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**ENGINEERING SERVICES
INSTRSTRUCTURE REPORT**

47-97 Marlborough Street, Surry Hills
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CONTENTS

1. INTRODUCTION	1
1.1 GENERAL	1
1.2 THE SITE	2
1.3 BCA CLASSIFICATION	3
1.4 MANDATORY BCA ENERGY EFFICIENCY REQUIREMENTS	3
2. UTILITY ENGINEERING SERVICES	4
2.1 UTILITIES SERVICES REVIEW / ANALYSIS	4
2.2 CAPACITY CALCULATION ASSUMPTIONS	4
3. ELECTRICAL	5
3.1 ELECTRICAL MAXIMUM DEMAND	5
3.2 ELECTRICAL RETICULATION FOR THE DEVELOPMENT	5
EXISTING SERVICES – SUBSTATION	5
EXISTING SERVICES – OVERHEAD CABLES	8
4. NATURAL GAS	11
4.1 GAS MAXIMUM DEMAND	11
4.2 JEMENA INFRASTRUCTURE IN THE VICINITY OF THE SITE	11
4.3 SUMMARY AND CONCLUSIONS	11
5. TELECOMMUNICATIONS	12
5.1 TELECOMMUNICATIONS MAXIMUM DEMAND	12
5.2 EXISTING SERVICES	12
5.3 TELECOMMUNICATIONS INFRASTRUCTURE IN THE VICINITY OF THE SITE	12
5.4 SUMMARY AND CONCLUSIONS	13
6. STORMWATER	14
6.1 STORMWATER INFRASTRUCTURE IN THE VICINITY OF THE SITE	14
6.2 FLOODING WITHIN THE VICINITY OF THE SITE	14
6.3 SUMMARY AND CONCLUSIONS	15
7. MAINS WATER	16
7.1 WATER MAXIMUM DEMAND	16
7.2 EXISTING SERVICES	16
7.3 MAINS WATER INFRASTRUCTURE IN THE VICINITY OF THE SITE	16
7.4 SUMMARY AND CONCLUSIONS	17
8. SEWER	18
8.1 SEWER MAXIMUM DEMAND	18
8.2 EXISTING SERVICES	18
8.3 SEWER INFRASTRUCTURE IN THE VICINITY OF THE SITE	18
8.4 SUMMARY & CONCLUSIONS	19
9. CONCLUSION	20

1. INTRODUCTION

1.1 General

This report has been prepared to support a State Significant Development Application (SSDA) SSD-78545225 for the site at 47 – 97 Marlborough Street, Surry Hills.

The application seeks development consent for the redevelopment of the site for an in-fill affordable housing residential development comprising 172 market and affordable housing dwellings. The works will involve the adaptive reuse of the heritage listed warehouse building known as the 'Former David Jones Factory'.

Specifically, this application seeks approval for the following:

- Demolition of the existing car park on the northern portion of the site.
- Site preparation works including:
 - Tree removal.
 - Excavation on the northern portion of the site.
- Alterations and additions to the existing warehouse building for the purposes of a residential flat building comprising:
 - Heritage conservation works to the warehouse building and alterations to the warehouse roof profile on level 8.
 - Four level addition to the warehouse building on the central portion of the site.
 - 134 residential apartments across 9 levels.
 - Indoor communal resident amenity and rooftop communal open space.
 - Service vehicle access from Goodlet Street to an at-grade loading dock.
 - Lower ground storage, plant and services area.
- Construction of a new residential flat building on the northern portion of the site comprising:
 - Basement car stacker and vehicular access from Landsdowne Street.
 - Retail tenancy on ground level on the corner of Marlborough Street and Landsdowne Street.
 - 38 residential apartments across 9 levels.
- Landscaping and associated public domain works including a private pedestrian link along the western site boundary.
- Provision of 15% affordable housing to be managed by a community housing provider for a period of 15 years from date of the Occupation Certificate.
- Extension and augmentation of physical infrastructure and utilities as required.
- Refer to Architectural Plans prepared by Wardle appended to the Environmental Impact Statement.

This report presents the findings of a desktop study review with respect to:

- Utility infrastructure (electrical, mains water, natural gas, sewer, telecommunications) assessment.

This report has been prepared solely for M House Surry Pty Ltd. No warranty is provided to third parties who rely on this report for any other purpose.

1.2 The Site

The site is located at 47-97 Marlborough Street, Surry Hills and is legally described as Lot 1 in DP225393 and Lot 1 in DP251056. It is regular in shape and has an area of approximately 3,413 sqm.

The site is located in the City of Sydney local government area (**LGA**) in Surry Hills, which is well-served by public amenities such as a supermarket, cafes, destination retail shops and a library. Community facilities such as swimming pools, tennis courts, and active open space are easily accessible. The southern portion of the site comprises a locally listed heritage item (the former David Jones Warehouse building) and the northern portion of the site accommodates a car park. The area to the east and south of the site is a Heritage Conservation Area.

The site is in a highly accessible area with the nearest Light Rail Station (Surry Hills) 200m to the north of the site. The site is also close to regular bus services in the immediate vicinity.

The existing building is built to the site boundaries. There are existing street trees along Marlborough Street, as well as some planter boxes containing vegetation on the site's north-eastern frontage to Marlborough Street.

The location of the site is illustrated in **Figure 1**.



