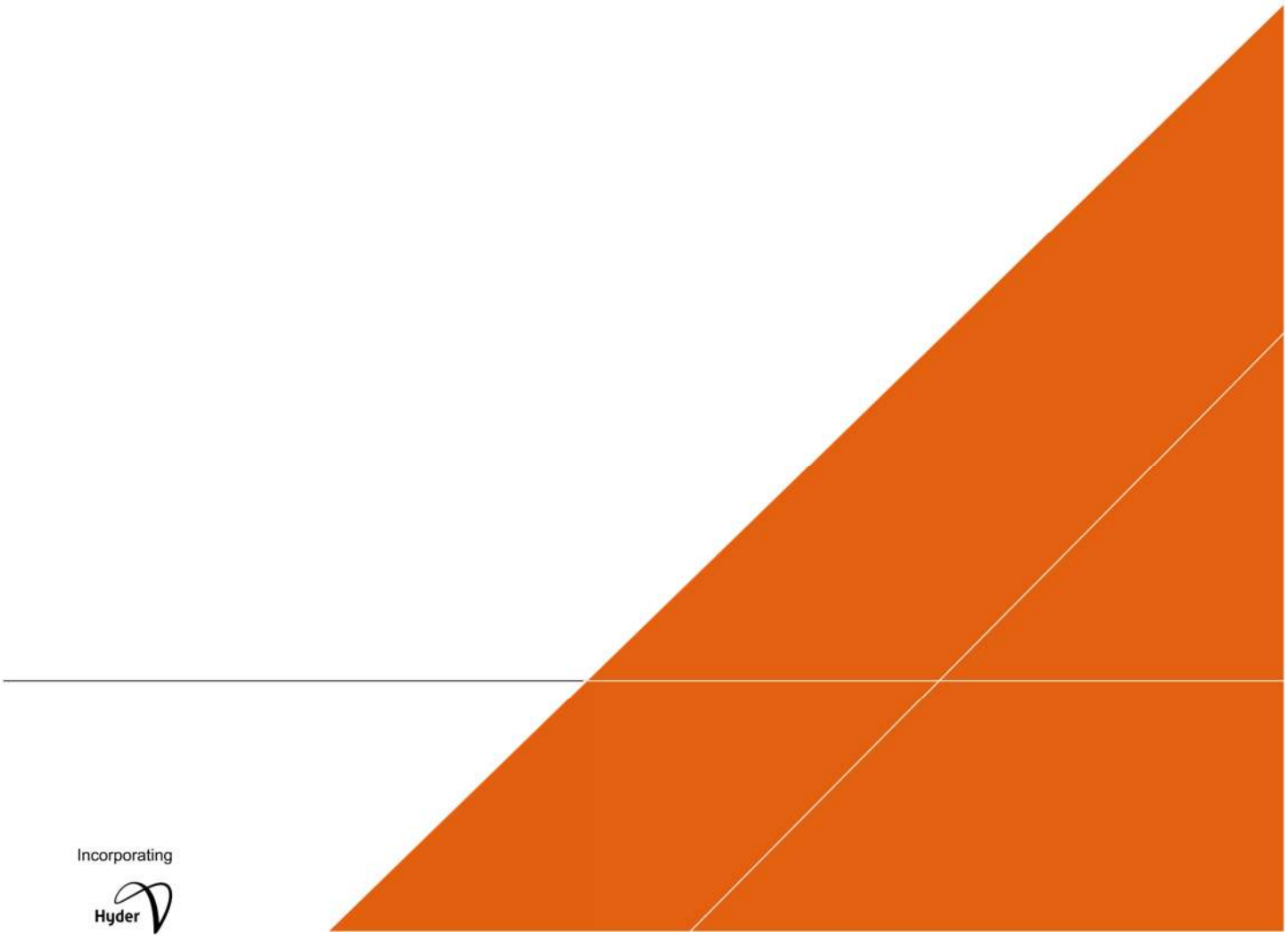
ARCADIS Design & Consultancy for natural and built assets

4653 – 4691 MOUNT LINDESAY HIGHWAY, NORTH MACLEAN

Site Based Stormwater Management Plan

8TH December 2023



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Site Based Stormwater Management Plan

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REVISIONS

Revision	Date	Description	Prepared by	Approved by
01	08/07/2022	Draft Issue for Review	TF	DC
02	18/07/2022	Issue to EDQ	TF	DC
03	28/10/2022	Draft Response to RFI	TF	DC
04	25/01/2023	Response to RFI	TF	DC
05	03/03/2023	Basin sections added	TF	DC
06	13/03/2023	Revised Lot Layout	TF	DC
07	18/08/2023	Interim treatment added	TF	DC
08	09/10/2023	Western detention basin reinstated	DO (update)	DC
09	8/12/2023	Section 6.4.4 added, Section 8 updated	DO (update)	DC

CONTENTS

APPENDICES

APPENDIX A

Proposed ROL Plan

APPENDIX B

Engineering Drawings and Site Topography

APPENDIX C

DEV 2018/961 Decision Notice

1 EXECUTIVE SUMMARY

Arcadis has been engaged by Maclean Estates Pty Ltd to prepare a Site Based Stormwater Management Plan (SBSMP) for the proposed industrial development, situated at 4563 - 4691 Mount Lindesay Highway, North Maclean. The site is located in the Greater Flagstone Priority Development Area located within the Logan City Council local government area. The proposed development involves the reconfiguration of one lot into two lots nominated for proposed 'Industry' and 'Environment Conservation' uses.

This report demonstrates the proposed development will be constructed and operated in accordance with the Water Sensitive Urban Design (WSUD), requirements of Council, the South-East Queensland State Planning Policy (SPP), the Queensland Development Code, the Queensland Urban Drainage Manual (QUDM), Economic Development Queensland (EDQ) PDA guidelines, and the Environmental Protection (Water) Policy (2009).

The two primary objectives of this SBSMP are to ensure that:

1. Suitable measures are incorporated into the development to ensure that there are no adverse impacts to downstream receiving waterways, property or infrastructure resulting from any increase to stormwater runoff peak flow rates.

This report therefore includes stormwater quantity calculations and hydrological modelling which demonstrate, that in the interim scenario (ie bulk earthworks and retaining walls construction across and around the perimeter of Lot 1 to create a development pad) due to change in stormwater catchment parameters, there is a reduction in peak flow rate during the interim development scenario for both the eastern and western developed catchments from 63.2% Average Exceedance Probability (AEP) to 1% AEP storm events. However a rehabilitated detention basin also serves an ecological function as a buffer between the future development site and Lot 2 ecological corridor, therefore a detention basin for the western developed catchment has also been designed. It should be noted that developed catchment parameters have been assumed for this purpose and will therefore need to be reviewed and confirmed as part of any future MCU application and associated SBSMP.

2. Details of a proposed stormwater quality treatment train are provided to ensure the discharge of stormwater from the site is of adequate quality standards to comply with the requirements of Economic Development Queensland (EDQ), Logan City Council (LCC) and the State Planning Policy 2017 (SPP 2017).

A stormwater quality assessment is provided which demonstrates that the assessment benchmark outlined in the State Planning Policy (2017) is not triggered.

1.1 Revision 03

Revision 03 was prepared in response to Items 1 and 5 of the Further Issues letter received from EDQ on 20 September 2022. In response to these items, the developed catchments have been adjusted to better replicate the existing catchment boundaries, resulting in a second combined detention and water quality treatment system proposed to the west of the industrial pad. The previously proposed combined detention and bioretention system situated in the eastern portion of the property has been replaced with a smaller detention tank, containing a proprietary cartridge system.

1.2 Revision 04

The Hydraulic Impact Assessment revealed that the previously proposed combined detention and bioretention basin proposed for the western catchment caused adverse flood impacts upstream of the proposed development. As such, this report (Revision 4) proposes that the western basin will no longer contain bioretention filter media, therefore increasing the storage capacity of the detention basin. Stormwater quality treatment will instead be provided by incorporating a proprietary treatment system for water quality purposes.

Further to this, additional retaining walls have been incorporated into the design, thus increasing the developable area, resulting in a larger detention systems and additional filtration cartridges.

The drainage channel has been separated from Proposed Lot 1, forming a third lot.

1.3 Revision 05

Additional details and sections of the proposed western detention basin have been provided in Appendix B in response to the email from Michael Fallon of EDQ, dated 28 February 2023. Table 6-4 has also been amended.

1.4 Revision 06

Following further discussions, the proposed layout has been amended to reflect the two proposed lots with an easement, road reserve and service road resumption. The SBSMP has been updated accordingly.

1.5 Revision 07

Previous revisions of this SBSMP focused on stormwater quantity and quality treatment for the future operational phase of the development; however, the SBSMP was approved as part of a packages submitted to EDQ for a Reconfiguration of Lot application, for which the supporting works are limited to bulk earthworks and external works (building/carpark/circulation works not included). Following a review of Conditions 14 and 15 included in the 28 April 2023 Decision Notice (DEV2022/1315), it was determined that a revision of the SBSMP was required to address the stormwater quantity and quality treatment requirements for the ROL application only (i.e., addressing earthworks and post-earthworks construction only). All references to the ultimate industrial intended land use have been removed from the stormwater assessment.

1.6 Revision 08

The western detention basin was removed from Revision 07 of this SBSMP as it is not required in the interim use scenario, as only earthworks, erosion and sediment control and retaining wall construction are proposed within Lot 1. However, we have received advice from the project's ecological consultant (28South) that the detention basin and associated rehabilitation was serving a second, important function as a vegetated buffer between Lot 1 and the bio-diversity lot, Lot 2. Given this, and the fact the existing ROL approval conditions require a compliance assessment for the rehabilitation within the western detention basin, it has been decided to reinstate the detention basin as part of the SBSMP and deliver the basin as part of the works required under the ROL approval.

1.7 Revision 09

Section 6.4.4 (Key Assumptions) added as per agreed outcomes from meeting between EDQ and Arcadis held on 24th November 2023.

Section 8 Construction Phase Water Quality updated as follows;

- Explain that ESC program will be designed by Principal Contractor appointed CPESC and issued to EDQ IS prior to works commencing on site
- Deletion of Section 8.3 *Operational Maintenance and Management Plan* as this relates to the proprietary stormwater quality products that have now been removed from this phase of works.
- Addition of new Section 8.3 *Sediment Basins* detailing minimum requirements for sediment basins to comply with Waterway Stability and Flood Flow Management requirements of SPP 2017 Appendix 2 Table A – Construction Phase Stormwater Management Design Objectives.

2 INTRODUCTION

Arcadis has been engaged by Maclean Estates Pty Ltd to prepare a Site Based Stormwater Management Plan (SBSMP) for a Reconfiguration of Lot (ROL) application for the proposed industrial development situated at 4563 - 4691 Mount Lindesay Highway, North Maclean. The site is situated within the Greater Flagstone Priority Development Area (PDA) located within the Logan City Council (LCC) local government area.

The proposed development involves the reconfiguration of the existing lot into two lots:

- Proposed Lot 1: 17.438ha with an 'Industry' land use;
- Proposed Lot 2: 16.592ha with an 'Environment and Conservation' use.

An additional 1.4015ha land strip along the eastern site boundary is to be dedicated to the Department of Transport and Main Roads (DTMR) / Council for the widening of Mount Lindsay Highway / extension of the service road. This has been referred to as the "Service Road Resumption".

A second 0.553ha land strip situated between Proposed Lot 1 and the Service Road Resumption is to be dedicated as road reserve.

Finally, a third 0.470ha land strip along the south-east of Proposed Lot 1 forms an easement.

The proposed lot reconfiguration is shown in Figure 2-1, below.

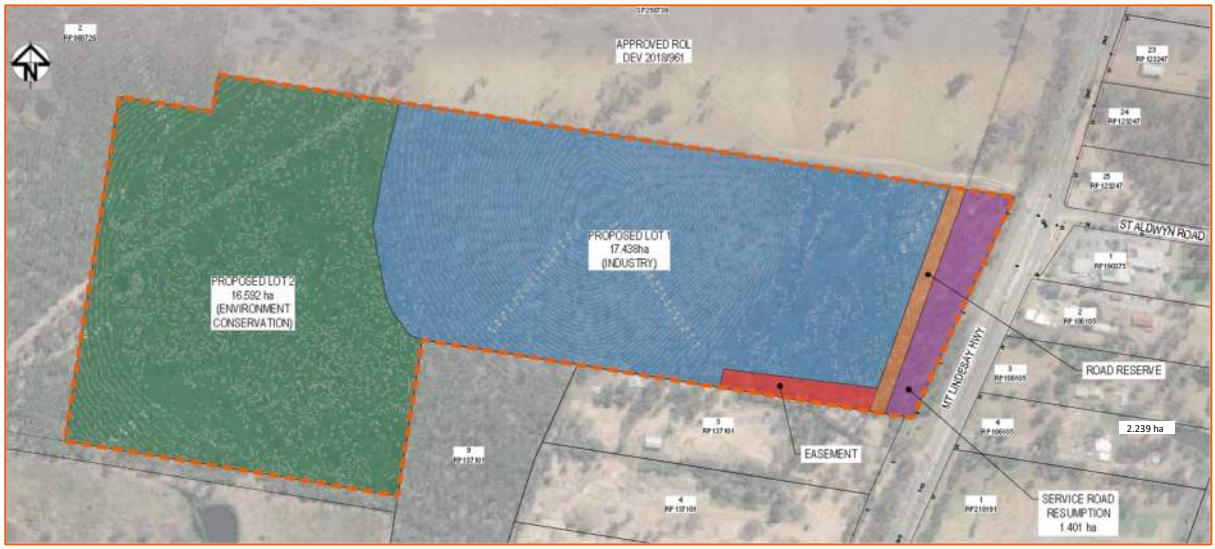


Figure 2-1 - Proposed Reconfiguration of Lot Layout

The following report demonstrates the proposed development will be constructed and operated in accordance with the Water Sensitive Urban Design (WSUD) requirements of Council, the Queensland State Planning Policy (SPP 2017), the Queensland Development Code, the Queensland Urban Drainage Manual (QUDM), Economic Development Queensland (EDQ) PDA guidelines and the Environmental Protection (Water) Policy (2009) with respect to the attenuation of stormwater runoff from both quality and quantity perspectives.

