

# **Attachment A9**

<b>Social Infrastructure Review</b>
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# Social Infrastructure Review

242-258 Young Street, Waterloo

Submitted to Sustainable Development Group



**'Gura Bulga'**

Liz Belanjee Cameron

'Gura Bulga' – translates to Warm Green Country. Representing New South Wales.

Ethos Urban acknowledges the Traditional Custodians of Country throughout Australia and recognises their continuing connection to land, waters and culture.

We pay our respects to their Elders past, present and emerging.

In supporting the Uluru Statement from the Heart, we walk with Aboriginal and Torres Strait Islander people in a movement of the Australian people for a better future.

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# 1.0 Introduction

On behalf of the landowners of 242-258 Young Street, Waterloo, Sustainable Development Group (SDG) is leading a planning proposal for a new school development on the site. As part of this proposal, Ethos Urban was commissioned to undertake research to understand the need for schools in the area and to provide analysis regarding the relevant social infrastructure that the school may provide or require use of.

## 1.1 Project overview

SDG seeks to deliver a high-quality educational facility for primary and secondary school students at the site 242-258 Young Street, Waterloo, as well as accommodating the relocation of the existing Sydney Film School on the site.

The development is planned to include:

- Accommodation for 280 primary school students and 520 secondary school students.
- A dedicated, permanent home for the Sydney Film School (approx. 120 students).
- A 6-storey building with a gross floor area (GFA) of 13,919m<sup>2</sup>, including an open space ratio of 7.4m<sup>2</sup> per pupil.
- School facilities including classrooms, indoor and outdoor sports facilities, creative arts facilities, a multi-purpose hall and auditorium, and tiered passive open space across the top three storeys.



**Figure 1 Proposed development scheme**

Source: Plus Architecture



### 1.1.1 Site context

The site is in the inner Sydney suburb of Waterloo (see Figure 2). The site is only a 10-minute walk to Green Square which the City of Sydney anticipates will accommodate 63,000 people, 21,000 new homes, and around 21,000 jobs. The site is also well connected to the CBD: 20-minutes by bike, 18-minutes by car, or 25-minutes by bus. Despite this expected growth and connectivity, the proponent has identified a significant lack of planned school infrastructure in the area, particularly secondary schools.

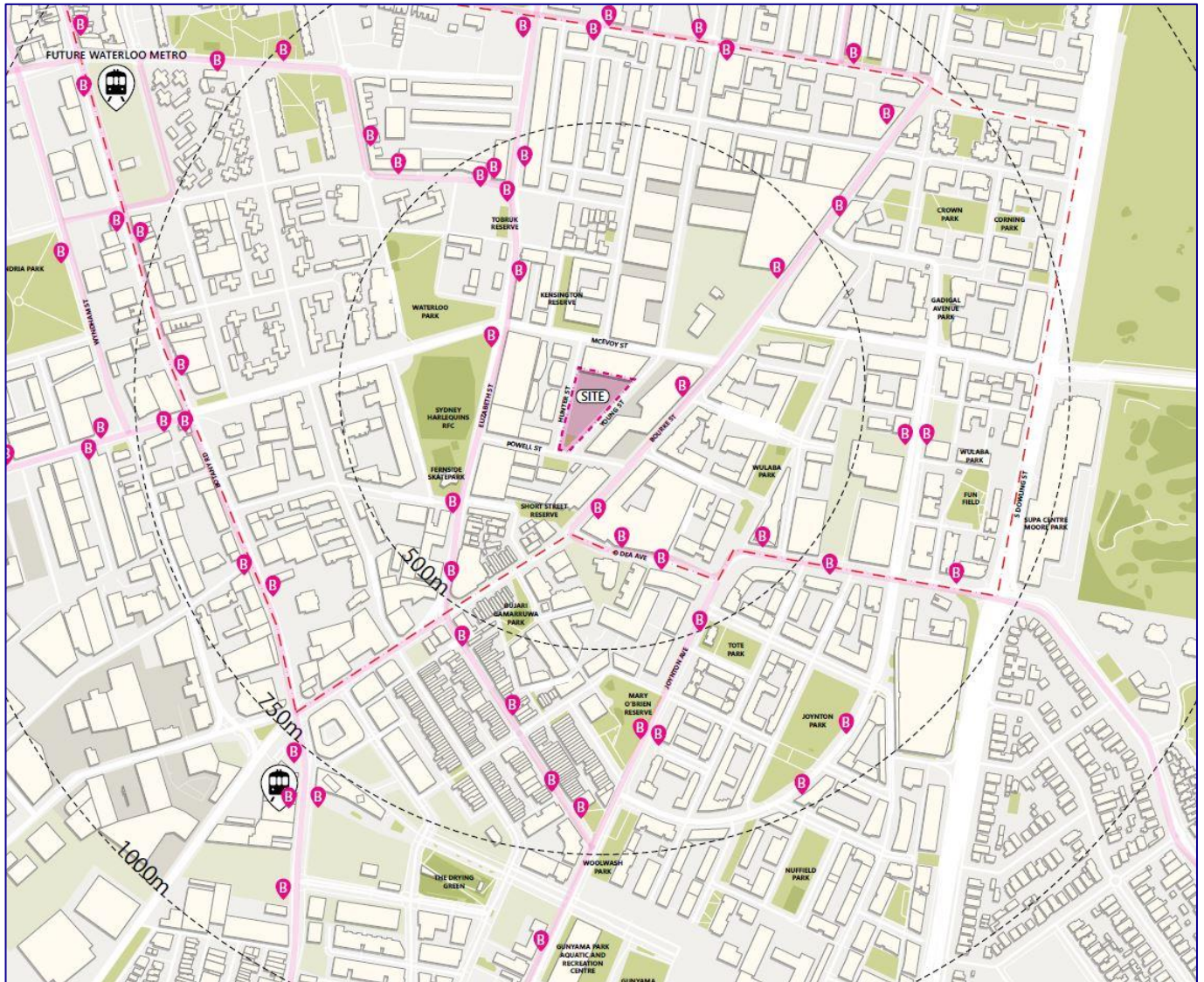


Figure 2 Subject site - 242-258 Young Street, Waterloo

Source: Plus Architecture

## 1.2 Purpose of this study and approach

The purpose of this study is to understand the need for schools in the area and to provide analysis regarding the relevant social infrastructure that the school may provide or require use of. It includes:

- a review of the policy environment and social issues and trends
- analysis of the population and demographic characteristics of the school catchment area, focusing on forecasted growth of school age children
- a review of existing and planned schools in the catchment area (both primary and secondary schools)
- a review of the available relevant social infrastructure in the surrounding area including passive open space (includes play space), indoor and outdoor recreation space and artistic and performance spaces.
- a review the open space needs for the proposed school development
- analysis of case study research into provision of open space for inner-city vertical school developments.
- opportunities to support the needs of the school users while balancing the needs of the local community for social infrastructure.

