OSKA CONSULTING GROUP

ENGINEERING INFRASTRUCTURE REPORT

Proposed Residential Subdivision

31-53 Courtney Drive, 176 & 202 Baileys Mountain Road, Lot 57 & 288 Reserve Road, Upper Coomera

Lots 184-186 on SP173728, Lot 183 on RP156422, Lot 58 on SP191940, Lot 56 on RP162858 & Lot 57 on SP214370

For Norfolk Estates Pty Ltd

26 June 2025

Document No: OSK6521-0004-B

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Title:	Engineering Infrastructure Report
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Applicant:	Norfolk Estates Pty Ltd
Client:	Norfolk Estates Pty Ltd
Client Contact:	John Warlow
Client Reference:	31-53 Courtney Drive, 176 & 202 Baileys Mountain Road, Lot 57 & 288 Reserve Road, Upper Coomera
Synopsis:	This report examines the existing infrastructure and future engineering impacts for the proposed development of the site, including the availability of services and the provision of water and sewerage servicing the development site and determines the demand on these systems from the proposed development.

Reviewed by RPEQ	Reg. No.	Signed	Date
Daley Curran	26353		26 June 2025

Revision/Checking History			
Revision No	**Date**	**Checked By**	**Issued By**
A	11 December 2024	Aaron Pianta	Adam Iervese
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Norfolk Estates Pty Ltd - John Warlow	1	PDF

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CONTENTS

1.0 INTRODUCTION 1
1.1 Background 1
2.0 SITE DESCRIPTION 2
2.1 Location 2
2.2 Site Topography 2
2.3 Vegetation and Land Use 3
2.4 Proposed Development 3
3.0 EARTHWORKS 4
3.1 Sediment & Erosion Controls 4
4.0 ROADWORKS 4
5.0 STORMWATER 5
6.0 SEWERAGE 5
7.0 WATER 6
8.0 ELECTRICAL AND TELSTRA 7
9.0 CONCLUSIONS 7

TABLES

Table 1: Site Description 2

FIGURES

Figure 1: Locality Plan (Source: Nearmap) 2
Figure 2: Aerial Image of the Site (Source: Nearmap – Image taken 22 December 2025) 3

APPENDICES

Appendix A: LandPartners, *Detail Survey* (Ref: BRJD8528-00-12-1)
Appendix B: Saunders Havill Group; Proposal Plan (Ref: 11694 P 11)
Appendix C: OSKA Consulting Group; Preliminary Bulk Earthworks Layout and Section Plans (Ref: OSK6521-P010-P019)
Appendix D: OSKA Consulting Group; *Preliminary Roadworks Plan* (Ref: OSK6521-P020-P029)
Appendix E: OSKA Consulting Group; *Preliminary Services Plan* (Ref: OSK6521-P040- P045)
Appendix F: Oska Consulting Group; Preliminary Sediment and Erosion Plan (Ref: OSK6521- P050 – P052)
Appendix G: Email correspondence with Council's Water and Wastewater Team for External Creditable Works
Appendix H: Before You Dig Australia Plans

1.0 INTRODUCTION

1.1 Background

OSKA Civil Consultants has been commissioned by Norfolk Estates Pty Ltd to prepare a Engineering Infrastructure Report (EIR) to support a Development Application for the proposed residential subdivision development situated at 31-53 Courtney Drive, 176 & 202 Baileys Mountain Road, Lot 57 & 288 Reserve Road, Upper Coomera .

The subject site is described as Lots 184-186 on SP173728, Lot 183 on RP156422, Lot 58 on SP191940, Lot 56 on RP162858 & Lot 57 on SP214370 and has a total site area of 18.301 ha.

This revision of the report (B) was issued for a new Development Application and in response to Council's Information Request dated 28 January 2025 for the previous Development Application (ROL/2024/116).

2.0 SITE DESCRIPTION

2.1 Location

The subject site is located at 31-53 Courtney Drive, 176 & 202 Baileys Mountain Road, Lot 57 & 288 Reserve Road, Upper Coomera . The site fronts Courtney Drive to the north, Baileys Mountain Road to the east, Reserve Road and Richardson Crescent to the south and has existing residential properties to the north, east and west. The site covers a total combined area of 18.301 ha, with details as summarised in *Table 1* and as located in *Figure 1*.

Table 1: Site Description

Client	Lot and Property Description	Street Address
Norfolk Estates Pty Ltd	*Lots 184-186 on SP173728, Lot 183 on RP156422, Lot 58 on SP191940, Lot 56 on RP162858 & Lot 57 on SP214370*	*31-53 Courtney Drive, 176 & 202 Baileys Mountain Road, Lot 57 & 288 Reserve Road, Upper Coomera*



Figure 1: Locality Plan (Source: Nearmap)

2.2 Site Topography

The site generally grades to the south/east either towards the existing waterway through the site or the existing swale along Baileys Mountain Road. The existing site is relatively steep with spot heights ranging from approximately RL 23.00m AHD to 49.50m AHD. Based on the provided survey and aerial information, any stormwater runoff from the site either drains to the existing waterway through the site or the existing swale along Baileys Mountain Road.

Further information of the site survey has been provided by LandPartners, Detail Survey (Ref: BRJD8528-00-12-1) included as Appendix A.

2.3 Vegetation and Land Use

The subject site currently consists of five residential properties and most of the lots contain a number of dwellings/structures typically consisting of a residential dwelling, detached garage and shed. The subject site contains a total of three dams and a waterway that runs through the site from the north-west and along the southern site boundary through the south-eastern corner of the site. The majority of the subject site is covered in grassed areas with multiple trees throughout the site. Access to each lot is gained via dirt driveways from the road fronting each lot.

An aerial photograph taken on the 22 December 2024 of the subject site is included in Figure 2.



Figure 2: Aerial Image of the Site (Source: Nearmap – Image taken 22 December 2024)

2.4 Proposed Development

The proposed development for the site consists of a 188 lot residential subdivision with lot areas ranging between 300-923m^2. Access to the proposed development will be gained via one of the number of new road connections from Courtney Drive, Baileys Mountain Road and Richardson Crescent which will provide access to all lots. The development will be completed through six stages of works, ranging from 20 – 46 lots per stage.

Refer to Appendix B for further proposed layout details prepared by Saunders Havill Group; Proposal Plan (Ref: 11694 P 11).

3.0 EARTHWORKS

Earthworks will be required across the site to facilitate the development. The proposed site grading will require a combination of cut and fill to construct the proposed roadways, allotment pads and direct the development's overland flow to the proposed basin extents.

Retaining walls will be required within the development site to facilitate construction of building pads, stormwater drainage and facilitate sewer servicing for the development. To minimise slopes across the proposed allotments retaining walls up to a maximum height of 3m will be required, with walls higher than 1.5m are to be tiered in accordance with Council requirements. All walls will be wholly contained within the proposed allotments and shall not encroach into road reserves.

Earthworks will be constructed in accordance with Section 3 of the CoGC Land Development Guidelines (LDG's), and all relevant Australian Standards. Any areas of filling of the site will be to a Level 1 compaction standard in accordance with the Planning Scheme Policy and AS3798.

The proposed road reserves that terminate at the boundary of the neighbouring lots (Lot 182 RP 156422 and Lot 187 RP 173728) will include a temporary batter to tie in with existing levels. Once the neighbouring lot were developed, these respective road reserves can be graded and tied in neatly.

For further details, see schematic drawings showing the proposed earthworks intent as illustrated in OSKA Consulting Group; Preliminary Bulk Earthworks Layout and Section Plans (Ref: OSK6521- P010-P019) included as Appendix C.

3.1 Sediment & Erosion Controls

Sediment and erosion control devices (S&EC) employed on the site shall be designed and constructed in accordance with the Institution of Engineers, Soil Erosion and Sediment Control Guidelines (IESESC) and City of Gold Coast.

Future Operational Works applications will provide additional details on the sediment and erosion control details proposed for the site. Typically, there are water quality basins proposed for each of the sub catchments and it is proposed that these will be utilised as sediment basins during construction. The OSKA Consulting Group Conceptual Stormwater Management Plan provides high level sediment and erosion control intents.

For further details, see schematic drawings showing the proposed earthworks intent as illustrated in Oska Consulting Group; Preliminary Sediment and Erosion Plan (Ref: OSK6521-P050 – P052) included as Appendix F.

4.0 ROADWORKS

The proposed development will be accessed via both Courtney Drive and Baileys Mountain Road. Access will be provided to be via a new intersection on Courtney Drive for the north-eastern lots and the proposed intersection along Baileys Mountain Road which was currently as a part of the neighbouring townhouse development application (Council DA Ref: COM/2024/317).

The design of the internal roads has been undertaken in accordance with CoGC's Planning Scheme Policy. Road grades will vary between a minimum of 0.5% and a maximum of 16%. Final road levels will be set to ensure that driveways can be provided to all allotments with a desirable maximum grade of 16.6% wherever possible.

Internal roadworks across the site will be provided by new 16.5m residential access streets, with 15.5m road reserves proposed where there was a parallel waterway and park. Road 5, which provides access to Basin B, is proposed as a 12.0m residential street.

A 16.5m road reserve has been provided for Road 2, with a 6.0m wide pavement extents proposed to be constructed as a part of the development. Throughout the future development of Lot 182 SP156422, the remaining carriageway and verge will be completed to allow for future lots to front Road 2. In the interim, a temporary swale drain will be constructed off the proposed pavement, with a temporary batter (maximum 1:2) required to tie in with the existing levels. This road ties in with adjacent existing levels as best practical due to the existing topography with the maximum road grade being 16% (absolute maximum), aligned with Council's planning scheme policy.

External roadworks will be required to facilitate the construction of the major intersection access points to the proposed development, however all roadworks along Baileys Mountain Road will be completed by Council as part of the Bailey Mountain Rd upgrade and the ongoing development at 202 Baileys Mountain Road (DA Ref: COM/2024/317).

A widening of the road pavement has been proposed along Courtney Drive to ensure that half the road of the ultimate Courtney Drive carriageway and road reserve were completed. The works will extend along the complete site frontage and taper back to tie in with the existing roadway. To facilitate the RCV movement into the development site along Courtney Drive, a Basic Right (BAR) turn treatment has been proposed. Refer to the traffic engineering report completed by Colliers for further details.

For further details, see schematic drawing showing the proposed roadworks as illustrated in the OSKA Consulting Group; Preliminary Roadworks Plan (Ref: OSK6521-P020-P029) included as Appendix D.

5.0 STORMWATER

All captured stormwater from the proposed subdivision is to be directed to the proposed Council owned combined bioretention-detention basins across the site. These Council Stormwater basins has been designed to comply with the requirements of the CoGC LDG's. Internal council stormwater drainage will be provided to convey all site flows in accordance with the LDG's and QUDM requirements.
For further details, see OSKA Consulting Group, Conceptual Stormwater Management Plan (Ref: OSK6521-0003).

6.0 SEWERAGE

There is an existing 300mm PVC trunk sewer main that runs parallel with Yaun Creek traversing the site. As there were multiple ongoing neighbouring developments around the subject site, there are multiple sewer main extensions currently being proposed or constructed. These have been summarised below:

- The subdivision of 79 Courtney Drive has proposed a continuation of the trunk sewer main which will be constructed through the south-west corner of the site (OPW Ref: OPW/2024/987)
- The townhouse development on 155 Baileys Mountain Road has proposed to extend the sewer infrastructure along Baileys Mountain Road past the subject site (DA Ref: MIN/2024/449)

The proposed development will continue the construction of the 225m PVC trunk sewer main through the site from Richardson Crescent and up to Courtney Drive. This asset has been flagged in Council LGIP for construction and therefore can be deemed as trunk infrastructure which will be creditable.

The internal sewerage reticulation will provide new 150mm PVC-U sewer reticulation across the site within the proposed new road reserve to service each new lot. Due to the existing topography of the site, the proposed development will discharge at multiple sewer access points throughout the proposed trunk sewer main and sewer mains to be constructed by others.

One of the required sewer main connection locations will be on the southern side of Yaun Creek which will require the sewer main to cross above the existing waterway and connect directly into the existing trunk main.

For further details, see schematic drawings showing the existing sewer infrastructure and the proposed modifications to the existing network as illustrated in the OSKA Consulting Group; Preliminary Services Plan (Ref: OSK6521-P040- P045) included as Appendix E.

The proposed demands upon the existing sewer network due to the proposed development have been calculated in accordance with the SEQ Water Supply and Sewerage Design & Construction Code (SEQ WS&S D&C Code), as amended by the CoGC Desired Standard of Service (DSS) and Water & Sewer demand tables. Refer to the Water and Sewer capacity assessment completed by WCS Engineering.

7.0 WATER

There are currently no existing live water mains servicing the subject site. However, there are currently multiple water mains being proposed or constructed to service neighbouring developments. These have been summarised below:

- The subdivision of 79 Courtney Drive has proposed an internal water main extension through the development from Gordon Drive to Courtney Drive. The water main will extend through to the site's frontage of Courtney Drive, approx. 120m from the subject site (DA Ref: COM/2019/82)
- The townhouse development on 202 Baileys Mountain Road has proposed to extend the external water main into the subject site (along Road 1) to provide their development with an internal connection (DA Ref: COM/2024/317)
- The townhouse development on 155 Baileys Mountain Road has constructed the external water main along Baileys Mountain Road past the subject site (DA Ref: MIN/2024/449)

In accordance with Council's ''WSSIP Planned Water Supply Infrastructure'', a trunk watermain extension along Baileys Mountain Road and along Courtney Drive will be constructed, creating a closed loop water network. A preliminary watermain alignment has been shown on the attached servicing layout plans, however the ultimate alignment, and property boundary offsets will be subject to further detailed design.

Council has advised that a watermain extension along Reserve Road between Rangeview Road and Lawson Street has been planned, in which it has been requested that these works be undertaken as a part of the proposed development. All external watermain extensions (i.e. along Reserve Road, Baileys Mountain Road and Courtney Drive) will be considered as creditable works, and part of a future infrastructure agreement with Council.

For further details, see email correspondence with Council's Water and Wastewater Team included as Appendix G.

The western catchment of the development will be serviced by the proposed trunk watermain along Courtney Drive. The eastern catchment of the proposed development will be connected to the constructed watermain along Baileys Mountain Road.

For further details, see schematic drawings showing the existing water infrastructure and the proposed modifications to the existing network as illustrated in the OSKA Consulting Group; Preliminary Services Plan (Ref: OSK6521-P040- P045) included as Appendix E.

8.0 ELECTRICAL AND TELSTRA

Electrical, Telecommunications and Gas services are all available to connect to the site. Electrical services are available along Courtney Drive. Telecommunication services are available along Courtney Drive and Baileys Mountain Drive. Gas services are available along Baileys Mountain Drive.
The proposed connection and load requirements and any necessary upgrades will need to be determined as part of more detailed investigations.

The Before You Dig Australia Plans for the existing services is included in Appendix G.

9.0 CONCLUSIONS

OSKA Civil Consultants has been commissioned by Norfolk Estates Pty Ltd to prepare an Engineering Infrastructure Report (EIR) to support a Development Application (DA) to the City of Gold Coast (CoGC) for the proposed Residential Subdivision situated at 31-53 Courtney Drive, 176 & 202 Baileys Mountain Road, Lot 57 & 288 Reserve Road, Upper Coomera . The subject site is described as Lots 184-186 on SP173728, Lot 183 on RP156422, Lot 58 on SP191940, Lot 56 on RP162858 & Lot 57 on SP214370 .

This Engineering Infrastructure Report has detailed the existing infrastructure and the provision of services to the proposed development and determined the proposed demand on the existing water and sewerage infrastructure. The location of the existing water and sewerage reticulation infrastructure as well as the proposed connection points for the development have been shown on the servicing plans in addition to the proposed roadworks.

APPENDIX

A

LandPartners, Detail Survey (Ref: BRJD8528-00-12-1)

COURTNEY DRIVE

BAILEYS MOUNTAIN ROAD

182
RP156422

183
RP156422

184
RP173727

185
RP173727

186
RP173728

187
RP173728

188
RP173728

58
SP191940

57
SP214370

56
RP162858

Emt B SP205586

Emt C SP214374

Emt A SP205586

RESERVE ROAD

75
SP174234

RICHARDSON CRES

900
SP205578

Emt A SP205578

Emt B SP205578

Emt C SP205578

1
SP205578

2
SP205578

3
SP205578

WRIGHT COURT

BRJD8528-000-12-1
Eden - Upper Coomera
Detail Survey
Contour Interval - 0.5m
10/09/2024

10 0 20 50 110m

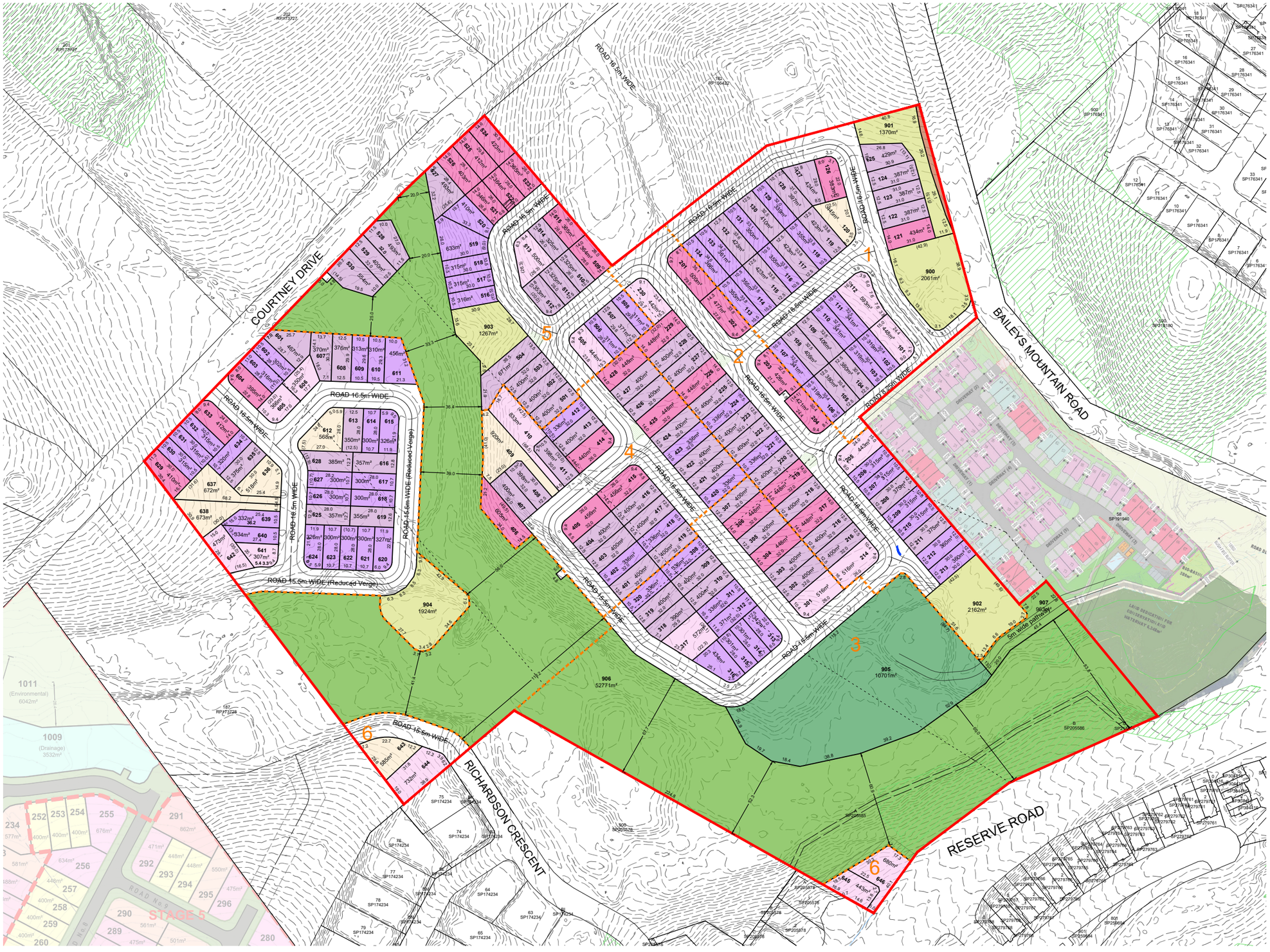
SCALE BAR

APPENDIX

B

Saunders Havill Group; Proposal Plan (Ref: 11694 P 11)

CONCEPT PLAN



NOT TO BE USED FOR ENGINEERING DESIGN OR CONSTRUCTION

NOTES

This plan was prepared as a conceptual layout only. The information on this plan is not suitable for any other purpose.

Property dimensions, areas, numbers of lots and contours and other physical features shown have been compiled from existing information and may not have been verified by field survey. These may need verification if the development application is approved and development proceeds, and may change when a full survey is undertaken or in order to comply with development approval conditions.

No reliance should be placed on the information on this plan for detailed subdivision design or for any financial dealings involving the land.

Pavements and centrelines shown are indicative only and are subject to Engineering Design.

Saunders Havill Group therefore disclaims any liability for any loss or damage whatsoever or howsoever incurred, arising from any party using or relying upon this plan for any purpose other than as a document prepared for the sole purpose of accompanying a development application and which may be subject to alteration beyond the control of the Saunders Havill Group. Unless a development approval states otherwise, this is not an approved plan.

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* This note is an integral part of this plan/data. Reproduction of this plan or any part of it without this note being included in full will render the information shown on such reproduction invalid and not suitable for use.

PROJECTION: GDA2020 MGA56

SUBJECT BOUNDARIES: LOT CALCULATIONS BY LANDPARTNERS DATED 25/11/2024

LEGEND

- Site Boundary
- Major Contour (1.0m interval)
- Minor Contour (0.5m interval)
- Vegetation Management
- Traffic Calming & Landscape Treatment
- Proposed Temporary Turnaround Easement
- Indicative Binpad Location
- Stage Boundary
- 1 Stage No.

DEVELOPMENT STATISTICS			
RESIDENTIAL ALLOTMENTS	**No. Lots**	**%**	**Net Area**
10.5m - 12.49m Frontage	64	34.0%	2.152 ha
12.5m - 13.99m Frontage	71	37.8%	2.851 ha
14m - 14.99m Frontage	29	15.4%	1.244 ha
> 15m Frontage	17	9.0%	0.866 ha
Irregular Frontage	7	3.7%	0.439 ha
Total Residential Allotments	**188**	**100.0%**	**7.552 ha**

Land Budget	**Area (Ha)**	**%**	
Area of Subject Site / Stage	18.266 ha		
Net Residential Area (no roads)	7.552 ha	41.3%	
Detention / Drainage	0.881 ha	4.8%	
Local Park	1.070 ha	5.9%	
Environmental Open Space	5.280 ha	28.9%	
Road Widening	0.025 ha	0.1%	
Road Areas	3.458 ha	18.9%	
Total	**18.266 ha**	**100.0%**	

RP DESCRIPTION: Lot 185 on RP173727, Lot 186 on RP173728, Lot 57 on SP214370 & Lot 56 on RP162858, Lot 58 on SP191940

SCALE @A1 1:1250 @A3 1:2500 - LENGTHS ARE IN METRES

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

saunders havill group

NORFOLK ESTATES PTY LTD ATF SOLANDER INVESTMENT UNIT TRUST

41 - 53 COURTNEY DRIVE , UPPER COOMERA • 18/06/2025 • 11694 P 11 Rev M - CON 01

APPENDIX

C

OSKA Consulting Group; Preliminary Bulk Earthworks Layout and Section Plans (Ref: OSK6521- P010-P019)

BULK EARTHWORKS LEGEND

- 80.0 — FINISHED SURFACE CONTOURS
- 80.0 — EXISTING SURFACE CONTOURS
- 0.0 - 1.5m RETAINING WALL
- 1.5 - 3.0m RETAINING WALL
- STAGE BOUNDARY
- SPLIT LEVEL LOT
- 99 — LOT NUMBER

EXISTING SERVICES LEGEND

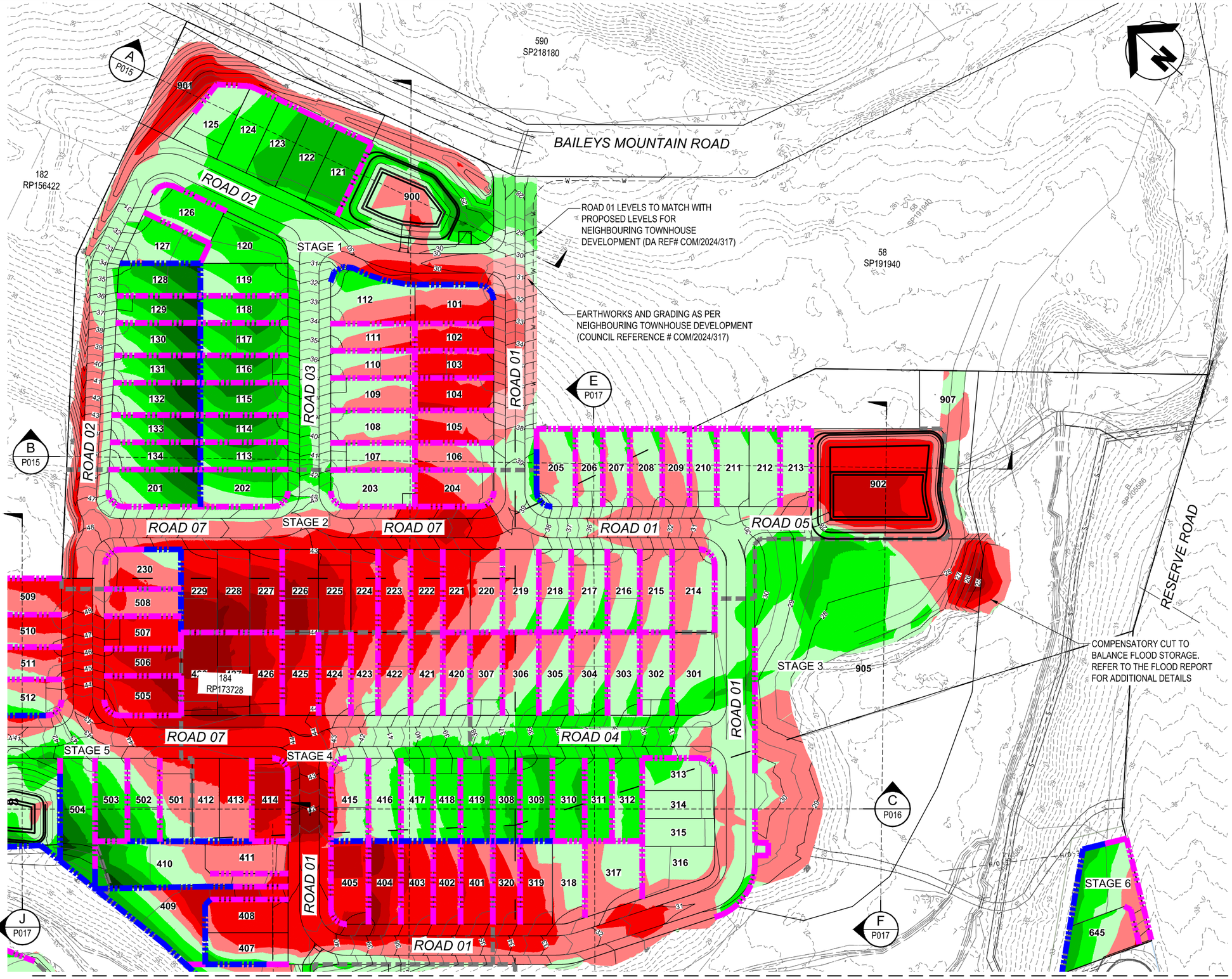
- S — EXISTING SEWER MAIN
- W — EXISTING WATER MAIN
- SWD — EXISTING STORMWATER PIPE
- T — EXISTING TELECOMMUNICATIONS CABLE
- E — EXISTING ELECTRICAL CABLE

CUT & FILL LEGEND

EXCAVATION		FILLING	
	0.0m - 1.0m		0.0m - 1.0m
	1.0m - 2.0m		1.0m - 2.0m
	2.0m - 3.0m		2.0m - 3.0m
	3.0m - 4.0m		3.0m - 4.0m
	GREATER THAN 4m		GREATER THAN 4m

APPROVAL ISSUE
NOT FOR CONSTRUCTION
UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS



FOR CONTINUATION REFER SHEET 2

ISSUE No.	DATE	AMENDMENT
C	26-06-25	ISSUED FOR REPORT
B	11-12-24	ISSUED FOR APPROVAL
A	06-12-24	ISSUED FOR INFORMATION
2	05-11-24	ISSUED FOR INFORMATION
1	31-10-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY BULK EARTHWORKS PLAN
SHEET 1 OF 2

SCALE: 1:750 AT A1, 1:1500 AT A3 (0 15 30 45 60m)

PROJECT NO. OSK6521

DWG NO. P010

ISSUE C

BULK EARTHWORKS LEGEND

- 80.0 — FINISHED SURFACE CONTOURS
- 80.0 — EXISTING SURFACE CONTOURS
- 0.0 - 1.5m RETAINING WALL
- 1.5 - 3.0m RETAINING WALL
- STAGE BOUNDARY
- SPLIT LEVEL LOT
- 99 — LOT NUMBER

EXISTING SERVICES LEGEND

- S — EXISTING SEWER MAIN
- W — EXISTING WATER MAIN
- SWD — EXISTING STORMWATER PIPE
- T — EXISTING TELECOMMUNICATIONS CABLE
- E — EXISTING ELECTRICAL CABLE

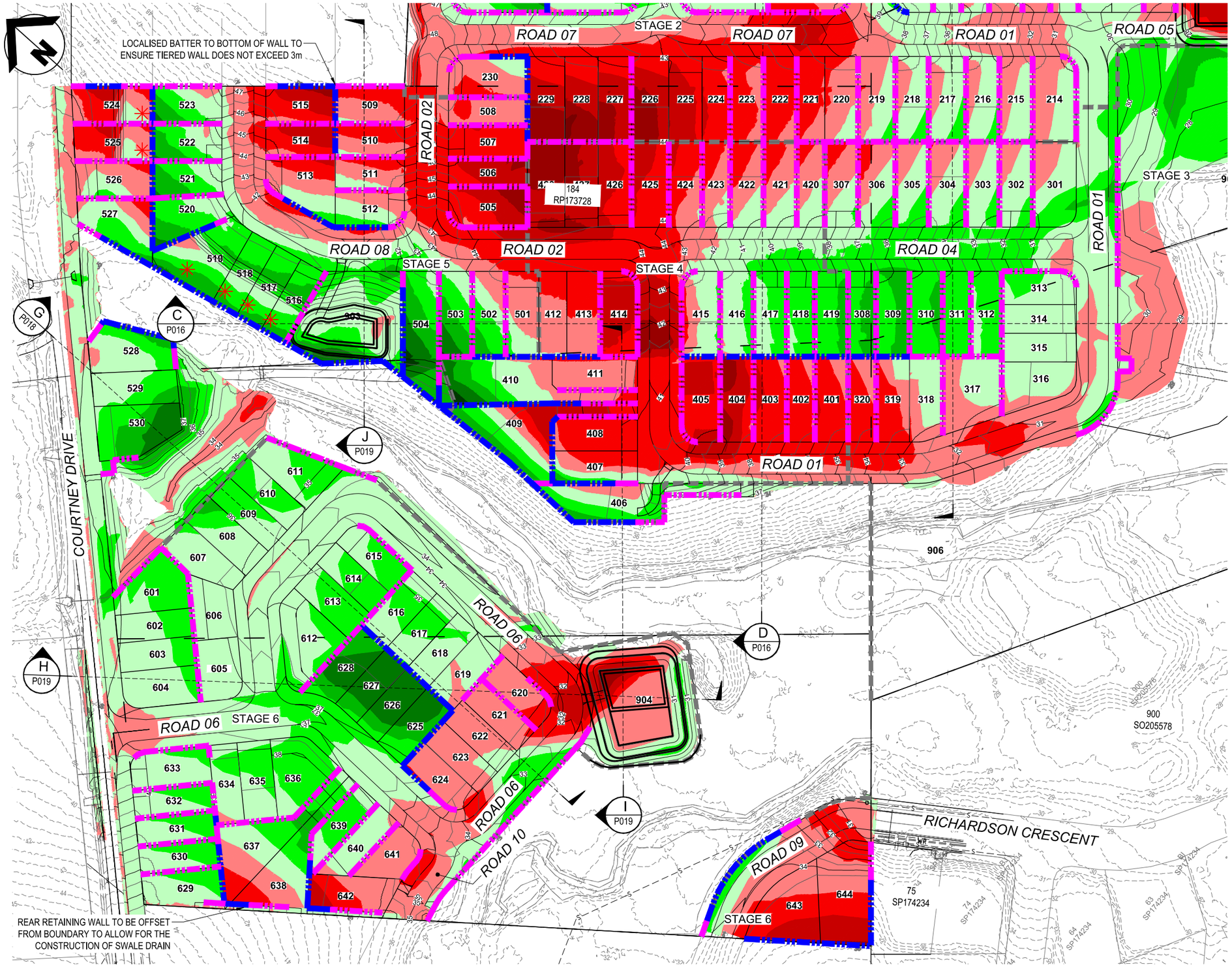
CUT & FILL LEGEND

EXCAVATION		FILLING	
0.0m - 1.0m		0.0m - 1.0m	
1.0m - 2.0m		1.0m - 2.0m	
2.0m - 3.0m		2.0m - 3.0m	
3.0m - 4.0m		3.0m - 4.0m	
GREATER THAN 4m		GREATER THAN 4m	

APPROVAL ISSUE
NOT FOR CONSTRUCTION
UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

FOR CONTINUATION REFER SHEET 1



ISSUE No.	DATE	AMENDMENT
C	26-06-25	ISSUED FOR REPORT
B	11-12-24	ISSUED FOR APPROVAL
A	06-12-24	ISSUED FOR INFORMATION
2	05-11-24	ISSUED FOR INFORMATION
1	31-10-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY BULK EARTHWORKS PLAN
SHEET 2 OF 2

SCALE: 1:750 AT A1, 1:1500 AT A3 (0, 15, 30, 45, 60m)

PROJECT NO.: OSK6521

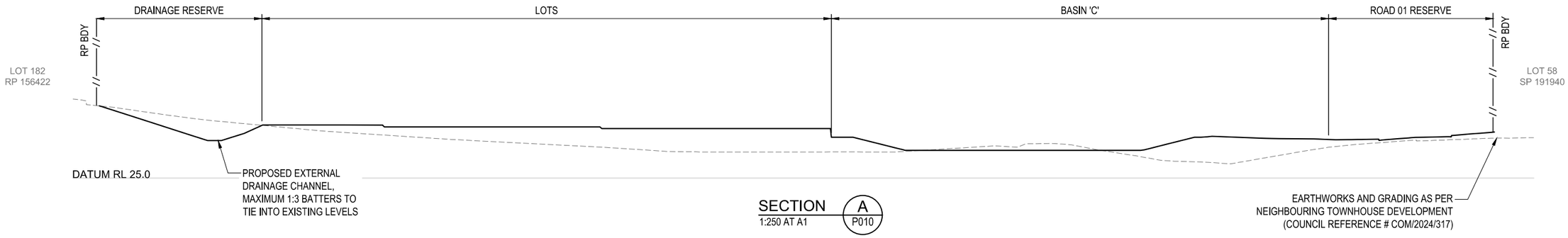
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ISSUE: C

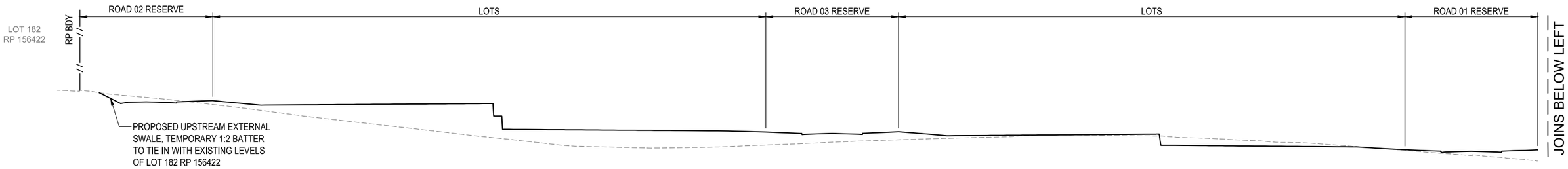
LEGEND

DESIGN SURFACE

EXISTING SURFACE



SECTION A
1:250 AT A1 P010





SECTION B
1:250 AT A1 P010

APPROVAL ISSUE
NOT FOR CONSTRUCTION
UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

ISSUE No.	DATE	AMENDMENT
C	26-06-25	ISSUED FOR REPORT
B	11-12-24	ISSUED FOR APPROVAL
A	06-12-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY BULK EARTHWORKS SITE SECTIONS - SHEET 1 OF 5

SCALE: 1:250 AT A1, 1:500 AT A3 (0, 5, 10, 15, 20m)

PROJECT NO. OSK6521

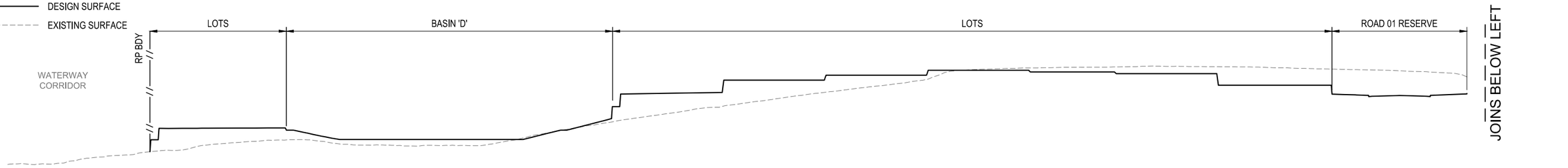
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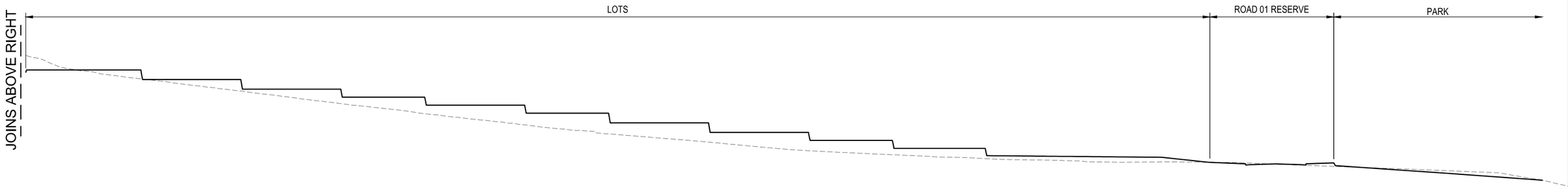
ISSUE C

LEGEND

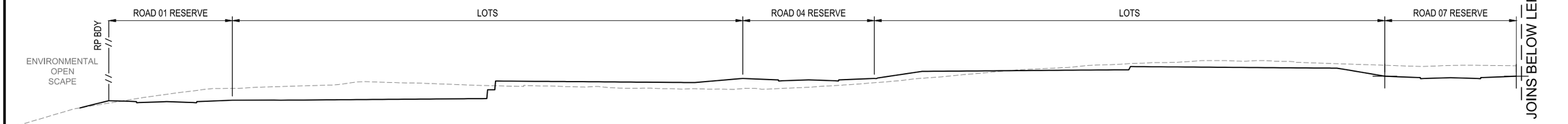
DESIGN SURFACE

EXISTING SURFACE

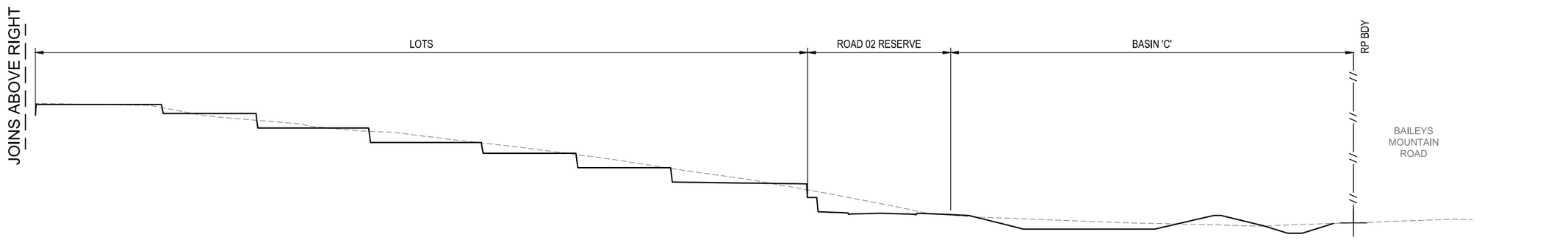




SECTION C
1:250 AT A1
P010



DATUM RL 25.0



DATUM RL 25.0

SECTION D
1:250 AT A1
P011

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

APPROVAL ISSUE
NOT FOR CONSTRUCTION UNLESS STAMPED

ISSUE No.	DATE	AMENDMENT
C	26-06-25	ISSUED FOR REPORT
B	11-12-24	ISSUED FOR APPROVAL
A	06-12-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY BULK EARTHWORKS SITE SECTIONS - SHEET 2 OF 5

SCALE: 1:250 AT A1, 1:500 AT A3 — 0 5 10 15 20m

PROJECT NO. OSK6521

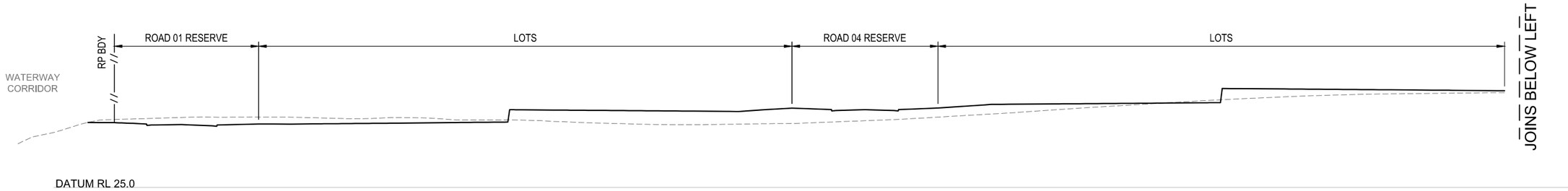
DWG NO. P016

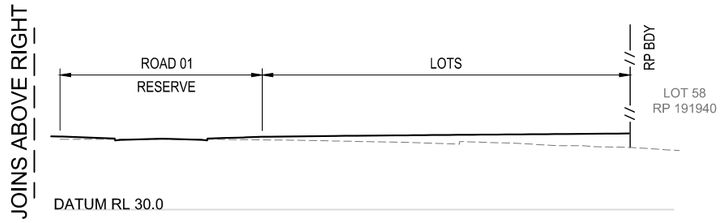
ISSUE C

LEGEND

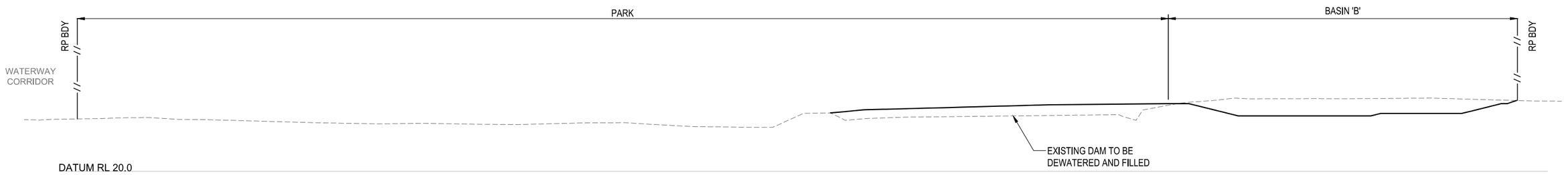
DESIGN SURFACE

EXISTING SURFACE





SECTION E
1:250 AT A1 P010



SECTION F
1:250 AT A1 P010

APPROVAL ISSUE
NOT FOR CONSTRUCTION UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

ISSUE No.	DATE	AMENDMENT
C	26-06-25	ISSUED FOR REPORT
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A	06-12-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY BULK EARTHWORKS SITE SECTIONS - SHEET 3 OF 5

SCALE: 1:250 AT A1, 1:500 AT A3 (0, 5, 10, 15, 20m)

PROJECT NO. OSK6521

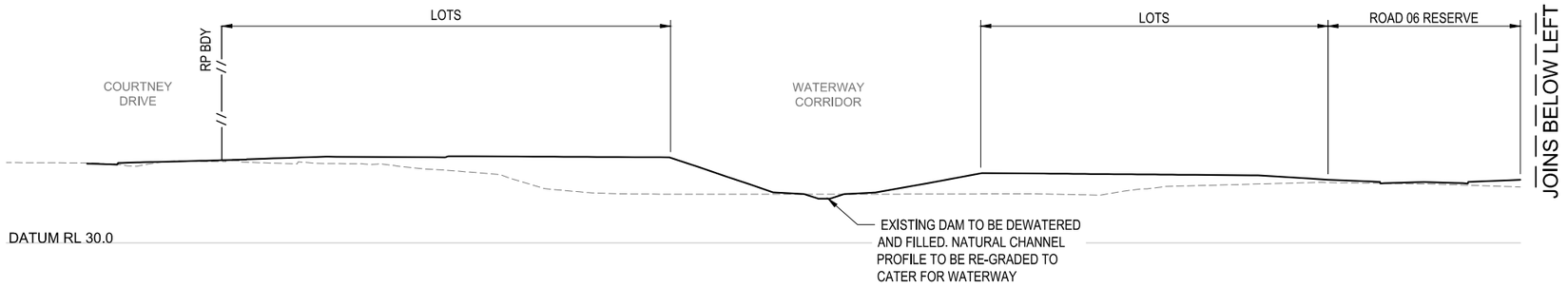
DWG NO. P017

ISSUE C

LEGEND

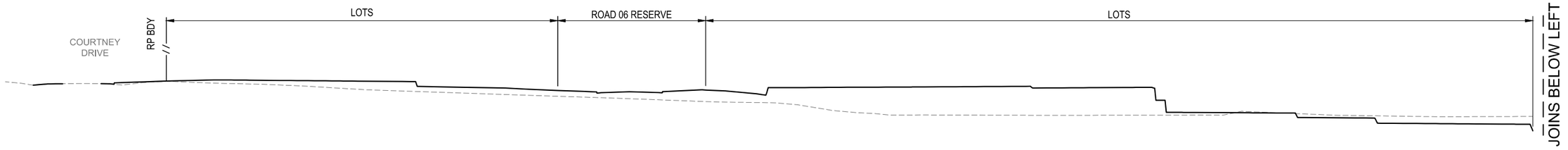
DESIGN SURFACE

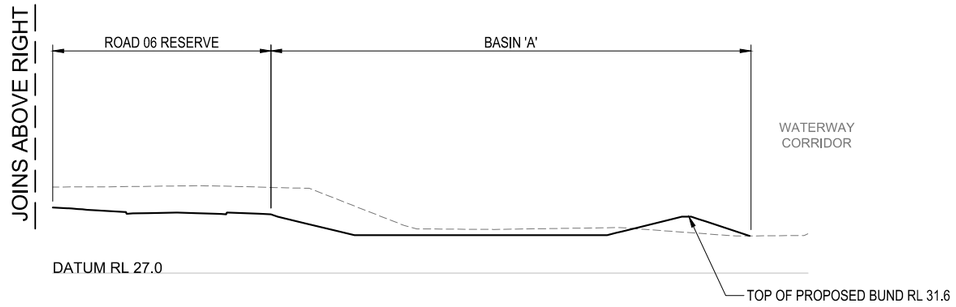
EXISTING SURFACE





SECTION G
1:250 AT A1 P011





SECTION H
1:250 AT A1 P011

APPROVAL ISSUE
NOT FOR CONSTRUCTION
UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

