



North Adelaide Primary School

School Travel Safety Review – Draft Report

City of Adelaide

CLC003491
3 July 2024
Ref: 240706



Document History and Status

Rev	Description	Author	Reviewed	Approved	Date
A	Draft Report	John Devney	James Arnold	James Arnold	3 July 2024

DRAFT



Contents

Project: North Adelaide Primary School | School Travel Safety Review – Draft Report
Client: City of Adelaide
Ref: 240706

Executive Summary	i
Overview	i
Key Findings	i
Key Recommendations	i
Abbreviations	iii
Glossary of Terms	iii
1 Introduction	1
1.1 Background	1
1.2 Study Purpose and Scope	1
1.3 School Location	2
2 Existing Conditions	3
2.1 School Operations	3
2.2 Student Enrolment Analysis	3
2.3 Transport Access	6
3 Issues and Opportunities	14
3.1 Stakeholder Discussions	14
3.2 Site Observations	14
3.3 Summary of the Issues and Opportunities	16
4 Travel Safety Options and Assessment	17
4.1 Student Travel Safety Options	17
4.2 Recommended School Travel Safety Initiatives	19
4.3 Assessment and Indicative Cost Estimates	23
5 References	25



Tables

Table 2.1 Student Residence per Location for North Adelaide Primary School.....	4
Table 2.2 Student Mode Shares by Year Group at North Adelaide Primary School in May 2024	5
Table 2.3 Local Streets at North Adelaide Primary School	6
Table 2.4 Local Road Network Attributes at North Adelaide Primary School	6
Table 4.1 School Travel Safety Options for North Adelaide Primary School	17
Table 4.2 Options to Improve Pedestrian Crossing Safety in Tynte Street.....	21
Table 4.3 Indicative Cost Estimates for the Travel Safety Options at North Adelaide Primary School	23

Figures

Figure 1.1 North Adelaide Primary School Location	2
Figure 1.2 Entrances to North Adelaide Primary School.....	2
Figure 2.1 School Enrolment Area for North Adelaide Primary School	3
Figure 2.2 North Adelaide Primary School Student Residence Location Analysis	4
Figure 2.3 North Adelaide Primary School Student Transport Mode Shares in May 2024	5
Figure 2.4 Crashes on School Days at North Adelaide Primary School	7
Figure 2.5 On-street Parking and Kiss and Drop Areas for North Adelaide Primary School	8
Figure 2.6 On-street Parking Controls at North Adelaide Primary School	8
Figure 2.7 Informal Kiss and Drop Areas at North Adelaide Primary School	9
Figure 2.8 Public Transport Services to North Adelaide Primary School	10
Figure 2.9 Bicycle Storage Areas at North Adelaide Primary School	10
Figure 2.10 Cycling Network to North Adelaide Primary School.....	11
Figure 2.11 Pedestrian Crossings to North Adelaide Primary School	12
Figure 2.12 Pedestrian Crossings at North Adelaide Primary School	12
Figure 2.13 Walkable Access Catchment to North Adelaide Primary School	13
Figure 3.1 AM Peak Safety Issues in Gover Street at North Adelaide Primary School	14
Figure 3.2 AM Parking in Tynte Street at North Adelaide Primary School	15
Figure 3.3 PM Peak Conditions at North Adelaide Primary School.....	16
Figure 4.1 Recommended Initiatives at North Adelaide Primary School	19
Figure 4.2 Examples of Koala Crossings at Primary Schools	20
Figure 4.3 Alternative School Precinct Warning Signage	22

Appendices

Appendix A – Student Travel Survey Form

Appendix B –School Travel Access Guide in NSW



Executive Summary

Overview

North Adelaide Primary School is a public school that comprises Reception to Year 6 with an enrolment of 286 students with a maximum 330 student capacity. The distribution of students by year group is:

- 30 students in Year R
- 137 students in Years 1 to 3
- 131 students in Years 4 to 6

The school enrolment area is zoned and includes all of the suburb of North Adelaide in the City of Adelaide, parts of Ovingham, Fitzroy and Thorngate in the City of Prospect and Medindie in the Town of Walkerville. Over 44 per cent of the students live in North Adelaide with 15 per cent in the adjacent suburbs to the Ring Road or in Adelaide CBD.

Key Findings

The AM and PM periods are very similar with about 74 and 71 per cent arriving or departing by car respectively. The walk mode share is about 20 per cent and travel by public transport is about 3.5 per cent. The number of students who travelled by bicycle or scooter was very low with security issues with the bicycle storage area.

The pedestrian, cyclist, bus passenger and Kiss and Drop activity was observed during AM arrival period from 8:30 am to 9:30 am. The AM period arrival profile was relatively distributed over the hour before the school start time, with the peak activity of arrivals between 8:30 am and 9:00 am.

The key issues for students and parents access the school are:

- Carparking was limited during the 15-minute peak periods around both AM and PM peak times. This was largely attributed to staff and nearby worker demand in the area, especially on Tynte Street.
- Angled carparking in Tynte Street was also difficult to navigate for school drop off / pick up.
- Parents were observed making mid-block U-turn movements in Gover Street.
- Some issues with higher speeds and failure to give way at the Gover Street emu crossing.

Key Recommendations

Infrastructure Treatments

- Convert the emu school crossing to a koala crossing in Gover Street.
- Reconfigure the footpath and kerb in front of the former fire station entrance that is immediately west of the student entrance in Tynte Street to allow for short term 15-minute parking during the AM and PM school peak hours. The 'No Stopping' yellow line would be removed to allow for angle parking spaces to be implemented.
- Investigate options for safer pedestrian movements by parents and students in Tynte Street opposite the student entrance immediately east of the former fire station entrance.

Operational Efficiencies

- Implement changes to the timed angle parking on the north side of Tynte Street in front of the school to be 15-minute limits from 8 am to 9 am and 2:30 pm to 3:30 pm on school days, instead of the mixture of 15-minute and 1P parking spaces. This will provide additional parking capacity for the Kiss and Drop activity in Tynte Street.
- Organise for more staff to be available in the AM peak during the busiest period for student arrivals and in the PM departure period at the Tynte Street and Gover Street entrances.
- Staff parking measures with the provision of permits for areas on Gover Street. Changes to accommodate staff parking issues was not in the scope of the student travel safety review.



Safety Promotions

- Install additional signage and promotion of the school area for traffic approaching the school zones at the O'Connell Street and Lefevre Terrace ends of Gover Street and Tynte Street.
- A consolidated promotional travel access guide for students and parents that would be promoted on the school website in location that is easy to find, in additional to the school newsletter.

DRAFT



Abbreviations

Abbreviation	Description
DfE	Department for Education, South Australia
DIT	Department for Infrastructure and Transport, South Australia
PAC	Pedestrian Actuated Crossing with traffic signals

Glossary of Terms

Term	Description
Bicycle lane	On-road kerbside lane allocated for bicycles with pavement markings
Emu crossing	A pedestrian crossing with white road markings, red and white posts and operate only when the children's crossing flags are displayed. They are placed within school zones and a speed limit of 25 km/h applies to drivers when children are present. Drivers must stop for pedestrians using or about to use the crossing.
Kiss and Drop zone	A location designated on the street or on the school grounds for parents and carers in vehicles to drop-off or pick-up students typically with a 2-minute waiting limit. Parents are to stay in the vehicle.
Koala crossing	A pedestrian crossing with white road markings, red and white posts and two yellow alternating flashing lights. They are only operational when the yellow lights are flashing and a speed limit of 25 km/h applies to drivers between signs on the approach to the crossing. Drivers must stop for pedestrians using or about to use the crossing.
Shared path	Off-road pathway for pedestrians and cyclists
Go Zone	A high frequency bus corridor with one or more bus routes with a service headway of every 15 minutes on weekdays and every 30 minutes at other times. Stops and stations within a 'Go Zone' provide a bus, train or tram operating: - every 15 minutes between 7.30 am and 6.30 pm, Monday–Friday - every 30 minutes between 6.30 pm and 10 pm, Monday–Friday - every 30 minutes on Saturday, Sunday and South Australian public holidays.



1 Introduction

This section provides the background for the school travel safety reviews and the study purpose and scope with an overview of the school location.

1.1 Background

The City of Adelaide is conducting School Travel Safety Reviews with the key objectives to:

- Investigate the current speed limits to assess the requirement of reducing the speed to 40km/h or less to help support more vibrant businesses and for a safer urban environment with the provision of higher quality amenity in the residential streets in the City of Adelaide.
- Consider always extending the time periods for the 25 km/h speed limit at and near all schools in the City of Adelaide when children are present and to work with DIT to further understand what responsible safety measures may be added to assist with drop off/pick up of children.

In January 2023, the Council requested the administration to investigate and report by the end of the 2023 school year on the need for and the nature of any additional measures to enhance the safety of primary and secondary, public and private school students entering and leaving schools at the beginning and end of the school day, including the introduction of supervised or unsupervised so called "kiss and drop zones" at all schools in the City of Adelaide.

A School Safety Report was completed for St Aloysius College and presented to the Infrastructure and Public Works Committee held on 19 March 2024. At the Council Meeting on 26 March 2024, Council decided to complete school travel safety reviews for 11 other schools in the City of Adelaide.

1.2 Study Purpose and Scope

The purpose of the work is to develop and document an evidence-based approach using the Safe System approach to address road safety concerns for children, parents and carers, with recommended changes such as safer crossing outcomes and measures to reduce the danger from motorised vehicle movements. The key objectives of the school transport safety reviews are to:

- Review the extents of the existing school speed zones to achieve Safe System speed outcomes, and
- Identify and prioritise opportunities to improve safety outcomes around schools.

