SIMFORIA
ENGINEERING | PROJECT MANAGEMENT

BCC DS
RECEIVED
08-11-2026
APPLICATION REF
A007147809

Engineering Services Report

Proposed Residential Subdivision (2 Lots into 2 Lots)

93 & 95 Quarry Road, Sherwood QLD 4075

CLIENT	Amelior Development Services
JOB NUMBER	C260027
REVISION	2
DATE	6 November 2026

SIMFORIA | 1300 716 442 | mail@simforia.com.au | simforia.com.au

Report Control Sheet

DOCUMENT	C260027.ESR.V2
PROJECT	Proposed Residential Subdivision (2 Lots into 2 Lots)
SITE	93 & 95 Quarry Road, Sherwood QLD 4075
LOT & PLAN	Lots 15 and 16 on RP29591
CLIENT	Amelior Development Services
LOCAL GOVERNMENT	Brisbane City Council
PREPARED BY	Angelica Nino
CERTIFIED BY	Max Hooper — RPEQ 16633
SIGNED	
DATE	6 November 2026

Table 1 — Revision History

Rev	Date	Description	Prepared	Certified
1	10.09.2026	Issued for DA lodgement	AN	MH
2	06.11.2026	Revised for DA lodgement	AN	MH
3				

Disclaimer

This report is a professional opinion based on the information available at the time of writing. It is not intended as a quote, guarantee or warranty and does not cover any latent defects. This report has been prepared specifically for Amelior Development Services (the Client), the site and the project, solely for the purpose of providing engineering advice to the Client and Council for this development site. The recommendations within this report are based on information current at the time of issue. This report is issued in confidence for the sole use of the Client and the assessing authority and must not be reproduced or distributed, in whole or in part, without the written consent of Simforia Pty Ltd.

Table of Contents

1 Introduction 5
1.1 Background 5
1.2 Existing Site 5
1.3 Existing Topography 6
1.4 Proposed Development 6
2 Earthworks 8
2.1 Earthworks Design 8
2.2 Retaining Walls 8
2.3 Geotechnical Background 8
2.4 Fire Ants 8
2.5 Erosion & Sediment Control 8
3 Stormwater Management 10
3.1 Flooding 10
3.2 Stormwater Drainage 10
3.3 Upstream Stormwater Considerations 11
3.4 Stormwater Quality 11
3.5 Lawful Point of Discharge 11
4 Sewerage 12
4.1 Existing Sewerage 12
4.2 Proposed Sewerage 12
5 Water Supply 14
5.1 Existing Water Supply 14
5.2 Proposed Water Supply 14
5.3 Fire Hydrant Spacing 15
6 Access 16
6.1 Existing Access 16
6.2 Proposed Access 16
7 Electricity and Gas 17
7.1 Existing Supply 17
7.2 Proposed Supply 17
7.3 Gas 17
8 Communications 18
8.1 Existing Communications 18
8.2 Proposed Communications 18
9 Conclusion 19

Appendices

Appendix A — Development Site Plans

Appendix B — Detailed Site Survey

Appendix C — Architectural Example

Appendix D — Concept Civil Engineering Plans

Appendix E — Before You Dig Australia (BYDA) Records

Appendix F — Erosion Hazard Assessment (EHA)

Appendix G — BCC Code Responses

List of Tables

Table 1 — Revision History 2
Table 2 — Site Details 6

List of Figures

Figure 1 — Site Locality (Source: BCC Interactive Mapping) 5
Figure 2 — Proposed Plan of Development (Source: Lawson Surveys) 7
Figure 3 — Proposed Stormwater Drainage Strategy (Source: Simforia Concept Plans) 10
Figure 4 — Existing Sewerage Network (Source: Urban Utilities BYDA Response) 12
Figure 5 — Proposed Sewerage Servicing Strategy (Source: Simforia Concept Plans) 13
Figure 6 — Existing Water Network (Source: Urban Utilities GIS) 14
Figure 7 — Proposed Water Supply Strategy (Source: Simforia Concept Plans) 15
Figure 8 — Fire Hydrant Coverage (Source: Lawson Surveys, annotated by Simforia) 15
Figure 9 — Existing Site Access Location (Source: Google Street View) 16
Figure 10 — Existing Energex Infrastructure (Source: BYDA) 17
Figure 11 — Existing Telstra Network (Source: BYDA) 18
Figure 12 — Existing NBN Network (Source: BYDA) 18

1 Introduction

1.1 Background

Simforia Pty Ltd has been engaged by Amelior Development Services to prepare an Engineering Services Report in support of a Development Permit application for the Proposed Residential Subdivision (2 Lots into 2 Lots) at 93 & 95 Quarry Road, Sherwood.

The subject site is situated in the suburb of Sherwood within the Brisbane City Council (BCC) local government area. The site is zoned Character Residential (Character) and is formally described as Lots 15 and 16 on RP29591.

This report has been prepared to demonstrate that the proposed development can be adequately serviced by the required infrastructure. The report also intends to satisfy the requirements of the Brisbane City Council planning scheme (Brisbane City Plan 2014) and relevant development codes.

Refer to Figure 1 below which shows the location of the site.



Figure 1 — Site Locality (Source: BCC Interactive Mapping)

1.2 Existing Site

The subject site has a total area of approximately 824 m² and is formally described as Lots 15 and 16 on RP29591.

The site is bounded by Quarry Road on the south, Dewar Terrace on the west and adjoining residential allotments on the north and east.

The subject site has frontages of approximately 20 m to Quarry Road and 41.3 m to Dewar Terrace. Both Quarry Road and Dewar Terrace are classified as Neighbourhood roads.

The subject site is occupied by one (1) existing detached dwelling located towards the southern boundary, which straddles the common boundary between Lots 15 and 16. Access to the dwelling is provided via an existing driveway from Dewar Terrace. The northern half of the site

contains an in-ground swimming pool, an existing outbuilding, grassed areas and several established trees.

Item	Description
Real Property Description	Lots 15 and 16 on RP29591
Site Area	824 m²
Local Government Area	Brisbane City Council
Zoning	Character Residential (CR1 Character)
Existing Land Use	Detached dwelling
Proposed Land Use	Residential (2 lots)

Table 2 — Site Details

1.3 Existing Topography

Overall, the site falls approximately 7 m from about RL 35.4 along the Quarry Road boundary to about RL 28.0 in the north-eastern corner. The site topography is characterised by a series of terraced levels separated by retaining walls. From the southern boundary, the land slopes at approximately 15.8% towards the central portion of the site, where a retaining wall of approximately 1.5 m in height creates a level transition. A relatively flat area of approximately 75 m² is located within the central section of the lot and accommodates the existing swimming pool.

A second retaining wall, approximately 1.0 m high, is located along the edge of the pool area. From the base of this retaining wall, the land slopes at approximately 14% towards the northern boundary. Within the north-eastern corner of the site, a third retaining wall of approximately 0.7 m in height is located approximately 10 m from the northern boundary, beyond which the land falls at approximately 7.9%.

Refer to the detailed site survey included in Appendix B.

1.4 Proposed Development

It is proposed to seek a Development Permit from Brisbane City Council for the Proposed Residential Subdivision (2 Lots into 2 Lots).

The proposal realigns the common boundary between existing Lots 15 and 16, which currently runs north–south, to run east–west. This creates two lots of approximately 412 m² each:

- Proposed Lot 1 (northern lot), with a 20.67 m frontage to Dewar Terrace. The existing pool and outbuilding on this lot are to be removed.
- Proposed Lot 2 (southern corner lot), with frontages of 20.0 m to Quarry Road and 20.67 m to Dewar Terrace. The existing dwelling is to be relocated and repositioned within this lot in accordance with Development Approval A006996566.

Please refer to Figure 2 below and Appendix A for the proposed plan of development.

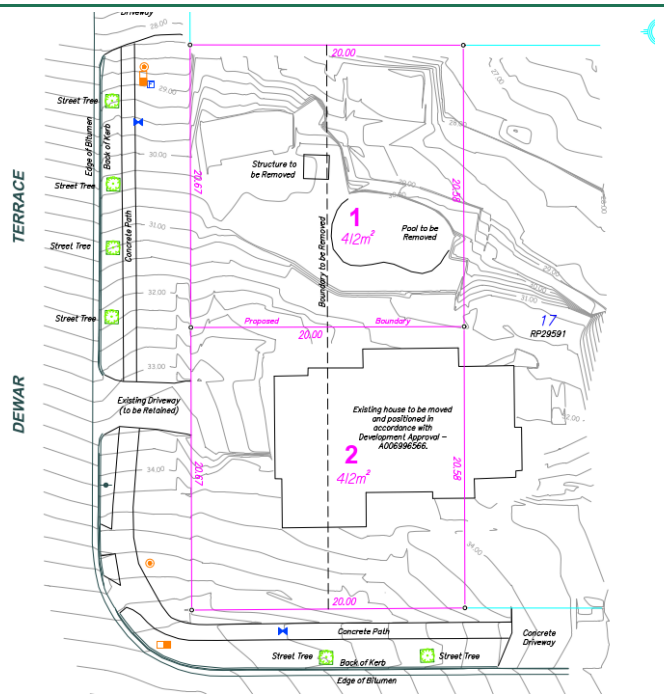


Figure 2 — Proposed Plan of Development (Source: Lawson Surveys)

2 Earthworks

2.1 Earthworks Design

No bulk earthworks are proposed as part of the reconfiguration. The site already comprises a series of terraced levels separated by retaining walls, so future dwellings can be designed to respond to the existing terrain rather than requiring significant modification of the landform. An example of a suitable dwelling for proposed Lot 1 is included in Appendix C and demonstrates how future development can be accommodated within the site's existing topographic constraints.

The only earthworks associated with the development are the demolition of the existing in-ground swimming pool on proposed Lot 1 and the backfilling of the pool void. The backfill will be placed and compacted under Level 1 inspection and testing in accordance with AS 3798, leaving the lot suitable for a future dwelling.

The existing dwelling is to be relocated within proposed Lot 2 in accordance with Development Approval A006996566. Works associated with the relocation are the subject of that separate approval.

2.2 Retaining Walls

No new retaining walls are proposed as part of the reconfiguration. The existing retaining walls described in Section 1.3 are to be retained. Care will be taken during the pool demolition to avoid undermining the adjacent 1.0 m retaining wall. Any retaining walls required for future dwellings will be designed and certified by a suitably qualified RPEQ as part of the future building works.

2.3 Geotechnical Background

At the time of preparing this report, a geotechnical investigation had not yet been undertaken.

Inspection and testing of the pool backfill will be undertaken by a geotechnical inspection and testing authority (GITA). Site classification, footing design for future dwellings and the design of any new retaining walls will be informed by a geotechnical investigation undertaken as part of the future building works.

The development site is not located within Council's Potential and actual acid sulfate soils overlay.

2.4 Fire Ants

According to the Queensland Government Department of Primary Industries, the subject site is located within Fire Ant Biosecurity Zone 2.

Any movement of soil off the site must comply with the requirements of the Biosecurity Act 2014.

2.5 Erosion & Sediment Control

During the pool demolition and backfilling, and during future construction works, suitable erosion and sediment control (ESC) measures will be required to protect the downstream receiving environment.

A detailed ESC program will be prepared, established, and maintained in accordance with International Erosion Control Association (IECA) and Brisbane City Council standards. The ESC design and program is to be undertaken prior to the construction phase of the project. It will be the responsibility of the principal contractor to implement, maintain and update, as necessary.

An Erosion Hazard Assessment has been prepared for the site in accordance with Brisbane City Council requirements (refer to Appendix F). The site is assessed as a medium risk site, as it contains slopes steeper than 5% but involves less than 1 ha of land disturbance. Accordingly, if the development is approved, an ESC Program and Plan will be prepared by an RPEQ or CPESC in accordance with the Infrastructure design planning scheme policy.

3 Stormwater Management

All stormwater drainage design will be undertaken in accordance with the requirements of the Queensland Urban Drainage Manual (QUDM) and Brisbane City Council Planning Scheme Policies.

3.1 Flooding

According to Brisbane City Plan 2014 v37, the site is not affected by river, creek and/or overland flow flooding.

3.2 Stormwater Drainage

Each proposed lot will be provided with its own connection to the kerb and channel in Dewar Terrace:

- Lot 1: a 450 × 450 mm grated field inlet near the north-western corner of the lot, discharging via a 75 × 125 mm galvanised RHS outlet to a full-height kerb adaptor in accordance with BCC Standard Drawing BSD-8114. Roof water from a future dwelling will connect to this outlet.
- Lot 2: a 450 × 450 mm grated field inlet near the western boundary, discharging via a 75 × 125 mm galvanised RHS outlet to a full-height kerb adaptor in accordance with BSD-8114. Roof water from the relocated dwelling will connect to this outlet.

The lower north-eastern part of Lot 1 (approximately RL 28.0) sits below the Dewar Terrace kerb and will continue to drain by overland flow to the north-east, as it does now. Because roof water from the future dwelling will be piped to Dewar Terrace, flows to the downstream properties will not increase.

Refer to Figure 3 and the Concept Services Layout Plan in Appendix D.

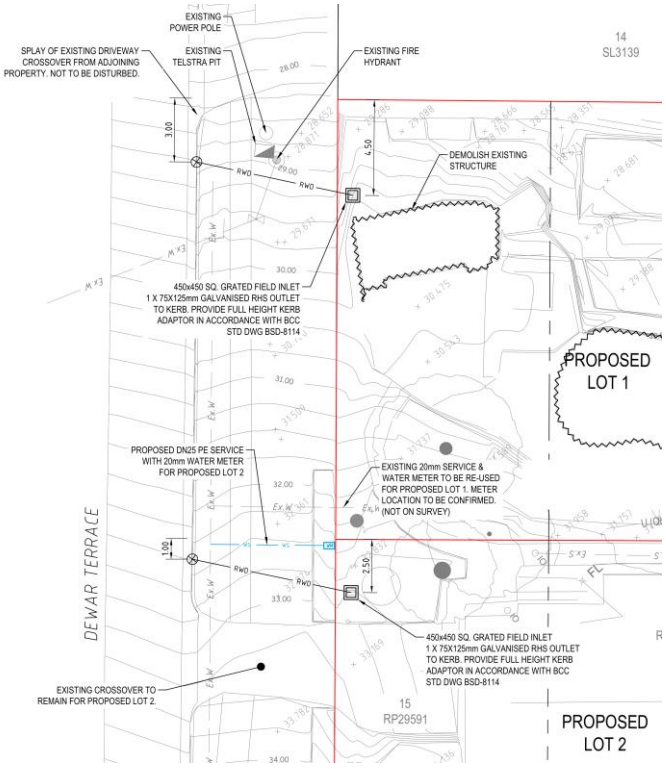


Figure 3 — Proposed Stormwater Drainage Strategy (Source: Simforia Concept Plans)

3.3 Upstream Stormwater Considerations

Quarry Road and Dewar Terrace are kerbed along the southern and western frontages, the adjoining lot to the east falls northwards parallel to the common boundary, and the land to the north is lower than the site. An upstream stormwater connection is therefore not required.

3.4 Stormwater Quality

The State Planning Policy (2017) Appendix 2 Table B advises that the post-construction phase Stormwater Management Design Objectives apply to development applications which involve any of the following:

- A material change of use for an urban purpose that involves premises 2,500 m² or greater in size and:
  - will result in an impervious area greater than 25 per cent of the net developable area, or
  - will result in six or more dwellings, or
- Reconfiguring a lot for urban purposes that involves a land area 2,500 m² or greater and will result in six or more lots.
- Operational works for an urban purpose that involves disturbing a land area 2,500 m² or greater in size.

As the proposed development is less than 2,500 m² and results in fewer than six lots/dwellings, it will not be required to provide specific stormwater quality improvement devices to meet the target pollutant load reductions listed in Table B of the State Planning Policy, Appendix 2.

3.5 Lawful Point of Discharge

The Queensland Urban Drainage Manual (QUDM) 4th Edition 2016 defines a lawful point of discharge test that can be used to assess whether a discharge point exists at a particular location, consisting of:

- The location of the discharge is under the lawful control of the local government or other statutory authority from whom permission to discharge has been received. This will include a park, drainage or road reserve, or stormwater drainage easement.
- The discharge location will not cause an actionable nuisance for which the current or future neighbouring property owner may bring an action or claim for damages arising out of the nuisance or environmental or property damage.

The lawful point of discharge for both proposed lots is the kerb and channel in Dewar Terrace, within the road reserve under Council's control. Each lot discharges through its own kerb adaptor, conveying stormwater directly into the road reserve without causing an actionable nuisance to neighbouring properties.

4 Sewerage

4.1 Existing Sewerage

The nearest Urban Utilities sewer is a 150 mm asbestos cement (AC) reticulation main, which runs north–south along the rear of the Dewar Terrace properties and terminates at a manhole at the rear of 85 Quarry Road (Lot 20 RP29591), approximately 30 m east of the site. An existing 100 mm property connection (PC185435) extends approximately 25 m south-west from this manhole and terminates within Lot 17 RP29591 (91 Quarry Road), approximately 9 m east of the site.

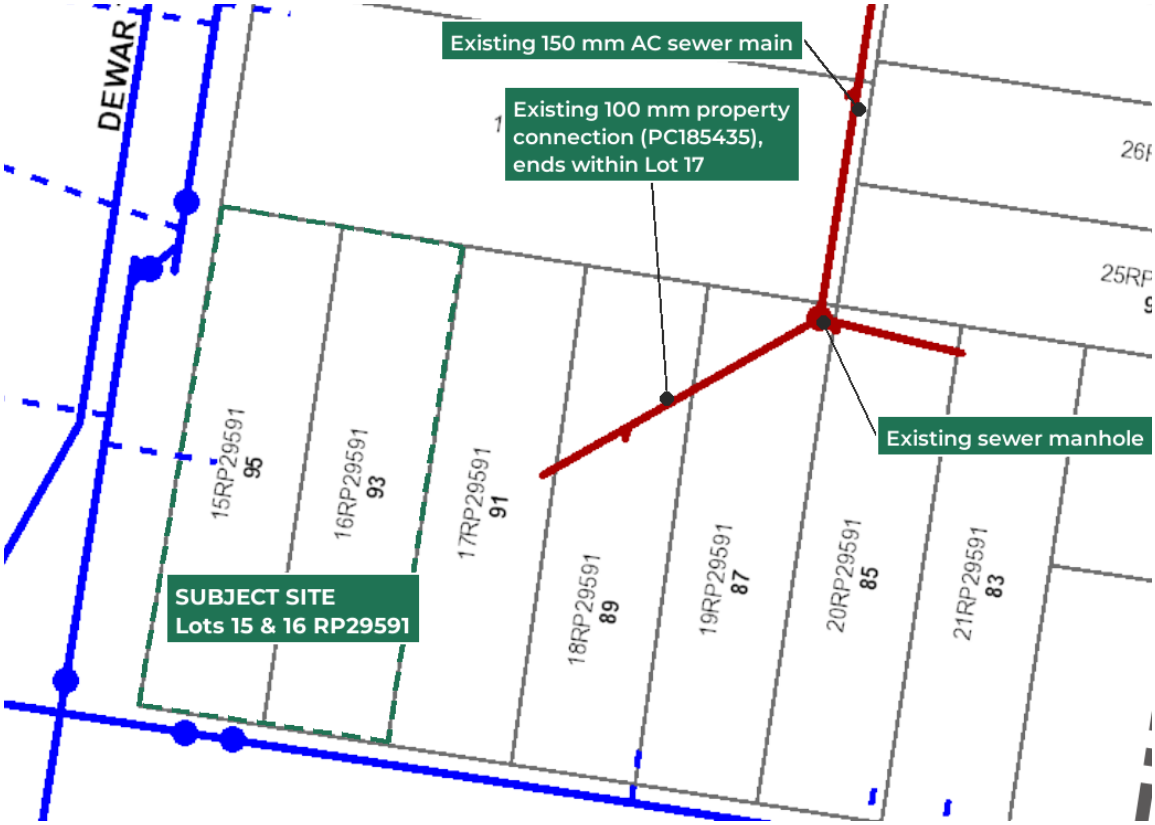


Figure 4 — Existing Sewerage Network (Source: Urban Utilities BYDA Response)

4.2 Proposed Sewerage

It is proposed to service both lots via a new DN110 PE 'twin' property connection, made on the existing property connection (PC185435) within Lot 17 RP29591 and extended approximately 9 m west into the site, where it branches to provide a connection point for each of Lots 1 and 2. PC185435 will continue to service Lot 17.

This arrangement is subject to design variation approval from Urban Utilities.

As the development does not increase the number of lots, the existing sewerage network is expected to have adequate capacity.

