

Traffic Impact Assessment - Princes Hill Primary School Road Closure

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Prepared by:
Danielle Cruickshank

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300306022



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1 Introduction

1.1 Background

Yarra City Council is working with local primary schools to encourage more active travel such as cycling, walking, scooting, and public transport use during school drop-off and pick-up times. The recent collaboration with Princes Hill Primary School included temporary closures at the T-intersection of Solly Avenue, Park Street, and Wilson Street to support a safe and convenient connection for pedestrians and cyclists across the Inner Circle Rail Trail to the school.

Council is now considering a permanent full or partial closure in the vicinity of the T-intersection of Solly Avenue, Park Street, and Wilson Street to improve safety for students and parents accessing the school gate. Stantec was engaged by Yarra City Council to explore a range of design options that will meet the best practice principles for safe routes to school and low traffic road environments. A traffic impact assessment is required to quantify the impacts of these options to the surrounding road network.

1.2 Purpose of this report

This report sets out an assessment of the impact of the proposed closure on the local traffic network, including consideration of the:

- existing traffic and parking conditions surrounding the site
- the operational and safety implications of the proposed closure options
- parking impacts associated with the proposed closure options
- transport impact of the proposal options on the surrounding road network.

1.3 References

In preparing this report, reference has been made to the following:

- Background data and documentation provided to Stantec by Yarra City Council, including 7-day 24-hour vehicle counts, bicycle counts, intersection turning movement counts and parking demand surveys
- Relevant Australian/New Zealand standards
- An inspection of the site and its surrounds
- Other documents as nominated



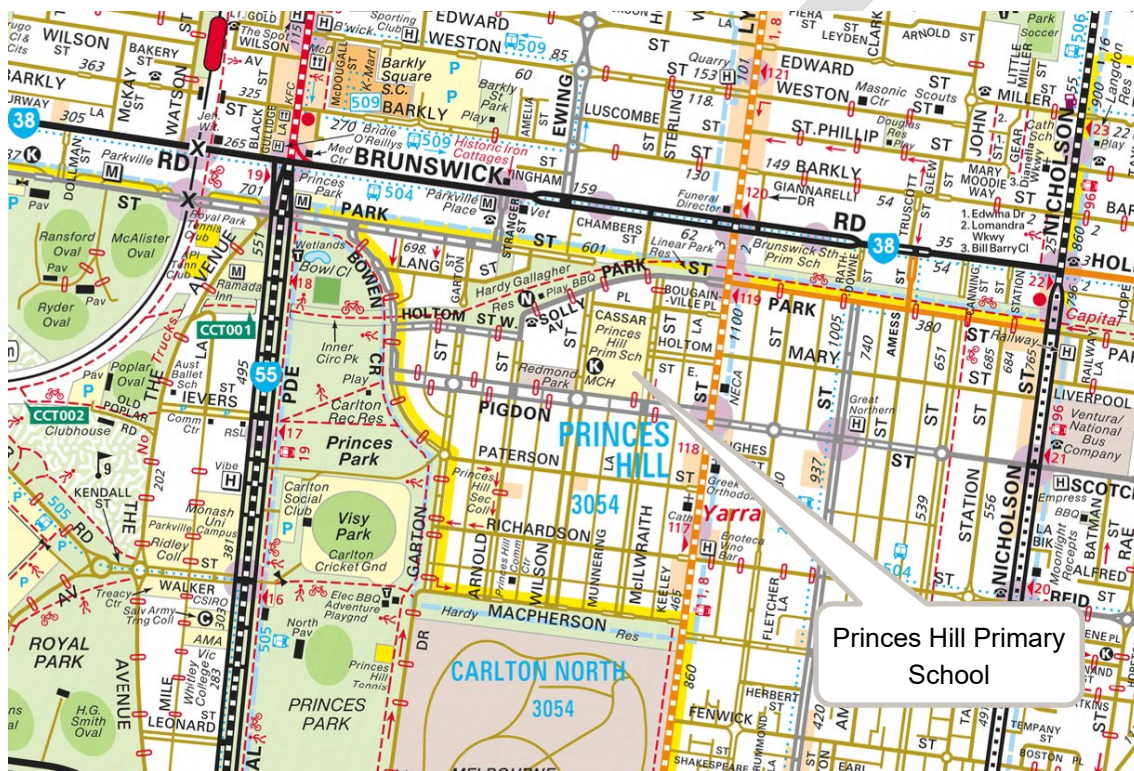
2 Existing Conditions

2.1 Subject Site and Surrounds

Princes Hill Primary School has frontages to Wilson Street (west), Pigdon Street (south) and McIlwraith Street (east), with Cassar Place located along its northern boundary. The surrounding properties are predominantly residential and community uses.

The location of the subject site and the surrounding environs is shown in Figure 2-1, and the land zoning is shown in Figure 2-2.

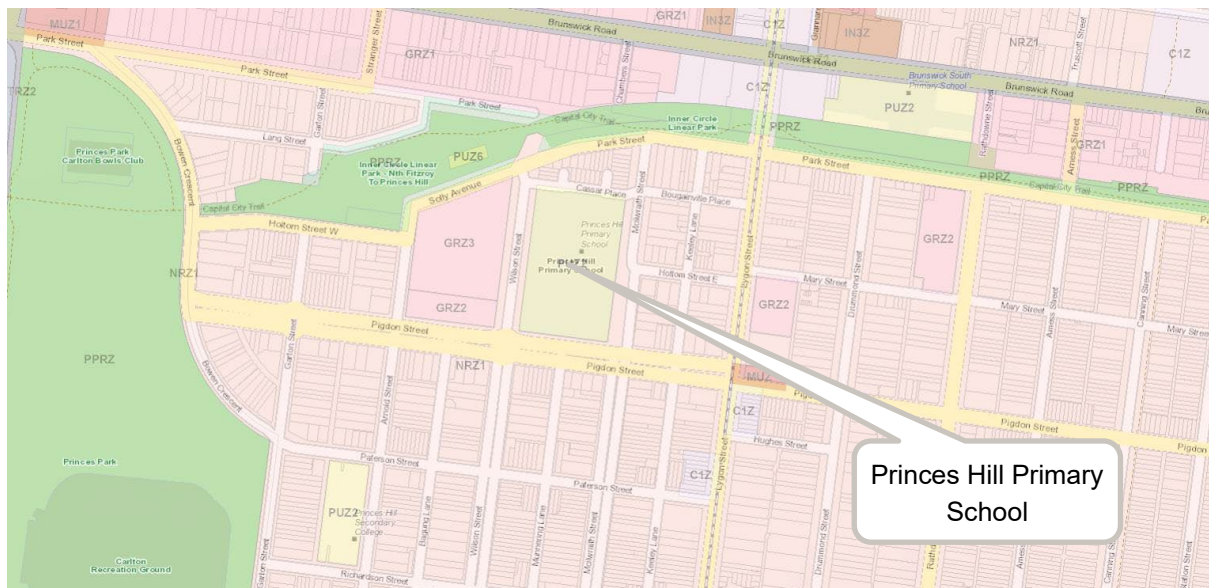
Figure 2-1: Subject Site and its Environs



Source: Reproduced with Permission from Melway Publishing Pty Ltd

Traffic Impact Assessment: Princes Hill Primary School Road Closure Existing Conditions

Figure 2-2: Land Zoning Map



Source: Reproduced from VicPlan web site



2.2 Road Network

2.2.1 Wilson Street

Wilson Street is a local road under Council jurisdiction, aligned in a north-west direction between Park Street/Solly Avenue in the north and Macpherson Street in the south.

The road provides a carriageway width of 15m (approx.) and generally accommodates two travel lanes, two bicycle lanes and a central median. Parallel parking is permitted on each side of the road and within the central median, with 90-degree angle parking provided on a section of the west side of the road. Parking supply is predominantly unrestricted, with “No Stopping” during school pick up and drop off times for some of the spaces along the east side of the road, two 2P spaces and a car share bay.

Wilson Street is signposted with a 40km/h speed limit and carries approximately 650 vehicles per day¹. Footpaths are provided on both sides of the road.

Wilson Street is shown in Figure 2-3.

Figure 2-3: Wilson Street, looking south from Park Street



[1] ¹ Based on tube count data collected in June 2025.

2.2.2 Park Street

Park Street is a local road under Council jurisdiction, aligned in an east-west direction between Wilson Street in the west and Lygon Street in the east.

The road provides a carriageway width of 12m (approx.) and 13m (approx.) to the east and west of McIlwraith Street, respectively, accommodating two travel lanes. Between Wilson Street and McIlwraith Street, parallel parking is provided on the south side (subject to 2P restrictions), with 45-degree angle parking provided on the north side (subject to 4P restrictions). Between McIlwraith Street and Lygon Street, parallel parking is provided on both sides of the carriageway, with permit parking on the south side and 4P restrictions on the north side.

A footpath is provided on the south side of the carriageway, whilst the Inner Circle Rail Trail shared path is located within the linear park reserve on the north side of the carriageway. A 40km/h speed limit applies to Park Street, and it carries approximately 1,000 vehicles per day².

Park Street is shown in Figure 2-4.

Figure 2-4: Park Street, looking east from Wilson Street



[2] ² Based on tube count data collected in June 2025.

2.2.3 Solly Avenue

Solly Avenue is a local road under Council jurisdiction, aligned in an east-west direction between Arnold Street/Holtom Street West in the west and Park Street/Wilson Street in the east.

The road provides carriageway width of 10m (approx.) and generally accommodates two (2) travel lanes along with parallel parking on each side of the road. A 2P parking restriction applies to the south side of the carriageway, whilst the northern side is unrestricted. Footpaths are provided on the south side of the carriageway only. A 40km/h speed limit applies for Solly Avenue, and it carries approximately 750 vehicles per day³.

Solly Avenue is shown in Figure 2-5.

Figure 2-5: Solly Avenue, looking west at Wilson Street



³ Based on turning movement volumes collected in October 2025 and a peak-to-daily ratio of 10%.

2.2.4 Pigdon Street

Pigdon Street is a local road under Council jurisdiction, aligned in an east-west direction between Bowen Crescent in the west and Nicholson Street to the east.

The road provides carriageway width of 31m (approx.) and generally accommodates two (2) travel lanes, two on-road bicycle lanes and a wide central median, along with parallel parking on each side of the road. Parking restrictions consist of a mix of unrestricted, permit and 2P time-restricted spaces.

Footpaths are provided on both sides of the road. A 40km/h speed limit applies.

Pigdon Street carries approximately 4,200 vehicles per day⁴.

Pigdon Street is shown in Figure 2-3.

Figure 2-6: Pigdon Street, looking east from Wilson Street



Source: Google

⁴ Based on tube count data collected in June 2025.

2.2.5 Arnold Street

Arnold Street is a local road under Council jurisdiction, aligned in a north-west direction between Holtom Street West/Solly Avenue in the north and Macpherson Street in the south.

The road provides carriageway width of 14m (approx.) and generally accommodates two (2) travel lanes and a central median along with parallel parking on each side of the road. Permit parking is located on the west side, whilst all other parking is unrestricted. Footpaths are provided on either side of the road. A 40km/h speed limit applies.

Arnold Street carries approximately 420 vehicles per day⁵.

Arnold Street is shown in Figure 2-3.

Figure 2-7: Arnold Street, looking north towards Holtom Street West/Solly Avenue



Source: Google

⁵ Based on tube count data collected in June 2025.

2.2.6 McIlwraith Street

McIlwraith Street is a local road under Council jurisdiction, aligned in a north-west direction between Park Street in the north and Macpherson Street in the south.

The road provides carriageway width of 23m (approx.) and generally accommodates two (2) travel lanes and two bicycle lanes, with parallel parking on the east side of the carriageway and 60-degree angle parking on the west side. The parallel parking is a mix of 2P time-restricted parking and permit parking, whilst the 60-degree angle parking is predominantly 4P time-restricted. At its southern end between Holtom Street East and Pigdon Street, McIlwraith Street accommodates only southbound vehicle movements, with two-way bicycle lanes.

