

Environmental Impact Statement

2 Darcy Road, Westmead
Westmead Catholic Community
State Significant Development

Submitted to the Department of Planning, Industry
and Environment
On behalf of Catholic Education Diocese of
Parramatta

19 March 2020 | 218316



Contents

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APPROVED BY KT

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T	Preliminary Geotechnical and Hydrogeological Assessment	<i>Martens</i>
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FF Social Impact Assessment

Ethos Urban

GG Section 10.7(2) and (5) Planning Certificate

City of Parramatta

Statement of Validity

Development Application Details

Applicant Name	Catholic Education Diocese of Parramatta
Applicant Address	12 Victoria Road, North Parramatta NSW 1750
Land to be developed	2 Darcy Road, Parramatta (Lot 1 in DP1095407 and Lot 1 in DP1211982)
Proposed development	Redevelopment of the Westmead Catholic Community site as described in Section 3.0 of this Environmental Impact Statement

Prepared by

Name	Kate Tudehope
Qualifications	BPlan MPIA
Address	173 Sussex Street, Sydney
In respect of	State Significant Development - Development Application

Certification

I certify that I have prepared the content of this EIS and to the best of my knowledge:

- it is in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000;
- all available information that is relevant to the environmental assessment of the development to which the statement relates; and
- the information contained in the statement is neither false nor misleading.

Signature



Name	Kate Tudehope
Date	19/03/2020

Executive Summary

Purpose of this Report

This submission to the Department of Planning, Industry and Environment (the Department) comprises an Environmental Impact Statement (EIS) for a Development Application under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). It relates to the construction of upgraded school facilities for Mother Teresa and Sacred Heart Primary Schools, as well as a new Parish Church, for the proposed Westmead Catholic Community (WCC) at 2 Darcy Road, Westmead.

The proposal is for alterations and additions to an existing school, with a capital investment value of \$80,474,245.00 (refer to Cost Estimate at **Appendix** Error! Reference source not found.). Therefore, pursuant to Clause 15 of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (SEPP SRD) the development is State Significant Development (SSD) for the purposes of the EP&A Act.

A request for the issue of Secretary's Environmental Assessment Requirements (SEARs) was sought on 30 October 2019. Accordingly, the SEARs were issued on 22 November 2019. Revised SEARs, reflecting amendments to the scope of the project, were issued on 9 January 2020. This submission is in accordance with the Department's guidelines for SSD applications lodged under Part 4 of the EP&A Act, and addresses the issues raised in the SEARs.

Overview of the Project

This State Significant Development (SSD) Development Application (DA) seeks approval for:

- A primary school with capacity for approximately 1,680 students, to provide expanded facilities for the existing Mother Teresa Primary School on the site and to relocate the existing Sacred Heart Primary School at Ralph Street.
- A new Parish Church.
- A Catholic Early Learning Centre (fit-out within an existing building).
- Landscaping.

The Site

The site is located at 2 Darcy Road, Westmead in the Parramatta Local Government Area (LGA), approximately 2 kilometres to the north-west of the Parramatta Central Business District (CBD) and approximately 300m to the west of Westmead Train Station. The site has an area of approximately 12 hectares. It is legally described as Lot 1 in DP 1095407 and Lot 1 in DP 1211982.

Planning Context

Section 5.1 of the EIS considers all applicable legislation in detail. The proposal is consistent with the requirements of all relevant SEPPs. The site is zoned SP2 – Infrastructure (Educational Establishment). The proposal is permissible with consent and meets the objectives of the subject zone.

Environmental Impacts and Mitigation Measures

This EIS provides an assessment of the environmental impacts of the project in accordance with the SEARs and sets out the undertakings made by Catholic Education Diocese of Parramatta to manage and minimise potential impacts arising from the development.

Conclusion and Justification

The EIS addresses the SEARs, and the proposal provides for the redevelopment of the WCC site with modern and improved education facilities. The upgrades to the site to increase the capacity of the school will increase the quantity and range of enrolment opportunities for existing families and children living in the area. This will contribute to meeting the forecast demand for education facilities in the catchment. The potential impacts of the development are acceptable and are able to be managed. Given the planning merits of the proposal and having regard to the

biophysical, economic and social considerations, including the principles of ecologically sustainable development, the proposed development warrants approval by the Minister for Planning and Public Spaces.

1.0 Introduction

This Environmental Impact Statement (EIS) is submitted to the Department of Planning, Industry and Environment (the Department) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in support of an application for State Significant Development (SSD).

Development for the purpose of alterations and additions to an existing school with a capital investment value of more than \$20 million is identified in Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011*. The proposed development has a capital investment value of \$80,474,245.00 and is therefore declared to be SSD for the purposes of the EP&A Act.

The report has been prepared by Ethos Urban on behalf of Catholic Education Diocese of Parramatta (CEDP) and is based on the Architectural Plans provided by Alleanza Architecture, which are included at **Appendix B** and other supporting technical information appended to the EIS (see Table of Contents).

This EIS has been prepared in accordance with the requirements of Part 4 of the EP&A Act, Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), and the SEARs for the preparation of the EIS, which are included at **Appendix D**.

1.1 Overview of Proposed Development

This application seeks approval for the following development:

- A primary school with capacity for approximately 1,680 students, to provide expanded facilities for the existing Mother Teresa Primary School on the site and to relocate the existing Sacred Heart Primary School at Ralph Street.
- A new Parish Church.
- A Catholic Early Learning Centre (fit-out within an existing building).
- Landscaping.

1.2 Background to the Development

Westmead Catholic Community

The Westmead Catholic Community site currently contains three separate schools being Catherine McAuley Westmead (girls high school) which predominantly occupies the northern part of the site, and Parramatta Marist High School (boys school) which occupies the eastern part of the site. The Mother Teresa Primary School occupies part of the Catherine McAuley school building in the centre of the site.

Collectively, the three schools currently accommodate approximately 2,630 students and 190 staff. The majority of the existing buildings across all three schools are reaching end of life and historically, the schools have been operated independently with minimal collaboration and resource sharing.

Separately, Sacred Heart Primary School (including a Parish Church and Priest residence) is located on Ralph Street, Westmead. The buildings on the Sacred Heart Primary School site at Ralph Street are aging and the playground is on leased land, which is due to expire in February 2021. Sacred Heart currently accommodates approximately 197 students and 13 staff. It is proposed to relocate the Sacred Heart Primary School onto the WCC site.

The proposed works form the first stage of the future redevelopment of the site, and responds to the immediate need to relocate the Sacred Heart Primary School. It will also bring a new Parish Church to the site that will be a gateway building for the site and the local community.

Whilst the broader master planning for the site has informed this proposal, staged approval is not being sought and future stages of the development will be subject to separate planning approvals.

Westmead Innovation Precinct

The Westmead Innovation Precinct is the largest health and education precinct in Greater Sydney, with hospitals, universities, research institutions and allied health services. The Westmead Catholic Community site is located within the Innovation Precinct, presenting a unique opportunity to collaborate with existing institutions as the precinct is developed. The Central City District Plan outlines that growth in the Westmead Innovation Precinct is a priority, noting that:

- Westmead is one of the largest integrated health, research, education and training precincts in Australia and provides health services to almost 10 per cent of Australia's population. By 2026, it will have over 2.8 million outpatient visits and over 160,000 emergency department presentations every year.
- Westmead is already a major contributor to the Australian Government's National Innovation and Science Agenda through its training of world-leading scientists, analysis and successful collaborations.
- The \$900 million project and expansion of the University of Sydney and Western Sydney University Westmead campuses will increase Westmead's workforce from 18,000 to 32,000 by 2036. With additional investment, Westmead has the potential to provide 50,000 jobs. The number of university students is expected to grow from 2,000 to 9,000 by 2036.

To support this predicted growth, additional infrastructure, such as improved schools, will be required to service the growing worker and resident population. Specifically, demographic modelling undertaken by the Department of Planning, Industry and Environment shows that the number of school-aged children is projected to increase over the next 20 years. In the Central City District, an extra 89,360 students will need to be accommodated in both government and non-government schools by 2036. 32% of this predicted growth in school students is predicted to occur in Parramatta, whilst 34% of the anticipated growth of children four years and younger in the Central City District will also occur in Parramatta. The Central City District Plan identifies that this will require planning early education and school facilities, which should encourage innovative approaches to the use of land and floor-space, including co-locating with compatible uses such as primary schools and office buildings, and close to transport facilities.

The Westmead Catholic Community project is ideally situated to assist in supporting this demand. The existing site benefits from a high level of accessibility, close to rail, bus and road connections, as well as the future Parramatta Light Rail. The WCC has already adopted an innovative approach to education facilities by co-locating multiple schools on the same site, and seeks to continue this innovative approach by enhancing the capacity of the school and fostering partnerships with the surrounding health and tertiary education uses. The WCC schools accept students from all backgrounds and denominations, ensuring that the diverse population can benefit from high quality schools in an accessible location.

1.2.1 Early Works DA

A separate Early Works DA will be submitted to the City of Parramatta Council. The DA will seek consent for demolition of some existing buildings on the site, relocation of demountables, construction of a new multi-storey car park in the north-east corner of the site to accommodate approximately 260 parking spaces, a new on-site pick-up and drop-off area and other minor enabling works. A meeting was held with the City of Parramatta Council in January 2020 to discuss the proposed works, with Council being generally supportive of the proposal.

1.3 Objectives of the Development

The objectives of the proposal are to:

- Relocate Sacred Heart Primary School to the WCC site, noting that the Sacred Heart playground is on leased land, which is due to expire in February 2021.
- Co-locate and connect Sacred Heart Primary School, Mother Teresa Primary School, Parramatta Marist Boys High School and Catherine McAuley Secondary Girls School.
- Deliver a new Parish Church.
- Foster the opportunity to integrate with the Westmead Innovation Precinct.

- Implement the pedagogical values developed by the CEDP.

1.4 Analysis of Alternatives

1.4.1 Strategic Need for the Proposal

Based on these objectives, the key drivers for the proposed development are:

- To realise the opportunities afforded by the renewal of the Westmead precinct.
- To create an evangelising community.
- To respond to population growth and demand for student enrolments.
- To provide uncompromised outdoor play space for the Sacred Heart Primary School.

Precinct Opportunities

Westmead and the surrounding region are experiencing significant growth and change. The WCC site is positioned next to a priority health and education precinct which will be redeveloped by the Westmead Alliance and other associated land owners. More than \$3.4 billion of public and private investment has been committed to revitalise Westmead over the next decade.

Whilst CEDP's immediate priority is to provide for increased student places and to provide permanent play space for the Sacred Heart Primary School, the site has long term strategic importance in the redevelopment of the Westmead precinct which provides CEDP with an opportunity to create a new operating model.

Creation of an Evangelising Community

The operating model and design have been created to promote an innovative educational and community facility focused on the pedagogy of the pupils in the future. Facilities will be delivered to the benefit of the overall community as they are intended to be utilised by multiple stakeholders to maximise operational activity and benefit to all.

Historically, the four schools have operated independently, with minimal collaboration and resource sharing. The project brief considers the changes that are required to improve the way the four schools (Mother Teresa Primary School, Catherine McAuley Secondary Girls School, Parramatta Marist Boys High School and Sacred Heart Primary School) and the Parish operate together to meet the needs of the community, students and users.

The Diocese of Parramatta would like to move away from the separate conceptualisation of school and Parish, and instead move towards an understanding that all schools, like all Parishes, are part of the one Church and Mission. The Diocese is committed to creating an integrated faith, learning and evangelising community that collaborates beyond its boundaries with the broader community. The WCC will involve expanding the services offered, taking on a larger population of students, accommodating students with different needs and greater collaboration on campus and with industry partners while maintaining the charisms and identities of each school.

A new community-based model for operation is a key element in the transformation of the site, responding to the significant changes of the surroundings and the site. This model will be an opportunity to integrate the existing schools, Parish, industry and community together, creating a world class evangelising and learning community. The community will enrol families and parishioners, providing a 'one-stop shop' for ongoing guidance, services and support to meet their needs. It will be a centre of excellence focusing on the formation of students, teachers, families, parishioners and the wider community.

Growing Demand / Shortfall in Places

Westmead is experiencing exponential population growth and investment from both the local and State government. The population of the catchment area is expected to increase to 1.875 million people by 2036, up from 1.25 million in 2016. This will result in a shortfall of 9,530 primary places and 11,738 secondary places in the Catholic and Government school systems by 2036 (refer to **Figure 1**).

At the same time, the demand for Catholic education in the area continues to grow, and each year the four schools turn away enrolments. This is primarily due to capacity limits, and this number will only increase with the projected

population growth in the area. The WCC presents an opportunity for increased student capacity in a highly accessible location.

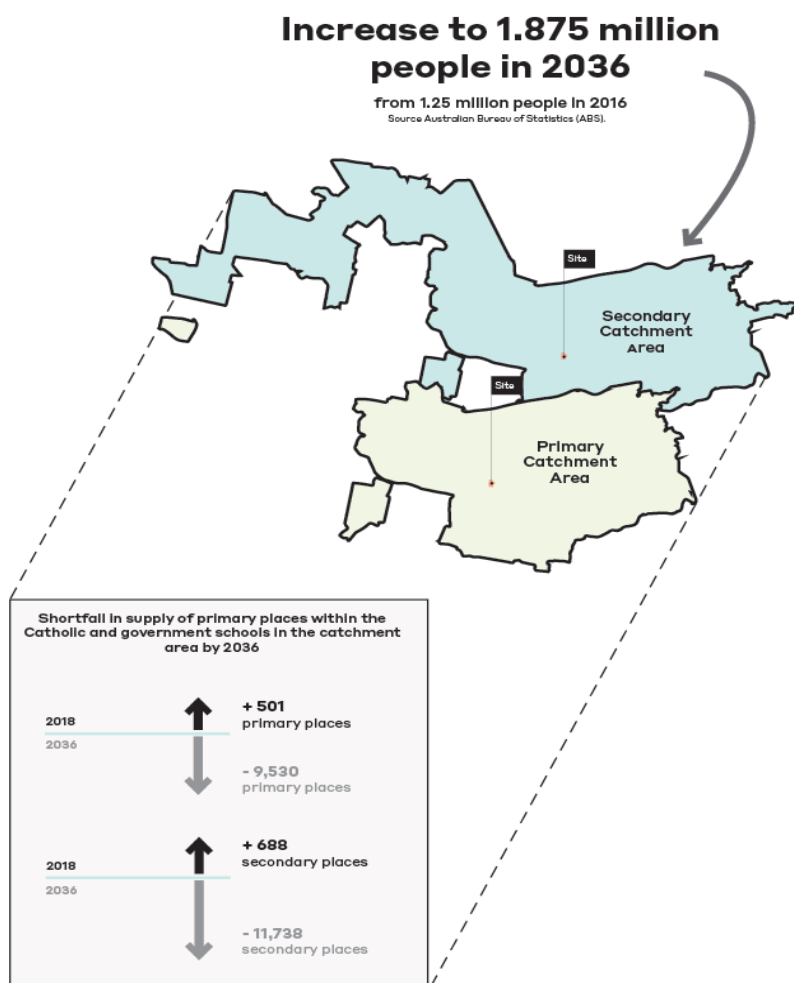


Figure 1 Shortfall in Supply of Primary and Secondary Places to 2036

Source: Ethos Urban

Sacred Heart Primary School Play Space

Sacred Heart Primary School, including the Parish Church and Priest residence, is currently located at Ralph Street Westmead.

The Sacred Heart Primary School buildings at the Ralph Street site are aging and reaching end of life. Critically, the playground used by Sacred Heart Primary School is on leased land, and the lease is due to expire in February 2021. There is an urgent need to relocate the Sacred Heart Primary School to a site with permanent play space.

1.4.2 Alternative Options

Three options are available to CEDP in responding to the identified need for the redevelopment of their facilities.

Option 1 - Do Nothing

Under the 'do nothing' scenario, the school would continue to use the existing school facilities which would result in a teaching and learning environment that misses the opportunity to transition to a modern learning environment. The 'do nothing' scenario would not:

- Enable the school to benefit from collaborations with the wider community, including the Westmead Innovation Precinct;
- Meet the urgent open space needs for the Sacred Heart Primary School;

- Provide the opportunity to accommodate additional student enrolments; or
- Address the school's ageing facilities.

Further, the 'do nothing' scenario would not provide the opportunity for CEDP to begin the transformation of the WCC site into a world class evangelising and learning community.

Option 2 - Alternative Design

The project team has undertaken a detailed analysis of the options available in responding to the strategic need for new facilities on the campus. The development has been informed by a detailed analysis of the site's opportunities and constraints, and a series of key design moves which include locating the Parish at the corner of the site to act as a gateway and relocation of the Sacred Heart Primary School from Ralph Street.

Ultimately, the proposed development is considered the most appropriate solution for the site with consideration to the need to accommodate the Sacred Heart Primary School and additional student enrolments, future Masterplan opportunities, the ongoing operation of the school and impacts on neighbouring properties.

Option 3 – The Proposal

The proposal meets the key drivers that have been identified for the project and seeks to take advantage of the site's location within the Westmead Health and Education Precinct. The proposal will meet the need for primary school enrolments, as well as providing improved education facilities and permanent play space for the Sacred Heart Primary School. The development also presents an opportunity to develop the site under a common 'mission' for the Diocese, providing early learning, Parish and primary school uses on the campus in the first phase of what will become a world class evangelising and learning community.

1.5 Secretary's Requirements

In accordance with Section 4.39 of the EP&A Act, the Secretary of the Department of Planning, Industry and Environment issued the requirements for the preparation of the EIS on 9 January 2020. A copy of the Secretary's Environmental Assessment Requirements (SEARs) is included at **Appendix B**.

Table 1 provides a detailed summary of the individual matters listed in the SEARs and identifies where each of these requirements has been addressed in this report and the accompanying technical studies.

Table 1 Secretary's Requirements

Requirement	Location in EIS	
General		
The Environmental Impact Statement (EIS) must address the <i>Environmental Planning and Assessment Act 1979</i> and meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 the Environmental Planning and Assessment Regulation 2000.	Environmental Impact Statement	
Key Issues	Report / EIS	Technical Study
1. Statutory and Strategic Context Address the statutory provisions applying to the development contained in all relevant environmental planning instruments, including: <ul style="list-style-type: none"> • Biodiversity Conservation Act 2016 • State Environmental Planning Policy (State & Regional Development) 2011 • State Environmental Planning Policy (Infrastructure 2007) • State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 • State Environmental Planning Policy No. 64 – Advertising and Signage • State Environmental Planning Policy No.55 – Remediation of Land • Draft State Environmental Planning Policy (Remediation of Land) -Draft State Environmental Planning Policy (Environment) and 	Section 5.1	-

Requirement	Location in EIS	
<ul style="list-style-type: none"> Parramatta Local Environmental Plan 2011. <p><i>Permissibility</i> Detail the nature and extent of any prohibitions that apply to the development.</p> <p><i>Development Standards</i> Identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards.</p> <p><i>Provisions</i> Adequately demonstrate and document in the EIS how each of the provisions in the listed instruments are addressed, including reference to necessary technical documents.</p>		
<p>2. Policies Address the relevant planning provisions, goals and strategic planning objectives in the following:</p> <ul style="list-style-type: none"> NSW State Priorities The Greater Sydney Regional Plan, A Metropolis of three cities Future Transport Strategy 2056 and supporting plans State Infrastructure Strategy 2018 – 2038 Building the Momentum Sydney's Cycling Future 2013 Sydney's Walking Future 2013 Sydney's Bus Future 2013 Crime Prevention Through Environmental Design (CPTED) Principles Better Placed: An integrated design policy for the built environment of New South Wales (Government Architect NSW (GANSW), 2017) A City Supported by Infrastructure: Place-based Infrastructure Compact Pilot (Greater Sydney Commission, 2019) Greater Parramatta and the Olympic Peninsula (GPOP) Vision (Greater Sydney Commission, 2017) Greater Parramatta Interim Land Use and Infrastructure Implementation Plan (Department of Planning, Industry and Environment, 2017) Healthy Urban Development Checklist (NSW Health, 2009) Draft Greener Places Policy Central City District Plan Parramatta Development Control Plan 2011. 	Section 5.1	-
<p>3. Operation</p> <ul style="list-style-type: none"> Provide details of the existing and proposed school operations, including staff and student numbers, school hours of operation, and operational details of any proposed before/after school care services and/or community use of school facilities. Provide a detailed justification of suitability of the site to accommodate the proposal. Provide details of how the school will continue to operate during construction activities, including proposed mitigation measures. 	<p>Section 3.11</p> <p>Section 5.17</p> <p>Section 3.11.4</p>	<p>Appendix C</p> <p>-</p> <p>Appendix K</p>
<p>4. Built Form and Urban Design</p> <ul style="list-style-type: none"> Address the height, density, bulk and scale, setbacks and interface of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces. Address design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colours. 	<p>Section 5.2</p> <p>Section 5.2.1</p>	<p>Appendix B & C</p> <p>Appendix B & C</p>

Requirement	Location in EIS	
<ul style="list-style-type: none"> Provide details of any digital signage boards, including size, location and finishes. Demonstrate how design quality will be achieved in accordance with Schedule 4 Schools – Design Quality Principles of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and the GANSW Design Guide for Schools. Demonstrate how the proposed child care centre complies with State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and the Child Care Planning Guideline (Department of Planning and Environment, August 2017). A compliance schedule should be included. Detail how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development. Provide detailed site and context analysis including a precinct plan to justify the proposed site planning and design approach including massing options and preferred strategy for future development including high schools and complementary uses. Provide a detailed landscape strategy, including: <ul style="list-style-type: none"> consideration of equity and amenity of outdoor play spaces, and integration with built form, security, shade, topography and existing vegetation details of the number of trees to be removed and the number of trees to be planted on the site. Provide a visual impact assessment that identifies any potential impacts on the surrounding built environment and landscape including views to and from the site and any adjoining heritage items. Address CPTED Principles. Demonstrate good environmental amenity including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility. Demonstrate that Aboriginal culture and heritage is considered and incorporated holistically in the design proposal. 	-	-
	Section 5.1	Appendix B & C
	Section 5.1	Appendix B & C
	Section 3.10, 3.13 & 5.16	Appendix C, G, X & Y
	Section 5.2.1	Appendix B & C
	Section 3.7 & 5.13	Appendix C, H & I
	Section 5.3.2	Appendix B & C
	Section 5.1	Appendix B & C
	Section 5.2 & 5.3	Appendix C, H & M
	Section 0	Appendix C & N
5. Environmental Amenity		
<ul style="list-style-type: none"> Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing and acoustic impacts. Conduct a view analysis to the site from key vantage points and streetscape locations (photomontages or perspectives should be provided showing the building and likely future development). Include a lighting strategy and measures to reduce spill into the surrounding sensitive receivers. Identify any proposed use of the proposed facility outside of school hours (including weekends) and assess any resultant amenity impacts on the immediate locality and proposed mitigation measures. Detailed outline of the nature and extent of the intensification of use associated with the increased floor space, particularly in relation to the proposed increase in staff and student numbers. Detail amenity impacts including solar access, acoustic impacts, visual privacy, view loss, overshadowing and wind impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated. 	Section 5.3 & 5.9	Appendix B, C & M
	Section 5.3.2	Appendix B
	Section 5.2.3	Appendix C
	Section 3.11.3	-
	Section 3.2	-
	Section 5.3.1, 5.3.2, 5.9 & 5.16	Appendix B, C, M & AA
6. Staging	Section 3.14.1	Appendix K
<ul style="list-style-type: none"> Provide details regarding the staging of the proposed development (if any). 		

