

*Everyday*

**Engineers, Planners and Surveyors**

**A.B.N 33 128 918 347**

# *Erosion Hazard Assessment Report*

***Material Change of Use – Transport Depot (Minor)***

***Situated at  
4586-4600 Mount Lindesay Highway, NORTH MACLEAN  
Lot 54 on SP180530***

***Commissioned by***

***Queensland Mulching Pty Ltd***

***September 2022***

***Everyday Engineers, Planners and Surveyors  
Trading for and on behalf of  
RDG***

***Environmental Engineering Solutions Pty Ltd***

***PO Box 805 Jimboomba 4280***

***M. 0432 124 461***

***e-mail: [rickygraham@everydayengineers.com.au](mailto:rickygraham@everydayengineers.com.au)***

---

## DOCUMENT CONTROL SHEET

### Everyday Engineers Planners and Surveyors


PO BOX 805  
Jimboomba QLD 4280

Mobile: 043 212 4461  
e-mail: [rickygraham@everydayengineers.com.au](mailto:rickygraham@everydayengineers.com.au)

### DOCUMENT DETAILS

Client:	Queensland Mulching Pty Ltd
Client Address:	Queensland Mulching Pty Ltd 30 Bluebird Court GREENBANK QLD 4124
Client Contact:	<b>Mr Mark VARY</b>
Job No.:	2022/76
Original Date of Issue:	28 <sup>th</sup> September 2022
Principal Author:	Mr Ricky Graham

### REVISION

Document Title	Version No.	Date	Author	Checked
A. Erosion Hazard Assessment Report	1	28 <sup>th</sup> September 2022	RDG	

### DISTRIBUTION RECORD

Destination	Document Format			Version					
	Bound	Unbound	Electronic	1	2	3	4	5	6
Client			1	x					
Council			1	x					
SARA			1	x					
File Copy			1	x					

### RPEQ NOTICE

This document has been reviewed and approved by the following appropriately qualified and experienced Registered Professional Engineer of Queensland (RPEQ). This document represents Version 1 (Formal Issue) of the Erosion Hazard Assessment Report (EHAR) prepared in respect of 4586-4600 Mount Lindsay Highway, NORTH MACLEAN.



Ricky Graham (RPEQ No.: 9022)  
Development Engineer  
[rickygraham@everydayengineers.com.au](mailto:rickygraham@everydayengineers.com.au)

## Important Note

---

Apart from fair dealing for the purposes of private study, research, criticism, or review as permitted under the Copyright Act, no part of this report, its attachments or appendices may be reproduced by any process without the written consent of Everyday Engineers, Planners and Surveyors. All enquiries should be directed to Everyday Engineers, Planners and Surveyors.

We have prepared this report for the sole purpose of the **Queensland Mulching Pty Ltd** (“**Client**”) for the specific purpose of only for which it is supplied (“**Purpose**”). This report is strictly limited to the purpose and the facts and matters stated in it and do 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 (other than the Client) (“**Third Party**”). The report may not contain sufficient information for the purposes of a Third Party or for other uses. Without the prior written consent of Everyday Engineers, Planners and Surveyors:

- (a) This report may not be relied on by a Third Party; and
- (b) Everyday Engineers, Planners and Surveyors 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 Everyday Engineers, Planners and Surveyors, Everyday Engineers, Planners and Surveyors disclaims all risk and the Third Party assumes all risk and releases and indemnifies and agrees to keep indemnified Everyday Engineers, Planners and Surveyors 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.

## Limitations

---

The outcomes of this report are based on the proposal outlined within the body of the report. 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.

Everyday Engineers, Planners and Surveyors, in preparing the report herein has performed the services in a manner that is seen to be consistent with the normal level of care and expertise exercised by members of the profession community. Everyday Engineers, Planners and Surveyors' assessment is limited strictly to the applicable Planning Scheme, notably the *Logan Planning Scheme 2015*.

The findings, recommendations, and the conclusions had within this report are based upon the reading of the current version of the applicable Planning Scheme as absorbed on the day of the assessment. The conclusions had in respect of the appropriateness of the development proposal are limited to the level of compliance with the applicable Planning Scheme provisions, and as such should not be seen to represent advice as to the economic viability of the development proposal. The commentary provided represents the professional opinion(s) of the professional personnel of Everyday Engineers, Planners and Surveyors, with respect to the development proposal and the level of compliance had with the applicable Planning Scheme.

Changes, alterations and or modifications of the applicable Planning Scheme provisions, post preparation of this report, cannot be seen to reasonably apply.

## Table of Contents

---

### Executive Summary

<b>1.0</b>	<b>The Introduction .....</b>	<b>1</b>
1.1	Objectives	1
1.2	Key Site Details	1
<b>2.0</b>	<b>The Site and the Surrounding Locality.....</b>	<b>2</b>
2.1	Location and Site Description	2
2.2	Site Context	2
2.3	Existing Land Use(s)	3
2.4	Surrounding Land Use(s)	3
<b>3.0</b>	<b>The Proposal .....</b>	<b>5</b>
3.1	Development Proposal	5
<b>4.0</b>	<b>Code Compliance Assessment.....</b>	<b>9</b>
<b>5.0</b>	<b>Erosion Hazard Assessment.....</b>	<b>10</b>
<b>6.0</b>	<b>Conclusions and Recommendations.....</b>	<b>11</b>

### Appendices

Appendix A:	Locality Plan	
Appendix B:	Site Plan, and Pavement Section and Notes	
Appendix C:	Filling and Excavation Code – Compliance Assessment	
Appendix D:	Erosion Hazard Assessment	

### List of Tables

Table 1:	Key Site Details	1
----------	------------------	---

### List of Figures

Figure 1:	Locality Plan	2
Figure 2:	Context Plan	2
Figure 3:	Photograph of existing Transport Depot sited at 4586-4600 Mount Lindesay Highway, NORTH MACLEAN	3
Figure 4	Extract of Zone Map	3
Figure 5	Extract of Zone Map	4

## Executive Summary

---

This Erosion Hazard Assessment Report has been prepared by *Everyday Engineers, Planners and Surveyors* for and on behalf of the Directors of **Queensland Mulching Pty Ltd** (the "**Client**"), in support of a development application (MCU – Transport Depot (Minor)), upon lands described as **Lot 54 on SP180530**, situated at **4586-4600 Mount Lindesay Highway, NORTH MACLEAN**.

The report herein, seeks to address the provisions of the *Logan Planning Scheme 2015* as they pertain to the matter of soil erosion and sediment pollution, notably the *Filling and Excavation Code* (s9.4.2).

The findings of the Erosion Hazard Assessment Report (EHAR) have determined that the subject lands are a '**Medium** risk' for soil erosion and sediment run-off during construction.

## 1. The Introduction

This *Erosion Hazard Assessment Report* (EHAR) has been prepared on behalf of the Directors of **Queensland Mulching Pty Ltd** (the “*Client*”), in support of a development application (Material Change of Use (MCU) – Transportation Depot (Minor) seeking approval for the establishment of a Transport Depot (Minor) upon the subject lands. The subject lands are formally described as **Lot 54 on SP180530**, situated at **4586-4600 Mount Lindesay Highway, NORTH MACLEAN**. The proposed use is to be established in accordance with the Plan(s) of Development afforded within **Appendix A**.

### 1.1 Objectives

This Report seeks to:

- Establish the potential risk of soil erosion and sediment pollution as a result of development of the subject lands;
- Establish the likely mitigation measures that will need to be employed in order to address the potential risk of soil erosion and sediment pollution resulting from the development of the subject lands.

### 1.2 Key Site Details

A summary of the Key Site Details is afforded herein.

Site Details	
Site Address:	4586-4600 Mount Lindesay Highway, NORTH MACLEAN
Real Property Description:	Lot 54 on SP180530
Current Land Owner(s):	<b>Mark Leslie Vary and Linda Maree Vary</b>
Site Area:	23,600 square metres
Local Authority:	Logan City Council
Applicable Planning Scheme:	Logan Planning Scheme 2015 v8.1
Local Area Plan:	N/A
Zone / Precinct:	Rural Residential / Cottage Rural
Overlays Impacting Site:	Biodiversity Areas Overlay Bushfire Hazard Overlay Regional Infrastructure Corridors and Substations Overlay Transport Noise Corridors Overlay Waterway Corridors and Wetlands Trigger
Existing Land Use:	Dwelling House (MCUR/191/2020) Transport Depot (Subject to Show Cause Notice)
Proposed Land Use:	Transport Depot (Minor)
Road Frontage(s):	Mount Lindesay Highway Service Road (Eastern Side)
Water Reticulation:	Yes
Sewer Reticulation:	No

**Table 1: Key Site Details**

## 2. The Site and the Surrounding Locality

---

### 2.1 Location and Site Description

The lands, the subject of the development application, are sited at **4586-4600 Mount Lindesay Highway, NORTH MACLEAN**, and the lands being formally described as **Lot 54 on SP180530**.



Figure 1 – Locality Plan

The subject lands are accessed by way of the frontage roadway, Mount Lindesay Highway Service Road. The proposed development will retain the existing access provisions albeit that they will require upgrading.

### 2.2 Site Context

The subject lands are sited within the suburb of North Maclean, refer **Figure 2**.



Figure 2 – Context Plan

The subject lands are sited somewhat central to the suburb of North Maclean.

### 2.3 Existing Land Use(s)

The subject lands are currently afforded a development approval to afford for the construction of a dwelling house upon the subject lands (MCUR/191/2020). Due in part to the COVID 19 Pandemic, and the resultant supply chain issued (Building Products), the owner(s) of the subject lands have delayed the establishment of the proposed dwelling house upon the subject lands.

The lands take in a Class 10a Building Structure (Shed) within which the owner(s) house equipment utilised with the ongoing maintenance of the property. Up until 2020, the property was also utilised as a Transport Depot for the storage of vehicles and machinery utilised by the owner(s) as part of their business operations (Queensland Mulching Pty Ltd).

Whilst vehicles and or machinery are stored upon the property at times, the owner(s) have generally limited the storage of same to a maximum of two (2) heavy vehicles and or machines as the case maybe. This said there has been occasions (i.e., during periods of adverse weather) where it has been necessary to store additional vehicles and or machines upon the property (i.e., typically as a result of TMR placing a restriction upon the movement of heavy vehicles). In general, however there is limited equipment upon the subject lands in that idle machinery / vehicles doesn't produce an income. The vehicles / machinery operated by the owner(s) with their business (Queensland Mulching Pty Ltd) is traditional spread upon projects ranging from Northern Queensland through central New South Wales.

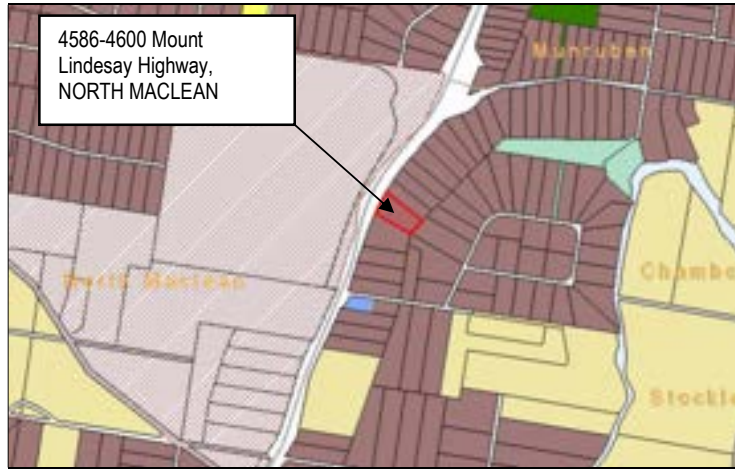


**Figure 3 – Photography of existing property entrance sited at 4586-4600 Mount Lindesay Highway, NORTH MACLEAN**

### 2.4 Surrounding Land Use(s)

#### *Land Uses adjoining the Site*

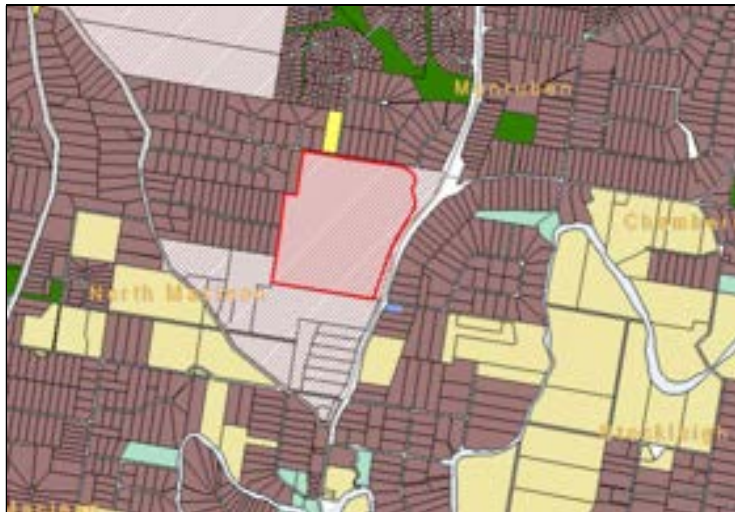
The subject lands are sited within the *Rural Residential Zone – Cottage Rural Precinct*. The surrounding lands to the north, east and the south are similarly sited within the *Rural Residential Zone – Cottage Rural Precinct*. The lands to the west (to the western side of Mount Lindesay Highway) are sited within a Priority Development Area (PDA), as such the administering authority is the State Government, **Figure 4**.



**Figure 4 – Extract of Zone Map**  
 (Source: Logan Planning Scheme 2015)

*Land Uses within the Greater Surrounding Area*

The greater surrounding area takes in the suburbs of Munruben, Chambers Flat, Stockleigh and North Maclean which predominantly afford for rural residential housing sited within the *Rural Residential Zone*, refer **Figure 5**.



**Figure 5 – Extract of Zone Map**  
 (Source: Logan Planning Scheme 2015)

### 3. The Proposal

---

#### 3.1 Development Proposal

The Applicant in placing the development application before Council is seeking approval to establish a Transport Depot (Minor) upon the subject lands. The Transport Depot (Minor) shall be seen to represent a Secondary 'Use' afforded for upon the subject lands, the Primary 'Use' being that of a Dwelling House. Whilst the Dwelling House 'Use' is yet to be established upon the subject lands, Council has issued a separate MCUR Development Approval (MCUR/191/2020) in respect of the proposed Dwelling House 'Use'. The development application materials, and the Development Approval (MCUR/191/2020) should be seen to represent 'relevant matters' (refer s45(5)(b) of the Planning Act) for the purposes of the assessment of the current development application. The Applicant submits that the current development application should be assessed in light of the existing development approval had for the establishment of a dwelling house upon the subject lands.

In respect of the 'Dwelling House', due in part to the COVID 19 Pandemic and the resultant supply chain issues (Building Products), the owner(s) of the subject lands have delayed the establishment of the proposed Dwelling House upon the subject lands. In that the Transport Depot (Minor) shall be seen to represent a Secondary 'Use', the Dwelling House (Primary Use) would need to be seen to have commenced upon the subject lands prior to the commencement of the Transport Depot (Minor) 'Use'.

The subject lands are to be development for the purposes of a Dwelling House 'Use' under MCUR Development Approval MCUR/191/2020, and the proposed Transport Depot 'Use' in accordance with the proposed Plan(s) of Development, refer **Appendix B**.

#### The Applicant's Proposal

The Applicant's proposal affords for the parking of a maximum of four (4) heavy vehicles and or machines upon a hardstand area sited immediately to the rear of the existing Class 10a Building Structure (Shed) sited upon the subject lands. The existing Class 10a Building Structure (Shed) is to be retained for purposes associated with the primary Use (Dwelling House), notably the storage of equipment utilised in respect of the ongoing maintenance of the subject lands (i.e., tractor slashers, ride-on mower, etc...).

The Applicant's proposal will afford for:

- The construction of a reinforced concrete access crossover (heavy duty) to the standard(s) required of the Local Authority.
- The construction of a sealed access driveway (minimum 5.0 metre width with a 25mm minimum thickness Asphaltic Concrete (AC) Surfacing). The access driveway arrangement shall be sited within the current location albeit that the access driveway crossover, and the access driveway will require reconstruction to the satisfaction of the Local Authority.

The sealed access driveway arrangement shall extend from the concrete access crossover to the area of the proposed Transport Depot hardstand area. The sealed access driveway arrangement shall incorporate adequate area for a heavy vehicle to facilitate a turning movement to ensure all vehicles access and egress the subject lands in forward gear.

The access arrangement to the dwelling house afforded under development approval MCUR/191/2020 shall be taken from the sealed access driveway and shall be similarly sealed.

- The construction of a reinforced concrete hardstand area upon which the four (4) heavy vehicles and or machinery are to be parked. The concrete hardstand area is to incorporate an appropriate drainage design to afford for the capture of any wash off (rainfall) from the paved area.
- The remediation of the lands to the east of the concrete handstand area to a state that pre-dated any development upon the subject lands.

The exceptions being:

- The area(s) of the Powerlink Easement (Electricity Easement) which passes through the southern portion of the subject lands which is to be maintained as a mown lawn area; and
- The existing water feature (dam) which is to be enhanced as part of the remediation / landscaping works to be afforded for upon the subject lands.
- The conduct of landscaping works to screen the area of the proposed Transport Depot (Hardstand Area), and to enhance the rehabilitation works to be afforded for within the eastern portion of the subject lands.
- The construction of a 1.8 metre high Colour Bond Fence along the common boundary with 4576-4584 Mount Lindesay Highway, NORTH MACLEAN.

In respect of the operation of the proposed Transport Depot, the following operational management protocols derived from the *Operational Management Plan* will be seen to apply:

- The operation of the Transport Depot is merely seen to represent a 'Staging Post', between sites of operation. The utilisation of the Transport Depot is primarily for the overnight parking and or weekend parking of a Fleet Vehicle(s) (Heavy Vehicles) owned and operated by Queensland Mulching Pty Ltd (ABN 32 167 633 481) enroute between sites of operation.

The exception being where Fleet Vehicle(s) (Heavy Vehicles) may be parked over a Public Holiday or lay down period (i.e., Christmas / New Year Holiday Period). Traditionally TMR restricts the movement of heavy vehicles during these periods upon Queensland Main Roads.

- The proposed 'Use' (Transport Depot) is to be limited to the parking of a maximum of four (4) heavy vehicles and or machines, with the definition of what is seen to represent a 'heavy vehicle' per the provisions of the 'Administrative Definitions' set forth within *Schedule 1 – Definitions, Section SC1.2 – Administrative Definitions* of the Logan Planning Scheme: v8.1.

There is to be no servicing of vehicles, no maintenance afforded to machinery and or equipment, no refuelling of vehicles / machinery and or equipment, no storage of any product (i.e., mulch, soil, sand, gravels, etc...), no storage of waste product of any form (i.e., stumps, logs, rock, etc...), no storage of materials or product not directly related to the primary use (Dwelling House), and or no storage of incidental items other than equipment utilised directly and solely for maintenance purposes associated with the subject lands (i.e., tractor slasher and or ride-on mower).

- The parking of heavy vehicles and or machinery is strictly limited to the hardstand area associated with the Transport Depot. There shall be no parking of heavy vehicles beyond the bounds of the hardstand area as defined upon the approved Plan of Development pertaining to the Transport Depot.
- The parking of heavy vehicles and or machinery upon the subject lands is limited to a vehicle and or machine owned by the landowner(s) and or a company to which the landowner(s) is/are seen to be a director thereof (i.e., Queensland Mulching Pty Ltd (ABN 32 167 633 481)).

- There is to be no storage of flammable gases on the subject lands, other than that which are utilised in respect of the primary use (Dwelling House) (i.e., Gas Bottles used for the cooking or heating of water).

The Client is to observe the provisions of *Queensland's Work Health and Safety Regulation 2011*, and where required is to undertake any action required of the Regulations.

- There is to be no storage of flammable liquids (i.e., hydrocarbon fuels) on the subject lands, other than that held within the fuel tanks of the vehicles and or machines (minimal storage) parked / stored upon the subject lands and / or utilised for maintenance purposes associated with the primary use (Dwelling House) (i.e., fuel store for ride-on mower).

The Client is to observe the provisions of *Queensland's Work Health and Safety Regulation 2011*, and where required is to undertake any action required of the Regulations.

- With the exception of the provisions listed above, there is to be no storage of hazardous chemicals specified within Schedule 11 of the Queensland's Work Health and Safety Regulation 2011, upon the subject lands.

The Client is to observe the provisions of *Queensland's Work Health and Safety Regulation 2011*, and where required is to undertake any action required of the Regulations.

- No arrivals / departures outside of 6am-6pm Monday to Friday, and 7am-12am (noon) Saturdays.
- No commercial activities (arrivals and or departures) on public holidays, with the definition of a 'public holiday, being a day of 'holiday' declared by the State of Queensland.

In respect of the operation of the proposed Transport Depot, there will be no permanent individuals (staff) present upon the subject lands. The Transport Depot is seen as a secondary 'Use', with the primary 'Use' being that of a 'Dwelling House', as such the Transport Depot is not seen to operate as a business from the subject lands.

The Applicant's business 'Queensland Mulching Pty Ltd (ABN 32 167 633 481)' (i.e., administrative component) may ultimately operate from the primary 'Use' (Dwelling House) as a Home-based Business however, at this time it is operated from the landowner's current residence as a Home-based business.

-----

The Applicant in placing the development application before Council is seeking approval to establish a Transport Depot (Minor) upon the subject lands. The Transport Depot (Minor) shall be seen to represent a Secondary 'Use' afforded for upon the subject lands, the Primary 'Use' being that of a Dwelling House.

Whilst the proposed development will afford for the formalization of the existing access crossover arrangement, access driveway and turning facilities, and parking facilities, the proposed development does not afford for significant infrastructure works per say, refer **Appendix B**. The proposed development will see parts of the site rehabilitated, and measures put in place to address visual amenity and minor noise impacts (i.e., mounding / landscaping planting). The Applicant will also be seeking to reduce the area within which the past practices have been afforded for upon the subject lands, so as to ensure that the use (once approved) is in keeping with that anticipated within the Rural Residential Zone / Cottage Rural Precinct.

The proposed development will see the lands sited south of the access driveway (i.e., overhead power line easement area) maintained as a mown lawn area, whilst the area to the front of the existing shed will take in both the future dwelling house and areas rehabilitated with vegetation species in keeping with the remnant vegetation communities within relative proximity to the site (refer MCUI Development Approval MCUR/191/2020). The area in and about the existing dam sited within the north-eastern corner of the site will be remediated and maintained as a mown lawn area.

The area(s) seen to have the greatest potential for erosion and sediment control issues (albeit that the risk is minimal) is those associated with:

- The area(s) to be rehabilitated with vegetation species in keeping with the remnant vegetation communities within relative proximity to the site; and
- The area(s) in and about the existing dam sited within the north-eastern corner of the site that is to be remediated, planted out, topsoiled and grass seeded.

Any and all other areas requiring the implementation of erosion and sediment controls measures will be addressed by way of the RPEQ supervising the construction of the access driveway and the car parking area(s), and the general remediation of the subject lands.

## 4. Code Compliance Assessment

---

Assessments of the development proposal against the relevant components of the *Logan Planning Scheme 2015 v8.1*, notably the:

- Filling and Excavation Code;

have been annexed to this Report.

The aforementioned Code details the 'Performance Outcomes', and the 'Acceptable Outcomes', required by Logan City Council. An Erosion Hazard Assessment has been afforded, and a Filling and Excavation Plan(s) prepared in accordance with *Part 3.3 Filling and Excavation Standards* outlined within *Planning Scheme Policy 5 – Infrastructure*.

## 5. Erosion Hazard Assessment

---

An Erosion Hazard Assessment is required for any application (DA) that will result in soil disturbance, or an Operational Works or Compliance Assessment for filling and excavation. The assessment determines the potential risk of soil and sediment pollution as a result of the development.