Footpaths are provided on both sides of the road. A 40km/h speed limit applies.

McIlwraith Street carries approximately 630 vehicles per day⁶.

McIlwraith Street is shown in Figure 2-3.

Figure 2-8: McIlwraith Street, looking north towards Park Street



⁶ Based on tube count data collected in June 2025.

2.2.7 Cassar Place

Cassar Place is a local road under Council jurisdiction, aligned in an east-west direction between Wilson Street in the west and McIlwraith Street in the east. It operates as a one-way street in an eastbound direction, with a single vehicle lane and entry at the Wilson Street end.

Cassar Place is shown in Figure 2-3.

Figure 2-9: Cassar Place, looking east at Wilson Street



2.2.8 Surrounding intersections

Key intersections in the vicinity of the site include:

- Park Street/Wilson Street/Solly Avenue (unsignalised T-intersection)
- Wilson Street/Pigdon Street (four-leg roundabout intersection).

2.2.9 Accident statistics

A review of the reported casualty accident history for the roads and intersections for the last five (5) years in the vicinity of Princes Hill Primary School has been sourced from the DTP's CrashStats accident database. This database records all accidents causing injury that have occurred in Victoria since 1987 (as recorded by Victorian Police) and categorises these accidents as follows:

- Fatal injury: At least one person was killed in the accident or died within 30 days as a result of the accident;
- Serious injury: At least one person was sent to hospital as a result of the accident; and
- Other injury: At least one person required medical treatment as a result of the accident.

A summary of crashes in the vicinity of the proposed closure is shown in Figure 2-10 and Table 2-1.

Figure 2-10: Crash History Map



Table 2-1: Crash History Details (October 2020 – October 2025)

Crash Date	Crash Location	Crash Type	DCA Description (Code)	Injury Type
Saturday, Jul 10, 2021	Arnold Street / Holtom Street West intersection	Struck pedestrian	Veh strikes ped on footpath / median / traffic island (106)	Serious injury
Saturday, May 1, 2021	Pigdon Street / Wilson Street intersection	Collision with a fixed object	Left off carriageway into object/parked vehicle (174)	Serious injury
Monday, Feb 5, 2024	Park Street / McIlwraith Street intersection	Collision with vehicle	Right off carriageway into object/parked vehicle (173)	Serious injury
Monday, Nov 11, 2024	Park Street between McIlwraith Street and Lygon Street	Collision with vehicle	Leaving parking (142)	Other injury

Traffic Impact Assessment: Princes Hill Primary School Road Closure

Existing Conditions

Three serious injury crashes have occurred over the last available five-year period (1 October 2020 – 31 October 2025), along Smith Street in the vicinity of the subject site. Two of the recorded crashes involved collision with a fixed object or parking vehicle and the third crash involved striking a pedestrian. The other injury crash was a collision with a cyclist whilst leaving parking.

Based on the above results, there is no specific pattern regarding the type of crashes or location of crashes.

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2.3 Sustainable Transport Infrastructure

2.3.1 Public Transport

The nearest bus route to Princes Hill Primary School is Route 504 on Brunswick Road near Lygon Street, which services Clifton Hill to Moonee Ponds. Tram routes 1 and 6 run along Lygon Street, providing access to Glen Iris, Moreland, East Coburg and South Melbourne Beach.

There are a range of other routes and services located within approximately 1km of the school, including Jewell Station and the Upfield train station and tram Route 19 along Royal Parade.

An overview of the nearby public transport routes is shown in Figure 2-11.

Figure 2-11: Public Transport Network (PTV)

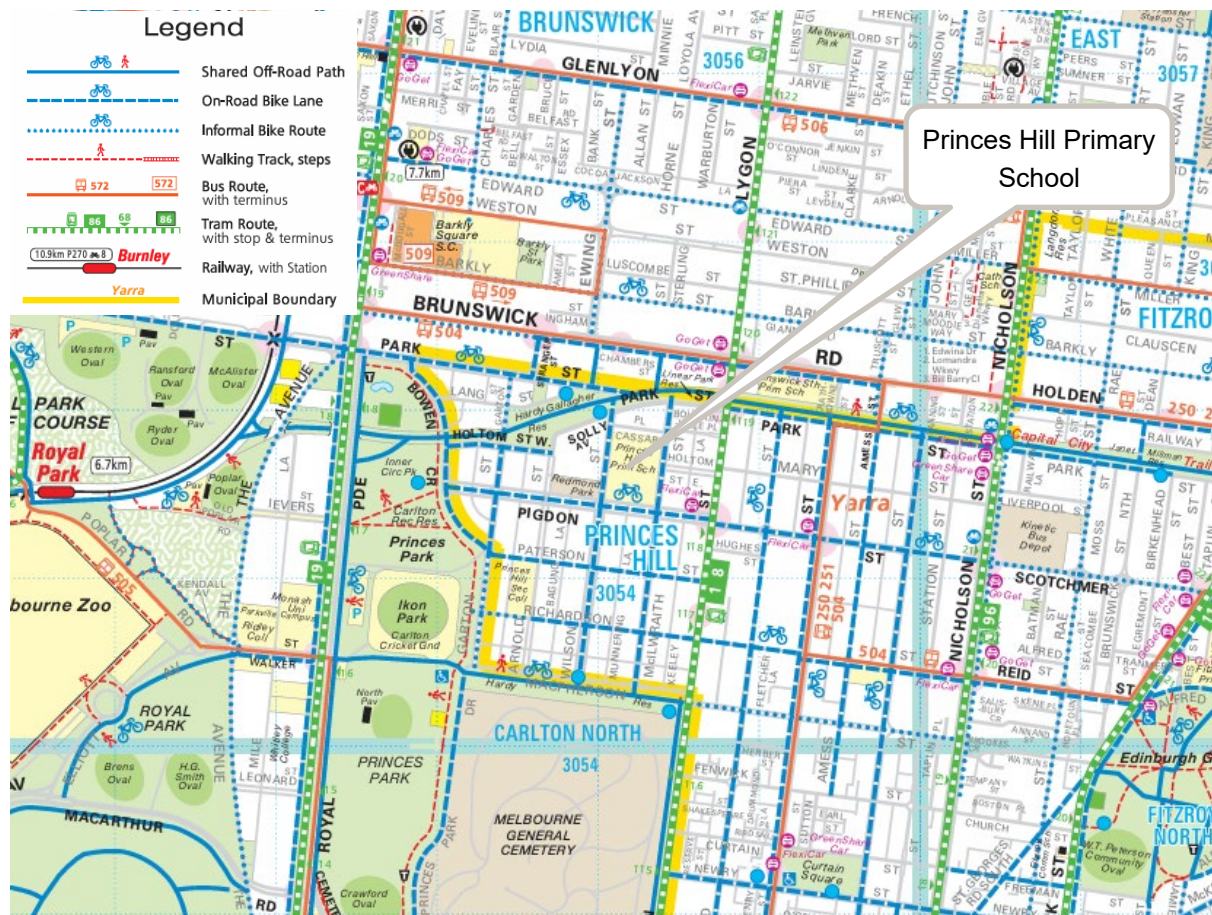


Source: PTV

2.3.2 Cycling and Walking

The City of Yarra's Travel Smart Map is presented in Figure 2-12, which shows the bicycle path network around Princes Hill Primary School.

Figure 2-12: TravelSmart Map (2023)



Source: City of Yarra

There is good bicycle infrastructure in the vicinity of the school, with on road bicycle lanes along Wilson Street, Pigdon Street and McLlwraith Street. The Inner Circle rail trail located to the north is an off-road shared path providing a key east-west link through to the Capital City Trail to the east and through to Royal Park and beyond to the west. North-south connections for longer journeys are also available in the form of both on-road bicycle lanes and a shared path on Royal Parade, a shared path on Lygon Street and on-road bicycle lanes on Drummond Street.

The DTP Strategic Cycling Corridor (SCC) Network supports the needs of commuter trips, which includes trips to schools. As shown in Figure 2-13, the SCC includes Royal Parade, the Capital City/Inner Circle Rail Trail (including the western section of Park Street) and Canning Street as primary routes (C1).

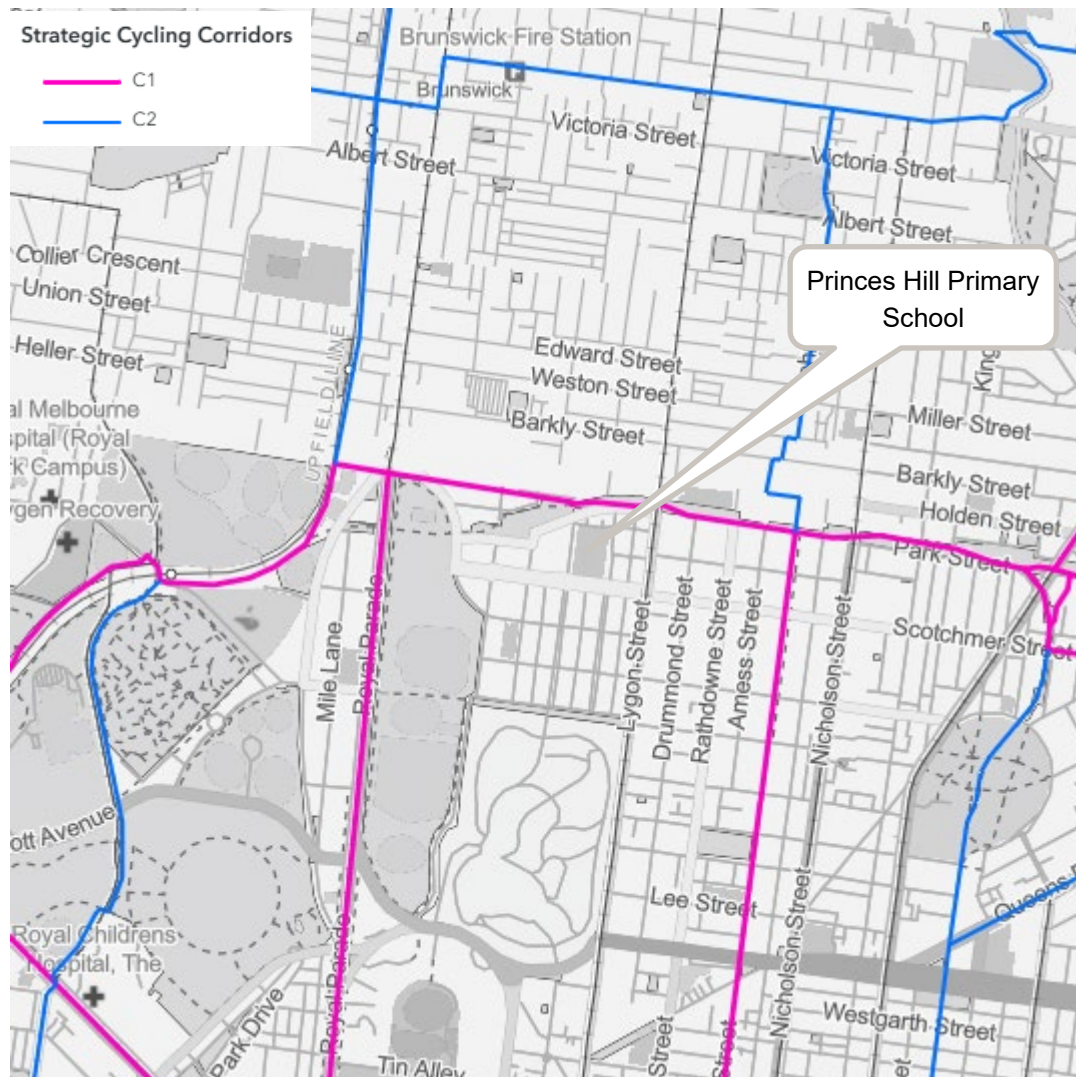


Traffic Impact Assessment: Princes Hill Primary School Road Closure

Existing Conditions

The City of Yarra's *New Deal for Cycling Network* is a network of key local and bicycle routes which are progressively being assessed for risk against a range of factors, with the aim of making these routes safer. The routes in the vicinity of Princes Hill Primary School that have been judged as being compliant include Wilson Street, McIlwraith Street and the Inner Circle Rail Trail. Pigdon Street was assessed as being non-compliant, indicating that it may be eligible for safety improvements in the future.

