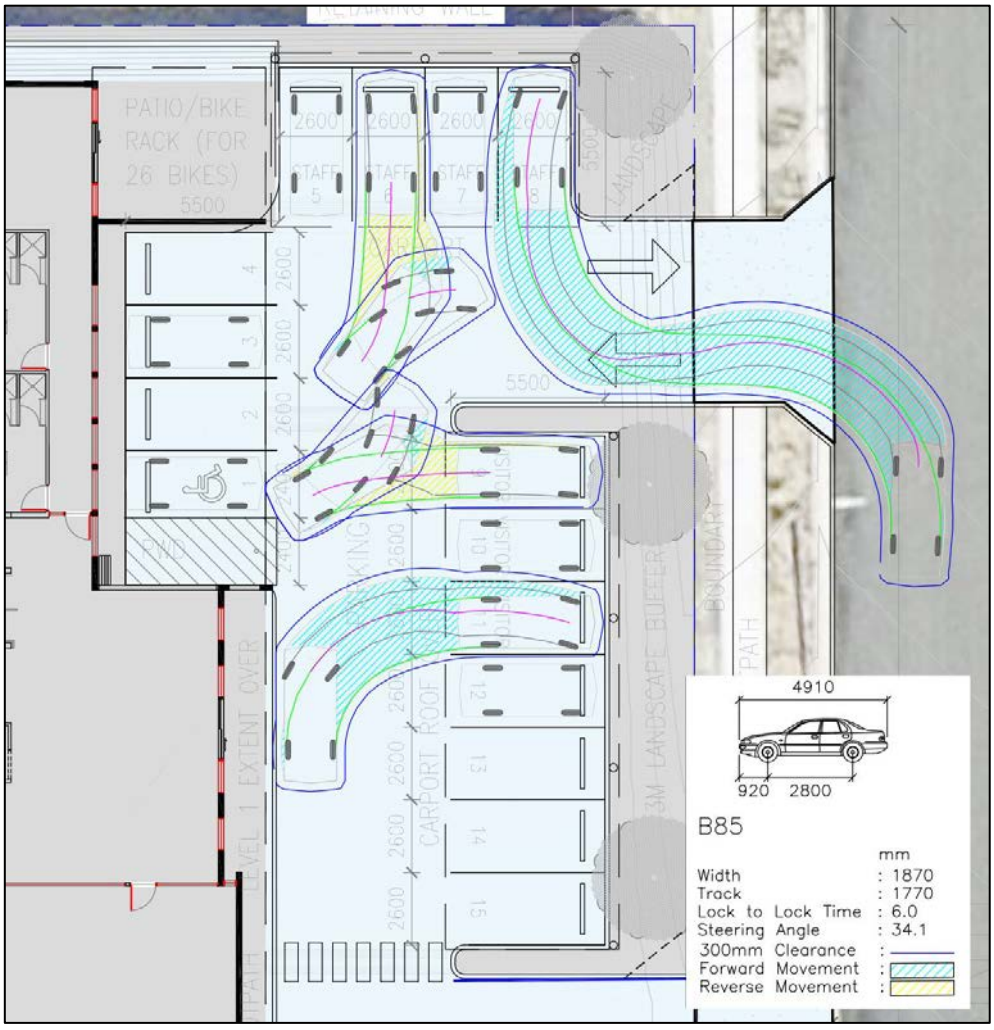


FIGURE 4.3 – SWEPT PATH FOR B85 VEHICLE MANOEUVRING CAR PARKING (NORTHERN CAR PARK)

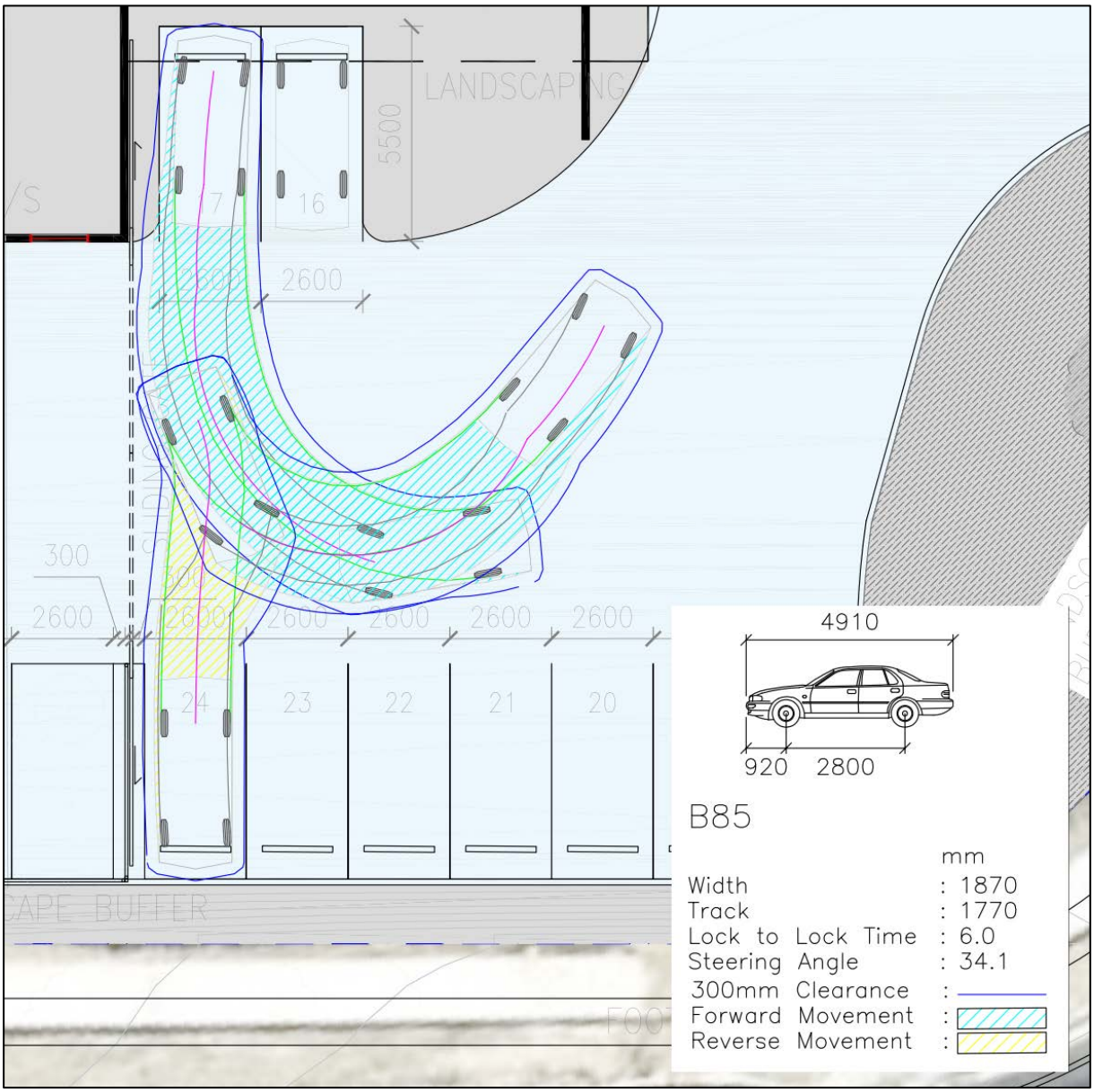


FIGURE 4.4 – SWEPT PATH FOR B85 VEHICLE MANOEUVRING CAR PARKING (SOUTHERN CAR PARK)

5.0 ACCESS ARRANGEMENTS

It is proposed that separate access points will be provided for heavy and light vehicles. As shown in Figures 5.1 – 5.3, the proposed access crossover splays have been designed in accordance with the IPWEA Standard Drawing RS-051.

The proposed access crossovers will have been designed to be suitable for heavy vehicle movements.

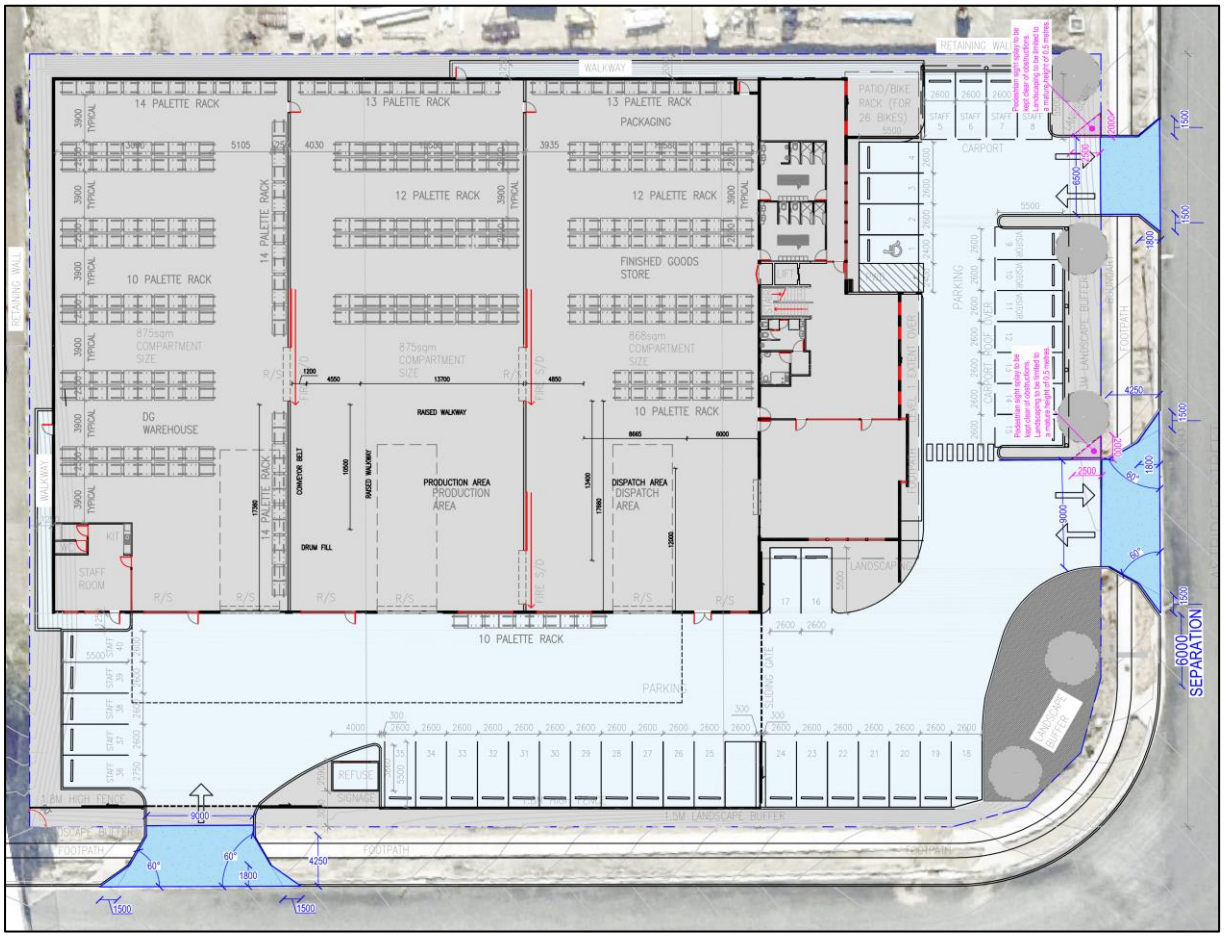


FIGURE 5.1 – PROPOSED ACCESS CROSSOVER ARRANGEMENTS (OVERALL)

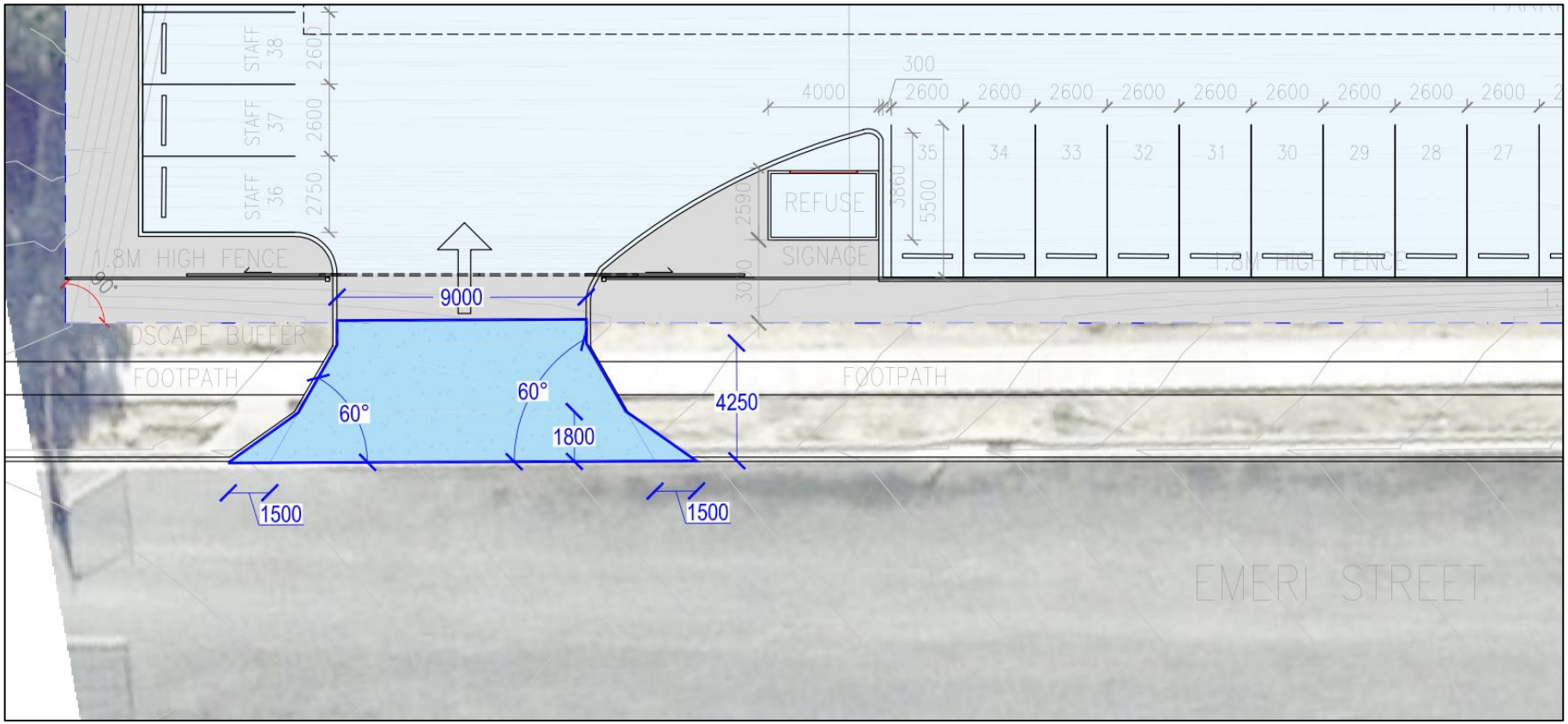


FIGURE 5.2 – HEAVY VEHICLE CROSSOVER ARRANGEMENTS (EMERI STREET CROSSOVER)

