

OUR REF: 1396 - 12 - PC

10th December, 2012

Gold Coast City Council
PO Box 5042
GOLD COAST MC QLD. 9729

Dear Sir / Madam,

RE: DEVELOPMENT PERMIT FOR MATERIAL CHANGE OF USE (INDUSTRY)

Please find enclosed our clients application for a code assessable material change in use for industry at 84 Christensen Road, Staplyton, formally known as Lot 334 on SP193431.

Please find attached to this correspondence the following:

1. IDAS Forms 1 / 5;
2. IDAS Checklists 1 / 2;
3. GCCC Industry / Warehouse RiskSmart Application;
4. GCCC Adopted Infrastructure Charge Proposal Summary and Adopted Infrastructure Charge Estimate Request;
5. Title Search;
6. GCCC Property Enquiry;
7. Owners consent declaration;
8. Three (3) copies of the Town Planning Report prepared by this office and dated December 2012;
9. Plans and drawings including
 - a. Survey Plan
 - b. Site analysis plan;
 - c. Site proposal plan;
 - d. Proposed indicative elevations.
10. Landscape intent plan;
11. Site Based Stormwater Management Plan and services report prepared by i3 consulting;
12. One (1) CD soft copy of the application;
13. The prescribed fee for this application as it involves a material change of use, code assessable, for industry exceeding 200 metres squared is \$4658.00. As the application is being assessed using the RiskSmart process however a further 25% discount applies reducing the fee to \$3493.50. The manner in which the fee was calculated is outlined in the table overleaf:

Relevant Provision of Fee Schedule	Description	Authority	Fee 2011 - 2012
Material Change of Use			
Industry - more than 200m2	CODE	SPA 2009 s260	4,658.00
SUB TOTAL			4,658.00
Minus 25% Due to RiskSmart Process			-1,164.50
TOTAL			\$3,493.50

The proposed development continues the accepted pattern of development in the local area and will reinforce the industrial / commercial performance of the Yatala area. The subject site can be characterised as an infill site within the local context as it is strategically located within an established industrial area, in this regard the majority of preparatory and servicing works have already been completed.

We look forward to Councils timely and favourable consideration of this application. If you have any questions or require any further information regarding this matter, please do not hesitate to contact myself on the office detailed provided therein.

If you have any further queries, please do not hesitate to contact the undersigned.

Yours faithfully,

GASSMAN DEVELOPMENT PERSPECTIVES



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CHRIS AUSTIN



Application Details - IDAS form 1

(Sustainable Planning Act 2009 version 1.0 effective 18 December 2009)

You **MUST** complete **ALL** questions unless the form indicates otherwise. Incomplete forms or forms without all necessary information and documentation will result in your application not being a properly made application.

For all development applications, you must:

- complete this form (*Application details - IDAS form 1*)
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

All terms used on this form have the meaning given in the *Sustainable Planning Act 2009* or the *Sustainable Planning Regulation 2009*.

Applicant details (note: the applicant is the person responsible for making the application and need not be the owner of the land. The applicant is responsible for ensuring the information provided on all IDAS application forms is correct. Any development permit or preliminary approval that may be issued as a consequence of this application will be issued to the applicant.)

Please note: If there is more than one applicant, provide additional applicant details by clicking the "Add another applicant" button below.

Name/s (individual or company name in full)	MS Projects Pty Ltd c/- Gassman Development Perspectives
For companies, contact name	Chris Austin
Postal address	GPO Box 999, Brisbane, QLD 4000
Contact phone number	07 3807 3333
Mobile number (non-mandatory)	
Fax number (non-mandatory)	
e-mail address (non-mandatory)	caustin@gassman.com.au

1. What is the nature of development proposed? (tick all applicable boxes)

- ☒ material change of use of premises
- ☐ building work
- ☐ operational work
- ☐ reconfiguring a lot

**2. What type of approval is being sought?**

- ☒ development permit
☐ preliminary approval
☐ both - provide details below

3. Is the application for a mobile and temporary environmentally relevant activity (ERA)?

- ☒ No
☐ Yes - complete table A and then go to question 5

4. Location of the premises (complete table B and/or table C as applicable. Identify each lot in a separate row)**Table B** - street address/lot for the premises or street address/lot on plan for the land adjoining or adjacent to the premises

	Street Address				Lot on plan description		Local government area (e.g. Logan, Cairns)
	Unit No.	Street No.	Street name and official suburb/locality name	Post code	Lot No.	Plan type and plan no.	
1		84	Christensen Road South, Stapylton	4207	334	SP193431	Gold Coast City Council

- ☒ Street address / lot on plan
☐ Street address / lot on plan for the land adjoining or adjacent to the premises (appropriate for development in water e.g. jetty, pontoon)

Table C - premises coordinates (appropriate for development in remote areas, over part of a lot or in water e.g. channel dredging in Moreton Bay)

	Coordinates (note: place each set of coordinates in a separate row)				Zone reference	Datum	Local government area (If applicable)
	Easting	Northing	Latitude	Longitude			
1						☐ GDA94 ☐ WGS84 ☐ other	

5. Total area of the premises on which the development is proposed (indicate hectares or m²)

3.3183 ha

6. Current use/s of the premises (e.g. vacant land, house, apartment building, cane farm, etc.)

1	Vacant
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7. Provide a brief description of the proposal (e.g. six unit apartment building, 30 lot residential subdivision etc.)

The development of a 10,000m² industrial building, with ancillary office space (500m²), internal circulation for vehicles, and other ancillary facilities.



8. Is owner's consent required for this application? (refer to notes at the end of this form for more information)

- ☐ No
- ☒ Yes - complete either table D, table E or table F as applicable

Table D (note: do not complete this table if lodging the application on-line using Smart eDA)

Name of owner/s of the land

I/We, the above-mentioned owner/s of the land, consent to the making of this application.

Signature of owner/s of the land

Date

Table E

Name of owner/s of the land

Burnside Developments Pty Ltd and Yellowstone Investments Pty Ltd

- ☒ The owner's written consent is attached or will be provided separately to the assessment manager

Table F

Name of owner/s of the land

- ☐ By making this application, I, the applicant, declare that the owner has given written consent to the making of the application.

9. Does the application involve a state resource? (e.g. the application involves state land, or taking quarry materials. Refer to the notes at the end of this form for more information)

- ☒ No ☐ Yes - complete table G

10. Identify if any of the following apply to the premises (tick applicable box/es)

- ☒ adjacent to a water body, watercourse or aquifer (e.g creek, river, lake, canal) - complete table H
- ☐ on strategic port land under the *Transport Infrastructure Act 1994* - complete table I
- ☐ in a tidal water area - complete table J

Table H

	Name of water body, watercourse or aquifer
1	Sandy Creek

11. Are there any existing easements on the premises? (e.g. for vehicular access, electricity, overland flow, water, etc.)

- ☒ No ☐ Yes - ensure the type, location and dimension of each easement is included in the plans submitted



12. Does the proposal include new building work or operational work on the premises? (including any services)

☐ No ☒ Yes - ensure the nature, location and dimensions of proposed works are included in plans submitted

13. Is the payment of a portable long service leave levy applicable to this application? (refer to the notes at the end of this form for more information)

☒ No - Go to question 15 ☐ Yes

15. Has the local government agreed to apply a superseded planning scheme to this application under section 96 of the *Sustainable Planning Act 2009*?

☒ No
☐ Yes - provide details below

16. List below all of the forms and supporting information that accompany this application (include all IDAS forms, checklists, mandatory supporting information etc. that will be submitted as part of this application. Note: this question does not apply for applications made online using Smart eDA)

	Description of attachment or title of attachment	Method of lodgement to assessment manager
1	Please see cover letter	over the counter

17. Applicant's declaration

☒ By making this application, I declare that all information in this application is true and correct (note: it is unlawful to provide false or misleading information).



Notes for completing this form

Question 8:

- Section 263 of the *Sustainable Planning Act 2009* sets out when the consent of the owner of the land is required for an application. Section 260(1)(e) of the *Sustainable Planning Act 2009* provides that if the owner's consent is required under section 263, then an application must contain, or be accompanied by, the written consent of the owner, or include a declaration by the applicant that the owner has given written consent to the making of the application.
- Owner's consent is not required for a mobile and temporary ERA.

Question 9:

- Section 264 of the *Sustainable Planning Act 2009* provides that if a development involves a state resource, a regulation may require the application to be supported by certain evidence prescribed under the regulation. Schedule 14 of the *Sustainable Planning Regulation 2009* prescribes the state resources for which evidence is required to be given, and the evidence required, to support the application.

Question 13:

- The *Building and Construction Industry (Portable Long Service Leave) Act 1991* prescribes when the portable long service leave levy is payable.
- The portable long service leave levy amount and other prescribed percentages and rates for calculating the levy are prescribed in the *Building and Construction Industry (Portable Long Service Leave) Regulation 2002*.

Question 14:

- The portable long service leave levy need not be paid when the application is made, but the *Building and Construction Industry (Portable Long Service Leave) Act 1991* requires the levy to be paid before a development permit is issued.
- Building and Construction Industry Notification and Payment Forms are available from any Queensland post office or agency, on request from QLeave, or can be completed on the QLeave website at www.qleave.qld.gov.au. For further information contact QLeave on 1800 803 481 or www.qleave.qld.gov.au.

Privacy -the information collected in this form will be used by the Department of Infrastructure and Planning (DIP) in accordance with the processing and assessment of your application. Your personal details will not be disclosed for a purpose outside of the IDAS process, except where required by legislation (including the *Right to Information Act 2009*) or as required by Parliament. This information may be stored in a departmental database. The information collected will be retained as required by the *Public Records Act 2002*.

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NOTIFICATION OF ENGAGEMENT OF A PRIVATE CERTIFIER

To:

Council. I have been engaged as the private certifier for the building work referred to in this application.

Date of engagement	Name	BSA Certification license number	Building classification/s



QLEAVE NOTIFICATION AND PAYMENT (for completion by assessment manager or private certifier if applicable)

	Description of the work	QLeave Project Number	Amount paid (\$)	Date paid	Date receipted form sighted by assessment manager	Name of officer who sighted the form
1						

The *Sustainable Planning Act 2009* (SPA) is administered by the Department of Infrastructure and Planning. This form and all other required application materials should be sent to your assessment manager and any referral agencies.



Material change of use assessable against a planning scheme - IDAS form 5

(Sustainable Planning Act 2009 version 1.0 effective 18 December 2009)

This form must be completed for development applications for a material change of use assessable against a planning scheme.

You **MUST** complete **ALL** questions unless the form indicates otherwise. Incomplete forms or forms without all necessary information and documentation will result in your application not being a properly made application.

For all development applications, you must:

- complete *Applicant details - IDAS form 1*
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

All terms used on this form have the meaning given in the *Sustainable Planning Act 2009* or the *Sustainable Planning Regulation 2009*.

This form can also be used for development on strategic port land under the *Transport Infrastructure Act 1994*.

1. How is the premises identified / zoned in the applicable planning scheme? (if the premises involves multiple zones, clearly identify the relevant zone for each lot in a separate row in the below table) Non-mandatory

	Lot description (i.e. street address or lot on plan details)	Applicable zone / precinct	Applicable overlays
1	Lot 334 on SP193431	General Impact Business and Industry and Open Space	OM10 Potential Bushfire Hazard, OM11 Natural Wetland and Waterways, OM13 Canals and Waterways, OM16 Acid Sulfate Soils, OM16 Unstable Soils, OM20 Conservation Strategy, OM20 Conservation Veg Type and OM23 Extractive Resources

2. How is the proposed use/s defined in the applicable planning scheme?

	General explanation of the proposed use	Planning scheme definition (include each definition in a new row) (non-mandatory)	No. of dwelling / tenancy units (if applicable)	Days and hours of operation (if applicable)	No. of employees (if applicable)
1	The development of a 10,000m ² industrial building, with ancillary office space (500m ²), internal circulation for vehicles, and other ancillary facilities	Any premises used or intended for use that, in the course of any trade or business, involves the manufacture, production, processing, repair, or storage of any article, material or thing whether			



solid,
liquid or gaseous.

1

3. What type of approval is being sought for the material change of use?

☒ development permit ☐ preliminary approval ☐ both - provide details below

**4. Are there any current approvals associated with this application for the change of use of the premises?
(eg. a preliminary approval)**

☒ No ☐ Yes - provide details below

5. Does the proposed use involve (tick applicable box/es)

the reuse of existing buildings on the premises	☒ No	☐ Yes
new building work on the premises	☐ No	☒ Yes
the reuse of existing operational works on the premises	☐ No	☒ Yes
new operational work on the premises	☐ No	☒ Yes



6. Confirm that the following mandatory supporting information accompanies this application

All applications	Confirmation of lodgement	Method of lodgement
a site plan drawn to scale (1:100, 1:200 or 1:500 are the recommended scales) which shows the following: - the location and site area of the land to which the application relates (<i>relevant land</i>) - the north point - the boundaries of the relevant land - any road frontages of the relevant land, including the name of the road - the location and use of any existing or proposed buildings or structures on the relevant land (note: where extensive demolition or new buildings are proposed, two separate plans (an existing site plan and proposed site plan) may be appropriate) - any existing or proposed easements on the relevant land and their function - the location and use of buildings on land adjoining the relevant land - all vehicle access points and any existing or proposed car parking areas on the relevant land. Car parking spaces for persons with disabilities and any service vehicle access and parking should be clearly marked. - for any new building on the relevant land, the location of refuse storage - the location of any proposed retaining walls on the relevant land and their height - the location of any proposed landscaping on the relevant land - the location of any stormwater detention on the relevant land	☒ confirmed	over the counter
a statement about how the proposed development addresses the local government's planning schemes and any other planning documents relevant to the application	☒ confirmed	over the counter
a statement about the intensity and scale of the proposed use (e.g. number of employees, days and hours of operation, number of visitors, number of seats, capacity of storage area etc.)	☒ confirmed	over the counter
information that states: - the existing or proposed floor area, site cover, maximum number of storeys and maximum height above natural ground level for existing or new buildings (e.g. information regarding existing buildings but not being reused) - the existing or proposed number of on-site car parking bays, type of vehicle cross-over (for non-residential uses) and vehicular servicing arrangement (for non-residential uses)	☒ confirmed ☐ not applicable	over the counter



	Confirmation of lodgement	Method of lodgement
When the application involves the reuse of existing buildings		
plans showing the size, location, existing floor area, existing site cover, existing maximum number of storeys, and existing maximum height above natural ground level of the buildings to be reused	☐ confirmed ☒ not applicable	
When the application involves new building work (including extensions)		
floor plans drawn to scale (1:50, 1:100 or 1:200 are the recommended scales) which show the following: - the north point - the intended use of each area on the floor plan (for commercial, industrial or mixed use developments only) - the room layout (for residential development only) with all rooms clearly labelled - the existing and the proposed built form (for extensions only) - the gross floor area of each proposed floor area	☒ confirmed	over the counter
elevations drawn to scale (1:100, 1:200 or 1:500 are the recommended scales) which show plans of all building elevations and facades, clearly labelled to identify orientation (e.g. north elevation)	☒ confirmed	over the counter
plans showing the size, location, proposed site cover, proposed maximum number of storeys, and proposed maximum height above natural ground level of the proposed new building work	☒ confirmed ☐ not applicable	over the counter
When the application involves the reuse of other existing works		
plans showing the nature, location, number of on-site car parking bays, existing area of landscaping, existing type of vehicular cross-cover (non-residential uses), and existing type of vehicular servicing arrangement (non-residential uses) of the works to be reused	☐ confirmed ☒ not applicable	
When the application involves new operational work		
plans showing the nature, location, number of new on-site car parking bays, proposed area of new landscaping, proposed type of new vehicle cross-cover (non-residential uses), proposed maximum new vehicular servicing arrangement (non-residential uses) of the proposed new operational works	☒ confirmed ☐ not applicable	over the counter

Notes for completing this form:

- This form can also be used for a material change of use assessable against the land use plan for Cairns airport land or Mackay airport land. Whenever a planning scheme is mentioned, take it to mean land use plan for the airport land.

Privacy - please refer to your assessment manager for further details on the use of information recorded in this form.

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The *Sustainable Planning Act 2009* is administered by the Department of Infrastructure and Planning. This form and all other required application materials should be sent to your assessment manager and any referral agencies.



Development assessment checklist - IDAS checklist 1

(Sustainable Planning Act 2009, version 1.0 18 December 2009)

This checklist applies to the carrying out of development generally.

You are not required to complete this checklist as part of your development application, however you may submit the checklist with your application if you wish. The purpose of the checklist is to assist you in identifying:

- whether you need to make a development application for the proposed development
- if a development application is required, the relevant IDAS forms you need to complete as part of your application
- whether you need to give a copy of your application to any referral agencies.

If your development involves a material change of use, reconfiguring a lot or operational works, it is recommended that you complete *Material change of use - IDAS checklist 2*, *Reconfiguring a lot - IDAS checklist 3* or *Operational works - IDAS checklist 4*, as applicable.

If you are unsure how to answer any questions on this checklist, phone or visit your local government, or go to the Department of Infrastructure and Planning's website at www.dip.qld.gov.au.

All terms used in this checklist have the meaning given in the *Sustainable Planning Act 2009* or the *Sustainable Planning Regulation 2009*.

Part 1 - General questions

1.1 Have you received a referral agency response in relation to this proposed development prior to making an application?

☒ No	
☐ Yes	• To assist you in preparing your application, completing <i>Referral agency responses - IDAS checklist 6</i> is recommended

1.2 Do you wish the proposed development to be assessed against a superseded planning scheme?

☒ No	
☐ Yes	• You must complete <i>Request to apply a superseded planning scheme - Sustainable Planning Act form 2</i> and give this notice to the relevant local government. If the local government agrees to your request, details must be provided in <i>Application details - IDAS form 1</i>

1.3 Does the proposal involve removing quarry material from a watercourse or lake for which an allocation notice is required under the *Water Act 2000*?

☒ No	
☐ Yes	• It is recommended that you complete part 2 of this checklist

1.4 Is any part of the proposed development intended to be carried out on a Queensland heritage place under the *Queensland Heritage Act 1992*?

☒ No	
☐ Yes	• It is recommended that you complete part 3 of this checklist

**1.5 Does the proposal involve development on a local heritage place?**

☒ No	
☐ Yes	• It is recommended that you complete part 4 of this checklist

1.6 Does the proposal involve an environmentally relevant activity, other than an agricultural ERA, a mining activity or a chapter 5A activity?

☒ No	
☐ Yes	• It is recommended that you complete part 5 of this checklist

1.7 Is any part of the development on strategic port land or airport land (other than development for a material change of use that is inconsistent with the land use plan for the strategic port land or airport land)

☒ No	
☐ Yes	• It is recommended that you complete part 6 of this checklist

1.8 Is any part of the development on land below a high water mark within the limits of a port under the *Transport Infrastructure Act 1994*?

☒ No	
☐ Yes	• It is recommended that you complete part 7 of this checklist

1.9 Is any part of the premises designated for community infrastructure?

☒ No	
☐ Yes	• It is recommended that you complete part 8 of this checklist

1.10 Does the proposal involve the establishment or expansion of a waste water disposal system?

☒ No	
☐ Yes	• It is recommended that you complete part 9 of this checklist

1.11 Is the development on land that adjoins a declared fish habitat area under the *Fisheries Act 1994*?

☒ No	
☐ Yes	• It is recommended that you complete part 10 of this checklist

Privacy - please refer to your assessment manager for further details on the use of information recorded in this checklist.

Disclaimer:

While the Department of Infrastructure and Planning (DIP) believes that this information contained on this checklist and provided as part of this process will be of assistance to you, it is provided on the basis that you will not rely on the information without first making your own enquiries regarding the interpretation and application of the applicable legislation to your circumstances.

To the full extent permitted by law DIP expressly disclaims all liability (including but not limited to liability for negligence) for errors or omissions of any kind or for any loss (including direct and indirect losses), damage or other consequence which may arise from your reliance on this process and the information contained on this checklist.



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The *Sustainable Planning Act 2009* is administered by the Department of Infrastructure and Planning.



Material Change of Use - IDAS Checklist Part 2

(Sustainable Planning Act 2009 version 1.0 effective 18 December 2009)

This checklist only applies when the development application seeks approval for a material change of use of premises.

You are not required to complete this checklist as part of your development application, however you may submit the checklist with your application if you wish. The purpose of the checklist is to assist you in identifying:

- whether you need to make a development application for the proposed development
- if a development application is required, the relevant IDAS forms you need to complete as part of your application, and
- whether you need to give a copy of your application to any referral agencies.

Before completing this checklist, it is recommended that you complete Development Assessment Checklist - IDAS checklist part 1. If your development involves reconfiguring a lot or operational works, it is recommended that you also complete Reconfiguring a lot - IDAS checklist 3 and Operational works - IDAS checklist 4, as applicable.

If you are unsure how to answer any questions on this checklist, phone or visit your local government, or go to the Department of Infrastructure and Planning's website at www.dip.qld.gov.au

All terms used in this checklist have the meaning given in the *Sustainable Planning Act 2009* or the *Sustainable Planning Regulation 2009*.

Part 1 - General questions

1.1 Is the proposed use assessable development under the planning scheme?

☐ No	
☒ Yes	• You must complete <i>Material change of use assessable against a planning scheme - IDAS form 5</i> • Continue on to question 1.3

1.3 Is any part of the land part of a future state-controlled road or within 100 metres of a State-controlled road?

☒ No	
☐ Yes	• If your application is assessable development under a planning scheme, the Department of Transport and Main Roads is a concurrence agency for your application. You must give a copy of the application to the Department of Transport and Main Roads. • It is recommended that you complete part 2 of this checklist

1.4 Does *State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils* apply to the development?

☒ No	
☐ Yes	• It is recommended that you complete part 3 of this checklist

1.5 Is any part of the premises located in a coastal management district?

☒ No	
☐ Yes	• It is recommended that you complete part 4 of this checklist

**1.6 Is the size of the lot two hectares or larger?**

☐ No	
☒ Yes	• It is recommended that you complete part 5 of this checklist

1.7 Is any part of the premises in an area for which an area management advice has been given for unexploded ordnance?

☒ No	
☐ Yes	• You must complete <i>Contaminated land - IDAS form 24</i> . • This application requires assessment by the administering authority (either the chief executive administering the <i>Environmental Protection Act 1994</i> , or the local government) as a concurrence agency.

Section reference:

- *Sustainable Planning Regulation 2009*, schedule 7, table 3, item 11

1.8 Is the proposed use of the premises listed in schedule 12 of the *Sustainable Planning Regulation 2009* and does it meet the specified threshold?

☒ No	
☐ Yes	• This application requires assessment by the Department of Transport and Main Roads as a concurrence agency

Section reference:

- *Sustainable Planning Regulation 2009*, schedule 7, table 3, item 14

1.9 Is the proposed use of the premises listed in schedule 13 of the *Sustainable Planning Regulation 2009* and does it meet the specified threshold?

☒ No	
☐ Yes	• This application requires assessment by the Department of Transport and Main Roads as a concurrence agency

Section reference:

- *Sustainable Planning Regulation 2009*, schedule 7, table 3, item 15

1.10 Is any part of the premises in an interim koala habitat protection area to which the provisions of the *South East Queensland koala State planning regulatory provisions* apply?

☒ No	
☐ Yes	• It is recommended that you complete Part 6 (starting from question 6.1) of this checklist

1.11 Is any part of the premises in a koala conservation area or koala sustainability area, which is located outside the current SEQ urban footprint area?

☒ No	
☐ Yes	• It is recommended that you complete Part 6 (starting from question 6.3) of this checklist

1.12 Is the proposed use associated with a reconfiguration of a lot?

☒ No	• It is recommended that you complete Part 7 of this checklist
☐ Yes	

**1.13 Is any part of the premises in a wild river area declared under the *Wild Rivers Act 2005*?**

☒ No	
☐ Yes	• It is recommended that you complete Part 8 of this checklist

1.14 Is the proposed use for a domestic housing activity?

☒ No	• It is recommended that you complete Part 9 of this checklist
☐ Yes	

1.15 Does the use of the premises include a lot sharing a common boundary with a Queensland Heritage place under the *Queensland Heritage Act 1992*?

☒ No	
☐ Yes	• This application requires assessment by the Department of Environment and Resource Management as an advice agency • You must also complete <i>Queensland Heritage Place - IDAS form 3</i>

Section reference:

- *Sustainable Planning Regulation 2009*, schedule 7, table 3, item 23

1.16 Is preliminary approval sought for the application under the *Sustainable Planning Act 2009*, section 242?

☒ No	
☐ Yes	• This application requires assessment by the Department of Infrastructure and Planning as a concurrence agency • You must complete <i>Preliminary approval varying the effect of the local planning instrument - IDAS form 31</i>

Section reference:

- *Sustainable Planning Regulation 2009*, schedule 7, table 3, item 24

1.17 Is the proposed use for a brothel as defined under the *Prostitution Act 1999*?

☒ No	
☐ Yes	• It is recommended that you complete Part 10 of this checklist

1.18 Is any part of the proposed use on strategic port land under the *Transport Infrastructure Act 1994*?

☒ No	
☐ Yes	• It is recommended that you complete Part 11 of this checklist

1.19 Is any part of the proposed use on airport land under the *Airport Assets (Restructuring and Disposal Act 2008)*?

☒ No	
☐ Yes	• It is recommended that you complete Part 12 of this checklist



1.20 Is the proposed use a major hazard facility or possible major hazard facility under the *Dangerous Goods Safety Management Act 2001*?

☒ No	
☐ Yes	• This application requires assessment by the Department of Justice and Attorney-General (JAG). If JAG is not your assessment manager for the application, the role of the agency will be as concurrence agency. • You must also complete <i>Major hazard facility - IDAS form 22</i>.

Section reference:

- *Sustainable Planning Regulation 2009*, schedule 3, part 1, table 2, item 5
- *Sustainable Planning Regulation 2009*, schedule 7, table 2, item 8

1.21 Is all or part of the premises on the environmental management register or contaminated land register under the *Environmental Protection Act 1994*?

☒ No	
☐ Yes	• It is recommended that you complete Part 13 of this checklist

1.22 Is all or part of the land forming the premises currently used for a notifiable activity or if there is no existing use, was it last used for a notifiable activity?

☒ No	
☐ Yes	• It is recommended that you complete Part 14 of this checklist

1.23 Is all or part of the land forming the premises currently used for an industrial activity (other than for a mining activity or petroleum activity) or if there is no existing use, was it last used for an industrial activity (other than for a mining activity or petroleum activity)?

☒ No	
☐ Yes	• It is recommended that you complete Part 15 of this checklist

1.24 Is any part of the premises in an area for which an area management advice has been given for natural mineralisation or industrial activity (other than for a mining or petroleum activity)?

☒ No	
☐ Yes	• It is recommended that you complete Part 16 of this checklist

1.25 Is the proposed use for aquaculture defined under the *Fisheries Act 1994*?

☒ No	
☐ Yes	• It is recommended that you complete Part 17 of this checklist

1.26 Is any part of the premises in a wild river area declared under the *Wild Rivers Act 2005*?

☒ No	
☐ Yes	• It is recommended that you complete Part 18 of this checklist

1.27 Is any part of the premises within the South East Queensland designated region?

☐ No	
☒ Yes	• It is recommended that you complete Part 19 of this checklist

**1.28 Is any part of the premises within the Far North Queensland (FNQ) designated region?**

☒ No	
☐ Yes	• It is recommended that you complete Part 20 of this checklist

1.29 Is the proposal for urban purposes, as defined under the *Sustainable Planning Regulation 2009*?

☐ No	
☒ Yes	• It is recommended that you complete Part 21 of this checklist

1.30 Can the proposed use be performed without the removal, destruction or damage of marine plants under the Fisheries Act 1994?

☐ No	• It is recommended that you complete Part 22 of this checklist
☒ Yes	

1.31 Is any part of the premises within the Wide Bay Burnett (WBB) designated region?

☒ No	
☐ Yes	• It is recommended that you complete Part 23 of this checklist

Part 5 - Vegetation clearing**5.1 Does the lot contain the following?**

category A or B shown on a property map of assessable vegetation	☐ Yes	☒ No
if there is no property map of assessable vegetation for a lot, native vegetation shown as remnant vegetation on a regional ecosystem or remnant map.	☒ Yes	☐ No

• If no to both of the above then end of part of the checklist.

5.2 Is the application for a preliminary approval under section 242 of the *Sustainable Planning Act 2009*?

☒ No	
☐ Yes	• You must complete <i>Clearing native vegetation --IDAS form 11</i> • This application requires assessment by the Department of Environment and Resource Management as a concurrence agency

5.3 Is the application for a sole or community residence clearing only (as defined in Schedule 26 of the *Sustainable Planning Regulation 2009*)?

☒ No	
☐ Yes	• End of part 5 of the checklist



5.4 Will the application involve vegetation clearing that is operational works made assessable under schedule 3, part 1, table 4, item 1, of the *Sustainable Planning Regulation 2009*, other than operational work that is only the clearing of regulated regrowth vegetation on freehold land, indigenous land or land the subject of a lease issued under the *Land Act 1994* for agricultural and grazing purposes?

☒ No	
☐ Yes	- You must complete <i>Clearing native vegetation --IDAS form 11</i> - This application requires assessment by the Department of Environment and Resource Management as concurrence agency

5.5 Will the application enable additional exempt operational work as defined in schedule 26 of the *Sustainable Planning Regulation 2009*, other than operational work that is only the clearing of regulated regrowth vegetation on freehold land, indigenous land, or land the subject of a lease issued under the *Land Act 1994* for agricultural and grazing purposes?

☒ No	
☐ Yes	- You must complete <i>Clearing native vegetation - IDAS form 11</i> - This application requires assessment by the Department of Environment and Resource Management as a concurrence agency

Section reference:

- Sustainable Planning Regulation 2009, schedule 7, table 3, item 10

Part 7 - Easements and substations

7.1 Is, or will there be any part of any structure or work that is the natural and ordinary consequence of the use located completely or partly in the easement?

☒ No	Go to question 7.4
☐ Yes	

7.4 Is any part of the premises situated within 100 metres of a substation site under the *Electricity Act 1994*?

☒ No	
☐ Yes	This application requires assessment by the entity responsible for the substation as an advice agency

Section reference:

- Sustainable Planning Regulation 2009, schedule 7, table 3, items 8, 9 and 16



Part 9 - Wetland

9.1 Does the premises include a lot situated in or, or within 100 metres of, a wetland shown on the 'Map of referable wetlands' a document approved by the chief executive of the Department of Environment and Resource Management?

☒ No	
☐ Yes	This application requires assessment by the Department of Environment and Resource Management as an advice agency

Section reference:

- Sustainable Planning Regulation 2009, schedule 7, table 3, item 21

Part 19 - South East Queensland Region

19.1 Do any of the following apply?

the application is only for development proposed in a rural precinct and the development is consistent with the rural precinct	☒ No	☐ Yes
the application is only for development identified as exempt from assessment under the <i>Sustainable Planning Regulation 2009</i> , schedule 4	☒ No	☐ Yes
the application is only for development carried out under a development approval which has not lapsed for a development application: - that was properly made before 28 July 2009 or - to which division 2 of the SEQ 2009-2031 regulatory provisions applied	☒ No	☐ Yes
the application is only for development that is consistent with a preliminary approval which has not lapsed, for the part of a development application mentioned in section 3.1.6 of the repealed <i>Integrated Planning Act 1997</i> (IPA) that states the way in which the effect of a local planning scheme is varied, where the development application for the preliminary approval was: - properly made before 28 July 2009 or - assessed against division 2 of the SEQ 2009-2031 regulatory provisions	☒ No	☐ Yes
the application is only for development that is generally in accordance with a rezoning approval where the development entitlements from the rezoning approval are conferred by the following: - the resulting zone in a transitional planning scheme or - a development permit or acknowledgement notice mentioned in section 3.2.5(1)(a) of the repealed <i>Integrated Planning Act 1997</i> for a development application (superseded planning scheme) for the resulting zone in a transitional planning scheme which is a superseded planning scheme, or a notice issued under section 97 of the <i>Sustainable Planning Act 2009</i> (SPA) agreeing to apply the superseded planning scheme or - a planning scheme (other than a transitional planning scheme)	☒ No	☐ Yes
the application is only for development that is declared to be a significant project under the <i>State Development and Public Works Organisation Act 1971</i> , section 26(1)(a)	☒ No	☐ Yes
the premises are completely within a state development area under the <i>State Development and Public Works Organisation Act 1971</i>	☒ No	☐ Yes

- If you answered yes to any of the above, end of part 19 of the checklist.



19.2 Is any part of the premises within a development area defined by the SEQ 2009-2031 regulatory provisions?

☒ No	• Go to question 19.4
☐ Yes	

19.4 Is the proposed use for an extension of more than 10 000 metres squared of retail floor space?

☒ No	
☐ Yes	• This application requires assessment against section 4.1 of the SEQ 2009-2031 regulatory provisions

19.5 Is any part of the premises outside the urban footprint area?

☒ No	• End of part 19 of the checklist
☐ Yes	

Section reference:

- *South East Queensland Regional Plan 2009-2031 Regulatory Provisions*, divisions 2 and 4
- *Sustainable Planning Regulation 2009*, schedule 7, table 3, item 12
- *SEQ Regional Plan 2009-2031 Regulatory Provisions* for the meaning of rural precinct.

Part 21 - Conservation estate

21.1 Is the proposed use on a lot situated in, or within 100 metres of, any of the following?

a protected area, forest reserve, critical habitat or area of major interest under the <i>Nature Conservation Act 1992</i>	☒ No ☐ Yes
a state forest or timber reserve under the <i>Forestry Act 1959</i>	☒ No ☐ Yes
a marine park under the <i>Marine Parks Act 2004</i>	☒ No ☐ Yes
a recreation area under the <i>Recreation Area Management Act 2006</i>	☒ No ☐ Yes
a world heritage area listed under the World Heritage Convention	☒ No ☐ Yes
Brisbane forest park under the <i>Brisbane Forest Park Act 1977</i>	☒ No ☐ Yes

- If you answered yes to any of the above, then this application needs to be referred to the Department of Environment and Resource Management as advice agency.

Section reference:

Sustainable Planning Regulation 2009, schedule 2, table 2, item 45

Privacy - please refer to the assessment manager for further details on the use of information recorded in this checklist.

Disclaimer:

While the Department of Infrastructure and Planning (DIP) believes that the information contained on this checklist and provided as part of this process will be of assistance to you, it is provided on the basis that you will not rely on the information without first making your own enquiries regarding the interpretation and application of the applicable legislation to your circumstances.

To the full extent permitted by law DIP expressly disclaims all liability (including but not limited to liability for negligence) for errors or omissions of any kind or for any loss (including direct and indirect losses), damage or other consequence which may arise from your reliance on this process and the information contained on this checklist.



OFFICE USE ONLY

Date received Reference numbers

The *Sustainable Planning Act 2009* is administered by the Department of Infrastructure and Planning.

Paul Creighton

From: POTTER Kylie <KPOTTER@goldcoast.qld.gov.au>
Sent: Wednesday, 21 November 2012 11:39 AM
To: Chris Austin
Subject: FW: Our Ref: 1396. Risk Smart - Industry. 84 Christensen Road, Yatala (Lot 334 on SP193431)

Hi Chris

Please see email below.

Kind regards

Kylie Potter

DART Team Leader - Implementation & Assessment
PE&T
for the Chief Executive Officer

Gold Coast City Council

Ph: 07 5582 9045
PO Box 5042 GCMC 9729
www.goldcoastcity.com.au

Gold Coast City Council - confidential communication

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From: SHARPE Roger
Sent: Monday, 19 November 2012 9:32
To: CHERRINGTON Wiremu
Cc: POTTER Kylie
Subject: RE: Our Ref: 1396. Risk Smart - Industry. 84 Christensen Road, Yatala (Lot 334 on SP193431)

Will

As discussed

We are now both fine with height and happy for this to be assessed under Risksmart

Rog

From: POTTER Kylie
Sent: Tuesday, 13 November 2012 14:44
To: CHERRINGTON Wiremu
Subject: FW: Our Ref: 1396. Risk Smart - Industry. 84 Christensen Road, Yatala (Lot 334 on SP193431)

Hey Will

Do you think this Industry can be lodged as a Risksmart

Thanks

Kylie

From: Chris Austin [mailto:caustin@gassman.com.au]
Sent: Tuesday, 13 November 2012 11:14
To: DART
Cc: David Hansen
Subject: Our Ref: 1396. Risk Smart - Industry. 84 Christensen Road, Yatala (Lot 334 on SP193431)

13/11/2012

Dear Sir/Madam,

We represent our client, Burnside Developments Pty Ltd and Yellowstone Developments Pty Ltd, who are have requested we do some initial investigations in to the potential to lodge a RiskSmart development application over the subject site (84 Christensen Road, Yatala).

The site has been subject to a number of industrial/warehouse/transport approval, with parcels separated as part of lease agreements. The intent is to continue this as part of the delivery of this project. At present, the concept involves the provision of a 10,000m² industrial building, with ancillary office space (500m²), internal circulation for vehicles, and other relevant facilities to underpin the use (staff rec areas, pump rooms, loading areas etc).

We have reviewed the RiskSmart criteria, and found that there are a few areas that may not allow the proposal to be assessed as a RiskSmart application. However, we note that previous correspondence with Council regarding development has allowed the relaxation of some RiskSmart criteria; as such, we would like to see clarification as to whether the following criteria can be relaxed, or if the project will require a code assessable application to be submitted:

- **Question 7 – Site Area**
 - The subject site exceeds 4000m² (site area = 33,183m² for Building 9 lease area).
 - Previous projects have been allowed to take place within the local area with greater site areas – as such, we would request confirmation as to whether this excludes the project from being assessed under RiskSmart
- **Question 14 – Bushfire Hazard**
 - Overlay mapping shows medium bushfire hazard vegetation to the north of the nominated lease area for building 9 (the project);
 - RiskSmart requires a bushfire management plan – however this seems excessive given the site has no vegetation and the development history;
 - Comment regarding this criteria is requested.
- **Question 15 – Waterway**
 - The subject site adjoins Sandy Creek (southern boundary);
 - Previous agreements on site between the application and Council have nominated a buffer area to which building will not take place. The proposal will not build within this area;
 - We would request confirmation from Council as to whether this would affect the proposal's ability to be assessed under RiskSmart.
- **Question 23 – Open Space**
 - As stated above, part of the subject site is within the open space precinct however all components will be located outside of this area;

- o Given that the open space area will not be affected, we would request confirmation as to whether this would exclude the application from RiskSmart.
- **Question 31 – Car Parking Spaces**
 - o The proposal incorporates 112 spaces to satisfy AS16.1 of the Car Parking, Access and Transport Integration Code;
 - o The maximum car parking spaces to be assessed is 100 (exceedence of 12 spaces by the proposal). Would Council consider relaxing this, given the minor exceedence?
- **Question 39 – Maximum building Height**
 - o The maximum building height under RiskSmart is 11.5 metres. The proposed development has a roof height of 13.5 metres;
 - o We would request confirmation from Council as to whether this would affect the proposal's ability to be assessed under RiskSmart,

We would appreciate feedback regarding the proposed development, at your earliest convenience.