Figure 2-13: Strategic Cycling Corridor Network



The area around the school is highly walkable with footpaths along both sides of most roads in the vicinity of the site. There is no footpath on the north side of Solly Avenue and Park Street, adjacent to Hardy Gallagher Reserve and the Linear Park Reserve. Instead, the rail trail runs through these reserves and is offset as much 70m from the edge of the road carriageway.

To quantify the 'walkability' in the surrounding precinct to the school, a walk score has been calculated using the online resource www.walkscore.com. Walk Score produces a single number between 0 – 100 for an address, with factors such as nearby amenities being heavily considered. The subject area around Princes Hill Primary School is considered 'very walkable' with a walk score of 79, indicating that most errands can be accomplished on foot.

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3 Traffic Data Collection and Review

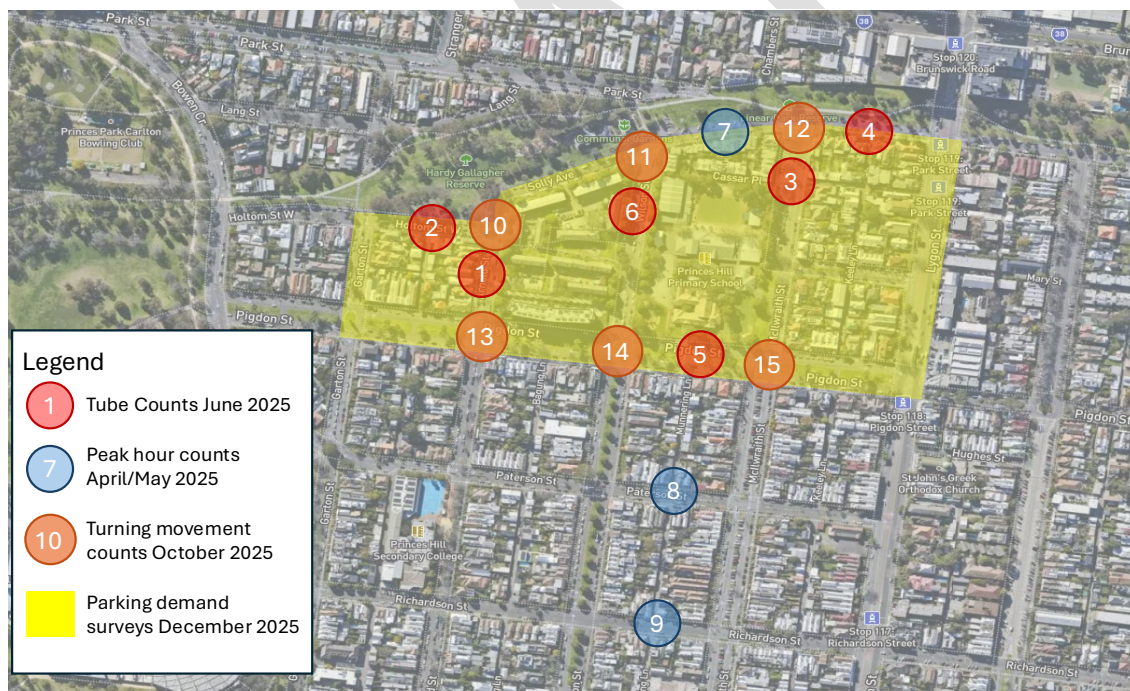
3.1 Overview

Data that was collected as part of this study, as well as data collected by Council prior to this study, includes:

- 24-hour tube counts (motor vehicles and bicycles) collected over a two-week period in June 2025
- Peak hour counts (8:00am to 9:00am and 3:00pm to 4:00pm) of pedestrians, bicycles and vehicles on sample days in April and May 2025, conducted as part of the Open Streets program
- Intersection turning movement counts on Tuesday 21 October 2025 during the AM peak (7:30am to 9:30am) and PM peak (2:30pm to 6:30pm)
- Parking occupancy surveys on Tuesday 9 December 2025 (8am-11am and 2pm-4pm) and Saturday 6 December 2025 (8am-9pm).

The locations of these data collection activities are shown in Figure 3-1, with further details in Table 3-1.

Figure 3-1: Data Collection Scope – Locations



Traffic Impact Assessment: Princes Hill Primary School Road Closure
Traffic Data Collection and Review

Table 3-1: Data Collection Scope – Details

Ref	Location	Data type	Dates	
1	Arnold St between Pigdon St and Holtom St West	Tube count (speed and volume)	Motor vehicles	2 June – 15 June 2025
			Bicycles	1 June – 14 June 2025
2	Holtom St West between Garton St and Arnold St	Tube count (speed and volume)	Motor vehicles	2 June – 15 June 2025
			Bicycles	1 June – 14 June 2025
3	Mcllwraith St between Park St and Cassar Pl	Tube count (speed and volume)	Motor vehicles	2 June, 10 June – 22 June 2025
			Bicycles	1 June – 14 June 2025
4	Park St between Mcllwraith St and Lygon St	Tube count (speed and volume)	Motor vehicles	2 June – 15 June 2025
			Bicycles	1 June – 14 June 2025
5	Pigdon St between Wilson St and Mcllwraith St	Tube count (speed and volume)	Motor vehicles	2 June – 15 June 2025
			Bicycles	1 June – 14 June 2025
6	Wilson St between Pigdon St and Park St	Tube count (speed and volume)	Motor vehicles	2 June, 10 June – 22 June 2025
			Bicycles	1 June – 14 June 2025
7	Park St at Mcllwraith St	Peak hour counts (volume) – through movements	Motor vehicles, bicycle and pedestrians	Control: 30 April, 1 May, 8 May 2025 Open Street: 29 April, 6 May, 13 May 2025
8	Paterson St between Wilson St and Mcllwraith St	Peak hour counts (volume) – through movements	Motor vehicles, bicycle and pedestrians	Control: 30 April, 1 May, 8 May 2025 Open Street: 29 April, 6 May, 13 May 2025
9	Richardson St west of Lygon St	Peak hour counts (volume) – through movements	Motor vehicles, bicycle and pedestrians	Control: 30 April, 1 May, 8 May 2025 Open Street: 29 April, 6 May, 13 May 2025
10	Intersection of Holtom St West, Arnold St and Solly Ave	Turning movement counts (volume)	Motor vehicles	Tuesday 21 October 2025
11	Intersection of Wilson St, Park St and Solly Ave	Turning movement counts (volume)	Motor vehicles	Tuesday 21 October 2025
12	Intersection of Park St and Mcllwraith St	Turning movement counts (volume)	Motor vehicles	Tuesday 21 October 2025
13	Intersection of Pigdon St and Arnold St	Turning movement counts (volume)	Motor vehicles	Tuesday 21 October 2025
14	Intersection of Wilson St and Pigdon St	Turning movement counts (volume)	Motor vehicles	Tuesday 21 October 2025
15	Intersection of Pigdon St and Mcllwraith St	Turning movement counts (volume)	Motor vehicles	Tuesday 21 October 2025



3.2 24-hour tube counts

Tube counts, as detailed in Figure 3-1 and Table 3-1, recorded the volume and speed of vehicles and bicycles at six locations across the study area over a two week period in June 2025.

Traffic conditions recorded during weekdays have been summarised in Table 3-2, with 24-hour daily traffic volumes for an average weekday shown in Figure 3-2. The 85th percentile speeds are all within the area speed limit of 40km/h, with the exception of Park Street (41km/h).

Table 3-2: Existing Two-Way Traffic – Average Weekday (June 2025)

Location	Daily Total (vehicles per day, vpd)	AM Peak 8am-9am (vehicles per hour, vph)	PM Peak 3pm-4pm (vehicles per hour, vph)	85th Percentile Speed (km/h)
1. Arnold Street	417	74	45	33km/h
2. Holtom Street West	614	69	74	34km/h
3. McIlwraith Street	628	66	68	32km/h
4. Park Street	1,035	146	96	41km/h
5. Pigdon Street	4,234	395	396	35km/h
6. Wilson Street	652	77	73	37km/h

Figure 3-2: 24-hour daily traffic volumes (average weekday)



Based on the road typologies set out in Table C1 of Clause 56.06 of the Yarra Planning Scheme, the roads within the subject area surrounding Princes Hill Primary School predominantly function as access streets or connector streets, all with threshold traffic volume capacities of up to 3,000 vehicles per day. Pigdon Street carries a higher volume of traffic than other roads, operating as a Connector Street – Level 2, which has a higher threshold traffic volumes of up to 7,000 vehicles per day. This is in line with its function of connecting access places and access streets through and between neighborhoods. The remaining streets service the local area in line with an access street.

The local access and connector streets, including Wilson Street, Arnold Street and Mcllwraith Street, operate well below the theoretical threshold traffic volumes, and therefore have capacity for potential redistribution of traffic as a result of any changes in the vicinity of the school.

3.3 Peak hour counts (Open Streets program)

Peak hour counts, as detailed in Figure 3-1 and Table 3-1, recorded the volume of vehicles, bicycles and pedestrians at three locations across the study area to coincide with the Open Street program. The aim of the data collection and analysis was to understand the traffic impacts of the Open Streets program at the school and monitor any changes in traffic volumes on the surrounding streets to ensure the program does not cause any unreasonable congestion or conflicts (Bicycle Network 2025). Data was collected during the road closure days as well on control days to represent existing conditions.

The Open Streets program at the time of the data collection involved full closure of Pigdon Street to motor vehicles between Wilson Street and Mcllwraith Street, on the southern frontage to Princes Hill Primary School. Alternative east-west routes were Park Street, Paterson Street and Richardson Street.

Table 3-3: Open Streets data summary

Location	User	Morning (8am-9am)		Afternoon (3pm-4pm)	
		Control	Open Streets	Control	Open Streets
Park Street	Vehicles	101	103	75	83
	Bicycles	540	625	181	198
	Pedestrians	149	182	84	87
Paterson Street	Vehicles	94	312	-	-
	Bicycles	5	15	-	-
	Pedestrians	22	20	-	-
Richardson Street	Vehicles	137	194	89	140
	Bicycles	14	28	6	8
	Pedestrians	76	90	5	36

Some of the key findings, as documented in the AIRS report (Bicycle Network, 2025), include:

- Overall car volumes increased by 6% on Park Street during Open Streets (i.e. approx. 5 additional vehicle movements).



- The number of people riding on Park Street increased by 14% from an average of 361 per hour to 411 during Open Streets.
- Pedestrian volumes increased by 15% on Park Street during Open Streets, with the hourly average increasing from 117 to 134 pedestrian movements.
- The road closure on Pigdon Street increased car volumes on Paterson Street by 232% (additional 218 cars) and by 48% on Richardson Street (additional 54 cars).
- Whilst vehicle volumes increased, bicycle and pedestrian movements also increased during Open Streets at Paterson Street and Richardson Street.

3.4 Intersection turning movement counts

Turning movement counts, as detailed in Figure 3-1 and Table 3-1, recorded the volume of vehicle turning movements at six intersections across the study area. Based on a review of the data, the surrounding road network peak times were identified as follows:

- AM Peak = 8:15am to 9:15am
- Afternoon school peak = 3:15pm to 4:15pm
- PM Peak = 5:00pm to 6:00pm.

