



ENGINEERING SERVICES REPORT

AURA PRECINCT 13

Prepared for **Stockland Development Pty Ltd**



Document information

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1 INTRODUCTION

Egis Professional Services has prepared this Engineering Services Report to accompany the submission of a Development Application for Reconfiguration of a Lot over the north-western portion of the subject site known as Aura Precinct 13.

The application proposes to subdivide the site into approximately 50 commercial / light industry Lots and 2 associated stormwater treatment lots as defined in the proposed development layout. Refer to Appendix A for the proposed application extents and lot layout.

The concept urban designs presented with this application includes:

- Approximately 50 commercial / light industry lots;
- Linear parks and stormwater treatment areas;
- Road network system; and
- Road reserve dedication area.

The aim of the Engineering Services Report is to identify site opportunities and constraints and provide design solutions which comply with the relevant guidelines and demonstrate that the proposed development can be serviced for road access, stormwater drainage, water reticulation and sewerage reticulation while addressing the environmental and flood impacts.

1.1 Existing Planning and Approvals

Egis concept design has been developed in accordance with a number of Approvals, Planning Documents, Investigations and Studies.

These documents include but are not limited to:

- Caloundra South Priority Development Area Infrastructure Agreement – State Transport Infrastructure (STIA, 2015);
- Caloundra South Priority Development Area Infrastructure Agreement - Local Government Infrastructure (LGIA, 2015);
- Caloundra South Infrastructure Agreement (Water and Wastewater Infrastructure) (UWIA, 2017);
- Aura Flood Risk Management Report (BMT WBM, 2026);
- Precinct Construction Environmental Management Plan (SMEC, October 2025);
- Wallum Sedge Frog Management Plan (Stockland, 2020);
- Compensatory Fish Passage (State Approval 2404-39802 SPD, 2024)
- Geotechnical Investigation Factual Report (Red Fox Advisory, December 2025);

1.2 Site Description

Precinct 13 is located in the north-western locality of Aura. The Precinct is bound by the Bruce Highway to the west, the future industrial connector street to the east, Bells Creek along the north boundary and the proposed highway interchange road resumption area to the south.

The site forms part of the Caloundra South Priority Development Area (Aura). The Master Plan was approved by the (former) Urban Land Development Authority (ULDA reference No. DEV2011/200) now Economic Development Queensland (EDQ).

Please refer Figure 1-1 following showing the locality of Precinct 13 known within this report as the 'Site'.

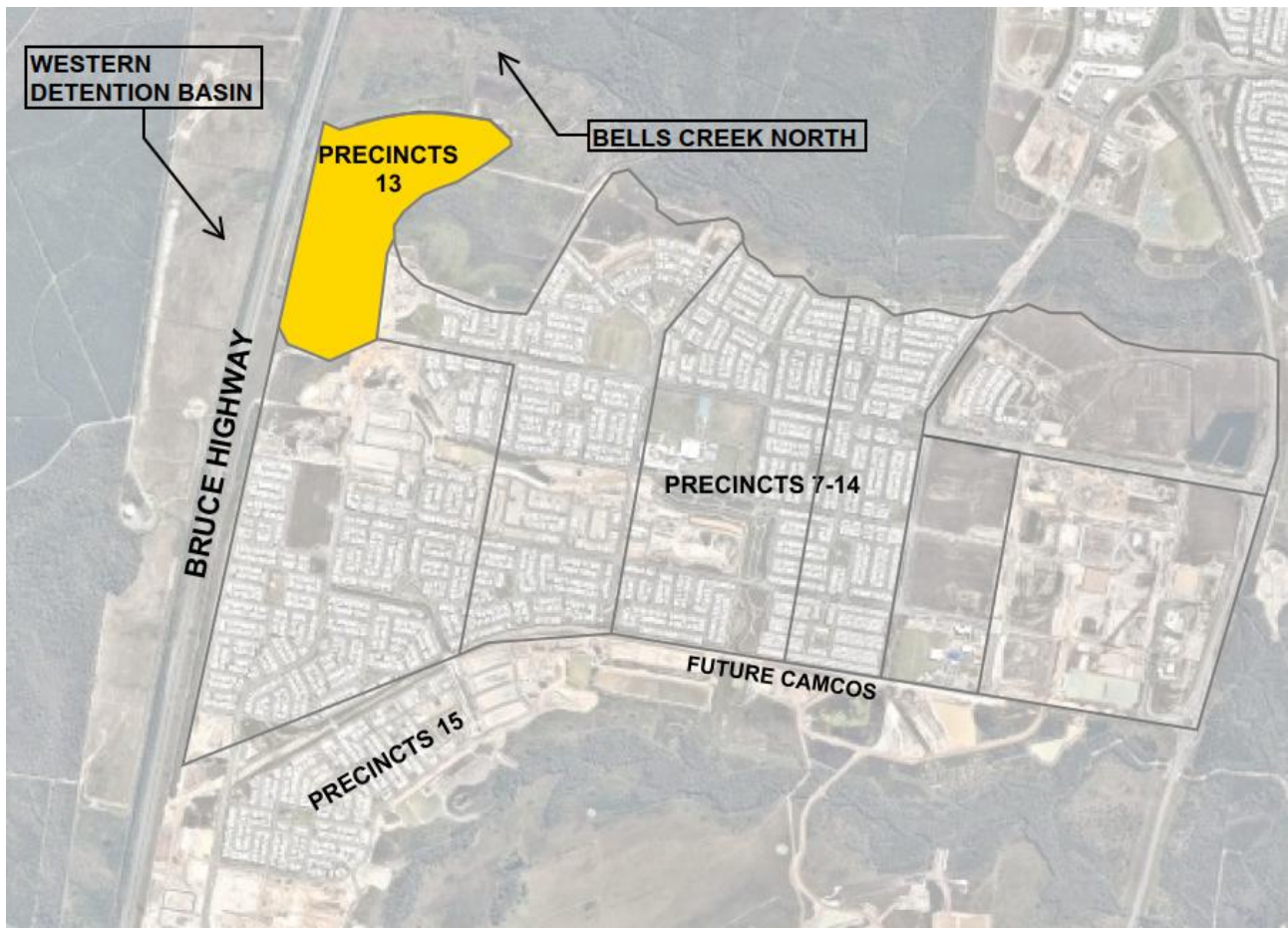


FIGURE 1-1- SITE LOCALITY

2 BULK EARTHWORKS

2.1 Earthworks Objectives

The proposed earthworks strategy within the development boundary has the following design objectives and principles:

- Facilitate the Stockland development phasing and current ROL approvals;
- Comply with approved documentation identified in Section 1.1;
- To be in accordance with flood immunity requirements set by regional flood levels along Bells Creek North;
- To be in accordance with local flood levels from the internal stormwater catchments;
- Optimise the use of developable area through efficient design;
- Efficient Design and utilisation of the natural topography of the site as best as possible;
- Be economical and cost effective;
- All allotments to be graded at minimum 1 in 100 towards the road;
- Roads to have minimum grade of 0.3%;
- Cut/fill volumes to be developed to best match requirements of other Precincts; and
- To be consistent with the Geotechnical Investigation Factual Report prepared by Red Fox Advisory.

Regional flood levels have been established for Bells Creek North through modelling undertaken by BMT (TUFLOW Model ID353). To comply with the Aura Regional Flood Model 2020 (Model ID353) prepared by BMT, the minimum finished earthwork levels for allotments is based on providing 500mm freeboard to the 1% AEP (100 year ARI) peak flood level with increased rainfall intensity and sea levels taken into account for climate change to a planning horizon of the year 2100.

The concept bulk earthworks design provides appropriate flood immunity for various land uses in accordance with the master plan and Sunshine Coast Planning Scheme as flows:

- Allotments and roads are designed for immunity to the 1% AEP (100 year ARI) peak flood level with climate change.

Refer to the drawings in Appendix C for an overview of the proposed conceptual grading for the Site. A detailed site grading of the site will be undertaken during detailed design, ensuring compliance with the above noted design parameters.

2.2 Geotechnical

Geotechnical investigations have been undertaken by Douglas Partners comprising of a broadscale investigation in 2014 and a second Bruce Highway Interchange Geotechnical Investigation Factual Report was completed by Redfox for Precinct 13. Key findings from these reports are summarised as follows:

- Broadly, the area is gently undulating of low relief, with the ground surface overall falling gradually from west to east with several localised knolls associated with the larger trending ridgeline on the western side of the Bruce Highway;
- Subsurface conditions generally comprise of topsoil of between 150mm to 250mm overlying silty and clayey sands;
- It is anticipated that the majority of material won from excavations on site will generally be suitable for reuse as bulk filling provided they are placed in a controlled manner;
- Groundwater seepage was typically encountered between 1m and 5m depth;

- Extremely weathered sandstone of very low strength was encountered locally, 5.5m to 8.0m depth;
- CBR testing (28 samples) returned results of between 0.5% to 45.0% with an average result of 11% for the investigation area and an average result of 7% across the greater Aura Development;
- Emerson class dispersion tests (20 of 25 samples) returned values of 5 and 6 on a scale of 1 to 8 indicating a potential for erosion;
- Topsoil depth varies from 0.1m to 0.35m. Quality of topsoil is poor and it is anticipated that treatment would be needed to improve nutrient value;
- Drainage for the site during construction is necessary to maintain site trafficability. Consideration for providing a working platform may be necessary in some instances;
- Recommended compaction factors in the calculation of fill volumes vary between 0.80 and 1.10 with the silty/ clayey sands which cover the majority of the site being 0.80 to 0.85; and
- Site classification of 'Class S' would be anticipated under normal soil moisture conditions.

Further detail regarding existing ground condition and geotechnical suitability for development can be found within the aforementioned geotechnical reports.

2.3 Wallum Sedge Frog Ponds and Staged Relocation

For the detailed management strategy of the Wallum Sedge Frogs, reference should be made to the Wallum Sedge Frog Management Plan – May 2020 (Stockland) submitted to the Department of Environment and Energy, in support of the underlying development.

There are a number of Wallum Sedge Frog habitats to be retained across all the precincts of Aura, including along the northern and eastern boundary of Precinct 13. Retained and recreated Wallum Sedge Frog habitat traverse the riparian zones of Bells Creek North.

The works within these precincts are phased in such a way that where impacted habitat exists, recreated habitat is delivered prior to the removal of existing habitat zones. Likewise, the phasing of the works considers conveyance and discharge of stormwater (both construction and developed) to ensure that runoff does not compromise Wallum Sedge Frog habitat.

The proposed development layout and stormwater quality Water Sensitive Urban Design Strategy have been detailed to comply with the requirements of the Wallum Sedge Frog Management Plan. The WSUD basin within Precinct 13 has been relocated from its originally proposed location to the north-eastern corner of the site to allow the basin to free drain. The basin is now located within the mapped lifestyle buffer. The lifestyle buffer is not considered to be developable lot area therefore, relocating the basin into this new location rather than within developable area also maximises the extent of land available for lots. Refer to Section 5.5 for further details on this matter.