3 SITE CHARACTERISTICS

3.1 Site Description

The subject site is located within Logan, South-East Queensland, Australia on the following lot:

- Lot 1 on RP113251 (4653-4691 Mount Lindesay Highway, North Maclean)

The site in generally bounded by the following co-ordinates (GDA94 / MGA zone 56)

- North-West: 500713, 6928697
- South-East: 501553, 6928285

3.2 Existing Land Usage

The subject site is currently occupied by trees and grassed open areas and adjoins 4499-4651 Mount Lindesay Highway to the north which has an approved ROL decision (DEV 2018/961). The site currently has direct property frontage to Mount Lindesay Highway to the east and predominantly cleared land to the west. An operational works approval for earthworks has been obtained for the land to the south and is currently underway.

A MEDQ Approved context plan published 10 September 2021 includes the subject site. The site is approved for specific land use "*Industry and Business Zone*" with overlay for indicative future bio-diversity corridor. An existing High Voltage electrical easement has been identified running through the site into the existing rural residential dwelling to the north. It is understood that as part of the adjacent approval to the north, this electrical easement is set to undergo works and the electricity supply will be temporarily switched off. Figure 3-1 below shows the site locality plan in relation to the discussed items above.

Figure 3-1- Development Locality Plan (Source: NearMap, June 2022)

3.3 Existing Topography and Site Drainage

Based on the LiDAR data obtained for the site, the natural site generally grades in radial directions from the existing highpoint located within the centre of the site (approximately RL36m) to low lying land (approximately RL26) in the western and eastern portions of the site which form a natural overland flow path for the external upstream catchments. Grades vary between approximately 2.7% towards the eastern portion of the overland flow path and 3.39% towards the western portion of the overland flow path.

The external upstream catchments are shown in Figure 3-2.

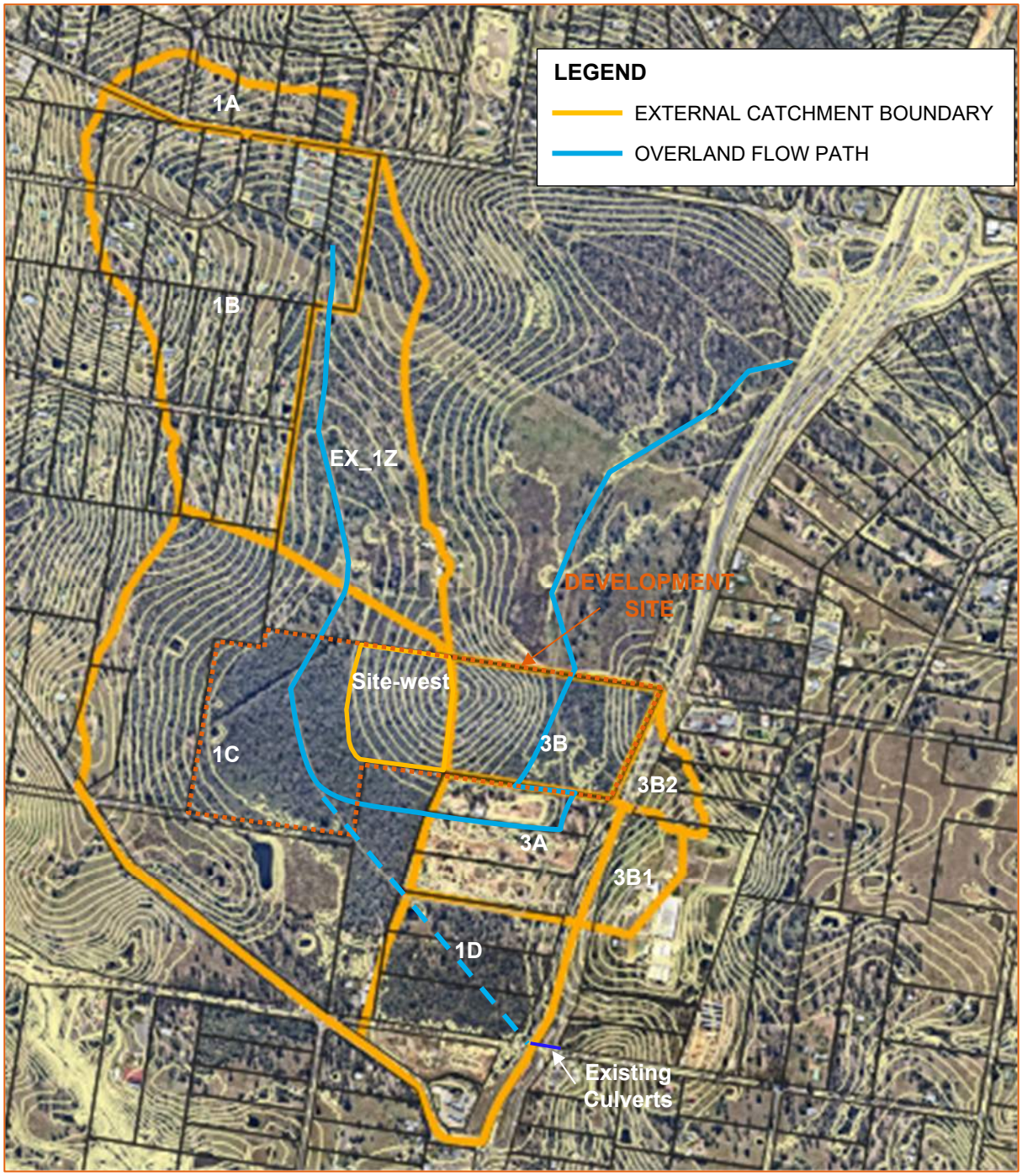


Figure 3-2 - Existing External Catchments (Image Source: NearMap 2022)

As can be seen in Figure 3-2, above, the overland flow path enters the site across the northern boundary from in the western portion of the site and exits the site before re-entering across the southern boundary in the eastern portion of the site. The overland flow path is fed by an extensive area external to the site.

Figure 3-3 shows the proposed earthwork levels across the site. As seen in the figure, the existing mound is to be flattened with the remaining levels to lifted to achieve a more even level across proposed Lot 1. It is proposed that the eastern portion of the site grades towards the north boundary of the eastern section of the overland flow path. No earthworks are proposed in proposed Lot 2, thus the existing flow path and grading shall remain. The nominated discharge points for the site can be indicated by thick red lines along the property boundary. The proposed drainage channel has been shaped to allow for the conveyance of flows from the overland flow path through the site, without inundating the developable land.

Detailed earthworks plans and survey have been included within the engineering plans enclosed with Appendix B.

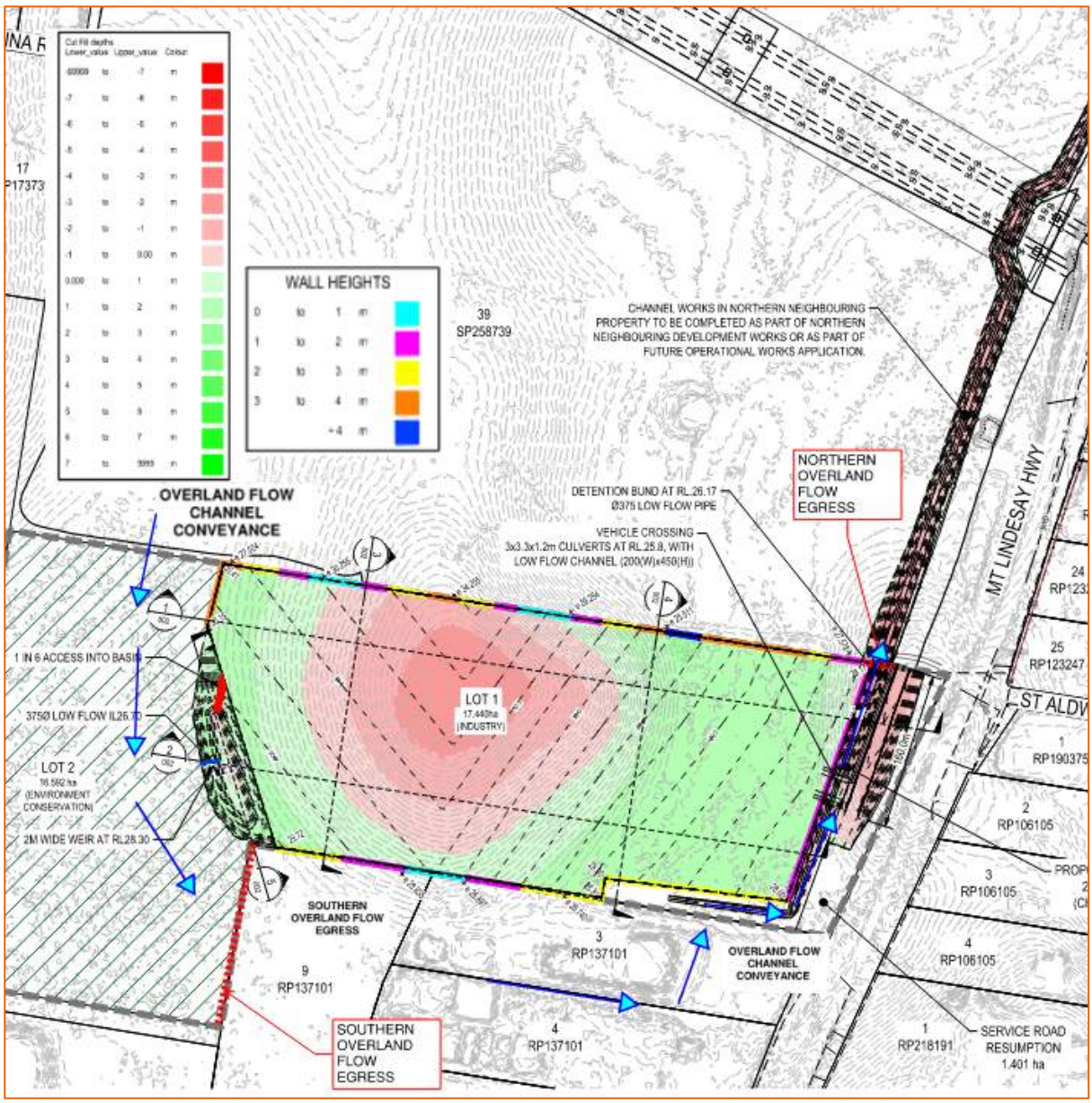


Figure 3-3 – Concept Proposed Bulk Earthworks Layout

3.3.1 Neighbouring Approvals

Figure 3-4 shows the location of adjacent approval (DEV 2018/961) in relation to the proposed development site. The approved site is described as 4499-4651 Mount Lindesay Highway, North Maclean, with a real property description of Lot 39 on RP25373. It is understood that this approval is for a PDA Development Permit for a reconfiguring a lot – 1 lot into 4 lots with associated roads and open space. As part of this approval Operational Works Approvals have been awarded, these works include:

- Construction of a service road along the western side of the Mount Lindesay Highway accessed via the existing Crowson Lane / Mount Lindesay Highway off ramp roundabout;
- Construction of a trunk rising sewer main running through the existing electrical main of the proposed development, ending at Greenbank Road;

- Connection to existing potable water mains along Crowson Lane and the Mount Lindesay Highway;
- Proposed stormwater infrastructure;
- Construction of internal roads; and
- Proposed connection to existing underground electrical and telecommunication services along Crowson Lane and the Mount Lindesay Highway.

Further details on the works associated with the adjacent approval can be found within the relevant Decision Notice attached within Appendix C.

Figure 3-4 – Location of Neighbouring Approval

4 PROPOSED DEVELOPMENT

The proposed development involves the reconfiguration of one lot into two with the central lot (Proposed Lot 1) to comprise a future industrial development and the western lot (Proposed Lot 2) to remain an environmental conservation area. A strip along the eastern site boundary is to be dedicated for the widening of Mount Lindsay Highway / extension of the proposed service road. A second strip, situated between Proposed Lot 1 and the Service Road Resumption is to form road reserve. An easement is proposed along the south-east of Proposed Lot 1. The proposed development layout is shown in Figure 2-1. The Place Design Group Proposed ROL Plan (1121084-05-B) is included in Appendix A.

Proposed Lot 1 is generally divided into two catchments, east and west, with the western catchment draining to an overland flow path in Proposed Lot 2, flowing south-east, and the eastern catchment grading to the same flow path as it traverses north through the site.

The developed catchment boundaries roughly align with the existing catchment boundaries. Detailed flood modelling has been undertaken to ensure modifications to the overland flow path does not have adverse impacts on properties upstream or downstream of the development site. Please refer to the Arcadis Hydraulic Impact Assessment (GA002-30139050-AAR) for further details.

The development of the site will also require assessment against the relevant state and local government requirements for water quality. The stormwater quality management assessment would be based on the assessment benchmarks outlined in the State Planning Policy for Healthy Waters (2017). The land dedicated for the widening of Mount Lindsay Highway / extension of the proposed service road has been excluded from the stormwater quantity and quality calculations.

5 DISCHARGE LOCATIONS

5.1 Pre-Developed Discharge Characteristics

As previously outlined in this report, the site in its pre-developed state consists of multiple catchments, discharging via both overland sheet flow and channelised flow into a natural overland flow path. Presently, two points of interest have been recognised for the site, as previously mentioned and documented in Figure 3-3, namely the northern boundary of the eastern section of the overland flow path and the south-eastern boundary of the western section of the overland flow path.

5.2 Proposed Discharge Characteristics and Objectives

This report demonstrates the proposed development will be constructed and operated in accordance with the Water Sensitive Urban Design (WSUD) requirements of Council, the Queensland State Planning Policy (SPP 2017), the Queensland Development Code, the Queensland Urban Drainage Manual (QUDM) and the Environmental Protection (Water) Policy (2009).

