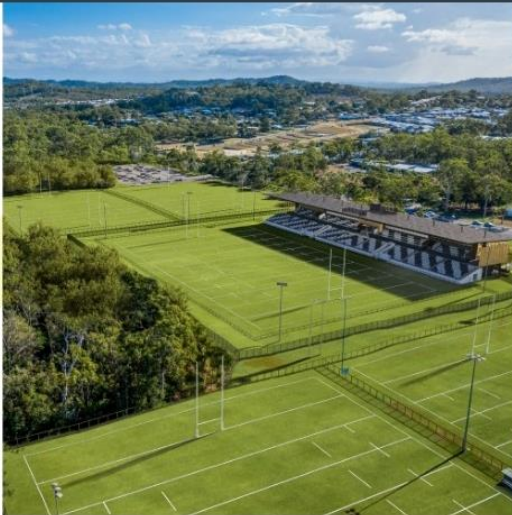




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**North Maclean Lot 7 & 8 Industrial Subdivision
Civil Engineering Report**

Client:
Project Number:
Document Number:

Roubaix Properties Pty Ltd
BE220566-03
BE220566-03-RP-CER-01

Date of Issue:

23 July 2025



Document Control Record

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Signed:	
Date:	23 July 2025

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Position:	Project Director – Urban & Infrastructure
Signed:	
Date:	23 July 2025

Version No.	Description	Date	Prepared	Approved
01	DA Issue	23/07/2025	JS	LF

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Appendix B – Infrastructure Masterplan (Approved under DEV2024/1558)

Appendix C - Civil Engineering Preliminary Design Plans





1. Introduction

Roubaix Properties Pty Ltd (Roubaix) has commissioned Burchills Engineering Solutions (Burchills) to prepare a Civil Engineering Report as part of a Development Approval (DA) submission, for a RoL to facilitate a 17-lot industrial subdivision, to Economic Development Queensland (EDQ). The proposed North Maclean Industrial development is located at Lot 7 & 8 on RP137101, encompassing the addresses 4745-4759 and 4761-4773 Mount Lindesay Highway, North Maclean.

This report concludes that the site is suitable for the proposed development, particularly concerning civil engineering design parameters and site constraints. The development can be executed in compliance with the current Logan City Council (LCC) guidelines, South East Queensland (SEQ) Water Supply and Sewerage Design and Construction Code, and best management practices.

1.1 Scope of Report

This report describes the existing physical conditions of the site, and suitability for the proposed development with particular respect to:

- Project Identification;
- Proposed Development;
- Site Earthworks;
- Roadworks, Access and Traffic;
- Stormwater Drainage;
- Water Supply;
- Sewer Reticulation; and
- Electricity and Telecommunications Supply.

This report represents an assessment of the facts and circumstances pertaining to these matters, as they are known to the writer at the time of preparation.





2. Project Identification

2.1 Real Property Description

The site, legally described as Lots 7 and 8 RP137101, is located at 4745-4759 and 4761-4773 Mount Lindesay Highway, North Maclean. The combined rectangular site covers approximately 8.20 hectares.

A detailed site survey has been undertaken by Sunrise Surveying and is included within Appendix A of this report. The location of the subject site is shown on Figure 2.1 below.



Figure 2.1 Site Locality Plan

2.2 Physical Description

The site is accessed from Mount Lindesay Highway service road, an existing road which fronts the eastern boundary of the subject site.

The subject site is mostly flat, ranging from RL26 mAHD to RL29 mAHD. There is a separate development application on Lots 7 and 8 on RP137101 for bulk earthworks and vegetation clearing. Current features of the site include:

- Lot 7 is covered with trees and vegetation.
- Lot 8 is covered with trees and vegetation.

The subject site is located within the Great Flagstone Priority Development Area (PDA).





The site is bounded by the following existing land uses:

North: Lot 6 on RP137101 Vacant Land;

East: Mount Lindsay Highway;

South: Lot 2 on SP267252 Industrial business; and

West: Lot 9 on RP137101 Industrial supplier/business.





3. Proposed Development

The subject site falls within the Greater Flagstone PDA, which is controlled by EDQ. The Context Plan indicates that the site is within an industrial and business zone as shown in Figure 3.1.

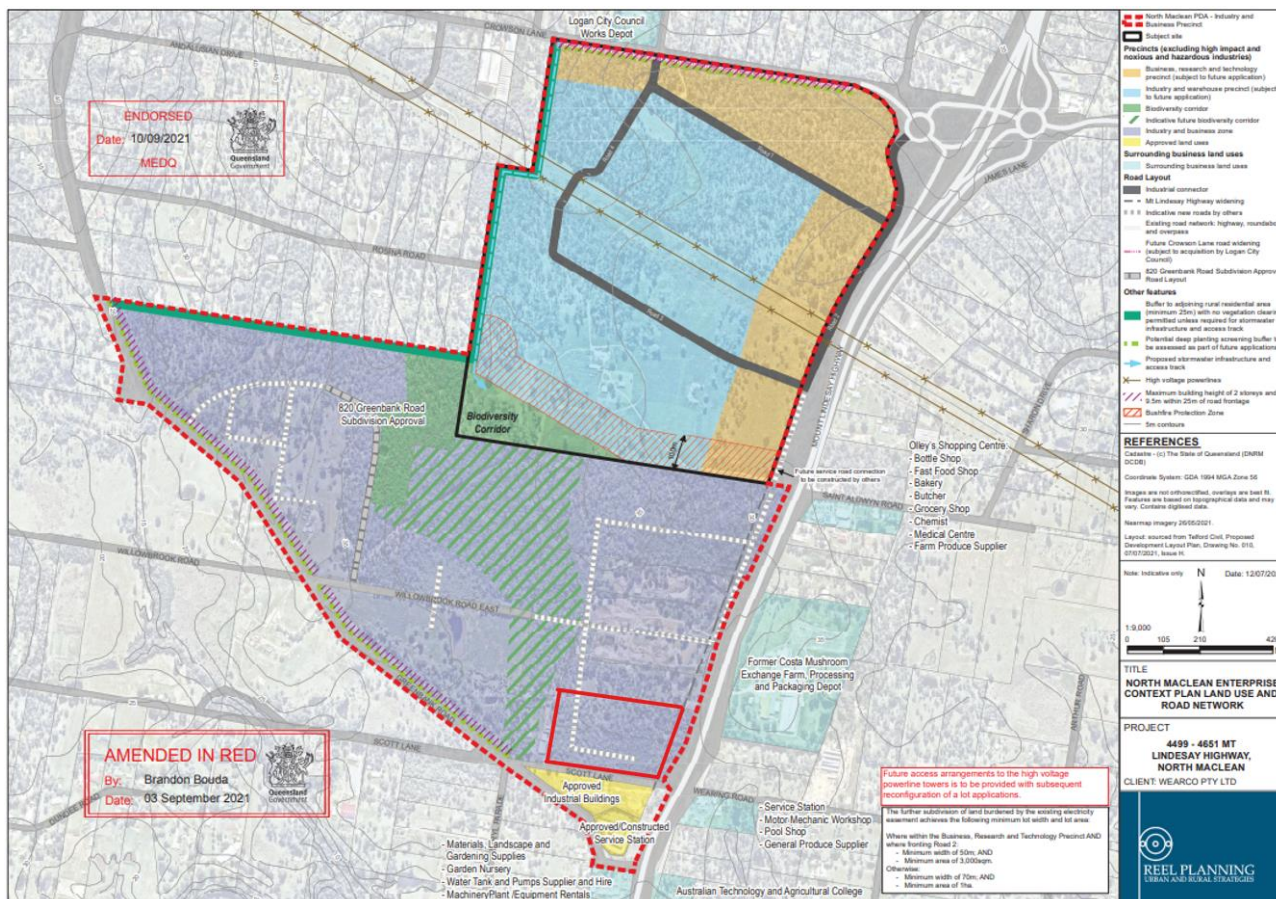


Figure 3.1 Subject Sites within Industrial and Business Zone

Based on the SEQ Water Supply and Sewerage Design & Construction Code (SEQ WS&S D&C Code), the Equivalent Tenements (ET) and Equivalent Population (EP) for the proposed industrial development over Lot 7 and Lot 8 (combined area of 8.2 ha) are summarised in Table 3.1.

The EP has been calculated assuming a maximum Gross Floor Area (GFA) of 50% site coverage per lot. This is a conservative assumption, given that the Logan City Council (LCC) Planning Scheme allows for a maximum total site cover of 80%, including building footprint, car parking, landscaping, and associated hardstands.

Table 3.1 Development Summary

Use	Unit	Total Units (m ²)	EP/Unit	Total EP
Industrial	GFA	41,000	0.97 EP per 100m ² GFA	398

Notes:

- The total GFA equates to 50% of the combined site area (i.e., 8.2 ha × 10,000 m²/ha × 0.5 = 41,000 m²).
- The EP conversion rate of 0.97 EP/100 m² GFA is in accordance with Table F2.1 of the SEQ WS&S D&C Code.

Refer to Drawing BE220566-DA-C1101-B in Appendix C for the lot layout and road network.





4. Site Earthworks

Bulk earthworks over Lots 7 and 8 RP137101 are proposed under a separate development application (DEV2025/1587) to raise the site above the 2100 1% AEP flood level and provide level building pads suitable for industrial development.

This application proposes an additional 44,198 m³ of imported structural fill across the site, in accordance with Earthworks Drawing No. BE220566-DA-C2101-B. Fill levels have been designed to facilitate allotment servicing, with finished surface levels ranging from RL27.0 m AHD to RL29.78 m AHD.

The proposed RoL layout is consistent with these approved finished levels and the drainage strategy established under the Bulk Earthworks application.

4.1 Sediment and Erosion Control

The best management practices will be implemented according to the IECA Best Practice Erosion and Sediment Control (2008) guidelines.

The following is a procedure of water quality controls to be implemented for the construction stage of the development.

