



Central Coast Quarter

26 Mann Street Gosford

Authorities Infrastructure Site Servicing Strategy



TABLE OF CONTENTS

1. INTRODUCTION.....	1
1.1. Summary.....	1
1.2. Objective.....	1
1.3. Methodology.....	1
1.4. Limitations	1
1.5. Information Source	1
2. HYDRAULIC SERVICES	2
2.1. Natural Gas	2
2.2. Water	3
2.3. Sewer.....	4
3. ELECTRICAL SERVICES	5
3.1. Electricity	5
3.2. Telecommunications	6

Revision	Date	Description	Author	Reviewer
P1	06/08/19	Preliminary	FH/MB	LV
P2	14/08/19	Preliminary	FH/MB	LV
P3	16/08/19	Preliminary	FH/MB	LV

1. INTRODUCTION

1.1. Summary

In response to the Planning Secretary's Environmental Assessment Requirements (SEARs) Application Number SSD-10114 Item 19. *Utilities*. S4B has reviewed and addressed the site servicing strategy in relation to the proposed mixed used development at 26 Mann Street in Gosford.

The Site is located between Mann Street to the East, Vaughan Avenue to the South, Georgiana Terrace to the North and Baker Street to the West.

The proposed development includes the construction of a new hotel tower and two residential towers over a new underground car park. The development will also incorporate some non-residential tenancies on the street facing levels to activate the space.

1.2. Objective

The objective of this infrastructure report is to outline the servicing strategy including the disposition of the existing Authority services traversing the site and any amplifications and diversions that will arise as a result of the proposed development.

1.3. Methodology

This assessment and report is based on the preliminary concept plan prepared by DKO Architects and the various Authority's information.

1.4. Limitations

The information is provided without prejudice and on the understanding that preliminary discussions and desktop assessment with Authorities have taken place.

It is understood that detailed investigations and negotiations will take place after the various reviews, studies and recommendations have been assessed, therefore the current report may not address the full extents of their requirements until such times.

1.5. Information Source

This servicing report is based upon the following available information:

- + Dial Before You dig Information package:
 - Jemena (gas)
 - Central Coast Council (water & sewer)
 - Ausgrid (electricity)
 - nbn (telecommunications)
 - Telstra (telecommunications)
 - Optus (telecommunications)
 - Nextgen (telecommunications)
 - AAPT (telecommunications)
 - Superloop (telecommunications)
 - Popenetworks (telecommunications)
- + Preliminary Architectural drawings:
 - DKO Architectural drawings dated 6th of June 2019
- + Visual and photographic site inspection and observations

2. HYDRAULIC SERVICES

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

- + Natural Gas (Jemena)
- + Water (Central Coast Council (Gosford))
- + Sewer (Central Coast Council (Gosford))

2.1. Natural Gas

Natural Gas is available for connection from the existing Jemena natural gas mains as follows:

- + An existing authority 210kPa 160 NB nylon secondary gas main located within Mann Street.
- + A 1050 kPa 150 steel high pressure gas main located within Baker Street.

Connection location is flexible and will be developed in detail with the detail design.



Figure 2.1 – Jemena existing natural gas network

2.2. Water

Potable water is available for connection from existing 150 mm NB water main in Mann Street. Initial calculation of the domestic water and fire services demand indicate that a minimum 2 by 150 NB will be required for the site.

Connection location is flexible along Mann street and will be developed in detail with the detail design.