Refer to Figure 5 and the Concept Services Layout Plan in Appendix D.

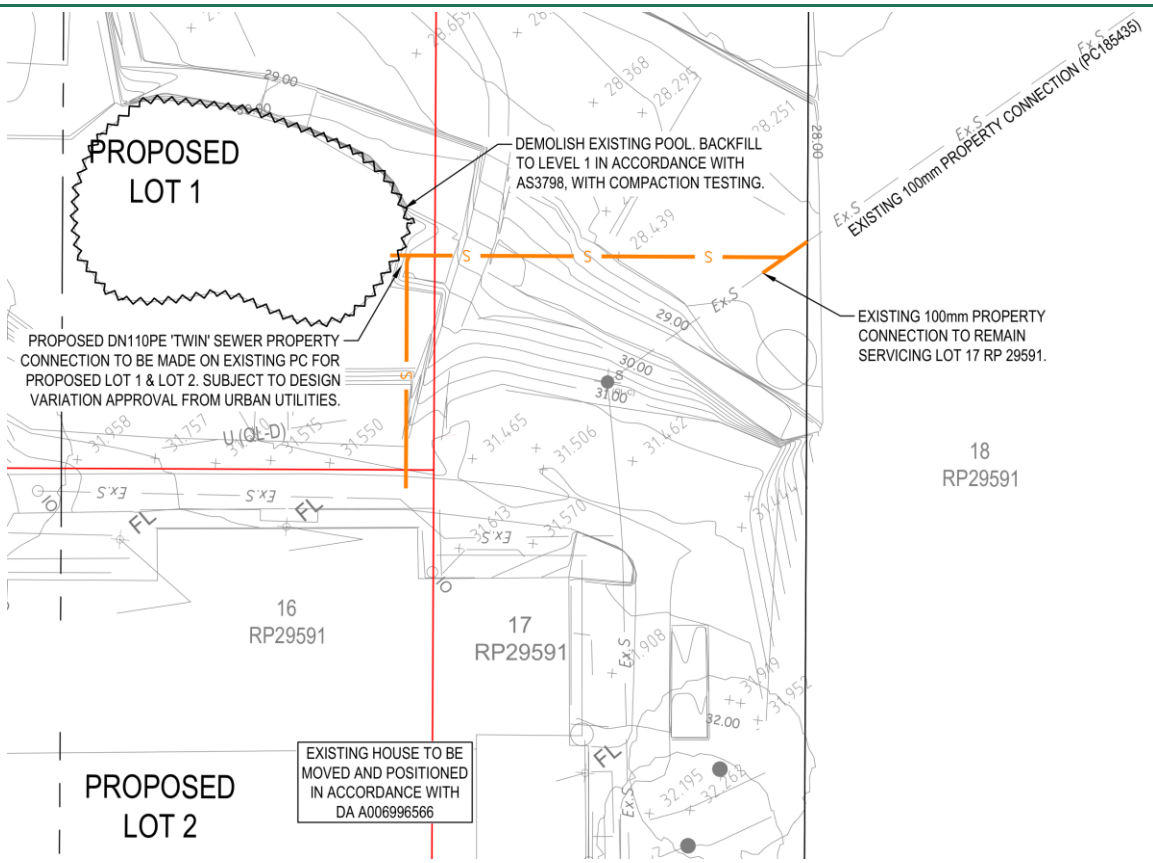


Figure 5 — Proposed Sewerage Servicing Strategy (Source: Simforia Concept Plans)

5 Water Supply

5.1 Existing Water Supply

An existing 150 mm cast iron water main is located along the southern boundary of the site within the northern verge of Quarry Road. Another 150 mm cast iron water main is located along the western boundary of the site within the eastern verge of Dewar Terrace. An existing 20 mm water service connection is provided from the Dewar Terrace water main to service the subject site.



Figure 6 — Existing Water Network (Source: Urban Utilities GIS)

5.2 Proposed Water Supply

Each lot will have its own water service from the 150 mm main in Dewar Terrace:

- Lot 1: the existing 20 mm water service and meter, which currently enter the site within this lot, will be retained and reused.
- Lot 2: a new DN25 PE service with a 20 mm water meter will be provided just south of the common boundary to serve the relocated dwelling.

As the development does not increase the number of lots, the existing water supply network is expected to have adequate capacity.

Refer to Figure 7 and the Concept Services Layout Plan in Appendix D.

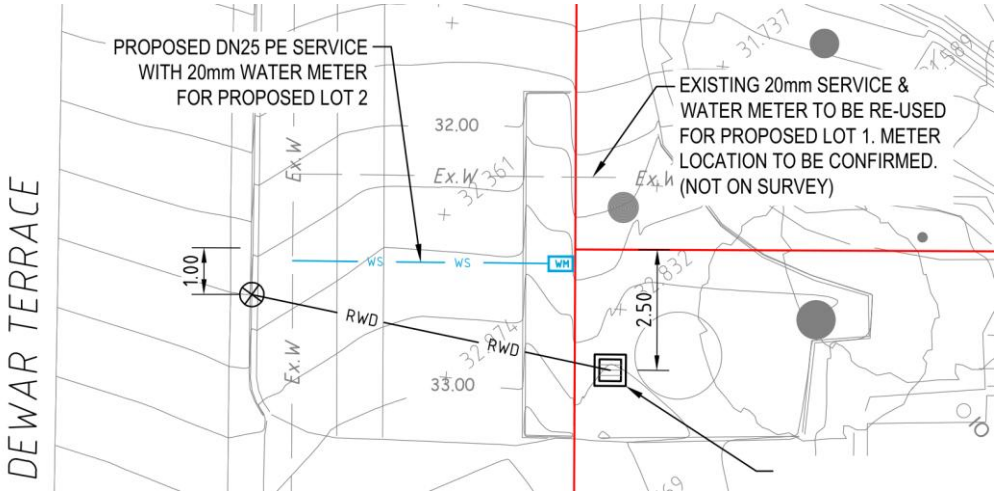


Figure 7 — Proposed Water Supply Strategy (Source: Simforia Concept Plans)

5.3 Fire Hydrant Spacing

Hydrant coverage has been assessed against Clause 8.8.8 (Hydrant spacing) of the SEQ Water Supply and Sewerage Design & Construction Code, which requires a maximum hydrant spacing of 80 m, measured along the main or as the hose is laid.

An existing fire hydrant is located in the eastern verge of Dewar Terrace, adjacent to the north-western corner of Lot 1. As the hose is laid, the furthest point of Lot 1 is approximately 41 m from this hydrant, and the furthest point of Lot 2 is approximately 63 m via the Dewar Terrace and Quarry Road verges (Figure 8). Both lots are therefore within the required coverage of an existing hydrant.

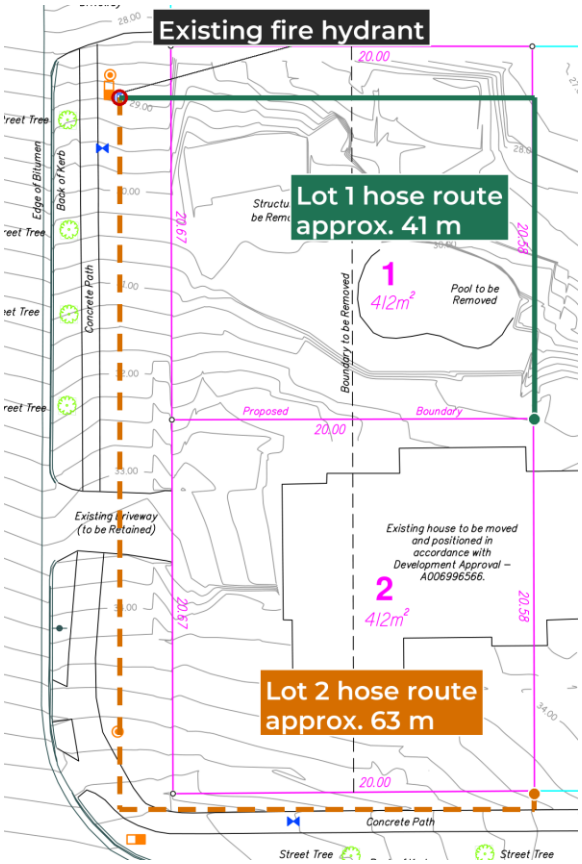


Figure 8 — Fire Hydrant Coverage (Source: Lawson Surveys, annotated by Simforia)

6 Access

6.1 Existing Access

The development site currently has provisions for access from its Dewar Terrace frontage, as shown in the figure below.

The existing crossover provides access to the existing dwelling and will be retained for proposed Lot 2.



Figure 9 — Existing Site Access Location (Source: Google Street View)

6.2 Proposed Access

Proposed Lot 1 will require a new vehicle crossover from its 20.67 m Dewar Terrace frontage. The northern end of this frontage contains an existing fire hydrant, Telstra pit, power pole and the splay of the adjoining property's driveway, so the crossover is expected to be located towards the southern end of the frontage, as indicated on the example dwelling plans in Appendix C. The crossover will be designed and constructed with the future dwelling, by others, in accordance with Brisbane City Council's standard drawings.

7 Electricity and Gas

7.1 Existing Supply

Energex infrastructure mapping confirms overhead electricity is present along the eastern side of Dewar Terrace, with two power poles (P7399-D and P17006-H) located along the development site frontage.

The full BYDA response is included in Appendix E.



Figure 10 — Existing Energex Infrastructure (Source: BYDA)

7.2 Proposed Supply

It is envisaged that each lot can be connected to the existing overhead network in Dewar Terrace. A suitable Energex accredited electrical engineer should be consulted during the detailed design phase of the project to confirm any alterations or additions.

7.3 Gas

APA's BYDA response confirms gas mains in the eastern verge of Dewar Terrace and the northern verge of Quarry Road, along both site frontages. Gas connections, if required, can be made to these mains. Works near the gas mains, including the new service connections and crossover, will be carried out in accordance with APA's Guidelines for Works Near Existing Gas Assets.

8 Communications

8.1 Existing Communications

According to the Before You Dig Australia (BYDA) records, Telstra conduits run in the eastern verge of Dewar Terrace and the northern verge of Quarry Road, and NBN conduits and pits are located in the northern verge of Quarry Road near the Dewar Terrace intersection, as shown in the figures below.

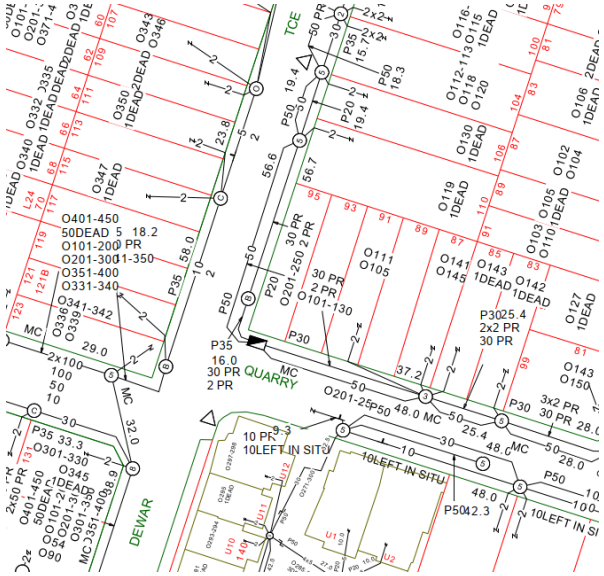


Figure 11 — Existing Telstra Network (Source: BYDA)

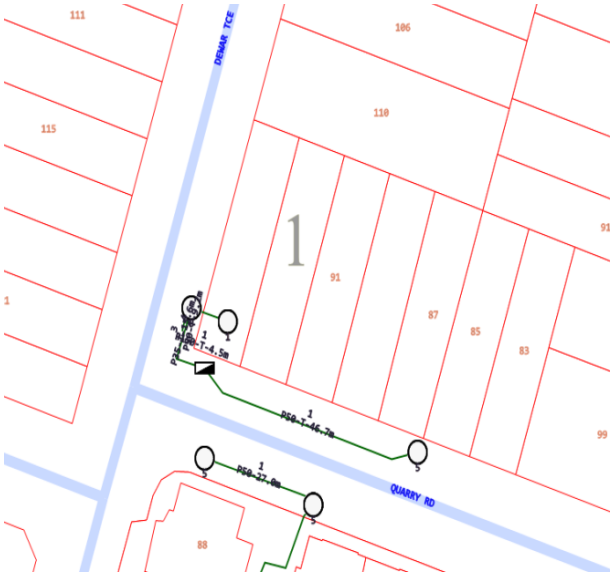


Figure 12 — Existing NBN Network (Source: BYDA)

8.2 Proposed Communications

It is anticipated that the existing dwelling on Lot 2 can continue to be serviced from the existing infrastructure, and that a new connection can be provided for Lot 1 as required. Further consultation should be undertaken in due course with NBN and Telstra to confirm if any alterations or additions are required.

9 Conclusion

This Engineering Services Report has been prepared in support of a Development Permit application for the Proposed Residential Subdivision (2 Lots into 2 Lots) at 93 & 95 Quarry Road, Sherwood.

Based on the investigations undertaken and the concept servicing assessments completed, it is considered that the proposed development can be adequately serviced by existing and proposed infrastructure and can be developed in accordance with the relevant requirements of Brisbane City Council.

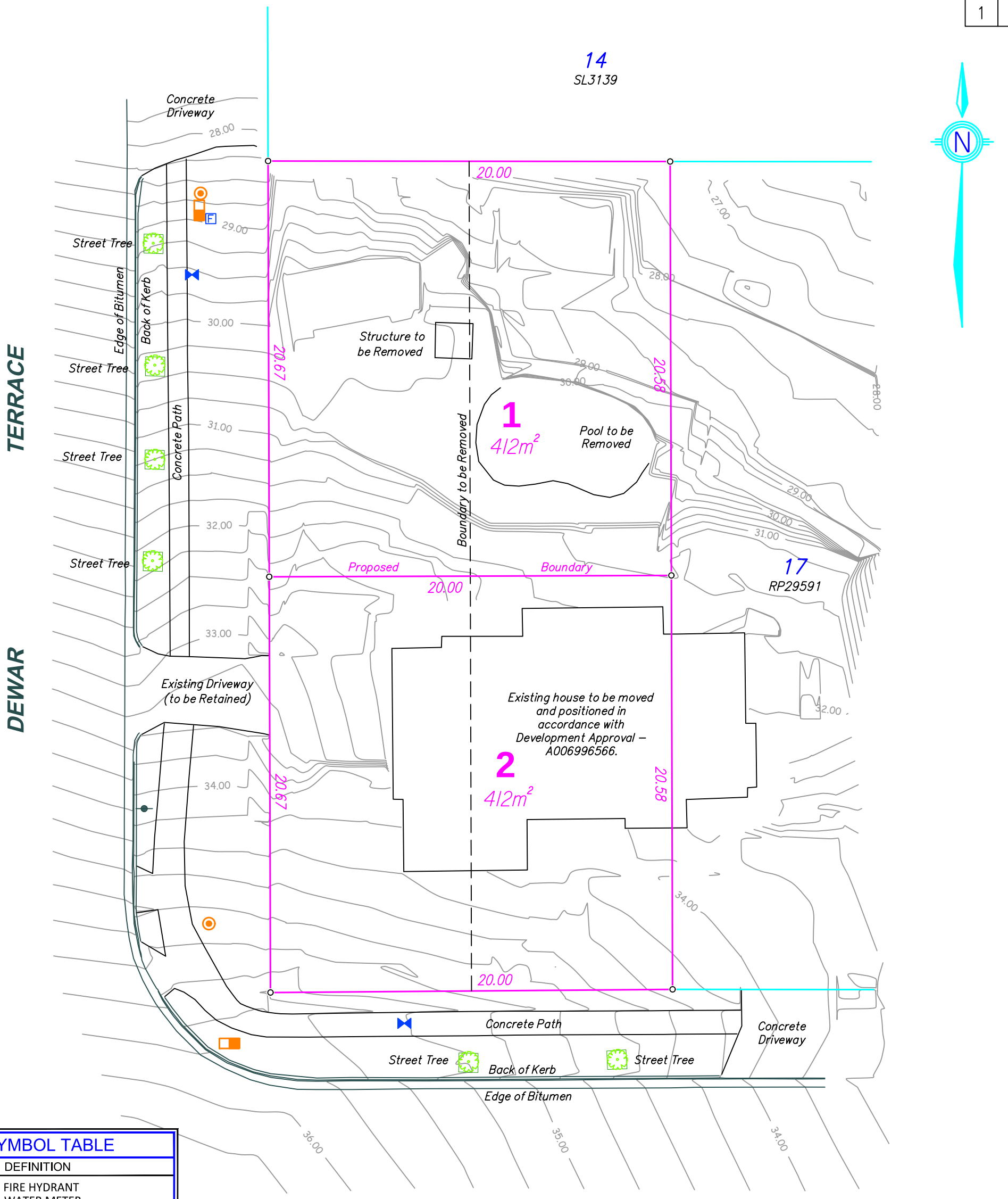
Key findings of this assessment are summarised below:

- No bulk earthworks are proposed. The only earthworks are the demolition and backfilling of the existing pool on Lot 1, which will be compacted under Level 1 inspection and testing in accordance with AS 3798. No new retaining walls are proposed. The site is assessed as a medium erosion hazard risk, and an ESC Program and Plan will be prepared by an RPEQ or CPESC.
- The site is not affected by river, creek or overland flow flooding. Each lot will discharge to the kerb and channel in Dewar Terrace, the lawful point of discharge, via its own field inlet and kerb adaptor.
- Both lots will be serviced via a new DN110 PE twin property connection made on the existing property connection (PC185435), subject to design variation approval from Urban Utilities. As the number of lots does not increase, the existing sewer network is expected to have adequate capacity.
- Lot 1 will reuse the existing 20 mm water service and meter, and Lot 2 will be provided with a new DN25 PE service and 20 mm meter from the main in Dewar Terrace. The existing hydrant in Dewar Terrace is approximately 41 m (Lot 1) and 63 m (Lot 2) from the furthest point of each lot as the hose is laid, within the 80 m maximum spacing of the SEQ Code.
- The existing crossover from Dewar Terrace will be retained for Lot 2. A new crossover from Dewar Terrace will be provided for Lot 1 with the future dwelling.
- Electricity, gas and telecommunications infrastructure is available along the site frontages and is expected to adequately service the proposed development. New service connections can be provided as required during the detailed design and construction phases.

Accordingly, the proposed development is considered capable of being adequately serviced and is suitable for approval from an engineering servicing perspective.

Appendix A — Development Site Plans

Sheet 1 of 1



SYMBOL TABLE	
SYMBOL	DEFINITION
F	FIRE HYDRANT
W	WATER METER
	WATER VALVE
	WATER TAP
	COMMUNICATIONS PIT
	COMMUNICATIONS PILLAR
	ELECTRICITY PIT
	ELECTRICITY PILLAR
S	SEWER MANHOLE
D	DRAINAGE MANHOLE
	FIELD INLET/GULLY TRAP
	SIGN POST/BOLLARD

SCALE 1:200 at A3 - Lengths are in metres

0 4 8 12 16 20 24 28 32m

0 100 mm

NOTES

1) DIMENSIONS AND AREAS ARE APPROXIMATE ONLY AND SUBJECT TO FINAL SURVEY.

2) TOTAL AREA OF SUBDIVISION - 824m²

3) CONTOURS AND FEATURES ON THIS PLAN SOURCED FROM DETAIL AND CONTOUR SURVEY PREPARED BY MINSTAFF SURVEY, PROJECT NO B0525, DATED 12/02/2026 AND AERIAL IMAGERY.

© COPYRIGHT PROTECTS THIS PLAN
Unauthorised reproduction or amendment not permitted. Please contact the author.

