

Operational Transport and Access Management Plan

New Catherine Field Primary School
O'Keefe Drive, Oran Park

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Revision History

Revision	Date	Details	Author	Approved by
-	23/11/2020	Draft	T. Lehmann	D. Choi
I	1/12/2020	Issue I	T. Lehmann / W. Zheng	D. Choi
II	4/12/2020	Issue II	T. Lehman / W. Zheng	D. Choi

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1 Introduction

1.1 Purpose

Ason Group has been engaged by Hansen Yuncken Pty Ltd to prepare an Operational Transport and Access Management Plan (OTAMP) for the Catherin Field Primary School located at O'Keefe Drive, Oran Park.

The purpose of this OTAMP is to provide guidance in relation to the traffic management arrangements for the Site. The overall objective is to ensure safe and efficient movement of vehicles, students, visitors, and staff. In particular, this OTAMP details the following:

- A pedestrian access plan;
- Drop-off / Pick-up facilities management plan;
- Car parking plan;
- Servicing plan; and
- Details on the governance and administration of the OTAMP.

1.2 Stakeholder Consultation

Over the course of the development of the Plan, Ason Group has consulted with key stakeholders including TfNSW, Camden Council, and the School Principal. **Table 1** details the dates of the key consultations and what was discussed.

Table 1: Stakeholder Consultation

Stakeholder	Personnel	Date	Topic
Busabout	Robert Yianakis	17 th August 2020	Ason Group liaised with Busabout to discuss bus service route options
TfNSW	John Broady	19 th August 2020	Ason Group liaised with TfNSW to discuss the future bus routes with consideration for the school catchment and road network.
School Principal	Chad Lindsay	27 th August 2020	Ason Group liaised with Chad Lindsay to discuss the strategies and incentives to be included within the Plan.
Camden Council	Christopher Wood / Roy El Kazzi / Matthew Rawson	1 st September 2020	Ason Group was part of a coordination meeting to liaise with Council regarding all things traffic, engineering and the mechanism of dedicating land back to Council.
Camden Council	Christopher Wood / Roy El Kazzi / Matthew Rawson / Jamie Erken	15 th September 2020	Ason Group was part of a coordination meeting to liaise with Council regarding the updated design and Council Approval processes.

TfNSW	Mario Dizon	28 th September 2020	Ason Group liaised with TfNSW to discuss the school zone associated with the school
Camden Council	Roy El Kazzi	27 th October 2020	Ason Group liaised with Camden Council to discuss feedback on proposed signage and linemarking plan submitted
Interline Bus Services	Michael Pruss / John Broady / Robert Yianakis	28 th October 2020	Ason Group liaised with Interline to discuss bus service route options and bus zone times
Camden Council	Roy El Kazzi	5 th November 2020	Ason Group liaised with Council to discuss the proposed signage and linemarking plan for the School.
Camden Council	Roy El Kazzi / Tom Allen	12 th November 2020	Ason Group further liaised with Council in relation to comments associated with the updated proposed signage and linemarking plan and Council's comments in relation to pedestrian crossings and bus stops.
Interline Buses	Michael Pruss	1 st December 2020	Ason Group liaised with Interline to discuss the location, potential restriction, and routes of bus routes within the local area.

1.3 Detailed Stakeholder Engagement

The following section of this report provide details of consultation undertaken by the Project Team in its preparation of this OTAMP.

1.3.1 Camden City Council Stakeholder Engagement

Table 2: Camden City Council Consultation

Identified Party to Consult:	Camden City Council
Consultation type:	Meeting and email correspondence
When is consultation required?	Prior to commencement
Why	D13 – Operational Transport and Access Management Plan: Prior to the commencement of operation, an OTAMP is to be prepared by a suitably qualified person, in consultation with Council, Transport for NSW and TfNSW (RMS).
When was consultation scheduled/held	1 September 2020 27 November 2020 1 December 2020 2 December 2020
When was consultation held	1 September 2020 27 November 2020 1 December 2020 2 December 2020

Identify persons and positions who were involved	Traffic Consultant – Ason Group: Dora Choi, Wendy Zheng, Thomas Lehmann Camden City Council – Roy El-Kazzi, Traffic Engineer; Tom Allen, Team Leader: Traffic and Road Safety
Provide the details of the consultation	1 September 2020: Ongoing discussions held regarding the signage and linemarking plan. 27 November 2020: A meeting was organised for the 1 st December to discuss the signage and linemarking plan for the School. 1 December 2020: A meeting was held between Ason Group, Council, and TfNSW to discuss the signage and linemarking plan and the restrictions on the bus stop. Ason Group issued the updated signage and linemarking plan to Council for review at the Local Traffic Committee 2 December 2020: A consultation letter was issued to Council detailing that Interline Buses had provided notices to residences bus stops regarding the proposed new bus route.
What specific matters were discussed?	Discussion: - 1 December 2020: A meeting was held between Ason Group, Council, and TfNSW to discuss the signage and linemarking plan and the restrictions on the bus stop. A consultation letter was issued to Council detailing that Interline Buses had provided notices to residences bus stops regarding the proposed new bus route.
What matters were resolved?	1 December 2020: On-going discussions and community consultation are being held with TfNSW, Council, Interline Buses, and Ason Group regarding the bus stops closest to the School.
What matters are unresolved?	1 December 2020: On-going discussions and community consultation are being held with TfNSW, Council, Interline Buses, and Ason Group regarding the bus stops closest to the School.
Any remaining points of disagreement?	Council wishes to restrict the timings of the bus stops. Ason Group, TfNSW, and Interline Buses object.
How will SINSW address matters not resolved?	This matter is being addressed presently and will be resolved as part of the SSD process.

1.3.2 TfNSW Stakeholder Engagement

Table 3: TfNSW Consultation

Identified Party to Consult:	Transport for NSW
Consultation type:	Email correspondence
When is consultation required?	Prior to commencement
Why	D13 – Operational Transport and Access Management Plan: Prior to the commencement of operation, an OTAMP is to be prepared by a suitably qualified person, in consultation with Council, Transport for NSW and TfNSW (RMS).
When was consultation scheduled/held	19 August 2020 24 August 2020

	27 November 2020 1 December 2020
When was consultation held	19 August 2020 24 August 2020 27 November 2020 1 December 2020
Identify persons and positions who were involved	Traffic Consultant – Ason Group, TfNSW – John Broady Planner, and Mario Dizon Network and Safety Officer
Provide the details of the consultation	19 August 2020: Initial advice was requested by Ason Group regarding the status of bus routes within the local area. TfNSW provided advice regarding the amendments to bus route 850. 24 August 2020: Advice was requested regarding the proposed bus stop locations for the School. TfNSW raised no objections. 27 November 2020: Discussions were held regarding the potential restrictions of the bus stops within vicinity of the school. 1 December 2020: Discussions were held between Council, TfNSW, Ason Group, and Interline Buses regarding potential restrictions to the bus stops located north of the intersection of O’Keefe Drive and Banfield Drive.
What specific matters were discussed?	Discussion: - 19 August 2020: Initial advice was requested by Ason Group regarding the status of bus routes within the local area. TfNSW provided advice regarding the amendments to bus route 850. - 24 August 2020: Advice was requested regarding the proposed bus stop locations for the School. TfNSW raised no objections to the proposed locations north of the intersection of Banfield Drive and O’Keefe Drive. - 27 November 2020: Discussions were held regarding the potential restrictions of the bus stops within vicinity of the school. TfNSW objected to these changes. - 1 December 2020: Discussions were held between Council, TfNSW, Ason Group, and Interline Buses regarding potential restrictions to the bus stops located north of the intersection of O’Keefe Drive and Banfield Drive.
What matters were resolved?	1 December 2020: On-going discussions and community consultation are being held with TfNSW, Council, Interline Buses, and Ason Group regarding the bus stops closest to the School.
What matters are unresolved?	1 December 2020: On-going discussions and community consultation are being held with TfNSW, Council, Interline Buses, and Ason Group regarding the bus stops closest to the School.
Any remaining points of disagreement?	Council wishes to restrict the timings of the bus stops. Ason Group, TfNSW, and Interline Buses object.
How will SINSW address matters not resolved?	This matter is being addressed presently and will be resolved as part of the SSD process.

1.3.3 Busabout Stakeholder Engagement

Table 4: Busabout Consultation

Identified Party to Consult:	Busabout
Consultation type:	Email correspondence and phone conversation
When is consultation required?	Prior to commencement
Why	D13 – Operational Transport and Access Management Plan: Prior to the commencement of operation, an OTAMP is to be prepared by a suitably qualified person, in consultation with Council, Transport for NSW and TfNSW (RMS).
When was consultation scheduled/held	17 August 2020 15 September 2020
When was consultation held	17 August 2020 15 September 2020
Identify persons and positions who were involved	Traffic Consultant – Ason Group, Dora Choi, Wendy Zheng, Thomas Lehmann Busabout – Robert Yinakis, Scheduler.
Provide the details of the consultation	17 August 2020: Ason Group liaised with Busabout to discuss existing travel routes and any potential adjustments within the local road network. 15 September 2020: Ason Group was informed by with Busabout that a key route was managed by Interline instead.
What specific matters were discussed?	Discussion: - 17 August 2020: Ason Group liaised with Busabout to discuss existing travel routes and any potential adjustments within the local road network. - 15 September 2020: Ason Group was informed by with Busabout that a key route was managed by Interline instead.
What matters were resolved?	17 August 2020: Discussion was held regarding bus route 896 and Ason Group was informed that this route had no plans to be amended. 15 September 2020: It was established that bus route 850 would service the future school. This route is run by Interline.
What matters are unresolved?	No
Any remaining points of disagreement?	No
How will SINSW address matters not resolved?	All matters have been addressed as part of the SSD process.

1.3.4 Interline Buses Stakeholder Engagement

Table 5: Interline Buses Consultation

Identified Party to Consult:	Interline Buses
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Consultation type:	Email correspondence
When is consultation required?	Prior to commencement
Why	D13 – Operational Transport and Access Management Plan: Prior to the commencement of operation, an OTAMP is to be prepared by a suitably qualified person, in consultation with Council, Transport for NSW and TfNSW (RMS).
When was consultation scheduled/held	28 October 2020 27 November 2020 1 December 2020
When was consultation held	28 October 2020 27 November 2020 1 December 2020
Identify persons and positions who were involved	Traffic Consultant – Ason Group; Dora Choi, Wendy Zheng, Thomas Lehmann Interline Buses – Michael Pruss
Provide the details of the consultation	28 October 2020: Ason Group liaised with Interline Buses regarding the signage of a bus stop on O’Keefe Drive 27 November 2020: Discussions were held regarding the potential restrictions of the bus stops within vicinity of the school. 1 December 2020: Discussions were held regarding the amendments to bus route 850.
What specific matters were discussed?	Discussion: - 28 October 2020: Ason Group liaised with Interline Buses regarding the signage of a bus stop on O’Keefe Drive. - 27 November 2020: Discussions were held regarding the potential restrictions of the bus stops within vicinity of the school. - 1 December 2020: Discussions were held regarding the amendments to bus route 850 and potential bus stop restrictions.
What matters were resolved?	1 December 2020: On-going discussions and community consultation are being held with TfNSW, Council, Interline Buses, and Ason Group regarding the bus stops closest to the School.
What matters are unresolved?	1 December 2020: On-going discussions and community consultation are being held with TfNSW, Council, Interline Buses, and Ason Group regarding the bus stops closest to the School.
Any remaining points of disagreement?	Council wishes to restrict the timings of the bus stops. Ason Group, TfNSW, and Interline Buses object.
How will SINSW address matters not resolved?	This matter is being addressed presently and will be resolved as part of the SSD process.

1.3.5 Department of Education Stakeholder Engagement

Table 6: Department of Education Consultation

Identified Party to Consult:	Department of Education
Consultation type:	Video conference and email correspondence
When is consultation required?	Prior to commencement
Why	D12 – Green Travel Plan b) Include objectives and mode share targets...to define the direction and purpose of the GTP D13 – Operational Transport and Access Management Plan: Prior to the commencement of operation, an OTAMP is to be prepared by a suitably qualified person, in consultation with Council, Transport for NSW and TfNSW (RMS).
When was consultation scheduled/held	27 September 2020 24 November 2020
When was consultation held	23 September 2020 24 November 2020
Identify persons and positions who were involved	Traffic Consultant – Ason Group, Dora Choi, Wendy Zheng, Thomas Lehmann Estella Road Public School – Chad Lindsay, School Principal,
Provide the details of the consultation	23 September 2020: Ason Group liaised with the School Principal to discuss travel initiatives and travel mode targets. 24 November 2020: Ason Group requested advice from the School Principal regarding the draft GTP and OTAMP.
What specific matters were discussed?	Discussion: - 11 September 2020: Ason Group liaised with the School Principal to discuss travel initiatives and travel mode targets to inform the Green Travel Plan. - 24 November 2020: Ason Group requested advice from the School Principal regarding the draft GTP and OTAMP.
What matters were resolved?	23 September 2020: Information was provided by the School Principal which assisted with the development of the Green Travel Plan. 24 November 2020: Ason Group received comments from the School Principal which were accommodated in the following update of both the OTAMP and GTP.
What matters are unresolved?	No
Any remaining points of disagreement?	No
How will SINSW address matters not resolved?	All matters have been addressed as part of the SSD process.

1.4 Condition Satisfaction Tables

In response to Condition D12 of Development Consent SSD-9477 (issued by Minister for Planning and Public Spaces 17 June 2020), the following Table 7 provide details of the condition and the correlating response cross reference demonstrating compliance with the condition.