The alignment of the future North-South Industrial Connector road has also been designed to ensure no impact on protected Wallum Sedge Frog habitat areas.

2.4 Waterways and Fish Passage

Development Assessment Mapping System (DAMS) indicates that there is no declared fish habitat anywhere in the vicinity of Aura see Figure 2-1 below. There is however compensatory fish habitat within Precinct 13, in accordance with State Approval 2404-39802 SPD, dated 1 May 2024.

Reference has been made to the Department of State Development, Manufacturing, Infrastructure and Planning approval (1710-2004 SDA dated 28 February 2018) which provides a conditional approval for the proposed earthworks across the site.

There are a number of fish passage design requirements for the channel bordering Precinct 13. The fish passage design must adhere to the approved plans. A meandering low flow channel is proposed as per the approved Aura Brook Design, refer to the attached engineering drawings for the dimensions and grade of this low flow channel. In line with previously approved Aura precincts, the pools are proposed downstream of the basin outlet in the lower reach of the low flow channel spaced at 100m. The proposed pools are 0.5m deep, 4.5m wide and 7m long in line with the Accepted development requirements for operational work that is constructing or raising waterway barrier works: September 2025.

The landscape plan should reflect the standard planting palette, with no rocks placed in the low flow channel. However, large woody habitats (LWH) can be incorporated both instream and within the main channel, and occasional clusters of boulders outside the low flow channel. Planting woody trees on the channel batters, outside of the low flow area is recommended for fish passage for shading of the channel bed.

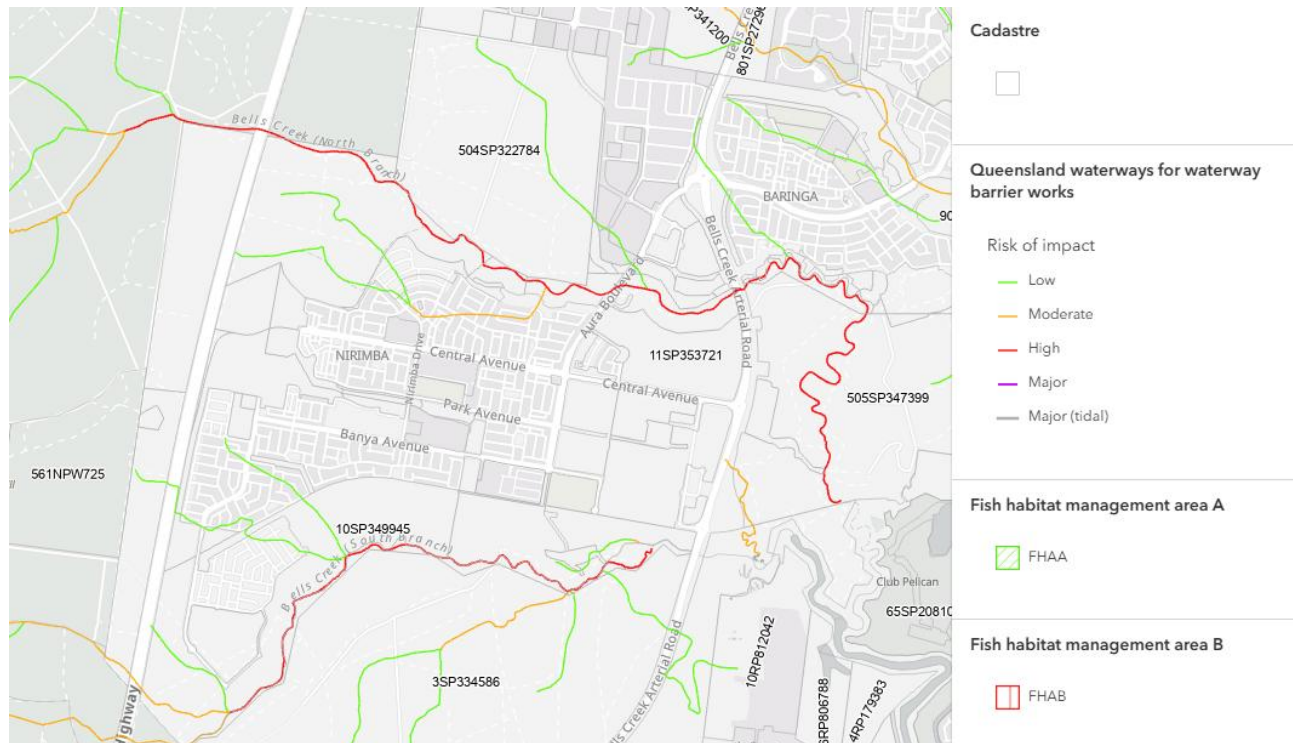


FIGURE 2-1 - DAMS WATERWAY BARRIER RISK OF WORKS

2.5 Vegetation

Vegetation management is detailed in the VMP prepared by Arup. Within Precinct 13, there are no EPBC listed threatened flora species. The Bells Creek North corridor, north of the site has been identified for conservation and rehabilitation to improve habitat value.

Weed management throughout earthworks operations and rehabilitation works is important to ensure successful regeneration of native vegetation.

The mapping prepared by ARUP detailing the proposed Ecological Enhancement Strategy is shown below in Figure 2-2.

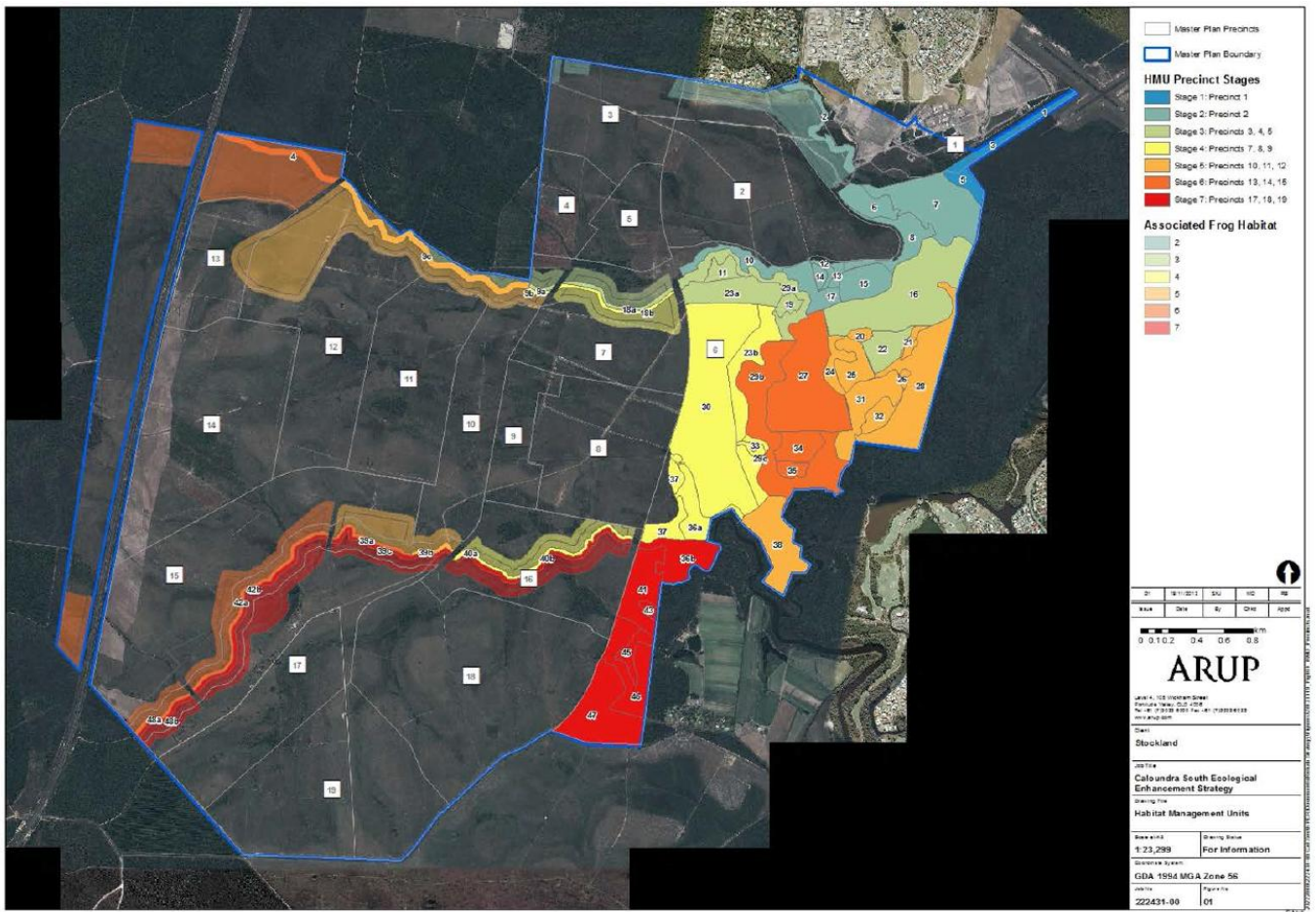


FIGURE 2-2 - ARUP ECOLOGICAL ENHANCEMENT STRATEGY MAPPING

3 ROAD NETWORK

3.1 Road Hierarchy and Cross Sections

RPS have undertaken a street network plan containing industrial connectors, industrial access esplanades and industrial access streets for Precinct 13 (refer to Appendix A). A detailed traffic report and modelling based on RPS road hierarchies and development yield has been completed to determine final design requirements for traffic, parking and intersections, refer to Precinct 13, Aura Traffic Modelling Update Report prepared by BDO in July 2026 for further details.

The Precincts are also fully serviced with pedestrian and off-road bicycle networks to comply with the LGIA (Map 11). RPS road cross sections include connectors, access esplanades and access streets to comply with the LGIA (Map 9). This conforms with the relevant LGIA road profiles with the notable exception of:

- Inclusion within the Industrial Connector cross section for an off-road shared path to 3.0m and removal of on-road bicycle lanes.
- Adjustment to footpath location within verges, to allow for retaining walls adjacent to protected conservation areas.

Final assessment of the proposed road intersections and geometry will be assessed in detail as part of the detailed design for the relevant Precincts.

3.2 Access Locations

Access to Precinct 13 will be made off Central Avenue, via the propose new collector street boarding the eastern boundary of the site. At this point three connections will be made off the new industrial collector street to provide access to Precinct 13.

Ultimately in the future when the industrial connector is extended north, there will be an additional connections off this road as well as a pedestrian link. This future extension will also provide a secondary access into Precinct 13.

Refer to Figure 3-1 below for the location of the proposed accesses.