SUBDIVISION PROPOSAL PLAN

Lots 1 & 2

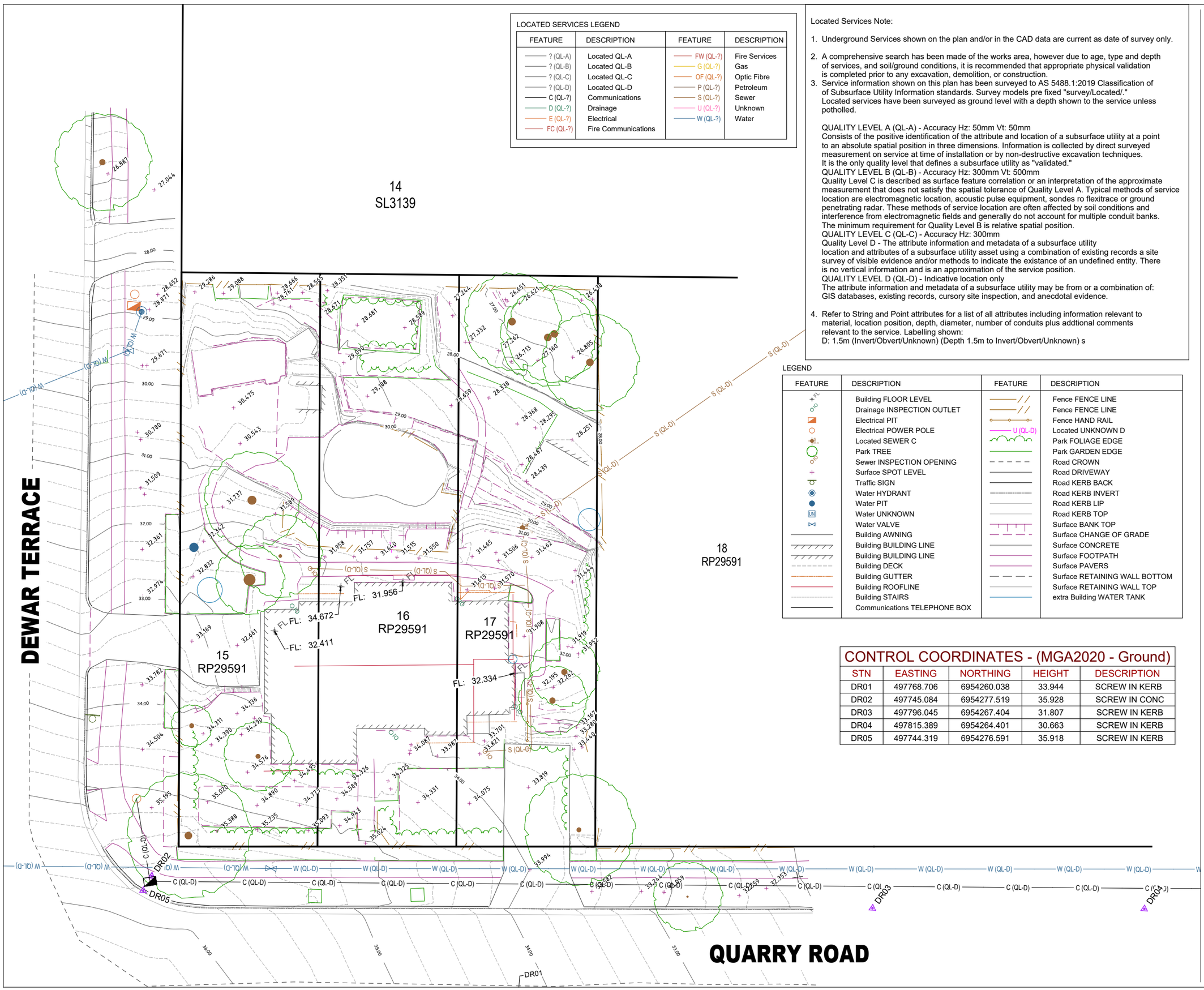
Cancelling Lots 15 & 16 on RP29591

LOCATION 93 & 95 QUARRY ROAD SHERWOOD

LAWSON SURVEYS
A.B.N 46 272 949 047
CONSULTING LAND SURVEYORS
9B / 62 BISHOP STREET
KELVIN GROVE QLD 4059
Ph 07 3352 3326 Fax 07 3352 6991
mail@lawsonsurveys.com.au
www.lawsonsurveys.com.au

LEVEL DATUM	DRAWN	LOCAL AUTHORITY	REFERENCE	ISSUE
AHD - VIDE DETAIL EXISTING DETAIL SURVEY (SEE NOTES)	AB	BRISBANE CITY COUNCIL	22044-PP	B
	DWG 22044-Prop-Base_260807			DATE 11/08/2026

Appendix B — Detailed Site Survey



LOCATED SERVICES LEGEND

FEATURE	DESCRIPTION	FEATURE	DESCRIPTION
? (QL-A)	Located QL-A	FW (QL-?)	Fire Services
? (QL-B)	Located QL-B	G (QL-?)	Gas
? (QL-C)	Located QL-C	OF (QL-?)	Optic Fibre
? (QL-D)	Located QL-D	P (QL-?)	Petroleum
C (QL-?)	Communications	S (QL-?)	Sewer
D (QL-?)	Drainage	U (QL-?)	Unknown
E (QL-?)	Electrical	W (QL-?)	Water
FC (QL-?)	Fire Communications		

Located Services Note:

1. Underground Services shown on the plan and/or in the CAD data are current as date of survey only.
2. A comprehensive search has been made of the works area, however due to age, type and depth of services, and soil/ground conditions, it is recommended that appropriate physical validation is completed prior to any excavation, demolition, or construction.
3. Service information shown on this plan has been surveyed to AS 5488.1:2019 Classification of of Subsurface Utility Information standards. Survey models pre fixed "survey/Located/." Located services have been surveyed as ground level with a depth shown to the service unless pothold led.

   QUALITY LEVEL A (QL-A) - Accuracy Hz: 50mm Vt: 50mm
   Consists of the positive identification of the attribute and location of a subsurface utility at a point to an absolute spatial position in three dimensions. Information is collected by direct surveyed measurement on service at time of installation or by non-destructive excavation techniques.
   It is the only quality level that defines a subsurface utility as "validated."
   QUALITY LEVEL B (QL-B) - Accuracy Hz: 300mm Vt: 500mm
   Quality Level C is described as surface feature correlation or an interpretation of the approximate measurement that does not satisfy the spatial tolerance of Quality Level A. Typical methods of service location are electromagnetic location, acoustic pulse equipment, sondes ro flexitrace or ground penetrating radar. These methods of service location are often affected by soil conditions and interference from electromagnetic fields and generally do not account for multiple conduit banks.
   The minimum requirement for Quality Level B is relative spatial position.
   QUALITY LEVEL C (QL-C) - Accuracy Hz: 300mm
   Quality Level D - The attribute information and metadata of a subsurface utility
   location and attributes of a subsurface utility asset using a combination of existing records a site survey of visible evidence and/or methods to indicate the existance of an undefined entity. There is no vertical information and is an approximation of the service position.
   QUALITY LEVEL D (QL-D) - Indicative location only
   The attribute information and metadata of a subsurface utility may be from or a combination of:
   GIS databases, existing records, cursory site inspection, and anecdotal evidence.

4. Refer to String and Point attributes for a list of all attributes including information relevant to material, location position, depth, diameter, number of conduits plus addtional comments relevant to the service. Labelling shown:
   D: 1.5m (Invert/Obvert/Unknown) (Depth 1.5m to Invert/Obvert/Unknown) s

LEGEND

FEATURE	DESCRIPTION	FEATURE	DESCRIPTION
FL	Building FLOOR LEVEL		Fence FENCE LINE
I/O	Drainage INSPECTION OUTLET		Fence FENCE LINE
	Electrical PIT		Fence HAND RAIL
	Electrical POWER POLE	U (QL-D)	Located UNKNOWN D
	Located SEWER C		Park FOLIAGE EDGE
	Park TREE		Park GARDEN EDGE
S/O	Sewer INSPECTION OPENING		Road CROWN
+	Surface SPOT LEVEL		Road DRIVEWAY
	Traffic SIGN		Road KERB BACK
	Water HYDRANT		Road KERB INVERT
	Water PIT		Road KERB LIP
UN	Water UNKNOWN		Road KERB TOP
	Water VALVE		Surface BANK TOP
	Building AWNING		Surface CHANGE OF GRADE
	Building BUILDING LINE		Surface CONCRETE
	Building BUILDING LINE		Surface FOOTPATH
	Building DECK		Surface PAVERS
	Building GUTTER		Surface RETAINING WALL BOTTOM
	Building ROOFLINE		Surface RETAINING WALL TOP
	Building STAIRS		extra Building WATER TANK
	Communications TELEPHONE BOX		

CONTROL COORDINATES - (MGA2020 - Ground)

STN	EASTING	NORTHING	HEIGHT	DESCRIPTION
DR01	497768.706	6954260.038	33.944	SCREW IN KERB
DR02	497745.084	6954277.519	35.928	SCREW IN CONC
DR03	497796.045	6954267.404	31.807	SCREW IN KERB
DR04	497815.389	6954264.401	30.663	SCREW IN KERB
DR05	497744.319	6954276.591	35.918	SCREW IN KERB

Note:

This plan was prepared as a site contour and detail survey of 91 Quarry Road, Sherwood, QLD and it should not be used for any other purpose.
Lot boundaries were not marked at the time of survey and have been derived from survey plan RP29591 held by DoR.

Services shown hereon have been located by field survey where possible. Prior to any excavation, demolition or construction the relevant authorities should be contacted for locations of underground services if applicable.

Located services shown have been plotted from DBYD records only.

For detailed information please refer to digital models.

Survey File: B0525 30002 001 A.12da & .dwg

This note is an integral part of the plan.

5 0 5

Scale 1 : 250 - Distances are in Metres

N

ISSUE/REVISION

Rev	Date	Revision Details
A	16/02/26	Issued to Client

Minstaff Survey
CONSULTING CADASTRAL ENGINEERING AND MINING SURVEYORS
ABN 35 609 674 875
admin@minstaffsurvey.com
+61 7 4637 9790

CLIENT

Torp Constructions

PROJECT

91 Quarry Road

Lot 15/16/17 on RP29591
91 Quarry Road
Sherwood, QLD

DESCRIPTION

Contour and Detail Survey

PROJECT DATUM

Horizontal Datum : vide IS195259

Level Datum : AHD vide PSM 35064
RL: 46.351

Local Authority : Brisbane City Council

DRAWING INFORMATION

Surveyed :	DR	Project No :	B0525
Drawn :	DR	Ref No :	30002-DS-1
Checked :	SC/SH	Date of Survey :	12/02/26

CONTOURS

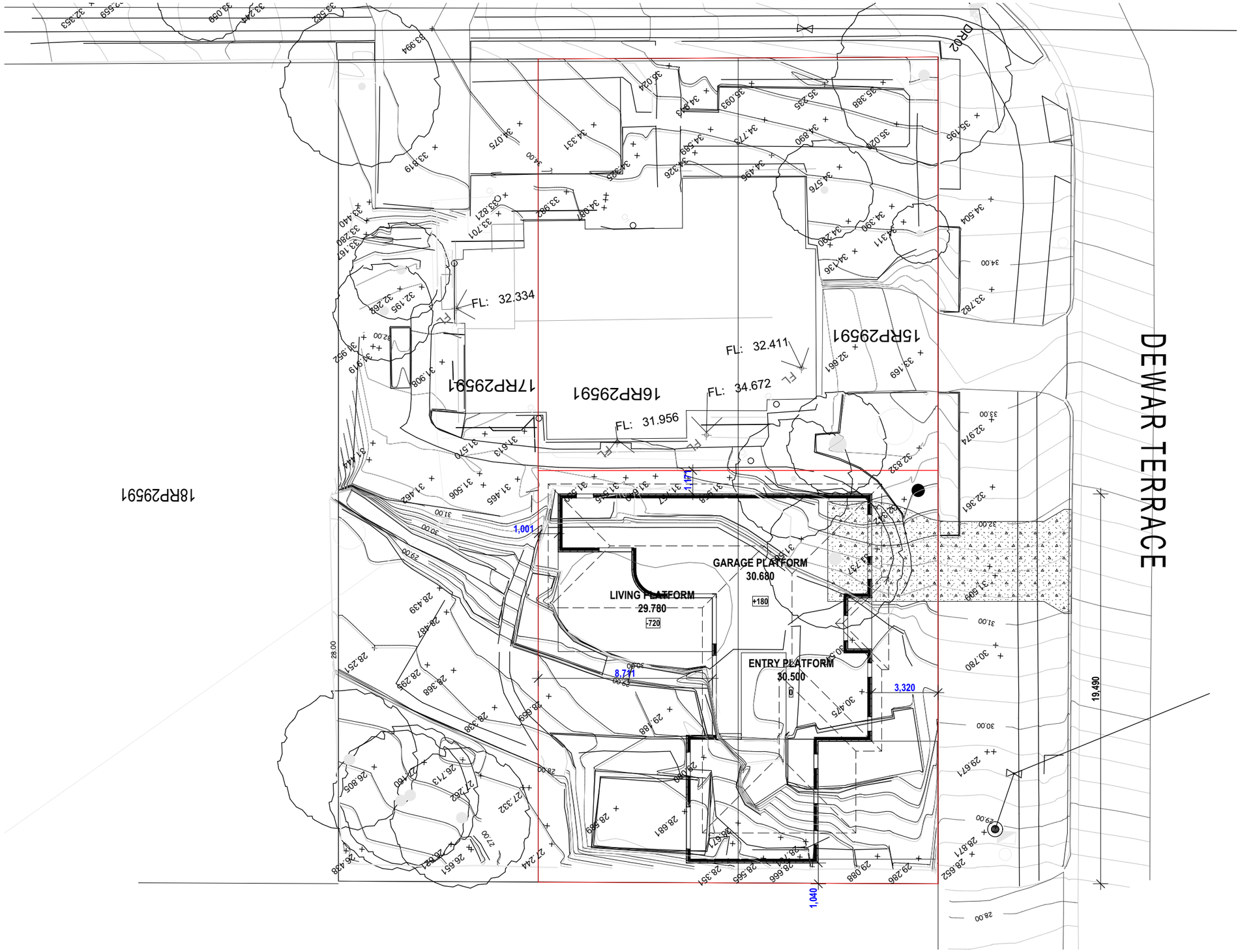
Major :	1.00m	Scale @ A3 :	1 : 250
Minor :	0.20m	Date:	16/02/26

DRAWING NUMBER

B0525 30002 001

Sheet No. 1 of 1 Revision : A

Appendix C — Architectural Example



M&R STUDIO

NOTE:

ALL THE DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. PLEASE CHECK AND VERIFY ALL THE MEASUREMENTS PRIOR TO CONSTRUCTIONS. ANY PROBLEMS SHOULD BE DIRECTED TO THE BUILDER FOR CLARIFICATION.

SITE PLAN

1:200

PROPOSED DWELLING
FOR: NELSON
AT: LOT 1 # 91 QUARRY ROAD, SHERWOOD

ISSUE:CONCEPT LAYOUT

DRAWN BY		DATE	DESCRIPTION
CONCEPT		07/10/2026	
PC 1		25/10/2026	
PC 2			
PC 3			
PC 4			
PC 5			
COLOURS			

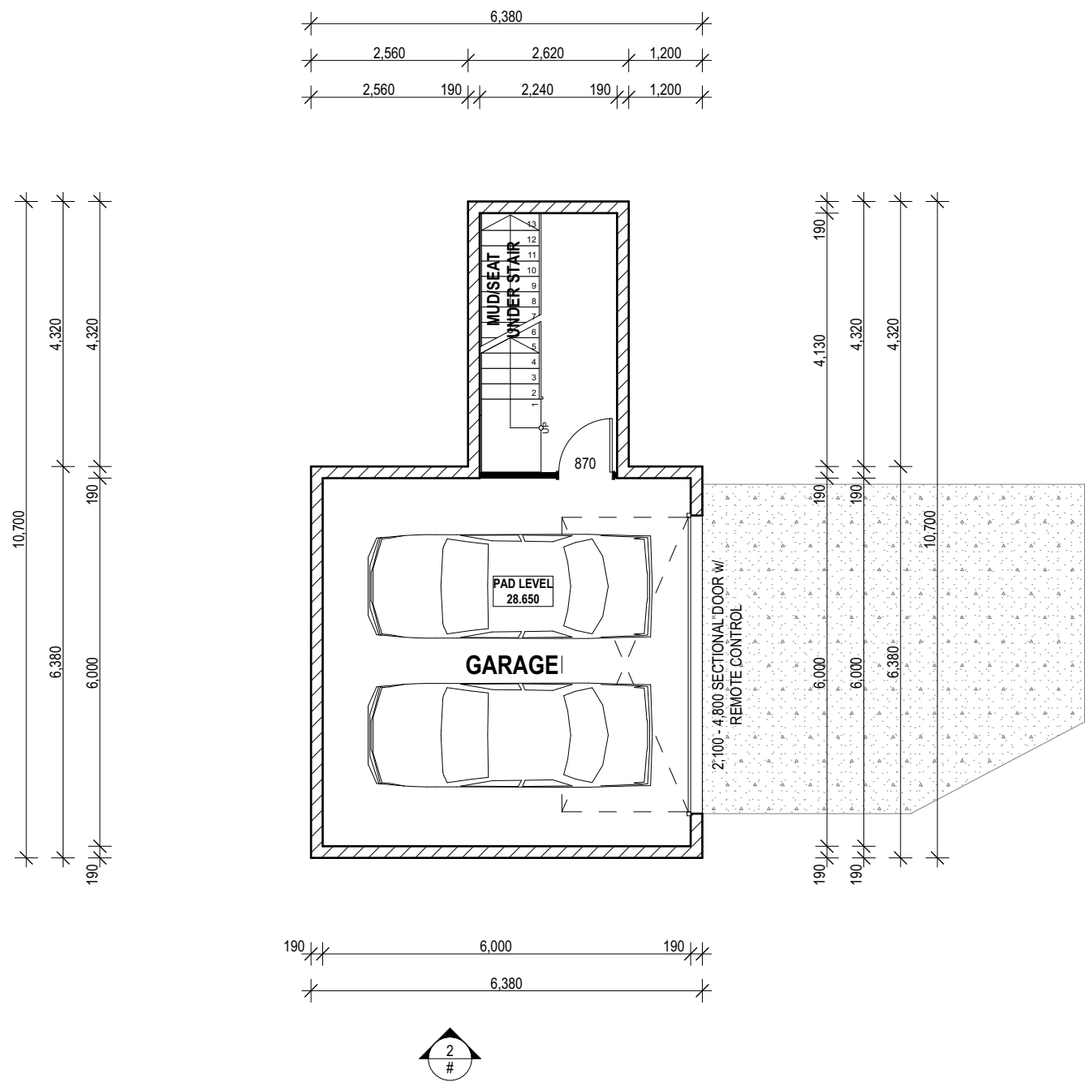
AREA		
GARAGE FLOOR		
	GARAGE	52.02
		52.02 m²
GROUND FLOOR		
	ALFRESCO	29.64
	PORCH	3.07
	LIVING	167.01
		199.72 m²
FIRST FLOOR		
	LIVING	161.39
	BALCONY	5.73
		167.12 m²
		418.86 m²

QBCC: 15483623
PHONE: 0403 047 467
EMAIL: Admin@mr-design.com.au

JOB No.

SHEET

© COPYRIGHT REPRODUCTION FORBIDDEN IN WHOLE OR IN PART WITH OUT PRIOR WRITTEN CONSENT.



M&R STUDIO

NOTE:

ALL THE DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. PLEASE CHECK AND VERIFY ALL THE MEASUREMENTS PRIOR TO CONSTRUCTIONS. ANY PROBLEMS SHOULD BE DIRECTED TO THE BUILDER FOR CLARIFICATION.

GARAGE FLOOR

1:100

PROPOSED DWELLING
FOR: NELSON
AT: LOT 1 # 91 QUARRY ROAD, SHERWOOD

ISSUE:CONCEPT LAYOUT

DRAWN BY		DATE	DESCRIPTION
CONCEPT		07/10/2026	
PC 1		25/10/2026	
PC 2			
PC 3			
PC 4			
PC 5			
COLOURS			

AREA		
GARAGE FLOOR		
	GARAGE	52.02
		52.02 m²
GROUND FLOOR		
	ALFRESCO	29.64
	PORCH	3.07
	LIVING	167.01
		199.72 m²
FIRST FLOOR		
	LIVING	161.39
	BALCONY	5.73
		167.12 m²
		418.86 m²

QBCC: 15483623
PHONE: 0403 047 467
EMAIL: Admin@mr-design.com.au

JOB No.

SHEET 00

© COPYRIGHT REPRODUCTION FORBIDDEN IN WHOLE OR IN PART WITH OUT PRIOR WRITTEN CONSENT.



M&R STUDIO

N

NOTE:

ALL THE DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. PLEASE CHECK AND VERIFY ALL THE MEASUREMENTS PRIOR TO CONSTRUCTIONS. ANY PROBLEMS SHOULD BE DIRECTED TO THE BUILDER FOR CLARIFICATION.

