UTILITIES SERVICE REPORT

CLEARMONT RISE

13L NARROMINE ROAD & LOT 7 JANNALI ROAD DUBBO NSW

REF: MKR00357

VERSION 2 I JULY 2022

Prepared For:

The Bathla Group

MAKER ENG

1 INTRODUCTION AND BACKGROUND

MakerENG Pty Ltd ('Maker') has been engaged by The Bathla Group to prepare a Utility Services Report to assist in the preparation of a development application for Stage 1 of the subdivision of Lot 22 DP1038924 (13L Narromine Road, Dubbo) and Lot 7 DP223428 (Jannali Road, Dubbo).

These works form Stage 1 of a proposed masterplan for residential and industrial development of the area.

1.1 SITE DESCRIPTION

The total site area is 53ha and grades to the northwest with a typical grade of 1-3%. The site is located south of Narromine Road, and to the west of Jannali Road. The site is bounded to the south by the Main Western Railway, and by large rural residential lots accessed by Rosedale Road to the west. To the central east there is a TAFE NSW Dubbo campus and to the North across Narromine Road is the Dubbo City Regional Airport

The site currently is maintained as grass paddock with several outbuildings and sheds. A recent aerial image is shown below in **Figure 1** below

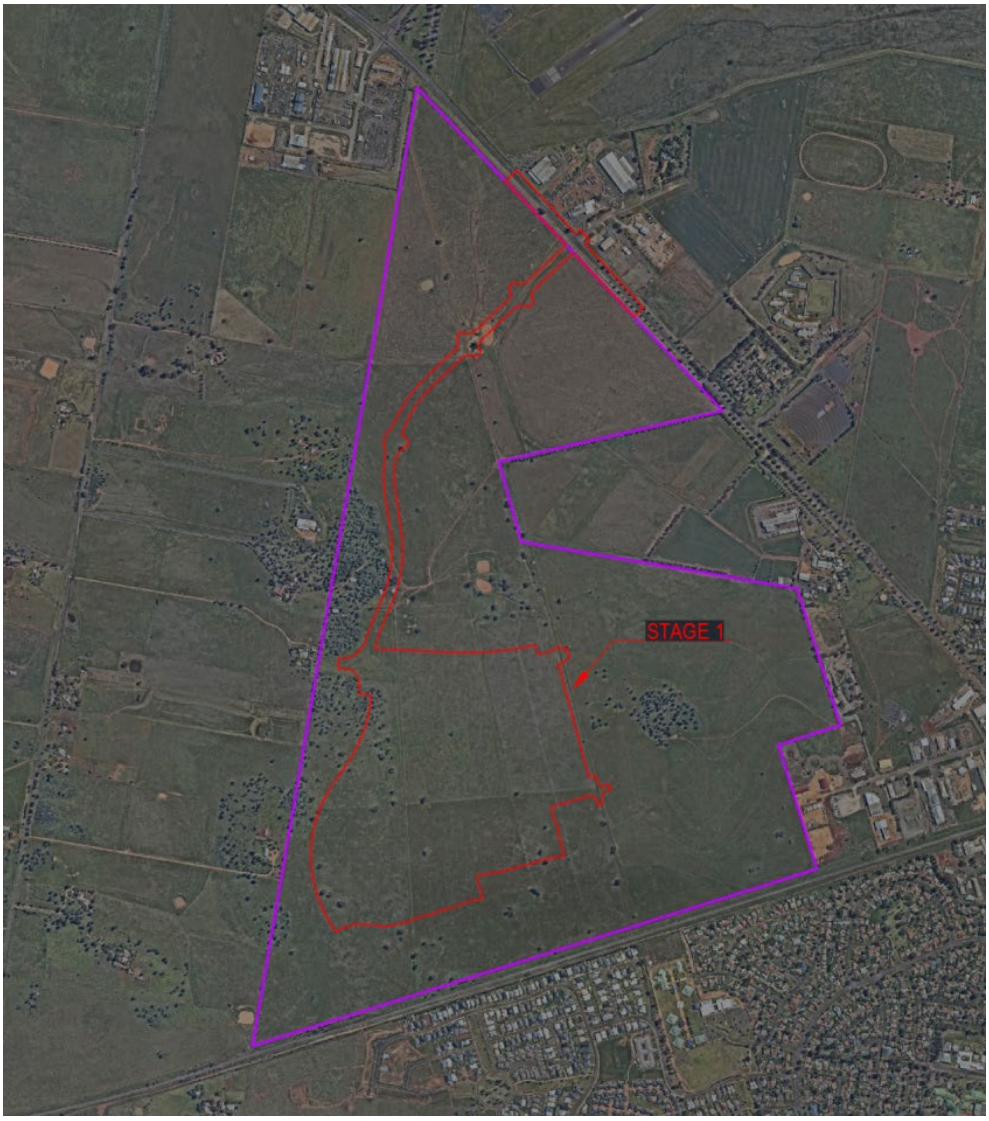


Figure 1: Aerial image of site (Nearmap, 2022)

1.2 PROPOSED DEVELOPMENT

Stage 1 proposes to subdivide the site into 578 residential and 2 open space lots. The proposal also includes approximately 34 new public roads to access the proposed lots, and the construction of a new arterial road, connection the stage to Narromine Road. Refer to Stage 1 development application drawings, MKR00357-11, for further details.

1.3 UTILITY SERVICES

A Dial Before You Dig (DBYD) investigation was conducted on 25 March 2022 for existing utility service infrastructure located in the vicinity of the subject site. Extracts from the DBYD search have been provided within the report for consideration. Detailed services plans and associated information sourced as part of the DBYD search can be provided upon request if required.

Existing services information sourced from the DBYD search was used to prepare the Existing Utility Services Plan provided within **Appendix A** (Drawing MKR00357-00-SK043).

Details of the existing utility service infrastructure located in the vicinity of the site, the relevant service authority/stakeholder and reference to the specific section of this report have been noted within Table 1-3 below.

Table 1-3 Existing Utility Service Infrastructure Details

Utility Service	Relevant Authority/ Stakeholder	Report Section
Wastewater	Dubbo Regional Council	Section 2
Potable Water	Dubbo Regional Council	Section 3
Electrical	Essential Energy	Section 4
Telecommunications	NBN Co	Section 5
Gas	APA/Jemena	Section 6

2 WASTERWATER

2.1 EXISTING SERVICES

Dubbo Regional Council are the relevant authority/stakeholder responsible for the delivery of wastewater services in the vicinity of the subject site. Existing wastewater services information sourced from a DBYD search have been documented within the Existing Utility Services Plan provided within Drawing **Appendix A** (Drawing MKR00357-00-SK043). An extract from the Dubbo Regional Council DBYD plan showing the location of existing wastewater services has been provided within **Figure 2-1** below.