Figure 1 – Site Location

1.3 BCA Classification

BCA classification(s) of the development are as follows:

BCA Classification	Class 2 Class 7a	Residential Carpark
Rise in Storeys	Eight (8)	
Type of Construction	Type A Construction	
Effective Height	Greater than 25m	

1.4 Mandatory BCA Energy Efficiency Requirements

Mandatory BCA Energy Efficiency requirements are as follows:

- Part J1 – Energy Efficiency Performance Requirements;
- Part J2 – Energy Efficiency;
- Part J3 – Elemental provisions for a sole-occupancy unit of a Class 2 building or a class 4 part of a building;
- Part J4 – Building fabric;
- Part J5 – Building sealing
- Part J6 – Air-conditioning and ventilation systems;
- Part J7 – Artificial lighting and power;
- Part J8 – Heated water supply and swimming pool and spa pool plant;
- Part J9 – Energy monitoring and on-site distributed energy resources;

2. UTILITY ENGINEERING SERVICES

2.1 Utilities Services Review / Analysis

A utilities review has been carried out in consultation with the relevant local authorities to identify the existing utilities at the site.

Dial Before You Dig (DBYD) requests were submitted on the 10 March 2026 to investigate the presence of existing utilities such as natural gas, water, stormwater, sewer and telecommunications.

The following utilities with interests/assets in the vicinity of the site were notified in this process:

Referral ID (Seq. no)	Authority Name	Phone	Status
269450445	Ausgrid	(02) 4951 0899	NOTIFIED
269450448	City of Sydney (IMS)	(02) 9265 9819	NOTIFIED
269450447	Jemena Gas South	1300 880 906	NOTIFIED
269450444	NBN Co NswAct	1800 687 626	NOTIFIED
269450449	Optus and or Uecomm Nsw	1800 505 777	NOTIFIED
269450450	Sydney Water	13 20 92	NOTIFIED
269450452	Telstra NSW Central	1800 653 935	NOTIFIED
269450451	TPG Telecom (NSW)	1800 786 306	NOTIFIED
269450446	Transport for NSW	(02) 9983 3030	NOTIFIED

END OF UTILITIES LIST

2.2 Capacity Calculation Assumptions

The following assumptions have been made in carrying out this assessment:

- 172 Apartments;
- Cold Water ~90 kL/day;
- Sanitary / Sewer Discharge ~80 kL/day;
- City of Sydney does not support natural gas for new developments, full electrification will very likely be required;
- Fire Hydrant System 20 L/sec and Sprinkler System 21.6 L/sec;

3. ELECTRICAL

3.1 Electrical Maximum Demand

Based on our preliminary electrical maximum demand calculations, the new development will require 1387 Amps/Phase when After Diversity Maximum Demand (ADMD) has been applied.

Although the area allocations across the development have not been finalised yet, the VA/m² allowances used in the maximum demand calculation above allows for sufficient margins to cover the site maximum electrical demand for full electrification.

3.2 Electrical Reticulation for the Development

Existing Services – Substation

The existing buildings are currently fed off a 1000A supply coming from an existing 1000kVA kiosk substation (S.35143), as shown below in Figure 3. The existing substation has another 400A direct distributor feeding another site (235-243 Devonshire Street).

The existing Kiosk Substation (S.35143) is located within the development's boundary along Lansdowne Street.

A new chamber substation integrated within the building's facade will be provided to feed this new development.

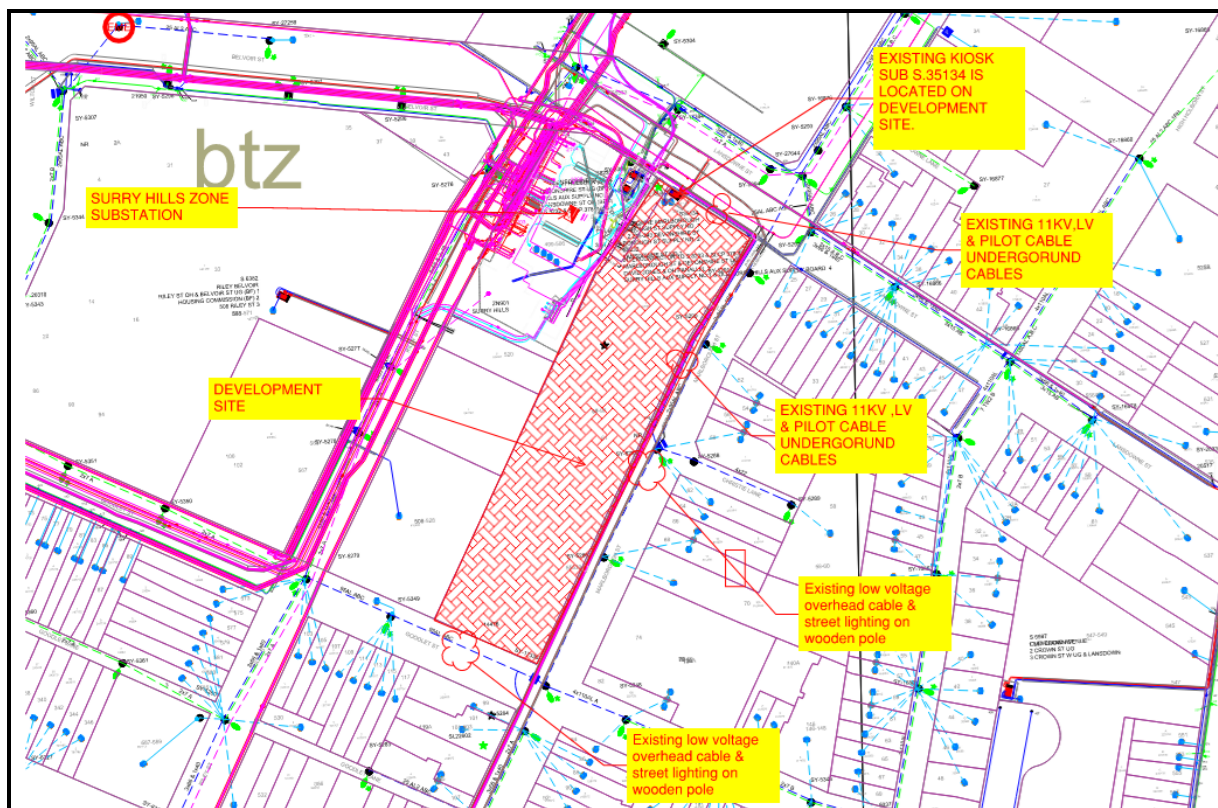


Figure 3 – LV/HV in the vicinity of the Site (Source: Ausgrid)

