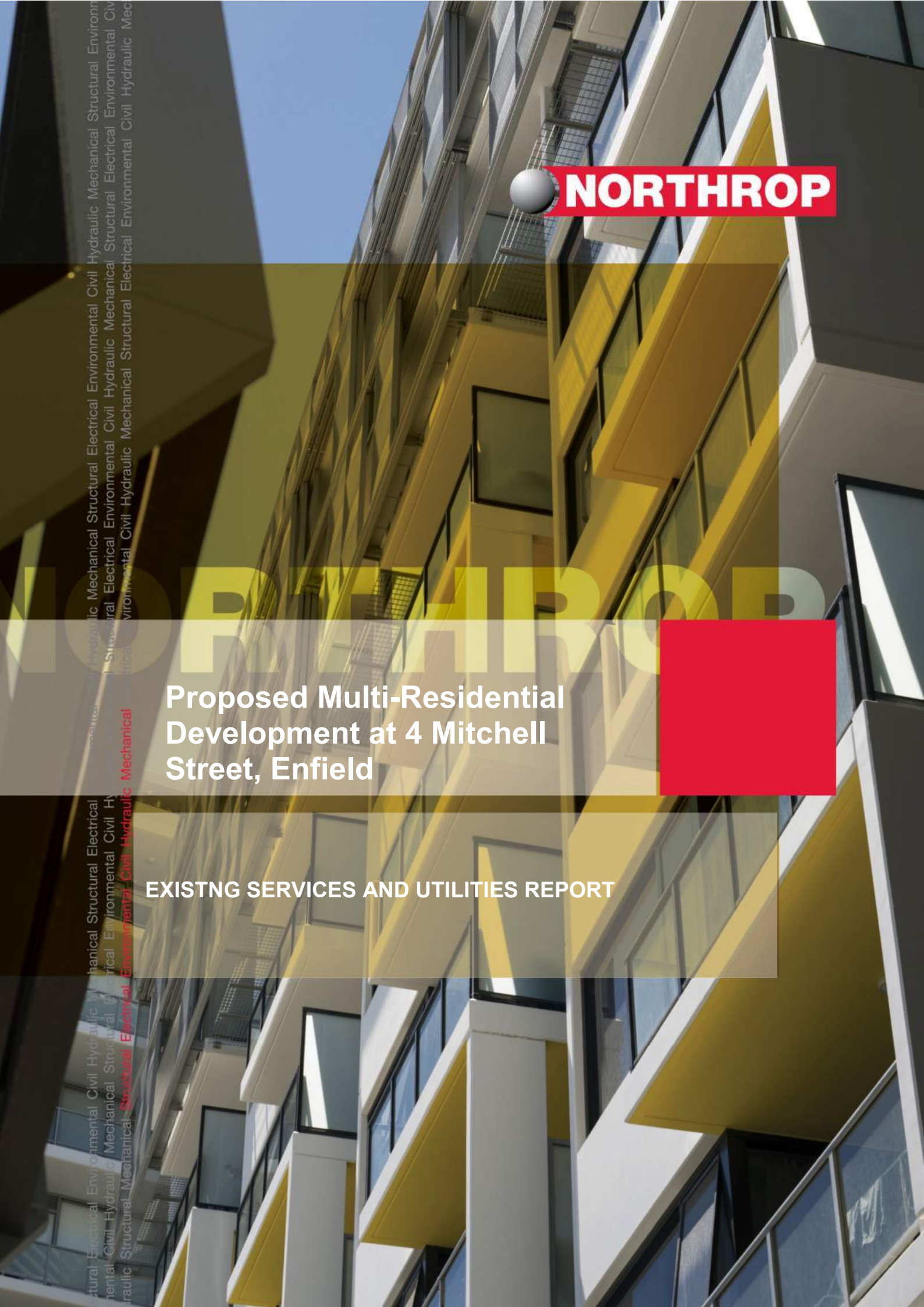
NORTHROP
Proposed Multi-Residential Development at 4 Mitchell Street, Enfield
EXISTNG SERVICES AND UTILITIES REPORT

Disclaimer

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S170627-CR01-B 4 Mitchell Street, Enfield – Existing Services and Utilities Report

Rev	Description	Prepared by	Reviewed by	Issue Date	Client App	Approval Date
A	Draft Issued for Client Review	RH	RD	16/06/17	PG	20/06/17
B	Issued for Planning Proposal	RH	RD	29/06/17		
C	Revised issue for Planning Proposal	RH	RD	05/07/17		

NORTHROP

Table of Contents

1. Introduction

Northrop Consulting Engineers (Northrop) has been engaged by Tian An Enfield Pty Ltd to prepare an Existing Services and Utilities Report for the proposed multi-residential development at 4 Mitchell Street, Enfield.

The proposed development will involve the demolition of the existing ‘Vision Australia’ building and associated infrastructure within the subject site and the construction of 183 dwellings (157 apartments, 26 townhouses), basement parking and associated infrastructure.

This report outlines the outcomes of initial Authority consultation, to determine the existing services and utilities available for the proposed development. This document is intended to provide sufficient information to demonstrate servicing can be provided to support the proposed development. In general, it should be noted that formal Applications to relevant authorities for site servicing / supply can only be made after Development Consent has been granted.

2. Site Description

2.1. Existing Site Description

The address of the subject site is 4 Mitchell Street, Enfield. The site is located within Zone R1 'General Residential' land zoning area within Burwood Council (Council) LGA. Refer to **Figure 1** for the site location.

Figure 1 - Locality Plan

The site is generally rectangular in shape and covers an area of approximately 12,620 m^2 (1.26 ha). The site is enclosed by Mitchell Street on its southern boundary, Baker Street at its north west corner, with remaining boundaries being shared with neighbouring private property.

The existing (pre-development) site condition consists of a multi-storey building serving 'Vision Australia', with accompanying infrastructure including parking and access roads.

Based on survey information, the site levels generally fall from a maximum RL of approximately 25.70 m AHD at the north eastern corner of the site to a minimum RL of approximately 21.20 m AHD at the south western corner of the site. This constitutes an average grade of approximately 2.2%. Internal to the site there are varying level changes and drops to account for building and parking elements. Refer to Attachment A for the existing site survey plan.

2.2. Proposed Development

The proposed development will involve the demolition of the existing buildings and access roads/parking within the subject site and the construction of 183 dwellings (157 apartments, 26 townhouses) and associated infrastructure including one basement level yielding approximately 259 car parking spaces.

Refer to the architectural drawings prepared by DEM for more details.

3. Services and Utilities

3.1. Potable Water Supply

An assessment has been made on the existing water supply, with the intent to investigate the likely requirements for water supply to service the proposed development site.

Northrop has performed non-invasive investigations in regards to the existing site conditions and additional loading from the proposed building onto the existing utility infrastructure available for connection to the site.

Our assessment has been based on information provided by the Dial Before You Dig (DBYD) drawings.

The development has access to the following Sydney Water water mains:

- Ø 600 Sydney Water Trunk Water Main within Mitchell Street adjacent to the property boundary.
- Ø 600 Sydney Water Trunk Water Main within Mitchell Street located on the southern (opposite) verge of the street.
- Ø 150 Sydney Water Reticulation Water Main within Mitchell Street located on the southern (opposite) verge of the street.

Sydney Water typically would not allow connections into trunk mains. Fire services and general water service for the proposed development would be served off the Ø 150 Sydney Water Reticulation Water Main within Mitchell Street. From our past experience with projects of this size, the Ø 150 Sydney Water Reticulation Water Main within Mitchell Street should have sufficient capacity to service the site, however this will need to be confirmed by the Section 73 process to Sydney Water once DA consent is granted.

Northrop have lodged a feasibility application with Sydney Water to obtain preliminary servicing advice. Adequacy of the 150mm Sydney Water Water main will be confirmed within the Notice of Requirements (NOR) provided by Sydney Water as part of the Feasibility application. We are still awaiting the response from Sydney Water for the feasibility application. Response is expected by 2nd week of July.

The DBYD drawings also indicate there is a large DN2475 Steel Cement Lined Internal Bitumen Lined (SCL IBL) water main (pressure tunnel) traversing the centre of the site along an east-west direction. Formal discussions with Sydney Water will need to take place in order to confirm the status of this asset. Given the asset is in the order of 60m deep, Sydney Water is most likely to review the number of basements and confirm if there is any additional loading on the sewer main due to the proposed development. This would be done via an out of scope Building Plan Approval.

The Geotech report states that the 2475 SCL IBL water main is located approximately 57 to 61m below ground level and proposed building will not have any impact on the water main. This would be noted by Sydney Water via the out of scope Building Plan Approval.

Under new Sydney Water requirements, developments are required to provide individual water meters to each unit. Adequate space provision on each level in common areas is required for water meter arrangements.

Fire sprinklers are required for basement levels having car parking spots exceeding 40 per level. The proposed basement level parking spaces is 259 so fire sprinklers will be provided throughout the basement.