Table 7: Conditions of Consent

Condition No.	Condition	Response
D12	Prior to the commencement of operation, an OTAMP is to be prepared by a suitably qualified person, in consultation with Council, TfNSW, and submitted to the Planning Secretary. The OTAMP must address the following:	Report prepared by: - D. Choi - T. Lehmann -W. Zheng Refer to Appendix D for CV of authors of the report
D12(a)	detailed pedestrian analysis including the identification of safe route options – to identify the need for management measures such as staggered school start and finish times to ensure students and staff are able to access and leave the Site in a safe and efficient manner during school start and finish;	Refer to section 3.2 of the report for details
D12(b)	the location of all car parking spaces on the school campuses and their allocation (i.e. staff, visitor, accessible, emergency, etc.);	Refer to section 2.2 of the report for details
D12(c)	the location and operational management procedures of the pick-up and drop-off parking, including staff management/traffic controller arrangements;	Refer to section 3.3.1 of the report for details
D12(d)	the location and operational management procedures for the pick-up and drop-off of students by buses and coaches for excursions and sporting activities, including staff management/traffic controller arrangements;	Refer to section 3.3.1 of the report for details
D12(e)	delivery and services vehicle and bus access and management arrangements;	Refer to section 3.3.4 of the report for details
D12(f)	management of approved access arrangements;	Refer to section 3.3 of the report for details
D12(g)	potential traffic impacts on surrounding road networks and mitigation measures to minimise impacts;	Refer to section 3.3 of the report for details
D12(h)	car parking arrangements and management associated with the proposed use of school facilities by community members; and	Refer to section 3.3.2 of the report for details
D12(i)	a monitoring and review program.	Refer to section 4 of the report for details

1.5 Reference Documents

In preparing this Plan, Ason Group has made reference the following key planning documents:

- Transport for NSW (TfNSW), *Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area*, December 2013
- TfNSW, *Future Transport Strategy 2056*, March 2018
- TfNSW, *Sydney Walking Future*, December 2013
- TfNSW, *Sydney's Cycling Future*, December 2013
- TfNSW, *Sydney's Bus Future*, December 2013
- NSW Government, *Planning Guidelines for Walking and Cycling*
- Cycle Planning Consulting Services, *Camden Council Bicycle Plan*, March 1996
- Ason Group, *Transport Impact Assessment; New Catherine Field Primary School*, November 2019
- NSW Department of Education, *Master planning guidelines for schools*, October 2020
- NSW Department of Education, *SINSW Community of Practice Architects + Transport Planners*, 29th October 2020

2 Site Details

2.1 Site Location

The Site is legally referenced as Lot 1001 in DP1234527, with a street address of O'Keefe Drive, Oran Park. It lies within the Catherine Field (Part) Precinct (CFPP) and is currently bordered by O'Keefe Drive to the west; local roads will form the eastern and southern borders of the site, while sporting fields and a cycle path will border the site to the north, as identified below in **Figure 1**.

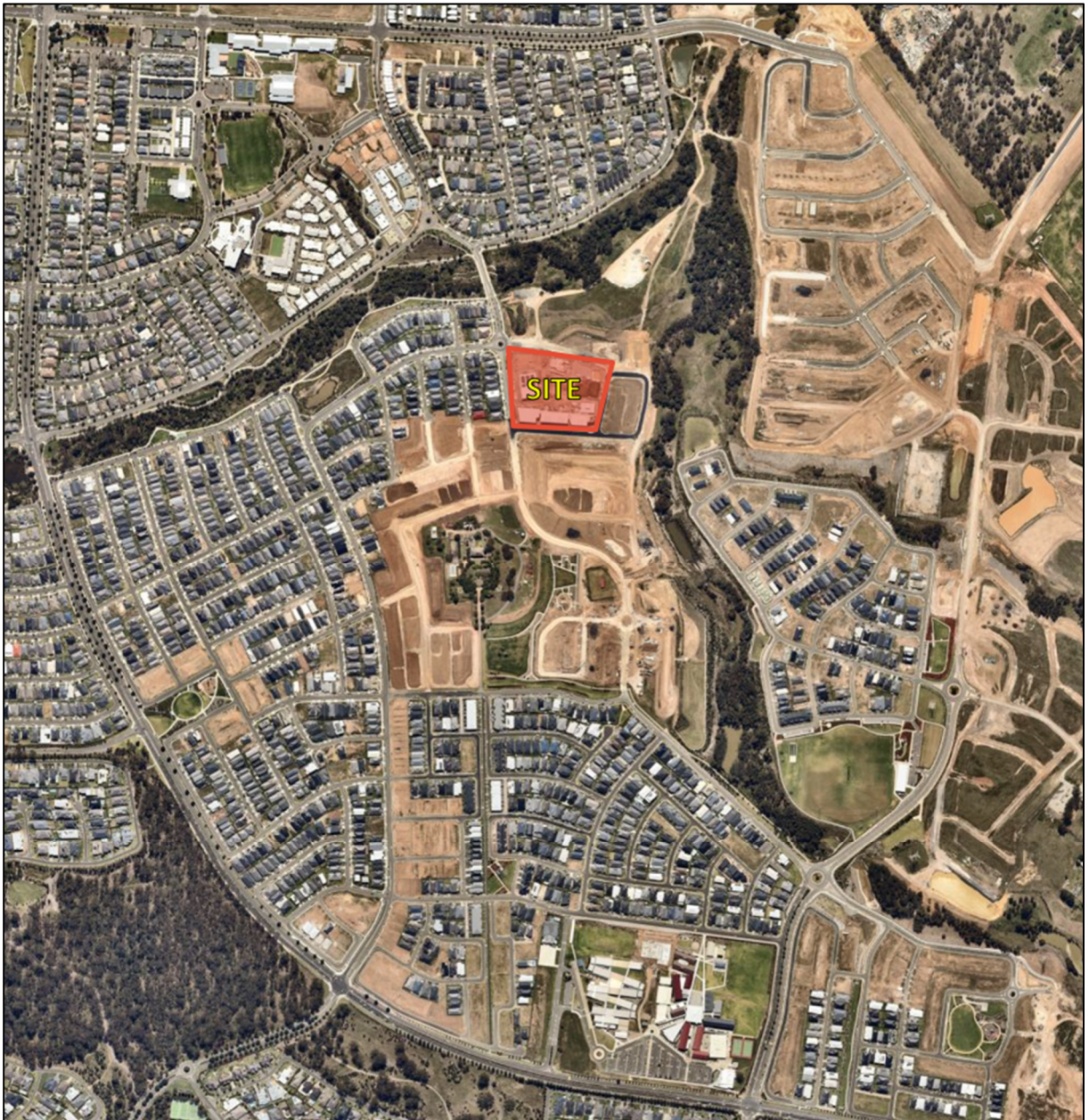


Figure 1: Site Location

2.2 Site Transport Amenities

As it relates to the travel planning, the School and immediate surroundings of the School Site includes:

- 68 on-site staff car parking spaces,
- On-street drop-off / pick-up areas along the new Northern Road, O'Keefe Drive, and Southern Road,
- 60 bicycle parking rails within School grounds,
- Pedestrian / Bicycle shared path along the northern boundary of the school,
- Constructed concrete footpath along Northern Road, O'Keefe Drive, Southern Road and Eastern Road frontages of the School, and
- Proposed pedestrian crossings and children's crossings at the intersections of O'Keefe Drive / Banfield Drive / Northern Road, and O'Keefe Drive / Southern Road, currently subject to consultation with Camden Council and Transport for NSW.

These key amenities are detailed in **Figure 2**.

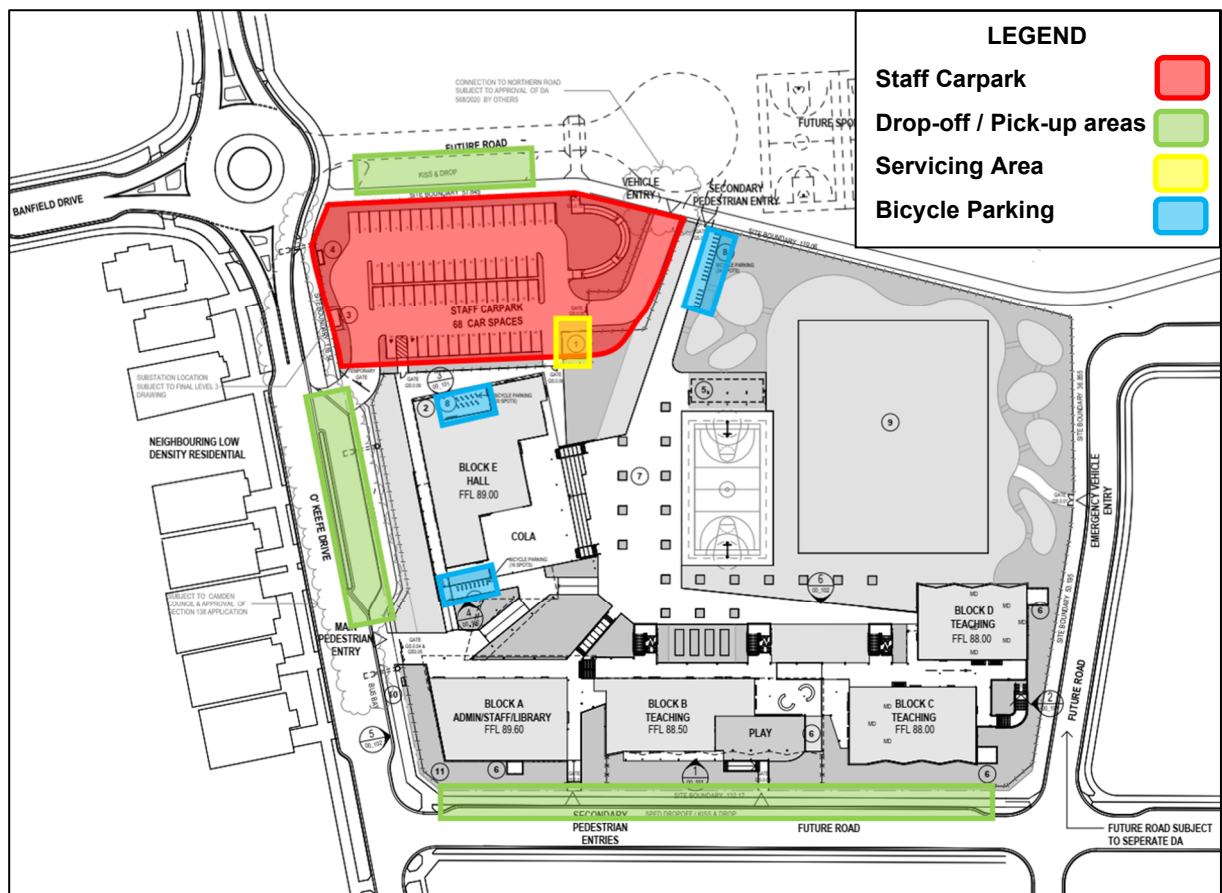


Figure 2: Site Amenities

To assist with the operation of the pedestrian facilities and the drop-off / pick-up areas, Ason Group has prepared a Signage and Line Marking Plan to assist with access to the Site as well as manage the drop-off / pick-up facilities. This is detailed in **Figure 3** and has also been attached in **Appendix A** for further information.

This Signage and Line Marking Plan details the traffic management arrangements within O'Keefe Drive along the School's frontage and the roundabout intersection of O'Keefe Drive and Banfield Drive, in particular: parking restrictions relating to the drop-off / pick-up facilities; bus stop; pedestrian crossings; and school zone signage. The proposed bus stop is subject to consultation with the adjoining property owners as requested by Camden Council.

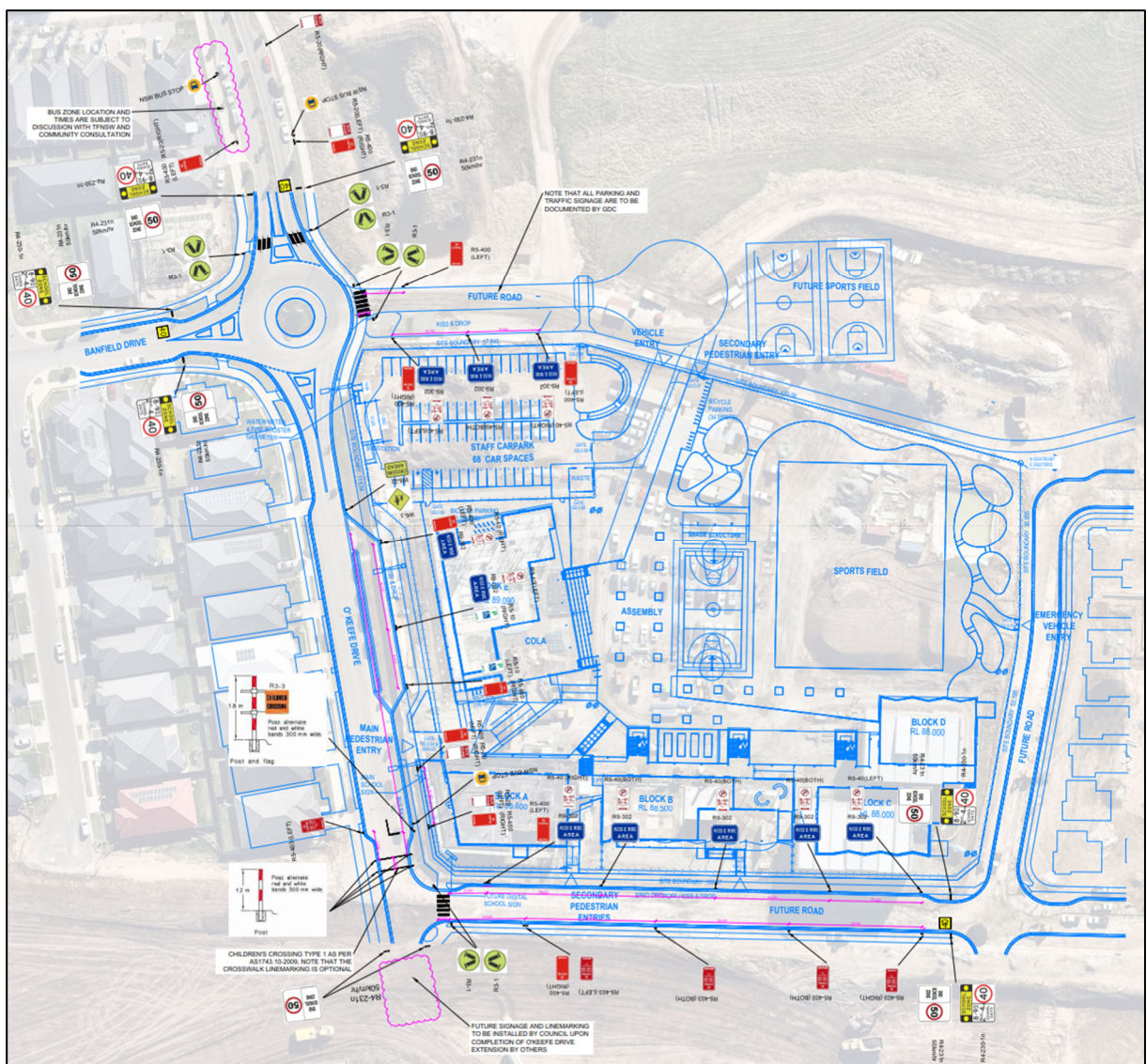


Figure 3: Signage and Line Marking Plan

2.3 Student Catchment

Ason Group has undertaken an analysis of de-personalised data provided by the Department of Education in August 2020 for enrolments anticipated at Catherine Field Public School for its commencement in Term 1 2021. The following figures detail the key catchments, namely student, walking, cycling, and public transport.