ISSUE No.	DATE	AMENDMENT
C	26-06-25	ISSUED FOR REPORT
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A	06-12-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY BULK EARTHWORKS SITE SECTIONS - SHEET 4 OF 5

SCALE: 1:250 AT A1, 1:500 AT A3 (0 5 10 15 20m)

PROJECT NO. OSK6521

DWG NO. P018

ISSUE C

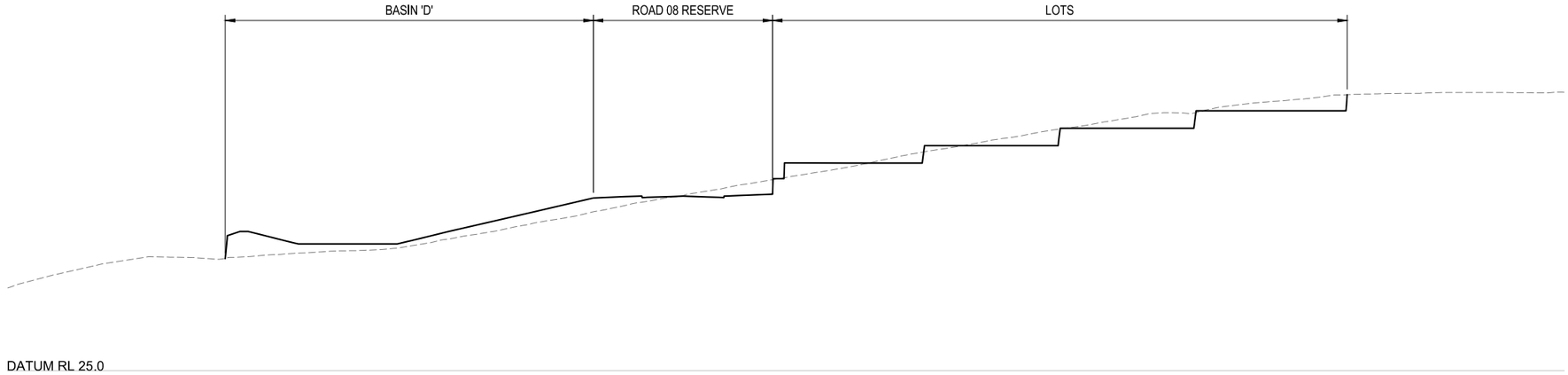
LEGEND

DESIGN SURFACE

EXISTING SURFACE



SECTION I
1:250 AT A1 P011



SECTION J
1:250 AT A1 P011

APPROVAL ISSUE
NOT FOR CONSTRUCTION UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

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OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY BULK EARTHWORKS SITE SECTIONS - SHEET 5 OF 5

SCALE: 1:250 AT A1, 1:500 AT A3 (0 5 10 15 20m)

PROJECT NO. OSK6521

DWG NO. P019

ISSUE C

APPENDIX

D

OSKA Consulting Group; Preliminary Roadworks Plan (Ref: OSK6521-P020-P029)

ROADWORKS LEGEND

- FINISHED SURFACE CONTOURS
- EXISTING SURFACE CONTOURS
- ROAD CONTROL LINE
- PROPOSED PAVEMENT
- PROPOSED BASIN MAINTENANCE ACCESS
- STAGE BOUNDARY
- CONCRETE BIN PADS
- PROPOSED SWALE
- EXISTING ACCESS AND CULVERTS TO BE REMOVED

EXISTING SERVICES LEGEND

- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING STORMWATER PIPE
- EXISTING TELECOMMUNICATIONS CABLE
- EXISTING ELECTRICAL CABLE

PROPOSED 6.0m WIDE ROAD ALONG NORTHERN BOUNDARY OF DEVELOPMENT TO ALLOW FOR THE CONSTRUCTION OF A TEMPORARY SWALE DRAIN TO DIVERT THE UPSTREAM CATCHMENT

PROPOSED ROAD WIDENING DEDICATION EXTENTS

BAILEYS MOUNTAIN ROAD

BAILEYS MOUNTAIN ROAD INTERSECTION TO BE COMPLETED BY NEIGHBOURING DEVELOPMENT (COUNCIL REFERENCE # COM/2024/317)

ROADWORKS AS PER NEIGHBOURING TOWNHOUSE DEVELOPMENT (COUNCIL REFERENCE # COM/2024/317)

590 SP218180

182 RP156422

58 SP191940

907

902

905

645

RESERVE ROAD

ROAD 01

ROAD 02

ROAD 03

ROAD 04

ROAD 05

ROAD 07

STAGE 1

STAGE 2

STAGE 3

STAGE 4

STAGE 5

STAGE 6

FOR CONTINUATION REFER SHEET 2

APPROVAL ISSUE
NOT FOR CONSTRUCTION UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

ISSUE No.	DATE	AMENDMENT
C	26-06-25	ISSUED FOR REPORT
B	11-12-24	ISSUED FOR APPROVAL
A	06-12-24	ISSUED FOR INFORMATION
1	31-10-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY ROADWORKS LAYOUT PLAN SHEET 1 OF 2

SCALE: 1:750 AT A1, 1:1500 AT A3 (0, 15, 30, 45, 60m)

PROJECT NO.: OSK6521

DWG NO.: P020

ISSUE: C

ROADWORKS LEGEND

- FINISHED SURFACE CONTOURS
- EXISTING SURFACE CONTOURS
- ROAD CONTROL LINE
- PROPOSED PAVEMENT
- PROPOSED BASIN MAINTENANCE ACCESS
- STAGE BOUNDARY
- CONCRETE BIN PADS
- PROPOSED SWALE
- EXISTING ACCESS AND CULVERTS TO BE REMOVED

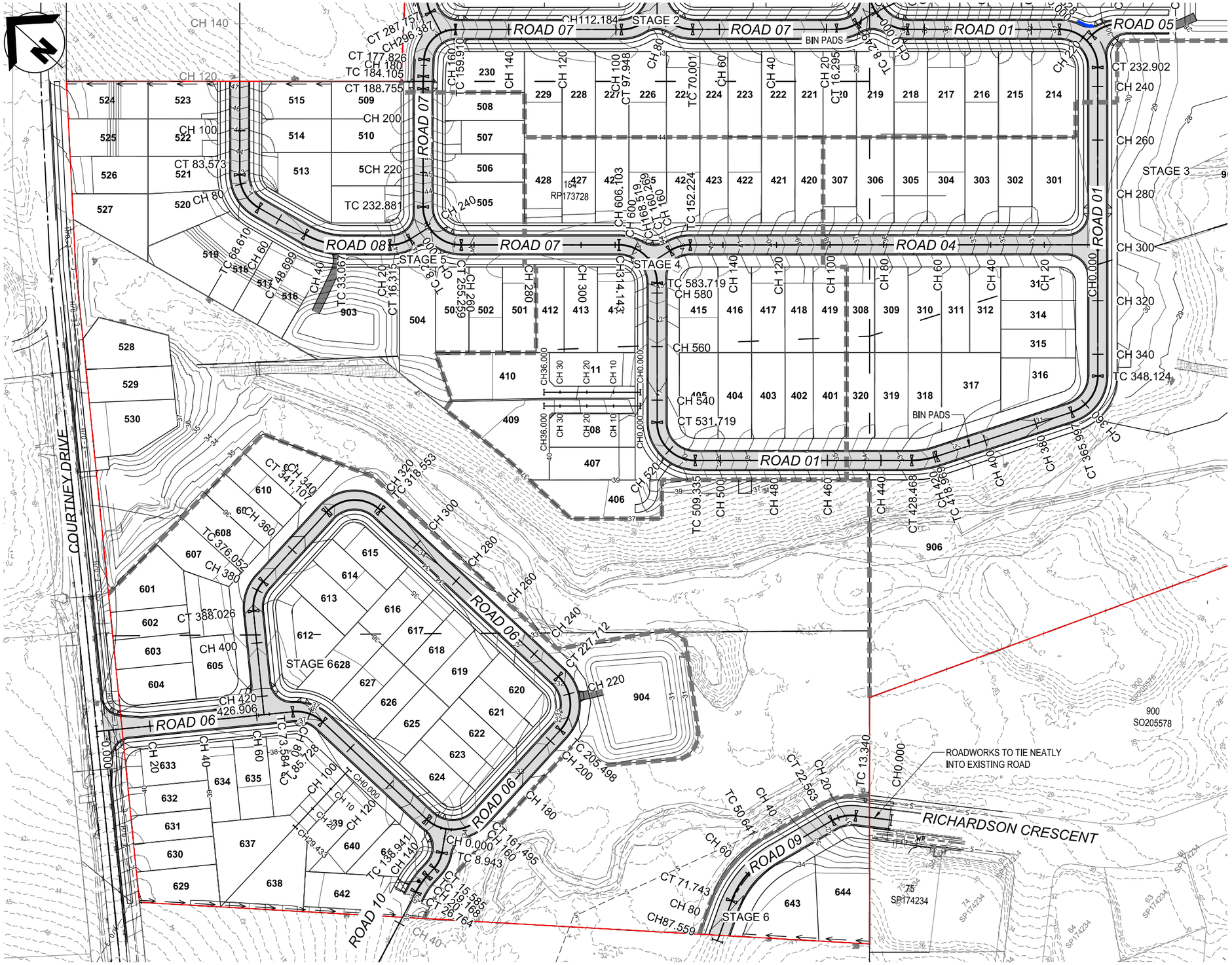
EXISTING SERVICES LEGEND

- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING STORMWATER PIPE
- EXISTING TELECOMMUNICATIONS CABLE
- EXISTING ELECTRICAL CABLE

APPROVAL ISSUE
NOT FOR CONSTRUCTION
UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

FOR CONTINUATION REFER SHEET 1



C	26-06-25	ISSUED FOR REPORT
B	11-12-24	ISSUED FOR APPROVAL
A	06-12-24	ISSUED FOR INFORMATION
1	31-10-24	ISSUED FOR INFORMATION
ISSUE No.	DATE	AMENDMENT

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY ROADWORKS LAYOUT PLAN
SHEET 2 OF 2

SCALE: 1:750 AT A1
1:1500 AT A3
0 15 30 45 60m

PROJECT NO. OSK6521

DWG NO. P021

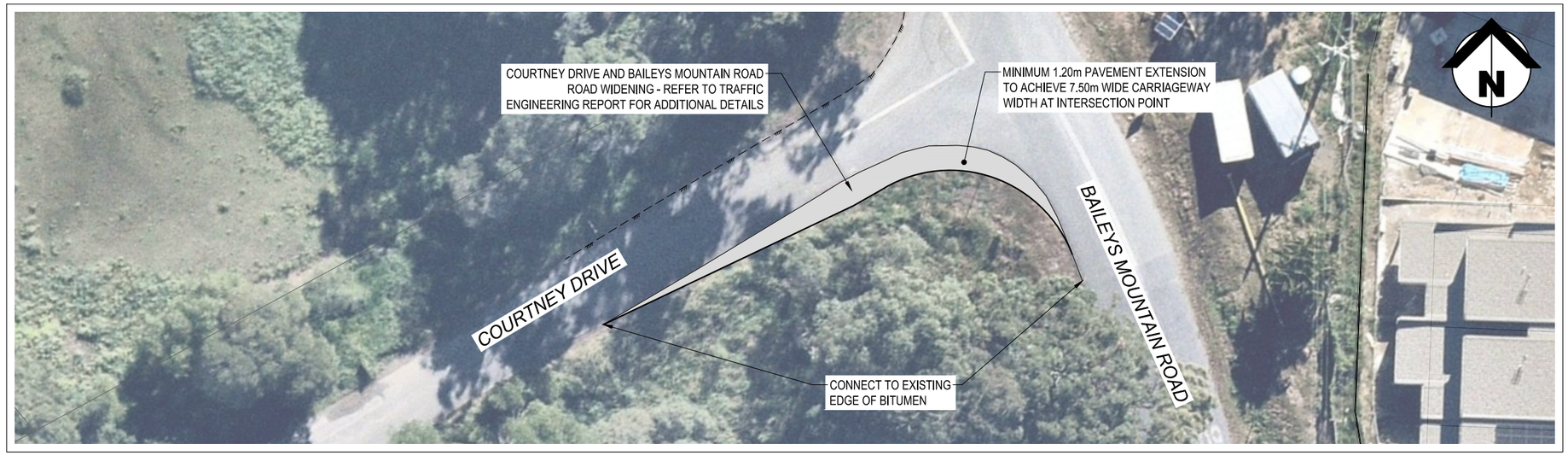
ISSUE C

ROADWORKS LEGEND

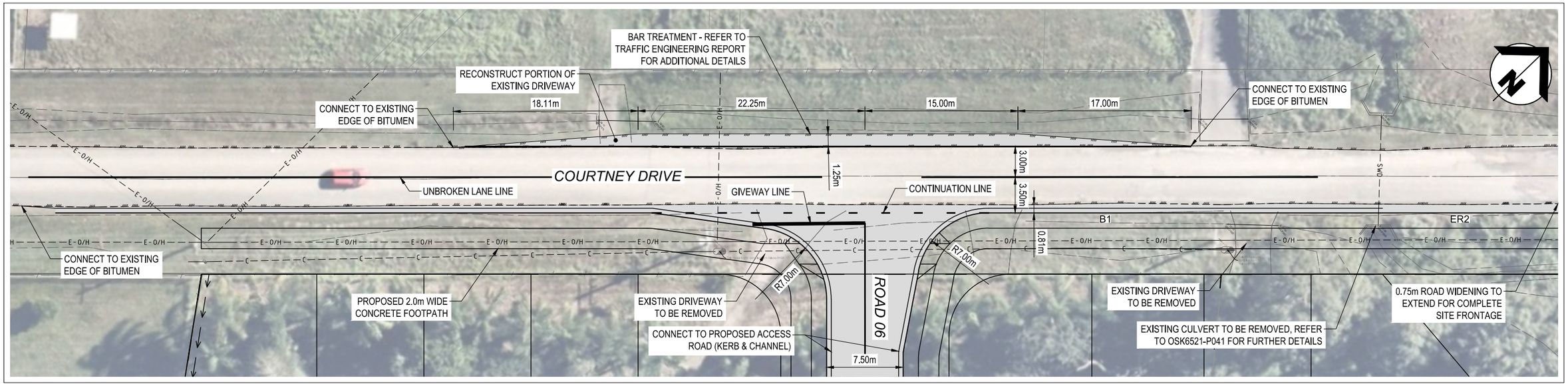
- 80.0 — FINISHED SURFACE CONTOURS
- 80.0 — EXISTING SURFACE CONTOURS
- ROAD CONTROL LINE
- PROPOSED PAVEMENT
- B1 — PROPOSED BARRIER KERB & CHANNEL TYPE 'B1'
- ER2 — PROPOSED EDGE RESTRAINT TYPE 'ER2'

EXISTING SERVICES LEGEND

- S — EXISTING SEWER MAIN
- W — EXISTING WATER MAIN
- SWD — EXISTING STORMWATER PIPE
- T — EXISTING TELECOMMUNICATIONS CABLE
- E-O/H — EXISTING OVERHEAD ELECTRICAL CABLE



COURTNEY DRIVE & BAILEYS MOUNTAIN ROAD INTERSECTION
SCALE: 1:200 (A1)



ROAD 06 & COURTNEY DRIVE INTERSECTION
SCALE: 1:200 (A1)

APPROVAL ISSUE
NOT FOR CONSTRUCTION
UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

ISSUE No.	DATE	AMENDMENT
A	26-06-25	ISSUED FOR REPORT

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY EXTERNAL ROADWORKS PLAN

SCALE: 1:200 AT A1 / 1:400 AT A3 — 0 5 10 15 20m

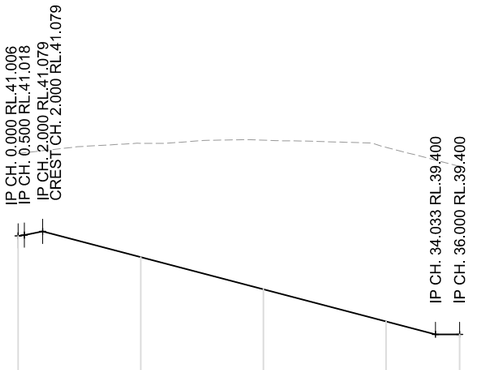
PROJECT NO.: OSK6521

DWG NO.: P022

ISSUE: A

APPROVAL ISSUE
NOT FOR CONSTRUCTION
UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS



Horiz Curve Data

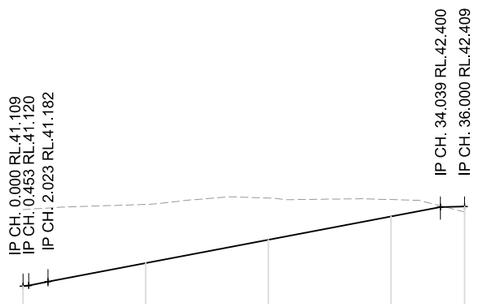
Vertical Geometry Grade (%)	2.46%	4.027%	-5.241%	0%	
Vertical Grade Length (m)	0.5m	1.5m	32.033m	1.967m	
Vertical Curve Length (m)					
Vertical Curve Radius (m)					

DATUM R.L.36.000

NAT. SURFACE	42.349	42.515	42.565	42.449	42.139
CUT / FILL	-1.342	-1.855	-2.430	-2.838	-2.739
DESIGN LEVELS	41.006	40.659	40.135	39.611	39.400
CHAINAGE	0	10	20	30	36

LONGITUDINAL SECTION LOT 409 DRIVEWAY

SCALE HORIZ: 1:250 AT A1
VERTI: 1:50 AT A1



Horiz Curve Data

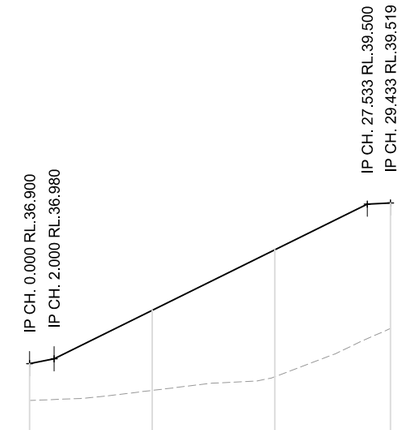
Vertical Geometry Grade (%)	2.5%	3.955%	3.803%	0.472%	
Vertical Grade Length (m)	0.453m	1.57m	32.016m	1.961m	

DATUM R.L.38.000

NAT. SURFACE	42.358	42.442	42.546	42.521	42.318
CUT / FILL	-1.249	-0.956	-0.680	-0.275	0.091
DESIGN LEVELS	41.109	41.486	41.866	42.246	42.409
CHAINAGE	0	10	20	30	36

LONGITUDINAL SECTION LOT 410 DRIVEWAY

SCALE HORIZ: 1:250 AT A1
VERTI: 1:50 AT A1



Horiz Curve Data

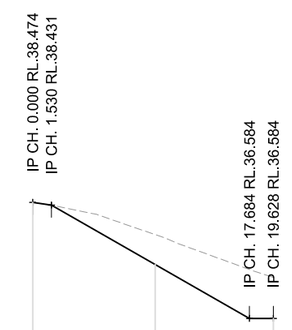
Vertical Geometry Grade (%)	3.995%	9.871%	0.998%	
Vertical Grade Length (m)	2m	25.533m	1.9m	

DATUM R.L.33.000

NAT. SURFACE	36.299	36.464	36.686	37.474
CUT / FILL	0.601	1.305	2.070	2.045
DESIGN LEVELS	36.900	37.769	38.756	39.519
CHAINAGE	0	10	20	29.433

LONGITUDINAL SECTION LOT 637 & 638 DRIVEWAY

SCALE HORIZ: 1:250 AT A1
VERTI: 1:50 AT A1



Horiz Curve Data

Vertical Geometry Grade (%)	-2.783%	-11.438%	-0.001%	
Vertical Grade Length (m)	1.53m	16.154m	1.944m	

DATUM R.L.34.000

NAT. SURFACE	38.474	37.950	37.252	
CUT / FILL	0.000	-0.487	-0.668	
DESIGN LEVELS	38.474	37.463	36.584	
CHAINAGE	0	10	19.628	

LONGITUDINAL SECTION LOT 646 DRIVEWAY

SCALE HORIZ: 1:250 AT A1
VERTI: 1:50 AT A1

1:250 AT A1 (1:500 AT A3) 0 5 10 15 20 25m HOR
1:50 AT A1 (1:100 AT A3) 0 1 2 3 4 5m VERT

ISSUE No.	DATE	AMENDMENT
A	26-06-25	ISSUED FOR REPORT

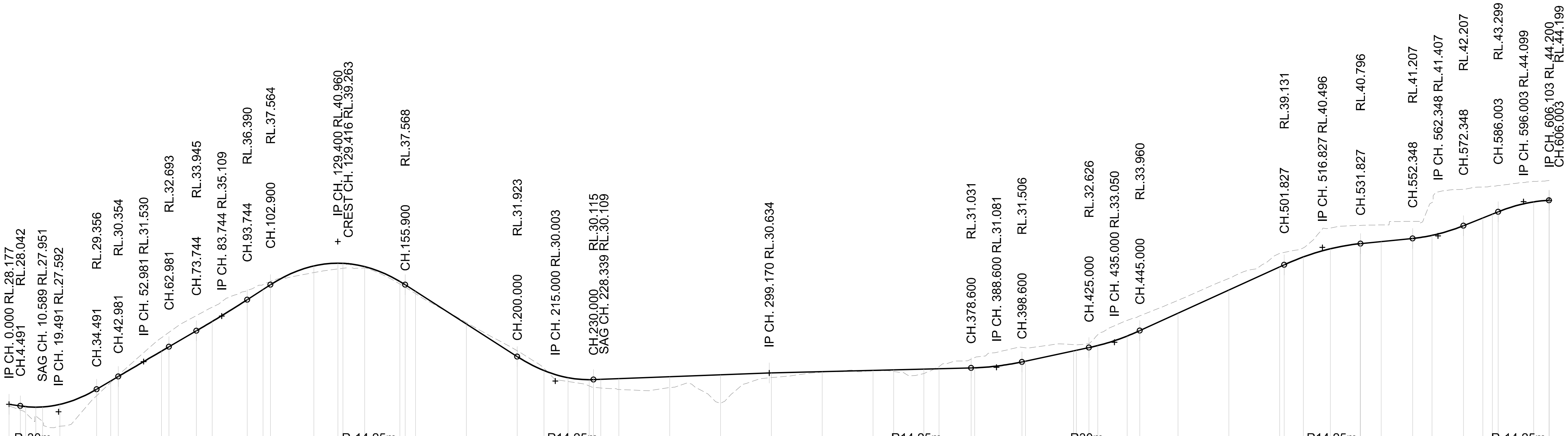
OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD
PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY DRIVEWAY ACCESS LONGITUDINAL SECTIONS
SCALE:

PROJECT NO. OSK6521
DWG NO. P023
ISSUE A



Horiz Curve Data: R-30m | R-14.25m | R14.25m | R14.25m | R30m | R14.25m | R-14.25m

Vertical Geometry Grade (%): -3% | 11.758% | 11.632% | 12.815% | -12.8% | 0.75% | 0.5% | 4.243% | 9.1% | 2% | 8% | 1%

Vertical Grade Length (m): 19.491m | 33.49m | 30.764m | 45.656m | 85.6m | 84.17m | 89.43m | 46.4m | 81.827m | 45.521m | 33.655m | 10.1m

Vertical Curve Length (m): L 30 | L 20 | L 20 | L 53 | L 30 | L 20 | L 20 | L 30 | L 20 | L 20

Vertical Curve Radius (m): R 203.279 | R 15871.957 | R 1690.161 | R 206.907 | R 221.402 | R 534.331 | R 411.777 | R 422.535 | R 333.333 | R 285.714

DATUM R.L.16.000

CHAINAGE	DESIGN LEVELS	CUT / FILL	NAT. SURFACE
0	28.177	0.112	28.065
4.491	28.042	0.316	27.726
6.555	27.991	0.490	27.501
10.589	27.951	0.707	27.244
13.232	27.968	1.127	26.841
20	28.169	1.713	26.456
34.491	29.356	0.507	28.849
40	30.004	0.117	29.887
42.981	30.354	-0.097	30.451
60	32.346	-1.059	33.406
62.981	32.693	-1.135	33.829
73.744	33.945	-1.197	35.143
80	34.685	-1.124	35.808
93.744	36.390	-0.707	37.098
100	37.192	-0.383	37.575
102.9	37.564	-0.245	37.809
120	39.048	0.527	38.521
129.416	39.263	0.454	38.808
131.434	39.253	0.392	38.861
140	38.992	0.109	38.883
153.817	37.824	0.198	37.626
155.9	37.568	0.194	37.374
160	37.043	0.170	36.873
180	34.483	-0.115	34.598
200	31.923	-0.452	32.375
210.519	30.826	-0.179	31.005
220	30.266	0.303	29.963
228.339	30.109	0.490	29.619
230	30.115	0.609	29.507
232.902	30.137	0.682	29.455
240	30.190	0.849	29.341
260	30.340	0.871	29.470
280	30.490	2.242	28.248
300	30.638	0.370	30.268
320	30.738	0.043	30.696
340	30.838	0.042	30.796
348.124	30.879	0.130	30.749
360	30.938	0.347	30.591
365.997	30.968	-0.161	31.130
378.6	31.031	-0.686	31.717
380	31.040	-0.805	31.845
398.6	31.506	-1.144	32.650
400	31.565	-1.046	32.611
418.969	32.370	-0.489	32.859
420	32.414	-0.428	32.842
425	32.626	-0.314	32.940
428.468	32.787	-0.865	33.652
440	33.535	-1.236	34.772
445	33.960	-1.165	35.125
460	35.325	-1.017	36.342
480	37.145	-0.921	38.066
500	38.965	-1.063	40.028
501.827	39.131	-0.981	40.112
509.335	39.748	-0.719	40.467
520	40.394	-1.631	42.025
531.719	40.794	-1.441	42.235
531.827	40.796	-1.439	42.235
540	40.960	-1.309	42.268
552.348	41.207	-1.340	42.546
560	41.447	-2.586	44.034
572.348	42.207	-2.858	45.064
580	42.819	-2.419	45.238
583.719	43.116	-2.197	45.314
586.003	43.299	-2.061	45.360
600	44.076	-1.613	45.689
606.003	44.199	-1.559	45.758
606.103	44.200	-1.560	45.760

ROAD CONSTRUCTION TO BE COMPLETED BY NEIGHBOURING DEVELOPMENT (DA REF COM/2024/317)

LONGITUDINAL SECTION ROAD 01

SCALE HORIZ: 1:1000 AT A1
VERTI: 1:200 AT A1

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

APPROVAL ISSUE
NOT FOR CONSTRUCTION UNLESS STAMPED

1:1000 AT A1 (1:2000 AT A3) 0 20 40 60 80 100m HOR
1:200 AT A1 (1:400 AT A3) 0 4 8 12 16 20m VERT

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1	31-10-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

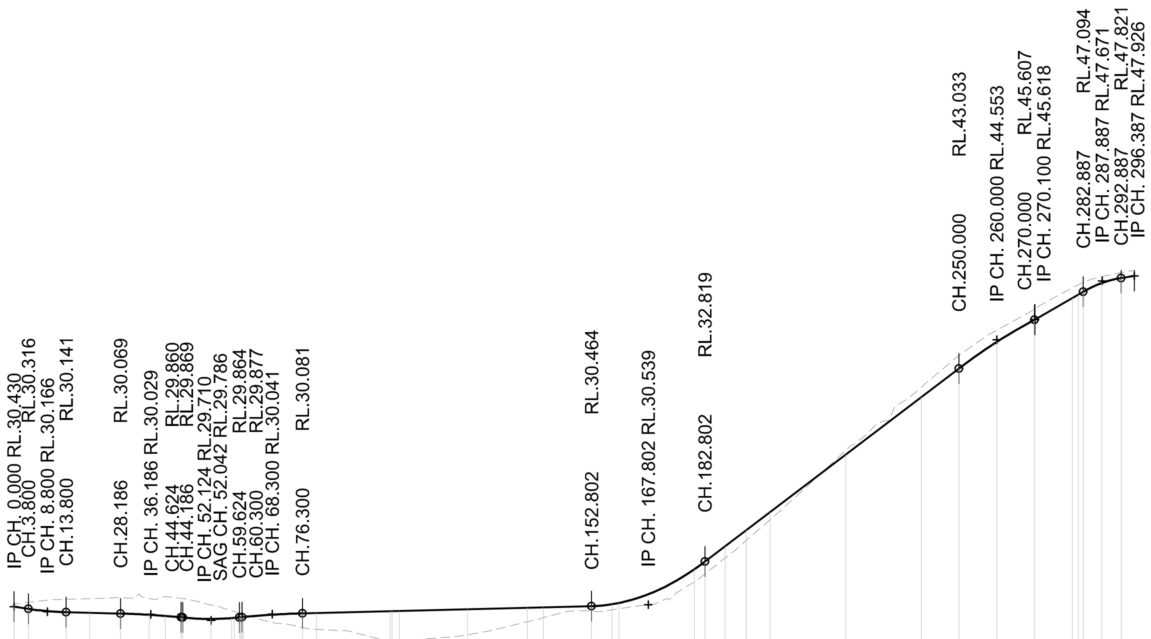
TITLE: PRELIMINARY ROADWORKS LONGITUDINAL SECTIONS - SHEET 1 OF 4

SCALE

PROJECT NO. OSK6521

DWG NO. P025 | ISSUE C

LONGITUDINAL SECTION ROAD 02



Horiz Curve Data: R49.462m R-100m R100m R-14.25m R-14.25m R-11.75m

Vertical Geometry Grade (%): -3% -0.5% -2% 2.044% 0.5% 15.2% 10.544% 11.544% 3%
Vertical Grade Length (m): 8.8m 27.386m 15.937m 16.176m 99.502m 92.198m 10.1m 17.787m 8.5m

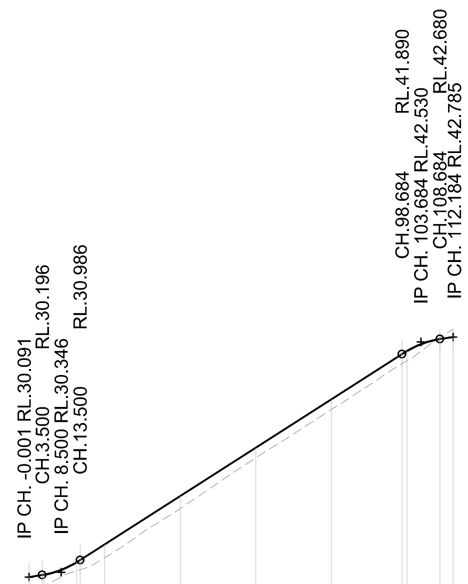
Vertical Curve Length (m): L 10 L 16 L 15 L 16 L 30 L 20 L 10
Vertical Curve Radius (m): R 400 R 1066.667 R 370.896 R 1036.097 R 204.082 R 429.553 R 117.041

DATUM R.L.18.000

NAT. SURFACE	CUT / FILL	DESIGN LEVELS	CHAINAGE
30.576	-0.146	30.430	0
30.671	-0.355	30.316	3.8
30.823	-0.682	30.141	13.8
30.859	-0.749	30.110	20
30.906	-0.837	30.069	28.186
30.870	-0.866	30.004	35.762
30.972	-1.027	29.945	40
30.882	-1.013	29.869	44.186
30.869	-1.008	29.860	44.624
30.537	-0.751	29.786	52.042
30.222	-0.395	29.827	57.577
30.179	-0.340	29.838	58.27
30.095	-0.231	29.864	59.624
30.072	-0.201	29.871	60
30.054	-0.177	29.877	60.3
30.031	-0.145	29.885	60.697
29.334	0.747	30.081	76.3
29.230	0.869	30.100	80
28.627	1.570	30.197	99.478
28.632	1.567	30.200	100
28.651	1.558	30.209	101.917
28.946	1.353	30.300	120
29.636	0.742	30.379	135.842
29.846	0.553	30.400	140
30.198	0.266	30.464	152.802
30.272	0.291	30.563	158.231
30.323	0.303	30.626	160
31.746	0.666	32.412	180
32.173	0.646	32.819	182.802
33.011	0.616	33.626	188.118
33.949	0.533	34.482	193.746
35.027	0.406	35.433	200
38.697	-0.225	38.473	220
42.028	-0.515	41.513	240
43.725	-0.692	43.033	250
45.062	-0.626	44.436	260
46.159	-0.552	45.607	270
47.291	-0.530	46.760	280
47.460	-0.513	46.946	281.612
47.586	-0.492	47.094	282.887
47.899	-0.345	47.555	287.757
48.103	-0.282	47.821	292.887

SCALE HORIZ: 1:1000 AT A1
VERTI: 1:200 AT A1

LONGITUDINAL SECTION ROAD 03



Horiz Curve Data: R-20m

Vertical Geometry Grade (%): 3% 12.8% 3%
Vertical Grade Length (m): 8.501m 95.184m 8.5m

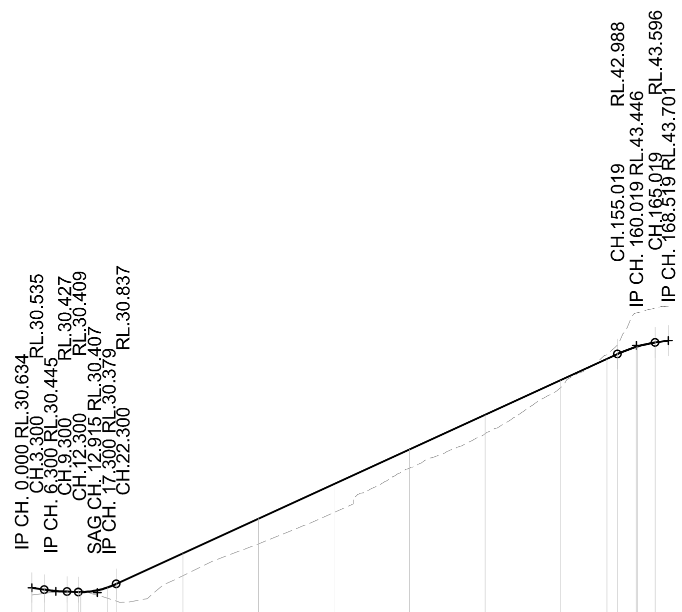
Vertical Curve Length (m): L 10 L 10
Vertical Curve Radius (m): R 102.041 R 102.041

DATUM R.L.19.000

NAT. SURFACE	CUT / FILL	DESIGN LEVELS	CHAINAGE
29.245	0.846	30.091	0
29.582	0.614	30.196	3.5
29.626	0.585	30.211	3.953
30.408	0.461	30.869	12.548
30.470	0.516	30.986	13.5
31.118	0.700	31.818	20
33.708	0.670	34.378	40
36.399	0.539	36.938	60
38.958	0.540	39.498	80
41.383	0.506	41.890	98.684
41.540	0.510	42.050	100
42.762	-0.083	42.680	108.684
43.201	-0.416	42.785	112.184

SCALE HORIZ: 1:1000 AT A1
VERTI: 1:200 AT A1

LONGITUDINAL SECTION ROAD 04



Horiz Curve Data: R-14.25m

Vertical Geometry Grade (%): -3% -0.6% 9.156% 3%
Vertical Grade Length (m): 6.3m 11m 142.719m 8.5m

Vertical Curve Length (m): L 6 L 10 L 10
Vertical Curve Radius (m): R 250 R 102.502 R 162.446

DATUM R.L.19.000

NAT. SURFACE	CUT / FILL	DESIGN LEVELS	CHAINAGE
30.252	0.382	30.634	0
30.339	0.196	30.535	3.3
30.496	-0.069	30.427	9.3
30.549	-0.140	30.409	12.3
30.518	-0.110	30.407	12.915
30.085	0.567	30.652	20
29.937	0.900	30.837	22.3
31.278	1.180	32.457	40
32.956	1.332	34.289	60
34.612	1.508	36.120	80
36.953	0.998	37.951	100
38.783	0.999	39.782	120
41.215	0.398	41.613	140
42.951	-0.219	42.733	152.224
43.464	-0.475	42.988	155.019
45.161	-1.793	43.368	160
45.173	-1.789	43.384	160.269
45.418	-1.821	43.596	165.019

SCALE HORIZ: 1:1000 AT A1
VERTI: 1:200 AT A1

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

APPROVAL ISSUE
NOT FOR CONSTRUCTION UNLESS STAMPED

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1:200 AT A1 (1:400 AT A3) 0 4 8 12 16 20m VERT

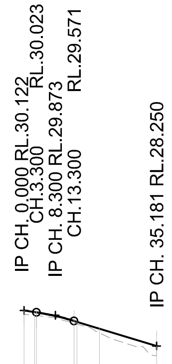
ISSUE No.	DATE	AMENDMENT
C	26-06-25	ISSUED FOR REPORT
B	11-12-24	ISSUED FOR APPROVAL
A	06-12-24	ISSUED FOR INFORMATION
1	31-10-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD
PROJECT: PROPOSED RESIDENTIAL SUBDIVISION, 31-53 COURTNEY DRIVE, UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY ROADWORKS LONGITUDINAL SECTIONS - SHEET 2 OF 4
SCALE:
PROJECT NO. OSK6521
DWG NO. P026
ISSUE C



Horiz Curve Data: R14.25m

Vertical Geometry Grade (%) / Vertical Grade Length (m): -3% 8.3m; -6.038% 26.881m

Vertical Curve Length (m) / Vertical Curve Radius (m): L 10 R 329.194

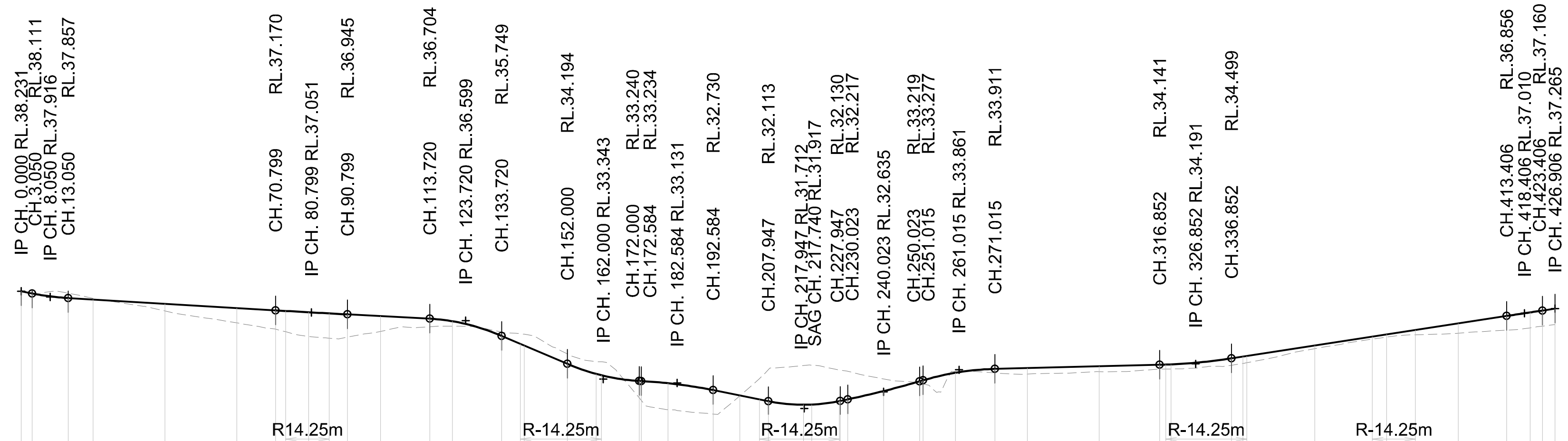
DATUM R.L.17.000

CHAINAGE	DESIGN LEVELS	CUT / FILL	NAT. SURFACE
0	30.122	0.213	29.909
2.828	30.037	0.170	29.868
3.3	30.023	0.165	29.858
13.3	29.571	0.125	29.446
14.02	29.528	0.122	29.406
20	29.167	0.228	28.939
35.181	28.250	0.525	27.725

BASIN MAINTENANCE PATHWAY

LONGITUDINAL SECTION ROAD 05

SCALE HORIZ: 1:1000 AT A1
VERTI: 1:200 AT A1



Horiz Curve Data: R14.25m; R-14.25m; R-14.25m; R-14.25m; R-14.25m

Vertical Geometry Grade / Length: -3.907% 8.05m; -1.19% 72.749m; -1.052% 42.921m; -8.505% 38.28m; -1.031% 20.584m; -4.013% 35.363m; 4.183% 22.076m; 5.841% 20.991m; 0.5% 65.837m; 3.08% 91.554m; 3% 8.5m

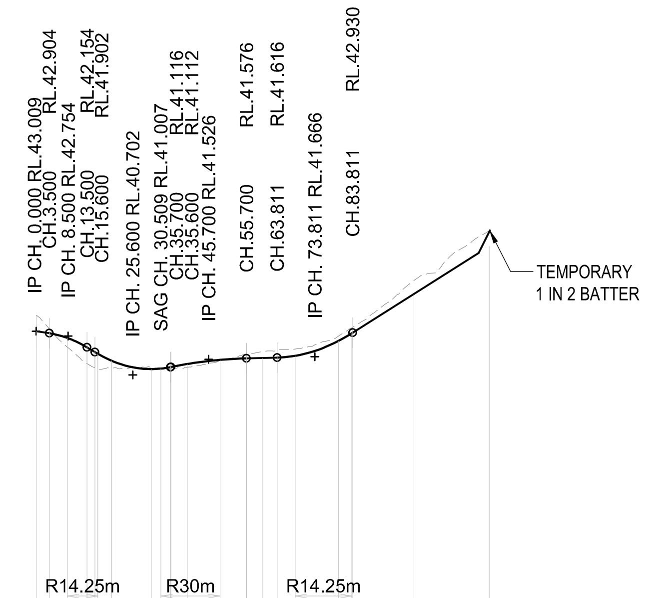
Vertical Curve Length / Radius: L 10 R 368.027; L 20 R 14477.92; L 20 R 268.337; L 20 R 267.608; L 20 R 670.732; L 20 R 244.012; L 20 R 1206.646; L 20 R 374.489; L 20 R 775.338; L 10 R 12575.294

DATUM R.L.21.000

CHAINAGE	DESIGN LEVELS	CUT / FILL	NAT. SURFACE
0	38.231	0.000	38.230
3.05	38.111	-0.005	38.116
13.05	37.857	-0.269	38.126
20	37.774	-0.068	37.842
40	37.536	0.398	37.138
60	37.298	0.825	36.473
70.799	37.170	1.042	36.128
73.584	37.137	1.155	35.982
80	37.063	1.347	35.716
85.728	37.000	1.381	35.619
90.799	36.945	1.267	35.678
100	36.849	0.847	36.002
113.72	36.704	0.448	36.256
120	36.565	0.278	36.287
133.72	35.749	-0.210	35.958
138.941	35.305	-0.565	35.870
140	35.215	-0.628	35.842
152	34.194	-0.541	34.735
160	33.633	-0.677	34.310
161.495	33.555	-0.753	34.307
172	33.240	0.938	32.303
172.584	33.234	1.071	32.163
180	33.117	1.478	31.639
192.584	32.730	1.329	31.401
200	32.432	0.026	32.406
205.498	32.212	-1.162	33.373
207.947	32.113	-1.742	33.856
217.74	31.917	-2.183	34.100
220	31.927	-2.195	34.122
227.712	32.120	-1.735	33.856
227.947	32.130	-1.718	33.848
230.023	32.217	-1.564	33.781
240	32.676	-0.681	33.356
250.023	33.219	0.095	33.125
251.015	33.277	0.202	33.075
260	33.694	-0.074	33.768
271.015	33.911	0.223	33.688
280	33.956	0.330	33.626
300	34.056	0.300	33.757
316.852	34.141	0.244	33.897
318.553	34.151	0.248	33.903
320	34.163	0.257	33.906
336.852	34.499	0.382	34.117
340	34.595	0.381	34.215
341.107	34.630	0.374	34.255
360	35.211	0.172	35.040
376.052	35.706	0.134	35.572
380	35.827	0.142	35.685
388.026	36.074	0.262	35.813
400	36.443	0.540	35.903
413.406	36.856	0.792	36.064
420	37.057	0.858	36.200
423.406	37.160	0.868	36.292
426.906	37.265	0.885	36.380

LONGITUDINAL SECTION ROAD 06

SCALE HORIZ: 1:1000 AT A1
VERTI: 1:200 AT A1



Horiz Curve Data: R14.25m; R30m; R14.25m

Vertical Geometry Grade / Length: -3% 8.5m; -12% 17.1m; 4.098% 20.1m; 0.5% 28.111m; 12.639% 46.189m

Vertical Curve Length / Radius: L 10 R 111.111; L 20 R 124.24; L 20 R 555.889; L 20 R 164.758

DATUM R.L.20.000

CHAINAGE	DESIGN LEVELS	CUT / FILL	NAT. SURFACE
0	43.009	-0.857	43.866
3.5	42.904	-0.231	43.135
8.277	42.658	0.489	42.169
13.5	42.154	0.867	41.287
15.6	41.902	0.834	41.068
16.315	41.818	0.776	41.042
20	41.452	0.387	41.065
30.509	41.007	-0.085	41.092
33.067	41.034	-0.027	41.060
35.6	41.112	0.065	41.046
35.7	41.116	0.075	41.041
40	41.275	0.170	41.105
48.699	41.497	0.044	41.453
55.7	41.576	-0.212	41.788
60	41.597	-0.342	41.939
63.811	41.616	-0.392	42.008
68.61	41.710	-0.364	42.074
80	42.493	-0.250	42.743
83.573	42.900	-0.294	43.194
83.811	42.930	-0.294	43.224
100	44.976	-0.722	45.698
120	47.504	-0.824	48.328