If you have any queries or require any further information, please contact myself or David Hansen of this office.

Kind Regards,

Chris Austin | Town Planner BUD(URP) (Hons), MPIA

gassman development perspectives
planning | design | environment | surveying

T: 07 3221 6732 | M: 0407 440 997 | F: 07 3221 7308 | www.gassman.com.au

Brisbane | Level 13, 97 Creek Street, Brisbane QLD 4000 | GPO Box 999, Brisbane QLD 4000
Gold Coast & Logan | 76 Business Street, Yatala QLD 4207 | PO Box 392, Beenleigh QLD 4207

For email send and receipt conditions, please view our website or click [here](#)

Industry Warehouse

Gold Coast City Council is collecting your personal information in accordance with the Sustainable Planning Act 2009 in order to help assess your application. The information will only be used by authorised Council officers for the purpose of assessment, statistical reporting and ensuring our records are accurate. Your information will not be given to any other person or agency unless you have given us permission or we are required by law

RiskSmart Application

Office use only	Application number	Date
	Receipt number	Records barcode
	Customer service officer	
	Sundry debtor name	Sundry debtor number
• Check that all parts of application are received. • Immediately phone Development Assessment Review Team (DART) on ext 8866 (<i>select option #4</i>) to collect two copies of the application. • Forward remaining copy and receipt to Records as soon as possible. • Ensure this RiskSmart cover sheet is the first page when sent to Records.		

There are a number of questions in this checklist which could trigger your proposal out of the RiskSmart process. Please ensure that you read over the [entire document](#) before commencing assessment.

Prior to submitting your application, please ensure that you have included and ticked the following:

- This cover sheet must remain on the front of your RiskSmart application. ☒
 - The application can ONLY be lodged in person at the Customer Service Centre, Nerang Administration. ☒
 - Three (3) complete paper copies of the application. ☒
 - A compact disc (CD) copy of the proposal. ☒
 - Completed versions of the current Integrated Development Assessment System (IDAS) form 1 – 'Application details', form 5 'Material change of use assessable against a planning scheme' and IDAS checklists 1 and 2. ☒
 - Correct owner's consent. ☒
 - Council's RiskSmart Checklist. ☒
 - Plans (Site plan, coloured elevations, floor plans drawn to an appropriate scale, numbered and dated). ☒
 - Property enquiry print off (refer to www.goldcoastcity.com.au/pdonline). ☒
 - Site Analysis (prepared in accordance with Planning Scheme Policy 17). ☒
 - Site photos. ☒
 - Developer Contributions charges estimate. ☒
 - Referral Agency Responses, (if relevant). ☒
 - For the application to proceed, the correct fee must be paid at the Customer Service Counter, Nerang ☒
- Council will resolve this application within five working days. You will receive a Decision Notice.

Instructions	Please complete each of the following questions by answering Yes, No or N/A, and proceed as instructed in the right hand column. The right hand column will tell you which question to go to next, or whether the proposal is not suitable for RiskSmart assessment. In this case, the application would require a full Council Material Change of Use (MCU) assessment. If at any point you are instructed that the proposal is not suitable for RiskSmart assessment, it means that the proposal is not considered to be low risk and cannot be lodged as a RiskSmart application. In this event, stop completing this form, a full MCU application will be required to be lodged with Council. For further information on lodging an application contact the Town Planning Advice Counter located at the Nerang Administration Centre. To complete the questions you will require a property enquiry print off, which can be obtained from www.goldcoastcity.com.au/pdonline.				
Note to applicant	Where an asterisk (*) is shown in the right hand column, this indicates that Council Standard Conditions may apply.				
Property details	Lot number and registered plan number Lot 334 on SP193431 Site address 84 Christensen Road South, Stapylton, QLD 4207				
Limited to Industry 1 and Industry 2 Domains, Yatala Enterprise, Nerang and Southport LAPs	1. What Domain is the subject site located within?				
	Industry 1 ☐	Industry 2 ☐	Yatala Enterprise LAP ☒ Precincts 1-3	Nerang LAP ☐ Precinct 8	Southport LAP ☐ Precinct 6
	2. Is the application Code Assessable in accordance with the relevant Domain's & LAP's Table of Development?			Yes ☒ No ☐ If yes proceed to Q3 If no the application is not suitable for RiskSmart assessment	
	3. Have you consulted with Developer Contributions Group (DCG) and been provided with an estimate of Infrastructure Charges? Note: DCG can be contacted on (07) 5582 8052 (select option #2) or via email on dcg@goldcoast.qld.gov.au			Yes ☒ No ☐ If yes, include copy of the estimate and proceed to Q4 If no the application is not suitable for RiskSmart assessment	
Sustainable Planning Act 2009 requirements					
APD01, APD06, APD07, APD08, APD10, APD12, WAT23, WAT24, SEW24A, WAT15, SEE01, AME01, AME02, AME03, AME04, AME07, CON01, CON05, CON07, RFT23, RFT24, RFT26, RFT27, ADV01, ADV03, HEA09, HEA10, EDM07, HYD02, SWQ25, SWQ26, SWQ27, COM01, ASG02, ASG03 & Notes to Applicant	4. Is the application 'properly made' in accordance with s261 of the Sustainable Planning Act 2009?			Yes ☒ No ☐ If yes proceed to Q5 If no this is a Not Properly Made Application. You cannot proceed until all outstanding items are rectified	
Referral Agencies	5. Does the development application trigger referral to any Referral Agencies?			Yes ☐ No ☒ If yes proceed to Q6 If no proceed to Q7	
REF04, REF02	6. Has a Referral Agency response been provided in accordance with Section 271 of the Sustainable Planning Act 2009?			Yes ☐ No ☒ If yes proceed to Q7 If no, the application is not suitable for RiskSmart assessment	

	Plan that has been approved by Queensland Fire and Rescue Service? Note: All Bushfire Management Plans must be stamped and approved by Queensland Fire and Rescue Service prior to the lodgement of this application with Council – please contact David Heck (5582 8803) for further information.	If yes* proceed to Q15 If no the application is not suitable for RiskSmart assessment
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Wetland and Waterways Constraint Code	15. Does the subject site include, or is it directly adjacent to, a waterway identified under the Wetland and Waterway Constraint Code Overlay Map 11?	Yes ☐ No ☒ If yes the application is not suitable for RiskSmart assessment If no proceed to Q16							
Canals and Waterways Constraint Code	16. Are there any structures proposed within the building setback line under Overlay Map 13 (Canals and Waterways Setback)?	Yes ☐ No ☒ If yes the application is not suitable for RiskSmart assessment If no proceed to Q17							
Steep Slopes or Unstable Soils Constraint Code	17. Is the subject site listed as Very High, High or Moderate risk on Overlay Map 16 (Unstable Soils)?	Yes ☐ No ☒ If yes proceed to Q17.1 If no proceed to Q18							
	17.1 Is the application accompanied by a Geotechnical report, prepared by a suitably qualified person, which states that the location where the Warehouse/Industry footprint, car parking and access is proposed has a low risk of unstable soils/landslip?	Yes ☐ No ☐ If yes proceed to Q18 If no the application is not suitable for RiskSmart assessment							
Potential Flood Inundation Constraint Code	18. Are the finished levels on all buildings and car parking areas above the designated flood level as defined in Overlay Map 17 (Potential Flood Inundation) and able to provide flood free access?	Yes ☒ No ☐ If yes proceed to Q19 If no the application is not suitable for RiskSmart assessment							
Stormwater	19. Does the development allow for free passage of stormwater via an overland flow path between the street and any waterway?	Yes ☒ No ☐ If yes, proceed to Q20 If no the application is not suitable for RiskSmart assessment							
	20. Is certification attached from a suitably qualified engineer confirming that the stormwater discharge rate in the developed situation is in accordance with the permissible site discharge given in Table 1 below? Table 1: Permissible Site Discharge for 10 and 100 year storm events with indicative detention volume required. <table border="1" data-bbox="387 1364 1066 1514"> <thead> <tr> <th>Storm Event</th><th>Formula</th></tr> </thead> <tbody> <tr> <td>Q₁₀ (m³/s)</td><td>0.156*A</td></tr> <tr> <td>Q₁₀₀ (m³/s)</td><td>0.261*A</td></tr> <tr> <td>Storage (m³)</td><td>270*A</td></tr> </tbody> </table> Where A is the area of the site in Hectares.	Storm Event	Formula	Q ₁₀ (m³/s)	0.156*A	Q ₁₀₀ (m³/s)	0.261*A	Storage (m³)	270*A
Storm Event	Formula								
Q ₁₀ (m³/s)	0.156*A								
Q ₁₀₀ (m³/s)	0.261*A								
Storage (m³)	270*A								
21. Is certification attached from a suitably qualified engineer confirming that the proposal incorporates stormwater treatment devices in accordance with those given in Table 2 below? Table 2: Required Stormwater Quality Improvement Devices (SQID's). <table border="1" data-bbox="387 1733 1066 1964"> <thead> <tr> <th>SQID</th><th>Size</th></tr> </thead> <tbody> <tr> <td>Gross Pollutant Trap (oil * grit separator)</td><td>Appropriately sized to treat three (3) month flows from all impervious areas.</td></tr> <tr> <td>Bio-retention System</td><td>2.5% of the site</td></tr> <tr> <td>Rainwater Tank</td><td>Sized by an appropriate water balance model.</td></tr> </tbody> </table> Further details regarding stormwater treatment can be found in Council's Stormwater Quality Management Guidelines (July 2006).	SQID	Size	Gross Pollutant Trap (oil * grit separator)	Appropriately sized to treat three (3) month flows from all impervious areas.	Bio-retention System	2.5% of the site	Rainwater Tank	Sized by an appropriate water balance model.	Yes ☒ No ☐ If yes proceed to Q22 If no the application is not suitable for RiskSmart assessment
SQID	Size								
Gross Pollutant Trap (oil * grit separator)	Appropriately sized to treat three (3) month flows from all impervious areas.								
Bio-retention System	2.5% of the site								
Rainwater Tank	Sized by an appropriate water balance model.								

NOTE: Should Council's records indicate that there is a drainage complaint on the site or adjacent properties, the development application may not be assessed as a Risk Smart development application.		Council MCU assessment is likely to be required
Nature Conservation Constraint Code	22. Is the subject site triggered by Overlay Map 20 (conservation Strategy)?	Yes ☒ No ☐ If yes proceed to Q22.1 if no proceed to Q23
	22.1 Does the site trigger 'Committed to Development' only?	Yes ☐ No ☒ If yes proceed to Q23 If no the application is not suitable for RiskSmart assessment Please note GCCC Exemption of this requirement, formal correspondence has been submitted in support of this application.
	23. Is any part of the site identified as Open Space under the relevant LAP, Domain or Yatala Enterprise Area LAP?	Yes ☒ No ☐ If yes, Council MCU assessment will be required If no, proceed to Q24 Please note GCCC Exemption of this requirement, formal correspondence has been submitted in support of this application.
	24. Is the subject site or part of the site identified as, or directly adjacent to an area, of Conservation, Other Open Spaces or Links under the relevant LAP or Domain / Yatala Enterprise Area LAP?	Yes ☒ No ☐ If yes the application is not suitable for RiskSmart assessment If no, proceed to Q25 Please note GCCC Exemption of this requirement, formal correspondence has been submitted in support of this application.
Cultural Heritage (Historic) Constraint Code	25. Is the site located or adjacent to a site listed in: • Overlay Map 3- Cultural Heritage Routes? • The Queensland Heritage Register (Queensland Heritage Act (1992))? • The register of the National Estate (Australian Commission Act (1975))? • The National Trust of Queensland list; or • Any list of places of local heritage significances identified in on LAP adopted by the Gold Coast City Council?	Yes ☐ No ☒ If yes the application is not suitable for RiskSmart assessment If no, proceed to Q26
Car Parking, Access and Transport Integration Constraint Code CAR21, CAR25	26. Is the site affected by 'future road requirements' and or road widening as shown on the relevant Domain Maps?	Yes ☐ No ☒ If yes the application is not suitable for RiskSmart assessment If no, proceed to Q27
	27. Does the development require a new crossover?	Yes ☐ No ☒ If yes * proceed to Q28 If no proceed to Q28
	28. Does the development incorporate a maximum of two vehicle	Yes ☒ No ☐

CAR01, CAR10, CAR16, CAR23	crossovers and with a minimum distance of three metres separating the two crossovers?	If yes proceed to Q29 If no the application is not suitable for RiskSmart assessment
	29. Is a loading and set down area provided on the site that is consistent with AS2890.2 – Off Street Parking, Part 2: Commercial Vehicles and AS14.1-14.4 of the Planning Scheme's Car Parking, Access and Transport Integration Constraint Code?	Yes ☒ No ☐ If yes * proceed to Q30 If no the application is not suitable for RiskSmart assessment
	30. Does the development provide the number of spaces required for the specific use as listed in the AS16.1?	Yes ☒ No ☐ If yes proceed to Q31 If no the application is not suitable for RiskSmart assessment
	31. Does the proposed development exceed 100 car parking spaces?	Yes ☒ No ☐ If yes the application is not suitable for RiskSmart assessment If no proceed to Q32 Please note GCCC Exemption of this requirement, formal correspondence has been submitted in support of this application.
Allconnex Requirements SEW01, SEW11, SEW15	32. Is the site connected to a Council's reticulated sewer system or proposed to be connected to a Council's reticulated sewer system?	Yes ☒ No ☐ If yes* proceed to Q33 If no the application is not suitable for RiskSmart assessment
General Questions		
FVR06	33 Will the proposal result in damage to, or removal of vegetation?	Yes ☒ No ☐ If yes,* condition will apply, OR submit an OPW Vegetation Clearing application and proceed to Q34 If no proceed to Q33
Allconnex Requirements WAT01, WAT11, WAT13, WAT12 SEE08 WAT22, SEE09	34 Is the subject site serviced by Council's Water system?	Yes ☒ No ☐ If yes * proceed to Q35 If no proceed to Q35
	35 Are all works clear of easements?	Yes ☒ No ☐ If yes* proceed to Q36 If no the application is not suitable for RiskSmart assessment
	36 Do the proposed works encroach within an easement or within two (2) metres of Council infrastructure? Note: The works would include any stormwater treatment devices.	Yes ☐ No ☒ If no * proceed to Q37 If yes the application is not suitable for RiskSmart assessment
	37 Has a Site Analysis Plan been provided in accordance with Policy 17 – Site Analysis? • Identification / location of significant vegetation on site. Note: The Site Analysis Plan shall include site photos	Yes ☒ No ☐ If yes proceed to Q38 If no the application is not suitable for RiskSmart assessment
ONLY ANSWER THE QUESTIONS BELOW RELEVANT TO YOUR DOMAIN		

Limited to Industry 1 and Industry 2 Domains, Yatala Enterprise, Nerang and Southport LAPs	38 What Domain/Local Area Plan & Precinct is the subject site located within?				
	Industry 1 ☐	Industry 2 ☐	Yatala Enterprise LAP ☒ Precincts 1-3	Nerang LAP ☐ Precinct 8	Southport LAP ☐ Precinct 6
Industry 1, Industry 2 and Yatala Enterprise LAP (Precincts 1-3)					
	39 Is the building or any structures more than 11.5 metres in height or 3 storeys? Note: Building height and storey is defined in Part 4, Division 1, Chapters 1-3 of the Gold Coast Planning Scheme.		Yes ☒ No ☐ If yes the application is not suitable for RiskSmart assessment If no, proceed to Q41 Please note GCCC Exemption of this requirement, formal correspondence has been submitted in support of this application.		
	Nerang LAP (Precinct 8) and Southport LAP (Precinct 6)				
	40 Is the building or any structures more than 2 storeys? Note: Building height and storey is defined in Part 4, Division 1, Chapters 1-3 of the Gold Coast Planning Scheme.		Yes ☒ No ☐ If yes the application is not suitable for RiskSmart assessment If no, proceed to Q41 Please note GCCC Exemption of this requirement, formal correspondence has been submitted in support of this application.		

ALL AREAS		
Setbacks	41 Is the building and/or any structures set back and designed in accordance with the following: • 8 metres from the primary frontage of the site, provided that the façade which addresses the primary frontage is the front of the building which contains the entrance and window openings; and • 5 metres from the secondary frontage(s).	Yes ☒ No ☐ If yes, proceed to Q42 If no the application is not suitable for RiskSmart assessment
Public Open Space	42 Does the subject site adjoin a residential lot or public open space?	Yes ☐ No ☒ If yes the application is not suitable for RiskSmart assessment If no, proceed to Q43
Site Coverage	43 Does the proposed development result in a site coverage which is 70% or less?	Yes ☒ No ☐ If yes, proceed to Q44 If no the application is not suitable for RiskSmart assessment
Building Design	44 Is a colour perspective included with the application demonstrating that the building incorporates strong architectural merit, showing appropriate use of colours, materials, awnings and landscaping that complements the character of the area?	Yes ☒ No ☐ If yes, proceed to Q45 If no the application is not suitable for RiskSmart assessment
Privacy	45 Does the building contain glass exceeding the maximum degree of reflection of both heat and light of 20%?	Yes ☒ No ☒ If yes the application is not suitable for RiskSmart assessment If no, proceed to Q46
Landscaping and Open Space LAN01	46 Is the application accompanied by a landscape intent (prepared in accordance with Planning Scheme Policy 13 – Landscape Strategy Part 2) that provides a minimum of 50% soft landscaping within the front 3m of the entire frontage of the site?	Yes ☒ No ☐ If yes* proceed to Q47 If no the application is not suitable for RiskSmart assessment
Amenity AME05	47 Is the storage (in open areas) of vehicles, machinery, goods and materials used on the site effectively screened with fencing or vegetation from the view from the street?	Yes ☒ No ☐ If yes* proceed to Q48 If no the application is not suitable for RiskSmart assessment
Noise	48 Is the proposed Industry/Warehouse land use within 50m of a residential site or residential dwelling?	Yes ☐ No ☒ If yes, Proceed to Q49 If no, Proceed to Q50
	49 Is the application accompanied by an acoustic report, prepared by a qualified acoustic engineer, clearly demonstrating that the noise levels emitted from all mechanical plant & equipment, (including noise from forklifts, delivery vehicles, air conditioning units, refrigeration plant and exhaust fans) on the site of the industrial/warehouse activity does not exceed the following noise levels measured over a fifteen (15) minute period?	Yes ☐ No ☐ If yes proceed to Q50 If no the application is not suitable for RiskSmart assessment

	NOISE LIMITS AT A NOISE SENSITIVE PLACE			
	PERIOD	Noise level at noise sensitive place measured as the adjusted maximum sound pressure level (LA_{max,adj,T})		
	7am – 6pm	Background noise level (LA _{bg,T}) plus 5 dB(A)		
	6pm – 10pm	Background noise level plus 5 dB(A)		
	10pm – 7am	Background noise level plus 3 dB(A)		
	NOISE LIMITS AT A COMMERCIAL PLACE			
	PERIOD	Noise level at a commercial place measured as the adjusted maximum sound pressure level (LA_{max,adj,T})		
	7am – 6pm	Background noise level (LA _{bg,T}) plus 10 dB(A)		
	6pm – 10pm	Background noise level plus 10 dB(A)		
	10pm – 7am	Background noise level plus 8 dB(A)		
Health HEA07	50 Will the site be used to store any flammable or combustible liquids as defined in the Dangerous Goods Safety Management Act 2001 and/or Dangerous Goods Safety Management Regulations 2001?		Yes ☐ No ☒ If yes * proceed to Q501 If no proceed to Q51	
HEA08	51 Do the plans depict a refuse storage area screened from all property boundaries and the street?		Yes ☒ No ☐ If yes * proceed to Q52 If no the application is not suitable for RiskSmart assessment	
Architectural design	52 Will the development be visible from the Pacific Motorway or Gold Coast City Railway Line?		Yes ☒ No ☐ If yes, Proceed to Q52.1 If no, Proceed to Q53	
	52.1 Is the façade facing the motorway or rail line designed to incorporate strong architectural merit showing appropriate use of colours, materials, awnings and landscaping so as to exhibit a high standard of architectural presentation?		Yes ☒ No ☐ If yes proceed to Q53 If no the application is not suitable for RiskSmart assessment	
Landscaping	53. Is ground level parking sited and designed to include the following? • Preservation of Significant trees; and • Landscaped bays for the planting of shade trees, and the incorporation of one (1) canopy tree for every eight (8) car park spaces installed on a 4m² diamond in compliance with Planning Scheme Policy 13 (Landscape Strategy Part 2, Landscape Work Documentation Manual section C, point 8).		Yes ☒ No ☐ If yes proceed to Q54 If no the application is not suitable for RiskSmart assessment	
	54. If the site contains natural features of ecological and/or landscape value, such as stands of remnant vegetation and gullies/ridges, are these incorporated in the open space/landscape areas?		Yes ☐ No ☐ N/A ☒ If yes or N/A, Proceed to Q55 If no the application is not suitable for RiskSmart assessment	
	55. Does the landscape design include provision of pleasant, shaded areas with appropriate furniture for lunch/relaxation areas for workers and visitors?		Yes ☒ No ☐ If yes, Proceed to Q56 If no the application is not suitable for RiskSmart assessment	

Agricultural land	56. Does the site adjoin an agricultural land use or land contained within the Rural Domain?	Yes ☐ No ☒ If yes the application is not suitable for RiskSmart assessment If no, proceed to Q57
Inter regional transport corridor (IRTC)	57. Is any part of the site within the boundaries of the Intra Regional Transport Corridor (IRTC)?	Yes ☐ No ☒ If yes the application is not suitable for RiskSmart assessment If no you have successfully completed the RiskSmart checklist.

Thank you for completing this checklist.

Please refer to the coversheet for all necessary inclusions prior to submitting your application.

For your information, please review the list of conditions that may be applied to any approval issued on this proposal.

Please note that this list is not exhaustive and additional conditions may be applied relevant to your subject site.

OUR REF: 1396 - 12 - CA

28th of November, 2012

Gold Coast City Council
PO Box 5042
GOLD COAST MC QLD. 9729

Dear Sir / Madam,

**RE: REQUEST FOR ADOPTED INFRASTRUCTURE CHARGE ESTIMATE -
DEVELOPMENT PERMIT FOR MATERIAL CHANGE OF USE
(INDUSTRY)**

ADDRESS: 84 CHRISTENSEN ROAD, STAPYLTON, QLD 4207

PROPERTY: LOT 334 ON SP193431

Please find enclosed our request for an adopted infrastructure charge estimate request in accordance with the requirements of the RiskSmart process.

Please find attached to this correspondence the following:

1. Adopted Infrastructure Charge Proposal Summary;
2. Adopted Infrastructure Charge Estimate Request;
3. Owners consent;
4. Proposal plan relating to the subject development; and
5. The prescribed fee of \$250.00.

If you have any further queries, please do not hesitate to contact the undersigned.

Yours faithfully,

GASSMAN DEVELOPMENT PERSPECTIVES



.....
CHRIS AUSTIN

ATTACHMENT 1

Adopted Infrastructure Charge Proposal Summary

Adopted Infrastructure Charge Proposal Summary

Gold Coast City Council is collecting your personal information in order for us to calculate infrastructure charges in accordance with the *Sustainable Planning Act 2009* and other legislation. This information will only be used by authorised Council officers for the purpose of calculating infrastructure charges and ensuring our records are accurate. Some of your personal information may also be made available to Gold Coast Water and Councils Planning & Development Online web site for public viewing in accordance with the *Sustainable Planning Act 2009*. Your information will not be given to any other person or agency unless you have given us permission or we are required by law.

All rates are based on areas fully serviced by Gold Coast Water. See "Notes for filling out this form" for rate adjustments in areas not fully serviced by Gold Coast Water.

Reconfiguration of Lot Application Enter the appropriate number of lots	Type - Residential Lots - Non Residential Lots - Management Lots	Proposed No of Lots	Existing No of Lots	Rate per Lot (FY 2012-13) \$27,000
Residential Land Use (Material Change of Use & Building only) Enter the appropriate number of dwellings. Note: Credits will only be given for existing lawfully established uses	Type Detached Dwellings Attached Dwellings 1 Bdrm 2 Bdrms 3 Bdrms 4+ Bdrms Apartment 1 Bdrm 2 Bdrms 3 Bdrms 4+ Bdrms Family Accommodation dwellings less than or equal to 100m ² GFA	Proposed Qty	Lawfully Established Existing Qty	Rate per Dwelling (FY 2012-13) \$27,000 \$16,500 \$19,000 \$22,500 \$23,000 \$13,500 \$17,000 \$22,000 \$23,500 \$0
Family Accommodation dwellings greater than 100m² GFA				
Type Detached Dwellings Attached Dwellings 1 Bdrm 2 Bdrms 3 Bdrms 4+ Bdrms Apartment 1 Bdrm 2 Bdrms 3 Bdrms 4+ Bdrms	Proposed Qty	Lawfully Established Existing Qty	Rate per Dwelling (FY 2012-13) \$10,800 \$6,600 \$7,600 \$9,000 \$9,200 \$5,400 \$6,800 \$8,800 \$9,400	

Non Residential Land Use (Material Change of Use & Building only)	Charging Category	Type	Proposed Qty	Lawfully Established Existing Qty	Rate Per Dwelling (FY 2012-13)	Included Land Use (For information only)
Enter the appropriate quantity. Note: Credits will only be given for existing lawfully established uses	Long term accommodation	Detached Dwellings			\$27,000	• Aged Persons Accommodation, • Relocatable Home Park, • Special Accommodation • Hostel Accommodation
		Attached Dwellings 1 Bdrm			\$16,500	
		2 Bdrms			\$19,000	
		3 Bdrms			\$22,500	
		4+ Bdrms			\$23,000	
		Apartment 1 Bdrm			\$13,500	
		2 Bdrms			\$17,000	
		3 Bdrms			\$22,000	
		4+ Bdrms			\$23,000	
	Short term accommodation	Detached Dwellings			\$13,500	• Camping Ground, • Caravan Park, • Motel, • Resort Hotel, • Tourist Cabins
		Attached Dwellings 1 Bdrm			\$8,250	
		2 Bdrms			\$9,500	
		3 Bdrms			\$11,250	
		4+ Bdrms			\$11,500	
		Apartment 1 Bdrm			\$6,750	
		2 Bdrms			\$8,500	
		3 Bdrms			\$11,000	
		4+ Bdrms			\$11,750	

Non Residential Land Use (Material Change of Use & Building only) Enter the Gross Floor Area (GFA) Note: Credits will only be given for existing lawfully established GFAs	Charging Category	Proposed GFA	Lawfully Established Existing GFA	Rate per m ² GFA (FY 2012-13)	Included Land Use (For information only)
	Place of Assembly			\$70	- Community Purposes (art gallery, community hall, library, museum, scout hall and other community organised uses) - Funeral Parlour, - Place of Worship, - Reception Room, - Restricted Club, - Surf Life Saving Club
	<i>Common area</i>				
	Commercial (Bulk Goods)			\$140	- Bulk Garden Supplies, - Retail Plant Nursery, - Showroom, - Vehicle Hire Premises, - Vehicle Sales Premises
	<i>Common area</i>				
	Commercial (Office)			\$140	- Commercial Services, - Display Home, - Estate Sales Office, - Funeral Business, - Office, - Vehicle Hire Office
	<i>Common area</i>				
	Commercial (Retail)			\$180	- Café, - Convenience Shop, - Department Store, - Fast Food Premises, - Laundromat, - Manufacturer's Shop, - Restaurant, - Service Industry, - Service Station, - Shop, - Shopping Centre Development, - Take Away Food Premises, - Tourist Shop
	<i>Common area</i>				
	Education			\$140	- Child Care Centre, - Community Purposes (Child Day Care), - Educational Establishment
	<i>Common area</i>				

Non Residential Land Use (Material Change of Use & Building only) Enter the Gross Floor Area (GFA) Note: Credits will only be given for existing lawfully established uses	Charging Category	Proposed GFA	Lawfully Established Existing GFA	Rate per m ² GFA (FY 2012-13)	Included Land Use (For information only)
	Entertainment			\$200	• Adult Entertainment, • Amusement Parlour, • Brothel, • Cinema, • Hotel (non-residential component) • Night Club, • Tavern
	Common area				
	Indoor Sport and Recreational Facility			\$200	• Indoor Sport and Recreation Facility (excluding courts)
				\$20	• Indoor Sport and Recreation Facility (courts)
	Common area				
	Essential Services			\$140	• Community Care Centre, • Community Purposes (Day Respite Care), • Community Purposes (Emergency Services), • Community Purposes (Health Services), • Corrective Institution, • Hospital, • Medical Centre, • Veterinary Clinic, • Veterinary Hospital
	Common area				
	High Impact Rural			\$20	• Aquaculture, • Minor Aquaculture
	Common area				
	Industry	10500 m ² (\$525,000)		\$50	• Fuel Depot, • Industry, • Milk Depot, • Motor Vehicle Repairs, • Outdoor Storage Area, • Rural Industry, • Salvage Yard, • Storage, • Warehouse, • Waterfront (or Marine) Industry
	Common area				
	Low Impact Rural			\$0	• Agriculture, • Animal Husbandry, • Farm Forestry
	Common area				

Non Residential Land Use (Material Change of Use & Building only) Enter the appropriate Gross Floor Area (GFA) Note: Credits will only be given for existing lawfully established GFAs	Charging Category	Proposed GFA	Lawfully Established Existing GFA	Rate per m ² GFA (FY 2012-13)	Included Land Use (For information only)
	Minor Use			\$0	• Advertising Device, • Bed and Breakfast, • Cemetery, • Family Day Care Home, • Farm stay • High Impact Telecommunications Facility, • Home Occupation, • Home Office, • Kiosk, • Low Impact Telecommunications Facility • Market, • Stall, • Substantial Structure, • Temporary Use
	<i>Common area</i>				
	Specialist Uses			Rates determined at time of assessment	Caretakers Residence
					Car Park
					Commercial Groundwater Extraction
					Community Purposes (Government Use)
					Ecotourism Facility
					Extractive Industry
					Helipad
					Kennel
					Marina
					Minor Tourist Facility
					Outdoor Sport and Recreation
					Private Recreation
					Public Utility
					Railway Activities
					Refuse Disposal
					Refuse Transfer Station
					Telecommunications Facility
					Tourist Facilities
					Transit Centre
					Transport Terminal
	Common Area				

☐ Confirmation that GFA is as per Queensland Planning Provisions definition (see notes for filling out this form)
☐ Lawful use operating at date of lodgement
 If not, date of use ceasing ____/____/____

IMPervIOUS AREA CALCULATION (Applicable only to Non Residential and Mixed Use Developments)

Impervious Area	Advise the total impervious area for this development below. Note: Mixed use developments will be charged at the non-residential stormwater rate for all proposed impervious areas unless it can be shown by the applicant that specific impervious areas are for exclusive residential use only.					
	Total impervious area (A)		Total exclusive residential impervious area (B)		Net total impervious area (A – B = C)	Rate per impervious m ²
PROPOSED	25200 m ²	-	m ²	=	25200 m ²	\$10
EXISTING	m ²	-	m ²	=	m ²	

Calculation Example

Note:
Mixed use developments will be charged at the non-residential stormwater rate for all proposed impervious areas unless it can be shown by the applicant that specific impervious areas are for exclusive residential use only.

Impervious Area = Area of roof + car parking area + pool area + paved area

Total roofed area	Total vehicle surfaces (road, parking, driveway, etc)		Total other impervious areas (including (pool, pool surrounds, pavers etc)
360 + 525 = 885m ² (A)	+	1000m ² (A)	+
Total exclusive residential impervious areas	Net total impervious area (Sum of A) - B = C		Rate per impervious m ²
360 + 700 = 1,060m ² (B)	=	1,525m ² (C)	\$10

Notes for filling out this form	
Use of this form	Use this form to provide Council with details of a development application to assist Council in the calculation of infrastructure charges.
Rate adjustments in areas not fully serviced by Gold Coast Water	All charge rates are based on areas fully serviced by Gold Coast Water. In areas not planned to be fully serviced by Gold Coast Water, rate adjustments will apply. Areas in Council's local government area which are not planned to be serviced by water supply or wastewater are identified in clause 8.3 (Water Supply Service Area) and clause 9.3 (Wastewater Service Area) of Council's Priority Infrastructure Plan (PIP). In these areas, the assessable demand rate will be reduced by Gold Coast Water's water supply or wastewater component of the charge depending on which service is not planned to be provided. If the development is in an area: a. not planned to be serviced by water supply, the assessable demand rate will be reduced by 10.9%; b. not planned to be serviced by wastewater, the assessable demand rate will be reduced by 33.6%
Charging categories	Use the column "Included Land Use" on the right of each page to determine the appropriate Charging Category.
Common areas	At Council's absolute discretion, if it can be clearly demonstrated that specific common areas apply to only one charging category then charges for that common area will be determined on the charge rates for that charging category. If a development includes an area which is common to two or more charging categories and no clear breakdown of these common areas attributable to a particular charging category is provided, the assessable demand for the common area will be based on the charging category with the highest charge rate.
Credits for existing lawfully established use	A credit will only be applied where an existing lawful use is established (up and running) on the site that is the subject of the development application at the time the development application is made. Enter the number of existing dwellings/units or the Gross Floor Area of any existing use against the appropriate Charging Category. Use the "Included Land Use" column on the right as a guide to determine the appropriate Charging Category to use.
Gross Floor Area (GFA)	Means the total floor area of all storeys of a building (measured from the outside of the external walls or the centre of a common wall), other than areas used for the following: a. Building services, plant and equipment b. Access between levels c. Ground floor public lobby d. A mall e. The parking, loading and manoeuvring of motor vehicles f. Unenclosed private balconies whether roofed or not
Not-for-profit organisations	If you are a not-for-profit community group, you may be entitled to a rebate on the charges you must pay. You will need to fill out the "Agreements, Not for Profit Rebates and Alternatives to Paying Infrastructure Charges" form contained in your application kit. Please note that assessment of "not-for-profit" applications will not be conducted by Council when assessing infrastructure charges.

ATTACHMENT 2

Adopted Infrastructure Charge Estimate Request

Developer Contributions, Implementation & Assessment

Planning Environment & Transport Directorate

Phone: 5582 8052 Facsimile: 5582 8241

Email: dcg@goldcoast.qld.gov.au

PO Box 5042 GOLD COAST MC QLD 9729



Adopted Infrastructure Charge Estimate Request

Gold Coast City Council is collecting your personal information in order for us to calculate infrastructure charges in accordance with the *Sustainable Planning Act 2009* and other legislation. This information will only be used by authorised Council officers for the purpose of calculating infrastructure charges and ensuring our records are accurate. Some of your personal information may also be made available to Gold Coast Water and Councils Planning & Development Online web site for public viewing in accordance with the *Sustainable Planning Act 2009*. Your information will not be given to any other person or agency unless you have given us permission or we are required by law.

Applicant contact details <i>Please complete all applicable applicant details</i>	Name		Email address			
	MS Projects Pty Ltd c/- Gassman Development Perspectives		caustin@gassman.com.au			
	Postal address					
	GPO Box 999, Brisbane, QLD 4000					
	Phone number	Fax number	Mobile number			
	0738073333					
Landowner details/ consent	Name		Postal Address			
	Please see cover letter		Please see cover letter			
	Phone number		Signature			
	Please see cover letter		Date			
Property details <i>Please complete all applicable property details so we can process your application</i>	Lot and plan details		Site address		Property division	
	Lot 334 on SP193431		84 Christensen Road South, Stapylton, WLD 4207		Division 1	
	Lot and plan details		Site address		Property division	
	Lot and plan details		Site address		Property division	
Description of proposed development	The development of a 10,000m ² industrial building, with ancillary office space (500m ²), internal circulation for vehicles, and associated ancillary facilities.					
Application Details <i>Check page 2 for additional information</i> <i>Cancellations must be requested in writing</i>	Risk Smart Applications			2012-13 Fees	Account No	
	1	Industry/ Warehouse MCU	\$	250.00	☒	98828
	2	Family Accommodation MCU	\$	250.00	☐	98828
	3	Attached Dwellings MCU	\$	250.00	☐	98828
	4	Second Detached Dwellings MCU	\$	250.00	☐	98828
	5	Educational Establishments MCU	\$	250.00	☐	98828
	6	ROL – Boundary Realignment 2-3 Lot Subdivisions	\$	250.00	☐	98828
	Non Risk Smart Applications			2012-13 Fees	Account No	
	7	Duplex MCU	\$	250.00	☐	98828
	8	Other Application Types: MCU ROL Self Assessable Building Applications	\$	400.00	☐ ☐ ☐	98828
	Required Documents					
	To enable Council to calculate an estimate of infrastructure charges, you must also fill in the "Adopted Infrastructure Charge Proposal Summary" form together with this Infrastructure Charges Estimate Request.					
Office use only	Application received by		Receipt number		Fees paid	
					\$	
	EST application no		Business partner number		Business partner name	

How to fill out this form

Form Information

Please note that this page does not need to be submitted with your application – it is for your information only.
If necessary, attach further sheets for more existing information.

Use of this Form

Use this form to request Council to provide an estimate of the infrastructure charges you will be required to pay for a development you are considering.

Time frame for providing estimate

Estimates take a minimum of 20 working days to complete. Calculation of an estimate may take longer if the proposal is complex or required information is missing.

Disclaimer

The estimate of charges provided by Council in response to lodgement of this form is only an estimate. The Estimate is based on the best information available at the time of preparing the estimate, but the actual charges to be applied may differ.

Accuracy of Estimate

Please note that estimates are created on the basis of the information you provide, such as any possible credits. The quality of this information may impact upon the accuracy of the estimate produced by Council.

The provision of an estimate in no way employs Council's approval for the proposed development.

Required Documents

Material Change of Use application (MCU):

Site plan

Draft architectural plan

Reconfiguration of Lot (ROL):

Site plan

Draft subdivisions plan

Applicant Contact Details

Provide your name, address and contact details, or the name and address of your organisation and daytime contact details. Where you have an existing approval number for your development application, include it in the space provided. Absence of information may result in delays.

Landowners Details/Consent

Provide landowners name, contact details and consent (signature and date)

Property Details

Provide the lot and plan details, the address and property division of the properties you are considering developing.

Description of the proposed development

Provide a description of the proposed development for which you are seeking an estimate of infrastructure charges. This should include specific information about the development. For example, rather than just 'townhouses' or 'subdivision', specify:

100 Unit Townhouse Development; or
43 Detached Dwelling Subdivision; or
Bedroom information if known

Cancelled Property Inspection Services

Cancellation fees may vary depending on the progress of a requested search. All requests for cancellations must be submitted in writing and faxed to (07) 5582 8241.

Payment Methods

Payment of fees can be made with mastercard, visa, eftpos, cash or cheque at any Council Office. If you are a regular user of Council's service, please consider the use of a monthly customer account. This payment method can save considerable time in processing your application. Business partner accounts will be issued if Council's credit requirements are met. Please contact Council if you would like an application for a credit account to be emailed, faxed or posted. Applications from account customers can be faxed to (07) 5581 6841.