The following tasks were completed for this school travel safety review:

- Engage with each school Principal or relevant representative to discuss issues with student travel to and from the school and opportunities to improve school travel safety.
- With the support from the teachers, undertake a student travel mode survey.
- Conduct AM and PM site investigations to observe any unsafe movements, in particular at the Kiss and Drop areas.
- Identify and map the location of the:
 - Existing pick up and drop off areas.
 - Existing school zones and other speed limits, including signs.
 - Existing crossings by type and informal crossing points and pedestrian desire lines.
 - Proposed locations of any measures, such as indicative locations of new crossings, new/changed school zones and of pick-up and drop off areas.
- Document the research and site investigation findings with options and prioritised recommendations for infrastructure projects to improve school travel safety.



1.3 School Location

North Adelaide Primary School is located on Tynte Street with a rear access on Gover Street on the block east of O'Connell Street and west of Margaret Street. The school site and the existing surrounding environs are shown in Figure 1.1.

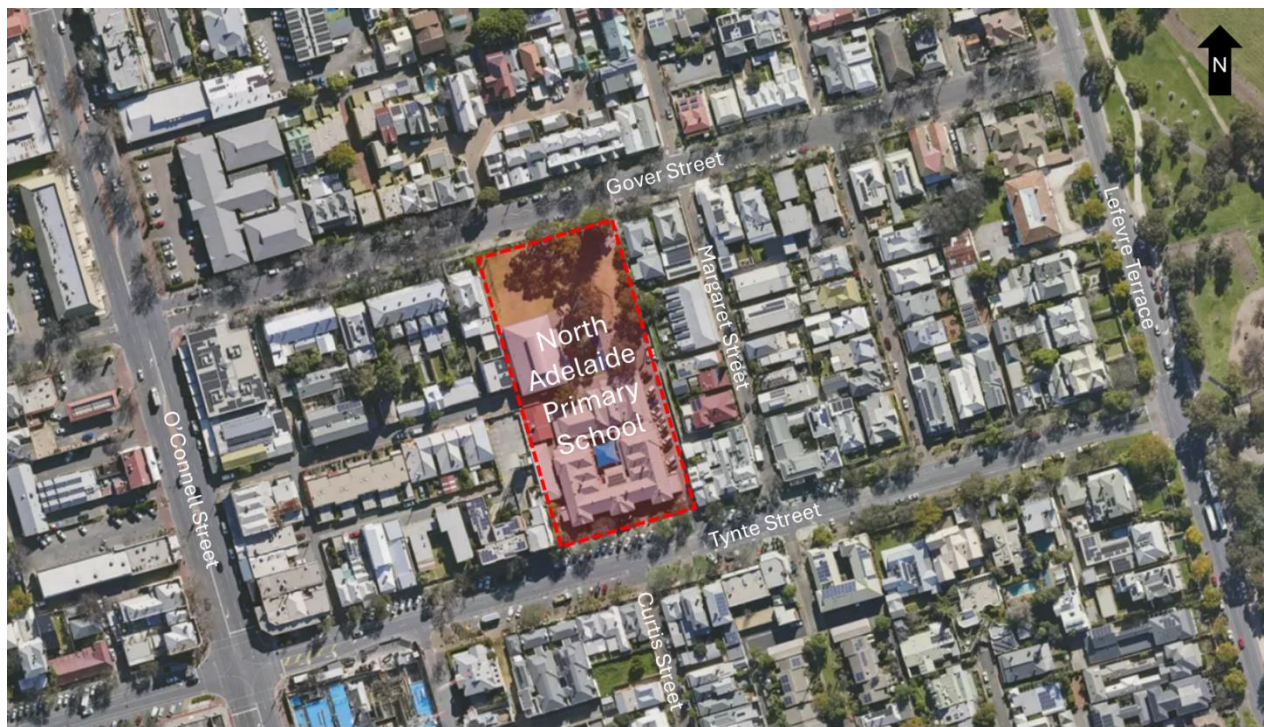
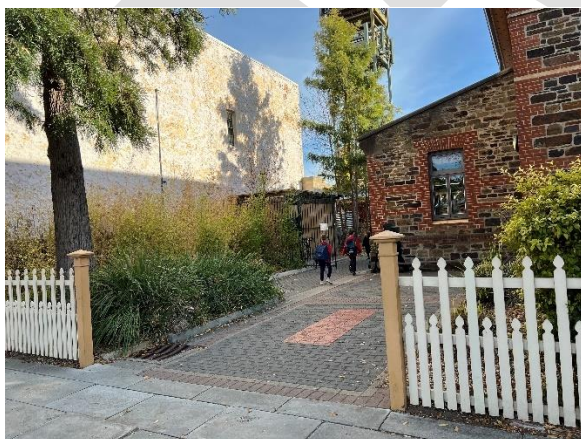
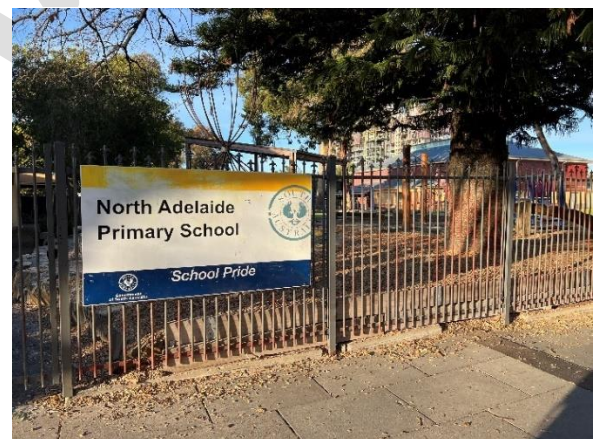


Figure 1.1 North Adelaide Primary School Location

North Adelaide Primary School has the main student entrance on Tynte Street and a rear access from Gover Street as shown in Figure 1.2.



Main student entrance on Tynte Street



Rear entrance to the school on Gover Street

Figure 1.2 Entrances to North Adelaide Primary School



2 Existing Conditions

The section provides the analysis of the existing school operations, the student population and travel patterns and an overview of transport access to the school by all transport modes.

2.1 School Operations

North Adelaide Primary School is a State Government public school that is located in a heritage building built in 1877. A major redevelopment of the building was completed in 2003 to provide space for 13 classes and shared teaching spaces such as the resource centre, a computer suite, an art studio, gymnasium, music practice rooms and a dedicated OSHC centre. All areas within the school are fully air-conditioned, bright and very well maintained. Staff, parents and children have very comfortable environment in which to work and play. The school site is heritage listed and is within one of Adelaide's heritage-listed precincts.

North Adelaide Primary School comprises years Reception to 6. The front office opens at 8:40 am and closes at 3:30 pm. The bell times are:

- 8:50 am with the start of classes at 9:00 am
- The gate to the student entrance on Tynte Street is locked at 9:15 am and reopened at 2:55 pm
- 3:00 pm with the finish of classes.

2.2 Student Enrolment Analysis

The North Adelaide Primary School enrolment area is shown in Figure 2.1. It includes all of the suburb of North Adelaide in the City of Adelaide, parts of Ovingham, Fitzroy and Thorngate in the City of Prospect and Medindie in the Town of Walkerville.

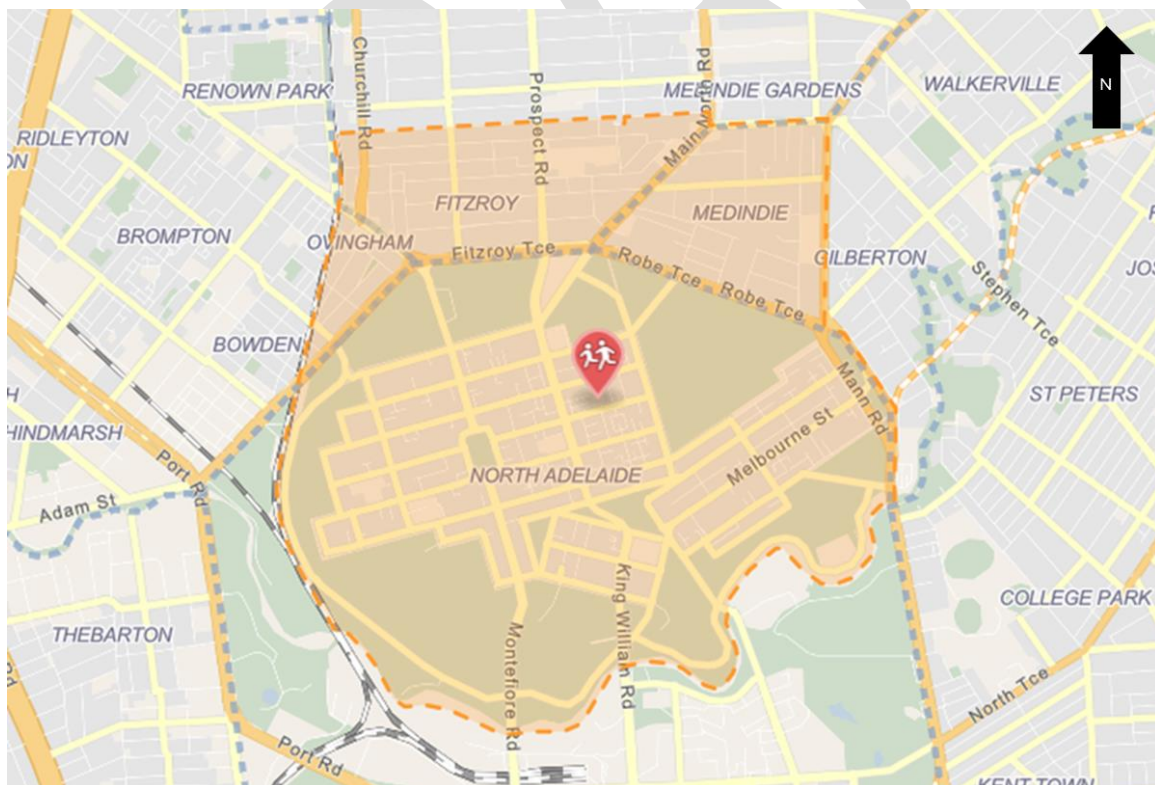


Figure 2.1 School Enrolment Area for North Adelaide Primary School



The school enrolment in Term 2 2024 is for 298 students out of a maximum 330 student capacity. The distribution of students by year is as follows:

- 30 students in Year R
- 137 students in Years 1 to 3
- 131 students in Years 4 to 6

The number of students by residence location and year is provided in Table 2.1 and is shown in the histogram in Figure 2.2. Over 44 per cent of the students live in North Adelaide with 15 per cent in the adjacent suburbs to the Ring Road or in Adelaide CBD.

