OUR REF: 1292 - GS

28th of May, 2012

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

Dear Sir / Madam,

RE: DEVELOPMENT PERMIT FOR MATERIAL CHANGE OF USE FOR INDUSTRY (OFFICE) AND A DEVELOPMENT PERMIT FOR MATERIAL CHANGE OF USE FOR WAREHOUSE (ANCILLARY TO INDUSTRY).

Please find enclosed our clients application for an impact assessable material change in use for industry and warehouse at 82 Christensen Road, Staplyton, formally known as Lease A, Lot 240 on W31320.

Please find attached to this correspondence the following:

1. IDAS Forms 1 / 5;
2. IDAS Checklists 1 / 2;
3. GCCC Application for a Material Change of Use (MCU) and/or Reconfiguring of Lot (ROL) Form;
4. GCCC Adopted Infrastructure Charge Proposal Summary;
5. Title Search;
6. Owners consent declaration;
7. Three (3) copies of the Town Planning Report prepared by this office and dated May 2012;
8. Plans and drawings including
    a. Site analysis plan;
    b. Site proposal plan;
    c. Proposed indicative elevations.
9. Landscape intent plan;
10. Site Based Stormwater Management Plan and services report prepared by i3 consulting;
11. Traffic Impact Assessment prepared by CRG Traffic and Acoustical Consultants;
12. One (1) CD soft copy of the application;

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13. Our clients payment of $9,318.00 being the prescribed fees for this application as it involves a material change of use for industry exceeding 200 metres squared and a material change of use for warehousing exceeding 500 metres squared. These fees have been calculated as follows:

Relevant Provision of Fee Schedule	Description	Authority	Fee 2011 - 2012
Material Change of Use			
Industry - more than 200m2	IMPACT	SPA 2009 s260	6,212.00
Warehouse	IMPACT	SPA 2009 s260	6,212.00
SUB TOTAL			12,424.00
Minus Council Multiple Application Discount*			-3,106.00
TOTAL			$9,318.00

***A development application for two or more of the following development types: Material Change of Use, Reconfiguring a Lot, Operational Work**
If a development application for a site includes two or more of the above development types, Council's application fee is the prescribed fee for the development type attracting the highest fee, together with 50% of the prescribed fee for the other development type/s.

The proposed development seeks to strengthen and expand an existing well established industrial use on the subject site by providing a new more efficient administration centre at the front of the site in addition to new warehousing facilities to the rear. The proposed expansion will improve the utilisation of the site by creating a more formal and permeable layout which will cater for the needs of the existing operation as it seeks to grow in the future.

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

.....
GARY SAVINS

PLANNING ASSESSMENT REPORT

Development Permit for a Material Change of Use for Industry (extension to existing industry - office) and Warehouse (associated with industry)

82 Christensen Road, Staplyton, QLD 4207
(Part of Lot 240 on W31320 - Lease A)

Prepared for:
Amgrow Pty Ltd

gassman development perspectives

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

"IMPORTANT NOTE"

We have prepared this report for the sole purposes of Amgrow Pty Ltd ("Client") for the specific purpose of a Development Permit for a Material Change of Use for Industry (extension to existing industry - office), Development Permit for Warehouse (associated with 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.

This report is presented without the assumption of a duty of care to any other person ("Third Party") other than the Client. The report may not contain sufficient information for the purposes of a Third Party or for other uses. Without the prior written consent of Gassman Development Perspectives Pty Ltd:

a) This report may not be relied on by a Third Party; and

b) Gassman Development Perspectives Pty Ltd will not be liable to a Third Party for any loss, damage, liability or claim arising out of or incidental to a Third Party publishing, using or relying on the facts, content, opinions or subject matter contained in this report.

If a Third Party uses or relies on the facts, content, opinions or subject matter contained in this report with or without the consent of Gassman Development Perspectives Pty Ltd, Gassman Development Perspectives Pty Ltd disclaims all risk and the Third Party assumes all risk and releases and indemnifies and agrees to keep indemnified Gassman Development Perspectives Pty Ltd from any loss, damage, claim or liability arising directly or indirectly from the use of or reliance on this report.

In this note, a reference to loss and damage includes past and prospective economic loss, loss of profits, damage to property, injury to any person (including death) costs and expenses incurred in taking measures to prevent, mitigate or rectify any harm, loss of opportunity, legal costs, compensation, interest and any other direct, indirect, consequential or financial or other loss.

GDP Document Control

Originating Office:	Yatala	Job Number:	1292
Physical Address:	Access Business Park	Job Name:	82 Christensen Road
	76 Business Street	Project Manager:	Gary Savins
	Yatala. Q. 4207	Document Title:	Planning
Postal Address:	PO Box 392	Assessment Report	
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Revision / Checking History

No.	Author	Reviewer
1.	Paul Creighton	Gary Savins
2.	Paul Creighton	Brian Gassman

Approval for Issue

Name	Position	Signature	Date
Gary Savins	Senior Town Planner		29/05/12

Final Distribution

Gold Coast City Council	3 hard copies 1 electronic copies
Rod Jones	1 hard copies 1 electronic copies

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1.0 Executive Summary

This application seeks to strengthen and expand the well-established industrial use on site by obtaining a development permit for material change of use for industry (extension to existing industry – office) and warehouse (associated with industrial use). The existing lawful industrial use on site relates to the production and storage of fertilisers.

The development has been divided into three stages; the first will involve the construction of a new office located along Christensen Road to accommodate the administrative functions of the operation and the erection one (1) warehouse located to the rear of the existing building line. The second stage of development will include the construction of one (1) warehouse rear of the existing building line. Finally stage three will incorporate an additional two (2) warehouses to the rear of the structures proposed in stages one and two.

The proposed development will retain and utilise the existing three site ingress / egress points providing access to Christensen Road, with a system of internal access driveways providing access to each component of the proposal. A total of 200 new car parking spaces are proposed to service the new facilities.

The layout of the proposed development is illustrated on concept plan **AR – 1002** contained within **Appendix D** of this report.

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

2.0 Summary Tables

Site Details	
Site Address:	82 Christensen Road, Staplyton, QLD 4207
Real Property Description:	Part of Lot 240 on W31320 (Lease A)
Site Area:	Subject Site (Lease A) = 92,698m² (9.27ha) Lot 240 on W31320 = 532,588m² (53.2588 ha)
Name of Owner(s):	Amgrow Pty Ltd
Local Authority:	Gold Coast City Council
Local Authority Division / Ward:	Division One

Application Details	
Aspect of Development	Industry and Warehouse
Approval Type	Development Permit for a Material Change of Use for Industry (extension to existing Industry – office) and Warehouse (associated with Industry)
Level of Assessment	Impact Assessable
Application Form(s)	IDAS Forms 1 & 5 and Referral Checklist 1 & 2
Public Notification	30 Business Days
Applicant:	Amgrow Pty Ltd. c/o Gassman Development Perspectives PO Box 392 Beenleigh. Q. 4207
Contact Person(s):	Gary Savins
Applicant Reference:	1292

Planning Details	
Regional Plan:	South East Queensland Regional Plan 2009 - 2031
Regional Plan Land Use Designation:	Urban Footprint
Planning Scheme:	Gold Coast City Council Scheme 2003
Local Plan:	Yatala Enterprise Area
Zoning:	Future Industry
Overlays:	OM10 Potential Bushfire Hazard OM11 Nat Wetland and Waterways OM13 Canals and Waterways OM16 Unstable Soils OM20 Conservation Strategy OM20 Conservation Veg Type OM22 Scenic Tourist Routes OM23 Extractive Resources

Proposal Details	
Purpose / Description of Proposal:	Industry
Development Stages Proposed	Yes, three stages of development are proposed
Relevant Period Sought	Consistent with *Sustainable Planning Act 2009*

3.0 Site Information

3.1 Site Location and Description

The subject site is located in a predominantly industrial precinct within the Yatala Enterprise Area. The locality is characterised by industrial / commercial development, with a significant extractive industry to the east and pockets of residential to the north west of the subject site. Whilst the site is directly adjoined by undeveloped land and mature vegetation on three sides, Christensen Road adjoins the sites south western boundary.

The subject site is formally known as Lease A on Lot 240 on W31320. The subject site is improved by three (3) existing structures being two (2) warehouses and one (1) office, in addition to associated smaller outbuildings and structures.

There are two (2) dams located on the subject site; the first is located on the southern boundary of the site while the second is located in the north eastern corner of the site. There is little vegetation of note presently on the subject site (the lease area), formal landscaping has been provided at the site entrance, light vegetation surrounds the southern dam and mature vegetation lines the site boundary. With regards to topography the site falls significantly from the west to the east, as illustrated in drawing 1292 S CD 01 included in **Appendix C.**

Figure 1: Site location

Source: Nearmaps 29/02/12

3.2 Site Characteristics

Site Characteristic	Description
Existing Land Use/s	The site is currently used for industrial purposes for the manufacture and storage of agricultural fertilizers.
Frontage & Access	Lease A has an approximate frontage of 145m to Sandy Creek Road.
Topography & Views	With regards to topography moving from the west to east, the site falls towards the east of the site in the order of 8 meters over a 400 metre distance. Views of the site are generally gained from Christensen Road with three distinct vehicular accesses, the facades of the existing warehouses and landscaping are the most dominant features from this perspective.
Existing Vegetation	There is sparse vegetation on site at present. Over the lease area formal landscaping has been incorporated along the frontage to Christensen Road but beyond this vegetation is primarily restricted to the boundaries of the site.
Contaminated Land	The subject site is not known to be contaminated.
Flooding / Stormwater	The subject site is not identified as being subject to any flooding or stormwater constraints as identified on the Council mapping.
Wetlands	Lease A (the subject site) is not within close proximity to an identified wetland, however the lot on which the subject is enclosed is within close proximity to a significant wetland and therefore referral to DERM will be necessary.
Heritage Areas	The subject site is not identified as being subject to any heritage referrals.
Conservation Areas	The subject site has been identified by the Gold Coast City Planning Scheme as being subject to a conservation zone; however there are no statutory designations over the landholding.

3.3 Surrounding Land Uses

Direction	Land Use
South West	The south west boundary of the site adjoins Christensen Road and beyond that industrial / commercial uses.
East	The eastern boundary of the site adjoins undeveloped land.
North	The northerly boundary of the site adjoins undeveloped land.
East	The easterly boundary of the site adjoins undeveloped land.

3.4 Site Photos

	View of the road frontage looking north west.
	View of creek and vegetation taken from site service road
	View into site from Christensen Road frontage looking north east
	View into site from Christensen Road looking north east

3.5 Site History

Given the established nature of the existing operation on site there are several significant planning applications that are relevant to this application. There is a current preliminary approval application lodged over the entire site with Gold Coast City Council (Ref: **MCU201100650**). This application is to effectively 'bring forward' the industrial uses for the entire site as envisaged by the Yatala Enterprise Area Local Plan. Whilst not being related to this application, the proposed ultimate form of development proposed for Lease A will be 'consistent' with that of the current preliminary approval application.

The existing industrial use on the premises has been established for sometime, a series of planning applications have provided the framework to support the current operation. The relevant town planning history applicable to the subject site is detailed in the table below:

Application Number	Description	Code	Class	File Number	Status	Decision
BLD2708699	INDUSTRIAL	BUILDING	STORAGE/PARKING		COMPLETED (30/06/2008)	APPROVED (30/04/2007) - DELEGATED AUTH DECISION
OPW2700375		OPERATIONAL WORKS	CHANGE TO GROUND LEVEL/CAR PARKING	PN184540/03/DA4	POST ASSESSMENT (12/04/2007)	APPROVED (13/03/2007) - DELEGATED AUTH DECISION

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 for Industry (extension to existing industry - Office);
- Development Permit for Warehousing (associated with industry)

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

4.2 Details

The proposed development will primarily consist of warehousing activity and consists of the following key building elements:

- The construction of four new (4) warehouses;
- The construction of one new (1) office building of two (2) storeys;
- Provision of amenities for employees and clientele;
- Car parking and hardstand areas ancillary to the dominant facilities; and
- Pump shed and sprinkler tanks to service the site.

All access arrangements will be retained as existing, utilising three ingress / egress points located along Christensen Road.

4.3 Staging of Development

The proposed development has been divided into three phases of development in order to cater for the incremental growth of the existing operation whilst also ensuring continued operation during the construction period.

It is important to note that it is the intention of the applicant to scale down the production component of the existing operation in line with the expanded storage capacity as proposed by this application.

The three stages of development are defined as follows:

- **Stage One**: Will include the development of the proposed new office structure along Christensen Road in addition to 'Warehouse C' both of which are identified in drawing AR – 1002, and associated infrastructure;
- **Stage Two**: Will include the development of 'Warehouse D' identified in drawing AR – 1002, and associated infrastructure; and
- **Stage Three**: Will include the development of 'Warehouse E' and 'Warehouse F' identified in drawing AR – 1002, and associated infrastructure.

4.4 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:

Category	Consultant	Title of Document
Architectural Intent	Multispan	Architectural Drawings
Landscaping	Gassman Development Perspectives	Statement of Landscape Intent
Traffic Assessment	Carter Rytenskild Group	Traffic Impact Assessment
Stormwater Management	icubed consulting	Conceptual Site Based Stormwater Management Plan

5.0 State Government Planning Assessment

5.1 The Sustainable Planning Act 2009

5.1.1 Assessable Development Type

The proposed development requires approval for a material change of use for an extension to industry (office) and warehousing. The definitions of the development types are as follows:

Material Change of Use, of premises, means:

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

5.1.2 Assessable Criteria

Section 314 of the *Sustainable Planning Act (SPA 2009)* specifies those matters that must be addressed by the assessment manager as part of any **Impact Assessable** development application. Reference items raised within this section are summarised as follows:

- Relevant State planning regulatory provisions;
- Relevant regional plans;
- Relevant State planning policies;
- Relevant structure plans and/or master plans;
- Any temporary local planning instrument or preliminary approval;
- Relevant planning scheme;
- The common material;
- 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.

5.1.3 Public Advertising

The proposal is for an extension to Industry and Warehousing activity both of which are Impact Assessable. Therefore, the required advertising actions required under section 298 of the *Sustainable Planning Act 2009* will be adhered to.

This involves publicly advertising the proposal in a local newspaper or magazine, placing appropriate signage on site, and notifying the adjoining land owners. The proposal will be advertised for a period of 30 business days, as per section 298 (2) of the *Sustainable Planning Act 2009*.

5.2 State Planning Policies

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

State Planning Policies	Relevance
SPP 1/92: Development and the Conservation of Agricultural Land	Not Applicable –the subject site is not used for agricultural activity.
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	Applicable – Whilst the site is mapped as containing medium bushfire risk areas, the site is completely devoid of all vegetation. In consideration of the hardstand areas which surround the proposed structures on the site and the nature of the concrete construction of the structures, it is considered that the risk of bushfire damage to life and property is small. Therefore, it is considered that a Bushfire Management Plan is not required for the subject site.
SPP 2/07: Protection of Extractive Resources	Not Applicable – the proposed development does not relate to an extractive industry.
SPP 2/10: South East Queensland Koala Conservation	Not Applicable – analysis of koala habitat mapping found that the application did not impact on any designated area.
SPP 3/10: Acceleration of Compliance Assessment	Not Applicable – compliance assessment is not sought as part of this application.
SPP 2/11: Temporary SPP – Planning for Stronger, More Resilient Floodplains	Not Applicable – the subject site is not identified as being subject to any flooding constraints.
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 4/11: Protecting Wetlands of High Ecological Significant 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.
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.

State Regulatory Provisions	Relevance
State Planning Regulatory Provisions	
South East Queensland 2009-2031 (MIWRP 2012-2031)	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 – the subject site is not located within a koala conservation 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 Yeeronpilly 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.
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

Every effort has been made to ensure the accuracy of State referral characteristics. The majority of the following figures highlight both the lot boundary (external) and the subject site boundary (internal) in red in relation to 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.

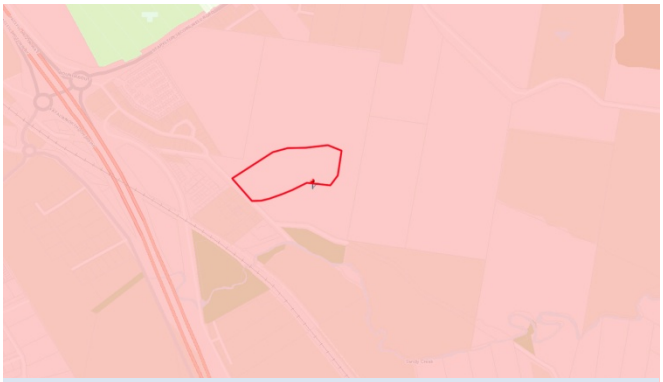

Figure 2 – SEQRP Mapping

Source: Information Atlas 11/04/2012

5.4.2 Existing Significant Vegetation

An inspection of the latest DERM Regional Ecosystem maps indicates there is significant vegetation on the subject site defined as of least concern. Additionally the subject vegetation is defined as an essential habitat.

The identified vegetation is categorised as 'of least concern' and is located along the boundaries of the subject. The proposal relates to development within the existing developed area and therefore will not affect the designated vegetation and therefore referral to DERM is not required.

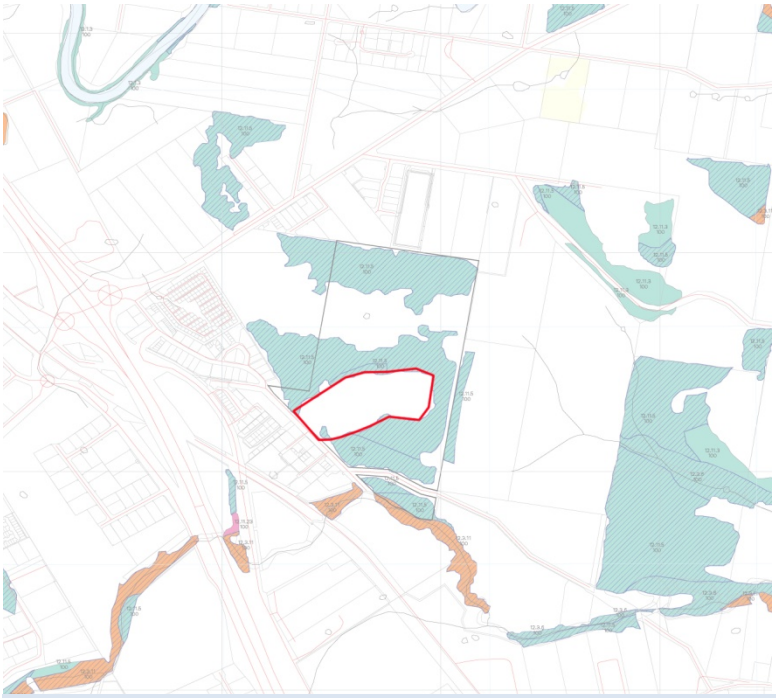

Figure 3 – Regional Ecosystem Mapping
Source: DERM 11/04/2012

5.4.3 Referrable Areas

An inspection of the latest DERM Map of Referrable Areas indicates the site is not located within close proximity to either a:

- Conservation Estate; or
- Heritage Places.

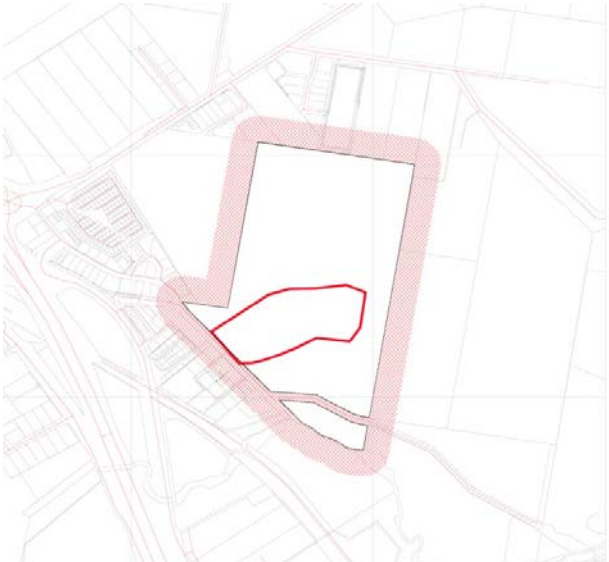

Figure 4 – Referrable Areas Mapping
Source: DERM 11/04/2012

5.4.4 Referrable Wetlands

An inspection of the latest DERM Map of Referrable Wetlands indicates the subject site is not included within a:

- Referrable Wetland; or
- Referrable Wetland Management Area.

However the lot in which the subject site is enclosed does contain land that has been designated as a Referrable Wetland Management Area and therefore will require referral to DERM.

Figure 5 – Referrable Wetlands Mapping
Source: DERM 11/04/2012

Figure 6 – Referrable Wetlands Management Area Mapping
Source: DERM 11/04/2012

5.4.5 Koala Conservation

An inspection of the latest DERM Koala Conservation Mapping indicates there are no koala conservation areas in close proximity to the subject site.

Figure 7 – Koala Conservation
Source: DERM 11/04/2012

5.4.6 Queensland Coastal Plan

An inspection of the Queensland Coastal Plan indicates the site is within the designated Coastal Zone; however it is outside the Coastal Management District (CMD). The proposed development does not correspond with the provision of SPP 3/11 Part B.7 and therefore the development is not applicable to be assessed under SP 3/11 and as the proposal is not within the CMD referral to DERM is not required.

Figure 8 – Queensland Coastal Plan
Source: DERM 10/05/2012

5.4.7 State Controlled Roads

An inspection of the latest Department of Transport and Main Roads State Controlled Roads Mapping indicates that Lot 240 on W31320 is 220 metres from Staplyton – Jacobs Well Road and therefore is outside 100 metres of a State Controlled Road. In this regard the application is not required to be referred to the Department.

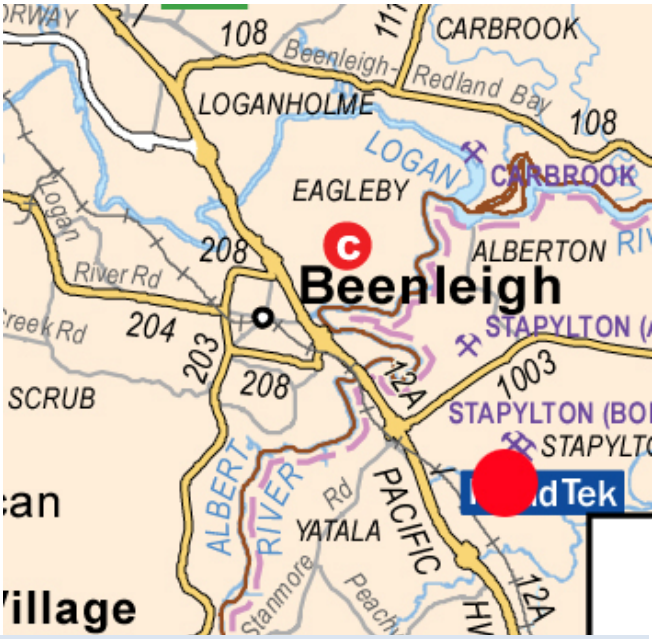

Figure 9 – State Controlled Roads Mapping
Source: DTMR 11/04/2012

5.5 Consolidated List of State Referrals

Identified Referral	Comment
The Department of Environment and Resource Management (DERM)	Referral will be required to DERM due to the Lot 240 on W31320 containing land that is designated as a Referrable Wetland Management Area.

5.6 State Prelodgement Meeting/s

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

6.0 Local Government Planning Assessment

6.1 Definition of Development

The uses proposed as part of this application are defined as “Industry” and “Warehouse” 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”.*

Warehouse is defined under the Planning Scheme as follows:

> ***Warehouse***
>
> *“A building or enclosed land used to store and display goods, merchandise and materials and to sell these only by wholesale. This term does not include a Shop, Showroom, Salvage Yard or Toxic or Dangerous Goods Store”.*

For the purposes of this report, the proposed development has generally been referred to as containing both industrial and warehouse uses.

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 as a 'Future Industry' zone within the precinct designations whilst it is zoned as a 'General Impact Business and Industry' within the ultimate precinct designations. A copy of the zoning plan of this LAP is as contained below:

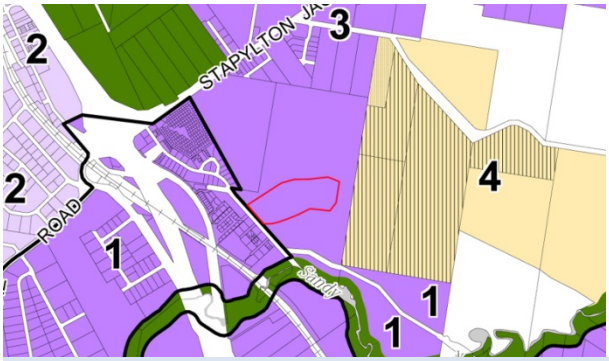

Figure 10: Planning Scheme Zone

Source: Gold Coast City Council 02/03/12

The intent for the Future Business and Industry Precinct (Precinct 3) is to extend the development projected in Precincts 1 and 2, therefore consolidating industrial development within the local area. The plan does not envisage development within Precinct 3 in the short term due to infrastructure deficits but significantly does not prohibit such development as outlined below:

> *"… does not preclude out of sequence business and industry development where the proponent is prepared to pay the full cost to offset the impact of out of sequence development, as determined by Council. This out of sequence development will be assessed by the criteria applicable for either **Precincts 1** or **2**, as determined by the ultimate development scenario illustrated by **Yatala Enterprise Area LAP Map 29.4 – Ultimate Precincts**."*

Whilst the subject site is located within the Future Industry Precinct given that it is an extension to an existing and well established use, it is not considered to represent out of sequence development.

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 uses are industry and warehouse within the future industry precinct (Precinct 3) and are therefore **Impact Assessable**.

6.5 Applicability of Overlays

A property search of the subject site results in the trigger of several overlays relating to the Lot 240 on W31320, 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:

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 existing and 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 (lease area).
OM13 Canals and Waterways	The presence of mapped canal or waterway features relates to the entire lot and not the subject site (lease area).
OM16 Unstable Soils	Mapped locations of unstable soils were not found to be within a relevant distance of the subject site. Further the existing operation has been located on site for sometime and no soil issues have been experienced or reported.
OM20 Conservation Strategy	The proposed application relates to the expansion of an existing operation. 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 expansion of an existing operation. The subject site is almost completely devoid of vegetation and therefore no clearing has been proposed as part of the application.
OM22 Scenic Tourist Routes	The presence of mapped scenic tour routes relates to the entire lot and not the subject site (lease area).
OM23 Extractive Resources	The presence of mapped extractive resources features relates to the entire lot and not the subject site (lease area).

6.6 Applicable Planning Scheme Codes

The table below lists the applicable codes for a material change of use for both Industrial and Warehouse uses in the Future Business and Industry Precinct 3 Zone. All applicable codes are addressed in full in **Appendix B** of this report.

Code	Relevance
Local Area Plan Code	
Yatala Enterprise Area LAP Place Code	Applicable: The subject site is located within Precinct 3 of this LAP. Please refer to detailed assessment contained within Appendix B of this report. This assessment confirms that the proposed development generally complies with the relevant provisions and criteria of this use.
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 a subsequent approval.

Low Rise Commercial Tourist Accommodation	Not Applicable: The proposed development does not include any low rise commercial tourist accommodation component.
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 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	Not Applicable: The proposed application relates to the expansion of an existing operation on the subject site and therefore the provision of infrastructure and services has already been established on site. As a result it is considered that assessment against the 'Works for Infrastructure' is not warranted.

Work Codes

Bushfire Management Areas	Not 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 surround the proposed structures on the site and the construction of the structures, 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 for the subject site.

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 development has been assessed against the car parking code. Please refer to the detailed assessment of this code contained within Appendix B of this report.
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. The application will be referred to DERM in relation to wetland protection; however this is due to the fact that the lot within which the subject site is enclosed is in close proximity to a designated wetland.
Nature Conservation	Not Applicable: The proposed development relates to the expansion of an existing operation on site which is almost completely devoid of vegetation. Therefore it not considered that the nature conservation code is relevant to this application.
Rail Corridor Environs	Not Applicable: The proposed development does not impact on any rail corridor.
Road Traffic Noise Management	Applicable: The proposed development has been assessed against the road traffic management code. Please refer to detailed assessment contained in Appendix B of this report.
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.

6.7 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.

Yatala Enterprise Area Code	
Performance Criteria	**Response**
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.	**PC1: Performance Criteria Compliant** The proposed development includes five (5) new structures that will accommodate the expansion of the existing operation. The size, bulking and height of the proposed structures have been carefully designed in order to ensure they integrate with the surrounding context and long term goals of the Yatala area. The building heights of the proposed structures range from 9.8 metres to 14 metres, however their impact has been significantly reduced by ensuring each structure is carefully sited in terms of their impact on surrounding uses and internal operations. The proposed office structure with its contemporary architecture has been located at the front of the property. The proposed warehouses which are by their nature bulkier and taller have been located behind the existing building in order to mitigate their effect.
PC15 All ground level parking is to be suitably landscaped to provide an attractive and pleasant outlook and shade for parked vehicles, and to contribute towards the quality presentation of new developments.	**PC15 : Acceptable Solution Compliant** The proposed development will seek to utilise formal landscaping to help ground and soften the effect of development on the subject site. In order to comply with the provisions of the Planning Scheme landscaping will be provided to soften the edges of the built form, buffer or screen potentially unsightly features, improve the manner in which property fronts onto Christensen Road and significantly provide shade within designated areas of the development. The landscape intent plan, submitted in support of this application, illustrates how such features will be incorporated within the proposed development. The proposal has incorporated significant parking areas either to the rear of the building line or where necessary short term parking has been provided to the side of structures. Six parking spaces have been included forward of the building line, these spaces will be utilised for short term visits to the subject site.
PC18 Identified conservation areas remain in a substantially undeveloped condition, with vegetation retained to the fullest extent possible and, where necessary, rehabilitated using local native species.	**PC18: Performance Criteria Compliant** The YEA Local Plan has identified a linear conservation area that would seem to run along the northern boundary of the subject site. The development proposed by this application is located within the existing developed area of the subject site and will therefore require no vegetation clearing. In this regard, it is the opinion of this report that the proposed development will not adversely effect the conservation goals of the local area. The proposed design has sought to buffer key boundaries from the surrounding context by incorporating vegetation buffers which will mitigate the impacts of the proposed development on the surrounding area.

Car Parking, Access and Transport Integration Code	
Performance Criteria	**Response**
PC7 Car parking areas must not cause vehicle queues into the frontage road system or encourage drivers to reverse into the road system.	**PC7: Performance Criteria Compliant** The provision of car parking complies with the requirements of the Planning Scheme. Car parking will be designed in compliance with Australian standards in the first instance and subsequently the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application. The detailed design of access driveways, pathways and car parking will all be subject to further approvals and therefore if the council deems it necessary relevant features can be conditioned as part of an approval.
PC8 Car parking areas providing more than 20 car parking spaces must allow for the separation of vehicles and pedestrians.	**PC8: Performance Criteria Compliant** Indicative pedestrian paths have been incorporated into the carpark design as illustrated on the landscape intent plan submitted in support of this application. It is important to note that further development approvals will be required for the detailed design of landscaping on site and therefore council can if they see fit condition the inclusion of certain features on approval.
PC14 Development must provide for the required 'design service vehicle' to service the development.	**PC14: Performance Criteria Compliant** Servicing arrangements have been designed in a manner consistent with the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application. Specifically two key loading areas are to be located to the south of the four new warehouses to the rear that have sufficient manoeuvring areas. For further information please refer to the Traffic Impact Assessment submitted in support of this application.

7.0 Key Matters

Based on the issues identified during the detailed assessment of the proposed development against planning policy and the outcome of the detailed assessment against the applicable codes as contained within the Planning Scheme, the following key matters are considered relevant to the consideration and determination of this development application.

7.1 Sequence of Development

The proposed development is located within Precinct 3 of the YEA Local Area Plan and therefore has the potential to represent out of sequence development as defined by the Plan. It is the considered opinion of this report that given the existing facilities and operations currently located on site that the proposed modifications and enhancements to the established development on site represents an orderly form of development that will aid the consolidation of the local area.

The proposed development will essentially provide for the expansion of an existing commercial operation, allowing a local business to reach its full potential in the long term. The proposed development will improve the utilisation of the subject site, altering the manner in which the site is used from a land 'extensive' to a more land 'intensive' approach, thus consolidating development in what is a strategically significant location. Accommodating such growth is one of the key tenets of the YEA Local Plan allowing the local area to achieve its potential in terms of economic growth.

It is the opinion of this report that the proposed development does not constitute 'out of sequence development' as described by the YEA Local Plan, as it provides for the consolidation of an existing operation and therefore represents orderly development consistent with the aims of the Planning Scheme.

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. Three key design rationales have informed the resulting design each of which will be described in further detail below:

1. *Improving utilisation and efficiency*: The proposal has sought to improve the overall utilisation of the site by incorporating five (5) new structures that will accommodate the expansion of the existing operation on site. The new structures have been located

within the proposed layout in a manner that ensures that the highest levels of permeability are achieved, allowing the operation to function in the most efficient way possible.

2. *Street Presentation*: The proposal includes the development of a new office structure located at the front of the subject site. This new addition will accommodate the majority of the administrative functions of the proposed operations on site. Significantly by siting the new structure in close proximity to Christensen Road, the new contemporary styled structure will provide new definition to the site improving the manner in which the development addresses the street. The structure will also act as a gateway to the operation on site both in a legibility sense and security sense.
3. *Bulking to Rear*: The proposed development has attempted to mitigate the impact of the proposed warehousing structures by locating them to the rear of the existing building line. This strategy will have the effect of obscuring the visual impact of the proposal behind what is already a well-defined street frontage.

7.3 Ingress / Egress Access

The proposed development has been designed in a manner that will incorporate the existing three vehicular access points to service the development. Therefore no alterations will be made to the existing external traffic layout, thus allowing a business as usual capacity for the existing operation during the proposed new development works.

A traffic management report that has been completed as part of this application has determined that the existing access arrangements have sufficient capacity to accommodate the proposed increase in activity. Please see traffic impact report submitted in support of this application for further detail with regards traffic management.

7.4 Car Parking

In order to cater for the increased utilisation of the subject site an increase in the order of 200 car spaces has 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 addition 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 Vegetation Management

Lot 240 on W31320 in which the subject site is enclosed contains what is defined by DERM as 'remnant vegetation that is a least concern regional ecosystem'. It is important to note that due to the fact that the subject site relates to a lease on lot, the exact location of the designated vegetation is difficult to determine, however for the purposes of this report it has been assumed that the subject site does contain identified vegetation.

It is important to note that the significance of 'remnant vegetation that is a least concern regional ecosystem' is relatively minor within the categories of conservation adopted by DERM and therefore given the relatively small proportion of the site that is identified as containing such a designation it is reasonable to suggest such a designation does not constitute a serious obstacle to development.

Consideration should also be given to the fact that the vast majority of the site has already been cleared in accordance with previous approvals and therefore it is highly likely that the subject designations do not represent the current condition of the subject site. Should it be required further ecological analysis could formalise this situation by comparing existing site characteristics with the subject designations.

7.6 Bushfire Management Areas

The subject site is located in close proximity to areas designated as at risk to bushfire, as defined by the Planning Scheme. Whilst the subject site is mapped as containing medium bushfire risk areas, the site is completely devoid of vegetation. In consideration of the hardstand areas which surround the proposed structures on the site and the nature of the concrete construction of the structures, it is considered that the risk of bushfire damage to life and property is negligible. Therefore, it is considered that a Bushfire Management Plan is not required for the subject site.

8.0 Conclusion

The Applicant, Amgrow Pty Ltd, has demonstrated that the proposed Warehousing and Industrial uses are considered generally consistent with the intent and relevant development provisions contained within Gold Coast City Planning Scheme 2003.

The proposed Industrial and Warehousing uses represent a form of development that is:

- Consistent with the State and regional planning provision applicable to the subject site;
- Consistent with the general planning principles in the Planning Scheme;
- Consistent with the planning intent of the Yatala Enterprise Area Local Plan;
- Complies with the Desired Environmental Outcomes of the Yatala Enterprise Area Local Plan;
- Identified as a consistent development within the Yatala Enterprise Local Plan Precinct 3;
- Generally in accordance with the performance criteria of the applicable development codes, with alternative solutions provided; and
- In an ideal and appropriate location where the existing operation has efficiently, sustainably and respectfully operated for some time.

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: IDAS Forms and Consents

FORMS & CONSENTS

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)	**Amgrow Pty Ltd c/o Gassman Development Perspectives**
For companies, contact name	**Gary Savins**
Postal address	**PO Box 392**
Contact phone number	**07 3807 3333**
Mobile number (non-mandatory)	**0433737117**
Fax number (non-mandatory)	
e-mail address (non-mandatory)	**gsavins@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?

- [x] development permit
- [ ] preliminary approval
- [ ] both - provide details below

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

- [x] 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		82	Christensen Road	4207	240	W31320	Gold Coast City Council

- [x] 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)

4.482ha

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

1	Industry

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

Development Permit for a Material Change of Use for Industry (extension to existing industry - office) and Warehouse (associated with industry)

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	William A. Hester and Patricia A. Hester

☒ 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

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 attached 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*.

OFFICE USE ONLY

Date received | Reference numbers

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 240 on W31320	Future Industry	OM10 Potential Bushfire Hazard, OM16 Unstable Soils, OM20 Conservation Strategy and OM20 Conservation Veg Type

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	Development Permit for a Material Change of Use for Industry (extension to existing industry - office) and	Industry		8 - 6	20
2	Development Permit for a Material Change of Use for Warehouse (associated with industry)	Warehouse		As above	0

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 *(relevant land)* • 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	mail
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	over the counter
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	over the counter
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	

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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Date received | Reference numbers

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 *Referral agency responses - IDAS checklist 6* is recommended

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

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

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

Part 5 - Environmentally relevant activity

5.1 Is there a code of environmental compliance under the *Environmental Protection Regulation 2008* for every aspect of each proposed environmentally relevant activity?

☐ No	
☒ Yes	• Go to question 5.3

5.3 Is any part of the environmentally relevant activity intended to be located within a wild river area under the *Wild River Act 2005?*

☒ No	• A development permit is not required for this aspect of the development
☐ Yes	

Section reference:

- *Sustainable Planning Act 2009*, schedule 1, items 2, 9, 10 and 11
- *Sustainable Planning Regulation*, schedule 3, part 1, table 5, items 4 and 5
- *Sustainable Planning Regulation*, schedule 7, table 2, items 1 and 24

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 *Material change of use assessable against a planning scheme - IDAS form 5* • 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 *Contaminated land - IDAS form 24.* • This application requires assessment by the administering authority (either the chief executive administering the *Environmental Protection Act 1994*, 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 *Queensland Heritage Place - IDAS form 3*

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 *Preliminary approval varying the effect of the local planning instrument - IDAS form 31*

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 *Major hazard facility - IDAS form 22.*

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 *Clearing native vegetation --IDAS form 11* • 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 *Clearing native vegetation --IDAS form 11* • 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 *Clearing native vegetation - IDAS form 11* • 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 aplication 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 15 - Contaminated land - industrial activity

15.1 Is the proposed use for child care, educational, recreational or residential purposes (including a caretakers' accomodation on industrial land)?

☒ No	
☐ Yes	• This application requires assessment by the Department of Environment and Resource Management (DERM). If DERM is not your assessment manager for the application, the role of the agency will be as a concurrence agency • You must complete *Contaminated land - IDAS form 24.*

Section reference:

- *Sustainable Planning Regulation 2009*, schedule 3, part 1, table 2, item 8
- *Sustainable Planning Regulation 2009*, schedule 7, table 2, item 23

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 *Sustainable Planning Regulation 2009,* 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 *Integrated Planning Act 1997* (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 *Integrated Planning Act 1997* 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 Sustainable Planning Act 2009 (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 *State Development and Public Works Organisation Act 1971,* section 26(1)(a)	☒No	☐Yes
the premises are completely within a state development area under the *State Development and Public Works Organisation Act 1971*	☒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 *Nature Conservation Act 1992*	☒ No ☐ Yes
a state forest or timber reserve under the *Forestry Act 1959*	☒ No ☐ Yes
a marine park under the *Marine Parks Act 2004*	☒ No ☐ Yes
a recreation area under the *Recreation Area Management Act 2006*	☒ No ☐ Yes
a world heritage area listed under the World Heritage Convention	☒ No ☐ Yes
Brisbane forest park under the *Brisbane Forest Park Act 1977*	☒ 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:

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

Planning Environment & Transport Directorate
Phone: 5582 8708 Facsimile: 5582 3653
PO Box 5042 GOLD COAST MC QLD 9729

Gold Coast City Council

ISO9001
FS560239

Application for a Material Change of Use (MCU) and/or Reconfiguring of Lot (ROL)

Gold Coast City Council is collecting your personal information in accordance with The Sustainable Planning Act 2009 in order to assist with the assessing of 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.

Material Change of Use application	Proposed use	Pre-assessment ☐	Preliminary ☐	Code ☐	Impact ☒
	Development Permit for a Material Change of Use for Industry and Warehouse				
Reconfiguration of Lot application	Proposed use	Pre-assessment ☐	Code ☐	Impact ☐	
	N/A				
	☐ Freehold Subdivision (FRE) ☐ Subdivision by Lease (LE) ☐ Volumetric Subdivision (VOL)	☐ Boundary Realignment (BR) ☐ Access Easement (AE) ☐ Community Title (CT)	☐ Management Lot Subdivision (MAG) ☐ Miscellaneous (MIS)		

☐ **Pre-assessment request**
- For pre-assessment applications, please refer to Council's website for more information. http://www.goldcoast.qld.gov.au/t_standard2.aspx?pid=286#development

☒ **Pre-assessment exemption certificate provided**

☐ **Prelodgement meeting held?** **Yes** ☐ **No** ☒ **If yes, please attach minutes**

Refer to the checklist below for information that is required for your application to be considered 'well made'. A well made application is one that provides as much detail as possible on which the Assessment Manager will base a decision.

Note: Combined Material Change of Use, Reconfiguration of Lot and Operational Works applications should address all requirements where relevant.

Correct versions of these forms must be provided to be considered a properly made application		**Provided** ☑
Mandatory requirements for a 'Properly Made' application *Refer to Section 260 of the Sustainable Planning Act 2009*		
The property owner(s) provide written consent to the making of the application (owners consent)		☒
Correct application fee as prescribed by current Council budget		☒
All parts of relevant IDAS application forms completed. Ensuring that all completed IDAS forms are the current version number		☒
① **Forms** Relevant SPA IDAS Forms – *Mandatory Requirement*	Application details – IDAS Form 1	☒
	Material Change of Use assessable against a planning scheme – IDAS Form 5 And/or Reconfiguring a Lot – IDAS Form 7	☒ ☐

Requirements for a 'Well Made' application

1. Correct number of application copies including all forms and supplementary information
   - 3x complete hard copies
   - 1x CD Copy
   - 2x A3 size copies of the plans
2. Supporting information:
   - Outlining the development proposal
   - Addressing the relevant codes and constraints
   - Including all necessary information as detailed in this form
3. Supporting information for Priority Infrastructure Plan.

A surcharge of 50% of the standard application fee will be applied to all applications determined not to have provided this information.

Relevant SPA IDAS Form	Development Application IDAS Assessment Checklists	☒
Relevant GCCC Forms	Form *Application for a Material Change of Use or Reconfiguring of Lot*	☒
	Adopted Infrastructure Charge Proposal Summary	☒

	If the Adopted Infrastructure Charge Proposal Summary is not applicable please provide the reasoning below. Supporting information for Adopted Infrastructure Charge Proposal Summary. *(if not applicable, please provide reason)*	☐

Documentation	**Applicable OR Not Applicable?**	**Comments** Please refer to the information notes for further clarification of requirements
② Planning Assessment Report Refer to IDAS Form 5 and 7 for mandatory requirements for inclusion in this report.	Applicable	A planning report which complies with the relevant requirements has been included as part of this application.
③ Economic Needs Analysis (MCU only) Refer to IDAS Form 5 for mandatory requirements for inclusion in this report.	Applicable	Economic needs analysis has been included within this application where deemed necessary to justify the development.
④ Visual Impact Analysis (MCU only)	Not Applicable	Due to the scale, nature, location and characteristics of surrounding uses a visual impact assessment has not been deemed necessary in relation to this application.
⑤ Planning Scheme Codes • Domain Place Code • Specific Development Code • Constraint Codes	 Applicable N/A Applicable	The development application includes the following relevant codes, the YEA Local Plan, car parking and nature conservation.
⑥ Hydraulic, Water Quality and Geotechnical Engineering • Flood Search Report • Hydraulics Report • Stormwater Management Plan • Geotechnical Report • Dewatering Management Plan • Lake Management Study • Waterway Study • Water Quality Management Plan • Other relevant requirements	 N/A Applicable Applicable Applicable N/A N/A N/A N/A N/A	A stormwater management plan and geotechnical report have been prepared as part of the application process. A flood search report has not been included as the site is not subject to the flood management overlay.
⑦ Environmental, Open Space and Landscaping *Refer to Landscape Works Specific Development Code – Sections 2.1 and 6.1.1 and refer to Gold Coast City Landscape Strategy Part 2 Landscape Works Documentation Manual Section B 3.0* • Statement of Landscape Intent • Bushfire Management Plan • Vegetation Management Plan • Ecological Assessment • Open Space Management Statement • Arborist Reports • Photographs identifying all trees on the site • Effluent Disposal Areas • Acid Sulphate Soils Investigation & Management Plan • Other relevant requirements	 Applicable N/A N/A N/A N/A N/A N/A N/A N/A N/A	It is considered that due to the scale and nature of the proposed development in addition to the existing condition of the subject site, the environmental impact of the proposed development would be minimal. In this regard it was determined that a landscape intent plan would be sufficient to illustrate the impacts of the proposal.