Please note that the information requested by you will be extracted from Council's records in response to your request. The Council's records do not necessarily reflect the actual state of the property or matters relating to the property or the degree of compliance with relevant requirements. Persons making decisions with financial or legal implications will not be able to rely upon the information supplied for the purpose of determining whether any particular facts or circumstances exist and the Council expressly disclaims any invitation to place such reliance on the information. Persons must obtain their own professional advice on these matters. The Council (and its officers and agents) contract to supply information only on this basis. Further information on the limits of the information supplied will be included in the information supplied.

ATTACHMENT 3

Owners consent

VALERIO ANORRATTA [insert name in full]
 Director of the below mentioned company and

RENATO ANORRATTA [insert name in full]
 DIRECTOR + SECRETARY

[insert position in full— i.e. another director, or a company secretary. Delete the above name and company position if not applicable, i.e. for a proprietary company that has a sole director who is also the sole company secretary, only that director needs to complete the owner's consent]

of Yellowstone Investments Pty Ltd [insert name of company]

as owner of premises identified as follows:

84 Christensen Road, Yatala (Lot 334 on SP193431)

[insert street address, lot or plan description, or coordinates of the premises the subject of the application]

consent to the making of a development application under the Sustainable Planning Act 2009 by

MS PROJECTS
 C/- Gassman Development Perspectives Pty Ltd [insert name of applicant]

on the premises described above for the purposes of

Development Permit for a Material Change of Use (Industry)

[insert details of the proposed development e.g. material change of use for three storey apartment building]

[Signature] [signature of Director]
 signed on the TWENTY FIRST day of NOVEMBER 20 12

[Signature] [signature of Director/company secretary]
 signed on the TWENTY FIRST day of NOVEMBER 20 12

Company seal [if used]

Company owner's consent to the making of a development application under the Sustainable Planning Act 2009

I, Paul Anthony McAvoy

[insert name in full]

Director of the below mentioned company and

PHILLIP ARTHUR AINSWORTH

[insert name in full]

DIRECTOR / SECRETARY

[insert position in full -- i.e. another director, or a company secretary. Delete the above name and company position if not applicable, i.e. for a proprietary company that has a sole director who is also the sole company secretary, only that director needs to complete this owner's consent]

of Burnside Developments Pty Ltd

[insert name of company]

as owner of premises identified as follows:

84 Christensen Road, Yatala (Lot 334 on SP193431)

[insert street address, lot or plan description or coordinates of the premises (the subject of the application)]

consent to the making of a development application under the Sustainable Planning Act 2009 by

MS PROJECTS

C/- Gassman Development Perspectives Pty Ltd

[insert name of applicant]

on the premises described above for the purposes of

Development Permit for a Material Change of Use (Industry)

[insert details of the proposed development (e.g. material change of use for three storey apartment building)]

[signature of Director]

signed on the 21ST day of NOVEMBER 20 12

[signature of Director/company secretary]

signed on the 21ST day of NOVEMBER 20 12

Company seal (if used)

ATTACHMENT 4

Proposal plan relating to the subject development

SANDY CREEK

BUFFER ZONE

BUFFER ZONE

Emt G

SANDY CREEK

DEVELOPMENT SUMMARY (STAGE 1):

Site Area	33,357m ²
Warehouse	10,000m ²
Office	500m ²
GFA	10,500m ²
Plot Ration (GFA/Site Area)	31.77%
Awnings (inc. covered hardstand)	1,983m ²
Parking	2,355m ²
Landscaping	9,432m ²
Concrete Hardstand & Access	
Carparking	112 + 6 motorbikes

P3	21.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
P2	21.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
P1	20.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
Issue	Date	Description	Int.	App.
Revision				



Client



Project Title

BUILDING 9
CHRISTENSEN ROAD
SOUTH
INDUSTRIAL PARK
YATALA QLD 4207

Drawing Title

SITE PLAN

Sheet Size: A1

Plot Date	Approved	Drawn	Scale
N/A	ATM	JH	As Shown at A1
Project Number	Drawing Number	Sheet Number	
123018	A0002/P3	N/A	

P R E L I M I N A R Y

Waiver of Liability
These drawings have been reviewed for compliance with project design intent. They do not constitute all of the information required to complete the project and must be read in conjunction with consultants drawings, specifications and written instructions which may at any time supplement, amend or supersede these drawings. These drawings do not in any way relieve the contractor from the responsibility for correctness of dimensions, quantities, construction, fabrication instructions, coordination of work of other trades or services. These drawings are based on the understanding that all dimensions are verified on site. Signed dimensions performance, scaled dimensions and material requirements are provided in the drawings and must not be used, retained or copied without the written permission of Artas Architects. (s.b.n. 75 009 583 544)

07/12/2012
Mrs Anne Lambert
Nerang
(07) 5582 8052

PN307555/16

MS PROJECTS PTY LTD
C/- GASSMAN DEVELOPMENT
PERSPECTIVES
GPO BOX 999
BRISBANE QLD 4000



Dear Sir/Madam

INFRASTRUCTURE CHARGE ESTIMATION

APPLICATION NUMBER: **PN307555/16** - RPD: **LOT334 SP193431**

SITE ADDRESS: **84 - 160 CHRISTENSEN ROAD SOUTH STAPYLTON**

I wish to advise that based on the information supplied, Infrastructure Charges for the above site have been estimated as at the date hereof as follows:

TOTAL PAYABLE PRIOR TO USE COMMENCING OR FINAL PLUMBING INSPECTION, WHICHEVER OCCURS FIRST	\$777,000.00
+ ANNUAL ADJUSTMENTS AND/OR REVIEWS	

The above charges are intended for estimation purposes only and may be subject to periodic rate review and changes in policy and legislation.

Please note that this estimate in no way infers approval or Gold Coast City Council's endorsement of the proposal.

Contacting us

Should you wish to clarify any issues contained in the above letter, please do not hesitate to contact the Developer Contribution Group on Ph: (07) 5582 8052, between 8.00am and 5.00pm Monday to Friday.

Yours faithfully

David Lohoar
SUPERVISOR DEVELOPER CONTRIBUTIONS
For the Chief Executive Officer



INFRASTRUCTURE CHARGE ESTIMATION

Friday, 07 December 2012

Application	PN307555/16
Site Address:	84 - 160 CHRISTENSEN ROAD SOUTH , STAPYLTON
Application No. & code	435 EST
Application Description	WAREHOUSE
Officer Name:	Anne Lambert

Adopted Infrastructure Charge Calculation

Charge Calculation

	Qty			Rate	Gross Charge Amount
Industry	10,500	sq m Gross Floor Area	@	\$50.00	\$525,000.00
					\$525,000.00

	Qty			Rate	Gross Charge Amount
Proposed Impervious Area	2.52	Hectares	@	\$100,000.00	\$252,000.00
					\$252,000.00

Net Charge Summary

Gross Charge Amount	Applied Credit Amount	Net Charge Amount
\$777,000.00	\$.00	\$777,000.00

Property Map

Address: 84 CHRISTENSEN ROAD SOUTH, STAPYLTON 4207 81 CHRISTENSEN ROAD SOUTH, STAPYLTON 4207
Property Name: No Property Name found.
Property Number: 307555
RPD: LOT 334 SP193431
Division: DIVISION 1
Parish: ALBERT
Area: 251820 m²

REGISTERED (Rego 30/10/2008)

81 CHRISTENSEN ROAD SOUTH, STAPYLTON 4207

Child Property(s)

Application # (Lodgement Date)	Description
BLD201206240 (10/08/2012)	NEW OFFICE BUILDING & AWNING -
BLD201206189 (08/08/2012)	DEMOLITION OF BUILDING 3 OFFICE
BLD201203993 (25/05/2012)	FITOUT WAREHOUSE BUILDING 8 FOR CAMERONS TRANSPORT
OPW201200482 (30/04/2012)	
BLD201201770 (12/03/2012)	WAREHOUSE FIRE SPRINKLER SYSTEM & MINOR ALTERATIONS
BLD201111224 (21/12/2011)	STAGE 2 - WAREHOUSE & ANCILLARY OFFICE -
OPW201101805 (16/12/2011)	LANDSCAPING - WAREHOUSE & OFFICE
OPW201101727 (30/11/2011)	
OPW201101504 (18/10/2011)	
BLD201108517 (23/09/2011)	NEW WAREHOUSE & ANCILLARY OFFICE -
OPW201101374 (19/09/2011)	
MCU2800934 (31/10/2008)	EXTENSION TO WAREHOUSE
BLD2808689 (16/05/2008)	OFFICE & WAREHOUSE BUILDING 5
BLD2808690 (16/05/2008)	WAREHOUSE/FACTORY7/OFFICE BUILDING 7
BLD2808696 (16/05/2008)	OFFICE & WAREHOUSE BUILDING 6
BLD2801460 (29/01/2008)	OFFICE AND WAREHOUSE
BLD2801147 (23/01/2008)	OFFICE & WAREHOUSE STAGE 1 (STRUCTURAL WORKS)
BLD2800881 (21/01/2008)	OFFICE/WAREHOUSE - BUILDING 5
MCU2700122 (28/02/2007)	INDUSTRY BUILDING 5 & 6
MCU2700123 (28/02/2007)	INDUSTRY BUILDING 7

Description
Rain Water Tank conditions apply

Issue Date	Valuation Date	Effective Date	Amount	Termination Date
28/03/2012	01/10/2011	01/07/2012	\$7400000	
03/05/2011	01/10/2010	01/07/2011	\$10500000	30/06/2012
22/03/2010	01/10/2009	01/07/2010	\$10500000	30/06/2011
23/02/2009	01/10/2007	01/07/2009	\$13000000	30/06/2010
25/11/2008	01/10/2007	30/10/2008	\$13000000	30/06/2009
03/03/2008	01/10/2007	01/07/2008	\$13000000	29/10/2008
30/10/2007	01/10/2006	13/09/2007	\$9400000	30/06/2008
04/09/2007	01/10/2006	01/07/2007	\$9400000	12/09/2007
04/09/2007	01/10/2004	26/09/2006	\$3100000	30/06/2007

Documents prior to 1st July 2006 are not available to be viewed online.

Description	Processed	Link
No documents found for this application.		

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Date: 10 December 2012

Design Certification

For the Design of Stormwater Management Design and Associated Works

AT

Building 9, 84 Christensen Road Stayplton

FOR

Burnside Developments Pty Ltd and Yellowstone Investments Pty Ltd

I, Geoffrey Kempe

of Kempe Management Services Pty Ltd



CR Computer Technologies Pty Ltd
trading as
CR Consulting and Drafting Services
ABN 39 012 092 597
ACN 066 424 913

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76 Business Street
Yatala Queensland
Australia 4207

PO Box 999
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Australia 4207

Telephone 07 3807 0009
Fax 07 3807 1009
office@crctqld.com.au

Consulting Engineers, being duly authorised in this behalf, do certify that the engineering report as listed below have been prepared in accordance with Gold Coast City Council requirements and standards, any appropriate engineering standards and sound engineering practice.

A handwritten signature in black ink, appearing to read 'G. M. KEMPE', is written over a horizontal line.

Designation CONSULTING ENGINEER

RPEQ No. 0872

Certified this 10th day of Dec 2012.

Report:- Conceptual Stormwater Management Plan



Date: 10 December 2012

Design Certification

For the Design of Stormwater Management Design and Associated Works

AT

Building 9, 84 Christensen Road Stayplton

FOR

Burnside Developments Pty Ltd and Yellowstone Investments Pty Ltd

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RPEQ No. 0872

Certified this 10th day of Dec 2012.

Report:- Conceptual Stormwater Management Plan



PLANNING ASSESSMENT REPORT

DEVELOPMENT PERMIT FOR MATERIAL CHANGE OF USE
(INDUSTRY)

BUILDING 9, 84 CHRISTENSEN ROAD, STAPLYTON, QLD
4207 (PART OF LOT 334 ON SP193431)

PREPARED FOR:
MS PROJECTS

DECEMBER 2012



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

“IMPORTANT NOTE”

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We have prepared this report for the sole purposes of MS Projects Pty Ltd (“Client”) for the specific purpose of a Material Change of Use (Industry) (“Purpose”). This report is strictly limited to the Purpose and the facts and matters stated in it and does not apply directly or indirectly and will not be used for any other application, purpose, use or matter.

In preparing this report we have made certain assumptions. We have assumed that all information and documents provided to us by the Client or as a result of a specific request or enquiry were complete, accurate and up-to-date. Where we have obtained information from a government register or database, we have assumed that the information is accurate. Where an assumption has been made, we have not made any independent investigations with respect to the matters the subject of that assumption. We are not aware of any reason why any of the assumptions are incorrect.

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GDP Document Control

Originating Office:	Yatala	Job Number:	1396
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Fax:	+61 7 3287 5461	Author:	Paul Creighton
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Web:	www.gassman.com.au	Client Contact:	Michael Scammells
		Client Reference:	

Revision / Checking History

No.	Author	Reviewer
1. V1.0 (internal DRAFT)	Paul Creighton	Chris Austin
2. V2.0	Paul Creighton	David Hansen

Approval for Issue

Version	Name	Position	Signature	Date
V2.0	David Hansen	Director		10/12/2012

Final Distribution

Gold Coast City Council	3 hard copies / 1 electronic copy
MS Projects Pty Ltd	1 hard copy / 1 electronic copy

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1.0 Executive Summary

Gassman Development Perspectives have been commissioned by the applicant MS Projects Pty Ltd to complete and compile the necessary documentation for the lodgement of a development application over the property 84 Christensen Road South, Stapylton, QLD 4207.

This application seeks a development permit for a Material Change of Use for Industry. The proposed development continues the accepted pattern of development in the local area and will reinforce the industrial / commercial performance of the Yatala area. The subject site can be characterised as an infill site within the local context as it is strategically located within an established industrial area, in this regard the majority of preparatory and servicing works have already been completed.

The proposed use has been carefully designed to ensure that it integrates into the existing built and environmental context of the local area whilst also providing an attractive location and facility for future business to sustainably operate.

This report has demonstrated how the proposal is consistent with the planning context for the State, region, City and the local area and ensured that no environmental or cultural features are adversely impacted upon as result of this development. Accordingly, the proposed development is considered a suitable and appropriate form of development on the subject site and Councils timely and favourable determination is requested.

2.0 Site and Application Summary

Table 1: Site and application summary

Site Details	
Site Address:	Building 9, Christensen Road, Staplyton, QLD
Real Property Description:	Lot 334 on SP193431
Site Area:	3.3183 ha (33,183m ²)
Name of Owner(s):	Burnside Developments Pty Ltd and Yellowstone Investments Pty Ltd
Local Authority:	Gold Coast City Council

Application Details	
Aspect of Development	Material Change of Use for Industry
Approval Type	Development Permit for a Material Change of Use (Industry)
Level of Assessment	Code Assessable – RiskSmart Process
Application Form(s)	IDAS Forms 1& 5 and Referral Checklist 1 & 2
Public Notification	Not Applicable
Applicant:	MS Projects Pty Ltd C/- Gassman Development Perspectives PO Box 392 Beenleigh. Q. 4207
Contact Person(s):	Chris Austin
Application Reference:	1396

Planning Details	
Regional Plan:	South East Queensland Regional Plan 2009 –
Regional Plan Land Use Designation:	Urban Footprint
Planning Scheme:	Gold Coast Planning Scheme 2003
Domain	Local Area Plan
Local Area Plan:	Yatala Enterprise Area Local Plan
LAP Precinct:	General Impact Business and Industry

Proposal Details	
Purpose / Description of Proposal:	The development of a 10,000m ² industrial building, with ancillary office space (500m ²), internal circulation for vehicles, and other ancillary facilities.
Development Stages Proposed	Not Applicable
Relevant Period Sought	Consistent with <i>Sustainable Planning Act 2009</i>

3.0 Site Information

3.1 Site Location

The subject site has an area of circa 3.3183 ha and is located near the end of Christensen Road South. The site forms part of a range of industrial and warehouse related uses established on the landholding. The locality is characterised by industrial / commercial development, with a significant extractive industry located to the north. The site is directly adjoined by undeveloped land and mature vegetation to the south.

The subject has been subject to several previous approvals that have resulted in the clearing of vegetation and establishment of infrastructure to service the site.



Figure 1: Aerial imagery, Source: Nearmap, 2012

The site is located approximately:

- 475 m from the Beenleigh Rail Line;
- 1 km from the Pacific Motorway;
- 1.8 km from the Norfolk Village Centre;
- 40 km from the Brisbane CBD;
- 50 km from Brisbane International Airport; and
- 40 km from Southport CBD on the Gold Coast.

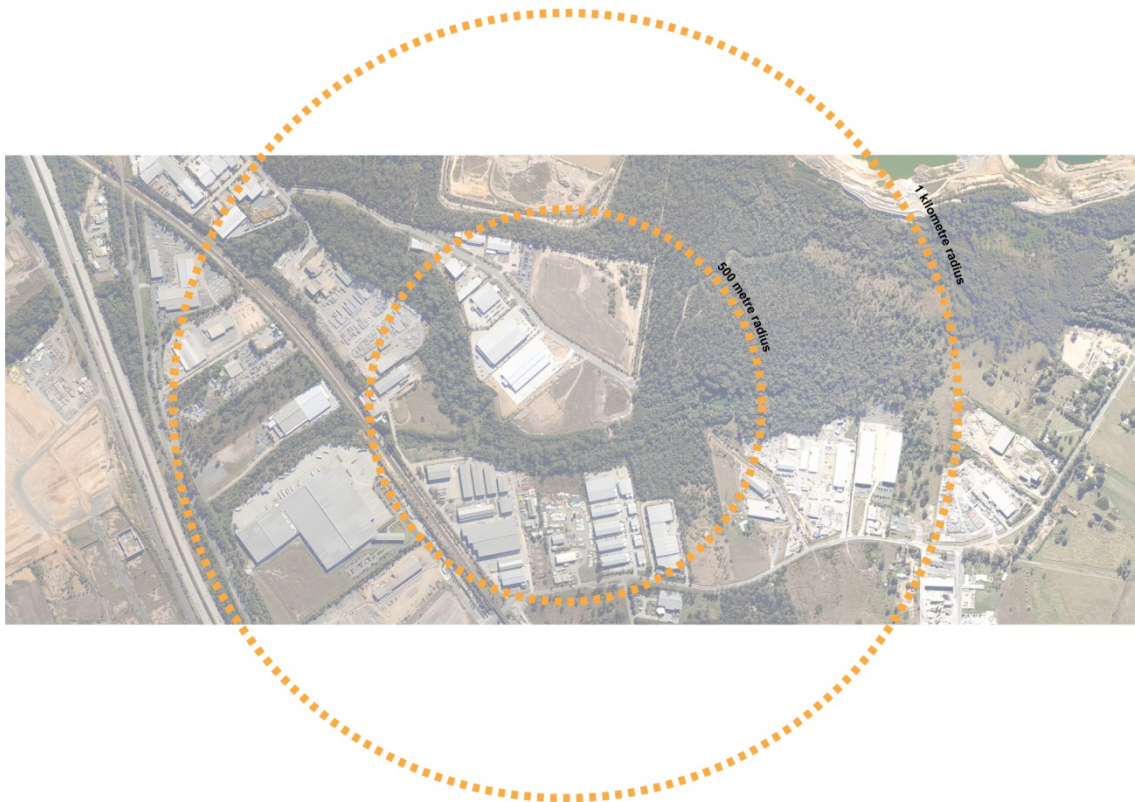


Figure 2: Site and Local Area Context

3.2 Land Use

The subject site is currently vacant.

3.3 Site Characteristics

Table 2: Site Characteristics

Site Characteristic	Description
Frontage & Access	The subject site has a frontage to Christensen Road of approximately 88 metres.
Topography & Views	The majority of the subject site is relatively flat as a result of earthworks as approved by previous approvals. Views of the site are generally gained from Christensen Road South.
Existing Vegetation	The subject site has been cleared of any significant vegetation and can be currently characterised as vacant land.
Contaminated Land	The subject site is not known to be contaminated.
Wetlands	The subject site is not in close proximity to an identified wetland.
Heritage Areas	The subject site has not been identified as containing any significant heritage assets or is adjacent to any identified heritage areas.
Conservation Areas	The subject site is not known to be located within a heritage area.

3.4 Surrounding Land Uses

Table 3: Surrounding land uses

Direction	Land Use
South	The southern boundary of the site adjoins scrubland containing mature vegetation.
East	The eastern boundary of the site adjoins a detention basins that caters for the water detention of the larger development.
North	The northern boundary of the site adjoins Christensen Road, on the northern side of there is a large cleared vacant lot. Further north, there is a large extractive industry established.
West	The western boundary of the site adjoins industrial and warehouse development.

3.5 Planning History

Planning history is an important indicator to how development is perceived and conducted within the local area. Significantly in relation to the subject site, there are two relevant applications located directly adjacent to the landholding, a summary of both is provided below:

- **MCU2700122, Buildings 5 and 6, 84 Christensen Road South Stapylton**
Located west of the subject site, this application sought to introduce two new industrial buildings to form part of the emerging a range of industrial and commercial uses envisaged for the area. The application was approved by Gold Coast City Council in 2007.
- **MCU2700123, Buildings 7, 84 Christensen Road South Stapylton**
Located directly west of the subject landholding this application sought to introduce a new industrial building to form part of the emerging a range of industrial and commercial uses envisaged for the area. The landholding and proposed use was almost identical to the proposal to which this report relates to and in this regard provides an ideal context for development on the subject site. The application was approved by Gold Coast City Council in 2007.

The planning context for the local area as established by the two identified applications provides a demonstration of Council willingness to consider and accept proposals that seek to increase and strengthen the commercial offer of the area.

3.6 Site Photos



Figure 3: Looking south from Christensen Road South, Source: GDP, 2012



Figure 4: Looking west along Christensen Road South, Source: GDP, 2012



Figure 5: Looking south west from Christensen Road South, Source: GDP, 2012

4.0 The Proposal

4.1 Overview

The applicant is seeking a development approval for the following:

- Development Permit for a Material Change of Use (Industry)

This application is to be assessed via Code Assessment (discussed in further detail below in Section 6 of this report).

4.2 Details

The proposed development will primarily consist of the development of a 10,000m² industrial building, with ancillary office space (500m²), internal circulation for vehicles, and other ancillary facilities

Access to the development will be provided directly via Christensen Road.



Figure 6: Site Proposal Plan, Source: Artas, 2012

4.3 Summary of Supporting Specialist Reports / Documentation

In support of this development application, the following specialist reports have been commissioned and accompany this planning assessment report:

Table 4: Relevant reporting

Category	Consultant	Title of Document/Description	Location
Survey	Gassman Development Perspectives	Contour and Detail Plan	Appendix A
Plan of Development	Artas Architects	Proposal Plans	Appendix B
Landscape	Gassman Development Perspectives	Landscape Intent Plan	Appendix C
Stormwater	CR Consulting	Conceptual Stormwater Report Quality Management Plan	Appendix D
Correspondence with Gold Coast City Council	N/A	Email correspondence between GDP and Gold Coast City Council regarding RiskSmart applicability.	Appendix E
GCCC Infrastructure Charge Calculation	N/A	Finalised Infrastructure Charge estimate for the proposed development conducted by Gold Coast City Council.	Appendix F

5.0 State Government Planning

Assessment

5.1 The Sustainable Planning Act 2009

5.1.1 Assessable Development Type

The proposed development requires a development permit for a Material Change of Use application. The definitions of the development type is as follows:

Material Change of Use, of premises, mean:

- Generally;
 - o the start of a new use of the premises; or
 - o the re-establishment on the premises of a use that has been abandoned; or
 - o a material increase in the intensity or scale of the use of the premises.

Section 313 of the *Sustainable Planning Act (SPA 2009)* specifies those matters that must be addressed by the assessment manager as part of any **Code Assessable** development application. Reference items raised within this section are summarised as follows:

- Relevant State planning regulatory provisions;
- Relevant regional plans;
- Any applicable codes identified by IDAS;
- Relevant State planning policies;
- Any applicable codes identified in the following:
 - o A structure plan
 - o A master plan
 - o A temporary local planning instrument
 - o A preliminary approval to which S242 applies

- o A planning scheme
- Any development approval for, or lawful use of, premises the subject of the application or adjacent premises; and
- Any referral agency's response.

We consider the information contained within this report and the submission as a whole satisfactorily address the above matters and is sufficient for Council to make an informed assessment and favourable determination of the proposal.

5.1.2 Public Advertising

The proposal is for a Material Change of Use (Industry) which is Code Assessable as defined the Gold Coast Planning Scheme under the Yatala Enterprise Area Local Plan. Therefore under section 295 of the *Sustainable Planning Act 2009* public notification is not required as part of this application.

5.2 State Planning Policies

The table below lists each State Planning Policy (SPP) with comments on their respective relevance to this application.

Table 5: Relevant SPPs

State Planning Policies	Relevance
SPP 1/92: Development and the Conservation of Agricultural Land	Not Applicable – agricultural uses are not existing or proposed on the subject site.
SPP 3/11: Coastal Protection	Applicable – the subject site is located within the coastal zone but not within the coastal management district. Part B.7 of SPP 3/11 outlines the nature of development for which the planning policy applies; the proposed development is not applicable for assessment against this policy.
SPP 1/02: Development in the Vicinity of Certain Airports and Aviation Facilities	Not Applicable – the subject site is not within the vicinity of the airports and aviation facilities mentioned in the State Planning Policy.
SPP 2/02: Planning and Managing Development Involving Acid Sulfate Soils	Not Applicable – the subject site is not identified as having the potential to contain acid sulphate soils.
SPP 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide	Not Applicable – the subject site is considered to be subject to any significant flood, bushfire or landslide hazards.
SPP 1/07 Housing and Residential Development	Not Applicable – the applicant is not a local government.
SPP 2/07: Protection of Extractive Resources	Not Applicable – extractive uses are not existing or proposed on the subject site. The subject is within relatively close proximity of an operating extractive industry, however it is not envisaged any adverse impacts will be experienced by this relationship.
SPP 1/09 Reconfiguration of a Lot Code for land in Indigenous Local Government Areas to which a local Planning Scheme does not apply	Not Applicable – the site is not located within a local government area, as per Part 2 of the policy.
SPP 3/10: Acceleration of Compliance Assessment	Not Applicable – accelerated compliance assessment is not sought as part of this application.
SPP 4/11: Protecting Wetlands of High Ecological Significance in Great Barrier Reef Catchments	Not Applicable – the subject site is not identified as a wetland protection area as contained within the Great Barrier Reef Catchments.

State Planning Policies	Relevance
SPP 2/10: South East Queensland Koala Conservation	Not Applicable – the subject lot has not been identified as being subject to koala conservation policies.
SPP 4/10 Healthy Waters	Applicable – the proposal complies with the provisions of this policy
SPP 5/10 Air, Noise and Hazardous Materials	Not Applicable – the site is not located within a designated management area under the SPP.
SPP 2/11: Temporary SPP – Planning for Stronger, More Resilient Floodplains	Not Applicable – whilst it is noted that a small pocket in the south eastern corner of the site has been identified as vulnerable to flooding by Council mapping, this area is located within the proposed covenant area and no residential structures have been proposed.
SPP 1/12: Protection of Queensland's Strategic Cropping Land	Not Applicable – the subject site is not identified as being strategic cropping land or as potential strategic cropping land.

5.3 State Planning Regulatory Provisions

The table below lists each State Planning Regulatory Provisions (SPRP) with comments on their respective relevance to this application.

Table 6: Relevant SPRPs

State Regulatory Provisions	Relevance
State Planning Regulatory Provisions	
South East Queensland Regional Plan 2009-2031 (SEQRP)	Applicable – the subject site is located within the urban footprint designation of the SEQRP 2009-2031. This proposed development complies with these regulatory provisions as it is for an urban activity within the urban footprint.
Far North Queensland 2009-2031 SPRP	Not Applicable – the subject site is not located within Far North Queensland where these provisions apply.
Guragunbah SPRP	Not Applicable – the site is not located within the Guragunbah flood plain area.
SPRP (Adult Stores)	Not Applicable – the proposal does not involve an adult store.
South East Queensland Koala Conservation State Planning Regulatory Provisions	Not Applicable – analysis of koala habitat mapping found that the application did not impact on any designated area.
Off Road Motorcycling Facility on State Owned Land at Wyaralong	Not Applicable – the subject site is not located at Wyaralong.
Wide Bay Burnett State Planning Regulatory Provisions	Not Applicable – the subject site is not located in the Wide Bay Burnett Area.
Yeerongpilly transit Oriented Development State Planning Regulatory Provision	Not Applicable – the subject site is not located in the Yeerongpilly Area.
Draft State Planning Regulatory Provisions	
Draft State Planning Regulatory Provision (adopted charges)	Applicable - The proposed development will be subject to the content of this state planning regulatory provision with regards to infrastructure provision.

State Regulatory Provisions	Relevance
Draft Particular Waste Management Activities on Existing Landfills State Planning Regulatory Provisions	Not Applicable – the proposal does not involve waste management on landfills.

5.4 State Referral Triggers

5.4.1 South East Queensland Regional Plan 2009 – 2031

The subject site is located within the Urban Footprint of the South East Queensland Regional Plan. As outlined above, this proposal is considered to be consistent with the provisions of this plan (namely the regulatory provisions) as the proposed development represents an urban activity within the urban footprint.

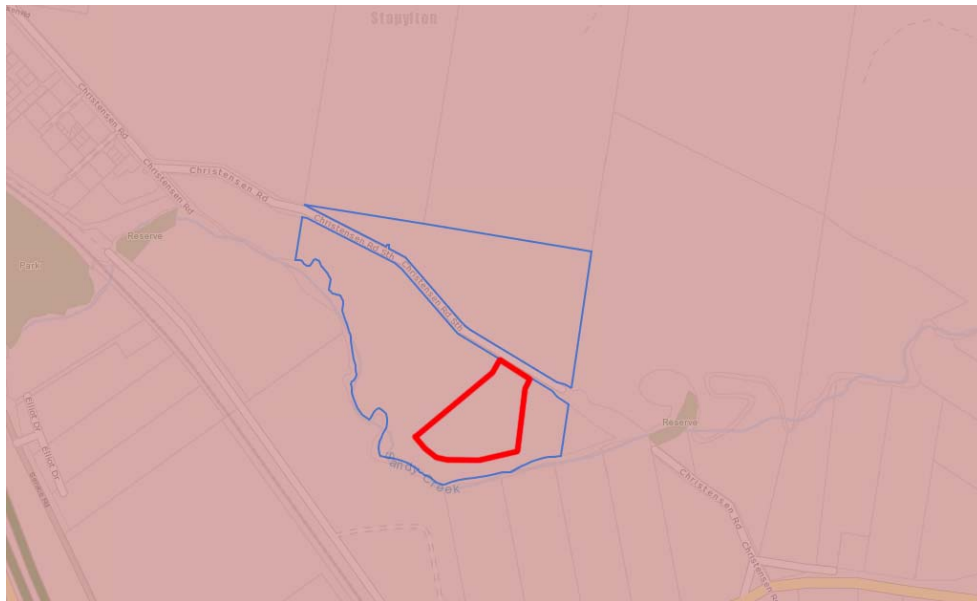


Figure 7: SEQRP Mapping, Source: Information Atlas

5.4.2 Mapped Vegetation

An inspection of the latest DERM Regional Ecosystem and Regrowth maps indicates there is mapped vegetation in close proximity to the southern boundary of the subject site. The identified vegetation in Figure 8 has been defined as 'Remnant vegetation that is a least concern regional ecosystem' in addition to 'Vegetation Management Act Essential Habitat'.

Further to this, Figure 9 illustrates the extent of identified regrowth vegetation and watercourses in relation to the subject site. The map illustrates how the site contains 'high value regrowth vegetation containing least concern regional ecosystems'.

It is anticipated that trees will be removed towards the north-eastern corner (within the existing pump station area) if required, and along the south-eastern corner extending to the western boundary to facilitate part of the fire tender access and overall internal circulation required for the vehicles on site.

In determining whether the proposal will require referral to the relevant agency (the Department of Natural Resources and Mines) reference must be made to the Schedule 3, 7 and 24 of the *Sustainable Planning Regulation 2009*.

The jurisdiction of Referral Agencies is outlined in Schedule 7 of the *Sustainable Planning Regulation 2009*. Schedule 7, Table 3, Item 10 of the *Sustainable Planning Regulation 2009* states that:

- 10 Material change of use of a lot that is 2ha or larger, if—*
- (a) for development for which a preliminary approval is sought under the Act, section 242, the lot contains either—*
 - (i) native vegetation shown on the regional ecosystem map or remnant map as remnant vegetation; or*
 - (ii) native vegetation in a category A area or category B area shown on a PMAV; or*
 - (b) for other development that is not sole or community residence clearing—*
 - (i) additional exempt operational work could be carried out because of the material change of use or the development involves operational work made assessable under schedule 3, part 1, table 4, item 1; and*
 - (ii) the additional exempt operational work or assessable operational work includes development other than the clearing of regulated regrowth vegetation on freehold land, indigenous land or land the subject of a lease issued under the Land Act 1994 for agriculture or grazing purposes*

Item 10 (b) (i) makes reference to Schedule 3, Part 1, Table 4, Item 1 to determine if additional clearing qualifies as an additional Operational Works application. Schedule 3, Part 1, Table 4, Item 1 states the following:

- “Operational work that is the clearing of native vegetation on—*
- (a) freehold land; or*
 - (b) indigenous land; or*
 - (c) any of the following under the Land Act 1994—*

- (i) land subject to a lease;
- (ii) a road;
- (iii) trust land, other than indigenous land;
- (iv) unallocated State land;
- (v) land subject to a licence or permit;

unless the clearing is—

- (d) on premises to which structure plan arrangements apply; or
- (e) clearing, or for another activity or matter, mentioned in schedule 24, part 1; or
- (f) clearing mentioned in schedule 24, part 2 for the particular land”.

Schedule 3, Part 1, Table 4, Item 1 (f) refers directly to Schedule 24 to determine if the clearing of specific vegetation for relevant purposes is exempt. Schedule 24, Part 2 Item (g) of the *Sustainable Planning Regulation 2009* states that:

(g) for urban purposes in an urban area and the vegetation is regulated regrowth vegetation, or an of concern regional ecosystem or a least concern regional ecosystem—

(i) shown on a PMAV for the area as a category B area; or

(ii) if there is no PMAV for the area—shown on the regional ecosystem map or remnant map as remnant vegetation;

It is critical to define Urban Purposes and Urban Areas, as per the above. The definitions for all terms are defined in Schedule 26 of the *Sustainable Planning Regulation 2009*. Please see the respective definitions below:

“urban area means—

(a) an area identified in a gazette notice by the chief executive under the Vegetation Management Act as an urban area; or

(b) if no gazette notice has been published—an area identified as an area intended specifically for urban purposes, including future urban purposes (but not rural residential or future rural residential purposes) on a map in a planning scheme that—

(i) identifies the areas using cadastral boundaries; and

(ii) is used exclusively or primarily to assess development applications.

Example of a map for paragraph (b)—a zoning map”

urban purposes means purposes for which land is used in cities or towns, including residential, industrial, sporting, recreation and commercial purposes, but not including environmental, conservation, rural, natural or wilderness area purposes.

The subject site is within the Urban Footprint, as identified within section 5.4.1 of this report. Whilst the site has an identified Open Space Precinct, all development will be within Precinct 1 (General Impact Business and Industry) of the Yatala Enterprise Area. This has been observed as part of the design prepared by ARTAS Architects as part of the proposed Site Plan enclosed

in Appendix B of this report. In this respect, the site and the proposed development is located within an Urban Area.

The proposed development will be for Industry, which is within the parameters of an Urban Purposes as defined above. It is noted that this specific use is reference directly within the definition.

As a result, the proposal is classed as an exemption under Schedule 24, Part 2, Item (g), and therefore does not constitute referable development under Schedule 3. As a consequence, the proposal is not considered as referable development under Schedule 7, as it does not fit within the parameters of the definition established within Schedule 3, Part 1, Table 4, Item 1.

Therefore the proposal **does not** require referral to the Department of Natural Resources and Mines (DNRM) as a Concurrence Agency.

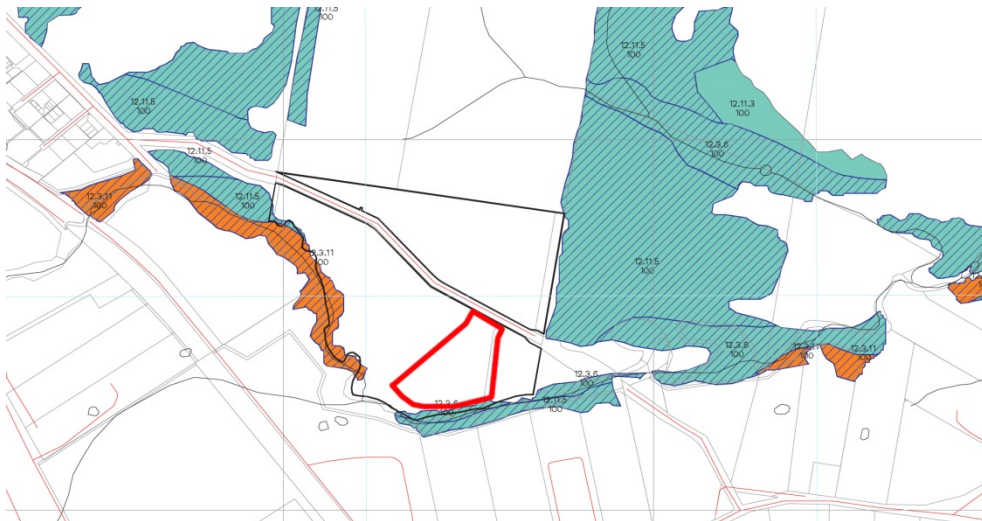


Figure 8: Remnant Vegetation Mapping, Source: DERM, 18/9/2012

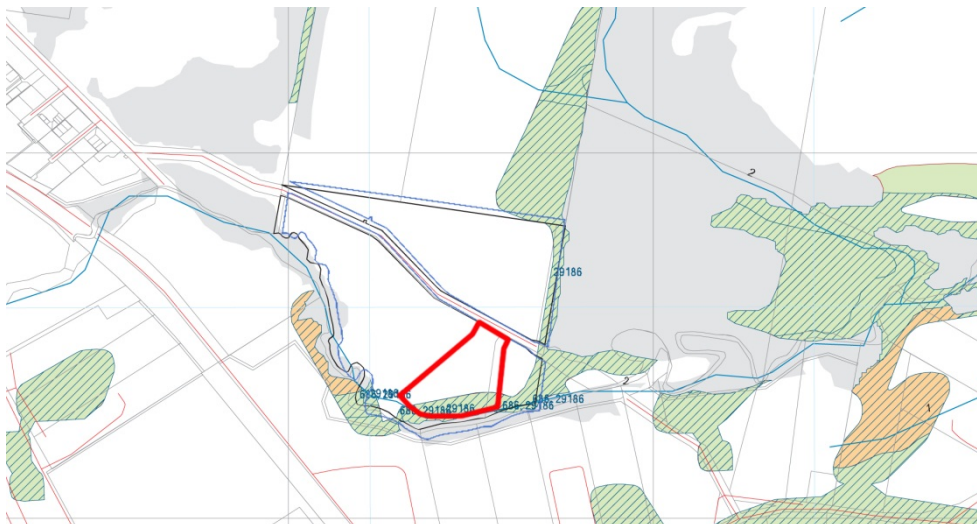


Figure 9: Regrowth Vegetation Mapping, Source: DERM, 18/9/2012

5.4.3 Referrable Areas

An inspection of the latest DERM Map of Referrable Areas indicates the site does not contain or is within close proximity to land identified as being a 'Heritage Place'. In this regard the proposal will not require a referral.

