

INNER WEST

Petersham North LATM Study

Final Draft Report

Prepared by Inner West Council

20
23



Contents

1. Introduction	04
2. Existing conditions	05
3. Identified community issues	25
4. LATM recommendations	26
5. Summary of proposals	47
Appendix A	49



1. Introduction

As part of Inner West Council's Local Area Traffic Management (LATM) Strategy Review Program, Council has prepared the Petersham North LATM Study.

The objective of the study is to reduce traffic volumes and speeds in local roads to increase liveability and improve safety and access for pedestrians. The Petersham North LATM was originally completed in 1988 and reviewed in 2005/2006.

In developing LATM recommendations consideration is to be given to incorporate the following principles of Local Area Traffic Management:

- Reduction on vehicular speeds
- Minimise traffic levels and intruding traffic in a local street
- Minimise crash risk
- Improve local amenity by:
 - Reducing car use
 - Increasing use of public transport
 - Increasing walking and cycling
 - Improving the streetscape

2. Existing conditions

The Petersham North LATM Area (M3) is bounded by West Street, Parramatta Road, Crystal Street and Terminus Street.

A map of the study area is shown in Figure 2.1 below.



Figure 2.1 Study Area

Surrounding Land Use Attractors

Significant open space is provided at Petersham Park and Brighton Street Reserve. A local café precinct is located along Brighton Street in and around Palace Street and the White Cockatoo Hotel is located at the Railway Street/ Terminus Street intersection. Petersham Train Station is located at the south-eastern section of the study area.

Educational facilities are provided at Fort Street High School located between Parramatta Road, Andreas Street and Palace Street which has some 920 students. Taverners Hill Public School is in Elswick Street and is small school with students from Kindergarten to Year 2 with some 40 students. KU Petersham is a preschool located in Brighton Street immediately east of Petersham Park. Fanny Durack Aquatic Centre has an open-air pool located in Petersham Park.

The school catchment area for Taverners Hill includes the full study area and further west to the light rail line and east to Whites Creek/Percival Road and north to Perry Street. Fort Street is an academically selective high school hence the student population comes from all over Sydney with a high proportion of students catching a train to/ from Petersham Station to access school.

Journey to Work

The 2016 and 2021 Journey to Work data was examined to identify travel trends within the Petersham North study area. The summary of the data is summarised in Table 2.1 below. It must be noted that this data does not cover the whole area of Petersham North LATM precinct. However, it is a reasonable to assume that the data represents the whole study area.

	2016		2021	
	Number	%	Number	%
Car	1,508	33%	894	19%
Train	1,345	29%	201	4%
Walk only	229	5%	144	3%
Bus	308	7%	85	2%
Car as passenger			71	2%
Did not go to work			520	11%
Worked at Home	177	4%	2,597	55%
Public Transport	1,951	42%	378	8%
Car as driver or passenger	1,699	37%	991	21%

Table 2.1 Journey to Work Data

In Petersham, on the day of the 2016 Census, the most common methods of travel to work for employed people included 'car as driver' 33%, train 29.0%, bus 7%, 'walked only' 5% and 'worked at home' 4%. On the day, 42% of employed people used public transport (train, bus, ferry, tram/light rail) as at least one of their methods of travel to work and 37% used car (either as driver or as passenger).

On Census Day 2021, various stages of COVID lockdowns were in place. This impacted how people worked on the day as evidenced in the table above with only 8% of employed people using public transport and only 21% using a car (as either driver or passenger). The work at home was very high at 55%.

Petersham North LATM (2005 Review)

The Petersham North LATM was initially completed in 1988. A review of the LATM was undertaken in 2004/2005 including consultation of the proposed additional treatments. After consultation the following projects were recommended, which have since all been completed;

- One midblock threshold in Brighton Street between West Street and Palace Street
- Two midblock thresholds in Croydon Street between Palace Street and Crystal Street
- One midblock threshold in Palace Street between Croydon Street and Fort Street
- Two pedestrian refuge islands in Croydon Street at its junction with Railway Street
- One pedestrian refuge island in Terminus Street at its junction with Palace Street
- One pedestrian refuge island in Croydon Street at its junction with Crystal Street
- One pedestrian refuge island in Andreas Street at its junction with Palace Street

Draft Inner West Cycling Strategy 2023

The draft Inner West Cycling Strategy was publicly exhibited in November 2022 with finalisation and adoption by Council anticipated in mid-2023. The draft Cycling Strategy outlines 6 priorities with actions to provide a safer cycling network and support more people cycling.

The draft Cycling Strategy applies the NSW Government's Movement and Place framework. Movement and Place is a cross-government framework for planning, designing, and managing the street network to maximise benefits for the people and places they serve. The draft bike network map specifies local streets designated for Prioritised cycling access and main streets designated for Place-based cycling access. The NSW Design and Roads and Streets Guide and the Network Planning in Precincts Guide aim to shift the emphasis in network planning from a hierarchy of roads towards a network that is place-based and prioritises walking, cycling, public transport use. This approach will form the basis of planning the Inner West bike network.



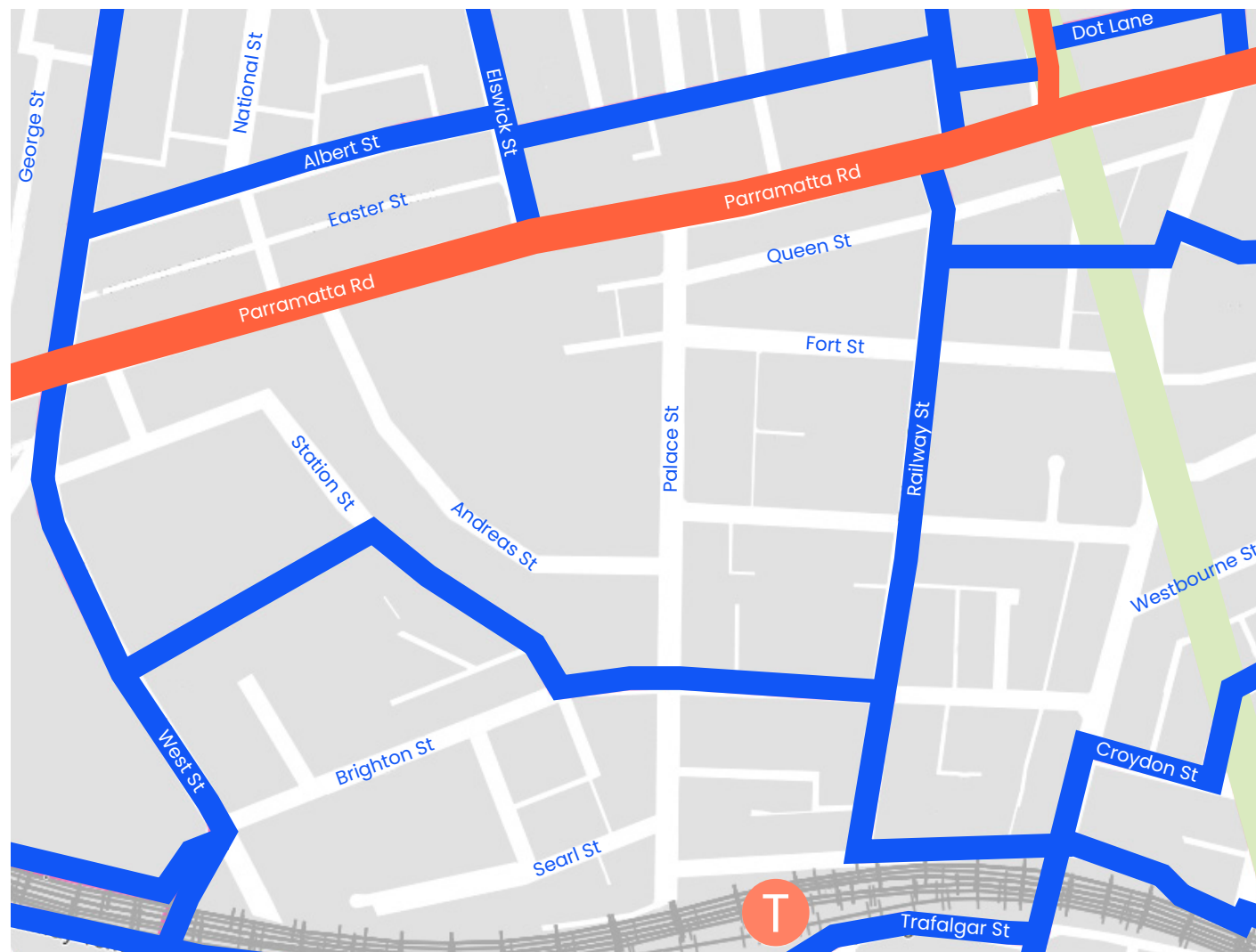


Figure 2.2 Draft Cycling Network Map

Figure 2.2 details the cycling network map within the study area. On the western boundary of the study area lies the proposed Parramatta Road Rd to Marrickville Park cycle route. The concept plan for this route was approved by Council in 2018 and generally involves converting the existing footpath on the western side of West Street between Railway Terrace and Parramatta Road into a shared path. This project is dependent on securing grant funding from the State Government. Council will continue to apply for appropriate grants to progress this project to the next stage.

Prioritised Cycling Access Routes are also identified in Railway Street, Station Street, Brighton Street, Terminus Street and Eswick Street.

Pedestrian Access Mobility Plan PAMP (2021)

Bitzios Consulting was commissioned by Inner West Council to undertake and develop the Inner West PAMP to provide an updated and consolidated PAMP that covers the entire LGA. The PAMP provides Council with a long-term strategy for the development and improvement of pedestrian routes and facilities with a focus on encouraging and increasing localised pedestrian activity. The PAMP includes a detailed works program that identified issues associated with access, connectivity, crossing deficiency, infrastructure condition, missing footpath, narrow footpath, obstruction, and safety issues. The identified proposals in the PAMP of relevance to the LATM include;

- (SA202) Raise existing pedestrian crossing in West Street at Petersham Park frontage
- (CD1816) Missing crossing point in Palace Street south of Searl Street – install new kerb ramp pair
- (CD1822) Missing crossing point in Palace Street at Fort Street – install new kerb ramp pair
- (CD1770) Brighton Street reconstruct misaligned refuge island at West Street
- (CD1835) Railway Street crossing at roundabout reconstruct refuge island at northern approach
- (CD1820) Palace Street missing crossing point immediately north of Andreas Street – install new kerb ramps
- (CD1821) Palace Street missing crossing point immediately north of Queen Street – install new kerb ramps



Parramatta Road Corridor Precinct Wide Traffic Study

PRCUTS is a State Government endorsed strategy for the revitalisation of Parramatta Road Corridor. PRCUTS Implementation Plan 2016–2023 requires that ‘prior to any rezoning, a traffic and transport study be prepared for the Corridor’. To fulfill this requirement, IWC and DPE jointly commissioned Cardno consultants to carry out a transport study analysing the transport network implications of proposals contained in the PRCUTS, in combination with the numerous adjacent infrastructure projects, including WestConnex.

The following actions detailed in the study relate specifically to the LATM study area which encompasses the PRCUTS Leichhardt Precinct and Taverners Hill Precinct.

- A-LU1 – Public domain improvements to key north–south streets perpendicular to Parramatta Road including Crystal Street. This work has been completed.
- A-AT8 – Provide continuous footpath treatments with kerb extensions in Park Street at Parramatta Road, in Park Street at Station Street, in Palace Street at Parramatta Road, in Railway Street at Parramatta Road in Queen Street at Crystal Street.
- A-AT8 – Provide continuous footpath treatments in Petersham Street at Parramatta Road and Elswick Street at Crystal Street. This work has been completed.
- A-R1 – Undertake public domain improvements, including conversion of Petersham Street to a pocket park between Parramatta Road and Queen Street. This work has been completed.
- A-R3 – Investigate crash clusters in Crystal Street between Parramatta Road and Elswick Street and Parramatta Road between Norton Street and Macquarie Street
- A-AT2 – Investigate and provide pedestrian crossings at the Andreas Street and Palace Street intersections with Parramatta Road.