⑧ Transport and Traffic • Road Traffic Assessment Report • Other relevant requirements	Applicable N/A	A traffic impact assessment has been prepared as part of the application process and is enclosed.
Has the Department of Main Roads been triggered as a concurrence agency for this proposal? If yes, has pre lodgement advice been obtained from Main Roads?	Yes ☐ / No ☒ Yes ☐ / No ☐	
⑨ Environmental Health • Acoustic Report • Odour / Dust Management Plan • Waste Management	N/A N/A N/A	Due to the scale, nature, location and characteristics of surrounding uses an acoustic report, odour report or waste management reports have not been deemed necessary in relation to this application.
⑩ Plans and Drawings (MCU) • Architectural Floor Plans & Colour Elevations • Site Plan • Building Elevations • Site Analysis Plan • Other drawings relevant to development	Refer IDAS Form 5	Site plans, elevations landscape intent plans, stormwater plans and site analysis plans have been prepared as part of this application and are enclosed.
⑩ Plans and Drawings (ROL) • Subdivisional Proposal Plan (Site Plan) • Slope Analysis Plan • Site Analysis Plan • Building Envelope Plan • Proposed Earthworks Plan • Photographs • Other drawings relevant to development	Refer IDAS Form 7 N/A	
①① Other/Misc • List any additional information provided to support the application	N/A	

Attachments

Information notes providing further clarification of requirements.

Information Notes to Assist Applicants in completing Material Change of Use and Reconfiguring a Lot forms

To be read in conjunction with the Application for Material Change of Use and Reconfiguring a Lot form
http://www.goldcoast.qld.gov.au/t_standard2.aspx?pid=286#development

Guide to Owners Consent Requirements

Refer to section 371 of the *Sustainable Planning Act 2009* for full requirements. Listed below are other requirements. An application is Properly Made if the mandatory requirements part of the approved form is correctly completed. Owner's consent is a mandatory requirement of Application Details IDAS Form 1. The term of "owner" of land is defined in Schedule 3 of the *Sustainable Planning Act* to mean: "The person for the time being entitled to receive the rent for the land or would be entitled to receive the rent for it if it is let to a tenant at a rent." Schedule 3 of the *Sustainable Planning Act* further defines "land" to include: "Any estate in, on, over or under land…." Therefore in most instances, the registered property owner is the owner of the land for the purposes of the *Sustainable Planning Act* and must provide owner's consent to the making of the application. If the application is over a number of lots, the owner/s of all lots of the subject of the application must consent to making of the application. Applicants are to provide owner's consent as follows:

Property ownership
If there are multiple owners of a single lot, the consent of each owner of the lot is required (e.g. four persons owning one lot requires a signature from each of the four owners).

Corporation / company
Where the owner is identified as a corporation, the following is required:
 the ACN number accompanied with one of the three below:
— the names, titles and signatures of two (2) directors of the company
— the name, title and signature of a director and the company secretary
— where the company has only one (1) director, the name and signature of that director in conjunction with written indication that the company has only one (1) director (i.e. sole director)

Body Corporate
Where the owner is identified as a Body Corporate, the following is required:
 Body Corporate Seal and
 Body Corporate resolution consenting to the proposal (i.e. minutes of meeting where proposal was adopted) and
 two (2) signatures, one of which must be the chairperson

or
 Body Corporate Seal and
 a letter of consent signed by the chairperson and secretary

or
 signed letter of consent from each lot owner covered by the Body Corporate

Other ownership arrangements
If the land is:
 leased – the lessors of the land must give owner's consent
 dedicated parkland – the owner or the trustee, within the terms of the trust or reserve, must give owner's consent

Material Change of Use — Forms

Relevant IDAS Forms – *Mandatory Requirement*

Planning Assessment Report	Proposal including covering letter, report, alternate solutions and conclusion. Refer to IDAS Form 5 for mandatory requirements for inclusion in this report.
Economic Needs Analysis	Provide information if applicable to the nature of the proposal. Refer to IDAS Form 5 for mandatory requirements for inclusion in this report.
Visual Impact Analysis	Provide a photo montage outlining the proposal
Codes (MCU) Relevant to subject site and proposed development to be completed using Council's Code Table Template. The relevance of these codes can be identified by using the Property Enquiry tool on Council's website. *Note: Not all constraint codes triggered by the Property Enquiry tool may be relevant to your application.*	Domain Place Code Specific Development Code Constraint Code
Hydraulic, Water Quality and Geotechnical Engineering	Flood Search Report Hydraulics Report Stormwater Management Plan Geotechnical Report Dewatering Management Plan Lake Management Study Waterway Study Water Quality Management Plan Any other relevant hydraulic and water quality documents or notes regarding applicability of the required plans and documents.
Environmental, Open Space and Landscaping Refer to Landscape Works Specific Development Code – Sections 2.1 and 6.1.1 and refer to Gold Coast City Landscape Strategy Part 2 Landscape Works Documentation Manual Section B 3.0	Statement of Landscape Intent Bushfire Management Plan Vegetation Management Plan Ecological Assessment Open Space Management Statement Arborist Reports Photographs identifying all trees on the site

Effluent Disposal Areas	
Acid Sulphate Soils Investigation and Management Plan	
Any other relevant environmental, open space or landscaping documents or notes regarding applicability of the required plans and documents.	
Transport and Traffic	Road Traffic Assessment Report
	Has the Department of Main Roads been triggered as a concurrence agency for this proposal? If yes, has pre lodgement advice been obtained from Main Roads?
	Any other relevant transport and traffic documents or notes regarding applicability of the required plans and documents.
Environmental Health Railway noise Applies to noise sensitive development within 100 metres of a rail corridor. Commercial / Industrial Operational Noise Applies to commercial / industrial development adjacent to existing / proposed noise sensitive developments.	Acoustic Report
Applies to residential development in proximity to industry/commercial activities which release airborne contaminates. e.g. Asphalt Manufacturing Plants, Marine and or Waterfront Industries, Bulk. Landscape Supplies, Service Stations	Odour / Dust Management Plan
Applies to commercial/industrial/residential development and must have practical, user and environmentally friendly solid waste management storage and collection design. Reference should be made to the Environmental Protection (Waste Management) Regulation 2000 and the "Waste Management Policy Relating to Refuse Requirements for Proposed and Existing Building Developments Within the City of Gold Coast" Dated January 1995, 1st Edition, to address the minimum requirements for refuse facilities and information on refuse vehicle access, egress and manoeuvring.	Waste Management
Plans and Drawings	Refer to IDAS Form 5 for mandatory requirements for inclusion in the application.
Other drawings relevant to development including Photo Montage and Colour Perspectives	Please provide details
Other/Misc	List any additional information provided to support the application

Reconfiguring a Lot **Report**	Proposal including covering letter, report and conclusion. Refer to IDAS Form 7 for mandatory requirements for inclusion in this report.
Codes Relevant to subject site and proposed development to be completed using Council's Code Table Template. The relevance of these codes can be identified by using the Property Enquiry tool on Council's website. *Note: Not all constraint codes triggered by the Property Enquiry tool may be relevant to your application.*	Domain Place Code Specific Development Code Constraint Code
Hydraulic, Water Quality and Geotechnical Engineering	Flood Search Report Hydraulics Report Stormwater Management Plan Geotechnical Report Dewatering Management Plan Lake Management Study Waterway Study Water Quality Management Plan Any other relevant hydraulic and water quality documents or notes regarding applicability of the required plans and documents.
Environmental, Open Space and Landscaping refer to Landscape Works Specific Development Code – Sections 2.1 and 6.1.1 and refer to Gold Coast City Landscape Strategy Part 2 Landscape Works Documentation Manual Section B 3.0	Statement of Landscape Intent Bushfire Management Plan Vegetation Management Plan Ecological Assessment Rehabilitation Management Plan Environmental Covenant Management Plan Open Space Management Statement Arborist Reports Effluent Disposal Areas Acid Sulphate Soils Investigation and Management Plan Any other relevant environmental, open space or landscaping documents or notes regarding applicability of the required plans and documents.

Transport and Traffic	Road Traffic Assessment Report
	Has the Department of Main Roads been triggered as a concurrence agency for this proposal? If yes, has pre lodgement advice been obtained from Main Roads?
	Any other relevant transport and traffic documents or notes regarding applicability of the required plans and documents.
Environmental Health **An Acoustic Report is required when:** Road noise impacts onto a noise sensitive area. Road noise from a local road (10000 VPD) or from a state controlled road whereby the local/state controlled road is NOT directly adjacent but within 100 metres to the proposed noise sensitive development. **or** Road noise from a state controlled road or local road (10000 VPD) directly adjacent to the noise sensitive development. Railway noise Applies to noise sensitive development within 100 metres of a rail corridor. Commercial / Industrial Operational Noise Applies to commercial / industrial development adjacent to existing / proposed noise sensitive developments.	
Applies to residential development in proximity to industry/commercial activities which release airborne contaminates. e.g. Asphalt Manufacturing Plants, Marine and or Waterfront Industries, Bulk Landscape Supplies, Service Stations. Applies to commercial/industrial/ residential development and must have practical, user and environmentally friendly solid waste management storage and collection design. Reference should be made to the Environmental Protection (Waste Management) Regulation 2000 and the "Waste Management Policy Relating to Refuse Requirements for Proposed and Existing Building Developments Within the City of Gold Coast" Dated January 1995, 1st Edition, to address the minimum requirements for refuse facilities and information on refuse vehicle access, egress and manoeuvring.	Odour / Dust Management Plan
	Waste Management
Plans and Drawings	Refer to IDAS Form 7 for mandatory requirements for inclusion in the application.
Photographs	Photographs to support application

Developer Contributions
Implementation & Assessment
Planning Environment & Transport Directorate

Gold Coast City Council

Phone: 5582 8052 Facsimile: 5582 8241 Email: dcg@goldcoast.qld.gov.au
PO Box 5042 GOLD COAST MC QLD 9729

ISO9001
FS560239

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 Allconnex 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 Allconnex Water. See "Notes for filling out this form" for rate adjustments in areas not fully serviced by Allconnex Water.

Reconfiguration of Lot Application Enter the appropriate number of lots	**Type**	**Proposed No of Lots**	**Existing No of Lots**	**Rate per Lot (FY 2011–12)**
	• Residential Lots			$27,000
	• Non Residential Lots			
	• Management Lots			

Non Residential Land Use **(Material Change of Use & Building only)** Enter the appropriate quantity. Note: Credits will only be given for existing lawfully established uses	**Charging Category**	**Type**	**Proposed Qty**	**Lawfully Established Existing Qty**	**Rate Per Dwelling (FY 2011–12)**	**Included Land Use** (For information only)
	Long term accommodation	Detached Dwellings			$27,000	• Aged Persons Accommodation, • Relocatable Home Park, • Special 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, • Hostel Accommo-dation, • 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 2011–12)**	**Included Land Use** (For information only)
	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
	Common area				
	Commercial (Bulk Goods)			$140	• Bulk Garden Supplies, • Retail Plant Nursery, • Showroom, • Vehicle Hire Premises, • Vehicle Sales Premises
	Common area				
	Commercial (Office)			$140	• Commercial Services, • Display Home, • Estate Sales Office, • Funeral Business, • Office, • Vehicle Hire Office
	Common area				
	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
	Common area				
	Education			$140	• Child Care Centre, • Community Purposes (Child Day Care), • Educational Establishment
	Common area				

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 2011–12)**	**Included Land Use** (For information only)
	Entertainment			$200	• Adult Entertainment, • Amusement Parlour, • Brothel, • Cinema, • Indoor Sport and Recreation Facility (excluding courts), • Night Club, • Tavern
				$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	Total - 15,650m² - GFA (New 10,900m² - GFA)	4,750m² - GFA	$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 2011–12)**	**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
	Common area				
	Specialist Uses			Rates determined at time of assessment	Caretakers Residence Car Park Commercial Groundwater Extraction Community Purposes (Government Use) Ecotourism Facility Extractive Industry Family Accommodation 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)*

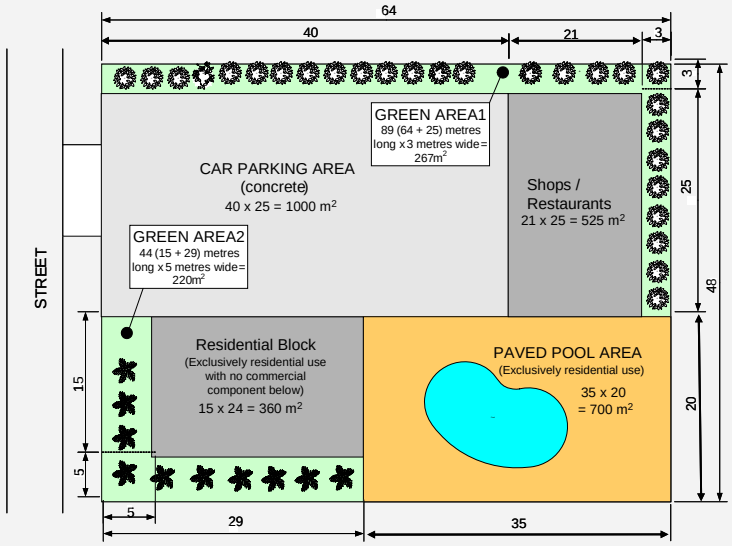
Impervious Area

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	**24260 m^2**	-	**0 m^2**	=	**24260 m^2**	$10
EXISTING	**13400 m^2**	-	**0 m^2**	=	**13400 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) +	700m^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 Allconnex Water	All charge rates are based on areas fully serviced by Allconnex Water. In areas not planned to be fully serviced by Allconnex 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 Allconnex 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.

From: DART [mailto:dart@goldcoast.qld.gov.au]
Sent: Tuesday, 4 March 2008 1:00 PM
To: Gassman Development Perspectives Pty Ltd (TH)
Subject: Exemption from the Requirement for Council's Pre Assessment Certificate

GCCC PREASSESSMENT CERTIFICATE

EXEMPT CONSULTANT

4 March 2008

In recognition of your development applications consistently meeting Council's Properly Made, Well Made requirements your company has been placed on our "Exempt Consultants List". This negates the requirement to submit your applications for a Pre Assessment Certificate.

Checks will continue to be undertaken on all applications to ensure compliance with Properly Made requirements. Random audit checks will be undertaken to ensure continued compliance.

Please ensure you include a copy of this email when submitting applications to ensure Customer Service staff can easily identify that you are not required to seek a Pre Assessment Certificate prior to submission of your applications.

Thank you for your cooperation in presenting your applications in a style that allows Council to present consistent and legible information to the public on PD Online and for the use of our internal referral sections.

Thank you again.
Regards,
Jan Higley
Senior Technical Officer
Development Assessment Review Team (DART)
for the Chief Executive Officer

Gold Coast City Council
Ph: (07) 5582 8866*(option #4)* **Fax:** (07) 5582 8286
PO Box 5042 Gold Coast Mail Centre Qld 9729
http://www.goldcoastcity.com.au

CURRENT TITLE SEARCH
ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND
Request No: 10776460
Search Date: 12/01/2011 08:42 Title Reference: 10526129
Date Created: 08/12/1884

REGISTERED OWNER Interest

Dealing No: 709915914 07/09/2006

PATRICIA ANN HESTER 1/2
WILLIAM ARTHUR HESTER 1/2

AS TENANTS IN COMMON

ESTATE AND LAND

Estate in Fee Simple

LOT 240 CROWN PLAN W31320
County of WARD Parish of ALBERT
Local Government: GOLD COAST

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 10526129 (SEL 814)

2. LEASE No 707931618 29/07/2004 at 10:43
ENVIROGREEN PTY LIMITED A.C.N. 069 900 456
OF LEASE A ON SP 125788
TERM: 01/07/2005 TO 30/06/2010 OPTION 5 YEARS

3. CHANGE OF NAME No 713027062 01/02/2010 at 12:03
LEASE: 707931618
AMGROW PTY LIMITED A.C.N. 069 900 456

4. AMENDMENT OF LEASE No 713076568 23/02/2010 at 15:03
LEASE: 707931618
TERM: 01/07/2005 TO 30/06/2015 OPTION NIL

5. AMENDMENT OF LEASE No 713369769 23/07/2010 at 14:54
LEASE: 707931618
TERM: 01/07/2005 TO 30/06/2015 OPTION NIL

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - Yes 30/07/2010 713375783 Certificate No. 5

Corrections have occurred - Refer to Historical Search

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested By: D APPLICATIONS GLOBAL X

March 2012

The Chief Executive Officer
Gold Coast City Council
PO Box 5042
GOLD COAST MC QLD 9729

Dear Sir/Madam,

RE:	**PROVISION OF LANDOWNER'S CONSENT**
APPLICATION:	**DEVELOPMENT APPLICATION FOR MATERIAL CHANGE OF USE BY AMGROW**
PROPERTY:	**82 CHRISTENSEN ROAD, STAPYLTON (LOT 240 W31320)**

We hereby state that Mr William Arthur Hester and Mrs Patricia Ann Hester jointly own Lot 240 on W31320 (title search **enclosed**).

We consent to the making of a development application by Amgrow seeking approvals for a material change of use over the abovementioned allotment.

Yours Faithfully,

W.A. Hester
Signature
Name: **William A Hester**

Date: 30-3-2012

P.A. Hester
Signature
Name: **Patricia A Hester**

Date: 30-3-2012

Encl. Title search for Lot 240 on W31320

Appendix B: Codes Assessment

ASSESSMENT AGAINST PLANNING SCHEME CODES

Part 6 Local Area Plans
Division 2 Local Area Plans
Chapter 29 Yatala Enterprise Area

8.0 Yatala Enterprise Area LAP Place Code

8.1 Purpose

This Place Code seeks to ensure that the scale and intensity of development and, in particular the impact, design and appearance of industrial development is consistent with the role of the YEA as a regionally significant location for industrial development. These provisions also aim to ensure that YEA becomes a distinctive and recognisable location within the City, where high standards of urban design and architecture are promoted.

8.2 Application

8.2.1 The Yatala Enterprise Area LAP Place Code applies to development being any **Building Work**, **Operational Work**, **Reconfiguring a Lot** and/or **Material Change of Use** indicated as self, code or impact assessable in the Yatala Enterprise Area LAP Table of Development at **Clause 6.0** of this LAP.

8.2.2 Performance Criteria PC1-PC55 apply to all code and impact assessable development in this LAP. For development identified as self assessable in **Clause 6.0**, only the Acceptable Solutions to Performance Criteria PC1-PC6 apply.

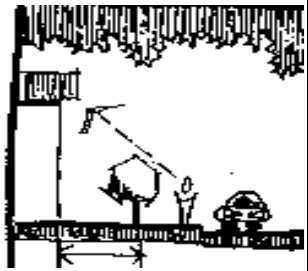
8.3 Development Requirements

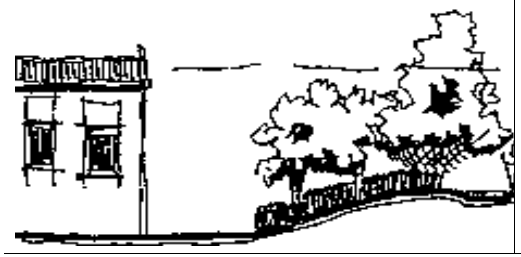
Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Development that is Self Assessable, Code Assessable or Impact Assessable			
Building Height			
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: Performance Criteria Compliant** The proposed development includes five (5) new structures that will accommodate the expansion of the existing operation. The size, bulking and height of the proposed structures have been carefully designed in order to ensure they integrate with the surrounding context and long term goals of the Yatala area. The building heights of the proposed structures range from 9.8 metres to 14 metres, however their impact has been significantly reduced by ensuring each structure is carefully sited in terms of their	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
		impact on surrounding uses and internal operations. The proposed office structure with its contemporary architecture has been located at the front of the property. The proposed warehouses which are by their nature bulkier and taller have been located behind the existing building in order to mitigate their effect. The proposed design and siting of the new buildings on the site is considered to complement the existing character of the locale.	
Accommodation Density			
PC2 Accommodation density must be consistent with the predominant character of the YEA as an industrial location. Accordingly, very low residential densities are envisaged for the LAP area.	AS2 The maximum dwelling density does not exceed one dwelling per lot.	**PC2: Not Applicable** The proposal does not include a residential component.	
Site Coverage			
PC3 The site coverage of development will be in accordance with the open space landscape character of the YEA.	**Precincts 1, 2, 3 and 4** AS3.1 The maximum site coverage does not exceed 70%. **Precincts 5 and 6** AS3.2 The maximum site coverage does not exceed 10%.	**AS3.1: Acceptable Solution Compliant** The proposal has a site coverage of less than 10%. **AS3.2: Not Applicable** The proposed development is not located within Precincts 5 or 6.	
Building Setback			
PC4 The layout of buildings, structures and activities achieves an attractive and orderly appearance where development is visible	**Precinct 1** AS4.1 The building or structure is set back not less than:	**AS4.1: Acceptable Solution Compliant** The proposed new office building has been located in excess of 10 metres from Christensen Road.	

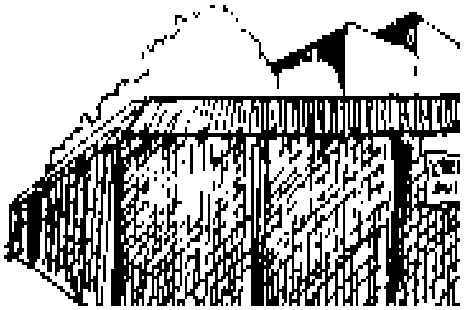
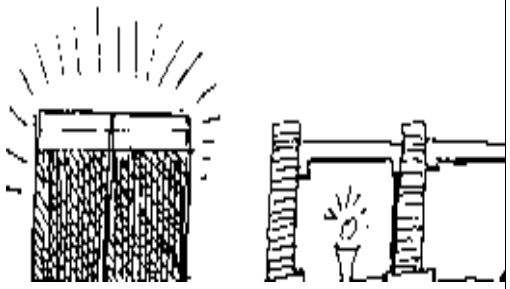
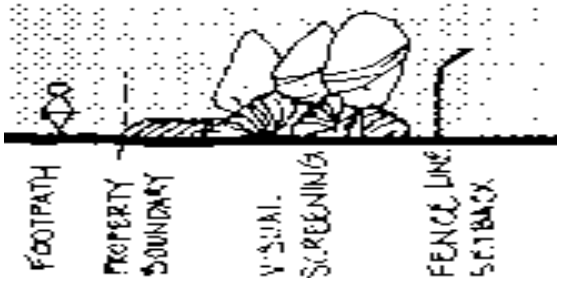
Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
from the public domain. A good standard of visual amenity is achieved through generous building setbacks and high quality landscaping.	a) 10 metres from the primary road frontage of the site; b) 7 metres from the secondary road frontage(s). **Precincts 2, 4, 5 and 6** AS4.2 Buildings are set back from frontages: a) low set buildings less than five metres high, a minimum setback of six metres; b) buildings less than eight metres in height, a minimum setback of ten metres; c) buildings eight metres or more in height, a minimum setback of 15 metres. AS4.3 The site adjoins a residential lot or public open space area, and the building or structure is set back a minimum of three metres from the common boundary with the residential lot or public open space, and the setback area includes: a landscape buffer strip a minimum width of two metres; and acoustic screen fencing on the common boundary to the residential lot or public open space area.	**AS4.2: Not Applicable** The proposed development is not located in Precincts 2, 4, 5 or 6. **AS4.3: Not Applicable** The proposed development does not adjoin either residential property or a public open space.	

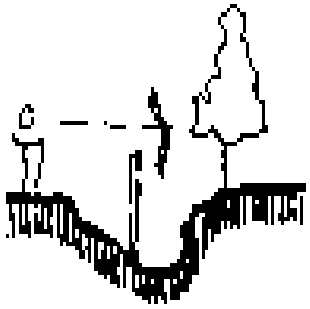
Figure 29-1 Factors Affecting Appropriate Building Setback

				
Only small setback required	Increased height of building	Established tall vegetation		

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
since building is low-set with screening from vegetation.	requiring larger setback.	may reduce building bulk allowing small setback.		
			
Setbacks can be reduced and heights increased according to topography.			
	Setbacks are also affected by viewing points.		
Design of Development Adjacent to the Motorway and the Rail Line			
PC5 Those developments visible from the Pacific Motorway or the Gold Coast City Rail Line must exhibit a high standard of architectural presentation.	AS5.1.1 Facades visible from the Pacific Motorway or the Gold Coast City Rail Line are designed to incorporate: a) materials such as glass, brick and coloured/textured block work (standard concrete block should not be used). If metal cladding is used, it should be pre-coated in an appropriate colour and have some form of relief; b) relatively unobtrusive, earth toned colours, such as subdued greens, blues, browns and greys (bright colours and/or materials which cause glare are avoided); c) horizontal/vertical articulation of walls at least at 15 metre intervals; d) 'humanising' elements, such as entry	**PC5.1: Not Applicable** Although in close proximity to both the Pacific Motorway and Rail Line, the proposed development will be obscured from view by the surrounding built context.	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	forecourts, porticos, verandahs, windows, awnings and fenestration; e) other features which contribute to an interesting and attractive appearance. These design features are to be applied to the main facade facing the relevant roads/railway, as well as along a brief return or the full length of side walls. OR AS5.1.2 A landscaped buffer is provided to the Pacific Motorway or to the Rail Line. Where conservation areas or links are established along the relevant road/railway frontages, such that development behind will be largely screened by vegetation, the design requirements of **AS5.1.1** need not be met.		
Vehicular Crossings			
PC6 Vehicular crossings associated with the development must be designed and constructed to ensure: a) a safe footpath environment; b) safe vehicular access to the property; c) appropriate hydraulic performance of the stormwater infrastructure; d) no damage to vehicle or road infrastructure; e) minimal loss of on-street parking spaces; f) continued amenity of the neighbourhood.	AS6 Driveways are designed and constructed in accordance with relevant sections of **Planning Scheme Policy 11 – Land Development Guidelines**.	**AS6: Not Applicable** The proposed development will utilise the existing three access points on Christensen Road to service the proposed use. Access driveways will provide access to individual structures all of which will be designed in compliance with Australian standards in the first instance and subsequently the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application. The detailed design of access driveways, pathways and car parking will all be subject to further approvals and therefore if the council deems it necessary relevant features may be conditioned as part of this approval.	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Figure 29-2 Aspects of Fencing Design			
Negative Fences			
			
High security fencing on street alignment dominated streetscape.	Chain fencing has a prison-like effect and is highly reflective. Height barriers can be visually intrusive.		
Positive Fences			
			

Performance Criteria	Acceptable Solutions		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
				
Unattractive fencing should be placed inside the front alignment and planted out.	Palisade of pickets set close together with horizontal rails that climbers might use. Solid masonry fence supporting vine.	Obtrusive fence placed in a swale to minimise visual impact.		

Development that is Code Assessable or Impact Assessable

Building Height

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: Performance Criteria Compliant** The proposed development includes five (5) new structures that will accommodate the expansion of the existing operation. The size, bulking and height of the proposed structures have been carefully designed in order to ensure they integrate with the surrounding context and long term goals of the Yatala area. The building heights of the proposed structures range from 9.8 metres to 14 metres, however their impact has been significantly reduced by ensuring each structure is carefully sited in terms of their impact on surrounding uses and internal operations. Therefore the proposed office structure with its contemporary architecture has been located at the front of the site. The proposed warehouses	

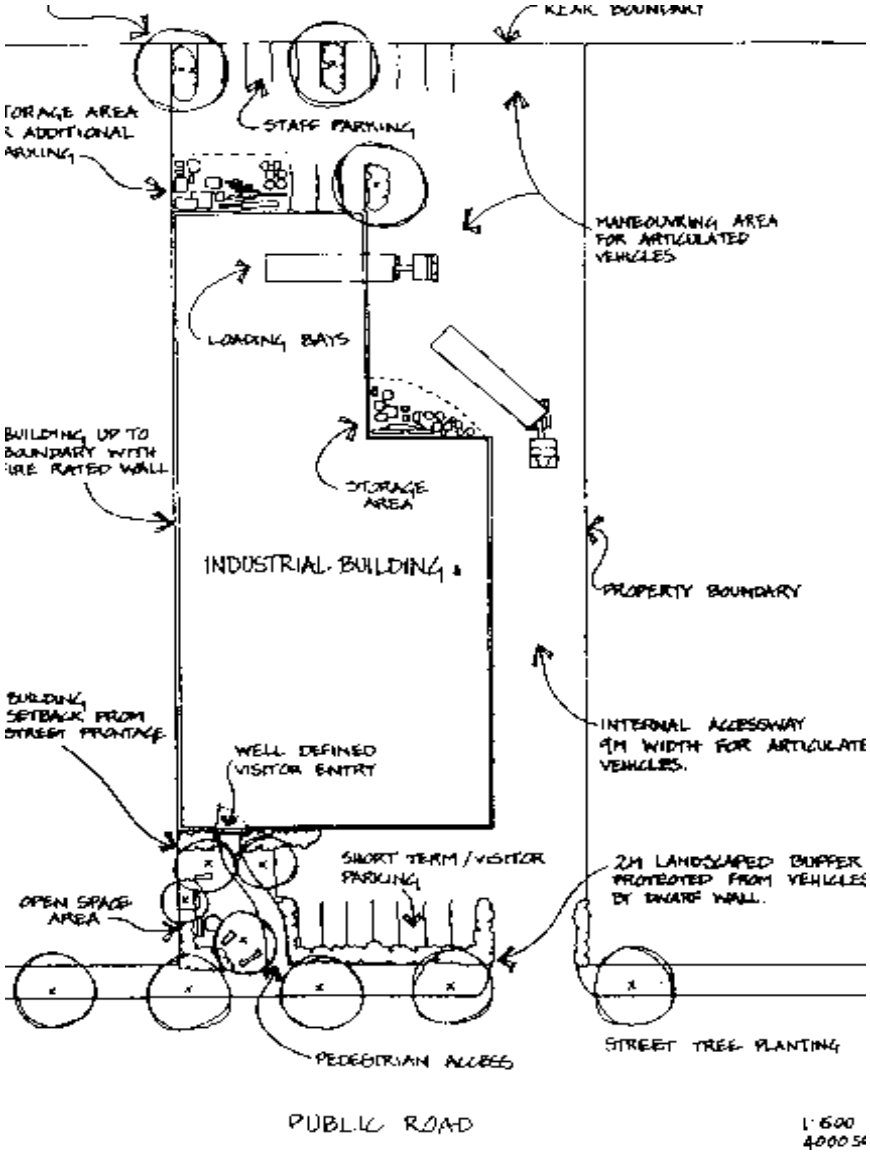
Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
		which are by their nature bulkier and taller have been located behind the existing building in order to mitigate their effect. The proposed design and siting of the new buildings on the site is considered to complement the existing character of the locale.	
Siting			
PC8 All buildings must be sited to complement the industrial character and the predominant built form of the surrounding area and to reduce potential conflicts between uses having regard to a site analysis, prepared in accordance with **Planning Scheme Policy 17 – Site Analysis**.	AS8.1 No acceptable solution provided.	**PC8: Performance Criteria Compliant** The proposed development includes five (5) new structures that will accommodate the expansion of the existing operation. The size, bulking and height of the proposed structures have been carefully designed in order to ensure they integrate with the surrounding context and long term goals of the Yatala area. The proposed office structure with its contemporary architecture has been located at the front of the site. The proposed warehouses which are by their nature bulkier and taller have been located behind the existing building in order to mitigate their effect. The proposed design and siting of the new buildings on the site is considered to complement the existing character of the locale.	
PC9 The layout of the site must provide a clear separation between the public access areas and the areas set aside for servicing the building	AS9 No acceptable solution provided.	**PC9: Performance Criteria Compliant** The proposal has sought to clearly define the areas that are open to public access and areas that are for private use. Design features such as landscaping, fencing and	

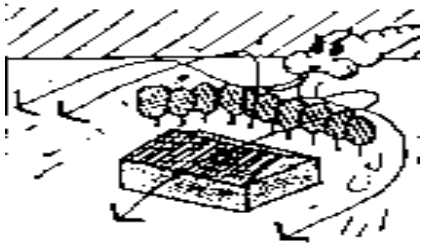
Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
		signage have been incorporated to achieve this goal. Please refer to both the plan of development and the landscape intent plan submitted in support of this application for more information regarding access and servicing.	
PC10 Industrial structures, storage or service areas, which are likely to appear visually dominating or unsightly, are located to the rear or sides of sites or are otherwise designed and screened to enhance their appearance, when viewed from the street.	AS10 No acceptable solution provided.	**PC10: Performance Criteria Compliant** The proposed development includes five (5) new structures that will accommodate the expansion of the existing operation. The size, bulking and height of the proposed structures have been carefully designed in order to ensure they integrate with the surrounding context and long term goals of the Yatala area. The proposed office structure with its contemporary architecture has been located at the front of the site. The proposed warehouses which are by their nature bulkier and taller have been located behind the existing building in order to mitigate their effect. The proposed strategic building siting will enable an attractive site entrance to be established.	
Building and Layout Design, Safety and Comfort			
PC11 Buildings are sited and designed such that suitable external spaces remain available for future expansion of buildings, and internal spaces are of a size and shape suited to variable internal layout, maximum vertical storage and addition of mezzanine floors.	AS11.1 Building shapes are regular so as to provide opportunities for future expansion in different directions, and for flexibility in internal location of activities and equipment. AS11.2 Internal column spacing and column heights are generous (for example, building spans of	**AS11.1: Acceptable Solution Compliant** The proposed structures have been designed in a manner that provides flexibility for future expansion if deemed necessary. **AS11.2: Not Applicable** The design of the proposed structures	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	18 metres and over, bay spacing of 12-18 metres, and column heights of at least eight metres).	detailed in this application will be subject to further approvals. Therefore if council deems it necessary specific features can be conditioned on approval.	
PC12 Buildings are sited and designed to suit climatic conditions.	AS12.1 Wherever practicable, buildings are oriented to the north east to take advantage of summer breezes and winter sun. Western aspects are avoided, wherever possible. AS12.2 Where not air conditioned, buildings incorporate a maximum of openings (ie. louvring, windows, doorways) on eastern walls. AS12.3 Windows are minimised and trees are planted along west walls for protection from hot afternoon sun. AS12.4 Shading devices (ie: large roof overhangs, window hoods/blinds, awnings and verandahs) are attached to buildings on all sides, particularly eastern and western sides. Where possible, shading devices are retractable on northern sides during winter. AS12.5 Semi-enclosed workstations, where relatively strenuous manual labour takes place, are located in the cooler and more ventilated parts of the building.	**PC12: Performance Criteria Compliant** Solar performance and ventilation have been key influences in the design of the proposed development. The proposed layout has incorporated 4 new warehouses orientated in a manner that avoids excessive east or west facing facades. The proposed new buildings have been designed to promote cross ventilation. Fenestration has been minimised on all facades facing east or west. Awnings have been included on all structures proposed in order to provide indoor and outdoor shade. Manual labour workstations have not been designated as part of this application, however the scheme incorporates flexibility to allow such activities to be located in appropriate locations in the future. The design of the proposed structures detailed in this application will be subject to further approvals. Therefore if council deems it necessary specific features can be conditioned on approval.	
PC13 All buildings must be designed and constructed to a high aesthetic standard and to complement or enhance the local character of the YEA.	AS13.1 The massing and proportions of new industrial buildings are consistent with those of adjoining industrial buildings. AS13.2 Building materials, patterns, textures and colours used in new buildings are complementary to those of nearby buildings.	**AS13.1: Acceptable Solution Compliant** The proposed development includes five (5) new structures that will accommodate the expansion of the existing operation. The size, bulking and height of the proposed structures have been carefully designed in order to ensure they integrate with the surrounding context and long	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
		term goals of the Yatala area. **AS13.2: Acceptable Solution Compliant** Building materials will be chosen to complement the existing built form. The defined palette of materials will be subject to further approvals and therefore can be conditioned on approval if deemed necessary by council.	
PC14 Building design and appearance must be conducive to the safety and comfort of all building users.	AS14.1 Glass which forms all or part of any external wall of a building does not exceed a maximum degree of reflection of both heat and light of 20%. The glass area does not exceed 60% of the total area of the external wall. AS14.2 Entrances to premises are clearly visible from the street, and are not obscured or dominated by car parking.	**AS14.1: Acceptable Solution Compliant** The use of glass within the proposed development will be managed accordingly not exceeding the maximum degree of reflection or the maximum total area of external walls as defined by the Planning Scheme. **AS14.2: Acceptable Solution Compliant** The proposed development will utilise the existing three access points on Christensen Road to service the proposed use. Access driveways will provide access to individual structures all of which will be designed in compliance with Australian standards in the first instance and subsequently the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application. The detailed design of access driveways, pathways and car parking will all be subject to further approvals and therefore if the council deems it necessary relevant features can be conditioned as part of an approval.	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Figure 29-3 Example of an Appropriate Site Layout in General Yatala Enterprise Area			

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
			

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Figure 29-4 Buildings and Landscaping Designed to Suit Climatic Conditions			
			
Avoid western aspects due to hot afternoon sun.	Covered walkways provide protection against rain.		
			
Windbreaks provide protection against unpleasant winds.	Planting to shade westerly walls in summer.		
Figure 29-5 Aspects of Good Building Design			

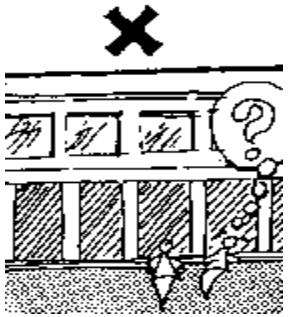
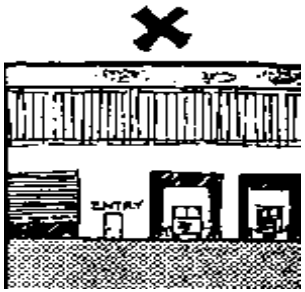
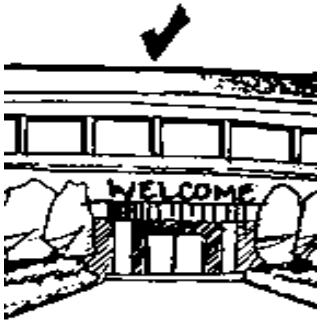
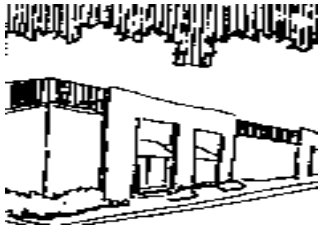
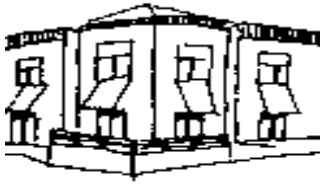
Performance Criteria	Acceptable Solutions		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
				
Unfenced entrance.	Main entrance with poor legibility.	Main entrance with good legibility.		
				
Fenestration and facade treatment to create interest and human scale.	Free standing facade treatments.	Window coverings and other architectural details to enhance appearance.		

Figure 29-6 Well Presented Buildings Set in Orderly Landscaped Grounds

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?

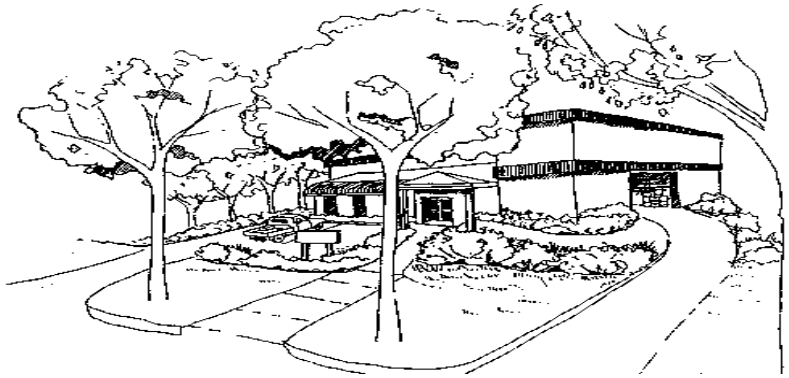
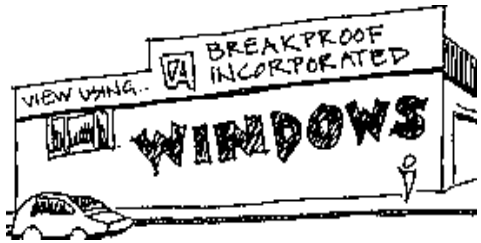
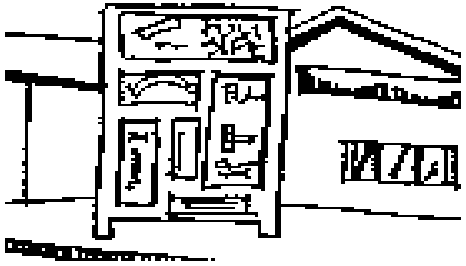



Figure 29-7 Unobtrusive Industrial Development Behind Neat Screens of Vegetation			
			
Design of Car Park Areas			
PC15 All ground level parking is to be suitably landscaped to provide an attractive and pleasant outlook and shade for parked vehicles, and to contribute towards the quality presentation of new developments.	AS15.1 Significant trees are preserved and incorporated into car parking areas. AS15.2 Landscaped bays for the planting of shade trees are provided at regular intervals throughout car parking areas, at the rate of	**PC15 : Acceptable Solution Compliant** The proposed development will seek to utilise formal landscaping to help ground and soften the effect of development on the subject site. In order to comply with the provisions of the Planning Scheme landscaping will be provided to soften the	

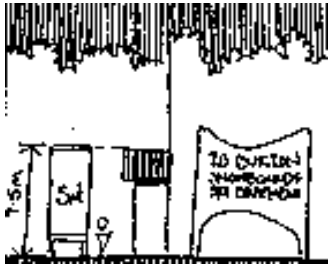
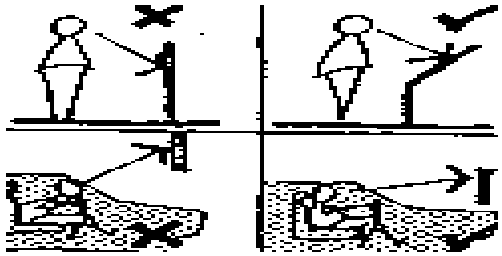
Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	one landscaped bay per 40 vehicle parking bays or one large shade tree per ten parking spaces. Landscape bays have the same dimensions as a vehicle parking space. AS15.3 Large car parking areas and all heavy/service vehicle parking are situated to the side or rear of sites. Smaller car parking areas, particularly for short term and disabled parking, may be located to the front of sites. AS15.4 Car parking areas located in frontage setback areas are set back behind a minimum three metre landscaped buffer to the frontages. To reduce their visual impact, front car parking areas may be lowered and mounds incorporated in frontage landscaping.	edges of the built form, buffer or screen potentially unsightly features, improve the manner in which property fronts onto Christensen Road and significantly provide shade within designated areas of the development. The landscape intent plan, submitted in support of this application, illustrates how such features will be incorporated within the proposed development. The proposal has incorporated significant parking areas either to the rear of the building line or where necessary short term parking has been provided to the side of structures. Six parking spaces have been included forward of the building line, these spaces will be utilised for short term visits to the subject site. It is important to note that further development approvals will be required for the detailed design of landscaping on site and therefore council can if they see fit condition the inclusion of certain features on approval.	
Advertising Devices			
PC16 Advertising signage does not dominate the visual amenity of the area.	AS16 No advertising, freestanding or otherwise, is erected which would be readily visible from the Pacific Motorway or the Gold Coast City Rail Line.	**AS16: Not Applicable** The proposal does not include advertising that would be visible from the Pacific Motorway or Rail Line.	
PC17 Signs and other forms of advertising on business/industry premises are kept to a minimum. Any advertising relates directly to the activity/process conducted on the premises, rather than general product advertisements.	AS17.1 There is one sign per premises. Multi-unit developments display a single index sign at the entrance to the development which details each occupant, its activity/process and respective unit number.	**AS17.1: Not Applicable** Signage does not form part of this application. **AS17.2: Not Applicable** Signage does not form part of this	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	AS17.2 The design and construction of signs meets the following parameters: a) signs are situated near site entries and are well placed for viewing by pedestrians and drivers; b) free-standing signs have a maximum area of $3m^2$; c) signs on facades have a maximum area of $5m^2$; d) signs utilise company logos or symbolic representations for quick and easy identification; e) wording on signs is limited to the name, location, business and products of the establishment; f) signs do not utilise fluorescent paints; g) signs do not rotate, flash or move; h) signs are integrated with the form of development and are not visually dominating. AS17.3 All signs are consistent with the provisions for the Industry 2 Domain set out in **Specific Development Code 2 – Advertising Devices**.	application. **AS17.3: Not Applicable** Signage does not form part of this application.	
Figure 29-8 Appropriate Signage Design			

Negative Signage

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
			
Facade signage dominating a visual amenity.	Signage of different colours graphics, appear disjointed.		