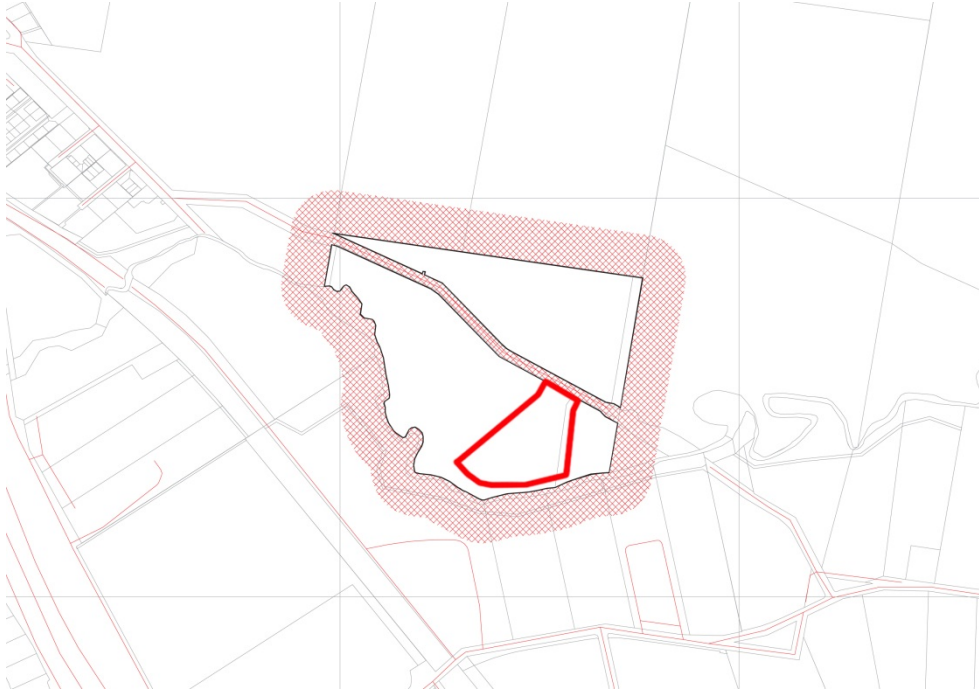


Figure 10: Referrable Areas, Source: DERM

5.4.4 Referrable Wetlands

An inspection of the latest DERM Map of Referrable Wetlands indicates the subject site is not located in close proximity to an identified wetland and in this regard referral is not required.

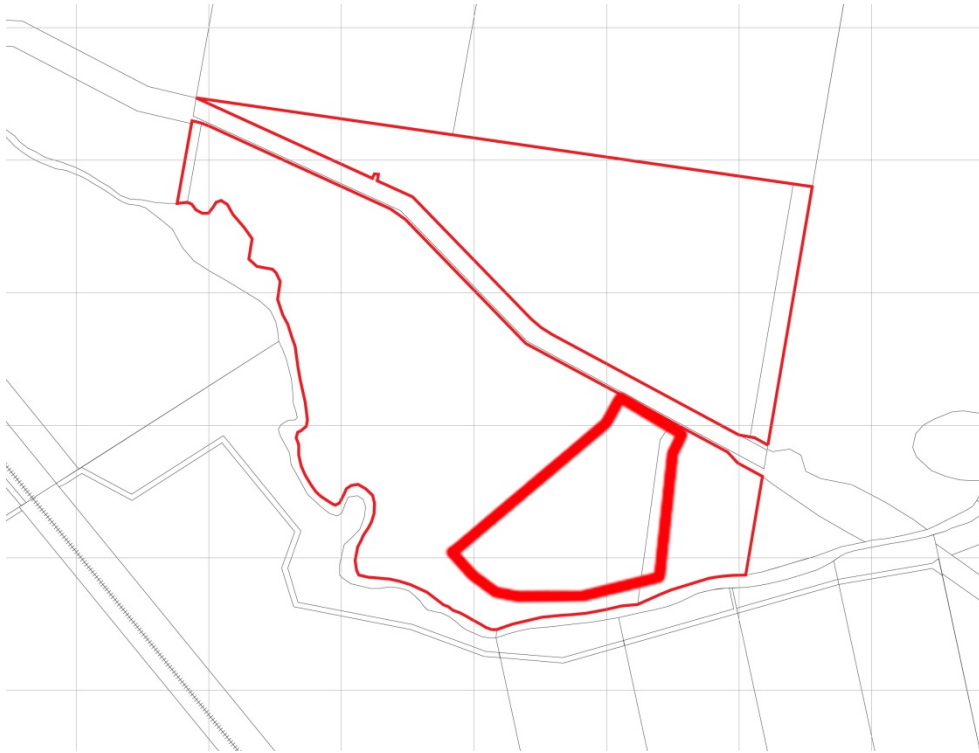


Figure 11: Referrable Wetlands Mapping, Source: DERM

5.4.5 Koala Conservation

An inspection of the Queensland Koala Habitat database indicates the site is not within an area designated as being subject to koala conservation designations.



Figure 12: Koala Conservation, Source: DERM

5.4.6 Queensland Coastal Plan

An inspection of the Queensland Coastal Plan indicates the site is located within the designated Coastal Zone however is outside of the Coastal Management District. In this regard no referral is required.



Figure 13: Coastal Zone, Source: DERM

5.4.7 State Controlled Roads

An inspection of the latest Department of Transport and Main Roads State Controlled Roads Mapping indicates that the subject site is not within 100 metres of a state controlled road. In this regard the application is not required to be referred to the Department.



Figure 14: State Controlled Road, Source: DTMR

5.5 Consolidated List of State Referrals

Section 5.4 assessed the subject site against the relevant potential state referrals; from this analysis it has been determined there are no referrals required for this application.

5.6 State Pre-lodgement Meeting/s

Due to the relatively modest nature of this proposed use and established nature of the subject site no State pre-lodgement meetings have been undertaken.

6.0 Local Government Planning

Assessment

6.1 Definition of Development

The use proposed as part of this application is defined as “Industry” as contained within the Gold Coast City Planning Scheme 2003 (the Planning Scheme). Industry is defined under the Planning Scheme as follows:

“Industry

Any premises used or intended for use that, in the course of any trade or business, involves the manufacture, production, processing, repair, or storage of any article, material or thing whether solid, liquid or gaseous.

This term includes any of the following ancillary activities, when carried out on the same land as the primary activity:

- the storage of goods;*
- the provision of amenities for employees and clientele;*
- selling by wholesale goods resulting from the operation; and*
- accounting or administration in connection with the operation, provided that this activity does not exceed 20% of the total use area.*

This term includes a Car Wash Facility. It does not include a Service Industry, a Motor Vehicle Repair Station, a Salvage Yard, a Service Station, Home Activity or Home Occupation”.

6.2 Zoning

The subject site is located within the Yatala Enterprise Area (YEA) (2003). The purpose of the YEA is defined as outlined below:

“... to provide for the detailed planning and development of the Yatala Enterprise Area (YEA). The YEA is a highly valuable resource for the City. There is an opportunity to create a dedicated area that could be a market leader in terms of innovative industrial development that would facilitate growth in long term employment in the 21st century. Therefore, the purpose of this LAP is to promote the orderly economic development of the YEA as a major industrial employment district for both the Gold Coast City and the South East Queensland region.”

The subject site has been designated within the ‘General Impact Business and Industry’ zone. A copy of the zoning plan of this LAP is as contained below:

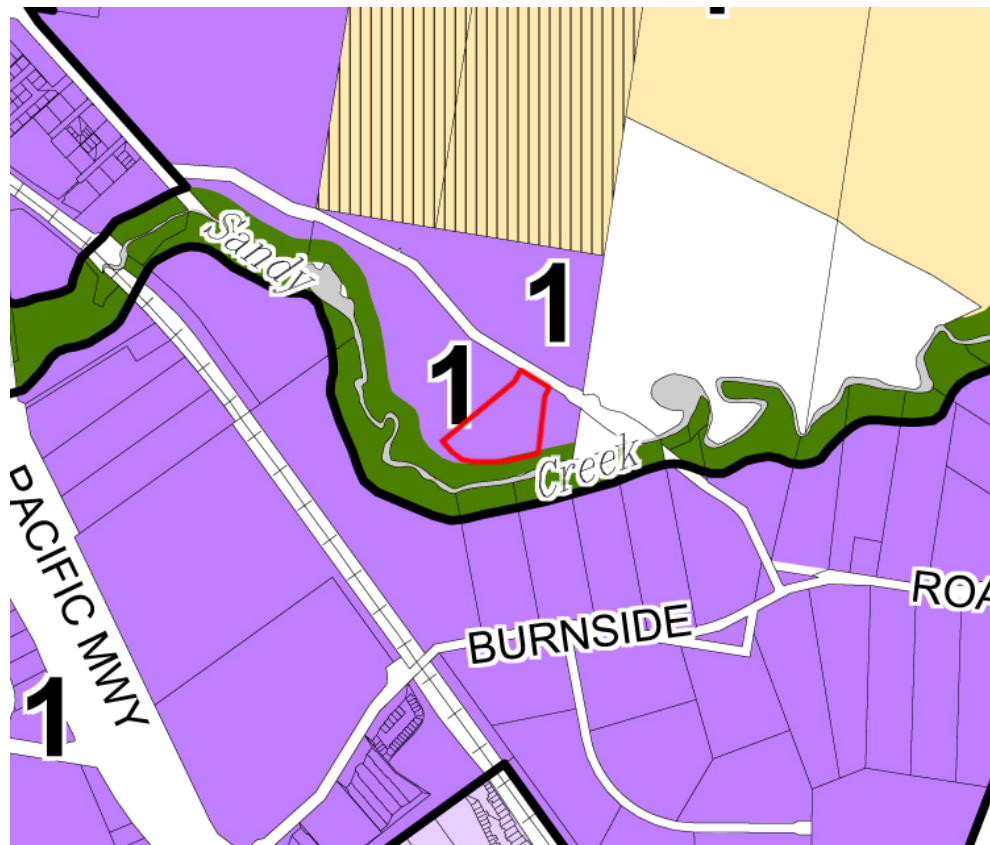


Figure 15: YEA LAP Zoning, Source: GCCC, 2012

The intent for the ‘General Impact Business and Industry’ is to

“accommodate a broad range of manufacturing industries, warehouses and distribution centres of a general industrial nature that will result in significant growth in long term

employment for the residents of the Gold Coast City and of the greater South East Queensland area”.

Within the context of the local area, the ‘General Impact Business and Industry’ zone will have
“relatively low level of restriction is intended to apply to development in these areas, site development will minimise external impacts within the threshold limits for safety and environmental protection established by the relevant state legislation and regulations”.

Development will typically respond to the context of the area and respond to the needs of its intended use, and will be encouraged to,

“to employ best practice methods and innovative technologies that exceed the minimum standards and encourage market/industry leadership. No particular built form is envisaged. However, buildings will be purpose built to mitigate noise, odour and waste emission with use of landscaping, setbacks and building separation to provide reasonable landscape amenity, without compromising industrial production or processes. The physical appearance of the precinct is important to the marketing of this area for preferred uses that may consider locating in the YEA. Minor architectural details to improve the visual appearance of buildings, such as articulation of exterior walls, varied exterior colours and building materials, are considered appropriate and achievable without compromising industrial processes or economic viability”.

The proposed development is consistent with the intent and guidance for the ‘General Impact Business and Industry’, as it is an industrial use within an established industrial and commercial estate. The proposed design associated with the Material Change of Use complies with the general design guidance as identified in the ‘General Impact Business and Industry’ intent statement.

6.3 Desired Environmental Outcomes

The Yatala Enterprise Area Local Plan outlines a series of ‘Desired Environmental Outcomes’ (DEO) in order to provide structure to the achievement of future goals. The proposed application has been assessed against the content of the ‘Desired Environmental Outcomes’ and it has been determined that the proposal is compliant with all of the outcomes and significantly advances **DEO 3.1** and **3.2**.

DEO 3.1 seeks to encourage the development of the YEA as an employment hub in South East Queensland, in this regard the proposed development will provide for the logical expansion of an existing successful operation that provides employment in the local area.

DEO 3.2 seeks to encourage the development of a desirable industrial or business environment; in this regard the proposed development seeks to improve the manner in which business is

conducted on the subject site by constructing a new administration centre at the front of the site whilst improving the utilisation of the rear of the site.

6.4 Level of Assessment

Section 6.0 of the YEA outlines the process of determining how an application is assessed under the planning scheme. In relation to this application, the proposed use is 'Industry' within the 'General Impact Business and Industry' (Precinct 1) and therefore is classified as Self **Assessable** within Precinct 1. Notwithstanding, the material change of use overlay provisions graduate the application to a **Code Assessable** application as the proposed structure is in excess of maximum building height of three storeys or ten metres.

6.5 RISKSMTART Applicability

Due to the relatively low risk associated with the proposed development as a result of its consistency with surrounding land uses and the Planning Scheme the applications applicability to Council Risk Smart process was identified early in the process of compiling this application. An initial desktop assessment of the application applicability was undertaken by GDP identifying areas of non compliance relating to building height and the number of car parking space.

Notwithstanding, it was our considered opinion that the purpose of the Risk Smart process was to capture such projects and in this regard Council clarification was sought. On the 21/11/2012 Council provided us with confirmation that the proposed development could be assessed under the Risk Smart process. The relevant correspondence has been submitted in support of this application.

Email correspondence between GDP and Gold Coast City Council has confirmed that the proposed development is within the parameters of the RiskSmart process. Please refer to the email correspondence enclosed within Appendix E of this report for reference to the discussions between GDP and Council.

6.6 Applicability of Overlays

A property search of the subject site results in the trigger of several overlays relating to the Lot 334 on SP193431, however all of the identified overlays are not considered relevant to this application. The table below identifies the overlays that were triggered by the property search:

Table 7: Applicable Overlays

Overlay	Relevance
OM10 Potential Bushfire Hazard	The subject site is almost completely devoid of vegetation in accordance with previous applications, this coupled with the significant area of hard stand area proposed on site and the location of the existing and proposed structures have informed the determination that the requirement to assess the application against the 'Potential Bushfire Hazard' Code is not warranted.
OM11 Natural Wetland and Waterways	The presence of mapped wetland or waterway features relates to the entire lot and not the subject site. There are no known waterways located on the subject site.
OM13 Canals and Waterways	The presence of mapped canal or waterway features relates to the entire lot and not the subject site. There are no known canals or waterways located on the subject site.
OM16 Acid Sulfate Soils	Council mapping indicates that the subject site does not contain any acid sulfate soils.
OM16 Unstable Soils	Mapped locations of unstable soils were not found to be within a relevant distance of the subject site.
OM20 Conservation Strategy	The proposed application relates to the consolidation of an existing industrial and commercial area. The subject site is almost completely devoid of vegetation and therefore no clearing has been proposed as part of the application.
OM20 Conservation Veg Type	The proposed application relates to the consolidation of an existing industrial and commercial area. The subject site is almost completely devoid of vegetation and therefore no clearing has been proposed as part of the application.
OM23 Extractive Resources	The presence of mapped extractive resources relates to land north of the subject site. It is not envisaged that the proposed development will be effected by or impact upon the adjacent industry.

6.7 Applicable Planning Scheme Codes

The table below lists the applicable codes for a material change of use for an Industrial use in the 'General Impact Business and Industry' (Precinct 1) Zone. It is important to note that in relation to risk smart application, assessment of the development proposals is not specifically required. Notwithstanding in order to ensure a robust assessment of the application, the proposal has been assessed against the codes that have been deemed relevant as outlined in the table below:

Table 8: Relevant Codes

Code	Relevance
Local Area Plan Code	
Yatala Enterprise Area LAP Place Code	Applicable: The subject site is located within Precinct 1 of this LAP.
Specific Development Codes	
Animal Husbandry	Not Applicable: The proposed development does not include any animal husbandry component.
Caretaker's Residence	Not Applicable: The proposed development does not include any caretakers' residence component.
Child Care Centres	Not Applicable: The proposed development does not include any child care component.
Detached Dwellings	Not Applicable: The proposed development does not include any detached dwelling component.
Display Homes and Estate Sales Offices	Not Applicable: The proposed development does not include any display home or estate sales office component.
Ecotourism Facility	Not Applicable: The proposed development does not include any ecotourism facility component.
Farm Forestry	Not Applicable: The proposed development does not include any farm forestry component.
Kennels	Not Applicable: The proposed development does not include any kennel component.
Landscape Work	Not Applicable: Detailed landscaping work will be assessed within subsequent approvals.
Low Rise Commercial Tourist Accommodation	Not Applicable: The proposed development does not include any low rise commercial tourist accommodation component.

Code	Relevance
Office	Not Applicable: The proposed development includes an office however the use is ancillary to the primary use as industry.
Retail and Related Establishments	Not Applicable: The proposed development does not include any retail component.
Rural Industry	Not Applicable: The proposed development does not include rural industry as defined by the planning scheme.
Salvage Yards	Not Applicable: The proposed development does not include any salvage yard component.
Service Stations	Not Applicable: The proposed development does not include any service station component.
Telecommunications Facilities	Not Applicable: The proposed development does not include any significant telecommunications component.
Working From Home	Not Applicable: The proposed development does not include any working from home component.
Works for Infrastructure	Applicable: The proposed application includes works for infrastructure.
Work Codes	
Bushfire Management Areas	Applicable: Whilst the site is mapped as containing medium bushfire risk areas, the site is completely devoid of vegetation. In consideration of the hardstand areas which are proposed to surround the structures on the site, it is considered that the risk of bushfire damage to life and property is minimal. Therefore, it is considered that a Bushfire Management Plan is not required in this particular instance.
Canals and Waterways	Not Applicable: The proposed development is not located within, or adjacent, to a water body or watercourse as identified on Overlay Map OM13 – Building Setback Line from Canals and Waterways.
Car Parking, Access and Transport Integration	Applicable: The proposed application includes car parking, access and transport integration considerations.

Code	Relevance
Cultural Heritage (Historic)	Not Applicable: The proposed development does not impact on any identified cultural heritage areas.
Cultural Heritage (Indigenous)	Not Applicable: The proposed development does not impact on any identified cultural heritage areas.
Flood Affected Areas	Not Applicable: The proposed development does not impact on any flood affected area.
Natural Wetland Areas and Natural Waterways	Not Applicable: The proposed development is not within or adjacent to a natural wetland or natural waterway as defined by the Planning Scheme.
Nature Conservation	Not Applicable: Although a nature conservation corridor is located on the southern boundary of the site, the subject site has already been cleared of vegetation and the proposed development does not encroach on the defined corridor.
Rail Corridor Environs	Not Applicable: The proposed development does not impact on any rail corridor.
Road Traffic Noise Management	Applicable: The proposed development by its nature has road traffic noise considerations.
Sediment and Erosion Control	Not Applicable: The proposed development does not require sediment or erosion control measures.
Service Roads (Pacific Motorway)	Not Applicable: The proposed development does not impact on any service road.
Steep Slopes or Unstable Soils	Not Applicable: The proposed development does not include areas of unstable soils or areas of potential land slip or hazard.
Unsewered Soils	Not Applicable: The proposed development does not include unsewered development and therefore has not been assessed against this code.

6.8 Summary of Code Assessment

Based on the detailed assessment of the proposed application against the relevant codes it has been determined that the proposal is generally compliant with the provisions and criteria of each code. The Tables overleaf demonstrate the provisions / criteria where performance based solutions have been proposed and the justification for their inclusion.

Table 9: Relevant Performance Based Solutions from YEA LAP Place Code

Performance Criteria	Acceptable Solution	Performance Based Solution
PC1 The height of buildings is to be consistent with the role of the YEA as a predominantly industrial use area. Buildings are to be constructed to a height that complements the surrounding built form and the local landscape character.	AS1.1 The building has a maximum of two storeys. OR AS1.2 The height of buildings in each precinct does not exceed the maximums shown on Yatala Enterprise Area LAP – Maximum Building Height.	PC1 Complies: The proposed development has been designed to integrate with the existing built context of the local area whilst also accommodating the needs of the proposed operation. The primary structure has a ridge line height of 14 metres. This exceeds the maximum building height of 11.5 metres. However, correspondence with Gold Coast City Council dated the 21/11/2012 informally endorses the proposal not only to be accepted within the RiskSmart assessment System and the overall aesthetic. Therefore, the proposed building is seen as consistent with the relevant outcomes sought as part of the Performance Solution
PC7 The height of buildings is to be consistent with the role of the YEA as a predominantly industrial use area. Buildings are to be constructed to a height that complements the surrounding built form and the local landscape character.	AS7 The maximum height of buildings does not exceed three storeys.	PC7 Complies: The proposed development has been designed to integrate with the existing built context of the local area whilst also accommodating the needs of the proposed operation. The primary structure has a ridge line height of 13.5 metres.

Table 10: Relevant Performance Based Solutions from Car Parking, Access and Transport Integration Code

Performance Criteria	Acceptable Solution	Performance Based Solution
PC24 Where appropriate, specific measures must be taken in the provision of car parking spaces and access to these, to ensure that the traffic impacts of the car park area's use does not have a negative impact on the local amenity and the operation of the local street network.	AS24 A Traffic Impact Report is prepared and implemented, unless: a) the development has less than 250 high turnover or 500 low turnover parking spaces; or b) it has less than 100 parking spaces with direct access to a major road; or c) the Assessment Manager advises a Traffic Impact Report is not required. This Traffic Impact Report shows how the proposed development is able to comply with the provisions of this code and Section 7.4 of Planning Scheme Policy 11 – Land Development Guidelines.	PC24 Complies: The proposed development has incorporated 112 car parking spaces, in order to service the proposed industrial use. This is in accordance with the relevant car parking spaces required as part of AS16.1 of the Car Parking, Access and Transport Integration Code. The proposed development will be accessed via Christensen Road South a significant arterial route that has sufficient capacity to service the proposed use. Turning circles have been included as part of the proposed plans of development prepared by ARTAS Architects enclosed in Appendix B of this report.

7.0 Key Matters

The following key matters are considered relevant to the consideration and determination of this development application.

7.1 Context of Development

The proposed development seeks to augment the existing commercial strength of the northern Gold Coast region by establishing additional commercially based activity. The proposed development will provide accommodation for a new industrial operation to establish within the region exploiting the locations positioning between the economic hubs of Brisbane City and the Gold Coast.

Further the proposed development will help to strengthen the performance of the Yatala Enterprise Area as it continues to establish itself as a market leader in terms of innovative commercially based development. In this regard it is essential that the area continues to provide the appropriate conditions for new business to establish within the area.

In relation to site specific considerations, the subject site is located within an established industrial area where significant capital has been invested in providing appropriate infrastructure for commercially robust uses to thrive in the area. In this regard the subject site can be characterised as an infill site as it is the last remaining lot on the southern side of Christensen Road South to be developed.

It is important to acknowledge the sites proximity to an extractive resource, located approximately 600 metres to the north. Significantly the subject extractive operation is accessed from Rossmans Drive and not Christensen Road South and therefore it is unlikely that the relationship between the proposed use and the extractive industry will generate adverse impacts.

7.2 Siting and Design

Considerable time and effort has been spent in preparing the design proposed as part of this application in order to ensure the most efficient and optimal result could be achieved. Five key design rationales have informed the resulting design each of which will be described in further detail below:

1. *Utilisation and efficiency:* The proposal has sought to ensure that the highest levels of permeability are achieved within the site, allowing the operation to function in the most

- efficient way possible. The applicant acknowledges that the proposed structure marginally exceeds the envisaged building heights contained within the YEA LAP, however the proposed disparity has been sought in order to maximise operational utilisation on site and integrate with the surrounding built context. The proposed structures have been sited and designed in a conventional rectangular format taking into account solar access and cross winds therefore ensuring adaptability for the future;
2. *Street Presentation:* The proposal includes the development of an office structure located forward of the proposed primary industrial structure. This addition will accommodate the majority of the administrative functions of the proposed operations on site. Significantly by siting the proposed office to the front of the overall structure and massing, the new contemporary styled structure will provide definition to the site and act as the logical wayfinding feature on site; and
 3. *Bulking to Rear:* The proposed development has attempted to mitigate the impact of the proposed industrial structure by locating them to the rear of the site. This strategy will have the effect of obscuring the visual impact of the proposed structure as viewed from the street and is consistent with the built context of adjacent operations.

7.3 Ingress / Egress Access and Servicing

Due to the nature of the proposed use, the manner in which it is accessed will be a crucial element in its successful operation, in this regard significant time and expense has been invested in ensuring the most appropriate layout has been achieved. The proposed development has been designed to incorporate two new access / egress points that will service the development.

The proposed crossovers have been designed to accommodate the envisaged characteristics of traffic as proposed by this application. The location of each access / egress point has been carefully considered to ensure that adequate sightlines are provided and potential conflicts between each entrance are avoided.

The proposed industrial structure will be accessed from the front with eleven loading docks providing access to allow goods and produce to be transported efficiently to and from the site. The proposed layout has ensured that an adequate area has been incorporated within the design to accommodate the turning circles of HGV traffic.

The proposed office and ancillary facilities will also be accessed from the front with an employees and visitor car park located in close proximity.

7.4 Car Parking

In order to cater for the utilisation of the subject site 112 car spaces and 6 motorbike spaces have been proposed. The proposed provision of car parking has been determined by assessing best practice ratios and the standards set out by the GCCC Planning Scheme.

The development of such a quantum of car parking spaces will have a significant impact on the both the traffic operation and aesthetics of the subject site, therefore careful consideration of how the proposed car parking spaces are located and designed has been undertaken. The proposed car parking areas have been located as close as possible to the facilities that they are intended to service. Formal landscaping has been proposed within the car parking areas in order to break up what is a land extensive use; the proposed landscaping will also serve to buffer the car parking areas from the adjacent service routes.

It is the opinion of this report that car parking provision has been comprehensively accommodated on site as part of this application, integrating what is a service feature of the proposal in an efficient and attractive manner.

7.5 Open Space Buffer

An open space buffer has been established by previous approvals to the south of the subject site in order to protect the amenity and performance of Sandy Creek. It is important to note that the proposed development does not encroach into this area. The proposed boundary conditions to the south of the development have been designed to ensure that no adverse impacts on the amenity of the protected area are created and the stormwater reporting submitted in support of this application has demonstrated that the proposal has a no worsening impact on the stormwater conditions of the local area.

8.0 Conclusion

The Applicant, MS Projects Pty Ltd, has demonstrated that the Material Change of Use (Industry) is considered generally consistent with the intent and relevant development provisions contained within Gold Coast City Planning Scheme 2003.

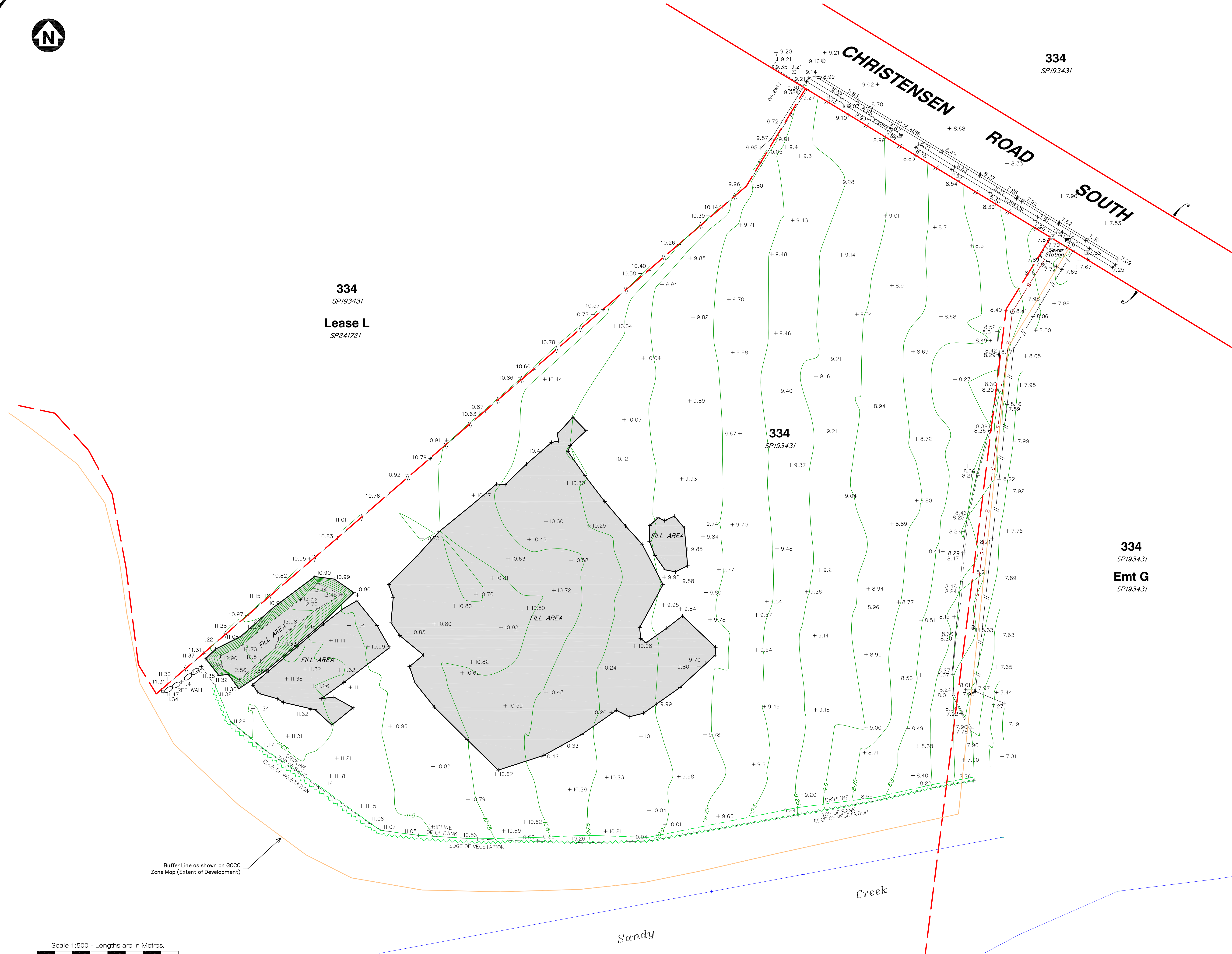
The proposed development of use represents logical extension to the existing industrial pattern of development that has been established in the local area. Further the proposed development is:

- Consistent with the State and regional planning provisions applicable to the subject site;
- Consistent with the general planning principles in the Planning Scheme;
- Generally consistent with the Desired Environmental Outcomes of the Planning Scheme;
- Consistent with the intent and content of the Yatala Enterprise Area Local Plan;
- Generally in accordance with the performance criteria of the applicable development codes, with alternative solutions provided where necessary; and
- Appropriately designed so that the development integrates within the context of the site and its surrounds without adversely impacting on neighbouring uses.

This application is being lodged under the provisions of the Risk Smart process in accordance with the direction of Council given to GDP on 21/11/2012.

The proposed development is reasonable and appropriate within the context of the site and the planning framework for the area. Accordingly, it is recommended that the proposed development be considered favourably by Council and subsequently approved subject to reasonable and relevant conditions.

Appendix A: Survey Plan



This plan has been prepared for the exclusive use and purposes of the client as stated on this plan and should not be used by any other person or corporation and for any other purpose.

Property boundaries have not been defined by this survey and have been compiled from RP.

Underground features and services have not been located by this survey. Prior to any construction, demolition or excavation on the site, the relevant authority should be contacted for the location of any further underground services and detailed location of all services.

This plan may not be photocopied unless these notes are included.

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 SEWER MANHOLE
 ELECTRICITY PILLAR
 COMMS PIT
 STORMWATER MANHOLE
 GULLY TRAP
 FIRE HYDRANT
 —S—S— SEWERAGE
 —//—//— FENCE
 FILL AREA
 TREE LINE
 TREE DRIPLINE

MS Projects

CONTOUR AND DETAIL PLAN

Over part of Lot 334 on SP193431

Parish of **ALBERT**
County of **Ward**
Local Govt **GOLD COAST CITY COUNCIL**

Level Datum	A.H.D.	Date Surveyed	6/09/2012
Meridian	SP193431	Surveyor	P. Christian
Contour Interval	.025	Drawn	S. Holt
F.B.	-	Date Drafted	12/09/2012
Origin	PSM16082 RL 10.654	Checked	
Scale (on AI original)		Designed	
		Drawn	
		Date Designed	

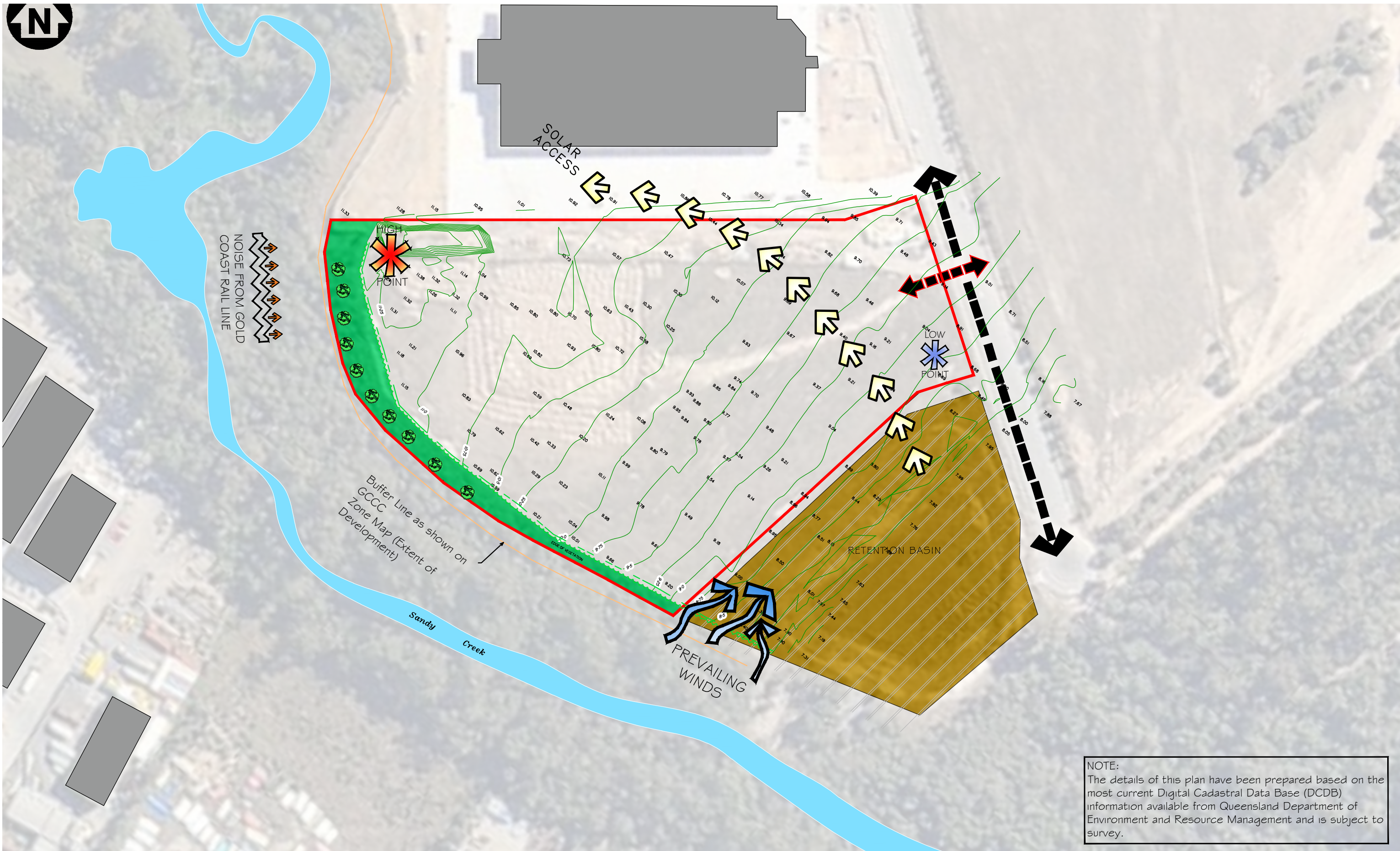


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REFERENCE No. 1396
PLAN No. 1396 S CD 03A



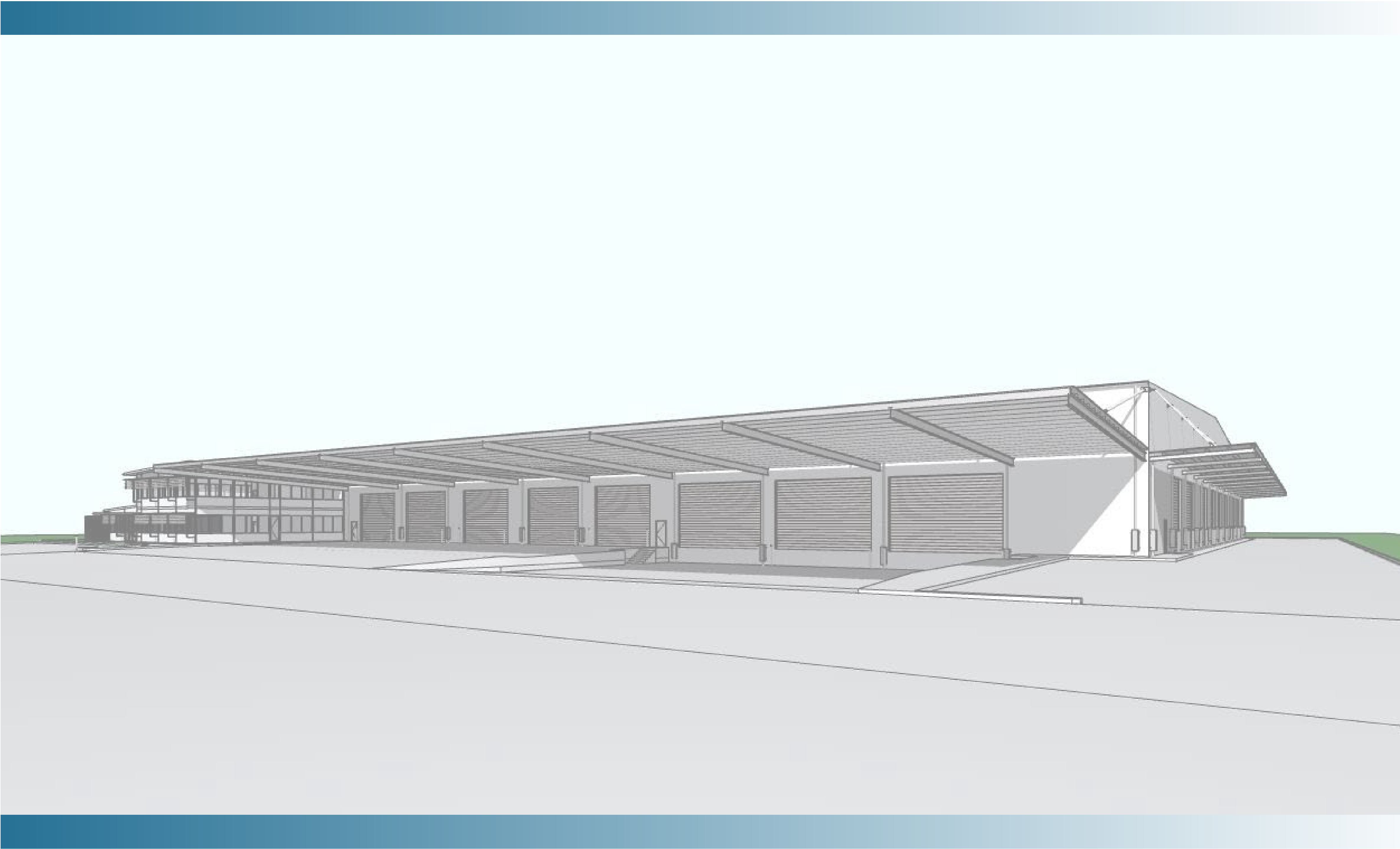
NOTE:
The details of this plan have been prepared based on the most current Digital Cadastral Data Base (DCDB) information available from Queensland Department of Environment and Resource Management and is subject to survey.