The LATM recommendations do not include these actions as they are already included in the PRCUTS Study Actions whilst some have already been completed. They will however complement the recommended actions included in this report. In terms of review of crashes in Crystal Street, the recommendations from the LATM include a speed reduction in Crystal Street and the local road network to improve road safety in general.



Figure 2.3 Road Hierarchy

Road Hierarchy

The funding classification of road hierarchy is as follows:

- State Roads fully funded by TfNSW
- Regional Roads shared funding between Council and TfNSW
- Local Roads fully funded by Council

The functional classification is as follows:

- State Road/Arterial Roads predominantly carry through traffic from one region to another and are controlled by TfNSW.
- Regional/sub arterial roads connect the arterial roads to areas of development and carry traffic directly from one part of the region to another.
- Collector roads connect the sub arterial roads to the local road system in a developed area.
- Local Roads are the subdivisional roads within a particular developed area. These are used solely as local access roads.

The study area has one state road which is Parramatta Road and two regional roads which are West Street and Crystal Street as detailed in Figure 2.3. All other roads are local roads including the collector roads of Palace Street and Brighton Street.

Crash Data

A review of the most recent 5 years of recorded crash data has been undertaken as detailed in Figure 2.4 below. This corresponds with the period 2017–2021. A total of 84 crashes occurred in the study area. Most of the crashes occurred on State Roads. The administration and management of state roads is carried out and financed by Transport, and regional and local roads are administered, managed, and financed by local councils. It should be noted that only crashes that result in a casualty or a vehicle being towed away are included. All other minor crashes are not recorded.

In this regard a total of 48 crashes occurred on Parramatta Road which is a state road. Crystal Street, which is a regional road, had a total of 21 crashes. West Street, which is also a regional road, had a significantly lower number of crashes with a total of 6 crashes.

In total 6 crashes involved pedestrians, 7 involved cyclists. 2 crashes were fatalities, 15 resulted in serious injury, 21 moderate injury, 25 minor injury and 21 tow away.



Figure 2.4 Crash Data 2017– 2021 Five Year Period

State Road Crashes

Parramatta Road/West Street – The intersection with the highest number of crashes in the study area is Parramatta Road/West Street. 8 crashes were recorded at this intersection. 4 of these were rear end crashes, 1 cross traffic, 2 right through and 1 pedestrian crash.

Parramatta Road/Crystal Street – A total of 4 crashes were recorded. 2 of these were associated with rear end crashes, 1 was an off road on bend crash and 1 was a pedestrian crash.

Parramatta Road/Balmain Road – A total of 5 crashes were recorded. 4 of these were associated with rear end crashes, 1 was a lane change left.

Other Parramatta Road Crashes

There were further crashes at the Elswick Street intersection (4 crashes), Rofe Street intersection (2 crashes), Railway Street intersection (2 crashes) and Norton Street intersection (15 crashes). Note that Norton Street lies outside of the study area.

Regional Road Crashes

West Street/Brighton Street – There was one crash at this intersection. It involved vehicles from the same direction, specifically lane changing left heading northbound in West Street. There were no crashes involving turning movements at the intersection.

West Street/Thomas Street – There was one crash at this intersection, a rear end crash between northbound vehicles on approach to the existing raised pedestrian (zebra) crossing.

West Street/Station Street – There were 2 crashes at this intersection, a left turn sideswipe and off left on right bend.

West Street between Brighton Street and Station Street – 3 midblock crashes occurred including a pedestrian crash at or near the existing pedestrian (zebra crossing) near the southern end of the frontage of Petersham Park. The other crash was a rear end crash with both vehicles heading in a southbound direction. This also occurred at or near the existing pedestrian (zebra crossing). A further crash occurred towards Station Street involving a rear end crash between vehicles heading northbound.

Crystal Street/Fort Street – There were 4 crashes at the intersection, 2 involving crashes between vehicles making a right turn out of Fort Street and southbound vehicles in Crystal Street.

Crystal Street/Queen Street – There were 3 crashes at the intersection, 2 involving crashes between vehicles making a right turn out of Queen Street and southbound vehicles in Crystal Street. The other involved manoeuvring heading in a northbound direction in Crystal Street

Crystal Street/Brighton Street – There were 3 crashes at the intersection, 1 involving a pedestrian crash between a car turning left out of Brighton Street and a pedestrian crossing Brighton Street at Crystal Street, a rear end crash between southbound vehicles and a right near crash between vehicle making a right turn out of Brighton Street and a northbound vehicle.

Local Road Crashes

Croydon Street/Railway Street –A total of two crashes occurred at this intersection. This intersection is a STOP controlled intersection with priority given to Railway Street. One of these crashes was a vehicle from opposing direction and the other crash is a vehicle from adjacent direction.

A further crash occurred mid-block in Croydon Street between Railway Street and Crystal Street involving an eastbound vehicle running off road and another cross-traffic crash at the Croydon Street/Kirkpatrick Lane intersection involving a westbound vehicle.

Other Local Road intersections

No other intersections had more than one recorded crash during the five-year period. There was one crash in Croydon St at Kirkpatrick Lane involving a cyclist (cross traffic crash) and one in Croydon Street near Crystal Street 'off road left into object' heading east. One crash occurred at the Fishers Reserve/Carrington Lane intersection ' Fell in/from vehicle'. A crash occurred in Railway Street heading southbound near Queen Street on path vehicle door. A bicycle crash occurred in Terminus Street heading westbound near Palace Street.

Other Local Road Midblock Crashes

There were no local roads that had more than one crash. A crash occurred off road on right bend heading westbound in Andreas Street. A further crash involved a northbound vehicle off road on straight in Railway Street between Brighton Street and Croydon Street. A further crash occurred off road out of control with a left off roadway crash heading eastbound in Croydon Street between Croydon Lane West and Crystal Street.

Bus Services

Several bus routes service the study area as detailed in Figure 2.5.

Route 413 provides a link between Campsie and Central travels the full length of West Street through the study area.

Route 445 Campsie to Balmain via Market Place Crystal Street travels the full length of Crystal Street through the study for northbound bus movements and for southbound movements uses Railway Street between Parramatta Road and Fort Street and Fort Street between Railway Street and Crystal Street.

Route 412 Campsie to City uses the section of Crystal Street between Douglas Street and Trafalgar Street.

Many buses use Parramatta Road within the study area including Route 413, Route 461, Route 480, and Route 483.



Figure 2.5 Bus Routes in Study Area

Traffic Data

Traffic data was collected in February 2022 in the form and speed and volume counts as detailed in Table 2.2 including an assessment of acceptable speed and volume.

Road	Location	Classifi- cation	Avg. Daily Traffic (ADT)	Accept. traffic volume	Posted speed limit	85%ile speed (nb/eb)	85%ile speed (sb/wb)	Acceptable Speed (50 km/h speed limit)	Acceptable Speed (40 km/h speed limit)
Park St	b/w Parramatta Rd and Station St	Local	231	Y	50	27	24	Y	Y
Andreas St	b/w Parramatta Rd and Palace St	Local	642	Y	50	53	43	Y	N
Palace St	b/w Fort St and Croydon St	Collector	3116	Y	50	43	46	Y	N
Brighton St	b/w Wentworth St and The Avenue	Collector	3877	Y	50	37	39	Y	Y
Fort St	b/w Railway St and Petersham St	Local	1,632	Y	50	47	49	Y	N
Railway St	b/w Fort St and Croydon St	Local	1,310	Y	50	48	47	Y	N
Croydon St	b/w Railway St and Hordern Ave	Local	1,060	Y	50	39	38	Y	Y
Brighton St	b/w Railway St and Crystal St	Collector	5,653	N	50	45	48	Y	N
Terminus St	b/w Railway St and Crystal St	Local	255	Y	50	42	38	Y	Y

Table 2.2 Speed and Volume Review

Regarding traffic volumes all road sections have acceptable traffic volumes except for Brighton Street between Railway Street and Crystal Street which exceeds the acceptable traffic volume by some 10%. Regarding speed, all road sections have acceptable speed profiles regarding the existing posted speed limit. When comparing to a potential 40 km/h speed limit there are several streets where the 85%ile speed exceeds the proposed 40 km/h speed limit. These are Andreas Street, Palace Street, Fort Street, Railway Street and Brighton Street. Figure 2.6 details these findings.

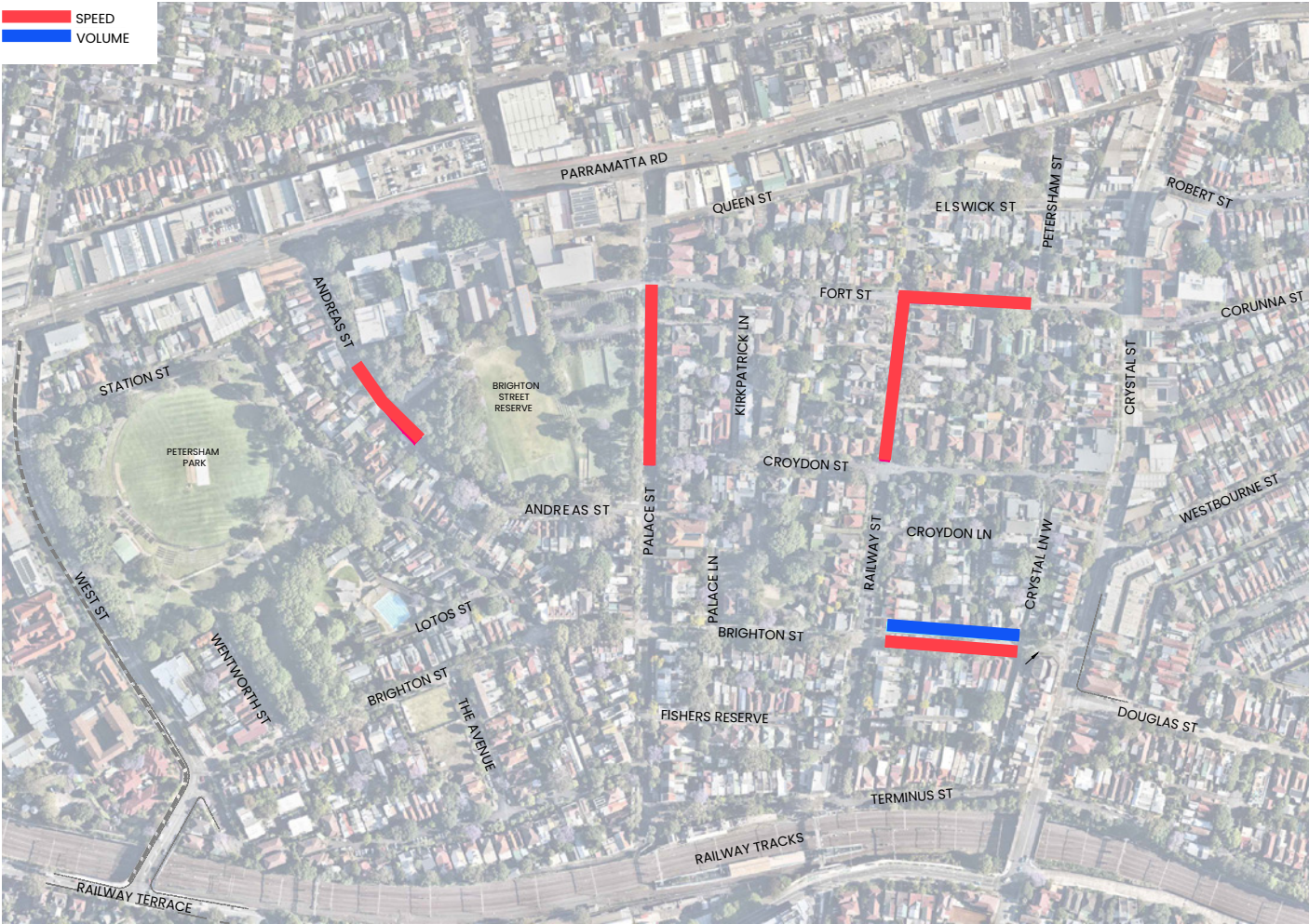


Figure 2.6 Speed and Volume Non-Compliance at 40 km/h speed limit

Intersection Counts

Intersection counts were undertaken at the following locations on Tuesday 1st November 2022;

- Railway Street/Brighton Street
- Croydon Street/Railway Street
- Andreas Street/Palace Street
- Palace Street/Brighton Street
- Terminus Street/Palace Street
- Fishers Reserve/Palace Street
- Brighton Street/The Avenue
- Brighton Street/Station Street
- Brighton Street between Wentworth Street and The Avenue

The intersection counts were undertaken to provide additional information regarding potential improvements to pedestrian amenity and for assessment of future intersection upgrades.

