Meriden School

State Significant Development Application Hydraulic Services Report



Prepared for: Prepared by:

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Revision

Revision	Date	Comment	Approved by
000	19.03.19	Client Review	MB
001	17.04.19	Client Review	MB
002	06.05.19	Client Review	MB

MERIDEN SCHOOL

Contents

Contents
Introduction
Scope of Services
Project Description4
Section 4.12(8) of the Environmental Planning and Assessment Act of the Environmental Planning Assessment Regulation 2000
Appendix A
Sydney Water Dial Before You Dig and Site Plan-Senior School Campus
Appendix B
Sydney Water Dial Before You Dig and Site Plan-Lingwood Prep School9
Appendix C
Sydney Water Dial Before You Dig – Junior School
Appendix D
Communication with Sydney Water Infrastructure Capacity

Introduction

The State Significant Development Application (SSDA) Hydraulic Services Infrastructure Brief has been prepared at the request of Allen Jack and Cottier for proposed development master plan at Meriden School at 10-12 Redmyre Road, Strathfield

The proposed development to each three sites is located from Secondary School, Junior School and Prep School.

- Senior School Campus New Centre for Music and Drama
- Lingwood Prep School New Administration and Student Centre
- Junior School New Landscaped Playground

This report comprises of Harris Page and Associates review of SSDA report for the proposed development and services information received from each Authority and design intent.

Scope of Services

Authority Hydraulic Services included within this assessment are as follows:

Service	Authority	
Sewer Drainage	Sydney Water Corporation	
Potable Cold Water	Sydney Water Corporation	
Gas (Natural)	Jemena	

Project Description

The proposed State Significant Development Application (SSDA) comprises development on each of the three Meriden School campuses. The primary objective of the proposal is to improve the current school facilities to cater for the increased demand for high quality music teaching and learning spaces, , additional administration and student facilities and increasing the playground area in the Junior School Campus.

The proposed works comprise the following:

Site 1: Senior School Campus - New Centre for Music and Drama

Demolition of the existing music building located towards the south-western corner of the Senior School Campus, and construction of a new 3-storey building incorporating a new music academy, drama facilities, music teaching rooms and staff facilities. Excavation to a depth of 6m below existing ground level to accommodate practice rooms, a recording studio, instrument storage rooms, staff room and drama performance area.

Site 2: Lingwood Prep School - New Administration and Student Centre

Demolition of existing single storey Business Office building and construction of a new 2- storey general student services and administration building. The new building will be designed with maximum flexibility to accommodate a wide range of uses, and to adapt with the demands of the school. This will involve the removal of 6 trees.

<u>Site 3: Junior School - New Landscaped Playground:</u>

Demolition of the existing residential dwelling at 4 Vernon Street to make way for a new landscaped playground area. This will involve the removal of 3 trees. The existing access and parking arrangements will be retained.

Section 4.12(8) of the Environmental Planning and Assessment Act of the Environmental Planning Assessment Regulation 2000

Senior School Campus - New Centre for Music and Drama

Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation requirements of the development for the provision of utilities including staging of infrastructure.

Music and Drama Centre hydraulics services will connect to the school internal potable cold water, fire services and gas services mains for the building hydraulic demands.

Sydney Water

<u>Potable Cold Water</u> – The potable cold-water supply will be taken from school internal water main and make connection to the new Music and Drama Centre in accordance with the relevant Australian Standards.

<u>Fire Services</u> – With the fire hydrants system will be taken from school internal water main and make connection to the new Music and Drama Centre in accordance with the relevant Australian Standards.

<u>Sewer</u> – With the sewer system will require a new connection to Authority sewer located inside the school property in accordance with the relevant Australian Standard and Sydney Water Guidelines (Appendix A).

<u>Iemena</u>

Gas – With the gas system taken from school internal gas system, any alterations and additions to will require connection from the building to meet proposed changes to the building in accordance with the relevant Australian Standards.

