

SERVICEABILITY REPORT

FOR THE PROPOSED NORTHSHORE HAMILTON DEVELOPMENT

LOCATED AT
221-281 MACARTHUR AVENUE, HAMILTON QLD 4007

PREPARED FOR
ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

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Bornhorst and Ward Project No: **18059**

If you have any queries regarding this proposal, then please contact: **Nick Rozis**

Revision	Date	Description	Author	Rev.	App.
A	Jul 2021	Preliminary Issue to Client	ST	NR	NR

Nicholas Rozis: RPEQ 7729



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1. INTRODUCTION

Bornhorst and Ward has been commissioned to investigate and report on the serviceability requirements pertaining to the Northshore Hamilton development at 221-281 MacArthur Avenue, Hamilton (Lot 302 on SP257483, Lot 1201 on SP160055, Lot 1202 on SP160055, Lot 1203 on SP160055 and Lot 1302 on SP195300). The proposal consists of existing and future activations at Northshore Hamilton, inclusive of 'Eat Street', 'Blockyard Spaces' and 'Flipside'. Plans of the proposed development layout prepared by Land Partners can be seen in Appendix A.

This document reports on the existing and proposed civil works and infrastructure required as part of the proposed development. The engineering requirements for this proposal shall be in accordance with Engineering Best Management Practices, Brisbane City Council City Plan 2014 and the State Planning Policy 2017.

This report provides a desktop investigation of existing site conditions and surrounding infrastructure, while also commenting on potential civil engineering requirements for the proposal.

2. SITE CHARACTERISTICS

2.1 LOCATION AND EXISTING FEATURES

The development site, located at 221-281 MacArthur Avenue has the following existing characteristics:

- The Northshore Hamilton site is bounded by MacArthur Avenue to the north; Northshore Riverside Park to the east; Brisbane River to the south; and Bincote Street and Qube Ports warehouses to the west.
- The approximate area of the site is 9.874 ha.
- Access to the site is to be achieved via vehicular crossovers from MacArthur Avenue, and also via Bincote Street.

Refer to Figure 1 for locality details and Land Partners' Land Use plan in Appendix A which shows the site extent and various 'precincts'.

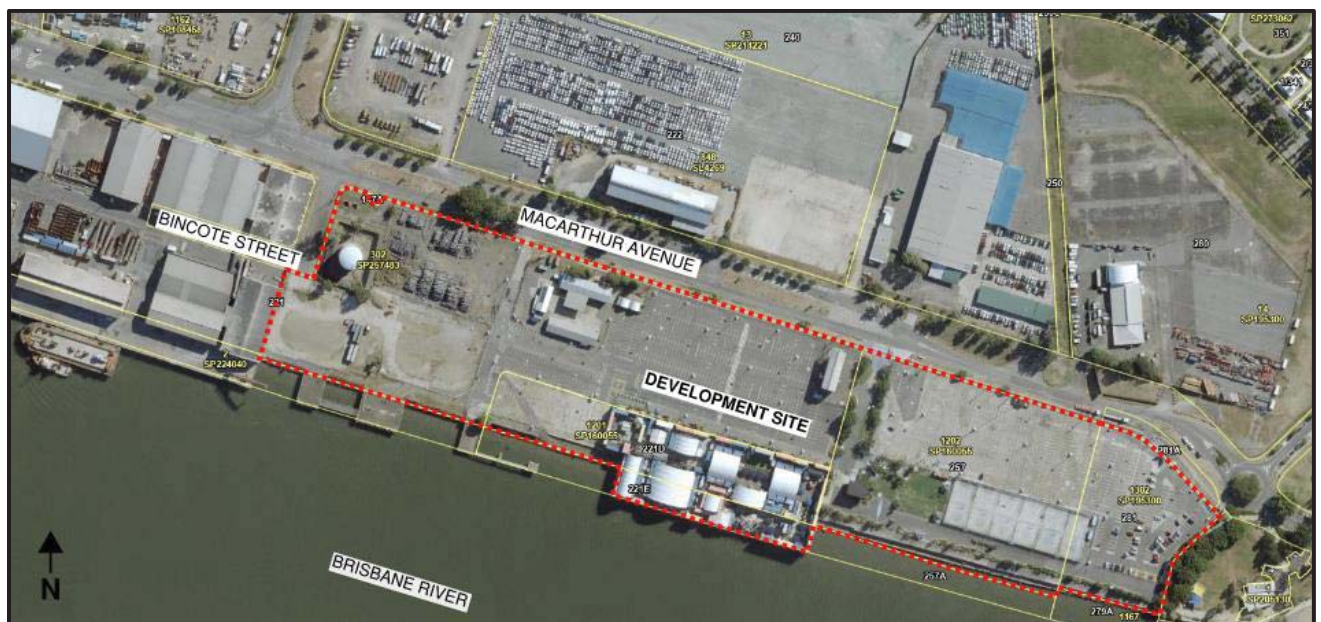


Figure 1: Site Locality Plan

2.2 PROPOSED DEVELOPMENT

The following points outline information regarding the proposed development:

- The site will involve a material change of use (MCU).
- The proposed material change of use comprises 'Flipside', 'Blockyard Spaces', 'Blockyard Workshops', 'Blockyard Shed', 'The Deck', 'Riverwalk', 'The Lawn', and associated pedestrian pathways and carparking. Eat Street Northshore exists on the site and areas for activation/event sites have been identified. The 'Maritime Pop Up Park' and associated access arrangement are being delivered via an exemption and in themselves do not form part of the MCU.
- For the 'Blockyard Spaces' development, a new structure composed of fit out shipping containers is proposed to be built on site, which will be used for a mixture of commercial and office use purposes. There will also be additional landscaping undertaken around the building. Access to the 'Blockyard Spaces' site is proposed via a shared driveway access to MacArthur Avenue.

Refer to the Land Use plan prepared by Land Partners in Appendix A for further details of the proposed development.

2.3 TOPOGRAPHY AND CATCHMENT CHARACTERISTICS

The existing topography and catchment characteristics for the entire Northshore Hamilton site are as follows:

- The high point of the site is at approximately RL 4.70m AHD, located east of the proposed 'Blockyard Workshops'.
- The development falls from the high point at an approximate grade of 1.2% to a low point at approximately RL 3.82m AHD on the southern boundary.
- During major and minor storm events, runoff from the site discharges as overland sheet flow to MacArthur Avenue or towards the southern boundary of the site into the Brisbane River.
- Minor runoff in the western half of the site is also collected by field inlets located around the site and discharged via stormwater outlets located on the southern boundary into the Brisbane River.

2.4 EXISTING FLOODING CONDITIONS AND FREEBOARD REQUIREMENTS

A BCC Floodwise Report has been obtained for the site. The report indicates that the site is subject to flooding from the Brisbane River and coastal tidal changes.

For the development site, the characteristics of the flooding for Lot 302 on SP257483 and Lot 1201 on SP160055 are as follows:

- The flood level during a minor event (5% AEP) is 2.1m AHD from storm-tide flooding.
- The flood level during a major event (1% AEP) is 2.5m AHD from storm-tide flooding.
- The site has a Defined Flood Level (DFL) of 2.1m and a Residential Flood Level (RFL) of 2.2m.
- The site is located in medium and high storm tide inundation and erosion prone areas.

The characteristics of the flooding for Lot 1202 on SP160055, Lot 1203 on SP160055 and Lot 1302 on SP195300 are as follows:

- The flood level during a minor event (5% AEP) is 2.1m AHD from storm-tide flooding.
- The flood level during a major event (1% AEP) is 2.5m AHD from storm-tide flooding.
- All lots have a Defined Flood Level (DFL) of 1.9m. A Residential Flood Level (RFL) of 2.4m applies to Lot 1203 on SP160055 and Lot 1302 on SP195300.

- Lot 1203 on SP160055 and Lot 1302 on SP195300 also fall within the medium and high storm tide inundation and erosion prone areas. While Lot 1202 on SP160055 is located within a medium storm tide inundation and erosion prone area.

Please refer to the Brisbane City Council's Floodwise Property Reports in Appendix C and Figure 2 below for more details.

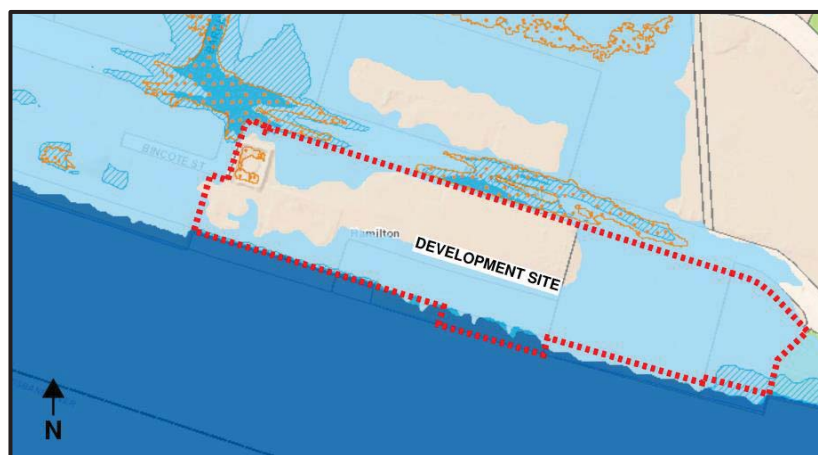


Figure 2: Brisbane City Council Interactive Flood Map

Given the above information, design levels for the building must comply with the flood immunity standards specified by Brisbane City Council's City Plan 2014. As the development site is subjected to both flooding and coastal tide changes, the minimum flood immunity level was taken from the Coastal Hazards Overlay Code as it was the highest determined from these sources and provides the highest level of flooding protection. In accordance with the Brisbane City Council City Plan 2014, the relevant minimum flood freeboard requirements would therefore be in order of:

Table 1: Coastal Hazards Code Freeboard Requirements

Development Area	Council Flood Freeboard Requirements (AHD)	Required Development Level (AHD)
Building Floor Level	Category C (3.1m AHD)	3.1m
Carport or Unroofed Car park	Category D (2% AEP flood level)	2.2m
Vehicular access and manoeuvring areas	Category D (2% AEP level)	2.2m
Essential Electrical Services	Class 5 & 6 – Category A (3.1m AHD + 0.5m)	3.6m
	Class 8 – Category C (1% AEP level at 2100)	3.1m

Table 8.2.6.3.C and Table 8.2.6.3.D of the Brisbane City Council's Coast Hazard Overlay Code were used to determine the required development levels. The flood immunity levels have been based on a BCA building classification of 5, 6 or 8 within Table 8.2.6.3.D. Flood planning level categories associated with this building classification have been deemed as A & C.

Table 1 above states the relevant flood immunity levels for the site. The design will have to consider this flood immunity level and therefore essential infrastructure will have to be built above this level in line, however generally the site levels are already above these requirements. As existing site levels are above the required development levels to satisfy BCC flooding requirements, a minimal amount of earthworks is expected.

It is also noted that MacArthur Avenue is at a lower elevation relative to the site and is inundated in certain areas during a 1% AEP event. Therefore, evacuation via MacArthur Avenue will be required prior to the site becoming inundated. Other precautions should also be considered and implemented where possible including significant controls such as warning/evacuation systems for tenants/users of the development.

3. EXISTING AND PROPOSED CIVIL WORKS AND INFRASTRUCTURE

3.1 STORMWATER

3.1.1 Existing Infrastructure

A Dial Before You Dig investigation and a GIS infrastructure mapping investigation has been completed of the site and its surrounding area. The following stormwater infrastructure was noted:

- An existing 1050mm stormwater pipe is located parallel to the western boundary of the proposed 'Blockyard Spaces' site which discharges via a headwall to the Brisbane River. This pipe conveys stormwater runoff collected from various inlets and stormwater trunk around MacArthur Avenue and further north to the discharge point at the headwall.
- A detailed survey prepared by Landpartners indicates that there is a field inlet located within the existing carpark (SL at RL 3.61mAHD) and another two field inlets with unknown surface levels. There are also two 150mm dia. stormwater outlets which discharge through a concrete wall, with invert levels at RL 3.24mAHD and RL 3.28mAHD.
- A stormwater pipe of unknown diameter exits within the site to discharge stormwater from 'The Tank' development to the Brisbane River.
- There is also a 1220mm dia. stormwater pipe which runs adjacent to the development site's western boundary. This pipe conveys stormwater from existing stormwater infrastructure within Bincote Street and MacArthur Avenue to the Brisbane River.
- Refer to DEV2017/898 for stormwater drainage infrastructure constructed within the site, inclusive of 'Eat Street' and carpark areas.
- Refer to DEV2020/1150 for stormwater infrastructure approved for the 'Flipside' development.

Council Asset Plans of the existing stormwater infrastructure can be found in Appendix C of this report. A detailed survey prepared by Land Partners is shown on the Land Use plan found in Appendix A.

3.1.2 Proposed Infrastructure

The following points outline the proposed stormwater infrastructure for the development site:

- Minor and major events will discharge flows to the Brisbane River via a combination of sheet flow and piped flow (utilising the existing outlets along the revetment wall).
- Surface runoff within the 'Flipside' development will be directed to MacArthur Avenue via overland flow.
- An upstream roof water drainage connection will be provided at the south-eastern corner of the 'Flipside' site and will discharge into the Brisbane River via the existing 450 RCP drainage pipe.
- To minimise works in trench, surface runoff and roof water within the 'Blockyard Spaces' development will discharge to the Brisbane River via existing field inlets located within the development site or as overland flow. The existing field inlets are expected to connect to the two existing 150mm dia. stormwater outlets along the revetment wall, discharging to the Brisbane River.
- An asphalt bund or similar will be placed in the 'Blockyard Spaces' site to divert stormwater from the adjacent carpark.
- As there will be no significant increase to the impervious area as a result of each development on the Northshore Hamilton site, there will be no expected increase to peak stormwater discharge rates from the site. Based on this and the site's proximity to the Brisbane River, no stormwater detention measures are proposed.
- As the works area within each development proposed on the site is less than 2500m², there are no stormwater quality requirements under the BCC's 2014 City Plan and as a result, no stormwater quality treatment measures are proposed.

Refer to Appendix B for drawings of the proposed stormwater infrastructure.

3.2 EARTHWORKS

As part of the enabling civil works for the Maritime 3 precinct, some earthworks will be done within the site. This will include filling to both reduce the volume of earthworks required for the works associated with this development, and to further push surface levels above the flood levels mentioned in section 2.4. The earthworks plan showing this additional fill is shown on the approved drawing C0110(L) (DEV2020/1150) and is attached in Appendix B.

All earthworks will be undertaken in accordance with the Brisbane City Council guidelines.

3.3 EROSION AND SEDIMENT CONTROL PLAN

A comprehensive Erosion and Sediment Control Plan (ESCP) including a construction process will be prepared for this development during the detailed design phase. The ESCP designs will be in accordance with the State Planning Policy 2014 and the Brisbane City Council guidelines.

An Erosion Hazard form has also been included in this application (refer to Appendix F for further information).

3.4 ROADWORKS

There are no roadworks proposed as part of this development. Surrounding footpaths, carparks and access roads will be facilitated as part of adjacent works carried out by EDQ.

3.5 SEWER

3.5.1 Existing Infrastructure

The QUU Asset Plans from a Dial Before You Dig investigation indicate the following existing sewer information:

- A 225mm dia. sewer reticulation main runs along MacArthur Avenue to the north of the site.
- A 150mm dia. sewer reticulation main runs along Bincote Street, located approximately 170m to the west of the site.
- The two above sewer mains feed into a 500mm dia. sewer trunk main which runs north along Theodore Street away from the site.
- There is an existing 150mm dia. sewer connection which is able to service the proposed 'Blockyard Workshops' development.
- There is an existing 225mm dia. sewer reticulation main running parallel to the proposed 'Blockyard Shed', which connects to the 225mm dia. sewer reticulation main along MacArthur Avenue (mentioned above). This main, running parallel to 'Blockyard Shed', services the 'Eat Street' development.
- Refer to DEV2017/898 for sewer infrastructure constructed within the site, inclusive of 'Eat Street'.
- Refer to DEV2020/1150 for sewer infrastructure approved for the 'Flipside' development.

QUU Asset Plans of the existing sewer infrastructure can be found in Appendix C of this report.

3.5.2 Proposed Infrastructure

The proposed sewer infrastructure for this development is as follows:

- Internal plumbing works have been approved as part of DEV2020/1150 which reuse the existing 150mm connection in Bincote Avenue.
- It is proposed to service the 'Blockyard Spaces' development by connecting to the internal plumbing works approved as part of DEV2020/1150.

Refer to Appendix B for drawings of the proposed connections to the sewer network.

3.5.3 Service Advice Notice

A Service Advice Notice (SAN) application will be lodged with QUU to determine the requirements, and whether the existing network has sufficient capacity to service the development. Works required to service the site will be undertaken in accordance with QUU requirements and procedures. All of the internal sewer infrastructure will be documented by a hydraulic consultant.

With respect to 'managing' the impact of uses over time on the sewer network, it is expected that capacity will likely become an issue if, for example, a temporary site activation developed into a high rise building with high demand. Referring to the proposed 'schedule of temporary activities' in Appendix D, this is not expected to be an issue. If the establishment of any 'transitional activations' results in a significant change in demand, thereby impacting capacity, a SAN application will need to be made.

3.6 WATER

3.6.1 Existing Infrastructure

The QUU Asset Plans from a Dial Before You Dig investigation indicate the following existing water infrastructure:

- An existing 150mm CI water reticulation main within the Bincote Street road reserve.
- A 300mm CI water reticulation main, which connects to a 150mm CI water reticulation main, is also located within MacArthur Avenue to the north of the site.
- A domestic 150mm water service exists within the development extents from the water main positioned within Bincote Street, to Eat Street Northshore.
- There are two existing 20mm dia. water services running into the development site, which connect to the 150mm CI water reticulation main in MacArthur Avenue.
- Refer to DEV2017/898 for water infrastructure constructed within the site, inclusive of 'Eat Street'.
- Refer to DEV2020/1150 for water infrastructure approved for the 'Flipside' development.

QUU Asset Plans of the existing water infrastructure can be found in Appendix C of this report.

3.6.2 Proposed Infrastructure

The proposed water infrastructure for the development is as follows:

- It is expected that the existing water connection within Bincote Street will continue servicing the proposed development. All water for the 'Flipside' development and adjacent proposed activation/event sites area will be drawn from the internal water main with all works to be in accordance with QUU requirements.
- New internal sub meter connection from the proposed 150mm diameter ductile iron water main positioned along the southern boundary of 'Flipside' will be constructed to service the development.
- Internal water infrastructure has been proposed which will service proposed activation/event sites areas, 'Maritime Pop Up Park' and 'Blockyard Spaces'.
- 'Blockyard Workshops' is able to connect to the existing 20mm dia. water service, which connects to a 150mm diameter water main in MacArthur Avenue.

Refer to Appendix B for drawings of the proposed water works.

3.6.3 Service Advice Notice

A Service Advice Notice (SAN) application will be lodged with QUU to determine the requirements, and whether the existing network has sufficient capacity to service the development. Works required to service the site will be undertaken in accordance with QUU requirements and procedures. All of the internal water infrastructure will be documented by a hydraulic consultant.

With respect to 'managing' the impact of uses over time on the water network, it is expected that capacity will likely become an issue if, for example, a temporary site activation developed into a high rise building with high demand. Referring to the proposed 'schedule of temporary activities' in Appendix D, this is not expected to be an issue. If the establishment of any 'transitional activations' results in a significant change in demand, thereby impacting capacity, a SAN application will need to be made.

3.7 ELECTRICITY

The Energex Asset Plans from a Dial Before You Dig investigation and a desktop investigation indicate the following:

- Underground electrical infrastructure is located within the verge of MacArthur Avenue and also within the verge of Bincote Street.
- Overhead electrical infrastructure exists within the verge of MacArthur Avenue.
- There is an Energex Ground Transformer and low voltage cable within the site extents, with the cable entering the site at the northern boundary of the eastern carpark.
- There are light poles present on site which may indicate nearby underground cabling.

Energex Asset Plans of the existing electrical infrastructure can be found in Appendix C of this report.

Electrical services required for the proposed development including assessment of the existing infrastructure capacity will be designed and determined by an electrical engineer and will be assessed by Energex during the detailed design phase of the development.

3.8 COMMUNICATIONS

The Telstra and NBN Asset Plans from a Dial Before You Dig investigation indicate the following:

- Telstra below ground communications infrastructure exists along the western site boundary and the northern road reserve of MacArthur Avenue.
- There are internal Telstra and NBN cables within the 'Flipside' property boundary. There is a 100mm conduit which has been laid south from MacArthur Avenue towards the Brisbane River adjacent to the eastern side of the proposed 'Flipside' development. Another 100mm conduit has been laid in a westerly direction from this eastern line (mentioned above) and connects to infrastructure within Bincote Street.
- Internal Telstra cables also exist within the 'Eat Street' development site, the eastern carpark area, the proposed 'Blockyard Spaces' development site, the proposed 'Blockyard Workshops' site and proposed activation/event sites areas.

Telstra and NBN Asset Plans of the existing communications infrastructure can be found in Appendix C of this report.

All works required to provide communication services to the proposed development will be undertaken with the relevant service providers approval and coordination.

3.9 GAS

The APA Asset Plans from a Dial Before You Dig investigation indicate the following:

- High pressure natural gas infrastructure exists in the northern verge of MacArthur Avenue and also in the western verge of Bincote Street.

APA Asset Plans of the existing gas infrastructure can be found in Appendix C of this report. All works required to provide gas services to the proposed development will be undertaken by the appropriate consultant with APA Group's approval and coordination.

4. BRISBANE CITY COUNCIL CODES

The relevant Brisbane City Council Codes with respect to engineering aspects for assessment of the Development Application have been addressed as well as an erosion hazard assessment. The codes will assist in assessing operational works requirements. The codes addressed in this report include: -

- Filing and Excavation Code
- Flood Overlay Code
- Coastal Hazard Overlay Code

The completed codes can be found attached in Appendix E of this Report.

5. SUMMARY

This report relating to the proposed Northshore Hamilton development located at 221-281 MacArthur Street, Hamilton has shown the following:

- The proposed development is to comply with the minimum flood levels noted within the report. A flood risk assessment is also recommended to be completed for evacuation routes for the site.
- It is proposed that surface runoff is collected internally via field inlets or directed to the Brisbane River via overland flow.
- Roof water from the 'Flipside' development is proposed to discharge via proposed underground stormwater pipe infrastructure to the Brisbane River.
- No stormwater quality or quantity measures are proposed due to the site development, size and location.
- Sewer connection options have been proposed to service the site. It is also proposed that the existing water service is utilised to service the site. QUU will be required to confirm the suitability of the water and sewer connections and the capacity of the existing network.
- There is existing electrical, gas and telecommunications infrastructure surrounding the site which may be used to service the development.

APPENDIX A
DEVELOPMENT DRAWINGS

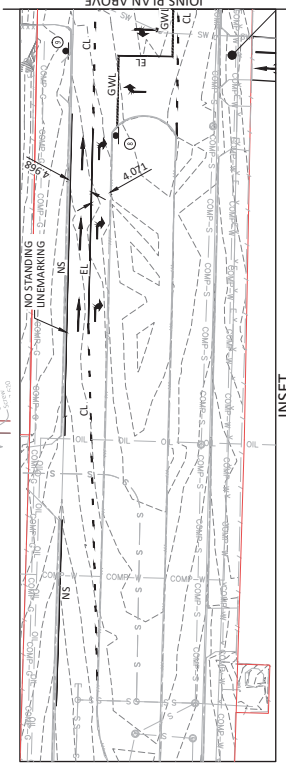


BRISBANE  RIVER

SCALE 1:600 (A1)

NOTE: ALL DIMENSIONS AND AREAS ON THIS PLAN ARE SUBJECT TO SURVEY AND REQUIREMENTS FOR LODGEMENT OF SURVEY PLANS IN THE DEPARTMENT OF RESOURCES

APPENDIX B
ENGINEERING DRAWINGS



ASSOCIATED CONSULTANTS	APPROVED	CHECKED
	N. ROZIS . . . 7729 RPEC	N. ROZIS
	DATE 12/12/16	DATE 12/12/16

CLIENT
ECONOMIC
DEVELOPMENT QLD

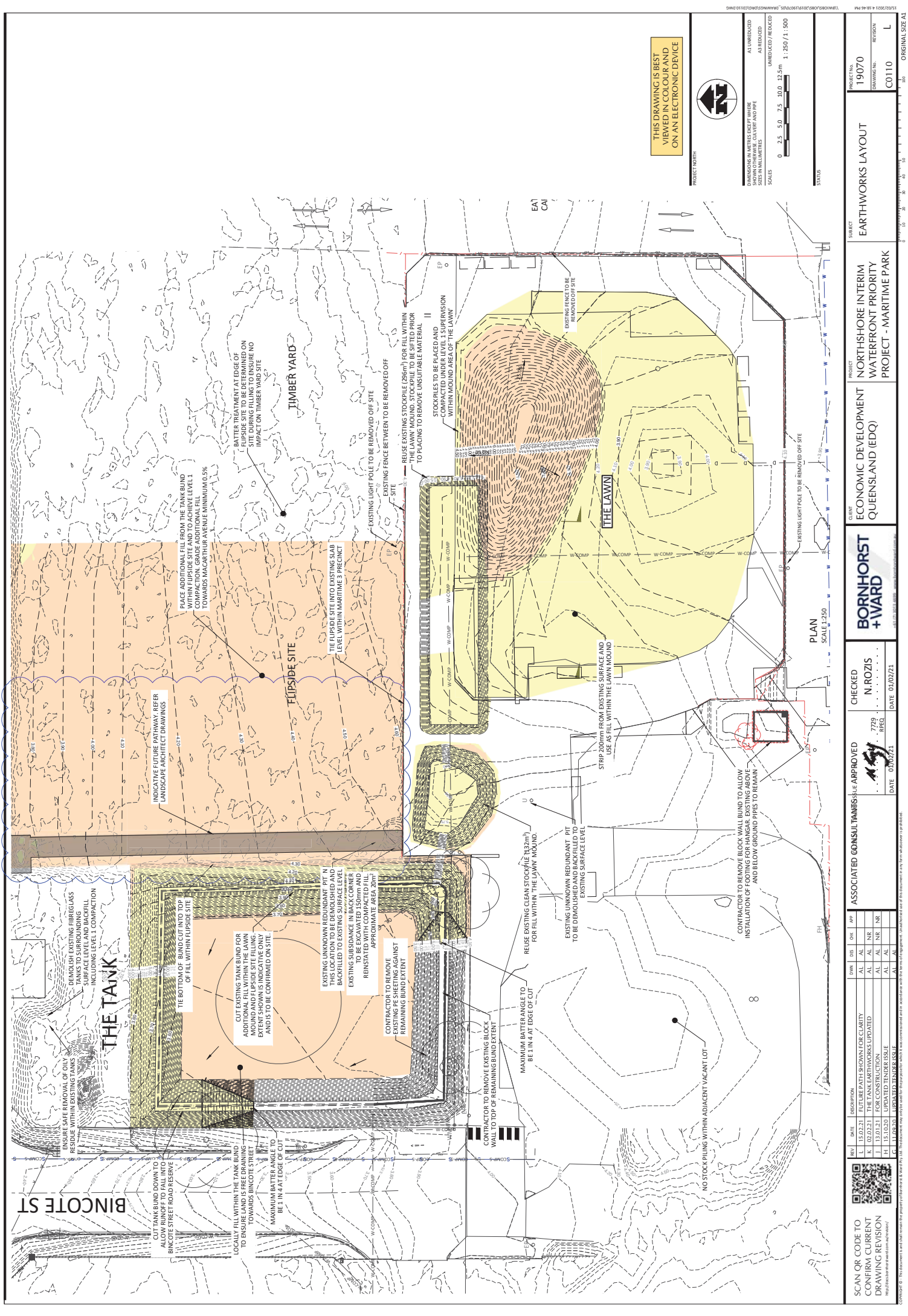
PROJECT
EVENTS SPACE CARPARK
257 MACARTHUR AVENUE
HAMILTON

SUBJECT		PROJECT No.
CARPARK LAYOUT SHEET 1		16214
		DRAWING No.
		REVISION
		P5B-FL0001 01

ORIGINAL SIZE A1



PROJECT	NORTHSHORE INTERIM WATERFRONT PRIORITY PROJECT - MARITIME PARK
SUBJECT	INTERNATIONAL RETICULAR



THIS DRAWING IS BEST VIEWED IN COLOUR AND ON AN ELECTRONIC DEVICE

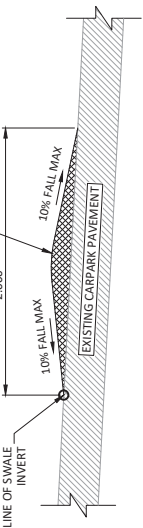
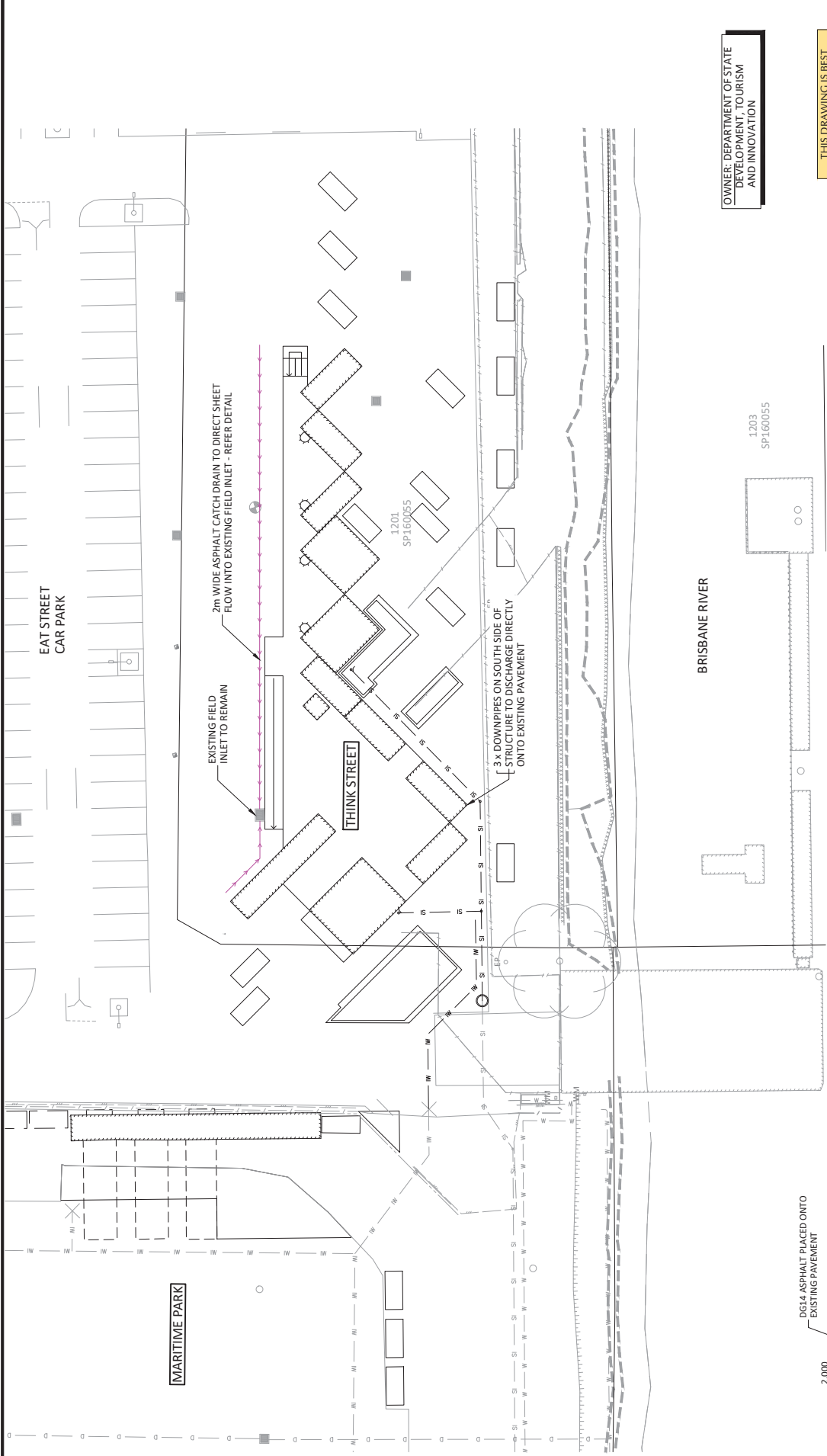


PROJECT NORTH

COMPARISON IN METRES (DO NOT SCALE)	AS UNREMOVED
SHOWING OTHERWISE, CLAYEY AND PIPE	AS REDUCED
SIZES IN MILLIMETRES	
0 2.5 5.0 7.5 10.0 12.5m	UNREMOVED / REDUCED
1:250 / 1:500	

STATUS

 SCAN QR CODE TO CONFIRM CURRENT DRAWING REVISION URL: (Click on url or go to url from any device)	REV	DATE	DESCRIPTION	DWG	DES	CHK	APP	ASSOCIATED CONSULTANTS - BLUE APPROVED <i>A. Strydom</i> 7729 REG.	CHECKED N. ROZIS 7729 REG.	DATE 01/02/23	BORNHORST + WARD	CLIENT ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)	PROJECT NORTHSHORE INTERIM WATERFRONT PRIORITY PROJECT - MARITIME PARK	SUBJECT EARTHWORKS LAYOUT	PROJECT No. 19070	DRAWING No. C0110	REVISION L
	L	15/02/21	FUTURE PATH SHOWN FOR CLARITY	AL	AL	NR											
	K	02/02/21	THE TANK EARTHWORKS UPDATED	AL	AL	NR											
	I	13/01/21	FOR CONSTRUCTION	AL	AL	NR											
	H	15/10/20	UPDATED TENDER ISSUE	AL	AL	NR											
	L	11/02/20	UPDATED TENDER ISSUE	AL	AL			DATE 07/02/21	DATE 01/02/21								



ASPHALT CATCH DRAIN DETAIL
SCALE 1:50

OWNER: DEPARTMENT OF STATE
DEVELOPMENT, TOURISM
AND INNOVATION

THIS DRAWING IS BEST
VIEWED IN COLOUR AND
ON AN ELECTRONIC DEVICE



DIMENSIONS IN METRES UNLESS OTHERWISE SHOWN OTHERWISE CULVERT AND PIPE SIZES IN MILLIMETRES	
AS UNRENDERED	AS RENDERED
0 2.0 4.0 6.0 8.0 10.0m	0 0.5 1.0 1.5 2.0 2.5m
1:200 / 1:400	1:50 / 1:100

PRELIMINARY

SCAN QR CODE TO CONFIRM CURRENT DRAWING REVISION  http://data.bornhorstward.com.au/revinfo	REV	DATE	DESCRIPTION	DWG	DIS	CHK	APP	ASSOCIATED CONSULTANTS		APPROVED	CHECKED	BORNHORST + WARD +61 (0) 7 3171 4444 www.bornhorstward.com.au	CLIENT	PROJECT	SUBJECT	PROJECT No.	
	A	05.07.21	FOR COORDINATION	SG	SG									21114			
BORNHORST + WARD													REVISION	A			
ORIGINAL SIZE A3													200	150	100	50	0

APPENDIX C

EXISTING SERVICES INFORMATION



Brisbane City Council FloodWise Property Report

Report Reference

1619485851572

27/04/2021 11:10:51

Dedicated to a better Brisbane

THIS REPORT IS FOR BUILDING AND DEVELOPMENT PURPOSES ONLY

The FloodWise Property Report provides property or lot-based flood information for building and development requirements. This report provides information on estimated flood levels, habitable floor level requirements and more technical information on the four sources of flooding: river, creek / waterway, storm tide and overland flow. Refer to the Useful Definitions section for a glossary of terms.