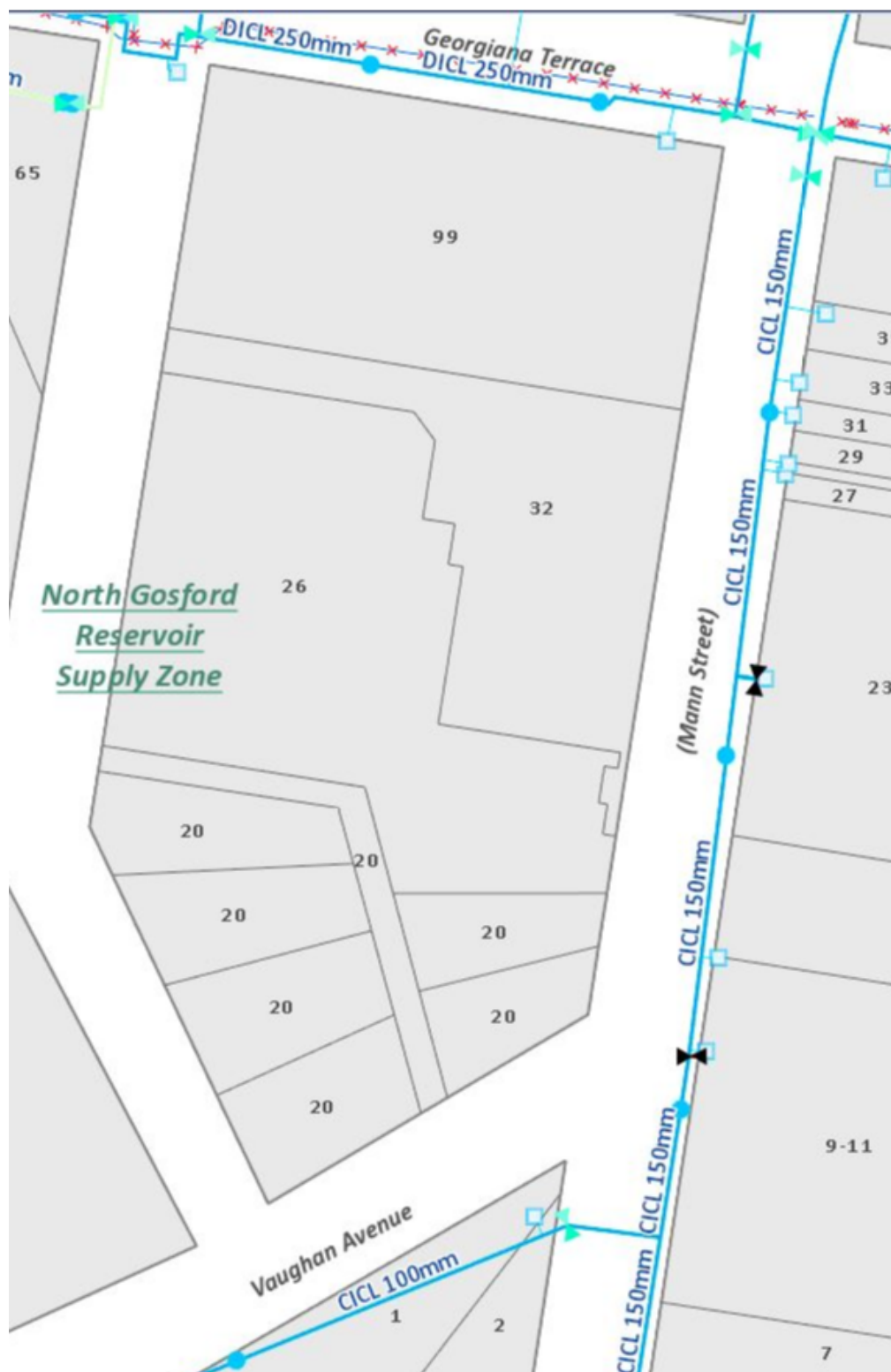


Figure 2.2 – Central Coast Council existing water mains network

2.3. Sewer

Sewer drainage is available for connection from the existing sewer mains in Baker Street (size varies from 375 mm to 525 mm)

An existing 150 VCP Council sewer currently traverses the site from East to West, this will require diversion and relocation to an approved location in accordance with Gosford Council requirements. The sewer will reconnect the Mann Street sewer to the Baker Street sewer