The summary of traffic counts is provided in **Appendix A**.

Pedestrian Crossing (Zebra) Assessment

Pedestrian crossings (zebra crossings) provide an opportunity for people to cross a road safely and on demand. They can improve safety, amenity, priority, and legibility.

Transport for NSW utilises a warrant system to determine if a pedestrian crossing is warranted at a specific location on roads operated by the NSW Government (Supplement to Australian Standard AS 1742.10-2009). This warrant system is not mandatory for use on non-arterial roads operated by local government.

A ‘reduced warrant’ for sites used predominantly by children and by aged or impaired pedestrians is provided by TfNSW. If the crossing is used predominantly by school children, is not suitable site for a children’s crossing and in two counts of one hour duration immediately before and after school hours (8:00am–9:00am, 3:00pm–4:00pm):- (a) $P \geq 30$ AND (b) $V \geq 200$ a pedestrian (zebra) crossing may be installed. Given the high volume of students travelling in the study area between Petersham Station and Fort Street high School a reduced warrant assessment has been undertaken with findings in **Table 2.3** below.

Location	AM Ped	AM Vehicles	Zebra Warrant AM	PM Ped	PM Vehicles	Zebra Warrant PM)
Palace Street north of Andreas Street	184	Local	Yes	1	144	No
Palace Street south of Andreas Street	7	245	No	11	190	No
Andreas Street west of Palace Street	229	273	No	106	82	No
Brighton Street in front of Petersham Park	33	446	Yes	26	242	No
Railway Street north of Croydon Street	12	122	No	9	92	No
Railway Street south of Croydon Street	7	152	No	4	106	No
Croydon Street east of Railway Street	74	117	No	37	65	No
Croydon Street west of Railway Street	60	51	No	39	33	No
Railway Street north of Brighton Street	34	154	No	16	105	No
Railway Street south of Brighton Street	32	34	No	13	41	No
Brighton Street east of Railway Street	79	404	Yes	42	346	Yes
Brighton Street west of Railway Street	72	436	Yes	37	316	Yes
Palace Street north of Brighton Street	64	273	Yes	21	192	No
Palace Street south of Brighton Street	68	51	No	32	28	No
Brighton Street east of Palace Street	264	439	Yes	29	315	No
Brighton Street west of Palace Street	310	453	Yes	132	247	Yes
Palace Street north of Terminus Street	173	14	No	33	19	No

Pedestrian Crossing (Zebra) Assessment continued

Location	AM Ped	AM Vehicles	Zebra Warrant AM	PM Ped	PM Vehicles	Zebra Warrant PM)
Palace Street south of Terminus Street	2	58	No	12	1	No
Terminus Street east of Palace Street	103	7	No	119	18	No
Palace Street north of Fishers Reserve	12	49	No	7	27	No
Palace Street south of Fishers Reserve	17	35	No	67	22	No
Fishers Reserve east of Palace Street	257	8	No	64	3	No
Brighton Street east of The Avenue	6	431	No	1	234	No
The Avenue south of Brighton Street	43	24	No	41	23	No
Brighton Street west of The Avenue	7	435	No	10	246	No
Station Street north of Brighton Street	49	31	No	14	34	No
Station Street south of Brighton Street	47	3	No	41	1	No
Brighton Street east of Station Street	14	456	No	11	247	No
Brighton Street west of Station Street	14	438	No	6	234	No

Table 2.3 Pedestrian (zebra) Crossing Assessment

TfNSW released the ‘Pedestrian Crossing Guideline’ in September 2022 as the combined threshold for pedestrians and vehicular movements is hard to achieve on local roads as evidenced in the table above.

As an alternative the guidelines state that a pedestrian crossing can be considered if in each two separate hours periods in a typical day the pedestrian flow is or is expected to be greater than 20 where children and elderly or mobility impaired pedestrians count as two pedestrians.

Pedestrian crossings (zebra crossings) provide an opportunity for people to cross a road safely and on demand. They can improve safety, amenity, priority, and legibility.



Continuous Footpath Treatment

Under the road rules, a footpath is a road related area. When entering, or crossing, a road related area from a road, drivers must give way to any pedestrians or other road users on the road related area. Therefore, where pedestrian priority is desirable, but a regulatory pedestrian crossing is not warranted, a continuous footpath treatment that is not differentiated in colour and texture from the adjacent footpath may be a suitable solution.

Typically, no more than 45 vehicles per hour moving through the intersection to be treated. There should be few, if any, heavy vehicles frequenting the intersection. Measured vehicle flows apply for three periods of one hour in any day. This measure should capture the busiest traffic flows that occur at that location. Table 2.4 provides an assessment of suitability of this treatment at locations within the study area.

Location	AM Ped	AM Vehicles	Zebra Warrant AM	PM Ped	PM Vehicles	Zebra Warrant PM)
Palace Street north of Andreas Street	184	245	No	1	144	No
Palace Street south of Andreas Street	7	273	No	11	190	No
Andreas Street west of Palace Street	229	50	No	106	83	No
Brighton Street in front of Petersham Park	33	446	No	26	242	No
Railway Street north of Croydon Street	12	122	No	9	92	No
Railway Street south of Croydon Street	7	152	No	4	106	No
Croydon Street east of Railway Street	74	117	No	37	65	No
Croydon Street west of Railway Street	60	51	No	39	33	Yes
Railway Street north of Brighton Street	34	154	No	16	105	No
Railway Street south of Brighton Street	32	34	Yes	13	41	Yes
Brighton Street east of Railway Street	79	404	No	42	346	No
Brighton Street west of Railway Street	72	436	No	37	316	No

Location	AM Ped	AM Vehicles	Zebra Warrant AM	PM Ped	PM Vehicles	Zebra Warrant PM)
Palace Street north of Brighton Street	64	273	No	21	192	No
Palace Street south of Brighton Street	68	51	No	32	28	Yes
Brighton Street east of Palace Street	264	439	No	29	315	No
Brighton Street west of Palace Street	310	453	No	132	247	No
Palace Street north of Terminus Street	173	14	Yes	33	19	Yes
Palace Street south of Terminus Street	2	58	No	12	1	Yes
Terminus Street east of Palace Street	103	12	Yes	119	18	Yes
Palace Street north of Fishers Reserve	12	49	No	7	27	Yes
Palace Street south of Fishers Reserve	17	35	Yes	67	22	Yes
Fishers Reserve east of Palace Street	257	8	Yes	64	3	Yes
Brighton Street east of The Avenue	6	431	No	1	234	No
The Avenue south of Brighton Street	43	24	Yes	41	23	Yes
Brighton Street west of The Avenue	7	435	No	10	246	No
Station Street north of Brighton Street	49	31	Yes	14	34	Yes
Station Street south of Brighton Street	47	3	Yes	41	1	Yes
Brighton Street east of Station Street	14	456	No	11	247	No
Brighton Street west of Station Street	14	438	No	6	234	No

Table 2.4 Continuous Footpath Treatment Assessment

Origin Destination Survey

On Tuesday 7th February 2023, an origin destination survey along Brighton Street, Petersham. The survey was completed during the following time periods.

- 07:30 to 09:30 on Tuesday 7th February 2023
- 15:00 to 18:00 on Tuesday 7th February 2023

The information recorded at 2 stations, covering movements in both directions. Number plate observations were classified into two vehicle classes:

- Light vehicles
- Heavy vehicles.

The data indicates the following;

- In the AM weekday peak, 46% of traffic heading eastbound in Brighton Street (entered at West Street, exited at Crystal Street) do not have a destination within the study area
- In the PM weekday peak 36% of traffic heading eastbound in Brighton Street (entered at West Street, exited at Crystal Street) do not have a destination within the study area
- In the AM weekday peak, 26% of traffic heading westbound in Brighton Street (entered at Crystal Street, exited at West Street) do not have a destination within the study area
- In the PM weekday peak 24% of traffic heading westbound in Brighton Street (entered at Crystal Street, exited at West Street) do not have a destination within the study area

It should be noted that in the westbound direction there is likely to be additional through traffic which does not have a destination in the study area that uses Palace Street and Andreas Street to access Parramatta Road in addition to those that exit via West Street. The data showed that there is negligible (some 2 to 3) through heavy vehicle movements in both the AM and PM peak periods.

3. Identified Community issues

Council undertook an initial survey through Council’s Yoursay website in May/June 2022 and the outcomes are detailed in an Engagement Outcomes Report.

The main outcomes of the first stage of consultation are that the problem identified by the greatest number of respondents as an issue is high traffic volumes, followed by pedestrian safety issues and the third most raised issue was rat running on local roads.

Regarding particular streets, Brighton Street, West Street and Palace Street had the highest level of concern for too much traffic, heavy vehicle use, rat running and exceeding the speed limit.

Andreas Street also had a level of concern for rat running and exceeding speed limit.

4. LATM Recommendations

An overall plan of the proposed treatments is detailed right in Figure 4.1. Further details of each recommendation are detailed in this section including concept plans.

