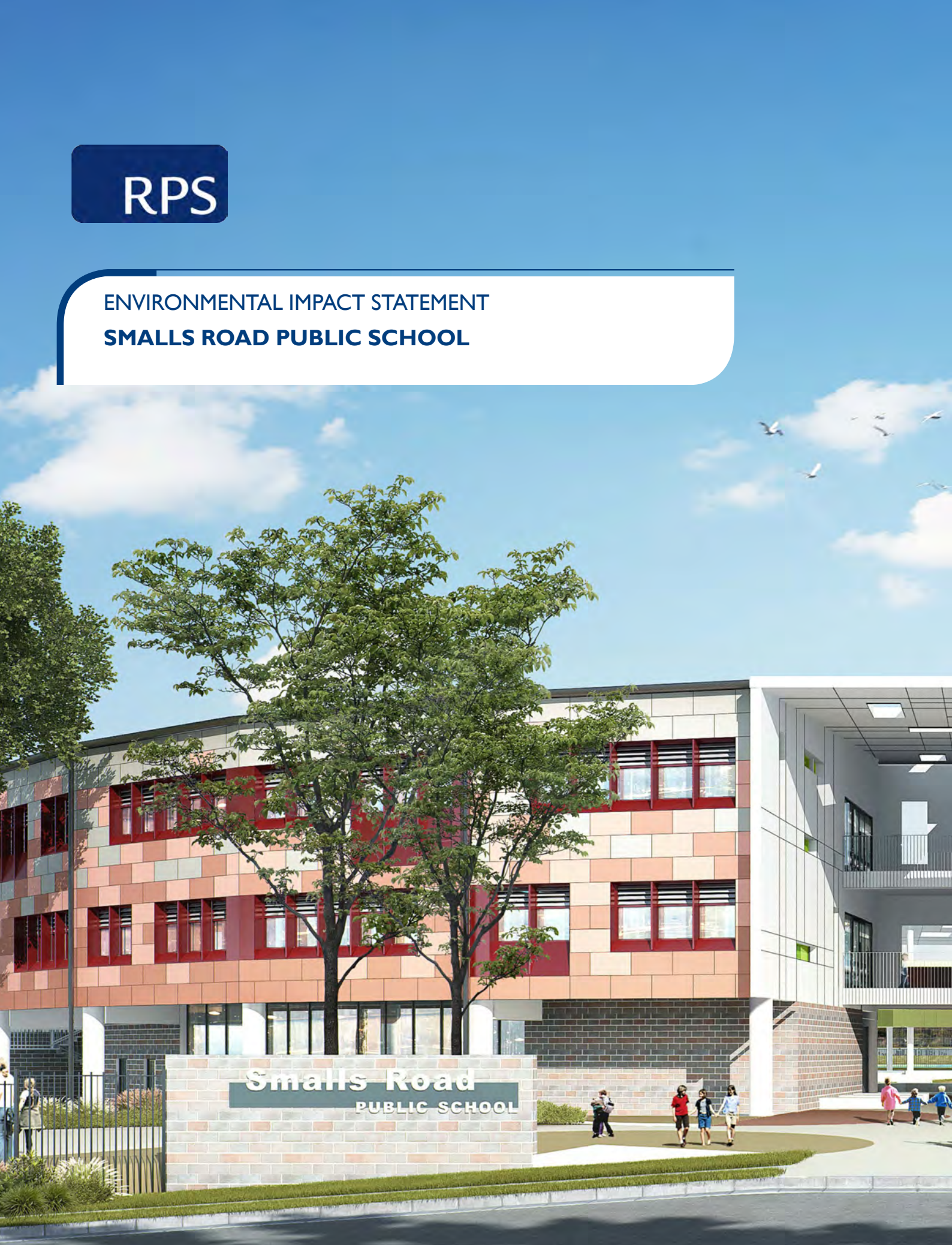
RPS

ENVIRONMENTAL IMPACT STATEMENT

SMALLS ROAD PUBLIC SCHOOL



Prepared for the NSW Department of Education
October 2017

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DOCUMENT STATUS

Version	Purpose of Document	Orig	Review	Review Date
1	Draft for Client Review	JG	CM	5 October 2017
2	Final to Client	CM	LB	20 October 2017

APPROVAL FOR ISSUE

Name	Signature	Date
Louise Bochner		20 October 2017

Contents

Appendix

Signed Declaration

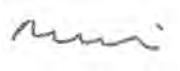
This Environmental Impact Statement (EIS) has been prepared in accordance with Schedule 2 of the *Environmental Planning and Assessment Regulation 2000.*

Environmental Assessment Prepared by	
Name:	Claire Muir
Address:	RPS Australia East Pty Ltd Level 13, 255 Pitt Street (GPO Box 4401, Sydney NSW 2001) Sydney, NSW, 2000 Australia
In respect of:	New South Wales Department of Education

Applicant Details	
Applicant:	New South Wales Department of Education
Applicant Address:	35 Bridge Street Sydney NSW 2000
Land to be developed:	Lot 1 DP830420
Project:	Smalls Road Public School

I certify that the contents of the Environmental Impact Statement to the best of my knowledge, has been prepared as follows:

- In accordance with the requirements of the *Environmental Planning and Assessment Regulations 2000*; and *State Environmental Planning Policy (State and Regional Development) 2011*;
- The statement contains all available information that is relevant to the environmental assessment of the proposed development; and
- To the best of my knowledge the information contained in this report is neither false nor misleading.

Name: Claire Muir
Signature: 
Date: 20 October 2017

Executive Summary

Purpose of this report

This Environmental Impact Assessment (EIS) has been prepared by RPS for the NSW Department of Education (DoE) in support of State Significant Development Application (SSD) 17-8372 for the proposed development of Smalls Road Public School located at 3B Smalls Road, Ryde.

The EIS should be read in conjunction with the Secretary's Environmental Assessment Requirements (SEARs) issued on 1 May 2017 and the supporting technical documents attached.

Figure 1.1 Architectural Concept (Source: Conrad Gargett AMW)

The Proposal

The DoE is proposing to construct a new public primary school on the former Ryde High School site located at Smalls Road, Ryde. The proposed development will cater for the existing and forecasted population growth within the Ryde Local Government Area (LGA), as well as, ease 'pressure' of the surrounding public schools in the locality, most notably Kent Street Public School and Denistone East Public School. The proposal will accommodate 1,000 students when at full capacity which will incrementally be reached over a 25 year time period.

The school will be a contemporary design comprising one (1) circular building with 43 home bases (including three (3) for special education) as well as, multi-function rooms, a two (2) level library, school hall, out of school hours care facilities (OOSH), along with indoor and outdoor recreational facilities.

Specifically, the EIS seeks development consent for the following works at the site:

- Construction of one (1) new three (3) storey circular multi-purpose school buildings containing;
  - Home bases i.e. 43 which includes three (3) for special education purposes;

  - Library;
  - School hall;
  - Out of school hours care facilities (OOSH);
  - Offices for teaching and administration staff;
  - Canteen; and
  - Covered outdoor learning areas (COLA).
- Associated building identification signage;
- Extended road widening on Smalls Road to accommodate additional kiss and drop facilities and limited time parking;
- Refurbishment of existing and construction of new car parking facilities; and
- Associated landscaping including refurbishment of multipurpose sports courts and fencing.

The proposed new school has been designed by Conrad Gargett Ancher Mortlock Woolley (CGAMW) Architects. The proposal is designed to have future focussed planning arrangements in line with the aims and objectives of the new Education Facilities Standards and Guidelines (EFSG).

Separate planning approvals will be sought for the early construction works which will include the demolition of the existing buildings.

The Site

The subject site (the site) is located at the former Ryde High School site located at 3B Smalls Road, Ryde. The suburb of Ryde is located in the City of Ryde Local Government Area (LGA) approximately 12 kilometres north-west of the Sydney's central business district (CBD). The site is accessed from Smalls Road via Lane Cove Road.

The site is legally described as Lot 1 DP 830420 and has an area of approximately 47,391m^2. Abutting the site to the south is known as 3A Smalls Road and is currently utilised by the Cerebral Palsy Alliance (CPA). The CPA also utilises the building adjacent to the southern western boundary with 3A Smalls Road which is located on site of which no works are proposed for either building. The site also adjoins Henri Durant Reserve to the east and a number of residential dwelling houses to the north, east and west.

Cost of Work and Planning Framework

Pursuant to Schedule 1 Clause 15 of the *State Environmental Planning Policy (State and Regional Development) 2011* certain developments involving educational establishment as classified as state significant development (SSD);

15 Educational establishments

(1) Development for the purpose of a new school (regardless of the capital investment value).

(2) Development that has a capital investment value of more than $20 million for the purpose of alterations or additions to an existing school.

(3) Development for the purpose of a tertiary institution (within the meaning of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017), including associated research facilities, that has a capital investment value of more than $30 million.

Whilst the current site is presently being used for distance education, the proposal is for a new school building and has a capital investment value (CIV) of more than $20 million.

The proposed costs of works schedule can be found in Appendix B.

This application is therefore categorised as SSD and is submitted to the Department of Planning and Environment for assessment and determination.

Assessment

The proposal has been assessed against the Secretary's Environmental Assessment Requirements (SEARs) issued on 1 May 2017. A brief summation of the relevant items within the SEARs and how they have been addressed is outlined below. Further detail of the proposals compliance is outlined throughout the EIS.

The proposal satisfies all relevant local and state planning policies

All relevant strategic planning policy and statutory planning controls have been outlined for the proposals assessment, which has demonstrated high compliance.

The design positively responds to the existing urban character and future urban design

Plans prepared by Conrad Gargett AMW show the proposals consideration to the existing urban design of the area without forgoing future goals of the site. The proposal demonstrates high levels of compliance to the relevant planning controls governing design within the locality, allowing for the proposal to respond positively to existing character as well as desired future urban design.

The proposal is suitable for the site

The site has previously been used as an educational establishment and as such demonstrates high suitability for the proposal.

The proposal is in the public's best interest

This EIS demonstrates the proposal is in the public's best interest. The proposal allows for student pressure to be alleviated from surrounding schools within the area by providing 43 new home bases (including 3 for special education) for a capacity of 1,000 new students over a 25 year time period. The proposal will provide additional employment opportunities during the construction and operational phases of the development.

The proposal appropriately satisfies each item within the Secretary's Environmental Assessment Requirements

This EIS demonstrates the proposal adequately satisfies each item within the SEARs.

Secretary's Environmental Assessment Requirements

On behalf of the NSW Department of Education RPS requested the SEARs for the construction of the new Public School at 3B Smalls Road, Ryde on 3 April 2017. The Department of Planning and Environment issued the SEARs on 1 May 2017.

Table 1.1 below provides the SEARs requirements issued for the proposal alongside a brief description of how the development will achieve each requirement.

Table 1.1 SEARs

SEARs Requirement	Brief Discussion
General Requirements	
The Environmental Impact Statement (EIS) must be prepared in accordance with, and meet the minimum requirements of clauses 6 and 7 of Schedule 2 the *Environmental Planning and Assessment Regulation 2000* (the Regulation). Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development. Where relevant, the assessment of the key issues below, and any other significant issues identified in the risk assessment, must include: ▪ adequate baseline data; ▪ consideration of potential cumulative impacts due to other development in the vicinity (completed, underway or proposed); and ▪ measures to avoid, minimise and if necessary, offset the predicted impacts, including detailed contingency plans for managing any significant risks to the environment. The EIS must be accompanied by a report from a qualified quantity surveyor providing: ▪ a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Environmental Planning and Assessment Regulation 2000) of the proposal, including details of all assumptions and components from which the CIV calculation is derived; ▪ an estimate of the jobs that will be created by the future development during the construction and operational phases of the development; and ▪ certification that the information provided is accurate at the date of preparation.	This EIS has been prepared in accordance with, and meets the minimum requirements of clauses 6 and 7 of Schedule 2 the *Environmental Planning and Assessment Regulation 2000* (the Regulation). Key issues have been assessed with respect to the general requirements as outlined in the SEARs.
Key Issues	
The EIS must address the following specific matters: **1. Statutory and Strategic Context** – including: Address the statutory provisions contained in all relevant environmental planning instruments, including: ▪ *State Environmental Planning Policy (State & Regional Development) 2011;* ▪ *State Environmental Planning Policy (Infrastructure) 2007;* ▪ *State Environmental Planning Policy No.55 – Remediation of Land;* ▪ *Draft State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017;* and ▪ *Ryde Local Environmental Plan 2014*. *Permissibility* Detail the nature and extent of any prohibitions that apply to the development. *Development Standards* Identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards.	This EIS discusses all relevant statutory documents applicable to the site and proposal. Statutory requirements are discussed in Part 4 of this document.

SEARs Requirement	Brief Discussion
2. Policies Address the relevant planning provisions, goals and strategic planning objectives in the following: ▪ NSW State Priorities; ▪ A Plan for Growing Sydney; ▪ NSW Long Term Transport Master Plan 2012; ▪ Sydney's Cycling Future 2013; ▪ Sydney's Walking Future 2013; ▪ Sydney's Bus Future 2013; ▪ Healthy Urban Development Checklist, NSW Health; and ▪ Greater Sydney Commission's Draft North District Plan.	Part 5 of this EIS outlines the strategic objectives applicable to the proposal.
3. Built Form, Urban Design and Open Space ▪ Address the height, density, bulk and scale, setbacks of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces. ▪ Address design quality, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials, colours and Crime Prevention Through Environmental Design Principles. ▪ Detail how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development. ▪ Outline how the future joint venture with the City of Ryde regarding the ongoing use of the sports fields will work during operation hours. ▪ Detail proposed pedestrian access arrangements to the sports fields from Henri Durant Reserve on Lavarack Street.	CGAMW have prepared the Architectural and Landscape drawings for the proposal. Refer to Appendix C, D, Y and Z and AA. Discussion regarding the built form, urban design and open space arrangements of the design of the proposal can be found in Part 6.1, CPTED at Part 6.4 and integrated waste arrangements at Part 6.13 of this EIS.
4. Environmental Amenity ▪ Detail amenity impacts including solar access impacts, visual privacy, view loss, overshadowing and wind impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated. ▪ Detail any proposed use of the school grounds out of school hours (including weekends) and any resultant amenity impacts on the immediate locality and proposed mitigation measures.	The environmental amenity of the proposal will be discussed in Part 6.2 of this EIS. Drawings issued from CGAMW assist in visual representation of compliance with environmental amenity in Appendix C & D. The view analysis and photo montage refer to Appendix AA

SEARs Requirement	Brief Discussion
5. Transport and Accessibility (Construction and Operation) Include a transport and accessibility impact assessment, which details, but not limited to the following: ▪ accurate details of the current daily and peak hour vehicle, public transport, pedestrian and cycle movement and existing traffic and transport facilities provided on the road network located adjacent to the proposed development; ▪ an assessment of the operation of existing and future transport networks including the bus network and their ability to accommodate the forecast number of trips to and from the development; ▪ details of estimated total daily and peak hour trips generated by the proposal, including the sports oval and field, with consideration of existing and future usage based on traffic surveys of similar school sites; ▪ the adequacy of public transport, pedestrian and bicycle access/circulation and infrastructure to meet the likely future demand of the proposed development within the impact area and connection to the external network; ▪ the impact of the proposed development on existing and future public transport infrastructure within the vicinity of the site in consultation with Roads and Maritime Services and Transport for NSW and identify measures to integrate the development with the transport network; ▪ details of any upgrading or road improvement works required to accommodate the proposed development; ▪ the preparation of a Green Travel Plan that outlines proposals to encourage sustainable travel choices and details programs for implementation; ▪ the impact of trips generated by the development on key intersections providing access to the site, with consideration of the cumulative impacts from other approved developments in the vicinity, and the need/associated funding for upgrading or road improvement works, if required (note: traffic modelling is to be undertaken with scope to be agreed by TfNSW and RMS in advance); ▪ the proposed active transport access arrangements and connections to public transport services to address the potential for improving accessibility to and from the site and connections to the wider region via sustainable transport modes; ▪ the proposed access arrangements, including car and bus pickup/ drop-off facilities, and measures to mitigate any associated traffic impacts and impacts on parking, public transport, pedestrian and bicycle networks, including pedestrian crossings and refuges and speed control devices and zones; ▪ measures to maintain road and personal safety in line with CPTED principles; ▪ the proposed car and bicycle parking provision, including end of trip facilities, which must be taken into consideration of the availability of public transport and the requirements of Council's relevant parking codes and Australian Standards; ▪ proposed bicycle parking facilities in secure, convenient, accessible areas close to main entries incorporating lighting and passive surveillance; ▪ details of the proposed number of car parking spaces and compliance with appropriate parking codes and justify the level of car parking provided on-site (informed by a parking utilisation survey on streets within 400 m radius from the site on a typical weekday between 8 am-9:30 am and 2:30 pm-4 pm and a weekend between 10 am-4 pm); ▪ details of emergency vehicle access arrangements; ▪ an assessment of road and pedestrian safety adjacent to the proposed development and the details of required road safety measures; ▪ service vehicle access, delivery and loading arrangements and estimated service vehicle movements (including vehicle type and the likely arrival and departure times)	A Transport and Accessibility Impact Report, Green Travel Plan and Construction Traffic Management Plan have been prepared by Taylor Thomson Whitting Pty Ltd and can be found in Appendix Q and discussed in Part 6.3 of this EIS.