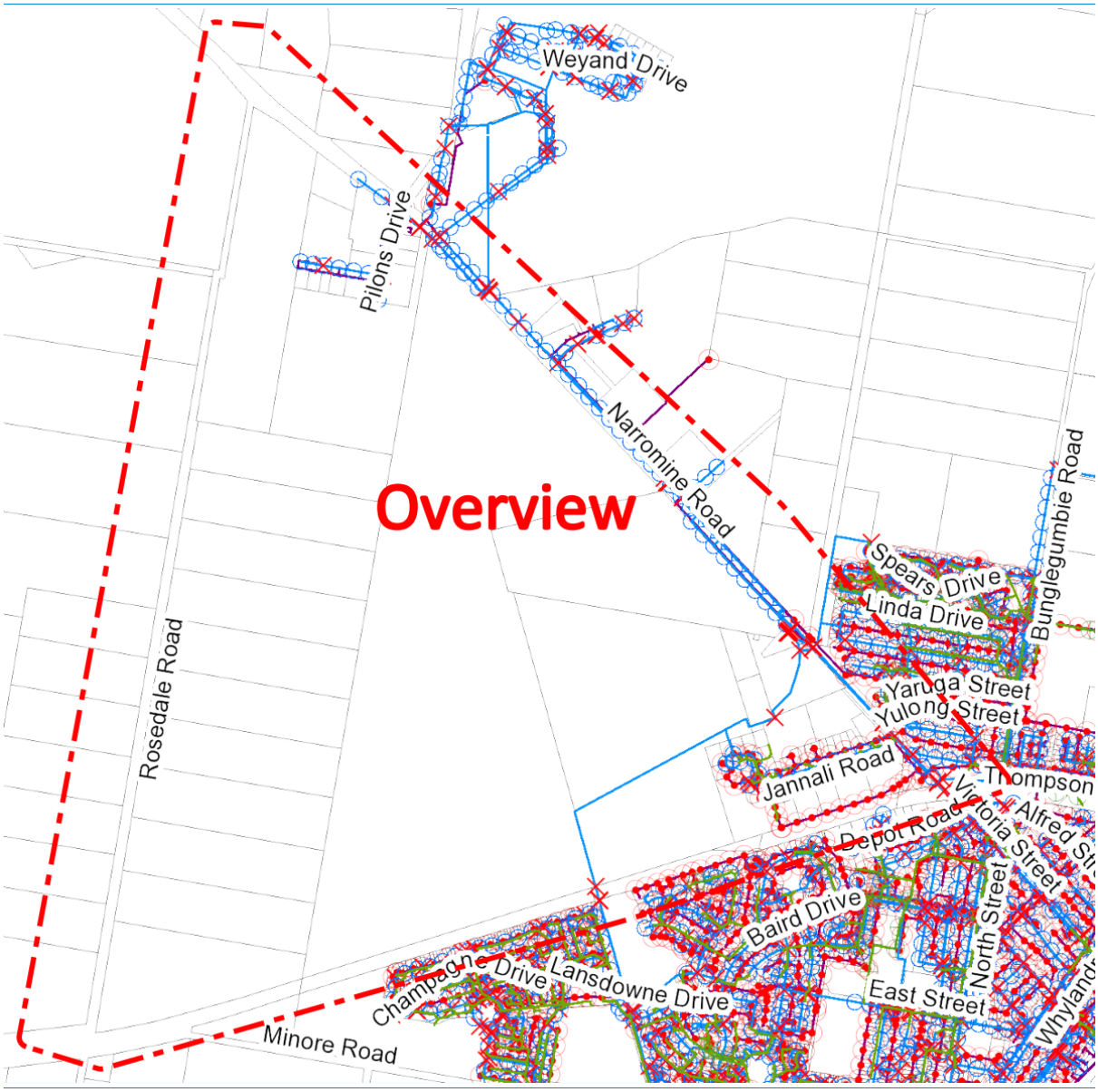


Figure 2-1 Existing Dubbo Regional Council wastewater and potable water services (Source: Dubbo Regional Council, 2022)

2.2 REQUIRED SERVICES

Dubbo Regional Council to determine the wastewater network capacity to service the proposed development and instruct the strategy and infrastructure required, and any trunk services exceeding our sites capacity they require for a VPA credit.

It is understood, based on advice received from Dubbo Regional Council during a pre-lodgement meeting, that the existing wastewater mains in the immediate vicinity of the site do not have the capacity to service the entire Clearmont Rise development.

Considering the natural grade of the site and the higher capacity anticipated for the existing gravity mains within the vicinity of the site, the Northern Catchment will likely be serviced by a pump station and rising main along Narromine Road, connecting to the existing network (location and size to be confirm by DRC).

If an easement cannot be achieved from ARTC to drain the southern catchment, a pump station and rising main will be required to connect into the stage 01 gravity network. Refer to Appendix B (Drawing MKR00357-00-43) for Option 02 sewer main.

3 POTABLE WATER

3.1 EXISTING SERVICES

Dubbo Regional Council are the relevant authority/stakeholder responsible for the delivery of potable water services in the vicinity of the subject site. Existing potable water services information sourced from a DBYD search have been documented within the Existing Utility Services Plan provided within **Appendix A** (Drawing MKR00357-00-SK043). An extract from the Dubbo Regional Council DBYD plan showing the location of existing potable water services has been provided within **Figure 3-1** below.

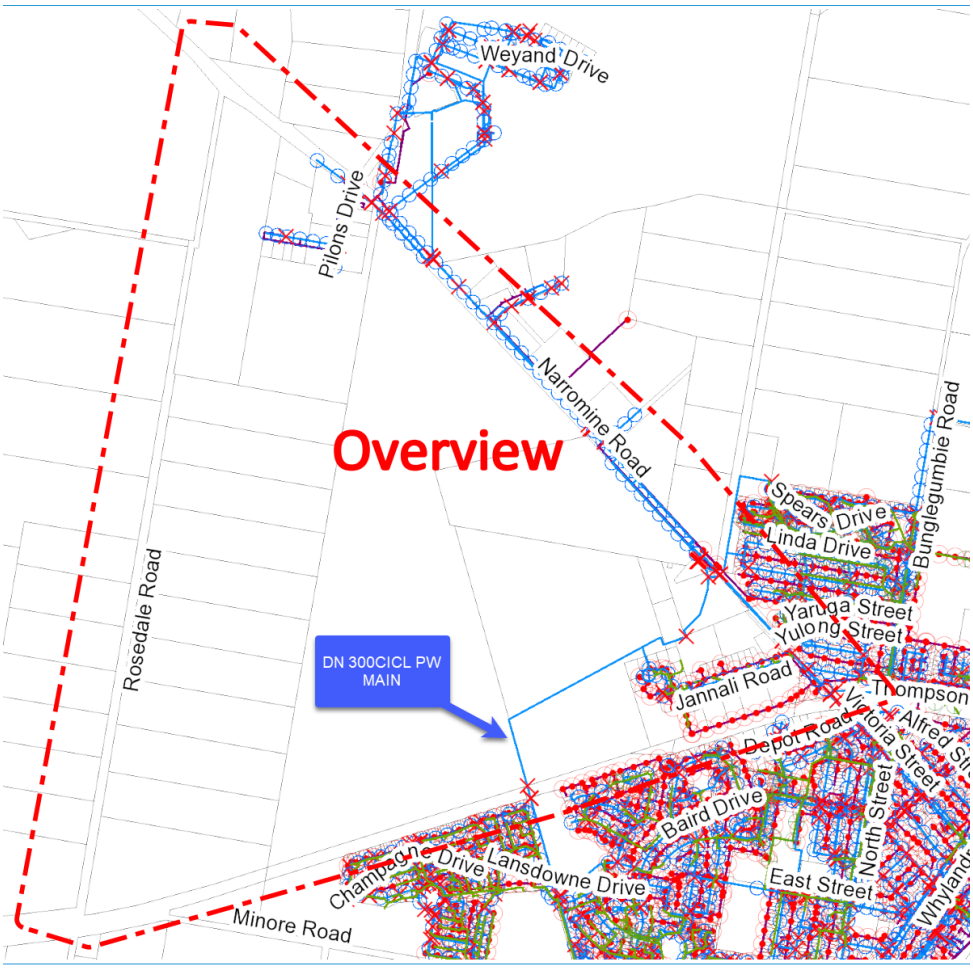


Figure 3-1 Existing Dubbo Regional Council wastewater and potable water services (Source: Dubbo Regional Council, 2022)

3.2 REQUIRED SERVICES

Dubbo Regional Council to determine the potable water network capacity to service the proposed development and instruct the strategy and infrastructure required, and any trunk services exceeding our sites capacity they require for a VPA credit.