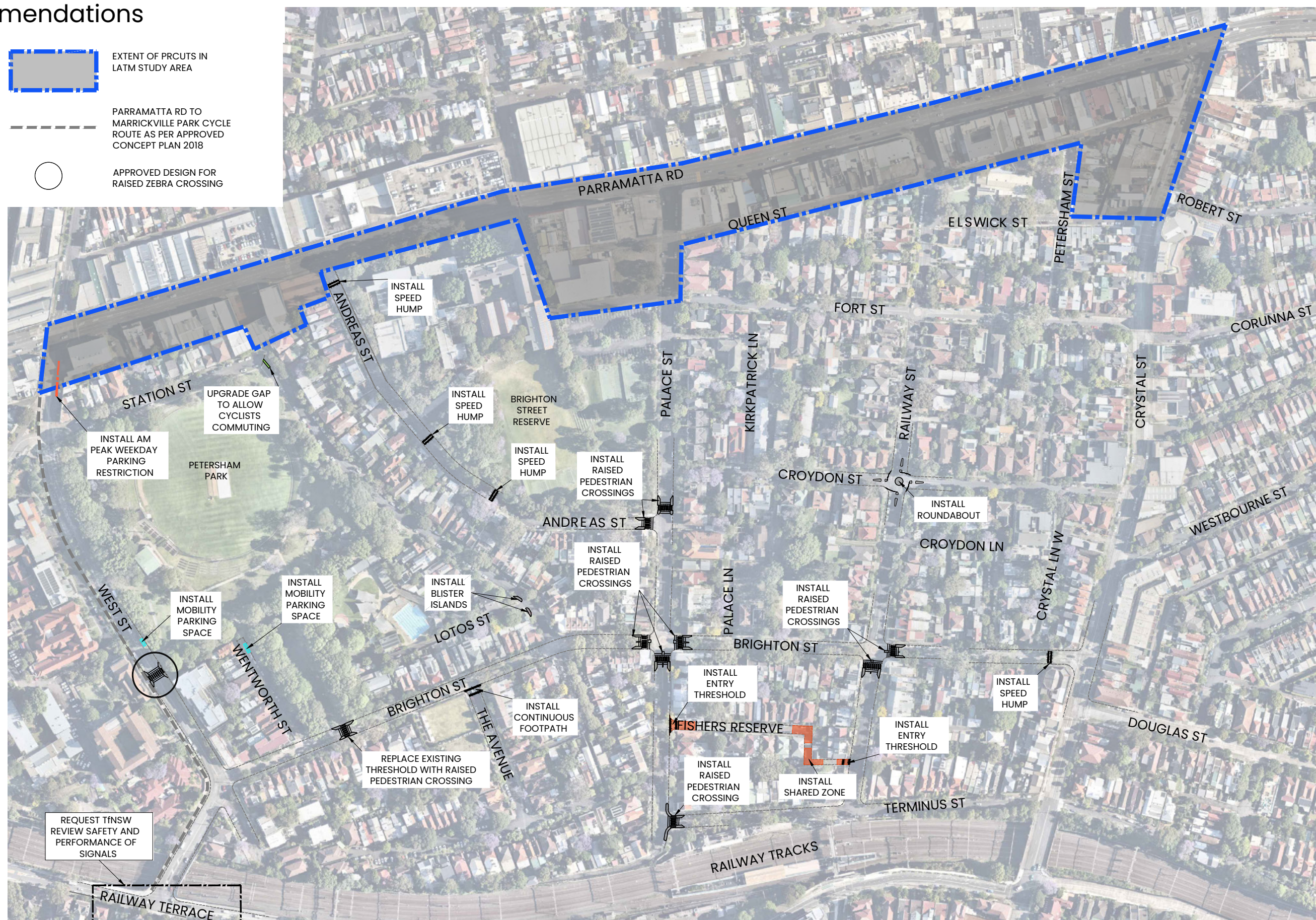
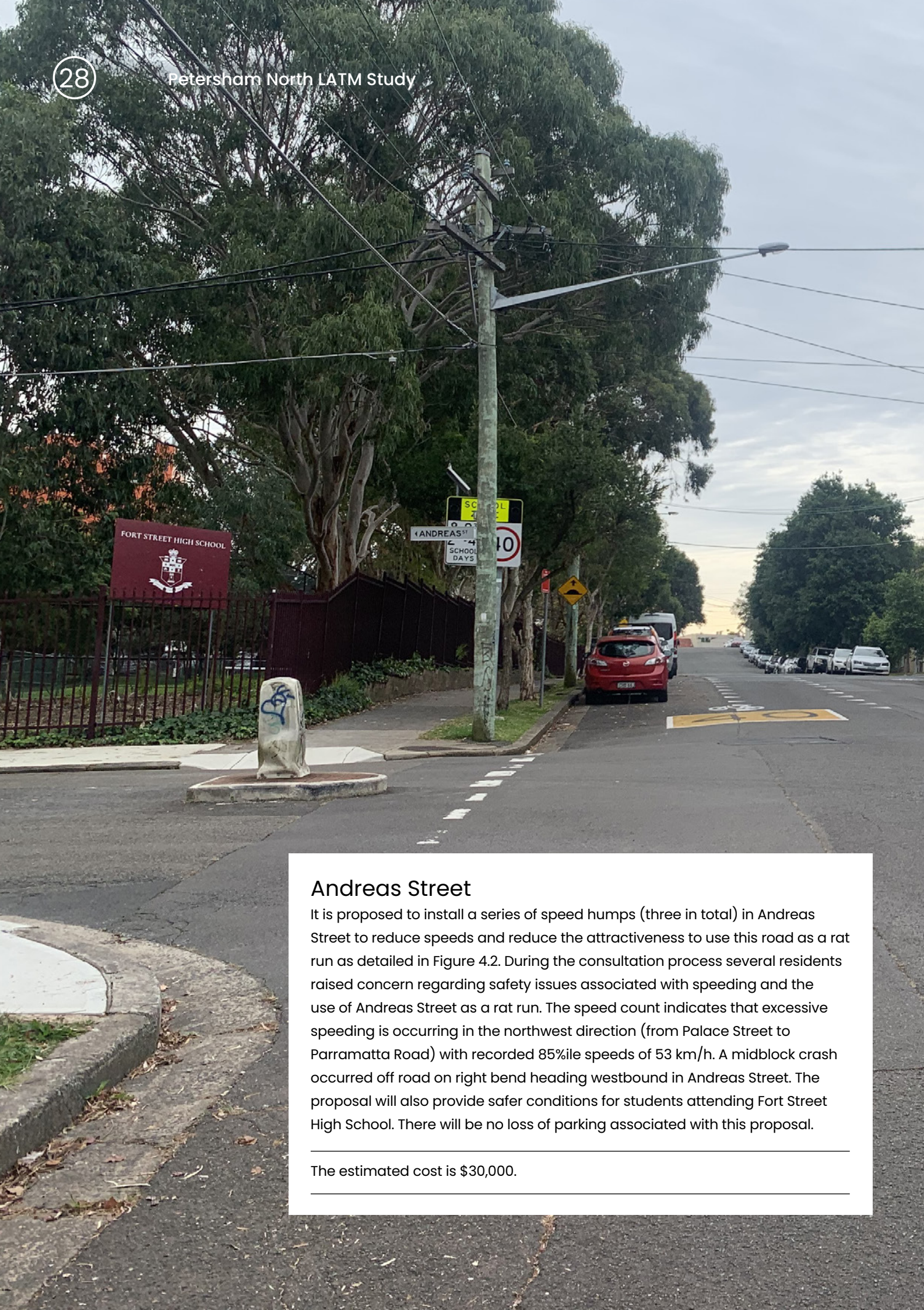


Figure 4.1 Overall Plan of Proposed Treatments



Andreas Street

It is proposed to install a series of speed humps (three in total) in Andreas Street to reduce speeds and reduce the attractiveness to use this road as a rat run as detailed in Figure 4.2. During the consultation process several residents raised concern regarding safety issues associated with speeding and the use of Andreas Street as a rat run. The speed count indicates that excessive speeding is occurring in the northwest direction (from Palace Street to Parramatta Road) with recorded 85%ile speeds of 53 km/h. A midblock crash occurred off road on right bend heading westbound in Andreas Street. The proposal will also provide safer conditions for students attending Fort Street High School. There will be no loss of parking associated with this proposal.

The estimated cost is \$30,000.



Figure 4.2 Andreas Street

Palace Street/Andreas Street Intersection

Based on discussion with Fort Street High School staff, consultation responses and site observations, it is proposed to install a raised pedestrian (zebra) crossing in Palace Street north of Andreas Street as detailed in Figure 4.3. Observations indicate that a significant number of High School students cross Palace Street at this location in the AM peak. Currently there is no pedestrian facility to facilitate this movement in a safe manner.

Given the wide-ranging school catchment area, nearly all students (800 –900 students), travel by train to/from school and therefore walk from the Petersham Train Station, approximately 300 metres. These students cross Palace Street at or near the Andreas Street intersection and therefore the crossing facility will be located on the existing pedestrian desire line. Speeding, pedestrian safety and rat running issues were raised during initial consultation. These issues should be reduced by the proposal. It is expected that once the facility is installed that more students will cross at this location the PM school peak as they tend to cross Palace Street further south in the PM peak. This will also reduce speeds in Palace Street.

A review indicates that in the AM peak (184 pedestrians, 245 vehicles) the reduced warrant is met on the northern leg. In the PM peak (1 pedestrian, 144 vehicles), the reduced warrant is not met for vehicles or pedestrians, as students tend to walk on the western footpath of Palace Street towards the Petersham Train Station. However, it should be noted that 11 pedestrian movements cross the southern leg of the intersection, and it would be expected that these pedestrians would use the proposed pedestrian crossing as would some of the 106 students that cross Andreas Street. Furthermore, the pedestrian movements currently cross on a diagonal at the intersection and will only have to slightly adjust their desire line to use the facility. The estimated number of pedestrians expected to use the crossing once installed would meet the reduced warrant in both the AM and PM peak. The installation of the crossing will result in the loss of on street parking of approximately four spaces in Palace Street.

The estimated cost is \$80,000.

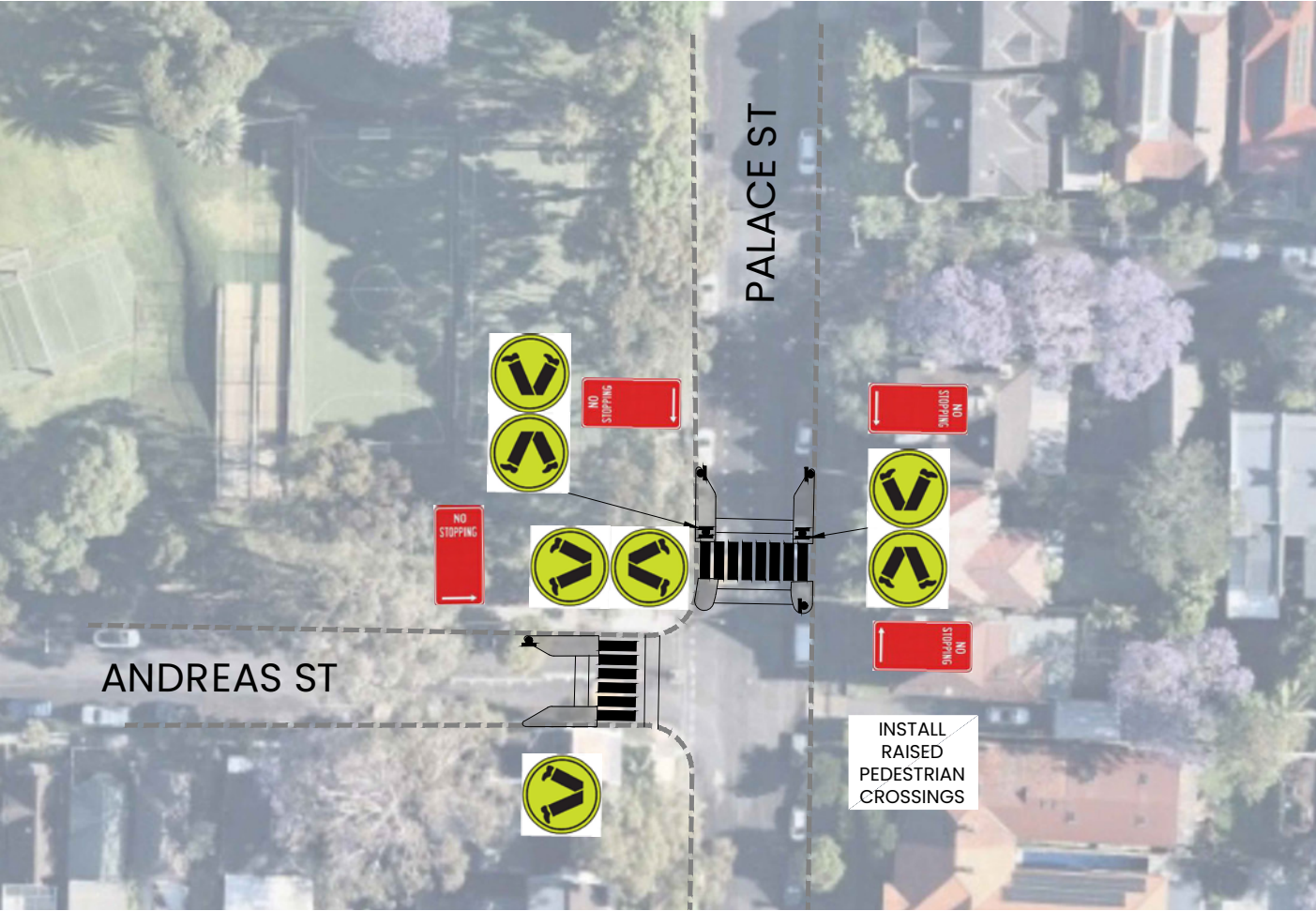


Figure 4.3 Andreas Street/Palace Street

Similarly, a raised pedestrian (zebra) crossing is also proposed in Andreas Street at its intersection with Palace Street. Observations indicate that this is a significant pedestrian desire line between the train station and the school, in particular in the afternoon peak. The pedestrian component of the warrant is met in both the AM and PM peak (229 and 106 respectively); however, the traffic volume is not (50 and 82 respectively). Given its proximity to the school and the high number of pedestrians it is recommended that a pedestrian (zebra crossing) be installed. It should also be noted that it complies with the requirements of recently released (September 2022) TfNSW Pedestrian Crossing Guideline that in each of two sperate one-hour periods in a typical day, the pedestrian flow crossing the road is equal to or greater than 20 where children and elderly mobility impaired pedestrians count as two pedestrians. The Guideline does not specify a traffic volume component requirement.