AMENDMENT DETAILS		DATE
AMENDMENTS	F E D O B A -	
ORIGINAL		07-12-2012
INITIAL RELEASE		10-03-2009

Appendix B: Proposal Plans

BUILDING 9

CHRISTENSEN ROAD SOUTH - INDUSTRIAL ESTATE - YATALA QLD 4207 - PROXIMITY @ YATALA



DRAWING SCHEDULE

ARCHITECTURAL	
A0000	COVER PAGE
A0001	LOCATION PLAN
A0002	SITE PLAN
A0003	SITE AREAS KEY PLANS
A1200	FLOOR PLAN
A1201	LEVEL 1 FLOOR PLAN
A1900	ROOF PLAN
A2100	ELEVATIONS
A2101	ELEVATIONS (OFFICE BUILDING)
A2200	SECTIONS & PERSPECTIVE VIEWS

NOVEMBER 2012

DEVELOPMENT APPLICATION DOCUMENTATION



MSProjects
part of the M&P Group



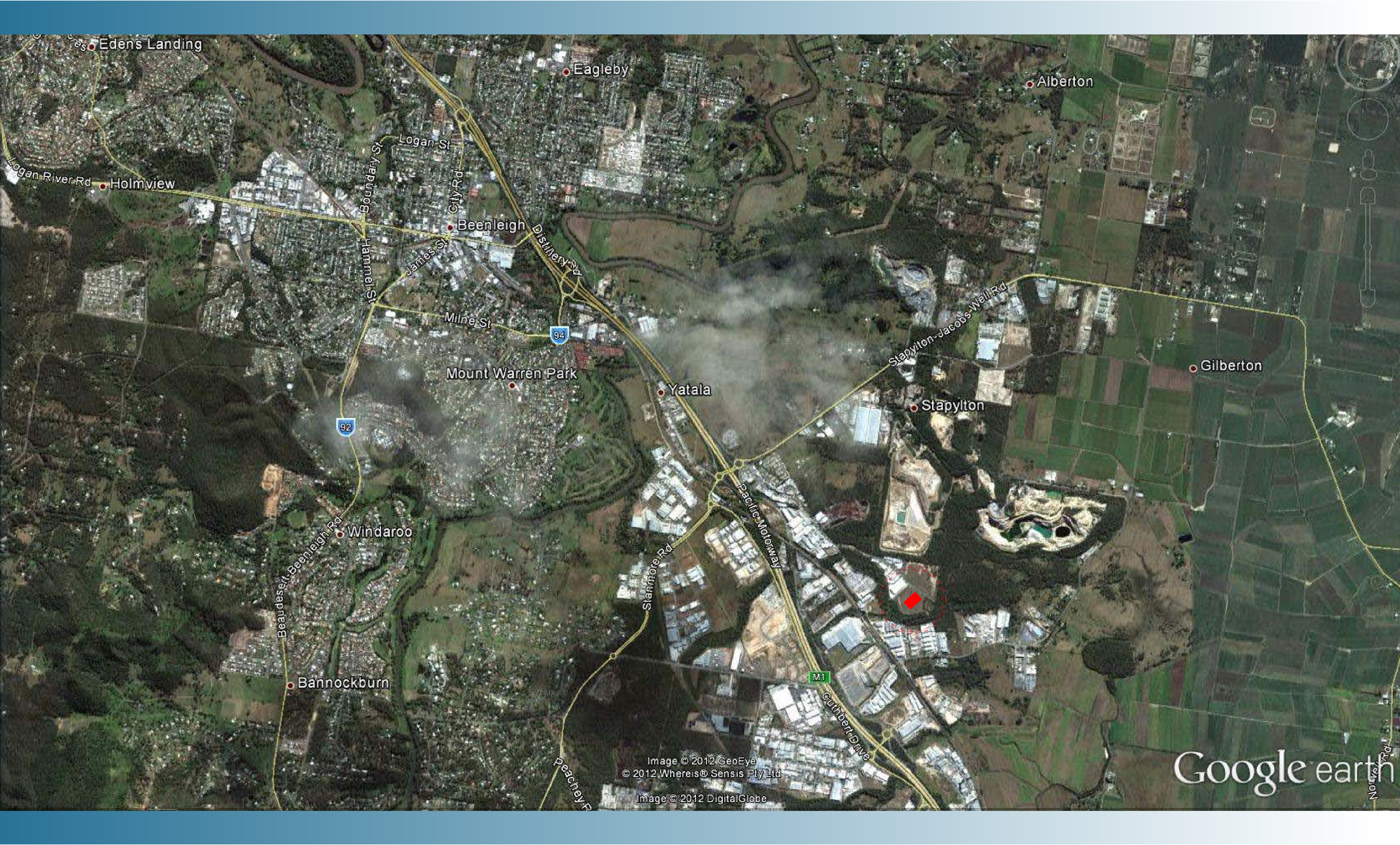
PROXIMITY
@ YATALA
Industrial park

DEVELOPMENT MANAGER

PROXIMITY @ YATALA

BUILDING 9

CHRISTENSEN ROAD SOUTH - INDUSTRIAL ESTATE - YATALA QLD 4207 - PROXIMITY @ YATALA



LOCATION PLAN- NOT TO SCALE

P1	20.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
Issue	Date	Description	By	App.
Revision				



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Client



Project Title
BUILDING 9
CHRISTENSEN ROAD
SOUTH
INDUSTRIAL PARK
YATALA QLD 4207

Drawing Title
LOCATION PLAN

Sheet Size: A1	Approved	Drawn	Scale
N/A	ATM	JH	As Shown at A1
Project Number	Drawing Number	Sheet Number	
123018	A0001/P1	N/A	

P R E L I M I N A R Y

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SANDY CREEK

BUFFER ZONE

BUFFER ZONE

Emt G

SANDY CREEK

DEVELOPMENT SUMMARY (STAGE 1):

Site Area	33,099m2
Warehouse	10,000m2
Office	500m2
GFA	10,500m2
Plot Ration (GFA/Site Area)	31.77%
Concrete Area including Areas of Warehouse / Office Building and Concrete Car Parking	22,689m2
Car Parking (Bitumen)	1,650m2
Car Parking (Concrete)	554m2
Car Parking (Spaces)	112 + 6 motorbikes
Awnings (inc. covered hardstand)	1,983m2
Landscaping	8,760m2

Issue	Date	Description	Int.	App.
P6	26.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
P5	26.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
P4	23.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
P3	23.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
P2	21.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
P1	20.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM



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Project Title

BUILDING 9
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SOUTH
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Drawing Title

SITE PLAN

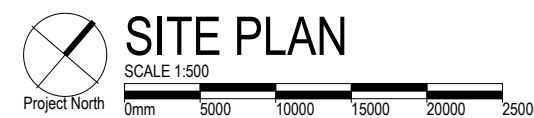
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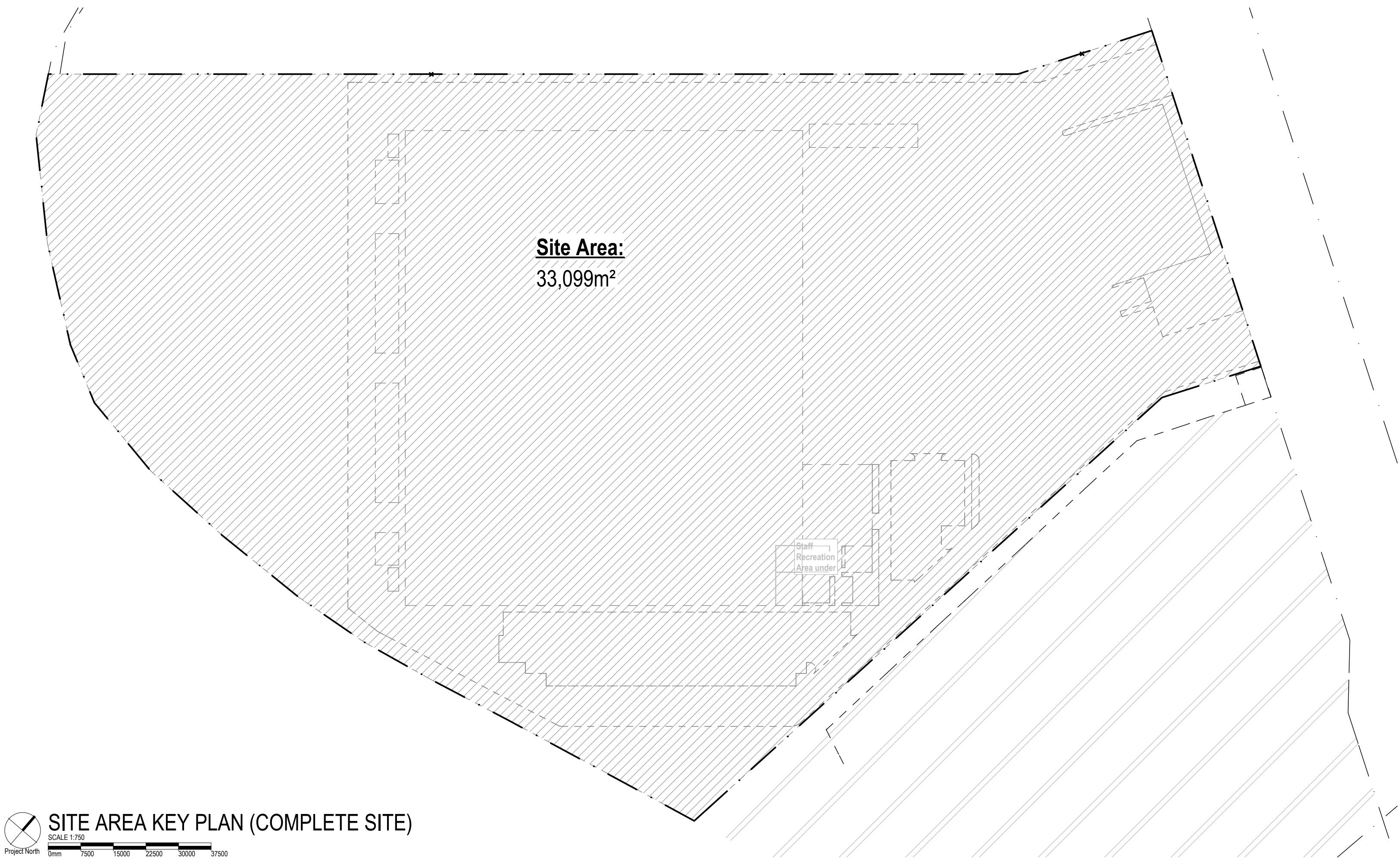
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Project Number	Drawing Number	Sheet Number
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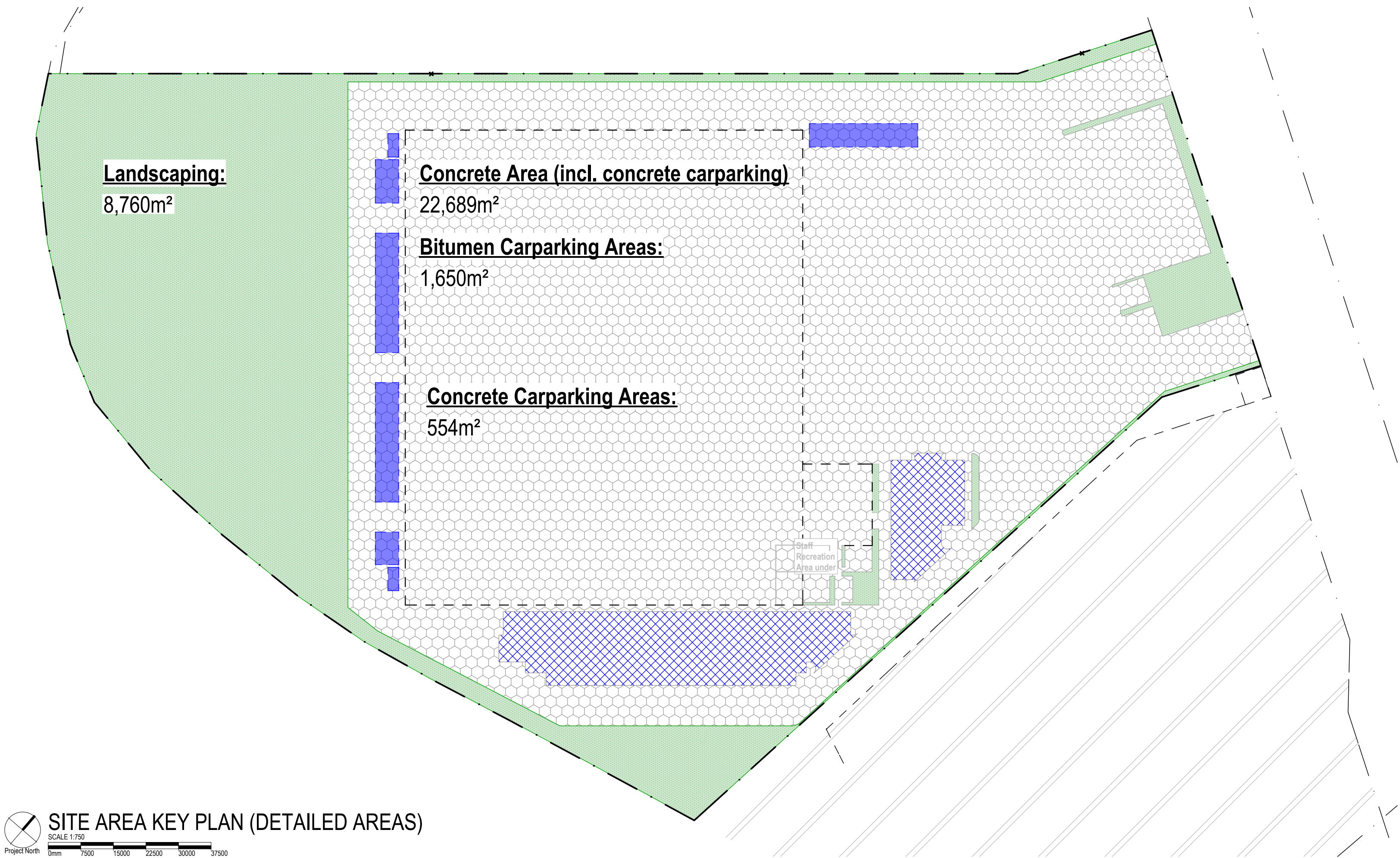
P R E L I M I N A R Y

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 **SITE AREA KEY PLAN (COMPLETE SITE)**
SCALE 1:750
0m 7500 15000 22500 30000 37500



 **SITE AREA KEY PLAN (DETAILED AREAS)**
SCALE 1:750
0m 7500 15000 22500 30000 37500

SITE KEY PLAN LEGEND:	
	COMPLETE SITE AREA
	CONCRETE AREA
	BITUMEN AREA
	LANDSCAPE AREA
	AREA OF CAR PARKING (CONCRETE)

DEVELOPMENT SUMMARY (STAGE 1):

Site Area	33,099m2
Warehouse	10,000m2
Office	500m2
GFA	10,500m2
Plot Ratio (GFA/Site Area)	31.77%
Concrete Area including Areas of Warehouse / Office Building and Concrete Car Parking	22,689m2
Car Parking (Bitumen)	1,650m2
Car Parking (Concrete)	554m2
Car Parking (Spaces)	112 + 6 motorbikes
Awnings (inc. covered hardstand)	1,983m2
Landscaping	8,760m2

P1	26.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
Issue	Date	Description	Int.	App.
Revision				



Client



Project Title

**BUILDING 9
CHRISTENSEN ROAD
SOUTH
INDUSTRIAL PARK
YATALA QLD 4207**

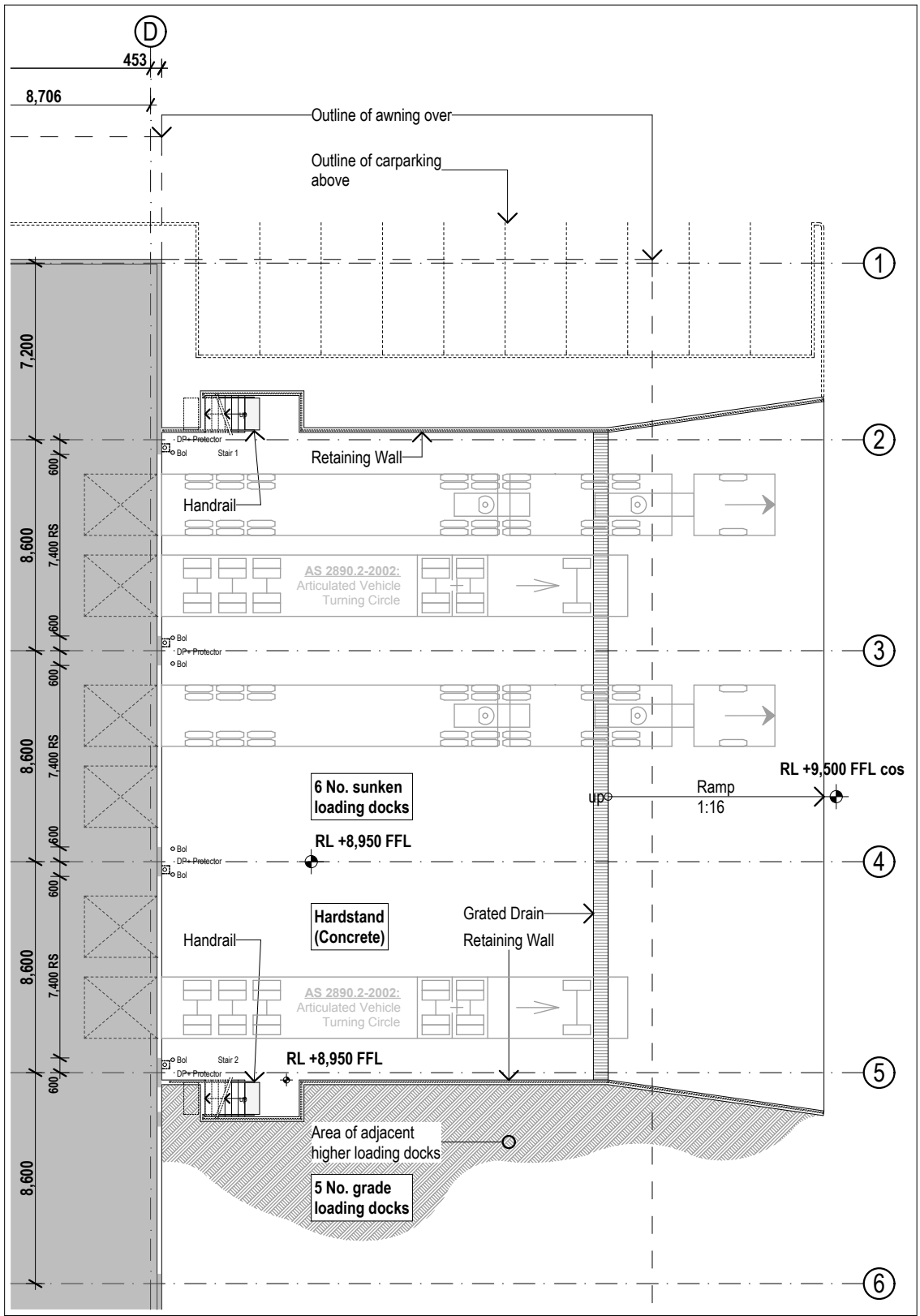
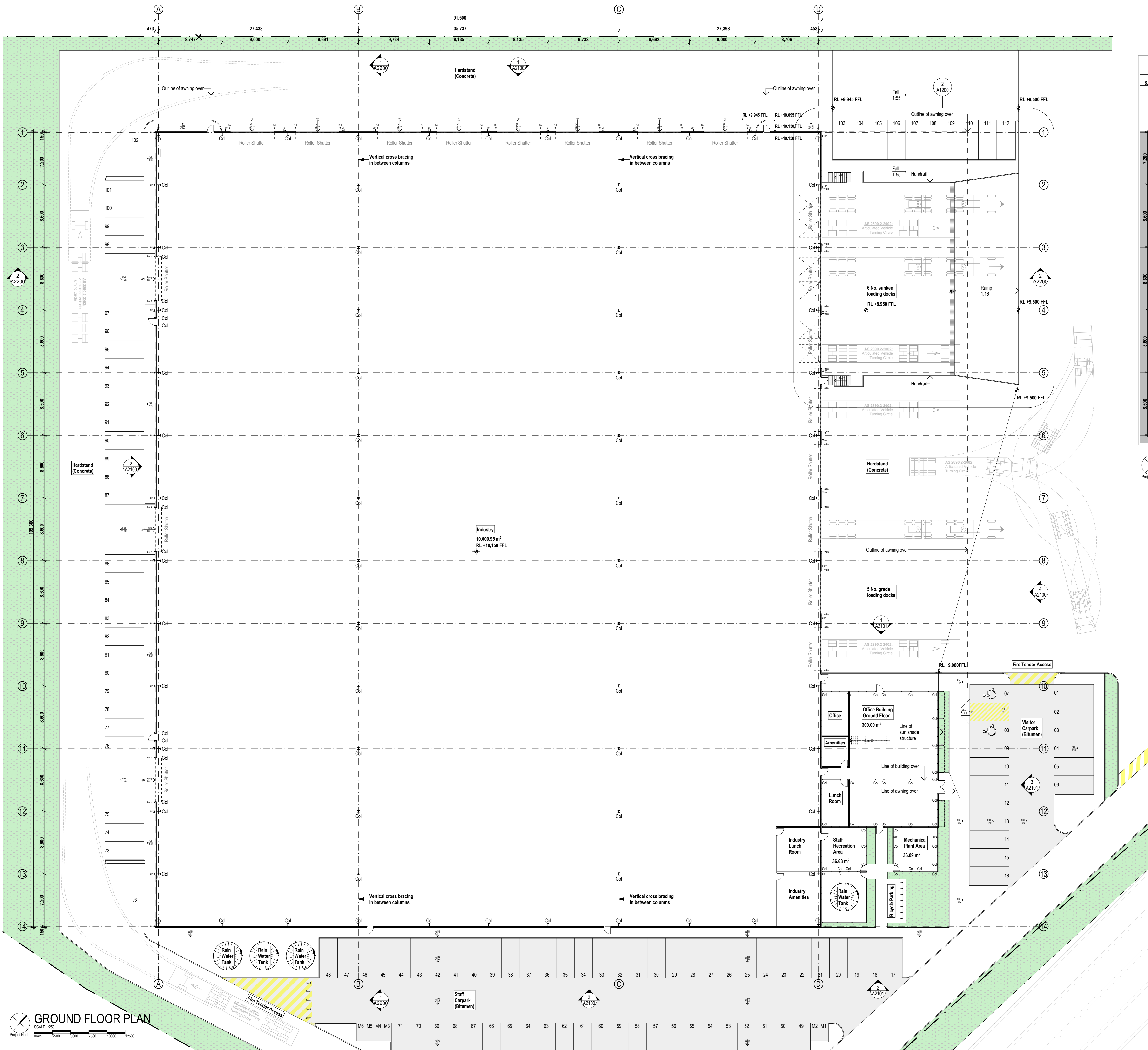
Drawing Title

SITE AREAS KEY PLANS

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SUNKEN LOADING DOCKS PART PLAN
SCALE 1:250
Project North

Rev	Date	Description	Rev	Date	Description
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P5	23.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM	
P4	23.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM	
P3	21.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM	
P2	21.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM	
P1	20.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM	

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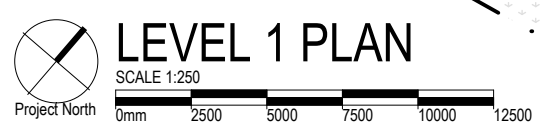
MSProjects
Industrial park

Project Title
**BUILDING 9
CHRISTENSEN ROAD
SOUTH
INDUSTRIAL PARK
YATALA QLD 4207**

Drawing Title
FLOOR PLAN

Rev	Date	Description	Rev	Date	Description
P6	26.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM	
P5	23.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM	
P4	23.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM	
P3	21.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM	
P2	21.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM	
P1	20.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM	

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Rev Date Approved Drawn Scale
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Project Number Drawing Number Sheet Number
123018 A1200/P6 N/A
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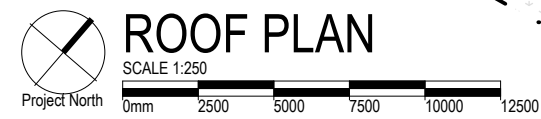
LEVEL 1 FLOOR PLAN

Project Number	Drawing Number	Sheet Number
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BUILDING 9
CHRISTENSEN ROAD
SOUTH
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YATALA QLD 4207

Drawing Title

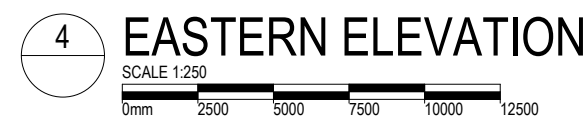
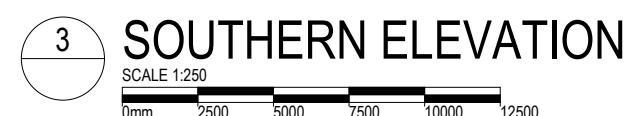
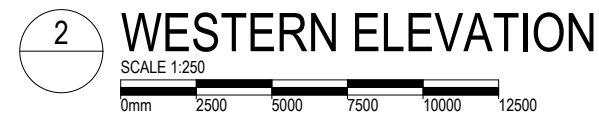
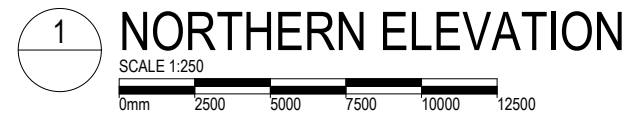
ROOF PLAN

Project Number	Drawing Number	Sheet Number
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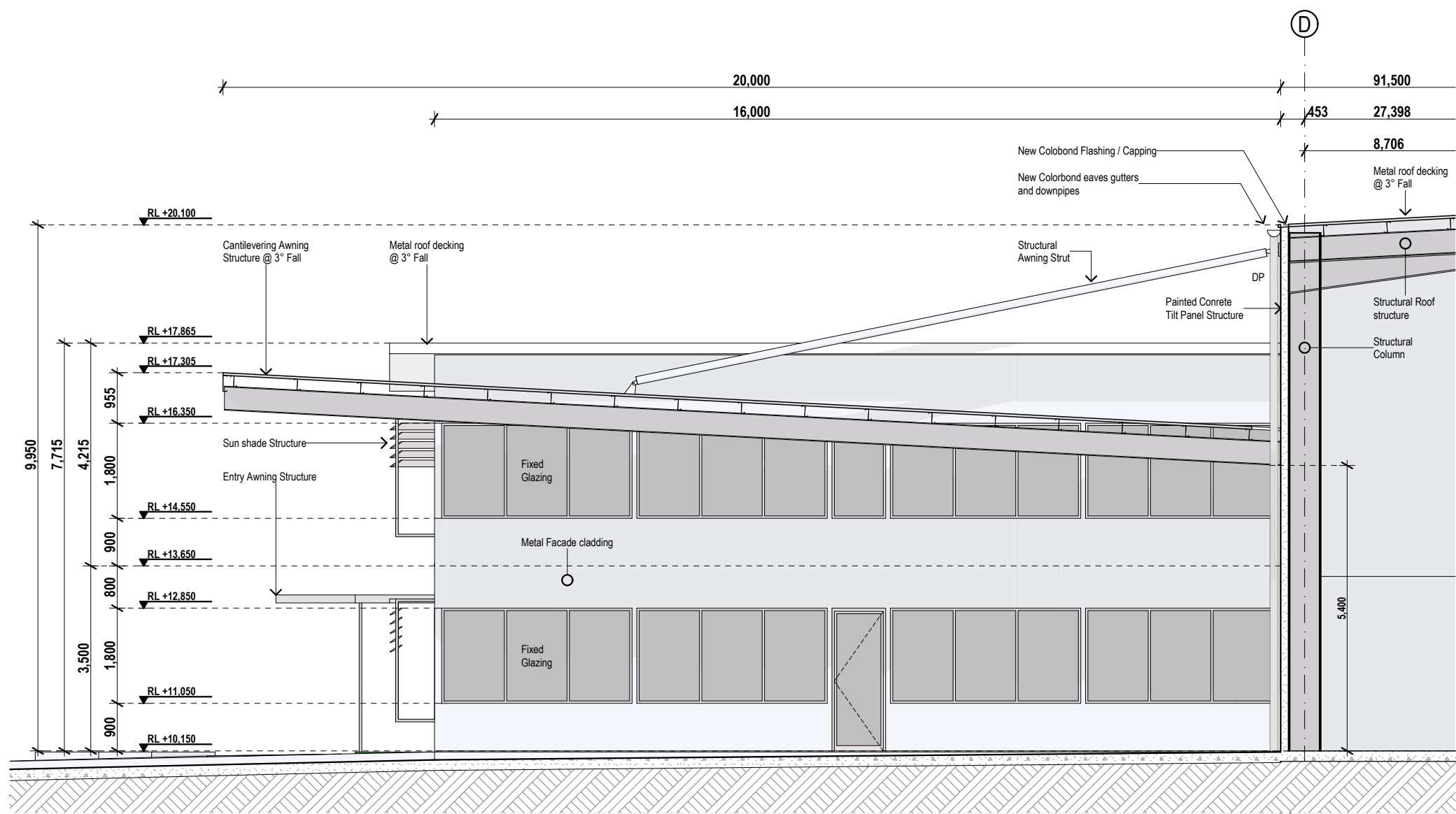
ELEVATIONS

Project Number	Drawing Number	Sheet Number
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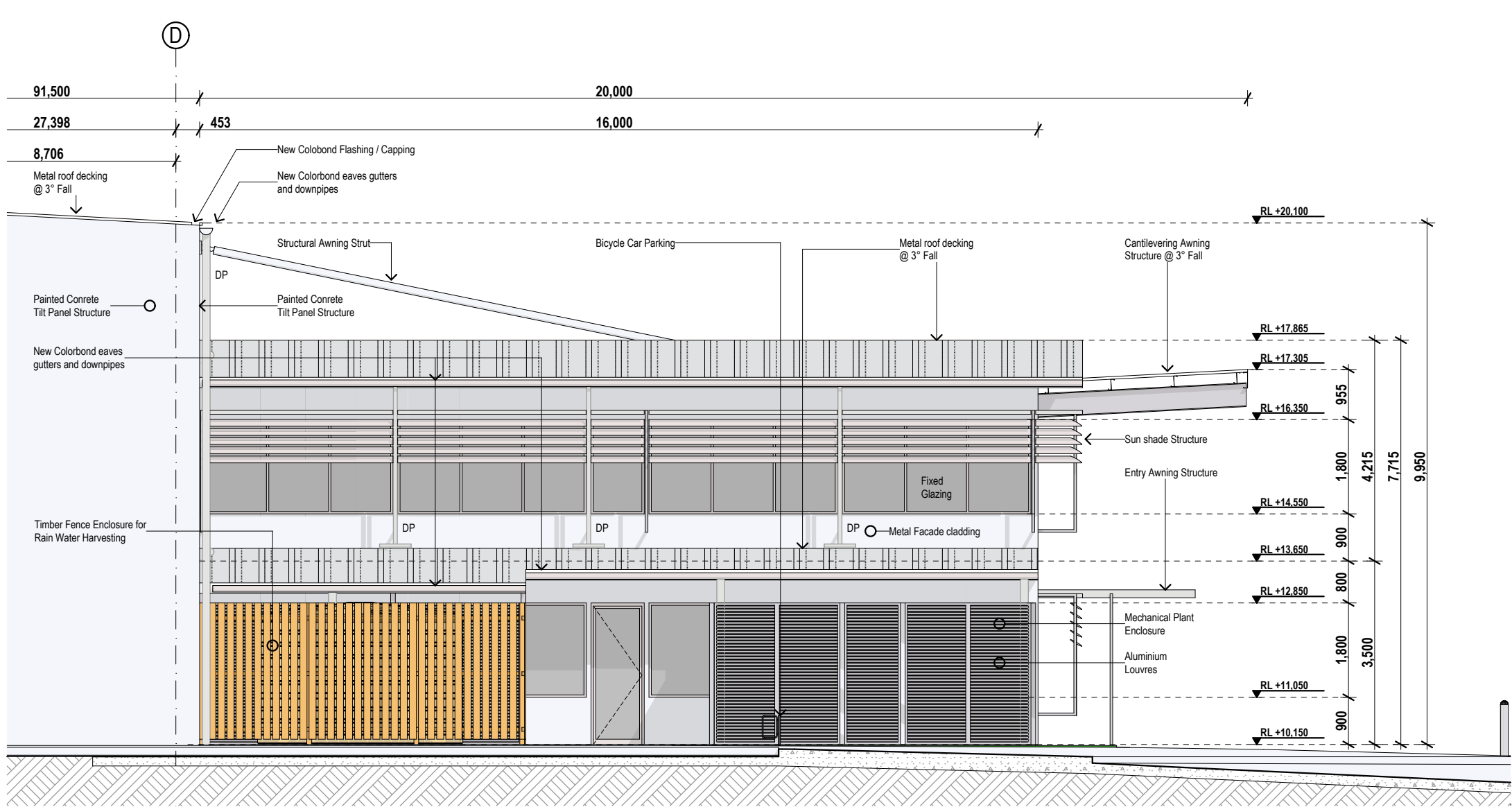
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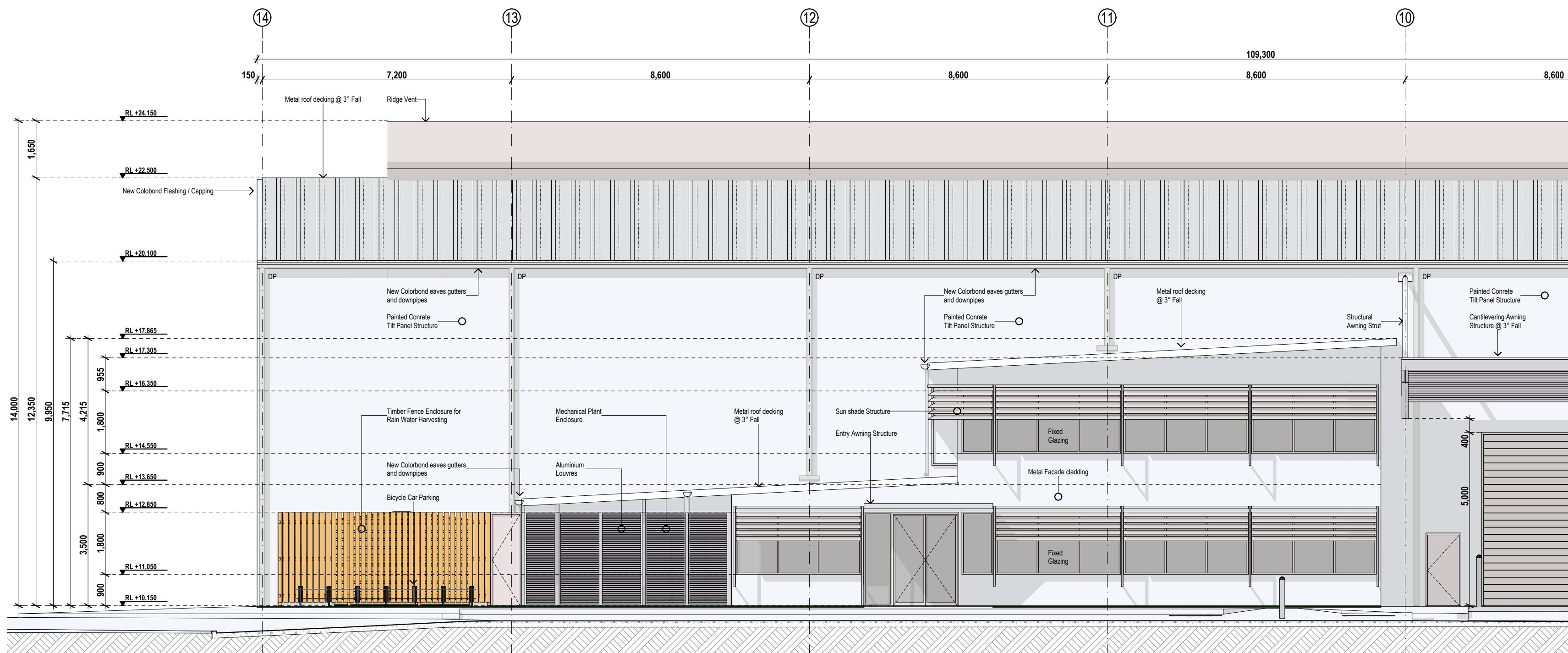
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1 NORTHERN ELEVATION (OFFICE BLDG)
SCALE 1:100
0mm 1000 2000 3000 4000 5000



2 SOUTHERN ELEVATION (OFFICE BLDG)
SCALE 1:100
0mm 1000 2000 3000 4000 5000



3 EASTERN ELEVATION (OFFICE BLDG)
SCALE 1:100
0mm 1000 2000 3000 4000 5000

Revision	Date	Description	Int.	App.
P3	21.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	JTM
P2	21.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	JTM
P1	21.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	JTM