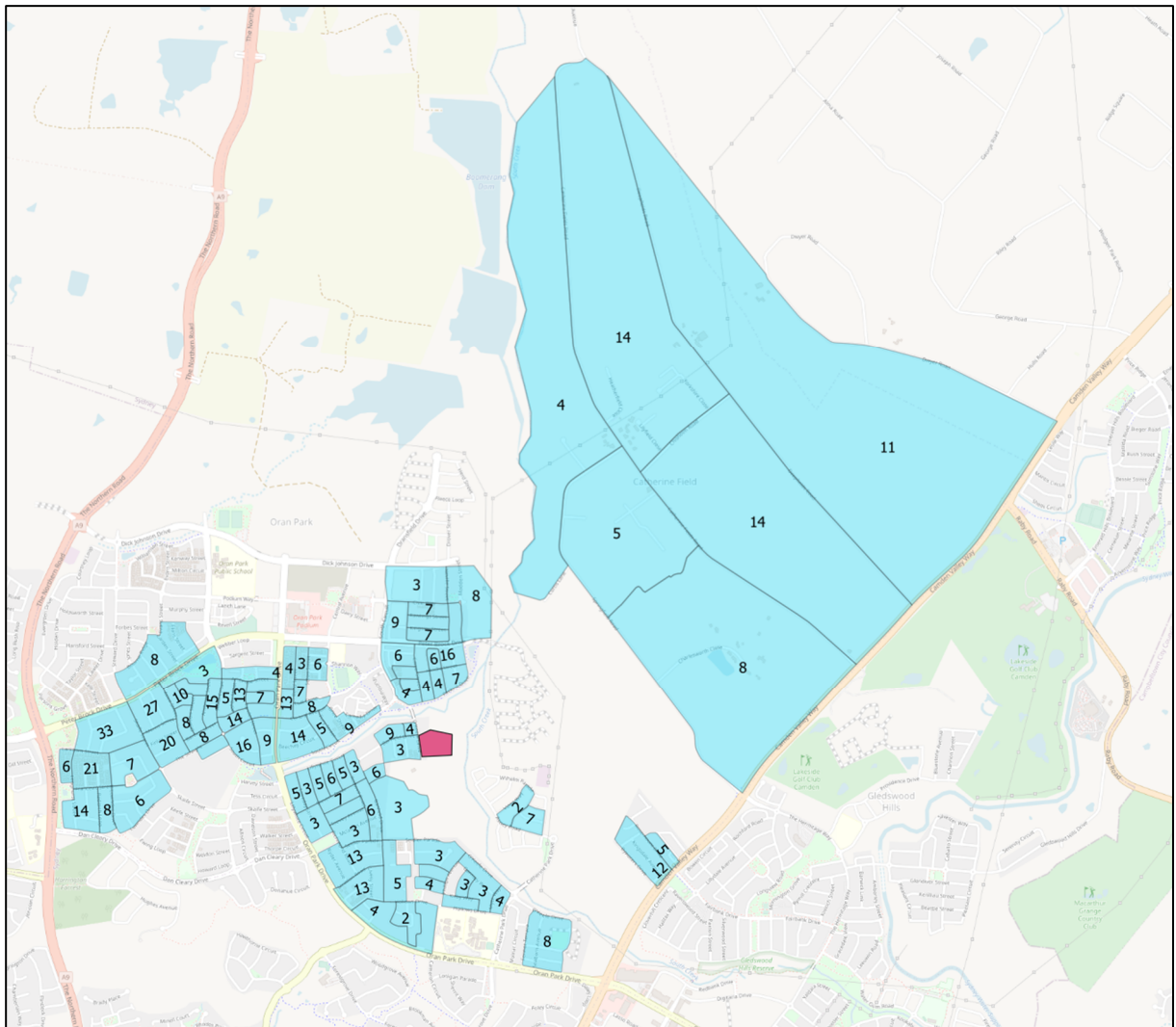


Figure 4: Student Disitribution

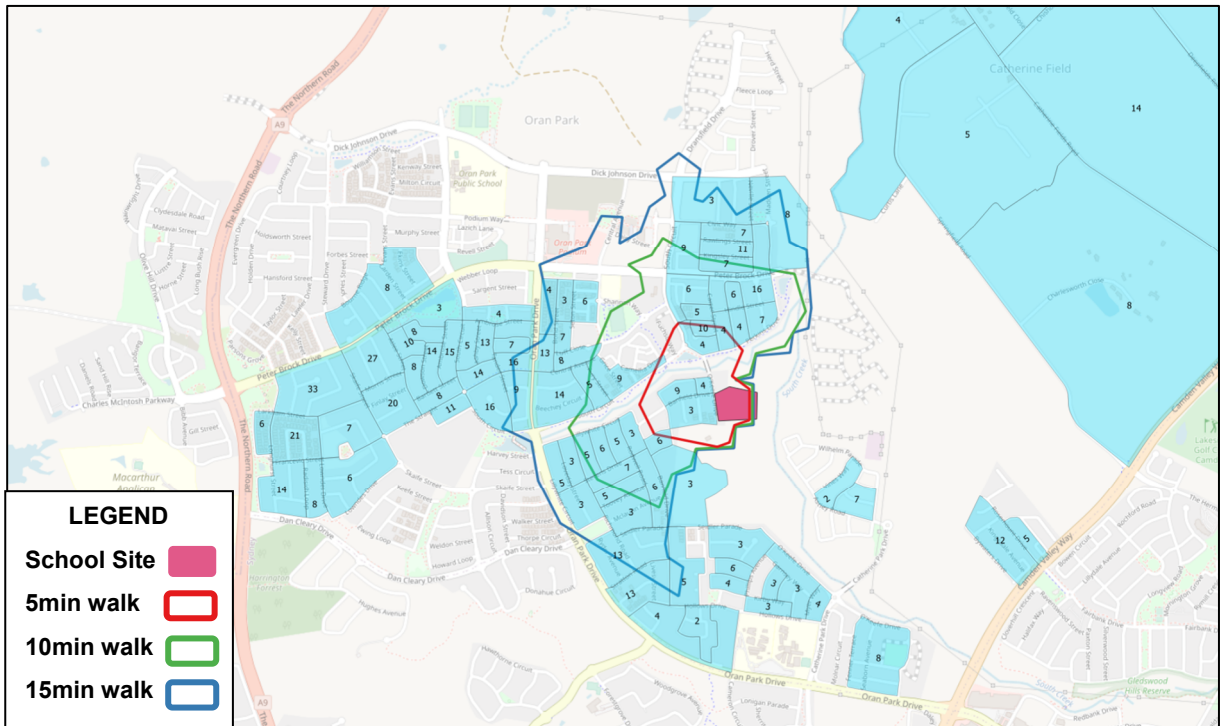


Figure 5: Walking Catchment

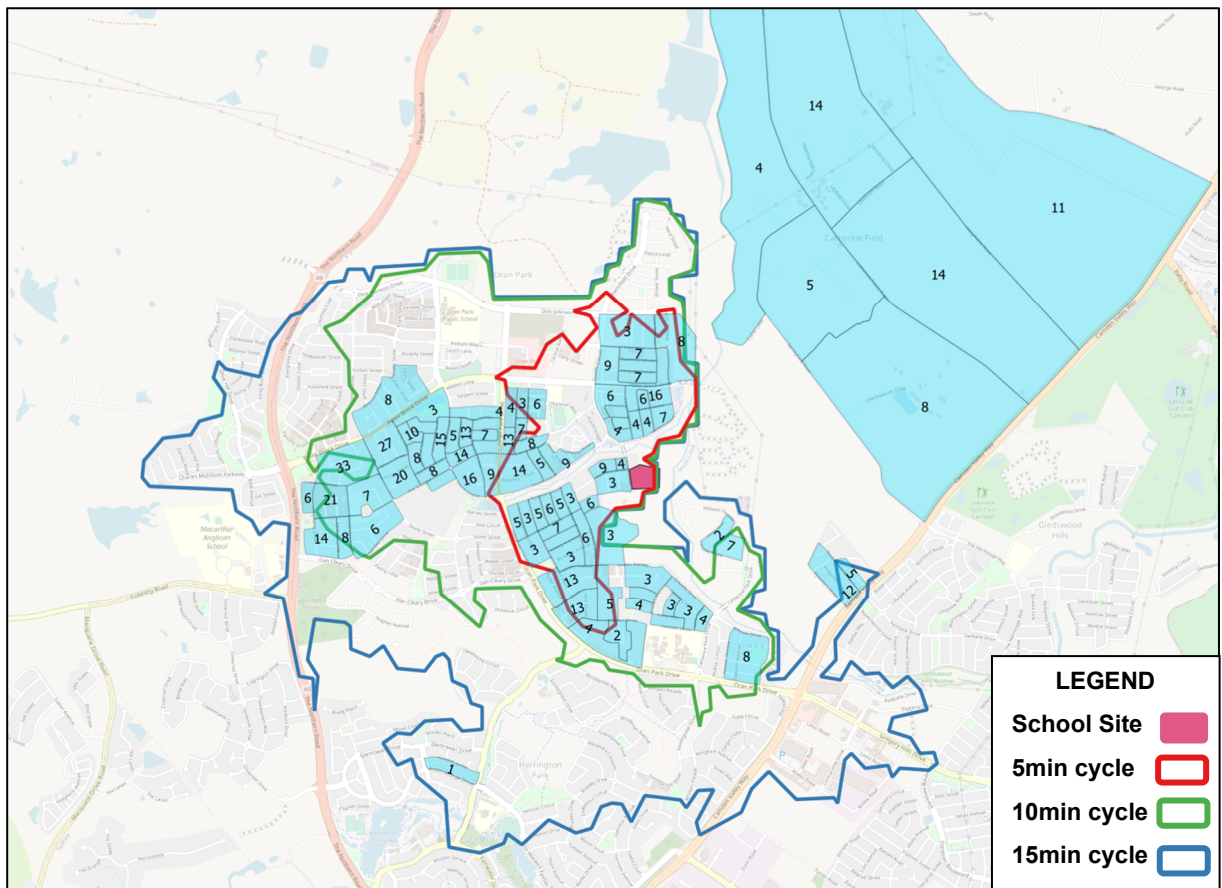


Figure 6: Cycling Catchment

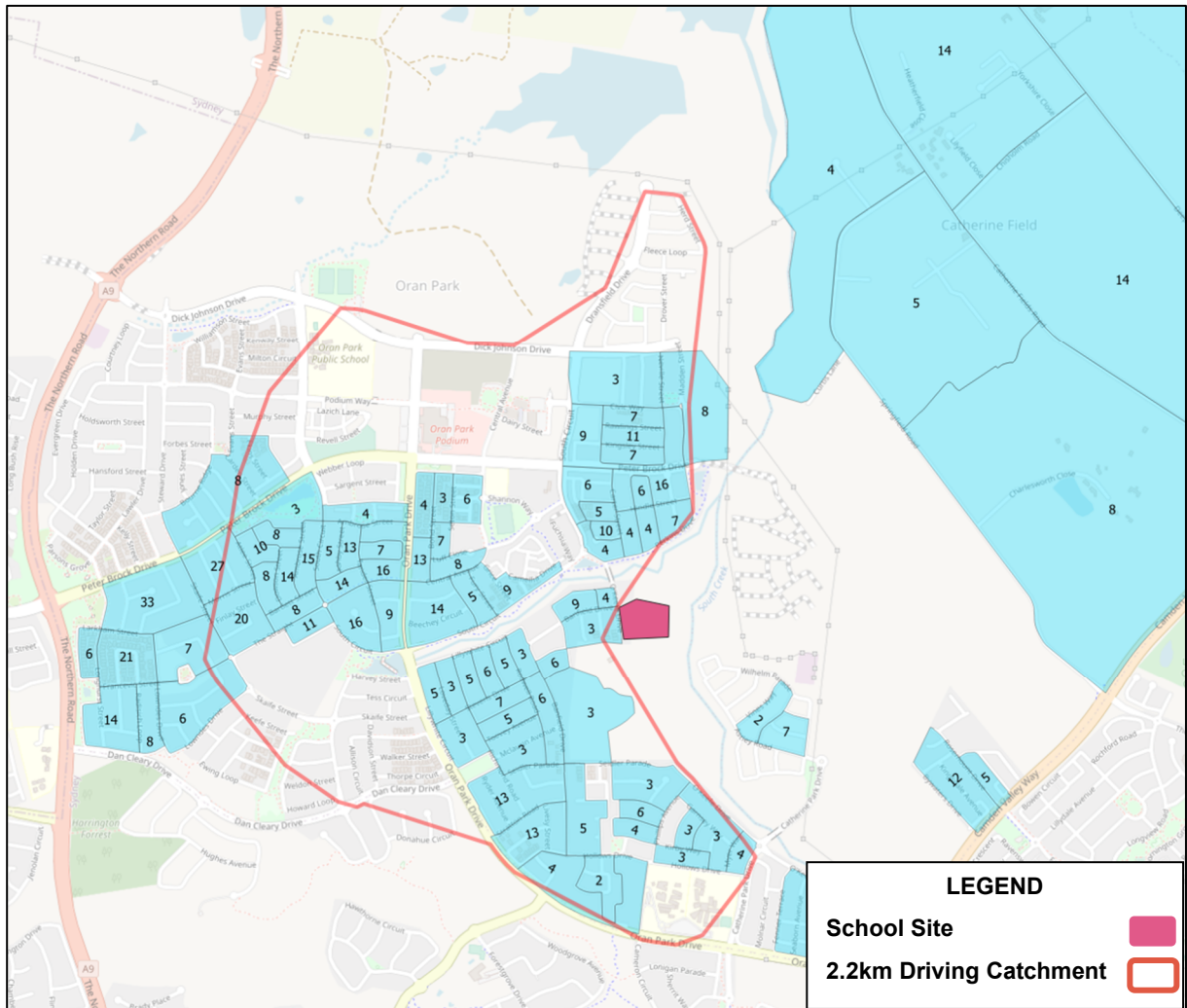


Figure 7: 2.2km Driving Catchment

With reference to the above figures, the following details the student locations in proximity to the School:

- 3% of students live within 400m radius from the school
- 15% of students live within 800m radius from the school
- 30% of students live within 1200m radius from the school.
- 43% of students live within 1600m radius from the school.
- 65% of students live within 2.2km driving distance from the school.