The installation of the crossing in Andreas Street will result in the loss of on street parking of approximately two spaces in Andreas Street.

The estimated cost is \$80,000.

Croydon Street/Railway Street

A roundabout is proposed at the Croydon Street/Railway Street roundabout as detailed in Figure 4.4. Under current conditions the intersection is STOP controlled with priority given to Railway Street. The roundabout will reduce vehicular speeds. There have been two crashes at this intersection and a further midblock crash. One of these crashes was a vehicle from opposing direction and the other crash is a vehicle from adjacent direction. A further crash occurred mid-block in Croydon Street between Railway Street and Crystal Street involving an eastbound vehicle running off road and a cross traffic crash occurred at the Croydon Street/Fitzpatrick Lane intersection with a westbound vehicle in Croydon Street. The roundabout should assist in reducing the likelihood of these crashes. It will also reduce speeds in Railway Street which have a high recorded 85%ile speed of 48 km/h.

The installation of the roundabout will result in the loss of on street parking of approximately eight spaces. A SIDRA intersection Assessment has been carried to assess the performance of a roundabout.

Existing Priority Controlled		Proposed Roundabout Control	
Level of Service AM	A	Level of Service AM	A
Average Delay AM	8 seconds	Average Delay AM	9 seconds
Level of Service PM	A	Level of Service PM	A
Average Delay PM	8 seconds	Average Delay PM	9 seconds

Table 4.1 SIDRA Intersection Assessment

The estimated cost is \$150,000.

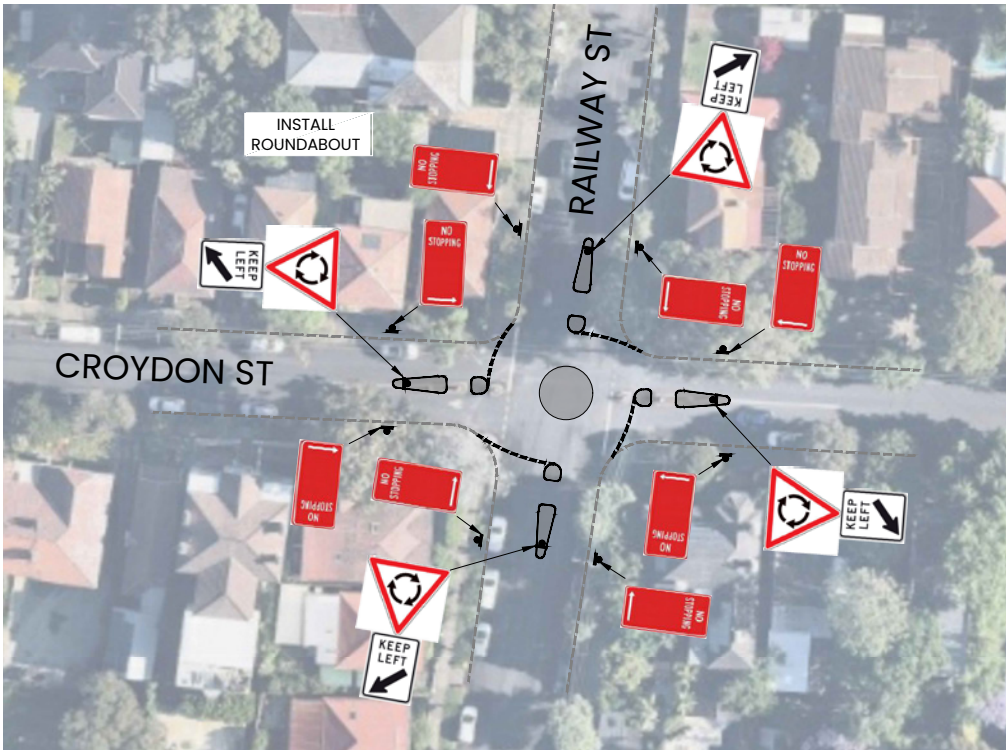


Figure 4.4 Croydon Street/Railway Street

West Street and Wentworth Street Mobility Parking Spaces

Based on discussion with Council’s mobility planner regarding existing shortfalls in mobility parking within the study area, mobility parking spaces are proposed to be installed in West Street near the existing zebra crossing along the frontage of Petersham Park. Similarly, a mobility parking space is also proposed in Wentworth Street to provide access to the park. The locations are as detailed in Figure 4.5. Both these spaces will improve access to Petersham Park and fanny Durack Aquatic Centre. Note that the accessible space can also be used by residents with a mobility parking permit.

The estimated cost is \$4,000.

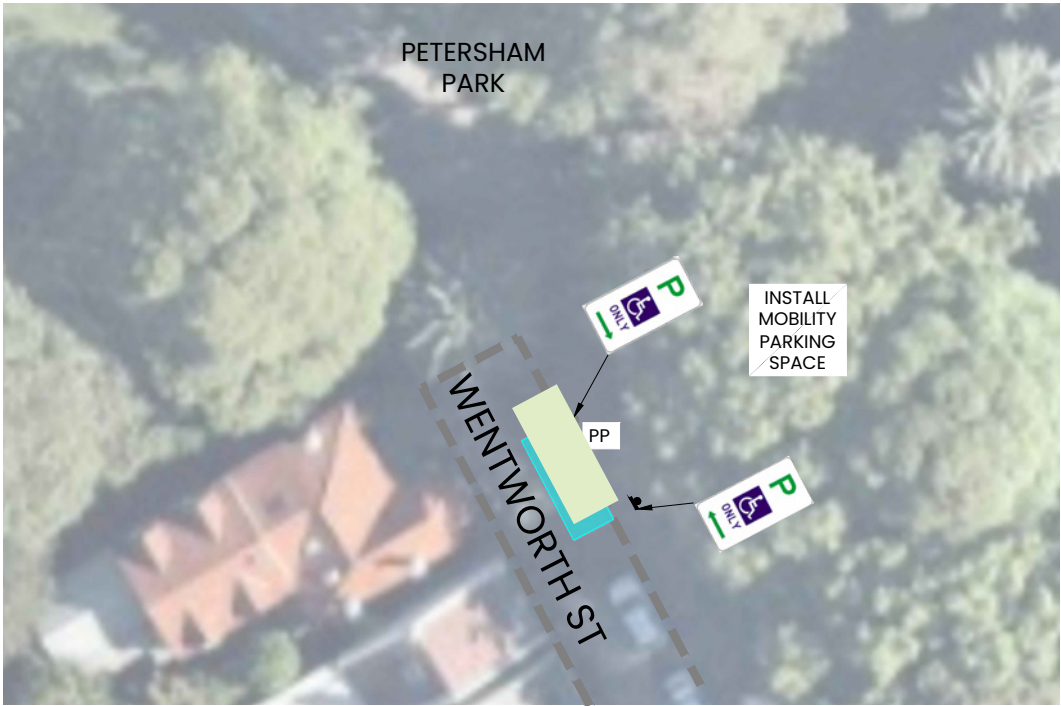
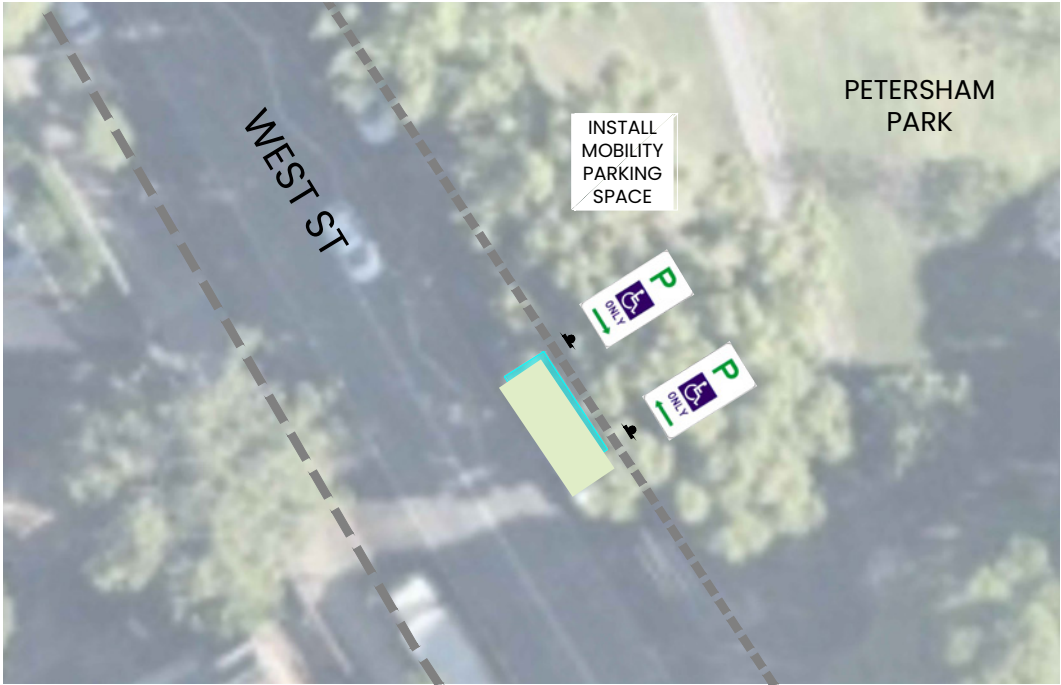


Figure 4.5 Wentworth Street and West Street

West Street at existing at grade Pedestrian (Zebra) Crossing

West Street carries significant traffic volumes in the order of 12,000 vehicles/day. To assist pedestrians, it is proposed to raise the existing at grade zebra crossing located near the southern edge of the Petersham Park frontage as detailed in Figure 4.6. There have been two crashes at this location including a pedestrian crash. The proposal will improve safety by reducing speeds on approach to the crossing. The detailed design for this project has been prepared and consultation of the proposal was carried out in March/April 2023. These works are expected to be undertaken during the 2023/2024 financial year, subject to the outcome of this separate community engagement, final approvals, and budget allocations and therefore not included in cost estimate of proposals.