4.1.1 Phase 1 – Stripping and Bulk Earthworks

- Identify and mark all trees to be retained and erect exclusions zones.
- Prior to any demolition, stripping or bulk earthworks on site, sediment fences, inlet traps, gully protection and entry/exit pad shall be put in place.
- A wash-down area and entry/exit pad will be provided at the construction site entrance to minimise the amount of sediment being tracked off the site.
- The wash down area will be drained to a suitable sediment capture device installed downstream of the construction entry.
- Sediment fences are to be installed along the downstream property boundaries prior to stripping and earthworks commencing.
- Construct an appropriately sized sediment basin for the development.
- If refueling of machinery is to occur on site, appropriate absorbent products for cleaning oil spills will be provided.
- Provide bins on site for the disposal of waste and building debris.
- All fresh water upstream of disturbed areas and stockpiles is to be diverted around the disturbed area to minimise the amount of sediment mobilization.
- If it is anticipated that stockpiled material will not be used for a period of two weeks or more, a polythene cover (or equivalent) shall be used to prevent sediment transport by rain during wet periods. Conversely during dry spells a cover shall be used to prevent fine sediments becoming airborne.
- The contractor shall provide on-going maintenance of sediment and erosion control devices around the site.
- The contractor is to stage all works so that disturbed areas remain exposed for a short a period as practicable.

Measures to minimise airborne pollutants during construction in the form of dust during dry and/or windy weather shall include the following:

- Exposed soils shall be kept damp to prevent particulates becoming airborne; and
- Stockpiles exposed for more than two weeks shall be covered to prevent wind erosion.





4.1.2 Phase 2 – Infrastructure, Building and Roadworks

- The site stormwater pipes and pits shall be installed with drop inlets provided to all pits.
- Provide sediment fences, sandbags or fine mesh cover to all gully pits.
- Monitoring of new stormwater pipes and infrastructure (including the storm water quality improvement devices) to ensure they are free of sediment and debris.
- Maintain shake down and wash down area at entry/exit.
- All disturbed areas are to be surfaced or landscaped/grassed (maintained to minimum 70% ground cover) as soon as practicable after completion of localized works.

4.1.3 Phase 3 – Finishing Works and Defects Liability Period

All erosion and sediment control measures, including sediment fences and inlet traps shall be maintained until completion of surface finishes including landscaping and turfing:

- Maintain sediment fences.
- Tend to landscaped areas to maintain ground cover.





5. Roadworks and Access

5.1 Existing Traffic Background

The existing service road currently provides access to residences, Council waste service trucks, and industrial developments, and has previously been used for access by Council and TMR contractors during infrastructure works. Construction traffic continue to utilise this access and as referenced in the approved Traffic Impact Assessment (BE220566-RP-TIA-08) submitted under DEV2024/1470/4.

5.2 Proposed Roadworks and Access

Interim access to the sites is proposed via existing service road on the eastern frontage which will connect to the Mount Lindesay Highway.

Ultimate access to the site will be provided via a future industrial collector which will be delivered by TMR.

The development includes a proposed east–west industrial access road with a cul-de-sac at its western end, positioned centrally within the subject sites. As this road will serve industrial land uses, it must incorporate a minimum 20 m wide cross section, in accordance with LCC Standard Drawing 8-00377 (refer to Figure 5.3 below).

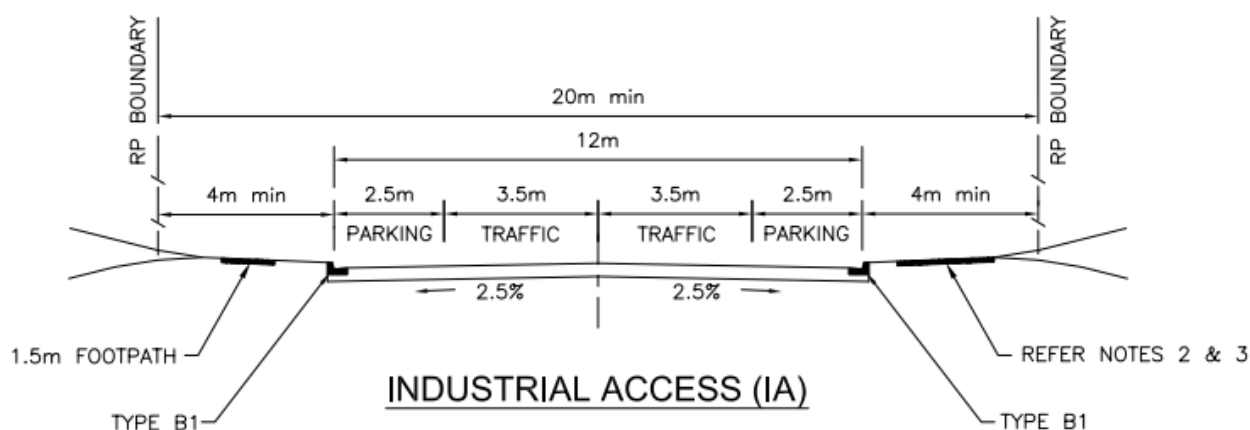


Figure 5.1 Industrial Access Road Cross Section

Refer to Drawing C1101 & C3201 in Appendix C for conceptual road layout and longitudinal section.





6. Flooding and Stormwater Drainage

6.1 Flooding

Flooding and overland flow for the subject site (Lots 7 and 8 RP137101) have previously been assessed and addressed under the bulk earthworks application (DEV2025/1587). Earthworks are designed to achieve compliance with the 2100 1% AEP Defined Flood Event level (RL 27.2 m AHD), with minimum 300 mm freeboard.

The proposed RoL layout is consistent with the approved surface levels and preserves the 50 m wide drainage reserve along the western boundary to maintain external flow conveyance. No further flood assessment is required as the current proposal does not alter flood behaviour or surface hydrology established under the prior application.

6.1.1 Stormwater Drainage

The stormwater drainage strategy for the site is based on capturing and conveying both minor and major flows to lawful points of discharge in accordance with QUDM and EDQ Guideline 13.

- Road drainage will be captured via kerb inlets and directed through a pit and pipe network to “tree biofilter pods” located in verge areas, consistent with *Brisbane City Council Std. Drgs BSD-8339 and BSD-8340*.
- Overland flow from larger storm events will be accommodated within road reserves and the western drainage reserve, which also serves as a major overland flow path for upstream catchments.
- Runoff from roofwater and hardstands on individual lots will be managed via future on-site bio-basins or filter cartridge treatment on each allotment, as per EDQ’s accepted solutions for development scale management.

A Conceptual Stormwater Management Plan (CSMP) has been prepared separately and should be referred to for further detail regarding stormwater quantity and quality treatment measures.

All future stormwater discharge points will be designed in accordance with QUDM Table 9.4.1, with no direct discharge to Mount Lindesay Highway. Flows from the internal road network are directed to perimeter swales along the eastern and southern boundaries, and ultimately discharged to the western drainage reserve at the rear of the site.

Refer to Drawing C5101 in Appendix C for conceptual stormwater drainage and “tree biofilter pods” layout plan.





7. Water Supply

The subject site is proposed to be serviced by a new 300mm trunk water main along the eastern site boundary. This proposed trunk infrastructure forms part of EDQ's planned water supply for Greater Flagstone as shown in Figure 7.1. The water supply connection is proposed to be made from the approved network within Maclean Estate (Lot 1 on RP113251), located to the north of the subject site, under approval DEV2022/1315/2. The proposed trunk water main will extend only to the western boundary of Lots 4 and 5, as the adjoining land is privately owned. A future extension beyond Lot 5 will be necessary to service the remainder of the site. Each lot will receive a service connection as a registered freehold industrial lot. Internal site water distribution will be addressed in future material change of use, reconfiguration of a lot (ROL), and/or building use applications.

The proposed 300 mm trunk water main is part of EDQ's endorsed water network for the Greater Flagstone PDA and is shown in the approved Infrastructure Masterplan (refer Appendix B).

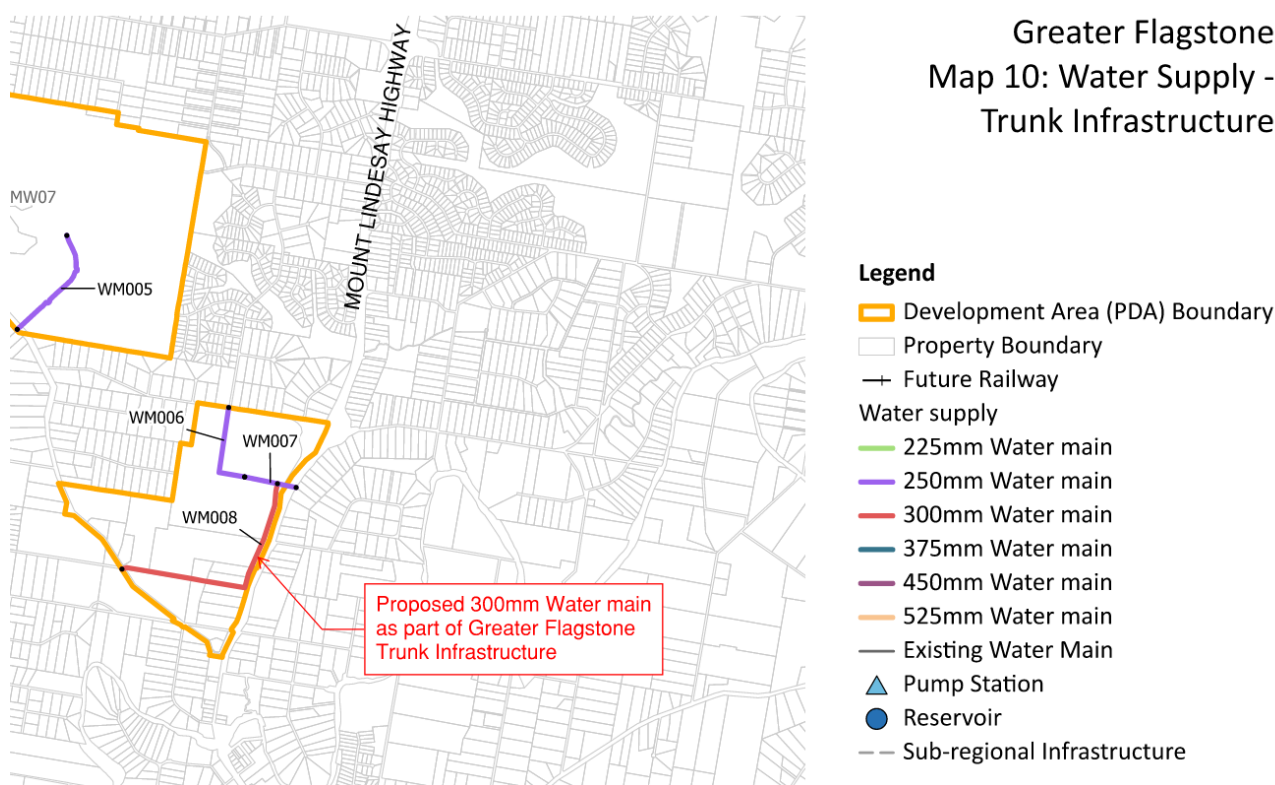


Figure 7.1 EDQ Greater Flagstone Proposed Trunk Water Infrastructure Network

7.1 Water Demand Calculation

To determine suitable pipe sizing for the proposed development, water demands are calculated according to the intended new development. The water criteria and design parameters are based on the following references:

- SEQ Water Supply and Sewerage Design & Construction Code (SEQ WS&S D&C Code); and
- Water Services Association of Australia – WSA 03-2013 Water Supply Code of Australia, Part 1: Planning and Design.

