

29 March 2023

Our Reference: P\_21\_19\_APP\_Mamre\_WAD\_DD

Transport for NSW  
27-31 Argyle Street  
Parramatta NSW 2150

**Attention: James Douglas, Land Use Planner**

**Subject: Access Logistics Park – 884-928 Mamre Road, Kemps Creek – Access Road**

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Dear James,

In regard to the email you sent on 16 February 2023 with subject "Access Logistics Park - Meeting Minutes for the 08.02.2023", we have outlined below our responses to the actions and comments made by TfNSW.

1. Permanent LILO:
  - a. TfNSW (JD and PR) requires the acceleration lane be removed and a simple left turn be installed onto Mamre Road. The redesigned LILO (as above) and deceleration lane must comply with Austroads guidelines for a 90km/h speed limit TfNSW with design details provided to demonstrate compliance.

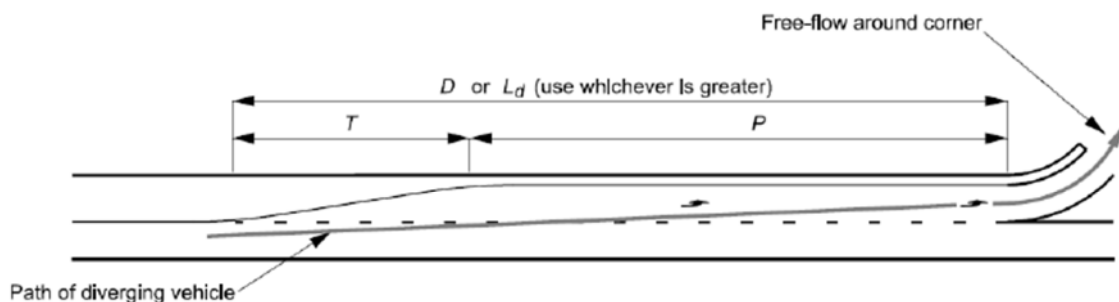
**Response:**

The strategic design drawing (2021\_19\_SD\_0001\_SK00014 Issue B) shows a simple Left-In-Left-Out design without the acceleration lane as advised by TfNSW. This plan is provided in Annexure 1.

Notes on the design and a supporting Technical Note (dated August 2022) describes the proposed design's compliance with Austroads in particular for a design speed of 90km/h on Mamre Road.

It should be noted that the deceleration lane design is consistent with the previous design issued to TfNSW contained in the Technical Note dated August 2022.

Referring to Figure 5.1B in Austroads Guide to Road Design Part 4A (see below), the length of the deceleration lane is noted as (D)



**(b) Deceleration to a turning speed**

With reference to Table 5.2 in Austroads Guide to Road Design Part 4A (see below), for a design speed of 90km/h and a design speed exit curve of 20km/h, the length of the deceleration lane (D) is required to be 120m (most conservative). **The strategic design issued to TfNSW has a deceleration lane length of 120m, which is compliant with Austroads requirements.**

Design speed of approach road (km/h)	Length of deceleration D – including diverge taper T (m)										Diverge length L <sub>d</sub> <sup>(3)</sup> for lane widths (m)	
	Stop condition <sup>(1)</sup> (m)		Design speed of exit curve (km/h) <sup>(2)</sup>									
	0	0	20	30	40	50	60	70	80	90	3.5 m <sup>(4)</sup>	3.0 m <sup>(4)</sup>
	Comfortable 2.5 m/s <sup>2</sup>	Maximum 3.5 m/s <sup>2</sup>	Comfortable average rate of deceleration 2.5 m/s <sup>2</sup>									
50	40	30	30	25	15						33	27
60	55	40	50	40	30	15					40	33
70	75	55	70	60	50	40	20				47	40
80	100	70	95	85	75	60	45	25			54	44
90	125	90	120	110	100	85	70	50	25		60	50
100	155	110	150	140	130	115	100	80	55	30	67	57
110	185	135	180	175	160	150	130	110	90	60	74	62

- b. TfNSW (JD) The retention of the existing driveway accesses with the 3m shoulder adjoining the deceleration lane extends across land that is not under the ownership of the Applicant or included within the current Development Application. As identified above the 3m shoulder and acceleration should be removed. Once the affected lots are developed TfNSW may consider the acceleration lane as a post development process.

**Response:**

It should be noted that there are no existing driveways to be retained adjoining the proposed deceleration lane. The proposed design has a 2.5m shoulder adjoining the deceleration lane, which is wholly within the current road reserve (refer to drawing 2021\_19\_SD\_0001\_SK00014 Issue B) contained in Annexure 1.

We assume that this comment relates to the acceleration lane. The proposed design (2021\_19\_SD\_0001\_SK00014 Issue B) shows the acceleration lane and adjoining 3m shoulder have been removed.

Should TfNSW consider the acceleration lane as a post development process when the affected lots to the south are developed, the strategic design (2021\_19\_SD\_0001\_SK00017 Issue A) shows the extent of the acceleration lane that is compliant with Austroads guidelines for 90km/h design speed. This plan is contained in Annexure 2.

- c. TfNSW (JD) advised that any construction access will be required to be formalised and approved through the Section 138 process by TfNSW.

**Response:**

Noted. Any construction access will be submitted to TfNSW for approval through Section 138.

- d. Action (Applicant): The Applicant is advised that once the LILO has been amended to comply with the above a new set of revised plans, CAD Files (in the original format and displaying the Interim (if relevant) and ultimate design) and a long section of the deceleration lane should be provided to TfNSW for review.

**Response:**

The strategic design drawing (2021\_19\_SD\_0001\_SK00018 Issue A) is submitted to TfNSW in pdf and CAD format. The design displays the Interim arrangement (at opening of development), the TfNSW Ultimate Mamre Road design and a long section of the deceleration lane. This plan is contained in Annexure 3.

2. Existing Levels and the interconnection with the Ultimate Design
  - a. TfNSW (JD) advised that the existing levels and the departure from the ultimate road arrangement must be considered given the expected vertical deviation displayed within the documentation. If the completed intersection does not match the ultimate arrangement the works would be considered sacrificial.

Action (MU Group): The Applicant is to establish the vertical geometry of the completed intersection with the strategic design utilising the established levels.