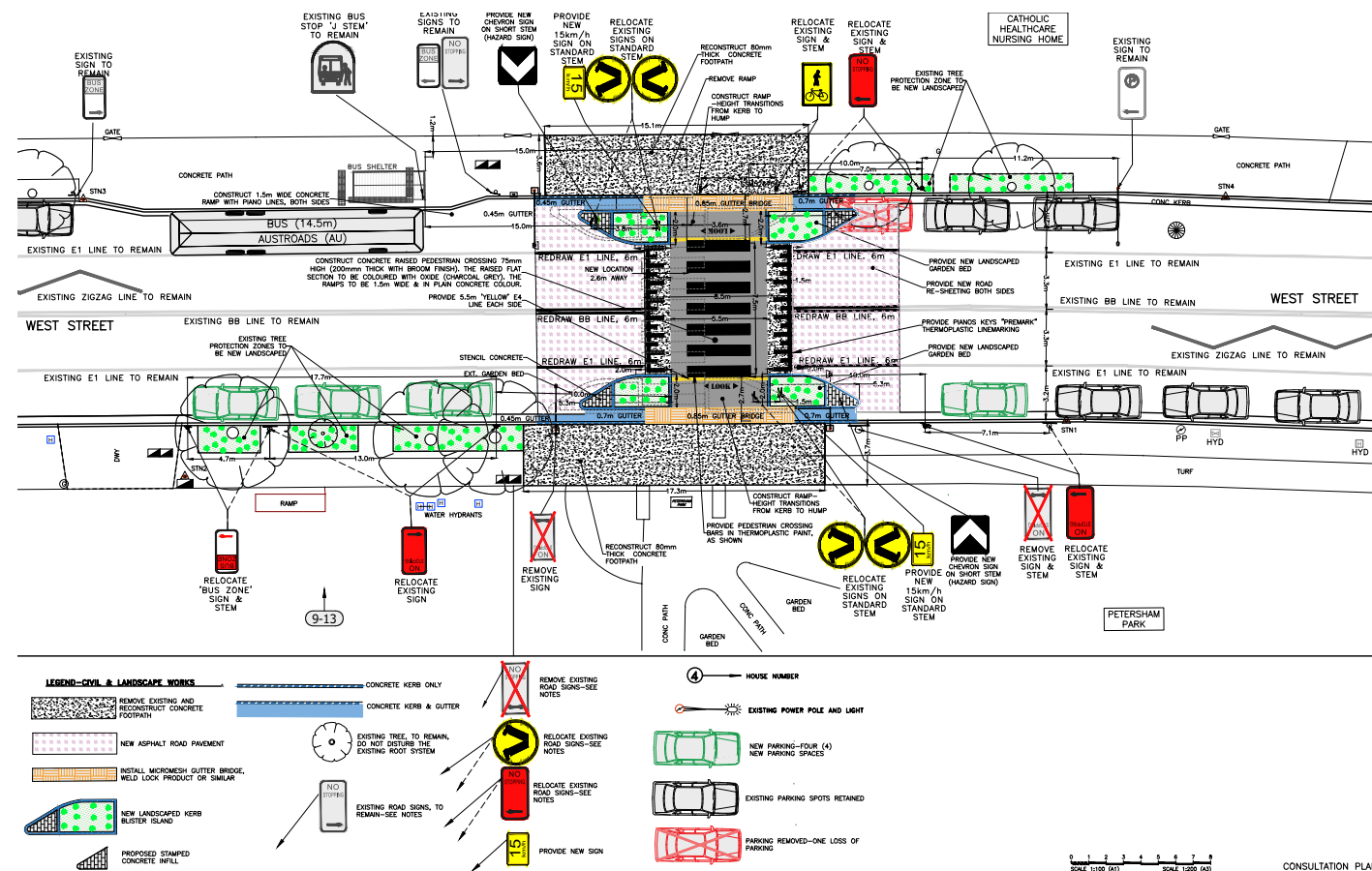


Figure 4.6 West Street along Petersham Park Frontage

Brighton Street between Wentworth Street and The Avenue

The community engagement indicated that there were insufficient opportunities to safely cross Brighton Street in and around Petersham Park. Hence it is proposed to upgrade the existing raised threshold to a raised zebra crossing in this location as per Figure 4.7. The data indicates that a sufficient number of pedestrians cross at this location including 33 pedestrians in the AM peak and 26 in the PM peak and traffic volumes are 446 in the AM peak and 242 in the PM peak. During the overall peak PM (3.45–4.45pm) 35 pedestrians crossed and traffic volumes were 285 meeting the requirements for a reduced warrant. During the community engagement it was also raised as a safety issue through Council's Access and Inclusion team. The installation of the crossing will result in the loss of on street parking of approximately five spaces.

The estimated cost is \$80,000.

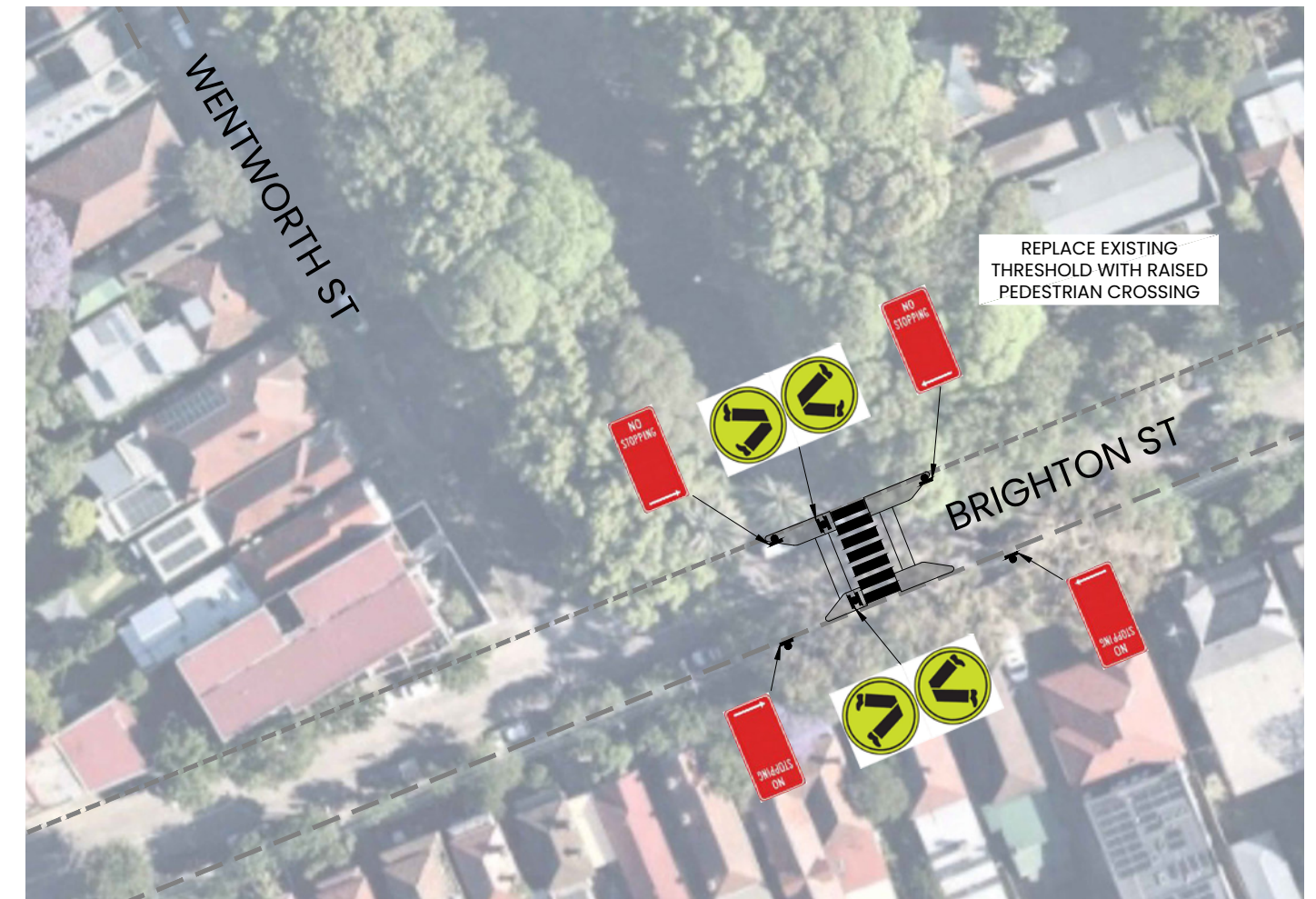


Figure 4.7 Brighton Street along Petersham Park frontage

Brighton Street between Crystal Lane West and Crystal Street

A speed hump is proposed in Brighton Street between Crystal Lane West and Crystal Street to reduce speeds of traffic when entering from Crystal Street as per Figure 4.8. The speed data indicates that whilst they are acceptable for a 50 km/h speed limit, they are high for a 40 km/h speed limit with westbound 85thile speed recorded of 48 km/h which is proposed as part of the study recommendations. Similarly, the pedestrian amenity would be improved by reducing the speed profile, as it would reduce speeds of vehicles that make a left turn from Crystal Street into Brighton Street which is able to be negotiated at a higher speed due to the large kerb return radius. This will have no impact on parking.

The estimated cost is \$10,000.



Figure 4.8 Brighton Street between Crystal Lane West and Crystal Street

Brighton Street/Railway Street Intersection

Raised zebra crossings are proposed on Brighton Street on the eastern approach and on Railway Street on the southern approach to the Brighton Street/Railway Street roundabout controlled intersection as detailed in Figure 4.9. The pedestrian counts undertaken at this location indicate that the reduced warrant for such a facility is partially achieved as during the AM peak 79 pedestrians crossed the eastern leg and 32 crossed the southern leg and similarly during the PM peak 42 pedestrians crossed the eastern leg and 13 crossed the southern leg. Regarding vehicles, during the AM peak, 404 used the eastern leg and 34 used the southern leg, whilst in the PM peak, 346 use the eastern leg and 41 use the southern leg. Whilst noting that the southern leg does not meet the traffic volume requirements it does meet the TfNSW Pedestrian Crossing Guideline requirements.

Whilst noting that the western leg (Brighton Street) meets the reduced warrant, due to geometric constraints a pedestrian (zebra) crossing is not proposed at this location however the proposed pedestrian (zebra) crossing on the eastern leg will provide a safe opportunity to cross Brighton Street.

The installation of the crossings will result in the loss of on street parking of approximately six spaces including four in Railway Street and two in Brighton Street.

The estimated cost is \$160,000.



Figure 4.9 Brighton Street/ Railway Street

Brighton Street/Palace Street Intersection

Raised zebra crossings are proposed on three legs of the Brighton Street/Palace Street intersection as detailed in Figure 4.10. This area has significant pedestrian activity associated with the adjacent cafes and students travelling to/ from Fort Street High and Petersham Train Station. The reduced warrant for a zebra crossing is met on the western leg (pedestrian volumes of 310 AM and 132 in the PM peak) and generally on the eastern leg (pedestrian movements of 264 AM and 29 PM peak). The southern leg is met in both the AM and PM peak for pedestrian movements (68 in the AM peak and 32 in the PM peak) however the southern leg does not meet the traffic volume requirements as traffic volumes are 51 in the AM peak and 28 in the PM peak, however it does meet the requirements as required in the TfNSWs' recently released Pedestrian Crossing Guideline. This will address the pedestrian safety and speeding issue raised during consultation.

The installation of the crossings will result in the loss of on street parking of approximately four spaces including one space in Brighton Street east of Palace Street, two in Palace Street south of Brighton Street, and one in Brighton Street west of Palace Street.

The estimated cost is \$240,000.