Our methodology has involved the following steps:



### Social Context Review

- Policy and plans, to understand requirements and directions.
- Demographics, to consider growth in the school age population.
- Existing social infrastructure, to understand existing relevant gaps
- Review of community aspirations and perceptions from relevant desktop sources.



### Stakeholder Engagement

- Meeting with the City of Sydney's Outdoor Events and Sportsfield Coordinator to discuss potential accommodation options.



### Case Studies Review

- Understand how other vertical schools have addressed open space and social infrastructure provision.
- Identify where available, the open space to student ratios achieved.
- Identify shared use agreements with local governments or other landowners.

### 1.2.1 Limitations

Qualitative data collection (interviews with existing infrastructure providers) is currently outside the scope of the review. Therefore, we are unable to comment on the practical performance of the reviewed approaches or provide details on the operations of the schools.

## 2.0 Social context

### 2.1 Policy environment

The relevant social policy context has been reviewed, including the NSW Education Department *Standard Facilities and Guidelines*, and other strategic policy drivers at State and local government levels. Documents reviewed include:

- City Plan Local Strategic Planning Statement, City of Sydney, 2020
- Community Strategic Plan: Delivering Sustainable Sydney 2030-2050, City of Sydney, 2022
- A Metropolis of Three Cities: Greater Sydney Region Plan, Greater Cities Commission, 2018
- Inclusive Education for students with disability, NSW Department of Education, 2022
- Educational Facilities Standards and Guidelines, NSW Department of Education

Below provides a summary of the relevant policy themes drawn from the key State and local government policy documents noted above.

- A goal in the City of Sydney's Community Strategic Plan (CSP) is for "a city that is optimistic about future opportunities in education, jobs, innovation, and the economy" (pg. 27).
- A Metropolis of Three Cities identifies that all residents within Greater Sydney will live within 30 minutes of their education facilities (pg. 6).
- City of Sydney's CSP identifies the need for collaborative approaches to ensure education is provided and appropriately sequenced to support the city and its communities (pg. 65).
- As identified in the City of Sydney's CSP, there is a need to "support the people who live, work in, and visit the city with adequate infrastructure, facilities, and services at the right time and in the right locations, including education" (pg. 63).
- City of Sydney's CSP states education facilities should be co-located with industry, talent, infrastructure, and investment (pg. 105).
- The NSW Department of Education's Our Plan for NSW Public Education identifies a commitment that "every student learns, grows, and belongs in an equitable and outstanding education system" (pg. 5).

The NSW Government's Education Facilities Standards and Guidelines provides a design framework and standardised approach for the delivery of education facilities in line with relevant policies, regulations, and best practice. Particularly relevant to this report is Design Guideline 10.03, outlined below. This provides the context for considering how other similar schools have achieved open space requirements at constrained sites.

#### DG 10.03 Open Play Space Requirements

Open play space must be provided for students to access during recess, lunch breaks and for outdoor learning. Open play space can be comprised of;

- Paved and grassed areas
- Rooftops and terraces
- Covered outdoor areas

The designated open play space must be easily monitored and managed by school staff.

Where a joint use agreement can be negotiated with a local council or landowner, then required play space can be located off-site, providing the facilities are;

- In close proximity to the school
- Easily accessible
- Safe and secure.

The area per student must meet the requirements below (new school on a brownfield site):

Designs must aim to achieve a minimum of 10m<sup>2</sup> per student. Where this figure is not achievable, the proposed m<sup>2</sup> per student of the completed project must not be less than the existing m<sup>2</sup> per student currently on the site.

Source: NSW Department of Education [Educational Facilities Standards and Guidelines](#)

The NSW Government's Education Facilities Standards and Guidelines (and Design Framework: Master Planning for schools -Jan 2023) provides provision for innovative design solutions in dense urban areas, noting that '*while it is preferable to maintain building heights of up to 4 storeys with open space provided at grade...innovative solutions for school design in dense urban areas may be appropriate. School designs that demonstrate building*



heights above 4 storeys...may explore open space within levels of the building, on rooftops, under the building, and/or shared with the community.

## 2.2 Social issues and trends

### 2.2.1 Delivering high rise schools in high density context

Limited space combined with rapid population growth within highly urbanised contexts has resulted in an increased demand for high-density and high-rise schools in Sydney's metropolitan areas<sup>1</sup>.

While increasingly popular, high-rise schools can also experience a range of different challenges compared to traditional schools. One key challenge is that smaller land parcels mean less space for formal and informal outdoor play and recreation.

### 2.2.2 Innovation in school design

The constrained environments of vertical schools have led to design innovations to help meet open play space requirements, such as rooftop playgrounds and sports courts (Homebush West Public School, South Melbourne Primary School), terraced green spaces (Ultimo Public School) and netted balconies (Inner Sydney High School).

### 2.2.3 Integrating schools with the surrounding community

High rise schools, such as independent St Andrews Cathedral School, or public Inner Sydney High School and Arthur Phillip Public School also represent a shift from schools as 'gated communities' to places that are integrated with the surrounding community, through the shared use of community and school facilities<sup>2</sup>.

Agreements between schools and local governments or other landowners can facilitate a reciprocal arrangement of benefit to both school students and the local community. For example, Ultimo Public School offers a full-sized basketball court for hire and its outdoor learning area can be used for weekend markets, while its students enjoy the use of Wentworth Park.