Fire Hydrant and Fire Sprinkler booster assemblies shall be located at a location visible from the main entry to the building.

Refer to Attachment B 'DBYD Information' for location of Sydney Water services.

3.2 Recycled Water Supply

The Sydney Water DBYD drawings confirm that there is no recycled water infrastructure near the proposed development.

Rainwater from the non-trafficable roof / terraces in the building may be harvested and re-used for toilet flushing and/or toilet flushing. This is subject to requirements within the BASIX and the ESD consultant.

The rainwater harvesting system shall be provided with an in-line pumping assembly located directly after the rainwater tank. The pump and associated equipment shall be capable of delivering non-potable water to the fixtures at the required pressures and on demand.

The rainwater harvesting system shall be provided with a potable cold water make-up supply backflow prevention device and all other associated valves and equipment in accordance with BCA and AS3500 requirements.

Filtration System Comprises of

- Backwash filters
- Cartridge Filters
- UV Filtration

At this point use of non-potable water in not clarified. Harvested rainwater can be used for a number of purposes including irrigation systems, toilet flushing etc.

3.3 Sewer

An assessment has been made on the existing sewer supply, with the intent to investigate the likely requirements for water supply to service the proposed development site.

Northrop has performed non-invasive investigations in regards to the existing site conditions and additional loading from the proposed building onto the existing utility infrastructure available for connection to the site.

Our assessment has been based on information provided by the Dial Before You Dig (DBYD) drawings.

The development has access to the following Sydney Water sewer mains:

- Ø 150 Sydney Water Sewer Main within Mitchell Street adjacent to the property boundary.

Sydney Water design for a Ø 150 sewer main accounts for an estimated population of 600 people. Given that the proposed development has 183 apartments (EP of 460 people) and there are other properties discharging into the existing Ø 150 sewer main downstream and upstream of the proposed development, the Ø 150 Sydney Water sewer main may be at full capacity and it may be required to be augmented to Ø225. This would however be confirmed by the Section 73 process to Sydney Water once DA consent is granted.

Northrop have lodged a feasibility application with Sydney Water to obtain preliminary servicing advice. Adequacy of the 150mm Sydney Water sewer main will be confirmed within the Notice of Requirements (NOR) provided by Sydney Water as part of the Feasibility application.

Ground floor retail premises such as cafés (if proposed) will require installation of a grease arrestor and a trade waste application.

Refer to Attachment B 'DBYD Information' for location of Sydney Water services.

3.4 Natural Gas

An existing 50mm Nylon 7kPa Jemena natural gas main is located within the verge of Mitchell Street, however this is located in the southern (opposite) verge of the street. This should have sufficient capacity to service the proposed development. A gas application with Jemena will be required to be lodged once DA consent is granted.

Refer to Attachment B 'DBYD Information' for location of Jemena gas services.

3.5 Stormwater Drainage

Burwood Council's 'Underground Stormwater Assets' drawing indicates there is existing public stormwater assets within the verge of Mitchell Street directly in front of the site, and to the north west corner of the site at the Baker Street cul-de-sac. Council's data nominates the existing stormwater pipes as being 375mm diameter in size. Refer to Attachment C 'Burwood Council Underground Stormwater Assets' for information.

The existing (pre-development) site conditions contain approximately 14% pervious landscaped area, with 86% impervious roof and hardstand area. The proposed development will generally increase the impervious site coverage to approximately 95%.

Based on the existing site survey, and review of wider LIDAR data, it appears there is no significant overland flow paths through the site. The site appears to be unaffected by regional flooding via the Cooks River catchment.

A Response to Flood-Level Enquiry Letter has been received by Council, which included:
Preliminary Flood Planning Levels (1% AEP Event Peak Flood Contours and Depths);
Preliminary PMF Flood Planning Levels (PMF Event Peak Flood Contours and Depths)

From the 1% AEP Event Peak Flood Contours and Depths diagram 100 year flood levels adjacent to the North-West building and The North-East buildings are 23.74 AHD and 24.00 AHD respectively. From the Response to Flood Level Enquiry letter, a 300mm Freeboard is required. Building Ground Floor levels, adjacent to these above mentioned 100 year flood levels, will need to be raise above the freeboard level.

If the proposed North-West building and The North-East building extends to the north past the existing building line into the 100 year flood level zone provision for compensatory flood storage may be needed.

A major constraint is the drive entry from Baker Street, to the North-West of the site. The ramp encroaches into the 100 year flood zone, possibly requiring provision for compensatory flood storage. This may be in the form of additional flood storage tank. The crest of any driveway accesses the basement at this location would need to be above the FFL (approximately 24.04 AHD). The final FFL in this instance would be subject to the results of a flood study. It is likely this would induce the need for a compensatory flood storage (approximately 100m3).

If compensatory flood storage is required the finish floor levels would be based on a future flood model/study.

A review of Burwood Council's Stormwater Management Code indicates that implementation of On-Site Detention will be required. Northrop have contacted Burwood Council's stormwater engineer and received confirmation that the OSD requirement for the site will be to limit post development discharge in all storm events up to and including the 1% Annual Exceedance Probability (AEP) event, to that of pre-development conditions (with maximum 65% impervious conditions). Subject to detailed design and coordination with other consultants, the OSD can be provided in an underground tank, and should ideally be located towards the natural low point of the site – in this case, the south west corner.

Development Application drawings and report detailing the proposed Stormwater Management measures on site will be required by Burwood Council, in order to facilitate Development Approval.

3.6 Telecommunications

Telecommunication services are readily available for the proposed development. There is existing Telstra infrastructure within the verge of Mitchell Street directly in front of the site, including an existing cable jointing pit and footway access chamber.

There are existing Telstra assets within the subject site, including an above ground pillar/cabinet. These assets seem to serve the existing Vision Australia building at the moment and so removal so to facilitate the proposed development will be feasible.

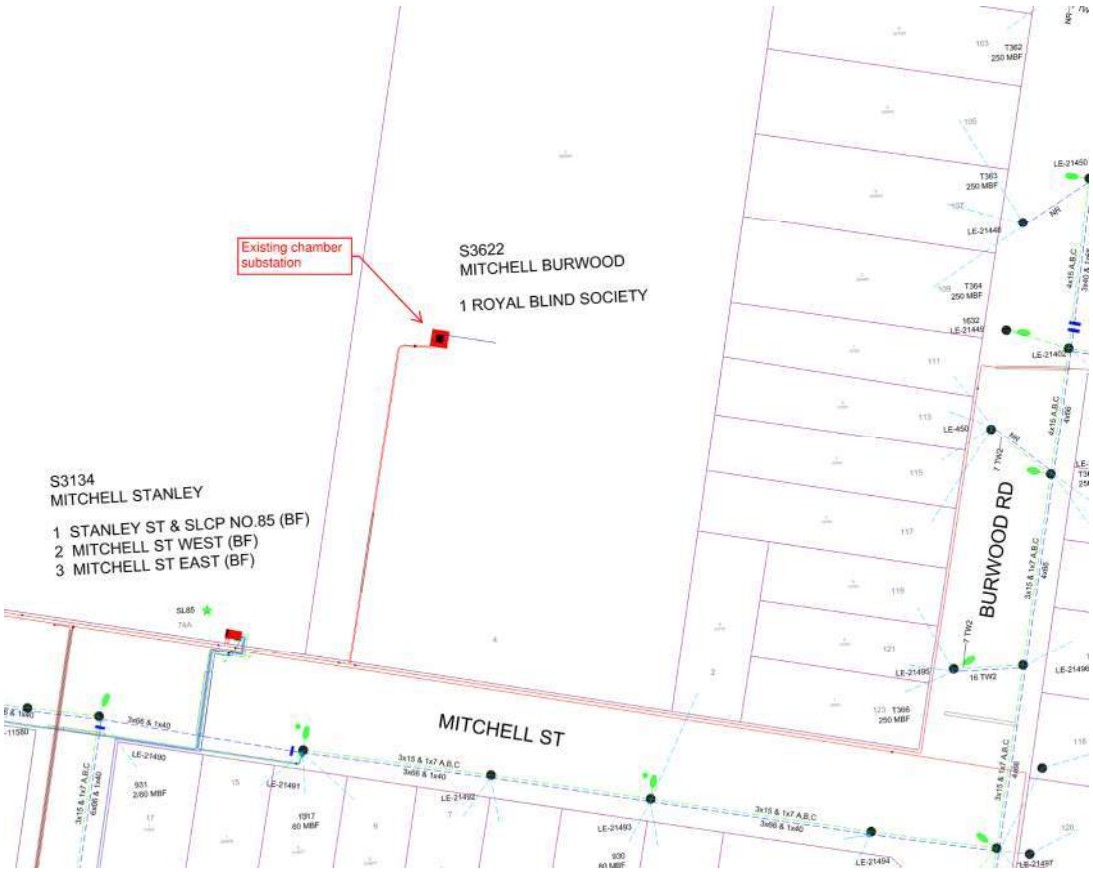
Further to this, there exists an Optus Optic Fibre cable present within another utility conduit within the verge of Mitchell Street which currently enters the site at the south west corner.