The service mains internal of each building will be designed and constructed in accordance with AS/NZS 3500.1:2003 Plumbing and Drainage – Water services (Standards Australia, 2003).





The water flow parameters shown in Table 7.1, Table 7.2 and Table 7.3 required to meet Council's Standards of Service and have been based on Single Supply (Drinking Water Only) Network parameters shown in SEQ Design Criteria Table 4.1.

Table 7.1 Potable Water Supply Demand and Peaking Factors

Property Type	Average Day (AD) Demand L/EP/day	Non-Revenue L/EP/day	Peaking Factors		
			Mean Day Maximum Month (MDMM)	Peak Day (PD)	Peak Hour (PH)
Industrial	230	30	1.5	2.0	2.8

Table 7.2 Potable Water Pressure Parameters

Item	Pressure Parameter
Minimum Service Pressure	22 metres (adjoining the property boundary)
Maximum Service Pressure	55 metres

Table 7.3 Fire Fighting Parameters

Item	Pressure Parameter
Minimum Residential Mains Pressure (Emergency Fire operating conditions)	12 metres at the main at the property boundary 6 metres elsewhere
Fire Flow Commercial	30 L/s for a duration of 4 hrs
Background Demand	2/3 x Peak Hour demand (not less than Average Day demand)

The calculated water supply demand for the proposed development is shown in Table 7.4.

Table 7.4 Water Supply Demand Calculations

Use	EP	AD Flow (L/day)	Non-Revenue (L/day)	AD (L/s)	PH (L/s)
Industrial	398	91,540	11,940	1.06	2.75

Calculation Details:

- Average Day Demand: 398 EP x 230 L = 91,540 L/day
- Non-Revenue: 398 EP x 30 L = 11,940 L/day
- Peak Hour Flow: 398 EP x (230 x 2.8 + 30) = 237,430 L/day \approx 2.75 L/s

The internal watermain network will be designed in accordance with SEQ WS&S D&C Code requirements during Operational Works detailed design.

Refer to Drawing C5101 in Appendix C for conceptual potable water service alignments.





8. Sewer Reticulation

The subject site is proposed to be serviced by a new gravity sewer main located within the Mount Lindesay Highway service road. This alignment has been selected to provide ease of maintenance access and to avoid the watercourse corridor identified in Section 6.1.4.

The proposed gravity main will ultimately connect into the broader trunk infrastructure comprising rising main NM2, which is to be delivered by others (refer to Figure 8.1).

NM2 is located within Lot 2 on SP267252 and forms part of a proposed concrete batching plant development by Nucrush Pty Ltd, lodged under application DEV2024/1583. The associated land has been allocated for future trunk sewer infrastructure.

Individual sewer connections will be provided to each lot as part of the future servicing of registered freehold industrial lots. The proposed gravity main and downstream connections are consistent with the alignment and delivery responsibilities outlined in the Infrastructure Masterplan (Ref: P0045017-IM-01 Rev 3), included in Appendix B.

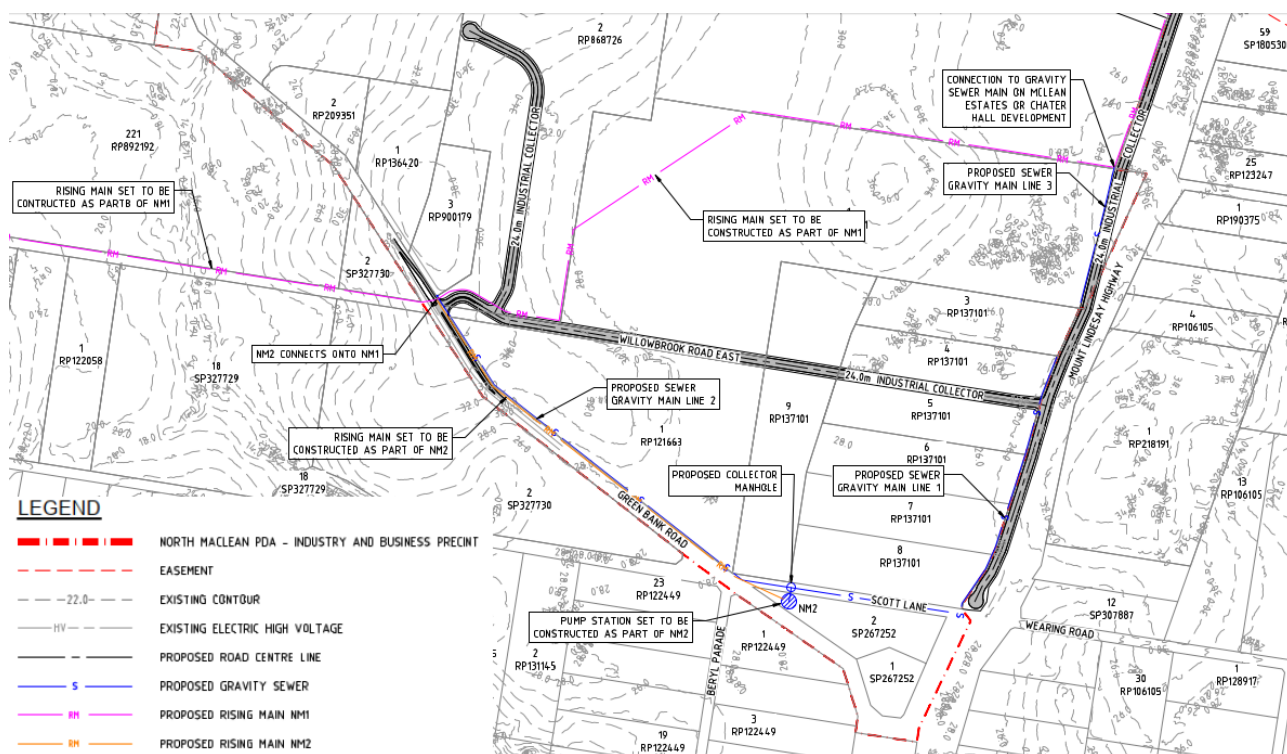


Figure 8.1 Proposed Sewer Network Plan

8.1 Sewer Demand Calculation

The sewer criteria and design parameters are based on the following references:

- SEQ Water Supply and Sewerage Design & Construction Code (SEQ WS&S D&C Code); and
- Water Services Association of Australia – WSA 02-2014 Sewerage Code of Australia, Part 1: Planning and Design.

The proposed development comprises 17 industrial lots with an estimated Equivalent Population (EP) of 398.

The sewer flow generation, pipe design parameters, minimum sewer pipe grades and maximum capacity are shown below in Table 8.1, Table 8.2 and Table 8.3. The following parameters are based on a RIGGS system:



Table 8.1 Sewer Flow Generation Parameters

Flow	Parameter
Average Dry Weather Flow (ADWF)	200 L/EP/d
Peak Dry Weather Flow (PDWF)	PDWF = C ₂ × ADWF, Where C ₂ = 4.7 × (EP) ^{-0.105} = 2.56
Peak Wet Weather Flow (PWWF)	PWWF = 5 × ADWF

Table 8.2 Pipe Design Parameters

Flow	Parameter
Mannings 'n'	0.013
Minimum velocity @ PDWF	0.7 m/s
Depth of Flow @ PWWF – Existing system	Up to 1.0 m below MH cover level and no spillage through overflow structures
Depth of Flow @ PWWF – Proposed sewers	Max flow depth shall not exceed ¾ pipe full (75% d/D).

Table 8.3 Minimum Pipe Capacity – New Sewers Flowing ¾ Full

Pipe Size (mm)	Min Pipe Grade (1 in x)	Capacity (L/s)
150	180	10.4
225	300	23.6
300	400	44.1

The calculated sewer demand generation for the proposed development is shown in Table 8.4.

Table 8.4 Sewer Demand Calculations

Use	EP	ADWF (L/day)	PDWF Factor	PWWF (L/d)	PWWF (L/s)
Industrial	398	79,600	2.56	398,000	4.61

$PWWF (L/s) = 398 EP \times 200 L \times 5 \div 86,400 = 4.61 L/s$

The peak wet weather flow (PWWF) for the development is estimated at 4.61 L/s, which can be conveyed by a 150 mm diameter sewer pipe laid at a minimum grade of 1 in 180 (as per SEQ WS&S D&C Code Table F2.2).

Future sewer reticulation design will connect to the downstream network shown on Drawing C5101 and will be subject to detailed hydraulic review during operational works. All new sewers will be designed to meet Logan Water and SEQ Code capacity, velocity and access requirements.

Refer to Drawing C5101 in Appendix C for conceptual gravity sewer service alignments.





9. Electrical and Telecommunications

A detailed site survey has been prepared by Sunrise Surveying and is included within Appendix A. The survey indicates there are existing Energex overhead power supply services and telecommunications pits and cable markers along Mount Lindsay Highway service road.

It is expected that sufficient capacity can be accessed from this existing infrastructure. A specialist electrical consultant will be engaged during detailed design to confirm demand, coordinate internal reticulation, and liaise with Energex and telecommunications providers.





10. Conclusion

The findings of this Civil Engineering Report support the proposed industrial subdivision of Lots 7 and 8 on RP137101, as submitted under this Development Application to Economic Development Queensland (EDQ).