To find out more about how the contents of this report may affect building or development on this property, please visit www.brisbane.qld.gov.au/planning-building. For more general information about understanding your flood risk and how to prepare your property, family or business for potential flooding visit www.brisbane.qld.gov.au/beprepared

THIS IS A REPORT FOR:

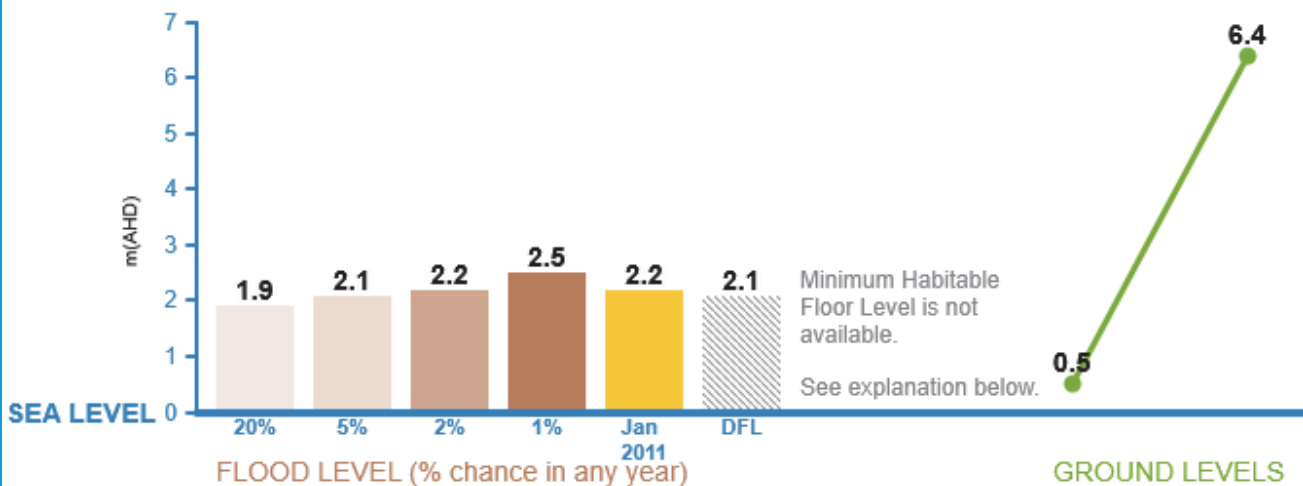
Rateable Address: 221D MACARTHUR AVE, HAMILTON QLD 4007

Lot Details: L.302 SP.257483, L.1201 SP.160055

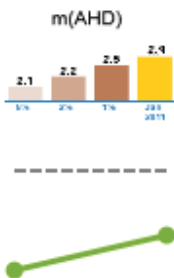
Multiple Lot warning

The Property being reported on contains multiple lots. This report is a summary for the entire Property. To obtain a Lot specific report, please use the search tool to search for the specific Lot you wish to report on.

FLOOD LEVEL INFORMATION



EXPLANATION



m(AHD) - Metres Australia Height Datum. The level of 0.0m AHD is approximately mean sea level.

Flood Levels - The Flood level bar chart above shows the possible flooding level and percentage chance of that level being reached or exceeded in any year. If an orange bar shows, it is the calculated January 2011 flood level at this address or lot. Refer to 'Useful Definitions' for further information.

Minimum Habitable Floor Level - Applies to residential development only. Please refer to Council's planning scheme to learn how this may affect you. If a property is in an overland flow path, or a large allotment, a minimum habitable floor level cannot be provided. Refer flood and planning development flags below.

Ground Levels - The green line above shows this property's approximate lowest and highest ground levels based on latest available information (2019 airborne laser survey) to Council. If you are building, please confirm with a surveyor.

For further information and definitions please refer to the Useful Definitions page

FLOOD AND PLANNING DEVELOPMENT FLAGS

DEVELOPMENT
FLAG(S)

This property may also be affected by one or more flood or property development overlays or flags. These include: LARGE ALLOTMENT, WATERWAY CORRIDOR

Please review the technical summary over page and refer to Council's planning scheme for further information.



Brisbane City Council FloodWise Property Report

Report Reference

1619485851572

27/04/2021 11:10:51

Dedicated to a better Brisbane

TECHNICAL SUMMARY

This section of the FloodWise Property Report contains more detailed flood information for this property so surveyors, builders, certifiers, architects and engineers can plan and build in accordance with Council's planning scheme. For more information about building and development in Brisbane please visit www.brisbane.qld.gov.au/planning-building or talk to a Development Assessment Planning Information Officer via Council's Contact Centre on (07) 3403 8888.

THIS IS A REPORT FOR:

Rateable Address: 221D MACARTHUR AVE, HAMILTON QLD 4007

Lot Details: L.302 SP.257483, L.1201 SP.160055

Multiple Lot warning

The Property being reported on contains multiple lots. This report is a summary for the entire Property. To obtain a Lot specific report, please use the search tool to search for the specific Lot you wish to report on.

PROPERTY INFORMATION (Summary)

The following table provides a summary of flood information for this property. More detailed flood level information is provided in the following sections of this report.

PROPERTY SUMMARY	LEVEL (mAHD)
Minimum Ground Level	0.5
Maximum Ground Level	6.4
Min Habitable Floor Level	Contact Council
Defined Flood Event Level	2.5
Defined Flood Event Level Source	STORMTIDE
Source of Highest Flooding	STORMTIDE
Flooding may also occur from	STORMTIDE,RIVER

ESTIMATED PEAK FLOODING LEVELS

The table below displays the peak estimated flood levels by probability for this property. Estimated flood level data should be used in conjunction with applicable planning scheme requirements - Refer to Flood Planning Development Information.

Note that the overland flow flooding level may be higher than the levels below from other sources.

DESCRIPTION	LEVEL (mAHD)	SOURCE
20% AEP	1.9	STORMTIDE
5% AEP	2.1	STORMTIDE
2% AEP	2.2	STORMTIDE
1% AEP	2.5	STORMTIDE
1% AEP	2.4	RIVER
January 2011	2.2	RIVER
DFL	2.1	RIVER
RFL	2.2	RIVER

FLOOD PLANNING DEVELOPMENT INFORMATION

This section of the FloodWise Property Report contains information about Council's planning scheme overlays. Overlays identify areas within the planning scheme that reflect distinct themes that may include constrained land and/or areas sensitive to the effects of development.

FLOOD OVERLAY CODE

The Flood overlay code of Council's planning scheme uses the following information to provide guidelines when developing properties. The table below summarises the Flood Planning Areas (FPAs) that apply to this property. Development guidelines for the FPAs are explained in Council's planning scheme, which is available from www.brisbane.qld.gov.au/planning-building.

FLOOD PLANNING AREAS (FPA)		
RIVER	CREEK/WATERWAY	OVERLAND FLOW
FPA1		Not Applicable
FPA3		
FPA4		
FPA5		

COASTAL HAZARD OVERLAY CODE

The coastal hazard overlay code of Council's planning scheme uses the following information to provide guidelines when conducting new development. The table below summarises the coastal hazard categories that apply to this property. Development guidelines for the following coastal hazard overlay sub-categories are explained in the planning scheme, which is available from www.brisbane.qld.gov.au/planning-building.

COASTAL HAZARD OVERLAY SUB-CATEGORIES
High Storm Tide Inundation Area
Medium Storm Tide Inundation Area
Erosion Prone - Coastal Erosion
Erosion Prone Area - permanent inundation by 2100

NOTE: Where land is identified within one or more flood planning area on the Flood Overlay, or is identified within a Storm Tide Inundation area on the Coastal Hazard Overlay, the assessment criteria that provide the highest level of protection from any source of flooding applies.

PROPERTY DEVELOPMENT FLAGS

Waterway Corridor - This property may also be located within a mapped waterway corridor as identified in the waterway corridors overlay map of Council's planning scheme. Please consider this in conjunction with Council's planning scheme requirements.

Large Allotment - This property is either a Large Allotment of over 1000 square metres or is located within a Large Allotment. Flood levels may vary significantly across allotments of this size. Further investigations may be warranted in determining the variation in flood levels and the minimum habitable floor level across the site. For more information or advice, it is recommended you engage a Registered Professional Engineer of Queensland.



Brisbane City Council FloodWise Property Report

Report Reference

1619485851572

27/04/2021 11:10:51

Dedicated to a better Brisbane

Useful Definitions

Australian Height Datum (AHD) - The reference level for defining ground levels in Australia. The level of 0.0m AHD is approximately mean sea level.

Annual Exceedance Probability (AEP) - The probability of a flood event of a given size occurring in any one year, usually expressed as a percentage annual chance.

Defined Flood Level (DFL) - The DFL for Brisbane River flooding is a level of 3.7m AHD at the Brisbane City Gauge based on a flow of 6,800 m³/s.

Maximum and Minimum Ground Level - Highest and lowest ground levels on the property based on available ground level information. A Registered Surveyor can confirm exact ground levels.

Minimum Habitable Floor Level - The minimum level in metres AHD at which habitable areas of development (generally including bedrooms, living rooms, kitchen, study, family and rumpus rooms) must be constructed.

Council's Planning Scheme - The City Plan (planning scheme) has been prepared in accordance with the Sustainable Planning Act as a framework for managing development in a way that advances the purpose of the Act. In seeking to achieve this purpose, the planning scheme sets out the Council's intention for future development in the planning scheme area, over the next 20 years.

Residential Flood Level (RFL) - Residential flood level (RFL) for Brisbane River flooding equates to the flood level applicable to the extent of January 2011 floods as depicted by mapping on the Queensland Reconstruction Authority website or the Council's defined flood level (DFL) for the Brisbane River, whichever is higher.

Rateable Address - A Lot or Property may have more than one street address. The address shown on this report is the address used by Council for the Lot or property selected.

Property - A property will contain 1 or more lots. The **Multiple Lot Warning** is shown if you have selected a property that contains multiple lots.

Brisbane City Council's Online Flood Tools

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- to guide planning and development
- to help residents and businesses understand their flood risk and prepare for flooding.

Planning and Development Online Flood Tools

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- FloodWise Property Report
- Flood Overlay Code

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Brisbane City Council FloodWise Property Report

Report Reference

1619485851572

27/04/2021 11:10:51

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Disclaimer

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Brisbane City Council FloodWise Property Report

Report Reference

1624238906301

21/06/2021 11:28:26

Dedicated to a better Brisbane

THIS REPORT IS FOR BUILDING AND DEVELOPMENT PURPOSES ONLY

The FloodWise Property Report provides property or lot-based flood information for building and development requirements. This report provides information on estimated flood levels, habitable floor level requirements and more technical information on the four sources of flooding: river, creek / waterway, storm tide and overland flow. Refer to the Useful Definitions section for a glossary of terms.

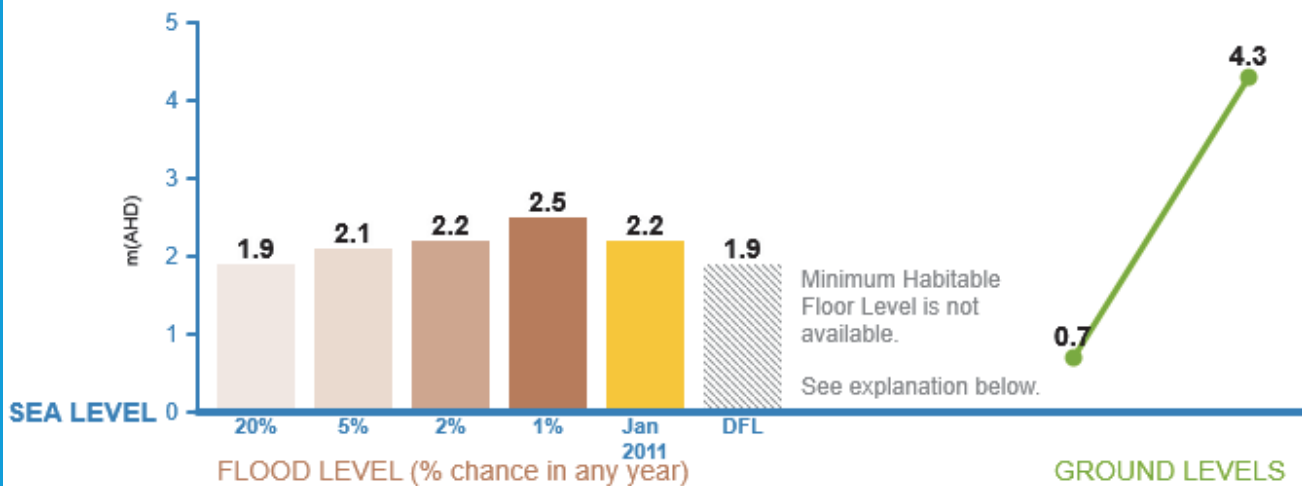
To find out more about how the contents of this report may affect building or development on this property, please visit www.brisbane.qld.gov.au/planning-building. For more general information about understanding your flood risk and how to prepare your property, family or business for potential flooding visit www.brisbane.qld.gov.au/beprepared

THIS IS A REPORT FOR:

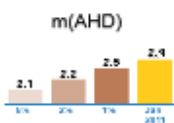
Rateable Address: 281 MACARTHUR AVE, HAMILTON QLD 4007

Lot Details: L.1302 SP.195300 *This is a report for this Lot only*

FLOOD LEVEL INFORMATION



EXPLANATION



m(AHD) - Metres Australia Height Datum. The level of 0.0m AHD is approximately mean sea level.

Flood Levels - The Flood level bar chart above shows the possible flooding level and percentage chance of that level being reached or exceeded in any year. If an orange bar shows, it is the calculated January 2011 flood level at this address or lot. Refer to 'Useful Definitions' for further information.

Minimum Habitable Floor Level - Applies to residential development only. Please refer to Council's planning scheme to learn how this may affect you. If a property is in an overland flow path, or a large allotment, a minimum habitable floor level cannot be provided. Refer flood and planning development flags below.

Ground Levels - The green line above shows this property's approximate lowest and highest ground levels based on latest available information (2019 airborne laser survey) to Council. If you are building, please confirm with a surveyor.

For further information and definitions please refer to the Useful Definitions page

FLOOD AND PLANNING DEVELOPMENT FLAGS

DEVELOPMENT
FLAG(S)

This property may also be affected by one or more flood or property development overlays or flags. These include: LARGE ALLOTMENT, WATERWAY CORRIDOR

Please review the technical summary over page and refer to Council's planning scheme for further information.



Brisbane City Council FloodWise Property Report

Report Reference

1624238906301

21/06/2021 11:28:26

Dedicated to a better Brisbane

TECHNICAL SUMMARY

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THIS IS A REPORT FOR:

Rateable Address: 281 MACARTHUR AVE, HAMILTON QLD 4007

Lot Details: L.1302 SP.195300 *This is a report for this Lot only*

PROPERTY INFORMATION (Summary)

The following table provides a summary of flood information for this property. More detailed flood level information is provided in the following sections of this report.

PROPERTY SUMMARY	LEVEL (mAHD)
Minimum Ground Level	0.7
Maximum Ground Level	4.3
Min Habitable Floor Level	Contact Council
Defined Flood Event Level	2.5
Defined Flood Event Level Source	STORMTIDE
Source of Highest Flooding	STORMTIDE
Flooding may also occur from	STORMTIDE,RIVER

ESTIMATED PEAK FLOODING LEVELS

The table below displays the peak estimated flood levels by probability for this property. Estimated flood level data should be used in conjunction with applicable planning scheme requirements - Refer to Flood Planning Development Information.

Note that the overland flow flooding level maybe higher than the levels below from other sources.

DESCRIPTION	LEVEL (mAHD)	SOURCE
20% AEP	1.9	STORMTIDE
5% AEP	2.1	STORMTIDE
2% AEP	2.2	STORMTIDE
1% AEP	2.5	STORMTIDE
1% AEP	2.4	RIVER
January 2011	2.2	RIVER
DFL	1.9	RIVER
RFL	2.4	RIVER

FLOOD PLANNING DEVELOPMENT INFORMATION

This section of the FloodWise Property Report contains information about Council's planning scheme overlays. Overlays identify areas within the planning scheme that reflect distinct themes that may include constrained land and/or areas sensitive to the effects of development.

FLOOD OVERLAY CODE

The Flood overlay code of Council's planning scheme uses the following information to provide guidelines when developing properties. The table below summarises the Flood Planning Areas (FPAs) that apply to this property. Development guidelines for the FPAs are explained in Council's planning scheme, which is available from www.brisbane.qld.gov.au/planning-building.

FLOOD PLANNING AREAS (FPA)		
RIVER	CREEK/WATERWAY	OVERLAND FLOW
FPA5		Not Applicable

COASTAL HAZARD OVERLAY CODE

The coastal hazard overlay code of Council's planning scheme uses the following information to provide guidelines when conducting new development. The table below summarises the coastal hazard categories that apply to this property. Development guidelines for the following coastal hazard overlay sub-categories are explained in the planning scheme, which is available from www.brisbane.qld.gov.au/planning-building.

COASTAL HAZARD OVERLAY SUB-CATEGORIES
High Storm Tide Inundation Area
Medium Storm Tide Inundation Area
Erosion Prone Area - permanent inundation by 2100
Erosion Prone - Coastal Erosion
Coastal Management District

NOTE: Where land is identified within one or more flood planning area on the Flood Overlay, or is identified within a Storm Tide Inundation area on the Coastal Hazard Overlay, the assessment criteria that provide the highest level of protection from any source of flooding applies.

PROPERTY DEVELOPMENT FLAGS

Waterway Corridor - This property may also be located within a mapped waterway corridor as identified in the waterway corridors overlay map of Council's planning scheme. Please consider this in conjunction with Council's planning scheme requirements.

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Brisbane City Council FloodWise Property Report

Report Reference

1624238906301

21/06/2021 11:28:26

Dedicated to a better Brisbane

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Council's Planning Scheme - The City Plan (planning scheme) has been prepared in accordance with the Sustainable Planning Act as a framework for managing development in a way that advances the purpose of the Act. In seeking to achieve this purpose, the planning scheme sets out the Council's intention for future development in the planning scheme area, over the next 20 years.

Residential Flood Level (RFL) - Residential flood level (RFL) for the Brisbane River flooding equates to the 1% Annual Exceedance Probability flood level.

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Brisbane City Council FloodWise Property Report

Report Reference

1624238906301

21/06/2021 11:28:26

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Disclaimer

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Brisbane City Council FloodWise Property Report

Report Reference

1624238814148

21/06/2021 11:26:54

Dedicated to a better Brisbane

THIS REPORT IS FOR BUILDING AND DEVELOPMENT PURPOSES ONLY

The FloodWise Property Report provides property or lot-based flood information for building and development requirements. This report provides information on estimated flood levels, habitable floor level requirements and more technical information on the four sources of flooding: river, creek / waterway, storm tide and overland flow. Refer to the Useful Definitions section for a glossary of terms.

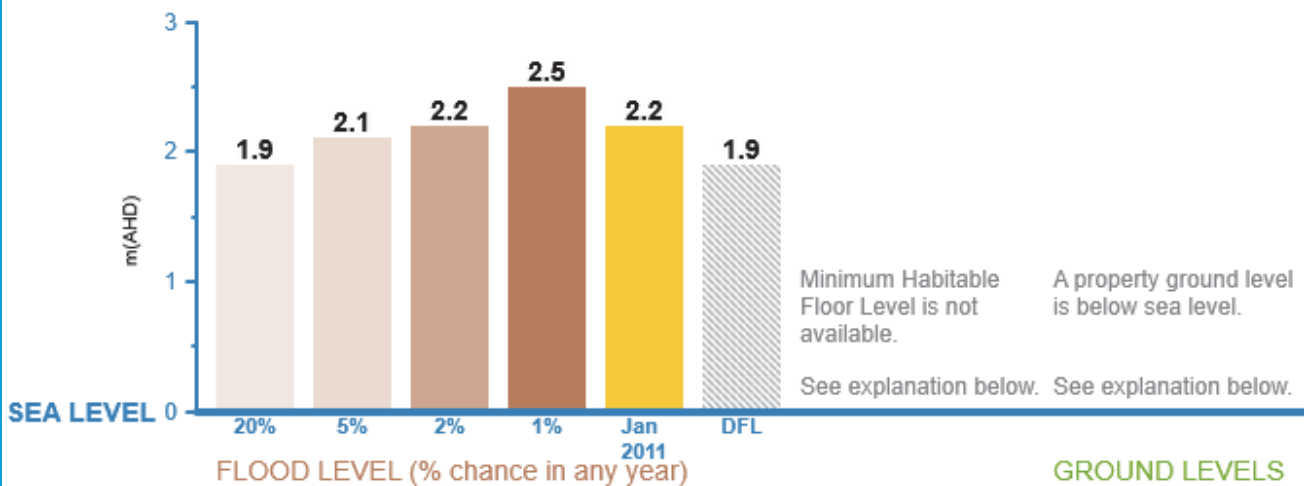
To find out more about how the contents of this report may affect building or development on this property, please visit www.brisbane.qld.gov.au/planning-building. For more general information about understanding your flood risk and how to prepare your property, family or business for potential flooding visit www.brisbane.qld.gov.au/beprepared

THIS IS A REPORT FOR:

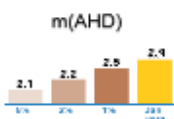
Rateable Address: 257 MACARTHUR AVE, HAMILTON QLD 4007

Lot Details: L.1202 SP.160055 *This is a report for this Lot only*

FLOOD LEVEL INFORMATION



EXPLANATION



m(AHD) - Metres Australia Height Datum. The level of 0.0m AHD is approximately mean sea level.

Flood Levels - The Flood level bar chart above shows the possible flooding level and percentage chance of that level being reached or exceeded in any year. If an orange bar shows, it is the calculated January 2011 flood level at this address or lot. Refer to 'Useful Definitions' for further information.

Minimum Habitable Floor Level - Applies to residential development only. Please refer to Council's planning scheme to learn how this may affect you. If a property is in an overland flow path, or a large allotment, a minimum habitable floor level cannot be provided. Refer flood and planning development flags below.

Ground Levels - The green line above shows this property's approximate lowest and highest ground levels based on latest available information (2019 airborne laser survey) to Council. If you are building, please confirm with a surveyor.

For further information and definitions please refer to the Useful Definitions page

FLOOD AND PLANNING DEVELOPMENT FLAGS

DEVELOPMENT
FLAG(S)

This property may also be affected by one or more flood or property development overlays or flags. These include: LARGE ALLOTMENT, WATERWAY CORRIDOR

Please review the technical summary over page and refer to Council's planning scheme for further information.



Brisbane City Council FloodWise Property Report

Report Reference

1624238814148

21/06/2021 11:26:54

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TECHNICAL SUMMARY

This section of the FloodWise Property Report contains more detailed flood information for this property so surveyors, builders, certifiers, architects and engineers can plan and build in accordance with Council's planning scheme. For more information about building and development in Brisbane please visit www.brisbane.qld.gov.au/planning-building or talk to a Development Assessment Planning Information Officer via Council's Contact Centre on (07) 3403 8888.

THIS IS A REPORT FOR:

Rateable Address: 257 MACARTHUR AVE, HAMILTON QLD 4007

Lot Details: L.1202 SP.160055 *This is a report for this Lot only*

PROPERTY INFORMATION (Summary)

The following table provides a summary of flood information for this property. More detailed flood level information is provided in the following sections of this report.

PROPERTY SUMMARY	LEVEL (mAHD)
Minimum Ground Level	-1.0
Maximum Ground Level	5.4
Min Habitable Floor Level	Contact Council
Defined Flood Event Level	2.5
Defined Flood Event Level Source	STORMTIDE
Source of Highest Flooding	STORMTIDE
Flooding may also occur from	STORMTIDE,RIVER

ESTIMATED PEAK FLOODING LEVELS

The table below displays the peak estimated flood levels by probability for this property. Estimated flood level data should be used in conjunction with applicable planning scheme requirements - Refer to Flood Planning Development Information.

Note that the overland flow flooding level maybe higher than the levels below from other sources.

DESCRIPTION	LEVEL (mAHD)	SOURCE
20% AEP	1.9	STORMTIDE
5% AEP	2.1	STORMTIDE
2% AEP	2.2	STORMTIDE
1% AEP	2.5	STORMTIDE
January 2011	2.2	RIVER
DFL	1.9	RIVER

FLOOD PLANNING DEVELOPMENT INFORMATION

This section of the FloodWise Property Report contains information about Council's planning scheme overlays. Overlays identify areas within the planning scheme that reflect distinct themes that may include constrained land and/or areas sensitive to the effects of development.

FLOOD OVERLAY CODE

There are currently no River, Creek/Waterway, or Overland Flow Flood Planning Areas that apply to this property.

COASTAL HAZARD OVERLAY CODE

The coastal hazard overlay code of Council's planning scheme uses the following information to provide guidelines when conducting new development. The table below summarises the coastal hazard categories that apply to this property. Development guidelines for the following coastal hazard overlay sub-categories are explained in the planning scheme, which is available from www.brisbane.qld.gov.au/planning-building.

COASTAL HAZARD OVERLAY SUB-CATEGORIES
Medium Storm Tide Inundation Area
Erosion Prone - Coastal Erosion

NOTE: Where land is identified within one or more flood planning area on the Flood Overlay, or is identified within a Storm Tide Inundation area on the Coastal Hazard Overlay, the assessment criteria that provide the highest level of protection from any source of flooding applies.

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21/06/2021 11:26:54

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Brisbane City Council FloodWise Property Report

Report Reference

1624238814148

21/06/2021 11:26:54

Dedicated to a better Brisbane

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Brisbane City Council FloodWise Property Report

Report Reference

1624315546685

22/06/2021 08:45:46

Dedicated to a better Brisbane

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The FloodWise Property Report provides property or lot-based flood information for building and development requirements. This report provides information on estimated flood levels, habitable floor level requirements and more technical information on the four sources of flooding: river, creek / waterway, storm tide and overland flow. Refer to the Useful Definitions section for a glossary of terms.

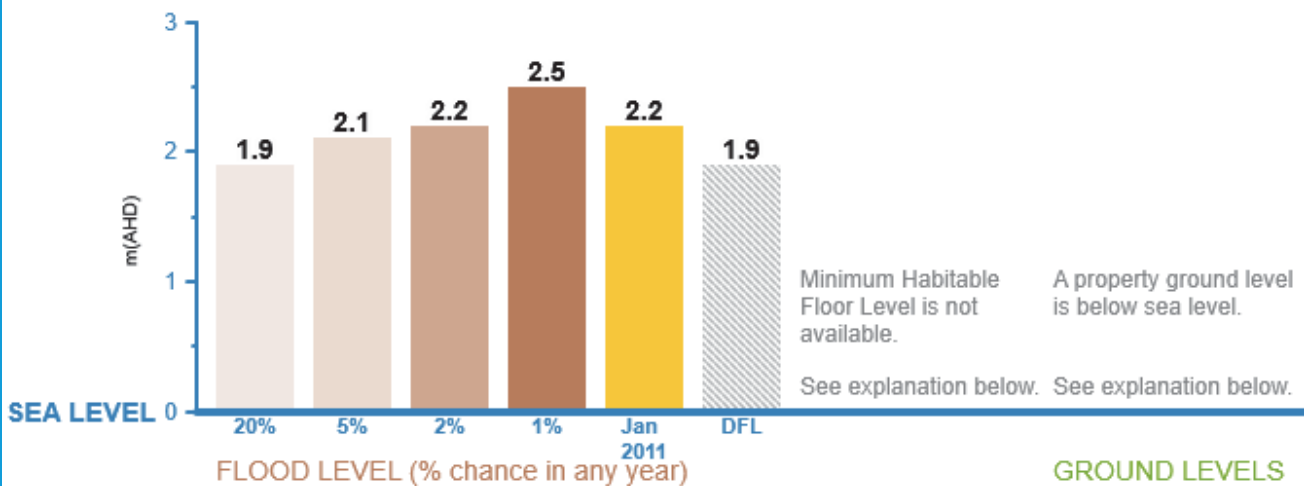
To find out more about how the contents of this report may affect building or development on this property, please visit www.brisbane.qld.gov.au/planning-building. For more general information about understanding your flood risk and how to prepare your property, family or business for potential flooding visit www.brisbane.qld.gov.au/beprepared

THIS IS A REPORT FOR:

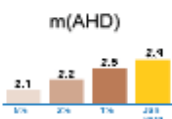
Rateable Address: 257A MACARTHUR AVE, HAMILTON QLD 4007

Lot Details: L.1203 SP.160055 *This is a report for this Lot only*

FLOOD LEVEL INFORMATION



EXPLANATION



m(AHD) - Metres Australia Height Datum. The level of 0.0m AHD is approximately mean sea level.

Flood Levels - The Flood level bar chart above shows the possible flooding level and percentage chance of that level being reached or exceeded in any year. If an orange bar shows, it is the calculated January 2011 flood level at this address or lot. Refer to 'Useful Definitions' for further information.

Minimum Habitable Floor Level - Applies to residential development only. Please refer to Council's planning scheme to learn how this may affect you. If a property is in an overland flow path, or a large allotment, a minimum habitable floor level cannot be provided. Refer flood and planning development flags below.

Ground Levels - The green line above shows this property's approximate lowest and highest ground levels based on latest available information (2019 airborne laser survey) to Council. If you are building, please confirm with a surveyor.

For further information and definitions please refer to the Useful Definitions page

FLOOD AND PLANNING DEVELOPMENT FLAGS

DEVELOPMENT
FLAG(S)

This property may also be affected by one or more flood or property development overlays or flags. These include: LARGE ALLOTMENT, WATERWAY CORRIDOR

Please review the technical summary over page and refer to Council's planning scheme for further information.



Brisbane City Council FloodWise Property Report

Report Reference

1624315546685

22/06/2021 08:45:46

Dedicated to a better Brisbane

TECHNICAL SUMMARY

This section of the FloodWise Property Report contains more detailed flood information for this property so surveyors, builders, certifiers, architects and engineers can plan and build in accordance with Council's planning scheme. For more information about building and development in Brisbane please visit www.brisbane.qld.gov.au/planning-building or talk to a Development Assessment Planning Information Officer via Council's Contact Centre on (07) 3403 8888.

THIS IS A REPORT FOR:

Rateable Address: 257A MACARTHUR AVE, HAMILTON QLD 4007

Lot Details: L.1203 SP.160055 *This is a report for this Lot only*

PROPERTY INFORMATION (Summary)

The following table provides a summary of flood information for this property. More detailed flood level information is provided in the following sections of this report.