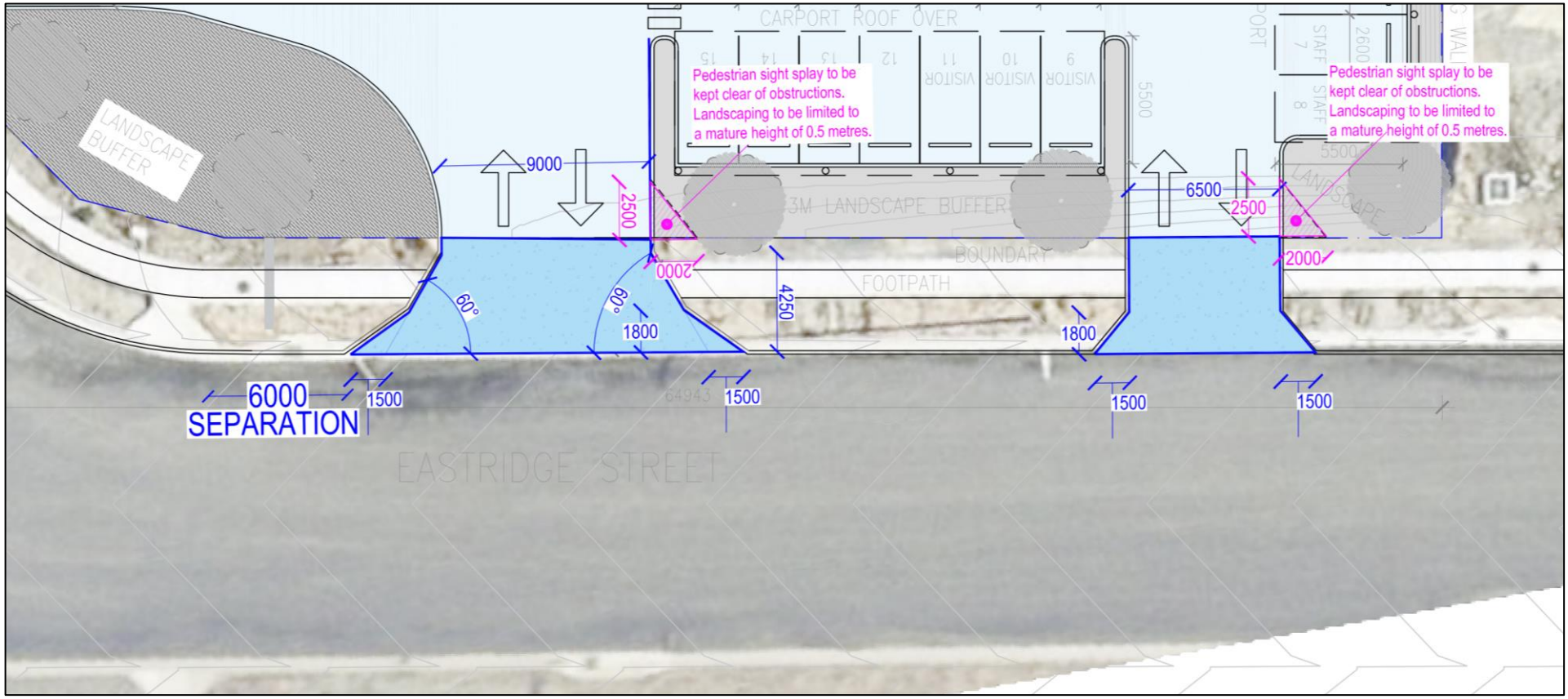


FIGURE 5.3 – LIGHT AND HEAVY VEHICLE CROSSOVER ARRANGEMENTS (EASTRIDGE STREET CROSSOVERS)

6.0 PROVISION FOR SERVICE VEHICLES

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

The swept path for a Heavy Rigid Vehicle (HRV) and Articulated Vehicle (AV) negotiating the site are shown in Figures 6.1 – 6.3.

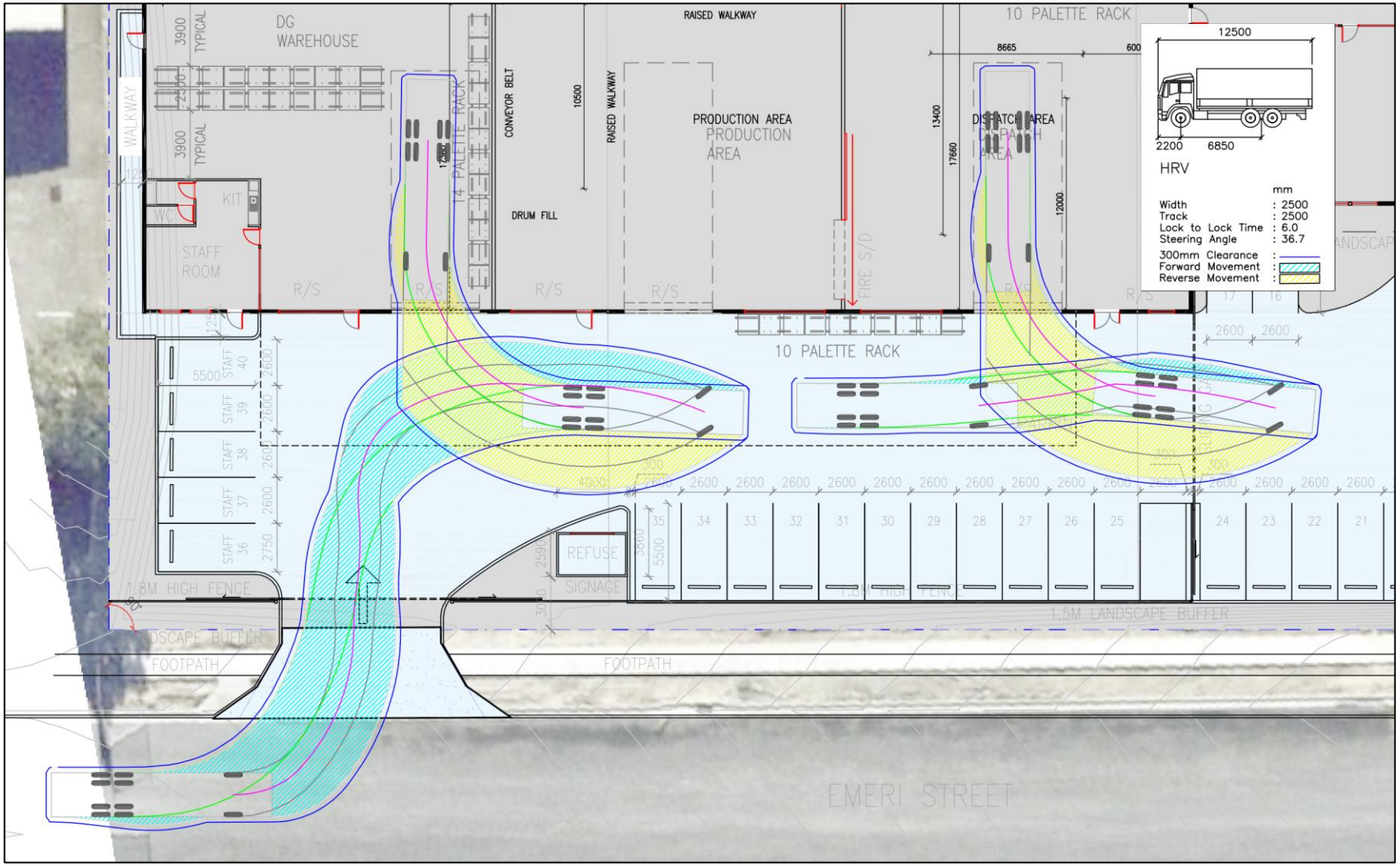


FIGURE 6.1 – ON-SITE SERVICE VEHICLE MANOEUVRING (HEAVY RIGID VEHICLE (HRV))

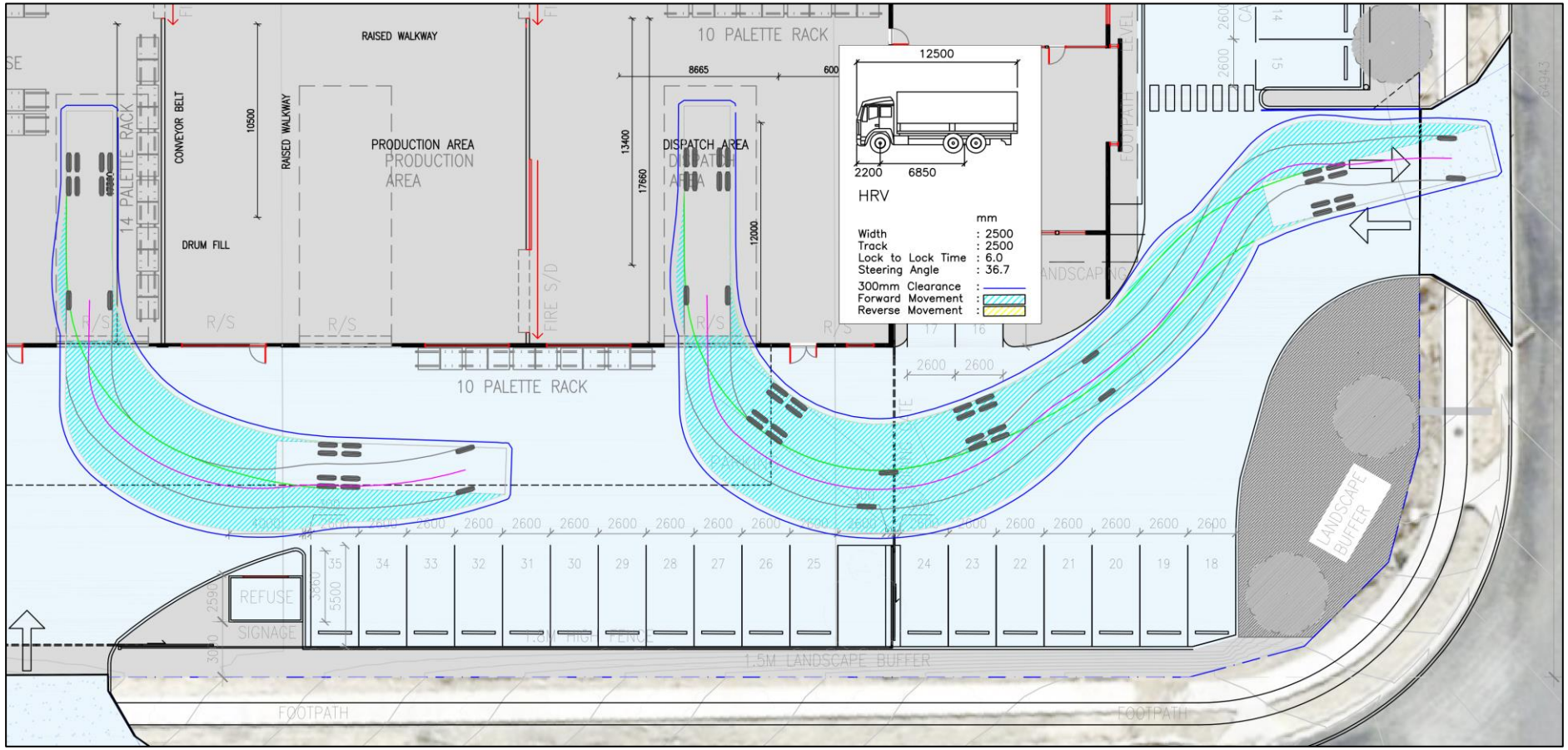


FIGURE 6.2 – ON-SITE SERVICE VEHICLE MANOEUVRING (HEAVY RIGID VEHICLE (HRV))

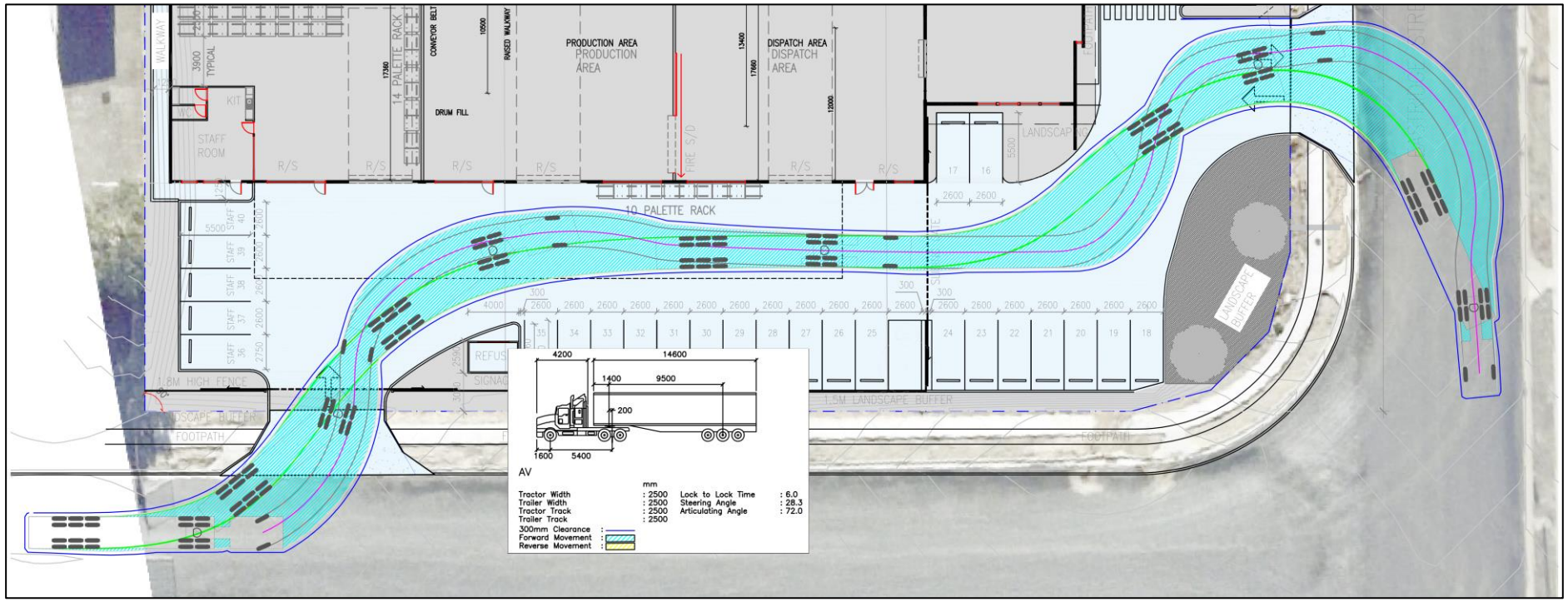


FIGURE 6.3 – ON-SITE SERVICE VEHICLE MANOEUVRING (19 METRE ARTICULATED VEHICLE (AV))

7.0 PROVISION FOR PEDESTRIANS AND BICYCLES

In accordance with the *M38 Industrial Place Code – AS41.4*, the following rate applies to the proposed use:

Warehouse:
1 space per 800m^2 of GFA plus.

Based on the above, the Acceptable Outcome for car parking for the proposed development is 4 spaces. The proposed development provides a secured bicycle parking facility at the northern end of the site, which will comfiortably accommodate at least 12 bicycles.

8.0 SUMMARY OF CONCLUSIONS & RECOMMENDATIONS

- The subject site is located on the eastern side of Homestead Drive within the Vantage Industrial Estate.
- The proposed plan of development comprises of a warehouse building with associated office facilities. The proposed warehouse has been purpose designed for AgroBest.
- The proposed supply of 40 parking spaces and therefore complies with the Transport Code.
- 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.
- In accordance with the Transport code, the proposed plan of development has been designed to allow vehicles up to a 20 metre long Articulated Vehicle (AV) to satisfactorily access and circulate throughout the site whilst maintaining 0.5 metres to obstructions at all times.

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APPENDIX G

SITE BASED MANAGEMENT PLAN

AgroBest NUTRITIONAL SYSTEMS

VantageYatala

SITE BASED MANAGEMENT PLAN

ERA7 - FERTILISER MANUFACTURE PLANT

LOT 115 EMERI STREET, STAPYLTON

PREPARED FOR: AGROBEST PTY LTD

April 2022

Vantage Industrial Estate
115 Emeri Street, Stapylton
Lot 115 on SP316137
Prepared for Agrobest Australia Pty Ltd
April 2022

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1 Introduction

1.1 Goal and Purpose

This Site Based Management Plan (SBMP) has been prepared to support an application for a Material Change of Use (MCU) and associated ERA for a fertiliser manufacturing plant at Lot 115 Emeri Street, Stapylton.

Given the nature of site operations, a development approval is being sought from the Department of Environment and Heritage Protection (DES) for Environmentally Relevant Activity (ERA) ***7 (4a) – Fertiliser Manufacturing: 200t-5000t/yr***

The above applications represent a new activity for a site located at Lot 115 Emeri Street, Stapylton (Lot 115 on SP316137 which is illustrated in **Figure 1. and Figure 3.)** and will require the construction of a new plant, warehouse, **ancillary** structures and a carpark.

Figure 1 - Location aerial (QLD Globe, 2021)

A site layout plan is included in **Figure 2**.