The assessment checklist confirms that the subject lands represent a 'medium risk' site. The proposed development will therefore require the development of a specific *Erosion and Sediment Control Program*, prepared by an RPEQ or CPESC.

## 6. Conclusions and Recommendation

---

This Report has sought to:

- Establish the potential risk of soil erosion and sediment pollution as a result of development of the subject lands;
- Establish the likely mitigation measures that will need to be employed in order to address the potential risk of soil erosion and sediment pollution resulting from the development of the subject lands.

The Report has addressed the necessary assessment against the respective 'Codes', and in-turn demonstrates that the development can be adequately serviced by the existing and or proposed infrastructure works, and that the development can be generally undertaken in accordance with the provisions of the respective engineering codes.

The findings of the Erosion Hazard Assessment required by way of the Code(s), has determined that the site is a 'medium risk' for soil erosion and sediment run-off during construction.

**Copyright protects this publication except for purposes permitted by the Copyright Act. Reproduction by whatever means is prohibited without the written prior permission of RDG Environmental Engineering Solutions Pty Ltd.**

**Enquiries should be addressed to:**

**Everyday Engineers Planners and Surveyors**  
*Trading for and behalf of*  
**RDG Environmental Engineering Solutions Pty Ltd**  
**PO Box 805**  
**Jimboomba QLD 4280**

## **Appendices**

---

### **Appendix A**

Locality Plan

### **Appendix B**

Site Plan, and Pavement Section and Notes

### **Appendix C**

Filling and Excavation Code – Compliance Assessment

### **Appendix D**

Erosion Hazard Assessment

# ***Appendix A***

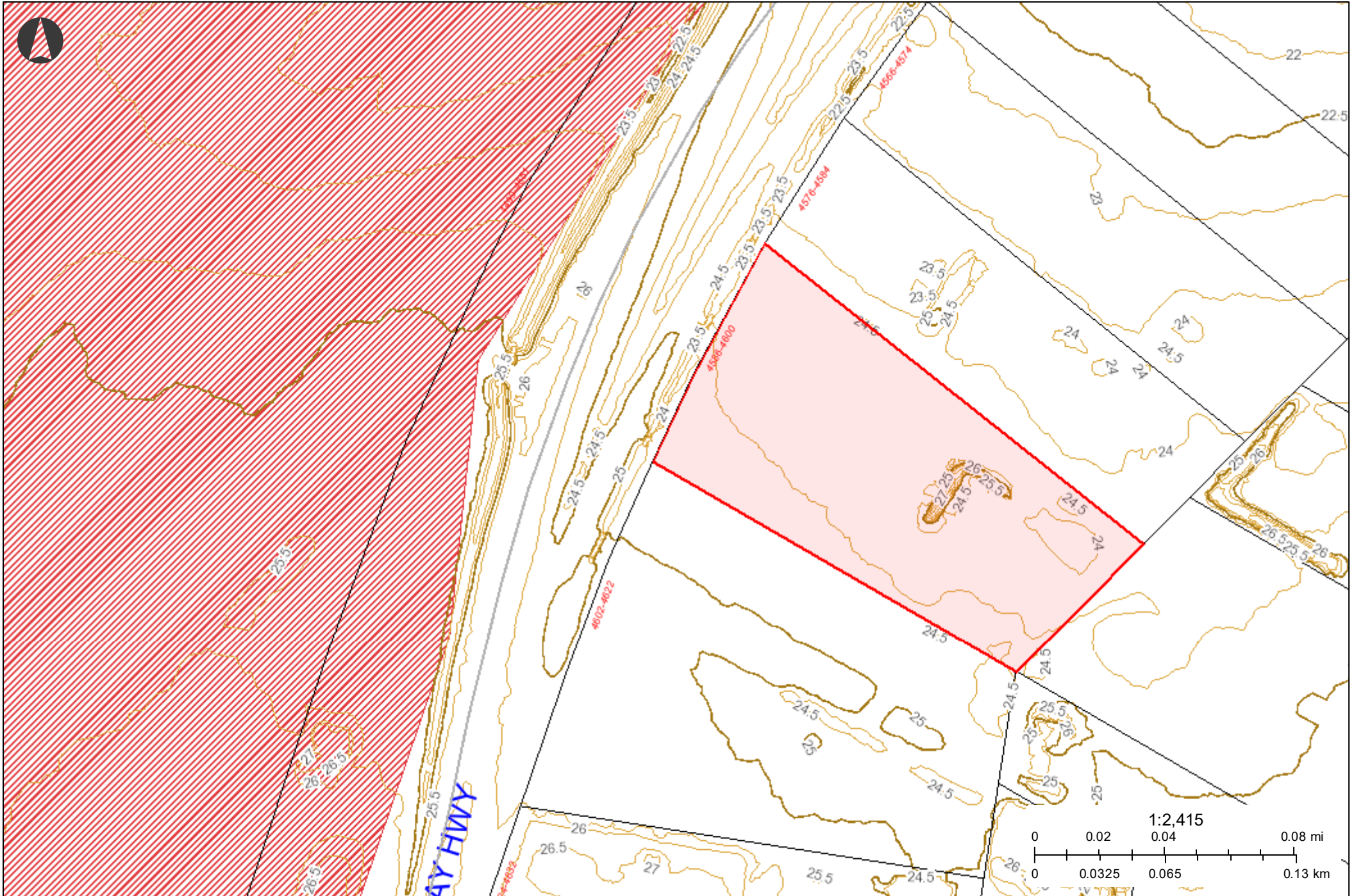
*Locality Plan*

***Everyday Engineers Planners and Surveyors  
Trading on behalf of  
RDG Environmental Engineering Solutions Pty Ltd  
PO Box 805  
Jimboomba Qld 4280  
e-mail: [rickygraham@everydayengineers.com.au](mailto:rickygraham@everydayengineers.com.au)***



Locality Plan

(Source: Logan Planning Scheme 2015 v8.1 – Interactive Mapping)



## ***Appendix B***

*Access Driveway / Parking Area Design*

***Everyday Engineers Planners and Surveyors  
Trading on behalf of  
RDG Environmental Engineering Solutions Pty Ltd  
PO Box 805  
Jimboomba Qld 4280  
e-mail: [rickygraham@everydayengineers.com.au](mailto:rickygraham@everydayengineers.com.au)***

# Material Change of Use – Transport Depot (Minor) 4586-4600 Mount Lindesay Highway, NORTH MACLEAN Lot 54 on SP180530



Locality Plan



Site Plan

<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p>4586-4600 Mount Lindesay Highway NORTH MACLEAN</p> <p><b>Transport Depot - Minor</b> Cover Sheet, Locality and Site Plan November 2022</p>	<p><b>2022-98-Sheet 0 Rev A</b></p>
--	---	-------------------------------------

<b>SCHEDULE OF DRAWINGS</b>		
<b>Drawing No.</b>	<b>Drawing Title</b>	<b>Revision</b>
2022-098 – Sheet 0 Rev A	Cover Sheet, Locality and Site Plan	A
2022-098 – Sheet 1 Rev A	Schedule of Drawings	A
2022-098 – Sheet 2 Rev A	General Layout Plan	A
2022-098 – Sheet 3 Rev A	Plan of Development – Site Master Plan (Sheet 1 of 2)	A
2022-098 – Sheet 4 Rev A	Plan of Development – Site Master Plan (Sheet 2 of 2)	A
2022-098 – Sheet 5 Rev A	Plan of Development - Site Master Plan (Detail A)	A
2022-098 – Sheet 6 Rev A	Plan of Development - Site Master Plan (Detail B)	A

<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p><b>4586-4600 Mount Lindesay Highway NORTH MACLEAN</b></p> <p><b>Transport Depot - Minor Schedule of Drawings November 2022</b></p>	<p><b>2022-98-Sheet 1 Rev A</b></p>
--	---	-------------------------------------

Refer to Plan of Development – Site Master Plan (Sheet 1 of 2), and approved documentation pertaining to Dwelling House Development Approval MCUR/191/2020 which accompanies this application (Dwelling House documentation to be read as ‘relevant matters’ for the purposes of s45(5)(b) of the Planning Act).

Refer to Plan of Development – Site Master Plan (Sheet 2 of 2), Plan of Development – Site Master Plan (Detail A), and Plan of Development – Site Master Plan (Detail B)



**GENERAL LAYOUT PLAN**

*Note:  
Plans of Development to be read in conjunction with Rehabilitation Plan / Landscape Concept Plan(s).*

<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p><b>4586-4600 Mount Lindsay Highway NORTH MACLEAN</b></p> <p><b>Transport Depot - Minor General Layout Plan November 2022</b></p>	<p><b>2022-98-Sheet 2 Rev A</b></p>
--	---	-------------------------------------

**Refer Plan(s) of Development, Rehabilitation Plan / Landscape Concept Plans had in respect of the approved Dwelling House**

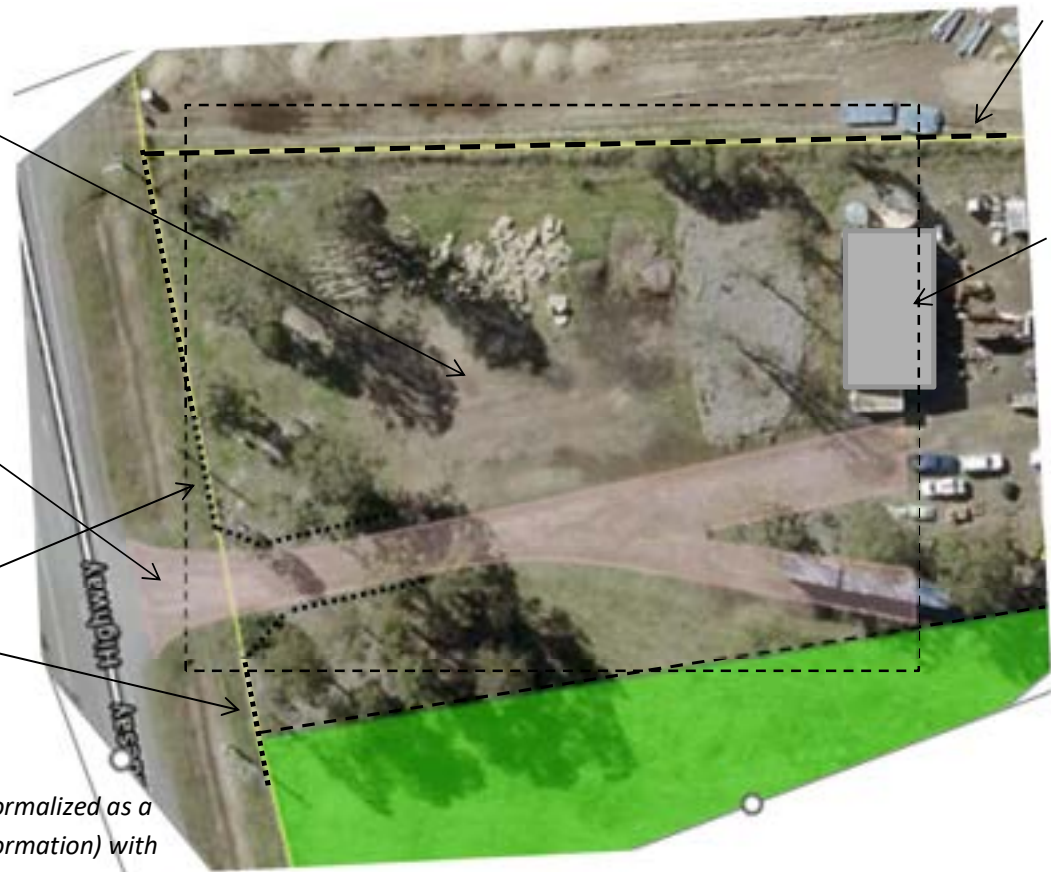
Access crossover arrangement to be constructed in accordance with Institute of Public Works Engineering Australasia Standard Drawing Number RS-049 Rev G.

Existing 1.8m High Chain Wire Fence, along property boundary fence.

**Note:**

*Existing access driveway arrangement to be formalized as a 7.0-metre-wide granular pavement (surface formation) with an AC Seal.*

*Pavement design shall be subject to confirmation on-site by RPEQ Supervising construction of access crossover, driveway and manoeuvring area(s).*



1.8m High Colour Bond Fence, along property

*Existing Shed (10m x 18m) to remain. The Shed to not seen to form part of the Transport Depot – Minor*

<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p><b>4586-4600 Mount Lindesay Highway NORTH MACLEAN</b></p> <p><b>Transport Depot - Minor</b> Plan of Development – Site Master Plan Sheet 1 of 2 November 2022</p>	<p><b>2022-98-Sheet 3 Rev A</b></p>
--	--	-------------------------------------

**Refer Plan(s) of Development, Rehabilitation Plan / Landscape Concept Plans had in respect of the approved Dwelling House**

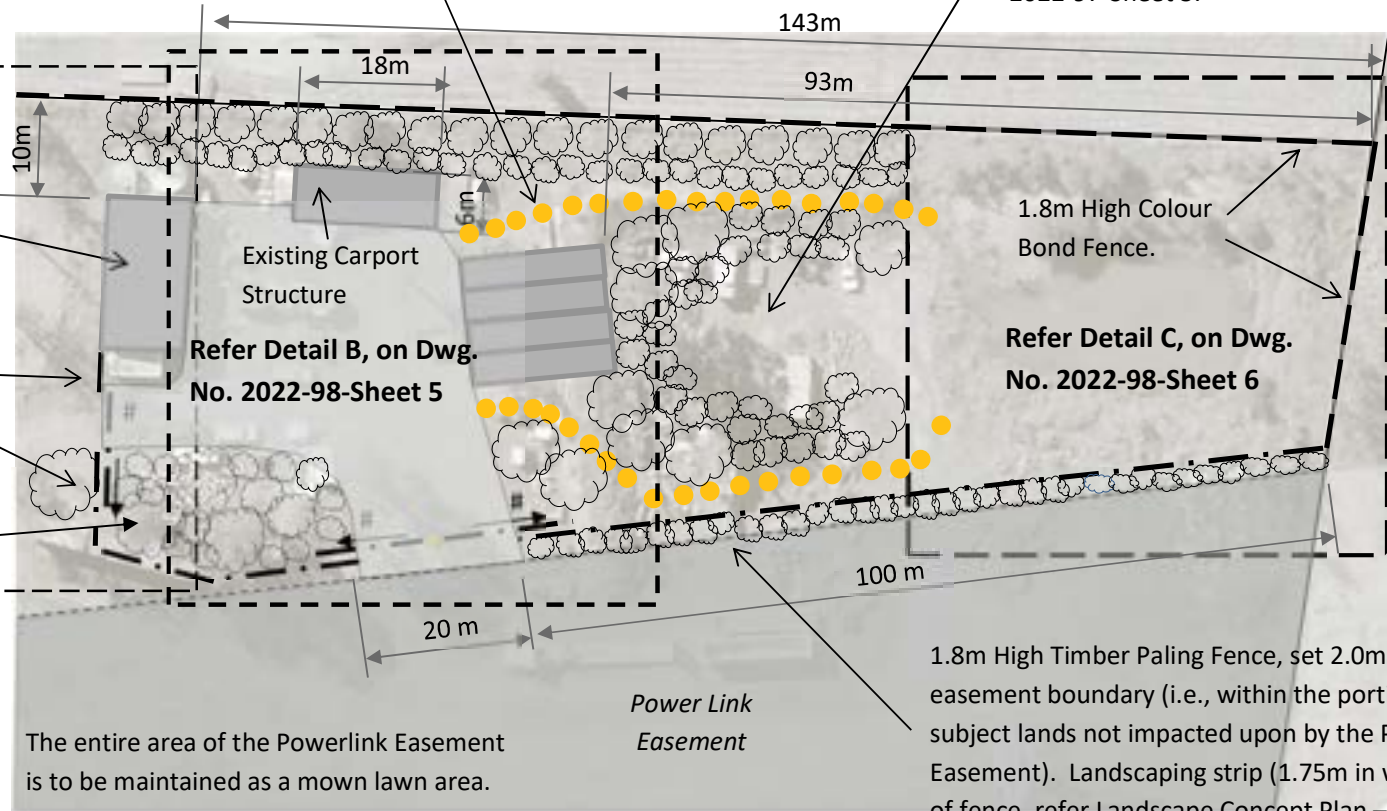
Existing Shed to remain (Shed does not form part of 'Use').

1.8m High Timber Paling Fence set on alignment of existing shed.

Landscaping plantings, refer Landscape Concept Plan – Site Master Drawing No. 2022-97-Sheet 4.

Walking path, 1.0 metres in width, formed of crusher dust.

Landscaping plantings, refer Landscape Concept Plan – Site Master Drawing No. 2022-97-Sheet 5.



1.8m High Colour Bond Fence.

Refer Detail C, on Dwg. No. 2022-98-Sheet 6

Refer Detail B, on Dwg. No. 2022-98-Sheet 5

1.8m High Timber Paling Fence, set 2.0m from easement boundary (i.e., within the portion of the subject lands not impacted upon by the Powerlink Easement). Landscaping strip (1.75m in width) to front of fence, refer Landscape Concept Plan – Site Master Drawing No. 2022-97-Sheet 5.

The entire area of the Powerlink Easement is to be maintained as a mown lawn area.

Power Link Easement

# Sliding gate panels (10.0m wide each), palings set on steel frame.

**Note:**

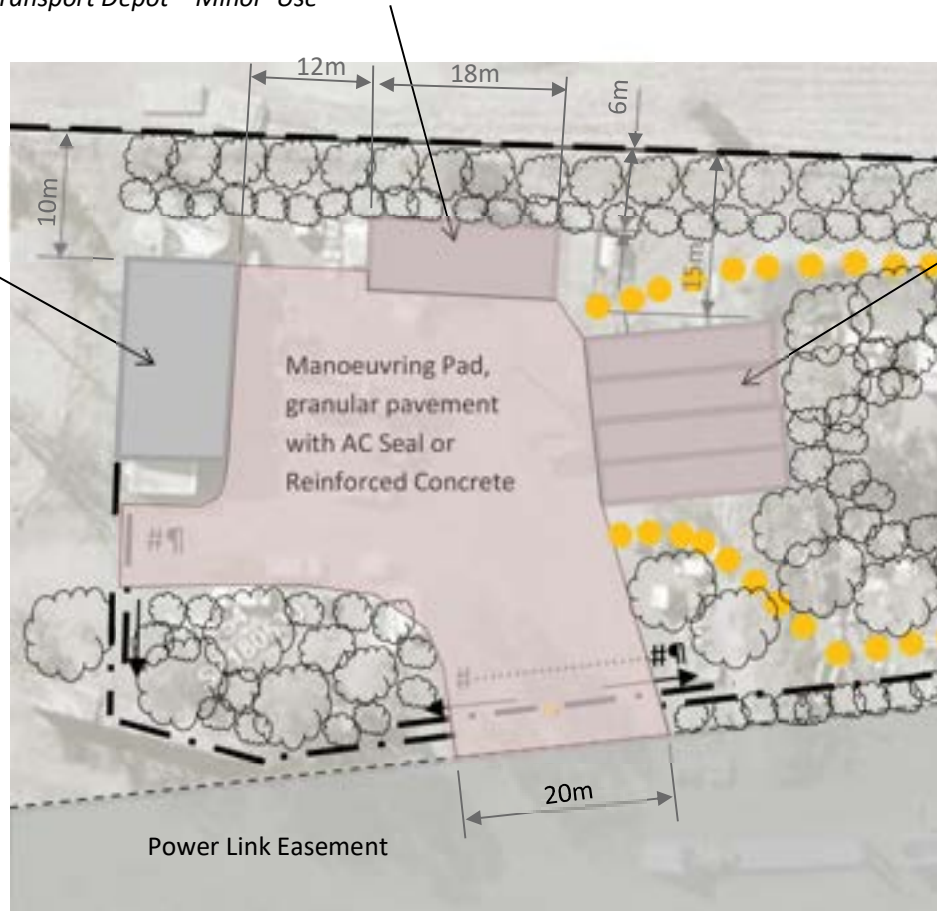
1. Heavy Vehicle Parking consists of four (4) bays measuring 20 metres long by 4 metres in width.
2. Existing Carport Structure to remain (6 Car parking spaces, plus 2 car trailer spaces (if required)).

<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p><b>4586-4600 Mount Lindesay Highway NORTH MACLEAN</b></p> <p><b>Transport Depot - Minor</b> Plan of Development – Site Master Plan Sheet 2 of 2 <b>November 2022</b></p>	<p><b>2022-98-Sheet 4 Rev A</b></p>
--	---	-------------------------------------

Existing Carport Structure to remain (6 Car parking spaces, plus 2 car trailer spaces (if required)). Structure will form part of the Transport Depot – Minor ‘Use’

Existing Shed (10m x 18m) to remain.

The Shed to not seen to form part of the Transport Depot – Minor ‘Use’.



Heavy Vehicle Parking Area to accommodate a maximum of four (4) Heavy Vehicles.


Parking Bay at 15 Degree Splay to side boundary.

Reinforced Concrete pad measuring 20m depth by 16m width.

Reinforced Concrete Pad to consist of reinforced concrete (N32) pad 250mm thick slab with SL92 Mesh (two (2) layers) 60mm top and bottom cover. Ring Beam measuring 400mm width by 300mm depth with trench mesh and L11TM3, with 10mm reinforcing bar (box configuration), to four (4) sides of Pad.

Structural Details subject to confirmation.

Legend

 Transport Depot – Minor ‘Use’ Area (1,850 square in Total).

**Note:**

1. Heavy Vehicle Parking consists of four (4) bays measuring 20 metres long by 4 metres in width.
2. Existing Carport Structure to remain (6 Car parking spaces, plus 2 car trailer spaces (if required)).
3. Landscaping plantings, refer Landscape Concept Plan – Site Master Drawing No. 2022-97-Sheets 4 and 5.

<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p><b>4586-4600 Mount Lindesay Highway NORTH MACLEAN</b></p> <p><b>Transport Depot - Minor Plan of Development - Site Master Plan (Detail A) November 2022</b></p>	<p><b>2022-98-Sheet 5 Rev A</b></p>
--	--	-------------------------------------

The Applicant is to afford for the removal, and relocation / disposal of all waste and or rubbish stored within the rear portion of the property. The space is to be free of all rubbish / waste / shipping containers, any temporary building structures thus in-turn affording for the rehabilitation of the subject lands.

Remove existing weed species along boundary line, and about edge of dam.

Landscaping plantings, refer Landscape Concept Plan – Site Master Drawing No. 2022-97-Sheet 5.



Walking path, 1.0 metres in width, formed of crusher dust.

Landscaping plantings, refer Landscape Concept Plan – Site Master Drawing No. 2022-97-Sheet 5.

1.8m High Colour Bond Fence.

Landscaping plantings, refer Landscape Concept Plan – Site Master Drawing No. 2022-97-Sheet 5.

Power Link Easement

1.8m High Timber Paling Fence, set 2.0m from easement boundary (i.e., within the portion of the subject lands not impacted upon by the Powerlink Easement). Landscaping strip (1.75m in width) to front of fence, refer Landscape Concept Plan – Site Master Drawing No. 2022-97-Sheet 4.