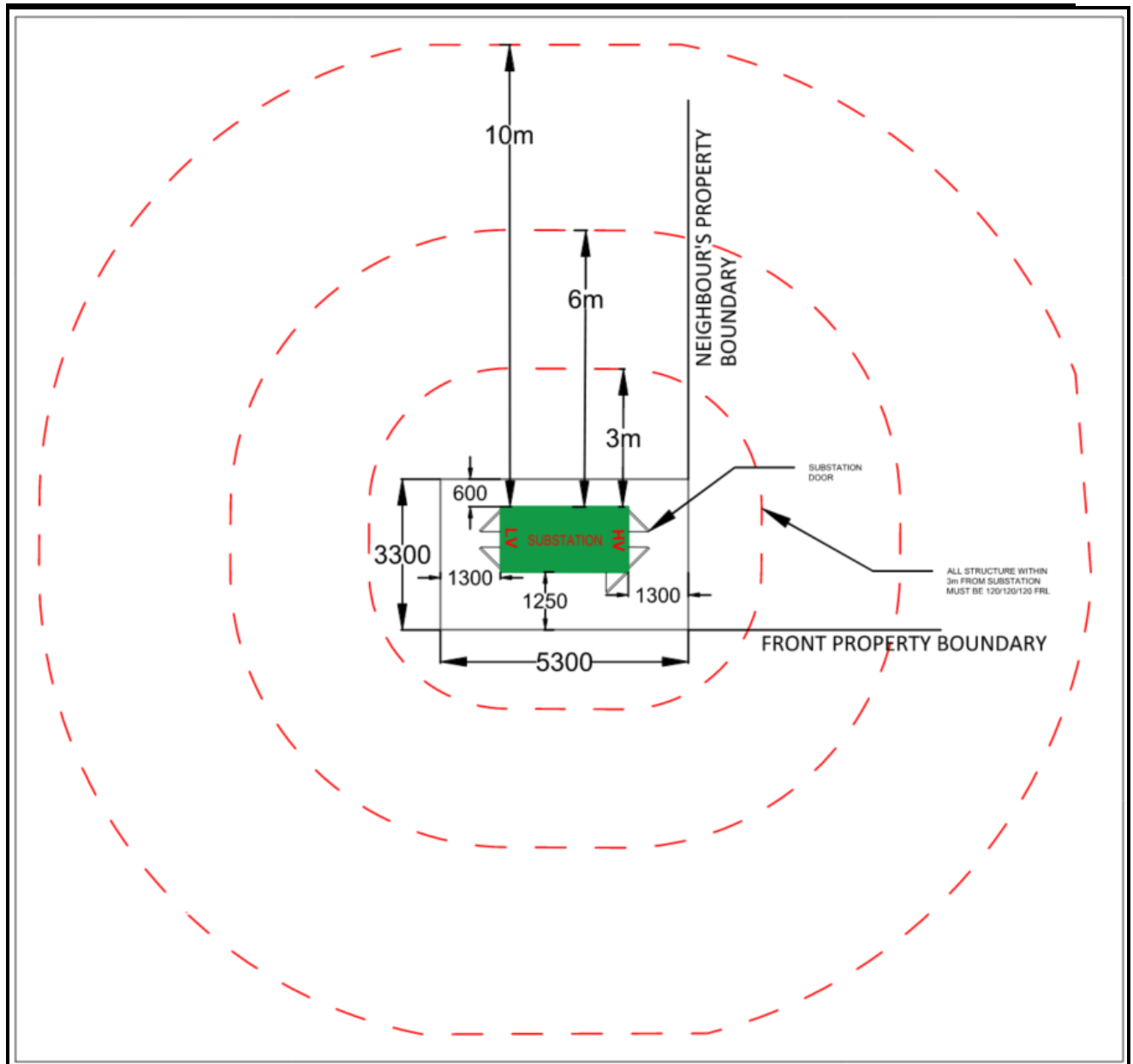


Figure 4 – Substation Restriction Zones

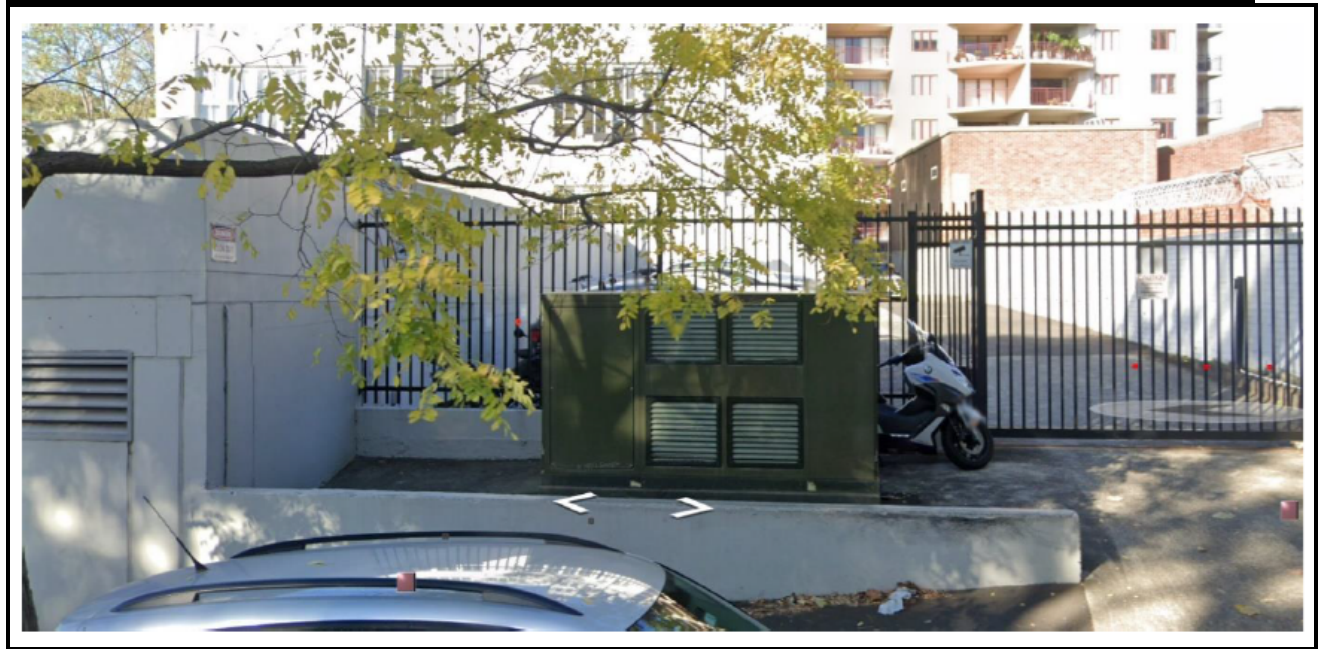


Figure 5 – Existing Kiosk substation S.35134 on Site (Source: Google)

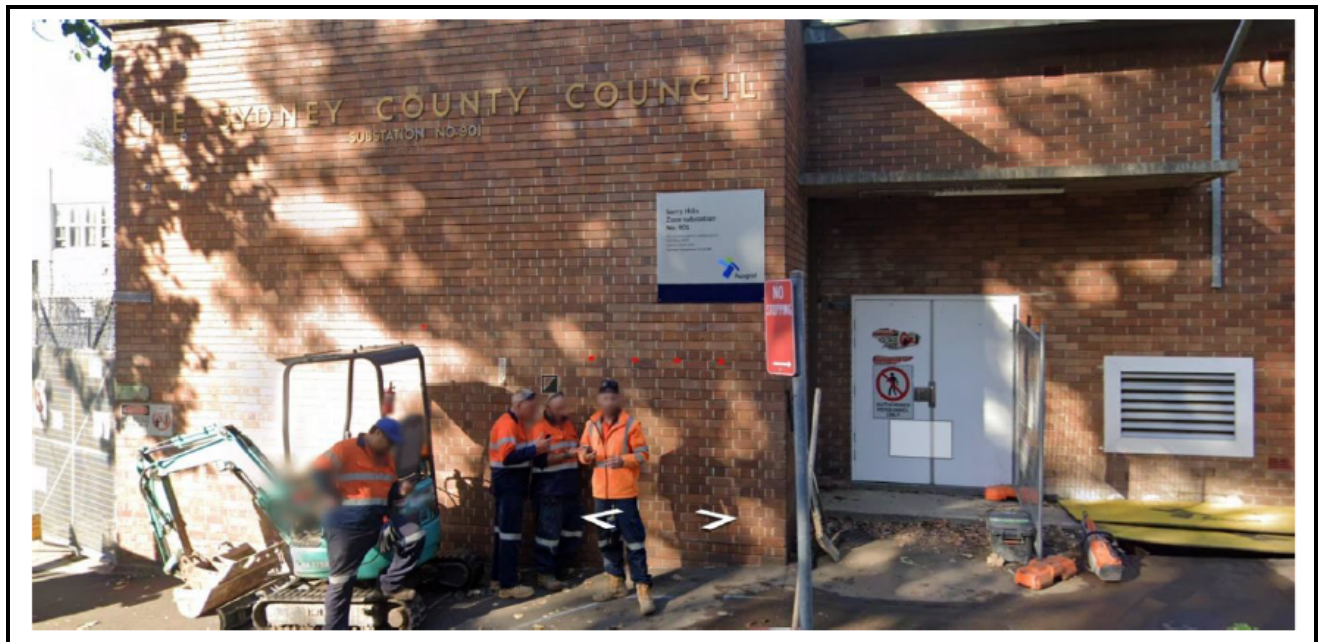


Figure 6 – Surry Hills Zone Substation adjacent to Site (Source: Google)

Existing Services – Overhead Cables

Refer Figures 7 & 8 for the existing Overhead cables at development frontages on Goodlet and Marlborough Streets, respectively. City of Sydney Council might request existing overhead cables be undergrounded.



Figure 7 – LV Overhead conductor in the vicinity of the Site (Source: Google)