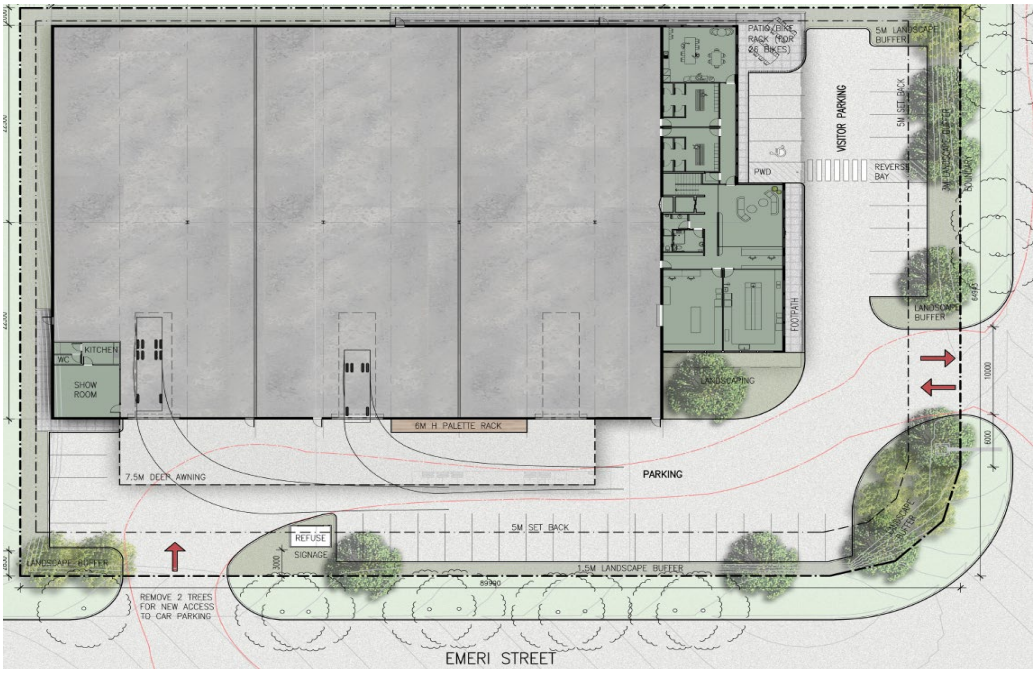


Figure 2 – Proposed Site Plan (GDP File, 2021)

Key objectives of this Operational SBMP report are to:

- *Address all relevant **environmental management issues** attached to the site;*
- *Develop **'life-of-proposal' control strategies** incorporating performance criteria to quantify acceptable levels of environmental harm;*
- *Provide evidence of **environmental responsibility** and **sustainable management** during the operation of the fertiliser production plant;*
- *Establish **performance criteria** and **objectives** relating to environmental and social impacts which will include measurable indicators and standards;*
- *Outline **monitoring techniques** to be undertaken against the performance criteria;*
- *Detail **prevention, minimisation** and **mitigation** strategies for controlling anticipated environmental impacts from a range of sources;*
- *Define roles of onsite **responsibility** for environmental management;*
- *Detail the **timing** of environmental management initiatives proposed;*
- *Outline **reporting** and **auditing** responsibilities for meeting objectives;*
- *Outline proposed **corrective actions** to remedy environmental issues that may arise;*
- *Provide Gold Coast City Council with a framework to assess **compliance** with the relevant statutory regulations;*
- *Provide a platform for a **consistent approach** to environmental management at the site for the duration of the plant's operation.*

No construction phase activities associated with the ERA has been included in the SBMP, and subsequently no reference is made to environmental issues such as earthworks, assessment of alternative locations, or consideration of factors such as Acid Sulphate Soils.

1.2 SBMP Overview

Agrobest Pty Ltd is seeking a development approval to operate a plant for the manufacture of agricultural fertilisers.

This operation is best described as ERA 7 (4) – Fertiliser Manufacture.

The operating hours of the factory are from 7:30am until 4:00pm on weekdays (Monday – Friday).

The materials produced in conjunction with this operation trigger an ERA pursuant to the *Environmental Protection Regulation (2008)*:

ERA 7 (4a) – Fertiliser manufacturing: 200-5,000t/yr

This SBMP has been prepared to provide the framework necessary to ensure that the recommended environmental control strategies identified are effectively implemented to minimise any actual or potential adverse environmental impacts during the plant's operation. Each of the site specific environmental issues are identified in **Section 2.3** and individually addressed in **Chapter 3** in accordance with the following structure:

Element/issue:
The aspect of the operation to be managed as it affects environmental values.

Performance Objectives:
The criteria against which the level of achievement of the stated objective shall be measured.

Operational Policy: The management objective that applies to the potential source of environmental harm.

Performance criteria: Measureable outcomes for each element of the operation.

Implementation strategy: Strategies that will be implemented in order to achieve the performance criteria.

Monitoring:
The monitoring requirements to measure performance and success of environmental protection measures.

Reporting/ Responsibility
Required reporting and review arrangements for each task, action (when and by whom). Assign responsibility for carrying out each task or action to relevant person or organisation.

Corrective Actions:
Actions in the event of non-compliance with stated objectives/ targets; including responsibility for remediation.

1.3 Responsibility and Training

The Agrobest Suitably registered operator is responsible for ensuring all personnel associated with the plant's operation are aware of and trained in the contents of this SBMP and act in accordance.

The primary principle underpinning this SBMP is to demonstrate the commitment by senior management of Agrobest to achieve specified and relevant environmental goals.

All staff employed by Agrobest will be educated (as part of induction and ongoing staff training initiatives) on the under development approval and general environmental duty of care pursuant to the *Environmental Protection Act (1994).*

This SBMP will be made readily available along with development approval in the onsite office at Lot 115 Emeri Street and to all warehousing and production staff employed (directly or indirectly) by Agrobest as a reference document.

The Suitably registered operator of Agrobest shall take responsibility for the effective implementation of this SBMP during the plant's ongoing operation.

1.4 Incident/ Complaint Resolution

There will be particular adherence to prompt resolution of any public complaints received in relation to the operation of the plant. Subsequently, emphasis will be placed on the development and implementation of corrective actions in response to non-compliance with the SBMP (as identified as part of the monitoring process).

The performance objective/ indicator regarding complaint resolution is for the issue to be resolved in such a manner that there will be no further complaint.

The Suitably registered operator is to complete and maintain an *Incidents and Complaints Log Register* which lists the date of the incident or complaint. In each instance, an incident/complaint log is to be completed as part of this register by the Suitably registered operator. The log register will be stored in the main office at Lot 115 Emeri Street, Stapylton. This log will contain such information such as:

- Date of incident
- Nature of incident and subsequent information;
- Location;
- Name of person who reported the incident;
- Staff member who received notice of incident;
- Managers review and comment;
- Recommended action to resolve the incident;
- List of organisations to be engaged if incident is warranted;
- Outcome of actions undertaken subsequent to incident being recorded; and
- Date of incident resolution.

In addition to the above log, each incident is to be registered on the Incidents and Complaints Register. Further, DES is to be notified and directions sought with regard to corrective actions for incidents which have the potential for environmental harm.

1.5 SBMP Review and Improvement Plan

A review of this SBMP has been undertaken by Agrobest. Periodic reviews of the currency of this SBMP will be undertaken on a yearly basis by the Suitably registered operator and the environmental safety officer.

The periodic reviews will be undertaken to:

- Confirm that the proposed actions are appropriate;
- Assess the effectiveness of actions in preventing and minimising environmental impact in accordance with development approval as a result of the operation;
- Identify more effective methods;
- Detect any problems that arise that may require an amendment to provisions made in this SBMP; and
- Detect if any change in operation warrants a change to the SBMP.

The Suitably registered operator of Agrobest is to sign below to indicate that they have read, understood and implemented this SBMP. By signing this document, the Suitably registered operator also commits to the following statement:

"As Suitably registered operator of Agrobest Pty Ltd at Lot 115 Emeri Street, Stapylton, I commit to striving to achieve all of the goals and performance measures indicated in the following Risk Management Procedures. I will work with my staff to ensure that any and every opportunity to achieve these goals is realised and that all opportunities for improvement are readily identified and implemented."

Name	Position	Date	Signed
	Suitably registered operator		

2.2 Surrounding Environment

The surrounding land uses consist of:

Table 1: Surrounding Land Use Areas

Orientation from subject site	*Location*
North	Yatala Jacobs Well Road and scattered residential dwellings/rural land
South	General Light Industrial Activity
East	General Light Industrial Activity and the Yatala Drive-in Cinema
West	General Light Industrial Activity and the Pacific Motorway

The site is zoned by Gold Coast City Council as being Precinct B – General Impact Business and Industry Precinct as varied by Preliminary Approval.

The nearest sensitive receptors include two dwellings and the Yatala Drive-in Cinema located approximately 188 metres north and 195 metres east, respectively. The nearest commercial receptors are several existing industrial premises on Emeri Street, Stapylton, immediately to the east. It is anticipated that other industrial businesses will be located within the Fraser Yatala industrial precinct in the future. It is noted that all nearby sensitive receptors are affected by road traffic noise from the heavily used M1 Motorway.

The following table presents the results of 2019 study of ambient noise levels within the same industrial precinct at Stapylton from the unattended noise survey (Acoustic Works 2019). Any periods of inclement weather or extraneous noise were omitted from the measurements prior to determining the results. In that study, modelling of noise from a proposed warehouse predicted compliance with acoustic quality objectives in the *Environmental Protection Policy (Noise) 2008*.

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

Table 2 Measured ambient noise levels – all time periods (from Acoustic Works 2019)

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

The closest significant ecological features within the proximity of the subject site is the Albert River, which is 878 metres north of the site and the Yellowwood Reserve which is approximately 1.2 km to the north of the site.

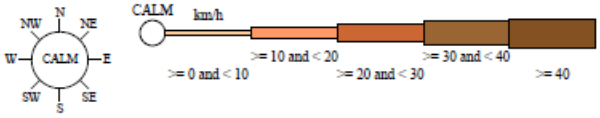
Climate data was sourced from the nearest meteorological station at Logan City Water Treatment Plant (BOM 2022). Wind speed and direction data varies seasonally, however it indicates that for much of the year the prevailing winds (east and south easterly) are unlikely to carry any dust or fumes generated at the subject site in the direction of sensitive receptors. A summary of climate data is provided in Table 1 and wind speed and direction data in Figure 4 and Figure 5.

Table 3 Climate Summary from 1992 to 2022 (Source: BOM, Logan City Water Treatment Plant No. 040854)

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years	
Temperature															
Mean maximum temperature (°C)	29.9	29.5	28.5	26.5	24.0	21.6	21.6	22.8	25.2	26.6	28.0	29.2	26.1	29	1992 2022
Mean minimum temperature (°C)	20.7	20.6	19.2	16.1	12.6	10.2	8.9	9.5	12.6	15.1	17.5	19.4	15.2	29	1992 2022
Rainfall															
Mean rainfall (mm)	127.6	160.3	142.8	79.0	96.6	72.5	34.9	41.9	38.2	72.9	101.8	125.8	1091.8	25	1992 2022
Decile 5 (median) rainfall (mm)	106.4	119.8	122.9	63.0	52.0	53.7	30.8	23.2	25.2	50.6	82.6	120.3	1096.3	29	1992 2022
Mean number of days of rain ≥ 1 mm	9.7	11.3	10.7	7.8	7.1	6.4	5.2	4.0	4.9	6.8	8.7	9.6	92.2	29	1992 2022

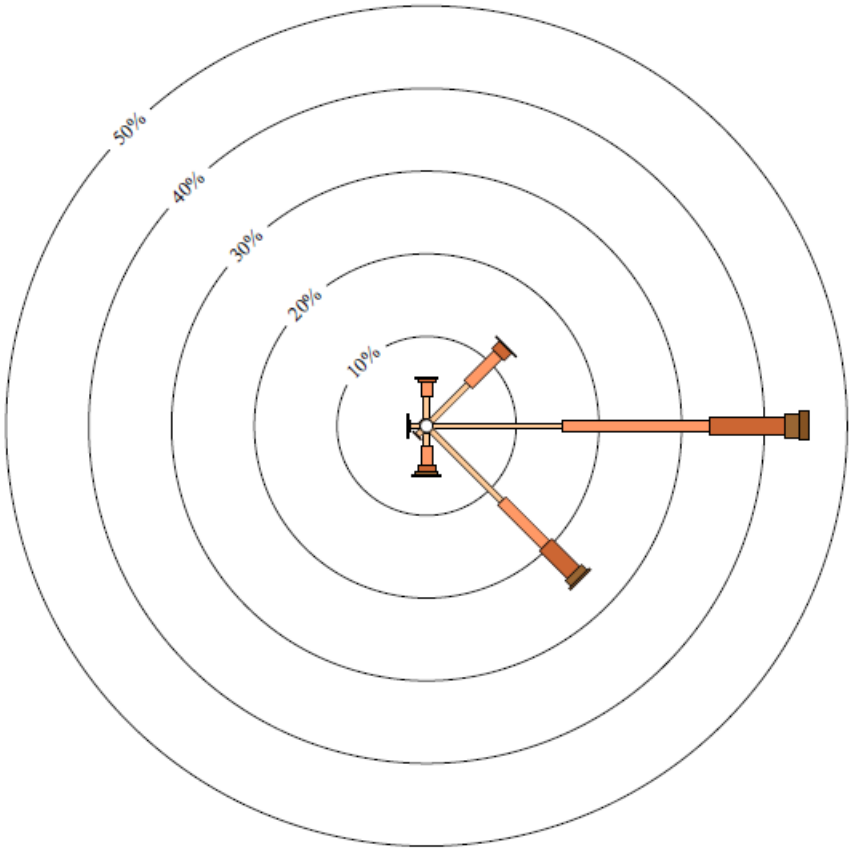
Figure 4 cont. Wind Rose summaries of wind speed and direction from 1992 to 2022 (Source: BOM, Logan City Water Treatment Plant No. 040854)

Rose of Wind direction versus Wind speed in km/h (01 Oct 1992 to 12 Aug 2021)
Custom times selected, refer to attached note for details
LOGAN CITY WATER TREATMENT PLANT
Site No: 040854 • Opened Oct 1992 • Still Open • Latitude: -27.6839° • Longitude: 153.1947° • Elevation 14m
An asterisk (*) indicates that calm is less than 0.5%.
Other important info about this analysis is available in the accompanying notes.