FIGURE 3-1 – ACCESS LOCATIONS

There is only one key intersection included within the Reconfiguration of a Lot, the intersection between Central Avenue and the Industrial Connector Street dictated in Figure 3-2, however this intersection has been designed and approved under a separate application.

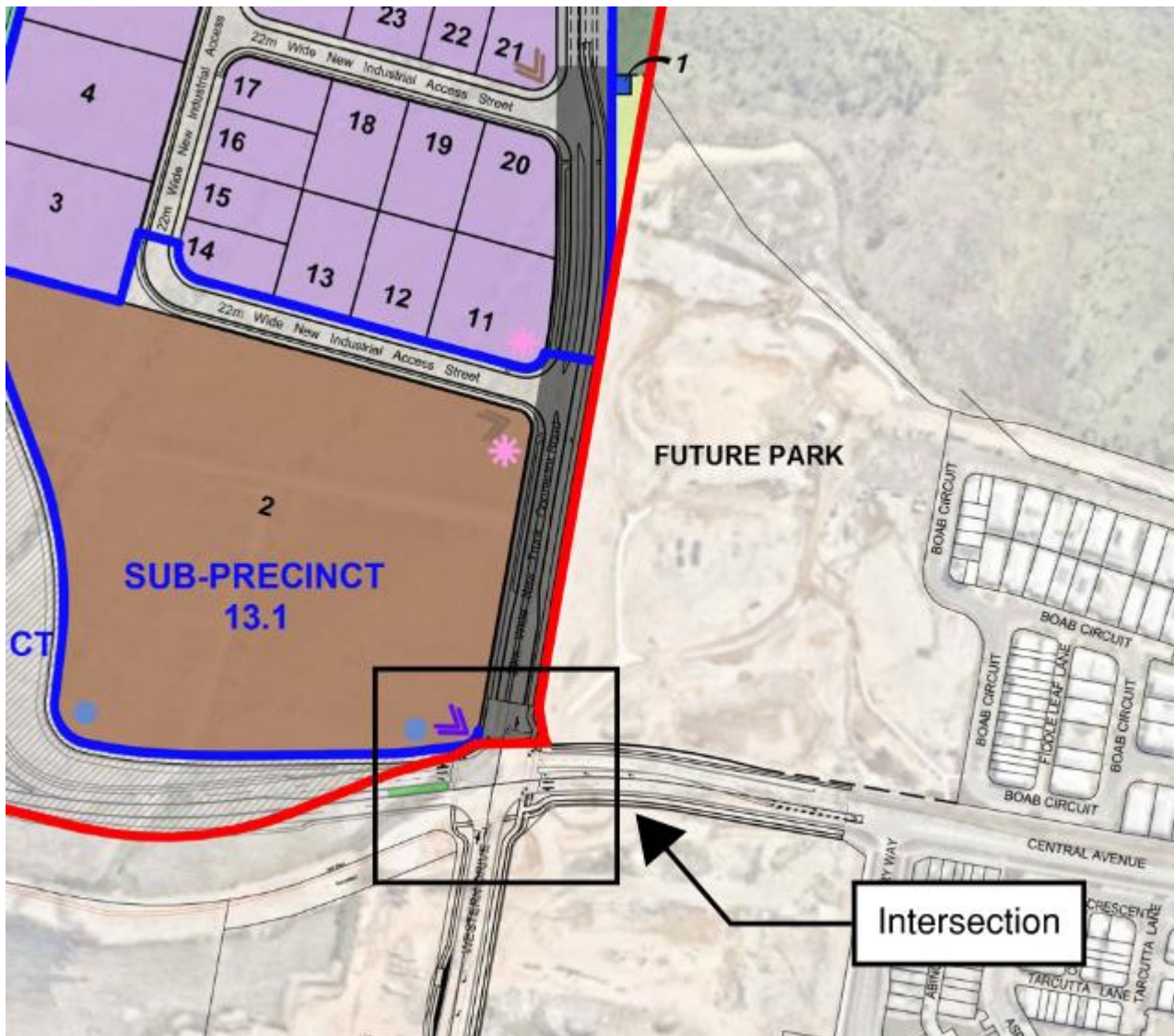


FIGURE 3-2 – KEY INTERSECTIONS

3.3 Intersection Spacing

The Economic Development Queensland PDA Guideline No. 06 does not indicate a minimum intersection spacing for Neighbourhood Access Streets.

Typically, the Sunshine Coast Regional Council requirement of 60m and 100m minimum intersection spacing for same side intersections with industrial access roads and industrial collector street respectively has been followed.

3.4 Swept Paths

Swept paths have been reviewed for the proposed turnaround cul-de-sacs to demonstrate the ability for the design vehicle of a B-Double and Single Unit Truck/Bus to be able to turnaround.

Refer to Drawing 400 to 401 in Appendix C, these areas have been identified.

4 STATE CONTROLLED INFRASTRUCTURE

4.1 Bruce Highway Interchange

The proposed Bruce Highway Interchange sits outside of this Development Application, however the interface to the proposed works needs to be considered within the Precinct 13 Design.

Refer to Appendix C for the Engineering Drawings, that provided detailed cross sections. Earthworks levels within Precinct 13 have been designed to interface neatly with the proposed Interchange levels, via batters.

A channel along the western border of the main channel has also been proposed to capture the minor stormwater catchment runoff from the Interchange and convey these flows into the main Western Channel.

4.2 Drainage

There is an existing culvert that crosses underneath the Bruce Highway and outlets into Precinct 13. The flows from these culverts have a direct impact on Precinct 13 and need to be considered as a site constraint.

The drainage network within Precinct 13 will allow conveyance of the Bruce Highway flows into Bells Creek North and ensure no adverse flood impact. The existing table drain within the Bruce Highway road reserve will be maintained and an approximately 20m wide drain will be constructed as part of the Precinct 13 works to convey additional flows into Bells Creek North.

The proposed Western Channel has been positioned within the Precinct 13 boundary and sits outside of the existing optic fibre alignment.

This strategy has been explored in further detail within Egis' Stormwater Management Report, 21-000307.14 - Aura P13 Stormwater Management Plan 01A.

5 STORMWATER NETWORK

5.1 Regional Flooding

A regional flood investigation has been undertaken which investigates the affects the proposed development would have on regional flooding, refer to BMT Aura Flood Risk Management Report, 2026. From this, regional flood levels have been established for Bells Creek North. In general, these flood levels have directly influenced the minimum earthworks levels at the stormwater outlets and embankments.

The minimum habitable floor levels for allotments are based on providing 500mm freeboard to the 1% AEP peak flood level with increased rainfall intensity and sea levels taken into account for climate change to a planning horizon of the year 2100. The flood planning level for earthworks fill levels includes a 500mm freeboard. This is to be confirmed during bulk earthworks detailed design but is not required for the Reconfiguration of a Lot application.

This report will not provide any further commentary of the regional flood investigation, however the Bells Creek North flooding constraints will be addressed in the site network modelling.

5.2 External Catchment Flows

Egis have undertaken a Stormwater Management Report (21-000307.14 - Aura P13 Stormwater Management Plan 01A) to discuss the hydraulic modelling of external flows to Precinct 13.

For details on these drainage infrastructure items, refer to Stormwater Management Report (21-000307.14 - Aura P13 Stormwater Management Plan 01A) for further details on their integration into the Site.

Referring to Drawing 21-000307.14 - Aura P13 Stormwater Management Plan 01A within Appendix C, the external flows conveying to and through Precinct 13 have been detailed. General commentary on this integration into the proposed Site layout has been detailed below of the development.

5.3 Local Drainage

The proposed development area drains north-east towards Bells Creek North via local stormwater drainage network. These flows follow an internal network of major drainage elements through a series of piped and surface flow channels. In accordance with Aura's Local Government Infrastructure Agreement, the lower order road network is designed to convey 2 year ARI storm flows through the piped system with the higher order roads designed to pipe 10% AEP (10 year ARI) storm flows. In locations where the road capacity is reached, the 1% AEP (100 year ARI) flows will be piped.

Refer to the engineering drawings DRG 300 to 302 in Appendix C for the stormwater catchments and outflow locations to the proposed WSUD infrastructure. The exact location and sizing of stormwater infrastructure will be confirmed during the operational works phase.

5.4 No Worsening Impact on the Pre-Development Condition

As the proposed development increases impervious area, without mitigation measures, and has the potential to impact pre-development flooding conditions. The flood risks impact of the proposed development was assessed by comparing modelled peak flood levels of the developed case vs base case (pre-development).

To mitigate the adverse implications for flood risk resulting from the proposed development, flood risk mitigation strategies were developed. These includes but is not limited to the integration of dedicated flood detention storage, flood conveyance and other appropriate mitigation measures to ensure no adverse offsite flooding impacts. Refer to the local flood report Aura Flood Risk Management Report, 2026 prepared by BMT for these details.

5.5 Stormwater Quality

Precinct 13 has previously had two WSUDs proposed within the precinct boundaries to accommodate proposed flows. The location of these WSUD devices were N6, situated in the north-west portion of the Precinct, and N5 centrally located on the eastern boundary of the precinct. It was initially proposed to convey stormwater flows from the Bruce Highway Culverts into N5.

Detailed investigations of the proposed WSUD device locations were undertaken. These investigations determined that the original location of N5 was not suitable, as it was not possible to get the proposed basin to free drain due to the existing surface having insufficient level difference to Bells Creek North. Following this investigation, it was determined that the only option was for WSUD N5 to be relocated to the north-east portion of the site, with flows from the Bruce Highway diverted north, along the western channel.

The proposed WSUDs have been designed with sediment basins due to the overall catchment area, as well as large bioretention pods. The pod sizes are consistent with the Aura development, noting that the construction methodology adopted means that pods are larger than the typical Water by Design guidelines.

Refer to Stormwater Management Plan for further details.