SEARs Requirement	Brief Discussion
▪ in relation to construction traffic ▪ assessment of cumulative impacts associated with other construction activities (if any); ▪ an assessment of road safety at key intersection and locations subject to heavy vehicle construction traffic movements and high pedestrian activity; ▪ details of construction program detailing the anticipated construction duration and highlighting significant and milestone stages and events during the construction process; ▪ details of anticipated peak hour and daily construction vehicle movements to and from the site; ▪ details of access routes and arrangements of construction vehicles, construction workers to and from the site, emergency vehicles and service vehicle; ▪ details of temporary cycling and pedestrian access during construction; ▪ details of proposed construction vehicle access arrangements at all stages of construction; and ▪ traffic and transport impacts during construction, including cumulative impacts associated with other construction activities (if any), and how these impacts will be mitigated for any associated traffic, pedestrian, cyclists, parking and public transport, including the preparation of a draft Construction Traffic Management Plan to demonstrate the proposed management of the impact. – Relevant Policies and Guidelines: ▪ Guide to Traffic Generating Developments (Roads and Maritime Services) ▪ EIS Guidelines – Road and Related Facilities (DoPI) ▪ Cycling Aspects of Austroads Guides ▪ NSW Planning Guidelines for Walking and Cycling ▪ Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development ▪ Standards Australia AS2890.3 (Bicycle Parking Facilities)	A Transport and Accessibility Impact report, Green Travel Plan and Construction Traffic Management Plan have been prepared by Taylor Thomson Whitting Pty Ltd and can be found in Appendix Q and discussed in Part 6.3 of this EIS.
6. Ecologically Sustainable Development (ESD) ▪ Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000) will be incorporated in the design and ongoing operation phases of the development. ▪ Demonstrate that the development has been assessed against a suitably accredited rating scheme to meet industry best practice. ▪ Include a description of the measures that would be implemented to minimise consumption of resources, water (including water sensitive urban design) and energy.	A report examining the ESD principles and measures in the development have been prepared by CGAMW and can be found in Appendix W and discussed within Part 6.5 of this EIS.
7. Social Impacts Include an assessment of the social consequences of the schools' relative location and opportunities for shared facilities with the City of Ryde	Part 6.6 of this EIS details the social impacts of the proposed development.

SEARs Requirement	Brief Discussion
8. Noise and Vibration Identify and provide a quantitative assessment of the main noise and vibration generating sources during construction and operation, including consideration of any public address system, school bell and use of any school hall for concerts etc. (both during and outside school hours), and outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land. – Relevant Policies and Guidelines: ▪ NSW Industrial Noise Policy (EPA) ▪ Interim Construction Noise Guideline (DECC) ▪ Assessing Vibration: A Technical Guideline 2006 ▪ Development Near Rail Corridors and Busy Roads – Interim ▪ Guideline (Department of Planning 2008)	TTM Consulting Pty Ltd has prepared a Noise Impact Report. A discussion of the Report can be found in Part 6.7 of this EIS and in Appendix G.
9. Contamination Demonstrate that the site is suitable for the proposed use in accordance with SEPP 55. Relevant Policies and Guidelines: ▪ Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP)	The proposal has been assessed against SEPP 55 – Remediation of Land and is discussed in Part 6.8 and Appendix J and K.
10. Utilities ▪ 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. ▪ 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.	Wood and Grieve Engineers have provided a Site Service Services Infrastructure Report discussed in Part 6.9 of this EIS and Appendix N.
11. Contributions Address Council's Section 94A Contribution Plan (if relevant) and/or details of any Voluntary Planning Agreement.	Part 6.10 of this EIS outlines the requirements of the relevant Ryde Contribution Plan.

SEARs Requirement	Brief Discussion
Plans and Documents	
The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environmental Planning and Assessment Regulation 2000. Provide these as part of the EIS rather than as separate documents. In addition, the EIS must include the following: ▪ Architectural drawings (dimensioned and including RLs); ▪ Site Survey Plan, showing existing levels, location and height of existing and adjacent structures / buildings and boundaries; ▪ Site Analysis Plan; ▪ Stormwater Concept Plan; ▪ Sediment and Erosion Control Plan; ▪ Shadow Diagrams; ▪ View Analysis / Photomontages; ▪ Landscape Plan (identifying any trees to be removed and trees to be retained or transplanted); ▪ Preliminary Construction Management Plan, inclusive of a Preliminary Construction Traffic Management Plan detailing vehicle routes, number of trucks, hours of operation, access arrangements and traffic control measures; ▪ Geotechnical and Structural Report; ▪ Accessibility Report; ▪ Arborist Report; ▪ Acid Sulphate Soils Management Plan (if required); and ▪ Schedule of materials and finishes.	Please find attached to this document a copy of all relevant consultant report as required by SEARs. Refer to Appendix.
Consultation	
During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with: ▪ City of Ryde Council; ▪ Transport for NSW; and ▪ Roads and Maritime Services The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.	Consultation with City of Ryde, Transport for NSW and RMS has been conducted and is discussed in Part 7 of this EIS.
Further consultation after 2 years	
If you do not lodge a development application and EIS for the development within two years of the issue date of these SEARs, you must consult further with the Secretary in relation to the preparation of the EIS.	Noted.
References	
The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified.	All relevant guidelines, policies and plans identified in the SEARs requirement have been discussed within this EIS.

1 Introduction

1.1 Overview

This Environmental Impact Assessment (EIS) has been prepared by RPS on behalf of the NSW Department Education (Applicant) in support of a State Significant Development (SSD) Application (17-8372) for the proposed development of Smalls Road Public School located at 3B Smalls Road, Ryde.

The Department of Education (DoE) proposes to construct a new public primary school on the former Ryde High School site. The proposed school will be a contemporary design of one (1) circular building containing 43 home base class rooms (including 3 for special education) as well as, a number of learning spaces spread over a range of multi-function rooms, a two (2) level library, school hall, out of school hours care facilities (OOSH), along with indoor and outdoor recreational facilities.

The proposal will develop a new primary school on the existing site with capacity for 1,000 new students when at capacity. It is important to note that the maximum capacity is not expected to be reached until 2042.

1.2 Project Context and Background

The City of Ryde is experiencing a period of unprecedented increase in student enrolments in Public Schools within the local government area (LGA), which is placing pressure on schools that have already reached capacity.

This proposal to build a new school at Smalls Road, Ryde is a key initiative of the Department of Education in light of the high levels of growth in student numbers in the area. This proposal forms part of the School Infrastructure NSW project which provides $4.2 billion dollars for the construction of schools and associated upgrade works across the State.

On behalf of the Department of Education RPS requested the Secretary Environmental Assessment Requirements (SEARs) for the construction of a new Public School at 3B Smalls Road, Ryde on 3 April 2017. The SEARs were issued by the Department of Planning and Environment on 1 May 2017. This EIS addresses each of the SEARS.

1.3 Report Structure

This EIS provides the following:

- A description of the site and surrounding context;
- A detailed description of the proposed development;
- An assessment of the proposed development against the relevant strategic and statutory planning controls;
- An assessment of the key issues and impacts generated by the proposed development; and
- A detailed description of the consultation undertaken with respect to the proposal.

1.4 Project Team

Discipline	Consultant	Appendix
Architecture	Conrad Garget Ancher Mortlock Woolley Pty Ltd (CGAMW)	Appendix C, W, Y, Z, ZZ
Project Management	Coffey	
Landscape Architecture	Conrad Gargett Ancher Mortlock Woolley Pty Ltd (CGAMW)	Appendix D
Site Survey	RPS Australia East Pty Ltd	Appendix E
Access Review	Morris Goding Accessibility Consulting	Appendix F
Noise Impact Report	TTM Consulting	Appendix G
Building Code Assessment	Blackett Maguire + Goldsmith	Appendix H
Construction Management Plan	Kane Construction Pty Ltd	Appendix I
Hazardous Materials Risk Assessment	Greencap Pty Ltd	Appendix J
Soil Contamination Investigation	Greencap Pty Ltd	Appendix K
Flooding Impact Statement Relating to Overland Flows	Optimal Stormwater Pty Ltd	Appendix L
Geotech Report	JK Geotechnics	Appendix M
Site Services Infrastructure Report	Wood & Grieve Engineers Pty Ltd	Appendix N
Stormwater Management & Water Sensitive Urban Design Report	MYD Consulting Engineers Pty Ltd	Appendix O
Water Management Plan Report	Wood & Grieve Engineers Pty Ltd	Appendix P
Transport and Accessibility Impact Assessment	Taylor Thomson Whitting Pty Ltd	Appendix Q
Waste Management Plan (Construction)	Kane Construction Pty Ltd	Appendix R
Pedestrian Wind Environment Statement	Windtech Consultants Pty Ltd	Appendix S
Waste Management Plan (Operational)	TTM Consulting	Appendix T
Arboricultural Impact Assessment Report	Priority Tree Services	Appendix UU
Consultation Outcomes Report	Coffey Services Australia	Appendix V
ESD Report	Conrad Gargett Ancher Mortlock Woolley Pty Ltd (CGAMW)	Appendix W
Community Use of School Facilities Implementation Procedures	Department of Education	Appendix X,
Quantity Surveyors	Turner & Townsend	Appendix B
Town Planning	RPS Planning and Development	EIS

2 The Site and Surrounding Context

2.1 The Site

The site is located at 3B Smalls Road, Ryde within the City of Ryde Local Government Area (LGA). The site is approximately 12km north-west of Sydney's Central Business District (CBD). The site is legally described as Lot 1 DP830420, and is a rectangular shape with a total land area of approximately 47,391m^2. The former use of the site was for the Ryde High School which at its peak catered for 1,200 students. One of the buildings on the site is currently occupied by the Cerebral Palsy Alliance. The site also contains two playing fields known as Smalls Park which are used by cricket and football clubs throughout the year.

Figure 2.1 The Site (Source: Six Maps RPS)

2.2 Existing Development

The site was previously used for the former Ryde High School and associated playing fields. There are currently a number of two storey and single storey buildings on site, the main school buildings being located on the southeast boundary of the site fronting Smalls Road.

The site is currently occupied and accommodates a number of Department of Education services including training facilities and distance education. The Cerebral Palsy Alliance also currently occupies a building on

the south western boundary of the site in addition to the neighbouring property 3A Smalls Road, Lot 2 in DP 830420, which is also owned by the Department of Education . There are no works proposed to 3A Smalls Road, or the building currently utilised by the Cerebral Palsy Alliance on the subject site.

The site is legally described as Lot 1 in DP 830420, and has an approximate land area of 47,391m^2. The site adjoins Henri Durant Reserve to the east and a number of residential dwelling houses to the north, east and west.

Vehicular access to the site is provided by two (2) vehicular driveways off Smalls Road. There are a number of formal and informal parking areas present on site, one being situated to the front adjacent to Smalls Road, another within the courtyard of the main building and another located at towards the eastern boundary (rear) of the rear.

Two sporting fields are located on the site and are currently used as public open space. The fields are utilised for cricket during the summer and in winter a number of football clubs use the grounds to train during the week and play club competitions at the weekend. The grounds are fenced and pedestrian accessibility is available via Smalls Road and Henri Durant Reserve. These grounds are currently used by Council through a license agreement with the Department of Education. It is expected that these grounds will remain accessible to the wider community outside of schools hours, during and after the school is constructed.

The site is located within a predominantly low density residential area. The built form is predominantly characterised by single and two storey brick dwellings on larger lots of approximately 600sqm.

2.3 Topography

The site has a north- west aspect as illustrated in the Survey Plan prepared by RPS Australia East Pty Ltd dated October 2016 (refer Appendix E). The site falls to the north east, with an approximate gradient of 5% consisting of a number of generally flat areas stepping down from the existing school site in the south western part of the site to the lower level playing field to the north east.

The highest point on the site has an elevation of RL81.30 and is located on the south western corner of the land parcel. The lowest point of the site is located in the north-east corner fronting Smalls Road at an elevation of RL67.40.

2.4 Flora and Fauna

No threatened species, populations or ecological communities or their habitats have been identified as located within the site, or in close proximity of the proposed works.

2.5 Acid Sulfate Soils

The City of Ryde has not identified the site or its surrounds as containing Acid Sulfate Soils.

2.6 Services

The site is fully serviced by water, gas, electricity, communications and sewerage. A Site Services Infrastructure Report has been prepared by Wood and Grieve Engineers Pty Ltd September 2017 (refer Appendix N).

2.7 Aboriginal Heritage

While the SEARs has not requested an Aboriginal Heritage Assessment, it is noted the site is not identified as having any potential Aboriginal heritage value.

2.8 European Heritage

The site has not been identified as having items of European heritage. The site is not listed as an item of environmental heritage, nor within a heritage conservation area in *Ryde Local Environmental Plan 2014*. The SEARs has not requested a Heritage Impact Assessment.

2.9 Site Context and Surrounding Development

The site is located within the City of Ryde LGA and is approximately 12km's north-west of the Sydney CBD and approximately 9km's north-east of Parramatta CBD. The site is surrounded by low density residential dwellings.

There are a number of schools in the locality which have experience significant growth. The site's proximity to surrounding public schools;

- 1.3km north of Ryde Public School;
- 1.2km west from North Ryde Public School;
- 1.25km south of Denistone East Public School; and
- 1.2 km south from Kent Road Public School.

The following table 2.1 shows the growth of the closest local public schools from 2008 to 2016.

Table 2.1 School Population 2008 – 2016 (source My Schools and Department of Education)

Year	Ryde Public School	North Ryde Public School	Denistone East Public School	Kent Road Public School
2008	431	238	793	252
2009	375	224	800	275
2010	389	248	825	285
2011	422	247	836	314
2012	421	257	836	360
2013	461	282	865	418
2014	504	282	857	471
2015	498	303	845	528
2016	545	354	806	595

Figure 2.2 below demonstrates the draft catchment area and the local schools that the proposal is anticipated to relieve growth pressure.

Figure 2.2 Smalls Road Public School Draft Catchment & Education Context (Source: Department of Education, TTW and RPS)

The site is 500m from Yamble Reserve, Quarry Road near the Smalls Road Intersection; it contains an accessible playground known as 'Livvi's Place'. The play area contains both traditional play equipment with purpose-built accessible play and landscape elements. There are also covered BBQ areas, parking and an amenities block which is fully accessible.

The site is also nearby Santa Rosa Reserve, which has an off leash dog park, a cricket pitch and other amenities.

2.10 Road Network

The site is located within a residential suburb with vehicular access only provided via Smalls Road. Smalls Road is accessed from the wider Sydney region via two (2) collector roads i.e. Quarry Road and Bridge Road. The nearest arterial road to the site is Lane Cove Road, which is located approximately 300m south of the site and adjoins both Quarry and Bridge Roads. There are no proposed upgrades to the local road network affecting Smalls Road and the site.

2.11 Public Transport

Train Infrastructure

The site is located between two (2) train stations. Denistone railway station is located 3km west of the site and West Ryde railway station is located 2.7km south-west. Both stations are within a 7 minute drive of the school. These train stations are approximately a 38 minute and 33 minute walk respectively from the site or approximately a 15 minute bus ride.

Bus Infrastructure

Public bus services operate along Quarry Road, Bridge Road and Lane Cove Road. All bus services in the area are operated by State Transit. The bus stops and routes are summarised as follows:

Quarry Road near Smalls Road bus stop – 230m from site

- 518 and X18 buses
- Services to:
  - Macquarie Park
  - Denistone East
  - Ryde
  - Drummoyne
  - City (Circular Quay)

Bridge Road near Smalls Road bus stop – 400m from site

- 507 bus
- Similar service to 518 route, with services to:
  - North Ryde
  - Putney
  - Meadowbank

Lane Cove Road before Twin Road – 700m from site

- 287 bus with services to:
  - Milsons Point, North Sydney
  - Crows Nest, Lane Cove
  - Ryde/North Ryde
- M41 bus with services to:
  - Ryde, North Strathfield, Burwood, Campsie, Bexley, Hurstville

Figure 2.3 Region Guide Sydney North Shore and West (Source: State Transit 2017)

2.12 Cycleways

The site is accessible via cycle routes, as demonstrated in Figure 2.4 below. Smalls Road currently has an informal shared on-road cycleway which links to arterial cycleways across Ryde including Quarry Road.

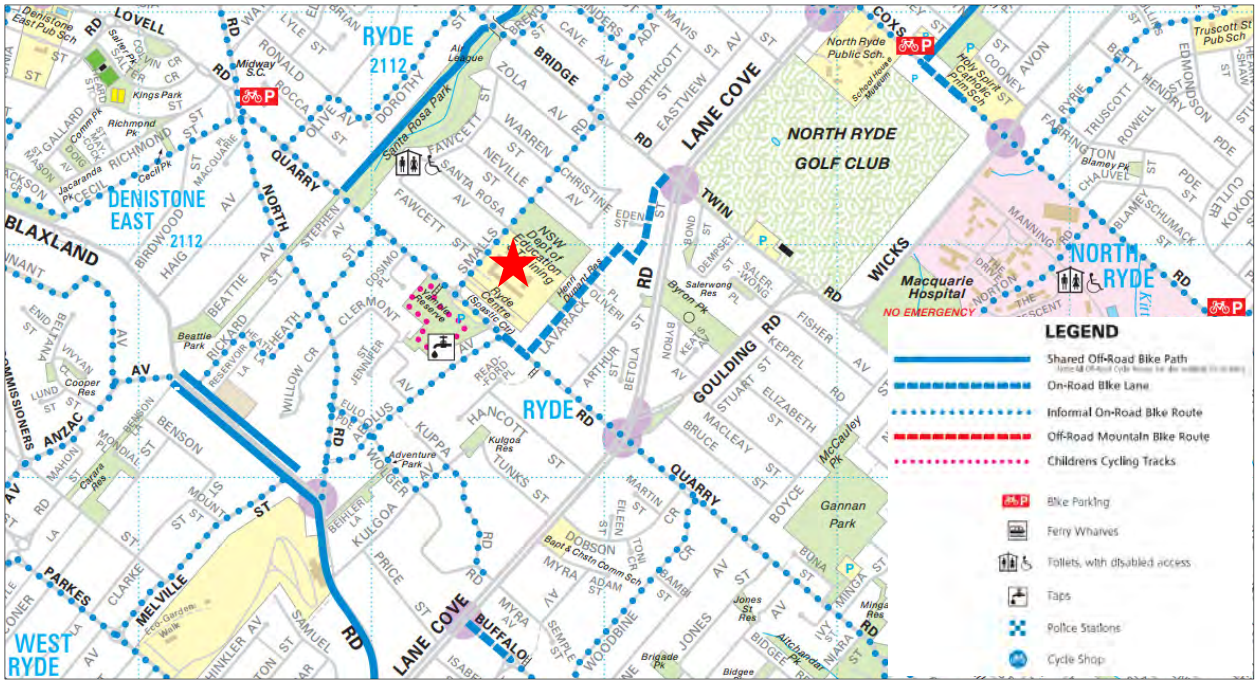


Figure 2.4 City of Ryde Bike Map (Source: Sydway 2013)

3 The Proposed Development

3.1 Overview

This EIS seeks development consent for the proposed development of the site for the following works:

- Construction of one (1) new three (3) storey circular multi-purpose school buildings containing;
  - Home bases i.e. 43 which includes three (3) for special education purposes;
  - Library;
  - School hall;
  - Out of school hours care facilities (OOSH);
  - Offices for teaching and administration staff;
  - Canteen; and
  - Covered outdoor learning areas (COLA).
- Associated building identification signage;
- Extended road widening on Smalls Road to accommodate additional kiss and drop facilities and limited time parking;
- Refurbishment of existing and construction of new car parking facilities; and
- Associated landscaping including refurbishment of multipurpose sports courts and fencing.