It is understood, based on advice received from Dubbo Regional Council during a pre-lodgement meeting, that the existing potable water main located within the site has the capacity to service the entire Clearmont Rise development.

A new potable water line will be constructed and connected to the existing DN300 CICL main located within the south-eastern corner of Lot 13L Narromine Road.

4 ELECTRICAL

4.1 EXISTING SERVICES

Essential Energy are the relevant authority/stakeholder responsible for the delivery of electrical services in the vicinity of the subject site. Existing electrical services information sourced from a DBYD search have been documented within the Existing Utility Services Plan provided within **Appendix A** (Drawing MKR00357-00-SK043). A separate Electrical Infrastructure Plan will be prepared by Others specifically detailing the location of existing and proposed electrical services required to service the site.

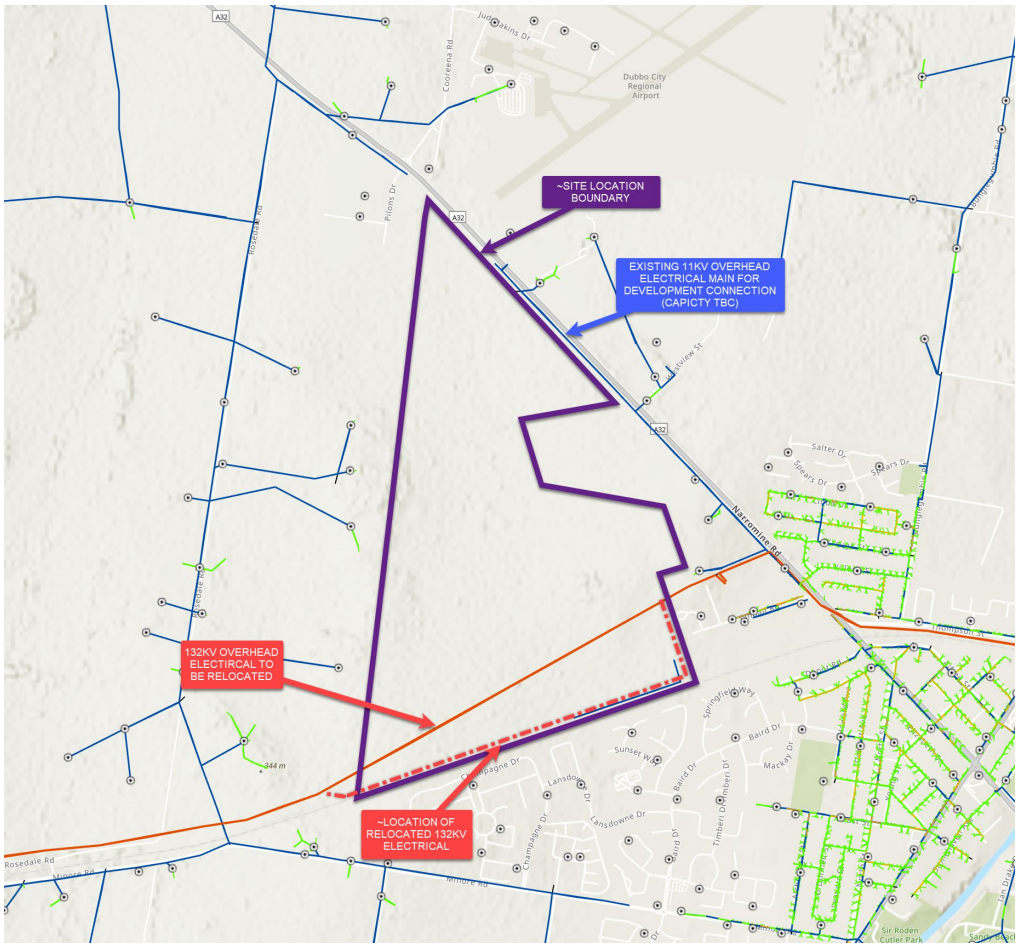


Figure 4-1 Existing Essential Energy Electrical Services (Source: Essential Services, 2022)

4.2 REQUIRED SERVICES

Prior to the development of Stages 4 and 5 site, the existing Overhead 132kKV line/s will need to be relocated. The existing overhead 11KV line/s in the south-eastern corner of Lot 7 Jannali Road will need to be combined with the new 132KV route.

Stage 1 will be serviced by connecting to the existing 11KV route along Narromine Road. The proposed underground electrical will follow the arterial road (Road 1) corridor and connect to the proposed Stage 1 residential lots. Final electrical design from an accredited service provider will be provided during the Detailed Design phase

5 TELECOMMUNICATIONS

5.1 EXISTING SERVICES

NBN Co are the statutory infrastructure provider and relevant authority/stakeholder responsible for the delivery of telecommunications services in the vicinity of the subject site. It should be noted that several other telecommunications services (Nextgen, Optus, Uecomm, Telstra and Vocus) were also identified as part of a DBYD search. Existing telecommunications and optic fibre services sourced from a DBYD search have been documented within the Existing Utility Services Plan provided within **Appendix A** (Drawing MKR00357-00-SK043). A separate plan specifically detailing the location of existing telecommunications services is provided within **Figure 5-1** below.

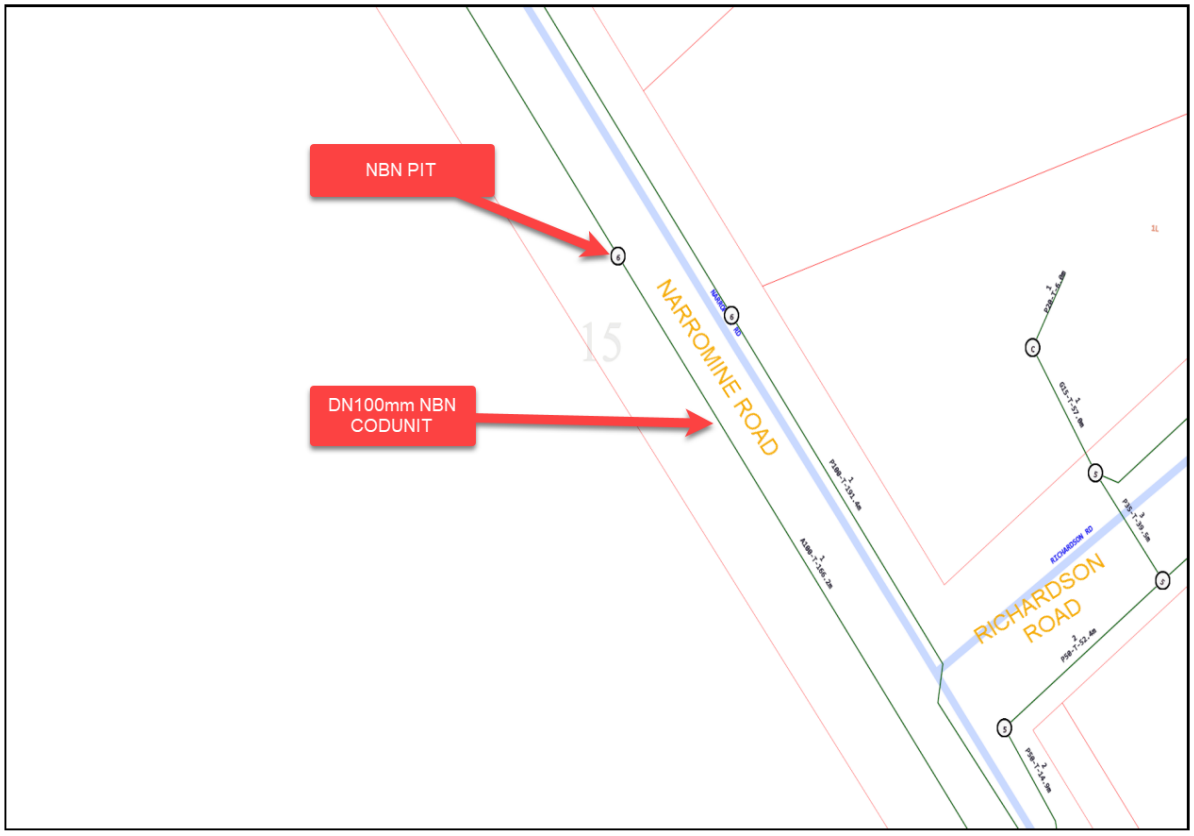


Figure 5-1 Existing NBN Services (Source: DBYD, 2022)