<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p><b>4586-4600 Mount Lindesay Highway NORTH MACLEAN</b></p> <p><b>Transport Depot - Minor</b> Plan of Development – Site Master Plan (Detail B) November 2022</p>	<p><b>2022-98-Sheet 6 Rev A</b></p>
--	--	-------------------------------------



**Transport Depot – Minor  
Rehabilitation Plan  
Landscape Concept Plan**

**Everyday Engineers  
Planners & Surveyors**

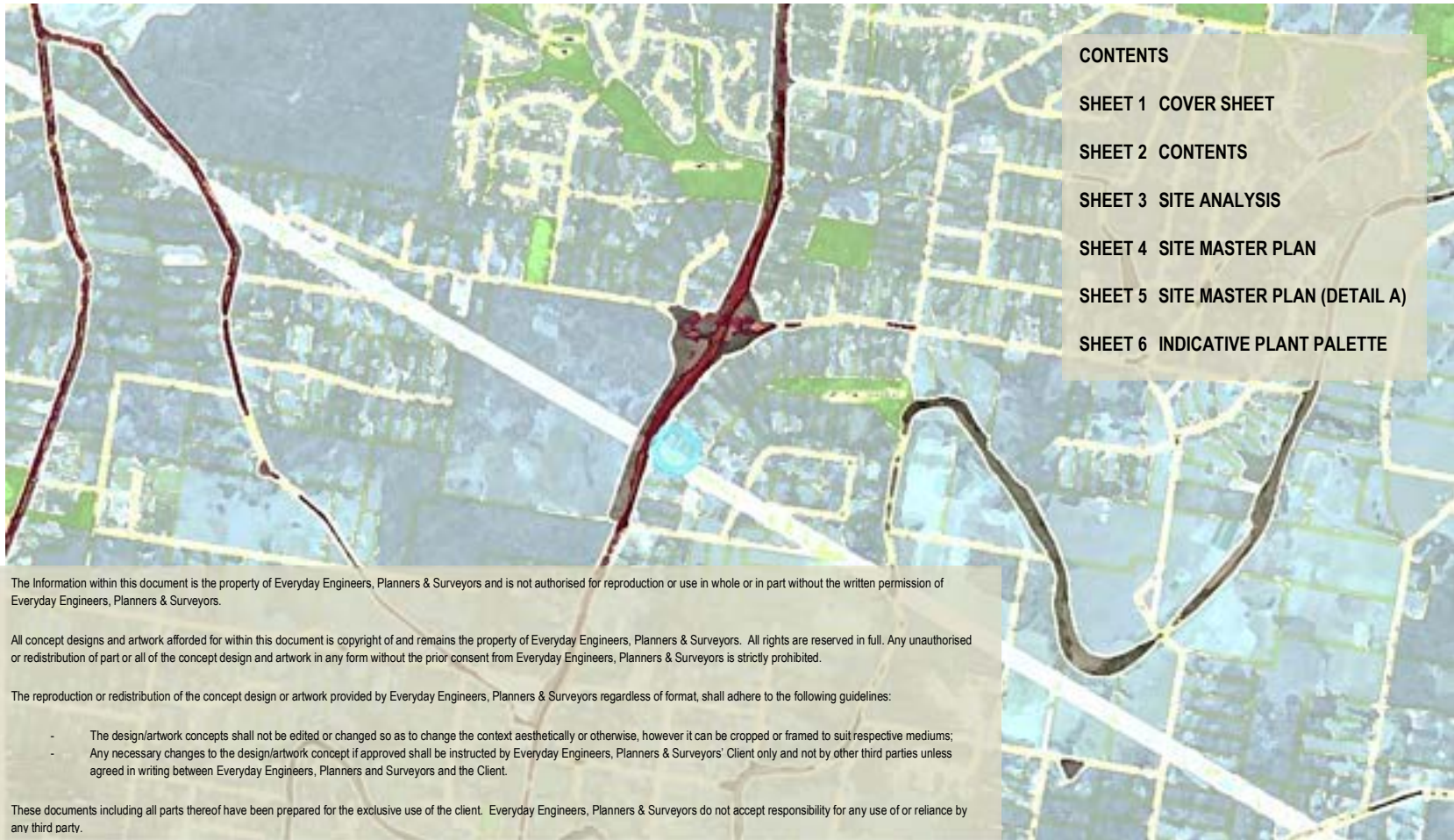
ABN. 33 128 918 347  
Mobile: 0432 124 461

**4586-4600 Mount Lindesay Highway  
NORTH MACLEAN**

**Transport Depot - Minor  
Rehabilitation Plan**

Landscape Concept Plan – Cover Sheet  
November 2022

**2022-97-Sheet 1**



**CONTENTS**

- SHEET 1 COVER SHEET**
- SHEET 2 CONTENTS**
- SHEET 3 SITE ANALYSIS**
- SHEET 4 SITE MASTER PLAN**
- SHEET 5 SITE MASTER PLAN (DETAIL A)**
- SHEET 6 INDICATIVE PLANT PALETTE**

The Information within this document is the property of Everyday Engineers, Planners & Surveyors and is not authorised for reproduction or use in whole or in part without the written permission of Everyday Engineers, Planners & Surveyors.

All concept designs and artwork afforded for within this document is copyright of and remains the property of Everyday Engineers, Planners & Surveyors. All rights are reserved in full. Any unauthorised or redistribution of part or all of the concept design and artwork in any form without the prior consent from Everyday Engineers, Planners & Surveyors is strictly prohibited.

The reproduction or redistribution of the concept design or artwork provided by Everyday Engineers, Planners & Surveyors regardless of format, shall adhere to the following guidelines:

- The design/artwork concepts shall not be edited or changed so as to change the context aesthetically or otherwise, however it can be cropped or framed to suit respective mediums;
- Any necessary changes to the design/artwork concept if approved shall be instructed by Everyday Engineers, Planners & Surveyors' Client only and not by other third parties unless agreed in writing between Everyday Engineers, Planners and Surveyors and the Client.

These documents including all parts thereof have been prepared for the exclusive use of the client. Everyday Engineers, Planners & Surveyors do not accept responsibility for any use of or reliance by any third party.

**Everyday Engineers  
Planners & Surveyors**

**ABN. 33 128 918 347  
Mobile: 0432 124 461**

**4586-4600 Mount Lindesay Highway  
NORTH MACLEAN**

**Transport Depot - Minor  
Rehabilitation Plan  
Landscape Concept Plan – Contents  
November 2022**

**2022-97-Sheet 2**



**Everyday Engineers  
Planners & Surveyors**

ABN. 33 128 918 347  
Mobile: 0432 124 461

**4586-4600 Mount Lindesay Highway  
NORTH MACLEAN**

**Transport Depot - Minor  
Rehabilitation Plan**

Landscape Concept Plan – Site Analysis  
**November 2022**

**2022-97-Sheet 3**

Refer Rehabilitation Plan / Landscape Concept Plans had in respect of the approved Dwelling House

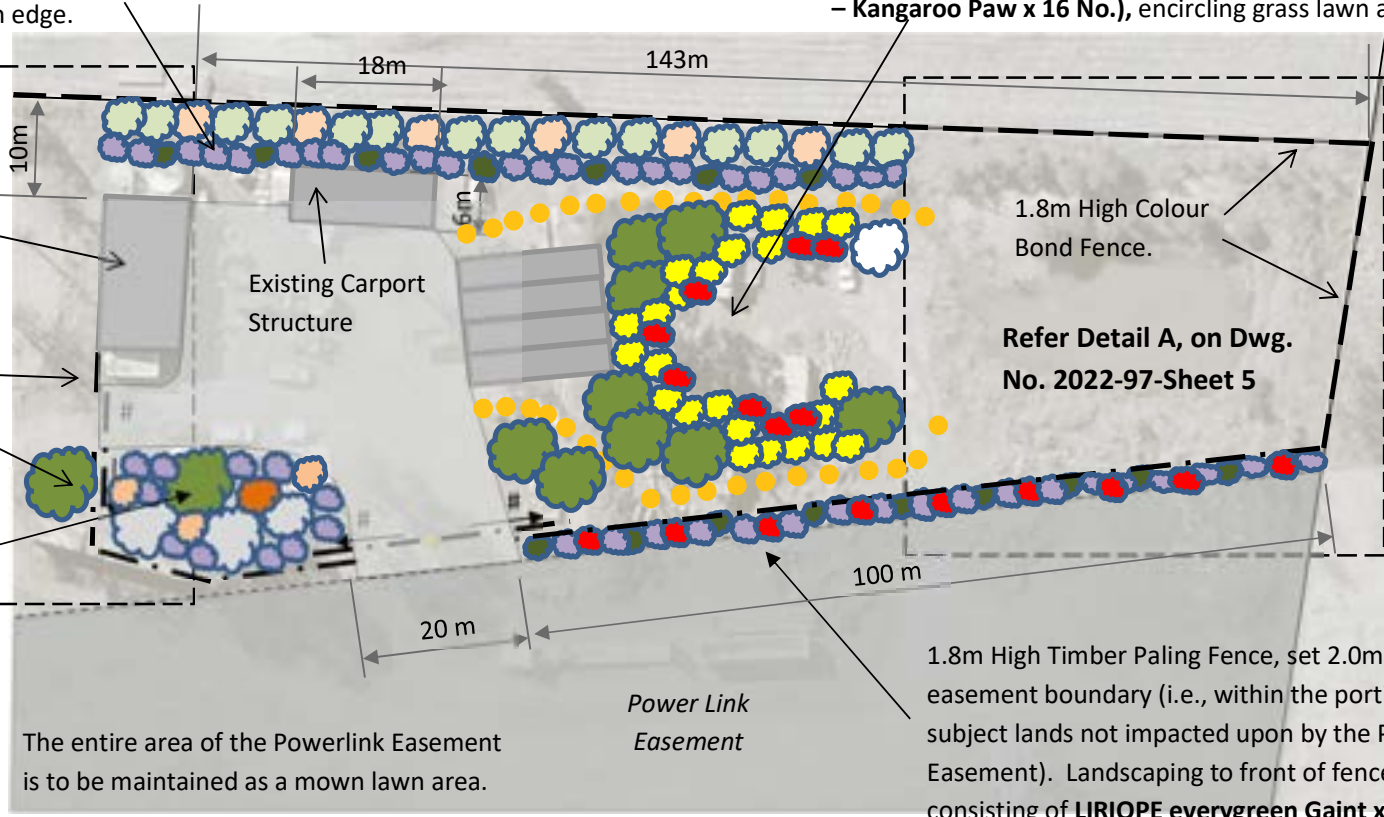
**GREVILLEA baileyana** x 14 No., **BANKSIA ericifolia** x 6 No. adjacent to fenceline. **LIRIOPE everygreen Gaint** x 50 No. and **LOMANDRA hystrix Tropicbelle** x 34 No. fringe to garden edge.

**CORYMBIA citriodora** x 9 No., Mass planting of **CHRYSOCEPHALUM apiculatum (Yellow Buttons)** x 50 No. groundcover, and **HAEMODORACEAE anigozanthos (Big Red – Kangaroo Paw)** x 16 No.), encircling grass lawn area.

Existing Shed to remain  
1.8m High Timber Paling Fence set on alignment of existing shed.

**CORYMBIA citriodora** x 2 No., **LIRIOPE everygreen Gaint** x 20 No. fringe to existing garden, inlaid with **GREVILLA banksia** x 3 No. and **BANKSIA ericifolia** x 4 No.

Note:  
1. Heavy Vehicle Parking consists of four (4) bays measuring 20 metres long by 4 metres in width.  
2. Existing Carport Structure to remain (6 Car parking spaces, plus 2 car trailer spaces (if required).



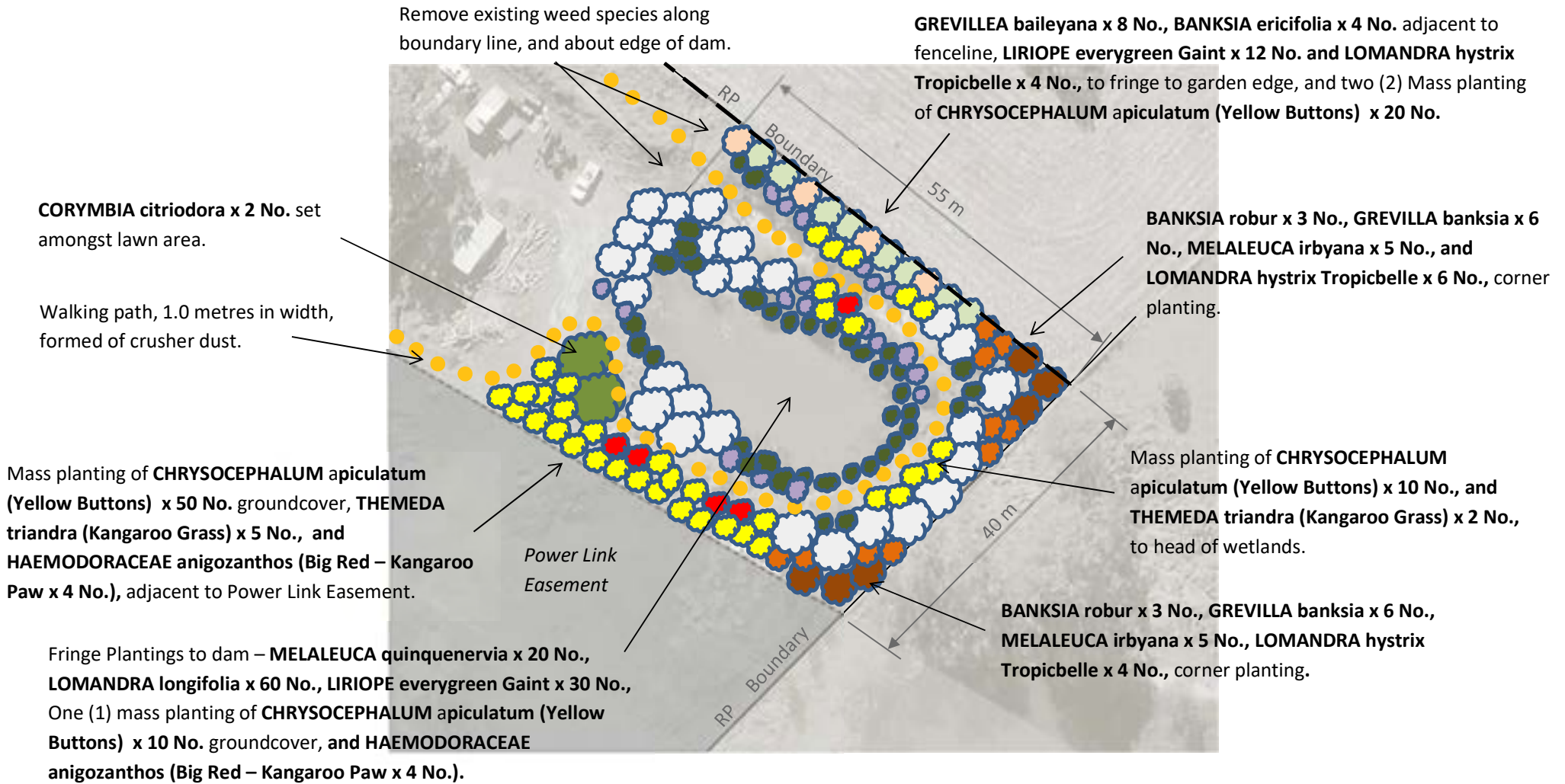
The entire area of the Powerlink Easement is to be maintained as a mown lawn area.

# Sliding gate panels (10.0m wide each), palings set on steel frame.

1.8m High Timber Paling Fence, set 2.0m from easement boundary (i.e., within the portion of the subject lands not impacted upon by the Powerlink Easement). Landscaping to front of fence (1.75m width consisting of **LIRIOPE everygreen Gaint** x 50 No., **LOMANDRA hystrix Tropicbelle** x 34 No, and **HAEMODORACEAE anigozanthos (Big Red – Kangaroo Paw)** x 20 No.).

Refer Detail A, on Dwg. No. 2022-97-Sheet 5

<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p><b>4586-4600 Mount Lindesay Highway NORTH MACLEAN</b></p> <p><b>Transport Depot - Minor Rehabilitation Plan Landscape Concept Plan – Site Master Plan November 2022</b></p>	<p><b>2022-97-Sheet 4</b></p>
--	--	-------------------------------



<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p>4586-4600 Mount Lindesay Highway NORTH MACLEAN</p> <p>Transport Depot - Minor Rehabilitation Plan Landscape Concept Plan – Site Master Plan (Detail A) November 2022</p>	<p><b>2022-97-Sheet 5</b></p>
--	---	-------------------------------



1. GREVILLEA robusta
2. GREVILLEA banksia
3. GREVILLEA baileyana
4. BANKSIA intergrifolia
5. BANKSIA robur
6. BANKSIA ericifolia
7. LIRIOPE everygreen gaint
8. LOMANDRA hystrix Tropicbelle
9. CUPANIOPSIS anacardioides
10. CORYMBIA citriodora
11. CHRYSOCEPHALUM apiculatum
12. HAEMODORACEAE anigozanthos
13. MELALEUCA irbyana
14. MELALEUCA quinquenervia
15. LOMANDRA longifolia
16. THEMEDA triandra

**Everyday Engineers  
Planners & Surveyors**

ABN. 33 128 918 347  
Mobile: 0432 124 461

**4586-4600 Mount Lindesay Highway  
NORTH MACLEAN**

**Transport Depot - Minor  
Rehabilitation Plan**

Landscape Concept Plan – Indicative Plant Palette  
**November 2022**

**2022-97-Sheet 6**

# SITE PLAN

4586 Mt Lindesay H'Way



## APPROVED PLANS

DYNAMIC BUILDING APPROVALS REF: 0597/21

DATE OF APPROVAL: 29/10/2021

DESCRIPTION OF WORK: **Class 10a Carport**

### Roofwater Drainage

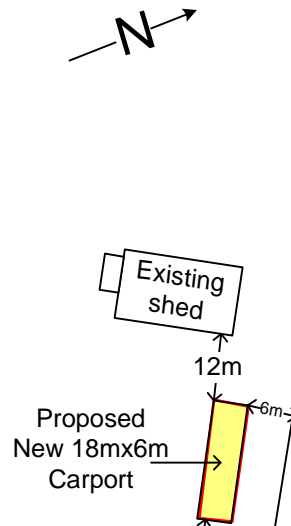
All roofwater shall be conveyed to the kerb and channel or inter-allotment drainage system in accordance with the local Council's stormwater policy and the NCC Volume Two.

Use of the Outbuilding is limited to Domestic Use (Class 10a) only and is not to be used for commercial, industrial or habitable purposes

### COUNCIL'S BWAP APPROVAL:

This Building work is subject to a Building Works Assessable Against the Planning Scheme (BWAP) approval by Council (relaxation of boundary clearances, site coverage, and/or roofed area). The new work must strictly comply with Council's relaxation approval and conditions. See attached Approval and Conditions.

Reference No: **BWAP/126/2021**



This Documentation is submitted for Information Purposes Only, notably in respect of the existing Carport that is to be utilised by Heavy Vehicle operators to park their private vehicle (car).

**Note!** The Site Plan above is not necessarily drawn to scale refer to registered plan for exact property dimensions.



UNIT 8/178 SIGANTO DRIVE  
HELENSVALE 4212  
PHONE: 5511 9115  
FAX:

(c) Copyright 2021

These plans may not be reproduced in part or whole without the expressed written consent by the company

**PROPOSED:** Standard Carport  
**FOR:** Mark & Linda Vary

**SITE ADDRESS:** LOT: 54 RP:SP180530  
4586 Mount Lindesay Highway

North Maclean

HOME : 0418 718 019 WORK:

APPROVAL BY: Dynamic Building

AUTHORITY: Logan

REPRESENTATIVE : Lyndel Gatt  
DATE : 15, Jun,

DIGGING  
Unknown

OBSTRUCTIONS  
Unknown

STORMWATER  
Connected By Client At A Later Date

SITE CLEANUP  
Erector To Remove Rubbish (extra Charged)

**JOB NUMBER 14076**

**GENERAL NOTES**

- G01 The design and details shown on these drawings are applicable to this project only and may not be reproduced in whole or in part or used for any other project or purpose without the written permission of Quotec Pty. Ltd with whom the copyright resides.
- G02 These drawings shall be read in conjunction with all architectural drawings, other consultants' drawings, specifications and such other written instructions as may be issued during the course of the contract. Any discrepancy shall be referred to the engineer before proceeding with the work.
- G03 All materials and workmanship shall be in accordance with the relevant and current saa codes and with authorities except where varied by the project specifications.
- G04 All dimensions shown shall be verified by the builder on site. Engineer's drawings shall not be scaled for dimensions.
- G05 Unless noted otherwise all levels are in meters and all dimensions are in millimetres.
- G06 Construction methods and safety maintenance during construction is the responsibility of the contractor(s). Where any structural element presents difficulties pertaining to construction or safety, the authorized entity must be notified prior to the commencement of work.
- G07 The structure must be maintained in a stable condition and no part must be overloaded during construction. Temporary bracing must be designed and provided by the contractor(s) to keep the building works and excavations stable at all times.
- G08 Neither snow loading or earthquake loading has been taken into account.
- G09 Quotec Pty. Ltd reserves the right to alter specifications and designs as it may see fit without prior notification or penalty.
- G10 All dimensions, width, height, lengths and openings are nominal and not absolute. It is the user's responsibility to satisfy themselves of any dimensions.
- G11 Where the purlin of a building exceeds 1200 centre, then the roof is to be considered as non-trafficable.

**FOUNDATION NOTES**

- F01 Footing & slab have been designed assuming stable site with an allowable bearing capacity of 100kpa, subgrade CBR15, Class "S" relatively
- F02 The owner is advised to obtain a geotechnical report if no existing site foundation report (to confirm F01).
- F03 Footings shall be located centrally under walls and columns unless noted otherwise.
- F04 All footings to be founded minimum 400 into natural ground. Do not found footings in uncontrolled fill
- F05 Engineer to be contacted if foundation conditions vary from that indicated in F01.

**STEELWORK NOTES**

- S01 All workmanship and material shall be in accordance with AS4100 and AS1554 except where varied by the contract documents.
- S02 Bolting categories are identified on the structural drawings in the following manner:  
  
Bolt category comments: 4.6/s commercial bolts of grade 4.6 to as1111 snug tightened 8.8/s high strength structural bolts of grade 8.8 to as1252 snug tightened
- S03 Unless noted otherwise all footing bolts shall be m16 category 8.8/s. M12 bolts for C100, C150, C200, and C250 sections, m16 bolts for C300 and C350 sections. No connection shall have less than 2 bolts. All holes shall be 2mm larger than the bolt diameter unless noted otherwise.
- S04 All galvanizing of structural steelwork shall be to AS4680. The continuous average zinc coating mass shall be 600g/m<sup>2</sup> (550g/m<sup>2</sup> minimum) provide seal plates to the ends of all hollow sections, with 'breather' holes if members are to be hot dip galvanized. All metal cladding should comply with AS1397-2001 g550, AZ150 (550 mpa minimum yield stress, 150g/m<sup>2</sup> minimum) coating mass.
- S05 Steelwork intended to be concrete encased shall be unpainted. Encasing concrete shall be grade N25 unless noted otherwise providing a cover adequate to suit fire rating or exposure conditions. Concrete encasement shall be centrally reinforced with 5mm wire to AS4617 or 6mm structural grade bars to AS4617 at 150mm pitch.

S06 Unless noted otherwise, all steel shall be of the following grade in accordance with the relevant Australian standard.

Type of steel	GRADE
Universal beams and columns, parallel flange Channels, large angles to AS/NZS3679.1	300 PLUS
Flats, small angles, taper flange beams and columns To AS/NZS3679.1	250
Welded sections to as/nz3679.2	300
Hot rolled plates, floor plates and slabs to AS/NZS3678	250
Hollow sections to as1163 - circular sections less than 165mm outside diameter - sections other than The above	C250 C350
Cold form to AS4600	G450
Apex & knee plates	G450

**CONCRETE NOTES**

- C01 All workmanship and materials shall be in accordance with AS3600 current edition with amendments, except where varied by the contract documents.
- C02 No admixtures shall be used in concrete unless approved in writing.
- C03 All reinforcements shall be firmly supported on mild steel plastic tipped chairs, plastic chairs or concrete chairs at not greater than 1 metre centres both ways. Bars shall be tied at alternate intersections.
- C04 Concrete quality

The characteristic compressive strength and slump of the concrete must not be less than the value stated below.

