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Where ingenuity flows

Schofields Public School Extension

Hydraulic Infrastructure Assessment

Issue P1

Job No: 20160198

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Hydraulic Infrastructure Assessment



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Client NSW Department of Education

Document History

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1 Introduction

The purpose of this brief is to outline the Authorities infrastructure services available to serve the proposed extension of Public School in Schofields and to provide design assumptions and recommendations for the proposed work.

The Authority services covered in the brief include the following:

Service	Authority
Water/Sewer	Sydney Water
Natural Gas	Jemena Gas Networks Pty Ltd

This brief has been prepared based on information obtained from services authorities and available existing services drawings.

2 Limit of Assessment

This assessment has been prepared with assumption that the lots comprising Schofields Public School site will be consolidated as part of school extension.

Stormwater drainage design is being commissioned by the civil engineer and does not form part of our scope of works.

3 Project Overview

Based on the current information originating from Sydney Water, Jemena, existing services drawings and site survey, we understand the following:

3.1 The Site

1. That the NSW Department of Education have commissioned TKD Architects to prepare a concept plan for the extension of Schofields Public School.
2. That the site consists of two corner lots between St Albans Road, Junction Road and Station Street, with main access from St Albans Road.

3.2 The proposed development

The details of proposed development are yet to be developed by TKD Architects.

3.3 The Authority Infrastructure

3.3.1 Water Infrastructure

Based on information obtained from Sydney Water (see Figure 1 below), Schofields Public School site is surrounded by four water main lines:

- 200 CICL in St Albans Rd
- 100 oPVC and 100 CICL in Junction Rd
- 125 PE in Station Street