GROUND FLOOR

1:100

PROPOSED DWELLING
FOR: NELSON
AT: LOT 1 # 91 QUARRY ROAD, SHERWOOD

ISSUE:CONCEPT LAYOUT

DRAWN BY		DATE	DESCRIPTION
CONCEPT		07/10/2026	
PC 1		25/10/2026	
PC 2			
PC 3			
PC 4			
PC 5			
COLOURS			

AREA		
GARAGE FLOOR		
	GARAGE	52.02
		52.02 m²
GROUND FLOOR		
	ALFRESCO	29.64
	PORCH	3.07
	LIVING	167.01
		199.72 m²
FIRST FLOOR		
	LIVING	161.39
	BALCONY	5.73
		167.12 m²
		418.86 m²

QBCC: 15483623
PHONE: 0403 047 467
EMAIL: Admin@mr-design.com.au

JOB No.

SHEET

© COPYRIGHT REPRODUCTION FORBIDDEN IN WHOLE OR IN PART WITH OUT PRIOR WRITTEN CONSENT.



M&R STUDIO	NOTE: ALL THE DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. PLEASE CHECK AND VERIFY ALL THE MEASUREMENTS PRIOR TO CONSTRUCTIONS. ANY PROBLEMS SHOULD BE DIRECTED TO THE BUILDER FOR CLARIFICATION.	FIRST FLOOR 1:100	**PROPOSED DWELLING** **FOR: NELSON** **AT: LOT 1 # 91 QUARRY ROAD, SHERWOOD** **ISSUE:CONCEPT LAYOUT**

DRAWN BY		DATE	DESCRIPTION
CONCEPT		07/10/2026	
PC 1		25/10/2026	
PC 2			
PC 3			
PC 4			
PC 5			
COLOURS			

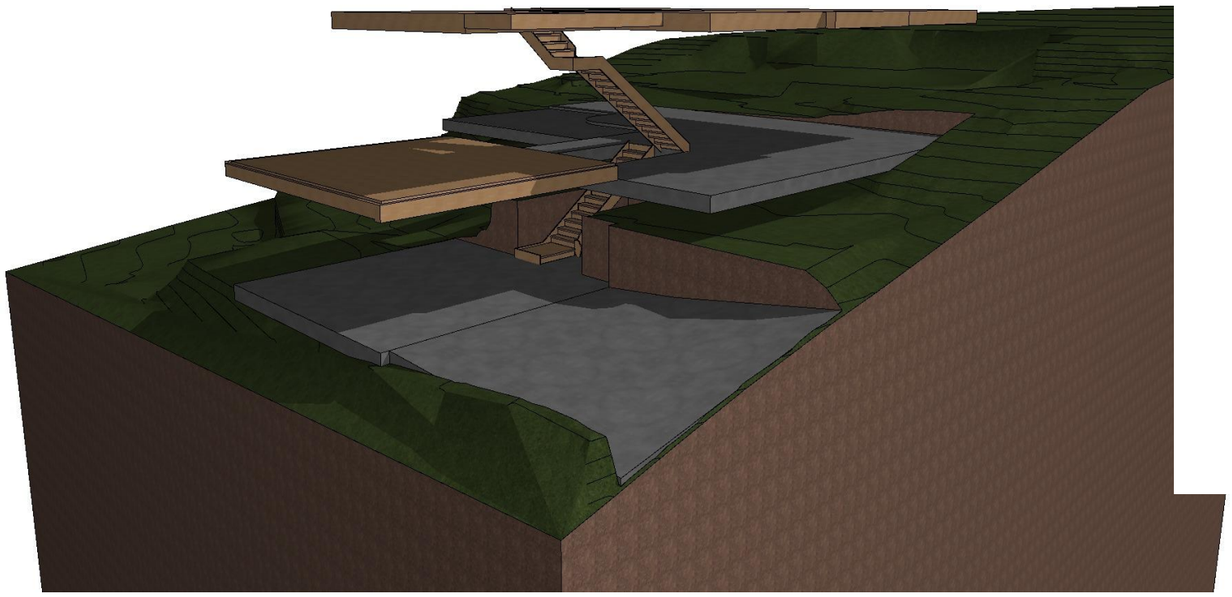
AREA		
GARAGE FLOOR		
	GARAGE	52.02
		52.02 m²
GROUND FLOOR		
	ALFRESCO	29.64
	PORCH	3.07
	LIVING	167.01
		199.72 m²
FIRST FLOOR		
	LIVING	161.39
	BALCONY	5.73
		167.12 m²
		418.86 m²

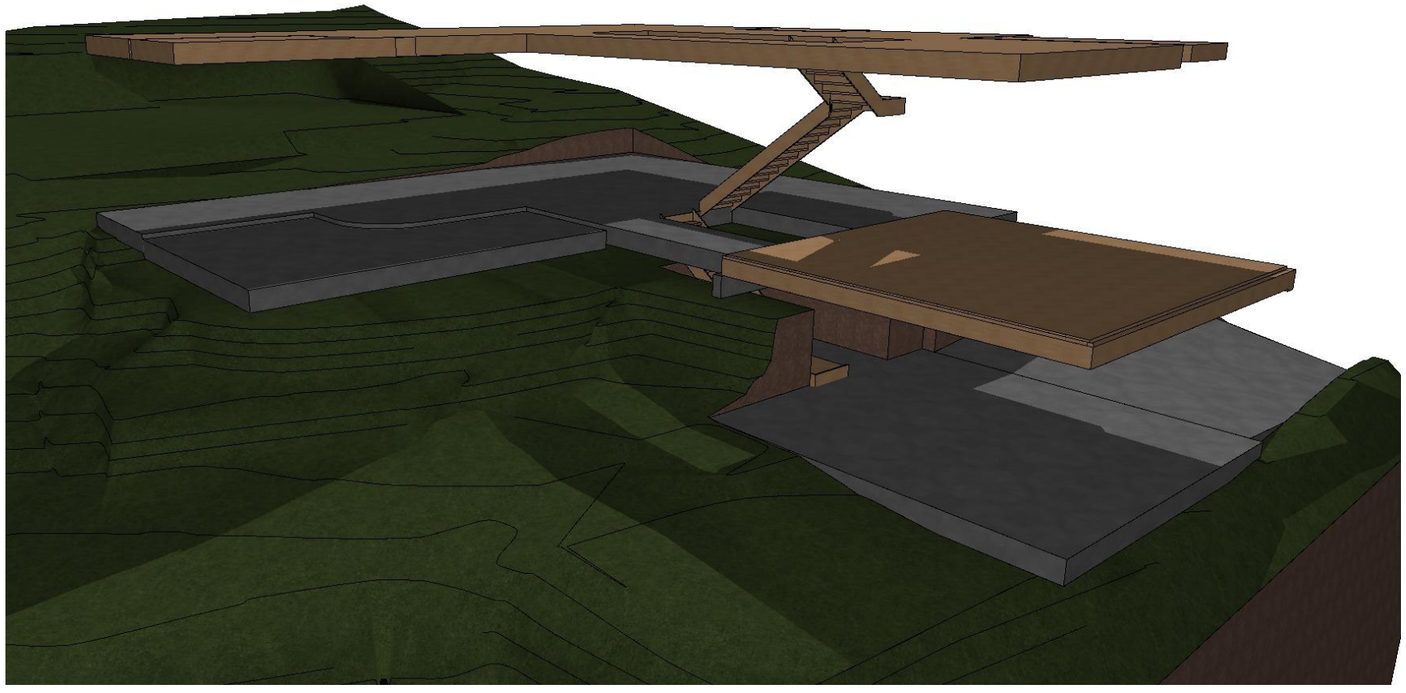
QBCC: 15483623
PHONE: 0403 047 467
EMAIL: Admin@mr-design.com.au

JOB No.

SHEET

© COPYRIGHT REPRODUCTION FORBIDDEN IN WHOLE OR IN PART WITH OUT PRIOR WRITTEN CONSENT.





M&R STUDIO

NOTE:

ALL THE DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. PLEASE CHECK AND VERIFY ALL THE MEASUREMENTS PRIOR TO CONSTRUCTIONS. ANY PROBLEMS SHOULD BE DIRECTED TO THE BUILDER FOR CLARIFICATION.

© COPYRIGHT REPRODUCTION FORBIDDEN IN WHOLE OR IN PART WITH OUT PRIOR WRITTEN CONSENT.

3D CUT

PROPOSED DWELLING
FOR: NELSON
AT: LOT 1 # 91 QUARRY ROAD, SHERWOOD

ISSUE:CONCEPT LAYOUT

DRAWN BY		DATE	DESCRIPTION
CONCEPT		07/10/2026	
PC 1		25/10/2026	
PC 2			
PC 3			
PC 4			
PC 5			
COLOURS			

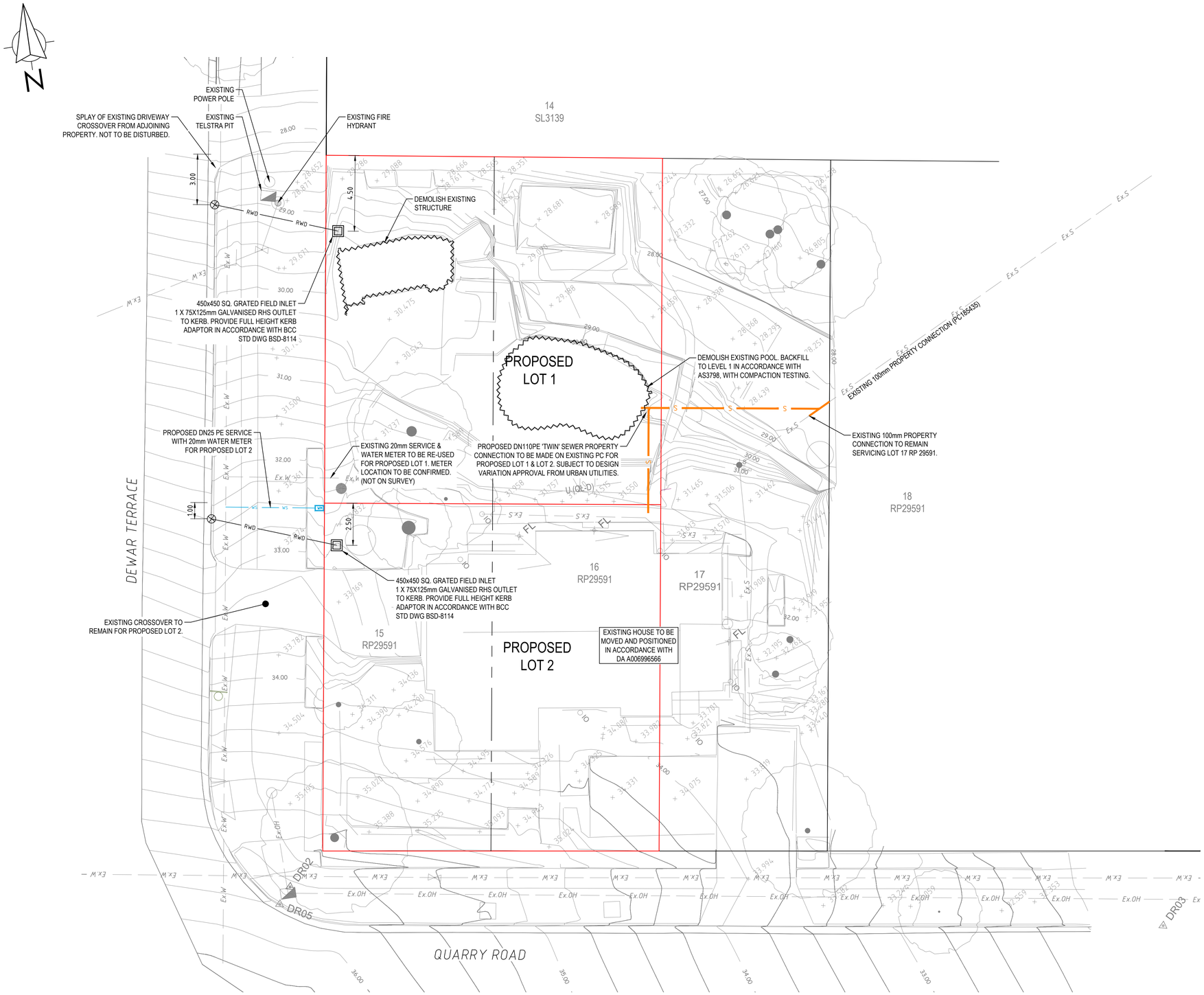
AREA		
GARAGE FLOOR		
	GARAGE	52.02
		52.02 m²
GROUND FLOOR		
	ALFRESCO	29.64
	PORCH	3.07
	LIVING	167.01
		199.72 m²
FIRST FLOOR		
	LIVING	161.39
	BALCONY	5.73
		167.12 m²
		418.86 m²

QBCC: 15483623
PHONE: 0403 047 467
EMAIL: Admin@mr-design.com.au

JOB No.

SHEET 01

Appendix D — Concept Civil Engineering Plans



LEGEND:

- PROPOSED PROPERTY BOUNDARY
- PROPOSED EASEMENT BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- ADJACENT EASEMENT BOUNDARY
- EXISTING CONTOURS (0.25m INTERVALS)
- PROPOSED CONTOURS (0.25m INTERVALS)
- Ex.W EXISTING WATER RETICULATION
- Ex.S EXISTING SEWERAGE RETICULATION
- Ex.SWD EXISTING STORMWATER DRAINAGE
- Ex.T EXISTING TELECOMMUNICATIONS
- Ex.OH EXISTING OVERHEAD ELECTRICITY
- WS PROPOSED WATER RETICULATION
- W PROPOSED WATER SERVICE
- S PROPOSED SEWERAGE RETICULATION
- RWD PROPOSED ROOFWATER DRAINAGE
- PROPOSED STORMWATER DRAINAGE
- PROPOSED RETAINING WALL
- PROPOSED AC PAVEMENT
- PROPOSED CONCRETE DRIVEWAY
- DEMOLISH / REMOVE

EXISTING UNDERGROUND SERVICES NOTES

THE LOCATION OF UNDERGROUND SERVICES SHOWN IN THIS SET OF DRAWINGS HAVE BEEN PLOTTED FROM SURVEY INFORMATION AND SERVICE AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITION OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE. SIMFORIA PTY LTD CANNOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL NOT ACCEPT LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.

CONTRACTOR SHALL TAKE DUE CARE WHEN EXCAVATING ON SITE INCLUDING HAND EXCAVATION WHERE NECESSARY.

CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.

CONTRACTORS ARE TO UNDERTAKE A SERVICE SEARCH, PRIOR TO COMMENCEMENT OF WORKS ON SITE. SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.

ALL SURFACE LIDS/FITTINGS TO BE ADJUSTED TO SUIT FINISHED SURFACE LEVELS.

BEFORE YOU DIG www.byda.com.au

ISSUE	DESCRIPTION	DATE
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
A	ISSUE FOR DA APPROVAL	05.11.2026
P1	PRELIMINARY ISSUE	09.09.2026

BAR SCALE

0 2.5 5 7.5 10 12.5m

1 : 125 @ A1 1 : 250 @ A3

THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF SIMFORIA PTY LTD. THE DOCUMENT MAY ONLY BE USED FOR THE PURPOSE IN WHICH IT WAS COMMISSIONED. UNAUTHORISED USE OF THIS DOCUMENT IS PROHIBITED.

CLIENT: Amelior Development Services

SCALE: 1 : 125 (A1)

DATUM: -- --

DRAWN	DESIGNED	CHECKED	APPROVED
ANG	ADS	MH	MH

RPEQ CERT.

-- RPEQ No. --

DATE: --

SIMFORIA ENGINEERING | PROJECT MANAGEMENT
L1, 6 OVEREND STREET
EAST BRISBANE QLD 4169
ABN: 58 434 347 168
Phone: 1300 716 442
Email: mail@simforia.com.au
Web: www.simforia.com.au

DRAWING STATUS: FOR APPROVAL

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
93 & 95 QUARRY RD, SHERWOOD

DRAWING TITLE: CONCEPT SERVICES LAYOUT PLAN

A1	PROJECT NO.	DRAWING NO.	REVISION
	C260027	CSK001	A

100mm on Original

Appendix E — Before You Dig Australia (BYDA) Records

Job ID 54129863
260027

Review responses online



Received 6 of 6 responses
All responses received

93 Quarry Road, Sherwood QLD 4075

Job dates
03/09/2026 → 07/09/2026

These plans expire on
30 Sep 2026

Lodged by
Angelica Nino

Authority	Status	Page
BYDA Confirmation		2
APA Group Gas Networks (90073)	Received	4
Brisbane City Council	Received	14
Energex QLD	Received	16
NBN Co Qld	Received	19
Queensland Urban Utilities	Received	23
Telstra QLD FA	Received	25

Job No 54129863

BEFORE YOU DIG byda.com.au — Look up and Live

Zero damage - Zero harm - Zero disruption

byda.com.au

Contact Details

Contact	Contact number	Company	Enquirer ID
Angelica Nino	0420 324 136	Simforia	3860948

Email
angelica@simforia.com.au

Address
6 Overend Street
East Brisbane QLD 4169

Job Site and Enquiry Details

WARNING: The map below only displays the location of the proposed job site and does not display any asset owners' pipe or cables. The area highlighted has been used only to identify the participating asset owners, who will send information to you directly.

Enquiry date	Start date	End date	On behalf of	Job purpose	Locations	Onsite activities
02/09/2026	03/09/2026	07/09/2026	Private	Excavation	Private	Subdivision



Check that the location of the job site is correct. If not, you must submit a new enquiry.

If the scope of works change or plan validity dates expire, you must submit a new enquiry.

Do NOT dig without plans. Safe excavation is your responsibility. If you don't understand the plans or how to proceed safely, please contact the relevant asset owners.

User Reference	Address	Notes/description
260027	93 Quarry Road Sherwood QLD 4075	-

Your Responsibility and Duty of Care

- **Lodging an enquiry does not authorise project commencement.** Before starting work, you must obtain all necessary information from all affected asset owners.
- If you don't receive plans within 2 business days, contact the asset owner & quote their sequence number.
- Always follow the 5Ps of Safe Excavation (page 2), and locate assets before commencing work.
- Ensure you comply with State legislative requirements for Duty of Care and safe digging.
- If you damage an underground asset, you MUST advise the asset owner immediately.
- By using the BYDA service, you agree to the Privacy Policy and Term of Use.
- For more information on safe digging practices, visit www.byda.com.au

Asset Owner Details

Below is a list of asset owners with underground infrastructure in and around your job site. It is your responsibility to identify the presence of these assets. Plans issued by Members are indicative only unless specified otherwise. Note: not all asset owners are registered with BYDA. You must contact asset owners not listed here directly.

Referral ID (Seq. no)	Authority Name	Phone	Status
278757930	APA Group Gas Networks (90073)	1800 085 628	NOTIFIED
278757927	Brisbane City Council	(07) 3403 8888	NOTIFIED
278757926	Energex QLD	13 12 53	NOTIFIED
278757925	NBN Co Qld	1800 687 626	NOTIFIED
278757929	Queensland Urban Utilities	13 26 57	NOTIFIED
278757928	Telstra QLD FA	1800 653 935	NOTIFIED

END OF UTILITIES LIST

The 5Ps of Safe Excavation

Plan

Plan your job. Use the BYDA service at least one day before your job is due to begin, and ensure you have the correct plans and information required to carry out a safe project.

Prepare

Prepare by communicating with asset owners if you need assistance. Look for clues onsite. Engage a skilled Locator.

Pothole

Potholing is physically sighting the asset by hand digging or hydro vacuum extraction.

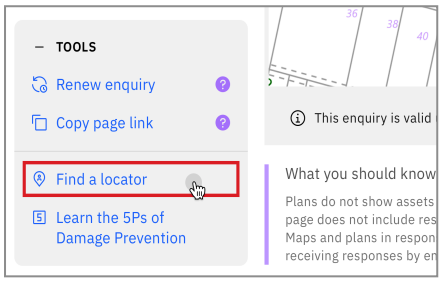
Protect

Protecting and supporting the exposed infrastructure is the responsibility of the excavator. Always erect safety barriers in areas of risk and enforce exclusion zones.

Proceed

Only proceed with your excavation work after planning, preparing, potholing (unless prohibited), and having protective measures in place.

Engage a skilled Locator



When you lodge an enquiry you will see skilled Locators to contact

Visit the Certified Locator website directly and search for a locator near you

certloc.com.au/locators

Get FREE Quotes for Contractors & Equipment Fast

Use iseekplant's FREE marketplace to get quotes for the equipment or services you need on your project. Compare quotes from trusted local contractors and get your project done on time and in budget.

1. Fill out your job details in our FREE quick quote form.
2. We send the request to trusted local contractors.
3. The local contractors will contact you directly with quotes

GET QUOTE

Use iseekplant to find trusted contractors near you today, visit:
blog.iseekplant.com.au/byda-isp-get-quotes

Book a FREE BYDA Session

BYDA offers free training sessions to suit you and your organisation's needs covering safe work practices when working near essential infrastructure assets. The free sessions are offered in two different formats - online and face-to-face.