5.2 REQUIRED SERVICES

Stage 1 will be serviced by connecting to the existing 100mm NBN route along Narromine Road. The proposed underground telecommunications will follow the arterial road (Road 1) corridor and connect to the proposed Stage 1 residential lots. Final telecommunications design from an accredited service provider will be provided during the Detailed Design phase

6 GAS

6.1 EXISTING SERVICES

Jemena are the relevant authority/stakeholder responsible for the delivery of gas services in the vicinity of the subject site. Existing gas services information sourced from a DBYD search have been documented within the Existing Utility Services Plan provided within **Appendix A** (Drawing MKR00357-00-SK043). An extract from the Jemena DBYD plan showing the location of existing Jemena gas mains has been provided within Figure 6-1 below. The APA Group transmission main runs to the north of Narromine Road as shown in Figure 6- 2 below.

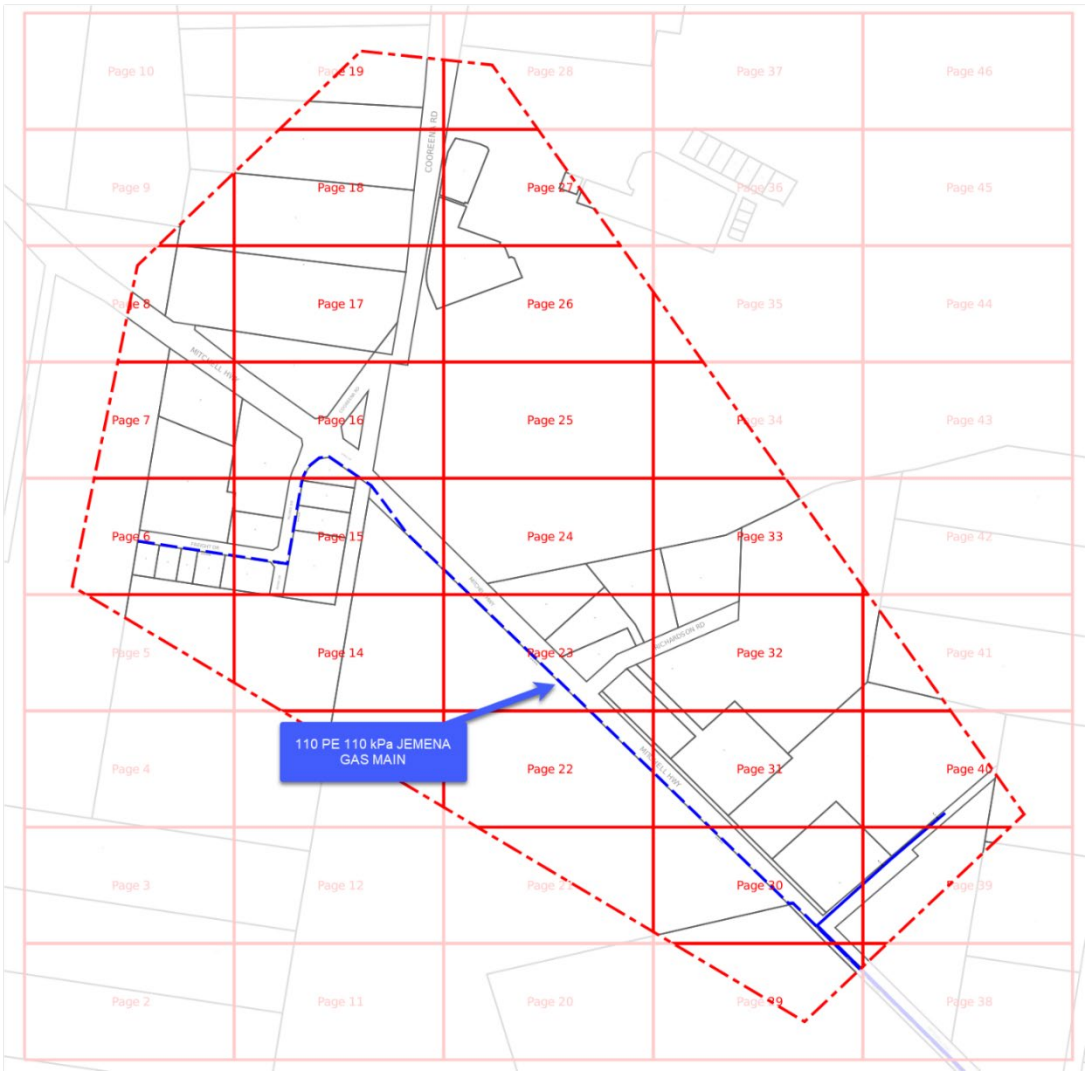


Figure 6-1 Existing Jemena GAS Services (Source: DBYD, 2022)

