CITY OF PARRAMATTA COUNCIL

Parramatta Traffic Committee Agenda Item

ITEM NO: 2302 A1

SUBJECT: Good Street and Alfred Street, Granville – Proposed combined raised pedestrian and cyclist crossings at M4 Cycleway

APPLICANT: City of Parramatta Council

REPORT OF: Traffic and Transport Investigations Engineer

WARD: Rosehill

SED: Parramatta/Granville

Purpose

This report seeks approval for the construction of new combined raised pedestrian and cyclist crossings located in Good Street and Alfred Street, Granville at the M4 Cycleway. The purpose of the proposal is to provide safe crossing locations along the M4 Cycleway for both cyclists and pedestrians.

OFFICER'S RECOMMENDATIONS:

1. That Council approve the construction of a combined raised pedestrian and cyclists crossing with associated signs and linemarking in Good Street, Granville at the M4 Cycleway as shown in Figure 3 of this report.
2. That Council approve the construction of a combined raised pedestrian and cyclists crossing with associated signs and linemarking in Alfred Street, Granville at the M4 Cycleway as shown in Figure 5 of this report.
3. That recommendation 1-2 is subject to the detailed design of the combined raised pedestrian and cyclists crossing being approved by Transport for NSW (TfNSW) prior to the commencement of construction.

Background

City of Parramatta Council has received an offer of 100% funding from the 2022/23 Get NSW Active Program to install raised combined pedestrian and cyclist crossings in Good Street and Alfred Street, Granville and Parramatta.

Good Street and Alfred are local roads that provide a link between Parramatta Road to Rosehill and Harris Park. The speed limit of both roads is 50km/h.

The M4 cycleway is a 15km shared path for pedestrians and cyclists that is generally aligned to the M4 Motorway between South Wentworthville and Sydney Olympic Park. Within the Granville area, the cycleway runs underneath the M4 viaducts and intersects both Good Street and Alfred Street. Furthermore, the kerb ramps on either side of the road in Good Street for the cycleway do not align meaning that pedestrians and cyclists have to cross diagonally to the road.

To provide better connectivity and improving safety of the cycleway network in and around the Parramatta CBD, Council is proposing to install combined raised pedestrian and cyclist crossings in both Alfred Street and Good Street.