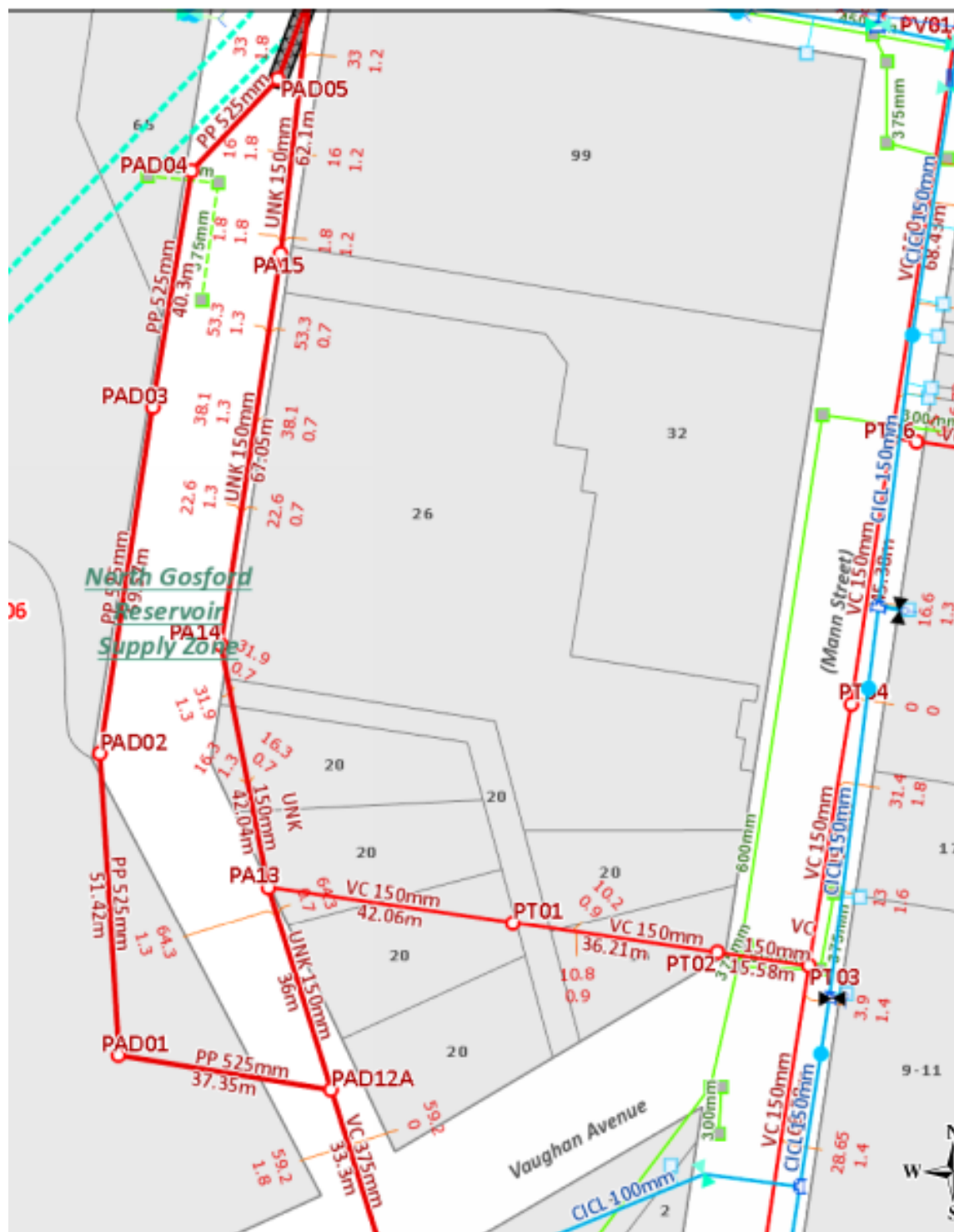


Figure 2.3 – Central Coast Council existing sewer infrastructure network

3. ELECTRICAL SERVICES

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

- + Electricity (Ausgrid)
- + Telecommunications (nbn, Telstra, Optus, Nextgen, AAPT, Superloop, Pipenetworks)