Positive Signage

				
Signage integrated with development form.	Signage on facades discreet with aesthetic graphics.	Signage of appropriate size with wording limited to locations, name and products.		
				
Using landscape to integrate signage.		Pedestrian and vehicular signage placement.		

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Conservation Areas and Open Space Linkages			
PC18 Identified conservation areas remain in a substantially undeveloped condition, with vegetation retained to the fullest extent possible and, where necessary, rehabilitated using local native species.	AS18.1 Areas identified as Conservation on **Yatala Enterprise Area LAP Map 29.3 – Conservation Areas and Priorities** are reserved for conservation purposes, through: a) transfer to Council; b) dedication of a conservation easement; or c) reservation of an area of the site as open space. AS18.2 Reserved Conservation Areas are managed in the following manner: a) the land remains largely undisturbed by any buildings, clearing and earthworks; b) rehabilitation of natural features is undertaken, where necessary, particularly by way of revegetation of any previously cleared areas and stabilisation of any eroding banks of watercourses. AS18.3 In Conservation Areas associated with the Albert River and Sandy and Halfway Creeks, there is no discharge of waste water or contaminants or piped discharge of stormwater. Any development within the catchment of these waterways retains natural drainage patterns as far as possible, and utilises appropriate stormwater management techniques to minimise any increase in the volume, velocity or sedimentation of runoff into the river or creeks. AS18.4 For linear Conservation Areas, any parallel roads or services are grouped on one side of the corridor to minimise disturbance. Fencing through Conservation Areas is avoided,	**PC18: Performance Criteria Compliant** The YEA Local Plan has identified a linear conservation area that would seem to run along the northern boundary of the subject site. The development proposed by this application is located within the existing developed area of the subject site and will therefore require no vegetation clearing. In this regard, it is the opinion of this report that the proposed development will not adversely effect the conservation goals of the local area. The proposed design has sought to buffer key boundaries from the surrounding context by incorporating vegetation buffers which will mitigate the impacts of the proposed development on the surrounding area.	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	wherever possible. Any breaks in the vegetation canopy, necessary for roads or services, are minimised by cutting through perpendicular to the corridor at a point where damage and discontinuity are minimised, such as where the canopy is already broken or sparse. AS18.5 On land adjacent to Conservation Areas, buildings, clearing and earthworks are sited as far away as practicable from reserved Conservation Areas, with the greatest possible separation in the case of ridges, gullies and watercourses. AS18.6 Existing trees are retained, and additional trees planted within a 40 metre wide band, generally along the lines of the links identified on **Yatala Enterprise Area LAP Map 29.3 – Conservation Areas and Priorities**: a) the links may form part of the landscape open space areas, associated with individual development proposals. If so, they should generally remain free of building and earthworks; additional tree planting utilises species similar to those existing naturally in the area; b) any parallel roads or services are grouped on one side of the link, to minimise disturbance; c) any breaks in the vegetation canopy, necessary for roads or services, are minimised by cutting through perpendicular to the link at a point where damage and discontinuity are minimised, such as where the canopy is already broken or sparse.		
PC19 In areas identified as Other Open Space on **Yatala Enterprise Area LAP Map 29.3 –**	AS19 No acceptable solution provided.	**PC19: Not Applicable** The proposal does not include land identified as Other Open Space.	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Conservation Areas and Priorities as having open space values, development is of a limited scale and intensity, compatible with retention of habitat, landscape and/or buffer values.			
PC20 Other areas within sites (not identified on **Yatala Enterprise Area LAP Map 29.3 – Conservation Areas and Priorities**), with natural features, such as stands of remnant vegetation, gullies/ridges and watercourses, are to be incorporated in the open space/landscape areas associated with individual development proposals. Other features of ecological and/or landscape value are to be protected and enhanced, where practicable.	AS20 In these areas, existing vegetation and natural drainage patterns are retained and rehabilitated using local native species, as far as practical.	**PC20: Acceptable Solution Compliant** The proposed development has sought to incorporate, where possible, the existing features of the site including existing vegetation and drainage patterns. The retention of the existing dams on site is an example of existing features that will be retained. Please see both the stormwater report and landscape intent for further detail with regards to drainage patterns and vegetation.	
PC21 Riparian areas include vegetated buffers of sufficient width to operate as wildlife corridors.	AS21 The following minimum buffer widths are provided: a) 50 metres from the top of the bank on either side of Sandy Creek; b) 50 metres from the top of the bank on the south side of Halfway Creek, west of the Pacific Motorway; c) 100 metres from the top of the bank on the north side of Halfway Creek, west of the Pacific Motorway, for fauna corridor purposes; d) ten metres from the top of the bank on either side of Halfway Creek, east of the Pacific Motorway.	**AS21: Not Applicable** As the site does not contain any creeks no buffers to creeks are required.	
Landscape Design			
PC22 Landscape design is used to enhance the landscape character of the YEA.	AS22.1 Frontage setback areas are attractively landscaped, including: a) at least 25% of the frontage having a	**PC22: Performance Criteria Compliant** The proposed development will seek to utilise formal landscaping to help ground and soften the effect of development on	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	landscaped buffer of minimum five metres depth and the remainder, excluding access ways, a landscape buffer of minimum three metres depth; b) one metre landscaped area adjacent to building walls facing the street. AS22.2 Planting of shade trees occurs along pathways, throughout car parking areas and in any other exposed areas where relief from sun and glare would be beneficial. AS22.3 Dwarf walls prevent vehicles breaching landscaped areas along frontages. AS22.4 Screen planting, utilising an appropriate mix of tall trees and lower level shrubs, is used around outdoor parking, equipment, storage and other unsightly areas, particularly where visible from roads. AS22.5 Landscape Design includes: a) provision of pleasant, shaded areas with appropriate furniture for lunch/relaxation areas for workers and visitors; b) retention of existing mature vegetation, wherever possible; c) retention of existing natural drainage channels and planting to strengthen their resistance to erosion, especially where proposed development is expected to result in increased volume and velocity of stormwater runoff; d) use of garden edges, lines of trees and mass planting to frame pathways and define site and building entries.	the subject site. In order to comply with the provisions of the Planning Scheme landscaping will be provided to soften the edges of the built form, buffer or screen potentially unsightly features, improve the manner in which property fronts onto Christensen Road and significantly provide shade within designated areas of the development. The landscape intent plan, submitted in support of this application, illustrates how such features will be incorporated within the proposed development. It is important to note that further development approvals will be required for the detailed design of landscaping on site and therefore council can if they see fit condition the inclusion of certain features on approval.	
PC23 Potentially obtrusive noise, odour and visual	AS23.1.1 Development incorporates landscape buffers,	**PC23: Acceptable Solution Compliant** The proposed development will seek to	

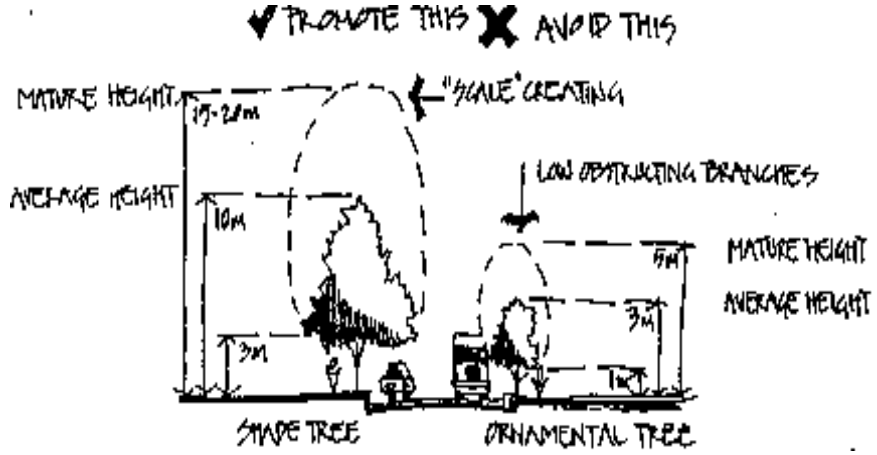
Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
impacts are effectively buffered.	earth mounds and acoustic fencing appropriate to the likely off-site impacts of particular developments. OR AS23.1.2 A landscape buffer of a 20 metre width, densely planted with shrubs and trees, is provided along the relevant frontage. A landscape buffer to a minimum width of ten metres may be acceptable, depending on the potential of proposed planting arrangements to effectively screen development behind. Species selection, use of mature or semi mature trees, and density of planting will be important in this respect.	utilise formal landscaping to help ground and soften the effect of development on the subject site. In order to comply with the provisions of the Planning Scheme landscaping will be provided to soften the edges of the built form, buffer or screen potentially unsightly features, improve the manner in which property fronts onto Christensen Road and significantly provide shade within designated areas of the development. The landscape intent plan, submitted in support of this application, illustrates how such features will be incorporated within the proposed development. It is important to note that further development approvals will be required for the detailed design of landscaping on site and therefore council can if they see fit condition the inclusion of certain features on approval.	
PC24 The street side environment and other public spaces are developed to enhance their visual appeal and create a physical continuity and legibility throughout the YEA and its component precincts.	AS24 Individual developments contribute to streetscape enhancement work (including street tree planting, paving, landscaping of traffic islands and provision of street lighting and furniture), in accordance with any adopted Council streetscape strategy.	**PC24: Not Applicable** No streetscape work has been proposed as part of this application.	
PC25 Public open spaces are developed to enhance their recreational amenity for workers and visitors to the Yatala area and the wider community.	AS25 Individual developments contribute (through works or financial contribution) towards construction of footpaths and cycle ways, seating, picnic facilities, play areas and/or other facilities in existing public open spaces and additional spaces established as a result of the development.	**AS25: Acceptable Solution Compliant** Appropriate conditions can be set by Council in relation infrastructure conditions.	
PC26	AS26.1	**AS26.1: Acceptable Solution Compliant**	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Landscape design contributes to the creation of a distinctive, memorable and legible town centre, local centres and surrounding suburban areas for the YEA.	Street design and plantings and major pedestrian paths are aligned to take advantage of attractive local and distant views (eg, views to the mountains or other important landscape elements). AS26.2 Footpath paving treatments and street furniture integrate with adjoining development, and setback areas are integrated with public footpaths. AS26.3 Landscape plantings utilise local native species to promote a distinctive YEA or Albert Corridor character.	The local context of the site offers no discernible features to align movement routes to. Given the current streetscape within Christensen Road no formal frontage works are proposed. **AS26.2: Acceptable Solution Compliant** Movement corridors have been designed to integrate with the existing structure on site and the surrounding locality. There is no known footpath either existing or proposed along Christensen Road. **AS26.3: Acceptable Solution Compliant** Planting shall be incorporated utilising local native species.	
PC27 Open space and pedestrian areas are to be designed to be both functional and safe.	AS27 Development is designed to ensure a high degree of casual surveillance from nearby residents, employees or passing traffic, public and semi-public spaces, pedestrian and cyclist paths, car parking areas and building entrances.	**AS27: Acceptable Solution Compliant** The proposed development has sought to encourage casual passive surveillance by incorporating certain features within the proposed layout including appropriately located fenestration and car parking. Additionally the planting hierarchy throughout the development will reflect Crime Prevention through Environmental Design principles. By utilising plants with low heights and thin trunks, this will allow for passive surveillance as well as recognition of traffic and pedestrian movements.	
PC28 All ground level car parking, open space and buffer areas must be landscaped and maintained to complement the character of the local area, and any adjoining residential	AS28 The car park area, open space and buffer areas of the lot are landscaped with landscape design and use of plant species generally consistent with that of adjacent and	**AS28: Acceptable Solution Compliant** The car parking areas, open space and buffer areas will be landscaped with species relevant to the adjacent lots and local area, please see landscape intent	

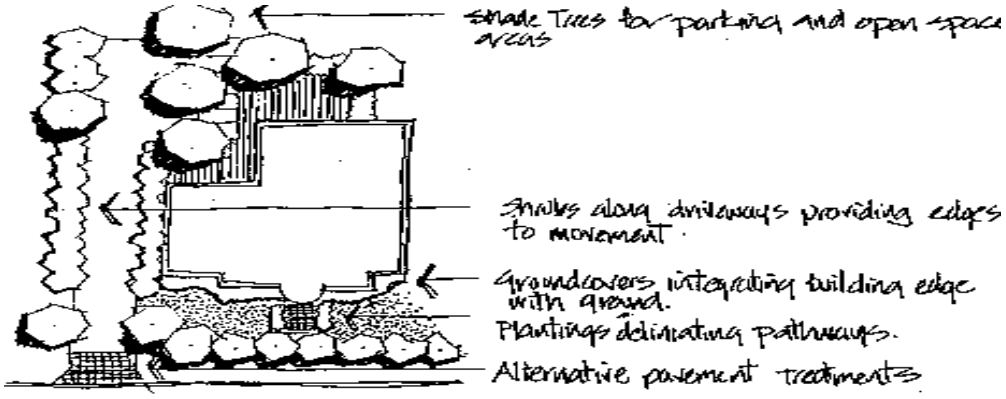
Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
or public open space areas.	nearby lots. The landscape design may incorporate extensive paved areas for pedestrian use.	plan attached for further information.	

Figure 29-9 Site Landscaping and Street Planting

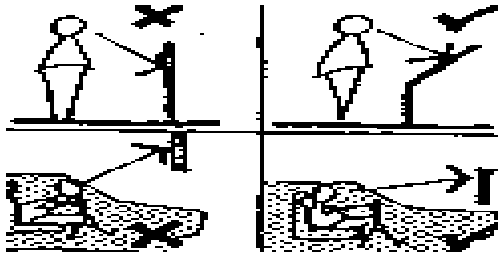
Street Tree Selection

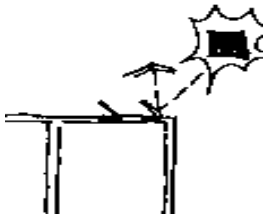
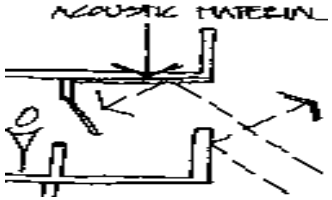
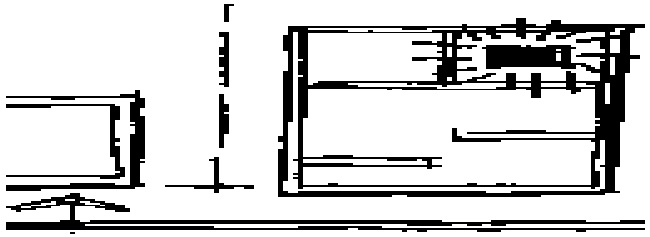


Provide Landscaping that has Meaning and Purpose



Incorporate Significant Existing Vegetation

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
			
Existing vegetation should be retained where possible and fenced off during construction operations – could be incorporated into parking areas, perimeter planting or screening.			
Figure 29-10 On-Site Landscaping			
				
Screen planting should be used sparingly because it reduces passive surveillance.	Framing views and maximum passive observation for security and to reduce crime.	Screening storage areas.		
Figure 29-11 Noise Attenuation Techniques			
				

Performance Criteria	Acceptable Solutions		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Solid barriers – walls buildings and beams – most effective as sound barriers if the source cannot be effectively muffled.	High walls close to the source are most effective.	For low noise, vegetation screening and soft surfaces will assist in attenuation.		
				
Screen wall to shield noise.	Direction of window opening away from noise.	Bottom opening windows.		
				
Noise sources located away from more sensitive areas.				

Lot Size (For Subdivision Only)

PC29 All lots are to be of sufficient size to comfortably accommodate the type of development envisaged in the LAP and the relevant precinct intent.	AS29 Any new lots created are sized in accordance with the following schedule: **Precinct** / **Min Area** / **Ave Area** 1 / 4,000m^2 / 1 hectare 2 / 2,000m^2 / 4,000m^2 4 / 20 hectares / 20 hectares 5 / 2 hectares / 2 hectares 6 / 20 hectares / 20 hectares	**PC29: Not Applicable** This application does not involve a subdivision of lots.	
PC30 Allotments prior to development have suitable	AS30 Industrial allotments generally have a ground	**PC30: Not Applicable** This application does not involve a	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
topography for industry.	slope not greater than 10%, and access ways associated with battle axe allotments generally have a ground slope not greater than 16%.	subdivision of lots.	
PC31 Allotments are of regular shapes suited to the intended uses, and allowing design flexibility, efficient development and access.	AS31.1 Development generally incorporates all of the following features: a) allotments that are rectangular shapes; b) allotments which have frontage to depth ratios between 1:2 and 1:4. OR AS31.2 Alternative allotment shapes are provided where warranted, due to: a) the special site requirements of particular industries; and/or b) exceptional physical constraints. OR AS31.3 The development incorporates a small proportion of battle axe allotments, where particular industries have special requirements for square or long and narrow sites. (Battle-axe allotments are useful for creating allotments of such shapes, as well as reducing road frontage construction costs and providing appropriate sites for visually offensive industries.)	**PC31: Not Applicable** This application does not involve a subdivision of lots.	
PC32 Allotments are oriented to suit climatic conditions.	AS32 Allotments are arranged in a manner that maximises the number of allotments oriented to the north east to take advantage of breezes and enable optimal building orientation for energy efficiency and use of natural lighting.	**PC32: Not Applicable** This application does not involve a subdivision of lots.	
PC33 Reconfiguration of land incorporates open	AS33.1 Where reconfiguration takes place, an area of	**PC33: Not Applicable** This application does not involve a	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
space provision in a way which takes account of the location and attributes of the site and its surrounds, and the need to set aside certain areas for purposes such as: a) conservation of vegetation/habitat; b) retention of creek corridors and natural drainage patterns; c) provision of pedestrian/cycle linkages and recreational facilities; and/or d) creation of landscaped entrances, focal points and streetscape.	up to 10% of the site is provided as open space. This open space is set aside for public park or conservation purposes, developed with pathways and/or recreational facilities, landscaped and/or rehabilitated to its natural state. AS33.2 Reconfiguration proposals incorporate a plan showing street planting to be undertaken. Planting themes contribute to the overall streetscape character of the estate.	subdivision of lots.	
PC34 Reconfiguration may take place in the form of Community Title Subdivision, allowing for sharing of space, facilities and services, while at the same time ensuring allotments created are suited to the intended businesses/industries.	AS34 Community Title Subdivisions are provided, which: a) are consistent with the Acceptable Solutions for **PC29** – **PC33**; b) generally maintain a minimum lot size of 100-200m^2 within a minimum overall site area of 2,000m^2; c) are not used for heavy manufacturing, metal/food processing, or noxious, offensive or hazardous industries.	**PC34: Not Applicable** This application does not involve a subdivision of lots.	
Road Design			
PC35 Roads are provided so as to form a road hierarchy, with each road serving a particular function according to the intended land use characteristics of the estate, expected traffic volumes and types, and external existing and future road linkages to anticipated development on adjoining lots.	AS35.1 Concept plans submitted with reconfiguration and/or development applications identify all roads proposed to be upgraded and/or newly constructed and their intended function within a road hierarchy. AS35.2 Concept plans submitted with reconfiguration and/or development applications identify road connections with adjacent allotments that will promote connectivity. AS35.3 Proposed road hierarchies are consistent with hierarchy identified on **Yatala Enterprise**	**PC35: Not Applicable** The proposed development does not include the provision of new roads and therefore is not applicable.	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	Area LAP Map 29.5 – Transport Infrastructure.		
PC36 The width, pavement, curvature, sight distances, intersections, turning radii and design features of roads convey the particular function of each road with the hierarchy mentioned in **AS35.3**, and reflect the nature of traffic management. In particular, road design ensures the safe movement of heavy articulated vehicles.	AS36.1 Road design and construction is in accordance with **Planning Scheme Policy 11 – Land Development Guidelines** and the Table to this Acceptable Solution. AS36.2 Distances between intersections are not less than 60 metres. AS36.3 Streets intersect at right angles, or as near as topography or other limiting factors permit. AS36.4 Various vehicle control devices are used to regulate traffic speed and enhance pedestrian safety (such as traffic lights and illuminated pedestrian crossings). AS36.5 Paving surfaces, landscape treatment and signage are used to define entrances to the estate and joint use areas within the estate. AS36.6 Road pavements are designed and constructed for long life, hard wearing and suitability to the load capacity of expected vehicles. AS36.7 Median strips, roundabouts and footpaths are to be aesthetically treated and planted and paved accordingly. AS36.8 The design of road networks avoids the use of *culs-de-sac*.	**PC36: Not Applicable** The proposed development does not include the provision of new roads and therefore is not applicable.	
PC37 The alignment of roads reflects the physical land characteristics, and provides adequate	AS37.1 Road drainage is designed and situated along natural drainage courses.	**PC37: Not Applicable** The proposed development does not include the provision of new roads and	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
drainage and safety.	AS37.2 Road grades are established to avoid excessive grading, indiscriminate removal of ground cover and tree growth, and unnecessary topographical levelling.	therefore is not applicable.	
PC38 A network of pedestrian paths and cycleways is provided which considers: a) expected levels of pedestrian and cyclist activity; b) linkages between public transport, major employment activities, and parks; c) recreation opportunities along open space corridors; d) safe integration of users and vehicles, particularly at intersections; e) provision of end-of-journey facilities.	AS38.1 Concept plans submitted with reconfiguration and/or development applications identify all footpaths and, where appropriate, cycle paths proposed to be upgraded and/or newly constructed. AS38.2 Footpaths are provided as follows: a) throughout the main strip of Yatala township; b) on at least one side of all major industrial roads, shown on **Yatala Enterprise Area LAP Map 29.5 – Transport Infrastructure**; c) as specified in any relevant Council adopted strategy. AS38.3 Cycle paths are provided along major open space corridors, such as alongside the Albert River and Upper and Lower Sandy Creek, or as specified in any relevant adopted Council strategy. AS38.4 Paths are designed and constructed in accordance with Council standards and **AUSTROADS Part B**. AS38.5 Features such as signs, road markings, lighting, paving, bollards and street furniture are provided to enhance the safety and amenity of foot/cycle paths. AS38.6 Individual establishments, particularly those	**PC38: Not Applicable** The proposed development does not include the provision of new roads and therefore is not applicable.	

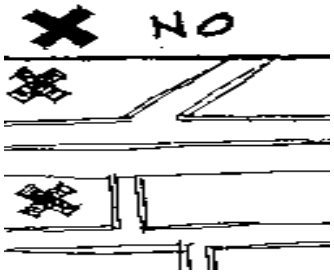
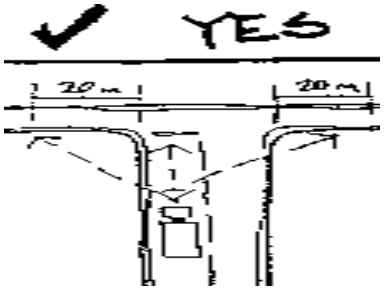
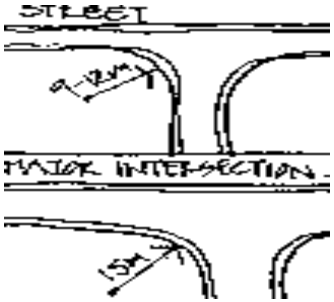
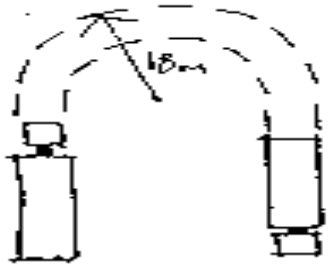
Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	with 100 employees or more, provide bike racks, showers/change rooms, and other-end-of journey facilities.		
PC39 The road network is designed to accommodate the extension and integration of the public transport system, with accessible linkages and routes and stops providing for passenger comfort without obstructing traffic flow.	AS39.1 Bus routes are located along the major industrial roads shown on **Yatala Enterprise Area LAP Map 29.5 – Transport Infrastructure**, or as specified by Council's City Transport Plan. AS39.2 Road design and construction incorporates bus lay-bys and sheltered passenger waiting areas at regular intervals along bus routes, or as specified in any relevant Council strategy.	**AS39.1: Not Applicable** The application does not include the provision of a bus route. **AS39.2: Not Applicable** No road upgrades are proposed as a result of this application.	
Site Access			
PC40 Site access is designed and constructed to provide for the safe ingress/egress of vehicles to the site.	AS40 Vehicular access to the site is designed and constructed in accordance with Council, Department of Main Roads and **AUSTROAD** standards, and/or the following minimum requirements: a) comprises a single vehicular driveway (entrance/exit), wherever possible; b) is not closer than ten metres to an intersecting street on the same side of the street; c) provides a minimum sight distance of 110 metres; d) shares adjoining property access driveways, wherever possible; e) always enters the street at right angles; f) where the site has frontage to two roads, access is taken off the secondary/minor road, if possible.	**AS40: Acceptable Solution Compliant** The proposed development will utilise the existing three access points on Christensen Road to service the proposed use. Access driveways will provide access to individual structures all of which will be designed in compliance with Australian standards in the first instance and subsequently the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application. The detailed design of access driveways, pathways and car parking will all be subject to further approvals and therefore if the council deems it necessary relevant features can be conditioned as part of an approval.	
PC41 Treatment of access points to the site	AS41 Access points incorporate decorative paving	**AS41: Not Applicable** The proposed development will utilise the	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
maintains appropriate sight distances and visually enhances its identification.	treatment and landscaping which distinguishes the access point, but which does not obstruct the safe sight distance requirements outlined above.	existing three access points on Christensen Road to service the proposed use. Access driveways will provide access to individual structures all of which will be designed in compliance with Australian standards in the first instance and subsequently the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application. The detailed design of access driveways, pathways and car parking will all be subject to further approvals and therefore if the council deems it necessary relevant features can be conditioned as part of an approval.	
PC42 Provision is made for safe pedestrian and disabled access.	AS42.1 Pedestrian paths designed for disabled access are provided between building entrances, public footpaths and car parking areas. AS42.2 Pedestrian paths are separated from vehicular driveways.	**PC42: Performance Criteria Compliant** Indicative pedestrian paths have been incorporated into the site design so as to facilitate safe pedestrian and disabled access. Please refer to the landscape intent plan submitted in support of this application for further details in relation to the design and location of pedestrian paths.	
Amenity Protection			
PC43 The proposed use must not detract from the amenity of the local area, having regard, but not limited, to the impact of: a) noise; b) hours of operation; c) traffic; d) lighting; e) signage;	AS43 No acceptable solution provided.	**PC43: Acceptable Solution Compliant** The proposed development has been designed in a manner that will not adversely impact on the surrounding environment. The design proposal has incorporated the following elements: a) The subject site is situated in a predominately industrial location in close proximity to an existing	

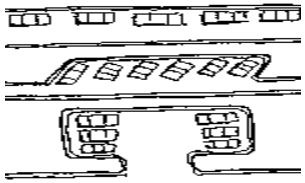
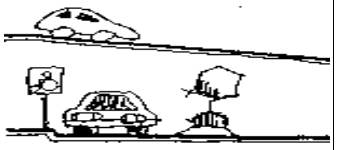
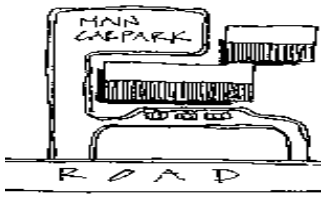
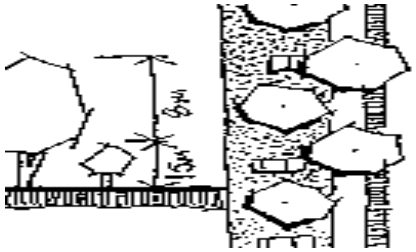
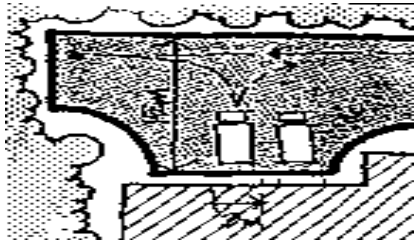
Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
f) visual amenity; g) privacy; h) odour and emissions.		extractive industry, highway and rail line and therefore it is not considered that the proposed operations will adversely impact on the amenity of the local area in terms of noise pollution. b) The hours of operation proposed for the new development are broadly in line with that of the existing operations on site and therefore it is not considered that the proposed development will adversely impact on the amenity of the local area. c) The proposed development will not adversely impact the amenity of the local area in terms of traffic. Please see traffic report submitted in support of this application. d) The proposed development is located a sufficient distance from surrounding residential areas so as to not detract from the amenity of the location. e) This application does not include a signage element. f) Every effort has been made to mitigate the impact of the proposal on the visual amenity of the local area, including appropriate siting of structures, screening and landscaping. g) The proposed development currently adjoins scrubland so therefore no impacts on privacy are perceived. h) The development is located a sufficient distance away from residential areas	

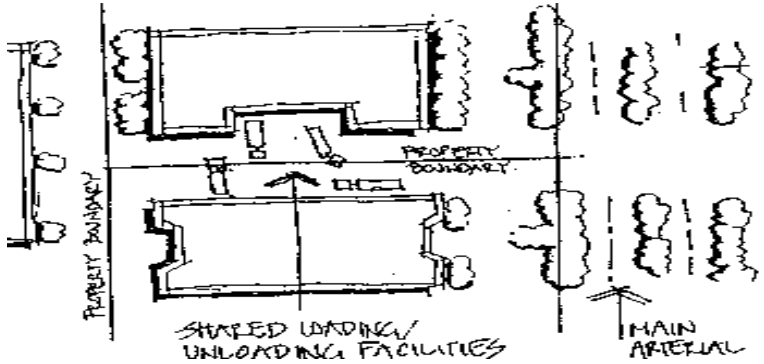
Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
		so as to not impact on their amenity.	
PC44 The proposed development must take into account and seek to ameliorate any negative aspects of the existing amenity of the local area, having regard, but not limited, to the existing impact of: a) noise; b) hours of operation; c) traffic; d) lighting; e) signage; f) visual amenity; g) privacy; h) odour and emissions.	AS44 No acceptable solution provided.	**PC44: Acceptable Solution Compliant** The development takes into account a range of amenity impacts which have been discussed in Code 43 above.	
Urban/Rural Use Conflicts			
PC45 Conflicts between urban and rural uses are to be avoided by effective development design.	AS45 The development of land adjacent to the agricultural character areas includes a suitable buffer.	**PC45: Acceptable Solution Compliant** The proposed development although not adjoining agricultural areas has incorporated buffers to the adjoining undeveloped land.	
Extractive Industry			
PC46 Extractive industry operations are managed to make effective use of the extractive resource, while containing any impacts on the subject site.	AS46 The extractive industry is managed and developed consistent with the Extractive Industry Domain Place Code.	**PC46: Not Applicable** This application does not relate to extractive industries.	
On-Site Vehicle Parking and Movement			
PC47 Internal driveways are provided for safe and easy manoeuvring of vehicles.	AS47.1 Internal driveways are designed and constructed to enable all vehicles to enter and exit the site in a forward motion. AS47.2	**PC47: Acceptable Solution Compliant** Access driveways will provide access to individual structures all of which will be designed in compliance with Australian standards in the first instance and	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	Minimum driveway widths are as follows: a) six metres to accommodate non-articulated vehicles; b) nine metres to accommodate articulated vehicles; c) 4.5 metres for one-way driveways.	subsequently the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application. The detailed design of access driveways will all be subject to further approvals and therefore if the council deems it necessary relevant features can be conditioned as part of an approval.	
PC48 On-site vehicle parking is provided to meet expected demand, having regard to: a) the size of the proposed workforce; b) the likely number of visitors to the site; c) the likely size and number of service and transport vehicles to be on the site at any one time; d) on-site parking and loading/unloading activities within sites; e) the availability of conveniently located on-street parking; f) any possible future expansion, redevelopment or change of use.	AS48.1 The number of car parking spaces provided on-site generally meets the standards set out in **Constraint Code 4 – Car Parking, Access and Transport Integration**. AS48.2 For multi-unit or multi-use developments, the total car parking provided is an aggregate of the standard parking required for each individual unit and/or component use. AS48.3 A lesser provision may be acceptable where it can be demonstrated, to Council's satisfaction, that the parking needs of a particular development will be adequately met. Where less than the standard amount of parking is provided, the left over space is retained as landscaped open space and placed so as to be suited to ready conversion to additional parking, should the use of the site change and/or the actual car parking demand rise.	**AS48.1: Acceptable Solution Compliant** The proposed development includes the provision for approximately 200 car parking spaces which exceeds the standards set out by the Planning Scheme. **AS48.2: Acceptable Solution Compliant** The proposed car parking provision meets the required aggregate requirement of the Planning Scheme. **AS48.3: Not Applicable** The proposed development includes the provision for approximately 200 car parking spaces which exceeds the standards set out by the Planning Scheme.	
Figure 29-12 Aspects of Good Road Design			

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
			
Intersections should be near perpendicular. Off-set distances should be considered depending on road types and design speeds.	Sight distances depend on design speeds. However a driver 20m from an intersection should see the entire intersection plus 20m of the intersecting street either side.		
			
Kerb radii requirements for heavy vehicles.	Minimum turning radius for heavy vehicles.		
PC49 On-site vehicle parking is located: a) to allow easy access to building entrances; b) to provide visitor spaces for short term/high turnover use clearly visible from the street and signposted accordingly; c) to be adequately screened from the street; d) compatible with surrounding development and, where possible,	AS49.1 In areas where visual amenity is important and/or where relatively large amounts of parking are provided, parking areas are generally situated to the rear or side of the site. In particular, employee parking is situated at the rear of the site, with staff entrances at the rear of the building. AS49.2 Some parking may be located toward the front of the site convenient to the street, provided it is behind landscaping strips and	**AS49.1: Acceptable Solution Compliant** The proposal has sought to incorporate all employee parking to the rear of the building line. **AS49.2: Acceptable Solution Compliant** Limited parking has been proposed forward of the building line with the appropriate landscaping to mitigate its location. **AS49.3: Acceptable Solution Compliant**	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
facilitating shared use with adjacent land users.	treated aesthetically. AS49.3 Short term/high turnover visitor parking and disabled parking spaces are located close to the main building entrance and clearly signposted. AS49.4 Driveways and parking areas may be constructed to property boundaries and linked to adjoining car parking areas. Similarly, loading areas may be located to facilitate shared turning areas across property boundaries.	Visitor car parking has been incorporated in close proximity to reception areas where possible. **AS49.4: Not Applicable** The proposed development includes driveways and car parking to property boundaries therefore providing flexibility for future developments to integrate into the existing operation in the future.	
Loading and Unloading			
PC50 All loading and unloading activities take place on-site, unless access is from a service street and effectively screened.	AS50 Loading docks are located in the side or rear portions of the site, separate from public/visitor parking and access points, and screened by vegetation or walls to avoid public view.	**AS50: Acceptable Solution Compliant** The proposed loading docks and bays have been located rear of the building lines.	
PC51 Adequate provision is made for on-site manoeuvring of heavy vehicles.	AS51.1 On sites over 4,000m^2 and/or where the uses thereon involve regular servicing by heavy vehicles, on-site service areas are provided. On-site service areas comprise an area of land with an appropriate hard surface to enable a heavy vehicle to turn around within the site (based on standard design turning templates given by **AUSTROADS AS 2890.1, 2890.2**), and space for additional service vehicle parking and storage requirements. AS51.2 It may be acceptable for two or more developments to share heavy vehicle turning areas.	**AS51: Acceptable Solution Compliant** Adequate provision has been made on site for the manoeuvring of vehicles, including that of an articulated vehicle. Specifically two key loading areas are to be located to the south of the four new warehouses to the rear that have sufficient manoeuvring areas. For further information please refer to the Traffic Impact Assessment submitted in support of this application. **AS51.2: Not Applicable** Not applicable due to characteristics of adjoining landholdings.	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Figure 29-13 Design Aspects – On-Site Car Parking & Circulation			
			
One way loop.	Two way entry.	Separate entry.	
			
Car parking layouts.	Slopes in any direction across car park 5% maximum and 1% minimum spaces provided for physically challenged.	Visitor spaces for short term high turnover.	
			
One tree every 6 parking spaces 1.5m high at time of planting capable of reaching a maximum height of 8m.	Loading unloading areas to provide for adequate turning circles.		

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Figure 29-14 Shared Vehicle Access			
			
Shared site facilities allows for more efficient use of space could be achieved by access easements. Close attention to detail design required to avoid conflict during heavy usage periods may require some staggering of docking facilities.			
Site Servicing			
PC52 The design and provision of water, stormwater drainage, sewerage, electricity, gas and communications networks meets the needs of industry and business, and provides an orderly and economic progression of service development in the region.	AS52.1 The design and supply of water, stormwater drainage, sewerage, electricity, gas and communication services is in accordance with the requirements of **Planning Scheme Policy 11 – Land Development Guidelines** and the responsible authority (eg. Telstra, Queensland Electricity Boards, and Queensland Emergency Services). AS52.2 Car park entrances and ramps, loading docks and access ways are minimised, suitably designed and treated to ensure that they do not adversely impact on the streetscape and adjoining development.	**AS52.1: Acceptable Solution Compliant** The proposed development will seek to utilise existing servicing arrangements to cater for the proposed new development. The provision of key services such as water, stormwater drainage, sewerage, electricity, gas and communication services (where additional works are required) will be designed to comply with the relevant provisions of the Gold Coast Planning Scheme. **AS52.2: Acceptable Solution Compliant** The proposed development has ensured that car parking, loading docks and access ways have been designed in a manner that does not adversely impact the amenity of the local area or adjacent	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
		development. Please refer to the traffic report submitted in support of this application.	
PC53 Conflicts between pedestrians and vehicles at entrance points to parking areas are to be minimised.	AS53.1 The number of vehicle entry points to a development site is minimised, particularly in areas which have high volumes of pedestrian traffic and on streets with a significant through road function. AS53.2 Entrance points to parking and loading areas have clear and unobstructed visibility of pedestrian pathway areas, with pedestrian crossing points clearly identified which give priority to pedestrians.	**AS53.1: Acceptable Solution Compliant** The proposed development will utilise the existing three access points on Christensen Road to service the proposed use. **AS53.2: Acceptable Solution Compliant** The proposed design has sought to maintain sightlines and minimise visual clutter around entry points in order to ensure safety and legibility.	
PC54 Development is to be designed to support the functional operation of the cycle network.	AS54 Development is designed to support the functional operation of the local and regional cycleway system. (Local cycle ways will be determined at time of subdivision of each development.)	**PC54: Not Applicable** The proposed development is not considered to be at an appropriate scale or use to warrant the need for a defined cycle path.	
Public Convenience Facilities Within Buildings			
PC55 Commercial developments are to include public convenience facilities, where there is a need for their provision.	AS55 Where provided, public toilet facilities are open and readily accessible to the general public during retail trading hours or other trading hours relevant to the development.	**AS55: Acceptable Solution Compliant** Toilet facilities will be available within the proposed new office structure during business hours.	

ASPart 7 Codes
Division 3 Constraint Codes
Chapter 4 Car Parking, Access and Transport Integration

1.0 Purpose

To ensure that transport needs, including car parking and service vehicle requirements, associated with the development of land are met by:

- supply of car and bicycle parking facilities;
- provision of loading and service facilities; and
- integration of public transport with private and public development in the City.

Key objectives include:

a) the availability of car park opportunities that are easy to locate and use, in close proximity to all major developments and uses within the City, with on-site provision available for occupants and on-street provision and/or public car parks available for visitors;

b) the effective use of all car park infrastructure provided in the City; and

c) streets that are pedestrian and cyclist friendly.

2.0 Application

2.1 This code applies to development indicated as self, code or impact assessable in the Table of Development in the domain or Local Area Plan (LAP) within which the development is proposed.

2.2 This code specifically applies to development (whether on private or public land) that requires one or more of the following:

- private or public car parking;
- bicycle parking and associated facilities;
- goods loading and circulation in public or private places; and
- integration of public transport with private or public development in the City.

2.3 This code also applies to any development that is proposed for sites identified on Domain Maps or the Priority Infrastructure Plan Maps as being affected by Future Road Requirements, including areas required for future road corridor development.

2.4 Where a domain or LAP Place Code contains car parking requirements that differ from this code, the LAP requirements take precedence.

2.5 Performance Criteria PC1-PC24 apply to all code and impact assessable development referred to in this code. For development identified as self assessable, in the relevant domain or LAP, only the acceptable solutions to Performance Criteria PC1-PC16 apply.

3.0 Development Requirements

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Development that is Self Assessable, Code Assessable or Impact Assessable			
Protection and Preservation of Areas Required for Road Widening, the Provision of Public Transport Facilities or New Transport Corridors			
PC1 Land affected by any proposed road realignment or widening must not have development constructed over that part of the land required for road realignment or road widening.	AS1 All sites that are affected by Future Road Requirement as shown on the Domain Maps, do not have buildings or structures erected forward of the indicated building setback line. This requirement does not apply to a fence with a height not exceeding 1.8 metres and a width not exceeding 0.5 metres.	**PC1: Not Applicable** The subject site has not been identified within any future road policies.	
Port Cocheres			
PC2 Where provision is made for a *porte cochere*, it must be designed to enable vertical clearance, manoeuvring, access and queuing of vehicles. The capacity of the *porte cochere* and associated access and manoeuvring must accommodate vehicles entirely within the site, including the queuing of vehicles.	AS2 The *porte cochere* has a minimum vertical clearance of 4.5 metres.	**PC2: Not applicable** A porte cochere has not been proposed as part of this application	
Design of Car Parking Areas and Car Park Spaces			
PC3 All car parking spaces must be constructed and line marked to the correct size and standard.	AS3.1 All car parking spaces and facilities are constructed, sealed, line marked and maintained in accordance with the layout requirements of **AS2890.1 – Parking Facilities Part 1: Off Street Car Parking and AS2890.2 – Off Street Parking Part 2: Commercial Vehicles**. AS3.2 Where the development includes a combination of low turnover and high turnover car spaces, the parking spaces and aisles are designed to the high turnover or Class 3 requirements in **AS2980.1 – Parking Facilities Part 1: Off Street Car Parking**.	**AS3.1: Acceptable Solution Compliant** The provision of car parking complies with the requirements of the Planning Scheme. Car parking will be designed in compliance with Australian standards in the first instance and subsequently the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application. The detailed design of access driveways, pathways and car parking will all be subject to further approvals and therefore if the council deems it necessary relevant	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
		features can be conditioned as part of an approval. **AS3.2: Acceptable Solution Compliant** The proposed design is compliant with the requirements of Planning Scheme with regards car parking turnover.	
PC4 Car parking areas must be landscaped to reduce visual impact and to provide opportunities for shade.	AS4 In car parking areas exceeding 300m^2 in site area: a) at least 5% of the area is landscaped; b) a landscaped buffer, with a minimum height of 600mm and width of 1500mm, is provided along any public street frontage and the common boundary to the adjoining property; and c) one landscaped tree bay is to be provided for every 21 car parking spaces.	**PC4: Performance Criteria Compliant** A landscape intent plan has been prepared in support of this application to demonstrate the intended landscaping of car parking area. Please refer to the landscaping intent plan submitted in support of this application for further information.	
Signs and Line Marking			
PC5 Signs and line marking must be provided to indicate the location of the car park and the position of the access points for all car parks used by the public where: a) a car park is located at the rear of the site; b) access to the car park is not located in the main frontage road; c) there are a number of access points serving different parts of the site.	AS5.1 Signs incorporate the standard Service Sign Series 'P' sign, as detailed under **Guide Signs** in the **Manual of Uniform Traffic Control Devices, Queensland**. (This does not apply to residential developments with less than 10 units) AS5.2 Signs are used to mark car parking bays which are provided for disabled drivers, motorcycles and special zones, such as bus zones.	**PC5: Performance Criteria Compliant** Appropriate conditions can be set by council ensure that the appropriate signage and line marking is incorporated into the detailed design of car parking areas.	
Tandem Car Spaces			
PC6 Tandem car parking must only be used in circumstances where no inconvenience arises from its use.	AS6.1 Tandem car parking spaces (ie. two car parking spaces, nose to tail) are counted as one space, except in the following cases:	**PC6: Not applicable** The proposed development does not include tandem car parking.	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	a) the development is for residential purposes; b) the tandem spaces are to be used by the occupants of the site, in one tenancy; c) the car park area is to be operated as a public car park with on-site management. In this case, a tandem car park may be counted as no more than 1.5 car spaces. AS6.2 The minimum length of the tandem car space is 10.4 metres. AS6.3 Tandem garages have a minimum internal length of 11 metres.		
Access to Car Park Areas			
PC7 Car parking areas must not cause vehicle queues into the frontage road system or encourage drivers to reverse into the road system.	AS7.1 For developments in excess of 100 residential units with frontage to major roads, a turn round facility with a minimum diameter of 12.0m is provided between the gate and the road. AS7.2 All car parking facilities, except those associated with detached dwellings and duplex dwellings is designed so that all vehicles enter and exist the site in a forward gear. AS7.3 Provision is made for a defined queuing area, free of any parking manoeuvres or internal intersections in accordance with the provisions of the **Table to Acceptable Solution AS7.3**, for developments comprising of more than two dwelling units and where a security gate is proposed.	**PC7: Performance Criteria Compliant** The provision of car parking complies with the requirements of the Planning Scheme. Car parking will be designed in compliance with Australian standards in the first instance and subsequently the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application. The detailed design of access driveways, pathways and car parking will all be subject to further approvals and therefore if the council deems it necessary relevant features can be conditioned as part of an approval.	