Bulk earthworks to achieve flood immunity have been lodged under a separate application (DEV2025/1587), raising the site above the 2100 1% AEP Defined Flood Event level. This RoL application includes additional earthworks comprising approximately 44,198 cubic metres of imported fill to establish level building pads suitable for future industrial development. The proposed finished surface levels, ranging from RL 27.2 m to RL 28.5 m AHD, are consistent with the broader drainage strategy and provide a developable platform for servicing and construction.

Stormwater drainage will be managed through kerb inlets, underground pipe networks, verge-mounted tree biofilter pods, and perimeter swales that convey flows to the western drainage reserve. This strategy ensures that no stormwater discharges directly to Mount Lindesay Highway and that all outflows comply with the lawful point of discharge requirements under QUDM Table 9.4.1. A separate Conceptual Stormwater Management Plan (CSMP) has been prepared to provide further detail regarding quantity mitigation and water quality treatment in accordance with EDQ Guideline 13.

Water supply will be provided via a proposed 300 mm trunk water main connecting to the approved Logan Water network to be delivered by Maclean Estate (Lot 1 on RP113251), approved under DEV2022/1315/2. This future extension will facilitate supply to the subject site, with individual lot connections to be provided at the freehold industrial subdivision stage.

Sewerage will be managed via a new gravity sewer main located within the Mount Lindesay Highway service road, which will ultimately connect to the downstream trunk rising main NM2. NM2 is located within Lot 2 on SP267252 and forms part of a development application by Nucrush Pty Ltd under DEV2024/1583, with land set aside for future sewer infrastructure. The proposed gravity main and downstream connection are illustrated by the Infrastructure Masterplan (Ref: P0045017-IM-01 Rev 3), attached in Appendix B.

Electrical and telecommunications infrastructure is available along the Mount Lindesay Highway service road frontage. Existing Energex overhead power and telecommunications assets are expected to have sufficient capacity, with detailed internal reticulation and coordination to be confirmed by a specialist services consultant at later design stages.

In conclusion, this report confirms that the subject site can be appropriately serviced in accordance with EDQ requirements and SEQ WS&S D&C Code standards and supports the proposed lot layout and servicing strategy put forward under this RoL application.



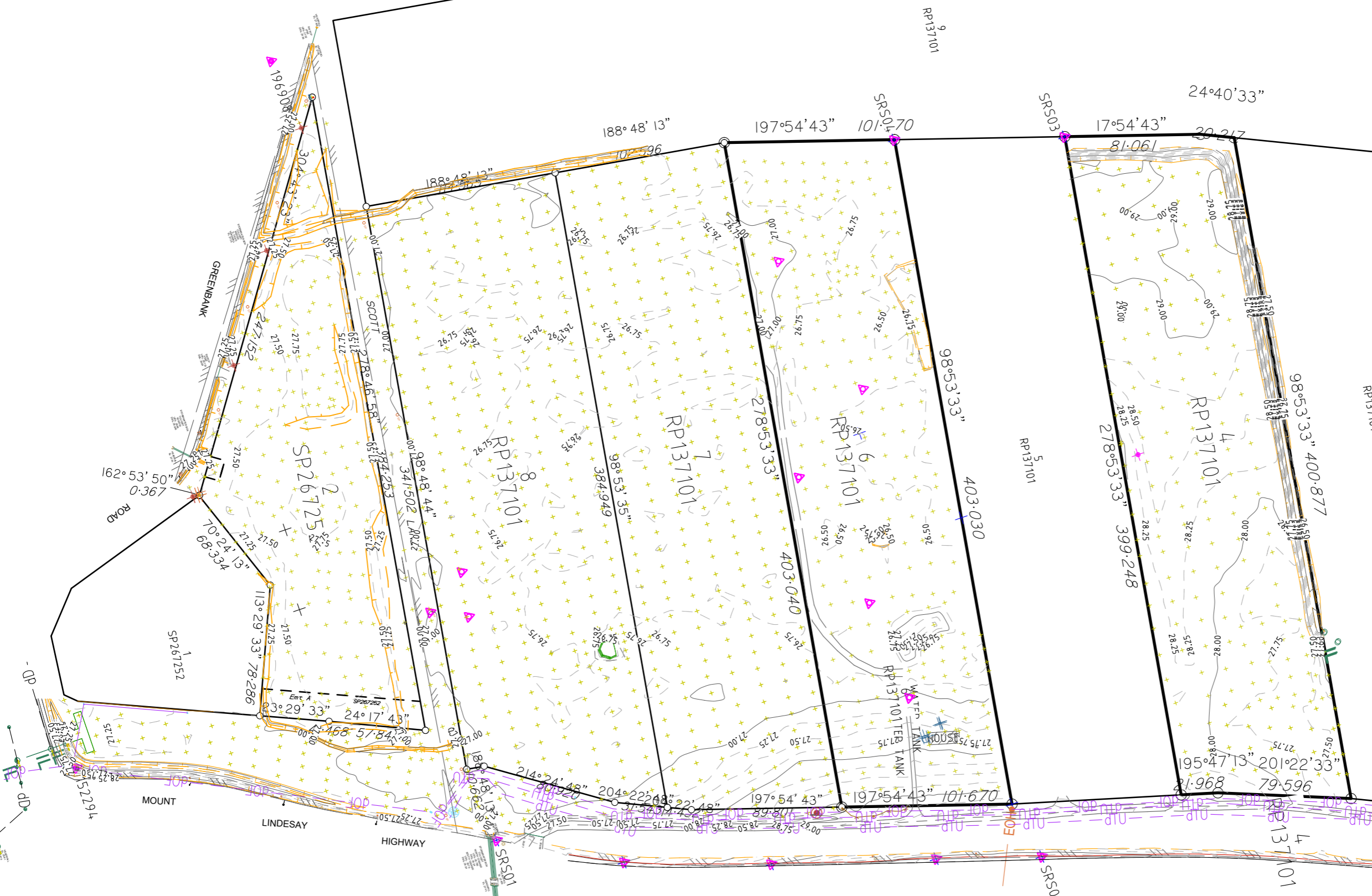


Appendix A – Site Survey





FEATURE	DESCRIPTION
	Surface SURFACE LEVEL
	Surface CHANGE OF GRADE
	Surface CONCRETE SLAB
	Surface DRIVEWAYS
	Surface FOOTPATHS
	Surface RETAINING WALL BASE
	Surface RETAINING WALL TOP
	Surface TOE OF BANK
	Surface TOP OF BANK
	Vegetation EDGE OF CULTIVATION
	Creek WATER EDGE
	Road CHANGE OF GRADE
	Road EDGE OF BITUMEN
	Road EDGE OF TRACK
	Road EDGE OF VERGE
	Road KERB BACK
	Road LINEMARKING
	Road ROAD CROWN
	Road FURNITURE SIGN
	Building LINE
	Electrical ELECTRICAL PIT
	Electrical POWER POLE
	Electrical OVERHEAD
	General STREET LIGHT
	DBYD ELECTRICITY
	Comms PILLAR
	Comms TELEPHONE CABLE MARKER
	DBYD COMMS
	Drainage INVERT
	Drainage MANHOLE
	Drainage BOX CULVERT
	Drainage GULLY TRAP
	Drainage HEADWALL
	Drainage PIPE
	DBYD DRAINAGE
	Water VALVE
	Water FIRE HYDRANT
	Water TANK
	Marks STATION
	Marks PERMANENT MARKS



Scale Bar 1:2500

MOUNT LINDSAY HIGHWAY

Project Location: Synergy12a./SRV01/SRS/01 - PROJETS/22095 - ADHOC - Mount Lindsay Hwy North Maclean/01 - 12a Data/4 - Detail/22095 4001 MTC Detail 24/09/27-12dmodel

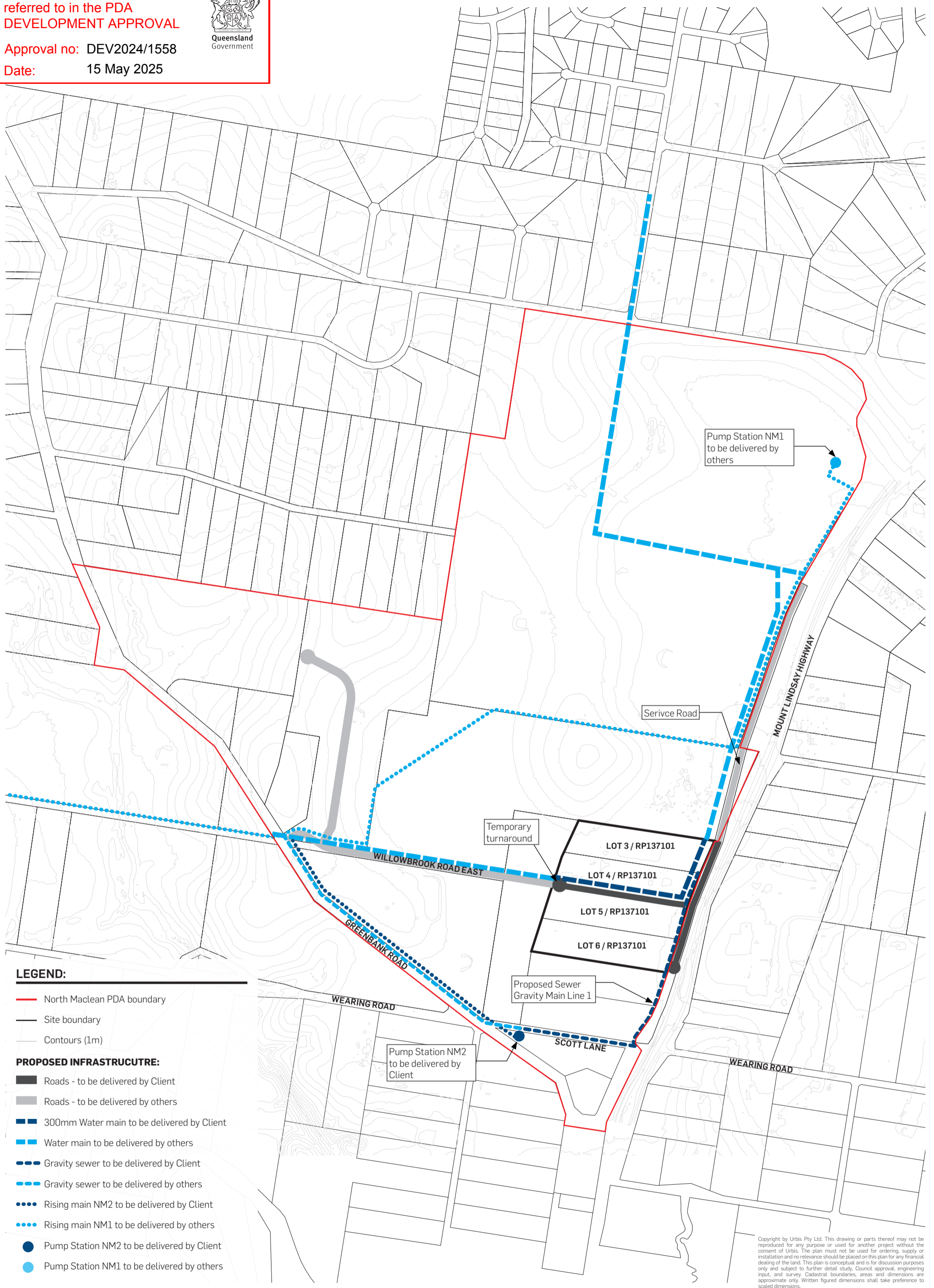
REV. DATE DESCRIPTION DRAWN SURV CHKD	<p>SUNRISE SURVEYING</p> <p>Brisbane (Head Office) Ground Floor, 18 Finchley St, Milton admin@sunrisesurveying.com.au Toowoomba Tenancy 1, 4 Laurel St, Toowoomba toowoomba@sunrisesurveying.com.au Rockhampton Level 1, 159 Denison St, Rockhampton rockhampton@sunrisesurveying.com.au Yeppoon 47 Kormanby St, Yeppoon yeppoon@sunrisesurveying.com.au</p>	CLIENT.	PROJECT. Mt Lindsay Highway Maclean	DRAWING DESCRIPTION. Detail Survey Combined Data over Various Lots	DRAWING NAME: 22095 4001 001-A	SURVEY DATE -
A 11/10/24 Issue to Client 11/10/24 MAB MC		HORIZONTAL DATUM. MGA2020 Zone 56 (Ground)	VERTICAL DATUM. AHD D Vide PSM 196908 RL: 27.348	SCALE. 1: 2500 @ A3	SITE ADDRESS. Logan City Council	CONTOUR INTERVAL Minor: 0.25 Major: 1