PROPERTY SUMMARY	LEVEL (mAHD)
Minimum Ground Level	-1.2
Maximum Ground Level	4.2
Min Habitable Floor Level	Contact Council
Defined Flood Event Level	2.5
Defined Flood Event Level Source	STORMTIDE
Source of Highest Flooding	STORMTIDE
Flooding may also occur from	STORMTIDE,RIVER

ESTIMATED PEAK FLOODING LEVELS

The table below displays the peak estimated flood levels by probability for this property. Estimated flood level data should be used in conjunction with applicable planning scheme requirements - Refer to Flood Planning Development Information.

Note that the overland flow flooding level maybe higher than the levels below from other sources.

DESCRIPTION	LEVEL (mAHD)	SOURCE
20% AEP	1.9	STORMTIDE
5% AEP	2.1	STORMTIDE
2% AEP	2.2	STORMTIDE
1% AEP	2.5	STORMTIDE
1% AEP	2.4	RIVER
January 2011	2.2	RIVER
DFL	1.9	RIVER
RFL	2.4	RIVER

FLOOD PLANNING DEVELOPMENT INFORMATION

This section of the FloodWise Property Report contains information about Council's planning scheme overlays. Overlays identify areas within the planning scheme that reflect distinct themes that may include constrained land and/or areas sensitive to the effects of development.

FLOOD OVERLAY CODE

The Flood overlay code of Council's planning scheme uses the following information to provide guidelines when developing properties. The table below summarises the Flood Planning Areas (FPAs) that apply to this property. Development guidelines for the FPAs are explained in Council's planning scheme, which is available from www.brisbane.qld.gov.au/planning-building.

FLOOD PLANNING AREAS (FPA)		
RIVER	CREEK/WATERWAY	OVERLAND FLOW
FPA1		Not Applicable
FPA2a		
FPA2b		
FPA5		

COASTAL HAZARD OVERLAY CODE

The coastal hazard overlay code of Council's planning scheme uses the following information to provide guidelines when conducting new development. The table below summarises the coastal hazard categories that apply to this property. Development guidelines for the following coastal hazard overlay sub-categories are explained in the planning scheme, which is available from www.brisbane.qld.gov.au/planning-building.

COASTAL HAZARD OVERLAY SUB-CATEGORIES
High Storm Tide Inundation Area
Medium Storm Tide Inundation Area
Erosion Prone Area - permanent inundation by 2100
Erosion Prone - Coastal Erosion
Coastal Management District

NOTE: Where land is identified within one or more flood planning area on the Flood Overlay, or is identified within a Storm Tide Inundation area on the Coastal Hazard Overlay, the assessment criteria that provide the highest level of protection from any source of flooding applies.

PROPERTY DEVELOPMENT FLAGS

Waterway Corridor - This property may also be located within a mapped waterway corridor as identified in the waterway corridors overlay map of Council's planning scheme. Please consider this in conjunction with Council's planning scheme requirements.

Large Allotment - This property is either a Large Allotment of over 1000 square metres or is located within a Large Allotment. Flood levels may vary significantly across allotments of this size. Further investigations may be warranted in determining the variation in flood levels and the minimum habitable floor level across the site. For more information or advice, it is recommended you engage a Registered Professional Engineer of Queensland.



Brisbane City Council FloodWise Property Report

Report Reference

1624315546685

22/06/2021 08:45:46

Dedicated to a better Brisbane

Useful Definitions

Australian Height Datum (AHD) - The reference level for defining ground levels in Australia. The level of 0.0m AHD is approximately mean sea level.

Annual Exceedance Probability (AEP) - The probability of a flood event of a given size occurring in any one year, usually expressed as a percentage annual chance.

Defined Flood Level (DFL) - The DFL for Brisbane River flooding is a level of 3.7m AHD at the Brisbane City Gauge based on a flow of 6,800 m³/s.

Maximum and Minimum Ground Level - Highest and lowest ground levels on the property based on available ground level information. A Registered Surveyor can confirm exact ground levels.

Minimum Habitable Floor Level - The minimum level in metres AHD at which habitable areas of development (generally including bedrooms, living rooms, kitchen, study, family and rumpus rooms) must be constructed.

Council's Planning Scheme - The City Plan (planning scheme) has been prepared in accordance with the Sustainable Planning Act as a framework for managing development in a way that advances the purpose of the Act. In seeking to achieve this purpose, the planning scheme sets out the Council's intention for future development in the planning scheme area, over the next 20 years.

Residential Flood Level (RFL) - Residential flood level (RFL) for the Brisbane River flooding equates to the 1% Annual Exceedance Probability flood level.

Rateable Address - A Lot or Property may have more than one street address. The address shown on this report is the address used by Council for the Lot or property selected.

Property - A property will contain 1 or more lots. The **Multiple Lot Warning** is shown if you have selected a property that contains multiple lots.

Brisbane City Council's Online Flood Tools

Council provides a number of online flood tools:

- to guide planning and development
- to help residents and businesses understand their flood risk and prepare for flooding.

Planning and Development Online Flood Tools

Council's online flood tools for planning and development purposes include:

- FloodWise Property Report
- Flood Overlay Code

For more information on Council's planning scheme and online flood tools for planning and development:

- phone 07 3403 8888 to talk to a Development Assessment Customer Liaison Officer
- visit www.brisbane.qld.gov.au/planning-building
- visit a Regional Business Centre.

Helping residents and businesses be prepared for flooding

Council has a range of free tools and information to help residents and businesses understand potential flood risks and how to be prepared. This includes:

- Flood Awareness Map
- Flooding in Brisbane - A Guide for Residents
- Flooding in Brisbane - A Guide for Businesses
- Early Warning Alert Service. Visit www.brisbane.qld.gov.au/earlywarning to register for email, home phone or SMS severe weather alert updates.

Note: The Flood Awareness Map shows four levels of flood likelihood from high likelihood (flooding is very likely to occur) through to very low likelihood (very rare and extreme flood events).

For more information on Council's online flood tools for residents and business:

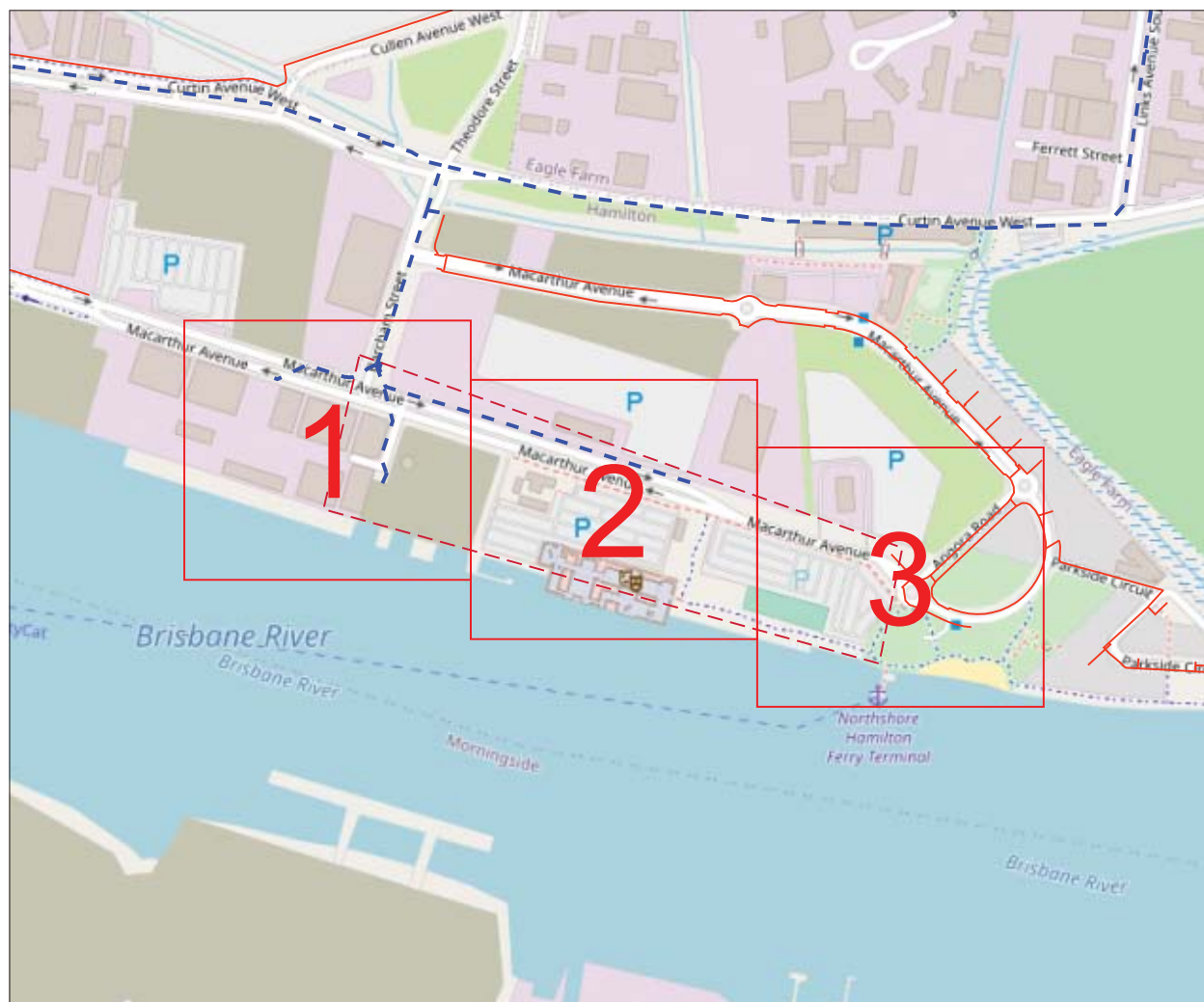
- Visit www.brisbane.qld.gov.au/beprepared
- Phone (07) 3403 8888.

22/06/2021

SCALE: DO NOT SCALE

REF NO: 111066466

As work on APA underground plant is ongoing any drawing with an issue date of more than one month previous can no longer be considered valid. All persons planning civil works on any site are advised to contact APA to confirm location. All underground gas pipelines are the property of APA & are not to be accessed by unauthorised persons. All care is taken with preparation of the drawings & no responsibility is accepted for errors or omissions.



111066466

Scale: 1: 7000

0 0.1km



Data Source

Pipeline Data Copyright APA Group, Property Parcels Copyright QLD Government, UBD Imagery – Copyright Sensis, DBYD Dig Location provided by DBYD.

operated by



This map is created in colour and shall be printed in colour.

Legend

Distribution Main

- Class 900 Transmission
- Class 600 Transmission
- Class 300 Transmission
- High Pressure Steel
- High Pressure PE Trunk
- High Pressure/ Class 500
- Medium Pressure PE/ Nylon
- Medium Pressure (Allgas)
- Low Pressure
- LPG
- TLP
- Proposed/ Under Construction
- Idle Gas Pipe
- Abandoned Gas Pipe
- Sleeve

(1) Medium Pressure in AGN/ Nylon in Allgas

Gas Assets and Fittings

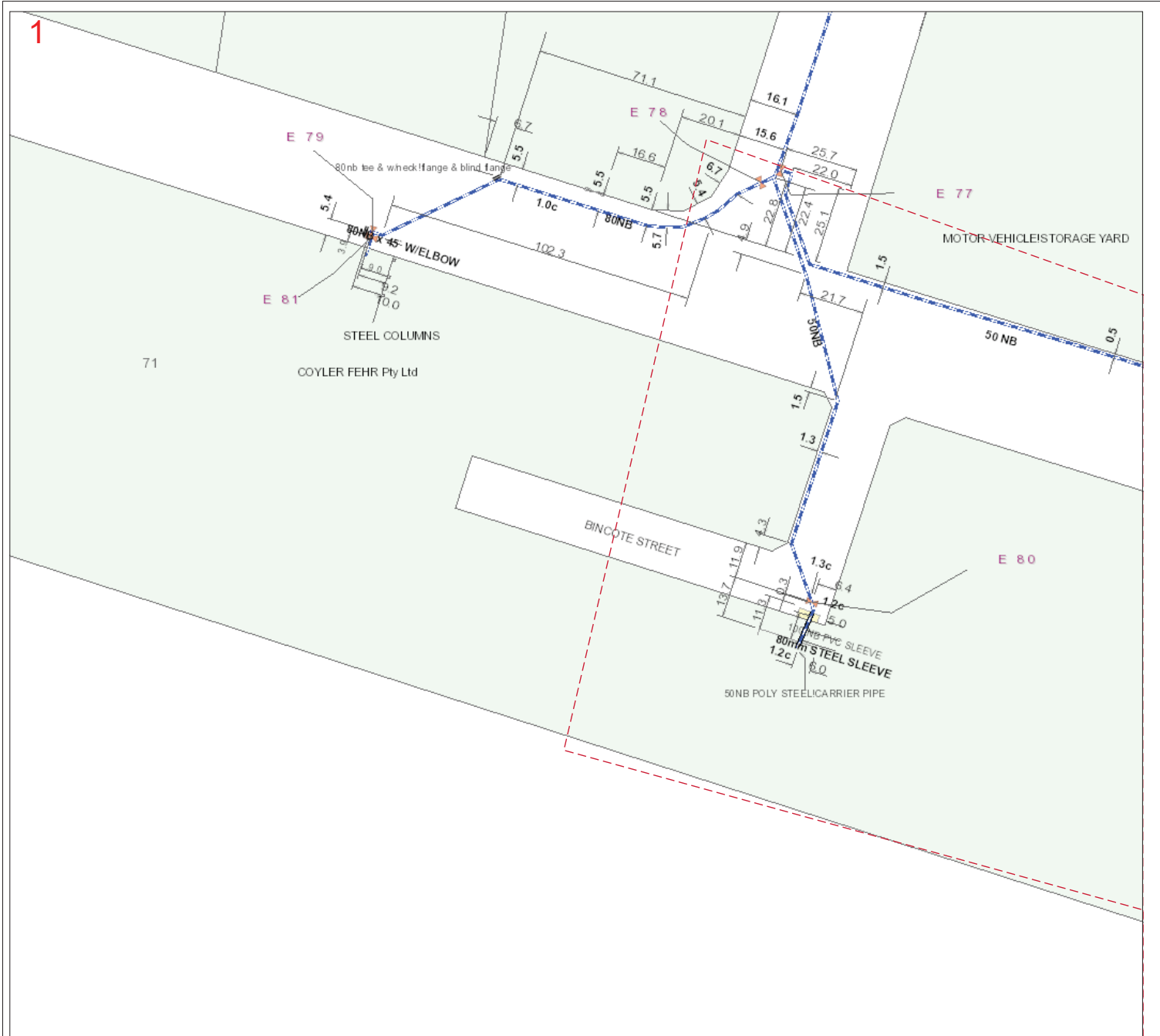
- Gate Station
- Regulator Station
- Block/ Emergency Valve
- Isolation Valve
- Test Point
- Syphon
- Anode
- Pipeline Marker
- Trace Wire Point
- Reducer
- Pipe Connector/ Tee
- Pipe Connector
- End Cap

Pipe Materials

- CI Cast Iron
- CU Copper
- GAL Wrought Galvanised Iron
- PGAL Poly Coated Wrought Galvanised Iron
- ST Steel
- NY/ NY11 Nylon
- PE Polyethylene
- MDPE Medium Density Polyethylene
- HDPE High Density Polyethylene
- DN Nominal Diameter
- OD Outside Diameter

Examples: 40PE in DN80 CI 40mm Polyethylene in an 80mm (Nominal Diameter) Cast Iron Sleeve
63PE INS 63mm Polyethylene inserted in another pipe

Line/ Polygon Request



111066466 Map Sheet: 1

Scale: 1: 1000

0 0.01km



Map Key:



Legend

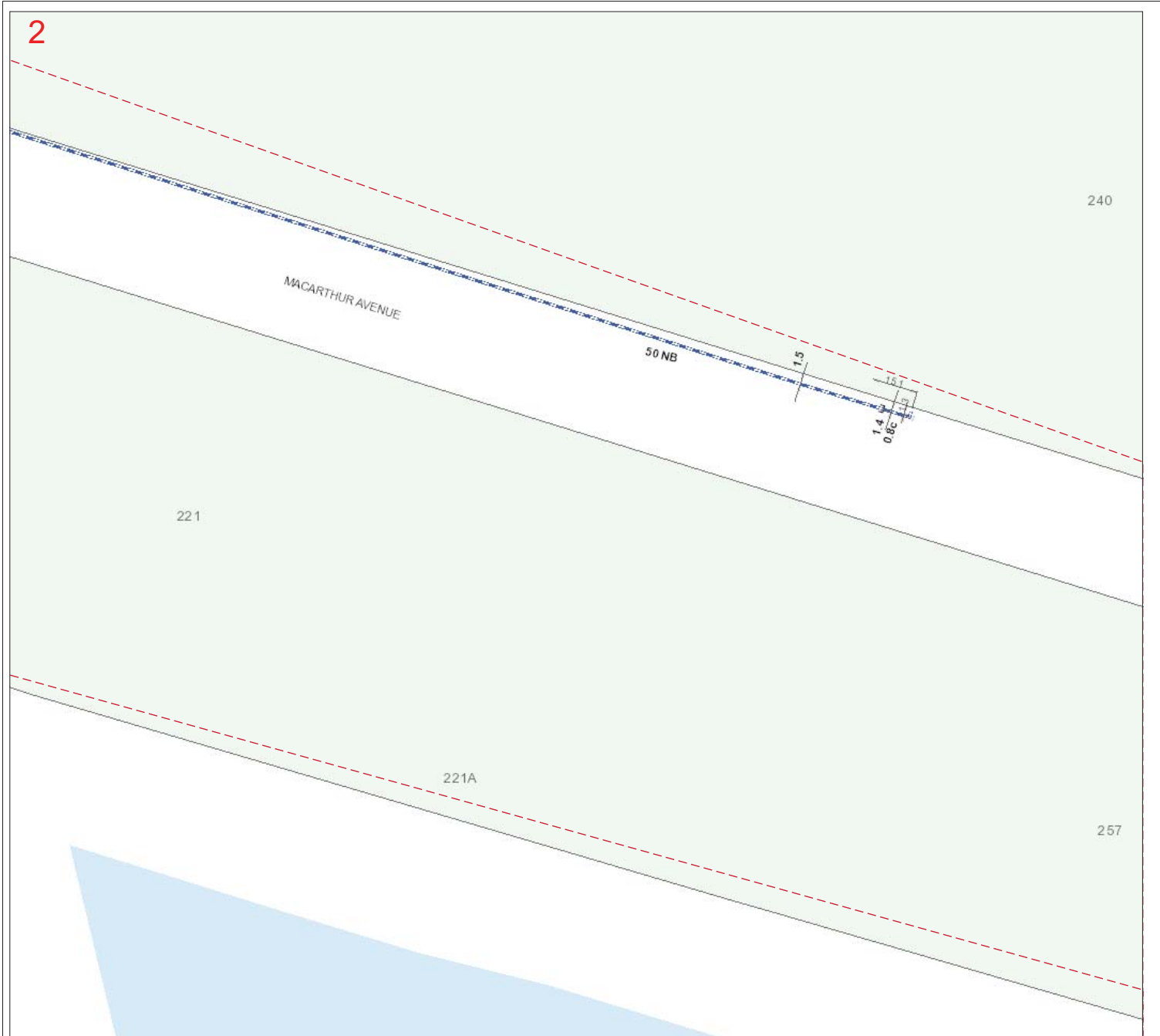
Distribution Main	Gas Assets and Fittings	Pipe Materials
- Class 900 Transmission - Class 600 Transmission - Class 300 Transmission - High Pressure Steel - High Pressure PE Trunk - High Pressure/ Class 500 - Medium Pressure PE/ Nylon - Medium Pressure (Allgas) - Low Pressure - LPG - TLP - Proposed/ Under Construction - Idle Gas Pipe - Abandoned Gas Pipe - Sleeve	- Gate Station - Regulator Station - Block/ Emergency Valve - Isolation Valve - Test Point - Syphon - Anode - Pipeline Marker - Trace Wire Point - Reducer - Pipe Connector/ Tee - Pipe Connector - End Cap	- CI Cast Iron - CU Copper - GAL Wrought Galvanised Iron - PGAL Poly Coated Wrought Galvanised Iron - ST Steel - NY/ NY11 Nylon - PE Polyethylene - MDPE Medium Density Polyethylene - HDPE High Density Polyethylene - DN Nominal Diameter - OD Outside Diameter

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Line/ Polygon Request

Data Source

Pipeline Data Copyright APA Group, Property Parcels Copyright QLD Government, UBD Imagery - Copyright Sensis, DBYD Dig Location provided by DBYD.



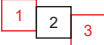
111066466 Map Sheet: 2

Scale: 1: 1000

0 0.01km



Map Key:



Legend

Distribution Main

- Class 900 Transmission
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- High Pressure Steel
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[1] Medium Pressure in AGN/ Nylon in Allgas

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- Pipe Connector
- End Cap

Pipe Materials

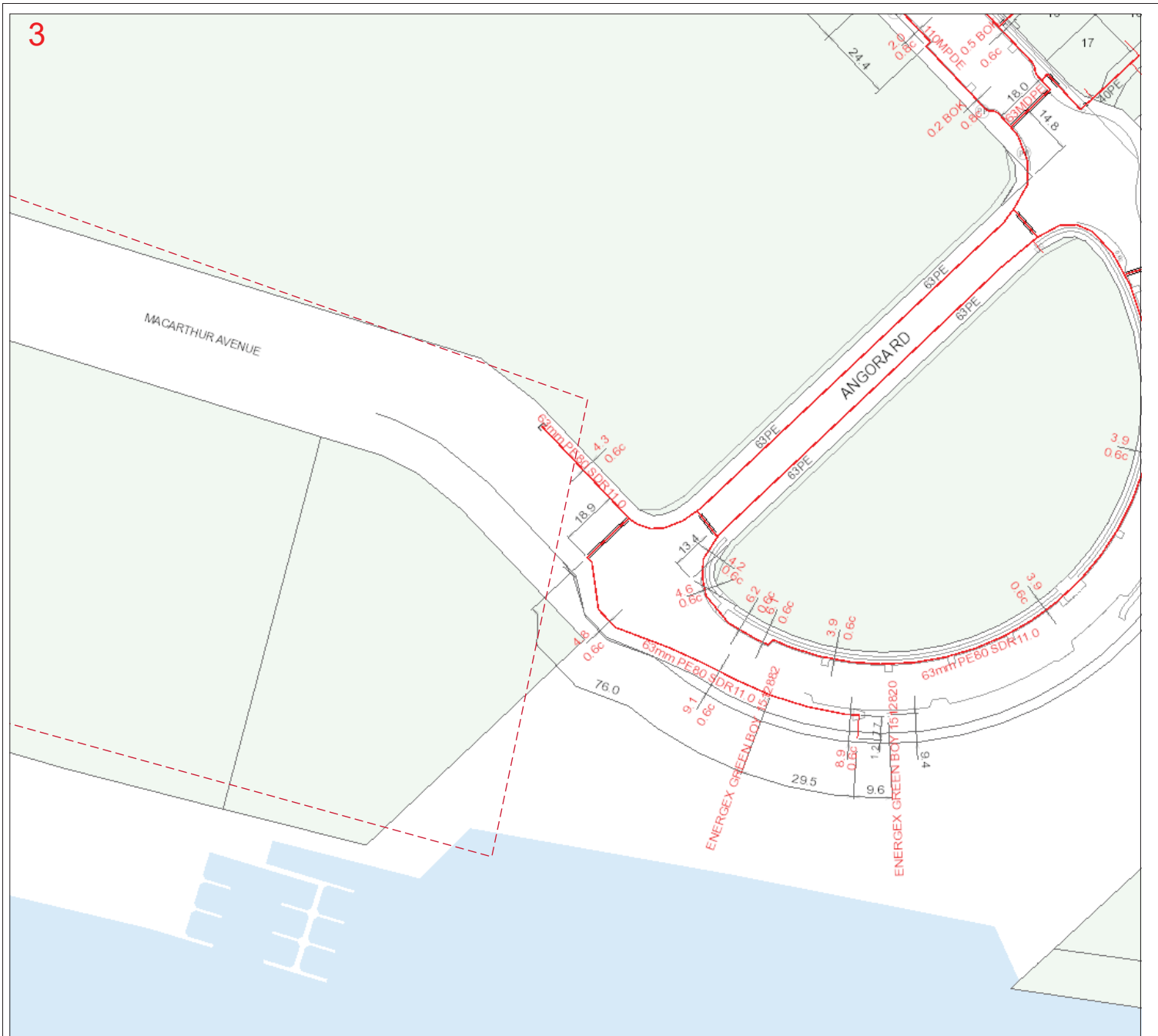
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Line/ Polygon Request

Data Source

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111066466 Map Sheet: 3

Scale: 1: 1000

0 0.01km



Map Key:



Legend

Distribution Main

- Class 900 Transmission
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Legend

-  DBYD Enquiry
-  Detailed map page
-  No dig site assets

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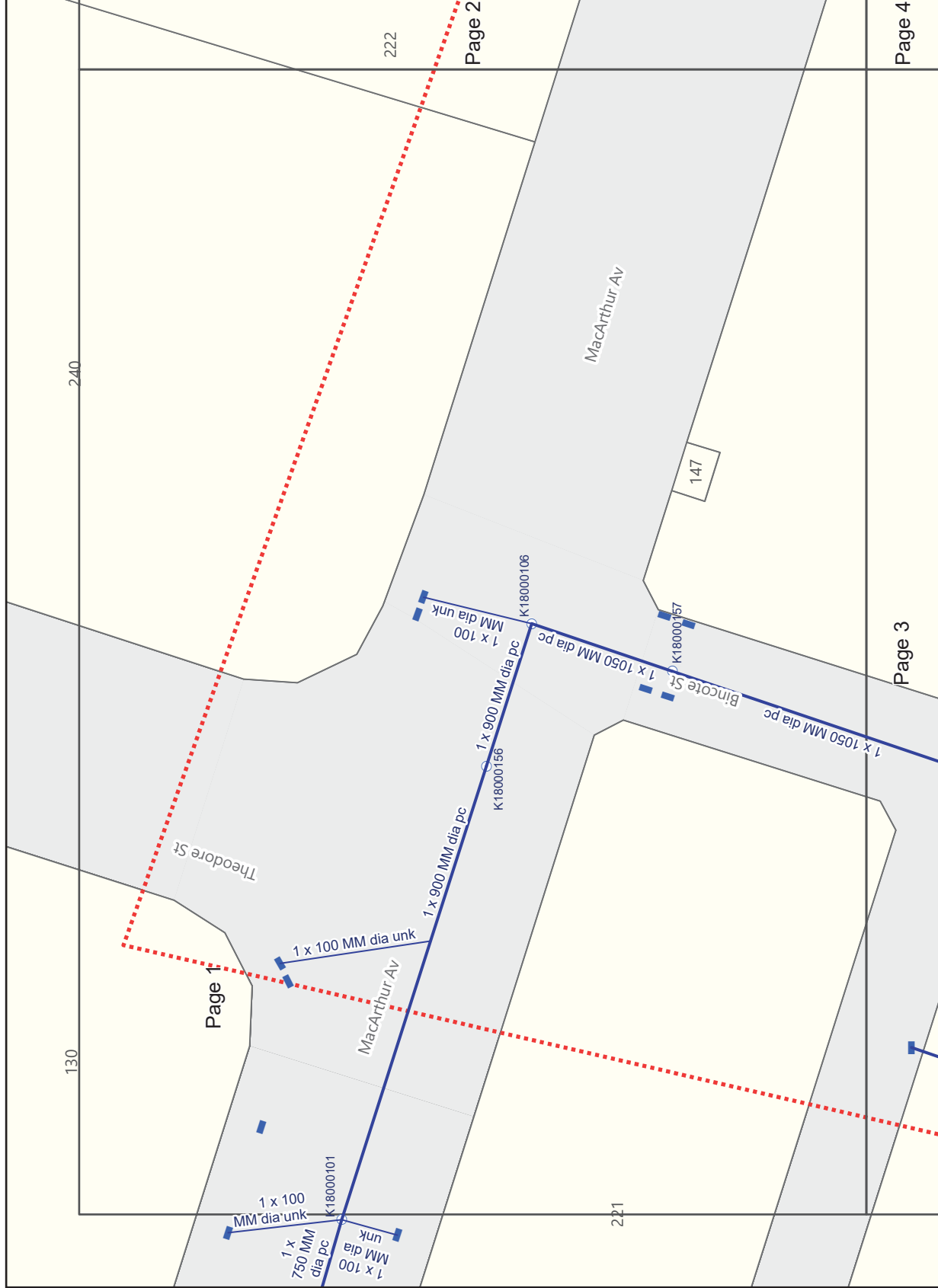
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Job # 21852746
Seq # 111066463
Provider: Brisbane City Council
Telephone: 07 3403 8888



- Legend**
- DBYD Enquiry
 - Stormwater Network**
 - Stormwater Drain
 - Stormwater Gully / Roofwater Connection
 - Stormwater Maintenance Hole
 - Stormwater Gully Pit

