

Infrastructure Requirements and Utilities Report



INTEGRAL

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Date: 27th October 2021
Project Name: St Aloysius College Rozelle
Project No: 610192
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Revision: A

1 Introduction

This Infrastructure Requirements and Utilities Report has been prepared by Integral Group on behalf of St Aloysius' College (the 'Applicant'). It accompanies an Environmental Impact Statement (EIS) prepared in support of State Significant Development Application SSD-27208140 for the redevelopment of 'St Aloysius' College – Rozelle Campus' (the 'Site').

St Aloysius' College is proposing to undertake an internal fitout and adaptive reuse of 48 Victoria Road, Rozelle.

The purpose of this report is to make recommendations regarding available infrastructure and required upgrade works for the following services;

- Water Supply for Potable Use
- Water Supply for Fire Services
- Sewer Drainage
- Electrical Supply
- Communications Services

The proposed development has been assessed against all relevant standards/guidelines, including the following:

- Sydney Water Regulations
- Ausgrid Regulations
- SEARs Application number SSD-27208140, relevant clauses;

17. Infrastructure Requirements and Utilities

In consultation with relevant service providers:

- *assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site.*
- *identify any infrastructure upgrades required on-site and off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained.*
- *provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development.*

2 Electrical and Communications

2.1 Electrical

2.1.1 Existing Electrical Infrastructure

The buildings power supply is a 3 phase overhead wire connection from pole LE07389 located on Victoria road. Initial observations suggest it be supplied from substation 48496 located across Gordon street in the Sydney Community Collage carpark. This will be confirmed with receipt of the design information pack.

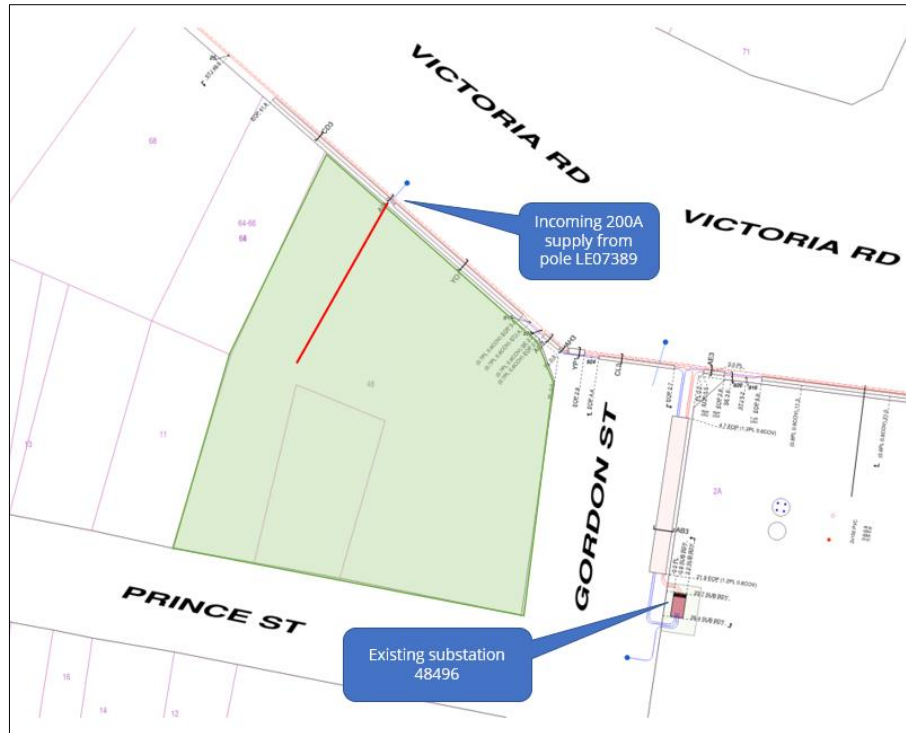


Fig 2.1 – Ausgrid DBYD Power Infrastructure

The main switchboard is located at the western end of the ground floor beneath the staircase to the first floor. The consumer mains cables pass through an SPD and a CT metering box before connecting to the MSB from below.

The metering information suggests an existing 200A 3Ø supply to the main switchboard located at the western end of the ground floor. The MSB supplies mechanical switchboards on the ground and first floor as well as the general lighting and power switchboard. The authority metering NMI is K4 NMI4102010264.