3.1. Electricity

- + Based on the Dial Before You Dig (DBYD) Ausgrid information (Figure 3.1), the site contains two existing kiosk substations located on the Mann Street frontage. The substations are served via underground High Voltage cables running along Mann Street
- + Currently both substations service the street network including the adjacent 32 Mann Street Commercial Building
- + New surface chamber substation(s) will be required to service the proposed development. Currently two 1000kVA transformers will be required based on current known electrical requirements. The location of the surface chamber substation(s) is proposed on Vaughan Avenue. Shall the demand change and require additional transformer(s), it is proposed to locate the additional transformer(s) adjacent the current proposed location.
- + The new substation(s) would involve the modification of the existing High Voltage network on Mann Street to extend along Vaughan Avenue to service the new substation(s). Figure 3.2 shows the proposed new High Voltage supply extended from the existing Mann street High Voltage supply to the new substation(s) located on Vaughan Avenue. This position at approximately RL7.27 is above the 100 year ARI flood level of RL1.95.
- + A updated application for connection will need to be reissued to Ausgrid once the electrical loads have been established. A Level 3 ASP will need to be engaged to provide a certified design reflecting the supply strategy.

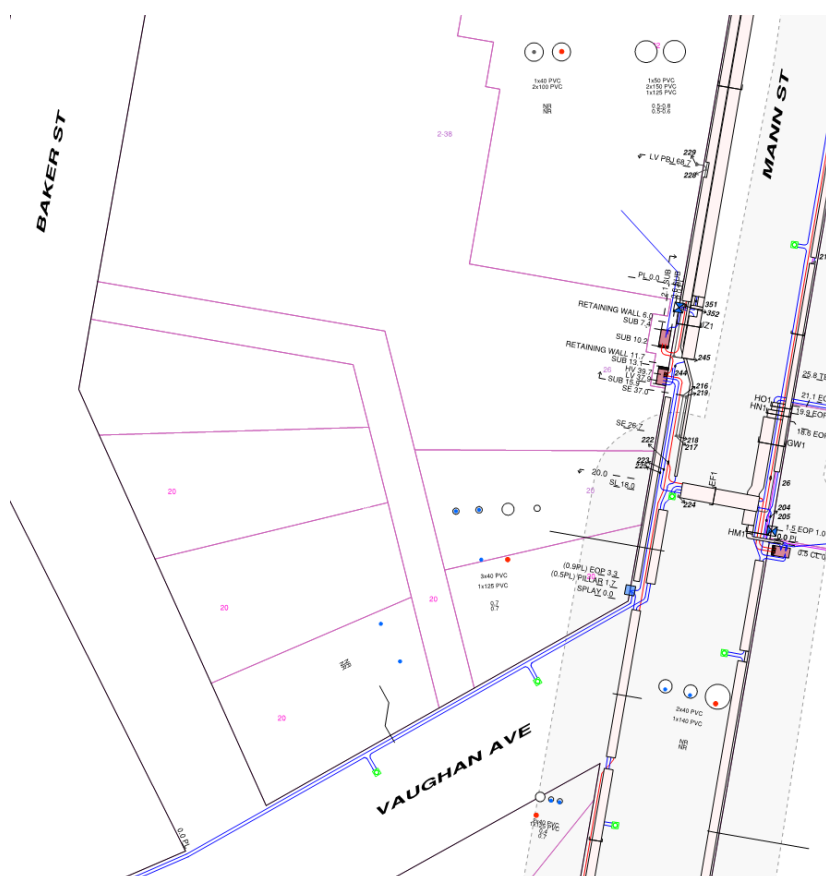


Figure 3.1 - Ausgrid existing electricity network

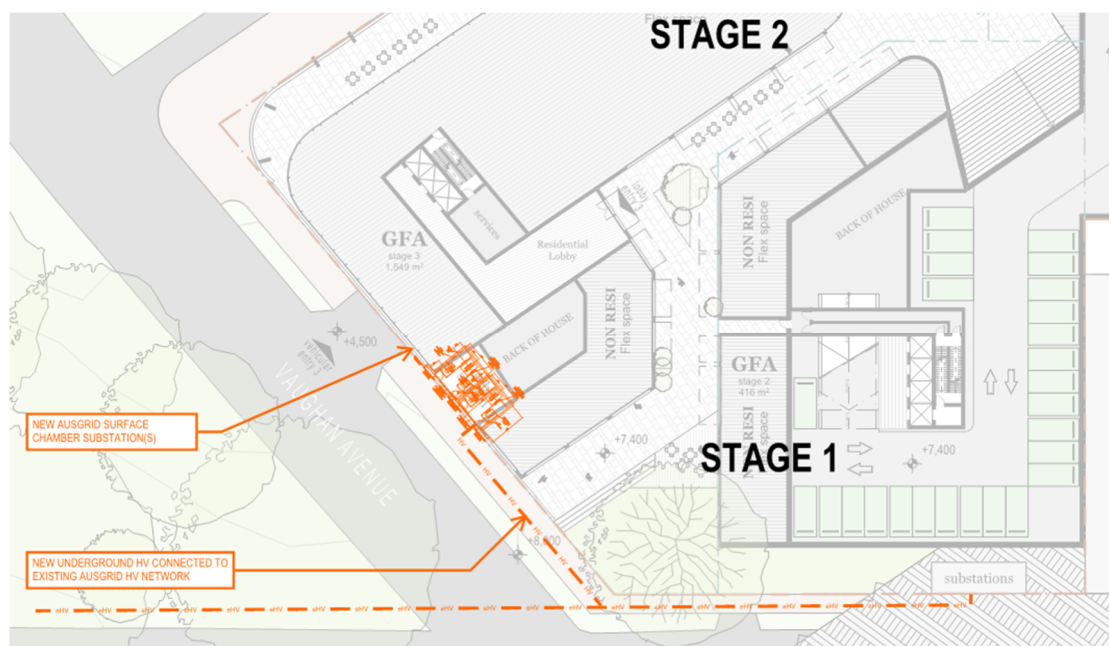


Figure 3.2 - Proposed Surface Chamber Substation(s) and associated High Voltage reticulation

3.2. Telecommunications

nbn, Telstra, Optus, Nextgen, AAPT, Superloop and Pipenetworks 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 nbn lead in communications cabling will be required to service the development. Location of lead in cables are flexible as nbn assets are location around the extent of the development block. Location of these lead in cables will be developed in detail with the detail design. An application with nbn 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 3.9 for more information.