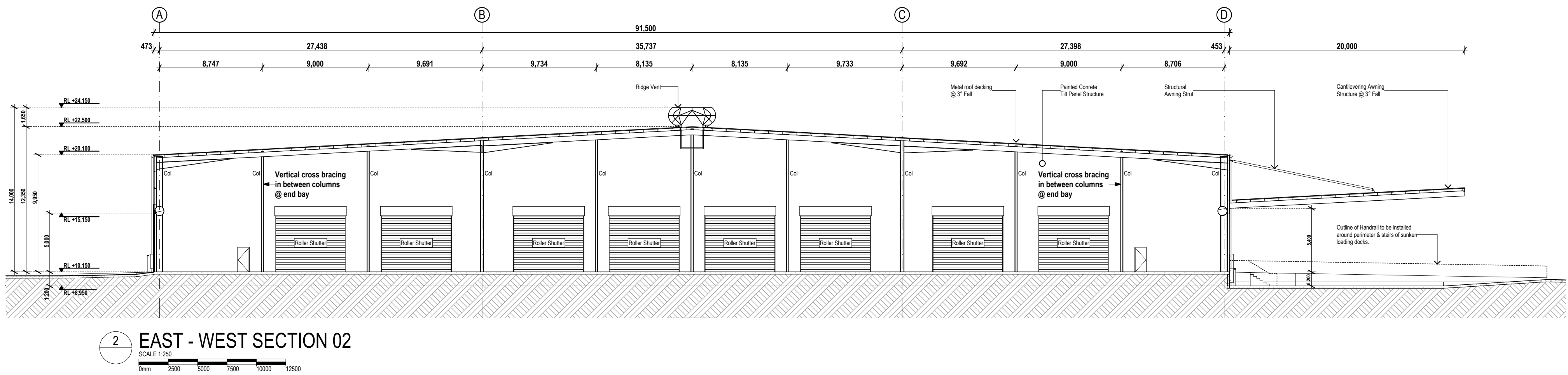
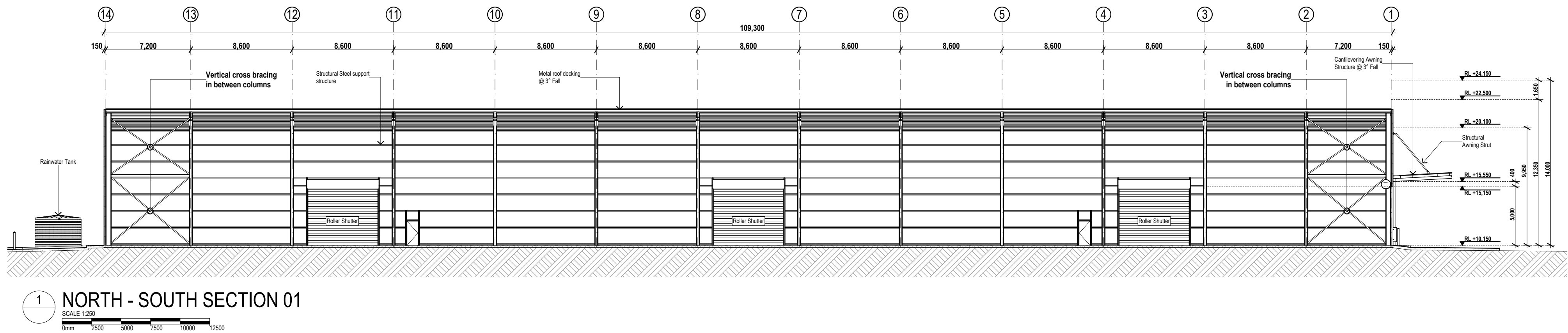
Project Title
**BUILDING 9
CHRISTENSEN ROAD
SOUTH
INDUSTRIAL PARK
YATALA QLD 4207**

Drawing Title
**ELEVATIONS (OFFICE
BUILDING)**

Sheet Size: A1	Rev. Date	Approved	Drawn	Scale
N/A	N/A	JH	JH	As Shown at A1
Project Number	Drawing Number	Sheet Number		
123018	A2101/P3	N/A		

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EXTERNAL PERSPECTIVE VIEW 01



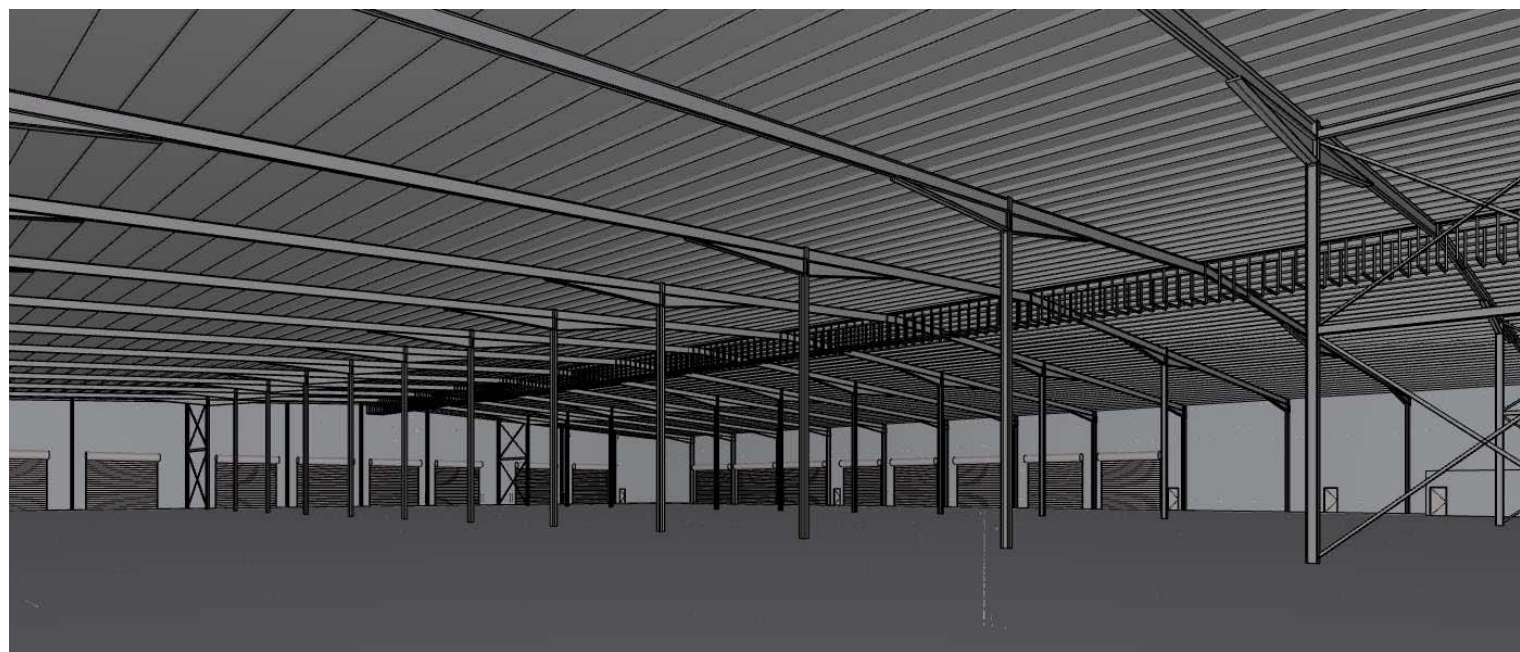
EXTERNAL PERSPECTIVE VIEW 02



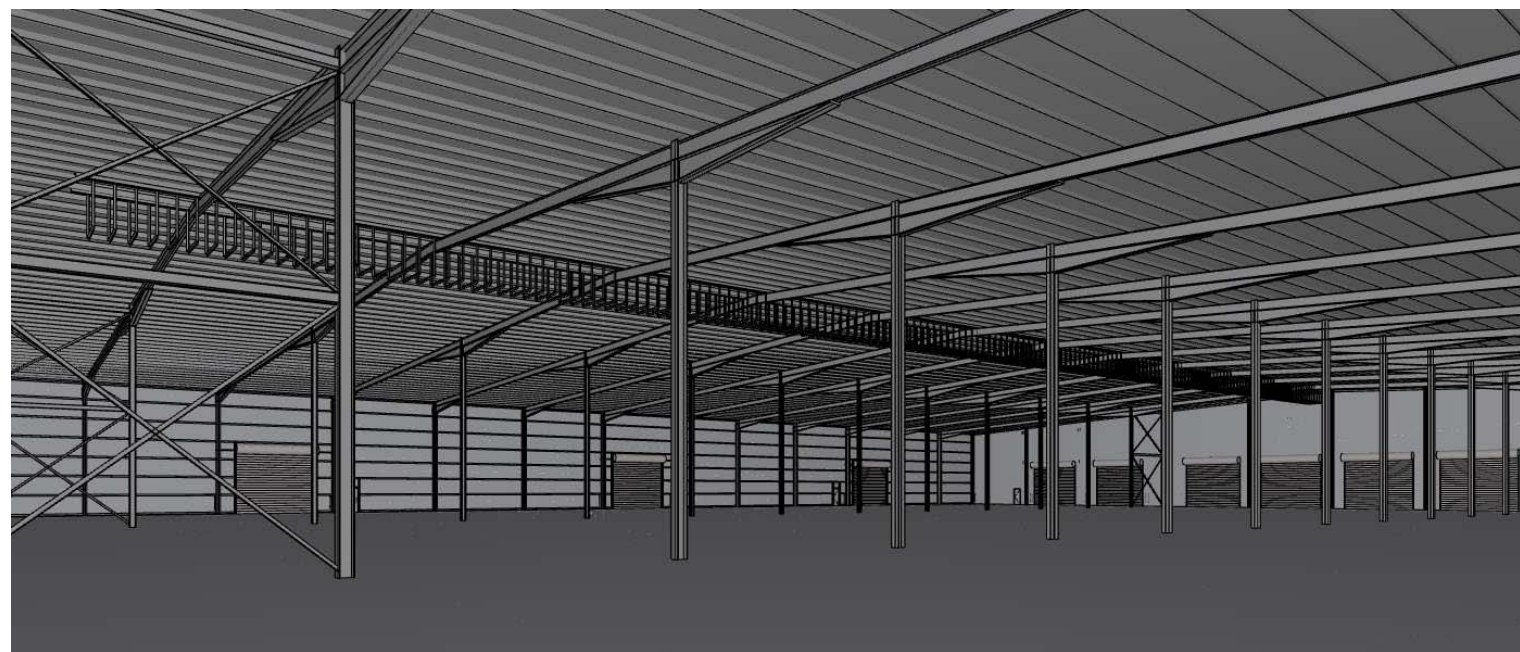
EXTERNAL PERSPECTIVE VIEW 03



EXTERNAL PERSPECTIVE VIEW 04



INTERNAL PERSPECTIVE VIEW 05



INTERNAL PERSPECTIVE VIEW 06

P5	23.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
P4	23.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
P3	21.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
P2	21.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
P1	20.11.12	PRELIMINARY - ISSUED FOR REVIEW	JH	ATM
Issue	Date	Description	Int.	App.
Revision				



Client



Project Title
**BUILDING 9
CHRISTENSEN ROAD
SOUTH
INDUSTRIAL PARK
YATALA QLD 4207**

Drawing Title
**SECTIONS &
PERSPECTIVE VIEWS**

Sheet Size: A1	Approved: JH	Drawn: JH	Scale: As Shown at A1
Project Number: 123018	Drawing Number: A2200/P5	Sheet Number: N/A	

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Appendix C: Landscape



LANDSCAPE BUFFER TO THE SURROUND OF THE DEVELOPMENT - PLANTING BENEATH THE ELECTRIC FENCING TO BE KEPT TO A MAXIMUM HEIGHT OF 1.5M FOR SAFETY

MAINTAIN EXISTING LANDSCAPE BUFFER TO SANDY CREEK TO MINIMISE EFFECTS FROM THE DEVELOPMENT

LANDSCAPE BUFFER TO CHRISTENSEN STREET SOUTH TO SCREEN THE PROPOSED DEVELOPMENT AND SOFTEN THE BUILDING LINES.

SEDIMENT AND EROSION CONTROL MEASURES IMPLEMENTED TO ENSURE THAT THE BALANCE OF THE SITE IS CONTAINED

LANDSCAPE BUFFER TO SCREEN THE PROPOSED DEVELOPMENT AND SOFTEN THE BUILDING LINES.

LANDSCAPE TO STAFF RECREATION AREA

CANOPY TREES AND PLANTING TO THE CARPARK AREAS IN ACCORDANCE WITH CPTED PRINCIPLES

LANDSCAPING TO PROVIDE DIRECTION THROUGH THE SITE AND CREATE DISTANCE BETWEEN INCOMPATIBLE USES.

USE OF NATIVE PLANT SPECIES ADAPTABLE TO THE EVER CHANGING SITE CONDITIONS

NATIVE SPECIES USED IN THE DETENTION BASINS TO PROVIDE LOCAL HABITAT

STATEMENT OF LANDSCAPE INTENT

THE LANDSCAPE INTENT FOR THIS DEVELOPMENT IS AIMED TOWARDS PROTECTING THE SURROUNDING ENVIRONMENTAL VALUES AND FUNCTIONS. ALL PROPOSED LANDSCAPE DESIGN WILL AIM TO RETAIN AND PROTECT ANY SIGNIFICANT VEGETATION AND WHERE POSSIBLE RECONSTRUCT EXISTING HABITATS TO ALLOW FAUNA SPECIES TO CONTINUE TO SURVIVE.

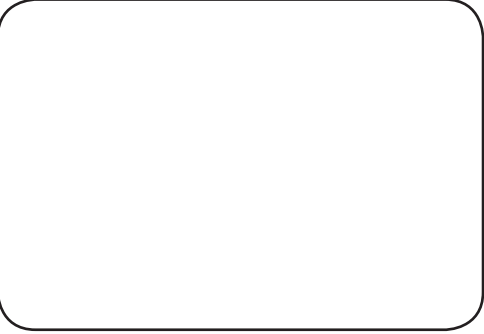
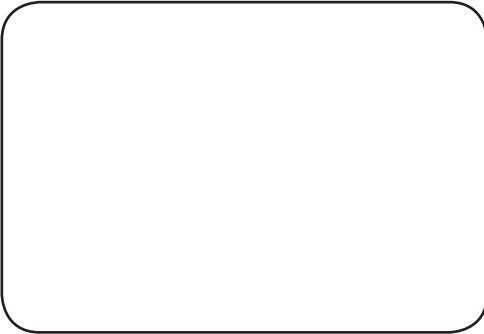
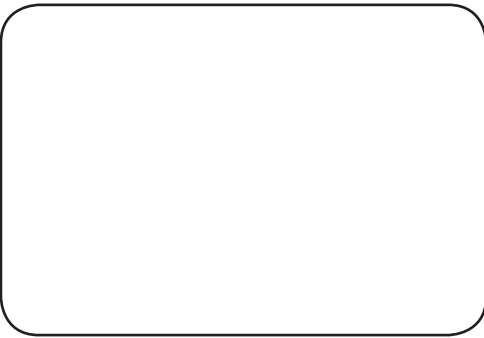
THE LANDSCAPED BUFFER AT FRONT OF THE DEVELOPMENT WILL ENHANCE THE VISUAL AESTHETICS OF THE STREETScape AND ALSO PROVIDE AN EFFECTIVE SCREEN THAT WILL SOFTEN THE BUILDING LINES.

THE PLANTING PALETTE RESPONDS TO BRISBANE'S SUB-TROPICAL CLIMATE AND VARYING CONDITIONS ON SITE. BY USING NATIVE PLANT SPECIES FOR THIS BUFFER WILL COMPLEMENT THE SURROUNDING ENVIRONMENT AND PROVIDE AN ATTRACTIVE ROBUST LANDSCAPE THAT WILL REINFORCE THE VALUABLE LOCAL HABITAT ENHANCE THE LOCAL CHARACTER.

EXISTING VEGETATION IN THIS LOCATION MAY BE REMOVED AS PART OF AN OPERATIONAL WORKS (GOLD COAST APPLICATION ONLY - NO REFERRAL REQUIRED TO DNRM)



TREES	
Scientic Name	Common Name
<i>Acacia fimbriata</i>	Brisbane Wattle
<i>Acacia macradenia</i>	Zig Zag Wattle
<i>Acmena smithii</i>	LillyPilly
<i>Allocasuarina species</i>	She Oaks
<i>Alphitonia excelsa</i>	Red Ash
<i>Banksia integrifolia</i>	Old Man Banksia Scrub
<i>Brachychiton spp</i>	Bottle Tree
<i>Buckinghamia celsissima</i>	Ivory Curl Flower
<i>Callistemon spp</i>	Bottlebruush
<i>Elaeocarpus spp</i>	Blue Quandong
<i>Eucalyptus microcorys</i>	Tallowwood
<i>Eucalyptus tereticomis</i>	Blue Gum
<i>Flindersia australis</i>	Crows Ash
<i>Grevillea baileyana</i>	Bailey's Oak
<i>Lophostemon confertus</i>	Brush Box
<i>Melaleuca species</i>	Paper Barks
<i>Syzygium luehmannii</i>	Small Leafed Lilly Pilly
<i>Waterhousia floribunda</i>	Weeping Lillypilly

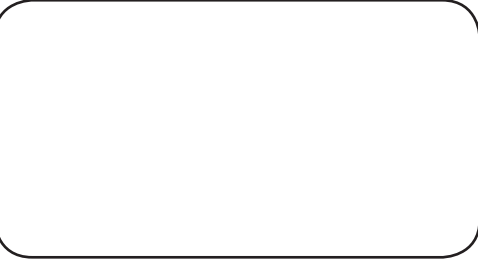
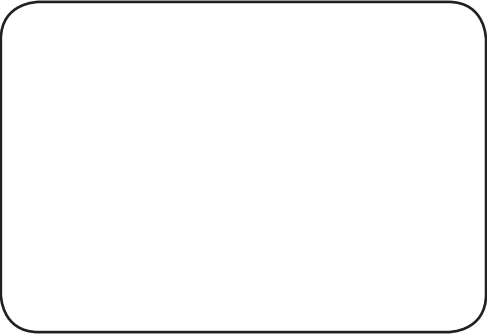
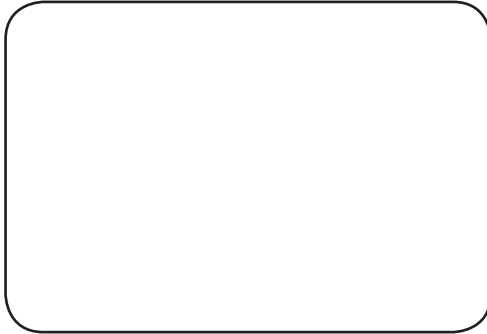
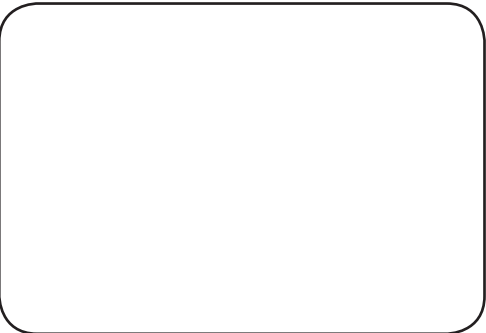
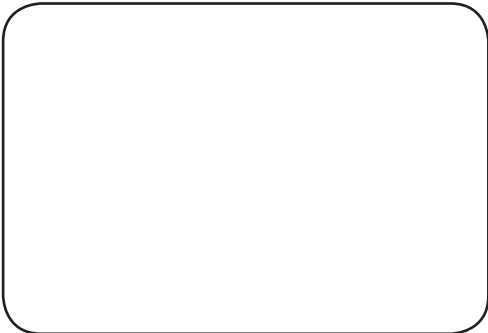


SHRUBS	
Scientic Name	Common Name
<i>Baeckea species</i>	Heath Myrtles
<i>Banksia robur</i>	Swamp Banksia
<i>Callistemon species</i>	Bottlebrush
<i>Cordyline spp.</i>	Palm Lily
<i>Crinum pedunculatum</i>	River Lily
<i>Curculigo recurvata</i>	Palm Grass
<i>Cyathea cooperi</i>	Scaly Tree Fern
<i>Doryanthes excelsa</i>	Gymea Lily
<i>Grevillea species</i>	Grevillea
<i>Hibiscus spp.</i>	Hibiscus
<i>Hovea acutifolia</i>	Pointed Leaf Hovea
<i>Hymenocallis sp.</i>	Spider Lilly
<i>Leptospermum species</i>	Tea Tree
<i>Melaleuca 'Claret Tops'</i>	Claret Top
<i>Syzygium species</i>	Lilly Pilly
<i>Tibouchina species</i>	Lasiandra
<i>Westringia speices</i>	Coastal Rosemary
<i>Xanthorrhoea sp.</i>	Common Grass Tree



GROUNDCOVERS

Scientific Name	Common Name
<i>Austromyrtus dulcis</i>	Midyim
<i>Brachycombe multifida</i>	Hawksbury River Daisy
<i>Casuarina glauca prostrate</i>	Free fall
<i>Chrysocephalum apiculatum</i>	Yellow Buttons
<i>Dianella species</i>	Flax Lily
<i>Grevillea species</i> –	prostrate Grevillea
<i>Hardenbergia violacea</i>	Native Sarsaparilla
<i>Hibbertia scandens</i>	Gold Guinea
<i>Impatiens species</i>	Balsum
<i>Leptospermum species-</i>	prostrate Tea Tree
<i>Liriope species</i>	Liriope
<i>Lomandra species</i>	Mat Rush
<i>Melaleuca thymifolia</i>	Thyme Leaf Melaleuca
<i>Myoporum species</i>	Creeping Boobialla
<i>Scaevola aemula</i>	Fan Flower
<i>Themeda australis</i>	Kangaroo Grass
<i>Viola hederacea</i>	Native violet
<i>Wahlenbergia stricta</i>	Australian Bluebell



Appendix D: Stormwater Plans



Conceptual Stormwater Management Plan
Lot 334 SP193431 Building 9
84 Christensen Road South, Stapylton

Prepared for Burnside Development Pty Ltd & Yellowstone Investments Pty Ltd



DOCUMENT CONTROL



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Document Title: P:\Projects\12041 Christensen Rd - 84 - Yatala - Burnside Developments\Project Design\Engineering\SMP\12041 Christensen Road SMP Report 30 October 2012.docx

Rev No.	Date	Details	Author	Review
A	30 October 2012	Preliminary	RM	GMK

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Executive Summary

The following report outlines the stormwater treatment for the proposed development at 84 Christensen Road South, Stapylton. There currently is a stormwater system on Christensen Road South which drains from west to east and discharges into an existing detention basin to the east of the Building 9 site. The existing detention basin is designed to cater for the entire development within Lot 334 on SP193431. Currently all site stormwater overland flows into Sandy Creek to the south. Our design nominates the legal point of discharge as being the existing Detention Basin to the east of the property. The report demonstrates the requirements to satisfy a “no-worsening” in stormwater peak flows for average recurrence intervals for 1year to 100 year. The proposed detention basin, within the site, will incorporate bio-retention medium for the treatment of the stormwater flows to satisfy Gold Coast City Council development Guidelines.

Introduction

A Warehouse is proposed by Burnside Development Pty Ltd & Yellowstone Investments Pty Ltd at 84 Christensen Road South (Lot 334 SP 193431), Stapylton. The site locality is illustrated in Figure 1 below. Gold Coast City Council Planning Scheme requires a report in regards to stormwater management in anticipation of approving the proposed development.

Gold Coast City Council Development guidelines and the Gold Coast City Council Planning Scheme require new developments to demonstrate a “no worsening” in the rate that stormwater leaves the site and that the quality of stormwater which leaves the site is improved.

The following report will detail measures to be undertaken to achieve a “no worsening” peak flow at the property boundary and will satisfy stormwater quality conceptual design as outlined in Gold Coast City Council Planning Scheme.

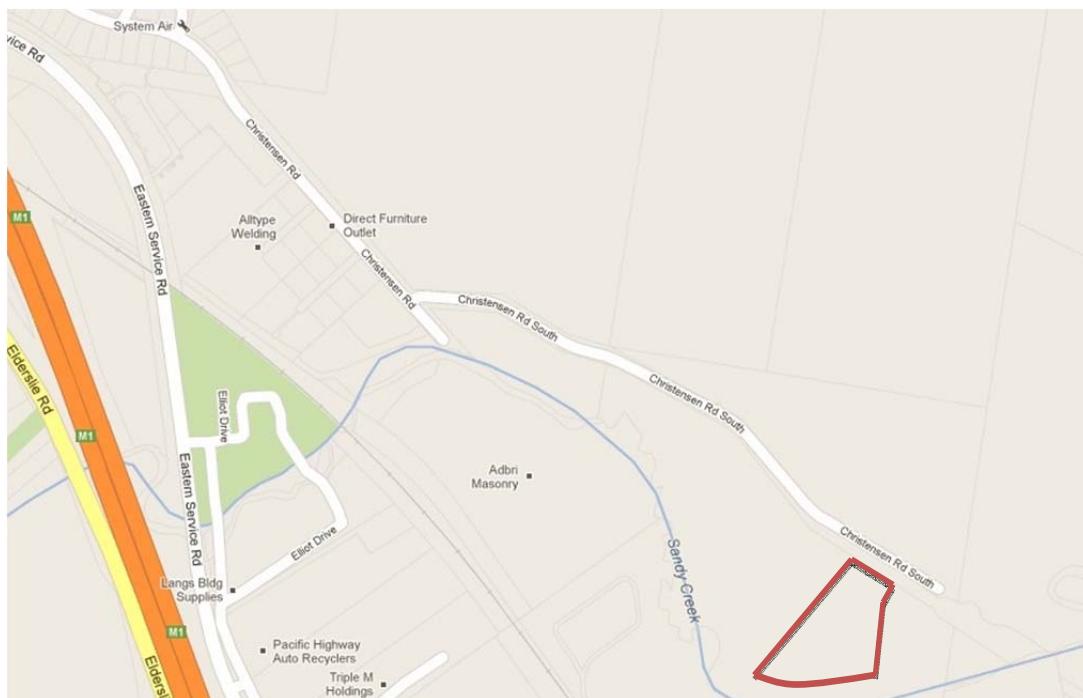


Figure 1 Site Locality Source: google.com.au

Site Description

The site is completely vacant and has no vegetation. The ground cover is unmaintained grass which is slashed occasionally.



Figure 2 Aerial Photo of Site Source: Nearmap.com

The property slopes from the southwest corner to the eastern boundary, being RL 11.4m AHD to RL 8.00m AHD. The frontage of the property to Christensen Road South is approximately 83m with an average depth of approximately 221m. The proposed development will be carried out over most of the property and the report has taken into consideration the future development to the south west. The proposed development is shown below.

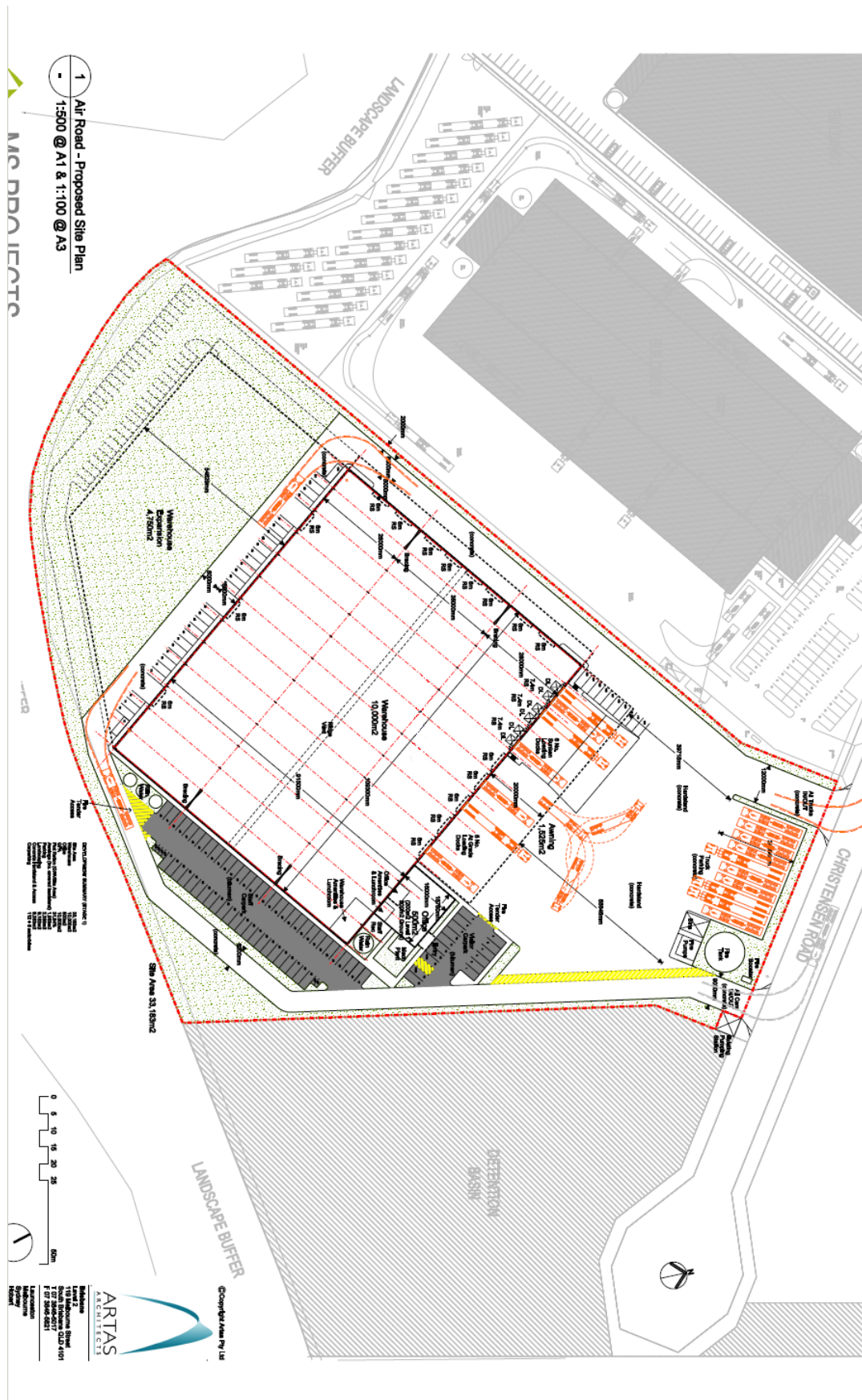


Figure 4 Proposed Development

Stormwater Management Plan Objectives

“In the absence of adequate controls, urban development can increase both storm runoff volumes and peak discharge rates.” (QUDM)

The main objective of this report is to limit property flooding to acceptable levels by the use of stormwater detention / retention systems. It is also an objective to minimise the degradation of downstream environmental values.

This Stormwater Management Plan will demonstrate a “no worsening” of stormwater quantity from the proposed development and minimise water pollution from the site.

This report will recommend the implementation of a Sediment and Erosion Control Plan for the construction phase and also a Maintenance Schedule for the establishment phase and the operational works stage of the development.

Stormwater Quantity

Stormwater Process

The proposed development will have a stormwater system which will be within the property boundaries. We recommend that the development uses a Level III roof water system so that all flows onto the site will be directed to the proposed detention basins.

The roof water of the proposed buildings will drain to either the kerb & channel or to the proposed roof water system. The road network will have a piped stormwater system designed for a 2yr ARI and the roads will act as a 100yr ARI overland flow path. With the nature of the existing contours of the site it will be possible to drain all stormwater up to a 100yr ARI to the two detention basins.

The rainfall intensities were obtained from the Bureau of Meteorology web site using the following coordinates:-

- 27deg 44' 45" S
- 153deg 14' 46" E

Catchment Details

The pre and post catchment boundaries will be similar thus no change in pre and post catchment areas. The minor slope in the catchment surface and not well maintained grass cover leads to a higher than usual time of concentration. The calculated catchment area for the development is 2.965ha.

Pre Development Conditions

As the site has grassed areas a fraction impervious percentage of 10% was used for the pre-conditions. Using Queensland Urban Development Manual (QUDM) Figure 4.07 it was calculated that the pre time of concentration is twelve (12).

In line with QUDM and the Gold Coast City Council (GCCC) Land Development Guidelines and using the 10% impervious area the C_{10} was calculated to be 0.66. The following Table 1 contains the calculations of the pre development design flows from Q_1 to Q_{100} using the Rational Method.

Table 1 Pre Development Flows

Catchment Area = 2.965ha (Time of Concentration 12 minutes)

Yr ARI	1	2	5	10	20	50	100
C values	0.53	0.56	0.63	0.66	0.69	0.76	0.79
I mm/hr	90	114	140	154	173	199	219
Q m ³ /sec	0.391	0.525	0.719	0.835	0.990	1.245	1.428

Post Development Conditions

The proposed development will involve earthworks to convey stormwater flows to the required treatment / discharge facilities.

The main changes to the hydrology due to the proposed development include:

- Increase in impervious areas due unit development and hardstand areas including roadways.
- Decrease in time of concentration of the flow through the site.
- Concentration of stormwater flows from sheet flow to single point of discharge.
- Decrease in Manning's roughness coefficient going from grassed areas to hardstand areas.

Again using Figure 4.07 from QUDM, the time of concentration for the post conditions was calculated to be six (6) minutes for post development.

In line with QUDM and the Gold Coast City Council (GCCC) Land Development Guidelines and using Table 4.051 in QUDM the fraction impervious has increased from 10% to 85%, thus the C_{10} was calculated to be 0.87 for the post development. The following Table 2 contains the calculations of the post development design flows from Q_1 to Q_{100} , for the catchment using the Rational Method.

Table 2 Post Development Flows

Area = 2.965ha (Time of Concentration 6 minutes)

Yr ARI	1	2	5	10	20	50	100
C values	0.70	0.74	0.83	0.87	0.91	0.99	0.99
I mm/hr	116	147	179	197	222	255	280
Q m ³ /sec	0.665	0.895	1.218	1.411	1.670	2.079	2.283

From the Tables above it can be seen that the increase in flows for a Q_{100} event is 37.5. To negate this additional flow, various models were considered to decrease the impact and as a result the following measures are recommended.

Post Development Mitigation

As the existing Detention Basin will cater for Stormwater Quantity no onsite requirement for detention of peak flows is required. In line with GCCC development guidelines, revision of the detention basin design was undertaken so that adequate area is available for basin construction.

The Detention basin does not incorporate bio-retention media. For details of the bio-retention swale and bio-retention / retention basin please refer to Appendix A – SMP and Sediment & Control Drawings.

Below is a typical Bio-Retention basin calculation for the above catchment. The exact calculations and volumes will be carried out at operational works stage.

Stormwater Quality

The Stormwater Quality Management Plan incorporates surface and roof water runoff elements which are considered for the stormwater quality management approach and include the following elements:

- All roof water will be captured and directed to storage tanks at the front and side of the proposed building.
- Rain water tanks will be used for toilet flushing, laundry, and irrigation.
- The overflow from the rainwater tanks will flow to the nominated roof water outlet nominated at operational works stage.
- All surface water will flow to a surface inlet pits around the proposed buildings falling away from the building.
- Roof water tank usage demand was calculated at 350L per day (127kL per year).

The vegetation to be planted in the bio-retention basin is to be in accordance with the Healthy Waterway's WSUD Technical Design Guidelines (refer Appendix D – WSUD Technical Design Guidelines – Plant Selection) and/or as outlined in the nominated Landscape Architects Plans.

All site stormwater will not leave the site without passing through the proposed treatment train. The results from this treatment will be illustrated in the MUSIC modelling results in Appendix B – MUSIC Guidelines for SEQ - Version-1.

The proposed Treatment Train is shown in following Image is for the catchment.

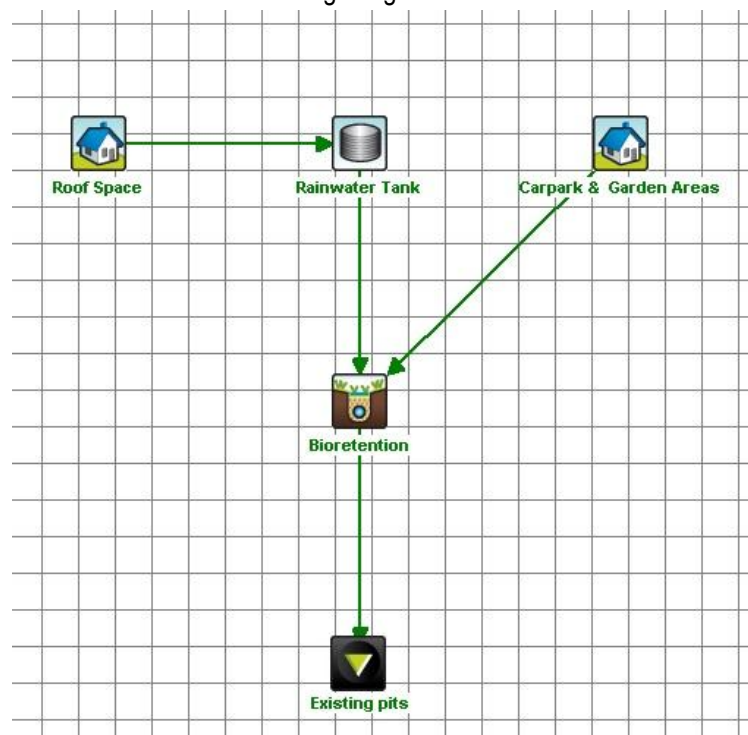


Image: 1 MUSIC Model Proposed Treatment Train

The bio-retention / retention basin is to have a minimum depth of 1m below the finished ground level and it is to be covered with coarse gravel, with a nominal size of 75mm, to prevent scour damage from occurring in the construction stage.

The bio-retention media is to have a minimum depth of 400mm. The properties of the filter material are to comply with the Water Sensitive Urban Design Guidelines.

The Bio-retention media in the detention basin needs to be 450m² for the site Catchment. Standard detail on drawing IPWEAQ WSUD-001 – Bio-retention Standard Profile Overflow Pit and WSUD-003 – Bio-retention Saturated Zone Underdrain Cleanout. (located in Appendix C – IPWEAQ WSUD Drawings).

MUSIC modelling has been undertaken, utilising the Bureau of Metrology rainfall data for the period 1990 to 1999 with a time step of 6 minutes. Beenleigh Bowls Club is the Rainfall Station used for the meteorological data. The mean annual rainfall for the period is 1200mm. Refer to Appendix B – MUSIC Guidelines for SEQ - Version-1. C has outlined stormwater quality load reduction objectives, as shown in Table following:

Table 5 - GCCC Stormwater Quality Load Reduction Objectives

POLLUTANT TYPE	OBJECTIVE
Total suspended solids	80% reduction in average annual load of pollutants leaving the developed unmitigated scenario compared to the developed mitigated scenario (in other words, compare what the site would be like, after development, with and without stormwater quality treatment).
Total phosphorus	55% reduction in average annual load of pollutants leaving the developed unmitigated scenario, compared to the developed mitigated scenario.
Total nitrogen	45% reduction in average annual load of pollutants leaving the developed unmitigated scenario, compared to the developed mitigated scenario.
Gross pollutants	90% reduction in average annual load of pollutants leaving the developed unmitigated scenario, compared to the developed mitigated scenario.