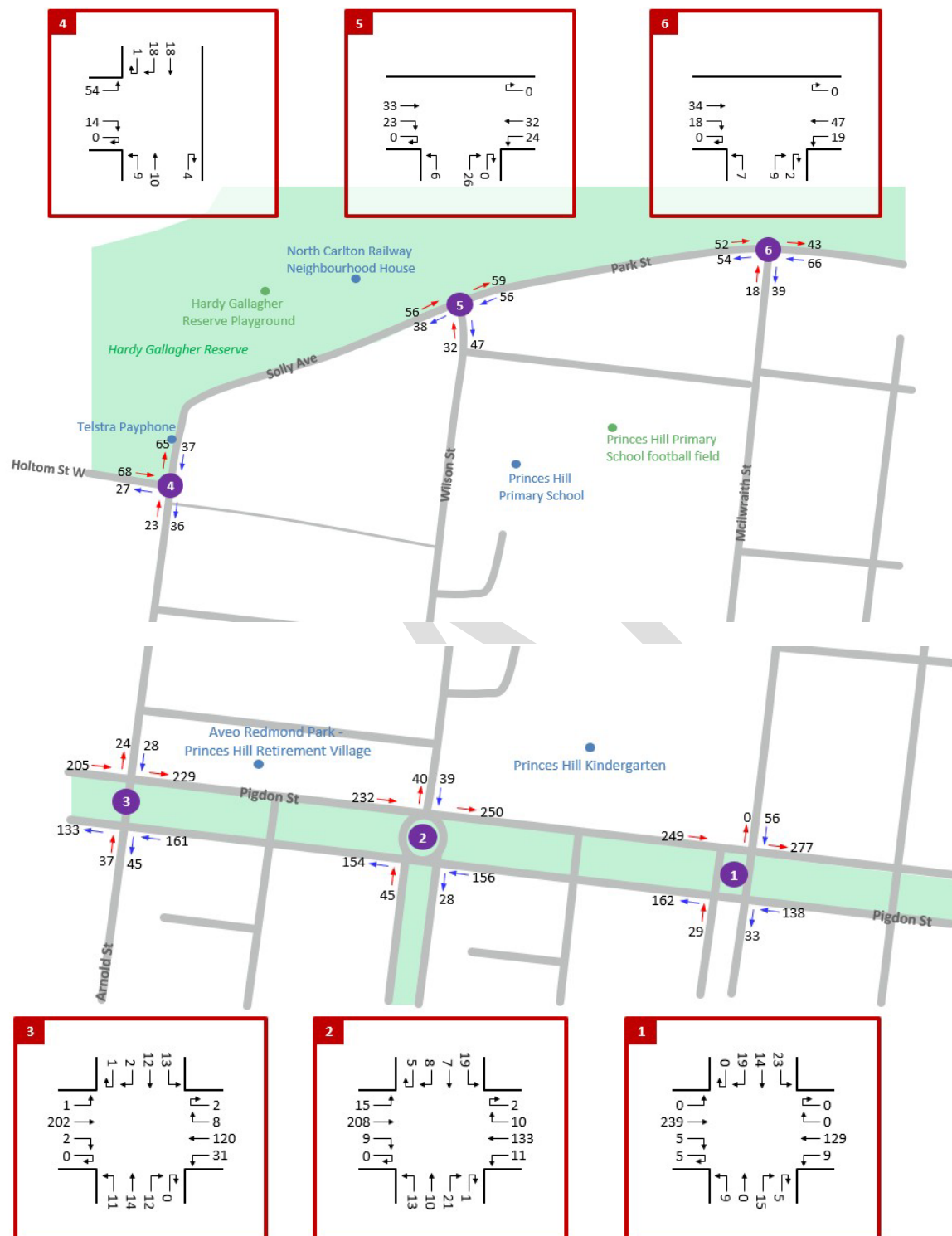
The peak hour traffic volumes are shown in Figure 3-3, Figure 3-4 and Figure 3-5.

Detailed turning movement data is presented in **Appendix X**.

Traffic Impact Assessment: Princes Hill Primary School Road Closure

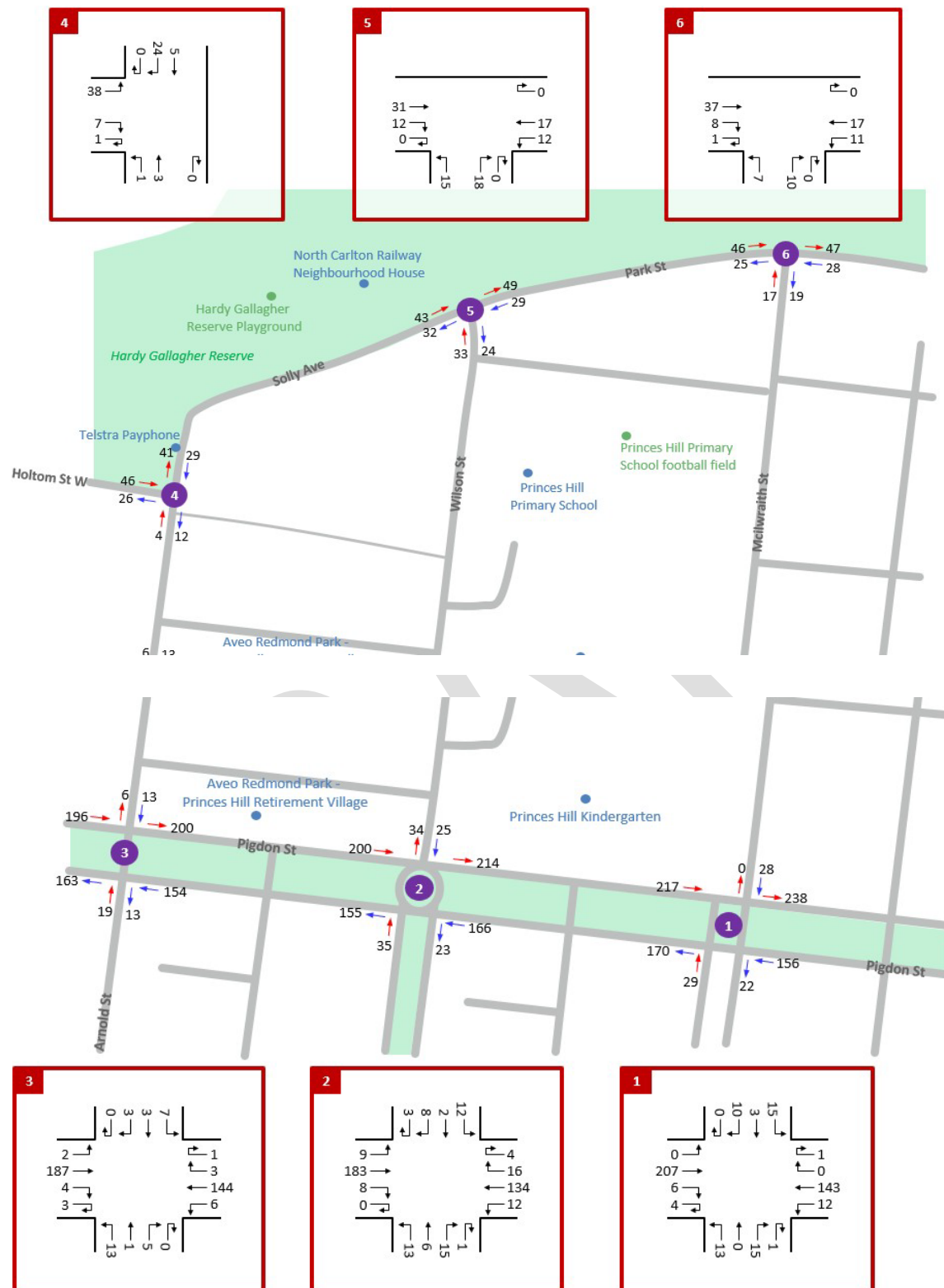
Traffic Data Collection and Review

Figure 3-3: Existing Turning Movement Counts – AM Peak



Traffic Impact Assessment: Princes Hill Primary School Road Closure Traffic Data Collection and Review

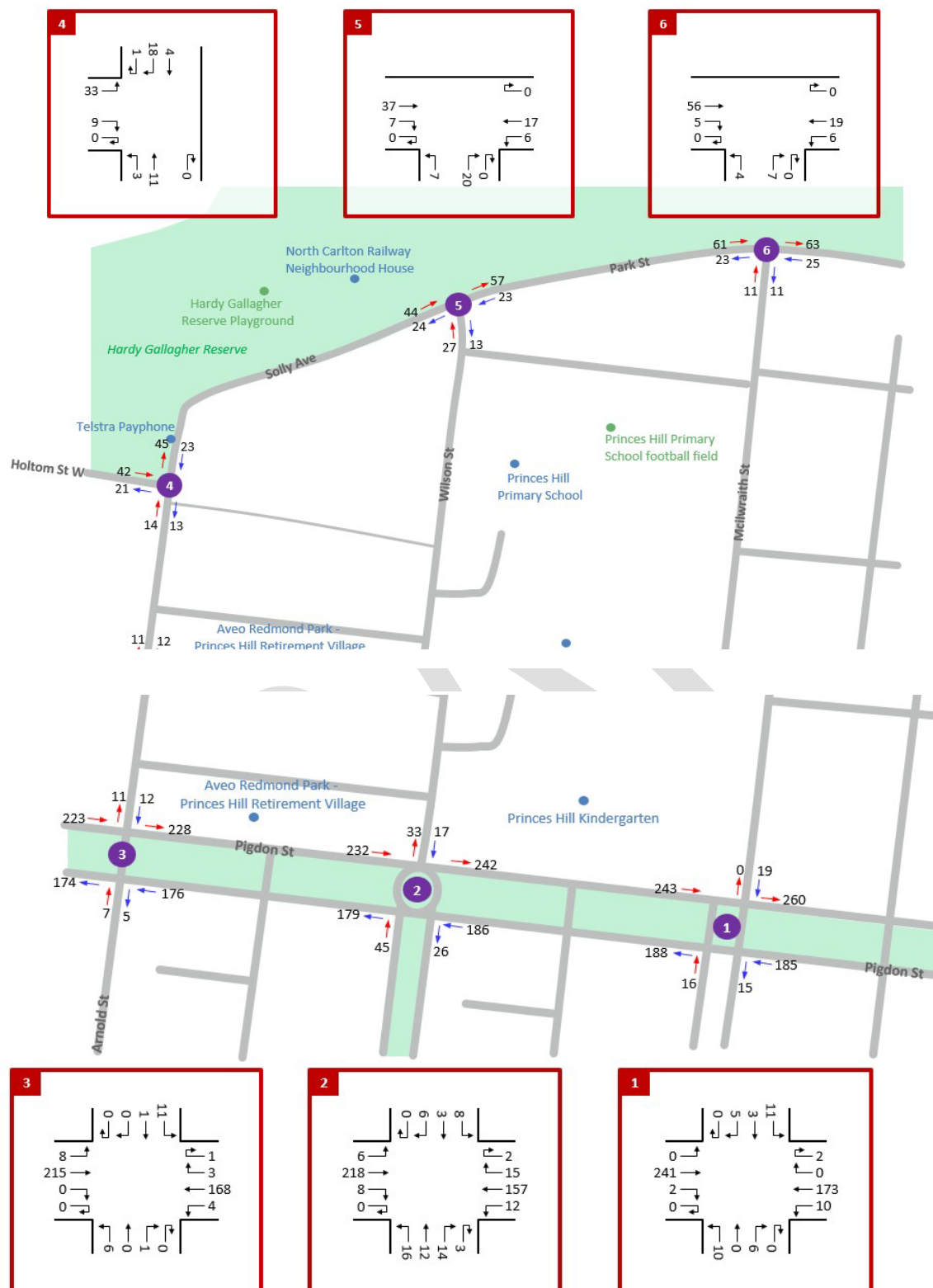
Figure 3-4: Existing Turning Movement Counts – Afternoon School Peak



Traffic Impact Assessment: Princes Hill Primary School Road Closure

Traffic Data Collection and Review

Figure 3-5: Existing Turning Movement Counts – PM Peak



3.5 Existing intersection performance

The operation of intersections in the immediate surrounding intersections has been assessed using SIDRA INTERSECTION 9.1, a computer-based intersection transport modelling program. Unless otherwise stated, the default parameters provided within SIDRA have been used. The SIDRA models have been developed based on the existing road configurations and the turning movement count survey data.