6 WASTEWATER AND WATER

6.1 Water Reticulation

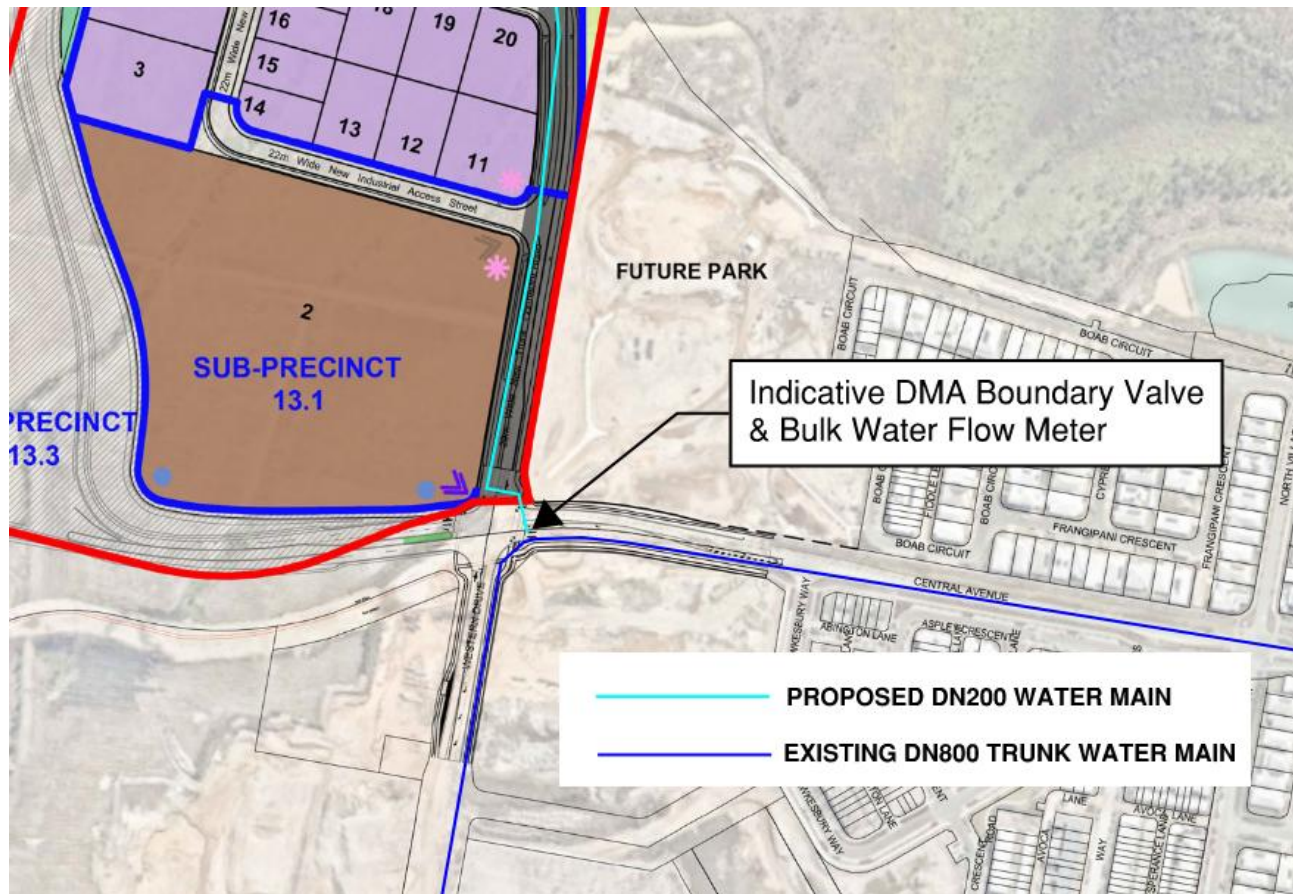


FIGURE 6-1 - TRUNK WATER INFRASTRUCTURE WITHIN PRECINCT 13

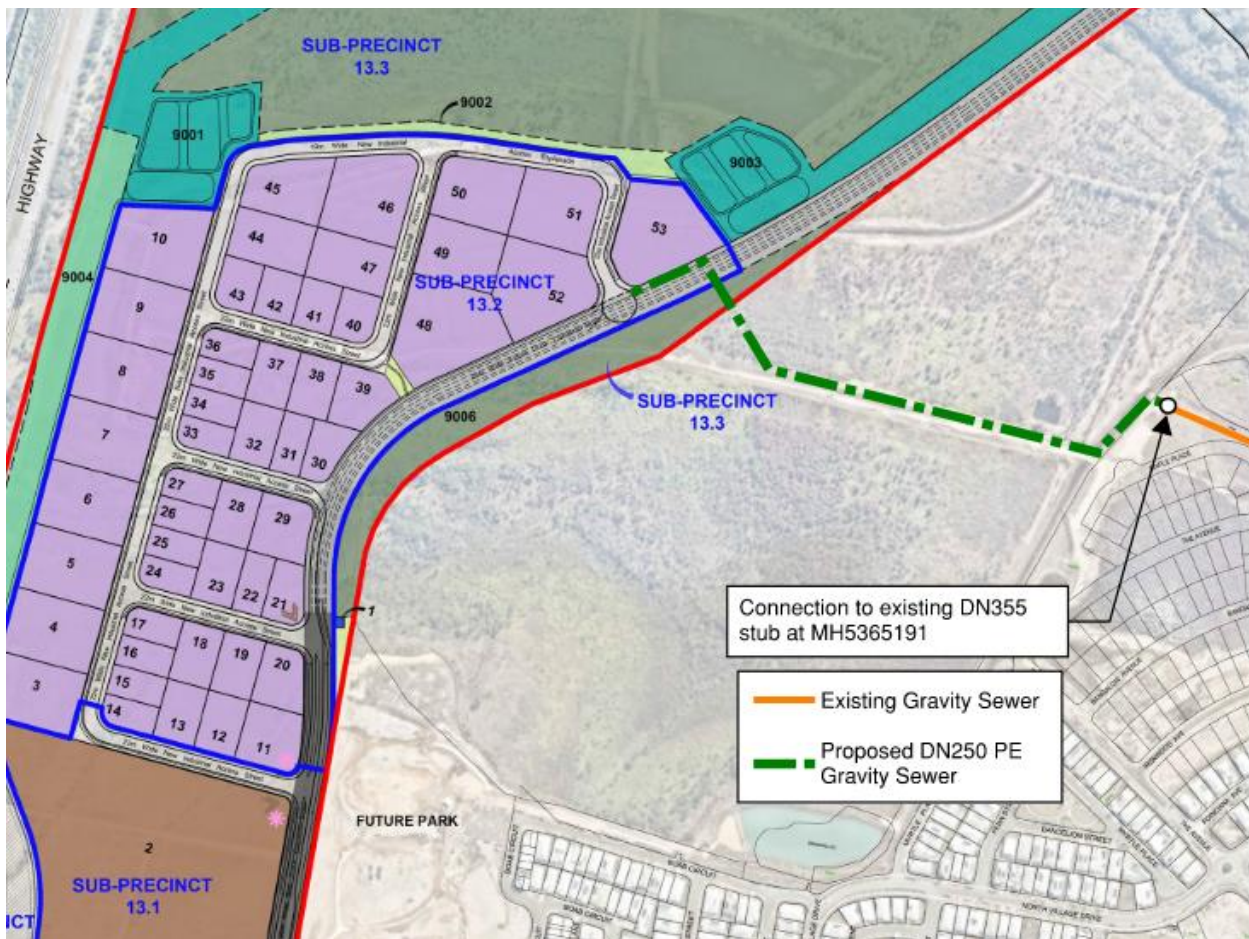


FIGURE 6-2 - TRUNK WASTEWATER INFRASTRUCTURE WITHIN PRECINCT 13

Network models were sought from and provided by Unitywater to inform modelling specific to Precinct 13.

Equivalent Population was estimated based on the proposed Plan of Development and ultimately is significantly less than previously assumed within the Infrastructure Master Plan approved for the site.

To provide water reticulation within the site, it is proposed to connect Precinct 13 to existing trunk water infrastructure via a DN200 water main situated within the proposed Industrial Connector Road. Due to the proposed Industrial zoning, a dual DN150 water reticulation network is then proposed within the Precinct.

To provide a wastewater connection to the site, it is proposed to construct a DN250 gravity sewer extending from Precinct 13 and connecting into the existing DN355 stub at MH5365191, located immediately east in Precinct 12. DN160 internal gravity sewer mains servicing Precinct 13 lots are then proposed. A lift station has previously been proposed at MH5365191 however based on the proposed site earthworks levels, an analysis has determined that this lift station is unlikely to be required.

The Final Precinct Network Plan for Precinct 13 will consolidate this information into one document for Unitywater's approval.

Referring to Drawings 300 to 302 within Appendix C, the proposed internal sewer and water networks are shown indicatively. All main sizing and alignments are subject to approval by Unitywater via a Final Precinct Network Plan and may change from what is currently indicated on the drawings.

All water and wastewater infrastructure is proposed to be designed generally in accordance with Unitywater Standards, the SEQ Water Supply and Sewerage Design and Construction Code or as otherwise agreed with Unitywater.

7 UTILITIES

The development will be serviced with electrical and telecommunications (National Broadband Network).

As per previous precincts with Aura the services are proposed to be co-located on a standard alignment within a corridor 0-900mm from the property boundary. Detailed design may determine that alternative alignments are required in some instances and these will be detailed on an as required basis.

These services will be provided in accordance with conditions of, and through agreement with, the relevant service providers.

8 CONCLUSION

The information presented in this report demonstrates that the proposed development can be constructed in accordance with the Economic Development Queensland PDA guidelines with respect to the following civil engineering matters:

- Bulk earthworks;
- Road networks, including accesses and intersections;
- State controlled infrastructure interface, being the Bruce Highway;
- Stormwater network, including external flows and local drainage;
- Wastewater and water reticulation; and
- Utilities.

Where site constraints or opportunities have been identified, design solutions have been provided to indicate how the relevant guidelines and standards can be achieved.