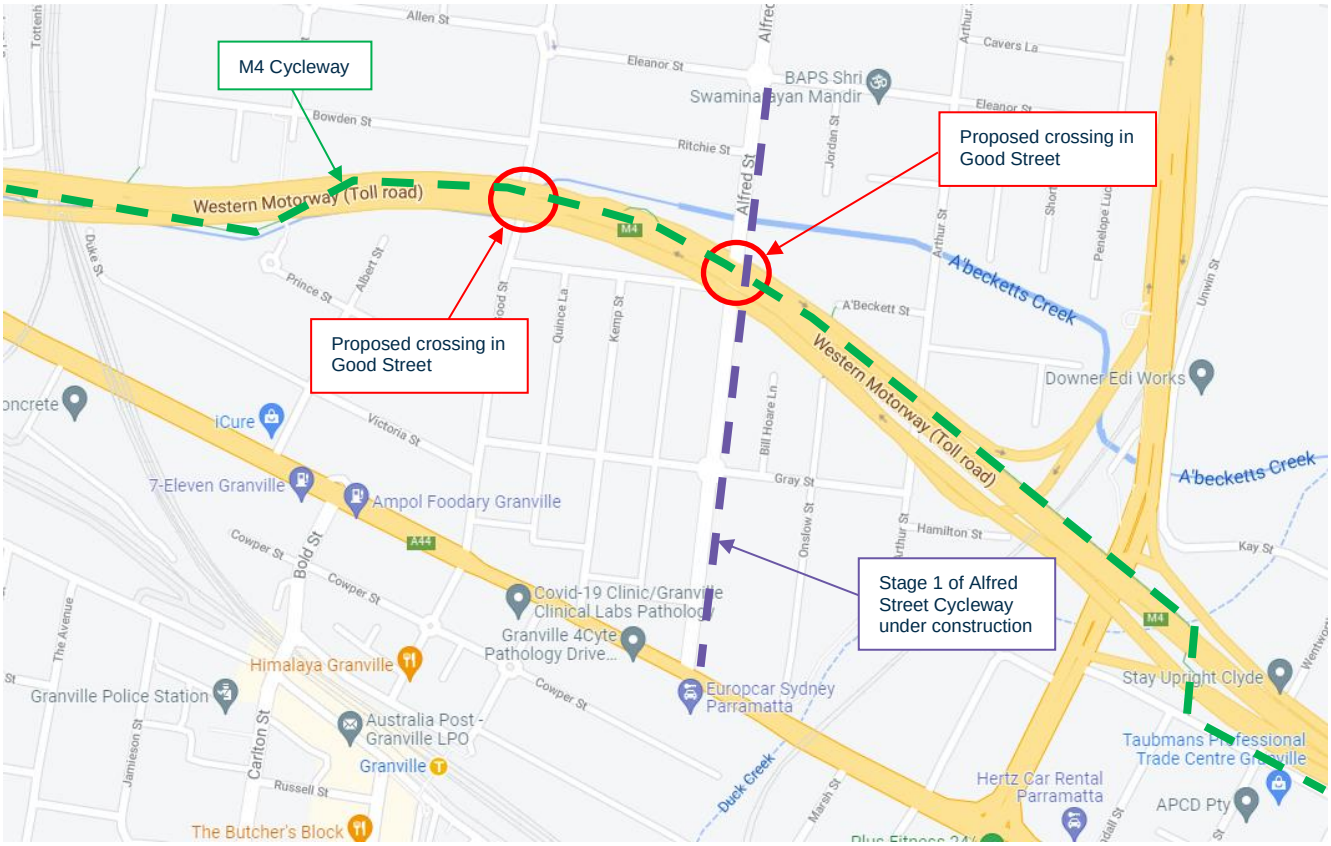


Figure 1: A location map of the area surrounding the proposed combined raised pedestrian and cyclist crossings in Good Street and Alfred Street, Granville

A review of the crash history in Good Street at the M4 Cycleway for the period between July 2015 and June 2020 revealed that there was one fatal 'off carriageway into an object' crash involving a northbound motorist. For Alfred Street during the same period, there was one miscellaneous injury crash involving motorists traveling northbound.

A report was included in the Traffic Engineering Advisory Group (TEAG) held on 21 January 2021 providing interim guidelines for the installation of a pedestrian crossings on local roads within the Parramatta LGA on Streets with Speed Limits of 50km//h or less. Council on 22 February 2021 adopted the TEAG recommendation. According to the interim guidelines, a combined raised pedestrian and cyclists crossing can be installed at locations where the combination of pedestrian and cyclist volumes are 20 or more in a one-hour period, with the child count doubled to form the total.

A midblock traffic count was undertaken at both locations on 23 November 2021. This showed that there were 46 pedestrians and cyclists crossing the road at both locations during the peak hour. Accordingly, both locations meet Council's interim warrants for the proposed facilities.

	Pedestrians	Cyclists	Combined Peds and Cyclists	Vehicle Volumes
Good Street peak hour between 17:00-18:00	32	14	46	889
Alfred Street peak hour between 16:00-17:00	33	13	46	416

Table 1: A summary of the vehicle, pedestrian and cyclist count at Good Street and Alfred Street at the M4 Cycleway

Proposed Design in Good Street

A'becketts Creek crosses under Good Street diagonally with the western side of the M4 Cycleway located to the north of the creek and the eastern side of the cycleway located to the south of the creek. The road also narrows over the bridge and has a carriageway width of 8m with approximately 1.6m wide footpaths either side.

The proposed raised pedestrian crossing is to be located at an offset north of the shared path to ensure there is a speed reduction for approaching cyclists and to increase their visibility to motorists. In order to have shared path widths leading to the proposed crossing that meet the minimum width requirements of 2.5m as stated within the Austroads Guidelines, the kerb and gutter on the east side of the road will be re-aligned to reduce the carriageway width to 7m. Furthermore, a small section of the existing garden bed on the western side approach of the cycleway will be removed and replaced with a concrete path to allow for a smoother path of travel for cyclists.