The proposed development (with 183 dwellings) will be eligible for **nbn**™ fibre infrastructure under the 'Telecommunications Infrastructure in New Developments Policy'.

Refer to Attachment B 'DBYD Information' for location of telecommunication services.

3.7 Power

Ausgrid is the power utility servicing the site. Currently, the site is fed from a dedicated chamber substation S3622. The existing substation is required to be decommissioned, removed and handed over to Ausgrid prior to commencing any demolition work on the site.



We have calculated an estimated maximum demand for the site based on architectural drawings prepared by Dem (Aust) Pty Ltd dated 01/06/2017. The load in the order of 1390A/phase is anticipated. We have assumed that gas will be available on the site. A dedicated substation is required to be established on the site to feed power of this magnitude.

Apartments					
CALCULATION IN ACCORDANCE WITH AS/NZS 3000 - 2007 TABLE C1					

Load Group		Description	Quantity / Load	Units (kW,A)	Load (A / Phase)
A.	(i)	Internal Lighting			30.50
	(ii)	External Lighting			
B.	(i)	10A GPOs			165.90
	(ii)	15A GPOs		GPOs	
	(iii)	20A GPOs		GPOs	
C.		Cooking Appliance			170.80
D.		Air Conditioning Cooling Equipment	2.4	kW	457.50
		Air Conditioning Heating Equipment		kW	
E.		Instantaneous Water Heaters			148.80
F.		Storage Water Heaters			148.80
G.		Spa & Swimming Pool Heaters			
		Total AS3000 Maximum Demand for all Living Units		**777.552**	**1122.30**
				kVA	**Amps/phase**

Communal Areas				
CALCULATION IN ACCORDANCE WITH AS/NZS 3000 - 2007 TABLE C3				

Floor	Description	Area	VA/m²	Amps/phase
Basement	Carpark	8100	15	175.37
Ground	External	3800	5	27.42
	Total AS3000 Maximum Demand for all Communal Areas		**140.5**	**202.79**
			kVA	**Amps/phase**
	Sub-total			1325.09
	5% Additional Capacity			66.25
	Development Total AS3000 Maximum Demand (Living Units + Communal Areas)		**963.955**	**1391.35**
			kVA	**Amps/phase**

The high voltage (HV) power supply is located along Mitchell Street. This HV power supply could be used to supply the site substation.

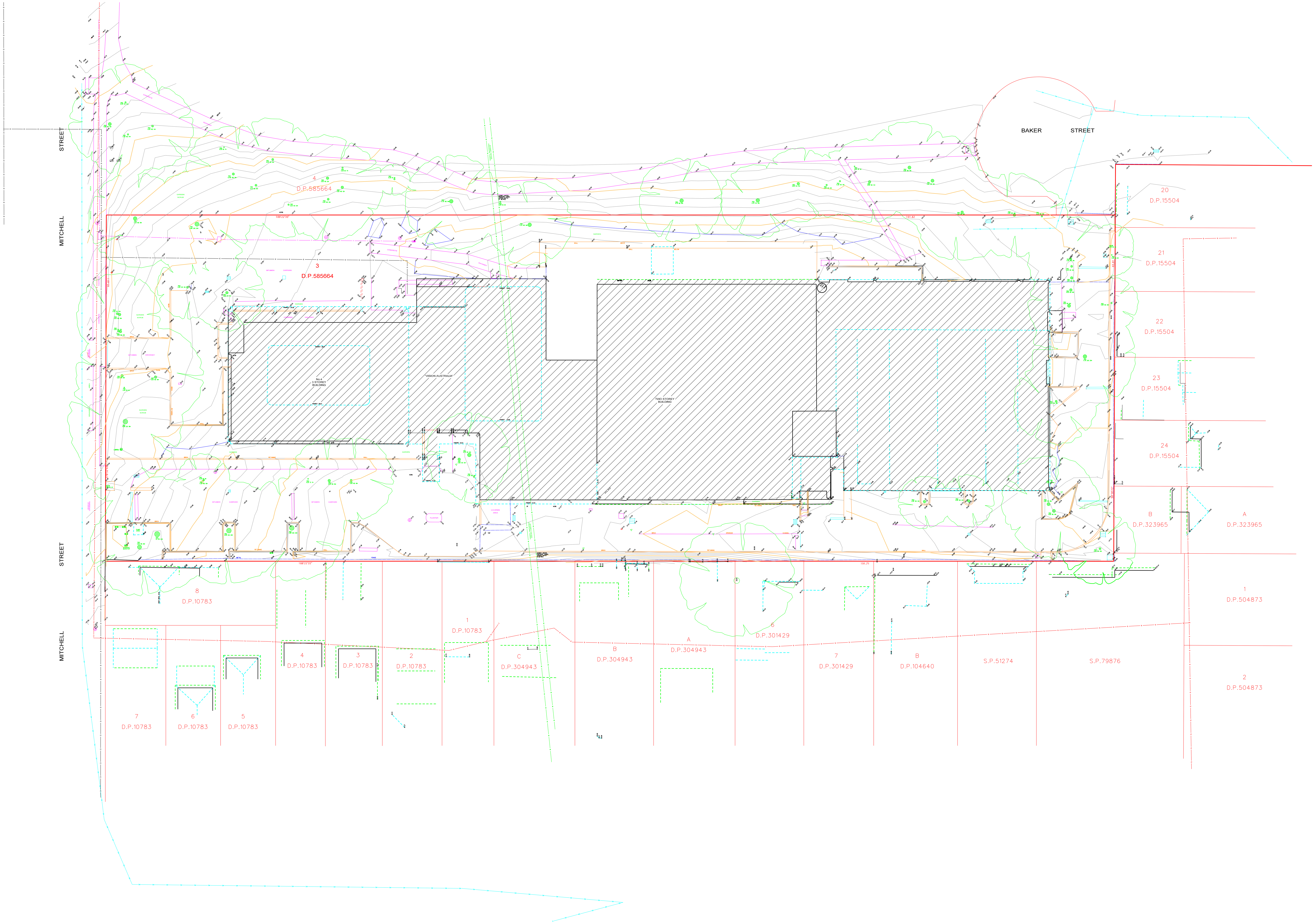
4. Conclusion

Northrop Consulting Engineers has prepared this report to provide information to Tian An Enfield Pty Ltd relating to the existing services and utilities surrounding the site and feasibility of serviceability allowance for the proposed development.

Northrop note that servicing of the site is feasible based on the existing service and utilities present. This conclusion has been reached in conjunction with authority liaison and a review of the following documentation:

- Authority Dial Before You Dig documentation
- Survey drawing prepared by Rygate Surveyors
- Burwood Council Underground Stormwater Assets drawing
- Architectural drawings prepared by DEM Architects
- Geotechnical report by Douglas Partners 85921.00 dated June 2017

Attachment A – Existing Site Survey Plan



M.G.A. NORTH

NOTES:

IF ACCURATE LOCATION IS REQUIRED SERVICE TRACE IS RECOMMENDED.

SYMBOLS REPRESENTING SERVICE PITS, POLES AND STREET FURNITURE ARE NOT TO SCALE.

CONSTRUCTION WORKS MUST BE RELATED TO THE SITE BENCH MARK AND NOT LEVELS OF STRUCTURES SHOWN ON THE PLAN.

LIMITED BOUNDARY SURVEY MADE. IF ANY CONSTRUCTION IS INTENDED IN THE PROXIMITY OF THE BOUNDARIES IT IS RECOMMENDED THAT A FURTHER SURVEY BE REQUESTED FOR THE MARKING OF THE RELEVANT BOUNDARIES.

TREE SPREADS & TRUNK DIAMETERS SHOWN ARE DIAGRAMMATIC ONLY AND TREE HEIGHTS ARE ESTIMATED. IF ANY OF THESE ELEMENTS ARE CRITICAL TO DESIGN (IN PARTICULAR DRIPLINES) MORE SPECIFIC DETAILS SHOULD BE REQUESTED FOR ACCURATE LOCATION.

BEARINGS SHOWN RELATE TO MAGNETIC NORTH.

SERVICE LINES SHOWN ARE DIAGRAMMATIC ONLY AND DO NOT REPRESENT THE WIDTH AND NUMBER OF CABLES OR PIPES IN THE GROUND.

PIT SIZE IS SHOWN AT GROUND LEVEL. PITS MAY BE LARGER BELOW THE SURFACE.

IT IS THE RESPONSIBILITY OF EACH CONTRACTOR AND/OR CONSULTANT TO CONTACT THE RELEVANT AUTHORITY AND/OR "Dial Before You Dig" (Phone 1100 Fax 1300 652 077) BEFORE COMMENCING ANY EXCAVATION.

