



Central Coast Quarter North Tower

Utility Services Infrastructure Assessment (USIA)

for

SH Gosford Residential Pty Ltd



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B	15/01/2021	Revised to Current Scheme and Issued for Comment	FH/MB	LV
C	13/04/2021	Issued for Comment	FH	-
D	25/08/2021	Revised to address comments	FH	LV



1. INTRODUCTION

1.1 Aim of Report

This report investigates the Authorities services available to service the proposed North Tower of the Central Coast Quarter development located at 26-30 Mann Street in Gosford NSW. This report also aims to address the requirements of Clauses C29 and C30 of the F.E.A.R. in the approved Masterplan SSD 10114:

Utilities

- C29. Future development application(s) shall include a Utility Services Infrastructure Assessment (USIA) which addresses the existing capacity and any augmentation requirements of the development for the provision of utilities, including staging of infrastructure. The USIA shall be prepared in consultation with relevant agencies and service providers.
- C30. Future development application(s) shall consider the location of any existing drainage / sewer infrastructure on the site and the impact of the development on that infrastructure in consultation with Council and/or relevant service owner/provider

1.2 Objective

The objective of this infrastructure report is to outline the existing services including the disposition of the Authorities services traversing the site.

1.3 Limitations

The information is provided without prejudice and on the understanding that that detailed discussions and negotiations with Authorities have not taken place and the report may not address the full extents of their requirements.

It is understood that detailed investigations and negotiations will take place during detailed design phase.

1.4 Sources of Information

This brief is based upon the following information:

- + Dial Before You dig Information package retrieved on 13th April 2021:
 - Ausgrid (electricity)
 - Jemena (gas)
 - NBNCo (telecommunications)
 - Central Coast Council (water, sewer and stormwater)
- + DKO Architectural drawings (Masterplan) dated 13th of August 2019
- + DKO Architectural drawings (North Tower) dated 20th August 2021
- + Visual and photographic site inspection and observations

2. HYDRAULIC SERVICES

2.1 Scope of Services

The hydraulic infrastructure connections required for the development shall include the following:

- + Jemena (gas)
- + Central Coast Council (water and sewer)

2.1.1. Jemena

Natural Gas

Existing Natural Gas is as follows:

- + An existing authority 1050kPa secondary gas main runs along Baker Street
- + An existing authority 210kPa secondary gas main runs along Mann Street
- + An existing authority 210kPa secondary gas main runs along Georgiana Terrace

Jemena have advised that a 210 kPa main extension will be a possible solution for the site. This would be extended along Baker Street from the existing Georgiana Terrace main, subject to final design and investigations by Jemena.

(It is noted that connecting direct to the 1050 kPa would require a large meter and regulator set, approx. 4 metre by 3 metre plus enclosure) This spatial requirement would need to be accommodated into the development at the front of the site compromising the street frontage along Baker Street should this option be selected.



Figure 2.1 – Jemena existing natural gas network

2.1.2. Central Coast Council

Water

Existing Water service is as follows:

- + An existing DN200 DICL water main runs along Mann Street
- + An existing DN100 CICL water main runs along Vaughan Avenue
- + Potable Water is not currently available within Baker Street

Extension of a new water main DN 200 main from Georgiana Terrace along Baker Street to the site frontage is required

Detailed design of the water main will be required by an accredited Central Coast Designer.

Initial calculation of the domestic water and fire services demand indicate that a minimum 2 by 150 NB will be required for the site.