Figure 2: Street view of Good Street, Granville at the M4 Cycleway looking in the southbound direction

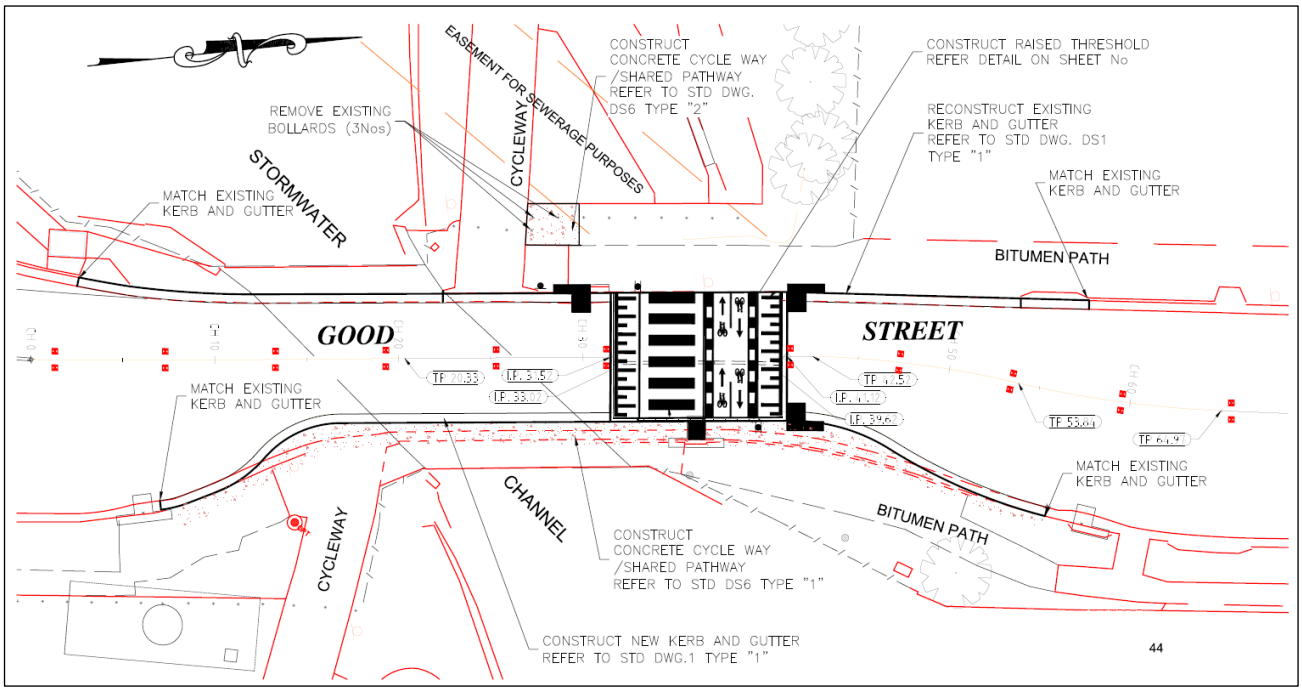


Figure 3: General arrangement plan for the proposed combined raised pedestrian and cyclists crossing in Good Street, Granville

Proposed Design in Alfred Street

Council is currently completing the construction of Stage 1 of the Alfred Street cycleway on the eastern side of the road. As part of works for the cycleway, Council has installed a new refuge island with speed cushions in Alfred Street at the M4 Cycleway.

The current proposal for the raised pedestrian and cyclist crossing will see the existing refuge island and speed cushions being removed. This will give pedestrians and cyclists priority over vehicles and make it easier to cross the road. Further to this and similar to the design in Good Street, the raised crossing in Alfred Street will be located at an offset to the M4 Cycleway to ensure that there is a speed reduction for cyclists crossing the road and to increase their visibility to approaching motorists.

