MILFORD PLANNING

MP ref: M1622-RAL-2
QA: ma.ms.gm

12 August 2024

Assessment Manager
Townsville City Council
PO Box 1268
TOWNSVILLE QLD 4810
Via: *TOLS*

**Attention: Planning and Development**

Dear Sir/ Madam,

**Re: Development Application seeking a Development Permit for Reconfiguring a Lot – Subdivision (One Lot into 193 Lots, and Pump Station, Park, and Balance Lot) on land described as Lot 1001 on SP345441 and located at 683 North Shore Boulevard, Mount Low**

On behalf of the Applicant, Milford Planning hereby make the enclosed development application seeking the abovementioned development approval on the abovementioned land in accordance with Section 51 of the *Planning Act 2016*.

**Assessment Fee**

The relevant assessment fee for the proposed development has been calculated below in accordance with Townsville City Council's (Council) Schedule of Fees and Charges 2024/25.

| Component | Calculation | Fee |
|---|---|---|
| Reconfiguring a Lot | $20,196.00 per application where creating greater than or equal to 50 lots. | **$21,267.00** |
| Impact assessment | $1,056.00 where an application triggers impact assessment. | **$1,112.00** |
| | **TOTAL ASSESSMENT FEE:** | **$22,379.00** |

We request that Council confirm the abovementioned assessment fee and provide payment advice for the Applicant's action following receipt of this application.

Townsville City Council

Received
13/08/2024

07 4724 0095
info@milfordplanning.com.au
283 Flinders Street
Townsville City Q 4810
PO Box 5463
Townsville City Q 4810
ABN 31 162 988 132
milfordplanning.com.au

**Proceeding**

We look forward to working with Council to progress the proposed development, and request the opportunity to discuss any queries or further information that may be required prior to the issue of any formal correspondence.

In the instance that Council requires no further information, we look forward to receipt of Council's Confirmation Notice and confirmation that an Information Request is not required to enable public notification of the development application to proceed.

If you have any questions regarding this correspondence, please contact the undersigned or George Milford on TEL: (07) 4724 0095.

Yours sincerely,

**MILFORD PLANNING**


Matteo Sandona

SENIOR TOWN PLANNER

Encl: Development application package

MILFORD PLANNING

| | |
|---|---|
| Applicant | **Milford Planning** |
| Reference | **M1622-RAL-2** |
| Date | **August 2024** |

# Development Application

| | |
|---|---|
| Proposed Development | **Reconfiguring a Lot – Subdivision (One Lot into 193 Lots, and Pump Station, Park, and Balance Lot)** |
| Property Details | **Lot 1001 on SP345441**<br>**683 North Shore Boulevard, Mount Low** |

# DOCUMENT CONTROL

| | |
|---|---|
| **Applicant** | Milford Planning |
| **Proposed Development** | Reconfiguring a Lot – Subdivision (One Lot into 193 Lots, and Pump Station, Park, and Balance Lot) |
| **Contact** | Matteo Sandona |

| **Quality Assurance** | | |
|---|---|---|
| **Date** 12.8.24<br>**Version** 1<br>**Issue** Draft<br>**Template** DA-STN-1 |  <br>Matteo Sandona<br>SENIOR TOWN PLANNER |  <br>George Milford<br>DIRECTOR |
| | **Author** | **Reviewer** |

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| **Appendix 4** | Proposed development plans prepared by RPS |
| **Appendix 5** | Traffic Impact Assessment prepared by Bitzios Consulting |
| **Appendix 6** | Engineering Report prepared by Northern Consulting Engineers |
| **Appendix 7** | Ecological Assessment prepared by Terra Solutions |

# 1.0 INTRODUCTION

## 1.1 Purpose

The purpose of this development application is to seek approval for Reconfiguring a Lot – Subdivision (One Lot into 193 Lots, and Pump Station, Park, and Balance Lot) (the proposed development) under the provisions of the *Planning Act 2016* (the Act).

The purpose of this report is to provide information about the site on which the subject development is proposed, detail of the proposed development, and an assessment against the relevant assessment benchmarks. The assessment detailed in this report has been undertaken in accordance with the provisions and subordinate planning controls under the Act.

## 1.2 Structure

This report provides the following information with respect to the assessment of the proposed development:

- overview of the site and surrounding area;
- description of the proposed development;
- overview of the relevant assessment framework;
- assessment of the proposed development against the relevant assessment benchmarks;
- other relevant matters; and
- conclusion and recommendation.

This development application is made in accordance with Section 51 of the Act and contains the mandatory supporting information specified in the applicable DA Form. **Appendix 1** comprises DA Form 1 and the accompanying land owner's consent.

# 2.0 SUBJECT SITE

## 2.1 Site Parameters

The following parameters are applicable to the site of the proposed development (the subject site).

| | |
|---|---|
| **Property Owner** | Herbert Samuel Turner and Lyndel Isabel Owens<br>(refer **Appendix 1**) |
| **Street Address** | 683 North Shore Boulevard, Mount Low |
| **Formal Description** | Lot 1001 on SP345441 |
| **Site Area** | 31.27 ha (refer **Appendix 2**) |
| **Easements** | The land is not burdened by any easements. |
| **Street Frontage** | North Shore Boulevard and Lionel Turner Drive (unformed). |
| **Topography** | The site grades to an existing waterway located generally along the northern boundary of Lot 1001. |
| **Existing Use** | Grazing land |
| **Existing Infrastructure** | The site is not connected to reticulated sewer, water, electricity, or telecommunications services.<br>The land is currently accessed from North Shore Boulevard. |
| **Local Heritage Register** | The site is not listed on the Local Heritage Register. |
| **Contaminated Land** | The land is not known to be included on the State Environmental Management Register or Contaminated Land Register. |
| **Relevant State Interests** | The following State interests are relevant to the proposed development as detailed in the State Assessment Referral Agency (SARA) mapping (refer **Appendix 3**):<br>▪ Coastal management district;<br>▪ Coastal area – erosion prone area;<br>▪ Coastal area – medium and high storm tide inundation area;<br>▪ Queensland waterways for waterway barrier works;<br>▪ Wetland protection area trigger area; and<br>▪ Regulated vegetation management map (Category A and B extract). |

## 2.2 Surrounding Area

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| **North** | Grazing land, and Mount Low and Bushland Beach residential area. |
| **East** | Lionel Turner Drive (unformed), and low lying wetlands. |
| **South** | North Shore Boulevard, and grazing land. |
| **West** | Rural residential allotments, and Mount Low Parkway. |

# 3.0 PROPOSED DEVELOPMENT

## 3.1 Description of Proposed Development

The proposed development involves the subdivision of the subject site from one lot into 193 lots, a pump station lot, a park lot, and balance land. The scope of development outlined in this development application is referred to as Precinct 1 of the Ridge Paddock development. Specific detail of the proposed development is provided below.

**Purpose of Development**

The proposed subdivision will create 193 residential lots plus a balance lot, sewer pump station lot, and local park lot. The proposed residential lots in Precinct 1 range in size from 480 $m^2$ to 945 $m^2$ and will be released over 10 stages. The new master planned residential subdivision has been designed to be compatible with existing residential development within the Bushland Beach and Mount Low area. The subject site is advantageously located along North Shore Boulevard and Lionel Turner Drive both of which are flagged for future upgrade within the Local Government Infrastructure Plan (LGIP).

**Design Overview**

The layout and design of the proposed subdivision will realise the intended purpose for the land in an effective and efficient manner. The arrangement of allotments has been informed by the existing characteristic of the land, including a waterway which forms the northern boundary of Precinct 1 and will be utilised for stormwater drainage and treatment, as well as a linear open space connection throughout the development and to future stages.

The proposed residential lots are regular in shape to facilitate efficient future development and a grid pattern road network. The size and form of the proposed residential allotments result in a residential density consistent with that anticipated on the land, and is compatible with the established pattern of residential development within the Bushland Beach and Mount Low area.

The subject land is strategically located within the Emerging Community Zone and will contribute to the residential land supply within the suburb of Mount Low. The variety of allotment sizes produced by the development accommodates variety in housing choice, supply, and investment opportunities for the region.

The proposed residential development is detailed in the proposal plan package prepared by RPS and provided at **Appendix 4**. The proposal plan package includes detailed plans for Precinct 1, as well as a structure plan identifying how Precinct 1 will integrate with future development of the subject land.

The proposed development has been designed to include:

- 193 residential lots, ranging in size from 480 $m^2$ to 945 $m^2$ delivered over 10 stages;
- a local park approximately 5,225 $m^2$ and located within 400 m of allotment in Stages 1 to 8, with Stages 9 and 10 falling within the catchment of future parks;
- a sewer pump station to adequately service the future allotments;
- a 2.5 m wide footpath established for pedestrians at the entrance to the development and adjacent to New Road 1; and
- a comprehensive footpath network along all other new roads within the development with a width of 1.5 m.

**Traffic**

Access to Precinct 1 of the proposed development will be achieved via North Shore Boulevard to the south of Lot 1001. A new intersection is proposed on North Shore Boulevard and has been designed as a central access point for both Precinct 1 and all further development on the northern side of North Shore Boulevard. To meet the traffic demand generated by Precinct 1, this intersection must comprise, at minimum, Basic Right/ Basic Left (BAR/BAL) turn treatments for access and egress from North Shore Boulevard.

A Traffic Impact Assessment prepared by Bitzios Consulting has been prepared to inform the proposed development and is provided at **Appendix 5**. The key findings of the Traffic Impact Assessment and resultant reporting are as follows:

- North Shore Boulevard (RA0362A (2026)) and Lionel Turner Drive (R0309B (2026) are identified within the LGIP as 'future roads or upgrades';
- the Lionel Turner Drive upgrade is on schedule and the North Shore Boulevard upgrade has been delayed until after 2041 as per advice from Council;
- the development is anticipated to generate in the order of 138 and 151 trips in the AM and PM peak hour respectively, and 1,930 daily trips; and
- there are no perceived impacts to safety and performance of the surrounding traffic network.

**Water and Sewer**

The proposed development will require an extension of Council's existing water and sewer infrastructure networks. A water main extension to the east along North Shore Boulevard from the existing trunk main on Mount Low Parkway, with two further extensions at the entrance road to this subdivision needed to provide the necessary reliability of supply to all 193 lots.

A single sewer pump station is designated to service this development, referred to in Council's LGIP as Item P0222 and labelled as PS ML07 as per Council's identification standard. This sewer pump station will be located on a separate allotment (proposed Lot 2001) adjoining the proposed drainage reserve. PS ML07 will initially connect to existing pressure mains on North Shore

Boulevard, pumping to the Mount Saint John sewerage treatment plant. It is anticipated that development of adjoining allotments will result in further expansion of the sewer network as dictated by increased demand.

Detail of the water and sewer service design is provided in a Water and Sewerage Planning Report prepared by DPM Water and included in the Northern Consulting Engineers Engineering Report provided at **Appendix 6**.

**Stormwater**

Assessment of the stormwater parameters associated with the subject land has been completed by Northern Consulting Engineers and is detailed in the Engineering Report at **Appendix 6**. The assessment confirmed that changes to surface levels associated with works to the site, as well as changes to impervious area will impact existing stormwater systems and increase runoff volume. The proposed stormwater management regime for the development involves underground pit and pipe networks throughout the residential allotments, and bioretention basin and constructed wetlands which will function as a stormwater treatment area.

The stormwater assessment included stormwater quality modelling using MUSIC software to determine pollutant levels from the proposed stormwater management system. The results of this modelling confirm the proposed development and stormwater infrastructure will achieve the quality objectives prescribed by the planning scheme.

**Electricity and Communications**

The proposed development will be serviced by the existing electricity and telecommunications services within the area, with works to provide each of the residential allotments with the relevant services to occur concurrently with future operational work.

**Landscaping**

The proposed development involves several key landscape features, including an entry statement at the North Shore Boulevard intersection, with 10 m to 14 m wide landscaped verges bordering the main access road to the development. The development will also leverage use of the natural watercourse as an open space asset. In particular, this watercourse will be retained as a centrally located linear connection allowing future residents to connect to other precincts within the locality whilst enjoying the natural environment. In addition to the linear connection along the watercourse, an adjacent formalised local park is proposed within Precinct 1, as indicated in the development plans at **Appendix 4**.

The development will also provide a high degree of pedestrian connectivity with the inclusion of a comprehensive footpath network in a legible grid pattern. The specific parameters of landscaping in the local parks and road networks will be determined with future operational work.

### 3.2 Development Plans

The proposed development is detailed in the plans provided at **Appendix 4** and listed below. In addition, the proposed development is further detailed in the associated reports listed below and appended as referenced.

| Title | Number | Issue | Date |
|---|---|---|---|
| Structure Plan | 152336 – 09b | - | 16-5-24 |
| RAL Proposal Plan – 1 into 195 Lots + Balance – Cancelling Lot 1001 SP345441 | 152336 – 11b | - | 12-7-24 |
| RAL Proposal Plan – 1 into 195 Lots + Balance – Cancelling Lot 1001 SP345441 | 152336 – 12b | - | 12-7-24 |
| RAL Proposal Plan – 1 into 195 Lots + Balance – Cancelling Lot 1001 SP345441 | 152336 – 13b | - | 12-7-24 |
| **Associated Reports** | | | |
| Traffic Impact Assessment prepared by Bitzios Consulting (refer **Appendix 5**) | | | |
| Engineering Report prepared by Northern Consulting Engineers (refer **Appendix 6**) | | | |
| Ecological Assessment prepared by Terra Solutions (refer **Appendix 7**) | | | |

### 3.3 Prelodgement Meeting

The proposed development has been subject to a range of prelodgement discussions and actions in recent years, including obtaining a Development Permit from Council and registering 'superlots' to facilitate the further development of Ridge Paddock.

More particularly, a prelodgement meeting was held on 25 June 2024 to introduce the Precinct 1 development concept to Council, outline the development application strategy and compliance with the planning scheme, and obtain high level feedback from Council to assist in tailoring the concept and development application. Council was generally supportive of both the concept and use of the land, which aligned with the intent of the planning scheme and more particularly the Emerging Communities Zone.

Discussion around stormwater treatment and detention concluded that tenure for these areas should be secured with future stages of the development given the central location of the existing watercourse that will be utilised by future precincts. It was also confirmed that associated sewer pump stations were trunk infrastructure with delivery to be facilitated through an Infrastructure Agreement between the Applicant and Council.

Council supported the grid layout and pedestrian connectivity throughout, including the responsiveness to the central watercourse which is to be retained as linear open space. It was suggested by Council that the shared access driveways servicing proposed Lots 129 to 133 be connected to allow for refuse vehicle through traffic. As a response, the design plans and associated traffic reporting have been amended to allow for refuse vehicle through traffic and the resultant removal of shared refuse collection points in this location, whilst still retaining a shared driveway arrangement to discourage the through flow of general traffic.

# 4.0 ASSESSMENT FRAMEWORK

## 4.1 Planning Act 2016

The *Planning Act 2016* (the Act) provides the framework for Queensland's planning system and coordinates local, regional, and State planning. The Act allows for the establishment and is supported by subordinate planning legislation and instruments such as planning schemes. The provisions of the Act are therefore applicable to the proposed development.

## 4.2 Planning Regulation 2017

The *Planning Regulation 2017* (the Regulation) is established under the Act and provides support to the Act by detailing how it functions at a practical level. The Regulation determines the Assessment Manager and Referral Agencies relevant to assessable development, and relevant State interests through the State Planning Policy (SPP) and State Development Assessment Provisions (SDAP). The provisions of the Regulation are therefore applicable to the proposed development.

## 4.3 Approval Sought

| | |
|---|---|
| **Approval Type** | Development Permit |
| **Development Type** | Reconfiguring a Lot |
| **Definition or General Description** | Subdivision |
| **Specific Description** | (One Lot into 193 Lots, and Pump Station, Park, and Balance Lot) |

## 4.4 Assessment Manager Assessment Parameters

| | |
|---|---|
| **Assessment Manager** | Townsville City Council |
| **Planning Instrument** | *Townsville City Plan 2014* (the planning scheme) |
| **Zone and Precinct** | Emerging Communities Zone |
| **Triggered Overlays** | ▪ Bushfire Hazard Overlay (Medium hazard area)<br>▪ Coastal Environment Overlay (Erosion prone area and Storm tide inundation areas and erosion areas from sea level rise – Medium and high hazard)<br>▪ Flood Hazard Overlay (Low, medium and high hazard area)<br>▪ Landslide Hazard Overlay (Very low, low, potential debris flow and slope angle greater than 23 degrees)<br>▪ Natural Assets Overlay (Environmental importance – high and very high) |

| | |
|---|---|
| **Category of Assessment** | Impact |
| **Table of Assessment Reference** | Table 5.6.1 – Reconfiguring a lot (Emerging Community Zone) |

| | |
|---|---|
| **Assessment Manager Assessment Benchmarks** | ▪ Schedule 12A (*Planning Regulation 2017*)<br>▪ Strategic Framework<br>▪ Emerging Community Zone Code<br>▪ Reconfiguring a Lot Code<br>▪ Healthy Waters Code<br>▪ Landscape Code<br>▪ Transport Impact, Access and Parking Code<br>▪ Works Code<br>▪ Bushfire Hazard Overlay Code<br>▪ Coastal Environment Overlay Code<br>▪ Flood Hazard Overlay Code<br>▪ Natural Assets Overlay Code |

### 4.5 Referral Agency Assessment Parameters

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|---|---|
| **Referral Agencies** | State Assessment Referral Agency |
| **Planning Instrument** | *Planning Regulation 2017* (the Regulation) |
| **Referral Triggers** | The proposed development does not trigger referral.<br>It is noted that the urban purpose of the development and the urban area in which the land is located results in vegetation clearing exemptions as per Schedule 21, Part 2, Item 2 of the Regulation. |
| **Referral Agency Assessment Benchmarks** | N/A |

# 5.0 ASSESSMENT MANAGER CONSIDERATIONS

## 5.1 State Planning Policy

The *State Planning Policy* (the SPP) is a State planning instrument established under the Act and is designed to ensure the State's interests in planning are protected and delivered as part of local government planning across Queensland. Local government use the SPP when making or amending its planning scheme. Local government will also assess aspects of development applications using the SPP if their local planning scheme has not integrated certain State interests.

In accordance with Section 2.1 – State Planning Policy (SPP) of the planning scheme, the Minister has identified that all relevant State interests as outlined in the SPP dated July 2017 have been integrated into the planning scheme.

For the purpose of the proposed development, we consider that assessment against the provisions of the SPP is not required, and all relevant matters will be dealt with under the provisions of the planning scheme.

## 5.2 Assessment Benchmarks for Particular Reconfiguring a Lot

The *Planning Regulation 2017* (the Regulation) is a State planning instrument established under the Act, detailing how the Planning Act operates. Schedule 12A of the Regulation addresses subdivision into 2 or more lots that is associated with the construction or extension of a road.

This purpose of this schedule is to ensure the reconfiguration of land for residential purposes supports convenient and comfortable walking for transport, recreation, leisure and exercise in the locality of the lot, creating walkable neighbourhoods in new development areas.

A detailed assessment of the proposed development against the benchmarks prescribed by Schedule 12A of the Regulation has been completed and is detailed below.

## 5.3 Schedule 12A Detailed Assessment

**Schedule 12A**

**4 Connectivity**

The reconfiguration provides connectivity for pedestrians by—

(a) ensuring that any roads constructed or extended in association with the reconfiguration are connected in a grid-like pattern that is responsive to topography and other physical constraints; and

(b) ensuring that, to the extent topography and other physical constraints reasonably permit, any roads constructed or extended in association with the reconfiguration, or footpaths provided in relation to the reconfiguration—

(i) connect to roads and footpaths in surrounding areas; or

(ii) allow for connection to future roads and footpaths in surrounding areas.

**Complies with Section 4**

The proposed subdivision follows a grid configuration where not constrained by topography and existing infrastructure. Access to and from adjoining North Shore Boulevard is facilitated by a central entry road.

It is noted that North Shore Boulevard is currently adjoined by vacant land on both sides of the road and does not currently offer pedestrian paths. Future upgrades are anticipated to establish pedestrian connections, which have been accounted for by extending proposed footpaths from New Road 1 towards the future intersection.

**5 Maximum length of particular blocks**

(1) The reconfiguration provides for convenient pedestrian movement by ensuring the length of each boundary of a block for the reconfiguration does not exceed the lesser of—

(a) a maximum length for a boundary of a block stated in a local assessment benchmark for the reconfiguration; or

(b) 250m.

(2) Subsection (1) does not apply in relation to a block for the reconfiguration that the development application for the reconfiguration states will be subdivided as part of a future stage of development.

**Complies with Section 5**

The largest block proposed for development, comprised of Lots 77-97, is approximately 190 m in length, notably below the 250 m threshold of both the regulation and the planning scheme.

**6 Street trees**

The reconfiguration provides shade for comfortable walking by—

(a) if a local assessment benchmark for the reconfiguration requires the planting of more than 1 tree per 15m on each side of a new road—complying with the local assessment benchmark; or

(b) otherwise—ensuring at least 1 tree is planted per 15m on each side of a new road.

**Complies with Section 6**

The proposed development has not yet established a detailed landscape design. However, the proposed lot layout can accommodate the prescribed planting rate of one tree per 15 m, in accordance with both the Regulation and the planning scheme.

This detail will be prepared and provided as part of a future operational work.

**7 Footpaths**

The reconfiguration provides for convenient and comfortable pedestrian movement by ensuring—

(a) for a new road used mainly for providing direct access to a created lot—a footpath is constructed—

(i) if a local assessment benchmark for the reconfiguration requires the construction of a footpath on both sides of the new road—on both sides of the road; or

(ii) otherwise—on at least 1 side of the new road; or

(b) for another new road—a footpath is constructed on both sides of the road.

**Complies with Section 7**

As per development plans (refer **Appendix 4**), the proposed development ensures footpaths are provided on one side of New Roads 2 – 16 throughout the development. This provision is in accordance with the requirements of both the Regulation and planning scheme. As such, all new streets are provided with a 1.5 m wide footpath, ensuring comprehensive pedestrian access.

New Road 1, which provides key access from North Shore Boulevard and is not directly linked to any proposed lots, provides a footpath on both sides in accordance with the Regulation.

**8 Parks and other areas of open space**

(1) The reconfiguration ensures access to areas for recreation, leisure or exercise by ensuring that, to the extent topography and other physical constraints reasonably permit, a part of each block for the reconfiguration is within 400m of a park or another area of open space that is accessible to the public.

(2) In this section—

***park*** includes—

(a) an existing park; and

(b) a park, to be provided under a development approval, if development of the park has started; and

(c) land identified as a park in a local planning instrument; and

(d) land identified in an LGIP for public park infrastructure.

**Complies with Section 8**

As indicated in the provided structure plan (refer **Appendix 4**), the full extent of the subject site will be sited within 400 m of a formal local park at the completion of the development.

It is noted that the park indicated to the west is associated with a future development stage that is not within the scope of this development application or Precinct 1. Nonetheless, all proposed lots benefit from publicly accessible open space in the form of landscaped verges adjoining New Road 1, and the centrally located linear connection formed by the existing natural watercourse.

### 5.4 Regional Plan

Regional plans are State planning instruments established under the Act and set the long term strategic direction for how regions grow and respond to change. Regional plans are designed to facilitate economic growth, development, liveable communities, and the protection of natural resources. Regional plans seek to balance the State interests identified by the SPP in the context of the particular region they apply to.

The *North Queensland Regional Plan* (the Regional Plan) applies to the local government areas of Townsville City, Hinchinbrook Shire, Burdekin Shire, Charters Towers Regional, and Palm Island Aboriginal Shire. The Regional Plan was implemented in March 2020, and seeks to capitalise on the growth, prosperity, and diversity of the region by supporting a vibrant economy, generating jobs, improving business investment, protecting our natural environment, and encouraging tourism and lifestyle opportunities over the next 25 years.

The proposed development is considered to align with the goals outlined in the Regional Plan to the extent relevant.

### 5.5 Planning Scheme Strategic Framework

The planning scheme incorporates a strategic framework, which sets the policy direction and basis for ensuring appropriate development occurs within the planning scheme area.

The strategic framework is represented by the following four themes:

- shaping Townsville;
- strong, connected community;
- environmentally sustainable future; and
- sustaining growth.

The strategic framework provides strategic outcomes for each of the above four themes.

The proposed development furthers the outcomes sought by the above themes and the relevant outcomes, particularly when considering:

- the proposed development will contribute to Townsville's growth and evolution, and will further Townsville's role as the second capital of Queensland by providing increased land supply for residential development;
- the proposed development will maximise the potential of a well positioned site in the centre of Townsville's northern growth area and will optimise community interaction through exceptional social design and quality;
- the proposal provides a range of residential allotment sizes from 480 $m^2$ to 945 $m^2$ which will facilitate housing choice for future residents in the region;
- the residential product provided by the proposed development is compatible with residential properties within the Bushland Beach and Mount Low area; and
- the proposed development responds to Townsville's climate, through the allotment design and layout that will facilitate energy efficiency in future residential development.

### 5.6 Planning Scheme Purpose and Overall Outcomes

The proposed development is considered to further the purpose and overall outcomes sought by the relevant planning scheme codes by demonstrating compliance with the relevant performance and accepted outcomes.

## 5.7 Planning Scheme Assessment Matrix

The assessment matrix below summarises the outcome of an assessment of the proposed development against the relevant performance and accepted outcomes of the applicable Assessment Manager assessment benchmarks. The assessment matrix identifies the level of compliance of the proposed development in accordance with the legend below.

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|---|---|
| **Legend** | Criteria is clearly met and no further assessment is required.<br>Criteria is met and further explanation is provided for clarity.<br>Criteria is not met and further performance assessment is required.<br>Not applicable or no criteria prescribed. |

| Outcome PO or AO | Emerging Community Zone Code | | Reconfiguring a Lot Code | | Healthy Waters Code | | Landscape Code | | Transport Impact, Access and Parking Code | | Works Code | | Bushfire Hazard Overlay Code | | Coastal Environment Overlay Code | | Flood Hazard Overlay Code | | Natural Assets Overlay Code | |
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| Outcome PO or AO | Emerging Community Zone Code | | Reconfiguring a Lot Code | | Healthy Waters Code | | Landscape Code | | Transport Impact, Access and Parking Code | | Works Code | | Bushfire Hazard Overlay Code | | Coastal Environment Overlay Code | | Flood Hazard Overlay Code | | Natural Assets Overlay Code | |
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Criteria identified in the assessment matrix as requiring further explanation or further assessment is addressed in the following subsection.

## 5.8 Planning Scheme Detailed Assessment

| Emerging Community Zone Code | |
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| **PO4**<br>New development of an urban nature:<br>(a) contributes to a logical pattern and sequence of development;<br>(b) facilitates efficient use of land and infrastructure;<br>(c) facilitates integration with existing and future urban development, having regard to movement networks, open space networks and accessibility to community infrastructure;<br>(d) provides accessibility for all modes of transport including pedestrian, cyclist, public transport and private car;<br>(e) creates clear, direct pedestrian and cycle access to centres, local parks and public transport stops;<br>(f) achieves an average net residential density of at least 15 dwellings per hectare;<br>(g) locates higher density residential development in and around centres, along connector streets and close to transit nodes;<br>(h) locates community facilities requiring high levels of accessibility within or adjoining centres;<br>(i) responds to constraints and natural values on the site and avoids or minimises any impacts on areas of environmental significance;<br>(j) facilitates integrated water cycle management;<br>(k) orients major streets and vistas to landmarks;<br>(l) provides a road network with a capacity adequate for current and future demand;<br>(m) does not increase hazard or risk to existing or future residents; and<br>(n) provides an open space network suitable for current and future needs. | No acceptable outcome is nominated.<br>**Editor's note**—Emerging community planning scheme policy no. SC6.6 provides guidance to applicants on expected structure planning processes to facilitate development that complies with this code and Section 9.3.4 Reconfiguring a lot code. |

**Complies with PO4**

The proposed development will result in a new master planned residential subdivision to accommodate the growing demand for residential land supply within Townsville's northern growth corridor. The design has been carefully considered to ensure compliance with PO4, particularly:

- the development will result in establishing a residential subdivision on the subject site which is considered a logical pattern and sequence of development within the Mount Low and Bushland Beach area;

- the layout has been carefully considered and incorporates an efficient design and ensure future residential lots are appropriately serviced;
- the development is strategically located at the nexus of North Shore Boulevard and future Lionel Turner Drive with the design of the intersection with North Shore Boulevard designed to ensure compatibility with traffic generated by future residents;
- the proposed roadways and footpaths are of an appropriate width and configuration to support accessibility of multiples modes of transport (e.g. pedestrians, cyclists, etc.) and provide connectivity to communal areas such as local parks;
- the development achieves a net residential density of 10.5 lots per hectare, which although below the prescribed 15 dwellings per hectares, is appropriate given:
  (i) the design responds to the site's environmental constraints;
  (ii) the layout intentionally dedicates land in Stage 1 to a generous landscaped entrance corridor that will serve the remainder of the development, reducing the efficiency of Precinct 1 (Stages 1-10);
  (iii) there may be opportunity for further density uplift within the subdivision; and
  (iv) the proposed layout, density, and lot sizes are responsive to the anticipated demand in the market;
- the design responds to constraints and natural values on the site and avoids or minimises any impacts on areas of environmental significance – evident through the implementation of a 10 m buffer from the waterway traversing the northern portion of the site;
- the design has incorporated further separation from the waterway with the placement of the proposed open space traversing the northern extent of the site;
- the development is within close proximity to existing and planned future community facilities and centres; and
- the proposed road network has been designed to ensure there is adequate capacity to service both the proposed and future development.

Given the above, the proposed development aligns with the intent of Performance Outcome 4.

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| **PO5**<br>Emerging communities are provided with the range of supporting services and uses, including those that provide local employment opportunities, that:<br>(a) are commensurate to the size of the relevant emerging community;<br>(b) do not detract from planning scheme intentions for other parts of the city; and<br>(c) are planned as an integrated and compatible component of the emerging community they serve. | No acceptable outcome is nominated.<br>**Editor's note**—Emerging community planning scheme policy no. SC6.6 provides guidance to applicants on expected structure planning processes to facilitate development that complies with this code and Section 9.3.4 Reconfiguring a lot code. |

**Complies with PO5**

The proposed development has been strategically located within the Emerging Communities Zone and will contribute to the growth within Townsville's northern growth corridor. The land will benefit from planned future services as per Council's LGIP and will therefore not detract from planning scheme intentions for other parts of the city.

Given the above, the proposed development aligns with the intent of Performance Outcome 5.

## Reconfiguring a Lot Code

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| **PO11**<br>Local recreational parks are of a sufficient size, shape and topography to accommodate a usable activity area, accommodating recreational facilities that meet local needs for a range of age cohorts, such as play equipment, kick-about areas, picnic areas, seating and the like.<br>**Editor's note**—Applicants should refer to the Development manual planning scheme policy no. SC6.4 - SC6.4.12 Landscaping and Open Space to assist in complying with this outcome. | **AO11.1**<br>Local recreational parks have a minimum usable activity area of 0.5ha.<br>**AO11.2**<br>Parks are square to rectangular with the ratio of dimensions no greater than 2:1.<br>**AO11.3**<br>At least 80% of the park has a grade of no more than 1:10. |

**Complies with PO11**

The proposed development has located and shaped the local park and open space to reflect the existing natural watercourse traversing the northern boundary of Lot 1001. The proposed formalised local park is approximately 4,870 $m^2$ in area which is considered a sufficient size to provide usable activity area for recreational purposes to the immediate catchment area.

Given the above, the proposed development aligns with the intent of Performance Outcome 11.

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| **PO13**<br>Local recreational parks are provided with a reasonable level of flood immunity such that community space remains available during most flood events. | **AO13**<br>At least 10% of the park area is above the 2% AEP and embellishments, including play equipment, shelters and shared pathways are constructed above the 2% AEP flood level. |

**Complies with PO13**

The proposed local park is located above the high bank of the existing creek and is anticipated to have a reasonable level of flood immunity, that it will remain available during most flood events.

Given the above, the proposed development aligns with the intent of Performance Outcome 13.