Element	F <sub>C</sub> MPa (28 Days)	Slump (mm)	Aggregate Size (mm)
Slabs	25 Mn	80 Max	20

Project control testing shall be carried out in accordance with AS3600.

- C05 Concrete sizes shown do not include thicknesses of applied finishes.
- C06 No holes, chases or embedment of pipes other than those shown on the structural drawings shall be made in concrete members without the prior written approval of the engineer.
- C07 Construction joints where indicated shall be located to the approval of the engineer.
- C08 The finished concrete shall be a dense homogeneous mass, completely filling the formwork thoroughly imbedding the reinforcement and free of air pockets. All concrete including slabs on ground and footings shall be compacted with mechanical vibrators.
- C09 Curing of all concrete is to be achieved by keeping surfaces continuously wet for a period of three days, and prevention of loss of moisture for a total of 7 days followed by a gradual drying out. Approved sprayed on curing compounds may be used where no floor finishes are proposed. Polythene sheeting or wet hessian may be used if protected from wind and traffic.
- C10 The engineer shall be given 48 hours' notice for reinforcement inspection if required and concrete shall not be delivered until final approval obtained.
- C11 Conduits, pipes etc., shall only be located in the middle one third of slab depth and spaced at not less than 4 diameters.
- C12 Reinforcement symbols:  
  
N denotes normal ductility grade to as1302 grade, grade 410 mpa or greater  
  
R denotes grade 230 r hot rolled plain bars to AS1302.  
  
Si denotes hard-drawn deformed reinforced fabric to AS1304.
- C13 Reinforcement is represented diagrammatically and not necessarily in true projection.
- C14 Welding or heating of reinforcement shall not be permitted unless shown on the structural drawings or approved by the engineer.
- C15 Slab fabric shall be lapped 2 transverse wires plus 50mm.

- C16 Trench mesh shall be spliced, where necessary, by a minimum lap of 500mm.
- C17 The lap length of bar splices shall be not less than 500mm or 25 bar diameters.
- C18 Clear concrete cover to reinforcement for durability shall be as follows unless shown otherwise.

Exposure	Concrete cover
Cast against ground	60mm
External exposed surface	60mm
Internal exposed surface	40mm

**For Site Classification: Class A, S & M**

**CONCRETE:**

All concrete work to be carried out in accordance with AS3600 & AS2870. For more than 2.5kPa live load and heavy goods vehicle then special slab design is required. Provide construction joints for every slab pane length is more than 1.5 \* width. Concrete strength of minimum 25 MP at 28 days in slab is required. Cover to reinforcements to be minimum of 30mm from top slab & 65mm for footings. All reinforcements shall conform with AS4671- 2001. Care should be taken to ensure that bolts are anchored below without shifting any reinforcement fabric or bars.

For slab on ground, all topsoil and upper layer containing organic material to be removed and slab place on max. 300 of approved filling medium.

Prior to construction, a suitably qualified person is to assess site and soil conditions (i.e. reactive soils, landslide, flood) Refer to Design Engineer.

**PROPRIETARY AND CONFIDENTIAL**

The information contained in this drawing is sole property of Quotec System Pty Ltd and for their exclusive use. Any reproduction in part or without the prior written permission of Quotec System Pty Ltd is strictly prohibited. Quotec System Pty Ltd reserves the right to alter any part of this drawing without prior notice or penalty.



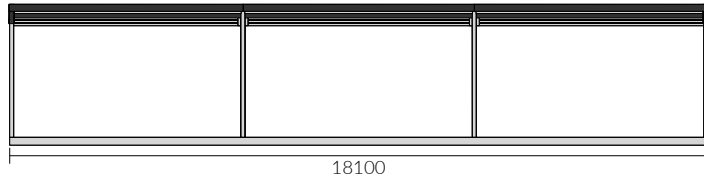
Project 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
 Client Vary  
 Site Address 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280



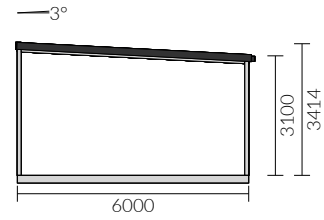
Job#  
Date  
Page

13012\_VARY  
26 Oct 2021  
1 of 23

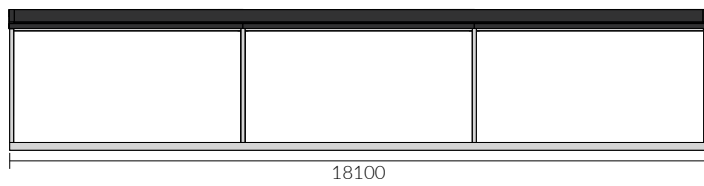
## LEFT ELEVATION



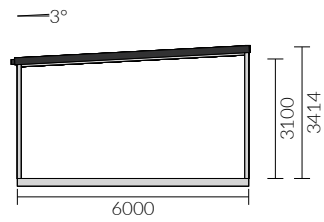
## FRONT ELEVATION



## RIGHT ELEVATION



## BACK ELEVATION



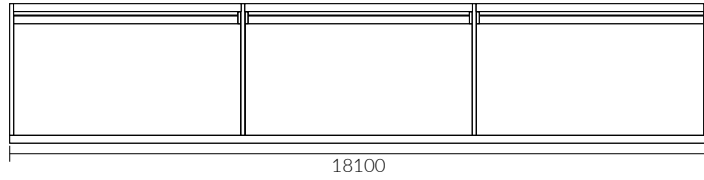
**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.

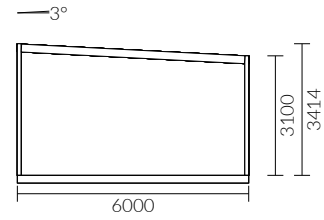


**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 2 of 23

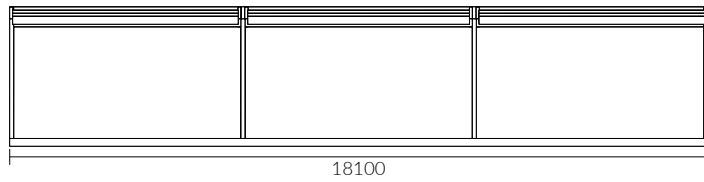
## FRAME LEFT ELEVATION



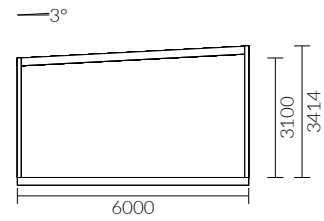
## FRAME FRONT ELEVATION



## FRAME RIGHT ELEVATION



## FRAME BACK ELEVATION



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.

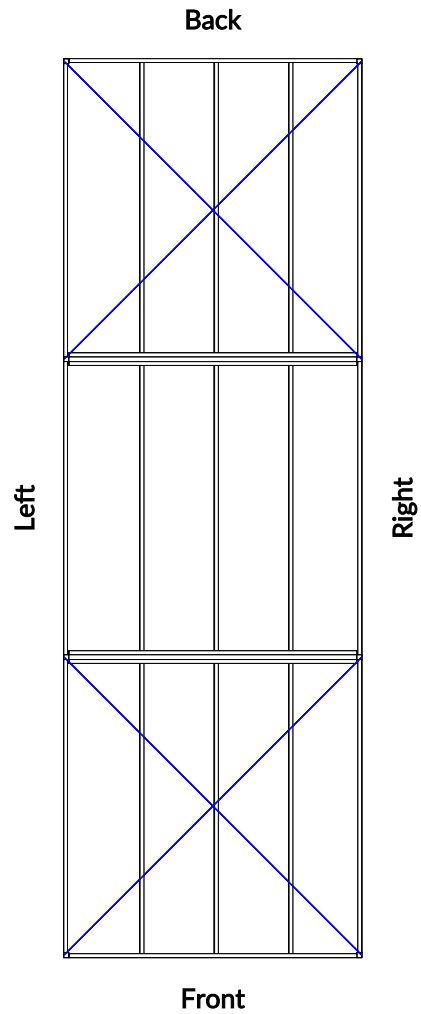


**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 3 of 23

# BRACING

Bracing

Roof  
Strap Bracing 30x0.8 Galv G2 Z275 (no holes)



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.

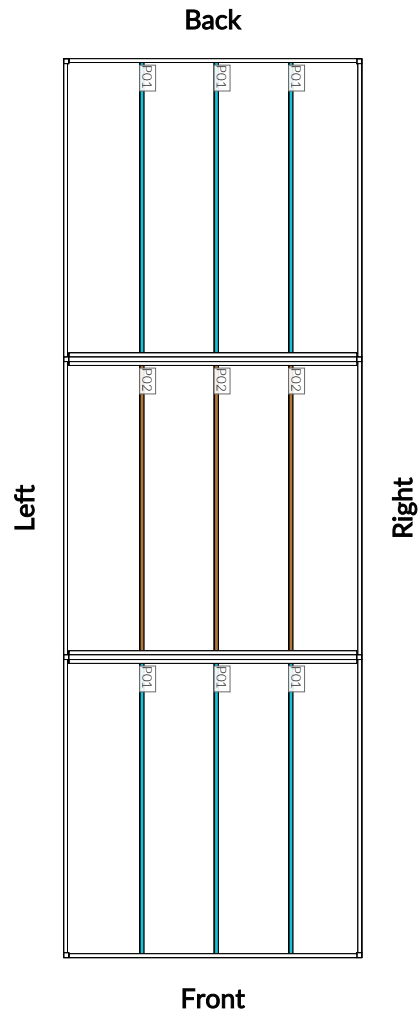


**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 4 of 23

# PURLINS

## Frame Items

<span style="color: cyan;">■</span> P01	6x	C Section 203 x 76 x 1.5
<span style="color: brown;">■</span> P02	3x	C Section 203 x 76 x 1.5



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

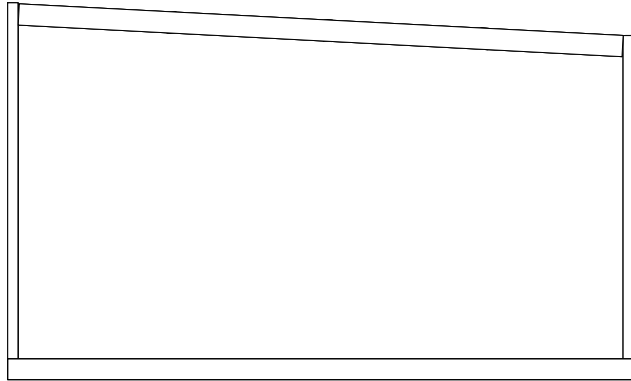
Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 5 of 23

# MAIN FRAME 1 ELEVATION

Viewed from front of building.



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

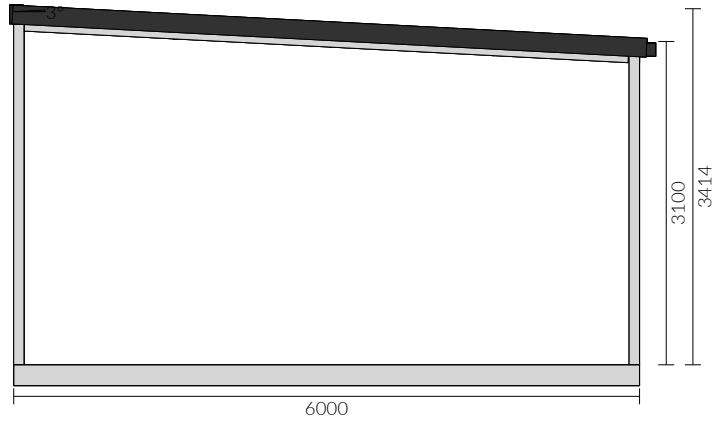
Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 6 of 23

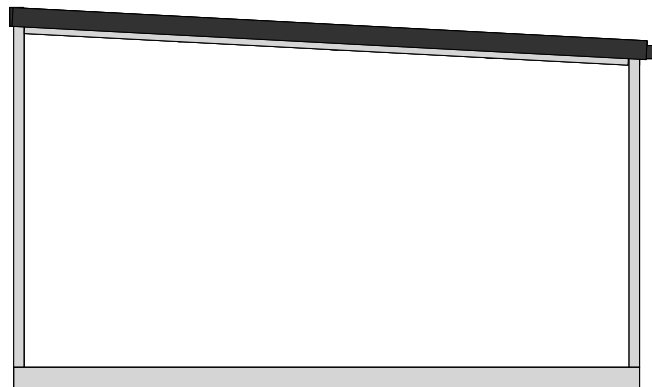
# MAIN FRAME 1 ELEVATION WITH CLADDING

Viewed from front of building.



# MAIN FRAME 1 ELEVATION CLAD SHEETS

Viewed from front of building.



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

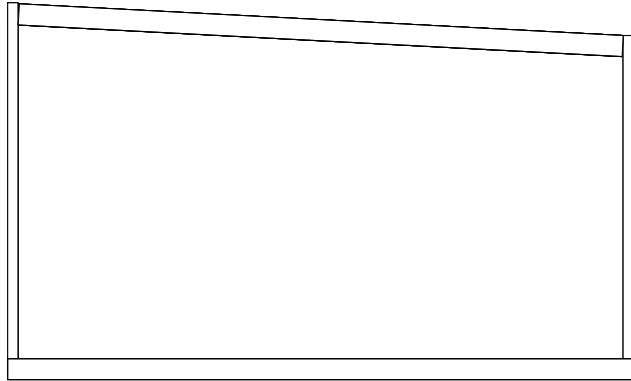
Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 7 of 23

# MAIN FRAME 2 ELEVATION

Viewed from front of building.



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

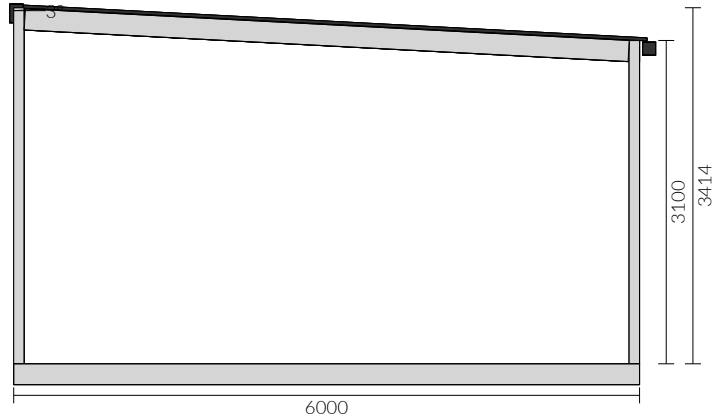
Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 8 of 23

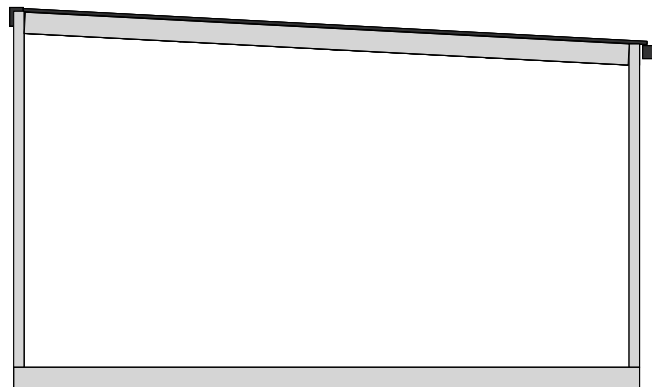
# MAIN FRAME 2 ELEVATION WITH CLADDING

Viewed from front of building.



# MAIN FRAME 2 ELEVATION CLAD SHEETS

Viewed from front of building.



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

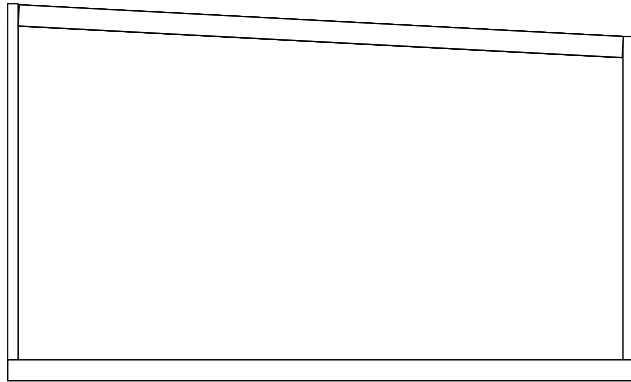
Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 9 of 23

# MAIN FRAME 3 ELEVATION

Viewed from front of building.



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

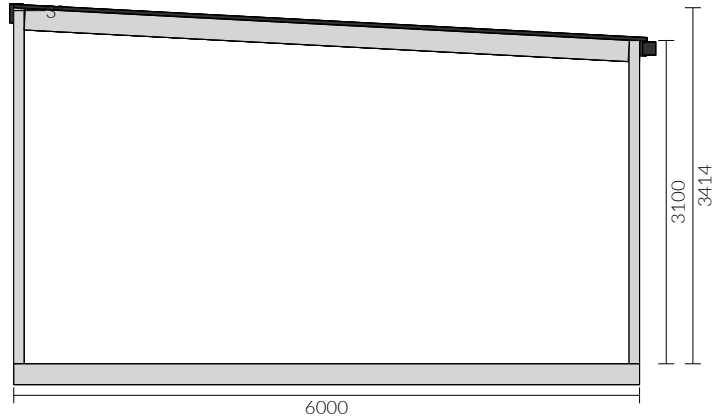
Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 10 of 23

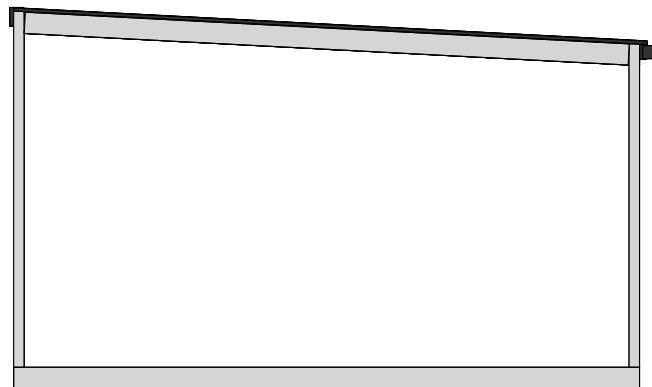
# MAIN FRAME 3 ELEVATION WITH CLADDING

Viewed from front of building.



# MAIN FRAME 3 ELEVATION CLAD SHEETS

Viewed from front of building.



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

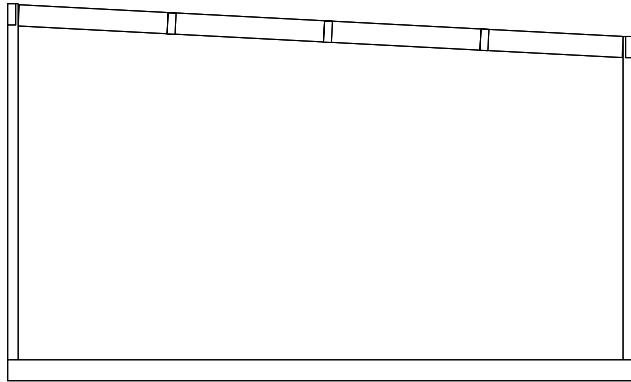
Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 11 of 23

# MAIN FRAME 4 ELEVATION

Viewed from front of building.



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

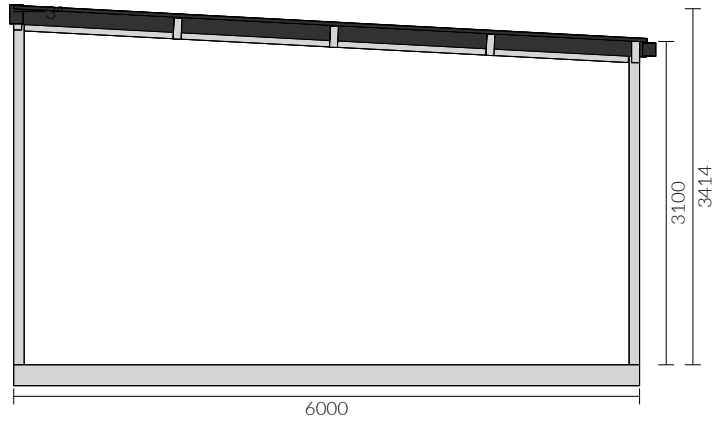
Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 12 of 23

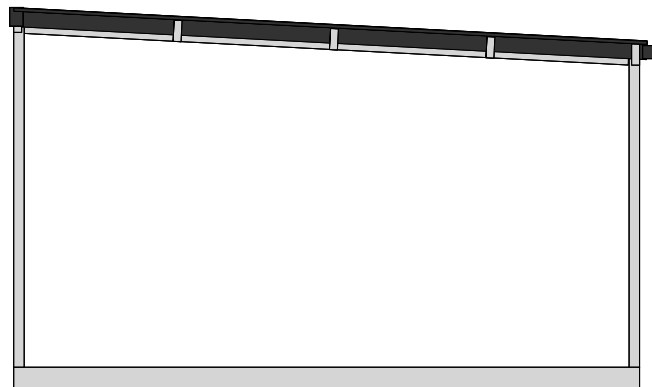
# MAIN FRAME 4 ELEVATION WITH CLADDING

Viewed from front of building.



# MAIN FRAME 4 ELEVATION CLAD SHEETS

Viewed from front of building.



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 13 of 23

# LEFT SIDE MAIN BUILDING FRAME ELEVATION

Viewed from left of building.

## Frame Items

 PE01	3x	C Section 203 x 76 x 1.5
--	----	--------------------------



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 14 of 23

# LEFT SIDE MAIN BUILDING ELEVATION WITH CLADDING

Viewed from left of building.



# LEFT SIDE MAIN BUILDING ELEVATION CLAD SHEETS

Viewed from front of building.



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



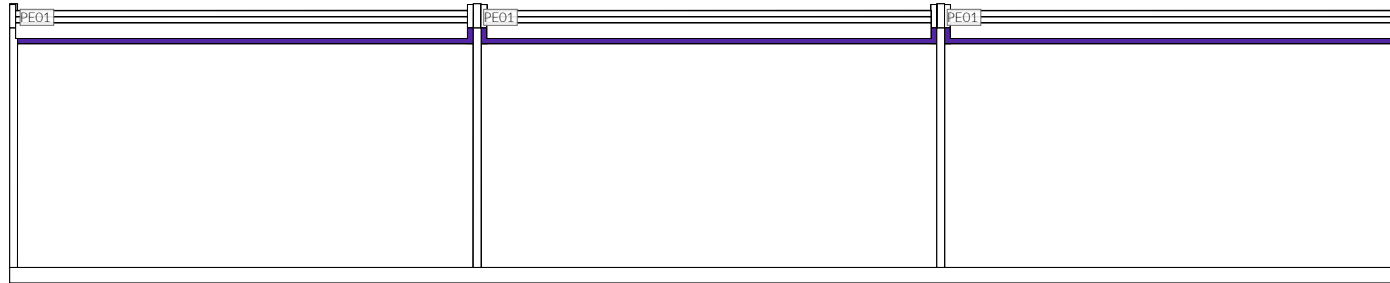
**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 15 of 23

# RIGHT SIDE MAIN BUILDING FRAME ELEVATION

Viewed from right of building.

Frame Items

 PE01	3x	C Section 203 x 76 x 1.5
--	----	--------------------------



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 16 of 23

# RIGHT SIDE MAIN BUILDING ELEVATION WITH CLADDING

Viewed from right of building.



18100

# RIGHT SIDE MAIN BUILDING ELEVATION CLAD SHEETS

Viewed from front of building.