Fig 2.2 – Existing MSB

2.1.2 Electrical Infrastructure Requirements

Due to the condition and location of the MSB, it is proposed that this be replaced and situated in a more suitable location. The new MSB shall be within a 2h fire rated cupboard or room.

The existing 200A supply is sufficient for the proposed development.

2.2 Communications

2.2.1 Existing Communications Infrastructure

An existing Telstra ADSL line extends into the buildings comms rack located at the eastern end of the building at ground floor level.

It is expected that this will be made redundant with the proposed development.

2.2.2 Communications Infrastructure Requirements

The existing ADSL is to be replaced with a new fibre connection to adequately support the proposed development's bandwidth requirements. Application for the new fibre connection will be submitted during design development.

3 Hydraulics / Wet Fire

3.1 Sewer Drainage

3.1.1 Existing Sewer Infrastructure

Sewer drainage collects from internal fixtures and fittings and discharges to the Sydney Water sewer on the Western boundary of the site.

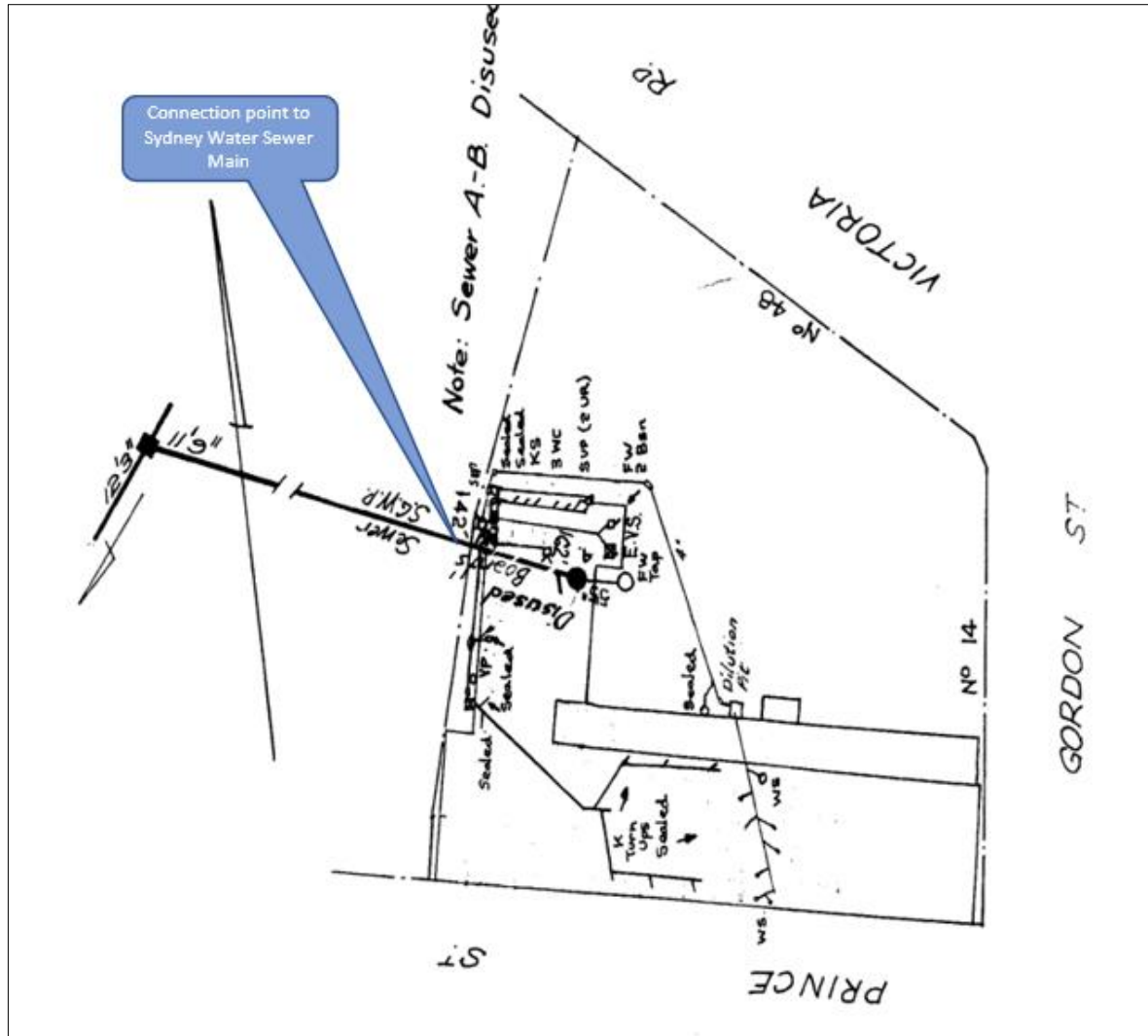


Fig 3.1 – Sydney Water Sewer Service Diagram

3.1.2 Sewer Infrastructure Requirements

The capacity of the existing sewer connection is suitable for the proposed redevelopment works.

3.2 Water Supply

3.2.1 Existing Water Infrastructure