**Response:**

Having reviewed the TfNSW Ultimate Mamre Road Strategic Design levels compared to the level of the existing Mamre Road, there will be cut and fill areas. The strategic design drawing (2021\_19\_SD\_0001\_SK00014 Issue B) shows highlighted in light blue the proposed southbound carriageway matching the Ultimate TfNSW design level including at the intersection (refer to Annexure 1). The strategic design drawing also shows via plan view and long section the cut and fill areas. It should be noted that the cut area will impact the northbound carriageway due to the level difference of approximately 250mm at the deepest level. The chevroned area at the median acts as a vertical transition for the level difference between the northbound and southbound carriageway. This vertical transition maintains an acceptable grade of approximately 3%.

TfNSW should note that there is a potential risk of rework should the assumed cut levels on the Ultimate TfNSW design be reduced.

3. Stormwater Design and Information
  - a. Demonstrate that the extension of existing culverts align with the capacity requirements and Sydney Water infrastructure. Details on the stormwater design (pit and pipes) should be provided to TfNSW for review. In addition, has information on the flow paths for run off and collection should be identified. It should be noted that extension of the culverts should be undertaken to the west were possible.

Action (MU Group): The Applicant is to provide details on the proposed stormwater design and connections.

**Response:**

Detailed analysis for the stormwater design including connections will be submitted to TfNSW for review under the WAD. Extension of the culverts under Mamre Road to the west is currently not anticipated as this may affect the drainage flow to properties away from the LILO arrangement and we note that upgrade of Mamre Road to the west is not proposed as part of this strategic design. This will be discussed in further detail with TfNSW during the subsequent design development.

It should be noted that the stormwater discharge from the development proposes to utilise the existing culverts in Mamre Road. The proposed discharge arrangement and alignment is consistent with the Mamre Road Development Control Plan (MRP DCP) trunk drainage network and has been reviewed by NSW DPIE and their independent stormwater management reviewer (IDC).

The stormwater management design allows for attenuation of post development peak flows to less than or equal to existing flows. Further, the design limits discharge in accordance with the Mean Annual Runoff Volume (MARV) limits, and Flow Duration Curve (FDC) metrics. As such, post development flows, and performance of the culverts post development, would be similar to those in the predevelopment conditions.

The drainage output assumptions are consistent with the MRP DCP and consultation with Sydney Water. We do not have visibility on any ultimate TfNSW designs pertaining to stormwater, however it would be anticipated that as Sydney Water are the trunk drainage managers that TfNSW designs would need to be consistent with the Sydney Water strategic plans, which are in turn consistent with the proposed stormwater management and discharge arrangement.

4. Identification of additional land adjoining the deceleration lane for future road upgrades.
- a. Action (Applicant): The Applicant is advised to identify and provide revised plans that detail the available land for future road widening (3.5m shoulder). The plan set should include a long and wide section demonstrating the potential for future land dedication.

**Response:**

The strategic design drawing (*2021\_19\_SD\_0001\_SK00014 Issue B*) shows in plan and cross section the available land for future widening. The proposed design shows a proposed 2.5m shoulder adjacent to the deceleration lane with a 1.0m verge and the remaining 12.3m available land to the ultimate road boundary.

Altis as part of its SSDA are proposing to dedicate approximately 1,481 square meters of land fronting their site for road widening in accordance with TfNSW Ultimate Mamre Road Design. This land is shown hatched in Blue within *Nettleton Tribe Drawing 11213\_DA010 P10* and is contained within Annexure 4.

We are not aware of any additional land required in the Mamre Road Precinct Ultimate Design above what has been contemplated.

- b. Action (MU Group):  
Some outstanding issues that need to be resolved within the documentation include the following:
- SIDRA modelling to be provided in the original format.

**Response:**

This was provided to TfNSW on 08/02/2023 (during the meeting between TfNSW and Altis). This was also provided previously to TfNSW in November 2022.

- The Traffic Impact Assessment references to lower trip rate generation are not supported and should be removed as transport does not consider the studies undertaken to adequately reference the development potential of the precinct considering the permissible uses available within the zone.

**Response:**

Refer to ASON Group response in Appendix 6, confirming the TMAP has been amended as requested.

5. The deceleration lane and subsequent land dedication for future widening in accordance with TfNSW policy please provide an amended drawing displaying that the land is available for future upgrade

**Response:**

The strategic design drawing (*2021\_19\_SD\_0001\_SK00014 Issue B*) shows in plan and cross section the available land for future widening. The proposed design shows a proposed 2.5m shoulder adjacent to the deceleration lane with a 1.0m verge and the remaining 12.3m available land to the ultimate road boundary. This plan is provided in Annexure 1

Altis as part of its SSDA are proposing to dedicate approximately 1,481 square meters of land fronting their site for road widening in accordance with TfNSW Ultimate Mamre Road Design. This land is shown hatched in Blue within *Nettleton Tribe Drawing 11213\_DA010 P10* and provided in Annexure 4.

6. Road Design Commentary from the MRUS2 Project Team

**Response:**

Refer to Table 1 for designer (MU Group) responses to review comments.

Table 1.

MRUS2 Project Team Comments	MU Group (Designer) Responses
Crossing point for pedestrians / cyclists on access road to consider safety (e.g. line of sight)	A pedestrian/cyclist crossing that complies with Austroads and TfNSW technical directions has been added (refer to 2021_19_SD_0001_SK00014 Issue B). The crossing point is 50m from the intersection, which provides sufficient line of sight, and is compliant with Austroads Part 3 horizontal stopping site distance of 20m (Figure 5.4) with an additional 26m B-double length. This allows the stopping site distance to the back of a 26m B-Double waiting at the pedestrian crossing. This plan is contained within Annexure 1
Extension of culverts to align with capacity requirements from Sydney Water. Also extend culverts to the west, to allow for safety of workers when constructing median / northbound lanes	Please refer to detailed response in comment 3a.
Consider the safety of access points (driveways) with acceleration lane to the south	TfNSW has provided instruction to remove the acceleration lane as shown in strategic design drawing (2021_19_SD_0001_SK00014 Issue B). The acceleration lane will only be constructed once the southern property is developed or residents vacate.
Minimise sacrificial works – show planned permanent / sacrificial works on the drawings	<p>The proposed strategic design has considered the Ultimate TfNSW Mamre Road Design. The strategic design drawing (2021_19_SD_0001_SK00014 Issue B) shows highlighted in like blue the proposed southbound carriageway matching the Ultimate TfNSW design level including at the intersection. This plan is provided in Annexure 1</p> <p>There are no works that are considered sacrificial. Areas that need to be reworked are marked as transition areas in the drawing. We believe this approach is the most appropriate considering the Ultimate Mamre Road levels are not finalized.</p>
Design to comply with TfNSW requirements – any departures to be approved through TfNSW concession process. Designer to provide departures register for Concept Design, for TfNSW review / approval	Currently there are no known departures to design standards. Design departures will be submitted to TfNSW for review and approval in the concept and detailed design phases as per standard practice.
Add stormwater infrastructure (pits and pipes) to Concept Design for TfNSW review. Designer to show how they will collect runoff from their site, and how it will be discharged to the surrounding natural network or TfNSW infrastructure. If using existing culverts, design needs to show no adverse impacts to development on water flows. Also what is the flow path for runoff collected from the catch drain adjacent to the decel lane	The proposed is a strategic design. Stormwater design and calculation will be provided to TfNSW for review and acceptance in the concept and detailed design phases as per standard practice.