Table 2.1 Student Residence per Location for North Adelaide Primary School

Location	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total	Percent
North Adelaide	13	16	23	17	26	20	17	132	44.3%
Fitzroy	4	3	2	3	4	4	0	20	6.7%
Thorngate	0	1	1	2	1	0	0	5	1.7%
Medindie	2	1	1	1	1	1	1	8	2.7%
Gilberton	0	0	3	0	0	1	0	4	1.3%
Adelaide	0	0	0	0	0	0	1	1	0.3%
Other Inner Councils	11	20	18	24	17	17	17	124	41.6%
Outer North	0	0	1	0	0	1	2	4	1.3%
Total	30	41	49	47	49	44	38	298	100.0%

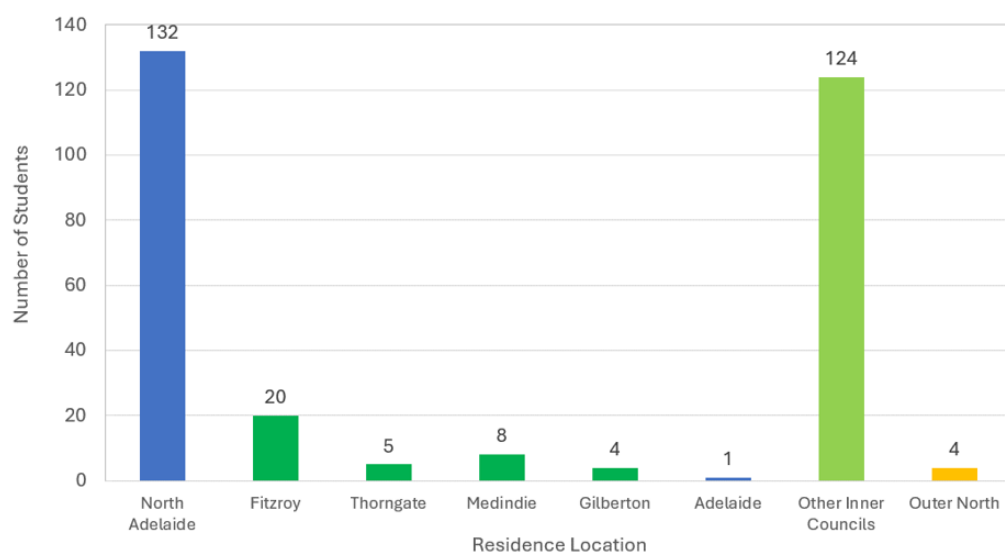


Figure 2.2 North Adelaide Primary School Student Residence Location Analysis



2.2.1 Student Travel Demand

The student travel mode survey was conducted during the first morning class on Wednesday 29 May 2024. A copy of the student travel mode survey form is included in Appendix A. The findings from the surveys were used to confirm the existing transport mode shares for:

- Car (as passenger for drop-off in the morning and pick-up in the afternoon)
- Walk for the entire trip
- Bus
- Bicycle or e-bike
- Scooter

The student travel mode shares to school in the AM period and from school in the PM period are shown in Figure 2.3. The AM and PM periods are very similar with about 74 and 71 per cent arriving or departing by car respectively. The walk mode share is about 20 per cent and travel by public transport is about 3.5 per cent.

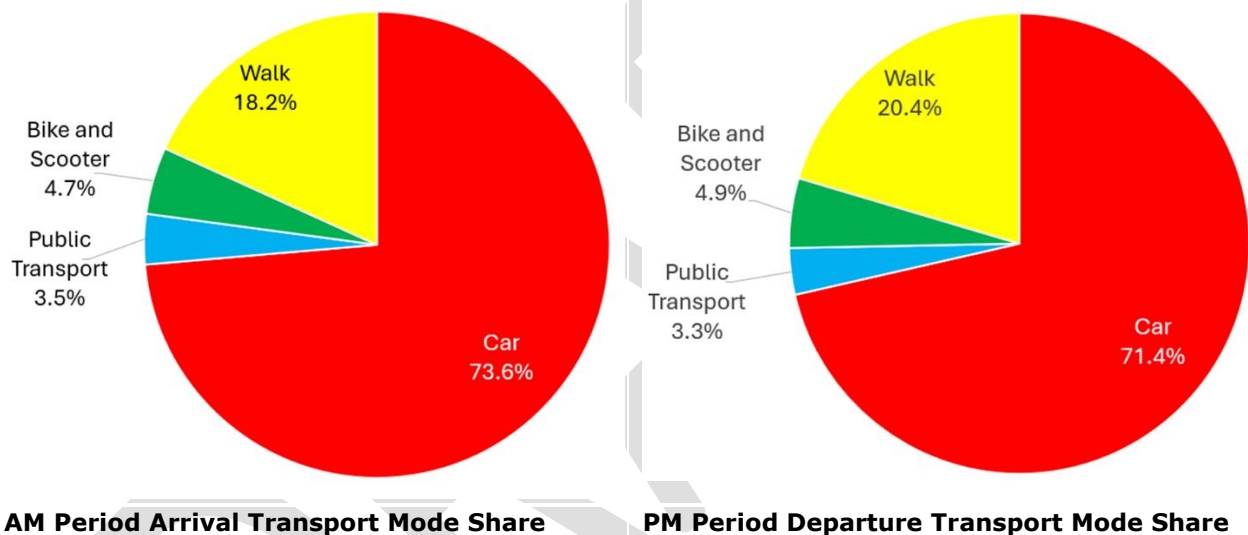


Figure 2.3 North Adelaide Primary School Student Transport Mode Shares in May 2024

A breakdown of the transport mode share results by year groups (Reception to Year 3 and Years 4 to 6) is provided in Table 2.2. The transport mode share for students in reception to Year 3 who are driven to school is about five per cent less than the students in Years 4 to 6 in the AM period versus two per cent more in the PM period.

Table 2.2 Student Mode Shares by Year Group at North Adelaide Primary School in May 2024

Transport Mode	AM Arrivals Reception to Year 3	AM Arrivals Years 4 to 6	PM Departures Reception to Year 3	PM Departures Years 4 to 6
Car	72.2%	76.9%	72.2%	69.6%
Public Transport	3.9%	2.6%	2.8%	4.3%
Bike and Scooter	5.0%	3.8%	5.1%	4.3%
Walk	18.9%	16.7%	19.9%	21.7%



2.3 Transport Access

Transport access to the school via road, public transport, cycling and walking and the availability of on-street, on-site and off-site parking is provided in this section.

2.3.1 Road Network

The streets in the local road network at North Adelaide Primary School are provided in Table 2.3. The front entrance and main office of the school is provided on Tynte Street. The rear entrances, and location of the informal kiss and drop area, is located on Gover Street.

Table 2.3 Local Streets at North Adelaide Primary School

Road	Classification	Relevance to the School
Tynte Street	Local street	2-way traffic in on the southern side of the school; PAC located approximately at main entrance to the administration office of the school
Gover Street	Local street	2-way traffic on the northern side of the school; rear entrance and informal kiss and drop area
O'Connell Street	Arterial road	North-south road corridor located 200m west from school entrance
Margaret Street	Local street	1-way traffic northbound between Tynte Street and Gover Street on the eastern side of the school
Lefevre Terrace	Collector road	North-south road corridor located 250m east from school entrance

The attributes of the local road network at North Adelaide Primary School are summarised in Table 2.4. In areas where no data was provided, the field was labelled as not applicable (n/a). Generally, the posted speed limit was obeyed by drivers in the area.

Table 2.4 Local Road Network Attributes at North Adelaide Primary School

Road	Number of Lanes	Daily Traffic Volumes	Posted Speed (km/h)	Average Speed (km/h)	85 th Percentile Speed (km/h)
Tynte Street	2	2,209	50	36.2	45.0
Gover Street	2	N/A	50	N/A	N/A
O'Connell Street	4	14,146	50	39.5	48.0
Margaret Street	1	N/A	50	N/A	N/A
Lefevre Terrace	2	8,913	50	44.1	49.5



2.3.2 Crash Analysis

A review of the latest crash data from 2018 to 2022 (five-year period) has been sourced from DataSA. During this time there has been the following crashes within direct vicinity of the school:

- Tynte Street: 2 minor injury and 1 property damage crash
- Gover Street: 1 property damage crash and 1 serious injury crash
- O'Connell Street
 - Intersection with Tynte Street: 2 property damage crashes
 - Intersection with Gover Street: 1 property damage crash
- Lefevre Terrace
 - Intersection with Tynte Street: 1 property damage crash

The crash statistics from 2018 to 2022 are shown by location in Figure 2.4.