THIS PLAN HAS BEEN CREATED AT A SCALE OF 1:100 AND MAY NOT BE SATISFACTORY FOR OTHER PURPOSES. THE ACCURACY OF ANY ENLARGEMENT OR OTHER REPRODUCTION MAY BE LESS THAN THAT OF THE ORIGINAL.

LEGEND

E UNDERGROUND ELECTRICITY
E OVERHEAD POWER LINES
G UNDERGROUND GAS
S UNDERGROUND SEWER
UNDERGROUND STORMWATER PIPE
SW UNDERGROUND STORMWATER
W UNDERGROUND WATER
T TELECOMMUNICATIONS
RMS ROADS & MARITIME SERVICES
ST SYDNEY TRAINS
RC RAILCORP

ELECTRICITY PIT	WATER METER
ELEC POLE WITH LIGHT	WATER VALVE
ELECTRICITY POLE	STOP VALVE
LIGHT POLE	HYDRANT
TRAFFIC SIGNAL	STORMWATER GRATE
GAS METER	STORMWATER MANHOLE
GAS VALVE	STORMWATER PIT
POLE (UNSPECIFIED)	SEWER PIT
PIT (UNSPECIFIED)	SEWER MANHOLE
MANHOLE (UNSPECIFIED)	SEWER MANHOLE
TELECOM PIT	BOLLARD
TELECOM PILLAR	SIGN

REV.	DATE	AMENDMENTS

RYGATE SURVEYORS
SURVEYING SINCE 1893
Rygate & Company Pty Limited
P.W. Rygate & West
ABN 61 001 204 897
a Suite 904 Level 9, 89 York St Sydney NSW 2000
p +61 2 9262 6800
f +61 2 9262 6843
e surveyors@rygate.com.au
w rygate.com.au

SUBDIVISION | STRATA PLANS | STRATUM SUBDIVISION | LEASE PLANS | TOPOGRAPHIC SURVEYS | GPS SURVEYS | 3D MODELLING | RACECOURSE DESIGN | PROJECT MANAGEMENT | SUN SHADOW DIAGRAMS

SURVEYOR	DRAWN	CHECKED	APPROVED
S.G.	R.M.	G.J.F.	-

0 10
REDUCTION RATIO 1:100 @ A0

DATUM : AUSTRALIAN HEIGHT DATUM
CONTOUR INTERVAL : 1.0m
ORIGIN OF LEVELS : S.S.M.45572 R.L.22.337 (A.H.D.)

THIS TITLE BLOCK AND NOTES FORM AN INTEGRAL PART OF THE PLAN AND MUST BE REPRODUCED IN ANY USE, DUPLICATION OR AMENDMENT.

CLIENT
TIAN AN ENFIELD PTY. LTD.

LOCALITY
ENFIELD

L.G.A.
BURWOOD

PLAN

SHOWING DETAIL & LEVELS
No4 MITCHELL STREET
LOT 3 D.P.585664

CAD REFERENCE -

REFERENCE No.	PLAN No.	DATE	SHEET No. 6 OF 7 SHEETS
77950	77950.dgn8	17/02/2017	

Attachment B – DBYD Information

A3

PROPOSED DEVELOPMENT

DN2745 SCL IBL SYDNEY WATER WATER MAIN TRAVERSING THE SITE

Ø150 SYDNEY WATER SEWER MAIN WITHIN MITCHELL STREET

Ø600 SYDNEY WATER WATER MAIN WITHIN MITCHELL STREET

Ø600 SYDNEY WATER WATER MAIN WITHIN MITCHELL STREET

Ø150 SYDNEY WATER WATER MAIN WITHIN MITCHELL STREET

DBYD Address:
n/a Mitchell Street
Enfield NSW 2136

DBYD Job No: 12043102

DBYD Sequence No: 59780604

SYDNEY WATER CORPORATION

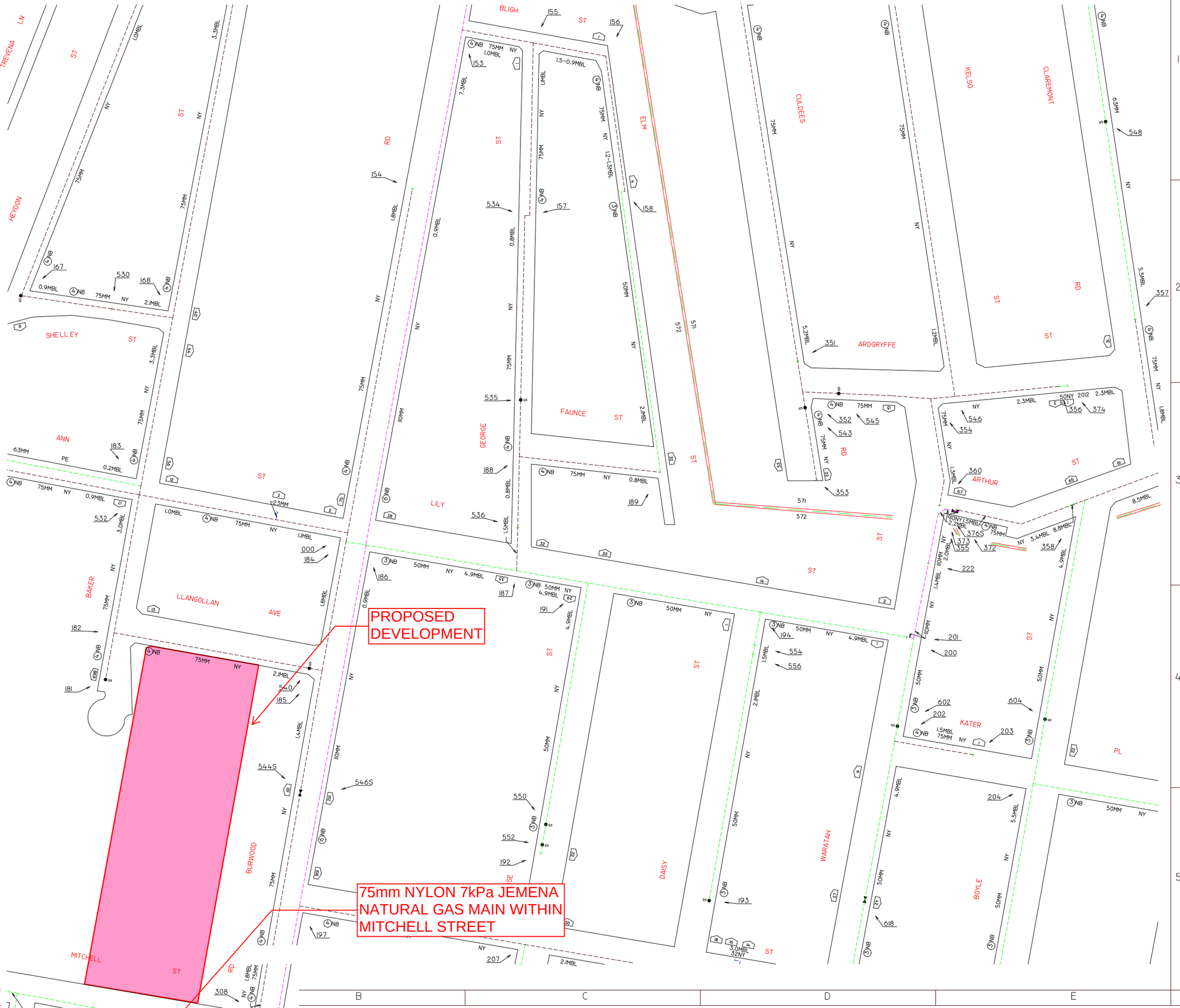
Scale: 1:1500

Date of Production: 20/03/2017

Plan 1 of 1

N

0m 7m 14m 21m 28m



LEICHHARDT 4CA

SCALE 1:1000

25 0 25 50 75 100

THIS MAP UPDATED ON 04/11/2013
THIS PLAN IS DIAGRAMATIC ONLY. DISTANCES SCALED FROM THIS PLAN MAY NOT BE ACCURATE.