To book a session, visit:
byda.com.au/contact/education-awareness-enquiry-form

BOOK NOW

Lodge your FREE enquiry online any time at byda.com.au

APA Group Gas Networks (90073)

Referral
278757930

Member Phone
1800 085 628

Responses from this member

Response received Wed 2 Sep 2026 1.17pm

File name	Page
Response Body	Excluded
278757930.pdf	5
400-STD-AM-0001_2 Guidelines for Works Near Existing Gas Assets.pdf	Excluded

APA
Australia's energy infrastructure partner

BEFORE YOU DIG
www.byda.com.au

Before You Dig Australia

Classification: Networks

Enquiry date	02/09/2026
Sequence number	278757930
Work site address	93 Quarry Road Sherwood QLD 4075





For your immediate information

THERE IS A GAS PIPELINE OR GAS ASSETS

located in close vicinity to your works.

Enquiry Date:	02/09/2026
Enquirer:	Angelica Nino
Sequence Number:	278757930
Work Site Address:	93 Quarry Road
	Sherwood
	QLD 4075

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

We confirm there are Gas Assets located in close vicinity of the above location.

Caution: Damage to gas assets may result in explosion, fire and personal injury.

Please ensure you read all the relevant information contained in this response to your BYDA enquiry including reviewing the **APA Guidelines for Works Near Existing Gas Assets** and clearly understand and comply with all requirements relating to your scope of work.

If you have any queries relating to this information, or you are unable to comply with requirements of the APA Guidelines for Works Near Existing Gas Assets contact the APA Before You Dig Officer

- **Phone 1800 085 628**
- **Email BYDA_APA@apa.com.au**

for clarification before proceeding with any work.

Before You Dig Checklist



1. Plan

- Review maps provided with this BYDA response and confirm the location of your work site is correct.
- Review the **APA Guidelines for Works Near Existing Gas Assets** and clearly understand requirements relating to my scope of work.



2. Prepare

- Electronically locate gas assets and mark locations.
- Note: Look for visible evidence of gas assets at the worksite which may not be 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 with.
- Strap and support exposed mains and inlet services. Cover exposed mains to prevent damage until the excavation can be permanently restored.



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.

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)

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.

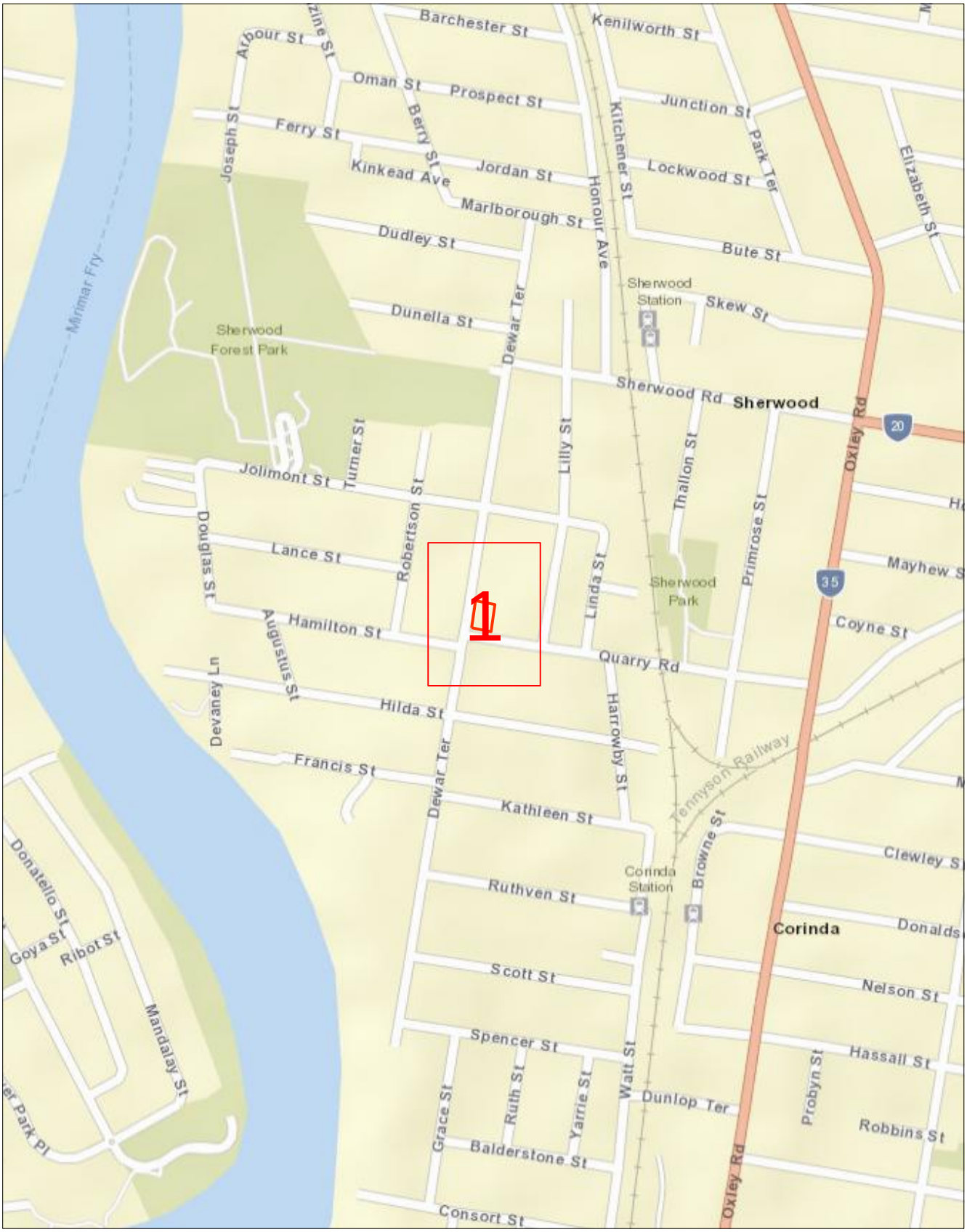
The following rates* apply for this service (1 hour minimum charge):

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 cancelations 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.

**The specified rates do not apply to Origin Energy LPG assets. All charges and invoicing related to these assets will be administered directly by Origin Energy. For further information contact Origin Energy.*

Site Address:	93 Quarry Road Sherwood QLD 4075	**Sequence Number:**	278757930



Scale 1: 6000

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

Enquiry Area

Map Key Area

Site Address:	93 Quarry Road Sherwood QLD 4075	**Sequence Number:**	278757930



Scale 1: 700

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

Enquiry Area

Map Key Area

Legend

PIPE LEGEND: GAS TYPE AND PRESSURE

	Low pressure	Medium pressure	High pressure	Transmission
Natural gas				
Natural gas – proposed				
LPG (yellow dash)	*not applicable*			*not applicable*
Hydrogen blended (aqua dash)	*not applicable*			*not applicable*

PIPE LEGEND: SPECIAL DESIGNATION

	Low pressure	Medium pressure	High pressure	Transmission
Critical main (yellow highlight)				
Casing (grey highlight)				*not applicable*

These designations typically apply to any pipe type and pressure

PIPE LEGEND: OTHER STATUS

- Abandoned pipe
- Idle or inactive pipe

ABBREVIATION

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

OBJECT SYMBOLS

- Valve
- Buried valve
- Regulator station
- Gas connected property
- CP test station
- CP anode
- CP bond wire
- CP rectifier terminal
- Syphon
- Marker
- Part service^

^A live gas service terminated underground within the property boundary, available for future extension to the gas meter.

PIPE CODE AND MATERIAL

P*	Polyethylene (PE)	CU	Copper
P3	Polyvinyl chloride (PVC)	N2	Nylon
S*	Steel	W2	Wrought galv iron
C*	Cast iron	W3	PE coat wrought galv iron

INTERPRETATION EXAMPLE

40P6 in 80C2 — High pressure, 40 mm polyethylene in an 80 mm cast iron casing

63S8 — Medium pressure, 63 mm steel

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

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.

Free Gas Pipeline Awareness Training and Information

PROFESSIONALS

APA offers online and in-person toolbox forums to support safe work near underground gas assets. Topics include distribution and transmission pipelines, the permit process, and gas emergencies, with content suited for companies of all sizes. A Continuing Professional Development certificate is available upon completion.

Scan the QR code to register for an online toolbox, or email **damageprevention@apa.com.au** to request an in-person presentation.

HOMEOWNERS

If you're working near your home's gas pipes stay safe and view APA's video guide **'Working Safely Near Gas Lines: A DIY Homeowner's Guide'** which offers simple tips to avoid damaging gas pipes.

Scan the QR code to view the video, or for more information email **damageprevention@apa.com.au**

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.



APA
Australia's energy infrastructure partner

Brisbane City Council

Referral
278757927

Member Phone
(07) 3403 8888

Responses from this member

Response received Wed 2 Sep 2026 1.17pm

File name	Page
Response Body	Excluded
ASSET 278757927.pdf	15

Job # 54129863
Seq # 278757927
Provider: Brisbane City Council
Telephone: (07) 3403 8888



Legend

BYDA Enquiry

Stormwater Network

- Stormwater Drain
- Stormwater Gully / Roofwater Connection
- Stormwater Maintenance Hole
- Stormwater Gully Pit

Disclaimer:
© Brisbane City Council [2020]
In consideration of Council, and the copyright owners listed below, permitting the use of this data, you acknowledge and agree that Council, and the copyright owners, give no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accept no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage), relating to any use of this data.
Data must not be used for direct marketing or be used in breach of the privacy laws.

Copyright of data is as follows:
Cadastre and Street Names © 2020 State of Queensland (Department of Natural Resources, Mines and Energy)

Caution: This map may contain the locations of abandoned underground asbestos pipes. Council gives no warranty to the completeness or accuracy of these records. Appropriate care needs to be taken in all cases.

In an emergency contact Brisbane City Council on 07 3403 8888

02/09/26 (valid for 30 days)

0 10 20 40 m

Scale 1:1,000

Plans generated by SmarterWX™ Automate

Energex QLD

Referral
278757926

Member Phone
13 12 53

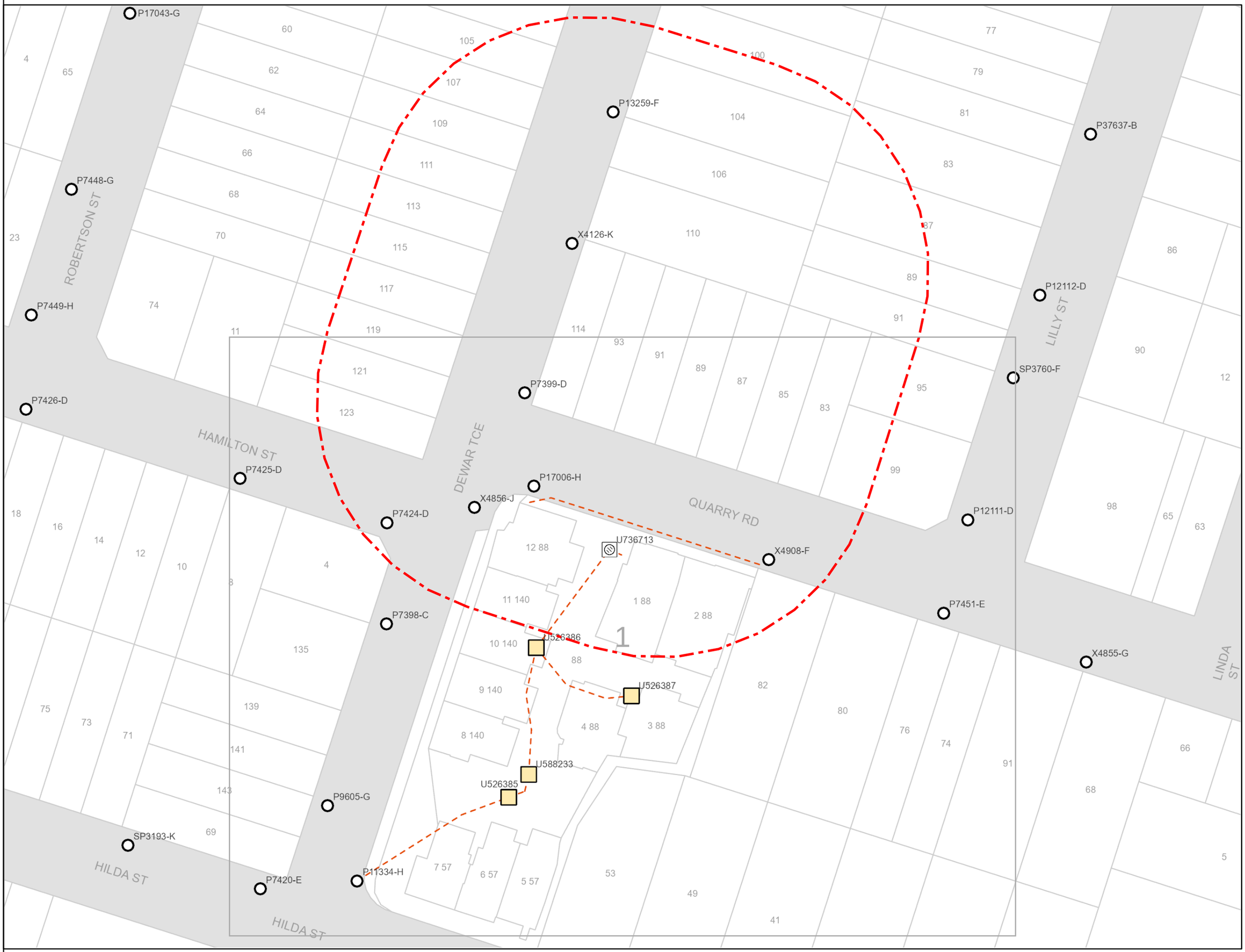
Responses from this member

Response received Wed 2 Sep 2026 1.18pm

File name	Page
Response Body	Excluded
278757926 - Energex Plan.pdf	17
Energex BYDA Terms and Conditions.pdf	Excluded
Working Near Overhead and Underground Electric Lines.pdf	Excluded

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



BYDA

Sequence: 278757926
Date: 02/09/2026

Scale: 1:786
Tile No: **OVERVIEW**

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

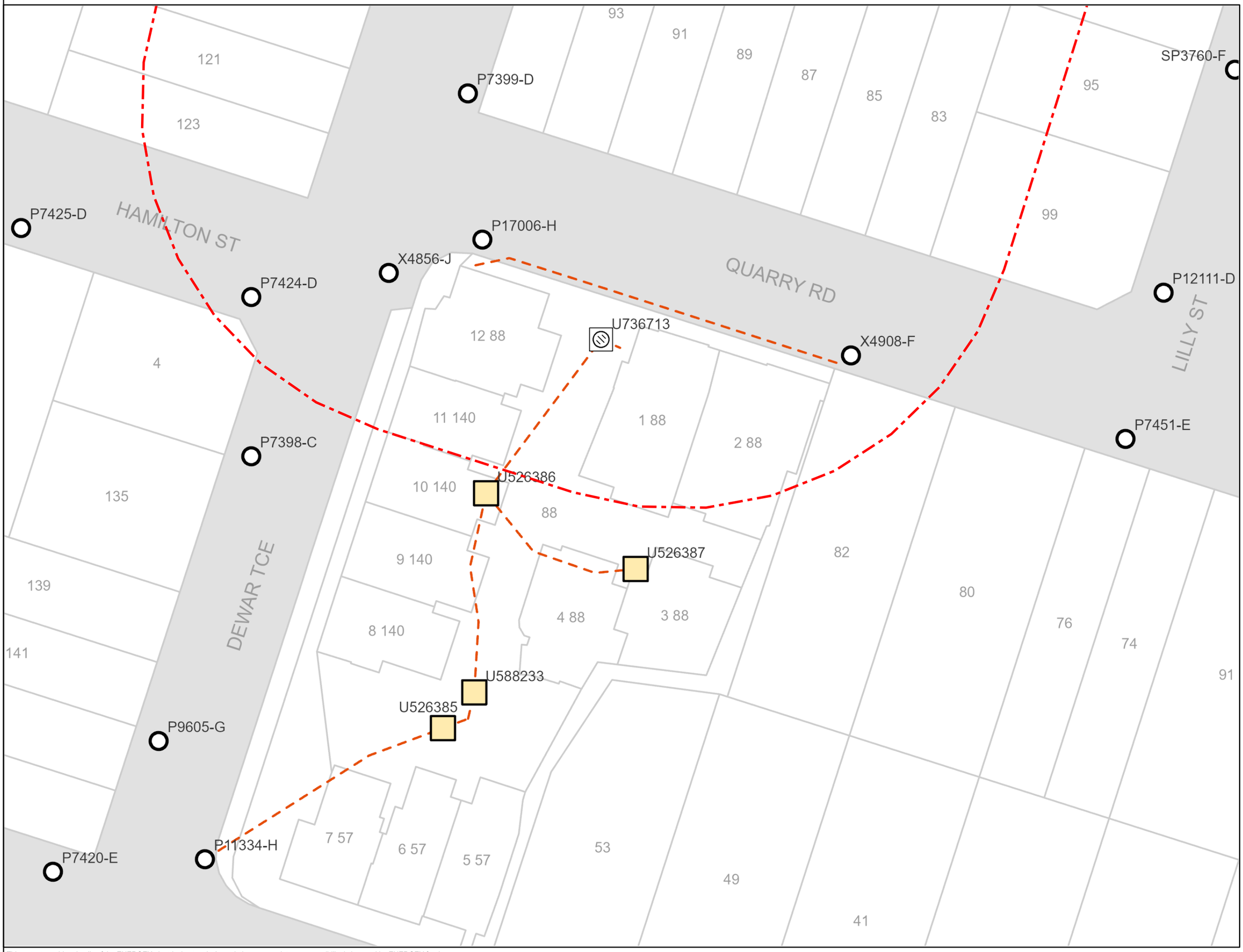
N
W E
S

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



BYDA

Sequence: 278757926
Date: 02/09/2026

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

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.

Referral
278757925

Member Phone
1800 687 626

Responses from this member

Response received Wed 2 Sep 2026 1.34pm

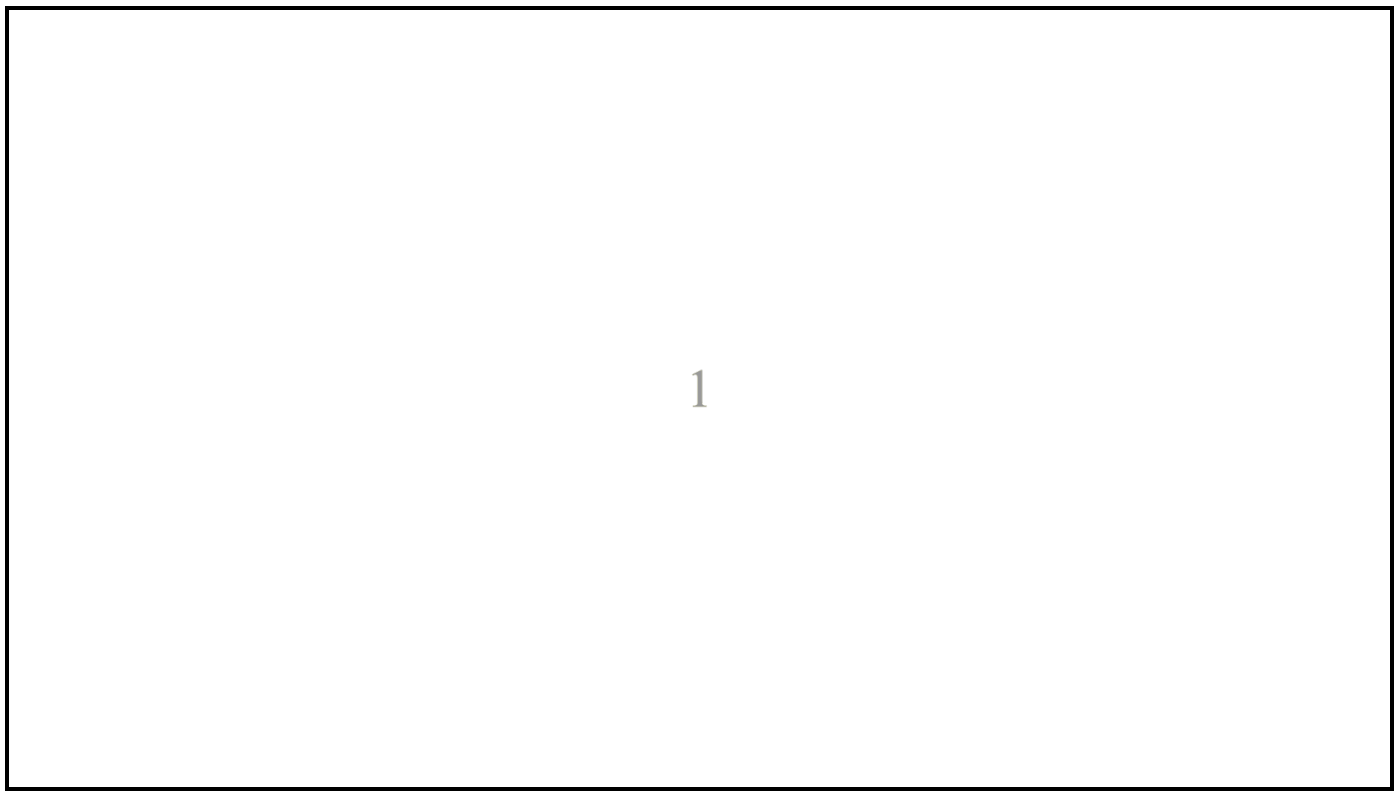
File name	Page
Response Body	Excluded
278757925_20260902_033358045134_1.pdf	20
4678_NBN_Dial_Before_You_Dig_Poster_20170517.pdf	Excluded
Disclaimer_278757925_20260902_033358045134.pdf	Excluded

To:	Angelica Nino
Phone:	Not Supplied
Fax:	Not Supplied
Email:	angelica@simforia.com.au

Dial before you dig Job #:	54129863
Sequence #	278757925
Issue Date:	02/09/2026
Location:	93 Quarry Road , Sherwood , QLD , 4075

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



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



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.