Figure 4: Street view of Alfred Street, Granville at the M4 Cycleway looking in the southbound direction

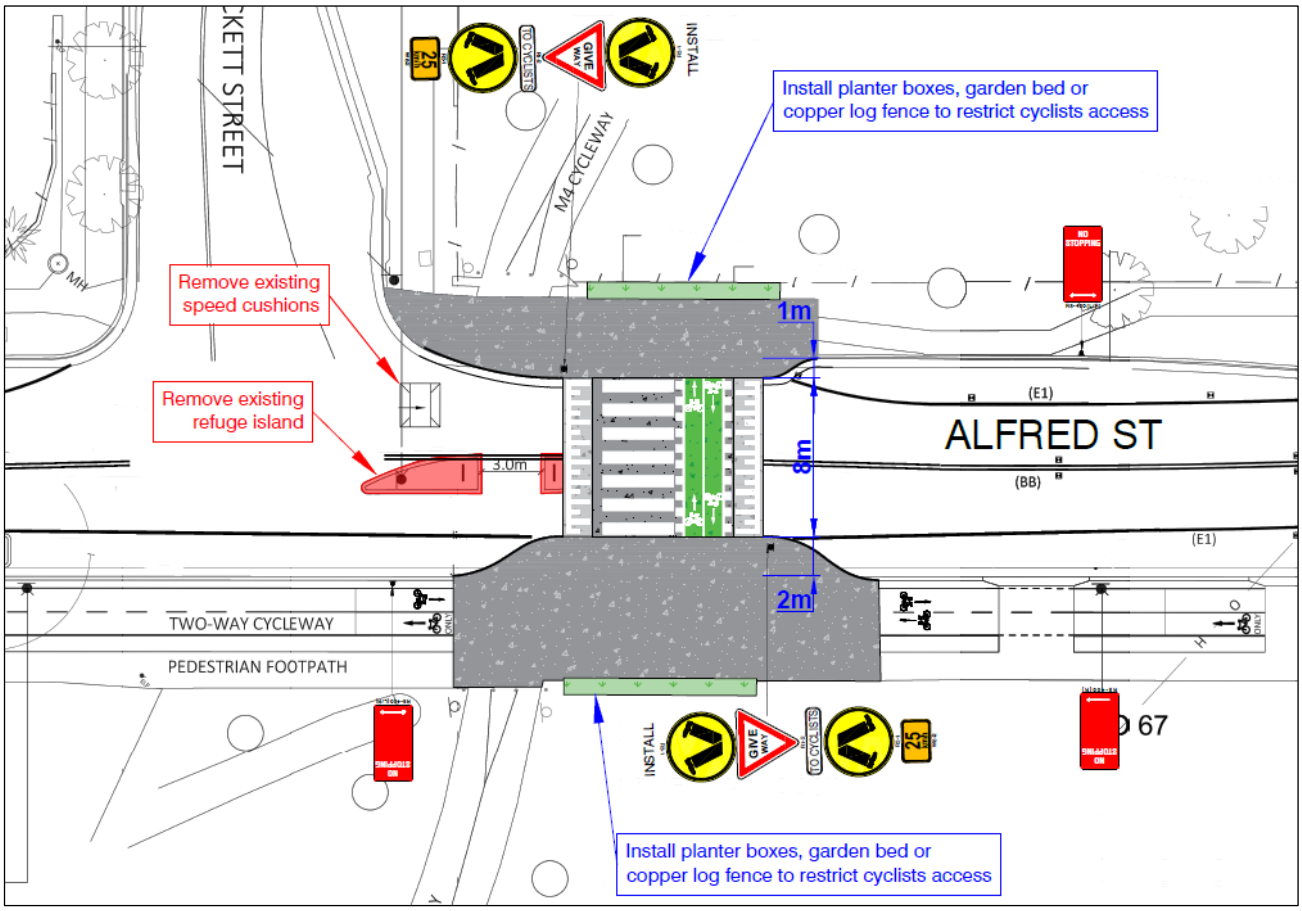


Figure 5: A concept design plan of the proposed combined raised pedestrian and cyclists crossing in Alfred Street, Granville at the M4 Cycleway

Community Consultation

Consultation letters were sent to affected residents and businesses inviting submissions by 20 December 2022 on the proposed combined raised pedestrian and cyclist crossings in Good Street and Alfred Street. Corflute signs were also installed in both locations advising motorists, pedestrians and cyclists of the proposal. On 22 November 2022, the proposal was advertised in the local newspaper in accordance with the Roads Act 1993 and on Council's website.