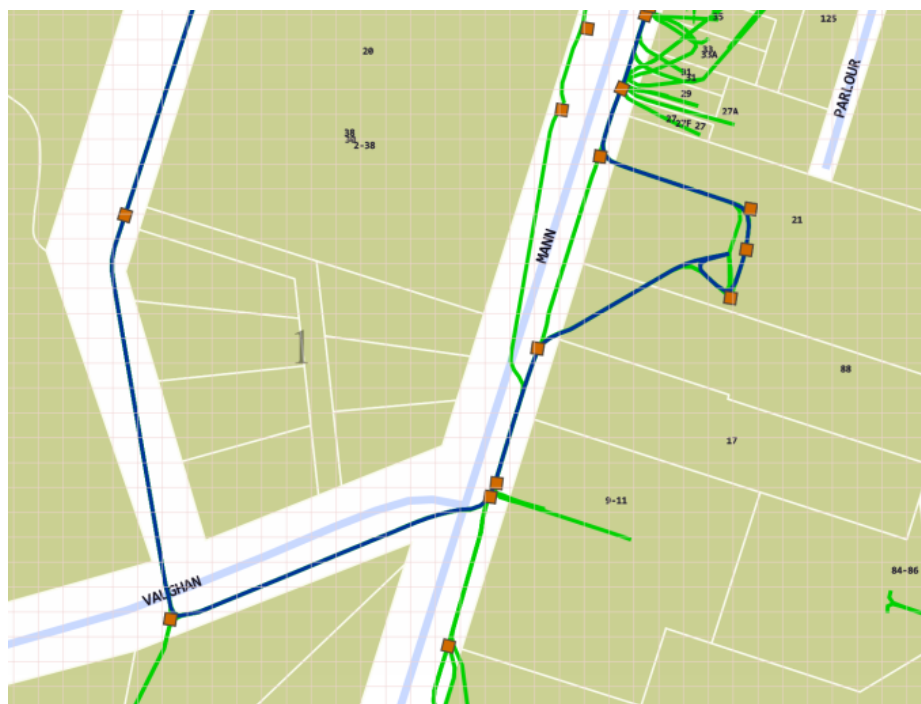


Figure 3.3 – nbn existing telecommunications network

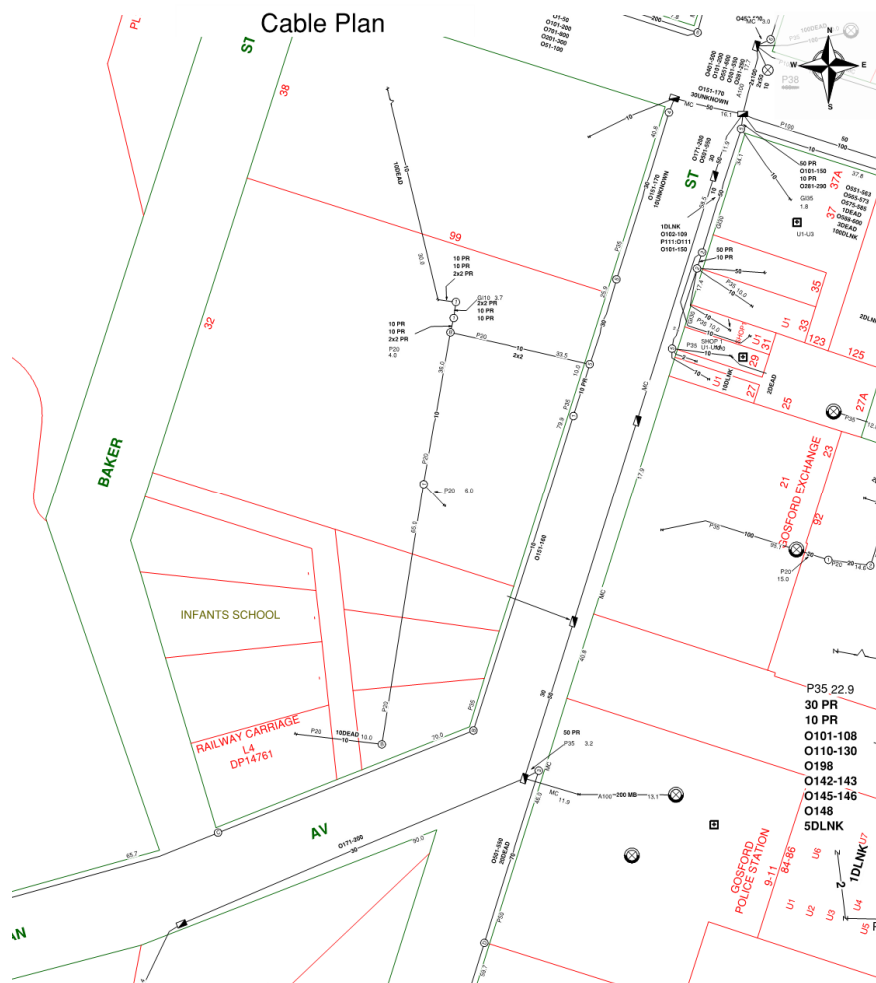




Figure 3.6 – Nextgen existing telecommunications network

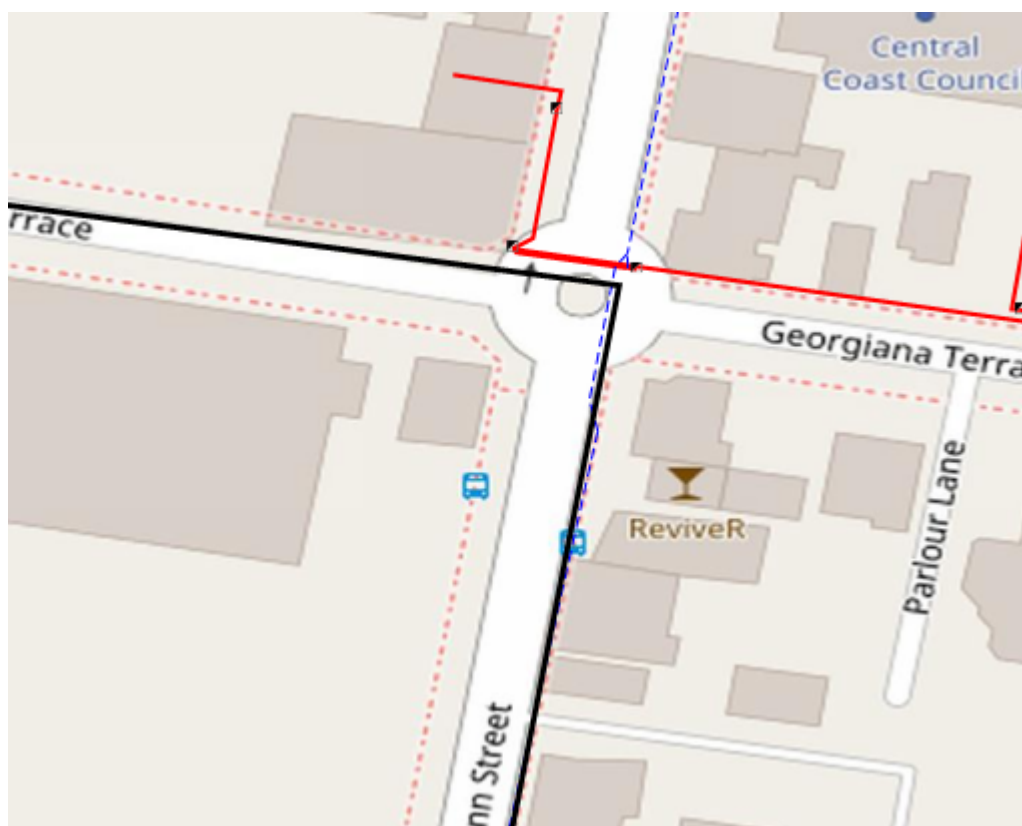