APPENDIX A: RPS DEVELOPMENT APPLICATION PLANS

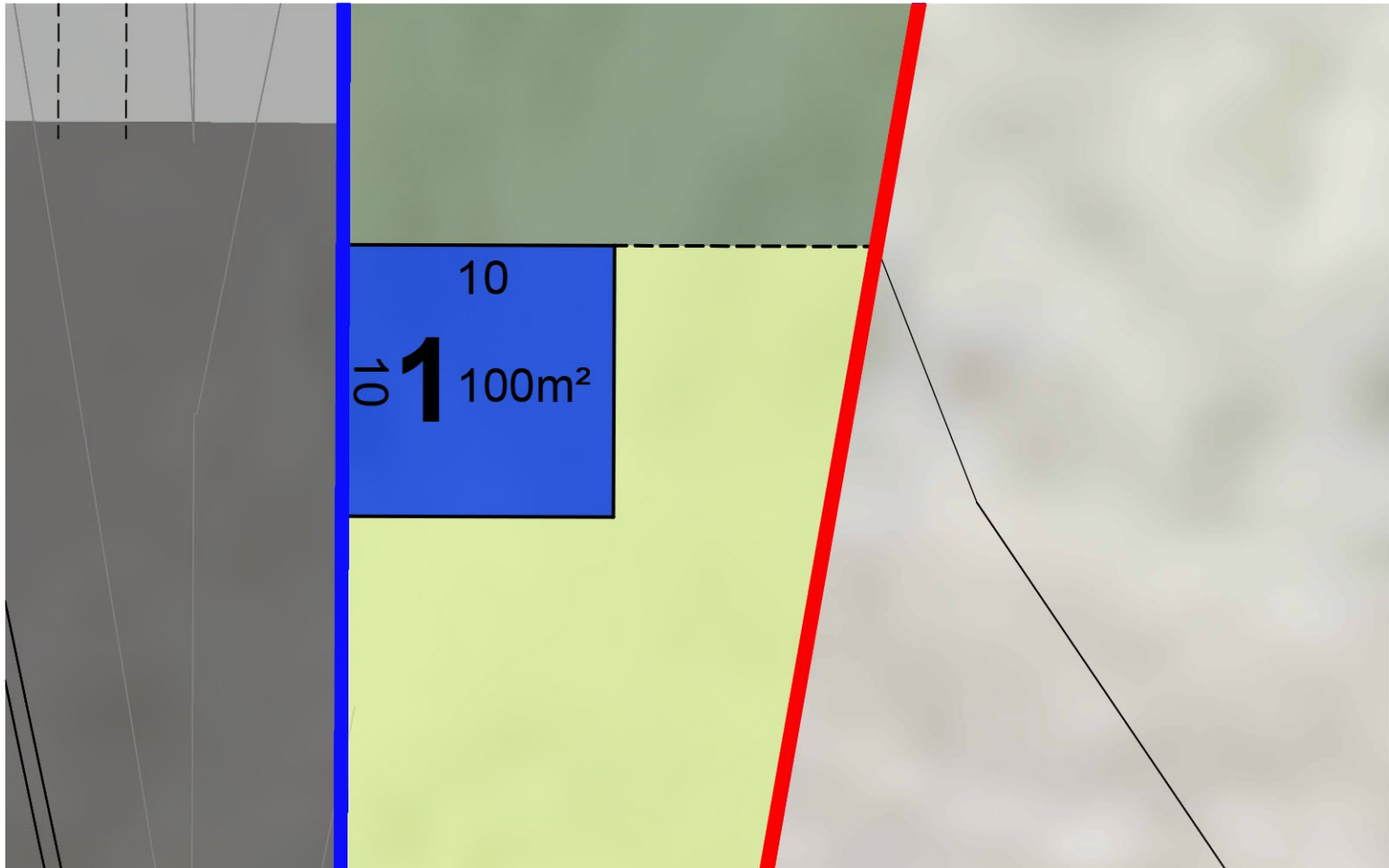
Note:
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Dimensions have been rounded to the nearest 0.1 metres.
Areas have been rounded down to the nearest 5m².
The boundaries shown on this plan should not be used for final detailed engineers design.

Source Information:
Site boundaries: Registered Survey Plans.
Adjoining information: DCDB.
Contours: EGIS.
Aerial photography: NEARMAP 2025.
Environment constraints: EGIS.



- Legend**
- Site Boundary
 - Road Widening (Highway Interchange)
 - Proposed Contours (0.2m interval)
 - Left in and out access only
- PROPOSED ALLOTMENTS**
- Bulky Goods and Retail
 - Light Industry/ Commercial
 - Proposed Telecommunications Lot
 - Potential Data Centre Use
- OPEN SPACE**
- Conservation
 - Highway Buffer
 - Drainage (Stormwater Treatment)
 - Local Linear Park
- ROAD RESERVE**
- Road Dedication Only
 - Extent of Constructed Road (Full Construction)
 - Extent of Constructed Road (Partial Construction)
 - Pedestrian Link
- CONNECTIVITY**
- Veloway (3m Shared Path + 1.5m footpath)
 - 3m Temporary Shared Path
 - 3m Shared Path
 - 3m Maintenance Track/ Shared Path
 - 3m Gravel Maintenance Track
 - 2.5m Shared Footpath
 - 1.5m Footpath

Land Budget		
Land Use	Area	Percentage
Application Area	80.689 ha	100.0%
Road Widening (Highway Interchange)	4.410 ha	5.5%
Proposed Allotments		
Light Industry/ Commercial	17.716 ha	22.0%
Large Format Retail - Homewares	5.281 ha	6.5%
Proposed Telecommunications Lot	0.001 ha	0.0%
Total Area of Allotments	22.997 ha	28.5%
Open Space		
Conservation	36.538 ha	45.3%
Highway Buffer	1.904 ha	2.4%
Drainage (Stormwater Treatment)	5.533 ha	6.9%
Linear Park	0.552 ha	0.7%
Total Area of Open Space	44.526 ha	55.2%
Road		
Trunk Connector Road (Constructed)	1.048 ha	1.3%
Trunk Connector Road (Reserve Dedication)	3.160 ha	3.9%
Industrial Access Street	4.380 ha	5.4%
Pedestrian Link	0.167 ha	0.2%
Total Area of New Road	8.755 ha	10.9%
Yield Breakdown		
Light Industry/ Commercial	51	96.2%
Large Format Retail - Homewares	1	1.9%
Proposed Telecommunications Lot	1	1.9%
Total Number of Allotments	53	100.0%



INSET PLAN

1:250 @ A1

AURA
PRECINCT 13
RECONFIGURATION OF LOT PLAN

PLAN REF: 17546 - 03
Rev No: O
DATE: 28 AUGUST 2026
CLIENT: STOCKLAND
DRAWN BY: SE/GM
CHECKED BY: CC



0 20 40 60 80 100 1:1,500 @ A1

URBAN DESIGN
Level 4 HQ South
520 Wickham Street
PO Box 1559
Fortitude Valley QLD 4006
T +61 7 3539 9500
W rpsgroup.com



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Adjoining information: DCDB.
Contours: EGIS
Aerial photography: NEARMAP 2025
Environment constraints: EGIS



Legend

- Site Boundary
- Road Widening (Highway Interchange)
- CONNECTIVITY**
- Veloway (3m Shared Path + 1.5m footpath)
- 3m Temporary Shared Path
- 3m Shared Path
- 3m Shared Path/ Maintenance Track
- 3m Gravel Maintenance Track
- 2.5m Shared Footpath
- 1.5m Footpath
- Existing 1.5m Footpath
- Existing 1.5m Footpath and 3m Contraflow cycleway
- Existing 3m Shared Path

INTERSECTIONS

- Signalised Intersection
- T Head Intersection
- Left in and out access only

**AURA
PRECINCT 13
CONNECTIVITY PLAN**

PLAN REF: 17546 - 08
Rev No: L
DATE: 28 AUGUST 2026
CLIENT: STOCKLAND
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0 20 40 60 80 100 1:1,500 @ A1

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Aerial photography: NEARMAP 2025
Environment constraints: EGIS



Legend

- Site Boundary
- Road Widening (Highway Interchange)
- STREET TYPES**
- Trunk Connector Road
- Future Trunk Connector Road
- Partial Construction - Trunk Connector Road
- 23m Industrial Access Street
- 22m Industrial Access Street
- 19m Industrial Access Esplanade
- Temporary Turnaround
- BUS NETWORK**
- Existing Bus Route
- INTERSECTIONS**
- Signalised Intersection
- T Head Intersection
- Left in and out access only

**AURA
PRECINCT 13
STREET NETWORK PLAN**

PLAN REF: 17546 - 09
Rev No: K
DATE: 28 AUGUST 2026
CLIENT: STOCKLAND
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Contours: EGIS
Aerial photography: NEARMAP 202
Environment constraints: EGIS

34 48ha

5515m²

3.461ha

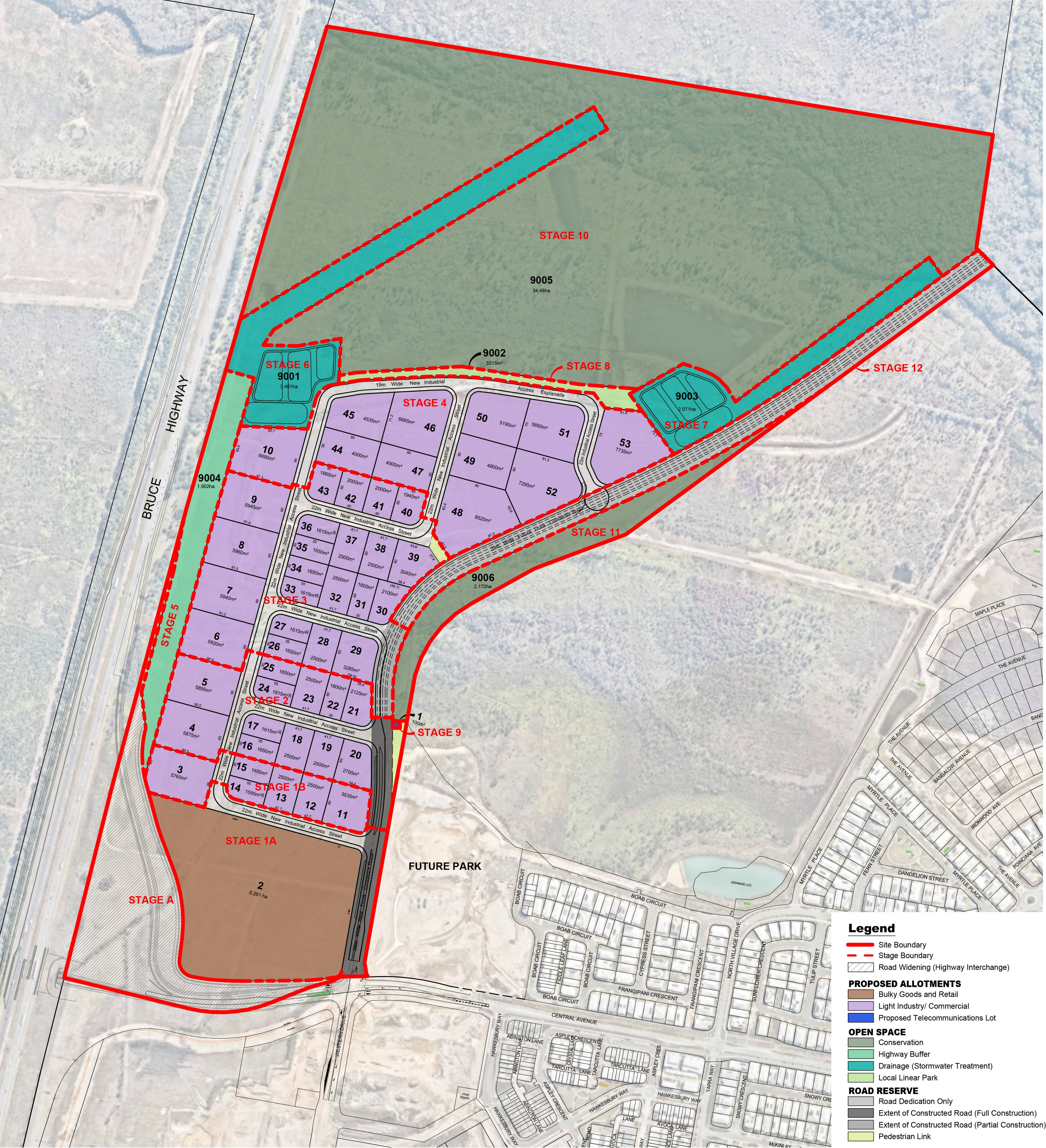
1000

2.172ha

Refer Tables 1 and 2 in the Plan of Development Document

100

An aerial photograph overlaid with a detailed site plan. The map shows various land parcels outlined in black with their respective lot numbers and areas. A large area at the bottom left is labeled 'STAGE A' and contains parcel 2 (5.281 ha). To its right is 'STAGE 1A'. Above these are several rows of smaller parcels, some grouped under labels like 'STAGE 1B', 'STAGE 2', 'STAGE 3', 'STAGE 4', 'STAGE 5', 'STAGE 6', 'STAGE 8', 'STAGE 9', 'STAGE 10', and 'STAGE 11'. Specific parcels are highlighted in different colors: a teal parcel (9001) near Stage 6, a green strip (Stage 5), and a light blue parcel (9005) near Stage 10. Other parcels are purple or brown. Major roads include 'BRUCE HIGHWAY' running vertically on the left and 'CENTRAL AVENUE' running horizontally at the bottom. A 'FUTURE PARK' area is indicated between Stage 1A and Stage 9. Various access streets and industrial streets are also shown. Dimensions and bearings are provided for many boundaries. Source information is located in the top left corner.