Table to Acceptable Solution AS7.3

Car Park Capacity (Number of Spaces)	Minimum Queue Length (Vehicles) *

1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 250	7
More than 250	7 plus 1% of capacity over 250 spaces

**** Note:*** ***Each vehicle shall be taken to occupy 6.0 metres in length.***

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
PC8 Car parking areas providing more than 20 car parking spaces must allow for the separation of vehicles and pedestrians.	AS8 Sealed pedestrian footpaths, at a gradient not exceeding 1:12, are provided from the car parking area along the shortest possible route to the point of destination.	**PC8: Performance Criteria Compliant** Indicative pedestrian paths have been incorporated into the carpark design as illustrated on the landscape intent plan submitted in support of this application.	
PC9 Access to car parking spaces must be provided for employees and visitors.	AS9.1 Car park areas have no gateways, doors or similar devices which restrict vehicular access by employees or visitors.	**AS9.1: Acceptable Solution Compliant** The proposal does not include gateways, doors or similar devices that restrict vehicular movement.	
Driveways and Crossovers			
PC10 Driveways from car parks or developments into public roads must be minimised to reduce interference with public road traffic and pedestrians.	AS10.1 The maximum number of crossovers for residential developments is one for detached dwelling properties and two for multiple unit dwelling complexes. AS10.2 The maximum number of crossovers for non-residential developments is two crossovers per property. AS10.3 A vehicle crossover is separated from any other vehicle crossover by a minimum distance of three metres.	**PC10: Performance Criteria Compliant** The proposed development will utilise the existing three access points on Christensen Road to service the proposed use. Access driveways will provide access to individual structures all of which will be designed in compliance with Australian standards in the first instance and subsequently the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application.	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
PC11 All development must make provision for safe access to roads or streets adjacent to the site. Crossovers must be constructed to a standard consistent with the vehicles using the site.	AS11.1 The geometric design of entry and exit driveways conforms with **Standard Drawing No 59218** of **Planning Scheme Policy 11 – Land Development Guidelines**. AS11.2 Access to roads or streets adjacent to the site is consistent with **AS2890.1 – Parking Facilities Part 1: Off Street Car Parking** and **AS2890.2 – Off Street Parking Part 2: Commercial Vehicles**. AS11.3 Where separate entry and exit driveways are used, the first driveway reached from the kerbside land is clearly delineated and sign-posted. AS11.4.1 Access to developments on dual carriageway roads is left in/left out. OR AS11.4.2 A new intersection is provided between the access way and the dual carriageway. AS11.5 Developments with traffic signal controlled or roundabout access to the frontage road dedicate land as public road to accommodate all intersection infrastructure, including traffic signal loops. AS11.6 The boundaries of the frontage road are modified to accommodate all intersection infrastructure within the public road. AS11.7 Developments with new traffic signal controlled access, within network traffic systems, provide the necessary infrastructure to integrate the new signals.	**PC11: Performance Criteria Complaint** The proposed development will utilise the existing three access points on Christensen Road to service the proposed use. For further information please see attached traffic impact assessment submitted in support of this application.	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Internal Circulation			
PC12 All developments must provide internal circulation to avoid use of the public road system for movement between different car parking and vehicle service areas in the development.	AS12.1 The internal layout of the site is consistent with **AS2890.1 – Parking Facilities Part 1: Off Street Car Parking** and **AS2890.2 – Off Street Parking Part 2: Commercial Vehicles**. AS12.2 Parking and circulation aisles have a maximum length of 100 metres. AS12.3 Dead end aisles do not exceed 20 metres in length. AS12.4 Aisle design does not include cross intersections. AS12.5 Car parking space/s is/are not located in areas used for manoeuvring of heavy vehicles. AS12.6 Car parks are designed so that vehicles do not reverse across pedestrian crossings. AS12.7 Speed humps are not provided in entry or exit queuing areas.	**PC12: Performance Criteria Compliant** The proposed development will utilise the existing three access points on Christensen Road to service the proposed use. Access driveways will provide access to individual structures all of which will be designed in compliance with Australian standards in the first instance and subsequently the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application. The detailed design of access driveways, pathways and car parking will all be subject to further approvals and therefore if the council deems it necessary relevant features can be conditioned as part of an approval.	
Loading Bay and Set Down Area Requirements			
PC13 Development must make provision for loading bays and set down areas for the: a) collection and set down of passengers; b) parking of trailers; c) service vehicle parking; and d) loading and unloading of goods.	AS13 Loading and set down areas are provided consistent with the **AS2890.2 – Off Street Parking Part 2: Commercial Vehicles**.	**AS13: Acceptable Solution Compliant** Loading and set down areas have been designed in a manner consistent with the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application.	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Design Service Vehicle Requirements			
PC14 Development must provide for the required 'design service vehicle' to service the development.	AS14.1 Provision is made for service vehicles, in accordance with the **Table to Acceptable Solution AS14.1**. AS14.2 Provision is made for service vehicles, in accordance with the **Table to Acceptable Solution AS14.2**, for sites less than 4,000m^2 in area that require access by service vehicles. AS14.3 Provision is made for height clearance of 4.5 metres for service station canopies and access clearance height associated with the appropriate design vehicle in other applicable developments. AS14.4 A driveway which caters for heavy vehicles is designed in accordance with **AS2890.2 – Off Street Parking Part 2: Commercial Vehicles** and **Standard Drawing No 59218 Section 7.4** of **Planning Scheme Policy 11 – Land Development Guidelines**.	**PC14: Performance Criteria Compliant** Servicing arrangements have been designed in a manner consistent with the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application. Specifically two key loading areas are to be located to the south of the four new warehouses to the rear that have sufficient manoeuvring areas. For further information please refer to the Traffic Impact Assessment submitted in support of this application.	

Table to Acceptable Solution AS14.1

Use or Development	Service Vehicle Provisions
Aged Persons Accommodation	HRV
Animal Husbandry	AV
Aquaculture	HRV
Bulk Garden Supplies	HRV
Cafe	SRV
Cinema	SRV
Commercial Services	SRV
Community Care Centre	SRV

Table to Acceptable Solution AS14.1	
Use or Development	**Service Vehicle Provisions**
Community Purposes	SRV
Convenience Shop	SRV
Educational Establishment	SRV
Fast Food Premises	HRV
Freight Depot	AV
Fuel Depot	AV
Funeral Parlour	SRV
Hospital	HRV
Industry	AV
Indoor Recreation including: a) squash court or any other court game; b) meeting place, public hall, pinball parlour, amusement arcade; c) theatre, cinema; d) licensed club; e) skating rink, swimming pool; f) gymnasium; and g) public library, public lecture hall, art gallery, museum, any other indoor recreation.	SRV
Kennel	SRV
Manufacturers Shop	HRV
Marina	AV
Marina Shop	SRV
Market	SRV
Medical Centre	SRV
Milk Depot	AV
Mini-Storage Warehousing	HRV
Minor Tourist Facility	SRV
Motel	SRV
Motor Vehicle Repairs	HRV

Table to Acceptable Solution AS14.1	
Use or Development	**Service Vehicle Provisions**
Night Club	SRV
Outdoor Sport and Recreation: a) tennis court or other court game (where not ancillary to other development); b) lawn bowls; c) skating rinks, swimming pools; d) golf course.	SRV
Office	SRV
Place of Worship	SRV
Reception Room	SRV
Resort Hotel	HRV
Restaurant	SRV
Restricted Club	HRV
Retail Plant Nursery	HRV
Rural Industry	AV
Salvage Yard	HRV
Service Industry	SRV
Service Station	AV
Shop	SRV
Shop with GFA of less than $400m^2$	SRV
Shop with GFA $400m^2$ – $1500m^2$	HRV
Shop with GFA larger than $1500m^2$	AV
Shopping Centre Development	AV
Showroom	HRV
Storage	SRV
Take-Away Food Premises	SRV
Tavern	HRV
Temporary Use	AV
Theatre	SRV

Table to Acceptable Solution AS14.1	
Use or Development	**Service Vehicle Provisions**
Tourist Shop	SRV
Transit Centre	HRV
Transport Terminal	AV
Vehicle Hire Premises	AV
Vehicle Sales Premises	AV
Warehouse	AV
Waterfront Industry	HRV

Note: ***SRV: Small Rigid Vehicle as defined in AS2890.2 – Off Street Parking Part 2: Commercial Vehicles.***
HRV: Heavy Rigid Vehicle as defined in AS2890.2 – Off Street Parking Part 2: Commercial Vehicles.
AV: Articulated Vehicle as defined in AS2890.2 – Off Street Parking Part 2: Commercial Vehicles.

Table to Acceptable Solution AS14.2	
HRV and AV Requirements	
Site Area (m^2)	**Requirement**
Less than $1000m^2$	Demonstrate that the development can accommodate the particular design vehicle but a separate service bay and associated manoeuvring are not required. Where it can be demonstrated that loading and unloading can take place within the road reserve, without impacting on the safe and efficient operation of traffic and with no detrimental impact on amenity, Council or its delegate may determine that HRV and AV access is not required.
$1000m^2$ – $2000m^2$	a) service bay for HRV is required. b) restricted manoeuvring on site for HRV or AV (as required). c) full on-site manoeuvring for other classes of service vehicle is required.
$2000m^2$ – $4000m^2$	a) service bay to be provided for HRV or AV (as required). b) restricted manoeuvring on site for AV (as required). c) full on-site manoeuvring for HRV and other classes of service vehicle is required.

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Provision of Bicycle Parking Spaces			

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
PC15 Bicycle parking must be provided for all non-residential developments where the required car parking provision exceeds 20 parking spaces.	AS15.1 Where non-residential development requires the provision of more than 20 car parking spaces, bicycle parking is provided in accordance with the **Austroads Guide to Traffic Engineering Practice: Part 14: Table 10.1**. AS15.2 Where bicycle parking is to be provided, additional facilities for bicycle users are designed and constructed in accordance with **AS2890.3 – Parking Facilities Part 3: Bicycle Parking Facilities**.	**PC15: Performance Criteria Compliant** Due to scale of the proposed facilities there will adequate opportunity for bicycle parking within the proposed development. Appropriate conditions can be set by council in relation to the adequate provision of bicycle parking spaces on site.	
Provision of Car Parking Spaces			
PC16 Sufficient car parking spaces must be provided to meet the car parking needs of the development. The number of car parking spaces provided must be consistent with the practical opportunities available for shared car parking provision and the operation of alternative transport modes to private motor vehicles. Car parking design contributes to delivering development with a built form that is robust and flexible, allowing adaptation or redevelopment over time to a variety of uses, increased densities or increased employment intensity.	AS16.1 Car parking is provided in accordance with the number of spaces required for the specific use listed in the **Table to Acceptable Solution AS16.1**. AS16.2 If an additional building is constructed, or an existing building is extended, the car space requirements determined from **Table to Acceptable Solution AS16.1** accrue only for the additional building or extension, provided that the use of the land remains the same and any existing area for car parking is not reduced or, if disturbed, any existing car spaces are replaced in the new development.	**AS16.1: Acceptable Solution Compliant** The provision of car parking complies with the requirements of the Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application. **AS16.2: Acceptable Solution Compliant** The proposed development will not detract from the provision of car parking associated with the existing buildings on site.	

Table to Acceptable Solution AS16.1

This table sets out the minimum number of car parking spaces required according to the use of the land.
Where the calculated number of car spaces is not a whole number, the number of car parking spaces required must be the next higher whole number.

Material Change of Use	Minimum Number of Car Parking Spaces to be Provided
Aged Persons Accommodation	a) one (1) space per self-contained dwelling, plus one (1) visitor space per 10 self-contained dwellings; b) one (1) space per two hostel units; c) one (1) space per four nursing home beds; d) 50% of the total number of car parking spaces required should be provided for visitor parking in a central location.
Amusement Parlour	5 spaces per 100m^2 of GFA – one (1) space per 20m^2.
Apartments	a) for developments with up to 20 apartments, one (1) space per one (1) bedroom apartment, and 2 spaces per 2 bedroom and larger apartments, plus one (1) space per four apartments for visitor parking. b) for developments with more than 20 apartments, requirements for first 20 apartments as in a) plus, one (1) space per apartment and one (1) space per 10 apartments for visitor parking for subsequent units. c) for developments in excess of 20 apartments, the units with 2, 3 or 4 bedrooms shall be considered first in the determination of total parking spaces. d) for mixed-use development with a single apartment, visitor parking for the apartment is not required. e) where development: ▪ is on a site that only has frontage to a road listed below; or ▪ the access to the proposed development is to a road listed below; and ▪ where the frontage is included in that part of the road listed below; additional visitor car parking shall be provided at a rate of one (1) car parking space for every two (2) visitor car parking spaces required. **Road** — **Part of Road** Aloha Lane — The whole Cooinda Avenue — Northern alignment Beulah Lane — The whole Cronin Avenue — The whole Darwalla Avenue — The whole Eden Avenue — Both alignments from Hill Street to Ward Street and from Ward Street to and including BUP 5455 (Lot 1 RP 188138), and to and including Lot 6 RP154810 Fenton Place — The whole Garfield Terrace — The whole Hedges Avenue — The whole Jefferson Lane — North of Third Avenue Lennie Avenue — The whole Little Norman Street — The whole Montgomery Avenue — The whole

Table to Acceptable Solution AS16.1

	Mountbatten Avenue — The whole Northcliffe Terrace — The whole Nagel Avenue — Western alignment from and including Lot 12 RP 46948 to and including Lot 1 RP 46948 O'Connor Street — Western Alignment from Wybera Street to and including Lot 26 RP 49999 Owens Lane — The whole Pacific Parade — The whole Park Lane — The whole Peak Avenue — The whole Schuster Avenue — The whole Sunshine Court — The whole Swan Lane — The whole
Attached Dwelling	a) 2 spaces per dwelling, of which one (1) is to be covered, plus one (1) space per two dwellings for visitor parking. b) where development: ▪ is on a site that only has frontage to a road listed below; or ▪ the access to the proposed development is to a road listed below; and ▪ where the frontage is included in that part of the road listed below; additional visitor car parking shall be provided at a rate of one (1) car parking space for every two (2) visitor car parking spaces required. **Road** — **Part of Road** Aloha Lane — The whole Cooinda Avenue — Northern alignment Beulah Lane — The whole Cronin Avenue — The whole Darwalla Avenue — The whole Eden Avenue — Both alignments from Hill Street to Ward Street and from Ward Street to and including BUP 5455 (Lot RP 1881138), and to and including Lot 6 RP154810 Fenton Place — The whole Garfield Terrace — The whole Hedges Avenue — The whole Jefferson Lane — North of Third Avenue Lennie Avenue — The whole Little Norman Street — The whole Montgomery Avenue — The whole Mountbatten Avenue — The whole Northcliffe Terrace — The whole Nagel Avenue — Western alignment from including Lot 12 RP 46948 to and including Lot 1 RP 46948 O'Connor Street — Western alignment from Wybera Street to and including Lot 26 RP 49999 Owens Lane — The whole Pacific Parade — The whole Park Lane — The whole

Table to Acceptable Solution AS16.1	
	Peak Avenue The whole Schuster Avenue The whole Sunshine Court The whole Swan Lane The whole ***Note:*** ***The visitor parking space may be provided on street in the case of a duplex development.***
Bed and Breakfast	one (1) space per guest room (in addition to the requirement of 2 spaces per dwelling, of which one (1) is to be covered).
Bulk Garden Supplies	2 spaces per 100m^2 of Total Use Area (one (1) space per 50m^2 of Total Use Area).
Cafe	6.7 spaces per 100m^2 of GFA (including any outdoor dining areas) (one (1) space per 15m^2 of GFA).
Caravan Park	one (1) space per site, plus visitor parking of one (1) space per ten sites.
Caretaker's Residence	2 spaces, of which one (1) is to be covered.
Child Care Centre	one (1) space per employee, plus on-site passenger set down area of one (1) space for every five children enrolled.
Cinema	as determined by Council, requiring a Traffic Impact Report.
Commercial Services	4 spaces per 100m^2 of GFA (one (1) space per 25m^2 of GFA).
Community Care Centre	one (1) space per employee, based on the maximum number of employees on the premises at any one time, plus one (1) space per ten residents or other occupants of the premises.
Community Purposes	as determined by Council.
Convenience Shop	6.7 spaces per 100m^2 of GFA (one (1) space per 15m^2 of GFA).
Detached Dwelling	2 spaces per dwelling, of which one (1) is to be covered.
Display Home	as determined by Council.
Ecotourism Facility	as determined by Council, requiring Traffic Impact Report.
Educational Establishment: a) primary school b) secondary school c) tertiary and further education d) other	a) one (1) space per staff member; b) one (1) space per staff member, plus one (1) space per each ten Year 12 students enrolled; c) as determined by Council, requiring Traffic Impact Report; and d) as determined by Council, requiring Traffic Impact Report.
Estate Sales Office	5 spaces.
Family Accommodation	one (1) space, in addition to the spaces required for the main dwelling.

Table to Acceptable Solution AS16.1	
Family Day Care Home	no on-site spaces required.
Farm Stay	one (1) space for each guest bedroom (in addition to the requirement of 2 spaces per dwelling, of which one (1) is to be covered).
Fast Food Premises	a) 0.4 spaces per seat, plus one (1) space per 100m^2 of GFA; OR b) 10 spaces per 100m^2 of GFA, plus 20 spaces per 100m^2 of GFA outdoor seating areas, whichever is the greater, plus queuing area for 10 vehicles associated with any drive through sales facility.
Freight Depot	one (1) space per employee, plus one (1) visitor parking space.
Fuel Depot	one (1) space per employee, plus one (1) visitor parking space.
Funeral Parlour	10 spaces per 100m^2 of GFA (one (1) space per 10m^2 of GFA).
Home Occupation	2 spaces for the purposes of the Home Occupation, in addition to the spaces required for the dwelling.
Home Office	one (1) space for the purpose of the Home Office, in addition to the spaces required for the dwelling.
Hospital	as determined by Council, requiring a Traffic Impact Report.
Hostel Accommodation	a) one (1) car space per 15m^2 of the total sleeping accommodation area, plus one (1) car space for any manager's or caretakers unit. b) where development: ▪ is on a site that only has frontage to a road listed below; or ▪ the access to the proposed development is to a road listed below; and ▪ where the frontage is included in that part of the road listed below. additional visitor car parking shall be provided at a rate of one (1) car parking space for every two (2) visitor car parking spaces required. **Road** — **Part of Road** Aloha Lane — The whole Cooinda Avenue — Northern alignment Beulah Lane — The whole Cronin Avenue — The whole Darwalla Avenue — The whole Eden Avenue — Both alignments from Hill Street to Ward Street and from Ward Street to and including BUP 5455 (Lot RP 1881138), and to and including Lot 6 RP154810 Fenton Place — The whole Garfield Terrace — The whole Hedges Avenue — The whole Jefferson Lane — North of Third Avenue Lennie Avenue — The whole Little Norman Street — The whole Montgomery Avenue — The whole

Table to Acceptable Solution AS16.1	
	Mountbatten Avenue — The whole Northcliffe Terrace — The whole Nagel Avenue — Western alignment from including Lot 12 RP 46948 to and including Lot 1 RP 46948 O'Connor Street — Western alignment from Wybera Street to and including Lot 26 RP 49999 Owens Lane — The whole Pacific Parade — The whole Park Lane — The whole Peak Avenue — The whole Schuster Avenue — The whole Sunshine Court — The whole Swan Lane — The whole
Indoor Recreation Facility: a) squash court or any other court game b) meeting place, public hall c) pinball parlour, amusement arcade d) theatre, cinema e) licensed club f) skating rink or swimming pool g) gymnasium h) public library, public lecture hall, art gallery, museum, any other indoor recreation	a) 4 spaces per court; b) 10 spaces per 100m^2 of GFA (one (1) space per 10m^2 of GFA); c) 5 spaces per 100m^2 of GFA (one (1) space per 20m^2 of GFA); d) as determined by Council, requiring Traffic Impact Report; e) 6 spaces per 100m^2 of GFA (one (1) space per 17m^2 of GFA), additional parking for gaming machines at the rate of one (1) space per 3 gaming machines; f) 15 spaces, plus one (1) space per 100m^2 of GFA; g) 10 spaces per 100m^2 of GFA; h) as determined by Council or its delegate.
Industry	2 spaces per tenancy plus 1 space per 50m^2 of GFA up to 500m^2 plus 1 space per 100m^2 of GFA over 500m^2.
Integrated Housing	2 spaces per dwelling, of which one (1) must be covered, plus 0.5 spaces per dwelling visitor parking, distributed throughout the site in accessible locations.
Kennel	one (1) space per employee, with a minimum of two spaces plus one (1) visitor parking space.
Laundromat	5 spaces per 100m^2 of GFA (one (1) space per 20m^2 of GFA).
Manufacturers Shop	a) 6.7 spaces per 100m^2 of area used for retail (one (1) space per 15m^2 of area used for retail); b) 2.5 spaces per 100m^2 of area used for manufacturing (one (1) space per 40m^2 of area used for industry).
Marina	a) 0.6 spaces for each wet berth designed for boats ten metres and under; b) 0.8 spaces for each wet berth designed for boats between ten metres and 15 metres; c) one (1) space for each wet berth designed for boats greater than 15 metres; d) 0.2 spaces for each dry berth or swing mooring; plus e) 0.5 spaces for each employee;

Table to Acceptable Solution AS16.1	
	f) one (1) space per 50m^2 of GFA of ancillary activities associated with the marina; g) one (1) space for each wet berth designed for boats greater than 15 metres.
Marina Shop	6.7 spaces per 100m^2 of GFA (one (1) space per 15m^2 of GFA).
Market	as determined by Council, requiring Traffic Impact Report.
Medical Centre	5 spaces per 100m^2 of GFA (one (1) space per 20m^2 of GFA).
Mini-Storage Warehousing	a) one (1) space per ten (10) storage sheds; plus b) one (1) space per 30m^2 GFA administration office area; plus c) a minimum traffic circulation aisle width of 6.5 metres.
Minor Tourist Facility	as determined by Council, requiring Traffic Impact Report.
Motel	a) one (1) space per room, plus one (1) space for the manager's residence. b) where a restaurant is included, 0.15 spaces per seat or 3.5 spaces per 100m^2 of the restaurant GFA, whichever is the greater. c) where development: ▪ is on a site that only has frontage to a road listed below; or ▪ the access to the proposed development is to a road listed below; and ▪ where the frontage is included in that part of the road listed below. additional visitor car parking shall be provided at a rate of one (1) car parking space for every two (2) visitor car parking spaces required. **Road** — **Part of Road** Aloha Lane — The whole Cooinda Avenue — Northern alignment Beulah Lane — The whole Cronin Avenue — The whole Darwalla Avenue — The whole Eden Avenue — Both alignments from Hill Street to Ward Street and from Ward Street to and including BUP 5455 (Lot RP 1881138), and to and including Lot 6 RP154810 Fenton Place — The whole Garfield Terrace — The whole Hedges Avenue — The whole Jefferson Lane — North of Third Avenue Lennie Avenue — The whole Little Norman Street — The whole Montgomery Avenue — The whole Mountbatten Avenue — The whole Northcliffe Terrace — The whole Nagel Avenue — Western alignment from including Lot 12 RP 46948 to and including Lot 1 RP 46948 O'Connor Street — Western alignment from Wybera Street to and including Lot 26 RP 49999

Table to Acceptable Solution AS16.1	
	Owens Lane The whole Pacific Parade The whole Park Lane The whole Peak Avenue The whole Schuster Avenue The whole Sunshine Court The whole Swan Lane The whole
Motor Vehicle Workshop	6.7 spaces per 100m^2 of GFA (one(1) space per 15m^2 of GFA).
Night Club	6 spaces per 100m^2 of GFA (one (1)space per 17m^2 of GFA).
Office	3 spaces per 100m^2 of GFA (one (1) space per 33m^2 of GFA).
Outdoor Sport and Recreation: a) tennis court or other court game (where not ancillary to other development) b) lawn bowls c) skating rinks, swimming pools d) golf course e) racecourse f) sporting arena g) clubhouse	a) 4 spaces per court; b) 20 spaces per green; c) 15 spaces, plus one (1) space per 100m^2 of Total Use Area; d) the greater of: ▪ 4 spaces per hole, plus 3 spaces per 100m^2 of GFA of club house area; or ▪ 6 spaces per 100m^2 of GFA of club house area; e) as determined by Council, requiring Traffic Impact Report; f) as determined by Council, requiring Traffic Impact Report; g) 6 spaces per 100m^2 of GFA (one (1) space per 17m^2 of GFA).
Place of Worship	10 spaces per 100m^2 of GFA (one (1) space per 10m^2 of GFA).
Reception Room	6 spaces per 100m^2 of GFA (one (1) space per 17m2 of GFA).
Relocatable Home Park	one (1) space per Relocatable Home plus visitor parking of one (1) space per 5 dwellings.
Residential Hotel	a) one (1) space per residential unit plus 10 spaces per 100m^2 of GFA lounge, bar and beer garden area; plus b) 10 spaces per 100m^2 of GFA retail floor area for liquor barns or bulk liquor sales; plus c) a reservoir space for 12 cars for a drive-in bottle shop.
Resort Hotel	a) one (1) space for each guest room or suite, for the first 75 guest rooms or suites, plus 0.1 space for each additional guest room or suite. b) where the development includes commercial facilities that are available for use by the general public, car parking for such facilities shall be provided at 75% of the standard requirements of this table. c) where development: ▪ is on a site that only has frontage to a road listed below; or ▪ the access to the proposed development is to a road listed below; and ▪ where the frontage is included in that part of the road listed below;

Table to Acceptable Solution AS16.1	
	additional visitor car parking shall be provided at a rate of one (1) car parking space for every two (2) visitor car parking spaces required. **Road** — **Part of Road** Aloha Lane — The whole Cooinda Avenue — Northern alignment Beulah Lane — The whole Cronin Avenue — The whole Darwalla Avenue — The whole Eden Avenue — Both alignments from Hill Street to Ward Street and from Ward Street to and including BUP 5455 (Lot RP 1881138), and to and including Lot 6 RP154810 Fenton Place — The whole Garfield Terrace — The whole Hedges Avenue — The whole Jefferson Lane — North of Third Avenue Lennie Avenue — The whole Little Norman Street — The whole Montgomery Avenue — The whole Mountbatten Avenue — The whole Northcliffe Terrace — The whole Nagel Avenue — Western alignment from including Lot 12 RP 46948 to and including Lot 1 RP 46948 O'Connor Street — Western alignment from Wybera Street to and including Lot 26 RP 49999 Owens Lane — The whole Pacific Parade — The whole Park Lane — The whole Peak Avenue — The whole Schuster Avenue — The whole Sunshine Court — The whole Swan Lane — The whole
Restricted Club	6 spaces per 100m^2 of GFA (one (1) space per 17m^2 of GFA).
Restaurant	6.7 spaces per 100m^2 of GFA (including any outdoor dining areas) (one (1) space per 15 m^2 of GFA).
Retail Plant Nursery	10 spaces, plus one (1) space per 100m^2 of Total Use Area in excess of 3,000 metres.
Rural Industry	one (1) space for each employee who does not reside on-site, plus one (1) visitor parking space.
Salvage Yard	0.7 space per 100m^2 of Total Use Area, with a minimum of five spaces.
Serviced Apartment	a) one (1) space per apartment, plus 0.25 per apartment for visitor parking, where parking is contained in a single parking garage and spaces are not dedicated to particular units; OR b) one (1) space per one (1) bedroom apartment and 2 spaces per 2 bedroom and larger apartments, where spaces are dedicated to each apartment, plus 0.25 visitor spaces per apartment.
Service Industry	2.5 spaces per 100m^2 of GFA (one (1) space per 40m^2 of GFA).

Table to Acceptable Solution AS16.1	
Service Station	a) 2 spaces, plus 5 spaces per service bay; plus b) 4 spaces per 100m^2 of GFA of shop sales area of less than 150m^2; plus c) 5 spaces per 100m^2 of GFA of shop sales area exceeding 150m^2; plus d) 10 spaces per 100m^2 of GFA of restaurant or café, or 0.4 spaces per seat, whichever is the greater.
Shop	6.7 spaces per 100m^2 of GFA (one (1) space per 15m^2 of GFA).
Shopping Centre Development: a) initial 2000m² of EGFA; then b) 2,001m² – 10,000m² of EGFA; then c) 10,001m² – 20,000m² of EGFA; then d) 20,001m² – 30,000m² of EGFA; then e) >30,000m² of EGFA.	a) 6.7 spaces per 100m² of EGFA; b) 6.1 spaces per 100m² of EGFA; c) 5.6 spaces per 100m² of EGFA; d) 4.3 spaces per 100m² of EGFA; e) 4.1 spaces per 100m² of EGFA. ***Note:*** ***Multiple car parking rates may be applicable to a Shopping Centre Development depending on the scale of the existing and/or new development. For example, the car parking rate for a new shopping centre development with 15,000m² of EGFA would equate to (6.7/100 x 2000) + (6.1/100 x 8000) + (5.6/100 x 5000) = 902 car parking spaces. An 8,000m² EGFA extension to this centre would require (5.6/100 x 5000) + (4.3/100 x 3000) = 409 additional car parking spaces.***
Showroom	2 spaces per 100m^2 of GFA (one (1) space per 50m^2 of GFA).
Special Accommodation	2 spaces.
Stall	4 spaces.
Storage	a) one (1) space per ten (10) storage sheds; plus b) one (1) space per 30m^2 GFA administration office area; plus c) a minimum traffic circulation aisle width of 6.5 metres.
Take-Away Food Premises	6.7 spaces per 100m^2 of GFA (one (1) space per 15m^2 of GFA).
Tavern	a) 10 spaces per 100m^2 of GFA lounge, bar and beer garden area,(excluding 'staff only' areas); plus b) 10 spaces per 100m^2 of GFA retail floor area for liquor barns or bulk liquor sales; plus c) a reservoir space for 12 cars for a drive in bottle shop; d) additional parking for gaming machines, at the rate of one (1) space per 3 gaming machines.
Theme Park	at the rate of (number of 'design day' visitors x 0.2347) + 87, where the design day corresponds to the existing 85 percentile day, subject to confirmation of this approach from Council's Manager of Transport Planning.
Tourist Cabins	as determined by Council, requiring Traffic Impact Report.
Tourist Facility	as determined by Council, requiring Traffic Impact Report.

Table to Acceptable Solution AS16.1	
Tourist Shop	5 spaces per 100m^2 of GFA (one (1) space per 20m^2 of GFA).
Transit Centre	as determined by Council, requiring Traffic Impact Report.
Transport Terminal	as determined by Council, requiring Traffic Impact Report.
Vehicle Hire Office	one (1) car space per employee, or one (1) car space per 30m^2, whichever is the greater.
Vehicle Hire Premises	one (1) car space per employee, or one (1) car space per 30m^2, whichever is the greater, plus a minimum of one (1) on-site wash bay, plus a minimum of one(1) car space per every 1.5 vehicles (or part thereof) in the hire vehicle fleet, provided that such spaces may be located in tandem.
Vehicle Sales Premises	3.3 spaces per 100m^2 of GFA plus 0.5 spaces per 100m^2 of display area.
Veterinary Clinic or Veterinary Hospital	3 spaces per practitioner.
Warehouse	2 spaces per tenancy plus 1 space per 50m^2 of GFA up to 500m^2 plus 1 space per 100m^2 of GFA over 500m^2.
Waterfront (or Marine) Industry	2 spaces per 100m^2 of GFA (one (1) space per 50m^2 of GFA).
Any Other Use	as determined by Council, requiring a Car Parking Assessment Report.

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Development that is Code Assessable or Impact Assessable			
PC17 New development must not result in any adverse impact, through the reduction in the car parking capacity of the site and/or the local area.	AS17.1.1 Any car parking spaces lost are replaced elsewhere on the site. OR AS17.1.2 A monetary contribution is provided to Council for those car parking spaces lost, consistent with **AS16.2**. OR AS17.1.3 The Building Work is associated with a Material Change of Use that requires a lesser number of parking spaces than the existing	**PC17: Performance Criteria Compliant** The proposed development will not detract from the provision of car parking associated with the existing buildings on site, as sufficient car parking is provided on site in accordance with council requirements.	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	use.		
Driveways and Crossovers			
PC18 Vehicle crossovers must be constructed to minimise conflict with passing traffic and pedestrians.	AS18 Access to developments with more than one frontage road is via minor roads. Impacts of driveway traffic are concentrated on less busy roads, with traffic distributed to major roads via existing intersections.	**AS18: Acceptable Solution Compliant** The proposed development will utilise the existing three access points on Christensen Road to service the proposed use. No new crossovers are proposed.	
Safe Pedestrian Access			
PC19 All development must make provision for safe pedestrian access to the building from the street and from any car parking or set down area to the building's main entrance.	AS19.1 The design of the development ensures that priority is given to pedestrians for direct links to the building's main entrance and to any adjoining local activities or public transport services. AS19.2 Landscaping surrounding the pedestrian walkways and shelters is no higher than 600mm and incorporates trees with branching not lower than 2m (clear stem trees). AS19.3 Solid walls and fences are avoided adjacent to pedestrian walkways to improve actual and perceived safety. AS19.4 Security is to be enhanced by passive surveillance over the car parking area from nearby residences or other activities, where practicable.	**PC19: Performance Criteria Compliant** The provision of pedestrian routes will comply with the requirements of the Planning Scheme. Pedestrian routes will be designed in compliance with Australian standards in the first instance and subsequently the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application.	
Safe Pedestrian and Cyclist Facilities			
PC20 The design of pedestrian and cyclist facilities must be safe, useable and readily accessible.	AS20 Pedestrian and cyclist facilities are designed to encourage the use of these modes by: a) minimising distances, and providing safe grading paths, separated from motorised	**AS20: Acceptable Solution Compliant** The provision of pedestrian and cycling facilities complies with the requirements of the Planning Scheme. Pedestrian and cycling facilities will be designed in	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	traffic; b) using even, non-slippery pavement materials.	compliance the Gold Coast Planning Scheme. For further information please see attached traffic impact assessment submitted in support of this application. The detailed design of pedestrian and cycling facilities will be subject to further approvals and therefore if the council deems it necessary relevant features can be conditioned as part of an approval.	
Integration of Development with Public Transport			
PC21 Development that attracts a high proportion of people dependent on public transport must provide facilities to accommodate public transport servicing requirements.	AS21.1 Any development that includes activities listed in the **Table to Acceptable Solution AS21.1** provides a bus set down facility on and off-site, in close proximity to the entrance of the development. AS21.2 Where a bus set down area is provided, it is integrated into the development, easily accessible, safe, secure, clearly identified, and attractive to use (in the case of major developments providing a covered walkway to the entry).	**PC21: Not Applicable** The proposed development does not fit into the categories of development outlined by Table to Acceptable Solution. The use itself is not considered sufficient to warrant any specific public transport facilities or services.	

Table to Acceptable Solution AS21.1

a) Educational Establishment
b) International Hotel
c) Resort Hotel
d) Transit Centre
e) Shopping Centre Development (more than 4,000m^2 of EGFA retail floor space)
f) Public Events
g) Spectator Sports
h) Convention Centre

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
PC22 Development that attracts a reasonable proportion of people dependent on public transport must assist in supporting facilities for public transport servicing.	AS22.1 Any development that includes activities listed in the **Table to Acceptable Solution AS22.1** provides a bus stop and/or a bus shelter, if the entry to the development is not within 400 metres of a an existing bus stop or within 800 metres of a railway station. AS22.2 The bus shelter is located adjacent to the frontage of the site and is connected to the entry of the development by a sealed footpath.	**PC22: Not Applicable** The proposed development does not fit into the categories of development outlined by Table to Acceptable Solution and the use itself is not considered sufficient to warrant any specific public transport facilities or services.	

Table to Acceptable Solution AS22.1

a) Apartment Buildings with more than 60 units
b) Townhouse Complexes with more than 60 units
c) Active Recreation Facility
d) Bulky Goods Retailers (more than 2,000m^2 of GFA retail floor space)
e) Hospitals
f) Community Centres
g) Entertainment Venues
h) Aged Persons Accommodation

Cash In Lieu of Car Park Spaces Required

PC23 Car parking must be provided to meet the car parking needs of the development. If it cannot be provided on site, alternative arrangements may be proposed.	AS23.1.1 The car parking spaces required by **Table to Acceptable Solution AS16.1** are provided on the subject site. OR AS23.1.2 A monetary contribution for all or part of the required car parking may be made towards one or more of the following: a) provision of off-street car parking in the vicinity of the development; b) provision of improved on street car	**AS23.1.1: Acceptable Solution Compliant** The provision of car parking complies with the requirements of the Planning Scheme and Acceptable Solution AS16.1. **AS23.1.2: Acceptable Solution Compliant** Not applicable due to compliance with AS23.1.1	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	parking and streetscape improvement works, in the vicinity of the development; and/or c) provision of improved public transport facilities and services in the vicinity of the development.		
Traffic Impact			
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**.	**AS24: Acceptable Solution Compliant** A traffic impact assessment has been submitted in support of this application.	

Part 7 Codes
Division 3 Constraint Codes
Chapter 13 Road Traffic Noise Management

1.0 Purpose

This code seeks to regulate development on properties adjacent to State controlled roads and designated haulage routes throughout the City. Its main purpose is to ensure that potential conflicts between noise sensitive land uses and road operations are considered when assessing development.

The code therefore seeks to ensure both that the integrity of all State-controlled roads and designated haulage routes are not affected by the development of incompatible land uses and that adjacent land uses are sufficiently protected from road traffic and road construction and maintenance noise intrusion. (From this point on, when 'noise' is referred to in this document, it refers to 'road traffic noise and road construction and maintenance noise'.)

2.0 Application

2.1 The code applies to development located adjacent to all existing and proposed State controlled road corridors and designated haulage routes within the City, being any Material Change of Use or Reconfiguring a Lot, where related to a noise sensitive use, indicated as code or impact assessable in the Table of Development in the domain or Local Area Plan (LAP) within which the development is proposed.

2.2 Performance Criterion PC1 applies to all development subject to this code.

3.0 Development Requirements

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Development that is Code Assessable or Impact Assessable			
Protection from Noise			
PC1 All development must seek to achieve acceptable levels of amenity for residents and visitors, and protect the same from unacceptable noise levels.	AS1.1.1 All development must comply with the Design Level Noise Criteria identified in the **Table to Clause 4.0 – Primary Design Level Criteria**. AS1.1.2 The new development uses acceptable noise attenuation measures, such as earth mounds and noise barrier fences, between the noise source and the noise sensitive place. AND/OR AS1.1.3 The new development has appropriate buffer distances between the noise source and the	**PC1: Performance Criteria Compliant** No noise sensitive uses have been identified in the local area, this is consistent with the industrial character of the local area. The proposed layout has intentionally located the proposed production area in a central location behind the mature vegetation associated with Sandy Creek. Access driveways are proposed around the perimeter of this area and then	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	noise sensitive place. AND/OR AS1.1.4 The building is designed, oriented and constructed to reduce the impact of noise by: a) locating rooms most sensitive to noise (eg. bedrooms) furthermost from the noise source; b) using construction, insulation and glazing materials with a high noise transmission loss, in accordance with **Australian Standard 3671-1989 Acoustic – Road Traffic Noise Intrusion – Building Siting and Construction**; c) minimising the area with openings in walls (eg. windows and doors) facing the noise source; and d) providing air-conditioning/ mechanical ventilation to rooms impacted by noise. Due consideration shall be given to the type of system in order for the internal noise criteria to be achieved.	significant development buffers are proposed encompassing mature vegetation. It is the considered opinion of this report that the combination of the proposed design features will sufficiently mitigate the potential for noise pollution.	

Appendix C: Survey

Survey Plan and Site Analysis Plan

N

BOUNDARY

EXISTING LEASE A

LINE OF BANK

LOW POINT

DAM

SOLAR ACCESS

240

W 31320

UNDEVELOPED LAND
ZONED INDUSTRY

HIGH POINT

LEASE A

SP 125788

CLEARED LAND

DRAINAGE FLOW PATH

DRAINAGE FLOW PATH

DRAINAGE FLOW PATH

SOLAR ACCESS

LINE OF BANK

DRAINAGE FLOW PATH

LOW POINT

DAM

TO YATALA/M1
1KM

EXISTING VEGETATION

EXISTING SHED

LOADING AREA

EXISTING BUILDING

CARPARKING

CHRISTENSEN ROAD

SITE ACCESS

EXISTING VEGETATION

EXISTING VEGETATION

PREVAILING WINDS

NOISES FROM MAJOR ROAD M1 MOTORWAY

SITE ACCESS

TO YATALA STH
ORMEAU 3KM

240

W 31320

UNDEVELOPED LAND
ZONED INDUSTRY

Scale 1:1500 - Lengths are in Metres.

0 20 40 60 80 100 120

gassman development perspectives
planning design environment surveying

Brisbane Office
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f: (07) 32217308

Gold Coast and Logan Office
Access Business Park
76 Business Street Yatala Q. 4207
t: (07) 38073333
f: (07) 32875461

e: mail@gassman.com.au
w: www.gassman.com.au

Certified System
Quality
ISO 9001
SAI GLOBAL

SITE ANALYSIS PLAN

Christensen Road, Yatala
Lease A in Lot 240 on W31320
AMGROW

date: 18-05-12
scale: 1:1500
design: PC/SJH
plan: 1292 P SAP 01

240
W31320

/
RP6882

RP807576
22

LEASE A
SP125788

AREA NOT SURVEYED

LIMIT OF SURVEYED AREA

240
W31320

CHRISTENSEN ROAD

ROAD

SEE DIAGRAM

LARGE INDUSTRIAL SHED

LARGE INDUSTRIAL SHED

BUILDING

BUILDING

SHED

CONCRETE BINS

CONCRETE BINS

Tanks

LOADING RAMP

STOCKPILES AREA

DAM

DAM

Storage racks

Storage racks

Stairs

Driveway

Driveway

H/W
IL21.87
375ø pipe

H/W
IL20.86
600ø pipe

LEGEND

- . . . . ELECTRICITY PIT
- . . . . ELECTRICITY POLE
- . . . . FIRE HYDRANT
- . . . . COMMS PIT
- OPEN DRAIN
- OVERHEAD ELECTRICITY
- EDGE OF BITUMEN
- FENCE

Scale 1:2000 - Lengths are in Metres.

0 20 40 60 80 100 120 140 160

DIAGRAM

CHRISTENSEN ROAD

LEASE A
SP125788

240
W31320

Driveway

H/W
IL24.44

H/W
IL24.33

Notes

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.

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.

Gassman Development Perspectives Pty. Ltd. accepts no responsibility for any loss or damages caused in contravention of the above.