Drawing Plotted Friday, October 11, 2024 17:42:23 by MeghanBowman



Appendix B – Infrastructure Masterplan (Approved under DEV2024/1558)





LEGEND:

- North Maclean PDA boundary
- Site boundary
- Contours (1m)
- PROPOSED INFRASTRUCTURE:**
- Roads - to be delivered by Client
- Roads - to be delivered by others
- 300mm Water main to be delivered by Client
- Water main to be delivered by others
- Gravity sewer to be delivered by Client
- Gravity sewer to be delivered by others
- Rising main NM2 to be delivered by Client
- Rising main NM1 to be delivered by others
- Pump Station NM2 to be delivered by Client
- Pump Station NM1 to be delivered by others

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4693-4703, 4705-4715, 4717-4731 & 4733-4743 MOUNT LINDSAY HIGHWAY INFRASTRUCTURE MASTER PLAN

DATE: 04.12.2024
JOB NO: P0045017
DWG NO: IM-01
REV: 3

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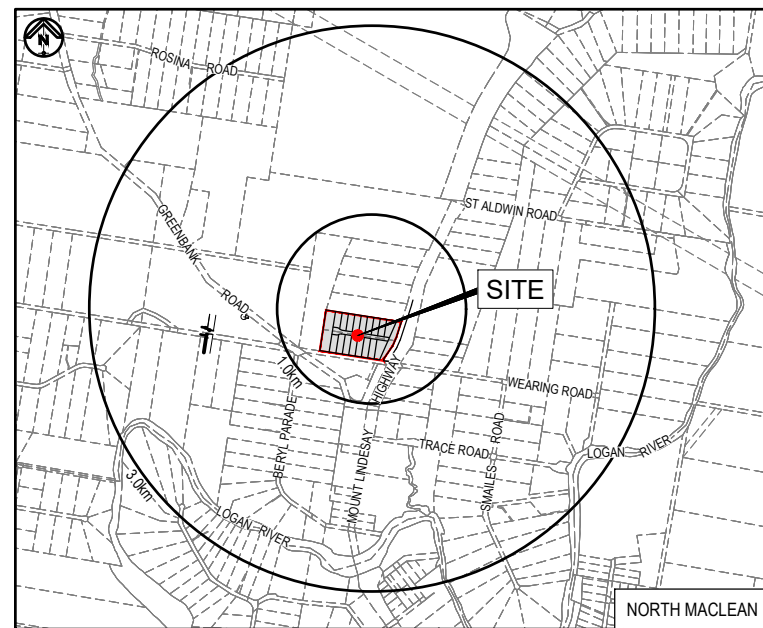


Appendix C – Civil Engineering Preliminary Design Plans



PROPOSED DEVELOPMENT AT 4733-4743 MOUNT LINDESAY HIGHWAY NORTH MACLEAN, QUEENSLAND

PROJECT No. BE220566-DA DA APPLICATION



LOCALITY PLAN
N.T.S.

DRAWING INDEX		
DRG. No.	DRAWING TITLE	REVISION
C1000	COVER SHEET, LOCALITY PLAN & DRAWING INDEX	B
C1101	OVERALL LAYOUT PLAN	B
C2000	GENERAL NOTES AND TYPICAL DETAILS	B
C2101	EARTHWORKS LAYOUT PLAN	B
C2301	EARTHWORKS SECTIONS	B
C3201	20m INDUSTRIAL ACCESS ROAD - LONGITUDINAL SECTION	B
C5101	COMBINED SERVICES LAYOUT PLAN	B
C9000	HAZARD RISK REGISTER - DESIGN RISKS	B

SURVEY
 PROVIDED BY: SUNRISE SURVEY
 REPORT No: 22095 4001 001-A
 DATE: 11-10-2024
 SYSTEM: MGA2020 ZONE 56



NEIGHBOURHOOD PLAN
N.T.S.

PREPARED FOR



ROUBAIX PROPERTIES NO 4705 PTY LTD

PREPARED BY



GOLD COAST | BRISBANE | TOOWOOMBA
 IPSWICH | MORETON BAY
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 EMAIL: ADMIN@BURCHILLS.COM.AU
 COOTE BURCHILLS ENGINEERING PTY LTD
 ABN 76 166 942 365

PROJECT No.:	DRAWING No.:	VERSION:	DATE:
BE220566-DA	C1000	B	24-06-25

GENERAL NOTES:

CONTRACT DOCUMENTATION

ALL DRAWINGS UNDER THIS CONTRACT ARE TO BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATION.

SURVEY INFORMATION

CONTROL SURVEY INFORMATION WILL BE ESTABLISHED ON SITE BY THE PRINCIPAL'S SURVEYOR. SETOUT OF THE WORKS IS TO BE CARRIED OUT BY THE CONTRACTOR FROM THE CONTROL SURVEY PROVIDED.
SETOUT INFORMATION SHALL NOT BE OBTAINED BY SCALING FROM THESE DRAWINGS.

DATUM

ALL LEVELS SHOWN ON DRAWINGS ARE A.H.D. (DERIVED).

EXISTING SURVEY CONTROL STATIONS

THE CONTRACTOR IS TO ENSURE THAT SURVEY CONTROL STATIONS ARE NOT DAMAGED OR DISTURBED IN ANY WAY BY CONSTRUCTION ACTIVITIES.

EXISTING SERVICES

EXISTING SERVICES LOCATIONS WHERE SHOWN ON THE DRAWINGS ARE INDICATIVE ONLY. THE CONTRACTOR SHALL CONTACT THE RELEVANT AUTHORITIES IN ORDER TO VERIFY THE EXACT LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORK ON SITE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING SERVICES.

SITE ACCESS

THE CONTRACTOR SHALL GAIN ACCESS TO THE SITE AT LOCATIONS APPROVED BY THE SUPERINTENDENT AND IS TO ALLOW FREEDOM OF ACCESS TO OTHER WORK AREAS ON THE SITE AT ALL TIMES.

PROVISION FOR TRAFFIC

PROVISION FOR TRAFFIC ON LOCAL ROADS IS TO BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND LOCAL AUTHORITY REQUIREMENTS.

WORK BOUNDARIES

THE CONTRACTOR IS TO RESTRICT ACTIVITIES TO THOSE AREAS DESIGNATED AS CONTRACT WORK AREAS. AT NO TIME SHALL THE CONTRACTOR ENTER OR CROSS ADJOINING AREAS WITHOUT WRITTEN AUTHORISATION FROM THE SUPERINTENDENT. SITE OFFICE FACILITIES MAY ONLY BE LOCATED WHERE AUTHORISED.

MAINTENANCE OF SITE CONDITION

AREAS BEYOND THE IMMEDIATE WORKS ARE TO BE PROTECTED AND NOT DAMAGED OR DISTURBED IN ANY WAY. EXISTING TREES ARE NOT TO BE REMOVED WITHOUT THE APPROVAL OF THE SUPERINTENDENT. AT COMPLETION OF WORKS THE SITE IS TO BE LEFT IN A CLEAN AND TIDY CONDITION TO THE SATISFACTION OF THE SUPERINTENDENT AND LOGAN CITY COUNCIL.

SITE CLEARING

CLEARING AND GRUBBING SHALL BE CARRIED OUT TO ALL WORK AREAS AS SPECIFIED AND SHALL INCLUDE THE REMOVAL OF ALL EXISTING TREES (UNLESS NOMINATED TO BE PRESERVED), EXISTING VEGETATION, TIMBER, FENCES AND ANY OTHER DEBRIS.

TOPSOIL STRIPPING

ALL TOPSOIL STRIPPED FROM WORK AREAS SHALL BE STOCKPILED FOR LATER RE-SPREADING TO ALL FOOTPATHS, BATTERS AND FILL AREAS.