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| **PO21**<br>Reconfiguration ensures an appropriate level of amenity and safety is achieved for residential and other sensitive land uses through appropriate separation and buffering from nearby incompatible uses, including Department of Defence landholdings, major hazard facilities, intensive animal industries, major sport, recreation and entertainment facilities, sewerage, water and waste treatment and disposal facilities and industrial areas.<br><br>The continued safe and efficient operation of these types of facilities is protected.<br>**Editor's note**—A report by a suitably qualified person may be required to allow an assessment to be made of the potential environmental impacts of or affecting the proposed reconfiguration.<br><br>Council recommends that applicants seeking approval for lots potentially affected by intensive animal industries refer tothe *Reference Manual for the Establishment and Operation or Beef Cattle Feedlots in Queensland, Queensland Dairy Farming Environmental Code of Practice, Environmental Code of Practice for Queensland Piggeries* and *Best Practice Technical Guide for the Meat Chicken Industry* and that applicants consult with Primary Industries and Fisheries prior to the lodgment of a development application.<br><br>For other uses council may require a study that, amongst other matters, identifies how the development is in accordance with *Environmental Protection (Air) Policy 2008* or *Environmental Protection (Noise) Policy 2008*.<br><br>**Editor's note**—Applicants may be required to prepare a Noise impact assessment as outlined in the Development manual planning scheme policy no. SC6.4 - SC6.4.19 Noise and Vibration. | No acceptable outcome is nominated. |

**Complies with PO21**

The proposed residential subdivision ensures an appropriate level of amenity and safety through the implementation of appropriate separation distances from nearby incompatible uses. In particular, the proposed sewer pump station has been strategically located to the north of the proposed residential allotments and maintains a 50 m separation buffer. The proposed sewer pump station utilises the open space to also accommodate stormwater treatment. No other incompatible uses have been identified within the vicinity.

Given the above, the proposed development aligns with the intent of Performance Outcome 21.

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| **PO25**<br>Services, including water supply, stormwater drainage management, sewerage infrastructure, reticulated gas, public lighting, waste disposal, electricity and telecommunications, are provided in a manner that:<br>(a) is efficient;<br>(b) is adaptable to allow for future infrastructure upgrades;<br>(c) minimises risk of adverse environmental or amenity-related impacts;<br>(d) promotes total water cycle management, the efficient use of water resources and the protection of environmental values and water quality objectives of receiving waters; and<br>(e) minimises whole of life cycle costs for that infrastructure.<br>**Editor's note**—The environmental values and water quality objectives are established under the *Environment Protection Policy (2009)*. For Townsville, they are specified in the Ross River Basin Environmental Values and Water Quality Objectives 2012 and Black River Basin Environmental Values and Water Quality Objectives (2012). | No acceptable outcome is nominated.<br>**Editor's note**—Section 9.3.2 Healthy waters code, Section 9.3.6 Works code and the Development manual planning scheme policy SC6.4, set out standards for the design and construction of services. |

**Complies with PO25**

The proposed residential development has been designed to ensure new services are provided in a manner that:

- is efficient;
- is adaptable to allow for future infrastructure upgrades;
- minimises risk of adverse environmental or amenity related impacts;
- promotes total water cycle management, the efficient use of water resources and the protection of environmental values and water quality objectives of receiving waters; and
- minimises whole of life cycle costs for that infrastructure.

Given the above, the proposed development aligns with the requirements of Performance Outcome 25.

| PO26 | AO26 |
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| Reconfiguration creates lot sizes that:<br>(a) are consistent with the intended character of the zone, precinct or sub-precinct in which the land is located;<br>(b) do not compromise the future development potential of land in the Emerging community zone for urban purposes;<br>(c) are sufficient to protect the productive capacity, environmental and landscape values of rural land resources;<br>(d) are sufficient to protect ground and surface water quality in the Rural residential zone; and<br>(e) are sufficient to protect areas with significant ecological values. | Minimum lot size is in accordance with Table 9.3.4.3(c). |

**Complies with AO26**

The proposed development is consistent with PO26, particularly given:

- the purposed of the subdivision is to create a new urban residential subdivision which is consistent with the intended character of the zone; and
- the development has been appropriately designed to ensure environmental values within the waterway are maintained.

| PO42 | AO42 |
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| The movement network caters for the extension of existing or future public transport routes to provide services that are convenient and accessible to the community. | Except in the Rural zone and the Rural residential zone, at least 90% of proposed lots are within 400m walking distance from an existing or potential bus route or 500m walking distance of an identified bus stop.<br>**Editor's note**—The outcomes of a Traffic impact assessment report undertaken as per the Development manual planning scheme policy no. SC6.4.5.2 Traffic Impact Assessment (TIA) will assist in informing the design outcomes and alignment for public transport routes.<br><br>**Editor's note**—Applicants should refer to the Development manual planning scheme policy no.SC6.4 - SC6.4.5.3 Public Transport Facilities, SC6.4.5.4 Car Parking, SC6.4.4 Active Transport Infrastructure and SC6.4.6.1 Geometric Road Design to assist in complying with this outcome. |

**Complies with PO42**

The proposed residential subdivision has been designed to ensure future public transport routes can be established to provide services that are convenient and accessible to the community.

Given the above, the proposed development aligns with and does not prohibit achieving the intent of Performance Outcome 42.

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| **PO43**<br>Residential densities are optimised within walking distance of existing and potential public transport stations, where this is consistent with the intended character of the zone or precinct in which the land is located. | No acceptable outcome is nominated. |

**Complies with PO43**

The residential densities are optimised within walking distances of potential future public transport stations. Particularly:

- footpaths have been incorporated throughout the development providing appropriate pedestrian connectivity;
- the nearest bus stop is located approximately 1 km from the subject site;
- the Traffic Impact Assessment prepared for this development identified an ideal future bus stop location on proposed New Road 1;
- the existing public transport network has the ability to expand to reflect the progression of residential development such as that proposed; and
- given the subject site is situated with the Emerging Communities Zone the land is anticipated to support future urban development which is consistent the proposed residential subdivision.

Of particular relevant, it is noted that the structure plan prepared by RPS illustrates the pedestrian catchment and wider network.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 43.

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| **PO44**<br>Public transport stops are located and designed to:<br>(a) ensure adequate sight distances are available to and for passing traffic;<br>(b) be part of the pedestrian network and allow for safe pedestrian crossing;<br>(c) provide shelter or shade, seats, adequate lighting and timetable information;<br>(d) be in keeping with the character of the locality;<br>(e) be able to be overlooked from nearby buildings where in urban areas; and<br>(f) minimise adverse impacts on the amenity of nearby dwellings. | No acceptable outcome is nominated.<br>**Editor's note**—The outcomes of a Traffic impact assessment report undertaken as per the Development manual planning scheme policy no.SC6.4 - SC6.4.5.2 Traffic Impact Assessment (TIA) will assist in informing the design outcomes and alignment for public transport routes.<br><br>**Editor's note**—Applicants should refer to the Development manual planning scheme policy no.SC6.4 - SC6.4.5.3 Public Transport Facilities, SC6.4.5.4 Car Parking and SC6.4.4 Active Transport Infrastructure, and SC6.4.3 Standard Drawings and SC6.4.6.1 Geometric Road Design to assist in complying with this outcome. |

**Complies with PO44**

The proposed development facilitates the ability for future transport stops to be located and designed in accordance with the requirements of Performance Outcome 44. As detailed above, consideration has been given to the location of a future bus stop on proposed New Road 1 to service the catchment.

Given the above, the proposed development aligns with the intent of Performance Outcome 44.

## Transport Impact, Access and Parking Code

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| **PO3**<br>On-site transport network infrastructure (including roads, parking, access and public transport, pedestrian and cyclist facilities) appropriately integrates and connects with surrounding networks.<br>**Editor's note**—To demonstrate compliance with this performance outcome with regard to pedestrian and cyclist elements, applicants may be requested to provide a walk and cycle network plan to show connections to internal and external attractions, existing and proposed walk and cycle facilities and which respond to desire lines of all users. | No acceptable outcome is nominated.<br>**Editor's note**— Applicants should refer to the Development manual planning scheme policy no. SC6.4 - SC6.4.5.3 Public Transport Facilities, SC6.4.5.4 Car Parking, SC6.4.5.2 Traffic Impact Assessments (TIA), SC6.4.4 Active Transport Infrastructure, SC6.4.6.1 Geometric Road Designs, and SC6.4.5.1 Townsville Road Hierarchy. |

**Complies with PO3**

The development has been designed to ensure the proposed transport network infrastructure is appropriately designed, integrated, and connected to existing transport infrastructure in the surrounding area.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 3.

## Works Code

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| **PO6**<br>A potable water supply is provided that is adequate for the needs of the intended use. | **AO6.1**<br>The development is connected to council's reticulated water supply system in accordance with the Development manual planning scheme policy no. SC6.4 - SC6.4.11.2 Water Supply Planning and Design Guidelines and SC6.4.3 Standard Drawings.<br>**Editor's note**—If a main exists, then an application for a water meter will be required.<br><br>**AO6.2**<br>Water supply systems and connections are designed and constructed in accordance with Development manual planning scheme policy no. SC6.4 - SC6.4.11.2 Water Supply Planning and Design Guidelines and SC6.4.3 Standard Drawings. |

**Complies with PO6**

The proposed development will involve an extension to Council's existing reticulated water supply to service the proposed residential allotments. This will involve an extension of the existing water main on North Shore Boulevard eastward, and two further extensions into the proposed development area to ensure sufficient water supply to all proposed lots.

Further detail of proposed water connections is provided in **Appendix 6**.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 6.

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| **PO7**<br>Wastewater treatment and disposal is provided that is appropriate for the level of demand generated, protects public health and avoids environmental harm. | **AO7.1**<br>The development is connected to council's reticulated sewerage system via an existing sewer connection to the site. |
| | **AO7.2**<br>Waste water systems and connections are designed and constructed in accordance with Development manual planning scheme policy no. SC6.4 - SC6.4.11.2 Water Supply Planning and Design Guidelines, SC6.4.11.4 Sewerage Planning and Design Guidelines and SC6.4.3 Standard Drawings. |

**Complies with PO7**

The proposed development includes a new sewer pump station to service the proposed allotments. The sewer pump station will not impact public health or cause environmental harm and will be subject to a future operational work development application to ensure compliance with regulatory requirements and standards.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 7.

## Bushfire Hazard Overlay Code

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| **PO7**<br>Additional lots are not created in bushfire hazard areas. | **AO7**<br>Development does not involve the creation of additional lots in areas mapped as high or medium hazard on overlay map OM-02. |

**Does Not Comply with PO7**

The subject site is wholly mapped within medium and high bushfire hazard areas. Whilst the purpose of the development is inconsistent with the Bushfire Hazards Overlay Code, it is

considered consistent with the overall strategic intent of land within the Emerging Community Zone. Particularly:

- the proposal will contribute to the expanding the existing urban footprint within the Bushland Beach and Mount Low area;
- the site will be predominantly cleared of vegetation to facilitate the establishment of a new residential subdivision;
- the required clearing of vegetation to facilitate the residential development will minimise the risk of bushfires over the site; and
- the land is strategically located with direct access to North Shore Boulevard, ensuring appropriate connection to the wider area.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 7.

## Coastal Environment Overlay Code

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| **PO1**<br>Development is designed and located to minimise susceptibility to, and the potential impacts of, storm tide inundation and erosion.<br>**Editor's note**—Applicants must be aware that in some areas flood hazard areas will also co-exist with storm tide hazard areas. In these instances, the floor levels and other design responses will need to be sufficient to comply with both this code and the *Building Regulation 2006*. | **AO1.1**<br>Floor levels of all habitable rooms are above the defined storm tide event level.<br>**Editor's note**—For Townsville the defined storm tide event level can be taken as RL 4.5m AHD, within 100m of the coastline or RL 3.9m AHD in other areas. |
| | **AO1.2**<br>Underground parking is designed to prevent the intrusion of storm tide waters by the incorporation of a bund above the defined storm tide event level. |
| | **AO1.3**<br>Buildings have open ground floors that allow for the flow through of storm tide water and buildings are not designed as slab on ground. |
| | **AO1.4**<br>Buildings are located outside the erosion prone area or where this would be impractical, do not extend any further seaward than existing immediately adjacent buildings. |

**Complies with PO1**

The subject site contains areas of medium and high hazard stormtide inundation, which are contained generally within the westernmost extent of the development footprint.

The design has contained the majority of the mapped hazard area within the waterway buffer area, open space, and stormwater treatment area. Where proposed residential lots are impacted by the storm tide inundation overlay, future earthworks will ensure finished allotment levels are

above the defined storm tide event level. Specific detail of the earthworks associated with the proposed development will be determined and provided at the time of future operational work.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 1.

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| **PO3**<br>Development mitigates any increase in risk to people and property from adverse coastal-erosion impacts, avoiding the need for coastal protection works as far as practicable, having regard to:<br>(a) minimising the footprint of the development of the part within the erosion prone area and locating the development as far landward as possible;<br>(b) the practical design life of the development in the context of future erosion threat;<br>(c) the ability for buildings or structures to be decommissioned, dis-assembled or relocated either on the site or to another site; and<br>(d) use of appropriate foundations for the building or structure. | No acceptable outcome is nominated. |

**Complies with PO3**

As detailed above, the vast extent of the coastal hazard area impacting the site has been contained within the balance land for open space and stormwater treatment purposes. Further, the proposed development is limited to subdivision, and does not involve any immediate use on the resulting lots. Future development is anticipated to occur on allotments with finished levels above the identified coastal hazard.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 3.

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| **PO7**<br>Development is located outside high or medium storm tide inundation areas and erosion areas from sea level rise identified on overlay maps OM-03.1 and OM-03.2 unless it:<br>(a) does not result in an increase in the intensity of development on the site; or<br>(b) is located within the inner city area shown on Figure 8.1 — Coastal hazard areas: storm tide inundation areas and provides measures to ensure critical services remain operational up to the defined storm tide event; or<br>(c) avoids any increase in risk to people or property from coastal hazard impacts (including impacts on the development's ongoing operation). | No acceptable outcome is nominated. |

**Complies with PO7**

The proposed development will avoid risk to people or property from coastal hazard impacts by ensuring future finished lot levels above the identified coastal hazard.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 7.

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| **PO8**<br>Development in storm tide inundation areas and erosion areas from sea level rise identified on overlay maps OM-03.1-OM-03.2 is located, designed, constructed and operated to:<br>(a) ensure structures can sustain flooding from a defined storm tide event; and<br>(b) maintain the safety of people living and working on the premises from a defined storm tide event. | **AO8.1**<br>Development within a high or medium storm tide inundation area identified on overlay maps OM-03.1-OM-03.2 ensures:<br>(a) habitable rooms of built structures are located above the defined storm tide event level;<br>(b) underground parking is designed to prevent the intrusion of flood waters by the incorporation of a bund above the defined storm tide event level; and<br>(c) where reconfiguring a lot, at least one evacuation route remains passable for emergency evacuations during a defined storm tide event.<br>**Editor's note**—For Townsville the defined storm tide event level can be taken as RL 4.5m AHD, within 100m of the coastline or RL 3.9m AHD in other areas. |
| | **AO8.2**<br>Structures used for the manufacture or storage of hazardous materials in bulk are designed to prevent the intrusion of waters from a defined storm tide event. |

**Complies with PO8**

Noting that no structures are involved in the scope of this development application which is for subdivision only, all future structures will be constructed to meet the minimum requirements of the Coastal Environment Overlay Code. This will be facilitated by ensuring future finished lot levels are above the identified coastal hazard.

Further, the main access road from North Shore Boulevard is located towards the eastern section of the site and is not impacted by coastal hazard. As such this access point is identified as remaining passable during a defined storm tide event for emergency evacuations.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 8.

## Flood Hazard Overlay Code

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| **PO1**<br>Development in medium and high hazard areas is designed and located to minimise susceptibility to and potential impacts of flooding.<br>**Editor's note**—The *Building Regulation 2006* may also establish requirements with which development will need to comply. The defined flood event is identified in this planning scheme as the 1% annual exceedance probability (AEP) flood and is mapped as the combined extent of the high and medium flood hazard areas identified on overlay map OM-06.1 and 06.2. Other than in the medium hazard — further investigation area, council will be able to make available the height of the flood level for any particular location upon request.<br>Applicants must be aware that in some areas storm tide hazard areas will also co-exist with flood hazard areas. In these instances, the floor levels and other design responses will need to be sufficient to comply with this code, the Coastal environment overlay code and the *Building Regulation 2006*. | **AO1.1**<br>Where the development is located within an area shown on overlay map OM-06.1 or 06.2 as medium hazard — further investigation area, new buildings containing habitable rooms:<br>(a) are sited on a part of the site which is outside the medium hazard — further investigation area; or<br>(b) are sited on the highest part of the site.<br>OR<br>**AO1.2**<br>Where development is located within another hazard area shown on overlay map OM-06.1 or 06.2:<br>(a) floor levels of all habitable rooms are a minimum of 300mm above the defined flood level;<br>(b) floor levels of all non-habitable rooms (other than class 10 buildings) are above the defined flood event;<br>(c) parking spaces associated with non-residential development are located outside the high hazard areas identified on overlay map OM-06.1 or 06.2; and<br>**Editor's note**—Class 10 buildings are identified under the Building Code of Australia and includes carports and outbuildings.<br>(d) underground parking is designed to prevent the intrusion of flood waters by the incorporation of a bund or similar barrier with a minimum height of 300mm above the defined flood level. |

**Complies with PO1**

Low lying parts of the subject site are affected by medium and high flood hazard. As per the strategy to address coastal hazard, the proposed development will involve future earthworks to ensure future residential allotments are located above the defined floor level. These details will be determined and detailed with future operational work.

A Flood Impact Assessment undertaken by Northern Consulting Engineers (refer **Appendix 6**) determined that impacts to offsite flood levels is less than or equal to 10 mm. Further, improvements to adjoining properties on Mount Low Parkway have also been identified, resulting in a reduction of flooding by approximately 120 mm across these sites.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 1.

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| **PO2**<br>Development in high hazard areas does not significantly impede the flow of flood waters through the site or worsen flood flows external to the site. | **AO2.1**<br>Development in high hazard areas do not involve:<br>(a) filling with a height greater than 150mm; or<br>(b) block or solid walls or solid fences; or<br>(c) garden beds or other structures with a height more than 150mm; or<br>(d) the planting of dense shrub hedges. |

**Complies with PO2**

The mapped high hazard area predominantly corresponds with the waterway traversing the northern portion of the subject site. The designed maintains a 10 m buffer from the existing waterway which will assisted in ensuring the development does not significantly impede the flow of flood waters through the site or worsen flows external to the site.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 2.

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| **PO3**<br>Development does not intensify use in high hazard areas, in order to avoid risks to people and property.<br>**Editor's note**—High hazard areas are those likely to experience deep and/or fast moving water in a defined flood event. | **AO3.1**<br>New buildings are located outside high hazard areas identified on overlay map OM-06.1 or 06.2.<br>**AO3.2**<br>New lots or roads are not created within high hazard areas identified on overlay map OM-06.1 or 06.2.<br>**AO3.3**<br>Sites for non-permanent accommodation such as tents, cabins or caravans (whether intended for short or long-term accommodation) are located outside the high hazard areas identified on overlay map OM-06.1 or 06.2. |

**Complies with PO3**

Proposed new lots are generally located outside of mapped high hazard areas and will not intensify the use of land wholly within the high hazard area. The proposed development will ensure the development avoids risks to people and property given:

- the mapped high hazard areas within future residential lots are minimal; and
- the proposed stormwater regime has been designed to minimise flood impacts; and
- future earthworks will be undertaken to ensure lots achieve appropriate flood immunity.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 3.

| | |
|---|---|
| **PO4**<br>Siting and layout of development maintains the safety of people and property in medium hazard areas.<br>**Editor's note**—The *Building Regulation 2006* establishes requirements with which development will need to comply. The defined flood event is identified in this planning scheme as the 1% annual exceedance probability (AEP) flood and is mapped as the combined extent of the high and medium flood hazard areas identified on overlay map OM-06.1 and 06.2. Other than in the medium hazard — further investigation area, council will be able to make available the height of the flood level for any particular location upon request.<br><br>Applicants must be aware that in some areas storm tide hazard areas will also co-exist with flood hazard areas. In these instances, the floor levels and other design responses will need to be sufficient to comply with this code, the Coastal environment overlay code and the *Building Regulation 2006*. | **On existing lots**<br>**AO4.1**<br>Floor levels for residential buildings are 300mm above the defined flood level.<br>**Editor's note**—In medium hazard — further investigation area, a flood assessment in accordance with the Flood hazard planning scheme policy no. SC6.7 may be needed to establish the defined flood level.<br><br>**AO4.2**<br>Floor levels of non-residential buildings (other than class 10 buildings) are above the defined flood level.<br>**Editor's note**—Class 10 buildings are identified under the *Building Code of Australia* and includes carports and outbuildings.<br><br>**AO4.3**<br>Underground parking is designed to prevent the intrusion of flood waters by the incorporation of a bund or similar barrier with a minimum height of 300mm above the defined flood level.<br><br>**AO4.4**<br>Development for non-permanent accommodation such as tents, cabins or caravans (whether intended for short or long-term accommodation) are located outside the medium hazard areas identified on overlay map OM-06.1 or 06.2.<br><br>**Where reconfiguring a lot**<br>**AO4.5**<br>Where reconfiguring a lot, new lots contain designated building envelopes (whether or not for residential purposes) outside the medium hazard areas identified on overlay map OM-06.1 or 06.2 and those building envelopes are of a sufficient size to accommodate buildings associated with the development.<br><br>**AO4.6**<br>In new subdivisions, arterial, sub-arterial or major collector roads are located above the 2% AEP flood level.<br><br>**AO4.7**<br>Reconfiguration of lots does not involve cul-de-sacs or dead end streets within medium hazard areas identified on overlay map OM-06.1 or 06.2. |

**Complies with AO4.5, AO4.6, and AO4.7**

As detailed above, further development of the subject site will involve earthworks to ensure all lots are provided with a finished level above the defined flood event. The reconfiguration does not involve any cul-de-sacs or dead end street within medium flood hazard areas.

## Natural Assets Overlay Code

| | |
|---|---|
| **PO1**<br>In areas identified as having high or very high environmental importance, significant values are protected and associated ecological functions and biophysical processes are maintained to ensure long term viability.<br>**Editor's note**—Applicants should also refer to other state and federal legislation which may also require applicants to obtain additional approvals. | No acceptable outcome is nominated.<br>**Editor's note**—Natural assets planning scheme policy no. SC6.9 provides information on the primary attributes included in very high, high and medium environmental importance areas. The overlay map has been produced using local government area wide data. Site-specific investigation will be required to confirm the extent and nature of values indicated on the overlay map or otherwise identify site-specific natural assets and ecological functions. |

**Complies with PO1**

The subject site is identified as containing areas of environmental importance, and as such an ecological assessment prepared by Terra Solutions (refer **Appendix 8**). The ecological assessment has identified:

- the mapped essential habitat for eastern curlew was ground truthed and determined not to contain suitable habitat;
- the mapped watercourse has been incorrectly mapped and it was determined the watercourse only passes through the northern extent of the site. A 10 m buffer has been implemented to assist in maintaining the existing environmental values;
- the high environmental importance area mapping is consisted likely to be inaccurate based on the current and historical assessment of the site;
- the mapped habitat listed as important for black throated finch, while has the potential for suitable habitat, no sightings in the last decade have occurred.

Based on the above, the implementation of a 10 m buffer along the watercourse – as incorporated in the proposed design – will assist with protecting significant values and associated ecological functions and biophysical processes area maintained to ensure long term viability.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 1.

| | |
|---|---|
| **PO2**<br>In areas identified as having medium environmental importance, development is located, designed and operated to:<br>(a) retain and protect significant values; and<br>(b) maintain the underlying ecological functions and biophysical processes.<br>**Editor's note**—Applicants should also refer to other state and federal legislation which may also require applicants to obtain additional approvals. | No acceptable outcome is nominated.<br>**Editor's note**—This category of environmental importance will also require a high level of investigation as part of any development application, to determine on the ground values and priority for protection. A detailed environmental assessment is to be undertaken by applicants in accordance with the guidance provided in the Natural assets planning scheme policy no. SC6.9. |

**Complies with PO2**

Significant values on the site are primarily associated with the riparian habitat of the Stony Creek tributary. The tributary is a small ephemeral watercourse of up to 3 m wide with limited instream habitat. These values will be protected through provision of a 10 m buffer to either side of the watercourse where no development is to occur.

In addition to the 10 m buffer, further protection will be achieved by applying low impact development between 10 m to 25 m of the watercourse high bank such as ecological sensitive greenspaces such as parks, vegetated stormwater management basins, and walking paths.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 2.

| | |
|---|---|
| **PO3**<br>Degraded areas with significant ecological and environmental values or important to the maintenance of underlying ecological functions and biophysical processes required to maintain biodiversity and ecosystem services are rehabilitated as near as is practical to the naturally occurring suite of native plant species and ecological communities. | No acceptable outcome is nominated.<br>**Editor's note**—A rehabilitation plan supported by expert ecological advice prepared in accordance with Natural assets planning scheme policy no. SC6.9 will assist in demonstrating achievement of this performance outcome. |

**Complies with PO3**

High value riparian area associated with the Stony Creek tributary along the northern extent of the study area is presently in good condition. This area supports the highest floral diversity on the site, contains tree hollows suitable for a variety of species and holds water resources suitable for fauna hydration.

Provided that suitable clearing and development practices are applied, and minimum 10 m development buffers are maintained, the ecological processes associated with this area will be maintained without any significant rehabilitation requirements.

Given the above, the proposed development aligns with the requirements and intent of Performance Outcome 3.

| PO14 | AO14 |
|---|---|
| Development provides a buffer to a wetland area to:<br>(a) protect or enhance habitat values, connectivity and other ecological functions and values;<br>(b) protect water quality and aquatic conditions;<br>(c) maintain natural micro-climatic conditions;<br>(d) maintain natural hydrological processes;<br>(e) prevent mass movement, gully erosion, rill erosion, sheet erosion, tunnel erosion, stream bank erosion, wind erosion, or scalding; and<br>(f) avoid loss or modification of chemical, physical or biological properties or functions of soil.<br><br>Any setbacks or other areas required for bushfire management, safety, recreation, maintenance or any other purpose, are provided in addition to a vegetated buffer provided for ecological purposes. | A development-free buffer is provided and maintained with a minimum width of:<br>(a) for wetlands designated as high ecological significance (HES) by the Queensland Government:<br>(i) 50m from the outermost part of the wetland where located in an urban area; or<br>(ii) 200m from the outermost part of the wetland where located in a non-urban area; or<br>(b) for other wetlands: 50m from the outermost part of the wetland in either urban or non-urban areas.<br><br>**Editor's note**—Natural assets planning scheme policy no. SC6.9 contains Figure SC6.9.2 which identifies wetland areas. This information may also be obtained from the relevant state agency.<br><br>**Editor's note**—To avoid conflict, where a development requires multiple buffers to be established by this code to protect watercourses, corridors, wetlands or core habitat, the greatest distances required by this code will prevail to the extent of any inconsistency. |

**Complies with AO14**

A wetland of High Ecological Significance (HES) is located approximately 280 m southeast of the subject land, with the associated wetland protection area buffer intersecting approximately one third of the development area.

The HES wetland is hydraulically upgradient of the site and within the catchment associated with the upper reaches of Stony Creek. It is noted that connectivity has already been disrupted by the construction of North Shore Boulevard. As such, the proposed development is not anticipated to result in any further impacts by development in the assessment area.

Given the above, the proposed development aligns with the requirements and intent of Acceptable Outcome 14.

| | |
|---|---|
| **PO16**<br>Development provides a buffer to a waterway, in order to:<br>(a) protect or enhance habitat values, connectivity and other ecological processes and values;<br>(b) protect water quality and aquatic conditions;<br>(c) maintain natural micro-climatic conditions;<br>(d) maintain natural hydrological processes;<br>(e) prevent mass movement, gully erosion, rill erosion, sheet erosion, tunnel erosion, stream bank erosion, wind erosion, or scalding; and<br>(f) prevent loss or modification of chemical, physical or biological properties or functions of soil.<br><br>Any setbacks or other areas required for bushfire management, safety, recreation, maintenance or any other purpose, are provided in addition to a vegetated buffer provided for ecological purposes. | No acceptable outcome is nominated where in an urban residential zone or centre zone.<br><br>Elsewhere (including the Emerging community zone, Rural residential zone or industry zones):<br><br>**AO16**<br>Other than where cropping for forestry for wood production, a development-free buffer is provided and maintained, extending from top of the bank of a waterway and with a minimum width of:<br>(a) where in the Wet Tropics bioregion:<br>(i) stream order 1 to 4: 25m; or<br>(ii) stream order 5 and above: 50m;<br>OR<br>(b) in all other regions (Brigalow Belt North Bioregion or the Einasleigh Uplands Bioregion):<br>(i) stream order 1 or 2: 25m; or<br>(ii) stream order 3 or 4: 50m; or<br>(iii) stream order 5 and above: 100m;<br>**Editor's note**—Natural assets planning scheme policy no. SC6.9 contains Figure SC6.9.1 which identifies stream orders and bioregions. This information may also be obtained from the relevant state agency.<br><br>**Editor's note**— Where a development requires multiple buffers to be established by this code to protect watercourses, corridors, wetlands or core habitat, the greatest distances required by this code will prevail to the extent of any inconsistency. |

**Complies with PO16**

The proposed development incorporates a 10 m watercourse buffer, due to the presence of key ecological values within 10 m of the high bank of the watercourse. An Ecological Assessment prepared by Terra Solutions (refer **Appendix 8**) has determined that this buffer will be sufficient to protect ecological processes, water quality, microclimatic conditions and soil stability associated with the watercourse.

Given the above, the proposed development aligns with the intent and requirements of Performance Outcome 16.

# 6.0 OTHER RELEVANT MATTERS

## 6.1 Other Relevant Matters

There are substantial other relevant matters to support the approval of the proposed development. In accordance with Section 45, Item 5 (b) of the Act, an impact assessment may be carried out against, or having regard to, any other relevant matter, other than a person's personal circumstances, financial, or otherwise.

Other relevant matters supporting the approval of the proposed development include (but are not limited to) the following:

- the proposed development is consistent with the strategic intent for the subject land which seeks development of a residential nature;
- the proposed development will make a substantial contribution to the available land supply within the region and will in turn address the nationwide housing crisis; and
- the proposed development will realise the potential of well positioned land in the centre of Townsville's northern growth corridor, and will benefit from the recent development of residential land to the north, southeast, and west of the subject site.

# 7.0 CONCLUSION

## 7.1 Assessment Summary

The assessment of the proposed development against the relevant assessment benchmarks detailed in this development application supports a recommendation for approval based on the following reasons:

- the proposed development complies with the relevant assessment benchmarks; and
- compliance with the relevant assessment benchmarks can be managed through reasonable and relevant conditions.

## 7.2 Recommended Conditions of Approval

Given the above facts and circumstances presented in this development application, we recommend that Council **approve** the proposed development subject to the following reasonable and relevant conditions that are considered specifically relevant to the proposed development.

**Condition 1 – Approved Plans and Supporting Documentation**

(a) The development must generally comply with the plan(s) and supporting documentation referenced in the table below and attached as stamped "Approved Subject to Conditions" which forms part of this approval, unless otherwise specified by any condition of this approval.

| Title | Number | Issue | Date |
|---|---|---|---|
| Structure Plan | 152336 – 09b | - | 16-5-24 |
| RAL Proposal Plan – 1 into 195 Lots + Balance – Cancelling Lot 1001 SP345441 | 152336 – 11b | - | 12-7-24 |
| RAL Proposal Plan – 1 into 195 Lots + Balance – Cancelling Lot 1001 SP345441 | 152336 – 12b | - | 12-7-24 |
| RAL Proposal Plan – 1 into 195 Lots + Balance – Cancelling Lot 1001 SP345441 | 152336 – 13b | - | 12-7-24 |
| **Associated Reports** | | | |
| Traffic Impact Assessment prepared by Bitzios Consulting | | | |
| Engineering Report prepared by Northern Consulting Engineers | | | |
| Ecological Assessment prepared by Terra Solutions | | | |

(b) The recommendations outlined in the above reports/s must be implemented prior to the commencement of the use.