RP6C	LE4AC	LE4AD
~~RP6D~~	LE4CA	LE4CB
	LE4CC	LE4CD

ADJOINING MAPS

571 / 572	BURWOOD

NETWORK AREA | MUNICIPALITY AREA

Jemena

KEY

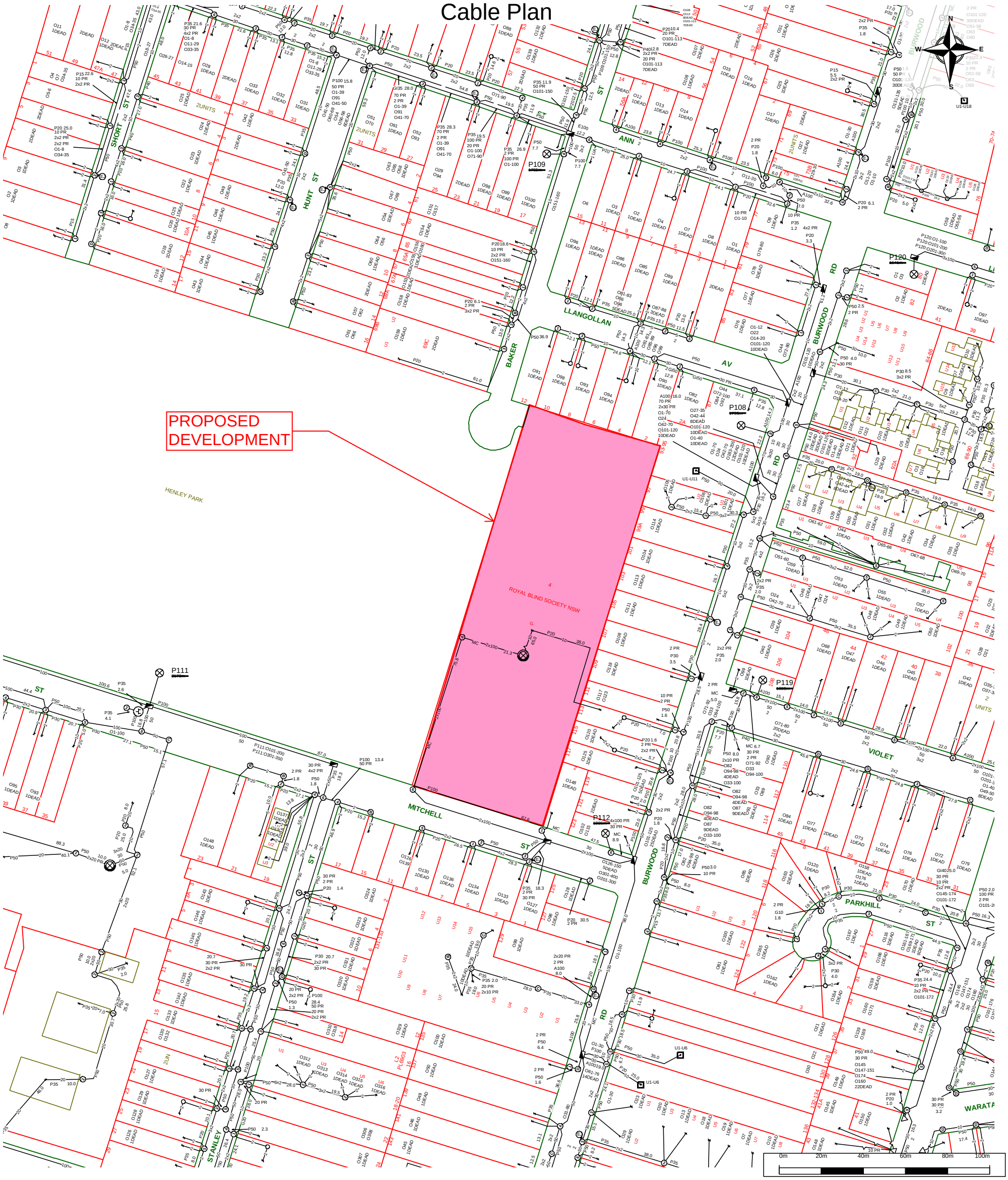
MAX ALLOWABLE OPERATING PRESSURE

T	TRUNK PIPELINE	7000 kPa
P	PRIMARY MAIN	3500 kPa
S	SECONDARY MAIN	1050 kPa
400	NETWORK MAIN	400 kPa
	NETWORK MAIN	300 kPa
	NETWORK MAIN	210 kPa
100	NETWORK MAIN	100 kPa
30	NETWORK MAIN	30 kPa
	NETWORK MAIN	7 kPa
	NETWORK MAIN	2 kPa
	PROPOSED MAINS	

PR II-2 3	STEEL MAIN PROJECT NUMBER
P	PRESSURE MONITORING STATION
	VALVE
	SYSTEM PRESSURE REGULATOR
S	SIPHON
123	NETWORK NODE
123S	NETWORK VALVE NODE
298	VALVE NUMBER
6NB	6 INCH CAST IRON MAIN
150MM	150MM STEEL MAIN
110MM PE/NY	110MM POLYETHYLENE/NYLON MAIN
6NB 50MM NY	50MM NYLON INSERTED INTO 6NB MAIN CAST IRON MAIN
1.2MBL	DISTANCE IN METRES OF MAIN FROM BOUNDARY LINE
1957	YEAR LAID
	MUNICIPALITY BOUNDARY
	NETWORK BOUNDARY
123	HOUSE NUMBER

LEICHHARDT 4CA

Cable Plan



Telstra

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 20/03/2017 17:12:33

Sequence Number: 59780601

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

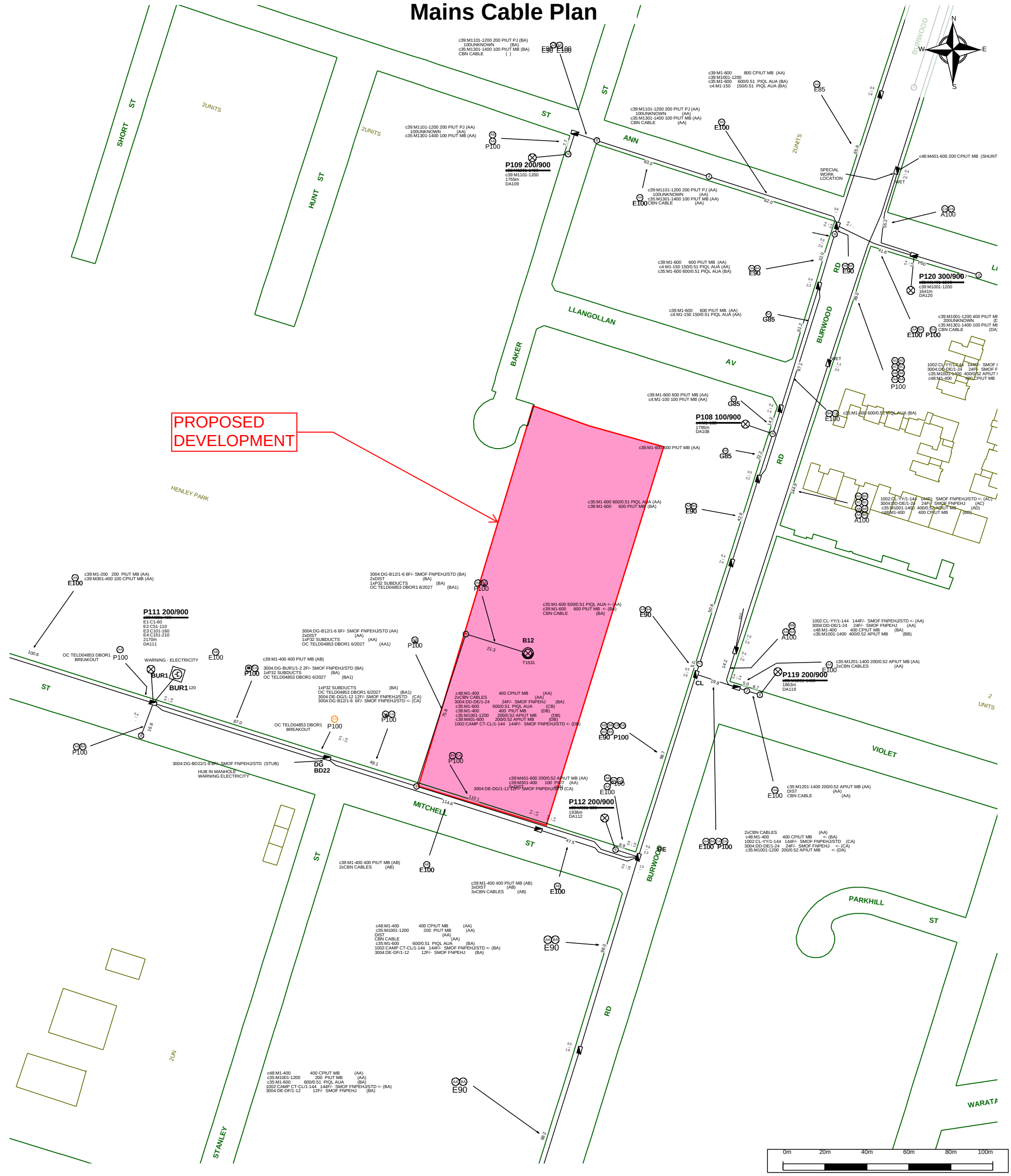
WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths 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