Client
AMGROW

Project
CONTOUR AND DETAIL PLAN

Over Lease A on SP125788

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

Level Datum	A.H.D.	Date Surveyed	24–02–2012
Meridian	SP125788	Surveyor	P. Christian
Contour Interval	0.250	Drawn	S. Holt
F.B.	–	Date Drafted	27–02–2012
Origin		Checked	
Scale (on A3 original)		Designed	
1:2000		Drawn	
		Date Designed	

gassman development perspectives
planning design environment surveying

ACN 010 752 388

Brisbane Office
Level 13
97 Creek Street Brisbane Q. 4000
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f: (07) 32217308

Gold Coast and Logan Office
Access Business Park
76 Business Street Yatala Q. 4207
t: (07) 38073333
f: (07) 32875461

e: mail@gassman.com.au
w: www.gassman.com.au

REFERENCE No. *1292-95*

PLAN No. **1292 S CD 01**

Appendix D: Proposal

Architectural Plans

MULTI SPAN AUSTRALIA
DESIGN CONSTRUCT

DOCUMENT REGISTER

32 Precision St Salisbury Q 4107
ph 07 3274 4209
info@multispan.com.au
ABN 12 065 483 918

Job: **82 Christensen Rd Stapylton** **Job No:** **4075**
Client: **Amgrow**

DATE OF ISSUE:															
DAY	13	15	16	20	23	26	11							
MONTH	03	03	03	03	03	03	04							
YEAR	12	12	12	12	12	12	12							
DOCUMENT No:	***DOCUMENT TITLE***														
SK-AR-0001	TITLE SHEET				A	B	B	C							
SK-AR-1001	MASTER PLAN	A				B	B	C							
SK-AR-1002	SITE PLAN	A	B	C		D	D	E							
SK-AR-1003	SITE ELEVATIONS	A				B	B	C							
SK=AR-1004	SITE SECTIONS							A							
SK-AR-2001	OFFICE PLANS				A	B	B	C							
SK-AR-3001	OFFICE ELEVATIONS				A	B	B	C							
SK-AR-2002	WAREHOUSE 1 PLAN	A				B	B	C							
SK-AR-2002	WAREHOUSE 1 ELEVATIONS	A				B	B	C							
SK-AR-2003	WAREHOUSE 2 PLAN	A				B	B	C							
SK-AR-3003	WAREHOUSE 2 ELEVATIONS	A				B	B	C							
REGISTER ISSUE No:		1	2	3	4	5	6	7	8	9	10	11	12	13	14
ISSUED TO:	***No OF COPIES:***														
ATTENTION	***COMPANY***														
Rod Jones	Amgrow	1	1	1	1	1		1							
Bob Opacic	Amgrow	1	1	1	1	1		1							
Brian Gassman	Gassman development perspectives	1	1	1	1	1		1							
Travis Smith							1								
ISSUED VIA:															
P- *Print* ***Di-*** *Disc* ***E-*** *Electronic*		E	E	E	E	E	E	E							
I *-Information* ***P*** *-Preliminary* ***A*** *-Approval* ***C*** *-Construction* ***T*** *-Tender*		P	P	P	P	P	P	P							
C- *Courier* ***E-*** *Email* ***HD-*** *Hand Delivered* ***M*** *-Mail* ***PU*** *-Picked Up* ***O*** *-Other*		E	E	E	E	E	E	E							

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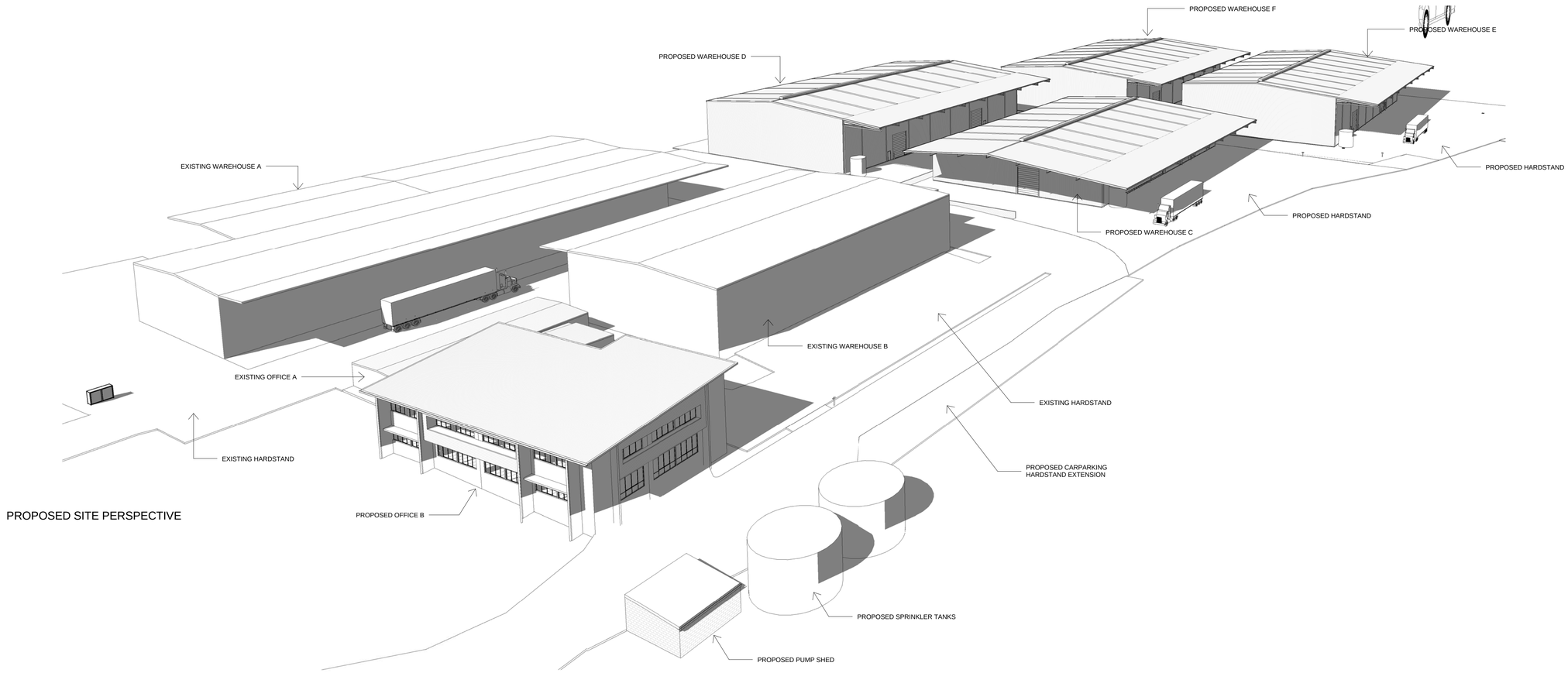

PROPOSED SITE PERSPECTIVE

EXISTING AERIAL PHOTO

DEVELOPMENT SUMMARY

LEASE A ON LOT 240 ON W31320	**AREAS**		**CARPARKING**
(82 CHRISTENSEN ROAD	EXISTING WAREHOUSE A	- 2900m2	REQUIRED
STAPYLTON QLD 4207)	AWNINGS	- 900m2	GENERAL - 2 CARS PER
PARISH of ALBERT	EXISTING WAREHOUSE B	- 1500m2	TENANCY OR LOT - 2
COUNTY of WARD	AWNINGS	- 450m2	
TOTAL SITE AREA - 53.2588 ha	EXISTING OFFICE A	- 350m2	WAREHOUSE- 1/50m2
			GFA FOR FIRST 500m2 AND
AUTHORITY - GOLD COAST CITY COUNCIL	STAGE 1		1/100m2 GFA OVER 500m2 - 157
PRECINCT - FUTURE INDUSTRY	PROPOSED OFFICE B (GF)	- 500m2	
LAP - YATALA ENTERPRISE AREA	PROPOSED OFFICE B (FF)	- 500m2	OFFICE 3/100m2 GFA - 41
PROPOSED WAREHOUSES -	PROPOSED WAREHOUSE C	- 2400m2	REQUIRED -200
CLASS 7b	AWNING	- 1100m2	PROVIDED -200
TYPE C CONSTRUCTION			
	STAGE 2		
PROPOSED OFFICE	PROPOSED WAREHOUSE D	- 2800m2	DESIGN VEHICLE - AV & B-DOUBLE
CLASS 5	AWNING	- 700m2	
TYPE C CONSTRUCTION			
	STAGE 3		IMPERVIOUS PAVEMENT
	PROPOSED WAREHOUSE E	- 2800m2	ADDITIONAL TO EXISTING
	AWNING	- 700m2	(BUILDING AND HARDSTAND)
	PROPOSED WAREHOUSE F	- 2800m2	STAGE 1 - 6510m2
	AWNING	- 700m2	STAGE 2 - 4580m2
			STAGE 3 - 13170m2
	TOTAL AREAS		
	EXISTING	- 6100m2	
	PROPOSED	- 15000m2	
	TOTAL AREA	- 21100m2	
	TOTAL SITE COVER	- 20600m2	

ISSUED FOR DEVELOPMENT APPROVAL

MULTI SPAN AUSTRALIA
DESIGN CONSTRUCT

Architectural & Engineering Design Consultants
Construction Management
Structural Steel Fabrication & Erection
Commercial / Industrial / Residential Developments

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Salisbury, Queensland
4107, Australia

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F 07 3875 1012

info@multispan.com.au
www.multispan.com.au

CLIENT: Amgrow

PROJECT DESCRIPTION : NEW OFFICE & WAREHOUSES

SITE ADDRESS : 82 CHRISTENSEN ROAD STAPYLTON

DRAWING TITLE(S): COVER

AMENDMENTS

REV:	DATE:	DESCRIPTION:	BY:
A	20.03.12	PRELIM ISSUE	SK
B	23.03.12	REVISED	SK
C	11.04.12	DA ISSUE	SK

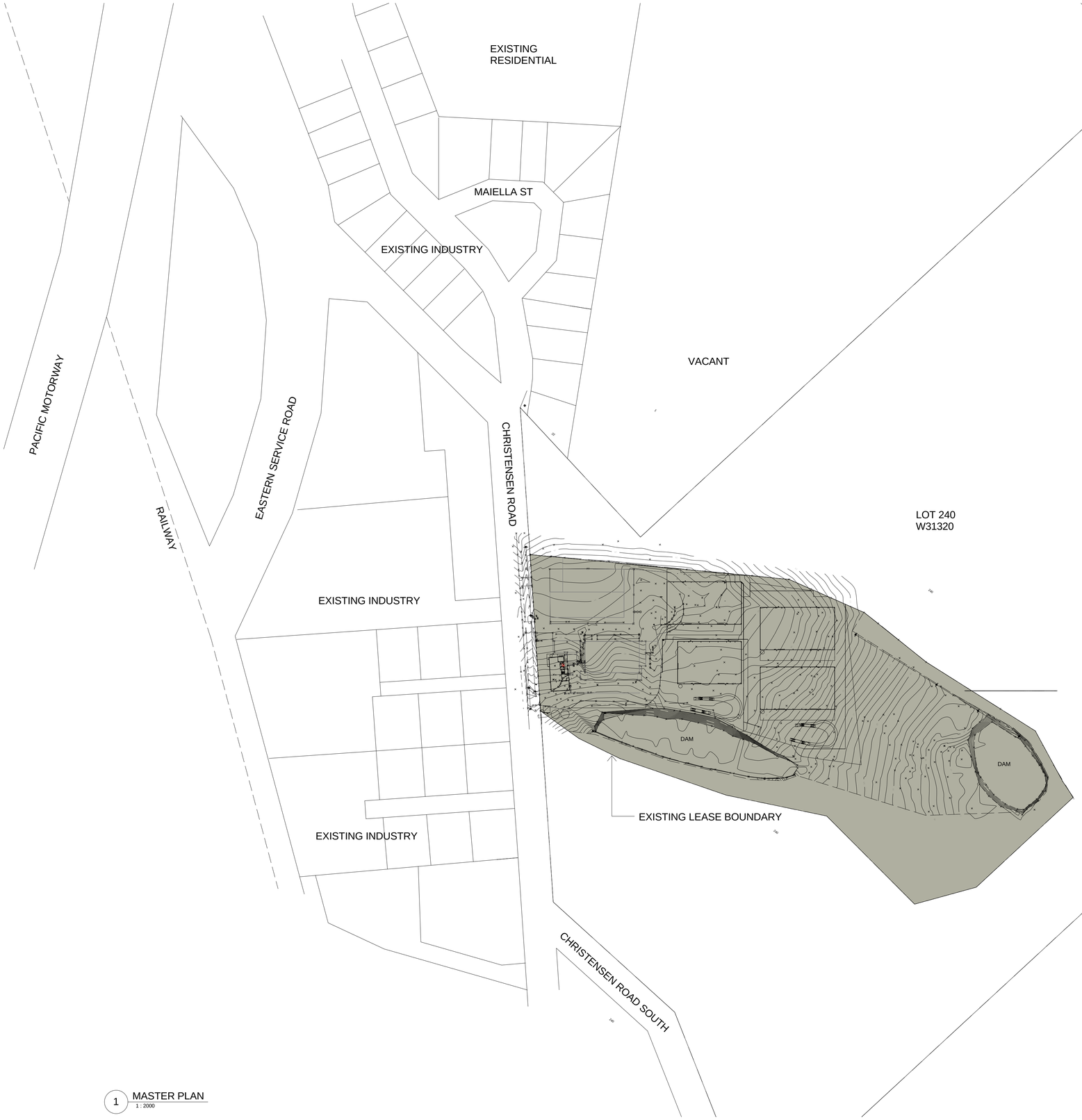
SCALE: 1 : 100 @ A1 | DRAWN: SK | CHECKED:

PROJECT NUMBER: 4075 | PROJECT START DATE: 09.03.12

PROJECT STAGE: SK | DRAWING NUMBER: - AR-0001 | REVISION: C

11/04/2012 3:06:17 PM

PROJECT NOTE(S):



1 MASTER PLAN
1 : 2000

AERIAL PHOTO

DEVELOPMENT SUMMARY

LEASE A ON LOT 240 ON W31320 (82 CHRISTENSEN ROAD STAPYLTON QLD 4207) PARISH of ALBERT COUNTY of WARD TOTAL SITE AREA - 53.2588 ha AUTHORITY - GOLD COAST CITY COUNCIL PRECINCT - FUTURE INDUSTRY LAP - YATALA ENTERPRISE AREA PROPOSED WAREHOUSES - CLASS 7b TYPE C CONSTRUCTION PROPOSED OFFICE CLASS 5 TYPE C CONSTRUCTION	**AREAS** EXISTING WAREHOUSE A - 2900m2 AWNINGS - 900m2 EXISTING WAREHOUSE B - 1500m2 AWNINGS - 450m2 EXISTING OFFICE A - 350m2 **STAGE 1** PROPOSED OFFICE B (GF) - 500m2 PROPOSED OFFICE B (FF) - 500m2 PROPOSED WAREHOUSE C - 2400m2 AWNING - 1100m2 **STAGE 2** PROPOSED WAREHOUSE D - 2800m2 AWNING - 700m2 **STAGE 3** PROPOSED WAREHOUSE E - 2800m2 AWNING - 700m2 PROPOSED WAREHOUSE F - 2800m2 AWNING - 700m2 **TOTAL AREAS** EXISTING - 6100m2 PROPOSED - 15000m2 TOTAL AREA - 21100m2 TOTAL SITE COVER - 20600m2	**CARPARKING** REQUIRED GENERAL - 2 CARS PER TENANCY OR LOT - 2 WAREHOUSE- 1/50m2 GFA FOR FIRST 500m2 AND 1/100m2 GFA OVER 500m2 - 157 OFFICE 3/100m2 GFA - 41 REQUIRED -200 PROVIDED -200 **DESIGN VEHICLE** - AV & B-DOUBLE **IMPERVIOUS PAVEMENT** ADDITIONAL TO EXISTING (BUILDING AND HARDSTAND) STAGE 1 - 6510m2 STAGE 2 - 4580m2 STAGE 3 - 13170m2

STAPYLTON LANDFILL AND
RECYCLING CENTRE

SURVEY BY:
GASSMAN DEVELOPMENT PERSPECTIVES
ACN 010 752 388

BRISBANE OFFICE ph - 07 3221 6732
GOLD COAST & LOGAN OFFICE ph - 07 3807 3333

e: mail@gassman.com.au
w: www.gassman.com.au

REF No. 1292-95

ISSUED FOR DEVELOPMENT APPROVAL

MULTI SPAN AUSTRALIA
DESIGN CONSTRUCT

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Construction Management
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Commercial / Industrial / Residential Developments

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Salisbury, Queensland
4107, Australia

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F 07 3875 1012

info@multispan.com.au
www.multispan.com.au

CLIENT: Amgrow

PROJECT DESCRIPTION : NEW OFFICE & WAREHOUSES

SITE ADDRESS : 82 CHRISTENSEN ROAD STAPYLTON

DRAWING TITLE(S): MASTER PLAN

AMENDMENTS

REV:	DATE:	DESCRIPTION:	BY:
A	13.03.12	PRELIM CONCEPT ISSUE	SK
B	22.03.12	NOTES	SK
C	11.04.12	DA ISSUE	SK

SCALE: As indicated @ A1
DRAWN: SK
CHECKED:
PROJECT NUMBER: 4075
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DRAWING NUMBER: - AR-1001
REVISION: C

11/04/2012 3:07:14 PM

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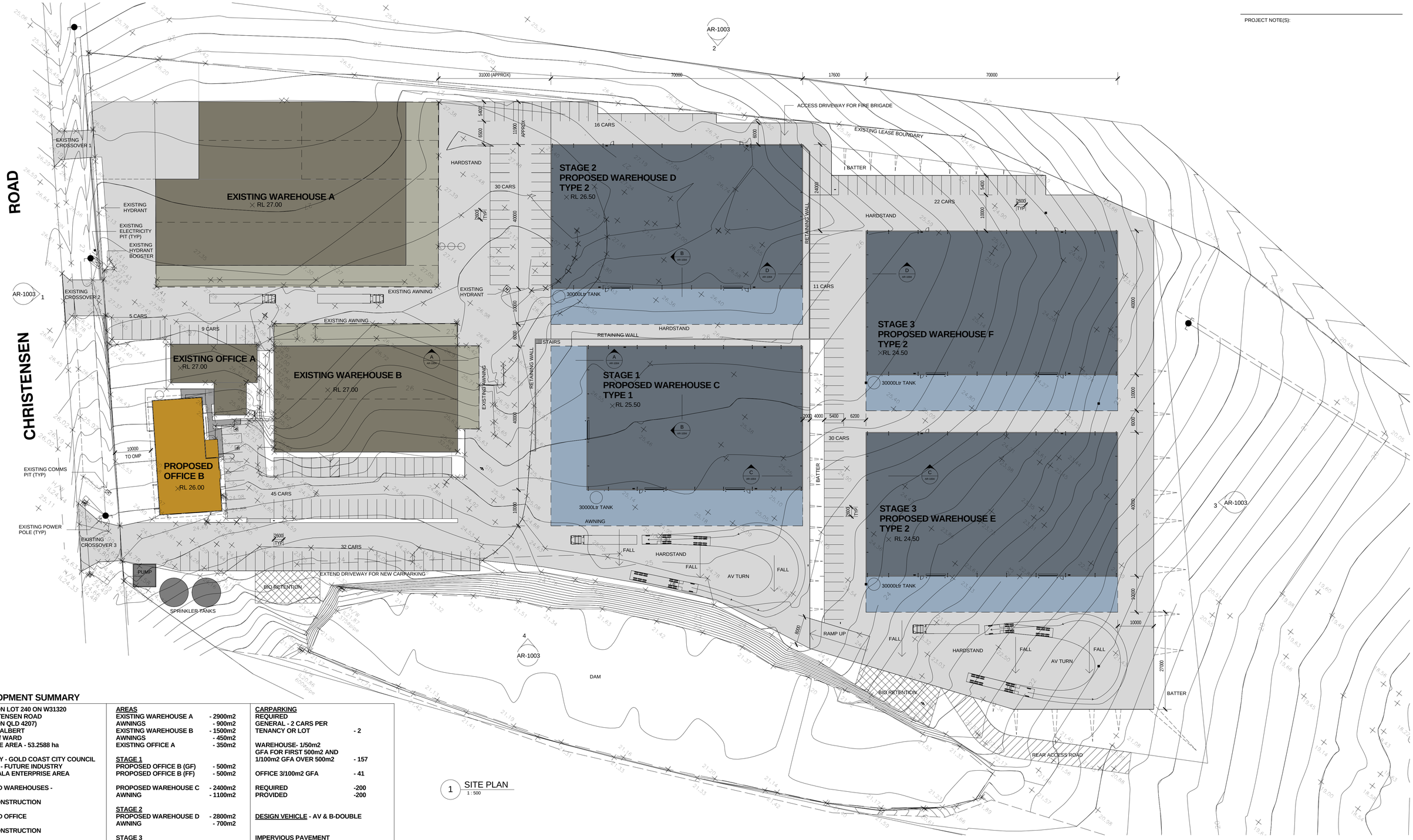

1 SITE PLAN
1 : 500

DEVELOPMENT SUMMARY

LEASE A ON LOT 240 ON W31320
(82 CHRISTENSEN ROAD
STAPYLTON QLD 4207)
PARISH of ALBERT
COUNTY of WARD
TOTAL SITE AREA - 53.2588 ha

AUTHORITY - GOLD COAST CITY COUNCIL
PRECINCT - FUTURE INDUSTRY
LAP - YATALA ENTERPRISE AREA

PROPOSED WAREHOUSES -
CLASS 7b
TYPE C CONSTRUCTION

PROPOSED OFFICE
CLASS 5
TYPE C CONSTRUCTION

AREAS	
EXISTING WAREHOUSE A	- 2900m2
AWNINGS	- 900m2
EXISTING WAREHOUSE B	- 1500m2
AWNINGS	- 450m2
EXISTING OFFICE A	- 350m2
STAGE 1	
PROPOSED OFFICE B (GF)	- 500m2
PROPOSED OFFICE B (FF)	- 500m2
PROPOSED WAREHOUSE C	- 2400m2
AWNING	- 1100m2
STAGE 2	
PROPOSED WAREHOUSE D	- 2800m2
AWNING	- 700m2
STAGE 3	
PROPOSED WAREHOUSE E	- 2800m2
AWNING	- 700m2
PROPOSED WAREHOUSE F	- 2800m2
AWNING	- 700m2
TOTAL AREAS	
EXISTING	- 6100m2
PROPOSED	- 15000m2
TOTAL AREA	- 21100m2
TOTAL SITE COVER	- 20600m2

CARPARKING	
REQUIRED	
GENERAL - 2 CARS PER	
TENANCY OR LOT	- 2
WAREHOUSE- 1/50m2	
GFA FOR FIRST 500m2 AND	
1/100m2 GFA OVER 500m2	- 157
OFFICE 3/100m2 GFA	- 41
REQUIRED	-200
PROVIDED	-200

DESIGN VEHICLE - AV & B-DOUBLE

IMPERVIOUS PAVEMENT
ADDITIONAL TO EXISTING
(BUILDING AND HARDSTAND)

STAGE 1	- 6510m2
STAGE 2	- 4580m2
STAGE 3	- 13170m2

SURVEY BY:
GASSMAN DEVELOPMENT PERSPECTIVES
ACN 010 752 388

BRISBANE OFFICE ph - 07 3221 6732
GOLD COAST & LOGAN OFFICE ph - 07 3807 3333

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w: www.gassman.com.au

REF No. 1292-95

0 10 20 30 40 50m 1:500

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4107, Australia

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www.multispan.com.au

CLIENT: Amgrow

PROJECT DESCRIPTION : NEW OFFICE & WAREHOUSES

SITE ADDRESS : 82 CHRISTENSEN ROAD STAPYLTON

DRAWING TITLE(S): SITE PLAN

AMENDMENTS

REV:	DATE:	DESCRIPTION:	BY:
A	13.03.12	PRELIM CONCEPT ISSUE	SK
B	15.03.12	OFFICE AREA, CARPARKING	SK
C	16.03.12	OFFICE AREA, CARPARKING	SK
D	22.03.12	OFFICE, NOTES	SK
E	11.04.12	BIO RETENTION, TANKS, DA ISSUE	SK

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DRAWN: SK
CHECKED:
PROJECT NUMBER: 4075
PROJECT START DATE: 09.03.12
PROJECT STAGE: SK
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REVISION: E

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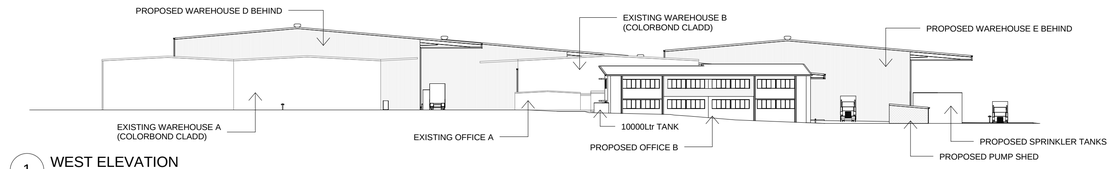
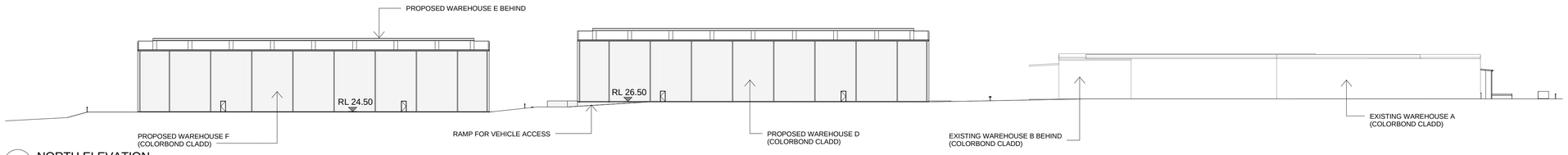


1 WEST ELEVATION
1 : 500



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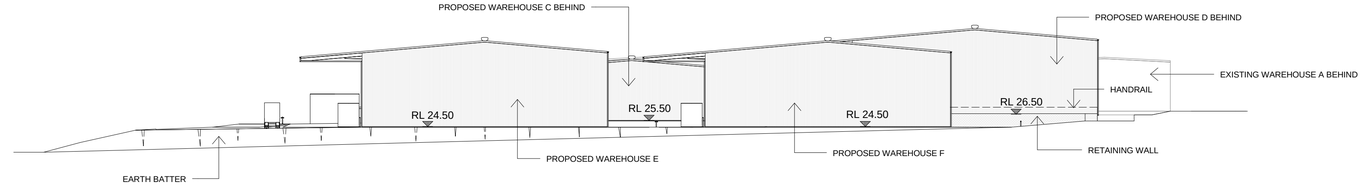

3 EAST ELEVATION
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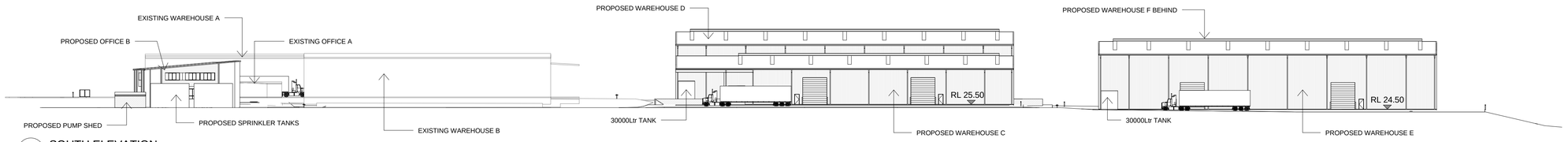

4 SOUTH ELEVATION
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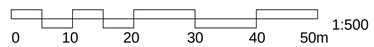

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info@multispan.com.au
www.multispan.com.au

CLIENT: Amgrow

PROJECT DESCRIPTION :
NEW OFFICE & WAREHOUSES

SITE ADDRESS :
82 CHRISTENSEN ROAD
STAPYLTON

DRAWING TITLE(S):
SITE ELEVATIONS

AMENDMENTS

REV:	DATE:	DESCRIPTION:	BY:
A	13.03.12	PRELIM CONCEPT ISSUE	SK
B	23.03.12	OFFICE ELEVATIONS, NOTES	SK
C	11.04.12	NOTES, DA ISSUE	SK

SCALE: 1 : 500 @ A1
DRAWN: SK
CHECKED:
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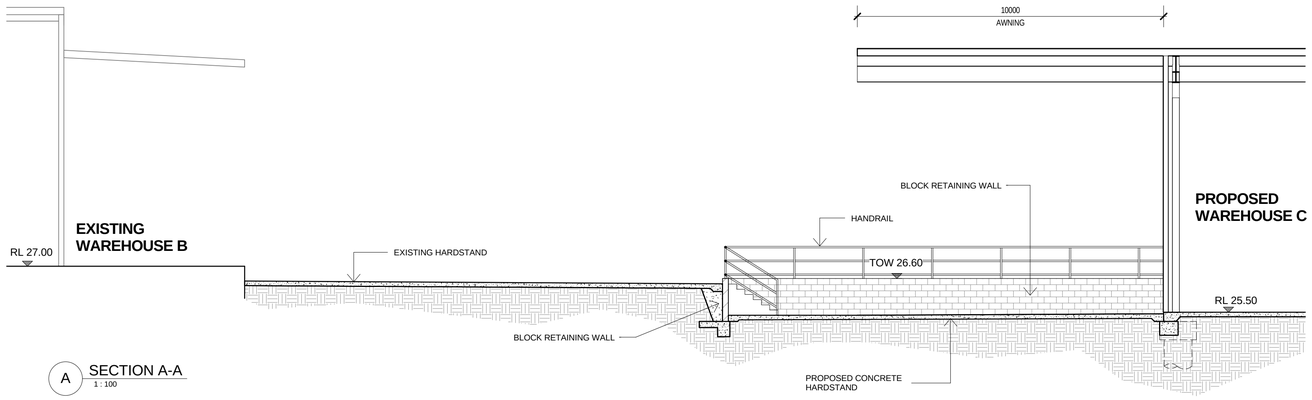
REVISION: C

11/04/2012 3:09:38 PM

PROJECT NOTE(S):



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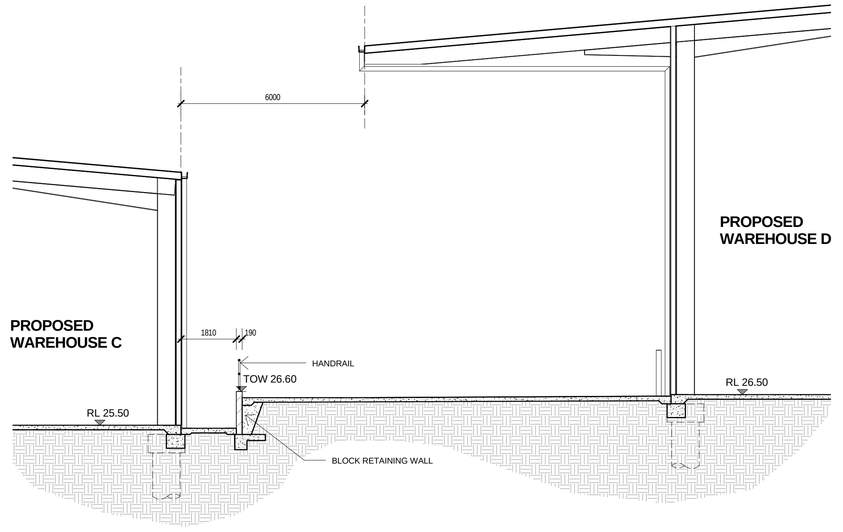

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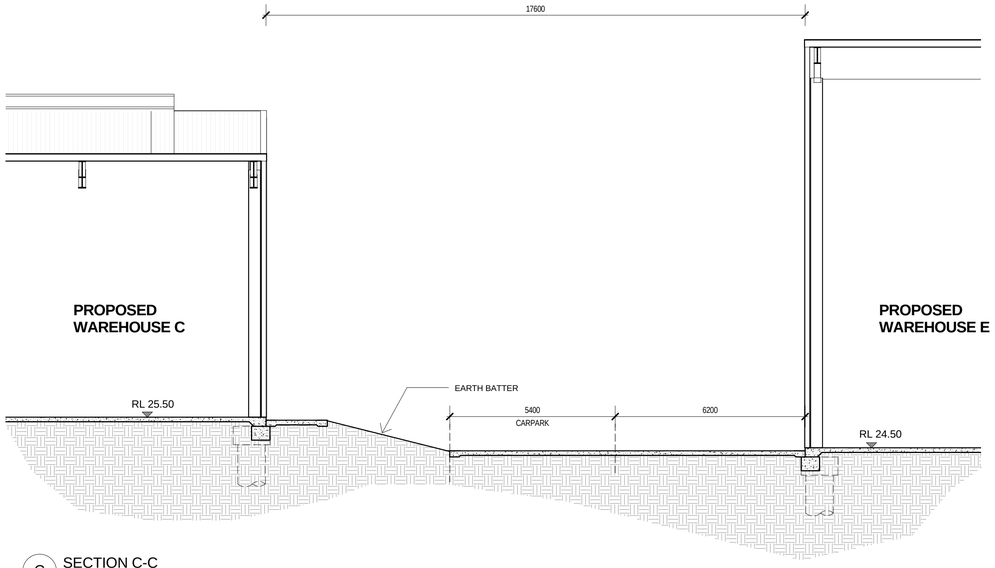

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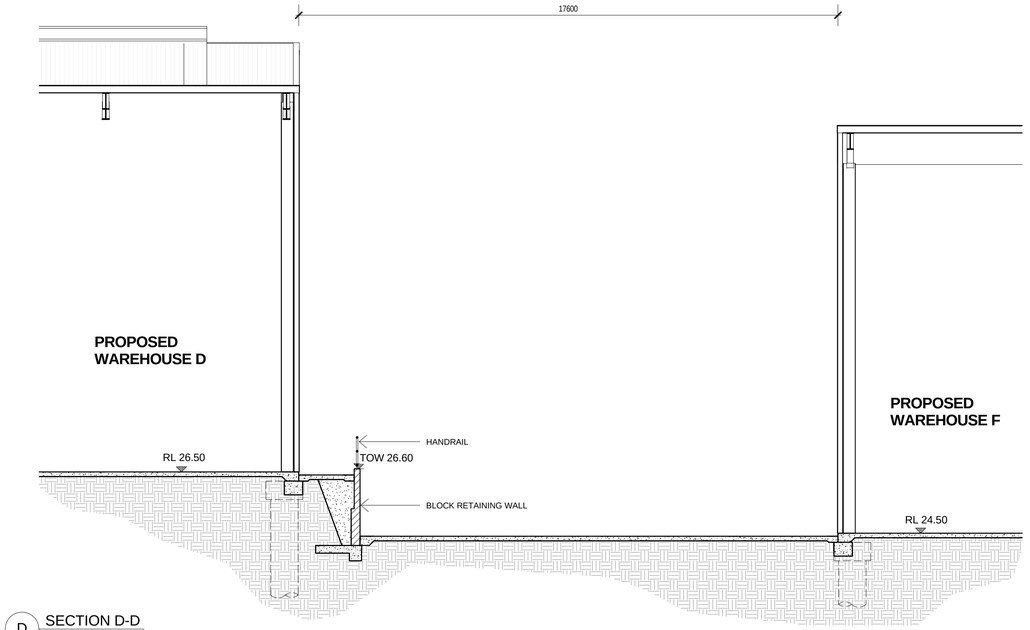

D SECTION D-D
1 : 100

0 1 2 3 4 6 8 10m 1:100

ISSUED FOR DEVELOPMENT APPROVAL

MULTI SPAN AUSTRALIA
DESIGN CONSTRUCT

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Construction Management
Structural Steel Fabrication & Erection
Commercial / Industrial / Residential Developments

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Salisbury, Queensland
4107, Australia

T 07 3274 4209
F 07 3875 1012

info@multispan.com.au
www.multispan.com.au

CLIENT: Amgrow

PROJECT DESCRIPTION :
NEW OFFICE & WAREHOUSES

SITE ADDRESS :
82 CHRISTENSEN ROAD
STAPYLTON

DRAWING TITLE(S):
SITE SECTIONS

AMENDMENTS

REV:	DATE:	DESCRIPTION:	BY:
A	11.04.12	DA ISSUE	SK

SCALE: 1 : 100 @ A1
DRAWN: SK
CHECKED:
PROJECT NUMBER: 4075
PROJECT START DATE: 09.03.12
PROJECT STAGE: SK
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REVISION: A

11/04/2012 3:09:58 PM

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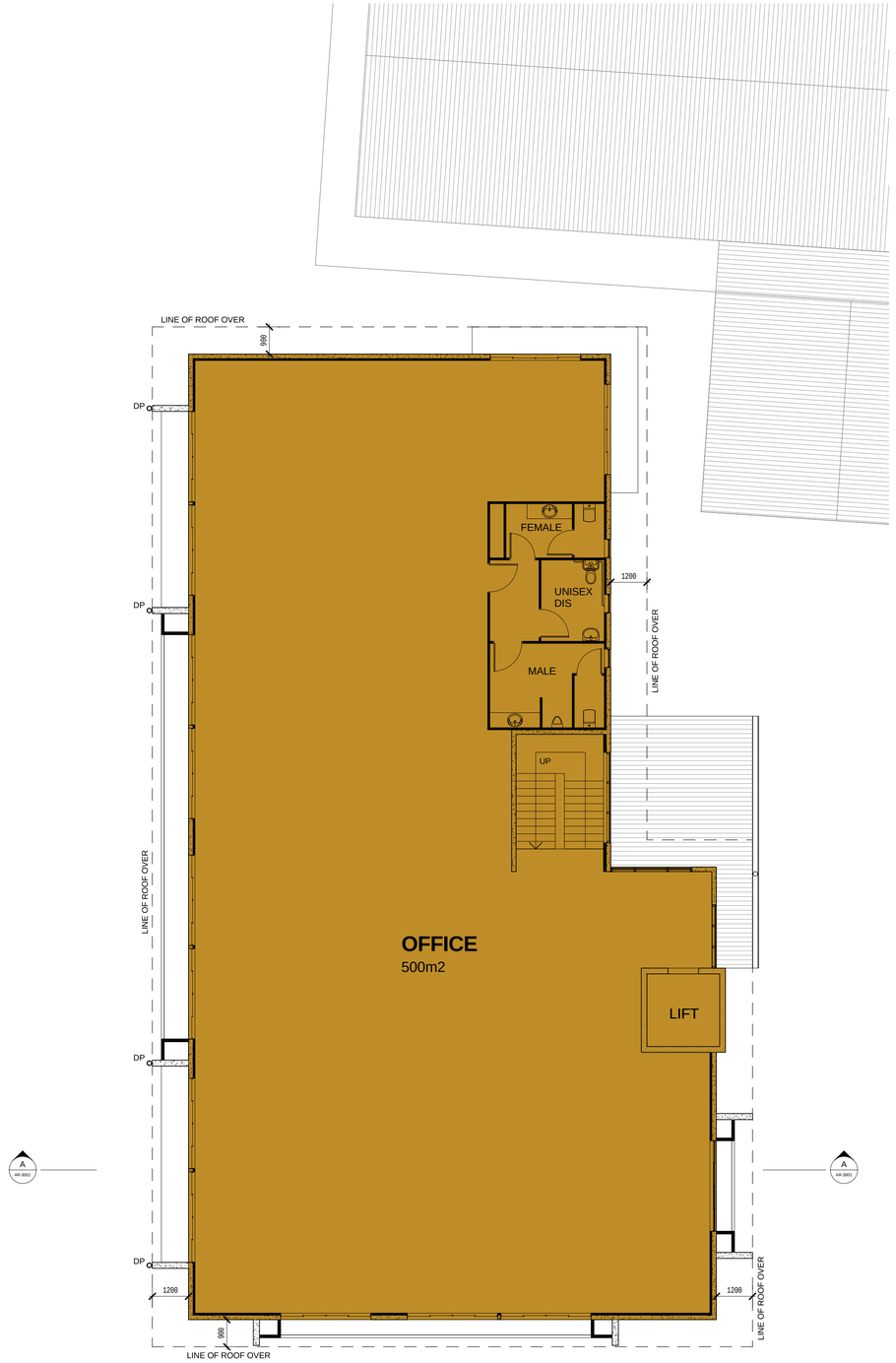
1 : 100



2 FIRST FLOOR
1 : 100

0 1 2 3 4 6 8 10m 1:100

ISSUED FOR DEVELOPMENT APPROVAL

MULTI SPAN AUSTRALIA
DESIGN CONSTRUCT

Architectural & Engineering Design Consultants
Construction Management
Structural Steel Fabrication & Erection
Commercial / Industrial / Residential Developments

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Salisbury, Queensland
4107, Australia

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F 07 3875 1012

info@multispan.com.au
www.multispan.com.au

CLIENT: Amgrow

PROJECT DESCRIPTION :
NEW OFFICE & WAREHOUSES

SITE ADDRESS :
82 CHRISTENSEN ROAD
STAPYLTON

DRAWING TITLE(S):
OFFICE PLAN

AMENDMENTS

REV:	DATE:	DESCRIPTION:	BY:
A	20.03.12	PRELIMINARY ISSUE	SK
B	23.03.12	NOTES	SK
C	11.04.12	NOTES, DA ISSUE	SK

SCALE: 1 : 100 @ A1
DRAWN: SK
CHECKED:
PROJECT NUMBER: 4075
PROJECT START DATE: 09.03.12
PROJECT STAGE: SK
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REVISION: C

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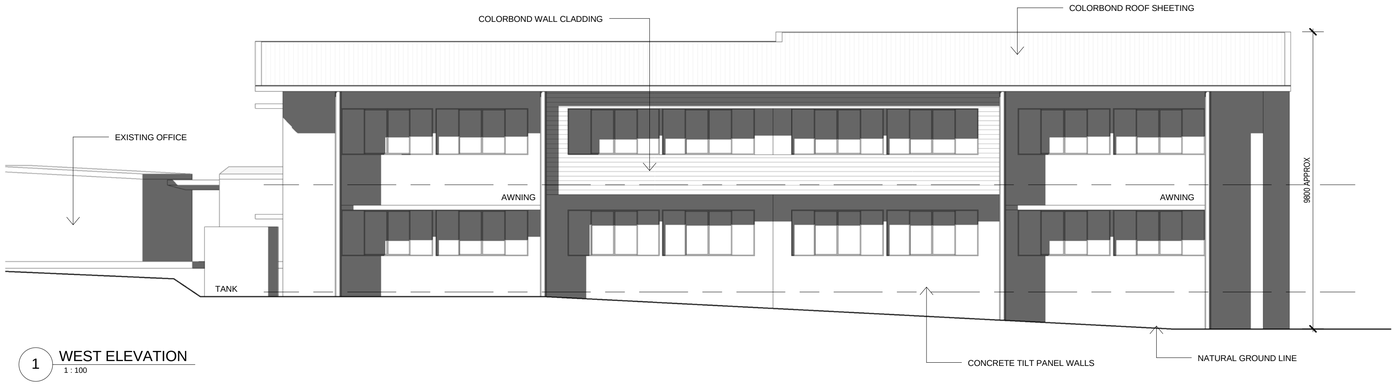

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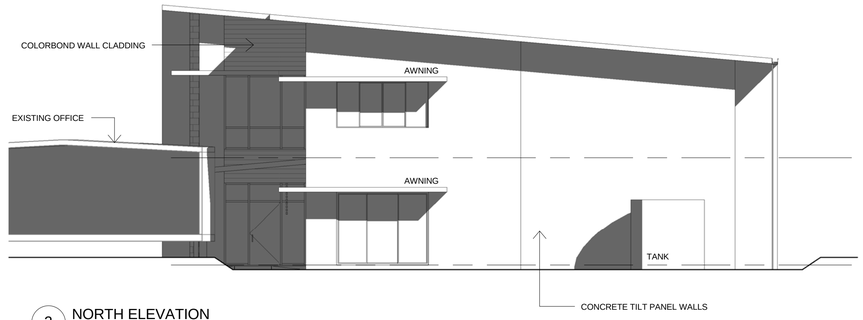

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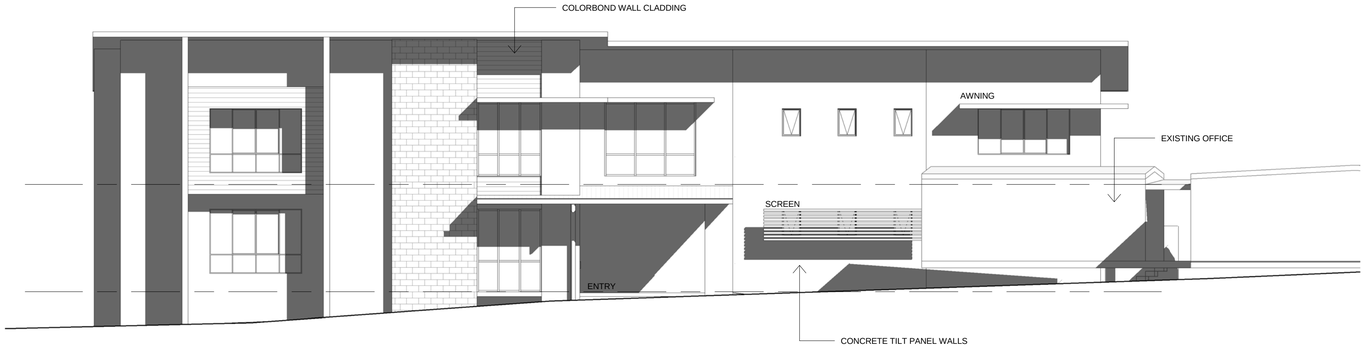

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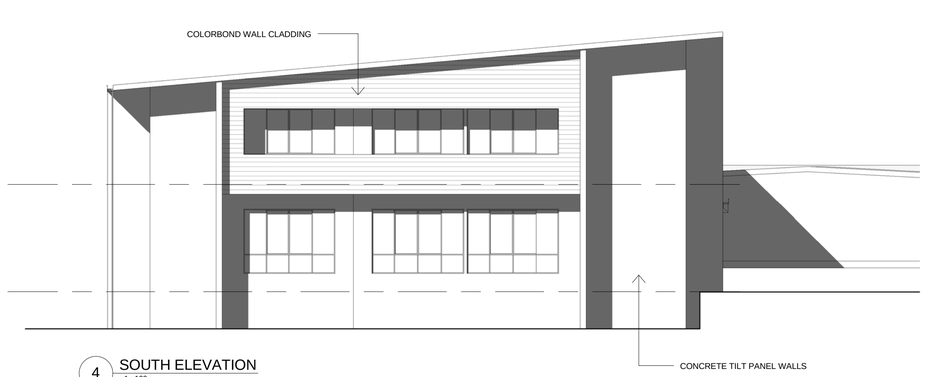