The commonly used metric for intersection performance is referred to as the Degree of Saturation (DOS). The DOS represents the flow-to-capacity ratio for the most critical movement of each leg of an intersection. For unsignalised intersections, a DOS of around 0.9 has been typically considered the 'ideal' limit beyond which queues and delays increase disproportionately (refer Table 3-4 for the Level of Service criteria adopted in SIDRA).

Table 3-4: SIDRA INTERSECTION Level of Service Criteria

Level of Service		Intersection Degree of Saturation (DOS)		
		Unsignalised Intersection	Signalised Intersection	Roundabout
A	Excellent	<=0.60	<=0.60	<=0.60
B	Very Good	0.60-0.70	0.60-0.70	0.60-0.70
C	Good	0.70-0.80	0.70-0.90	0.70-0.85
D	Acceptable	0.80-0.90	0.90-0.95	0.85-0.95
E	Poor	0.90-1.00	0.95-1.00	0.95-1.00

Table 3-5, Table 3-6 and Table 3-7 presents a summary of the existing operation of the modelled intersections. Full SIDRA outputs are attached at [Appendix X](#).

Table 3-5: Existing Conditions – AM Peak

Location	DOS	LOS	Ave Delay	95th %ile Queue
Pigdon / Arnold	0.11	A	3 sec	1m
Holtom St W / Arnold / Solly	0.05	A	6 sec	2m
Pigdon / Wilson	0.20	A	4 sec	8m
Wilson / Solly / Park	0.03	A	4 sec	1m
Park / McIlwraith	0.08	A	2 sec	1m
Pigdon / McIlwraith	0.14	A	4 sec	1m



Table 3-6: Existing Conditions – PM School Peak

Location	DOS	LOS	Ave Delay	95th %ile Queue
Pigdon / Arnold	0.11	A	2 sec	0m
Holtom St W / Arnold / Solly	0.03	A	6 sec	1m
Pigdon / Wilson	0.17	A	4 sec	6m
Wilson / Solly / Park	0.03	A	4 sec	1m
Park / Mcllwraith	0.02	A	3 sec	0m
Pigdon / Mcllwraith	0.12	A	4 sec	1m

Table 3-7: Existing Conditions – PM Peak

Location	DOS	LOS	Ave Delay	95th %ile Queue
Pigdon / Arnold	0.12	A	1 sec	0m
Holtom St W / Arnold / Solly	0.03	A	6 sec	1m
Pigdon / Wilson	0.20	A	4 sec	7m
Wilson / Solly / Park	0.02	A	4 sec	1m
Park / Mcllwraith	0.03	A	2 sec	0m
Pigdon / Mcllwraith	0.13	A	3 sec	1m

The intersection analysis results indicate that all intersections within the study area currently operate well, with all results indicating 'excellent' levels of service and minimal queues and delays.

3.6 Parking data

Parking occupancy surveys were commissioned by Council at the following times:

- Tuesday 9 December 2025 8am-11am and 2pm-4pm
- Saturday 6 December 2025 (8am-9pm).

The study area for parking surveys is shown in Figure 3-1.

Figure 3-6 shows the results of the parking occupancy surveys for the Tuesday and the Saturday survey periods, based on a total parking supply of 517 spaces. Figure 3-7 shows the results for unrestricted parking only, based on a total unrestricted parking supply of 188 spaces.

Figure 3-6: On-Street Car Parking Occupancy – Total Study Area

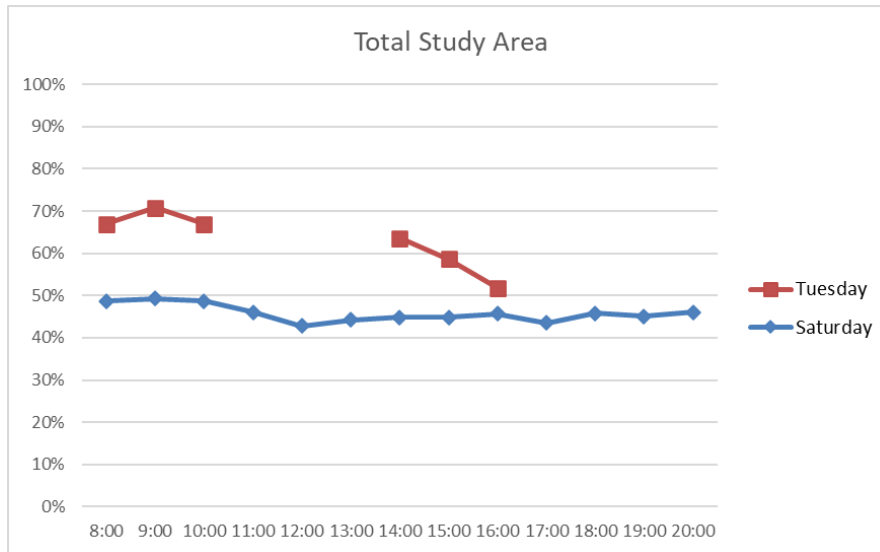
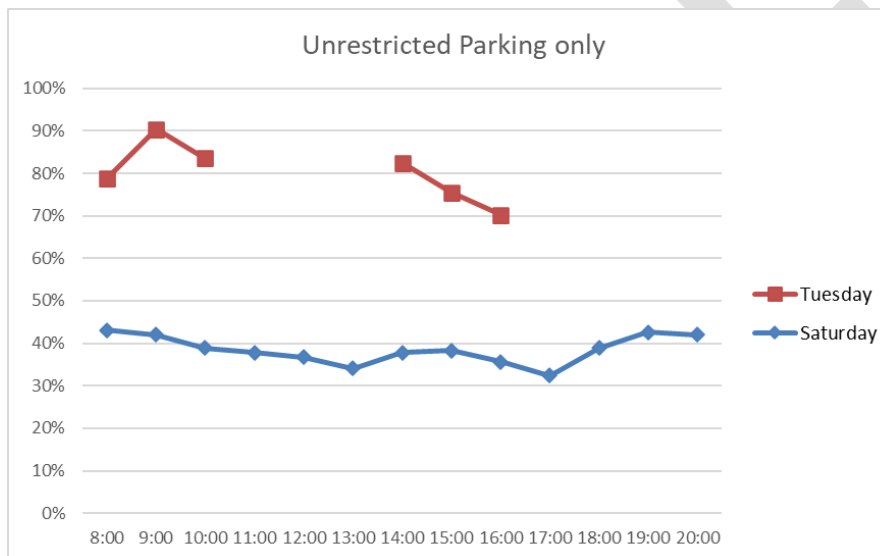


Figure 3-7: On-Street Car Parking Occupancy – Unrestricted Parking



Some of the key findings from the above are as follows:

- Surveys indicate that weekday demand for unrestricted spaces is high on a weekday during school pick-up and drop-off, with peak demand at 9am (90% occupancy).
- At 9am, a small number of available vacancies exist in the surrounding area, including in Solly Avenue, Arnold Street, Pigdon Street and Keeley Lane.
- Surveys indicate that on Saturday, demand for unrestricted parking drops significantly compared to Tuesday, peaking at 43% occupancy at 8am.
- Low parking demands on a Saturday indicate that weekday demand is likely generated by visitors to the area requiring long-stay parking, including school staff.

4 Design Options

4.1 Issues and Opportunities

The development of design options was informed by the issues and opportunities identified through the following activities:

- consultation with Council (planning and traffic)
- workshop with Council and the school, including parents and students
- review of background information and data analysis.

From these investigations, the three key project priorities were established as:

- connectivity to the school gate in a safe way
- streetscape improvement – making it work with the environment and feel nice
- support reduction of traffic or rat running.

The key opportunities are discussed in more detail below.

Enhance active routes to schools

As shown in Figure 4-1, there are convenient walking and cycling routes to the school in all directions. The priority for the school is addressing the connection to the north of the school, which opens up access to the north, and the east-west Inner Circle rail trail.

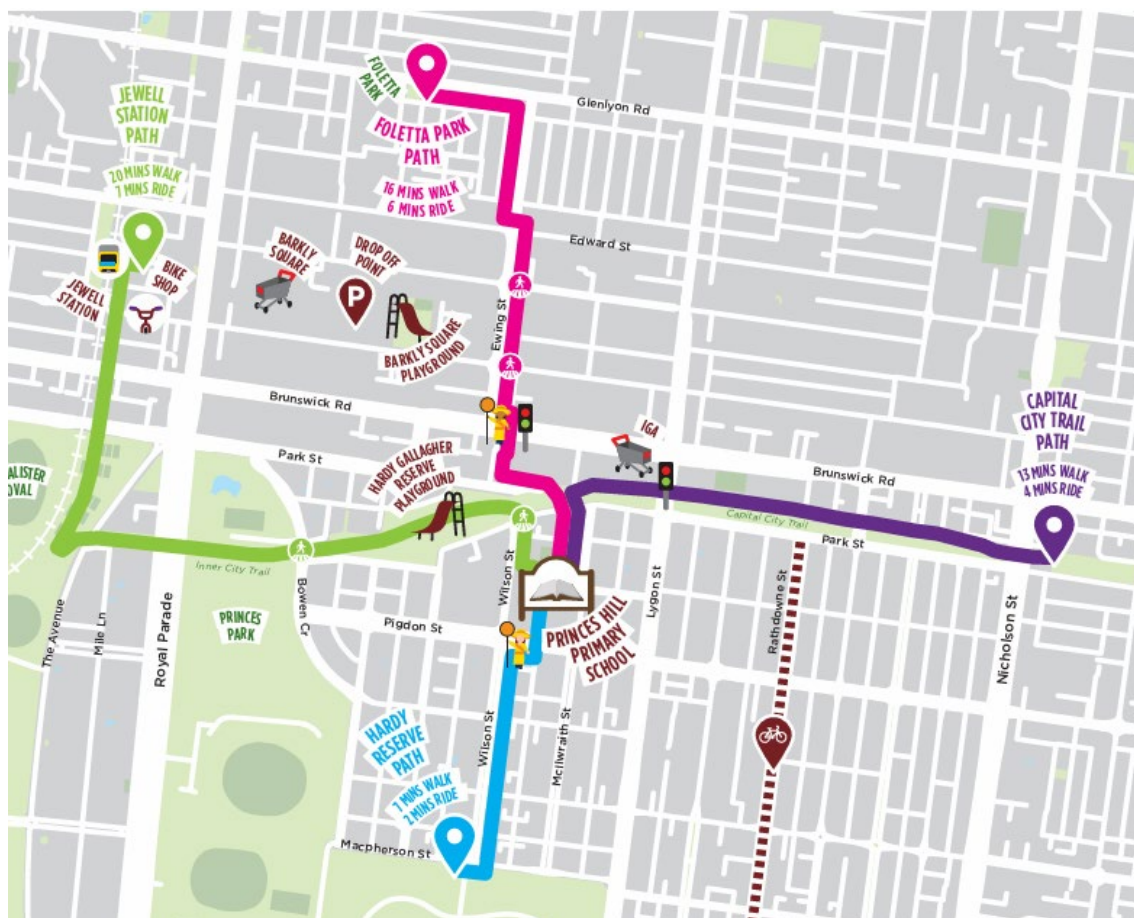
Streetscape improvements

The wide road carriageway of Wilson Street creates the opportunity to increasing the area of public space along the school frontage and enhance the comfort and amenity for students and families. This could include trees and landscaping, seating areas or rest spots for younger children and parents, wider footpaths, separated bicycle lanes and bicycle parking.