EARTHWORKS (GENERAL)

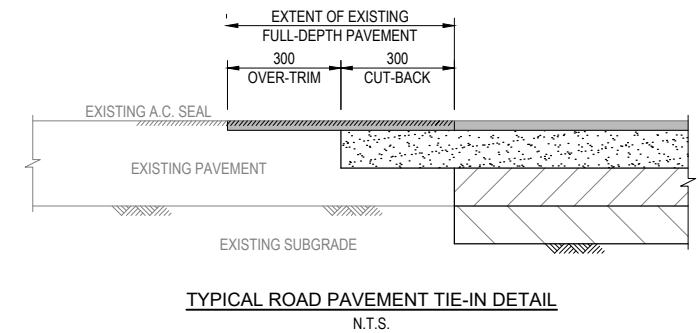
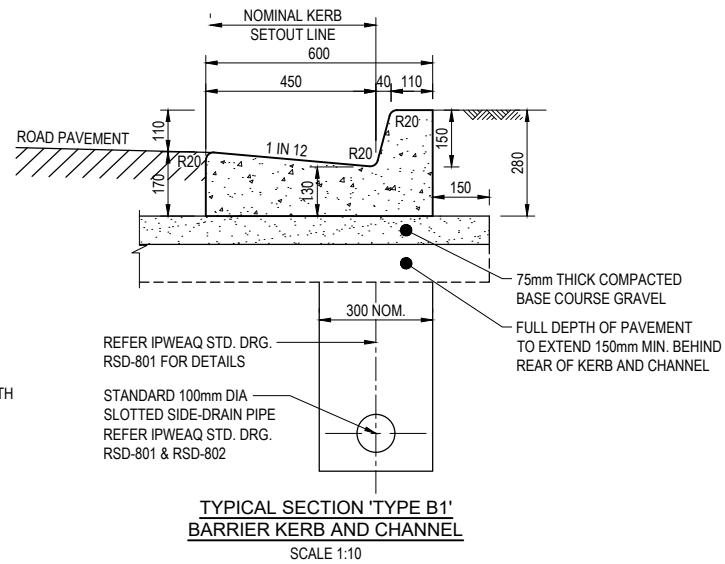
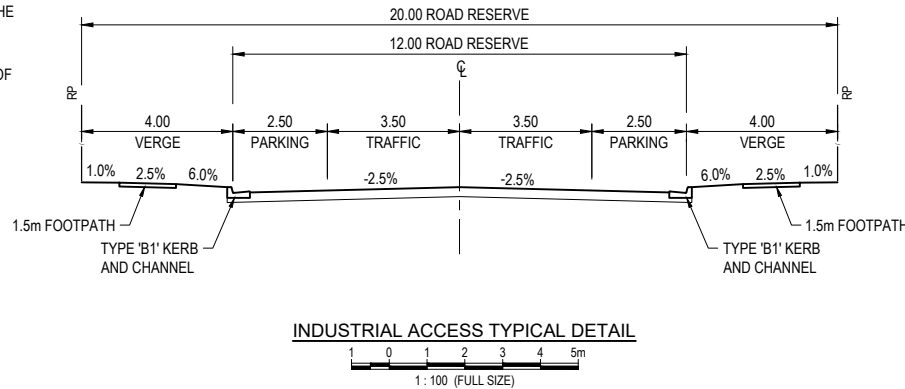
ALL FILL MATERIAL PLACED SHALL BE COMPACTED AND TRIMMED TO FINAL EARTHWORKS LEVELS AND PROFILES SHOWN ON THE CONTRACT DRAWINGS AND TESTED IN ACCORDANCE WITH THE PROJECT SPECIFICATION. ALL COMPACTION TESTING UNDER THIS CONTRACT IS TO BE CARRIED OUT TO AS3798 LEVEL 1 STANDARD BY A NATA-ACCREDITED TESTING AUTHORITY. CERTIFICATION FOR ALL EARTHWORKS CONSTRUCTION AND TESTING IS TO BE PROVIDED BY A REGISTERED PROFESSIONAL ENGINEER QUEENSLAND (RPEQ) ENGAGED BY THE CONTRACTOR.

EARTHWORKS MATERIALS

ANY EXCAVATED SILTS OR UNCOMPACTED FILLS ARE TO BE INCORPORATED IN STRUCTURAL FILLING BY SELECTIVELY MIXING WITH OTHER MATERIALS TO CONTROL THE MOISTURE CONTENT AND TO ACHIEVE THE REQUIRED COMPACTION STANDARDS.

"AS CONSTRUCTED" SURVEY

"AS CONSTRUCTED" SURVEY SHALL BE CARRIED OUT BY THE PRINCIPAL'S SURVEYOR AS WORK PROCEEDS.



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VER.	DESCRIPTION	DATE
B	CHANGE TO LAYOUT	24-06-25
A	ISSUE FOR APPROVAL	24-02-25

GOLD COAST | BRISBANE | TOOWOOMBA
IPSWICH | MORETON BAY
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EMAIL: ADMIN@BURCHILLS.COM.AU
COOTE BURCHILLS ENGINEERING PTY LTD
ABN 76 166 942 365

CLIENT :
**ROUBAIX PROPERTIES
NO 4705 PTY LTD**

DRAWING TITLE :
GENERAL NOTES AND TYPICAL DETAILS

PROJECT :
DEVELOPMENT APPROVAL

4733-4743 MT LINDESAY HWY

**PRELIMINARY
NOT FOR CONSTRUCTION OR TENDER**

SCALE AT FULL SIZE (A1) :

DEVEL. APPLIC. No. :		DATE : 24-06-25
PROJECT LEADER : JACK SHAO	DESIGNER : CARL KRUGER	
DRAFTSPERSON : CARL KRUGER	CHECKED : JACK SHAO	
APPROVED FOR AND ON BEHALF OF BURCHILLS ENGINEERING SOLUTIONS ABN 76 166 942 365		
PROJECT No. : BE220566-DA	DRAWING No. : C2000	VERSION: B



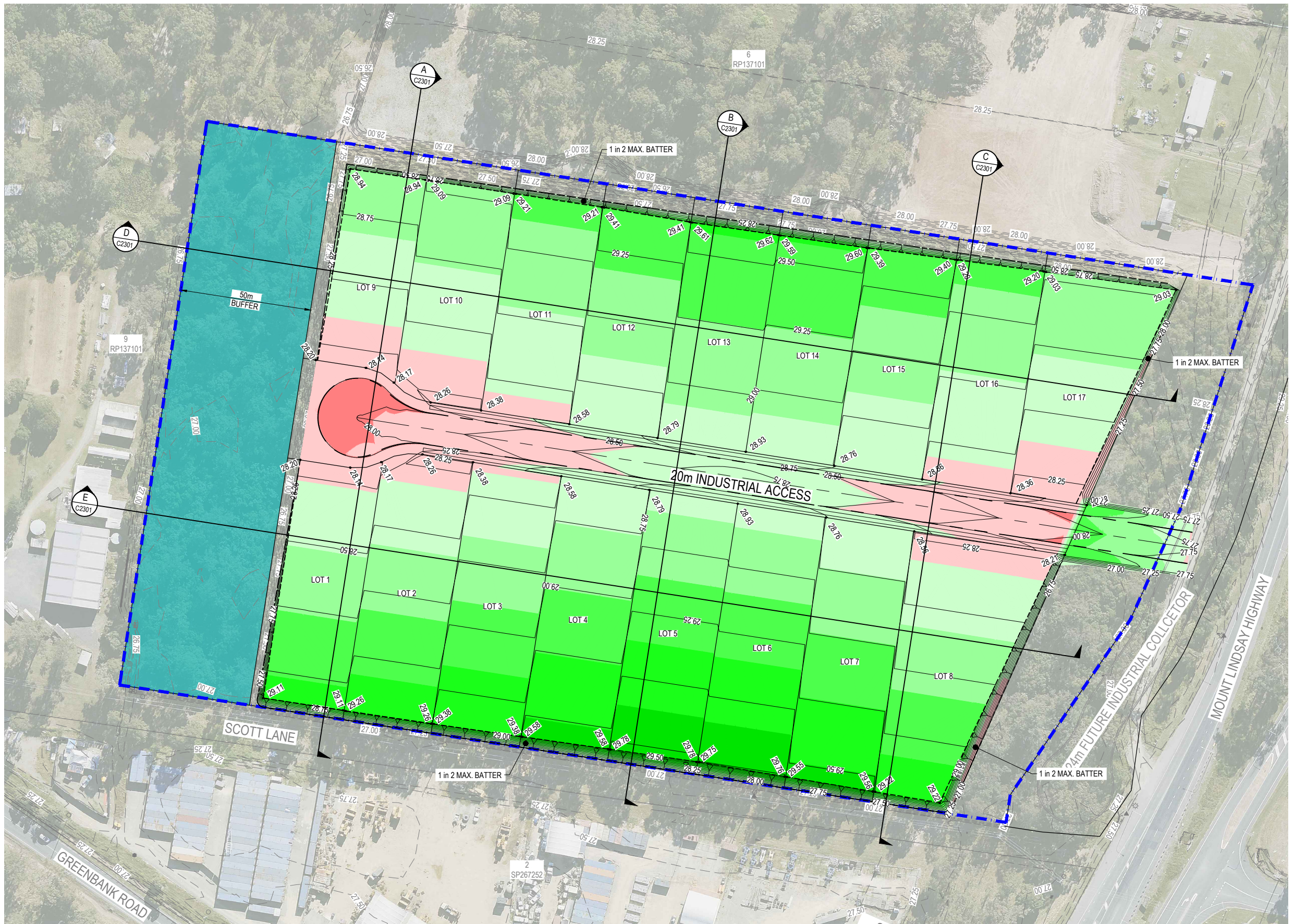
LEGEND

- 27.25 — DESIGN SURFACE CONTOURS
- - - 27.0 - - - EXISTING SURFACE CONTOURS
- - - - - EXISTING LOT BOUNDARY
- SW - SW - EXISTING STORMWATER
- - - - - EXISTING EDGE OF BITUMEN
- ■ ■ ■ ■ ■ — DEVELOPMENT SITE BOUNDARY
- - - - - PROPOSED LOT BOUNDARY
- ■ ■ ■ ■ 50m BUFFER AREA