For the proposed crossing in Good Street, Council received a total of six (6) submissions from the community with five (5) in support of the proposal and one (1) opposed to the proposal. All submissions that were received were from those that lived more than 900m from the proposed location of the crossing. The resident that objected to the proposal believed that combined raised pedestrian and cyclists crossing was a worse outcome for cyclists than the existing situation due to the narrow footpaths in Good Street and the offset of the crossing from the pedestrian and cyclists desire line. It is noted that a number of members that supported the proposal, also raised concern with this offset.

For the proposed crossing in Alfred Street, Council received a total of five (5) submissions from the community that were all in support of the proposal. It is noted that the five submissions were from the same people that made submissions for Good Street. Similar to Good Street, a number of submissions raised concerns with the offset of the crossing in Alfred Street as well.

It is noted that TfNSW Customer Journey Planning team and Bus Service Providers were also consulted and neither raised any objections to the proposal.

FINANCIAL IMPLICATIONS

The estimated cost for the construction of the combined raised pedestrian and cyclist crossings in both Good Street and Alfred Street is $600,000. This project will be 100% funded by the State Government's Get NSW Active program.

Behzad Saleh
Traffic and Transport Investigations Engineer

12/01/2023

Attachments – 1. Feedback received from public consultation

2. Detailed Design Plan for Good Street

3. Concept Plan for Alfred Street

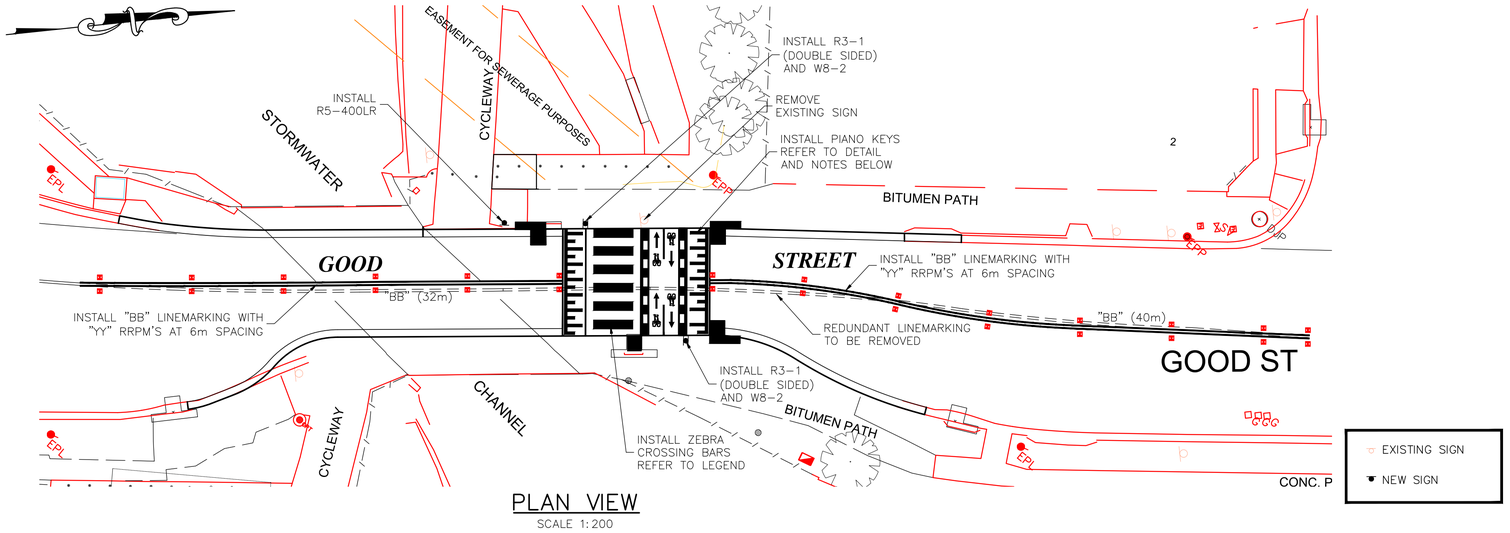
Attachment 1: Feedback received from Stakeholder consultation and Council Officer's Response