Conclusion

The potable cold water and fire services internal water mains has sufficient capacity to meet the propose development demands.

Once the D.A is received an application can be made to Sydney Water for "Notice of Requirements "to assess the Authority Sewer Main has sufficient capacity to cope with sanitary drainage flow requirements from the development.

Prepare an Integrated Water Management Plan Detailing any proposed alternative water supplies, proposed end uses of potable and non-potable water and water sensitive urban design.

Approximately $791m^2$ of the roof shall reticulate to the rainwater reuse tank for the development. Once the rainwater reuse tank is full, the overflow from the tank will discharge in stormwater line through the detention tank.

The installation of rainwater reuse tank sized at 30KL is to serve the development irrigation and sanitary fixtures. Potable cold water will top up the rainwater tank in periods when there is no rainfall.

Lingwood Prep School - New Administration and Student Centre

Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation requirements of the development for the provision of utilities including staging of infrastructure.

Administration and Student Centre hydraulics services will connect to the school internal potable cold water, fire services and rainwater reuse for the building hydraulic demands.

Sydney Water

<u>Potable Cold Water</u> – The potable cold-water supply will be taken from school internal water main and make connection to the new Administration and Student Centre in accordance with the relevant Australian Standards.

<u>Fire Services</u> - With the fire hydrants system will be taken from school internal water main and make connection to the new Administration and Student Centre in accordance with the relevant Australian Standards.

<u>Sewer</u> – With the sewer system will require a new connection and extension of the side line from the Authority sewer main on Margaret Street. The extension of the side line will require Water Services Coordinator to provide a design for the minor works in accordance with the relevant Australian Standard and Sydney Water Guidelines (Appendix B).

<u>Iemena</u>

Gas – The gas system is not required for the development to serve fixture and appliances.

Conclusion

The potable cold water and fire services internal water mains has sufficient capacity to meet the propose development demands.

Once the D.A is received an application can be made to Sydney Water for "Notice of Requirements "to assess the Authority Sewer Main has sufficient capacity to cope with sanitary drainage flow requirements from the development.

Prepare an Integrated Water Management Plan Detailing any proposed alternative water supplies, proposed end uses of potable and non-potable water and water sensitive urban design.

The installation of rainwater reuse tank sized at 30KL was installed for the Stage 1 of Lingwood Campus to serve the development irrigation and sanitary fixtures. Provision for the new Administration and Student Centre was made in the design development for Stage 1 to serve the sanitary fixtures inside the building. Potable cold water will top up the rainwater tank in periods when there is no rainfall.

Junior School - New Landscaped Playground

Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation requirements of the development for the provision of utilities including staging of infrastructure.

New Landscaped Playground hydraulics services will connect to the school internal potable cold water for the development building hydraulic demands.

Svdney Water

<u>Potable Cold Water</u> – The potable cold-water supply will be taken from school internal water main and make connection to serve fixtures and irrigation (Appendix C).

<u>Sewer</u> - Requires individual connection to the Authority sewer main (225mm) on Vernon Street Strathfield to reticulate to property to serve sanitary fixtures (Appendix C).

Conclusion

The potable cold water internal water mains has sufficient capacity to meet the propose development demands.