The primary objectives of this SBSMP are to ensure that:

- Suitable measures are incorporated into the development to ensure that there are no adverse impacts to downstream receiving waterways, property or infrastructure resulting from any increase to stormwater runoff peak flow rates;
- waterway flow management measures are implemented to ensure no adverse stability impacts to downstream receiving unlined waterways; and
- suitable treatment train measures are determined and are either future infrastructure or incorporated in the development to achieve required water quality objectives.

All standard Average Exceedance Probability (AEP) design events attenuation is proposed for the 4563 - 4691 Mount Lindesay Highway, North Maclean development. The site assessment will demonstrate compliance with LCC Policy by ensuring 63.2%, 50%, 20%, 10%, 2% and 1% AEP flows discharged to the points of interest do not exceed pre-development flows.

6 HYDROLOGICAL ASSESSMENT

Detailed hydraulic and hydrological modelling (RAFTS and DRAINS) of the existing and developed catchments (respectively) was undertaken as a part of the present report. The following sections provides details on the overall stormwater quantity strategy and modelling results.

6.1 Temporal Patterns

Rainfall Intensities Frequency Duration data were obtained from The Bureau of Meteorology (http://www.bom.gov.au/water/designRainfalls/revised-ifd/?year=2016). The Latitude and Longitude of used for the site is summarised in Table 6-1 below.

Table 6-1 Site Latitude & Longitude

Parameter	Value
Latitude	-27.7679
Longitude	153.0109

6.2 Catchment Analysis

As discussed in section 3, the development site drains to two points of interest. Two scenarios have been considered for assessment:

- **Pre-development Scenario** – Catchments Site-West, 1C and 3B in their current state;
- **Interim Development Scenario –** Proposed Lot 1 following the proposed bulk earthworks, stabilised with grass seeding, divided into Site-west and Site-East, and the remaining areas of Catchments 1C and 3B.
- **Development Scenario (Western catchment) –** Proposed Lot 1 western catchment (Site-West) in ultimate developed state.

Most importantly the site's performance has been assessed at the two points of interest. This methodology ensures that peak flow concentrations from the catchments are assessed and where necessary mitigated appropriately at these points of interest.

Tables 6-2 - 6-3, below, summarises the catchment parameters used to assess the pre and post development flows.

Table 6-2 – Pre-development Catchment Parameters

Catchment	Model Method	Area (ha)	Fraction Impervious (%)	Slope (%)	Manning's n
Site-West	RAFTS	6.987	0.5%	4.3	0.1
1C	RAFTS	67.269	0.5%	1.26	0.1
3B	RAFTS	14.09	0	2.91	0.1

Table 6-3 – Post-development Catchment Parameters

Catchment	Model Method	Area (ha)	Fraction Impervious (%)	Slope (%)	Manning 's n	Pervious tc (minutes)	Impervious tc (minutes)
Site-West (Interim)	RAFTS	6.987	0%	0.50	0.040	N/A	N/A

Catchment	Model Method	Area (ha)	Fraction Impervious (%)	Slope (%)	Manning's n	Pervious tc (minutes)	Impervious tc (minutes)
Site-West (Developed)	ILSAX	6.987	90%	N/A	N/A	5	5
1C	RAFTS	67.269	0%	1.26	0.1	N/A	N/A
Site-east	RAFTS	10.031	0%	0.90	0.040	N/A	N/A
3B	RAFTS	3.780	5%	0.45	0.1	N/A	N/A

6.3 Attenuation of Developed Flows

6.3.1 Objective

The stormwater discharge from each catchment must not exceed pre-developed flow rates for storm events from 63.2% AEP to 1% AEP. Appropriate stormwater infrastructure for each catchment is therefore required to ensure that there is no increase in peak discharge flow rates for the downstream overland flow path.

6.3.2 Methodology

A DRAINS model has been developed using a combination of the RAFTS and ILSAX methods to determine the development's hydraulic/ hydrological impacts in the context of the undeveloped case. ILSAX was used to model the developed catchments with RAFTS used to model the relatively undeveloped existing and external catchments.

The critical storm event was determined via an investigation of storm durations ranging from 10mins to 1080mins. The model was then used to route post-developed runoff from the eastern catchment through the proposed detention structure to determine the most efficient onsite detention system to comply with aforementioned objective.

Each catchment was modelled using a split catchment approach, with the first sub-catchment representing impervious areas and the second pervious. This allows for an accurate representation of Manning's roughness coefficients and applicable loss parameters.

6.4 Model Results

6.4.1 Western Catchment (Interim Scenario)

The following results have been captured from the DRAINS models for the Western Catchment. Table 6-4, below, lists the peak median flow rates discharged to the from Site-West to catchment 1C for each identified critical storm across the assessed AEP range.

Table 6-4 Summary of DRAINS hydrologic/hydraulic results – Western Catchment (Interim)

Scenario	AEP (%)	63.2%	50%	20%	10%	5%	2%	1%
Existing [1]	Median Peak Flow (m^3/s)	0.247	0.320	0.534	0.715	0.922	1.158	1.377
Developed (Interim) [2]	Median Peak Flow (m^3/s)	0.189	0.239	0.420	0.575	0.739	0.906	1.080
	Difference [2] – [1]	-0.058	-0.081	-0.114	-0.140	-0.183	-0.252	-0.297

As can be seen in Table 6-4, the flows discharged from the Site-West (Interim) catchment following bulk earthworks and seed stabilisation are less than the pre-development flows, thus no detention in the interim scenario is required.

6.4.2 Western Catchment (Developed Scenario)

Despite the outcome stated in section 6.4.1, any urbanisation of the western contributing catchment is likely to require attenuation. Further to this, in accordance with the Terrestrial Ecological Assessment Report dated 20 July 2022 prepared by *28S Environmental*, a detention basin is required to be installed for orderly development and is required to be delivered as part of the first phase of operational work on Lot 1. Therefore, the following sections discuss sizing of the detention basin that will attenuate flows from the Site-West developed catchment.

6.4.2.1 Detention System Design

Table 6-4 presents the parameters for the proposed on-site detention, which has been iteratively optimised to ensure no post development increase to pre-developed flow rates from 63.2% AEP up to and including the 1% AEP storm event. Reference should be made to Engineering Drawings in Appendix B for a conceptual illustration of the earthworks forming the extents of the detention basin and the culvert outlet location.

Table 6-5 Detention System Design Parameters

Catchment	Internal Base Area	Maximum Water Depth	Detention Storage Volume	Control Outlets
Western Basin	1293 m^2 @ RL26.7m AHD	2.07 m (1% AEP)	4,489 m^3	• 375mm dia low flow pipe at base of basin. • 2m wide weir @ RL28.3m AHD

6.4.2.2 Model Results

The following results have been captured from the DRAINS models following the implementation of the detention basin described in Table 6-4. Table 6-4, below, lists the peak median flow rates discharged to the from Site-West (Developed) to catchment 1C for each identified critical storm across the assessed AEP range.

Table 6-6 Summary of DRAINS hydrologic/hydraulic results – Western Catchment (Developed)

Scenario	AEP (%)	63.2%	50%	20%	10%	5%	2%	1%
Existing [1]	Median Peak Flow (m^3/s)	0.247	0.320	0.534	0.715	0.922	1.158	1.377
Developed	Median Peak Flow (m^3/s)	1.602	1.868	2.664	3.246	3.828	4.573	5.156
Mitigated [2]	Median Peak Flow (m^3/s)	0.239	0.258	0.309	0.341	0.555	0.982	1.307
	Difference [2] – [1]	-0.008	-0.062	-0.225	-0.374	-0.367	-0.176	-0.070

As can be seen in Table 6-4, the proposed detention basin has been sized sufficiently to ensure the post-development flow rates discharged from the Site-West (Developed) catchment do not exceed the pre-development flow rates from the Site-West (Existing)for the 63.2% AEP to 1% AEP design events.

6.4.3 Eastern Catchment

The following results have been captured from the DRAINS models for the Eastern Catchment. Table 6-7 summarises the peak median flow rates discharged to the northern boundary of the eastern portion of the overland flow path for each identified critical storm across the assessed AEP range.

Table 6-7 Summary of DRAINS hydrologic/hydraulic Results – Eastern Catchment (3B and Site_East)

Scenario	AEP (%)	63.2%	50%	20%	10%	5%	2%	1%
Existing [1]	Median Peak Flow (m^3/s)	0.373	0.453	0.807	1.132	1.439	1.756	2.106
Developed (Interim) [2]	Median Peak Flow (m^3/s)	0.327	0.401	0.707	0.964	1.170	1.479	1.767
	Difference [2] – [1]	-0.046	-0.052	-0.100	-0.168	-0.269	-0.277	-0.339

Table 6-7 demonstrates that the flows discharged from the eastern site catchment following bulk earthworks and seed stabilisation are less than the pre-development flows, thus no detention is required. Table 6-7 A hydraulic impact assessment has been undertaken for the overland flow path and the surrounding area to ensure the development does not cause actionable nuisance. ***Concerning flood impact investigation and analysis of upstream and downstream properties, the Arcadis report GA002-30139050-AAR HIA should be referred to for the outcomes of this assessment.***

6.4.4 Key Assumptions

Section 6.4.2 and the design of the western detention basin has made assumptions regarding the *Site-West (Developed)* catchment parameters. These assumed catchment parameters are stated in Table 6-3. The ultimate developed catchment parameters are presently unknown and subject to future use and an MCU development application. In the event a future development application proposes western catchment parameters that differ adversely from the assumptions made in this report (ie increased fraction impervious, increased area etc), said application will need to be supported by a Site Based Stormwater Management Plan and Hydraulic Impact Assessment.

Section 6.4.3 demonstrates that the flows discharged from the *Site-east* catchment during the interim bulk earthworks phase are less than pre-development flows, thus no detention is required. However, ultimate development that will be subject of a future MCU application will need to be supported by a Site Based Stormwater Management Plan and Hydraulic Impact Assessment.

7 ENVIRONMENTAL VALUES AND WATER QUALITY OBJECTIVES (WQO)

Water quality parameters and the proposed limits applicable for this site have been selected in accordance with South-East Queensland Healthy Waterways Partnership's Water by Design MUSIC Modelling Guidelines – Consultation Draft (Version 3, 2018).

The Queensland State Planning Policy (2017) provides assessment benchmarks for water quality which apply to the following development applications for discharging to receiving waters:

(1) A material change of use for an urban purpose that involves premises 2500m^2 or greater in size and;
- *(a) will result in size or more dwellings; or*
- *(b) will result in an impervious area greater than 25 per cent of the net developable area; or*

(2) reconfiguring a lot for an urban purpose that involves premises 2500m^2 or greater in size and will result in six or more lots; or

(3) operational work for an urban purpose that involves disturbing a land area 2500m^2 or greater in size.

The Planning Regulation (2017) defines 'urban purposes' as:

A purpose for which land is used in cities or towns –
- *(a) including residential, industrial, sporting, recreation and commercial purposes; but*
- *(b) not including rural residential, environmental, conservation, rural, natural or wilderness area purposes.*

The proposed reconfiguration of lot results in two lots and as such, does not trigger the assessment benchmarks for water quality.

The proposed bulk earthworks constitutes operational works for rural purposes and as such, does not trigger the assessment benchmarks for water quality.

8 CONSTRUCTION PHASE WATER QUALITY

During the construction phase of the development, an Erosion and Sediment Control (ESC) Program, designed by an accredited professional in erosion and sediment control (ie a CPESC), will be implemented to minimise water quality impacts. A detailed ESC Program will be employed throughout the site, with measures that may include silt fences, cut-off drains for polluted stormwater, diversion channels for clean stormwater run-off and sediment basins.

Details of the sediment and erosion control measures shall be provided by the appointed CPESC (appointed by the Principal Contractor) and submitted to EDQ prior to commencing works onsite. The contractor and their appointed CPESC shall be responsible for compliance with the ESC program, objectives of the *SPP 2017 Appendix 2 Table A* and *Healthy Land and Water Technical Note: Complying with the SPP – Sediment Management on Construction Site.*

The following information is provided to identify examples of controls and procedures which may be incorporated into the ESC program.

8.1 Pre-construction

- Establish a single stabilised entry/exit point (rumble pad) for each stage of construction. This point should also include a vehicle shakedown device to mitigate the transportation of dust and dirt.
- Sediment fences are to be placed along the low side of the site to slow flows, reduce scour and capture some sediment runoff.
- Sediment fences are to be constructed at the base of fill embankments.
- Divert up-slope water around the work site and appropriately stabilise any drainage channels.
- Areas for plant and construction material storage are to be designated along with associated diversion drains and spillage holding ponds.
- Diversion banks are to be created at the upstream boundary of construction activities to ensure upstream runoff is diverted around any areas to be exposed. Catch drains are to be created at the downstream boundary of construction activities.
- Construction of temporary sediment basins.
- Site personnel are to be educated to the sediment and erosion control measures implemented on site.

8.2 During Construction

- Progressive re-vegetation of filled areas and fill batters.
- Construction activities are to be confined to the necessary construction areas.
- The provision of a construction exit to prevent the tracking of debris from tyres of vehicles onto public roads.
- The topsoil stockpile location will be nominated to coincide with areas previously disturbed. A sediment fence is to be constructed around the bottom of the stockpile to trap sediment. A diversion drain is to be installed upstream of the stockpile if required.
- Transport loads that are subject to loss through wind or spillage shall be covered or sealed to prevent entry of pollutants to the stormwater system.
- Regular inspection and maintenance of silt fences, sediment basins and other erosion control measures. Following rainfall events greater than 50mm inspection of erosion control measures and removal of collected material should be undertaken. Replacement of any damaged equipment should be performed immediately.