Reduce rat-running

Both the speed and volume data and community feedback indicate there is rat-running occurring along Park Street, predominantly during the PM peak in the eastbound direction. The design should consider how to incorporate traffic calming along Solly Avenue and Park Street to discourage through traffic, including consideration of partial or full road closure.

Figure 4-1: Active Travel Map – Princes Hill Primary School



Healthy Streets Approach

The design should incorporate the principles of the Healthy Streets approach (Figure 4-2) by prioritising the needs of people over vehicles. By focusing on how streets can support walking, cycling, and community wellbeing, this people-centred approach helps create a street network that supports everyday activity, social connection, and healthier travel choices.

Safe System Approach

The Safe System approach also should be considered on this project by contributing to the broader goal of eliminating deaths and serious injuries on Victorian roads. The design should promote lower speeds through traffic calming and signage and encourage mode shift away from private vehicles.

Figure 4-2: Healthy Streets Approach



Figure 4-3: Safe System Approach



Some other considerations for the design development process include:

- Ensure there is sufficient parking available to meet the needs of the school, including “kiss-and-ride” spaces for pick-up and drop-off.
- Maintain access for larger vehicles as required, including waste collection and emergency vehicles.
- Maintain access to Cassar Place, including allowance for waste vehicles.
- Vehicle access to the out-of-school-hours care building at the northwest corner of the school.
- Access needs of surrounding residents, land uses and local stakeholders.

4.2 Design Options

Three design options were considered for the site, each with varying levels of access at the Wilson Street/Park Street intersection. Each of these options is outlined below.

4.2.1 Design Option 1 – Full Closure of Park Street (Bicycle and Pedestrian Access Only)

Figure 4-4: Design Option 1 Concept Layout



Key features of design option 1 include:

1. Full closure of Park Street and left out only from Wilson Street.
2. One-way westbound operation of Solly Avenue between Wilson Street and Holtom Street West.
3. One-way northbound operation of Wilson Street between Pigdon Street and Park Street/Solly Avenue. Parking to remain in Wilson Street on the west side of the carriageway and in the centre median.
4. Southbound road space to be converted into a shared space for people, including walking and cycling.
5. Parking to be removed on school frontage (i.e. east side of existing carriageway).
6. Potential to change to unrestricted parking to accommodate relocated weekday demand.

The merits and impacts of this option are summarised in Table 4-1.

Table 4-1: Design Option 1 – Merits and Impacts

Merits	Impacts
• Little impact on waste collection. Car park can be used to aid turnaround. • Removes all traffic at Park St crossing point, bicycle modal filter maintains bicycle movement. • Fewer vehicles = improved safety at Lygon Street. • Enhanced safety and space for future development of placemaking outside school gates. • Bi-directional cycling would be in a protected space.	• Additional traffic on Arnold Street and Pigdon Street. • Potential increase on McIlwraith Street. • Crossing of Park Street still across two lanes of traffic • Need to consider emergency vehicles and access requirements, particularly larger fire vehicles. • Minimal detour for relocated vehicle movements but still may not be welcomed by some residents.

4.2.2 Design Option 2 – Partial Closure of Park Street

Figure 4-5: Design Option 2 Concept Layout



Key features of design option 2 include:

1. Kerb extensions to reduce crossing distance and block southbound entry. Left out only from Wilson Street
2. One-way westbound operation of Solly Avenue between Wilson Street and Holtom Street West.
3. One-way northbound operation of Wilson Street between Pigdon Street and Park Street/Solly Avenue. Parking to remain in Wilson Street on the west side of the carriageway and in the centre median.
4. Southbound road space to be converted into a shared space for people, including walking and cycling.
5. Parking to be removed on school frontage (i.e. east side of existing carriageway).
6. Potential to change to unrestricted parking to accommodate relocated weekday demand.

The merits and impacts of this option are summarised in Table 4-2.

Table 4-2: Design Option 2 – Merits and Impacts

Merits	Impacts
- A single lane on Park Street can be used as a bi-directional lane for waste collection or emergency services, reducing the impacts to these users. - One-way westbound operation reduces through traffic movements in the westbound direction. - Enhanced safety and space for future development of placemaking outside school gates. - Bi-directional cycling would be in a protected space.	- Additional traffic on Arnold Street and Pigdon Street. - Angled parking on Park Street west of Wilson Street may need to be reorientated. - Minimal detour for relocated vehicle movements but still may not be welcomed by some residents.

4.2.3 Design Option 3 – One-way operation of Wilson Street (at Park Street) and Park Street (at Lygon Street)

Figure 4-6: Design Option 3 Concept Layout



Key features of design option 3 include:

1. Kerb extensions to reduce crossing distance and block southbound entry. Left out only from Wilson Street.
2. No exit onto Lygon Street (cyclists excepted).
3. One-way northbound operation of Wilson Street between Pigdon Street and Park Street/Solly Avenue. Parking to remain in Wilson Street on the west side of the carriageway and in the centre median.
4. Southbound road space to be converted into a shared space for people, including walking and cycling.
5. Parking to be removed on school frontage (i.e. east side of existing carriageway).
6. Potential to change to unrestricted parking to accommodate relocated weekday demand.

The merits and impacts of this option are summarised in Table 4-3.

Table 4-3: Design Option 3 – Merits and Impacts

Merits	Impacts
• Park Street to remain two-way, avoiding impacts all users, including waste collection and emergency services vehicles. • Reduces traffic on Wilson Street. • Improves safety at Lygon Street by reducing crossing width and removing east to west through movement. • Enhanced safety and space for future development of placemaking outside school gates. • Bi-directional cycling would be in a protected space.	• Additional traffic on Arnold Street and Pigdon Street. • Crossing of Park Street still across two lanes of traffic. • Minimal detour for relocated vehicle movements but still may not be welcomed by some residents.

4.2.4 Traffic Movement Summary

A summary of the traffic movements for the existing conditions and each of the design options are shown in Figure 4-8.

Figure 4-7: Existing Conditions Traffic Movement Summary



Figure 4-8: Design Option 1 Traffic Movement Summary



Traffic Impact Assessment: Princes Hill Primary School Road Closure Design Options

Figure 4-9: Design Option 2 Traffic Movement Summary



Figure 4-10: Design Option 3 Traffic Movement Summary



4.2.5 Alternative Design Option

Each of the design options 1, 2 and 3 show Wilson Street as one-way operation for the full length between Pigdon Street and Park Street/Solly Avenue. This maximises the space available to be converted into a shared space for people.

An alternative to a full-length treatment is to reduce the length of one-way operation and maintain two-way operation at the southern end of Wilson Street. The layout at Park Street/Solly Avenue would remain as per the full-length treatment.

Some of the merits of this option include:

- Fewer parking spaces would be lost.
- Fewer vehicles would be diverted onto Solly Avenue.
- Two-way access would be maintained for the property at the southwest corner of Wilson Street and Pigdon Street (300 Pigdon Street).

The impacts associated with this option are:

- Mid-block transition for cyclists into the shared space introduces additional conflicts with vehicles, including U-turning vehicles and pick-up/drop-off activity.



5 Traffic Impact Assessment

5.1 Traffic Redistribution

The proposed closure of Wilson Street (southbound) or Park Street (full or partial) will require the traffic volumes in the area to be redirected to the surrounding road network.

The traffic redistribution routes have been identified based on a review of the surrounding road network, the existing traffic volumes within the road network, and consideration for potential vehicle destinations. The redistribution routes selected have been based on minimising the additional distance travelled, thus using primarily Mcllwraith Street, Arnold Street, Pigdon Street and Solly Avenue. The following general assumptions have been applied:

- Traffic currently travelling on Park Street and turning left at Wilson Street will be required to access Wilson Street via Mcllwraith Street and Pigdon Street.
- Traffic currently travelling on Solly Avenue and turning right at Wilson Street will be required to access Wilson Street via Arnold Street and Pigdon Street.
- Traffic currently turning right onto Park Street from Wilson Street will be required to travel along Solly Avenue, Arnold Street and Pigdon Street and exit the area via Lygon Street.
- Under a full closure of Park Street at Wilson Street, vehicles approaching the area to the east of Wilson Street from the west would need to do so via Pigdon Street and Lygon Street.
- Under a full closure of Park Street at Wilson Street, vehicles approaching the area to the west of Wilson Street from the east would need to do so via Pigdon Street and Lygon Street or Mcllwraith Street.

The redistribution routes for inbound and outbound movements are shown in Figure 5-1 and Figure 5-2, respectively.

Traffic Impact Assessment: Princes Hill Primary School Road Closure

Traffic Impact Assessment

Figure 5-1: Traffic Redistribution Routes – Inbound Movements



Figure 5-2: Traffic Redistribution Routes – Outbound Movements



5.2 Redistributed Traffic Volumes

The relevant displaced total traffic volumes are summarised in Table 5-1.

Table 5-1: Redistributed Traffic Volumes

Direction	Route	AM Peak	PM School Peak	PM Peak
Design Option 1 – Full Closure				
Inbound	Park Street to Wilson Street/Solly Ave	38	14	15
	Holtom St W to Wilson St	23	12	7
	Holtom St W/Pigdon St to Park St (via Lygon)	33	31	37
	Lygon St to Solly Ave (via Pigdon St)	6	10	8
Outbound	Park St to Holtom St W/Pigdon St	2	5	0
	Wilson St to Pigdon St/Lygon St (via Solly Ave)	26	18	20
Design Option 2 – Partial Closure				
Inbound	Park Street to Wilson Street/Solly Ave	-	-	-
	Holtom St W to Wilson St	23	12	7
	Holtom St W/Pigdon St to Park St (via Lygon)	33	31	37
	Lygon St to Solly Ave (via Pigdon St)	6	10	8
Outbound	Park St to Holtom St W/Pigdon St	-	-	-
	Wilson St to Pigdon St/Lygon St (via Solly Ave)	26	18	20
Design Option 3 – Wilson St changes only				
Inbound	Park Street to Wilson Street/Solly Ave	-	-	-
	Holtom St W to Wilson St	23	12	7
	Holtom St W/Pigdon St to Park St (via Lygon)	16	16	19
	Lygon St to Solly Ave (via Pigdon St)	6	10	8
Outbound	Park St to Holtom St W/Pigdon St	-	-	-
	Wilson St to Pigdon St/Lygon St (via Solly Ave)	26	18	20

The total volumes of traffic to be re-routed is typically around 30 vehicles or less per hour, which represents less than one additional vehicle every two minutes displaced to surrounding intersections and streets.

Based on the identified traffic redistribution routes and existing traffic splits at the intersections, the following increases (blue highlight) and decreases (yellow highlight) in traffic volumes at each intersection have been determined. Refer to Figure 5-3, Figure 5-4 and Figure 5-5.