MILFORD PLANNING

# Appendix 1

# DA Form 1 – Development application details

***Approved form (version 1.6 effective 2 August 2024) made under section 282 of the Planning Act 2016.***

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving only building work.

For a development application involving **building work only**, use *DA Form 2 – Building work details*.

For a development application involving **building work associated with any other type of assessable development (i.e. material change of use, operational work or reconfiguring a lot)**, use this form (*DA Form 1*) **and** parts 4 to 6 of *DA Form 2 – Building work details.*

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994*, and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008.* For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

***Note:*** *All terms used in this form have the meaning given under the Planning Act 2016, the Planning Regulation 2017, or the Development Assessment Rules (DA Rules).*

## PART 1 – APPLICANT DETAILS

| 1) Applicant details | |
|---|---|
| Applicant name(s) (*individual or company full name*) | Milford Planning |
| Contact name *(only applicable for companies)* | Matteo Sandona |
| Postal address *(P.O. Box or street address)* | PO Box 5463 |
| Suburb | TOWNSVILLE CITY |
| State | QLD |
| Postcode | 4810 |
| Country | AUSTRALIA |
| Contact number | (07) 4724 0095 |
| Email address *(non-mandatory)* | info@milfordplanning.com.au |
| Mobile number *(non-mandatory)* | |
| Fax number *(non-mandatory)* | |
| Applicant's reference number(s) *(if applicable)* | M1622-RAL-2 |

**1.1) Home-based business**

☐ Personal details to remain private in accordance with section 264(6) of *Planning Act 2016*

**2) Owner's consent**

**2.1) Is written consent of the owner required for this development application?**

☒ Yes – the written consent of the owner(s) is attached to this development application
☐ No – proceed to 3)

Queensland Government

# PART 2 – LOCATION DETAILS

**3) Location of the premises** *(complete 3.1) or 3.2), and 3.3) as applicable)*

***Note**: Provide details below and attach a site plan for any or all premises part of the development application. For further information, see DA Forms Guide: Relevant plans.*

**3.1) Street address and lot on plan**

☒ Street address **AND** lot on plan (*all lots must be listed*), ***or***

☐ Street address **AND** lot on plan for an adjoining or adjacent property of the premises *(appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon. All lots must be listed).*

| | | | | |
|---|---|---|---|---|
| a) | Unit No. | Street No. | Street Name and Type | Suburb |
| | | 683 | North Shore Boulevard | Mount Low |
| | Postcode | Lot No. | Plan Type and Number *(e.g. RP, SP)* | Local Government Area(s) |
| | 4818 | 1001 | SP345441 | Townsville City |
| b) | Unit No. | Street No. | Street Name and Type | Suburb |
| | | | | |
| | Postcode | Lot No. | Plan Type and Number *(e.g. RP, SP)* | Local Government Area(s) |
| | | | | |

**3.2) Coordinates of premises** *(appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land e.g. channel dredging in Moreton Bay)*

***Note**: Place each set of coordinates in a separate row.*

☐ Coordinates of premises by longitude and latitude

| Longitude(s) | Latitude(s) | Datum | Local Government Area(s) *(if applicable)* |
|---|---|---|---|
| | | ☐ WGS84<br>☐ GDA94<br>☐ Other: | |

☐ Coordinates of premises by easting and northing

| Easting(s) | Northing(s) | Zone Ref. | Datum | Local Government Area(s) *(if applicable)* |
|---|---|---|---|---|
| | | ☐ 54<br>☐ 55<br>☐ 56 | ☐ WGS84<br>☐ GDA94<br>☐ Other: | |

**3.3) Additional premises**

☐ Additional premises are relevant to this development application and the details of these premises have been attached in a schedule to this development application

☒ Not required

**4) Identify any of the following that apply to the premises and provide any relevant details**

☐ In or adjacent to a water body or watercourse or in or above an aquifer

Name of water body, watercourse or aquifer:

☐ On strategic port land under the *Transport Infrastructure Act 1994*

Lot on plan description of strategic port land:

Name of port authority for the lot:

☐ In a tidal area

Name of local government for the tidal area *(if applicable)*:

Name of port authority for tidal area *(if applicable)*

| | |
|---|---|
| ☐ On airport land under the *Airport Assets (Restructuring and Disposal) Act 2008* | |
| Name of airport: | |
| ☐ Listed on the Environmental Management Register (EMR) under the *Environmental Protection Act 1994* | |
| EMR site identification: | |
| ☐ Listed on the Contaminated Land Register (CLR) under the *Environmental Protection Act 1994* | |
| CLR site identification: | |

**5) Are there any existing easements over the premises?**

*Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see DA Forms Guide.*

☐ Yes – All easement locations, types and dimensions are included in plans submitted with this development application

☒ No

# PART 3 – DEVELOPMENT DETAILS

## Section 1 – Aspects of development

**6.1) Provide details about the first development aspect**

a) What is the type of development? *(tick only one box)*

☐ Material change of use ☒ Reconfiguring a lot ☐ Operational work ☐ Building work

b) What is the approval type? *(tick only one box)*

☒ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

☐ Code assessment ☒ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots)*:

Reconfiguring a Lot – Subdivision (One Lot into 193 Lots, and Pump Station, Park, and Balance Lots)

e) Relevant plans

***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms guide: Relevant plans.*

☒ Relevant plans of the proposed development are attached to the development application

**6.2) Provide details about the second development aspect**

a) What is the type of development? *(tick only one box)*

☐ Material change of use ☐ Reconfiguring a lot ☐ Operational work ☐ Building work

b) What is the approval type? *(tick only one box)*

☐ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

☐ Code assessment ☐ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots)*:

e) Relevant plans

***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.*

☐ Relevant plans of the proposed development are attached to the development application

| 6.3) Additional aspects of development |
|---|
| ☐ Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application |
| ☐ Not required |
| **6.4) Is the application for State facilitated development?** |
| ☐ Yes - Has a notice of declaration been given by the Minister? |
| ☐ No |

## Section 2 – Further development details

| 7) Does the proposed development application involve any of the following? | |
|---|---|
| Material change of use | ☐ Yes – complete division 1 if assessable against a local planning instrument |
| Reconfiguring a lot | ☒ Yes – complete division 2 |
| Operational work | ☐ Yes – complete division 3 |
| Building work | ☐ Yes – complete *DA Form 2 – Building work details* |

### Division 1 – Material change of use

***Note**: This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.*

| 8.1) Describe the proposed material change of use | | | |
|---|---|---|---|
| Provide a general description of the proposed use | Provide the planning scheme definition *(include each definition in a new row)* | Number of dwelling units *(if applicable)* | Gross floor area ($m^2$) *(if applicable)* |
| | | | |
| | | | |
| | | | |

| 8.2) Does the proposed use involve the use of existing buildings on the premises? |
|---|
| ☐ Yes |
| ☐ No |

| 8.3) Does the proposed development relate to temporary accepted development under the Planning Regulation? | |
|---|---|
| ☐ Yes – provide details below or include details in a schedule to this development application | |
| ☐ No | |
| Provide a general description of the temporary accepted development | Specify the stated period dates under the Planning Regulation |
| | |

### Division 2 – Reconfiguring a lot

***Note**: This division is only required to be completed if any part of the development application involves reconfiguring a lot.*

| 9.1) What is the total number of existing lots making up the premises? |
|---|
| 1 |

| 9.2) What is the nature of the lot reconfiguration? *(tick all applicable boxes)* | |
|---|---|
| ☒ Subdivision *(complete 10)* | ☐ Dividing land into parts by agreement *(complete 11)* |
| ☐ Boundary realignment *(complete 12)* | ☐ Creating or changing an easement giving access to a lot from a constructed road *(complete 13)* |

| 10) Subdivision | | | | |
|---|---|---|---|---|
| 10.1) For this development, how many lots are being created and what is the intended use of those lots: | | | | |
| Intended use of lots created | Residential | Commercial | Industrial | Other, please specify: |
| | | | | Utilities, Park, Balance |
| Number of lots created | 193 | | | 3 |

| 10.2) Will the subdivision be staged? | |
|---|---|
| ☒ Yes – provide additional details below<br>☐ No | |
| How many stages will the works include? | 10 |
| What stage(s) will this development application apply to? | 1 to 10 |

| 11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts? | | | | |
|---|---|---|---|---|
| Intended use of parts created | Residential | Commercial | Industrial | Other, please specify: |
| Number of parts created | | | | |

| 12) Boundary realignment | | | |
|---|---|---|---|
| 12.1) What are the current and proposed areas for each lot comprising the premises? | | | |
| Current lot | | Proposed lot | |
| Lot on plan description | Area ($m^2$) | Lot on plan description | Area ($m^2$) |
| | | | |
| | | | |
| 12.2) What is the reason for the boundary realignment? | | | |
| | | | |

| 13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement? *(attach schedule if there are more than two easements)* | | | | |
|---|---|---|---|---|
| Existing or proposed? | Width (m) | Length (m) | Purpose of the easement? *(e.g. pedestrian access)* | Identify the land/lot(s) benefitted by the easement |
| | | | | |
| | | | | |

## Division 3 – Operational work

***Note**: This division is only required to be completed if any part of the development application involves operational work.*

| 14.1) What is the nature of the operational work? | | |
|---|---|---|
| ☐ Road work | ☐ Stormwater | ☐ Water infrastructure |
| ☐ Drainage work | ☐ Earthworks | ☐ Sewage infrastructure |
| ☐ Landscaping | ☐ Signage | ☐ Clearing vegetation |
| ☐ Other – please specify: | | |

| 14.2) Is the operational work necessary to facilitate the creation of new lots? *(e.g. subdivision)* | |
|---|---|
| ☐ Yes – specify number of new lots: | |
| ☐ No | |

Queensland Government

14.3) What is the monetary value of the proposed operational work? *(include GST, materials and labour)*

$

## PART 4 – ASSESSMENT MANAGER DETAILS

15) Identify the assessment manager(s) who will be assessing this development application

Townsville City Council

16) Has the local government agreed to apply a superseded planning scheme for this development application?

☐ Yes – a copy of the decision notice is attached to this development application
☐ The local government is taken to have agreed to the superseded planning scheme request – relevant documents attached
☒ No

## PART 5 – REFERRAL DETAILS

17) Does this development application include any aspects that have any referral requirements?
***Note**: A development application will require referral if prescribed by the* Planning Regulation 2017.

☒ No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

Matters requiring referral to the **Chief Executive of the *Planning Act 2016***:

☐ Clearing native vegetation
☐ Contaminated land *(unexploded ordnance)*
☐ Environmentally relevant activities (ERA) *(only if the ERA has not been devolved to a local government)*
☐ Fisheries – aquaculture
☐ Fisheries – declared fish habitat area
☐ Fisheries – marine plants
☐ Fisheries – waterway barrier works
☐ Hazardous chemical facilities
☐ Heritage places – Queensland heritage place *(on or near a Queensland heritage place)*
☐ Infrastructure-related referrals – designated premises
☐ Infrastructure-related referrals – state transport infrastructure
☐ Infrastructure-related referrals – State transport corridor and future State transport corridor
☐ Infrastructure-related referrals – State-controlled transport tunnels and future state-controlled transport tunnels
☐ Infrastructure-related referrals – near a state-controlled road intersection
☐ Koala habitat in SEQ region – interfering with koala habitat in koala habitat areas outside koala priority areas
☐ Koala habitat in SEQ region – key resource areas
☐ Ports – Brisbane core port land – near a State transport corridor or future State transport corridor
☐ Ports – Brisbane core port land – environmentally relevant activity (ERA)
☐ Ports – Brisbane core port land – tidal works or work in a coastal management district
☐ Ports – Brisbane core port land – hazardous chemical facility
☐ Ports – Brisbane core port land – taking or interfering with water
☐ Ports – Brisbane core port land – referable dams
☐ Ports – Brisbane core port land – fisheries
☐ Ports – Land within Port of Brisbane's port limits *(below high-water mark)*
☐ SEQ development area
☐ SEQ regional landscape and rural production area or SEQ rural living area – tourist activity or sport and recreation activity
☐ SEQ regional landscape and rural production area or SEQ rural living area – community activity
☐ SEQ regional landscape and rural production area or SEQ rural living area – indoor recreation
☐ SEQ regional landscape and rural production area or SEQ rural living area – urban activity
☐ SEQ regional landscape and rural production area or SEQ rural living area – combined use
☐ SEQ northern inter-urban break – tourist activity or sport and recreation activity

☐ SEQ northern inter-urban break – community activity
☐ SEQ northern inter-urban break – indoor recreation
☐ SEQ northern inter-urban break – urban activity
☐ SEQ northern inter-urban break – combined use
☐ Tidal works or works in a coastal management district
☐ Reconfiguring a lot in a coastal management district or for a canal
☐ Erosion prone area in a coastal management district
☐ Urban design
☐ Water-related development – taking or interfering with water
☐ Water-related development – removing quarry material *(from a watercourse or lake)*
☐ Water-related development – referable dams
☐ Water-related development –levees *(category 3 levees only)*
☐ Wetland protection area

Matters requiring referral to the **local government:**
☐ Airport land
☐ Environmentally relevant activities (ERA) (*only if the ERA has been devolved to local government)*
☐ Heritage places – Local heritage places

Matters requiring referral to the **Chief Executive of the distribution entity or transmission entity:**
☐ Infrastructure-related referrals – Electricity infrastructure

Matters requiring referral to:
- The **Chief Executive of the holder of the licence**, if not an individual
- The **holder of the licence**, if the holder of the licence is an individual

☐ Infrastructure-related referrals – Oil and gas infrastructure

Matters requiring referral to the **Brisbane City Council:**
☐ Ports – Brisbane core port land

Matters requiring referral to the **Minister responsible for administering the *Transport Infrastructure Act 1994*:**
☐ Ports – Brisbane core port land *(where inconsistent with the Brisbane port LUP for transport reasons)*
☐ Ports – Strategic port land

Matters requiring referral to the **relevant port operator**, if applicant is not port operator**:**
☐ Ports – Land within Port of Brisbane's port limits *(below high-water mark)*

Matters requiring referral to the **Chief Executive of the relevant port authority:**
☐ Ports – Land within limits of another port *(below high-water mark)*

Matters requiring referral to the **Gold Coast Waterways Authority:**
☐ Tidal works or work in a coastal management district *(in Gold Coast waters)*

Matters requiring referral to the **Queensland Fire and Emergency Service:**
☐ Tidal works or work in a coastal management district *(involving a marina (more than six vessel berths))*

**18) Has any referral agency provided a referral response for this development application?**

☐ Yes – referral response(s) received and listed below are attached to this development application
☒ No

| Referral requirement | Referral agency | Date of referral response |
|---|---|---|
| | | |
| | | |

Identify and describe any changes made to the proposed development application that was the subject of the referral response and this development application, or include details in a schedule to this development application *(if applicable).*

# PART 6 – INFORMATION REQUEST

**19) Information request under the DA Rules**

☒ I agree to receive an information request if determined necessary for this development application

☐ I do not agree to accept an information request for this development application

***Note**: By not agreeing to accept an information request I, the applicant, acknowledge:*

- *that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties*
- *Part 3 under Chapter 1 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules or*
- *Part 2under Chapter 2 of the DA Rules will still apply if the application is for state facilitated development*

*Further advice about information requests is contained in the DA Forms Guide.*

# PART 7 – FURTHER DETAILS

**20) Are there any associated development applications or current approvals?** *(e.g. a preliminary approval)*

☐ Yes – provide details below or include details in a schedule to this development application

☒ No

| List of approval/development application references | Reference number | Date | Assessment manager |
|---|---|---|---|
| ☐ Approval<br>☐ Development application | | | |
| ☐ Approval<br>☐ Development application | | | |

**21) Has the portable long service leave levy been paid?** *(only applicable to development applications involving building work or operational work)*

☐ Yes – a copy of the receipted QLeave form is attached to this development application

☐ No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid

☒ Not applicable *(e.g. building and construction work is less than $150,000 excluding GST)*

| Amount paid | Date paid (dd/mm/yy) | QLeave levy number (A, B or E) |
|---|---|---|
| $ | | |

**22) Is this development application in response to a show cause notice or required as a result of an enforcement notice?**

☐ Yes – show cause or enforcement notice is attached

☒ No

23) Further legislative requirements

**Environmentally relevant activities**

23.1) Is this development application also taken to be an application for an environmental authority for an **Environmentally Relevant Activity (ERA)** under section 115 of the *Environmental Protection Act 1994*?

☐ Yes – the required attachment (form ESR/2015/1791) for an application for an environmental authority accompanies this development application, and details are provided in the table below

☒ No

***Note**: Application for an environmental authority can be found by searching "ESR/2015/1791" as a search term at www.qld.gov.au. An ERA requires an environmental authority to operate. See www.business.qld.gov.au for further information.*

| | | | |
|---|---|---|---|
| Proposed ERA number: | | Proposed ERA threshold: | |
| Proposed ERA name: | | | |

☐ Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.

**Hazardous chemical facilities**

23.2) Is this development application for a **hazardous chemical facility**?

☐ Yes – *Form 536: Notification of a facility exceeding 10% of schedule 15 threshold* is attached to this development application

☒ No

***Note**: See www.business.qld.gov.au for further information about hazardous chemical notifications.*

**Clearing native vegetation**

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation that the chief executive of the *Vegetation Management Act 1999* is satisfied the clearing is for a relevant purpose under section 22A of the *Vegetation Management Act 1999*?

☐ Yes – this development application includes written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)

☒ No

***Note**: 1. Where a development application for operational work or material change of use requires a s22A determination and this is not included, the development application is prohibited development.*

*2. See https://www.qld.gov.au/environment/land/vegetation/applying for further information on how to obtain a s22A determination.*

**Environmental offsets**

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a **prescribed environmental matter** under the *Environmental Offsets Act 2014*?

☐ Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter

☒ No

***Note**: The environmental offset section of the Queensland Government's website can be accessed at www.qld.gov.au for further information on environmental offsets.*

**Koala habitat in SEQ Region**

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work which is assessable development under Schedule 10, Part 10 of the Planning Regulation 2017?

☐ Yes – the development application involves premises in the koala habitat area in the koala priority area

☐ Yes – the development application involves premises in the koala habitat area outside the koala priority area

☒ No

***Note**: If a koala habitat area determination has been obtained for this premises and is current over the land, it should be provided as part of this development application. See koala habitat area guidance materials at www.desi.qld.gov.au for further information.*

## Water resources

23.6) Does this development application involve **taking or interfering with underground water through an artesian or subartesian bore, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water under the *Water Act 2000***?

☐ Yes – the relevant template is completed and attached to this development application and I acknowledge that a relevant authorisation or licence under the *Water Act 2000* may be required prior to commencing development

☒ No

***Note**: Contact the Department of Resources at www.resources.qld.gov.au for further information.*

*DA templates are available from planning.statedevelopment.qld.gov.au. If the development application involves:*

- *Taking or interfering with underground water through an artesian or subartesian bore: complete DA Form 1 Template 1*
- *Taking or interfering with water in a watercourse, lake or spring: complete DA Form1 Template 2*
- *Taking overland flow water: complete DA Form 1 Template 3.*

## Waterway barrier works

23.7) Does this application involve **waterway barrier works?**

☐ Yes – the relevant template is completed and attached to this development application

☒ No

*DA templates are available from planning.statedevelopment.qld.gov.au. For a development application involving waterway barrier works, complete DA Form 1 Template 4.*

## Marine activities

23.8) Does this development application involve **aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants?**

☐ Yes – an associated *resource* allocation authority is attached to this development application, if required under the *Fisheries Act 1994*

☒ No

***Note**: See guidance materials at www.daf.qld.gov.au for further information.*

## Quarry materials from a watercourse or lake

23.9) Does this development application involve the **removal of quarry materials from a watercourse or lake** under the *Water Act 2000?*

☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

☒ No

***Note**: Contact the Department of Resources at www.resources.qld.gov.au and www.business.qld.gov.au for further information.*

## Quarry materials from land under tidal waters

23.10) Does this development application involve the **removal of quarry materials from land under tidal water** under the *Coastal Protection and Management Act 1995?*

☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

☒ No

***Note**: Contact the Department of Environment, Science and Innovation at www.desi.qld.gov.au for further information.*

## Referable dams

23.11) Does this development application involve a **referable dam** required to be failure impact assessed under section 343 of the *Water Supply (Safety and Reliability) Act 2008* (the Water Supply Act)?

☐ Yes – the 'Notice Accepting a Failure Impact Assessment' from the chief executive administering the Water Supply Act is attached to this development application

☒ No

***Note**: See guidance materials at www.resources.qld.gov.au for further information.*

**Tidal work or development within a coastal management district**

23.12) Does this development application involve **tidal work or development in a coastal management district**?

☐ Yes – the following is included with this development application:
- ☐ Evidence the proposal meets the code for assessable development that is prescribed tidal work *(only required if application involves prescribed tidal work)*
- ☐ A certificate of title

☒ No

***Note**: See guidance materials at www.desi.qld.gov.au for further information.*

**Queensland and local heritage places**

23.13) Does this development application propose development on or adjoining a place entered in the **Queensland heritage register** or on a place entered in a local government's **Local Heritage Register**?

☐ Yes – details of the heritage place are provided in the table below

☒ No

***Note**: See guidance materials at www.desi.qld.gov.au for information requirements regarding development of Queensland heritage places.*

*For a heritage place that has cultural heritage significance as a local heritage place and a Queensland heritage place, provisions are in place under the Planning Act 2016 that limit a local categorising instrument from including an assessment benchmark about the effect or impact of, development on the stated cultural heritage significance of that place. See guidance materials at www.planning.statedevelopment.qldgov.au for information regarding assessment of Queensland heritage places.*

| Name of the heritage place: | | Place ID: | |
|---|---|---|---|

**Decision under section 62 of the *Transport Infrastructure Act 1994***

23.14) Does this development application involve new or changed access to a state-controlled road?

☐ Yes – this application will be taken to be an application for a decision under section 62 of the *Transport Infrastructure Act 1994* (subject to the conditions in section 75 of the *Transport Infrastructure Act 1994* being satisfied)

☒ No

**Walkable neighbourhoods assessment benchmarks under Schedule 12A of the Planning Regulation**

23.15) Does this development application involve reconfiguring a lot into 2 or more lots in certain residential zones (except rural residential zones), where at least one road is created or extended?

☒ Yes – Schedule 12A is applicable to the development application and the assessment benchmarks contained in schedule 12A have been considered

☐ No

***Note**: See guidance materials at www.planning.statedevelopment.qld.gov.au for further information.*

# PART 8 – CHECKLIST AND APPLICANT DECLARATION

| 24) Development application checklist | |
|---|---|
| I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17<br>***Note**: See the Planning Regulation 2017 for referral requirements* | ☒ Yes |
| If building work is associated with the proposed development, Parts 4 to 6 of *DA Form 2 – Building work details* have been completed and attached to this development application | ☐ Yes<br>☒ Not applicable |
| Supporting information addressing any applicable assessment benchmarks is with the development application<br>***Note**: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see DA Forms Guide: Planning Report Template.* | ☒ Yes |
| Relevant plans of the development are attached to this development application<br>***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.* | ☒ Yes |
| The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued *(see 21)* | ☐ Yes<br>☒ Not applicable |

Queensland Government

| 25) Applicant declaration |
|---|
| ☒ By making this development application, I declare that all information in this development application is true and correct<br>☒ Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the *Electronic Transactions Act 2001*<br>***Note**: It is unlawful to intentionally provide false or misleading information.* |
| **Privacy** – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website.<br>Personal information will not be disclosed for a purpose unrelated to the *Planning Act 2016*, Planning Regulation 2017 and the DA Rules except where:<br>• such disclosure is in accordance with the provisions about public access to documents contained in the *Planning Act 2016* and the Planning Regulation 2017, and the access rules made under the *Planning Act 2016* and Planning Regulation 2017; or<br>• required by other legislation (including the *Right to Information Act 2009*); or<br>• otherwise required by law.<br>This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002.* |

# PART 9 – FOR COMPLETION OF THE ASSESSMENT MANAGER – FOR OFFICE USE ONLY

Date received: | Reference number(s):

| Notification of engagement of alternative assessment manager | |
|---|---|
| Prescribed assessment manager | |
| Name of chosen assessment manager | |
| Date chosen assessment manager engaged | |
| Contact number of chosen assessment manager | |
| Relevant licence number(s) of chosen assessment manager | |

| QLeave notification and payment<br>*Note: For completion by assessment manager if applicable* | | | |
|---|---|---|---|
| Description of the work | | | |
| QLeave project number | | | |
| Amount paid ($) | | Date paid (dd/mm/yy) | |
| Date receipted form sighted by assessment manager | | | |
| Name of officer who sighted the form | | | |

MP ref: M1622-RAL-2
QA: ma.ms

7 August 2024

Assessment Manager
Townsville City Council
PO Box 1268
TOWNSVILLE QLD 4810

**Attention: Planning and Development**

Dear Sir/ Madam,

**Re: Land Owner Consent**

Under the provisions of the *Planning Act 2016*, we **HERBERT SAMUEL TURNER** and **LYNDEL ISABEL OWENS**, being the registered owner of land described as **LOT 1001 ON SP345441** and located at **683 NORTH SHORE BOULEVARD, MOUNT LOW**, do hereby authorise and confirm the engagement and appointment of Milford Planning to act on our behalf with respect to the procurement of all development approvals for the aforementioned land.

| | | | |
|---|---|---|---|
| **Date** | Ninth | August | 2024 |
| | **Day** | **Month** | **Year** |
| **Signature** | Lyndel Owens | | Herbert Turner |
| **Name** | Lyndel Owens | | Herbert Turner |
| **Position** | Partner | | Partner |

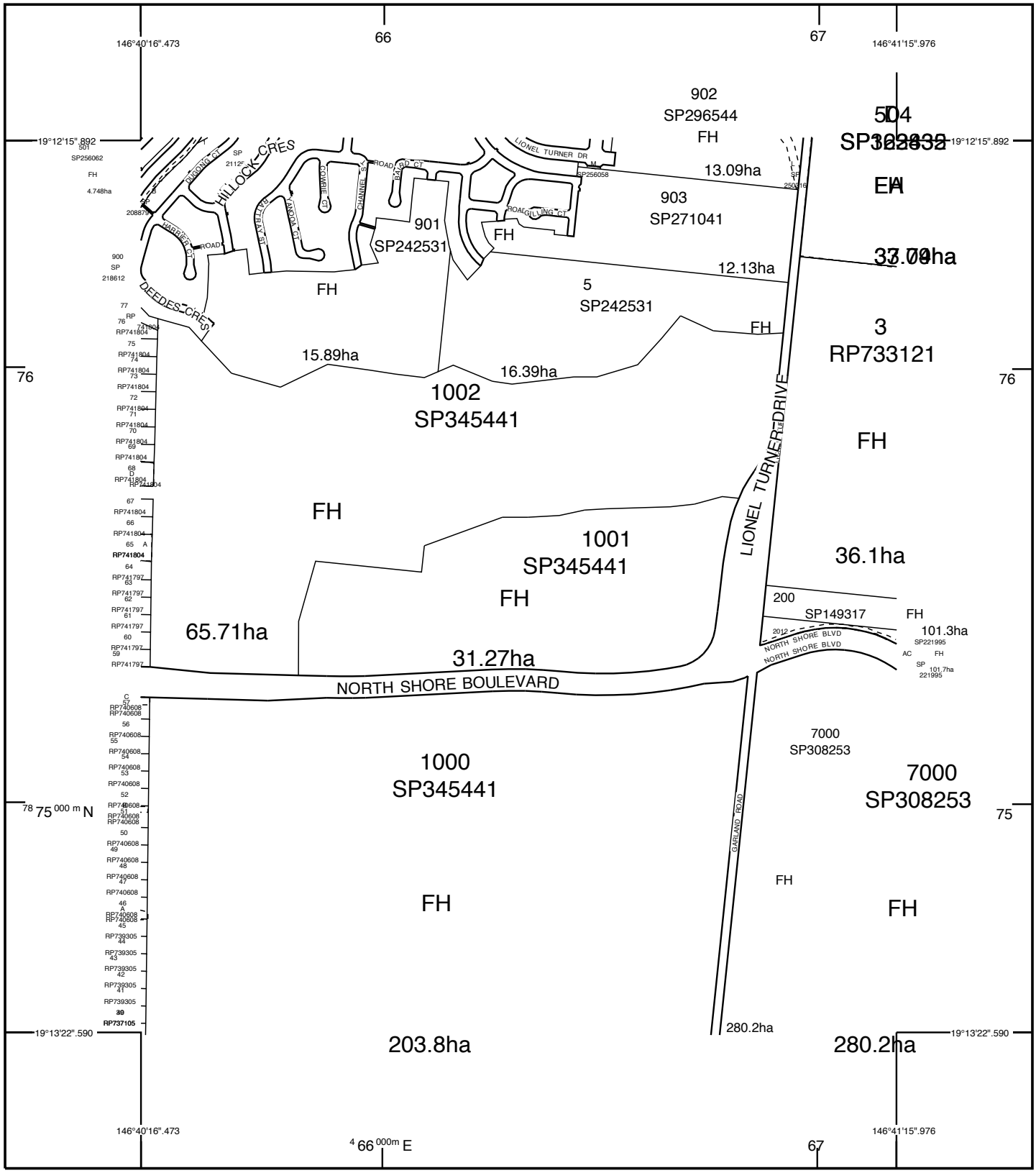
**Note**

Where registered owner is a company the ACN must be included and accompanied by:
(a) the signature of either:
- two directors of the company;
- a director and a company secretary of the company; or
- if a proprietary company that has a sole director who is also the sole company secretary, that director; **or**

(b) the company seal (if the company has a common seal) witnessed by:
- two directors of the company;
- a director and a company secretary of the company; or
- for a propriety company that has a sole director who is also the sole company secretary, that director.

MILFORD PLANNING

# Appendix 2




STANDARD MAP NUMBER
8259-42312

0 250 500 750 1000 1250 m

HORIZONTAL DATUM:GDA94 ZONE:55 SCALE 1 : 12500

MAP WINDOW POSITION & NEAREST LOCATION

146°40'46".225
19°12'49".241
MOUNT LOW
1.08 KM

## SUBJECT PARCEL DESCRIPTION

DCDB

| | |
|---|---|
| Lot/Plan | 1001/SP345441 |
| Area/Volume | 31.27ha |
| Tenure | FREEHOLD |
| Local Government | TOWNSVILLE CITY |
| Locality | MOUNT LOW |
| Segment/Parcel | 63165/481 |

## CLIENT SERVICE STANDARDS

PRINTED 10/07/2024

DCDB 09/07/2024 (Lots with an area less than 1500m² are not shown)

Users of the information recorded in this document (the Information) accept all responsibility and risk associated with the use of the Information and should seek independent professional advice in relation to dealings with property.