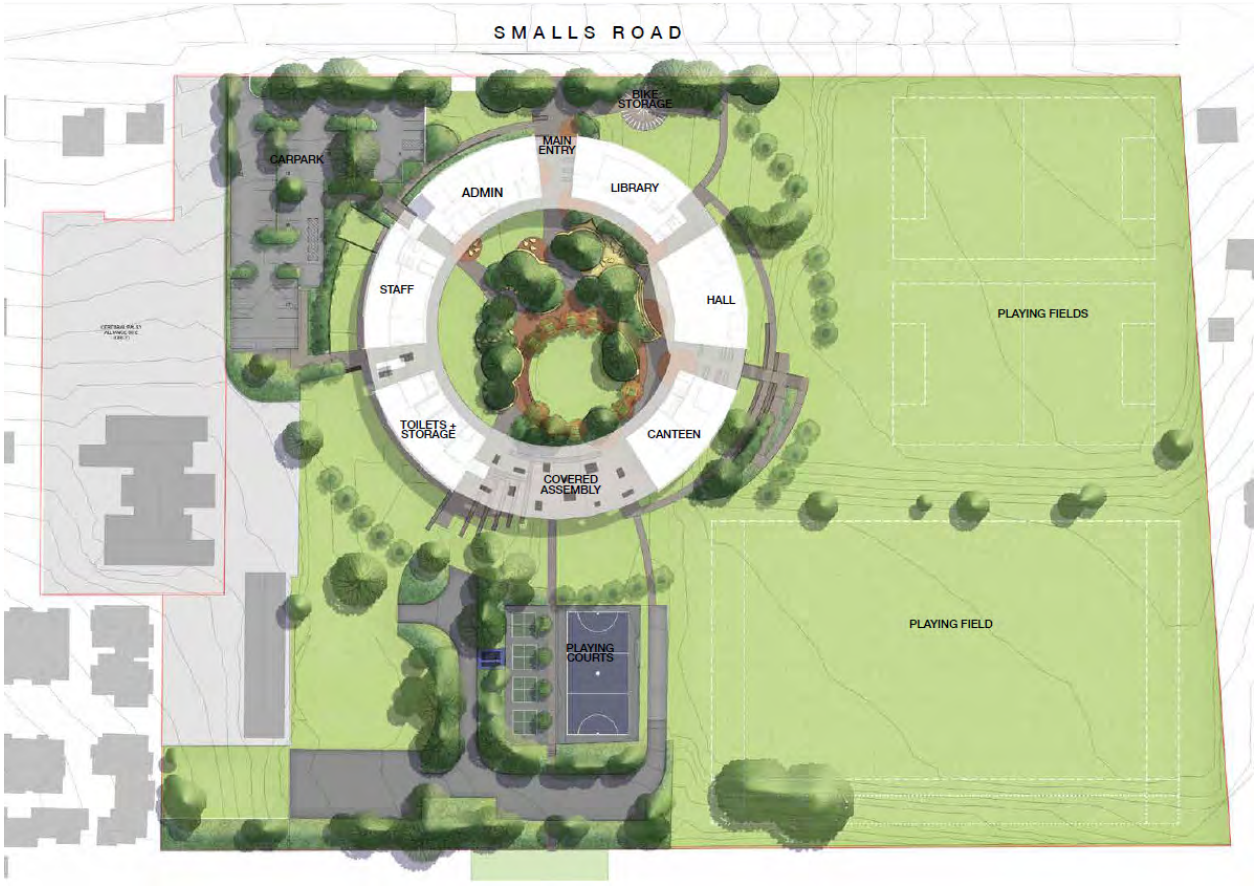


Figure 3.1 Site Plan (Source CGAMW)

3.2 Demolition

Demolition of the existing structures on site will be subject to a separate planning approval. A majority of the existing parking area and hardstand areas will be retained and refurbished for parking and play areas such as ball/sports courts.

3.3 Building Design Philosophy

Architects CGAMW have been engaged by the Department of Education to provide the design for the new Smalls Road Public School. The design philosophy has been provided by CGAMW October 2017 (Appendix Z) and is outlined as followed;

> *The new Public School at Smalls Rd, Ryde is a landmark education project for both the NSW Department of Education and the Ryde community. The project will deliver accommodation for up to 1000 students on the site of the former Ryde High School. As a new school, this project represents a rare opportunity to deliver an integrated, future-focused learning environment for students and the design has been informed by 21st century education principles.*
>
> *The new building is planned around a central courtyard which forms the heart of the school. The annular planning arrangement offers all spaces within the school an equal and democratic relationship to the campus heart, resulting in a visually and physically connected school community. Breaks in the building create connections from the courtyard to the wider campus beyond and increase access to natural light, ventilation and outdoor learning areas for students.*

In addition to general learning spaces, the project includes administration and staff areas, a communal hall, library, special program rooms, special education learning spaces, a canteen and outdoor learning spaces. In order to foster a sense of local community, the planning arrangement offers a separate, after-hours access point to the playing fields, communal hall and library.

The design takes advantage of the strengths and opportunities of the existing campus setting, maximising the retention of existing mature trees, both within the courtyard and across the wider site. The design nestles into the slope of the existing topography, offering level access to the outdoors from the level one Kinder and Special Education learning spaces on the western side. The landscape design explores themes of Australian identity, creating a variety of outdoor settings for learning and play.

Clusters of flexible classrooms provide diverse learning settings for individuals, small groups and whole class activities. The column-free spaces maximise the potential for reconfiguration, offering the flexibility to adapt and change over time. A generous covered play area on the east creates an opportunity for the future expansion of the school.

The architecture takes its cues from traditional examples of the defended terrain such as Chinese Tulou housing where an unadorned exterior protective skin gives way to a surprising and vibrant interior. Responding the context the external façade comprises rectangular fibre cement panels are arranged in a stretcher bond pattern, creating an over-scaled reference to the bricks that define the domestic character of the surrounding suburb. The rich, warm tone of the facade panels have been selected to compliment the variety of tones of brick in the surrounding streetscape. The interior façade takes its cues from the carefully selected plant species inspired by iconic Australian landscape settings distinguishes the courtyard as a vibrant and colourful place for children. A continuous roof physically and symbolically unites the school as a connected whole.

The new school at Smalls Rd, Ryde will offer students a 21st-century learning experience that combines progressive and flexible learning settings that engage with the natural environment.

3.4 Built Form and Use

The proposed development is for one (1) three (3) storey circular building which could accommodate 1,000 primary school students from years K – 6 and associated upgrades.

The associated upgrades include upgraded car parking to include 47 new parking bays, 2 disabled bays and 1 loading bay. The parking will be located at the south western part of the site, adjacent to Smalls Road.

The refurbishment of the existing hardstand area to the south-east of the site is proposed to allow for play areas for example handball courts.

Soft and hard landscaping is proposed within the centre of the building, in addition to the exterior.

The proposed works are outlined in Table 3.1 below.

Table 3.1 Proposed Works

Area	Description
Ground / Lower Ground Floor	▪ Administration, office and staff room; ▪ Library (ground floor); ▪ Hall with stage; ▪ OOSH Kitchenette, office and store; ▪ Lifts ▪ Amenities including storage and toilets.

Area	Description
Level 1	▪ Library level 1 with special program spaces; ▪ 16 Homebases, with associated, presentation rooms (4), work rooms (4), study areas (8), withdrawal rooms (8) and shared spaces (4); ▪ 2 covered outdoor learning areas (COLAS); ▪ 3 Special education homebases with withdrawal space, shared area, storage and assisted amenities and laundry facilities. ▪ Ramped Access adjacent to special education facilities. ▪ Toilets and lift access.
Level 2	▪ 24 Homebases, with associated, presentation rooms (6), work rooms (6), study area (12), withdrawal rooms (12) and shared spaces (6); ▪ 3 covered outdoor learning areas (COLAS); ▪ Toilets and lift access.
Exterior / Landscaping Works	▪ New bus zone and additional drop off facilities be extended along the full length of the school site and across the frontage of the park. This will provide capacity for 2 school buses, 16 spaces in a no stopping zone and 10 spaces in a 10 minutes parking area. ▪ Refurbishment of existing and additional hard standing parking spaces in the western corner of the site. ▪ Waste collection area. ▪ Existing hardstand areas and games court in the southern corner to be retain and resurfaced where necessary. ▪ Additional pedestrian access and through Henri Durant Reserve to Lavarack Road.

Education Facilities Standards & Guidelines (EFSG)

The current benchmarking standards for new schools in NSW are currently known as the Education Facilities Standards and Guidelines (EFSG). These are intended to assist those responsible for the management, planning, design, construction and maintenance of new and refurbished school facilities and assist in the provision of tomorrow's education facilities.

The EFSG reflect a new way of providing a flexible, future focused learning environment which reflects the needs of the students.

Home bases

Home bases units are the core teaching and learning environments for a primary school. They are designed to be *"adaptable learning environment that can support a range of teaching strategies from direct explicit instruction to facilitation of inquiry and authentic project and problem based learning. It is configured to support a variety of seating plans from individual to large groups*." (EFSG, 2017). A typical Homebase cluster is shown below in figure 3.2, this demonstrates the flexible shared arranged which is fostered by the new EFSG policy.

Some of the specialised spaces included in this design are as follows:

- Withdrawal Rooms, which are small special purpose learning spaces, provided to support the Homebase Area. This room has a minimal number of desks and chairs for individuals and small groups.
- Practical Activities Area provides a space for individual and small groups participating in disciplinary and interdisciplinary learning activities that can require a wet area and large bench space.

Figure 3.2 Typical EFSG home base & proposed home base arrangement

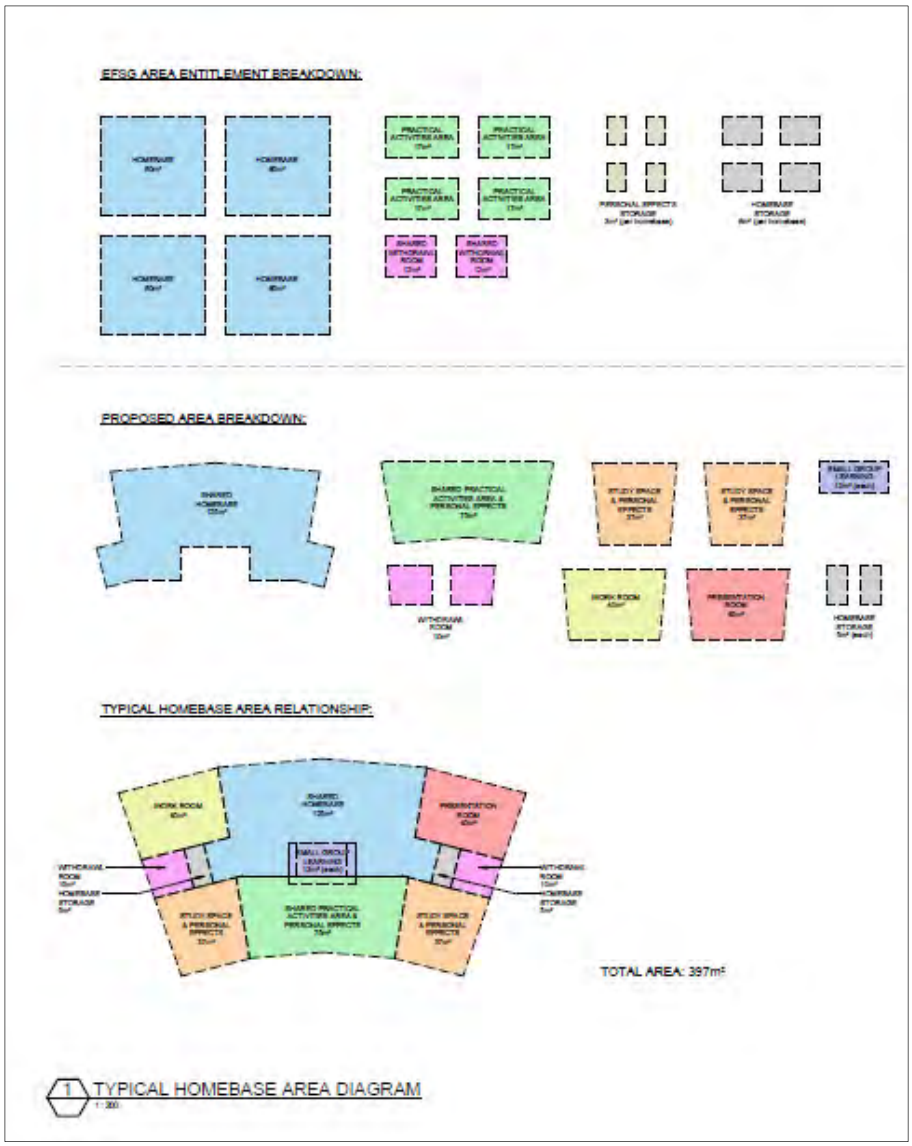


Figure 3.3 Home Base Configuration (Source: DoE)

School Hall

The school hall is proposed on the north eastern side of the proposed new building. The hall will have the capacity to house all students at one time including parents and teachers. The hall will exit into a covered internal outdoor space of the development with a small amphitheatre.

Library

A two (2) storey library is proposed within the development on ground floor and level one. The library will be constructed as part of the school building and will be situated adjacent to the main entrance fronting Smalls Road. The library will consist of open reading areas on both floors as well as office, KLA resource room and four special program rooms on level one. These areas will provide additional separate learning areas within the library space.

Covered Outdoor Learning Areas (COLA)

A total of five (5) Covered Outdoor Learning Areas are proposed within the site on level one and level two.

These areas provide; *"sheltered outdoor areas used for a variety of learning and recreational purposes. These areas tend to be used for informal and/or social learning activities, particularly as an extension to other learning units. During recess and lunch these shelters provide students protection from the sun and rain." (EFSG, 2017).*

Special Education Spaces (SPED)

The proposal includes three dedicated special education spaces for future programmes. The Special Education Learning Unit consists of learning and support spaces that are designed for students with intellectual and/or physical disabilities.

The exact programs will determined by the Department of Education, however the spaces have been designed in accordance with the Education Facilities Standards and Guidelines, established by the Department of Education.

Draft School Catchment and Projected Growth

The proposed school is design for 1,000 students when at capacity which is forecast to be reached beyond 2041. The school has been modelled to take up to 25 years to reach full capacity.

The DoE has provided a projected enrolment schedule as shown in Table 3.2 below. This data is based on the potential location population in the drafted catchment as shown in Figure 2.2.

Table 3.2 Projected student population

Year	2021	2026	2031	2036	2041
Enrolment	710	760	790	790	910

3.5 External Materials and Finishes

A full list of external materials and finishes has been provided by CGAMW for the proposed development. The proposed materials and finishes include;

- External cladding – Prefinished CFC panels (four colours used)
- Ground Floor Exterior Walls – Face Brick (two colours used)
- Fencing – Powder coat (dark)
- Balustrades – Powder coat (Light)
- Ground Floor Windows – Anodised Aluminium (blue)
- 1st & 2nd Floor Windows – Anodised Aluminium (red)
- Roofing – Powder coat (Light)
- Coloured transparent glass – used for the skylights (four colours used including red, teal, green, clear)

Figure 3.4 External Materials and Finishes (Source CGAMW)

3.6 Site Access

Vehicular access, Parking and Additional drop-off/pick up facilities

The proposal will provide one staff car park, with a small number of visitor parking spaces will be located at the Small Road frontage of the site.

The parking is to be supplied at the front of the school, accessed via Smalls Road. 47 bays are to be provided including two (2) disabled parking bays and one shared area for articulation and waste loading.

The parking area will also provide hardstand for both the waste collection area and a plant facility.

New bus zone and additional drop off facilities be extended along the full length of the school site and across the frontage of the park. This will provide capacity for 2 school buses, 16 spaces in a 'kiss and drop' zone and 10 spaces in a 10 minutes parking area.

Pedestrian Access

Five (5) pedestrian access points are proposed for the new redevelopment. Three access points are proposed off Smalls Road, including the main entrance, secondary entrance and sports field entrance.