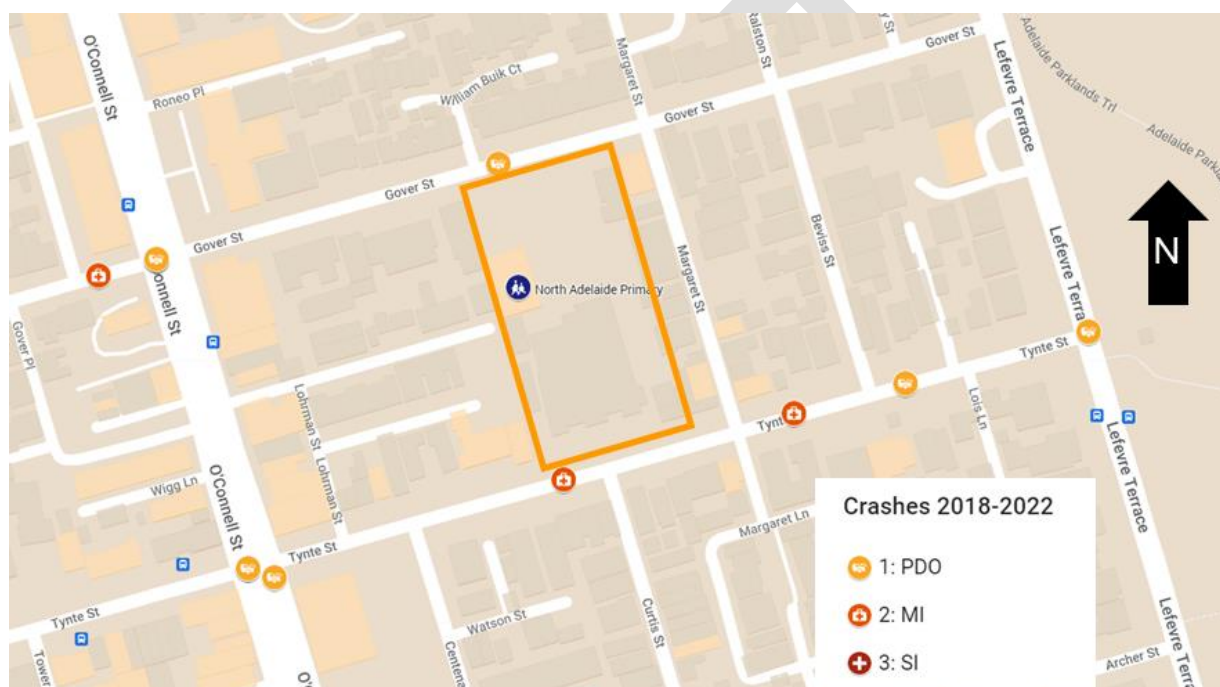


Figure 2.4 Crashes on School Days at North Adelaide Primary School



2.3.3 Parking and Kiss and Drop Areas

The on-street car parking controls along the streets in the vicinity of the school are shown in Figure 2.5.

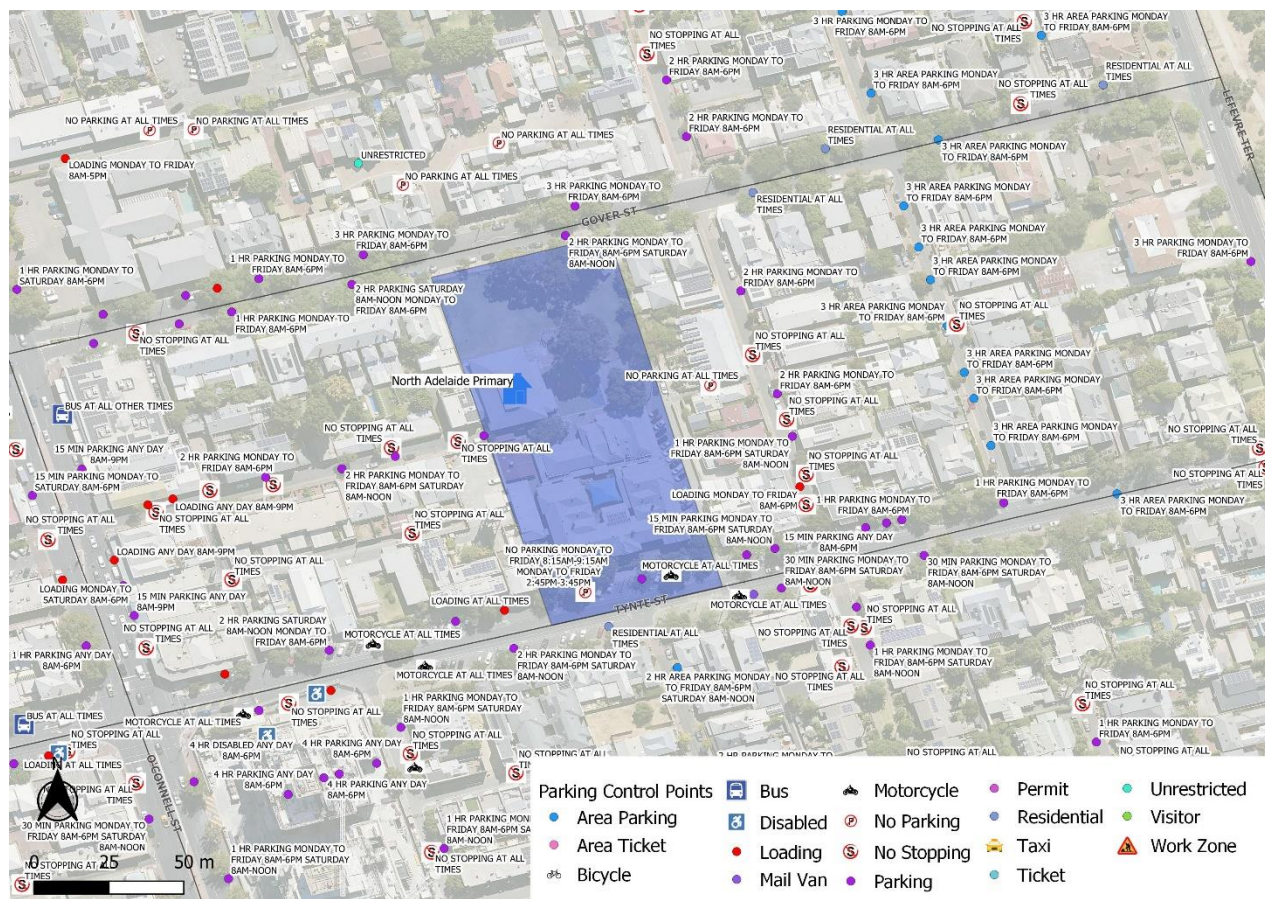
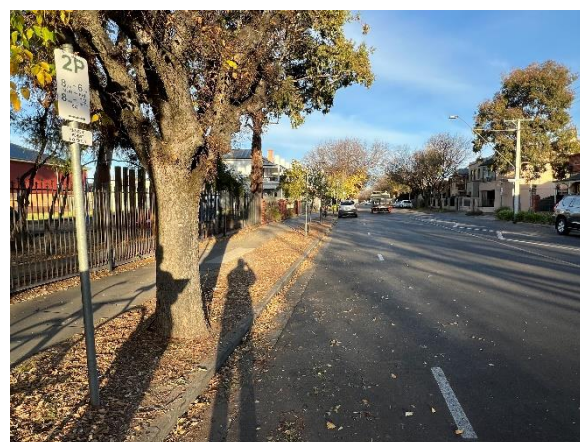


Figure 2.5 On-street Parking and Kiss and Drop Areas for North Adelaide Primary School

On-street parking on both sides of Tynte Street and Gover Street is used for Kiss and Drop activity as shown in Figure 2.6.



A mix of timed parking controls in Tynte Street

2P timed parking in Gover Street

Figure 2.6 On-street Parking Controls at North Adelaide Primary School



No formal Kiss and Drop areas are provided at the school. However, informal Kiss and Drop activity in the short-term parking zones occurs in Tynte Street and Gover Street as shown in Figure 2.7.



The timed angle parking in Tynte Street is used for the Kiss and Drop activity on both sides of the street.



The 2-hour parking areas in Gover Street in the school zone are used for the Kiss and Drop activity mostly on the southern side of the street.

Figure 2.7 Informal Kiss and Drop Areas at North Adelaide Primary School

2.3.4 Public Transport

Public transport services to North Adelaide Public School are provided with:

- the north-south bus services in O'Connell Street with two bus stops located 230 m west of the school. These bus stops have frequent bus routes that are in a Go Zone.
- Routes 98A/98C Connector Free bus with stops in Lefevre Terrace at Tynte Street and in Tynte Street at O'Connell Street.
- The Adelaide Metro bus services to the bus stops in O'Connell Street that is as Go Zone with frequent bus services between Adelaide CBD and the northern suburbs.
- The location of the bus stops that are within walking distance to the school are shown in Figure 3.14. Tram and train services are not used by students to travel to North Adelaide Primary School.