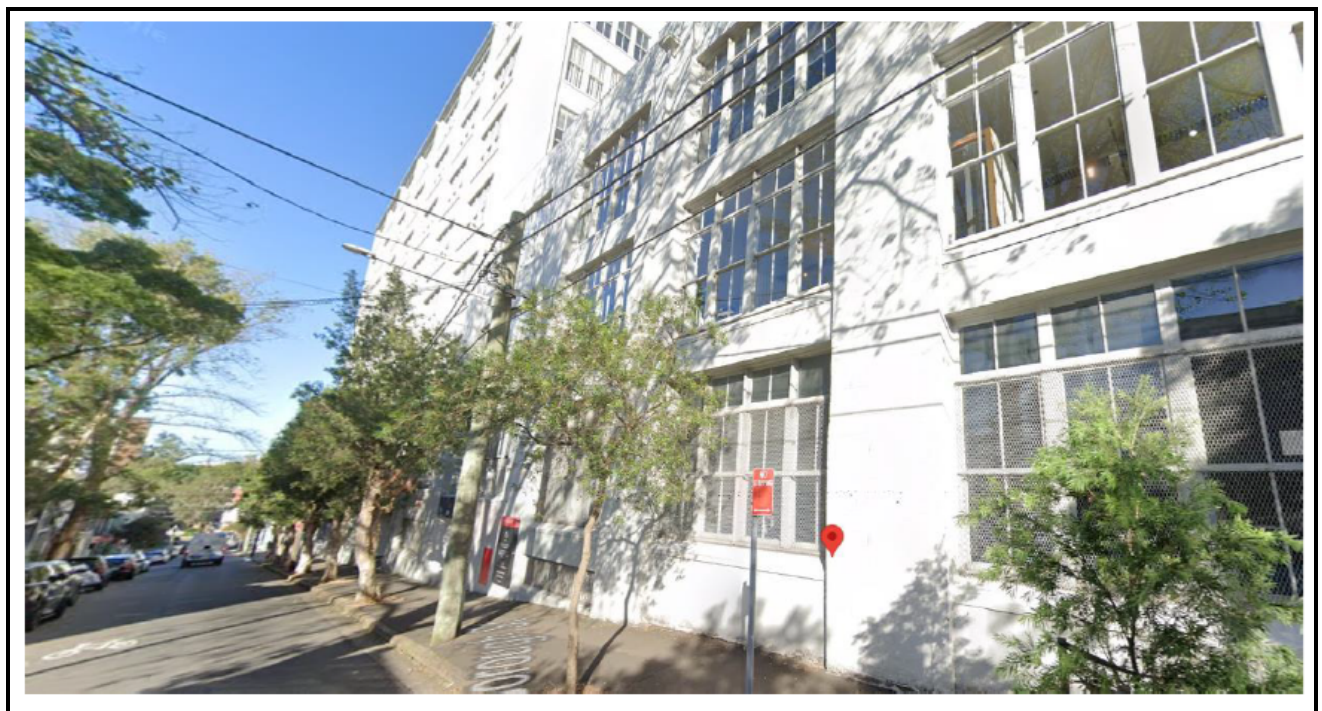


Figure 8 – LV Overhead conductor in the vicinity of the Site (Source: Google)

3.3 Kiosk Substation/Standard Surface Chamber Substation

Below are the spatial requirements for a Kiosk substation (Figure 9) & Chamber Substation (Figure 10). Based on our experience with the Local Council, a permanent Kiosk Substation will likely be rejected. If a temporary Kiosk Substation is to be provided during construction, the below spatial requirements would apply.

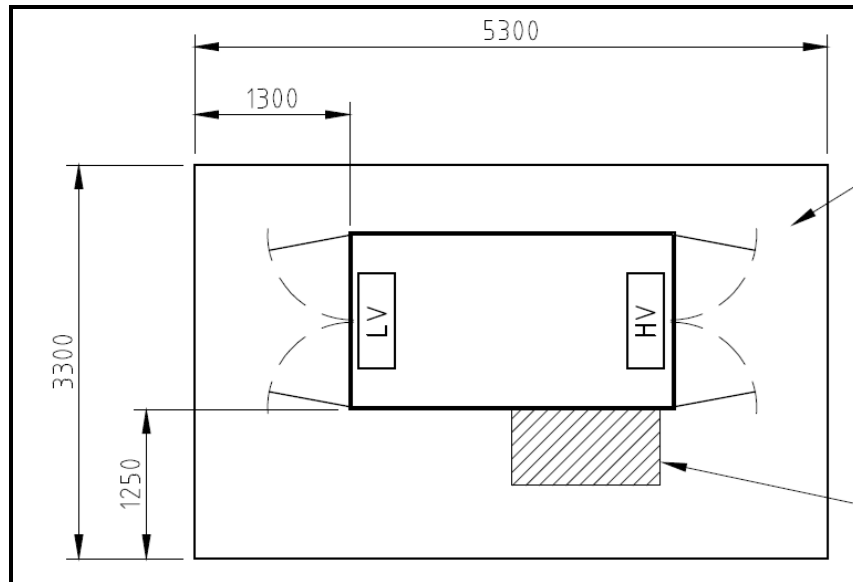


Figure 9 – Single Kiosk Substation Spatial Requirements

The Chamber substation, as shown in figure 10 below, will require direct street access.