The following neighbourhood characteristics for the success of shared facility use:

- A safe pedestrian connection for students to access nearby public park space.
- Location of the school within the neighbourhood, and the convenience of access to its facilities offered for hire outside school hours (e.g., other options available and how easily these can be accessed).
- How conducive the land use mix of the surrounding area is to pedestrian activity (e.g., active street frontages)
- Volume and speed of traffic and the presence of car parks should be considered.



**Figure 3 Ultimo Public School**

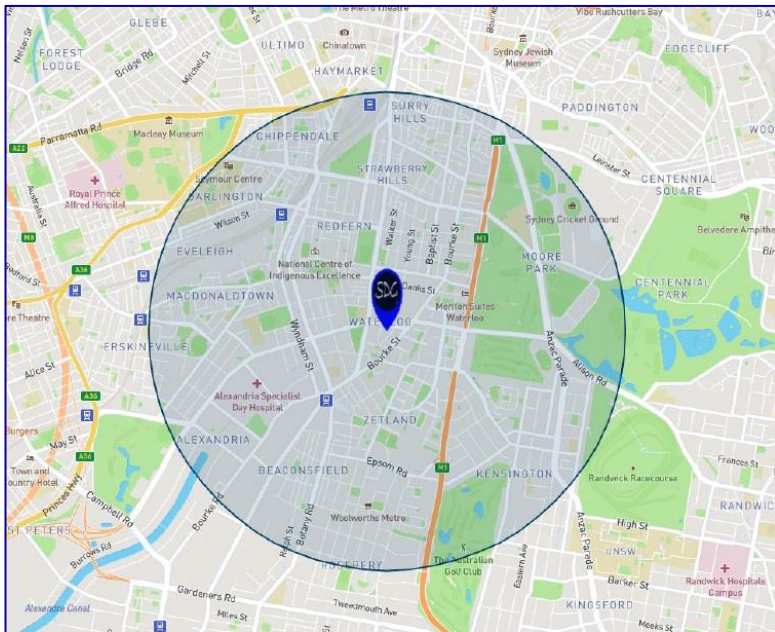
Source: Arch Daily

<sup>1</sup> [Vertical schools on the rise in Australian cities | ArchitectureAU](#)

<sup>2</sup> [Vertical Schools as Community Hubs | SpringerLink](#)

## 2.3 Demographic profile

The following section provides a summary of relevant demographic and population data prepared by GapMaps. The subject catchment area incorporates a 2km radius of the site.



**Figure 4** 2km radius of 242-258 Young Street, Waterloo

Source: GapMaps

The data provided by GapMaps indicates demand for schools in this area, with significant population growth projected for school age children (77% growth by 2031).

### Key findings

A summary of key population and demographic characteristics relevant to this study have been provided below:

- Catchment area population in 2021 was 94,773 and is projected to **increase by 24%** to 117,644 in 2031.
- The number of school age children in the catchment area was projected to **grow by 77%** to 2031.
- Household income in the Waterloo catchment is comparable to the draw catchments for independent schools in other areas of Sydney.
- The catchment has a high proportion of residents born outside Australia (49%), notably from Northeast Asia, Southeast Asia<sup>3</sup>, and the UK. Migrant communities tend to place value on results-focused education for their children.

**Table 1** Projected population of school age children in the catchment (2021-2031)

Age group	2021	2031	% Growth
Pre-school (Aged 0-5)	4319	7429	72%
Primary school (Aged 6-11)	2433	3963	63%
High school (Aged 12-17)	1645	3244	97%
All school (Aged 6-17)	4078	7207	77%
Pre-school (Aged 0-5)	4319	7429	72%

Source: GapMaps

<sup>3</sup> Northeast Asia includes: China, Mongolia, Japan, and the Koreans; Southeast Asia includes: Myanmar, Cambodia, Thailand, Vietnam, Indonesia, Malaysia, the Philippines and Singapore

**Table 2** *Catchment area household income (2021)*

	Average household income	Households with income >\$3,000 per week	Households with income >\$4,000 per week
Waterloo catchment	\$122,920	33%	21%
Greater Sydney	\$109,794	25%	15%

Source: GapMaps

**Table 3** *Catchment area place of birth (2021)*

	% Born in Australia	% Born outside Australia (top 3 countries)		
		UK	NE Asia	SE Asia
Waterloo catchment	49%	7.8%	14.5%	7.8%
New South Wales	72%	4%	5%	4.5%

Source: GapMaps

## 2.4 Existing schools

The spatial distribution of existing schools has been analysed, both from the perspective of schools currently located in the area surrounding the site, and a benchmark analysis of private school<sup>4</sup> places within the Waterloo catchment compared to draw catchments for independent schools in other areas of Sydney.

### Key findings

- There is a gap of secondary schools and private primary school options in the area to the south and east of the site, including the Waterloo / Green Square area.
- There are fewer private school places per capita in the Waterloo catchment area compared to other private school draw catchments in Sydney.

### 2.4.1 Schools in the surrounding area

Within two kilometres of the proposed school site, there are 12 schools, including 7 public and 5 private schools (see Figure 5). Almost half of these offer a specialised education service:

- Yudi Gunyi School is a specialist public school for students aged 10-17 experiencing behavioural challenges.
- Redfern Jarjum College is a Jesuit primary school for Aboriginal and Torres Strait Islander children who are not participating in mainstream schools.
- Central Sydney Intensive English High School provides support and preparation for newly arrived students from non-English speaking backgrounds to transition to mainstream high schools.
- SEDA College NSW provides vocational high school education program rather than an ATAR pathway.
- Sydney Distance Education Primary School provides education for students who cannot attend their local school, including those whose families are travelling in Australia or overseas.
- There is a significant gap of secondary schools and private primary school options in the area to the south and east of the site in the Waterloo / Green Square area, as shown in Figure 5.