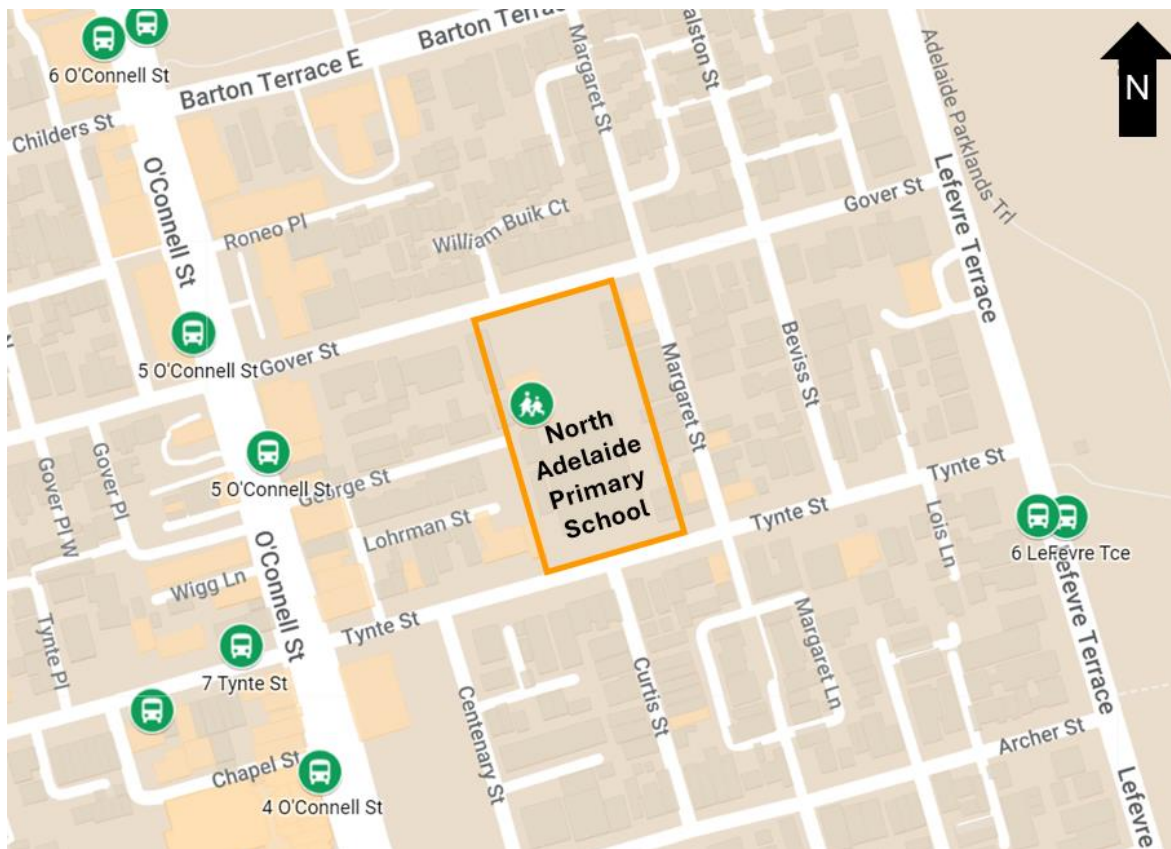


Figure 2.8 Public Transport Services to North Adelaide Primary School

2.3.5 Cycling

The secure bicycle storage area has 30 spaces available for students. The bicycle storage racks inside the secure locked area at the student entrance in Tynte Street and in the verge on the southside of Gover Street are shown in Figure 2.9. With the security and theft issues at the Tynte Street facility, the school is considering relocating the secure bicycle parking to a location internal to the school grounds.



Secure undercover bicycle parking with access from Tynte Street



Uncovered public bicycle parking in Gover Street

Figure 2.9 Bicycle Storage Areas at North Adelaide Primary School



The bicycle network in vicinity of the school with the connecting link to surrounding Park Land trails and the inner metropolitan cycling network is shown in Figure 2.10. Lefevre Terrace has an on-road bicycle lane on the western side and an off-road 1.5 m wide bike lane on the eastern side. Sealed shared paths exist throughout the Adelaide Park Lands.

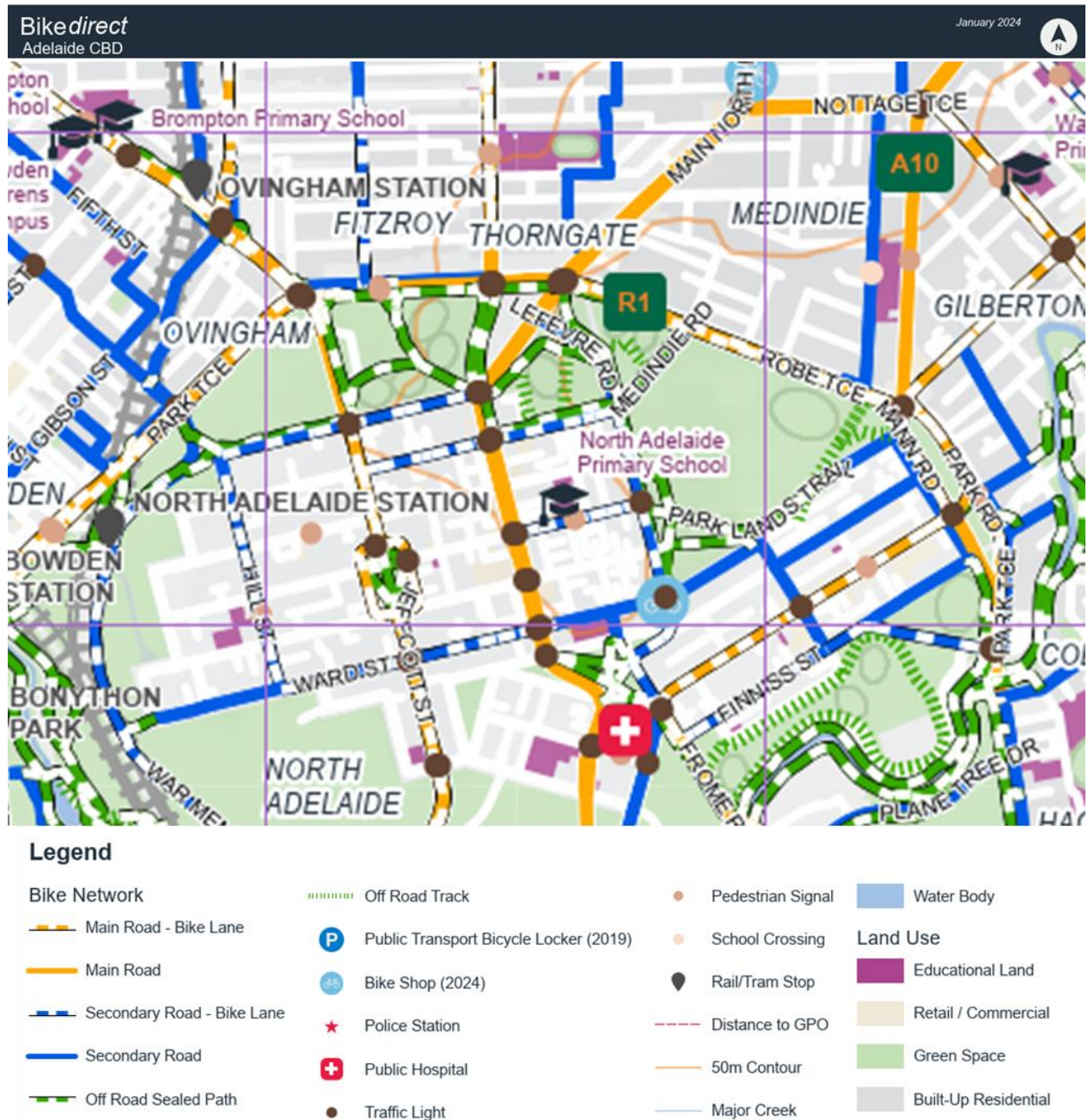


Figure 2.10 **Cycling Network to North Adelaide Primary School**



2.3.6 Pedestrian Access

Pedestrian crossings are located at North Adelaide Primary School in Tynte Street with a PAC and in Gover Street with an emu crossing as shown in Figure 2.11. Traffic signals are operational at the intersections of O'Connell Street/Tynte Street and Lefevre Terrace/Tynte Street. School zones for 25 km/h when children present are installed in Tynte Street between O'Connell Street and Lefevre Terrace and in Gover Street west of Lefevre Terrace.



Pedestrian Actuated Crossing in Tynte Street



Emu crossing in Gover Street

Figure 2.11 Pedestrian Crossings to North Adelaide Primary School

Walking to and from the school is an important transport mode for students who walk for their entire trip or as an access mode to the bus stops in O'Connell Street or Tynte Street on the Route 98 Connector bus. The footpath network in North Adelaide and through the Park Lands in Botanic Park needs to be well maintained and kept clear of fallen trees and debris by the City of Adelaide.

Footpaths are generally provided on both sides of the road within the North Adelaide suburbs built up suburbs. Multiple looping paths are typically seen within and surrounding the nearby the parklands. Pedestrian access to the school includes a pedestrian actuated crossing on Tynte Street and an emu crossing on Gover Street as shown in Figure 2.12.



Pedestrian crossing in Tynte Street that aligns with the main entrance to the school office



Pedestrian crossing in Gover Street that provides access to the rear entrance

Figure 2.12 Pedestrian Crossings at North Adelaide Primary School



The walkable catchment areas to North Adelaide Primary School are shown in Figure 2.13 based on an 800m walking distance along the footpath network. Students who walk their entire trip to school are likely walking from North Adelaide, Gilberton or the suburbs immediately to the north of Fitzroy Terrace and Robe Terrace.