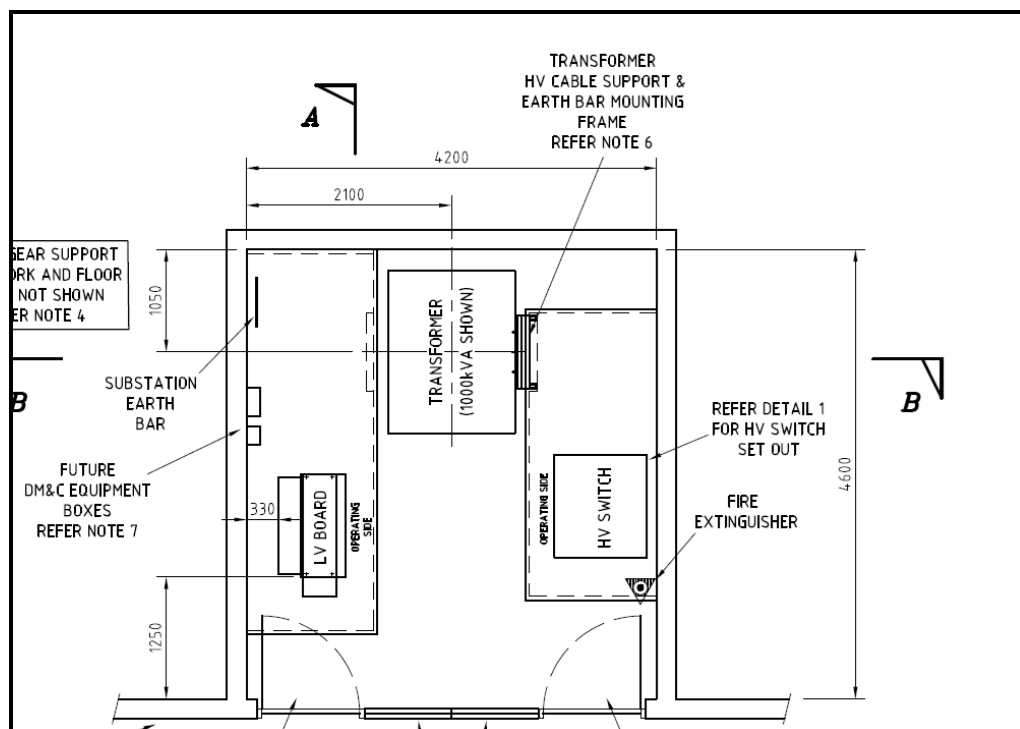


Figure 10 – Single Standard Surface Chamber Substation Spatial Requirement

3.4 Proposed Electrical Connection

The proposed development will be supplied via a dedicated 1000kVA chamber substation integrated within the building façade, as shown on the Architectural layouts. The substation will be designed and constructed in accordance with the technical requirements and electrical standards of Ausgrid.

During the construction phase, temporary electrical power will be required to support site works and construction machinery. Temporary power will be provided to the development via a kiosk Substation located along Lansdowne Street.

4. NATURAL GAS

4.1 Gas Maximum Demand

The gas maximum demand has been estimated at:

- Approx 5000 MJ/hr diversified load.

4.2 Jemena Infrastructure in the Vicinity of the Site

The site has adequate gas infrastructure coverage. There is a 32mm, 210kPa and a 100mm 1050kPa gas main(s) in Marlborough St. Both gas mains will be suitable and adequate to service the site.

This is shown below in Figure 13.

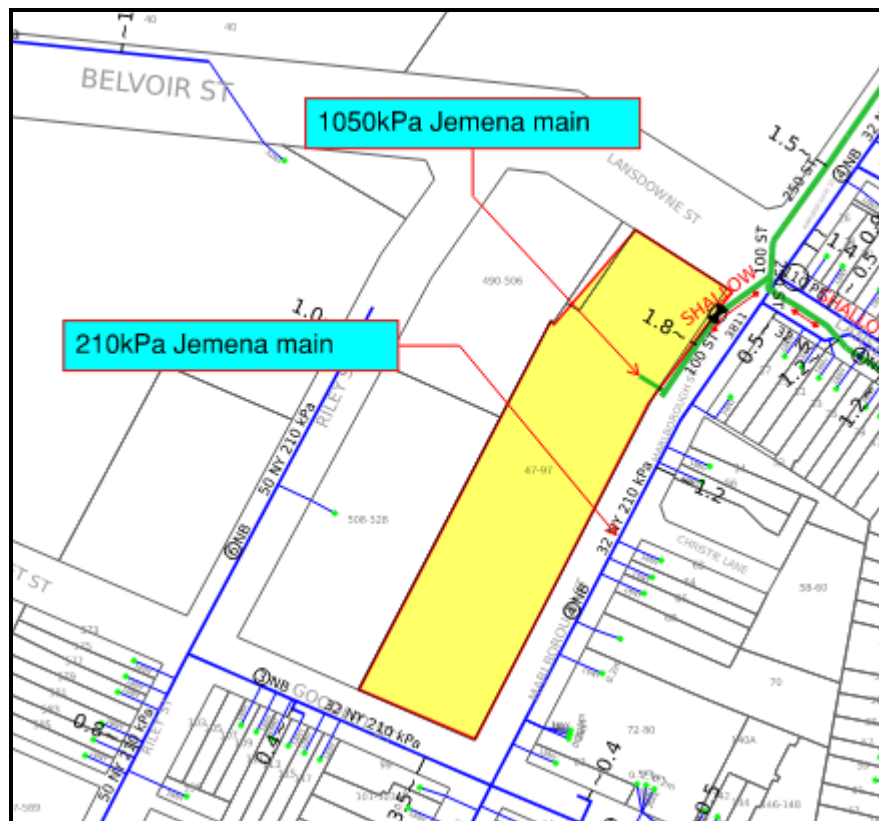


Figure 13 – Jemena Natural Gas Infrastructure (Source: Jemema)

4.3 Summary and Conclusions

While Jemena have extensive infrastructure in the vicinity of the site and can easily cater for the proposed new development, City of Sydney may not support natural gas for new developments and full electrification will very likely be required, pending DA application.

5. TELECOMMUNICATIONS

5.1 Telecommunications Maximum Demand

Based on the proposed development, broadband fibre optic cabling will be required to the site.

5.2 Existing Services

There are no major existing telecommunications services within the site that will need to be decommissioned and/or diverted. They are solely servicing the site and can be readily decommissioned when the site is vacated.

5.3 Telecommunications Infrastructure in the Vicinity of the Site

NBN/Telstra

According to DBYD information, as shown in Figure 14, the National Broadband Network (NBN) has assets and a series of distribution and services pits within the vicinity of the subject development site along Marlborough Street and Goodlet Street. Based on our preliminary desktop study, we anticipate a new NBN pit will be required to bring sufficient fibre optic capacity into the development site. Final connection point to be determined based on the Comms room location.