	Sources	Residual Load	% Reduction
Flow (ML/yr)	29.0	28.0	3.6
Peak Flow (m3/s)	0.979	1.66	-70.0
Total Suspended Solids (kg/yr)	7.29E3	1.01E3	86.1
Total Phosphorus (kg/yr)	13.4	4.55	66.1
Total Nitrogen (kg/yr)	67.2	32.5	51.7
Gross Pollutants (kg/yr)	692	0.00	100.0

Bio-retention Maintenance

For the ongoing functionality of the Bio retention systems there needs to be an appropriate maintenance plan in place to ensure the quality of stormwater runoff and treatment before discharge from the site is maintained for

long periods after the implementation on the system. This is achievable by implementation of the following aspects:

- Regular inspection and maintenance should be carried out to ensure the system functions as designed. It is recommended that these checks be undertaken on a three monthly basis during the initial period of operating the system. A less frequent schedule might be determined after the system has been established.
- The scope of maintenance tasks should include the condition of the following elements being filter media, Horticultural, Drainage Infrastructure and removal of litter.
- Removal of Sediment build up after storm events
- Infill of any holes in filter media after storm events.
- Ensure that no ponding has occurred in the swale drain as this will prevent anaerobic conditions including plant death and insect breeding - after stormwater events.
- Maintain existing plant densities – 3 months or as desired for Aesthetics.
- It is important to identify the presence of any weeds which may cause the reduction of dominant species distributions and diminish aesthetics - 3 months or as desired for Aesthetics.
- Cleaning out of the perforated underdrain pipe. 6 months.

The above tasks should be recorded on an “Inspection and Maintenance form” so that the long term integrity of the system is maintained.

Sediment and Erosion Control

Sediment and Erosion Control measures are to be implemented as per drawing number 12012-06 Sediment & Erosion Control Plan found in Appendix A – SMP and Sediment & Control Drawings, and as detailed following:

- Prior to commencement of earthworks, construct temporary diversion drains to reduce runoff from adjacent undisturbed catchments, draining onto the site. Minimum 300mm depth waterways capacity. Maximum 1 in 4 batters.
- Topsoil stripped from site shall be stored as far as practical in one area as approved by the superintendent, grass seed immediately. Diversion drains should be constructed on the high side and any hay bales / geofabric barriers on the low side to minimise soil transportation as approved by the superintendent.
- Stormwater runoff from the site during construction shall be directed through the filter barriers as detailed. Provide additional diversion drains and filter barriers where / if scour is evident.
- Prior to approval of stormwater pipes and pits prevent runoff draining into pipe system by sand bagging and division to filter barriers adjacent to lintel inlet maintain barrier during the course of road construction.
- Any batters (both cut and fill) shall be topsoiled and grass seeded immediately to ensure adjacent stabilisation.
- Areas subject to site filling shall be adequately stabilised by topsoiling and grass seeding as soon as practical after approval.
- The contractor is responsible for maintaining drains and filter barriers during the course of construction to ensure adequate operation.
- All diversion drains to be stabilised by topsoil and grass seeding.
- Preserve existing vegetation on the lots during construction unnecessary movements of construction equipment on undisturbed natural vegetation must be minimised.

- All temporary earth structures, including soil stockpiles to be track rolled and seeded within 14 days of their construction, with the following cover crop / fertiliser mixture –

- Japanese Millet 30 kg/Ha (Spring/Summer)
- Rycorn / Oats 30 kg/Ha (Autumn/Winter)
- Fertiliser 250 kg/Ha

Schedule of Operations

- All topsoil will be removed offsite.
- Clays to be stockpiled
- When finished levels are obtained in any area, area to be topsoiled and grass seeded as per note above.

Conclusion

The proposed provisions of the existing detention storage on the east of the property will reduce the peak flows which will be discharging from the developed site into Sandy Creek. The peak flow will be reduced to from 2.283m³/s to 1.428m³/s for a 100yr ARI stormwater event. This is a substantial decrease in the peak flow rates. Although the flow from the site will be concentrated to two points, this will not create any adverse impacts on the properties downstream.

With the proposed treatment train shown on the attached drawings the post environmental impact will be decreased far greater than the GCCC Guidelines for stormwater quality load reduction objectives. The detail of the detention / bio-retention will be designed at operational works stage to facilitate the reductions designed.

References

GCCC Stormwater Quality Conceptual Design Guidelines

GCCC Development Guidelines

GCCC Planning Scheme

GCCC Music Modelling Guidelines 2006 Version 1

QUDM Second Edition Volume 1 2007

BCC Landscape Design Guidelines for Water Conservation

MUSIC Modelling Guidelines for South East Queensland – 2009, Water by Design, Healthy Waterways

Appendix A – SMP and Sediment & Control Drawings

PROJECT DESCRIPTION

PROPOSED WAREHOUSE
BUILDING 9
84 CHRISTENSEN ROAD
YATALA

LOT 334 SP 193431

YELLOWSTONE
INVESTMENTS PTY LTD

BURNSIDE DEVELOPMENTS PTY LTD

COUNCIL:
GOLD COAST CITY COUNCIL

ASSOCIATED CONSULTANTS

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FULL SHEET SIZE A1

DRAWING TITLE

DEVELOPMENT APPLICATION

STORMWATER MANAGEMENT PLAN



Access Business Park,
76 Business Street, Yatala QLD 4207
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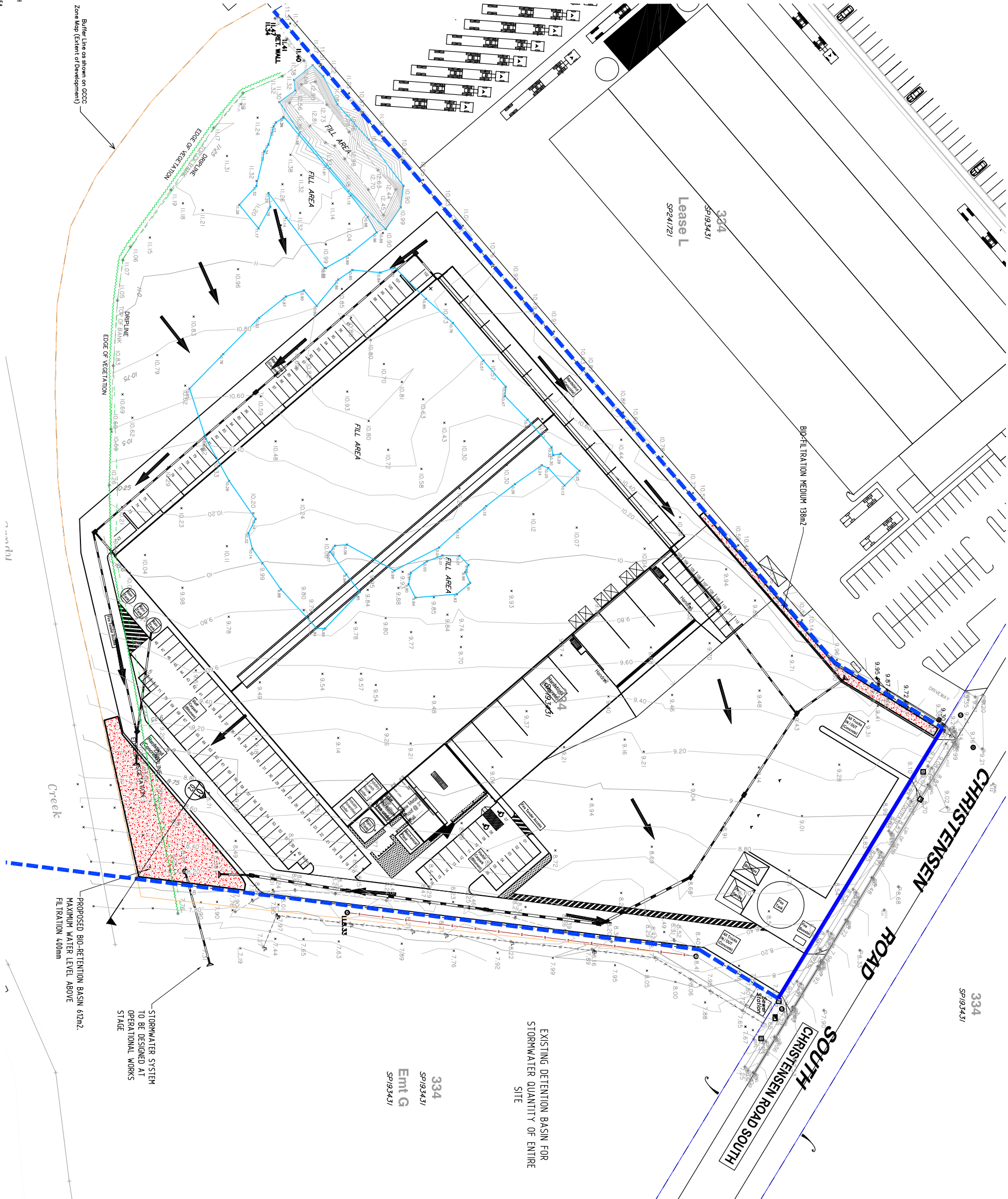
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12041-B-01

A



LEGEND

EXISTING CONTOURS

OVERLAND FLOW PATH

BIO-FILTER MEDIUM AREA



SCALE 1 : 1000 SIZE A3

SIZE A3

PROJECT DESCRIPTION

PROPOSED WAREHOUSE
BUILDING 9
84 CHRISTENSEN ROAD
YATALA

LOT 334 SP 193431

YELLOWSTONE
INVESTMENTS PTY LTD
&
BURNSIDE DEVELOPMENTS PTY
LTD

COUNCIL:
GOLD COAST CITY COUNCIL

ASSOCIATED CONSULTANTS

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DEVELOPMENT APPLICATION

TYPICAL BIO-RETENTION SECTIONS



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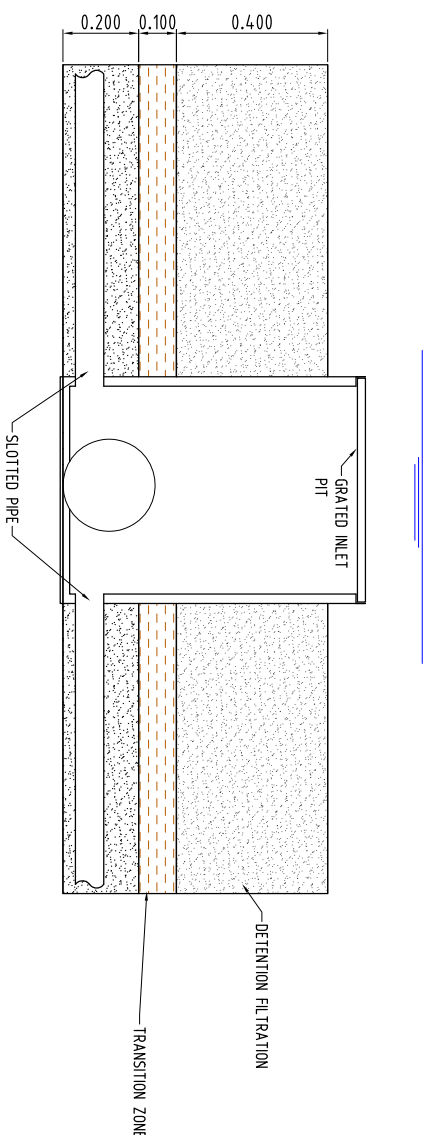
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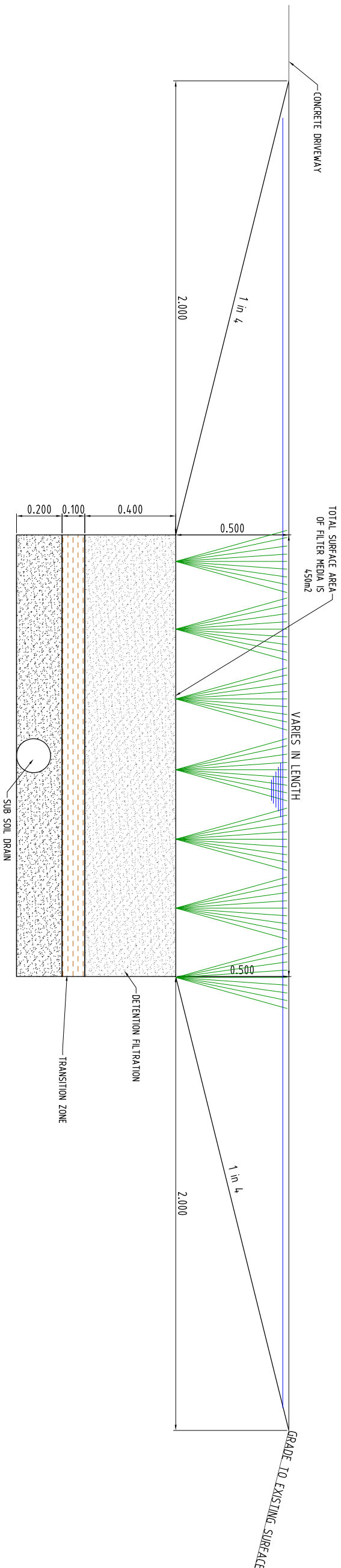
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12041-B-02

A



TYPICAL STORMWATER OUTLET PIT DETAIL



SECTION 1

BIO RETENTION AND DETENTION STORAGE

Appendix B – MUSIC Guidelines for SEQ -Version-1

REPORTING TABLES

Table B1 Meteorological and rainfall runoff data reporting table

Input	Data used in modelling
Rainfall station	Beenleigh Bowls Club
Time step	6 minute time
Modelling period	Jan 1990 – Dec 1999 (10 years)
Mean annual rainfall (mm)	1105
Evapotranspiration	1201mm / year
Rainfall runoff parameters	Carparks, Roads and Buildings, Gravel Hardstand, Roof area shed
Pollutant export parameters	Note which land use parameters were used e.g. “residential”. Any deviation from information recommended in these guidelines requires justification using Error! Reference source not found..

Table B2 Catchment definition reporting table

Catchment ID	Area (ha)	Land use	Total impervious (%)
Site Catchment A	2.9 ha	Industrial Development.	90%

Table B3 Catchment split reporting table

Catchment ID	Area (ha)	Land use or surface type	Fraction impervious (%)
Site	Roof Water		100
	Car park & Garden Areas		90

Table B4 Rainfall runoff parameter reporting table¹

Parameter	Site
Landuse	Industrial
Rainfall threshold (mm)	1
Soil storage capacity (mm)	18
Initial storage (% capacity)	10
Field capacity (mm)	80
Infiltration capacity coefficient a	243
Infiltration capacity exponent b	0.6
Initial depth (mm)	50
Daily recharge rate (%)	0
Daily baseflow rate (%)	31
Daily deep seepage rate (%)	0

Table B5 Pollutant export parameter reporting table for Catchment

Catchment ID	Split catchment land use							
	Land Use	Flow type	TSS log ₁₀ values		TP log ₁₀ values		TN log ₁₀ values	
			Mean	St. dev.	Mean	St. dev.	Mean	St. dev.
All Urban Nodes	Roof	Baseflow	0	0	0	0	0	0
		Stormflow	1.3	0.38	-0.89	0.34	0.37	0.34
	Ground	Baseflow	0.78	0.39	-0.60	0.50	0.32	0.34
		Stormflow	2.16	0.38	-0.39	0.34	0.37	0.34

¹ This table only to be used where there have been any deviation from parameters recommended in these guidelines.

Table B6 Rainwater tank node reporting table

Catchment ID	All Roofs
Volume below overflow pipe (kL). If greater than 1 tank specify number of tanks, volume per tank and total e.g. 80 tanks x 4 kL = 320 kL	109
Depth above overflow (m)	0.1
If tanks are lumped, is depth below overflow the same as a single tank and overflow pipe scaled accordingly .	Y
Surface area (m ²). For lumped tanks the surface area must be adjusted in accordance with Section	50
Overflow pipe diameter (mm). For lumped tanks this must be equivalent to the diameter of the overflow pipe of a single tank multiplied by the square root of the number of tanks.	200
Stored water used for irrigation and other purposes (Y/N) PET	N
Indoor connections e.g. toilet, laundry etc.	✓
Indoor demand (kL/day)	0.03
Outdoor demand (kL/day)	0
Daily demand (kL/day)	0.03
Monthly distribution of annual demand (kL/day)	9.083
Confirmation that K and C* remain default? (Y/N)	Y

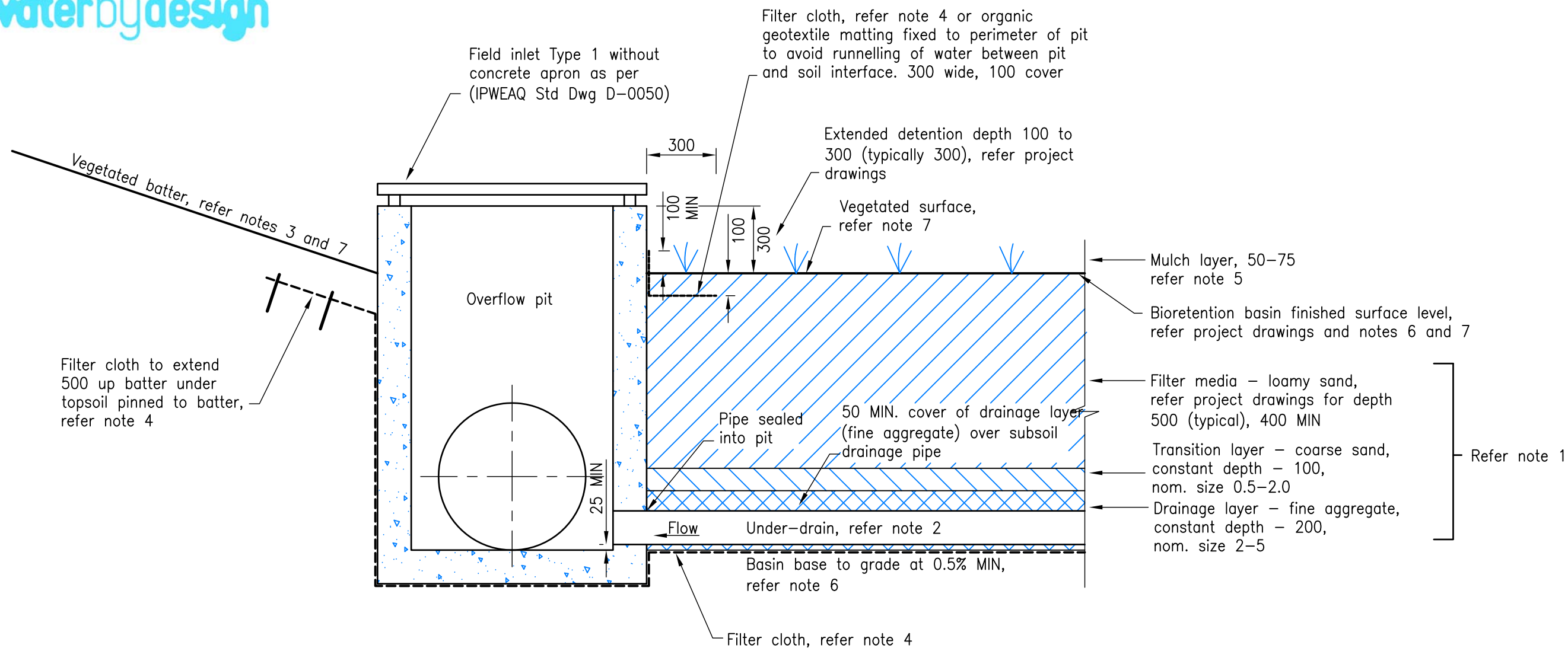
Table B7 Bioretention node reporting table

Catchment ID	Lots 1 - 8
Surface area (m ²)	450m ²
Has the filter area been calculated appropriately? (Y / N / N/A)	Y
Extended detention depth (m)	0.2
Filter area (m ²)	450
Unlined filter media perimeter (m)	80
Saturated hydraulic conductivity (mm/hour). This should be modelled once at 50 mm/hr and once at 200mm/hr. Report as "50/200"	200
Filter depth (m)	0.5
TN content of filter media (%)	800
Proportion of organic material in filter (%)	50
Orthophosphate content of filter media (mg/kg)	50
Is the base lined? (Y/N)	Y
Effectiveness of plant TN removal (effective/ineffective/unvegetated)	Y
Overflow weir width (m)	10
Exfiltration rate (mm/hr)	0
If an exfiltration rate has been used, have node water balance losses been used in calculation of treatment train effectiveness? (Y / N / N/A)	N/A
If exfiltration rate has been used, is the exfiltration rate justified? (Y / N / N/A)	N/A
Underdrain present? (Y/N)	Y
Submerged zone with carbon present?	N
Depth of submerged zone (m)	N/A
Confirmation that K and C* remain default? (Y/N)	N/A
If bioretention systems are modelled in series, is there a low-flow bypass modelled in the downstream bioretention system/s? (Note: separate drainage systems are required if a low-flow bypass is modelled).	N

Table B8 Stormwater quality modelling results reporting table

Catchment ID	Pollutant	Inflows (kg/yr)	Outflows (kg/yr)	Reduction (kg/yr)	Reduction achieved (%)	Water Quality Objective (%)
Site	TSS	7290	1010	2191	86.1	80
	TP	13.4	4.55	8.85	66.1	55
	TN	67.2	32.5	34.7	51.7	45
	GROSS	692	0	692	100	90

Appendix C – IPWEAQ WSUD Drawings



BIORETENTION BASIN OVERFLOW PIT DETAIL

NOTES:

1. Bioretention media specification shall be in accordance with the Facility for Advancing Biofiltration "Guidelines for Soil Filter Media in Bioretention Systems". Bioretention hydraulic conductivity shall be in accordance with the Facility for Advancing Biofiltration 'Practice Note 1: In Situ Measurement of Hydraulic Conductivity'. The number of samples to be tested shall be in accordance with the "Water Sensitive Urban Design Construction and Establishment Guidelines – Swales, Bioretention Systems and Wetlands (Water by Design)".
2. Under-drain: slotted rigid pipe (uPVC or similar to AS 2439.1) or approved equivalent, 0.5% MIN. grade. Refer project drawings for diameter and invert level (Typically $\phi 100-150$). Pipe should not be installed with a filter sock surrounding pipe. Under-drainage pipes shall be sealed into pits using grout or other approved watertight seal.
3. Refer to project drawings for vegetated batter slopes (1 in 3 MAX, 1 in 4 typical) and batter topsoil requirements.
4. Filter cloth – non-woven geotextile. Filter cloth not to be placed between any filter layers. Impervious liner may be required subject to soil testing requirements in accordance with the "Water Sensitive Urban Design Technical Design Guidelines" (Water by Design).
5. Basin finished surface level is top of filter media. Surface to be mulched and planted as per landscape drawings.
6. Construction tolerances as documented in the "Water Sensitive Urban Design Construction and Establishment Guidelines – Swales, Bioretention Systems and Wetlands" (Water by Design) must be achieved. Construction tolerances must be noted on project plans. Invert levels of pits, pipes and base levels must be noted on project drawings.
7. Refer landscape drawings for plant specification. Plant specification and density shall be in accordance with the "Water Sensitive Urban Design Technical Design Guidelines" (Water by Design).
8. All dimensions are in millimetres unless otherwise noted.

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BIORETENTION STANDARD PROFILE
OVERFLOW PIT

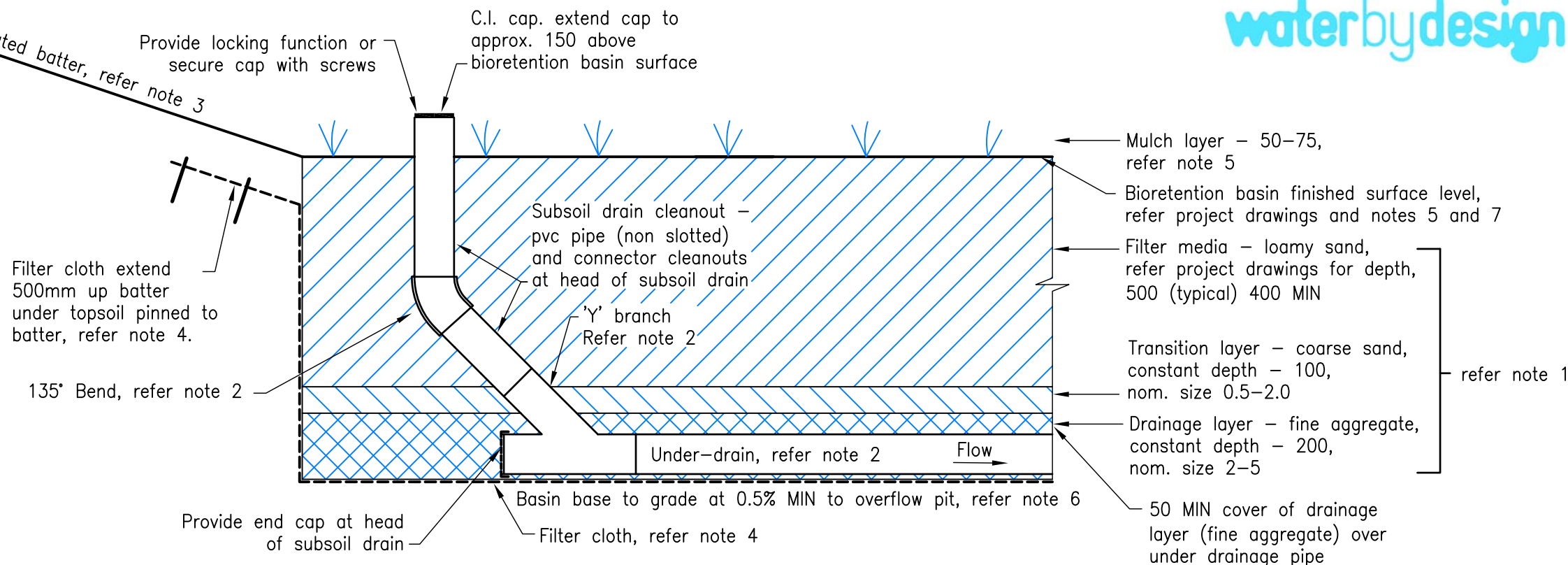
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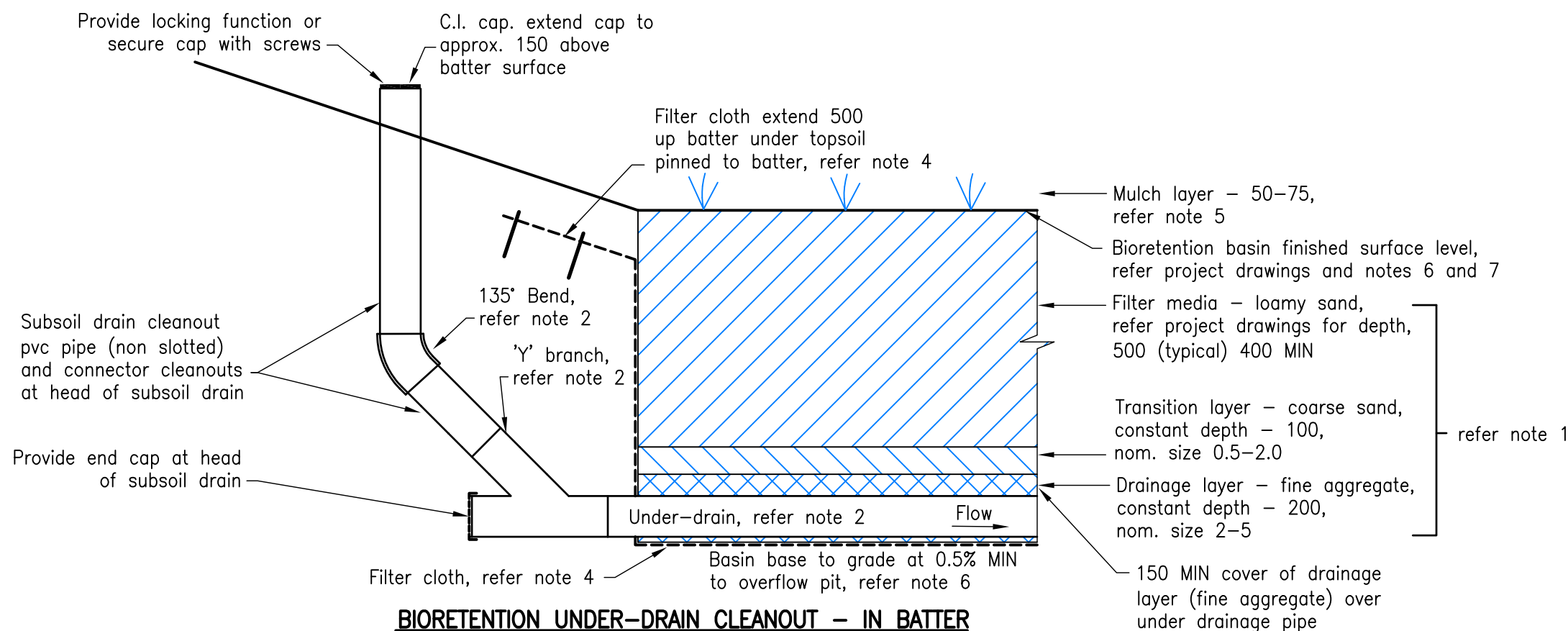
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NOTES:

1. Bioretention media specification shall be in accordance with the Facility for Advancing Biofiltration "Guidelines for Soil Filter Media in Bioretention Systems". Bioretention hydraulic conductivity shall be in accordance with the Facility for Advancing Biofiltration "Practice Note 1: In Situ Measurement of Hydraulic Conductivity". The number of samples to be tested shall be in accordance with the "Water Sensitive Urban Design Construction and Establishment Guidelines – Swales, Bioretention Systems and Wetlands" (Water by Design).
2. Under-drain: slotted rigid pipe (uPVC or similar to AS 2439.1) or approved equivalent, 0.5% MIN. grade. Refer project drawings for diameter and invert level (typically Ø100–150). Pipe joints should be glued using plumbing cement. Pipe should not be installed with a filter sock surrounding pipe. Under-drainage pipes shall be sealed into pits using grout or other approved watertight seal.
3. Refer to project drawings for vegetated batter slopes (1 in 3 MAX, 1 in 4 typical) and batter topsoil requirements.
4. Filter cloth – non-woven geotextile. Filter cloth not to be placed between any filter layers. Impervious liner may be required subject to soil testing requirements in accordance with the "Water Sensitive Urban Design Technical Design Guidelines" (Water by Design).
5. Basin finished surface level is top of filter media. Surface to be mulched and planted as per landscape drawings.
6. Construction tolerances as documented in the "Water Sensitive Urban Design Construction and Establishment Guidelines – Swales, Bioretention Systems and Wetlands" (Water by Design) must be achieved. Construction tolerances must be noted on project plans. Invert levels of pits and pipes and base levels must be shown on project drawings.
7. Refer landscape drawings for plant specification. Plant specification and density shall be in accordance with the "Water Sensitive Urban Design Technical Design Guidelines" (Water by Design).
8. All dimensions are in millimetres unless otherwise noted.



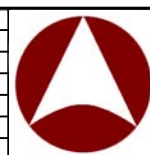
BIORETENTION UNDER-DRAIN CLEANOUT – IN BASIN



BIORETENTION UNDER-DRAIN CLEANOUT – IN BATTER

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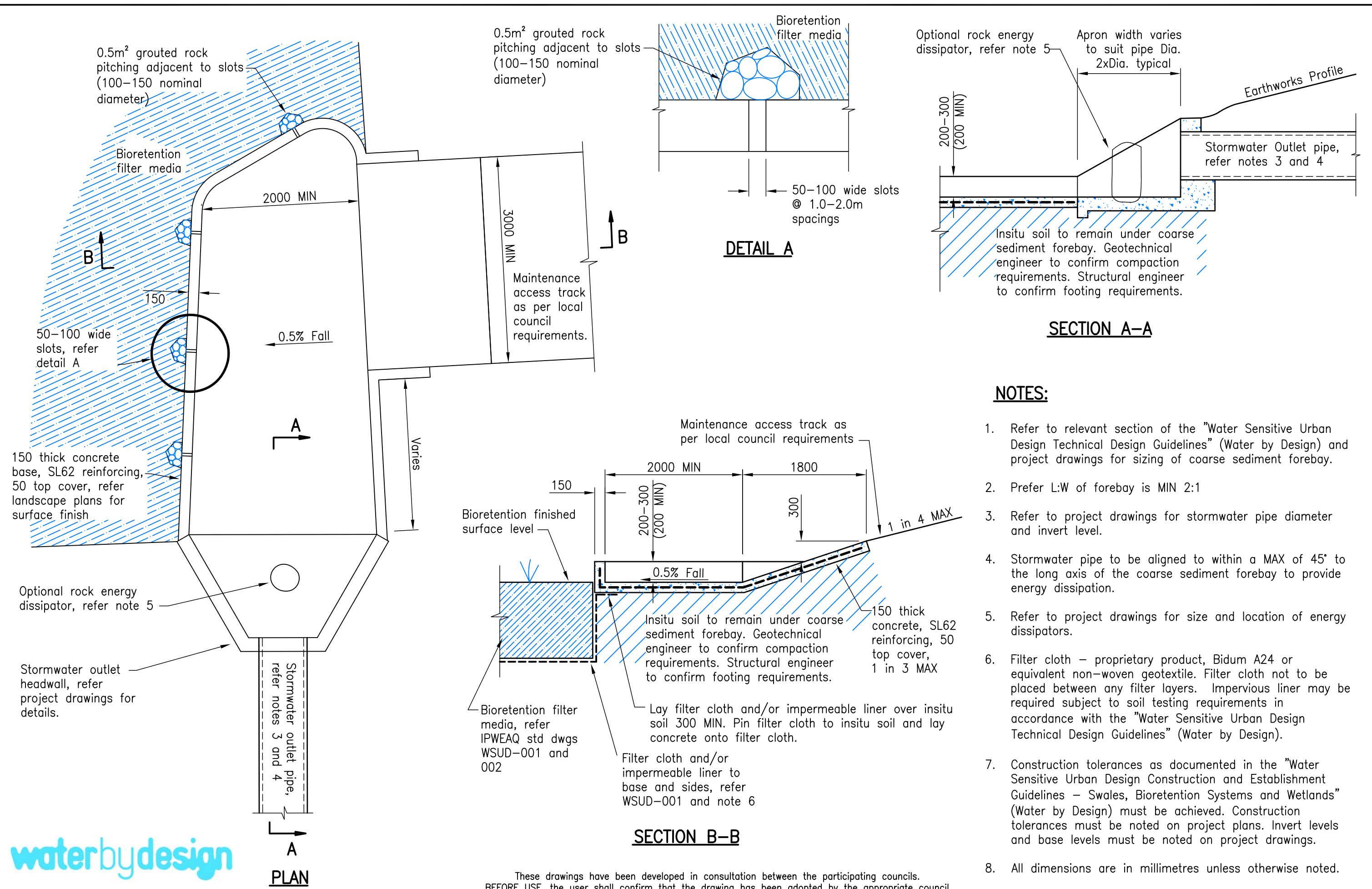
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BIORETENTION STANDARD PROFILE
UNDERDRAIN CLEANOUT

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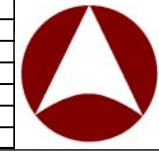
NOTES:

1. Refer to relevant section of the "Water Sensitive Urban Design Technical Design Guidelines" (Water by Design) and project drawings for sizing of coarse sediment forebay.
2. Prefer L:W of forebay is MIN 2:1
3. Refer to project drawings for stormwater pipe diameter and invert level.
4. Stormwater pipe to be aligned to within a MAX of 45° to the long axis of the coarse sediment forebay to provide energy dissipation.
5. Refer to project drawings for size and location of energy dissipators.
6. Filter cloth – proprietary product, Bidum A24 or equivalent non-woven geotextile. Filter cloth not to be placed between any filter layers. Impervious liner may be required subject to soil testing requirements in accordance with the "Water Sensitive Urban Design Technical Design Guidelines" (Water by Design).
7. Construction tolerances as documented in the "Water Sensitive Urban Design Construction and Establishment Guidelines – Swales, Bioretention Systems and Wetlands" (Water by Design) must be achieved. Construction tolerances must be noted on project plans. Invert levels and base levels must be noted on project drawings.
8. All dimensions are in millimetres unless otherwise noted.



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BIORETENTION
LARGE COARSE SEDIMENT FOREBAY

DRAWING No.
WSUD-005
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Appendix D – WSUD Technical Design Guidelines – Plant Selection

Appendix A Plant Selection for WSUD Systems

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A.1 Introduction

This chapter provides guidance on selecting appropriate plant species for Water Sensitive Urban Design (WSUD) systems where the plants have a functional role in stormwater treatment and/ or erosion protection. Selecting suitable plant species is critical to the long term functional performance and structural integrity of WSUD systems. Maintenance costs can also be reduced by careful selection of plant species and by adopting suitably high planting densities. A list of recommended plant species for various WSUD systems, including appropriate planting densities, is provided in the following tables:

Table A-1 and Table A-2:

- Swales (incorporating Buffer Strips)
- Bioretention Swales
- Bioretention Basins

Table A-3 and Table A-4:

- Sedimentation Basins
- Wetlands

The plant species lists in **Table A-1** and **Table A-2** are not exhaustive and other plants may be used provided their physiological and structural characteristics match the characteristics of the plant species listed in the tables.

Non-indigenous natives and exotics should only be considered when there is a specific landscape need and the species has the appropriate growth form and habit. If non-indigenous natives and exotics are chosen, careful consideration should be given to the potential impacts on downstream receiving ecosystems. Species (including natives) that have the potential to become invasive weeds should be avoided.

A.2 Swales (and Buffer Strips), Bioretention Swales and Bioretention Basins

A.2.1 Required Plant Characteristics

Planting for bioretention basin elements may consist of up to three vegetation types:

- Groundcovers for stormwater treatment and erosion protection
- Shrubbery for screening, glare reduction and character
- Trees for shading, character and other landscape values.

For specific guidance on plant species the designer is initially directed to relevant guidelines provided by the local authority. In the absence of local guidance the designer can refer to the following sections and **Table A-1** and **Table A-2** which outlines plant species suitable for SEQ.

A.2.1.1 Groundcovers

The plant (groundcover) species listed in **Table A-1** have been specifically selected, based on their life histories and physiological and structural characteristics, to meet the functional requirements of swales, buffer strips and bioretention systems (i.e. bioretention swales and bioretention basins). It should be noted that bioretention systems are designed to drain between events either through exfiltration to in-situ soils or through subsurface drainage placed in the base of the system. Some bioretention systems may be lined with geofabric and in this case efficient subsurface drainage is always provided within the lining to maintain free draining aerobic conditions in the filter media. Plant species selected for bioretention systems must therefore be able to tolerate these free draining conditions which result in long dry periods punctuated by very short periods of temporary inundation. Suitable plants species are listed in **Table A-1**. Other species can be used provided they are tolerant of the filter media conditions and have the required features to fulfill the functional roles of the WSUD element. In general, the plant species in **Table A-1** have the following features:

- They are able to tolerate short periods of inundation punctuated by longer dry periods. For bioretention systems these dry periods may be reasonably severe due to the free draining nature (relatively low water holding capacity) of bioretention filter media
- They generally have spreading rather than clumped growth forms.
- They are perennial rather than annual.
- They have deep, fibrous root systems.
- Groundcover plants can be turf, prostrate or tufted.
- Prostrate species would typically be low mat forming stoloniferous or rhizomatous plants.
- Tufted species would typically be rhizomatous plants with simple vertical leaves

Most of the groundcover listed in **Table A-1** are widespread, occurring throughout south-east Queensland. However, alternative locally occurring species that display the required features may be selected to tailor the species list to match the native vegetation associations of the area and to compliment surrounding vegetation communities. Please refer to the local authority for further guidance in this regard.