### 2.4.2 Independent school places benchmarking

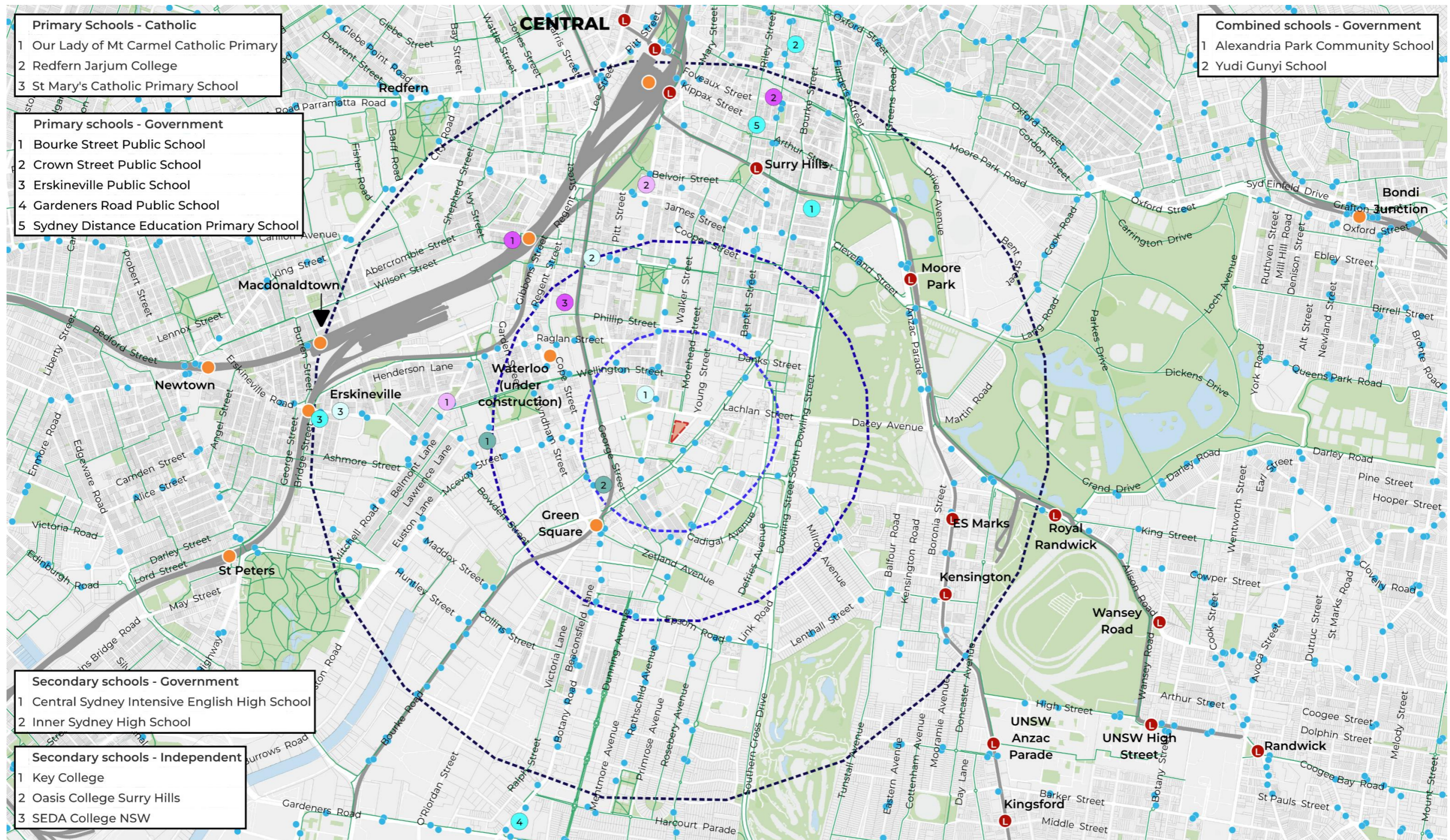
Benchmarking indicates there are forecast to be 9 private school places per 100 school aged children in the Waterloo catchment area in 2031, compared to 114 places per 100 school aged children in the North Sydney region (Appendix A)<sup>5</sup>. Currently there are no new independent schools planned for the Waterloo area.

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<sup>4</sup> Private schools comprises both independent and Catholic schools.

<sup>5</sup> Data provided by GapMaps. For Sustainable Development Group





- Primary Schools - Catholic**
- 1 Our Lady of Mt Carmel Catholic Primary
  - 2 Redfern Jarjum College
  - 3 St Mary's Catholic Primary School

- Primary schools - Government**
- 1 Bourke Street Public School
  - 2 Crown Street Public School
  - 3 Erskineville Public School
  - 4 Gardeners Road Public School
  - 5 Sydney Distance Education Primary School

- Secondary schools - Government**
- 1 Central Sydney Intensive English High School
  - 2 Inner Sydney High School

- Secondary schools - Independent**
- 1 Key College
  - 2 Oasis College Surry Hills
  - 3 SEDA College NSW

- Combined schools - Government**
- 1 Alexandria Park Community School
  - 2 Yudi Gunyi School

**LEGEND**

- Site
- Combined schools - Government
- Secondary schools - Independent
- Bus stops
- 500m catchment
- Primary schools - Catholic
- Train stations
- Bicycle network
- 1km catchment
- Primary schools - Government
- Light rail
- 2km catchment
- Secondary schools - Government



Figure 5 Surrounding schools

Source: Ethos Urban



## 2.5 Existing social infrastructure

Social infrastructure typologies relevant to school environments were reviewed, considering both planned provision within the proposal and within the existing community.

### Key findings

- Further explore whether there is opportunity for Waterloo Park to be used for additional passive open space for students, considering its proximity to the school site.
- Turruwal Park presents an option for structured or formal sports and recreation activities, during school hours. Shared use of this space should be further explored with City of Sydney, with consideration for viable transport options.
- Main Park presents an option for structured or formal sports and recreation activities, as well as passive recreation, during school hours. Shared use of this space should be further explored with the responsible authority. Transport options may also need to be considered.
- Further explore the opportunity for community shared use of artistic and performance / multipurpose facilities outside of school hours.

### 2.5.1 Passive open space

Passive open space is important for schools in contributing to the learning, health and wellbeing, and social connection for students. Access to open space is well established as an essential aspect of a school environment, both for primary and secondary schools.