8.3 Sediment Basins

As part of the construction phase ESC program, sediment basins are required to be implemented onsite to treat the two catchments – *Site-west* and *Site-east*. The western detention basin described in Section 6.4.2 can be delivered upfront and used as the sediment basin for the *Site-west* catchment during construction. The *Site-east* catchment will also require a sediment basin with minimum

volumes (ie settling and storage volumes) to be determined the CPESC. In addition to these volumes the eastern sediment basin is required to have a flood storage volume of 3900m^3, depth of 1.2m, configured with a 2 x 375dia low flow pipe outlet. This storage volume and configuration is required to ensure compliance with the Waterway Stability and Flood Flow Management objectives stated in SPP 2017 Appendix 2 Table A Stormwater management design objectives. Specifically, to ensure flooding characteristics external to the development site are not worsened during construction for all events up to and including the 1% AEP event. Both sediment basins are required to be operational for the interim bulk earthworks phase and the eastern sediment basin can be decommissioned once the *Site-east* catchment is stabilised. However, the flood storage volume of the eastern sediment basin must be maintained post construction until such time that alternate mitigation device/s are implemented.

9 CONCLUSION

This SBSMP has been prepared to provide a design proposal and guide to the stormwater quantity and quality management techniques for the site.

The two primary objectives of this SBSMP have been to ensure that:

1. **Suitable measures are incorporated in the development to ensure that there are no adverse impacts to downstream receiving waterways, property or infrastructure resulting from any increase to peak discharging stormwater flow rates.**

This report includes stormwater quantity calculations which demonstrate, that due to change in stormwater catchment parameters in the interim scenario (ie post bulk earthworks, perimeter retaining walls and catchment stabilisation), there is an expected reduction in peak flow rates for both west and east catchments. However, for orderly development and to meet the ecological requirements of development (ie rehabilitated buffer zone at interface between Lots 1 & 2) a detention basin has been designed for the western catchment that will attenuate flows in the post development (ie urbanised) scenario for all storm events, up to and including the 1% AEP storm event. It should be noted that developed catchment parameters have been **assumed** for this purpose and will therefore need to be reviewed and confirmed as part of any future MCU application and associated SBSMP and HIA.

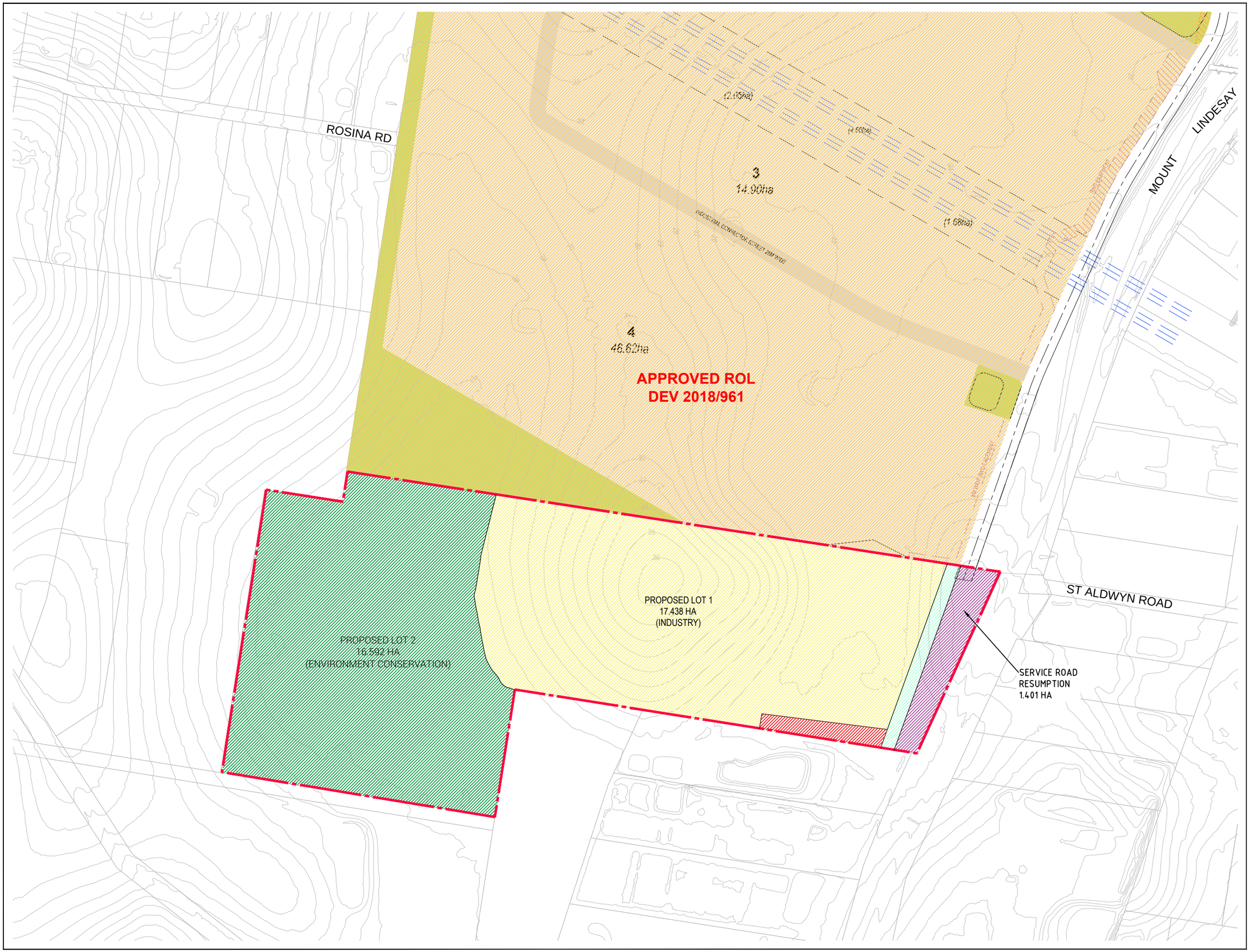
Additionally, construction phase ESC measures were provided including minimum storage volumes for two sediment basins that are required to be operational for the duration of the interim bulk earthworks phase.

2. **Details of a proposed stormwater quality treatment train are provided to ensure the discharge of stormwater from the site is of adequate quality standards to comply with the requirements of Economic Development Queensland (EDQ), Logan City Council (LCC) and the South-East Queensland Healthy Waterways Partnership.**

A stormwater quality assessment is provided which demonstrates that no treatment devices are required as a result of the Reconfiguration of Lot application, nor following the proposed bulk earthworks. Construction phase sediment control devices are to be implemented during construction works in accordance with requirements associated with Type 1 sediment discharge zones, comprising of a vehicle shakedown, sediment fences, gully inlet protection, sediment basin and check dams.

APPENDIX A

Proposed ROL Plan



place design group.

BRISBANE
131 Robertson Street
PO Box 419
Fortitude Valley QLD 4006
T + 61 7 3852 3922

PROJECT

4653-4691 MOUNT LINDESAY HIGHWAY

CLIENT

MACLEAN ESTATES

KEYS / NOTES

SUBJECT SITE
OPEN SPACE

ROAD LAYOUT
INDICATIVE ROAD LAYOUT

OTHER FEATURES

SERVICE ROAD RESUMPTION
PROPOSED LOT 2
PROPOSED LOT 1
ROAD RESERVE
EASEMENT

DRAWING TITLE

PROPOSED ROL PLAN

DESIGN : TW
DOCUMENT : RT
PROJECT : 1121084
SCALE :

NORTH

20 0 20 40 60 80 100 120 metres

SCALE 1:2500 @ A1 1:5000 @ A3

DRAWING NUMBER 1121084 - 05

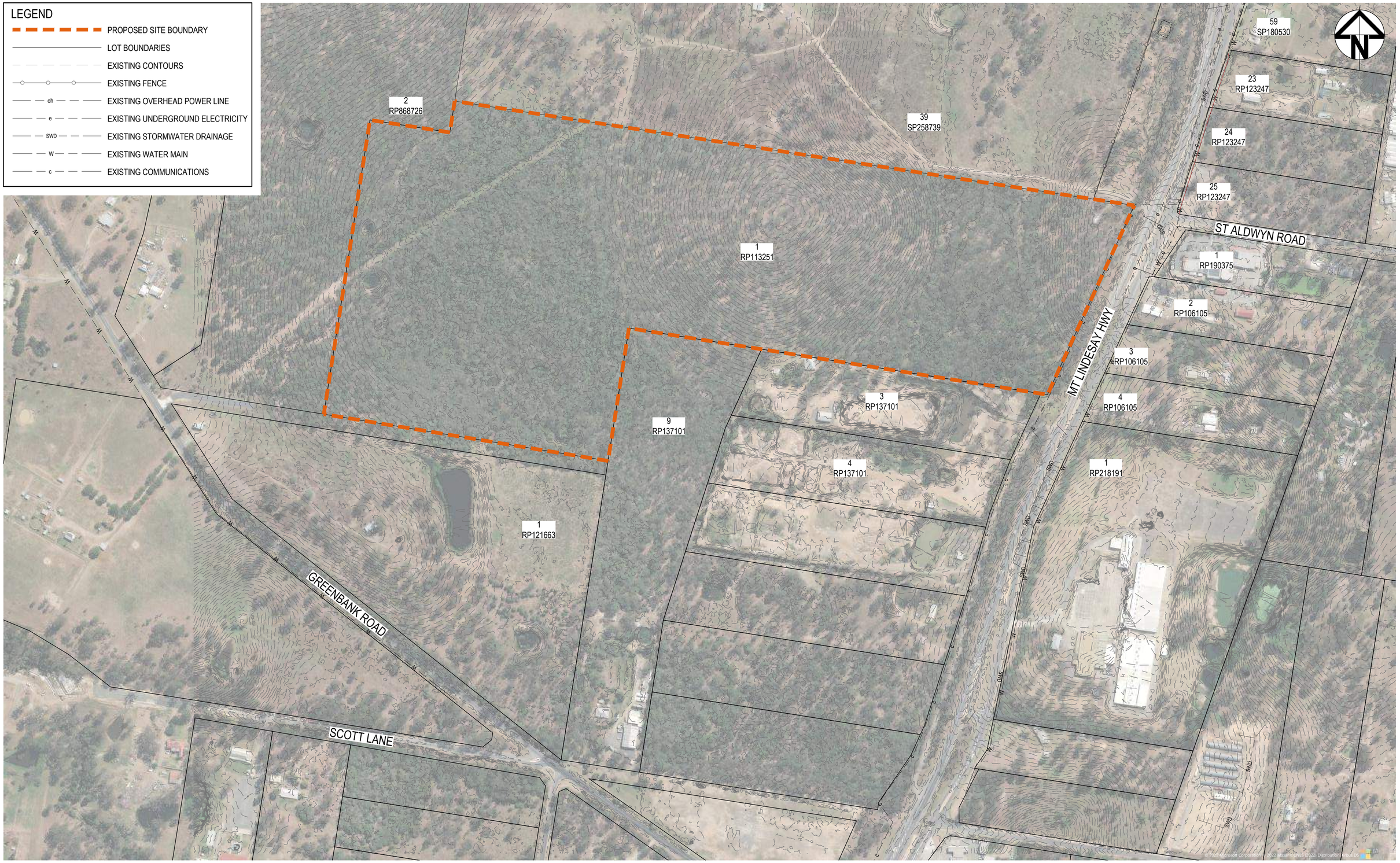
REVISION B

APPENDIX B

Engineering Drawings and Site Topography

LEGEND

- PROPOSED SITE BOUNDARY
- LOT BOUNDARIES
- EXISTING CONTOURS
- EXISTING FENCE
- oh — EXISTING OVERHEAD POWER LINE
- e — EXISTING UNDERGROUND ELECTRICITY
- SWD — EXISTING STORMWATER DRAINAGE
- W — EXISTING WATER MAIN
- c — EXISTING COMMUNICATIONS



Issue	Description	DR	CH	VE	Date
02	EXISTING SERVICES ADDED	JG	EP	GE	28.10.22
01	ORIGINAL ISSUE	EP	EP	GE	18.07.22

100mm on Original

Scales

0 50 100 150 200 250m

1 : 2500

Surveyor

WOLTER consulting group

Planning Urban Design Landscape Environment Surveying

Architect

Client

MACLEAN ESTATES PTY LTD

Status

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Original Issue Signatures			
Drawn	J.GRIEBELER	Original Size	A1
Designed	E.PEEK	Height Datum	AHD
Project Manager	E.PEEK	Grid	
Verified	G.ELLIS		