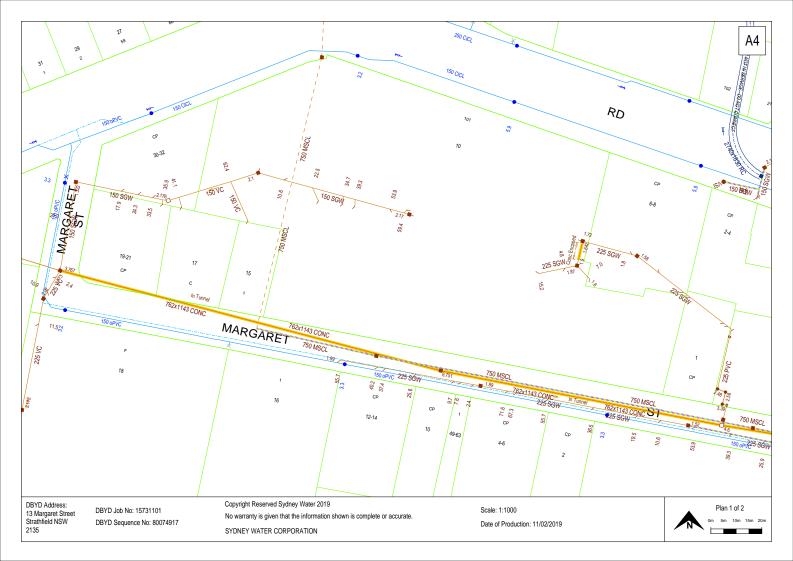
Once the D.A is received an application can be made to Sydney Water for "Notice of Requirements "to assess the Authority Sewer Main has sufficient capacity to cope with sanitary drainage flow requirements from the development.

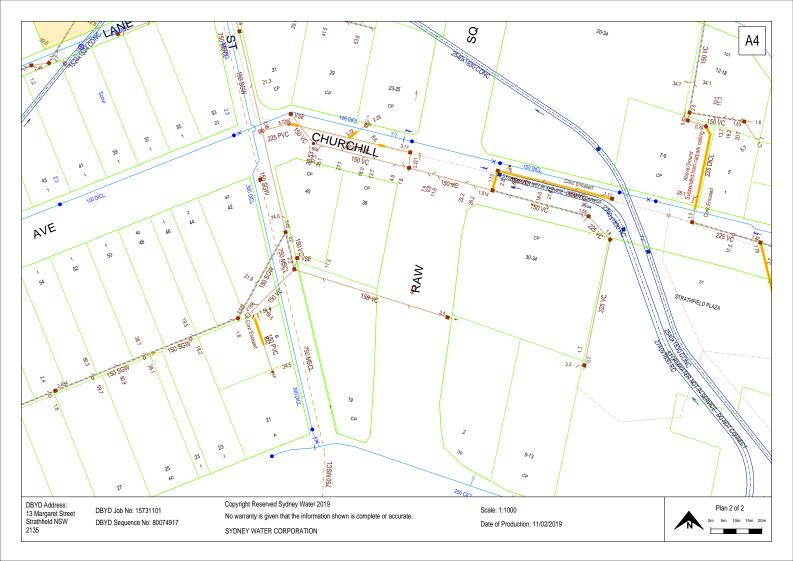
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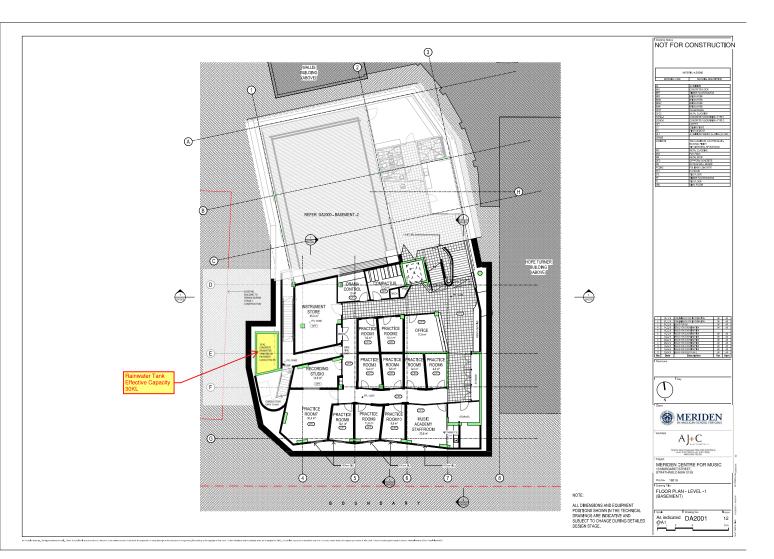
Appendix A