The proposal provides an open space ratio of 6.2m<sup>2</sup> per student, including covered and uncovered spaces across the top three levels. The surrounding area is well serviced by open spaces within a walkable 400m catchment of the site (see Figure 6). The following provides a summary of these:

- There are eight parks within a walkable catchment to the site.
- The closest open spaces to the site are Kensington Reserve and Short Street Reserve, however they are small and have minimal facilities such as bench seating and bins.
- Waterloo Park is the largest nearby reserve. It is co-located with Waterloo Oval providing a total area of 2.88ha. It includes a playground, basketball half court, exercise equipment (Waterloo Park), skate park, dog off-leash area, and public toilets (Waterloo Oval). Student access to the park from the site would be via Young Street and McEvoy Street with a signalised crossing at Elizabeth Street. The distance is 150m or an approximately 6-minute walk.
- Waterloo Park and Waterloo Oval are bisected by McEvoy Street, with signalised crossings at either end of the park (Elizabeth Street and Pitt Street).

Other nearby open spaces include:

- Bujari Gamarruwa Park which includes green open space with bench seating
- Mary O'Brien Reserve which includes BBQ facilities, playground, water play area.
- The Rope Walk Park which includes green open space, playground.
- Tobruk Reserve which includes a small green space and bench seating.
- Tote Park which includes green open space, playground, public toilets.

Given the proximity and amenity of Waterloo Park, it's ability to support informal recreation time, for example at lunch breaks, for secondary students should be further explored.

### 2.5.2 Indoor and outdoor recreation facilities

Indoor and outdoor recreation facilities provide for structured, more formal sports and recreational activities such as competition sports and physical education classes. These spaces support a core aspect of education.

The proposal includes some indoor and outdoor recreation facilities onsite, including a multipurpose hall with sports court. However, the site is not large enough to accommodate a sports field and an alternative option is required. There are 7 indoor and outdoor recreation facilities within one kilometre of the site (see Figure 8).

These include:

- Gunyama Park Aquatic and Recreation Centre which includes swimming pools, fitness centre, outdoor synthetic sports field

- Alexandria Park which includes multipurpose sports field, tennis court, multipurpose court, playground
- Redfern Park which includes basketball courts, skate plaza, playground
- Waterloo Oval (as noted above, connected to Waterloo Park) which includes a sportsfield, exercise equipment, playground, basketball half-court, and skate park.

Consultation with the City of Sydney identified that the sportsfields at these facilities are currently operating at capacity. Waterloo Oval would be the preferred option given its proximity to the site, however, consultation with the City of Sydney has indicated that this oval is already a highly utilised space and is fully booked 4-6pm each weekday, including by community clubs and other schools. There may be one 90-minute slot per week available.

The future Main Park, part of the Waterloo Metro Station project, will provide two hectares of open space and include two playing fields. It is approximately 800m walk from the proposed school site and provides another option for potential shared use.

Council staff also suggested that Turruwal Park, which is located approximately 7 minutes' drive south of the site, could be an option to explore for shared use by the proposed school, provided transport options to the park are viable. Turruwal Park provides a soccer field, two tennis courts, a tennis wall, and cricket facilities and has availability Monday to Friday 8:00am-5:00pm. It is fully booked weeknights from 5:00pm and weekends. One other school uses the park but does not have a regular booking of the space.

### **2.5.3 Artistic and performance spaces**

Artistic and performance spaces help provide facilities for Creative and Performing Arts (CAPA) subjects such as music and drama, as well as extracurricular activities. CAPA promotes creativity, learning, and social connection.

The proposal includes a multipurpose hall, auditorium, rehearsal rooms, music, and art spaces.

The only existing artistic / performance spaces within a walkable 400m catchment of the site are those currently located on the site. The site currently includes Waterloo Studios (242 Young Street), which provides space for Sydney Actors School, Sydney Film School, and Sydney Advertising School. While Sydney Film School will be incorporated in the development, the other two school will be relocated.

Other nearby facilities include the Governors Centre, a drama theatre near Sydney Boys and Sydney Girls schools, and nearby Redfern and Central stations, such as Belvoir Street Theatre.

There is an opportunity to explore shared use arrangements with the City of Sydney for the school's creative arts facilities, rehearsal rooms, multi-purpose hall and auditorium. These facilities could provide creative and performance spaces for community use outside of school hours (after hours, weekends and school holidays). We understand from previous discussions with the City of Sydney that space for creative uses is an emerging need in this area.