Project

4653-4691 MOUNT LINDESAY HIGHWAY, NORTH MACLEAN

Title

EXISTING SURVEY SKETCH PLAN

ARCADIS

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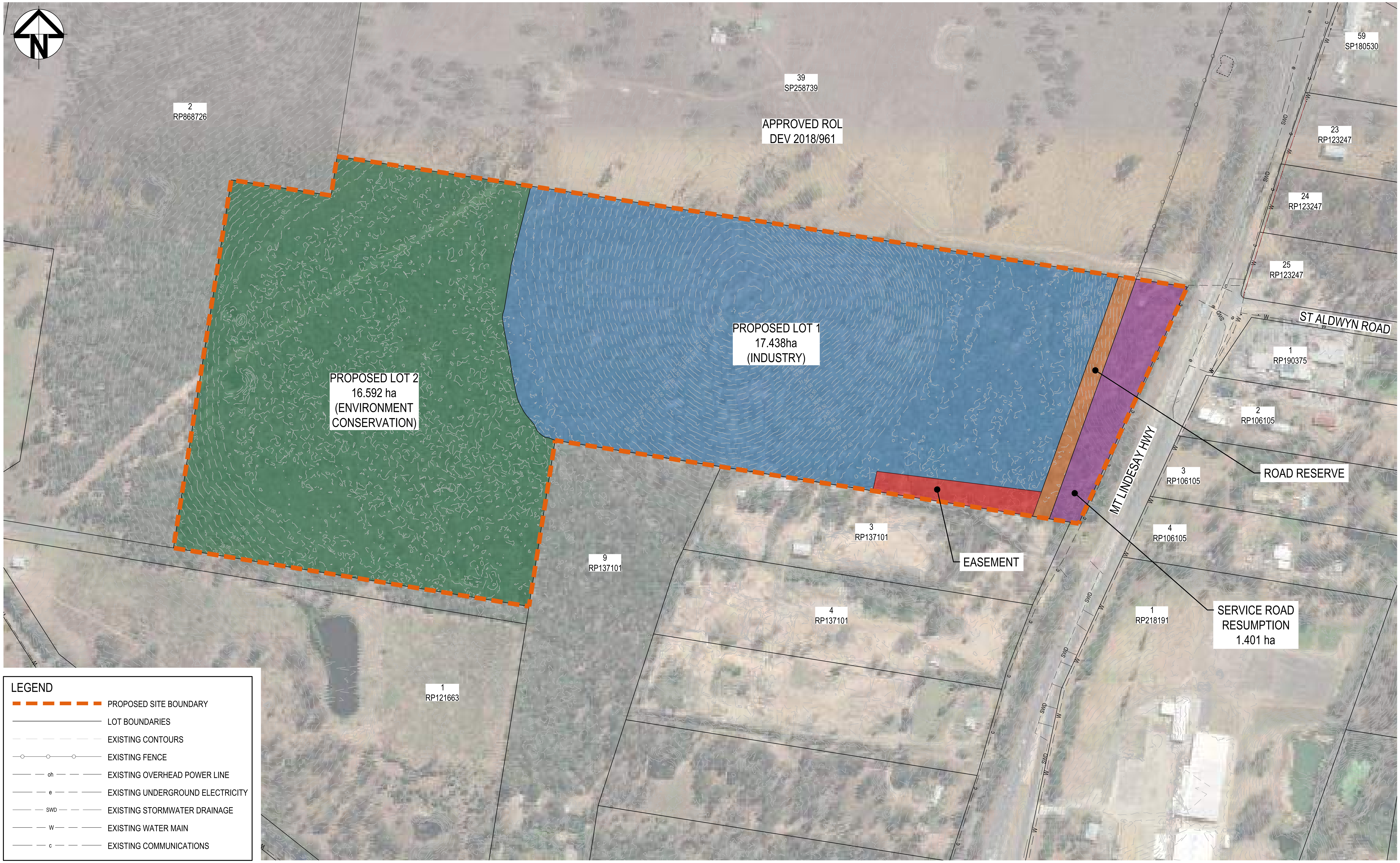
SYDNEY NSW 2000
ABN 76 104 485 289

Tel No: +61 2 8907 9000
www.arcadis.com/au

Project No.	Folder Prefix	Zone | Stage | Phase	Discipline	Type	Drawing No.	Issue
30139050 -	AAP -	WS00OP -	CV -	SKT -	005 -	02

Date Plotted: 18 Jan 2023 - 04:07PM File Name: C:\Users\jg85027\ACCDocs\Arcadis\AAU-30139050-North Maclean 2\Project Files\01_WIP\01_STG-00_Civil_CV\Models\30139050-AAP-WS00OP-CV-M2D-SU-Survey.dwg V1



Issue	Description	DR	CH	VE	Date
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02	AREAS UPDATED	JG	GE	GE	13.01.23
01	ORIGINAL ISSUE	JG	GE	GE	28.10.22

100mm on Original

Scales

0 50 100 150 200m

1 : 2000

Surveyor

WOLTER consulting group

Planning · Urban Design · Landscape · Environment · Surveying

Architect

Client

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Designed	E.PEEK	Height Datum	AHD
Project Manager	E.PEEK	Grid	
Verified	G.ELLIS		

Project

4653-4691 MOUNT LINDESAY HIGHWAY, NORTH MACLEAN

Title

EXTENTS OF BULK EARTHWORKS SKETCH PLAN

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Project No.	Folder Prefix	Zone | Stage | Phase	Discipline	Type	Drawing No.	Issue
30139050 -	AAP -	WS00OP -	CV -	SKT -	006 -	03

Date Plotted: 13 Mar 2023 - 08:46AM File Name: C:\Users\SSAZ3927\ACCDocs\Arcadis\AAU-30139050-North Maclean 2\Project Files\01_WIP\01_STG-00_Civil_CV\Drawings\30139050-AAP-WS00OP-CV-SKT-006-ExtentsBEW.dwg V1

NOTE:

FENCING AND HAZARD SIGNAGE TO BE PROVIDED AROUND DETENTION BASIN PERIMETER.

DEPTH INDICATOR TO BE PROVIDED WITHIN DETENTION BASIN.

CUT & FILL VOLUMES

	CUT	FILL	BALANCE
INSIDE PROPOSED BOUNDARY	-182,964 m^3	226,383 m^3	43,419 m^3
OUTSIDE PROPOSED BOUNDARY	-24,002 m^3	921 m^3	-23,081 m^3
TOTAL	-206,966 m^3	227,304 m^3	20,338 m^3

LEGEND

- PROPOSED SITE BOUNDARY
- LOT BOUNDARIES
- DESIGN CONTOUR MAJOR
- DESIGN CONTOUR MINOR
- EXISTING CONTOURS
- DESIGN PADS
- DESIGN BATTER
- EXISTING FENCE
- EXISTING OVERHEAD POWER LINE
- EXISTING UNDERGROUND ELECTRICITY
- EXISTING STORMWATER DRAINAGE
- EXISTING WATER MAIN
- EXISTING COMMUNICATIONS
- ENVIRONMENT CONSERVATION AREA

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08	ISSUED FOR ROL APPROVAL	LS	LS	DO	22.09.23
07	ISSUE FOR ROL APPROVAL	NN	SS	DO	17.08.23
06	EDQ INFORMATION REQUEST	JG	SS	GE	02.03.23
05	DESIGN UPDATES	JG	GE	GE	13.01.23
04	DESIGN UPDATES	JG	GE	GE	21.12.22
03	DESIGN UPDATES	JG	PC	GE	09.11.22
02	DESIGN UPDATES	JG	PC	GE	28.10.22
01	ORIGINAL ISSUE	PC	EP	GE	14.07.22

Scales

0 50 100 150 200 250m

1 : 2500

100mm on Original

Surveyor

WOLTER consulting group

Planning Urban Design Landscape Environment Surveying

Architect

Client

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Verified	G.ELLIS		

Project

4653-4691 MOUNT LINDESAY HIGHWAY, NORTH MACLEAN

Title

BULK EARTHWORKS SKETCH PLAN

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Project No.	Folder Prefix	Zone | Stage | Phase	Discipline	Type	Drawing No.	Issue
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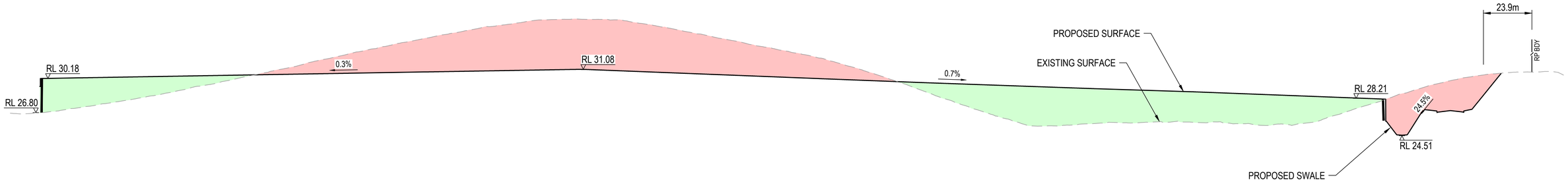

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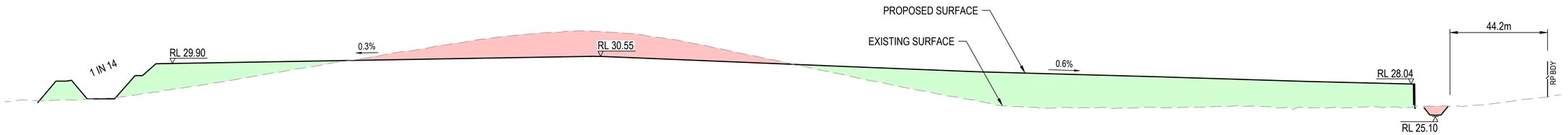

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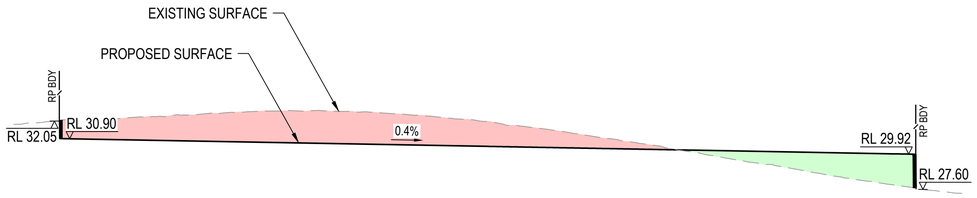

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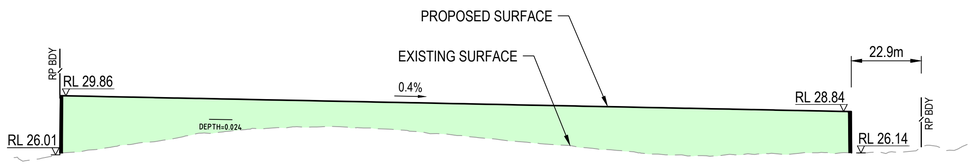

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SECTION 5
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05	EDQ INFORMATION REQUEST	JG	SS	GE	02.03.23
04	DESIGN UPDATES	JG	GE	GE	13.01.23
03	DESIGN UPDATES	JG	GE	GE	21.12.22
02	DESIGN UPDATES	JG	PC	GE	09.11.22
01	ORIGINAL ISSUE	JG	PC	GE	28.10.22

100mm on Original

Scales

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1:1000
VERT 0 5 10 15 20m
1 : 200

Surveyor
WOLTER consulting group
Planning Urban Design Landscape Environment Surveying

Architect

Client
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Designed	J.GRIEBELER	Height Datum	AHD
Project Manager	G.ELLIS	Grid	
Verified	G.ELLIS		

Project
4653-4691 MOUNT LINDESAY HIGHWAY, NORTH MACLEAN

Title
BULK EARTHWORKS SECTIONS SHEET 1

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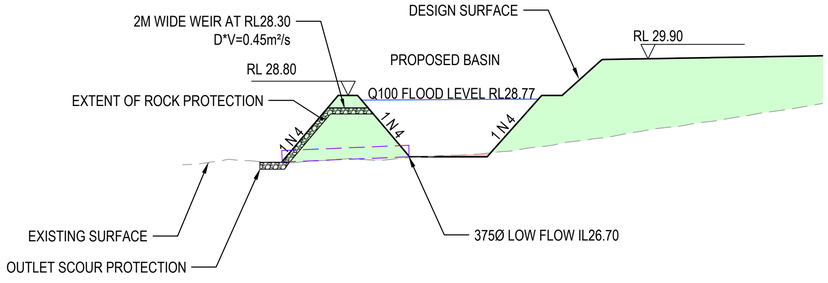
Project No.	Folder Prefix	Zone | Stage | Phase	Discipline	Type	Drawing No.	Issue
30139050 -	AAP -	WS00OP -	CV -	SKT -	002 -	06

Date Plotted: 6 Oct 2023 - 09:13AM File Name: C:\Users\ls28099\DC\ACCDocs\Arcadis\AAU-30139050-North Maclean 2\Project Files\01_WIP\01_STG-00_Civil_CV\Drawings\30139050-AAP-WS00OP-CV-SKT-002-BulkEWSections.dwg V1



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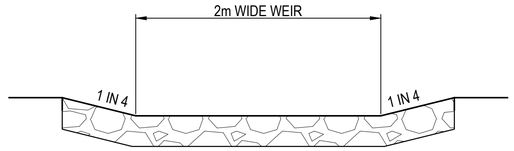

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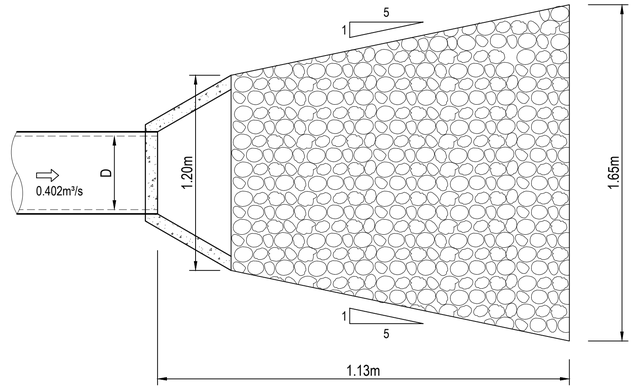
NTS



LOW FLOW PIPE OUTLET SCOUR
PROTECTION DETAIL
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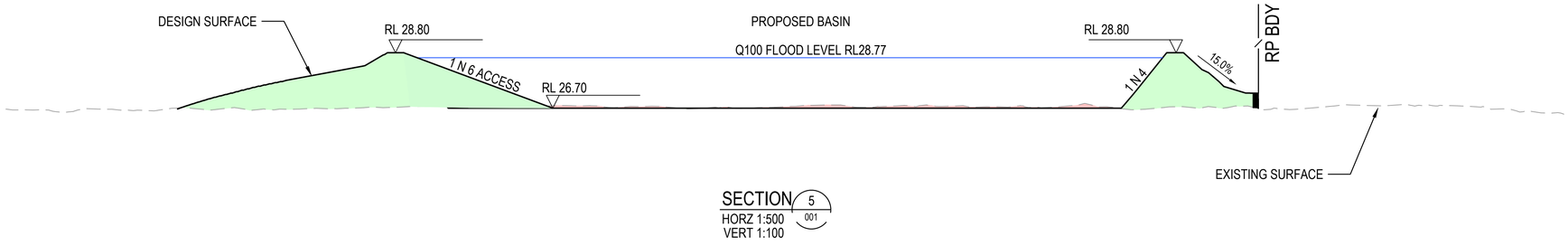

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1 : 500 HORIZONTAL
0 2 4 6 8 10m
1 : 100 VERTICAL

Surveyor
WOLTER consulting group
Planning Urban Design Landscape Environment Surveying

Architect

Client
MACLEAN ESTATES PTY LTD

Status
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Original Issue Signatures			
Drawn	J.GRIEBELER	Original Size	A1
Designed	J.GRIEBELER	Height Datum	AHD
Project Manager	G.ELLIS	Grid	
Verified	G.ELLIS		

Project
4653-4691 MOUNT LINDESAY HIGHWAY, NORTH MACLEAN

Title
BULK EARTHWORKS SECTIONS SHEET 2

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Project No.	Folder Prefix	Zone | Stage | Phase	Discipline	Type	Drawing No.	Issue
30139050 -	AAP -	WS00OP -	CV -	SKT -	003 -	01

100mm on Original

Date Plotted: 3 Mar 2023 - 09:41AM File Name: C:\Users\SSAZ3927\ACCDocs\Arcadis\AAU-30139050-North Maclean 2\Project Files\01_WIP\01_STG-00_Civil_CV\Drawings\30139050-AAP-WS00OP-CV-SKT-002-BulkEWSections.dwg V1

APPENDIX C

DEV 2018/961 Decision Notice

Queensland Government

Department of
State Development, Infrastructure, Local Government and Planning

Our ref: DEV2018/961

10 September 2021

Wearco Pty Ltd
C/- Reel Planning Pty Ltd
Att: Ms Amy Adamson
PO Box 2088
MILTON QLD 4064

Email: amy@reelplanning.com

Dear Amy

S89(1)(a) Approval of PDA development application
PDA Development Permit for reconfiguring a lot – 1 lot into 4 lots, plus roads and open space at 4499-4651 Mount Lindesay Highway, North Maclean described as Lot 39 on RP253739

On 10 September 2021, pursuant to s.85(4)(b) of the *Economic Development Act 2012,* the Minister for Economic Development Queensland (MEDQ) decided to grant **all** of the PDA development application applied for, in accordance with the attached PDA decision notice.