Despite Department of Resources best efforts, RESOURCES makes no representations or warranties in relation to the Information, and, to the extent permitted by law, exclude or limit all warranties relating to correctness, accuracy, reliability, completeness or currency and all liability for any direct, indirect and consequential costs, losses, damages and expenses incurred in any way (including but not limited to that arising from negligence) in connection with any use of or reliance on the Information

For further information on SmartMap products visit https://www.qld.gov.au/housing/buying-owning-home/property-land-valuations/smartmaps

**SmartMap**

An External Product of SmartMap Information Services

Based upon an extraction from the Digital Cadastral Data Base

Queensland Government



GDA


MILFORD PLANNING

**Drawing**
Site Aerial

**Property**
683 North Shore, Boulevard
Lot 1001 on SP345441

| Drawing Number | Issue | Sheet |
|---|---|---|
| M1622-RAL-2-SK-01 | A | 1 |
| **Date** | **Author** | **Reviewer** |
| 11.7.24 | HW | MA |

**Legend**
- Cadastre
- Subject Site

**Scale** (A3 Original)
1:5,000

0 40 80 120 160 200 m

**Sources**
Milford Planning GIS (2024)
DCDB extract – State of Queensland (2024)
Aerial imagery – Bing (2024)

**Disclaimer**
Areas and dimensions are approximate only and are subject to site survey.

MILFORD PLANNING

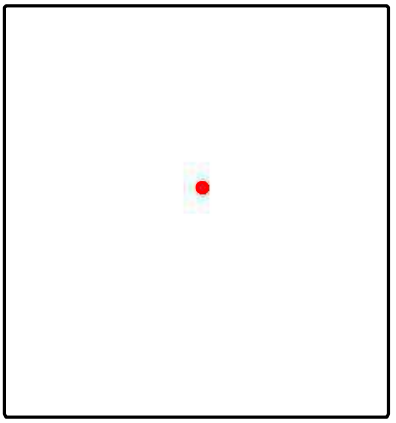
# Appendix 3

# State Assessment and Referral Agency

Date: 06/06/2024

Queensland Government



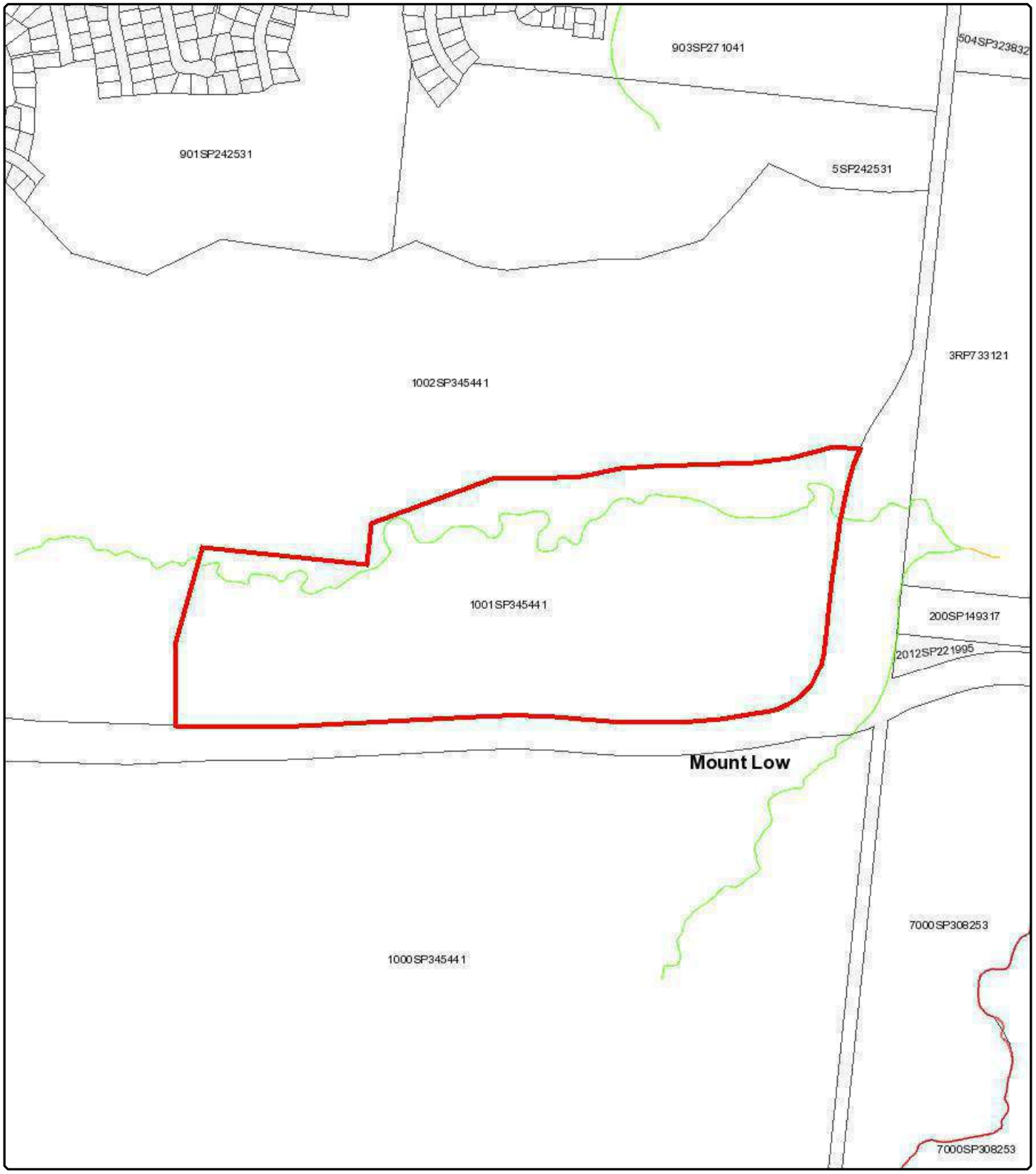


## Matters of Interest for all selected Lot Plans

*Coastal management district*
*Coastal area - erosion prone area*
*Coastal area - medium storm tide inundation area*
*Coastal area - high storm tide inundation area*
*Queensland waterways for waterway barrier works*
*Wetland protection area trigger area*
*Regulated vegetation management map (Category A and B extract)*

## Matters of Interest by Lot Plan

**Lot Plan: 1001SP345441 (Area: 312700 $m^2$)**
*Coastal management district*
*Coastal area - erosion prone area*
*Coastal area - medium storm tide inundation area*
*Coastal area - high storm tide inundation area*
*Queensland waterways for waterway barrier works*
*Wetland protection area trigger area*
*Regulated vegetation management map (Category A and B extract)*




# State Assessment and Referral Agency

Date: 06/06/2024

Queensland Government



0 150 300 450 600

Metres

## *Legend*

**Queensland waterways for waterway barrier works**

- Low
- Moderate
- High
- Major
- Major (tidal)


# State Assessment and Referral Agency

Date: 06/06/2024

Queensland Government



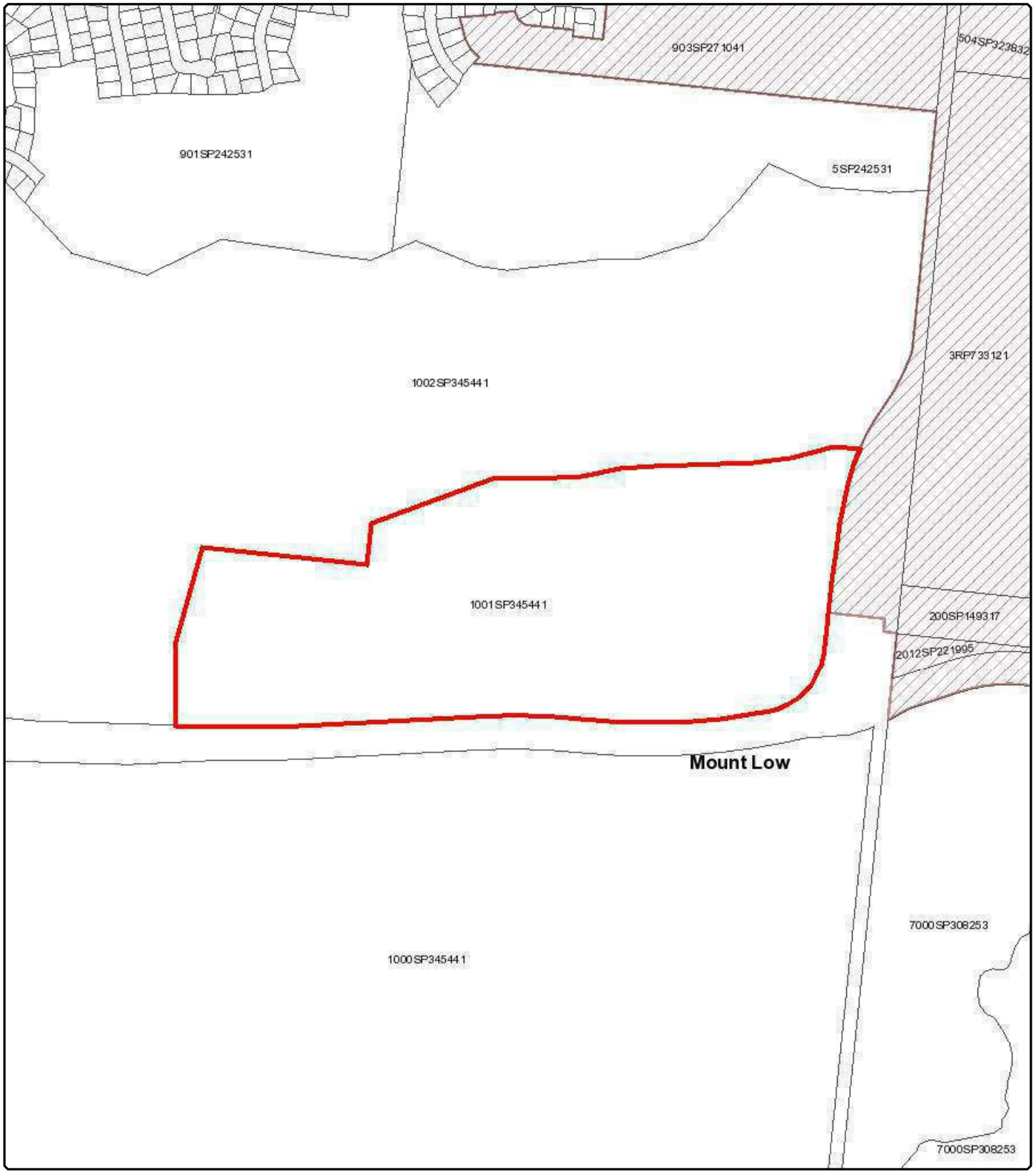
0 150 300 450 600

Metres

## *Legend*

**Regulated vegetation management map (Category A and B extract)**

- Category A on the regulated vegetation management map
- Category B on the regulated vegetation management map




# State Assessment and Referral Agency

Date: 06/06/2024

Queensland Government



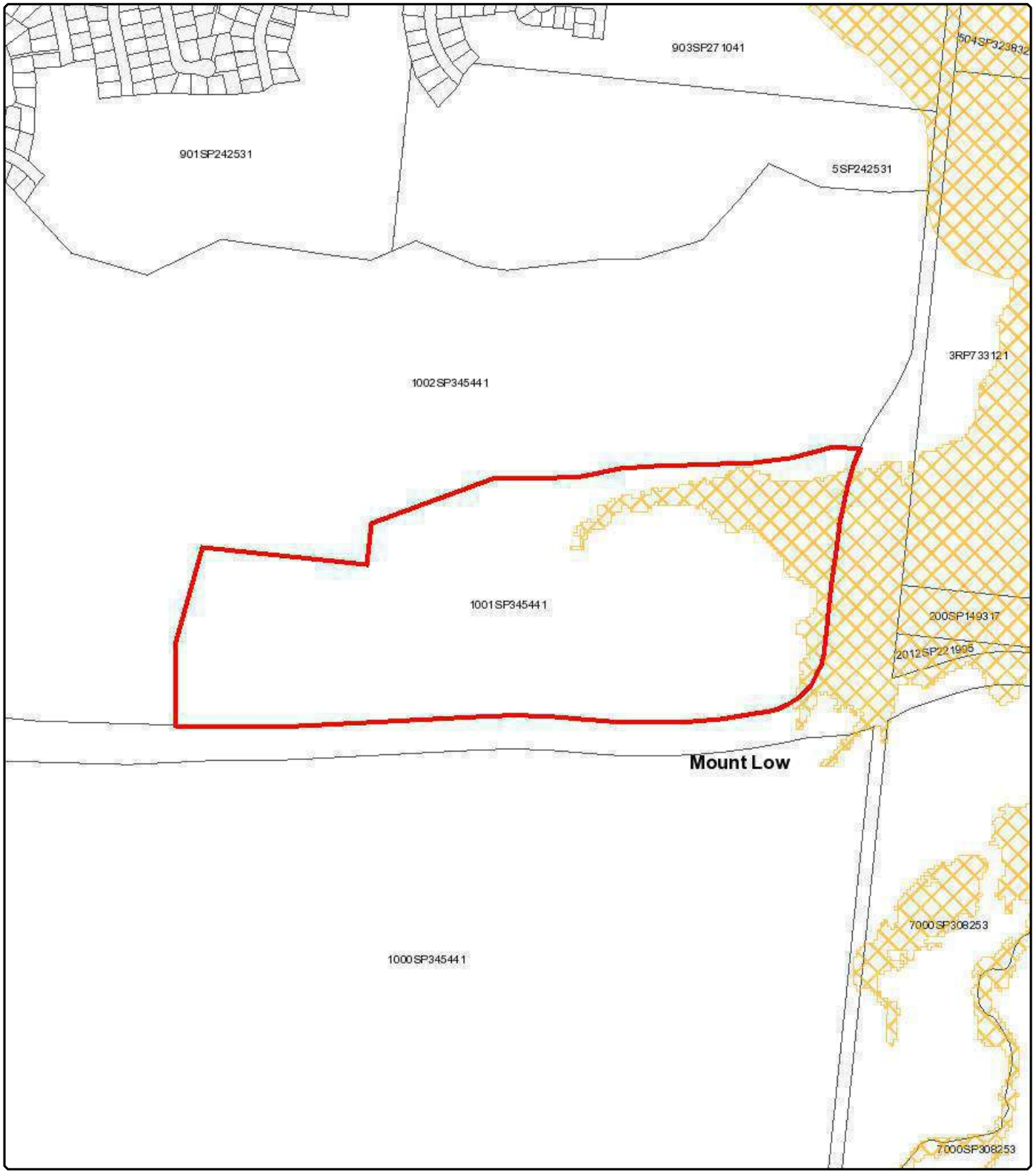
## *Legend*

**Coastal management district**

Coastal management district

0 150 300 450 600

Metres




# State Assessment and Referral Agency

Date: 06/06/2024

Queensland Government



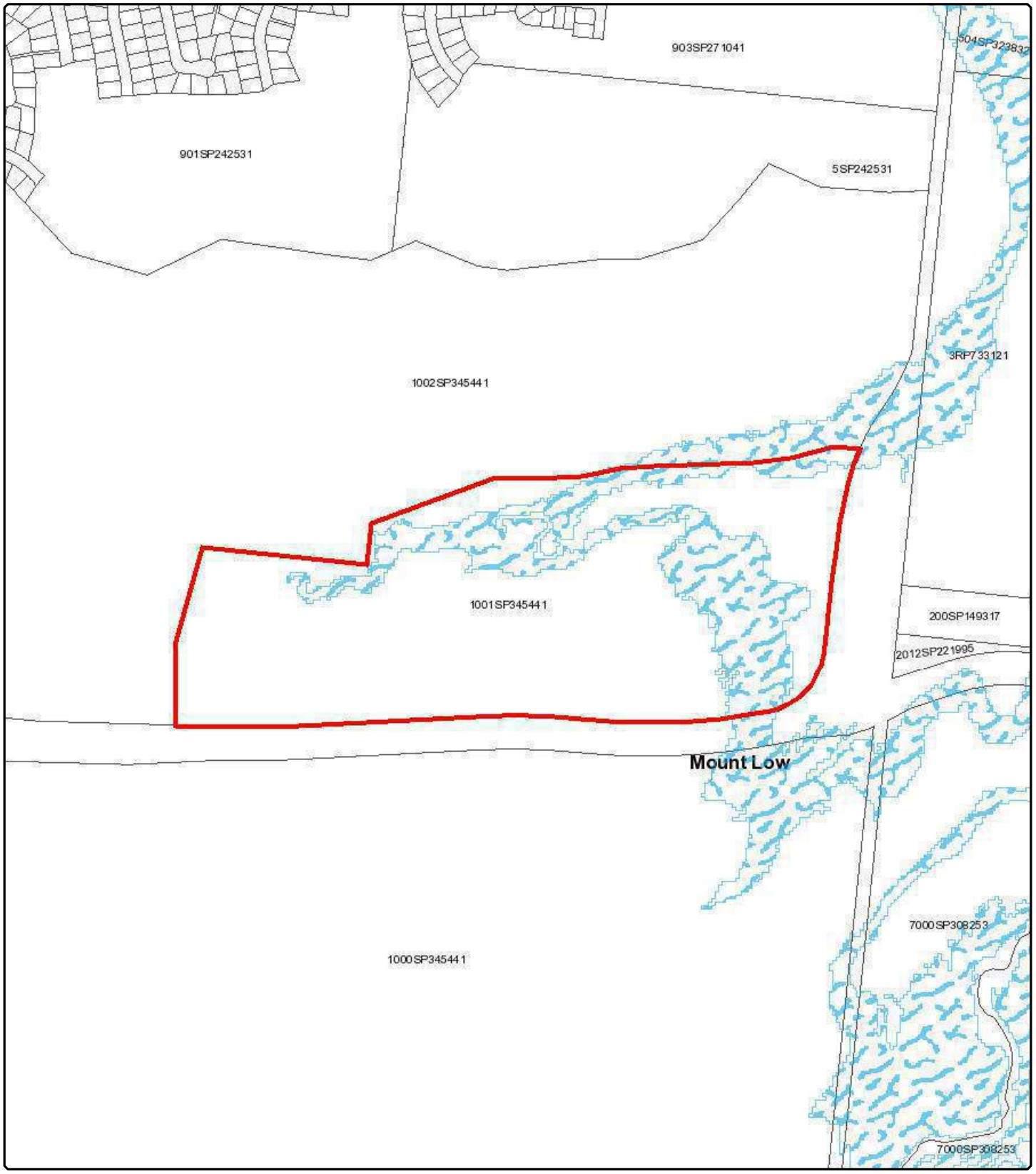
## *Legend*

**Coastal area - erosion prone area**

Coastal area - erosion prone area

0 150 300 450 600

Metres




# State Assessment and Referral Agency

Date: 06/06/2024

Queensland Government



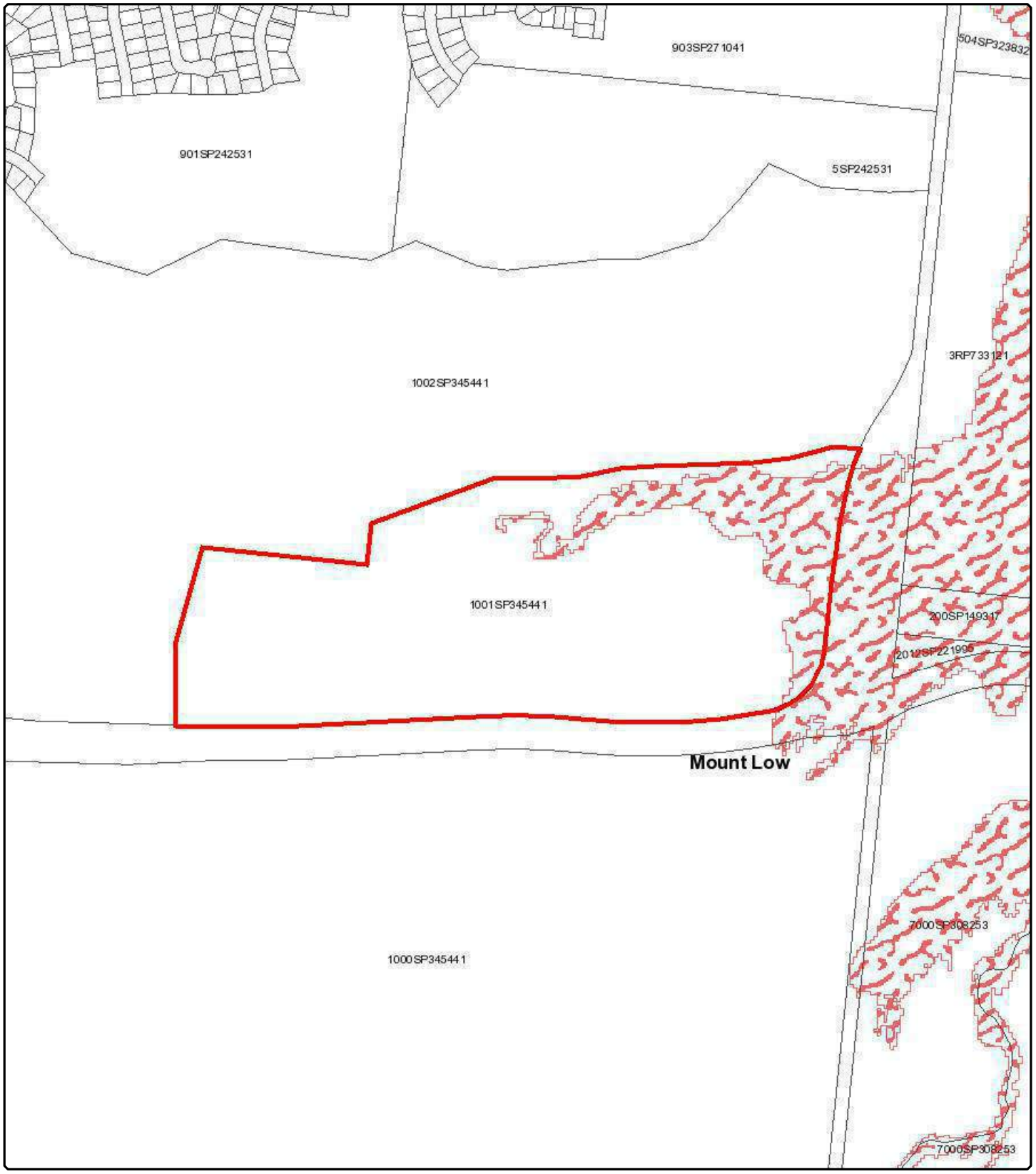
## *Legend*

**Coastal area - medium storm tide inundation area**

Coastal area - medium storm tide inundation area

0 150 300 450 600

Metres




# State Assessment and Referral Agency

Date: 06/06/2024

Queensland Government



N

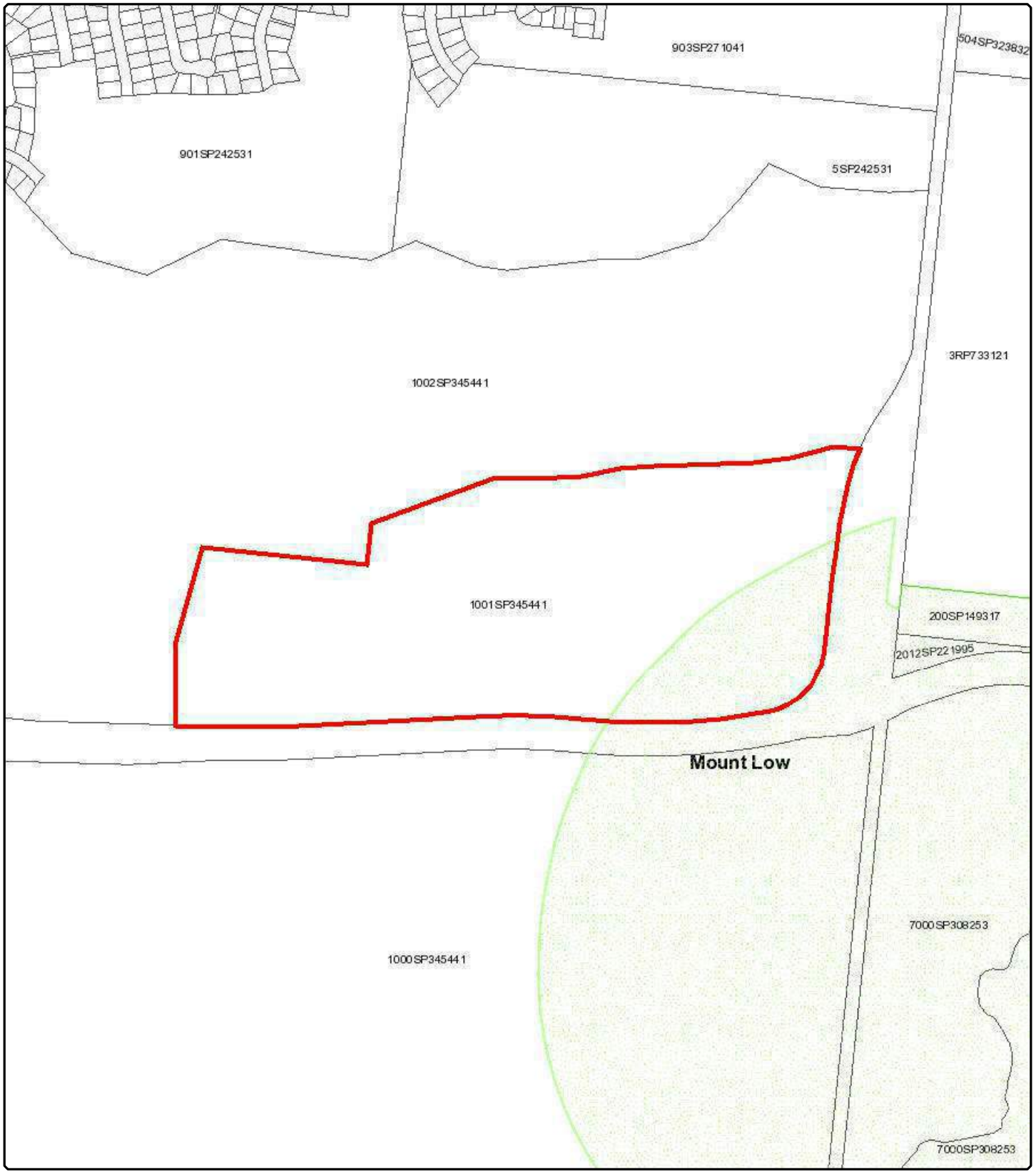
## *Legend*

**Coastal area - high storm tide inundation area**

Coastal area - high storm tide inundation area

0 150 300 450 600

Metres




# State Assessment and Referral Agency

Date: 06/06/2024

Queensland Government



## *Legend*

**Wetland protection area trigger area**

Wetland protection area trigger area

0 150 300 450 600

Metres

MILFORD PLANNING

# Appendix 4

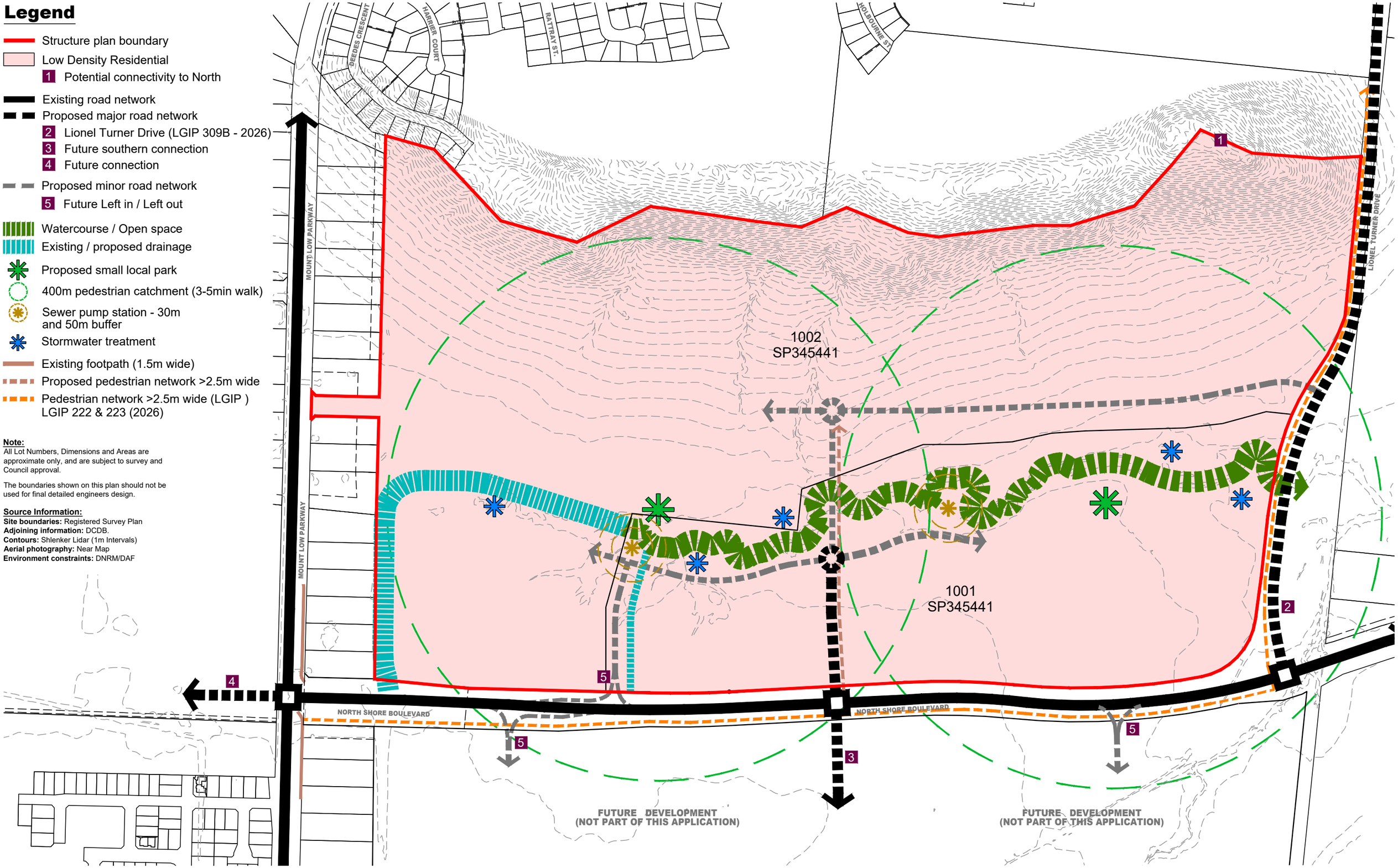
## Legend

- Structure plan boundary
- Low Density Residential
  - 1 Potential connectivity to North
- Existing road network
- Proposed major road network
  - 2 Lionel Turner Drive (LGIP 309B - 2026)
  - 3 Future southern connection
  - 4 Future connection
- Proposed minor road network
  - 5 Future Left in / Left out
- Watercourse / Open space
- Existing / proposed drainage
- Proposed small local park
- 400m pedestrian catchment (3-5min walk)
- Sewer pump station - 30m and 50m buffer
- Stormwater treatment
- Existing footpath (1.5m wide)
- Proposed pedestrian network >2.5m wide
- Pedestrian network >2.5m wide (LGIP ) LGIP 222 & 223 (2026)

**Note:**
All Lot Numbers, Dimensions and Areas are approximate only, and are subject to survey and Council approval.

The boundaries shown on this plan should not be used for final detailed engineers design.

**Source Information:**
**Site boundaries:** Registered Survey Plan
**Adjoining information:** DCDB.
**Contours:** Shlenker Lidar (1m Intervals)
**Aerial photography:** Near Map
**Environment constraints:** DNRM/DAF




| | |
|---|---|
| **PLAN REF:** | **152336 – 09b** |
| **DATE:** | 16th MAY 2024 |
| **CLIENT:** | Bushland Grove Pty Ltd |
| **DRAWN BY:** | MJB |
| **CHECKED BY:** | MJB |

0 50 100 150 200 250 **1 : 5,000 @ A3**

# MOUNT LOW
## STRUCTURE PLAN
## EXISTING LOT 1001 & 1002 SP345441


**URBAN DESIGN**

Unit 1
5-7 Barlow Street
South Townsville QLD 4810
**T** +61 7 4724 4244
**W** rpsgroup.com


| Lot Type | Lot Size | No.of Lots |
|---|---|---|
| | **28m Deep** | |
| Premium Traditional | 20.0m x 28m | 1 |
| | | |
| | **32m Deep** | |
| Courtyard | 15.0m x 32m | 25 |
| Traditional | 18.0m x 32m | 41 |
| Premium Traditional | 20.0m x 32m | 33 |
| Lifestyle | 22.0m x 32m | 26 |
| | | |
| | **35m+ Deep** | |
| Courtyard | 15.0m x 35m | 7 |
| Traditional | 18.0m x 35m | 13 |
| Premium Traditional | 20.0m x 35m | 13 |
| Lifestyle | 22.0m x 35m | 4 |
| **Total** | | **163** |

## Legend

- Site boundary
- Stage boundary
- Watercourse
- Open space & stormwater treatment (within Balance Lot 1003)
- Small local park
- Sewer pump station lot
- Sewer pump station - 30m and 50m buffer

1. Entry statement.
2. 10-14m wide landscaped verge.
3. 2.5m shared footpath.
4. Interim intersection
   Note: The intersection design is based on the existing 2 lane North Shore Boulevard. The future intersection design will include a road connection south.
5. Future Left in / Left out intersection. Not part of this application.
6. Primary stormwater treatment area.
7. Future road connection.