<p>Road levels to be consistent with TfNSW Strategic Design for Mamre Road upgrade. At the LILO the proposed road will be 500mm higher than existing.</p>	<p>The proposed strategic design drawing (2021_19_SD_0001_SK00014 Issue B) shows highlighted in light blue the proposed southbound carriageway matching the Ultimate TfNSW Strategic Design level including at the intersection. This plan is provided in Annexure 1</p> <p>As shown on the long section, the intersection is at approximately CH3980 and the level difference between the TfNSW Strategic Design and existing level is 91mm.</p>
<p>Existing culvert at CH3800 and CH3700 (XD25 and XD26) – the ultimate design will result in replacement and change in culvert alignment. Depending on the developers program, our design may be sufficiently advanced to avoid sacrificial works here.</p>	<p>Noted</p> <p>The limit of works in the proposed strategic design drawing (2021_19_SD_0001_SK00014 Issue B) does not impact the existing culverts at CH3800 and CH3700.</p> <p>However, we will coordinate and share with TfNSW on any design information that may inform each other's design development. This will be undertaken as part of the WAD process.</p>
<p>MU Group state there will be no impact to southbound lanes in the TfNSW ultimate design, however there appears to be some rework of the pavement for half of the southbound lane (SK-0007D-01). MU Group need to clearly define what will be permanent and what will be sacrificial works.</p>	<p>The proposed strategic design drawing (2021_19_SD_0001_SK00014 Issue B) shows highlighted in light blue the proposed southbound carriageway matching the Ultimate TfNSW Strategic Design level and horizontal position including at the intersection. This area along with the LILO will be permanent.</p> <p>There are no works that are considered sacrificial. Areas that need to be reworked are marked as transition areas in the drawing.</p>
<p>MU Group response to Q2 contains several assumptions which do not appear to be correct:</p> <ul style="list-style-type: none"> <li>- No proposed shared paths in ultimate design, and no pedestrian desire lines, etc. This does not follow the TfNSW Objectives for Active Transport for this project. Refer typical cross sections at CH3520 from our strategic design</li> <li>- Assumed speed of 20km/h in and out of the estate may be posted / designed, however in practice many trucks in the local area are driving at higher speeds around these bends.</li> </ul> <p>We agree with the proposal to move the pedestrian crossing 50m away from the intersection (subject to compliance with all Austroads requirements</p>	<p>MU Group has reviewed the TfNSW Strategic Design. The plan layout and the cross section at CH3520 shows a Footway width, however this is not clearly understood as a shared path.</p> <p>Nevertheless, the proposed strategic design drawing (2021_19_SD_0001_SK00014 Issue B) shows a 2.5m wide shoulder that is suitable for cyclist to use, which connects with the shared paths within Estate Road.</p> <p>The proposed strategic design complies with Austroads guidelines. Any refinement on signposting and design elements will be undertaken in the concept and detailed design phases. It should be noted that road safety audit and Safety-in-Design will be undertaken during the concept and detailed design phases that will further inform the design development.</p> <p>The proposed strategic design drawing (2021_19_SD_0001_SK00014 Issue B) shows the pedestrian crossing to be 50m away from the intersection, and is compliant with Austroads and TfNSW technical directions.</p>

<p>MU Group also responded to Q3 by noting that the proposed TfNSW ultimate levels were unavailable. The information is available in the strategic design MX model. We recommend MU Group follow a similar process to Mirvac / Orion to integrate the two designs</p>	<p>MU Group has further reviewed the TfNSW Strategic Design and the ultimate levels are shown in the drawing (2021_19_SD_0001_SK00014 Issue B) long section. This plan is provided in Appendix 1</p> <p>The proposed strategic design has been integrated the TfNSW Strategic Design as shown in drawing (2021_19_SD_0001_SK00018 Issue A). This plan is provided in Appendix 3</p>
<p>MU Group responded to Q4 by advising that the two affected properties will have a wider shoulder (3m) to safely enter and exit. Does this comply with Austroads requirements? It still appears to be an unsafe solution</p>	<p>The proposed strategic design drawing (2021_19_SD_0001_SK00014 Issue B) shows a simple Left-In-Left-Out design without the acceleration lane as advised by TfNSW. This proposed design does not affect the two properties previously mentioned, noting that an acceleration lane will only be constructed when the southern properties are developed or residents vacate.</p>

We trust that these responses satisfy TfNSW comments. Should you have any queries, please don't hesitate to contact me.