The PDA decision notice and approved plans / documents can also be viewed in the MEDQ Development Approvals Register via the Department website at www.dsdilgp.qld.gov.au/pda-da-applications.

If you require any further information, please contact Mr Brandon Bouda, Manager, Development Assessment, in Economic Development Queensland, by telephone on (07) 3452 7422 or at brandon.bouda@dsdilgp.qld.gov.au, who will be pleased to assist.

Yours sincerely

Jeanine Stone
Director
Development Assessment
Economic Development Queensland

Economic Development Queensland
GPO Box 2202
Brisbane Queensland 4001 Australia
Website www.edq.qld.gov.au
ABN 76 590 288 697

PDA Decision Notice

Site information		
Name of priority development area (PDA)	Greater Flagstone	
Site address	4499 – 4651 Mount Lindesay Highway, North Maclean	
Lot on plan description	Lot number	Plan description
	39	SP258739

PDA development application details	
DEV reference number	DEV2018/961
'Properly made' date	19 October 2018
Type of application	☒ PDA development application for: ☐ Material change of use ☐ Preliminary approval ☐ Development permit ☒ Reconfiguring a lot ☐ Preliminary approval ☒ Development permit ☐ Operational work ☐ Preliminary approval ☐ Development permit ☐ Application to change PDA development approval ☐ Application to extend currency period
Proposed development	1 into 4 lots, with road, open space and a context plan

PDA development approval details	
Decision of the MEDQ	The MEDQ has decided to grant **all** of the PDA development approval applied for, **subject to** PDA development conditions forming part of this decision notice. The approval is for: • 1 into 4 lots, with road, open space and a context plan
Decision date	10 September 2021
Currency period	6 years from the date of the decision

Economic Development Queensland
GPO Box 2202
Brisbane Queensland 4001 Australia
Website www.edq.qld.gov.au
ABN 76 590 288 697

Approved plans and documents			
The plans and documents approved by the MEDQ and referred to in the PDA development conditions for the PDA development approval are detailed below.			
Approved plans and documents		**Number**	**Date**
1.	Proposed Development Layout Plan	TIEL2020159.CIV.DA 010, Issue H	07/07/21 (as amended in red dated 08/09/2021)
2.	Staging Plan	TIELK202159.CIV.DA, Dwg No. 16, Issue C	07/07/2021 (as amended in red date 03/09/2021)
3.	Concept Earthworks Layout Plan	TIEL202159.CIV.DA, Dwg No. 015, Issue G	07/07/21
4.	Concept Water Reticulation Layout Plan	TIEL202159.CIV.DA, Dwg No. 014, Issue G	07/07/21
5.	Concept Sewer Reticulation Layout Plan	TIEL202159.CIV.DA, Dwg No. 012, Issue G	07/07/21 (as amended in red dated 03/09/2021)
6.	Concept Stormwater Drainage Layout Plan	TIEL202159.CIV.DA, Dwg No. 013, Issue H	07/07/21
7.	Concept Catchment Layout Plan	TIEL202159.CIV.DA, Dwg No. 008, Issue I	07/07/21
8.	Swale Cross Section	TIEL202159.CIV.DA.DWG No 019, Issue C	07/07/21
9.	Swale Longitudinal Section	TIEL202159.CIV.DA, Dwg No 018, Issue B	07/07/21
10.	Traffic Impact Assessment	16378, Version 3	01/03/19
11.	Bushfire Management Plan	Report 16014, Final V3	13 July 2018
12.	Addendum to the bushfire management plan for the proposed development at 4499-4651 Mount Lindsay Highway, North Maclean		18 February 2019
13.	North Maclean Enterprise Precinct (4499-4651 Mount Lindesay Highway, North Maclean) – Progression of Ecological Issues		31 March 2017

Supporting Plans and Documents

To remove any doubt, the following documents are not approved documents for the purposes of this PDA development approval, but rather are supporting documents.

	Supporting plans, reports and specifications	**Number** *(if applicable)*	**Date** *(if applicable)*
Endorsed Context Plan			
1.	North Maclean Enterprise Context Plan Land Use and Road Network		12/07/2021 (as amended in red dated 03/09/2021)
2.	North Maclean Enterprise Context Plan Land Use and Road Network (Wider Locality)		12/07/2021
3.	North Maclean Enterprise Context Plan Ultimate Water and Sewer Network		12/07/2021
4.	North Maclean Enterprise Context Plan Ultimate Stormwater Network		12/07/2021 (as amended in red dated 03/09/2021)
Supporting Plans, Reports and Specifications			
5.	Site Based Stormwater Management Plan	TEL202159, Issue A	08 July 2021
6.	Engineering Services Report	TEL202159, Issue A	06/07/21.

PDA development conditions

PREAMBLE AND ABBREVIATIONS

PREAMBLE

For the purpose of interpreting this PDA Development Approval, including the PDA Development Conditions, the following applies:

Compliance assessment

Where a condition of this approval requires Compliance Assessment, Compliance Assessment is required in accordance with the following:

a) The applicant must:

   i) pay to MEDQ at the time of submission the relevant fee for Compliance Assessment, including any third party peer review costs which will be charged on a 100% cost recovery basis. The Compliance Assessment fees are set out in EDQ Development Assessment Fees and Charges Schedule[1] (as amended from time to time).
   ii) submit to EDQ DA a duly completed Compliance Assessment form[2].

   iii) submit to EDQ DA the documentation as required under the relevant condition.

b) Where EDQ is satisfied the documentation submitted for Compliance Assessment meets the requirements of the relevant condition (or element of the condition), EDQ will endorse the documentation and advise by written notice.

[1] The EDQ Development Assessment Fees and Charges Schedule is available at EDQ's website.

[2] The Compliance Assessment form is available at EDQ's website. It sets out how to submit documentation for Compliance Assessment and how to pay Compliance Assessment fees.

c) Compliance Assessment and endorsement can be repeated where a different design or solution, to that already endorsed, is sought.

d) The process and timeframes that apply to Compliance Assessment are as follows:

i) applicant submits items required under a) above to EDQ DA for Compliance Assessment.

ii) **within 30 business days** – EDQ assesses the documentation and:
1. if satisfied, endorses the documentation; or
2. if not satisfied, notifies the applicant accordingly.

iii) if the applicant is notified under ii.2. above, revised documentation must be submitted **within 30 business days** from the date of notification.

iv) **within 30 business days** – EDQ assesses the revised documentation and:
1. if satisfied, endorses the revised documentation; or
2. if not satisfied, notifies the applicant accordingly.

v) where EDQ notifies the applicant as stated under iv.2. above, repeat steps iii. and iv. above. If either party is not satisfied by the outcome of this process, that party can elect to enter into a mediation process with an independent mediator agreed to by both parties.

Despite note v. above, the condition (or element of the condition) is determined to have been met only when EDQ endorses relevant documentation.

SUBMITTING DOCUMENTATION TO EDQ:

Where a condition of this approval requires documentation to be submitted to either EDQ DA or EDQ TS, submit the documentation to:

a) EDQ DA at: pdadevelopmentassessment@dsdmip.qld.gov.au.

b) EDQ TS at: EDQ_PrePostConstruction@dsdmip.qld.gov.au.

ABBREVIATIONS

For the purposes of interpreting the PDA Development Conditions, the following is a list of abbreviations utilised:

1. **AILA** means a Landscape Architect registered Australian Institute Landscape Architect.

2. **Certification Procedures Manual** means the document titled *Certification Procedures Manual*, prepared by the Department of Infrastructure, Local Government and Planning, dated 16 October 2017 (as amended from time to time).

3. **Contributed Asset** means an asset constructed under a PDA development approval or Infrastructure Agreement that will become the responsibility of an External Authority. For the purposes of operational works for a Contributed Asset, the following definitions apply:
   a. **External Authority** means a public-sector entity other than the MEDQ;
   b. **Parkland** means carrying out operational work related to the provision of parkland infrastructure;

c. **Roadworks** means carrying out any operational work within existing or proposed road(s), to a depth of 1.5m measured from the top of kerb, and includes Streetscape Works;
d. **Sewer Works** means carrying out any operational work related to the provision of wastewater infrastructure;
e. **Streetscape Works** means carrying out any operational work within the verge of a road, including footpath surface treatments, street furniture, street lighting and landscaping;
f. **Stormwater Works** means carrying out any operational work related to the provision of stormwater infrastructure; and
g. **Water Works** means carrying out any operational work related to the provision of water infrastructure.

4. **Council** means Logan City Council.

5. **DSDILGP** means The Department of State Development, Infrastructure, Local Government and Planning

6. **EDQ** means Economic Development Queensland

7. **EDQ DA** means Economic Development Queensland's – Development Assessment team.

8. **EDQ TS** means Economic Development Queensland's – Technical Services team.

9. **IFF** means Infrastructure Funding Framework.

10. **MEDQ** means The Minister of Economic Development Queensland.

11. **PDA** means Priority Development Area.

12. **RPEQ** means Registered Professional Engineer of Queensland

No.	Condition	Timing
General		
1.	**Carry out the approved development** Carry out the approved development generally in accordance with the approved plans and documents; and any other documentation endorsed via Compliance Assessment as required by these conditions.	Prior to survey plan endorsement for the relevant stage
2.	**Street naming** Submit to EDQ DA a schedule of street names approved by Council.	Prior to survey plan endorsement for the relevant stage
Construction		
3.	**Hours of work - construction** Unless otherwise endorsed, via Compliance Assessment for out of hours work, construction hours for the approved development are limited to Monday to Saturday between 6:30am to 6:30pm, excluding public holidays.	During construction unless otherwise endorsed

4.	**Out of hours work - Compliance Assessment** Where out of hours work is proposed, submit to EDQ DA, for Compliance Assessment, an out of hours work request. The out of hours work request must include a duly completed out of hours work request form[3].	Minimum of 10 business days prior to proposed out of hours work commencement date
5.	**Certification of Operational Work** Carry out all Operational Work under this approval in accordance with the *Certification Procedures Manual.*	At all times
6.	**Construction management plan** a) Submit to EDQ TS a site-based Construction Management Plan (CMP), prepared by the principal site contractor and reviewed by a suitably qualified and experienced person responsible for overseeing the site works, to manage construction impacts, including: i) noise and dust in accordance with the EP Act; ii) stormwater flows around and through the site without increasing the concentration of total suspended solids or Prescribed Water Contaminants (as defined in the EP Act), causing erosion, creating any ponding and causing any actionable nuisance to upstream and downstream properties; iii) contaminated land, where required under a site suitability statement prepared in accordance with section 389 of the EP Act; iv) complaints procedures; v) site management: 1. for the provision of safe and functional alternative pedestrian routes, past, through or around the site; 2. to mitigate impacts to public sector entity assets, including street trees, on or external to the site; 3. for safe and functional temporary vehicular access points and frequency of use; 4. for the safe and functional loading and unloading of materials including the location of any remote loading sites; 5. for the location of materials, structures, plant and equipment; 6. of waste generated by construction activities; 7. detailing how materials are to be loaded/unloaded; 8. of proposed external hoardings and gantries (with clearances to street furniture and other public sector entity assets); 9. of employee and visitor parking areas; 10. of anticipated staging and programming; 11. for the provision of safe and functional emergency exit routes; and 12. any out of hours work as endorsed via Compliance Assessment. b) A copy of the CMP submitted under part a) of this condition must be current and available on site.	a) Prior to commencing work for the relevant stage b) During construction

[3] The out of hours work request form is available at EDQ's website.