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

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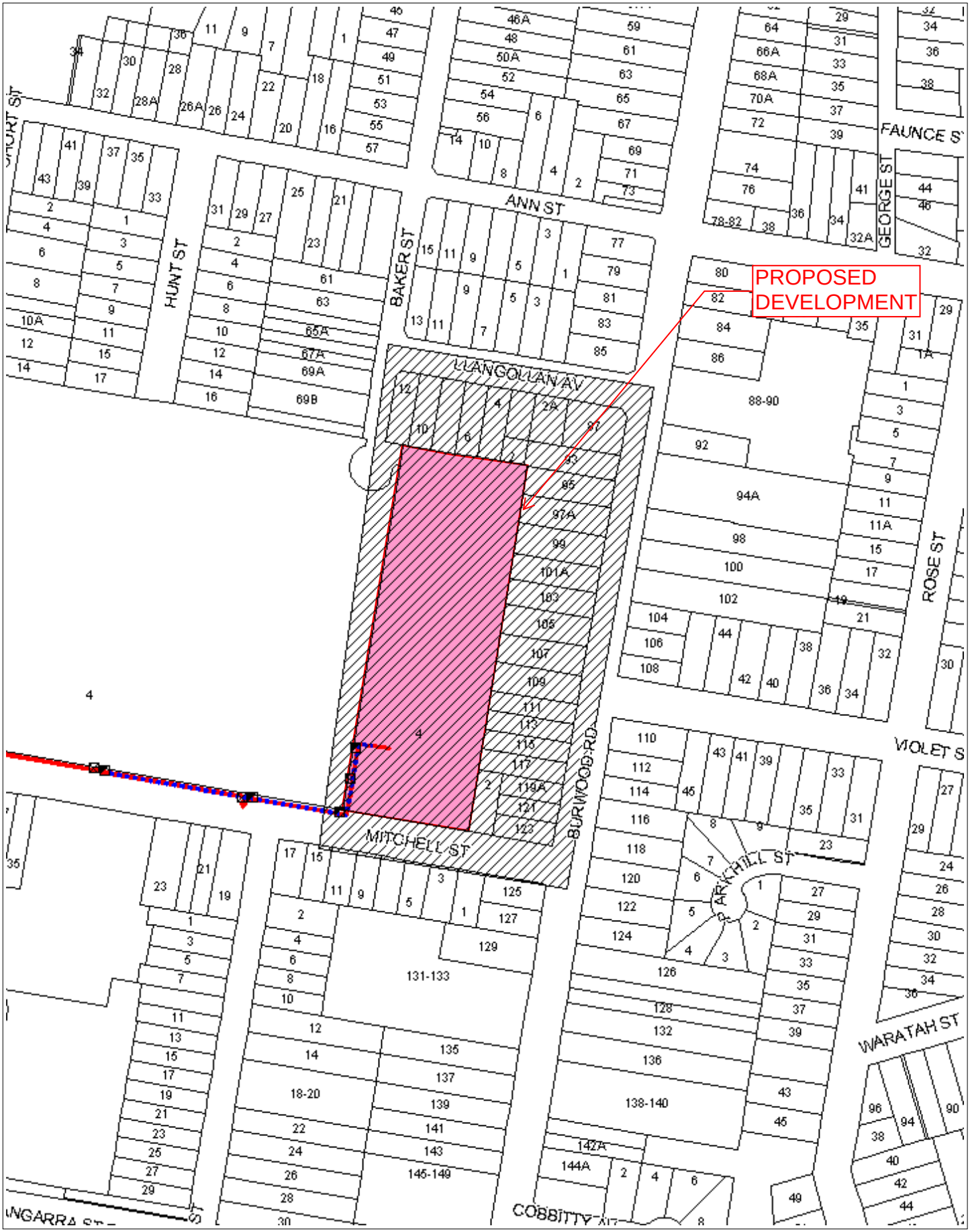

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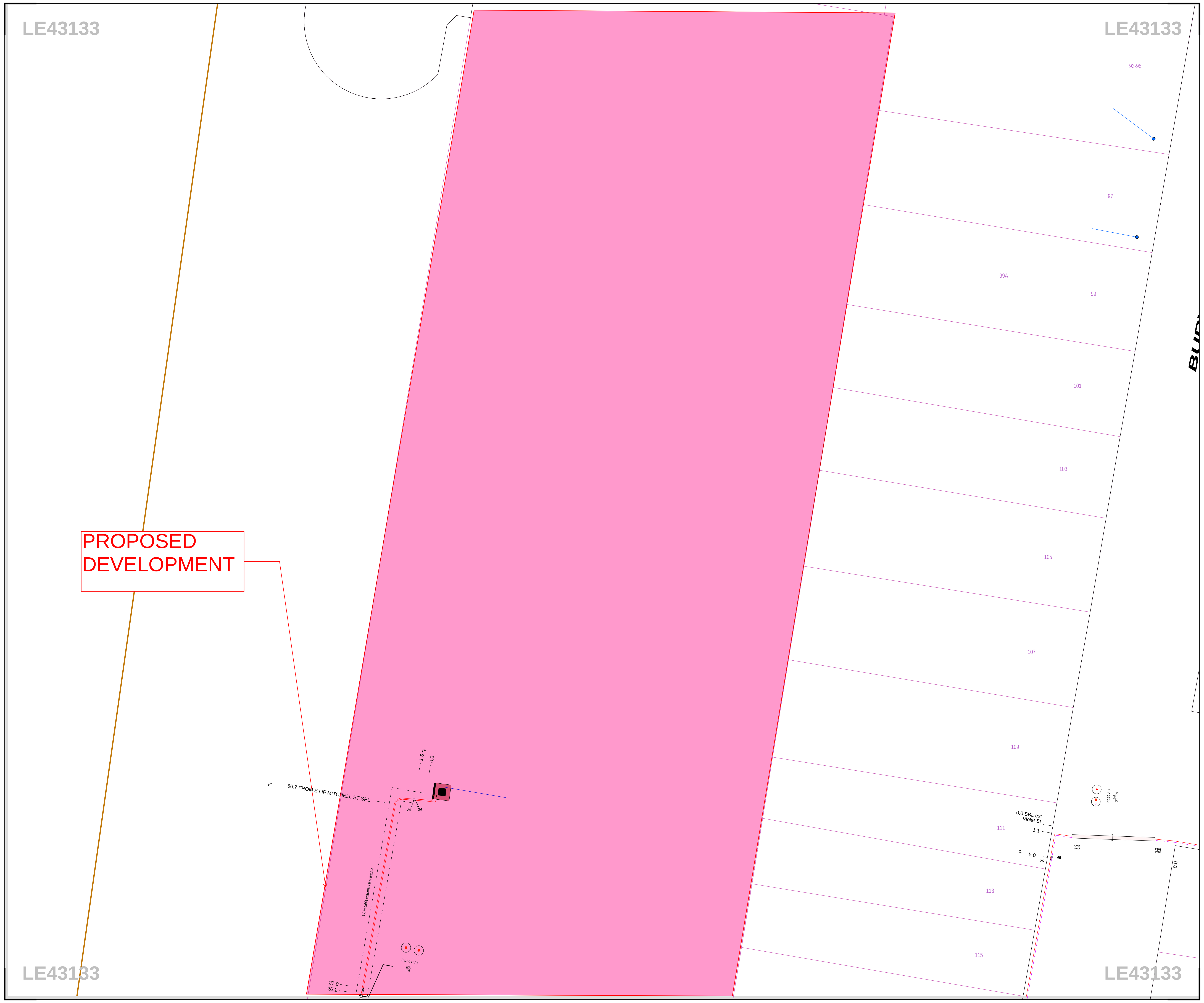
For all Optus DBYD plan enquiries –
Email: Fibre.Locations@optus.net.au
For urgent onsite assistance contact 1800 505 777
Optus Limited ACN 052 833 208



JOINT DETAIL REPORT

No.	Bk-Pg	Pl/Cvr	Joint Location
Map: LE431			
24	878-5	/0.91	1.0 N OF SUB SBL
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26	432-22	0.76/0.61	5.1 S OF VIOLET ST SBL
45	1007-49	0.99/0.53	5.0 S OF VIOLET ST SBL

WARNING

Ausgrid's plans show the position of assets at the time of installation and may not account for subsequent changes to road alignments, fences or buildings. The plans show no more than the presence or absence of Ausgrid assets in the street.
Persons working near electricity networks must exercise care and will be held responsible for any damage caused.
You must excavate by hand or use vacuum excavation to establish the location of Ausgrid underground cables and associated assets.
Underground: Working near a cable may result in electric shock even if no contact is made. Any work in the vicinity of any cable should only be performed using safe work methods developed in accordance with the recommendations included in WorkCover Code of Practice for Excavation and WorkCover Guide for Work Near Underground Assets
as well as recommendations of Ausgrid's Network Standard NS156.
Overhead: Do not excavate near poles or towers until the stability of the foundation has been assessed by Ausgrid. Cables or earth conductors may be present close to substations, poles or towers.
Workers must maintain safe approach distances and follow applicable WorkCover Codes of Practice.
NOTE: 1. You must keep Ausgrid plans on site during excavation works. If the people actually performing the excavation works do not know how to read and interpret Ausgrid's plans, then the work must be directed by a person who knows how to read and interpret the plans. 2. This information includes data from the NSW Digital Cadastral Database by Land and Property Information (c) 2016, used under Creative Commons licence version 4.0.