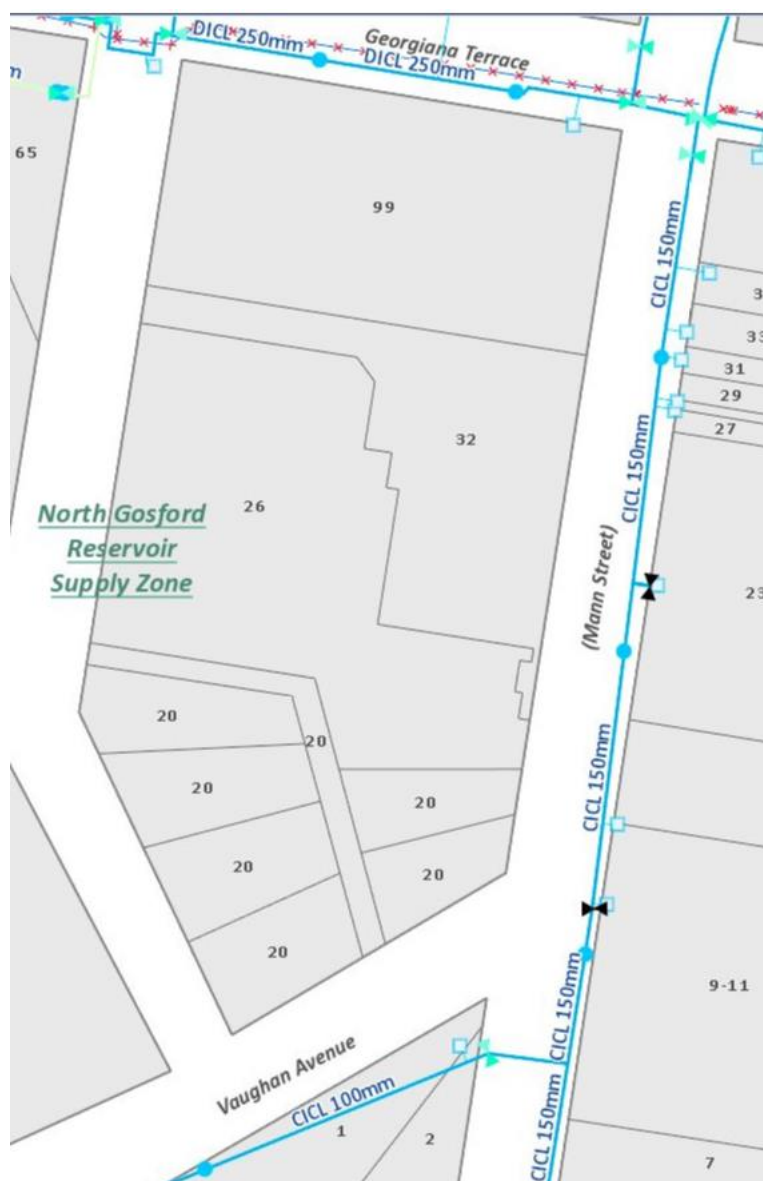


Figure 2.1 - Central Coast Council existing water mains network

Sewer

There are several existing Sewers traversing the site and some have already been relocated outside the boundary:

- + An existing DN150 sewer main runs along Mann Street
- + An existing DN525 sewer main runs along Baker Street.

Connection for stage 1 of the development site will be made to manhole PAD/03 located on the authority main external to the site boundary.

Existing Central Coast sewers currently traverse the site:

- + An existing 150 VCP Council sewer currently traverses the site from East to West, this will require diversion and relocation to an approved location (likely down Vaughan Avenue) in accordance with Gosford Council requirements.
- + Detailed design of the sewer diversion will be required by an accredited Central Coast Designer and likely occur in the next stage of works.