Figure 3.7 – AAPT existing telecommunications network



Figure 3.8 – Superloop existing telecommunications network

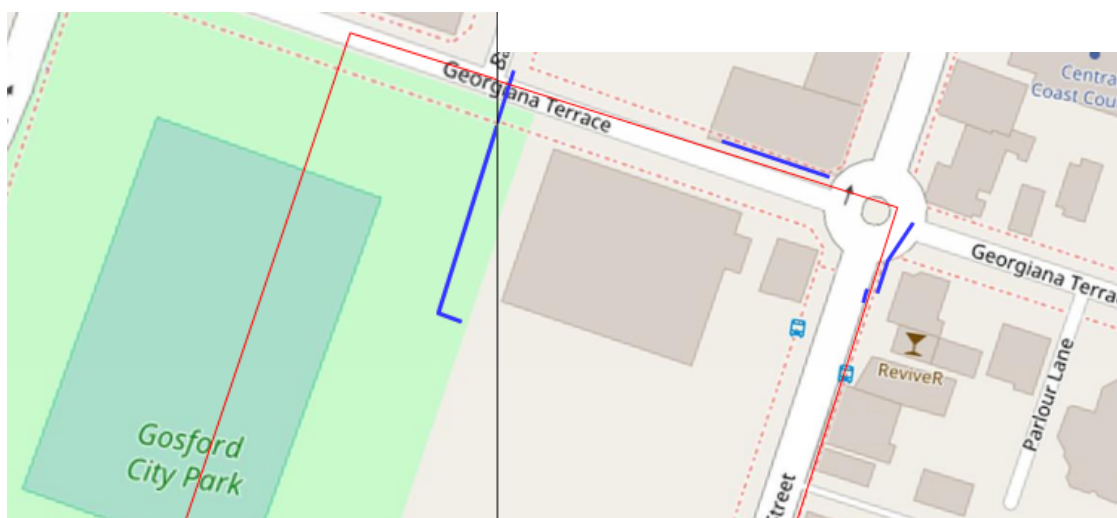


Figure 3.9 – Pipenetwork existing telecommunications network