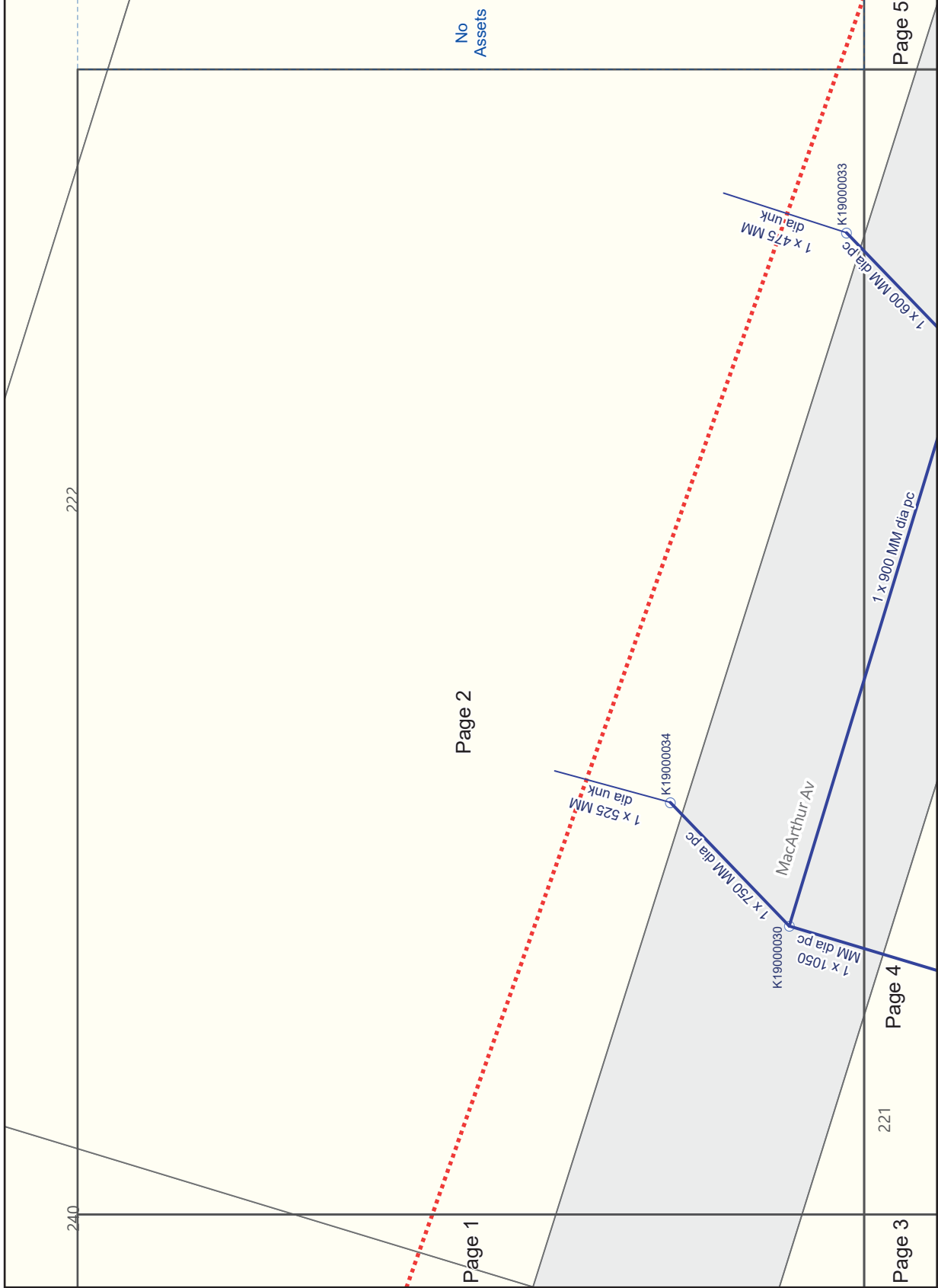
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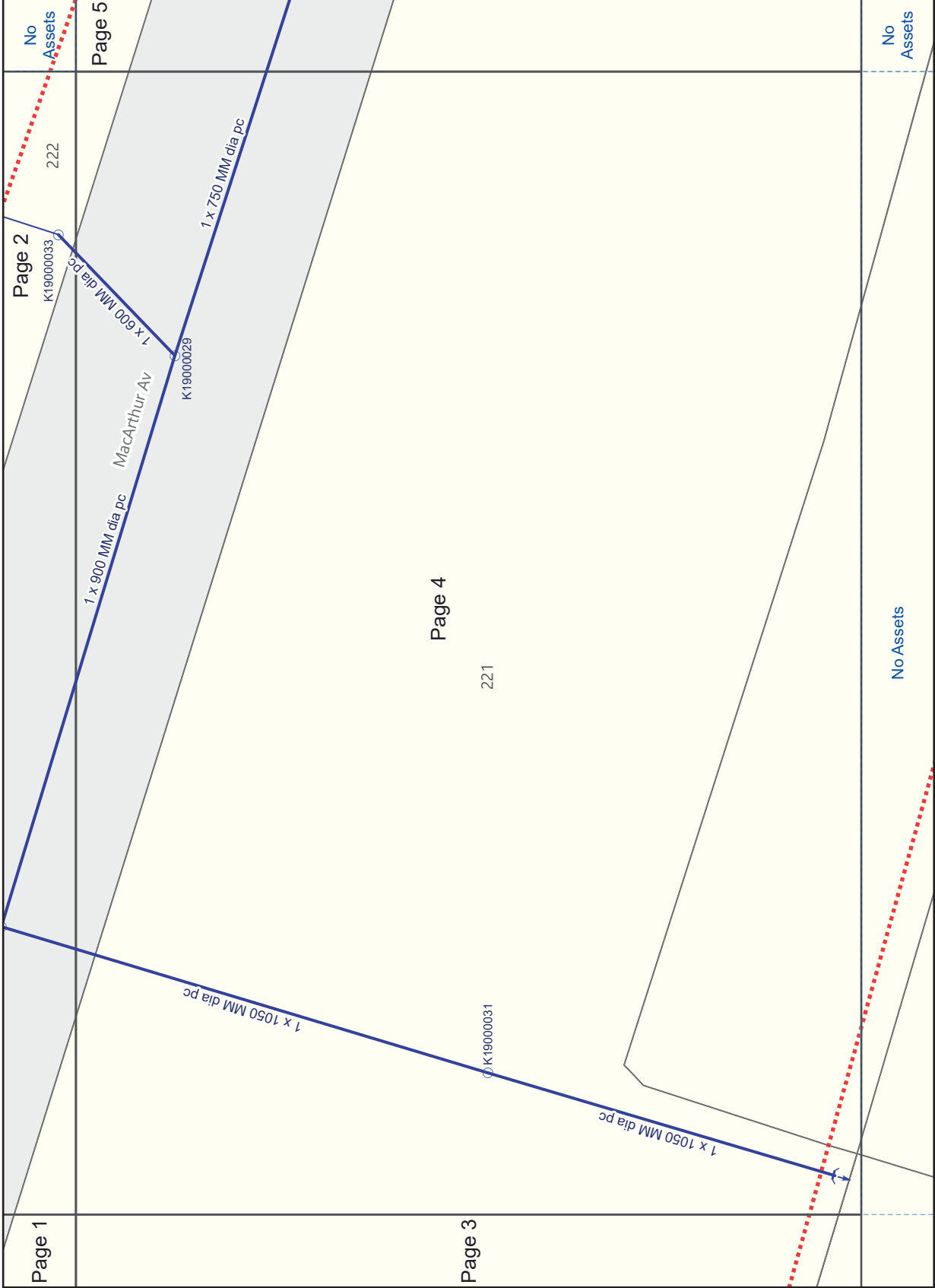
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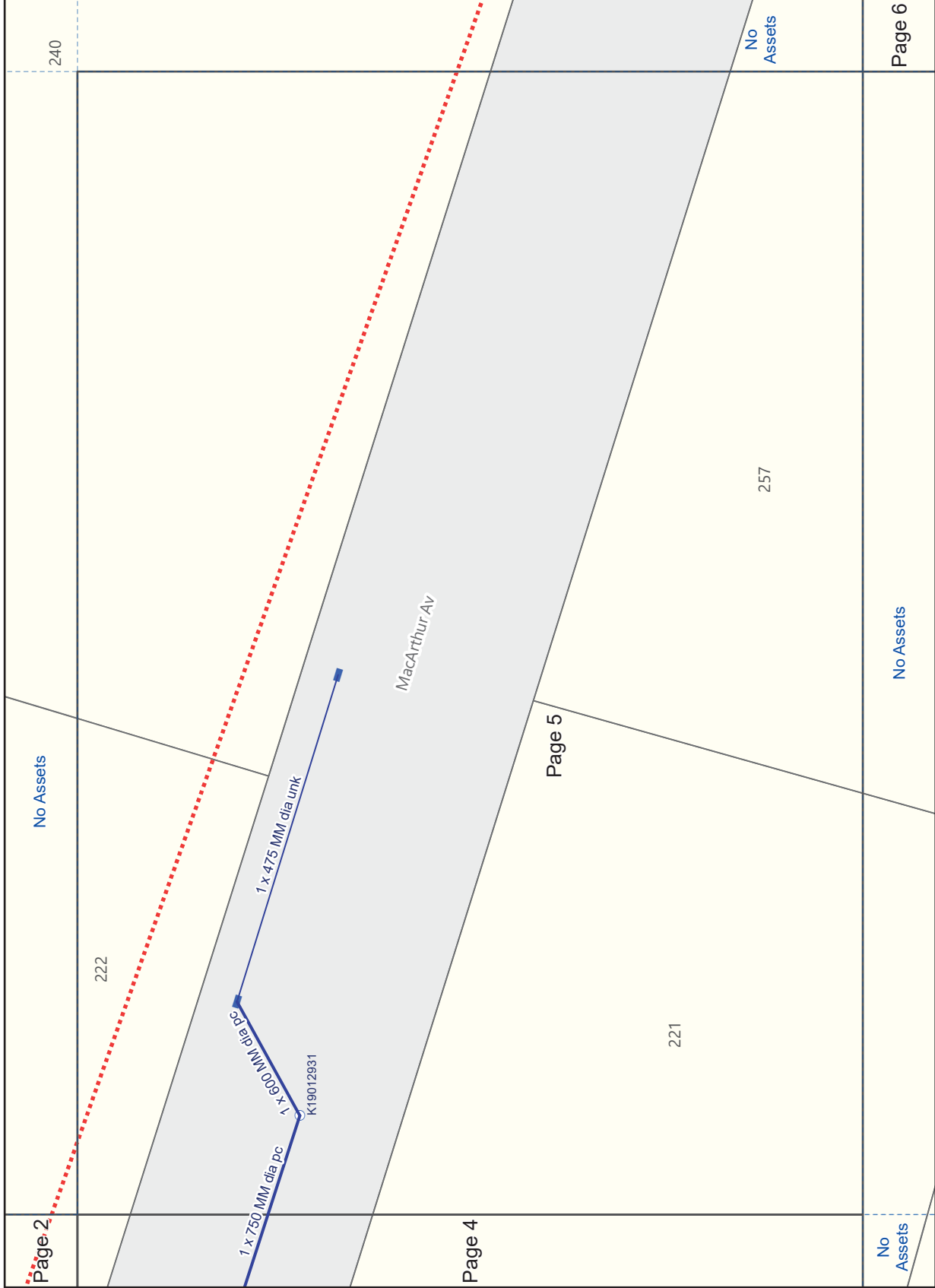
Legend

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Legend



DBYD Enquiry

Stormwater Network



Stormwater Drain



Stormwater Gully /
Roofwater Connection



Stormwater Maintenance
Hole



Stormwater Gully Pit

Disclaimer:

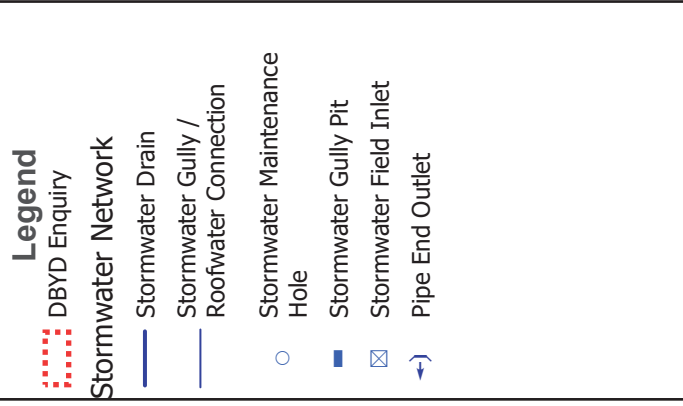
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Plans generated by
SmarterWX™ Automate

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

For Emergency Situations
Please call 13 19 62



energis
DBYD

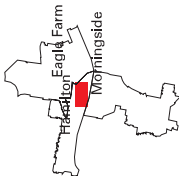
Date: 22 Jun 21 Time: 11:29:13
Requested By: DBYD

NOT TO SCALE
0 150m

Enquiry No: 111066464
KEY MAP

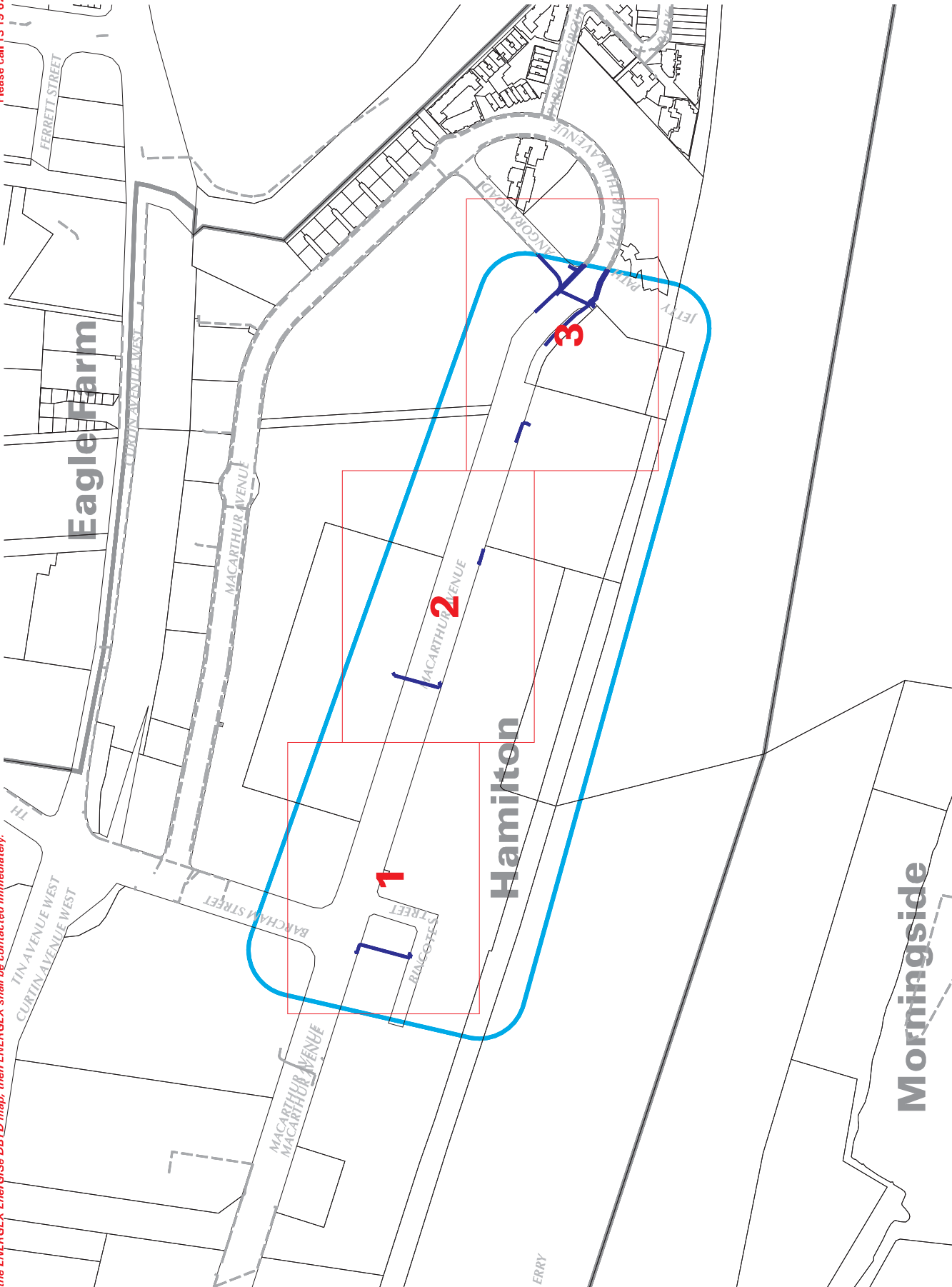
Enquiry Area

LOCALITY DIAGRAM



UNCONTROLLED COPY

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.



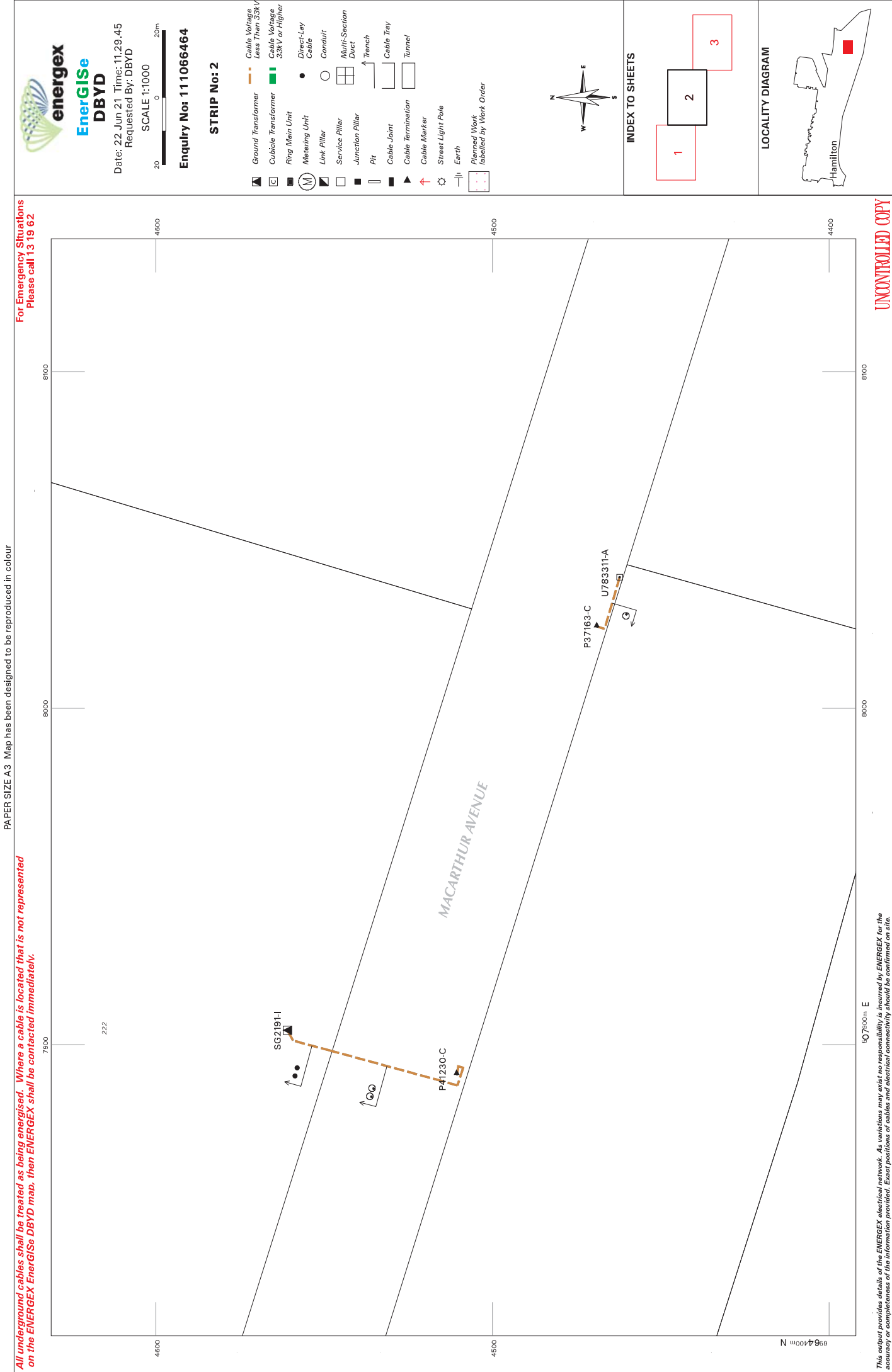


All underground cables shall be treated as being energised. Where a cable is located that is not represented on the ENERGEX EnerGISE DBYD map, then ENERGEX shall be contacted immediately.

PAPER SIZE A3 Map has been designed to be reproduced in colour

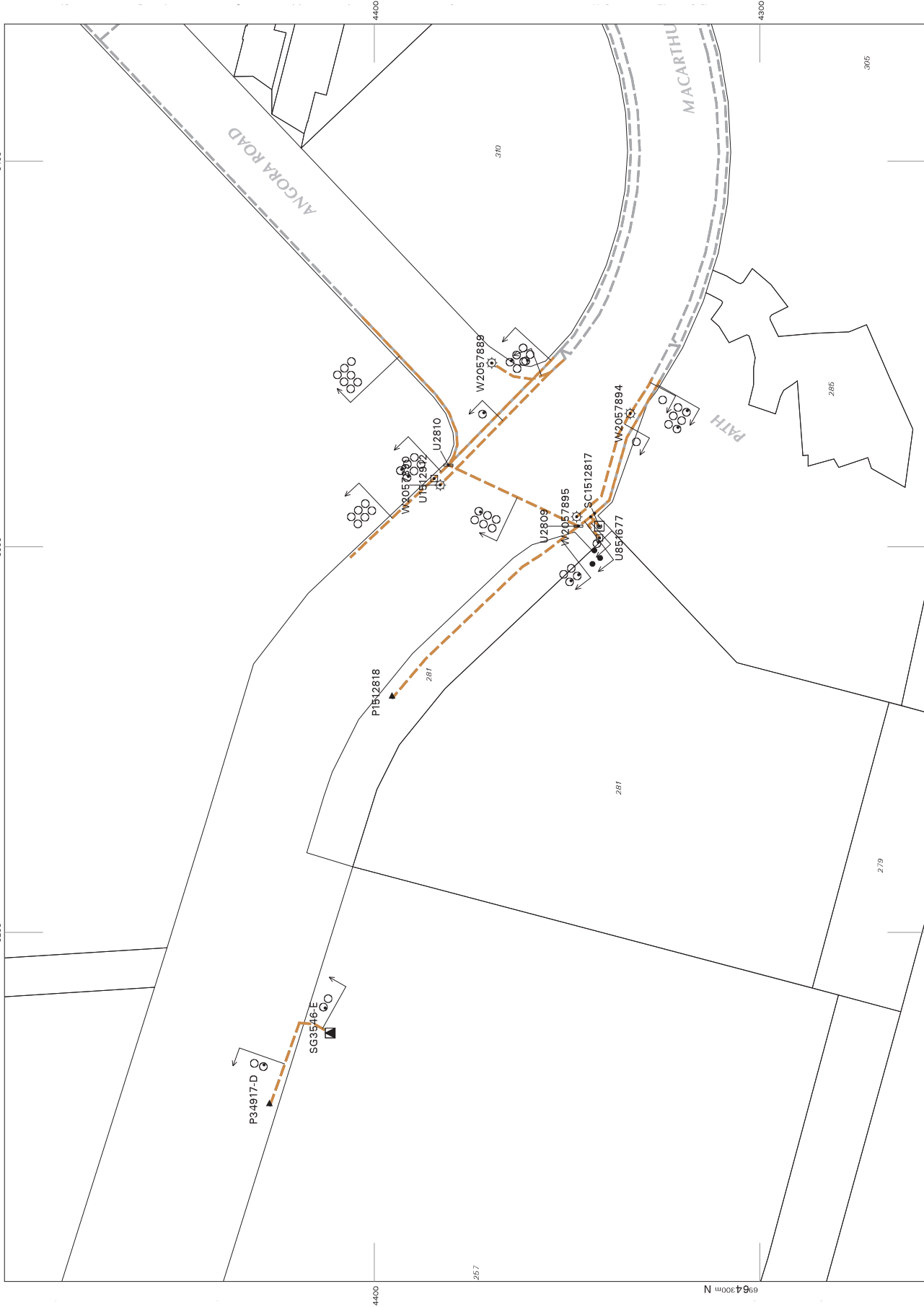
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PAPER SIZE A3 Map has been designed to be reproduced in colour



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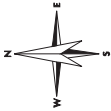
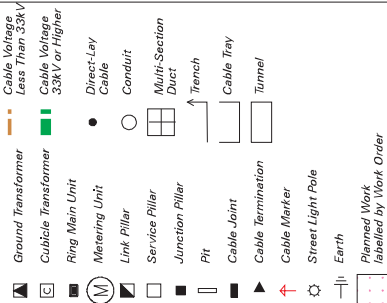


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Requested By: DBYD

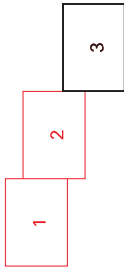
SCALE 1:1000

Enquiry No: 111066464

STRIP No: 3



INDEX TO SHEETS



LOCALITY DIAGRAM



To: Miss Sarah Turner
Phone: Not Supplied
Fax: Not Supplied
Email: s.turner@bornhorstward.com.au

Dial before you dig Job #:	21852746	 DIAL BEFORE YOU DIG www.1100.com.au
Sequence #	111066467	
Issue Date:	22/06/2021	
Location:	MacArthur Ave , Hamilton , QLD , 4007	

Indicative Plans

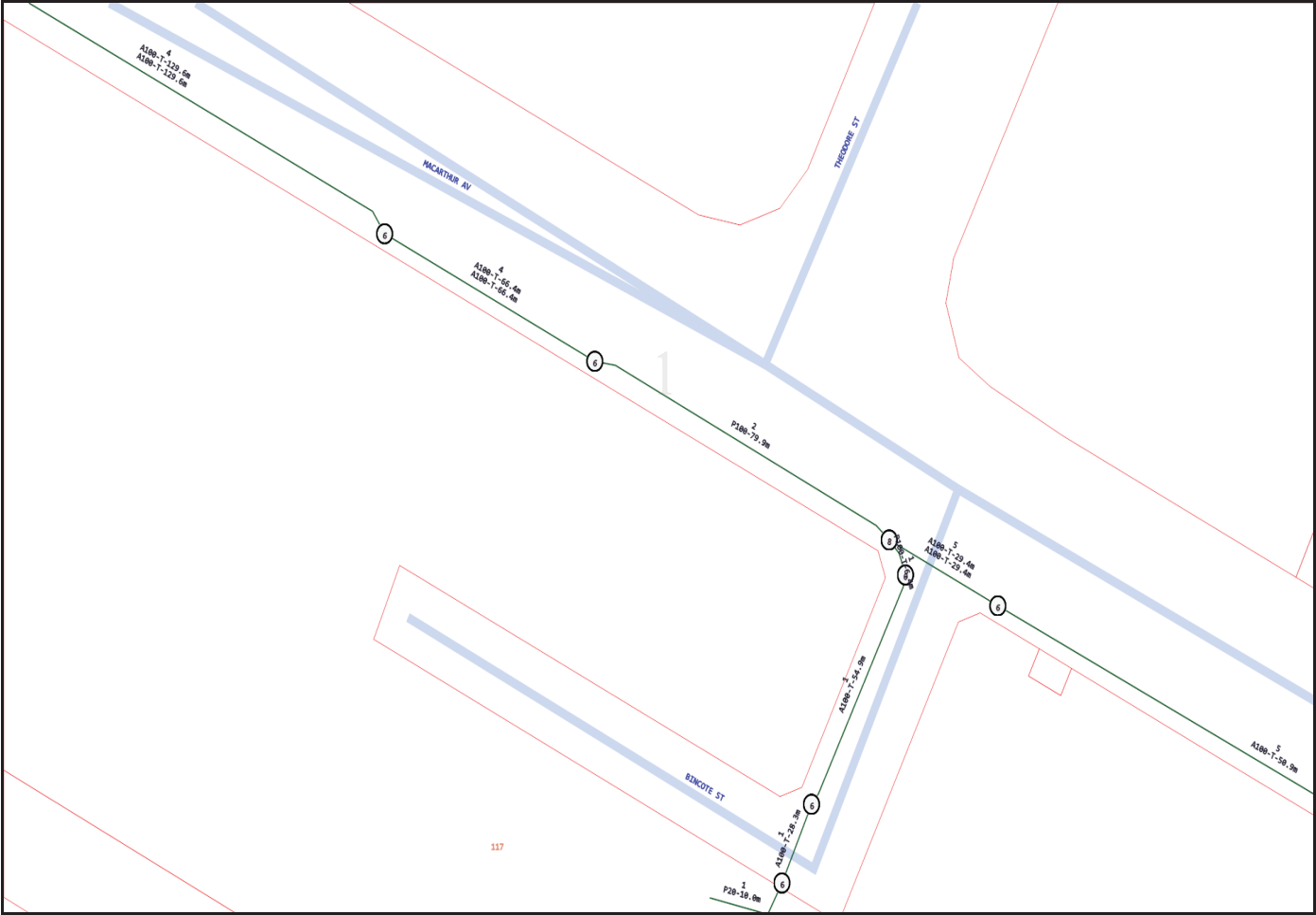
1	4	7
2	5	8
3	6	9

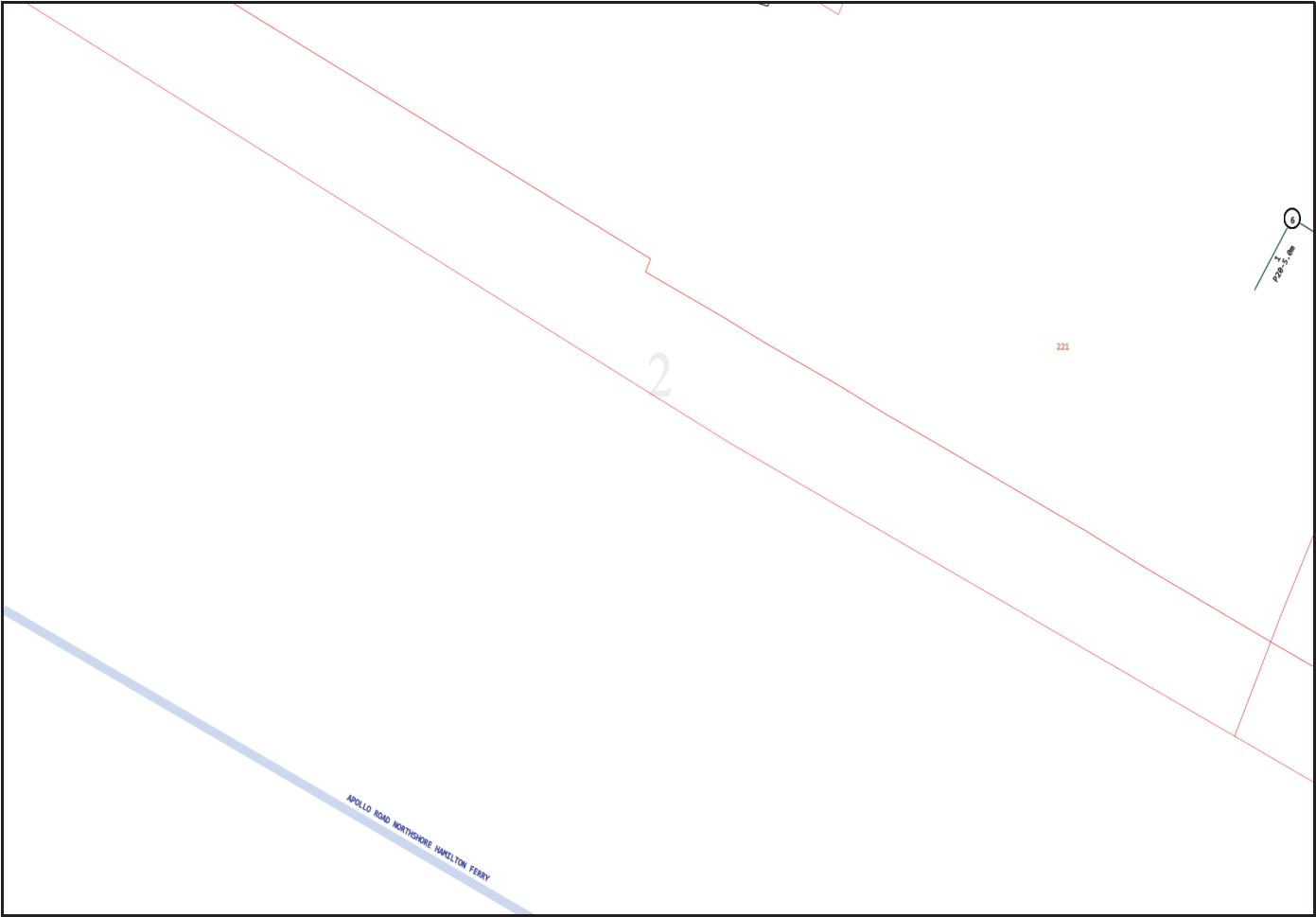


LEGEND



	Parcel and the location
	Pit with size "5"
	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
	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 Direct buried cables between pits of sizes, "5" and "9" are 10.0m apart.
	Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.
	Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.
	Trench containing any INSERVICE/CONSTRUCTED (Power) cables.
	Road and the street name "Broadway ST"
Scale	0 20 40 60 Meters 1:2000 1 cm equals 20 m