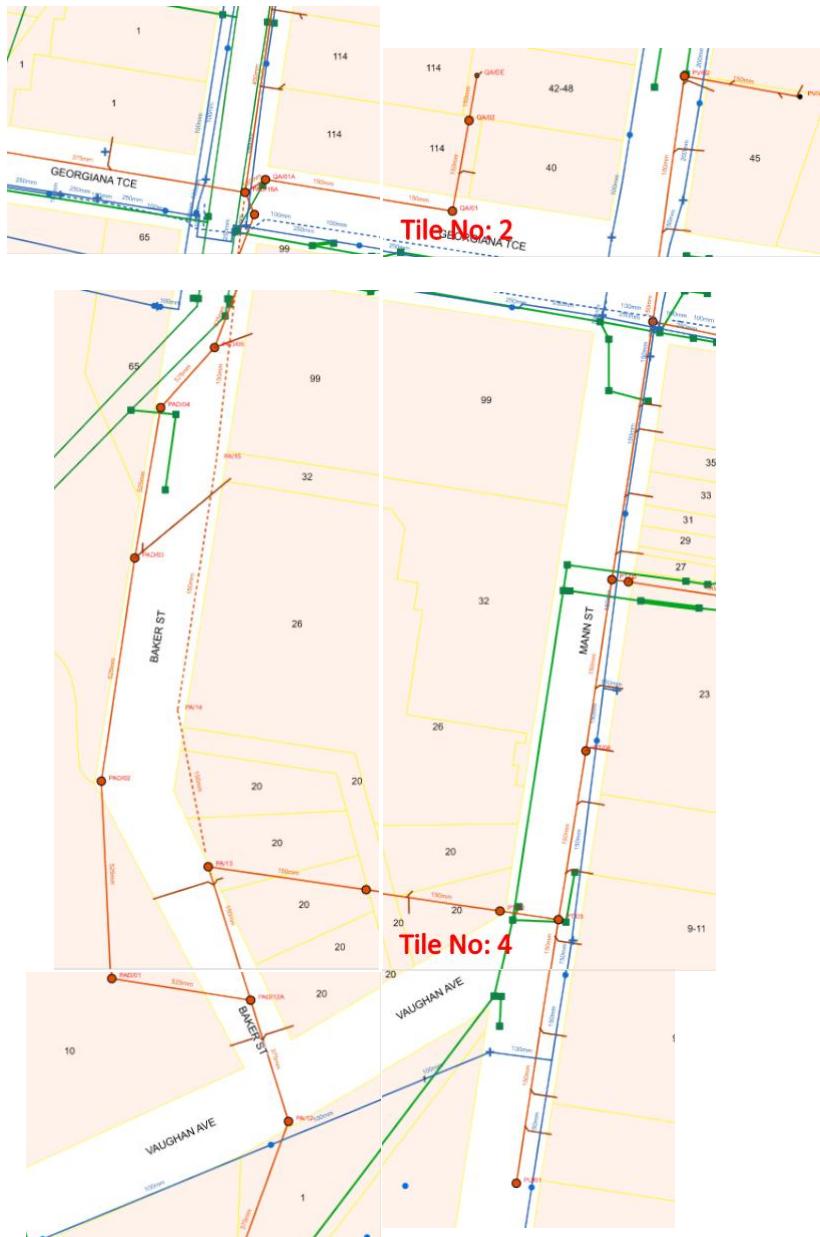


Figure 2.3 - Central Coast Council existing sewer infrastructure network

3. Electrical Services

3.1 Scope of Services

The electrical infrastructure connections required for the development shall include the following:

- + Electricity (Ausgrid)
- + Telecommunications (NBNCo)

3.1.1. High Voltage Infrastructure

An application for connection has been submitted to Ausgrid (Ref AP/AC 800197256/1900080147) and Ausgrid have advised that a new substation will be required for the development. This was submitted in 2018. This application will be renewed once development approval has been approved.

Existing Ausgrid High Voltage (HV) underground reticulation runs along Georgiana Terrace and down Mann St. Availability of HV supply to the proposed development is subject to a design information package being prepared.

It is expected that modifications to the existing High Voltage network on Georgiana Terrace to extend along Baker Street to service the new substation will be required refer Figure 3.2. This layout has been coordinated in consultation with Ausgrid and is arranged to their requirements with louvres fronting Baker Street and has been co-ordinated with architectural and egress requirements.