LONGITUDINAL SECTION ROAD 08

SCALE HORIZ: 1:1000 AT A1
VERTI: 1:200 AT A1

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

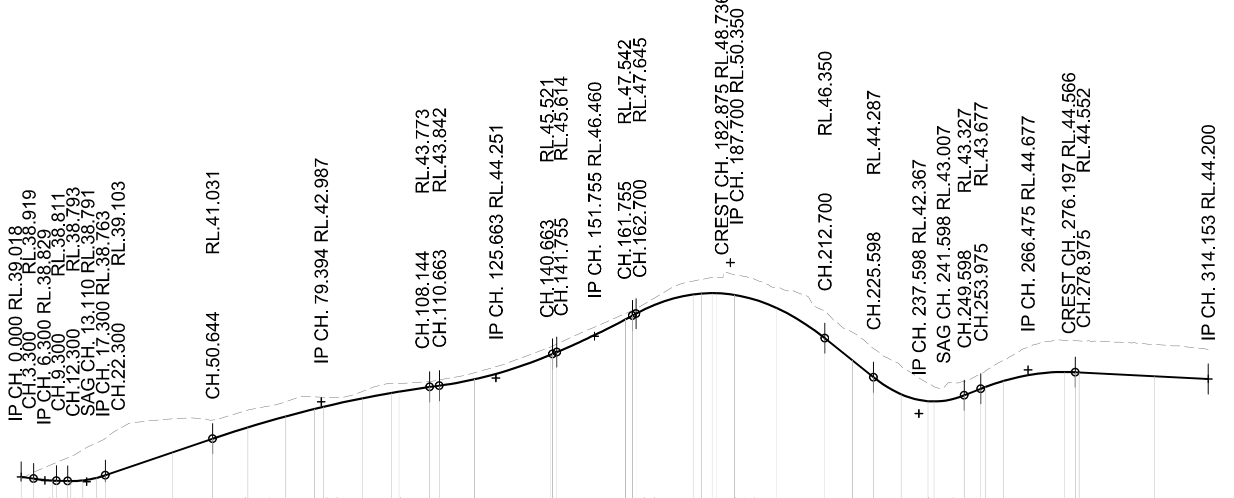
APPROVAL ISSUE
NOT FOR CONSTRUCTION UNLESS STAMPED

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1:200 AT A1 (1:400 AT A3) 0 4 8 12 16 20m VERT

ISSUE No.	DATE	AMENDMENT
C	26-06-25	ISSUED FOR REPORT
B	11-12-24	ISSUED FOR APPROVAL
A	06-12-24	ISSUED FOR INFORMATION
1	31-10-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD
PROJECT: PROPOSED RESIDENTIAL SUBDIVISION, 31-53 COURTNEY DRIVE, UPPER COOMERA, QLD, 4209
DESIGN: DR | DRAWN: MS | APPROVED: DC
TITLE: PRELIMINARY ROADWORKS LONGITUDINAL SECTIONS - SHEET 3 OF 4
SCALE:
PROJECT NO. OSK6521 | DWG NO. P027 | ISSUE C



Horiz Curve Data: R14.25m; R14.25m R-11.75m R14.25m; R-11.75m R-100m; R-14.25m

Vertical Geometry Grade (%): -3% -0.6% 6.803% 2.732% 8.465% 10.823% -16% 8% -1%
Vertical Grade Length (m): 6.3m 11m 62.094m 46.269m 26.092m 35.945m 49.898m 28.877m 47.678m

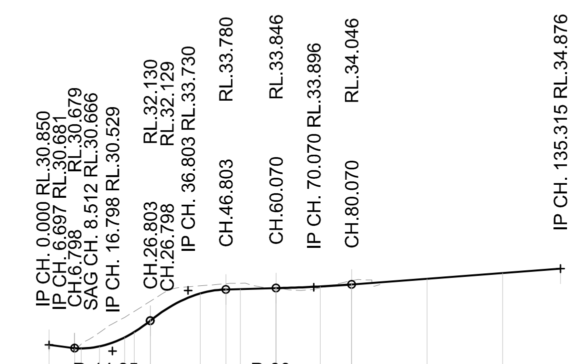
Vertical Curve Length (m): L 6 L 10 L 57.5 L 30 L 20 L 50 L 24 L 25
Vertical Curve Radius (m): R 250 R 135.08 R 1412.409 R 523.281 R 848.268 R 186.409 R 100 R 277.778

DATUM R.L.28.000

CHAINAGE	NAT. SURFACE	CUT / FILL	DESIGN LEVELS
0	38.886	0.132	39.018
3.3	39.263	-0.344	38.919
8.249	39.686	-0.867	38.820
9.3	39.773	-0.962	38.811
12.3	40.023	-1.230	38.793
13.11	40.093	-1.303	38.791
16.295	40.445	-1.617	38.828
20	40.822	-1.856	38.966
22.3	41.061	-1.958	39.103
40	42.087	-1.779	40.307
50.644	42.023	-0.992	41.031
60	42.548	-0.911	41.637
70.001	42.995	-0.779	42.216
77.659	43.254	-0.643	42.611
80	43.227	-0.504	42.723
90.289	43.538	-0.366	43.172
97.948	43.957	-0.500	43.457
100	43.965	-0.438	43.527
108.144	44.063	-0.290	43.773
110.663	44.141	-0.300	43.842
120	44.528	-0.348	44.180
140	45.881	-0.416	45.465
140.663	45.942	-0.421	45.521
141.755	46.043	-0.430	45.614
159.91	47.655	-0.311	47.345
160	47.662	-0.308	47.354
161.755	47.815	-0.273	47.542
162.7	47.912	-0.267	47.645
177.826	49.379	-0.711	48.668
180	49.460	-0.746	48.714
182.875	49.567	-0.831	48.736
184.105	49.582	-0.849	48.732
188.755	49.701	-1.057	48.643
200	49.033	-1.083	47.950
212.7	47.796	-1.446	46.350
220	46.668	-1.486	45.182
225.598	45.804	-1.518	44.287
232.881	44.878	-1.492	43.386
240	43.962	-0.943	43.019
241.598	43.780	-0.774	43.007
249.598	44.051	-0.725	43.327
253.975	44.460	-0.783	43.677
255.259	44.624	-0.847	43.776
260	45.174	-1.081	44.093
276.197	46.231	-1.665	44.566
278.975	46.226	-1.675	44.552
280	46.212	-1.671	44.541
300	46.025	-1.684	44.341

LONGITUDINAL SECTION ROAD 07

SCALE HORIZ: 1:1000 AT A1
VERTI: 1:200 AT A1



R-14.25m R-30m

-1.5% 10.1m; -2.531% 6.697m; 16% 20.005m; 0.5% 33.267m; 1.502% 65.246m

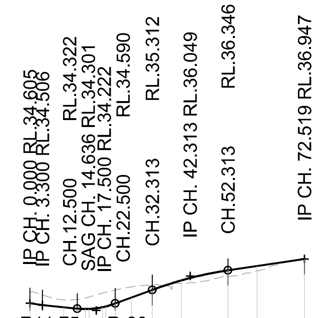
L 20 R 114.286; L 20 R 129.032; L 20 R 1996.095

DATUM R.L.20.000

CHAINAGE	NAT. SURFACE	CUT / FILL	DESIGN LEVELS
0	30.850	-0.000	30.850
6.798	30.677	0.002	30.679
8.512	30.899	-0.232	30.666
13.34	31.498	-0.730	30.768
20	32.307	-1.064	31.244
22.563	32.619	-1.089	31.530
26.798	33.151	-1.022	32.129
26.803	33.152	-1.022	32.130
40	33.970	-0.403	33.567
46.803	34.084	-0.304	33.780
50.641	34.110	-0.311	33.799
60	33.826	0.020	33.846
60.07	33.824	0.022	33.846
71.743	33.854	0.085	33.939
80	34.243	-0.197	34.045
80.07	34.245	-0.199	34.046
100			34.346
120			34.646

LONGITUDINAL SECTION ROAD 09

SCALE HORIZ: 1:1000 AT A1
VERTI: 1:200 AT A1



R11.75m R-30m

-3% 3.3m; -2% 14.2m; 7.361% 24.813m; 2.974% 30.206m

L 10 R 106.821; L 20 R 455.825

DATUM R.L.24.000

CHAINAGE	NAT. SURFACE	CUT / FILL	DESIGN LEVELS
0	35.217	-0.612	34.605
8.943	34.785	-0.392	34.393
12.5	34.793	-0.471	34.322
14.636	34.880	-0.579	34.301
15.585	34.938	-0.633	34.305
19.168	35.140	-0.744	34.397
20	35.188	-0.752	34.435
22.5	35.313	-0.723	34.590
26.764	35.468	-0.564	34.904
32.313	35.575	-0.263	35.312
40	35.664	0.150	35.814
52.313	36.021	0.325	36.346
60	36.317	0.257	36.575
72.519	36.947	0.000	36.947

LONGITUDINAL SECTION ROAD 10

SCALE HORIZ: 1:1000 AT A1
VERTI: 1:200 AT A1

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

APPROVAL ISSUE
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1:1000 AT A1 (1:2000 AT A3) 0 20 40 60 80 100m HOR
1:200 AT A1 (1:400 AT A3) 0 4 8 12 16 20m VERT

ISSUE No.	DATE	AMENDMENT
C	26-06-25	ISSUED FOR REPORT
B	11-12-24	ISSUED FOR APPROVAL
A	06-12-24	ISSUED FOR INFORMATION
1	31-10-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

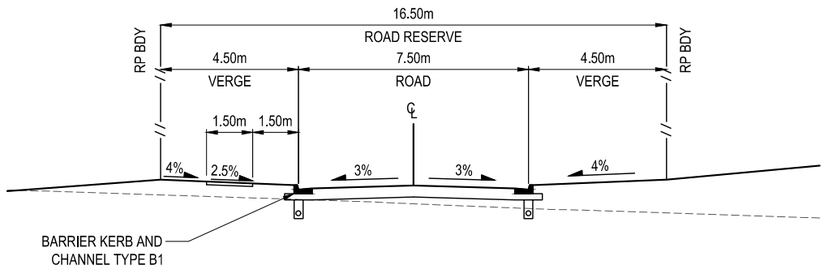
CLIENT: NORFOLK ESTATES PTY LTD
PROJECT: PROPOSED RESIDENTIAL SUBDIVISION, 31-53 COURTNEY DRIVE, UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY ROADWORKS LONGITUDINAL SECTIONS - SHEET 4 OF 4
SCALE
PROJECT NO.: OSK6521
DWG NO.: P028
ISSUE: C

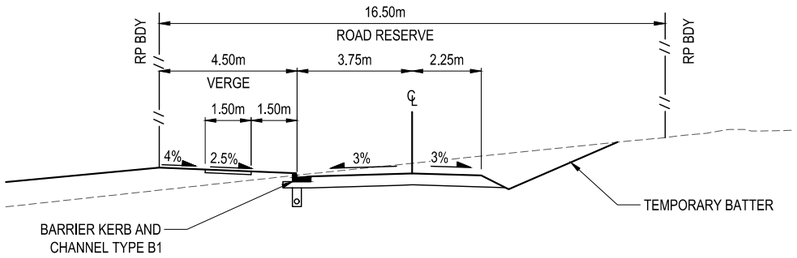
APPROVAL ISSUE
NOT FOR CONSTRUCTION UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS



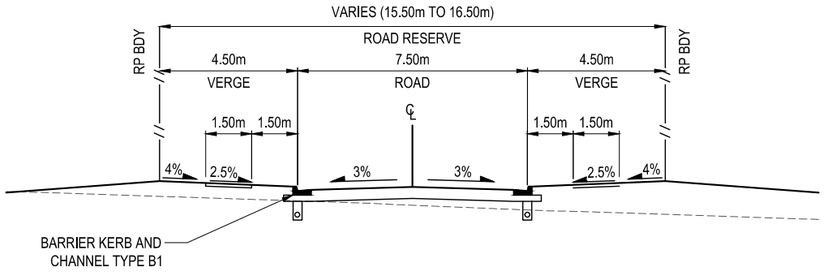
TYPICAL SECTION - ROAD 01 CH.520 TO CH.606.103 / ROAD 02 CH.0 TO CH.158.231/ ROAD 03 / ROAD 04 / ROAD 06 CH.80 TO CH.160 & CH.320 TO CH.426.906 / ROAD 07 CH.0 TO CH.187 / ROAD 08 CH.0 TO CH.120

SCALE 1:100 AT A1



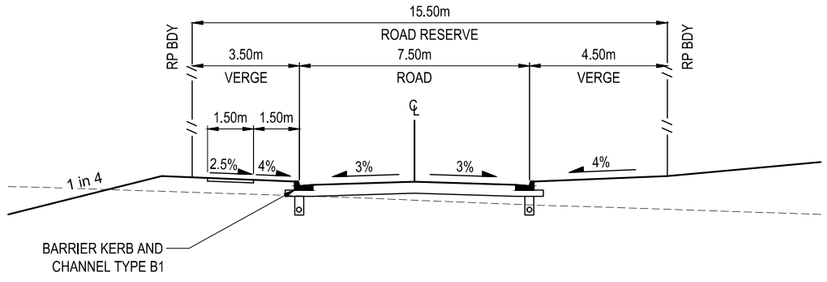
TYPICAL SECTION - ROAD 02 CH.158.231 TO CH.296.387

SCALE 1:100 AT A1



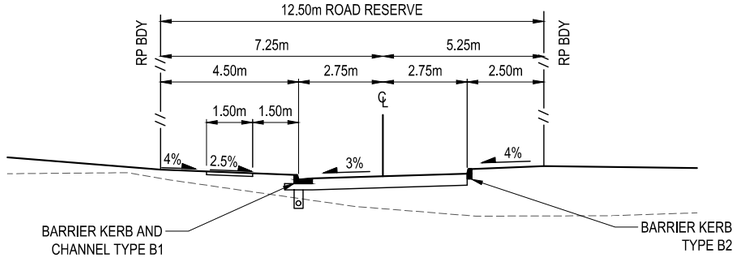
TYPICAL SECTION - ROAD 01 CH.0 TO CH.300 / ROAD 06 CH.0 TO CH.80 / ROAD 07 CH.187 TO CH.314.143

SCALE 1:100 AT A1



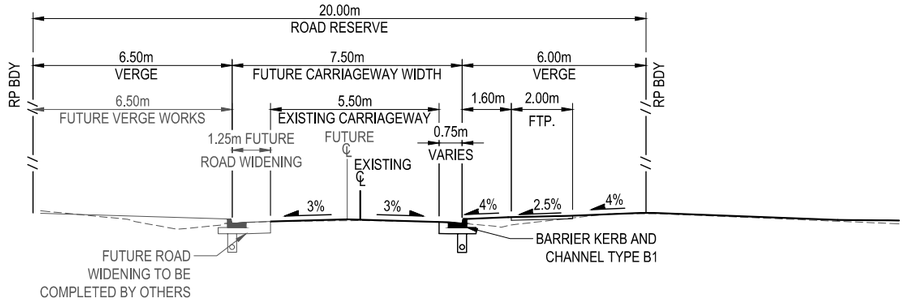
TYPICAL SECTION - ROAD 01 CH.300 TO CH.520 / ROAD 06 CH.160 TO CH.320 / ROAD 09 / ROAD 10

SCALE 1:100 AT A1



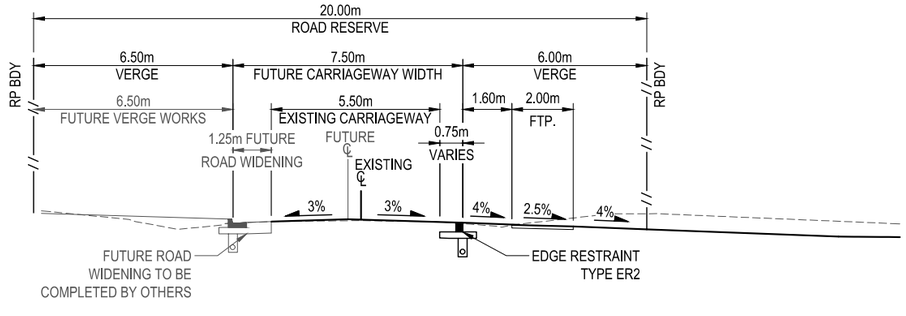
TYPICAL SECTION - ROAD 05

SCALE 1:100 AT A1



TYPICAL SECTION - COURTNEY DRIVE FRONTAGE ROAD WIDENING (ADJACENT LOTS)

SCALE 1:100 AT A1



TYPICAL SECTION - COURTNEY DRIVE FRONTAGE ROAD WIDENING (ADJACENT WATERWAY)

SCALE 1:100 AT A1

ISSUE No.	DATE	AMENDMENT
C	26-06-25	ISSUED FOR REPORT
B	11-12-24	ISSUED FOR APPROVAL
A	06-12-24	ISSUED FOR INFORMATION
1	31-10-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY ROADWORKS TYPICAL CROSS SECTIONS

SCALE: 1:100 AT A1 / 1:200 AT A3 (0 2 4 6 8 10m)

PROJECT NO.: OSK6521

DWG NO.: P029

ISSUE: C

APPENDIX

E

OSKA Consulting Group; Preliminary Services Plan (Ref: OSK6521-P040- P045)

LEGEND

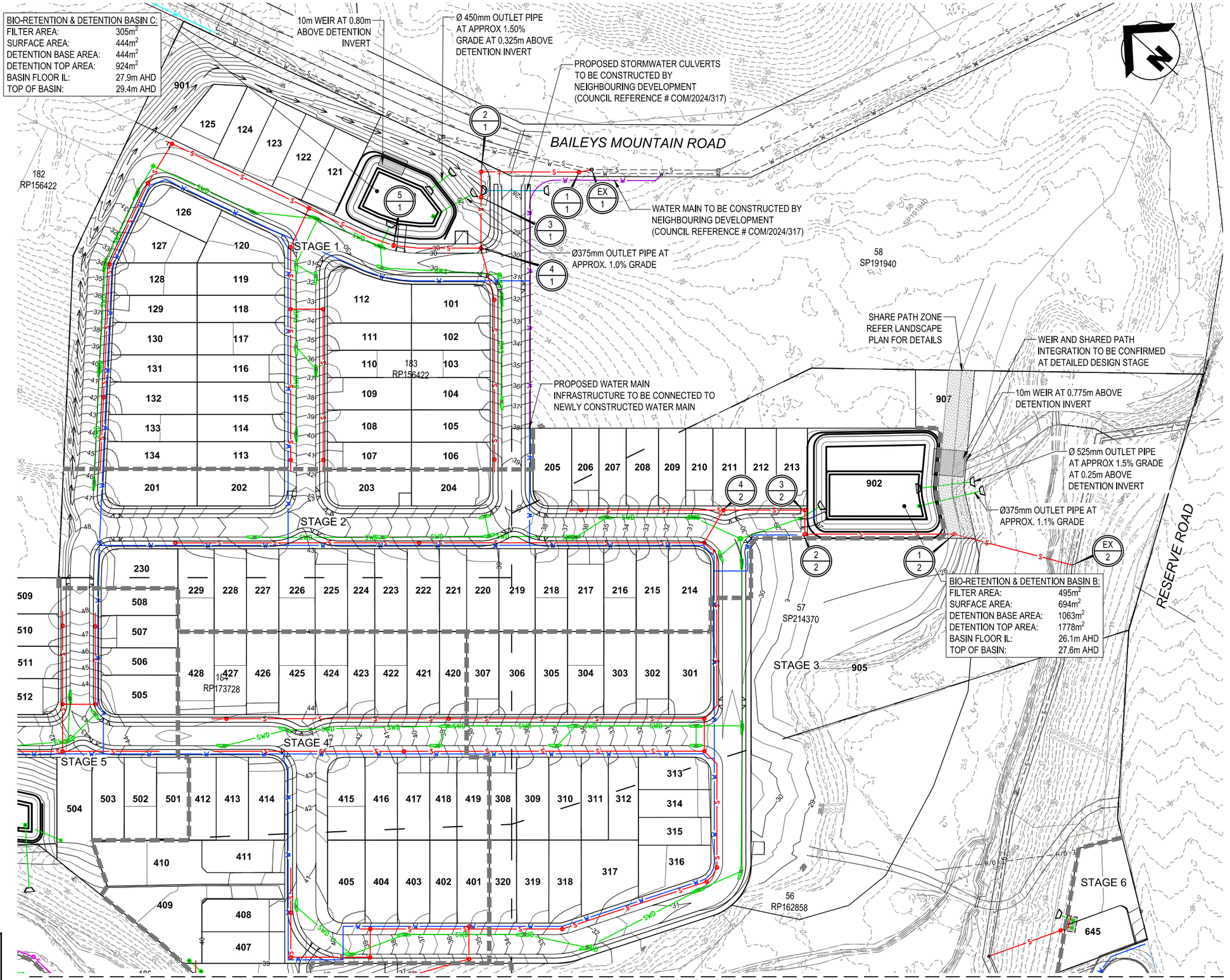
- PROPOSED SEWER MAIN
- PROPOSED TRUNK SEWER MAIN
- PROPOSED WATER MAIN
- PROPOSED TRUNK WATER MAIN
- PROPOSED STORMWATER DRAINAGE
- FINISHED SURFACE CONTOURS
- EXISTING SURFACE CONTOURS
- STAGE BOUNDARY
- PROPOSED SEWER MAIN (CONSTRUCTED BY OTHERS)
- PROPOSED WATER MAIN (CONSTRUCTED BY OTHERS)
- PROPOSED STORMWATER MAIN (CONSTRUCTED BY OTHERS)
- PROPOSED SERVICE EASEMENTS
- MAINTENANCE HOLE NUMBER

EXISTING SERVICES LEGEND

- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING STORMWATER PIPE
- EXISTING TELECOMMUNICATIONS CABLE
- EXISTING ELECTRICAL CABLE

APPROVAL ISSUE
NOT FOR CONSTRUCTION UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS



ISSUE No.	DATE	AMENDMENT
C	26-06-25	ISSUED FOR REPORT
B	11-12-24	ISSUED FOR APPROVAL
A	06-12-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD	DESIGN: DR	DRAWN: MS	APPROVED: DC
PROJECT: PROPOSED RESIDENTIAL SUBDIVISION 31-53 COURTNEY DRIVE UPPER COOMERA, QLD, 4209			

TITLE: PRELIMINARY SERVICES LAYOUT PLAN - SHEET 1 OF 2

SCALE: 1:750 AT A1, 1:1500 AT A3 (0, 15, 30, 45, 60m)

PROJECT NO.: OSK6521

DWG NO.: P040

ISSUE: C

LEGEND

- PROPOSED SEWER MAIN
- PROPOSED TRUNK SEWER MAIN
- PROPOSED WATER MAIN
- PROPOSED TRUNK WATER MAIN
- PROPOSED STORMWATER DRAINAGE
- FINISHED SURFACE CONTOURS
- EXISTING SURFACE CONTOURS
- STAGE BOUNDARY
- PROPOSED SEWER MAIN (CONSTRUCTED BY OTHERS)
- PROPOSED WATER MAIN (CONSTRUCTED BY OTHERS)
- PROPOSED STORMWATER MAIN (CONSTRUCTED BY OTHERS)
- PROPOSED SERVICE EASEMENTS
- MAINTENANCE HOLE NUMBER (MH1 / 1)

EXISTING SERVICES LEGEND

- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING STORMWATER PIPE
- EXISTING TELECOMMUNICATIONS CABLE
- EXISTING ELECTRICAL CABLE

FOR CONTINUATION REFER SHEET 1

REFER TO OSK6521-P045 FOR PROPOSED WATER MAIN EXTENSION ALONG COURTNEY DRIVE

BIO-RETENTION & DETENTION BASIN D:

FILTER AREA:	135m²
SURFACE AREA:	267m²
DETENTION BASE AREA:	267m²
DETENTION TOP AREA:	643m²
BASIN FLOOR IL:	36.4m AHD
TOP OF BASIN:	37.55m AHD

EXISTING CULVERT TO BE EXTENDED

5m WEIR AT 0.50m ABOVE DETENTION INVERT

Ø 375mm OUTLET PIPE AT 1.5% GRADE AT 0.20m ABOVE DETENTION INVERT

Ø 375mm OUTLET PIPE AT 1.0% GRADE

Ø 375mm OUTLET PIPE AT APPROX 1.0% GRADE AT 0.35m ABOVE DETENTION INVERT

Ø375mm OUTLET PIPE AT APPROX. 1.0% GRADE

BIO-RETENTION & DETENTION BASIN A:

FILTER AREA:	230m²
SURFACE AREA:	355m²
DETENTION BASE AREA:	611m²
DETENTION TOP AREA:	1162m²
BASIN FLOOR IL:	31.6m AHD
TOP OF BASIN:	33.1m AHD

10m WEIR AT 0.80m ABOVE DETENTION INVERT

Ø 225 TRUNK SEWER MAIN TO BE CONSTRUCTED BY NEIGHBOURING DEVELOPMENT (COUNCIL REFERENCE # OPW/2024/987)

TRUNK SEWER WORKS TO CONNECT INTO Ø225 STUB CONNECTION PROVIDE AS A PART OF THE ONGOING SEWER OPW APPLICATION (COUNCIL REFERENCE # OPW/2024/987)

MANHOLE TO BE CONSTRUCTED OVER EXISTING CULVERT AND REDIRECTED TO WATERWAY TO ACCOMODATE PROPOSED ROAD WIDENING AND LOT LAYOUT

PROPOSED WATER MAIN EXTENSION TO BE CONNECTED TO NEWLY CONSTRUCTED WATER MAIN

WATER MAIN TO BE CONSTRUCTED BY NEIGHBOURING DEVELOPMENT (COUNCIL REFERENCE # OPW/2023/1202)

INSET A
SCALE 1:750 AT A1

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

REFER INSET A

APPROVAL ISSUE
NOT FOR CONSTRUCTION UNLESS STAMPED

ISSUE No.	DATE	AMENDMENT
C	26-06-25	ISSUED FOR REPORT
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A	06-12-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY SERVICES LAYOUT PLAN - SHEET 2 OF 2

SCALE: 1:750 AT A1, 1:1500 AT A3 (0, 15, 30, 45, 60m)

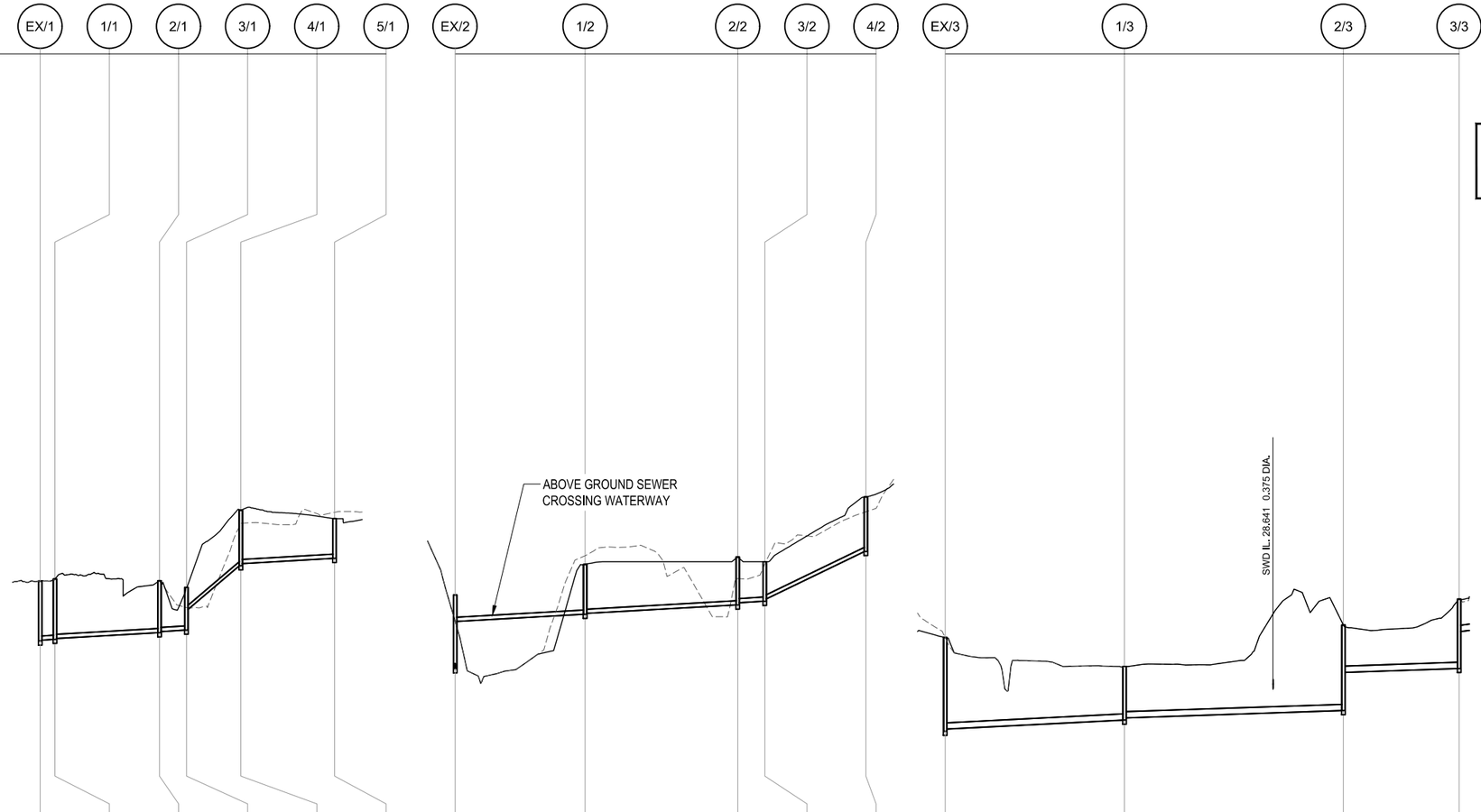
PROJECT NO.: OSK6521

DWG NO.: P041

ISSUE: C

APPROVAL ISSUE
NOT FOR CONSTRUCTION
UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS



MAINT. HOLE/SHAFT No.	EX/1	1/1	2/1	3/1	4/1	5/1	EX/2	1/2	2/2	3/2	4/2	EX/3	1/3	2/3	3/3
DATUM	17.000						17.000					22.000			
PROPERTY DESCRIPTION															
NOM. DIAMETER, TYPE, CLASS	DN150 PVC SN8						DN150 PVC SN8					DN225 PVC SN8			
GRADE (1 IN X)	180	180	180	12.43	180		180	180	180	21.28		200	300	300	
LENGTH	5.336	37.775	9.742	19.662	33.883		46.969	55.178	9.773	36.534		64.806	79.131	41.835	
EMBEDMENT TYPE															
DEPTH OF INVERT BELOW FSL	2.085	2.165 2.135	2.180	2.150	1.880	1.840	1.542	0.800	2.007	1.927	1.439	2.670	0.960	1.803	1.773	1.733	1.653	1.428	1.348	1.973	3.309	3.389 3.309	1.940	1.860	3.091	1.711	2.513	1.176
INVERT LEVEL (IL)	25.465	25.385 25.415	25.445	25.475	25.685	25.725	25.779	26.521	28.103	28.183	28.371	24.380	26.090	26.351	26.381	26.687	26.767	26.822	26.902	28.619	27.202	27.122 27.202	27.526	27.606	27.870	29.251	29.390	30.727
FINISHED SURFACE LEVEL (FSL)	27.550		27.625		27.565		27.321		30.109		29.810	27.050		28.154		28.421		28.250		30.592	30.511		29.466		30.961		31.903	
EXISTING SURFACE LEVEL (ESL)	27.550		27.625		27.565		26.591		29.637		30.034	26.092		28.464		27.643		28.173		30.052	30.501		29.466		30.961		31.903	
CHAINAGE (CH)	0.000		5.336		43.111		52.854		72.516		106.399	0.000		46.969		102.147		111.920		148.454	0.000		64.806		143.937		185.772	
	LINE 1						LINE 2					LINE 3			

1:1000 AT A1 (1:2000 AT A3) 0 20 40 60 80 100m HOR
1:100 AT A1 (1:200 AT A3) 0 2 4 6 8 10m VERT

ISSUE No.	DATE	AMENDMENT
A	26-06-25	ISSUED FOR REPORT

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY SEWER LONGITUDINAL SECTIONS

SCALE:

PROJECT NO.: OSK6521

DWG NO.: P042

ISSUE: A

LEGEND

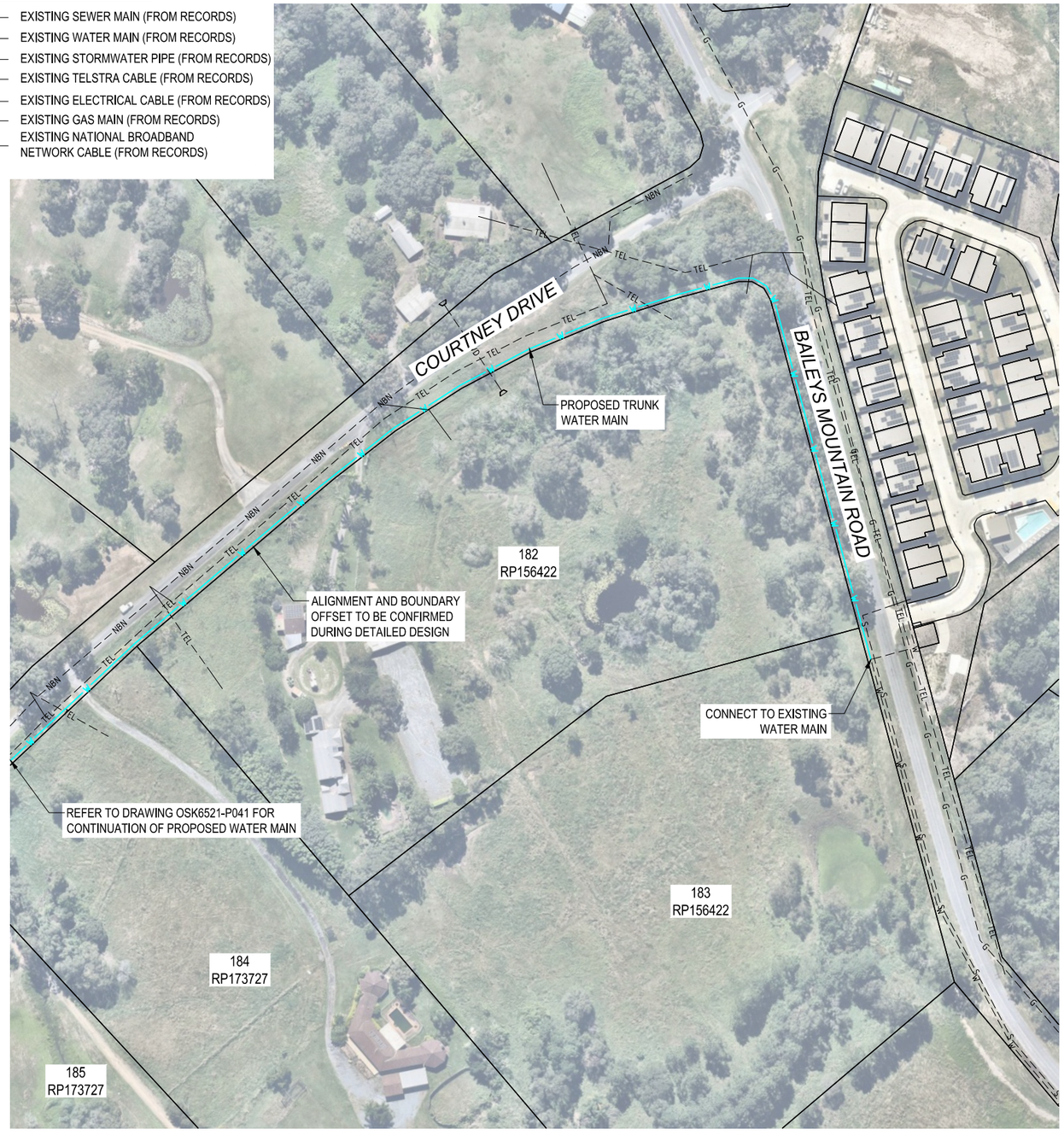
W — PROPOSED TRUNK WATER MAIN

EXISTING SERVICES LEGEND

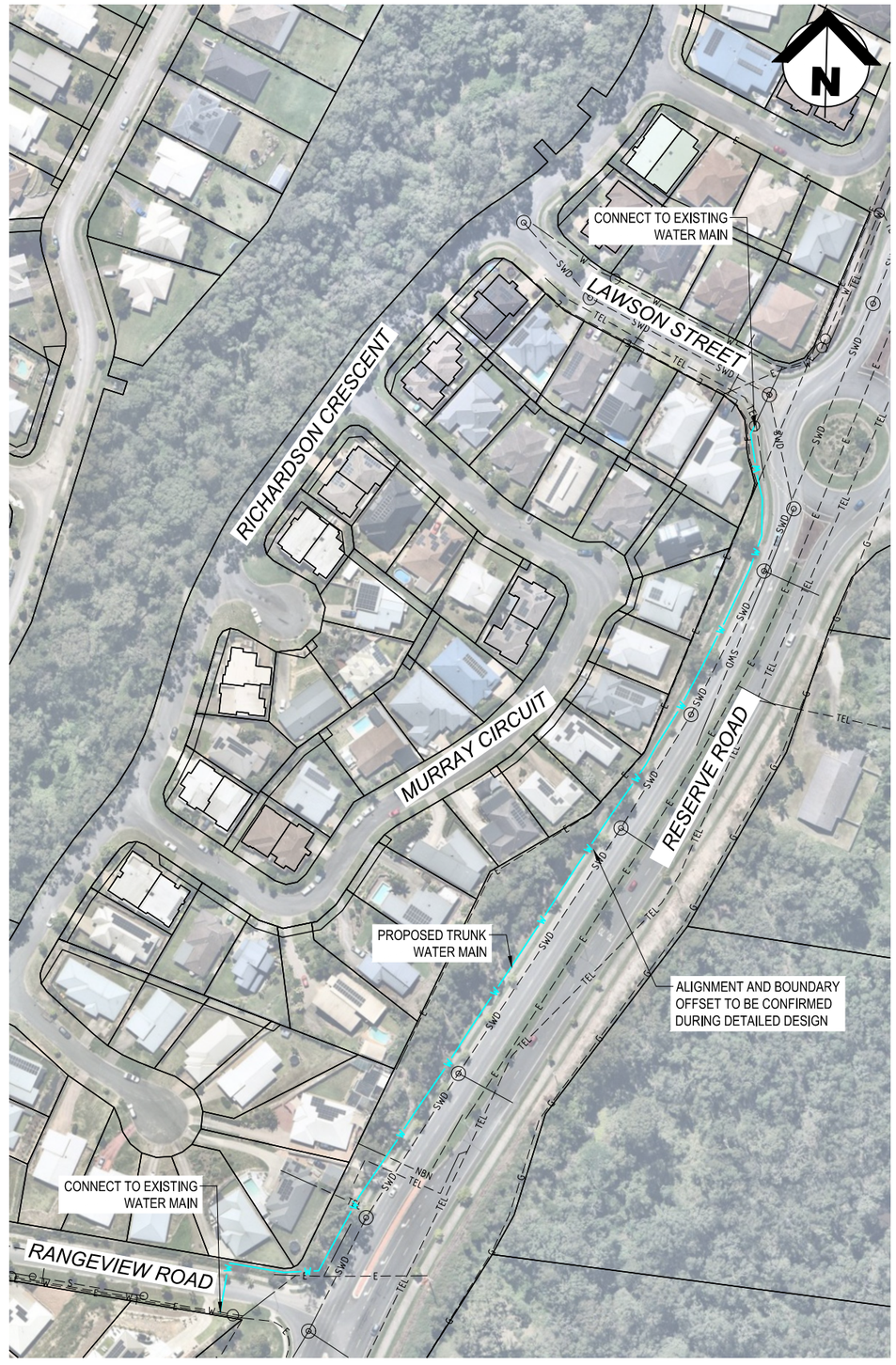
- S — EXISTING SEWER MAIN (FROM RECORDS)
- W — EXISTING WATER MAIN (FROM RECORDS)
- SWD — EXISTING STORMWATER PIPE (FROM RECORDS)
- TEL — EXISTING TELSTRA CABLE (FROM RECORDS)
- E — EXISTING ELECTRICAL CABLE (FROM RECORDS)
- G — EXISTING GAS MAIN (FROM RECORDS)
- NBN — EXISTING NATIONAL BROADBAND NETWORK CABLE (FROM RECORDS)

APPROVAL ISSUE
NOT FOR CONSTRUCTION UNLESS STAMPED

EXISTING SERVICES REALIGNMENT TO BE CONFIRMED AT DETAILED DESIGN STAGE AND INCLUDED IN TRUNK CREDITS AWARDED FOR DEVELOPMENT



COURTNEY DRIVE x BAILEYS MOUNTAIN ROAD
SCALE 1:1000 AT A1



RANGEVIEW ROAD x RESERVE ROAD x LAWSON STREET
SCALE 1:1000 AT A1

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

ISSUE No.	DATE	AMENDMENT
A	26-06-25	ISSUED FOR REPORT

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: PRELIMINARY TRUNK WATER MAIN EXTENSION PLAN

SCALE: 1:1000 AT A1 / 1:2000 AT A3 (0 20 40 60 80 100m)

PROJECT NO. OSK6521

DWG NO. P045

ISSUE A

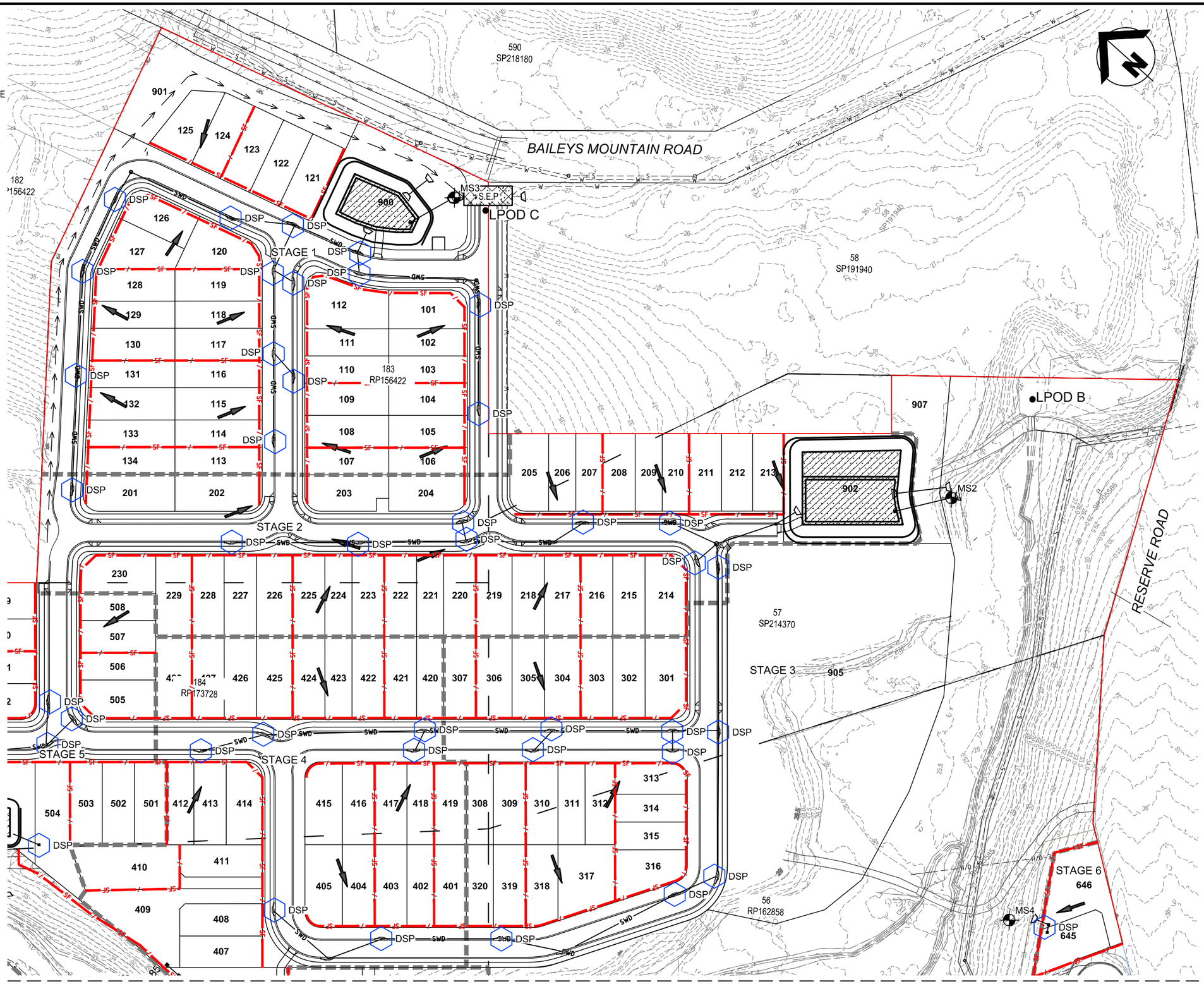
APPENDIX

F

Oska Consulting Group; Preliminary Sediment and Erosion Plan (Ref: OSK6521- P050 – P052)

SEDIMENT & EROSION CONTROL LEGEND

- SF — SEDIMENT FENCE
- TEMPORARY DIVERSION DRAIN
- TEMPORARY SEDIMENT PONDS WITHIN FUTURE BIO RETENTION BASINS
- S.E.P — LOCATION OF STABILISED ENTRY/EXIT POINT
- DSP — DRAINAGE STRUCTURE PROTECTION
- MS1 — WATER QUALITY MONITORING STATION
- FLOW ARROW
- LPOD — LAWFUL POINT OF DISCHARGE
- 80.0 — EXISTING SURFACE CONTOURS
- SWD — PROPOSED STORMWATER PIPE
- STAGE BOUNDARY



FOR CONTINUATION REFER SHEET 2

CONCEPT ONLY

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ADEQUATE SEDIMENT & EROSION CONTROL DURING ALL PHASES OF CONSTRUCTION TO THE SATISFACTION OF BOTH THE SUPERINTENDENT AND COUNCIL.