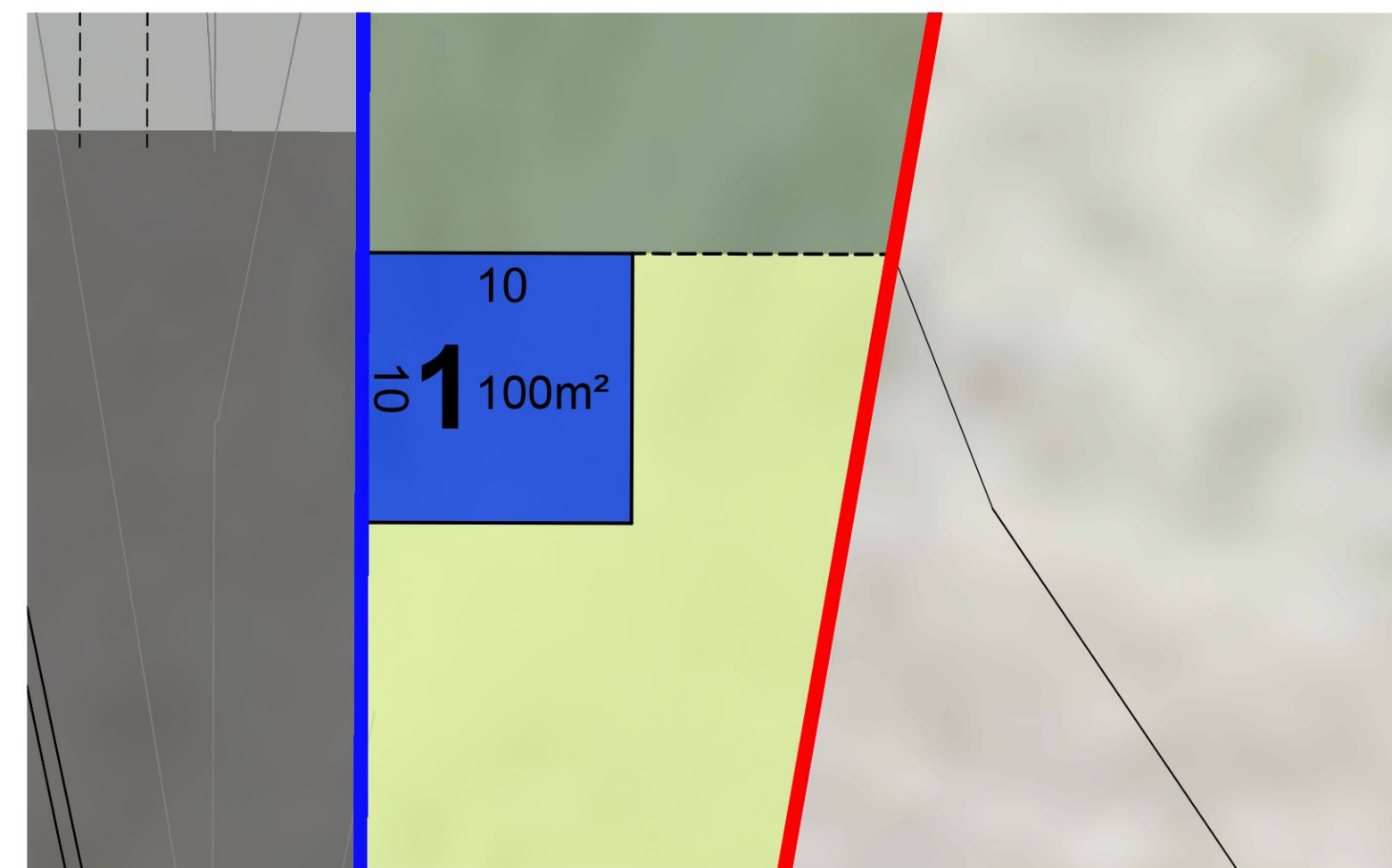


**AURA
PRECINCT 13
STAGING PLAN**

rps |

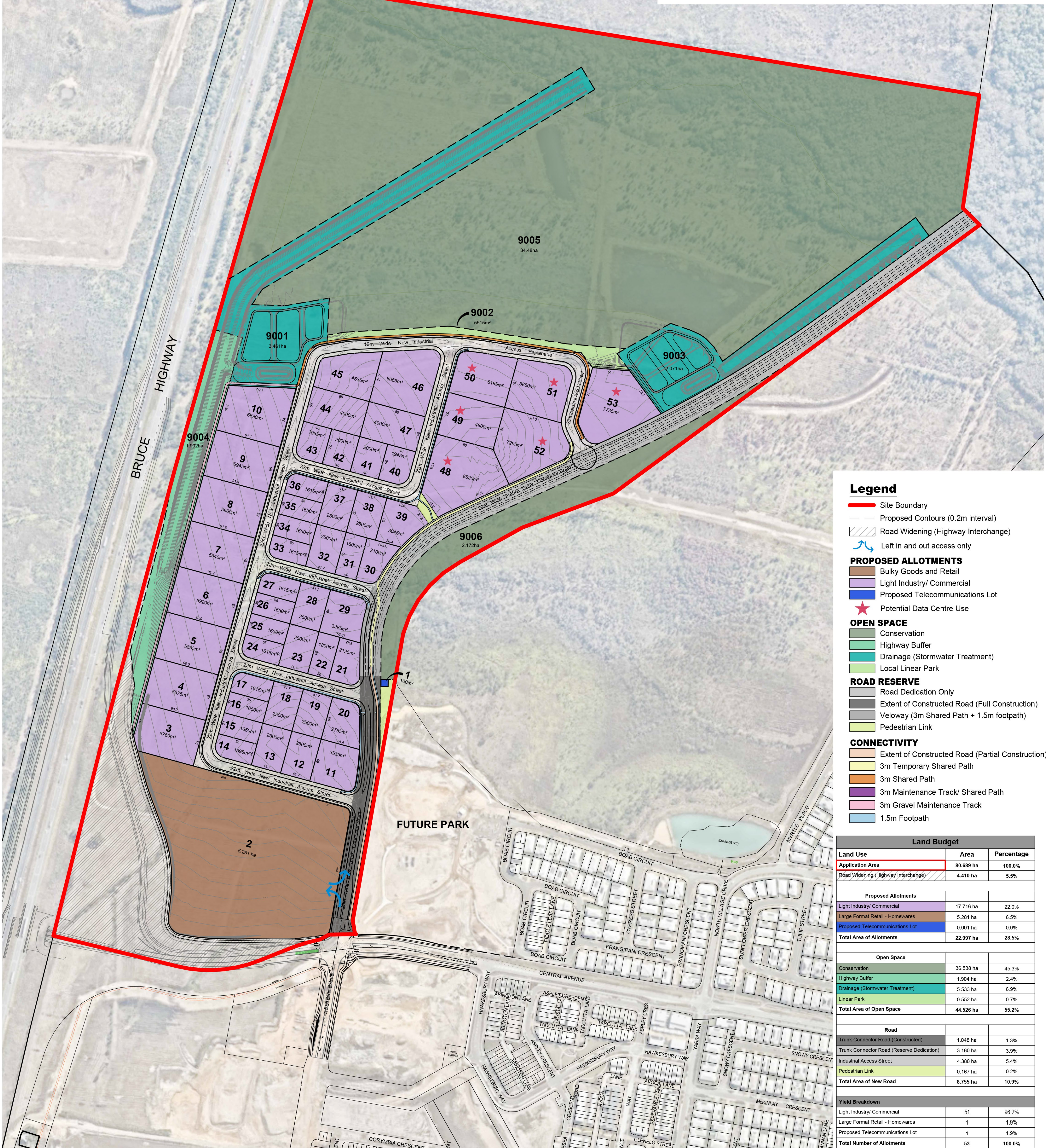
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Source Information:
Site boundaries: Registered Survey Plans.
Adjoining information: DCDB.
Contours: EGIS
Aerial photography: NEARMAP 2025
Environment constraints: EGIS



INSET PLAN

1:250 @ A1



Legend

-  Site Boundary
-  Proposed Contours (0.2m interval)
-  Road Widening (Highway Interchange)
-  Left in and out access only
- PROPOSED ALLOTMENTS**
-  Bulky Goods and Retail
-  Light Industry/ Commercial
-  Proposed Telecommunications Lot
-  Potential Data Centre Use

OPEN SPACE

-  Conservation
-  Highway Buffer
- Drainage (Stormwater Treatment)
-  Local Linear Park

ROAD RESERVE

-  Road Dedication Only
 Extent of Constructed Road (Full Construction)
 Veloway (3m Shared Path + 1.5m footpath)
 Pedestrian Link

CONNECTIVITY

- | | |
|---|---|
|  | Extent of Constructed Road (Partial Construction) |
|  | 3m Temporary Shared Path |
|  | 3m Shared Path |
|  | 3m Maintenance Track/ Shared Path |
|  | 3m Gravel Maintenance Track |
|  | 1.5m Footpath |