Requirement	Location in EIS	
<p>7. Transport and Accessibility</p> <p>Include a transport and accessibility impact assessment, which details, but not limited to the following:</p> <ul style="list-style-type: none"> • accurate details of the current daily and peak hour vehicle, existing and future public transport networks and pedestrian and cycle movement provided on the road network located adjacent to the proposed development • details of estimated total daily and peak hour trips generated by the proposal, including vehicle, public transport, pedestrian and bicycle trips • the adequacy of existing public transport or any future public transport infrastructure within the vicinity of the site, pedestrian and bicycle networks and associated infrastructure to meet the likely future demand of the proposed development • measures to integrate the development with the existing/future public transport network • the impact of trips generated by the development on nearby intersections, with consideration of the cumulative impacts from other approved developments in the vicinity, and the need/associated funding for, and details of, upgrades or road improvement works, if required (Traffic modelling is to be undertaken using SIDRA network modelling for current and future years). The key intersections to be modelled / examined should include: <ul style="list-style-type: none"> – Darcy Road / Mons Road / Institute Road • the identification of infrastructure required to ameliorate any impacts on traffic efficiency and road safety impacts associated with the proposed development, including details on improvements required to affected intersections, additional school bus routes along bus capable roads (i.e. minimum 3.5 m wide travel lanes), additional bus stops or bus bays • details of travel demand management measures to minimise the impact on general traffic and bus operations, including details of a location-specific sustainable travel plan (Green Travel Plan) and the provision of facilities to increase the non-car mode share for travel to and from the site • the proposed walking and cycling access arrangements and connections to public transport services • the proposed access arrangements, including car and bus pick-up/drop-off facilities, and measures to mitigate any associated traffic impacts and impacts on public transport, pedestrian and bicycle networks, including pedestrian crossings and refuges and speed control devices and zones • proposed bicycle parking provision, including end of trip facilities, in secure, convenient, accessible areas close to main entries incorporating lighting and passive surveillance in line with CPTED principles • proposed number of on-site car parking spaces for teaching staff and visitors and corresponding compliance with existing parking codes and justification for the level of car parking provided on-site • an assessment of the cumulative on-street parking impacts of cars and bus pick-up/drop-off, staff parking and any other parking demands associated with the development • an assessment of road and pedestrian safety adjacent to the proposed development and the details of required road safety measures and personal safety in line with CPTED • emergency vehicle access, service vehicle access, delivery and loading arrangements and estimated service vehicle movements (including vehicle type and the likely arrival and departure times) • the preparation of a preliminary Construction Traffic and Pedestrian Management Plan to demonstrate the proposed management of the impact in relation to construction traffic addressing the following: <ul style="list-style-type: none"> – assessment of cumulative impacts associated with other construction activities, including but not limited to the impacts of the Parramatta Light Rail Construction – an assessment of road safety at key intersection and locations subject to – heavy vehicle construction traffic movements and high pedestrian activity 	Section 5.4	Appendix G

Requirement	Location in EIS	
<ul style="list-style-type: none"> – 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 on-site car parking and access 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 o demonstrate how pedestrian and cycle rider movements along footways and cycleways are maintained at all times during construction activities. Should the development require closure to either facility, detail the adequate safety and diversion measures out in place to limit time delay and detour distances – details of any crane locations and road closures and o details of any potential impact to the bus network and bus services. <ul style="list-style-type: none"> • Identify the potential impacts of existing and future rail infrastructure near to the site (Main Western Line and future Parramatta Light Rail) and any possible impacts of the construction and operation of the proposal on this infrastructure and associated mitigation measures. <p><i>Relevant Policies and Guidelines</i></p> <ul style="list-style-type: none"> • Guide to Traffic Generating Developments (Roads and Maritime Services, 2002) • EIS Guidelines - Road and Related Facilities (Department of Urban Affairs and Planning (DUAP), 1996) • Cycling Aspects of Austroads Guides • NSW Planning Guidelines for Walking and Cycling (Department of Infrastructure, Planning and Natural Resources (DIPNR), 2004) • Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development • Standards Australia AS2890.3 (Bicycle Parking Facilities). • Development Near Rail Corridors And Busy Roads – Interim Guideline (Department of Planning, 2007) 		
<p>8. Ecologically Sustainable Development (ESD)</p> <ul style="list-style-type: none"> • Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) will be incorporated in the design and ongoing operation phases of the development. • Include a framework for how the future development will be designed to consider and reflect national best practice sustainable building principles to improve environmental performance and reduce ecological impact. This should be based on a materiality assessment and include waste reduction design measures, future proofing, use of sustainable and low-carbon materials, energy and water efficient design (including water sensitive urban design) and technology and use of renewable energy. • Demonstrate how environmental design will be achieved in accordance with the GANSW Environmental Design in Schools Manual. • Include preliminary consideration of building performance and mitigation of climate change, including consideration of Green Star Performance. • Include an assessment against an accredited ESD rating system or an equivalent program of ESD performance. This should include a minimum rating scheme target level. • Provide a statement regarding how the design of the future development is responsive to the CSIRO projected impacts of climate change, specifically: <ul style="list-style-type: none"> – hotter days and more frequent heatwave events o extended drought periods more extreme rainfall events – gustier wind conditions – how these will inform landscape design, material selection and social equity aspects (respite/shelter areas). 	Section 5.5	Appendix P

Requirement	Location in EIS	
<p><i>Relevant Policies and Guidelines:</i></p> <ul style="list-style-type: none"> • NSW and ACT Government Regional Climate Modelling (NARClIM) climate change projections. 		
<p>9. Heritage</p> <ul style="list-style-type: none"> • A Statement of Heritage Impact (SOHI) prepared by a suitably qualified heritage consultant in accordance with the guidelines in the NSW Heritage Manual. The SOHI is to address the impacts of the proposal on the heritage significance of the site and adjacent areas and is to identify the following: <ul style="list-style-type: none"> – all heritage items (state and local) within the vicinity of the site including built heritage, landscapes and archaeology, detailed mapping of these items, and assessment of why the items and site(s) are of heritage significance – compliance with the relevant Conservation Management Plan; – the impacts of the proposal on heritage item(s) including visual impacts, required Building Code of Australia and equitable access works, new fixtures, fittings and finishes, any modified services – the attempts to avoid and/or mitigate the impact on the heritage significance or cultural heritage values of the site and the surrounding heritage items and – justification for any changes to the heritage fabric or landscape elements including any options analysis. • If the SOHI identifies impact on potential historical archaeology, an historical archaeological assessment should be prepared by a suitably qualified archaeologist in accordance with the Heritage Division, Office of Environment and Heritage Guidelines 'Archaeological Assessment' 1996 and 'Assessing Significance for Historical Archaeological Sites and Relics' 2009. This assessment should identify what relics, if any, are likely to be present, assess their significance and consider the impacts from the proposal on this potential archaeological resource. Where harm is likely to occur, it is recommended that the significance of the relics be considered in determining an appropriate mitigation strategy. If harm cannot be avoided in whole or part, an appropriate Research Design and Excavation Methodology should also be prepared to guide any proposed excavations or salvage programme. • Provide a visual impact assessment (where required) to address views and vistas to and from Old Government House and the Government Domain in Parramatta Park. Colours and textures should be considered as part of the assessment. 	Section 5.6	Appendix Q
<p>10. Social Impacts</p> <ul style="list-style-type: none"> • Prepare a social impact assessment, which: <ul style="list-style-type: none"> – identifies and analyses the potential social impacts of the development, from the points of view of the affected community/ies and other relevant stakeholders, i.e. how they expect to experience the project – considers how potential environmental changes in the locality may affect people's: way of life; community; access to and use of infrastructure, services, and facilities; culture; health and wellbeing; surroundings; personal and property rights; decision-making systems; and fears and aspirations, as relevant and considering how different groups may be disproportionately affected – assesses the significance of positive, negative, and cumulative social impacts considering likelihood, extent, duration, severity/scale, sensitivity/importance, and level of concern/interest – includes mitigation measures for likely negative social impacts, and any proposed enhancement measures – details how social impacts will be adaptively monitored and managed over time. 	Section 5.8	Appendix FF
<p>11. Aboriginal Heritage</p> <p>Identify and describe the Aboriginal cultural heritage values that exist across the site and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation.</p>	Section 0	Appendix N

Requirement	Location in EIS	
<p>Identify and address the Aboriginal cultural heritage values in accordance with the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (Office of Environment and Heritage (OEH), 2011) and Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH, 2010).</p> <p>Undertake consultation with Aboriginal people and document in accordance with Aboriginal cultural heritage consultation requirements for proponents 2010 (Department of Environment, Climate Change and Water). The significance of cultural heritage values of Aboriginal people who have a cultural association with the land are to be documented in the ACHAR.</p> <p>Identify, assess and document all impacts on the Aboriginal cultural heritage values in the ACHAR.</p> <p>The EIS and the supporting ACHAR must demonstrate attempts to avoid any impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR and EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to the Environment, Energy and Science Group of the Department of Planning, Industry and Environment.</p>		
<p>12. Noise and Vibration</p> <p>Identify and provide a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation, construction. Outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.</p> <p>Identify and assess operational noise, including consideration of any public-address system, school bell, mechanical services (e.g. air conditioning plant), use of any school hall for concerts etc. (both during and outside school hours) and any out of hours community use of school facilities, and outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.</p> <p><i>Relevant Policies and Guidelines:</i></p> <ul style="list-style-type: none"> • NSW Noise Policy for Industry 2017 (NSW Environment Protection Authority (EPA)) • Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009) • Assessing Vibration: A Technical Guideline 2006 (Department of Environment and Conservation, 2006) • Development Near Rail Corridors and Busy Roads - Interim Guideline (Department of Planning, 2008) <p>Australian Standard 2363:1999 Acoustics - Measurement of noise from helicopter operations.</p>	Section 5.9	Appendix K
<p>13. Contamination</p> <ul style="list-style-type: none"> • Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with SEPP 55. • Undertake a hazardous materials survey of all existing structures and infrastructure prior to any demolition or site preparation works. <p><i>Relevant Policies and Guidelines:</i></p> <ul style="list-style-type: none"> • Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP, 1998) • Sampling Design Guidelines (EPA, 1995) • Guidelines for Consultants Reporting on Contaminated Sites (OEH, 2011) • National Environment Protection (Assessment of Site Contamination) Measure (National Environment Protection Council, as amended 2013) 	Section 5.10	Appendix O
<p>14. Utilities</p> <ul style="list-style-type: none"> • Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation and easement requirements of the development for the provision of utilities including staging of infrastructure. 	Section 3.13	Appendix J

Requirement	Location in EIS	
<ul style="list-style-type: none"> 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. 		
15. Contributions <ul style="list-style-type: none"> Address Council's 'Section 7.11/7.12 Contribution Plan' and/or details of any Voluntary Planning Agreement, which may be required to be amended because of the proposed development. 	Section 3.15	-
<ul style="list-style-type: none"> Drainage Detail measures to minimise operational water quality impacts on surface waters and groundwater. Stormwater plans detailing the proposed methods of drainage without impacting on the downstream properties <p><i>Relevant Policies and Guidelines:</i></p> <ul style="list-style-type: none"> Guidelines for developments adjoining land managed by the Office of Environment and Heritage (OEH, 2013). 	Section 5.11	Appendix R
16. Flooding <ul style="list-style-type: none"> Identify flood risk on-site (detailing the most recent flood studies for the project area) and consideration of any relevant provisions of the NSW Floodplain Development Manual (DIPNR, 2005), including the potential effects of climate change, sea level rise and an increase in rainfall intensity. If there is a material flood risk, include design solutions for mitigation. 	Section 5.12	Appendix U
17. Flora and Fauna <ul style="list-style-type: none"> Engage a suitably qualified person to assess and document the flora and fauna impacts related to the proposal. 	Section 5.13.2	Appendix F
18. Landscaping and Revegetation <ul style="list-style-type: none"> Provide details in relation to the riparian corridor along the site's western boundary including: <ul style="list-style-type: none"> the top of the highest bank, width, native vegetation community and condition proposed management and maintenance arrangements and proposed rehabilitation incorporating planting. Include a detailed landscaping strategy that: <ul style="list-style-type: none"> identifies trees and other vegetation to be removed or retained on site; includes details on the native vegetation community (or communities) and native plant species that once occurred in this location and identifies the species to be used in landscaping of the site which focus on a diversity of local provenance native species (trees, shrubs and groundcovers) that once occurred on the site to improve biodiversity. Details how the proposed landscaping would improve the urban canopy cover and mitigate the urban heat island effect. 	N/A The proposal does not impact the riparian corridor. Section 3.7 & 5.13 Section 3.7	N/A The proposal does not impact the riparian corridor. Appendix H & I Appendix H
19. Aviation <ul style="list-style-type: none"> Provide a report prepared by a suitably qualified Aviation expert that identifies and assesses the potential impacts of the development on the aviation operations of any nearby on shore helicopter landing sites and associated flight paths in accordance with the relevant sections of the National Airports Safeguarding Framework (NASF). <p><i>Relevant Policies and Guidelines:</i></p> <ul style="list-style-type: none"> National Airports Safeguarding Framework 	Section 5.14	Appendix W

Requirement	Location in EIS	
20. Sediment, Erosion and Dust Controls <ul style="list-style-type: none"> Detail measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles. <p><i>Relevant Policies and Guidelines:</i></p> <ul style="list-style-type: none"> Managing Urban Stormwater - Soils & Construction Volume 1 2004 (Landcom) Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA) Guidelines for development adjoining land managed by the Office of Environment and Heritage (OEH, 2013) 	Section 5.11 & 5.15	Appendix R & K
21. Waste <ul style="list-style-type: none"> Identify, quantify and classify the likely waste streams to be generated during construction and operation and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site. <p><i>Relevant Policies and Guidelines:</i></p> <ul style="list-style-type: none"> Waste Classification Guidelines (EPA, 2014) 	Section 5.16	Appendix K, X & Y
22. Construction Hours <ul style="list-style-type: none"> Identify proposed construction hours and provide details of the instances where it is expected that works will be required to be carried out outside the standard construction hours. 	Section 5.15	Appendix K
Plans and Documents	Report / EIS	Technical Study
The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation. Provide these as part of the EIS rather than as separate documents.	-	
In addition, the EIS must include the following:		
<ul style="list-style-type: none"> A Section 10.7(2) and (5) Planning Certificates (previously Section 149(2) and (5) Planning Certificate) 	-	Appendix GG
<ul style="list-style-type: none"> Architectural drawings showing key dimensions, RLs, scale bar and north point, including: <ul style="list-style-type: none"> plans, sections and elevation of the proposal at no less than 1:200 showing indicative furniture layouts and program illustrated materials schedule including physical or digital samples board with correct proportional representation of materials, nominated colours and finishes details of proposed signage, including size, location and finishes detailed annotated wall sections at 1:20 scale that demonstrate typical cladding, window and floor details, including materials and general construction quality site plans and operations statement demonstrating the afterhours and community use strategy 	-	Appendix B
<ul style="list-style-type: none"> Site Survey Plan, showing existing levels, location and height of existing and adjacent structures / buildings and site boundaries 	-	Appendix E
<ul style="list-style-type: none"> Site Analysis and Context Plans, including: <ul style="list-style-type: none"> any future development and expansion zones open space network active transport linkages with existing, proposed and potential footpaths and bicycle paths and public transport links 	-	Appendix B & C
<ul style="list-style-type: none"> Precinct scale staging plan showing relationship of the proposal to any future proposed development on the site 	-	Appendix B & C

Requirement	Location in EIS	
<ul style="list-style-type: none"> Site-wide wayfinding plan including accessibility and vertical circulation provisions 	-	Appendix C
<ul style="list-style-type: none"> Site-wide fencing plan indicating type(s) of fencing to be used, height, materials and integration with landscape 	-	Appendix C
<ul style="list-style-type: none"> Drawings including plans and sections to illustrate the relationship of the riparian zone with the wider precinct, including landscape interfaces and access to this area. This should detail how this area will be protected during and after construction. 	-	Appendix B & C
<ul style="list-style-type: none"> Sediment and Erosion Control Plan 	-	Appendix S
<ul style="list-style-type: none"> Shadow Diagrams 	-	Appendix B
<ul style="list-style-type: none"> View analysis, photomontages and architectural renders, including from those from public vantage points 	-	Appendix B & C
<ul style="list-style-type: none"> Landscape architectural drawings showing key dimensions, RLs, scale bar and north point, including: <ul style="list-style-type: none"> integrated landscape plans at appropriate scale, with detail of new and retained planting, shade structures, materials and finishes proposed, including articulation of playground spaces plan identifying significant trees, trees to be removed and trees to be retained or transplanted 	-	Appendix H
<ul style="list-style-type: none"> Design report to demonstrate how design quality will be achieved in accordance with the above Key Issues including: <ul style="list-style-type: none"> architectural design statement diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal detailed site and context analysis analysis of options considered to justify the proposed site planning and design approach visual impact assessment identifying potential impacts on the surrounding built environment and adjoining heritage items summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice summary report of consultation with the community and response to any feedback provided 	-	Appendix C
<ul style="list-style-type: none"> Geotechnical and Structural Report 	-	Appendix T
<ul style="list-style-type: none"> Accessibility Report 	-	Appendix G
<ul style="list-style-type: none"> Arborist Report and 	-	Appendix I
<ul style="list-style-type: none"> Schedule of Materials and Finishes. 	-	Appendix B
Consultation		
<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, special interest groups, including local Aboriginal land councils and registered Aboriginal stakeholders, and affected landowners. In particular, you must consult with:</p> <ul style="list-style-type: none"> City of Parramatta GA NSW Transport for NSW (TfNSW) Transport for NSW (Roads and Maritime Services) (TfNSW RMS). <p>Consultation with Council, GA NSW, TfNSW and TfNSW (RMS) should commence as soon as practicable to agree the scope of investigation.</p> <p>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</p>	Section 4.0	Appendix L

Requirement	Location in EIS	
issues. Where amendments have not been made to address an issue, a short explanation should be provided.		

2.0 Site Analysis

2.1 Site Location and Context

The WCC site is located at 2 Darcy Road, Westmead within the Parramatta Local Government Area (LGA). It is approximately 2 kilometres to the north-west of the Parramatta CBD and approximately 300m to the west of Westmead Train Station.

The site forms part of the Westmead Health and Education Precinct. The Westmead Health and Education Precinct comprises Westmead Hospital, Westmead Private Hospital and the Western Sydney University Medical Research Institutes.

The Westmead Health and Education Precinct, the WCC site and the surrounding residential land also collectively form part of the Westmead Priority Precinct Area.

The locational context of the site is shown at **Figure 2**.

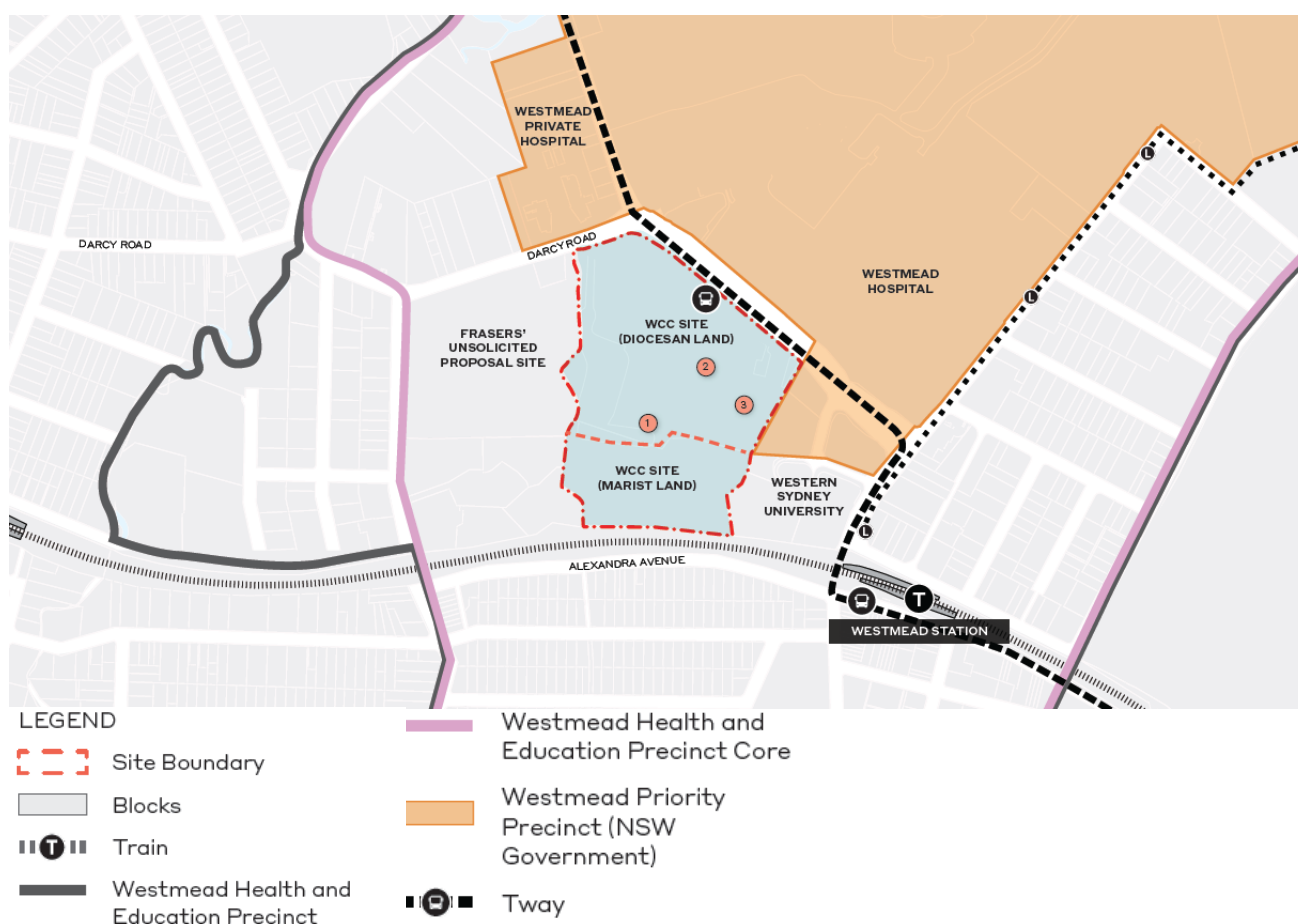


Figure 2 Location Context of the Site

Source: Ethos Urban

2.2 Site Description

The site is comprised of two lots, which are legally described as Lot 1 in DP1095407, which is owned by the Trustees of the Roman Catholic Church of Parramatta, and Lot 1 in DP1211982, which is under the ownership of the Trustees of the Marist Brothers.

The site has an area of approximately 12 hectares and is irregular in shape. It is bound by Darcy Road to the north, the T1 North Shore and Western / T5 Train Line to the south, the Western Sydney University (WSU) Westmead Campus to the east, and residential development to the west.

A Survey Plan has been prepared by Vince Morgan Surveyors and is included at **Appendix E** and an aerial photo is shown at **Figure 3**.



Figure 3 Aerial Photo of the site

Source: Nearmap and Ethos Urban

2.2.1 Existing Development

The WCC currently contains three separate schools, which collectively accommodate approximately 2,630 students and 190 staff. The three schools are:

- Catherine McAuley Westmead (secondary girls school), which predominately occupies the northern portion of the site.
- Parramatta Marist High School (secondary boys school), which occupies the eastern portion of the site.
- Mother Teresa Primary School (co-educational primary school), which occupies part of one of the Catherine McAuley Westmead buildings.

The existing Brother's Residence is located on the north-eastern corner of the site, adjoining Darcy Road. It is proposed to demolish this building as part of the separate Early Works DA to Council to accommodate a new multi-storey car park.

The existing buildings are generally constructed of brick, with building heights ranging between one and three storeys. They are all located in the north-eastern portion of the site.

The southern portion of the site contains open sports fields used by Parramatta Marist High School and an at-grade car park occupies the western portion of the site.

As shown in **Figure 4** to **Figure 9**, the majority of the existing buildings (across all three schools) are reaching their 'end of life'. It is also noted that historically the schools have operated independently of one another, with minimal collaboration and resource sharing.



Figure 4 North-Western Corner of the Site



Figure 5 Existing Connection to Darcy Road



Figure 6 Catherine McAuley Building



Figure 7 Western Playing Fields, looking west



Figure 8 Western Car Park, looking north-east



Figure 9 Western Car Park, looking south

2.2.2 Topography

The site forms part of the Parramatta landscape characterised by gently undulating rises with local relief up to 30m and slopes usually greater than 5%. The site is located on a hill side that generally falls with a gentle gradient towards the north-west.