**Note:**
All Lot Numbers, Dimensions and Areas are approximate only, and are subject to survey and Council approval.

Dimensions have been rounded to the nearest 0.1 metres.

Areas have been rounded down to the nearest 5m².

The boundaries shown on this plan should not be used for final detailed engineers design.

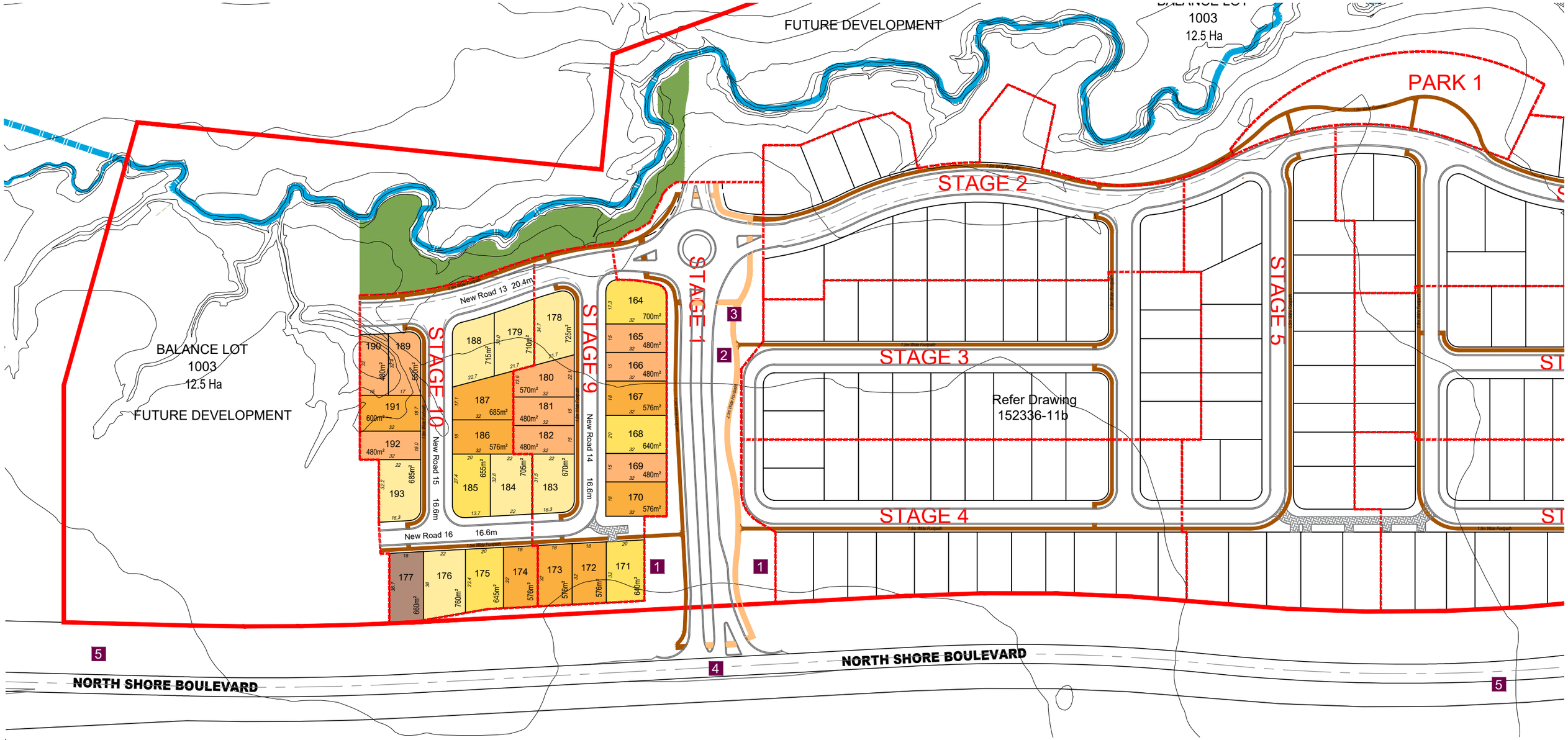
**Source Information:**
**Site boundaries:** Registered Survey Plan.
**Adjoining information:** DCDB.
**Contours:** Shlenker Lidar (0.25m Intervals)

**PLAN REF:** 152336 – 11b
**DATE:** 12th JULY 2024
**CLIENT:** Bushland Grove Pty Ltd
**DRAWN BY:** MJB
**CHECKED BY:** MJB

0 20 40 60 80 100 1 : 2,000 @ A3

# MOUNT LOW
## RAL PROPOSAL PLAN
## 1 INTO 195 LOTS + BALANCE - CANCELLING LOT 1001 SP345441

**URBAN DESIGN**
Unit 1
5-7 Barlow Street
South Townsville QLD 4810
**T** +61 7 4724 4244
**W** rpsgroup.com




| Lot Type | Lot Size | No. of Lots |
|---|---|---|
| | **28m Deep** | |
| Lifestyle | 22m x 28m | 0 |
| | | |
| | **32m Deep** | |
| Courtyard | 15.0m x 32m | 9 |
| Traditional | 18.0m x 32m | 8 |
| Premium Traditional | 20.0m x 32m | 5 |
| Lifestyle | 22.0m x 32m | 7 |
| | | |
| | **35m+ Deep** | |
| Courtyard | 15.0m x 35m | 0 |
| Traditional | 18.0m x 35m | 1 |
| Premium Traditional | 20.0m x 35m | 0 |
| Lifestyle | 22.0m x 35m | 0 |
| **Total** | | **30** |

## Legend

- Site boundary
- Stage boundary
- Watercourse
- Open space & stormwater treatment (within Balance Lot 1003)
- Small local park
- Sewer pump station - 30m and 50m buffer

1. Entry statement.
2. 10-14m wide landscaped verge.
3. 2.5m shared footpath.
4. Interim intersection
   Note: The intersection design is based on the existing 2 lane North Shore Boulevard. The future intersection design will include a road connection south.
5. Future Left in / Left out intersection. Not part of this application.

**Note:**
All Lot Numbers, Dimensions and Areas are approximate only, and are subject to survey and Council approval.

Dimensions have been rounded to the nearest 0.1 metres.

Areas have been rounded down to the nearest 5m².

The boundaries shown on this plan should not be used for final detailed engineers design.

**Source Information:**
**Site boundaries:** Registered Survey Plan.
**Adjoining information:** DCDB.
**Contours:** Shlenker Lidar (0.25m Intervals)

**PLAN REF:** 152336 – 12b
**DATE:** 12th JULY 2024
**CLIENT:** Bushland Grove Pty Ltd
**DRAWN BY:** MJB
**CHECKED BY:** MJB

0 20 40 60 80 100 1 : 2,000 @ A3

# MOUNT LOW
## RAL PROPOSAL PLAN
## 1 INTO 195 LOTS + BALANCE - CANCELLING LOT 1001 SP345441

**URBAN DESIGN**
Unit 1
5-7 Barlow Street
South Townsville QLD 4810
**T** +61 7 4724 4244
**W** rpsgroup.com

## Legend

- Site boundary
- Stage Boundary
- Balance Lot / Future Development

1. Interim intersection
   Note: The intersection design is based on the existing 2 lane North Shore Boulevard. The future intersection design will include a road connection south.
2. Future Left in /Left out intersection. Not part of this application.

**Note:**
All Lot Numbers, Dimensions and Areas are approximate only, and are subject to survey and Council approval.

Dimensions have been rounded to the nearest 0.1 metres.

Areas have been rounded down to the nearest 5m².

The boundaries shown on this plan should not be used for final detailed engineers design.

**Source Information:**
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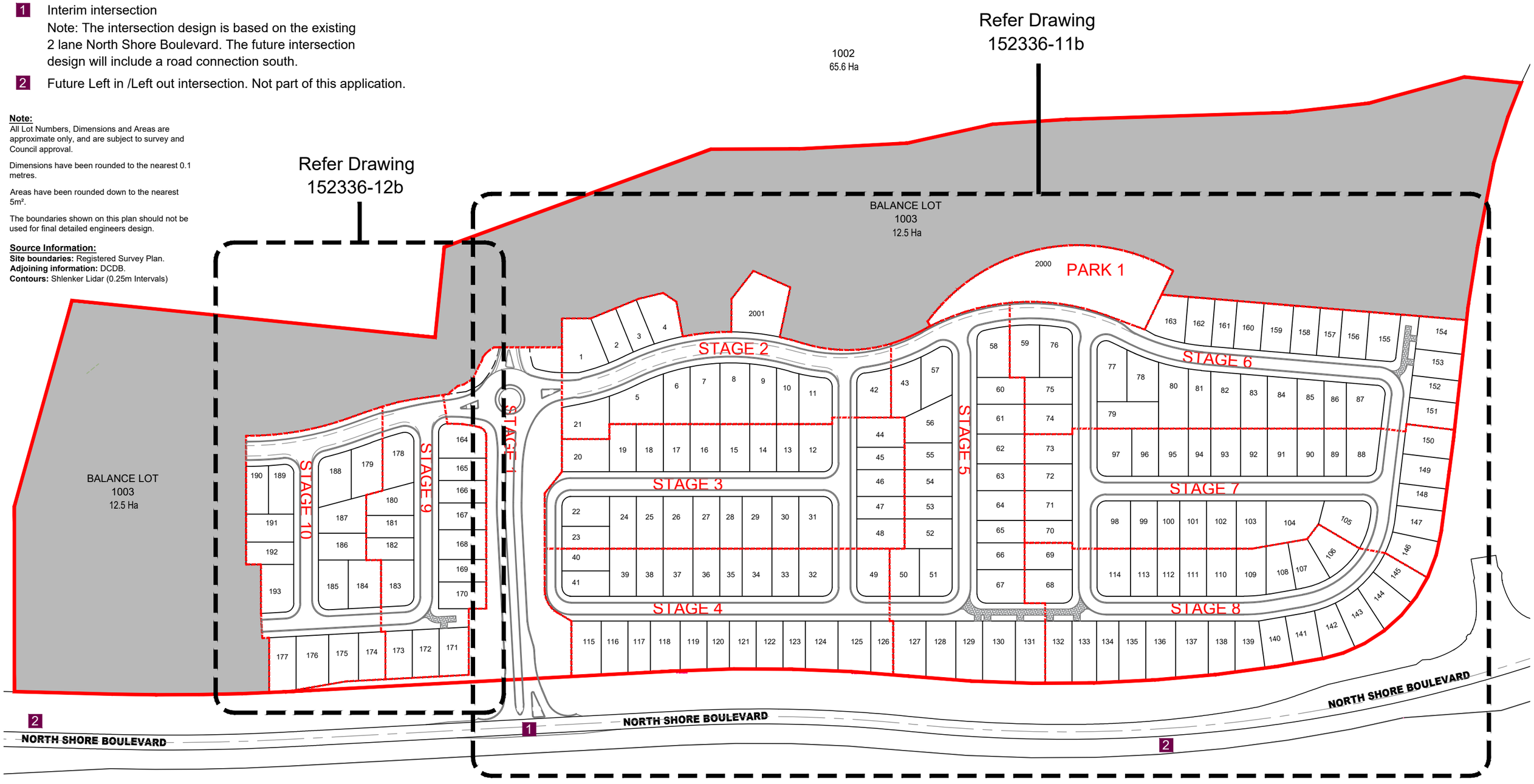



| | |
|---|---|
| **PLAN REF:** | **152336 – 13b** |
| **DATE:** | 12th JULY 2024 |
| **CLIENT:** | Bushland Grove Pty Ltd |
| **DRAWN BY:** | MJB |
| **CHECKED BY:** | MJB |

0 20 40 60 80 100 120 140 **1 : 2,500 @ A3**

# MOUNT LOW
## RAL PROPOSAL PLAN
## 1 INTO 195 LOTS + BALANCE - CANCELLING LOT 1001 SP345441


**URBAN DESIGN**
Unit 1
5-7 Barlow Street
South Townsville QLD 4810
**T** +61 7 4724 4244
**W** rpsgroup.com

MILFORD PLANNING

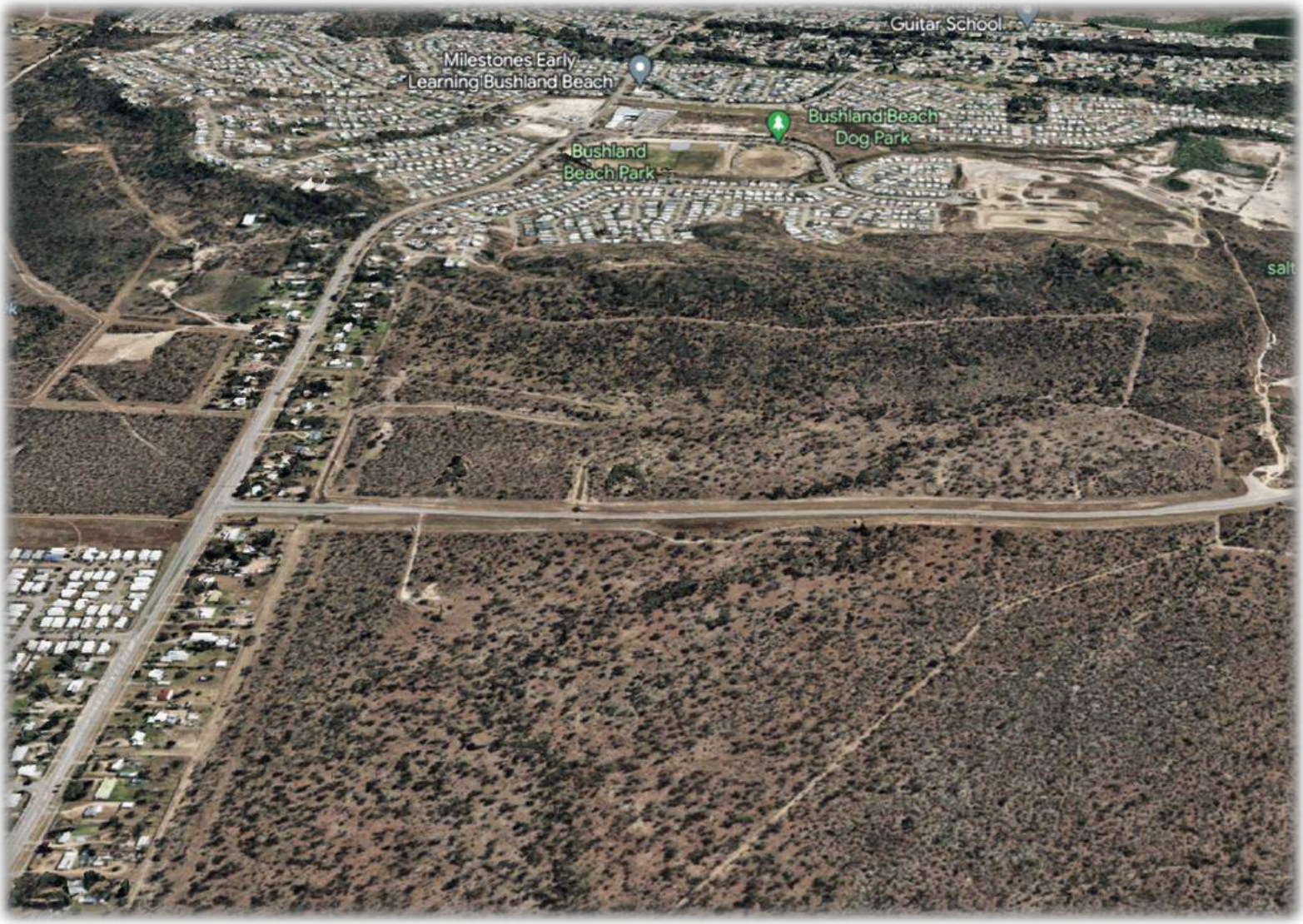
# Appendix 5

# Mount Low Northern Precinct

## Traffic Impact Assessment

Northern Consulting Engineers

19th July 2024



**Gold Coast**
Suite 26, 58 Riverwalk Avenue
Robina QLD 4226
P: (07) 5562 5377

**Brisbane**
Level 2, 428 Upper Edward Street
Spring Hill QLD 4000
P: (07) 3831 4442

**Sydney**
Studio 203, 3 Gladstone Street
Newtown NSW 2042
P: (02) 9557 6202

**W**: www.bitziosconsulting.com.au

**E**: admin@bitziosconsulting.com.au



## Document Issue History

| Report File Name | Prepared | Reviewed | Issued | Date | Issued to |
|---|---|---|---|---|---|
| P6159.001R Mount Low Northern Precinct TIA | R. Tuputala<br>E. Secondes | M. Kimmins | E. Secondes | 28/09/2023 | Andrew Wallace<br>andrew.wallace@nceng.com.au |
| P6159.002R Mount Low Northern Precinct TIA | E. Secondes | E. Secondes | E. Secondes | 31/05/2024 | Andrew Wallace<br>andrew.wallace@nceng.com.au |
| P6159.003R Mount Low Northern Precinct TIA | E. Secondes | E. Secondes | E. Secondes | 19/07/2024 | Andrew Wallace<br>andrew.wallace@nceng.com.au |

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## Figures



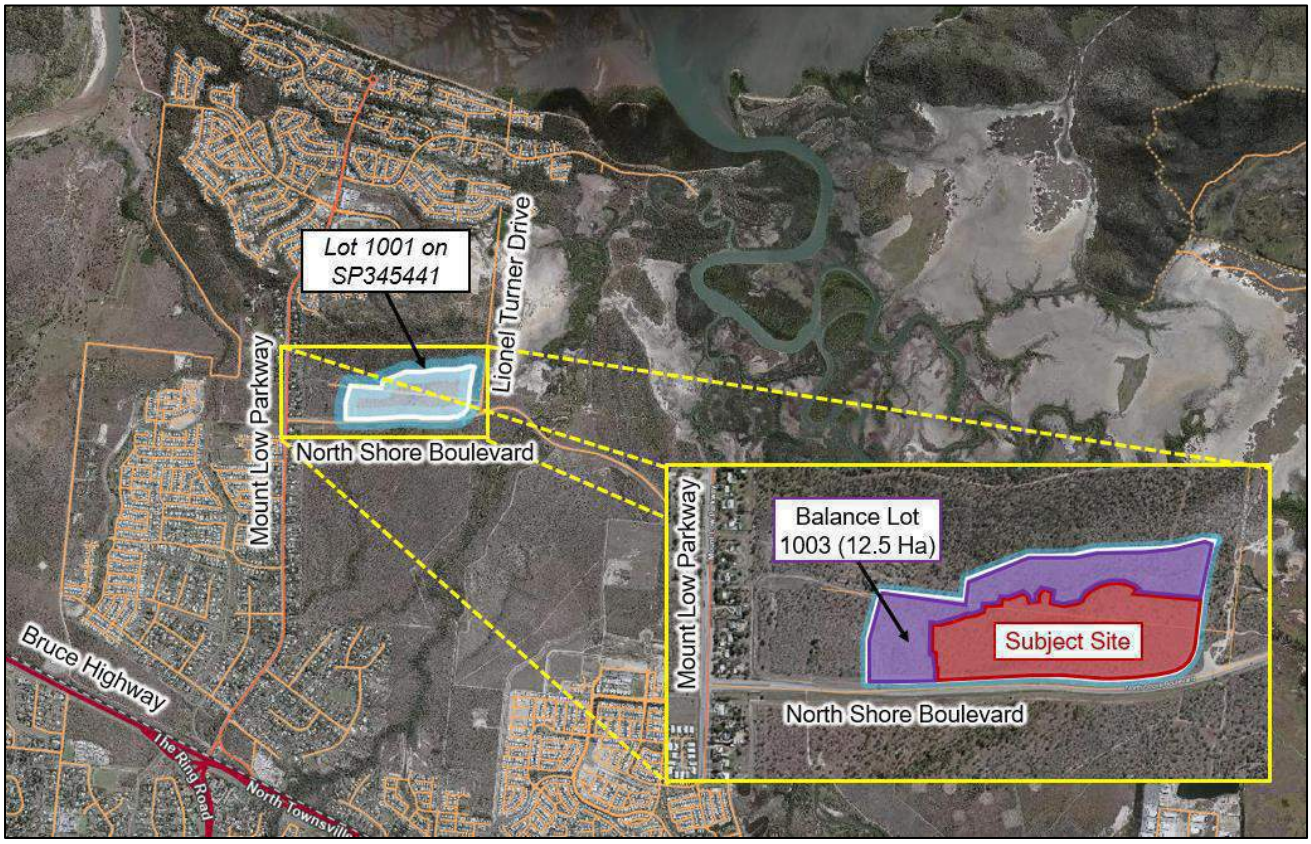
## Appendices

# 1. INTRODUCTION

## 1.1 Overview

Bitzios Consulting has been engaged by Northern Consulting Engineers to provide traffic engineering services in relation to a proposed residential subdivision at the Mount Low Northern Precinct Site (subject site).

The subject site is formally described as Lot 1001 on SP345441 that will be subdivided into 193 residential lots with the balance forming Lot 1003 on SP345441 with a size of approximately 12.3 hectares, as shown in Figure 1.1. The subject site is located within the Townsville City Council (Council) Local Government Area (LGA). The subject site has access via North Shore Boulevard which is connected to Mount Low Parkway and the Bruce Highway.




*Source: QLD Globe*

**Figure 1.1: Site Location**

## 1.2 Scope of Assessment

The scope of this Traffic Impact Assessment (TIA) included the following tasks:

- Reviewing the road network, intersection forms and alignments
- Reviewing the road hierarchy, cross sections, on-street parking provision, lot access locations, intersection locations and other road attributes (i.e., sightlines, cycle lanes) in line with Council's relevant Planning Scheme guidelines, policies and standards
- Reviewing active transport facilities and providing public transport considerations
- Reviewing refuse collection arrangements (bin locations etc.) and undertake swept path analysis using AutoTURN software

- Estimating the traffic generation and distribution for the proposed development based on the previous modelling
- Estimating the future design traffic volumes on the surrounding road network
- Undertaking SIDRA intersection analysis at the following intersection during the peak period of the year of completion
  - North Shore Boulevard / Mount Low Parkway
  - North Shore Boulevard / Road 1
  - North Shore Boulevard / Lionel Turner Drive.
- Identifying the required intersection configurations and mitigation measures that may be warranted, including timing / triggers of when these are required.

## 1.3 Previous Studies

Bitzios Consulting prepared the *Mt Low Master Planned Community – Interim Traffic Modelling and Impact Assessment Report* in 2018 that utilised the 2031 TSTM to create microsimulation traffic models to assess the road network requirements for the interim Mt Low development. The models, assumptions and report have been used to inform the outcomes of this proposed development.

## 1.4 Development Overview

The subject site is currently a greenfield site and will be cleared to facilitate the construction of the proposed development. Key development details are summarised below:

- **Yield:** 193 residential lots ranging in size from 480m$^2$ to 900m$^2$ (to be developed in 10 stages)
- **Access:** Via the Road 1 / Road 2 & 13 roundabout intersection
- **Year of Opening:** First residents living in mid-2026 with full development completion in 2027.

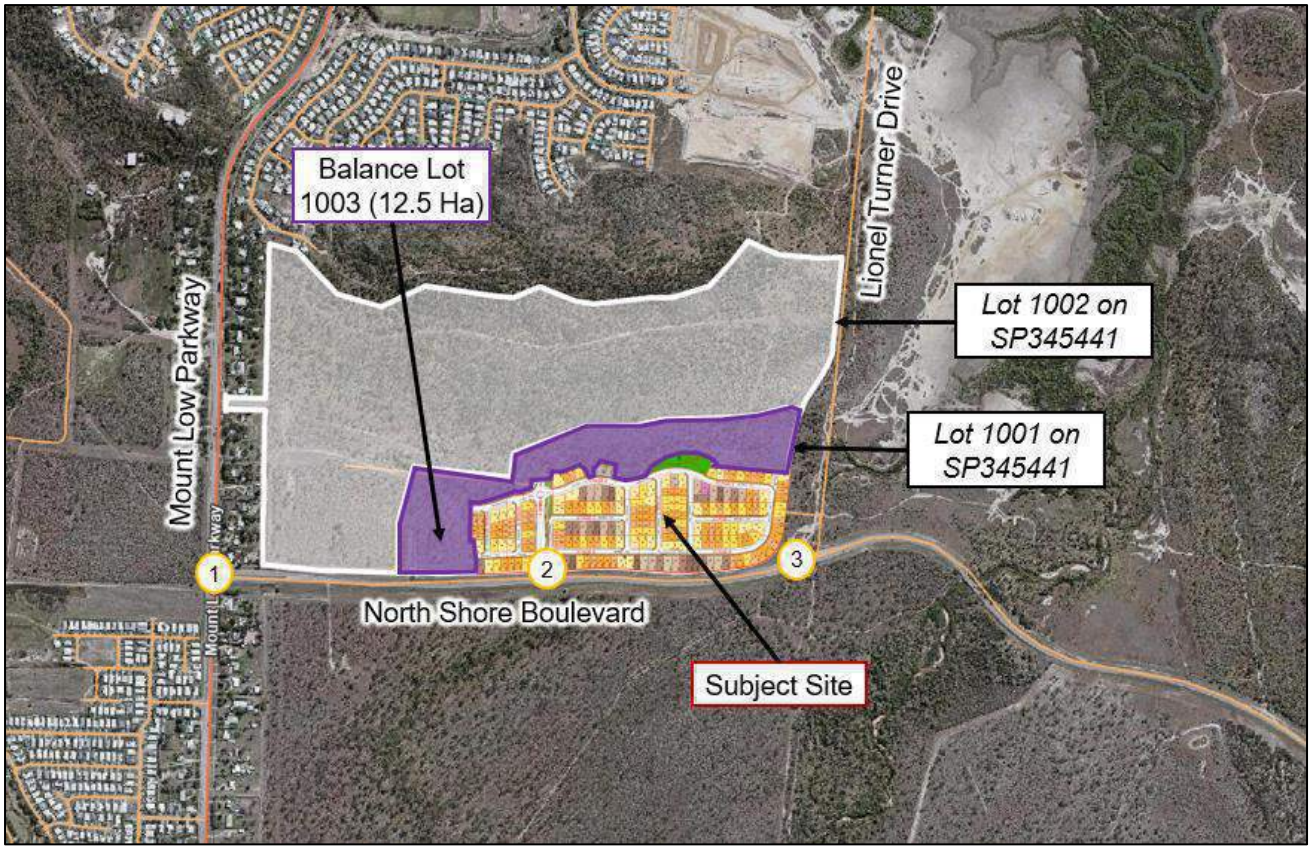
Figure 1.2 shows the proposed development. A copy of the development plans is included at **Appendix A.**


**Figure 1.2: Site Plan**

# 2. EXISTING CONDITIONS

## 2.1 Road Network

Figure 2.1 identifies the existing road network in proximity to the subject site.




*Source: Nearmap*

**Figure 2.1: Road Network**

Details of the road network surrounding the subject site are outlined in Table 2.1.

**Table 2.1: Key Roads**

| Road Name | Jurisdiction | Hierarchy | Lanes | Divided | Posted Speed |
|---|---|---|---|---|---|
| North Shore Boulevard | Council | Sub-Arterial | 1-lane / 2-way | Yes | 80km/h |
| Mount Low Parkway | Council | Arterial / Sub-Arterial | 2-lane / 2-way | Yes | 70km/h |

The key intersections to be assessed are outlined in Table 2.2.

**Table 2.2: Key Intersections**

| ID | Intersection | Jurisdiction | Type |
|---|---|---|---|
| 1 | North Shore Boulevard / Mount Low Parkway | Council | Signalised |
| 2 | North Shore Boulevard / Road 1 | Council | Priority-controlled[1] |
| 3 | North Shore Boulevard / Lionel Turner Drive | Council | Priority-controlled[1] |

[1] *to support the proposed development*

## 2.2 Public Transport

The subject site is located within one (1) kilometre walking distance of the nearest bus stop pair along Mount Low Parkway. Table 2.3 summarises the relevant bus services and their frequencies during peak periods.

**Table 2.3: Public Transport Services**

| Service | Route | Peak Frequency |
|---|---|---|
| 233 | Stockland Townsville Shopping Centre to Bushland Beach | Hourly |

Consultation with TransLink may include altering Route 233 to service the proposed development via North Shore Boulevard. An ideal bus stop location may be proposed on New Road 1.

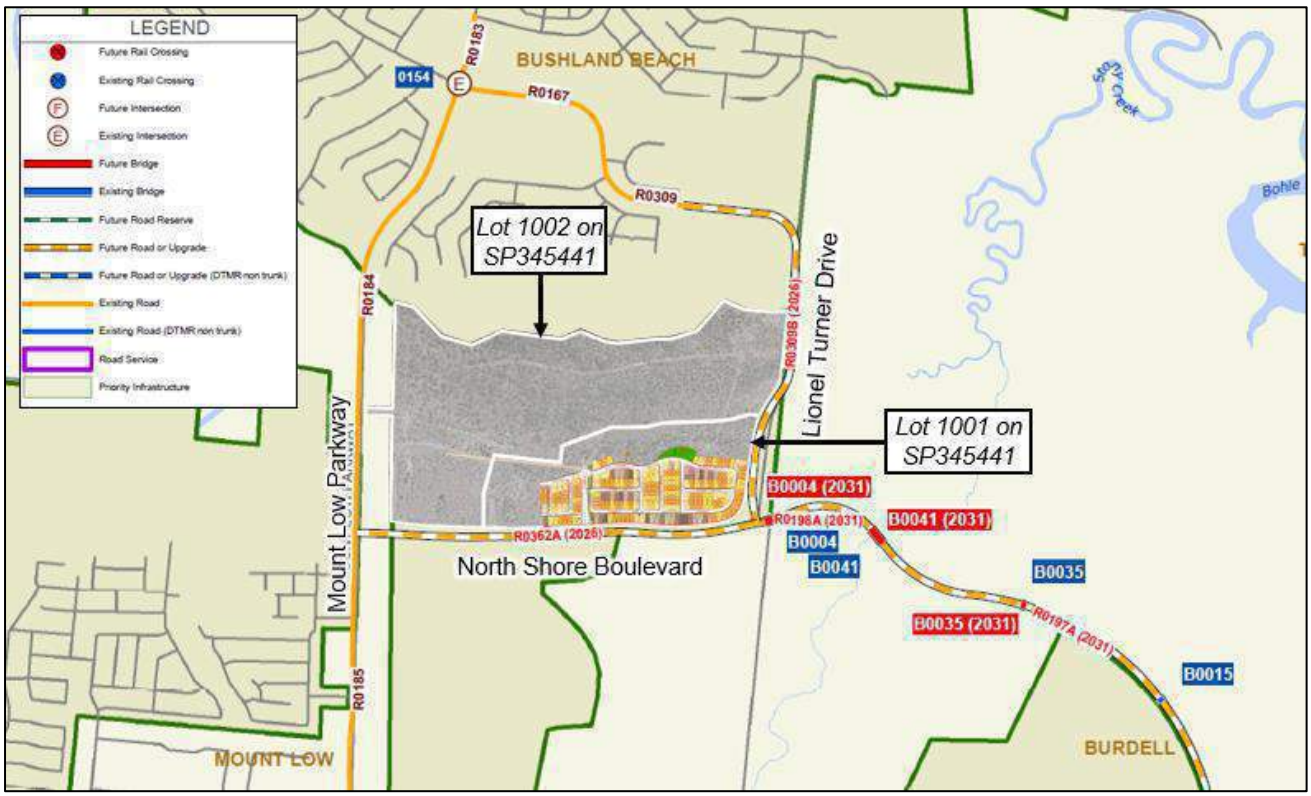
## 2.3 Local Government Infrastructure Plan

A review of Council's Local Government Infrastructure Plan (LGIP) maps shows planned upgrades to the existing road and pathways within vicinity of the subject site. This included transportation roads and pathways.