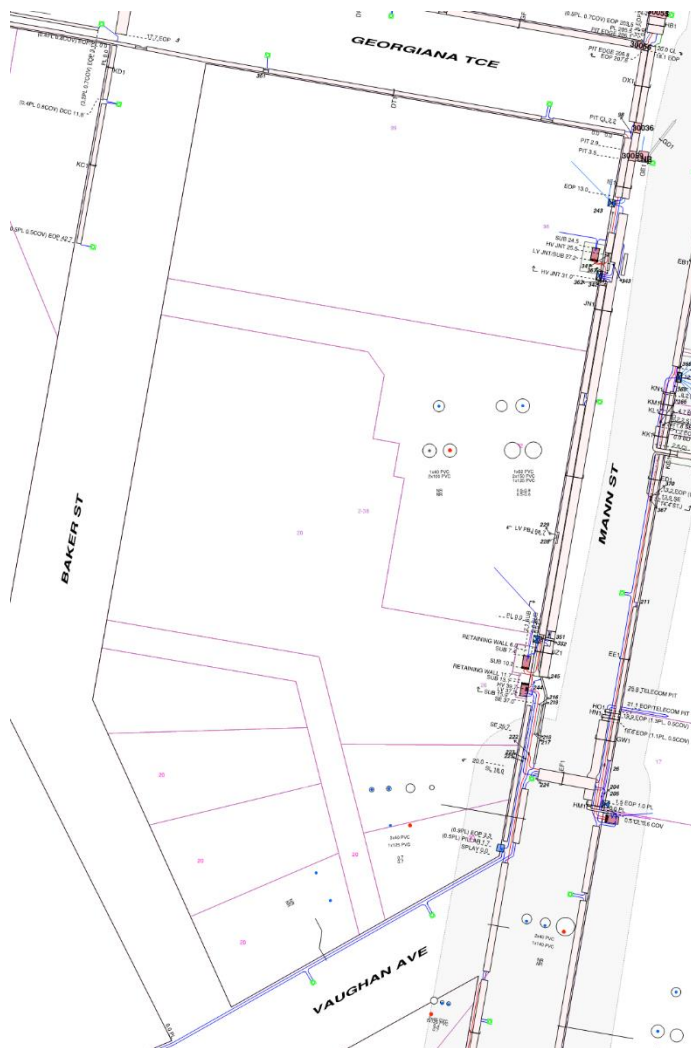


Figure 3.1 - Ausgrid existing electricity network

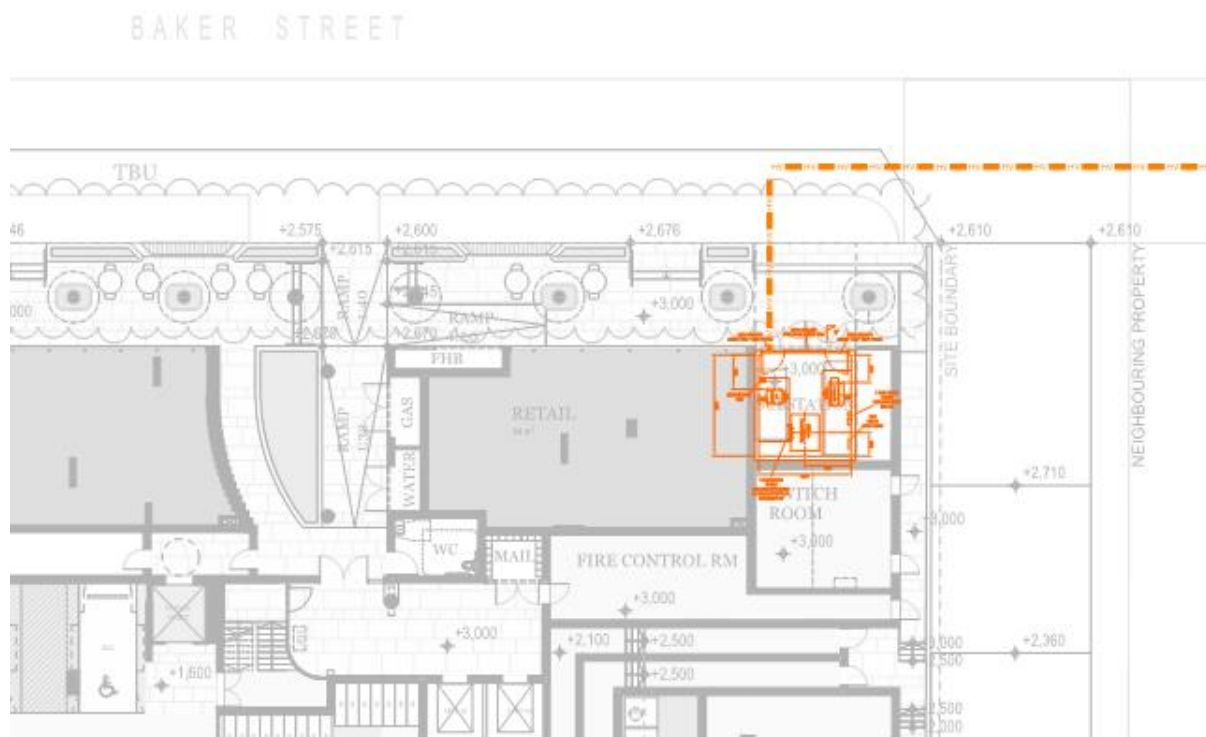


Figure 3.2 - Proposed Surface Mini Chamber Substation and associated High Voltage reticulation

3.1.2. Telecommunications

NBNCo, Telstra, Optus, Nextgen, TPG and Superloop have infrastructure in and around the vicinity of the proposed development. There are existing redundant Telstra cables on site, these will be removed as part of the construction works. New lead in communications conduits will be required to service the development. An application with NBNCo for the development will need to be made once detailed design is underway.

Other telecommunications infrastructure are also available for connection however have not been considered for this development, refer Figure 3.5 to Figure 3.8 for more information.