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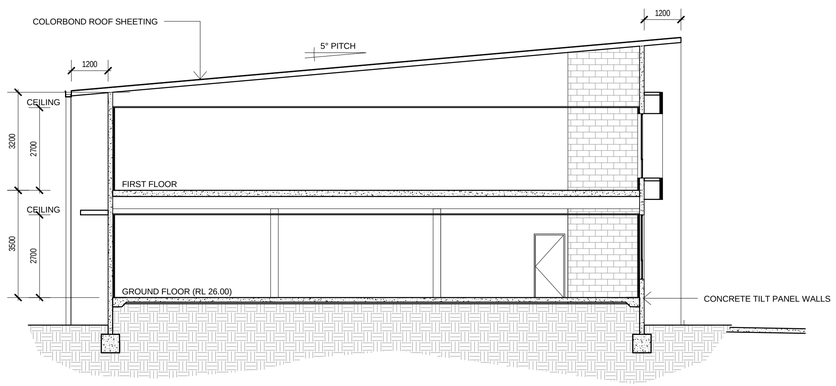

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CLIENT: Amgrow

PROJECT DESCRIPTION :
NEW OFFICE & WAREHOUSES

SITE ADDRESS :
82 CHRISTENSEN ROAD
STAPYLTON

DRAWING TITLE(S):
OFFICE ELEVATIONS / SECTION

AMENDMENTS

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B	23.03.12	PERSPECTIVE	SK
C	11.04.12	NOTES, DA ISSUE	SK

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CHECKED:
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REVISION: C

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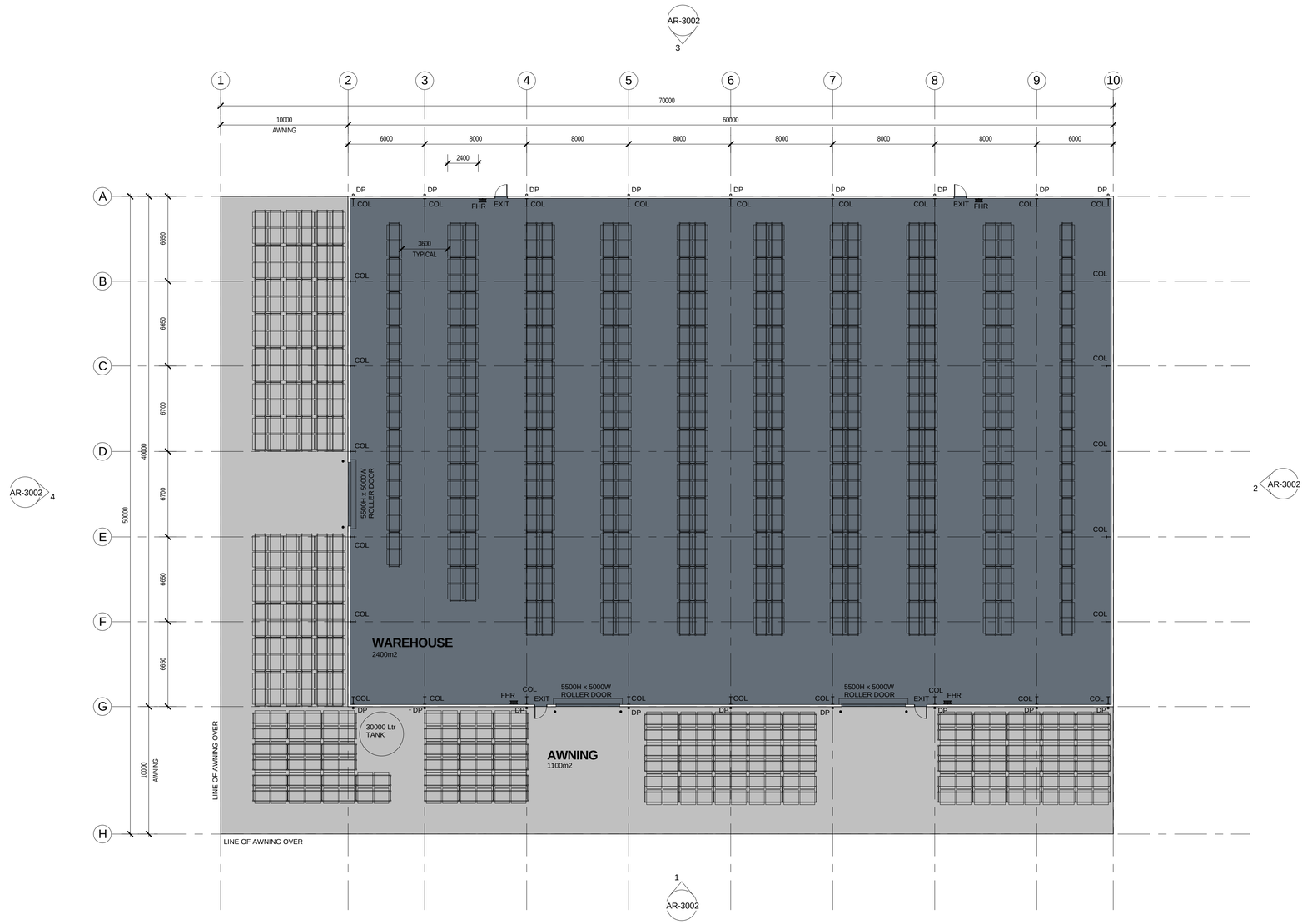

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CLIENT: Amgrow

PROJECT DESCRIPTION :
NEW OFFICE & WAREHOUSES

SITE ADDRESS :
82 CHRISTENSEN ROAD
STAPYLTON

DRAWING TITLE(S):
FLOOR PLAN WAREHOUSE 1

AMENDMENTS

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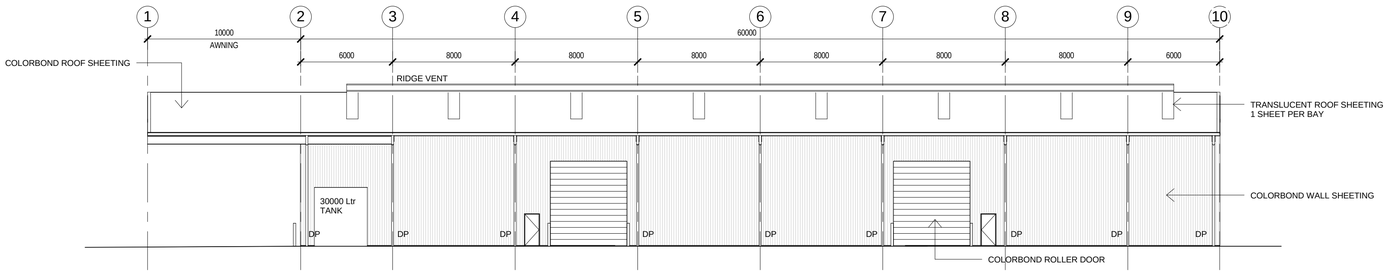

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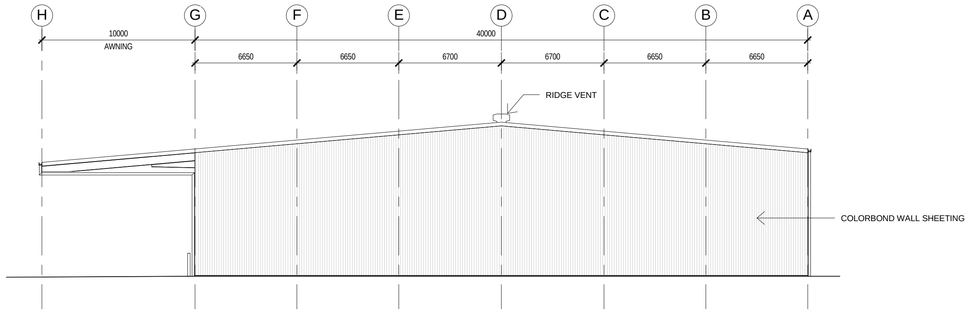

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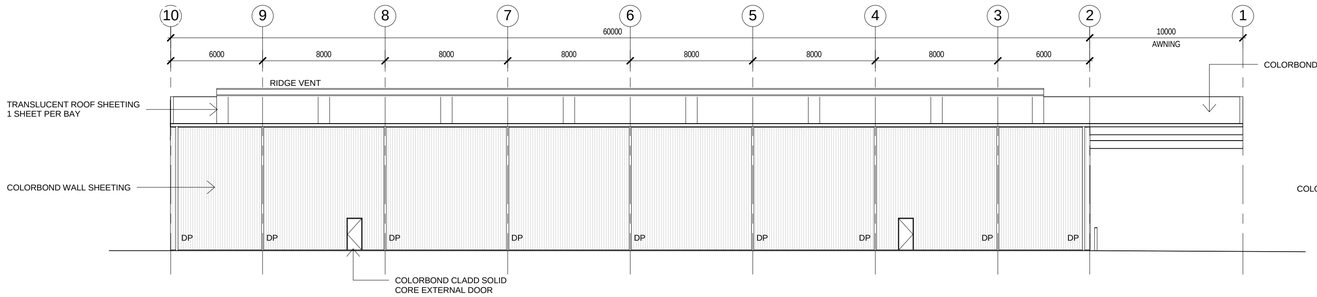

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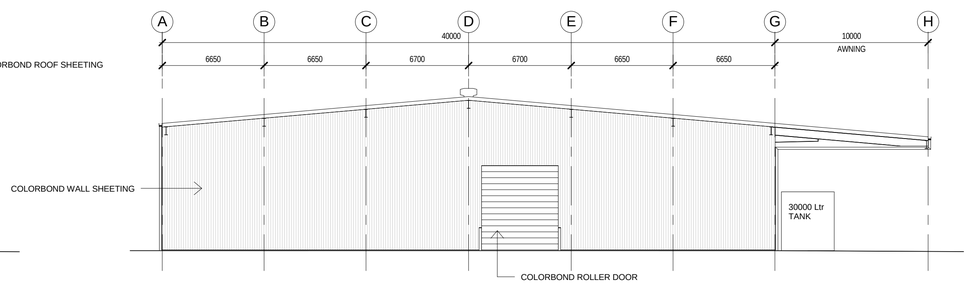

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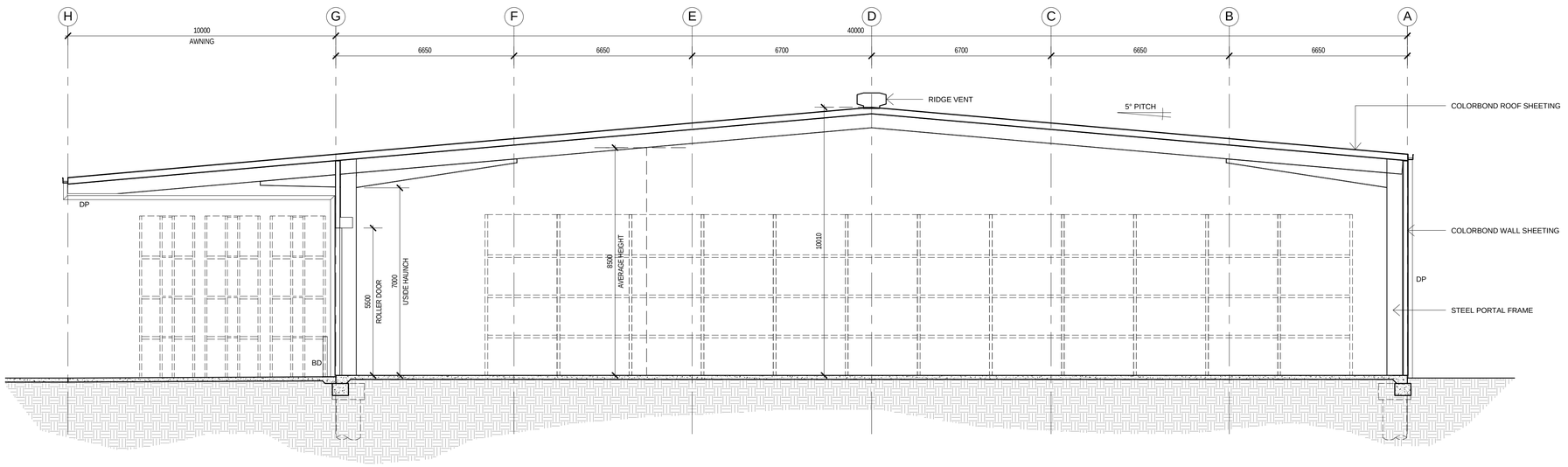

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CLIENT: Amgrow

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STAPYLTON

PROJECT DESCRIPTION :
NEW OFFICE & WAREHOUSES

DRAWING TITLE(S):
ELEVATIONS WAREHOUSE 1

AMENDMENTS

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C	11.04.12	TANK, DA ISSUE	SK

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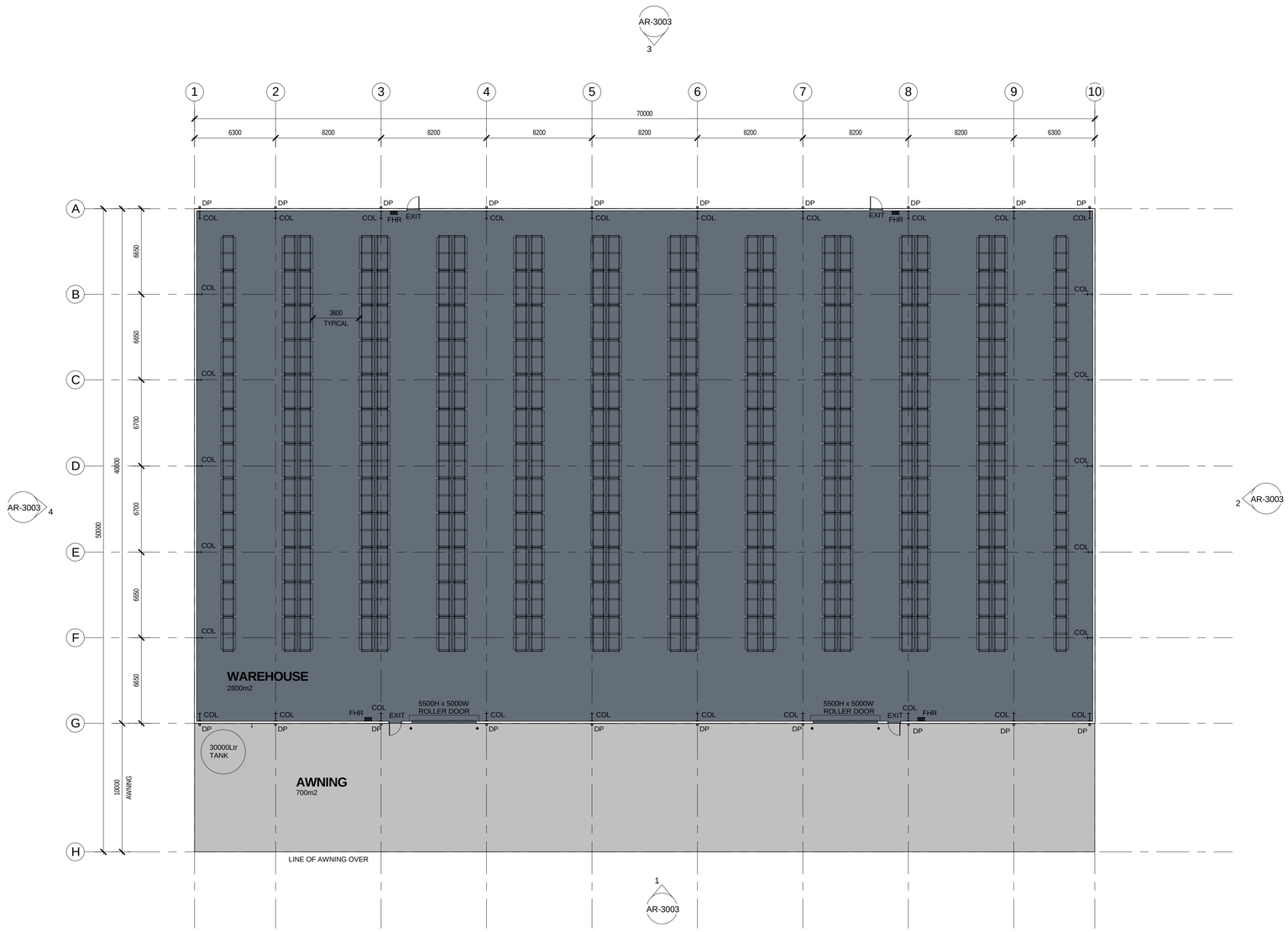

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CLIENT: Amgrow

PROJECT DESCRIPTION :
NEW OFFICE & WAREHOUSES

SITE ADDRESS :
82 CHRISTENSEN ROAD
STAPYLTON

DRAWING TITLE(S):
FLOOR PLAN WAREHOUSE 2

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B	23.03.12	NOTES	SK
C	11.04.12	TANK, DA ISSUE	SK

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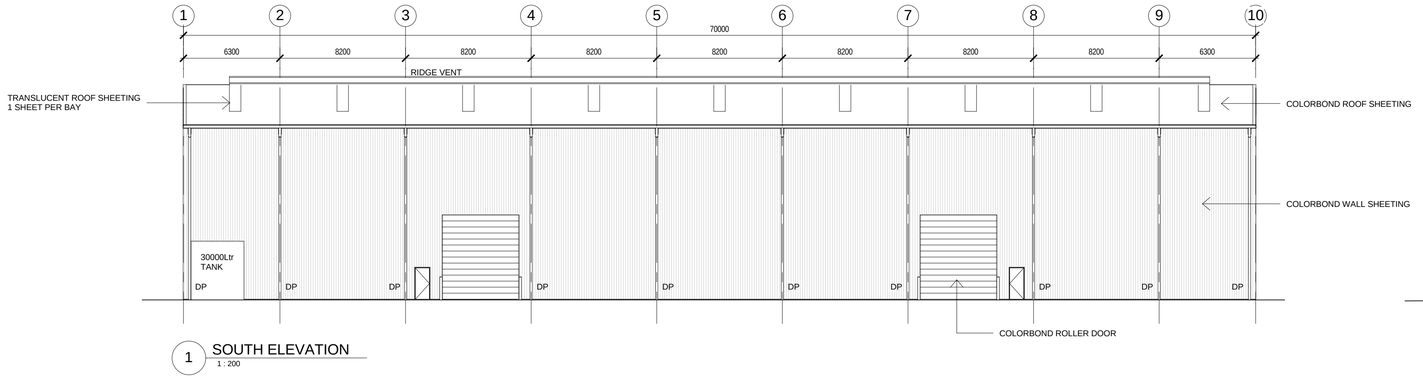

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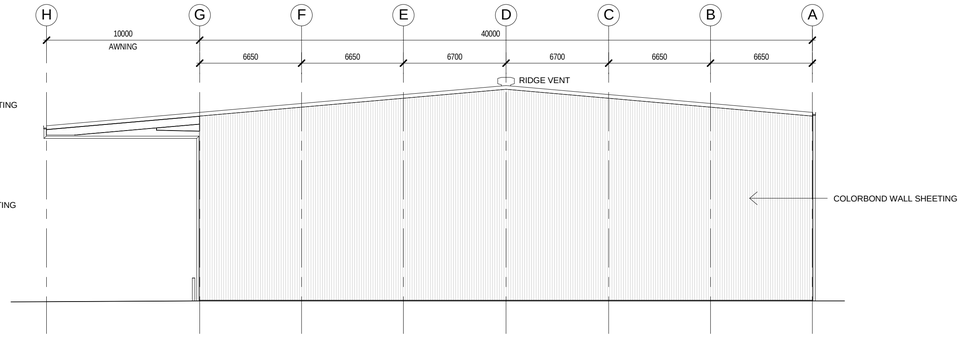

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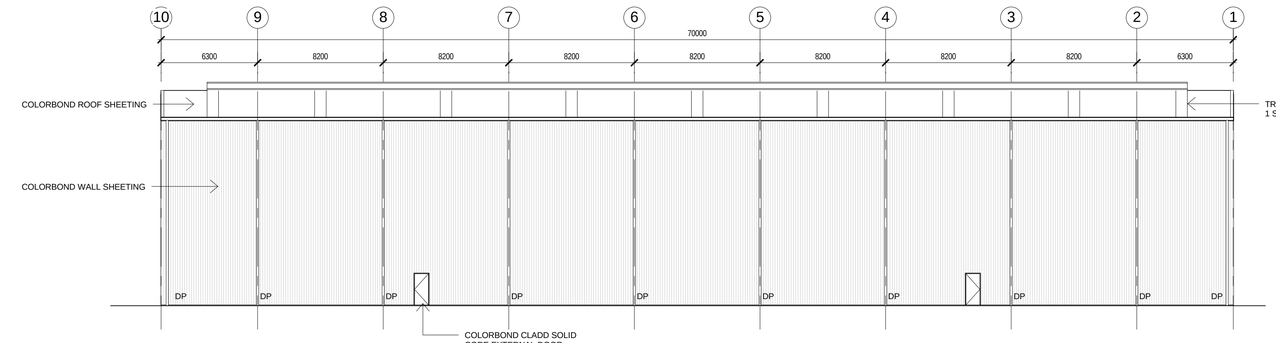

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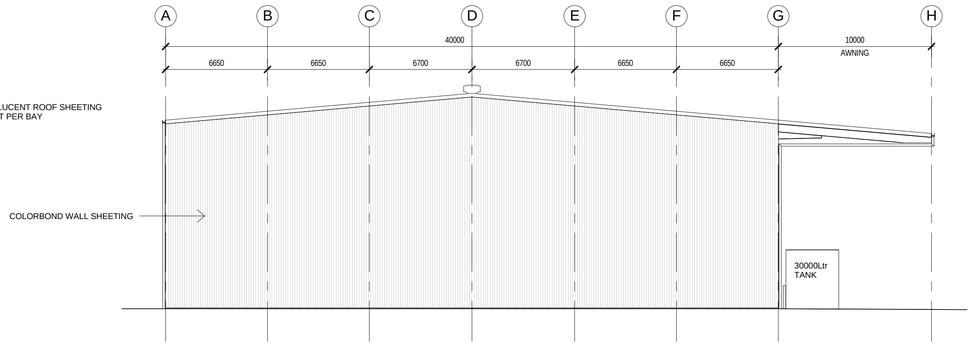

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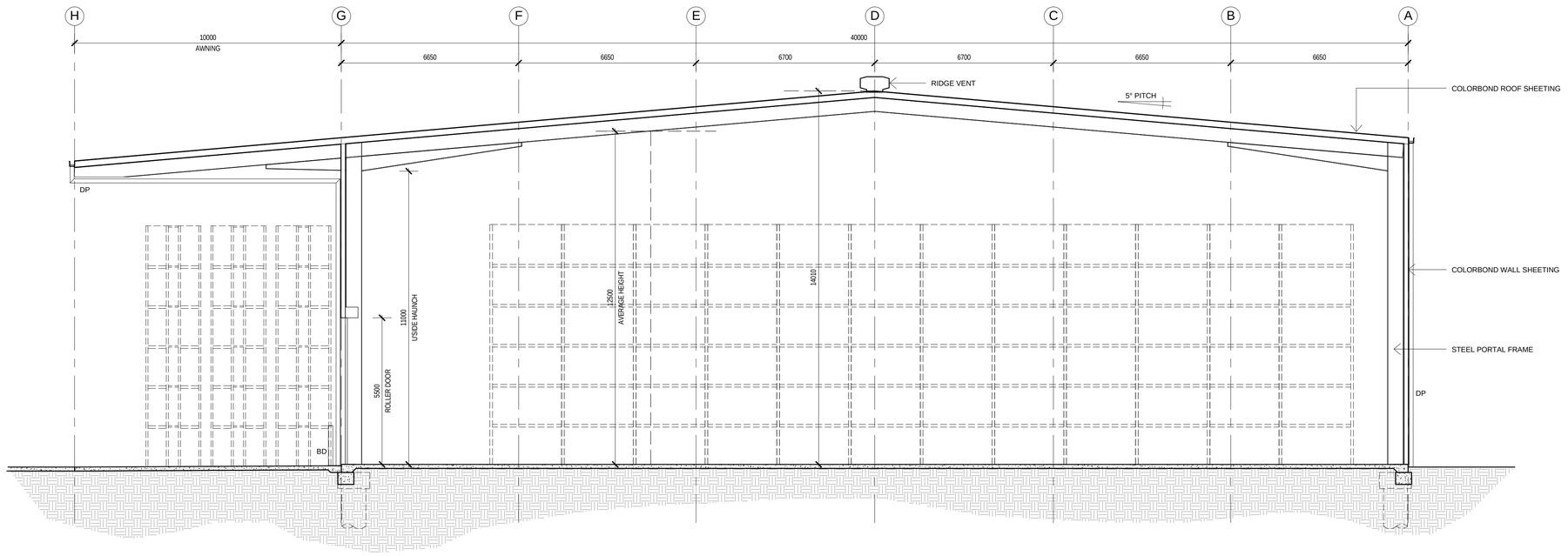

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PROJECT DESCRIPTION :
NEW OFFICE & WAREHOUSES

SITE ADDRESS :
82 CHRISTENSEN ROAD
STAPYLTON

DRAWING TITLE(S):
ELEVATIONS WAREHOUSE 2

AMENDMENTS

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REVISION: C

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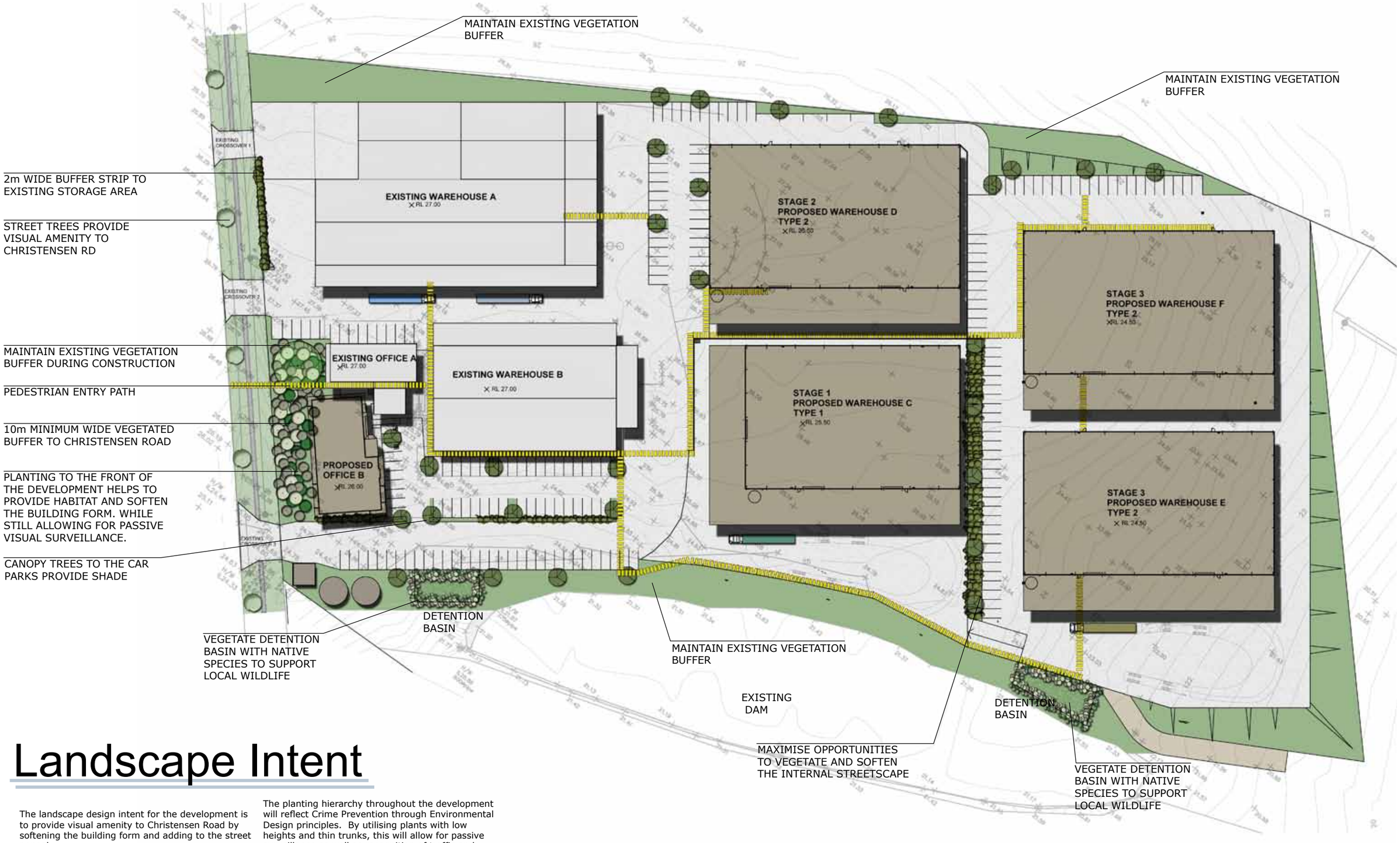
Appendix E: Landscape

LANDSCAPE INTENT PLAN



Landscape Intent

The landscape design intent for the development is to provide visual amenity to Christensen Road by softening the building form and adding to the street appeal.

The softscape palette has been selected in response to the location of the site. The majority of plants that will be used will be native, while being relatively low maintenance once established they will form quality habitat for local fauna.

The planting hierarchy throughout the development will reflect Crime Prevention through Environmental Design principles. By utilising plants with low heights and thin trunks, this will allow for passive surveillance as well as recognition of traffic and pedestrian movements.

Water Sensitive Urban Design principles will be applied to the development where space allows to ensure that all water is processed before leaving the site.

LEGEND

INDICATIVE PEDESTRIAN PATH

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Amgrow
Christensen Road, Stapylton

date: 29-05-12
scale: 1:1000 @ A3
plan: 1292 L LI 01C
design: IS

Plant Selection

The main intent of the planting selection for the development is to create quality habitat and visual amenity by softening the building form. The design will incorporate native plants throughout the development which will be able to cope with the conditions of the site and have low maintenance requirements once established.








LOW MAINTENANCE GARDENS












DETENTION BASIN






Detention Basin Planting Schedule

Code	Botanical Name	Common name	Zone
BAU jun	Baumea juncea	Bare Twig-rush	SM
CAR fas	Carex fascicularis	Tassel Sedge	SM
FIC nod	Ficnia nodosa (syn. Isolepis nodosa)	Knobby Club-rush	SM
JUN usi	Juncus usitatus	Common Rush	SM
CAR app	Carex appressa	Tall Sedge	EM
CAR pol	Carex polyantha	Creek Sedge	EM
JUN fla	Juncus flavidus	Yellow Rush	EM
CAR bre	Carex breviculmis	Short-stem sedge	B
LOM fil	Lomandra filiformis spp. filiformis	Wattle Mat-rush	B
LOM hys	Lomandra hystrix	Creek Matt Rush	B
POA lab	Poa labillardieri	Tussock Grass	B
LEP liv	Leptospermum liversidgei	Lemon-scented Olive Tea-tree	B
MEL eri	Melaleica ericifolia	Swamp Paperbark	B
MEL lin	Melaleuca linariifolia	Flax-leaf Paperbark	B

SM	Shallow Marsh
EM	Ephemeral Marsh
B	Batters


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f. (07) 3807 6401
e. mail@gassman.com.au
w. www.gassman.com.au

Appendix F: Infrastructure and Services

STORMWATER PLAN

Stormwater Management Report

Amgrow – Christensen Road, Stapylton

within
Gold Coast City Council

for Multispan Australia

Project 12-051

icubed consulting
innovation ingenuity inspiration
ABN 89 106 675 156

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TABLE OF CONTENTS

Prepared By	Mitchell Lowry
Released By	Nick Canto
Date	11 April 2012
Job Number	12-051
Document Name	12-051-SWMP
Version	1.0

Approved for release by:

Nick Canto
11 April 2012

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LIST OF FIGURES

LIST OF TABLES

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1. Introduction

1.1 Background

i³ consulting was commissioned by Multispan Australia to undertake design and documentation required for the development application for the expansion of the site at 82 Christensen Road, Stapylton. The development is will occur in three stages, with the water quality treatment to be configured to ensure that the water quality objectives will be achieved at each stage. The proposed development is shown on drawing 12-051-C02 in Appendix A.

1.2 Objectives

This report has been compiled to address the stormwater quality requirements of Gold Coast City Council, the Water Sensitive Urban Design Guidelines for South East Queensland, State Planning policy 4/10 Healthy Waters, the Environmental Protection Act 1994 and the Environmental Protection (Water) Policy 1997.

1.3 Scope

The scope of this report encompasses in detail the post construction phase of development; however the construction phase is briefly addressed.

The treatment has been modeled to be constructed and provide the required treatment inline with the staged development.

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2. Location

The proposed site is located at 82 Christensen Road, Stapylton. The site fronts Christensen Road on its south-west boundary.

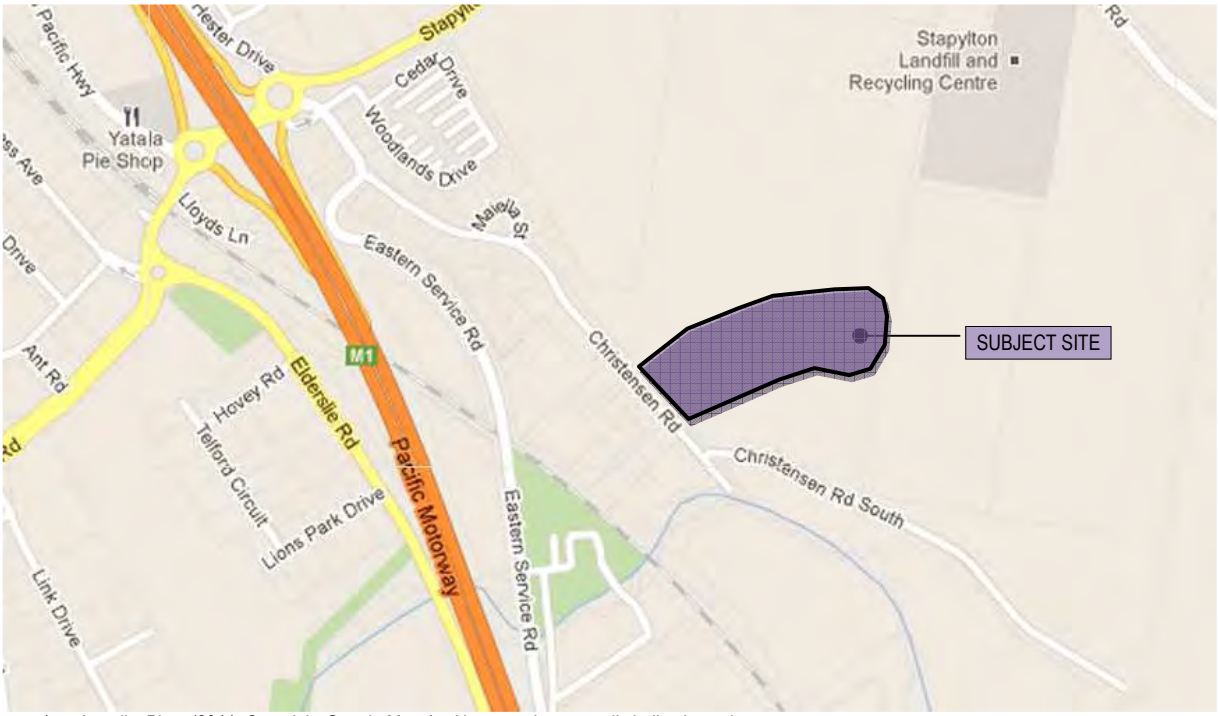

Figure 1: Locality Plan, (2011, Copyright Google Maps) – Not to scale, generally indicative only.
Source: Google Maps

Figure 2: Aerial Photo, (2011, Copyright Google Maps) – Not to scale, generally indicative only.
Source: Google Maps

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3. Site Hydrology

3.1 Method and Approach

The stormwater discharges from this site were calculated using the rational method. This method as described in the Queensland Urban Drainage Manual (QUDM) is commonly used in municipal hydrology and is more than adequate for the design requirements. The Rational Method is based around the Rational formula:

$$Q_y = \frac{C_y {}^{t}I_y A}{360}$$

Where:
- Q_y = Peak flow rate (m^3/s) for the average recurrence interval (ARI) of y years
- C_y = Coefficient of runoff for ARI of y years
- A = Area of catchment (ha)
- ${}^{t}I_y$ = Average rainfall intensity (mm/hr) for design duration of t (minutes) and an ARI of y years.

When designing the stormwater drainage system the following points have been considered:

Stormwater treatment shall be designed for a 3 month storm event, calculated as Q_1 x 0.5; and Stormwater reticulation is to cater for $Q_{3\ month}$ and Q_{10} storm events.

For the purposes of this stormwater quality assessment, the area of the proposed development requiring stormwater quality treatment has been divided up into 9 catchments, with the catchment broken up into stages to be directed to each of the treatment trains.

Table 1 details catchment names, areas and storm event flows for each of the 9 catchments based on the Rational Formula. Refer to Appendix B for details of catchment calculations and Appendix A, drawing 12-051-C01, for catchment areas.

Table 1: Catchment and Flow

Catchment	Catchment Area	Q_{100} Major Flow	Q_{10} Minor Flow	$Q_{3\ month}$ Treatable Flow
Stage 1,2 and Office				
Roof Catchment 1	0.059 ha	0.339 m^3/s	0.215 m^3/s	0.041 m^3/s
Roof Catchment 2	0.350 ha	0.346 m^3/s	0.219 m^3/s	0.042 m^3/s
Roof Catchment 3	0.350 ha	0.013 m^3/s	0.009 m^3/s	0.002 m^3/s
Pavement Catchment 1	0.256 ha	0.006 m^3/s	0.004 m^3/s	0.001 m^3/s
Pavement Catchment 2	0.220 ha	0.018 m^3/s	0.011 m^3/s	0.002 m^3/s
Pavement Catchment 4	0.044 ha	0.792 m^3/s	0.501 m^3/s	0.096 m^3/s
Stage 3				
Pavement Catchment 3	0.932 ha	0.792 m^3/s	0.501 m^3/s	0.096 m^3/s
Roof Catchment 4	0.350 ha	0.034 m^3/s	0.022 m^3/s	0.004 m^3/s
Roof Catchment 5	0.350 ha	0.008 m^3/s	0.005 m^3/s	0.001 m^3/s

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4. Water Quantity

The site stormwater currently discharges through an existing water storage dam and a diameter 600 outlet. No augmentation works are proposed to this arrangement as the development comprises of construction of buildings and pavement over existing operational hardstand pavements.

5. Water Quality

5.1 Construction Phase

Potential exists during the construction phase for sediment to become mobilised by stormwater as suspended solids from the erosion of exposed soil areas and stockpiles, and as a result of spillages from construction and plant operations.

Stormwater quality during the construction phase of the development should be addressed in an Erosion and Sediment Control Plan. The plan should address construction phase erosion and sediment control issues in accordance with the Institute of Engineers Australia (Qld) Erosion and Sediment Control Guidelines. The Erosion and Sediment Control Plan should also be in accordance with the Water Sensitive Urban Design Guidelines for South East Queensland.

The following measures should generally be implemented prior to the commencement of construction:

- Education of all site workers in sediment and erosion procedures;
- Specified storage areas for construction materials and plant that are bunded to prevent any spillages from escaping; and
- Construction of silt fences and catch drains adjacent to the downstream boundaries to divert runoff to temporary sediment basins.

The following measures should be implemented during the construction phase of the project:

- Temporary sedimentation basins should be constructed in accordance with Council's requirements;
- Silt fences should be erected downstream of all disturbed areas; and
- All erosion and sediment control devices should be regularly inspected and maintained following storm events.

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5.2 Operational Phase

During the operational stage of the development, the following impacts have been identified in relation to stormwater runoff and water quality of the receiving waterways:

- Potential exists for gross pollutants which include human derived litter, course sediment and vegetation affecting the drainage capacity of stormwater systems. Gross pollutants are also typically unsightly reducing the visual amenity of the site. Gross pollutants can also physically affect the downstream waterway habitats and organisms such as entangling birds and marine animals in plastic;

- Sediment and Suspended Solids can become mobilised by stormwater as suspended solids from the erosion of exposed soil areas, un-mulched garden beds and sediment deposited on car park and hardstand areas by vehicles and by atmospheric deposition of sediment. Sediment can affect receiving waterways physically through smothering aquatic flora and fauna. Sediments can also block stormwater systems leading to local flooding. Suspended solids may also be used as a transport medium for nutrients and heavy metals making their way into waterways; and

- Nutrients can enter the waterways from stormwater runoff through many sources including, detergents used in car washing, fertilizers from landscaping and lawn areas, nitrous oxide deposition from vehicle exhausts, and organic waste. Large nutrient levels can lead to eutrophication of the receiving waterways resulting in algal blooms and excessive macrophyte growth.

Implementation of the appropriate SQID's would ensure that stormwater leaving the developed site shall be acceptable to Healthy Waters, Water Sensitive Urban Design Guidelines for South East Queensland's requirements.

5.3 Selection of Stormwater Management Options

Gold Coast City Council has Best Management Practices that are required to be demonstrated for all development applications within the City. The Performance Criteria required to be met for discharges from development sites during the 'operational' (post-construction) phase of the development is detailed in Table 13.1-B of the Gold Coast Planning Scheme Policies.

The load-reduction targets that must be achieved when assessing the post-developed sites treatment train, (comparison of unmitigated developed case versus developed mitigated case) are listed in Table 2.

Table 2: Stormwater Quality Objectives for the Site. (Operational Stage)

Pollutant Issues	Load Reduction Objectives (%)
Total Suspended Solids	80
Total Phosphorus	60
Total Nitrogen	45
Total Gross Pollutants (sized 5mm or greater)	90

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5.4 Catchment Annual Pollutant Loads

An assessment of stormwater quality was undertaken for the developed unmitigated site. The discharge concentrations of key pollutants from the site were then compared to the Water Quality Objectives. The pollutant concentrations were obtained by running a MUSIC model with the model parameters sourced from the MUSIC Modelling Guidelines, Version 1.0, 2010.

MUSIC has the ability to simulate quality of runoff from catchments ranging from a single house block up to many square kilometres, and the effect of a wide range of treatment facilities on the quality of runoff downstream. By simulating the performance of stormwater quality improvement measures, MUSIC determines if proposed systems can meet specified water quality objectives.

Table 3 details the MUSIC parameters utilised in running the model.

Table 3: MUSIC Model Parameter Summary

Meteorological Data	Northern Gold Coast 1990-1999 6 minute BOM
Source Node	Industrial
Effective Impervious Area	Varies
Effective Pervious Area	Varies
Modelling Time Steps	6 Minute
Drainage Link	No Routing
Pollutant Concentration	Industrial
Soil Properties	Industrial
Treatment Devices	Bioretention Basin Rainwater Tank

MUSIC calculated the following annual pollutant loads for the 9 combined catchments:

Table 4: Annual Pollutant Loads and Concentrations

Pollutant	Stage 1, 2 and Office Annual Load	Stage 3 Annual Load
Total Suspended Solids	2220 kg/yr	3500 kg/yr
Total Phosphorus	4.39 kg/yr	6.3 kg/yr
Total Nitrogen	25.9 kg/yr	31.2 kg/yr
Total Gross Pollutants	274 kg/yr	331 kg/yr

The above loads have been based on land use as an Industrial site as designated in the Water by Design, MUSIC Modelling Guidelines Version 1.0, 2010.

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5.5 *Selection of Stormwater Treatment Options*

Based on the understanding of Gold Coast City Councils requirements for stormwater quality treatment for Industrial sites, Rainwater Tanks and Bioretention Basins have been utilised as the SQID's for this site.

5.5.1 Rainwater Tanks

Rainwater tanks will be used on the site to both provide water for reuse and improve the quality of the stormwater runoff.

Rainwater tanks assist in the removal of stormwater pollutants such as coarse sediments through the reuse of water for toilet flushing, irrigation and cleaning.

The MUSIC parameters used for the rainwater tanks area shown in Figure 3. below. 30,000 L tanks will be used for roof runoff from the warehouses and a 10,000 L tank will be used for the office . Overflow from the tank will be discharged to the underground drainage system which discharges in the bio-retention basin.