A more detailed breakdown for the 5-minute, 10-minute, and 15-minute walking and cycling distances is presented in **Table 8**.

Table 8: Cycling and Walking Catchment

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Catchment	Travel Mode	
	Walking	Cycling
5-Minute	3%	32%
10-Minute	17%	74%
15-Minute	37%	82%

With consideration for the above walking and cycling catchments, and the average mode share patterns of schools in the Sydney Metropolitan Area, Ason Group has ranked the likelihood of students utilising specific transport modes based on age and distance from the school. This is detailed in **Table 9** and **Table 10**.

Table 9: Mode Use by Age and Distance: Kindergarten to Year 3

Catchment	Travel Mode			
	Walking	Bus	Car	Bicycle
Within 400m	High	Low	Moderate	Low
401m – 800m	Moderate	Low	Moderate	Low
801m – 1200m	Low	Low	High	Low
1201m – 1600m	Low	Low	High	Low
1601m +	Low	Low	High	Low

Table 10: Mode Use by Age and Distance: Year 4 to Year 6

Catchment	Travel Mode			
	Walking	Bus	Car	Bicycle
Within 400m	High	Moderate	Low	Moderate
401m – 800m	High	Moderate	Low	Moderate
801m – 1200m	Moderate	High	Low	High
1201m – 1600m	Low	High	Moderate	High
1601m +	Low	Moderate	Moderate	High

With the above breakdown of the likely transport modes to be adopted by students, a mode share target for 2021 has been developed. This is detailed in **Table 11**.

Table 11: 2021 Mode Share Targets

Travel Mode	Percentage
Walking	15%
Bus	10%
Bicycle	10%
Vehicle Passenger	65%

However, following the implementation of the action plan and the communication strategies, the above mode share would likely change. Nonetheless, these mode share targets have informed the development of infrastructure within the local road network. This is discussed further in Section 2.5.

2.4 Surrounding Public Transport Services

2.4.1 Fixed Rail Services

The Site is located some 8km south of Leppington Station, and 9km north-west of Campbelltown Station. Access to Leppington Station will be provided by buses running along the future Rickard Road Transit Boulevard, while buses running along both O’Keefe Drive and Oran Park Road are expected to provide access to Campbelltown Station, likely via the new Gregory Hills Drive connection.

As a local public school, the use of rail services by students is not anticipated, however, families that take their children to the School may in the future wish to link their trips from place of residence to the school and Railway Station.

Given distance to nearby railway stations, it is expected that any staff / families using rail services would also require the use of bus or other modes as part of a multi-modal trip.

2.4.2 Bus Services – Regional

Having regard to the standard bus travel, the *Integrated Public Transport Service Planning Guidelines* state that bus services influence the travel mode choices of sites within 400 metres (approximately 5 minutes walking distance for adults) of a bus stop.

As discussed above, Rickard Road will be developed as a Transit Boulevard to provide a key link through the SWGC between Oran Park and Leppington Station. Dickson Road will also provide bus connections between Oran Park and Leppington in 2036, while Oran Park Drive and Gregory Hills Drive have also been designated as Transit Boulevards. In addition, the SWSBS Strategy provides for regional services along Camden Valley Way and Oran Park Drive around the precinct.

More broadly, the SWSBS Strategy's long-term 7 regional, 6 district and 3 peak hour only bus routes forming a network linking the CFPP with regional centres including Liverpool, Campbelltown, Parramatta and Leppington). The SWSBS Strategy's bus network plan is shown in **Figure 8**.

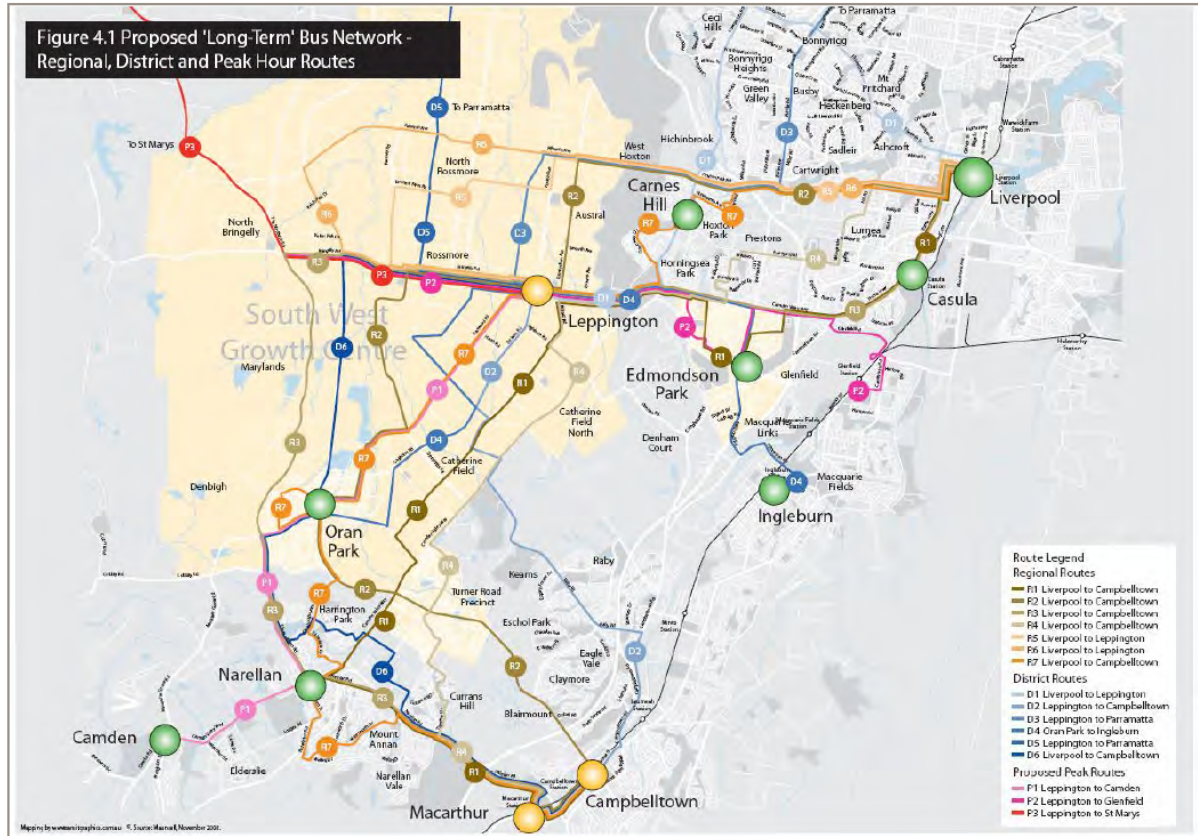


Figure 8: Regional Bus Services

2.4.3 Bus Services - Local

The CFPP bus network includes the regional routes as detailed above, as well as district and local to provide maximum coverage across the CFPP, in turn maximising public transport access and travel choice. While the district services will also primarily operate along arterial roads and the Transit Boulevards, local routes will operate along the collector road network (where minimum 3.5m travel lanes are available), focusing on the Oran Park Town Centre.

The coverage achieved by the proposed regional, district and local routes provides immediate (i.e. within 400m) access to all local centres, schools, medium density housing and some 90% of the remaining CFPP.

These routes are shown in **Figure 9**.

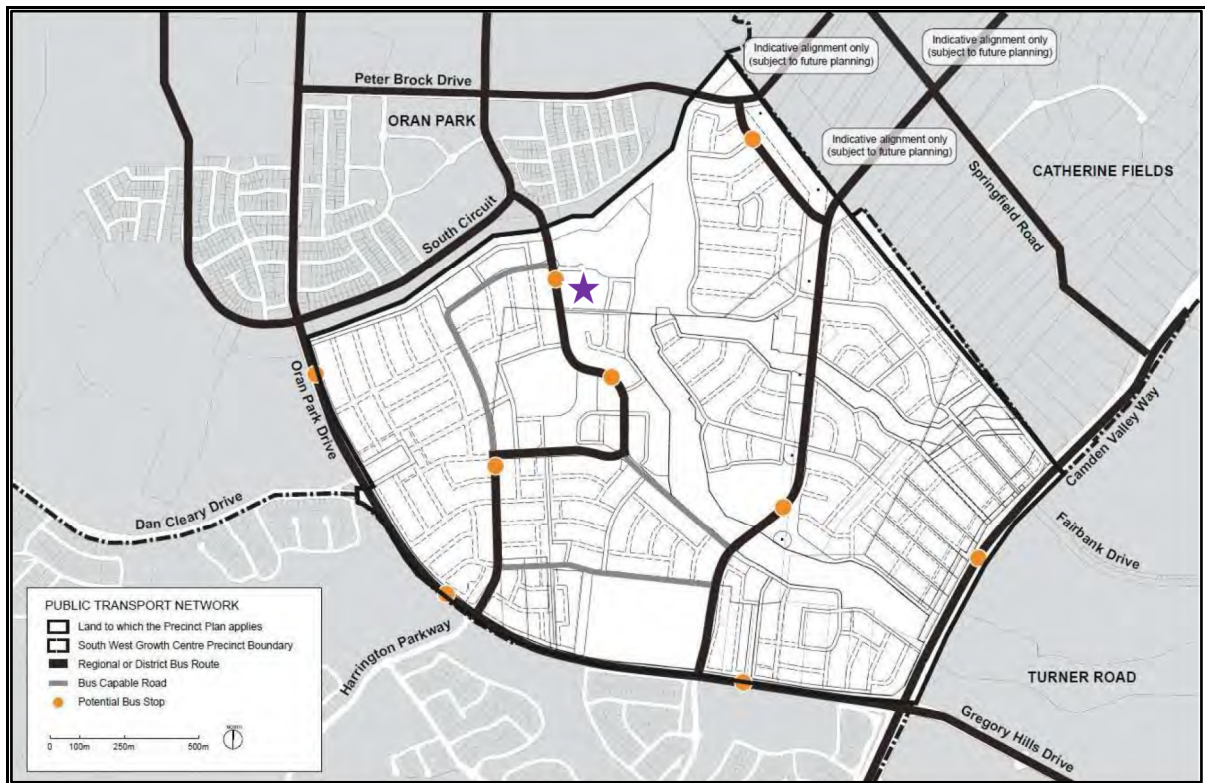


Figure 9: District and Local Bus Services

Further to the above, Ason Group has undertaken consultation with TfNSW and local bus operator Busabout who have undertaken a review of the existing and future road network and have planned for amendments to the route of bus service 850 to provide a beneficial route for students attending the School. TfNSW provided figures detailing the existing, interim (following opening of the School), and ultimate (following completion of the road network) route for bus service 850. These are detailed below respectively.