Kind regards



**JOEKARL DIAZ**  
ASSOCIATE DIRECTOR  
0412 114 328  
[joekarl.diaz@mugroup.com.au](mailto:joekarl.diaz@mugroup.com.au)

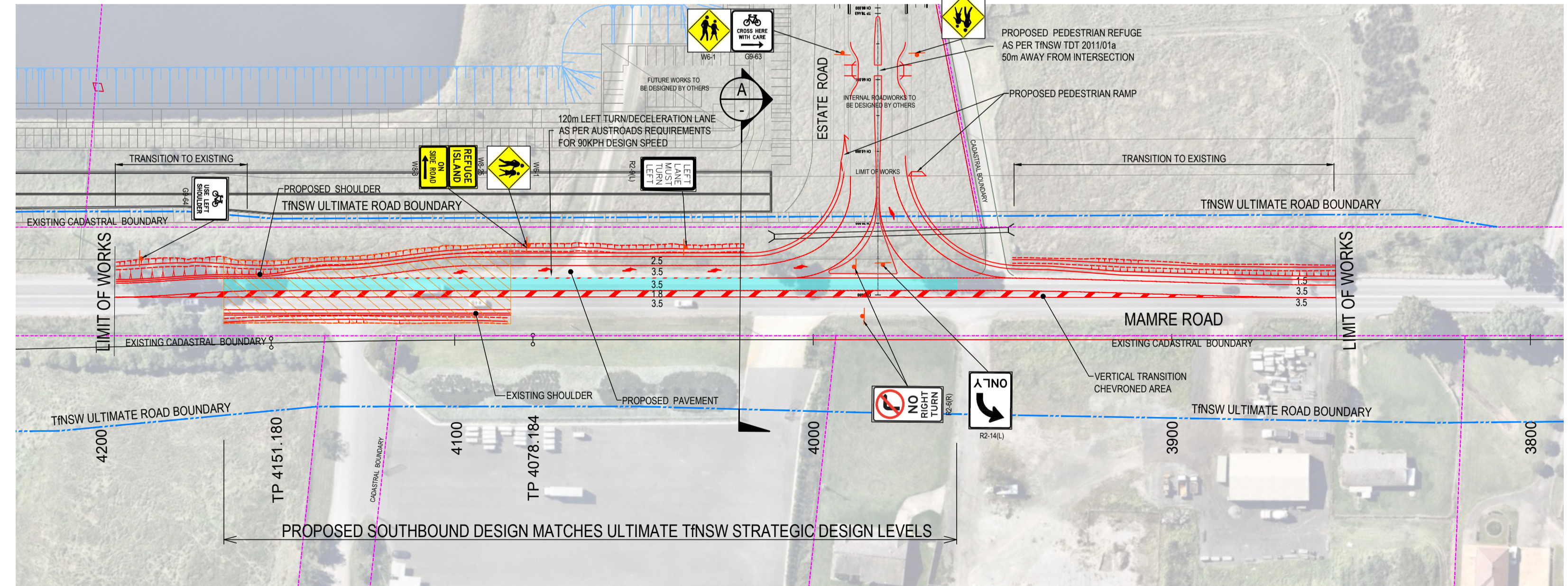
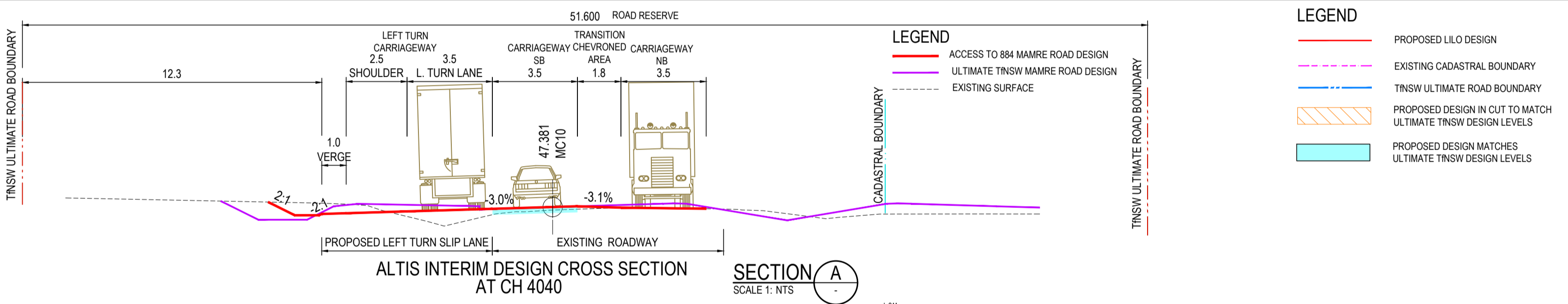
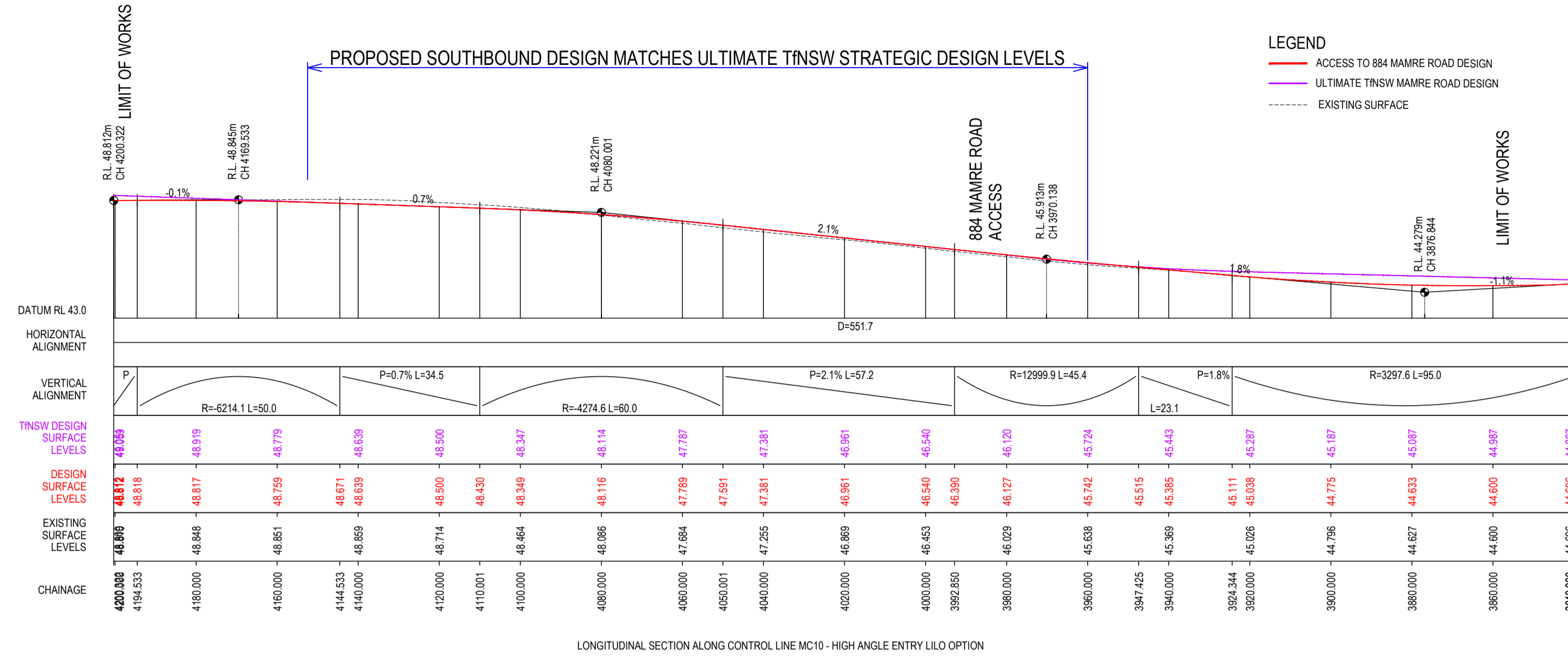
Transport for NSW  
Technically Assured Organisation (TAO)  
Formerly AEO