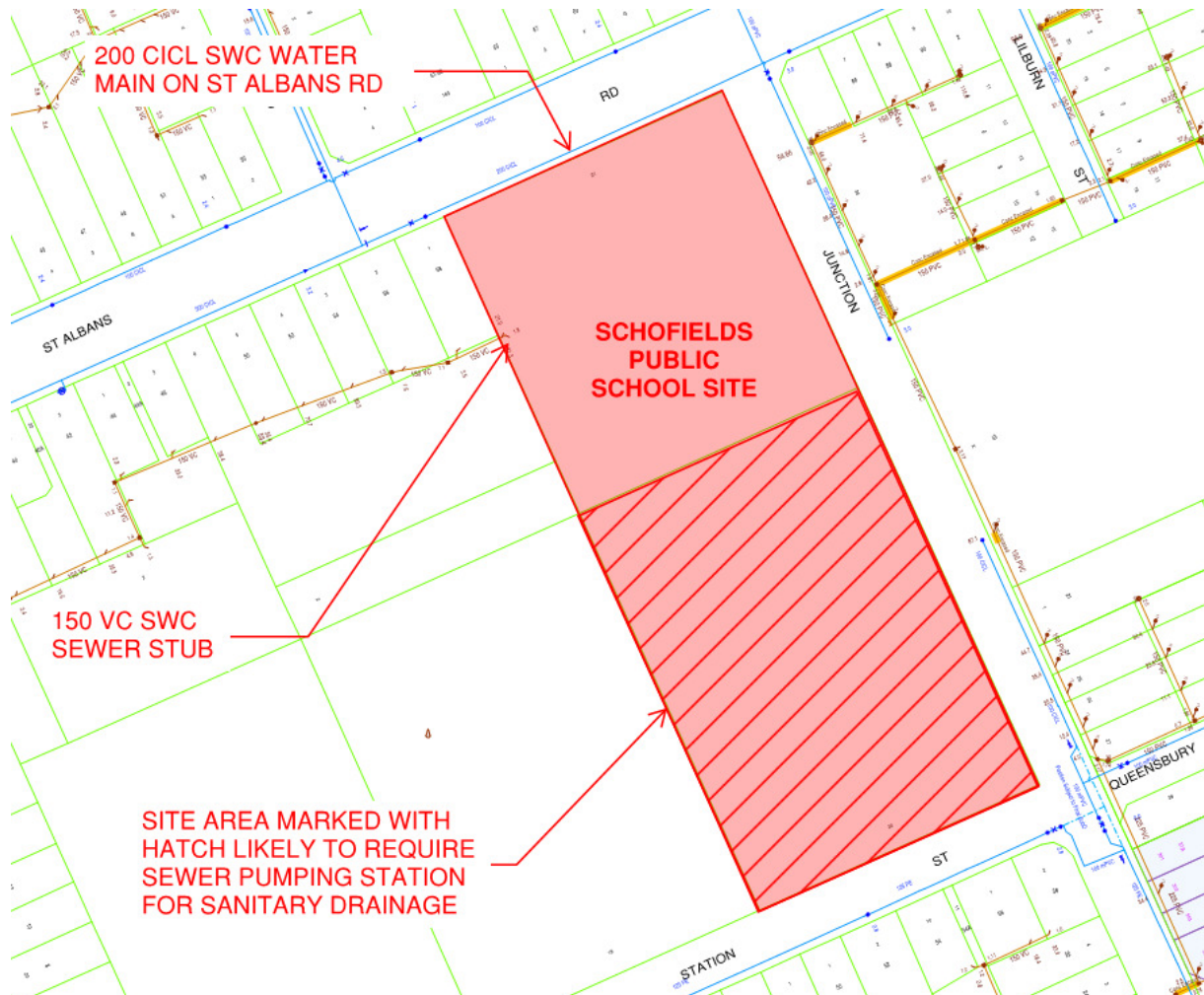


Figure 1 – Extract from SWC Hydra map

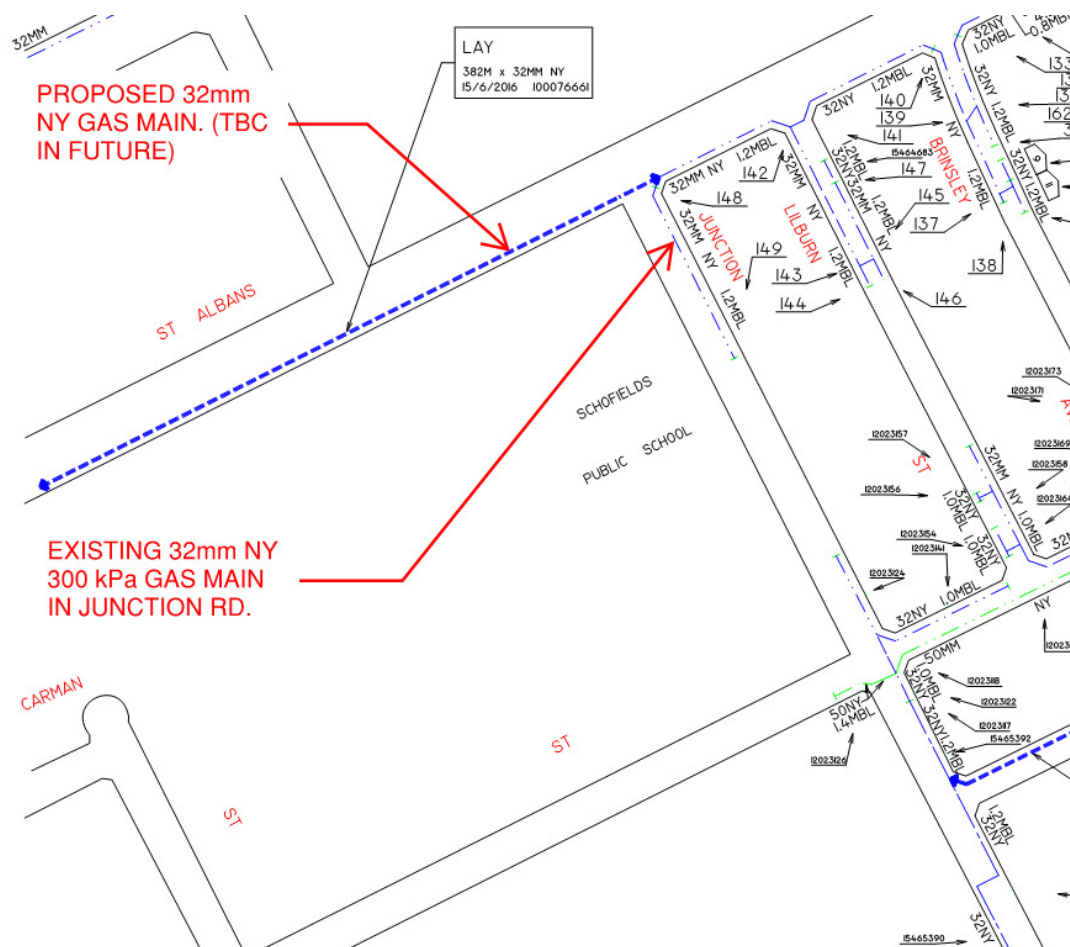
Due to its location, size and potential capacity, it is assumed that any upgrades or new connection should come from a connection to the 200 CICL water main in St Albans Road, subject to Section 73. Based on existing services drawings and site survey, it appears that current site water supply is coming from the aforementioned main in St Albans Rd. However, this needs to be verified on site in cause of services inspection, which is yet to be conducted.

3.3.2 Sewer Infrastructure

Based on information obtained from Sydney Water (see Figure 1 above), there is a sewer main connection point on western boundary of Schofields Public School site connecting to 150 VC SWC sewer main, which drains away further in south-western direction via adjacent properties. The information on connection invert levels and site reduced levels from the latest survey and SWC Hydra

AJ Whipps has requested a Sewer diagram from Sydney Water for the existing Sanitary Drainage on Schofields Public School site, and will conduct further assessment.

Based on information obtained from Jemena, a new 32 mm NY gas main is proposed to be laid in St Albans Road in the future. An existing 300 kPa 32 mm NY gas main is installed in Junction Rd in the vicinity of the site. Any current and future gas demand shall be assessed; however, it appears that a connection can be made to the gas main in the Junction Road.



3.4 Section 73 certificate

The engagement of a Water Services Coordinator to be the point of contact with Sydney Water is required to make the application.

Once the application is assessed Sydney Water will supply a Notice Of Requirements which may stipulate mains upgrading, point of connection etc.

4.1 Fire Hydrant Services

Consultation with the project BCA Consultant is required to confirm if proposed Schofields Public School, including extension works, will require Fire Hydrant system.

Fire Hydrants are required to be installed for the new buildings to ensure full coverage can be provided to all parts of the building where the building has a floor area greater than 500m², based on BCA Consultants advice.

A combination of external and internal Fire Hydrants may be required to be installed for the new buildings to ensure full coverage can be provided to all parts of the building, subject to final confirmation of Fire Hydrant Booster Assembly location.

A fire hydrant booster assembly will need to be installed to meet all current codes and standards.

A Backflow prevention valve will need to be installed to meet Sydney Water requirements.

AJ Whipps has requested a flow and pressure statement from Sydney Water. Based on the pressure and flow statement, a fire hydrant pumps and/or tanks may be required.