Queensland Urban Utilities

Referral
278757929

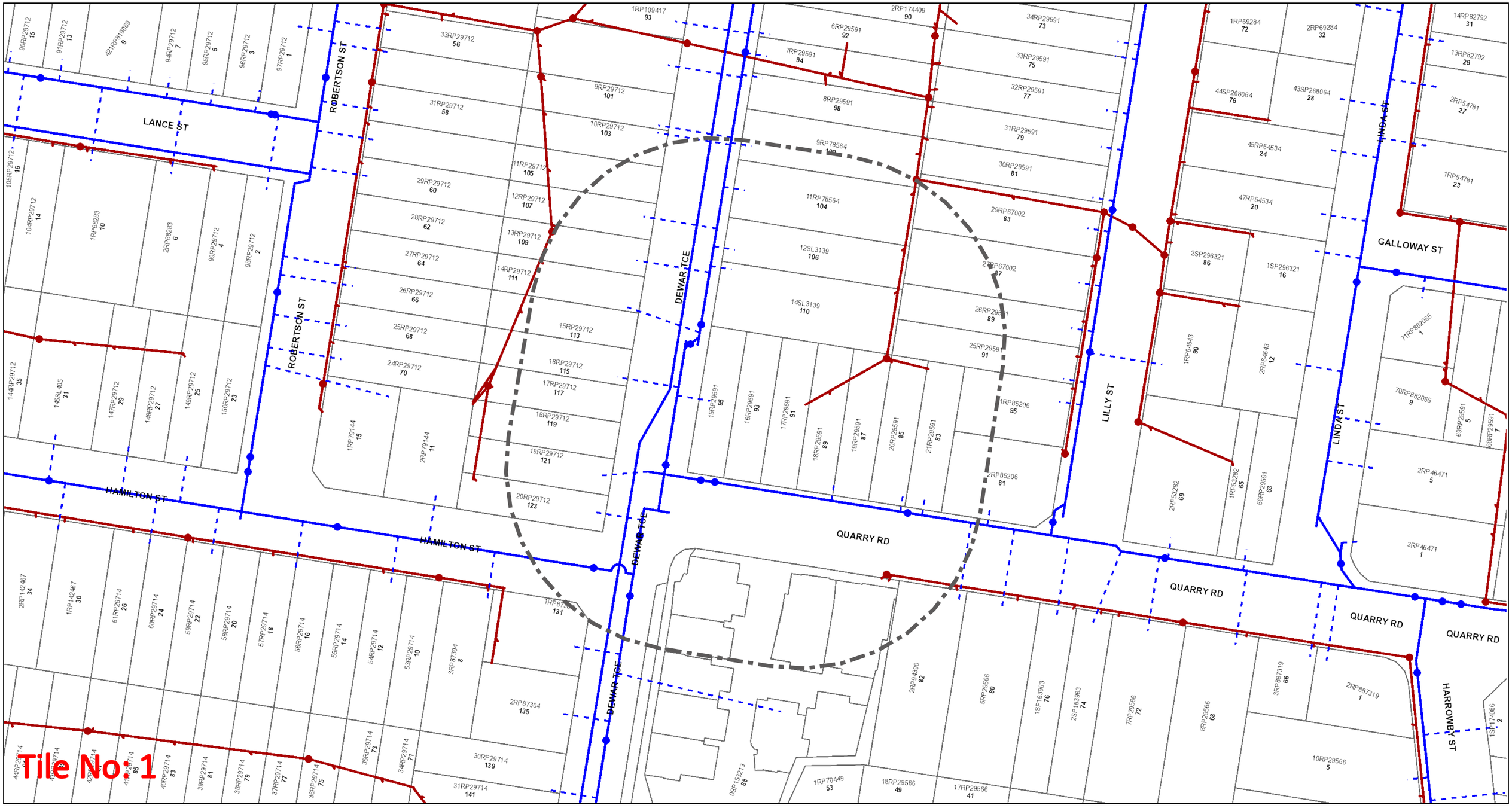
Member Phone
13 26 57

Responses from this member

Response received Wed 2 Sep 2026 1.18pm

File name	Page
Response Body	Excluded
278757929 - Urban Utilities Plan.pdf	24
Urban Utilities Important Information.pdf	Excluded

Urban Utilities - Water, Recycled Water and Sewer Infrastructure



UrbanUtilities

N

Map Scale
1:1000

Before You Dig Australia- Urban Utilities Water, Recycled Water and Sewer Infrastructure

BYDA Reference No: 278757929

Date BYDA Ref Received: 02/09/2026

Date BYDA Job to Commence: 03/09/2026

Date BYDA Map Produced: 02/09/2026

This Map is valid for 30 days

Produced By: Urban Utilities

Sewer	Water	Recycled Water
Infrastructure	Infrastructure	Infrastructure
Major Infrastructure	Major Infrastructure	Major Infrastructure
Network Pipelines	Network Pipelines	Network Pipelines
Network Structures	Network Structures	Network Structures
	Water Service (Indicative only)	

While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Urban Utilities nor PelicanCorp 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.

The plans are indicative and approximate only and provided without warranties of any kind, express or implied including in relation to accuracy, completeness, correctness, currency or fitness for purpose.

Urban Utilities takes no responsibility and accepts no liability for any loss, damage, costs or liability that may be incurred by any person acting in reliance on the information provided on the plans.

This plan should be used as guide only. Any dimensions should be confirmed on site by the relevant authority.

Based on or contains data provided by the State of Queensland (Department of Natural Resources and Mines) [2020]. In consideration of the State permitting the use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws. © State of Queensland Department of Natural Resources and Mines [2020]

For further information, please call Urban Utilities on 13 26 57 (8am-6pm weekdays). Faults and emergencies 13 23 64 (24/7).

www.urbanutilities.com.au

ABN 86 673 835 011

Referral
278757928

Member Phone
1800 653 935

Responses from this member

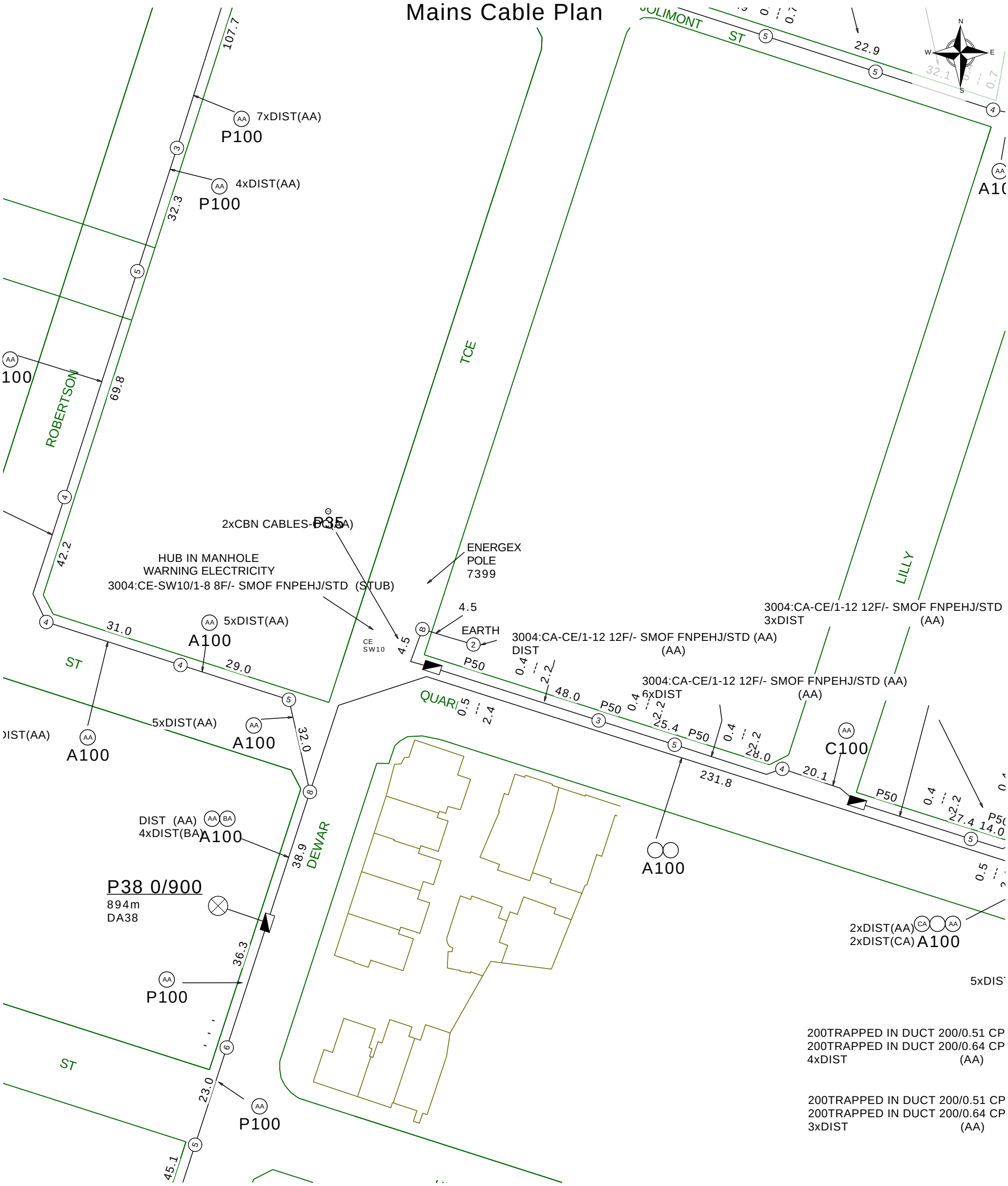
Response received Wed 2 Sep 2026 1.21pm

File name	Page
Response Body	Excluded
278757928.pdf	26
AccreditedPlantLocators 2026-08-25a.pdf	Excluded
Telstra Duty of Care v33.0b.pdf	Excluded
Telstra Map Legend v4_0c.pdf	28

Cable Plan


ROBERTSON
ST
DEWAR
QUARRY
TCE
LILLY
P38
894m
10 PR
10LEFT IN SITU
O401-450
50DEAD
O101-200
O201-300
O351-400
O331-340
O333
1DEAD
O331
1DEAD
O332
1DEAD
O334
1DEAD
O335
1DEAD
O336
1DEAD
O337
1DEAD
O338
1DEAD
O339
1DEAD
O340
1DEAD
O341-342
O347
1DEAD
O350
1DEAD
O343
O346
O344
1DEAC1DEAD
O349
1DEAD
O345
1DEAD
O326
1DEAD
O285
DEAD
O264
1DEAD
O201
1DEA
O266
1DEAD
O181-190
O151-180
O371-400
O401-450
50DEAD
O101-200
O201-300
O391
1DEAD
O381
O394
O383
1DEAD
O382
O397
O384
1DEAD
O386
1DEAD
O389
1DEAD
O399
1DEAD
O371-400
O401-450
50DEAD
O101-200
O201-300
O371-400
O301-300
O301-330
O301-350
O351-400
O54
O90
O97
1DEAD
O1-100
O451-470
10DEAD
O471-500
O59
O68
O52-80
O47
O471-500
O1-100
O351-370
10DEAD
O471-500
O401-450
50DEAD
O101-200
O201-300
O351-400
O331-340
O333
1DEAD
O331-340
O333
1DEAD
O336
O339
O341-342
O401-450
50DEAD
O101-200
O201-300
O351-400
O326
1DEAD
O78
1DEAD
O77
1DEAD
O74
1DEAD
O88-89
O75
1DEAD
O73
O78
O39
1DEAD
O51
1DEAD
O42
O57
O40
O56
O43
1DEAD
O92
1DEAD
O33
1DEAD
O95
1DEAD
O98
1DEAD
O148
2DEAD
O144
1DEAD
O146
1DEAD
O127
O102-110
P35
6DEAD
O119
1DEAD
O127
O102-124
6DEAD
O112
O121
O125
O150
O143
O142
1DEAD
O141
O145
O143
1DEAD
O111
O105
O103
O110
O103-105
O110
1DEAD
O105
O103
1DEAD
O101-110
O107
O201-205
O207-248
O250
1DEAD
O104
1DEAD
O123
1DEAD
O110
1DEAD
O116-117
O115
1DEAD
O112-113
O118
O120
O130
1DEAD
O119
1DEAD
O102
O104
O106
1DEAD
O120
O117
O109
1DEAD
O122
1DEAD
O111
1DEAD
O127
1DEAD
O119
1DEAD
O110
O127
O103-105
O114
O206
O250
1DEAD

Mains Cable Plan



Report Damage:https://service.telstra.com.au/customer/general/forms/report-damage-to-telstra-
Ph - 13 22 03
Email - Telstra.Plans@team.telstra.com
Planned Services - ph 1800 653 935 (AEST bus hrs only) General Enquiries

TELSTRA LIMITED A.C.N. 086 174 781

Generated On 02/09/2026 13:20:08

Sequence Number: 278757928

CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact InfraCo Plan Services should you require any assistance.

The above plan must be viewed in conjunction with the Mains Cable Plan on the following page

WARNING
Telstra plans and location information conform to Quality Level "D" of the Australian Standard AS 5488-Classification of Subsurface Utility Information.
As such,Telstra supplied location information is indicative only.Spatial accuracy is not applicable to Quality Level D.
Refer to AS 5488 for further details. The exact position of Telstra assets can only be validated by physically exposing it.
Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy.
Further on site investigation is required to validate the exact location of Telstra plant prior to commencing construction work.
A Certified Locating Organisation is an essential part of the process to validate the exact location of Telstra assets and to ensure the asset is protected during construction works.

See the Steps- Telstra Duty of Care that was provided in the email response.

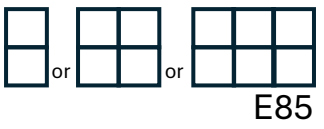
LEGEND

Leadin terminates at a Customer Address	Cable Jointing Pit Number / Letter indicating Pit type/size
Exchange Major Cable Present	Elevated Joint (above ground joint on buried cable)
Pillar / Cabinet Above ground Free Standing	Telstra Plant in shared Utility trench
Above ground Complex Equipment Please note: Powered by 240v electricity	Aerial cable / or cable on wall
OC — Other Carrier Telecommunication Cable/ Asset. Not Telstra Owned	Aerial cable (attached to joint use Pole e.g., Power Pole)
DIST — Distribution cables in Main Cable Ducts	Marker Post Installed
MC — Main Cable ducts on a Distribution Plan	Buried Transponder
Blocked or Damaged Duct	Marker Post & Transponder
Footway Access Chamber (can vary between 1-lid to 12-lid	Optical Fibre Cable Direct Buried
NBN Pillar	Direct Buried Cable
Third Party Owned Network Non-Telstra	nbn owned network



Single to Multiple Round Conduit Configurations 1,2,4,9 respectively

(attached text denotes conduit type and size)



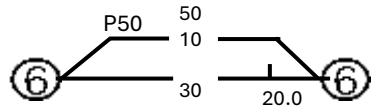
Multiple Square Conduit configurations 2,4,6 respectively

(attached text denotes conduit type and size)

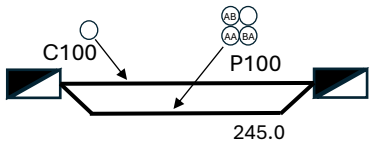
Some examples of conduit type and size:

A - Asbestos cement, P - PVC / Plastic, C - Concrete,
GI - Galvanised Iron, E - Earthenware
Conduit sizes nominally range from 20mm to 100mm
P50 50mm PVC conduit
P100 100mm PVC conduit
A100 100mm asbestos cement conduit

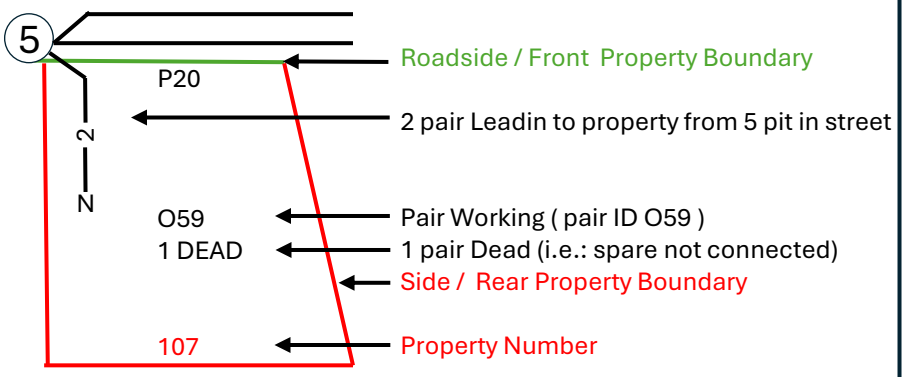
Some Examples of how to read Telstra Plans



One 50mm PVC conduit (P50) containing a 50-pair and a 10-pair cable between two 6 pits. approximately 20.0m apart, with a direct buried 30-pair cable along the same route.



Two separate conduit runs between two footway access chambers (manholes) approximately 245m apart A nest of four 100mm PVC conduits (P100) containing assorted cables in three ducts (one being empty) and one empty 100mm concrete duct (C100) along the same route.



The 5 Ps of Safe Excavation

https://www.byda.com.au/before-you-dig/best-practice-guides/

Plan

Plan your job. Use the BYDA service at least one day before your job is due to begin, and ensure you have the correct plans and information required to carry out a safe project.

Prepare

Prepare by communicating with asset owners if you need assistance. Look for clues onsite. Engage a Certified Locator.

Pothole

Potholing is physically sighting the asset by hand digging or hydro vacuum extraction.

Protect

Protecting and supporting the exposed infrastructure is the responsibility of the excavator. Always erect safety barriers in areas of risk and enforce exclusion zones.

Proceed

Only proceed with your excavation work after planning, preparing, potholing (unless prohibited), and having protective measures in place.

End of document

This document may exclude some files (eg. DWF or ZIP files)

This document was automatically generated at a point-in-time. Be aware that the source information from which this document was created may have changed since it was produced. This document may contain incomplete or out-of-date information. Always check your enquiry details in the BYDA Referral Service for the most recent information. For copyright information refer to individual responses.

Appendix F — Erosion Hazard Assessment (EHA)

BRISBANE CITY COUNCIL ABN 72 002 765 795

Erosion Hazard Assessment

Brisbane City Council (BCC), *Erosion Hazard Assessment* form must be read in conjunction with the *Erosion Hazard Assessment- Supporting Technical Notes* (June 2014 or later version) for explanatory terms and Certification information.

What is an Erosion Hazard Assessment?
Soil erosion and sediment from urban development, particularly during construction activities, is a significant source of sediment pollution in Brisbane's waterways. The Erosion Hazard Assessment determines whether the risk of soil erosion and sediment pollution to the environment is 'low', 'medium' or 'high'.

When is the EHA required?
An Erosion Hazard Assessment form must be completed and lodged with BCC for any Development Application (ie MCU or ROL) that will result in soil disturbance OR Operational Works or Compliance Assessment Application for 'Filling' or Excavation.