**Annexure 1 – LILO Strategic Design 2021\_19\_SD\_0001\_SK00014 Issue B**

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STRATEGIC DESIGN



THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED FROM THIS FILE OR FROM A REVISION.

PRELIMINARY DRAWING - FOR DISCUSSION PURPOSES ONLY

REV	AMENDMENT / REVISION DESCRIPTION	ISSUED	DATE	SCALE ON A1 SIZE DRAWING	DRAWING / DESIGN PREPARED BY	TITLE	DATE
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02	AMENDED DRAWING FOR DISCUSSION	RS	28/03/2023	1:1000	MUGROUP	STRATEGIC DESIGN	28/03/2023

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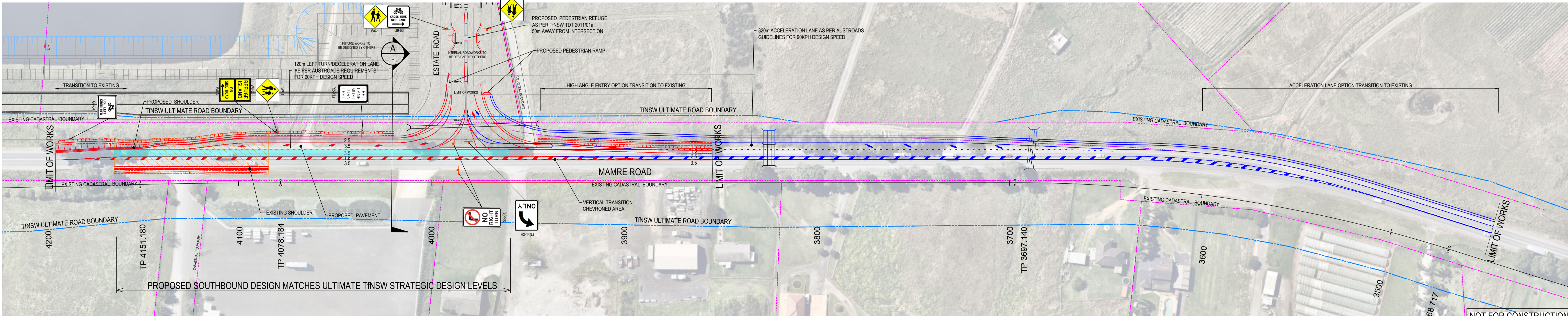
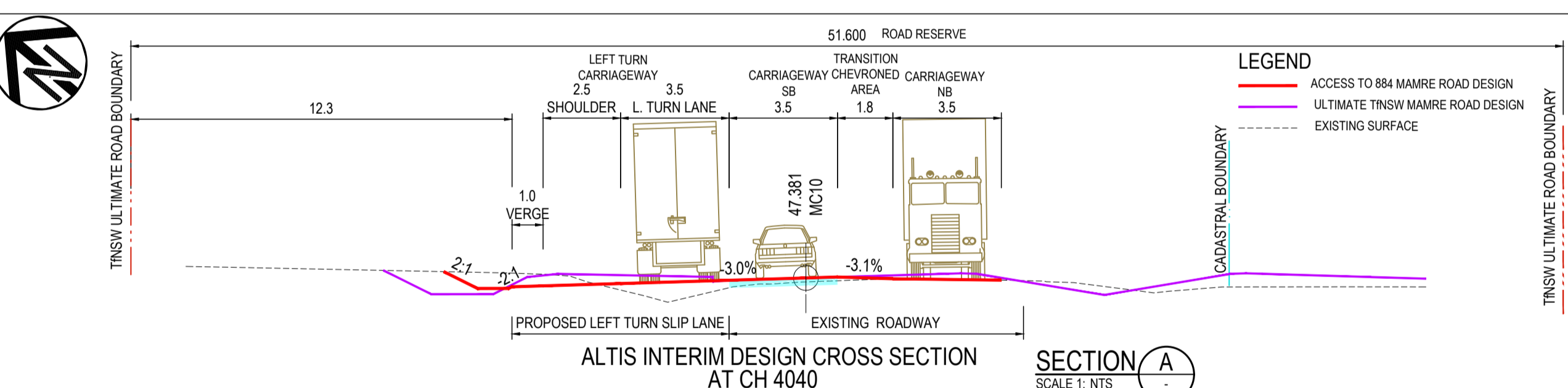
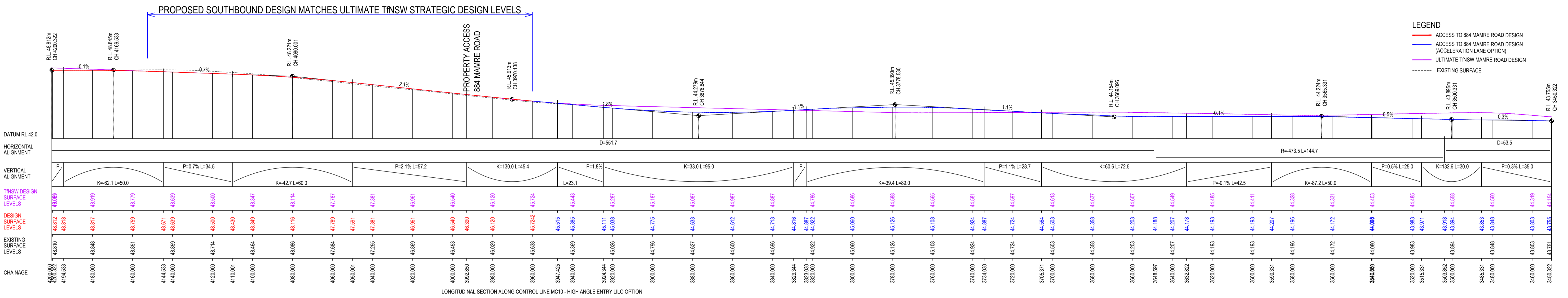
PENRITH CITY COUNCIL AREA  
 884-928 MAMRE ROAD  
 KEMPS CREEK, NSW 2759