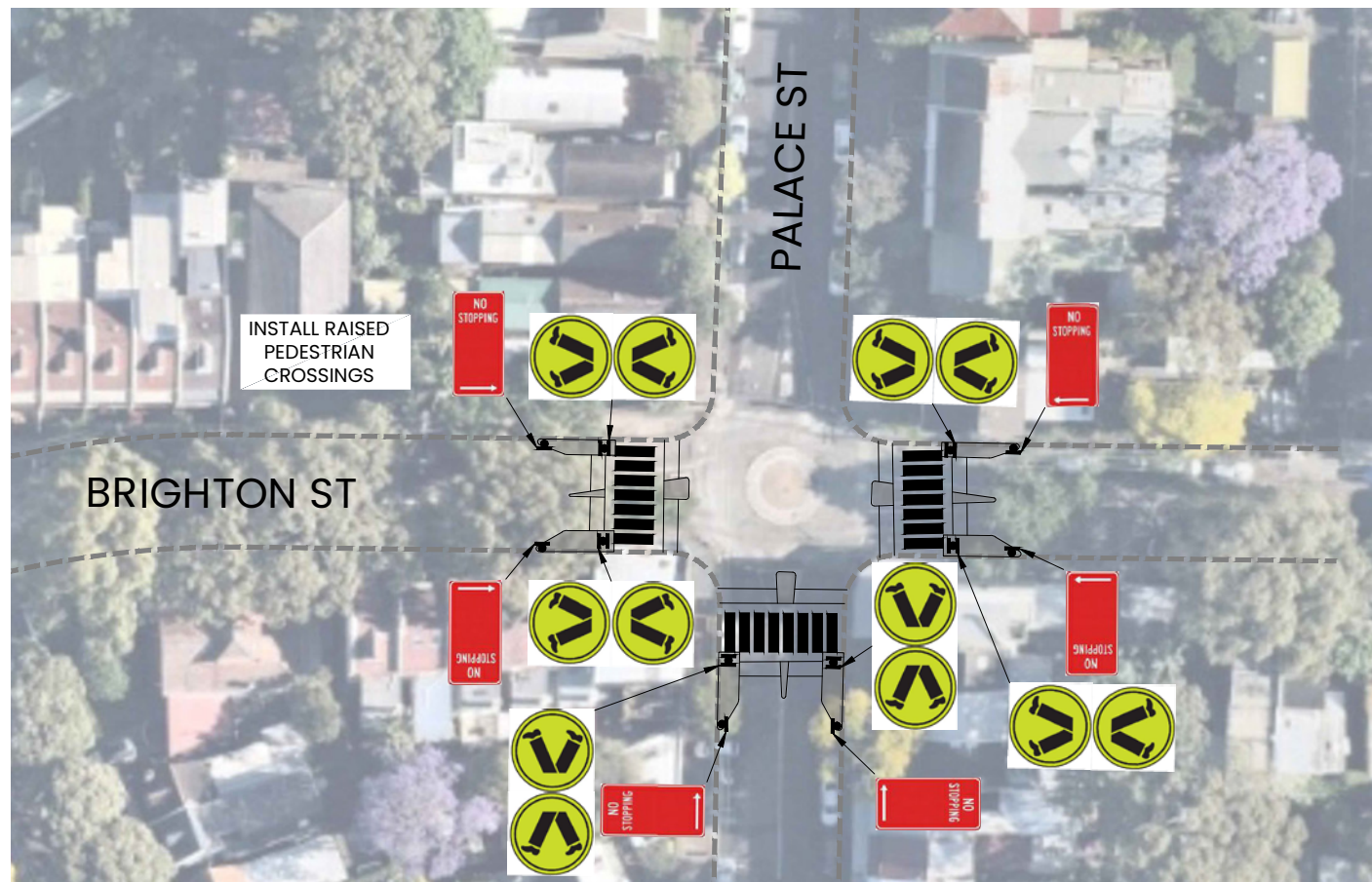


Figure 4.10 Brighton Street/Palace Street

Palace Street/Terminus Street

A raised zebra crossing is proposed in Terminus Street at Palace Street as shown in Figure 4.11. This will provide pedestrian priority. This location has low vehicle movements (7 in the AM peak and 18 in the PM peak) and high pedestrian movements (103 and 119 in the peak periods) indicating that significant pedestrian line exists at this location. One crash has been recorded at this intersection involving a cyclist heading westbound in Terminus Street near Palace Street running off road resulting in a minor injury. Whilst this location does not meet the vehicular component for a reduced warrant it does meet the requirements detailed in the Pedestrian Crossing Guideline. A bicycle crash occurred in Terminus Street heading westbound near Palace Street.

The installation of the crossing will result in the loss of two on street parking spaces, both in Terminus Street.

The estimated cost is \$80,000.

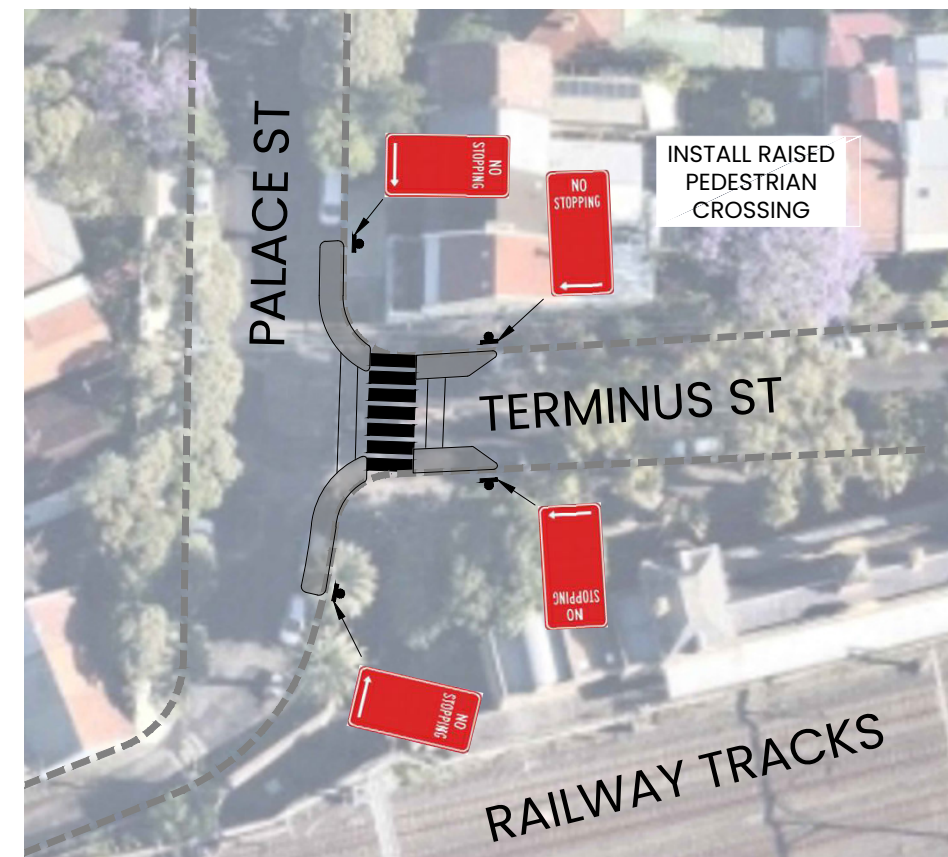


Figure 4.11 Palace Street/Terminus Street

West Street/Terrace Street

Several residents raised concerns regarding the operations of the West Street/Railway Terrace traffic signals. The concerns related to pedestrian safety associated with the lack of hardstand storage space for pedestrians to wait on the north-western kerb whilst waiting to cross Railway Terrace and safety issues associated with pedestrians when crossing Railway Terrace and vehicles making a right turn from West Street due to the overlap of pedestrian and vehicle movements. They also raised issues associated with insufficient phase time for traffic approaching the signals from West Street making a right turn and the excessive queueing that occurs and trucks making a left turn into West Street making pedestrians feel unsafe whilst waiting to cross West Street due to their turning path. Council has forwarded these concerns to TfNSW who are responsible for traffic signal operations.

Implement Reduced Speed Limits

Speed zones are set to enable drivers travelling at a speed limit to safely respond to potential risks in the road environment. Lower speeds deliver significant road safety benefits, reducing both the number and severity of crashes. Travelling at speeds that are set to accommodate the mix of vehicles and people movements on the road network allows drivers and riders to stop to avoid crashes, and if they do crash, to reduce the impact to prevent death and serious injuries, especially in areas of high pedestrian activity.

The chances of survival for a pedestrian being hit by a car is 10 percent at 50 km/h which increases significantly to 60 percent at a speed of 40 km/h.

In line with preliminary draft report for Council's Inner West@40 Study on proposed speed limit reductions, it is recommended that all local roads in the Petersham North LATM study area have their speed limit reduced from 50km/h to 40km/h and the Regional Roads comprising of Crystal Street and West Street be reduced from 60 km/h to 50 km/h. The proposal is detailed in Figure 4.12. The area is considered 'Priority B' in the preliminary Inner West@40 Study. This will require TfNSW approval as they are responsible for setting speed limits. The speed reduction will result in safer conditions for motorists, pedestrians and cyclists noting that there have been a number of crashes particularly along the Regional Roads of Crystal Street (21 crashes) and West Street (6 crashes) which it is proposed to reduce the speed limit from 60 km/h to 50 km/h.

The estimated cost is \$10,000.