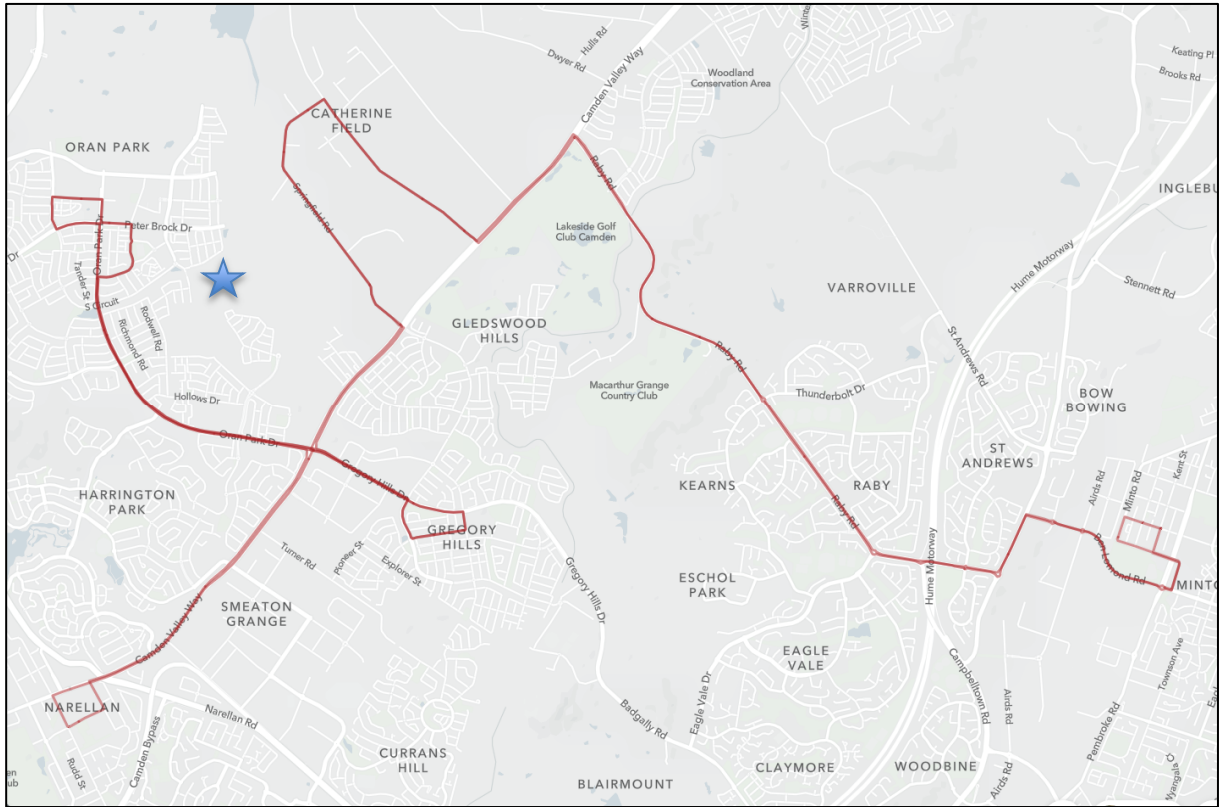


Figure 10: Bus Service 850 – Existing Route

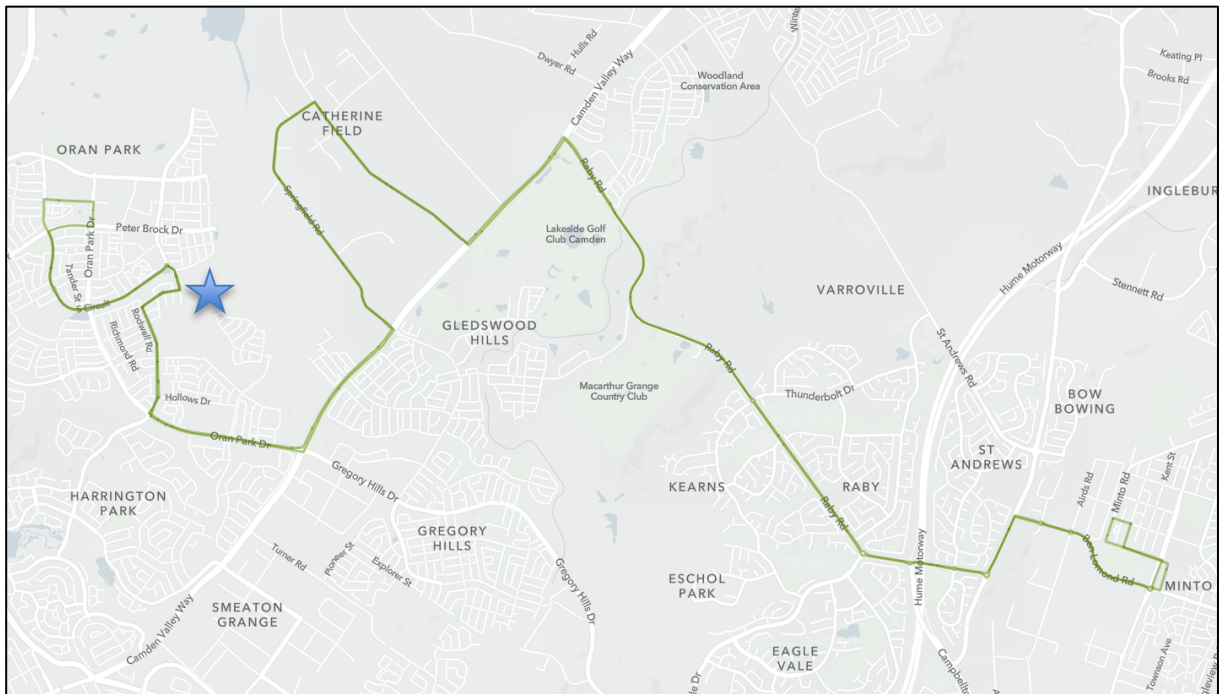


Figure 11: Bus Service 850 – Interim Route (Operational Day 1, Term 1)

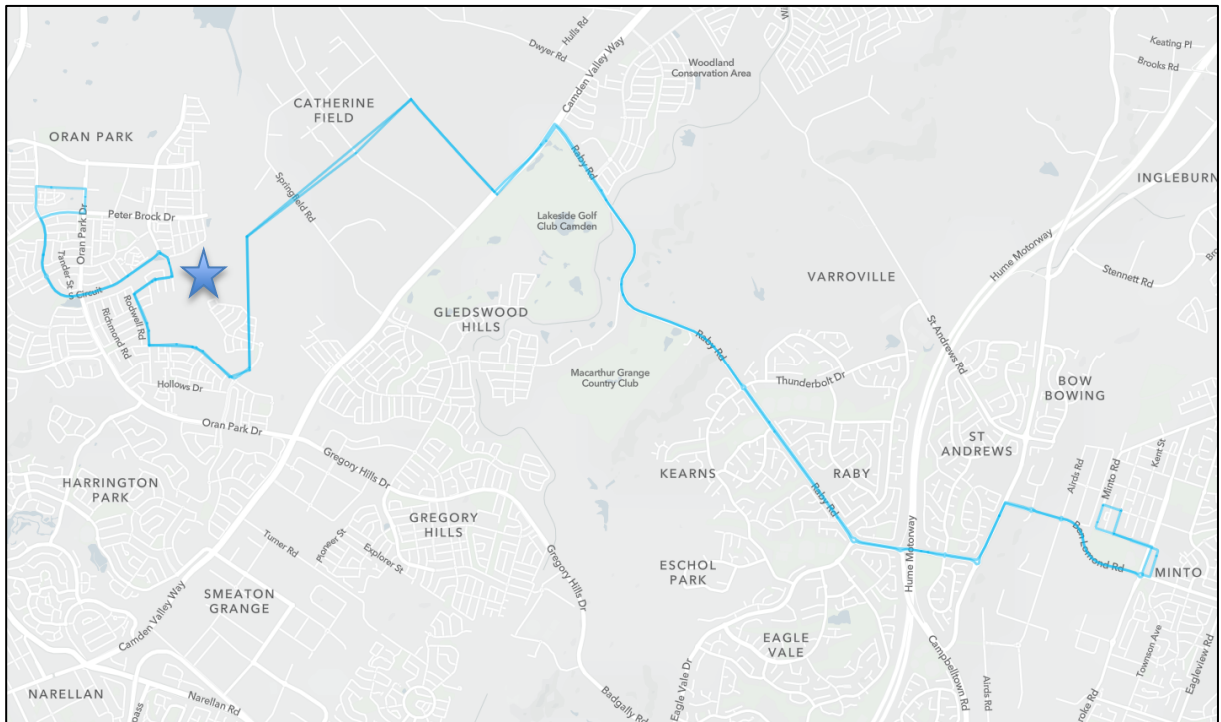


Figure 12: Bus Service 850 – Ultimate Route

2.4.4 School Bus

While there is an expectation that the local and district bus services will provide the coverage and capacity required to accommodate student travel to and from the School, dedicated school bus services could be introduced should demand exceed public bus capacity. However, in general students would be encouraged to travel on scheduled public transport routes.

O'Keefe Drive has been designated as a bus route corridor and as such has been / will be designed in accordance with the appropriate bus standards, including the provision of minimum 3.5m travel lanes and indented bus bays in the vicinity of the Site.

2.4.5 Bus stops

Bus stops are expected to be provided along all bus routes, on the basis that maximises the properties / catchment located within 400 metres of the bus stop. Following consultation with TfNSW and Busabout, Ason Group prepared a signage and line marking plan (Appendix A) of the location of the nearest bus stops along O'Keefe Drive, to the north of the intersection of Banfield Drive and O'Keefe Drive, and in the process of seeking Camden Council, TfNSW support prior to the plans being referred to the Camden Local Traffic Committee for approvals. The proposed location is detailed in Figure 13.



Figure 13: Bus Stop Location

Upon our most recent consultation with Council undertaken on 12 November 2020, further direct consultation with residents impacted by the proposed bus stops are currently being undertaken.

2.5 Active Transport Connectivity

2.5.1 Pedestrian Accessibility

To facilitate pedestrian access from the surrounding road network and drop-off / pick-up facilities pedestrian access points are provided at key location. These are detailed in **Figure 14**.

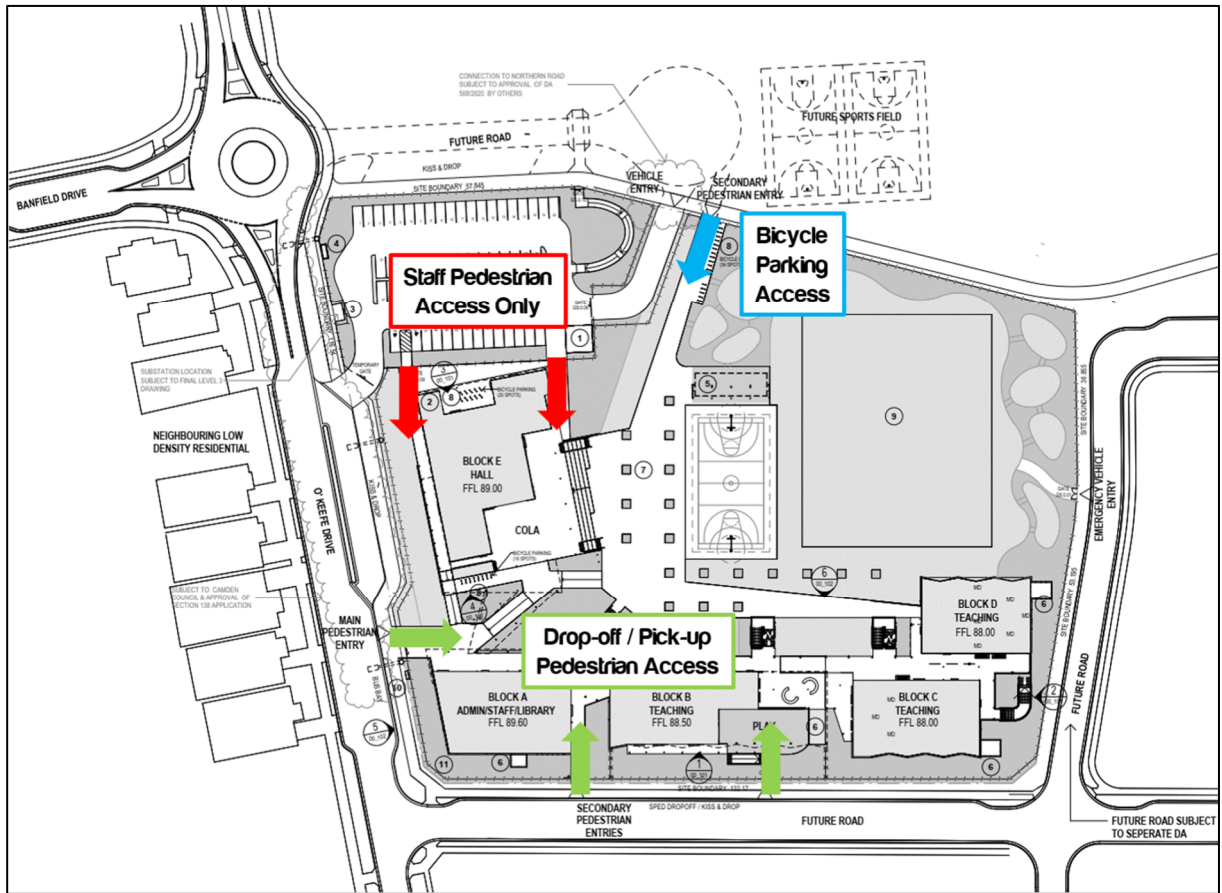


Figure 14: Pedestrian Access Points

With consideration for the student catchment and proposed mode share targets, extensive pedestrian and cycling facilities have been provided and proposed within the local road network. These facilities are detailed in **Figure 15** with consideration for the walking catchment. The pedestrian network provides a footpath on all roads on at least one side of the road.

Footpaths are constructed (and being completed) on all site frontages of the school site, providing connections to the broader areas within Oran Park.