LILLO OVERLAY OVER AERIAL PHOTO

SHEET 01 OF 01

**Annexure 2 – Acceleration Design (Stage 2) 2021\_19\_SD\_0001\_SK00017 Issue A**

STRATEGIC DESIGN



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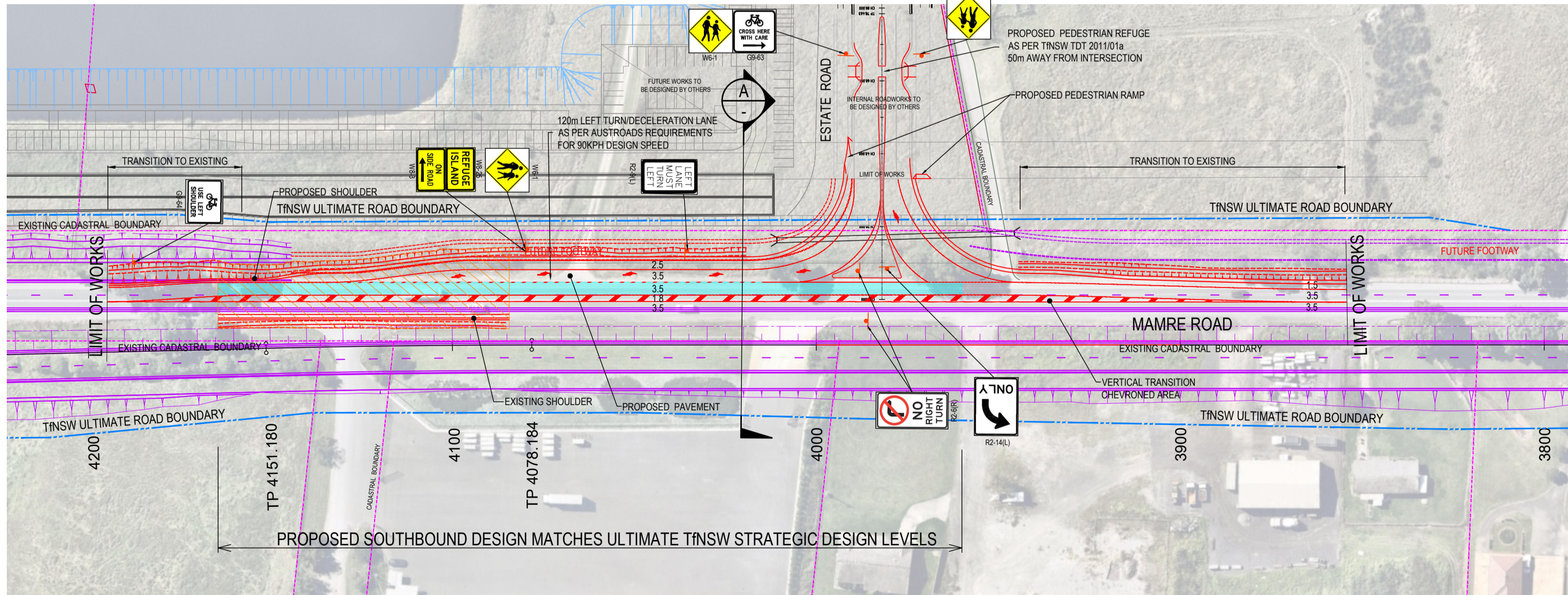
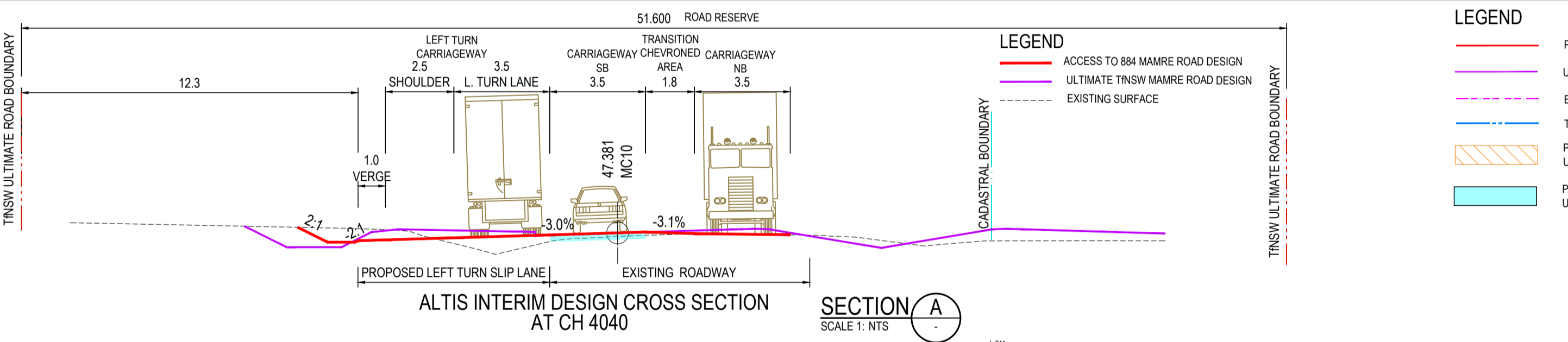
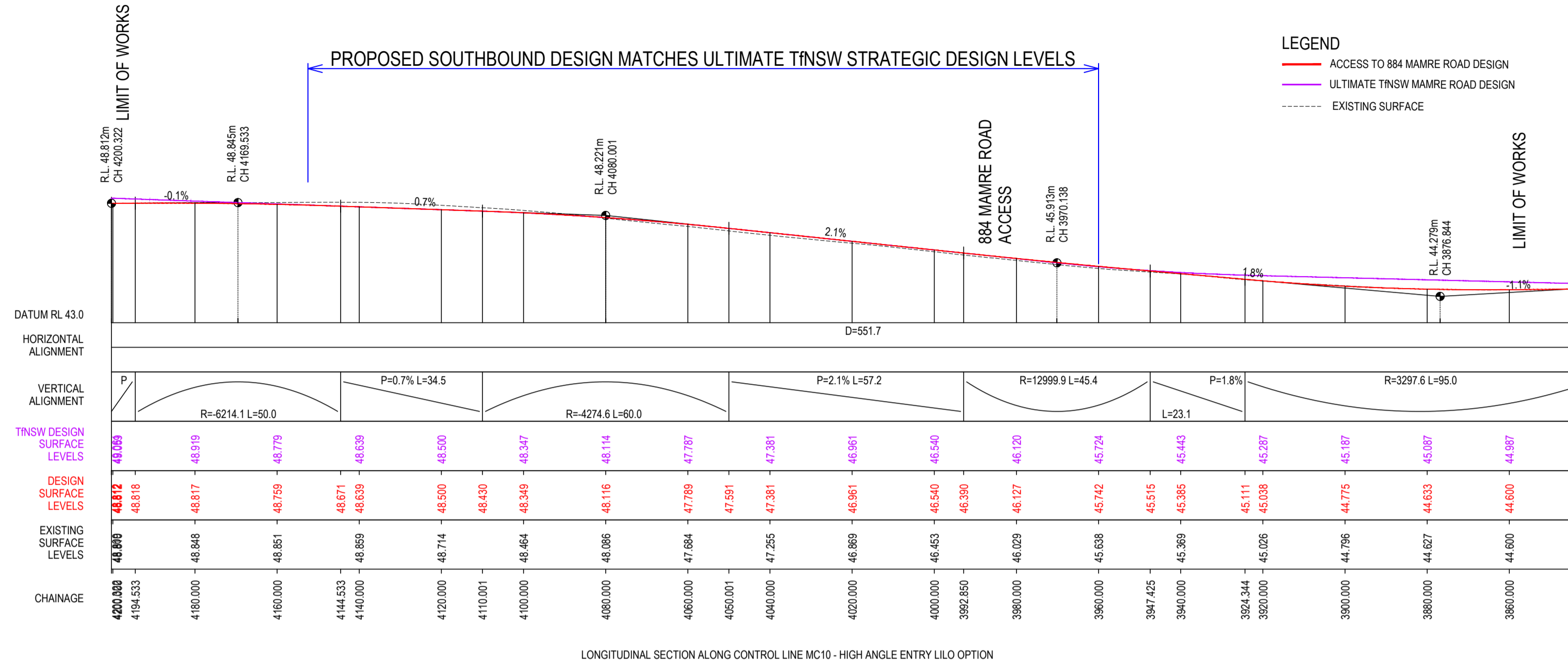
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COORDINATE SYSTEM MSA ZONE 56		HEIGHT DATUM AHD		PROJECT MANAGER		MUGROUP REGISTRATION NO. 2021-18-03-0001-SK-00017 ISSUE STATUS STRATEGIC	
						SHEET 01 OF 1	