To raise ground levels, the grassed sports field in northern and north-western part of the site has been filled between 1.5m and 3.6m above the existing ground levels along Darcy Road. An embankment is present along the northern and north-western property boundaries and along the eastern side of the western site access road that falls towards Darcy Road. The base of the embankment is supported by a retaining wall between 0.5m and 1.5m high. An embankment is also present between the access road and the creek that runs along the site's western boundary.

2.2.3 Vegetation

The majority of the site is cleared, with existing vegetation likely to have been planted after 1943. Generally, the composition, structure and function of vegetation within the site and surrounding landscape has been altered significantly and does not resemble any naturally occurring plant community types. The site is predominantly an artificial landscape with planted garden beds and trees situated throughout the campus.

Areas along the western boundary of the site contain the *Biodiversity Conservation Act 2016* (BC Act) listed Endangered Ecological Community (EEC) Swamp Oak Floodplain Forest, however these are not impacted by the proposed development. The Swamp Oak Floodplain Forest within and adjacent to the site is considered to align to plant community type 1234 Swamp Oak Swamp Forest fringing estuaries of the Sydney Basin and South East Corner Bioregion. Swamp Oak Floodplain Forest is also listed as an Endangered Ecological Community under the *Environmental Protection and Biodiversity Conservation Act* (EPBC), however it is not considered to conform to the EPBC Act listing due to the small patch size (less than 2 ha) and containing an exotic dominated understorey. Refer to the Flora and Fauna Assessment prepared by Cumberland Ecology at **Appendix F** and **Section 5.13**.

2.2.4 Soils and Geotechnical Conditions

The site is underlain by Ashfield Shale comprising dark-grey to black sideritic claystone, siltstone and fine sandstone-siltstone laminite. The north-east to south-west trending Coastal Lineament fault line is mapped approximately 400m to the north-west of the site.

The Blacktown landscape soils are generally shallow to moderately deep (greater than 1.0m) and generally comprise clay associated with the Wianamatta Group, Bringelly and Ashfield Shale.

The Preliminary Geotechnical and Hydrogeological Assessment prepared by Martens and Associates contains further detail relating to soils and geotechnical conditions (refer to **Appendix T**).

2.2.5 Heritage and Archaeology

The site is not identified as being a heritage item or being within a heritage conservation area.

However, it is noted that there are two heritage listed items on the adjoining land owned by the Western Sydney University at 158-164 Hawkesbury Road. They are:

- Western Sydney University (Item No. I628).
- Victorian Residence (within the grounds of UWS) (Item No. I629).

The site has the potential to contain Aboriginal archaeological deposits, and is listed on the State Heritage Inventory as having moderate archaeological research potential.

Refer to the Statement of Heritage Impact prepared by Comber Consultants at **Appendix Q** and **Section 5.6**, and the Aboriginal Cultural Heritage Assessment Report at **Appendix N** and **Section 5.7**.

2.2.6 Flooding

The subject site is situated within the Milson Creek catchment and overland flow from the upper catchment is expected to be conveyed beneath the Main Western Railway before continuing along the western boundary of the site and connecting into the pipe network beneath Darcy Road to the north.

Flood modelling information provided by Council indicates that the subject site is impacted by mainstream flooding. A summary of the predicted flood elevations for the 5%, and 1% Annual Exceedance Probability (AEP) and Probable Maximum Flood (PMF) events is outlined in Table 1 of the Flood Statement at **Appendix U**. Flood impacts are further assessed at **Section 5.12**.

2.2.7 Access and Parking

The Transport and Accessibility Impact Assessment prepared by The Transport Planning Partnership (TTPP) at **Appendix G** and **Section 5.4** details existing access and parking arrangements, as summarised below.

Vehicle Access

There are currently four access points into the site off Darcy Road.

Pedestrian and Cyclist Access

The site is surrounded by a well-established footpath network with marked foot crossings provided at most signalised intersections. Pedestrians are provided with refuge on the median islands of Darcy Road at the signalised crossing between the site and Westmead Private Hospital. A shared path is provided on the north side of Darcy Road which extends between Mons Road and Hawkesbury Road. A number of cycling routes are also available in the vicinity of the site.

Public Transport Access

There are a number of bus services that connect Westmead with Parramatta and the Hills District, with bus stops located along Darcy Road. Westmead Train Station, which is served by the T1 Western Line and T5 Cumberland Line, is located 300m to the east. These services connect to Parramatta, Liverpool and the Sydney CBD.

In the future, the site will be serviced by additional public transport infrastructure including the Parramatta Light Rail (under construction) and Sydney Metro West (proposed).

Parking

There are currently four car parks located across the site, which collectively provide a total of approximately 286 car parking spaces. Two of these parking areas are located along the site's northern boundary, and are accessed directly via Darcy Road. The other two are located in the western portion of the site and are accessed via an internal road connecting to Darcy Road. As part of the separate Early Works DA, it is proposed to remove approximately 74 spaces from the north of site and replace them within the new multi-storey car park, which will provide approximately 260 parking spaces. This will result in an overall parking provision of approximately 470 spaces on the WCC site.

2.3 Surrounding Development

The land surrounding the site is characterised by a mix of low to medium density residential development and development associated with the Westmead Health and Education Precinct. Significant growth and transformation is expected to occur as a result of investment in the Westmead Health and Education Precinct, as well as in response to the provision of the Parramatta Light Rail and West Metro. Further detail regarding the development surrounding the site is provided below:

- **North:** To the north the site is bound by Darcy Road. Further to the north, beyond Darcy Road, is the core of the Westmead Health and Education Precinct, which includes Westmead Hospital, Westmead Private Hospital and the Western Sydney University Medical Research Institute.
- **South:** To the south the site is bound by the T1 Western Line and T5 Cumberland Line.

- **East:** The land directly to the east is occupied by the heritage listed Western Sydney University (WSU) Westmead Campus. There is also a portion of land to the east currently being developed for high density residential.
- **West:** The land directly to the west is occupied by a mix of residential development, comprising both low rise, garden setting residences and medium to high rise residential flat buildings, with heights ranging between 9 and 15 storeys.



Figure 10 Darcy Road, looking west

Source/Notes:



Figure 11 Darcy Road, looking east

Source/Notes:



Figure 12 Residential Development to the west

Source/Notes:



Figure 13 Residential Development to the east

Source/Notes:

3.0 Description of the Development

This chapter of the EIS provides a detailed description of the proposed development. Architectural Plans prepared by Alleanza Architecture are included at **Appendix B**.

This SSD DA seeks approval for the following development:

- A primary school with capacity for approximately 1,680 students, to provide expanded facilities for the existing Mother Teresa Primary School on the site and to relocate the existing Sacred Heart Primary School at Ralph Street.
- A new Parish Church.
- A Catholic Early Learning Centre (fit-out within an existing building).
- Landscaping.

A photomontage of the proposed development is shown at **Figure 14**.



Figure 14 Photomontage of the Proposal (looking east from Darcy Road)

Source: Alleanza Architecture

3.1 Development and Urban Design Principles

The planning and design principles adopted for the proposed development respond directly to the Education SEPP Design Quality Principles, as well as the mission of the Catholic Education Diocese of Parramatta. Specifically, the development has been guided by the following principles:

- Create an integrated faith, learning and evangelising community that collaborates beyond its boundaries with the broader community.
- New facilities are to be welcoming, engaging and inclusive of all abilities and identities.
- Implement the Catholic Education Diocese of Parramatta's Learning Continuum.
- Integrate open space with the built form and enhance connections between indoor and outdoor learning environments.
- Create collaborative school learning settings.

A Design Verification Statement that addresses how the proposed developments meets each of these design principles has been prepared by the project architects, Alleanza Architecture, and is available at **Appendix C**.

3.2 Numerical Overview

The key numeric development information is summarised in **Table 2**.

Table 2 Key Development Information

Component	Proposal
Site Area	118,161m ²
Maximum Height	Primary School Building - 26.5m (RL 46.50). Parish Church – 11.5m (RL31.4) approx.
Gross Floor Area	K6 Building: 7,153m ² Parish Church: 1,005m ² Total: 8,158m²
Student Population	Additional primary students: 1,260. Catholic Early Centre students: 200.

3.3 Demolition, Excavation and Tree Removal

3.3.1 Demolition and Excavation

Minimal demolition is required and predominantly constitutes the removal of the existing demountables on site. Excavation and fill is detailed on the Civil Plans at **Appendix S** and in the Construction Management Plan at **Appendix K**. All excavation work will take place using large excavation plant and equipment, with excess spoil transported off site.

3.3.2 Tree Removal

24 trees are proposed to be removed to accommodate the proposed development, which are identified in the Landscape Plans at **Appendix H**. Further discussion of tree removal is provided at **Section 5.13** and the Arboricultural Impact Assessment prepared by Tree IQ (**Appendix I**).

3.4 Primary School Building

3.4.1 Built Form

The proposal includes the construction of a six storey Primary School Building. The building has been located within the western portion of the site to maintain a direct relationship with the existing McAuley Learning Centre and the proposed Parish Church.

Building Layout

The building has been designed with an innovative, contemporary layout with a 'stacked' six storey configuration containing integrated, multi-level indoor and outdoor zones. This unique design provides a quantity of constructed open space that is almost equal to the amount of enclosed teaching space. This layout enables a genuine diversity of high quality teaching and play areas, integrated with natural landscape features that provide opportunities for formal and informal recreation within natural spaces.

Teaching spaces are arranged around central open space, to be used for recreation and circulation as shown at **Figure 15**. The building will be utilised accordingly:

- Ground: Kindergarten classrooms and open space.
- Level 1: Years 1 & 2 and open space.
- Level 2: Years 5 & 6 and open space.
- Level 3: Open space.
- Level 4: Years 3 & 4 and open space.
- Level 6: Roof top open space.

Three staircases provide access between all levels, as well as three lifts adjacent to the central staircase.

The building has been designed with innovative learning spaces that provide high amenity in a flexible and adaptable environment. These learning spaces (indoor and outdoor) are able to accommodate practical activities, presentations, performance, collaboration, independent studies, project-based learning, and traditional direct instruction. The building has also been designed to be easily adapted to create various settings that support different learning behaviours. In this regard, the building layout reflects best practice in teaching and learning.

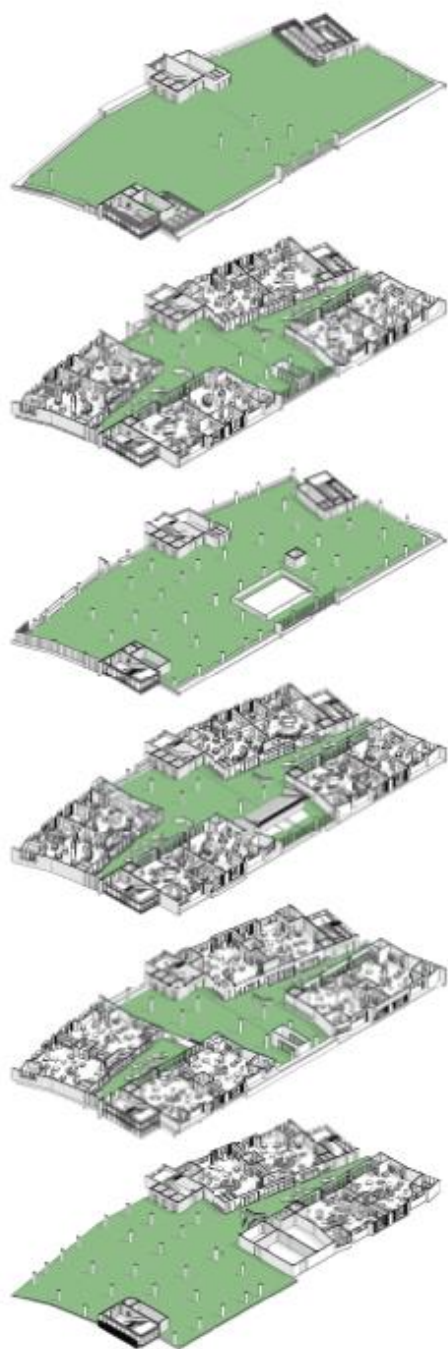


Figure 15 **Layout of Primary School Building (open space shown in green)**



Figure 16 Primary School Building, viewed from the south

Source: Alleanza Architecture

3.4.2 Building Uses

Table 3 Summary of Building Uses

Level	Use
Ground Floor	<ul style="list-style-type: none"> • Outdoor Space • Teaching Space • Canteen • Storage • Amenities
Level 1	<ul style="list-style-type: none"> • Covered Outdoor Space • Teaching Spaces • Storage • Amenities
Level 2	<ul style="list-style-type: none"> • Covered Outdoor Space • Teaching Spaces • Storage • Amenities
Level 3	<ul style="list-style-type: none"> • Covered Outdoor Space • Storage • Amenities
Level 4	<ul style="list-style-type: none"> • Covered Outdoor Space • Teaching Spaces • Storage • Amenities
Level 5	<ul style="list-style-type: none"> • Outdoor Space • Storage

Level	Use
	<ul style="list-style-type: none"> Building Plant

3.4.3 External Materials and Finishes

The external materials and finishes generally feature a subdued 'base' graphite palette that includes fibre cement, concrete, steel and glass balustrades, and powder coated aluminium. The building will incorporate coloured fibre cement panels and perforated shading devices as a wayfinding device, identifying individual levels. The façade has been designed as an open façade to enhance natural ventilation.

3.5 Catholic Early Learning Centre

The proposed development includes alterations and additions to the Ground Floor of Block B of Mother Teresa Primary School to provide the following:

- Catholic Early Learning Centre for 200 pre-school students.
- Administration facilities.
- Resource centre.

The conversion necessitates alterations and additions to retrofit the Ground Floor of Block B, which is currently used for teaching spaces for K-6, into an early learning centre for 200 children. The proposed alterations and additions consist of minor changes to the external façade and internal partitioning, with the main changes relating to the landscaping and outdoor play areas.

As detailed the Architectural Design Report (**Appendix C**) the early learning centre has been designed with regard to *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* and the Department's Child Care Planning Guideline 2017.

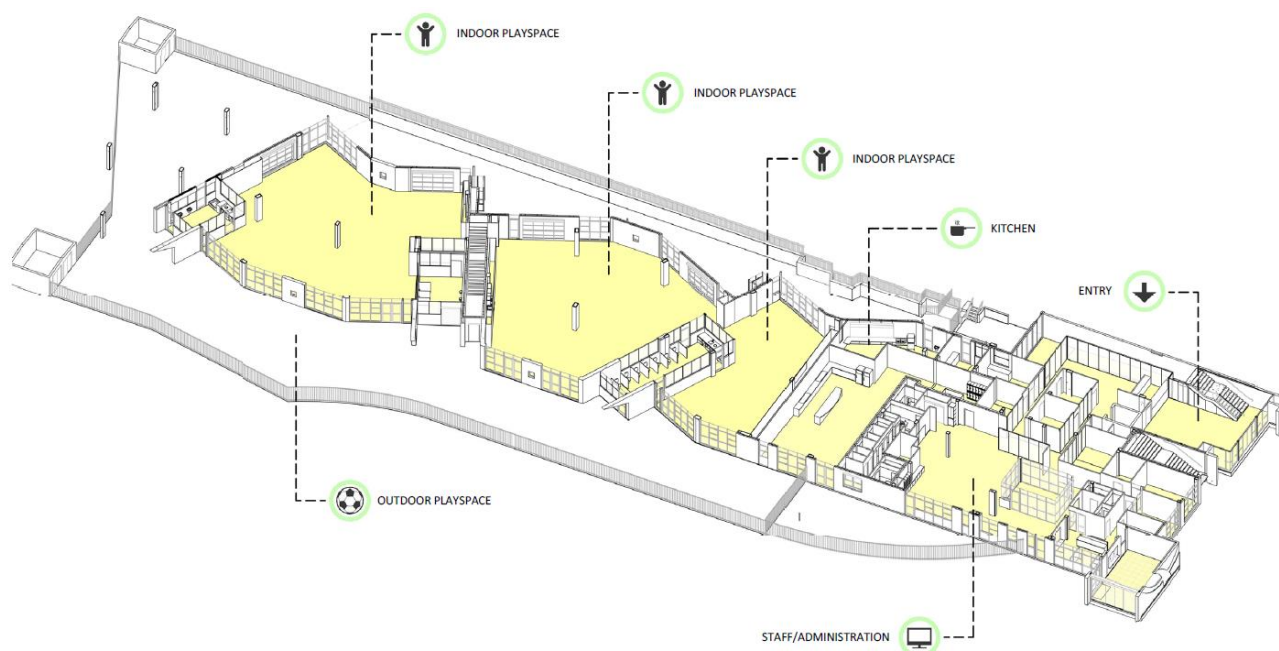


Figure 17 Layout of Catholic Early Learning Centre

Source: Alleanza Architecture

3.6 Parish Church

The proposed development includes the construction of a new Parish Church on the north-western corner of the site fronting Darcy Road. This will enable the relocation of the Parish Church currently located at Ralph Street, Westmead. The Parish Church will accommodate a 400 seat worship space and supporting facilities, including meeting rooms, offices, a kitchen, sacristy and storage.

Architecturally, the Parish Church has been designed as collection of organic ‘pebble’ forms surrounding the central worship space. The ‘pebbles’ contain the various ancillary facilities that will support the operation of the Parish Church and the ‘gaps’ within the built form allow for access, ventilation and the penetration of natural light.

The positioning of the Parish Church on the corner of Darcy Road will create a more defined ‘entrance’ for the WCC, while remaining ‘human scaled’ and generally beneath the canopy of existing trees (refer to **Figure 18**). The materiality of the Parish Church incorporates a combination of natural, earthy colours including concrete and terracotta cladding. The roofing consists of lighter coloured metal sheeting.



Figure 18 Parish Church

Source: Alleanza Architecture

3.7 Landscaping and Outdoor Recreation

Landscape Plans have been prepared by Ground Ink and are included at **Appendix H** and shown at **Figure 19**. The proposed development includes the following landscape elements:

- Landscaping around the Parish Church;
- Landscaping around and within the new Primary School Building, including across Level 1 to Level 6; and
- Landscaping around the new Catholic Early Learning Centre.

Site-Wide Landscaping

The landscape design for the site will provide a number of open turf areas and mass planting of native species. Mass planting of native trees, shrubs, groundcovers and grasses has been maximised to reinforce the character of the nearby riparian corridor, as well as maximise visual amenity and soften hard stand areas. The proposed planting will also reinforce the boundaries of the site, with planting screening the 1.8m high fence that separates the Parish grounds from the school. Key landscape elements include:

- Removal of the existing embankment in the north-west corner of the site and construction of a Yarning Circle adjacent to the entry from Darcy Road, which reflects the Aboriginal cultural significance of the area and enhances the arrival experience. This area includes sandstone blocks and reclaimed timber for seating.
- The Cross structure, which acts as gateway to the site and will assist with wayfinding by allowing the Parish to be clearly identified from Darcy Road.
- A major play space, including vertical play structures, a sand pit, hand ball courts, turf mounds, seating and shade sails.
- A coloured concrete area depicting the earth's core, which can be used as an outdoor classroom.
- Bicycle parking.

The landscape design has sought to maximise the use of groundcovers, grasses and trees to increase the canopy cover and mitigate the urban heat island effect. The plant schedule at **Appendix J** outlines the indicative plant species, including:

- Trees ranging between 10 – 35m in height.
- Native shrubs, such as Lilly Pilly, Grass Tree and Bottle Brush.
- Trailing grasses and ground covers, including Kangaroo Paw and Pig Face.

The majority of species selected are native and will seek to improve the biodiversity value of the site.

Playspaces and Outdoor Recreation

Playspaces are provided on each level of the new primary school building, maximising opportunities for recreation and outdoor classrooms. The playspaces comprise a combination of planter boxes and turfed areas, alongside educational play opportunities. The key features are:

- Dharawal calendar of the six seasons to educate students about Aboriginal culture.
- Painted murals on the ground for imaginative play, including line-marked bus and train seating, and the planets.
- Climbing and mounded softfall play structures.
- A softfall running track.
- Two multi-sports courts.

New landscaping to support the Catholic Early Learning Centre include sandpits, grass and turfed areas and sandstone blocks for climbing and seating.



Figure 19 Proposed Landscaping

Source: Ground Ink

3.8 Boundary Strategy

To ensure the safety and security of students and staff, a Boundary Strategy has been developed to separate the school and the Parish. The Boundary Strategy is illustrated at **Figure 20** and is as follows:

- The existing secure Darcy Road entrance gate at the north-west corner of the site will be removed and fencing amended to provide community access to the Parish, visitor parking and playing fields.
- The existing retaining wall at the north-west corner of the site will also be removed and the site adjusted as an embankment rising from Darcy Road to the Parish.
- The Parish and its immediate surrounds will be an un-fenced landscaped precinct.
- The new Primary School Building will be secured through a 1.8m high fence integrated into the landscape design, which encloses the existing school campus.
- Automatic entry gates with intercom systems will provide controlled access onto the site, in accordance with existing arrangements.

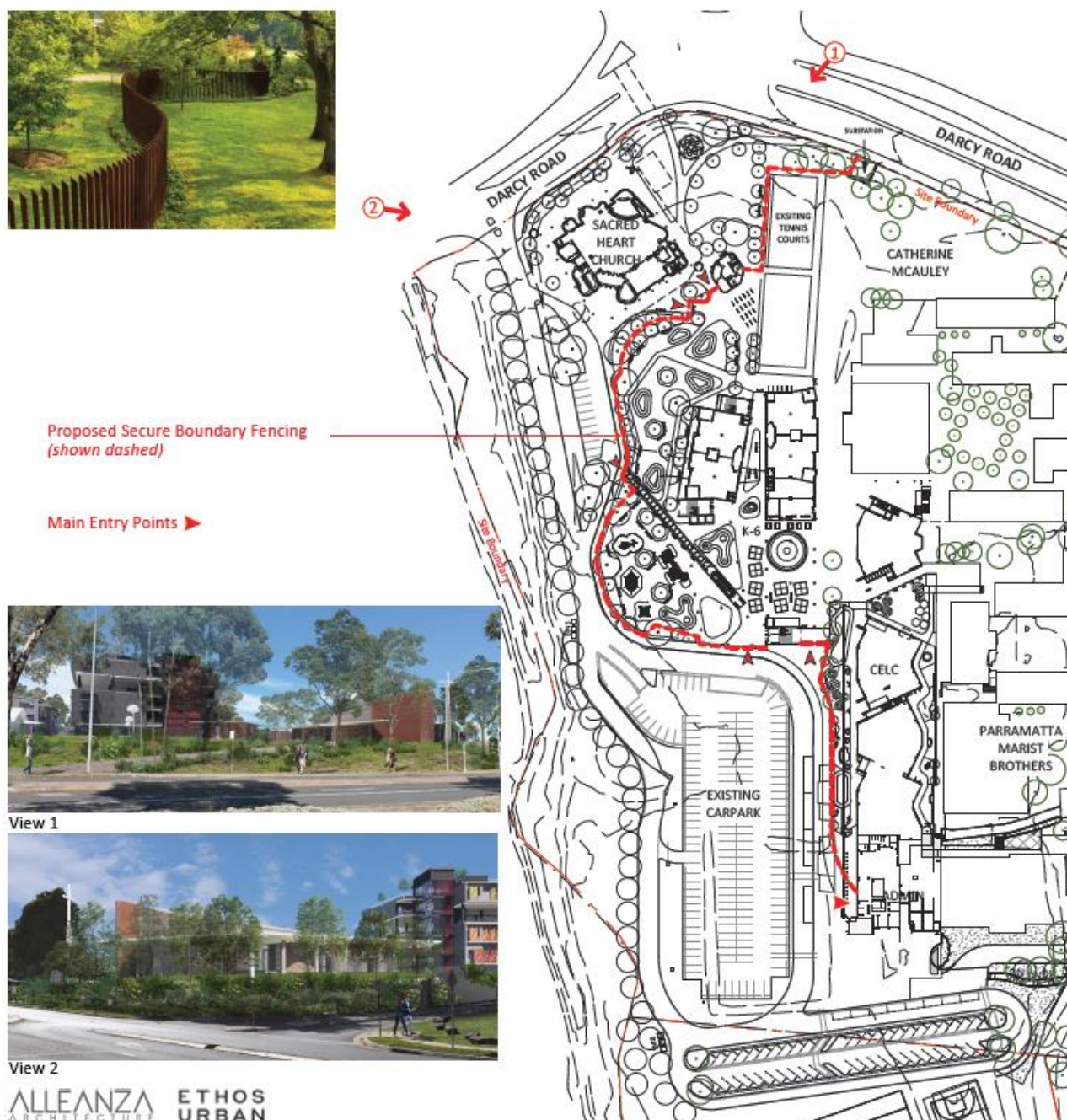


Figure 20 Boundary Strategy

Source: Alleanza

3.9 Wayfinding and Connectivity

Wayfinding throughout the development has been designed to be intuitive, utilising the simplicity of the layout and maintaining sight lines through open space to ensure that the layout is legible. Where appropriate, graphics and signage will be incorporated into the detailed design to assist with wayfinding and promote a sense of place and belonging. The proposal has been designed to facilitate connections and circulation between all uses (refer to **Figure 21**) and has been designed to ensure there is appropriate way finding for different users and purposes, including drop off, pick up, community use and internally (refer to **Appendix B** for further detail). A future separate approval will be obtained for any signage requiring consent.