3 pm Feb
750 Total Observations

Calm 4%



Rose of Wind direction versus Wind speed in km/h (01 Oct 1992 to 12 Aug 2021)
Custom times selected, refer to attached note for details

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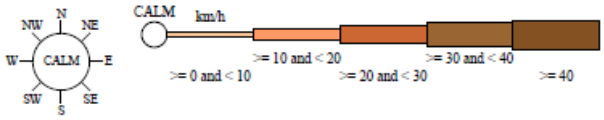


3 pm Jul
812 Total Observations

Calm 9%

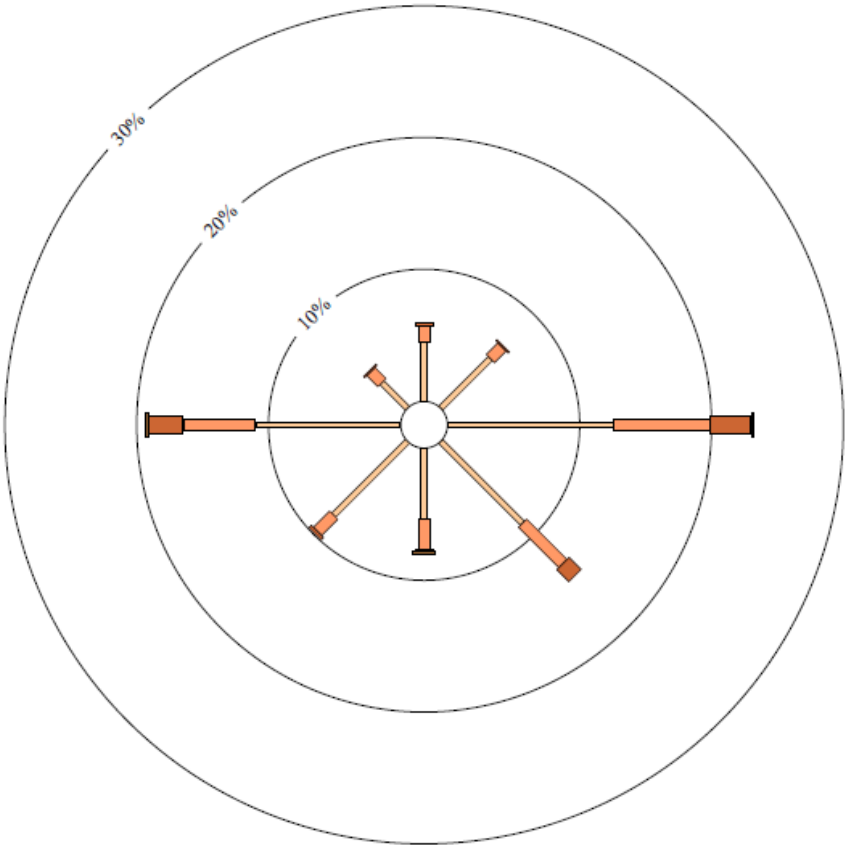
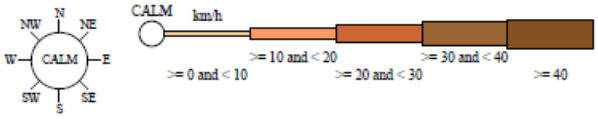


Figure 4 cont. Wind Rose summaries of wind speed and direction from 1992 to 2022 (Source: BOM, Logan City Water Treatment Plant No. 040854)

Rose of Wind direction versus Wind speed in km/h (01 Oct 1992 to 12 Aug 2021)
Custom times selected, refer to attached note for details

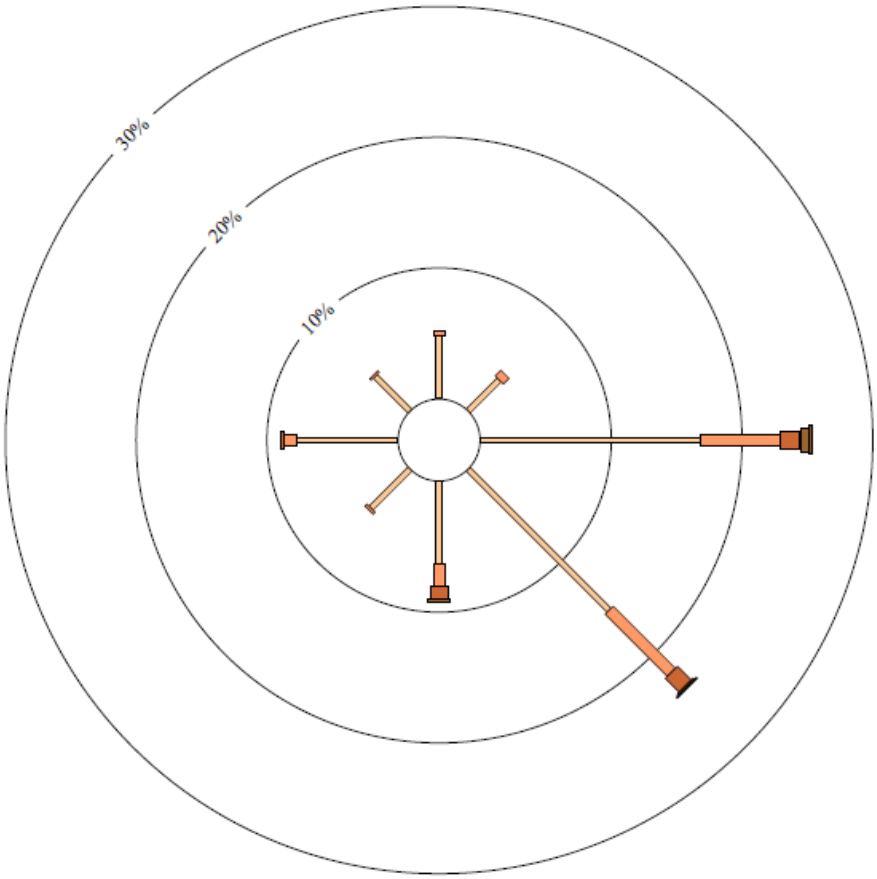
LOGAN CITY WATER TREATMENT PLANT
Site No: 040854 • Opened Oct 1992 • Still Open • Latitude: -27.6839° • Longitude: 153.1947° • Elevation 14m

An asterisk (*) indicates that calm is less than 0.5%.
Other important info about this analysis is available in the accompanying notes.



9 am Jan
886 Total Observations

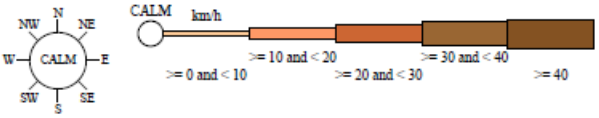
Calm 16%



Rose of Wind direction versus Wind speed in km/h (01 Oct 1992 to 12 Aug 2021)
Custom times selected, refer to attached note for details

LOGAN CITY WATER TREATMENT PLANT
Site No: 040854 • Opened Oct 1992 • Still Open • Latitude: -27.6839° • Longitude: 153.1947° • Elevation 14m

An asterisk (*) indicates that calm is less than 0.5%.
Other important info about this analysis is available in the accompanying notes.



9 am Jul
891 Total Observations

Calm 15%

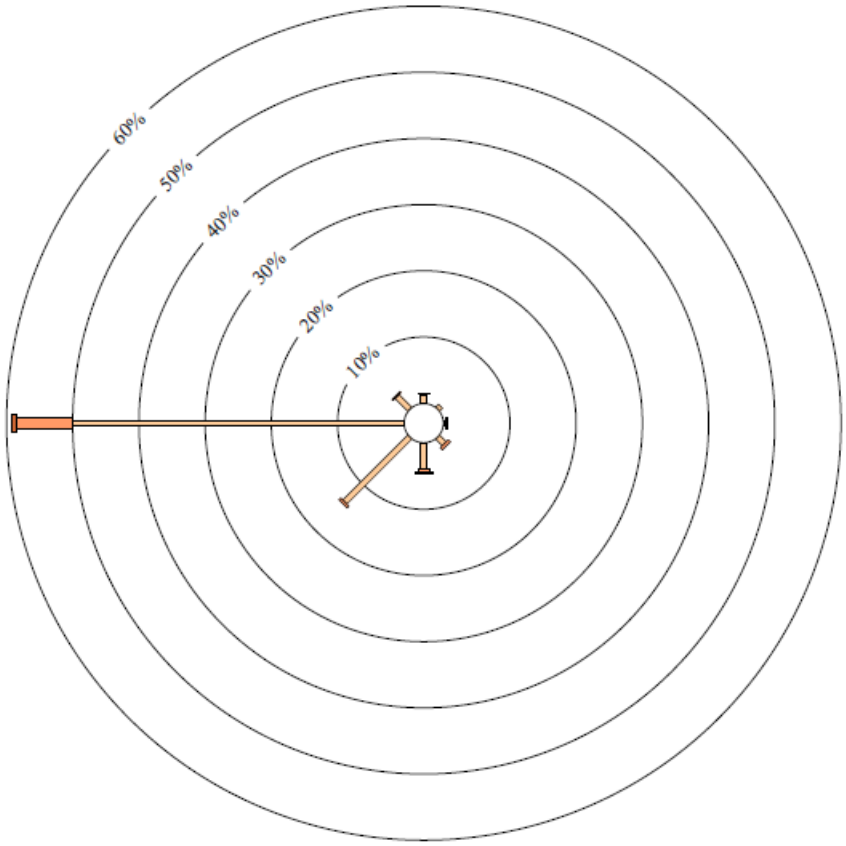
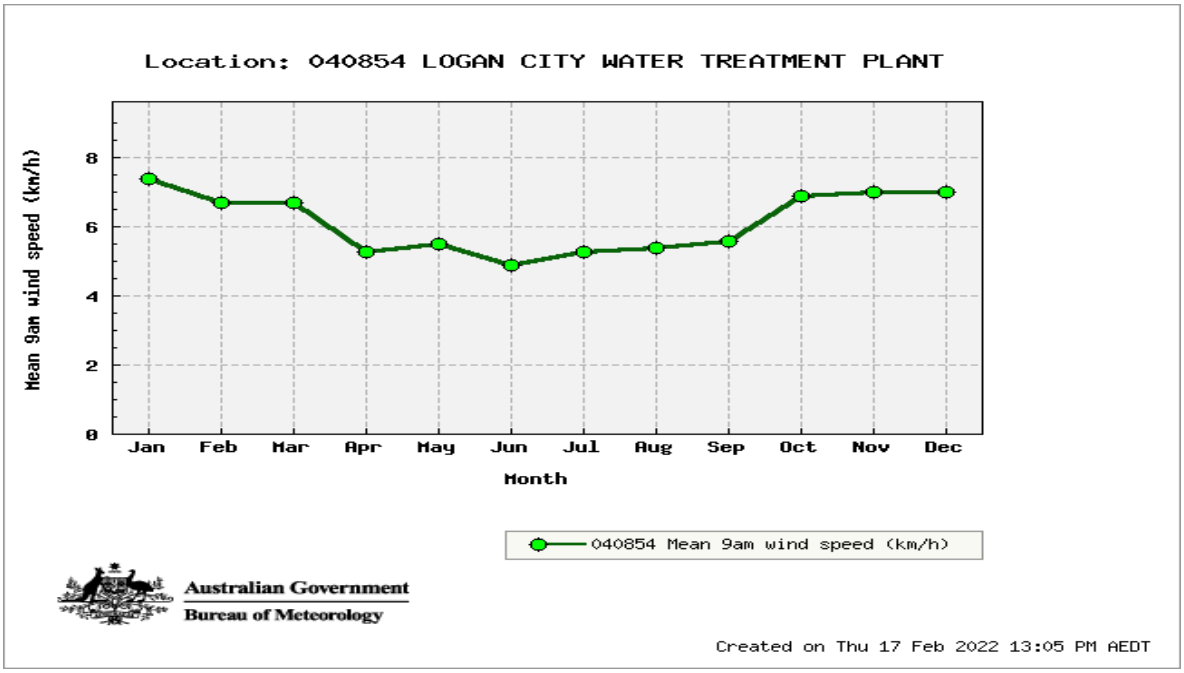
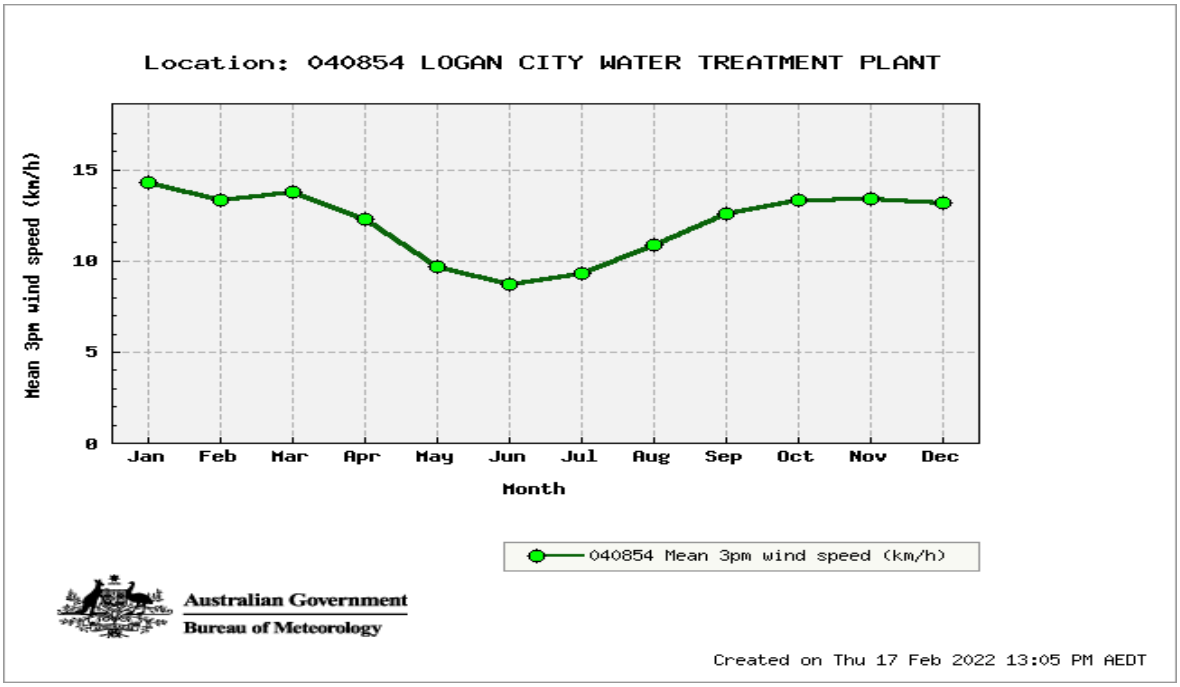


Figure 5. Charts of wind speed and direction from 1992 to 2022 (Source: BOM, Logan City Water Treatment Plant No. 040854)


Location: 040854 LOGAN CITY WATER TREATMENT PLANT
Mean 9am wind speed (km/h)
0
2
4
6
8
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month
040854 Mean 9am wind speed (km/h)
Australian Government
Bureau of Meteorology
Created on Thu 17 Feb 2022 13:05 PM AEDT


Location: 040854 LOGAN CITY WATER TREATMENT PLANT
Mean 3pm wind speed (km/h)
0
5
10
15
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month
040854 Mean 3pm wind speed (km/h)
Australian Government
Bureau of Meteorology
Created on Thu 17 Feb 2022 13:05 PM AEDT

2.3 Process

Process Description

The process and operation undertaken at Agrobest is most appropriately described by ERA 7 (4) – Fertiliser Manufacture and can be described as follows:

1. Materials come by truck to site and are checked in against invoice and batch numbers.

2. Materials are unloaded from truck driven into shed to than be stored in specified racking; categorization of Corrosive (alkaline/acidic), Oxidising and Flammable materials.

3. The manufacturing process can utilise from 2-15 (average 4) different raw materials. Raw materials, are pulled in singular order to than be placed on gantry for man access for solid materials. Liquid materials stored usually in IBC/1,000L containers, hosing and fastening for IBC, to than be lifted to tank access point to than open.

4. The mixing tank will be filled with water, 40-80% capacity (usually 70%), for the raw materials to be added.

5. More than 60 products are manufactured with varying raw materials. Depending on specific raw materials we can recycle any washing back into manufacture. Washings pumped into 1,000L containers/IBC to be added to next manufacture consisting of similar raw materials.

6. Once product/liquid is completed, three various forms of decanting occur; into customer requested containers (1L, 5L, 20L, 200L or 1,000L), or into bulk storage tanks (5,000L - 15,000L), or into 1,000L IBCs to be later decanted or labelled to final product and/or a mixture of all three forms.

7. Small packages, 1Ls, 5Ls and 5 or less 20Ls are placed for Startrack to pickup. Medium sized orders, 12 or more boxes of 1Ls and 5Ls, 6 or more 20Ls, 1 or more 200L and/or a mixture of, will be consolidated onto a pallet and wrapped by machine and pallet put away into finished product racking. IBCs will be placed in finished product racking.

8. Pickup with larger orders; a truck will arrive. A forklift will remove products from finished product racking and placed onto truck.

Appendix A contains flow diagrams that demonstrate a step by step depiction of the ERA occurring onsite.

2.4 Environmental Issues

Chapter 3 of this SBMP contains descriptions of issues and management strategies for the ongoing operation of the Agrobest fertiliser manufacture plant within the following environmental management areas:

- Air and Dust
- Noise Management

- Leakages and Spills
- Emergency/Incident Management Plan
- General environmental duty (stormwater management and waste management)

2.5 Summary and Conclusion

The above sections have outlined the goal and purpose of this SBMP. It has justified the rationale behind selecting ERA 7 (4) – Fertiliser Manufacture as the most appropriate and relevant ERA describing the operations undertaken at Agrobest. The format and structure of the subsequent specific risk management procedures for individual sources of environmental risk have been delineated in addition to an overview of procedures involved with the implementation of this SBMP including training requirements and areas of accountability and responsibility. The formal process of recording and managing incidents and complaints has also been detailed.

A current and historical synopsis of the site, its land uses and surrounding uses including adjacent sensitive receivers has been discussed. An overview description of the process involved in fertiliser manufacture and capacity of the plant have been outlined. Finally, a list of the potential environmental issues likely to affect the subject site and its surrounding environment has been discussed.

The following sections specifically address individual environmental risks identified on the subject site and outline methods of management and monitoring to ensure that the processes undertaken at the Agrobest site do not negatively affect the surrounding environment and associated sensitive receivers.

3 Risk Management Procedures

3.1 Air Quality Management Plan

The environmental risks relating to air quality arise from the chemicals used to manufacture the fertilisers and dust generated throughout the operations. To ensure this SBMP is aligned with a best practise approach to environmental management, the following management plan will address actual and potential environmental issues.