Two (2) pedestrian access points are proposed off Lavarack Street side through the current Henry Durant Reserve. Theses access points will provide pedestrian drop off / pick up points. These access points are

design to allow the school access to be restricted during the weekend and holidays when the sporting fields are in use.

Cycling

As required by EFSG, bike racks are proposed to be constructed as part of the new development.

Loading / Emergency Access

One loading facility is proposed on site within the car parking area. The loading zone is proposed within the articulation access way of the parking area.

3.7 Landscaping

A landscaping plan has been prepared by CGAMW (refer Appendix D) outlining the design and concept of the proposed landscaping. The site will consist of internal landscaping within the centre of the annular structure as well as providing three (3) sports fields and associated vegetation.

CGAMW design intent guiding the internal landscaping is to:

> *Create flexible landscape spaces that cater various activities such as play, outdoor learning, assembly, meeting, gathering or areas for time-out for students, staffs and visitors to enjoy.*
>
> *Provide nature-based landscape spaces that will provide students opportunities to explore and experience the natural environment such as soil, water, plants and habitats. Create spaces that will provide students access to fresh air and sunlight.*

Internal landscaping has been divided into three concept areas;

- Forests and Woodlands
- Sydney Basin
- Grasslands

These areas dictate the type of landscaping to be used within the area to achieve the design concept as well as dictate the type of general use of the area.

- Grasslands will be used as common school area
- Sydney Basin will comprise of outdoor amphitheatre and nature based play
- A multi-purpose lawn will be separated from the other areas via the forest and woodlands

The landscaping materials needed to achieve the plan include paving, softfall, edges, walls and seats, furniture, trees, shrubs, and groundcover and turfs.

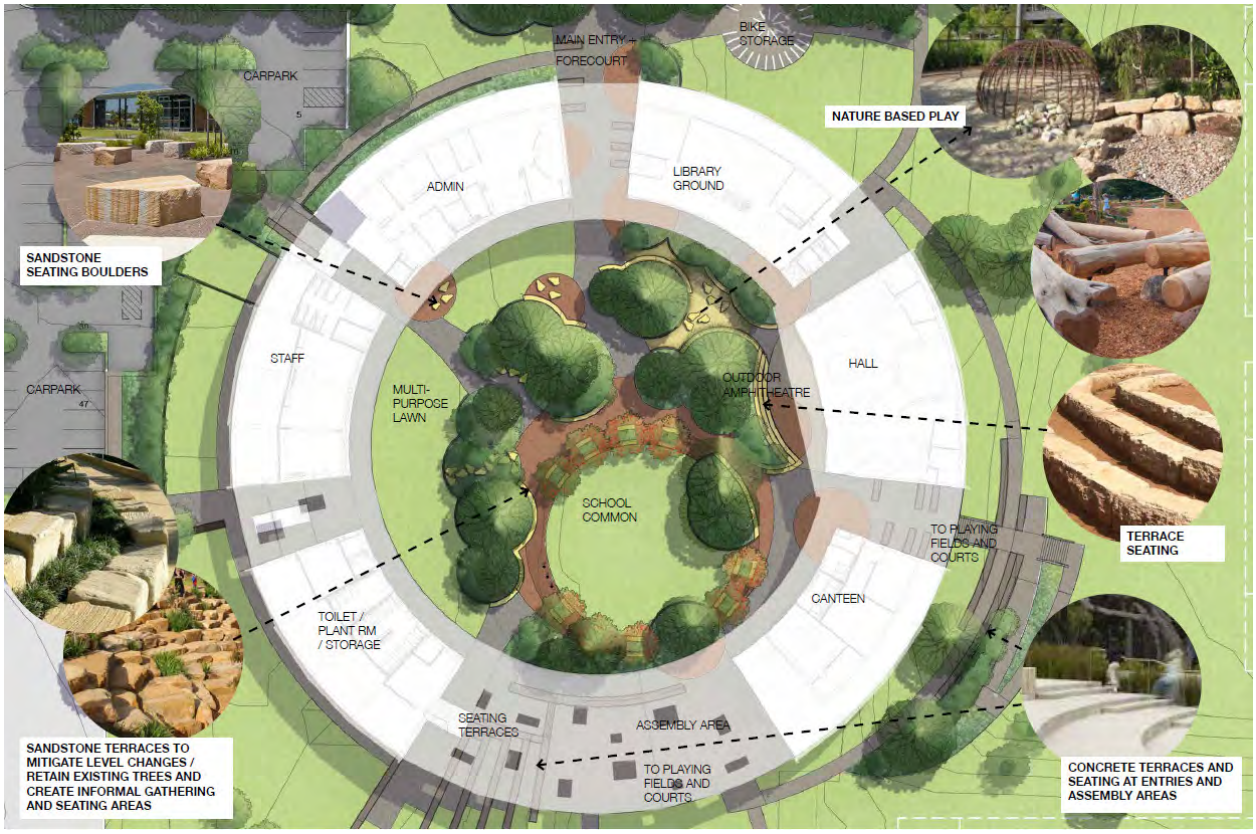


Figure 3.5 Proposed Landscape Concept Hardscape (Source: CGAMW)

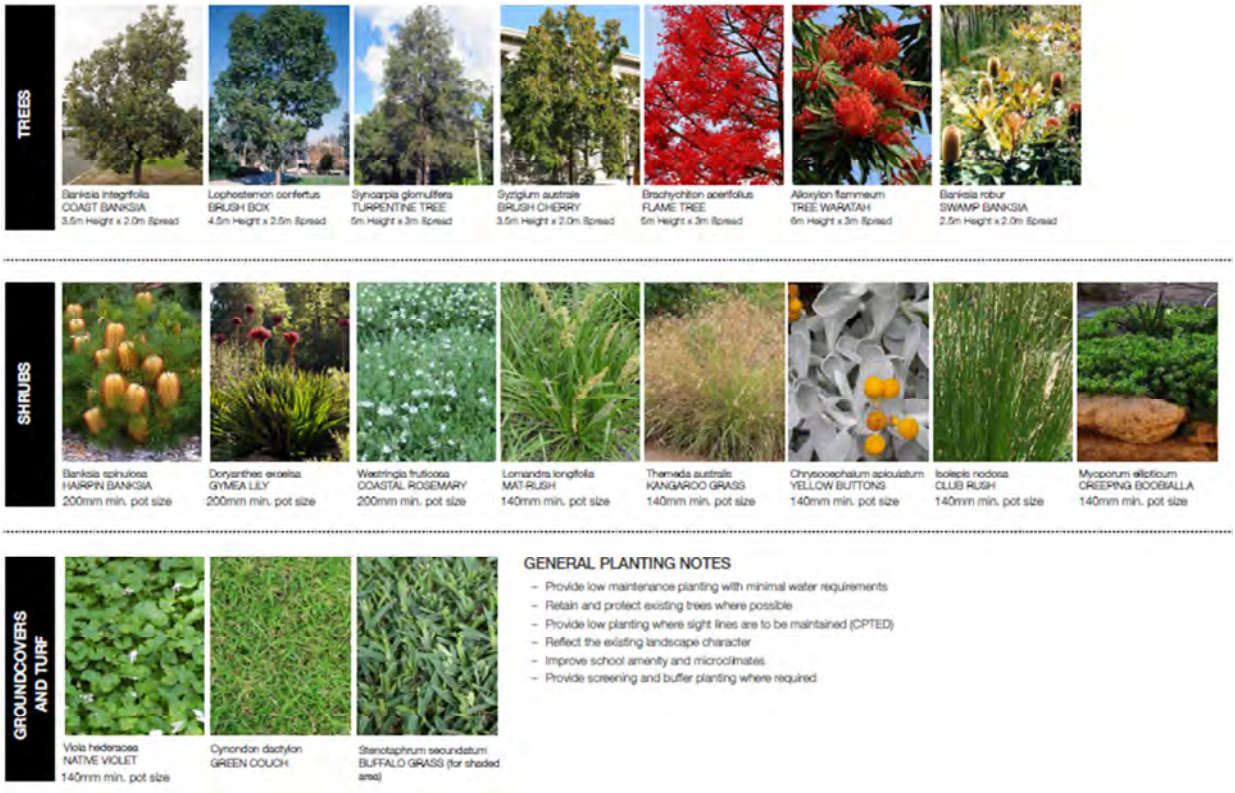


Figure 3.6 Proposed Landscape Consent – Softscape (Source: CGAMW)

3.8 Waste

Construction Waste

A Construction Waste Management Plan has been prepared by Kane Construction Pty Ltd September 2017 (refer Appendix Q).

This plan identifies that compliance with the relevant Australian Standards, the Departments Conditions of Consent as well as prescribing waste management strategies and mitigation measures to be employed onsite to ensure satisfactory waste disposal.

Operational Waste

A separate Operational Waste Management Plan has been prepared by TTM, 28 September 2017 (refer Appendix R) on the information provided and similar developments, the primary waste expected to be generated in the ongoing operation of the development would be:

- Cardboard/paper recycling
- Comingled recycling
- Food organics recycling. In this regard a compost facility will be proposed in associated with the agricultural facilities
- General waste
- Additional smaller waste streams may include toner cartridge recycling, fluoro tube/globe recycling and battery recycling.

A waste storage area of 22.6m² is recommended. The proposed waste storage area provides sufficient capacity for the bins proposed, which include:

- 3 x 1100L for general waste;
- 3 x 1100L for combined recycling; and
- A separate management facility for compost. This proposal will most likely run by the future school leadership team, in order to reduce waste and educate about waste.

These bins will be stored throughout the school for use at the point of generation. They will be brought to the waste storage/collection area as required for collection. Collection will be managed by the school with a nominated contractor.

The Waste Management Plan has found the sites best operational waste collection will be a bi-weekly general waste collection, and a biweekly recycling collection.

3.9 Site Services

Wood and Grieve Engineers have prepared a Site Services Infrastructure Report dated September 2017 outlining the current and proposed service infrastructure for the site. The Report covers existing and proposed electricity, telecommunications, and hydraulic services. The site is already serviced however minor augmentation of service lines will be required for the proposed development. The proposed new school is also proposed to be linked to new NBN broadband network.

Electricity, telecommunications and potable water will be access via Smalls Road, while sewer mains will be accessed via the northern most corner of the lot, and southern boundary abutting residential dwellings.

3.10 Staging and Construction Management

A Construction Management Plan (CMP) has been prepared by Kane Construction dated September 2017 (refer Appendix I) detailing the construction methods to complete works for the proposed Smalls Road Public School. Construction will not be staged to complete works for the proposal.

The management plan covers the following aspects of construction;

- Communication
- Site Establishment
- Construction
- Commissioning and completion
- Work health and safety
- Quality assurance
- Environmental management.

A key aspect of the CMP is communication. The CMP includes details about how the construction team with its subcontractors will be in communication with the projects representatives from the client side Project Managers, on progress, coordination and other construction related issues.

Figure 3.7 Stage 1 Demolition (Source: Kane CMP)

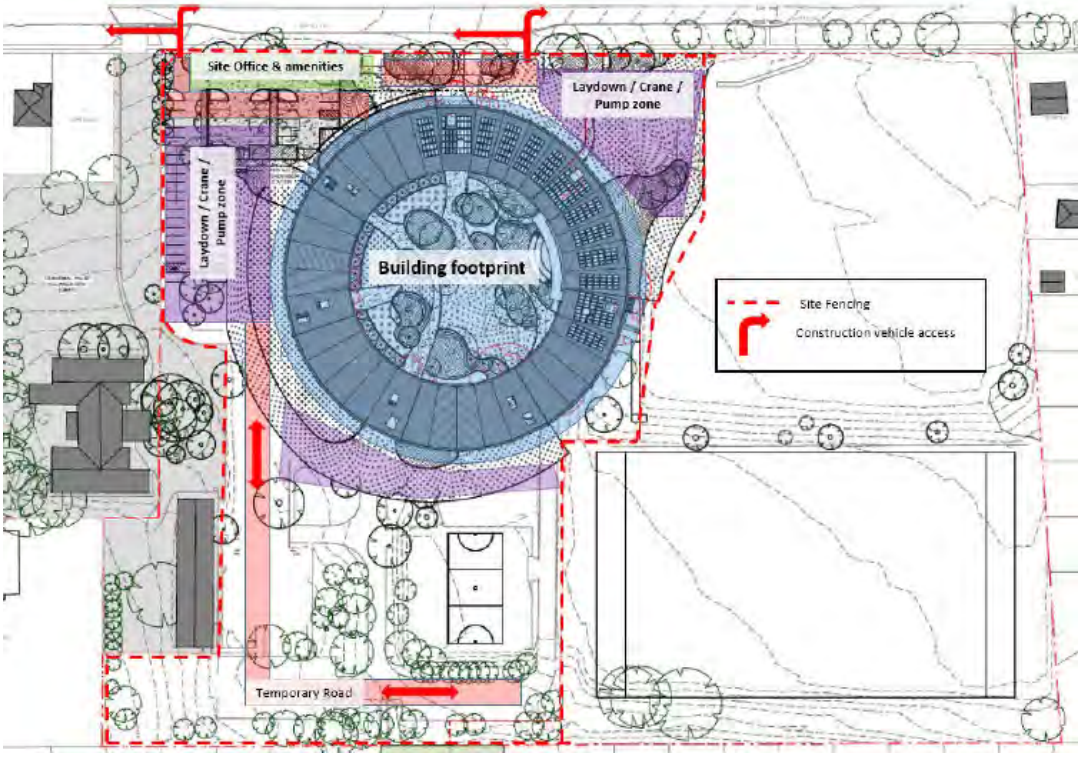


Figure 3.8 Construction Stage 2 Demolition (Source: Kane CMP)

4 Statutory Policy Context

4.1 Overview

In accordance with SEARs, the following statutory planning policies have been considered in the assessment of the proposal:

- *State Environmental Planning Policy (State & Regional Development) 2011;*
- *State Environmental Planning Policy (Infrastructure) 2007;*
- *State Environmental Planning Policy No.55 – Remediation of Land;*
- *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017;* and
- *Ryde Local Environmental Plan 2014.*

4.2 State Environmental Planning Policy (State and Regional Development)

State Environmental Planning Policy (State and Regional Development) 2011 identifies development types that are of state significance, or infrastructure types that are of state or critical significance.

The introduction of *State Environment Planning Policy (Educational Establishment and Child Care Facilities) 2017,* 1 September 2017 also involves changes to the education establishments which were classified as state significant development. Under the *State Environmental Planning Policy (State and Regional Development) 2011* certain developments involving educational establishment as classified as state significant development;

> *15 Educational establishments*
>
> *(1) Development for the purpose of a new school (regardless of the capital investment value).*
>
> *(2) Development that has a capital investment value of more than $20 million for the purpose of alterations or additions to an existing school.*
>
> *(3) Development for the purpose of a tertiary institution (within the meaning of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017), including associated research facilities, that has a capital investment value of more than $30 million.*

Whilst the current site is presently being used for distance education, the proposal is for a new school building and has a capital investment value (CIV) of more than 20million (Appendix B).

This application is therefore categorised as state significant development and is submitted to the Department of Planning and Environment for assessment and determination.

4.3 State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) aims to facilitate the effective delivery of infrastructure across NSW by:

> *(a) improving regulatory certainty and efficiency through a consistent planning regime for infrastructure and the provision of services, and*
>
> *(b) providing greater flexibility in the location of infrastructure and service facilities, and*

(c) *allowing for the efficient development, redevelopment or disposal of surplus government owned land, and*

(d) *identifying the environmental assessment category into which different types of infrastructure and services development fall (including identifying certain development of minimal environmental impact as exempt development), and*

(e) *identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and*

(f) *providing for consultation with relevant public authorities about certain development during the assessment process or prior to development commencing*

The relevant provisions under the ISEPP as addressed below.

The previously relevant development controls relating to Education Establishments have been repealed with the implementation of the *State Environmental Planning Policy – (Educational Establishments and Child Care Facilities) 2017.*

Development likely to affect an electricity transmission or distribution network

Clause 45 of the ISEPP requires development which may affect electricity transmissions or distribution networks be referred to the relevant supply authority for the consent authority to take into consideration any response received within 21 days after the notice is given.

It has been indicated that the proposed works may require a new substation or the retention of the existing substation, therefore, a referral to Ausgrid is required pursuant to clause 45(1)(ii) of the ISEPP.

4.4 State Environmental Planning Policy – (Educational Establishments and Child Care Facilities) 2017

State Environment Planning Policy (Educational Establishment and Child Care Facilities) 2017 (Education SEPP) provides state wide planning controls for Educational Establishments. The Education SEPP came into force on 1 September 2017 and replaces the education provisions in the *State Environmental Planning Policy (Infrastructure) 2007.*

Education Establishment is defined in the Education SEPP and standard instrument as

educational establishment *means a building or place used for education (including teaching), being:*

(a) a school, or

(b) a tertiary institution, including a university or a TAFE establishment that provides formal education and is constituted by or under an Act.

Clause 13(4) requires the proposal to be referred to the Roads and Maritime Services.

Clause 35 of the Education SEPP permits schools to be carried out with consent in a prescribed zone. In this instance the site is currently zoned SP2 Special Uses Infrastructure (Education Establishment)

Before determining a development application pursuant to clause 35(6) the consent authority must have regard for the design quality principles set out in Schedule 4 of the Education SEPP, in addition to whether the development enables the use of school facilities (including recreational facilities) to be shared with the community.

Design principles of schedule 4 are outlined and responded to by CGAMW in Table 4.1.