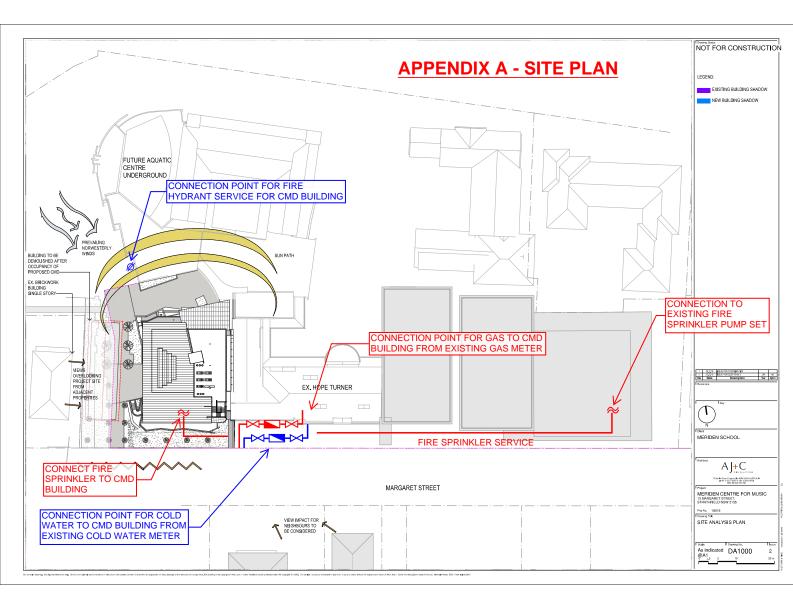
Sydney Water Dial Before You Dig and Site Plan-Senior School Campus

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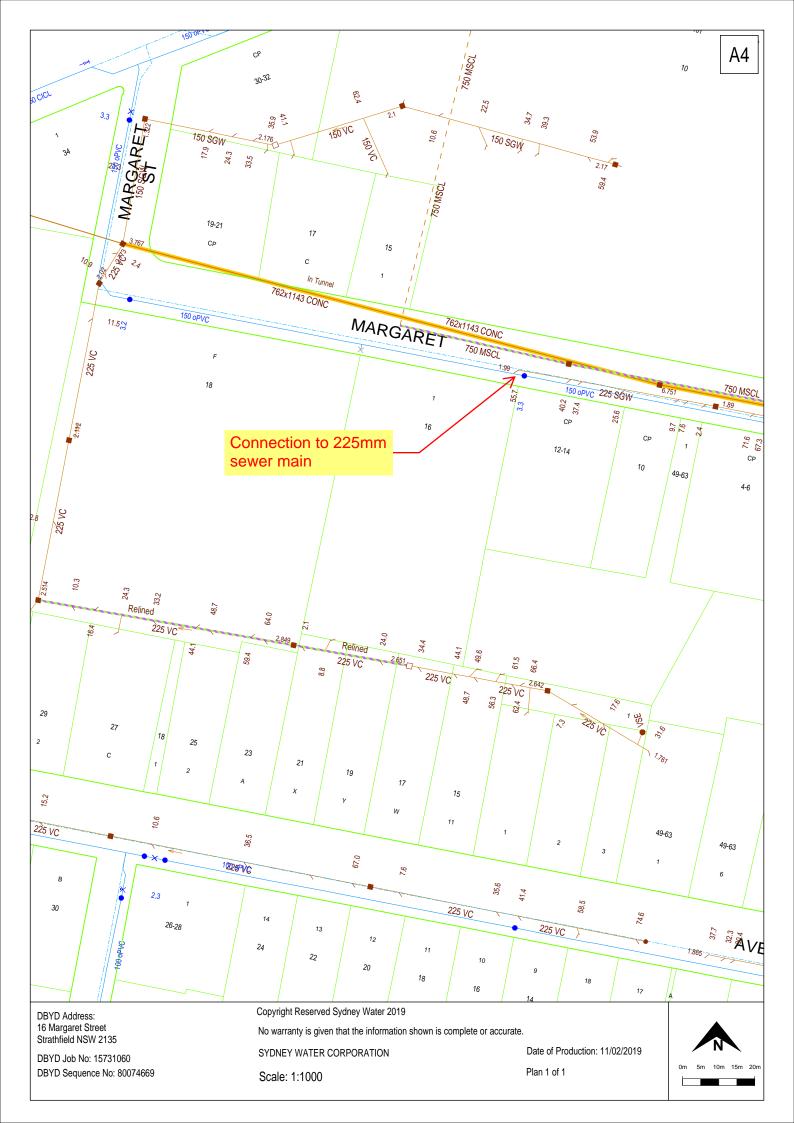