Figure 5-3: Closure traffic redistribution – AM Peak Hour

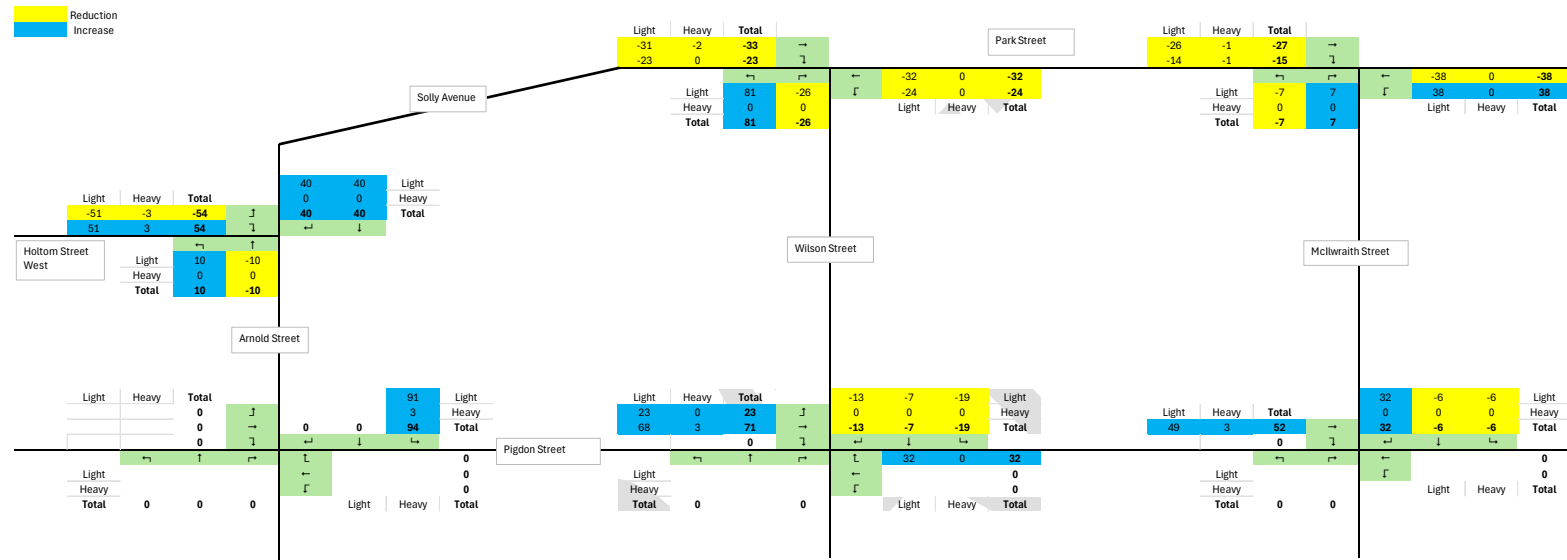


Figure 5-4: Closure traffic redistribution – PM School Peak Hour

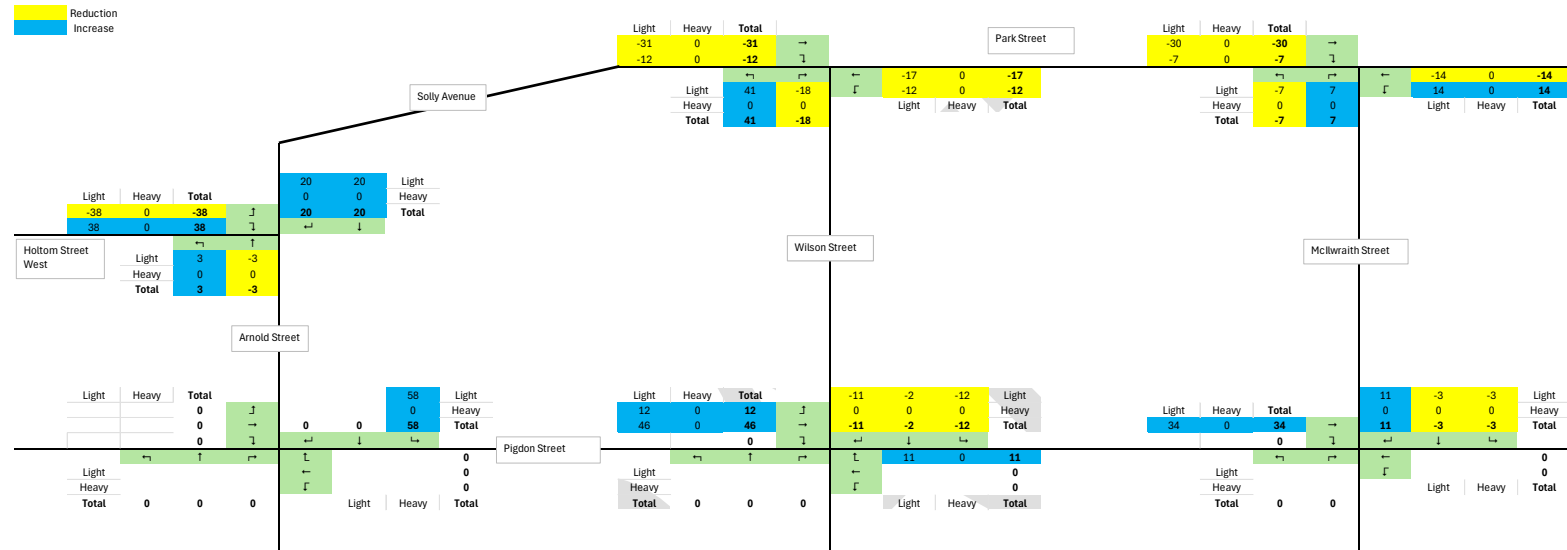
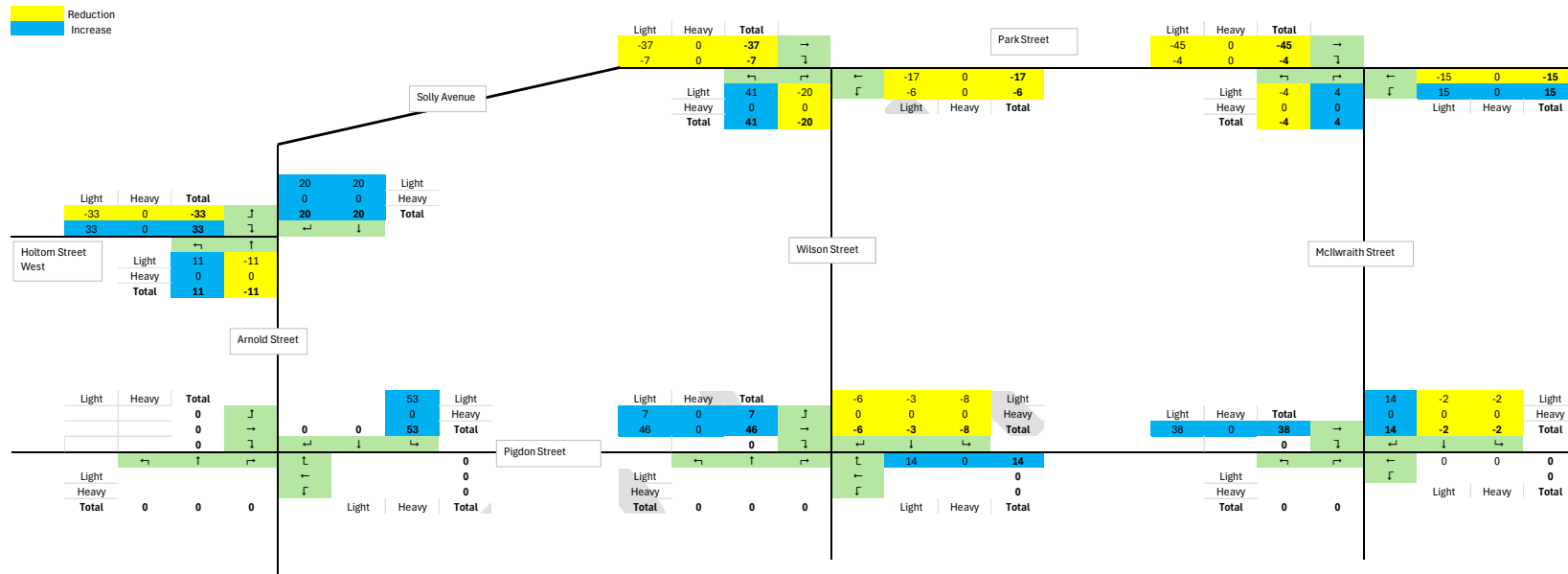


Figure 5-5: Closure traffic redistribution – PM Peak Hour



5.3 High-Level Impact Assessment

5.3.1 Impacts to Local Access

The proposed closure of Park Street and Solly Avenue at Wilson Street will not impact direct vehicular access to the properties along Park Street and Solly Avenue, or along Wilson Street. It will however change the local access routes to these properties generally via the diversion routes shown in Section 5.1. The estimated additional travel distances for the full closure are as follows:

- Park Street properties (east of Wilson Street)
 - Inbound
 - up to 400m additional travel distance when approaching from the west
 - no change when approaching from the east
 - Outbound
 - up to 450m additional travel distance when departing to the west
 - no change when departing to the east
- Solly Avenue properties (west of Wilson Street)
 - Inbound
 - up to 400m additional travel distance when approaching from west
 - up to 350m additional travel distance when approaching from east via Park Street
 - no change when approaching from east via Pigdon Street
 - Outbound
 - Up to 500m additional travel distance when departing to the east to Park Street
 - No change when departing to the east to Lygon Street via Pigdon Street
 - No change when departing to the west
- Wilson Street properties, including Princes Hill Primary School
 - Inbound
 - Minimal change for all arrivals from east and west, with access only from Pigdon Street (divert at the intersections of Holtom Street West/Solly Avenue or Park Street/McIlwraith Street)
 - Outbound
 - Up to 600m additional travel distance when departing to the east to Park Street
 - No change when departing to the west.

Based on a travel speed of 35km/h, the travel time associated with a distance of 350m-600m would be in the order of 35-60 seconds.

The anticipated intersection operation with the post-closure redirected traffic have been investigated in detail in Section 5.5.



5.3.2 Impacts to Emergency Vehicles

Fire service, police and hospital locations closest to Princes Hill Primary School, and the possible impacts to these services are discussed below.

Fire Service

- Princes Hill Primary School and the surrounding neighbourhood falls within the catchment of Fire Rescue Victoria (FRV) Brunswick Fire Station 4 at 24 Blythe Street, Brunswick, located approximately 2.5km to the north of the area.
- Access to Wilson Street and the surrounding properties is via Lygon Street. Closure of Park Street at Wilson Street is not expected to impact this route.

Police

- The closest Police Station is Dawson Street Police Complex at 20 Dawson Street, Brunswick, located approximately 2.4km to the north of the area.
- Access to Wilson Street and the surrounding properties is via Lygon Street. Closure of Park Street at Wilson Street is not expected to impact this route.

Hospital

- The closest hospital is the Royal Melbourne Hospital located at 300 Grattan Street, Parkville, located approximately 4km to the south of the Princes Hill area.
- Access to and from the Princes Hill area is either via Lygon Street or Royal Parade. Closure of Park Street at Wilson Street is not expected to impact this route.

For east-west movement through the area, Pigdon Street is the route available for all emergency services. All emergency services should be advised of any changes to access in the area so that they can plan their routes accordingly and ensure the most efficient route can be selected.

5.4 Impacts to Waste / Loading Services

As part of the proposed road closure, any alterations to the waste collection route would be reviewed by the Council's waste unit and will be coordinated with the contractor.

As part of a full closure of Park Street, waste vehicles would be required to perform a U-turn within Park Street as part of the route servicing the properties located between Wilson Street and McIlwraith Street. There is sufficient space available within the off-street car park within the linear park reserve (next to the community gardens) which will accommodate the turning manoeuvre of a typical 10.5m waste vehicle.

In Solly Avenue, waste vehicles would be able to service the properties via Wilson Street, where one-way westbound travel would be permitted.

The design of the closure of the southbound lane on Wilson Street would need to allow for access to Cassar Place to be maintained and should accommodate a waste vehicle consistent with that which currently services these properties.

5.5 Design Options Intersection Performance

The intersection configuration within the AM, PM School and PM Peak hour SIDRA models were adjusted for the conditions associated with the three design options, including one-way operation in Wilson Street and Park Street access modifications.

Based on the projected post closure traffic volumes, the results of the SIDRA intersection analysis are summarised in Table 5-2, Table 5-3 and Table 5-4. Full results are found in [Appendix X](#).