Land Budget		
Land Use	Area	Percentage
Application Area	80.689 ha	100.0%
Road Widening (Highway Interchange)	4.410 ha	5.5%
Proposed Allotments		
Light Industry/ Commercial	17.716 ha	22.0%
Large Format Retail - Homewares	5.281 ha	6.5%
Proposed Telecommunications Lot	0.001 ha	0.0%
Total Area of Allotments	22.997 ha	28.5%
Open Space		
Conservation	36.538 ha	45.3%
Highway Buffer	1.904 ha	2.4%
Drainage (Stormwater Treatment)	5.533 ha	6.9%
Linear Park	0.552 ha	0.7%
Total Area of Open Space	44.526 ha	55.2%
Road		
Trunk Connector Road (Constructed)	1.048 ha	1.3%
Trunk Connector Road (Reserve Dedication)	3.160 ha	3.9%
Industrial Access Street	4.380 ha	5.4%
Pedestrian Link	0.167 ha	0.2%
Total Area of New Road	8.755 ha	10.9%
Yield Breakdown		
Light Industry/ Commercial	51	96.2%
Large Format Retail - Homewares	1	1.9%
Proposed Telecommunications Lot	1	1.9%
Total Number of Allotments	53	100.0%

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0 20 40 60 80 100 120 140 1 : 2,500 @ A1

AURA
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OVERALL RECONFIGURATION OF LOT PLAN

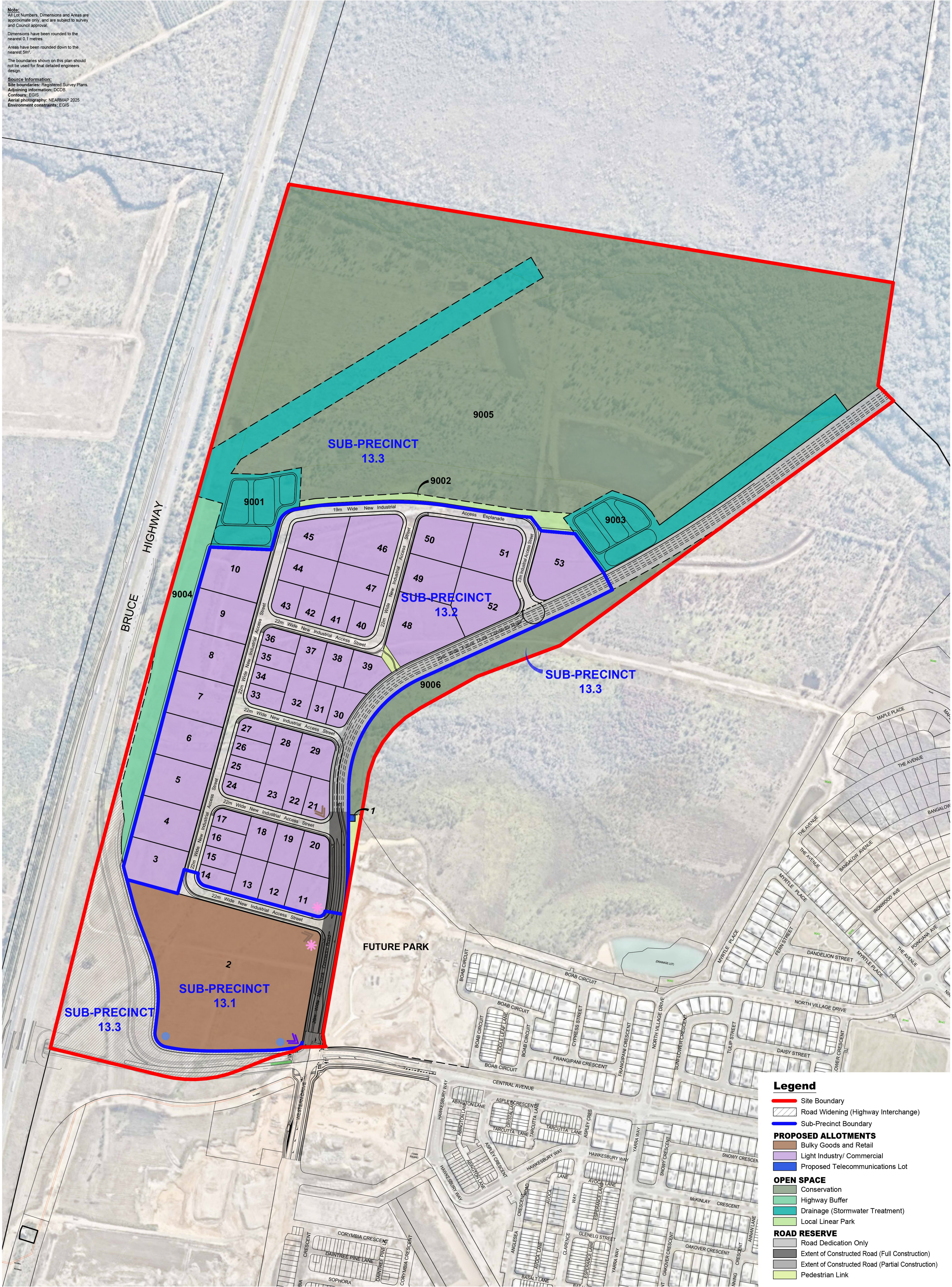
URBAN DESIGN
Level 4 HQ South
520 Wickham Street
PO Box 1559
Fortitude Valley QLD 4006
T +61 7 3539 9500
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Note:
All Lot Numbers, Dimensions and Areas are approximate only and are subject to survey and Council approval.
Dimensions have been rounded to 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.

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Site boundaries: Registered Survey Plans.
Adjoining information: DCDB.
Contours: EGIS.
Aerial photography: NEARMAP 2025
Environment constraints: EGIS



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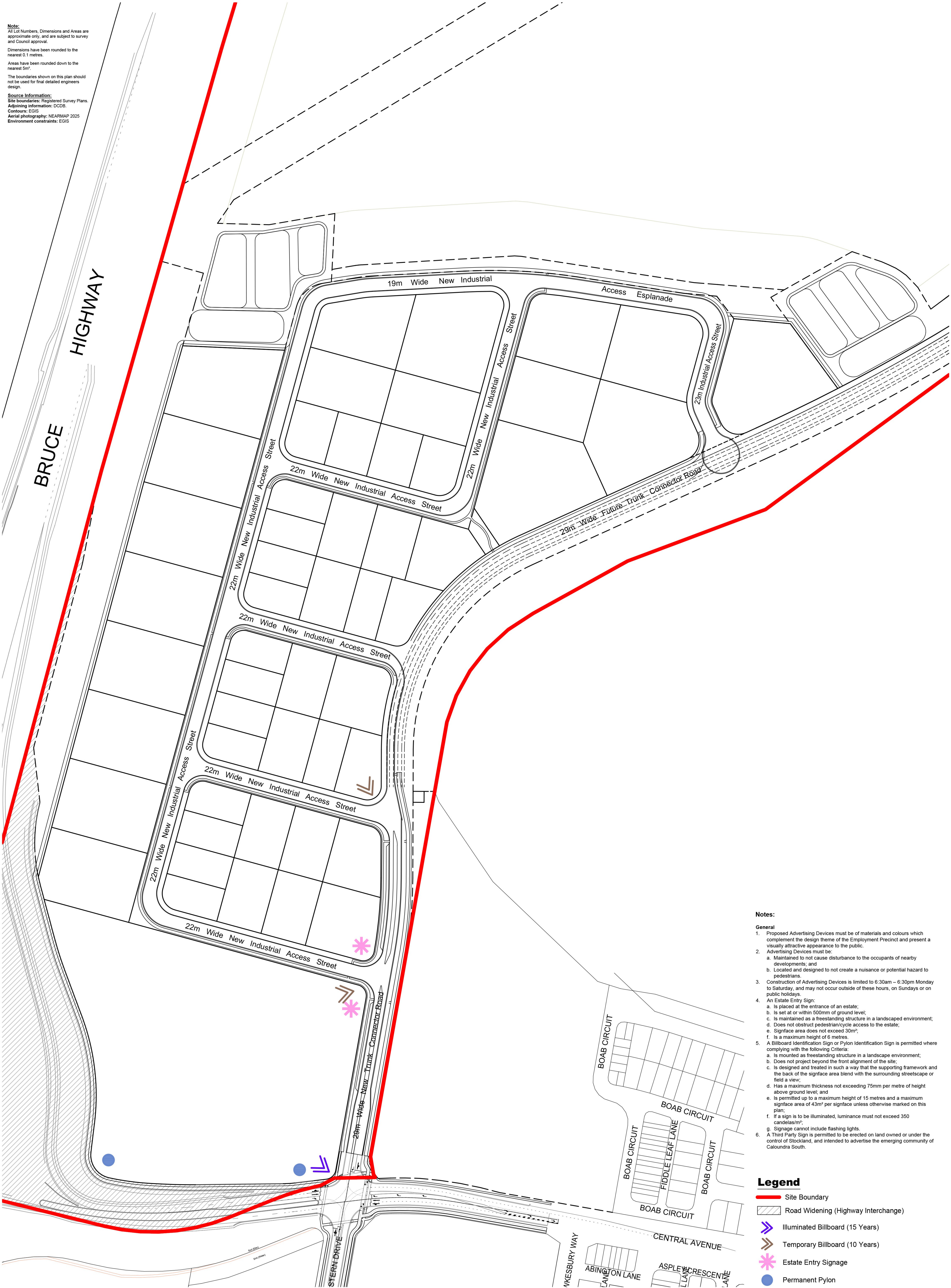
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SUB-PRECINCT PLAN

URBAN DESIGN
Level 4 HQ South
520 Wickham Street
PO Box 1559
Fortitude Valley QLD 4006
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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 Plans.
Adjoining information: DCDB.
Contours: EGIS
Aerial photography: NEARMAP 2025
Environment constraints: EGIS



- Notes:**
- General**
- Proposed Advertising Devices must be of materials and colours which complement the design theme of the Employment Precinct and present a visually attractive appearance to the public.
 - Advertising Devices must be:
 - Maintained to not cause disturbance to the occupants of nearby developments; and
 - Located and designed to not create a nuisance or potential hazard to pedestrians.
 - Construction of Advertising Devices is limited to 6:30am – 6:30pm Monday to Saturday, and may not occur outside of these hours, on Sundays or on public holidays.
 - An Estate Entry Sign:
 - Is placed at the entrance of an estate;
 - Is set at or within 500mm of ground level;
 - Is maintained as a freestanding structure in a landscaped environment;
 - Does not obstruct pedestrian/cycle access to the estate;
 - Signage area does not exceed 30m²;
 - Is a maximum height of 6 metres.
 - A Billboard Identification Sign or Pylon Identification Sign is permitted where complying with the following Criteria:
 - Is mounted as freestanding structure in a landscape environment;
 - Does not project beyond the front alignment of the site;
 - Is designed and treated in such a way that the supporting framework and the back of the signage area blend with the surrounding streetscape or field a view;
 - Has a maximum thickness not exceeding 75mm per metre of height above ground level; and
 - Is permitted up to a maximum height of 15 metres and a maximum signage area of 43m² per signage unless otherwise marked on this plan;
 - If a sign is to be illuminated, luminance must not exceed 350 candelas/m²;
 - Signage cannot include flashing lights.
 - A Third Party Sign is permitted to be erected on land owned or under the control of Stockland, and intended to advertise the emerging community of Caloundra South.