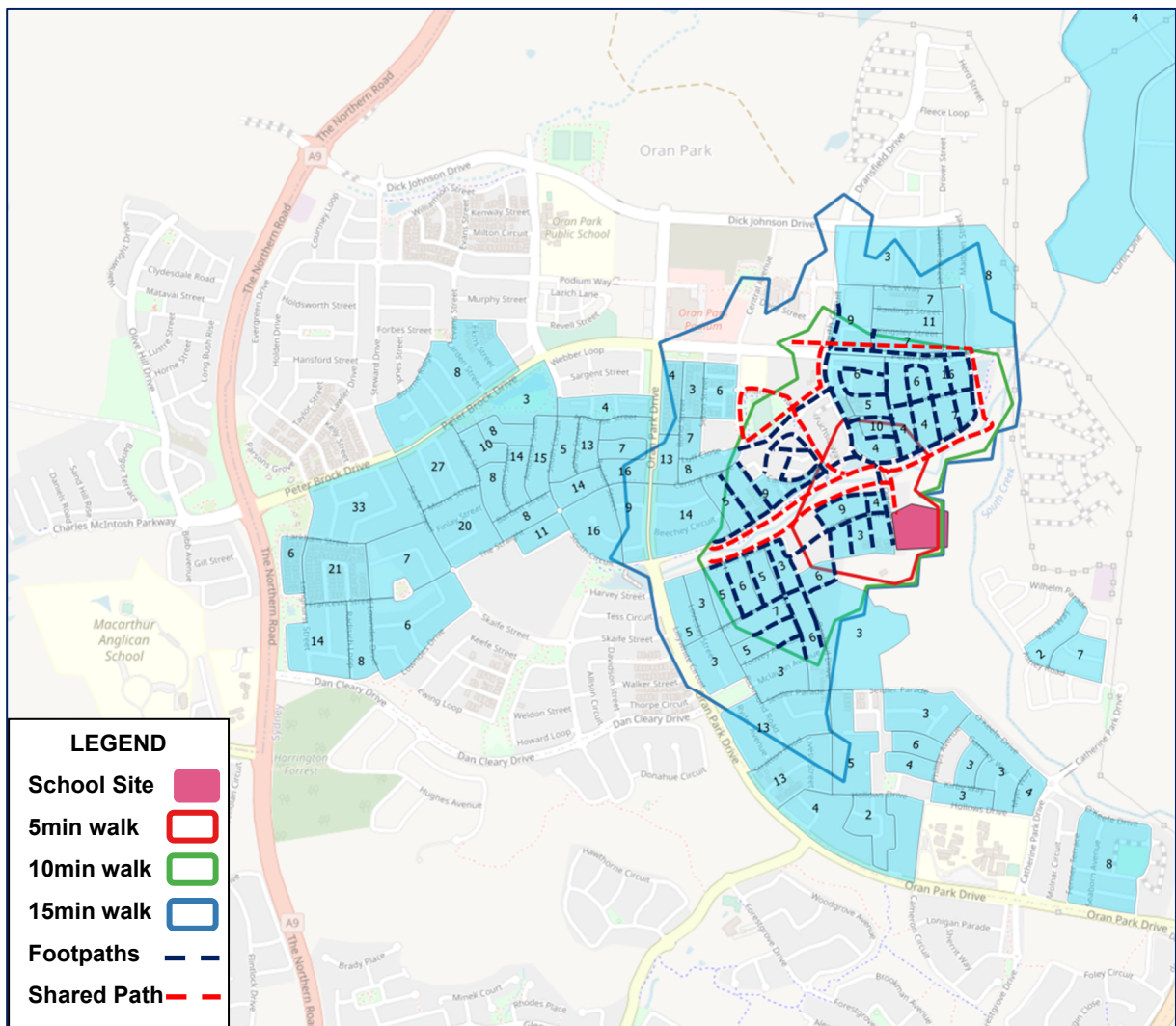


Figure 15: Local Pedestrian and Cycling Facilities

A number of pedestrian crossings / Children's Crossing (with potential for future Council upgrade to pedestrian crossing) have been designed and submitted to Camden Council for review and commentary, on the basis that the pedestrian crossings / Children's Crossing concerned can be assessed against the special warrants in the TfNSW Supplement to AS1742.10-2009: Manual of Uniform Traffic Control Devices (v3) to support the proposed pedestrian crossings.

Currently — with the school under construction and not operational until January 2021 — there are no pedestrian (zebra) crossings or Children's Crossing provided in the immediate area. If approvals can be secured from both TfNSW, Camden Council, and the Camden Local Traffic Committee, this infrastructure presents an opportunity to improve pedestrian connectivity for the local community and provide improved safety outcomes to families walking to / from the school. Following the final resolution of the location of the bus stops for the new interim 850 bus service, the type of pedestrian facilities is to be revised in consultation with key stakeholders.

Refer to **Appendix A** for the Signage and Line Marking Plan prepared by Ason Group for details of the proposed facilities that is subject to further refinement and consultation with key stakeholders.

2.5.2 Cycle Routes

Regional cycle routes are still under development. However, it is noted that a Shared Path is provided which is expected to link to the broader regional cycle network, including the cycleways within the riparian corridor to the north. These shared paths are provided along the riparian corridor to the north of the site between Oran Park Drive and Peter Brock Drive, along South Circuit, and Peter Brock Drive.

3 Operational Management Measures

3.1 Plan of Management

The School can and will coordinate pedestrian and vehicle on-site and within the local road network to meet operational requirements and ensure the safety of students with maintaining efficiency on-street. The following management measures are proposed.

3.1.1 Plan Maintenance

This Plan shall be subject to ongoing review and will be updated as necessary in response to changing requirements. It is recommended that the Plan be reviewed initially within 6 months of Day 1, Term 1, followed by a second review 6 months after the initial review. Beyond the initial two reviews, it is recommended that the Plan be reviewed yearly.

3.1.2 Key responsibilities of Management

Management shall:

- Ensure all staff are provided with sufficient training to undertake the required tasks. This includes responsibility for measures to ensure that all staff, parents/carers, visitors, and students are familiar with site specific rules through appropriate site induction procedures.
- Be familiar with and address their respective duty of care requirements in accordance with the applicable state Work Health and Safety legislation.
- Ensure WHS Incident logbooks are maintained and undertake necessary action(s) in relation to any reported issues.

3.1.3 Hours of Operations

The School would be accessible from 6:00AM – 6:30PM on weekdays with restricted access outside of these hours.

3.2 Pedestrian Access

As detailed in Section 2.5.1, there are a number of different pedestrian access points. Following liaising with the School Principal, it is understood that the pedestrian access points would be monitored by staff during the morning and afternoon peak periods.

With consideration for the Signage and Line Marking Plan attached in Appendix A, it is noted that pedestrian crossings are proposed at the following locations:

- Zebra crossing on the northern leg of the roundabout intersection of Banfield Drive and O'Keefe Drive across O'Keefe Drive.
- Zebra crossing on the eastern leg of the roundabout intersection of Banfield Drive and O'Keefe Drive across the future road.
- Children's Crossing Type 1 at the Zebra crossing on the northern leg of the roundabout intersection of O'Keefe Drive and the future road across O'Keefe Drive.

The Children's Crossing in particular will require management by an authorised School Crossing Supervisor, who will need to install the flags to establish the crossing.

Being a new Primary School, the School do not meet the criteria for a TfNSW School Crossing Supervisor in Day 1, Term 1 operations when the school initially open. The applicable TfNSW criteria for the request of a funded school crossing supervisor

(<https://roadsafety.transport.nsw.gov.au/stayingsafe/schools/schoolcrossingsupervisorprogram.html>)

are:

- *The site must have an existing children's crossing, pedestrian crossing (zebra) or combined crossing (children's and zebra)*
- *The crossing must be used by infant and / or primary school children*
- *The site must be located within a 40km/h school zone*
- *In the morning or afternoon, the crossing must register counts of either:*
 - *50 or more unaccompanied infant and / or primary school children, or*
 - *300 or more passenger car units (heavy vehicles over three tonnes unladen are counted as two passenger car units)*
- *The site must be considered a safe working environment for a school crossing supervisor.*

Given the criteria applicable requires metric warrants be met prior to an applicable being able to be made for a TfNSW funded school crossing supervisor, to encourage walking to / from the school from Day 1, Term 1, it is recommended that School Infrastructure provide initial funding for the provision of a School Crossing Supervisor for the initial two years of operations of the School.

It is recommended that traffic counts be commissioned initially at 6 months following Day 1 operations to review and validate whether the level of pedestrian / traffic activities meet the criteria.

At the time of preparation of this OTAMP, Ason Group is seeking further information regarding the operation of the pedestrian access points, namely for visitors and out-of-hours. This is discussed below.

3.2.1 Visitor Access

Visitor access to the school will be via the main access gate on O'Keefe Drive. In summary:

- The intercom, gate control panel (GCP) and video monitor will be located and controlled from the administration office or an alternate central location.
- Key FOBs or proximity cards will be provided to those, like staff who have access to the car park. Others will need to use the intercom to be granted access.

3.2.2 Out of Hours Access

At the time of writing this report, Ason Group has requested information regarding the operation of the Out of Hours School Care (OOSH) program namely: the hours of operations. It is anticipated that the OOSH would have the following hours of operation:

- before School: 6:30am – 8:45am
- after School: 3:00pm – 6:30pm.

Regarding the general site as a whole, access will be restricted at these times:

- weekdays: before 6:30am and after 6:30pm
- weekends and public holidays: before 8:00am and after 6:00pm

Notwithstanding the above, prior to any larger scale out of school hour activities (fete, sporting events, carnivals, etc), an Event Traffic Management Plan specific to the activity should be prepared to address traffic and parking management matters.

3.3 Vehicle Access

Given the nature of the Site, different vehicle types will be required to access the School and will utilise the drop-off / pick-up areas. As detailed in Section 2.2, the School provides 3 drop-off / pick-up areas and a staff carpark with access of the future road along the northern frontage. Access to these areas is detailed in **Figure 16**. As detailed in the below, service vehicles will access the servicing area via the staff carpark access.

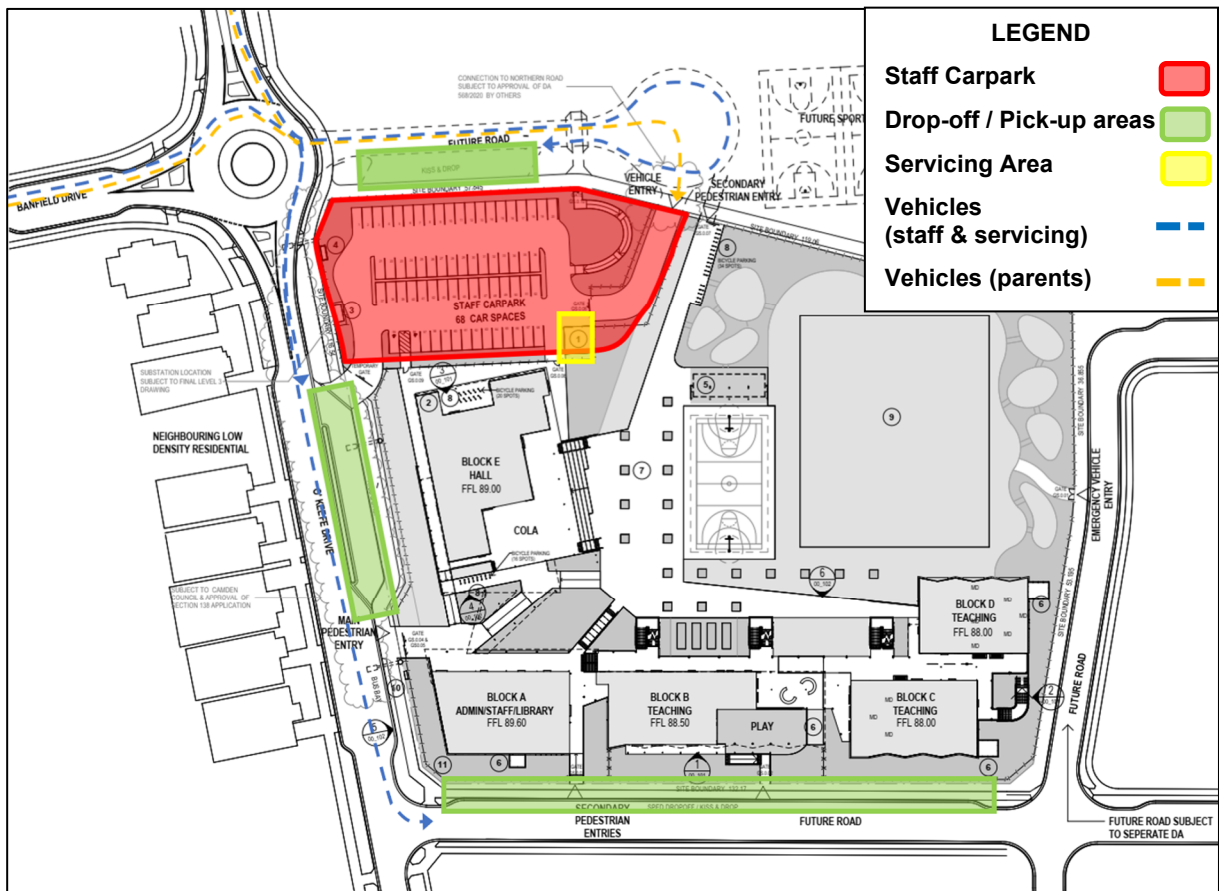


Figure 16: Vehicles Access

The management procedures of these amenities is discussed below.

3.3.1 Drop-off / Pick-up Facilities

As detailed in Figure 2 and Figure 16 , the School provides 3 drop-off / pick-up facilities along the road frontages to the north, west, and south. These drop-off / pick-up areas are separated into Kindergarten to Year 3 students along the southern frontage on O'Keefe Drive, and Year 4 to Year 6 along the northern frontage on the future road. Special education students will utilise the O'Keefe Drive drop-off / pick-up area along the western frontage as these spaces has been designed based on accessible parking space dimensions with additional fence along the median island to provide additional protection to children and families.

As part of the Signage and Line Marking Plan prepared by Ason Group, these areas are signposted as “Kiss & Ride Area” at all times. These will essentially operate as “No Parking” zones where parents are unable to leave 3m from the vehicle or stay for longer than 2 minutes.

With consideration for the Transport Impact Assessment prepared by Ason Group dated November 2019 (herein referred to as the Ason Report), the anticipated traffic generation of the School at full capacity during the morning and afternoon peak periods is as follows:

- Morning peak hour: 630 vehicle trips
- Afternoon peak hour: 520 vehicle trips

The Ason Report detailed a peak queue of 33 vehicles during the afternoon peak 10 minutes prior to the final bell. It should be noted that the northern drop-off / pick-up area provides an additional 12 spaces, bringing the total number of drop-off / pick-up spaces to 37. This provision exceeds the anticipated peak demand and therefore there would be minimal queuing within the local road network.

Following conversations with the School Principal, Chad Lindsay, it is understood that during the morning peak period, parents using the northern and southern drop-off / pick-up areas will not be permitted to park and escort children into the School as per standard conditions for “No Parking” zones. However, for the special education drop-off / pick-up area along the western frontage, parents will be permitted to escort children to the pedestrian access and into the School.

During the afternoon peak period, parents will arrive on-site at the appropriate drop-off / pick-up area and may use a placard with student names to assist staff who will call out names of students. Students will be held on-site prior to their name being called. This will assist with keeping the turnover times low therefore reducing the potential for queuing. Additional strategies such as: grouping students in pick-up groups, coloured bag tags corresponding to pick-up groups, assigned parent / carer for pick-up across all days, are to be considered by the School.

Transport for NSW has prepared information documentation titled *School Drop-off and Pick-up; Organising the Initiative* details additional methods that can be adopted to assist in a safe and efficient management system for drop-off / pick-up areas. This has been attached in **Appendix C**.