The site water meter is located on the eastern boundary of the property, adjacent to the driveway entry. The existing water meter is 40mm. The existing water supply likely extends from the 150mm dia Gordon Street water main. A flow and pressure enquiry has been lodged to determine the capacity of this main however it has not been received at this time.



Fig 3.2 – Main Water Meter



Fig 3.3 – Water Meter Location

3.2.2 Water Infrastructure Requirements

The flow capacity of the existing water meter is suitable for the proposed redevelopment works. The existing water meter does not feature a backflow assembly, which is required in line with current Sydney Water requirements. The addition of a backflow assembly will reduce the pressure supply to the building. This will be considered with the available mains pressure on receipt of the flow and pressure enquiry. If required a fire hose reel pump and / or CW booster pump will be provided.

3.3 Fire Hydrants

3.3.1 Existing Fire Hydrant Infrastructure

Existing Hydrant coverage is provided from street hydrants located on the water mains in Victoria Road and Gordon Street. Both Water mains are 150mm dia.

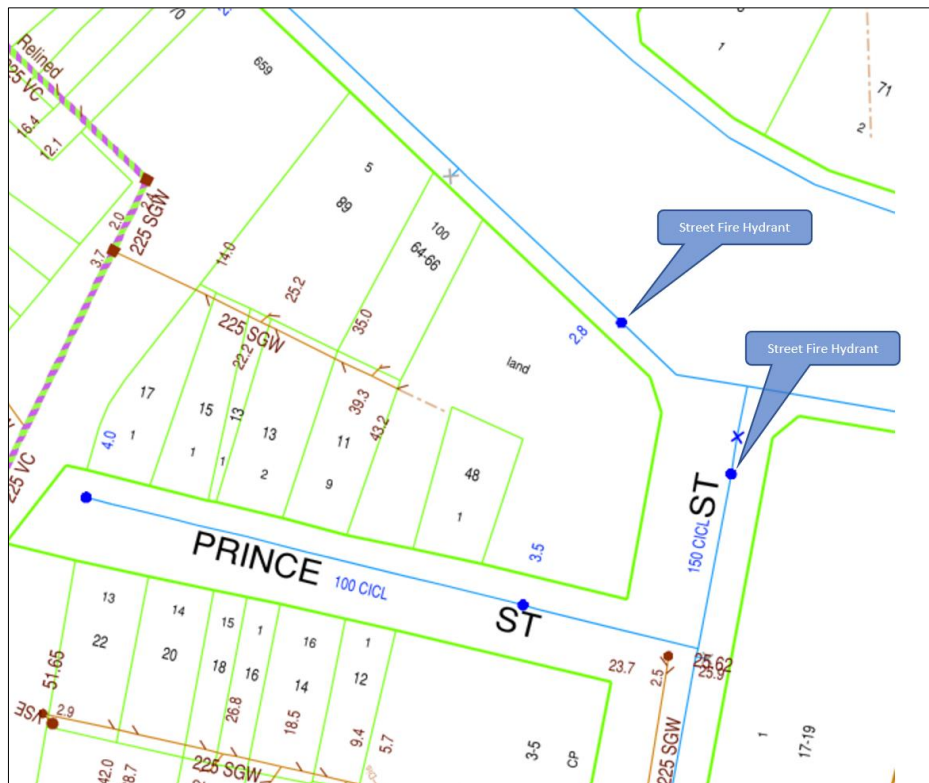


Fig 3.3 – Street Hydrants

3.3.2 Fire Hydrant Infrastructure Requirements

Hydrant coverage to the new development will be achieved from these existing fire hydrants.