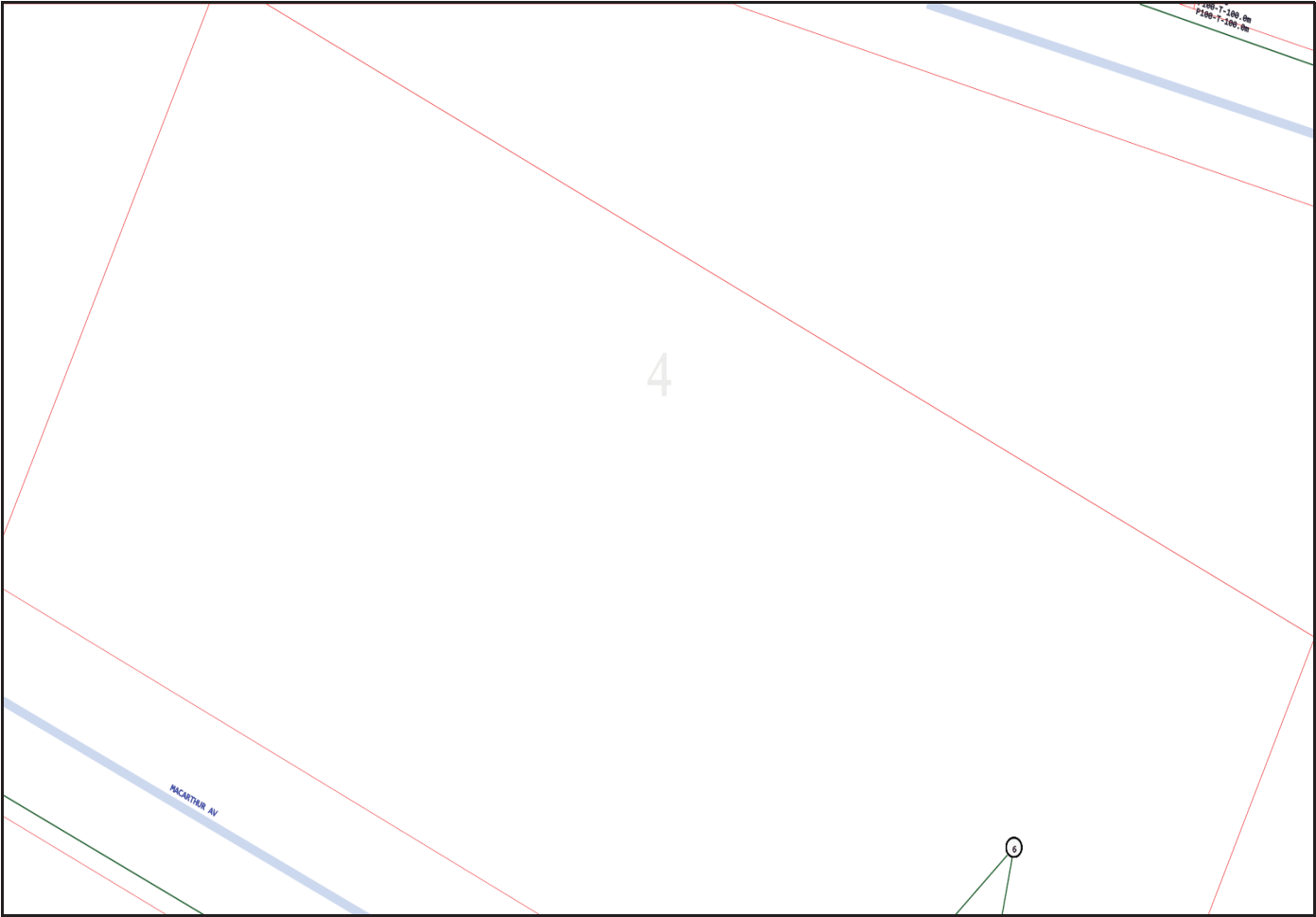


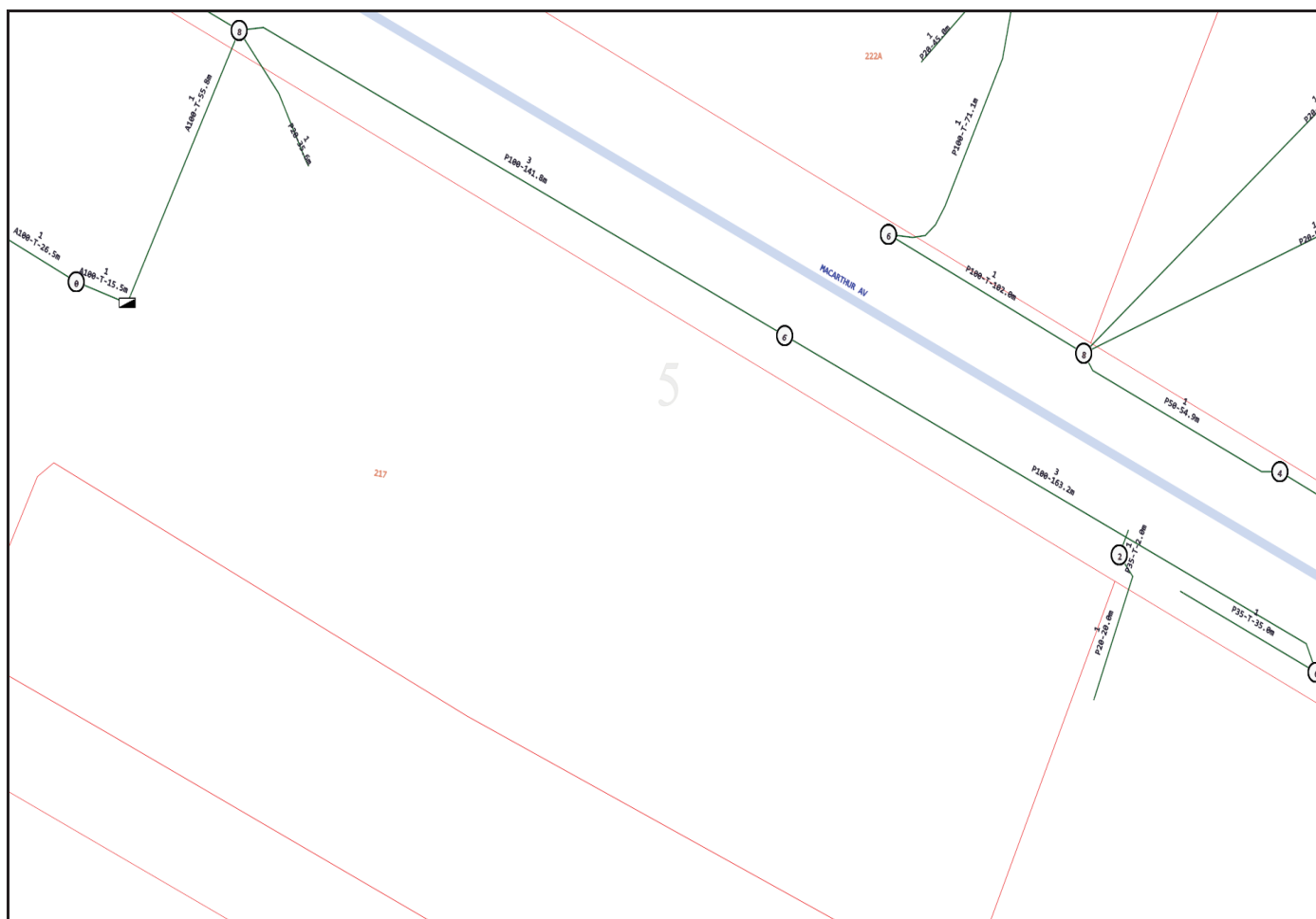


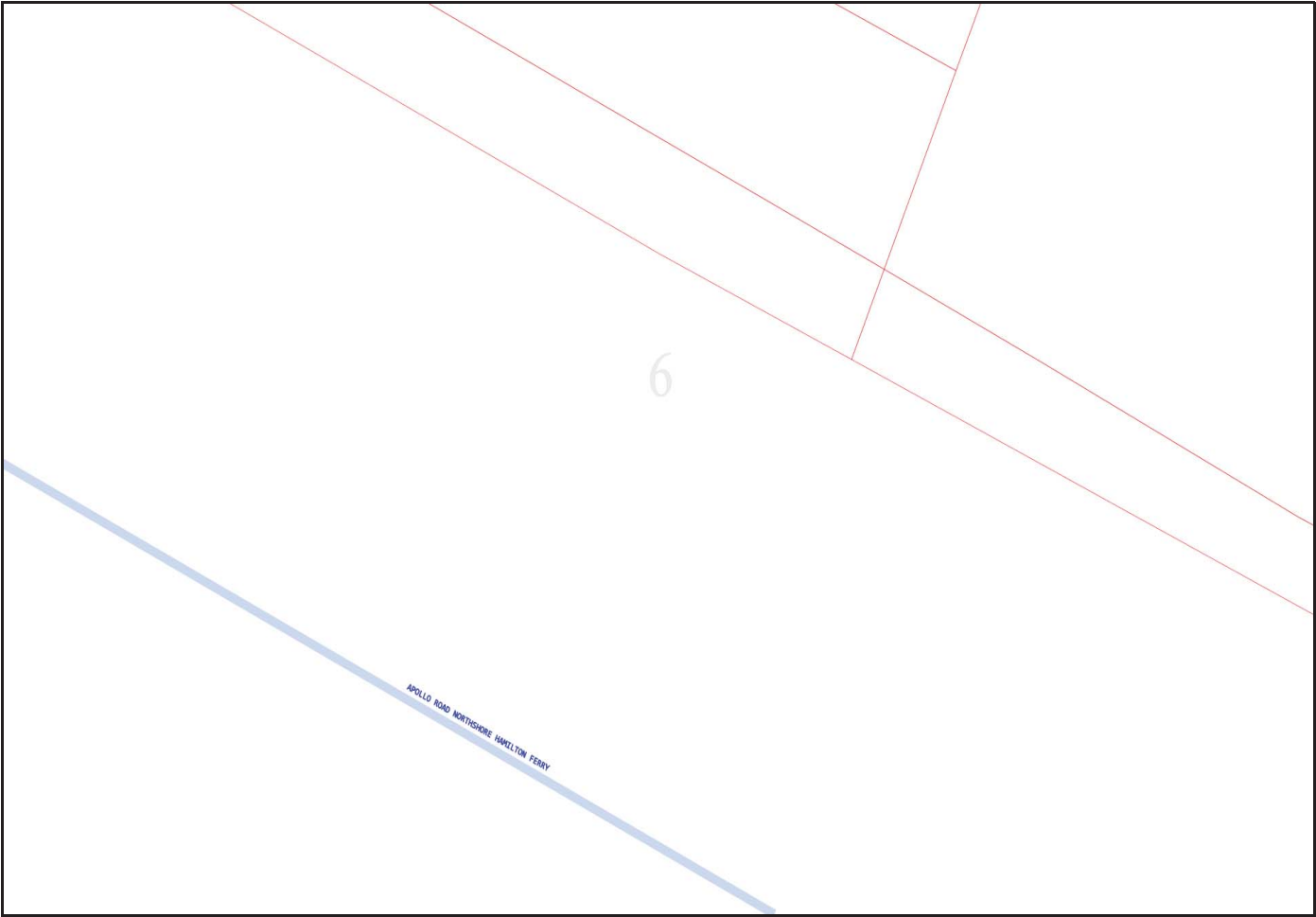
APOLLO ROAD NORTHSIDE HAMILTON, FERBY

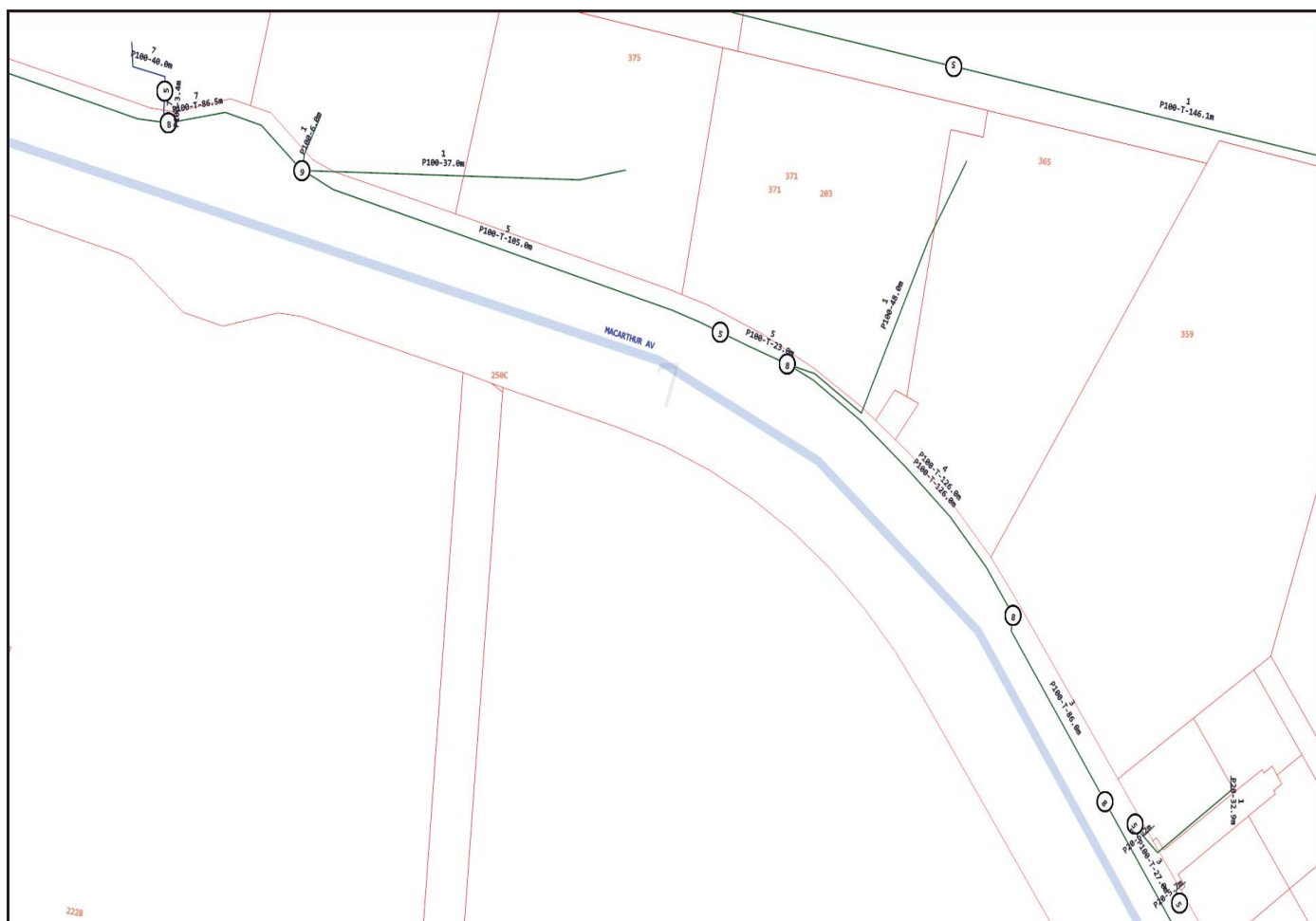
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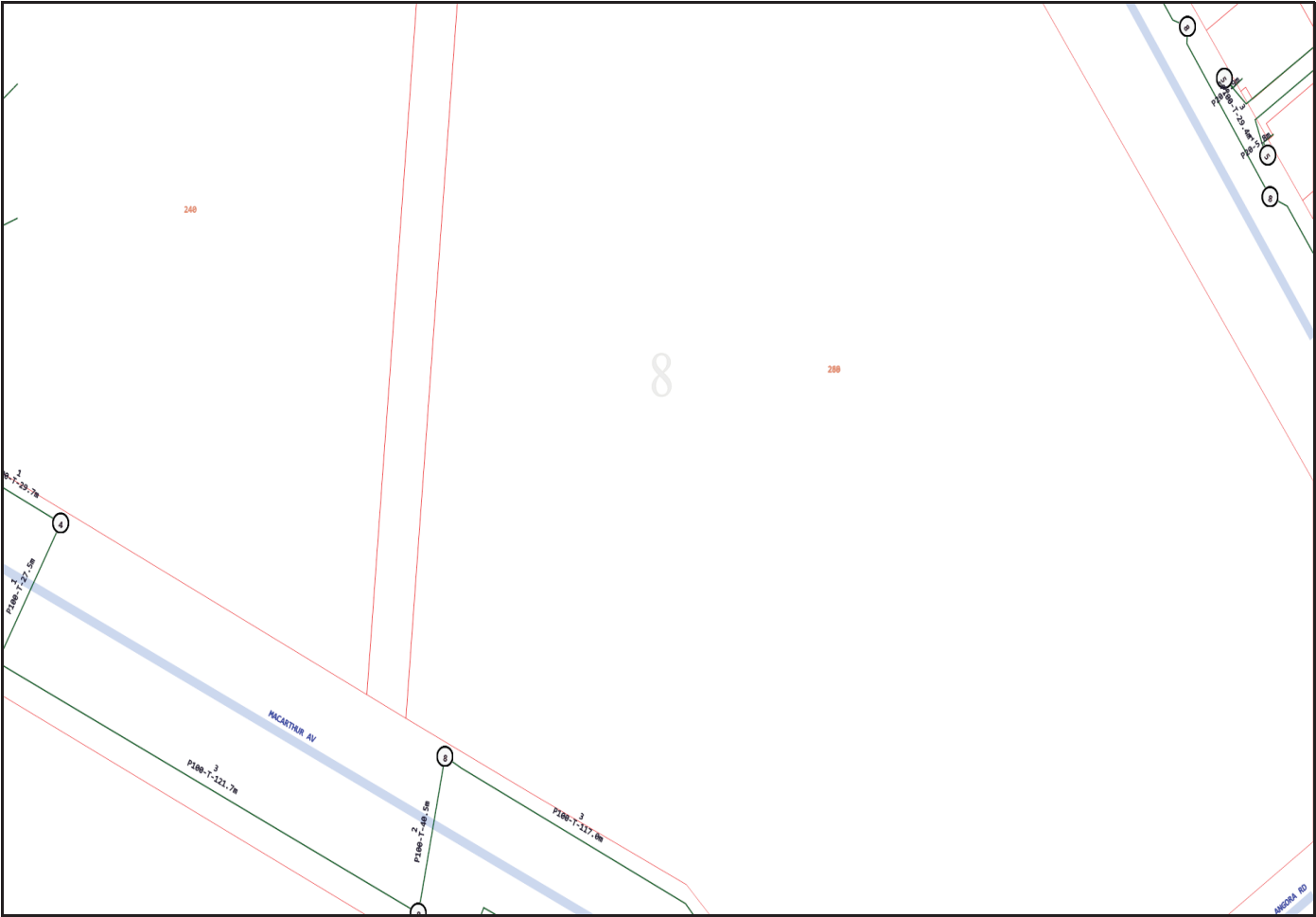
575

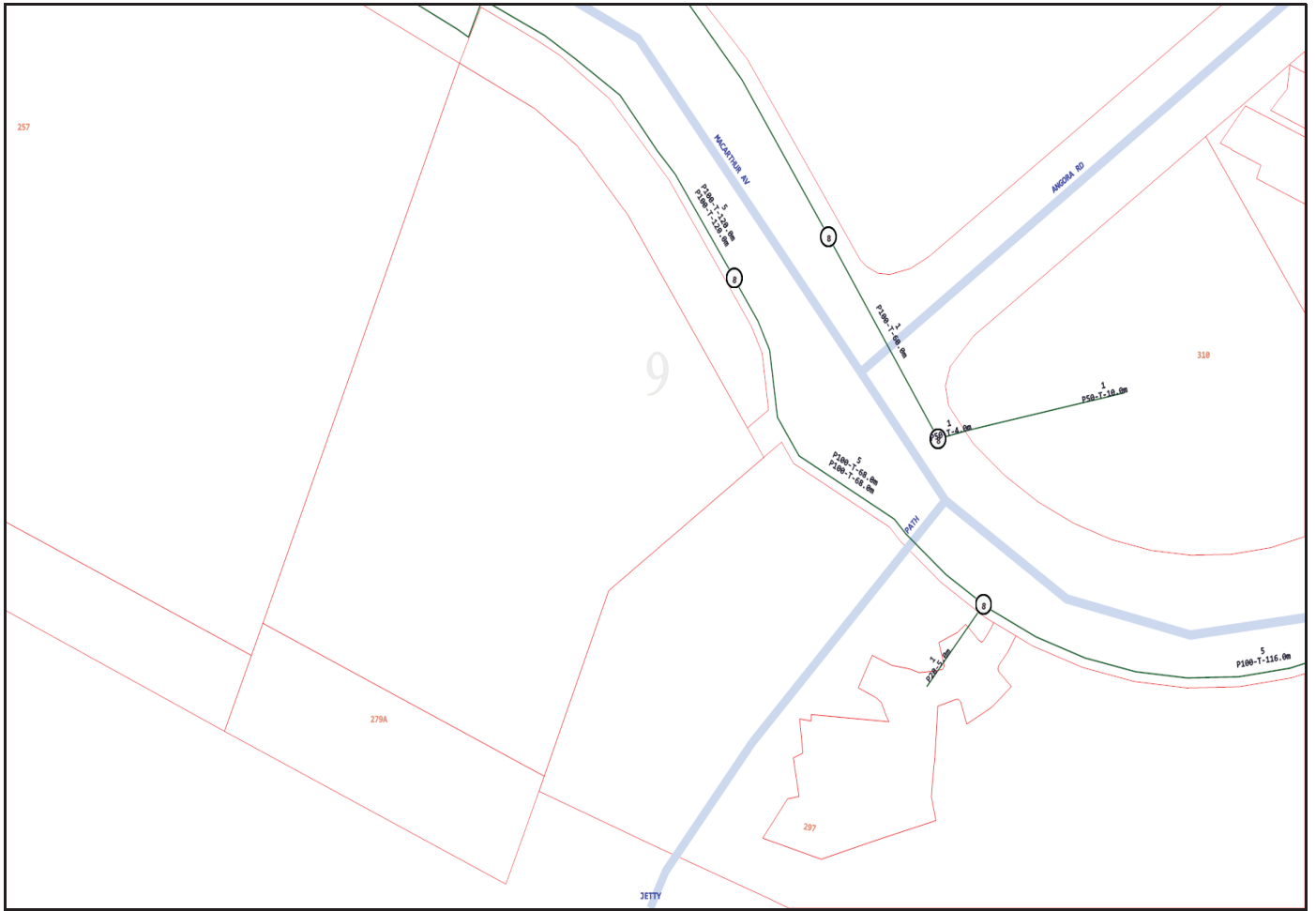






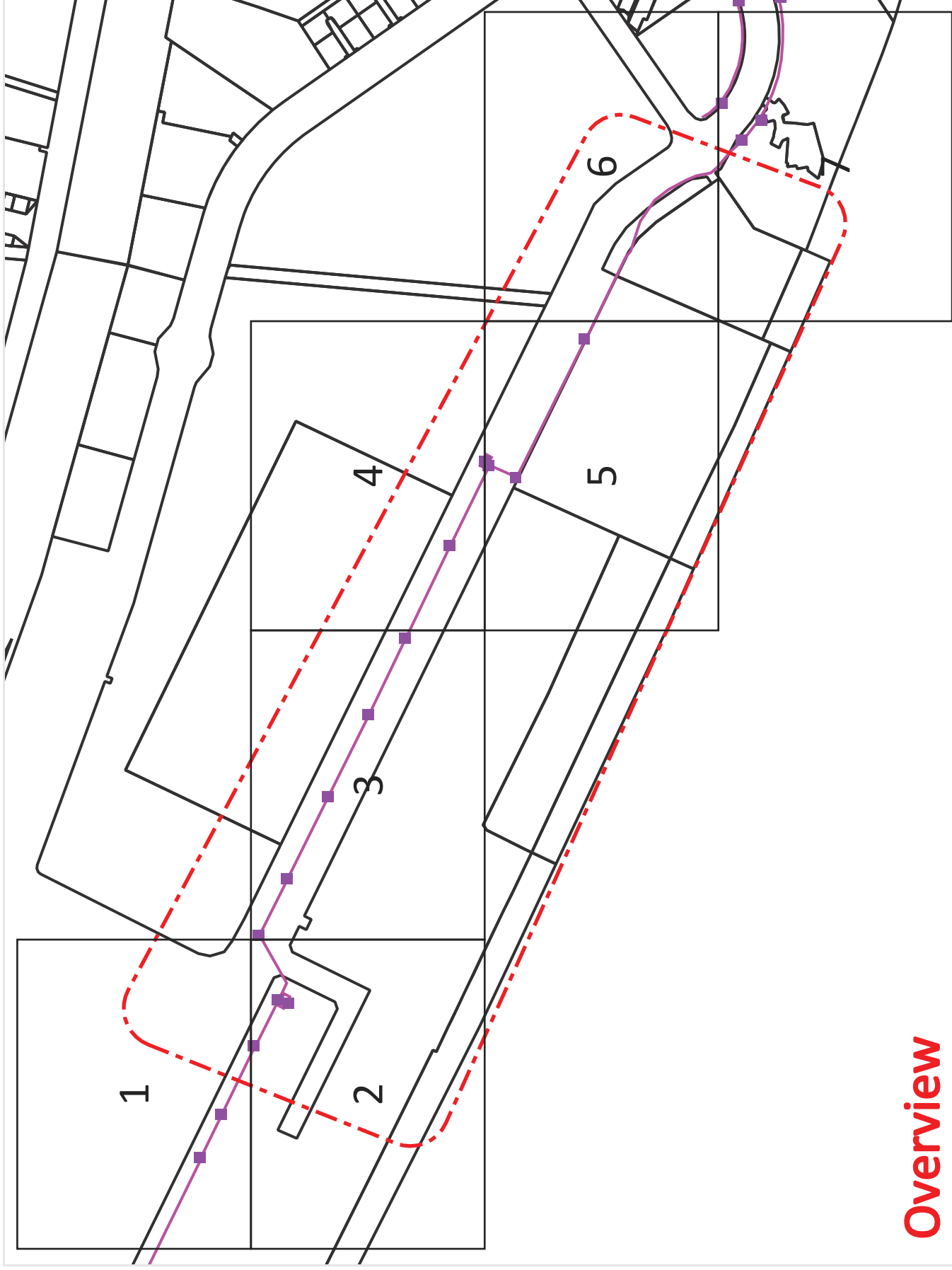






Emergency Contacts

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



Legend

- Pipes
- Pits



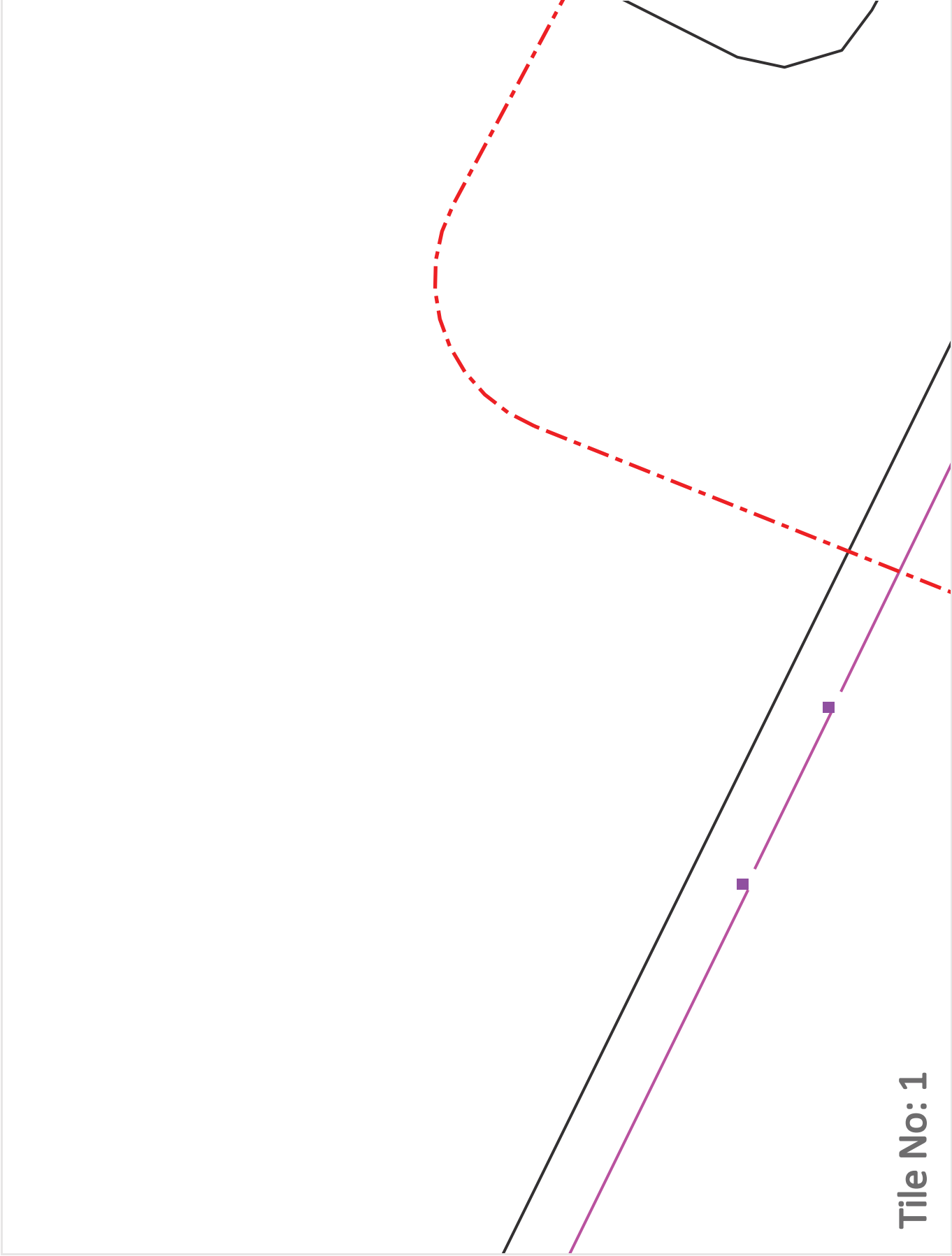
Scale: 1:4100
Expires: 20 Jul 2021

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Overview

Legend

-  Pipes
-  Pits

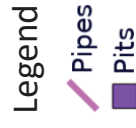


Scale: 1:1000
Expires: 20 Jul 2021

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither OptiComm 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.

Tile No: 1

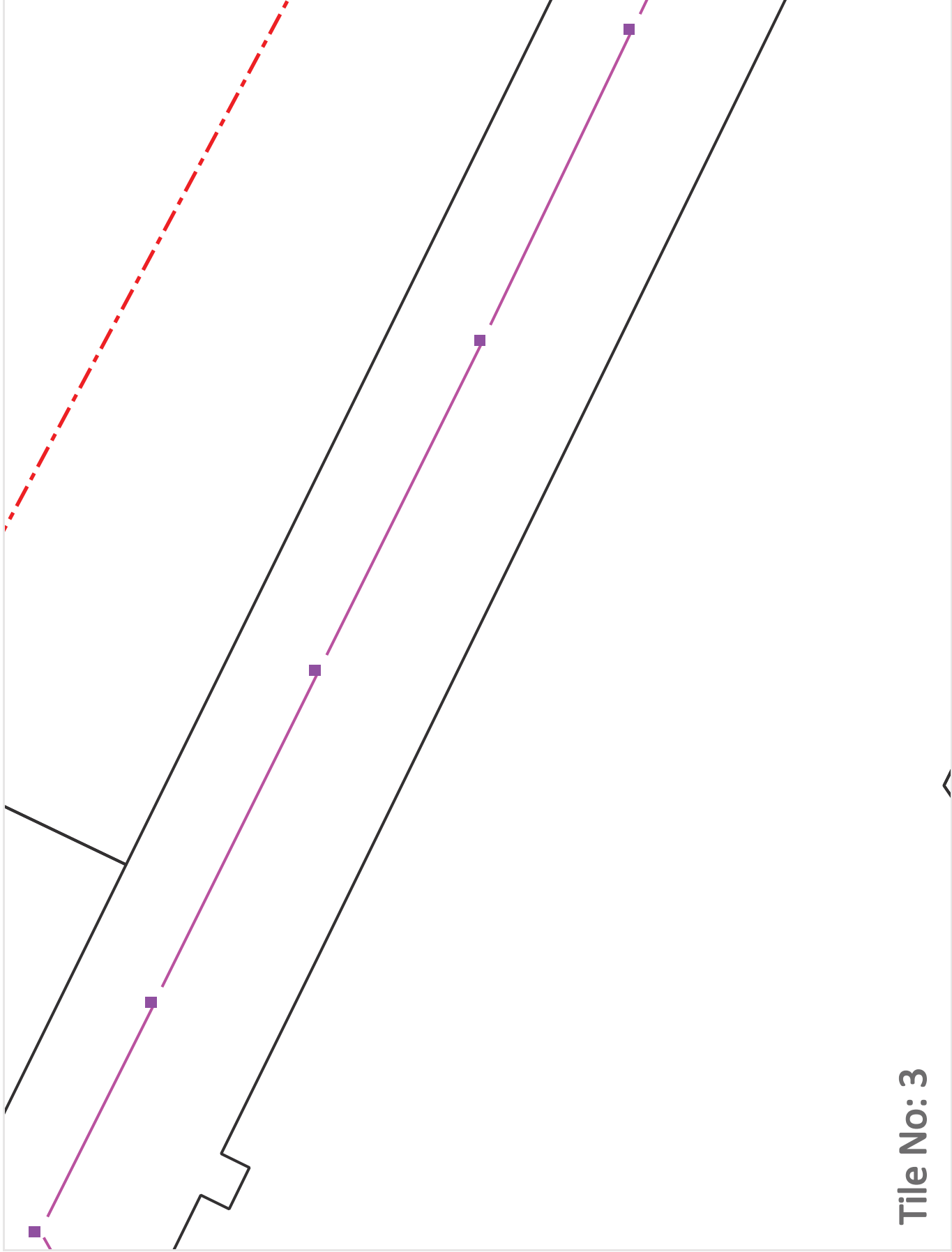
MacArthur Ave, Hamilton, QLD 4007



Scale: 1:1000
Expires: 20 Jul 2021

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither OptiComm 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.