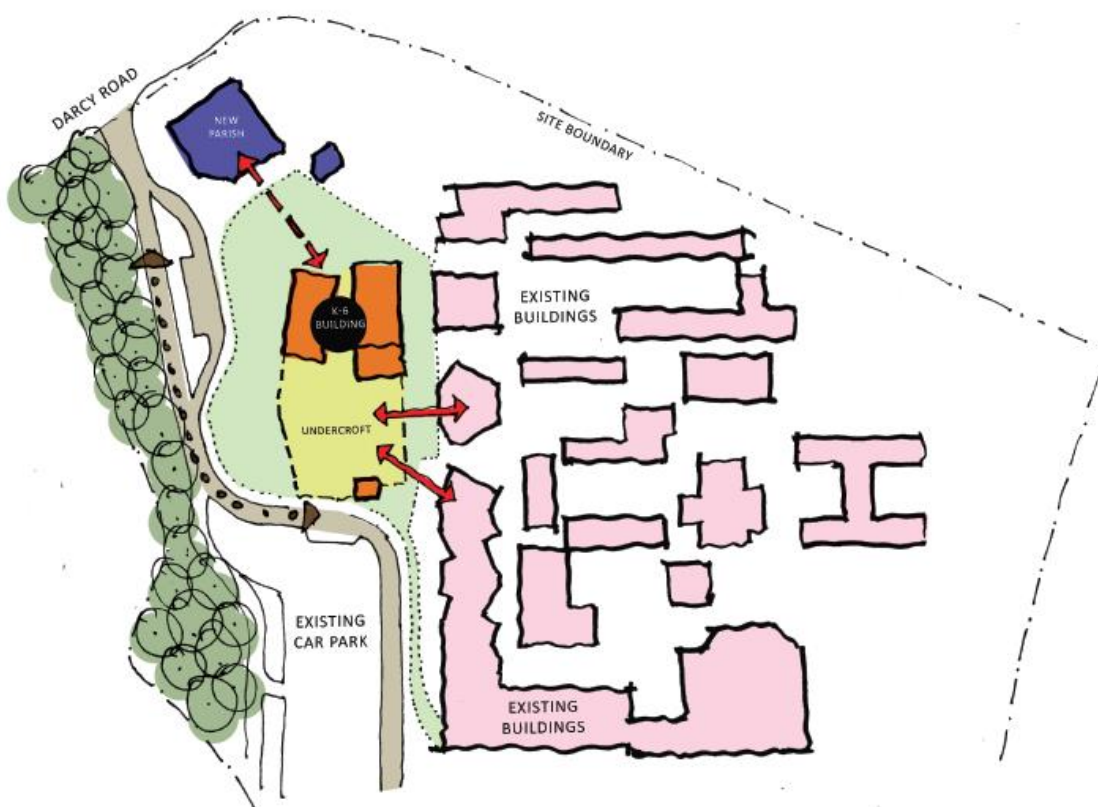


Figure 21 Connectivity between Proposed Uses

3.10 Access and Parking

3.10.1 Pedestrian Access

Pedestrians, being students, staff and parents, are able to access the site through secure entries from Darcy Road. A new accessible entry is provided from Darcy Road adjacent to the proposed Parish Church, while existing pedestrian access to the school grounds will be maintained.

3.10.2 Vehicular Access and Parking

The existing vehicle access from Darcy Road adjacent to the Parish Church will be maintained, providing vehicle access to the car park and drop-off zone. The separate Early Works DA to Council for a car park on the north-eastern corner of the site will provide a secondary vehicle access, for the pick-up and drop-off zone as well as multi-level car park.

3.10.3 Services Vehicles

Service vehicle access will be via the existing vehicle access from the western Darcy Road entry.

3.10.4 Pick Up / Set Down Zone

As part of the separate Early Works DA to Council (refer to **Section 1.2.1**), the existing access driveway in the north-east of the site will be modified to accommodate a new drop-off / pick-up zone around the outside of the new car park. This area will accommodate approximately 21 drop off bays.

The existing drop-off / pick-up zone to the south of the proposed development will be maintained.

3.10.5 School Bus Zone

The existing bus bay to the south of the proposed development will be maintained.

3.11 School Operation

3.11.1 Staff and Student Numbers

Table 4 outlines staff and student numbers on the site.

Table 4 Teacher and Student/Children Numbers

Group	Current – 2019	Proposed Development Opening Year – 2023	Proposed Development Stabilisation Year - 2033
Student Population			
CELC students	0	100	200
Primary School students	420	600	1,680
High School students	2,186	2,237*	2,237
FTE Staff Population**			
CECL staff	0	15	20
Primary School staff	24	40	100
High School staff	166	166	166

* Marginal increase in high school student population between 2019 and 2023 is related to 'natural growth' of students and is unrelated to proposal.

** Full-time equivalent staff.

3.11.2 Hours of Operation

Primary School

The school's main hours are between 6am – 6pm, Monday to Friday.

The school will provide out of school hours services between 6pm – 8pm, Monday to Friday on an occasional basis.

Catholic Early Learning Centre

The early learning centre's main hours are between 6:00am – 6:00pm, Monday to Friday.

Parish

As a place of public worship, the Parish does not have formal operating hours. Church services will be offered throughout the week and on weekends, with community and other parish activities taking place outside of these times. The predominant hours of use are:

- Monday - Friday: mainly 8-10am
- Saturday: 8-10am, 4:30-7pm
- Sunday: 7am-12pm

The Parish office will operate generally during usual business hours and on Saturday morning.

3.11.3 Community Use of School Facilities

It is the intention that the wider community will have access to the Parish and associated meeting spaces. Community use outside of school hours will be managed between the Parish and the school, with the boundary strategy described in **Section 3.8** ensuring that the security of the school is maintained at all times.

3.11.4 Construction Operation

The school will continue to operate during construction of the proposed development. The construction site will be appropriately demarcated with fencing, hoarding and security to ensure safety, as outlined in the Construction Management Plan at **Appendix K**.

To mitigate impacts on the school operations, work hours and construction material deliveries will be coordinated to minimise impacts. Further consultation with the key stakeholders of the WCC will occur prior to commencement of works to ensure there are minimal impacts to the operation of the school.

3.12 Environmentally Sustainable Development

The key sustainability design approach is to benchmark against the following:

- 4 Star Green Star and as-built V1.3.
- Climate responsive design in accordance with NSW climate projections for 2020 – 2039.

The Catholic Early Learning Centre within the existing building will utilise existing services and will seek to incorporate ESD initiatives where possible.

The Parish has incorporated a range of ESD initiatives, including rainwater re-use, maximising solar access and cross ventilation.

3.13 Services and Utilities

An Infrastructure and Services Report has been prepared by Erbas (**Appendix J**) which outlines the existing infrastructure and service, provides information on existing capacity, and details any augmentation required to service the proposed development.

3.13.1 Electricity

The closest substation does not have capacity to service the Parish Church and Primary School Building. It is therefore necessary to connect the proposed buildings to existing underutilised substations in the surrounding area.

The switchboards, electrical componentry and electrical metering will be upgraded and/or replaced during detailed design and construction.

3.13.2 Water

The new Primary School Building can connect to the existing water main on Darcy Road, via the existing water reticulation system.

Due to the height of the proposed Primary School Building, the existing fire hydrant pump requires replacement to meet the pressure requirements of the Australian Standards.

The Parish Church will require a new 32mm connection to the water main on Darcy Road.

On-site detention and rainwater tanks will be provided, as illustrated on the Civil Drawings at **Appendix S**.

3.13.3 Sewerage

The construction of the Primary School Building will necessitate the diversion of the existing sewer main. The Primary School Building and the Parish Church will be connected to the sewer main, once diverted.

3.13.4 Fire Services

A new 150mm water main will be connected from the 250mm main along Darcy Road. The new 150mm water main will connect to the fire sprinkler booster assembly and to the sprinkler pump room. A new 100mm fire sprinkler main will be installed (alongside the 150mm water main) to serve the new buildings.

3.14 Construction

3.14.1 Construction Staging

The construction activities associated with the are expected to occur over a period of 16 months, with completion targeted for January 2023.

The detailed construction program will be confirmed upon the appointment of a contractor, but the indicative timeframes include:

- Primary School Building: 52 weeks
- Parish Church: 40 weeks
- Catholic Early Learning Centre: 14 weeks

The Construction Management Plan prepared by Buildcorp (**Appendix K**) outlines how the proposed construction activities will be staged.

As detailed in **Section 1.2.1**, the early works are the subject of a separate Development Application to Council. It is anticipated that the early works will occur over a period of 10 months, with completion targeted for August 2021.

3.14.2 Construction Jobs

The construction of the proposed development is expected to create approximately 1,000 construction jobs.

3.14.3 Construction Hours

The proposed construction hours are:

- Monday to Friday: 7:00am to 6:00pm.
- Saturday: 7:00am to 5:00pm.
- No works on Sunday and Public Holidays.

3.15 Contributions

This application seeks an exemption from the payment of development contributions on the basis that the proposed development will facilitate access to community facilities and open space, and is unlikely to increase demand for public amenities or public services in the area. Specifically, the City of Parramatta draft *Social Infrastructure Strategy 2017* identifies the following community infrastructure needs for Westmead:

- Increased access for the community to more community spaces through shared use arrangements with not-for-profits and businesses in the precinct.
- Increased provision of long day care services including a mix of private and not-for-profit managed centres.
- Revitalisation and increased open space along the Parramatta River foreshore and elsewhere within Westmead.
- Provision of open space and recreation facilities within new private development to support the needs of residents.

The proposed development will assist in meeting these identified community infrastructure needs in the following ways:

- Facilitating access to the meeting and community spaces provided within the new Parish building.
- Delivering publicly accessible open space on Darcy Road adjoining the Parish, and enhancing tree planting and biodiversity values throughout the site.
- The Catholic Early Learning Centre will provide increased long day care services.

As the school is private education establishment and the Parish a place of public worship, it will provide all required amenities and services on-site and is not expected to generate any additional demand for public amenities or services. Accordingly, an exemption from the payment of development contributions is sought.

4.0 Consultation

In accordance with the SEARs, consultation has occurred with relevant public authorities, the community and City of Parramatta Council. The consultation process to date is detailed in the Stakeholder and Community Engagement Outcomes Report prepared by Urbis (**Appendix L**).

Additionally, the proposed development will be placed on public exhibition for 28 days in accordance with clause 83 of the *Environmental Planning and Assessment Regulation 2000*. During the public exhibition period Council, State agencies and the public will have an opportunity to make submissions on the project.

Agency, Council and Key Stakeholder Consultation

CEDP has been engaged in ongoing consultation with the City of Parramatta, landowners and relevant government authorities, including the NSW Government Architect, School Infrastructure NSW, Sydney Metro and TfNSW. A summary of meetings is provided in **Table 5**.

Table 5 Summary of Consultations with Council, Agencies and Key Stakeholders

Agency	Meeting Date
City of Parramatta	<ul style="list-style-type: none"> • 29 October 2018 • 27 November 2018 • Early-Mid July 2018 • 1 August 2019 • 30 August 2019 • 18 September 2019
NSW Government Architect	<ul style="list-style-type: none"> • 3 September 2019 (Project Briefing 1) • 30 October 2019 (Project Briefing 2)
State Design Review Panel (SDRP)	<ul style="list-style-type: none"> • 6 November 2019 • 29 January 2020
Westmead Alliance	<ul style="list-style-type: none"> • Meetings held between 2017 and 2019 focusing on collaboration in master planning and design integration.
Schools Infrastructure NSW	<ul style="list-style-type: none"> • Memorandum of Understanding established in 2018, with consultation ongoing.
RMS	<ul style="list-style-type: none"> • 12 February 2020
Sydney Metro / TfNSW RMS	<ul style="list-style-type: none"> • Meetings on transport infrastructure provisions in 2018.

Local Aboriginal Groups

Comprehensive engagement has been undertaken with local Aboriginal groups, as detailed in the Aboriginal Cultural Heritage Assessment Report at **Appendix N**. The consultation undertaken has resulted in the identification of a number of registered Aboriginal parties. No culturally sensitive information was identified as part of the consultation.

Community Consultation

Catholic Education Diocese of Parramatta has undertaken ongoing consultation and engagement with the local community during design development. The community consultation and engagement strategy has included:

- Letters to the Parish.
- Newsletter for Catherine McAuley Westmead, Parramatta Marist High School, Mother Teresa Primary School and Sacred Heart Primary School.
- Website, with ongoing information updates.
- Media announcements.
- Staff and community information sessions.

Refer to the Stakeholder and Community Engagement Outcomes Report (**Appendix L**) for a detailed account of all consultation undertaken for the proposed development.

Table 6 below summarises the matters raised by the community and details the project team's response. Refer to the Stakeholder and Community Engagement Outcomes Report (**Appendix L**) for a detailed account of all consultation undertaken for the proposed development.

Table 6 Community Consultation Issues Response

Issue	Response
Project Need	<ul style="list-style-type: none"> Catholic schools in Westmead are unable to meet growing demand, turning away enrolment applicants every year for several years. A plan has been announced by the Diocese of Parramatta, Marist Trustees and supported by the Sisters of Mercy Parramatta, to provide more enrolment opportunities to meet the growing need from families seeking a Catholic education for their children locally. These changes are part of the Westmead Catholic Community initiative, which also includes new Parish facilities. The Sacred Heart Primary School facilities no longer services the changing needs for contemporary learning. The proposal will provide opportunity to develop purpose-built facilities that are flexible to meet the learning and curriculum delivered by Catholic Education.
Built Form	<ul style="list-style-type: none"> Students will be able to access classrooms via stairwell or lifts. The lifts will provide access for students with special needs. Open space will be incorporated on each level, and dedicated play areas will be incorporated on selected levels of the building which align to the learning stage and pedagogical needs. The built form design will enable provision of separate spaces which are designed for the learning stage, age and sex of the students.
Open Space	<ul style="list-style-type: none"> The provision of open spaces will be complemented by significant investment in creating up-to-date and exciting play and recreation spaces. These new spaces will be usable all-year round, in all weather and be tailored for the different age groups. During construction some recreational spaces used by the schools will be relocated. These changes will be made in consultation with the school leadership team. WCC will maintain sufficient play space and open space for the planned number of students on campus (upon completion).
Transport and Access	<ul style="list-style-type: none"> The Project Team is working closely with local transport and traffic authorities, NSW Government including Transport NSW, Westmead Alliance and Innovation Precinct Planning, Western Sydney Local Health District, to discuss traffic management and transport. A traffic engineer will be consulted to provide expert advice on how to best manage the movement of people and vehicles.
Construction	<ul style="list-style-type: none"> CEDP is committed to ensuring safety and minimising disruption to current students during construction of new facilities. A Construction Management Plan will be developed as part of the planning process which will outline ways to mitigate noise, dust and debris. The Project Team will be working closely with each of the schools to plan ways to schedule classes and activities to minimise disruption to learning and teaching. Subject to planning approval, the new K6 Building will open in 2023. Sacred Heart Primary will continue to operate at its current site until this time, mitigating any construction impacts on students at Sacred Heart.

5.0 Environmental Assessment

This section of the report assesses and responds to the environmental impacts of the proposed development. It addresses the matters for consideration set out in the SEARs (see **Section 1.5**). The Mitigation Measures at **Section 7.0** complement the findings of this section.

5.1 Relevant EPIs, Policies and Guidelines

The relevant strategies, environmental planning instruments, policies and guidelines as set out in the SEARs are addressed in **Table 7**.

Table 7 Summary of consistency with relevant Strategies, EPIs, Policies and Guidelines

Instrument/Strategy	Comments
Strategic Plans	
NSW State Priorities	<p>NSW State Priorities are twelve high-level priorities for the State, being:</p> <ul style="list-style-type: none"> • Creating jobs; • Delivering infrastructure; • Driving public sector diversity; • Improving education results; • Improving government services; • Improving service levels in hospitals; • Keeping our environment clean; • Making houses more affordable; • Protecting our kids; • Reducing domestic violence reoffending; • Reducing youth homelessness; and • Tackling childhood obesity. <p>The proposed development will provide additional educational infrastructure in Westmead, improving student capacity and creating jobs in construction and teaching. The development of high-quality teaching facilities will also contribute to improving results in education.</p>
The Greater Sydney Region Plan	<p>The Greater Sydney Region Plan (the Region Plan) identifies Westmead as forming part of 'Greater Parramatta' and as a key health and education precinct. It is expected that Greater Parramatta will accommodate a high level of public and private sector investment to enable the area to grow and involve. The Region Plan recognises the need to cater for growing student numbers through the innovative and efficient use of land and the sharing of community facilities.</p> <p>The proposed development is consistent with the objectives of the Region Plan in that it will encourage investment in Greater Parramatta and accommodate expected growth in the student population. The proposed development is also consistent with the wider objectives of the Regional Plan, including:</p> <ul style="list-style-type: none"> • Create temporary job opportunities in manufacturing, construction and construction management, as well as ongoing jobs in teaching and administration; • Provide contemporary, high quality teaching facilities that reflect best practice in education; and • Deliver a sustainable, well designed development that promotes the use of public and active transport;
The Central District Plan	<p>The Central City District Plan supports the objectives of the Region Plan and recognises that the Central City will grow substantially, capitalising on its location close to the geographic centre of Sydney.</p> <p>The plan recognised the importance of planning to support education facilities, particularly in the Central District. The Central City District Plan acknowledges that growth will be needed in order to accommodate an extra 89,360 students in the Central City District by 2036. Importantly the plan also recognises that, as the school aged population grows, planning for the use of existing schools must respond to growth and changing demand in innovative ways such as more efficient use of land, contemporary design, greater sharing of spaces and facilities, and flexible learning spaces.</p>

Instrument/Strategy	Comments										
	The proposed development is consistent with the objectives of the District Plan given that it will deliver additional education facilities that will help accommodate the growing student population of the District. It has also been designed to allow greater sharing of teaching spaces and facilities, while the building layout provides for flexible, innovative learning spaces.										
Future Transport Strategy 2056	Future Transport Strategy 2056 sets the 40-year vision, directions and outcomes framework for customer mobility in NSW and will guide transport investment over the longer term. This plan aims to place the customer at the centre and with feedback harness the rapid advancement of technology and innovation across the transport system to transform customer experience, improve communities and boost economic performance (TfNSW 2017). The proposed development is consistent with the Strategy by delivering increased educational capacity in a highly accessible location in close proximity to existing and future transport infrastructure. The proposed development does not prevent the objectives of the Strategy from being achieved.										
State Infrastructure Strategy 2018 – 2038 Building the Momentum	The proposal is consistent with the State Infrastructure Strategy by: <ul style="list-style-type: none"> • Delivering school infrastructure to keep pace with student numbers; • Providing modern, innovative learning environments; and • Upgrading existing learning spaces. 										
Greater Parramatta and the Olympic Peninsula Vision	The Greater Parramatta and the Olympic Peninsula (GPOP) Vision aims to deliver opportunities for an integrated city that builds on existing infrastructure and assets to create an area that is liveable, productive and sustainable. This vision outlines key growth and management actions that will connect essential urban services, advanced technology and knowledge sectors. The proposed development is consistent with this vision as it delivers improved educational facilities and will help accommodate the growing student population. The proposed development aligns with the overarching goals for an innovated Parramatta CBD and Westmead Health and Education Super Precinct.										
Greater Parramatta Interim Land Use and Infrastructure Implementation Plan	The Greater Parramatta Interim Land Use and Infrastructure Implementation Plan provides a land use framework to guide the future redevelopment of the growth area to meet the 20 year targets for new jobs, homes and essential services in the Central District Plan. This plan provides a coordinated direction to the delivery of critical infrastructure and services across the four distinct quarters. The proposed development is consistent with this vision as it will deliver increased educational capacity to support the future progression of Westmead as a priority precinct.										
A City Supported by Infrastructure: Place-based Infrastructure Compact Pilot	The Place-based Infrastructure Compact (PIC) Pilot aims to better align growth with infrastructure and services. The proposed development is consistent with the aims of the PIC as it will help accommodate the growing student population of the Central District. Importantly, through the sharing of facilities, the proposed development will provide additional open space for the community.										
Better Placed: An Integrated Design Policy for the Built Environment of NSW	Better Placed has been developed by the Government Architect as an integrated design policy for the built environment of NSW. It includes seven distinct objectives that have been created to define the key considerations in the design of the built environment. Below is a review of the proposed development's consistency with the principles of Better Placed. <table> <tr> <td>Objective 1 Better Fit</td><td>The proposed development has been designed to respond to the surrounding context, including the topography and existing mature vegetation. The proposed buildings have been designed at a scale necessary to accommodate the growing student population, while remaining respectful of surrounding development.</td></tr> <tr> <td>Objective 2 Better Performance</td><td>The principles of ESD have been incorporated into the design of the proposed development. This is discussed in further detail at Section 5.5 and the ESD Report provided at Appendix P.</td></tr> <tr> <td>Objective 3 Better for Community</td><td>The proposed development will provide new areas of open space that will be shared with the public.</td></tr> <tr> <td>Objective 4 Better for People</td><td>The proposed buildings have been designed to be comfortable for staff and students, with high quality learning spaces and appropriately sized outdoor play areas. The proposed buildings also encourage safety by providing passive surveillance to surrounding spaces.</td></tr> <tr> <td>Objective 5 Better Working</td><td>The proposed buildings have been designed with innovative spaces that provide high amenity in a flexible and adaptable environment. The indoor and outdoor spaces are able to accommodate practical activities, presentations, performance, collaboration, independent studies, project-based learning, and traditional direct instruction.</td></tr> </table>	Objective 1 Better Fit	The proposed development has been designed to respond to the surrounding context, including the topography and existing mature vegetation. The proposed buildings have been designed at a scale necessary to accommodate the growing student population, while remaining respectful of surrounding development.	Objective 2 Better Performance	The principles of ESD have been incorporated into the design of the proposed development. This is discussed in further detail at Section 5.5 and the ESD Report provided at Appendix P .	Objective 3 Better for Community	The proposed development will provide new areas of open space that will be shared with the public.	Objective 4 Better for People	The proposed buildings have been designed to be comfortable for staff and students, with high quality learning spaces and appropriately sized outdoor play areas. The proposed buildings also encourage safety by providing passive surveillance to surrounding spaces.	Objective 5 Better Working	The proposed buildings have been designed with innovative spaces that provide high amenity in a flexible and adaptable environment. The indoor and outdoor spaces are able to accommodate practical activities, presentations, performance, collaboration, independent studies, project-based learning, and traditional direct instruction.
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Instrument/Strategy	Comments	
	Objective 6 Better Value	The use of robust materials, adherence to educational design standards and the provision of joint and shared facilities will ensure that the proposed developments deliver better value for staff, students and the community.
	Objective 7 Better Look and Feel	The design principles that have informed the design are outlined by Alleanza Architecture in the Architectural Design Report (Appendix C).
Draft Greener Places Policy	This draft Greener Places Policy was developed by the NSW Government Architect and aims to deliver a network of green spaces or semi-natural systems across Sydney. As shown in the Landscape Plans prepared by Ground Ink (Appendix H) the proposed development provides high quality landscaping, which will contribute to the broader network of green spaces.	
Sydney's Cycling Future 2013	Sydney's Cycling Future 2013 seeks to increase the mode share of cycling in the Sydney metropolitan region for short trips between 20 to 30 minutes. The proposed development benefits from access to local and regional bicycle networks and the proposal will aim to encourage the use of bicycles through the provision of bicycle parking for staff and students.	
Sydney's Walking Future 2013	Sydney's Walking Future 2013 is the NSW Government's strategy to promote walking for transport and connecting people and places through safe pedestrian networks. The proposed development will continue to promote walking in accordance with the Green Travel Plan (Appendix G).	
Sydney's Bus Future 2013	Sydney's Bus Future (2013) outlines the NSW Government's long-term plan to deliver fast and reliable bus services within Sydney to meet current and future customer needs. The school is located close to multiple bus stops and is serviced by regular bus services. Students, teachers and parents will therefore be able to easily access the site via bus, deterring the need to drive.	
Crime Prevention Through Environmental Design (CPTED) Principles	<p>As shown in the Architectural Plans (Appendix B) and Architectural Design Statement (Appendix C), the proposed Primary School Building has been designed with regard to the principles of CPTED, being:</p> <ul style="list-style-type: none"> • Surveillance: The development has been designed to maximise opportunities for passive surveillance, incorporating open facades and glazing where appropriate. CCTV and other formal measures will be implemented in accordance with school procedures. • Lighting and technical supervision: External lighting has been designed to maximise surveillance and visibility outside of school hours. • Territorial reinforcement: The proposed development has been designed to create clear delineation between public and private space, and will be maintained by the school to create a safe and secured space. • Design, definition and designation: The definition of the proposed development is clear, with wayfinding and visual cues making the defined uses clear. • Activity and space management: The uses will be frequented by students, staff, parents and members of the parish, ensuring a high level of passive surveillance. These spaces will be managed by the school in accordance with existing procedures. • Environmental maintenance: The development will be maintained by the school and Parish. • Access control: Access will be controlled through secure fencing and gates. <p>Specific measures to improve safety include:</p> <ul style="list-style-type: none"> • Toilets have been designed to deter bullying; • Stairwells are open and glazed (wherever possible) to reduce opportunities for concealment and bullying; • The floor plate of the building has been designed to eliminate areas for concealment; and • External lighting will be designed to maximise surveillance and visibility outside of school hours. 	
Healthy Urban Development Checklist	<p>The proposed development is consistent with the Healthy Urban Development Checklist in that it:</p> <ul style="list-style-type: none"> • Provides recreation facilities within the school campus which promote and encourage physical activity and exercise; • Is accessible by public transport and is encouraging of active transport; • Is within a walkable neighbourhood enabling parents and children to arrive by alternative modes; • Has been designed having regard to preventing crime and promoting a sense of security for future students and teachers having regard to CPTED principles; 	