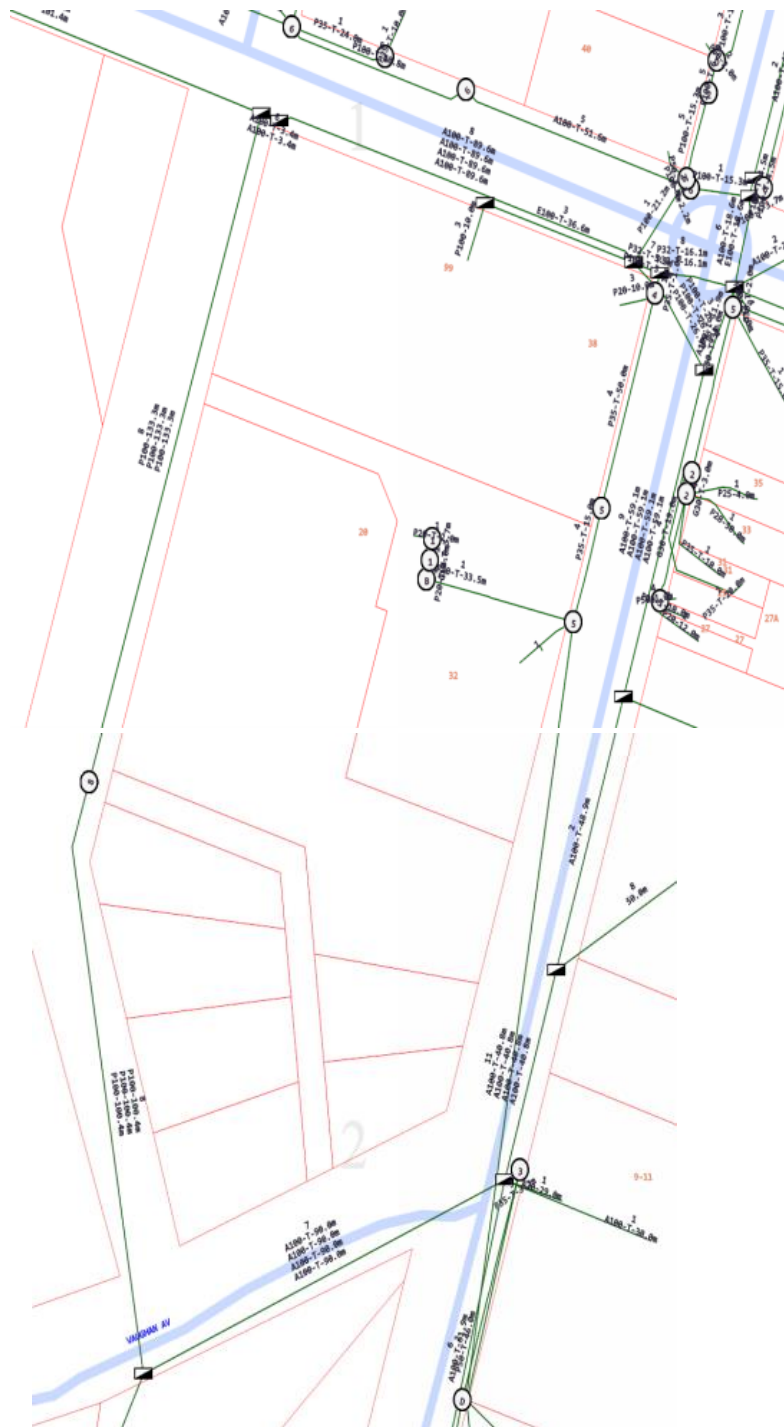


Figure 3.3 – nbn existing telecommunications network

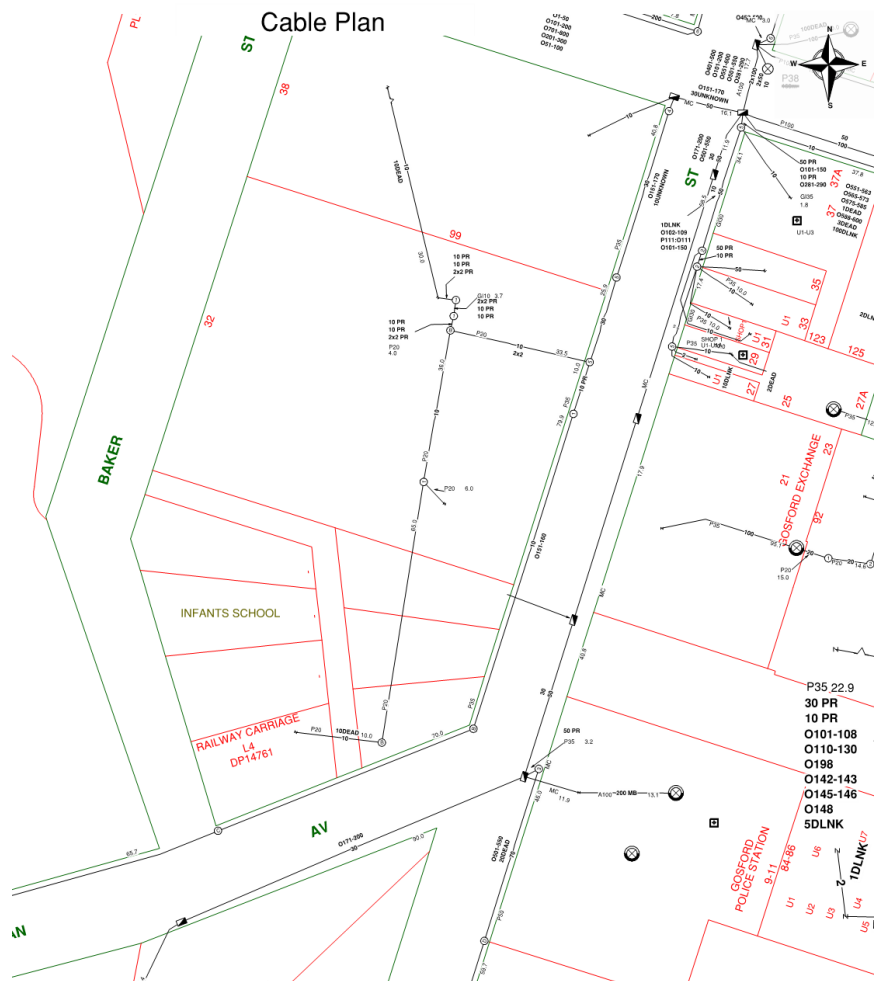




Figure 3.6 – Nextgen existing telecommunications network