NOT FOR CONSTRUCTION

**Annexure 3 – Proposed LILO with TfNSW Ultimate Design Overlay  
2021\_19\_SD\_0001\_SK00018 Issue A**

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STRATEGIC DESIGN



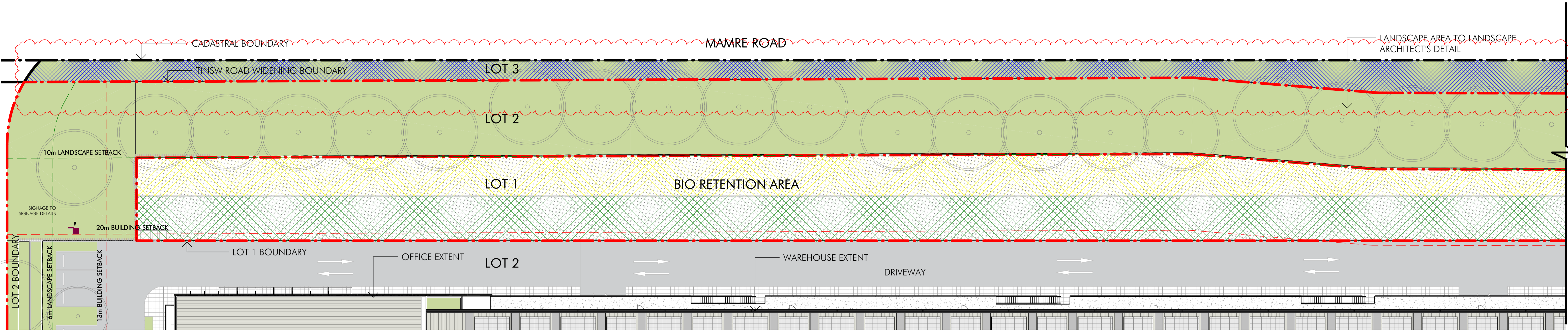
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PRELIMINARY DRAWING - FOR DISCUSSION PURPOSES ONLY