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Tile No: 3

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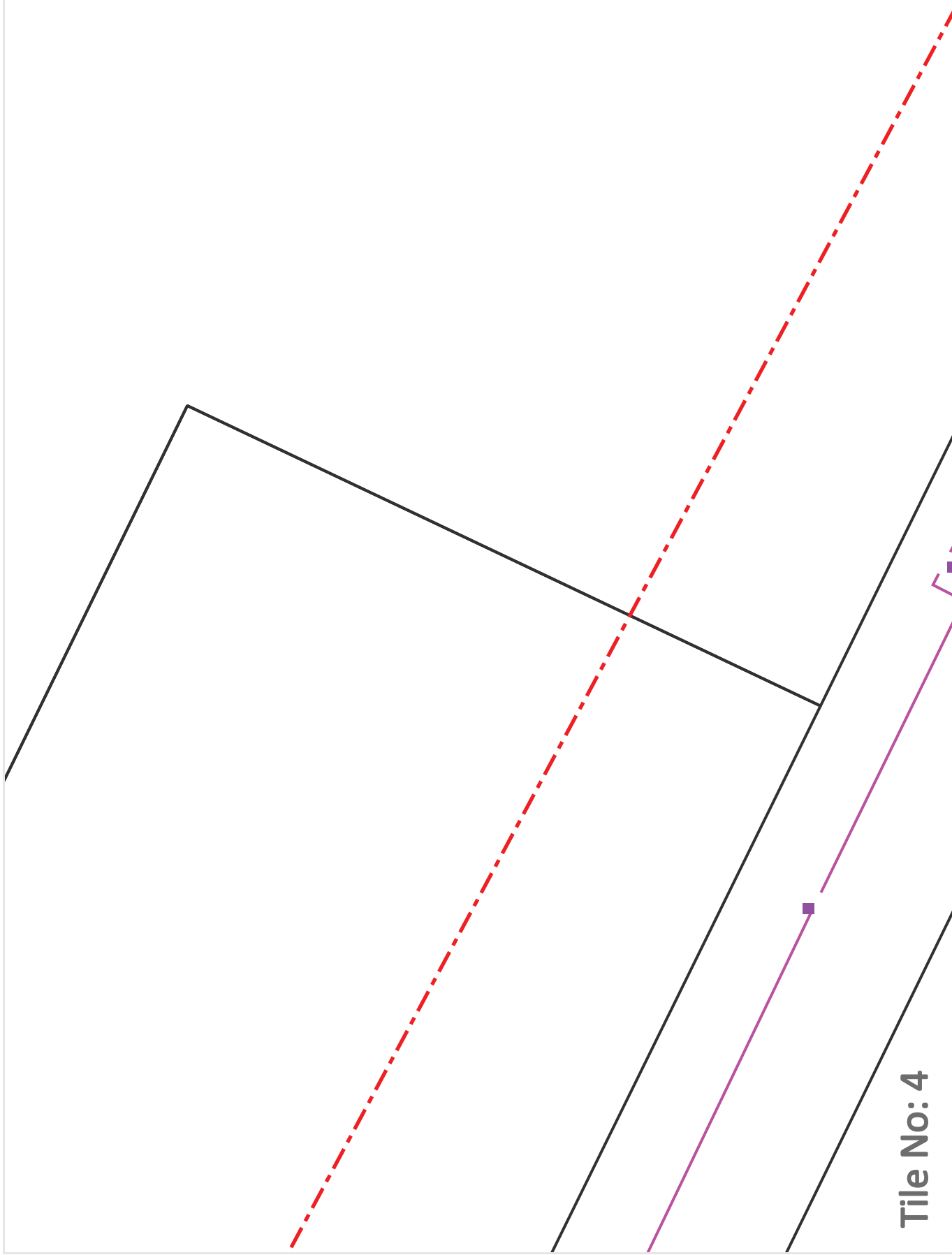
Legend

-  Pipes
-  Pits

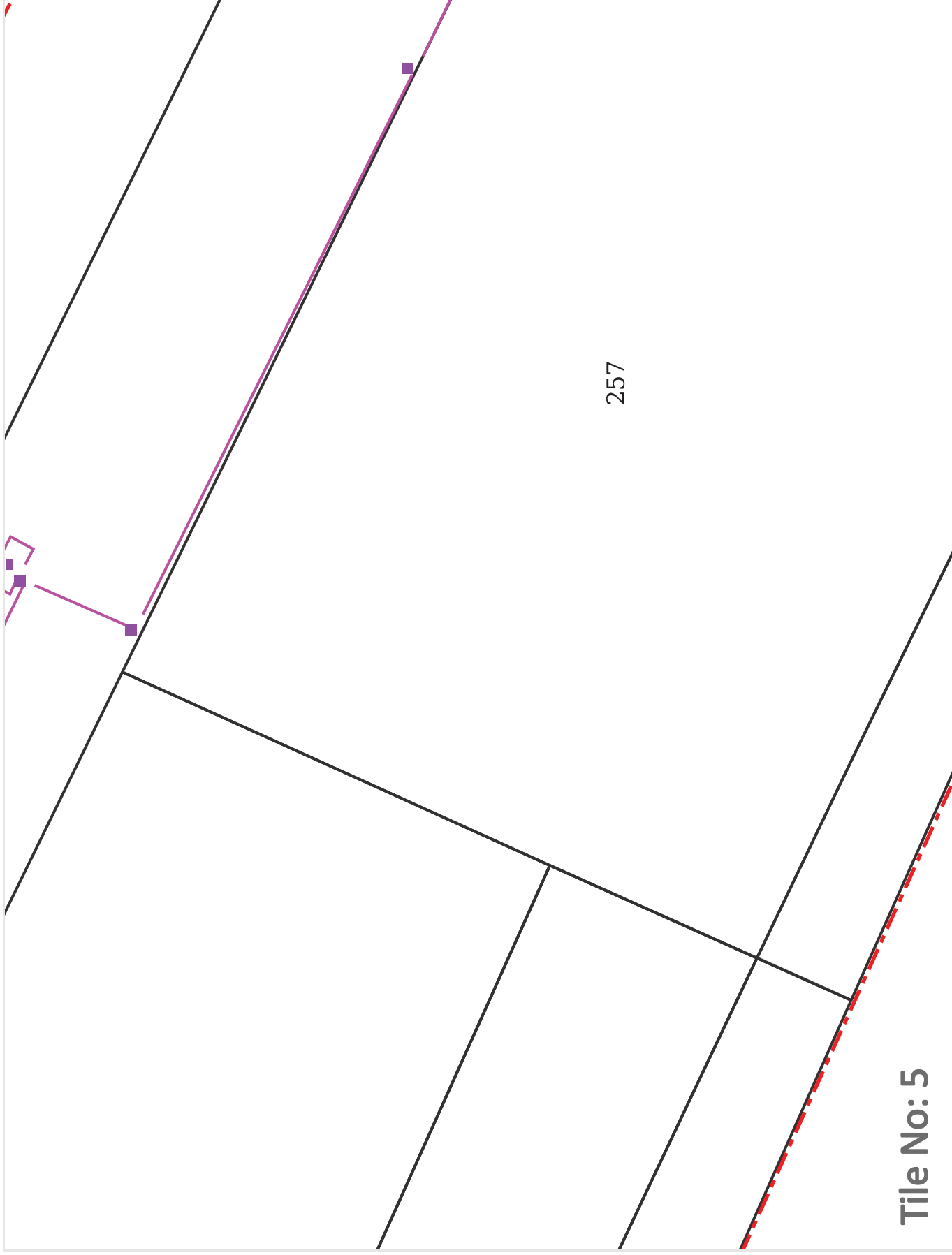


Scale: 1:1000
Expires: 20 Jul 2021

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither OptiComm 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.



Tile No: 4



Legend

- Pipes
- Pits

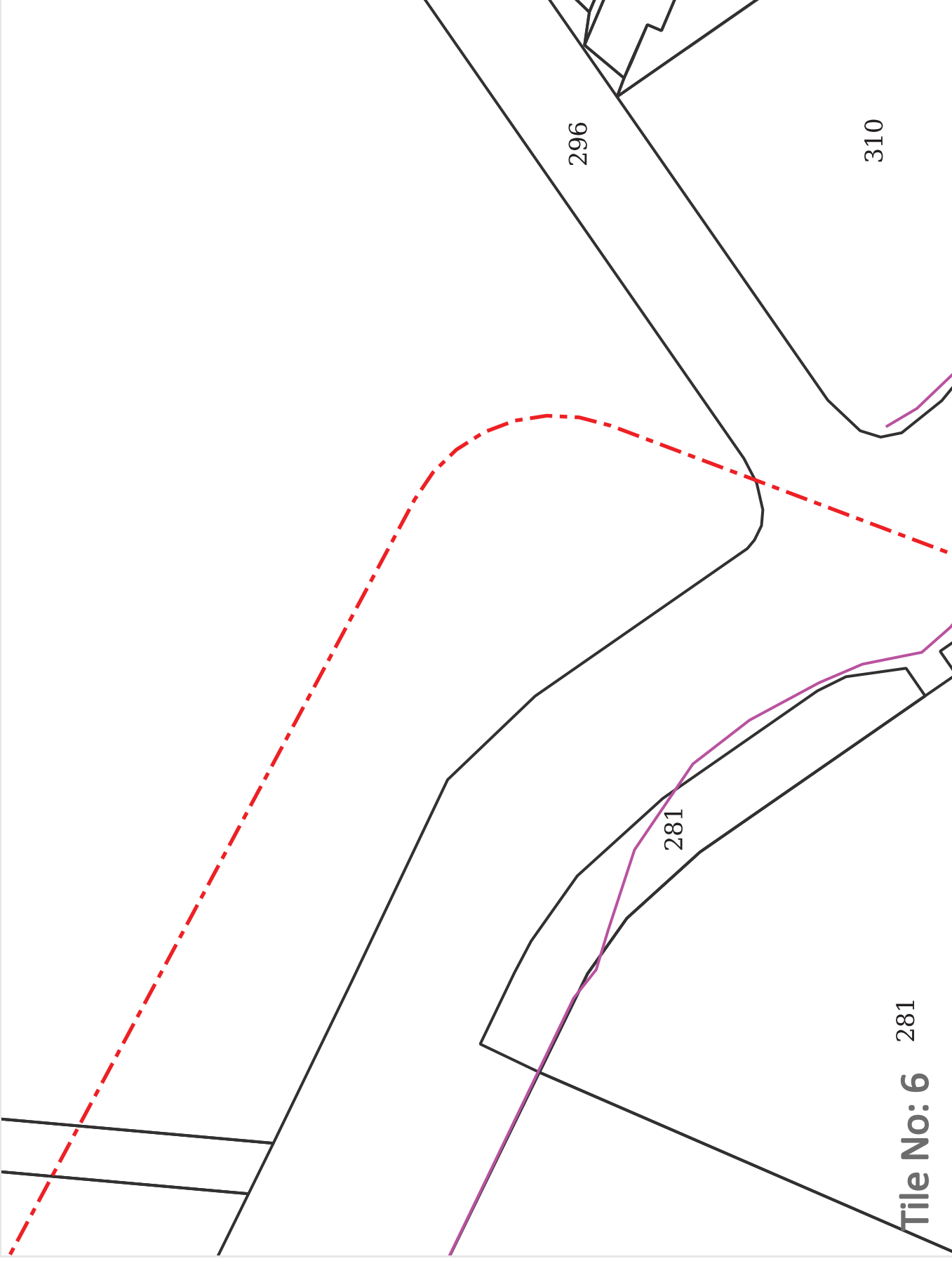
257



Scale: 1:1000
Expires: 20 Jul 2021

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Tile No: 5



Legend

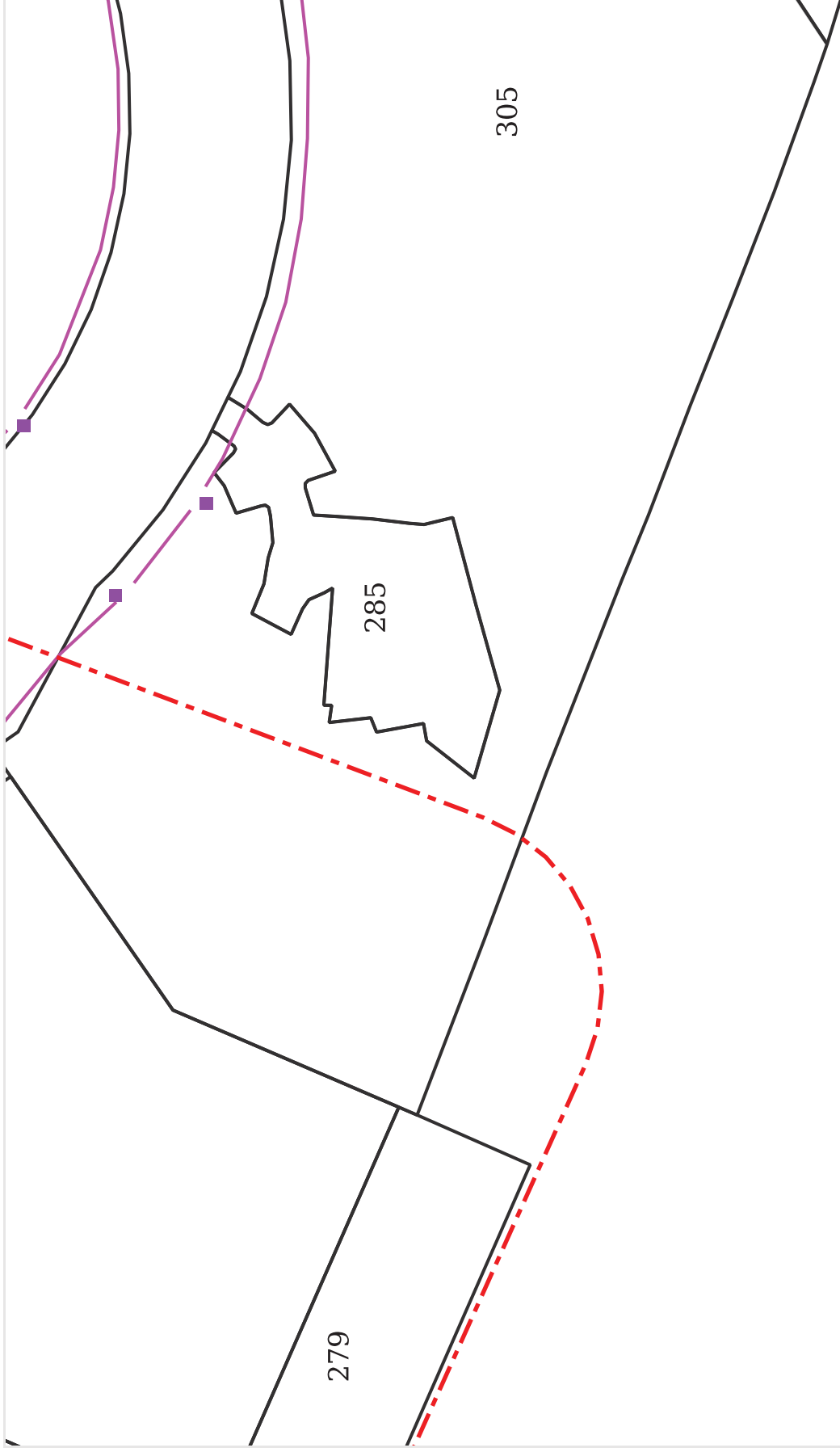
- Pipes
- Pits



Scale: 1:1000
Expires: 20 Jul 2021

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither OptiComm 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.

Tile No: 6 281



Legend

- Pipes
- Pits

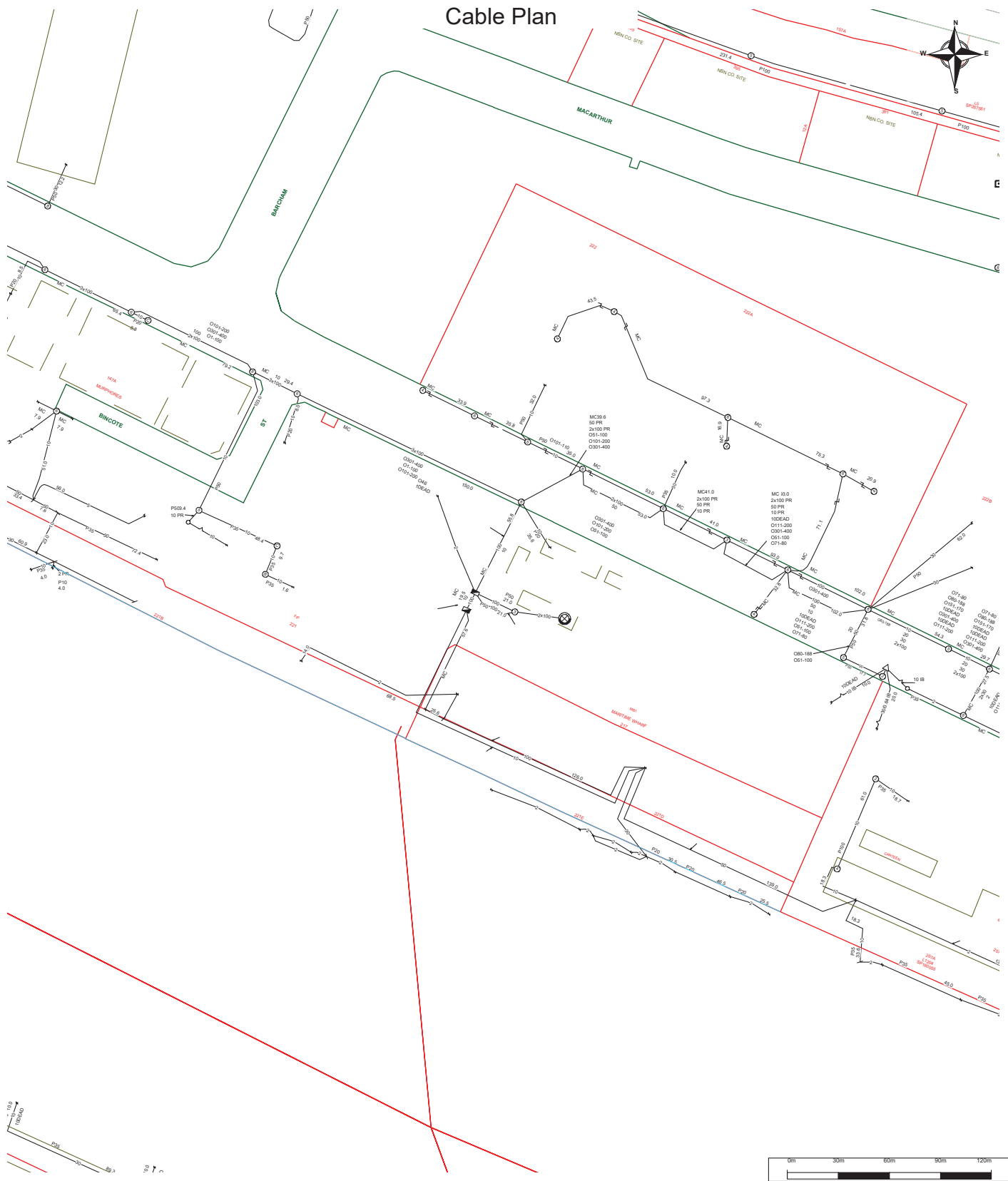


Scale: 1:1000
Expires: 20 Jul 2021

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither OptiComm 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.

Tile No: 7

Cable Plan



For all Telstra DBYD plan enquiries -
email - Telstra.Plans@team.telstra.com
For urgent onsite contact only - ph 1800 653 935 (bus hrs)

TELSTRA CORPORATION LIMITED A.C.N. 051 775 556

Generated On 23/06/2021 11:02:00

Sequence Number: 111115458

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

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

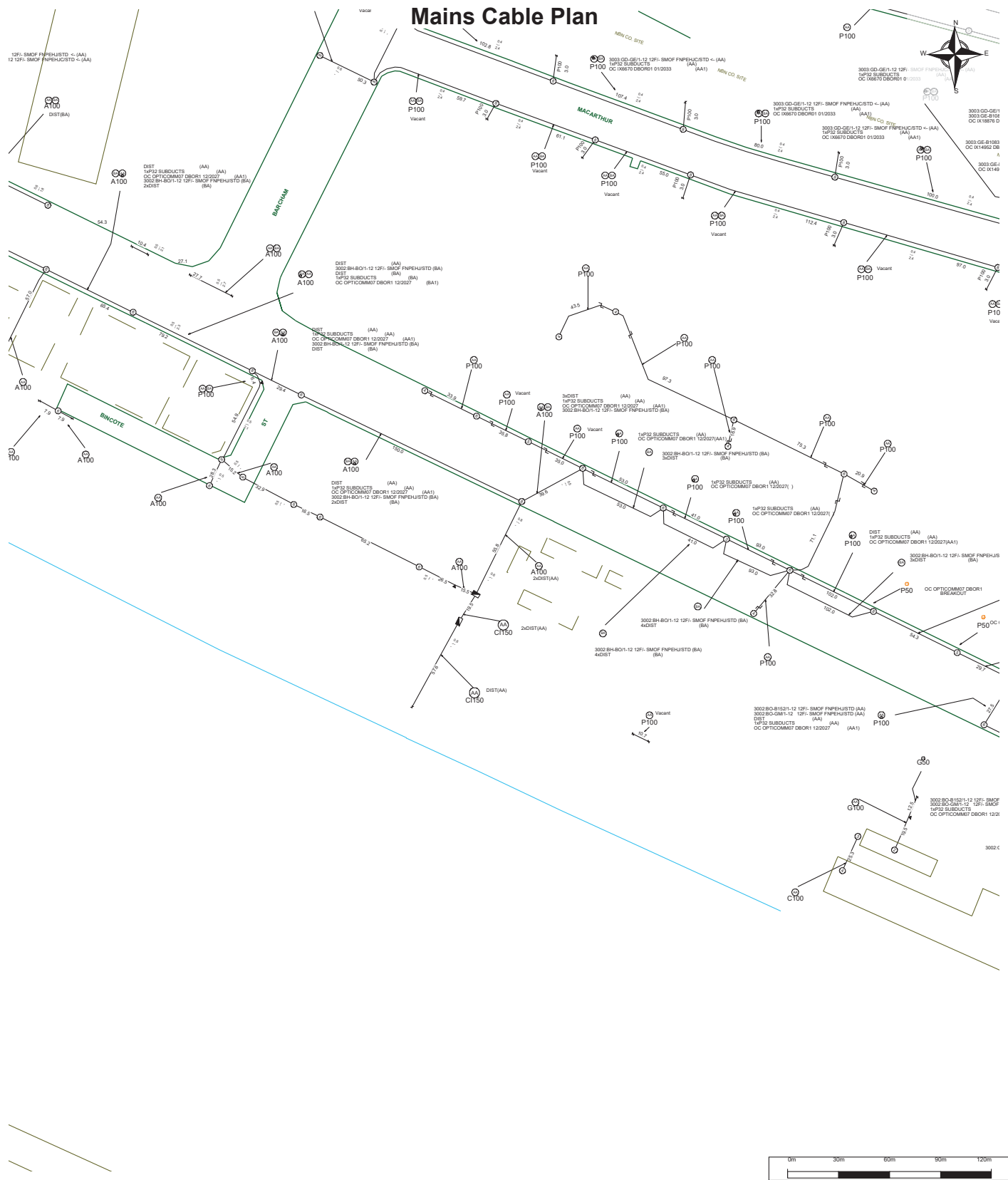
WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

It is your responsibility to locate Telstra's underground plant by careful hand pot-holing prior to any excavation in the vicinity and to exercise due care during that excavation.

Please read and understand the information supplied in the duty of care statement attached with the Telstra plans. **TELSTRA WILL SEEK COMPENSATION FOR LOSS CAUSED BY DAMAGE TO ITS PLANT.**

Telstra plans and information supplied are valid for 60 days from the date of issue. If this timeframe has elapsed, please reapply for plans.

Mains Cable Plan



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email - Telstra.Plans@team.telstra.com
For urgent onsite contact only - ph 1800 653 935 (bus hrs)

TELSTRA CORPORATION LIMITED A.C.N. 051 775 556

Generated On 23/06/2021 11:02:02

Sequence Number: 111115458

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

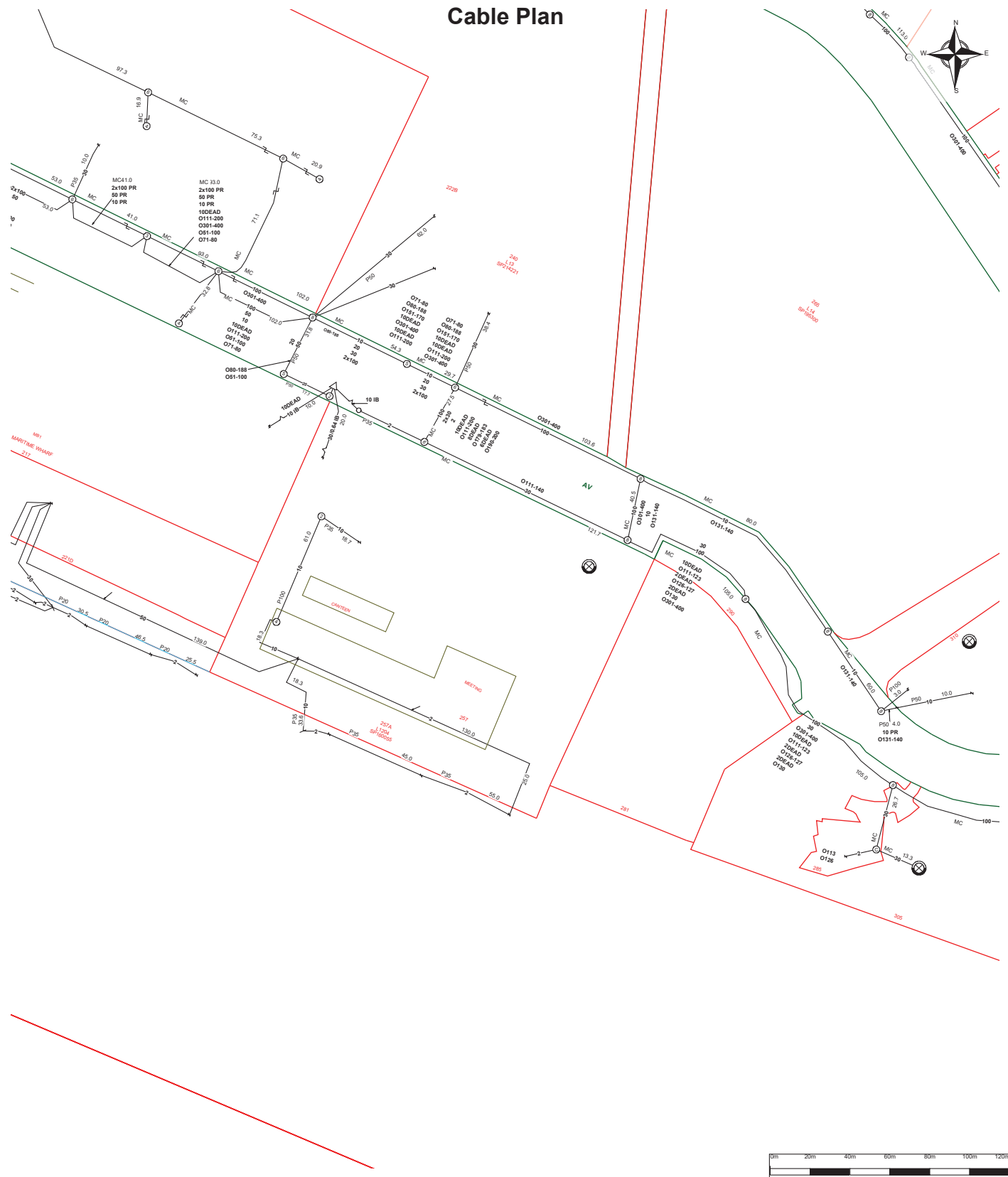
WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

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Cable Plan



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For urgent onsite contact only - ph 1800 653 935 (bus hrs)

TELSTRA CORPORATION LIMITED A.C.N. 051 775 556

Generated On 23/06/2021 11:02:30

Sequence Number: 111115638

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

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

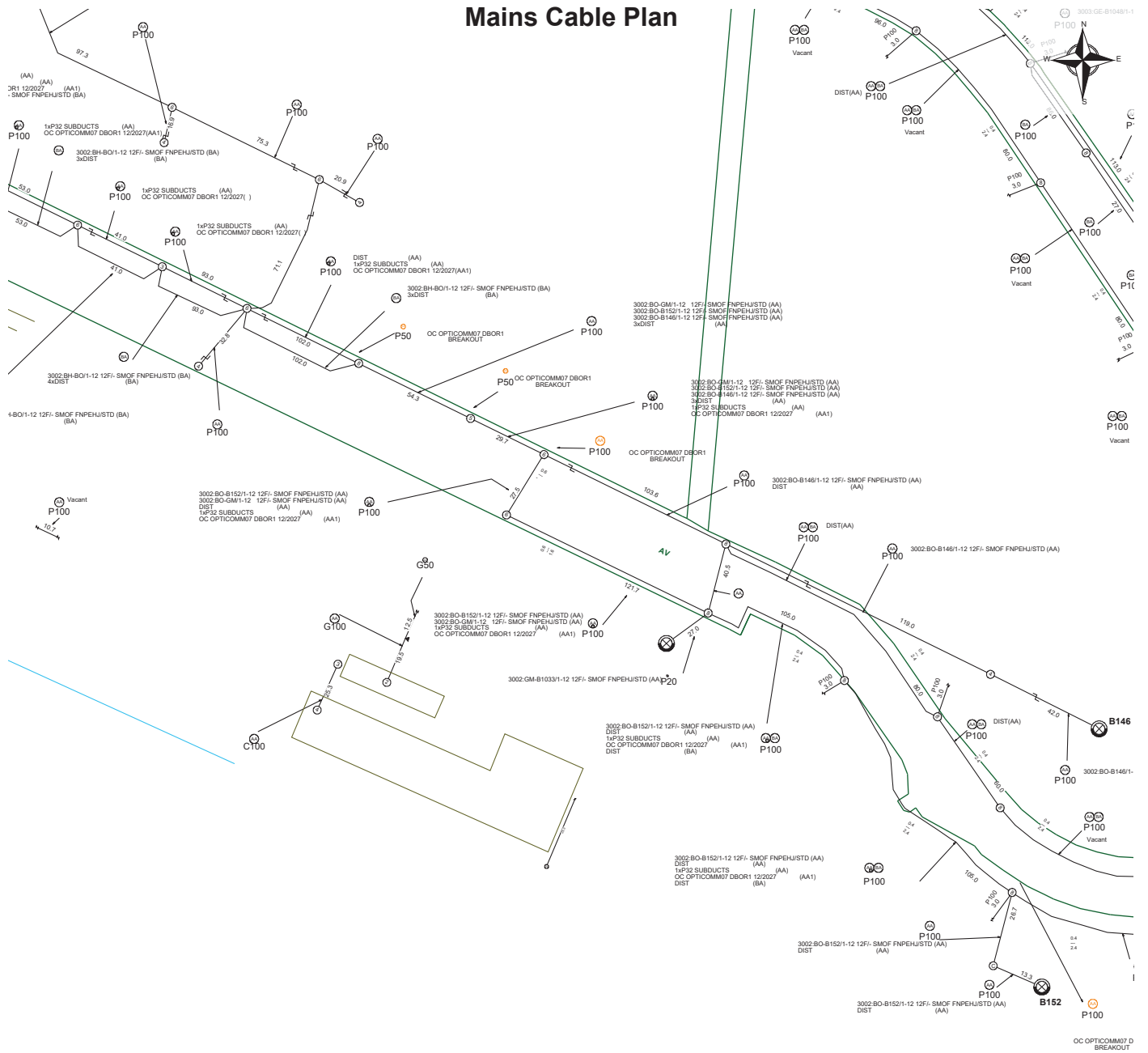
WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

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Mains Cable Plan



For all Telstra DBYD plan enquiries -
email - Telstra.Plans@team.telstra.com
For urgent onsite contact only - ph 1800 653 935 (bus hrs)

TELSTRA CORPORATION LIMITED A.C.N. 051 775 556

Generated On 23/06/2021 11:02:33

Sequence Number: 111115638

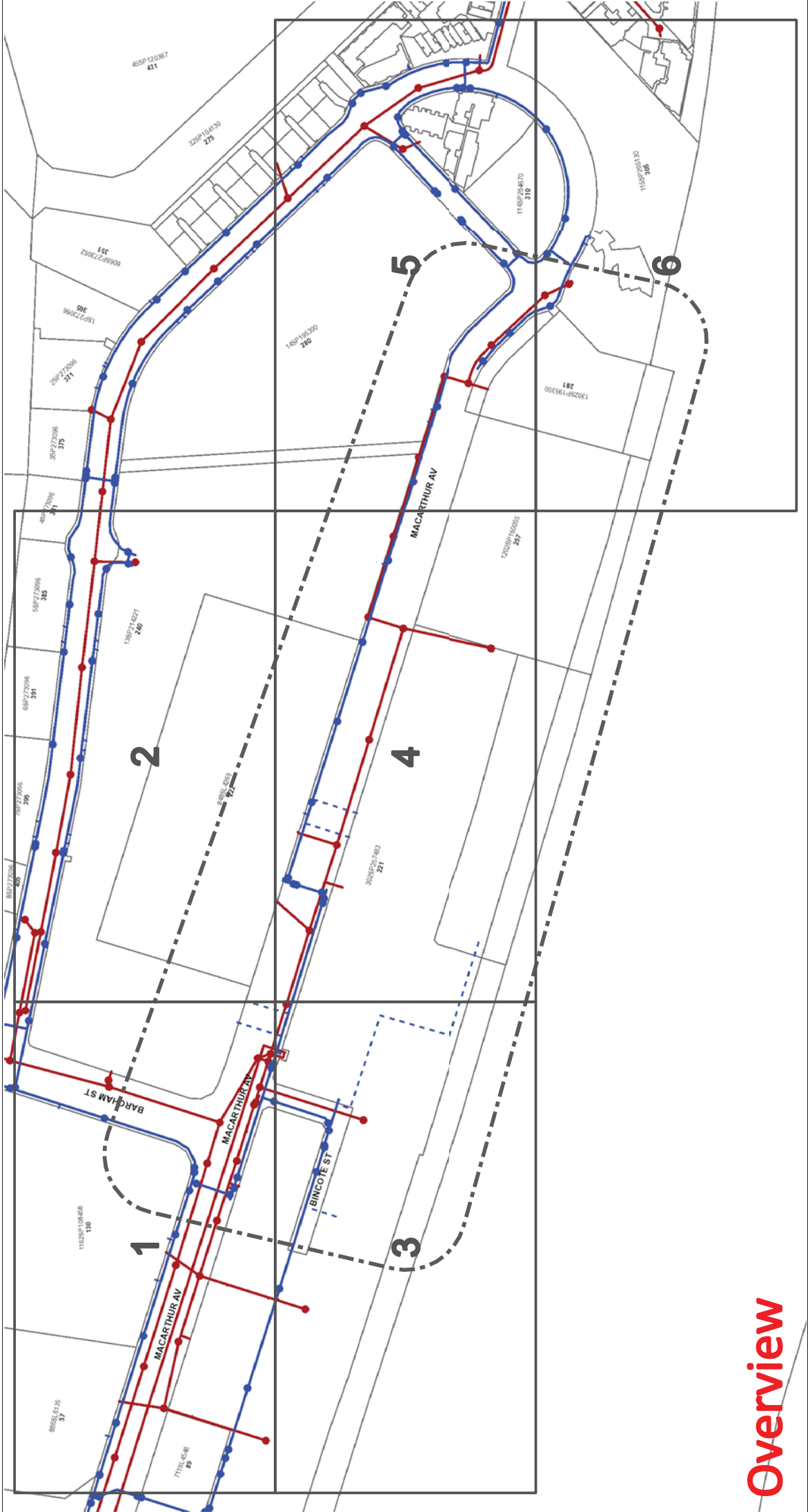
CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.

WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

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Telstra plans and information supplied are valid for 60 days from the date of issue. If this timeframe has elapsed, please reapply for plans.



Overview

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

DBYD Reference No: 111066468
Date DBYD Ref Received: 22/06/2021
Date DBYD Job to Commence: 23/06/2021
Date DBYD Map Produced: 22/06/2021
This Map is valid for 30 days



Sewer

Infrastructure

Major Infrastructure

Network Pipelines

Network Structures

Water

Infrastructure

Major Infrastructure

Network Pipelines

Network Structures

Water Service (Indicative only)

North Arrow

Map Scale

1:3075

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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

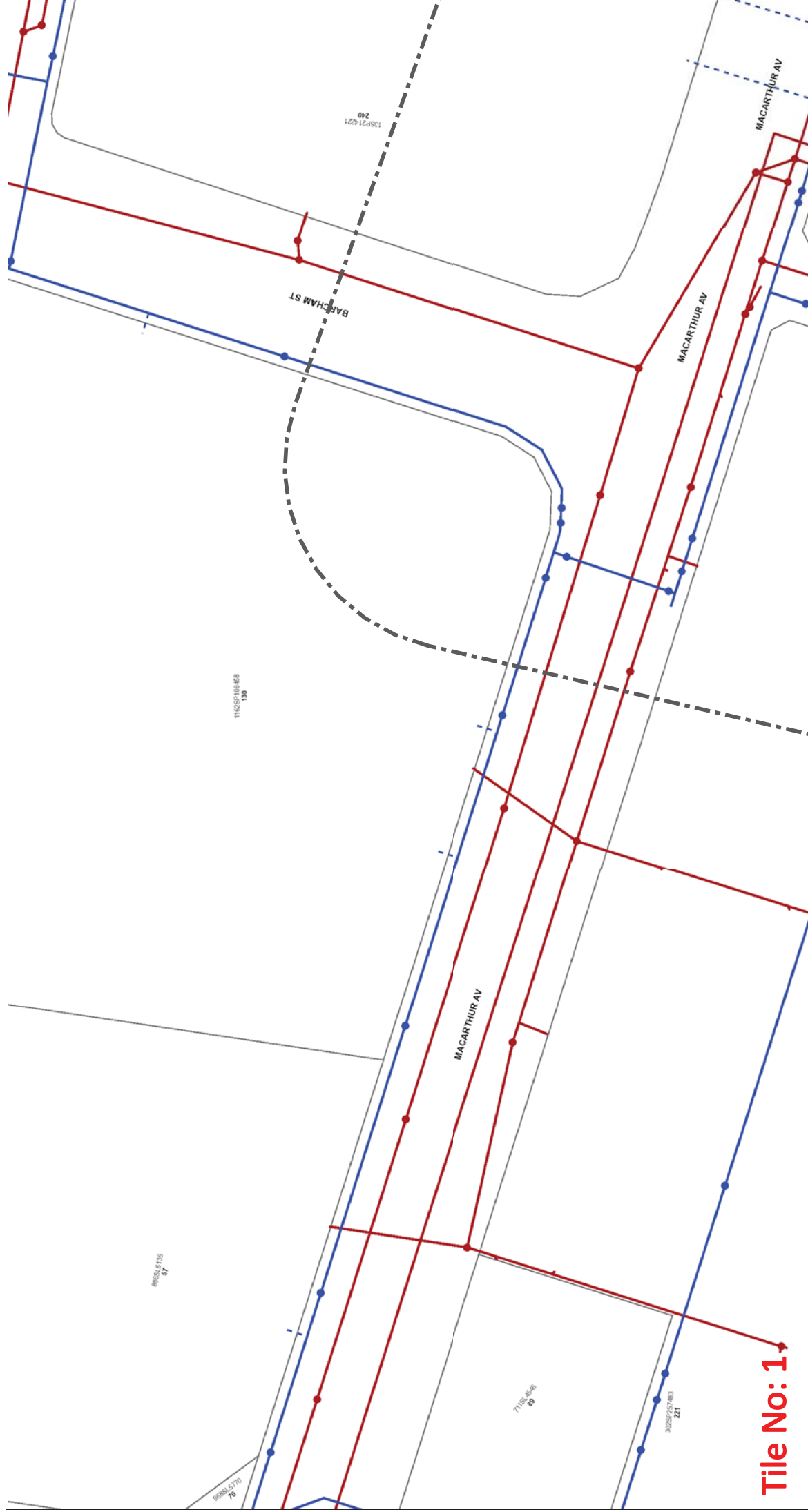
ABN 86 673 835 011

Produced By: Urban Utilities

Plans generated [22 Jun 2021] by PelicanCorp TicketAccess Software | www.pelicancorp.com

AU Urban Utilities (QLD) - Response Plan.docx (2020)

Urban Utilities - Water, Recycled Water and Sewer Infrastructure



Tile No: 1

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

DBYD Reference No: 111066468

Date DBYD Ref Received: 22/06/2021

Date DBYD Job to Commence: 23/06/2021

Date DBYD Map Produced: 22/06/2021

This Map is valid for 30 days

Produced By: Urban Utilities



Map Scale
1:1000

--- Water Service (Indicative only)

Water

Sewer

- Infrastructure

◆ Major Infrastructure

Network Pipelines

Network Structures

Water Service (Ind)

- Infrastructure

◆ Major Infrastructure

— Network Pipelines

Network Structures



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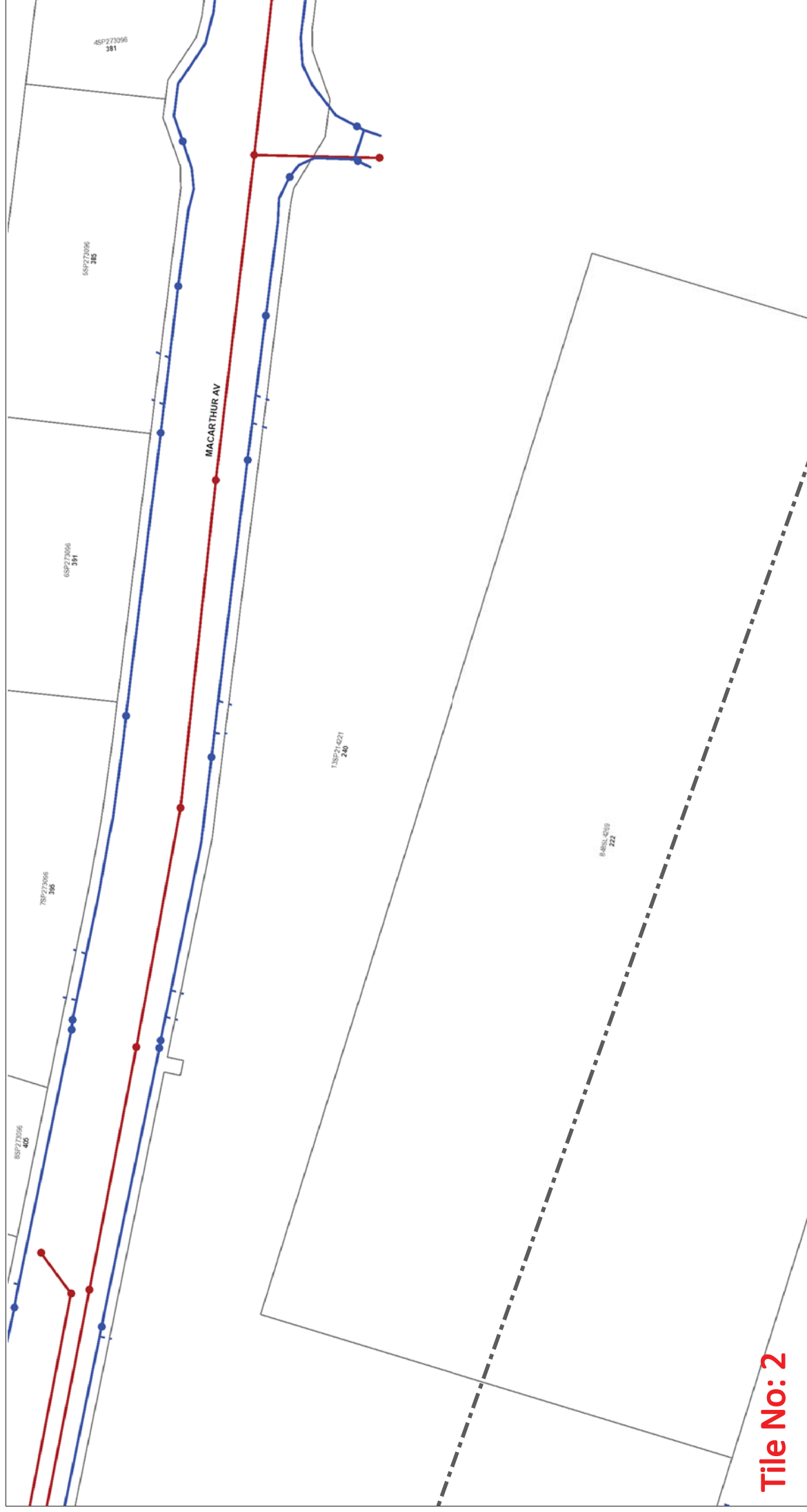
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www.urbanutilities.com.au ANR 86 673 833 011

Urban Utilities - Water, Recycled Water and Sewer Infrastructure



Tile No: 2

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

DBYD Reference No: 111066468

Date DBYD Ref Received: 22/06/2021

Date DBYD Job to Commence: 23/06/2021

Date DBYD Map Produced: 22/06/2021

This Map is valid for 30 days

Produced By: Urban Utilities

Plans generated [22 Jun 2021] by PelicanCorp TicketAccess Software | www.pelicancorp.com

AU.Urban Utilities (QLD) - Response Plan.docx (2020)

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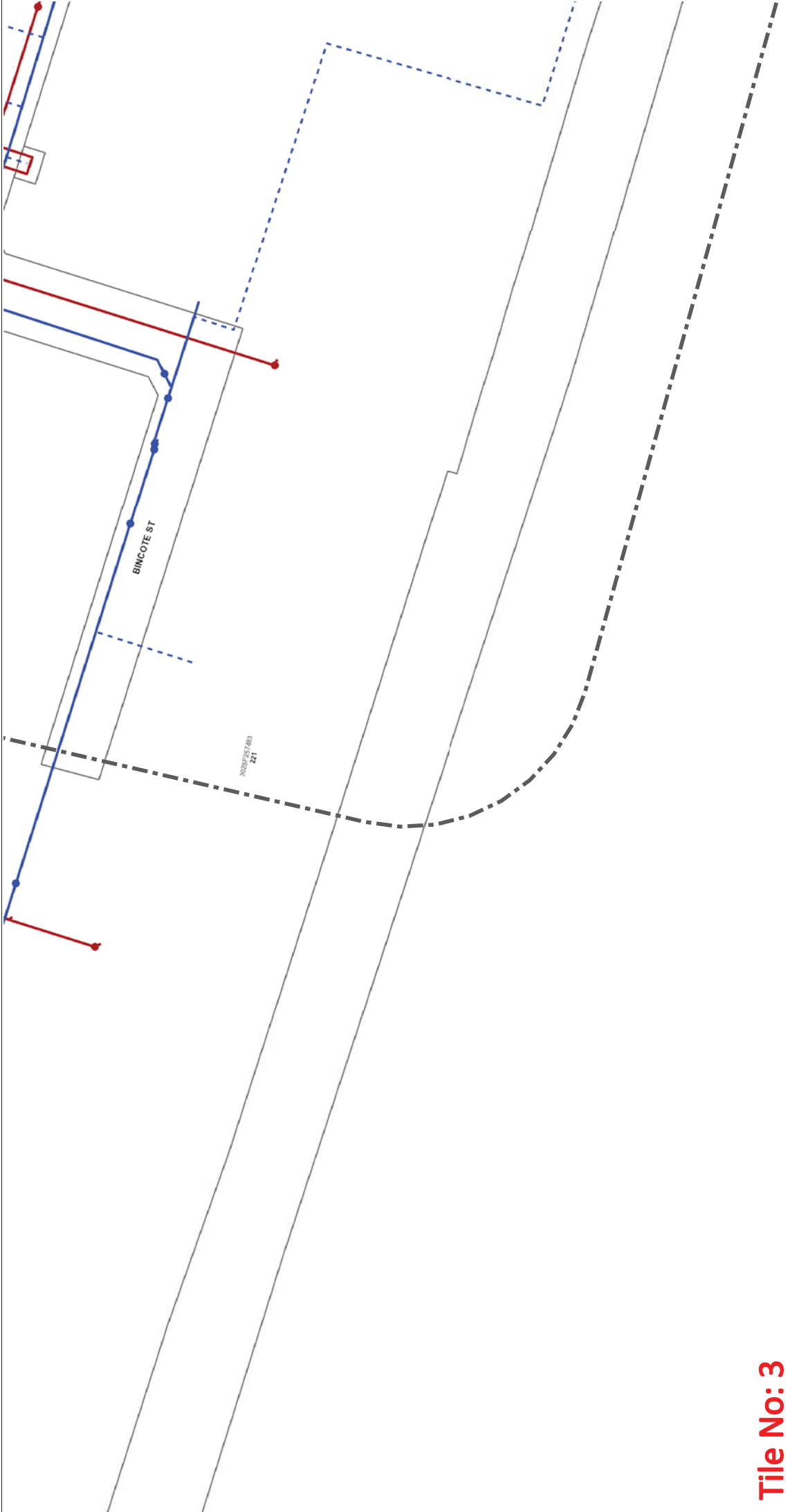
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For further information, please call Urban Utilities on 13 26 57 (8am-6pm weekdays). Faults and emergencies 13 26 54 (24/7).

www.urbanutilities.com.au ABN 86 678 895 011



Tile No: 3

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

DBYD Reference No: 111066468

Date DBYD Ref Received: 22/06/2021

Date DBYD Job to Commence: 23/06/2021

Date DBYD Map Produced: 22/06/2021

This Map is valid for 30 days

Produced By: Urban Utilities



Map Scale
1:1000

Water

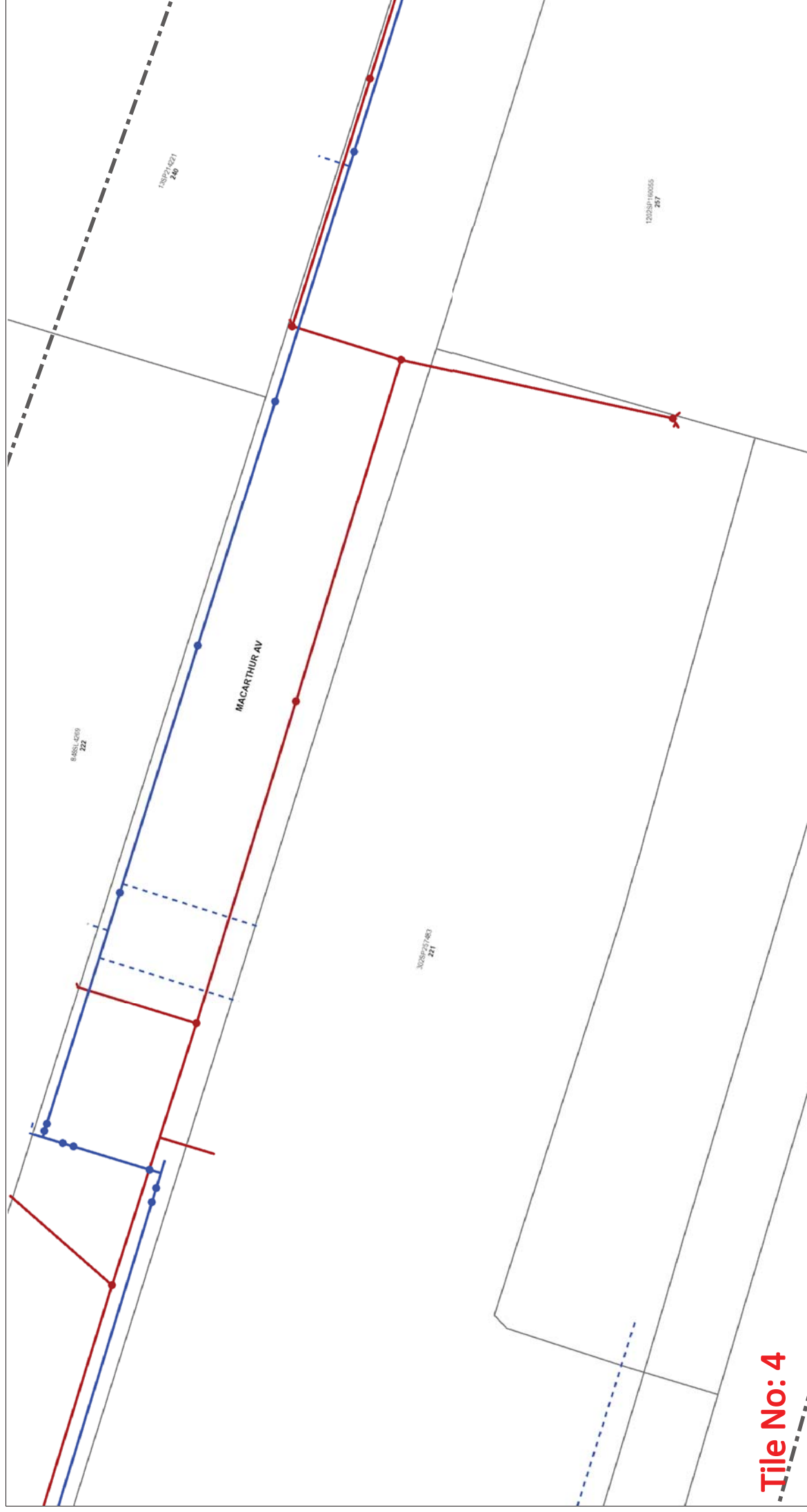
- Infrastructure
- Major Infrastructure
- Network Pipelines
- Network Structures
- Water Service (Indicative only)

Sewer

- Infrastructure
- Major Infrastructure
- Network Pipelines
- Network Structures

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

Urban Utilities - Water, Recycled Water and Sewer Infrastructure



File No: 4

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

DBYD Reference No: 111066468

Date DBYD Ref Received: 22/06/2021

Date DBYD Job to Commence: 23/06/2021

Date DBYD Map Produced: 22/06/2021

This Map is valid for 30 days

Produced By: Urban Utilities



Water

- Infrastructure
- ◆ Major Infrastructure
- Network Pipelines
- ▨ Network Structures
- - - Water Service (Indicative only)

Map Scale
1:1 000

N

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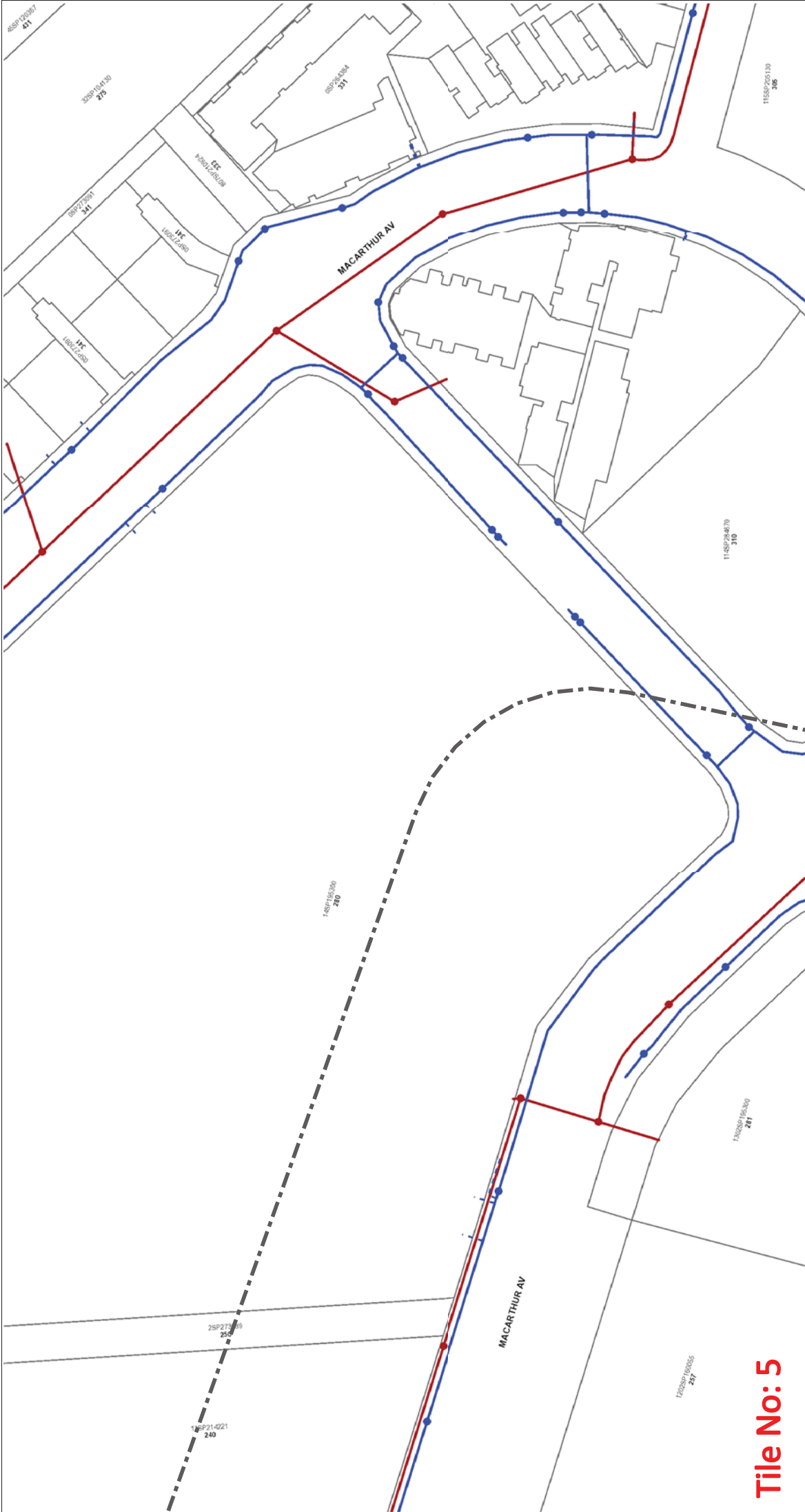
Urban Utilities takes no responsibility and accepts no liability for any loss, damage, costs or liability that may be Urban Utilities' takes no responsibility and accepts no liability for any loss, damage, costs or liability that may be incurred by any person acting in reliance on the information provided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

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

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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 86 673 855 013





Urban Utilities

DBYD Reference No: 111066468

Date DBYD Ref Received: 22/06/2021

Date DBYD Job to Commence: 23/06/2021

Date DBYD Map Produced: 22/06/2021

This Map is valid for 30 days

Produced By: Urban Utilities

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

Water

- Infrastructure
- Major Infrastructure
- Network Pipelines
- Network Structures
- Water Service (Indicative only)

Sewer

- Infrastructure
- Major Infrastructure
- Network Pipelines
- Network Structures

Map Scale

1:1000

Legend

- Infrastructure
- Major Infrastructure
- Network Pipelines
- Network Structures
- Water Service (Indicative only)

North Arrow

N

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

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Tile No: 6

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

DBYD Reference No: 111066468

Date DBYD Ref Received: 22/06/2021

Date DBYD Job to Commence: 23/06/2021

Date DBYD Map Produced: 22/06/2021

This Map is valid for 30 days

Produced By: Urban Utilities



Sewer

- Infrastructure
- Major Infrastructure
- Network Pipelines
- Network Structures

Water

- Infrastructure
- Major Infrastructure
- Network Pipelines
- Network Structures
- Water Service (Indicative only)



Map Scale
1:1000

While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Urban Utilities nor PelicanCorp shall be liable for any loss, damage, costs or liability that may be incurred by any person acting in reliance on the information provided on the plans. 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 a 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 does not warrant 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).

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APPENDIX D

PROPOSED 'SCHEDULE OF TEMPORARY ACTIVITIES'

Schedule of proposed temporary activities that may establish over time

- Events – including but necessarily limited to:
 - o Boxing or wrestling contests, display or exhibition
 - o Cinema
 - o Circus, including associated entertainments, training and classes
 - o Drive-in theatre
 - o Zoo park
 - o Reception lounges/venue (includes wedding receptions, birthdays and other parties)
 - o Fetes, fairs, fleamarkets and markets (held regularly throughout a year – if held once a year, must have an event permit)
 - o Live artist (if involving amplified music BCC local laws related to noise in residential areas to be adhered to);
 - o Mini golf;
 - o Skating rink (including ice skating);
 - o Sport and recreation event – e.g. roller derby, parkour, skateboarding, blokarting
 - o Festivals – eg food and wine, cultural
 - o Creative arts exhibitions – e.g. sculptural, public art
 - o Trade show / exhibition
 - o Travelling performances (other than circus)
 - o Amplified music concerts – inside a building (BCC local laws related to noise in residential areas to be adhered to)
 - o Outdoor amplified music concerts – only where a BCC Entertainment Event Permit has been obtained, and BCC local laws related to noise in residential areas to be adhered to)
 - o Live music or entertainment of a minor nature (not an amplified music concert)
 - o Ten-pin bowling
 - o Theatre and theatre restaurant

- Transitional Activations – including but not limited to:
 - o Office (eg Think Street)
 - o Outdoor sport and recreation (eg Tennis Australia, River supported recreational activities)
 - o Research and technology facility
 - o Service industry
 - o Food premises
 - o Market
 - o Warehouse
 - o Car Park
 - o Community facility
 - o Educational establishment
 - o Indoor entertainment
 - o Indoor sport and recreation
 - o Outdoor sport and recreation (eg Tennis Australia, River supported recreational activities)
 - o Park (Noting Maritime 3 delivered via exemption)
 - o Tourist facility
 - o Visitor accommodation (Pop up only – e.g. glamping)
 - o Shop

APPENDIX E
COUNCIL CODES

FILLING AND EXCAVATION CODE
Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	SOLUTIONS ^{NS1}	COMMENTS	COUNCIL USE ONLY
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: a) 2.5m in a zone in the Industry zones category; b) 1m in all other zones, or if adjoining a sensitive zone.	✓	All earthworks proposed will not cause visual impacts and will not impact adversely on the stability of the land.		
PO2 Development of a retaining wall proposed as a result of filling or excavation: a) Is designed and constructed to be fit for purpose; b) Does not impact adversely on significant vegetation; c) 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	AO2.1 Development of a retaining structure, including footings, surface drainage and subsoil drainage: a) Is wholly contained within the site; b) If the total height to be retained is greater than 1m, then: 1) The retaining wall at the property boundary is not greater than 1m above the ground level; 2) all further terracing from the 1m high boundary retaining wall is 1 vertical unit:1	✓			

Solution: ✓ = Acceptable Solution
A/S = Alternative Solution
N/A = Not Applicable to this Proposal

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
the Biodiversity areas planning scheme policy.	horizontal unit; 3) 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.			

Solution: ✓ = Acceptable Solution
A/S = Alternative Solution
N/A = Not Applicable to this Proposal

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS		SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
		AO2.4 Development for filling only uses clean fill that does not include any construction rubble or debris.		✓		
PO3 Development ensures that a rock anchor is designed and constructed to be fit for purpose.		AO3 Development ensures that a rock anchor: a) is constructed in accordance with the standards in the Infrastructure design planning scheme policy; b) where it extends beyond the property boundary, is supported by a letter of consent from the adjoining land and building owners.		N/A		
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.		✓	Development will protect services and public utilities and will ensure that the alteration or relocation of services or public utilities meets the standard design specifications of the responsible service authorities.	

Solution: ✓ = Acceptable Solution
 A/S = Alternative Solution
 N/A = Not Applicable to this Proposal

FILLING AND EXCAVATION CODE
Performance Criteria and Acceptable Solutions

Job Ref No.: 18059

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
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.	✓	Development will ensure all flows and subsoil drainage are directed to a lawful point of discharge of a surface water diversion drain in accordance with the stormwater drainage section of the Infrastructure design planning scheme policy.		
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 No acceptable outcome is prescribed.	N/A	Open channel not proposed for the site		

Solution: ✓ = Acceptable Solution
A/S = Alternative Solution
N/A = Not Applicable to this Proposal

FILLING AND EXCAVATION CODE
Performance Criteria and Acceptable Solutions

Job Ref No.: 18059

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS		SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
PO7 Development for filling or excavation: a) does not degrade water quality or adversely affect environmental values in receiving waters; b) ensures site sediment and erosion control standards are best practice.	PO7.1 Development for filling or excavation provides water quality treatment that complies with the stormwater drainage section of the Infrastructure design planning scheme policy. PO7.2 Development provides erosion and sediment control standards that are in accordance with the stormwater drainage section of the Infrastructure design planning scheme policy.	✓	An erosion and sediment control plan will be produced within the detailed design phase of the project and will be in accordance with Appendix E, Table A (construction phase) in the State Planning Policy and Brisbane City Councils stormwater drainage section of the Infrastructure design planning scheme policy.			
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.	✓	Filling or excavation will be conducted such that adverse impacts due to noise and dust are minimised. Filling or excavation activity will only occur between the hours of 6:30am and 6:30pm Monday to Saturday.			

Solution: ✓ = Acceptable Solution
 A/S = Alternative Solution
 N/A = Not Applicable to this Proposal

FILLING AND EXCAVATION CODE
Performance Criteria and Acceptable Solutions

Job Ref No.: 18059

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS		SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
PO9 Development ensures that vibration generated by the filling or excavation operation does not exceed the vibration criteria in Table 9.4.3.3.D, Table 9.4.3.3.E, Table 9.4.3.3.F and Table 9.4.3.3.G. 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.	✓	Vibration generated by filling or excavation operations will not exceed the vibration criteria in Table 9.4.3.3.D, Table 9.4.3.3.E, Table 9.4.3.3.F and Table 9.4.3.3.G.			
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: a) occur for a maximum of 3 weeks; b) use a major road to access the site; c) 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.	✓	Heavy trucks hauling material to and from the site will not affect the amenity of established areas and will only use Major Roads. Hauling material to and from site will only occur for a maximum of 3 weeks.			

Solution: ✓ = Acceptable Solution
A/S = Alternative Solution
N/A = Not Applicable to this Proposal

FILLING AND EXCAVATION CODE

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS		SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
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: a) excavation on land previously occupied by a notifiable activity or on land listed on the Environmental Management Register or the Contaminated Land Register; b) filling with material containing a contaminant.	✓	Excavation works are to be conducted in accordance with a Geotechnical report from a licensed and qualified Geotechnical Engineer.			
PO12 Development provides for: a) landscaping for water conservation purposes; b) water sensitive urban design measures which are employed within the landscape design to maximise stormwater use and to reduce any adverse impacts on the landscape; c) stormwater harvesting to be maximised and any adverse impacts of stormwater minimised.	AO12.1 Development provides landscaping which is designed using the standards in the Landscape design guidelines for water conservation planning scheme policy.	✓				
	AO12.2 Development ensures that the design and requirements for irrigation are in compliance with the standards in the Landscape design guidelines for water conservation planning scheme policy.	✓				
	AO12.3 Development provides areas of pavement, turf and mulched garden beds which are drained. Note—This may be achieved through the	✓				

Solution: ✓ = Acceptable Solution
A/S = Alternative Solution
N/A = Not Applicable to this Proposal

FILLING AND EXCAVATION CODE
Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
		provision and/or treatment of swales, spoon drains, field gullies, sub-surface drainage and stormwater connections.			