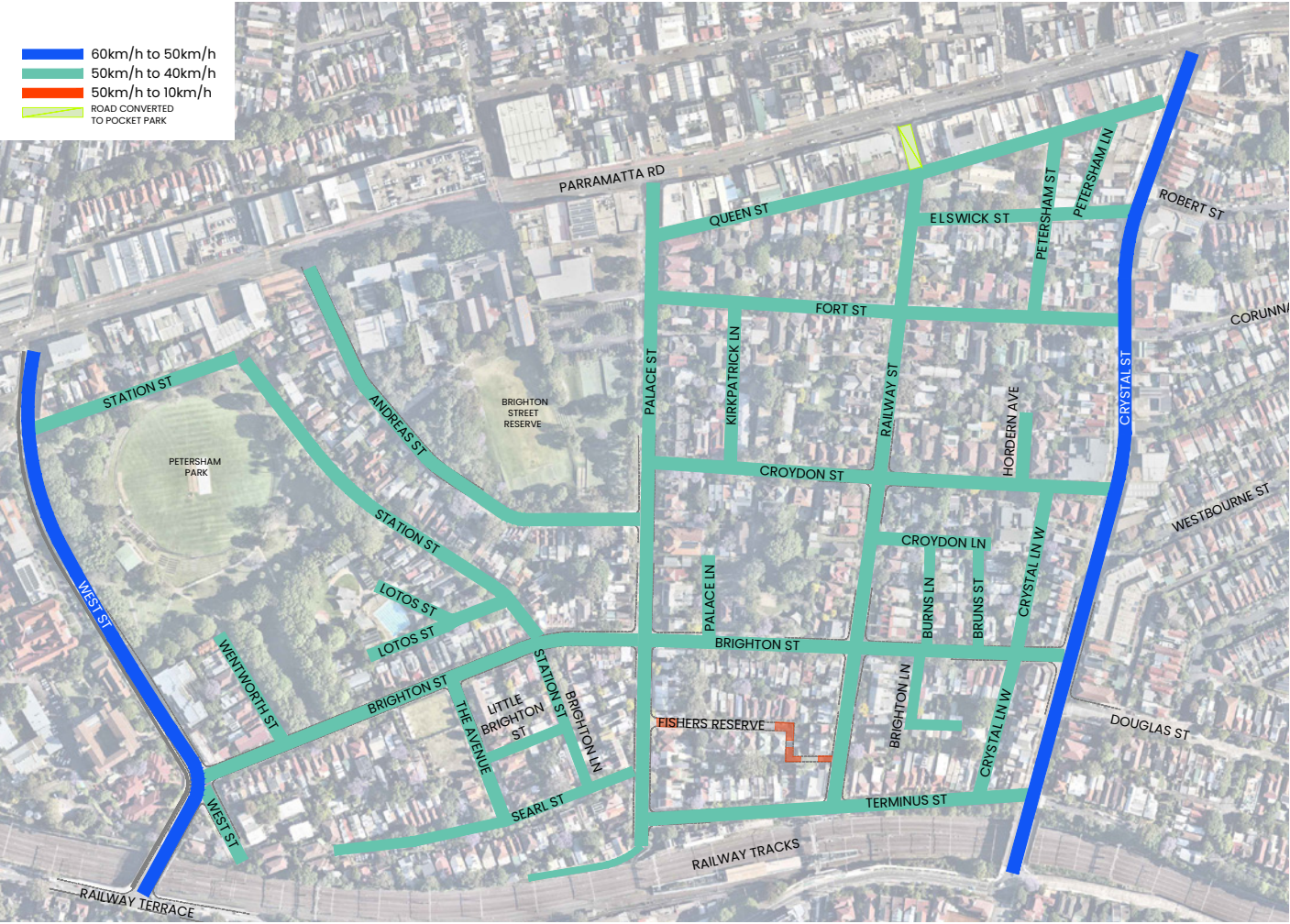


Figure 4.12 Reduced Speed limits

West Street between Parramatta Road and Station Street

Concern has been raised regarding the AM peak congestion associated with the existing parking signposting on the eastern side of West Street south of Parramatta Road which restricts southbound traffic on the departure side of the signals to one lane. Two approach lanes in Flood Street are provided for through traffic which is required to merge into one lane on the departure side. To provide improved traffic conditions, it is recommended as detailed in Figure 4.13 that the existing four space 'No Parking 4pm-6pm Mon-Fri' be replaced with 'No Parking 7am-930 am, 4pm-6pm Mon-Fri'. This will provide additional road space for vehicles to merge into one southbound lane thereby reducing the impact of upstream queueing which extends into the throat of the Parramatta Road/West Street intersection.

The estimated cost is \$500.

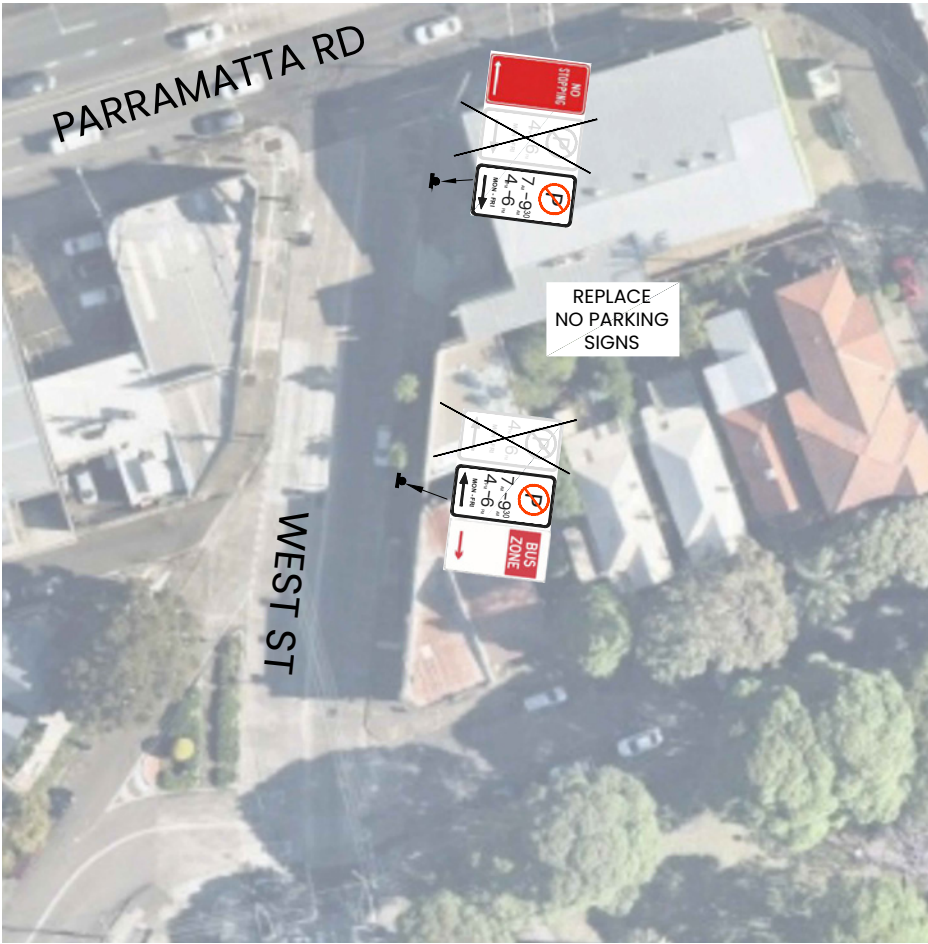


Figure 4.13 West Street between Parramatta Road and Station Street

Station Street

At the existing road closure in front of No. 37 Station Street, it is proposed to widen the gap between the kerb and the road closure island as shown in Figure 4.14 to allow adequate width for cyclist movements to address the issue raised during consultation. Under current conditions this gap has been provided for drainage purposes, however it can be widened to accommodate cyclists to 1.5 metres. This width will continue to physically restrict vehicular movements. This was raised as an issue during consultation.

The estimated cost is \$5,000.



Figure 4.14 Station Street at existing road closure

Fishers Reserve and Carrington Lane

It has been observed that footway parking is occurring on the northern side of Fishers Reserve as the road carriageway is too narrow to allow for on street parking on both sides of the road and a travel lane. The footway parking consists of vehicles straddling both the road carriageway and the northern footpath of Fishers Reserve leaving minimal residual footpath to walk on. Once the road bends 90 degrees there are no usable footpaths and the sharp road bend limits sight lines in an area where pedestrians are forced to use the road carriageway. Similar conditions are experienced in Carrington Lane, which links Fishers Reserve and Railway Street, however parking is not permitted in this road section due to the narrow road reserve. In this regard it is recommended to install a 10 km/h Shared Zone along the full length of Fishers Reserve and Carrington Lane including formalising footway parking in areas where it currently occurs as per Figure 4.15. Entry threshold treatments are proposed on Fishers Reserve at Palace Street and on Railway Street at Carrington Lane to treat each entrance to the Shared Zone as recommended in TfNSW Technical Direction for Design and Implementation of Shared Zones to encourage lower speeds and indicate entry/exit to the zone. Parking bays are to be marked and the carriageway surface is to be painted at each entry point and around the two 90-degree road bends to provide further warning of the Shared Zone. A total of 8 vehicular movements were observed in the AM peak and 3 in the PM peak indicating that the location is suitable for a Shared Zone. One crash occurred at the Fishers Reserve/Carrington Lane intersection involving a person falling from a vehicle.

The estimated cost is \$50,000.



Figure 4.15 Fishers Reserve/Carrington Lane

Lotos Street/Station Street

During consultation concerns were raised regarding vehicles parking in Station Street too close to the intersection with Lotos Street impeding sight lines and making it dangerous to exit the street. Site inspections have revealed this is an ongoing issue. To alleviate this, it is recommended that kerb blisters be installed for a 5 metres length on both sides of Station Street at Lotos Street as per Figure 4.16. This will minimise loss of parking whilst maintaining improved sightlines. This will require further detailed risk assessment prior to approval.

The estimated cost is \$10,000.



Figure 4.16 Lotos Street/Station Street

The Avenue/Brighton Street

Concerns were raised during consultation regarding accessibility to Petersham Park and West Street bus services for those residents to the south of Station Street. To provide improved access it is proposed to install a continuous footpath treatment to cross The Avenue at Brighton Street. The location meets the requirements for a continuous footpath treatment as there are only 24 vehicle movements in the AM peak and 23 in the PM peak whilst there are 43 pedestrian movements in the AM peak and 41 in the PM peak.

The estimated cost is \$30,000.



Figure 4.17 The Avenue/Brighton Street

5. Summary of proposals

Item No	Location	Proposal	Priority
1	Andreas Street	Install 3 x speed humps in Andreas Street between Palace Street and Parramatta Road.	Medium
2	Palace Street/Andreas Street Intersection	Install a raised pedestrian (zebra) crossing in Palace Street north of Andreas Street.	High
3	Palace Street/Andreas Street Intersection	Install a raised pedestrian (zebra) crossing in Andreas Street west of Palace Street.	Medium
4	Croydon Street/Railway Street	Install a single lane roundabout at Croydon Street/Railway Street.	Medium
5	West Street along the frontage of Petersham Park	Install a mobility parking space on the eastern side of West Street north of the existing at grade zebra crossing along the frontage of Petersham Park.	Medium
6	Wentworth Street	Install a mobility parking space on the eastern side of Wentworth Street at the northern end along frontage of Petersham Park.	Medium
7	West Street at existing at grade Pedestrian (Zebra) Crossing at southern frontage of Petersham Park	Raise existing at grade pedestrian (zebra) crossing. The detailed design of these works is underway as part of the PAMP Works and not included in overall costs of LATM.	Scheduled for construction 2023/2024
8	Brighton Street between Wentworth Street and The Avenue	Replace raised threshold in Brighton Street with a raised pedestrian (zebra) crossing.	Medium
9	Brighton Street between Crystal Lane West and Crystal Street	Install a speed hump in Brighton Street between Crystal Lane West and Crystal Street.	Medium
10	Brighton Street/Railway Street Intersection	Install raised pedestrian (zebra) crossings on eastern leg of intersection (Brighton Street).	High
11	Brighton Street/Railway Street Intersection	Install raised pedestrian (zebra) crossings on southern leg of intersection (Railway Street).	Medium
12	Brighton Street/Palace Street Intersection	Install raised pedestrian (zebra) crossings on eastern leg (Brighton Street) of Brighton Street/Palace Street intersection.	High
13	Brighton Street/Palace Street Intersection	Install raised pedestrian (zebra) crossings on southern leg (Palace Street) of Brighton Street/Palace Street intersection.	Medium
14	Brighton Street/Palace Street Intersection	Install raised pedestrian (zebra) crossings on western leg (Brighton Street) of Brighton Street/Palace Street intersection.	High
15	Palace Street/Terminus Street	Install a raised pedestrian (zebra) crossing in Terminus Street at Palace Street.	Medium

Table 5.1 Summary of Proposals

Summary of proposals continued

Item No	Location	Proposal	Priority
16	West Street/Terrace Street	Request TfNSW review safety and performance of the West Street/ Terrace Street traffic signals.	Traffic signal operations are responsibility of TfNSW. Council has forwarded these concerns to TfNSW
17	Local Roads and Regional Roads in Study Area	Request TfNSW implement 40 km/h speed limit on Local Roads and 50 km/h speed limit on Regional Roads.	High
18	West Street between Parramatta Road and Station Street	Replace existing four space 'No Parking 4pm-6pm Mon-Fri' with 'No Parking 7:00am-9:30am, 4:00pm-6:00pm Mon-Fri' on eastern side of West Street between Parramatta Road and Station Street.	Low
19	Station Street	Provide 1.5 metre gap in existing midblock road closure island in Station Street to allow access for cyclists.	Medium
20	Fishers Reserve and Carrington Lane	Install a 10 km/h Shared Zone in Fishers Reserve and Carrington Lane with footway parking on northern side of Fishers Reserve.	Low
21	Lotos Street/Station Street	Install kerb blisters in Station Street at Lotos Street.	Low
22	The Avenue/Brighton Street	Install continuous footpath treatment to cross The Avenue at Brighton Street	Medium

Table 5.1 Summary of Proposals

It is estimated that the total cost of all proposals will be approximately \$1,019,500 inclusive of GST and \$1,121,450 including 10% contingency.

Appendix A

Traffic Counts

For further information about
cycling in the Inner West,
visit innerwest.nsw.gov.au