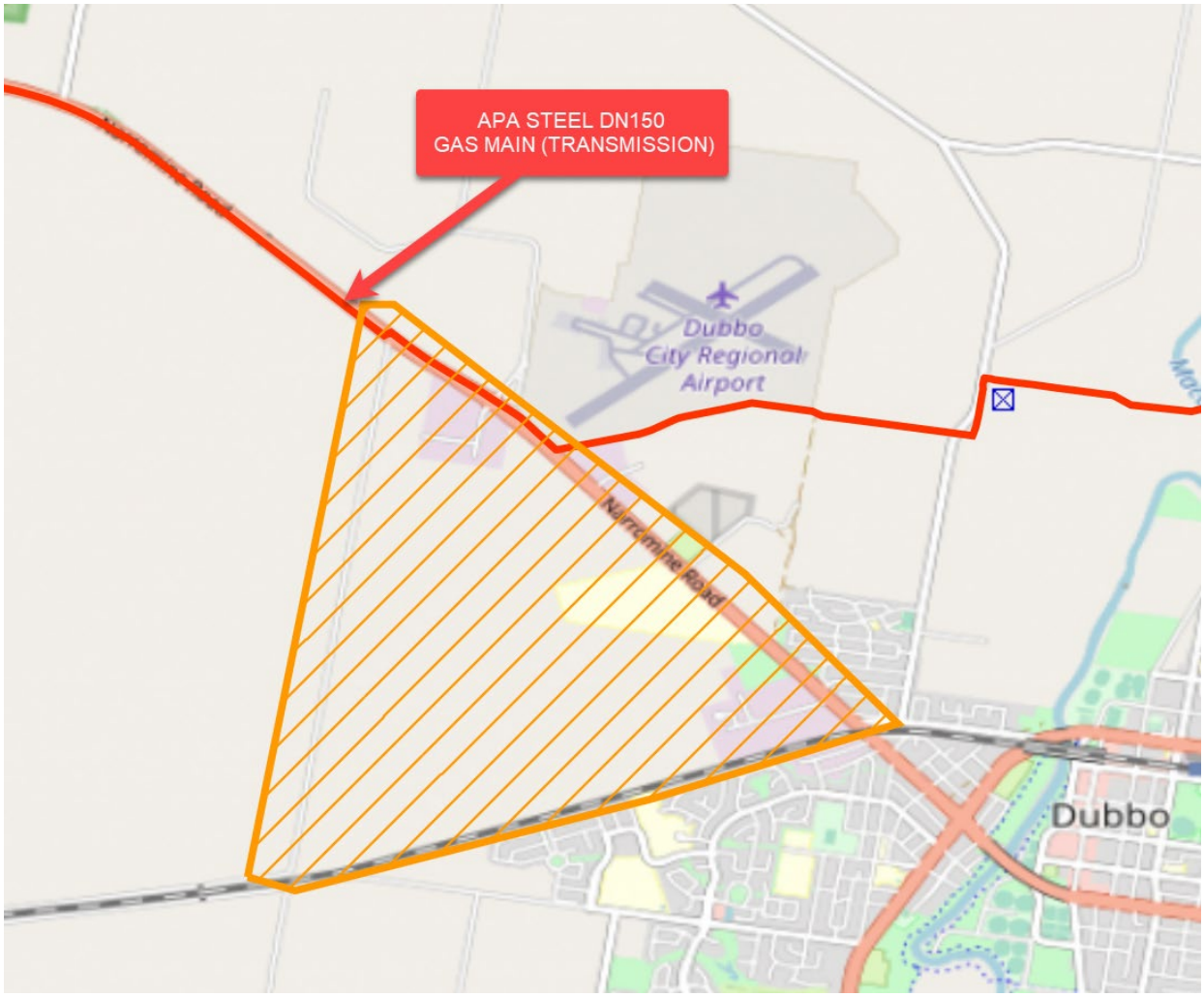


Figure 6-2 Existing APA GAS Services (Source: APA, 2022)

6.2 REQUIRED SERVICES

Stage 1 will be serviced by connecting to the existing 110mm PE Gas main along Narromine Road. The proposed underground gas main will follow the arterial road (Road 1) corridor and connect to the proposed Stage 1 residential lots. Final gas design from an accredited service provider will be provided during the Detailed Design phase.

7 OTHER CONSIDERATIONS

The following items have been noted for consideration as part of the later design stages to inform the Clearmont Rise development. These items should be explored in further detail to avoid the potential to impact utility services design and delivery:

- **Service locations** – Underground service locations provided to date are sourced from available DBYD information. The exact location of underground services should be confirmed via detailed service location survey in order to avoid service clashes and inform potential service relocation works required during later stages of the development.
- **Existing trees and significant vegetation** – Existing trees and significant vegetation have been located and identified to inform service reticulation paths. This information will be considered during later design stages in order to avoid any disturbance.
- **Decommission of redundant services** – Redundant services will need to be decommissioned prior to any construction on the Clearmont Rise site. Relevant applications and authority approvals will need to be obtained as required.
- **Other Services** – Other existing services and associated requirements including telecommunications, RMS traffic signals and ARTC Rail corridor assets will need to be located and understood to avoid any unnecessary disturbance. A detailed summary will be provided by Maker during the Detailed Design phase.
- **Landscaping within road reserve** – Close coordination between the landscape architect, civil engineer and ESD consultant will be required to ensure there are no clashes between potential landscaping (e.g. street trees and planting) and utility services assets within the road reserve/ verge.
- **Potential service clashes** – Close coordination between all utility service designs will be required to avoid potential service clashes. Clash detection checks are to be conducted during the design phases to avoid service clashes.
- **Public domain facilities** – Close coordination between the landscape architect and civil engineer will be required to ensure any service connections are allowed to service any public domain facilities such as toilets, drinking fountains etc.

8 PROPOSED DEVELOPMENT STAGING

Stage	No. Lots	No. Open Space Lots	Catchment	Max Elevation (RL)	Min Elevation (RL)
1	578	4	Northern	324m	302.5m
2	306	1	Northern	314m	303m
3	225	2	Northern	309m	298m
4	245	1	Southern	323.5m	298.5m
5	280	1	Southern	310m	292m
6*	8	1	Northern	301.5m	284m

*Stage 6 (Industrial Subdivision) is initially 8 lots that will be further subdivided in the future. Final layout TBC. Utility sizing to be calculated by using the developable area for industrial developments.

9 CONCLUSION

This Utility Services Review Report has been prepared for The Bathla Group to review the existing services in the vicinity of the proposed Clearmont Rise Development Site, their capacity to service the subdivision and any updates required. The findings of this investigation will be used to inform the later stages of the development. The following notable findings for each of the key utility services are stated below:

- Section 2: Wastewater (Dubbo Regional Council)
  - Dubbo Regional Council to confirm the wastewater servicing requirements for the Clearmont Rise development.
  - Timing of the Feasibility Application has the potential to delay the Stage 1 wastewater deliverables.
  - Previous advice received from Dubbo Regional Council determined the existing wastewater mains available in the immediate vicinity of the subject site do not have the capacity to service the entire Clearmont Rise development.
  - The Northern Catchment of the site will likely be serviced by a new pumping station (located in the north-western corner of the site) and a rising main that connects to the existing network. Dubbo Reginal Council to provide details and locations of connection points.
  - The Southern Catchment will likely require an outfall pipe to be constructed ~1.3km from the current site boundary to the existing 630mm HDPE main adjacent to the Thompson Street Road corridor.

- Section 3: Potable Water (Dubbo Regional Council)
  - Dubbo Regional Council Water to confirm the potable water servicing requirements for the Clearmont Rise development.
  - Timing of the Feasibility Application has the potential to delay the Stage 1 potable water deliverables.
  - Connection to be provided from the existing DN300 CICL main at the south-eastern corner of Lot 13L Narromine Road
  - Previous advice received from Dubbo Regional Council determined existing potable water mains available in the immediate vicinity of the subject site have the capacity to service the entire Clearmont Rise development.

- Section 4: Electrical (Essential Energy)
  - The Clearmont Rise site currently includes a number of Essential Energy high voltage assets including a 132KV overhead line/s and an 11KV overhead line/s.
  - Connection from the existing Overhead 11KV line/s on Narromine Road
  - Prior to the development of Stages 4 and 5, the existing 132KV line will need to be relocated.
  - The existing high voltage network has the capacity to service the proposed development.

- Section 5: Telecommunications (NBN Co.)
  - It is anticipated that extensions of the telecommunications network to service the proposed Clearmont Rise development will be driven by demand.
  - It is recommended that a staged application be submitted to NBN Co for the proposed development. The initial stage of this application will involve the design of pit and pipe infrastructure along the proposed arterial road, including multiple starter pipes to service the future industrial development.