APPROVAL ISSUE
NOT FOR CONSTRUCTION UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

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C	26-06-25	ISSUED FOR REPORT
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A	06-12-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: SEDIMENT AND EROSION CONTROL PLAN - SHEET 1 OF 2

SCALE: 1:750 AT A1 / 1:1500 AT A3 (0 15 30 45 60m)

PROJECT NO.: OSK6521

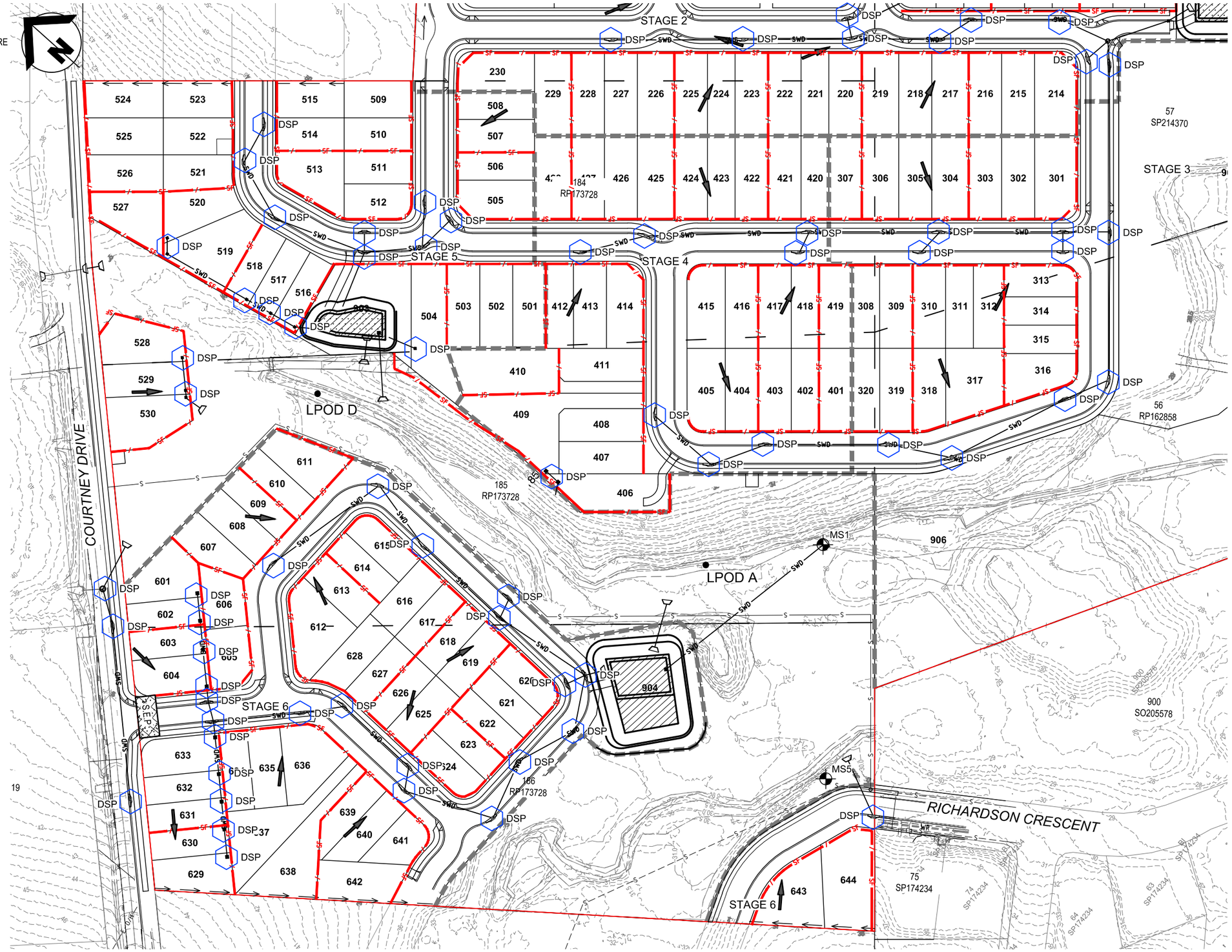
DWG NO.: P050

ISSUE: C

SEDIMENT & EROSION CONTROL LEGEND

- SEDIMENT FENCE
- TEMPORARY DIVERSION DRAIN
- TEMPORARY SEDIMENT PONDS WITHIN FUTURE BIO RETENTION BASINS
- S.E.P. — LOCATION OF STABILISED ENTRY/EXIT POINT
- DSP — DRAINAGE STRUCTURE PROTECTION
- MS1 — WATER QUALITY MONITORING STATION
- FLOW ARROW
- LPOD — LAWFUL POINT OF DISCHARGE
- 80.0 — EXISTING SURFACE CONTOURS
- SWD — PROPOSED STORMWATER PIPE
- STAGE BOUNDARY

FOR CONTINUATION REFER SHEET 1



CONCEPT ONLY

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ADEQUATE SEDIMENT & EROSION CONTROL DURING ALL PHASES OF CONSTRUCTION TO THE SATISFACTION OF BOTH THE SUPERINTENDENT AND COUNCIL.

APPROVAL ISSUE
NOT FOR CONSTRUCTION UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

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OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: SEDIMENT AND EROSION CONTROL PLAN - SHEET 2 OF 2

SCALE: 1:750 AT A1 / 1:1500 AT A3 (0 15 30 45 60m)

PROJECT NO.: OSK6521

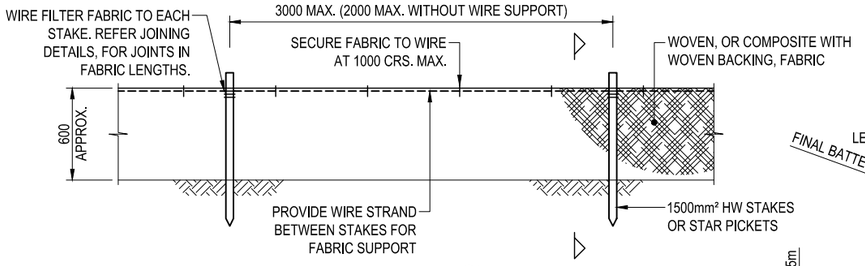
DWG NO.: P051

ISSUE: C

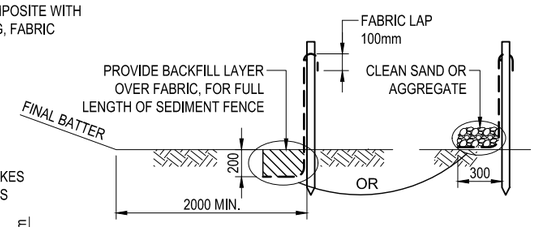
APPROVAL ISSUE
NOT FOR CONSTRUCTION UNLESS STAMPED

CONTRACTOR TO DETERMINE AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

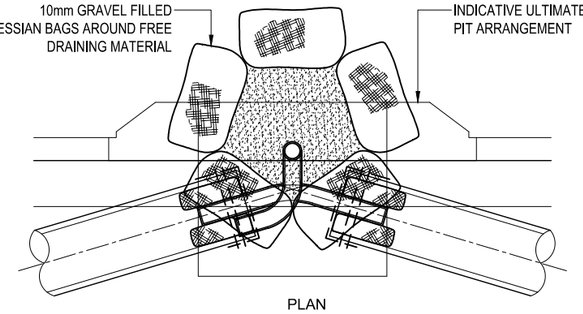
CONCEPT ONLY
IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ADEQUATE SEDIMENT & EROSION CONTROL DURING ALL PHASES OF CONSTRUCTION TO THE SATISFACTION OF BOTH THE SUPERINTENDENT AND COUNCIL.



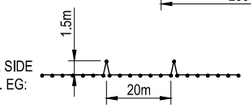
ELEVATION



SECTION



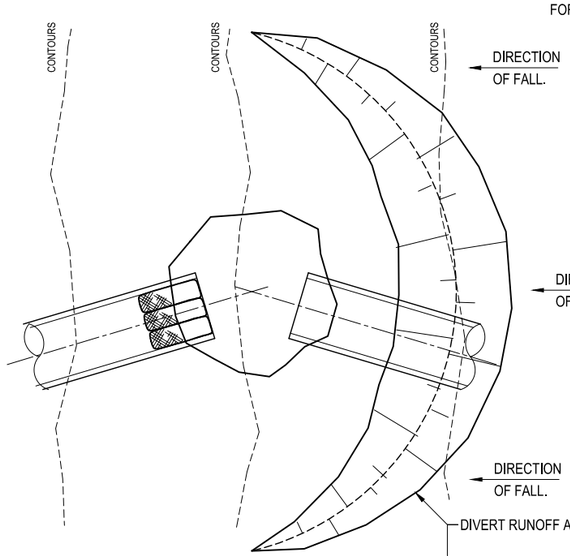
PLAN



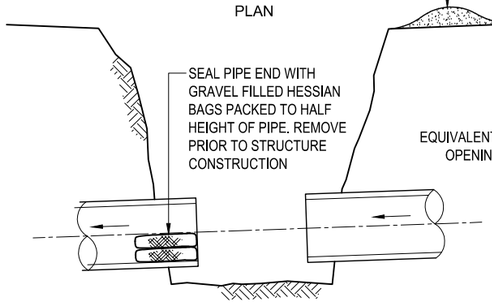
NOTE: INSTALL 1.5m (MIN.) DEEP 'RETURNS' AT 20m SPACING (MAX.) ON UPSLOPE SIDE OF FENCELINE (5-10m MAX SPACING IF FENCE ALIGNED AT ANGLE TO CONTOUR). EG:

SEDIMENT FENCE DETAILS

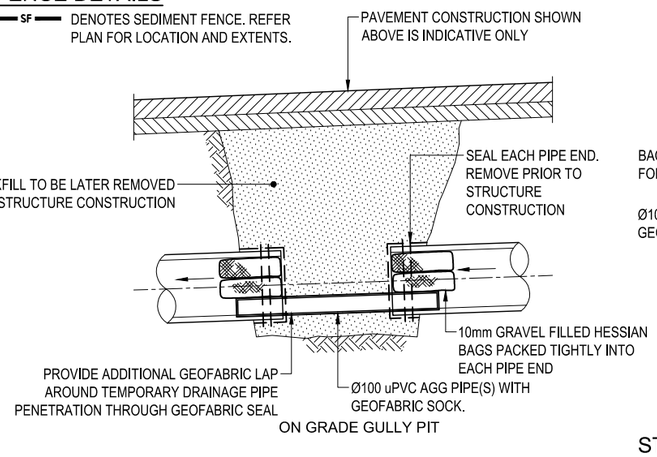
N.T.S. —— / —— SF —— DENOTES SEDIMENT FENCE. REFER PLAN FOR LOCATION AND EXTENTS.



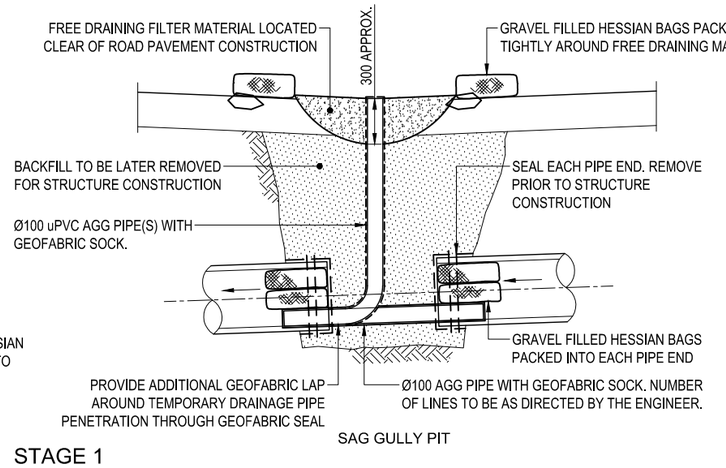
PLAN



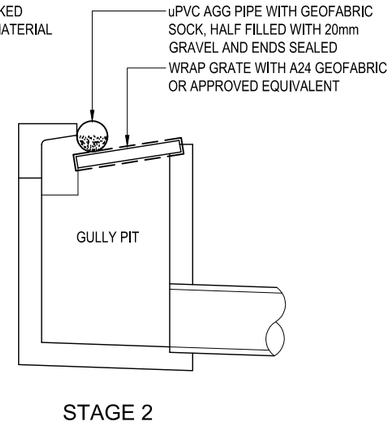
STAGE 1
EXCAVATION AND PIPE INSTALLATION



ON GRADE GULLY PIT



SAG GULLY PIT



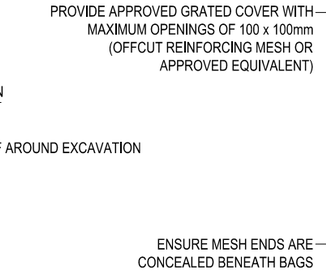
STAGE 2
STRUCTURE COMPLETE

STAGE 1
EXCAVATION, PIPE INSTALLATION AND INTERIM BACKFILLING

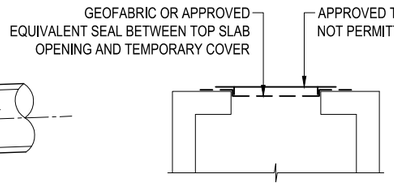
ROADWAY GULLY PIT

DSP DENOTES DRAINAGE STRUCTURE PROTECTION. REFER PLAN FOR LOCATION & EXTENTS.

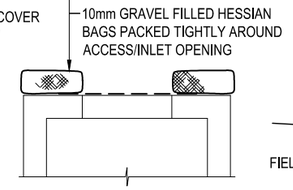
N.T.S.



PLAN

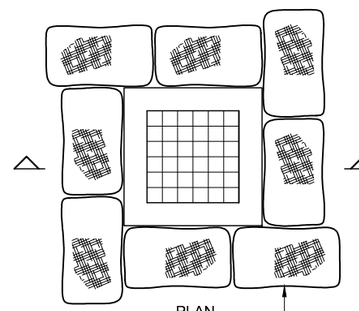


ACCESS CHAMBER



INLET STRUCTURE

STAGE 2

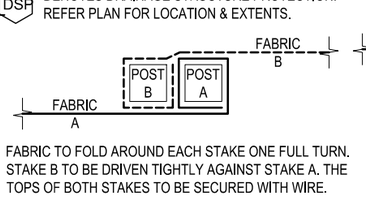


INLET STRUCTURE

STAGE 3

SEDIMENT FENCE FABRIC JOINING DETAILS

N.T.S.

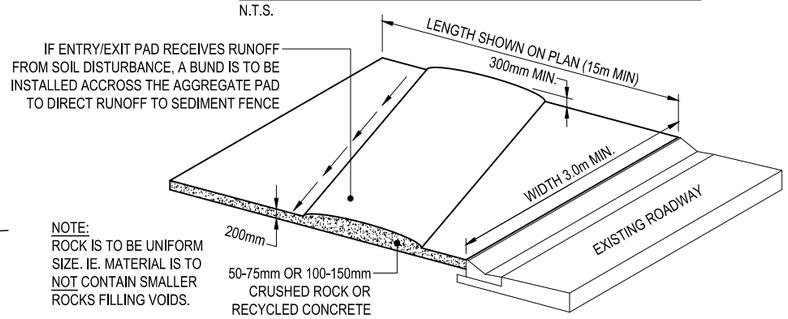


FABRIC TO FOLD AROUND EACH STAKE ONE FULL TURN. STAKE B TO BE DRIVEN TIGHTLY AGAINST STAKE A. THE TOPS OF BOTH STAKES TO BE SECURED WITH WIRE.

METHOD 1 METHOD 2

STABILISED ENTRY/EXIT POINT

N.T.S. OR APPROVED EQUIVALENT



NOTE: ROCK IS TO BE UNIFORM SIZE. IE. MATERIAL IS TO NOT CONTAIN SMALLER ROCKS FILLING VOIDS.

SEP DENOTES STABILISED ENTRY/EXIT POINT, REFER PLAN FOR LOCATIONS.

ISSUE No.	DATE	AMENDMENT
C	26-06-25	ISSUED FOR REPORT
B	11-12-24	ISSUED FOR APPROVAL
A	06-12-24	ISSUED FOR INFORMATION

OSKA CONSULTING GROUP

CLIENT: NORFOLK ESTATES PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
31-53 COURTNEY DRIVE
UPPER COOMERA, QLD, 4209

DESIGN	DRAWN	APPROVED
DR	MS	DC

TITLE: SEDIMENT AND EROSION CONTROL DETAILS

SCALE:

PROJECT NO. OSK6521

DWG NO. P052

ISSUE C

APPENDIX

G

Email correspondence with Council's Water and Wastewater Team for External Creditable Works

Adam Iervese

From: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Sent: Monday, 23 June 2025 7:46 AM
To: Adam Iervese
Cc: Daley Curran; Daniel Roosmalen; 'Andrew Rickert'; SAHA Uttam; BRIERLEY Matt
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Adam,

Thank you for your recent email and phone call. Apologies for the delay in getting back to you on this.

Following ongoing discussions with the Transport Infrastructure team, and due to the uncertainty around the timing of the road works, Council has decided to proceed with the LGIP planned alignment of water supply infrastructure via Baileys Mountain Road and Courtney Drive to service the proposed development (refer to the extract/markup below).

As previously discussed, Council also intends to extend the water main from Rangeview Road to Lawson Street to connect the two supply zones.

Therefore, based on the above requirements, please amend the Preliminary Services Plans ensuring that the reticulation layout plans are consistent with Council's planned servicing strategy for the area.

Please note that Uttam Saha from the water modelling team is currently away and is expected to return this Thursday (26/06/2025), so any further technical Network Planning queries may need to wait until then. In the meantime, we are happy to arrange a Teams call to discuss this further if needed.

Thank you.

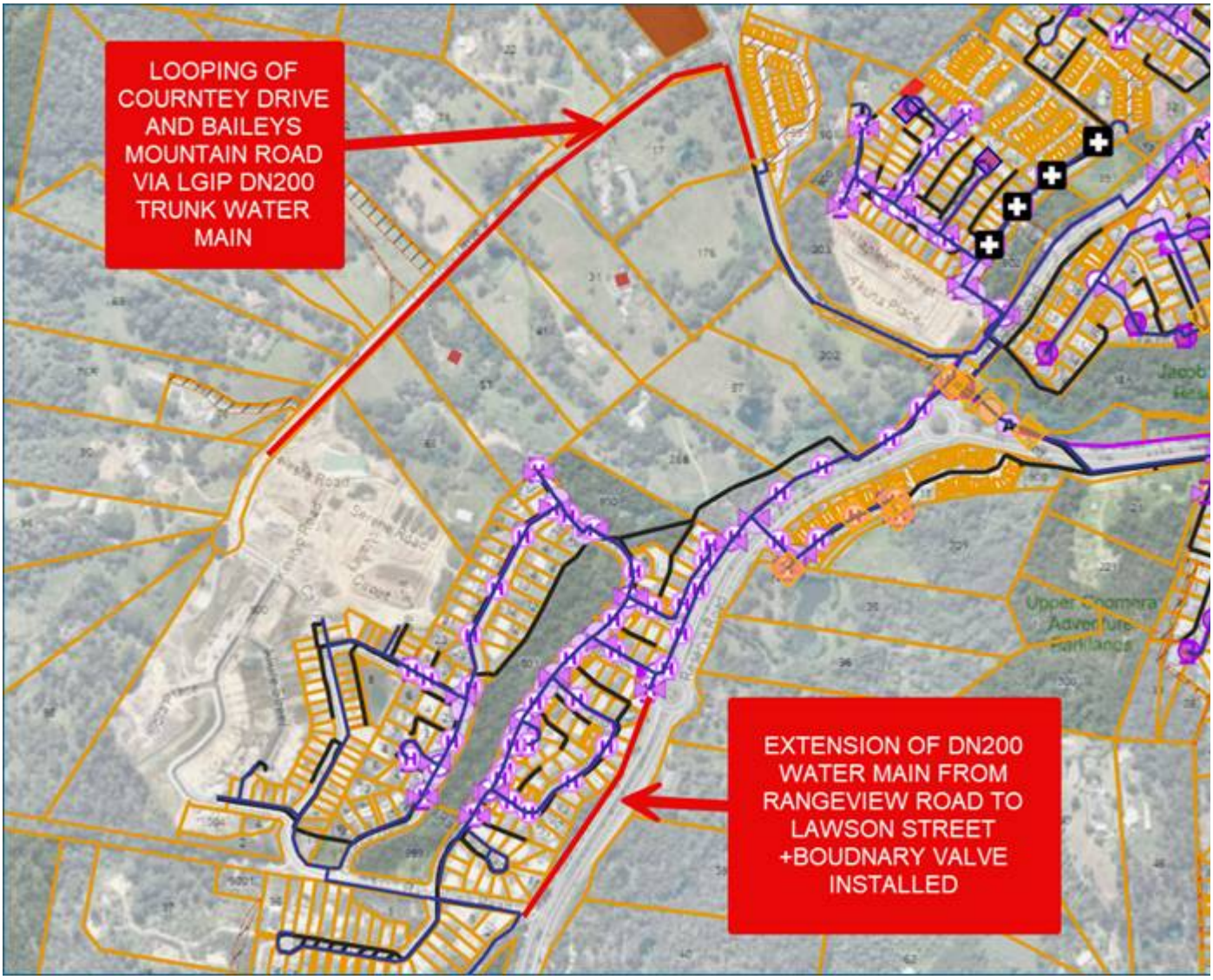


Fig: Extract from GIS showing Council's preferred option

Kind Regards,

Soorya Thomas
Civil Engineer – Water and Waste Assessment
City Development

P: +61 5582 9013
City of Gold Coast

CITY OF
GOLDCOAST.

From: Adam Iervese
Sent: Thursday, 19 June 2025 12:35 PM
To: THOMAS Soorya
Cc: Daley Curran ; Daniel Roosmalen ; 'Andrew Rickert'
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Soorya,

Just following up on the below email thread. Have you been able to confirm internally regarding the extent of creditable works that could be considered for this development?

Kind Regards,

ADAM IERVESE
ENGINEER - CIVIL

M: 0404 858 226

aiervese@oska.net.au

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CONSULTING GROUP
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OSKA.NET.AU | Level 1, 155 Varsity Pde, Varsity Lakes QLD 4227

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From: Adam Iervese <aiervese@oska.net.au>
Sent: Friday, 13 June 2025 3:11 PM
To: 'THOMAS Soorya' <STHOMAS@goldcoast.qld.gov.au>
Cc: Daley Curran <dcurran@oska.net.au>; Daniel Roosmalen <droosmalen@oska.net.au>; Andrew Rickert <andrew.rickert@wcsengineering.com>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Soorya,

Thank you for providing the below update, much appreciated.

Look forward to hearing back from you next week, enjoy your weekend.

Kind Regards,

ADAM IERVESE
ENGINEER - CIVIL

M: 0404 858 226

aiervese@oska.net.au

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From: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Sent: Friday, 13 June 2025 2:59 PM
To: Adam Iervese <aiervese@oska.net.au>
Cc: Daley Curran <dcurran@oska.net.au>; Daniel Roosmalen <droosmalen@oska.net.au>; Andrew Rickert <andrew.rickert@wcsengineering.com>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Adam,

Thanks for confirming this.

Also, just wanted to let you know that we are making good progress and expect to be in a position to provide a direct answer by mid-late next week. Thank you.

Kind Regards,

Soorya Thomas
Civil Engineer – Water and Waste Assessment
City Development

P: +61 5582 9013
City of Gold Coast

CITY OF
GOLDCOAST.

From: Adam Iervese <aiervese@oska.net.au>
Sent: Wednesday, 11 June 2025 4:31 PM

To: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Cc: Daley Curran <dcurran@oska.net.au>; SAHA Uttam <USAHA@goldcoast.qld.gov.au>; Daniel Roosmalen <droosmalen@oska.net.au>; Andrew Rickert <andrew.rickert@wcsengineering.com>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Soorya,

Yes, 31 Courtney Drive will be added into the development application as a part of the process of responding to Council's RFI.

Kind Regards,

ADAM IERVESE
ENGINEER - CIVIL

M: 0404 858 226

aiervese@oska.net.au

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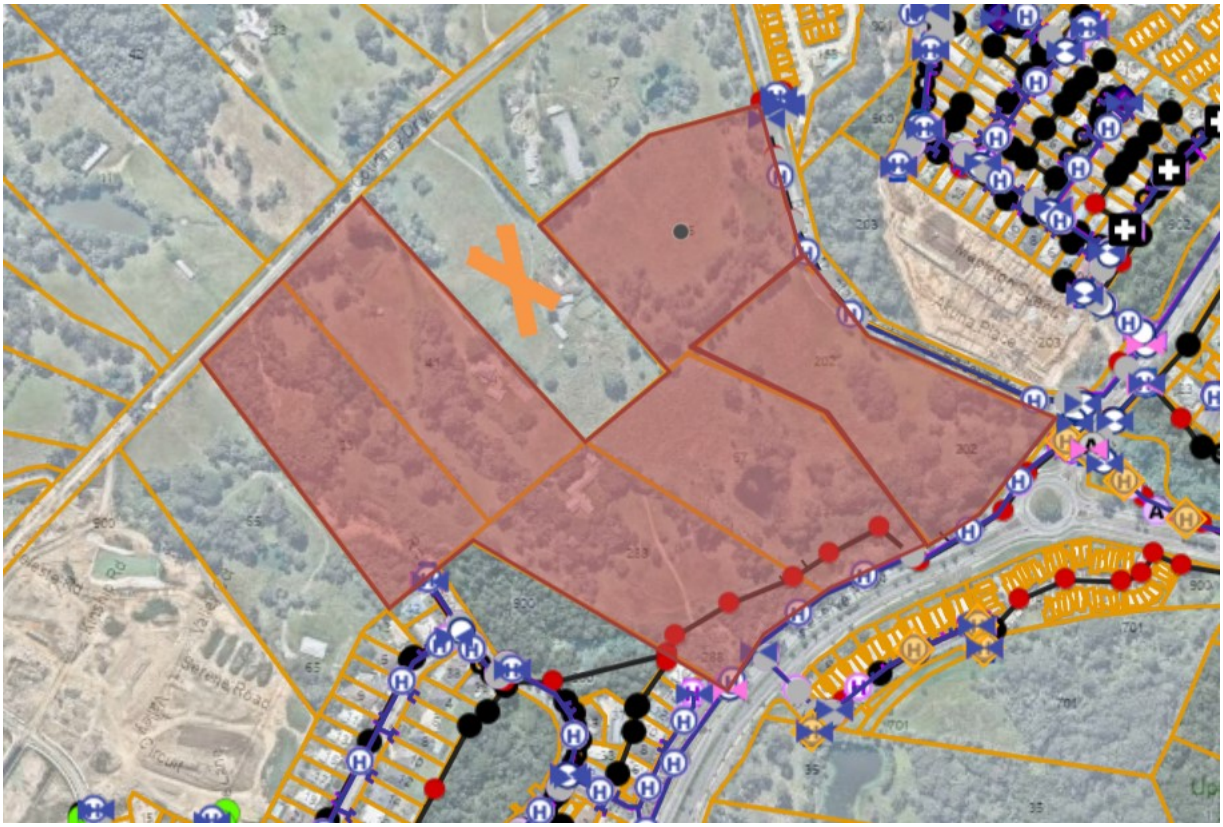
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From: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Sent: Wednesday, 11 June 2025 4:13 PM
To: Adam Iervese <aiervese@oska.net.au>
Cc: Daley Curran <dcurran@oska.net.au>; SAHA Uttam <USAHA@goldcoast.qld.gov.au>; Daniel Roosmalen <droosmalen@oska.net.au>; Andrew Rickert <andrew.rickert@wcsengineering.com>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Adam,

Is the lot marked in orange (crossed out) included in this subdivision plan. The water modelling diagram provided seems to indicate that it is. Could you please confirm? Thank you 😊



Kind Regards,

Soorya Thomas
Civil Engineer – Water and Waste Assessment
City Development

P: +61 5582 9013
City of Gold Coast

From: THOMAS Soorya
Sent: Wednesday, 11 June 2025 2:47 PM
To: Andrew Rickert <andrew.rickert@wcsengineering.com>
Cc: Daley Curran <dcurran@oska.net.au>; Adam Iervese <aiervese@oska.net.au>; SAHA Uttam <USAHA@goldcoast.qld.gov.au>; Daniel Roosmalen <droosmalen@oska.net.au>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Thanks, Andrew, for sending this information through. I'll check with Roman and let you know. Thank you!

Kind Regards,

Soorya Thomas
Civil Engineer – Water and Waste Assessment
City Development

P: +61 5582 9013

City of Gold Coast

CITY OF GOLDCOAST.

From: Andrew Rickert <andrew.rickert@wcsengineering.com>
Sent: Wednesday, 11 June 2025 2:19 PM
To: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>; Daniel Roosmalen <droosmalen@oska.net.au>
Cc: Daley Curran <dcurran@oska.net.au>; Adam Iervese <aiervese@oska.net.au>; SAHA Uttam <USAHA@goldcoast.qld.gov.au>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hello Soorya / Daniel,

Thanks for your just now to discuss options for servicing the proposed 176 Baileys Mtn Road DA. See attached screen shot with indicative DN150 trunk loop between Baileys Mountain Road and Courtney Drive. From a modelling perspective, the alignment is indicative and based on the current site concept plan. A more direct alignment may be possible to reduce total length.

Sincere Regards,

WCS Engineering | Andrew Rickert
Mobile: +61 4 04 081 646
Website: www.wcsengineering.com

Please note my scheduled office hours are Monday through Wednesday. Response times may be variable outside of these hours.

From: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Sent: Friday, 6 June 2025 2:45 PM
To: Adam Iervese <aiervese@oska.net.au>
Cc: Andrew Rickert <andrew.rickert@wcsengineering.com>; Daley Curran <dcurran@oska.net.au>; Daniel Roosmalen <droosmalen@oska.net.au>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Adam,

Apologies for the delay. I'm still waiting to hear back regarding the creditability of the works. I've followed up on this and will let you know as soon as I receive a response.

Regarding the booster pump, the water modelling team advised that since the water main will be extended from Rangeview Road to Lawson Street in this ROL, there is no need for a booster pump.

We're happy to organise the meeting for next Wednesday (11/06/2025). I'll send the team invitation shortly. Thank you

Kind Regards,

Soorya Thomas
Civil Engineer – Water and Waste Assessment
City Development

P: +61 5582 9013
City of Gold Coast

CITY OF GOLDCOAST.

From: Adam Iervese <aiervese@oska.net.au>
Sent: Thursday, 5 June 2025 8:20 PM
To: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Cc: Andrew Rickert <andrew.rickert@wcsengineering.com>; Daley Curran <dcurran@oska.net.au>; Daniel Roosmalen <droosmalen@oska.net.au>
Subject: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Soorya,

Hope you have been well.

We were just looking to follow up on the below queries; had you had a chance to discuss through the creditable works and the previous booster pump modelling query?

In parallel we have been working through the updated water modelling works. Would it be possible to arrange another teams meeting catch up to discuss the water network with Council's modelling team?

Next Tuesday or Wednesday was suitable for us if there was a time that worked for your team.

Look forward to hearing back from you.

Kind Regards,

ADAM IERVESE
ENGINEER - CIVIL

M: 0404 858 226

aiervese@oska.net.au

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From: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Sent: Tuesday, 27 May 2025 11:39 AM
To: Adam Iervese <aiervese@oska.net.au>
Cc: Andrew Rickert <andrew.rickert@wcsengineering.com>; Daley Curran <dcurran@oska.net.au>; Daniel Roosmalen <droosmalen@oska.net.au>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Adam,

In response to the previous query, Network Modelling has advised that they do not have the water network model for the 79 Courtney Drive development completed by H2One. As the model is H2One's intellectual property, they have recommended obtaining it directly from H2One.

Regarding the creditability of the works, I am still waiting to hear back from the Network team. I have also forwarded the recent enquiry to the Modelling team. Thank you.

Kind Regards,

Soorya Thomas
Civil Engineer – Water and Waste Assessment
City Development

P: +61 5582 9013
City of Gold Coast

CITY OF
GOLDCOAST.

From: Adam Iervese <aiervese@oska.net.au>
Sent: Monday, 26 May 2025 11:53 AM
To: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Cc: Andrew Rickert <andrew.rickert@wcsengineering.com>; Daley Curran <dcurran@oska.net.au>; Daniel Roosmalen <droosmalen@oska.net.au>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Soorya,

Hope you enjoyed your weekend. We were just looking to follow up the previous queries, were these something that Council would be able to advise on in the coming days?

Following on from our initial meeting, regarding the Baileys Booster Pump, can you please follow up internally regarding how we should address the modelling of the booster pump within the updated RFI documentation:

a) Model booster pump at 155 Baileys Mountain Road (as per Revision A)
b) Model booster pump at location in current WSSIP19 network (cnr Baileys Mtn Road & Old Coach Rd).
c) Omit booster pump from network modelling, noting that the assessment would show likely deficiency in water supply in upper Baileys Mountain Road.

Kind Regards,

ADAM IERVESE
ENGINEER - CIVIL

M: 0404 858 226

aiervese@oska.net.au

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From: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Sent: Thursday, 22 May 2025 9:57 AM
To: Adam Iervese <aiervese@oska.net.au>
Cc: Daley Curran <dcurran@oska.net.au>; Daniel Roosmalen <droosmalen@oska.net.au>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Adam,
Thanks for the email. I can check with the network modelling team and get back to you. Thank you

Kind Regards,

Soorya Thomas
Civil Engineer – Water and Waste Assessment

City Development

P: +61 5582 9013
City of Gold Coast

CITY OF
GOLDCOAST.

From: Adam Iervese <aiervese@oska.net.au>
Sent: Wednesday, 21 May 2025 10:57 AM
To: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Cc: Daley Curran <dcurran@oska.net.au>; Daniel Roosmalen <droosmalen@oska.net.au>
Subject: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Soorya,

Thank you for your email below.

We will work through some options that consider the water supply main network being looped through our development to link the networks for Courtney Drive and Bailey Mountain Road. If we were able to achieve the water reticulation main through our development, could you confirm that these works would still be considered as creditable works for the development?

Were Council able to share the water network model from the 79 Courtney Drive development completed by H2one?

Kind Regards,

ADAM IERVESE
ENGINEER - CIVIL

M: 0404 858 226

aiervese@oska.net.au

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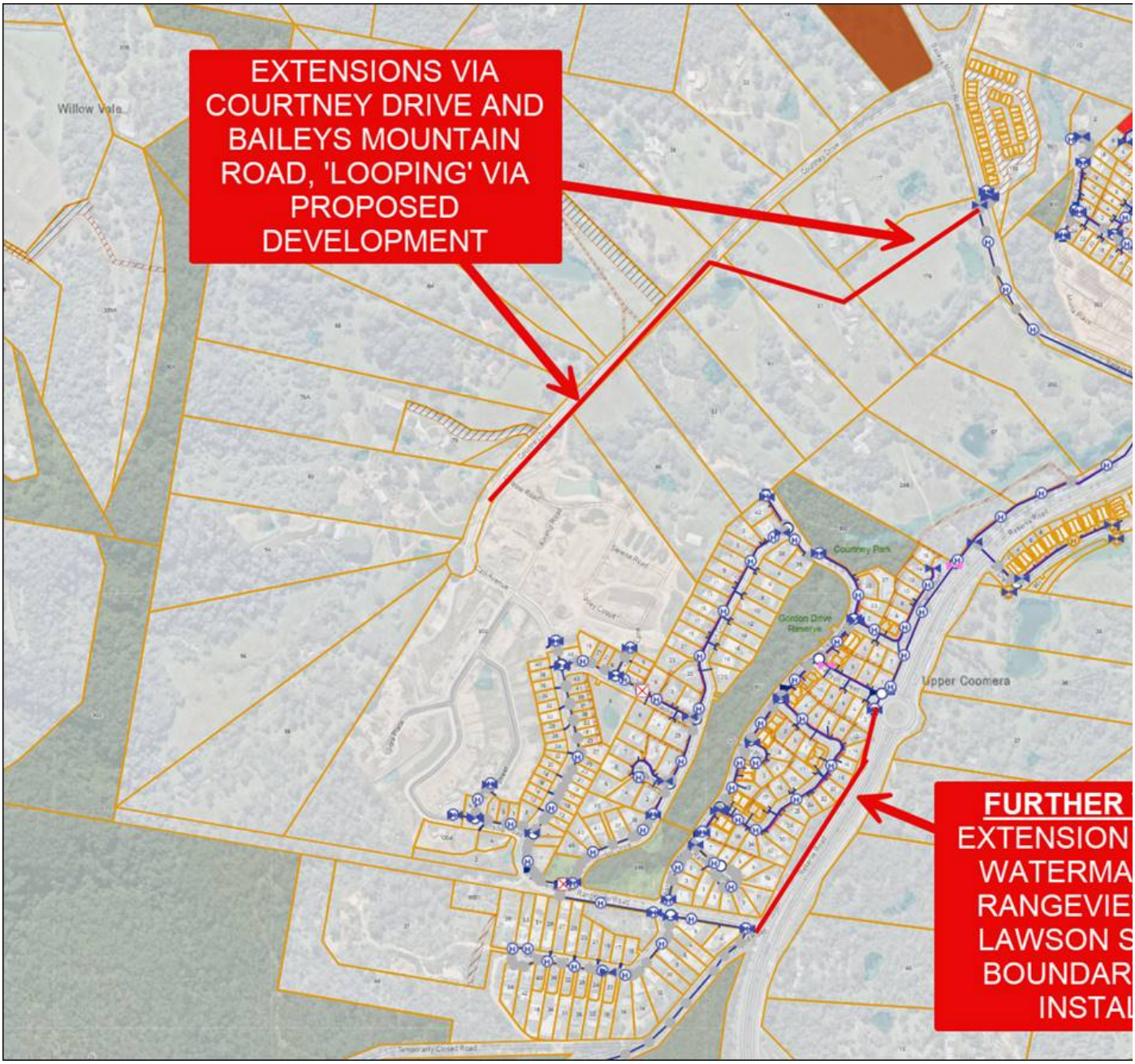
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From: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Sent: Friday, 2 May 2025 2:58 PM
To: Adam Iervese <aiervese@oska.net.au>
Cc: Daley Curran <dcurran@oska.net.au>; Daniel Roosmalen <droosmalen@oska.net.au>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Adam,

After internal discussion, Council has determined that the extension of the water supply service from Courtney Drive will be supported, however there remains a strong preference (for network supply contingency) that the mains are looped between Courtney Drive and Bailey's Mountain Road.

Due to the planned upcoming roadworks at the corner of Courtney Drive and Baileys Mountain Road (as you've identified), we request that you explore the option of connecting the Courtney Drive/Baileys Mountain Road water networks via the proposed reticulation networks within your development; This will provide a 'loop' in the system for supply contingency without laying watermain through the areas of planned roadworks where filling activities will result in a deep watermain.



Extract – Markup of Council's preferred option

As a secondary preference, if the above option is not achievable, looping of the Courtney Drive/Bailey's Mountain Road watermains irrespective of the planned roadworks (and filling) is to be pursued.

Furthermore, as discussed during our last meeting, Council has plans to extend the water main from Rangeview Road to Lawson Street to connect the two supply zones (fitted with a boundary valve) which shall also be considered as creditable works as part of this proposed development.

Please reach out if you have any questions regarding the above commentary, or if you would like to setup a subsequent meeting prior to closing out this item.

Thanks Adam.

Soorya Thomas
Civil Engineer – Water and Waste Assessment
City Development

P: +61 5582 9013
City of Gold Coast

CITY OF
GOLDCOAST.

From: Adam Iervese <aiervese@oska.net.au>
Sent: Thursday, 1 May 2025 8:06 AM
To: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Cc: Daley Curran <dcurran@oska.net.au>; Daniel Roosmalen <droosmalen@oska.net.au>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Thanks Soorya,

Much appreciated.

Kind Regards,

ADAM IERVESE
ENGINEER - CIVIL

M: 0404 858 226

aiervese@oska.net.au

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From: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Sent: Thursday, 1 May 2025 7:47 AM

To: Adam Iervese <aiervese@oska.net.au>
Cc: Daley Curran <dcurran@oska.net.au>; Daniel Roosmalen <droosmalen@oska.net.au>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Adam,

I will follow up on this one with the network team. Thank you

Kind Regards,

Soorya Thomas
Civil Engineer – Water and Waste Assessment
City Development

P: +61 5582 9013
City of Gold Coast

CITY OF
GOLDCOAST.

From: Adam Iervese <aiervese@oska.net.au>
Sent: Wednesday, 30 April 2025 1:21 PM
To: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Cc: Daley Curran <dcurran@oska.net.au>; Daniel Roosmalen <droosmalen@oska.net.au>
Subject: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Soorya,

Hope you have been well.

I was just reaching out to see if Council had an opportunity to review our previous comments?

We would be happy to discuss any further queries as required. If Council were generally in agreeance with the outlined strategy, we will commence on the modelling to confirm this was a suitable outcome.

Kind Regards,

ADAM IERVESE
ENGINEER - CIVIL

M: 0404 858 226

aiervese@oska.net.au

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From: Adam Iervese <aiervese@oska.net.au>
Sent: Wednesday, 23 April 2025 3:44 PM
To: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Cc: Daley Curran <dcurran@oska.net.au>
Subject: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Soorya,

Thank you for your time last week.

As discussed, please find attached the water catchment breakdown sketch for the proposed development. Could you please forward through this email to the appropriate parties to give further context of our proposed water connections and reticulation network.

A few points/minutes to note from our discussion:

- OSKA has concern relating to the construction of the trunk water main from Baileys Mountain Road, through to Courtney Drive across the frontage of the site (as per the below sketch). This is predominantly due to the upgrade works proposed for Baileys Mountain Road and Courtney Drive which look to raise levels by 4.0m – refer below screenshot of the Council design.
    - If the trunk main (or any water main for that matter) was to be constructed now, it would be circa 3.5m deep, requiring to be remove and relayed upon construction of the external work by Council – which has no estimated start date to our knowledge.
- The above is the basis for us proposing the alternate connection points/catchments as discussed during our meeting.
- If the alternate catchments are to be considered by Council – network modelling would be required to support this
- All external watermains for the site frontage are to be constructed along the ultimate trunk alignment and sizing (to be confirmed via hydraulic modelling).
- Council to confirm whether the booster pump at 155 Baileys Mountain Rd is to be considered in the updated modelling or removed – this was a discussion Council was going to take offline.