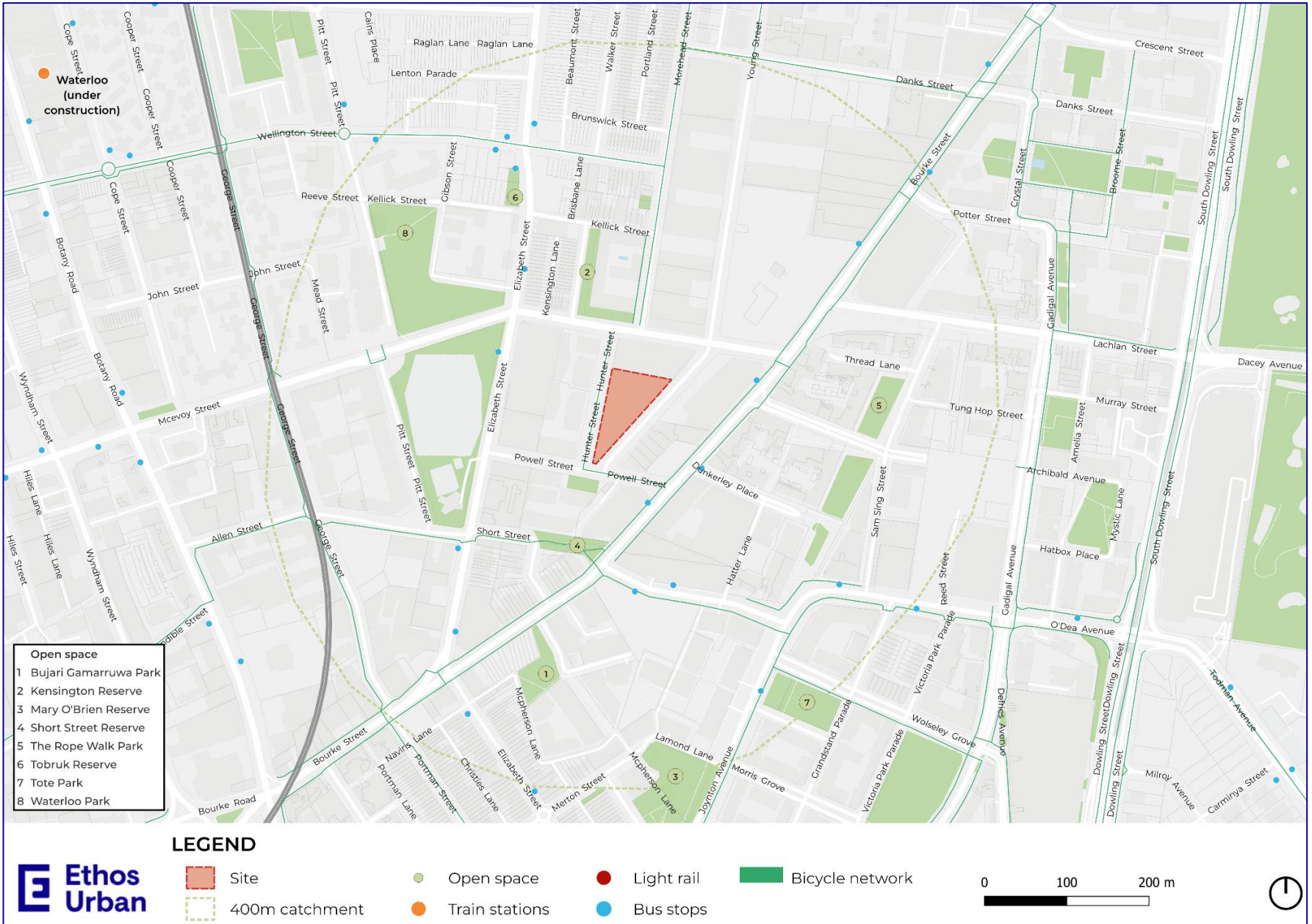


Figure 6 Social infrastructure map – open space



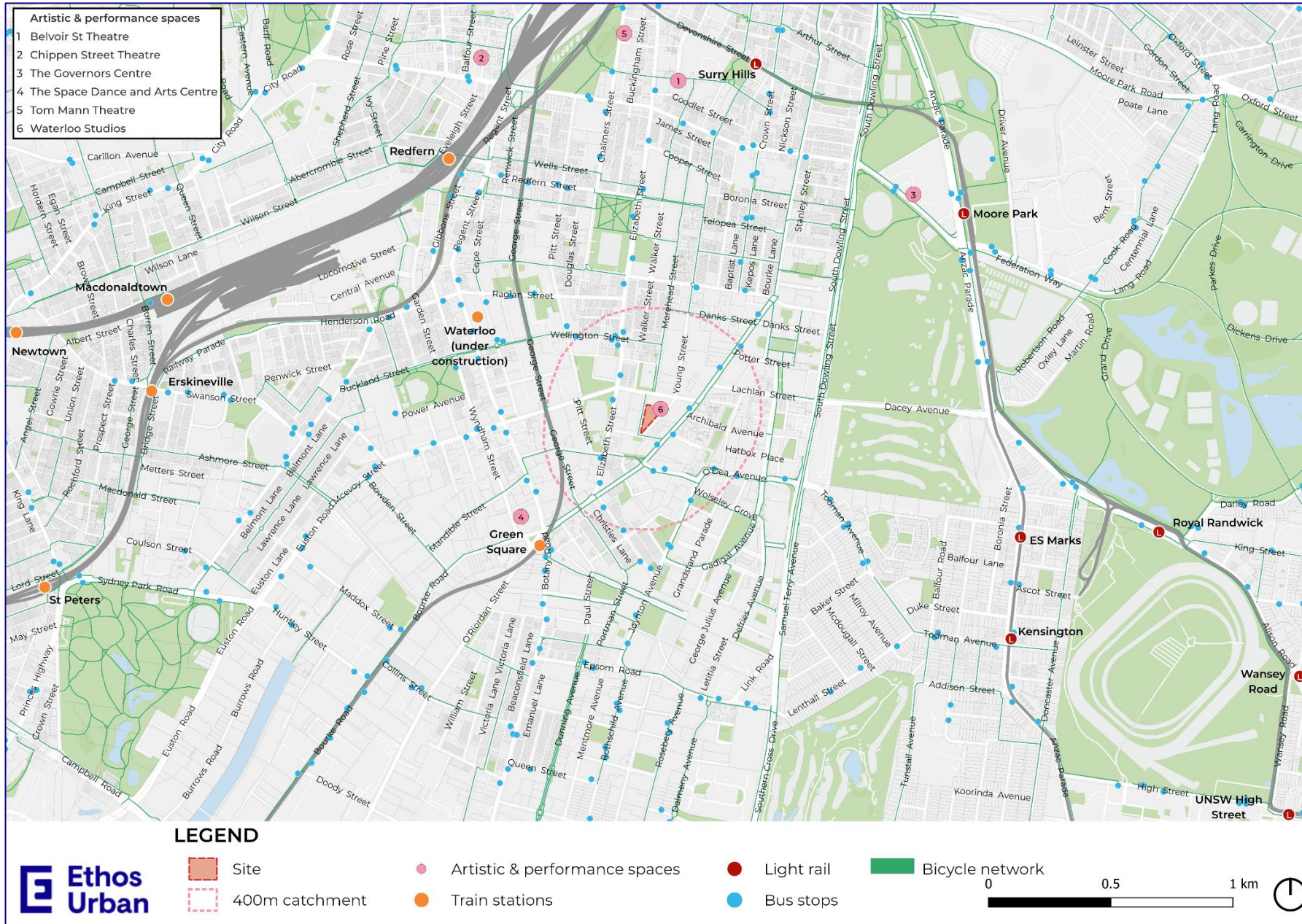


Figure 7 Social infrastructure map – artistic & performance spaces





Figure 8 Social infrastructure map – indoor & outdoor recreation spaces



## 3.0 Case studies

Nine vertical schools, including examples of public and private primary and secondary schools, in NSW and interstate, were reviewed to understand the range of approaches to open space provision. Table 3 provides an overview of each case study, showing details of the school, approach to open space provision, open space ratio per student and details of shared use arrangements.