Table 4.1 Education SEPP Schedule 4 Design Principles

Education SEPP, 2017 Schedule 4	
Design Principle	**Response**
Principle 1—context, built form and landscape	
Schools should be designed to respond to and enhance the positive qualities of their setting, landscape and heritage, including Aboriginal cultural heritage. The design and spatial organisation of buildings and the spaces between them should be informed by site conditions such as topography, orientation and climate. Landscape should be integrated into the design of school developments to enhance on-site amenity, contribute to the streetscape and mitigate negative impacts on neighbouring sites. School buildings and their grounds on land that is identified in or under a local environmental plan as a scenic protection area should be designed to recognise and protect the special visual qualities and natural environment of the area, and located and designed to minimise the development's visual impact on those qualities and that natural environment.	The design of the new school, including the siting, spatial planning, orientation and materials selection have been considered to take advantage of and enhance the existing landscape conditions, minimise the impact on the surrounding neighbourhood, work with the existing topography, and maximise amenity for students. This has been achieved through: ▪ A compact, multi-storey building form which minimises the building footprint. ▪ A central site location which minimises the impact on the low density surrounds, minimising overshadowing to neighbours and creates a strong street presence for the school entry. ▪ An annular building plan that encloses a central landscaped courtyard to maximise connection to the landscape for all spaces of the school, maximising access to daylight and cross ventilation. ▪ Locating the new building to avoid areas of mature trees where possible, retaining existing trees both inside and outside of the courtyard, retaining the natural amenity of the established site. ▪ Working with the slope of the existing topography, creating outdoor connections on the south-west side of level one. ▪ Extensive new landscaped outdoor spaces which incorporates local and native flora and aims to extend and enhance the impact of the existing mature trees across the site. ▪ Creating strong connections from the courtyard to the surrounding open spaces, allowing the landscape to flow through the building. A considered exterior materials palette, facade panels arranged in a stretcher-bond pattern to reference the bricks of the surrounding houses, a rich, warm tone that compliments the tones of brick within the streetscape, and enhances the greens of the established landscape - overall a strategy that distinguishes the building as a vibrant and colourful place for children.

Education SEPP, 2017 Schedule 4	
Principle 2—sustainable, efficient and durable	
Good design combines positive environmental, social and economic outcomes. Schools and school buildings should be designed to minimise the consumption of energy, water and natural resources and reduce waste and encourage recycling. Schools should be designed to be durable, resilient and adaptable, enabling them to evolve over time to meet future requirements.	The design includes multiple strategies to achieve sustainable outcomes and ensure that the school buildings remain resilient and able to respond to changing requirements over time. The design incorporates ecologically sustainable design principles including: ▪ Passive environmental design, solar shading to minimise heat gain and spatial planning to allow for cross-ventilation. ▪ A flexible structural layout with large, column-free teaching spaces that can be reconfigured over time with minimal impact to structure and services. ▪ Material selections that will be considerate of environmental impact and be focused on the long term impacts of waste, recyclability and durability ▪ Services design that includes careful consideration of short and long term efficiency and examines way to reduce the environmental impacts of the new development including the incorporation of efficient technologies and roof mounted solar panels. ▪ Material selection which carefully considers the Australian context in a contemporary building Landscape design and plant selection is considerate of water requirements and utilises water sensitive principles.
Principle 3 – accessible and inclusive	
School buildings and their grounds should provide good wayfinding and be welcoming, accessible and inclusive to people with differing needs and capabilities. Note. Wayfinding refers to information systems that guide people through a physical environment and enhance their understanding and experience of the space. Schools should actively seek opportunities for their facilities to be shared with the community and cater for activities outside of school hours.	The building and landscape design provide clear and easily traversable access for all users and visitors, including people with differing needs and abilities. This is achieved through compliance with the requirements of AS1428.1, AS1428.2 (where applicable), accessible pathway grades and surfaces, clearances at door entries and two lifts on either side of the building to allow easy access and circulation to upper level classrooms. Wayfinding has been designed to be intuitive, with a clear school entrance distinct in the architecture which will incorporate wayfinding signage for visitors and students. This includes a secondary, after-hours access point for the library, hall and playing fields. The building plan and design creates intuitive legibility with the use of colour for orientation, both within the interior of the courtyard, and the interior colour schemes throughout the school. Special education classrooms have been designed with dedicated accessible change facilities. They have been designed adjacent one of the lifts for ease of connectivity to the rest of the school and have direct, level access to outdoor play space.

Education SEPP, 2017 Schedule 4	
Principle 4—health and safety	
Good school development optimises health, safety and security within its boundaries and the surrounding public domain, and balances this with the need to create a welcoming and accessible environment.	The design aims to provide a healthy and safe environment for all school users and visitors. The design utilises multiple strategies including: ▪ Building design incorporating operable windows and louvres and ceiling fans for natural ventilation. ▪ Covered outdoor learning and play spaces which are easily accessible to encourage the use of outdoor areas. ▪ Screening and balustrades provide safe outdoor upper level learning spaces which are sheltered from the elements ▪ School entrances are clearly marked and signed and access from clear pathways ▪ Building orientation focuses all active zones on the school centre to allow for casual surveillance ▪ Entrances to toilet facilities are clearly visible. ▪ A line of security separates the school from the playing fields securing the school from after-hours, public use. A separate, secondary entry point allows after-hours use of the communal hall and library, keeping the rest of the school building secure.
Principle 5 – amenity	
Schools should provide pleasant and engaging spaces that are accessible for a wide range of educational, informal and community activities, while also considering the amenity of adjacent development and the local neighbourhood. Schools located near busy roads or near rail corridors should incorporate appropriate noise mitigation measures to ensure a high level of amenity for occupants. Schools should include appropriate, efficient, stage and age appropriate indoor and outdoor learning and play spaces, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, and storage and service areas.	The design of the buildings and landscape have focused on providing future-focused learning spaces and connected outdoor learning and play spaces. This aims to enhance the ability of the school to provide high level teaching outcomes while also providing learning and play spaces that maximise amenity for students and the local neighbourhood through: ▪ Flexible internal planning that will allow the school to respond to new and evolving learning and teaching strategies and collaboration between classes ▪ Technology strategies that are flexible and can be easily adapted over time ▪ A variety of indoor and outdoor covered learning spaces and openings to encourage an easy transition outdoors and encourage collaboration ▪ Locating covered outdoor learning spaces adjacent class room clusters for easy use of outdoor space during teaching periods ▪ Screening, orientation and material selections on walls adjacent to noisy major roads have been used to reduce the acoustic intrusion of traffic An acoustic noise impact report to guide internal acoustic amenity and to reduce the impact of noise on the neighbours

Education SEPP, 2017 Schedule 4	
Principle 6—whole of life, flexible and adaptive	
School design should consider future needs and take a whole-of-life-cycle approach underpinned by site wide strategic and spatial planning. Good design for schools should deliver high environmental performance, ease of adaptation and maximise multi-use facilities.	Extensive site investigation was undertaken at an early stage to understand the impacts of environmental factors and existing site conditions and to consider the potential long term changes to the school. The design and siting of new buildings has considered the impacts of long term growth and adaptation by: ▪ Incorporating flexible internal planning, flexible structural and services design with large, column-free spaces which allow for rooms to be changed over time ▪ Incorporating provision for future changes to plant and service spaces to minimise future infrastructure and building modifications ▪ Incorporating services which have been selected on the basis of long term cost/benefit analysis rather than short term costs ▪ Maintaining mature trees and incorporating new planting as an investment in the long term health and amenity of the school The break in the building form on the southern side is equal in size to a typical learning cluster, creating an opportunity for the future expansion of the school.
Principle 7 – aesthetics	
School buildings and their landscape setting should be aesthetically pleasing by achieving a built form that has good proportions and a balanced composition of elements. Schools should respond to positive elements from the site and surrounding neighbourhood and have a positive impact on the quality and character of a neighbourhood. The built form should respond to the existing or desired future context, particularly, positive elements from the site and surrounding neighbourhood, and have a positive impact on the quality and sense of identity of the neighbourhood.	The design has been developed based on extensive consultation with The Department of Education, The Project Reference Group and in response to the local environment and context. It aims to be engaging and thoughtful with a material palette that has longevity, includes evocative links to the local vernacular, and has a degree of playfulness that defines the architecture as a place for children. The design: ▪ Includes an external colour palette that is complimentary to the existing buildings and context. The facade panels are arranged in a stretcher-bond pattern to reference the bricks of the surrounding houses. ▪ Includes rich, warm tones compliment the tones of brick within the streetscape, and enhances the greens of the established landscape. The facade strategy distinguishes the building as a vibrant and colourful place for children ▪ A rich and layered architecture, landscape architecture, interior design and overall colour scheme that include themes of the Australian landscape, enhancing wayfinding and using design to create a building as a learning tool for students. ▪ Sensitively incorporates services by concealing and integrating services wherever possible ▪ Uses high quality and durable materials to avoid the need for maintenance and to maintain the aesthetic intent long term.

Community Use of Schools

The DoE Policy 'Community Use of School Facilities Implementation Procedures' (refer Appendix W) provides a guideline for the use of school facilities (including recreational facilities) to be shared with the community. Schools are encouraged to make their facilities available for use by the community. However this must be for appropriate purposes and must not interfere with the school's provision of quality learning programs.

The objectives of the policy are as follows

- *Schools are valuable community assets which should be available for community use, when not required for school purposes.*
- *Schools support families and communities by making facilities available for children's services.*
- *School facilities must only be used for activities that do not interfere with the school's teaching and learning programs.*
- *School facilities must only be used for activities which are consistent with the values of Public Education and the school's purpose and goals.*
- *Community use applications are determined on whether facilities are fit for the proposed use, the proposed use is appropriate and the proposed community user is suitable.*
- *Priority is given to applications from community groups and organisations as listed in the implementation procedures.*
- *Any necessary consultation between the school principal, other departmental officers, the community use applicant and other key stakeholders should be conducted prior to any agreement being signed.*
- *A written agreement for the community use of school facilities is made to formalise the rights and obligations of both parties.*
- *Community use involving the upgrading of facilities, children's services, commercial ventures or uses for durations over 12 months should be referred to the local Assets Management Unit.*
- *Community use agreements are subject to suspension or termination in circumstances of emergent school and department requirements.*
- *Schools will charge appropriate fees for the use of their facilities. Community Languages Schools approved by the department:*
  - *Have free access to school facilities for community language classes during school terms.*
  - *Are not charged costs for utilities for community language classes during school terms.*
- *The department provides funding to schools to assist in meeting additional costs in utilities arising from the free use of school facilities by approved Community Languages Schools.*

As outlined above School Principals are supported by the Department of Education can and often do make their facilities available for community use. Community uses which are commonly accommodated in existing schools facilities are;

- Community Language Schools;
- Dance schools/groups;
- Sporting groups;
- Martial Arts groups; and
- Local Community Musical Theatre and Arts groups.

Ultimately the decision to make school facilities available to community uses will be up to the Principal supported the school community and the Department of Education however the policy framework to support and encourage community uses into school is there to allow this integration to occur.

Traffic-generating development

Clause 57 of the Education SEPP relates to traffic generating development and identifies the threshold requirement for referral to Roads and Maritime Services (RMS), as follows;

> *57(1) This clause applies to development for the purpose of an educational establishment:*
>
> *(a) that will result in the educational establishment being able to accommodate 50 or more additional students, and*
>
> *(b) that involves:*
>
> *(i) an enlargement or extension of existing premises, or*
>
> *(ii) new premises,*
>
> *on a site that has direct vehicular or pedestrian access to any road.*

Accordingly a referral to the RMS would be required noting the proposal is for a new school for 1,000 students.

4.5 State Environmental Planning Policy 55 – Remediation of Land;

State Environmental Policy No 55 – Remediation of Land provides a state-wide planning approach to the remediation of contaminated land. Contaminated land is defined in the SEPP and the EP&A Act, as:

> *Contaminated land means land in, on or under which any substance is present at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment.*

Pursuant to the provisions of Clause 7 of SEPP 55, Council must not grant consent to a development application unless it has considered whether the land is contaminated. If the land is found to be contaminated, Council must be satisfied that the land is suitable in its contaminated state or can be remediated to be made suitable for which the development is proposed to be carried out.

With regard to the former use of the site for education a preliminary site investigation report has been prepared for the site by Greencap, March 2017 (refer Appendix K). This report concludes that *"preliminary conclusions regarding the suitability of the land for future use as a primary school consistent with the Health Investigations Levels derived for developed open space land."*

In addition, a Hazardous Materials Risk Assessment, February 2017 (refer Appendix J) has been completed, recommendations will form part of any contract issued with respect to the site.

Accordingly, the Department can be satisfied that the provisions of Clause 7 of the SEPP are satisfied.

4.6 State Environmental Planning Policy No. 64 – Advertising and Signage

State Environmental Planning Policy (SEPP 64) – Advertising and Signage applies to all signage that can be displayed with or without development consent and is visible from any public place or public reserve.

The objectives of the policy include;

(i) is compatible with the desired amenity and visual character of an area, and

(ii) provides effective communication in suitable locations, and

(iii) is of high quality design and finish.

The proposal includes 1 freestanding advertisement for the purpose of identifying the proposed development. The sign will be affixed to a brick podium 5.87m wide by 2.1m tall, constructed at the entrance to the school. The sign will consist of the words "Smalls Road Public School" for identification of the proposed development. The proposed signage is required to comply with the aims of Clause 3(1) of SEPP 64 and the assessment criteria in Schedule 1 of the SEPP. The proposal as demonstrated in the architectural plans is to comply with the objectives of the SEPP

An assessment of the proposed signage and the assessment criteria in Schedule 1 is provided in Table 4.2.

Table 4.2 SEPP 64 Compliance Table

Clause	Comment	Complies
Clause 3 Aims, objectives		
1. Character of the area		
▪ Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located? ▪ Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?	The proposed signage is consistent with the education precinct in which it is located. The proposal is consistent with the requirement to clearly identify the school for the students, staff and visitors.	✓
2. Special areas		
▪ Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	The proposal would not detract from the amenity or visual quality of any environmentally sensitive areas.	✓
3. Views and vistas		
▪ Does the proposal obscure or compromise important views? ▪ Does the proposal dominate the skyline and reduce the quality of vistas? ▪ Does the proposal respect the viewing rights of other advertisers?	The proposal does not obscure or compromise important views, dominate the public domain or reduce the quality of vistas.	✓
4. Streetscape, setting or landscape		
▪ Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape? ▪ Does the proposal contribute to the visual interest of the streetscape, setting or landscape? ▪ Does the proposal reduce clutter by rationalising and simplifying existing advertising? ▪ Does the proposal screen unsightliness? ▪ Does the proposal protrude above buildings, structures or tree canopies in the area or locality? ▪ Does the proposal require ongoing vegetation	The scale, proportion and form of the proposal are appropriate for the setting and landscape. The proposed signage is consistent with education precinct of the university campus. The signage provides some visual interest to the immediate public domain. It is consistent with the scale and architectural approach of the proposed school buildings. The proposal is compatible with the scale, proportion and other characteristics of the	✓

Clause	Comment	Complies
management?	building. It is fitting with surrounding development. The signage respects the building, site and local context and in replacing the previous signage, the new signage is innovative and imaginative in respect of the building.	
5. Site and building		
▪ Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located? ▪ Does the proposal respect important features of the site or building, or both? ▪ Does the proposal show innovation and imagination in its relationship to the site or building, or both?	The proposal sign is compatible with the proposed building, assist with the identification of the building, use and will assist in providing a school identity.	✓
6. Associated devices and logos with advertisements and advertising structures		
▪ Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	The signage is integrated into the design of the proposal. The proposed development is not an advertisement or an advertising structure.	✓
7. Illumination		
▪ Would illumination result in unacceptable glare? ▪ Would illumination affect safety for pedestrians, vehicles or aircraft? ▪ Would illumination detract from the amenity of any residence or other form of accommodation? ▪ Can the intensity of the illumination be adjusted, if necessary? ▪ Is the illumination subject to a curfew?	No illuminated proposed.	✓
8. Safety		
▪ Would the proposal reduce the safety for any public road? ▪ Would the proposal reduce the safety for pedestrians or bicyclists? ▪ Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?	The proposal would not reduce the safety for any public road, pedestrians or cyclists. The signage would not reduce safety for pedestrians as no sightlines would be obscured from public areas.	✓

4.7 Ryde Local Environmental Plan 2014

Ryde Local Environmental Plan 2014 (RLEP) consists of the local planning controls for the City of Ryde LGA. The proposed development has been assessed against the relevant controls for the site, outlined below.

Table 4.3 LEP Compliance Table

Clause	Comment	Complies
2.1 Land Use Zones		
Land use zone	Special Purpose Zone – SP2 Infrastructure	✓
Special Purpose Zone – SP2 Infrastructure	The objectives of the SP2 – Infrastructure are ▪ To provide for infrastructure and related uses. ▪ To prevent development that is not compatible with or that may detract from the provision of infrastructure. ▪ To ensure the orderly development of land so as to minimise any adverse effect of development on other land uses. The proposed primary school is consistent with the objectives of the zone.	✓
Permissibility	The purpose shown on the RLEP zoning map is 'Educational Establishment', the proposed School is therefore permissible under the RLEP.	✓
4.3 height of buildings		
The height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map	The subject site is shown as having no height restrictions on the Ryde Height of Buildings map.	✓
4.4 Floor space ratio		
The maximum floor space ratio for a building on any land is not to exceed the floor space ratio shown for the land on the Floor Space Ratio Map.	The site is shown as having no Floor Space Ratio on the Ryde Floor Space Ratio Map.	✓
5.9 Preservation of trees or vegetation		
(3) A person must not ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree or other vegetation to which any such development control plan applies without the authority conferred by: (a) development consent, or (b) a permit granted by the Council.	The landscape design has incorporated as many retained trees as possible as shown in the landscape plan prepared by CGAMW 2017. An arboriculture assessment of the site was undertake by Urban Arborists and outlines the conditions of the existing trees on site. The full arboriculture assessment can be found attached to this EIS.	✓
5.12 Infrastructure development and use of existing buildings of the Crown		
(1) This Plan does not restrict or prohibit, or enable the restriction or prohibition of, the carrying out of any development, by or on behalf of a public authority, that is permitted to be carried out with or without development consent, or that is exempt development, under State Environmental Planning Policy (Infrastructure) 2007.	Noted.	✓

4.8 Ryde Development Control Plan 2014

Ryde Development Control Plan 2014 (DCP) consists of the local development controls for the City of Ryde LGA. The proposed development has been assessed against the relevant controls for the site, outlined below. Although the SEARs has not requested the SSD be assessed against the DCP, the controls have been provided to demonstrate general compliance.