. Dust mitigation will be specifically addressed by filters installed as part of a dust collection system. Specifically, a DCS 45/2TPI dust filtration system (Dust Collection Service Pty Ltd) is proposed to be installed. The filtration system involves two stages of particulate removal. The first stage has a removal efficiency of 99.98% for 0.5 micron particles and 99.99% for 0.3 micron particles. The maximum particulate matter concentration released from the stack is expected to be less than 30 mg/Nm3.

Given the nature of the operation, ventilation via fanned venting should mitigate air quality issues. There are very limited emissions of irritant and polluting gases in the form of ammonia for our fertilizer facility. As an irritant pungent gas, the installation of a DFV Series wet scrubber (Dust Collection Service Pty Ltd) will be required for the treatment of ammonia through a controlled treatment/reaction of ammonia for removal. Moreover, this state of the art wet scrubber will be installed as part of a ducted system to ensure fumes and dust emitted from factory operation will be reduced. It is only intended this system to be required upon greater use of ammonia upon future investigation by the operator. Upon immediate commencement of the use, this system will not be required.

This particular measure will potentially involve the integration of by-products of this scrubbing process into manufacture of our fertilizer e.g., various acids could be used to neutralize ammonia, forming a salt that could be added into fertilizer for its nutritional value.

Measurements of air quality will occur weekly or when directed by specific raw material utilization (i.e., Ammonia in use or carbon dioxide production). CO2 and Ammonia will be measured weekly and whilst raw material is being used. As mentioned, with specific irritant gases, more so specifically ammonia, product development staff will find procedure to minimize exposure or production of this gas in manufacturing procedure.

Various forms of organic matter may produce unpleasant odour. To reduce this odour, a Deodouriser dispersal system will be installed that uses a fine 0.02-micron mist that will be capable of mitigating the obnoxious odours. Dispersion lines and nozzles will be installed that are capable of dispersing deodorisers, “a mixture of cationic and non-ionic surfactants coupled with essential oils, odour absorbers and emulsifiers” that will reduce any fumes.

The objectives associated with air emissions for the storage plant are as follows:

Potential Impacts
The main potential source of emission to air is from the chemicals used in fertiliser manufacture have health and environmental effects.

The following Plan details specific measures and processes to manage potential issues associated with air emissions from the site

Element: Air Quality Management Plan	
Policies: • Ensure that emissions do not adversely affect the environment, health welfare and amenity of adjacent land uses; and • All emissions must comply with the performance criteria contained in the development approval, *Environmental Protection (Air) Policy (1997),* or those by Council in the Planning Scheme.	
Performance Objective	• No air quality, dust or odour related complaints directly attributable to Agrobest operations.
Operational Policy	• The management objective of air quality is to ensure that there are no leaks of any gases, odours or dust to the surrounding environment.
Actions/ Controls	• Notify emergency services if necessary • Evacuate areas where air quality may cause adverse health effects • Ensure wet scrubbing system is functioning
Maintenance	• Regularly maintain and test wet scrubbing system on an annual basis. The environmental management officer is responsible for this monitoring and the details of this monitoring kept in a monitoring log on site in the office; • Immediately replace damaged or faulty equipment which could result in discharges to surrounding environment.
Performance Indicators	• No incidents occurring on site relating to air quality discharges
Monitoring	• Regular assessment of functionality of equipment; • Equipment will be serviced and maintained to manufacturers' standards. Monitoring will take place within three (3) months of commissioning the plant. Annual monitoring as per DES Permit will be undertaken.
Reporting / Responsibility	• All complaints from the public are to be recorded in a Complaints Register (by the Suitably registered operator), which is to be held on site. • All complaints will be reported to the Suitably registered operator as they occur. ***Responsible person*** • All Staff • Suitably registered operator
Corrective Action	• If a leak is detected by any staff, the affected machinery will be immediately shut down. It will be immediately reported to the environment manager and appropriate tradespeople engaged to repair it immediately. A comprehensive audit should be undertaken of all equipment within 24 hours to ensure that there are no further risks to additional leaks; • DES will be immediately notified of any leak by the suitability registered operator; • In the event of a repeat incident, further strategies will be devised and implemented where practical.

3.2 Noise Management Plan

The objectives of noise management at the site are to minimise actual and potential noise disturbance to the surrounding environment and comply with the required noise standards in the development approval, in accordance with the *Environmental Protection (Noise) Policy (1997)* and GCCC Planning Scheme.

Due to the industrial setting of the activity, it is considered that there are no significant noise issues likely to occur as a result of the activity. The results of ambient noise monitoring for the surrounding site are presented in Table 2 on page 9 (Acoustic Works 2019). These data indicate that the day to day operation of the site is not considered likely to be particularly noisy (in view of the abutting industrial land uses). The majority of the operations are contained within the structures on site, and involve primarily low noise, electric engines.

The closest residential estate is located approximately 300m west of the operation. Noise from the operation is unlikely to affect this sensitive receiver because it is also located in close proximity to the Pacific Motorway.

Notwithstanding the above, the following management plan has been prepared to comply with the Best Practise approach to environmental management.

Potential Impacts
The external machines supporting the operation are air compressor, air powered diaphragm pump (480L/min), forklift driving, tank agitation (6Kw).

The following Plan details specific measures and processes to manage potential issues associated with noise emitted from the site

Element: Noise Management Plan	
Policies: • To limit as much as possible noise related impacts on surrounding sensitive receptors: and • To comply with the noise performance criteria contained in the GCCC Planning Scheme.	
Performance Objective	• No noise related complaints directly attributable to Agrobest
Operational Policy	• The management objective for noise control is to ensure that no noise complaints are recorded as a result of the operations
Actions/ Controls	• Restrict hours of operation to the stated business hours; • Minimise extraneous nuisance such as shouting and radio; • Whenever possible, limit delivery and dispatch of material to normal hours of operation (7am to 6pm); • Ensure machinery is operated by means of electric motors as opposed to diesel or petrol engines.
Maintenance	• Reduce non-essential noise sources whenever possible; and • Ensure machinery is regularly maintained and service to ensure minimum noise production.
Performance Indicators	• No noise complaints from sensitive receptors in the vicinity of the site that are directly attributable to Agrobest.
Monitoring	• Daily assessment of noise in accordance within noise monitoring requirements outlined in the DES Permit number by a representative of the environment manager;

	• Other noise monitoring as directed by DES.
Reporting / Responsibility	• All complaints (including noise) from the public are to be recorded in a Complaints Register (by the Suitably registered operator), which is to be held on site in the office. • All complaints will be reported to the Suitably registered operator as they occur. ***Responsible person*** • All Staff • Suitably registered operator
Corrective Action	• Corrective actions to be developed in consultation with DES and state agencies if required; • In the event that nuisance noise becomes the basis of consistent complaints that are not vexatious or frivolous, further strategies will be developed and implemented.

3.3 Emergency/Incident Management Plan

In the event of an emergency or threatening situation (to safety, health or environmental) occurring, the following strategy will be implemented.

Potential Impacts
- Threats to staff, members of the public, the environment or adjacent properties;

The following Plan details specific measures and processes to manage potential issues associated with emergencies.

Element: Emergency Management Plan	
Policy: • To responsibly manage hazard and minimise risks to human and environmental health in the event of unforseen emergencies including fire and injury as a result of the site's operation.	
Performance Objective	• Minimise the risk of harm to people or property and the environment through appropriate emergency management processes and protocols.
Actions/ Controls	• All site personnel will be informed of and trained in correct emergency procedures; • Appropriate fire fighting equipment will be kept onsite and clearly signed; • Eyewash stations and Personal Protective Equipment will be available at various places throughout the site; • Maintain a well stocked first aid-kit onsite in the central portion of the main production facility warehouse. The health and safety manager will be responsible for its maintenance; • Contact details of emergency services and other relevant agencies will be kept at several locations on site; • An emergency reporting system will be implemented onsite to alert site personnel and surrounding business staff; • Any hazardous or potentially hazardous situations will be reported to the Suitably registered operator; • A number of spill kits will be maintained at various well marked locations around the production facility warehouse. Their locations

	will be well marked. Spill kits will be maintained and audited on a monthly basis by the Health and Safety Manager. • All emergency situations to be documented.
Maintenance	• All emergency and safety equipment is to be maintained in working order by the Health and Safety Manager; • Records will be kept in the office at the site by the Health and Safety Manager; • Conduct emergency procedures and refresher training courses to raise awareness on an annual basis.
Performance Indicators	• The number of emergencies or incidents; • Harm to people or the environment.
Monitoring	• Ongoing visual inspection of activities, equipment and facilities; • Monthly checks of emergency response equipment service records. Records will be kept by the Health and Safety Manager in the office on site.
Reporting / Responsibility	• All instances of actual or potential emergencies will be reported to the Suitably registered operator as they occur. Environmental incidences and emergencies will be reported to DES on 1300 130 372. ***Responsible person*** • All Staff • Suitably registered operator
Corrective Action	• Review and if necessary modify response procedures, equipment or facilities. Monitoring and containment procedures will also be reviewed on an annual basis.

3.4 Leakages and Spills

Comprehensive mitigation measures will be incorporated into the site layout to manage leakages and spills of chemical at the site. In particular, an inground emergency spill system will be installed as part of the layout design that includes a sloped hardstand area that will direct any spillages or leaks to a spill bucket connected to a 40,000 litre underground FRP tank. This will enable any spills to be safely managed on-site by collecting spilt chemicals in a sealed tank that can be disposed of by a licensed contractor.

In the event of a leakage or spill of products used at the Agrobest plant, the following procedures will be implemented.

Potential Impacts
- Threats to staff, members of the public, the environment or adjacent properties.

The following Plan details specific measures and processes to manage potential issues associated with leakages and spills of chemicals and products.

Element: Emergency Management Plan	
Policy: • To responsibly manage hazard and minimise risks on environmental impacts in the event of accidental spillages or breaches of as a result of the site's operation.	
Performance Objective	• Minimise the risk of harm to the environment through appropriate emergency management processes and protocols.
Actions/ Controls	• The containment of spillages is to be undertaken in accordance with the nature of the chemicals, the Material Safety Data Sheet (MSDS) and the instructions of the manufacturer; • All site personnel will be informed of correct clean up procedures; • Appropriate fire fighting equipment will be kept onsite and clearly signed; • Flexi-bund will be stored on site near the loading areas for emergency deployment in the case of a spillage and will be deployed around any spill and around stormwater drains immediately following a spill and before spilled material can reach drains or flow off-site; • Flexi-bund allows the product to be vacuumed and reclaimed so none is lost. The remainder on the ground will be treated according to spill management procedures as stored on site; • Provision is to be made for drainage of spilled materials via a spill bucket to an FRP inground holding tank for disposal in accordance with MSDS and instructions from the manufacturer. • Any hazardous or potentially hazardous situations will be reported to the Suitably registered operator; • All environmental leaks and spillages situations to be documented in the incidents register to be stored on site.
Maintenance	• All Flexi-bund and other safety equipment is to be maintained in working order; • Conduct spill management procedures and refresher training courses to raise awareness as appropriate.
Performance Indicators	• The number of spillages or leaks; • Harm to people or the environment.
Monitoring	• Ongoing visual inspection of activities, equipment and facilities; • Monthly checks of emergency response equipment service

	records.
Reporting / Responsibility	• All instances of actual or potential emergencies will be reported to the Suitably registered operator as they occur. ***Responsible person*** • All Staff • Suitably registered operator
Corrective Action	• Review and if necessary modify response procedures, equipment or facilities. Environmental incidences and emergencies will be reported to DES on 1300 130 372.

3.5 General Environmental Duty

Waste management

Waste is primarily generated from packing waste associated with the materials used to manufacture fertilisers. Usually raw materials are brought by the tonne on pallets in 25kg bags or one tonne bulk. It is estimated that approximately 400 plastic bags will be disposed of per day at a maximum.

The conditions of the development approval and general waste management procedures including the daily collection of refuse around the facility will be adhered to and adequate waste disposal facilities are provided for at various points around the plant for incidental refuse. A representative of the Environment Manager areas will ensure that waste disposal facilities are well maintained, not damaged or leaking. General waste is transferred to landfill by authorised contractors and are tracked by production staff. Records will be kept in the site office by the suitably registered operator.

Waste is sorted between 2 m^3 general waste bins and 1 m^3 recycled waste bins that are onsite. General waste removed weekly, recycled monthly. All solid materials are disposed of in waste bin. Liquid waste will be stored in waste pit to than be removed via specialists. There will be minimal production of liquid waste; it will be stored in waste pit for pickup by waste specialists.

No external trucks or other pieces of equipment are to be serviced on site. Any internal mechanical repairs (including forklifts) that require on site maintenance will take place within the bunded confines of the warehouse or factory. Liquid waste from vehicle washdowns in the hardstand area will be directed to a 6,000 litre containment tank that will either be placed aboveground or underground and will be periodically pumped out by appropriately certified contractors and removed from the site.

Nutritional liquid waste, spills, or other leaks from manufacture, will be assessed if to determine if it is recyclable or if it can be utilized as fertilizer. To be assessed, a sample will be taken from the pit for the assessment of colour, solids and what was recently produced (what was or could have been spilled) or otherwise specific chemical testing can occur in our lab or sent away for elemental analysis. In most cases if spill is controlled correctly, the liquid waste will be recycled. Flushing and/or reinstates will always be collected and reused in subsequent batches of similar material. Where the composition of liquid waste is suitable, it will be transported for use in agriculture, as fertilizer. Where it is found that unusable sludge is generated, it will be disposed of by specialist waste management contractors at an appropriate facility.

Risk of leakage from general waste bins will be minimised by storing undercover within the factory. Other bins, recycling and potentially other rubbish will be placed outside in specified bins.

The areas of the site where product is to be loaded on to trucks will have emergency bunding measures (Flexi-Bund) readily available to be deployed in the event of a spill. This bunding will immediately be placed around the drains and the spill area and has the technology inbuilt to retrieve the product via a vacuum system which will then be purified and reused. Emergency bunding will be sufficient to contain 120% of the largest compartment of any container used in the operation.

Permanent bunding in the loading areas is not possible as it is not undercover. If this area was permanently bunded, a large amount of standing water would be unavoidably detained in

any rainfall event. Therefore, emergency bunding is the preferred method of risk mitigation in the unlikely event of a spillage.

Stormwater Management

Due to the production processes on the site being contained within the buildings, there is minimal risk of stormwater being contaminated by any of the products used or produced by Agrobest. The interior floor will be graded to central inlet catchment grates which will in turn go into the underground holding tanks. Washing to be contained into IBCs and reused in next production of products. Finished products to be placed in racking outside. No form of production operation will occur around stormwater drain.

The General stormwater management principles for the hardstand area of the site are used and the design of the site is such that stormwater generated onsite is directed towards general road infrastructure and into the stormwater networks via drains that are located in the centre of the hardstand areas. Stormwater will be managed in accordance with the development approval conditions. Contaminants will not enter clean water because any spillage into stormwater will be treated as contaminated, bunded from exiting the site and treated before being discharged.

There will be Spill Management Kits available onsite that will be employed for any spills that occur outside of production area. This spill kit includes 4m sandbag tube that will be employed to stop runoff into stormwater drain and instead directed into our own stormwater pits. These 3 stormwater pits will be controlled by a valve to stop unwanted run off if required and redirect to underground catchment tank.

Drains and bunding are going to be installed around manufacturing and down packing facility to run into the FRP underground spill containment tank. The interior floors will be lined with epoxy. Furthermore, the hardstand area used for unloading (not general parking) will incorporate a slight pitch to favour runoff to the underground spill containment tank.

Chemical storage and handling

Storage areas will be adequately bunded with sealed surfaces to contain any spilled material. Load out areas will be kerbed to divert any spilled material to a fully contained area for product recovery. Dangerous and Hazardous substances will be stored in an adequately bunded containment area. The raw materials and finished products will be stored in separate containment areas. In addition, raw materials will be sorted and stored separately depending on their risk as an environmental or safety hazard. Any spillages or leakages are to be managed in accordance with the Leakages and Spills Emergency Response Plan in section 3.4.

Raw materials are to be stored in racking as roughly 1 m^3 increments; 1 tonne of solid raw materials and 1,000L containers (IBCs) for liquids, some being partially used. Finished products will range in various packing sizes and consolidation to storage/pallet, from boxes of smaller containers, 20Ls, 200Ls with products weighing heavier than 1kg/L; therefore some weighing more than 1 tonne per $1m^3$. Some liquid raw materials would be weighing more than 1 tonne per $1m^3$.