If Council could review in high-level and advise if this was a potential solution that could be supported, we will look to undertake the water hydraulic modelling to confirm and respond accordingly within the DA RFI Response for further assessment

Figure 1: Indicative Trunk Water Main Alignment (refer attached sketch for further reference):

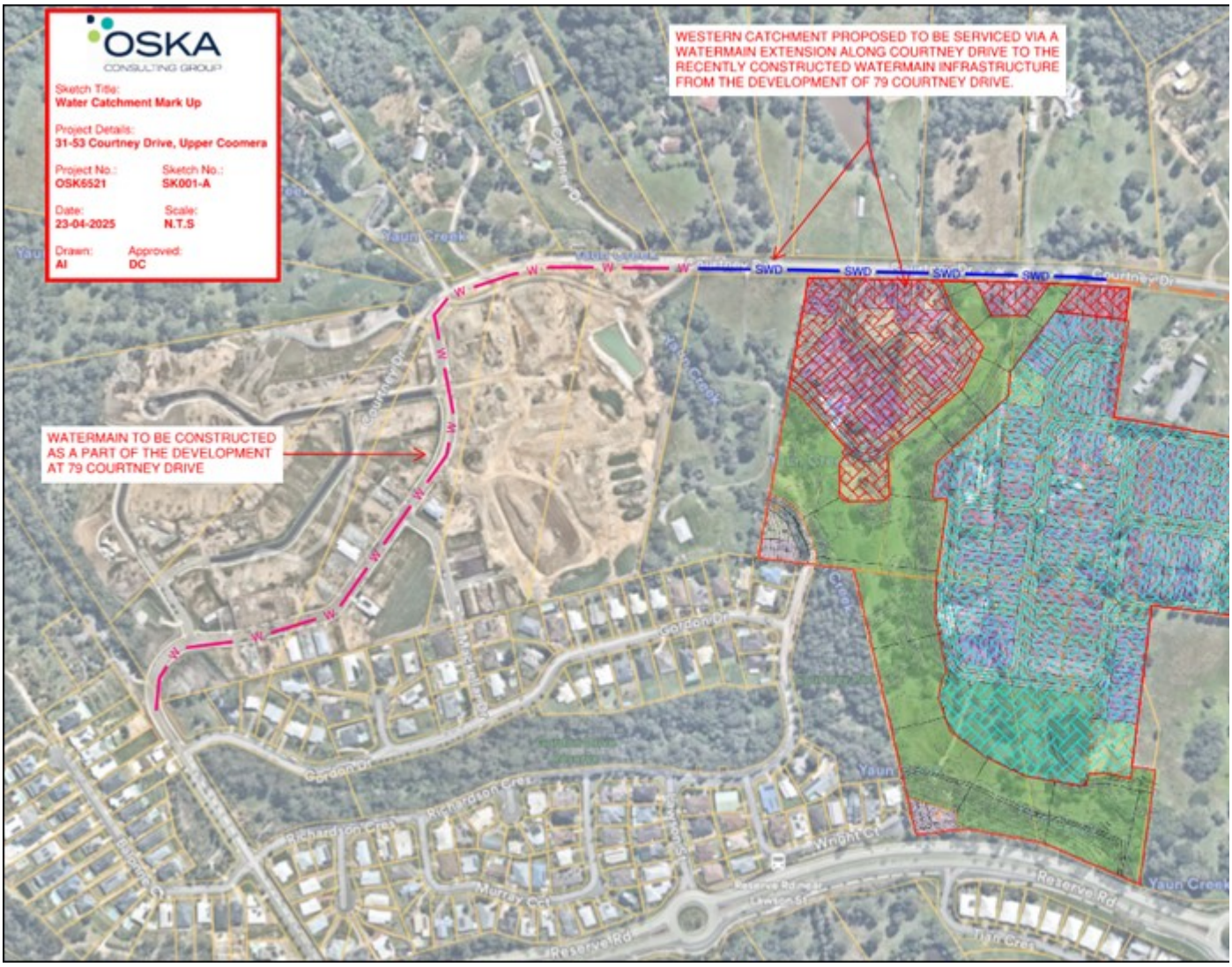
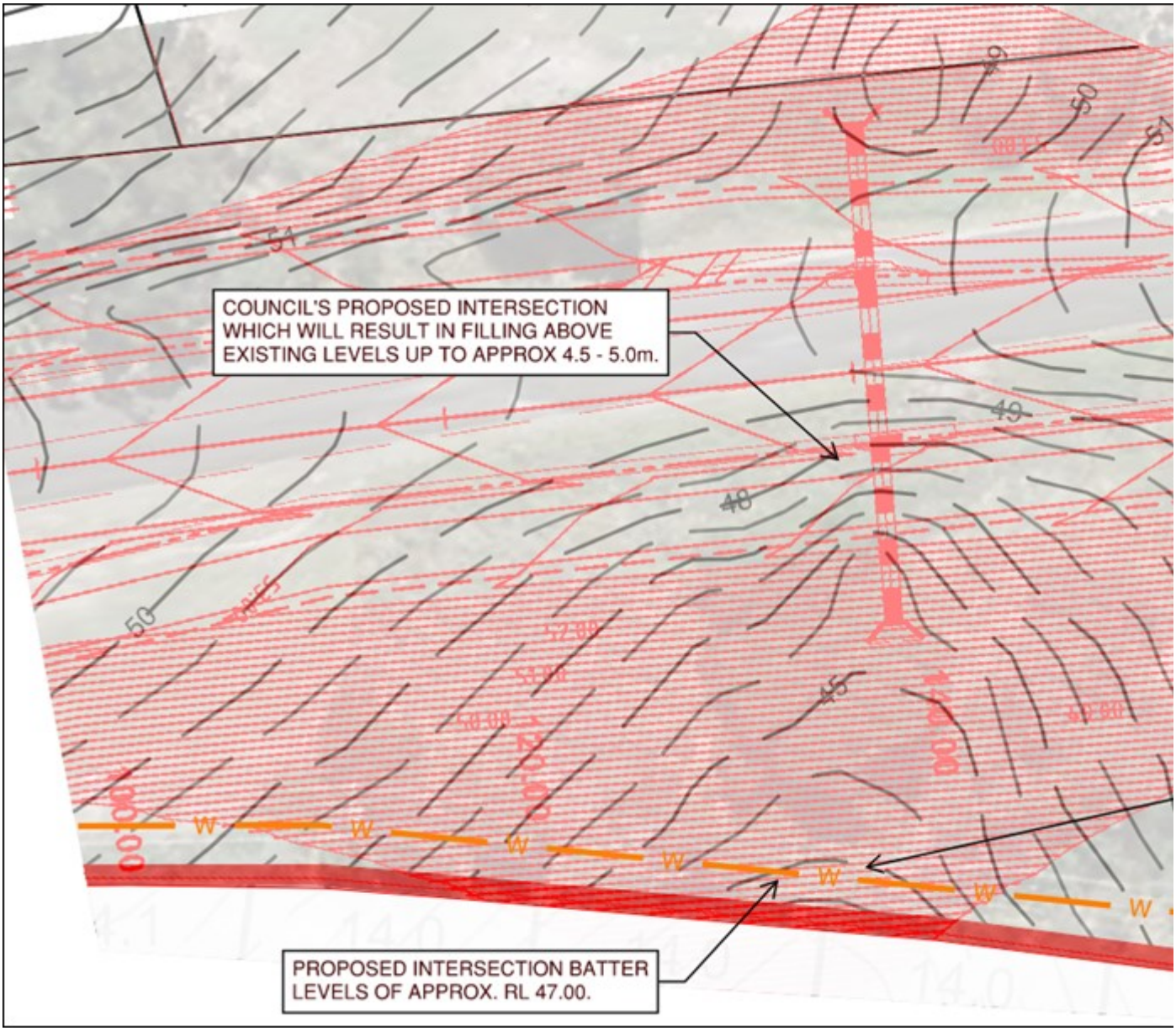


Figure 2: Courtney Drive/Bailey Mountain Rd Intersection Upgrade – Fill Heights Markup



Kind Regards,

ADAM IERVESE
ENGINEER - CIVIL

M: 0404 858 226

aiervese@oska.net.au

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From: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Sent: Tuesday, 15 April 2025 1:44 PM
To: Adam Iervese <aiervese@oska.net.au>
Cc: Daley Curran <dcurran@oska.net.au>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Adam,
I have organised the meeting for Thursday from 1:00pm to 2:00pm. I hope you have received the Teams invite. Please let me know if you haven't. Thank you.

Kind Regards,

Soorya Thomas
Civil Engineer – Water and Waste Assessment
City Development

P: +61 5582 9013
City of Gold Coast

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GOLDCOAST.

From: Adam Iervese <aiervese@oska.net.au>
Sent: Tuesday, 15 April 2025 9:52 AM
To: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Cc: Daley Curran <dcurran@oska.net.au>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Soorya,

Apologies as I was in a meeting this morning.

Was this afternoon a suitable option? If not, we were free either 8:30am – 10 am tomorrow or 1pm – 4:30pm on Thursday.

Feel free to give me a call back to discuss over the phone if needed.

Kind Regards,

ADAM IERVESE
ENGINEER - CIVIL

M: 0404 858 226

aiervese@oska.net.au

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From: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Sent: Tuesday, 15 April 2025 9:27 AM
To: Adam Iervese <aiervese@oska.net.au>
Cc: Daley Curran <dcurran@oska.net.au>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Adam,

I tried to contact you but couldn't reach you.

I had a discussion with the water modelling team, and we think it would be better to have an online meeting to discuss this.

Please let me know which day suits you best .We're available on Wednesday, Thursday, or after Easter.

Once you confirm your preferred day, I'll check everyone's availability and schedule a meeting.

Thank you.

Kind Regards,

Soorya Thomas
Civil Engineer – Water and Waste Assessment
City Development

P: +61 5582 9013
City of Gold Coast

From: THOMAS Soorya
Sent: Monday, 14 April 2025 9:26 AM
To: Adam Iervese <aiervese@oska.net.au>
Cc: Daley Curran <dcurran@oska.net.au>
Subject: RE: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Adam,
Thanks for your email.
I've checked with the water modelling team, and they are currently assessing this one. I can get back to you once their assessment is complete. In the meantime, if you have any further questions, feel free to send them through. I'm happy to forward them to the modelling team. Thank you

Kind Regards,

Soorya Thomas
Civil Engineer – Water and Waste Assessment
City Development

P: +61 5582 9013
City of Gold Coast

From: Adam Iervese <aiervese@oska.net.au>
Sent: Monday, 14 April 2025 8:47 AM
To: THOMAS Soorya <STHOMAS@goldcoast.qld.gov.au>
Cc: Daley Curran <dcurran@oska.net.au>
Subject: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

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Hi Sooray,

Hope you had a good weekend.

We were just looking to follow up on the below email, would it be possible if we could discuss the below in further detail with either yourself or a member of the water modelling team?

Kind Regards,

ADAM IERVESE
ENGINEER - CIVIL

M: 0404 858 226

aiervese@oska.net.au

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From: Adam Iervese
Sent: Thursday, 10 April 2025 2:52 PM
To: 'sthomas@goldcoast.qld.gov.au' <sthomas@goldcoast.qld.gov.au>
Cc: Daley Curran <dcurran@oska.net.au>
Subject: OSK6521 - 176 Baileys Mountain Road - DA RFI Item 38

Hi Sooray,

Thanks for your time this morning.

Prior to lodging the formal RFI response, we were hoping to discuss RFI Item 38 in further detail in respect to the requested external watermain upgrade along Courtney Drive to Baileys Mountain Road.

It is noted that the current LGIP has the main water supply along Courtney Drive being provided from Baileys Mountain Road, however the existing conditions along Courtney Drive will require significant civil works to facilitate the construction of this watermain (i.e potential electrical relocation works, verge regrading, culvert crossings, etc).

To simplify the proposed construction works and subsequently decrease the financial burden on Council (i.e. less trunk works), we have proposed to extend the watermain through to the end of Courtney Drive and connect via the recently constructed water supply network for 79-99 Courtney Drive.

Note a few preliminary comments regarding this proposed design approach.

- Based on the water modelling report submitted by the neighbouring developer for 79-99 Courtney Drive, the modelled peak hour minimum pressure at the proposed cul de sac connection J210H is 55.9 m at RL 40 m AHD (See Appendix D – Oska W&WW Report).
- Assuming a maximum RL at the proposed development site of 39.7 m AHD, assuming max. allowable headloss, the peak hour minimum pressure is not expected to fall below 50 m.
- Given the maximum RL of 53 m AHD along Courtney Drive (corner of Baileys Mountain Road), assuming max. allowable headloss, the peak hour minimum pressure is not expected to fall below 39 m.
- Fireflow residual pressure is also expected to fall well within minimum service requirements along the entirety of Courtney Drive.
- The proposed trunk connection via Courtney Drive cul de sac provides a more reliable and energy efficient water supply as not requiring to be augmented via the proposed Bailey's Mountain Drive booster pump.

If the water modelling supports the above design outcome, would Council be willing to accept the watermain extension through to the end of Courtney Drive? The intent would still be to construct the watermain to the ultimate trunk alignment and size in any option we proceed with.

Once you have had an opportunity to review the above, feel free to give me a call and I would be happy to discuss further.

Kind Regards,

ADAM IERVESE
ENGINEER - CIVIL

M: 0404 858 226

aiervese@oska.net.au

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APPENDIX

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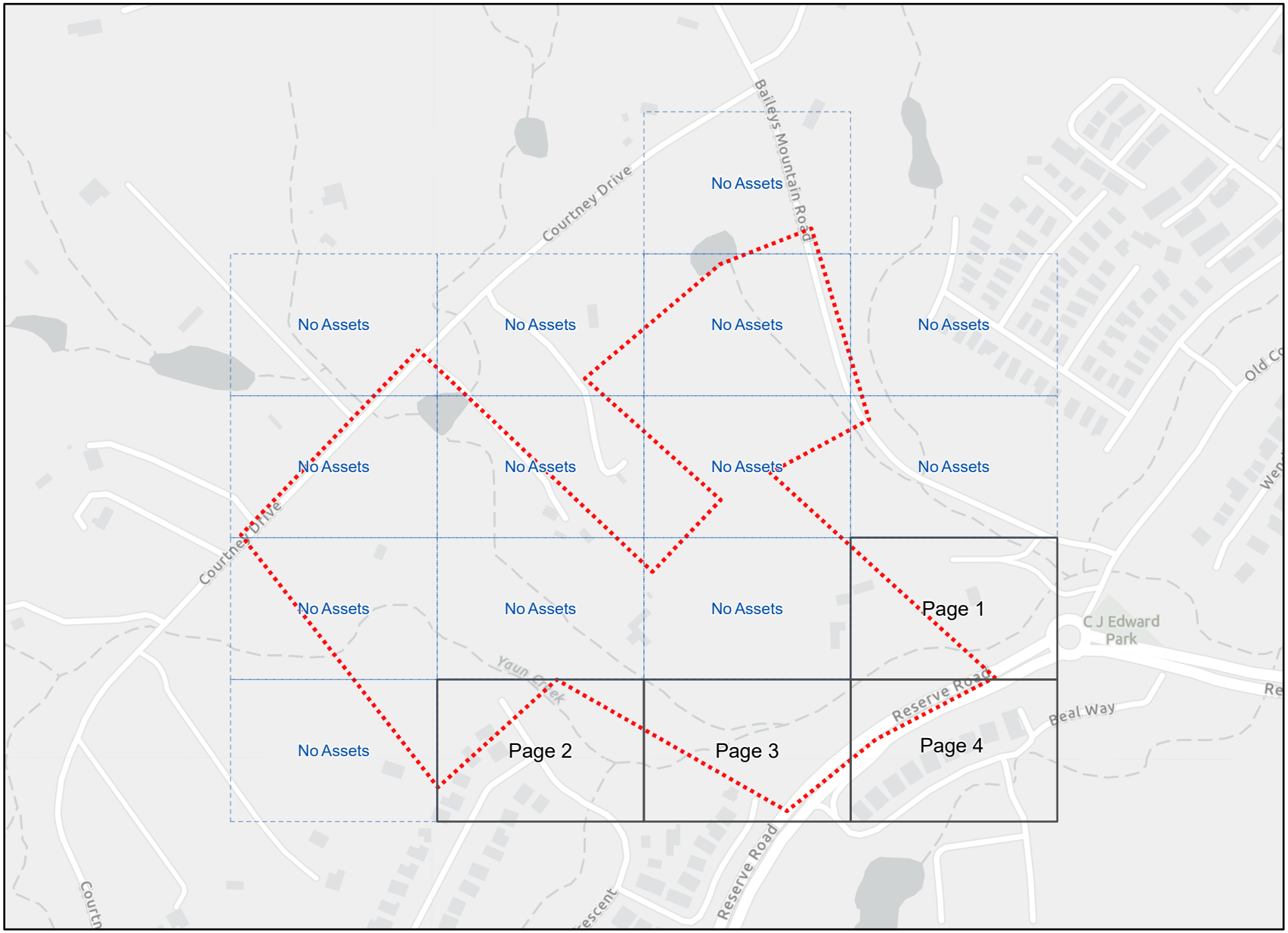
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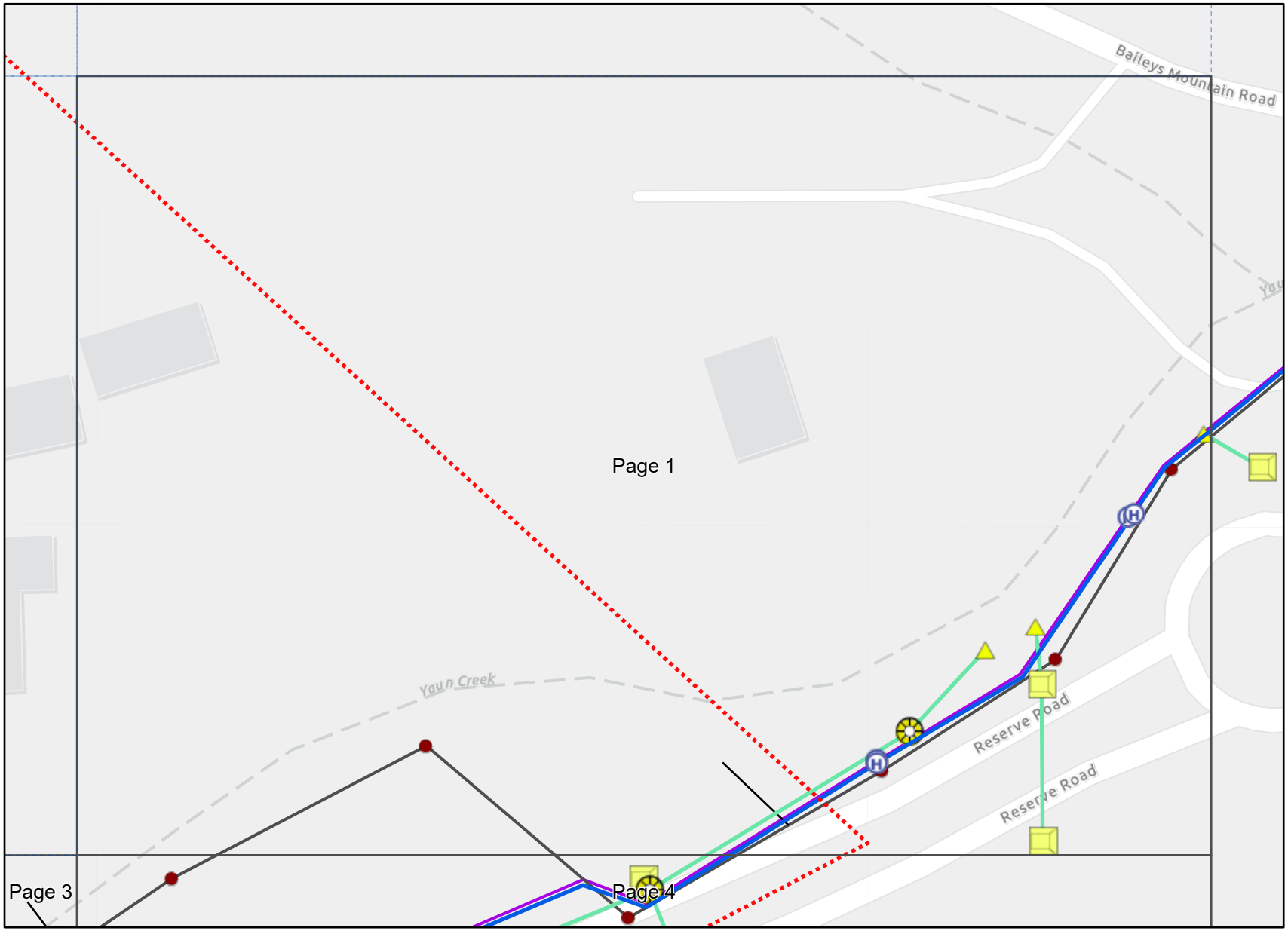
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- Stormwater Drainage Pipe
- Stormwater Inlet Gully
- Stormwater Manhole
- Stormwater End Structure
- Sewer Connection
- Sewer Pipe Non Pressure
- Sewer Manhole
- Recycled Water Pipe
- Fibre Optic Pit
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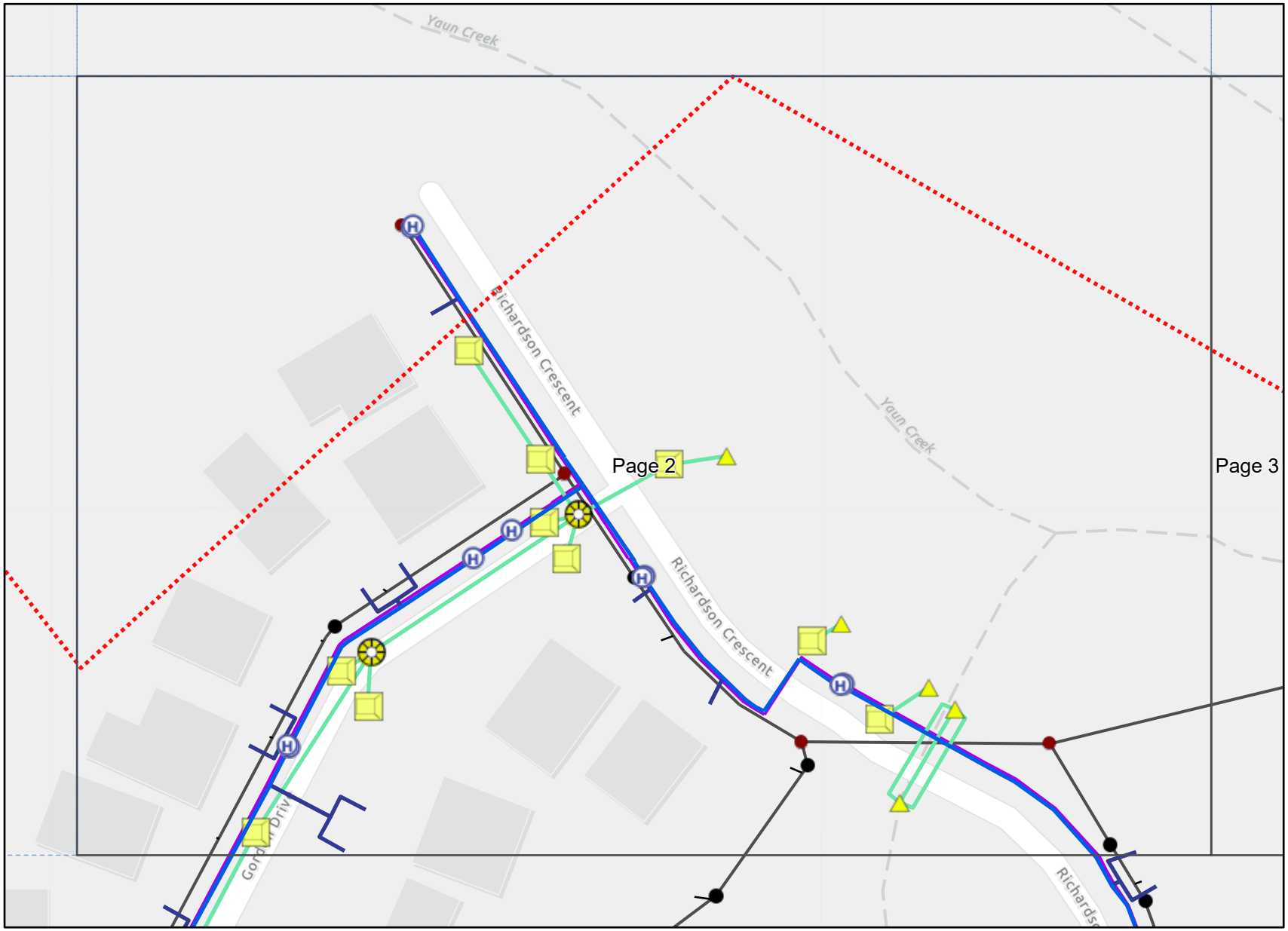
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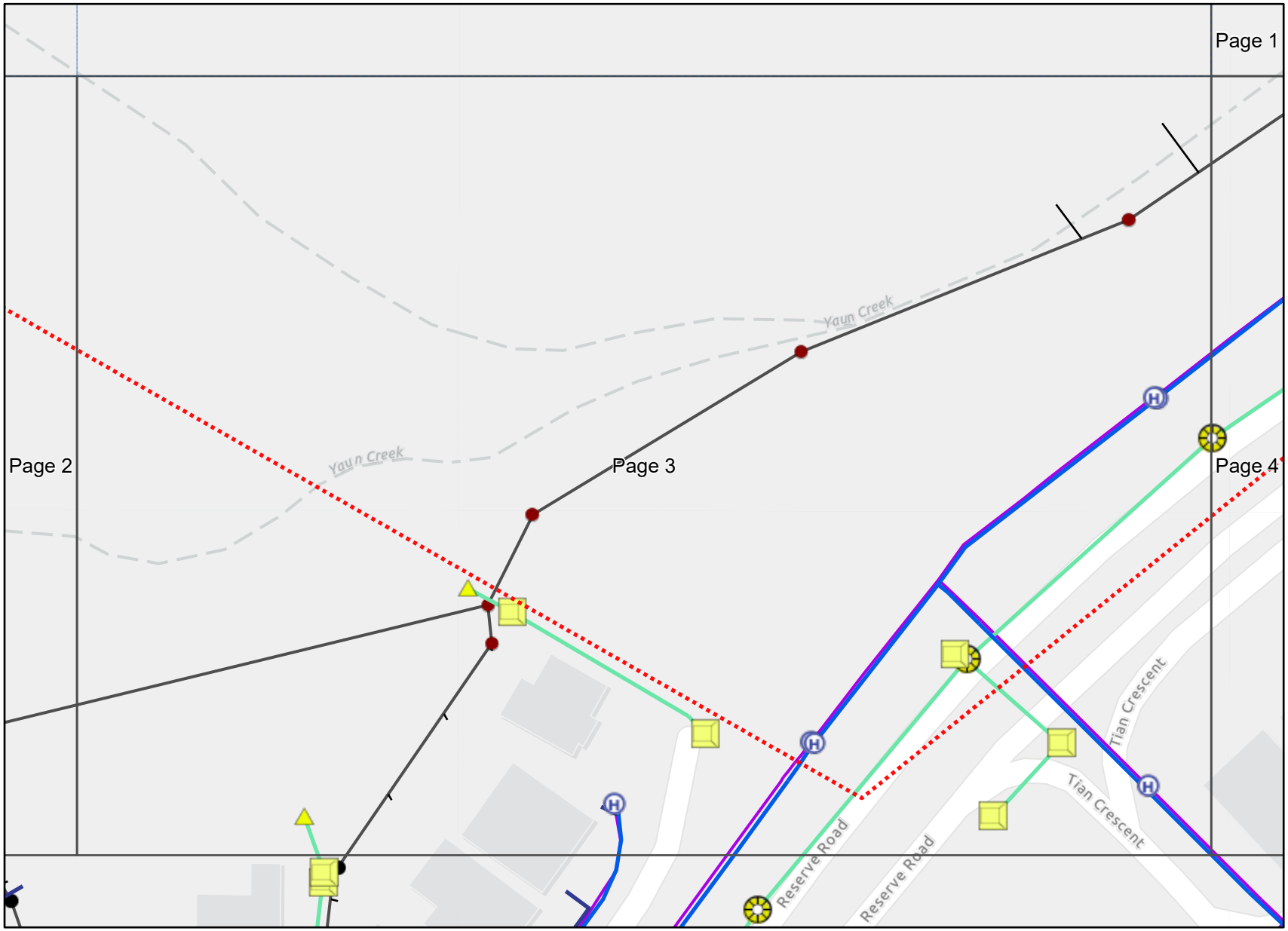
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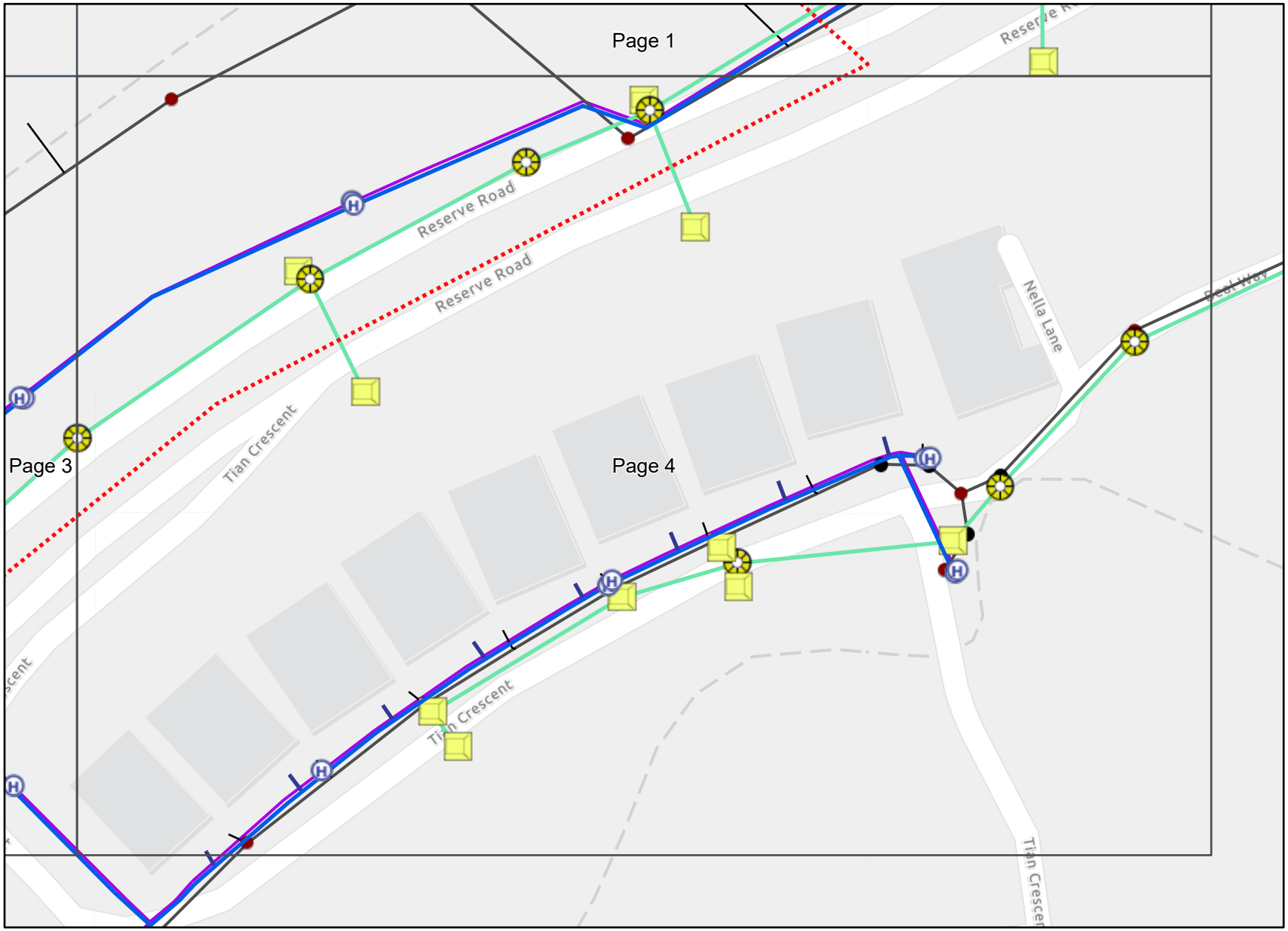
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Before You Dig Australia

Classification: Networks

Enquiry Date:	05/12/2024
Sequence Number:	248396250
Work Site Address:	57 Courtney Drive Upper Coomera QLD 4209



NO WORK TO PROCEED UNTIL APPROVED BY APA

For your immediate information THERE IS A CRITICAL GAS PIPELINE OR INFRASTRUCTURE (Gas Assets) located in close vicinity to your works.

Enquiry Date: 05/12/2024
Enquirer: Jake Lowry

Sequence Number: 248396250
Worksite Address: 57 Courtney Drive
Upper Coomera
QLD 4209

Thank you for your Before You Dig enquiry regarding the location of gas assets.

We confirm there are CRITICAL Gas Assets located in close vicinity of the above location. Damage to gas assets may result in explosion, fire and personal injury.

Any work activity in vicinity of Critical Gas Assets operated by APA requires an assessment by APA and may require attendance by APA Site Watch whilst work is in progress. Please ensure you read and comply with all the relevant information contained in this response to your BYDA enquiry.

Complete the **Work In The Vicinity Of Critical Gas Assets request form** on the following page and forward this to APA as soon as practicable.

Wait for APA to provide written authorisation before proceeding with works. APA may require supervision of works, issuance of a permit, or conditional instructions to ensure the safety of the community and security of supply.

Work in the vicinity of critical gas assets request form

Work / Excavation Site Details	
Number:	Street:
Suburb:	State:
Sequence Number : 248396250	
Requestors Name:	
Company Name:	
Name of Authorised Company Site Representative:	
Email:	
Phone:	Mobile:

Request to work in the vicinity of critical gas assets conditions

It is the proponent's* responsibility to read these conditions and complete the request form

1. A minimum of three (3) business days is required to process and assess requests to work in vicinity of critical assets and provide a response.
2. This request form must be accompanied by a detailed schedule of works.
3. When an APA Authority to Work permit is issued, the permit will provide the applicable conditions whilst conducting excavation or work in vicinity of the gas assets.
4. Work must not commence until the requestor has received an APA Authority to Work Permit, or written approval from APA.

*Person or company requesting to undertake works in proximity to critical gas assets.

Work/Excavation Drawings Attached ○ Yes ○ No

Proposed Work Dates and Times			
From		To	
Date	Time	Date	Time
/ /	am/pm	/ /	am/pm

*Requestor / Billing Details - Mandatory Information
Company / Requestor Name:
Address:
Purchase Order (if applicable):
Phone:
Email:

Description of Work / Excavation	
Activity/Excavation Details:	
Tick Applicable	
Excavation	Change to surface level
Service crossing	Boring
Proving / Pot-holing	Other (provide details)
Earthworks	
Excavator Size, Tooth Type & Tooth Size (provide details)	

Return this to: BYDA_APA@apa.com.au
Enquiries: APA Before You Dig officer - 1800 085 628

Before You Dig Checklist



1. Plan

- Review maps provided with this BYDA response and confirm the location of your work site is correct.
- Complete the **Work in the Vicinity of Critical Gas Assets** request form and submit to APA.
- Have received contact from APA to confirm details of proposed work.
- Review the **APA Guidelines for Works Near Existing Gas Assets** and clearly understand requirements relating to my scope of work.
- Receive authority to proceed with work from APA.



2. Prepare

- Electronically locate gas assets and mark locations.
- Site Watch booking confirmed (if required by APA).
- Note: Enquirers should still look for visible evidence of gas assets at the worksite not shown on plans.



3. Pothole

- Physically confirm ('prove') the location of gas assets by potholing by hand excavation or non- destructive vacuum excavation methods in accordance with **APA Guidelines for Works Near Existing Gas Assets.**
- Road authorities, councils, utilities and their authorised contractors and agents are responsible to pothole or use other suitable methods to verify the location and depth of all gas assets, including gas (inlet) services, prior to commencing any works.



4. Protect

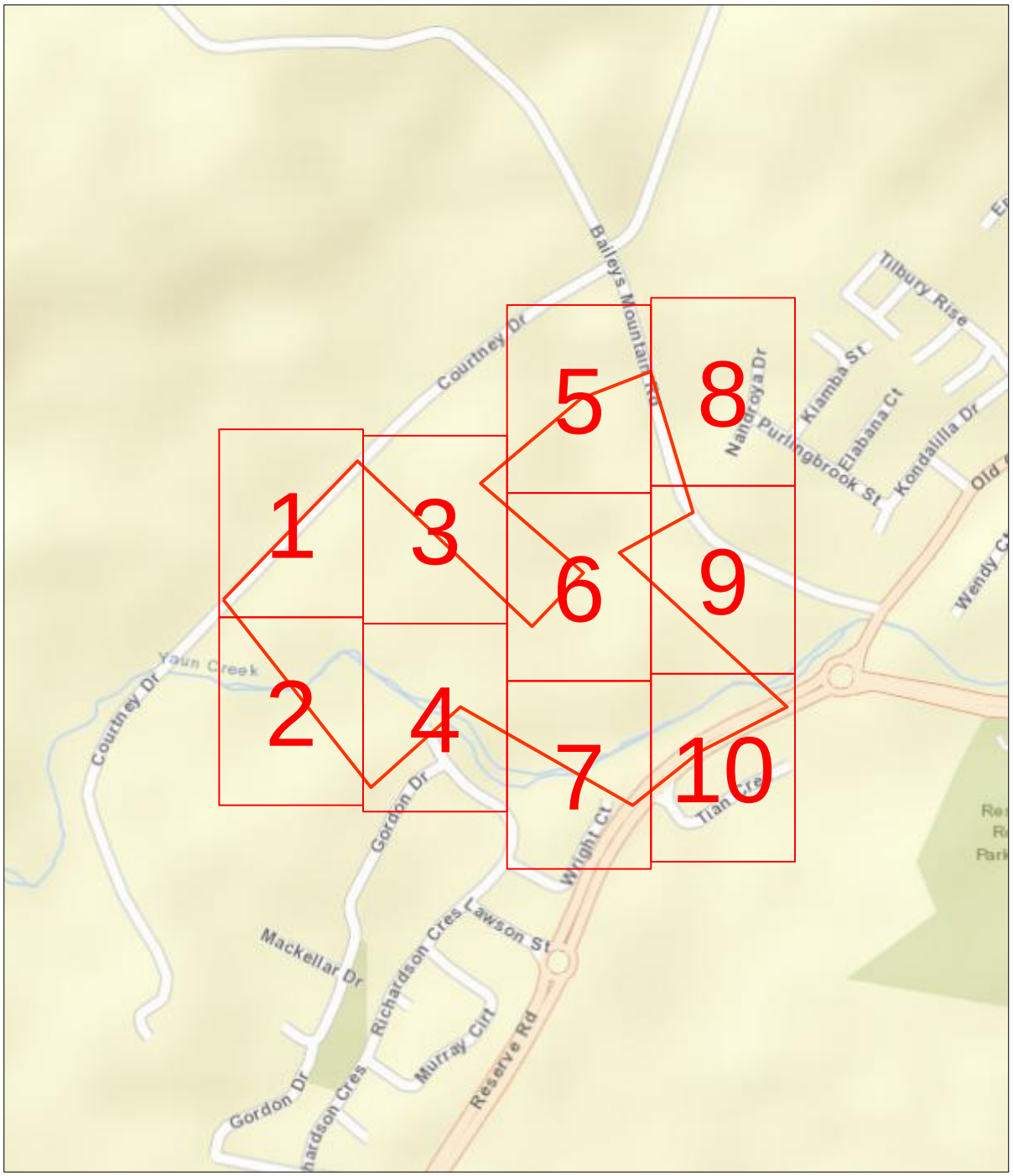
- Protect gas assets by maintaining clearances whilst excavating and following conditions provided by APA.
- Where required by APA, only conducting work in proximity to gas assets while Site Watch is on site.
- Where applicable, APA Authority To Work permit conditions are clearly understood and complied.
- Strap and support exposed mains and inlet services. Cover exposed mains to prevent damage until the excavation can be restored permanently.



5. Proceed

- Only proceed with your work once you have completed all the planning, preparation, potholing and protection requirements.
- APA BYDA response (including maps) are on site for reference at all times, and less than 30 days old.

Site Address	57 Courtney Drive Upper Coomera QLD 4209	Sequence No 248396250



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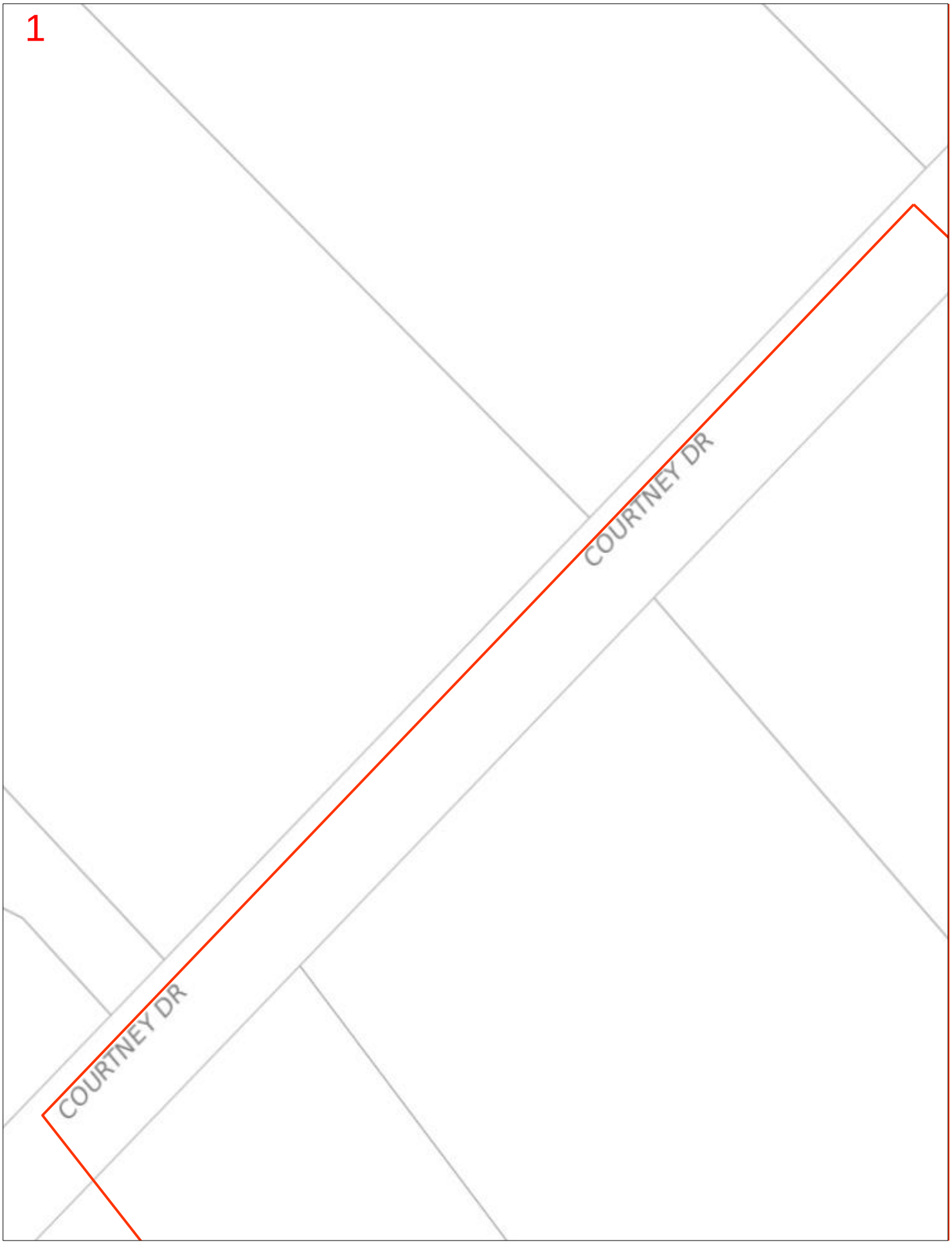
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Enquiry Area

Map Key Area

Site Address 57 Courtney Drive
Upper Coomera
QLD 4209

Sequence No 248396250



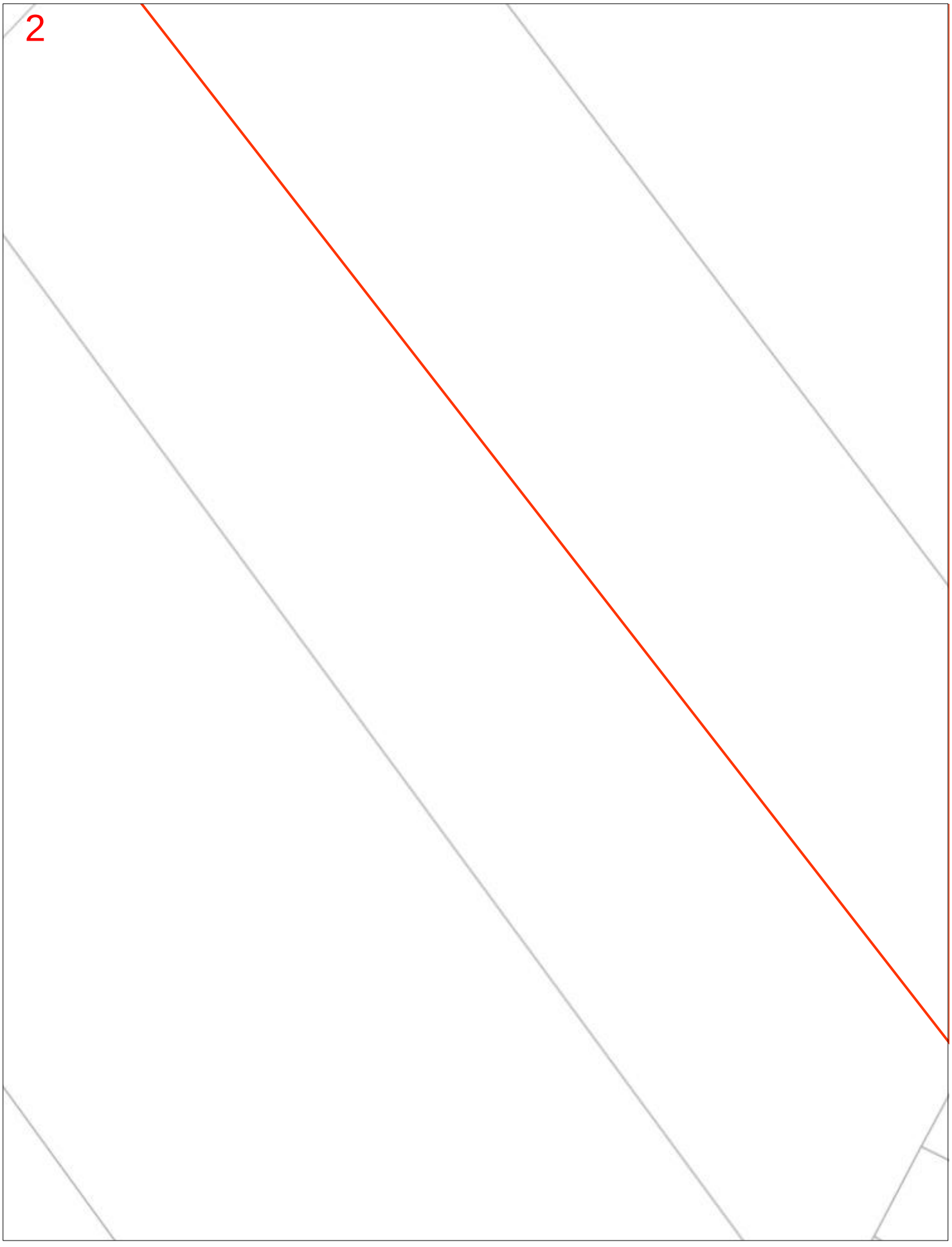
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Enquiry Area

Map Key Area



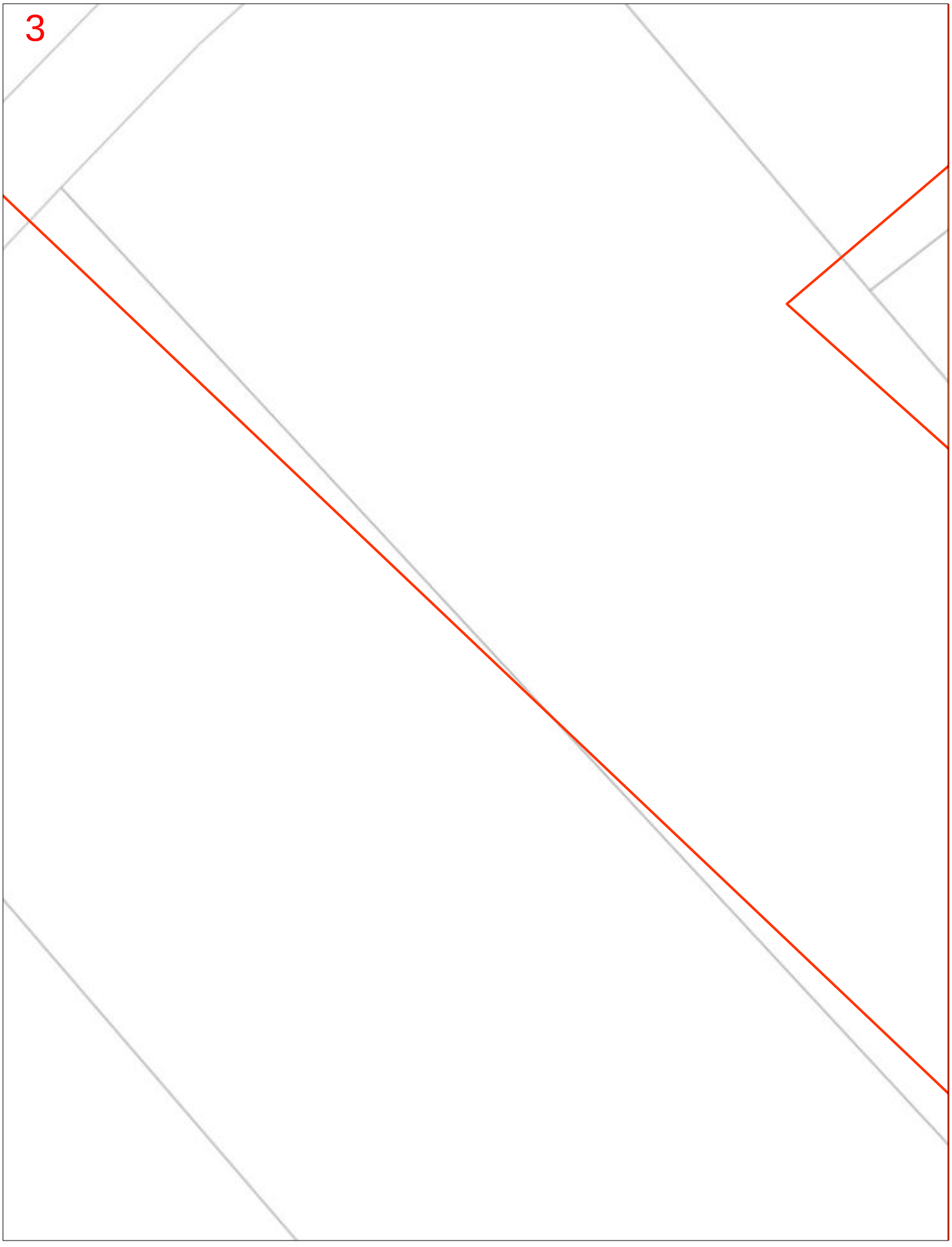
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Enquiry Area