Table 4.4 DCP Compliance Table

Clause	Comment	Complies
Part 1		
1.3 land to which this plan applies	This Plan applies to all land within the City of Ryde.	✓
Part 9.1 Signage		
Extent of Signage a. Maximum of 1 sign will be permitted per site	Noted. Only one (1) sign is proposed.	✓
Sign Options b. Sign options in residential zones are: i. Business signs; ii. Real estate signs; iii. Home occupation signs; and iv. Temporary signs.	Noted. Proposed signage is a Business sign.	✓
Illumination c. Illumination of signs is prohibited.	Noted. Sign will not be illuminated.	✓
Part 9.3 Parking Controls		
Non–residential Land Uses		
Educational Establishment - Primary and Secondary Schools ▪ 1 space / two employees AND ▪ 1 space / ten students over 17 years of age	Noting the school is expected to employ 70 teaches, with no students over 17 years of age, the requirement of the DCP would be 35. The proposal provides 47 parking spaces on site. This includes; ▪ 42 staff parking spaces ▪ 2 accessible parking spaces ▪ 1 loading and delivery space. Please refer to the plans provided by CGAMW provided with this EIS.	✓
Bicycle Parking a. In every new building, where the floor space exceeds 600 m2 GFA (except for dwelling houses and multi-unit housing) provide bicycle parking equivalent to 10% of the required car spaces or part thereof	Bicycle parking will be provided in accordance with the EFSG. In this regard it will also be compliant with the Ryde DCP.	✓
On- Site Loading and Unloading Facilities		
All developments involving new floor space are required to provide on-site loading and unloading facilities	Noted. The proposal includes loading facilities in the car parking facility.	✓
Loading docks shall be located in such a position that vehicles do not stand on any	The proposed loading dock has been design to allow a vehicle to both enter and leave in a forward	✓

Clause	Comment	Complies
public road, footway, laneway or service road and, that where possible, vehicles entering and leaving the site move in a forward direction.	motion. In this regard, school management will ensure that the majority of deliveries will be outside of school hours, in order to maximise safety. The loading facility is located within the car park and not on any public property.	

5 Strategic Planning Context

5.1 Overview

In accordance with SEARs application *SSD 17-8372* the following strategic policies are required to be addressed in assessment of the proposed development

- NSW State Priorities;
- A Plan for Growing Sydney;
- NSW Long Term Transport Master Plan 2012;
- Sydney's Cycling Future 2013;
- Sydney's Walking Future 2013;
- Sydney's Bus Future 2013;
- Healthy Urban Development Checklist, NSW Health; and
- Greater Sydney Commission's Draft North District Plan.

5.2 NSW State Priorities

NSW State Priorities is the State Government's plan to guide policy and decision making across the State. The proposed development complies with the following objectives of those priorities.

Creating jobs

150,000 new jobs by 2019

- The proposed development will create temporary construction and manufacturing job opportunities during the construction phase, and create permanent teaching, maintenance and administration jobs upon the project's completion.

Building infrastructure

Key metropolitan, regional and local infrastructure projects to be delivered on time and on budget

- The proposal will deliver a high quality publically funded education for students within the Ryde area. There is substantial population growth in Ryde and the proposal will create jobs, deliver a vital piece of community infrastructure for the community and take the pressure off enrolments at surrounding primary schools.

Improving education results

Increase the proportion of NSW students in the top two NAPLAN bands by eight per cent by 2019

- The project will deliver specialised facilities, equipment and spaces to optimise the learning environment of students and provide them with the best opportunities to improve their literacy and numeracy skills.

It is considered that the proposed development is consistent with the goals and objectives set out within the NSW State Priorities.

5.3 A Plan for Growing Sydney

A Plan for Growing Sydney, released in December 2014, is the NSW Government's plan for the future of the Sydney Metropolitan Area over the next 20 years. The Plan provides key directions and actions to guide Sydney's productivity, environmental management, and liveability – including the delivery of housing, employment, infrastructure and open space.

The key challenges facing Sydney including a population increase of 1.6 million by 2035, and an additional 689,000 new jobs and 664,000 new homes by 2031.

The provision of key infrastructure, such as schools, to support growth and urban renewal and match population growth is a key action of the Plan. A new primary school at Smalls Road has been identified by government for major investment. With the projected increase in the younger population, the provision of a new primary school in the City of Ryde is important in meeting the infrastructure needs of the future.

5.4 NSW Long Term Transport Master Plan 2012

NSW Long Term Transport Masterplan 2012 seeks to provide an overarching framework for the delivery of an integrated transport system. The promotion of walking, cycling and active transport is important to reduce congestion and increase road safety.

The proposal is located within a residential area and will be integrated with the pedestrian and cycling footpath network to encourage alternate travel methods to and from school and decrease vehicle use. Along with the provision of the minimal parking to encourage alternate travel methods of more sustainable means.

5.5 Sydney's Cycling Future 2013

The proposed primary school will install and maintain bicycle racks that will be made available for both students and employees. The proposal will be integrated with the existing cycle and pedestrian footpath network. The subject site is surrounded by local streets, providing safe places for students to cycle to and from school.

The subject site is also serviced by a number of official and informal on-road cycling routes, allowing for increased bicycle transport by employees and parents (see Figure 5.1). This will reduce the reliance on cars and promote healthy lifestyles of students, families and employees.

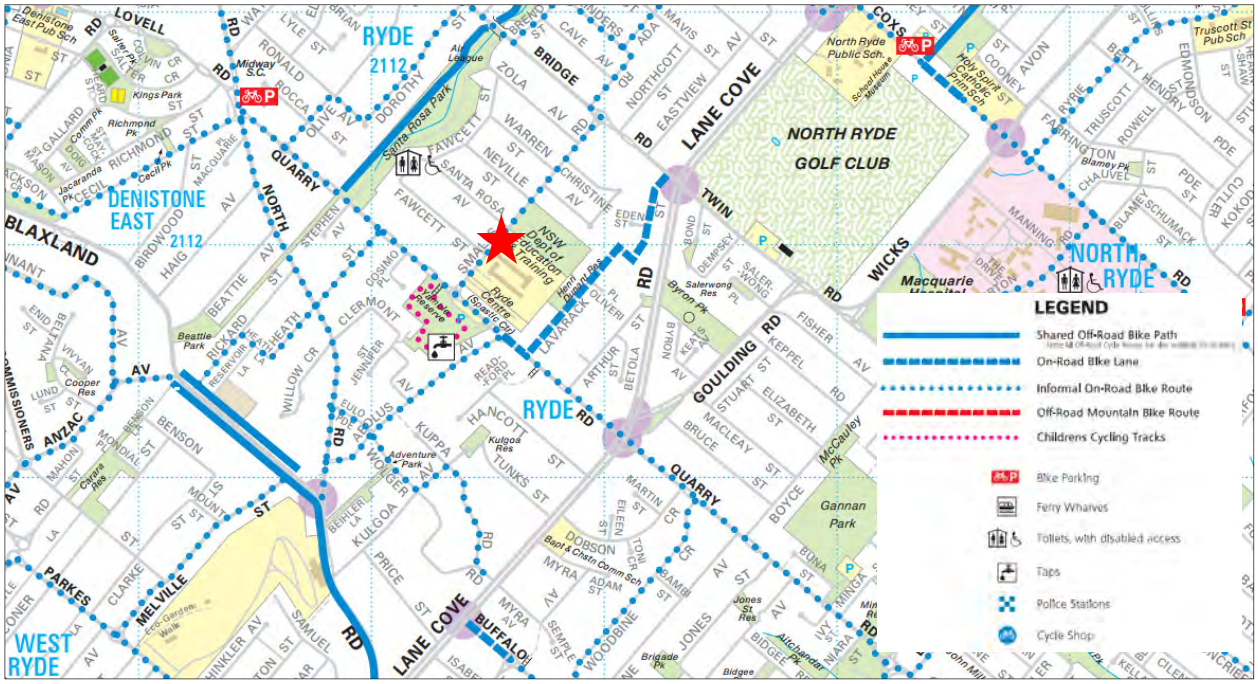


Figure 5.1 City of Ryde Bike Map (Source: Sydway 2013)

5.6 Sydney's Walking Future 2013

The NSW Government's objective is to get people in Sydney walking more through actions that make it a more convenient, better connected and safer mode of transport. The development is located in a largely residential area. The location will encourage students, parents and staff to access the school via walking. Provisions of programs to encourage walking like walking-buses will also encourage walking and increase safety for students.

The residential neighbourhood is well serviced by existing bus services and will be combined with school buses to service students who live further away.

5.7 Sydney's Bus Future 2013

Sydney's Bus Future is the NSW Government's long term plan to redesign Sydney's bus network to meet customer needs now and into the future.

The proposal provides for bus facilities that will enable students to embark and disembark in a safe and efficient manner. The school buses will work together with walking and cycling programs to reach students that are located at distances that make walking and cycling unlikely to decrease vehicular use.

5.8 Healthy Urban Development Checklist, NSW Health

The Healthy Urban Development Checklist is to help facilitate relationships between NSW and urban planners and developers to promote a healthy built environment. The proposal satisfies a range of items in the checklist, including:

- Encouraging incidental physical activity;
- Creating opportunities for walking, cycling and other forms of active transport;

- Promoting access to usable and quality outdoor spaces and recreational facilities;
- Availability of public transport services;
- Reducing car dependency and encouraging active transport;
- Locating jobs close to housing and commuting options;
- Promoting access to green space and natural areas;
- Providing access to a range of facilities to attract and support a diverse population;
- Responding to community needs and current gaps in facilities;
- Creating an environment that encourages social interaction and connection among people; and
- Creating equitable access to resources by students and families.

The proposal therefore promotes a healthy urban environment.

5.9 Greater Sydney Commission's Draft North District Plan

The Draft North District Plan 2017 prepared by the Greater Sydney Commission proposes a 20-year vision for the North District, which includes Ryde LGA. It has been developed by the Greater Sydney Commission in consultation with State agencies and the community and with technical input from councils.

The Draft North District Plan has identified a growing number in school aged children in the next 20 years, particularly within the City of Ryde. The proposal achieves the objectives of providing adequate educational facilities for the growing population.

The provision of future educational needs is very important within the Draft North District Plan, which identifies Ryde as having one of the largest increases in school aged children in the region. Based on the projected changes in the primary and secondary aged population, without the provision of significant additional classrooms by 2036, there will be substantial shortfalls in education provision.

Available primary school places are limited across the district and a large number use demountable classroom to supply teaching spaces.

Through the proposed provision of a new school in Ryde, the ability to accommodate for the projected growth in school aged children in Ryde will increase, helping to prevent education shortfalls in the future. In this regard this school is designed to relieve pressure and the associated requirement for demountable classrooms from nearby schools.

5.10 City of Ryde 2025 Community Strategic Plan

The City of Ryde 2025 Community Strategic Plan was prepared in 2011. With seven key outcomes that will shape the current and future planning outcomes and align with government, business and community organisations to deliver the vision for the City of Ryde – the place to be for "Lifestyle and Opportunity @ your doorstep". The seven key outcomes of the plan are:

- A city of liveable neighbourhoods
- A city of wellbeing
- A city of prosperity
- A city of environmental sensitivity
- A city of connections

- A city of harmony and culture
- A city of progressive leadership

The provision of services and facilities for the varying needs of the City of Ryde's diverse population at all the different stages of their life is an important theme throughout the Plan. The provision of a primary school at Smalls Road is consistent with the strategic aims of the Plan and will accommodate the needs of a rapidly growing school aged population.

6 Key Assessment Issues

The following issues as outlined in the SEARs have been assessed, with impacts noted and mitigation measures proposed where necessary in this EIS:

- Built Form and Urban Design;
- Environmental Amenity;
- Transport and Accessibility;
- Crime Prevention through Environmental Design;
- Ecologically Sustainable Development;
- Social Impacts;
- Noise and Vibration;
- Contamination;
- Utilities;
- Drainage;
- Flooding; and
- Waste.

6.1 Built Form, Urban Design and Open Space

The proposed development is for one (1) Three (3) storey circular building to house 1,000 students from years K – 6 and associated upgrades. A design statement has been prepared by CGAMW highlighting the design considerations for the site, as previously outlined in Part 4.3 (refer Appendix Z). Design considerations for Built form and Urban Design are summarised as follows;

- *A compact, multi-storey building form which minimises the building footprint*
- *A central site location which minimises the impact on the low density surrounds, minimising overshadowing to neighbours and creates a strong street presence for the school entry.*
- *An annular building plan that encloses a central landscaped courtyard to maximise connection to the landscape for all spaces of the school, maximising access to daylight and cross ventilation*
- *Locating the new building to avoid areas of mature trees where possible, retaining existing trees both inside and outside of the courtyard, retaining the natural amenity of the established site.*
- *Working with the slope of the existing topography, creating outdoor connections on the south-west side of level one.*
- *Extensive new landscaped outdoor spaces which incorporates local and native flora and aims to extend and enhance the impact of the existing mature trees across the site.*
- *Creating strong connections from the courtyard to the surrounding open spaces, allowing the landscape to flow through the building.*
- *A considered exterior materials palette, facade panels arranged in a stretcher-bond pattern to reference the bricks of the surrounding houses, a rich, warm tone that compliments the tones of brick within the streetscape, and enhances the greens of the established landscape - overall a strategy that distinguishes the building as a vibrant and colourful place for children.*

The proposal, as demonstrated in the architectural plans, view analysis and renders of the proposal can be found to have a satisfactory impact on the immediate locality of Smalls Road, including the adjacent playing fields known as Small Road reserve.

The high quality design allows for a landmark building both for the NSW Department of Education and the local Ryde Community. The School will deliver an integrated, future-focused learning environment for students and their teachers. The articulated design, colourful and playful façade will distinguish the proposal as a place for children which reflects it local context. The integrated landscape ensures there is a mixture of hard and soft play areas providing flexible setting.

The efficient site planning has allows the retention of the Smalls Road playing fields which although owned by the Department of Education are operated by Ryde City Council under license. It is the Department of Educations every intention of retaining the fields for out of school hours use by the local community. In this regard the pedestrian access gates from Henri Durant Reserve on Lavarack have been designed to allow for separate access out of hours. The restriction during school hours is necessary for security purposes.

The proposal provides in addition to general learning spaces, administration and staff areas, a communal hall, library, special program rooms, special education learning spaces, a canteen and outdoor learning spaces. These uses have been sensitively planned to allow for secure separate after-hours access point to the playing fields, communal hall and library.

Details about *Crime Prevention Through Environmental Design* and Operational Waste facilities are outlined below in section 6.4 (Appendix X) and 6.13 (Appendix S) of this report. Communications with the City of Ryde about the future joining venter with facilities for the playing fields known as Small Roads Reserve are outlined in section 7.3 of this report.

6.2 Environmental Amenity

The SEARs has requested ‘a high level of environmental amenity for any surrounding residential land uses must be demonstrated’. The following issues were raised by the SEARs and have been addressed in this EIS in conjunction with supporting technical consultant reports.

Solar access and Overshadowing

Overshadowing to adjoining properties and solar access within the site has been shown in the shadow diagrams plans provided by CGAMW.

The shadow diagrams provided demonstrate that the proposal does not result in any undue overshadowing to the adjoining residential properties.

The unique design of the building allows the site to enjoy solar access year round, as demonstrated. The plans also demonstrate the effects of shadowing and more notable the ability of the internal open space to access to sunlight throughout the year.

Sufficient amenity is also provided for future users of the site, with satisfactory solar access maintain to key open spaces.

Privacy

The North West portion of the site which currently contains the existing structures is to be redeveloped for the proposed public school. A benefit of the location of the proposal is the resultant building separation from the main school site to neighbouring residential land uses. The existing and proposed vegetation around the site will ensure a visual buffer in addition to the substantial setbacks.

View loss

There are no known views across the site, which have been identified in the development of the proposal. The view analysis demonstrates a satisfactory impact on the local public domain.

Acoustic Impacts

A Noise Impact Report has been prepared by TTM Consulting Pty Ltd September 2017 (Appendix G) and has found;

> *The assessment has considered the potential noise impact to the community from the following noise sources and activities; Public Address system, School bell/period alarm, Mechanical Plant, school and community events and activities in the school hall, and construction noise and vibration for the demolition and construction stages of the project.*
>
> *The relevant noise criteria are predicted to be met at all times. The construction noise assessment found, as is frequently the case that the management levels are exceeded at all noise sensitive receivers (NSR's), but that 'Highly Noise Affected, level of 75 dB(A) was not exceeded at any NSR.*
>
> *The construction noise impact is expected to be higher, but with good practical management, can be minimised to acceptable levels.*

Further discussion of construction noise and vibration is discussed in part 6.7.

Aside from the Out of School Hours care (OOSH), which was taken into consideration in the noise impact report, there are no known uses of the school buildings and its surrounds.

There is no proposed change to the use of the playing fields under this application outside of school hours.