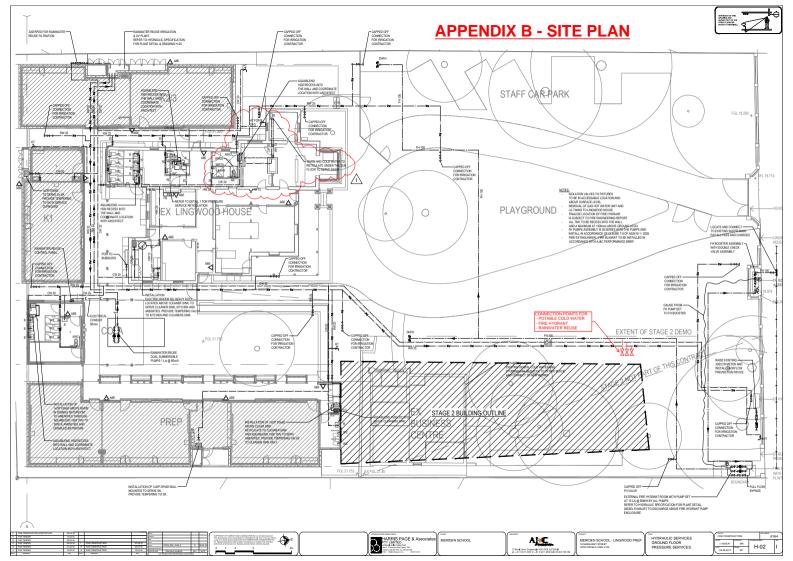


Appendix B

Sydney Water Dial Before You Dig and Site Plan-Lingwood Prep School

MERIDEN SCHOOL HYDRAULIC SERVICES ASSESSMENT

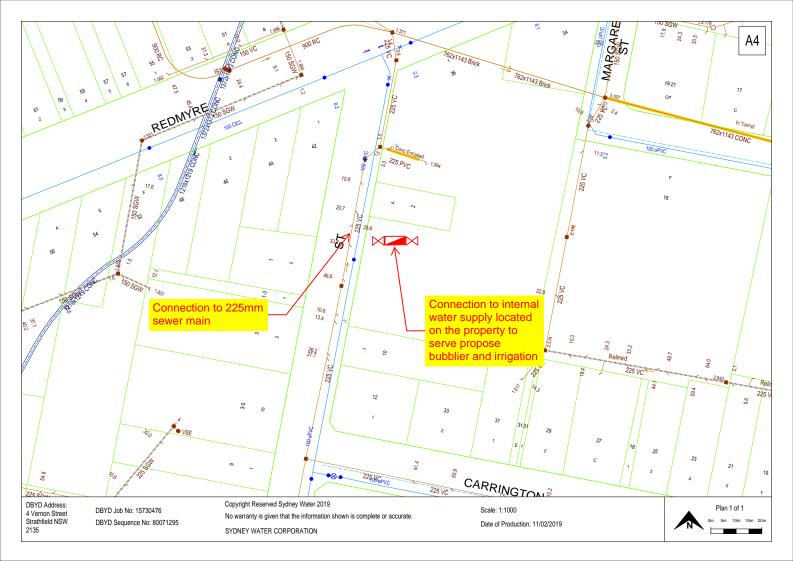




Appendix C

Sydney Water Dial Before You Dig - Junior School

MERIDEN SCHOOL PAGE 10



Appendix D

Communication with Sydney Water Infrastructure Capacity

MERIDEN SCHOOL

info

From: Mark Bramble

Sent: Friday, 10 May 2019 4:30 PM

To: info

Subject: FW: Meriden SSDA services consultation

From: Mark Bramble

Sent: Tuesday, 7 May 2019 9:54 AM

To: Steven Penellum (steven@rmai.com.au) <steven@rmai.com.au>

Subject: FW: Meriden SSDA services consultation

Steven,

As discussed this morning can you please confirmed Sydney Water will not review the capacity of their infrastructure for propose developments until you have D .A. Once D.A is received you lodge a Sydney Water "Notice of Requirements" which Sydney Water will confirm if you can connect to their infrastructure or there infrastructure needs to be amplify/extended.

Regards

Mark Bramble

Hydraulic Services Consultant



Hydraulic & Fire Services Consultants

Level 2, 32 Carrington Street Sydney NSW 2000

Tel: 02 9262-1600 Fax: 02 9262-6385 Mob: 0439 331 608

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From: Mark Bramble

Sent: Monday, 6 May 2019 3:21 PM

To: Anna Wang <awang@urbis.com.au>; Giselle Moore <Giselle.Moore@architectsajc.com>

Cc: Sarah Horsfield <shorsfield@urbis.com.au>; Anthony Di Cristo <Anthony.DiCristo@architectsajc.com>; Mark

Louw < Mark. Louw@architectsajc.com >

Subject: RE: Meriden SSDA services consultation

Anna,

Please refer to Authority connections to each site below for CMD , Lingwood and 4 Vernon St for Sydney Water and Jemena .

CMD – The only Authority connection for the development (Sydney Water) is the sewer connection (there is no connection require for the gas and cold water will connect to the school internal mains). Sydney Water will not review the capacity of their infrastructure for propose developments until you have D .A. Once D.A is received you lodge a Sydney Water "Notice of Requirements " which Sydney Water will confirm if you can connect to their infrastructure or there infrastructure needs to be amplify.