- Connection from the existing NBN network on Narromine Road

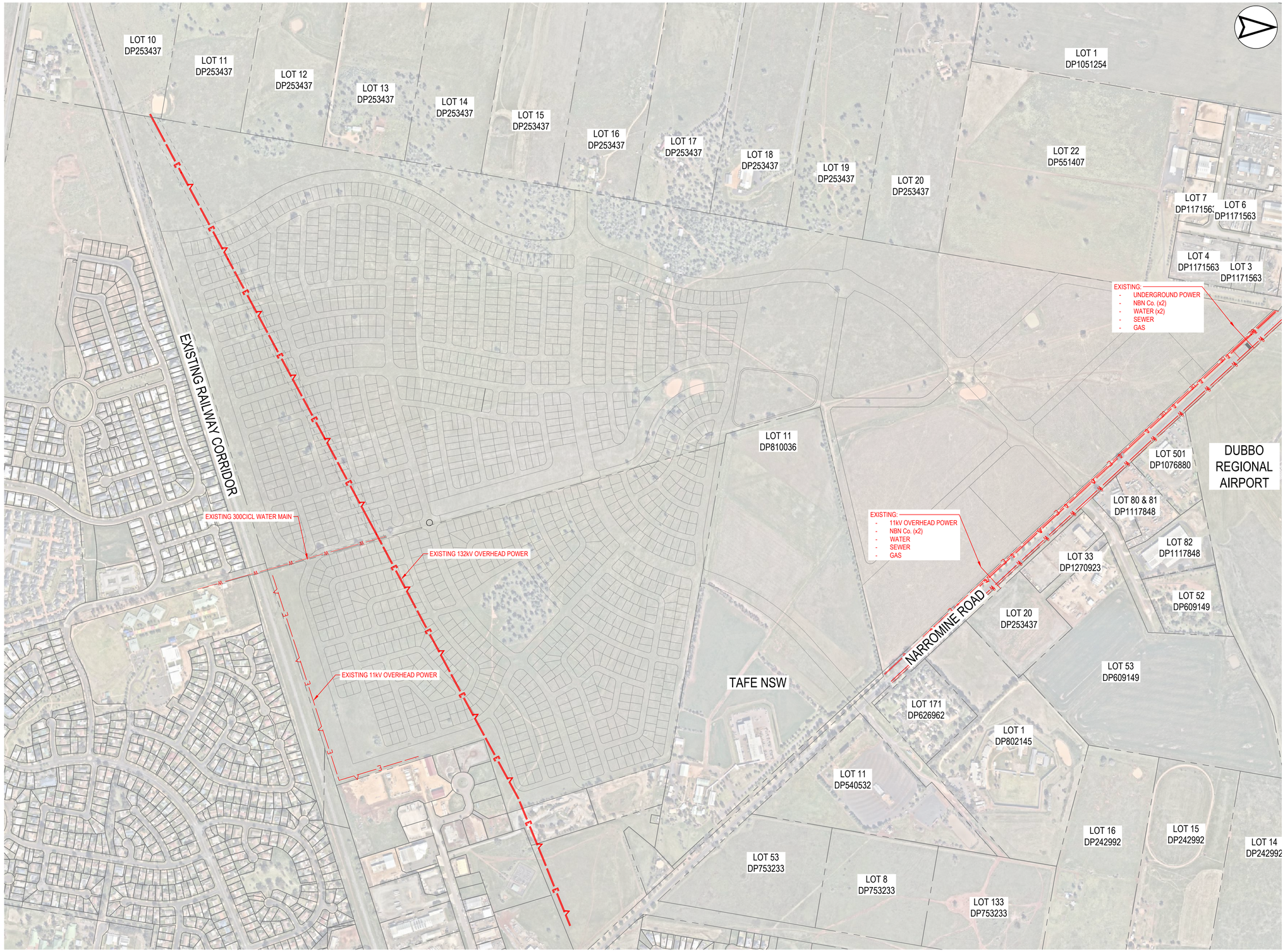
- Section 6: Gas (Jemena)
  - It is anticipated that extensions of the existing pressure gas network will have sufficient capacity to service the Clearmont Rise development.
  - Connection from the existing gas network on Narromine Road

Additional items which will need to be taken into consideration as part of the Clearmont Rise development and may have the potential to impact services design and delivery are noted within Section 7 of this report.

Upon review from The Bathla Group the findings of this report will be used to inform and progress the design works proposed during the detailed design phase of the project. It is recommended that potential utility service reticulation paths and allocations be considered when preparing the concept design for the Clearmont Rise development

APPENDIX A

EXISTING SERVICES LAYOUT PLAN



LEGEND

PROPOSED

- LOT BOUNDARY

EXISTING

- LOT BOUNDARY
- EASEMENT
- E — ELECTRICAL ABOVE GROUND
- UE — UE — ELECTRICAL UNDERGROUND
- W — W — WATER
- S — S — SEWER
- T — T — COMMUNICATIONS
- G — G — GAS

FUTURE

- LOT BOUNDARY

REV	DATE	DESCRIPTION	AMD BY	APP BY
1	01.07.22	ISSUED FOR INFORMATION	JMN	RXT

0 50 100 150 200 250m

SCALE 1:5000 AT ORIGINAL SIZE

MAKER ENG
SURVEY DESIGN DELIVER

DRAWN: J.NEWELL	DESIGNED: H.SMITH
DRAFT CHECK: J.AGUSTIN	DESIGN CHECK: J.AGUSTIN
APPROVED: R.THOMSON	
NOT FOR CONSTRUCTION	

CLEARMONT RISE DUBBO
CONCEPT MASTERPLAN
EXISTING SERVICES
LAYOUT PLAN

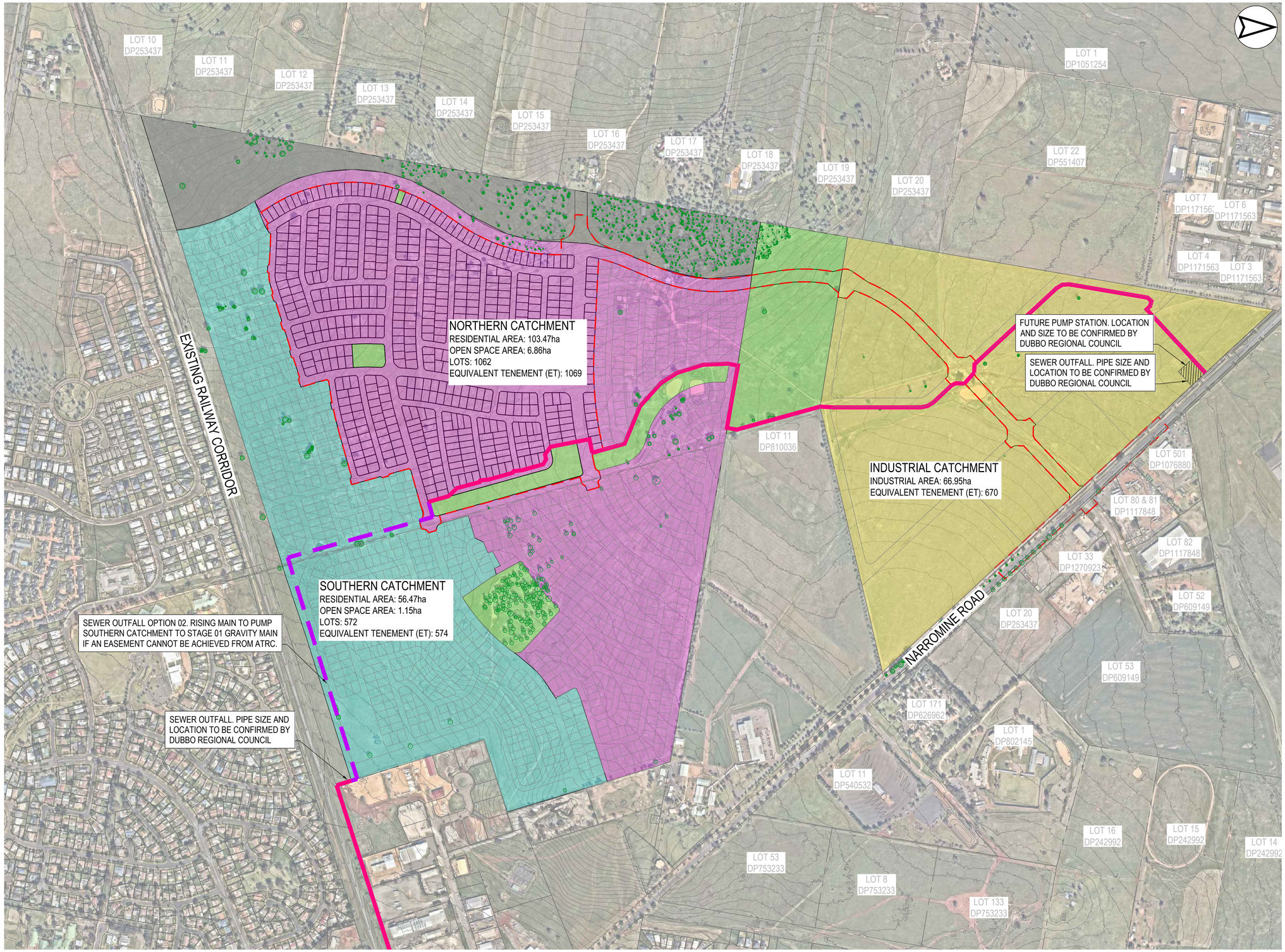
DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00357-00-SK043		A1	1