	c) Carry out all construction work generally in accordance with the CMP submitted under part a) of this condition.	c) During construction
7.	**Erosion and sediment management** a) Submit to EDQ TS an Erosion and Sediment Control Plan (ESCP), certified by a RPEQ or an accredited professional in erosion and sediment control, and prepared generally in accordance with the following: i) construction phase stormwater management design objectives of the *State Planning Policy 2017* (Appendix 2 Table A); ii) *Healthy Land and Water Technical Note: Complying with the SPP – Sediment Management on Construction Sites*. b) Implement the certified ESCP submitted under part a) of this condition.	a) Prior to commencing work for the relevant stage b) During construction
8.	**Dispersive soil management** a) Submit to EDQ TS a Dispersive Soil Management Plan, prepared by a soil science/soil chemistry specialist that details for the design, construction, and operational phases of the development including: i. the suite of methods required to identify and address potential issues associated with the exposure and re-use of dispersive soils, ii. details of the areas where dispersive soils will be disturbed and treated/rehabilitated. b) Implement and monitor the actions identified in the Dispersive Soil Management Plan as required under part a) of this condition.	a) Prior to commencing site works b) At all times during construction
9.	**Traffic Management Plan** a) Submit to EDQ TS a Traffic Management Plan (TMP), certified by a person holding a current Traffic Management Design qualification. The TMP must include the following: i) provision for the safe and functional management of traffic around and through the site during and outside of construction work hours; ii) provision for the safe and functional management of pedestrian traffic, including alternative pedestrian routes past, through or around the site; iii) provision of parking for workers and materials delivery; iv) risk identification, assessment and identification of mitigation measures; v) ongoing monitoring, management review and certified updates (as required); and vi) traffic control plans and/or traffic control diagrams, prepared in accordance with *Austroads Guide to Temporary Traffic Management*, for any temporary part or full road closures. b) Carry out all construction work generally in accordance with the certified TMP submitted under part a) of this condition, which is to be current and available on site.	a) Prior to commencing work for the relevant stage b) During construction

	***Advice Note**: Operational traffic changes, such as temporary and permanent lane modifications, relaxation of clearway zone hours or footpath closures may require authorisation from Council or DTMR as road manager. It is recommended that applicants engage directly with the applicable road manager.*	
10.	**Public infrastructure (damage, repairs and relocation)** a) Repair any damage to existing public infrastructure caused by works carried out in association with the approved development. b) Where existing public infrastructure require repair or relocation, due to the approved development and/or works associated with the approved development, repair and/or relocate the public infrastructure at no cost to others and in accordance with statutory requirements and adopted design standards. ***Advice Note**: It is recommended applicants record their own dated photographic evidence of the condition of relevant existing public infrastructure both before and after works carried out in association with the approved development.*	a) Prior to survey plan endorsement for the relevant stage b) Prior to survey plan endorsement for the relevant stage
Earthworks and retaining walls		
11.	**Compliance Assessment - Earthworks** a) Submit to EDQ DA for Compliance Assessment detailed earthworks plans, certified by a RPEQ, and designed generally in accordance with: i) Australian Standard AS3798 – 2007 Guidelines on Earthworks for Commercial and Residential Developments and ii) the approved Concept Earthworks Layout Plan, Plan No. TIEL202159.CIV.DA, Dwg No. 015, Issue G, Prepared by Telford Civil, dated 07/07/21. The certified earthworks plans are to: i) include a geotechnical soils assessment of the site; ii) accord with the Erosion and Sediment Control Plan, as required by condition 7 – Erosion and sediment management; iii) accord with the Dispersive Soil Management Plan, as required by condition 8 – Dispersive soil management; iv) include the location and finished surface levels of any cut and/or fill; v) provide details of any areas where surplus soils are to be stockpiled; vi) detail protection measures to: 1. ensure adjoining properties and roads are not impacted by ponding or nuisance stormwater resulting from earthworks associated with the approved development; 2. preserve all drainage structures from structural loading impacts resulting from earthworks associated with the approved development.	a) Prior to commencing earthworks for the relevant stage

	b) Carry out earthworks generally in accordance with the certified plans endorsed by EDQ through part a) of this condition. c) Submit to EDQ TS RPEQ certification that: i) all earthworks have been carried out generally in accordance with the certified plans submitted under part a) of this condition; and ii) any unsuitable material encountered has been treated or replaced with suitable material.	b) Prior to survey plan endorsement for the relevant stage c) Prior to survey plan endorsement for the relevant stage
12.	**Retaining walls (excluding the western boundary retaining wall)** a) Submit to EDQ TS detailed engineering plans, certified by a RPEQ, of all retaining walls 1m or greater in height. Retaining walls must be: i) certified to achieve a minimum 50 year design life; ii) designed generally in accordance with *AS4678 – Earth Retaining Structures* and relevant material standards (e.g. *AS3600 – Concrete Structures*); b) Construct retaining walls generally in accordance with the certified plans required under part a) of this condition. c) Submit to EDQ TS certification from an RPEQ that all retaining wall works 1.0m or greater in height have been constructed generally in accordance with the certified plans submitted under part a) of this condition.	a) Prior to commencing earthworks for the relevant stage b) Prior to survey plan endorsement for the relevant stage c) Prior to survey plan endorsement for the relevant stage
13.	**Compliance Assessment – Western boundary retaining wall** a) Submit to EDQ DA for Compliance Assessment preliminary engineering plans, certified by a RPEQ, of the proposed western boundary retaining wall adjoining the swale. The retaining wall must be: i) fully contained, including footings, within the private lots; ii) designed based on a professional geotechnical advice; iii) take into consideration scour and flood impacts from the adjoining swale; and iv) appropriately fenced (fauna exclusion). b) Submit to EDQ TS detailed engineering plans, certified by a RPEQ, of the proposed retaining wall along the western swale, generally in accordance with the endorsed plans required under part a) of this condition. The retaining wall must be: i) certified to achieve a minimum 100 year design life; ii) designed generally in accordance with *AS4678 – Earth Retaining Structures* and relevant material standards (e.g. *AS3600 – Concrete Structures*); c) Construct retaining walls generally in accordance with the certified plans required under part b) of this condition.	a) Prior to commencing earthworks for Stage 2 b) Prior to survey plan endorsement for Stage 2 c) Prior to survey plan endorsement for Stage 2

	d) Submit to EDQ TS: i) 'as-constructed' plans, certified by a RPEQ, demonstrating that the retaining wall has been constructed generally in accordance with the certified plans submitted under part a) of this condition. ii) A survey plan identifying the location of wall and footings to the property boundary.	d) Prior to survey plan endorsement for Stage 2
Roadworks, urban servicing and stormwater management		
14.	**Compliance Assessment - Road 1, Road 3 and Road 4**	
	a) Submit to EDQ DA for Compliance Assessment functional layout plans, certified by a RPEQ, for Road 1, Road 3 and Road 4 generally in accordance with: i) PDA Guideline No. 13 Engineering standards; and ii) Proposed Development Layout Plan, Plan No. TIEL202159.CIV.DA, Dwg No. 010, Issue H, prepared by Telford Civil and dated 07/07/21 iii) Industrial Connector Street Cross-Section as identified in the Engineering Services Report prepared by Telford Civil and dated 06/07/21. The roads are to be designed to allow for the use of heavy vehicles (B-doubles).	a) Prior to commencing site works
	b) Submit to EDQ TS detailed engineering plans, certified by a RPEQ, for roadworks for Road 1, Road 3 and Road 4, including parking bays, traffic devices and footpaths generally in accordance with: i) PDA Guideline No. 13 Engineering standards; and ii) functional layout plans endorsed under part a) of this condition.	b) Prior to commencing roadworks for the relevant stage
	c) Construct roadworks generally in accordance with the certified plans submitted under part b) of this condition.	c) Prior to survey plan endorsement for the relevant stage
	d) Submit to EDQ TS: i) certification from a RPEQ that all roadworks have been constructed generally in accordance with the certified plans submitted under part a) of this condition; and ii) all documentation as required by the *Certification Procedures Manual*. iii) as-constructed drawings, asset register and test results, certified by a RPEQ, in a format acceptable to the end asset owners for all roadworks constructed under this condition.	d) Prior to survey plan endorsement for the relevant stage
15.	**Compliance assessment – Crowson Lane and Greenhill Road intersection interim layout** Unless ultimate intersection works are already delivered by Council as part of the Crowson Lane augmentation project:	
	a) Submit to EDQ DA for Compliance Assessment engineering design and construction drawings, certified by a RPEQ, for the auxiliary left-turn treatment and channelised right turn lane	a) Prior to commencing intersection works

	treatment at the Crowson Lane/Greenhill Road intersection, generally in accordance with the following plans/documents: i. PDA Guideline No. 13 Engineering standards; and ii. Traffic Impact Assessment, Report No. 16378, Version 3 prepared by Rytenskild Traffic Engineering and dated 1 March 2019. b) Construct the works generally in accordance with the endorsed plans submitted under part a) of this condition. c) Submit to EDQ TS: i) certification from a RPEQ that the intersection works have been constructed generally in accordance with the certified plans submitted under part b) of this condition; and ii) all documentation as required by the Certification Procedures Manual. iii) as-constructed drawings, asset register and test results, certified by a RPEQ, in a format acceptable to the end asset owners for all roadworks constructed under this condition.	b) Prior to survey plan endorsement for the first stage c) Prior to survey plan endorsement for the first stage
16.	**Mount Lindesay Highway Service Road (Road 2)** a) Submit to EDQ TS, approval from the Department of Transport and Main Roads for the Mount Lindesay Highway service lane, identified as Road 2 on Proposed Development Layout Plan, Plan No. TIEL202159.CIV.DA, Dwg No. 010, Issue H, prepared by Telford Civil and dated 07/07/21 The service lane is to be designed to allow for the use of heavy vehicles (B-doubles). b) Construct the extent of Road 2 as shown on Proposed Development Layout Plan, Plan No. TIEL202159.CIV.DA, Dwg No. 010, Issue H, prepared by Telford Civil and dated 07/07/21 from the intersection with Road 1 to the Crowson Lane Interchange with the first stage of development in accordance with the approval from DTMR as required under part a) c) Construct the extent of Road 2 as shown on Proposed Development Layout Plan, Plan No. TIEL202159.CIV.DA, Dwg No. 010, Issue H, prepared by Telford Civil and dated 07/07/21 from the intersection with Road 3 to the intersection of Road 1 with the second stage of development in accordance with the approval from DTMR as required under part a). d) Submit to EDQ TS, certification from a RPEQ that all roadworks have been constructed generally in accordance part a) of this condition. ***Advice Note****: Construction of this service lane in accordance with the Industrial Connector cross-section or as alternatively agreed to by EDQ and meets EDQ's minimum requirements for offsetable infrastructure, can be considered offsetable.*	a) Prior to commencing works for Stage 1 b) As indicated c) As indicated d) Prior to survey plan endorsement for the relevant stage

17.	**Street lighting** Comply with either parts a) and c) or parts b) and c) of this condition.	
	a) Design and install a Rate 2 street lighting system, certified by a RPEQ, to all roads, including footpaths/bikeways within road reserves. The design of the street lighting system must: i) meet the relevant standards of Energex; ii) be endorsed by Energex as 'Rate 2 Public Lighting'; iii) be endorsed by Council as the Energex 'billable customer'; iv) be generally in accordance with *Australian Standards AS1158 – 'Lighting for Roads and Public Spaces*.	a) Prior to survey plan endorsement for the relevant stage
	b) Design and install a Rate 3 street lighting system, certified by a suitably qualified and experienced RPEQ, to all roads, including footpaths/bikeways within road reserves. The design of the street lighting system must: i) be in accordance with *Australian Standards AS1158 – 'Lighting for Roads and Public Spaces'* ii) meet the requirements of AS3000 – '*SAA Wiring Rules'.* iii) meet the requirements of Energex for unmetered supply iv) be endorsed by the relevant ownership authority.	b) Prior to survey plan endorsement for the relevant stage
	c) Submit to EDQ TS 'as-constructed' plans and test documentation, certified by a RPEQ, in a format acceptable to Council.	c) Prior to survey plan endorsement for the relevant stage
18.	**Compliance Assessment - Water reticulation**	
	a) Submit to EDQ DA for Compliance Assessment a detailed water network plan, supported by hydraulic analysis, certified by RPEQ. The water network plan shall be prepared in accordance with: i) *SEQ Water Supply and Sewerage Design and Construction Code*; and ii) Concept Water Reticulation Layout Plan, Plan no. TIEL202159.CIV.DA, Dwg No 014, Issue G, prepared by Telford Civil and dated 07/07/21.	a) Prior to commencing works for Stage 1
	b) Submit to EDQ TS detailed water reticulation design plans, certified by a RPEQ. The certified water reticulation design plans must be designed generally in accordance with: i) *SEQ Water Supply and Sewerage Design and Construction Code*; and ii) the endorsed water network analysis required under part a) of this condition.	b) Prior commencing water reticulation work for the relevant stage
	c) Construct water reticulation works generally in accordance with the certified plans submitted under part a) of this condition.	c) Prior to survey plan endorsement for the relevant stage

	d) Submit to EDQ TS 'as constructed' plans, certified by a RPEQ, of all water reticulation infrastructure constructed in accordance with this condition, including an asset register, pressure and bacterial test results in accordance with: i) SEQ Water Supply and Sewerage Design and Construction Code - Asset Information.	d) Prior to survey plan endorsement for the relevant stage
19.	**Compliance Assessment – Internal Sewer reticulation**	
	a) Submit to EDQ DA for Compliance Assessment a detailed internal sewerage network plan, supported by hydraulic analysis, certified by RPEQ. The internal sewer network plan shall be prepared in accordance with: i) *SEQ Water Supply and Sewerage Design and Construction Code*; and ii) Concept Sewer Reticulation Layout Plan, Plan No. TIEL202159.CIV.DA, Dwg No 012, Issue G, prepared by Telford Civil and dated 07/07/21. The sewerage network plan shall include the extension of the internal sewer reticulation to the southern boundary to service the external catchment falling to the site.	a) Prior to commencing works for the relevant stage
	b) Submit to EDQ TS detailed sewer reticulation design plans, certified by a RPEQ. The certified sewer reticulation design plans must be designed generally in accordance with: i) *SEQ Water Supply and Sewerage Design and Construction Code;* and ii) the endorsed sewer network plan required under part a) of this condition	b) Prior to commencing works for the relevant stage
	c) Construct the internal sewer reticulation works generally in accordance with the certified plans submitted under part b) of this condition.	c) Prior to survey plan endorsement for the relevant stage
	d) Submit to EDQ TS 'as constructed' plans, certified by an RPEQ, of all internal sewer reticulation infrastructure constructed in accordance with this condition, including an asset register, pressure and CCTV results in accordance with: *i) SEQ Water Supply and Sewerage Design and Construction Code - Asset Information.* **Advice Note:** *The Sub-Regional sewerage pump station NM1 and external sewer rising main will be constructed and put in operation by Council.*	d) Prior to survey plan endorsement for the relevant stage
20.	**Temporary sewage tankering of wastewater** Unless the Sub-Regional sewerage pump station NM1 and external rising main is completed and in operation by Council:	
	a) Enter into a tankering agreement with Council for the collection and disposal of wastewater for any lots created; and	a) Prior to survey plan endorsement for the first stage
	b) Maintain the tankering agreement required by part a) of this condition until Sub-Regional sewerage pump station NM1 is commissioned.	b) As indicated