### 2.3.1 Transportation Roads

The LGIP identified North Shore Boulevard (RA0362A (2026)) and Lionel Turner Drive (R0309B (2026)) as 'future roads or upgrades' to be constructed by 2026, as shown in Figure 2.2. Lionel Turner Drive will be extended to connect to North Shore Boulevard to form a T-intersection.

Council have confirmed that the Lionel Turner Drive upgrade is on schedule, however, the North Shore Boulevard upgrade has been delayed and not planned until after 2041. Therefore, only the Lionel Turner Drive connection will be constructed prior to the year of opening of the full development in 2027.

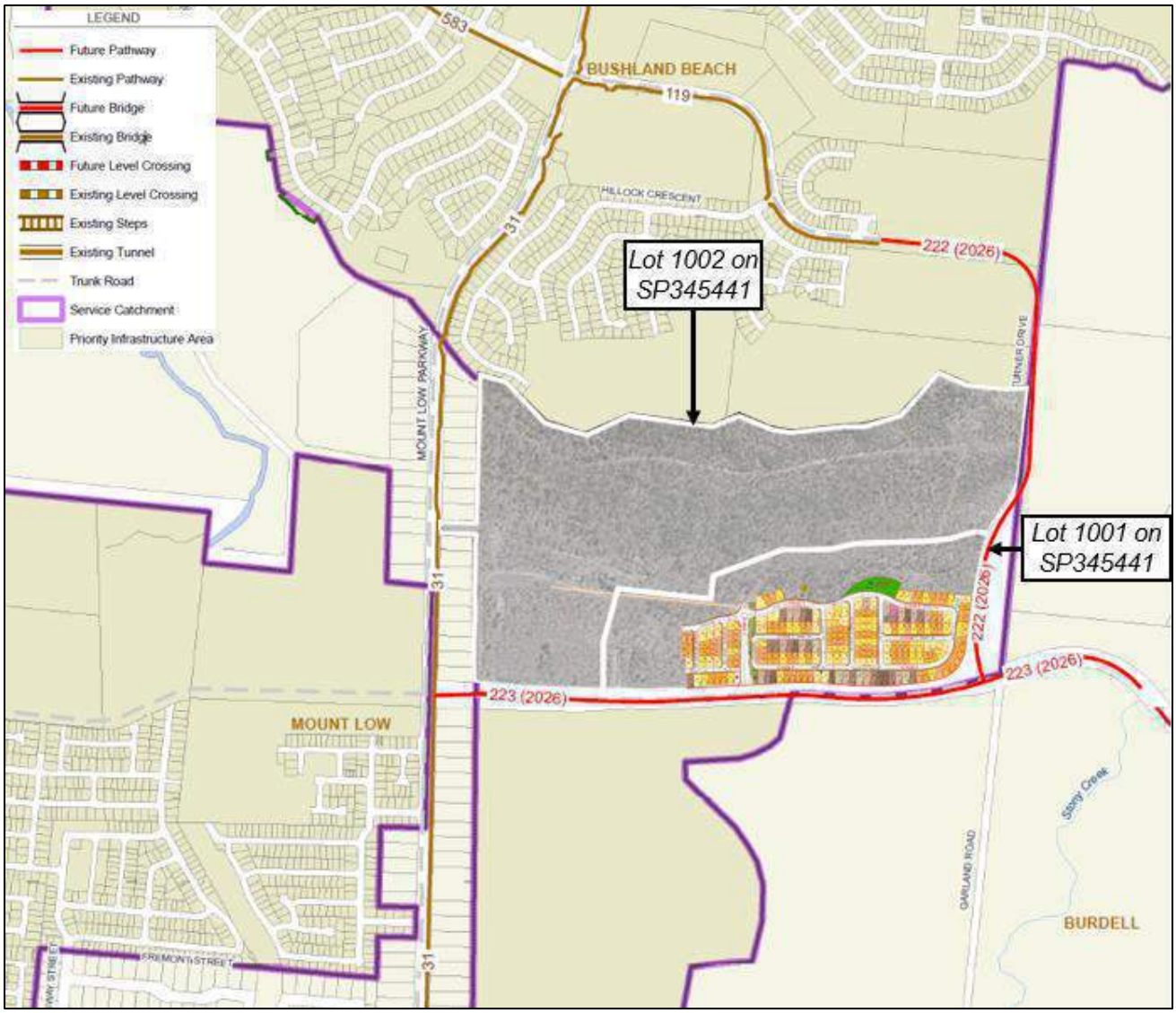



*Source: Council's City Plan (Version 2022/02)*

**Figure 2.2: LGIP – Transportation Roads**

### 2.3.2 Transportation Pathways

The subject site is located within a developing urban area and as such it is expected that the surrounding active transport network will improve as development continues. The LGIP also identified North Shore Boulevard (223 (2026)) and Lionel Turner Drive (222 (2026)) as 'future pathways' which coincide with the future roads, as shown in Figure 2.3.




*Source: Council's City Plan (Version 2022/02)*

**Figure 2.3: LGIP – Transportation Pathways**

# 3. SITE LAYOUT ASSESSMENT

## 3.1 Site Access

Vehicular access to the proposed 193 lots is via the Road 1 / Road 2 / Road 13 roundabout. Road 1 forms the northern approach to the North Shore Boulevard intersection, as shown in Figure 3.1.


**Figure 3.1: Proposed Site Access**

## 3.2 Balance of Developments

As outlined in the previous report (*Mt Low Master Planned Community – Interim Traffic Modelling and Impact Assessment Report, 2018)*, further development is planned to the north of the proposed development comprising of 633 lots and will have access via the Road 1 / Road 2 / Road 13 roundabout. The remaining lots will have a balance land comprising of Lots 1001 and 1002 on SP345441. These developments are shown in Figure 3.2.

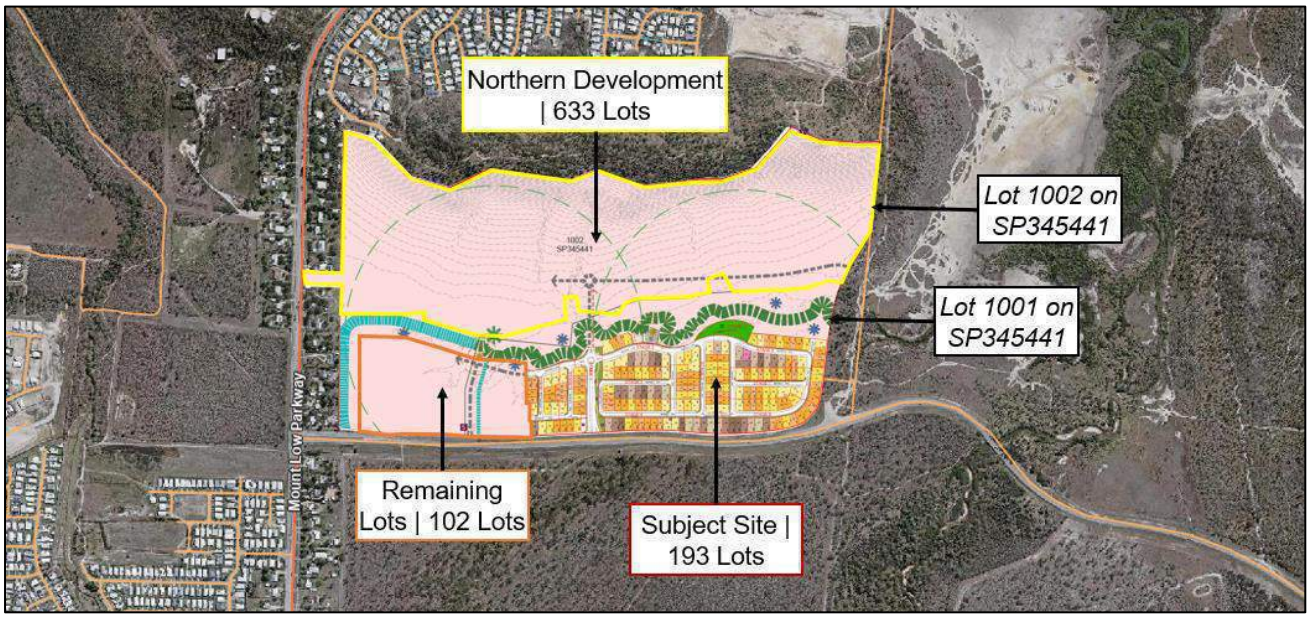



**Figure 3.2: Development Overview North of North Shore Boulevard**

Based on the above, Road 1 will need to be appropriately designed based on the expected traffic generation from all these proposed developments including the future development.

## 3.3 Road Hierarchy

A review has been undertaken to confirm all roads have been designed with suitable capacity to accommodate ultimate traffic volumes. Table 3.1 provides a summary of the relevant road cross sections as per Council's Standard Drawings (SD-001 Version D).

**Table 3.1: Road Cross Sections**

| Hierarchy | Road Reserve | Traffic Volumes | Pavement Width | Verge Width | Footpath |
|---|---|---|---|---|---|
| Major Collector | typically 25.6m to 35.0m | <12,000 daily trips | 16.3-16.4m | 4-6m | 1.5m and 2.5m |
| Minor Collector Street | typically 21.0m | <3,000 daily trips | 11.8m | 4m | 1.5m |
| Access Street | typically 16.6m | <750 daily trips | 7.4m | 4m | 1.5m on one side |
| Access Place | typically 14.6m | <150 daily trips | 5.4m | 4m | 1.5m on one side |

Noting the above, Northern Consulting Engineers have developed alternative road cross sections for this particular development that accord with Council's standards. These have been provided at **Appendix B**.

Using daily traffic generation, Table 3.2 summarises the required and proposed road hierarchy.

**Table 3.2: Road Hierarchy**

| Road | Required Hierarchy | Proposed Road Reserve | Alternative Road Cross Section Requirement | Compliant |
|---|---|---|---|---|
| 1[1] | Major Collector Street | *varies* | *varies* | Yes[2] |
| 2 | Minor Collector Street | 21.0m | 21.0m | Yes |
| 3 | Access Street Modified | 15.5m | 15.5m | Yes |
| 4 | Access Street | 16.6m | 16.6m | Yes |
| 5 | Access Street | 16.6m | 16.6m | Yes |
| 6 | Access Place Modified | 11.5m | 11.5m | Yes |
| 7 | Access Street | 16.6m | 16.6m | Yes |
| 8 | Access Street | 16.6m | 16.6m | Yes |
| 9 | Access Street | 16.6m | 16.6m | Yes |
| 10 | Access Street | 16.6m | 16.6m | Yes |
| 11 | Access Street | 16.6m | 16.6m | Yes |
| 12 | Access Street | 16.6m | 16.6m | Yes |
| 13 | Minor Collector Street Modified | 20.4m | 20.4m | Yes |
| 14 | Access Street | 16.6m | 16.6m | Yes |
| 15 | Access Street | 16.6m | 16.6m | Yes |
| 16 | Access Street | 16.6m | 16.6m | Yes |

*[1] includes the proposed development (193 lots), northern development (633 lots) and the remaining lots (102 lots)*
*[2] to be designed as per Council's Standard Drawing for a Major Collector that includes provision for a bus stop*

As per Council's standard drawings, a Major Collector Street will provide provision for bus stops making Road 1 a suitable location for bus routes to be diverted.

In summary, the proposed road widths and hierarchy complies with Council's requirements and is considered suitable from a traffic engineering perspective.

## 3.4 Sight Distance

A review against Safe Intersection Sight Distance (SISD) requirements has been undertaken at the proposed internal intersections in accordance with Austroads *Guide to Road Design Part 4a* (GTRD4a) (2021). It is noted the minimum sight distance requirement is 97m for a posted speed of 50km/h.

The majority of intersections along the Minor Collector Streets achieved the minimum sight distance requirement. It is noted the New Road 13 / New Road 14 intersection does not achieve the minimum sight distance requirement. This is considered acceptable noting vehicles exiting the roundabout to the east will be travelling at lower speeds.

In summary, the internal intersections provide sufficient SISD and are considered acceptable from a traffic engineering perspective.

## 3.5 Lot Access Locations

Lots located on the corner of an intersection are required to have their driveway access located on the minor road of an intersection and located as far from the intersection as possible.

The access driveways to rear lots were assessed and swept paths show a vehicle can successfully enter / exit the driveways. These swept path diagrams have been provided at **Appendix C**. Typically, these accesses would have easements over them leading to the rear lots.

## 3.6 Street Lengths / Site Layout

The internal road lengths have been designed in accordance with publications such as the Institute of Public Works Engineering Australasia's (IPWEA) '*Complete Streets*' to ensure that vehicle speeds are managed. Complete Streets nominates a maximum and desirable street length based on the road speed which are reproduced below:

- Maximum Street Length: 175m
- Desirable Street Length: 150m

The subject site includes roads exceeding 175m in length and as such, Local Area Traffic Management (LATM) treatments are usually warranted. However, according to Section 2b(vii) of *Schedule 6.4.6.1 – Geometric Road Design* of Councils City Plan, LATM devices are considered unnecessary for appropriately designed new streets and should only be used where no other solution is viable.

The proposed development has been appropriately designed with the internal road hierarchy adhering to Council's standards. Additionally, the subject site has made provisions for future access connections to the future development to the north and west with a northern leg at the New Road 1 / Road 2 / Road 13 roundabout and opportunities to extend on Road 13 and Road 16. The proposed development did not include four-way intersections as part of the development and priority T-intersections are all proposed with >40m separation as per IPWEA's '*Street Design Manual*'.

Given the above, we are of the view that the internal layout complies with Council requirements.

## 3.7 Servicing

All internal roads have been designed to alternative road cross sections that accord with Council's standards and therefore are expected to be suitable to accommodate a Refuse Collection Vehicle (RCV) in accordance with Section 3 of *Schedule 6.4.5.4 – Car Parking)* of Council's City Plan.

Kerbside refuse collection is assumed to service the dwellings using Council's RCV.

The shared access driveway fronting lots 129-133 has been designed to allow Council's RCV. Swept paths showing an RCV can successfully enter / exit the shared access driveway in a forward motion has been provided at **Appendix C**.

Common collection refuse points can be proposed for lots that have access via the access driveways as listed below and shown in Figure 3.3.

- Lot 152, 153, 154 | Adjacent to Lot 155
- Lot 171, 172 | Adjacent to Lot 170.

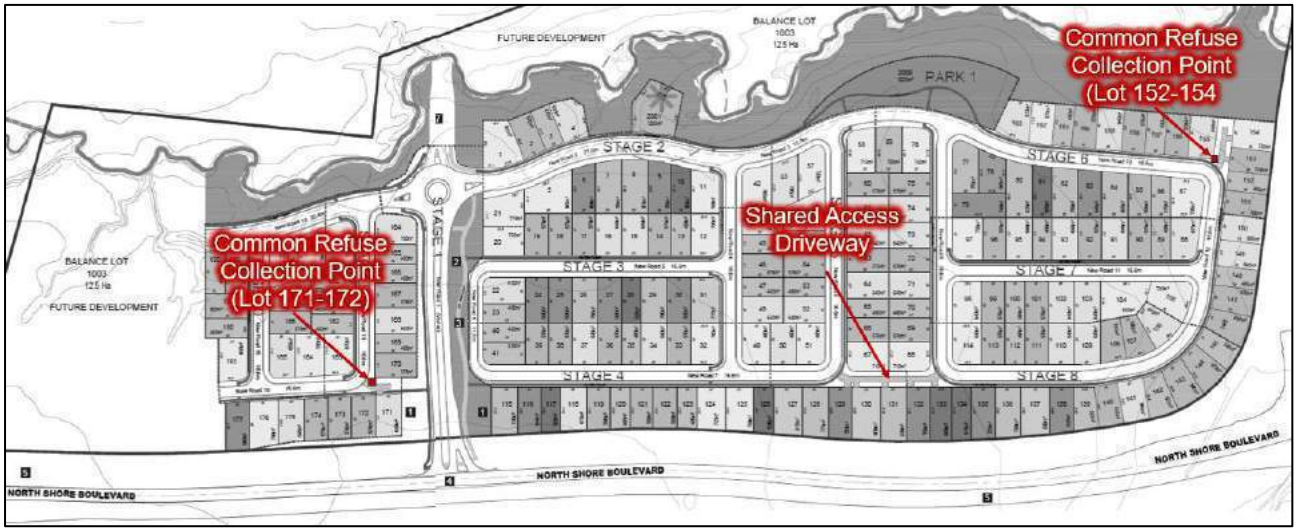



**Figure 3.3: Common Refuse Collection Points**

# 4. TRAFFIC ASSESSMENT

## 4.1 Background Traffic

The Aimsun model from the previous study was used to determine the background traffic. It is understood the previous study has been prepared over the past decade for this development and has been largely accepted by Council.

Volumes were extracted and used for the following key intersections:

- North Shore Boulevard / Mount Low Parkway
- North Shore Boulevard / Road 1
- Mount Low Parkway / Lionel Turner Drive.

## 4.2 Traffic Distribution

The Aimsun model from the previous study was also used to determine the traffic distribution. Each intersection was modelled individually, as such a network diagram illustrating the peak hour traffic volumes are provided at **Appendix D**.

It was assumed that 80% of trips are to / from the south (i.e. Central Townsville), whilst the remaining 20% of trips are to / from the north (i.e. Bushland Beach).

## 4.3 Design Traffic

### 4.3.1 Development Traffic Generation

According to Council's Planning Scheme, the subject site is located within an "Urban area". The daily trip generation rate for a residential component of dwellings in Urban areas are 10 vehicles per day per dwelling. Table 4.1 provides a summary of the adopted trip generation rate and net increase in trips for the proposed development.

**Table 4.1: Development Traffic Generation**

| Land Use | Quantity | Trip Generation Rate (per dwelling) | | | Trips (veh) | | |
|---|---|---|---|---|---|---|---|
| | | AM | PM | Daily | AM | PM | Daily |
| Dwelling House | 193 dwellings | 0.71 | 0.78 | 10 | **(+) 138** | **(+) 151** | **(+) 1,930** |

The proposed development is estimated to result in an increase of 138 trips in the AM, and 151 trips in the PM peak hours as well as 1,930 daily trips. Under uniform flow, the increase in traffic equates to approximately less than three (3) additional trips every minute in the AM and PM peak hour.

### 4.3.2 Development Trip Directionality and Distribution

A typical residential 'IN:OUT' split was adopted for this assessment to estimate the distribution of the development traffic onto the surrounding road network. The adopted 'IN:OUT' splits for the development and the estimated distribution are summarised in Table 4.2.

**Table 4.2: Development Trip Directionality and Distribution**

| Land Use | AM Peak | | PM Peak | |
|---|---|---|---|---|
| | Inbound | Outbound | Inbound | Outbound |
| Dwelling House | 20% | 80% | 70% | 30% |
| | **28** | **110** | **106** | **46** |

## 4.4 Intersection Assessment

### 4.4.1 Overview

SIDRA Intersection 9.1 (SIDRA) software was used to determine the impact of development trips on the surrounding road network. The key intersections assessed are as follows:

- North Shore Boulevard / Mount Low Parkway
- North Shore Boulevard / Road 1
- Mount Low Parkway / Lionel Turner Drive.

The assessment was undertaken for the weekday AM and PM peak hours. Detailed SIDRA outputs for with the development scenarios at the expected year of opening (2027) are provided at **Appendix E**.

The previous study identified intersection layouts for the abovementioned intersections based on the assumed Ultimate level of development in the Mount Low region. Based on this, the North Shore Boulevard / Mount Low Parkway intersection was assessed in the existing layout and the Ultimate layout. The North Shore Boulevard / Road 1 and Mount Low Parkway / Lionel Turner Drive intersections were firstly assessed as an unsignalised layout detailing what was required with the proposed development, and in the Ultimate layout based on the previous modelling assumptions.

The Department of Transport and Main Roads (TMR's) Road Safety Policy (2018) requires pedestrian crossings to be provided on all approaches at signalised intersections. Pedestrian data was not available for the signalised intersections. It was therefore assumed that there were 30 pedestrians per hour for each pedestrian movement for each signalised intersection. This meant that pedestrian movements were called once per intersection cycle which is likely an overestimate.

### 4.4.2 Intersection Level of Service

Table 4.3 details the intersection Level of Service (LOS) thresholds used by SIDRA which are directly related to the average delay in seconds per vehicle.

**Table 4.3: Level of Service Criteria**

| Level of Service | Average Delay per Vehicle (d) | |
|---|---|---|
| | Signals | Sign Control |
| A | d ≤ 10 | d ≤ 10 |
| B | 10 < d ≤ 20 | 10 < d ≤ 15 |
| C | 20 < d ≤ 35 | 15 < d ≤ 25 |
| D | 35 < d ≤ 55 | 25 < d ≤ 35 |
| E | 55 < d ≤ 80 | 35 < d ≤ 50 |
| F | 80 < d | 50 < d |

*SOURCE: SIDRA Intersection 9.1 User Guide – Delay (SIDRA)*

For traffic signals, the average movement delay and LoS over all movements will be taken, while for roundabouts and sign-controlled intersections, the LoS assessment will be based the highest delay movement. As per TMR's Guide to Traffic Impact Assessment (GTIA), a priority controlled intersection or roundabout should be upgraded for safety reasons if the average peak hour delays for any turn movement exceeds 42 seconds (i.e. LOS C).

### 4.4.3 North Shore Boulevard / Mount Low Parkway Intersection – Existing Layout

The current and ultimate layouts of the North Shore Boulevard / Mount Low Parkway intersection are shown in Figure 4.1 and Figure 4.2, respectively. The ultimate layout was based on the previous modelling assumptions.

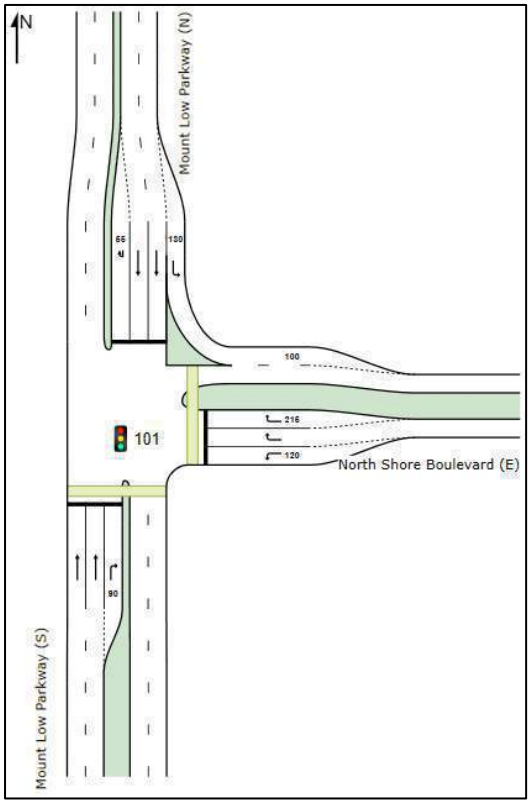



**Figure 4.1: North Shore Boulevard / Mount Low Parkway | Existing SIDRA Layout**

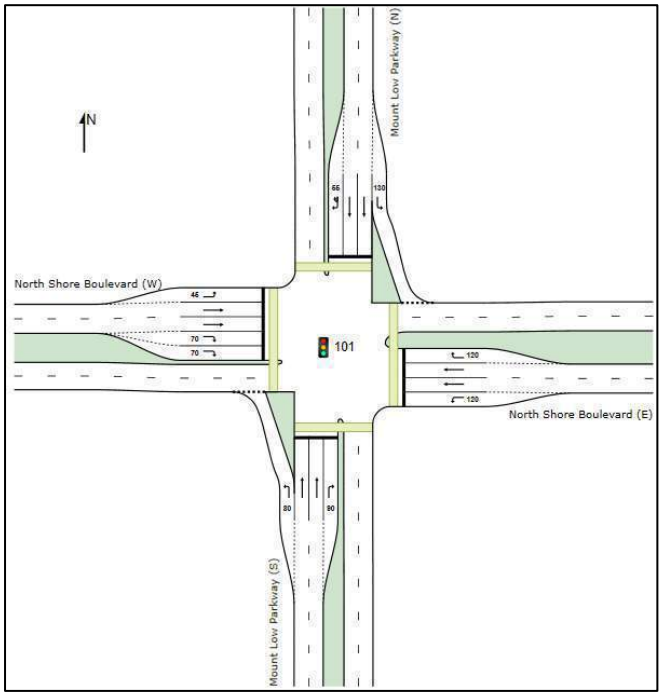



**Figure 4.2: North Shore Boulevard / Mount Low Parkway | Ultimate SIDRA Layout**

The signal phasing used for the North Shore Boulevard / Mount Low Parkway intersection in the existing and ultimate layouts are shown in Figure 4.3.


*Top: Current Layout / Bottom: Ultimate Layout (According to previous modelling)*

**Figure 4.3: North Shore Boulevard / Mount Low Parkway | Ultimate SIDRA Signal Layout**

Table 4.4 summarises the SIDRA results for the existing and proposed North Shore Boulevard / Mount Low Parkway intersection layouts for the AM and PM peak hours.

**Table 4.4: North Shore Boulevard / Mount Low Parkway SIDRA Results Summary**

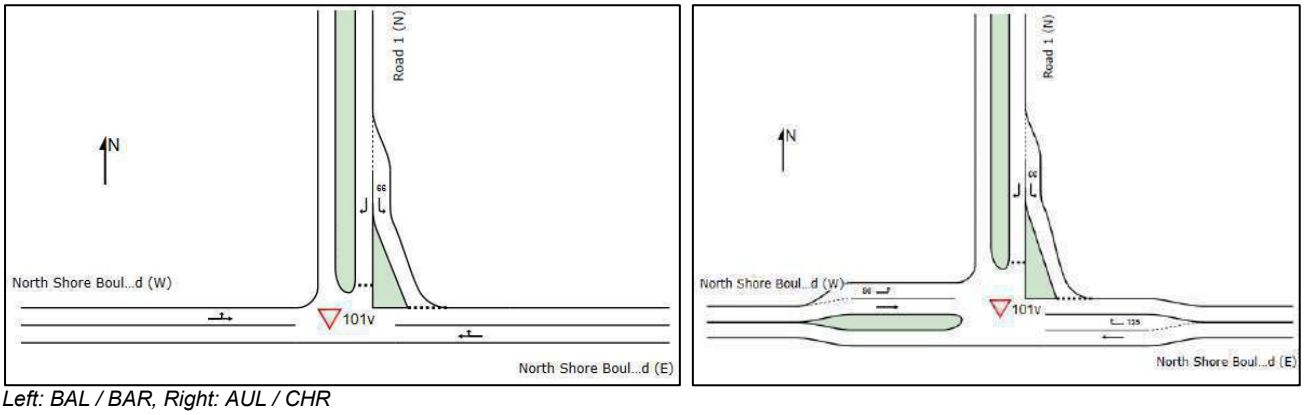
| Approach | Lane | 2027 AM Peak | | | | | 2027 PM Peak | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Vol | DOS (v/c) | Delay (sec) | LOS | Queue (m) | Vol | DOS (v/c) | Delay (sec) | LOS | Queue (m) |
| **3-way Signalised Intersection (Existing)** | | | | | | | | | | | |
| South | T | 122 | 0.05 | 6.5 | LOS A | 8 | 346 | 0.13 | 6.9 | LOS A | 25 |
| | R | 71 | 0.17 | 46.2 | LOS D | 24 | 110 | 0.14 | 29.0 | LOS C | 28 |
| East | L | 124 | 0.17 | 31.7 | LOS C | 34 | 72 | 0.07 | 18.0 | LOS B | 13 |
| | R | 3 | 0.01 | 55.7 | LOS E | 1 | 9 | 0.02 | 56.2 | LOS E | 2 |
| North | L | 8 | 0.00 | 6.8 | LOS A | 0 | 4 | 0.00 | 6.9 | LOS A | 0 |
| | T | 320 | 0.17 | 18.5 | LOS B | 38 | 159 | 0.14 | 33.5 | LOS C | 25 |
| | U | 1 | 0.02 | 68.8 | LOS E | 0 | 1 | 0.02 | 68.8 | LOS E | 0 |
| **TOTAL** | | **649** | **0.17** | **21.9** | **LOS C** | **38** | **701** | **0.14** | **18.3** | **LOS B** | **28** |
| **4-way Signalised Intersection (Ultimate)** | | | | | | | | | | | |
| South | L | 1 | 0.00 | 5.9 | LOS A | 0 | 1 | 0.00 | 6.0 | LOS A | 0 |
| | T | 122 | 0.07 | 21.0 | LOS C | 15 | 346 | 0.18 | 18.0 | LOS B | 41 |
| | R | 71 | 0.25 | 55.1 | LOS E | 27 | 110 | 0.19 | 38.6 | LOS D | 34 |
| East | L | 124 | 0.26 | 44.3 | LOS D | 42 | 72 | 0.19 | 49.4 | LOS D | 26 |
| | T | 1 | 0.00 | 33.6 | LOS C | 0 | 1 | 0.00 | 39.4 | LOS D | 0 |
| | R | 3 | 0.01 | 58.1 | LOS E | 1 | 9 | 0.09 | 67.7 | LOS E | 4 |
| North | L | 8 | 0.01 | 7.2 | LOS A | 0 | 4 | 0.00 | 7.3 | LOS A | 0 |
| | T | 320 | 0.26 | 31.9 | LOS C | 50 | 159 | 0.19 | 40.5 | LOS D | 28 |
| | R | 1 | 0.02 | 65.2 | LOS E | 1 | 1 | 0.03 | 66.8 | LOS E | 1 |
| | U | 1 | 0.02 | 67.2 | LOS E | 1 | 1 | 0.03 | 68.8 | LOS E | 1 |
| West[1] | L | 1 | 0.00 | 44.4 | LOS D | 0 | 1 | 0.00 | 44.4 | LOS D | 0 |
| | T | 1 | 0.00 | 38.6 | LOS D | 0 | 1 | 0.00 | 38.6 | LOS D | 0 |
| | R | 1 | 0.01 | 65.3 | LOS E | 0 | 1 | 0.01 | 65.3 | LOS E | 0 |
| **TOTAL** | | **655** | **0.26** | **34.7** | **LOS C** | **50** | **707** | **0.19** | **30.3** | **LOS C** | **41** |

*[1]No volumes were assumed on this approach, however, SIDRA requires at least one (1) vehicle*

As shown, the North Shore Boulevard / Mount Low Parkway intersection is expected to operate within acceptable performance limits (DOS < 0.9) for a signalised intersection at the expected year of opening (2027) with the proposed 193 lots in the existing and ultimate intersection layouts.

### 4.4.4 North Shore Boulevard / Road 1 Intersection

The unsignalised and ultimate layouts of the North Shore Boulevard / Road 1 intersection are shown in Figure 4.4 and Figure 4.5, respectively. The turn warrant assessment showed only a BAL / BAR are required for the proposed development, however, an assessment for an AUL / CHR was also conducted as an alternative option. The ultimate layout was based on the previous modelling assumptions.




*Left: BAL / BAR, Right: AUL / CHR*

**Figure 4.4: North Shore Boulevard / Road 1 | Priority Controlled Layout**

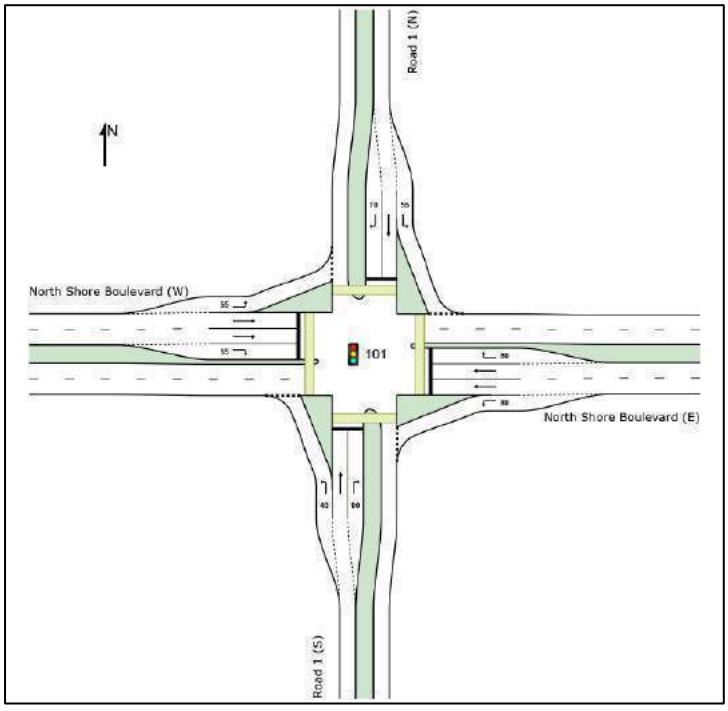



**Figure 4.5: North Shore Boulevard / Road 1 | Ultimate SIDRA Layout**

The signal phasing used for the ultimate signalised intersection is shown in Figure 4.6.