Stainless steel (316) tanks will be used for the bulk storage of finished products prior to down-packing into smaller containers. These tanks will be ranging from 2,000L – 15,000L to store finished products; almost all these tanks will not require a DG classification as 2 out ~60 of the chemical products have the corrosive classification. Pumping and machinery are to be attached to the tanks to assist and/or to automate down-packing.

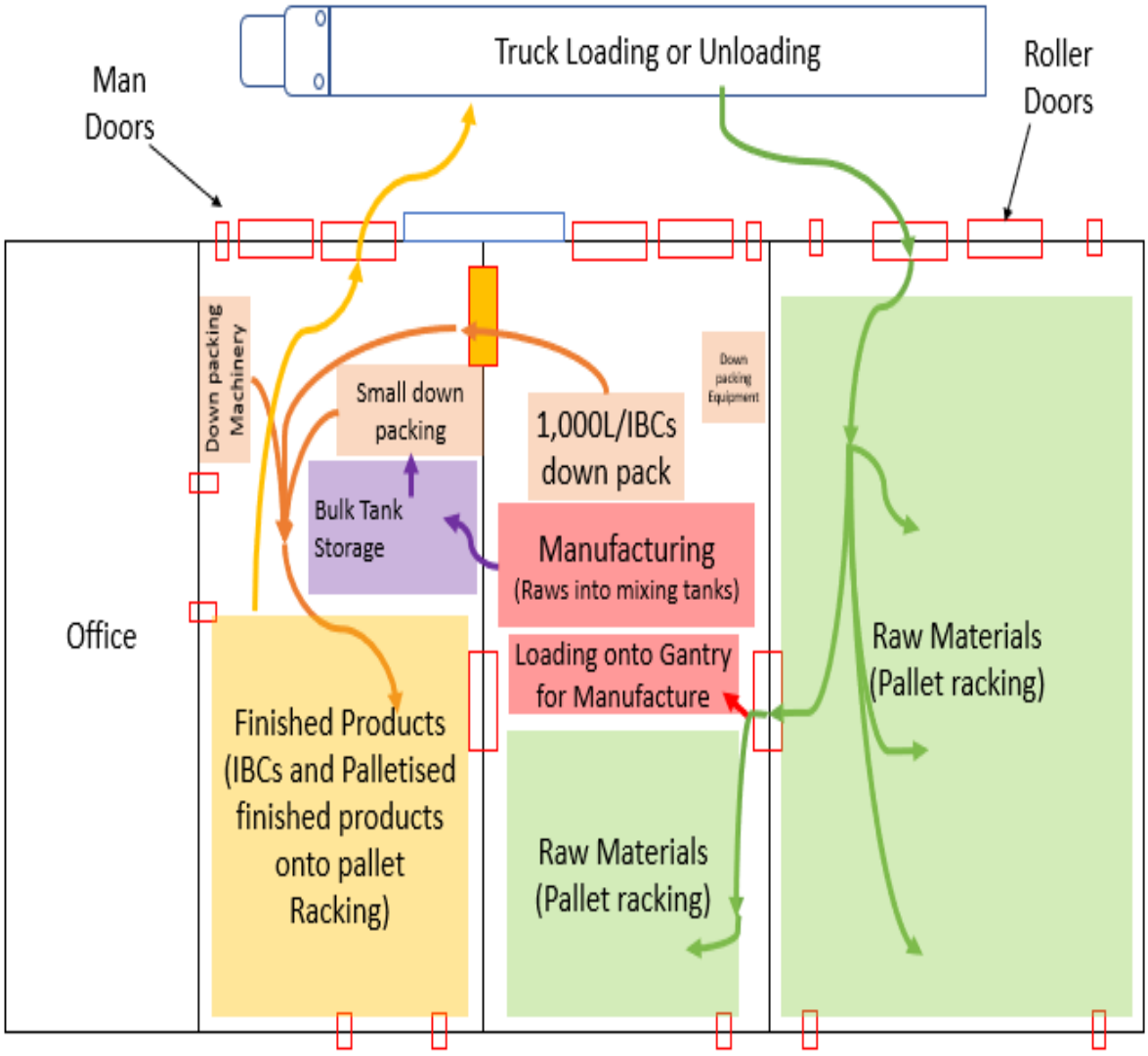
Site Induction training for site workers will include instructions on the correct procedures for storage and handling of dangerous and hazardous substances. Disposal of dangerous and/or hazardous material waste shall be undertaken by a licensed operator.

4 References

Acoustic Works (2019) Amended Acoustic Report. Proposed Warehouse/Industrial Development 60 Stapylton Jacobs Well Road Stapylton. Client: Frasers Property.

Bureau of Meteorology (2022) Logan City Water Treatment Plant No. 040854 Wind Speed and Direction data.

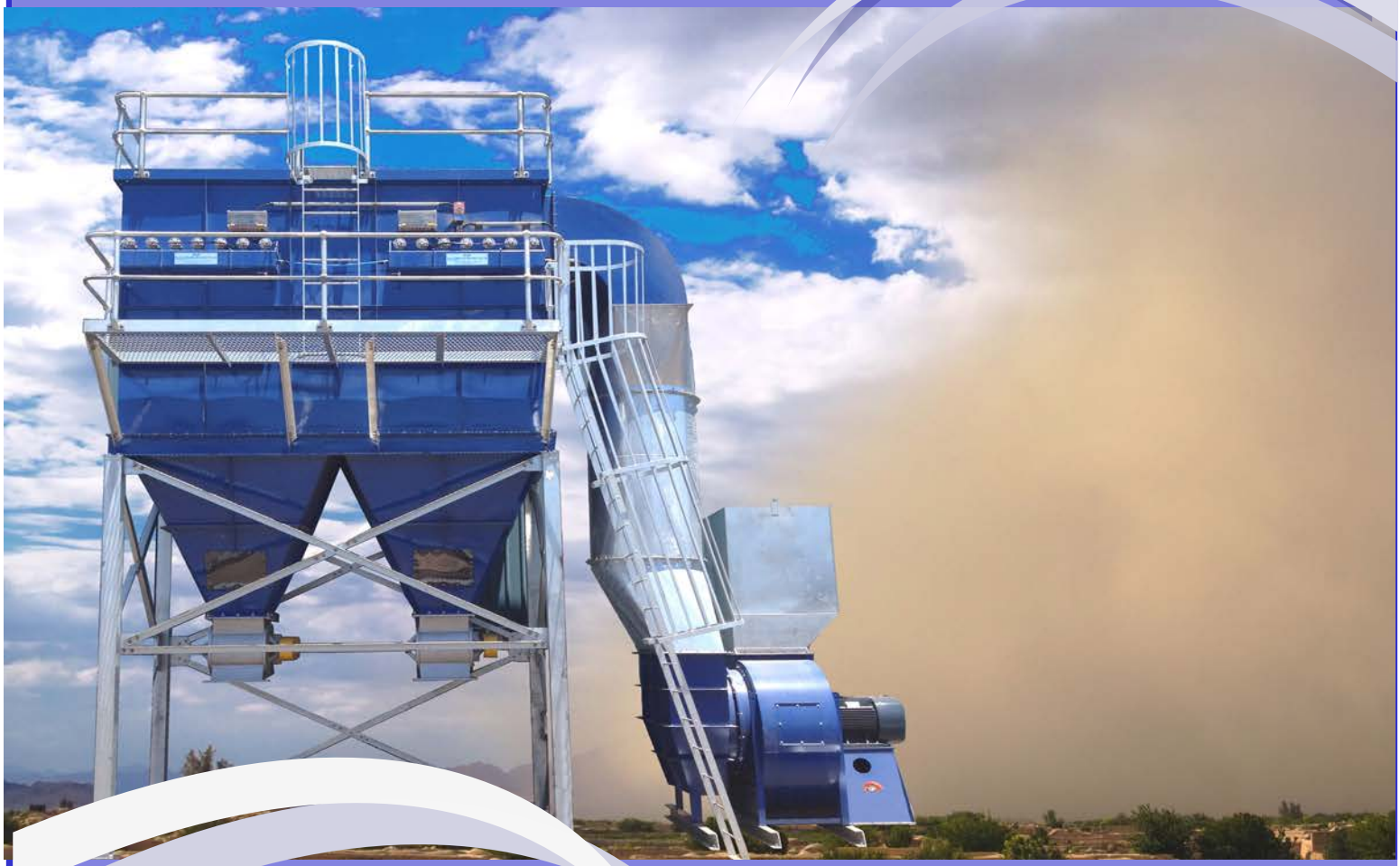
Appendix A Agrobest Process Diagram



Appendix B Air quality system – DCS Modu-Pulse Dust Collector

DCS

Dust Collection Services Pty Ltd



DCS MODU-PULSE DUST COLLECTOR

Australian designed, Australian made, Australian owned.
Technically Advanced Dust Extraction Equipment

07 3888 4200 sales@dcserv.com.au

Modu-Pulse Series Dust Collectors

Australian designed, Australian made, Australian owned.

STANDARD FEATURES

- Efficient Reverse Pulse Cleaning System
- Pressed corners to reduce metal fatigue
- Dust Plenum/ Pre-separation Chamber for better filter life.
- High Cv Pulse Valves
- 3mm steel casing and fully welded stiffeners
- Two pack paint system as standard.

OPTIONAL EQUIPMENT

- Hopper options refer data sheet 302
- Integral or remote mounted fan.
- Access ladders & Platforms.
- Discharge valve options
- Anti-static filters & Explosion vents.

INDUSTRIAL SOLUTIONS

- CHEMICAL PROCESING
- FIBREGLASS
- GRAIN AND FOOD PROCESSING
- LASER AND PLASMA CUTTING
- METAL AND MINERAL PROCESSING
- PHARMACEUTICAL
- SPRAY AND BLASTING BOOTH
- TIMBER PROCESSING
- WASTE PAPER
- WELDING FUME EXTRACTION

Flexible solutions for your business needs

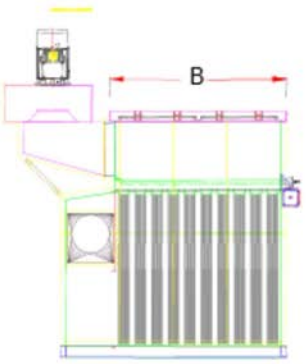
We will custom design an efficient dust extraction system to suit your exact requirements.

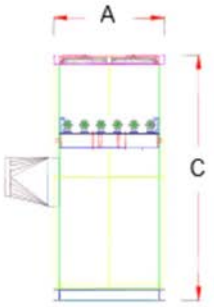
MODU-PULSE FILTER MEDIA

Modu-pulse collectors use efficient extended surface filters with moulded urethane tops and bases, which are made in Australia under a joint venture arrangement with Envi-Filter A/S of Denmark.

The use of these filters, which have over four times the filter area of an old style filter bag, means that the collector can be made smaller and therefore more economically without sacrificing quality or performance.

- ·Standard polyester
- ·Aluminized anti-static polyester
- ·PTFE coated for sticky dusts
- ·PTFE membrane





Model No	A	B	C	Filter	Comp Air	Wt
	No Plenum			Area	Usage	
	mm	mm	mm	sq. m	cu.m/hr @ 2min cyc	kg
DCS9/1TPI	810	810	2000	19.8	7.8	424
DCS12/2TPI	810	1030	2400	48.4	8.2	565
DCS15/2TPI	810	1250	2400	66	8.6	664
DCS20/2TPI	1030	1250	2400	88	10.2	765
DCS25/2TPI	1250	1250	2400	110	12.7	868
DCS30/2TPI	1250	1470	2600	132	12.9	918
DCS40/2TPI	1250	1910	2600	176	13.5	1388
DCS50/2TPI	1250	2350	2700	220	13.9	1660
DCS60/2TPI	1470	2350	2700	264	15.3	1825
DCS70/2TPI	1690	2350	2700	308	17.8	1993
DCS80/2TPI	1910	2350	2800	352	20.4	2150
DCS90/2TPI	2130	2350	2800	396	22.9	2326
DCS100/2TPI	2350	2350	2900	440	25.5	2502
DCS110/2TPI	2350	2570	2900	484	26.8	2755
DCS120/2TPI	2350	2790	2900	528	28.0	3123

There are almost unlimited sizes available. DCS will design the dust collector to suit your individual requirements.

DCS

Dust Collection Service Pty Ltd

584 Old Gympie Rd
Narangba, 4504

Ph +617 3888 4200
Fax +617 3888 4988
Email sales@dcserv.com.au

Find Us on Facebook

Appendix C Air quality system – DCS Wet Scrubber

Dust Collection Services Pty Ltd

DCS WET SCRUBBER

Australian designed, Australian made, Australian owned.
Technically Advanced Dust Extraction Equipment

07 3888 4200 sales@dcserv.com.au

INDUSTRIAL SOLUTIONS

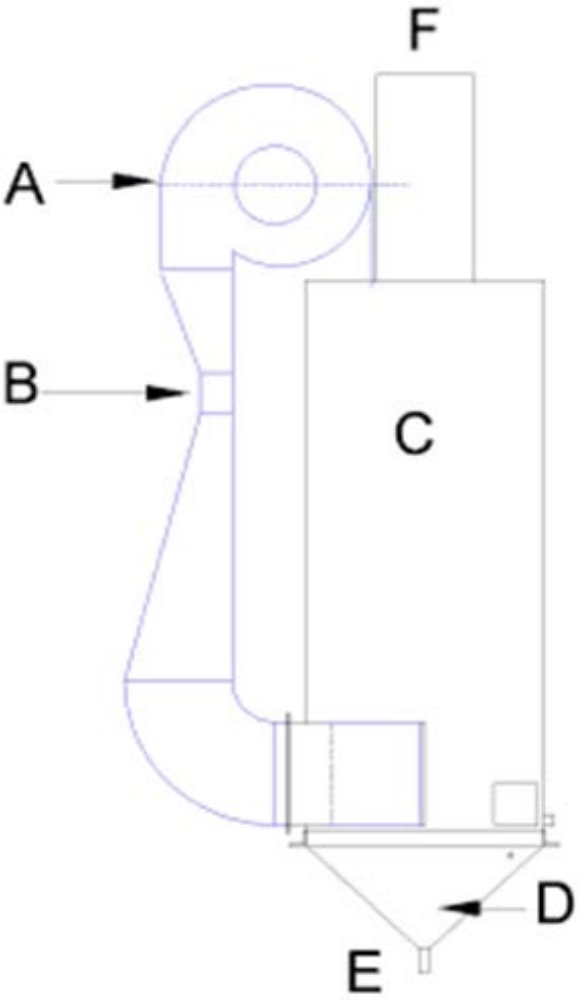
- CHEMICAL PROCESING
- INDUSTRIAL WASTE DISPOSAL
- MEDICAL WASTE
- FOOD PROCESSING

THE DFV SERIES WET SCRUBBER

Australian designed, Australian made, Australian owned.
Technically Advanced Dust Extraction Equipment

The principle of wet scrubbing as a means of fume and dust extraction, has been implemented for many years. Generally it has been accepted that the collection efficiency in a wet scrubber is dependent on the energy applied to the particles by the scrubber action. For best efficiency, DCS uses a down flow venturi principle to promote turbulent contact and mixing of the water with the dust/fume particles. Dust Collection Services has worked long and hard to refine the design to achieve a high level of efficiency using a special spray nozzle design.

There are several designs used from high velocity wetted venturi to direct impingement and packed towers and we can offer you the right design for your particular application.



DCS WILL DESIGN A WET SCRUBBING COLLECTOR TO SUIT YOUR EXACT REQUIREMENTS

Dust/ fume laden air enters the fan (A) where a fine spray jet directs water onto the fan impeller. This creates a turbulent mixing of the fume/ dust with the water particles. The air/ water mix is then accelerated through a venturi (B) section where the water/ fume mix is accelerated and additional sprays introduce more water. The effect of the venturi is to create turbulent contact with the particles and to momentarily vaporise the water and increase the surface contact with the pollutant. The expansion after the venturi restores the static pressure and directs the water to the separation chamber (C), where the water/ absorbed fume / dust is deposited into the settling chamber (D). Concentrations of liquor are drained periodically via a diaphragm valve (E). Water level is maintained by a sensor and solenoid valve from the water supply feeding into the top of the settling chamber.