Lingwood – The only Authority connection for the development (Sydney Water) is the sewer connection (there is no connection require for the gas and cold water will connect to the school internal mains). Sydney Water will not review the capacity of their infrastructure for propose developments until you have D .A. Once D.A is received you lodge a Sydney Water "Notice of Requirements" which Sydney Water will confirm if you can connect to their infrastructure or there infrastructure needs to be amplify.

4 Vernon – The only Authority connection for the development (Sydney Water) is the sewer connection(there is no connection require for the gas and cold water will connect to the school internal mains). Sydney Water will not review the capacity of their infrastructure for propose developments until you have D .A. Once D.A is received you lodge a Sydney Water "Notice of Requirements " which Sydney Water will confirm if you can connect to their infrastructure or there infrastructure needs to be amplify .

Regards

Mark Bramble

Hydraulic Services Consultant



Hydraulic & Fire Services Consultants

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From: Anna Wang <a wang@urbis.com.au>
Sent: Monday, 6 May 2019 10:42 AM

To: Giselle Moore < <u>Giselle.Moore@architectsajc.com</u>>; Mark Bramble < <u>mbramble@harrispage.com.au</u>>

Cc: Sarah Horsfield <shorsfield@urbis.com.au>; Anthony Di Cristo <Anthony.DiCristo@architectsajc.com>; Mark

Louw < Mark.Louw@architectsajc.com >

Subject: RE: Meriden SSDA services consultation

Hi Giselle.

I have discussed with Sarah this morning, to satisfy the SEARs requirement, we do need to demonstrate that we have attempted to consult with the relevant service provider, such as Ausgrid and Sydney Water. Given the urgency of the project, we don't necessarily need a response from the agencies, but we do need to include the letter/email correspondence in the utilises and infrastructure reports.