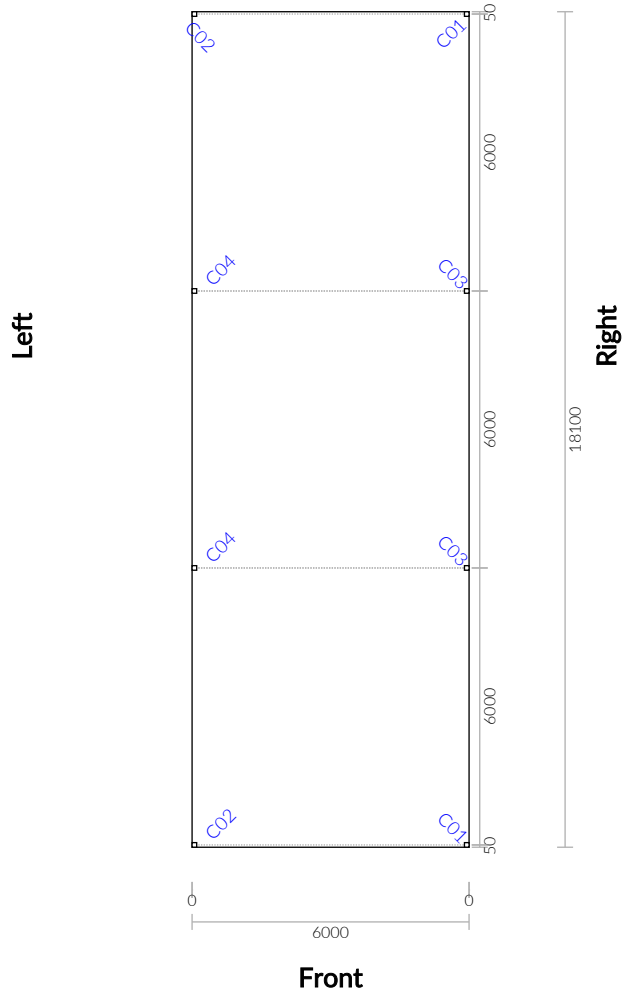
**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 17 of 23

# PLAN



## Major Frame

C01	Column	SHS100100305	3100mm	Rafter	C20019	5797mm
C02	Column	SHS100100305	3414mm	Rafter	C20019	5797mm
C03	Column	SHS100100305	3100mm	Rafter	C20019	5797mm
C04	Column	SHS100100305	3414mm	Rafter	C20019	5797mm

## Miscellaneous Framing

Perimeter Beam	C Section 203 x 76 x 1.5.
Purlin	C Section 203 x 76 x 1.5. Max Spacing 2000

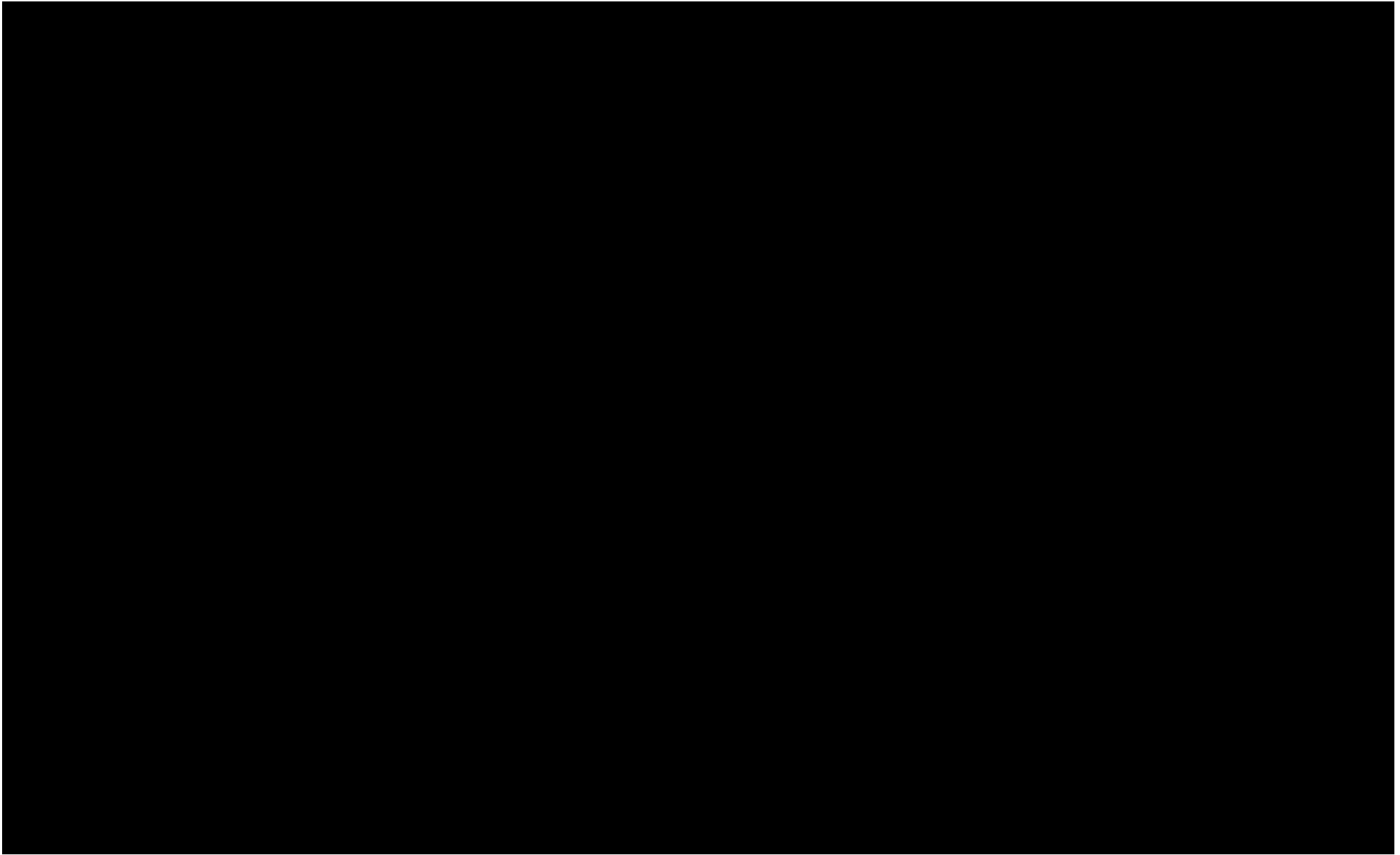


**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 18 of 23

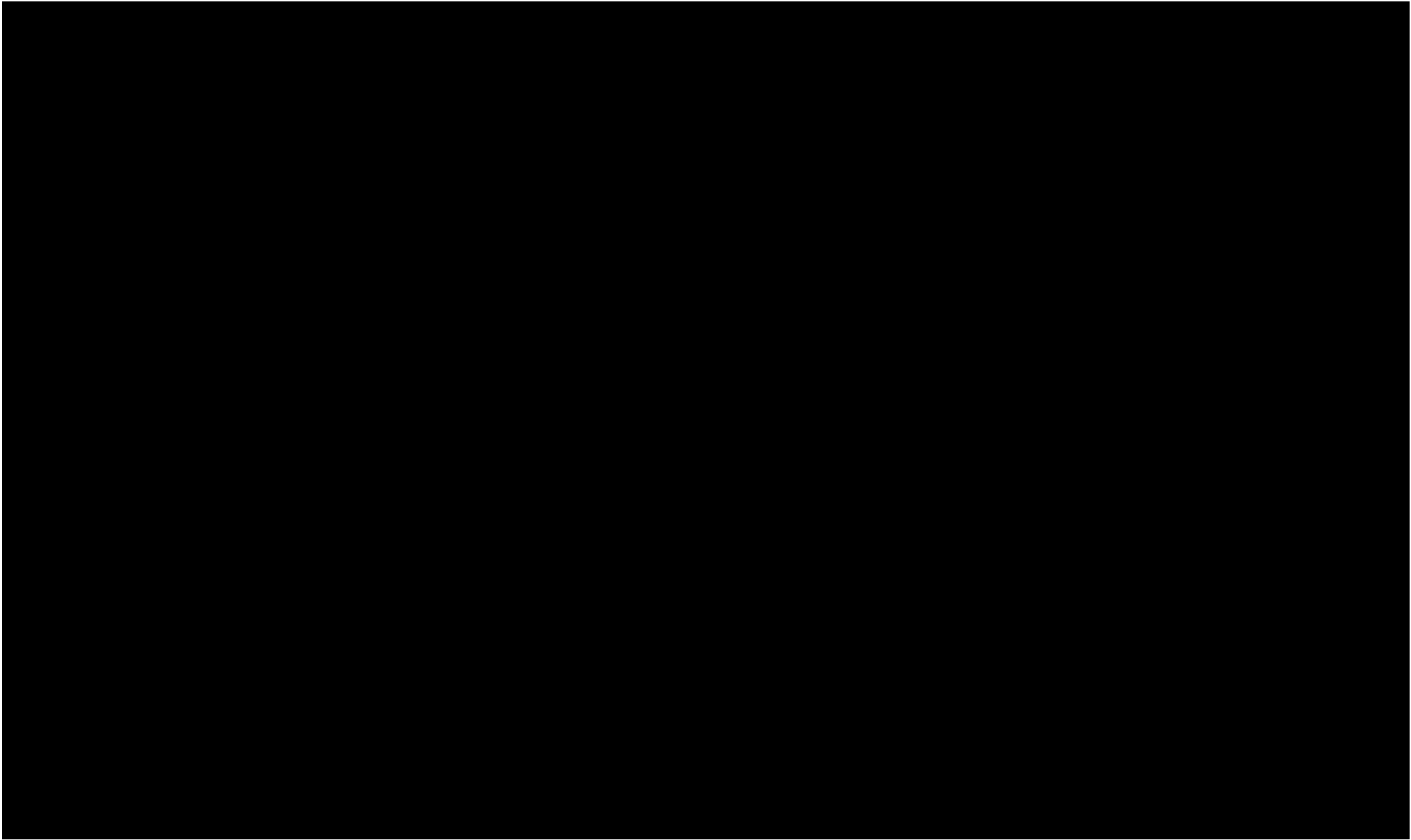


**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 19 of 23



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 20 of 23

# Site Details

**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280  
**Lot/RP** 54/SP180530 LOGAN CITY  
**Latitude** -27.764004,153.020158  
**Elevation** 27.00m  
**Region** B  
**Ultimate VR** 57m  
**Summary** AS/NZS 1170 ARI:500YEARS  
Height:10m Critical Direction:NORTH  
Md:0.95 TC:2.0000 Mz,cat:1.0000 Ms:1.0000  
Mh:1.0000 Mlee:1.0000 Mel:1.0000 Mt:1.0000  
**Wind Speed** 54.15m/s



**Project** 6m (w) x 18.1m (l) x 3.1m (h) Skillion Carport  
**Client** Vary  
**Site Address** 4586-4600 MOUNT LINDESAY HIGHWAY NORTH MACLEAN QLD 4280

Drawings by Quotec System Pty Ltd. All work to be in accordance with accompanying engineer's details.



**Job#** 13012\_VARY  
**Date** 26 Oct 2021  
**Page** 21 of 23

# Compliance certificate for building design or specification



This form is to be used by an appointed competent person for the purposes of section 10 of the *Building Act 1975* and sections 73 and 77 of the *Building Regulation 2021* (Design-specification certificate) stating that an aspect of building work or specification will, if installed or carried out as stated in this form, comply with the building assessment provisions.

Additional explanatory information is included in the Appendix at the end of this form.

## 1. Property description

This section need only be completed if details of street address and property description are applicable.

E.g. in the case of (standard/generic) pool design/shell manufacture and/or patio and carport systems this section may not be applicable.

The description must identify all land the subject of the application.

The lot and plan details (e.g. SP/RP) are shown on title documents or a rates notice.

If the plan is not registered by title, provide previous lot and plan details.

Street address	4586-4600 MOUNT LINDESAY HIGHWAY		
	Suburb/locality	NORTH MACLEAN	
State	QLD	Postcode	4280
Lot and plan details ( <i>attach list if necessary</i> )			
54/SP180530			
Local government area the land is situated in			
LOGAN CITY			

## 2. Description of aspect/s certified

Clearly describe the extent of work covered by this certificate, e.g. all structural aspects of the steel roof beams.

### Structural Engineers details for Carport Skillion 6m (w) x 18.1m (l) x 3.1m (h)

Graeme Moulston & Associates Engineering Pty Ltd, Practising Structural Design Engineer hereby confirm that the design by Quotec Pty Ltd as noted in Section 4 herein have been checked by me and are in accordance with the basis of certification as per Section 3. The pre-engineered steel building is manufactured from high tensile steel 450MPa yield strength. The building comprises of cold formed thin walled Galvanized C Section, bonded and screwed at connections. The building is clad in zincalume or colorbond metal cladding and constructed on a slab or footing. Subject to Approved Final Shop Drawings and subject to Final Connection Frame Details

**Building Class 10a, Import Lvl 2, Terrain Cat(T2), Wind Class(B)=57m/s**



### 3. Basis of certification

Detail the basis for giving the certificate and the extent to which tests, specifications, rules, standards, codes of practice and other publications were relied upon.

**Compliance:** I, Graeme Moulston of Graeme Moulston & Associates Engineering Pty Ltd, certify that the subject Proposed Shed / Garage, as described above has been designed in accordance with the project specifications and complies with the provisions of the Building Code of Australia (BCA) including the current relevant codes and standards referred to therein as listed below.

**AS/NZS: 1170.0: 2002 Supp 1 Amdts 1, 3 & 4 (R2016)** Structural Design Actions - General Principles

**AS/NZS: 1170.1: 2002 Supp 1 Amdts 1 & 2 (R2016)** Structural Design Actions - (Permanent Imposed & Other Actions)

**AS/NZS: 1170.2: 2 2011 Amdts 4 & 5 (R2016)** Structural Design Actions - Wind Actions

**AS/NZS: 1170.4: 2007 Amdts 2 (R2018)** Structural Design Actions - Earthquake Actions in Aus

**AS/NZS: 1554.1: 2014 Amdts 2 2017** Structural Steel Welding, Welding of Steel Structures

**AS/NZS: 2312.1: 2014 (Or Similar being a Corrosion Protection)** Protection of Structural Steel against Corrosion, by use of Protective Coating–Paint Coating

**AS/NZS: 4600: 2018** Cold Formed Steel Structures

**AS/NZS: 4671: 2001** Steel Reinforcement Material

**AS: 4055: 2021** Wind Loads for Housing

**AS: 4100: 2020** Steel Structures

**AS: 3600: 2018** Concrete

### 4. Reference documentation

Clearly identify any relevant documentation, e.g. numbered structural engineering plans.

**Drawings by:** Quotec Systems Pty Ltd, Suite 5, Level 1, 49 Sherwood Road, Toowong QLD 4066

**Drawings being:** Architectural Drawings, Engineers Drawings, Pier Drawings

**Drawing No:** Page1 to 20

**Project No:** 13012\_VARY

**Certified by:** *Graeme Moulston & Associates Engineering Pty Ltd*

Job No. Q21-13012

**Reference Documents:**

Site Map

CSIRO Foundation Maintenance & Footing Performance – A Homeowner's Guide

### 5. Building certifier reference number and building development approval number

Building certifier reference number	Building development application number (if available)

### 6. Appointed competent person details

Under Part 6 of the Building Regulation a person must be assessed as a competent for the type of work (design-specification) by the relevant building certifier.

Name (in full)	Graeme Moulston FIEAust CPEng NER APEC Engineer IntPE (Aus)
Company name (if applicable)	Graeme Moulston & Associates Engineering P/L
Contact person	Graeme Moulston
Business phone number	07 55 306 214



Email address	info@gcma.com.au		
Postal address	PO Box 213		
		Suburb/locality	Mudgeeraba
State	QLD	Postcode	4213
Licence class or registration type (if applicable)			
Licence or registration number (if applicable)	CPEng 5590 - RPEQ 4431		

## 9. Signature of appointed competent person

This certificate must be signed by the individual assessed and appointed by the building certifier as competent to give design-specification help.

Signature		Date	27/10/2021
-----------	---	------	------------

### LOCAL GOVERNMENT USE ONLY

Date received	Click or tap to enter a date.	Reference number/s	
---------------	-------------------------------	--------------------	--

### Appendix – explanatory information

**IMPORTANT NOTE:** it is an offence for a competent person to give a building certifier a document, including this form, that the person knows or reasonably suspects, is false or misleading.

**Who can complete this certificate?** (sections 10 of the *Building Act 1975* (Building Act) and 73 of Building Regulation 2021 (BR 2021))

A building certifier can accept from a competent person (design – specifications) a certificate stating that the competent person has assessed the building design or specification for the aspect of building work, and it will, if installed or carried out under the certificate, comply with the building assessment provisions, including any relevant standards and codes.

Schedule 10 of the BR 2021 defines *building design or specification* as any material, system, method of building or other thing related to the design of or specifications for building work.

For a competent person to meet the regulation requirements (section 77 of the BR 2021) they must substantially complete all sections of this form, including information, such as the design of a particular material, system, method of building or that a building element complies with the Building Code of Australia or a provision of the Queensland Development Code. It is also important that the details of the relevant reference documents are included, for example, the applicable Australian Standards or other technical provisions that may be applicable to the subject work.

**What is the purpose of this form?** (section 10 of the *Building Act 1975*)

The information in this form informs the building certifier's decision making when they are assessing a building development application and issuing the building development approval for the building work the subject of the certificate (form).

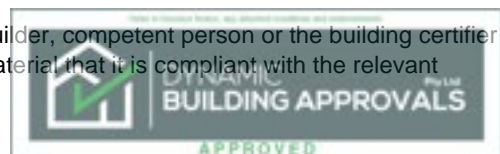
**When is this form not required?**

The assessment of some building applications will be entirely within the expertise of the relevant building certifier and therefore they may not seek the help of a competent person. In these instances, this form is not required.

**Is a manufacturer or supplier required under the BR 2021 to complete and sign this Form 15, if requested?**

**No.** A manufacturer or supplier of building materials is not required to complete and give this form or any aspect and inspection certificates if requested by a construction contractor, builder, appointed competent person, or a building certifier.

However, a manufacturer or supplier may give the construction contractor, builder, competent person or the building certifier evidence of suitability such as a manufacturers statement for an aspect or material that it is compliant with the relevant reference documents in the BCA i.e. the applicable Australian Standard/s.



## What if there is not enough space for all the supporting material/documents?

Items 2, 3 and 4 requires the competent person to clearly identify the extent of the assessment that was undertaken for aspect/s of work identified in this form.

For instance, there is provision for material such as specifications, standards, codes or other relevant publications to be referenced in the form. However, if the space in the form is not sufficient to accommodate all of this material, you can create and refer to additional material in an addendum or attachment to the form.

The form is also available in a Microsoft Word version, that you can download and edit to include additional material in the relevant parts of the form. **Note:** that editing the form in the Microsoft Word version may cause the relevant boxes to expand and increase the length of the document. This is acceptable and does not change the approved form, provided the section text (description on the left-hand side of the page) is not altered.

## Appointed competent person (design or specification) – (sections 34 and 36 of the BR 2021)

A building certifier must assess and decide to appoint an individual as a competent person before they can, as a competent person, give design-specification help. The building certifier is required to keep detailed records about what was considered when appointing a competent person.

A building certifier must be satisfied that an individual is competent to give the type of inspection help having regard to the individual's experience, qualifications and skills and if required by law to hold a licence or registration, that the individual is appropriately registered or licensed.

An individual is appointed as competent to give design-specification help on or from a particular day. The building certifier can also decide an individual is a competent person (design-specification) and a competent person (inspection) at the same time or for the same systems or components of the work.

For further information about assessment of someone as a competent person refer to the **Guideline for the assessment of competent persons.**

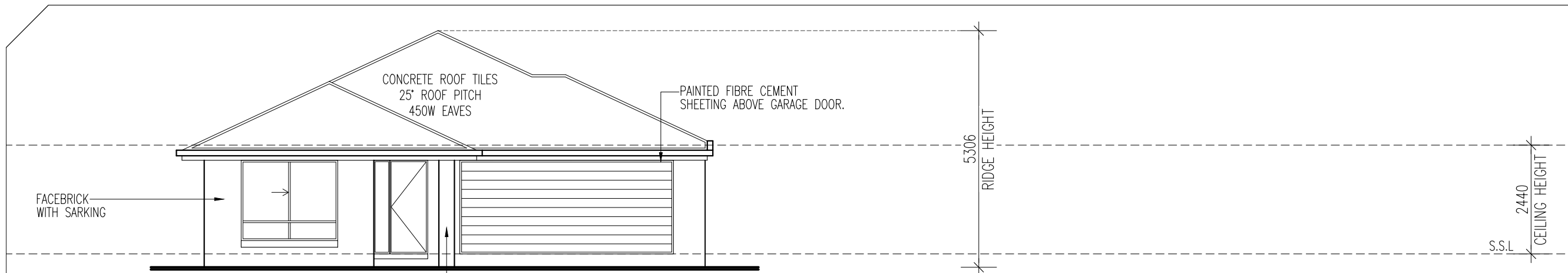
## PRIVACY NOTICE

The Department of Energy and Public Works is collecting personal information as required under the *Building Act 1975*. This information may be stored by the Department, and will be used for administration, compliance, statistical research and evaluation of building laws. Your personal information will be disclosed to other government agencies, local government authorities and third parties for purposes relating to administering and monitoring compliance with the *Building Act 1975*. Personal information will otherwise only be disclosed to third parties with your consent or unless authorised or required by law.

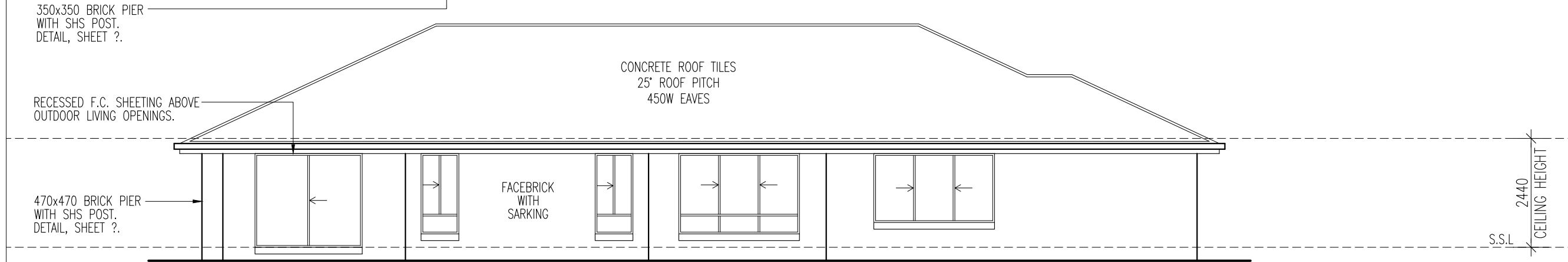




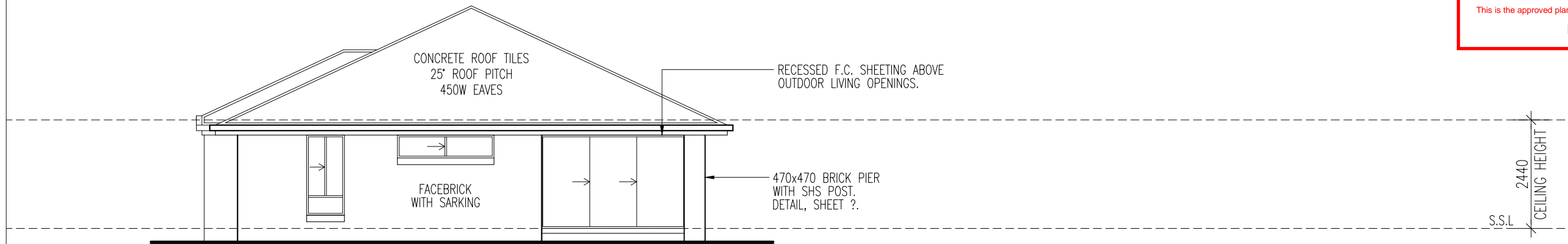




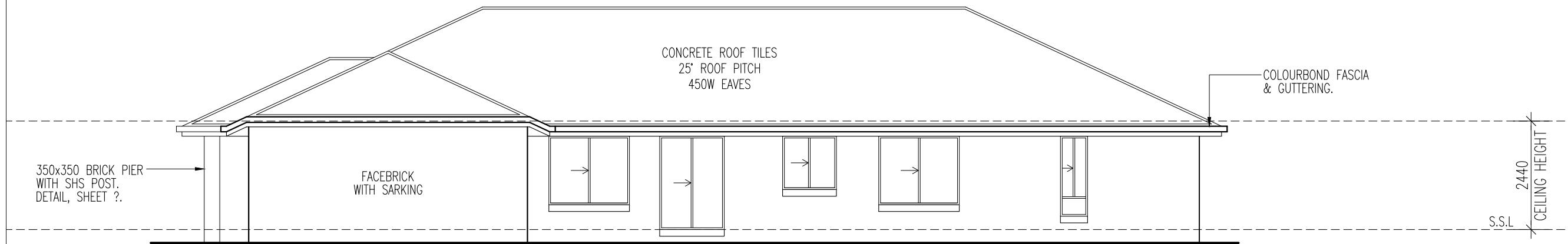
**ELEVATION 1.**



**ELEVATION 2.**



**ELEVATION 3.**



**ELEVATION 4.**

**IMPORTANT NOTICE:**  
ALL WINDOWS TO FLOOR LEVELS WHICH ARE 2m OR MORE ABOVE THE SURFACE BENEATH MUST HAVE A BARRIER AT A HEIGHT NO LESS THAN 865mm AND THE OPENING PANEL ABOVE BE RESTRICTED TO A MAXIMUM OF 125mm OR HAVE A BARRIER WHICH CAN RESIST A MINIMUM OF 250N OF OUTWARD HORIZONTAL ACTION.