CONCEPT BULK EARTHWORKS SUMMARY	
STRUCTURAL FILLING	
AREA	NETT SOLID FILL
OVERALL FILLING	45,871 cu.m.
EXCAVATION	
AREA	NETT CUT
OVERALL EXCAVATION	1,673 cu.m.
SUMMARY: 45,871 cu.m - 1,673 cu.m = 44,198 cu.m IMPORTED MATERIAL NO ALLOWANCE FOR BOXING HAS BEEN CONSIDERED NO ALLOWANCE HAS BEEN MADE FOR TOPSOIL STRIP / REPLACEMENT. NO ALLOWANCE FOR COMPACTION HAS BEEN CONSIDERED	

EARTHWORKS DEPTH ANALYSIS LEGEND			
LOWER	UPPER	COLOUR	
-4.0m	TO -3.5m	Dark Red	
-3.5m	TO -3.0m	Red	
-3.0m	TO -2.5m	Light Red	
-2.5m	TO -2.0m	Orange	
-2.0m	TO -1.5m	Light Orange	
-1.5m	TO -1.0m	Yellow	
-1.0m	TO -0.5m	Light Green	
-0.5m	TO 0.0m	Light Green	
0.0m	TO 0.5m	Light Green	
0.5m	TO 1.0m	Light Green	
1.0m	TO 1.5m	Light Green	
1.5m	TO 2.0m	Light Green	
2.0m	TO 2.5m	Light Green	
2.5m	TO 3.0m	Light Green	
3.0m	TO 3.5m	Light Green	
3.5m	TO 4.0m	Light Green	

WARNING: UNDERGROUND SERVICES:
UNDERGROUND SERVICES EXIST IN THIS VICINITY. THE CONTRACTOR IS TO CONTACT THE RELEVANT AUTHORITIES TO CONFIRM EXACT LOCATION OF SERVICES ON SITE PRIOR TO ANY EXCAVATION OR CONSTRUCTION COMMENCING.



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VER.	DESCRIPTION	DATE
B	CHANGE TO LAYOUT	24-06-25
A	ISSUE FOR APPROVAL	24-02-25
VER.	DESCRIPTION	DATE

BURCHILLS ENGINEERING SOLUTIONS

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COOTE BURCHILLS ENGINEERING PTY LTD
ABN 76 166 942 365

CLIENT:
**ROUBAIX PROPERTIES
NO 4705 PTY LTD**

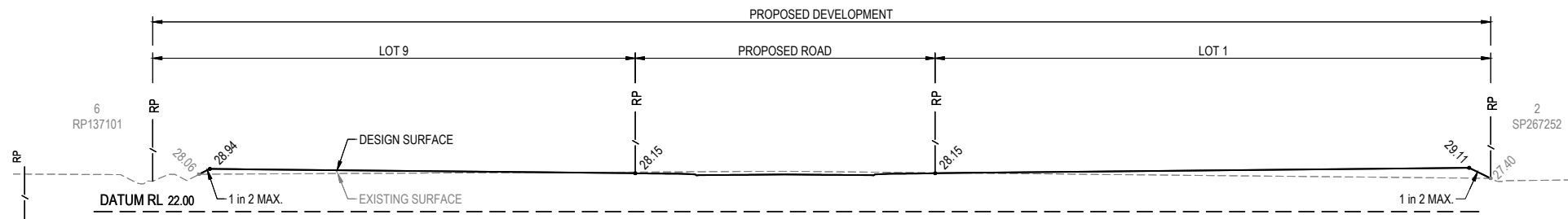
DRAWING TITLE:
EARTHWORKS LAYOUT PLAN

PROJECT:
**DEVELOPMENT APPROVAL
4733-4743 MT LINDESAY HWY**

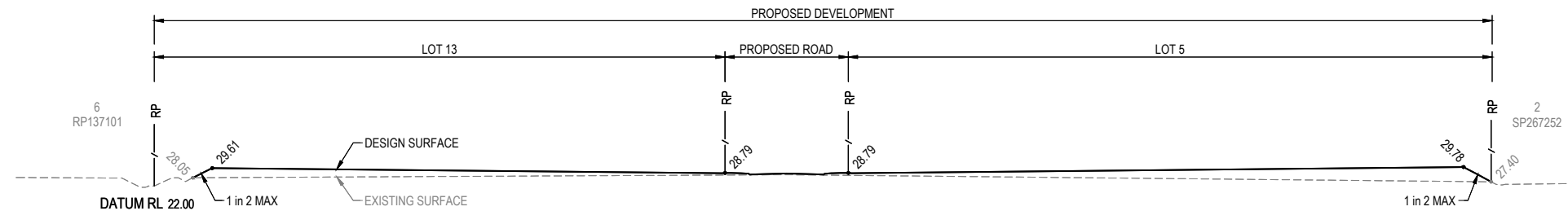
PRELIMINARY
NOT FOR CONSTRUCTION OR TENDER

SCALE AT FULL SIZE (A1):
10 0 5 10 15 20 25 30 35m
1:750 (FULL SIZE)

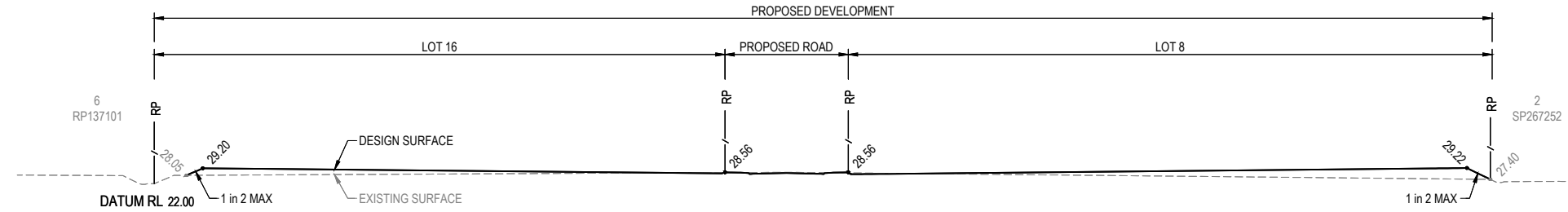
DEVEL. APPLIC. No.:	DATE: 24-06-25
PROJECT LEADER: JACK SHAO	DESIGNER: CARL KRUGER
DRAFTSPERSON: CARL KRUGER	CHECKED: JACK SHAO
APPROVED FOR AND ON BEHALF OF BURCHILLS ENGINEERING SOLUTIONS ABN 76 166 942 365	
PROJECT No.:	DRAWING No.:
BE220566-DA	C2101
VERSION:	B



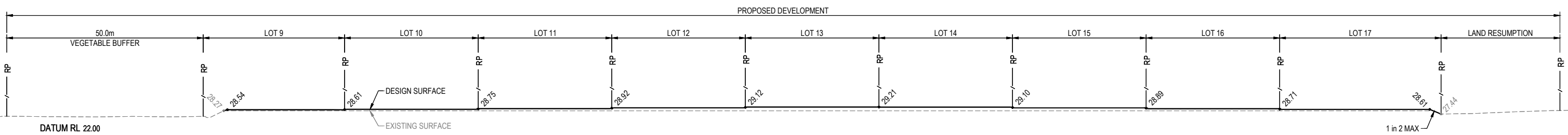
A SECTION
C2101 SCALE 1:500



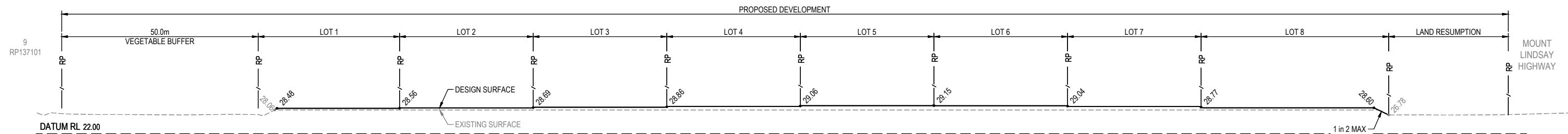
B SECTION
C2101 SCALE 1:500



C SECTION
C2101 SCALE 1:500



D SECTION
C2101 SCALE 1:500



E SECTION
C2101 SCALE 1:500

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VER.	DESCRIPTION	DATE
B	CHANGE TO LAYOUT	24-06-25
A	ISSUE FOR APPROVAL	24-02-25

BURCHILLS ENGINEERING SOLUTIONS

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ABN 76 166 942 365

CLIENT:
ROUBAIX PROPERTIES NO 4705 PTY LTD

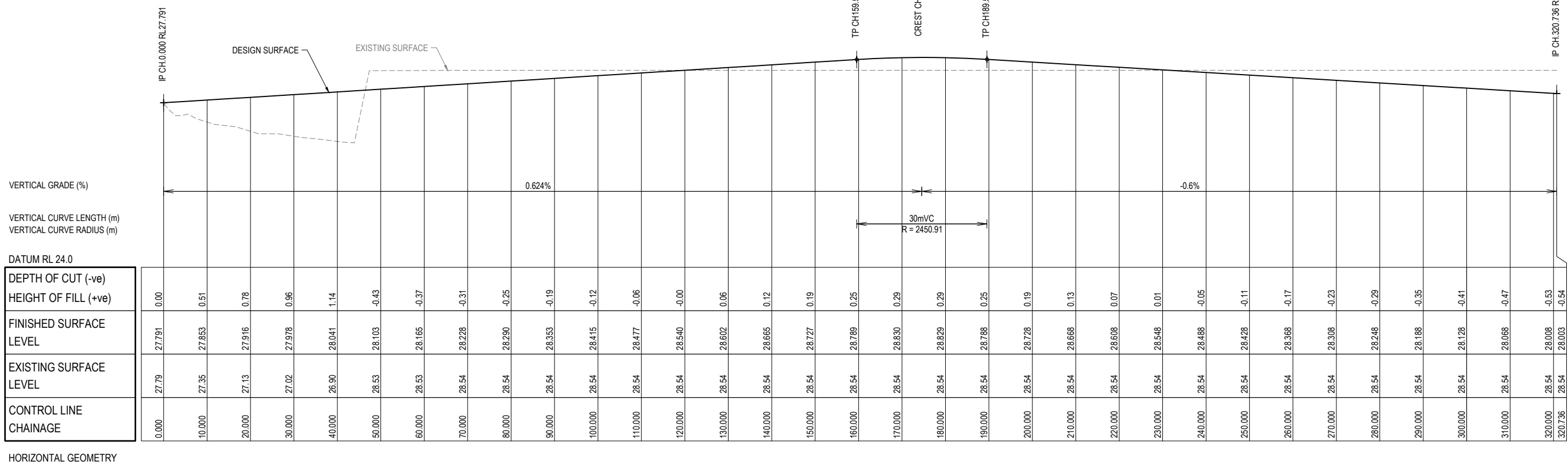
DRAWING TITLE:
EARTHWORKS SECTIONS

PROJECT:
DEVELOPMENT APPROVAL
4733-4743 MT LINDSAY HWY

PRELIMINARY
NOT FOR CONSTRUCTION OR TENDER

SCALE AT FULL SIZE (A1):
1:500 (FULL SIZE)