3.3.2 Staff Carpark

Access to the staff carpark is provided via the northern future road and accommodates 68 parking spaces including 2 accessible spaces. Parking allocation is to be determined by the School administration.

3.3.3 Bus Access

As per Section 2.4.5, the bus stops that will service the School are located to the north of the roundabout intersection of Banfield Drive and O’Keefe Drive. These bus stops will be operational during the School peak periods to allow students to travel to and from the School. At these times, the crossings at the intersection of Banfield Drive and O’Keefe Drive will be operated either by staff members or authorised traffic controllers.

For special events such as excursions, these bus stops will also be utilised until O’Keefe Drive is complete. Students would be escorted to and from the bus stops and traffic will be managed by staff when students are using the crossings.

3.3.4 Servicing

All major deliveries and waste collection will occur at the servicing area within the staff carpark. Delivery times would be strictly managed to ensure the minimum movements possible and these occur outside of the school peak periods.

3.3.5 Driver Code of Conduct

All drivers are to operate in a manner consistent with the requirements of applicable Work Health and Safety (WHS) legislation and other business specific policies.

All commercial vehicle drivers are to be familiar with the Driver Code of Conduct before attending the Site. A copy of the Code is included in **Appendix B**.

3.4 Sustainable Transport Initiative

A Green Travel Plan (GTP) and Travel Access Guide (TAG) have been prepared for the Catherine Field Primary School. This GTP provides develop a package of site-specific measures to promote and maximise the use of sustainable travel modes, including walking, cycling, public transport and car sharing. In this regard, the GTP sets out objectives and strategies to assist in achieving the goal to reduce reliance on private vehicle usage.

The primary objectives of a GTP are to:

- Promote the use of ‘active transport’ modes such walking and cycling, particularly for short-medium distance journeys
- Reduce reliance on the use of private vehicles for all journeys, up to date public transport information will be issued to all employees and grandstand visitors via email.

Any GTP developed for the Site would adopt the following movement hierarchy with priority given to ‘active transport’ followed by mass public transport and lastly the use of cars and other private vehicles.

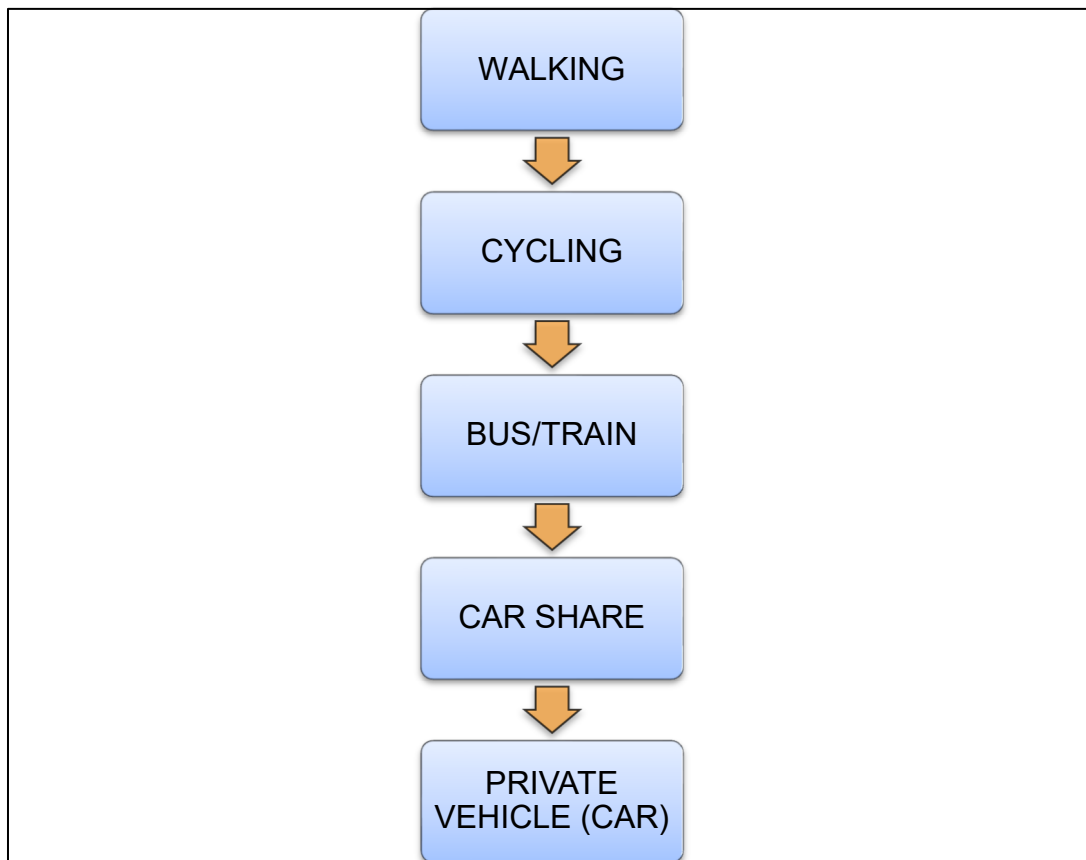


Figure 17: Movement Hierarchy

4 Monitoring and Review Process

4.1 Plan Maintenance

This Plan shall be subject to ongoing review, ideally biennially, and will be updated accordingly. Regular reviews will be undertaken by the Travel Plan Coordinator (TPC), as required.

Key considerations regarding the review of the Plan shall be:

- Updating baseline conditions to reflect any changes to the transport environment in the vicinity of the Site such as changes to bus services, new cycle routes, new roads, etc. In this regard, review of the OTAMP may be undertaken on a more frequent basis,
- To identify any shortfalls and develop an updated OTAMP to address issues.

4.2 Monitoring and Review Actions

To assess the efficacy of the OTAMP, the following actions are to be undertaken by the TPC:

- Undertake community consultation to gauge feedback regarding implemented management plans and areas for improvement to improve traffic conditions.
- Periodic on-site review of facilities such as the drop-off / pick-up area, bicycle racks.

It is recommended that an initial audit be undertaken within 6-months of the school opening to establish baseline conditions as early as possible.

4.3 Feedback Framework

Following the actions undertaken as part of the review process, feedback is to be provided to key stakeholders including: the community, TfNSW, Council, and the Department of Education, detailing the efficacy of the OTAMP. The management plans will be adapted accordingly.

Appendix A

Signage and Line Marking Plan

NOTE: THE 40KM/HR SCHOOL SPEED ZONE EXTENT AND ASSOCIATED SIGNAGE AND LINEMARKING IS TO BE DETERMINED AND IMPLEMENTED BY TFNSW. SCHOOL ZONE SIGNAGE AND LINEMARKING SHOWN ARE INDICATIVE.

IMPLEMENTATION OF THIS PEDESTRIAN CROSSING AND ASSOCIATED SIGNAGE ARE TO BE DETERMINED BY CAMDEN COUNCIL LOCAL TRAFFIC COMMITTEE

NOTE THAT ALL PARKING AND TRAFFIC SIGNAGE ARE TO BE DOCUMENTED BY GDC

REFER TO CIVIL DRAWINGS FOR ALL EXTERNAL WORKS SITE RL ALL DIMENSIONS SETOUT FROM GRIDS 70 BICYCLE PARKING PROVIDED AS PER SSDA CONDITIONS

This drawing is provided for information purposes only and should not be used for construction.

Drawn by: Wendy Zheng
File name: P1047-01-v6.dwg

1047
103 O'KEEFE DRIVE, ORAN PARK

01.12.2020

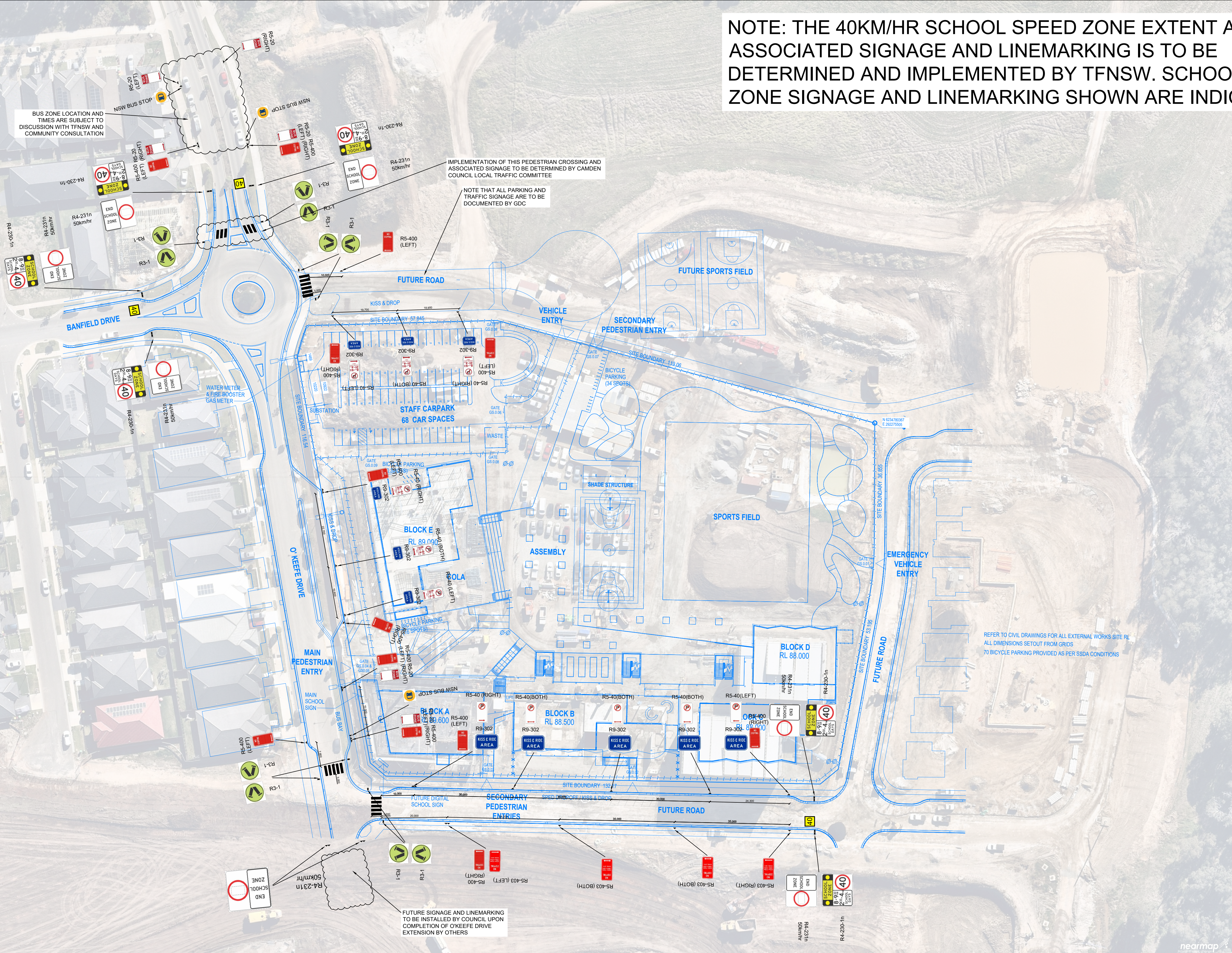
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P1047-01-01

HANSEN YUNCKEN

SIGNAGE AND LINEMARKING PLAN OVERVIEW
INTERIM STAGE PLAN

Suite 5.02, Level 5, 1 Castlereagh St
Sydney NSW 2000
info@asongroup.com.au



NOTE: THE 40KM/HR SCHOOL SPEED ZONE EXTENT AND ASSOCIATED SIGNAGE AND LINEMARKING IS TO BE DETERMINED AND IMPLEMENTED BY TfNSW. SCHOOL SPEED ZONE SIGNAGE AND LINEMARKING SHOWN ARE INDICATIVE

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Document Info:
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File name: P1047-01-v6.dwg

Client:
HANSEN YUNCKEN

Project:
1047
103 O'KEEFE DRIVE, ORAN PARK

Drawing Title:
SIGNAGE AND LINEMARKING PLAN OVERVIEW
INTERIM STAGE PLAN

Date:
01.12.2020

Scale @ A1:
1:600

Drawing Number:
P1047-01-01

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Sydney NSW 2000
info@asongroup.com.au

Appendix B

Driver Code of Conduct

- Driver Code of Conduct -

Drivers Code of Conduct

Safe Driving Policy for Catherine Field Primary School.

Objectives of the Drivers Code of conduct

- Minimise conflict with other road users;
- Minimise road traffic noise; and
- Ensure minibus and bus drivers use specified routes.

Code of Conduct

All vehicle operators accessing the site must:

- Take reasonable care for his or her own personal health and safety.
- Not adversely, by way of actions or otherwise, impact on the health and safety of other persons.
- Notify their employer if they are not fit for duty prior to commencing their shift.
- Obey all applicable road rules and laws at all times.
- In the event an emergency vehicle behind your vehicle, pull over and allow the emergency vehicle to pass immediately.
- Obey the applicable driving hours in accordance with legislation and take all reasonable steps to manage their fatigue and not drive with high levels of drowsiness.
- Obey all on-site signposted speed limits and comply with directions of traffic control supervisors in relation to movements in and around temporary or fixed work areas.
- Ensure all loads are safely restrained, as necessary.
- Operate their vehicles in a safe and professional manner, with consideration for all other road users.
- Hold a current Australian State or Territory issued driver's licence.
- Notify their employer or operator immediately should the status or conditions of their driver's license change in any way.
- Comply with other applicable workplace policies, including a zero tolerance of driving while under the influence of alcohol and/or illicit drugs.

- Not use mobile phones when driving a vehicle or operating equipment. If the use of a mobile device is required, the driver shall pull over in a safe and legal location prior to the use of any mobile device.
- Advise management of any situations in which you know, or think may, present a threat to workplace health and safety.
- Drive according to prevailing conditions (such as during inclement weather) and reduce speed, if necessary.
- Have necessary identification documentation at hand and ready to present to security staff on entry and departure from the site, as necessary, to avoid unnecessary delays to other vehicles.