**IMPORTANT NOTICE:**  
THERE ARE NO ATYPICAL DESIGN FEATURES IN THIS CONSTRUCTION THAT PRESENT UNUSUAL WORKPLACE, HEALTH & SAFETY ISSUES IN THE CONSTRUCTION, MAINTENANCE, USE OR DEMOLITION OF THIS STRUCTURE.

**NOOSAVILLE 25 DESIGNER FACADE**

**LOGAN CITY COUNCIL**  
**APPROVED PLAN OF DEVELOPMENT**  
This is the approved plan of development for Development Application  
**MCUR/191/2020**

Sheet 3 of 3

**CORAL HOMES**  
QBCC 50792/1014053  
OFT 62084C

DRAWING  
**ELEVATIONS**

SCALE:	REV.1:17.10.19-DCR
1:100	
SHEET	2

© THE CORAL HOMES GROUP  
ALL RIGHTS RESERVED.



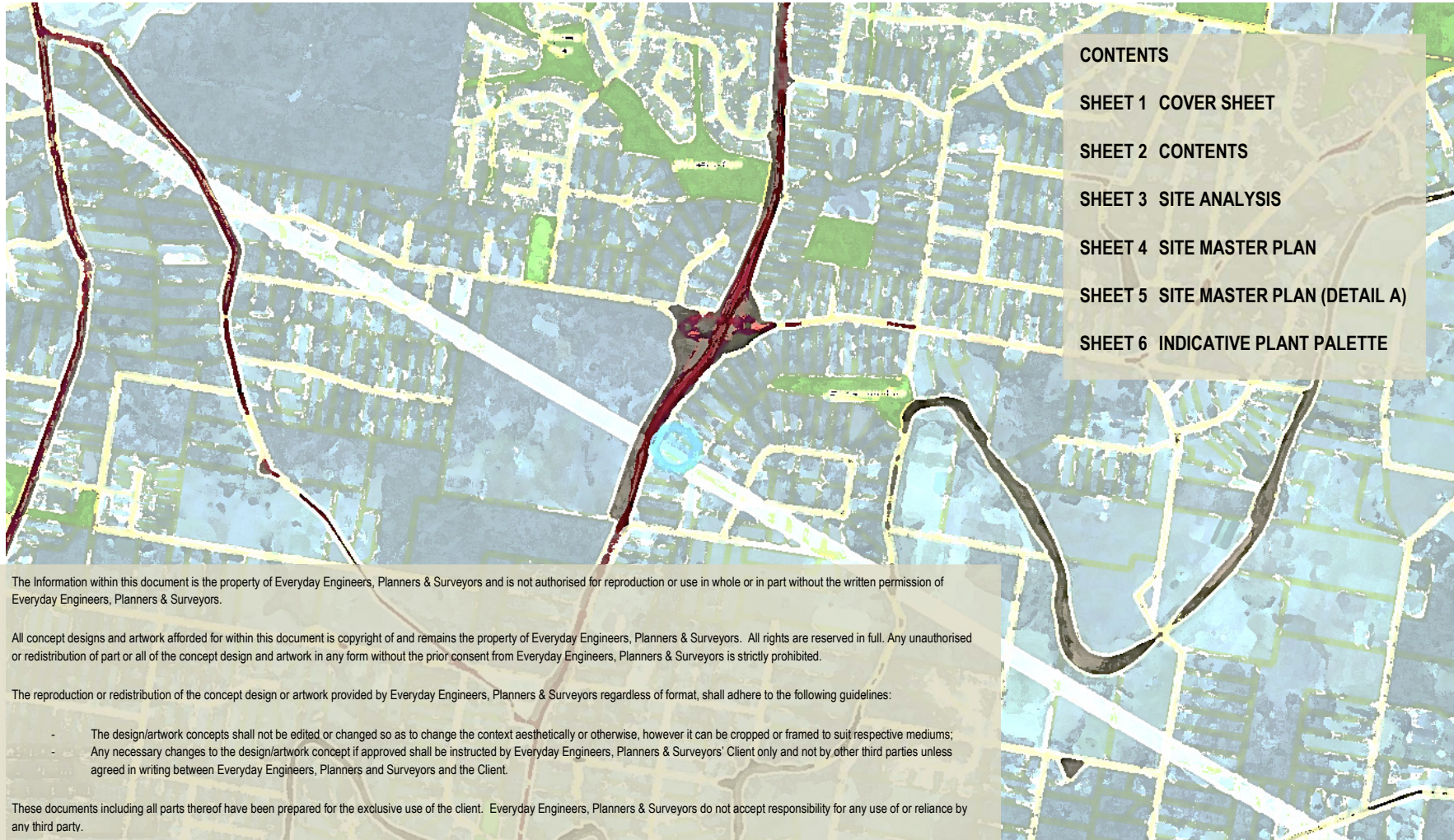
# Rehabilitation Plan Landscape Concept Plan

**Everyday Engineers  
Planners & Surveyors**  
ABN. 33 128 918 347  
Mobile: 0432 124 461

**4586-4600 Mount Lindesay Highway  
NORTH MACLEAN**

Rehabilitation Plan  
Landscape Concept Plan – Cover Sheet  
August 2020

**2020-63    Sheet 1**



**CONTENTS**

- SHEET 1 COVER SHEET**
- SHEET 2 CONTENTS**
- SHEET 3 SITE ANALYSIS**
- SHEET 4 SITE MASTER PLAN**
- SHEET 5 SITE MASTER PLAN (DETAIL A)**
- SHEET 6 INDICATIVE PLANT PALETTE**

The Information within this document is the property of Everyday Engineers, Planners & Surveyors and is not authorised for reproduction or use in whole or in part without the written permission of Everyday Engineers, Planners & Surveyors.

All concept designs and artwork afforded for within this document is copyright of and remains the property of Everyday Engineers, Planners & Surveyors. All rights are reserved in full. Any unauthorised or redistribution of part or all of the concept design and artwork in any form without the prior consent from Everyday Engineers, Planners & Surveyors is strictly prohibited.

The reproduction or redistribution of the concept design or artwork provided by Everyday Engineers, Planners & Surveyors regardless of format, shall adhere to the following guidelines:

- The design/artwork concepts shall not be edited or changed so as to change the context aesthetically or otherwise, however it can be cropped or framed to suit respective mediums;
- Any necessary changes to the design/artwork concept if approved shall be instructed by Everyday Engineers, Planners & Surveyors' Client only and not by other third parties unless agreed in writing between Everyday Engineers, Planners and Surveyors and the Client.

These documents including all parts thereof have been prepared for the exclusive use of the client. Everyday Engineers, Planners & Surveyors do not accept responsibility for any use of or reliance by any third party.

**Everyday Engineers  
Planners & Surveyors**  
ABN. 33 128 918 347  
Mobile: 0432 124 461

**4586-4600 Mount Lindesay Highway  
NORTH MACLEAN**

Rehabilitation Plan  
Landscape Concept Plan – Contents  
August 2020

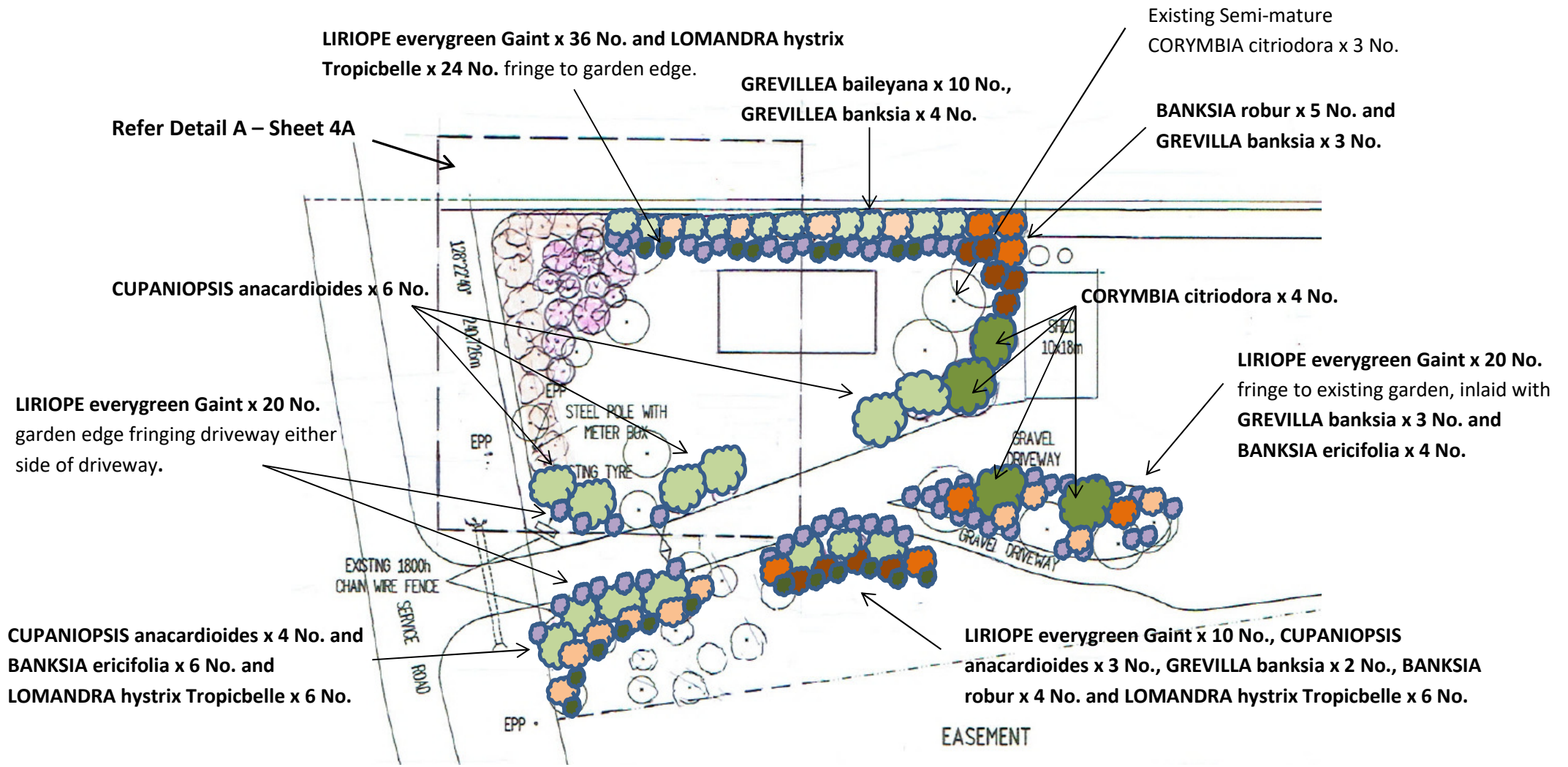


4586-4600 Mount Lindsay Highway  
North Maclean

**Everyday Engineers  
Planners & Surveyors**  
ABN. 33 128 918 347  
Mobile: 0432 124 461

**4586-4600 Mount Lindsay Highway  
NORTH MACLEAN**

Rehabilitation Plan  
Landscape Concept Plan – Site Analysis  
August 2020



**Everyday Engineers  
Planners & Surveyors**  
ABN. 33 128 918 347  
Mobile: 0432 124 461

**4586-4600 Mount Lindesay Highway  
NORTH MACLEAN**

Rehabilitation Plan  
Landscape Concept Plan – Site Master Plan  
August 2020

LIRIOPE everygreen Gaint x 36 No. and LOMANDRA hystrix  
Tropicbelle x 24 No. fringe to garden edge.

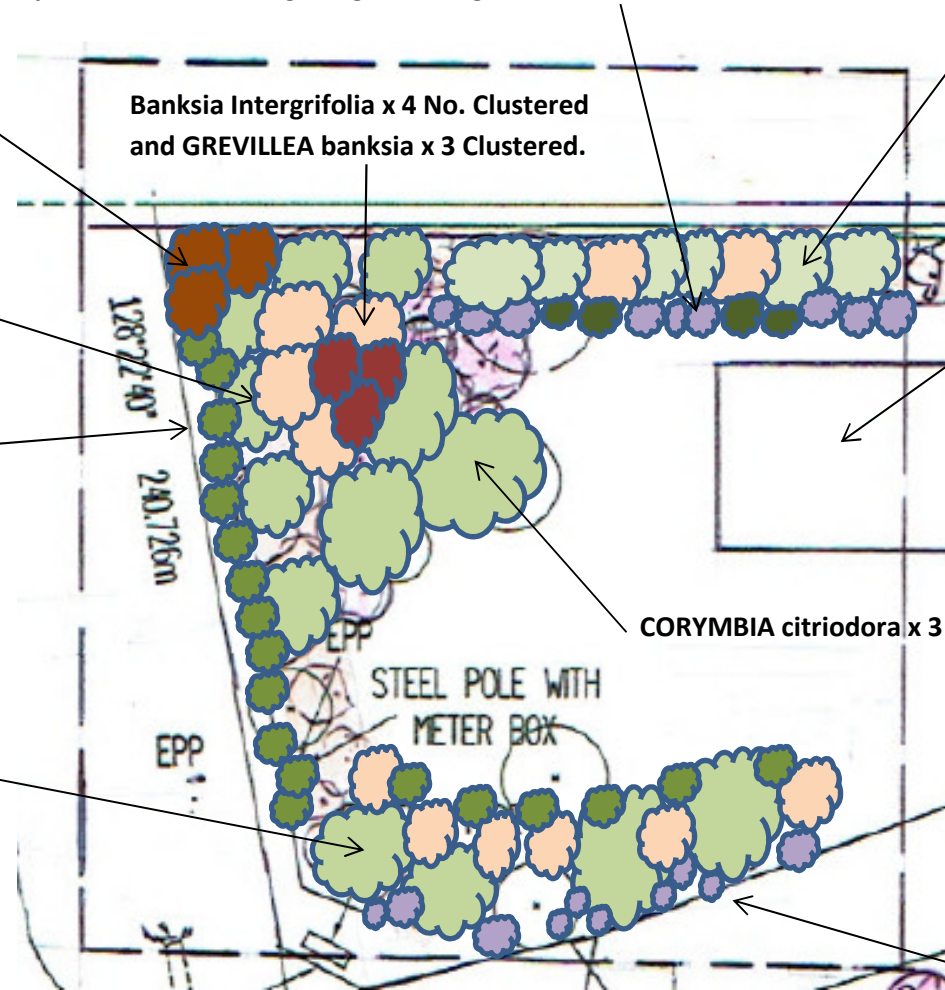
GREVILLEA baileyana x 10 No.,  
GREVILLEA banksia x 4 No.

GREVILLEA robusta x 3 No. set  
in corner of property

CUPANIOPSIS anacardioides X 6 No.  
set upon 1.0 metre high landscaped  
mound.

LOMANDRA hystrix Tropicbelle x 40 No.  
to frontage of landscape mound

CUPANIOPSIS anacardioides x 4 No. and  
BANKSIA ericifolia x 6 No. and  
LOMANDRA hystrix Tropicbelle x 6 No.



Banksia Intergrifolia x 4 No. Clustered  
and GREVILLEA banksia x 3 Clustered.

Proposed Dwelling House

CORYMBIA citriodora x 3 No.

LIRIOPE everygreen Gaint x 20 No.  
garden edge fringing driveway either  
side of driveway.

4586-4600 Mount Lindesay Highway  
NORTH MACLEAN

**Everyday Engineers  
Planners & Surveyors**

ABN. 33 128 918 347  
Mobile: 0432 124 461

Rehabilitation Plan  
Landscape Concept Plan – Site Master Plan (Detail A)  
August 2020

2020-63 Sheet 5



1. GREVILLEA robusta
2. GREVILLEA banksia
3. GREVILLEA baileyana
4. BANKSIA intergrifolia
5. BANKSIA robur
6. BANKSIA ericifolia
7. LIRIOPE evergreen gait
8. LOMANDRA hystrix Tropicbelle
9. CUPANIOPSIS anacardioides
10. CORYMBIA citriodora

**4586-4600 Mount Lindesay Highway  
NORTH MACLEAN**

**Everyday Engineers  
Planners & Surveyors**  
ABN. 33 128 918 347  
Mobile: 0432 124 461

Rehabilitation Plan  
Landscape Concept Plan – Indicative Plant Palette  
August 2020

**2020-63 Sheet 6**

# **Appendix C**

*Filling and Excavation Code – Compliance Assessment*

**Everyday Engineers Planners and Surveyors**  
**Trading on behalf of**  
**RDG Environmental Engineering Solutions Pty Ltd**  
PO Box 805  
Jimboomba Qld 4280  
e-mail: [rickygraham@everydayengineers.com.au](mailto:rickygraham@everydayengineers.com.au)

## Logan Planning Scheme 2015 v8.1

### Filling and Excavation Code

Table 9.4.2.3.1 - Filling and excavation code: accepted development (subject to requirements) and assessable development

Performance outcomes	Acceptable outcomes	Comments
<b>For accepted development (subject to requirements) and assessable development</b>		
<b>Protection of natural processes and ecosystems</b>		
<p><b>PO1</b> The discharge of sediments and pollutants from filling or excavation does not adversely affect a waterway or the stormwater network.</p>	<p><b>AO1</b> The discharge of sediments and pollutants to a waterway or stormwater network complies with <i>part 3.3—Filling and excavation standards in planning scheme policy 5—Infrastructure</i>.</p>	<p>The Applicant has afforded for the conduct of an Erosion Hazard Assessment, and in-turn afforded for the preparation of a Filling and Excavation Plan, per the provision of Part 3.3 – Filling and Excavation Standards.</p> <p>The existing topography has minimal gradient (1 in 200 crossfall across the subject lands), with no longitudinal gradient. The earthworks design affords for minimal alteration to the natural topography of the subject lands. Similarly, the design does not alter the passage of surface flows in and about the subject lands.</p> <p>The velocity of any surface flows is thus highly unlikely to result in the conveyance of particulate matter within the waterway column, particularly given that the area(s) surrounding that of the future dwelling house and that of the proposed Transport Depot are significantly grassed.</p>

Performance outcomes	Acceptable outcomes	Comments
		<p>The existing grassed areas would easily afford for the capture of any fine particulate matter which may be suspended within the waterway column within 1-2 metres of the outer bounds of the earthworks area.</p> <p><b>The Applicant submits that compliance is had with the intent of Performance Outcome PO1.</b></p>
<p><b>PO2</b> Topsoil and spoil stockpiled on the premises do not adversely affect natural processes and ecosystems.</p>	<p><b>AO2</b> Topsoil and spoil is stockpiled to comply with <i>part 3.3– Filling and excavation standards in planning scheme policy 5–Infrastructure.</i></p>	<p>The Applicant has afforded for the conduct of an Erosion Hazard Assessment, and in-turn afforded for the preparation of a Filling and Excavation Plan, per the provision of Part 3.3 – Filling and Excavation Standards.</p> <p>The Applicant submits that there will be no on-site storage of excavate earth (soil) nor will there be significant stockpiles of topsoil. Where topsoil is provided for upon the subject lands, it will be employed in association with the landscaping activities. The conduct of the landscaping works will be afforded in a manner that will not unduly concentrate surface flows upon and adjacent property and or to a downstream waterway area. Similarly, the conduct of any landscaping works will not be undertaken in a manner that results in the pondage of surface flows upon the subject lands.</p> <p><b>The Applicant submits that compliance is had with the intent of Performance Outcome PO2.</b></p>

Performance outcomes	Acceptable outcomes	Comments
<p><b>PO3</b> Filling is carried out using stable, solid and clean earth, free of organic and putrescible waste, rubbish and refuse material.</p>	<p><b>AO3</b> Filling complies with <i>part 3.3–Filling and excavation standards in planning scheme policy 5–Infrastructure.</i></p>	<p>The Applicant has afforded for the conduct of an Erosion Hazard Assessment, and in-turn afforded for the preparation of a Filling and Excavation Plan, per the provision of Part 3.3 – Filling and Excavation Standards.</p> <p>The notations afforded upon the drawing(s) address the issue of suitable fill materials if any is to be utilised.</p> <p><b>The Applicant submits that compliance is had with the intent of Performance Outcome PO3.</b></p>
<b>Protection of existing and planned infrastructure</b>		
<p><b>PO4</b> Filling or excavation works do not adversely affect infrastructure, including any services.</p>	<p><b>AO4</b> Filling or excavation works comply with <i>part 3.3– Filling and excavation standards in planning scheme policy 5–Infrastructure.</i></p>	<p><b>Will Comply</b></p> <p>There are no services within the earthworks area(s).</p> <p><b>The Applicant submits that compliance is had with the intent of Performance Outcome PO4.</b></p>
<b>Protection and enhancement of personal health and safety and premises</b>		
<p><b>PO5</b> Filling or excavation works do not adversely affect personal health and safety.</p>	<p><b>AO5</b> Filling or excavation works comply with <i>part 3.3– Filling and excavation standards in planning scheme policy 5–Infrastructure.</i></p>	<p><b>Will Comply</b></p> <p>The Applicant has afforded for the preparation of a Filling and Excavation Plan, per the provision of Part 3.3 – Filling and Excavation Standards.</p>

Performance outcomes	Acceptable outcomes	Comments
		<p>The notations afforded upon the drawing(s) address the potential issue of dust, and how the matter is to be addressed should dust generation become an issue (i.e., Council is in receipt of a compliant).</p> <p><b>The Applicant submits that compliance will be had with the intent of Performance Outcome PO5.</b></p>
<b>Surface water flow</b>		
<p><b>PO6</b> Surface water drainage does not cause any of the following:</p> <ul style="list-style-type: none"> <li>a. ponding on any premises; or</li> <li>b. a hazard or adversely affect personal health and safety and premises; or</li> <li>c. diversion or concentration of flow from or onto adjoining premises or infrastructure.</li> </ul>	<p><b>AO6</b> Surface water drainage complies with <i>part 3.3– Filling or excavation standards in planning scheme policy 5– Infrastructure.</i></p>	<p><b>Will Comply</b></p> <p>The Applicant has afforded for the preparation of a Filling and Excavation Plan, per the provision of Part 3.3 – Filling and Excavation Standards. The grading of the earthworks should be sufficient to overt the issues of undue ponding of surface water and the associated issues of vector borne diseases (i.e., issues arising from the breeding of mosquitoes seen to carry the likes of Ross River Fever).</p> <p>The drawings afforded in respect of the earthworks design also address the issue(s) associated with the pondage of surface waters. The drawings include several notations in respect of:</p> <ul style="list-style-type: none"> <li>(i) The minimisation of any pondage of surface waters upon the subject lands; and</li> <li>(ii) The grading of any earthworks filling so as to ensure minimal pondage of surface waters upon the subject lands.</li> </ul>