ISG GRID

RP64242	LE43131	LE43132
RP64244	LE43133	LE43134
RP64422	LE43311	LE43312

GRID

253H4	253J4	253K4
253H5	253J5	253K5
253H6	253J6	253K6

LE43133GMLA0

Distribution - 61760402

INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE

7 Jun 2017

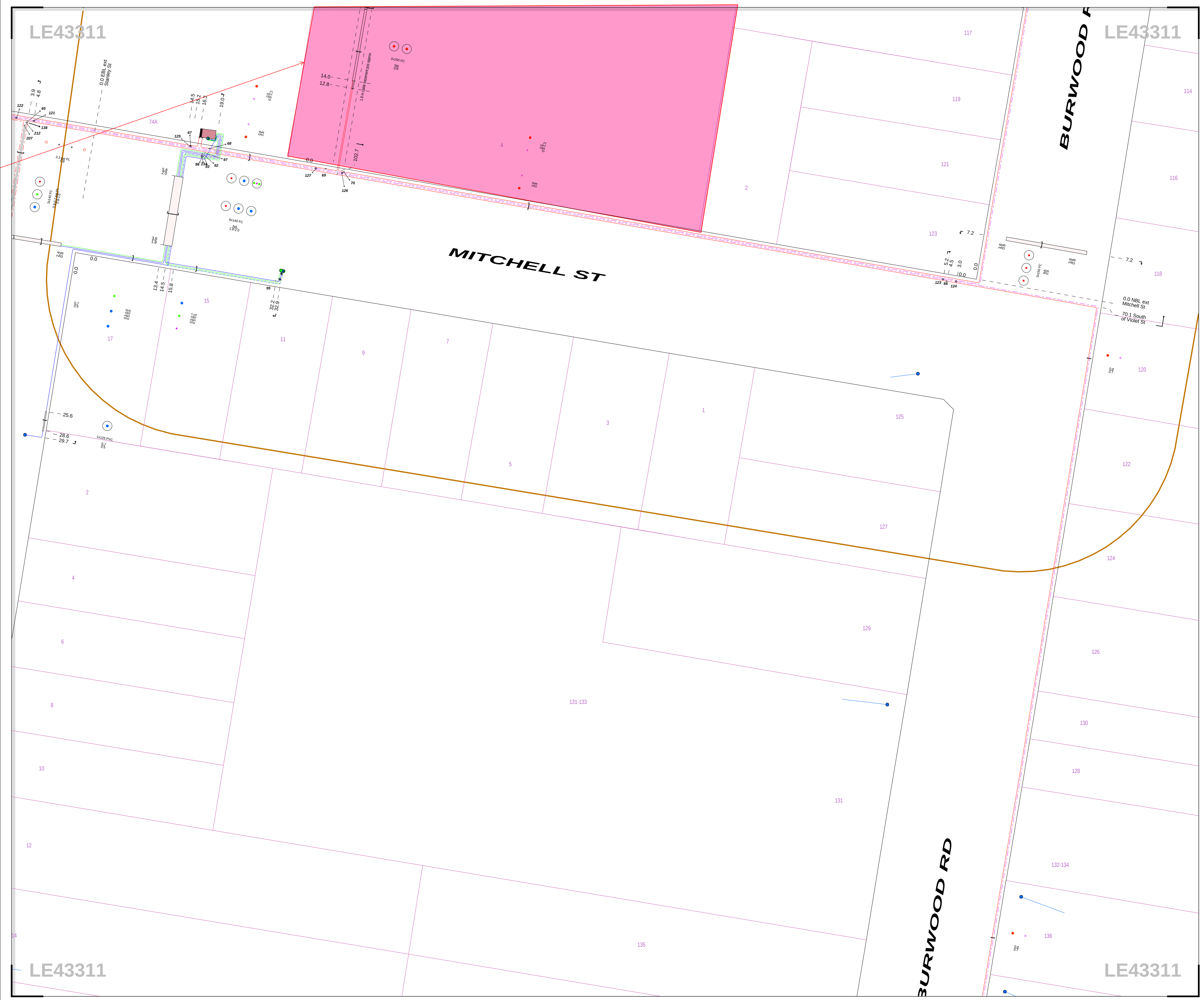
Page 1 of 1

N

1:251

0 **15 metres**

Ausgrid



JOINT DETAIL REPORT

Map: LE433

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67	760-48	/0.46	15.2 E OF STANLEY EBL EXT 1.4 S OF KIOSK SBL
68	760-48	/0.46	18.1 E OF STANLEY ST EBL EXT 1.3 S OF KIOSK
69	878-8	0.38/0.46	37.1 E OF STANLEY ST EBL EXT
70	878-8	0.38/0.46	40.0 E OF STANLEY ST EBL EXT
92	760-44	/0.46	17.2 E OF STANLEY ST EBL EXT 2.1 S OF KIOSK
93	760-44	/0.46	17.2 E OF STANLEY ST EBL EXT 2.4 S OF KIOSK
95	760-25	0.53/0.46	32.2 E OF STANLEY ST EBL
97	752-28	/0.61	17.5 E OF STANLEY ST EBL EXT 1.8 S OF KIOSK
98	752-28	/0.46	17.2 E OF STANLEY ST EBL 2.4 S OF KIOSK
123	242-20	0.38/0.76	5.2 W OF BURWOOD RD WBL
124	273-106	0.63/0.76	3.0 W OF BURWOOD RD WBL ORIG 13.2.29 BK 59
125	1022-68	1.14/0.76	15.2 E OF STANLEY ST EBL EXT
126	1022-23	/0.76	20.7 E OF KIOSK 3134 EBL AND 3.0 N OF KL
127	1022-23	/0.76	16.3 E OF KIOSK 3134 EBL AND 3.0 N OF KL
234	752-28	/0.38	17.2 E OF STANLEY EBL EXT 2.4 S OF KIOSK
235			
308			

WARNING

Ausgrid's plans show the position of assets at the time of installation and may not account for subsequent changes to road alignments, fences or buildings. The plans show no more than the presence or absence of Ausgrid assets in the street.
Persons working near electricity networks must exercise care and will be held responsible for any damage caused.
You must excavate by hand or use vacuum excavation to establish the location of Ausgrid underground cables and associated assets.
Underground: Working near a cable may result in electric shock even if no contact is made. Any work in the vicinity of any cable should only be performed using safe work methods developed in accordance with the recommendations included in WorkCover Code of Practice for Excavation and WorkCover Guide for Work Near Underground Assets
as well as recommendations of Ausgrid's Network Standard NS156.
Overhead: Do not excavate near poles or towers until the stability of the foundation has been assessed by Ausgrid. Cables or earth conductors may be present close to substations, poles or towers.
Workers must maintain safe approach distances and follow applicable WorkCover Codes of Practice.
NOTE: 1. You must keep Ausgrid plans on site during excavation works. If the people actually performing the excavation works do not know how to read and interpret Ausgrid's plans, then the work must be directed by a person who knows how to read and interpret the plans. 2. This information includes data from the NSW Digital Cadastral Database by Land and Property Information (c) 2016, used under Creative Commons licence version 4.0.