Map Key Area



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Enquiry Area

Map Key Area

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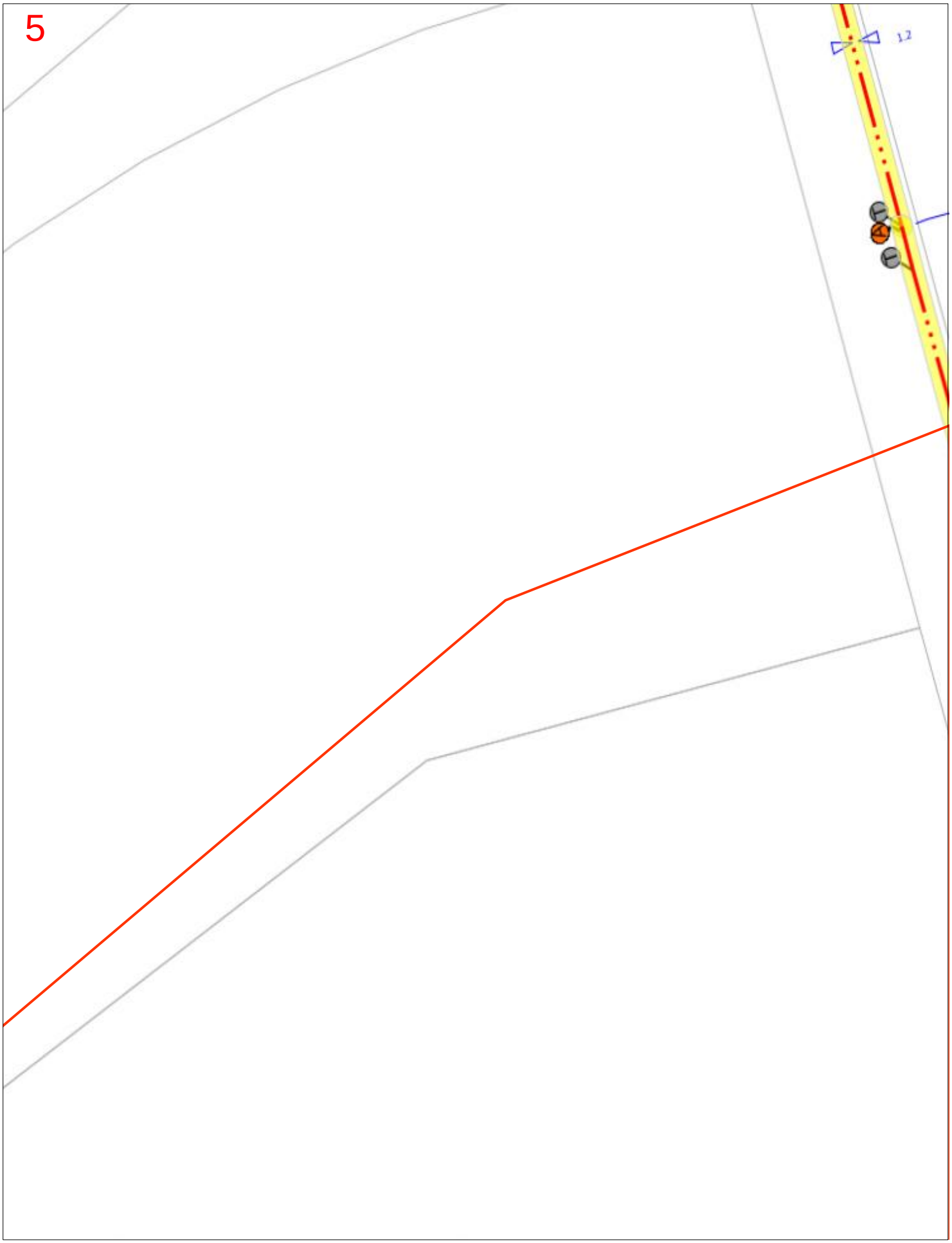
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Enquiry Area

Map Key Area



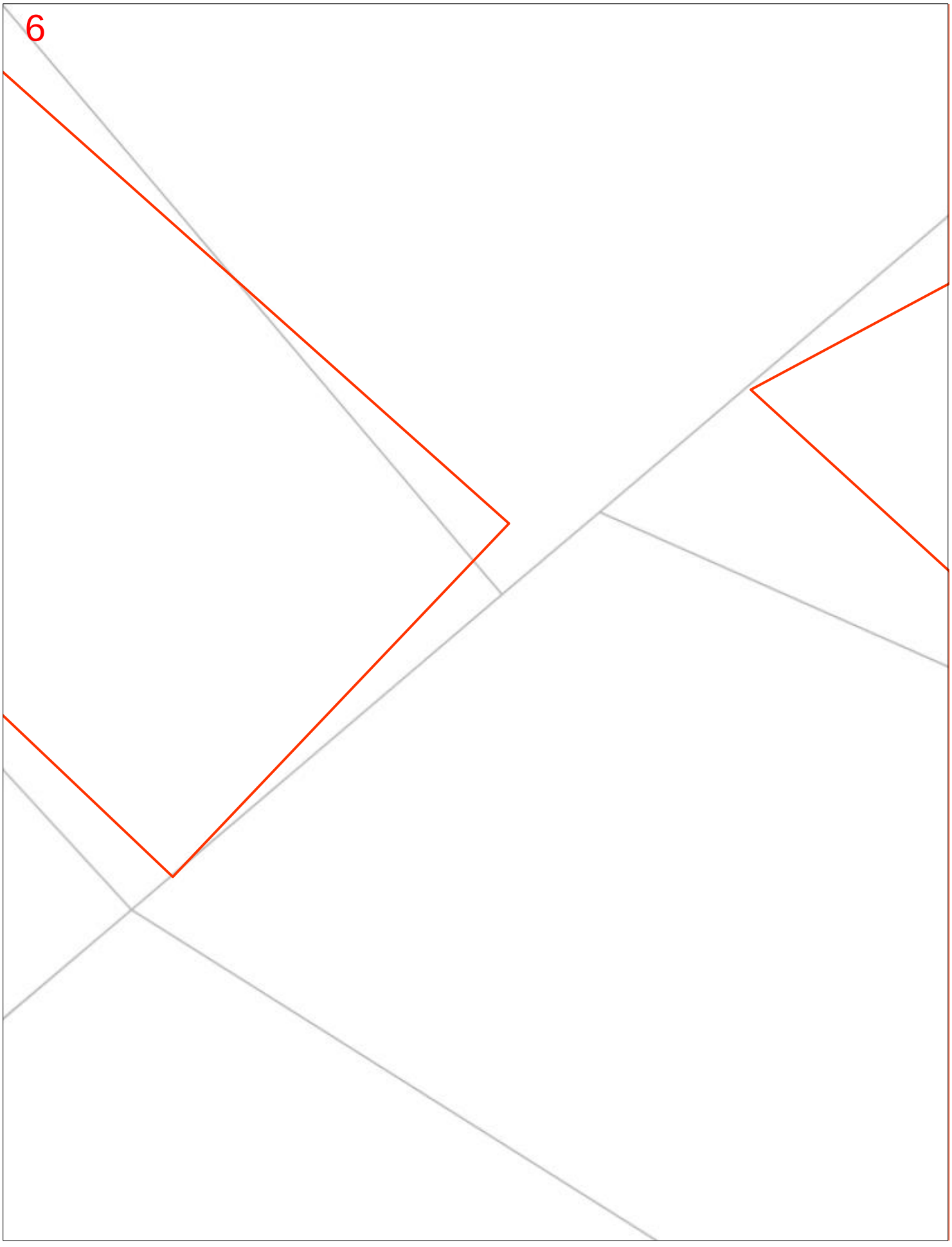
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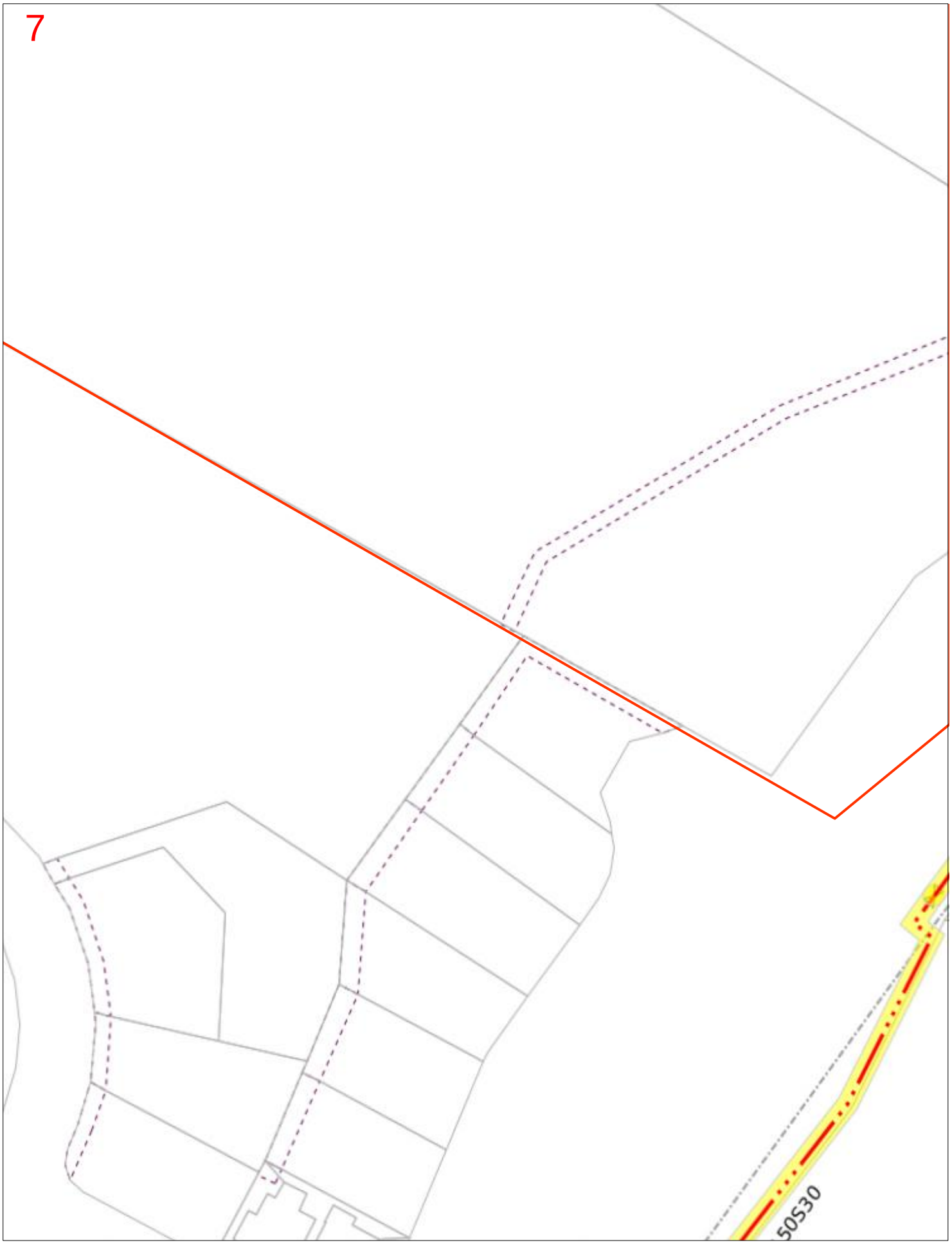
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Enquiry Area

Map Key Area

7



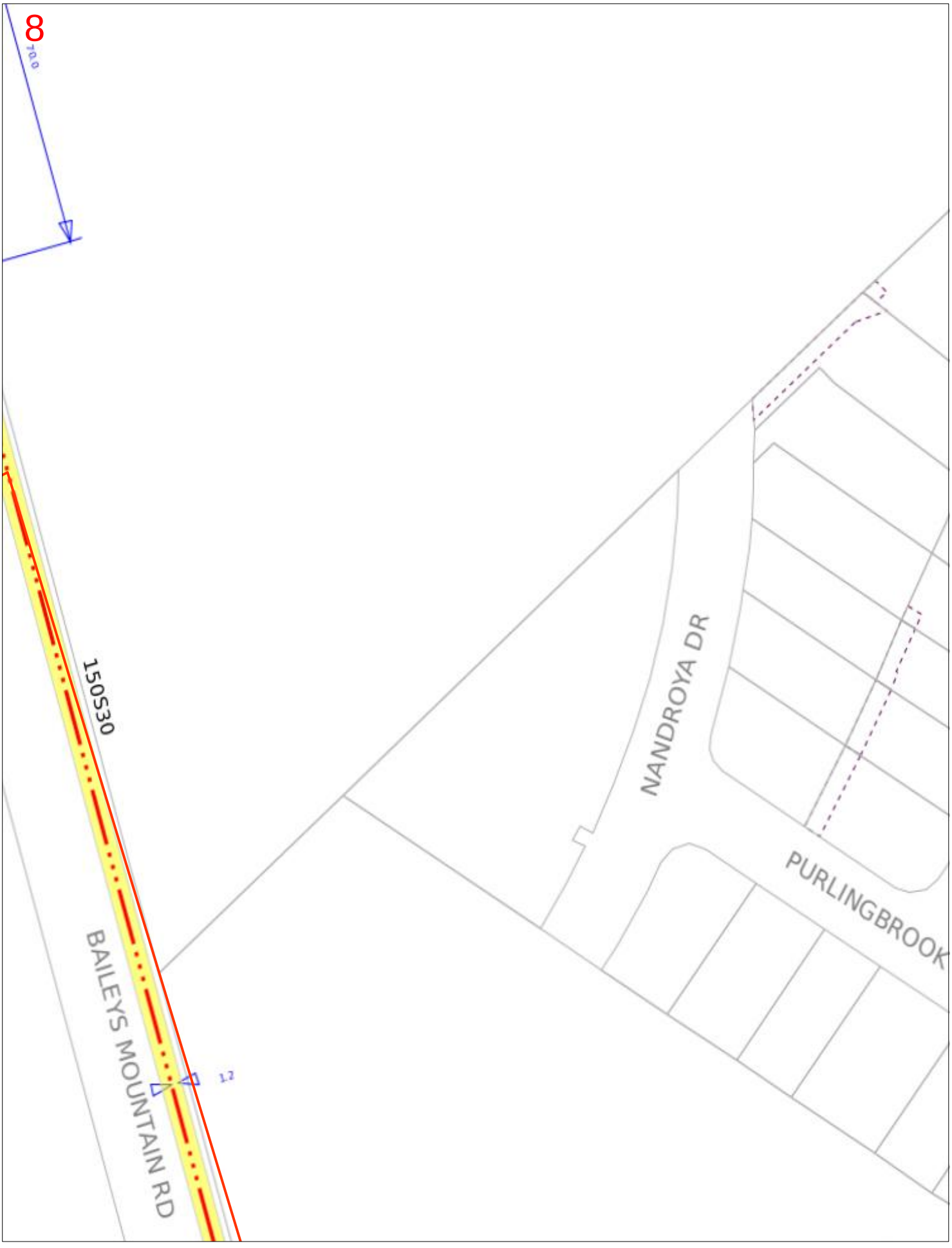
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Map Sources: Esri, Garmin, HERE, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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Enquiry Area

Map Key Area



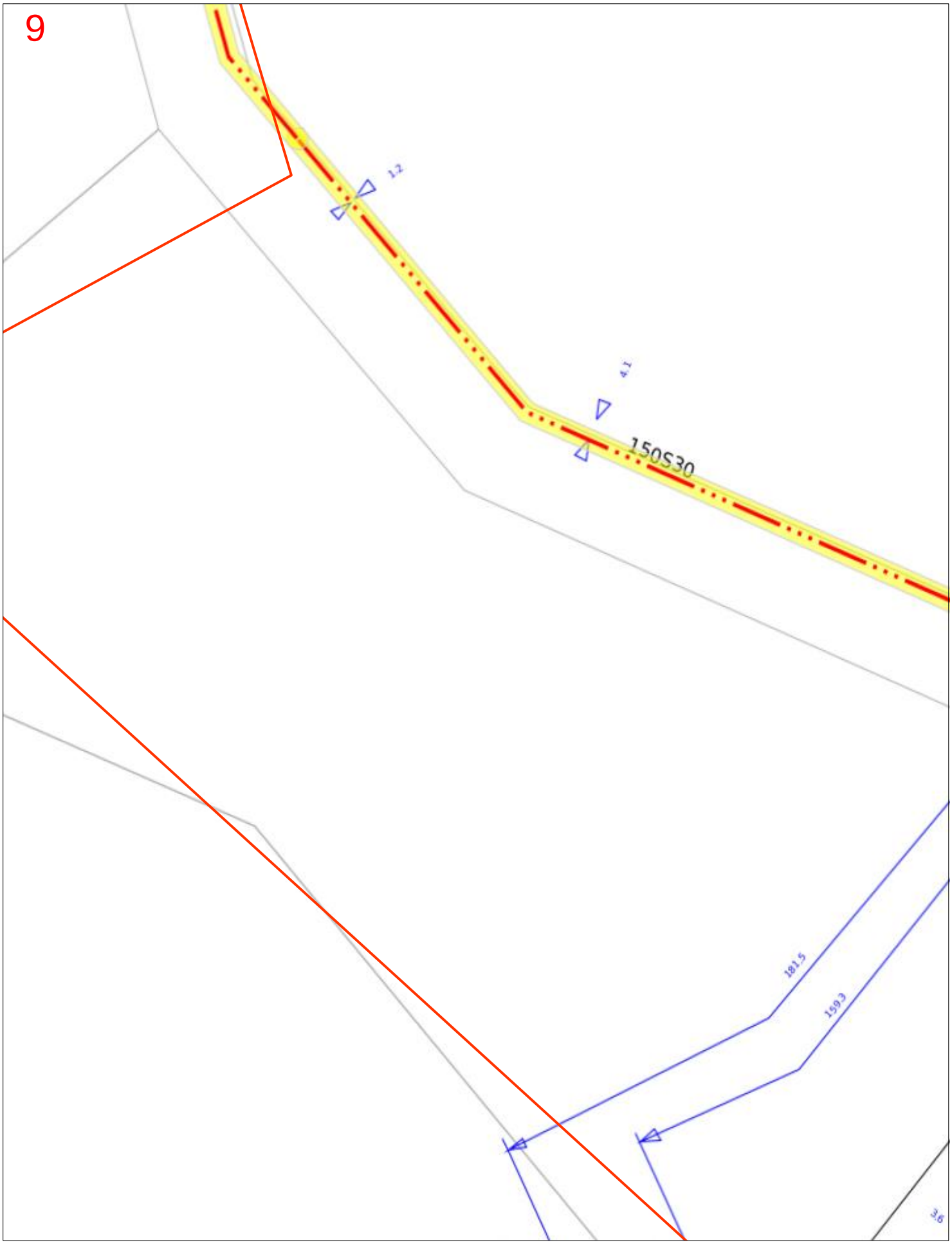
Scale 1: 700

Map Sources: Esri, Garmin, HERE, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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Enquiry Area

Map Key Area



Scale 1: 700

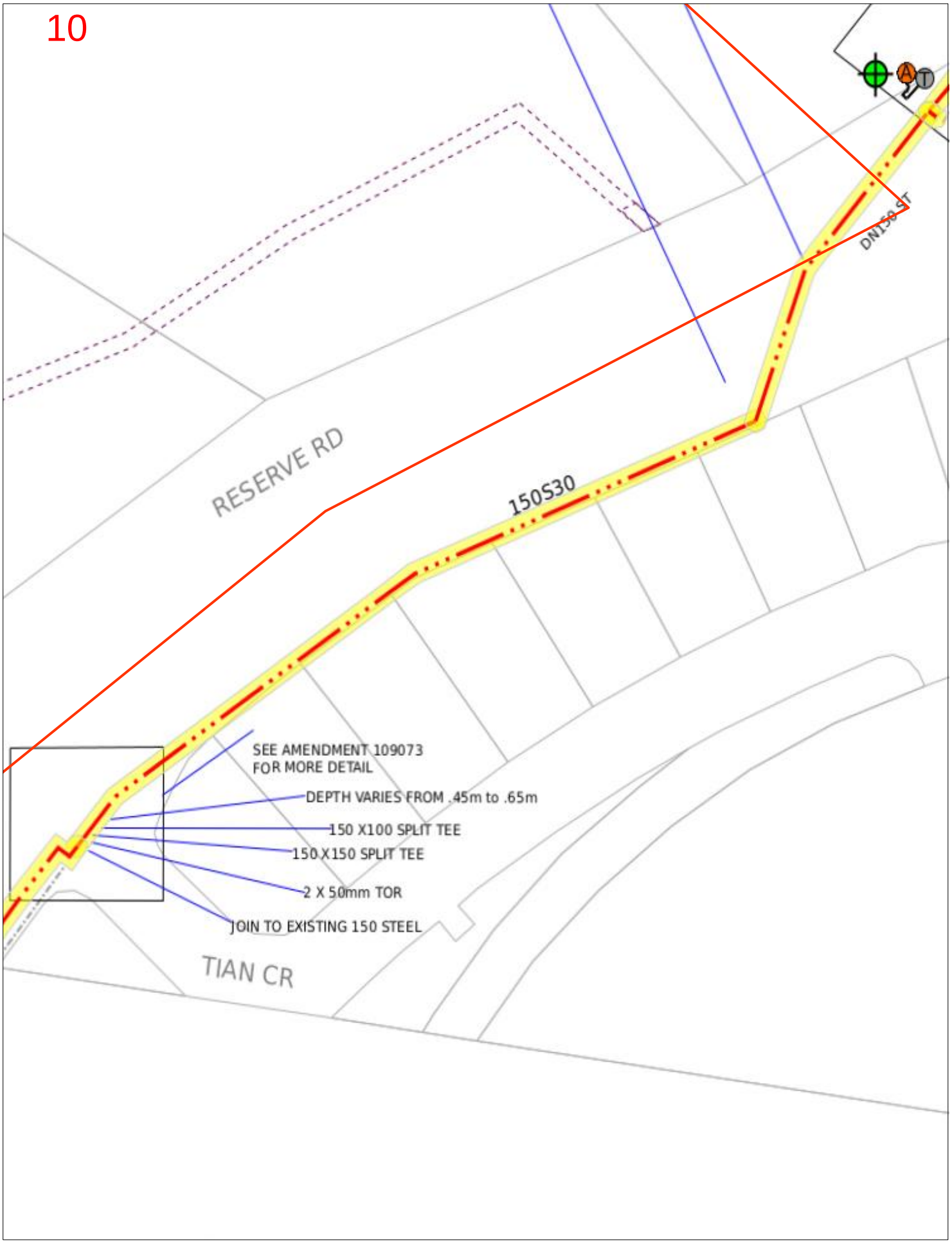
Map Sources: Esri, Garmin, HERE, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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Enquiry Area

Map Key Area

10



Scale 1: 700

Map Sources: Esri, Garmin, HERE, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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Enquiry Area

Map Key Area

Map Symbology

Pipe

- Low pressure
- Medium pressure
- High pressure
- Transmission pressure
- Critical main (behind pipe)
- Proposed (pressure by colour)
- LPG (pressure by colour)
- Abandoned
- Idle/inactive
- Sleeve
- Casing (behind pipe)

Area

- BYDA area of interest

Pipe code and material

C* (for example, C2)	Cast iron
CU	Copper
N2	Nylon
P*	Polyethylene (PE)
P6, P7, P9–P12	Medium density PE
P2, P4, P8	High density PE
S*	Steel
W2	Wrought galv iron
W3	PE coat wrought galv iron

Object

- Valve
- Buried valve
- Regulator
- Gas supplied = yes
- CP rectifier terminal
- CP test station
- CP anode
- CP bond wire
- Syphon
- Trace wire point

Abbreviation

BoK	Back of kerb	FoK	Front of kerb
C	Depth of cover	Galv	Galvanized
CP	Cathodic protection	NTI	Not tied in

Example

Pipe

40P6 in 80C2 — 40 mm high pressure medium density poly in an 80 mm cast iron casing

63S8 — 63 mm medium pressure steel

Pipe code

Pipe diameter in millimetres is shown before pipe code.
40P6 = 40 mm nominal diameter

This map was created in colour and should be printed in colour

Site Watch

Site Watch is where an APA field officer attends your work site to monitor and ensure controls are in place to protect critical gas assets from damage during work. The following rates apply for this service (1 hour minimum charge):

Item	Rate (excl. gst)
Site Watch - Business Hours	$143.42 per hour
Site Watch - After Hours	$175.06 per hour
Cancellation Fee Fee applies where cancellations received after 12pm (midday) 1 business day prior to the booking	$286.84

- Contact APA - Before You Dig officer for state specific hours of business.

Contacts

Contacts APA Group	
Enquiry	Contact Numbers
General enquiries or feedback regarding this information or gas assets.	APA - Before You Dig Officer Phone: 1800 085 628 Email: BYDA_APA@apa.com.au
Gas Emergencies	Phone: 1800 GAS LEAK (1800 427 532)

Important Information

- Refer to requirements relating to construction, excavation and other work activities in the APA **Guidelines for Works Near Existing Gas Assets** document with this BYDA response.
- BYDA enquiries are valid for 30 days. If your works commence after 30 days from the date of this response a new enquiry is required to validate location information.
- For some BYDA enquiries, you may receive two (2) responses from APA. Please read both responses carefully as they relate to different assets.
- Gas (inlet) services connecting Gas Assets in the street to the gas meter on the property are not marked on the map. South Australia Only - if a meter box is installed on the property, a sketch of the gas service location may be found inside the gas meter box. APA does not guarantee the accuracy or completeness of these sketches.

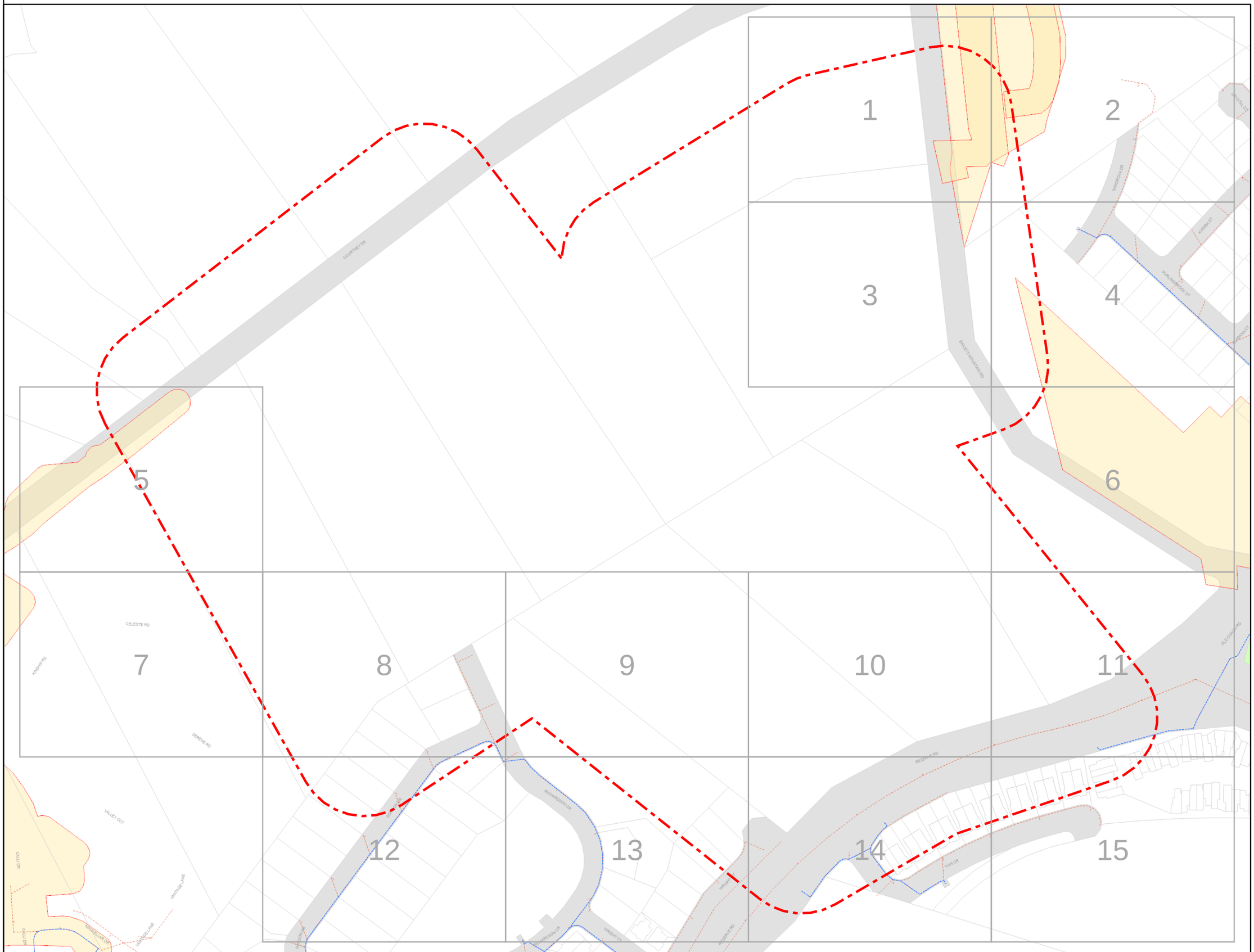
Disclaimer and legal details

- This information is valid for 30 days from the date of this response.
- This information has been generated by an automated system based on the area highlighted in your BYDA request and has not been independently verified.
- Map location information is provided as AS5488-2022 Quality Level D, as such supplied location information is indicative only.
- Whilst APA has taken reasonable steps to ensure that the information supplied is accurate, the information is provided strictly on the condition that no assurance, representation, warranty or guarantee (express or implied) is given by APA in relation to the information (including without limitation quality, accuracy, reliability, completeness, currency, sustainability, or suitability for any particular purpose) except that the information has been disclosed in good faith.
- Any party who undertakes activities in the vicinity of APA operated assets has a legal duty of care that must be observed. This legal obligation requires all parties to adhere to a standard of reasonable care while performing any acts that could foreseeably harm these assets.



All underground cables shall be treated as being energised. Where a cable is located that is not represented on the ENERGEX BYDA map, then ENERGEX shall be contacted immediately.

For Emergency Situations
Please Call 13 19 62



energex

BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:2563
Tile No: **OVERVIEW**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

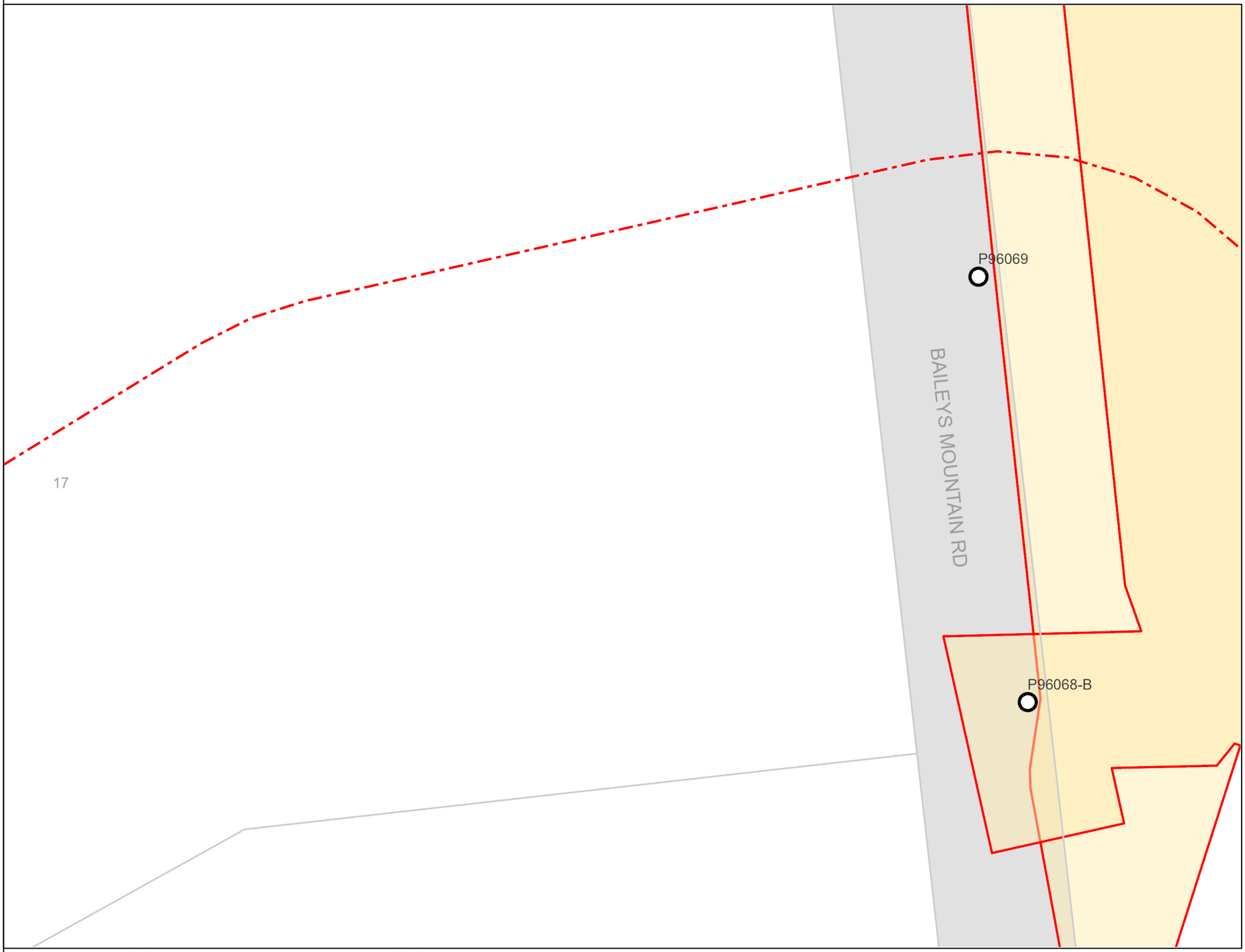
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energex

BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 1**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

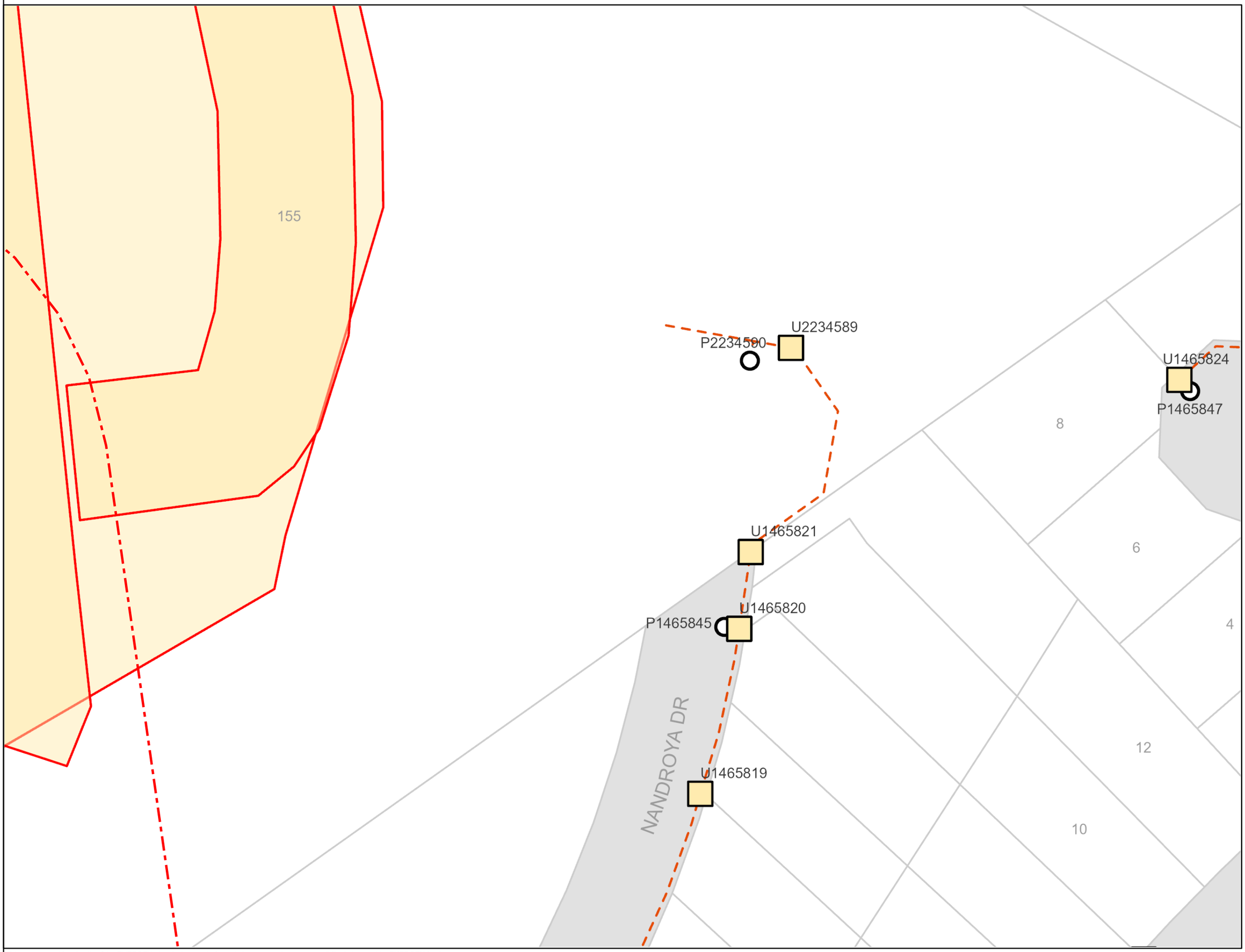
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Please Call 13 19 62



energex

BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 2**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

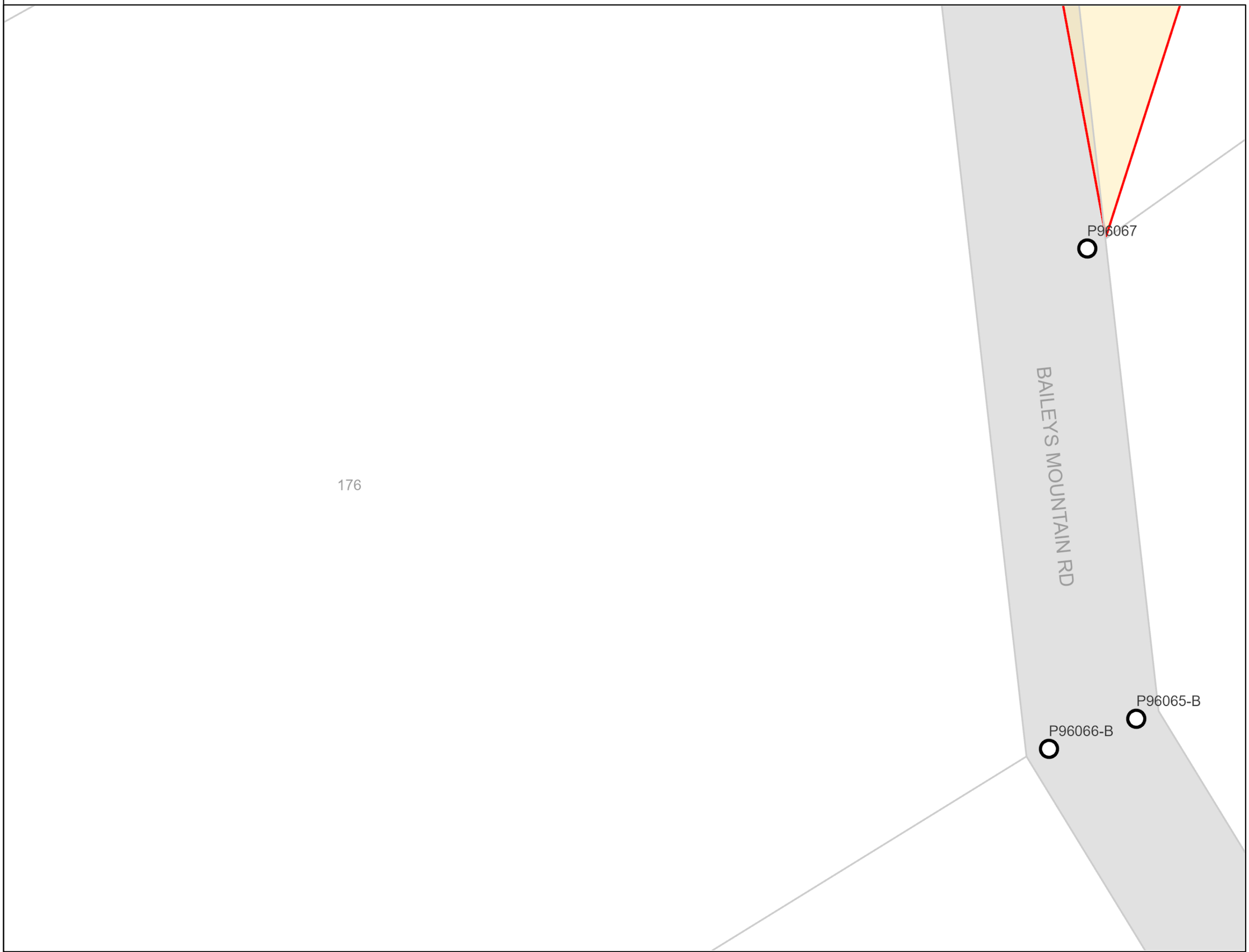
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BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 3**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

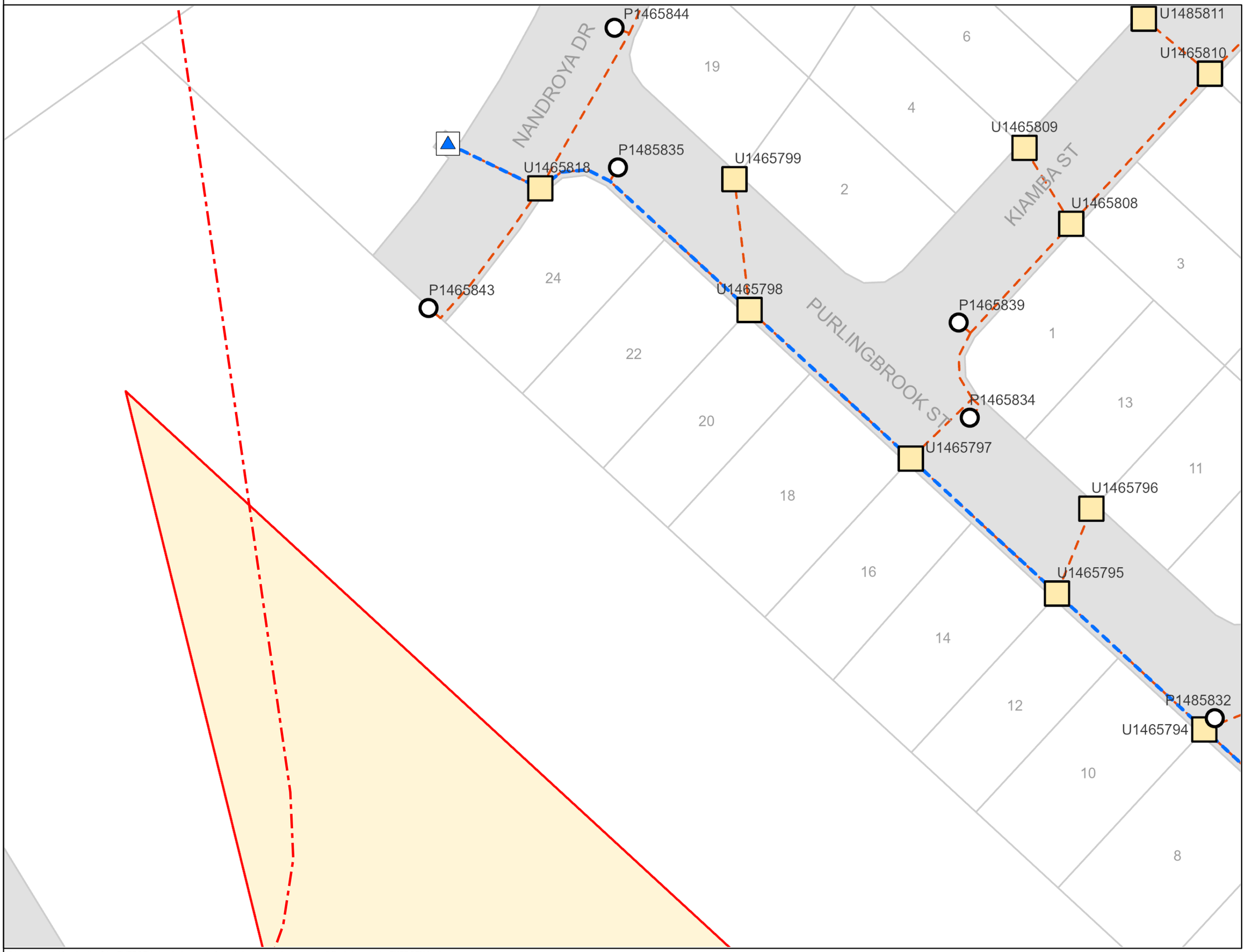
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BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 4**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