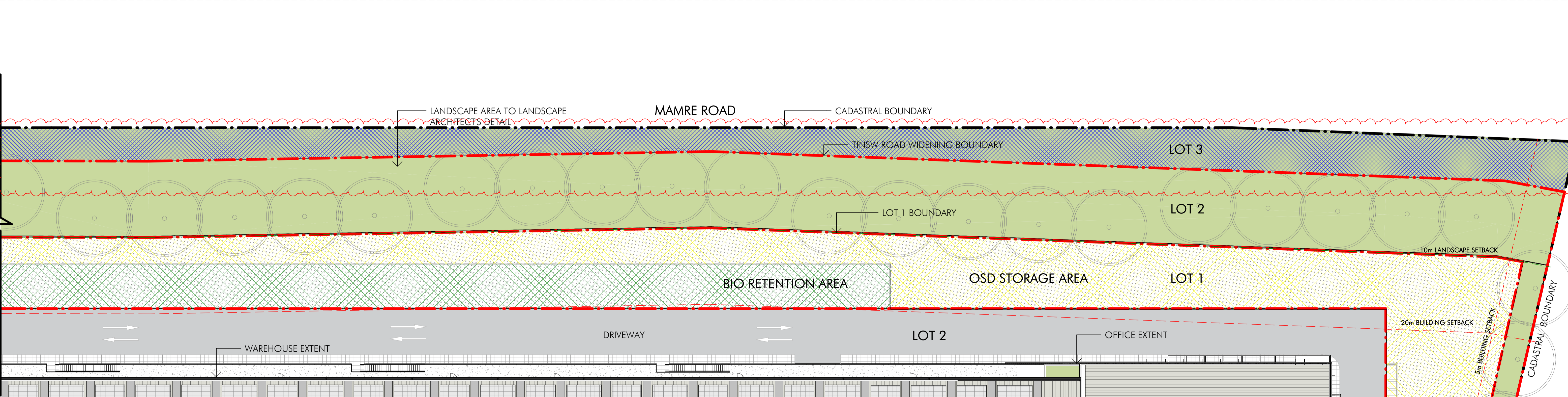
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**Annexure 4 – Land Dedication Plan *Nettleton Tribe Drawing 11213\_DA010 P10***



1 Mamre Road Boundary and Setback - part a  
DA022 1:250



2 Mamre Road Boundary and Setback - part b  
DA022 1:250

Issue	Description	Date
P10	SSDA UPDATED	03.03.2023
P9	SSDA UPDATED	11.11.2022
P8	SSDA UPDATED	11.08.2022
P7	SSDA UPDATED	22.07.2022
P6	SSDA UPDATED	19.07.2022
P5	SSDA UPDATED	18.07.2022
P4	SSDA UPDATED	27.05.2022
P3	SSDA UPDATED	04.04.2022
P2	SSDA UPDATED	31.03.2022
P1	SSDA UPDATED	30.03.2022

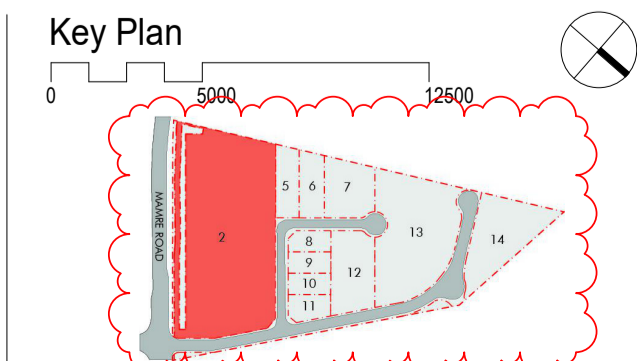
Builder and/or subcontractors shall verify all project dimensions before commencing on-site work or off-site fabrication. Figured dimensions shall take precedence over scaled dimensions. This drawing is copyright and cannot be reproduced in whole or in part or by any medium without the written permission of Nettleton Tribe Partnership Pty Ltd.

**ISSUE FOR  
SSDA**

Project Manager

ProjectStrategy

Project Name  
**884-928 Mamre Road**  
Project Address  
**884-928 Mamre Road, Kemps Creek, NSW**



Drawing Title:  
**LOT 2 - Mamre Road Boundary and Setback Plan**

Author: BC    Checker: MA    Sheet Size: A1    Scale: 1:250

Drawing Number:  
**11213\_DA010**

Issue:  
**P10**

**nettletontribe**

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## **Annexure 5 – Costin Roe Response on Stormwater**

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Costin Roe Consulting Pty Ltd

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16 November 2022

Altis Property Partners  
**Attention: Mr Stephen O'Connor**  
19/60 Castlereagh Street  
SYDNEY NSW 2000

Dear Sir,

**Re: 884-928 Mamre Road, Kemps Creek  
Response to Submissions Access Logistics Park**

Further to your request we are pleased to provide our response to the civil items raised by Department of Planning, Industry and Environment in their Response to Submission (RtS) information provided by Transport for NSW dated 8 November 2022 (refer **Enclosed**).

We provide the following response table to the civil engineering and stormwater management related items in the letter noted above.

<b>No.</b>	<b>Item and Response</b>
<b>Stormwater</b>	
<b>4.</b>	<p>The works proposed <i>include the use of existing stormwater assets and infrastructure including connection to the existing culverts servicing Mamre Road, the volume and capacity of the existing infrastructure and the adequacy of the completed design should be established and consultation with other relevant departments undertaken.</i></p> <p><i>Developer assumptions about drainage outputs need to be consistent with TfNSW and Sydney Water Designs.</i></p> <p><u>RESPONSE</u></p> <p>The stormwater discharge from the development proposes to utilise the existing culverts in Mamre Road. The proposed discharge arrangement and alignment is consistent with the Mamre Road Development Control Plan (MRP DCP) trunk drainage network and has been reviewed by NSW DPIE and their independent stormwater management reviewer (IDC).</p> <p>The stormwater management design allows for attenuation of post development peak flows to less than or equal to existing flows. Further, the design limits discharge in accordance with the Mean Annual Runoff Volume (MARV) limits, and Flow Duration</p>

<b>No.</b>	<b>Item and Response</b>
	<p>Curve (FDC) metrics. As such, post development flows, and performance of the culverts post development, would be similar to those in the predevelopment conditions.</p> <p>The drainage output assumptions are consistent with the MRP DCP and consultation with Sydney Water. We do not have visibility on any ultimate TfNSW designs pertaining to stormwater, however it would be anticipated that as Sydney Water are the trunk drainage managers that TfNSW designs would need to be consistent with the Sydney Water strategic plans, which are in turn consistent with the proposed stormwater management and discharge arrangement.</p>

This letter is provided by Costin Roe Consulting Pty Ltd. Please contact the undersigned if clarification of any of the above items are required.

Yours faithfully,

**COSTIN ROE CONSULTING PTY LTD**



**MARK WILSON** MIEAust CPEng NER  
Director

Encl.

## **Annexure 6 – Ason Group Response on Traffic Modelling**

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