Out of School Hours (OOSH)

The proposed school includes a provision for out of school hours care (OOSH). Depending on demand OOSH will potentially offer before school care from 7:00am and after school care to 7:00pm. This has been considered in the acoustic report.

The proposed location of the OOSH hub is away from nearby residential dwelling and operating hours are outside of sensitive times.

Wind Impacts

A Pedestrian Wind Environment Statement has been prepared by Windtech Pty Ltd September 2017 (Appendix S) outlining the potential critical wind impacts of the proposal. The reports key findings are outlined;

- No impact on the wind conditions along Smalls Road or at the Lavarack Street entrance.
- The playing fields are being retained in essentially their original form and the wind conditions are expected to be similar to existing conditions.
- The prevailing southerly and westerly winds are significantly reduced on the Games Court due to planted wind shields, however they could benefit from addition tree plantations to the north-east of the area.
- The Courtyard benefits from shielding of the prevailing north-easterly and westerly winds by the building form, however there is potential for adverse wind effects caused by the prevailing southerly winds funnelling through the southern entrance to the Courtyard, which could be mitigated by

additional plantations upwind of the entrance, between the Games Court and the entrance, to slow the prevailing southerly winds as they approach the building and within the courtyard itself

6.3 Traffic and Access

A Transport Accessibility Impact Statement has been prepared by Taylor Thomson Whitting Consulting Engineers (TTW) dated October 2017 (refer Appendix Q) analysing the potential impacts to traffic from the proposed development. The site has been found to be generally well accessed via private vehicle, public transport, pedestrian and active transport modes of transit.

The sites only vehicular access will remain on Smalls Road, however the increased widening of the road has been found sufficient to accommodate pick-up / drop off as well as additional school bus links. The general surrounding streets of Smalls road have also been found to adequately support on-street parking however the additional widening along smalls road will be critical to this support.

Off street parking is provided within the school site and will support 47 new bays including 2 disabled bays, 1 loading bay and emergency access to the site. EFSG legislation requires sites up to 24 home bases may provide up to 36 bays for staff. The proposal has 43 home bases (including 3 for Special Education), providing 42 bays for staff. The Transport Accessibility Impact Statement prepared by TTW dated October 2017 has suggested mode share of private vehicle for staff to mitigate the pressure on private vehicle access. TTW have envisaged mode share of private vehicles to be around 80%.

The general findings of the Transport Accessibility Impact Statement has been prepared by Taylor Thomson Whitting Consulting Engineers dated October 2017 has found the following;

> *'Overall the School as proposed is considered acceptable with regards to its traffic and parking impacts. While it is not possible to avoid creating any impacts, the site has been designed to minimise these impacts where possible and feasible. The capacity of the local road network with regards to both traffic and parking is considered sufficient to cater for the new School.'*

The 'green travel plan' was prepared by TTW to support the findings of the Traffic Accessibility Impact Statement which looks at cycling facilities, pedestrian movement and local public transport services and how they can be optimised by the future staff in addition to the students and their carers.

There are also a number of operational initiatives in the Green Travel Plan which are suggested including;

- *Develop a transport access guide for the site, identifying public transport routes'*
- *Include travel information into the induction proves for new staff and parents'*
- *Provide travel information and reminder in the school newsletter'*
- *Provision of bicycle rails for students'*
- *Provisions of bicycle storage area and end-of-trip facilities for staff'*
- *Establish a walking school bus program'*
- *Promote 'Ride 2 School Day' and other health events and day'*
- *Implement safe systems; school crossing supervisors and other safety programs'*
- *The investigation of opal car top-up facilities locally'*
- *Introduce staff living in appropriate geographic locations'*
- *Incentivise carpooling through priority parking for carpooling staff.*
- *Ongoing management of the Green Travel Plan through regular revision and allocation responsibility*

The Department of Education is generally supportive of all these initiatives with policies in place for support their introduction by the Principal and school community.

The Department of Education would like to continue its open dialogue with City of Ryde as the school operates to ensure it is meeting its Community obligations with respect to Traffic Management.

Walking School Bus

One the initiatives proposed by the green travel plan is a 'walking school bus' which is a group of primary school children who walk to and from school along a set route, accompanied by supervising adults. One adult 'drives' at the front of the 'bus' while the other adult supervises at the rear of the 'bus'. The walking school bus picks up passengers along the way at designated bus stops on the way to and from school.

This scheme is best organised as a P&C (Parents and Community) lead initiative, while information about key considerations for its implementation and support is provided by the Department of Education, Road Safety Education Officers, this is not a mandated policy of the Department of Education.

6.4 Crime Prevention through Environmental Design (CPTED)

CPTED is the term given to the idea that it is possible to design the built environment in ways that lessen or prevent the incidence of crime. It seeks to influence the community's behaviour by;

- Increasing the perception of risk to those engaging in criminal or anti-social behaviours by increasing the possibility of detection, challenge and capture
- Increasing the effort requiring to engage in crime or anti-social behaviours
- Reducing the potential rewards and limiting or concealing opportunities for crime.

Crime Prevention though Environmental Design guidelines were prepared by the NSW Police in conjunction the Department of Planning, these and subsequent

CGAMW have provided a CPTED Report October 2017 (refer Appendix Y) ensuring the design of the buildings to be 'safe' using the following three concepts.

- Crimes against people and property are less likely to occur if other people are around
- It is also important that other people are able to see what is happening
- It is important to give people options and safe choices, particularly in their responses to what is happening.

CGAMW have used a further six key design principles to inform the approach to the proposed new primary school including; surveillance, legibility, territoriality, ownership of the outcomes (passive surveillance), management and vulnerability. These principles combine to ensure that the use of active hard security measures is minimal and the resultant school will be a safe place for students, staff and visitors.

6.5 Ecological Sustainable Development

The ESD principles as defined by clause 7(4) of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* are:

- The precautionary principle;
- Intergenerational Equity;
- Conservation of biological diversity and ecological integrity; and

- Improved valuation, pricing and incentive mechanisms.

The precautionary principle seeks to ensure that if there are threats of serious or irreversible environmental damage; lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In this regard the environmental impacts resulting from the proposal school and associated landscaping are deemed to be satisfactory noting the mitigation measures outlined below.

Intergeneration equity requires the present generation ensure that the health diversity and productivity of the environment are maintained or enhanced for the benefit of future generations. Noting the proposal is a primary school providing for the future generations and as the proposal is not considered to have significant impacts, the proposal is considered satisfactory in this regard.

The conservation of biological diversity and ecological integrity asks for the conservation of biological diversity and ecological integrity be a fundamental consideration. Noting the site is already largely cleared, does not contain any threatened specific of flora or fauna and satisfactory number of replacement trees are proposed for those trees requiring removal, the proposal does not impact on biological diversity, ecological integrity.

The principle of 'improved valuation, pricing and incentive mechanisms' has been incorporated into the proposal through establishing and meeting a number of environmental goals notably the desired green star rating and ensuring that sustainable materials are used in the proposals specifications.

As a result of the design and sustainability initiatives outlined, the Smalls Road Pubic School is expected to achieve a high level of environmental sustainability.

A report examining the use of ecological sustainable development (ESD) principles and measures in the proposal has been prepared by CGAMW and is attached at Appendix V. The report utilises the green star rating system as a framework to assess the proposal.

A number of the key measures incorporated into the design include;

- All Contractors will be required to prepare an Environmental Management Plan as a condition of contract.
- No Rainforest timbers to be used unless plantation grown.
- The design has maximised tree retention through the compact design.
- The design ensures that daylight, solar access for the building and cross ventilation are maximised in order to minimise energy consumption.
  - Natural daylight is to be provided to all teaching primary spaces through windows, skylights and roof lights.
  - Daylight sensors to rooms to reduce light output or turn off lights when sufficient daylight is provided within the space will be provided as required.
- On exposed façades with direct sunlight, external window shading will be employed and window size moderated, to reduce heat gain.
- Practical water conservation systems to be incorporated into the School for example:
  - Roof water harvesting and tank storage for landscape irrigation and flushing of toilets. Rainwater tanks to be incorporated where there is a local identified end use such as irrigation or toilet flushing. Rainwater tank designed preferably with gravity flow.

6.6 Social Impacts

The SEARs requested an assessment of the consequences of the schools' relative location and opportunities for shared facilities with the City of Ryde. As per DoE Policy 'Community Use of School Facilities Implementation Procedure' (refer Appendix W), schools are encouraged to share facilities with the community. Part 4.3 of the procedure outlines types of compatible community use that can utilities school facilities. Possible shared resources and potential consequences are outlined in Table 6.1 below. General Social Impacts of the development have been discussed in Table 6.2 below.

Table 6.1 School Resource / Social Impacts

Resource	Social Impact
School Hall	The school hall can be utilised as an additional community resource for community groups, language classes, dancing classes, martial arts and voting booths. The impacts of these uses on the site will be the addition of noise and traffic generation after regular school hours. Any proposed use will be considerate to neighbouring residential development by managing noise generation and utilised provided car parking facilities.
Library	Libraries are often used by the wider community for education purposes, focussed community groups and other community engagement activities. Any potential use of the library will be after school hours or on weekends. The use of the library may have traffic generation impacts and noise impacts.
Sports Field	The sports fields are to be used as public open space after school hours. Potential impacts include the use of the park for unintended purposes, noise impacts after hours and on weekends. The sports fields are currently on site and have previously been operating as a public facility. No additional social impacts are expected from the proposal.

Table 6.2 Social Impacts (Positive and/or Negative)

Social Impact	Assessment
Adequate access to education facilities	The proposal will increase access to education with the suburb of Ryde, relieving demand pressures of neighbouring schools. The proposal will provide education to 1,000 new students within state of the art facilities. The need for the development comes from increased enrolment pressures in the surrounding primary schools. The provision of a new school will provide education within the suburb which requires it most, reducing travel times and routes.

Social Impact	Assessment
Local Business	During the construction, the project is expected to generate employment and business opportunities. Including ▪ Construction jobs with a large proportion of these employees and subcontractors to be local residents due to the location of the school. ▪ An increase in business opportunities due to demand for goods and services for construction from local suppliers. A flow on to other local entities due to the increase of project related salaries in the area.
Employment during construction and operational phases of development	The development of the school will provide employment through the construction phase and beyond when the school becomes operational. The Quantity surveyors report has estimated that the equivalent of 300 full time jobs will be created during the construction phase. Once operational it is anticipated that teaching and non - teaching staff will be brought in from the region. It is anticipated that approximately 70 jobs will be generated by the development; this includes flow on effect from the new school in operating.
Visual / Noise	The design statement released by CGAMW states the visual impact of the site will be built using fibre cement panels arranged like brickwork, drawing on the established design style of the neighbourhood. The site will retain as many mature trees as possible to ensure the visual amenity of the site is kept. The construction and operation of the proposed school site will have an impact on the social values of the neighbourhood. The construction phase will have noise impacts however as demonstrated in Part 6.7 the impacts will be sufficiently mediated and the construction only temporary. The operation of the site will be contained to 9am to 3pm. This will ensure no adverse noise impacts of the site will be experienced. Operational noise is further discussed in Part 6.7.
Traffic and Transport	TTW have modelled the proposed development against the road network and proposed generation of traffic from the site and have found the proposal to not have a generally adverse impact to the site and surrounds. Although traffic impacts will occur the proposed development has been found to be adequate for traffic, transport, access and parking in accordance with the Department of Education guidelines.

Social Impact	Assessment
Safety and Security	The proposal has been designed with CPTED principles in mind addressing the following three concepts ▪ Crimes against people and property are less likely to occur if other people are around ▪ It is also important that other people are able to see what is happening ▪ It is important to give people options and safe choices, particularly in their responses to what is happening CPTED is discussed in Part 6.4, refer to Appendix Y.
Access and use of community facilities and open space	As per the Department of Education policy Community Use of School Facilities, appropriate use of school facilities include; ▪ children's services e.g. Out of School Hours Care (OOSH) ▪ community language schools ▪ dance, music or drama lessons ▪ community education and training ▪ community productions ▪ community meetings ▪ sporting events ▪ Vacation care. Further discussion of community use of Smalls Road can be reviewed in Part 4.3 of this EIS. The proposal will result in the loss of the use of sporting fields during operation. None of the user information provided to date has included use during school hours. It is envisioned by the DoE that the playing fields continue to be made available to the local community groups outside of school hours. With regards to the loss of access to the playing fields during school hours, it is noted to be within close proximity to Yamble Reserve and Santa Rosa Park which is larger and a cricket pitch and a dog off leash area.

6.7 Noise and Vibration

A Noise Impact Report has been prepared by TTM Consulting Pty Ltd (refer Appendix G) outlining the proposed impact of construction noise and vibration, as well as operational noise from the proposed development.

Construction Noise and Vibration

Based on the works proposed and the location of the site, it is predicted that construction noise will exceed the prescribed noise management levels and will require management from the contractors. In this regard a construction management plan is proposed, refer Appendix I.

The report also notes that vibration is unlikely to result in a detrimental amenity to the nearby buildings due to the setbacks and works proposed.

Operational Noise

A key aspect of the operational noise of the proposed school is expected to be from the Public Address (PA) System, School Bells / Period Alarms, Mechanical Plant and potential performances or uses of the School / Community Hall.

The relevant noise criteria have been derived and applied to the assessment. The assessment found that all operational noise criteria are predicted to be met at all times.

Public Address System

The PA system proposed onsite will be situated within the school building to provide staff and students with public addresses. The system is predicted to be sheltered from the wider community by being situated within home bases and the internal landscaped area of the site. The Noise Impact Report has found the levels of the proposed PA system will be suitable for the site.

School Bells/ Period Alarms

School Bells / Period Alarms have are generally used to alert staff and students of events throughout the school including the start and finish of the day as well as breaks and class times The Noise Impact Report has proposed the School Bell / Period Alarm to be located on the school site at the following locations.

- *Internally – one bell per building per floor, located in corridors, spaced to best utilise the effective range of the bell, typically no more than 15 metres from the end of a corridor and spaced at a maximum of 60 metres apart – in noisy locations one bell every 30 metres.*
- *Externally – one bell outside the multi-purpose hall adjacent to the Canteen, one bell within each separate courtyard and one directed towards each major playing area.*

Based on these locations and the best practice bells / alarms used by previous school sites the Noise Impact Report has found the alarm system is unlikely to cause adverse noise impact to the surrounding environment.

Mechanical Plant

A mechanical plant will be introduced to provide ventilation throughout the school building. The plant will have a general operating noise throughout the day which may have adverse noise impacts on the residential area. The Noise Impact Report has stated the mechanical plant be located as far away from residential receivers as possible, as well as located away from all windows. Mitigation measures are possible however undetermined at this stage due to the lack of plant specifications.

School / Community Hall

The school hall will be shared with the wider community for the purposes of community activities such as dance and martial arts classes, school fetes, community presentations and community theatre. As the Hall will be used outside of school hours possible noise impacts may arise from its use. The Noise Impact Report has assessed the hall and found its general use outside of school hours to have a negligible impact on noise (refer Appendix G).

6.8 Contamination

A Soil Contamination Investigation was carried out by Greencap Pty Ltd. The report has been prepared to address SEPP 55 – Remediation of Land (refer to Appendix K).

The investigation has found the site suitable for the proposal under current procedure. However, soil sampling was unable to be conducted under existing structures; therefore, an Unexpected Findings Protocol (UFP) is recommended to be in place at the demolition and construction stages of the development.

6.9 Utilities

A site services infrastructure report and water management plan have been prepared by Wood & Grieve Engineers (Appendix N and Appendix P) regarding the existing utility provision and any upgrade requirements and the proposed hydraulic reticulation strategy for the site including the provision of

- Rainwater/Stormwater harvesting & treatment;
- Irrigation water supply; and
- Recycled water supply for sanitary toilet flushing.

Electrical Infrastructure

The existing site has a substation on site, further investigation is required to determine its adequacy.

There is existing Telstra telecommunications infrastructure along Smalls Road will be utilised.

The NBN is proposed to be available on site in December 2018 and it is anticipated that an NBN connection will be applied for and provided to the site.

Water

Sydney Water own and operate the water network in the area. There is substantial water main infrastructure, in the vicinity of the site and it is anticipated that the additional supply requirements can be accommodated.

Sydney Water also own and operate the sewer network in the area, and the existing site connection will require upgrading for the proposed additional load. The drainage requirement is considered minor and the proposed use will have off peak discharge times. Therefore it is expected that the surrounding infrastructure would be capable of servicing the proposed development with minor augmentation.

Rainwater Reuse

It is proposed to harvest and maximise the use of rainwater from the proposed school building roof. The rainwater harvested from the roof can be used for irrigation and toilet flushing within the development. The harvesting tank will require treatment and pressure boosting before reticulation.

Gas

The Natural Gas supply will be extended from the Authority Gas main located in Smalls Road which will be utilised to support the proposed development.

6.10 Contributions

The City of Ryde does not require an Educational Establishment to contribute to community facilities under its Section 94(A) Contributions Plan.

6.11 Drainage

A Stormwater Management and Waste Sensitive Urban Design Report has been prepared by MYD Consulting Engineers Pty Ltd (refer Appendix O) detailing the existing and proposed drainage conditions.

The site has previously been used as a school site and therefore has an existing drainage system in place. The site benefits from existing stormwater drainage pipes located along the norther boundary of the site adjacent to residential land use and existing sports fields (refer Figure 6.1). The connection into this piped system is at the northern corner of the site on Smalls road. This connection will also cater for any overland flow present on site.

Although the site has previous drainage a new Onsite Stormwater Detention (OSD) tank is proposed near the school building. The OSD will obtain water from school buildings downpipes and built areas with overspill being discharged into existing drainage facilities. The residual site will remain unchanged. It calculated the OSD will retain roughly 150L^3.