Instrument/Strategy	Comments																																		
	<ul style="list-style-type: none"> Will respond to existing community needs and current gaps in educational facilities in the region; and Has been designed to minimise disturbance and health effects associated with noise, odour and light pollution, and has been designed to address the potential for hazards. 																																		
State Legislation																																			
EP&A Act	<p>The proposed development is consistent with the objects of the EP&A Act for the following reasons:</p> <ul style="list-style-type: none"> It promotes the social and economic welfare of the community; It allows the orderly and economic use and development of land; It exhibits good design; It delivers community services and facilities; and It is consistent with the principles of ecologically sustainable development. <p>The proposed development is consistent with Division 4.7 of the EP&A Act, particularly for the following reasons:</p> <ul style="list-style-type: none"> The development has been declared to be state significance; The development is not prohibited by an environmental planning instrument; and The development has been evaluated and assessed against the relevant heads of consideration under Section 4.15(1). 																																		
EP&A Regulations	<p>The EIS has addressed the specification criteria within clause 6 and clause 7 of Schedule 2 of the EP&A Regulation. Similarly, the EIS has addressed the principles of ecologically sustainable development through the precautionary principle (and other considerations), which assesses the threats of any serious or irreversible environmental damage (see Section 6.0).</p> <p>As required by Clause 7(1)(d)(v) of Schedule 2, the following additional approvals will be required in order to permit the proposed development to occur.</p> <table> <tr> <th>Act</th><th>Approval Required</th></tr> <tr> <td colspan="2">Legislation that does not apply to State Significant Development</td></tr> <tr> <td>Coastal Protection Act 1979</td><td>N/A</td></tr> <tr> <td>Fisheries Management Act 1994</td><td>N/A</td></tr> <tr> <td>Heritage Act 1977</td><td>N/A</td></tr> <tr> <td>National Parks and Wildlife Act 1974</td><td>N/A</td></tr> <tr> <td>Native Vegetation Act 2003</td><td>N/A</td></tr> <tr> <td>Rural Fires Act 1997</td><td>N/A</td></tr> <tr> <td>Water Management Act 2000</td><td>N/A</td></tr> <tr> <td colspan="2">Legislation that must be applied consistently</td></tr> <tr> <td>Fisheries Management Act 1994</td><td>No</td></tr> <tr> <td>Mine Subsidence Compensation Act 1961</td><td>No</td></tr> <tr> <td>Mining Act 1992</td><td>No</td></tr> <tr> <td>Petroleum (Onshore) Act 1991</td><td>No</td></tr> <tr> <td>Protection of the Environment Operations Act 1997</td><td>No</td></tr> <tr> <td>Roads Act 1993</td><td>No</td></tr> <tr> <td>Pipelines Act 1967</td><td>No</td></tr> </table>	Act	Approval Required	Legislation that does not apply to State Significant Development		Coastal Protection Act 1979	N/A	Fisheries Management Act 1994	N/A	Heritage Act 1977	N/A	National Parks and Wildlife Act 1974	N/A	Native Vegetation Act 2003	N/A	Rural Fires Act 1997	N/A	Water Management Act 2000	N/A	Legislation that must be applied consistently		Fisheries Management Act 1994	No	Mine Subsidence Compensation Act 1961	No	Mining Act 1992	No	Petroleum (Onshore) Act 1991	No	Protection of the Environment Operations Act 1997	No	Roads Act 1993	No	Pipelines Act 1967	No
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SEPP 55 – Remediation of Land	The Preliminary Site Investigation prepared by Martens Consulting Engineers (Appendix O) demonstrates the site is suitable for the proposed development.																																		
SEPP 64 – Advertising and Signage	There is no signage proposed. Therefore, the provisions of SEPP 64 do not apply to the proposed development.																																		

Instrument/Strategy	Comments
SEPP (Infrastructure)	The provisions of the SEPP (Infrastructure) relating to schools and child care facilities have been transferred to the Education SEPP as of 2017.
SEPP (State and Regional Development)	<p>Under Schedule 1, Clause 15 of the SEPP, development for the purpose of alterations and additions to an existing school with a capital investment value of more than \$20 million is SSD. The proposed development has a capital investment value of \$80,474,245.00 (see Appendix Error! Reference source not found.) and is therefore declared to be SSD.</p> <p>Further, under clause 8(2) of the SEPP, if a single proposed development is only partly SSD declared under subclause (1), the remainder of the development is also declared to be State significant development. Therefore, the entire development (including the Parish) is SSD.</p>
SEPP (Educational Establishments and Child Care Facilities) 2017	<p>Under clause 35(6) of the Education SEPP, the consent authority must take into consideration:</p> <ol style="list-style-type: none"> the design quality of the development when evaluated in accordance with the design quality principles set out in Schedule 4; and whether the development enables the use of school facilities (including recreational facilities) to be shared with the community. <p>Clause 35(6)(b) has been addressed in Section 3.11.3.</p> <p>In accordance with Clause 57 of the Education SEPP, the proposed development is required to be referred to RMS as traffic generating development as the new school will accommodate more than 50 students.</p>
SEPP (Educational Establishments and Child Care Facilities) 2017 Schedule 4 Schools – Design Quality Principles	<p>In accordance with Clause 35(6)(a), a Design Verification Statement has been prepared by Alleanza Architecture (Appendix C) that responds to each of the design quality principles set out in Schedule 4, including:</p> <ol style="list-style-type: none"> Context, Built Form and Landscape Sustainable, Efficient and Durable Accessible and Inclusive Health and Safety Amenity Whole of Life, Flexible and Adaptive Aesthetics <p>Alleanza Architecture has met with the NSW Government Architect and State Design Review Panel to ensure that these principles have been addressed in the design of the proposed development.</p>
Draft SEPP (Remediation of Land)	The proposal remains consistent with the Draft SEPP as the proposed assessment has been undertaken in accordance with SEPP 55. As outlined further in Section 5.9.1 and the Preliminary Site Investigation prepared by Martens Consulting Engineers (Appendix O).
Draft SEPP (Environment)	The Draft SEPP Environment was released for public exhibition in October 2017 and aims to repeal and replace a number of SEPPs and SREPs that currently apply in NSW. Under the Draft SEPP, the site is identified as being within an area of 'Urban Bushland' and as such would be subject to controls relating to the protection of land that is reserved for public open space. No part of the site is zoned for this purpose at this time, and as such these provisions of the Draft SEPP do not apply.
Local Planning Instruments and Controls	
Parramatta Local Environmental Plan 2011	<p>Clause 2.3 – Land Use Table</p> <p>The proposed 'educational establishment' uses are permissible with consent on land zoned SP2 Infrastructure (Educational Establishment).</p> <p>The proposed Parish Church, which is defined as a 'place of public worship' is permissible on the basis that it is ancillary to the educational establishment. It will be used regularly by students as part of the curriculum, as well as by the broader school community.</p> <p>The proposed Catholic Early Learning Centre is defined as a 'centre-based early education and care facility' and is permissible in accordance with clause 35(1) of the <i>State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017</i>, which permits centre-based child care facilities with consent within the boundaries of an existing school.</p>

Instrument/Strategy	Comments	
	Clause 4.3 – Height of Buildings	N/A
	Clause 4.4 – Floor Space Ratio	N/A
	Clause 5.10 Heritage Conservation	A Statement of Heritage Impact has been prepared by Comber Consultants, which finds that the Westmead Catholic Community site do not contain heritage significance and are not listed on any local, State or Commonwealth Heritage Register (refer to Appendix Q). Refer to Section 5.6 .
	Clause 6.1 Acid Sulfate Soils	The site is identified as Class 5 Acid Sulfate Soils.
	Clause 6.3 Flood Planning	A Flood Statement has been prepared by Northrop and is provided at Appendix U . Refer to Section 5.12 .
	Clause 6.5 Water protection	The proposed development will not have any adverse impact on the nearby water corridor – specifically, there will be no adverse impact on water quality, natural flow, stability of the banks or the groundwater system.
Parramatta Development Control Plan 2011	Parramatta Development Control Plan 2011 (PDCP 2011) provides detailed controls for specific developments types and locations. However, under Clause 11 of <i>State Environmental Planning Policy (State and Regional Development) 2011</i> , Development Control Plans do not apply when assessing SSD projects. Notwithstanding, the proposal has been assessed against the relevant controls of the PDCP 2011 is provided below and within individual technical documents.	
	Part 3.3.6 Water Sensitive Urban	Refer to Section 5.11 .
	Part 5.3 Places of Public Worship and Educational Establishments	Refer to Section 5.4.1 .

5.2 Built Form and Urban Design

5.2.1 Site Layout

The proposed buildings are located on the western edge of the WCC (refer to **Figure 22**), in an area identified by urban design analysis as suitable for redevelopment. The proposed buildings have been positioned to ensure that they:

- Respect the vegetation and riparian corridor along the western boundary;
- Provide an improved interface with the surrounding area; and
- Maintain a functional relationship with existing and future buildings in the WCC.

Locating the Parish Church on the north-western corner of the site, closest to Darcy Road, will create a more defined 'gateway' for the WCC. This will ensure the building is accessible to the broader community while improving the relationship between the WCC and the Westmead Innovation Precinct. In addition to this, the layout of the site has been designed to create intuitive connections between the new buildings and the existing school, allowing wayfinding to occur unconsciously and promoting connectivity with the existing school.

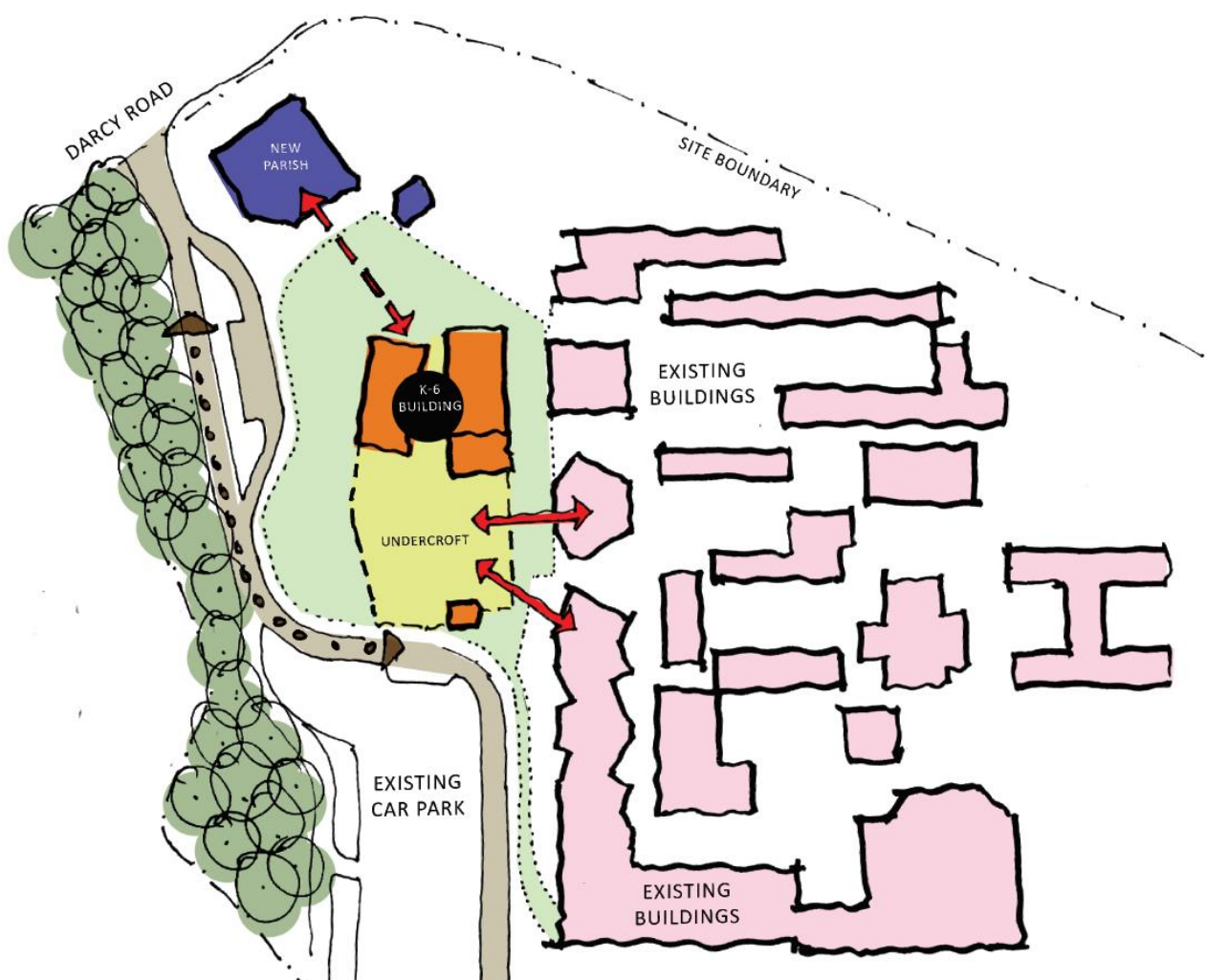


Figure 22 Proposed Site Layout

Source: Alleanza Architecture

5.2.2 Building Configuration and Massing (Density, Bulk, Scale and Setbacks)

The built form has been designed with the guiding principle of maximising the provision of landscaped open space for use by students and the community. To achieve this, the design has sought to distribute the necessary floor space vertically, with outdoor playspace provided on each level and a full two floors of open space. This has allowed for a reduction in the number of buildings that would typically be required to accommodate the proposed student numbers, allowing for a greatly expanded area of open space and deep soil landscaping (refer to **Figure 19**).

The new buildings have been designed with a 'human scale' built form, with the Primary School Building having a height of six storeys (maximum height of 26.5m) and the Parish Church remaining predominately beneath the tree canopy, with the Cross extending above for wayfinding. This will ensure the proposed built form provides an appropriate interface with development in the surrounding area and within the WCC.

The new Primary School Building, which is taller than the Parish Church and has the greatest potential to create adverse visual and environmental impacts, has been located further to the south of Darcy Road (85-100m), where visual analysis has confirmed it is able to benefit from the shielding provided by the Parish Church, as well as vegetation. The Parish Church is located 10-15m from Darcy Road.

The existing retaining wall at the Darcy Road boundary will be removed, which will open up the Parish site and associated open space to the surrounding public domain.

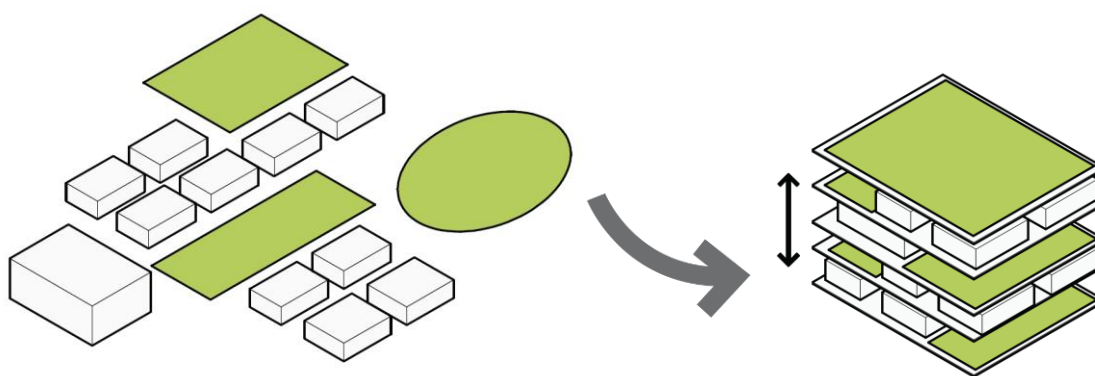


Figure 23 Built Form Design Principle

Source: Ethos Urban

5.2.3 Natural Light

Alleanza Architecture has assessed the natural light levels within the proposed Primary School Building (refer to **Appendix C**). The assessment confirms that the internal teaching facilities receive satisfactory levels of natural light, with windows carefully positioned to maximise opportunities for the penetration of natural light. The external areas between the internal teaching facilities also generally receive satisfactory levels of natural light and have been positioned towards the edges of the building, where they are most able to benefit from natural light penetration, particularly given the open façade design (in these locations).

The natural light across the internal teaching areas and external areas will be supplemented by additional artificial lighting (where required), particularly in the central areas of the building. However, on balance, the increased area of central open space, while requiring additional artificial lighting, provides a better educational outcome than a design that substantially reduces the area of this central open space to allow natural light penetration via a void or atrium. This is because of the opportunity for innovative learning in these areas, as well as the increased amenity provided by an expanded area for recreation.

Alleanza Architecture has also assessed daylight access in the area between the Primary School Building and the existing Catherine McAuley Building (to the east). The assessment confirms that the proposed separation, which is 11m between the facing edge of verandas and 14m at the Ground Floor, allows for adequate daylight penetration into this area. Importantly, as shown in **Figure 24** and **Figure 25** there is adequate daylight penetration into this area during the typical recess and lunch periods of the day (calculated on the Equinox).



Figure 24 Daylight Assessment (10:30am)

Source: Alleanza Architecture



Figure 25 Daylight Assessment (12:30pm)

Source: Alleanza Architecture

5.2.4 Natural Ventilation

The proposed design of the Primary School Building incorporates operable windows across the façade, which will allow for the building to be naturally ventilated. Alleanza Architecture has assessed natural ventilation levels and confirms that the proposed building has excellent potential for natural cross-ventilation through internal spaces (refer to **Appendix C**). Air conditioning using cassette units will also be provided in learning spaces.

5.3 Environmental Amenity

5.3.1 Overshadowing and Solar Access

Shadow diagrams are provided at **Appendix B**, illustrating the extent of overshadowing generated by the proposed development. The diagrams show the greatest impact of overshadowing throughout the year, being the winter solstice on June 21 at 9am, 12pm and 3pm.

The shadow diagrams demonstrate that the proposed development does not result in any overshadowing of adjoining properties, with shadows entirely restricted to within the school grounds during midwinter.

The proposed development also maintains satisfactory solar access to surrounding areas of open space. This includes the substantial area of open space between the Primary School Building and the Parish Church, which while partially overshadowed at 9:00am, receives extensive solar access across the day.

Shadow diagrams are reproduced at **Figure 26 – Figure 28** below.



Figure 26 21 June (9:00am)

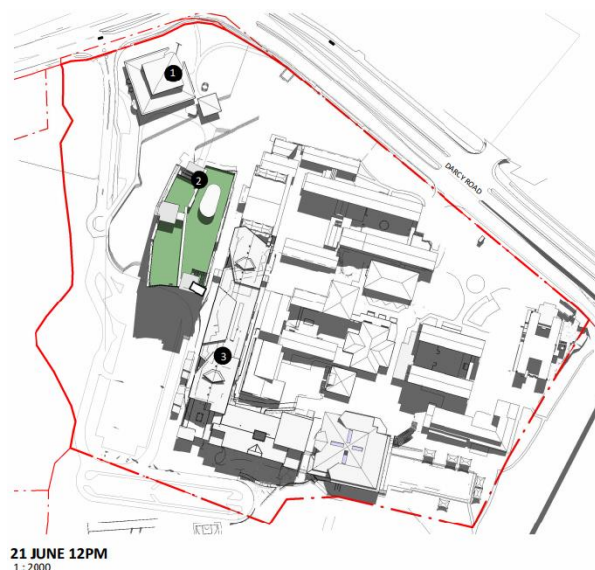


Figure 27 21 June (12:00pm)



Figure 28 21 June (3:00pm)

5.3.2 View Loss and Visual Impacts

A View Analysis has been prepared by Alleanza Architecture (**Appendix B**) that has considered views from the surrounding area (reproduced below in **Figure 29 – Figure 31**). The View Analysis demonstrates that the proposed development will have minimal visual impact due to the relatively low height of the Primary School Building, which is generally proportionate to surrounding development. The visual impact of the proposed development has also been reduced by locating the Primary School Building, which is taller than the Parish Church and has the greatest potential to create adverse visual and environmental impacts, further to the south of Darcy Road. The presence of extensive landscaping, including mature trees, will help ensure that the proposed development sits within a landscaped setting, further reducing potential visual impacts.