- Legend**
- Site Boundary
 - Road Widening (Highway Interchange)
 - Illuminated Billboard (15 Years)
 - Temporary Billboard (10 Years)
 - Estate Entry Signage
 - Permanent Pylon

PLAN REF: 17546 – 16
Rev No: D
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SIGNAGE PLAN

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Level 4 HQ South
520 Wickham Street
PO Box 1559
Fortitude Valley QLD 4006
T +61 7 3539 9500
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APPENDIX B: STORMWATER QUALITY MANAGEMENT PLAN BY EGIS

AURA PRECINCT 13

STORMWATER MANAGEMENT PLAN

Prepared for **Stockland Development Pty Ltd**



Document information

GENERAL INFORMATION

Author(s)	Gabriel Bausson / Lance May
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Prepared by (author)	Gabriela Bausson
Reviewed by	Lance May / Oliver Hartigan
Approved by	Lance May
Security classification	Commercial-in-Confidence

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Version	Date	Checked by
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Version	Date	Approved by
1	25-Aug-2026	Lance May

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APPENDICES

Appendix A: Lot Layout

Appendix B: MUSIC Layout and Results

Appendix C: Concept WSUD Drawings

1 INTRODUCTION

The Aura development is a major master planned community located on the Sunshine Coast, Queensland. Stormwater management investigations and planning for the broader Aura development has been undertaken progressively over a number of years to support staged development across the precincts. The protection of adjacent and downstream environmental receiving nodes, including Bells Creek and Pumicestone Passage is the driving factor behind these works.

Previous stormwater quality investigations undertaken for the Aura development has established a broader water management strategy incorporating stormwater quality treatment, integrated water cycle management principles, and environmental protection measures associated with sensitive ecological areas and waterways. These investigations identify the need for enhanced stormwater quality treatment objectives due to the environmental significance of the downstream receiving waters.

Egis Consulting has been commissioned by Stockland Development Pty Ltd to prepare this Stormwater Management Plan (SMP) for Aura Precinct 13 to support the Development Application over the northwestern portion of the subject site, known as Aura Precinct 13. The report documents the stormwater quality management strategy adopted for the site, including the proposed treatment train approach, MUSIC modelling methodology, conceptual treatment measures, and stormwater quality performance outcomes associated with the proposed development.

The proposed strategy has been developed having regard to the broader Aura Water Management Strategy, the Aura Development Stormwater Management Plan prepared by DesignFlow & BMT (2019), relevant environmental constraints, surrounding infrastructure interfaces, and current conceptual civil design information. Flood planning levels and regional flooding constraints adopted for the conceptual design have been established generally in accordance with the BMT regional flood modelling and associated flood raster data applicable to the Aura development.

This report also considers the integration of stormwater treatment measures with environmental protection requirements associated with riparian corridors, frog habitat areas, adjacent waterway buffers, and the broader regional drainage framework.

The proposed development layout and site location for Precinct 13 is shown in **Appendix A**.

1.1 Background

1.1.1 Aura Development, Stormwater Management Plan (Design Flow & BMT, 2019)

Stormwater management investigations and analysis have been progressively undertaken for the broader Aura development to support staged development across the precincts and protect the environmental values of downstream receiving waters associated with Bells Creek and Pumicestone Passage. Staged investigations have been undertaken to achieve the objectives set out in the report '*Aura Development, Stormwater Management Plan*' (Design Flow & BMT, 2019).

As part of this report's development, waterway modelling and catchment analysis was undertaken to establish design objectives that when delivered achieves all objectives for the downstream receiving waterway. Precincts discharging to Bells Creek are required to achieve significantly higher water quality objectives from that identified within the Queensland State Planning Policy. The operational design objectives identified for Precinct 13 include:

- Minimum reduction in mean annual load from unmitigated development for the following pollutants discharging to Bells Creek:
 - Total Suspended Solids – 95%
 - Total Phosphorus – 89%
 - Total Nitrogen – 68%
 - Gross Pollutants – 90%
- Rainwater tank requirements for Commercial and Industrial land uses:
 - 1.0kL per toilet/urinal or 25kL/ha
 - Minimum 5kL tank per lot

The 'Aura Development, Stormwater Management Plan' (Design Flow & BMT, 2019) also includes information on potential 'typical' design solutions which could be incorporated. Importantly however, the adoption of these design solutions is not required, with the report clearly identifying that alternative water quality treatment trains can be adopted. In short, the inclusion of a constructed wetland into all WSUD areas is not required. Furthermore, it identifies that so long as the operational phase design objectives are achieved, a non-worsening to the downstream environment is considered to have been achieved.

1.1.2 Aura Flood Risk Management Report (BMT, 2026)

Regional flood behaviour and flood planning affecting the development of Precinct 13 have been investigated by BMT and documented in their report 'R.003060.002.01 Aura Flood Risk Management Report 2026'.

This report and resulting design objectives are discussed further in **Section 3**.

Modelling undertaken by BMT has confirmed the concept channel located between the Bruce Highway and Precinct 13 (within the highway buffer) is appropriately sized. Instead of flowing like a regular channel, this channel instead acts as a balance pipe, connecting the 'upstream' Bruce Highway culverts directly to the Bells Creek floodplain. As the channel sizing is not governed by upstream flow conveyance and is instead controlled by Bells Creek flood levels, sizing was validated within the regional flood modelling.

1.2 Existing Topography

The site generally drains from south to north towards Bells Creek North through a combination of existing drainage corridors and overland flow paths. External catchment flows associated with the Bruce Highway drainage network also discharge into Precinct 13 from the west and south-west.

Existing site conditions include disturbed grassed areas, existing drainage infrastructure, and the interim peak flow mitigation basin located over the northern portion of Precinct 13. Existing drainage conditions and regional flood behaviour affecting the site have been established generally in accordance with the BMT regional flood modelling and associated flood raster information applicable to the Aura development. Refer to **Figure 1-1** below.

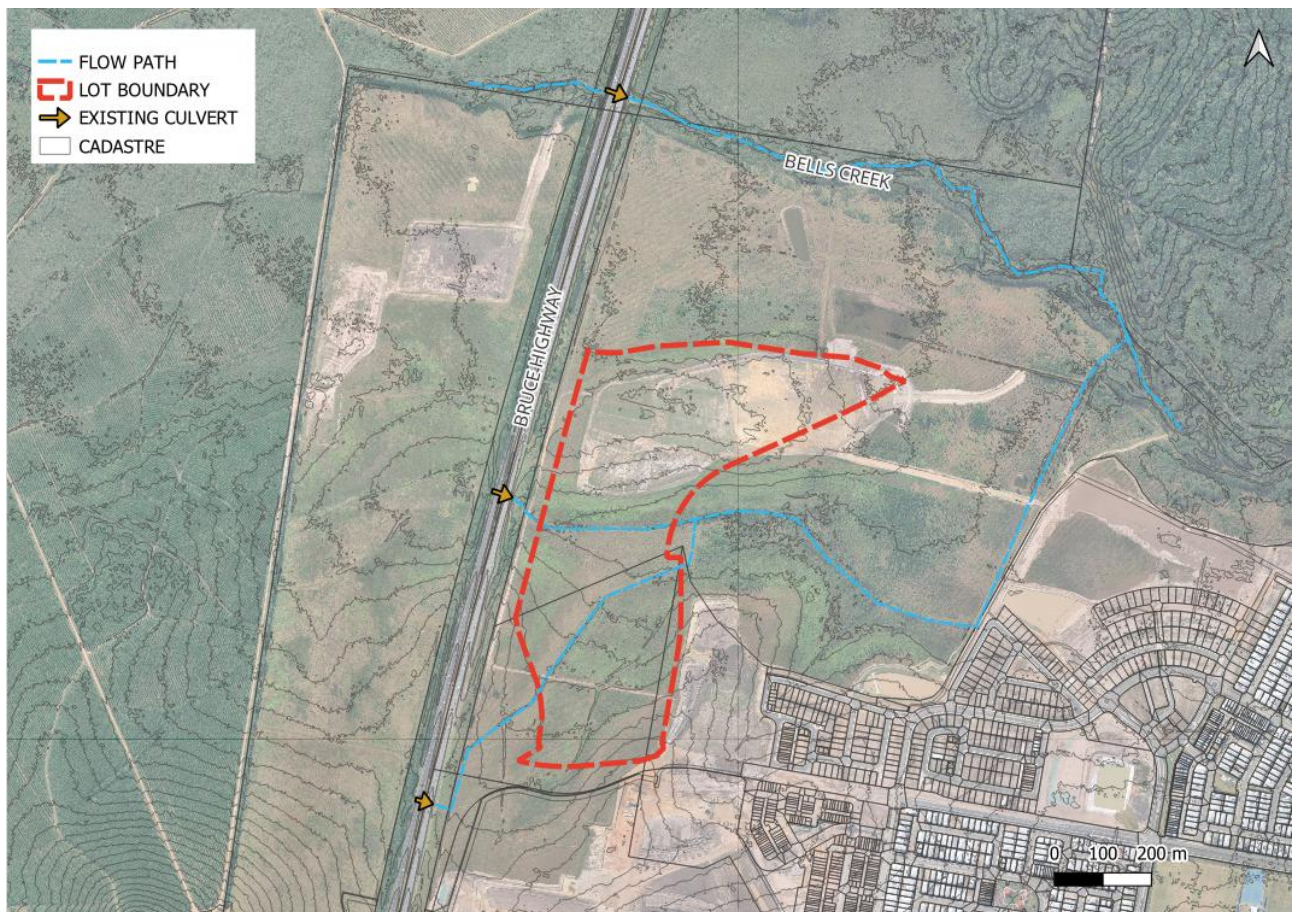


FIGURE 1-1 EXISTING TOPOGRAPHY

1.3 Proposed Development

The proposed development for Aura Precinct 13 comprises commercial and industrial allotments, internal road infrastructure, stormwater management infrastructure, and associated open space areas.

Stormwater runoff from the proposed development will be collected within the internal drainage network and conveyed north towards Bells Creek North via the proposed sediment basins, bioretention systems, and downstream drainage infrastructure. External catchment flows associated with the Bruce Highway drainage network will also be conveyed north through the proposed highway buffer located along the western portion of Precinct 13.

The proposed development layout has been developed to integrate with the broader Aura regional drainage framework and surrounding infrastructure, including the proposed Bruce Highway Interchange works.

The proposed development layout is shown in **Figure 1-2** below. Refer **Section 2.4.3** for details of development areas included within this analysis.