Failure to submit this form during lodgement of an application may result in assessment delays or refusal of the application.

Privacy Statement
The personal information collected on this form will be used by Brisbane City Council for the purposes of fulfilling your request and undertaking associated Council functions and services. Your personal information will not be disclosed to any third party without your consent, unless this is required or permitted by law.

Assessment Details

1 Please turn over and complete the erosion hazard assessment.

2 Based on the erosion hazard assessment overleaf, is the side:

☐ ***A 'low' risk site***

Best practice erosion and sediment control (ESC) must be implemented but no erosion and sediment control plans need to be submitted with the development application. Factsheets outlining best practice ESC can be found at https://waterbydesign.com.au/download/erosion-sediment-control-for-small-construction-sites

☑ ***A 'medium' risk site***

If the development is approved, the applicant will need to engage a Registered Professional Engineer (RPEQ) or Certified Professional in Erosion and Sediment Control (CPESC) to prepare an ESC Program and Plan and supporting documentation — in accordance with the requirements of the Infrastructure Design Planning Scheme Policy.

☐ ***A 'high' risk site***

If the development is approved, the applicant will need to engage a RPEQ and CPESC to prepare an ESC Program and Plan and supporting documentation — in accordance with the requirements of the Infrastructure Design Planning Scheme Policy. The plans and program will need to be certified by a CPESC.

3 Site Information and Certification

Application number (if known)

Site address

93 & 95 Quarry Road, Sherwood

Postcode 4075

I certify that:

☑ I have made all relevant enquiries and am satisfied no matters of significance have been withheld from the assessment manager.

☑ I am a person with suitable qualifications and/or experience in erosion and sediment control.

☑ The Erosion Hazard Assessment was completed in accordance with the Erosion Hazard Assessment Supporting Technical Notes and the BCC Infrastructure Design Planning Scheme Policy.

☑ The Erosion Hazard Assessment accurately reflects the site's overall risk of soil erosion and sediment pollution to the environment.

☑ I acknowledge and accept that the BCC, as assessment manager, relies, in good faith, on this certification as part of its development assessment process and the provision of false or misleading information to the BCC constitutes an offence for which BCC may take punitive steps/ action against me/ enforcement action against me.

Certified by *(Print name)*

Anthony Simonetta

Certifier's signature



Date

21 / 09 / 2026

© Brisbane City Council - Corporate Forms
Stock Code no. 262006

Assessment Table

Table 1: Low Risk Test

		Yes	*No*
1.1	is the area of land disturbance > 1000 m2?	☐	☑
1.2	does any land disturbance occur in a BCC mapped waterway corridor?	☐	☑
1.3	is there any slope on site (longer than three metres in length) before, during or after construction that is steeper than 5%?	☑	☐
1.4	does any land disturbance occur below 5 m AHD?	☐	☑
1.5	does development involve endorsement of a staging plan?	☐	☑
1.6	is there an upstream catchment passing through the site > 1 hectare?	☐	☑

If you answered ***'No'*** to **ALL** of these questions, then the site is **low risk** with respect to erosion and sediment control. (Do not continue to Table 2)

If you answered ***'Yes'*** to **ANY** of these questions, then proceed to ***Table 2***

Table 2: Medium Risk Test

		Yes	*No*
2.1	is the area of land disturbance > 1 hectare?	☐	☑

If ***'No'*** then the site is **medium risk** with respect to erosion and sediment control. (Do not continue to Table 3)

If ***'Yes'*** then proceed to ***Table 3***

Table 3: High Risk Test

		Yes	*No*
3.1	is there an upstream catchment passing through the site > 1 hectare?	☐	☐
3.2	does any land disturbance occurs in a BCC mapped waterway corridor?	☐	☐
3.3	is there any slope on site (longer than three metres in length) before, during or after construction that is steeper than 15%?	☐	☐

If you answered ***'No'*** to **ALL** of these questions, then the site is also **medium risk** with respect to erosion and sediment control.

If you answered ***'Yes'*** to **ANY** of these questions, then the site is **high risk** with respect to erosion and sediment control.

© Brisbane City Council - Corporate Forms

Appendix G — BCC Code Responses

Table 9.4.4.3.A — Infrastructure design code

Performance outcomes	Acceptable outcomes	Response
PO1 Development provides roads, pavement, edging and landscaping which: are designed and constructed in accordance with the road hierarchy; provide for safe travel for pedestrians, cyclists and vehicles; provide access to properties for all modes; provide utilities; provide high levels of aesthetics and amenity, improved liveability and future growth; provide for the amelioration of noise and other pollution; provide a high-quality streetscape; provide a low-maintenance asset with a minimal whole-of-life cost. Note—This can be demonstrated in an engineering report prepared and certified by a Registered Professional Engineer Queensland in accordance with the Infrastructure design planning scheme policy.	**AO1** Development provides roads and associated pavement, edging and landscaping which are designed and constructed in compliance with the road corridor design standards in the Infrastructure design planning scheme policy.	Roadworks are not proposed as part of development works.
PO2 Development provides road pavement surfaces which: are well designed and constructed; durable enough to carry the wheel loads of the intended types and numbers of travelling and parked vehicles; ensures the safe passage of vehicles, pedestrians and cyclists, the discharge of stormwater run-off and the preservation of all-weather access; allows for reasonable travel comfort.	**AO2** Development provides road pavement surfaces which are designed and constructed in compliance with the road corridor design standards in the Infrastructure design planning scheme policy.	Roadworks are not proposed as part of development works.
PO3 Development provides a pavement edge which is designed and constructed to: control vehicle movements by delineating the carriageway for all users; provide for people with disabilities by allowing safe passage of wheelchairs and other mobility aids.	**AO3** Development provides pavement edges which are designed and constructed in compliance with the road corridor design standards in the Infrastructure design planning scheme policy.	Roadworks are not proposed as part of development works.
PO4 Development provides verges which are designed and constructed to: provide safe access for pedestrians clear of obstructions and	**AO4** Development provides verges which are designed and constructed in compliance with the road corridor design and streetscape locality advice standards in the Infrastructure	Roadworks are not proposed. Works within the verge are limited to service connections, kerb adaptors and a future vehicle crossover for Lot 1, which will be

Performance outcomes	Acceptable outcomes	Response
access areas for vehicles onto properties; provide a sufficient area for public utility services; be maintainable by the Council.	design planning scheme policy.	constructed in accordance with Council's standard drawings.
PO5 Development provides a lane or laneway identified on the Streetscape hierarchy overlay map or in a neighbourhood plan which: allows equitable access for all modes; is safe and secure; has 24-hour access; is a low-speed shared zone environment; has a high-quality streetscape.	**AO5** Development provides a lane or laneway identified on the Streetscape hierarchy overlay map or in a neighbourhood plan which is embellished in compliance with the streetscape locality advice standards in the Infrastructure design planning scheme policy.	Not applicable.
PO6 Development of an existing premises provides at the frontage to the site, if not already provided, the following infrastructure to an appropriate urban standard: an effective, high-quality paved roadway; an effective, high-quality roadway kerb and channel; safe, high-quality vehicle crossings over channels and verges; safe, accessible, high-quality verges compatible and integrated with the surrounding environment; safe vehicle access to the site that enables ingress and egress in a forward gear; provision of and required alterations to public utilities; effective drainage; appropriate conduits to facilitate the provision of required street-lighting systems and traffic signals.	**AO6** Development of an existing premises provides at the frontage of the site, if not already existing, the following infrastructure to the standard that would have applied if the development involved new premises as stated in the road corridor design standards in the Infrastructure design planning scheme policy: concrete kerb and channel; forming and grading to verges; crossings over channels and verges; a constructed bikeway; a constructed verge or reconstruction of any damaged verge; construction of the carriageway; payment of costs for required alterations to public utility mains, services or installations; construction of and required alterations to public utility mains, services or installations; drainage works; installation of electrical conduits.	Will comply. Dewar Terrace and Quarry Road are constructed to an urban standard along the site frontages, with kerb and channel, footpaths and verges in place.
PO7 Development provides both cycle and walking routes which: are located, designed and constructed to their network classification (where applicable); provide safe and attractive travel routes for pedestrians and cyclists for commuter and recreational purposes; provide safe and comfortable access to properties for pedestrians and cyclists; incorporate water sensitive urban design into stormwater	**AO7** Development provides cycle and walking routes which are located, designed and constructed in compliance with the road corridor design and off-road pathway design standards in the Infrastructure design planning scheme policy.	Not applicable, development is infill.

Performance outcomes	Acceptable outcomes	Response
drainage; provide for utilities; provide for a high level of aesthetics and amenity, improved liveability and future growth; are a low-maintenance asset with a minimal whole-of-life cost; minimise the clearing of significant native vegetation. Note—This can be demonstrated in an engineering report prepared and certified by a Registered Professional Engineer Queensland in accordance with the Infrastructure design planning scheme policy.		
PO8 Development provides refuse and recycling collection, separation and storage facilities that are located and managed so that adverse impacts on building occupants, neighbouring properties and the public realm are minimised.	**AO8.1** Development provides refuse and recycling collection and storage facilities in accordance with the Refuse planning scheme policy. **AO8.2** Development ensures that refuse and recycling collection and storage location and design do not have any adverse impact including odour, noise or visual impacts on the amenity of land uses within or adjoining the development. Note—Refer to the Refuse planning scheme policy for further guidance.	Will comply. Each lot will use Council's kerbside refuse and recycling collection from its street frontage.
PO9 Development ensures that: land used for an urban purpose is serviced adequately with regard to water supply and waste disposal; the water supply meets the stated standard of service for the intended use and fire-fighting purposes.	**AO9.1** Development ensures that the reticulated water and sewerage distribution system for all services is in place before the first use is commenced. **AO9.2** Development provides the lot with reticulated water supply and sewerage to a standard acceptable to the distributor–retailer.	Will comply. Each lot will be connected to the Urban Utilities reticulated water supply and sewerage networks. Refer to Sections 4 and 5 of this report.
PO10 Development provides public utilities and street lighting which are the best current or alternative technology and facilitate accessibility, easy maintenance, minimal whole-of-life costs, and minimal adverse environmental impacts.	**AO10.1** Development provides public utilities and street lighting which are located and aligned to: avoid significant native vegetation and areas identified within the Biodiversity areas overlay map; minimise earthworks; avoid crossing waterways, waterway corridors and wetlands or if a crossing is unavoidable, tunnel-boring techniques are used to minimise disturbance, and a disturbed area is reinstated and restored on completion of the work. Note—Guidance on the restoration of habitat is included in the	Not applicable. No new public utilities or street lighting are proposed.

Performance outcomes	Acceptable outcomes	Response
	Biodiversity areas planning scheme policy.	
	AO10.2 Development provides compatible public utility services and street-lighting services which are co-located in common trenching for underground services.	
	AO10.3 Development provides public utilities and street lighting which are designed and constructed in compliance with the public utilities standards in the Infrastructure design planning scheme policy.	
PO11 Development ensures that land used for urban purposes is serviced adequately with telecommunications and energy supply.	**AO11** Development provides land with the following services to the standards of the approved supplier: electricity; telecommunications services; gas service where practicable.	Will comply. Electricity, gas and telecommunications infrastructure is available along the site frontages. Refer to Sections 7 and 8 of this report.
PO12 Development ensures that major public projects promote the provision of affordable, high-bandwidth telecommunications services throughout the city.	**AO12** Development provides conduits which are provided in all major Council and government works projects to enable the future provision of fibre optic cabling, if: the additional expense is unlikely to be prohibitive; or further major work is unlikely or disruption would be a major concern, such as where there is a limited capacity road; or there is a clear gap in the telecommunications network; or there is a clear gap in the bandwidth available to the area. Editor's note—An accurate, digital 'as built' three-dimensional location plan is to be supplied for all infrastructure provided in a road.	Not applicable.
PO13 Development provides public art identified in a neighbourhood plan or park concept plan which: is provided commensurate with the status and scale of the proposed development; is sited and designed: as an integrated part of the project design; as conceptually relevant to the context of the location; to reflect and respond to the cultural values of the community; to promote local character in a planned and informed manner.	**AO13** Development provides public art identified in a neighbourhood plan or park concept plan which is sited and designed in compliance with the public art standards in the Infrastructure design planning scheme policy.	Not applicable.

Performance outcomes	Acceptable outcomes	Response
PO14 Development provides signage of buildings and spaces which promote legibility to help users find their way.	**AO14** Development provides public signage: at public transport interchanges and stops, key destinations, public spaces, pedestrian linkages and at entries to centre developments; which details the location of the key destinations, public spaces and pedestrian linkages in the vicinity, the services available within the development and where they are located. Editor's note—Signage is to be in accordance with Local Law Number 1 (Control of Advertisements Local Law).	Not applicable.
PO15 Development that provides community facilities which form part of the development is functional, safe, low maintenance, and fit for purpose.	**AO15** Development that provides community facilities which form part of the development is designed in compliance with the community facilities standards in the Infrastructure design planning scheme policy.	Not applicable.
PO16 Development provides public toilets which: are required as part of a community facility or park; are located, designed and constructed to be: safe; durable; resistant to vandalism; able to service expected demand; fit for purpose.	**AO16** Development that provides public toilets is designed and constructed in compliance with the public toilets standards in the Infrastructure design planning scheme policy.	Not applicable.
PO17 Development provides bridges, tunnels, elevated structures and water access structures that are designed and constructed using proven methods, materials and technology to provide for: safe movement of intended users; an attractive appearance appropriate to the general surroundings and any adjacent structures; functionality and easy maintenance; minimal whole-of-life cost; longevity; current and future services. Note—All bridges and elevated and associated elements must be designed and certified by a Registered Professional Engineer Queensland in accordance with the Infrastructure design planning scheme policy.	**AO17** Development that provides bridges, tunnels, elevated structures and water access structures is designed and constructed in compliance with the standards in the Infrastructure design planning scheme policy.	Not applicable.

Performance outcomes	Acceptable outcomes	Response
PO18 Development provides culverts which are designed and constructed using proven methods, materials and technology to provide for: safety; an attractive appearance appropriate to the general surroundings; functionality and easy maintenance; minimal whole-of-life cost; longevity; future widening; current and future services; minimal adverse impacts, such as increase in water levels or flow velocities, and significant change of flood patterns. Note—All culverts and associated elements are to be designed and certified by a Registered Professional Engineer Queensland in accordance with the applicable design standards.	**AO18** Development that provides culverts is designed and constructed in compliance with the structures standards in the Infrastructure design planning scheme policy.	Not applicable.
PO19 Development provides batters, retaining walls, and seawalls and river walls which are designed and constructed using proven methods, materials and technology to provide for: safety; an attractive appearance appropriate to the surrounding area; easy maintenance; minimal whole-of-life cost; longevity; minimal water seepage. Note—All retaining walls and associated elements are to be designed and certified by a Registered Professional Engineer Queensland in accordance with the applicable design standards.	**AO19** Development that provides batters, retaining walls, seawalls and river walls is designed and constructed in compliance with the structures standards in the Infrastructure design planning scheme policy.	Not applicable. No new batters or retaining walls are proposed. Any retaining walls required for future dwellings will be designed and certified by a suitably qualified RPEQ. Refer to Section 2.2 of this report.
If for development with a gross floor area greater than 1,000m2		
PO20 Development ensures that construction is managed so that use of public spaces and movement on pedestrian, cyclist and other traffic routes is not unreasonably disrupted and existing landscaping is adequately protected from short- and long-term impacts. Note—The preparation of a construction management plan can assist in demonstrating achievement of this performance	**AO20** Development ensures that during construction: the ongoing use of adjoining and surrounding parks and public spaces, such as malls and outdoor dining, is not compromised; adjoining and surrounding landscaping is protected from damage; safe, legible, efficient and sufficient pedestrian, cyclist and vehicular accessibility and connectivity to the wider network are	Not applicable.

Performance outcomes	Acceptable outcomes	Response
outcome. Note—The Transport, access, parking and servicing planning scheme policy provides advice on the management of vehicle parking and deliveries during construction.	maintained.	
PO21 Development ensures that construction and demolition activities are guided by measures that prevent or minimise adverse impacts including sleep disturbance at a sensitive use, due to noise and dust, including dust from construction vehicles entering and leaving the site. Note—A noise and dust impact management plan prepared in accordance with the Management plans planning scheme policy can assist in demonstrating achievement of this performance outcome.	**AO21.1** Development ensures that demolition and construction: only occur between 6:30am and 6:30pm Monday to Saturday, excluding public holidays; do not occur over periods greater than 6 months.	Will comply.
	AO21.2 Development including construction and demolition does not release dust emissions beyond the boundary of the site.	
	AO21.3 Development construction and demolition does not involve asbestos-containing materials.	
PO22 Development ensures that: construction and demolition do not result in damage to surrounding property as a result of vibration; vibration levels achieve the vibration criteria in Table 9.4.4.3.B, Table 9.4.4.3.C, Table 9.4.4.3.D and Table 9.4.4.3.E. Note—A vibration impact assessment report prepared in accordance with the Noise impact assessment planning scheme policy can assist in demonstrating achievement of this performance outcome.	**AO22** Development ensures that the nature and scale of construction and demolition do not generate noticeable levels of vibration.	Will comply.
If for a material change of use or reconfiguring a lot in an urban area (as defined in the Regulation) involving premises that is, or will be, accessed by common private title, where involving buildings, either attached or detached, that are not covered by other legislation mandating fire hydrants		
PO23 Development ensures that fire hydrants are: installed and located to enable fire services to access water safely, effectively and efficiently; suitably identified so that fire services can locate them at all hours.	**AO23.1** Above or below ground fire hydrants are provided on residential, commercial and industrial streets and private roads, at not more than 90m intervals, and at each street intersection. Note—On residential streets, above ground fire hydrants may be single outlet. On commercial and industrial streets above ground fire hydrants should have dual valved outlets.	Will comply. An existing hydrant in Dewar Terrace provides coverage to both lots within the 80 m maximum hydrant spacing of the SEQ Water Supply and Sewerage Design & Construction Code. Refer to Section 5.3 of this report.
	AO23.2 Fire hydrants are identified by: raised reflectorised pavement markers (RRPM) on sealed roads; marker posts at the fence line where on an unsealed road, as	

Performance outcomes	Acceptable outcomes	Response
	road (HR) or path (HP) hydrants.	
PO24 Development ensures road widths and construction within the development, are adequate for refuse vehicles and for fire emergency vehicles to gain access to a safe working area close to buildings and near water supplies whether or not on-street parking spaces are occupied.	**AO24** Internal private roads have a minimum roadway clearance between obstructions of 3.5m wide and 4.8m high in addition to any width required for on-street parking.	Not applicable. No internal private roads are proposed; both lots have direct frontage to Dewar Terrace.
Development for major electricity infrastructure and bulk water supply infrastructure identified on the State Planning Policy Interactive Mapping System where not in the Utility services zone precinct of the Special purpose zone		
PO25 Development avoids or otherwise minimises adverse impacts on surrounding land uses through the use of buffers and setbacks and the appropriate design and location of plant and operational areas within the site.	**AO25** No acceptable outcome is prescribed.	Not applicable.
Development potentially impacting on major electricity infrastructure and bulk water supply infrastructure identified on the State Planning Policy Interactive Mapping System where the infrastructure is not in the Utility services zone precinct of the Special purpose zone		
PO26 Development is sited and designed to: avoid safety risks to people or property; minimise noise and visual impacts to people and property; ensure the physical integrity and operation, maintenance and expansion of the infrastructure is not compromised.	**AO26** No acceptable outcome is prescribed.	Will comply.
Type of building		
Reinforced or framed structures; industrial and heavy commercial buildings		
Unreinforced or light-framed structures; residential or light commercial type buildings		
0.6mm/s		
Type of building		
Residences, educational establishments and places of worship		
Residences, educational establishments and places of worship		
Industry or commercial premises		
Location		
Continuous vibration		
Critical areas(2)		

Performance outcomes	Acceptable outcomes	Response
Residences		
-		
Offices, educational establishments and places of worship		
Workshops		
Impulsive vibration		
Critical areas		
Residences		
-		
Offices, educational establishments and places of worship		
Workshops		
Location		
Preferred value		
Critical areas(2)		
Residences		
Offices, educational establishments and places of worship		
Workshops		

Table 9.4.3.3.A — Filling and excavation code

Performance outcomes	Acceptable outcomes	Response
PO1 Development for filling or excavation minimises visual impacts from retaining walls and earthworks.	**AO1** Development ensures that the total height of any cut and fill, whether or not retained, does not exceed: 2.5m in a zone in the Industry zones category; 1m in all other zones, or if adjoining a sensitive zone.	Will comply. Earthworks are limited to backfilling the existing pool to match the surrounding levels, and no new retaining walls are proposed.
PO2 Development of a retaining wall proposed as a result of filling or excavation: is designed and constructed to be fit for purpose; does not impact adversely on significant vegetation;	**AO2.1** Development of a retaining structure, including footings, surface drainage and subsoil drainage: is wholly contained within the site; if the total height to be retained is greater than 1m, then: the retaining wall at the property boundary is no greater than	Not applicable. No retaining walls are proposed as part of the filling.