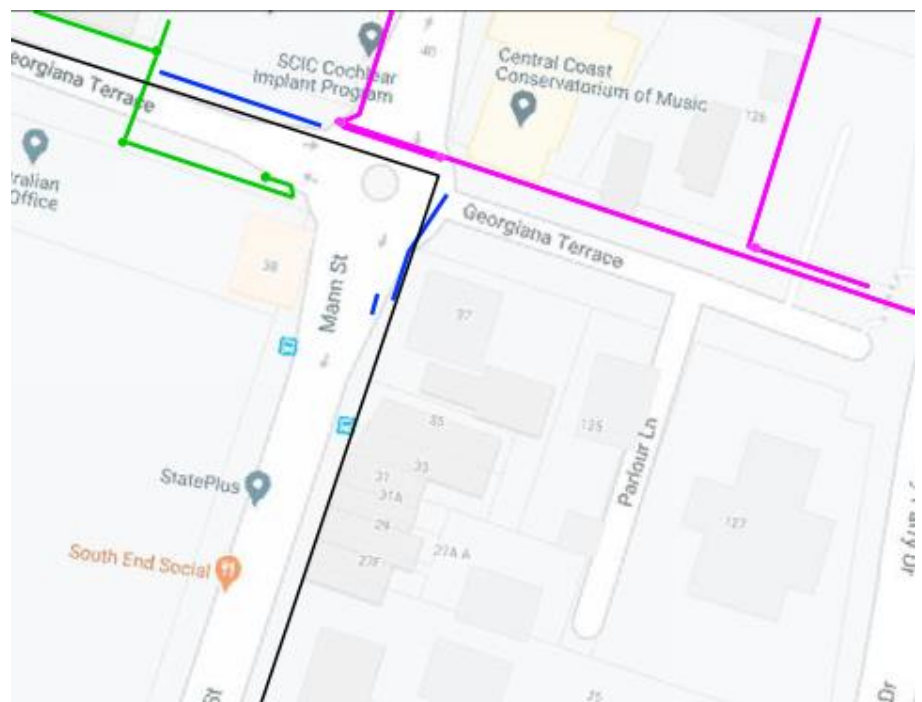


Figure 3.7 – TPG Carriers (AAPT/PowerTel, PIPE Networks, Soul Pattinson Telecoms)



Figure 3.8 – Superloop existing telecommunications network