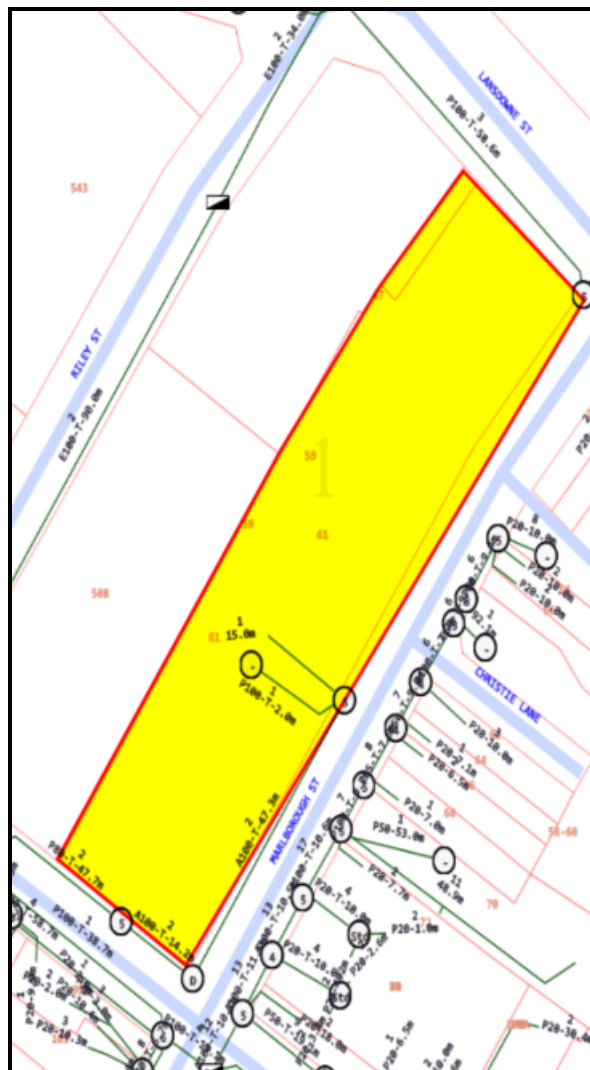


Figure 14 – NBN Infrastructure in the Vicinity of the Site (Source: NBN)

An application to NBN will be required to service the residential development.

Further information regarding other Telco providers can be made available upon request.

5.4 Summary and Conclusions

The major Telco's / NBN all have infrastructure in the vicinity of the site and can easily cater for the proposed new development.

6. STORMWATER

6.1 Stormwater Infrastructure in the Vicinity of the Site

The City of Sydney Council will require an alternate source of water in addition to the Sydney Water mains. Thus, a Rainwater tank will be required to meet this requirement. The required volume of the Rainwater tank will be based on the BASIX requirement, or at least 10,000 litres to collect roof areas only. The collected rainwater will be reticulated using a rainwater harvesting system and as per BASIX requirements.

This site will require an On-Site Detention System (OSD) as per Sydney water requirements. The stormwater from the site can be connected to the council's inground stormwater infrastructure along Marlborough Street, as shown in Figure 15.



Figure 15 – Stormwater Infrastructure in the Vicinity of the Site (Source: Google Maps).

A proper sediment and erosion control plan and system must be placed to protect the stormwater infrastructure during construction.

Redevelopment of the site will require installation of water filtration measures as part of the Water Sensitive Urban Design (WUSUD) to meet the City of Sydney water quality parameters.

6.2 Flooding within the Vicinity of the Site

This site is affected by overland flows along the Marlborough and Goodlet Street. Flood Planning control may apply to this site. Refer Figure 16 for flood extent during 1% AEP storm events.



**Figure 16 – Flooding Extent during 1% AEP Flood Event within the Vicinity of the Site
(Source: Alexandria Canal Flood Model).**

6.3 Summary and Conclusions

There is adequate stormwater infrastructure in the vicinity of the site and can easily cater for the proposed new development. The redevelopment will necessitate OSD, Rainwater Tank and WUSUD Measure as part of stormwater requirements from City of Sydney Council and Sydney Water. The site is affected by overland flooding and flood controls may apply per council's requirements.

7. MAINS WATER

7.1 Water Maximum Demand

Water maximum demand has been estimated as follows:

- Cold Water 90 kL/day;
- Fire Hydrant System 20 L/sec; Sprinkler System 21.6 L/sec;
- A new fire tank will be required for the sprinkler system or combined hydrant and sprinkler system. Expecting tank capacity to be 90kL at this stage.

7.2 Existing Services

There are no major water services within the site (except for private services) that will need to be decommissioned and/or diverted.

Any minor water services within the site servicing the respective buildings can be readily decommissioned during demolition.

7.3 Mains Water Infrastructure in the Vicinity of the Site

Sydney Water is the responsible authority for the provision of potable water to the site.

A 150 mm diameter CICL water main in Marlborough St. is expected to be the point of connection for the development.

Figure 17 below indicates the Sydney Water mains water infrastructure in the vicinity of the site.