The intersection analysis for each of the design options indicates that with the redistributed traffic volumes, road network intersections are expected continue to operate well, with all results indicating 'excellent' levels of service and minimal queues and delays.

Therefore, the surrounding road network has adequate capacity to accommodate the additional traffic displaced by the road network changes in each of the design options, without any significant impacts to intersection operational performance.

Table 5-2: Design Option 1 SIDRA Outputs

Location	DOS	LOS	Ave Delay	95th %ile Queue
AM Peak				
Pigdon / Arnold	0.11	A	5 sec	3m
Holtom St W / Arnold / Solly	0.07	A	5 sec	2m
Pigdon / Wilson	0.20	A	4 sec	8m
Wilson / Solly / Park	0.06	A	7 sec	2m
Park / Mcllwraith	0.04	A	5 sec	1m
Pigdon / Mcllwraith	0.14	A	5 sec	2m
PM School Peak				
Pigdon / Arnold	0.11	A	3 sec	2m
Holtom St W / Arnold / Solly	0.05	A	5 sec	1m
Pigdon / Wilson	0.22	A	4 sec	9m
Wilson / Solly / Park	0.04	A	7 sec	1m
Park / Mcllwraith	0.02	A	5 sec	1m
Pigdon / Mcllwraith	0.14	A	4 sec	1m
PM Peak				
Pigdon / Arnold	0.12	A	2 sec	1m
Holtom St W / Arnold / Solly	0.04	A	5 sec	1m
Pigdon / Wilson	0.24	A	5 sec	10m
Wilson / Solly / Park	0.04	A	6 sec	1m
Park / Mcllwraith	0.01	A	5 sec	1m
Pigdon / Mcllwraith	0.15	A	3 sec	1m

Traffic Impact Assessment - Princes Hill Primary School Road Closure
5 Traffic Impact Assessment

Table 5-3: Design Option 2 SIDRA Outputs

Location	DOS	LOS	Ave Delay	95th %ile Queue
AM Peak				
Pigdon / Arnold	0.11	A	5 sec	4m
Holtom St W / Arnold / Solly	0.07	A	5 sec	2m
Pigdon / Wilson	0.26	A	4 sec	11m
Wilson / Solly / Park	0.04	A	4 sec	1m
Park / Mcllwraith	0.04	A	3 sec	1m
Pigdon / Mcllwraith	0.16	A	4 sec	2m
PM School Peak				
Pigdon / Arnold	0.11	A	3 sec	2m
Holtom St W / Arnold / Solly	0.05	A	5 sec	1m
Pigdon / Wilson	0.22	A	4 sec	8m
Wilson / Solly / Park	0.03	A	5 sec	1m
Park / Mcllwraith	0.02	A	4 sec	1m
Pigdon / Mcllwraith	0.14	A	4 sec	1m
PM Peak				
Pigdon / Arnold	0.12	A	2 sec	1m
Holtom St W / Arnold / Solly	0.04	A	5 sec	1m
Pigdon / Wilson	0.23	A	4 sec	9m
Wilson / Solly / Park	0.02	A	4 sec	1m
Park / Mcllwraith	0.02	A	4 sec	1m
Pigdon / Mcllwraith	0.15	A	3 sec	1m



Table 5-4: Design Option 3 SIDRA Outputs

Location	DOS	LOS	Ave Delay	95th %ile Queue
AM Peak				
Pigdon / Arnold	0.11	A	5 sec	3m
Holtom St W / Arnold / Solly	0.07	A	5 sec	2m
Pigdon / Wilson	0.24	A	4 sec	10m
Wilson / Solly / Park	0.04	A	4 sec	1m
Park / Mcllwraith	0.04	A	3 sec	1m
Pigdon / Mcllwraith	0.15	A	4 sec	3m
PM School Peak				
Pigdon / Arnold	0.11	A	3 sec	2m
Holtom St W / Arnold / Solly	0.04	A	5 sec	1m
Pigdon / Wilson	0.20	A	4 sec	8m
Wilson / Solly / Park	0.03	A	4 sec	1m
Park / Mcllwraith	0.02	A	4 sec	1m
Pigdon / Mcllwraith	0.13	A	4 sec	1m
PM Peak				
Pigdon / Arnold	0.12	A	2 sec	1m
Holtom St W / Arnold / Solly	0.04	A	5 sec	1m
Pigdon / Wilson	0.22	A	4 sec	9m
Wilson / Solly / Park	0.03	A	4 sec	1m
Park / Mcllwraith	0.02	A	3 sec	1m
Pigdon / Mcllwraith	0.13	A	3 sec	1m

5.6 Daily Capacities Assessment

As discussed in Section 3.2, the roads within the subject area surrounding Princes Hill Primary School predominantly function as access streets, with threshold traffic volume capacities of up to 3,000 vehicles per day. Pigdon Street carries a higher volume of traffic than other roads, operating as a Connector Street – Level 2, which has a higher threshold traffic volumes of up to 7,000 vehicles per day.

The results of redistribution of traffic represented as daily volumes is presented in Figure 5-6, Figure 5-7 and Figure 5-8 for design options 1, 2 and 3, respectively.

These figures indicate that the road network would continue to operate within the threshold capacities, with all access streets at less than 3,000 vehicles per day and Pigdon Street less than 7,000 vehicles per day.

Traffic Impact Assessment - Princes Hill Primary School Road Closure 5 Traffic Impact Assessment

Figure 5-6: Daily traffic redistribution – Design Option 1



Figure 5-7: Daily traffic redistribution – Design Option 2



Figure 5-8: Daily traffic redistribution – Design Option 3



5.7 Parking Impact

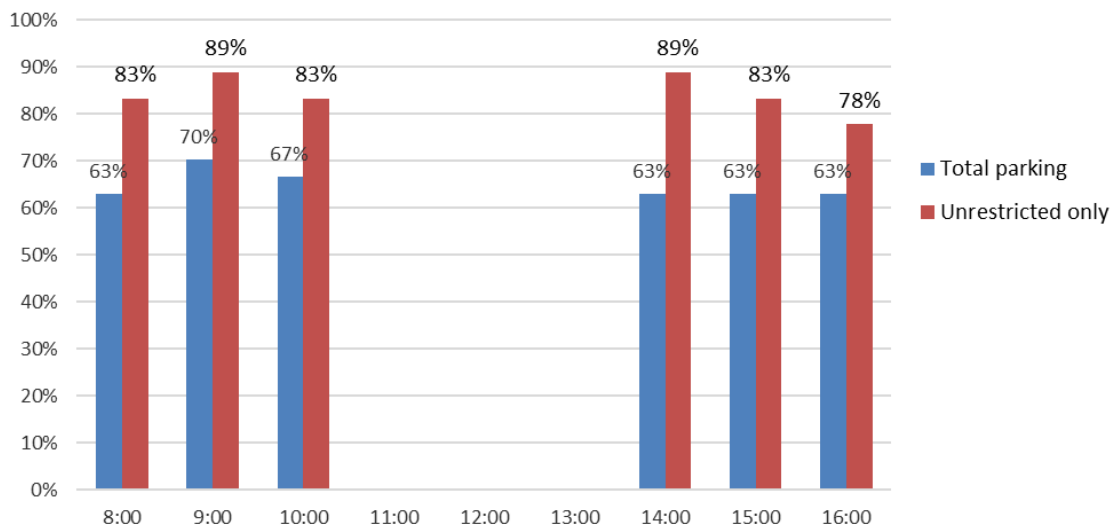
As discussed in Section 3.6, the parking survey data collected indicate that overall demand for parking in the area is moderate, peaking at 71% at 9am on a weekday and 49% at 9am on a Saturday. However, demand for unrestricted spaces, particularly on a weekday, is high during school pick-up and drop-off times, with peak demand at 90%. During this peak time, a small number of available vacancies exist in the surrounding area, including in Solly Avenue, Arnold Street, Pigdon Street and Keeley Lane.

Each of the design options described within this report involve full closure of Wilson Street in the southbound direction, which includes the removal of all kerbside parking on the east side of the carriageway (i.e. on the school frontage). An inventory of parking supply and restrictions for this section of kerbside parking is as follows:

- 2P 7am-6pm = 2 spaces
- Unrestricted = 18 spaces
- No Stopping 8am-9:30am and 2:30pm-4pm School Days = 6 spaces
- No Stopping Car Share vehicles excepted = 1 space
- **Total = 27 spaces**

Weekday demand for these spaces is presented in Figure 5-9, including a comparison on demand for all parking spaces against demand for unrestricted spaces. Peak demand for the unrestricted spaces is 16 vehicles.

Figure 5-9: Wilson Street parking demand (east side)



Demand for unrestricted spaces in Wilson Street and the surrounding area is already high on a weekday. Following the removal of parking on the east side of Wilson Street, peak demand for unrestricted parking in the surrounding area would reach capacity, as shown in Figure 5-10.

Figure 5-10: Unrestricted parking demand weekday



Opportunities to increase supply of unrestricted parking in surrounding area to accommodate relocated parking include:

- Convert 4P restricted parking spaces into unrestricted parking in Park Street, where parking demands peak at 54% with peak available vacancies of 26 spaces.
- Convert 4P restricted parking spaces into unrestricted parking in McIlwraith Street, where parking demands are high in the morning but lower in the afternoon. Available vacancies range from 4 spaces at 8am to 26 spaces at 4pm.
- Reduce the length of the Wilson Street closure to limit the loss of parking spaces. Implementing the one-way treatment only to the school crossing (approximately 140m south of Park Street) could avoid the loss of approx. 3 NS school days spaces and 4 unrestricted spaces.

6 Conclusion

Based on the analysis and discussions presented within this report, the following conclusions are made:

- Council is considering a permanent full or partial closure in the vicinity of the T-intersection of

Appendices

Solly Avenue, Park Street, and Wilson Street to improve safety for students and parents accessing the school gate

- The three key project priorities were established as connectivity to the school gate in a safe

way, streetscape improvement and support reduction of rat running.

- Three design options were considered for the site, each involving conversion of Wilson Street into one-way northbound and with varying levels of access at the Wilson Street/Park Street intersection.
- The roads within the subject area surrounding Princes Hill Primary School currently operate within their threshold traffic volume capacities in line with their function.
- Given the existing capacity within the local access and connector streets, the surrounding road network is expected to continue to operate below the theoretical threshold traffic volumes for each of the design options tested.
- SIDRA analysis indicates that the existing local road network and infrastructure have the capacity to accommodate the redistributed traffic volumes under each of the design option scenarios. The local intersections will continue to operate with 'excellent' level of service and minimal delays and queuing.
- The additional distance travelled or delays experienced by local traffic, required to re-route through the local road network as a result of the proposed road network changes, are considered acceptable.
- Impacts to the routes for emergency services and waste / loading vehicles are considered acceptable.
- The changes to Wilson Street would results in the loss of up to 27 parking spaces, including 18 unrestricted spaces.
- Demand for unrestricted spaces in Wilson Street and the surrounding area is already high on a weekday. As such, following the removal of parking on the east side of Wilson Street, peak demand for unrestricted parking in the surrounding area would reach capacity.
- Opportunities to increase supply of unrestricted parking in surrounding area to accommodate relocated parking include converting existing 4P restricted parking spaces into unrestricted parking in Park Street and/or McIlwraith Street and reducing the length of the Wilson Street closure to limit the loss of parking spaces.



Appendix A

Traffic Surveys



Appendix A Traffic Surveys

DRAFT



Appendix B

SIDRA Output – Existing Conditions



Appendix B SIDRA Output – Existing Conditions

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Appendix C

SIDRA Outputs – Design Options





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Stantec Australia Pty Ltd

Level 28, 600 Bourke Street

Melbourne VIC 3000

AUSTRALIA

ABN 17 007 820 322

stantec.com