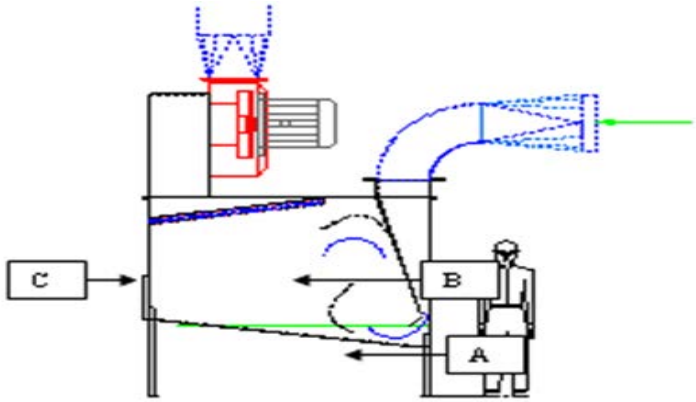
The DCS compact series wet scrubbers are ideal where a medium to high efficiency scrubber is required with limited floor space.

They are ideal for powder coating, soluble fumes, most acids or alkaline fumes or dusts, laser cutting processes, and a wide range of other applications.

The scrubber is manufactured in a range of sizes from 2,400 up to 140,000 m^3/hr with fans arranged to suit the system resistance required for your application.

Effective environmental systems require a well-designed ducting system and catchment hoods to achieve the best result, and DCS can design, manufacture and install turnkey extraction systems that will meet your requirements.

The compact scrubber uses a high velocity venturi (A) to create turbulent contact between the fumes/dust and the water.
The water is then cascaded with curved baffles (B) so that the air has to pass through two water curtains before exiting through a mist eliminator (C). To keep the unit compact, the fan is direct coupled to the motor and mounted on top of the unit.



DCS

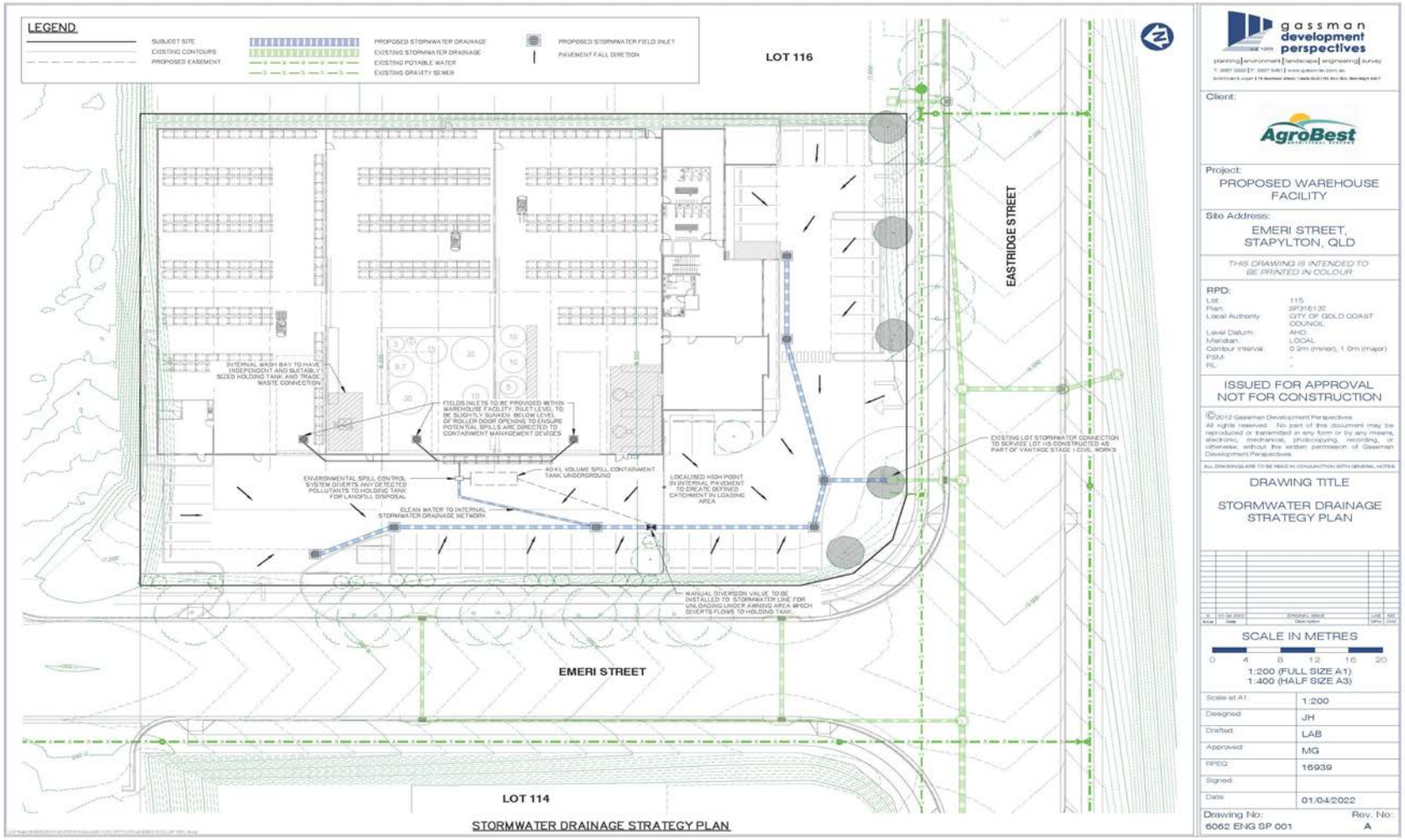
Dust Collection Service Pty Ltd

584 Old Gympie Rd
Narangba, 4504

Ph +617 3888 4200
Fax +617 3888 4988
Email sales@dcserv.com.au

Find Us on Facebook

Appendix D Agrobest Stormwater Management Plan



gassman development perspectives
planning | environment | landscape | engineering | survey

Client: AgroBest

Project: PROPOSED WAREHOUSE FACILITY

Site Address: EMERI STREET, STAPYLTON, QLD

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	115
Plan:	SP316137
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	LOCAL
Contour Interval:	0.2m (minor), 1.0m (major)
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE STRATEGY PLAN

A	01.04.2022	STRATAFIL ISSUE	LAB	MG
Issue	Date	Description	Drn	Chkd

SCALE IN METRES
0 4 8 12 16 20
1:200 (FULL SIZE A1)
1:400 (HALF SIZE A3)

Scale at A1:	1:200
Designed:	JH
Drafted:	LAB
Approved:	MG
RPEQ:	16939
Signed:	
Date:	01/04/2022

Drawing No: 5062 ENG SP 001
Rev. No: A

Appendix E Agrobest Inventory of Chemical Hazards

Chemical Name	State	CAS	Average Holding Quantities	Max Quantities		Dangerous Good	Corrosive Pictogram	Oxidizing Pictogram	Flammable Pictogram	Poison Pictogram	Toxic Pictogram	Environmental Pictogram	Caution Pictogram	Corrosive to Metals	Skin Corrosion/Irritation			Serious Eye Damage/Irritation			Flammable Liquids			Oxidising Liquids	Oxidising Solids	Specific Organ Toxicity			Acute Toxicity (Inhalation)		Acute Toxicity (Oral)		Toxic To Reproduction	Sensitisation (Respiratory)	Sensitisation (Skin)	Aspiration Hazard	Carcinogenicity	Acute Hazard To The Aquatic Environment		Long-term Hazard To The Aquatic Environment		
						DG								Cat.1	Cat.1A	Cat.1B	Cat.1C	Cat.2	Cat.1	Cat.2A	Cat.2B	Cat.2	Cat.3	Cat.2	Cat.2	Cat.3	Cat.1	Cat.2	Cat.3	Cat.3	Cat.4	Cat.4	Cat.5	Cat.1B	Cat.1	Cat.1	Cat.1	Cat.1B	Cat.1	Cat.2	Cat.1	Cat.2	Cat.3
Sulphuric Acid (98%)	Liquid	7664-93-9	720	1800	kg	■	■						■	■	■			■																								
Hydrogen Peroxide (50%)	Liquid	7722-84-1	1,000	2,000	kg		■					■	■			■								■			■		■	■								■			
Nitric Acid (68%)	Liquid	7697-37-2	-	1,410	kg		■							■	■			■																								
Phosphoric Acid (85%)	Liquid	7664-38-2	5,100	11,900	kg	■	■						■	■		■			■																								
Phosphorous Acid (98%)	Crystal	10294-56-1	4,000	10,000	kg	■	■						■	■	■				■													■											
Potassium Hydroxide (90%)	Crystal	1310-58-3	8,000	8,000	kg	■	■						■	■		■			■													■											
Potassium Carbonate (98%)	Powder	584-08-7	6,000	8,000	kg								■					■		■								■														
Monoethanolamine (99%)	Liquid	141-43-5	1,050	2,100	kg	■	■						■			■			■					■								■								■			■
Aqueous Ammonia (23%)	Liquid	1336-21-6	910	7,280	kg	■	■					■	■				■												■			■							■			
Calcium Hydroxide	Powder	1305-62-0	2,000	4,000	kg		■						■					■	■									■														
Calcium Oxide	Powder	1305-78-8	2,000	3000	kg		■						■			■			■									■														
Acetic Acid (90%)	Liquid	64-19-7	2,100	3,150	kg	■	■		■					■	■				■				■																			
Formic Acid (98%)	Liquid	64-18-6	400	1,000	kg	■	■		■	■						■			■				■					■	■		■											
Lactic Acid	Liquid	79-33-4	1,250	2,500	kg		■											■	■																							
Citric Acid	Crystal	77-92-9	1,000	3000	kg								■					■		■									■													
EDTA Acid	Powder	60-00-4	1,000	3,000	kg						■		■							■								■		■												
Boric Acid	Powder	10043-35-3	1,000	3,000	kg						■																						■								
Tetrapotassium Pyrophosphate	Powder	7320-34-5	6,000	20,000	kg															■																					
Monopotassium Phosphate	Crystal	7778-77-0	8,000	20,000	kg																																			
Monoammonium Phosphate	Crystal	7722-76-1	9,000	20,000	kg																																			
Diammonium Phosphate	Crystal	7783-28-0	6,000	15,000	kg																																			
Ferrous Sulphate Heptahydrate	Powder	17375-41-6	6,000	12,000	kg								■					■		■												■									
Magnesium Sulphate Hexahydrate	Crystal	10034-99-8	4,000	6000	kg																																			
Zinc Sulphate Heptahydrate	Powder	7446-20-0	3,000	4,000	kg														■												■								■		■	
Manganese Sulphate Monohydrate	Powder	10034-96-5	3,000	6,000	kg		■					■	■															■				■							■	■	■	
Copper Sulphate Pentahydrate	Powder	7758-99-8	1,000	2,000	kg							■	■					■		■												■							■		■	
Cobalt Sulphate Heptahydrate	Powder	10026-24-1	200	500	kg						■	■	■														■					■		■	■	■			■	■		■	
Ammonium Sulphate	Crystal	7783-20-2	200	1,000	kg																																			
Potassium Sulphate	Powder	7778-80-5	200	1,000	kg																																			
Urea Ammonium Nitrate	Liquid	6484-52-2	2,640	5,280	kg								■							■																					
Urea	Crystal	57-13-6	10,000	20,000	kg																																			
Calcium Nitrate Tetrahydrate	Crystal	13477-34-4	4,000	10,000	kg	■		■					■					■		■						■			■			■									
Calcium Ammonium Nitrate Decahydrate	Crystal	13477-34-5	2,000	10,000	kg	■		■					■					■		■						■			■			■									
Calcium Chloride Dihydrate	Crystal	10043-52-4	3,000	5,000	kg		■													■																					
Magnesium Nitrate Hexahydrate	Powder	13446-18-9	2,000	4,000	kg																																			
Magnesium Chloride Hexahydrate	Crystal	7791-18-6	3,000	4,000	kg																																			
Sodium Molybdate	Powder	10102-40-6	200	500	kg								■					■			■																					
Zinc Oxide	Powder	1314-13-2	2,000	8,000	kg							■																											■		■	
Copper Carbonate	Powder	12069-69-1	1,000	2,000	kg							■	■							■									■		■	■							■		■	
Manganese Carbonate	Powder	598-62-9	1,000	2,000	kg								■																													
Denatured Alcohol	Liquid	64-17-5	180	360	kg	■			■				■							■		■																				
Coconut Fatty Acid	Liquid	67701-05-7	5,760	18,000	kg		■						■					■	■																							
D-Limonene	Liquid	5989-27-5	170	865	kg	■			■		■	■	■					■					■												■	■				■		
1-Methoxy 2-Proponal	Liquid	107-98-2	940	2,820	kg	■			■				■							■			■						■												

gassman development perspectives

ATTACHMENT H

ENGINEERING ADVICE LETTER

AgroBest NUTRITIONAL SYSTEMS

VantageYatala

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey

OUR REF: 6062

24 February 2022

Agrobest Australia Pty Ltd

Via Email: fraser@gassman.com.au

To whom it may concern,

RE: ENGINEERING SERVICES ADVICE LETTER
LOT 115 ON SP316137 - EASTRIDGE STREET, STAPYLTON

This advice letter has been prepared for submission to Gold Coast City Council as part of a Development Permit for Material Change of Use – Industry and ERA 7 (Chemical Manufacturing).

Earthworks

The subject lot has been earthworked to a generally flat condition as part of a bulk earthworks package previously completed over the subject lot associated with the larger Stage 1 OPW works (Council ref: ROL/2020/123) associated with the Vantage Yatala industrial development. The lot is free draining to its front boundary with Eastridge Street as a result of a 1 in 150 grade running from east to west across the subject lot as per the requirements of Gold Coast City Council's Land Development Guidelines.

Roadworks and Access

The subject lot will have legal points of access for vehicular and pedestrian movements via Eastridge Street and the Emeri Street extension constructed and gazette along the subject lot's frontages as part of Stage 1 of the Vantage Yatala industrial development. The vehicular crossovers required for the proposed development will be constructed in accordance with Gold Coast City Council's standard drawings IPWEA RS-051.

Access Business Park
76 Business Street Yatala Q 4207
Phone (07) 3807 3333
Fax (07) 3287 5461

Web www.gassman.com.au
Email mail@gassman.com.au
Post PO Box 392 Beenleigh Q 4207
A.B.N 62 010 752 388

Civil Services

A lawful point of connection to Council's stormwater drainage, gravity sewer and potable water networks has be provided for the subject lot as part of the civil works associated with Stage 1 of the Vantage Yatala industrial development in accordance with Council's Civil Operational Works Approval (Council ref: MIN/2020/541). A copy of the Council stamp-approved Operational Works plans are included within ***Attachment 1*** which demonstrates the servicing of the subject lot and services that are adequately sized to cater for the development proposed.

Stormwater Management

The development proposed over the subject lot is consistent with the catchment attributes assumed within the approved Stormwater Management Plan (Revision 4, dated 5 February 2021) associated with the Stage 1 Reconfiguration of Lot (Council ref: ROL/2020/123) prepared by Gassman Development Perspectives. As per the approved SWMP the stormwater runoff from the subject lot is conveyed downstream to an estate-based basin that caters for the attenuation and treatment of the subject lot's stormwater runoff to meet the necessary quantity and quality measures to comply with Gold Coast City Council's Water Sensitive Urban Design (WSUD) requirements, Queensland Urban Drainage Manual (QUDM) and the performance objectives of the Queensland State Planning Policy (SPP). As such no additional lot-based stormwater quantity or quality improvement measures are required to be constructed as part of the proposed development.

The above advice demonstrates that the proposed development can be accommodated through the approved civil engineering infrastructure and services that is currently under construction and meets the requirements of Gold Coast City Council's Land Development Guidelines and associated Australian Standards.