Date	Stakeholder	Stakeholder Comment	Council Officer Response
Combined Raised Pedestrian and Cyclists Crossing in Good Street, Granville			
17/11/2022	TfNSW – Customer Journey Planning – Transport Integration	No Objections raised provided any comments raised by bus service providers are addressed.	Noted
17/11/2022	Transdev	No Objections; Transdev noted that Good Street is a major roadway for the 906 service and some school services. Any construction works should not impact the operation of these services.	Council's Project Manager will liaise directly with bus service providers during the construction phase to ensure the bus services can continue to operate.
27/11/2022	Member of the public	Supported; The customer was supportive of combined pedestrian and cyclists crossings in general within the Parramatta LGA	Noted
29/11/2022	Member of the public	Supported	Noted
14/12/2022	Member of the public	Supported; The customer was supportive of the proposal, however they asked what the reasoning for the offset was.	The raised pedestrian and cyclists crossing is proposed to be installed at an offset from the M4 Cycleway to ensure that cyclists slow down before crossing the road and to increase their visibility to approaching motorists.
14/12/2022	Member of the public	Supported; The customer was generally supportive of having combined raised	The raised pedestrian and cyclists crossing is proposed to be installed at an offset from the M4

		pedestrian and cyclists crossings, however, they were against the offset.	Cycleway to ensure that cyclists slow down before crossing the road and to increase their visibility to approaching motorists.
18/12/2022	Member of the public	Opposed; The customer was opposed to the concept design due to the following reasons: 1. The proposed crossing is located at an offset to the existing pathway which is a poor outcome for cyclists and will also mean that cyclists are exposed to the weather whereas currently, the cycleway is covered. 2. The pathways to the crossing along Good Street are narrow and not good for cyclists 3. The proposal only includes lighting at the crossing. The customer proposes the better solution would be to reconstruct Jim Locke Bridge over A'becketts Creek to have a wider roadway to better align the cycleway.	1. The raised pedestrian and cyclists crossing is proposed to be installed at an offset from the M4 Cycleway to ensure that cyclists slow down before crossing the road and to increase their visibility to approaching motorists. 2. The proposal will include footpath widening to have 2.5m wide shared paths to link to the crossing. These paths will comply with the minimum requirements stated with the Austroads Guidelines. 3. As part of the design and construction, it will be ensured that the lighting at the crossing will comply with the relevant Australian Standards. Lighting elsewhere in Good Street or along the M4 Cycleway is outside of the scope of works for this project.
20/12/2022	Member of the public	Supported;	Noted

		The customer noted that he uses the M4 cycleway as part of his commute to work in Lidcombe from St Marys. The customer further stated that he would also like a raised pedestrian/cyclists crossing at Arthur Street as well along the M4 shared path.	A combined raised pedestrian and cyclists crossing in Arthur Street is not proposed at this stage. Note, traffic volumes in Arthur Street are comparatively lower when compared with Good Street and Alfred Street meaning it is relatively safe and easy for pedestrians and cyclists to cross the road at this location.
Combined Raised Pedestrian and Cyclists Crossing in Alfred Street, Granville			
17/11/2022	TfNSW – Customer Journey Planning – Transport Integration	No Objections raised provided any comments raised by bus service providers are addressed.	Noted
17/11/2022	Transdev	No Objections; Transdev noted that Good Street is a major roadway for the 909 service and some school services. Any construction works should not impact the operation of these services.	Council's Project Manager will liaise directly with bus service providers during the construction phase to ensure the bus services can continue to operate.
27/11/2022	Member of the public	Supported; The customer was supportive of combined pedestrian and cyclists crossings in general within the Parramatta LGA	Noted
29/11/2022	Member of the public	Supported	Noted
14/12/2022	Member of the public	Supported; The customer was supportive of the proposal, however they asked what the	The raised pedestrian and cyclists crossing is proposed to be installed at an offset from the M4 Cycleway to ensure that