21.	**Compliance Assessment – Updated Site Based Stormwater Management Plan** Submit to EDQ DA for Compliance Assessment an updated Site Base Stormwater Management Plan (SBSMP), certified by a RPEQ, for the management of stormwater within the site to ensure non-worsening to downstream properties, including Mt Lindesay Highway, generally in accordance with *PDA Guideline No. 13 Engineering standards, Stormwater Quantity and Stormwater Quality*. The updated SBSMP shall include the following: i) Confirmation that the subject site is not impacted by flooding. This confirmation is to be provided through the undertaking of a site based flood model. If impacted by flood, provide further details on the Q100 line and the type of inundation – conveyance and/or storage Or Demonstrate that the updated current solution identified in the SBSMP ensures that there is no worsening at lawful point of discharge based on Council's nominated 1% AEP flood level at Mt Lindesay Highway. ii) he on-site detention/bio-retention basins form part of the overall solution. Provide an engineering and legal strategy/mechanism (e.g. Easement) to ensure that these devices can continue to perform as designed into the future. iii) Demonstrate that the design of the road stormwater system will convey runoff from the road reserve and the pre-developed lots to the proposed detention / bio-retention basin. iv) Demonstrate that the configuration, sizing and operation of the proposed detention / bio-retention basin system will accommodate runoff from the road stormwater system as per part (iii) above and result in no net worsening downstream of the site. v) Conveyance of existing external flows to the existing lawful point of discharge, ensuring no-net worsening downstream of the site.	Prior to commencing works
22.	**Stormwater Conveyance System** a) Submit to EDQ TS detailed engineering drawings and hydraulic calculations, certified by a RPEQ, for the stormwater conveyance system designed generally in accordance with: i) *PDA Guideline No. 13 Engineering standards* – Stormwater quantity; and ii) Updated Site Based Stormwater Management Plan, required by Condition 21 of this approval. b) Construct stormwater network generally in accordance with the certified plans submitted under part a) of this condition.	a) Prior to commencing works for the relevant stage b) Prior to survey plan endorsement for the relevant stage

	c) Submit to EDQ TS "as constructed" plans, certified by a RPEQ including an asset register in a format acceptable to Council.	c) Prior to survey plan endorsement for the relevant stage
23.	**Compliance Assessment - Stormwater detention/bio-retention basin** a) Submit to EDQ DA for Compliance Assessment detailed engineering drawings and hydraulic calculations, certified by a RPEQ, for the proposed detention/bio-retention basin designed generally in accordance with: i) PDA Guideline No. 13 Engineering standards – Stormwater Quantity and Stormwater Quality; and ii) Updated Site Based Stormwater Management Plan, required by Condition 21 of this approval. b) Construct the basin generally in accordance with the endorsed plans required under part a) of this condition. c) Submit to EDQ TS "as constructed" plans, certified by a RPEQ including an asset register in a format acceptable to Council. **Advice Note:** *The proposed industrial allotments will have lot-based on-site stormwater detention and water quality treatment measures in the post-development phase. These treatment devices will be installed by the future lot owner with their size and location being allocated to suit the end use. Maintenance of these devices will be the responsibility of the future lot owners.*	a) Prior to commencing works b) Prior to survey plan endorsement for the first stage c) Prior to survey plan endorsement for the first stage
24.	**Compliance Assessment – Swale** a) Submit to EDQ DA for Compliance Assessment detailed engineering drawings and hydraulic calculations, certified by a RPEQ, for the stormwater swale on the western boundary of the land designed generally in accordance with: i) PDA Guideline No. 13 Engineering standards – Stormwater quantity and: ii) Concept Catchment Layout Plan, Plan No. TIEL202159.CIV.DA, Dwg No. 008 Issue I, Prepared by Telford Civil and dated 07/07/2021 iii) Swale Longitudinal Section, Plan No. TIEL202159.CIV.DA, Dwg No 018 Issue B, Prepared by Telford Civil and dated 07/07/2021 iv) Swale Cross Sections, Plan No. TIEL202159.CIV.DA, Dwg No 019 Issue C, Prepared by Telford Civil and dated 07/07/2021 The detailed design shall ensure that the swale: i) has adequate capacity to convey overland flow up to including the 1 in 100year event with appropriate freeboard ii) is free flowing with no ponding iii) is provided with an adjacent track to allow future maintenance iv) maintain a depth*velocity product not exceeding 0.6 up to including 1 in 100year event unless agreed in writing by Council	a) Prior to commencing works

	v) is appropriately fenced (fauna exclusion) along the eastern side of the swale. b) Construct the swale generally in accordance with the endorsed plans required under part a) of this condition. c) Submit to EDQ TS swale "as constructed" plans, certified by a RPEQ including an asset register in a format acceptable to Council.	 b) Prior to survey plan endorsement for Stage 2 c) Prior to survey plan endorsement for Stage 2
25.	**Electricity** a) Submit to EDQ TS a Certificate of Electricity Supply from ENERGEX for the provision of electricity supply to the approved development. b) Connect the approved development in accordance with the Certificate of Electricity Supply submitted under part a) of this condition.	 a) Prior to survey plan endorsement for the relevant stage b) Prior to survey plan endorsement for the relevant stage
26.	**Telecommunications** a) Submit to EDQ TS documentation from an authorised telecommunication service provider confirming that an agreement has been entered into for the provision of underground telecommunication services to the approved development. b) Connect the approved development in accordance with the documentation submitted under part a) of this condition.	 a) Prior to survey plan endorsement for the relevant stage b) Prior to survey plan endorsement for the relevant stage
27.	**Broadband** a) Submit to EDQ TS written agreement, from an authorised telecommunications service provider, confirming that fibre-ready pit and pipe infrastructure designed to service the approved development can accommodate services compliant with *Industry Guideline G645:2017 Fibre-Ready Pit and Pipe Specification for Real Estate Development Projects*. b) Construct the fibre-ready pit and pipe infrastructure specified in the agreement submitted under part a) of this condition.	 a) Prior to survey plan endorsement for the relevant stage b) Prior to survey plan endorsement for the relevant stage
28.	**Gas** a) Submit to EDQ TS, documentation from an authorised gas service provider, confirming that an agreement has been entered into for the provision of underground gas services to the proposed development. b) Connect the development to underground gas services in accordance with the agreement mentioned in part a) of this condition.	 a) Prior to survey plan endorsement for the relevant stage b) Prior to survey plan endorsement for the relevant stage

Landscape and environment		
29.	**Streetscape works – Compliance Assessment** a) Submit to EDQ DA, for Compliance Assessment, detailed streetscape works drawings, certified by an AILA, for proposed streetscape works of Roads 1, 3 and 4, including a schedule of proposed standard and non-standard Contributed Assets to be transferred to Council. The certified drawings are to include, where relevant: 1. location and type of street lighting in accordance with AS1158 –*'Lighting for Roads and Public Spaces';* 2. footpath treatments; 3. location and specifications of streetscape furniture; 4. location and size of stormwater treatment devices; and 5. street trees and plants, including species, size and location generally in accordance with Council's adopted planting schedules and guidelines. b) Construct streetscape works generally in accordance with the streetscape plans endorsed under part a) of this condition. c) Submit to EDQ TS 'as constructed' plans, certified by an AILA, and asset register in a format acceptable to Council.	a) Prior to commencing streetscape work for the relevant stage b) Prior to survey plan endorsement for the relevant stage c) Prior to survey plan endorsement for the relevant stage
30.	**Vegetation Clearing** a) Submit to EDQ TS a vegetation clearing plan prepared by an ecologist for each stage that excludes the 25m buffer corridor and lot identified for open space. b) Undertake vegetation clearing generally in accordance with the plan submitted under part a) of this condition. The clearing is to be undertaken with the stage to be developed. c) Vegetation clearing is to be supervised by an Ecologist. d) Submit to EDQ TS written certification from an Ecologist that vegetation clearing has been carried out generally in accordance with part b) of this condition.	a) Prior to commencement of clearing for relevant stage b) At all times c) At all times d) Within 3 months of completion of clearing of the relevant stage
31.	**Fauna Spotter** a) A licensed Wildlife Spotter/Catcher under the N*ature Conservation Act 1992* is to undertake a survey of the site to identify any fauna or habitat features (e.g. nests, tree hollows) and certify that any necessary fauna protection measures or relocation procedures have been implemented. b) A licensed Wildlife Spotter/Catcher must be present during the vegetation clearing.	a) Prior to commencement of vegetation clearing for the relevant stage b) At all times during vegetation clearing

	c) Submit to EDQ TS certification from the licensed Wildlife Spotter/Catcher that vegetation clearing and fauna protection measures was carried out generally in accordance with the conditions of approval. **Advice Note:** *Where an Environmental Protection and Biodiversity Conservation Act 1999 (EPBC) approval has been granted and includes fauna spotter requirements, the fauna spotter requirements under this condition will not be applicable for the same matters under the EPBC approval*.	c) Within 3 months of the completion of vegetation clearing of the relevant stage
32.	**Vegetation – Compensatory Planting**	
	a) Submit to EDQ TS a planting plan certified by an ecologist showing the extent of compensatory planting to be undertaken in lot identified as 'Open Space' on Proposed Development Layout Plan, Plan No. TIEL2020159.CIV.DA, Dwg 10, Issue H dated 07/07/2021, excluding the minimum 25m buffer on the western boundary, including, type and extent of planting, as set out in the EDQ Guideline 17: Remnant Vegetation and Koala Habitat Obligations in Greater Flagstone and Yarrabilba PDAs dated May 2015.	a) Prior to commencement of vegetation clearing for the relevant stage
	b) Undertake compensatory planting in accordance with a) of this condition.	b) Within 3 months of commencement of vegetation clearing
	c) Once compensatory planting has been undertaken, submit to EDQ TS confirmation from a qualified arborist (AQF Level 5) or ecologist that the compensatory planting has been undertaken in accordance with b) of this condition.	c) Within 12 months of commencement of vegetation clearing of the relevant stage
33.	**Bushfire management**	
	a) Carry out bushfire management works in accordance with: (i) Section 6 of the approved Bushfire Management Plan, Report 16014, Final V3, dated 13 July 2018 (ii) Addendum to the Bushfire Management Plan for the proposed development at 4499-4651 Mount Lindsay Highway, North Maclean dated 18 February 2021.	a) Prior to survey plan endorsement for the relevant stage
	b) Submit to EDQ TS verification from a suitably qualified professional that the works required for bushfire management and mitigation within the relevant stages have been carried out generally in accordance with the relevant approved plans and documents. **Advice Note**: *If the adjoining landowner obtains approval for vegetation clearing that reduces bushfire impact, then this can be articulated though an updated context plan supported by a new bushfire advice.*	b) Prior to survey plan endorsement for the relevant stage

Surveying, land transfers and easements		
34.	**Land transfers - contaminated land** Submit to EDQ TS a copy of a site suitability statement, as required under the EP Act, confirming that all land conditioned to be transferred to a trustee is suitable for the intended purpose(s). The site suitability statement must be prepared by a suitably qualified person and be certified by an approved auditor in accordance with the EP Act. *NOTES:* *For the purpose of this condition a suitably qualified person is defined in the EP Act.* *A list of approved auditors can be found at the following website:* https://www.qld.gov.au/environment/pollution/management/contaminated-land/auditor-engagement.	Prior to survey plan endorsement for the relevant stage
35.	**Land transfers – drainage and offset area** Transfer, in fee simple, to Council as trustee, the Lot identified as Open Space as shown on the approved plans for drainage and offset open space purposes.	At registration of survey plan for Stage 2
36.	**Land transfers – Sewerage pump station** a) Submit to EDQ TS, confirmation from Council on the size and location of the Sewer pump station site. b) Transfer in fee simple, to Council as trustee, land for the proposed sub-regional pump station generally in accordance as shown on: i) Concept Sewer Reticulation Layout Plan, Plan No. TIEL202159.CIV.DA, Dwg No. 012, Issue G, prepared by Teleford Civil and dated 07/07/21. The land metes and bounds must be to the satisfaction of the Chief Executive Officer of the authority. ***Advice Note**: This land forms part of the sub-regional sewer infrastructure to be delivered by Council. Offsets for the land may be available.*	a) Prior to survey plan endorsement of the first stage b) At registration of survey plan for the first stage
37.	**Rising main easement** Provide a 6m wide easement, in favour of and at no cost to the Council, along the southern boundary for the proposed sub-regional sewerage rising main generally in accordance as shown on: i) Concept Sewer Reticulation Layout Plan, Plan No. TIEL202159.CIV.DA, Dwg No. 012, Issue G, prepared by Teleford Civil and dated 07/07/21. The terms of public utility easements are to be to the satisfaction of the Chief Executive Officer of the authority which is to accept and maintain the Contributed Assets. ***Advice Note:** If an alternative route for the rising main is pursued, the easement can be cancelled at the agreement of Council.*	At registration of survey plan for the first stage

38.	**Easements over infrastructure** Provide public utility easements, in favour of and at no cost to the grantee, over infrastructure located in land (other than road) for Contributed Assets. . The terms of public utility easements are to be to the satisfaction of the Chief Executive Officer of the authority which is to accept and maintain the Contributed Assets.	At registration of survey plan for the relevant stage

STANDARD ADVICE

Please note that to lawfully undertake development, it may be necessary to obtain approvals other than this PDA development approval. For advice on other approvals that may be necessary in relation to your proposal, it is recommended that you seek professional advice.

**** End of Package ****