Solution: ✓ = Acceptable Solution
A/S = Alternative Solution
N/A = Not Applicable to this Proposal

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
Section A—If for self-assessable or assessable development for a dwelling house including any secondary dwelling Note—Development for a dwelling house does not require assessment against any other sections of this code.					
PO1 Development involving any habitable or non-habitable part of a dwelling house , including any secondary dwelling , is located and designed to: (a) minimise the risk to people from flood hazard; (b) achieve acceptable flood immunity; (c) minimise property impacts from a flood event up to and including the defined flood event; (d) minimise disruption to residents, recovery time and rebuilding or restoration costs after a flood event up to and including the defined flood event.	AO1.1 Development for a dwelling house including any secondary dwelling : (a) s not located in the Brisbane River flood planning area 1, 2a or 2b sub-categories or the Creek/waterway flood planning area 1 or 2 sub-categories; or (b) is only located in these sub-categories, if a Registered Professional Engineer Queensland certifies that the dwelling house and any secondary dwelling are structurally designed to be able to resist hydrostatic and hydrodynamic loads associated with flooding up to and including the defined flood event.	N/A			
	AO1.2 Development for a dwelling house and any secondary dwelling complies with the minimum flood planning levels in Table 8.2.11.3.B . Note—If located in an area that has no flood level information available from the Council such as an overland flow path, a Registered Professional Engineer of Queensland with expertise in undertaking flood studies is to certify				

1. Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
	that the flood level and development levels for the dwelling house and any secondary dwelling achieve the required flood planning levels in Table 8.2.11.3.B. AO1.2 Development involving a building undercroft complies with the minimum clearance requirements in Table 8.2.11.3.E. Editor's note—For creek/waterway, storm-tide and river flooding, applicable flood planning information is available from Council's FloodWise Property Report. Note—The Flood planning scheme policy provides guidance on undercroft design.			
PO2 Development within the Creek/waterway flood planning area sub-categories or Overland flow flood planning area sub-category: (a) maintains the conveyance of flood waters to allow them to pass predominantly unimpeded through the site; (b) does not concentrate, intensify or divert floodwater onto upstream, downstream or adjacent properties;	AO2 Development: (a) is not located within the Creek/waterway flood planning area 1, 2 or 3 sub-categories or the Overland flow flood planning area sub-category; or (b) provides an open undercroft area from natural ground level to habitable floor level for any area inundated by the defined flood event; or ote—This undercroft area is not suitable	N/A		

1. Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
(c) will not result in a material increase in flood levels or flood hazard on upstream, downstream or adjacent properties.	for providing non-habitable rooms, secure storage of valuables, or future enclosing for storage or car parking. The clear area may include structural elements such as columns and floor substructure. The Flood planning scheme policy provides guidance on undercroft design. Editor's note—An open undercroft design may be achieved through a 'valance' treatment around the perimeter of an otherwise internally clear undercroft. Editor's note—For Creek/waterway, storm-tide and river flooding, applicable flood planning information is available from Council's FloodWise Property Report. (c) report from a Registered Professional Engineer Queensland certifies that the development in the Creek/waterway flood planning area or Overland flow flood planning area sub-categories will not result in a material increase in flood level or flood hazard on upstream, downstream or adjacent properties. Note—Flood studies demonstrate that the development and engineering design methods conform to the			

1. Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE
Performance Criteria and Acceptable Solutions

Job Ref No.: 18059

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
		principles within the Flood planning scheme policy and the Infrastructure design planning scheme policy .			
Section B—If self-assessable or assessable development other than for a dwelling house or reconfiguring a lot		Note—If self-assessable development complies with the acceptable outcomes of this part, no further assessment against this code is required.			
PO3 Development: (a) is compatible with flood hazard in a defined flood event ; (b) minimises the risk to people from flood hazard; (c) does not reduce the ability of evacuation resources including emergency services to access and evacuate the site in a flood emergency, with consideration to the scale of the development; (d) minimises impacts on property from flooding; (e) minimises disruption to residents, business or site operations and recovery time due to flooding; (f) minimises the need to rebuild structures after a flood event greater than the defined flood event.	AO3 Development for a material change of use complies with Table 8.2.11.3.C .	✓			

Note—Where [Table 8.2.11.3.C](#) identifies that a flood risk assessment is required, compliance with this performance outcome can be achieved by submitting a

1. Solution: ✓ = Acceptable Solution
 A/S = Alternative Solution
 N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
flood risk assessment, which may be included within a flood study, addressing the criteria within this performance solution. Preparing flood risk assessments and flood studies is required to be in accordance with the Flood planning scheme policy. Note—An emergency management plan prepared in accordance with the Flood planning scheme policy, which sets out procedures for evacuation due to flooding may be used to demonstrate compliance with this performance outcome.				
PO4 Development for a park ensures that the design of a park and location of structures and facilities responds to the flood hazard and balances the safety of intended users with: (a) maintaining continuity of operations; (b) impacts of flooding on asset life and ongoing maintenance costs; (c) efficient recovery after flood events; (d) recreational benefits to the city; (e) availability of suitable land within the park.	AO4.1 Development involving a building or structure in a park complies with the flood planning levels specified in Table 8.2.11.3.D. AO4.2 Development involving a building or structure where Table 8.2.11.3.D does not apply: (a) is not located within the 20% AEP flood extent of any creek/waterway or overland flow path; or (b) is located above the 20% AEP flood level of any creek/waterway or overland	N/A		

1. Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
Section C—If for assessable development other than for a dwelling house					
PO5 Development is located and designed to: (a) minimise the risk to people from flood hazard on the site; (b) minimise flood damage to the development and contents of buildings up to the defined flood event ; (c) provide suitable amenity; (d) minimise disruption to residents, recovery time and the need to rebuild structures after a flood event up to and including the defined flood event.	flow path.	AO5.1 Development complies with the flood planning levels specified in Table 8.2.11.3.D . Note—If located in an area with no Council-derived flood levels such as an overland flow path, a Registered Professional Engineer Queensland with expertise in undertaking flood studies is to derive the applicable flood level and certify that the development meets the required flood planning levels in Table 8.2.11.3.D . The study is to demonstrate that the development and engineering design methods conform to the principles within the Flood planning scheme policy and the Infrastructure design planning scheme policy .	✓	Development complies with the flood planning levels specified in Table 8.2.11.3.D . Future activations of the development are not located in the Brisbane River flood planning area 1, 2a, or 2b sub-categories, Creek/waterway flood planning area 1 or 2 sub-categories or overland flow flood planning area sub-category.	
		AO5.2 Development is: (a) not located in the: - Brisbane River flood planning area 1, 2a, or 2b sub-categories; - Creek/waterway flood planning area 1 or 2 sub-categories; - Overland flow flood planning area sub-category; or			

1. Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
	(b) only located in these sub-categories if a Registered Professional Engineer Queensland with expertise in undertaking flood studies certifies that: i. the development design, siting and any mitigation measures will ensure the development is structurally adequate to resist hydrostatic, hydrodynamic and debris impact loads associated with flooding up to the defined flood event; and ii. the risk to people is managed to an acceptable level.			
PO6 Development involving essential electrical services or a basement storage area is suitably located and designed to ensure public safety and minimise flood recovery and economic consequences of damage during a flood.	A06.1 Development ensures that: (a) all areas containing essential electrical services comply with the flood planning levels in Table 8.2.11.3.D; or (b) if a basement contains essential electrical services or a private basement storage area, the basement is a waterproof structure with walls and floors impermeable to the passage of water with all entry points and services located at or above the relevant flood planning level in Table 8.2.11.3.D. Note—A basement storage area does not include a bike storage room, change room, building maintenance storage and	✓	The development will ensure that: (a) all areas containing essential electrical services comply with the flood planning levels in Table 8.2.11.3.D;	

1. Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
	non-critical electrical services. AO6.2 Development involving a basement that relies on a pumping solution to manage floodwater ingress or for dewatering after a flood provides a redundant pump system with a backup power source for those pumps.			
PO7 Development does not directly or indirectly create a material adverse impact on flood behaviour or drainage on properties that are upstream, downstream or adjacent to the development.	AO7.1 Development: (a) does not block, or divert floodwaters for any area affected by creek/waterway or overland flow flooding, excluding storm-tide flooding and Brisbane River flooding sources; or (b) does not result in a material increase in flood level or hydraulic hazard on upstream, downstream or adjacent properties. Note—Compliance with this acceptable solution can be demonstrated by the submission of a flood study by a Registered Professional Engineer of Queensland with expertise in undertaking flood studies demonstrating that the development and engineering design methods conform to the principles within the Flood planning scheme policy and the Infrastructure	✓	The development will not cause adverse impact to upstream, downstream or adjacent properties. The development will discharge flows as per existing conditions. Bornhorst and Ward's Serviceability Report indicates the development is unlikely to cause adverse impacts on upstream or downstream properties.	

1. Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE

Performance Criteria and Acceptable Solutions

Job Ref No.: 18059

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
	design planning scheme policy. A07.2 Development retains existing overland flow paths and does not rely wholly on piped solutions to manage major flows. A07.3 Development which creates a new overland flow path or significantly modifies an existing overland flow path via earthworks does not materially worsen hydraulic hazard on the site from existing conditions. Note—Compliance with this acceptable solution can be demonstrated by the submission of a flood study by a Registered Professional Engineer of Queensland with expertise in undertaking flood studies demonstrating that the development and engineering design methods conform to the principles within the Flood planning scheme policy and the Infrastructure design planning scheme policy.			
PO8 Development for filling or excavation in an area affected by creek/waterway flooding does not directly, indirectly or cumulatively cause any material increase 1. Solution: ✓ = Acceptable Solution A/S = Alternative Solution N/A = Not applicable to this Proposal	A08 Development ensures that no filling or excavation greater than 100mm is located in the Creek/waterway flood planning area 1, 2 or 3 sub-categories if	N/A	Not susceptible to creek/waterway flooding.	

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
in flooding or hydraulic hazard or involve significant redistribution of flood storage from high to lower areas in the floodplain. Note—This can be demonstrated by undertaking earthworks in compliance with the Compensatory earthworks planning scheme policy. Note—This part of the code applies to all development other than a dwelling house and any secondary dwelling which involves filling or excavation, whether or not the development application comprises a separate development application for operational work involving filling or excavation.	contained in the 5% AEP flood extent of any Creek/waterway flood planning area sub-category for which no waterway corridor has been mapped in the Waterway corridors overlay.			
PO9 Development ensures that the building and site design: (a) maintains the conveyance capacity of existing overland flow paths and creek/waterways; (b) ensures floodwaters and flood debris can pass predominantly unimpeded under a structure or building to minimise property or building damage, including for a flood larger than the defined flood event; (c) mitigates flood impacts by ensuring	AO9.1 Development involving a building undercroft in the Creek/waterway flood planning area sub-categories or the Overland flow flood planning area sub-category: (a) complies with the minimum building undercroft clearance requirements in Table 8.2.11.3.E; (b) not located directly above any part of a waterway corridor as mapped in the Waterway corridors overlay.	N/A		

1. Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
that filling, excavation and location of services are designed to allow for the conveyance of floodwater across the site. Note—The Flood planning scheme policy provides guidance on relevant considerations in determining minimum undercroft clearances and treatment of ground level in undercroft areas where floodwater conveyance is required underneath development.	AO9.2 Development involving a building undercroft in the Creek/waterway flood planning area sub-categories or the Overland flow flood planning area sub category: (a) has a ground level within the undercroft area is free draining; (b) does not involve excavation below ground level of more than 300mm within the undercroft area.			
PO10 Development for vulnerable uses, difficult to evacuate uses or assembly uses optimises vehicular access and efficient evacuation from the development to parts of the road network unaffected by flood hazard, in order to: (a) protect safety of users and emergency services personnel; (b) support efficient emergency services access and site evacuation with consideration to the scale of development.	AO10.1 Development for vulnerable uses, difficult to evacuate uses or assembly uses: (a) is not isolated in any event up to the relevant flood planning level specified in Table 8.2.11.3.L; or (b) has direct vehicle access to a critical route or interim critical route in the Critical infrastructure and movement network overlay for evacuation in a flood; or (c) can achieve vehicular evacuation to a suitable flood-free location.	✓	The development falls under “difficult to evacuate uses” as the road used for evacuation will flood before the site due to its lower elevation. A flood risk assessment will be required to address the performance outcomes or acceptable solutions which deal with evacuation and isolation arrangements, and the ability to take refuge.	

1. Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
Note—A flood risk assessment may be required to address the performance outcomes or acceptable solutions which deal with evacuation and isolation arrangements, and the ability to take refuge. The Flood planning scheme policy provides information for undertaking flood risk assessments.	Note—A suitable flood-free location is of a size and nature sufficient to provide for the size and characteristics of the population likely to need evacuation to that area.			
PO11 Development has access which, having regard to hydraulic hazard, provides for safe vehicular and pedestrian movement and emergency services access to adjoining roads.	AO11.1 Development provides an access or driveway into the site which is: (a) trafficable during the defined flood event; (b) not located in the Creek/waterway flood planning area 1 sub-category; (c) not located in the Overland flow flood planning area sub-category if the hydraulic hazard is unsafe in the defined flood event ; (d) the access or driveway is not inundated by a 10% AEP flood.	A/S	The development will be evacuated prior to inundation of the evacuation route.	
	AO11.2 Development located in the Creek/waterway flood planning area 1, 2, 3 or 4 sub-categories locates any disabled access in the highest part of the site. Note—explanation of hydraulic hazard provided in the Flood planning scheme			

1. Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
		policy .			
PO12 Development involving a new road, a bridge or culvert is designed to minimise impacts to flood behaviour, minimise disruption to traffic during a flood and allow for emergency access.	AO12 Development involving a new road complies with the flood planning levels in Table 8.2.11.3.F .	N/A			
PO13 Development for pedestrian and cyclist paths: (a) provides a suitable level of trafficability; (b) manages the impacts of flooding on asset life and ongoing maintenance costs; (c) balances route availability with recreational and transport connectivity benefits to the city.	AO13.1 Development for cyclist and pedestrian facilities other than on public roads, including those traversing through a park and adjacent to a watercourse and overland flow path, are located above the 39% AEP (2 year ARI) flood immunity from all flooding sources. Note—If the site is subject to more than one type of flooding, the requirement that affords the greatest level of protection will apply. AO13.1 All new on-road cyclist and pedestrian facilities comply with the flood planning levels and trafficability standards for the applicable category of road in Table 8.2.11.3.F or Table 8.2.11.3.K.	✓	Development of cyclist and pedestrian facilities other than on public roads, including those traversing through a park and adjacent to a watercourse and overland flow path, will be located above the 39% AEP (2 year ARI) flood immunity from all flooding sources.		

1. Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
PO14 Development which increases the residential population within the Brisbane River flood planning area sub-categories minimises the risk to people in all flood events with consideration to flood hazard, including warning time.	AO14 Development in the Brisbane River flood planning area sub-categories in areas where the residential flood level is greater than 12.8m AHD involving: (a) an increase in the number of residential dwellings; or (b) additional residential lots; or (c) is not subject to an unsafe hydraulic hazard in the 0.2% AEP flood event. Note—Explanation of a hydraulic hazard is provided in the Flood planning scheme policy .	N/A		
Additional criteria for essential community infrastructure				
PO15 Development involving essential community infrastructure : (a) remains functional to serve community need during and immediately after a flood event, or is part of a network that is able to maintain the function of the essential community infrastructure when parts of the development are unable to function during or after a flood; (b) is designed, sited and operated to avoid adverse impacts on the community or the environment due to the impacts of flooding on infrastructure, facilities or access and egress routes;	AO15 Development involving essential community infrastructure : (a) is ancillary to and not relied upon for the provision of the essential service during a flood; or (b) is located above the flood planning levels in Table 8.2.11.3.G ; (c) has access to or provides the necessary back-up emergency electricity and communications supply in times of flood; (d) is designed and constructed to resist hydrostatic and hydrodynamic forces as a result of inundation by the flood event	N/A		

1. Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
(c) is able to remain functional or is part of a network which is able to remain functional even when other infrastructure or services (such as electricity supply) may be compromised in a flood event; (d) contains mitigation measures which are not entirely dependent on human activation to respond to a flood event. Note—Protection of function is required up to and including the flood event in Table 8.2.11.3.G.	listed for the development type in Table 8.2.11.3.G; (e) that services a local area: i. is able to be accessed in times of flood to service local community needs up to the event listed for that development type in Table 8.2.11.3.G; or ii. is consistent with the standards contained in the Management of hazardous chemicals in flood prone areas planning scheme policy and can operate without risk of environmental harm during a flood event. Note—The Management of hazardous chemicals in flood prone areas planning scheme policy sets out further information and processes including risk assessment for the management of hazardous chemicals in flood planning areas.			
Additional criteria if development involves the processes in Table 8.2.11.3.H				
PO16 Development involving the storage and handling of hazardous materials avoids or minimises risks to public health and safety and the environment, by: (a) protecting underground tanks for hazardous materials against the forces of	AO16 (a) Development does not include the storage or handling of hazardous chemicals that are equivalent to or exceed the threshold quantities in Table 8.2.11.3.M. (b) Development involving the processes	N/A		

1. Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
buoyancy, velocity flow and debris impacts; (b) securing above-ground tanks for hazardous materials against flotation and lateral movement; (c) preventing damage to hazardous materials pipework or entry of floodwater into hazardous materials pipework; (d) preventing damage to or off-site release of packages, drums or containers storing hazardous materials. Note—A chemical hazards flood risk report prepared in accordance with the Management of hazardous chemicals in flood prone areas planning scheme policy can assist in demonstrating achievement of this performance outcome. Note—A pump drainage system is not an acceptable measure to meet the performance outcome.	listed in Table 8.2.11.3.H: i. where located in the Flood overlay area, occurs only in the Creek/waterway flood planning area 5 sub-category or the Brisbane River flood planning area 5 sub-category; or ii. is consistent with the standards contained in the Management of hazardous chemicals in flood prone areas planning scheme policy and can operate without risk of environmental harm during a flood event. Note—The Management of hazardous chemicals in flood prone areas planning scheme policy sets out further information and processes including risk assessment for the management of hazardous chemicals in flood planning areas.			

1. Solution: ✓ = Acceptable Solution
 A/S = Alternative Solution
 N/A = Not applicable to this Proposal

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS		SOLUTION ¹		COMMENTS		COUNCIL USE ONLY	
Additional criteria for reconfiguring a lot									
P017	Development locates and designs all lots resulting from reconfiguring a lot to: (a) minimise the risk to people from flood hazard; (b) minimise damage to property from flood hazard; (c) facilitate safe and efficient evacuation.								
Note— • Consideration of all floods up to the probably maximum flood is relevant to minimising the risk to people. • Flood warning time is not considered sufficient in the Creek/waterway planning area sub-categories or the Overland flow flood planning area sub-category. • Filling above the flood planning level for a flood event greater than the defined flood event cannot be assumed to mitigate the flood hazard.									
		AO17.1 Development creating new lots is to comply with Table 8.2.11.3.i .		N/A					
		AO17.2 Development provides for reconfiguring a lot design that achieves a road and lot layout which: (a) provides trafficable vehicular egress for evacuation during a defined flood event ; (b) optimises hazard-free movement away from sources of flood hazard within the development.		N/A					
		Note—Further advice on road and lot layout is contained in the Flood planning scheme policy .							
		AO17.3 Development which creates a new residential lot in an area subject to Brisbane River flooding, if the residential flood level is greater than 12.8m AHD is not subject to a hydraulic hazard greater than 0.6m ² /s DV or 0.6m deep in a 0.2% AEP flood.		N/A					
		Note—Refer to the Flood planning scheme policy for further explanation on the 0.2% AEP flood.							

1. Solution: ✓ = Acceptable Solution
A/S = Alternative Solution
N/A = Not applicable to task

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
PO18 Development involving reconfiguring a lot: (a) minimises the risk to people from flood hazard; (b) creates safe evacuation routes or avoids isolation of the development during a flood greater than the defined flood event; (c) minimises damage to property and services; (d) provides lots and roads that are not frequently flooded or subject to nuisance ponding or seepage; (e) ensures lots created for park or private open space minimise the risk to people from flood hazard and are fit for purpose; (f) provides a lot that is not substantially burdened by flood mitigation infrastructure.	AO18.1 Development involving reconfiguring a lot ensures: (a) all lots comply with the flood planning levels in Table 8.2.11.3.J; (b) a new road complies with the flood planning levels in Table 8.2.11.3.F. AO18.2 Development involving reconfiguring a lot creating more than 6 residential lots or a lot for industry ensures the flood planning levels of a dedicated road fronting the development or providing primary access within 200m of the development: (a) complies with Table 8.2.11.3.K; or (b) has acceptable trafficability in accordance with the requirements in the Flood planning scheme policy and the Queensland Urban Drainage Manual. Note—The Flood planning scheme policy contains supporting information about trafficability on existing roads and serviceability during floods. AO18.3 Development protects the conveyance of flood hazard area by providing an easement over the: (a) 2% AEP flood extent for overland flow	N/A N/A N/A		

1. Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not applicable to this Proposal

FLOOD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	SOLUTION ¹	COMMENTS	COUNCIL USE ONLY
		flooding; (b) 1% AEP flood extent for creek/waterway flooding.			

1. Solution: ✓ = Acceptable Solution
A/S = Alternative Solution
N/A = Not applicable to this Proposal

COASTAL HAZARD OVERLAY CODE
Performance Criteria and Acceptable Solutions

Job Ref No.: 18059

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS		SOLUTIONS ^{NS1}	COMMENTS	COUNCIL USE ONLY
Section A – If for self-assessable or assessable development for a dwelling house including a secondary dwelling						
PO1 Development involving any habitable or non-habitable part of the dwelling house, including any secondary dwelling, is: a) located and designed to minimise the risk to people and structures from coastal hazards; b) located to minimise amenity impacts, disruption to residents, recovery time and rebuilding and restoration costs after a coastal hazard event.	AO1 Development for a dwelling house including, any secondary dwelling, complies with the flood planning levels in Table 8.2.6.3.B. Editor's note—Information about flooding from storm tide is provided in Council's FloodWise Property Report.	N/A				
Section B – If for a self assessable or assessable development other than for a dwelling house						
PO2 Development other than for a park is located and designed to: (a) minimise the risk to all persons from coastal hazards; (b) minimise flood damages to the development and contents of buildings; (c) provide suitable amenity; (d) minimise disruption to residents, recovery time, and rebuilding	AO2 Development achieves minimum flood planning levels consistent with Table 8.2.6.3.C. Editor's note—Information about flooding from storm tide is provided in Council's FloodWise Property Report.	✓				

Solution: ✓ = Acceptable Solution
A/S = Alternative Solution
N/A = Not Applicable to this Proposal

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS		SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
or restoration costs after coastal hazard events.						
PO3 Development for a park ensures that the design of the park and location of structures and facilities responds to coastal hazards and balances the safety of intended users with:	a) maintaining continuity of operations; b) impacts of flooding on asset life and ongoing maintenance costs; c) efficient recovery after flood events; d) recreational benefits to the city; e) availability of suitable land within the park. Note — The Infrastructure design planning scheme policy provides more detail on standards and specifications for public assets.	AO3 Development involving a building or structure in a park:	a) complies with the minimum flood planning levels in Table 8.2.6.3.C; or b) is not located below the 20% AEP storm-tide level if Table 8.2.6.3.C does not apply to the type of structure.	N/A		
Section C — If assessable development other than for a dwelling						
PO4 Development has access which provides for safe vehicular and pedestrian movement in the development, including emergency services access during and after a coastal hazard event.		AO4 Development locates access points and driveways in the flood free area (or the area of the lowest flood risk) of the site.		✓	Development site will be evacuated prior to inundation of access points and driveways.	

Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not Applicable to this Proposal

COASTAL HAZARD OVERLAY CODE
Performance Criteria and Acceptable Solutions

Job Ref No.: 18059

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
PO5 Development for pedestrian and cyclist paths: (a) provides a suitable level of trafficability; (b) manages the impacts of flooding on asset life and ongoing maintenance costs; (c) balances route availability with recreational and transport connectivity benefits to the city.	AO5 Development for off-road pedestrian and cyclist paths: (a) is not located in the Erosion prone area – coastal erosion subcategory; or (b) complies with the minimum flood planning levels in Table 8.2.6.3.H. Note—If the site is subject to more than 1 type of flooding, the requirement that affords the highest flood planning level will apply.	✓			
PO6 Development does not: (a) impact adversely on the safety or amenity of an adjoining site; (b) impact adversely on the ability of others to implement future coastal hazard adaptation actions.	AO6 Development does not concentrate, intensify or divert floodwater, erosion impacts or cause nuisance ponding onto other premises.	✓			

Solution: ✓ = Acceptable Solution
A/S = Alternative Solution
N/A = Not Applicable to this Proposal

COASTAL HAZARD OVERLAY CODE
Performance Criteria and Acceptable Solutions

Job Ref No.: 18059

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
PO7 Development involving essential electrical services or a basement storage area is suitably located and designed to ensure public safety and minimise the need for flood recovery and economic consequences of damage during a flood.	PO7.1 Development ensures that: (a) all essential electrical services comply with the flood planning levels in Table 8.2.6.3.C; or (b) if a basement contains essential electrical services or a private basement storage area, the basement is a waterproof structure with walls and floors impermeable to the passage of water and all entry points and services are located at or above the relevant flood immunity level in Table 8.2.6.3.C. Note—A basement storage area is a basement-level area for private storage, other than a bike storage room, change room, building maintenance storage and non-critical electrical services. PO7.2 Development involving a basement that relies on a pumping solution to manage floodwater ingress or for dewatering after a flood, provides an appropriately flood protected backup power source for those pumps.	✓	All essential electrical services will comply with the flood planning levels in Table 8.2.6.3.C.	

Solution: ✓ = Acceptable Solution
A/S = Alternative Solution
N/A = Not Applicable to this Proposal

221-281 Macarthur Avenue, Hamilton 4007

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COASTAL HAZARD OVERLAY CODE
Performance Criteria and Acceptable Solutions

Job Ref No.: 18059

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS	SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
PO8 Development involving the storage and handling of hazardous materials avoids or minimises risks to public health and safety and the environment, by: (a) protecting underground tanks for hazardous materials against the forces of buoyancy, velocity flow and debris impacts; (b) securing above-ground tanks against flotation and lateral movement; (c) preventing damage to pipework or entry of floodwater into pipework; (d) preventing damage to or off-site release of packages, drums or containers. Note—A chemical hazards flood risk report prepared in accordance with the Management of hazardous chemicals in flood affected areas planning scheme policy can assist in demonstrating achievement of this performance outcome. Note—A pump drainage system is not an acceptable measure to meet the performance outcome.	AO8.1 Development does not include the storage or handling of hazardous chemicals that are equivalent to or exceed the threshold quantities in Table 8.2.6.3.J. AO8.2 Development involving the processes listed in Table 8.2.6.3.F is consistent with the standards contained in the Management of hazardous chemicals in flood affected areas planning scheme policy and can operate without risk of environmental harm during a coastal hazard. Note—The Management of hazardous chemicals in flood affected areas planning scheme policy sets out further information and processes including risk assessment for the management of hazardous chemicals in coastal hazard areas.	✓	Development does not include the storage or handling of hazardous chemicals that are equivalent to or exceed the threshold quantities in Table 8.2.6.3.J	
Additional Criteria for essential community infrastructure				

Solution: ✓ = Acceptable Solution
A/S = Alternative Solution
N/A = Not Applicable to this Proposal

COASTAL HAZARD OVERLAY CODE

Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
PO9 Development involving essential community infrastructure: (a) maintains function during and immediately after a coastal hazard event or is part of a network that is able to maintain the function of the essential community infrastructure without parts of the development which are unable to function during a coastal hazard event; (b) is designed and sited to avoid adverse impacts on the community or the environment due to the impacts of coastal hazard on infrastructure, facilities or access and egress routes; (c) retains site access necessary to maintain function of the development during a coastal hazard event; (d) maintains function or is part of a network which is able to remain functional even when other infrastructure may be compromised in a flood event; (e) contains mitigation measures which are not entirely dependent on human activation to respond to a flood event.	AO9 Development involving essential community infrastructure: (a) is ancillary and is not relied upon for the provision of the essential service during a coastal hazard event; or (b) is located above the flood immunity levels set out in Table 8.2.6.3.E; (c) has access to, or provides, the necessary backup emergency electricity and communications supply in times of flood; (d) if the essential community infrastructure has a city-wide emergency function, that part of the development is not located in an area that becomes isolated by a flood up to the event listed for that development type in Table 8.2.6.3.E.	✓			
Additional Criteria for Vulnerable Uses, difficult to evacuate uses or assembly uses					

Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not Applicable to this Proposal

221-281 Macarthur Avenue, Hamilton 4007

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Job Ref No.: 18059

Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS		SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
PO10 Development for vulnerable or difficult to evacuate uses and assembly uses optimises vehicular access and efficient evacuation from the development to parts of the road network unaffected by coastal hazard. Note—A coastal hazard risk assessment may be required to address the performance outcome or acceptable solution that deals with evacuation and isolation arrangements, and the ability to take refuge in place. Editor’s note—Further guidance for risk assessment is contained in the Coastal hazard planning scheme policy and the Flood planning scheme policy.	AO10 Development for vulnerable uses, difficult to evacuate uses or assembly uses: (a) is not isolated in any event up to the relevant flood planning level as specified in Table 8.2.6.3.D; or (b) is supported by a critical route or interim critical route identified in the Critical infrastructure and movement network overlay; or (c) can achieve vehicular evacuation to a suitable coastal hazard-free location. Note—A suitable coastal hazard-free location is of a size and nature appropriate to provide for the size and characteristics of the population likely to need evacuation to that area.	✓	The development falls under “difficult to evacuate uses” as the road used for evacuation will flood before the site due to its lower elevation. A flood risk assessment will be required to address the performance outcomes or acceptable solutions which deal with evacuation and isolation arrangements, and the ability to take refuge.			
Section D – If for reconfiguring a lot						
PO11 Development locates and designs all lots and roads resulting from reconfiguring a lot to: (a) ensure the safety of people; (b) minimise damage to property and services; (c) facilitate safe and efficient evacuation; (d) avoid isolation during a coastal	AO11 a) Development ensures that the road and lot layout does not create new lots isolated by storm-tide flooding at the defined flood event or filling with material containing a contaminant. AO11.2	N/A				

Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not Applicable to this Proposal

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Job Ref No.: 18059

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
hazard event; (e) provide suitable amenity in that it is not frequently flooded or subject to tidal inundation, or nuisance ponding. Note— Consideration of the 0.2% AEP flood is relevant to determining an acceptable level of safety for development. Flood warning time is available for storm-tide flooding. Filling for flood immunity cannot be assumed to mitigate the flood hazard for a flood event greater than the defined flood event.		Development involving reconfiguring a lot ensures flood immunity for all lots is provided in compliance with Table 8.2.6.3.G.			
PO12 Development that results in 6 lots or less and no new road provides: (a) land with sufficient flood immunity to construct a dwelling house; (b) an open space area that is safe and has suitable amenity in that it is not frequently flooded or subject to tidal inundation, nuisance ponding or seepage; (c) a lot that is not substantially burdened by a stormwater easement or flood mitigation infrastructure; (d) appropriate amenity for any adjoining residential area.		AO12.1 Development for reconfiguring a lot that results in 6 lots or less and no new road in the High storm-tide inundation area sub-category or the Medium storm-tide inundation area sub-category provides at least 80% of each new lot at or above the flood planning levels in Table 8.2.6.3.G. Note— This is to ensure that each new lot will not be affected by tidal influences up to the highest astronomical tide event with an allowance for 800mm of sea level increase through climate change. The development will still need to meet the relevant flood immunity standards.	N/A		

Solution: ✓ = Acceptable Solution
A/S = Alternative Solution
N/A = Not Applicable to this Proposal

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Performance Criteria and Acceptable Solutions

PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS		SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
PO13 Development provides acceptable flood immunity for its purpose that minimises the risk to people from coastal hazard, creates safe access and evacuation routes, minimises damage to property and services, and provides suitable amenity.	AO13 Development involving reconfiguring a lot that results in more than 6 lots or a new road provides flood immunity for: (a) all lots in compliance with Table 8.2.6.3.G; (b) a new road in compliance with Table 8.2.6.3.H; (c) an existing road fronting the development, or providing primary access within 200m of the development, in compliance with Table 8.2.6.3.I. Note—The Flood planning scheme policy contains supporting information about existing roads and serviceability during floods.	N/A				
PO14 Development involving a new road, bridge or culvert is designed to minimise impacts to flood behaviour, minimise disruption to traffic during storm-tide inundation and allow for emergency access and evacuation.	AO14 Development for a new road provides flood immunity in compliance with Table 8.2.6.3.H.					

Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not Applicable to this Proposal

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PERFORMANCE CRITERIA		ACCEPTABLE SOLUTIONS	SOLUTIONS ¹	COMMENTS	COUNCIL USE ONLY
PO15 Development for pedestrian and cyclist paths: (a) provides a suitable level of trafficability; (b) manages the impacts of flooding on asset life and ongoing maintenance costs; (c) balances route availability with recreational and transport connectivity benefits to the city.	AO15.1 Development for off-road pedestrian and cyclist paths: (a) are not located in the Erosion prone area – coastal erosion subcategory; or (b) complies with the minimum flood planning levels in Table 8.2.6.3.H. Note—If the site is subject to more than 1 type of flooding, the requirement that affords the highest flood planning level will apply. AO15.2 All new on-road cyclist and pedestrian facilities comply with the road flood immunity and trafficability standards for the applicable category of road in Table 8.2.6.3.H or Table 8.2.6.3.I.	N/A			

Solution: ✓ = Acceptable Solution

A/S = Alternative Solution

N/A = Not Applicable to this Proposal

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APPENDIX F

EROSION HAZARD FORM



Erosion Hazard Assessment - June 2014

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 site:

☐ **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 <http://www.waterbydesign.com.au/factsheets>

☐ **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

221-281 MacArthur Avenue, Hamilton

Postcode 4007

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*

Certifier's signature

Date

Table 1: Low Risk Test

		Yes	No
1.1	is the area of land disturbance > 1000 m ²	☒	☐
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	☐	☒

Have you answered 'yes' to any of the questions in Table 1?

Yes	No
☒	☐

If 'No' then site is low risk with respect to erosion and sediment control

If 'Yes' 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 site is medium risk with respect to erosion and sediment control

If 'Yes' then proceed to Table 3

Table 3: High Risk Test

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%	☐	☒

Have you answered 'yes' to any of the questions in Table 3?

Yes	No
☒	☐

If 'No' then site is medium risk with respect to erosion and sediment control

If 'Yes' then site is high risk with respect to erosion and sediment control