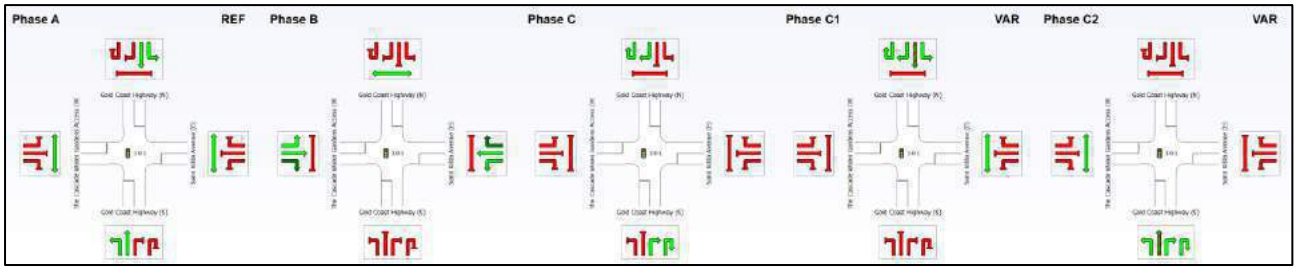



**Figure 4.6: North Shore Boulevard / Road 1 | Ultimate SIDRA Signal Layout**

Table 4.5 summarises the SIDRA results for the North Shore Boulevard / Road 1 intersection for the AM and PM peak hours.

**Table 4.5: North Shore Boulevard / Road 1 SIDRA Results Summary**

| Approach | Lane | 2027 AM Peak | | | | | 2027 PM Peak | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Vol | DOS (v/c) | Delay (sec) | LOS | Queue (m) | Vol | DOS (v/c) | Delay (sec) | LOS | Queue (m) |
| **3-way Priority-Controlled (BAL / BAR)** | | | | | | | | | | | |
| East | T | 45 | 0.03 | 0.0 | LOS A | 0 | 58 | 0.06 | 0.2 | LOS A | 2 |
| | R | 5 | 0.03 | 7.4 | LOS A | 0 | 38 | 0.06 | 7.6 | LOS A | 2 |
| North | L | 27 | 0.02 | 4.8 | LOS A | 1 | 9 | 0.01 | 4.7 | LOS A | 0 |
| | R | 83 | 0.08 | 5.1 | LOS A | 2 | 37 | 0.04 | 5.3 | LOS A | 1 |
| West | L | 23 | 0.05 | 7.0 | LOS A | 0 | 68 | 0.07 | 7.0 | LOS A | 0 |
| | T | 77 | 0.05 | 0.0 | LOS A | 0 | 57 | 0.07 | 0.0 | LOS A | 0 |
| **TOTAL** | | **260** | **0.08** | **7.4** | **LOS A** | **2** | **267** | **0.07** | **7.6** | **LOS A** | **2** |
| **3-way Priority-Controlled (AUL / CHR)** | | | | | | | | | | | |
| East | T | 45 | 0.02 | 0.0 | LOS A | 0 | 58 | 0.03 | 0.0 | LOS A | 0 |
| | R | 5 | 0.00 | 7.5 | LOS A | 0 | 38 | 0.03 | 7.6 | LOS A | 1 |
| North | L | 27 | 0.02 | 4.8 | LOS A | 1 | 9 | 0.01 | 4.7 | LOS A | 0 |
| | R | 83 | 0.09 | 5.6 | LOS A | 3 | 37 | 0.04 | 5.9 | LOS A | 1 |
| West | L | 23 | 0.01 | 7.0 | LOS A | 0 | 68 | 0.04 | 7.0 | LOS A | 0 |
| | T | 77 | 0.04 | 0.0 | LOS A | 0 | 57 | 0.03 | 0.0 | LOS A | 0 |
| **TOTAL** | | **260** | **0.09** | **7.5** | **LOS A** | **3** | **267** | **0.04** | **7.6** | **LOS A** | **1** |
| **4-way Signalised Intersection (Ultimate)** | | | | | | | | | | | |
| South[1] | L | 1 | 0.00 | 5.2 | LOS A | 0 | 1 | 0.00 | 5.1 | LOS A | 0 |
| | T | 1 | 0.00 | 50.1 | LOS D | 0 | 1 | 0.00 | 50.1 | LOS D | 0 |
| | R | 1 | 0.00 | 27.7 | LOS C | 0 | 1 | 0.00 | 39.2 | LOS D | 0 |
| East | L | 1 | 0.00 | 7.7 | LOS A | 0 | 1 | 0.00 | 7.7 | LOS A | 0 |
| | T | 45 | 0.10 | 37.8 | LOS D | 15 | 58 | 0.08 | 25.6 | LOS C | 16 |
| | R | 5 | 0.01 | 30.6 | LOS C | 1 | 38 | 0.07 | 39.3 | LOS D | 12 |
| North | L | 27 | 0.02 | 5.1 | LOS A | 1 | 9 | 0.01 | 5.0 | LOS A | 0 |
| | T | 1 | 0.00 | 50.1 | LOS D | 0 | 1 | 0.00 | 50.1 | LOS D | 0 |
| | R | 83 | 0.12 | 29.2 | LOS C | 22 | 37 | 0.08 | 40.6 | LOS D | 12 |
| West | L | 23 | 0.02 | 7.7 | LOS A | 1 | 68 | 0.05 | 7.8 | LOS A | 2 |
| | T | 77 | 0.12 | 28.8 | LOS C | 22 | 57 | 0.07 | 20.9 | LOS C | 14 |
| | R | 1 | 0.01 | 67.4 | LOS E | 0 | 1 | 0.01 | 67.4 | LOS E | 0 |
| **TOTAL** | | **266** | **0.12** | **26.4** | **LOS C** | **22** | **273** | **0.08** | **23.7** | **LOS C** | **16** |

*[1]No volumes were assumed on this approach, however, SIDRA requires at least one (1) vehicle*

As shown, the North Shore Boulevard / Road 1 intersection is expected to operate well within acceptable performance limits (DOS < 0.9) under the BAL / BAR configuration at the expected year of opening in 2027 with the proposed 193 lots. As expected, it also operates satisfactorily under the

AUL / CHR configuration which is a suitable alternative option. Preliminary investigation showed the AUL / CHR configuration is capable of servicing the full northern development (928 lots) as per Figure 3.2. However, further investigation would be required. Lastly, the intersection operates satisfactorily as a 4-way signalised intersection (ultimate).

### 4.4.5 North Shore Boulevard / Lionel Turner Drive Intersection

The unsignalised and ultimate layouts of the North Shore Boulevard / Lionel Turner Drive intersection are shown in Figure 4.7 and Figure 4.9, respectively. It is understood that the intersection will be initially unsignalised that will be later upgraded to signals. The turn warrant assessment showed a BAL and CHR are required for this intersection The ultimate layout was based on the previous modelling assumptions.

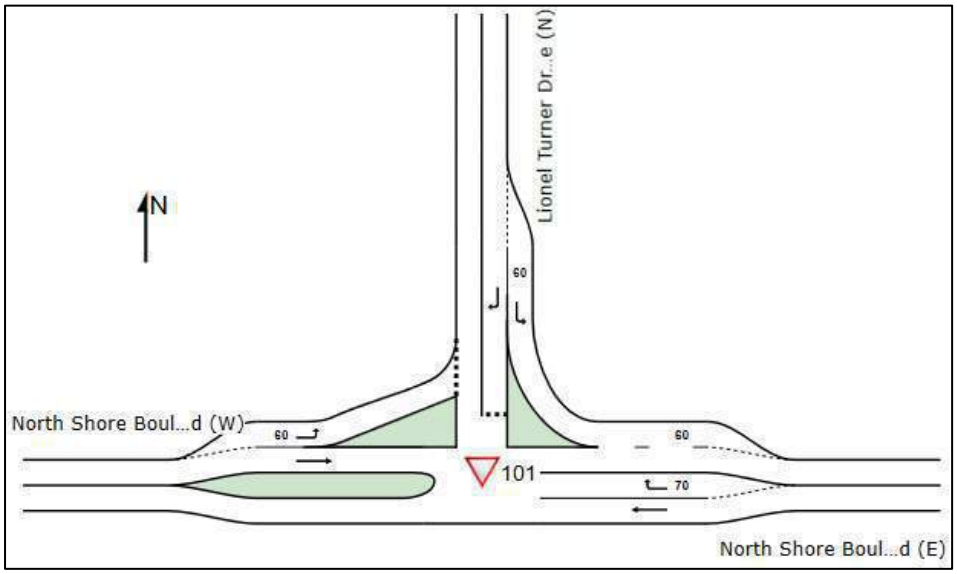



**Figure 4.7: North Shore Boulevard / Lionel Turner Drive | Priority-Controlled SIDRA Layout**

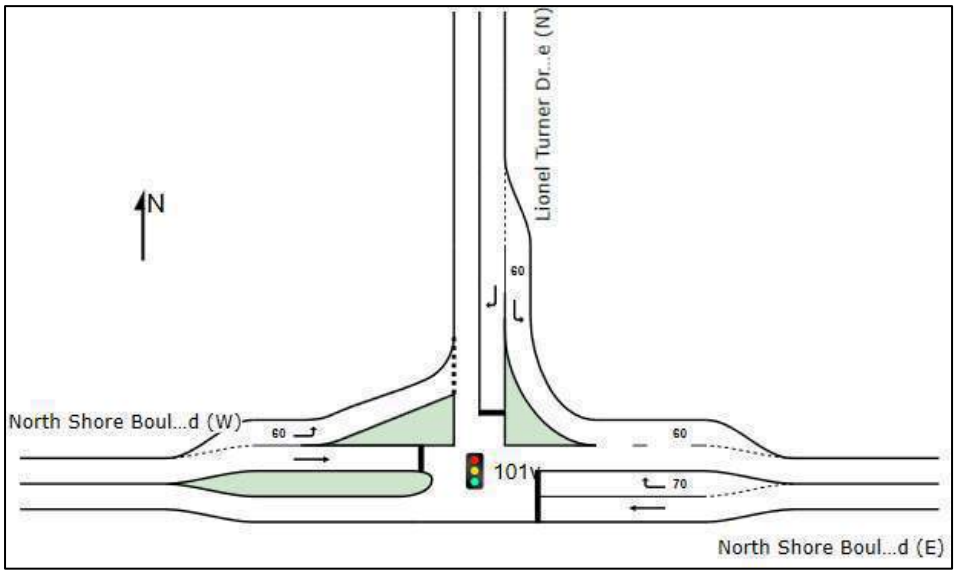



**Figure 4.8: North Shore Boulevard / Lionel Turner Drive | Signalised SIDRA Layout**

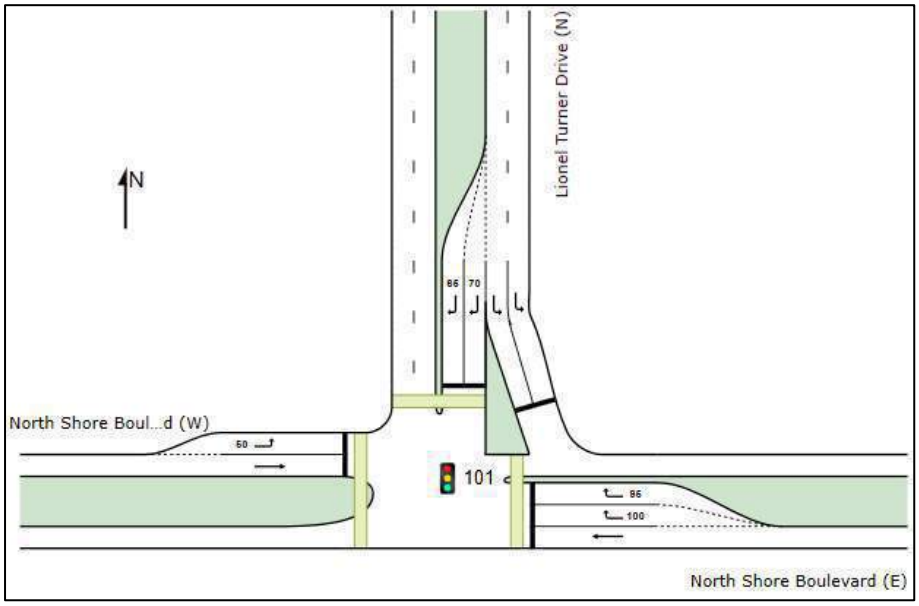
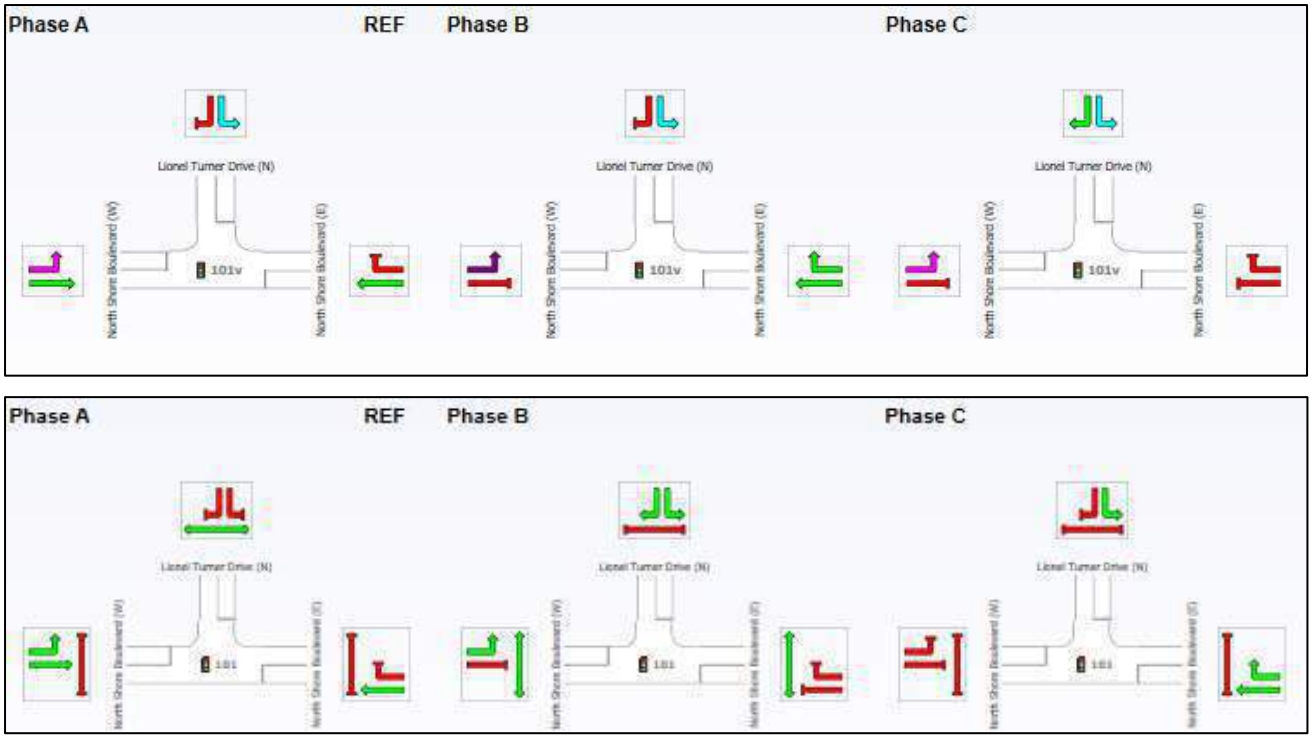



**Figure 4.9: North Shore Boulevard / Lionel Turner Drive | Ultimate SIDRA Layout**

The signal phasing used for the signalised intersections are shown in Figure 4.10.




*Top: Signalised Layout / Bottom: Ultimate Layout (According to previous modelling)*

**Figure 4.10: North Shore Boulevard / Lionel Turner Drive | SIDRA Signal Layout**

Table 4.6 summarises the SIDRA results for the North Shore Boulevard / Lionel Turner Drive intersection as a priority-controlled intersection and a signalised intersection for the AM and PM peak hours.

**Table 4.6: North Shore Boulevard / Lionel Turner Drive SIDRA Results Summary**

| Approach | Lane | 2027 AM Peak | | | | | 2027 PM Peak | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Vol | DOS (v/c) | Delay (sec) | LOS | Queue (m) | Vol | DOS (v/c) | Delay (sec) | LOS | Queue (m) |
| **Priority-Controlled** | | | | | | | | | | | |
| East | T | 52 | 0.03 | 0.0 | LOS A | 0 | 92 | 0.05 | 0.0 | LOS A | 0 |
| | R | 200 | 0.13 | 5.9 | LOS A | 4 | 725 | 0.44 | 5.9 | LOS A | 22 |
| North | L | 622 | 0.43 | 6.2 | LOS A | 19 | 255 | 0.17 | 5.9 | LOS A | 6 |
| | R | 1 | 0.00 | 7.7 | LOS A | 0 | 4 | 0.01 | 15.9 | LOS C | 0 |
| West | L | 1 | 0.06 | 5.6 | LOS A | 0 | 2 | 0.04 | 5.6 | LOS A | 0 |
| | T | 103 | 0.06 | 0.0 | LOS A | 0 | 64 | 0.04 | 0.0 | LOS A | 0 |
| **TOTAL** | | **979** | **0.43** | **7.7** | **LOS A** | **19** | **1,142** | **0.44** | **15.9** | **LOS C** | **22** |
| **Signalised Intersection** | | | | | | | | | | | |
| East | T | 52 | 0.05 | 4.5 | LOS A | 3 | 92 | 0.07 | 3.6 | LOS A | 6 |
| | R | 200 | 0.44 | 20.1 | LOS C | 26 | 725 | 0.81 | 23.8 | LOS C | 149 |
| North | L | 622 | 0.34 | 6.0 | LOS A | 0 | 255 | 0.14 | 5.8 | LOS A | 0 |
| | R | 1 | 0.00 | 21.6 | LOS C | 0 | 4 | 0.02 | 33.0 | LOS C | 1 |
| West | L | 1 | 0.00 | 7.2 | LOS A | 0 | 2 | 0.00 | 12.0 | LOS B | 0 |
| | T | 103 | 0.36 | 17.8 | LOS B | 14 | 64 | 0.34 | 29.2 | LOS C | 14 |
| **TOTAL** | | **979** | **0.44** | **10.1** | **LOS B** | **26** | **1,142** | **0.81** | **18.5** | **LOS B** | **149** |
| **Signalised Intersection (Ultimate)** | | | | | | | | | | | |
| East | T | 52 | 0.04 | 4.6 | LOS A | 6 | 92 | 0.07 | 4.7 | LOS A | 11 |
| | R | 200 | 0.10 | 19.7 | LOS B | 20 | 725 | 0.35 | 20.6 | LOS C | 83 |
| North | L | 622 | 0.38 | 10.6 | LOS B | 73 | 255 | 0.15 | 8.9 | LOS A | 22 |
| | R | 1 | 0.00 | 49.7 | LOS D | 0 | 4 | 0.01 | 50.1 | LOS D | 1 |
| West | L | 1 | 0.00 | 31.3 | LOS C | 0 | 2 | 0.00 | 33.5 | LOS C | 1 |
| | T | 103 | 0.38 | 51.4 | LOS D | 41 | 64 | 0.29 | 53.5 | LOS D | 26 |
| **TOTAL** | | **979** | **0.38** | **16.5** | **LOS B** | **73** | **1,142** | **0.35** | **18.7** | **LOS B** | **83** |

As shown, the North Shore Boulevard / Lionel Turner Drive intersection is expected to operate within acceptable performance limits (DOS < 0.9) as a priority-controlled intersection and the upgrade to signals at the expected year of opening (2027) with the proposed 193 lots. It also shows to work satisfactorily in the ultimate configuration as a signalised intersection.

# 5. SUMMARY

The key findings from this Traffic Impact Assessment for the proposed development are summarised below:

- A residential subdivision development is proposed at the Mount Low Northern Precinct Site
- The proposed development includes 193 residential lots with an expected year of opening of 2027
- The LGIP identified North Shore Boulevard (RA0362A (2026)) and Lionel Turner Drive (R0309B (2026) as 'future roads or upgrades'
- Council has confirmed that the Lionel Turner Drive upgrade is on schedule, however, the North Shore Boulevard upgrade has been delayed and not planned until after 2041
- The LGIP identified North Shore Boulevard (223 (2026)) and Lionel Turner Drive (222 (2026)) as 'future pathways' which coincide with the future roads
- Access to the site is provided via a new roundabout intersection at the Road 1 / Road 2 / Road 13 intersection with Road 1 forming the northern approach to the North Shore Boulevard intersection
- All internal road corridors, road hierarchies, intersections, and servicing provisions are to be designed in accordance with Council's requirements
- Road 1 will be required to be designed as a Major Collector Street based on the daily traffic generation from the proposed development (193 lots), northern development (633 lots) and the remaining lots (102 lots). It will be a suitable location for a bus stop provided it will be designed as a Major Collector Street
- Swept path diagrams confirm vehicles can successfully enter / exit the proposed access driveways to rear lots
- The shared access driveway fronting lots 129-133 has been designed to allow Council's RCV
- Common collection refuse points are recommended to service Lots 152-154 and Lots 171-172
- The proposed development is expected to generate in the order of 138 and 151 trips in the AM and PM peak hour, respectively and 1,930 daily trips
- The Aimsun model from the previous study was used to determine the background traffic and traffic distribution given it has been prepared over the past decade for this development and has been largely accepted by Council
- SIDRA intersection analysis was undertaken in the year of opening (2027) for the proposed development. The analysis identified the following for the key intersections:
  - North Shore Boulevard / Mount Low Parkway performed below practical operating capacity as the existing 3-way signalised intersection (LOS C in the AM Peak / LOS B in the PM Peak)
  - North Shore Boulevard / Road 1 performed below practical operating capacity as a priority-controlled intersection both in the BAL / BAR and AUL / CHR configuration (LOS A in the AM and PM Peak)
  - North Shore Boulevard / Lionel Turner Drive performed below practical operating capacity as a priority-controlled intersection and signalised intersection (LOS A & LOS B in the AM peak / LOS C & LOS B in the PM Peak).
- The Ultimate layouts identified the following for the key intersections:
  - North Shore Boulevard / Mount Low Parkway performed below practical operating capacity as a 4-way signalised intersection (LOS C in the AM and PM Peak)
  - North Shore Boulevard / Road 1 performed below practical operating capacity as a 4-way signalised intersection (LOS C in the AM and PM Peak)
  - North Shore Boulevard / Lionel Turner Drive performed below practical operating capacity as a signalised intersection (LOS B in the AM Peak / LOS C in the PM Peak).

Based on the findings of this report, we are of the opinion that there are no traffic engineering related matters to preclude approval of this development application.

# Appendix A: Development Plans


| Lot Type | Lot Size | No.of Lots |
|---|---|---|
| | **28m Deep** | |
| Premium Traditional | 20.0m x 28m | 1 |
| | | |
| | **32m Deep** | |
| Courtyard | 15.0m x 32m | 25 |
| Traditional | 18.0m x 32m | 41 |
| Premium Traditional | 20.0m x 32m | 33 |
| Lifestyle | 22.0m x 32m | 26 |
| | | |
| | **35m+ Deep** | |
| Courtyard | 15.0m x 35m | 7 |
| Traditional | 18.0m x 35m | 13 |
| Premium Traditional | 20.0m x 35m | 13 |
| Lifestyle | 22.0m x 35m | 4 |
| **Total** | | **163** |

## Legend

- Site boundary
- Stage boundary
- Watercourse
- Open space & stormwater treatment (within Balance Lot 1003)
- Small local park
- Sewer pump station lot
- Sewer pump station - 30m and 50m buffer

1. Entry statement.
2. 10-14m wide landscaped verge.
3. 2.5m shared footpath.
4. Interim intersection
   Note: The intersection design is based on the existing 2 lane North Shore Boulevard. The future intersection design will include a road connection south.
5. Future Left in / Left out intersection. Not part of this application.
6. Primary stormwater treatment area.
7. Future road connection.

**Note:**
All Lot Numbers, Dimensions and Areas are approximate only, and are subject to survey and Council approval.

Dimensions have been rounded to the nearest 0.1 metres.

Areas have been rounded down to the nearest 5m².

The boundaries shown on this plan should not be used for final detailed engineers design.

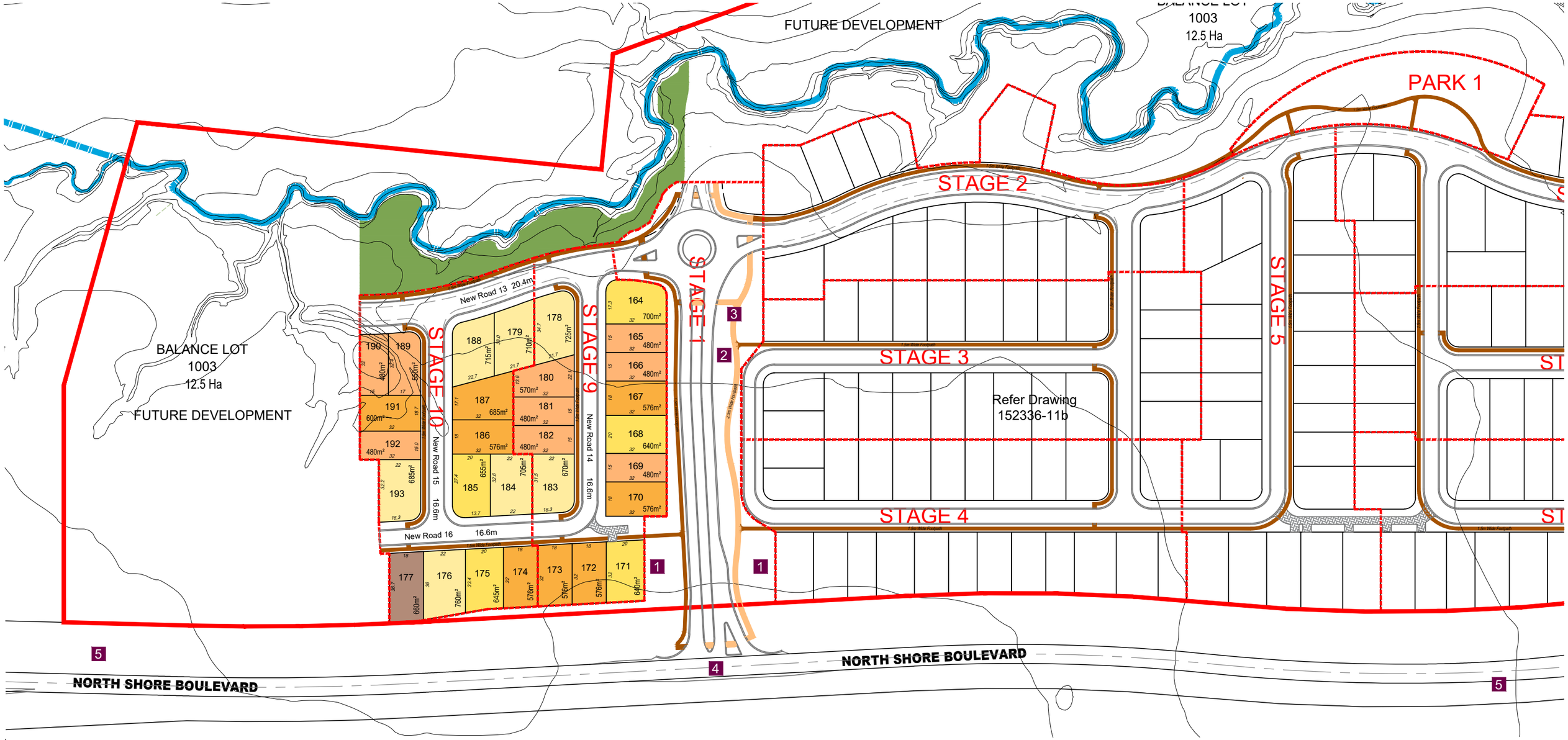
**Source Information:**
**Site boundaries:** Registered Survey Plan.
**Adjoining information:** DCDB.
**Contours:** Shlenker Lidar (0.25m Intervals)

**PLAN REF:** 152336 – 11b
**DATE:** 12th JULY 2024
**CLIENT:** Bushland Grove Pty Ltd
**DRAWN BY:** MJB
**CHECKED BY:** MJB

0 20 40 60 80 100 1 : 2,000 @ A3

# MOUNT LOW
## RAL PROPOSAL PLAN
## 1 INTO 195 LOTS + BALANCE - CANCELLING LOT 1001 SP345441

**URBAN DESIGN**
Unit 1
5-7 Barlow Street
South Townsville QLD 4810
**T** +61 7 4724 4244
**W** rpsgroup.com




| Lot Type | Lot Size | No. of Lots |
|---|---|---|
| | **28m Deep** | |
| Lifestyle | 22m x 28m | 0 |
| | | |
| | **32m Deep** | |
| Courtyard | 15.0m x 32m | 9 |
| Traditional | 18.0m x 32m | 8 |
| Premium Traditional | 20.0m x 32m | 5 |
| Lifestyle | 22.0m x 32m | 7 |
| | | |
| | **35m+ Deep** | |
| Courtyard | 15.0m x 35m | 0 |
| Traditional | 18.0m x 35m | 1 |
| Premium Traditional | 20.0m x 35m | 0 |
| Lifestyle | 22.0m x 35m | 0 |
| **Total** | | **30** |

## Legend

- Site boundary
- Stage boundary
- Watercourse
- Open space & stormwater treatment (within Balance Lot 1003)
- Small local park
- Sewer pump station - 30m and 50m buffer

1. Entry statement.
2. 10-14m wide landscaped verge.
3. 2.5m shared footpath.
4. Interim intersection
   Note: The intersection design is based on the existing 2 lane North Shore Boulevard. The future intersection design will include a road connection south.
5. Future Left in / Left out intersection. Not part of this application.

**Note:**
All Lot Numbers, Dimensions and Areas are approximate only, and are subject to survey and Council approval.

Dimensions have been rounded to the nearest 0.1 metres.

Areas have been rounded down to the nearest 5m².

The boundaries shown on this plan should not be used for final detailed engineers design.