ISG GRID

RP64242	LE43131	LE43132
RP64244	LE43133	LE43134
RP64422	LE43311	LE43312

GRID

253H5	253J5	253K5
253H6	253J6	253K6
253H7	253J7	253K7

LE43311GMLA0

Distribution - 61760402

INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE

7 Jun 2017

Page 1 of 1

1:251

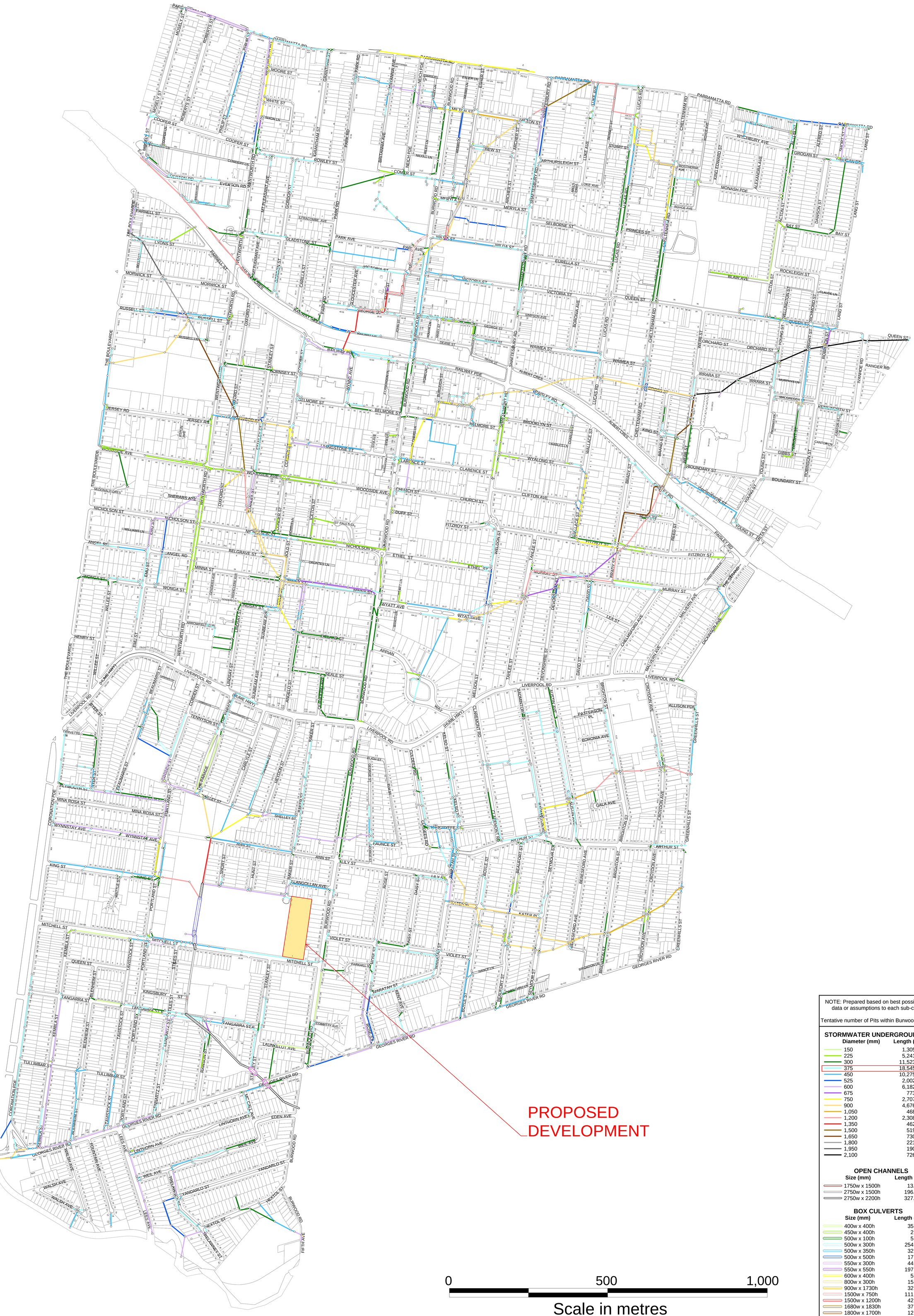
0 — 15 metres

N

Ausgrid

A0 MOCS_std_plot

Attachment C – Burwood Council Underground Stormwater Assets



NOTE: Prepared based on best possible available data or assumptions to each sub-catchment.

Tentative number of Pits within Burwood LGA = 2,858

STORMWATER UNDERGROUND PIPES

Diameter (mm)	Length (metres)
150	1,305.2
225	5,241.4
300	11,523.5
375	18,545.4
450	10,275.9
525	2,002.0
600	6,182.7
675	773.6
750	2,707.5
900	4,676.3
1,050	468.7
1,200	2,308.6
1,350	462.0
1,500	519.9
1,650	730.4
1,800	221.6
1,950	190.1
2,100	726.6

OPEN CHANNELS

Size (mm)	Length (metres)
1750w x 1500h	13.6 (1)
2750w x 1500h	196.3 (3)
2750w x 2200h	327.1 (5)

BOX CULVERTS

Size (mm)	Length (metres)
400w x 400h	35.0
450w x 400h	2.8
500w x 100h	5.5
500w x 300h	254.7
500w x 350h	32.5
500w x 500h	17.0
550w x 300h	44.4
550w x 550h	197.9
600w x 400h	5.6
800w x 300h	15.4
900w x 1730h	32.9
1500w x 750h	111.0
1500w x 1200h	42.8
1680w x 1830h	37.0
1800w x 1700h	12.4
2700w x 1350h	275.7
2750w x 1500h	108.9
2750w x 2200h	44.2
3000w x 1250h	146.8

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Map Number: M290_8
Date Printed: 30/06/2009

BURWOOD LGA - UNDERGROUND STORMWATER ASSETS (VERSION 2)

Disclaimer Note:

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Council will not accept liability for any loss or damage directly or indirectly suffered as a result of any use of, or reliance upon, the Material.
The Material is not intended to be exhaustive or to replace the need for prospective respondents to make their own independent enquiries, examinations, investigations, interpretations, deductions or conclusions.
Any person in receipt of the Material is advised to verify all relevant representations, statements and information and obtain independent advice before acting on the Material.
No decision or action based upon the Material should be taken by any person without first obtaining independent verification of the Material.
Council may, from time to time, rely on third parties to provide certain information comprising the Material.
Any reliance by Council on a third party, or reference by Council to third party, is not to be considered an endorsement of any product or service provided by that third party

Attachment D – Burwood Council Response to Flood-Level Enquiry

PRELIMINARY FLOOD PLANNING LEVELS
4 MITCHELL STREET,
ENFIELD

0 5 10 20 Metres

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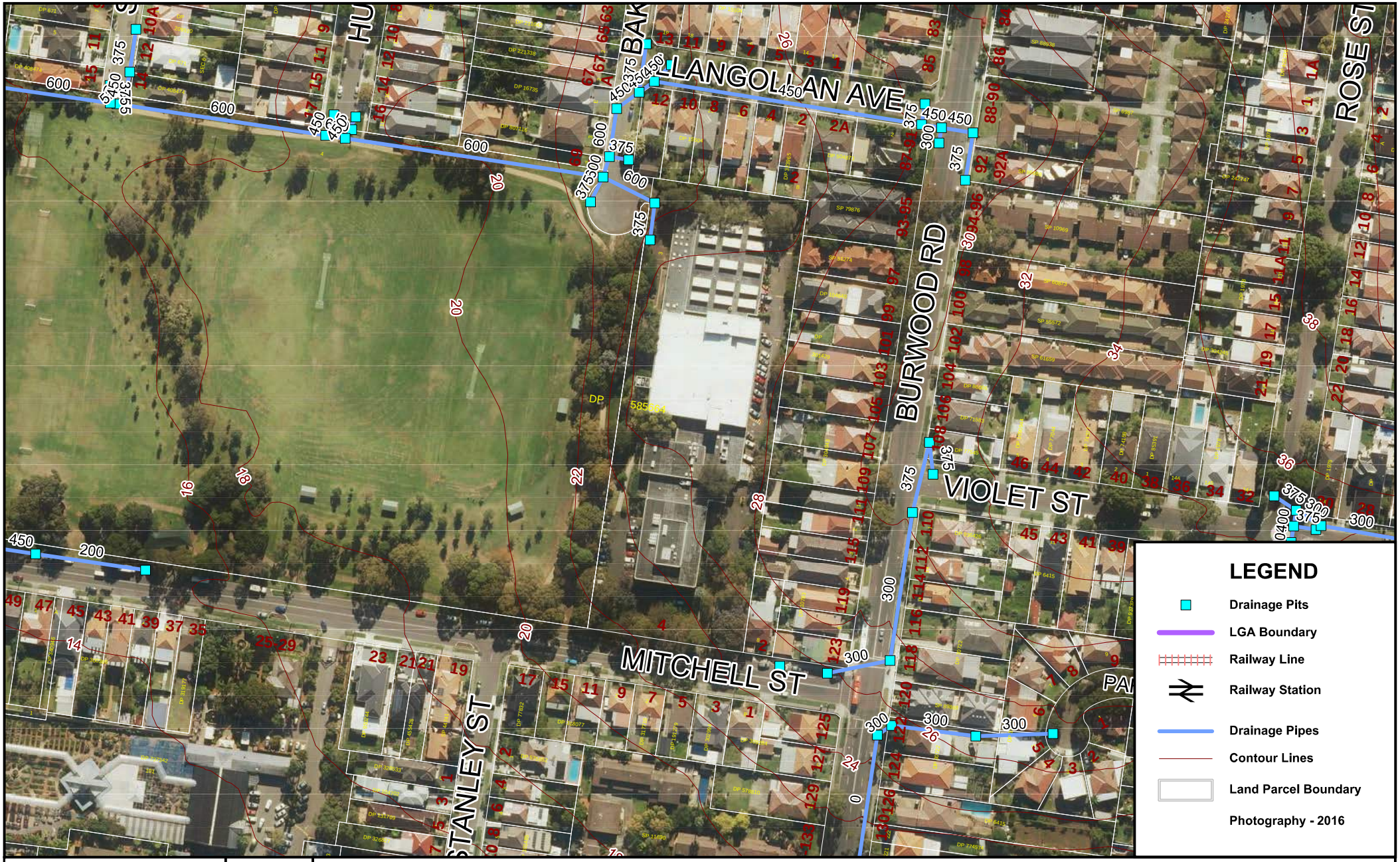
calibre CONSULTING

PRELIMINARY PMF FLOOD PLANNING LEVELS
4 MITCHELL STREET,

0 5 10 20 Metres

N

calibre CONSULTING



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Date: 20170704

N

4 Mitchell Street Enfield - Council's Drainage infrastructure on vicinity