A.2.1.2 Shrubs and Trees

Shrubs and trees are not a functional requirement within swales, bioretention swales or bioretention basins, but can be integrated to provide amenity, character and landscape value. Planting trees and shrubs in bioretention systems requires the filter media to have a minimum depth of 800mm to avoid root interference with the perforated subsurface drainage pipes. They must also be accompanied by densely planted shade tolerant groundcover species with the characteristics outlined above. Trees and shrubs are to be managed so that the ground cover layer is not out-competed. To avoid over-shading, trees and shrubs should be planted at low densities. Periodic thinning of the upper vegetation layers may also be required. In general, tree and shrub species that can be incorporated into bioretention systems have the following general features:

- Trees need to be able to tolerate short periods of inundation punctuated by longer dry periods. These dry periods may be reasonably severe due to the free draining nature (relatively low water holding capacity) of bioretention filter media
- They need to have relatively sparse canopies to allow light penetration to support dense groundcover vegetation
- Have shallow root systems and root systems that are not known to be adventurous 'water seekers' to reduce the risk of root intrusion into subsurface drainage pipes
- Trees must not be deciduous
- Preferably native and occur naturally in the local area

The shrubs and trees listed in **Table A-2** are recommended as they display the above features.

Most of the shrub and tree species listed in **Table A-2** are widespread, occurring throughout south-east Queensland. However, alternative locally occurring species that display the required features may be selected to tailor the species list to match the native vegetation associations of the area and to compliment surrounding vegetation communities. Please refer to the local authority for further guidance in this regard.

A.2.2 Plant Species Selection

Well established uniform groundcover vegetation is crucial to the successful operation of swale and bioretention system treatment elements. As a result, plant species selection needs to consider both the aesthetic and functional requirements.

When selecting plant species from **Table A-1**, consideration must be given to the following factors:

- other WSUD objectives such as landscape, aesthetics, biodiversity, conservation and ecological value
- region, climate, soil type and other abiotic factors
- roughness of the channel (Manning's n roughness factor) (for swales)
- extended detention depth (for bioretention systems).

Typical heights of each plant species and comments relating to shade and salt tolerances and soil moisture requirements are provided in **Table A-1** and will help with the selection process. The low growing and lawn species are suitable for swale elements that require a low hydraulic roughness. The treatment performance of bioretention systems, in particular, requires dense vegetation to a height equal to that of the extended detention depth. Therefore, a system with a 300 mm extended detention depth should have vegetation that will grow to at least 300 mm high. Turf is not considered to be suitable vegetation for bioretention basins. The stem is not grow high enough and the root structure of turf is not suitably robust to ensure the surface of the bioretention filter media is continuously broken up to prevent clogging.

Included in **Table A-1** is a recommended planting density for each plant species. The groundcover planting densities should ensure that 70-80 % cover is achieved after two growing seasons (2 years) given adequate irrigation and weed control. These high densities are required to ensure runoff does not establish preferential flow paths around the plants and erode the swale/ bioretention surface. High density planting is also required to ensure a uniform root zone, which is particularly important in bioretention systems, and reduces maintenance costs associated with weed control.

If prostrate shrubs that form scrambling thickets are used (in place of or in conjunction with the plant species in **Table A-1**) they should be planted at high densities (8-10 plants/m²) and may require pruning to ensure even plant cover and to maintain an even root distribution below ground.

A.2.3 Vegetation Establishment and Maintenance

Swales, buffer strips and bioretention basins are living systems and require two years of establishment before the vegetation matures and reaches fully functional form. During this establishment period, regular site monitoring and maintenance is critical to the success of these systems. In addition, specific requirements for plant stock sourcing, topsoil selection and testing and vegetation establishment, as detailed in the relevant WSUD element chapters, are necessary to maximise successful vegetation establishment and system treatment performance. Particular reference is made to the sections titled 'Landscape Design Notes', 'Maintenance Requirements' and 'Construction and Establishment' for guidance on vegetation establishment and maintenance procedures. The 'Construction and Establishment' section also details a staged implementation approach by which the functional elements of the WSUD system are protected from building site runoff and associated sedimentation, weeds and litter during the building phase.

Table A-1: Groundcover plant species list for swales (incorporating buffer strips), bioretention swales and bioretention basins

Scientific Name	Common Name	Form	Height (mm)	Planting Density ¹ (Qty/m ²)	Comments
<i>Cynodon dactylon</i>	Couch	Turf	50-150	Seeded or rolled	Mowing required to achieve smaller heights
<i>Digitaria didactyla</i>	Blue Couch	Turf	50-150	Seeded or rolled	Mowing required to achieve smaller heights
<i>Paspalum distichum</i>	Water Couch	Turf	To 500	Seeded or rolled	Not suitable for sandy soils with low water holding capacity
<i>Paspalum vaginatum</i> cv 'Saltene'	Salt Water Couch	Turf	To 500	Seeded or rolled	Salt tolerant
<i>Sporobolus virginicus</i>	Marine Couch	Turf	To 400	Seeded or rolled	Salt tolerant
<i>Stenotaphrum secundatum</i>	Buffalo	Turf	50-150	Seeded or rolled	Mowing required to achieve smaller heights
<i>Bacopa monnieri</i>	Bacopa	Prostrate	100	6-8	Not suitable for sandy soils with low water holding capacity
<i>Myoporum parvifolium</i>	Creeping Boobialla	Prostrate	150	4-6	
<i>Baumea teretifolia</i>		Tufted	300-1000	6-8	Not suitable for sandy soils with low water holding capacity
<i>Carex appressa</i>	Tall Sedge	Tufted	1000	6-8	Not suitable for sandy soils with low water holding capacity
<i>Carex fascicularis</i>	Tassel Sedge	Tufted	1000	6-8	Not suitable for sandy soils with low water holding capacity
<i>Carex gaudichaudiana</i>	Tufted Sedge	Tufted	600	6-8	Not suitable for sandy soils with low water holding capacity
<i>Carex polyantha</i>	Creek Sedge	Tufted	To 900	6-8	Not suitable for sandy soils with low water holding capacity
<i>Carex pumila</i>	Coastal Sedge	Tufted	250	8-10	Salt tolerant
<i>Cymbopogon refractus</i>	Barbed Wire Grass	Tufted	300	8-10	
<i>Cyperus gunnii</i>	Flecked Flat-sedge	Tufted	1000	6-8	Not suitable for sandy soils with low water holding capacity
<i>Cyperus polystachyos</i>	Bunchy Sedge	Tufted	600	6-8	
<i>Dianella brevipedunculata</i>	Flax Lily	Tufted	500	4-6	
<i>Dianella caerulea</i> cv 'Breeze'	Blue Flax-lily	Tufted	600	4-6	
<i>Dianella caerulea</i> cv 'Little Jess'	Blue Flax-lily	Tufted	400	4-6	Shade tolerant
<i>Dianella longifolia</i> var. <i>longifolia</i>	Pale Flax-lily	Tufted	300-800	6-8	Shade tolerant
<i>Dianella tasmanica</i>	Tasman Flax-lily	Tufted	1500	4-6	Shade tolerant
<i>Dichelachne crinita</i>	Long Haired Plume Grass	Tufted	200	6-8	
<i>Dietes bicolor</i>	Dietes	Tufted	1000	4-6	Exotic

¹ Planting density indicates the mean number of plants per square metre for the species spatial distribution within the zone. The planting densities recommended are suggested minimums. Any reduction in planting density has the potential to reduce the rate of vegetation establishment, increase the risk of weed invasion, and increase maintenance costs.

Scientific Name	Common Name	Form	Height (mm)	Planting Density ¹ (Qty/m ²)	Comments
<i>Dietes grandiflora</i>	Dietes	Tufted	750	4-6	Exotic
<i>Erograstis elongata</i> cv 'Elvera'	Elvera	Tufted	300	6-8	
<i>Gahnia aspera</i>	Saw Sedge	Tufted	1000	4-6	Not suitable for sandy soils with low water holding capacity
<i>Gahnia sieberiana</i>	Red-fruited Sword Sedge	Tufted	1500-3000	4-6	
<i>Imperata cylindrica</i>	Blady Grass	Tufted	500	6-8	
<i>Fimbristylis nodosa</i> (Syn. <i>Isolepis nodosa</i>)	Knobby Club Rush	Tufted	600	4-6	Salt tolerant, sandy conditions
<i>Juncus kraussii</i>	Sea Rush	Tufted	600-2300	8-10	Salt tolerant
<i>Juncus usitatus</i>	Common Rush	Tufted	500	8-10	
<i>Lepidosperma laterale</i>	Variable Sword Sedge	Tufted	500-1000	6-8	Shade tolerant
<i>Liriope muscari</i> cv 'Evergreen Giant'	Turf Lily	Tufted	500	4-6	Exotic, shade tolerant
<i>Lomandra confertifolia</i> subsp <i>confertifolia</i>	Matting Lomandra	Tufted	300	4-6	Shade tolerant
<i>Lomandra confertifolia</i> subsp <i>pallida</i>	Matt Rush	Tufted	400	4-6	Shade tolerant
<i>Lomandra hystrix</i>	Creek Matt Rush	Tufted	1000	4-6	Shade tolerant
<i>Lomandra longifolia</i> cv 'Katrinus'	Matt Rush	Tufted	1000	4-6	Shade tolerant
<i>Lomandra longifolia</i> cv 'Tanika'	Matt Rush	Tufted	500	4-6	Shade tolerant
<i>Pennisetum alopecuroides</i> *	Swamp Foxtail	Tufted	1000	4-6	Shade tolerant
<i>Pennisetum alopecuroides</i> * cv 'Nafray'	Fountain Grass	Tufted	300-500	6-8	
<i>Poa labillardiere</i> cv 'Eskdale'	Eskdale	Tufted	450	6-8	
<i>Themeda australis</i>	Kangaroo Grass	Tufted	300-500	6-8	
<i>Themeda australis</i> cv 'Mingo'	Mingo	Tufted	200	8-10	

* *Pennisetum alopecuroides* is native to Australia and is not invasive as it has low seed viability and is grown by division. This species is not to be confused with *Pennisetum setaceum* an introduced African variety that has become a weed in Australia.

Table A-2: Shrub and Tree plant species list for swales (incorporating buffer strips), bioretention swales and bioretention basins

Scientific Name	Common Name	Form	Height (mm)	Planting Density ² (Qty/m ²)	Comments
<i>Breynia oblongifolia</i>	False Coffee Bush	Shrub	1.0-2.0	2-4	
<i>Callistemon sieberi</i>	River Bottlebrush	Shrub	3-10	1	Requires moist conditions during establishment but tolerates dry periods once established
<i>Hardenbergia violacea</i>	Purple Coral Pea	Shrub	1.0-3.0	2-4	Scrambling or prostrate, full sun to light shade
<i>Jacksonia scoparia</i>	Dogwood	Shrub	1.0-3.0	2-4	Sunny position
<i>Kunzea ericoides</i>	Burgan	Shrub	2-6	<1	
<i>Leptospermum polygalifolium</i>	Wild May	Shrub	1.0-4.0	2-4	Sunny position
<i>Lomatia silaifolia</i>	Crinkle Bush	Shrub	1.0-2.0	2-4	Partial sun or shade
<i>Myoporum acuminatum</i>	Coastal Boobialla	Shrub	0.5-6.0	2-4	Sun or semi-shade, salt tolerant
<i>Callistemon salignus</i>	White Bottlebrush	Tree	2.0-15.0	1	Full sun to semi-shade
<i>Callistemon sieberi</i>	River Bottlebrush	Shrub	3-10	1	Requires moist conditions during establishment but tolerates dry periods once established
<i>Callistemon viminalis</i>	Weeping Bottle Brush	Tree	5.0-10.0	<1	Requires moist soils during establishment but tolerates dry periods once established
<i>Elaeocarpus obovatus</i>	Hard Quandong	Tree	5.0-30.0	<1	
<i>Eucalyptus camaldulensis</i>	River Red Gum	Tree	12-50	<1	
<i>Eucalyptus ovata</i>	Swamp Gum	Tree	8-30	<1	
<i>Lophostemon confertus</i>	Brush Box	Tree	10-30	<1	
<i>Lophostemon suaveolens</i>	Swamp Box	Tree	5.0-25.0	<1	Sunny position
<i>Melaleuca bracteata</i>	River Tea Tree	Tree	5.0-15.0	<1	Sunny position
<i>Melaleuca linariifolia</i>	Flax-leaf Paperbark	Tree	5.0-10.0	<1	
<i>Melaleuca nodosa</i>	Prickly-leafed Paperbark	Tree	2.0-7.0	2-4	Sunny position
<i>Melaleuca quinquenervia</i>	Broad-leafed Paperbark	Tree	8.0-25.0	<1	
<i>Melaleuca sieberi</i>	Small-leaved Paperbark	Tree	2.0-10.0	<1	

² Planting density indicates the mean number of plants per square metre for the species spatial distribution within the zone. The planting densities recommended are suggested minimums. Any reduction in planting density has the potential to reduce the rate of vegetation establishment, increase the risk of weed invasion, and increase maintenance costs.

A.3 Wetlands and Sedimentation Basins

A.3.1 Required Plant Characteristics

Planting for wetlands and sedimentation basins may consist of two vegetation types:

- Macrophytes and groundcovers for stormwater treatment and erosion protection. The macrophytes are divided further into a range of different zones as outlined in **Table A-3**.
- Shrubbery and trees for screening, shading, character and other landscape values.

For specific guidance on plant species the designer is initially directed to relevant guidelines provided by the local authority. In the absence of local guidance the designer can refer to the following sections and **Table A-3** and **Table A-4** which outlines plant species suitable for SEQ.

A.3.1.1 Macrophytes and Groundcovers

The plant species listed in **Table A-3** have been specifically selected based on their life histories and physiological and structural characteristics, to meet the functional requirements of wetland systems. Plant species suitable for wetlands will also be suitable for edge planting around sedimentation basins at corresponding depth ranges. The following sections address wetlands specifically as they have very defined vegetation requirements for stormwater treatment. This includes consideration of the wetland zone/ depth range, typical extended detention time (typically 48-72 hrs) and extended detention depth (typically 0.25-0.5 m).

Other species can be used to supplement the core species listed in **Table A-3** provided they have the required features to fulfill the functional roles of the wetland zone. Careful consideration of the water depth range and wetland hydrological regime (water depth and inundation period) is also required to assess the suitability of alternate species for constructed wetlands.

In general, the species in **Table A-3** have the following features:

- They grow in water as either submerged or emergent macrophytes, or they grow adjacent to water and tolerate periods of inundation (typically sedge, rush or reed species).
- They generally have spreading rather than clumped growth forms.
- They are perennial rather than annual.
- They generally have rhizomatous growth forms.
- They have fibrous root systems.
- They are generally erect species with simple vertical leaves (e.g. *Juncus spp*, *Baumea spp*).

A.3.1.2 Shrubs and Trees

Shrubs and trees are not a required element of wetlands or sedimentation basins but can be integrated to provide amenity, character and landscape value. Shrubs and trees (generally only planted in the littoral or ephemeral zones) should be accompanied by shade tolerant groundcover species with the above characteristics as an understorey as periodic inundation during extended detention may occur. **Table A-4** provides a list of shrubs and trees that are natives to south-east Queensland and are suitable for planting in the littoral zone (i.e. on the batters) around wetlands and sedimentation basins.

Littoral zone vegetation (as opposed to ephemeral marsh vegetation) is primarily for batter stabilisation, aesthetics and to restrict public access, rather than for stormwater treatment. For this reason, species that do not have all of the above structural features, but fulfill the primary littoral zone requirements (e.g. erosion protection) and landscape objectives may still be acceptable for inclusion in this zone (refer to the 'Landscape Design Notes' section in the relevant WSUD chapter).

A.3.2 Plant Species Selection

Plant species listed in **Table A-3** are recommended as core species for wetland planting. These plant species have been grouped into a wetland macrophyte zone according to their preferred water depth and the hydrologic conditions of the zone.

While individual plant species can have very specific water depth requirements other species can be quite adaptive to growing across various zones over time. It is however, recommended that the suggested zones and plant groups are adhered to for planting purposes. Plant species listed against the shallow marsh and ephemeral marsh wetland zones are equally suitable for edge planting (at equivalent depths) in sedimentation basins. Planting densities recommended should ensure that 70-80 % cover is achieved after two growing seasons (2 years).

Suitable plant species for the batters that surround wetlands and sedimentation basins have also been recommended in **Table A-3**. The batters relate to the berms or embankments around the systems that may extend from the permanent pool water level to (typically) 0.5 m above this design water level (i.e. within the extended detention depth). Plants that have a drier habit should be planted towards the top of batters, whereas those that are adapted to more moist conditions should be planted closer to the water line.

A.3.3 Vegetation Establishment and Maintenance

To maximise the success of plant establishment in wetland macrophyte zones specific procedures are required in site preparation, stock sourcing, vegetation establishment and maintenance. Reference is to be made to procedures detailed in 'Landscape Design Notes' Chapter 6 as follows:

- Sourcing plant stock (6.5.3)
 - Lead times for ordering plants
 - Recommended planting systems/ products
- Topsoil specification and preparation 6.5.4)
 - Sourcing, testing and amendment
 - Top soil treatments (e.g. gypsum, lime, fertiliser)
- Vegetation establishment (6.5.5)
 - Weed control
 - Watering
 - Water level manipulation

Constructed wetlands are living systems and they require two years of establishment before the vegetation matures and reaches fully functional form. During this establishment period, regular site monitoring and maintenance is critical to the success of these systems. Reference must also be made to the sections titled 'Maintenance Requirements' (Section 6.6) and 'Construction and Establishment' (Section 6.5) for guidance on maintenance procedures and vegetation establishment.

Similarly, the vegetation planted in sedimentation basins require an equivalent vegetation establishment period (i.e. 2 years) and level of attention to site preparation, stock sourcing, vegetation establishment and maintenance to ensure success. Reference must be made to the sections entitled 'Landscape Design Notes', 'Maintenance Requirements' and 'Construction and Establishment' in Chapter 4.

Table A-3: Macrophyte and Groundcover Plant Species List for Wetlands and Sedimentation BasinsKey to **Table A-3:**

Zone		Depth*(m)	Form	
P	Pool	1.5 – 0.5	S	Submerged macrophytes
DM	Deep Marsh	0.5 – 0.35	M	Emergent macrophytes
M	Marsh	0.35 – 0.2	G	Groundcover
SM	Shallow Marsh	0.2 - 0	T	Tufted
EM	Ephemeral Marsh	0 – +0.2**		
B	Batters	+0.2 - +0.5**		

* 'Depth' refers to depth below permanent pool water level

** '+' denotes levels above permanent pool water level

Scientific name	Common name	Zone	Form	Height (mm)	Planting Density ³ (Qty/m ²)	Comments
<i>Myriophyllum papillosum</i>	Common Water-milfoil	P	S	To 200	1	
<i>Myriophyllum verrucosum</i>	Red Water-milfoil	P	S	100-1500	1	
<i>Potamogeton crispus</i>	Curly Pondweed	P	S	To 4500	1	Growth can be dense
<i>Potamogeton ochreatus</i>	Blunt Pondweed	P	S	To 4500	1	Rapid growth; aesthetic; seasonal; salt tolerant (2000 ppm)
<i>Vallisneria gigantea</i>	Ribbonweed	P	S	To 3000	1	Rapid growth; salt tolerant (1500 ppm)
<i>Vallisneria spiralis</i>	Eel Weed	P	S	150-300	1	
<i>Baumea articulata</i>	Jointed Twig-rush	DM	M	1000-2000	6-8	Slow growth, plant solo
<i>Bolboschoenus fluviatilis</i>	Marsh Club-rush	DM	M	1000-2000	4-6	Plant solo, flow resistant
<i>Eleocharis sphacelata</i>	Tall Spike-rush	DM	M	500-2000	6-8	Plant solo, rhizomes can restrict growth of other plants; slow establishment, flow resistant
<i>Schoenoplectus litoralis</i>	Shore Club-rush	DM	M	600-1500	4-6	
<i>Schoenoplectus validus</i>	River Club-rush	DM	M	600-1600	4-6	
<i>Baumea arthropphylla</i>	Fine Twig-rush	M	M	300-1300	6-8	Spreads quickly
<i>Baumea rubiginosa</i>	Soft Twig-rush	M	M	300-1000	6-8	Can be slow to establish
<i>Bolboschoenus caldwellii</i>	Sea Club-rush	M	M	300-900	4-6	Rapid establishment, salt tolerant
<i>Lepironia articulata</i>	Grey Rush	M	M	600-2300	4-6	
<i>Schoenoplectus mucronatus</i>	Star Club-rush	M	M	350-1000	4-6	Shade tolerant
<i>Triglochin procerum</i>	Water-ribbon	M	M	200-500	4-6	Aesthetic; spreading
<i>Baumea juncea</i>	Bare Twig-rush	SM	T	300-1000	8-10	Slow establishment

³ Planting density indicates the mean number of plants per square metre for the species spatial distribution within the zone. The planting densities recommended are suggested minimums. Any reduction in planting density has the potential to reduce the rate of vegetation establishment, increase the risk of weed invasion, and increase maintenance costs.

Scientific name	Common name	Zone	Form	Height (mm)	Planting Density ³ (Qty/m ²)	Comments
<i>Carex fascicularis</i>	Tassel Sedge	SM	M	500-1000	6-8	Aesthetic
<i>Carex gaudichadiana</i>	Tufted sedge	SM	M	100-600	6-8	Aesthetic; tolerates drawdown
<i>Cyperus exaltatus</i>	Giant Sedge	SM	M	1000-2000	4-6	Short lived
<i>Eleocharis acuta</i>	Common Spike-rush	SM	M	300-900	6-8	High surface area
<i>Eleocharis dulcis</i>	Chinese Water Chestnut	SM	M	To 1500	6-8	
<i>Eleocharis equisetina</i>	Spike-rush	SM	M	500-1000	6-8	
<i>Eleocharis pusilla</i>	Small Spike-rush	SM	T	To 250	6-10	Readily grown
<i>Ficinia nodosa</i> (syn. <i>Isolepis nodosa</i>)	Knobby Club-rush	SM	M	500-1500	6-8	
<i>Isolepis inundata</i>	Swamp Club-rush	SM	M	To 300	6-8	High surface area; rapid growth
<i>Juncus subsecundus</i>	Finger Rush	SM	M	500-1000	8-10	
<i>Juncus usitatus</i>	Common Rush	SM	M	300-1200	8-10	Rapid growth
<i>Phylidrium lanuginosum</i>	Woolly Water Lily	SM	T	500-1000	6-8	Aesthetic
<i>Restio pallens</i>	Cord Rush	SM	M	500-1000	8-10	
<i>Restio tetraphyllus</i>	Tassel Cord-rush	SM	M	500-1500	6-8	
<i>Carex appressa</i>	Tall Sedge	EM	M	500-1200	4-8	High surface area
<i>Carex inversa</i>	Knob Sedge	EM	M	100-300	8-10	Rapid establishment
<i>Carex polyantha</i>	Creek Sedge	EM	M	To 900	6-8	
<i>Cyperus gunnii</i>	Flecked Flat Sedge	EM	M	600-1000	6-8	High surface area
<i>Juncus flavidus</i>	Yellow Rush	EM	M	400-1200	8-10	Aesthetic
<i>Juncus prismatocarpus</i>	Branching Rush	EM	M	300-600	6-8	
<i>Lepidosperma laterale</i> var. <i>laterale</i>	Variable Sword-sedge	EM	M	400-900	6-8	Shade tolerant
<i>Lepidosperma longitudinale</i>	Common Sword-sedge	EM	M	600-1700	6-8	Aesthetic
<i>Carex breviculmis</i>	Short-stem sedge	B	T	To 150	6-8	Very adaptable
<i>Carex pumila</i>	Coastal Sedge	B	T	100-250	8-10	Salt tolerant, drought tolerant
<i>Cyperus polystachyos</i>	Bunchy Sedge	B	T	To 600	6-8	
<i>Dianella longifolia</i> var. <i>longifolia</i>	Pale Flax-lily	B	T	300-800	6-8	Aesthetic; shade tolerant
<i>Gahnia clarkei</i>	Tall Saw-sedge	B	T	1500-2500	4-6	Plant solo
<i>Gahnia siberiana</i>	Red-fruited Sword Sedge	B	T	1500-3000	4-6	Aesthetic
<i>Lomandra filiformis</i> spp. <i>filiformis</i>	Wattle Mat-rush	B	T	150-500	6-8	Shade tolerant when established
<i>Lomandra longifolia</i> var. <i>longifolia</i>	Spiny-headed Mat Rush	B	T	500-1000	4-6	Shade tolerant
<i>Poa labillardieri</i>	Tussock Grass	B	T	300-1200	6-8	
<i>Schoenus apogon</i>	Common Bog-rush	B	G	To 300	8-10	
<i>Viola hederacea</i>	Native Violet	B	G	To 150	2-4	Rapid growth; aesthetic; prolific growth once established

Table A-4: Shrub and Tree Plant Species List for Wetlands and Sedimentation Basins

Scientific name	Common name	Zone	Form	Height (mm)	Planting Density ⁴ (Qty/m ²)	Comments
<i>Callistemon sieberi</i>	River Bottlebrush	B	Shrub	3-10	1	Very wet to moist conditions in heavy clay soils, tolerates dry conditions once established
<i>Banksia robur</i>	Swamp Banksia	B	Shrub	1-1.5	2-4	Moist soils on coastal sand and peat soils
<i>Leptospermum liversidgei</i>		B	Shrub	1.0-3.0	2-4	Moist soil, sunny position
<i>Myoporum acuminatum</i>	Coastal Boobialla	B	Shrub	0.5-6.0	2-4	Sun or semi-shade, salt tolerant
<i>Callistemon salignus</i>	White Bottlebrush	B	Tree	2.0-15.0	1	Moist sandy and alluvial soils, full sun to semi-shade
<i>Callistemon viminalis</i>	Weeping Bottle Brush	B	Tree	5.0-10.0	<1	Moist, medium to heavy soils, tolerates dry periods once established
<i>Casuarina cunninghamiana</i>	River She-oak	B	Tree	10-35	<1	
<i>Elaeocarpus obovatus</i>	Hard Quandong	B	Tree	5.0-30.0	<1	Moist soils, tolerates water logged soils, hardy and fast growing
<i>Eucalyptus camaldulensis</i>	River Red Gum	B	Tree	12-50	<1	Damp alluvial soils, tolerates inundation and very dry periods once established
<i>Eucalyptus ovata</i>	Swamp Gum	B	Tree	8-30	<1	Moist soils, tolerates inundation and dry periods
<i>Lophostemon confertus</i>	Brush Box	B	Tree	10-30	<1	Moist deep alluvial clay soils or moist sandy soils
<i>Lophostemon suaveolens</i>	Swamp Box	B	Tree	5.0-25.0	<1	Moist sandy soils
<i>Melaleuca bracteata</i>	River Tea Tree	B	Tree	5.0-15.0	<1	Moist, free draining soils
<i>Melaleuca linariifolia</i>	Flax-leaf Paperbark	B	Tree	5.0-10.0	<1	Moist sandy soils and swampy areas
<i>Melaleuca nodosa</i>	Prickly-leafed Paperbark	B	Tree	2.0-7.0	2-4	Deep sands and moist sandy soils
<i>Melaleuca quinquenervia</i>	Broad-leafed Paperbark	B	Tree	8.0-25.0	<1	Very moist sands and alluvial soils, tolerates inundation
<i>Melaleuca sieberi</i>	Small-leaved Paperbark	B	Tree	2.0-10.0	<1	Moist sandy or poorly drained soil

⁴ Planting density indicates the mean number of plants per square metre for the species spatial distribution within the zone. The planting densities recommended are suggested minimums. Any reduction in planting density has the potential to reduce the rate of vegetation establishment, increase the risk of weed invasion, and increase maintenance costs.

A.4 References

BCC 2005, Growing Native Plants in Brisbane, BCC, Brisbane, accessed 25th July 2005, http://www.brisbane.qld.gov.au/BCC:STANDARD::pc=PC_1927

BCC, DMR & PRSC (Brisbane City Council, Queensland Department of Main Roads & Pine Rivers Shire Council) 2001, Preferred Species Manual: Green Routes Program, prepared for the Green Routes Program by BCC, DMR & PRSC, Brisbane

Appendix E – Stormwater Calculation printouts

Stormwater detention Basin using Basha 1994 QUDM		Detention Basin Sizing sheet									
		Job Description: Christensen Road Yatala						Job Number:		12041	
Catchment Area (ha)	2.965										
		Rainfall Intensities (mm/hr)									
	Time (min)	Q-1	Q-2	Q-5	Q-10	Q-20	Q-50	Q-100	1hr I 10yr	fi	C10
Pre Catchment	12	89.96	113.68	139.2	153.6	173.4	199.2	219	67.2	10.00	0.66
Post Catchment	6	116	147	179	197	222	255	280	67.2	85.00	0.87
Coefficient of Discharge Pre		0.53	0.56	0.63	0.66	0.69	0.76	0.79			
Coefficient of Discharge Post		0.70	0.74	0.83	0.87	0.91	0.99	0.99			
Q Pre		391.2	525.3	718.8	834.9	989.7	1245.2	1428.5			
Q Post		665.0	895.3	1218.5	1411.6	1670.3	2079.2	2283.1			
	Vs	211.26	285.79	385.33	444.43	524.29	640.78	649.23	Adopt Detention Size		m ³
	Vi	638.35	859.51	1169.74	1355.12	1603.45	1996.04	2191.73			
	Qo	0.391	0.525	0.719	0.835	0.990	1.245	1.429	650		
	Qi	0.665	0.895	1.218	1.412	1.670	2.079	2.283			
	r	0.412	0.413	0.410	0.409	0.407	0.401	0.374			
	Vs / Vi	0.331	0.333	0.329	0.328	0.327	0.321	0.296			
	Vi	638.35	859.51	1169.74	1355.12	1603.45	1996.04	2191.73			
	Vs	211.26	285.79	385.33	444.43	524.29	640.78	649.23			

Intensity-Frequency-Duration Table

Location: 27.750S 153.250E NEAR.. Christensen Road Stayplton Issued: 21/11/2012

Rainfall intensity in mm/h for various durations and Average Recurrence Interval

Average Recurrence Interval

Duration	1 YEAR	2 YEARS	5 YEARS	10 YEARS	20 YEARS	50 YEARS	100 YEARS
5Mins	124	157	191	210	236	271	297
6Mins	116	147	179	197	222	255	280
10Mins	95.0	120	147	162	183	210	231
20Mins	69.8	88.4	108	120	135	156	171
30Mins	56.9	72.2	88.7	98.0	111	128	141
1Hr	38.4	48.9	60.5	67.2	76.3	88.2	97.3
2Hrs	24.6	31.5	39.4	43.9	50.2	58.3	64.5
3Hrs	18.7	23.9	30.2	33.8	38.7	45.2	50.1
6Hrs	11.6	14.9	19.1	21.5	24.8	29.1	32.4
12Hrs	7.37	9.54	12.4	14.0	16.3	19.2	21.6
24Hrs	4.86	6.33	8.35	9.57	11.2	13.3	15.0
48Hrs	3.22	4.23	5.69	6.61	7.78	9.39	10.6
72Hrs	2.43	3.21	4.37	5.12	6.06	7.36	8.38

(Raw data: 49.47, 9.51, 3.23, 87.26, 18.73, 7.23, skew=0.08, F2=4.4, F50=17.22)

© Australian Government, Bureau of Meteorology

Appendix E: Correspondence with Gold Coast City Council re: RiskSmart applicability

Paul Creighton

From: POTTER Kylie <KPOTTER@goldcoast.qld.gov.au>
Sent: Wednesday, 21 November 2012 11:39 AM
To: Chris Austin
Subject: FW: Our Ref: 1396. Risk Smart - Industry. 84 Christensen Road, Yatala (Lot 334 on SP193431)

Hi Chris

Please see email below.

Kind regards

Kylie Potter

DART Team Leader - Implementation & Assessment
PE&T
for the Chief Executive Officer

Gold Coast City Council

Ph: 07 5582 9045
PO Box 5042 GCMC 9729
www.goldcoastcity.com.au

Gold Coast City Council - confidential communication

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From: SHARPE Roger
Sent: Monday, 19 November 2012 9:32
To: CHERRINGTON Wiremu
Cc: POTTER Kylie
Subject: RE: Our Ref: 1396. Risk Smart - Industry. 84 Christensen Road, Yatala (Lot 334 on SP193431)

Will
As discussed
We are now both fine with height and happy for this to be assessed under Risksmart
Rog

From: POTTER Kylie
Sent: Tuesday, 13 November 2012 14:44
To: CHERRINGTON Wiremu
Subject: FW: Our Ref: 1396. Risk Smart - Industry. 84 Christensen Road, Yatala (Lot 334 on SP193431)

Hey Will

Do you think this Industry can be lodged as a Risksmart

Thanks

Kylie

From: Chris Austin [mailto:caustin@gassman.com.au]
Sent: Tuesday, 13 November 2012 11:14
To: DART
Cc: David Hansen
Subject: Our Ref: 1396. Risk Smart - Industry. 84 Christensen Road, Yatala (Lot 334 on SP193431)

13/11/2012

Dear Sir/Madam,

We represent our client, Burnside Developments Pty Ltd and Yellowstone Developments Pty Ltd, who are have requested we do some initial investigations in to the potential to lodge a RiskSmart development application over the subject site (84 Christensen Road, Yatala).

The site has been subject to a number of industrial/warehouse/transport approval, with parcels separated as part of lease agreements. The intent is to continue this as part of the delivery of this project. At present, the concept involves the provision of a 10,000m² industrial building, with ancillary office space (500m²), internal circulation for vehicles, and other relevant facilities to underpin the use (staff rec areas, pump rooms, loading areas etc).

We have reviewed the RiskSmart criteria, and found that there are a few areas that may not allow the proposal to be assessed as a RiskSmart application. However, we note that previous correspondence with Council regarding development has allowed the relaxation of some RiskSmart criteria; as such, we would like to see clarification as to whether the following criteria can be relaxed, or if the project will require a code assessable application to be submitted:

- **Question 7 – Site Area**
 - The subject site exceeds 4000m² (site area = 33,183m² for Building 9 lease area).
 - Previous projects have been allowed to take place within the local area with greater site areas – as such, we would request confirmation as to whether this excludes the project from being assessed under RiskSmart
- **Question 14 – Bushfire Hazard**
 - Overlay mapping shows medium bushfire hazard vegetation to the north of the nominated lease area for building 9 (the project);
 - RiskSmart requires a bushfire management plan – however this seems excessive given the site has no vegetation and the development history;
 - Comment regarding this criteria is requested.
- **Question 15 – Waterway**
 - The subject site adjoins Sandy Creek (southern boundary);
 - Previous agreements on site between the application and Council have nominated a buffer area to which building will not take place. The proposal will not build within this area;
 - We would request confirmation from Council as to whether this would affect the proposal's ability to be assessed under RiskSmart.
- **Question 23 – Open Space**
 - As stated above, part of the subject site is within the open space precinct however all components will be located outside of this area;

- o Given that the open space area will not be affected, we would request confirmation as to whether this would exclude the application from RiskSmart.
- **Question 31 – Car Parking Spaces**
 - o The proposal incorporates 112 spaces to satisfy AS16.1 of the Car Parking, Access and Transport Integration Code;
 - o The maximum car parking spaces to be assessed is 100 (exceedence of 12 spaces by the proposal). Would Council consider relaxing this, given the minor exceedence?
- **Question 39 – Maximum building Height**
 - o The maximum building height under RiskSmart is 11.5 metres. The proposed development has a roof height of 13.5 metres;
 - o We would request confirmation from Council as to whether this would affect the proposal's ability to be assessed under RiskSmart,

We would appreciate feedback regarding the proposed development, at your earliest convenience.

If you have any queries or require any further information, please contact myself or David Hansen of this office.

Kind Regards,

Chris Austin | Town Planner BUD(URP) (Hons), MPIA

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Gold Coast & Logan | 76 Business Street, Yatala QLD 4207 | PO Box 392, Beenleigh QLD 4207

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Appendix F: GCCC Infrastructure Charge Calculation

07/12/2012
Mrs Anne Lambert
Nerang
(07) 5582 8052

PN307555/16

MS PROJECTS PTY LTD
C/- GASSMAN DEVELOPMENT
PERSPECTIVES
GPO BOX 999
BRISBANE QLD 4000



Dear Sir/Madam

INFRASTRUCTURE CHARGE ESTIMATION

APPLICATION NUMBER: **PN307555/16** - RPD: **LOT334 SP193431**

SITE ADDRESS: **84 - 160 CHRISTENSEN ROAD SOUTH STAPYLTON**

I wish to advise that based on the information supplied, Infrastructure Charges for the above site have been estimated as at the date hereof as follows:

TOTAL PAYABLE PRIOR TO USE COMMENCING OR FINAL PLUMBING INSPECTION, WHICHEVER OCCURS FIRST	\$777,000.00
+ ANNUAL ADJUSTMENTS AND/OR REVIEWS	

The above charges are intended for estimation purposes only and may be subject to periodic rate review and changes in policy and legislation.

Please note that this estimate in no way infers approval or Gold Coast City Council's endorsement of the proposal.

Contacting us

Should you wish to clarify any issues contained in the above letter, please do not hesitate to contact the Developer Contribution Group on Ph: (07) 5582 8052, between 8.00am and 5.00pm Monday to Friday.

Yours faithfully

David Lohoar
SUPERVISOR DEVELOPER CONTRIBUTIONS
For the Chief Executive Officer



INFRASTRUCTURE CHARGE ESTIMATION

Friday, 07 December 2012

Application	PN307555/16
Site Address:	84 - 160 CHRISTENSEN ROAD SOUTH , STAPYLTON
Application No. & code	435 EST
Application Description	WAREHOUSE
Officer Name:	Anne Lambert

Adopted Infrastructure Charge Calculation

Charge Calculation

	Qty			Rate	Gross Charge Amount
Industry	10,500	sq m Gross Floor Area	@	\$50.00	\$525,000.00
					\$525,000.00

	Qty			Rate	Gross Charge Amount
Proposed Impervious Area	2.52	Hectares	@	\$100,000.00	\$252,000.00
					\$252,000.00

Net Charge Summary

Gross Charge Amount	Applied Credit Amount	Net Charge Amount
\$777,000.00	\$.00	\$777,000.00