Yours faithfully,
GASSMAN DEVELOPMENT PERSPECTIVES PTY LTD

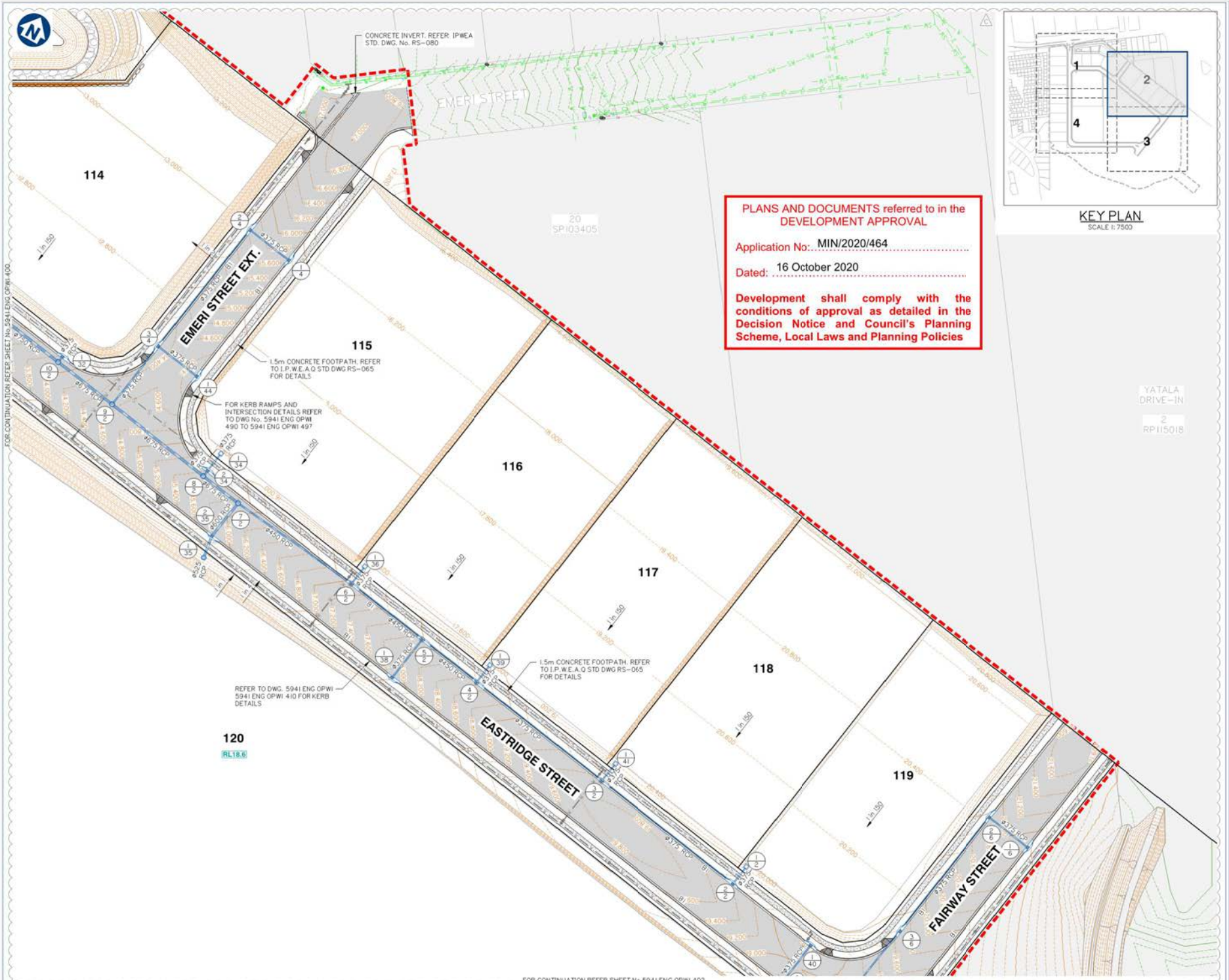
……..
MITCHELL GASSMAN
CIVIL PROJECT ENGINEER
R.P.E.Q 16939

Enc:

1. Attachment 1 – Council's stamp approved Civil OPW plans

gassman development perspectives
est 1985
planning
environment
landscape
engineering
survey

Attachment 1 – Council stamp-approved OPW plans



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2020/464

Dated: 16 October 2020

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

KEY PLAN
SCALE 1: 7500

ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 2 OF 4

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 1287 5461 | www.gassman.com.au
Gold Coast & Logan | 16 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 2 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

0 10 20 30 40 50

1:500 (FULL SIZE A1)
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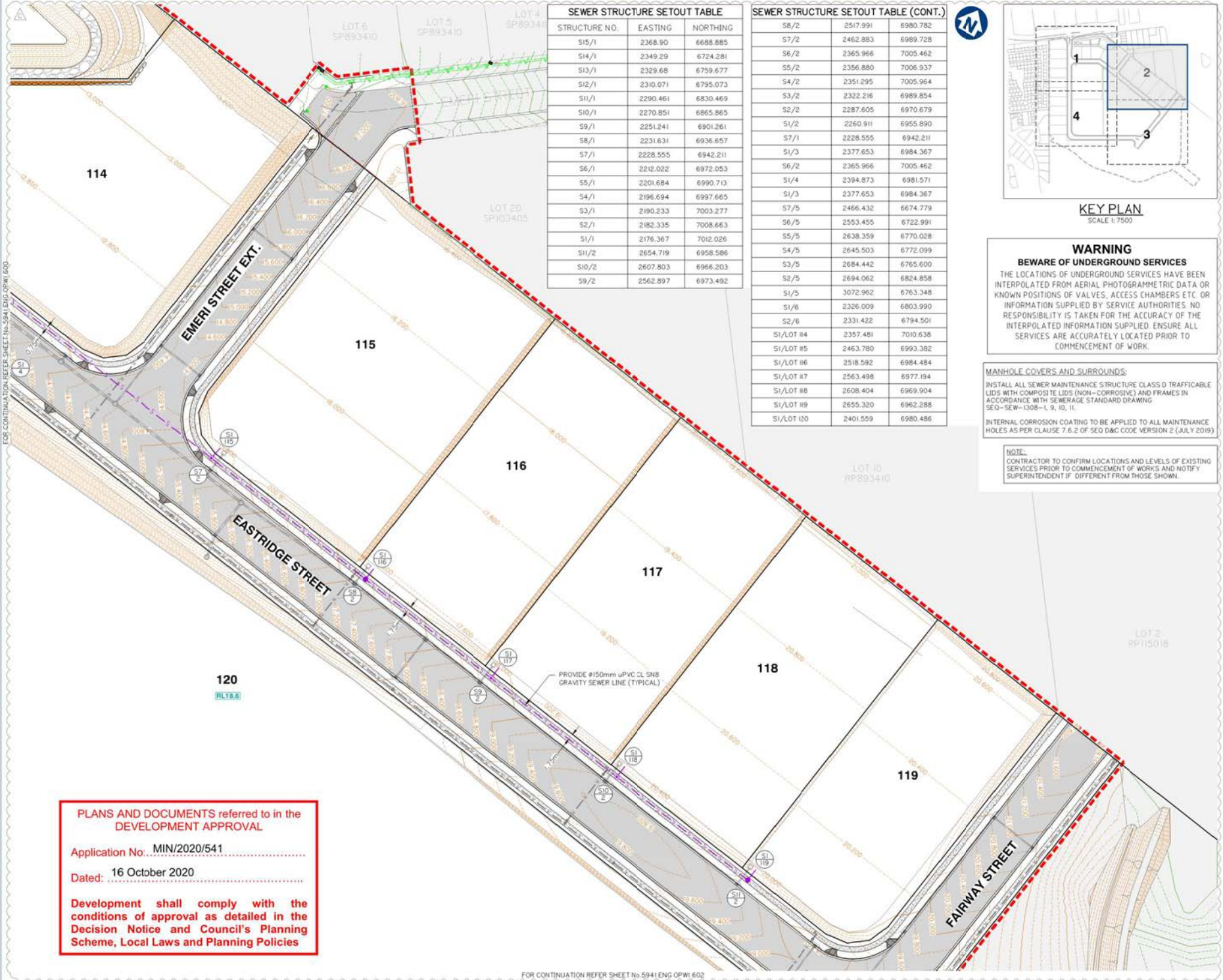
Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 401

Rev. No: C



SEWER STRUCTURE SETOUT TABLE		
STRUCTURE NO.	EASTING	NORTHING
SI5/1	2368.90	6688.885
SI4/1	2349.29	6724.281
SI3/1	2329.68	6759.677
SI2/1	2310.071	6795.073
SI1/1	2290.461	6830.469
SI0/1	2270.851	6865.865
S9/1	2251.241	6901.261
S8/1	2231.631	6936.657
S7/1	2228.555	6942.211
S6/1	2212.022	6972.053
S5/1	2201.684	6990.713
S4/1	2196.694	6997.665
S3/1	2190.233	7003.277
S2/1	2182.335	7008.663
S1/1	2176.367	7012.026
S11/2	2654.719	6958.586
S10/2	2607.803	6966.203
S9/2	2562.897	6973.492

SEWER STRUCTURE SETOUT TABLE (CONT.)		
S8/2	2517.991	6980.782
S7/2	2462.883	6989.728
S6/2	2365.966	7005.462
S5/2	2356.880	7006.937
S4/2	2351.295	7005.964
S3/2	2322.216	6989.854
S2/2	2287.605	6970.679
S1/2	2260.911	6955.890
S7/1	2228.555	6942.211
S1/3	2377.653	6984.367
S6/2	2365.966	7005.462
S1/4	2394.873	6981.571
S1/3	2377.653	6984.367
S7/5	2466.432	6674.779
S6/5	2553.455	6722.991
S5/5	2638.359	6770.028
S4/5	2645.503	6772.099
S3/5	2684.442	6765.600
S2/5	2694.062	6824.858
S1/5	3072.962	6763.348
S1/6	2326.009	6803.990
S2/6	2331.422	6794.501
S1/LOT 114	2357.481	7010.638
S1/LOT 115	2463.780	6993.382
S1/LOT 116	2518.592	6984.484
S1/LOT 117	2563.498	6977.194
S1/LOT 118	2608.404	6969.904
S1/LOT 119	2655.320	6962.288
S1/LOT 120	2401.559	6980.486

KEY PLAN
SCALE 1:7500

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM AERIAL PHOTOGRAMMETRIC DATA OR KNOWN POSITIONS OF VALVES, ACCESS CHAMBERS ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

MANHOLE COVERS AND SURROUNDS:
INSTALL ALL SEWER MAINTENANCE STRUCTURE CLASS D TRAFFICABLE LIDS WITH COMPOSITE LIDS (NON-CORROSIVE) AND FRAMES IN ACCORDANCE WITH SEWERAGE STANDARD DRAWING SEQ-SEW-1308-1, 9, 10, 11.

INTERNAL CORROSION COATING TO BE APPLIED TO ALL MAINTENANCE HOLES AS PER CLAUSE 7.6.2 OF SEQ D&C CODE VERSION 2 (JULY 2019)

NOTE:
CONTRACTOR TO CONFIRM LOCATIONS AND LEVELS OF EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY SUPERINTENDENT IF DIFFERENT FROM THOSE SHOWN.

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2020/541

Dated: 16 October 2020

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 602

SEWER RETICULATION LAYOUT PLAN SHEET 2 OF 4

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 1287 5461 | www.gassman.com.au
Gold Coast & Logan | 16 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
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DRAWING TITLE

SEWER RETICULATION LAYOUT PLAN SHEET 2 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

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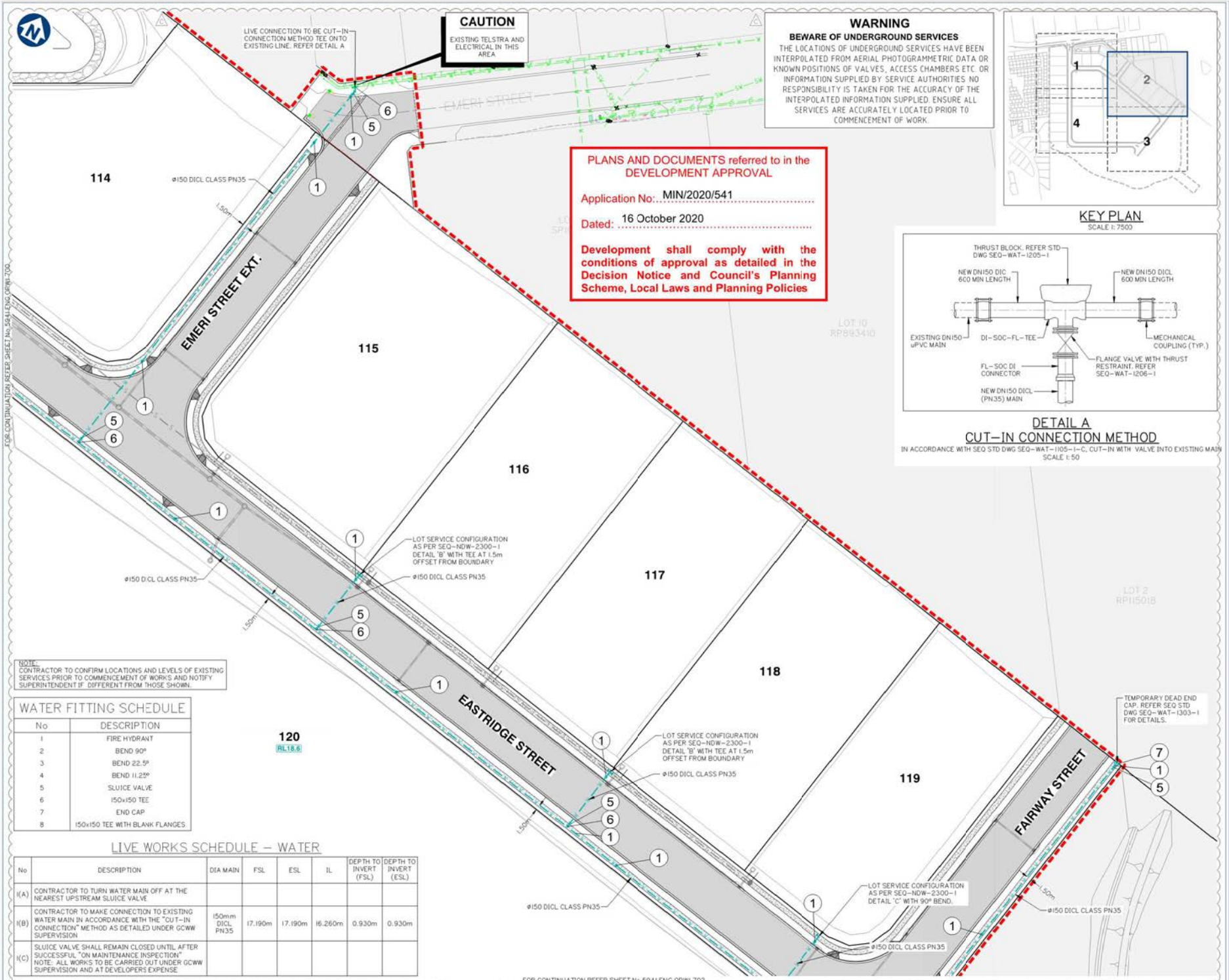

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KEY PLAN
SCALE 1:7500

DETAIL A
CUT-IN CONNECTION METHOD
IN ACCORDANCE WITH SEQ STD DWG SEQ-WAT-1105-1-C, CUT-IN WITH VALVE INTO EXISTING MAIN
SCALE 1:50

NOTE:
CONTRACTOR TO CONFIRM LOCATIONS AND LEVELS OF EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY SUPERINTENDENT IF DIFFERENT FROM THOSE SHOWN.

WATER FITTING SCHEDULE

No	DESCRIPTION
1	FIRE HYDRANT
2	BEND 90°
3	BEND 22.5°
4	BEND 11.25°
5	SLUICE VALVE
6	150x150 TEE
7	END CAP
8	150x150 TEE WITH BLANK FLANGES

LIVE WORKS SCHEDULE – WATER

No	DESCRIPTION	DIA MAIN	FSL	ESL	IL	DEPTH TO INVERT (FSL)	DEPTH TO INVERT (ESL)
1(A)	CONTRACTOR TO TURN WATER MAIN OFF AT THE NEAREST UPSTREAM SLUICE VALVE						
1(B)	CONTRACTOR TO MAKE CONNECTION TO EXISTING WATER MAIN IN ACCORDANCE WITH THE "CUT-IN CONNECTION" METHOD AS DETAILED UNDER GCWW SUPERVISION	150mm DICL PN35	17.190m	17.190m	16.260m	0.930m	0.930m
1(C)	SLUICE VALVE SHALL REMAIN CLOSED UNTIL AFTER SUCCESSFUL "ON MAINTENANCE INSPECTION" NOTE: ALL WORKS TO BE CARRIED OUT UNDER GCWW SUPERVISION AND AT DEVELOPERS EXPENSE						

WATER RETICULATION LAYOUT PLAN SHEET 2 OF 4

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
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