Performance outcomes	Acceptable outcomes	Comments
		<p>The earthworks design does not divert surface flows and or afford for the ponding of surface waters onto adjacent lands.</p> <p><b>The Applicant submits that compliance will be had with the intent of Performance Outcome PO6.</b></p>
<b>Batters</b>		
<p><b>PO7</b> A batter:</p> <ul style="list-style-type: none"> <li>a. does not adversely affect the natural physical processes and ecosystems;</li> <li>b. protects existing and planned infrastructure;</li> <li>c. is safe, stable and easily maintained;</li> <li>d. is landscaped to enhance visual amenity.</li> </ul>	<p><b>A07</b> A batter is designed and constructed to comply with the standards specified in 3.3.6–<i>Batters and retaining walls in planning scheme policy 5– Infrastructure.</i></p>	<p><b>Will Comply</b></p> <p>The Applicant is not proposing to significantly alter the existing landform.</p> <p>The Applicant has afforded for the preparation of a Filling and Excavation Plan, per the provision of Part 3.3 – Filling and Excavation Standards. The grading of the earthworks affords for minimal alteration to the existing landform.</p> <p>The drawings afforded in respect of the earthworks design also address the issue(s) associated with the pondage of surface waters. The drawings include several notations in respect of:</p> <ul style="list-style-type: none"> <li>(i) The minimisation of any pondage of surface waters upon the subject lands; and</li> <li>(ii) The grading of any earthworks filling so as to ensure minimal pondage of surface waters upon the subject lands.</li> </ul>

Performance outcomes	Acceptable outcomes	Comments
		<p>The earthworks design does not divert surface flows and or afford for the ponding of surface waters onto adjacent lands.</p> <p><b>The Applicant submits that compliance will be had with the intent of Performance Outcome PO7.</b></p>
<b>Retaining walls</b>		
<p><b>PO8</b> A retaining wall:</p> <ul style="list-style-type: none"> <li>a. is not constructed of timber and are not located on existing or proposed lot boundaries, or movement networks;</li> <li>b. does not adversely affect the natural physical processes and ecosystems;</li> <li>c. is located to avoid conflict with adjoining premises;</li> <li>d. is located such that existing and planned infrastructure is not adversely affected;</li> <li>e. protects the visual amenity of adjoining premises or a public open space;</li> <li>f. is located within the premises that is being filled;</li> <li>g. is located within the premises that is cut and is designed to take any surcharge loading allowable on the uphill lot;</li> <li>h. is safe and stable;</li> <li>i. enables easy access for maintenance.</li> </ul>	<p><b>AO8</b> A retaining wall is designed and constructed to comply with the standards specified in <i>section 3.3.6.2–Retaining walls in planning scheme policy 5–Infrastructure.</i></p>	<p><b>Not Applicable</b></p> <p>The Applicant is not proposing to establish any retaining walls nor is there a perceived need for a retaining wall.</p> <p><b>Performance Outcome PO8 is not applicable.</b></p>

Performance outcomes	Acceptable outcomes	Comments
<b>Filling of a dam</b>		
<p><b>PO9</b></p> <p>The filling of a dam:</p> <ul style="list-style-type: none"> <li>a. does not adversely affect the natural physical processes and ecosystems;</li> <li>b. creates a safe and stable surface;</li> <li>c. is integrated into the landscape.</li> </ul>	<p><b>AO9</b></p> <p>The filling of a dam complies with <i>part 3.3–Filling and excavation standards in planning scheme policy 5–Infrastructure</i>.</p>	<p><b>Not Applicable</b></p> <p>The Applicant is not proposing to fill the existing dam that is present upon the subject lands.</p> <p><b>Performance Outcome PO9 is not applicable.</b></p>

# ***Appendix D***

*Erosion Hazard Assessment*

***Everyday Engineers Planners and Surveyors  
Trading on behalf of  
RDG Environmental Engineering Solutions Pty Ltd  
PO Box 805  
Jimboomba Qld 4280  
e-mail: [rickygraham@everydayengineers.com.au](mailto:rickygraham@everydayengineers.com.au)***

## Engineers, Planners and Surveyors A.B.N 33 128 918 347

### Erosion Hazard Assessment – November 2019

This document is prepared as an instrument to assess the potential soil erosion and sediment hazard posed by the form of development the subject of the assessment, particularly during the construction phase. It is acknowledged that whilst the construction phase of any development represents the highest perceived source of sediment pollution, it is not the only source.

The purpose of this document is merely to highlight the potential risk of soil erosion and sediment pollution to the receiving environment, be it categorised as 'low', 'medium' or 'high'. The categorisation of the potential risk should thereafter merely be seen as a recommendation as to whether *Best Practice Erosion and Sediment Control* measures may be employed or whether an RPEQ should be engaged to facilitate the preparation of an Erosion and Sediment Control Program and Plan.

#### What is an Erosion Hazard Assessment?

Soil erosion and sediment from rural and urban development, particularly during construction activities, is a significant source of sediment pollution within the creeks and waterways of Scenic Rim Regional Council. The Erosion Hazard Assessment afforded for herein seeks to establish whether the scale and the intensity of the proposed development is likely to represent a 'low', 'medium' or 'high' risk in respect of the potential for soil erosion and sediment pollution.

#### When should an Erosion Hazard Assessment be afforded?

An Erosion Hazard Assessment should be afforded with any and all Development Application requiring Planning Approval, whereby the proposed development will result in the disturbance of soil.

#### 1. Key Site Details

Table 1: Key Site Details

Site Details	
Site Address:	4586-4600 Mount Lindesay Highway, NORTH MACLEAN
Real Property Description:	Lot 54 on SP180530
Current Land Owner(s):	Mark Leslie Vary and Linda Maree Vary
Applicant:	Queensland Mulching Pty Ltd
Local Authority:	Logan City Council
Applicable Planning Instrument:	Logan Planning Scheme 2015
Zone / Precinct:	Rural Residential Zone / Cottage Rural Precinct
Site Area:	23,600 square metres

#### 2. RPEQ Certification

I, Ricky Darren Graham (RPEQ 9022) OF Everyday Engineers, Planners and Surveyors being duly authorised in this behalf, do hereby certify that:

- I have undertaken a thorough investigation of the site, and having done so have satisfied myself as to the site characteristics, including but not limited to the average slope of the terrain, average vegetation coverage, the soil type and the soil profile (where practical), and the likely erosivity of the soils present upon the site.
- I have made reasonable and relevant enquiries and am satisfied that no matters of significance in respect of the assessment of the erosive nature of the soils present have been withheld from the assessment afforded herein.
- I am suitably qualified and / or have adequate experience in the matters of erosion and sediment control to conduct the assessment afforded herein.
- The Erosion Hazard Assessment Afforded herein was completed generally in accordance with the *Erosion Hazard Assessment – Supporting Technical Notes*, accompanying this assessment.

Ricky Darren Graham RPEQ 9022

.....  
Certified By (Print Name)



.....  
Certifier's Signature

28<sup>th</sup> September 2022

.....  
Date

### 3. Assessment Tables

**Table 2: Low Risk Test (Potential for Soil Erosion and Sediment Pollution)**

		Yes	No
1.1	Is the area of <b>land disturbance</b> , as opposed to the site area, greater than 1,000 square metres?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2	Does any land disturbance occur within the area of a mapped waterway corridor (bearing into consideration the stream order of the waterway of concern)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.3	Does the area of disturbance and or the area immediately below the area of disturbance (receiving catchment) exceed a slope of 5% (over a minimum length exceeding three (3) metres in length) throughout any phase of the development works (prior, during or after).	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.4	Is the area of disturbance likely to disturb Acid Sulphate Soils (ASS) or Possible Acid Sulphate Soils (PASS) – typically this takes in lands below 5 metres AHD.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.5	Will the approved / proposed development be afforded over multiple stages?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.6	Is the catchment area, upstream of the proposed development, greater than one (1) hectare in area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Have you answered 'yes' to any of the questions in Table 1?

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>

If 'No' then site is low risk with respect to erosion and sediment control

If 'Yes' then proceed to Table 3

**Table 3: Medium Risk Test (Potential for Soil Erosion and Sediment Pollution)**

		Yes	No
2.1	Is the area of <b>land disturbance</b> , as opposed to the site area, greater than 1 hectare?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If 'No' then site is medium risk with respect to erosion and sediment control

If 'Yes' then proceed to Table 4

**Table 4: High Risk Test (Potential for Soil Erosion and Sediment Pollution)**

		Yes	No
3.1	Is there an upstream catchment (of greater than 1 hectare in area) passing through the site?	<input type="checkbox"/>	<input type="checkbox"/>
3.2	Does any land disturbance occur within the area of a mapped waterway corridor (bearing into consideration the stream order of the waterway of concern)?	<input type="checkbox"/>	<input type="checkbox"/>
3.3	Does the area of disturbance and or the area immediately below the area of disturbance (receiving catchment) exceed a slope of 15% throughout any phase of the development works (prior, during or after).	<input type="checkbox"/>	<input type="checkbox"/>

Have you answered 'yes' to any of the Questions in Table 4?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

If 'No' then site is medium risk with respect to erosion and sediment control

If 'Yes' then site is high risk with respect to erosion and sediment control

#### 4. Assessment Details

Based upon the *Erosion Hazard Assessment* afforded herein, the site is considered:

A 'low' risk site

Best practice erosion and sediment control (ESC) should be implemented however, there is no requirement for specific erosion and sediment control plan(s) to be developed in respect of the site. Factsheets outlining best practice ESC can be found at <http://www.waterbydesign.com.au/factsheets>

A 'medium' risk site

If the development is approved, the applicant will need to engage a *Registered Professional Engineer (RPEQ) or Certified Professional in Erosion and Sediment Control (CPESC)* to prepare an ESC Program and Plan, and supporting documentation.

A 'high' risk site

If the development is approved, the applicant will need to engage a *Registered Professional Engineer (RPEQ) and Certified Professional in Erosion and Sediment Control (CPESC)* to prepare an ESC Program and Plan, and supporting documentation. The plans, documentation and the accompanying program will need to be certified by a CPESC.

#### 2. References

CA2085 (June 2014) *Brisbane City Council*, Brisbane City Council e-Forms.

The methodology outlined herein is in keeping with the *Brisbane City Council – Erosion Hazard Assessment*, although adapted as and where required for the specific circumstances pertaining to the Local Authority within which the assessment is to be undertaken. Everyday Engineers, Planners and Surveyors bears all responsibility for the application of the *Erosion Hazard Assessment* afforded within the body of this document, and as such Brisbane City Council is not seen to be at fault for any assumptions made by a designated representative of Everyday Engineers, Planners and Surveyors in executing the assessment herein.

Best Practice Erosion & Sediment Control, *International Erosion Control Association Australasia*

## Engineers, Planners and Surveyors

A.B.N 33 128 918 347

### Erosion Hazard Assessment Supporting Technical Notes - November 2019

**Introduction** These technical notes are to be read in with the *Erosion Hazard Assessment* from November 2019 (or latest version). These technical notes have been provided to assist users in understanding and completing the *Erosion Hazard Assessment Form*, with respect to the Local Authority's requirements for Erosion and Sediment Control (ESC) during land-disturbing activities.

---

**Explaining the Erosion Assessment Form** There are numerous parameters on a construction site that have the potential to contribute to the potential risk(s) associated with erosion and sediment pollution within the built and the natural environment. The *Erosion Hazard Assessment* (EHA) determines whether the risk associated with these parameters is 'low', 'medium' or 'high' by using a series of questions to assess the risk to the environment, based on the Local Authorities requirements pertaining to stormwater management.

The front page of the *Erosion Hazard Assessment Form* briefly describes what an *Erosion Hazard Assessment* is, and when it is required.

The Assessment Tables within the *Erosion Hazard Assessment Form* provides a list of potential site condition 'hazards' affecting erosion and sediment pollution potential. The questions in the Assessment Tables determine whether the potential erosion and sediment pollution potential afforded the site is 'low', 'medium' or 'high'.

---

**Technical Notes** The *Erosion Hazard Assessment Form* must be certified by a suitably qualified person(s) and / or a party that can demonstrate substantial experience in soil erosion and sediment control. A suitably qualified and / or experienced professional in erosion and sediment control is defined as a person with:

1. Professional affiliations with an engineering, environmental engineering, soil science, or scientific organisation (e.g. International Erosion Control Association, Engineers Australia, Australian Water Association, Stormwater Queensland); or
  2. At least two years experience in the management of soil erosion and sediment control that can be verified by an independent third party.
- 

**When is the EHA required?** An *Erosion Hazard Assessment Form* should be completed and lodged with all Planning Applications (RaL and MCU), that has the potential to result in soil disturbance. In those instances where an OPW DA or a Compliance Assessment Application for earthworks (excavation / filling) is to be lodged to the Local Authority, the application should be accompanied with an Erosion Hazard Assessment Form and where appropriate an *ESC Program and Plan*, and supporting documentation.

---

**Explanation of Terms used In the Erosion Hazard Assessment Form** **Requirements** are specific issues and / or actions required to be addressed by the Applicant. **Warnings** are advices and / or advance notices of issues that should be considered or addressed by the Applicant during the process (the timing of this may vary). **Comments** are provided as general information that is relevant to the issue being discussed and may be of assistance to the Applicant.

---

## Technical Note [1]

### Slope of Site

#### Requirements:

Applicants must demonstrate that adequate ESC measures and practices can be implemented on-site to protect downstream environmental values throughout the construction period, and until the site is adequately stabilised against erosion. This particularly applies to sites involving cut and fill earthworks, benching of allotments, allotment batters and / or retaining wall construction.

Sites with any slope that is steeper than 5% and longer than 3 metres in length (before, during or after construction) has a higher risk of soil erosion and sediment pollution and is classified as either a 'medium' or 'high' risk site. Whether the site is actually 'medium' or 'high' risk depends on the presence of other hazards at the site, summarised in Table 2 and 3 of the *Erosion Hazard Assessment*.

If there is any slope on the site that is steeper than 15% and longer than 3 metres in length (before, during or after construction), and the site is greater than 1 hectare in area, the site is 'high' risk with respect to erosion & sediment control.

For medium and high risk sites the applicant will need to engage a Registered Professional Engineer (RPEQ) to prepare an ESC Program and Plan and supporting documentation. For high risk sites, the plans and program will need to be certified by a Certified Professional in Erosion and Sediment Control (CPESC).

#### Warnings:

Steep sites are likely to require more stringent drainage and erosion controls than flatter sites.

#### Comments:

As a 'rule of thumb' the steeper the land, the greater the need for adequate drainage control to minimise erosion and prevent mulch from being washed from the site.

---

## Technical Note [2]

### Area of Disturbance

#### Requirements:

Sites with an expected soil disturbance in excess of 1000 m<sup>3</sup> must submit an *ESC Program and Plan* to the Local Authority.

The area of disturbance refers to the total area of soil exposed to rainfall either as a result of:-

- (a) The removal of existing vegetation, mulch or sealed surfaces (e.g. concrete, bitumen);
- (b) As a result of past practices; and / or
- (c) Natural conditions.

Areas of exposed, non-erodible material such as rock have not been included. However, some highly weathered rocks can become a source of sediment and turbidity, and thus should not be counted as 'non-erodible' material. For site works where significant volumes or areas of excavation are likely to be encountered (e.g. underground car parks, known 'shallow rock' areas), ESC issues must be adequately addressed.

#### Warnings:

A sediment basin will usually be required if:

- (a) The disturbed area exceeds 1 hectare; or
- (b) The disturbed soils are dispersive in nature; and / or
- (c) There is a need to control run-off turbidity (e.g. the *Catchment Management, Waterways and Wetlands Overlay* indicates a 'High' Pollutant Load Risk, particularly in a Riparian Habitat Presence area).

Note that soil type or site location can impact upon the warrant for a sediment basin, even if the area of disturbance is less than 1 hectare.

Refer also to Technical Note 4 for explanation of the effect of undiverted 'clean' catchments in sediment basin design.

**Comments:**

For soil disturbances greater than 1 hectare in area, the stabilisation phase should be staged to minimise the duration that soil is exposed to rain.

---

**Technical Note [3]**

**Waterway Corridor  
Disturbance**

**Requirements:**

All developments that involve the disturbance of land within a waterway corridor are classified as a 'medium' or 'high' risk site and the applicant must prepare an ESC Program and Plan which must be certified by an RPEQ and / or CPESC. Adequate instream sediment control structures are required in order to manage the potential environmental harm associated with such activities. Flow bypassing for the maintenance of environmental flows or construction management, temporary lining of exposed 'live' excavations (i.e. within the functioning stormwater system) must also be determined in accordance with best practice ESC guidelines.

**Warnings:**

Permits and / or licences may be required from the State Government for works that disturb waterways, including possible submission of the ESC Program to the relevant State Government Department. There can be considerable timeframes for obtaining such approvals.

**Comments:**

Soil disturbances and / or works within a waterway (whether flowing constantly or only during wet weather) can cause significant erosion and sedimentation problems, leading to environmental harm if not properly managed.

---

**Technical Note [4]**

**External Catchments**

**Requirements:**

Upstream catchments that pass through the site increase risk of soil and sediment pollution.

External catchments should be diverted past areas of soil disturbances whenever possible. Where external catchments cannot be diverted past areas of soil disturbance, then such catchment areas must be included in the disturbance area calculations for the design of temporary drainage and sediment control measures, such as Catch Drains, Diversion Channels and Sediment Basins.

When external catchments are diverted around the area of soil disturbance, this must occur in a non-erosive manner. This may be achieved by, but not limited to, the use of geotextile fabric, erosion control matting, turf lining, and stabilised outlet protection. The outlet point of such diversions must not cause an increase in erosion downslope of the outlet point.

**Comments:**

The ability to separate 'clean' external catchment stormwater run-off from 'polluted' site run-off can significantly affect the extent and cost of the temporary drainage and sediment control measures (especially sediment basins) required on the site. The greater the extent of external catchment, the greater the need to divert run-off flows past any soil disturbance.

---

**Technical Note [5]**

**Acid Sulphate Soils /  
Possible Acid Sulphate  
Soils (Land Disturbance  
Below 5m AHD**

**Requirements:**

A site with land disturbance below 5m AHD has a higher risk of exposure of Acid Sulphate Soils and is therefore classified as a 'medium' or 'high' risk site by the *Erosion Hazard* Assessment.

When preparing an *ESC Program and Plan*, the soil pH must be determined by laboratory testing (NATA Certified Laboratory).

**Warnings:**

Soil pH can have a significant effect on the success of vegetation stabilisation on-site. A soil pH less than 6 or greater than 8 will usually require treatment in order to achieve adequate revegetation and to effectively stabilise the site against erosion.

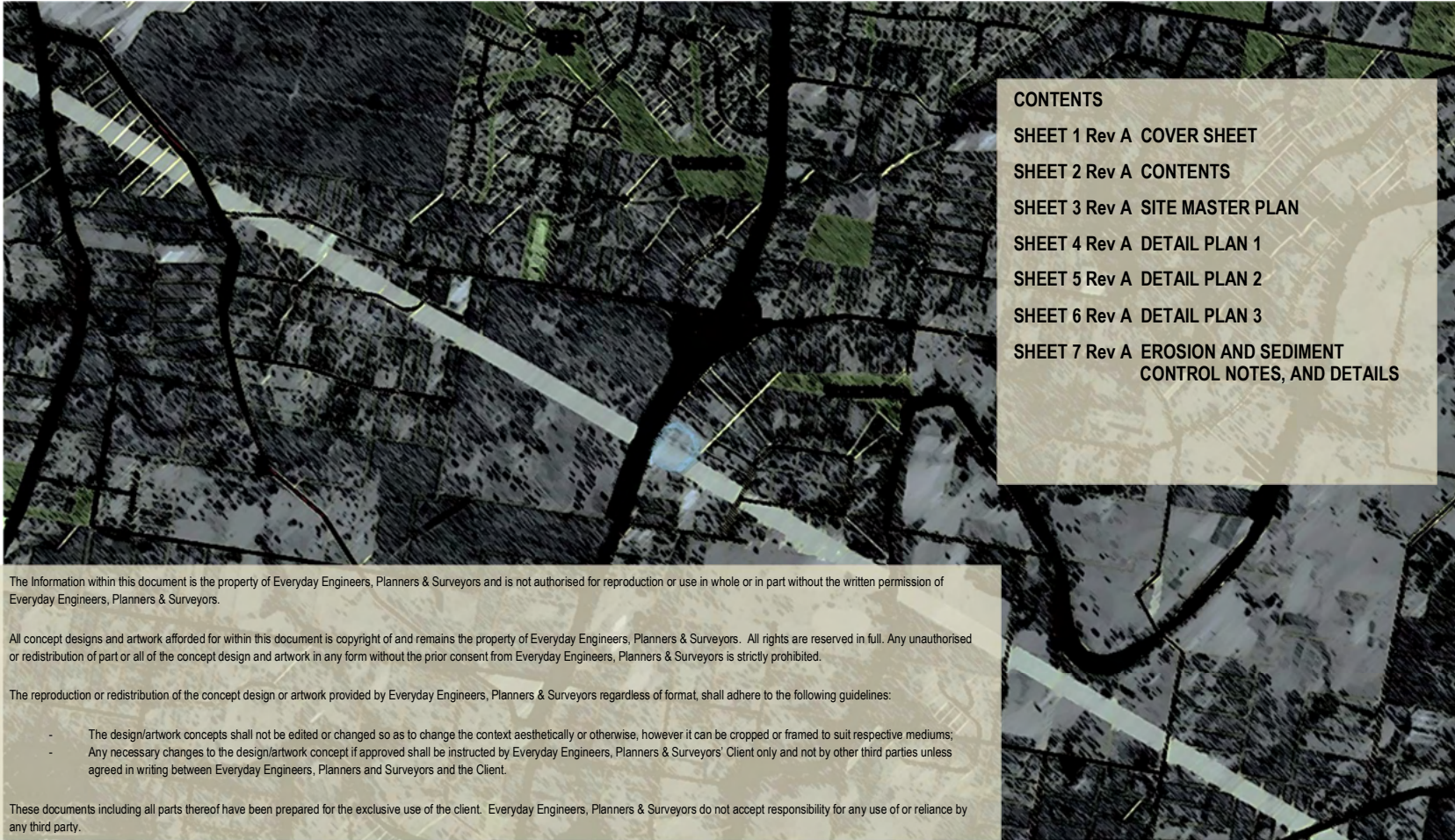
Soils with a pH of less than 5.5 (whether naturally acidic sulphate soil areas) may also limit the choice of chemical flocculants (e.g. Alum) for use in the flocculation of sediment basins.

---



**Transport Depot – Minor  
Erosion and Sediment Control Plans  
4586-4600 Mount Lindesay Highway, NORTH MACLEAN**

<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p><b>4586-4600 Mount Lindesay Highway NORTH MACLEAN</b></p> <p><b>Transport Depot - Minor</b> Erosion and Sediment Control Plans – Cover Sheet December 2022</p>	<p><b>2022-100-Sheet 1 Rev A</b></p>
--	---	--------------------------------------



**CONTENTS**

**SHEET 1 Rev A COVER SHEET**  
**SHEET 2 Rev A CONTENTS**  
**SHEET 3 Rev A SITE MASTER PLAN**  
**SHEET 4 Rev A DETAIL PLAN 1**  
**SHEET 5 Rev A DETAIL PLAN 2**  
**SHEET 6 Rev A DETAIL PLAN 3**  
**SHEET 7 Rev A EROSION AND SEDIMENT CONTROL NOTES, AND DETAILS**

The Information within this document is the property of Everyday Engineers, Planners & Surveyors and is not authorised for reproduction or use in whole or in part without the written permission of Everyday Engineers, Planners & Surveyors.