### Key findings

- Innovative approaches to open space provision are derived from design solutions that maximise passive open space, play areas, multipurpose halls, and sports facilities, within the vertical school development.
- Open space provision can be enhanced through shared use agreements with local governments, where there is appropriate and available open space close to the school site.
- Vertical schools do not always achieve the open space guideline of 10m<sup>2</sup> per pupil.

In summary, each vertical school considered in this research appears to adopt one or more of the following:

- Screened balconies, terraces, rooftop open spaces (all examples)
- Ground-level open space within the school site, where possible (Arthur Phillip High School)
- Shared outdoor open space, such as Council parks, a closed road, or with an adjacent school (Inner Sydney High School, Arthur Phillip High School, Homebush West Public School, Prahran High School).

In the case studies reviewed, where schools have a shared use agreement to access public open space, the open space is adjacent to the school site.

The average open space per student (of the examples where information was available) was 4.78m<sup>2</sup>, ranging from 2.56m<sup>2</sup> to 7.2m<sup>2</sup> per student. The proposed provision of 6.2m<sup>2</sup> per student of open space for the proposed school is above the average of all of the identified through the case studies, with the exception of one. The proposed provision of 6.2m<sup>2</sup> per student of open space is above the average provision of the case studies considered.

Key management and operational approaches relevant to this study include staggered student break times (e.g., the proposed Reddam House North Sydney campus) and staggered start and finish times (planned for Inner Sydney High School once it reaches capacity). The Draft Operational Management Plan for the proposal recommends timetabling open space use into primary (K-6), middle (7-10) and senior secondary (11-12) year level segments<sup>6</sup>.

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<sup>6</sup> Draft Operational Management Plan prepared by Amina Project Management (November 2023)

**Table 4 Summary of case studies**

	Year	Storeys	Capacity	Levels	On site open space	Open space ratio	Shared use
Inner Sydney High School NSW	2021	14	1,200	7-12	<ul style="list-style-type: none"> <li>Open games court at the podium level.</li> <li>Screened balconies on the upper levels.</li> <li>Indoor and outdoor recreation spaces provided.</li> </ul>	4.4m <sup>2</sup> per student	<ul style="list-style-type: none"> <li>Agreement with City of Sydney<sup>7</sup> to use Prince Alfred Park, 10am to 2pm.</li> <li>Community has access to indoor sports, performance spaces, outside school hours.</li> </ul>
Ultimo Public School NSW	2020	3	800	K-6	<ul style="list-style-type: none"> <li>Roof top play areas (~4,000m<sup>2</sup>)</li> <li>Makes use of site slope to create five different levels / terraces with outdoor spaces between classrooms.</li> <li>Includes 3 distinct areas: flat space, 'green oasis', quiet sheltered area.</li> <li>Games court</li> <li>Indoor and outdoor recreation spaces provided.</li> </ul>	5m <sup>2</sup> per student	<ul style="list-style-type: none"> <li>Facilities can be hired by the public.</li> <li>Uses adjacent Wentworth Park<sup>8</sup>.</li> </ul>
Homebush West Public School NSW	2019	3	900	K-6	<ul style="list-style-type: none"> <li>Rooftop play and educational area (1,600m<sup>2</sup>)</li> <li>Two sports courts</li> <li>Indoor and outdoor recreation spaces provided.</li> </ul>	6m <sup>2</sup> per student	<ul style="list-style-type: none"> <li>Facilities can be hired by the public.</li> <li>Agreement with Strathfield Council to close part of Exeter Road to be used as a play area.</li> </ul>
Arthur Phillip High School NSW	2020	17	2,000	7-12	<ul style="list-style-type: none"> <li>At ground level, 4x external sports courts, amphitheatre (with covered space) and outdoor space for markets.</li> <li>Breezeways / screened facades (screened outdoor space providing vertical circulation around each of the homebases).</li> </ul>	7.2m <sup>2</sup> per student	<ul style="list-style-type: none"> <li>Shares communal outdoor space with adjacent primary school.</li> </ul>

<sup>7</sup> 20-year license agreement with City of Sydney

<sup>8</sup> Vertical Schools as Community Hubs | SpringerLink

	Year	Storeys	Capacity	Levels	On site open space	Open space ratio	Shared use
					<ul style="list-style-type: none"> <li>Indoor and outdoor recreation spaces provided.</li> </ul>		
St Andrew's Cathedral School NSW	1976	8	1,450	K-12	<ul style="list-style-type: none"> <li>Multipurpose Health Centre and BBC Auditorium.</li> <li>Rooftop playground that doubles as a social space and host of the annual Christmas markets.</li> </ul>	Data unavailable	<ul style="list-style-type: none"> <li>Uses Sydney Square for opening school event.</li> <li>Sydney Town Hall used for annual Showcase concerts and Evening of Celebration and Prize-giving.</li> <li>Parade Theatre at NIDA used for musical theatre productions.</li> <li>City Recital Hall and Concourse Theatre used for musical performances.</li> </ul>
Reddam House North Sydney Campus	2023 – Approved SSDA	6	1,550	K-12	<ul style="list-style-type: none"> <li>Ground floor: lightweight sculptural play structure for Junior School. Nature play garden with artificial play surface, sandpit, and elevated deck.</li> <li>Level 2 and 3: lightweight sculptural vertical play structure with integrated slide.</li> <li>Level 6: seating and outdoor learning nooks with integrated charging points.</li> <li>Level 7: seating and outdoor learning nooks with integrated charging points.</li> <li>Sports hall and auditorium Basement 2.</li> <li>Use of on-site open space and sports hall will be staggered between year groups.</li> </ul>	Junior School: 3.55m <sup>2</sup> per student Senior School: 2.56m <sup>2</sup> per student	<ul style="list-style-type: none"> <li>Concept Proposal provides a summary of indicative open space and recreational facility use by the school in Lane Cove Council on an as-needed basis. Lane Cove confirmed willingness and agreement will be created at later stage.</li> </ul>
Prahran High School VIC	2019	5	650	7-12	<ul style="list-style-type: none"> <li>Rooftop recreation area includes courts and protective netting.</li> </ul>	Data unavailable	<ul style="list-style-type: none"> <li>Lane space that can be activated for play during school hours.</li> </ul>