**Source Information:**
**Site boundaries:** Registered Survey Plan.
**Adjoining information:** DCDB.
**Contours:** Shlenker Lidar (0.25m Intervals)

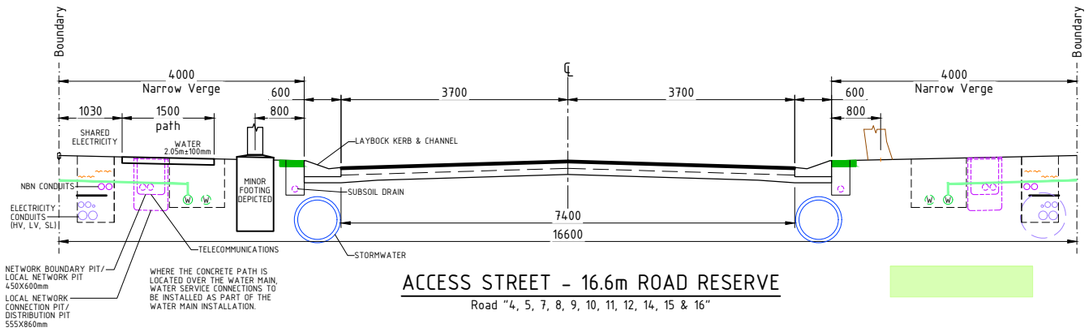
**PLAN REF:** 152336 – 12b
**DATE:** 12th JULY 2024
**CLIENT:** Bushland Grove Pty Ltd
**DRAWN BY:** MJB
**CHECKED BY:** MJB

0 20 40 60 80 100 1 : 2,000 @ A3

# MOUNT LOW
## RAL PROPOSAL PLAN
## 1 INTO 195 LOTS + BALANCE - CANCELLING LOT 1001 SP345441

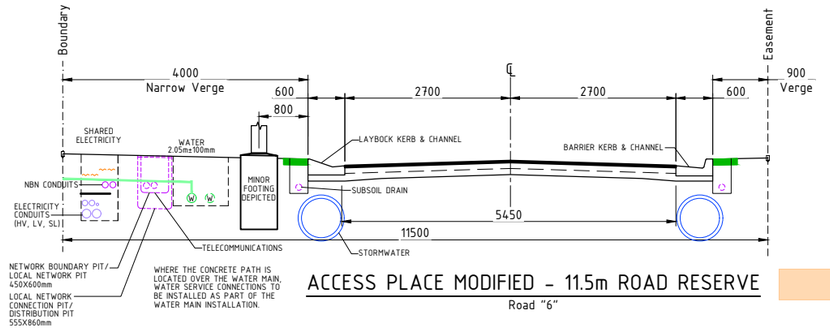
**URBAN DESIGN**
Unit 1
5-7 Barlow Street
South Townsville QLD 4810
**T** +61 7 4724 4244
**W** rpsgroup.com

# Appendix B: Alternative Road Cross Sections



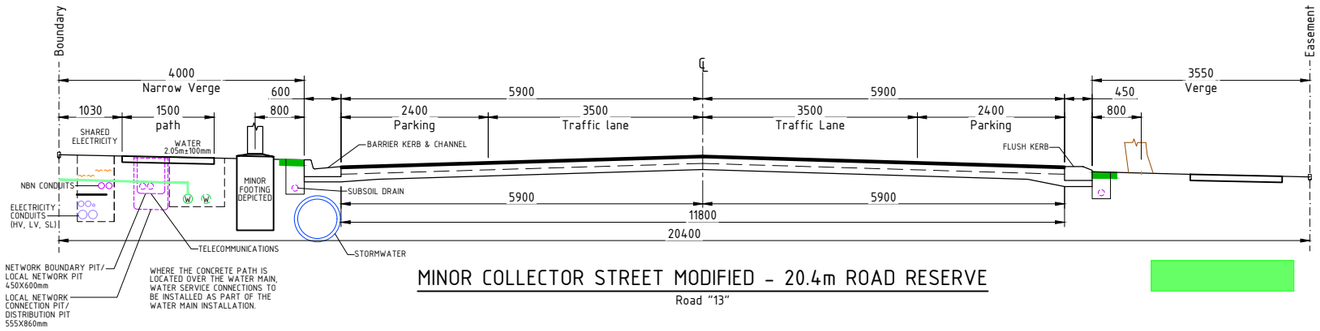

## ACCESS STREET – 16.6m ROAD RESERVE

Road "4, 5, 7, 8, 9, 10, 11, 12, 14, 15 & 16"



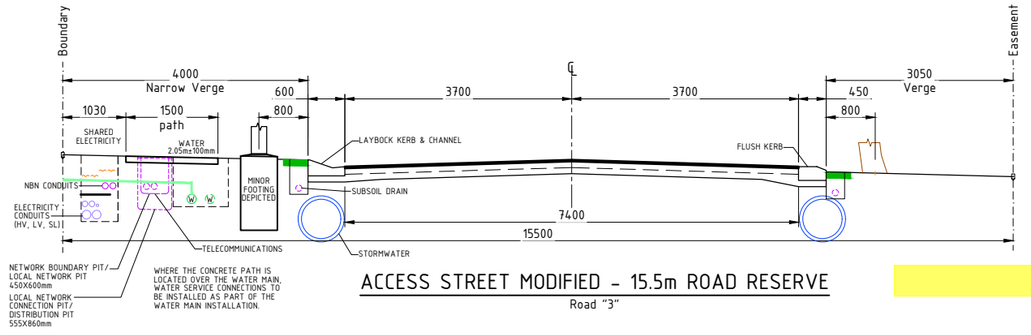

## ACCESS PLACE MODIFIED – 11.5m ROAD RESERVE

Road "6"



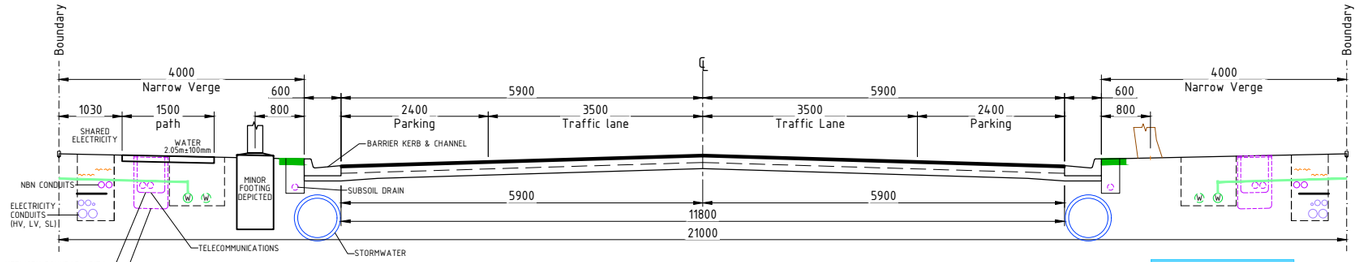

## MINOR COLLECTOR STREET MODIFIED – 20.4m ROAD RESERVE

Road "13"



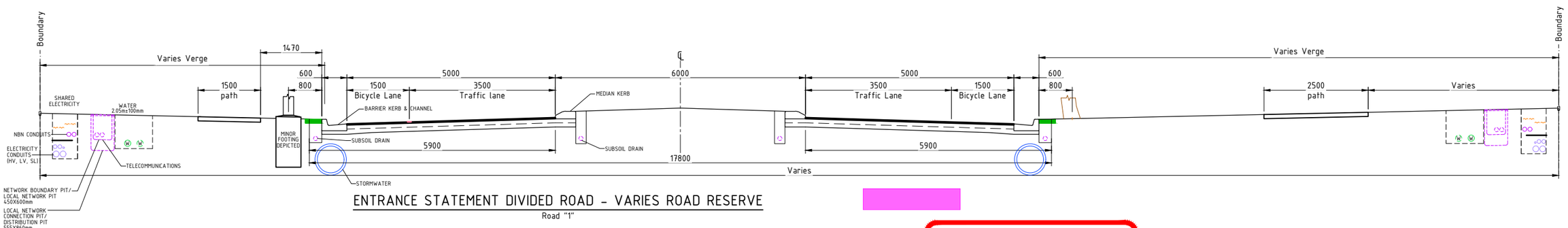

## ACCESS STREET MODIFIED – 15.5m ROAD RESERVE

Road "3"




## MINOR COLLECTOR STREET – 21.0m ROAD RESERVE

Road "2"




## ENTRANCE STATEMENT DIVIDED ROAD – VARIES ROAD RESERVE

Road "1"

# TYPICAL ROAD CROSS SECTIONS

PRELIMINARY
NOT FOR CONSTRUCTION

Scale 1:50 @ A1
0 0.5 1.0 1.5 2m

All work is to be carried out in accordance with LOCAL AUTHORITY'S standard details.

| Issue | Description | Date |
|---|---|---|
| P1 | PRELIMINARY – NOT FOR CONSTRUCTION – ISSUED FOR INFORMATION ONLY. | 25/06/2024 |

ENGINEERING CERTIFICATION

Signed:

ANDREW IAN WALLACE – RPEQ No. 6743

THE ORIGINAL OF THIS DOCUMENT IS COMPLETED TO THE SCALE NOTED. AS REPRODUCTION CAN DISTORT SIZE & SHAPE USE ONLY THE DIMENSIONS PROVIDED ON ARCHITECTURAL &/OR ENGINEERING DRAWINGS. VERIFY DIMENSIONS ON SITE BEFORE CONSTRUCTION.

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TOWNSVILLE | SUNSHINE COAST
BRISBANE | NEW ZEALAND
T: +617 4725 5550 E: mail@nceng.com.au
W: www.nceng.com.au

Drawn: DC
Date: 25/06/2024
Checked: DC
Approved: AW


In Association With
MOUNT LOW DEVELOPMENTS

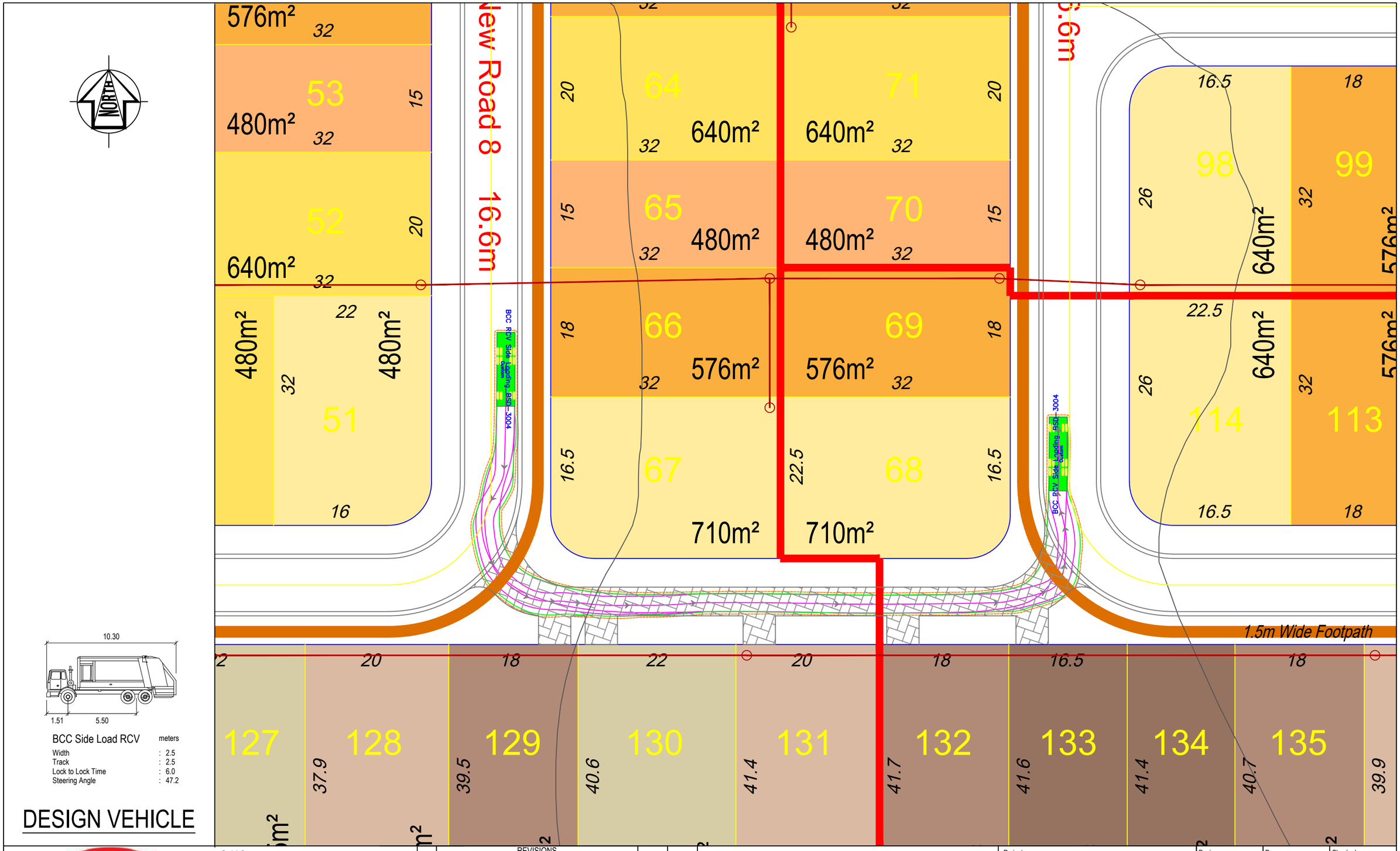
RIDGE PADDOCK RESIDENTIAL DEVELOPMENT – PRECINCT ONE
NORTH SHORE BOULEVARD
MOUNT LOW (93 on SP222103)

CONCEPT
ROAD CROSS SECTIONS

Drawing Number: TUR1301/R02
Issue: P1

LEVEL DATUM A.H.D.
Horizontal Datum GDA' 94 Zone 55
Refer PM 131730 RL. 74.407
Star Picket

# Appendix C: Swept Path Assessment







| BCC Side Load RCV | meters |
|---|---|
| Width | : 2.5 |
| Track | : 2.5 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 47.2 |

# DESIGN VEHICLE

**Gold Coast**
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
**Brisbane**
Level 2, 428 Upper Edward Street, Spring Hill 4000
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
**Sydney**
Studio 203, 3 Gladstone Street, Newtown NSW 2042
P: (02) 9557 6202

| Issue | REVISIONS Revisions/Descriptions | Drawn | Date |
|---|---|---|---|
| 001 | Swept Paths Assessment | R.TU | 23.08.2023 |
| 002 | Swept Paths Assessment | B.C | 19.07.2024 |

Scale @ A3 — 0 5 10 15 20 25 — 1:500

ENGINEERING CERTIFICATION (RPEQ)

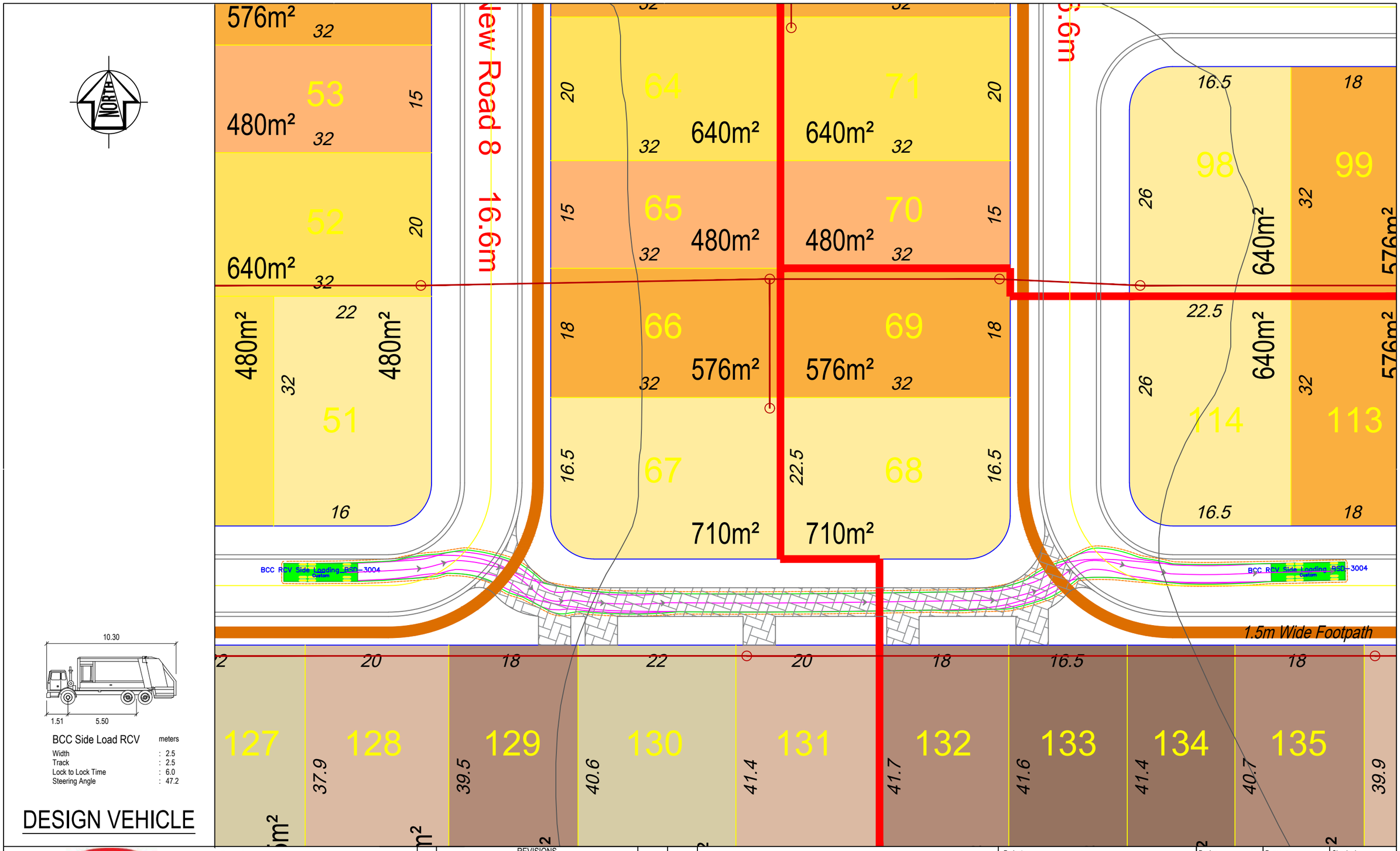
| Name | Signature | No. | Date |
|---|---|---|---|
| | | | |

| | |
|---|---|
| Project | Mount Low Precinct TIAs |
| Title | RCV - Eastbound<br>Left In Left Out |

| Design | Drawn | Checked |
|---|---|---|
| B.C | B.C | E.S |

CONCEPT ONLY

| Date | Project Number | Sheet Number | Issue |
|---|---|---|---|
| 19.07.2024 | P6519 | 1 | 002 |







| BCC Side Load RCV | meters |
|---|---|
| Width | : 2.5 |
| Track | : 2.5 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 47.2 |

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| 002 | Swept Paths Assessment | B.C | 19.07.2024 |

Scale @ A3 0 5 10 15 20 25 1:500

ENGINEERING CERTIFICATION (RPEQ)

| Name | Signature | No. | Date |
|---|---|---|---|
| | | | |

Project: Mount Low Precinct TIAs

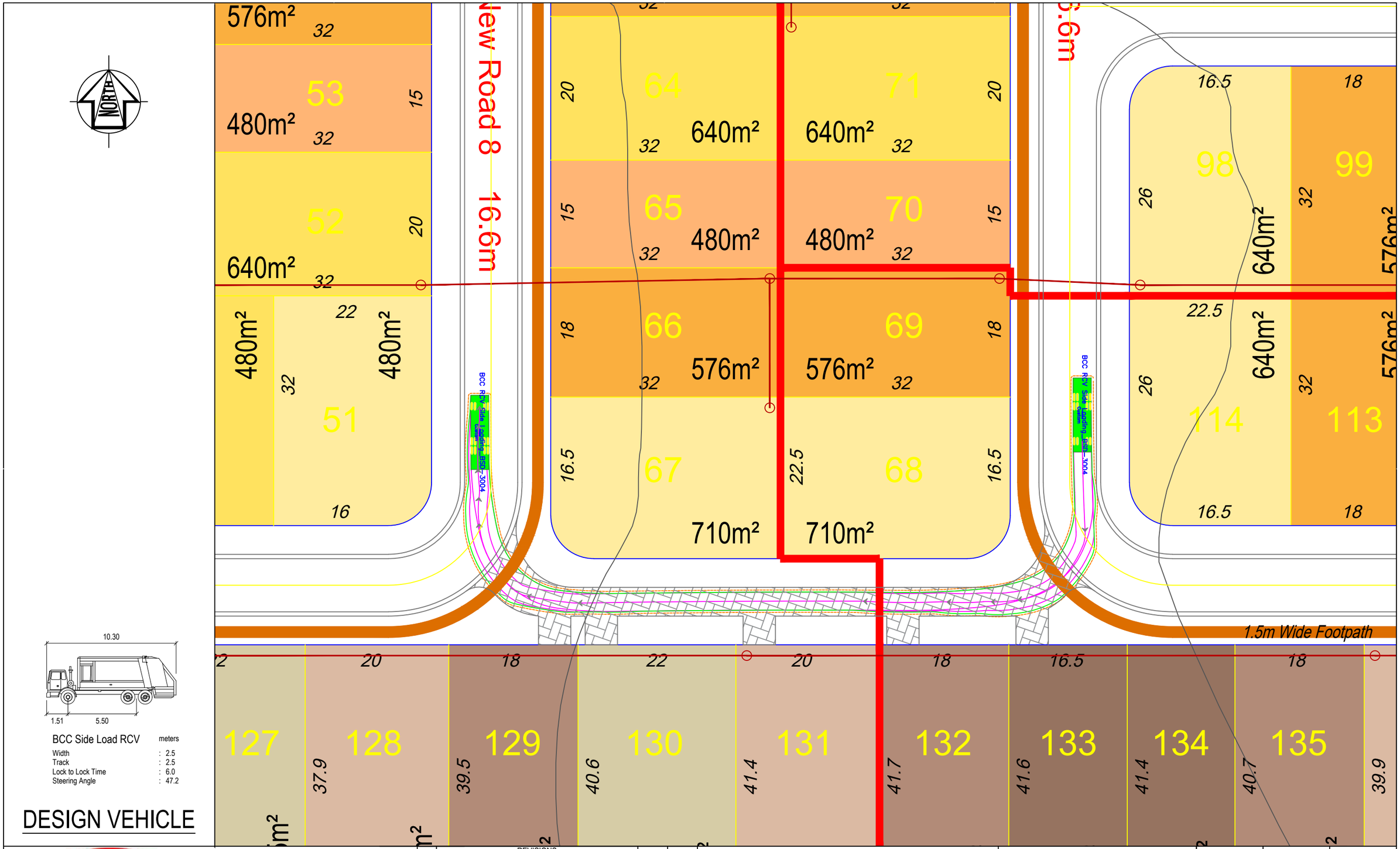
Title: RCV - Eastbound Right In Right Out

| Design | Drawn | Checked |
|---|---|---|
| B.C | B.C | E.S |

CONCEPT ONLY

Date: 19.07.2024

| Project Number | Sheet Number | Issue |
|---|---|---|
| P6519 | 2 | 002 |







| BCC Side Load RCV | meters |
|---|---|
| Width | : 2.5 |
| Track | : 2.5 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 47.2 |

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| 002 | Swept Paths Assessment | B.C | 19.07.2024 |

Scale @ A3 0 5 10 15 20 25 1:500

ENGINEERING CERTIFICATION (RPEQ)

| Name | Signature | No. | Date |
|---|---|---|---|
| | | | |

Project: Mount Low Precinct TIAs

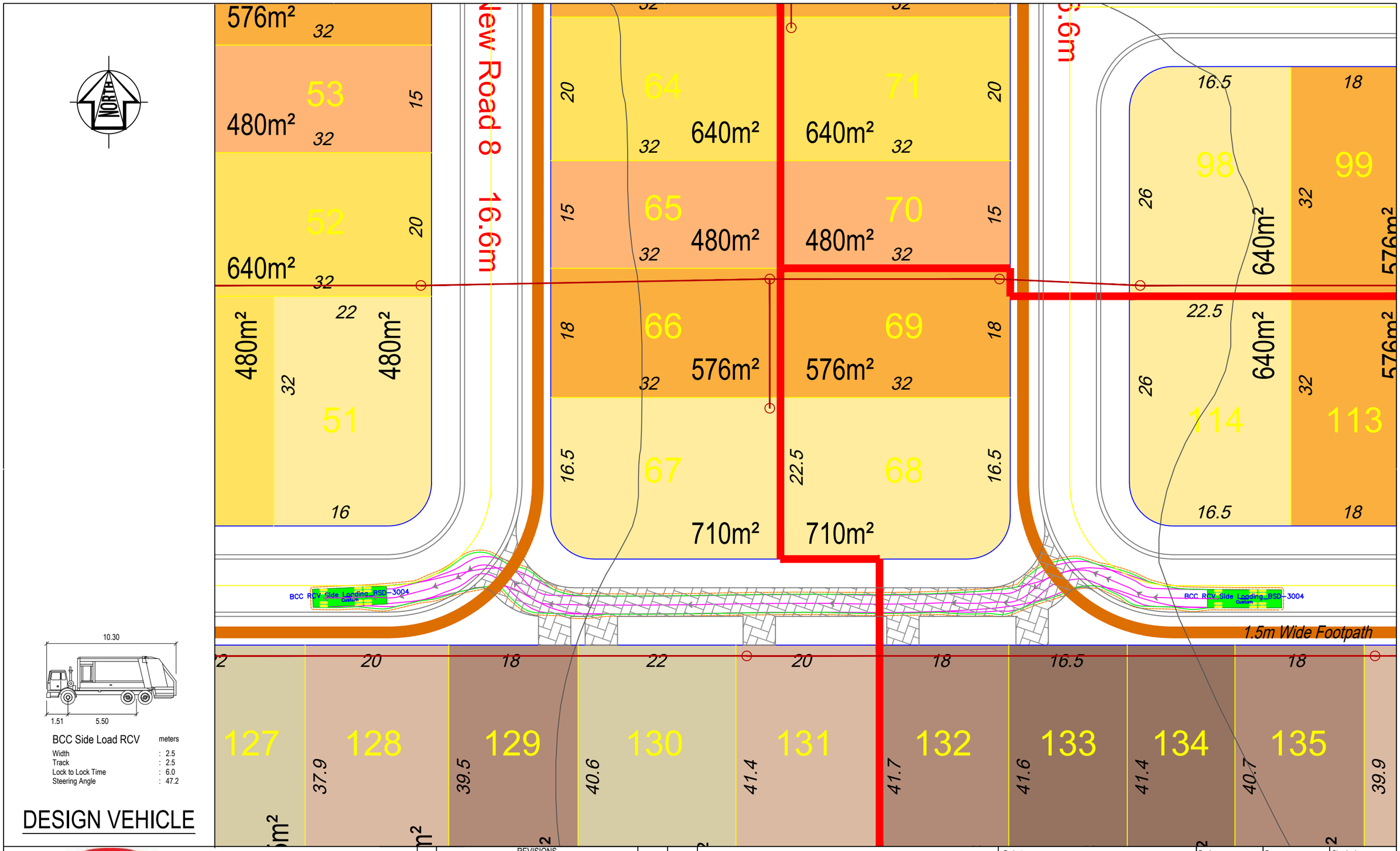
Title: RCV - Westbound Right In Right Out

| Design | Drawn | Checked |
|---|---|---|
| B.C | B.C | E.S |

CONCEPT ONLY

Date: 19.07.2024

| Project Number | Sheet Number | Issue |
|---|---|---|
| P6519 | 3 | 002 |







| BCC Side Load RCV | meters |
|---|---|
| Width | : 2.5 |
| Track | : 2.5 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 47.2 |

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| 001 | Swept Paths Assessment | R.TU | 23.08.2023 |
| 002 | Swept Paths Assessment | B.C | 19.07.2024 |

Scale @ A3 0 5 10 15 20 25 1:500

ENGINEERING CERTIFICATION (RPEQ)

| Name | Signature | No. | Date |
|---|---|---|---|
| | | | |

Project: Mount Low Precinct TIAs

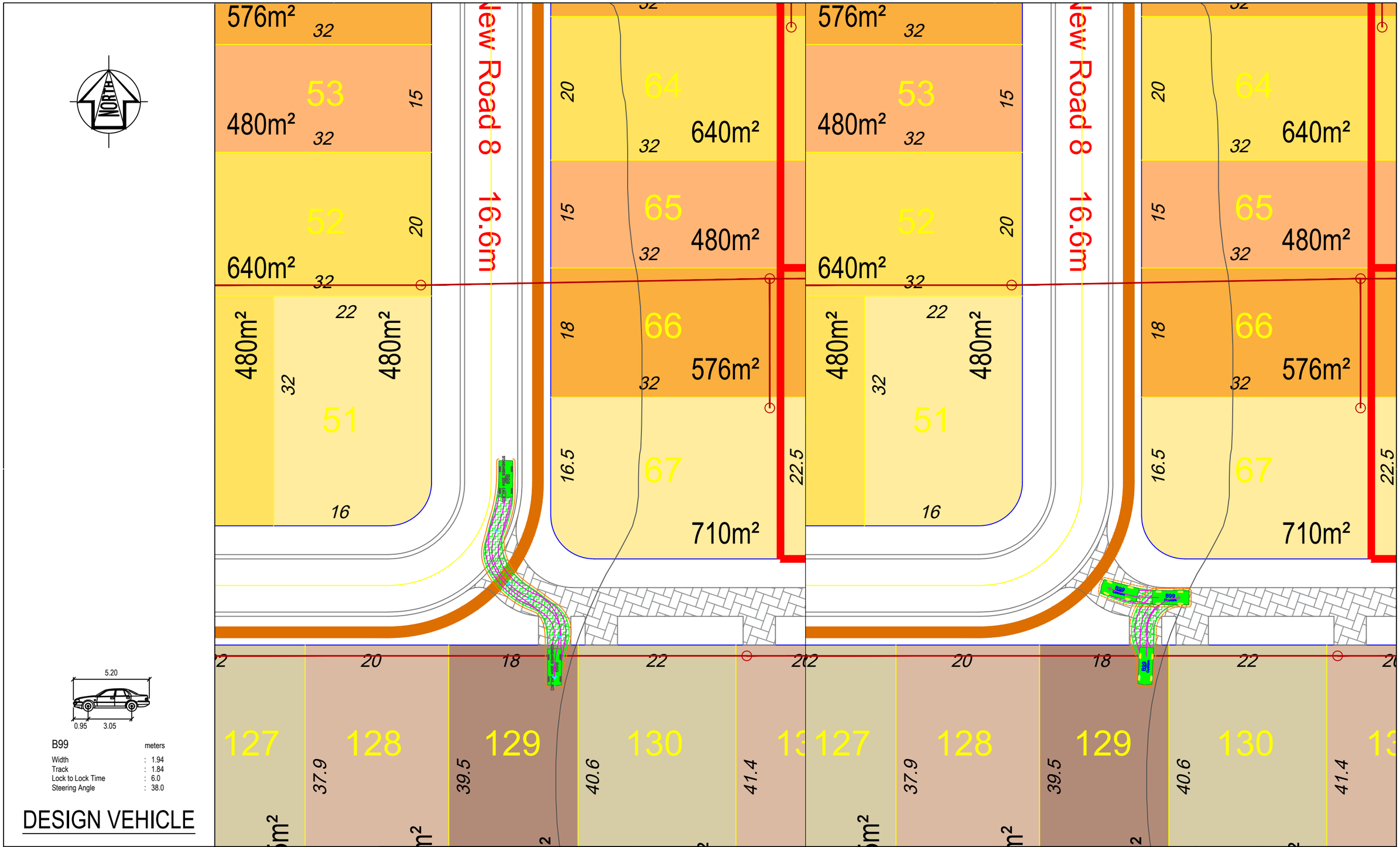
Title: RCV - Westbound Left In Left Out

| Design | Drawn | Checked |
|---|---|---|
| B.C | B.C | E.S |

CONCEPT ONLY

Date: 19.07.2024

| Project Number | Sheet Number | Issue |
|---|---|---|
| P6519 | 4 | 002 |




5.20



0.95 3.05

| B99 | meters |
|---|---|
| Width | : 1.94 |
| Track | : 1.84 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 38.0 |

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|---|---|---|---|
| 001 | Swept Paths Assessment | R.TU | 23.08.2023 |
| 002 | Swept Paths Assessment | B.C | 19.07.2024 |

Scale @ A3 0 5 10 15 20 25 1:500

ENGINEERING CERTIFICATION (RPEQ)

| Name | Signature | No. | Date |
|---|---|---|---|
| | | | |

Project: Mount Low Precinct TIAs

Title: B99 Ingress & Egress
Lot 129

| Design | Drawn | Checked |
|---|---|---|
| B.C | B.C | E.S |

CONCEPT ONLY

Date: 19.07.2024

| Project Number | Sheet Number | Issue |
|---|---|---|
| P6519 | 5 | 002 |