Figure 29 View from Darcy Road (looking west)



Figure 30 View from Darcy Road (looking east)

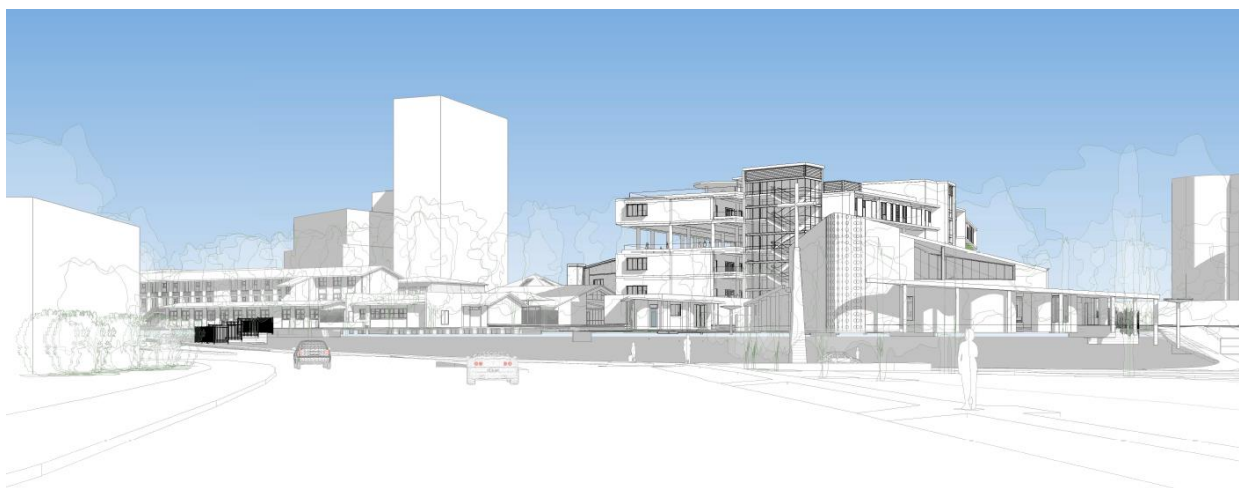


Figure 31 View from Mons Road (looking south)

Visual Privacy

The Primary School Building has significant setbacks to both the western boundary (minimum 60m) and Darcy Road (85-100m). The Parish Church is located between 10-15m from Darcy Road and benefits from screening provided by landscaping. On this basis, it is considered that the proposed development will not result in any unacceptable impacts on visual privacy.

5.4 Transport and Accessibility

A Traffic and Accessibility Impact Assessment (TAIA) has been prepared by TTPP and is include at **Appendix G**. The Assessment outlines the existing surrounding road network arrangements and conditions and provides an assessment of the traffic and parking impacts associated with the proposal.

As noted in **Section 1.2.1**, a separate DA is being submitted to Council for a new multi-storey car park in the north-east corner of the site. The car park will accommodate 260 parking spaces and will be accessed from the existing vehicular entry/exit points off Darcy Road. Entry will be via left-in movement off Darcy Road using the existing driveway and exit will be via the existing traffic signals near the Catherine McAuley front office. As part of the Early Works DA, a new pick-up and drop-off zone will be accommodated on-site with capacity for approximately 21 vehicles.

5.4.1 Travel Mode

Student and staff travel mode share data was captured through a questionnaire of transport use when travelling to/from school. Data for students and staff at the primary and high schools was captured separately and has been summarised in Table 5.1 and Table 5.2 of the TAIA. In summary:

- Amongst primary school students, travel by car is the most common mode of transport to/from school (89.9%) followed by walking (6.1%). Commuting by public transport makes up 3.7% of all journeys for primary school students.
- High school students most commonly travel by public transport, namely bus (39.7%) and train (23.1%) as separate modes. Travel using a combination of bus and train forms 11.9% of all journeys to/from school while travel by car makes up 19.6%.
- Commuting by car is the most common mode amongst staff, with 95% for primary and 86.6% for high school staff. The remaining 5% of primary school staff travel by train. Of high school staff, 7.2% commute by train, 2.1% by bus and 3.1% walk to school. The number of staff commuting by bus and train (combination) or cycling to school was zero.

A summary of the mode share (by general categories) is provided at **Table 8**.

Table 8 Mode Share Summary

Mode Share	Students		Staff	
	Primary School	High School	Primary School	High School
Private Car	89.9%	19.6%	95.0%	87.6%
Public Transport	3.7%	74.7%	5.0%	9.3%
Active Travel	6.5%	5.6%	0%	3.1%
Total	100%	100%	100%	100%

5.4.2 Car Trips and Parking Demand

Schools

Based on the mode share splits outlined above and the car occupancy rates of primary school students (2.12 students per car), high school students (1.85 students per car) and staff (one staff member per vehicle), TTPP has determined that in the year 2023, the development would generate in the order of 517 student trips (one-way) and 183 staff trips (one-way) per day. In 2033, it is estimated that there would be 949 student trips (one-way) and 240 staff trips (one-way) per day.

Parking demand has been assessed on a first principles basis using current mode share. Using this approach, there would be a need to provide 182 car parking spaces to accommodate staff on-site in the year 2023. In 2033, a total of 239 parking spaces would be required to accommodate school staff.

Car parking provision associated with the schools comprise staff and visitor/parent parking. Visitor/parent parking has been calculated based on current parking provision, which equates to a rate of approximately 1.5 on-site parking spaces per staff member (this includes staff and visitor/parent parking). Adopting a similar rate, the future visitor/parent parking demand for the schools would be 103 spaces in 2023 and 133 spaces in 2033.

Catholic Early Learning Centre

The CELC would generate 42 daily car trips in 2023 and 84 daily car trips per day in 2033 by parents transporting children. There would be 14 daily car trips and 24 daily car trips generated by CELC staff in 2023 and 2033, respectively.

Based on first principles, the CELC would generate the need for 14 staff car parking spaces in the year 2023. In 2033, a total of 24 parking spaces would be required to accommodate CELC staff.

As the CELC is proposed to operate between 6:00am-6:00pm, traffic movements associated with the CELC would occur outside of the school's peak periods.

5.4.3 Public and Active Transport Trips

Schools

Based on mode share data, in 2023 it is estimated that there would be in the order of 1,694 students and 17 staff per day travelling by public transport. In 2033, there would be 1,728 students and 20 staff per day travelling by public transport.

The expected number of students walking and cycling to/from the site would be 154 and 14 respectively (in 2023) and 216 and 18 respectively (in 2033). There will be no staff walking or cycling to the primary school. Similarly, high school staff are not expected to cycle to/from the Darcy Road site. However, there is a small minority of high school staff walking to/from the Darcy Road site.

The analysis has been based of existing mode share with no mode shift away from private cars, however alternative travel modes will be promoted as part of the proposed development, as described in **Section 5.4.4**.

Catholic Early Learning Centre

In 2023, there would be approximately nine (9) children and one (1) staff member travelling by non-car modes. In 2033, there would be 18 children and two (2) staff members travelling by non-car modes.

5.4.1 Car and Bicycle Parking

Schools

Parramatta DCP does not provide parking rates for schools. RMS conducted a more recent study of traffic and parking generation associated with schools titled *Trip Generation Study for Schools Analysis Report (2014)*. This study stipulates a peak parking demand for schools in metropolitan areas as an average of 0.11 spaces per student. On this basis, the proposal would require the provision of 319 parking spaces in 2023 and 431 parking spaces in 2033.

However, based on the mode share data for current staff, a first principles approach suggests that future parking demand would be as follows for staff and visitors/parents:

- Opening year – 2023: 285 parking spaces
- Stabilisation year – 2033: 372 parking spaces.

The future parking provision for the schools at the subject site would be up to 372 spaces by 2033, which has been estimated based on first principles. This quantity of parking satisfies Council's DCP requirements by providing parking in accordance with current parking demand trends of the existing development.

Catholic Early Learning Centre

The travel behaviour of CELC staff is expected to be similar to that of primary school staff. Therefore, mode share of primary staff who drive (95.0%) has been applied to CELC staff to calculate the future parking demand as follows:

- Opening year – 2023: 14 parking spaces; and
- Stabilisation year – 2033: 24 parking spaces.

Parish Church

Parramatta DCP provides the following guidance for parking associated with places of public worship:

- 1 car parking space per 5m² of usable floor space for the first 100m²; and
- 1 car parking space per 3m² of usable floor space thereafter.

The Parish Church is proposed to have a usable floor area of approximately 600m². Applying the above parking rates generates an on-site parking requirement for 186 spaces for the Parish Church. The Parish will have exclusive use of 12 spaces for the Church Minister and associated members on weekdays.

Typically, a full congregation at the Church would be expected on significant religious days, such as Christmas, Good Friday and Easter Sunday which would generate the highest parking demand. Such events occur infrequently and occur outside of teaching periods (i.e. public holidays). Therefore, scenarios which generate peak parking demand would not coincide with school days.

Regular Sunday services would not be expected to generate a full congregation and therefore parking demand is expected to be lower than on significant religious days. Further, parking demand would occur on non-school days, and so on-site parking that is provided for the schools and CELC would be utilised by Church patrons on the weekend.

Weekday services may also take place, such as a baptism, wedding or funeral. In these cases, the typical attendance is expected to be less than half of the Church's capacity. Assuming approximately 40% capacity, there would be a parking demand for 66 spaces.

It is estimated that the Parish Church would generate a parking demand in the order of 186 spaces at peak times. This peak demand, as well as weekend and weekday services, would be sufficiently accommodated off-street by the approximately 470 car parking spaces to be provided on-site.

Car Parking Summary and Allocation

A breakdown of the number of parking spaces required for each group on a weekday is provided in **Table 9**.

Table 9 Future Parking Provision Breakdown

Group	Opening Year 2023	Stabilisation Year 2033
CELC Staff	14	24
Primary School Staff	38	95
High School Staff	144	144
Primary and High School Visitor/Parents	103	133
Parish Church (weekday service)	66	66
Total	365	462

There are currently 286 parking spaces on the site. It is proposed to close the staff car park at Catherine McAuley (54 spaces) and front office (20 spaces) as part of the proposed works. The new multi-level car park (subject to a separate DA to Council) would provide 260 spaces. Therefore, the net on-site parking provision would be approximately 470 spaces at the completion of the proposed development. The location and provisional allocation of parking spaces is shown at **Figure 32** below. The proposed parking provision will meet the demand generated by the development. Surplus spaces would be used to provide shared spaces adjacent to accessible parking spaces.

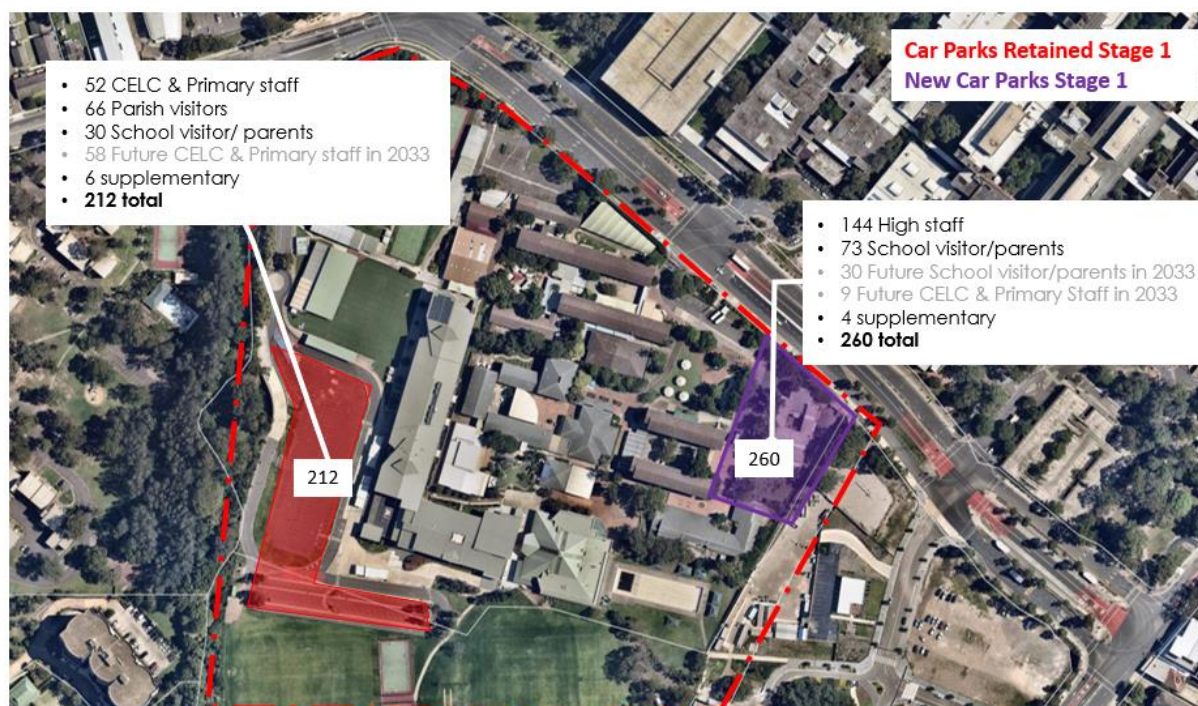


Figure 32 On-Site Parking Provision

Source: TTPP

Bicycle Parking

Council's DCP does not stipulate bicycle parking provisions for educational establishments. In the absence of DCP bicycle parking rates, consideration has been given to Cycling Aspects of Austroads Guides. Based on the Guide, the number of bicycle parking spaces for the site would be in the order of 676 spaces.

The *Bicycle Parking Facilities: Updating the Austroads Guide Traffic Management* suggests a bicycle parking rate of 0.3 spaces per student and staff for primary and secondary schools. This would equate to a bicycle provision of 1,255 spaces in 2023, which is considered excessive. The current mode split of students and staff cycling to/from the site is 0.4-0.5% and 0%, respectively. On this basis, the minimum provision of on-site bicycle parking should be 0.5% of the total number of students and staff, which equates to a total of 20 bicycle parking spaces for students and one (1) space for staff.

In order to promote sustainable transport methods, it is ideal to aim for a 3 – 5% modal shift from private vehicle usage to active transport (i.e. walking and cycling) and public transport. On this basis, the schools should progressively provide up to 208 bicycle parking spaces to achieve the modal shift target.

5.4.2 Drop-off and Pick-up

Primary School

Primary school students will utilise the current eight (8) bays plus 23 spaces on the northside of the parking aisle as shown in **Figure 33**. Collectively, there would be 31 bays to facilitate the primary school drop-off/pick-up operation.

Given that the majority of visitation occur during teaching periods, the 23 spaces (which makes-up part of the visitor/parent parking) would be available for use during peak drop-off/pick-up times.

On average, it takes between 1-2 minutes per car when a parent is dropping-off or picking-up a student. Applying a rate using the upper end of the range (i.e. two minutes per vehicle), each bay could accommodate approximately 7.5 cars in a 15-minute period.

At the busiest time for drop-off and pick-up, it is estimated that there would be:

- In the year 2023:
 - Approximately 50 cars dropping-off students in a 15-minute period (AM); and
 - Approximately 76 cars picking-up students in a 15-minute period (PM).
- In the year 2033
 - Approximately 128 cars dropping-off students in a 15-minute period (AM); and
 - Approximately 194 cars picking-up students in a 15-minute period (PM).

Applying a rate of two minutes per car means that each bay could accommodate approximately 7.5 cars in a 15-minute period, and therefore, the 31 bays could accommodate a turn-over of approximately 233 cars.

In all of the above future scenarios, the drop-off and pick-up could be adequately accommodated for primary school students across the 31 bays.

All drop-off/pick-up zones would be supervised by teachers on-duty in the morning and afternoon peak periods to facilitate the movement of students. This would enable smooth and safe operation and circulation through the zone, and avoid parents standing in bays longer than two minutes.

One-way vehicle circulation through the zone would be proposed in order to contain pedestrian activity to the left-side and to minimise the number of conflicting movements for vehicles and pedestrians.

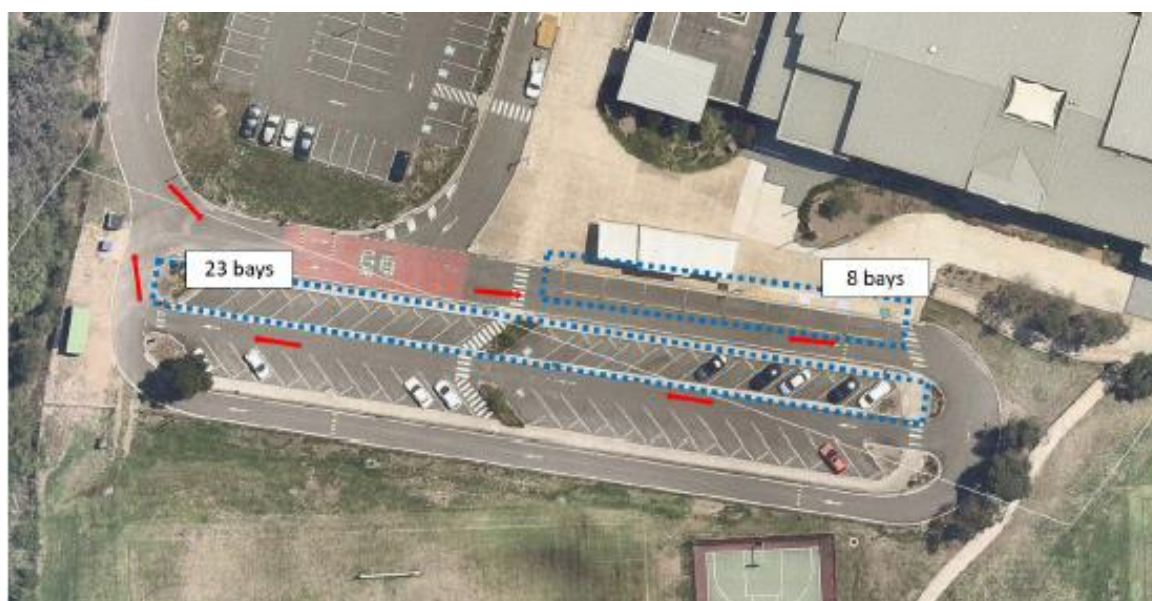


Figure 33 Proposed primary school pick-up and drop-off zone

High School

As part of the Early Works DA to Council, the existing access driveway will be modified to accommodate a new drop-off/ pick-up zone around the outside of the new car park for use by high school students. This area will accommodate approximately 21 drop off bays for parents transporting high school students, as shown **Figure 34**.

At the busiest time for drop-off and pick-up for high school students, it is estimated that there would be:

- Approximately 43 cars dropping off students in a 15-minute period (AM); and
- Approximately 54 cars picking up students in a 15-minute period (PM).

Applying the rate of two minutes per vehicle, each bay could accommodate approximately 7.5 cars in a 15-minute period. Therefore, the 21 bays together could accommodate a turn-over of approximately 158 cars.

The peak number of cars in the morning and afternoon school peak periods would be significantly lower than the maximum capacity of the drop-off/ pick-up zone. On this basis, the number of cars would be sufficiently accommodated within the 21 bays proposed to be provided on-site.

The high schools drop-off/pick-up zone would be managed in the same way as the primary school drop-off/pick-up zone with one-way vehicle circulation and supervision by teachers on-duty in the morning and afternoon peak periods.

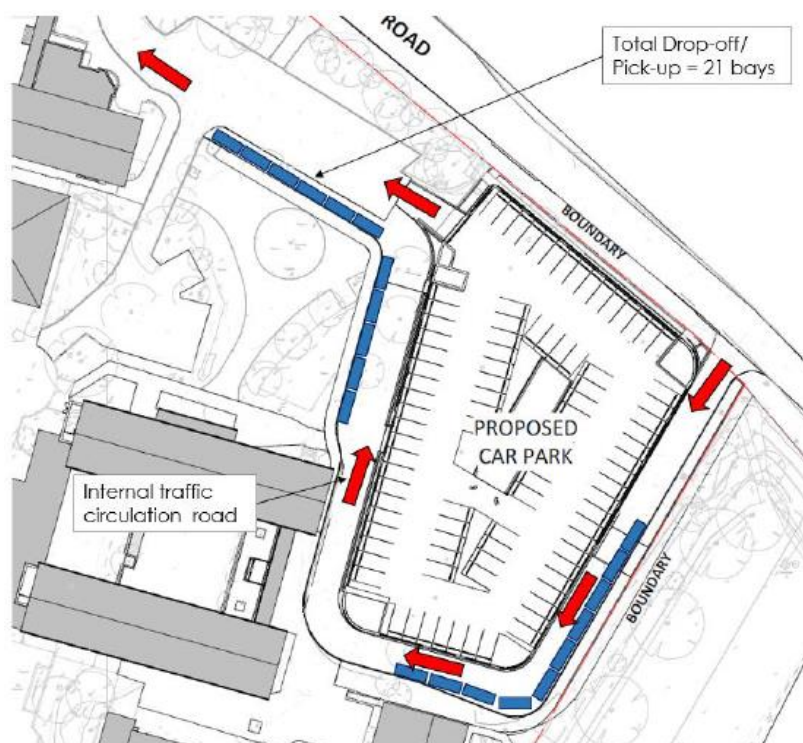


Figure 34 Proposed high schools pick-up and drop-off zone

5.4.3 Traffic Assessment

Based on the above assessment, TTPP has modelled the following future traffic generation for both the opening year 2023 and the stabilisation year of 2033 as set out in **Table 10** below.

Table 10 Traffic generation

School Peak Period	Direction (In/ Out Movement)	Existing Traffic Generation from interview surveys	2023 Future Traffic Generation	2023 Net Change*	2033 Future Traffic Generation	2033 Net Change*
AM Peak	'IN'	433	525	+92	892	+459
	'OUT'	307	388	+80	712	+405
PM Peak	'IN'	348	439	+91	807	+459
	'OUT'	365	458	+93	831	+466

* The net change in traffic generation is based on the theoretical existing traffic generation.

Background traffic growth has been added to these figures based on Sydney Strategic Traffic Forecasting Model (STFM) growth plots obtained from RMS.

The existing operation of the nearby intersections to the site has been assessed using SIDRA modelling. The modelling shows that the following intersections are already over capacity:

- Hawkesbury Road – Alexandra Avenue (AM Peak).
- Darcy Road – Institute Road – Mon Road (PM Peak).

Background growth will generally make the intersections operate closer to capacity than at present. Background traffic growth will result in a reduction in intersection performance at the following junctions:

- Darcy Road - Bridge Road – Coles Car Park would reduce from LoS B to LoS C.
- Hawkesbury Road - Railway Parade would reduce from LoS B to LoS C.

The additional traffic from the proposed development, together with background traffic growth in the 2023 future scenario, would cause the following intersections to be over capacity:

- Darcy Road – Hawkesbury Road (AM and PM peak).
- Hawkesbury Road – Alexandra Avenue (AM and PM peak).
- Darcy Road – Institute Road – Mons Road (PM peak).

TTPP has also modelled expected traffic generation for 2033, which includes background traffic growth that results in a number of intersections exceeding capacity. This would likely result in congestion around the school access on Darcy Road. However, the delivery of public transport infrastructure by the year 2033 has the potential to facilitate a modal shift from private car usage to increased trips by public or active transport. Green Travel Plan initiatives to support this modal shift are set out in the Traffic and Parking Impact Assessment and are outlined at **Section 5.4.4** below. Noting that there is limited space to provide physical intersection improvements, apart from changing traffic signal phase times, the best way of minimising traffic impact is to control travel demand by means of a Green Travel Plan. A significant modal shift, which is expected with the delivery of the Parramatta Light Rail and West Metro, as well as increased residential densities in the area, would further reduce the impact of school traffic on the surrounding road network.

It is noted that RMS has recently been considering changes to phase times to optimise future modelling scenarios at traffic signals as with the light rail, traffic signal timings are likely to change significantly. Consequently, TTPP has looked at signal optimisation in this way. In the interim, it is proposed that there is ongoing consultation with Transport for NSW and RMS about the modal shift to be targeted, and what intersection upgrades are planned to adapt to the future growth in the area.

5.4.4 Travel Demand Management and Green Travel Plan Initiatives

TTPP has outlined a range of travel strategies that could be considered for implementation in the GTP to encourage more sustainable travel. A mode shift target of 10% has been set for the proposed development, which is appropriate considering the availability of increased public transport options through the Parramatta Light Rail and expected increased density of residential dwellings in Westmead. Traffic generation has been modelled for the scenario where a 10% mode shift is achieved.

To achieve the 10% mode shift targets, the following Green Travel Plan initiatives have been identified. These include, but are not limited to:

- Organise a carpool system/registry for staff which could reduce single private vehicle car trips to and from the school.
- Provide a Transport Access Guide (TAG) which provides customised travel information for people travelling to and from the site using sustainable forms of transport – walking, cycling and public transport.
- Provision of public transport timetable, car share vehicle locations and cycle maps on noticeboards to make staff more aware of alternative transport options.
- Provide pre-paid Opal cards to staff.
- Hosting and participating on active travel events such as Ride2Work Day and National Bike Week.

- Provision of a notification program to inform parents when their child has arrived at school if they have travelled by public transport or active transport.
- Organise a cycling group, or similar, to promote use of bicycles for staff living in the same area.
- Provide real-time public and school transport service information within the 'Skoolbag' mobile app which is being used by all schools.