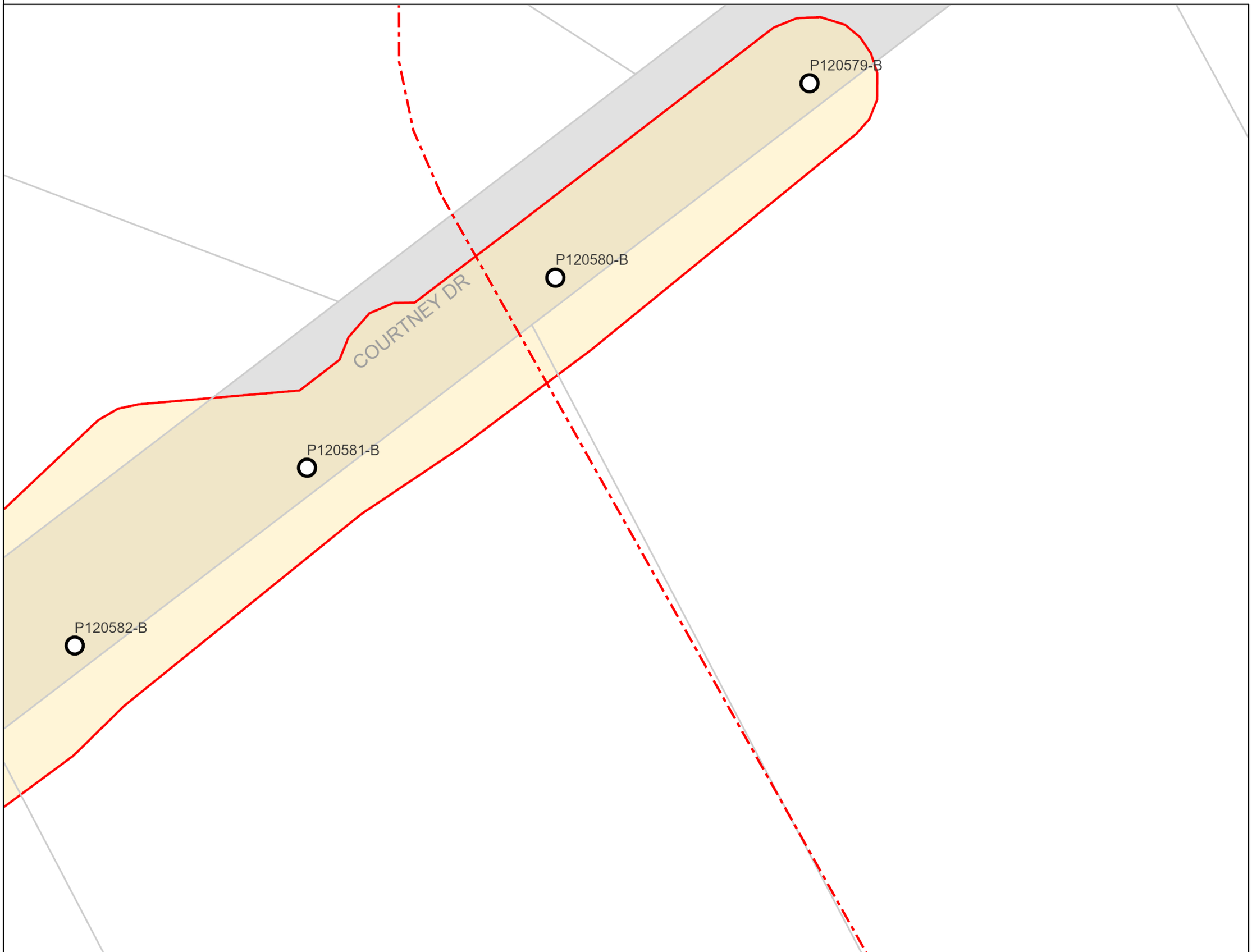
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Please Call 13 19 62



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BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 5**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

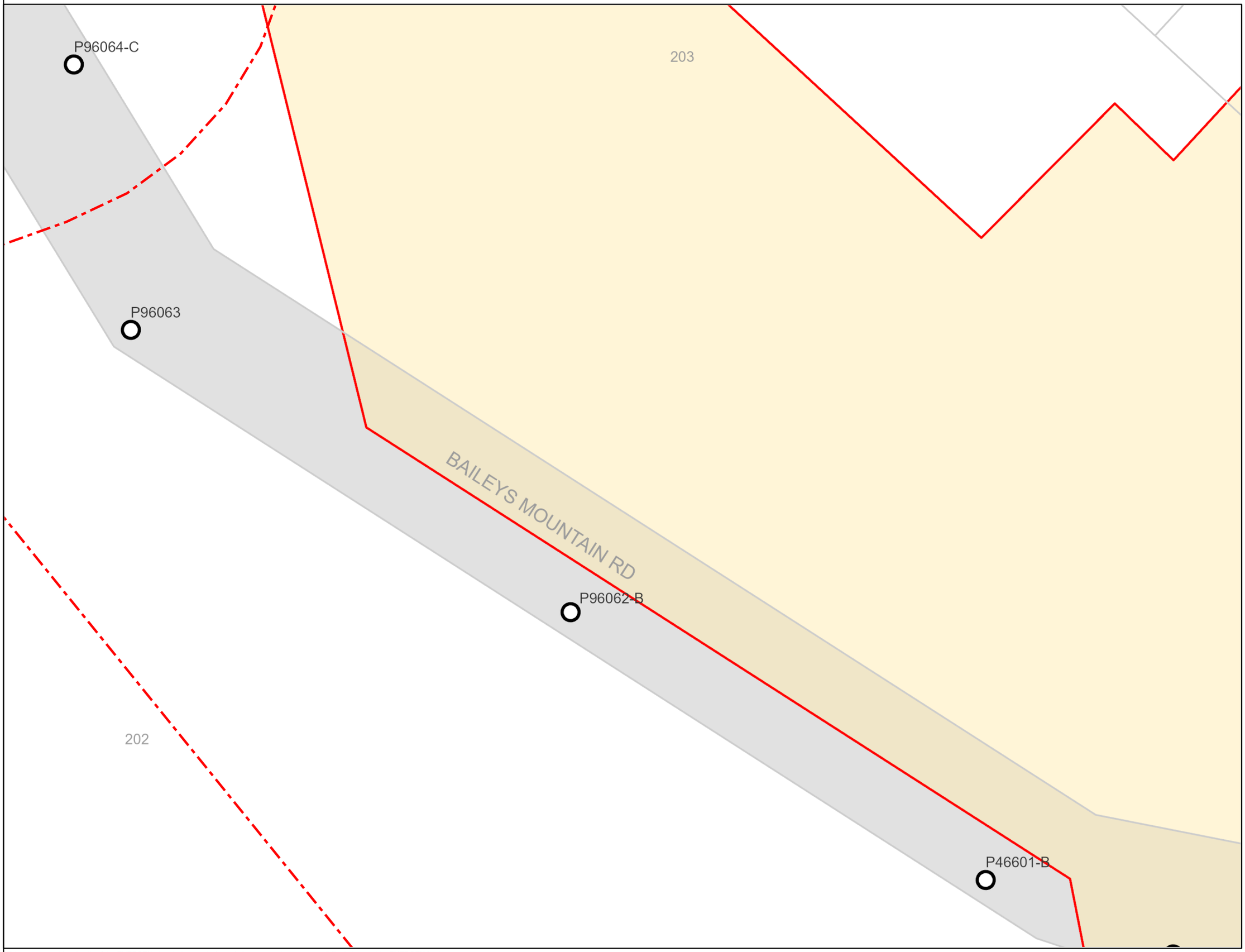
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For Emergency Situations
Please Call 13 19 62



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BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 6**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

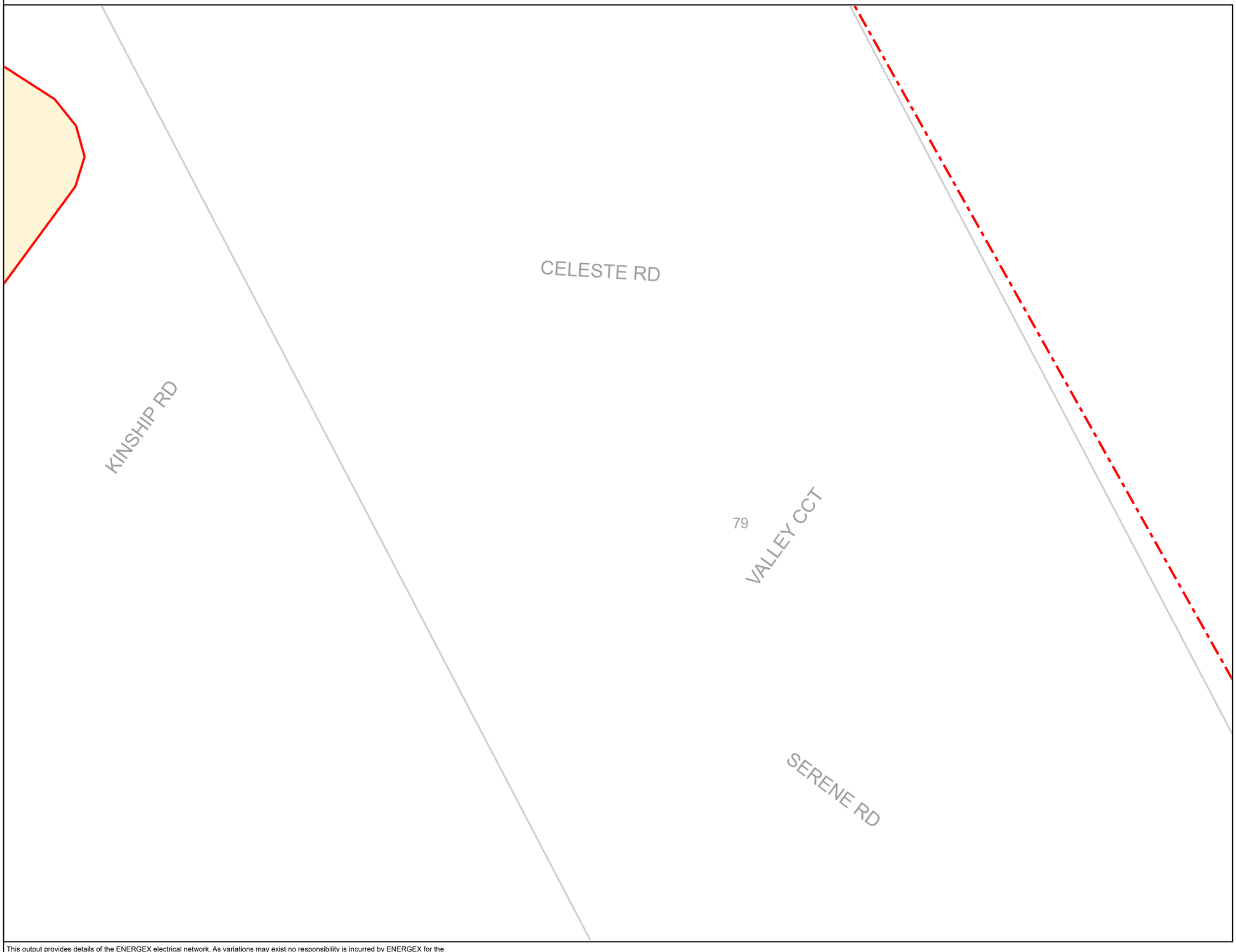
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BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 7**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

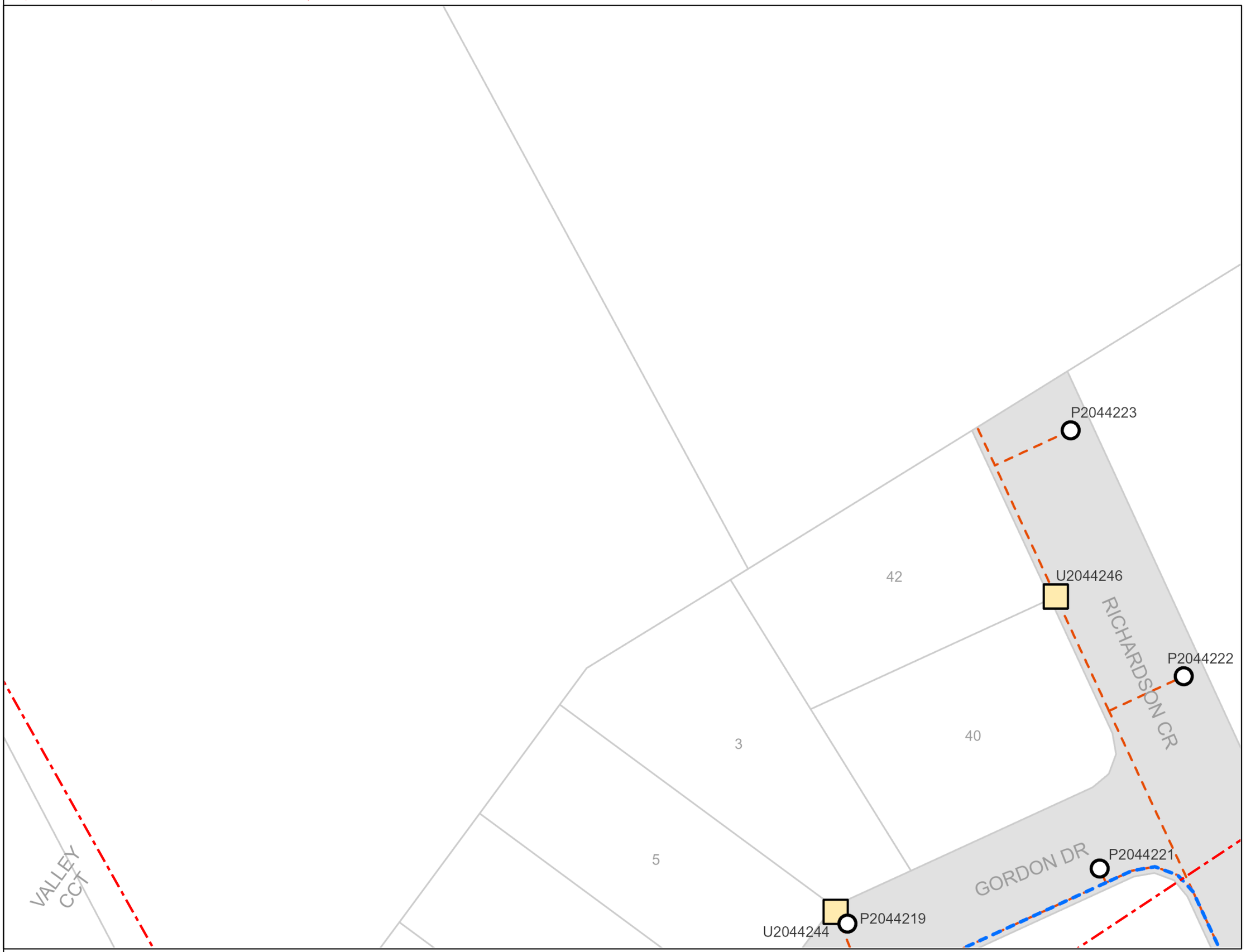
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BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 8**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

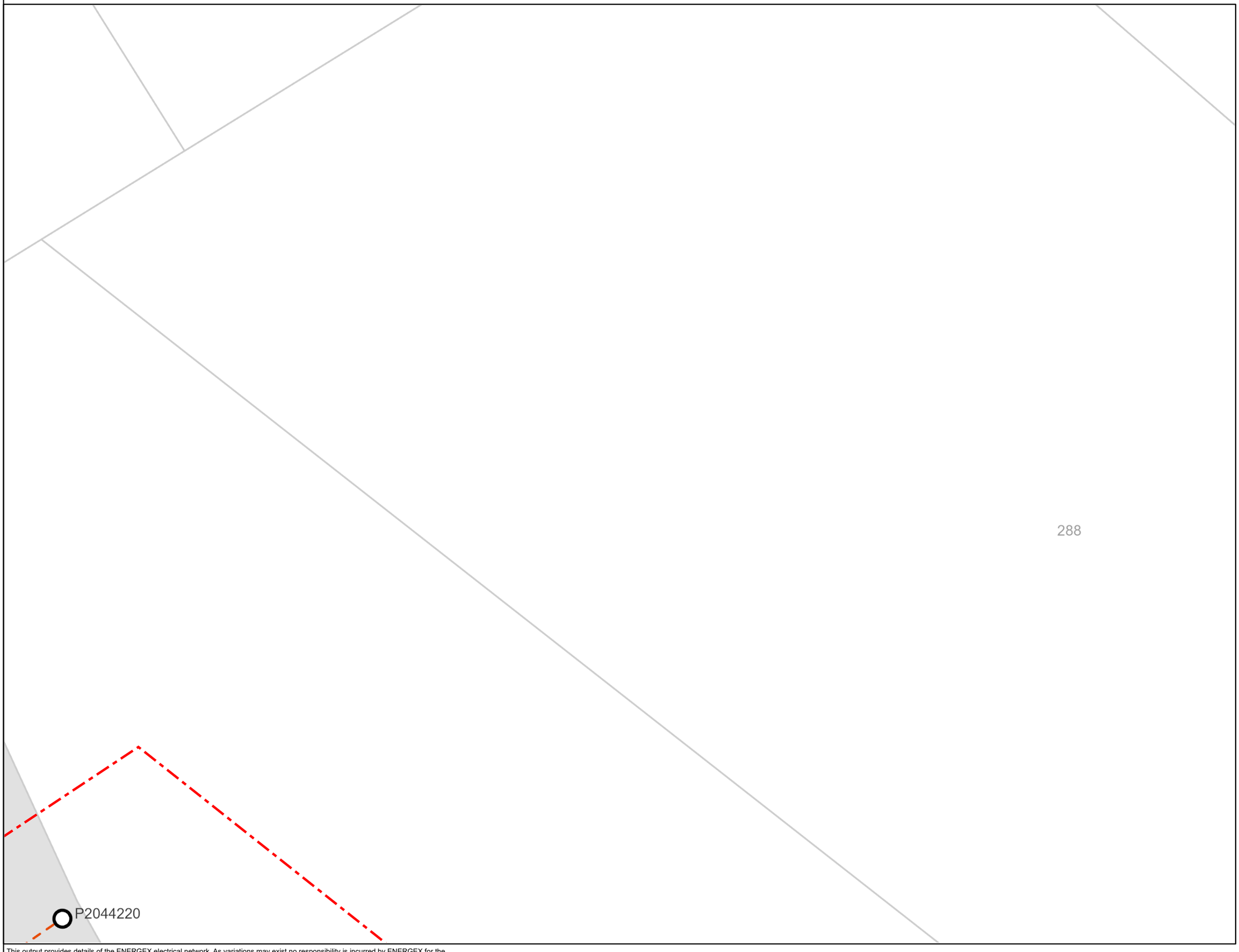
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For Emergency Situations
Please Call 13 19 62



energex

BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 9**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

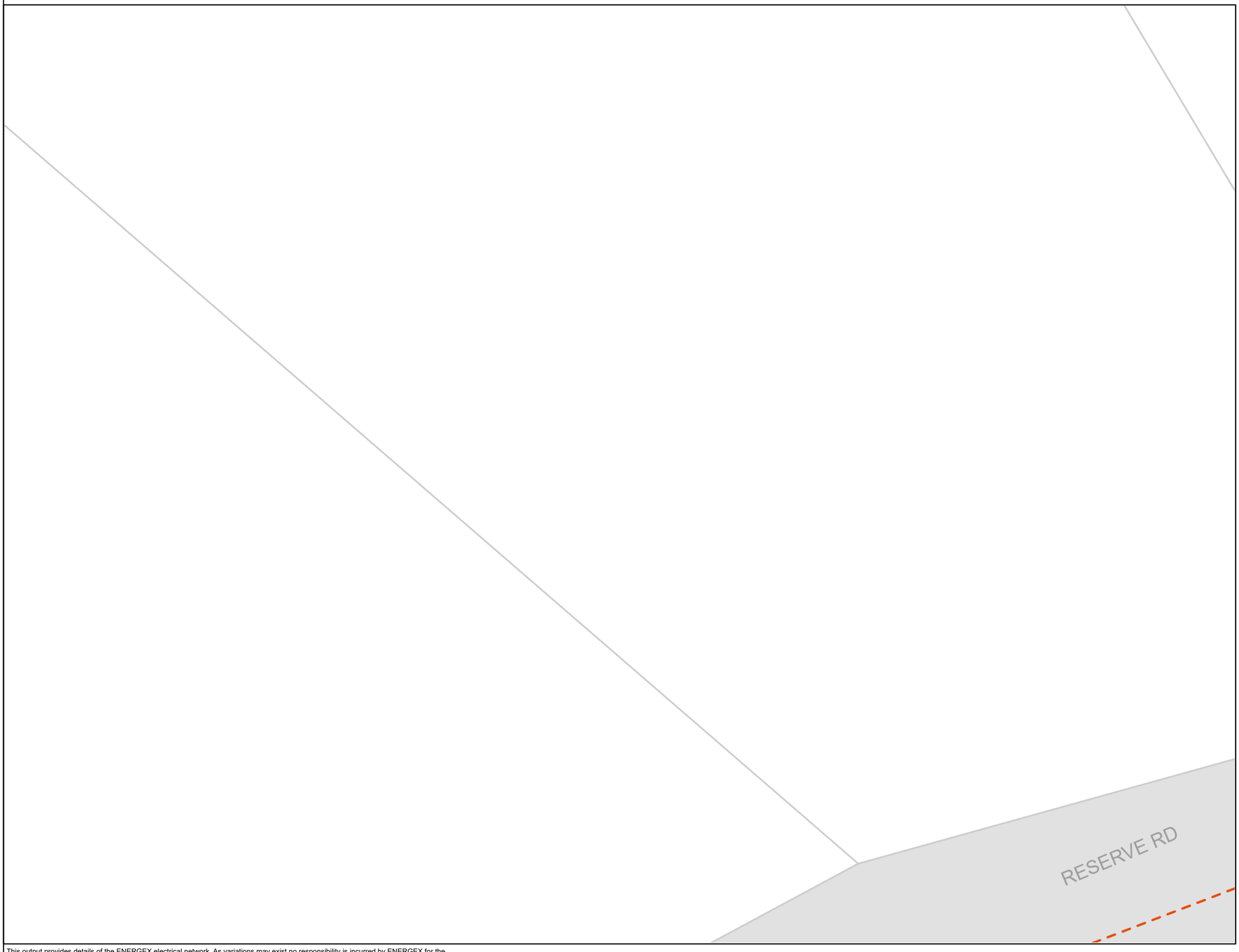
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For Emergency Situations
Please Call 13 19 62



energex

BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 10**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

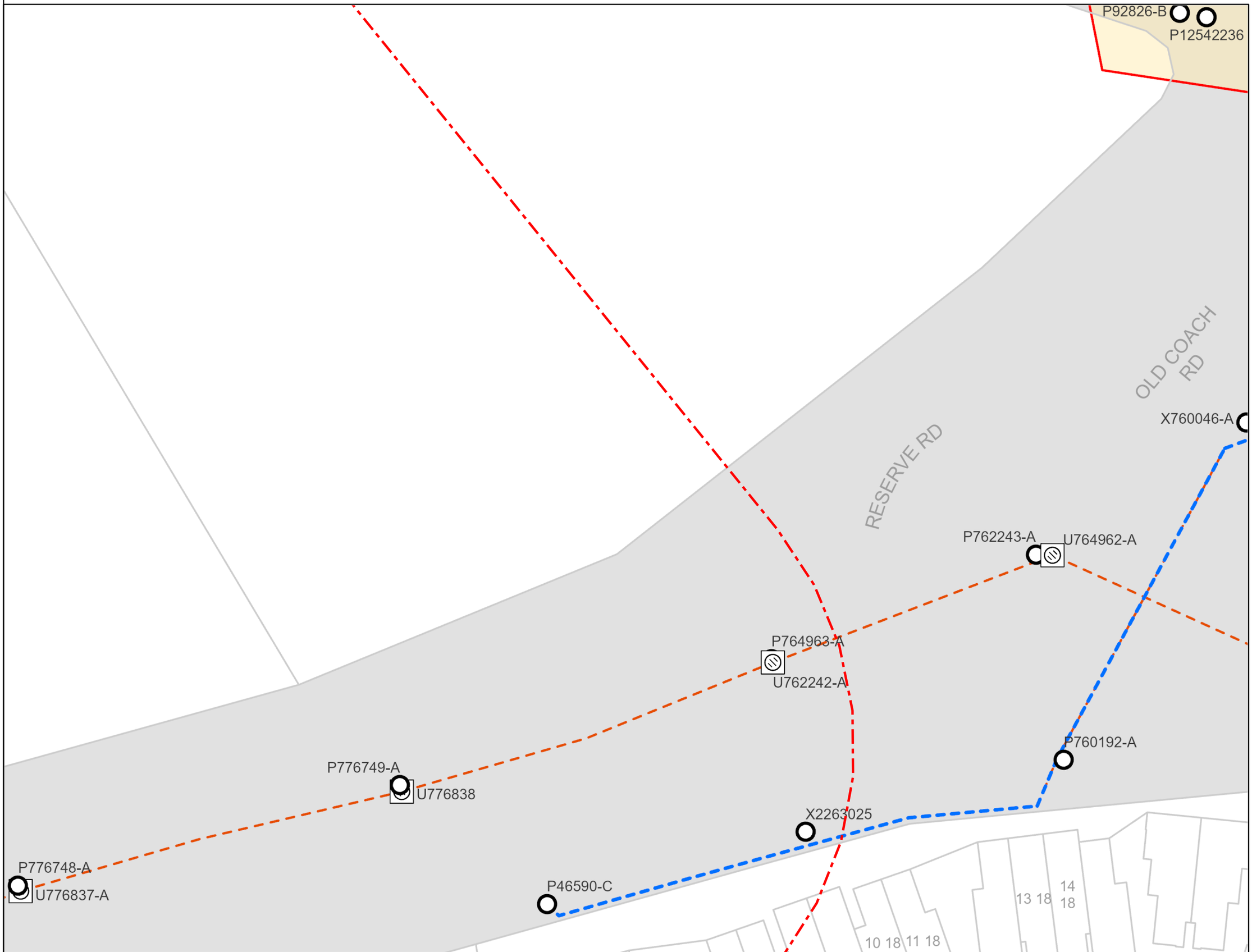
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For Emergency Situations
Please Call 13 19 62



energex

BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 11**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

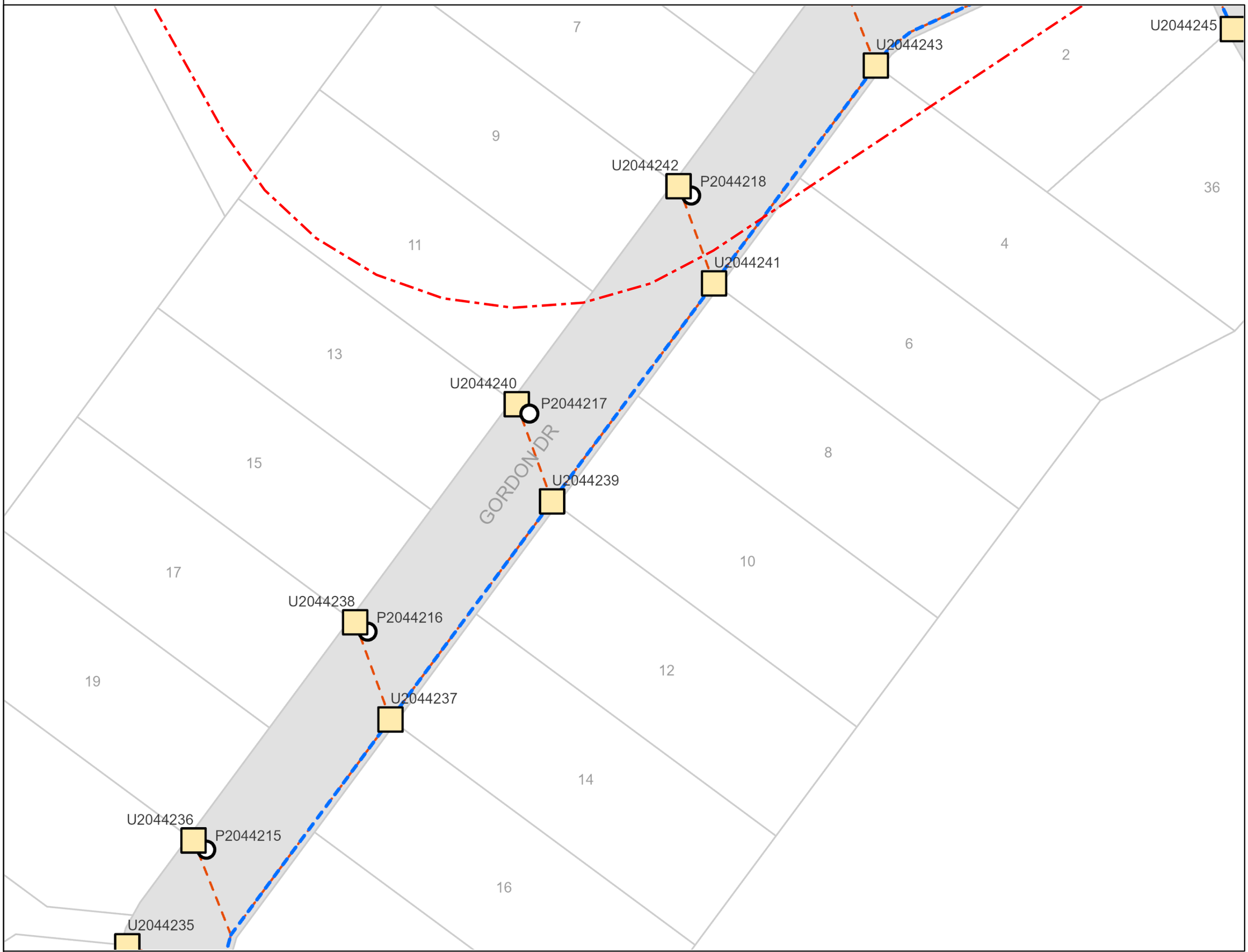
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For Emergency Situations
Please Call 13 19 62



energex

BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 12**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

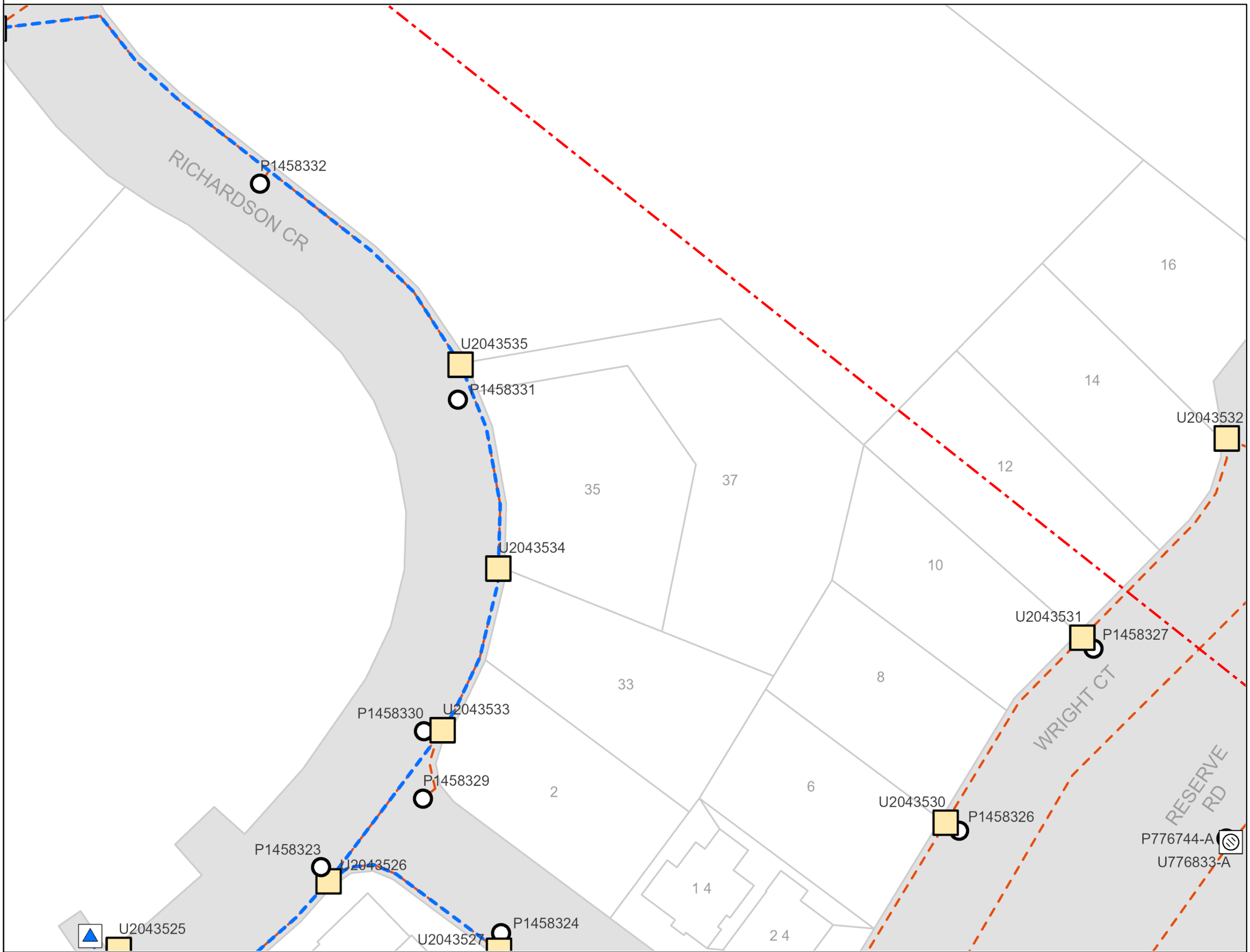
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For Emergency Situations
Please Call 13 19 62



energex

BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 13**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

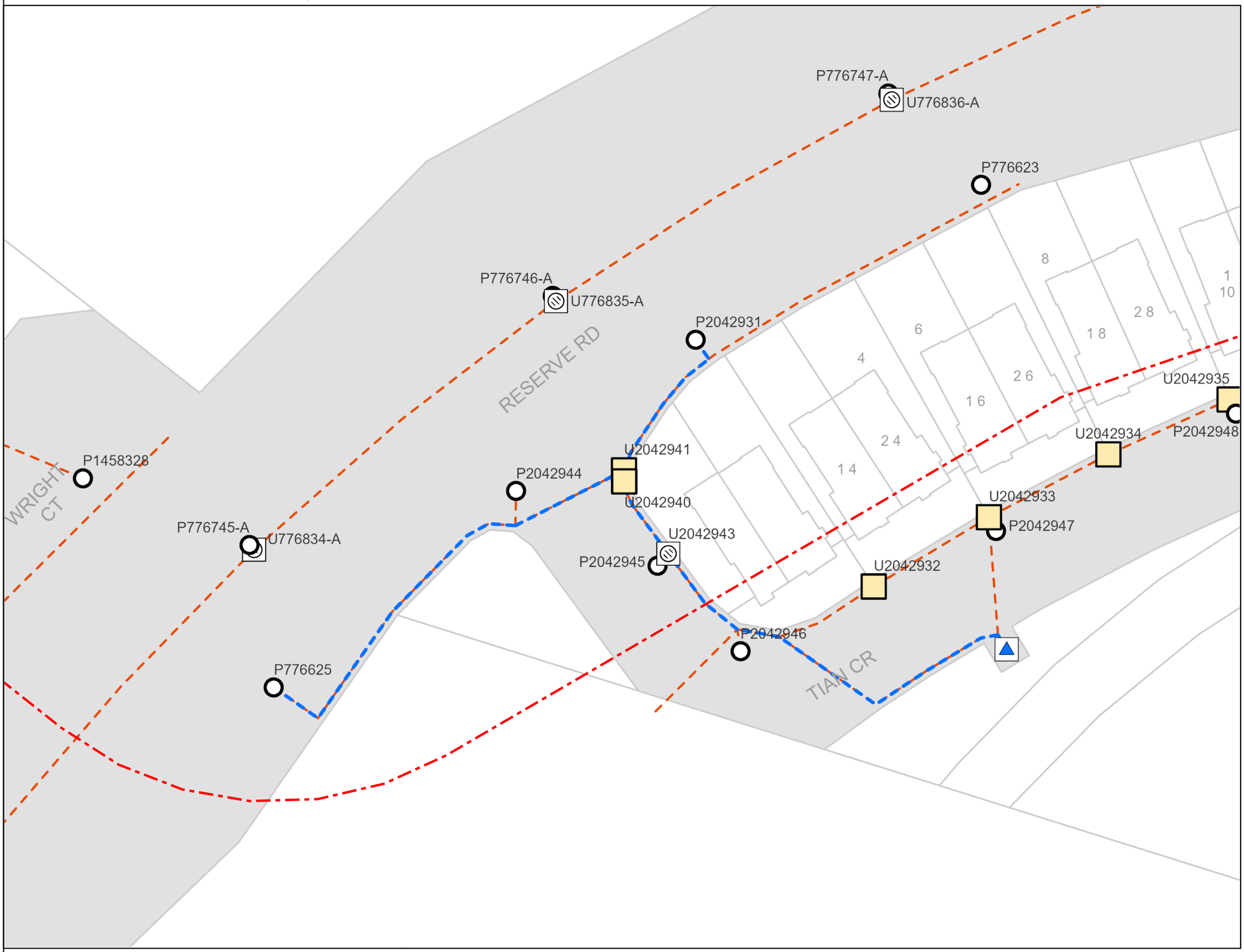
N
W E
S

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Energex nor Pelican Corp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

This output provides details of the ENERGEX electrical network. As variations may exist no responsibility is incurred by ENERGEX for the accuracy or completeness of the information provided. Exact positions of cables and electrical connectivity should be confirmed on site.

All underground cables shall be treated as being energised. Where a cable is located that is not represented on the ENERGEX BYDA map, then ENERGEX shall be contacted immediately.

For Emergency Situations
Please Call 13 19 62



energex

BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 14**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

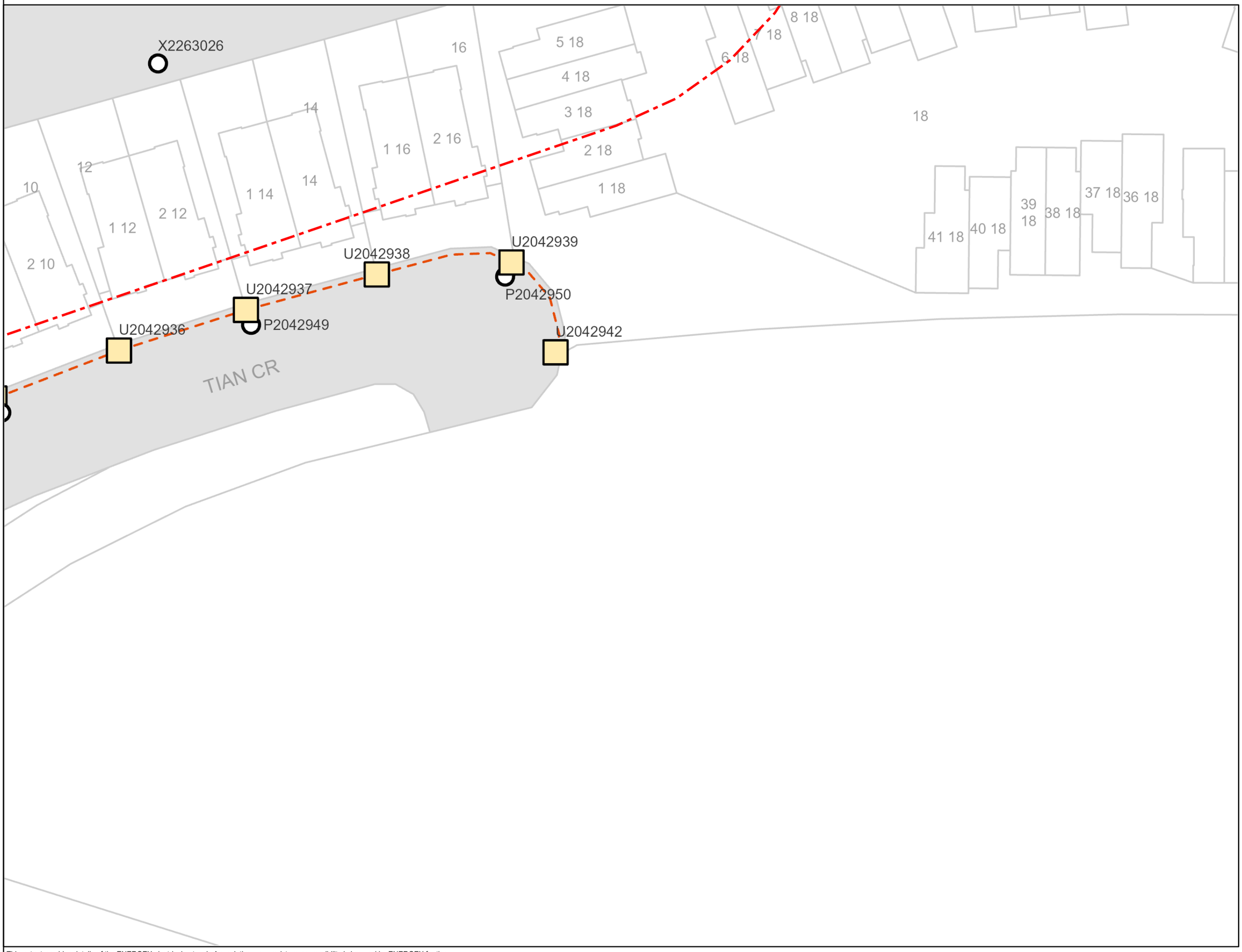
N
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For Emergency Situations
Please Call 13 19 62



energex

BYDA

Sequence: 248396251
Date: 05/12/2024

Scale: 1:500
Tile No: **Tile No: 15**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

N
W E
S

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Energex nor Pelican Corp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

This output provides details of the ENERGEX electrical network. As variations may exist no responsibility is incurred by ENERGEX for the accuracy or completeness of the information provided. Exact positions of cables and electrical connectivity should be confirmed on site.