Harry Smith, 7/1/2022 3:59 PM

C:\12dS\data\12DSYNERGY\MKR00357 13L Narromine Rd, Dubbo_4Z\02 Design\Drawings\00 Sketches\MKR00357-00-SK043.dwg

APPENDIX B

SEWER CATCHMENT LAYOUT PLAN



LEGEND

PROPOSED
- LOT BOUNDARY
- STAGING BOUNDARY

EXISTING
- LOT BOUNDARY
- CONTOURS (1.0m)
- EASEMENT
- ELECTRICAL ABOVE GROUND
- TREE (TO BE RETAINED)
- TREE (TO BE REMOVED)

FUTURE
- LOT BOUNDARY
- OPEN SPACE
- NORTHERN CATCHMENT RESIDENTIAL
- SOUTHERN CATCHMENT RESIDENTIAL
- INDUSTRIAL CATCHMENT
- FUTURE DEVELOPMENT
- PROPOSED SEWER OUTFALL
- PROPOSED SEWER OUTFALL - OPTION 02

REV	DATE	DESCRIPTION	AMD BY	APP BY
2	13.07.22	REISSUED FOR INFORMATION	JMN	RXT
1	01.07.22	ISSUED FOR INFORMATION	JMN	RXT

0 50 100 150 200 250m
SCALE 1:5000 AT ORIGINAL SIZE

MAKER ENG
SURVEY DESIGN DELIVER

DRAWN: J.NEWELL	DESIGNED: H.SMITH
DRAFT CHECK: J.AGUSTIN	DESIGN CHECK: J.AGUSTIN
APPROVED: R.THOMSON	
NOT FOR CONSTRUCTION	

CLEARMONT RISE DUBBO
CONCEPT MASTERPLAN
SEWER CATCHMENT
LAYOUT PLAN

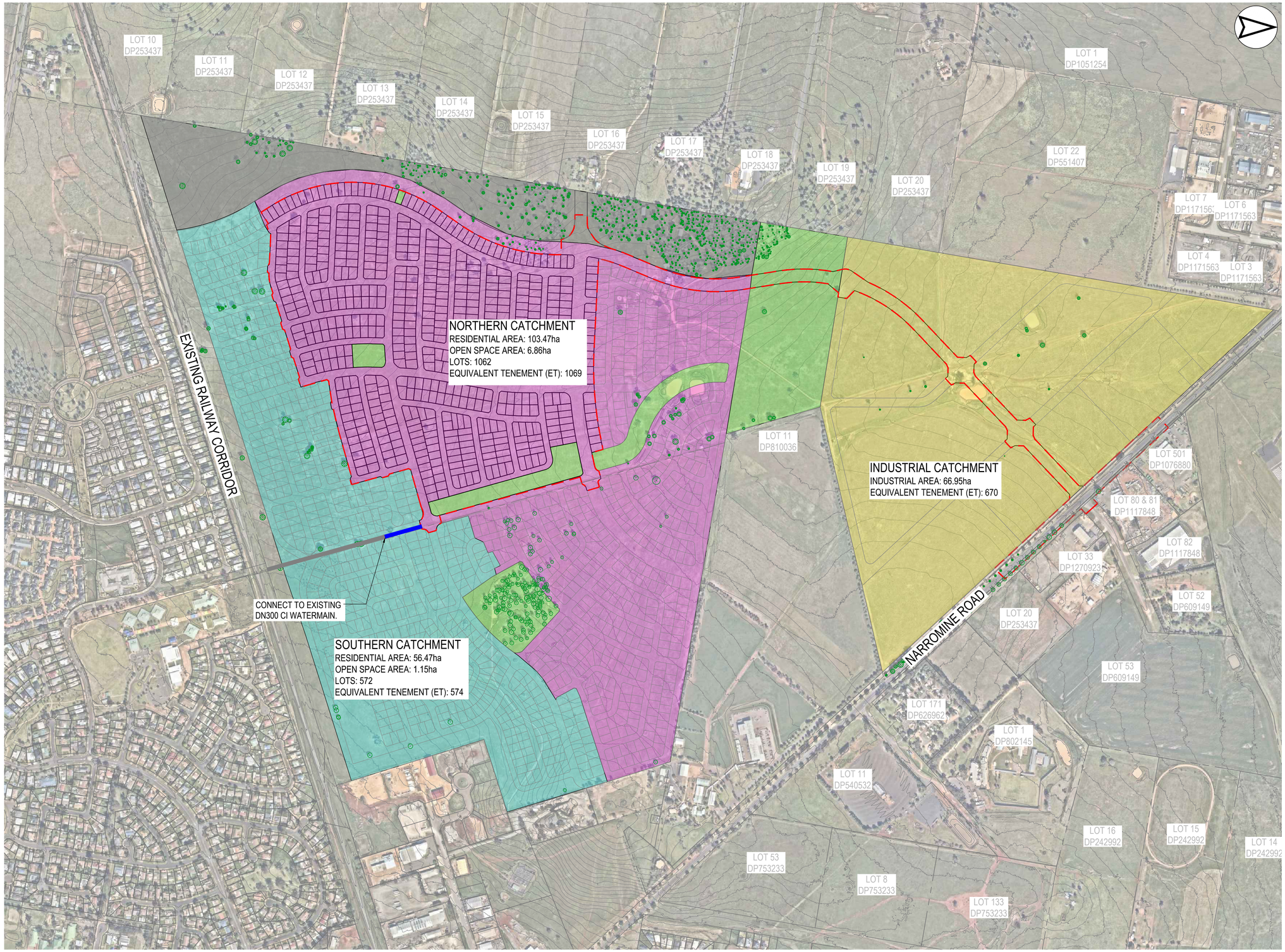
DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00357-00-SK044		A1	2

James Agustin, 7/13/2022 4:57 PM

C:\12dS\data\12DSYNERGY\MKR00357 13L Narromine Rd, Dubbo_42\02 Design\Drawings\00 Sketches\MKR00357-00-SK044.dwg

APPENDIX C

POTABLE WATER CATCHMENT LAYOUT PLAN



LEGEND

PROPOSED
- LOT BOUNDARY
- STAGING BOUNDARY

EXISTING
- LOT BOUNDARY
- 320 CONTOURS (1.0m)
- EASEMENT
- E ELECTRICAL ABOVE GROUND
- TREE (TO BE RETAINED)
- TREE (TO BE REMOVED)