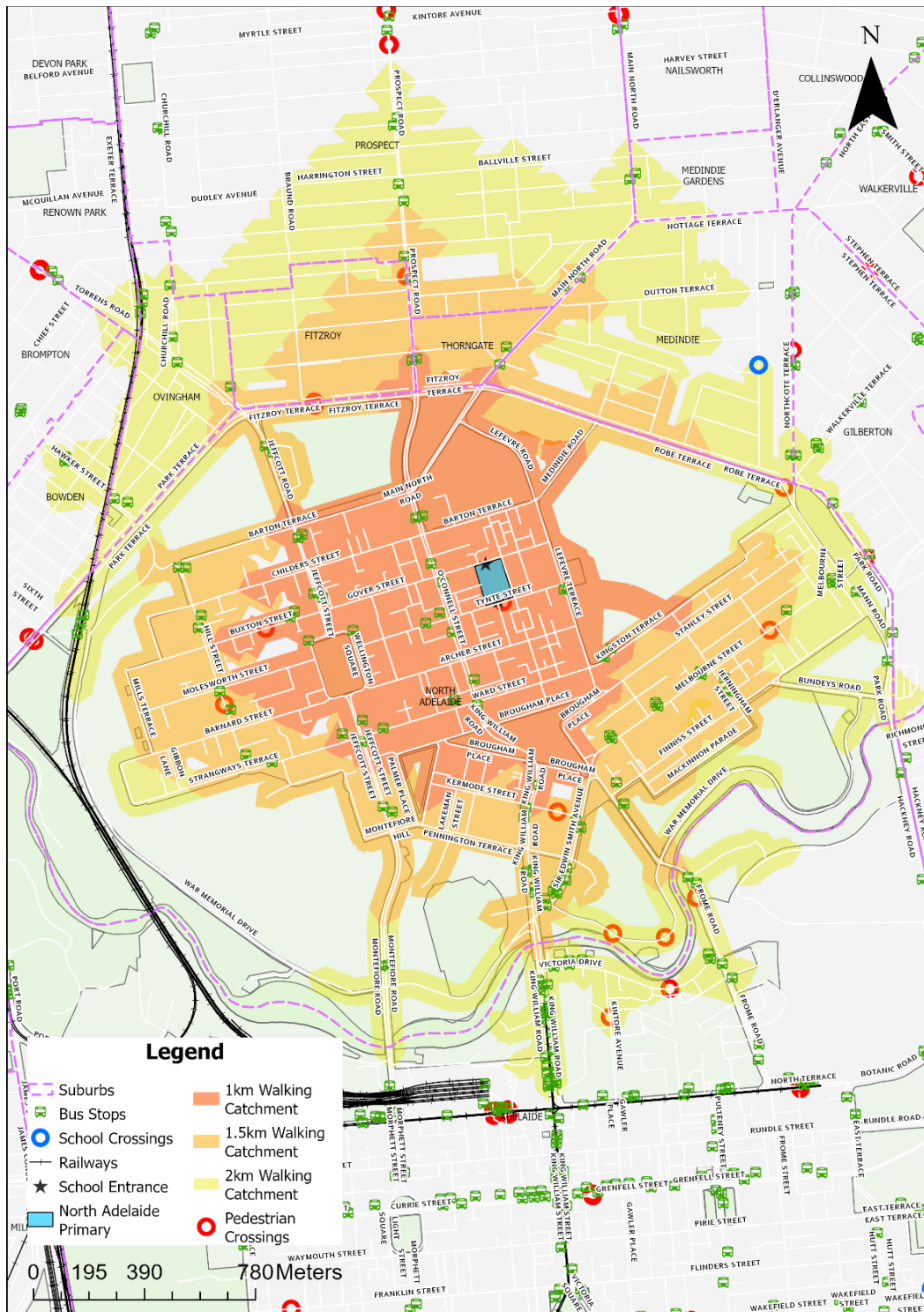


Figure 2.13 Walkable Access Catchment to North Adelaide Primary School



3 Issues and Opportunities

The issues and opportunities were identified with discussions with the school administration staff and site observations conducted during the AM drop-off period and the PM pick-up period.

3.1 Stakeholder Discussions

A meeting was held with North Adelaide Primary School Principal and Deputy Principal on Thursday 23 of May to discuss existing issues and any suggestions for new infrastructure. These were as follows:

- Issues with speeding in Tynte Street and Gover Street.
- Bike rack theft resulting in a secure location being required at the front of the school site
- Bike storage at the rear entrance only included the on-street facilities in Figure 2.9. This was utilised by 2 students for the day.
- Informal kiss and drop area on Tynte Street was hard to use due to the angled parking
- The construction of 88 O'Connell Street development resulted in carparking being utilised by nearby workers.
- The construction of the development is scheduled to be completed by early 2025.
- Staff carparking is limited at the school. Many staff park on the nearby local streets with the time limit restrictions and limited spaces result in staff leaving classrooms to shift vehicles.

No school expansion is currently planned for as the buildings were upgraded in 2003. Internal renovations are underway for the heating and air conditioning and other repairs in the heritage building.

3.2 Site Observations

The existing student arrival and departure movements at the North Adelaide Primary School were observed on Thursday 23 May 2024 from 8 am to 9 am and from 2:30 pm to 3:30 pm.

3.2.1 AM Arrival Period

The pedestrian, cyclist, bus passenger and Kiss and Drop activity was observed during AM arrival period from 8:30 am to 9:30 am. The AM period arrival profile was relatively distributed over the hour before the school start time, with the peak activity of arrivals between 8:30 am and 9:00 am. The entrances that were observed are shown in Figure 3.1.



Car making an unsafe U-turn in Gover Street



Cars observed double parking in Gover Street

Figure 3.1 AM Peak Safety Issues in Gover Street at North Adelaide Primary School



Other findings from the AM observations are:

- Carparking was generally available across the peak hour in Tynte Street, with vehicles not staying for more than 5 minutes as shown in Figure 3.2. However, some of the construction workers and non-school visitors to the area were parking for more than an hour or longer.
- Some vehicles stayed longer as parents escorted their children within the school gates.
- Some instances of speeds over 25km/h on Gover Street.
- The signage does indicate that this only needs to occur when children are present.
- Some instances of failure to give way at Emu crossing on Gover Street.
- U-turn movements within the street on both Tynte and Gover Street.
- Drivers were attempting to change direction at the Gover Street / Margaret Street intersection and head back towards Lefevre Road.
- Pedestrians were likely to use the PAC provided at the front entrance on Tynte Street.
- Pedestrians on Gover Street where the traffic volume is low were more inclined to jaywalk on either side of the emu crossing.
- Likely due to the typically lower movements and road width.



A car entering the angle parking on Tynte Street that are delayed the through traffic



Cars use all of the spaces in the angle parking on the north side of Tynte Street in front of the school entrance

Figure 3.2 AM Parking in Tynte Street at North Adelaide Primary School



3.2.2 PM Departure Period

The pedestrian, cyclist, bus passenger and Kiss and Drop activity was observed during PM departure period from 2:30 pm to 3:30 pm. The PM period departure profile included a significant movement of vehicles within a 15-minute timeslot after the school bell. Vehicles occupied most of the carparking spaces in front of the school in the 30-minute lead up to the school bell, with these vehicles typically moving on quickly. Some parents in vehicles who stayed for over 30 minutes after the school bell, gathering in the courtyard near Gover Street.



Parking in Gover Street near the school entrance



Parking in Tynte Street near the school entrance

Figure 3.3 PM Peak Conditions at North Adelaide Primary School

Other findings from the PM observations are:

- Carparking was generally occupied before the school bell and for 10 minutes after the school bell.
- Workers on O'Connell Street were seen getting into their cars on Tynte Street during the PM peak period
- Some instances of failure to give way at Emu crossing on Gover Street
- U-turn movements within the street on both Tynte and Gover Street
- Drivers were attempting to change direction at the Gover Street / Margaret Street intersection and head back towards Lefevre Road.
- Pedestrians were likely to use the PAC provided at the front entrance on Tynte Street
- Some situations were observed where parents crossed over Tynte Street mid-block with their children
- Pedestrians on Gover Street (where the road volume is anticipated to be low) were more inclined to jaywalk on either side of the Emu Crossing.
- Likely due to the typically lower movements and road width

3.3 Summary of the Issues and Opportunities

The key issues for students and parents access the school are:

- Carparking was limited during the 15-minute peak periods around both AM and PM peak times. This was largely attributed to staff and nearby worker demand in the area, especially on Tynte Street.
- Angled carparking in Tynte Street was also difficult to navigate for school drop off / pick up.
- Parents were observed making mid-block U-turn movements in Gover Street.
- Some issues with higher speeds and failure to give way at the Gover Street emu crossing.



4 Travel Safety Options and Assessment

4.1 Student Travel Safety Options

Options to improve the travel safety for students at the school were developed under three categories, namely:

- Infrastructure treatments requiring civil works with changes to signals or pedestrian crossings.
- Operational efficiencies, with changes to parking controls, Kiss and Drop areas or school zones.
- Safety promotions to increase awareness of the school with warning signage or information.

The options for the assessment are provided in **Error! Reference source not found.** with a description of the initiative and the issue to be addressed.

Table 4.1 School Travel Safety Options for North Adelaide Primary School

Type of Option	Description	Issue Addressed
Infrastructure Treatments	Convert the emu crossing in Gover Street to a koala crossing with flashing warning lights during the AM arrival and PM departure periods.	Drivers do not slow down in the school zone in Gover Street because the emu crossing is not obvious with the on-street parking and treed street
	Reconfigure the footpath and kerb in front of the former fire station entrance that is immediately west of the student entrance in Tynte Street to allow for short term 15-minute parking during the AM and PM school peak hours. The 'No Stopping' yellow line would be removed to allow for angle parking spaces to be implemented. This would require minor changes to the footpath and kerbing in front of the former fire station entrance.	Illegal parking in front of the former fire station entrance that is currently a no stopping zone. This would provide spaces for short term 15-minute parking close to the student entrance for the Kiss and Drop activity.
	Investigate options for safer pedestrian movements by parents and students in Tynte Street opposite the student entrance immediately east of the former fire station entrance.	During the school drop-off and pick-up periods, parents and students who are walking from the south side of Tynte Street west of the school are crossing Tynte Street opposite the student entrance.
Operational Efficiencies	Change the 1P timed parking areas in Tynte Street in front of the school to 15-minute parking for the AM and PM school periods. This parking change will need to be enforced on a regular basis.	The workers and non-school visitors to the area are parking in the spaces on the north side of Tynte Street in front of the school for extended periods. These angle parking spaces are needed for the Kiss and Drop activity at the school because they are the safest and most convenient to the school entrance.



Type of Option	Description	Issue Addressed
	Organise for more staff to be available in the AM peak during the busiest period for student arrivals and in the PM departure period at the Tynte Street and Gover Street entrances.	The pedestrian activity for the 15-minute periods in the AM and PM school peaks is very busy with safety risks to students. Students in the AM period are not organised into queues and in the PM period they are blocking the footpaths.
	Staff parking improvements with the provision of permits for staff in the local streets, including Gover Street. This is not in the scope of this school travel safety review.	With the limited on-site parking for staff and the timed parking controls in the local streets close to the school, many teachers leave their class to move their cars during the school day leaving students unattended for short periods. This is a safety issue for students because they are left unaccompanied in the classroom.
Safety Promotions	Install additional signage to promote the school area for traffic approaching the school zones at the O'Connell Street and Lefevre Terrace ends of Gover Street and Tynte Street.	Reinforce the awareness for drivers entering a "school precinct area"
	Prepare a consolidated travel access guide for students and parents that would be promoted on the school website in location that is easy to find, in addition to the school newsletter.	Students and parents may not be aware of their travel choices for bicycle routes, facilities at the school or public transport services.