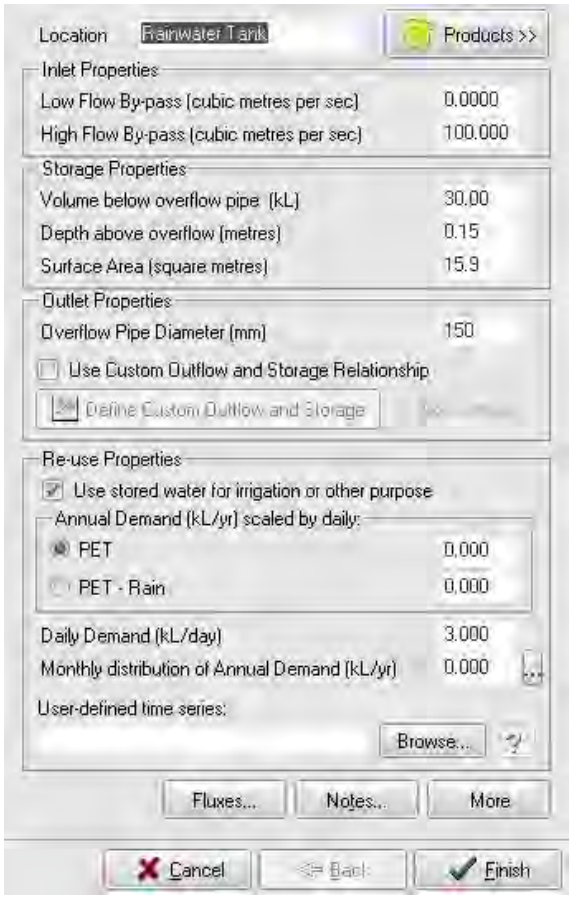

Figure 3: Rainwater Tank Input Data
Source: MUSIC

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5.5.2 Bioretention Basins

Bioretention basins are vegetated areas where runoff is filtered through a filter media layer as it percolates downwards. It is then collected via perforated under-drains and flows to downstream waterways or to storages for reuse. Bioretention basins often use temporary ponding above the filter media surface to increase the volume of runoff treated through the filter media. They treat stormwater in the same way as bioretention swales; however, 'above design' flows are conveyed through overflow pits or bypass paths rather than over the filter media. This has the advantage of protecting the filter media surface from high velocities that can dislodge collected pollutants or scour vegetation.

Bioretention basins operate by filtering stormwater runoff through densely planted surface vegetation and then percolating runoff through a prescribed filter media. During percolation, pollutants are retained through fine filtration, adsorption and some biological uptake. The vegetation in a bioretention system is a vital functional element of the system providing a substrate for biofilm growth within the upper layer of the filter media. Vegetation facilitates the transport of oxygen to the soil and enhances soil microbial communities which enhance biological transformation of pollutants.

Plants with extensive fibrous or a spreading, rhizomatous root system able to withstand periods of inundation are preferred in bioretention systems. As such, it is recommended that Carex or similar plant selected from the WSUD guidelines be planted in the bioretention basin to assist in the uptake of identified pollutants. These plants shall be planted at a density of 6-8 per square metre to provide maximum effect. A sandy loam filtration media with a hydraulic conductivity of 200mm/hr will ensure that filtration media does not become waterlogged (Australian Runoff Quality (ARQ), 2004, Section 9.4). The ARQ states that bioretention systems are efficient in treating, TSS, TN, TP and Hydrocarbons (where attached to fine sediments). Refer to 12-051-C03 in Appendix A for bioretention basin details.

The uPVC slotted pipe will collect the treated Q3 Month flow after it has filtered through a layer of sandy loam. The treated runoff water in the slotted pipe will connect into the side of the field inlet. The treated flow will be piped from the field inlet together with the collected minor flow via the sites stormwater drainage network. The MUSIC parameters used for the bioretention basins are shown on Table 5.

Table 5: Bioretention Basin MUSIC Parameters

Parameter	Value
Extended detention depth	0.29m
Seepage Loss (mm/hr)	0 mm/hr
Filter Depth (m)	0.7m
Particle Diameter (mm)	0.45mm
Saturated Hydraulic Conductivity (mm/hr)	200mm/hr
Depth below underdrain pipe (% of Filter Depth)	0%
Lining Properties: Is basin lined	Yes
Vegetation Properties	Vegetated with effective nutrient removal plants
Surface Area - Basin A	125 m2
- Basin B	125 m2
Filter Area - Basin A	160 m2
- Basin B	160 m2

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5.6 *Treatment Train effectiveness in Pollution Reduction*

The MUSIC Model was run calculating the effectiveness in pollution reduction based on treatment being undertaken by the Rainwater Tanks, and Bioretention Basins. Tables 6 and 7 show the post treatment concentrations for each of the proposed basins compared to water by design MUSIC Modelling Guidelines Version 1.0 – 2010 Water Quality Objectives.

Table 6: MUSIC Output Results – Bioretention Basin A (Stage 1, 2 and Office)

Pollutant	Post Treatment Load	Water Quality Objectives	Reduction in Pollutant
Total Suspended Solids	423 kg/yr	80%	80.9 **%**
Total Phosphorus	1.74 kg/yr	60%	60.4 **%**
Total Nitrogen	12.0 kg/yr	45%	53.4 **%**
Total Gross Pollutants	0 kg/yr	90%	100 **%**

Table 7: MUSIC Output Results – Bioretention Basin B (Stage 3)

Pollutant	Post Treatment Load	Water Quality Objectives	Reduction in Pollutant
Total Suspended Solids	688 kg/yr	80%	80.3 **%**
Total Phosphorus	2.35 kg/yr	60%	62.7 **%**
Total Nitrogen	15.1 kg/yr	45%	51.6 **%**
Total Gross Pollutants	0.00 kg/yr	90%	100 **%**

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6. Maintenance

The following maintenance protocols detailed in Section 5 have been adapted from the Healthy Waterways Water Sensitive Urban Technical Design Engineering Guidelines for South East Queensland – Version 1 June 2006. They should generally be adopted as standard maintenance procedures upon the installation and or construction of Rainwater Tanks, and Bioretention Basins.

6.1 Rainwater Tanks

Proper maintenance of the tank, catchment system, roof, gutters and inlet is essential to ensure a safe supply of water and is best carried out before seasons when heavy rain is expected. Roof catchments and gutters should be inspected and cleared of leaves and other debris every three or four months. Overhanging branches should also be removed where possible. If overhead wires are too close for safety, contact your local power authority for advice. All screens should be cleaned regularly. Tanks should not be allowed to become breeding sites for mosquitoes. If mosquitoes are detected in a tank the entry point should be located and closed.

Desludging: Tanks should be examined for accumulation of sludge at lease every 2-3 years. If sludge is present in the tank it should be removed by siphon or by complete emptying of the tank (desludging). Tanks with a 'cone scour' base are easy to clean by simply opening the cleaning outlet to allow the water to gush out with the sludge then rinsed with a hose. Small, flat bottomed tanks can be drained, rinsed with a hose and titled to drain. One method of cleaning big flat-bottomed tanks is to get inside with a bucket, shovel and broom and dig out the sludge. A second person should be present to ensure the safety of the person inside the tank. Clean a big tank early in the morning or when the area is shaded to avoid heat exhaustion. For light inside the tank, use a battery lantern not a flame or electric extension. If chemicals are being used for repairs inside, a respirator may be necessary. Professional tank cleaners are available in some areas. A concrete tank could crack if it dries out. Check with the tank supplier to find out if the type you have can safely remain empty for a few weeks. It might be necessary to put water in the tank to stop it from cracking. Plastic tanks will need some water or should be tied down to stop them from blowing over in strong winds when they are emptied. If the tank is your only source of water, it can still be desludged regularly by siphoning the sludge off. If the sediment has been stirred up, the water can be treated chemically with chlorine and/ or boiled before consumption.

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6.2 Bioretention Basin

Bioretention Basins require ongoing maintenance to ensure water treatment efficiencies are maintained. Attached in Appendix D is a Bioretention Checklist adapted for the WSUD Guidelines.

Vegetation plays a key role in maintaining the porosity of the filter media of a bioretention basin and a strong healthy growth of vegetation is critical to its performance. Therefore the most intensive period of maintenance is during the plant establishment period (first two years) when weed removal and replanting may be required.

Inflow systems and overflow pits require careful monitoring, as these can be prone to scour and litter build up. Debris can block inlets or outlets and can be unsightly, particularly in high visibility areas. Inspection and removal of debris should be done regularly, and debris should be removed whenever it is observed on a site. Where sediment forebays are adopted, regular inspection of the forebay is required (3 monthly) with removal of accumulated sediment undertaken as required.

For larger bioretention basins, it is essential that a maintenance access point is designed for and maintained in the bioretention basin. The size and complexity of the system will guide its design and may involve provision of a reinforced concrete ramp/ pad for truck or machinery access.

Typical maintenance of bioretention basin elements will involve:

- Routine inspection of the bioretention basin profile to identify any areas of obvious increased sediment deposition, scouring from storm flows, rill erosion of the batters from lateral inflows, damage to the profile from vehicles and clogging of the bioretention basin (evident by a 'boggy' filter media surface).
- Routine inspection of inflows systems, overflow pits and under-drains to identify and clean any areas of scour, litter build up and blockages.
- Removal of sediment where it is smothering the bioretention basin vegetation.
- Where a sediment forebay is adopted, removal of accumulated sediment.
- Repairing any damage to the profile resulting from scour, rill erosion or vehicle damage by replacement of appropriate fill (to match onsite soils) and revegetating.
- Tilling of the bioretention basin surface, or removal of the surface layer, if there is evidence of clogging.
- Regular watering/ irrigation of vegetation until plants are established and actively growing.
- Removal and management of invasive weeds (herbicides should not be used).
- Removal of plants that have died and replacement with plants of equivalent size and species as detailed in the plant schedule.
- Pruning to remove dead or diseased vegetation material and to stimulate growth.
- Vegetation pest monitoring and control.

Resetting (i.e. complete reconstruction) of the bioretention basin will be required if the system fails to drain adequately after tilling of the surface. Maintenance should only occur after a reasonably rain free period when the soil in the bioretention system is dry. Inspections are also recommended following large storm events to check for scour and other damage.

All maintenance activities must be specified in an approved Maintenance Plan (and associated maintenance inspection forms) to be documented and submitted to Council as part of the Development Approval process. Maintenance personnel and asset managers will use this Plan to ensure the bioretention basins continue to function as designed. An example operation and maintenance inspection form is included in the checking tools provided in Appendix D. These forms must be developed on a site-specific basis as the nature and configuration of bioretention basins varies significantly.

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7. Conclusion

The MUSIC modelling results in Section 4.6 indicate that Rainwater Tanks and Bioretention Basins will adequately treat the identified pollutants associated with the $Q_{3\ Month}$ stormwater runoff.

The required bioretention basins are:

Basin Description	Filter Area	Surface Area	Filter Depth
A (Stage 1, 2 and Office)	125 m2	125 m2	0.7m
B (Stage 3)	160 m2	160 m2	0.7m

A 100mm uPVC slotted pipe will be located 1.0m below the surface of the filter material and will carry the Q3 Month stormwater runoff to the outlet drain, as per drawing 12-051-C03.

In addition, adherence to the maintenance measures detailed in Section 5 will ensure the ongoing effectiveness and longevity of the proposed SQID's.

Based on the above MUSIC results, I^3 Consulting considers that proposed treatment of identified pollutants with Rainwater Tanks and Bioretention Basins will satisfy Gold Coast City Council's requirements for stormwater quality treatment for the proposed development.

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8. Reference List

Healthy Waterways, Water Sensitive Urban Design Guidelines for South East Queensland – Version 1, June 2006.

Water by Design, MUSIC Modelling Guidelines
Version 1.0, 2010

DERM, Queensland Water Quality Guidelines, 2009

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Appendix A – Drawings

Table 8: Drawings prepared by i3 consulting pty ltd

Drawing Number	Drawing Description
12-051-C01	Stormwater Catchment Plan
12-051-C02	Stormwater Quality Plan
12-051-C03	Stormwater Quality Details
12-051-C04	Sediment and Erosion Control Plan

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Appendix B – Calculations

Table 9: Discharge Calculation Table

Catchment	Area	*Major Storm Event Q_{100}*		*Minor Storm Event Q_{10}*		*Treatable Storm Event $Q_{3\ month}$*	
		Intensity	Discharge	Intensity	Discharge	Intensity	Discharge
Roof Catchment 1	0.059 ha	372.53 mm/hr	0.061 m^3/s	248.00 mm/hr	0.039 m^3/s	64.58 mm/hr	0.007 m^3/s
Roof Catchment 2	0.350 ha	372.53 mm/hr	0.362 m^3/s	248.00 mm/hr	0.229 m^3/s	64.58 mm/hr	0.044 m^3/s
Roof Catchment 3	0.350 ha	372.53 mm/hr	0.362 m^3/s	248.00 mm/hr	0.229 m^3/s	64.58 mm/hr	0.044 m^3/s
Roof Catchment 4	0.350 ha	372.53 mm/hr	0.362 m^3/s	248.00 mm/hr	0.229 m^3/s	64.58 mm/hr	0.044 m^3/s
Roof Catchment 5	0.350 ha	372.53 mm/hr	0.362 m^3/s	248.00 mm/hr	0.229 m^3/s	64.58 mm/hr	0.044 m^3/s
Pavement Catchment 1	0.256 ha	372.53 mm/hr	0.265 m^3/s	248.00 mm/hr	0.168 m^3/s	64.58 mm/hr	0.032 m^3/s
Pavement Catchment 2	0.220 ha	372.53 mm/hr	0.228 m^3/s	248.00 mm/hr	0.144 m^3/s	64.58 mm/hr	0.028 m^3/s
Pavement Catchment 3	0.932 ha	372.53 mm/hr	0.964 m^3/s	248.00 mm/hr	0.610 m^3/s	64.58 mm/hr	0.117 m^3/s
Pavement Catchment 4	0.044 ha	372.53 mm/hr	0.046 m^3/s	248.00 mm/hr	0.029 m^3/s	64.58 mm/hr	0.006 m^3/s

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Sample Calculations

MAJOR STORM EVENT Q_{100}
AREA = 0.059 Ha

RAINFALL INTENSITY
I_{100} = 372.53 mm/hr (From AR&R)
For 5 minute duration

COEFICIENT OF RUNOFF
C_{100} = 1

DISCHARGE
$Q_{100} = \frac{CIA}{360} =$ 0.061 m^3/s

MINOR STORM EVENT Q_{10}
AREA = 0.059 Ha

RAINFALL INTENSITY
I_{10} = 248 mm/hr (From AR&R)
For 5 minute duration

COEFICIENT OF RUNOFF
C_{10} = 0.95

DISCHARGE
$Q_{10} = \frac{CIA}{360} =$ 0.039 m^3/s

TREATABLE STORM EVENT $Q_{3\ month}$
AREA = 0.059 Ha

RAINFALL INTENSITY
$I_{3\ month}$ = 64.58 mm/hr (From AR&R)
For 5 minute duration

COEFICIENT OF RUNOFF
$C_{3\ month}$ = 0.7

DISCHARGE
$Q_{3\ month} = \frac{CIA}{360} =$ 0.007 m^3/s

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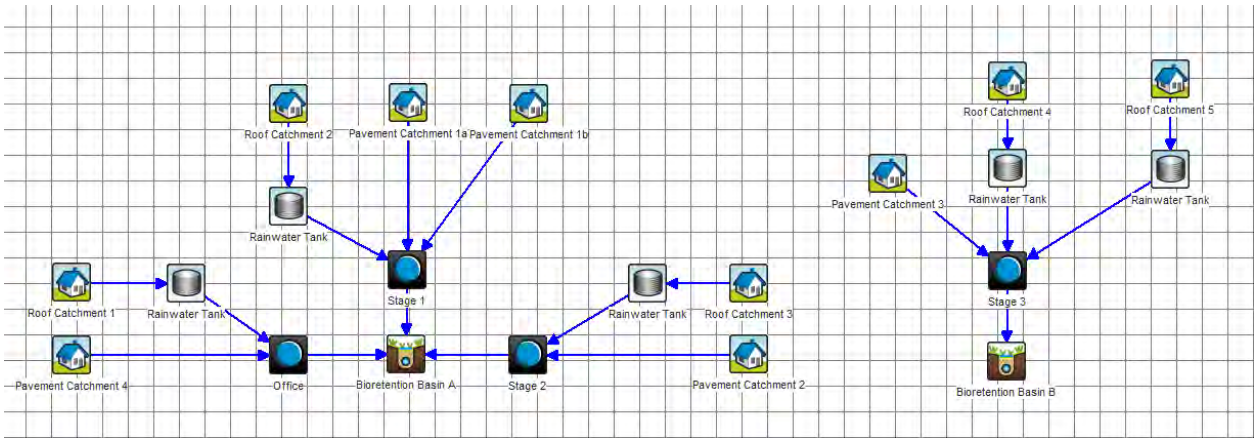
Appendix C – Music Output

Model Layout



Bioretention A

	Sources	Residual Load	% Reduction
Flow (ML/yr)	11.2	9.22	17.4
Peak Flow (m3/s)	0.215	0.812	-277.8
Total Suspended Solids (kg/yr)	2.22E3	423	80.9
Total Phosphorus (kg/yr)	4.39	1.74	60.4
Total Nitrogen (kg/yr)	25.9	12.0	53.4
Gross Pollutants (kg/yr)	274	0.00	100.0

Bioretention B

	Sources	Residual Load	% Reduction
Flow (ML/yr)	13.5	11.7	13.4
Peak Flow (m3/s)	0.536	0.967	-80.5
Total Suspended Solids (kg/yr)	3.50E3	688	80.3
Total Phosphorus (kg/yr)	6.30	2.35	62.7
Total Nitrogen (kg/yr)	31.2	15.1	51.6
Gross Pollutants (kg/yr)	331	0.00	100.0

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Appendix D – Bioretention Checklist

BIORETENTION BASIN MAINTENANCE CHECKLIST				
Inspection Frequency:	1 to 6 monthly	**Date of Visit:**		
Location:				
Description:				
Asset I.D.				
Site Visit by:				
INSPECTION ITEMS:		**Y**	**N**	**Action Required (details)**
Sediment accumulation at inflow points?				
Litter within basin?				
Erosion at inlet or other key structures?				
Traffic damage present?				
Evidence of dumping (e.g. building waste)?				
Vegetation condition satisfactory (density, weeds etc)?				
Watering of vegetation required?				
Replanting required?				
Mowing/slashing required?				
Clogging of drainage points (sediment or debris)?				
Evidence of ponding?				
Damage/vandalism to structures present?				
Surface clogging visible?				
Drainage system inspected?				
Resetting of system required?				
COMMENTS				

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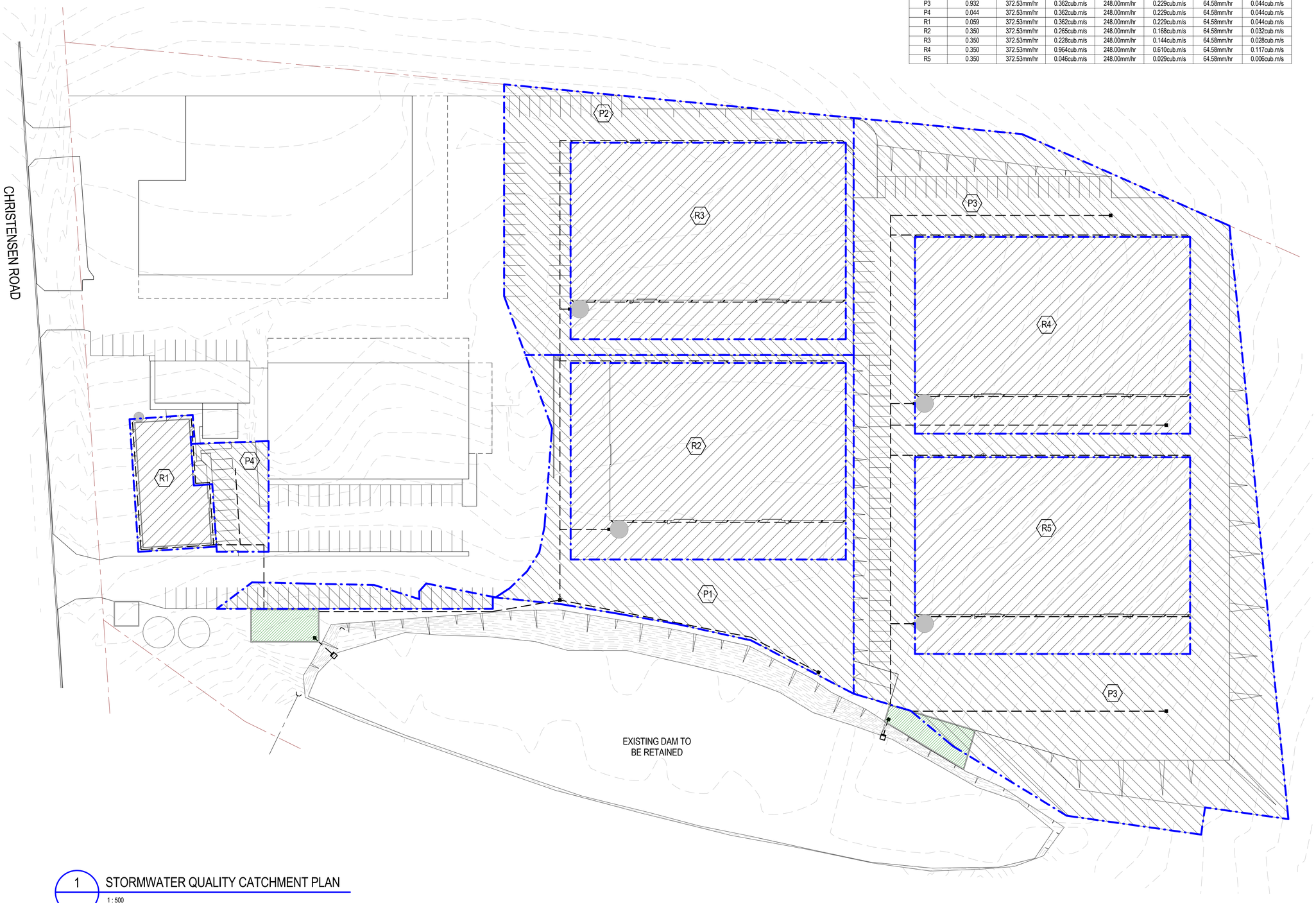
CATCHMENT PLAN							
		MAJOR STORM EVENT Q100		MINOR STORM EVENT Q10		Q3 MONTH TREATABLE FLOW	
CATCHMENT	AREA (ha)	INTENSITY	DISCHARGE	INTENSITY	DISCHARGE	INTENSITY	DISCHARGE
P1	0.256	372.53mm/hr	0.061cub.m/s	248.00mm/hr	0.039cub.m/s	64.58mm/hr	0.007cub.m/s
P2	0.220	372.53mm/hr	0.362cub.m/s	248.00mm/hr	0.229cub.m/s	64.58mm/hr	0.044cub.m/s
P3	0.932	372.53mm/hr	0.362cub.m/s	248.00mm/hr	0.229cub.m/s	64.58mm/hr	0.044cub.m/s
P4	0.044	372.53mm/hr	0.362cub.m/s	248.00mm/hr	0.229cub.m/s	64.58mm/hr	0.044cub.m/s
R1	0.059	372.53mm/hr	0.362cub.m/s	248.00mm/hr	0.229cub.m/s	64.58mm/hr	0.044cub.m/s
R2	0.350	372.53mm/hr	0.265cub.m/s	248.00mm/hr	0.168cub.m/s	64.58mm/hr	0.032cub.m/s
R3	0.350	372.53mm/hr	0.228cub.m/s	248.00mm/hr	0.144cub.m/s	64.58mm/hr	0.028cub.m/s
R4	0.350	372.53mm/hr	0.964cub.m/s	248.00mm/hr	0.610cub.m/s	64.58mm/hr	0.117cub.m/s
R5	0.350	372.53mm/hr	0.046cub.m/s	248.00mm/hr	0.029cub.m/s	64.58mm/hr	0.006cub.m/s



1 STORMWATER QUALITY CATCHMENT PLAN
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PROJECT TEAM

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Engineers Certification:

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NPER Civil & Structural
RPEQ 6750, RBP (TAS) CC5630J,
RBP (NT) 19324ES

Signature: .....

Date: 10 / 04 / 2012

CATCHMENT LEGEND

LINE	DESCRIPTION
———	EXISTING SURFACE CONTOURS
-·-·-	CATCHMENT BOUNDARY

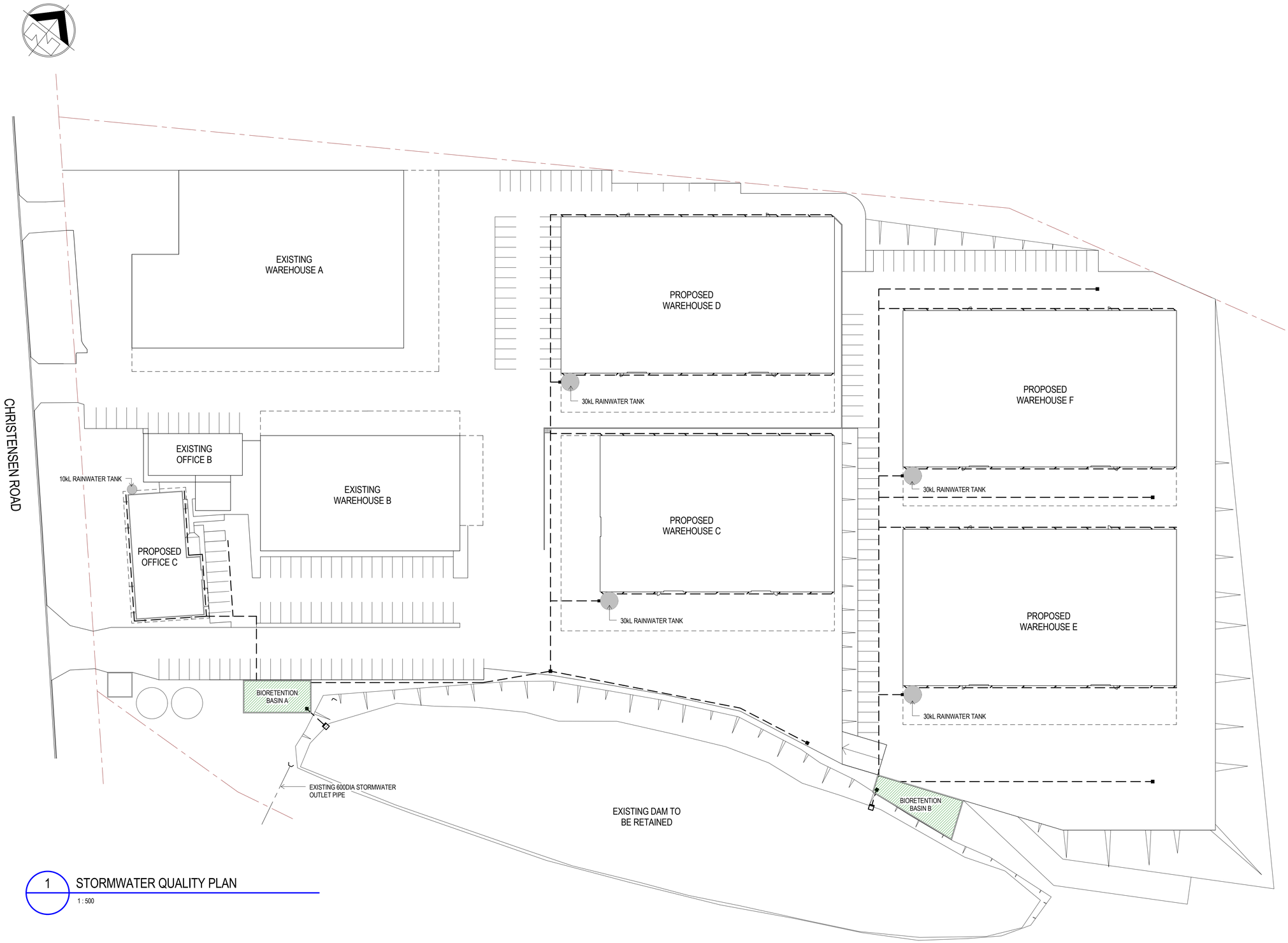
REV	DESCRIPTION	DATE	BY

Status
FOR APPROVAL

Project
AMGROW
82 CHRISTENSEN ROAD
STAPYLTON
for
MULTISPAN AUSTRALIA

Title
STORMWATER CATCHMENT PLAN

Drawn T.J.S.	Date 03.04.2012	Chkd N.C.	Date
Design T.J.S.	Date	Apprd	Date
Scale As indicated	A1	Certif	Date
Project No. 12-051		Dwg. No. C01	Rev



1 STORMWATER QUALITY PLAN

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Engineers Certification:

Nicola Canto MIE Aust. CPEng.
NPER Civil & Structural
RPEQ 6750, RBP (TAS) CC5630J,
RBP (NT) 19324ES

Signature: .....

Date: 10 / 04 / 2012

STORMWATER QUALITY LEGEND

LINE	DESCRIPTION
- - - - -	OVERHEAD LINE
— — —	PROPOSED STORMWATER LINE
▨	PROPOSED BIORETENTION BASIN

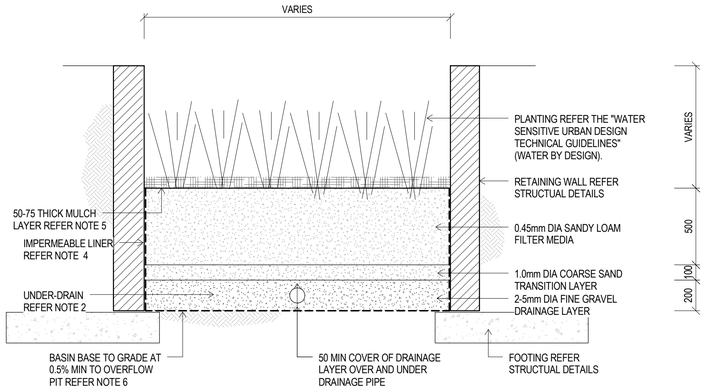
REV	DESCRIPTION	DATE	BY

Status
FOR APPROVAL

Project
AMGROW
82 CHRISTENSEN ROAD
STAPYLTON
for
MULTISPAN AUSTRALIA

Title
STORMWATER QUALITY PLAN

Drawn	Date	Chkd	Date
T.J.S.	03.04.2012	N.C.	
Design	Date	Apprd	Date
T.J.S.			
Scale	A1	Certif	Date
As indicated			
Project No.		Dwg. No.	Rev
12-051		C02	

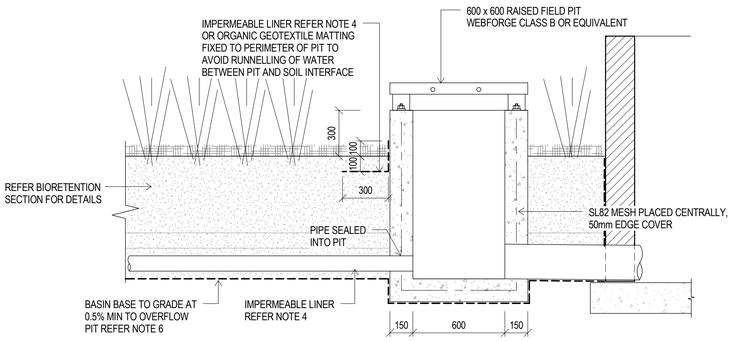


4 BIORETENTION BASIN SECTION

1 : 20

BIORETENTION NOTES

1. BIORETENTION MEDIA SPECIFICATION SHALL BE IN ACCORDANCE WITH THE FACILITY FOR ADVANCING BIOFILTRATION "GUIDELINE FOR SOIL FILTER MEDIAN 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. 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. IMPERMEABLE LINER - HDPE, BENTONITE, COMPACTED CLAY OR APPROVED EQUIVALENT TO BASE AND SIDES, INSTALLED AS PER MANUFACTURERS AND/ OR GEOTECHNICAL ENGINEERS SPECIFICATION. WHERE COMPACTED CLAY LINER IS ADOPTED, FILTER CLOTH IS TO BE USED AS PER NOTE 9. REFER TO THE "WATER SENSITIVE URBAN DESIGN CONSTRUCTION AND ESTABLISHMENT GUIDELINES - SWALES, BIORETENTION SYSTEMS AND WETLANDS" (WATER BY DESIGN) FOR DETAILS.
5. BASIN FINISHED SURFACE LEVEL IS TOP OF FILTER MEDIA. SURFACE TO BE MULCHED AND PLANTED
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. PLANT SPECIFCATION AND DENSITY SHALL BE IN ACCORDANCE WITH THE "WATER SENSITIVE URBAN DESIGN TECHNICAL GUIDELINES" (WATER BY DESIGN).
8. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
9. 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).



2 BIORETENTION OUTLET PIT DETAIL

1 : 20

SEDIMENT FOREBAY NOTES

THE SIZE OF THE SEDIMENT FOREBAY IS ESTABLISHED USING THE FOLLOWING:

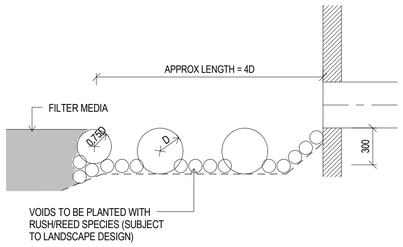
$V_s = A_c \times R \times L_o \times F_c$

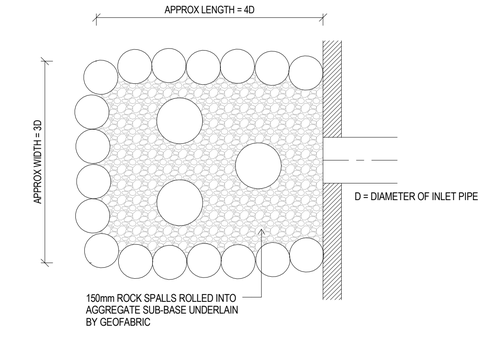
WHERE: V_s = VOLUME OF FOREBAY SEDIMENT STORAGE REQUIRED (m^3)
A_c = CONTRIBUTING CATCHMENT AREA (ha)
R = CAPTURE EFFICIENCY (ASSUME 80%)
L_o = SEDIMENT LOADING RATE (m^3/ ha /year) = 1.6
F_c = DESIRED CLEANOUT FREQUENCY (years) = 1.0

THE AREA OF THE SEDIMENT FOREBAY IS ESTABLISHED USING THE FOLLOWING:

$A_s = \frac{V_s}{D_s}$

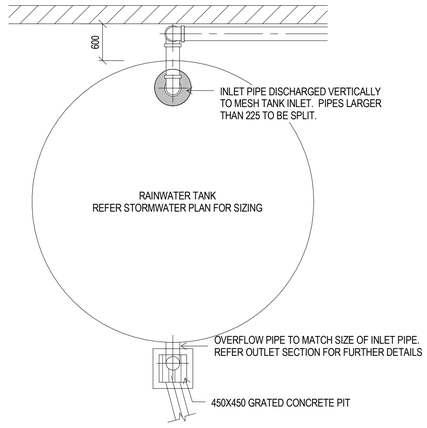
WHERE: D_s = DEPTH OF SEDIMENT FOREBAY (m) = 0.3m



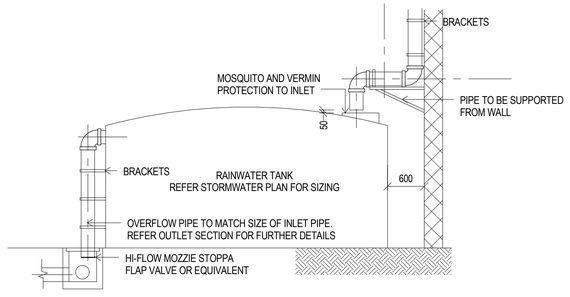


5 SEDIMENT FOREBAY DETAIL

1 : 25



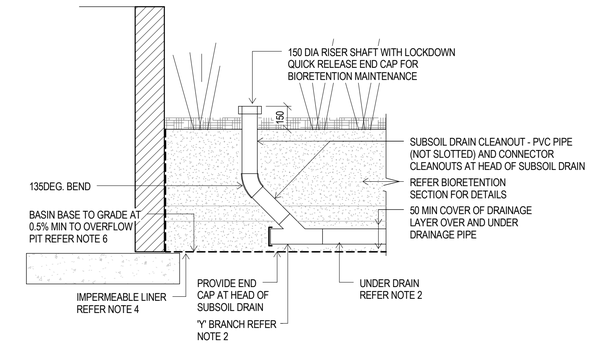
PLAN VIEW



SECTION VIEW

7 RAINWATER TANK DETAIL

1 : 50



3 BIORETENTION UNDER-DRAIN CLEANOUT

1 : 20

PROJECT TEAM

Consulting Engineer:

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Nicola Canto MIE Aust. CPEng.
NPER Civil & Structural
RPEQ 6750, RBP (TAS) CC5630J,
RBP (NT) 19324ES

Signature: .....

Date: 10/04/2012

REV	DESCRIPTION	DATE	BY

Status: FOR APPROVAL

Project: AMGROW
82 CHRISTENSEN ROAD
STAPYLTON
for
MULTISPAN AUSTRALIA

Title: STORMWATER QUALITY DETAILS

Drawn	Date	Chkd	Date
T.J.S.	03.04.2012	N.C.	
Design	Date	Apprd	Date
T.J.S.			
Scale	A1	Certif	Date
As indicated			
Project No.		Dwg. No.	Rev
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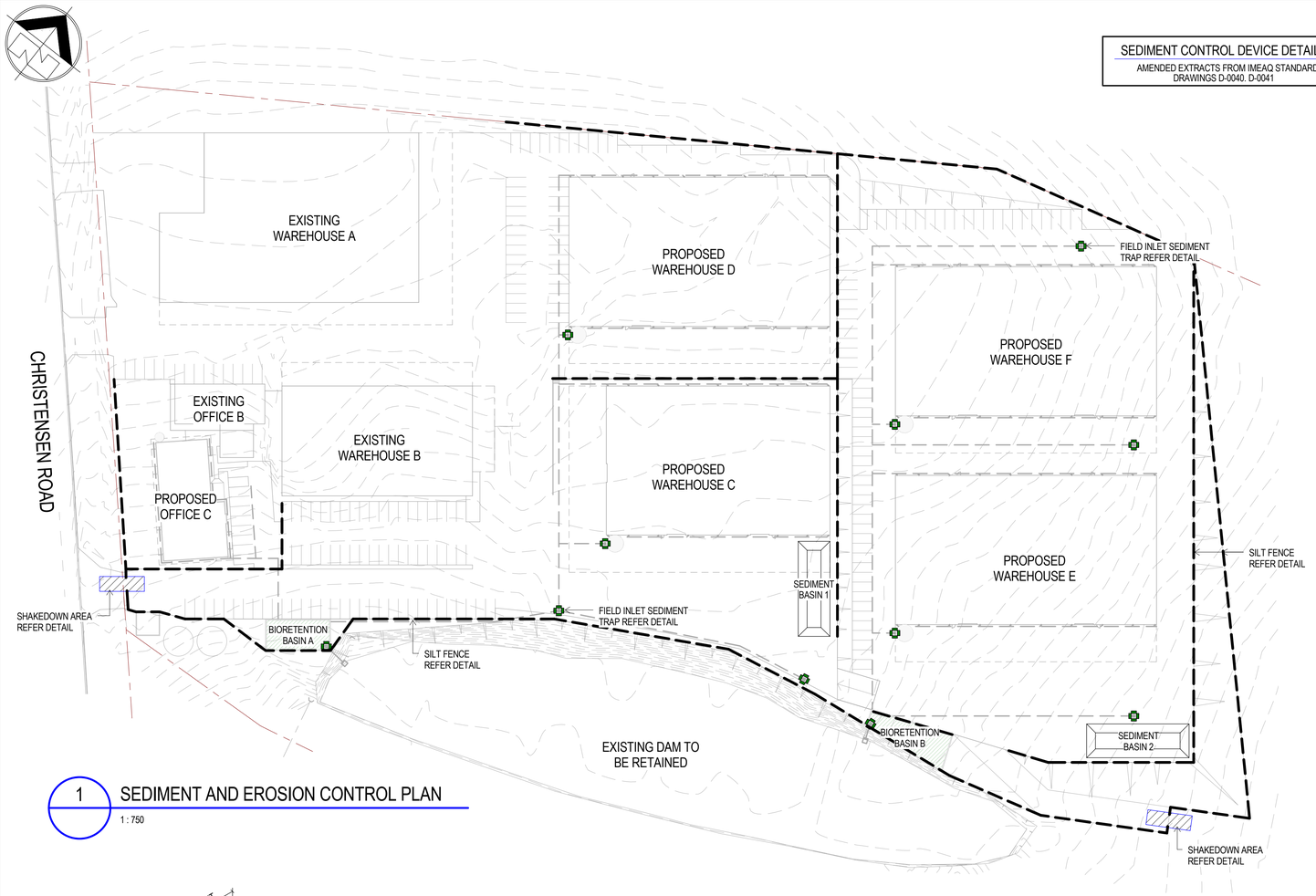
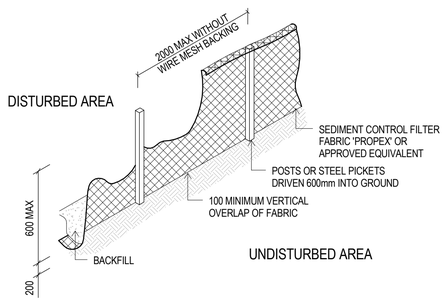
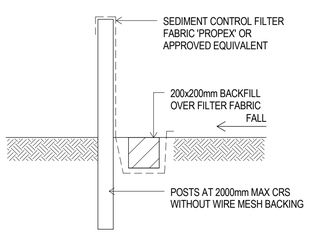


1 SEDIMENT AND EROSION CONTROL PLAN

1 : 750



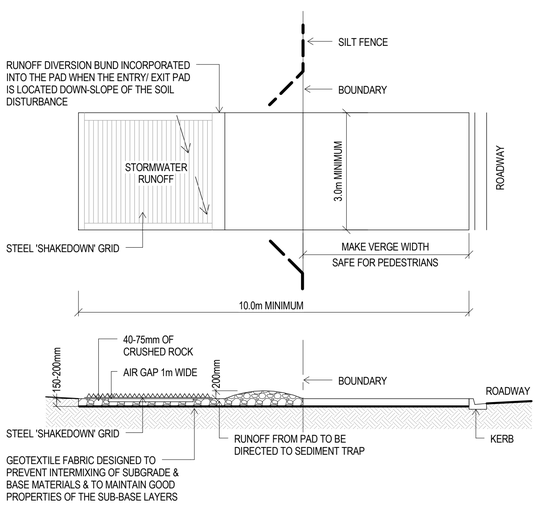
SILT FENCE PERSPECTIVE



SILT FENCE SECTION

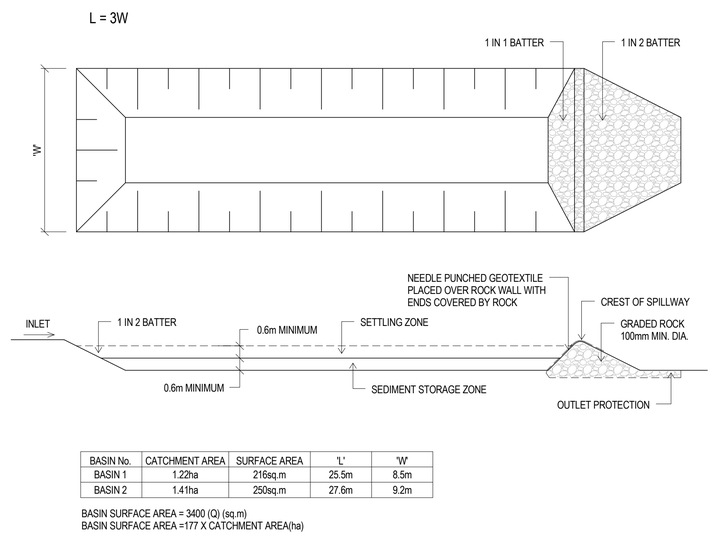
2 SILT FENCE DETAIL

1 : 20



7 SHAKEDOWN DETAIL

1 : 1

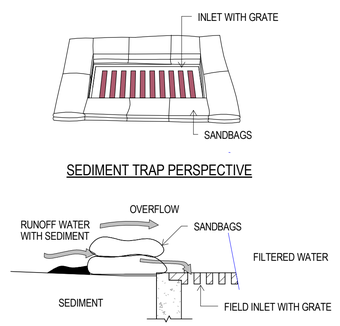


BASIN No.	CATCHMENT AREA	SURFACE AREA	'L'	'W'
BASIN 1	1.22ha	216sq.m	25.5m	8.5m
BASIN 2	1.41ha	250sq.m	27.6m	9.2m

BASIN SURFACE AREA = 3400 (Q) (sq.m)
BASIN SURFACE AREA =177 X CATCHMENT AREA(ha)

9 TYPE C SEDIMENT BASIN DETAIL

1 : 150



SEDIMENT TRAP PERSPECTIVE

SEDIMENT TRAP SECTION

4 FIELD INLET SEDIMENT TRAP

1 : 25

SILT MANGEMENT PLAN NOTES

1. CONSTRUCT SEDIMENT CONTROL FILTER FABRIC SILT FENCE PRIOR TO THE COMMENCEMENT OF ANY OTHER SITE WORKS.
2. ENSURE NO RUN OFF OR SEDIMENT DISCHARGES TO STREET OR ADJOINING PROPERTIES.
3. CHECK SILT TRAP PITS FOR BUILD UP OF SEDIMENT AND CLEAN OUT AS REQUIRED.
4. CONTRACTOR TO NOMINATE SITE REPRESENTATIVE TO BE RESPONSIBLE FOR THE IMPLEMENTATION AND UP KEEP OF THE SILTATION AND EROSION MANAGEMENT CONTROL PLAN.
5. CONSTRUCTION OF ALL SEDIMENT MANAGEMENT DEVICES SHALL BE COMPLETED AND EFFECTIVE PRIOR TO:
   - STRIPPING OF TOPSOIL AND GRASS
   - BULK EARTHWORKS TO THE SITE
   - SERVICE INSTALLATION
6. ALL SEDIMENT MANAGEMENT DEVICES ARE TO REMAIN UNTIL WRITTEN NOTICE FROM LICENSING AND COMPLIANCE AUTHORITY.
7. BOTH TEMPORARY AND PERMANENT SEDIMENT MANAGEMENT DEVICES SHALL BE MAINTAINED AT A SUITABLE LEVEL/CONDITION THROUGHOUT CONSTRUCTION.
8. SEDIMENT FENCES ARE TO BE CLEANED OUT WHEN CAPACITY IS REDUCED BY 30%.
9. PRIOR TO COMMENCEMENT OF CONSTRUCTION APPROVAL IS TO BE OBTAINED FROM CONSULTING ENGINEER.
10. LICENSING AND COMPLIANCE FOR THE LOCATION OF THE SITE ACCESS POINT AND WASH DOWN AREA WHICH ARE TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
11. IF EROSION AND SEDIMENT CONTROL DEVICES HAVE BEEN FOUND TO BE DEFICIENT OR FAILED IN SERVICE, DUE TO UNFORESEEN CIRCUMSTANCES, CORRECTIVE ACTION IS TO BE UNDERTAKEN IMMEDIATELY WHICH MAY INCLUDE AMENDMENTS/ADDITIONS TO THE ORIGINAL APPROVED EROSION CONTROL PLANS. SUCH ADDITIONS OR AMENDMENTS ARE TO BE APPROVED BY RELEVANT LICENSING AND COMPLIANCE OFFICER.
12. THE INSTALLATION, REMOVAL, RELOCATION OR MODIFICATION TO EROSION AND SEDIMENT CONTROL DEVICES MAY BE MADE BY THE RELEVANT LICENSING AND COMPLIANCE OFFICER, IF DEEMED NECESSARY AND RELEVANT.