With these measures in place, it is anticipated that the WCC could achieve a 10% mode shift.

5.4.5 Summary

The Traffic and Parking Impact Assessment finds that:

- The provision of a total of approximately 470 car parking spaces will meet expected demand for parking from all proposed uses, being the Catholic Early Learning Centre, primary schools, high schools, visitors and Parish Church patrons.
- Projected traffic generation will result in some congestion on the local network, which is expected as a result of ongoing background growth. Traffic impacts will be managed through the implementation of Green Travel Plan initiatives to target a 10% mode shift.
- Planned growth, including the Parramatta Light Rail and road network upgrades, as well as increased residential density in the Westmead area, is likely to result in altered traffic patterns, with greater patronage of public transport and active transport. As a result, it is anticipated that potential traffic impacts may be altered as result of changed travel behaviour.

Overall, it is recognised that there will be some impact to the surrounding road network. However, the identified impacts will be gradual and occur a ten-year period as school enrolment numbers progressively increase in response to the growing Westmead Precinct and surrounds.

During this time, there will be significant changes to the existing public transport network including Parramatta Light Rail, Sydney Metro as well as bus lines, bike ways and pedestrian access routes. These changes, along with the anticipated densification of the surrounds, will ensure the success of the proposed Green Travel Plan and the targeted 10% modal shift.

5.5 Ecologically Sustainable Development

The EP&A Regulation lists four principles of ecologically sustainable development to be considered in assessing a project. They are:

- The precautionary principle.
- Intergenerational equity.
- Conservation of biological diversity and ecological integrity.
- Improved valuation and pricing of environmental resources.

An analysis of these principles follows.

In addition to the measures outlined below, the ESD Report prepared by Erbas details measures to be implemented in the development, including targeting a 4 Star Green Star rating for the new primary school building (refer to **Appendix P** and **Section 3.10**).

Precautionary Principle

The precautionary principle is utilised when uncertainty exists about potential environmental impacts. It provides 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. The precautionary principle requires careful evaluation of potential environmental impacts in order to avoid, wherever practicable, serious or irreversible damage to the environment. The ESD Assessment prepared by Erbas has not identified any serious threat of irreversible damage to the environment and therefore the precautionary principle is not relevant to the proposal (refer to **Appendix P**).

Intergenerational Equity

Inter-generational equity is concerned with ensuring that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations. The proposal has been designed to benefit both the existing and future generations by:

- Designing facades that respond to the local climate including sun, wind and aspect.
- Using natural ventilation and mixed-mode air conditioning, providing high levels of fresh air with reduced energy consumption wherever applicable.
- Maximising natural daylight through windows and skylights.
- Utilising high levels of thermal insulation.
- Incorporating sunshades (horizontal and vertical).
- Using robust and durable external building materials.
- Using low total VOC paints, sealants, adhesives and floor coverings.

The proposal has integrated short and long-term social, financial and environmental considerations so that any foreseeable impacts are not left to be addressed by future generations. Issues with potential long-term implications such as waste disposal would be avoided and/or minimised through construction planning and the application of safeguards and management measures described in this EIS and the appended technical reports.

Conservation of Biological Diversity and Ecological Integrity

The principle of biological diversity upholds that the conservation of biological diversity and ecological integrity should be a fundamental consideration.

As the site has been extensively modified and developed, the proposal would not have any significant effect on the biological diversity and ecological integrity of the study area.

Improved Valuation, Pricing and Incentive Mechanisms

The principles of improved valuation and pricing of environmental resources requires consideration of all environmental resources which may be affected by a proposal, including air, water, land and living things. Mitigation measures for avoiding, reusing, recycling and managing waste during construction and operation would be implemented to ensure resources are used responsibly in the first instance.

Additional measures will be implemented to ensure no environmental resources in the locality are adversely impacted during the construction or operational phases.

5.6 Heritage

A Statement of Heritage Impact has been prepared by Comber Consultants, which finds that the WCC site does not contain heritage significance and is not listed on any local, State or Commonwealth Heritage Register (refer to **Appendix Q**).

There are two locally listed heritage items in the vicinity of the study area, being:

- Western Sydney University (I628).
- Victorian residence in the grounds of Western Sydney University (I629).

Western Sydney University is located on a rise to the east of the site and the University cannot be seen from the proposed location of the new Primary School Building. Due to the lower positioning of the WCC and other school buildings between the University and the WCC, there will be no adverse visual impact on the listed items from the new low-rise development on the WCC grounds.

In addition to this, an assessment of potential impacts on views and vistas to Old Government House and the Government Domain in Parramatta Park has been carried out. The proposed development will not impact on views and vistas as the site is 1.5km north-west of Old Government House, is outside of the areas identified as buffer

zones and is on the other side of a ridgeline, which means there is no direct line of sight between Old Government House and the subject site.

5.7 Aboriginal Heritage

The Aboriginal Cultural Heritage Assessment Report undertaken by Comber Consultants finds that the study area has the potential to contain Aboriginal archaeological deposits. The assessment finds that the proposed new buildings are being sited in the most appropriate locations within the school grounds, however it may not be possible to avoid impacting on potential deposits. Undertaking an archaeological excavation investigation will enable information to be gained about Aboriginal history and it is therefore recommended that:

- Aboriginal archaeological test and possibly salvage excavations should be undertaken to determine the nature and extent of any subsurface archaeological deposits.
- Aboriginal consultation should continue throughout the excavations.
- Any artefacts recovered should remain on country and be catalogued and stored onsite and protected by the WCC.
- Interpretation of the Aboriginal archaeology and history of the site should be undertaken in consultation with the Registered Aboriginal Parties.
- A historical archaeological assessment will therefore be required prior to commencement of the proposal in order to assess the potential impacts to historical archaeological values within the study area.

The Aboriginal Cultural Heritage Assessment Report at **Appendix N** details in full the investigation and consultation that has been undertaken, and recommendations for progressing the project. The recommendations are included in the Mitigation Measures at **Section 7.0**.

5.8 Social Impacts

An assessment of the social impact categories, as defined within the *Social Impact Assessment Guideline (DPIE, 2017)*, has been undertaken with consideration to the issues identified through the baseline analysis.

Each category of impact is appraised with a significance of the impact based on the likelihood, consequence, and social risk rating. Overall, the level of impacts range from being low to moderate, with no major negative impacts identified in relation to the proposal.

Key challenges identified with the proposal relate to:

- Short term construction impacts, particularly in relation to the way of life for students, families and teachers who attend the existing schools. Additional local amenity impacts may be felt during the construction period in particular.
- Significant increase in the number of students on site, which may impact and disrupt the way of life for students and staff. This may flow into issues of access and traffic impacts if not effectively managed.
- Cumulative impacts of the construction of the Parish Church and the expansion of Mother Teresa Primary School in tandem, impacting the way of life and sense of place.
- Ongoing stakeholder management to ensure that the needs and aspirations of existing students, families and staff are taken into consideration in the redevelopment of the site. It is important to ensure that stakeholder engagement is continued to ensure the needs and aspirations of the existing school community are included in the transition process.

The most significant social benefits of the proposal relate to:

- long term positive benefits to the Westmead Catholic Community through the creation of the new cultural hub.
- Improved amenity for students and staff with access to improved facilities and educational aids.
- Long term positive impacts to the broader community with opportunity to collaborate with industries in the local area, providing opportunities for growth and increased social cohesion between the Westmead Catholic Community and the local community networks.

Measures developed to mitigate potential negative social impacts and enhance the benefits are presented in this report. A significant number of impacts are recommended to be monitored and managed through collaboration with key stakeholders, to effectively address them if/ or when they arise. A significant strength of the project is the long-term commitment to ongoing engagement with key stakeholders to ensure the disruption through construction and then the long-term operation and adjustment to the education programs is effectively managed. Overall, it is

considered that with a range of mitigation measures to manage identified risks in place, the project is anticipated to bring significant public benefits to the local and broader communities.

5.9 Noise and Vibration

A Noise and Vibration Impact Assessment has been undertaken by JHA to assess potential impacts arising from operational and construction (refer to **Appendix M**). The Assessment establishes the relevant noise level criteria, details the acoustic assessment and provides comments and recommendations for the proposed development. Ambient and background noise surveys have been undertaken at the existing site to establish the appropriate noise criteria in accordance with the relevant guidelines.

5.9.1 Operational Noise

Operational noise is expected to be generated from:

- External mechanical plant.
- Public address and school bell systems.
- New Parish Church.
- Primary school building outdoor spaces.
- Roof top sports activities.
- Child care centre.
- Traffic generation.

The expected noise impact from noise generating sources are expected to be compliant with the relevant acoustic criteria. As plant equipment and the public address system has not been selected, recommendations are made to ensure noise generation from these sources is compliant.

5.9.2 Construction Noise

A preliminary construction noise assessment has been carried out by JHA. Based on the results of the preliminary assessment, the noise associated with the normal construction works is expected to exceed the noise limits for standard hours and out-of-hours works in accordance with the ICNG Guideline. This assessment is based on typical noise levels associated with construction sites and machinery. At such time that a detailed construction plan is provided, a more detailed assessment will be carried out. In order to meet the noise and vibration requirements of the site, the contractor will be required to engage a qualified acoustic consultant to assist in the compilation of a Construction Noise and Vibration Management Plan, and undertake noise and vibration monitoring for the duration of the project. The recommendations of the Noise and Vibration Impact Assessment are included in the Mitigation Measures at **Section 7**.

5.10 Contamination

A Preliminary Site Investigation has been undertaken by Martens Engineering to review the potential for contamination and to assess the suitability of the site as a school (refer to **Appendix O**). Overall, the site is considered to generally have a low risk of localised or broadscale contamination. Due to limitations in sampling density and location, it is recommended that an additional site walkover and sampling is undertaken following demolition of existing structures. If any unexpected finds are encountered during site works, the unexpected find will require further assessment in accordance with an unexpected finds protocol. Where any soil material is to be removed from the site, a formal waste classification assessment will be required in accordance with the NSW EPA Waste Classification Guidelines.

5.11 Stormwater Management

Erbas has prepared a Water Management Plan (**Appendix R**) in conjunction with the Civil Plans prepared by Northrop (**Appendix S**). Rainwater storage and stormwater quality are discussed below.

5.11.1 Rainwater Storage

Part 3.3.6 of DCP 2011 (Water Sensitive Urban Design) indicates that rainwater storage should be considered for implementation on large scale developments. Water efficient fixtures and fittings are also recommended to reduce draw-off from the public water supply system. The selection of these items should meet the requirements of the Water Efficiency Labelling and Standards (WELS) scheme.

A water balancing calculation has been adopted based on historical rainfall data in Sydney. The calculation has estimated that:

- A 10m³ rainwater tank collecting a Parish roof catchment of 1,592m² would be capable of providing 45% of non-potable demand to irrigate a landscaped area of 1,000m².
- A 40m³ stormwater tank collecting a Primary School Building roof catchment of 3,372m² would be capable of providing 43% of non-potable demand to irrigate a landscaped area of 3,000m².

As shown on the Civil Plans at **Appendix S**, an OSD tank with a minimum capacity of 148m³ is proposed to the north-east of the Parish.

The proposed rainwater storage of 10m³ is intended to collect 'clean' roof runoff from the downpipes of the Parish for the purpose of landscape irrigation. The additional stormwater storage of 40m³ is intended to collect 'dirty' roof runoff from the upper surface of the Primary School Building for landscape irrigation. Associated filtration measures are necessarily more significant for stormwater reuse (instead of just rainwater reuse), since pedestrian traffic on the Primary School Building roof slab can generate litter and other debris linked to pedestrian movement. Non-potable supply could also be considered to fill toilet cisterns for flushing purposes (in addition to irrigation demand).

5.11.2 Stormwater Quality

Stormwater quality improvement measures are to be installed in conjunction with the stormwater detention tank as documented on the civil engineering drainage drawings prepared by Northrop.

5.12 Flooding

A Flood Statement has been prepared by Northrop to review the proposal with respect to flood information provided by Council (refer to **Appendix U**).

The subject site is situated within the Milson Creek catchment which has an area of approximately 85 hectares and extends south of the subject site to the Great Western Highway. Overland flow from the upper catchment is expected to be conveyed beneath the Main Western Railway before continuing along the western boundary of the site before connecting into the pipe network beneath Darcy Road to the north.

The flood behaviour for the site has been provided by Council. The information provided by Council suggests the subject site is impacted by mainstream flooding, in particular flooding derived by the Upper Parramatta River. A summary of the predicted flood elevations for the 5%, 1% Annual Exceedance Probability (AEP) and Probable Maximum Flood (PMF) events is outlined in Table 1 of the Flood Statement.

A review of the proposed layout with respect to the identified flood levels shows that the proposed works are located outside the extent of the 5% and 1% AEP. The majority of the proposed works (roughly 97%) lies outside the extent of the PMF as shown in **Error! Reference source not found.** Where works are located within the PMF extent, they are generally limited to tie in works for the driveway and minor changes to the landscaping along the subject site frontage. The results suggest that all proposed floor levels are above the maximum criteria, being the PMF flood level plus a freeboard of 500mm.

Whilst evacuation from the site is not practical during a PMF flood event, a Site Emergency Response Flood Plan can be prepared for the subject site to recommend the appropriate procedures to follow during a predicted flood event.

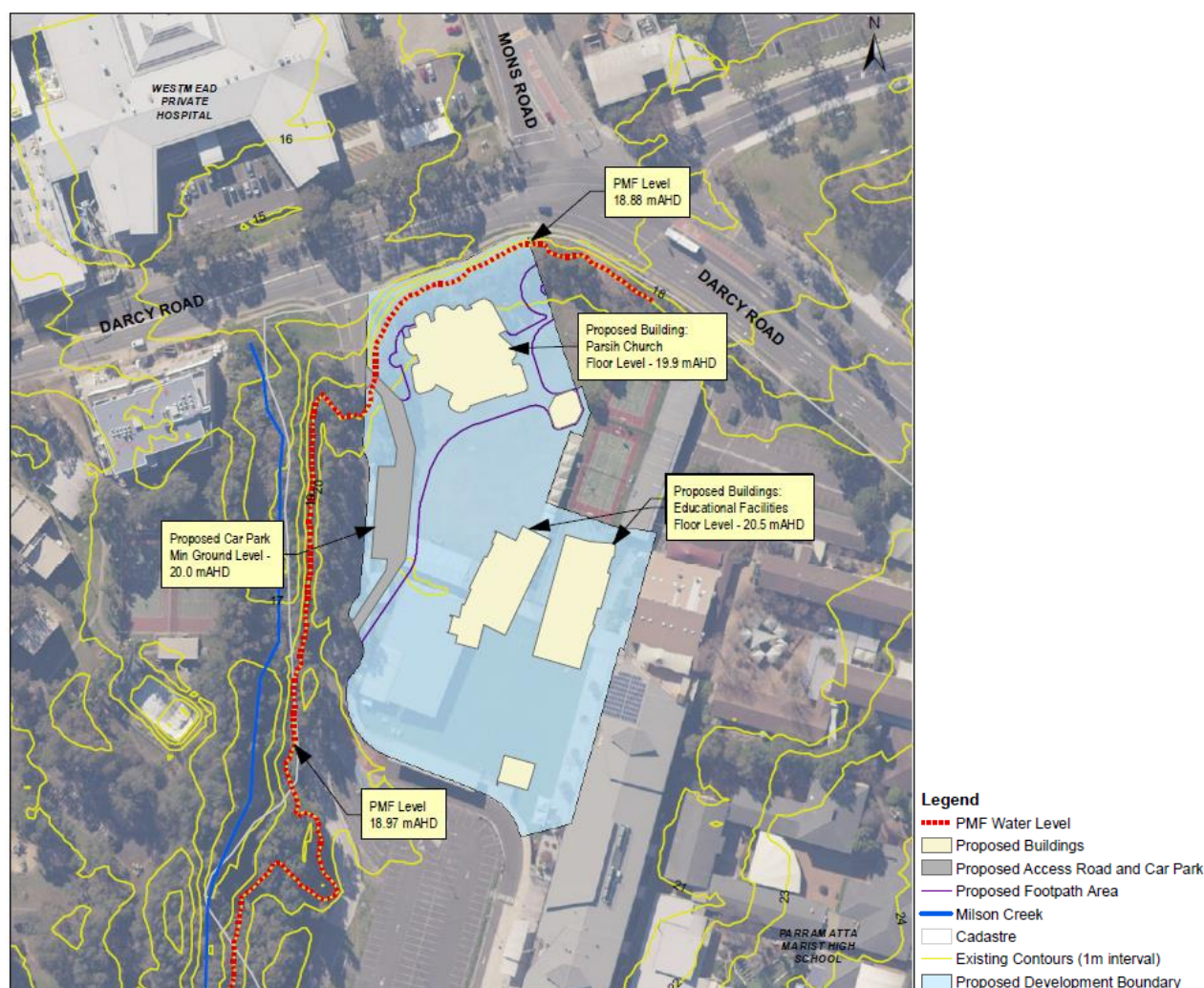


Figure 35 Extent of Works in relation to Flood Levels

Based on this assessment, Northrop concludes that:

- Through the creation of a Site Emergency Response Flood Plan, the proposed development is considered to satisfy the flooding related requirements as specified by Council's DCP and the requirements of the NSW Floodplain Development Manual.
- The provision of stormwater management infrastructure including on-site detention is required to mitigate any adverse impacts and potential nuisance flooding due to local catchment overland stormwater run-off (refer to **Section 5.11**).

The recommendations of the Flood Statement are included in the Mitigation Measures at **Section 7**.

5.13 Tree Removal and Flora and Fauna Impacts

5.13.1 Tree Removal

The proposed development will necessitate the removal of 24 trees, as detailed in the Arboricultural Impact Assessment prepared by Tree IQ (**Appendix I**). In accordance with Australian Standard 4970 (2009) 'Protection of Trees on Development Sites' each tree has been allocated a 'Retention Value'. The trees to be removed were assessed by Tree IQ as follows:

- 17 trees with a Retention Value of Consider for Retention.
- Six (6) trees with a Retention Value of Consider for Removal.
- One (1) tree with a Retention Value of Priority for Removal.

Following the conclusion of construction, the removed trees will be replaced in accordance with the Landscape Plans prepared by Ground Ink (**Appendix H**). The replacement tree planting will be in accordance with Australian Standard 2303 (2015) 'Tree Stock for Landscape Use'. The Arboricultural Impact Assessment also outlines the tree protection measures which are to be implemented for the duration of construction.

The recommendations of the Arboricultural Impact Assessment are included in the Mitigation Measures at **Section 7**.

5.13.2 Flora and Fauna Impacts

A waiver has been granted under Section 7.9 of the *Biodiversity Conservation Act 2016* (BC Act), and so there is no requirement to prepare a Biodiversity Development Assessment Report for the project (refer to **Appendix V**). Therefore, Cumberland Ecology has prepared a Flora and Fauna Assessment to support the proposal and document the findings of the ecological assessment undertaken within the site (refer to **Appendix F**).

Cumberland Ecology has undertaken a desktop assessment and site surveys to identify the flora and fauna species within the site. The results indicate that vegetation within the site is likely to have been planted after 1943. Generally, the composition, structure and function of vegetation within the site and the surrounding landscape have been altered significantly and do not resemble any naturally occurring Plant Community Types (PCTs). The site is predominantly an artificial landscape with planted garden beds and planted trees situated throughout the campus. Subsequently, most of the woody vegetation within the site predominately forms a single mapping unit of 'Urban Exotic/Native vegetation'.

Areas along the western boundary of the site contain the BC Act listed Endangered Ecological Community (EEC) Swamp Oak Floodplain Forest. The Swamp Oak Floodplain Forest within and adjacent to the site is considered to align to PCT 1234 Swamp Oak Swamp Forest fringing estuaries of the Sydney Basin and South East Corner Bioregion (refer to **Figure 36**). Swamp Oak Floodplain Forest is also listed as an EEC under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), however it is not considered to conform to the EPBC Act listing due to the small patch size (less than 2 ha) and containing an exotic dominated understorey. No works are proposed on this area of the site where the EEC is located.

Based on these findings, Cumberland Ecology concludes that the project is highly unlikely to have significant impacts on defined biodiversity values as impacts are limited to highly modified areas. The proposal is anticipated to impact ~0.18 area of Urban Exotic /Native planted vegetation and 0.49 ha Exotic Grassland that do not conform to any recognised PCT. No areas of the riparian corridor, including the BC Act listed EEC Swamp Oak Floodplain Forest, are anticipated to be impacted by the project as it is located outside of the proposed area of works. Further, the management and maintenance measures proposed in the Flora and Fauna Assessment, together with the planting proposed in the Landscape Plans, will result in the augmentation and enhancement of this EEC.

The vegetation on the site comprises potential foraging habitat for a number of highly mobile threatened fauna species including the Grey-headed Flying-fox, Powerful Owl and four species of microchiropteran bats. All of these species access resources from a wide area and are unlikely to be dependent on the resources present within the site. A Test of Significance has been prepared for all these species which indicates that a significant impact is unlikely to occur to threatened fauna species as a result of the proposal.

Cumberland Ecology concludes that the anticipated impacts to threatened ecological communities and threatened species habitat are manageable and will not result in significant impacts. Notwithstanding this, a range of mitigation measures are proposed to minimise the impacts on biodiversity values within the site, including the riparian corridor in the west of the site.

The recommendations of the Flora and Fauna Assessment are included in the Mitigation Measures at **Section 7**.

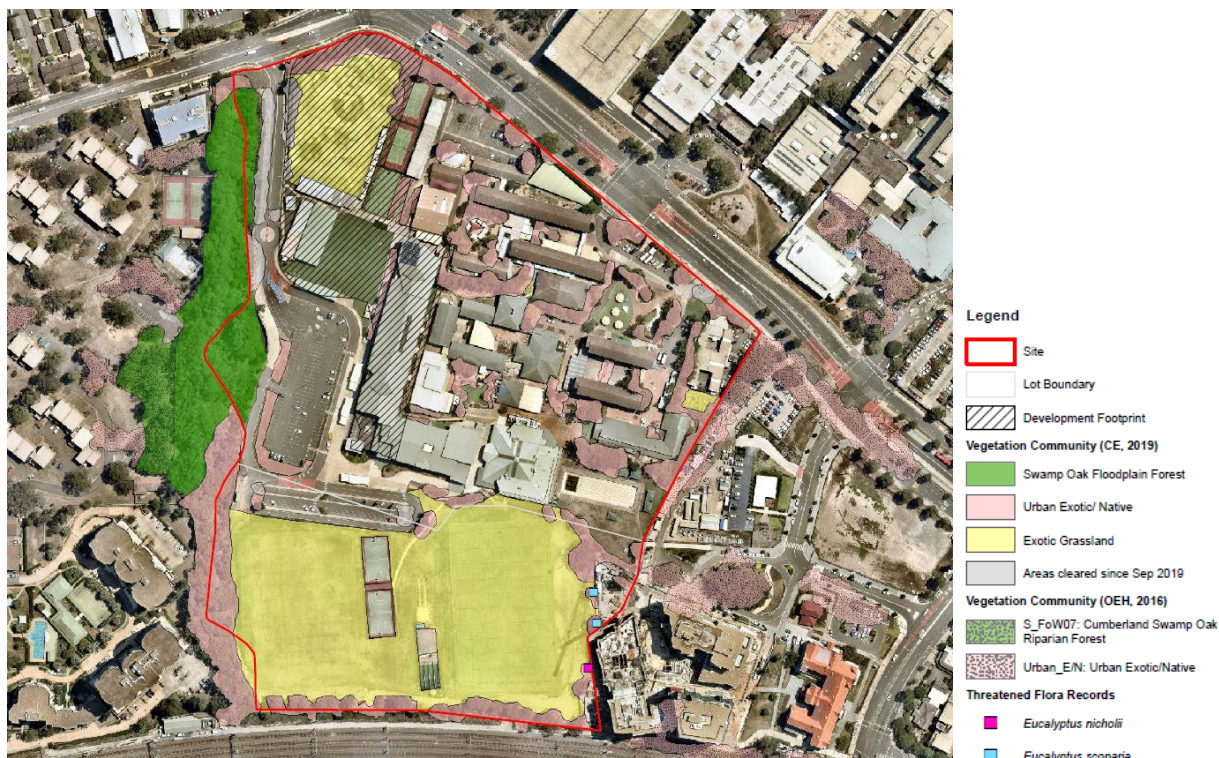


Figure 36 Proposed Impacts on Flora and Fauna

5.14 Aviation

AvLaw has prepared an Aeronautical Impact Assessment (AIA) to ensure that the impacts of the proposed buildings and cranes used during construction are identified and assessed to maintain the safety, regularity and efficiency of aircraft operations in close proximity to the site (refer to **Appendix W**).