4.2 Recommended School Travel Safety Initiatives

The recommended school travel safety initiatives are shown on Figure 4.1. They include:

- Convert the emu school crossing to a koala pedestrian crossing in Gover Street.
- Reconfigure the footpath and kerb in front of the former fire station entrance that is immediately west of the student entrance in Tynte Street to allow for short term 15-minute parking during the AM and PM school peak hours. The 'No Stopping' yellow line would be removed to allow for angle parking spaces to be implemented.
- Implement changes to the timed angle parking on the north side of Tynte Street in front of the school to be 15-minute limits from 8 am to 9 am and 2:30 pm to 3:30 pm on school days, instead of the mixture of 15-minute and 1P parking spaces. This will provide additional parking capacity for the Kiss and Drop activity in Tynte Street.
- Investigate options for safer pedestrian movements by parents and students in Tynte Street opposite the student entrance immediately east of the former fire station entrance.
- Installing new unique different school zone advance warning signage at the entry points in Gover Street and O'Connell Street at the O'Connell Street and Lefevre Terrace ends.

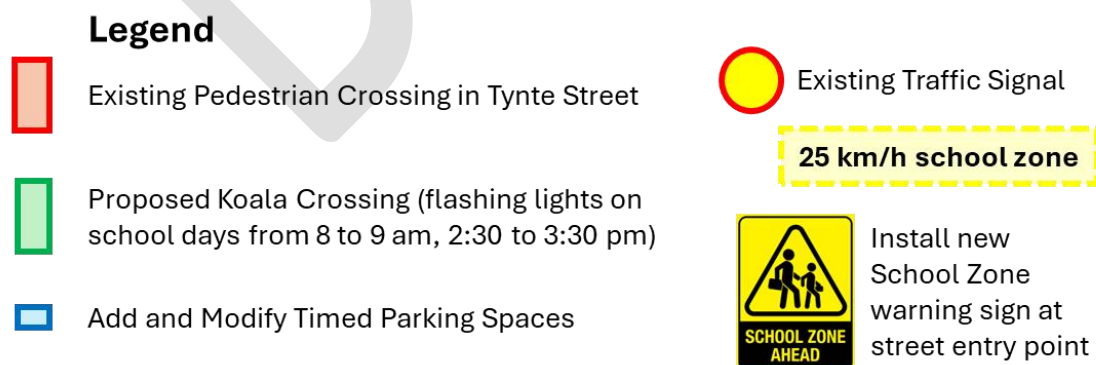
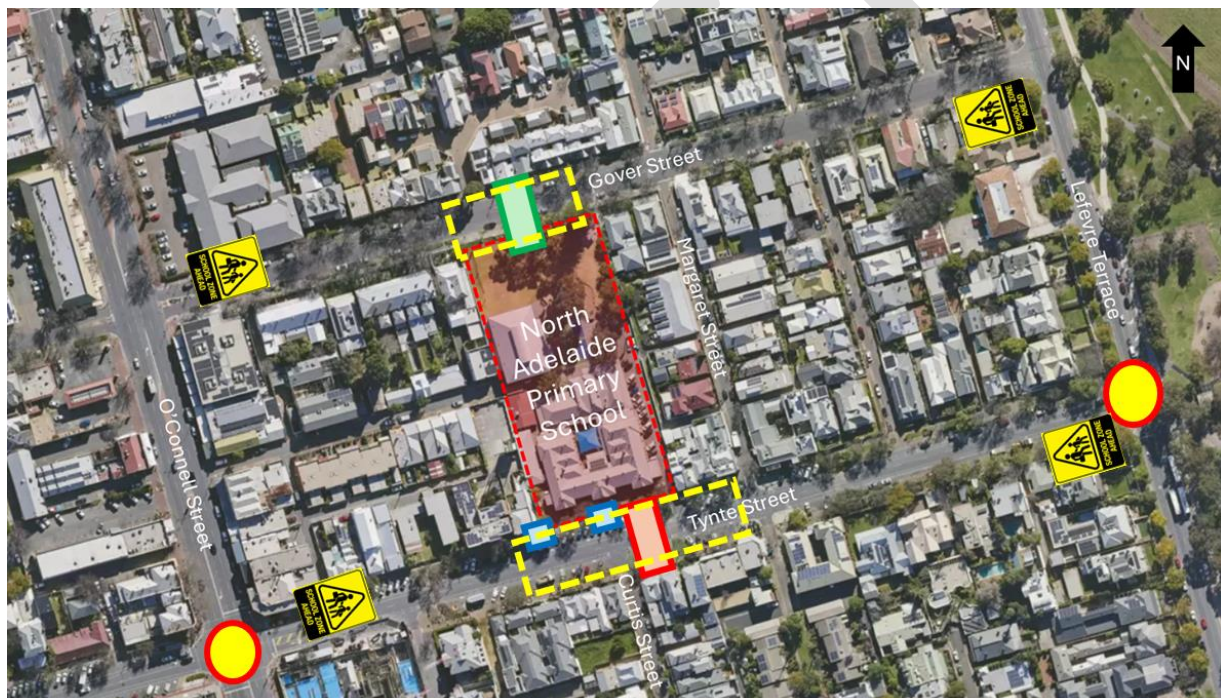


Figure 4.1 Recommended Initiatives at North Adelaide Primary School



4.2.1 Koala Crossing in Gover Street

Examples of koala pedestrian crossing at primary schools is shown in Figure 4.2. In order to apply for a koala crossing the DIT Pedestrian Guidelines require the following evidence to be provided to support the warrant for a koala crossing.



Koala crossing with yellow flashing lights and school crossing monitors at St Ignatius' College Junior School in Queen Street, Norwood



Koala crossing at St Joseph's Memorial School in William Street, Norwood

Figure 4.2 Examples of Koala Crossings at Primary Schools

The DIT warrant for a koala crossing requires pedestrian surveys for two separate one hour periods of a typical school day with:

- 50 or more children actually cross the road and could reasonably be expected to use the crossing; and
- 200 or more vehicles per hour pass the site where the children will cross during the same two hours.

These surveys are usually conducted for the continuous period from 8:00 am to 6:00 pm on a typical weekday, but may be extended if the time of peak pedestrian movement is outside that period. The section of road under consideration is divided into zones of approximately 30 m in length.

The numbers of pedestrians categorised according to type (such as Adult / Adult with bike / Child / Child with bike / Older person / Person with a disability etc) crossing the road in each zone are counted and the totals recorded for each 15-minute period.

When the category includes 'bike', only those who cross the road are counted; not those riding along the road or footpath. Young children, the elderly and people with a disability should be given greater recognition in the pedestrian surveys by weighing their numbers. The observed numbers of:

- children under 10 year old who are not accompanied by an adult,
- older people who may exhibit a degree of frailty or difficulty in crossing the road in a timely manner,
- people recognised as having a disability should be weighted by being multiplied by a factor of 1.5.



4.2.2 Options to Improve Pedestrian Crossing Safety in Tynte Street

In order to improve the pedestrian crossing safety to the school entrance in Tynte Street, several options are provided for further consideration. These options are provided with the advantages and disadvantages in Table 4.2. They require further site observations, data collection for pedestrian volumes crossings during the AM and PM school peak hours and a more detailed assessment.

Table 4.2 Options to Improve Pedestrian Crossing Safety in Tynte Street

Option ID	Description	Advantages	Disadvantages
A	Relocate the PAC 40 m west to align with student entrance and the pedestrian desire line.	Significantly improves safety for pedestrians crossing Tynte Street with one crossing located where most pedestrians want to cross. Provides multiple safe crossing points in Tynte Street for most students.	Costly up to \$500,000 to move and reinstate on street parking in front of main entrance to the school. The PAC would be located further west from the bakery and café on the corner of Tynte Street and Margaret Street.
B	Apply to install at koala crossing at the entrance and retain the PAC	Provides a safer pedestrian crossing location for most students.	Not accepted by DIT pedestrian crossing warrants Costly up to \$2000,000 to install a new koala crossing
C	Install physical measures to channel the pedestrians along the footpath on the north side of Tynte Street between existing PAC and student entrance.	Provides a safer pedestrian crossing location for most students.	Cost up to \$20,000 Affects access from the parked cars and Kiss and Drop activity to the school entrance. Pedestrians and school students would be forced to use the footpath with pedestrian congestion during the school drop-off and pick-up times.
D	Install a median with a fence in middle of Tynte Street.	A fence will discourage walking across Tynte Street at midblock locations,	Cost up to \$50,000 Not a good urban design outcome Impact on bus and large vehicles in Tynte Street
E	Clear trees and plantings inside the school fence for students and parents to walk between the school building and the fence in Tynte Street between the PAC and the student entrance.	Provides an alternate safe walk route on the school property between the PAC and main entrance to the student entrance.	Impact on heritage building façade with removal of greenery Cost up to \$10,000



4.2.3 Signage to Increase the Awareness of the School for Motorists

An issue for school student travel safety is many motorists in Tynte Street and Gover Street are not aware that North Adelaide Primary School is located here with the heritage buildings that are set-back from the streets. It is proposed to install larger and more prominent information signage (not regulatory signage) to increase the awareness of the school. The signs could be installed at either end of Tynte Street and Gover Street for motorists to see when entering from O'Connell Street and Lefevre Terrace.

Examples of signage at the entry points to a school precinct are shown in Figure 4.3. These information and advisory advance warning signs are not standard for the DIT guidelines. Council will need to discuss with DIT about these types of signs that are intended to increase awareness to traffic in Tynte Street and Gover Street that a primary school is in the



Large entry signage that is visible to traffic on the street



Advanced warning sign for a school zone

Figure 4.3 Alternative School Precinct Warning Signage

4.2.4 Information to Promote Safer Student Travel to the School

The school provides limited information to promote safer student travel to school. Examples of the types of information brochures, known as school Travel Access Guides in NSW, are provided for a primary school in Appendix B. The Travel Access Guide is prepared with a consistent template for all government schools in NSW in collaboration with the school principals and a school travel coordinator.