FUTURE
- LOT BOUNDARY
- OPEN SPACE
- NORTHERN CATCHMENT RESIDENTIAL
- SOUTHERN CATCHMENT RESIDENTIAL
- INDUSTRIAL CATCHMENT
- FUTURE DEVELOPMENT
- PROPOSED POTABLE WATER CONNECTION

REV	DATE	DESCRIPTION	AMD BY	APP BY
2	13.07.22	REISSUED FOR INFORMATION	JMA	RXT
1	01.07.22	ISSUED FOR INFORMATION	JMN	RXT

0 50 100 150 200 250m
SCALE 1:5000 AT ORIGINAL SIZE

MAKER ENG
SURVEY DESIGN DELIVER

DRAWN: J.NEWELL	DESIGNED: H.SMITH
DRAFT CHECK: J.AGUSTIN	DESIGN CHECK: J.AGUSTIN
APPROVED: R.THOMSON	

NOT FOR CONSTRUCTION

CLEARMONT RISE DUBBO
CONCEPT MASTERPLAN
POTABLE WATER CATCHMENT LAYOUT PLAN

DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00357-00-SK045		A1	2

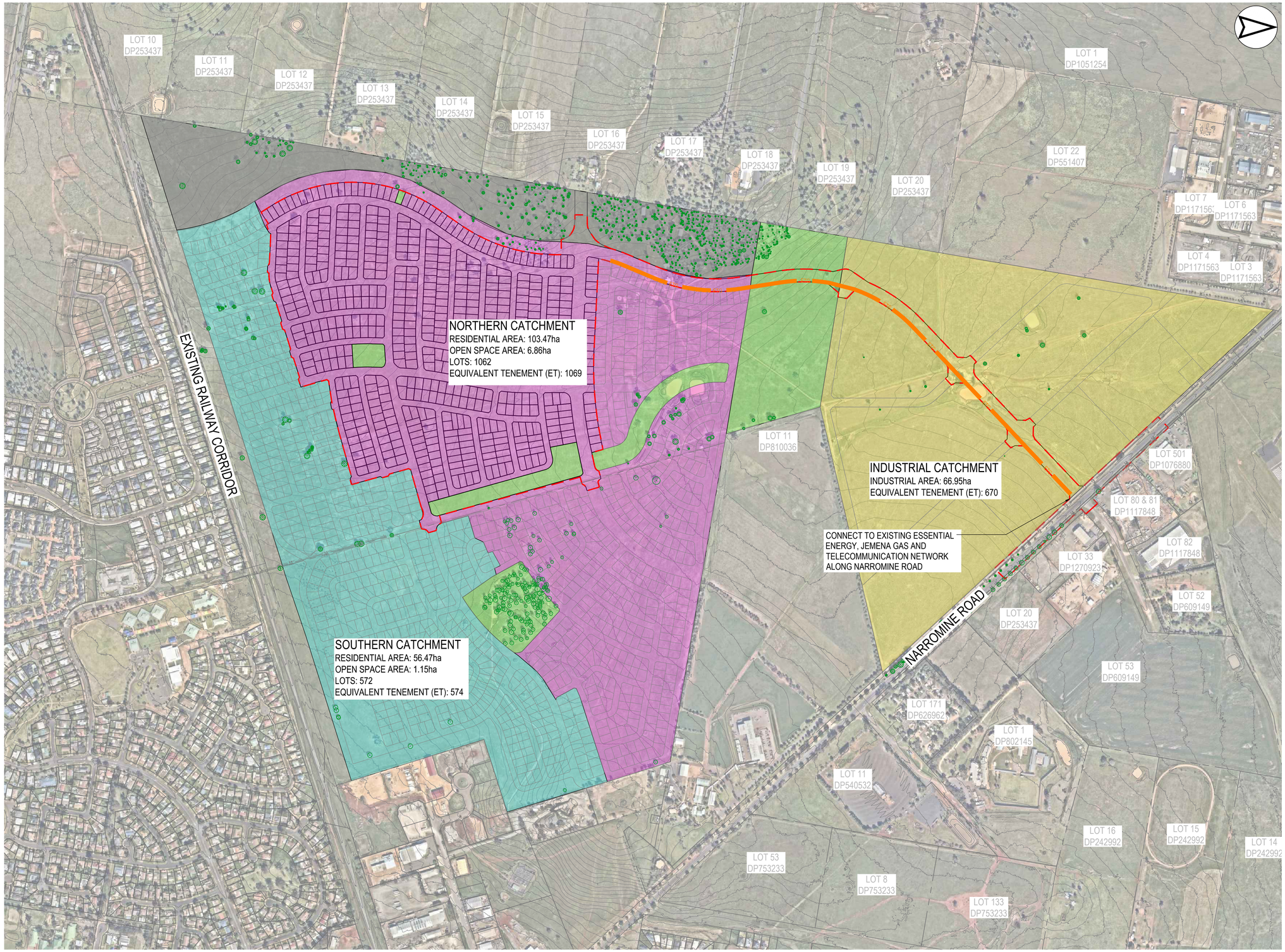
James Agustin, 7/13/2022 5:02 PM

C:\12dS\data\12DSYNERGY\MKR00357 13L Narromine Rd, Dubbo_4Z\02 Design\Drawings\00 Sketches\MKR00357-00-SK045.dwg

APPENDIX D

ELECTRICAL, GAS AND TELECOMMUNICATIONS LAYOUT PLAN

MAKER ENG



LEGEND

PROPOSED

- LOT BOUNDARY
- STAGING BOUNDARY

EXISTING

- LOT BOUNDARY
- CONTOURS (1.0m) (320)
- EASEMENT
- ELECTRICAL ABOVE GROUND (E)
- TREE (TO BE RETAINED)
- TREE (TO BE REMOVED)

FUTURE

- LOT BOUNDARY
- OPEN SPACE
- NORTHERN CATCHMENT RESIDENTIAL
- SOUTHERN CATCHMENT RESIDENTIAL
- INDUSTRIAL CATCHMENT
- FUTURE DEVELOPMENT
- PROPOSED ELECTRICAL, GAS AND TELECOMMUNICATIONS CONNECTION (ETG)

REV	DATE	DESCRIPTION	AMD BY	APP BY
2	13.07.22	REISSUED FOR INFORMATION	JMA	RXT
1	01.07.22	ISSUED FOR INFORMATION	JMN	RXT

0 50 100 150 200 250m

SCALE 1:5000 AT ORIGINAL SIZE

MAKER ENG
SURVEY DESIGN DELIVER

DRAWN: J.NEWELL	DESIGNED: H.SMITH
DRAFT CHECK: J.AGUSTIN	DESIGN CHECK: J.AGUSTIN
APPROVED: R.THOMSON	

NOT FOR CONSTRUCTION

CLEARMONT RISE DUBBO
CONCEPT MASTERPLAN
ELECTRIAL GAS AND TELECOMMUNICATIONS LAYOUT PLAN

DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00357-00-SK046		A1	2

James Agustin, 7/13/2022 5:09 PM

C:\12dS\data\12DSYNERGY\MKR00357 13L Narromine Rd, Dubbo_42\02 Design\Drawings\00 Sketches\MKR00357-00-SK046.dwg

Office Locations

Maker ENG
Wollongong Office
Floor 4, 25 Atchison Street
Wollongong NSW 2500
P: 02 4288 4401

Maker ENG VIC
Torquay Office
4/110 Geelong Road
Torquay VIC 3228

www.makereng.com.au

Management Systems

Quality and safety are extremely important to Maker ENG and as such we are certified to the following Australian Standards:

- ISO 9001:2015 Quality Management Systems
- ISO 45001:2018 Occupational Health and Safety Management Systems
- ISO 14001:2015 Environmental Management Systems

MAKER ENG