The proposed maximum building height across the site is RL 46.5m, with all plant and ancillary structures captured within this envelope. Avlaw has assessed the maximum proposed building height against the National Airports Safeguarding Framework (NASF) and Departure and Approach Procedures (DAP) part of the Aeronautical Information Publication (AIP). The findings are summarised below and relate to an assessment against the impact on operations to/from the Westmead Hospital Accident and Emergency rooftop helipad.

National Airports Safeguarding Framework

- The proposed Parish does not penetrate airspace protected for operations to/from Westmead Hospital.
- The Primary School Building does penetrate the boundary of the airspace as defined by the NASF guidelines for the protection of helicopter operations to/from Westmead Hospital.
 - The Primary School Building does fall within the envelope of the first 500m step of the NASF guideline airspace, thereby triggering the need for further detailed assessment.

Aeronautical Information Publication and Departure and Approach Procedures

In addition to a range of options for flight in Visual Meteorological Conditions (VMC), the Westmead Accident and Emergency helipad is served by instrument flight procedures for approaches:

- Three (3) instrument approach procedures are published in AIP DAP for the Westmead Hospital Rooftop Helipad - NDB 127, RNAV-Z (GNSS) 052 and RNAV-Z (GNSS) 127.
- None of the structures proposed at the site fall under the operational airspace protected under any of the published instrument procedures listed above.

In addition to the Accident and Emergency helipad, AvLaw has considered two other operational helicopter landing sites within the Westmead hospital campus. The impact of the proposed development on flight paths to and from both the Westmead Children's Hospital and the CareFlight base have been examined and neither will be impacted

adversely by the proposal. In addition to the existing Helicopter Landing Site (HLS) on the Westmead Hospital campus, a rooftop HLS at the new Central Acute Services Building will be operational from October 2020 with an elevation of 82m AHD. As this new HLS is well above any proposed building height across the site, there will be no impact on helicopter operations to/from that helipad.

The operational airspace for the closest airport to the site (i.e. Bankstown Airport) was also considered and Avlaw's assessment has found that the critical (i.e. lowest) airspace protection surface covering the site is the Outer Horizontal Surface of the Bankstown Airport Obstacle Limitation Surfaces (OLS) at a height of 156m AHD. Therefore, the proposed building heights across the site are well below this surface and therefore controlled activity approvals will not be necessary to facilitate construction.

Based on the above, the AIA concludes that:

- Airspace defined under NASF Guideline H is penetrated, however, the NASF guideline is a trigger for further assessment rather than a detailed representation of operational airspace that must remain obstacle free;
- Based on further assessment against the criteria of dimensions and slopes of HLS airspace protection surfaces contained in CAAP 92-2(2) has found that none of the buildings proposed as part of this SSDA submission penetrate these surfaces;
- Instrument approaches to the rooftop helipad at Westmead Hospital are clear of the site;
- Preferred flight paths to/from the rooftop helipad at the Westmead Children's Hospital are clear of the site, with alternative flight paths also not being compromised by the proposed development;
- Helicopter operations to/from the CareFlight base are clear of the site;
- Operations to and from the new helipad at the CASB which will be operational from October 2020 will not be adversely impacted as this helipad is considerably higher than any proposed structures across the site (including construction cranes);
- Further discussions ongoing with relevant stakeholders;
- The proposed developments across the site should be assessed favourably by aviation stakeholders involved in the assessment process as there is no impact on the safety, regularity or efficiency of emergency helicopter operations to/from any identified current or future HLS in close proximity to the site.

Based on this AIA, Avlaw concludes the proposed developments at the site do not adversely impact on the safety, efficiency or regularity of aviation operations of any nearby onshore HLS and identified flight paths based on assessment against the NASF Guideline H and CASA advisory publications.

5.15 Construction Management

A Preliminary Construction Management Plan has been prepared by Buildcorp, and is included at **Appendix K**. The construction management measures will be formalised prior to the issue of a Construction Certificate, however will generally comprise:

- Independent dilapidation reports will be completed and issued to all relevant parties for surrounding structures, infrastructure and roads.
- The site will be appropriately secured by solid fences (wire mesh or similar), hoardings and gates during the entire duration of the construction work.
- Site amenities and facilities will be provided for work personnel including offices, toilets, lunch rooms, first aid rooms and change rooms.
- Hours of work will not extend beyond:
 - Monday to Friday inclusive: 7.00am to 6.00pm;
 - Saturday: 7.00am to 5.00pm; and
 - No work on Sundays and Public Holidays.
- All deliveries and vehicular site access will be outside of the peak school traffic (pick-up and drop-off) times.

- There will be regular communication updates to relevant stakeholders, including neighbours and the relevant authorities. Stakeholders will have an open line of communication to the project team in order to address any issues and concerns if they arise.
- Temporary car parking will be made available on-the site to ensure contractors do not park on the local road network. However, contractors will be encouraged to use public transport where possible.
- Project inductions will be carried out to train workers on specific safety and emergency procedures.
- All footpaths and bicycle paths surrounding the site will be kept unobstructed and free of tripping hazards from hoarding, fences or construction related items.
- All site access points shall be controlled for security and safety purposes.

These measures will be incorporated into the detailed Construction Management Plan to be prepared by the contractor prior to the commencement of works.

5.15.1 Construction Traffic Management

Buildcorp's Preliminary Construction Management Plan addresses construction traffic management (refer to **Appendix K**). A summary of the proposed construction traffic management measures is provided below:

- Works are anticipated to generate 20 two-way construction vehicle movements per day. On peak days, around eight (8) two-way vehicle movements per hour may be anticipated.
- Peak construction vehicle movements will occur outside of the school and commuter peak periods to minimise traffic impacts and delays to the road network.
- The main construction vehicle access point into the site will be off Darcy Road. Vehicles will approach the site from the north along Darcy Road. Entry and exit gates will be provided to ensure that all vehicles can always fully enter the site to prevent vehicles from standing on public land. Should standing of vehicles be required on council land, appropriate approvals will be sought.
- The number of vehicles entering the site is to be restricted to deliveries wherever possible. Limited subcontractor parking will be permitted on site and contractors will generally be encouraged to use public transport.
- To minimise impact on local traffic routes, the following will be encouraged with incoming and outgoing deliveries:
 - Prefabrication of elements and components where possible.
 - Management of deliveries to ensure that there is no back log of deliveries arriving at a similar time.
 - Incorporate lay/waiting areas within the site for trucks to stand whilst waiting to be unloaded.
 - Traffic control measures to be placed at entry points to control traffic.
- Traffic control personnel and equipment will be established as required for the safe and effective control of traffic and pedestrians at all gates leading into and from the site that interface with public space. In addition, public safety will be ensured by:
 - Hoardings to the perimeter of the site to be used to eliminate the chance of public gaining access to the site.
 - Gates to the sites will be monitored at all times by appropriate staff.
 - Each entry point will be signposted and monitored to reduce accidental public access.
 - Public accessways will be monitored on a daily basis and repaired if required.
 - Surrounding access paths will be cleaned on a daily basis.

These measures will be incorporated into the detailed Construction Traffic Management Plan to be prepared by the contractor prior to the commencement of works.

5.16 Other Assessment Issues

An assessment of the other impacts of the development have been undertaken by the relevant specialist consultants and are appended to this EIS as set out in **Table 11** below.

Table 11 Summary of Technical Assessments

Consideration	Consultant	Summary	Reference
Wind	CPP	<p>The Qualitative Wind Assessment prepared by CPP includes a qualitative assessment of existing wind conditions and the potential impact of the proposed development on local wind conditions. CPP has applied the Lawson Criteria to determine the pedestrian comfort and safety levels.</p> <p>In regard to the Primary School Building, the assessment indicates that given the façade design, the building may be prone to pressure driven flow across the open areas and corridors. To provide calmer areas within the building during windy conditions (and to maximise the usable time for these areas) CPP recommends:</p> <ul style="list-style-type: none"> • Installation of some screening on the Ground Floor, Level 3 and Level 5; • Provide for the 'closing off' of the external openings of the north-south corridors; and • Installation of a horizontal canopy (over some areas) and screening around areas intended for seating on Level 5. <p>Overall, CPP confirms that the proposed development is expected to have minimal impact on wind conditions in most locations, with any changes from the perspective of pedestrian comfort or safety expected to be insignificant. CPP therefore concludes that all locations are suitable for the intended uses and will achieve the safety criterion.</p>	Appendix AA
Construction Waste Management	Buildcorp	<p>Buildcorp has prepared a Construction Waste Management Plan which identifies the likely waste streams and the possible volume of each stream during construction.</p> <p>A detailed Construction Waste Management Plan will be developed as part of the detailed Construction Environmental Management Plan. The contractor will be required to achieve compliance with the EPA Guidelines.</p>	Appendix K
Operational Waste Management	Elephants Foot	<p>An Operational Waste Management Plan has been prepared by Elephants Foot for the Primary School Building (Appendix Y) and the Parish Church (Appendix X).</p> <p>The WMP identifies the potential types and volumes of waste that are expected to be generated during the operational phase of the proposed development and suggests systems to be implemented to appropriately manage this waste.</p> <p>The following are the main waste streams that would be expected from the proposed development:</p> <ul style="list-style-type: none"> • Garbage; and • Comingled Recycling. <p>The estimated waste generation has been used to determine the waste storage requirements of each component of the proposed development, as well as the frequency of waste collection. Elephants Foot confirms that the design of the waste storage area can accommodate the volume of waste generated by each component of the proposed development.</p> <p>TTTP has prepared Swept Path Analysis Diagrams which confirm that waste vehicles can access the waste collection area (refer to Appendix Error! Reference source not found.).</p>	Appendix Y Appendix X
HAZMAT	Banksia EnviroSciences	<p>Hazardous Materials Inspection and Management Reports have been prepared for the school campus by Banksia EnviroSciences. The Reports have identified asbestos containing materials, lead based paint systems and synthetic mineral fibres within buildings associated with Parramatta Marist and Catherine McAuley Schools. No Hazardous materials were identified within the Mother Theresa Primary School.</p>	Appendix EE

Consideration	Consultant	Summary	Reference
		The Reports provide recommendations for the management of hazardous materials, including undertaking detailed hazardous materials surveys and material testing on any area where refurbishment or demolition is planned prior to work commencing. The Reports also outline procedures for managing asbestos exposure, which will be implemented during the construction phase.	
Erosion and Sediment Control	Erbas Northrop	<p>Erosion and Sediment Control Plans form part of the Civil Plans prepared by Northrop. As outlined in the Water Management Plan prepared by Erbas, temporary erosion and sediment control measures will be implemented in accordance with <i>Soils and Construction: Managing Urban Stormwater 4th Edition, March 2004</i>.</p> <p>Expected temporary measures include:</p> <ul style="list-style-type: none"> • Sediment fencing on the low side of earthmoving operations; • A gravel layer at the construction vehicle access point into the area of works; • Regular monitoring of soil movement characteristics and cleaning of sediment deposits as required during construction; and • Security fencing around the area of construction works. 	<p>Appendix S</p> <p>Appendix R</p>
Fire Engineering	GHD	A Fire Engineering Statement has been prepared by GHD. The design has a number of non-compliances with the prescriptive provisions of the BCA. It is considered that the preparation of the Performance Solution and corresponding fire safety measures that are likely to be documented as part of the Performance Solution will not result in any material changes to the building design, and can be addressed at Construction Certificate stage.	Appendix BB
BCA	BM+G	<p>A BCA Compliance Statement has been prepared by BM+G. BM+G has undertaken a review of the DA against the deemed-to-satisfy provisions of the BCA 2019 and the Disability (Access to Premises – Buildings) Standards 2010.</p> <p>The Statement confirms that compliance can be readily achieved at Construction Certificate stage, and that any changes required in order to comply with the BCA can be addressed in the preparation of the detailed documentation for the Construction Certificate without requiring any significant changes.</p>	Appendix Z
Access	Morris Goding Access Consulting	An Access Review has been prepared by Morris Goding. The Access Review has assessed the proposed development against the requirements of the Building Code of Australia 2016 (BCA), Disability (Access to Premises) Standards 2010 and The Disability Discrimination Act 1992 (DDA), with regard to access for persons with a disability. Morris Goding concludes that the proposed development can achieve compliance with the relevant statutory requirements.	Appendix DD
Structural	Northrop	<p>A Structural Statement has been prepared by Northrop. The Structural Statement outlines the proposed structural design and design load criteria, and confirms that all buildings and structures will be designed with the loads determined from the National Construction Code (NCC:2019) and the relevant Australian Standards, including:</p> <ul style="list-style-type: none"> • AS/NZS 1170.0/2002 – Part 0: Structural Design Actions • AS/NZS 1170.1/2002 – Part 1: Permanent, Imposed and Other Actions • AS/NZS 1170.2/2011 – Part 2: Wind Actions • AS/NZS 1170.4/2007– Part 4: Earthquake Loads 	Appendix CC

5.17 Site Suitability

The site is suitable for the proposed development, as outlined below.

- **Continuation of education uses on the site** – The proposal seeks to continue the use of the existing schools on the WCC site. The development has been designed to integrate with the existing school facilities and will allow for increased capacity for expected student growth.
- **Consistency with site zoning and relationship with surrounding uses** – The proposed land use is permissible within the zone, being the SP2 Educational Establishment and is consistent with the objectives of the zone. The proposal responds to the site's context within the Westmead Innovation Precinct, and will promote integration with the surrounding health and education uses.
- **Ability to manage environmental impacts** – As detailed throughout **Section 5**, environmental impacts associated with the proposed development are capable of being managed and mitigated. This EIS has demonstrated that heritage, traffic, visual and construction impacts can all be appropriately managed.
- **Access to public transport** – WCC benefits from access to a range of public transport services, being within walking distance to heavy rail, future light rail and bus options. This makes the site suitable for increased student capacity, with opportunities for increased non-car mode share to minimise impacts on traffic and parking.

5.18 Public Interest

The proposed development is in the public interest, as outlined below.

- **Increased school capacity** – The proposal responds to the immediate and future demand for primary school facilities, providing future capacity for up to 1,680 students, including the relocation of students from Sacred Heart Primary School at Ralph Street and provision of permanent play space for these students.
- **New Parish facilities** – the development includes a new Parish Church which will become the focal point for the school, as well as being available for use by the broader Westmead community.
- **Improved education facilities and integration with Westmead Innovation Precinct** – The development will provide significantly improved education facilities to meet current and future pedagogical methodologies, including the Diocese of Parramatta's objective to integrate school and Parish facilities. The proposal will also enable integration with the Westmead Innovation Precinct, which will foster synergies between health, education, research and training facilities.
- **Employment opportunities** – The development will generate approximately 1,000 construction jobs and approximately 67 operational jobs, and will make a positive contribution to the local economy.

6.0 Environmental Risk Assessment

The Environmental Risk Assessment (ERA) establishes a residual risk by reviewing the significance of environmental impacts and the ability to manage those impacts. The ERA for the proposed development has been adapted from Australian Standard AS4369.1999 Risk Management and Environmental Risk Tools.

In accordance with the SEARs, the ERA addresses the following significant risk issues:

- The adequacy of baseline data;
- The potential cumulative impacts arising from other developments in the vicinity of the site; and
- Measures to avoid, minimise, offset the predicted impacts where necessary involving the preparation of detailed contingency plans for managing any significant risk to the environment.

Figure 37 indicates the significance of environmental impacts and assigns a value between 1 and 10 based on:

- The receiving environment.
- The level of understanding of the type and extent of impacts.
- The likely community response to the environmental consequence of the project.

The manageability of environmental impact is assigned a value between 1 and 5 based on:

- The complexity of mitigation measures.
- The known level of performance of the safeguards proposed.
- The opportunity for adaptive management.

The sum of the values assigned provides an indicative ranking of potential residual impacts after the mitigation measures are implemented.

Significance of impact	Manageability of impact				
	5 Complex	4 Substantial	3 Elementary	2 Standard	1 Simple
1 – Low	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)	2 (Low)
2 – Minor	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)
3 – Moderate	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)
4 – High	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)
5 – Extreme	10 (High)	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)

Figure 37 Risk Assessment Matrix

				Risk Assessment		
Item	Phase	Potential Environmental Impact	Proposed Mitigation Measures and / or Comment	Significance of Impact	Manageability of Impact	Residual Impact
Traffic and Parking	C / O	<ul style="list-style-type: none"> Increased construction traffic Increased traffic during operation 	<ul style="list-style-type: none"> A Preliminary Construction Traffic Management Plan has been prepared detailing measures to minimise any adverse impacts arising from construction traffic. Mitigation measures proposed within the Traffic and Transport Assessment to manage traffic, pick-up and drop-off are to be implemented during operation of the school. 	C = 3 O = 3	C = 2 O = 3	C = 5 (low/medium) O = 6 (medium)
Air Quality	C	<ul style="list-style-type: none"> Air quality impacts during construction 	<ul style="list-style-type: none"> Implementation of erosion and sediment control measures during construction. 	C = 1	C = 2	C = 3 (low)
Noise and Vibration	C / O	<ul style="list-style-type: none"> Increase in noise and vibration levels during construction activities Increase in noise levels during operation 	<ul style="list-style-type: none"> Implementation of Construction Noise and Vibration Measures which consider the construction methodology and details specific mitigation measures in accordance with the DECCW Interim Construction Noise Guideline. Appropriate sound minimisation measures to be incorporated within the plant and mechanical areas. Glazing will be designed to minimise noise intrusion. 	C = 3 O = 1	C = 2 O = 2	C = 5 (low/medium) O = 3 (low)
Heritage and Archaeology	C / O	<ul style="list-style-type: none"> Impact on heritage listed buildings on and in the vicinity of the site. Impact on Aboriginal archaeology during construction. 	<ul style="list-style-type: none"> The development will be carried out in accordance with the recommendations contained in the Heritage Impact Statement. The development will be carried out in accordance with the recommendations contained in the Aboriginal Cultural Heritage Assessment Report. 	C = 3 O = 2	C = 3 O = 1	O = 6 (medium) O = 3 (low)
Waste Management	C / O	<ul style="list-style-type: none"> Increased waste generation during construction. Increase waste generation during operation. 	<ul style="list-style-type: none"> A detailed Construction Waste Management Plan will be developed to manage the generation and disposal of construction waste, in accordance with the principles outlined in the Waste Management Plan. The appropriate infrastructure has been incorporated into the development to accommodate the volumes of waste that will be generated during the operation of the school. Management measures will be incorporated in accordance with the Waste Management Plan to ensure that waste is managed appropriately 	C = 3 O = 1	C = 2 O = 2	C = 5 (low/medium) O = 3 (low)
Contamination	C	<ul style="list-style-type: none"> Unexpected finds of contaminated material during construction. 	<ul style="list-style-type: none"> The development will be carried out in accordance with the recommendations of the Preliminary Site Investigation. 	C = 2	C = 2	C = 4 (low/medium)

				Risk Assessment		
Flooding	C / O	<ul style="list-style-type: none"> Flooding during Probably Maximum Flood event. 	<ul style="list-style-type: none"> The development will be carried out in accordance with the Flood Assessment. Prepare a Site Emergency Response Flood Plan, if required. 	C = 3 O = 3	C = 2 O = 2	C = 5 (low/medium) O = 5 (low/medium)

7.0 Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed works are detailed in **Table 12** below. These measures have been derived from the previous assessment in **Section 5** and those detailed in appended consultants' reports.

Table 12 Mitigation Measures

Mitigation Measures
Noise <ul style="list-style-type: none"> • Conduct works in accordance with a Construction Noise and Vibration Management Plan prepared by a qualified acoustic consultant. • Undertake noise and vibration monitoring for the duration of the project. • Undertake noisy works at times that will minimise sleep disturbance. • Deliberately select plant and equipment that will minimise noise impacts. • Implement on-site noise management strategies. • Schedule work to minimise disturbance. • Implement a consultation notification and complaints handling system.
Contamination <ul style="list-style-type: none"> • Undertake an additional site inspection and sampling following removal of existing structures on the site. • If any unexpected finds are encountered during site works, undertake further assessment in accordance with an unexpected finds protocol. • Where any soil material is to be removed from site, a formal waste classification assessment shall be required in accordance with the NSW EPA Waste Classification Guidelines (2014).
Transport and Accessibility <ul style="list-style-type: none"> • The proposal will incorporate the recommended measures in the Traffic and Transport Assessment prepared by TTPP provided at Appendix G.
Ecologically Sustainable Development <ul style="list-style-type: none"> • The detailed design of the development is to incorporate the ESD principles and measures set out in the ESD Report prepared by Erbas at Appendix P.
Built, Aboriginal and Historical Archaeological Heritage <ul style="list-style-type: none"> • The proposed development will be undertaken in accordance with the recommendations of the Heritage Impact Statement prepared by Comber Consultants provided at Appendix Q. • The proposed development will be undertaken in accordance with the recommendations of the Aboriginal Cultural Heritage Report prepared by Comber Consultants provided at Appendix N.
Waste <ul style="list-style-type: none"> • Construction and demolition activities will be undertaken in accordance with the Preliminary Construction Management Plan prepared by Buildcorp and provided at Appendix K. • The operation of the proposed development will be carried out in accordance with the Operational Waste Management Plan prepared by Elephants Foot and provided at Appendix X.
Construction Impacts <ul style="list-style-type: none"> • A preliminary Construction Management Plan prepared by Buildcorp is provided at Appendix K. A detailed Construction Environmental Management Plan (CEMP) will be provided by the contractor prior to commencement of works on site. The CEMP will incorporate the recommendations of the CMP and CTMP.
Hazardous Materials <ul style="list-style-type: none"> • Removal of hazardous materials will be undertaken in accordance with the relevant plans and policies as detailed in the Hazardous Management Plan prepared by Banksia EnviroServices provided at Appendix EE.
Tree Protection <ul style="list-style-type: none"> • Tree protection measures will be incorporated as per the recommendations of the Arboricultural Assessment provided by TreeIQ provided at Appendix I.

8.0 Conclusion and Justification

The Environmental Impact Statement (EIS) has been prepared to consider the environmental, social and economic impacts of the proposed Westmead Catholic Community. The EIS has addressed the issues outlined in the SEARs (**Appendix D**) and accords with Schedule 2 of the EP&A Regulation with regards to consideration of the relevant environmental planning instruments, built form, social and environmental impacts including traffic, noise, heritage and archaeology, construction impacts and stormwater.

Having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development, the carrying out of the project is justified for the following reasons:

- The assessment of this proposal has demonstrated that the development will not generate any environmental impacts that cannot be appropriately managed and is consistent with the relevant planning controls for the site.
- The development will provide a significant new piece of social and educational infrastructure, providing a new primary school with permanent teaching spaces to accommodate 1,680 students. The provision of a new teaching and education facility will support and strengthen the availability of education facilities in the region.
- The development will assist in meeting forecast demand for early childhood education and school facilities in the Westmead Innovation Precinct.
- The area and shape of the site allows for the provision of new teaching and education facilities that meet the special design requirements for the proposed uses, whilst not resulting in any significant adverse impacts on surrounding uses.
- The development will deliver a new Parish Church which can be used by both the school community and the local Westmead community more broadly.
- The proposal is consistent with the principles of ecological sustainable development as defined by Schedule 2(7)(4) of the EP&A Regulation 2000.
- The proposed development is anticipated to create a total of 67 full time positions at the school. This is anticipated to have additional social benefits for the region in terms of providing additional employment in a growing locality.
- The development will not have a significant impact on any threatened flora or fauna species.
- The proposed redevelopment is anticipated to have positive social outcomes in ensuring that local residents have access to high quality educational facilities.

Given the merits described above it is requested that the application be approved.