		reasoning for the offset was.	cyclists slow down before crossing the road and to increase their visibility to approaching motorists.
14/12/2022	Member of the public	Supported; The customer was generally supportive of having combined raised pedestrian and cyclists crossings, however, they were against the offset.	The raised pedestrian and cyclists crossing is proposed to be installed at an offset from the M4 Cycleway to ensure that cyclists slow down before crossing the road and to increase their visibility to approaching motorists.
20/12/2022	Member of the public	Supported; The customer noted that he uses the M4 cycleway as part of his commute to work in Lidcombe from St Marys. The customer further stated that he would also like a raised pedestrian/cyclists crossing at Arthur Street as well along the M4 shared path.	Noted A combined raised pedestrian and cyclists crossing in Arthur Street is not proposed at this stage. Note, traffic volumes in Arthur Street are comparatively lower when compared with Good Street and Alfred Street meaning it is relatively safe and easy for pedestrians and cyclists to cross the road at this location.



PLAN VIEW

SCALE 1:200

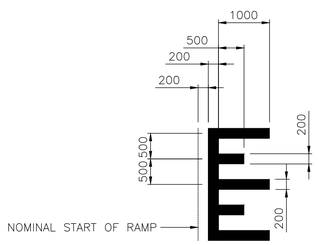
NEW TRAFFIC SIGNS SCHEDULE

GRAPHIC SYMBOL	NAME / TYPE	N° REQUIRED	REMARKS
25 km/h	W8-2	2	AS INDICATED ON PLAN WITH R3-1
	R3-1	4	AS INDICATED ON PLAN WITH W8-2
NO STOPPING	R5-400(LR)	1	AS INDICATED ON PLAN
NO STOPPING	R5-400(R)	1	AS INDICATED ON PLAN
NO STOPPING	R5-400(L)	1	AS INDICATED ON PLAN

GRAPHIC SYMBOL	NAME / TYPE	N° REQUIRED	REMARKS
PAVEMENT SYMBOL (NOT TO SCALE) 0.8m, 0.49m	PS-3	4	AS INDICATED ON PLAN
0.30m, 0.10m, 0.30m, 1.0m, 0.030m	PA-1	4	AS INDICATED ON PLAN

TRAFFIC MANAGEMENT NOTES:

1. ALL PAVEMENT MARKING AND SIGNPOSTING TO BE IN ACCORDANCE WITH ROADS AND MARITIME SERVICES SUPPLEMENTS, TfNSW DELINEATION MANUAL, AUSTROADS GUIDES, AUSTRALIAN STANDARDS (AS1742) AND TfNSW SPECIFICATIONS R145 AND R143.
2. ALL RETROREFLECTIVE RAISED PAVEMENT MARKERS TO BE IN ACCORDANCE WITH TfNSW SPECIFICATION R142 AND "TfNSW DELINEATION" SECTION 15 – RAISED PAVEMENT MARKERS.
3. ALL CONCRETE ISLAND KERB FACES ARE TO BE PAINTED WITH APPROVED REFLECTIVE WHITE PAINT IN ACCORDANCE WITH TfNSW SPECIFICATION R145.
4. STREET SIGNS TO BE PLACED AS DIRECTED BY SUPERVISING ENGINEER.
5. ENSURE ALL SIGNPOSTS ARE PLACED CLEAR OF EXISTING OR PROPOSED DRIVEWAYS AND CLEAR OF TREES AND OTHER STREET FURNITURE.
6. TRAFFIC CONTROL MEASURES ARE TO BE CARRIED OUT PRIOR, DURING AND AFTER CONSTRUCTION IN ACCORDANCE WITH A.S.1742.3–2009
7. ALL PAVEMENT MARKING AND SIGNPOSTING IS TO BE APPROVED BY CITY OF PARRAMATTA COUNCIL TRAFFIC ENGINEER.
8. ALL SIGN POSTS IN CONCRETE TO BE HELD IN POSITION WITH V–LOCKS.
9. ALL PAINTWORK TO BE COMPLETED ON DAY OF INSTALLATION.
10. ALL LINEMARKING TO BE APPROVED WHITE THERMOPLASTIC PAINT.
11. ALL REDUNDANT SIGNS AND LINEMARKING WITHIN LIMIT OF WORKS TO BE REMOVED AS REQUIRED. RECOVERED POSTS TO BE REUSED.
12. ALL "TB", "TF" HOLDING LINES TO BE 300mm WIDE UNLESS NOTED OTHERWISE. REFER TO "TfNSW DELINEATION" SECTION 6 – TRANSVERSE MARKINGS.