	Year	Storeys	Capacity	Levels	On site open space	Open space ratio	Shared use
South Melbourne Primary School VIC	2018	6	570	K-6	<ul style="list-style-type: none"> <li>• Play area on level 5 and outdoor sports courts.</li> <li>• Indoor and outdoor recreation spaces.</li> </ul>	Data unavailable	
Haileybury City Campus VIC	2016	12	750	K-12	<ul style="list-style-type: none"> <li>• 1,500m<sup>2</sup> of outdoor green space across three terraces.</li> <li>• Indoor running track and sports complex.</li> <li>• Indoor and outdoor recreation spaces.</li> </ul>	Data unavailable	<ul style="list-style-type: none"> <li>• Shared use of 'Inside Out' recreation area on Batman Street that includes a multipurpose sports court, seating, and changerooms.</li> <li>• Shared use of Flagstaff Gardens.</li> </ul>

## 4.0 Conclusion

### 4.1 Summary

High rise schools are becoming increasingly popular as a result of rapid population growth combined with limited land parcels within highly urbanised context. However, these schools face the challenge of providing space for formal and informal recreation for students. This has led to innovative design solutions such as rooftop playgrounds and sports courts as well as shared use arrangements with local governments or other landowners.

The proposal for a vertical school at the site 242-258 Young Street, Waterloo responds to an identified demand for schools in this area. A review of the population catchment of the site shows that there is significant population growth projected for school age children. There is also a gap in existing or planned private schools in the area, with a projected rate of 9 private school places per 100 school aged children in the Waterloo catchment area in 2031, compared to 114 places per 100 school aged children in the North Sydney region (Appendix A).

From a review of other vertical schools across NSW and interstate, it was found that rarely are these schools able to achieve the NSW Department of Education's open space guideline of 10m<sup>2</sup> per pupil. The average open space per student (of the examples where information was available) was 5.65m<sup>2</sup>, ranging from 4.4m<sup>2</sup> to 7.2m<sup>2</sup> per student. The proposed provision of 6.2m<sup>2</sup> per student of open space for the proposed school is above the average identified through the case studies.

The case studies also show that a combination of innovative solutions to open space provision, alongside shared use arrangements with local government or other landowners can be successful in meeting the recreational needs of students.

### 4.2 Opportunities

In addition to the onsite provision proposed for this development, the following opportunities have also been identified to help meet the recreation needs of the students:

- A review of available open space in the surrounding area shows there may be an opportunity for Waterloo Park to be used for additional passive open space for secondary school students, if a shared use agreement can be negotiated with the City of Sydney.
- Discussions with the City of Sydney have identified the possibility of developing a shared use arrangement with the proposed school for Turruwal Park. This park is located approximately 7 minutes' drive south of the site and includes a soccer field, two tennis courts, a tennis wall, and cricket facilities. Council has confirmed the space has availability Monday to Friday 8:00am-5:00pm. Since this space is not within walking distance, the operator would need to confirm the viability of providing transport to and from this park. However, it is not unreasonable or rare for students in dense urban areas to use transport to access various facilities, particularly for sporting purposes.
- The future Main Park, part of the Waterloo Metro Station project, will provide two hectares of open space and include two playing fields. It is approximately 800m walk from the proposed school site and provides another option for potential shared use. If this could be achieved this option would be the preferred option given its proximity to the site.
- There is an opportunity for community shared use outside of school hours of the proposed school's hall for artistic and performance / multipurpose space.
- The Draft Operational Management Plan for the proposal recommends timetabling open space use into primary (K-6), middle (7-10) and senior secondary (11-12) year level segments<sup>9</sup>.

### 4.3 Recommendations for next steps

The recommended next steps include:

- Progress discussions in respect of Turruwal Park with the City of Sydney around potential shared use arrangements for formal / structured sports activities.
- Consult further with the City of Sydney around potential shared use arrangements for the future Main Park.

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<sup>9</sup> Draft Operational Management Plan prepared by Amina Project Management (November 2023)



- Consult further with City of Sydney regarding opportunities for community use of spaces, especially creative spaces, auditorium outside of school hours and identify design requirements that would be needed to support this use.
- Implement recommendations outlined in the Operational Management Plan that support maximising access to open space for students, such as staggering school breaks (primary / middle / secondary).

# Appendix A

**Table 5 Private school places comparison**

Region	TOTAL Private Schools			
	Schools (#)	Enrolment (#)	enrolment/100 school aged (2021)	enrolment/100 school aged (2031)
Waterloo draw	6	588	15	9
Sutherland Shire draw	8	3107	24	22
Lower N Beaches draw	9	5113	37	38
Inner South draw	12	4734	47	39
Central East Suburbs draw	17	9228	91	84
North Sydney draw	9	11535	130	114

Source: Prepared by GapMaps for Sustainable Development Group

Waterloo draw Central 6x SA2s: Surry Hills, Redfern, Erskineville-Alexandria, Waterloo, Zetland, Rosebery-Beaconsfield. Pop = 89.9k

Suburbs draw Inner Randwick South, Coogee-Clovelly, South Coogee . Pop = 90.8k

South draw 5x SA2s: Arncliffe-Bardwell Valley, Monterey-Brighton le Sands-Kyeemagh, Bexley North, Bexley South, Rockdale. Pop = 89.4k

Sutherland Shire draw 6x SA2s: Sylvania-Taren Point, Gymea- Grays Point, Miranda-Yowie Bay, Caringbah, Caringbah South, Woolooware-Burraneer. Pop = 89.8k

North Sydney draw 6x SA2s: Cremorne-Cammeray, Neutral Bay-Kirribilli, North Sydney-Lavender Bay, Crows Nest-Waverton, Greenwich-Riverview, St Leonards-Naremburn. Pop = 91.3k

Lower Northern Beaches draw 5x SA2s: Dee Why South-North Curl Curl, Freshwater-Brookvale, Manly Vale- Allambie Heights, Manly-Fairlight, Balbaowlah-Clontarf-Seaforth. Pop = 91.7k