OPERATION & MAINTENANCE

ALL ESC MEASURES MUST BE INSPECTED:
- AT LEAST DAILY (WHEN WORK IS OCCURRING ON SITE) OR WEEKLY (WHEN WORK IS NOT OCCURRING ON SITE);
- WITHIN 24 HOURS OF EXPECTED RAIN; AND
- WITHIN 18 HOURS OF A RAINFALL EVENT (ie AN EVENT OF SUFFICIENT INTENSITY AND DURATION TO MOBILISE SEDIMENT ON SITE).

ESC MEASURE	MAINTENANCE TRIGGER	TIMEFRAME FOR COMPLETION OF MAINTENANCE
SEDIMENT BASINS	WHEN SETTLED SEDIMENT EXCEEDS THE VOLUME OF THE SEDIMENT STORAGE ZONE (SEE COUNCILS SEDIMENT BASIN DESIGN GUIDELINES).	WITHIN 7 DAYS OF THE INSPECTION.
OTHER ESC MEASURES	THE CAPACITY OF ESC MEASURES FALLS BELOW 75%.	BY THE END OF THE DAY

PRIOR TO LONG PERIOD OF SHUT DOWN ALL ESC MEASURES TO BE INSPECTED AND CLEANED. SEDIMENT BASIN CAPACITY TO BE CHECKED AND SIZE INCREASED IF REQUIRED FOR SHUT DOWN PERIOD.

FOR MANAGEMENT OF WATER QUALITY DURING BACK TO BACK RAINFALL EVENTS, MANAGED DEWATERING OF THE SEDIMENT BASIN IS PERMITTED WHEN TSS IS LESS THAN OR EQUAL TO 50mg/L. FLOCULATION USING MINERAL GYPSUM MAYBE REQUIRED.

EROSION CONTROL LEGEND

LINE	DESCRIPTION
~~	EXISTING NATURAL SURFACE CONTOURS
- - - -	SILT FENCE

PROJECT TEAM

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NPER Civil & Structural
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Signature: .....

Date: 10 / 04 / 2012

REV	DESCRIPTION	DATE	BY

Status: FOR APPROVAL

Project:
AMGROW
82 CHRISTENSEN ROAD
STAPYLTON
for
MULTISPAN AUSTRALIA

Title:
SEDIMENT AND EROSION CONTROL PLAN

Drawn	Date	Chkd	Date
T.J.S.	03.04.2012	N.C.	
Design	Date	Apprd	Date
T.J.S.			
Scale	A1	Certif	Date
As indicated			
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12-051		C04	

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Appendix G: Transport Assessment

TRANSPORT IMPACT ASSESSMENT

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CRG Traffic Pty Ltd ACN 151 846 847
In association with CRG Acoustics Pty Ltd

Proposed Industrial Development
82 Christensen Road, Stapylton

TRAFFIC IMPACT ASSESSMENT

Prepared For

Amgrow

24 May 2012
crgref: 12619

DOCUMENT REGISTER

NUMBER	ISSUE	AUTHOR	PROJECT DIRECTOR
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TABLE OF CONTENTS

1 INTRODUCTION

CRG Traffic Pty Ltd has been engaged by Amgrow to undertake a Traffic Impact Assessment of its proposal for industrial development at the subject site in Stapylton.

This report has been prepared as part of a Development Application for a Material Change of Use to be lodged with the Gold Coast City Council.

The following issues have been addressed in this report:

- Traffic generation & distribution;
- Traffic impact;
- Car parking supply and design;
- Access design;
- Provision for service vehicles;
- Pedestrian safety.

2 PROPOSED DEVELOPMENT

2.1 Subject Site

As shown in Figure 2.1, the subject site is located on the eastern side of Christensen Road, approximately 200 metres south of Maiella Street. There are two existing warehouse buildings on the site fronting Christensen Road.

Figure 2.1: Location of the Subject Site
(Source: UBD Maps and Google Maps)

2.2 Proposed Plan of Development

The proposal is to construct an additional 4 warehouse buildings on the subject site and a new two-storey office building.

A summary of existing and proposed floor areas is provided below.

AREAS	
EXISTING WAREHOUSE A	- 2900m2
AWNINGS	- 900m2
EXISTING WAREHOUSE B	- 1500m2
AWNINGS	- 450m2
EXISTING OFFICE A	- 350m2
STAGE 1	
PROPOSED OFFICE B (GF)	- 500m2
PROPOSED OFFICE B (FF)	- 500m2
PROPOSED WAREHOUSE C	- 2400m2
AWNING	- 1100m2
STAGE 2	
PROPOSED WAREHOUSE D	- 2800m2
AWNING	- 700m2
STAGE 3	
PROPOSED WAREHOUSE E	- 2800m2
AWNING	- 700m2
PROPOSED WAREHOUSE F	- 2800m2
AWNING	- 700m2
TOTAL AREAS	
EXISTING	- 6100m2
PROPOSED	- 15000m2
TOTAL AREA	- 21100m2
TOTAL SITE COVER	- 20600m2

A total of 200 car parking spaces are proposed on the site.

The three existing access driveways in Christensen Road will be retained as part of the proposal.

Plans of the proposed development have been prepared by Multi Span Australia. The proposed Site Layout plan is shown in Figure 2.2.

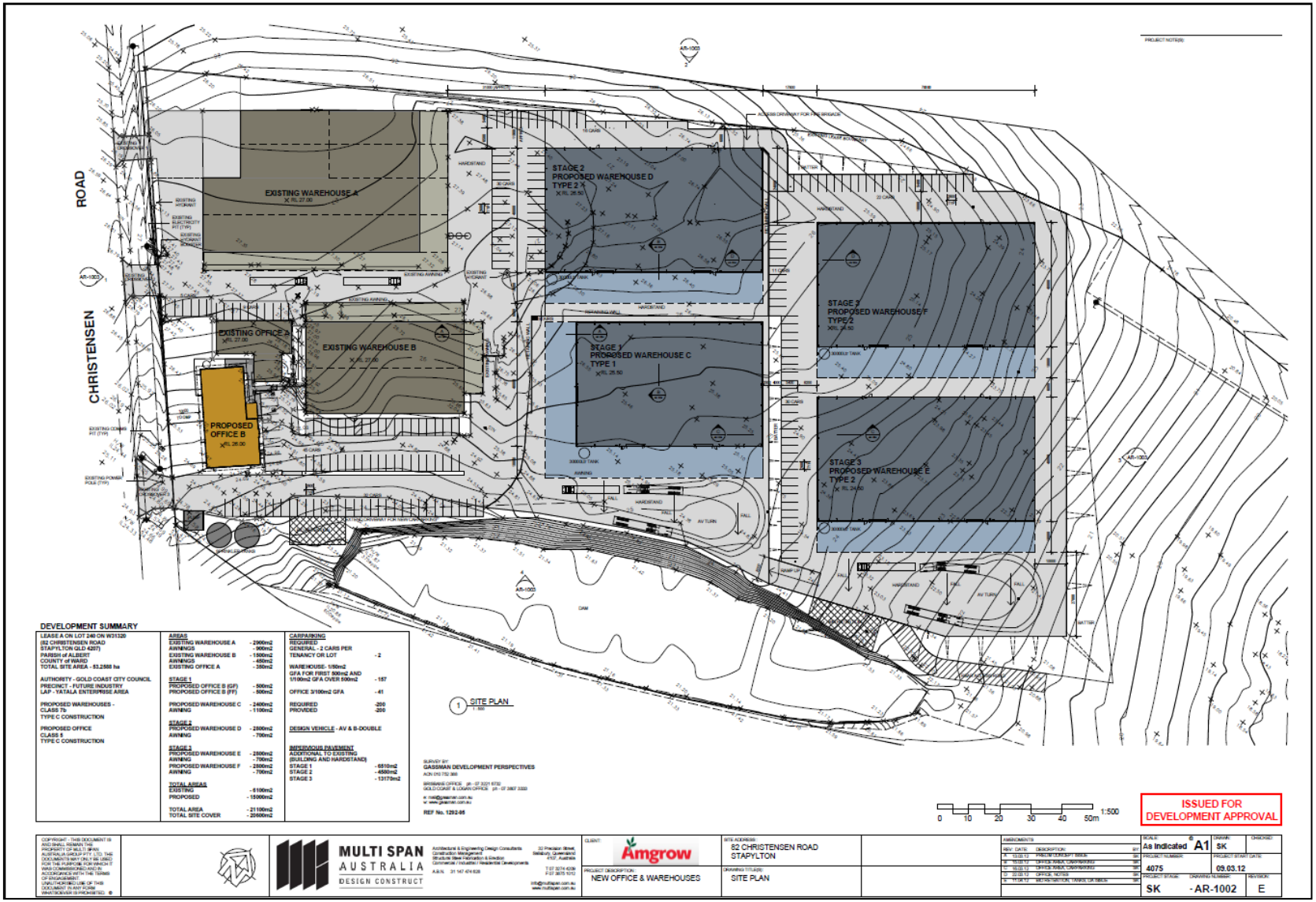


Figure 2.2 – Proposed Site Layout

3 ROAD NETWORK CONDITIONS

3.1 Existing Roadway Conditions

The subject section of Christensen Road has a local collector function and connects to the Pacific Motorway Eastern Service Road to the north via a priority controlled 'T' junction.

Christensen Road has an approximate pavement width of 11 metres. It has one traffic lane in each direction and kerbside parking is generally permitted.

Images of Christensen Road in the vicinity of the subject site are shown in Figure 3.1.

Looking South in Christensen Road

Looking North in Christensen Road

Figure 3.1: Images of Christensen Road

3.2 Projected Traffic Volumes for Christensen Road

Future forecast traffic volumes for Christensen Road in the vicinity of the subject site have been provided by Mr Noel Pearson, Transport Planner for the Gold Coast City Council.

As shown below in Figure 3.2, Council's traffic model suggests that Christensen Road will carry 1,462 vehicles per day past the subject site in the year 2021.

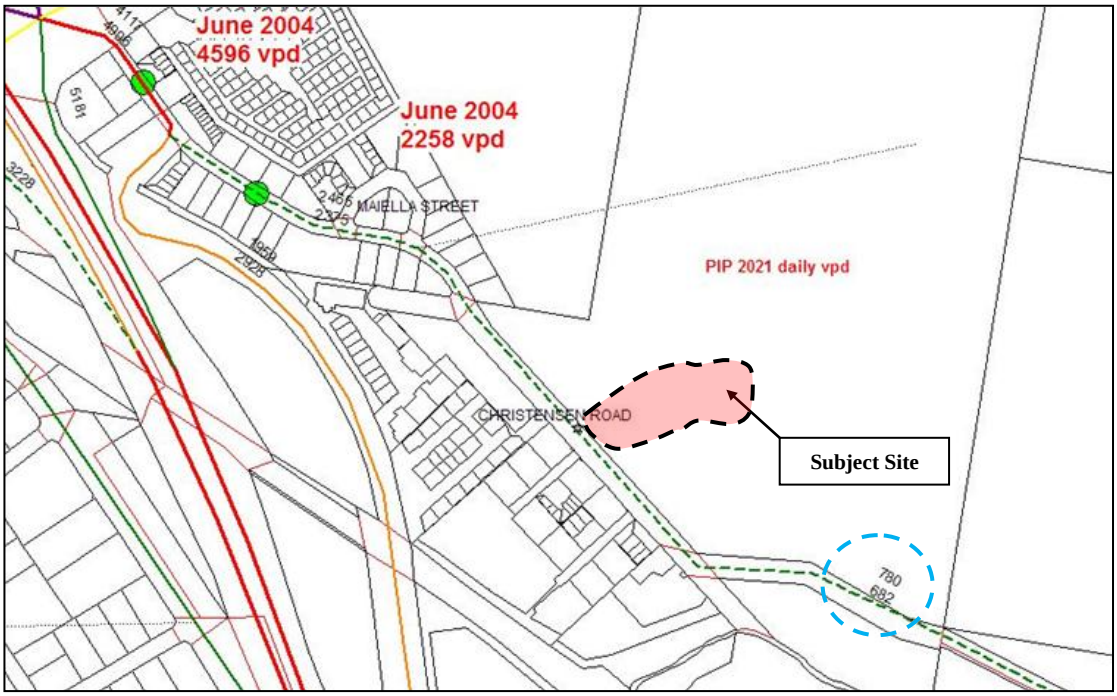


Figure 3.2: Future Traffic Volumes for Christensen Road (Year 2021)

4 DEVELOPMENT TRAFFIC

4.1 Development Traffic Volumes

An indication of the traffic generation potential of the development proposal is provided by reference to the Departments of Main Roads publication *Road Planning and Design Manual, Appendix 3A – Trip Generation Rates (December 2005).*

The *Road Planning and Design Manual* specifies rates that are based on extensive surveys of a wide range of land uses and nominates the following traffic generation rates which are applicable to the development proposal:

	Peak Rate
Offices:	2 trips per 100m^2
Warehouses:	0.5 trips per 100m^2

Application of the above rates to the existing and proposed development on the site yields a traffic generation potential of 126 trips, as shown in Table 4.1 below:

Table 4.1: Traffic Generation

Component	**Morning Peak Hour**			**Afternoon Peak Hour**		
	In	**Out**	**Total**	**In**	**Out**	**Total**
Office (1,350m^2)	22	5	27	5	22	27
Warehouse (19,750m^2)	79	20	99	20	79	99
TOTAL	**101**	**25**	**126**	**25**	**101**	**126**

The existing development on the site has a traffic generation potential of 36 vehicle trips per hour. Therefore the proposed development will result in an increase of 90 vehicle trips per hour on the surrounding road network.

4.2 Trip Distribution

All of the proposed development traffic will approach and depart the site to the north on Christensen Road. Resultant estimates of development traffic volumes at the existing access driveways in Christensen Road are shown in Figure 4.1.

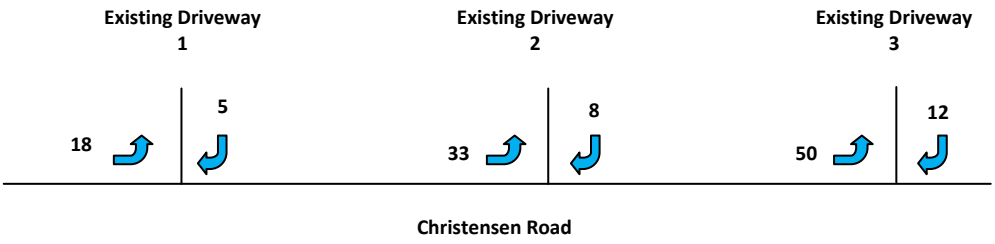


Figure 4.2 – Proposed Development Traffic Volumes
Morning Peak Hour

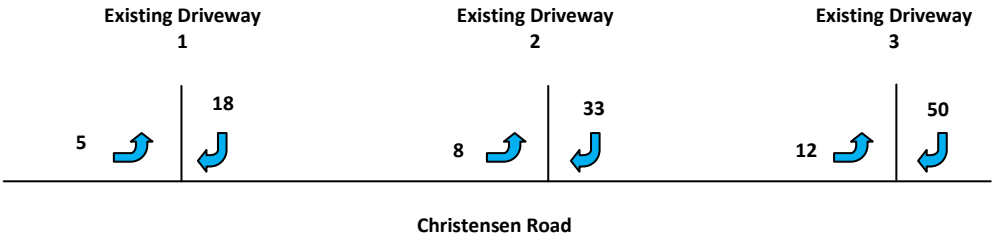


Figure 4.3 – Proposed Development Traffic Volumes
Afternoon Peak Hour

5 PROPOSED ACCESS ARRANGMENTS

The warrants for turning lanes at the proposed access intersection are provided by reference to Figure 4.9(b) of the Austroads publication 'Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections'.

Right turn movements into the subject site will be minimal; therefore an assessment of left turn lane requirements is required in this instance.

As shown in Figure 3.2, the southbound traffic volume in Christensen Road past the subject site is estimated to be in the order of 780 vehicle trips per day (vpd) in 2021. This equates to approximately 78 trips per hour. The peak left turn volume into the site will be 50 trips per hour during the morning peak periods as shown in Figure 4.2.

As shown below in Figure 5.1, the additional development traffic does not warrant the provision of dedicated left turn lanes in Christensen Road at the existing access driveways.

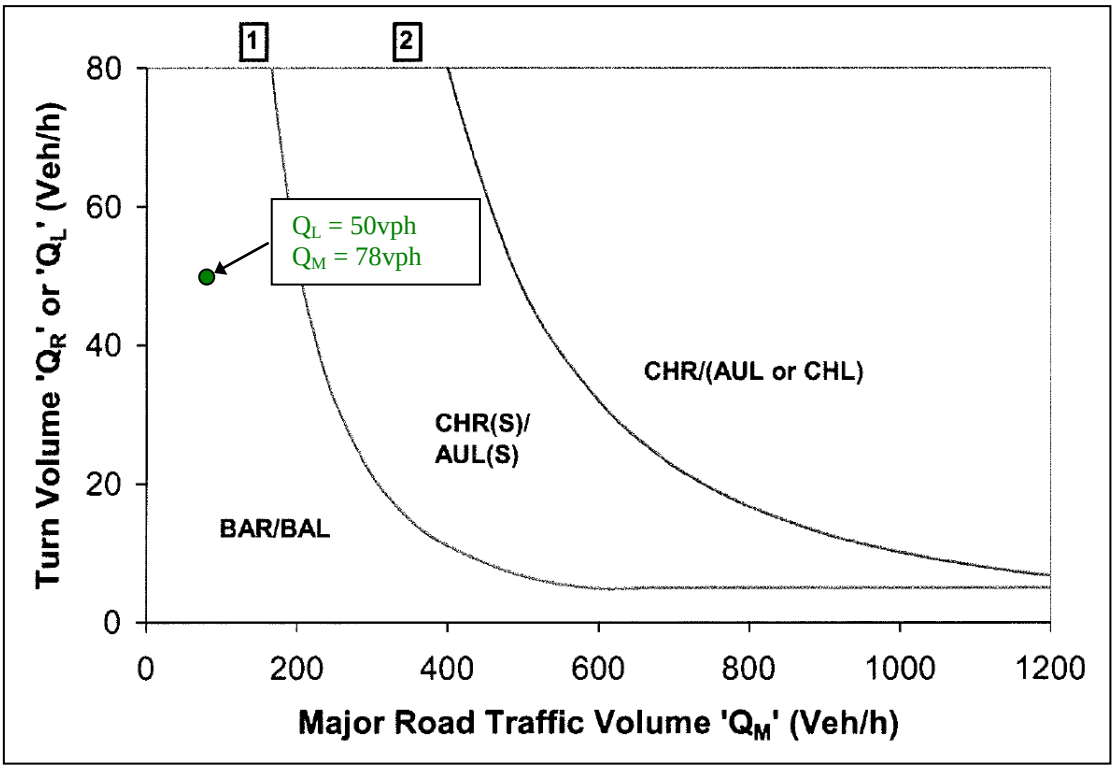


Figure 5.1: Warrants for Turning Treatments (Figure 4.9 (b) of Austroads Part 4A)

6 TRAFFIC IMPACT ASSESSMENT

6.1 Scope of Assessment

As discussed in Section 4, the proposed development will result in an increase of 90 trips per hour on the surrounding road network during commuter peak periods. This increase in traffic activity will not have any adverse impact upon the surrounding road network.

For the purposes of this assessment, a capacity analysis has been undertaken at the southern access driveway (Existing Crossover 3) as it is estimated that this will carry the highest turning movement volumes.

6.2 Intersection Capacity Analysis

Christensen Road Southern Access Driveway

The intersection has been modelled using SIDRA software under projected future (year 2021) traffic conditions, with the proposed development. Criteria for evaluating the results of SIDRA analysis are reproduced in Appendix A.

The results of the analysis are presented in full as Appendix B and are summarised below.

Table 6.1: SIDRA Results – Sandy Creek Road Access Intersection

Scenario	Degree Of Saturation	Total Average Delay (seconds)	Right turn delay out of Subject Site (seconds)	95th Percentile Queue (metres)
AM 2023 with development	0.071	2.6	10.2	0.4
PM 2023 with development	0.071	2.9	10.1	1.7

It is therefore concluded that the proposed access arrangements will operate satisfactorily, with minimal delays and vehicle queuing, for the foreseeable future.

7 CAR PARKING SUPPLY AND DESIGN

7.1 Car Parking Supply

In accordance with the Gold Coast Planning Scheme, the following car parking rates are applicable to the proposed development:

Warehouse 2 spaces per tenancy, plus
1 space per 50m^2 GFA up to 500m^2, plus
1 space per 100m^2 of GFA over 500m^2

Office 3 spaces per 100m^2 GFA

Application of the above rates to the proposed development yields a car parking requirement of 200 spaces as follows:

Table 7.1: Car Parking Requirements

Component	Car Parking Requirement
Warehouse (15,200m^2 excluding awnings)	2 + (500/10) + (14700/100) = 159 spaces
Office (1,350m^2)	1350 / 100 × 3 = 40.5 (41) spaces
TOTAL	**200 spaces**

The proposal includes a total of 200 car parking spaces which satisfies Council's minimum requirement and is therefore deemed to be acceptable.

7.2 Car Park Design

The geometric layout of the proposed parking facilities has been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 – Off-Street Car Parking AS / NZ 2890.1:2004* in respect of parking bay dimensions and aisle widths.

The car park will have the following minimum dimensions and characteristics:

Aisle widths - 6.1 metres
Parking bay lengths - 5.4 metres
Parking bay widths - 2.6 metres
PWD Parking bay widths - 2.6 metres (with adjacent 2.6m wide shared zone)

7.3 Pedestrian Access

A dedicated pedestrian path is proposed into the site from the Christensen Road frontage as demonstrated on the Landscaping Plan. Marked pedestrian walkways are also proposed throughout the site and connecting each building to ensure pedestrian safety.

8 PROVISION FOR SERVICE VEHICLES

In accordance with Table to Acceptable Solution AS14.1 of Council's 'Car Parking, Access and Transport Integration Code' the proposed warehouse development is required to make provision for an Articulated Vehicle (AV).

As shown in Figures 8.1 and 8.2, the proposed development allows for a 19 metre long AV to circulate through the site and exit in a forward gear. AV turning areas are proposed adjacent to Warehouses C and E. The hardstand area adjacent to Warehouse C will be used to service Warehouses C and D with goods transported to and from each warehouse by forklift. Similarly, the hardstand area adjacent to Warehouse E will be used to service Warehouses E and F with goods transported to and from each warehouse by forklift. Thus all of the proposed warehouses will be serviceable by AV.

The proposed fire brigade access driveway has been designed to accommodate the manoeuvring requirements of a 10.7m long Large Rigid Vehicle as shown in Figure 8.3.

It is recommended that the vehicular ramps comply with the grade requirements specified in Table 3.2 of AS2890.2-2002 Parking Facilities Part 2: Off-Street Commercial Vehicle Facilities as follows:

TABLE 3.2

MAXIMUM ROADWAY AND RAMP GRADES, AND RATES OF CHANGE OF GRADE

Design vehicle	Roadway/ramp grade* (max.)	Rate of change of grade (max.)
SRV or smaller	1:6.5 (15.4%)	1:12 (8.3%) in 4.0 m of travel
MRV, HRV	1:6.5 (15.4%)	1:16 (6.25%) in 7.0 m of travel
AV	1:6.5 (15.4%)	1:16 (6.25%) in 10 m of travel

* The grade on a curve is measured along the inside of the curve. If reverse manoeuvres are permitted on a ramp, the maximum grade shall be 1:8 (12.5%).

The right hand column in Table 3.2 shall be applied as follows:

(a) Any grade change of 1:50 (2%) or less may take place instantaneously.

(b) Any grade change of more than 1:50 (2%) but less than or equal to the tabulated figure shall take place over a distance not less than the corresponding specified travel distance in the Table.

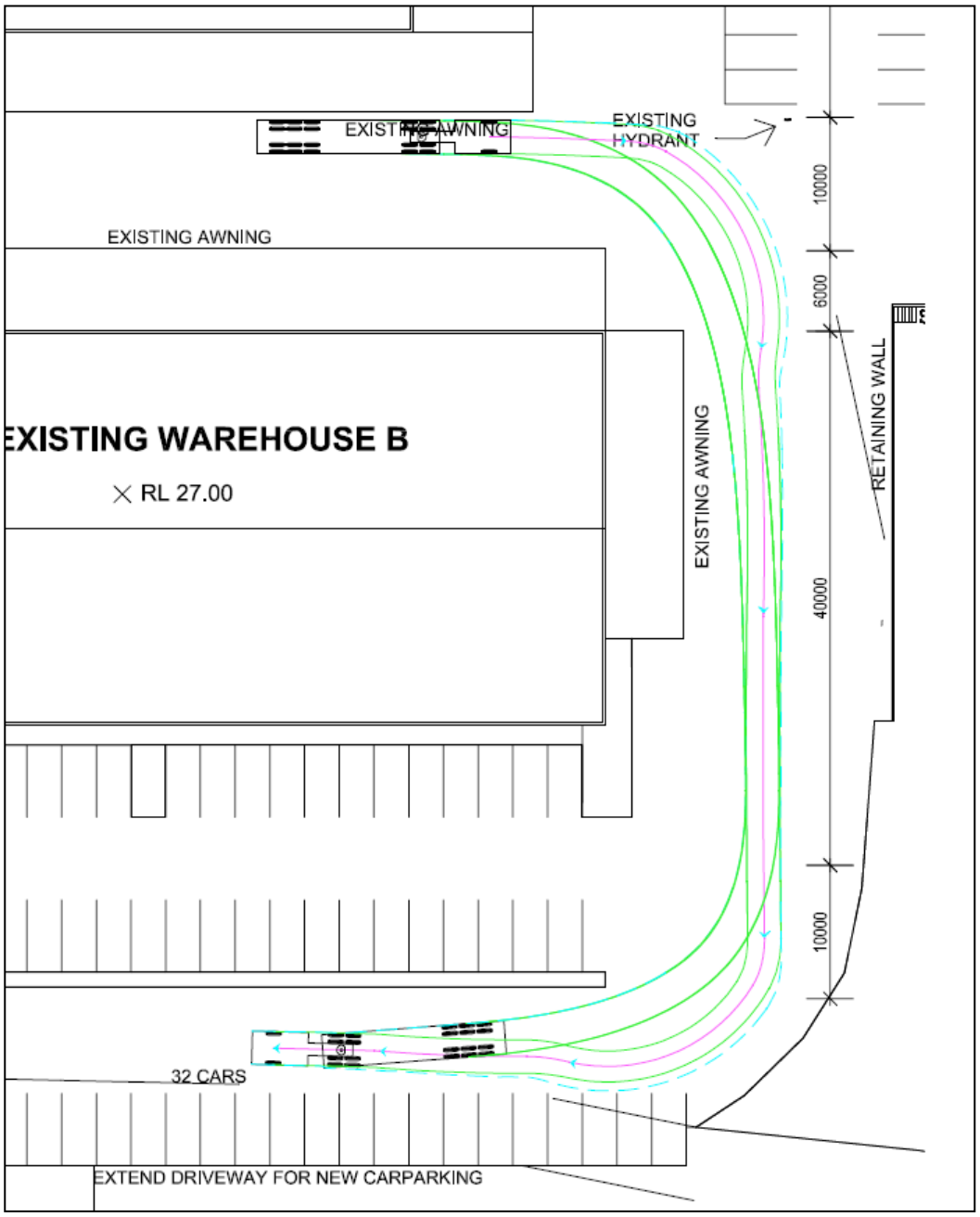
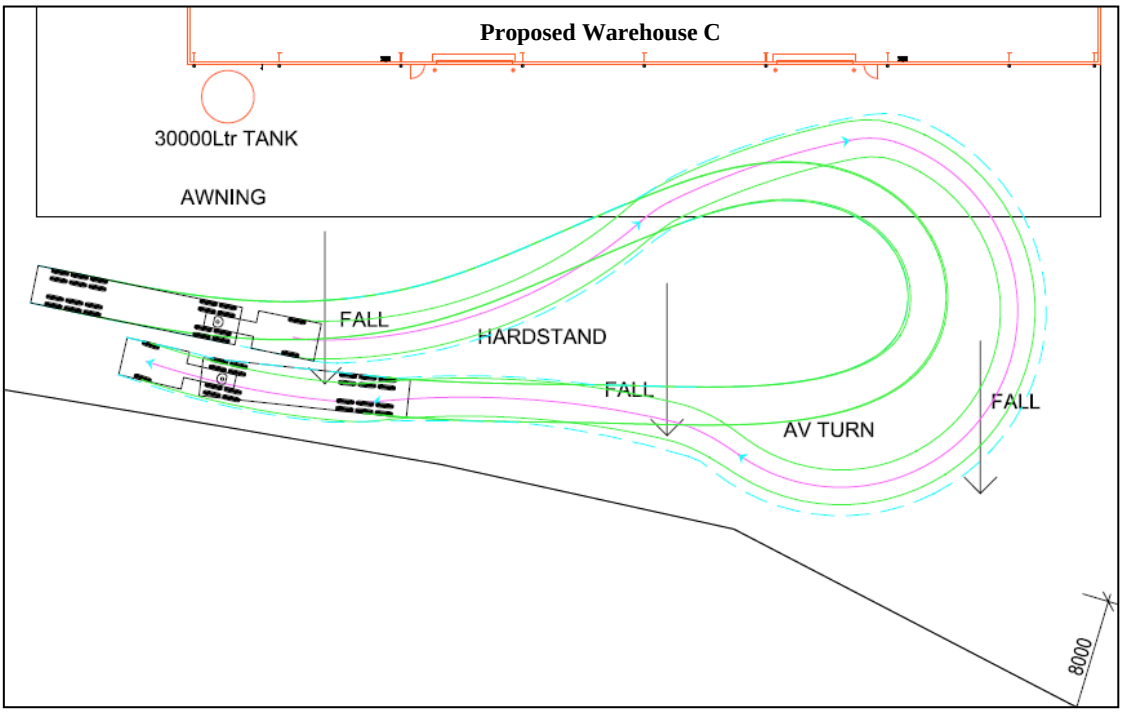


Figure 8.1: Swept Path of a 19m Articulated Vehicle (AV)



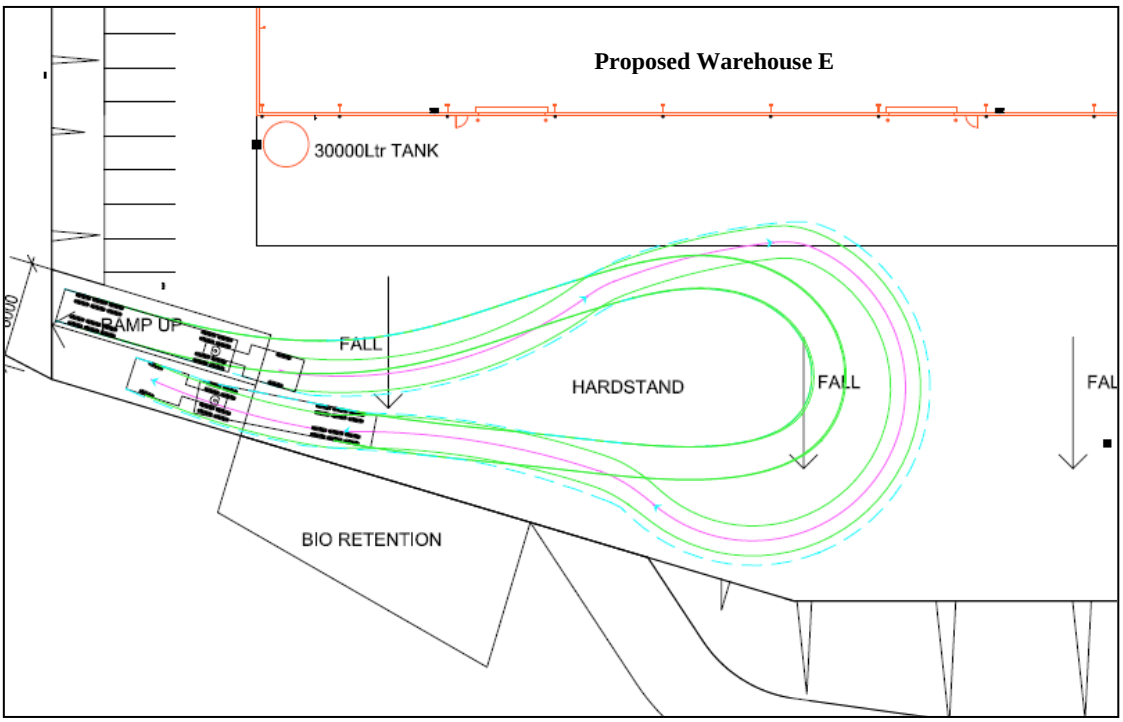


Figure 8.2: Swept Path of a 19m Articulated Vehicle (AV)

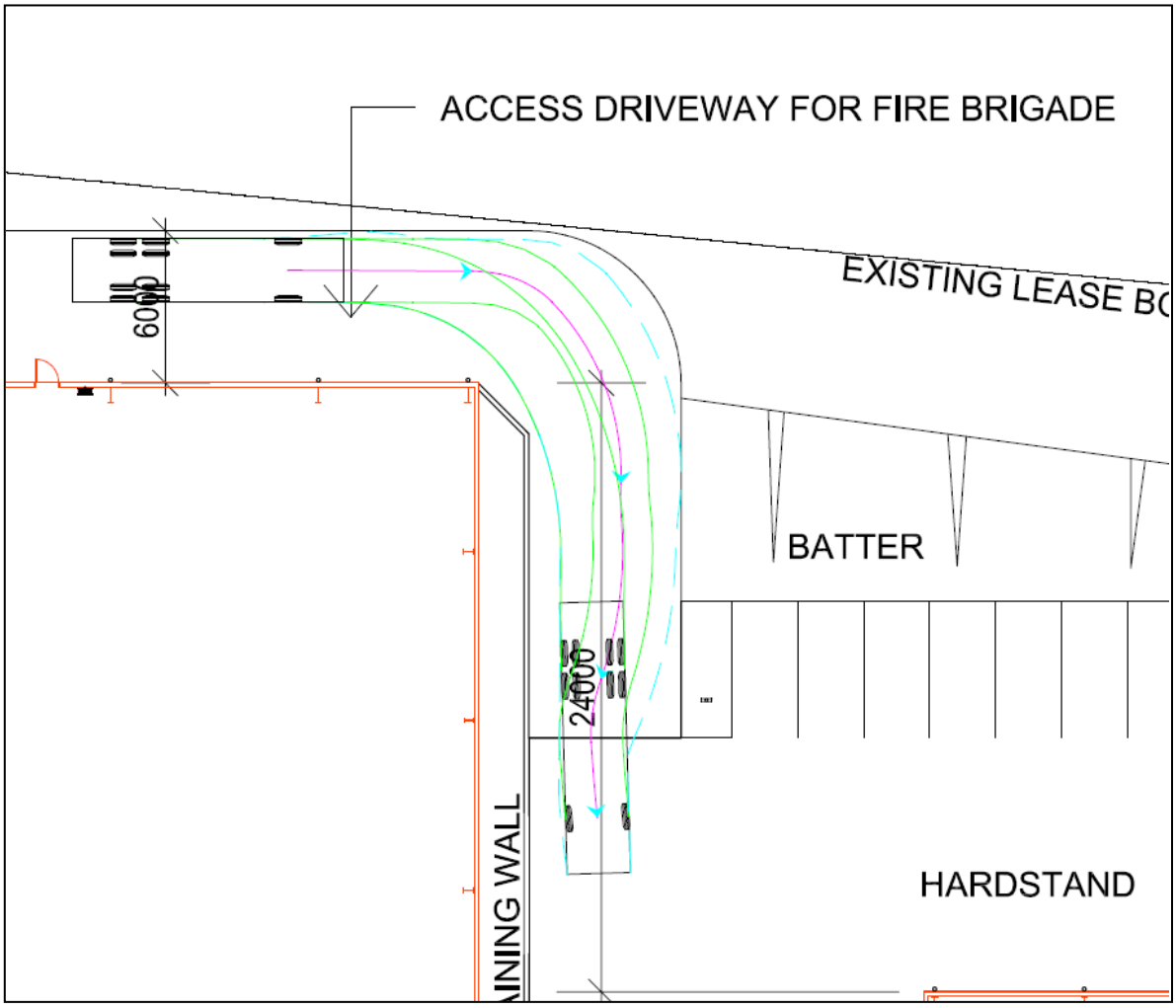


Figure 8.3: Swept Path of a 10.7m Large Rigid Vehicle

9 SUMMARY OF CONCLUSIONS & RECOMMENDATIONS

- The subject site is located on the eastern side of Christensen Road, approximately 200 metres south of Maiella Street. There are two existing warehouse buildings on the site fronting Christensen Road.

- The proposal is to construct an additional 4 warehouse buildings on the subject site and a new two-storey office building. The three existing access driveways in Christensen Road will be retained as part of the proposal.

- The proposed development will result in an increase of 90 vehicle trips per hour on the surrounding road network.

- Future forecast traffic volumes for Christensen Road in the vicinity of the subject site have been provided by Mr Noel Pearson, Transport Planner for the Gold Coast City Council. Council's traffic model suggests that Christensen Road will carry 1,462 vehicles per day in the year 2021.

- As discussed in Section 5, the additional development traffic does not warrant the provision of dedicated left turn lanes in Christensen Road at the existing access driveways.

- A SIDRA analysis has revealed that the proposed access arrangements will operate satisfactorily, with minimal delays and vehicle queuing, for the foreseeable future.

- As discussed in Section 7.1, the proposed car parking supply of 200 spaces satisfies the requirements of Council's Planning Scheme.

- The geometric layout of the proposed parking facilities has been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 – Off-Street Car Parking AS / NZ 2890.1:2004* in respect of parking bay dimensions and aisle widths.

- A dedicated pedestrian path is proposed into the site from the Christensen Road frontage as demonstrated on the Landscaping Plan. Marked pedestrian walkways are also proposed throughout the site and connecting each building to ensure pedestrian safety.

- The proposed development allows for a 19 metre long AV to circulate through the site and exit in a forward gear. AV turning areas are proposed adjacent to Warehouses C and E. The hardstand area adjacent to Warehouse C will be used to service Warehouses C and D with goods transported to and from each warehouse by forklift. Similarly, the hardstand area adjacent to Warehouse E will be used to service Warehouses E and F with goods transported to and from each warehouse by forklift. Thus all of the proposed Warehouses will be serviceable by AV.

- The proposed fire brigade access driveway has been designed to accommodate the manoeuvring requirements of a 10.7m long Large Rigid Vehicle as shown in Figure 8.3

- It is recommended that the vehicular ramps comply with the grade requirements specified in Table 3.2 of AS2890.2-2002 Parking Facilities Part 2: Off-Street Commercial Vehicle Facilities.

APPENDIX A - CRITERIA FOR THE INTERPRETATION OF SIDRA RESULTS

1. Level of Service (LOS)

LOS	Traffic Signals and Roundabouts	Give Way and Stop Signs
'A'		Good operation.
'B'	Good operation. Good with acceptable delays and spare capacity.	Acceptable delays and spare capacity.
'C'	Satisfactory.	Satisfactory but accident study required.
'D'	Operating near capacity.	Near capacity and accident study required.
'E'	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode.	At capacity and requires other control mode.
'F'	Unsatisfactory and requires additional capacity.	Unsatisfactory and requires other control mode.

2. Average Vehicle Delay (AVD)

The AVD provides a measure of the operational performance of an intersection as indicated on the table below which relates AVD to LOS. The AVD's listed in the table should be taken as a guide only as longer delays could be tolerated in some locations (i.e. inner city conditions) and on some roads (i.e. minor side street intersecting with a major arterial route).

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way and Stop Signs
A	less than 14	Good operation.	Good operation.
B	15 to 28	Good with acceptable delays and spare capacity.	Acceptable delays and spare capacity.
C	29 to 42	Satisfactory.	Satisfactory but accident study required.
D	43 to 56	Operating near capacity.	Near capacity and accident study required.
E	57 to 70	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode.	At capacity and requires other control mode.

3. Degree of Saturation (DS)

The DS is another measure of the operational performance of individual intersections.

For intersections controlled by **traffic signals**[1] both queue length and delay increase rapidly as DS approaches 1, and it is usual to attempt to keep DS to less than 0.9. Values of DS in the order of 0.7 generally represent satisfactory intersection operation. When DS exceeds 0.9 queues can be anticipated.

For intersections controlled by a **roundabout or GIVE WAY or STOP signs**, satisfactory intersection operation is indicated by a DS of 0.8 or less.

1 *The values of DS for intersections under traffic signal control are only valid for cycle length of 120 secs.*

APPENDIX B -

DETAILED SIDRA OUTPUT

MOVEMENT SUMMARY

Site: AM 2021 with development

Christensen Road & Southern Access
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	95% Back of Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Christensen Road											
2	T	68	10.0	0.037	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		68	10.0	0.037	0.0	NA	0.0	0.0	0.00	0.00	60.0
East: Southern Access Driveway											
6	R	12	10.0	0.017	10.2	LOS B	0.1	0.4	0.29	0.67	47.2
Approach		12	10.0	0.017	10.2	LOS B	0.1	0.4	0.29	0.67	47.2
North: Christensen Road											
7	L	50	10.0	0.071	8.6	LOS A	0.0	0.0	0.00	0.88	49.0
8	T	78	10.0	0.071	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		128	10.0	0.071	3.3	NA	0.0	0.0	0.00	0.34	55.1
All Vehicles		208	10.0	0.071	2.6	NA	0.1	0.4	0.02	0.25	56.1

MOVEMENT SUMMARY

Site: PM 2021 with development

Christensen Road & Southern Access
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	95% Back of Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Christensen Road											
2	T	78	10.0	0.043	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		78	10.0	0.043	0.0	NA	0.0	0.0	0.00	0.00	60.0
East: Southern Access Driveway											
6	R	50	10.0	0.071	10.1	LOS B	0.2	1.7	0.28	0.68	47.3
Approach		50	10.0	0.071	10.1	LOS B	0.2	1.7	0.28	0.68	47.3
North: Christensen Road											
7	L	12	10.0	0.044	8.6	LOS A	0.0	0.0	0.00	1.01	49.0
8	T	68	10.0	0.044	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		80	10.0	0.044	1.3	NA	0.0	0.0	0.00	0.15	58.0
All Vehicles		208	10.0	0.071	2.9	NA	0.2	1.7	0.07	0.22	55.7