All concept designs and artwork afforded for within this document is copyright of and remains the property of Everyday Engineers, Planners & Surveyors. All rights are reserved in full. Any unauthorised or redistribution of part or all of the concept design and artwork in any form without the prior consent from Everyday Engineers, Planners & Surveyors is strictly prohibited.

The reproduction or redistribution of the concept design or artwork provided by Everyday Engineers, Planners & Surveyors regardless of format, shall adhere to the following guidelines:

- The design/artwork concepts shall not be edited or changed so as to change the context aesthetically or otherwise, however it can be cropped or framed to suit respective mediums;
- Any necessary changes to the design/artwork concept if approved shall be instructed by Everyday Engineers, Planners & Surveyors' Client only and not by other third parties unless agreed in writing between Everyday Engineers, Planners and Surveyors and the Client.

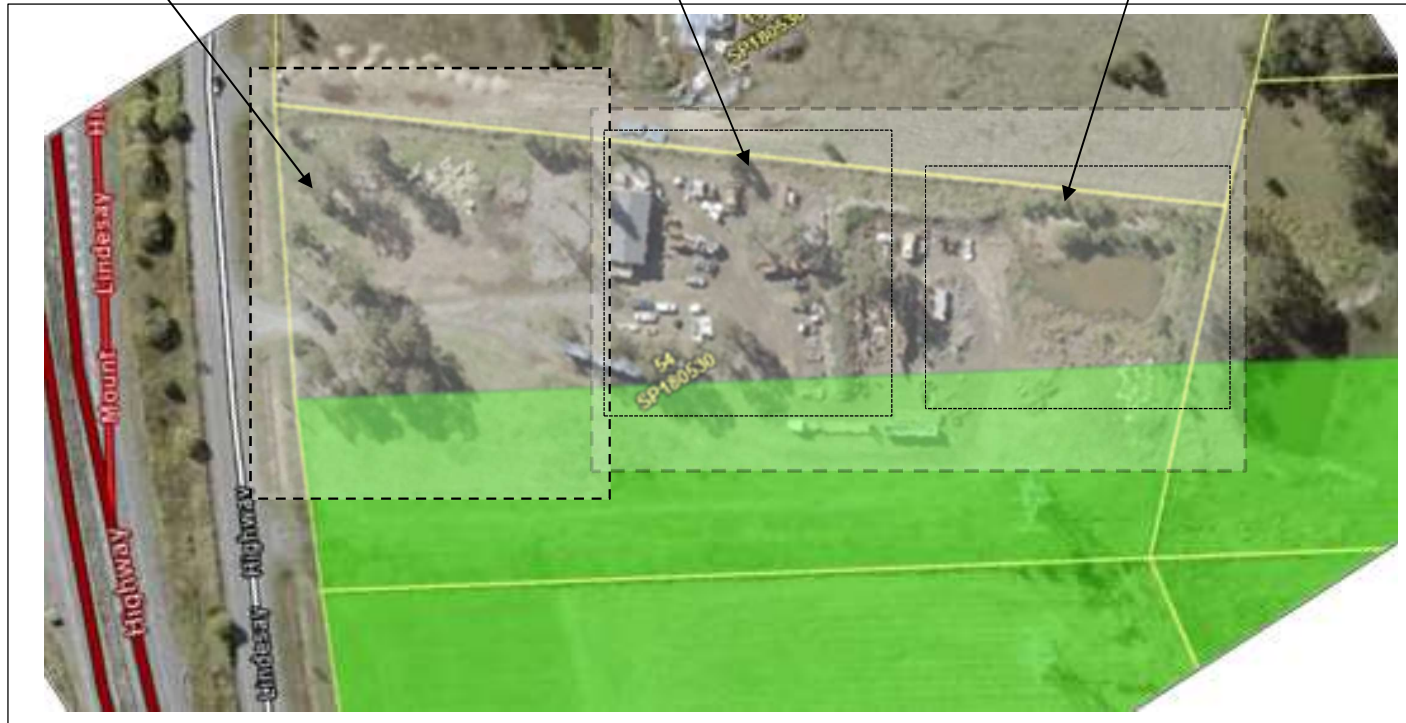
These documents including all parts thereof have been prepared for the exclusive use of the client. Everyday Engineers, Planners & Surveyors do not accept responsibility for any use of or reliance by any third party.

<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p><b>4586-4600 Mount Lindesay Highway</b> NORTH MACLEAN</p> <p><b>Transport Depot - Minor</b> Erosion and Sediment Control Plans – Contents <b>December 2022</b></p>	<p><b>2022-100-Sheet 2 Rev A</b></p>
--	---	--------------------------------------

Refer to Drawing No. 2022-100-Sheet 4 Rev A  
Detail Plan 1

Refer to Drawing No. 2022-100-Sheet 5 Rev A  
Detail Plan 2

Refer to Drawing No. 2022-100-Sheet 6 Rev A  
Detail Plan 3



**SITE MASTER PLAN**

*Note:  
Erosion and Sediment Control Plans to be read  
in conjunction with Plan(s) of Development*

<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p><b>4586-4600 Mount Lindsay Highway NORTH MACLEAN</b></p> <p><b>Transport Depot - Minor</b> Erosion and Sediment Control Plans - Site Master Plan December 2022</p>	<p><b>2022-100-Sheet 3 Rev A</b></p>
--	---	--------------------------------------

**Refer Plan(s) of Development, Rehabilitation Plan / Landscape Concept Plans had in respect of the approved Dwelling House**

Notes

1. Standard erosion and sediment control measures had in respect of dwelling houses (refer Dwg No. 2022-100-Sheet 7 Rev A) are to be employed at the time of the construction of the dwelling house.
2. Minimal disturbance is to be had of the existing landform about the area of the proposed dwelling house, Contractors are reminded that the premises takes in an active business. All denuded areas are to be topsoiled and turfed upon completion of works.
3. All builders waste is to be disposed of within Skip Bin(s).
4. Implementation of supplementary erosion and sediment control measures are at the discretion of the Site Superintendent.
5. Contractor is to ensure that there is nil sediment leaving the site of the dwelling house, penalties apply under the Building Contract for failure to comply.
6. There is to be no interference with existing landscaping, landscape features present upon the subject lands.
7. All landscape works had within garden areas to incorporate mulch blanketing with 'forest mulch' or soft wood mulch, refer Landscaping Plans.



1.8m High Colour Bond Fence, along property

*Existing Shed (10m x 18m) to remain.*

The Shed is not seen to form part of the Transport Depot – Minor 'Use'.

Skip Bin for disposal of Building Waste

Silt Fences

Temporary Construction Entry / Exit

Turf strip to be afforded adjacent access driveway.

Disturbed areas within road reserve to be topsoiled (50mm (min.) and turfed.

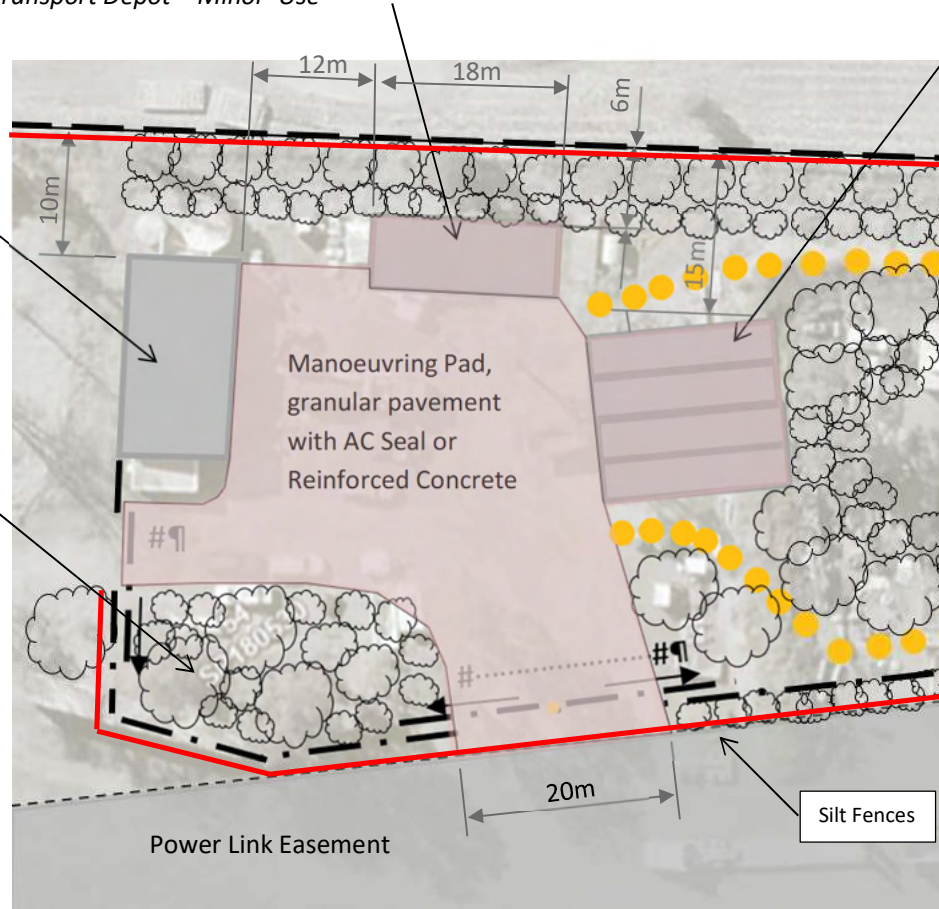
<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p><b>4586-4600 Mount Lindsay Highway NORTH MACLEAN</b></p> <p><b>Transport Depot - Minor</b> Erosion and Sediment Control Plans – Detail Plan 1 <b>December 2022</b></p>	<p><b>2022-100-Sheet 4 Rev A</b></p>
--	---	--------------------------------------

Existing Shed (10m x 18m) to remain.

The Shed to not seen to form part of the Transport Depot – Minor ‘Use’.

Refer Plan(s) of Development, Rehabilitation Plan / Landscape Concept Plans for landscaping details.

Existing Carport Structure to remain (6 Car parking spaces, plus 2 car trailer spaces (if required)). Structure will form part of the Transport Depot – Minor ‘Use’



Heavy Vehicle Parking Area to accommodate a maximum of four (4) Heavy Vehicles.

**Notes**

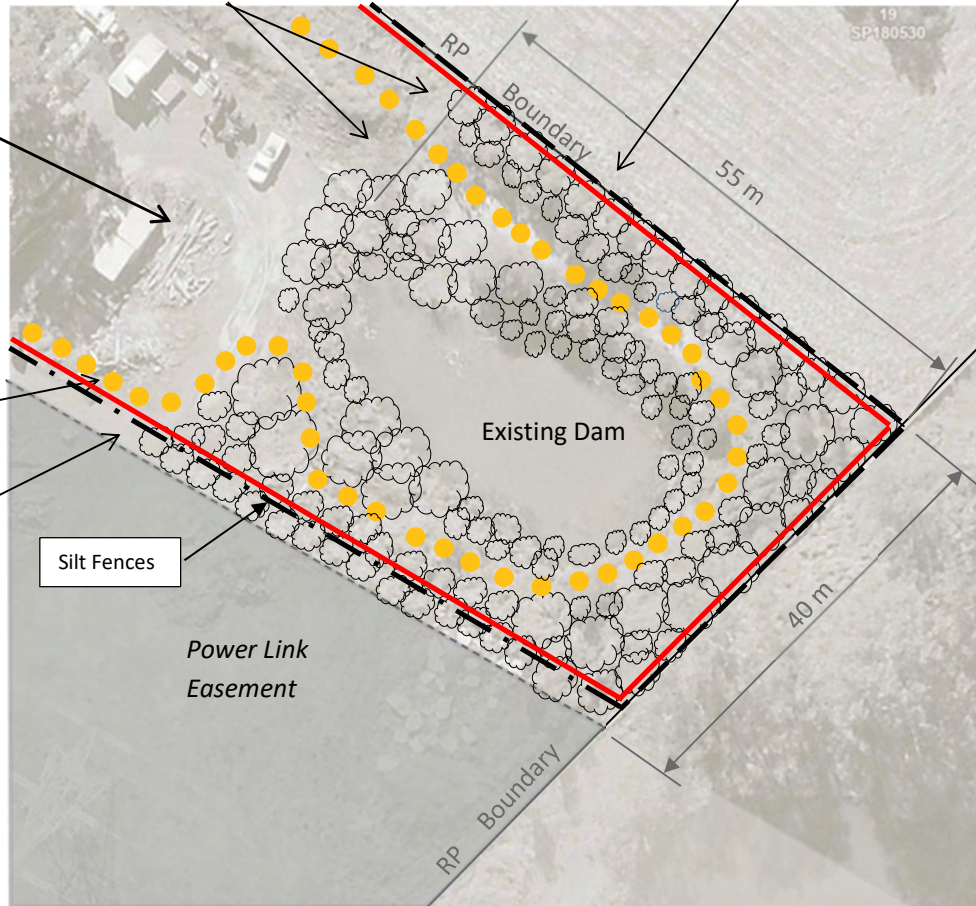
1. Minimal disturbance is to be had of the existing landform about the area of the proposed Transport Depot – Minor hardstand areas, Contractors are reminded that the premises takes in an active business. All denuded areas (other than hardstand and or landscaped areas) are to be topsoiled and turfed upon completion of works.
2. The existing dam is to be utilised as a silt basin during the period of the construction of the Heavy Vehicle Parking Bays, the surfacing of the manoeuvring pad, and the conduct of the landscaping / rehabilitation works.
3. The landform currently drains towards the existing dam. The topography of the site (notably the drainage pathways) is to be retained thus ensuring surface flows drain towards the existing dam post construction.
4. All construction waste is to be disposed of at an approved waste disposal facility.
3. Implementation of supplementary erosion and sediment control measures are at the discretion of the Site Superintendent.
5. Contractor is to ensure that there is nil sediment leaving the site, penalties apply under the Building Contract for failure to comply.
6. There is to be no interference with existing landscaping, landscape features present upon the subject lands.
7. All landscape works had within garden areas to incorporate mulch blanketing with ‘forest mulch’ or soft wood mulch, refer Landscaping Plans.

<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p><b>4586-4600 Mount Lindesay Highway NORTH MACLEAN</b></p> <p><b>Transport Depot - Minor</b> Erosion and Sediment Control Plans – Detail Plan 2 November 2022</p>	<p><b>2022-100-Sheet 5 Rev A</b></p>
--	---	--------------------------------------

The Applicant is to afford for the removal, and relocation / disposal of all waste and or rubbish stored within the rear portion of the property. The space is to be free of all rubbish / waste / shipping containers, any temporary building structures thus in-turn affording for the rehabilitation of the subject lands.

Remove existing weed species along boundary line, and about edge of dam.

1.8m High Colour Bond Fence to northern and eastern boundaries.



Walking path, 1.0 metres in width, formed of crusher dust.

1.8m High Timber Paling Fence (Lapped), offset 2.0 metres from Power Link Easement Boundary.

Silt Fences

Power Link Easement

Existing Dam

**Notes**

1. Minimal disturbance is to be had of the existing landform about the area of the proposed Transport Depot – Minor hardstand areas, Contractors are reminded that the premises takes in an active business. All denuded areas (other than hardstand and or landscaped areas) are to be topsoiled and turfed upon completion of works.
2. The existing dam is to be utilised as a silt basin during the period of the construction of the Heavy Vehicle Parking Bays, the surfacing of the manoeuvring pad, and the conduct of the landscaping / rehabilitation works.
3. The landform currently drains towards the existing dam. The topography of the site (notably the drainage pathways) is to be retained thus ensuring surface flows drain towards the existing dam post construction.
4. All construction waste is to be disposed of at an approved waste disposal facility.
5. Implementation of supplementary erosion and sediment control measures are at the discretion of the Site Superintendent.
6. Contractor is to ensure that there is nil sediment leaving the site, penalties apply under the Building Contract for failure to comply.
7. There is to be no interference with existing landscaping, landscape features present upon the subject lands.
7. All landscape works had within garden areas to incorporate mulch blanketing with 'forest mulch' or soft wood mulch, refer Landscaping Plans.

<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p><b>4586-4600 Mount Lindesay Highway NORTH MACLEAN</b></p> <p><b>Transport Depot - Minor</b> Erosion and Sediment Control Plans – Detail Plan 3 November 2022</p>	<p><b>2022-100-Sheet 6 Rev A</b></p>
--	---	--------------------------------------

**SEDIMENT AND EROSION CONTROL NOTES:**

**PRE-CONSTRUCTION PHASE**

PRIOR TO ANY CONSTRUCTION WORK OR STOCKPILING OF MATERIALS ON SITE, THE CONTRACTOR SHALL:

- OBTAIN ALL NECESSARY PERMITS, LICENSES AND APPROVALS.
- SCHEDULE AND HOLD A PRE-CONSTRUCTION MEETING WITH THE LOCAL AUTHORITY.
- INSTALL THE SEDIMENT CONTROL DEVICE TO ENTRY AND EXIT POSITIONS. CLEARLY MARK THE LOCATION OF ACCESS ROADS AND STORAGE AREAS.
- ERECT SEDIMENT FENCES AS INDICATED ON THE ATTACHED PLAN AND THE PERIMETER TO ALL PROPOSED STOCKPILE LOCATIONS. ESTABLISH A DISPOSAL SITE FOR TRAPPED SEDIMENT (IF REQUIRED).
- ANY CHEMICAL OF FUEL / OIL STORED ON SITE SHALL BE STORED UNDER COVER IN A BUNDED AREA OF PLACED SUFFICIENTLY ABOVE THE GROUND LEVEL TO PRECLUDE CONTAMINATING OF SURFACE WATER.

**2. PAVEMENT AND SERVICES CONSTRUCTION PHASE**

DURING THE PAVEMENT AND SERVICES CONSTRUCTION PHASE OF THE PROJECT ALL SEDIMENT CONTROL STRUCTURES MUST BE OPERATED AND MAINTAINED IN AN EFFECTIVE OPERATIONAL CONDITION AT ALL TIMES:

- THE STRUCTURES SHOULD BE INSPECTED WEEKLY TO ENSURE THAT THEY ARE ALL OPERATIONAL AND HAVE NOT ACCUMULATE EXCESSIVE SEDIMENT VOLUME.
- ALL DEVICES TO BE CLEANED AFTER EACH STORM EVENT.
- MATERIALS REMOVED FROM DEVICES MUST BE DISPOSED OF IN A MANNER APPROVED BY COUNCIL THAT DOES NOT CAUSE POLLUTION.
- WORK, DAMAGED OR OTHERWISE DEFECTIVE MATERIALS AND COMPONENTS ARE TO BE REPAIRED, REFURBISHED AND REPLACED AS NEEDED.

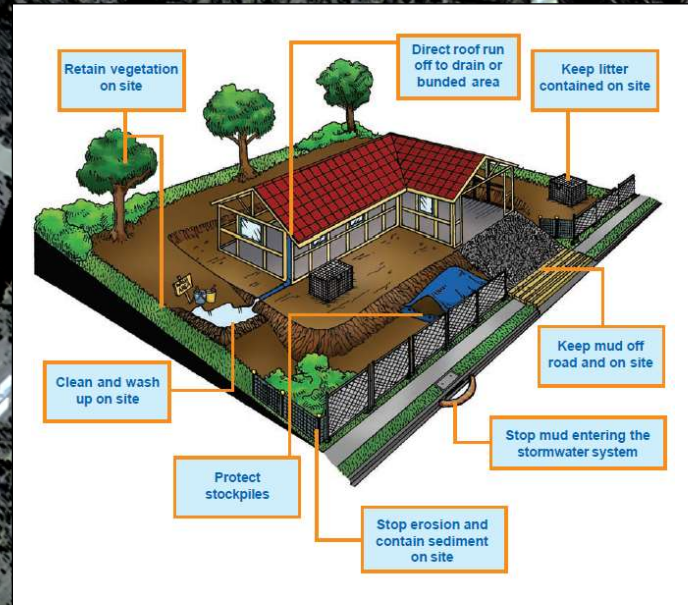
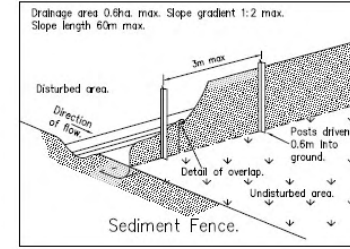
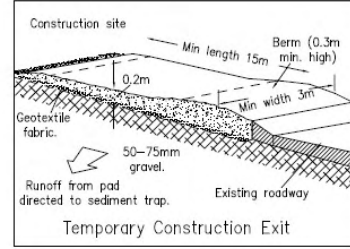
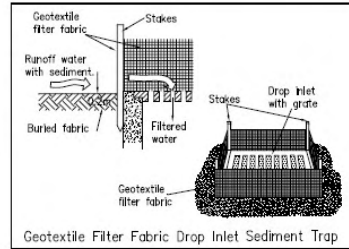
THE EXPECTED CONSTRUCTION PROCEDURE FOR THE SEDIMENT AND EROSION CONTROL SYSTEM DURING CONSTRUCTION IS AS OUTLINED:

- ALL EXCAVATED MATERIAL IS TO REMAIN ON SITE, PREFERABLY IN THE TEMPORARY STOCKPILE AREA. ALL ADDITIONAL STOCKPILE AREAS ARE TO HAVE A SILT FENCE DEVICE INSTALLED DOWN SLOPE.
- PARTIALLY CONSTRUCTED INLET OR MANHOLE STRUCTURES SHALL BE WITHER COVERED TO ENSURE THAT SILT IS NOT TRANSFERRED TO THE STORMWATER SYSTEM OR PROVIDED WITH SILT PROTECTION.
- STABILIZATION SUCH AS SEEDING, TURF, MULCH OR EROSION MAT IS TO BE PROVIDED TO ALL EXPOSED SOIL SURFACES. NEW SLOPES AND SERVICES TRENCHES IN A TIMELY MANNER, UPON COMPLETION OF WORKS AND AS DIRECTED BY THE SUPERINTENDENT.
- INSTALL MESH AND AGGREGATE OR FILTER FABRIC PROTECTION AROUND ALL NEW STORMWATER INLETS.
- ESTABLISHMENT OF 80% GRASS COVER ON CONSTRUCTION SITE AREA PRIOR TO "OFF MAINTENANCE" INSPECTION.
- INSTALL SCOUR CHECK DAMS TO TABLE AND OUTLET DRAINS.

**3. POST CONSTRUCTION PHASE**

ON COMPLETION OF SITE WORKS THE EROSION AND SEDIMENT CONTROL DEVICES ARE TO REMAIN IN OPERATION UNTIL THE EXPOSED EARTH SURFACES ARE SEEN TO BE WELL ESTABLISHED AND STORMWATER DISCHARGE FROM THE SITE EXHIBITS NO SEDIMENT EROSION UNDER NORMAL RAINFALL CONDITIONS.

ON THE REMOVAL OF SEDIMENT AND EROSION CONTROL DEVICES, BARE SOIL AREAS ARE TO BE TURPED OR GRASS SEEDED AND MAINTAINED UNTIL ESTABLISHED.



<p><b>Everyday Engineers Planners &amp; Surveyors</b> ABN. 33 128 918 347 Mobile: 0432 124 461</p>	<p><b>4586-4600 Mount Lindesay Highway NORTH MACLEAN</b></p> <p><b>Transport Depot - Minor</b> Erosion and Sediment Control Notes, and Details December 2022</p>	<p><b>2022-100-Sheet 7 Rev A</b></p>
--	--	--------------------------------------