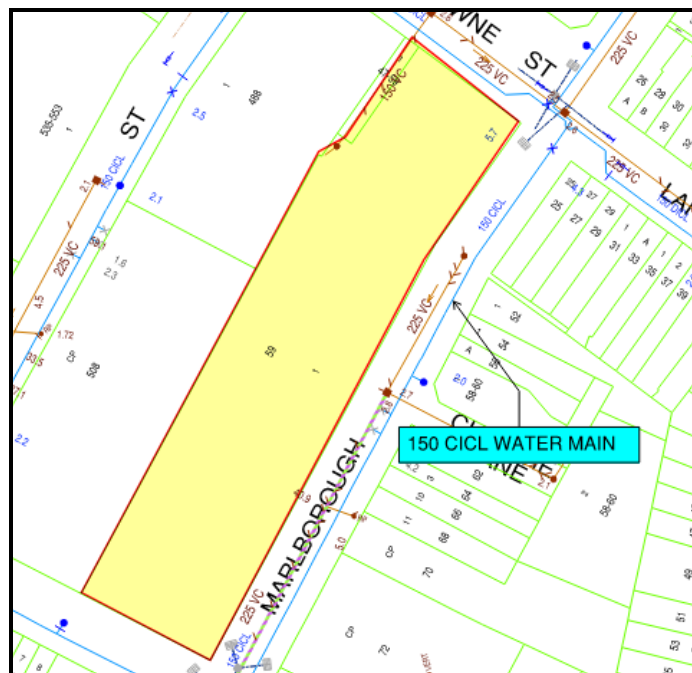


Figure 17 – Sydney Water Sewer/Water Diagram (Source: Sydney Water)

7.4 Summary and Conclusions

A pressure and flow result will be required to verify the capacity of existing water main in the vicinity of the site and its suitability for the proposed development.

A new combined 150mm water main tap in will be required off the Marlborough St. main.

A new 90kL fire tank will be required for the sprinkler system or combined system.

8. SEWER

8.1 Sewer Maximum Demand

Sewer maximum demand has been estimated as follows:

- Sanitary / Sewer Discharge 80 kL/day.

8.2 Existing Services

There are no major sewer services within the site that will need to be decommissioned and/or diverted.

Any minor water services within the site servicing the respective buildings can be readily decommissioned during demolition.

8.3 Sewer Infrastructure in the Vicinity of the Site

Sydney Water is also the responsible authority for the provision of sewer services to and through the site.

The DBYD information indicates a DN150 diameter sewer main that runs within the northern easement of the site and a DN225 in Marlborough Street as outlined in Figure 18. Both mains can collectively service the site and will have adequate capacity to cater for the drainage services requirements of the proposed development.

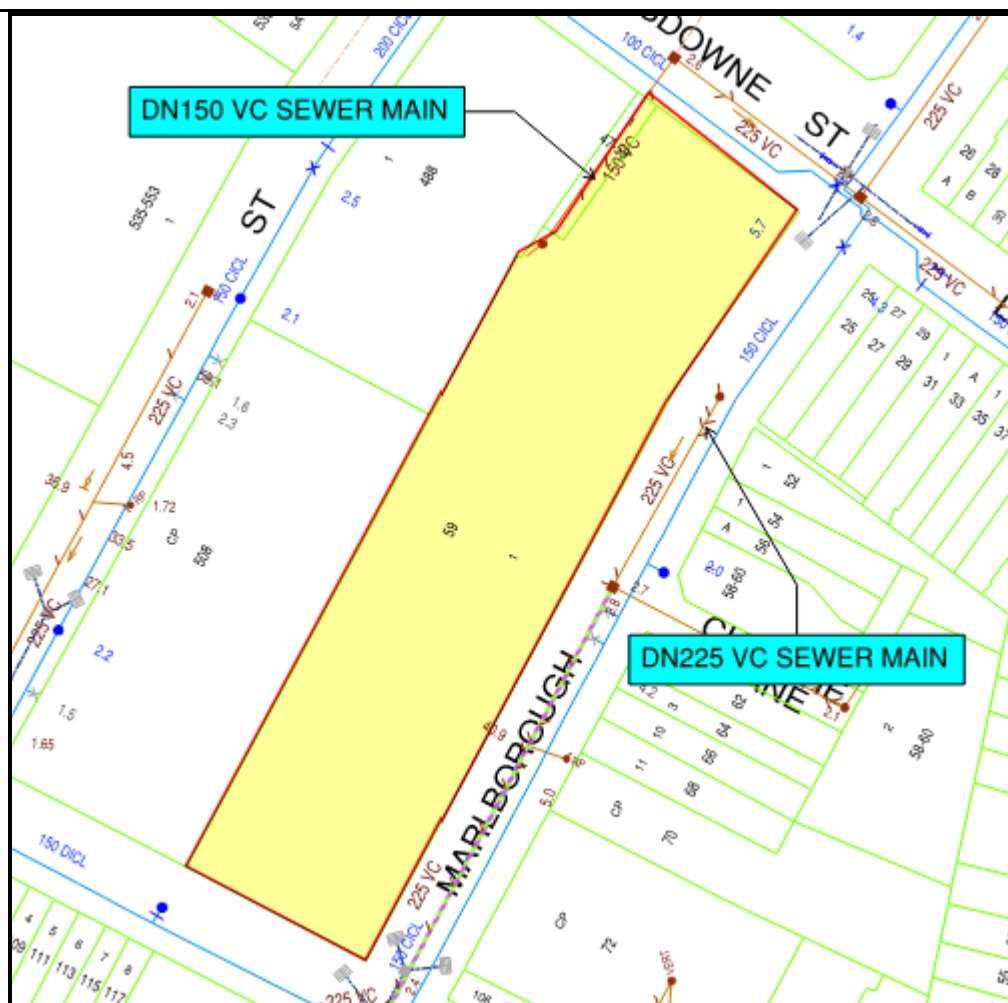


Figure 18– Sydney Water Sewer/Water Diagram (Source: Sydney Water)

8.4 Summary & Conclusions

There is adequate sewer infrastructure in the vicinity of the site and can easily cater for the proposed new development.

9. CONCLUSION

In conclusion, it is evident that the implementation of this development will not yield any profound or drastic effects on the surrounding authority services. This conclusion is based on a comprehensive examination of the potential implications, taking into account factors such as the scope and scale of the development, the existing infrastructure in the surrounding area, and the capacity of the authority services to adapt and accommodate any change

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