A rainwater tank is also proposed onsite adjacent to the OSD. The tank is proposed to hold 65m^3 and contribute to the school's general water facilities as outlined above (Appendix P). Rainwater will be stored and utilised according to ESD requirements in Part 6.5.

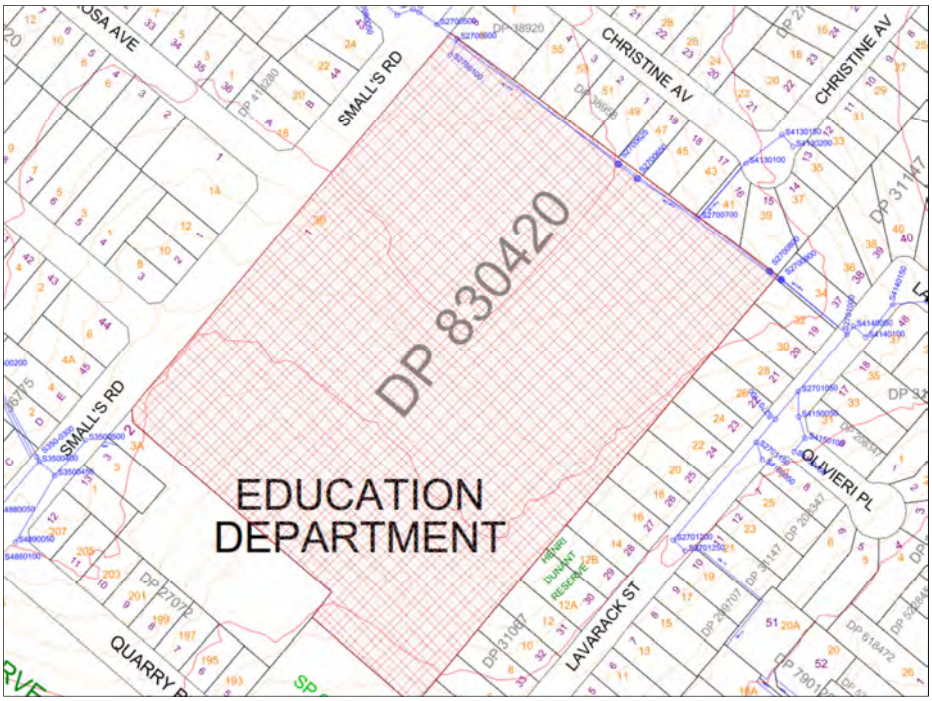


Figure 6.1 Existing Stormwater Infrastructure (Source: MYD Consulting Engineers)

6.12 Flooding

A Flood Impact Statement Relating to Overland Flows has been provided by Optimal Stormwater Pty Ltd August 2017 (refer Appendix L) and specifies the proposed development will be unaffected by overland flow. The statement is based on the information provided by Council regarding the 20year ARI Flood Level and the 100yr ARI Flood Level.

In accordance with the relevant provisions of the NSW Floodplain Development Manual 2005, including the potential effects of climate change, sea level rise and an increase in rainfall density the proposal is considered satisfactory with respect to overland flow.

6.13 Waste

Construction Waste

A Waste Management Plan has been prepared by Kane Construction Pty Ltd (refer Appendix R) for the construction activities to be carried out on site. The plan has outlined the potential waste generation based on previous construction activities of similar nature and proposed mitigation measures to reduce total waste output;

- *Utilise separate re-cycling bins*
- *Where practical use "prefabrication" rather than "in-situ materials"*
- *Ensure materials are recycled where practical.*
- *Monitor waste disposal.*
- *Ensure adequate site bins are available to control waste.*

The waste management plan includes general strategies to utilise for waste generated including beneficial reuse of materials, possible offsite crushing and screening to create potential re-use material, recycled water instead of potable water and harmful waste to be treated and disposed of by specialist's offsite.

Operational Waste

A Waste Management Plan for the operation of the site has been prepared by TTM Consulting Pty Ltd (refer Appendix S). The report identifies the streams of waste generated by the operational use of the proposed School and provides recommended management and mitigation measures in accordance with City of Ryde Council's Development Control Plan 2014- *Part: 7.2 Waste Minimisation and Management*.

The plan has identified the general types of waste generated by operation of schools as;

- *General waste*
- *Recycling (glass, aluminium, paper/cardboard)*
- *Green waste*
- *Hard waste/ bulky goods*
- *Organic waste*
- *Hazardous/e-waste*

Operational waste management of the school sites is the general responsibility of the Building Manager and Cleaner. However other mitigation methods potentially employed could include waste education programs, compost program, monitoring and review waste equipment and facilities, correct signage for waste sorting prior to binning and increased safety measures in handling waste.

Areas have been located within the school for waste collection and an area within the car park has been identified as suitable for collection with the relevant swept path shown demonstrating that the collection vehicles can enter and exit in a forward direction.

The Waste Management Plan for the operation of the site prepared by TTM Consulting Pty Ltd September 2017 also provides the general equipment needed to dispose of waste onsite including receptacles outlined in table 6.3.

Table 6.3 Operations Equipment

Component	Description	Quantity	Notes
School	Recycling Bins	2	1100L MGB's
	Waste Bins	2	
	Green Bins	Subject to final operational requirements	
	Organics-Receptacles for use in centralised composting / worm farm or electronic composting bins.	Supplied as and if required	

7 Consultation

Coffey, the Project Managers are responsible for delivering the project on behalf of the DoE. In addition they are responsible for community engagement and have provided a Consultation Outcomes Report (refer to Appendix V).

7.1 Project Reference Group

The Project Reference Group (PRG) is a project governance body that consists of representatives of key project stakeholders. During the course of the project, PRG members meet to discuss the key issues and review and endorse the submission at key stages. Regular meetings with the PRG have been held throughout the master planning and design development process.

The PRG members for the Smalls Road Ryde Public School include:

- Director of Public Schools for the North Sydney Network;
- Principal of Kent Road Public School; and
- Representatives from the Department of Education's Asset Management Unit.

7.2 Local Community

As part of the communications strategy for the project, DoE through Coffey's engaged with the local community throughout the planning, design, and construction phases to present information and obtain feedback. Consultation methods included letter box drops, newspaper advertisements and community engagement sessions at both the site and Top Ryde Shopping Centre.

Project Website

DoE have developed a project website that is accessible to the public and provides up to date information on the project status. The website also advertises upcoming information sessions.

Letter Box Drop

Letterbox drops were conducted in March and April, 2017 advertising upcoming engagement sessions. These letters were distributed to the approximately 300 residential properties in the vicinity of the new school providing a brief overview of the project and advising of the upcoming community information sessions where local residents could obtain additional information. A copy of the flyer is included in the Consultation Report provided in Appendix V.

Newspaper advertisements

Newspaper advertisements have been placed in The Northern District Times and Daily Telegraph to notify the community of the proposed development and upcoming information sessions.

Information Sessions

A total of eight (8) community information sessions have been held to date. These sessions provided the community with an opportunity to obtain up to date information and provide their feedback on the proposed development. Monthly sessions have commenced and will continue to take place on site and at Top Ryde Shopping centre as the project progresses.

Less formal 'drop in' booths will also be held at the Top Ryde Shopping Centre throughout the duration of the project.

Broadcast Emails

Email addresses have been collected at each information booth to allow the DoE to provide project updates and notify previous attendees of upcoming information sessions.

Outcomes of Community Information Sessions

The project managers Coffey have held three (3) sets of community information sessions through the projects evolution; in the preliminary concept design, concept design and schematic design stages.

Table 7.1 Community Information Sessions to September 2017

Project Stage	Date	Attendees
Preliminary Concept Design	23 March 2017	5 Attendees
	20 March	25 Attendees
Concept Design	4 May 2017	40 Attendees
	11 May 2017	30 Attendees
Schematic Design	6 July 2017	12 Attendees
	10 August 2017	5 Attendees
	24 August 2017	6 Attendees
	7 September 2017	4 Attendees

Feedback has been supportive with a number of queries and feedback relating to operational matters, access to the sporting fields, parking and traffic. Key queries and issues raised in these sessions are summarised as follows;

Table 7.2 Key Feedback Responses

Query / Issue Raised	Response
Parking is important for parents and the new school should provide adequate space for student pick up/drop off.	Parking will be available on the surrounding road network. Kiss and drop facilities will be provided close to the school entry points.
How much onsite parking will be provided?	Some onsite parking will be provided. The number of spots being provided (47) will exceed the requirements under City of Ryde Council's DCP.
What is the Department doing about the likely increase in traffic congestion and burden on local parking?	The project is undertaking numerous studies including parking utilisation surveys and traffic modelling to determine a suitable traffic solution. This will be outlined in the EIS.
Will the community have access to the school outside of school hours?	The school will have an Out of School Hours facility. In addition it is expected that the hall and library will be a shared facility that can be used by the wider community.
Will the existing sports field remain open?	Access to the sports fields adjacent to the site are expected to remain accessible to the community outside of school hours. These fields are owned by DoE are currently used by Council under licence.

Query / Issue Raised	Response
What is the catchment boundary for the new school?	The catchment boundaries are preliminary and still being developed by DoE. This process is independent of the school construction.
When do student enrolments open?	This process is independent of the school construction project. DoE will manage this process closer to the school opening date.
When will the new school be open?	The new school is expected to be open for Term 1, 2020.
Will the new school initially be open for K-6 or will enrolment be staggered?	This process is independent of the school construction project and will be dependent on enrolment numbers. DoE will manage this process and make this determination closer to the school opening date.

7.3 Ryde City Council

The project team met with representatives from City of Ryde Council (Council) on 3 April 2017 to provide an overview of the project and provide Council the opportunity to raise any issues that the project would be required to address. The meeting was attended by members of the project team and the following Council representatives:

- Team Leader Building & Development (Vince Galletto) (City of Ryde Council)
- Senior Coordinator – Parks and Recreation (Simon James) (City of Ryde Council)
- Senior Coordinator, Community Engagement (Claudia Micallef) (City of Ryde Council)
- Community Engagement Coordinator (Elise Clark) (City of Ryde Council)
- Acting Manager, Communications (Liz Berger) (City of Ryde Council)
- Senior Coordinator Open Space Planning and Development (Ian Andrews) (City of Ryde Council)
- Senior Strategic Planner (Lara Dominish) (City of Ryde Council)
- Senior Traffic Engineer (Harry Muker) (City of Ryde Council)
- Development Engineer (Daniel Pearse) (City of Ryde Council)
- Senior Coordinator Major Development (Sandra Bailley) (City of Ryde Council)
- Senior Coordinator Environmental Health (Craig Redfern) (City of Ryde Council)
- Associate Architect (Jane McGarry) (CGAMW)
- Senior Project Manager (Rob Pulvirenti) (Coffey)
- Principal Town Planner (Claire Muir) (RPS)

The main areas of feedback provided by Council were;

- Concerns around the traffic impact of the new school and in particular queue lengths resulting from the peak student drop up and pick up activities.
- Insufficient Onsite parking provision.

These items have been addressed through an extended ‘kiss and drop zone’ and the provision of additional onsite parking which exceeds the requirements of Council’s Development Control Plan. The extended ‘kiss

and drop' zone and additional parking numbers were presented to Council's Senior Traffic Engineer at a meeting on 29 August 2017. Further feedback was received and has been incorporated into the traffic impact assessment prepared by TTW.

Shared Facilities

DoE and City of Ryde Council have been in ongoing discussions over the future shared use of facilities on the site and the associated fields. The existing sports fields are owned by DoE and will form part of the school grounds and hence they will not be accessible to the community during school hours. Currently the sports fields are used by Council under licence.

On 22 September 2017 DoE and Council representatives met to discuss the future use of the sports fields and potential additional shared facilities. These discussions are ongoing.

The scheme has been designed to ensure that key school facilities such as the library and the hall in areas where they could be accessible to the community outside of school hours, without access other areas of the school. The school of the School's facilities outside of school hours would be managed by the School leadership team.

7.4 Roads and Maritime Services

Consultation has taken place with the RMS. In particular discussions around the extent of traffic modelling was discussed with RMS representatives on the 15 of June 2017. These discussions are outlined in the traffic reports prepared by TTW (refer to Appendix Q) which have been developed to support this EIS.

8 Recommendation and Mitigation Measures

Mitigation measures have been addressed where any potential environmental and social impacts may arise from the proposed development. The following table outlines any possible impact and mitigation measures taken into consideration to mitigate those impacts.

Table 8.1 Mitigation Measures

Item	Potential Impact	Mitigation Measures
Overshadowing	Overshadowing on neighbouring residential property	As shown on the shadow diagrams provided by CGAMW the proposed development does not overshadow any surrounding development. The building has been sited away from neighbouring residential to reduce any overshadowing impacts. Please refer to the Shadow Diagrams prepared by CGAMW in Appendix C.
Privacy	Potential overlooking into residential property	The proposal is setback approximately 35m from neighbouring residential land uses alleviating any privacy issues that may rise from the proposal.
Wind	Wind effects in ground level public areas and access ways adjacent the development.	Wind impacts on the development are proposed to be mitigated through planting of densely foliating vegetation in areas of wind exposure on ground level.
Crime and Safety	Risk of crime risk to safety to students, staff and visitors	A CPTED statement has been prepared outlining the design initiatives to mitigate the risk to safety, including; ▪ A design which maximises student flow paths and visual surveillance in and around the buildings. ▪ Legible access path and routes. ▪ School will be fenced to clearly define the site and division of area that can be accessed after hours and area that are out of bounds after hours. ▪ A design which encourages ownership, pride and facilitates the school spirit which can encourage people to feel safe to be out and about in their environment. ▪ A design which is easy to maintain. Access from the school car park 'drop off' zone to the school entrance gate is visible and in close proximity to the school entry gates. Please refer to Appendix Y for more initiatives.

Item	Potential Impact	Mitigation Measures
Noise and Vibration	Noise generation during construction	It has been previously noted that the construction noise will require management from the contractors to minimise its impact. Noise barriers will be employed while construction occurs to limit the impacts on neighbouring residential dwellings. Vibration from the proposed construction has been assessed as likely to be satisfactory for the surrounding environment. However, monitoring measures are recommended.
Acoustic	Operational noise from use of the school and facilities	The operation of the school will require minor management to ensure a satisfactory impact on the surrounding neighbourhood from the school bell, PA system and mechanical plant.
Water Management	Impacts from stormwater	Existing stormwater management infrastructure will be augmented and added to. A stormwater and water management plan has also been provided outlining minor additions to the services to cater for the development required and the proposed stormwater / rainwater harvesting and recycling measures.
Waste	Excessive waste generation	Waste management plans have been prepared for both the construction period and general operation of the school. The plans have outlined mitigation methods, reducing waste, as well as strategies for collection and disposal of waste.

9 Summary and Conclusion

This State Significant Development Application (SSD 17-8372) seeks approval for:

- Construction of one (1) new three (3) storey circular multi-purpose school buildings containing;
  - Home bases i.e. 43 which includes three (3) for special education purposes;
  - Library;
  - School hall;
  - Out of school hours care facilities (OOSH);
  - Offices for teaching and administration staff;
  - Canteen; and
  - Covered outdoor learning areas (COLA).
- Associated building identification signage;
- Extended road widening on Smalls Road to accommodate additional kiss and drop facilities and limited time parking;
- Refurbishment of existing and construction of new car parking facilities; and
- Associated landscaping including refurbishment of multipurpose sports courts and fencing.

This EIS has been prepared in accordance with the Secretary's Environmental Assessment Requirements provided at Appendix A, the requirements of Schedule 2 of the EP&A Regulations 2000, the Architectural Drawings provided at Appendix C and the additional plans and technical reports provides at Appendices D to AA.

The proposed development is consistent with the applicable legislation, planning instruments, controls and guidelines and the EFSG.

It is recommended that this State Significant Development Application (SSD 17-8372) be approved subject to the proposed mitigation measures on the basis:

- Of the project's importance to provision of additional educational facilities in the City of Ryde locality; and
- That the proposed school development will have minimal environmental and social impact on the locality.

Appendix A

Secretary's Environmental Assessment Requirements

Appendix B

Capital Investment Value – Turner & Townsend

Appendix C

Architectural Plans – Conrad Gargett AMW

Appendix D

Landscape Plans – Conrad Gargett AMW

Appendix E

Survey Plans – RPS Australia East Pty Ltd

Appendix F

Access Report - Morris-Goding Accessibility Consulting

Appendix G

Noise Impact Report – TTM Consulting

Appendix H

BCA Compliance – Blackett Maguire + Goldsmith

Appendix I

Construction Management Plan - Kane

Appendix J

Hazardous Materials Risk Assessment - Greencap

Appendix K

Soil Contamination Investigation - Greencap

Appendix L

Flood Impact Statement – Optimal Stormwater

Appendix M

Geotechnical Investigation – JK Geotechnics

Appendix N

Site Services Infrastructure Report – Wood & Grieve Engineers

Appendix O

Stormwater Management & Water Sensitive Urban Design Report

MYD Consulting Engineers

Appendix P

Water Management Plan – Wood & Grieve

Appendix Q

Traffic Reports – Taylor Thomson Whitting

Appendix R

Waste Management Plan (Construction) - Kane

Appendix S

Waste Management Plan (Operation) – TTM Consulting

Appendix T

Pedestrian Wind Environment Statement - Windtech

Appendix U

Arboricultural Impact Assessment Report – Priority Tree Services

Appendix V

Consultation Outcomes Report – Coffey

Appendix W

ESD Report – Conrad Gargett AMW

Appendix X

Policy on Community Use of School Facilities Implementation Procedures – Department of Education

Appendix Y

CPTED Report – CGAMW

Appendix Z

Architectural Design Philosophy – CGAMW

Appendix AA

View Analysis – CGAMW