Performance outcomes	Acceptable outcomes	Response
is capable of easy maintenance. Editor's note—A retaining wall also needs to comply with the Building Regulation and embankment gradients will need to comply with the Building Regulation. Note—Guidance on the protection of native vegetation is included in the Biodiversity areas planning scheme policy.	1m above the ground level; all further terracing from the 1m high boundary retaining wall is 1 vertical unit:1 horizontal unit; the distance between each successive retaining wall (back of lower wall to face of higher wall) is no less than 1m horizontally to incorporate planting areas.	
	AO2.2 Development of a retaining wall over 1m in height protects significant vegetation on the site and on adjoining land and is designed and constructed in accordance with the structures standards in the Infrastructure design planning scheme policy and certified by a Registered Professional Engineer Queensland.	
	AO2.3 Development provides a retaining wall finish that presents to adjoining land that is maintenance free if the setback is less than 750mm from the boundary.	
	AO2.4 Development for filling only uses clean fill that does not include any construction rubble, debris, weed seed or viable parts of plant species listed as an undesirable plant species in the Planting species planning scheme policy.	
PO3 Development ensures that a rock anchor is designed and constructed to be fit for purpose.	**AO3** Development ensures that a rock anchor: is constructed in accordance with the standards in the Infrastructure design planning scheme policy; where it extends beyond the property boundary, is supported by a letter of consent from the adjoining land and building owners.	Not applicable. Rock anchors are not proposed.
PO4 Development protects all services and public utilities.	**AO4** Development protects services and public utilities and ensures that any alteration or relocation of services or public utilities meets the standard design specifications of the responsible service authorities.	Will comply. Existing services will be located and protected before works commence.
PO5 Development provides surface and sub-surface drainage to prevent water seepage, concentration of run-off or ponding of stormwater on adjacent land.	**AO5** Development ensures all flows and subsoil drainage are directed to a lawful point of discharge of a surface water diversion drain, including to the top or toe of a retaining wall in accordance with the stormwater drainage section of the Infrastructure design planning scheme policy.	Will comply. The pool backfill will be graded to match the surrounding levels so that existing drainage patterns are maintained.

Performance outcomes	Acceptable outcomes	Response
PO6 Development ensures that the design and construction of all open drainage works is undertaken in accordance with natural channel design principles, being the development of a stormwater conveyance system for major flows, by using a vegetated open channel or drain that approximates the features and functions of a natural waterway to enhance or improve riparian values of those stormwater conveyance systems. Editor's note—Guidance on natural channel design principles can be found in the Council's publication Natural channel design guidelines.	**AO6** Filling or excavation does not involve the construction of open drainage.	Not applicable. No open drainage works are proposed.
PO7 Development for filling or excavation: does not degrade water quality or adversely affect environmental values in receiving waters; ensures site sediment and erosion control standards are best practice.	**AO7.1** Development for filling or excavation provides water quality treatment that complies with the stormwater drainage section of the Infrastructure design planning scheme policy. **AO7.2** Development provides erosion and sediment control standards that are in accordance with the stormwater drainage section of the Infrastructure design planning scheme policy.	Will comply. Erosion and sediment controls will be implemented in accordance with an ESC Program and Plan. Refer to Section 2.5 of this report.
PO8 Development for filling or excavation is conducted such that adverse impacts at a sensitive use due to noise and dust are prevented or minimised. Note—A noise and dust impact management plan prepared in accordance with the Management plans planning scheme policy can assist in demonstrating achievement of this performance outcome.	**AO8.1** Development ensures that no dust emissions extend beyond the boundary of the site, including dust from construction vehicles entering and leaving the site. **AO8.2** Development for filling or excavation activity only occurs between the hours of 6:30am and 6:30pm Monday to Saturday, excluding public holidays.	Will comply. Noise and dust will be managed during the pool demolition and backfilling.
PO9 Development ensures that vibration generated by the filling or excavation operation does not exceed the vibration criteria in Table 9.4.3.3.B, Table 9.4.3.3.C, Table 9.4.3.3.D and Table 9.4.3.3.E. Note—A noise management report prepared in accordance with the Noise impact assessment planning scheme policy can assist in demonstrating achievement of this performance outcome.	**AO9** Development involving filling or excavation does not cause a ground-borne vibration beyond the boundary of the site.	Will comply.
PO10 Development ensures that heavy trucks hauling material to and from the site do not affect the amenity of established areas and limits environmental nuisance impact on adjacent land.	**AO10** Development ensures that heavy trucks hauling material to and from the site: occur for a maximum of 3 weeks;	Will comply. Haulage associated with the pool backfill is minor.

Performance outcomes	Acceptable outcomes	Response
	use a major road to access the site; only use a minor road for the shortest-most-direct route that has the least amount of environmental nuisance if there is no major road alternative.	
PO11 Development for filling or excavation protects the environment and community health and wellbeing from exposure to contaminated land and contaminated material.	**AO11** Development does not involve: excavation on land previously occupied by a notifiable activity or on land listed on the Environmental Management Register or the Contaminated Land Register; filling with material containing a contaminant.	Will comply. Imported fill will be clean, uncontaminated material.
PO12 Development provides for: landscaping for water conservation purposes; water sensitive urban design measures which are employed within the landscape design to maximise stormwater use; drainage and stormwater measures to reduce any adverse impacts on the landscape; stormwater harvesting to be maximised and any adverse impacts of stormwater minimised; reticulated irrigation to all artificial growing environments. Note—The Landscape design planning scheme policy provides guidance on information to be provided to demonstrate compliance with the performance outcome and acceptable outcomes.	**AO12.1** Development provides drainage for artificial growing environments which is connected to the stormwater drain.	Not applicable.
	AO12.2 Development ensures that the maximum site stormwater harvest capacity is utilised to meet the irrigation demand of the development before alternative irrigation sources are utilised and is in compliance with the standards in the Landscape design planning scheme policy.	
	AO12.3 Development provides areas of pavement, turf, landscaping and mulched garden beds which are drained. Note—This may be achieved through the provision and/or treatment of swales, spoon drains, field gullies, sub-surface drainage and stormwater connections.	
	AO12.4 Development provides a reticulated irrigation system to all landscaping areas in accordance with the Landscape design planning scheme policy.	
PO13 Development ensures cutting and filling for the development of canals or artificial waterways avoids adverse impacts on coastal resources and processes.	**AO13** Development does not involve the creation of canals or artificial waterways.	Not applicable.
Type of building		
Reinforced or framed structures; industrial and heavy commercial buildings		
Unreinforced or light-framed structures; residential or light-commercial type buildings		

Performance outcomes	Acceptable outcomes	Response
0.6mm/s		
Type of building		
Residences, educational establishments and places of worship		
Residences, educational establishments and places of worship		
Industry or commercial premises		
Location		
Continuous vibration		
Critical areas(2)		
Residences		
-		
Offices, educational establishments and places of worship		
Workshops		
Impulsive vibration		
Critical areas		
Residences		
-		
Offices, educational establishments and places of worship		
Workshops		
Location		
Preferred value		
Critical areas(2)		
Residences		
Offices, educational establishments and places of worship		
Workshops		

Table 9.4.9.3.A — Stormwater code

Performance outcomes	Acceptable outcomes	Response

Performance outcomes	Acceptable outcomes	Response
Section A—If for a material change of use, reconfiguring a lot, operational work or building work **Note—Compliance with the performance outcomes and acceptable outcomes in this section should be demonstrated by the submission of a site-based stormwater management plan for high risk development only.**		
PO1 Development provides a stormwater management system which achieves the integrated management of stormwater to: minimise flooding; protect environmental values of receiving waters; maximise the use of water sensitive urban design; minimise safety risk to all persons; maximise the use of natural waterway corridors and natural channel design principles. Editor's note—The stormwater management system to be developed to address PO1 is not intended to require management of stormwater quality.	**AO1** Development provides a stormwater management system designed in compliance with the Infrastructure design planning scheme policy.	Will comply. Each lot will discharge to the Dewar Terrace kerb and channel via its own field inlet and kerb adaptor. Refer to Section 3 of this report.
PO2 Development ensures that the stormwater management system and site work does not adversely impact flooding or drainage characteristics of premises which are up slope, down slope or adjacent to the site.	**AO2.1** Development does not result in an increase in flood level or flood hazard on up slope, down slope or adjacent premises.	Will comply. Roof water from future dwellings will be piped to Dewar Terrace, so flows to downstream properties will not increase. Refer to Sections 3.2 and 3.3 of this report.
	AO2.2 Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure design planning scheme policy.	
PO3 Development ensures that the stormwater management system does not direct stormwater run-off through existing or proposed lots and property where it is likely to adversely affect the safety of, or cause nuisance to properties.	**AO3.1** Development ensures that the location of the stormwater drainage system is contained within a road reserve, drainage reserve, public pathway, park or waterway corridor.	Will comply. Stormwater from each lot is discharged directly to the road reserve. Refer to Section 3.5 of this report.
	AO3.2 Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure design planning scheme policy.	
	AO3.3 Development obtains a lawful point of discharge in compliance with the standards in the Infrastructure design planning scheme policy.	
	AO3.4 Where on private land, all underground stormwater infrastructure is secured by a drainage easement.	

Performance outcomes	Acceptable outcomes	Response
PO4 Development provides a stormwater management system which has sufficient capacity to safely convey run-off taking into account increased run-off from impervious surfaces and flooding in local catchments.	**AO4.1** Development provides a stormwater conveyance system which is designed to safely convey flows in compliance with the standards in the Infrastructure design planning scheme policy.	Will comply. The stormwater connections will be designed in accordance with QUDM and Council's Infrastructure design planning scheme policy.
	AO4.2 Development provides sufficient area to convey run-off which will comply with the standards in the Infrastructure design planning scheme policy.	
PO5 Development designs stormwater channels, creek modification works, bridges, culverts and major drains to protect and enhance the value of the waterway corridor or drainage path for fauna movement.	**AO5** Development ensures the design of stormwater channels, creek modifications or other infrastructure, permits terrestrial and aquatic fauna movement.	Not applicable.
PO6 Development ensures that location and design of stormwater detention and water quality treatment: minimises risk to people and property; provides for safe access and maintenance; minimises ecological impacts to creeks and waterways.	**AO6.1** Development locates stormwater detention and water quality treatment: outside of a waterway corridor; offline to any catchment not contained within the development.	Not applicable. No stormwater detention or water quality treatment devices are proposed.
	AO6.2 Development providing for stormwater detention and water quality treatment devices are designed in compliance with the standards in the Infrastructure design planning scheme policy.	
PO7 Development is designed, including any car parking areas and channel works to: reduce property damage; provide safe access to the site during the defined flood event.	**AO7.1** Development (including any ancillary structures and car parking areas) is located above minimum flood immunity levels in Table 9.4.9.3.B, Table 9.4.9.3.C, Table 9.4.9.3.D, Table 9.4.9.3.E and Table 9.4.9.3.F. Note—Compliance with this acceptable outcome can be demonstrated by the submission of a hydraulic and hydrology report identifying flood levels and development design levels (as part of a site-based stormwater management plan).	Not applicable. The site is not affected by flooding. Refer to Section 3.1 of this report.
	AO7.2 Development including the road network provides a stormwater management system that provides safe pedestrian and vehicle access in accordance with the standards in the Infrastructure design planning scheme policy.	
PO8 Development designs stormwater channels, creek modification	**AO8.1** Development ensures natural waterway corridors and drainage	Not applicable.

Performance outcomes	Acceptable outcomes	Response
works and the drainage network to protect and enhance the environmental values of the waterway corridor or drainage path.	paths are retained.	
	AO8.2 Development provides the required hydraulic conveyance of the drainage channel and floodway, while maximising its potential to maximise environmental benefits and minimise scour. Editor's note—Guidance on natural channel design principles can be found in the Council's publication Natural channel design guidelines.	
	AO8.3 Development provides stormwater outlets into waterways, creeks, wetlands and overland flow paths with energy dissipation to minimise scour in compliance with the standards in the Infrastructure design planning scheme policy.	
	AO8.4 Development ensures that the design of modifications to the existing design of new stormwater channels, creeks and major drains is in compliance with the standards in the Infrastructure design planning scheme policy.	
PO9 Development is designed to manage run-off and peak flows by minimising large areas of impervious material and maximising opportunities for capture and re-use.	**AO9** No acceptable outcome is prescribed.	Not applicable.
PO10 Development ensures that there is sufficient site area to accommodate an effective stormwater management system. Note—Compliance with the performance outcome should be demonstrated by the submission of a site-based stormwater management plan for high-risk development only.	**AO10** No acceptable outcome is prescribed.	Not applicable.
PO11 Development provides for the orderly development of stormwater infrastructure within a catchment, having regard to the: existing capacity of stormwater infrastructure within and external to the site, and any planned stormwater infrastructure upgrades; safe management of stormwater discharge from existing and future up-slope development; implication for adjacent and down-slope development.	**AO11.1** Development with up-slope external catchment areas provides a drainage connection sized for ultimate catchment conditions that is directed to a lawful point of discharge.	Not applicable. Each lot discharges to the existing kerb and channel in Dewar Terrace.
	AO11.2 Development ensures that existing stormwater infrastructure that is undersized is upgraded in compliance with the Infrastructure design planning scheme policy.	

Performance outcomes	Acceptable outcomes	Response
PO12 Development provides stormwater infrastructure which: remains fit for purpose for the life of the development and maintains full functionality in the design flood event; can be safely accessed and maintained cost effectively; ensures no structural damage to existing stormwater infrastructure.	**AO12.1** The stormwater management system is designed in compliance with the Infrastructure design planning scheme policy. **AO12.2** Development provides a clear area with a minimum of 2m radius from the centre of an existing manhole cover and with a minimum height clearance of 2.5m.	Will comply. Field inlets and kerb adaptors will be designed and constructed in accordance with BCC Standard Drawing BSD-8114.
PO13 Development ensures that all reasonable and practicable measures are taken to manage the impacts of erosion, turbidity and sedimentation, both within and external to the development site from construction activities, including vegetation clearing, earthworks, civil construction, installation of services, rehabilitation, revegetation and landscaping to protect: the environmental values and water quality objectives of waters; waterway hydrology; the maintenance and serviceability of stormwater infrastructure. Note—The Infrastructure design planning scheme policy outlines the appropriate measures to be taken into account to achieve the performance outcome.	**AO13** No acceptable outcome is prescribed.	Will comply. Refer to Section 2.5 of this report.
PO14 Development ensures that: unnecessary disturbance to soil, waterways or drainage channels is avoided; all soil surfaces remain effectively stabilised against erosion in the short and long term.	**AO14** No acceptable outcome is prescribed.	Will comply.
PO15 Development does not increase: the concentration of total suspended solids or other contaminants in stormwater flows during site construction; run-off which causes erosion either on site or off site.	**AO15** No acceptable outcome is prescribed.	Will comply.
Section B—Additional performance outcomes and acceptable outcomes which apply to high-risk development, being one or more of the following: **a material change of use for an urban purpose which involves greater than 2,500m2 of land that:** **will result in an impervious area greater than 25% of the net developable area; or** **will result in 6 or more dwellings.** **reconfiguring a lot for an urban purpose that involves greater than 2,500m2 of land and will result in 6 or more lots;** **operational work for an urban purpose which involves disturbing greater than 2,500m2 of land.**		

Performance outcomes	Acceptable outcomes	Response
PO16 Development ensures that the entry and transport of contaminants into stormwater is avoided or minimised to protect receiving water environmental values. Note—Prescribed water contaminants are defined in the Environmental Protection Act 1994. Note—Compliance with the performance outcome should be demonstrated by the submission of a site-based stormwater management plan for high-risk development only.	**AO16** Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure design planning scheme policy.	Will comply.
PO17 Development ensures that: the discharge of wastewater to a waterway or external to the site is avoided; or if the discharge cannot practicably be avoided, the development minimises wastewater discharge through re-use, recycling, recovery and treatment. Note—The preparation of a wastewater management plan can assist in demonstrating achievement of this performance outcome. Editor's note—This code does not deal with sewerage which is the subject of the Wastewater code.	**AO17** No acceptable outcome is prescribed.	Will comply. Water from the existing pool will be dechlorinated before it is discharged during demolition.
Section C—Additional performance outcomes and acceptable outcomes for assessable development for a material change of use or reconfiguring a lot		
PO18 Development protects stormwater infrastructure to ensure the following are not compromised: the long term infrastructure for the stormwater network in the Long term infrastructure plans; the existing and planned infrastructure for the stormwater network in the Local government infrastructure plan; the provision of long term, existing and planned infrastructure for the stormwater network which: is required to service the development or an existing and future urban development in the planning scheme area; or is in the interests of rational development or the efficient and orderly planning of the general area in which the site is situated. Editor's note—A condition which requires a proposed development to keep permanent improvements and structures associated with the approved development clear of the area of long term infrastructure, may be imposed.	**AO18** Development protects stormwater infrastructure in compliance with the following: for long term infrastructure for the stormwater network, the Long term infrastructure plans; for existing and planned infrastructure for the stormwater network, the Local government infrastructure plan; the standards for stormwater drainage in the Infrastructure design planning scheme policy.	Will comply.
PO19	**AO19**	Not applicable.

Performance outcomes	Acceptable outcomes	Response
Development provides for the payment of extra trunk infrastructure costs for the following: for development completely or partly outside the priority infrastructure area in the Local government infrastructure plan; for development completely inside the priority infrastructure area in the Local government infrastructure plan involving: trunk infrastructure that is to be provided earlier than planned in the Local government infrastructure plan; long term infrastructure for the stormwater network which is made necessary by development that is not assumed future urban development; other infrastructure for the stormwater network associated with development that is not assumed future urban development which is made necessary by the development. Editor's note—The payment of extra trunk infrastructure costs for development completely inside the priority infrastructure area in the Local government infrastructure plan is to be worked out in accordance with the Charges Resolution. Editor's note—See section 130 Imposing Development conditions (Conditions for extra trunk infrastructure costs) of the Planning Act 2016.	No acceptable outcome is prescribed.	
Flooding type(1)		
Category A		
Waterway(A) or open channel		
Overland flow flooding(B)		
BCA building classification(1)		
Class 1–4		
Non-habitable room including patio and courtyard		
Non-habitable part of a Class 2 or Class 3 building excluding the essential services(2) control room		
Parking located in the building undercroft of a multiple dwelling		
Carport(4), unroofed car park; vehicular manoeuvring area		
Essential electrical services(2) of a Class 2 or Class 3 building only		
Basement parking entry(3)		
Class 5, Class 6, or		

Performance outcomes	Acceptable outcomes	Response
Class 8		
Garage or car park located in the building undercroft(3)		
Carport(4) or unroofed car park		
Vehicular access and manoeuvring areas		
Basement parking entry(3)		
Essential electrical services(2)		
Class 7a		
Class 7b		
Vehicular access and manoeuvring area		
Essential electrical services(2)		
Class 9		
Building floor level for habitable rooms in Class 9a or 9c where for a residential care facility		
Garage or car park located in the building undercroft(3)		
Carport(4) or unroofed car park		
Vehicular access and manoeuvring areas		
Essential electrical services(2)		
Class 10a		
Shed(5) or the like		
Class 10b		
Associated mechanical and electrical pool equipment		
Other structures		
Flooding type(1)		
Residential development		
Waterway(A) or open channel		
Overland flow flooding(B)		
Type of essential community infrastructure		
Emergency services		

Performance outcomes	Acceptable outcomes	Response
Emergency services, where for an emergency shelter		
Emergency services, where for police facilities		
Hospital and health care service, where associated with a hospital		
Community facility where involving storage of valuable records or items of historic or cultural significance (e.g. galleries and libraries)		
State-controlled roads Major or minor electricity infrastructure not otherwise listed in this table Utility installation where for rail transport services Air service Telecommunications facility		
Power stations (as defined in the Electricity Act 1994) or renewable energy facility.		
Major electricity infrastructure where a major switch yard		
Substations		
Utility installation where for a sewage treatment plant		
Utility installation where for a water treatment plant		
Flooding type(1)		
Residential		
Waterway(A) or open channel		
Overland flow flooding(B)		