4.3 Assessment and Indicative Cost Estimates

The school travel safety options were assessed under the safe systems approach and indicative cost estimates are provided for each travel safety option in Table 4.3. The options were given labels under the following categories:

- T for Traffic control device or treatment that requires civil works and construction with cost estimates.
- P for Parking control with new signage or to pavement markings for the on-street parking or a school zone.
- I for information to the school community with signage or online promotional brochure.

Table 4.3 Indicative Cost Estimates for the Travel Safety Options at North Adelaide Primary School

Option ID	Description	Indicative Cost Estimate	Comments
T1	Convert the emu crossing in Gover Street to a koala crossing with flashing warning lights during the AM arrival and PM departure periods.	Up to \$200,000	Council to prepare evidence to support the warrant for a koala crossing and liaise with DIT for the approval to install a koala crossing. Council responsible for the design and installation if approved.
T2	Reconfigure the footpath and kerb in front of the former fire station entrance that is immediately west of the student entrance in Tynte Street to allow for short term 15-minute parking during the AM and PM school peak hours. The 'No Stopping' yellow line would be removed to allow for angle parking spaces to be implemented. This would require minor changes to the footpath and kerbing in front of the former fire station entrance.	Less than \$20,000	The footpath and parking controls in front of the former fire station are under the control of Council to design and implement.
T3	Investigate options for safer pedestrian movements by parents and students in Tynte Street opposite the student entrance immediately east of the former fire station entrance.	Undetermined	Requires additional data collection, site observations and further analysis to determine a preferred option
P1	Change the 1P timed parking areas in Tynte Street in front of the school to 15-minute parking for the AM and PM school periods. This parking change will need to be enforced on a regular basis.	Less than \$1,000	parking controls in front of the former fire station are under the control of Council to design and implement.



Option ID	Description	Indicative Cost Estimate	Comments
I1	Install additional signage and promotion of the school area for traffic approaching the school zones at the O'Connell Street and Lefevre Terrace ends of Gover Street and Tynte Street.	Less than \$1,000	The selection of information signage and installation in Tynte Street and Gover Street is under the control of the Council.
I2	Prepare a consolidated travel access guide for students and parents that would be promoted on the school website in location that is easy to find, in addition to the school newsletter.	No cost to Council	This would be prepared and promoted by the school administration.



5 References

The following references were used in the preparation of the school travel safety review.

- Guide to Traffic Management Part 8, Local Area Traffic Management, Austroads, Sydney, 2016, Section 7.5.7 School Zones, page 114
- Guide to Traffic Management Part 10, Traffic Control and Communication Devices, Austroads, Sydney, 2019, Section 6.5.8 Zig Zag Markings, page 105,
- Speed Limit Guideline for South Australia, Department for Infrastructure and Transport, October 2023, Appendix C School Zones
- Supplement to AS 1742.10, Manual of uniform traffic control devices, Part 10, Pedestrian control and protection, Department for Infrastructure and Transport, April 2024
- Manual of Legal Responsibilities and Technical Requirements for Traffic Control Devices Part 2: Code of Technical Requirements, Department for Infrastructure and Transport, March 2024, Section 9.3 Drop off and pick up zones, page 34
- School Transport Policy, Department for Education, South Australia, January 2024



Appendix A – Student Travel Survey Form

 CITY OF ADELAIDE 	
School Travel Survey for Students	
School: North Adelaide Primary School	
<i>Tonkin on behalf of the City of Adelaide is conducting a survey to determine the main modes of travel for students to understand the travel behaviour to the school. Please assist us by undertaking a short student survey during the first period class.</i>	
Questions for the Teacher	
Date (day/month/year): Weather (Daytime temperature and sky conditions): Please enter the name or number of your class or year group. How many students are absent today in your class?	
Questions for the Students in Your Class / Year Group	
<i>Please ask the students with a 'hands-up' survey in the classroom.</i>	
AM Period Travel	
<i>How did you travel to school this morning? (If you travelled by more than one mode, please answer with the longest part of your journey - e.g. "car" for "car and scooter".)</i>	
Main Mode of Travel in the AM Period	Number of Students
Car (as passenger with drop-off in Tynte Street)	
Car (as passenger with drop-off in Gover Street)	
Car (as passenger with drop-off in other streets)	
Walk for the entire trip	
Bus	
Train	
Tram	
Bicycle, e-bike or moped	
Scooter	
PM Period Travel	
<i>How will you travel from school this afternoon? (If you will travel by more than one mode, please answer with the longest part of your journey - e.g. "car" for "car and scooter".)</i>	
Main Mode of Travel in the PM Period	Number of Students
Car (as passenger with pick-up in Tynte Street)	
Car (as passenger with pick-up in Gover Street)	
Car (as passenger with pick-up in other streets)	
Walk for the entire trip	
Bus	
Train	
Tram	
Bicycle, e-bike or moped	
Scooter	
If you travelled by car, would you prefer any of these modes? (multiple answers)	
Walking for the entire trip	
Bicycle, e-bike or scooter	
Public Transport (bus, tram or train)	



Appendix B –School Travel Access Guide in NSW

| NSW Department of Education – School Infrastructure



Meadowbank Public School Travel Access Guide

Effective: September 2023

Introduction

Our school community of parents/carers, staff and students live within a reasonable walk or cycle trip of the school. This Travel Access Guide provides suggested safe and accessible options for travelling to and from school.

Active ways to get to school



Walking to and from school

- Walking is a fun way to keep active and healthy.
- Stay alert and watch out for any potential hazards, including cars reversing out of driveways, bikes and other pedestrians.
- Remember to STOP, LOOK, LISTEN and THINK every time you cross the road.



Ride your bike

- 278 bike racks are available for everyone and 42 scooter racks for K-6 students.
- All bicycle riders are required by law to wear a correctly fitted Australian standards approved helmet and is highly recommended when riding a scooter.
- Children under the age of 16 are allowed to cycle on the footpath, keeping them safer and more protected from road traffic.

Kiss and drop expectations

- For parents/carers who drive their child/ren to school, the kiss and drop zone is located along Rhodes Street starting from Hermitage Road.
- This space is a 'No Parking' zone, meaning that you may stop for up to a maximum of 2 minutes and move no more than 3 metres from the vehicle.

Message from our principal

- Meadowbank Public School supports sustainable and environmentally friendly transport practices.
- Students up to 8 years of age should hold the hand of an adult when walking or be accompanied by an adult when riding
- Students from 8 to 10 years of age should be actively supervised by an adult

School bell times

Start Times

8:45 am

End Times

2:45 pm

The outside school hour times for the primary school are: 7:00 am - 8:45 am and 2:45 pm - 6:00 pm.

For more information contact:

School Infrastructure NSW
Email: schoolinfrastructure@det.nsw.edu.au
Phone: 1300 482 651
www.schoolinfrastructure.nsw.gov.au





NSW Department of Education – School Infrastructure

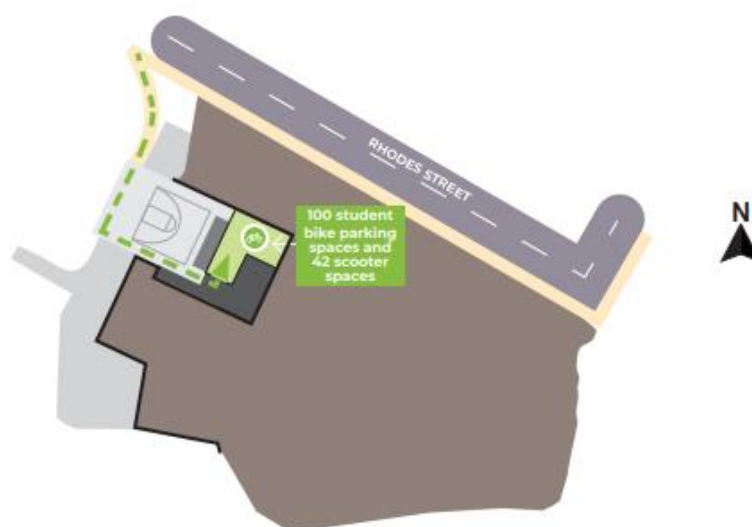


Please use the Trip Planner at transportnsw.info/ for additional information about cycling routes to the school.

End of trip facilities



Playground level:
For students attending
Meadowbank Public School





NSW Department of Education – School Infrastructure

Where do you ride?

Footpath/shared path/cycleway:

- Children under 16 can ride on a footpath.
- Adults supervising children under 16 can also ride on the footpath.
- Be careful of cars entering and exiting driveways.
- Watch out for pedestrians, other riders and animals.

Look out for pedestrians on shared paths.



Crossing the road:

- Be extra careful.
- Walk your bicycle when you cross at a pedestrian crossing.

Give a metre:

Give pedestrians 1 metre of space when riding past.



3 steps to follow when riding a bike:

Clip, check, chime.

Clip your helmet

1



You must always wear a helmet when riding your bike.

Check your brakes

2



Make sure your brakes are working.

Chime your bell

3



If you pass another rider or pedestrian, chime your bell.

Things to remember

- Always ask your parents permission to ride.
- Loose clothing and items can get caught in your wheels. Secure any loose items, like backpack straps



- Shoes with a good tread on the soles will help you grip the pedals and protect your feet. Make sure your laces are tied.



Always remember to watch out for hazards



- 1 Wet leaves
- 2 Big puddles
- 3 Storm grates
- 4 Gravel or rocks
- 5 Little kids
- 6 Animals
- 7 Changes in the road/footpath/cycleway surfaces

For more information contact:

School Infrastructure NSW
Email: schoolinfrastructure@det.nsw.edu.au
Phone: 1300 482 651
www.schoolinfrastructure.nsw.gov.au