To:	Jake Lowry
Phone:	Not Supplied
Fax:	Not Supplied
Email:	jlowry@oska.net.au

Dial before you dig Job #:	38214212
Sequence #	248396248
Issue Date:	05/12/2024
Location:	57 Courtney Drive , Upper Coomera , QLD , 4209

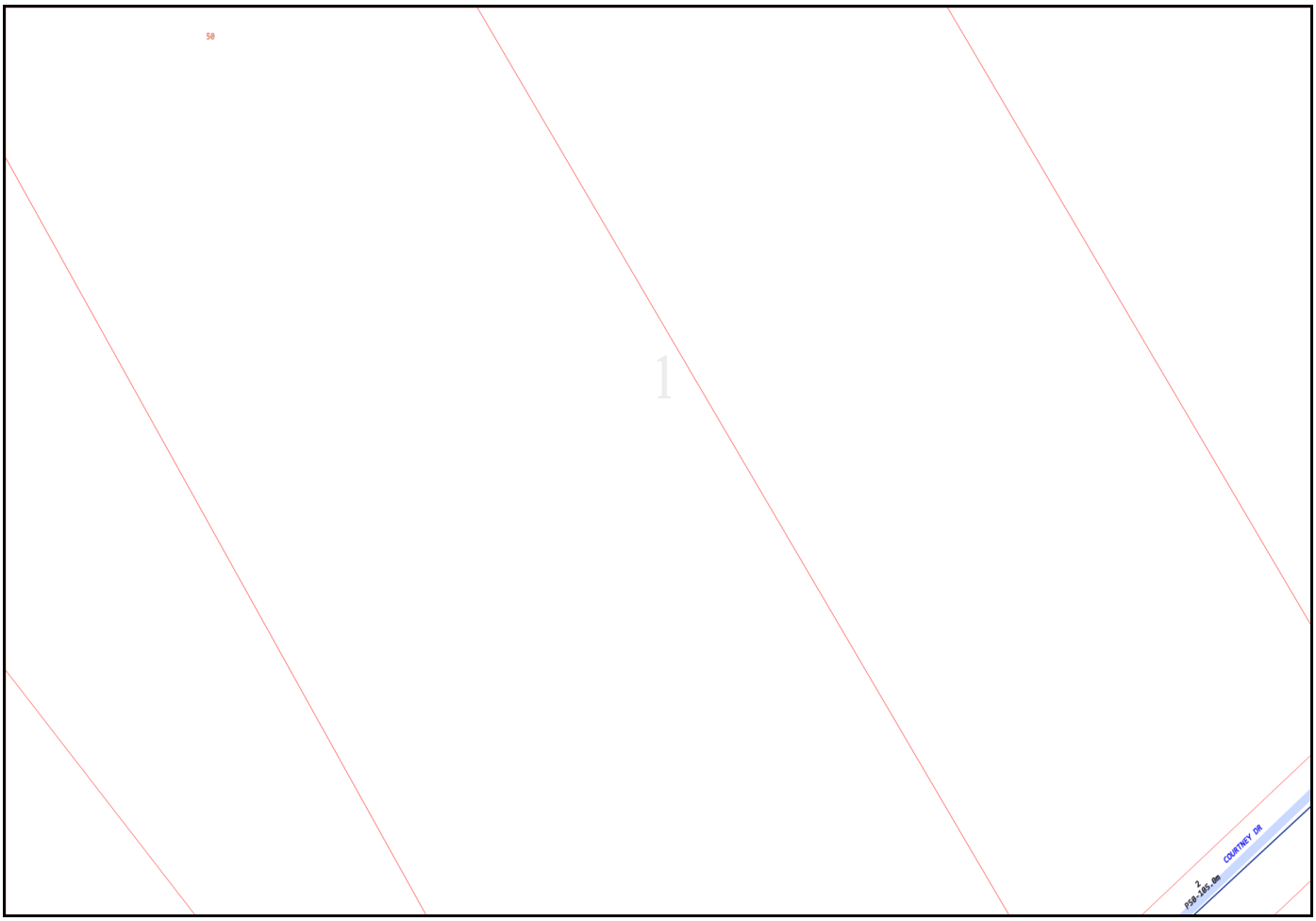
BEFORE YOU DIG www.byda.com.au Zero Damage - Zero Harm

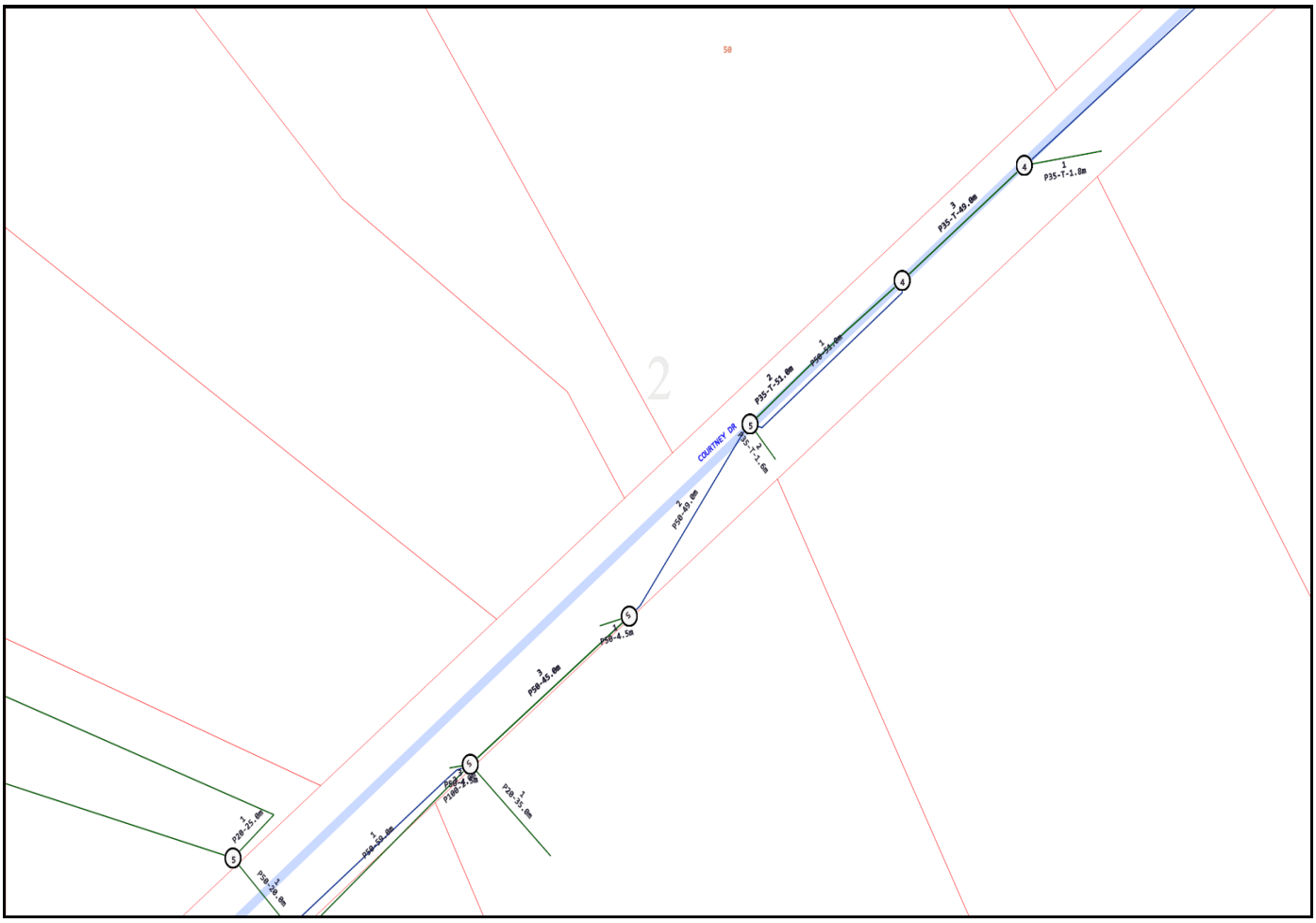
Indicative Plans are tiled below to demonstrate how to layout and read nbn asset plans

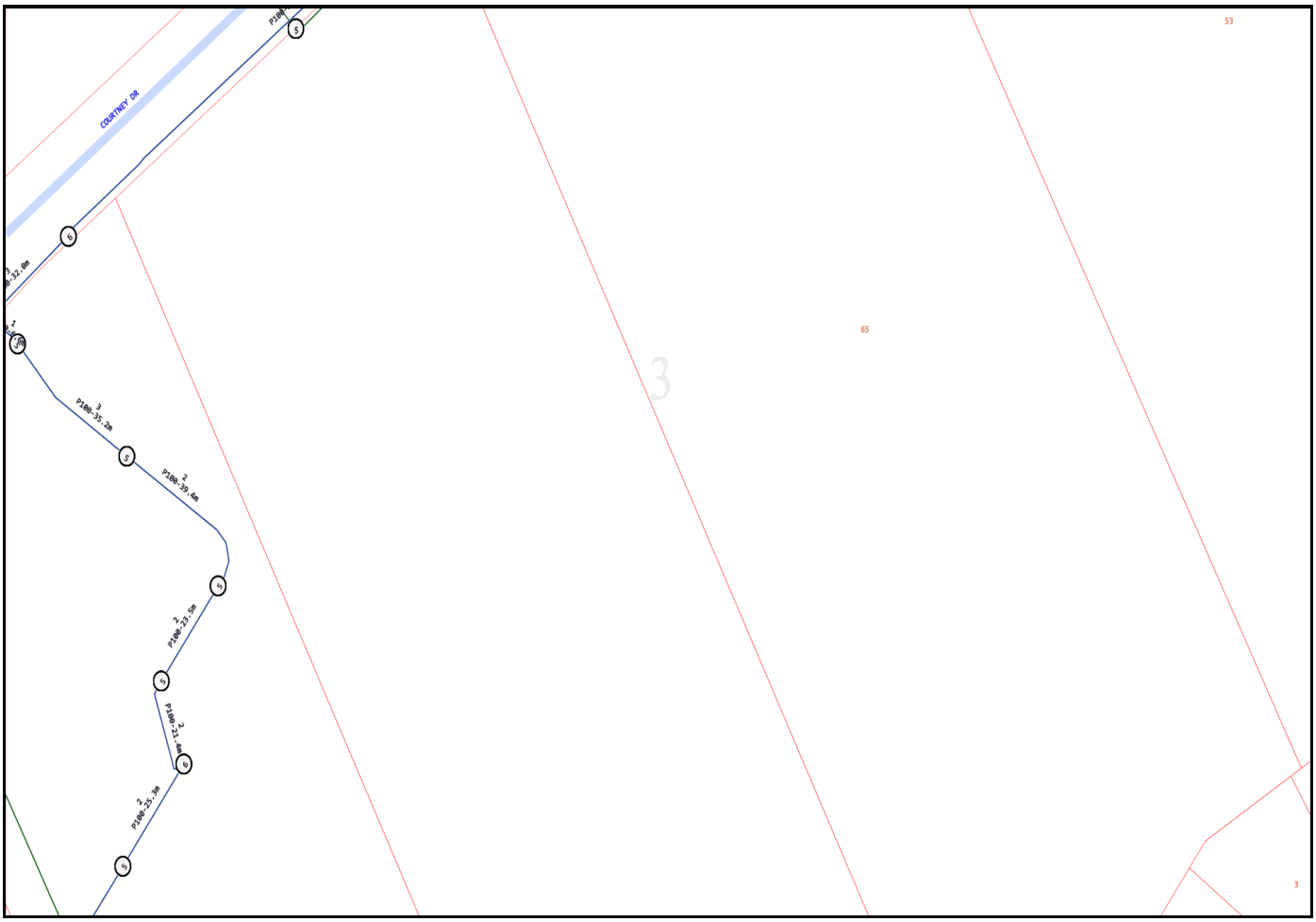
1	5	9
2	6	10
3	7	11
4	8	12

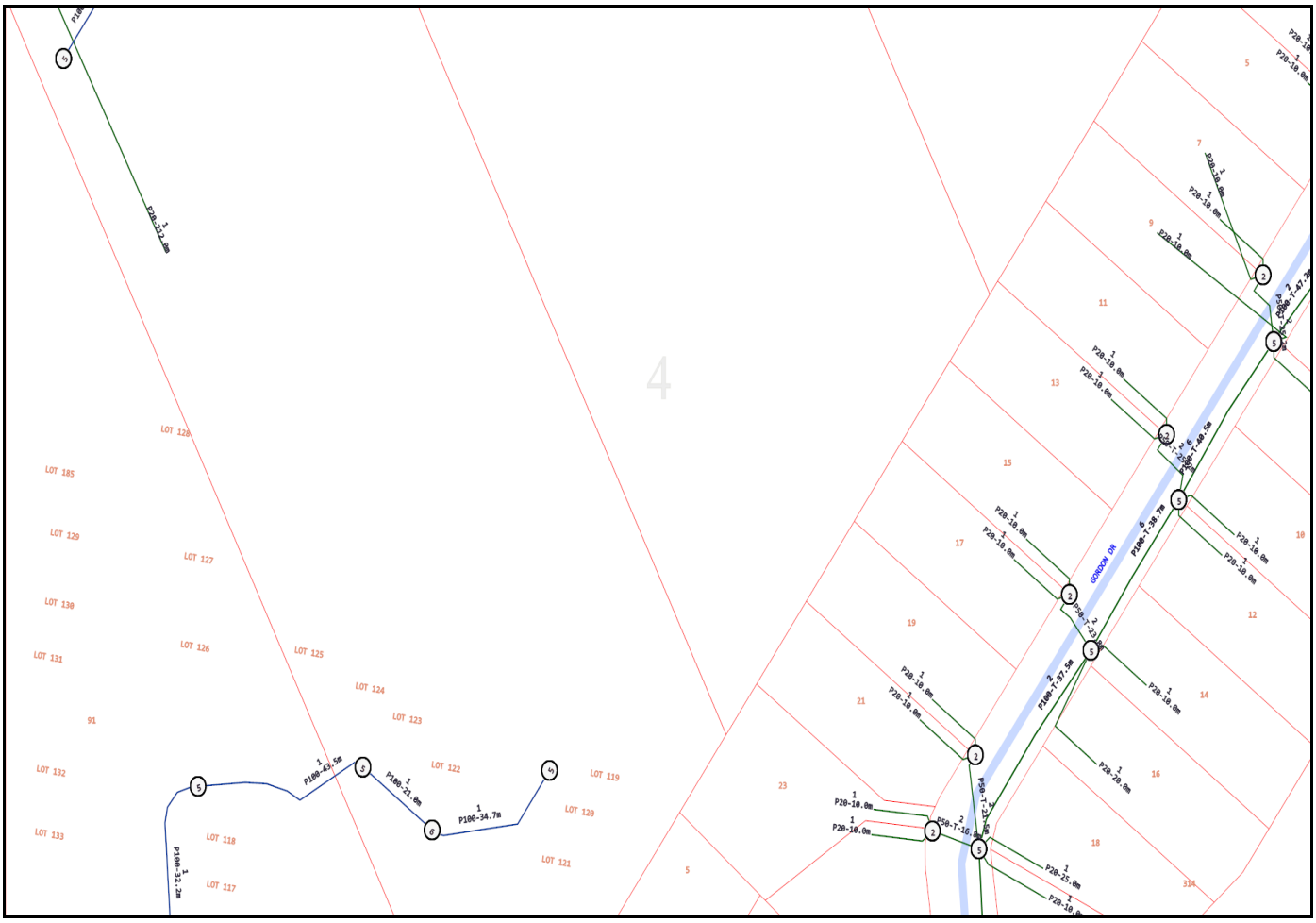
LEGEND

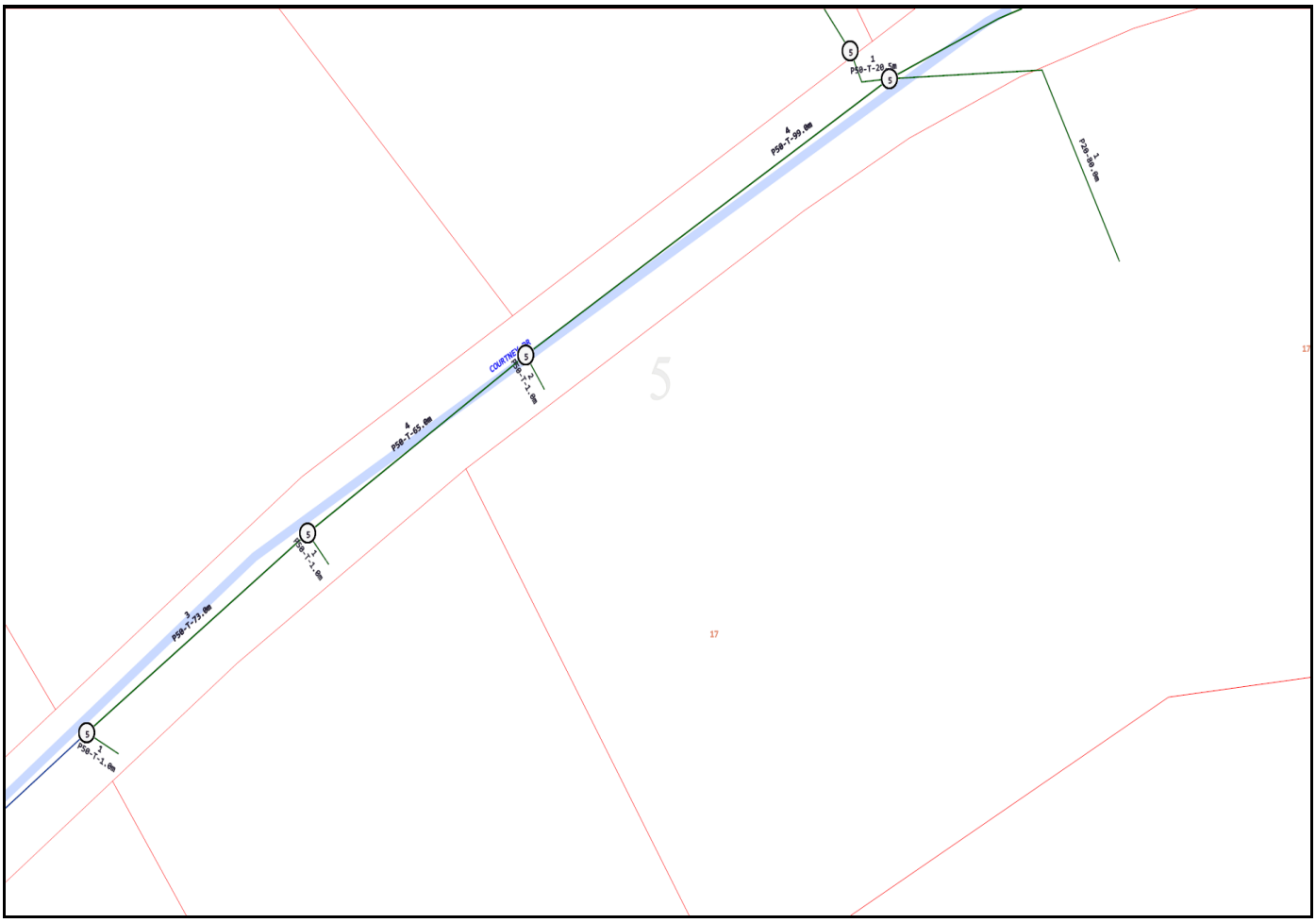
34	Parcel and the location
5	Pit with size "5"
2E	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
2 PO – T- 25.0m P40 – 20.0m 5 9	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
2 10.0m 5 9	2 Direct buried cables between pits of sizes ,"5" and "9" are 10.0m apart.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.
5 9	Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Power) cables.
BROADWAY ST	Road and the street name "Broadway ST"
Scale	0 20 40 60 Meters 1:2000 1 cm equals 20 m

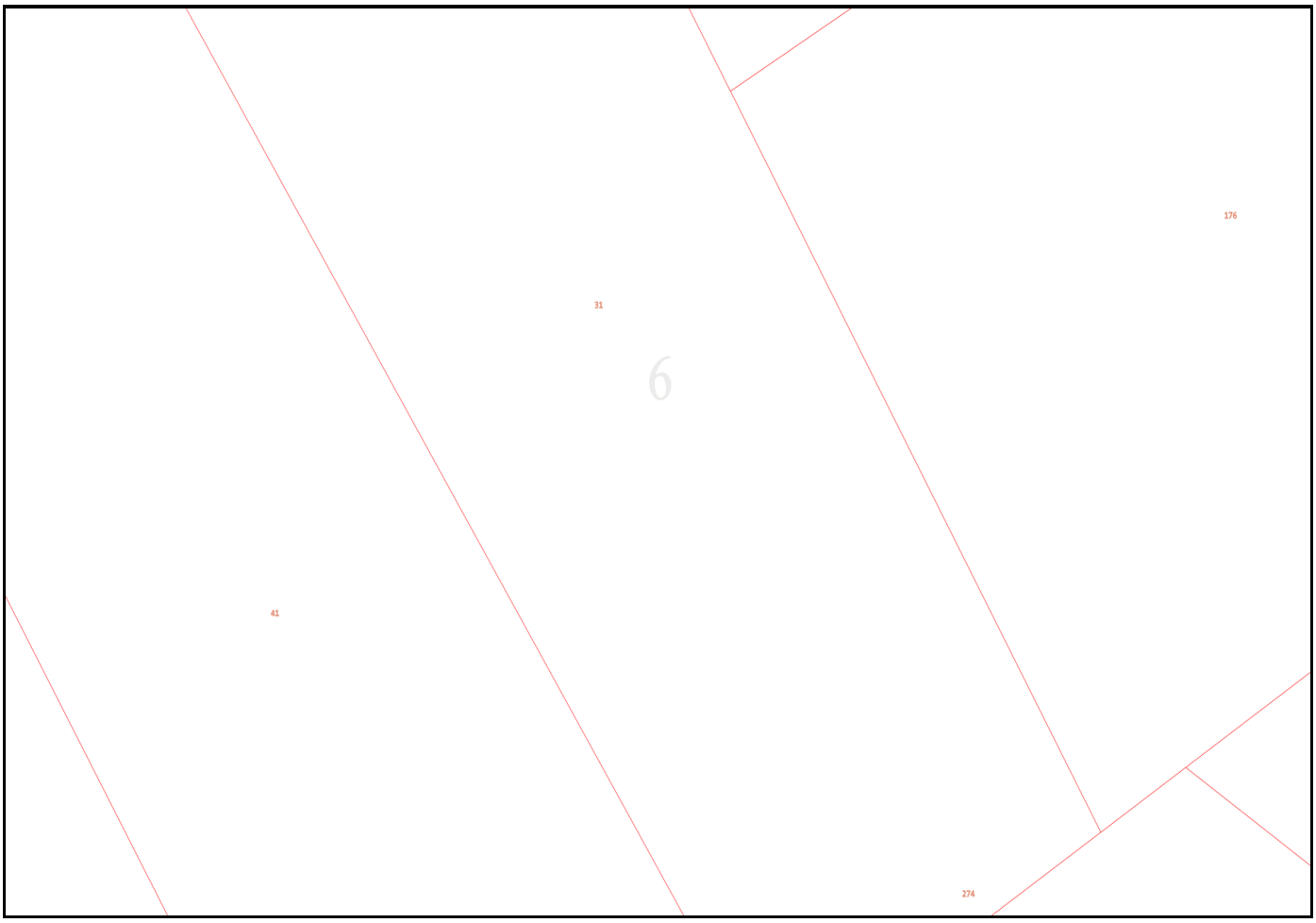

50
1
COUNTREY DR
2
PSB-185.0m

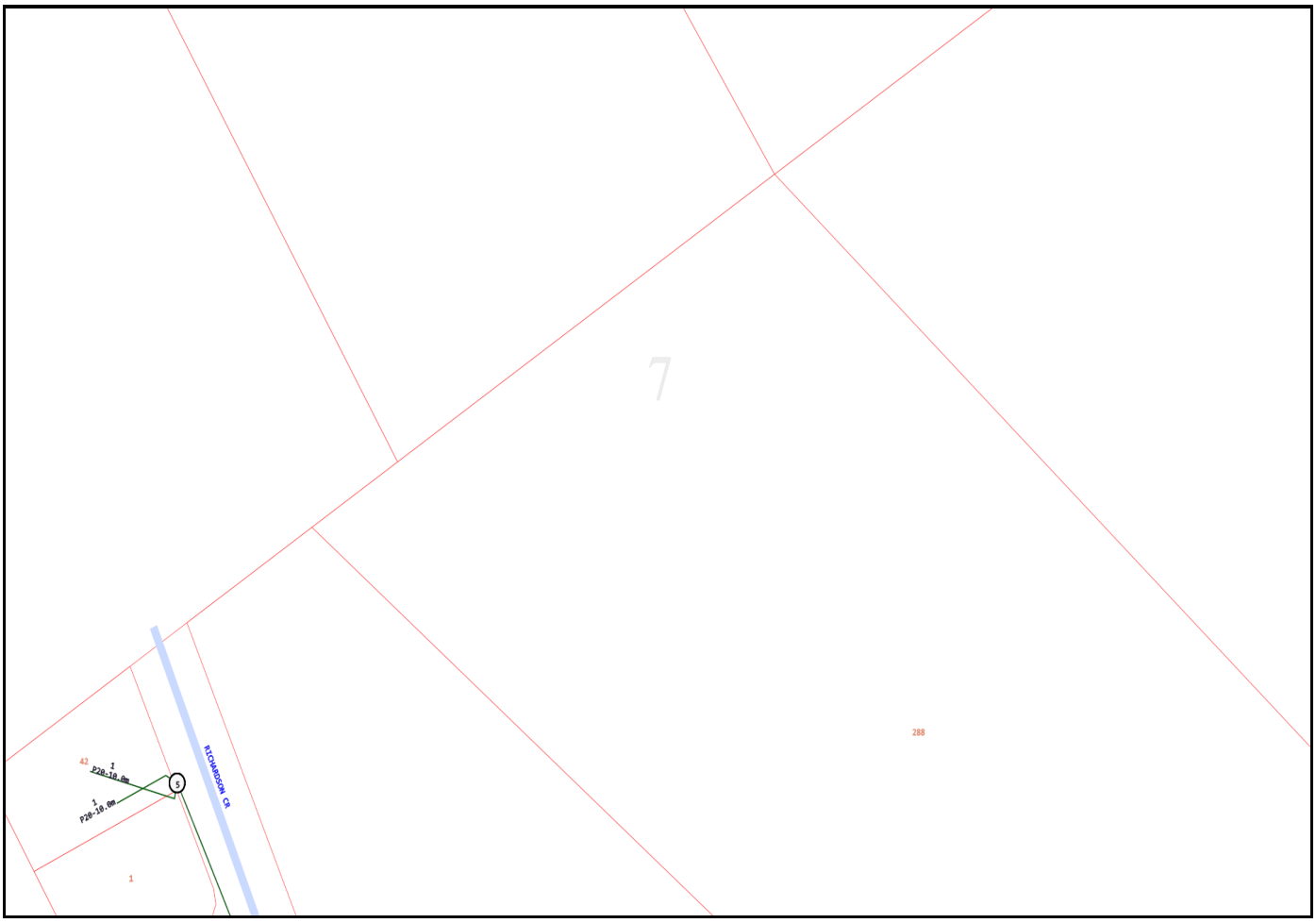

50
2
COURTNEY DR
4
5
6
P35-T-1.8m
P35-T-40.4m
P35-T-51.4m
P35-T-1.6m
P58-45.4m
P58-4.5m
P58-45.4m
P35-35.4m
P35-23.8m
P58-58.4m

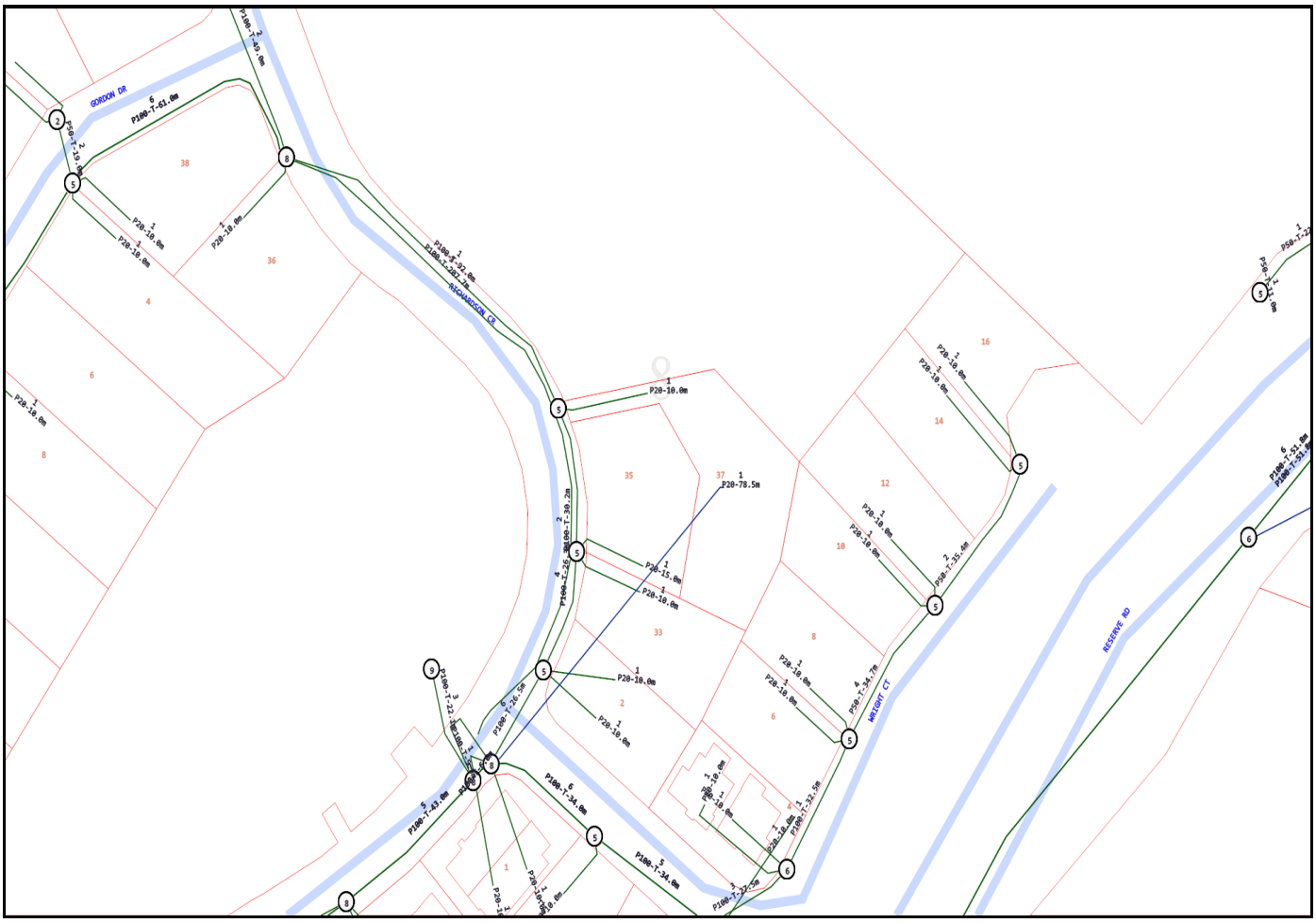

COURTNEY DR
P100-35.2m
P100-39.4m
P100-23.5m
P100-21.4m
P100-25.3m
53
65
3
3

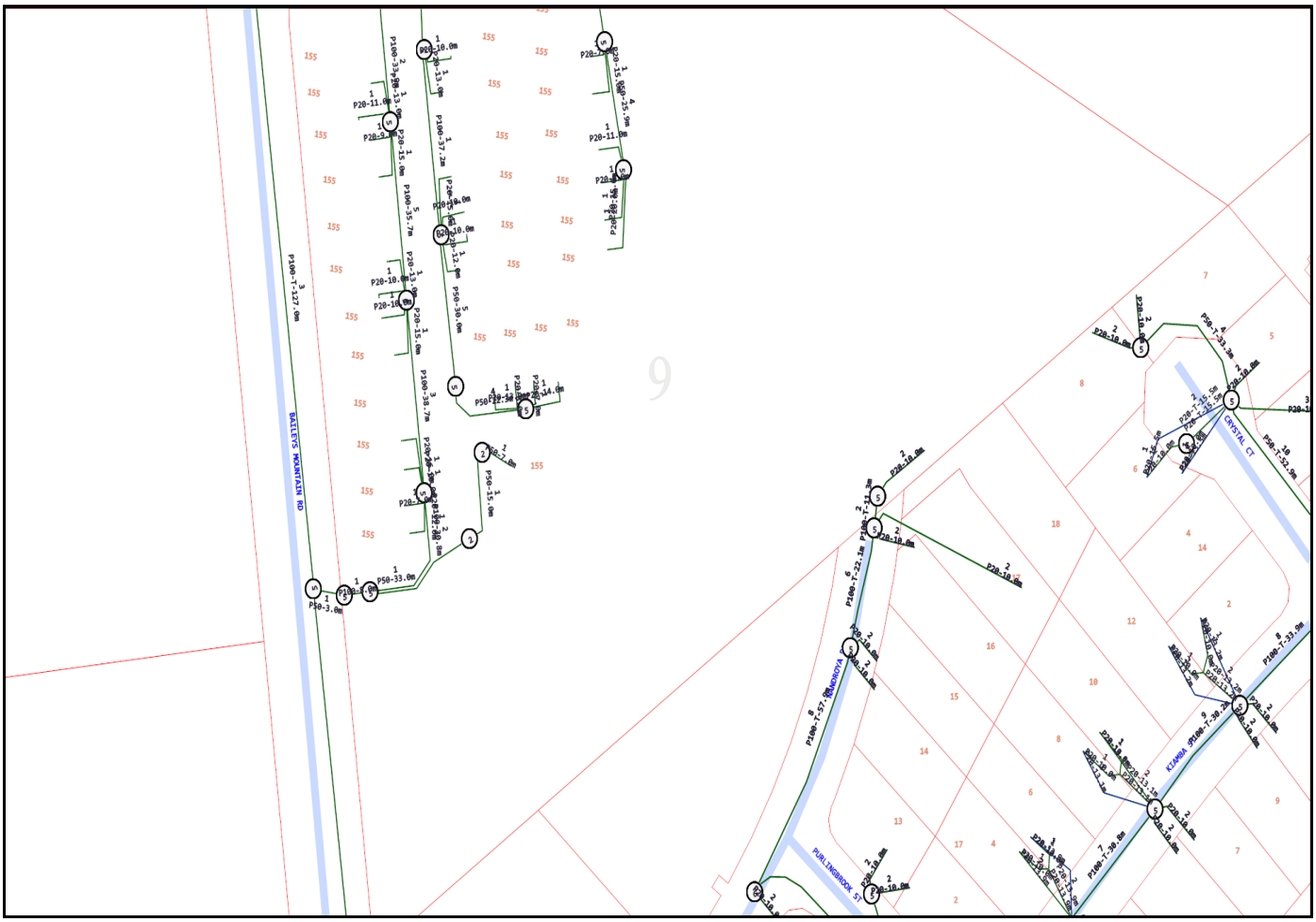

4
LOT 128
LOT 185
LOT 129
LOT 127
LOT 130
LOT 126
LOT 131
LOT 125
LOT 124
LOT 123
91
LOT 132
LOT 122
LOT 119
LOT 120
LOT 133
LOT 118
LOT 121
LOT 117
5
GORDON DR
P100-42.5m
P100-21.6m
P100-34.7m
P100-32.2m
P100-7.38.7m
P100-7.37.5m
P20-10.0m
P20-12.0m
P20-25.0m
P50-T-16.0m
P50-T-22.5m
P50-T-40.5m
P50-T-47.2m
7
9
11
13
15
17
19
21
23
5
10
12
14
16
18
314

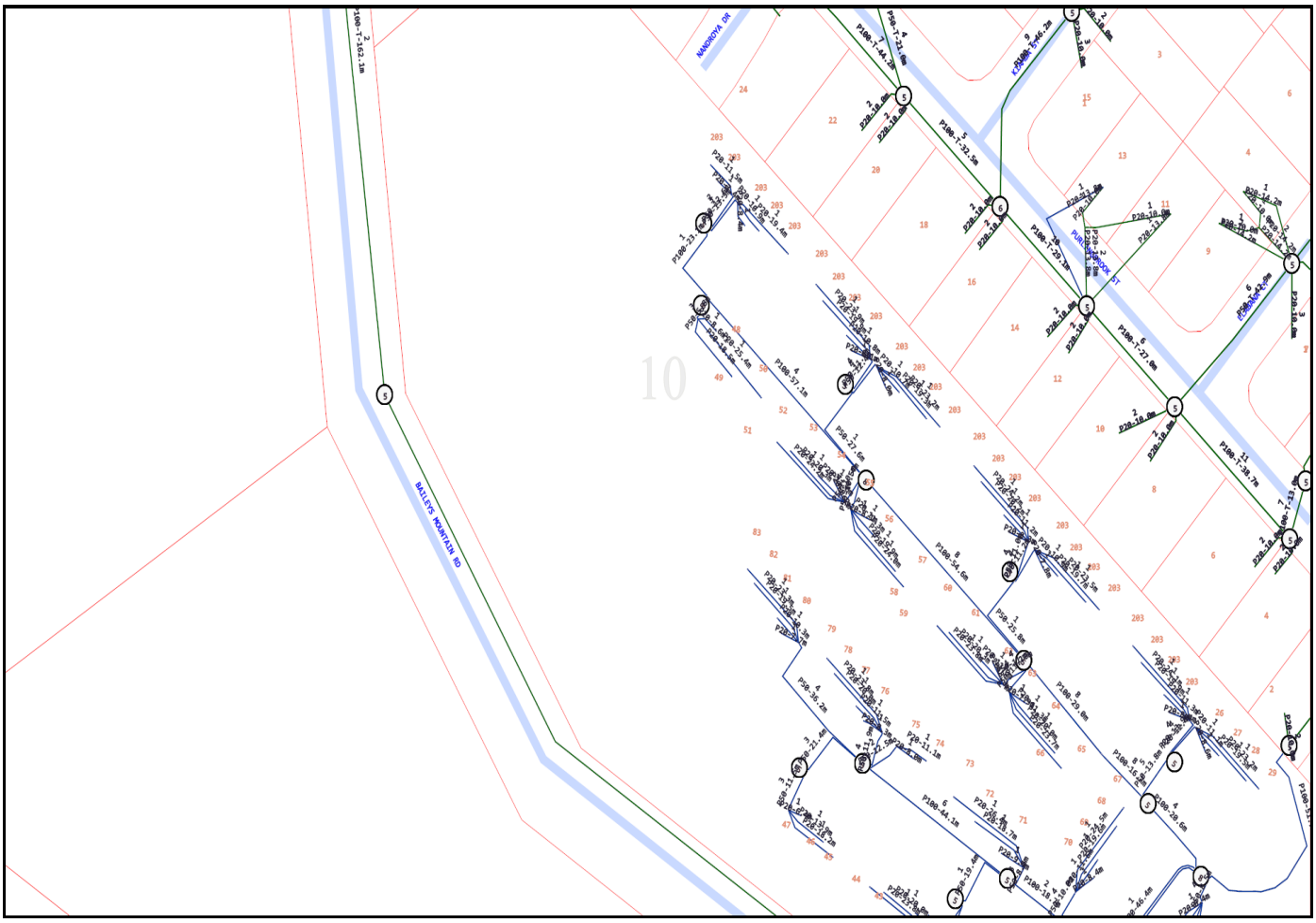

5
17
17
COURTNEY DR
PSB-T-20.5m
PSB-T-99.8m
PSB-T-65.4m
PSB-T-73.6m
PSB-T-1.6m
PSB-T-1.6m
PSB-T-1.6m
PSB-T-20.5m

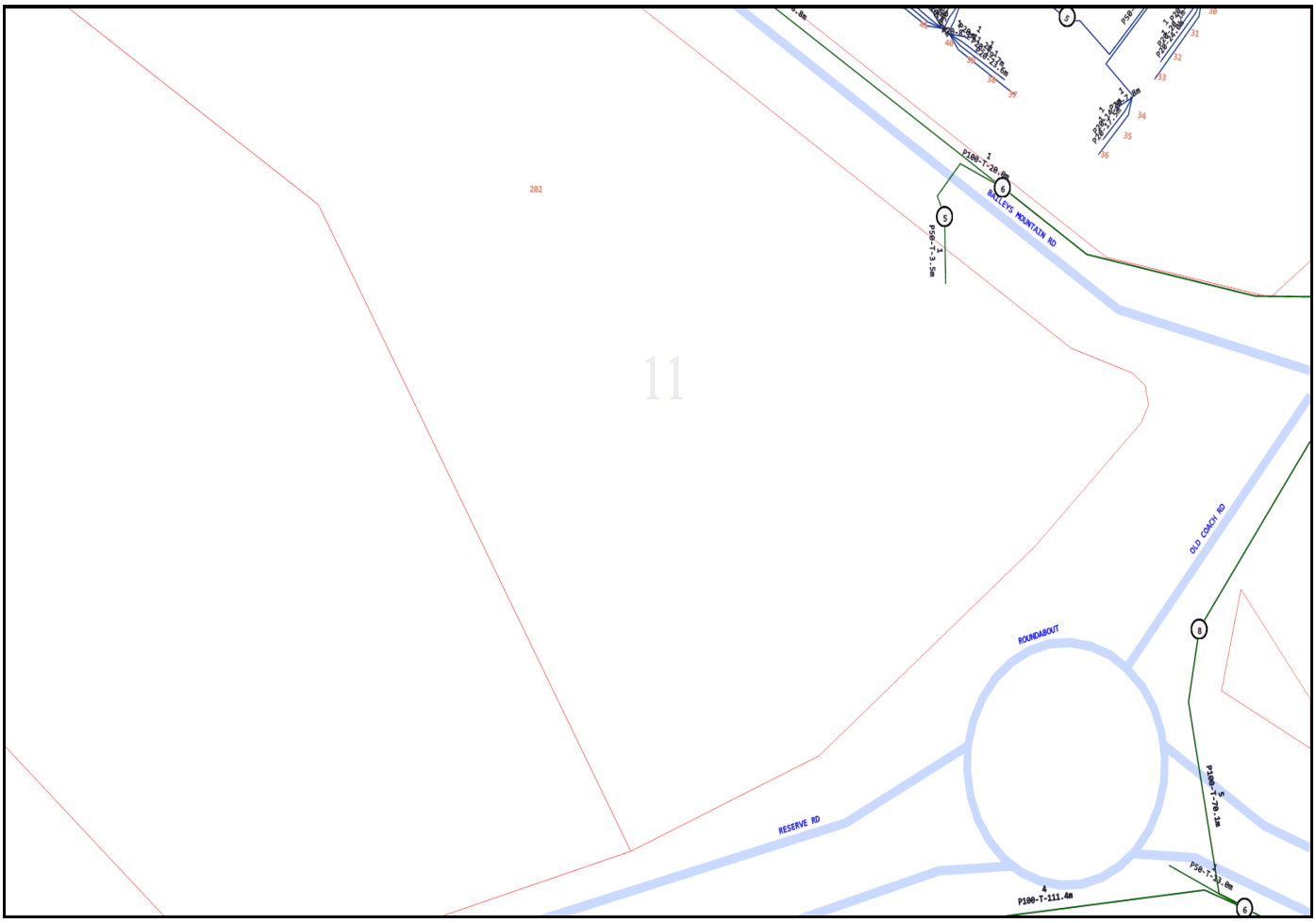

176
31
6
41
274

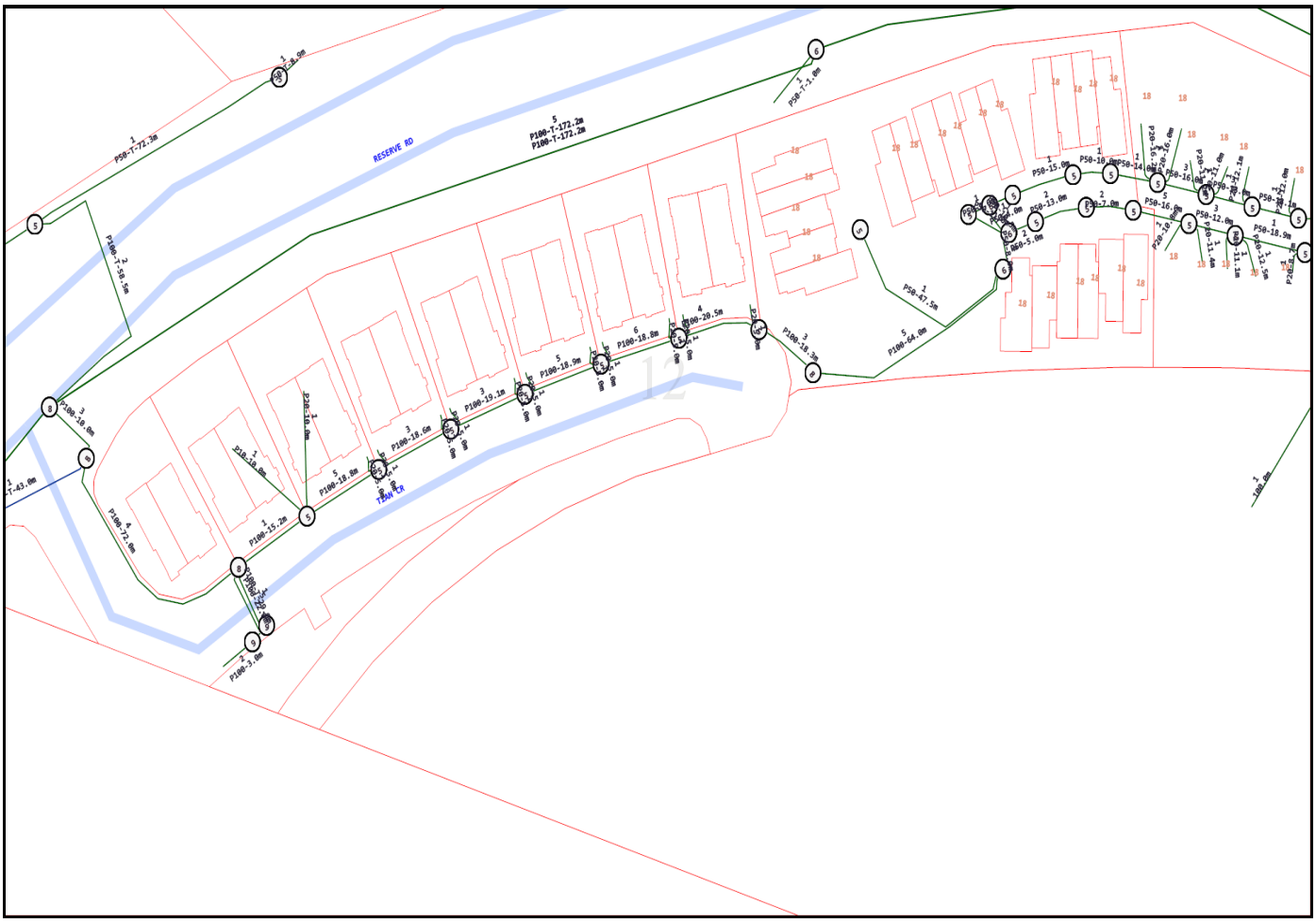

7
288
42
1
P28-10.0m
1
P28-10.0m
5
RICHARDSON CR
1


GORDON DR
ASCHAMBEAU CT
WRIGHT CT
RESERVE RD
P20-10.0m
P20-78.5m
P20-15.0m
P20-7-35.4m
P20-7-34.7m
P20-7-32.5m
P20-7-30.2m
P20-7-26.5m
P20-7-22.5m
P20-7-19.8m
P20-7-17.4m
P20-7-15.0m
P20-7-12.6m
P20-7-10.2m
P20-7-7.8m
P20-7-5.4m
P20-7-3.0m
P20-7-0.6m
P20-7-1.8m
P20-7-4.2m
P20-7-6.6m
P20-7-9.0m
P20-7-11.4m
P20-7-13.8m
P20-7-16.2m
P20-7-18.6m
P20-7-21.0m
P20-7-23.4m
P20-7-25.8m
P20-7-28.2m
P20-7-30.6m
P20-7-33.0m
P20-7-35.4m
P20-7-37.8m
P20-7-40.2m
P20-7-42.6m
P20-7-45.0m
P20-7-47.4m
P20-7-49.8m
P20-7-52.2m
P20-7-54.6m
P20-7-57.0m
P20-7-59.4m
P20-7-61.8m
P20-7-64.2m
P20-7-66.6m
P20-7-69.0m
P20-7-71.4m
P20-7-73.8m
P20-7-76.2m
P20-7-78.6m
P20-7-81.0m
P20-7-83.4m
P20-7-85.8m
P20-7-88.2m
P20-7-90.6m
P20-7-93.0m
P20-7-95.4m
P20-7-97.8m
P20-7-100.2m
P20-7-102.6m
P20-7-105.0m
P20-7-107.4m
P20-7-109.8m
P20-7-112.2m
P20-7-114.6m
P20-7-117.0m
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P20-7-145.8m
P20-7-148.2m
P20-7-150.6m
P20-7-153.0m
P20-7-155.4m
P20-7-157.8m
P20-7-160.2m
P20-7-162.6m
P20-7-165.0m
P20-7-167.4m
P20-7-169.8m
P20-7-172.2m
P20-7-174.6m
P20-7-177.0m
P20-7-179.4m
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P20-7-186.6m
P20-7-189.0m
P20-7-191.4m
P20-7-193.8m
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P20-7-198.6m
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P20-7-210.6m
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P20-7-222.6m
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P20-7-808.2m
P20-7-810.6m
P20-7-813.0m
P20-7-815.4m
P20-7-817.8m
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P20-7-839.4m
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P20-7-894.6m
P20-7-897.0m
P20-7-899.4m
P20-7-901.8m
P20-7-904.2m
P20-7-906.6m
P20-7-909.0m
P20-7-911.4m
P20-7-913.8m
P20-7-916.2m
P20-7-918.6m
P20-7-921.0m
P20-7-923.4m
P20-7-925.8m
P20-7-928.2m
P20-7-930.6m
P20-7-933.0m
P20-7-935.4m
P20-7-937.8m
P20-7-940.2m
P20-7-942.6m
P20-7-945.0m
P20-7-947.4m
P20-7-949.8m
P20-7-952.2m
P20-7-954.6m
P20-7-957.0m
P20-7-959.4m
P20-7-961.8m
P20-7-964.2m
P20-7-966.6m
P20-7-969.0m
P20-7-971.4m
P20-7-973.8m
P20-7-976.2m
P20-7-978.6m
P20-7-981.0m
P20-7-983.4m
P20-7-985.8m
P20-7-988.2m
P20-7-990.6m
P20-7-993.0m
P20-7-995.4m
P20-7-997.8m
P20-7-1000.2m


BAILEYS MOUNTAIN RD
CRYSTAL CT
KIAMBA ST
PURLINGBROOK ST


MANDRIVA DR
BALLEYS MOUNTAIN RD
PURLINGBROOK ST


202
11
BILLEYS MOUNTAIN RD
OLD COACH RD
ROUNDABOUT
RESERVE RD
P100-T-111.4m
P50-T-3.5m
P100-T-79.1m
P50-T-33.0m



Emergency Contacts

You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.