Crash or incident Procedure

- Stop your vehicle as close to it as possible to the scene, making sure you are not hindering traffic. Ensure your own safety first, then help any injured people and seek assistance immediately if required.
- Ensure the following information is noted:
 - Details of the other vehicles and registration numbers
 - Names and addresses of the other vehicle drivers
 - Names and addresses of witnesses
 - Insurers details
- Give the following information to the involved parties:
 - Name, address and company details
- If the damaged vehicle is not occupied, provide a note with your contact details for the owner to contact the company.
- Ensure that the police are contacted should the following circumstances occur:
 - If there is a disagreement over the cause of the crash.
 - If there are injuries.
 - If you damage property other than your own.
- As soon as reasonably practical, report all details gathered to your manager.

Appendix C

TfNSW School Drop-off and Pick-up; Organising the Initiative

School Drop-off and Pick-up

Organising the initiative

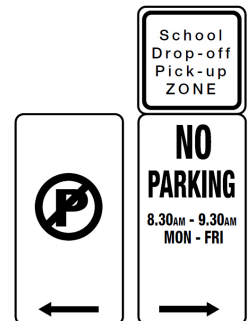
What is a school Drop-off and Pick-up zone?

Some schools and councils use No Parking areas, signed as Drop-off and Pick-up, Kiss and Ride, or Kiss and Drop zones.

These areas are always on the school side of the road and are designated by “No Parking” signs.

They provide a safe spot for parents and carers to drop off and collect their children from school by car.

Drivers may drop off and pick up passengers legally within a two-minute timeframe.



What is a school Drop-off and Pick-up initiative?

This strategy allows the efficient use of the Drop-off and Pick-up area during busy times at the beginning and end of the school day.

A driver pulls into the kerb and remains in control of the vehicle while an identified supervising adult from the school community assists students to exit or enter the vehicle.



Kids and Traffic
Safety Door sticker
RTA45091021K

What must be planned?

The school community needs to:

- Consult with the local council to consider whether the traffic environment outside the school would support the initiative without disrupting traffic flow.
- Consider existing school access points and school entry and exit procedures.
- Confirm school community support for the initiative.
- Fully understand all legal issues regarding liability in respect of students and volunteers.

How to implement the initiative

The school community needs to:

- Consider relevant insurance policies and child protection guidelines.
- Determine the operating times of the initiative.
- Develop a system for matching the child to the correct vehicle at pick-up times.
- Develop a roster of those adults approved by the school community to supervise students as they exit or enter a vehicle.
- Communicate details of the initiative's operation and safety procedures to drivers, students, supervising adults and the general school community.
- [Keeping our kids safe around schools](#) has information for principals, parents and members of the school community. Order Safety Door stickers from our [online catalogue](#).

roadsafety.transport.nsw.gov.au

Disclaimer

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Appendix D

CVs of Authors of OTAMP

Dora has 20 years of professional experience across the fields of urban planning, and traffic and transport engineering. With specialities in concept and schematic traffic design, road safety engineering, construction traffic management planning and major event traffic and transport operations planning, Dora focus on achieving practical, customer centred solutions commensurate with the project type, purpose and level of user experience established in collaboration with clients, delivery partners and project teams.

Dora's expertise in land use development planning and design has specific focus on car park design, traffic

management system design, and loading facilities design and design of traffic systems based on the operational requirements as well as future adaptability of spaces. Dora has been involved in a broad range of traffic and transport projects providing high quality service and end to end project advice to a range of public and private sector clients.

Dora has worked on a broad range of inter-disciplinary design teams where she collaborated with clients and consultants of various disciplines in achieving forward thinking outcomes that considers both current and future needs of end users.

QUALIFICATIONS & EDUCATION

- Post Graduate Diploma in Transport and Traffic (Monash)
- Post Graduate Diploma Planning & Design (Melbourne)
- Bachelor of Science (Auckland)

KEY PROJECTS

Warrick Lane Precinct, Blacktown NSW Blacktown City Council

The Warrick Lane Precinct (The Precinct) is located within the Blacktown City Centre, 500 metres east of Blacktown Railway Station. The 2.8-hectare site has been identified for redevelopment as part of the of the Blacktown City Centre Transformation. The objective of the transformation is to provide employment, housing, social, cultural, recreation and transport infrastructure within a framework of sustainability and design excellence.

Dora was engaged by Blacktown City Council to provide traffic and transport advice on the transformation project, and managed the delivery of a range of transport engineering output including schematic and detailed design input to the Project, Transport Impact Assessment in multiple phases, DA stage and Detailed Stage Construction Traffic and Pedestrian Management Plan preparation and worked closely with the broader project team.

KEY SKILLS

- Transport Management and Operations Planning
- Transport Design
- Event Traffic and Transport Management Operations Planning and Delivery
- Stakeholder management

Blacktown Health Precinct, Blacktown NSW Blacktown City Council

Blacktown Health Precinct is located to the east of the Blacktown City Centre. The Health Precinct has been identified as a transformation project of the Blacktown City Council to support the forecasted growth in population planned for Blacktown. The objective of the transformation is to provide employment and social infrastructure within a framework of sustainability and design excellence.

Dora was engaged by Blacktown City Council to provide traffic and transport advice on the transformation project, and managed the delivery of a range of transport engineering output including masterplan, strategic transport analytics and design input to the Project.

Woolworths National Loading Facilities Transport Management Safety Review | Woolworths

Dora was the National Technical Leader for the development and delivery of a loading facilities transport management safety review program for the Supermarkets branch of Woolworths which involved the development and delivery of

a transport management inspection, review and reporting program involving over 1000 stores. Dora worked closely with the Health and Safety section of Woolworths and was a key member of the delivery team of the study.

Woolworths Drive Program Design Standards Development and Test Fit | Woolworths

Dora was the National Technical Design Lead for the review and provision of technical design advice to inform the development of standard layout and the design guideline of drive through facilities for Woolworth Supermarket assets. Dora has completed a series of test fits across a number of stores located in NSW, SA, WA and NT reviewing and providing design options to retrofit drive through facilities.

Woolworths Minchinbury Distribution Centre (NSW) | Woolworths

Dora was the Project Director and Transport Engineering Lead for the redesign of loading, circulation and parking facilities within the existing Woolworths Minchinbury Distribution Centre and associated Development Application Transport Assessment and Modification application.

Woolworths Fresh Refrigerated Distribution Centre (VIC) | Fabcot

Dora was the Transport Engineering Lead from feasibility phase of the project, to completion of Planning Permit application and associated Concept to Schematic Design phases of the Woolworths Fresh Project in Truganina, Victoria. The project involved the development of a fourth leg to a roundabout, B-Double queuing areas, vehicle circulation, as well as parking facilities and design of a channelised right turn facility along Foundation Road.

Woolworths Melbourne South Regional Distribution Centre (VIC) | Fabcot

Dora was the Transport Engineering Lead for the project and has provided transport engineering input from the development of the Principal's Project Requirement, assisting the Project Architect in the development of a reference design, assistance in provision of transport engineering advice to inform site selection, subsequent Concept and Schematic Design work, and Transport Impact Assessment for the Planning Application.

Victoria Police Centre (2016 – 2020) and City West Police Complex (2011 – 2015), Melbourne | Cbus Property

The recently completed Victoria Police Centre and the City West Police Complex located at the corner of Spencer Street and La Trobe Street, Melbourne forms a custom-designed, integrated precinct.

Dora was the Transport Engineering Lead for the project since 2011 and has worked collaboratively with both the Project Principal, representatives of Victoria Police and the Project Design Team to develop custom designed solutions to traffic and transport facilities associated with the development. Dora prepared Transport Assessment reports, technical memorandums, and heavily involved in consultation with authorities and stakeholder consultation.

Secure Facilities, Melbourne | Reserve Bank of Australia

Dora was the Traffic Management Lead for the Secure Facilities developed by the Reserve Bank of Australia in Craigieburn, Melbourne.

Dora was engaged to develop traffic management arrangements, functional requirements and specifications embedded into the architectural, civil and security arrangements of the project.

Other Select Projects:***Education*****Alex Avenue Public School | NSW Department of Education**

Dora was the Transport Engineering Lead for the project, and assisted in the preparation of contingency parking and site access design, responses to Response to Submissions, development of School Transport Plan, and liaison with Council.

New Estella, Wagga Wagga Public School | NSW Department of Education

Dora was the Transport Engineering Lead for the project, and assisted in the preparation of responses to Response to Submissions, development of site access design, School Transport Plan, and liaison with key stakeholders.

Tom has a Bachelor of Civil Engineering and has been working in the traffic engineering and transport planning industry since 2015.

During this time, Tom has undertaken numerous projects for both private developers and Government Agencies, including Councils and NSW Health Infrastructure across a range of industry sectors.

Tom has demonstrated ability in all areas of traffic engineering and transport planning and has been involved in many significant studies.

Past projects have ranged in size from detailed design advice in relation to small residential developments with highly constrained access opportunities to the preparation of Traffic Impact Assessment (TIA) for large development submissions.

Tom has been trained in and worked with numerous transport planning models and this experience allows him to provide strategic and specialist advice on transport planning issues. These models and programs include AutoCAD, Autotrack, and SIDRA.

QUALIFICATIONS & EDUCATION

- BE Civil Engineering (University of NSW)
- Member AITPM
- Member of Engineers Australia

PROFESSIONAL BACKGROUND

- 2015 – Current: Ason Group
Traffic Engineer
- 2015: Birzulis Associates
Structural Engineer

KEY SKILLS

- Traffic Impact Assessments
- Master Planning & Feasibility Studies
- Sustainable Transport Planning
(Green Travel Plans & Transport Access Guides)
- Transportation Modelling Analysis (SIDRA)
- Australian Standards (AS2890 & AS1158) Compliance
- Car Park & Loading Dock Design & Assessment,
including for Construction & Occupancy Certification
- Construction Traffic Management Plans

KEY PROJECTS & EXPERIENCE

Education

- *Loreto Normanhurst*
Modal analysis of staff and students and assessment of existing travel behaviours.
- *Moriah College*
TIA to support a new 80-space early learning centre in an existing educational facility.
- *Santa Sophia Catholic College*
TIA to support a new 1,600 primary and secondary school and a 60-space Early Learning Centre.
- *Mt Sinai College*
TIA to support the provision of an 80-space early learning centre in an existing school.

NSW Health Infrastructure

- Numerous Sydney Ambulance Metropolitan Infrastructure Strategy (SAMIS) sites in Caringbah, Artarmon, Haberfield, Liverpool, Blacktown, Bankstown, Northmead, Narrabeen, and Penrith.
- Child care centre in the Royal North Shore Hospital – traffic study to support a 70-space child care centre.

Residential, Commercial & Mixed Use Developments

- *Waterloo Road, Macquarie Park Masterplan*
TIA to support the concept masterplan for the commercial development at 45-61 Waterloo Road.
- *Rosehill Street Planning Proposal*
Traffic study to support a concept plan of 320 residential units and 2,550m² of commercial GFA.
- *Warrawong Shopping Centre*
Multiple traffic studies to support additional tenancies and removal of car parking.

Industrial Developments

- *Minto Intermodal*
TIA to support the SSDA for a new intermodal.
- *Old Wallgrove Road*
TIA to support a 44,000m² warehouse for submission DP&E.
- *South Street, Rydalmere*
TIA to support a warehouse development for submission to Parramatta Council

Wendy is a qualified civil engineer with eight years of work experience across project management, traffic engineering, construction management, and civil and drainage design

During this time, Wendy has been involved in numerous projects for both private organisations and government agencies in Australia and United Kingdom.

Wendy has demonstrated her ability across numerous areas of traffic engineering, transport construction, and civil design and has been involved in many significant projects.

Past projects have ranged in size from detailed design of intersection upgrades to the preparation of Construction Traffic Management Plans, Traffic Control Plans, and Construction and Occupation Certification for both private

and public clients. Wendy also has experience dealing with the Transport Management Centre to obtain Road Occupancy Licenses as well as negotiating with Sydney Coordination Office for CTMP approvals.

While working in the UK Wendy was involved in the management, design and delivery of several large scale projects for local councils such as the School Streets project for Haringey and Liveable Streets programme in Tower Hamlets.

Wendy has worked on a broad range of inter-disciplinary design teams where she collaborated with clients and consultants of various disciplines in achieving forward thinking outcomes that considers both current and future needs of end users.

QUALIFICATIONS & EDUCATION

- Master of Engineering Management (University of Technology Sydney)
- BE Civil Engineering w Architecture (University of New South Wales)
- RMS Prepare a Work Zone Traffic Management Plan Card (Combined orange and red card)
- WorkCover Occupational Health and Safety Construction Induction Card.
- Member of Engineers Australia

PROFESSIONAL BACKGROUND

- 2020 – Current: Ason Group
Senior Traffic Design Engineer
- 2019 – 2020: Project Centre Limited (UK)
Senior Traffic Engineer
- 2019 – 2019: WSP (UK)
Senior Engineer
- 2016 – 2019: GTA Sydney
Consultant and Senior Consultant
- 2012 – 2016: The Hills Shire Council
Graduate, and Civil Design Engineer

KEY SKILLS

- Transport Management and Operations Planning
- Transport Design
- Civil and Drainage Design
- Stakeholder management
- Autocad suite / Microstation
- Vehicle tracking / Autoturn

KEY PROJECTS & EXPERIENCE

388 George Street, Sydney | Multiplex

Wendy was the Project Manager and Traffic Management Lead for the Construction Traffic Management Planning for the development, as well as the internal traffic management works with the adjoining building that include coordination with Sydney Light Rail Works and construction activities of other nearby developments.

David Jones Elizabeth Street, Sydney | Mainbrace

Wendy was the Project Manager and Traffic Management Lead for the Construction Traffic Management Planning for

the development in obtaining the first approval for nighttime concrete works in the CBD from SCO and overtime ROLs while liaising with adjoining developments and Sydney Metro.

Langston Place, Epping | Hutchison Builders

Wendy was the Project Manager and Traffic Management Lead for the Construction Traffic Management Planning for the development in obtaining the first approval for construction works during Epping to Chatswood rail replacement period from the expanded SCO.