DEVEL. APPLIC. No.:	DATE: 24-06-25
PROJECT LEADER: JACK SHAO	DESIGNER: CARL KRUGER
DRAFTSPERSON: CARL KRUGER	CHECKED: JACK SHAO
APPROVED FOR AND ON BEHALF OF BURCHILLS ENGINEERING SOLUTIONS ABN 76 166 942 365	
PROJECT No.: BE220566-DA	DRAWING No.: C2301
	VERSION: B



DATUM RL 24.0	
DEPTH OF CUT (-ve)	
HEIGHT OF FILL (+ve)	
FINISHED SURFACE LEVEL	
EXISTING SURFACE LEVEL	
CONTROL LINE CHAINAGE	

CHAINAGE	DEPTH OF CUT (-ve)	HEIGHT OF FILL (+ve)	FINISHED SURFACE LEVEL	EXISTING SURFACE LEVEL	CONTROL LINE CHAINAGE
0.000	0.00		27.791	27.79	0.000
10.000	0.51		27.853	27.35	10.000
20.000	0.78		27.916	27.13	20.000
30.000	0.96		27.978	27.02	30.000
40.000	1.14		28.041	26.90	40.000
50.000	-0.43		28.103	28.53	50.000
60.000	-0.37		28.165	28.53	60.000
70.000	-0.31		28.228	28.54	70.000
80.000	-0.25		28.290	28.54	80.000
90.000	-0.19		28.353	28.54	90.000
100.000	-0.12		28.415	28.54	100.000
110.000	-0.06		28.477	28.54	110.000
120.000	-0.00		28.540	28.54	120.000
130.000	0.06		28.602	28.54	130.000
140.000	0.12		28.665	28.54	140.000
150.000	0.19		28.727	28.54	150.000
160.000	0.25		28.789	28.54	160.000
170.000	0.29		28.830	28.54	170.000
180.000	0.29		28.829	28.54	180.000
190.000	0.25		28.788	28.54	190.000
200.000	0.19		28.728	28.54	200.000
210.000	0.13		28.668	28.54	210.000
220.000	0.07		28.608	28.54	220.000
230.000	0.01		28.548	28.54	230.000
240.000	-0.05		28.488	28.54	240.000
250.000	-0.11		28.428	28.54	250.000
260.000	-0.17		28.368	28.54	260.000
270.000	-0.23		28.308	28.54	270.000
280.000	-0.29		28.248	28.54	280.000
290.000	-0.35		28.188	28.54	290.000
300.000	-0.41		28.128	28.54	300.000
310.000	-0.47		28.068	28.54	310.000
320.000	-0.53		28.008	28.54	320.000
320.736	-0.54		28.003	28.54	320.736

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VER.	DESCRIPTION	DATE
B	CHANGE TO LAYOUT	24-06-25
A	ISSUE FOR APPROVAL	24-02-25

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COOTE BURCHILLS ENGINEERING PTY LTD
ABN 76 166 942 365

CLIENT :
**ROUBAIX PROPERTIES
NO 4705 PTY LTD**

DRAWING TITLE :
**20M INDUSTRIAL ACCESS ROAD
LONGITUDINAL SECTION**

PROJECT :
DEVELOPMENT APPROVAL

4733-4743 MT LINDESAY HWY

PRELIMINARY
NOT FOR CONSTRUCTION OR TENDER

SCALE AT FULL SIZE (A1):
1:50 VERTICAL (FULL SIZE)
1:500 HORIZONTAL (FULL SIZE)

DEVEL. APPLIC. No. :	DATE : 24-06-25
PROJECT LEADER : JACK SHAO	DESIGNER : CARL KRUGER
DRAFTSPERSON : CARL KRUGER	CHECKED : JACK SHAO
APPROVED FOR AND ON BEHALF OF BURCHILLS ENGINEERING SOLUTIONS ABN 76 166 942 365	
PROJECT No. : BE220566-DA	DRAWING No. : C3201
VERSION: B	

**QMS RISK & OPPORTUNITIES REGISTER
SAFETY IN DESIGN – NORMAL DESIGN RISKS - CIVIL**

Design Element	Associated risks & opportunities	Raw risk assessment		Raw risk rating	Treatment Measures to avoid, minimize or treat the risk.	Responsibility	Residual risk rating
		Likelihood	Consequence				
CONSTRUCTION PHASE							
SITE ACCESS	Unsafe site access and egress point, restricted access, flooding, unauthorised access from persons or animals	L	M	L-M	Prepare site specific Construction Traffic Management Plan and Workplace Health and Safety Management Plan	Principal Contractor	L
CLEARING & DEMOLITION	Removal of existing structures, decommission of services, vegetation clearing and fauna management	M	H	M-H	Contractor to obtain Demolition Permit, arrange all service disconnections with asset owner and carry out vegetation works in accordance with Vegetation and Fauna Management Plan	Principal Contractor	L
EXISTING SERVICES	Disturb or damage existing services and infrastructure, overhead powerlines, work adjacent to existing services, existing service relocations	M	H	M-H	Client to commission detailed site survey and service potholing at critical locations. Contractor to undertake Dial Before You Dig and service verification with service authority providers and undertake additional potholing prior to construction	Client and Principal Contractor	L-M
EXCAVATION & TRENCHING	Unstable existing slopes and landslip, steep cut profiles, deep trench excavations, working at heights, intercept water table, dispersive soils, acid sulphate soils	M	H	M-H	Client to commission a geotechnical investigation and contractors to undertake own investigations. Temporary and final earthworks profiles confirmed by client's geotechnical consultant. Temporary earthworks profile to be confirmed by Contractor's geotechnical consultant. Contractor to provide temporary benching, fencing, stabilisation and shoring.	Client and Principal Contractor	L
MATERIALS HANDLING	Manual handling, handling and disposal of sharps, repetitive work processes, hazardous substances	H	M	M-H	Contractor or provide a site specific Workplace Health and Safety Management Plan including Material Safety Data Sheets	Principal Contractor	L
PLANT & EQUIPMENT	Operation of plant and machinery, site access by visitors, material deliveries and waste removal	M	H	M-H	Contractor or provide a site specific Workplace Health and Safety Management Plan including register of operator machinery tickets. Contractor to maintain a site visitor register and provide site specific induction to all visitors	Principal Contractor	L
OPERATIONAL PHASE							
ROADS & PATHWAYS	General road safety, flood free access, pedestrian and cyclist injuries, inadequate signage	L	H	M	Design, approvals and construction undertaken in accordance with Australian, State Government and Local Authority standards, codes, guidelines and best practice	Asset Owner	L
STORWATER / FLOODING	Hazard from storm and flood water depths and velocities, ponding and access to inlets, outlets and basins	M	H	M-H	Design, approvals and construction undertaken in accordance with Australian, State Government and Local Authority standards, codes, guidelines and best practice	Asset Owner	L
WATER & SEWER	Blockages, contamination, interruption to service, access to fittings, confined space access	L	M	L-M	Design, approvals and construction undertaken in accordance with Australian, State Government and Local Authority standards, codes, guidelines and best practice	Asset Owner	L
WALLS & FENCING	Risk of falls, unauthorised access from persons and animals, structural failure	M	M	M	Design, approvals and construction undertaken in accordance with Australian, State Government and Local Authority standards, codes, guidelines and best practice	Asset Owner	L
MAINTENANCE PHASE							
ROADS & PATHWAYS	All as for construction and operation phases					Asset Owner	
STORWATER / FLOODING	All as for construction and operation phases					Asset Owner	
WATER & SEWER	All as for construction and operation phases					Asset Owner	
WALLS & FENCING	All as for construction and operation phases					Asset Owner	
REFURBISHMENT PHASE							
ROADS & PATHWAYS	All as for construction and operation phases					Asset Owner	
STORWATER / FLOODING	All as for construction and operation phases					Asset Owner	
WATER & SEWER	All as for construction and operation phases					Asset Owner	
WALLS & FENCING	All as for construction and operation phases					Asset Owner	
DEMOLITION PHASE							
ROADS & PATHWAYS	All as for construction and operation phases					Asset Owner	
STORWATER / FLOODING	All as for construction and operation phases					Asset Owner	
WATER & SEWER	All as for construction and operation phases					Asset Owner	
WALLS & FENCING	All as for construction and operation phases					Asset Owner	

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B	CHANGE TO LAYOUT	24-06-25
A	ISSUE FOR APPROVAL	24-02-25
VER.	DESCRIPTION	DATE



BURCHILLS ENGINEERING SOLUTIONS

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COOTE BURCHILLS ENGINEERING PTY LTD
ABN 76 166 942 365

CLIENT :
**ROUBAIX PROPERTIES
NO 4705 PTY LTD**

DRAWING TITLE :
HAZARD RISK REGISTER - DESIGN RISKS

PROJECT :
DEVELOPMENT APPROVAL

4733-4743 MT LINDESAY HWY

**PRELIMINARY
NOT FOR CONSTRUCTION OR TENDER**

SCALE AT FULL SIZE (A1) :

DEVEL. APPLIC. No. :	DATE : 24-06-25
PROJECT LEADER : JACK SHAO	DESIGNER : CARL KRUGER
DRAFTSPERSON : CARL KRUGER	CHECKED : JACK SHAO
APPROVED FOR AND ON BEHALF OF BURCHILLS ENGINEERING SOLUTIONS ABN 76 166 942 365	
PROJECT No. : BE220566-DA	DRAWING No. : C9000
VERSION: B	