RAMP PAINT DETAIL

N.T.S. (mm)

LEGEND:

ZEBRA CROSSING IN ACCORDANCE WITH TfNSW DELINEATION – SECTION 7 – TRANSVERSE LINES PEDESTRIAN FACILITIES, TfNSW SPECIFICATION R145, AUSTROAD GUIDE TO ROAD DESIGN PART 4 INTERSECTIONS AND CROSSINGS AND AUSTRALIAN STANDARD AS 1742.10

REDUNDANT LINE MARKING TO BE REMOVED

DIRECTION ON STOPPING AND PARKING RESTRICTION NOTE:

1. FOR DIRECTION ON STOPPING AND PARKING RESTRICTIONS AT INTERSECTIONS AND CROSSINGS REFER TO 'TfNSW' TECHNICAL DIRECTION TDT 2002/12c

PIANO KEY MARKING NOTE:

1. FOR PIANO KEY MARKINGS REFER TO AS 1742.10-2009, AS 1742.13-2009 FIGURE 4.3 PAVEMENT MARKINGS FOR HUMPS ALONG WITH CLAUSE 4.6.6 AND DETAIL SHOWN ABOVE.

NOTE:
REDUNDANT LINEMARKING AND RRPM'S TO BE REMOVED.

NOTE:
SIGNAGE RELOCATION AND PAVEMENT MARKING, SUBJECT TO TfNSW APPROVAL

NOTE:
EXISTING LINEMARKING REPAINT ONLY IF REQUIRED. PROJECT MANAGER TO DETERMINE ON SITE

NOTE:
REFER TO 'TfNSW' TECHNICAL DIRECTION TDT 2002/12c AND TDT 2001/04b

4 3 2 1 0 4 8 12 16 20

SCALE OF METRES 1:200

BEFORE YOU DIG www.byda.com.au

UNLESS DETAILED ON THIS DRAWING ALL WORK SHALL CONFORM TO AUSPEC

PLAN FEATURES		PUBLIC UTILITIES	
EXISTING/MISCELLANEOUS	PROPOSED	ABOVEGROUND	U/GROUND
KERB AND GUTTER:	KERB AND GUTTER:	TELSTRA:	
EDGE OF BITUMEN:	EDGE OF BITUMEN:	ELECTRICITY:	
ROAD ℄/CROWN:	ROAD ℄/CROWN:	GAS & MISC.:	
EARTH BATTERS:	EARTH BATTERS:	SEWER:	
PIPE DRAINS:	PIPE DRAINS:	WATER:	
DRAINAGE PITS:	DRAINAGE PITS:	POLES:	
TREES & SHRUBS:	SUB-SOIL DRAIN:	OVERHEAD:	
SPOT LEVELS:	SET-OUT LINE:	SURVEY:	

No.	AMENDMENTS DETAIL	CHECKED	DATE

DESIGN CHECKED AND APPROVED ...../...../.....

APPROVED
Manager Capital Projects ...../...../.....

ACCEPTED
Client ...../...../.....

DESIGNED ...../...../.....

DRAWN ...../...../.....

DRAWING REVIEW ...../...../.....

DATUM: A.H.D.
CO-ORDS: M.G.A.
RATIO: 1:200
TRIM No: F2022/03062
STATUS: DRAFT

CITY OF PARRAMATTA COUNCIL

GOOD STREET, GRANVILLE

RAISED THRESHOLD CONSTRUCTION AND ASSOCIATED WORKS

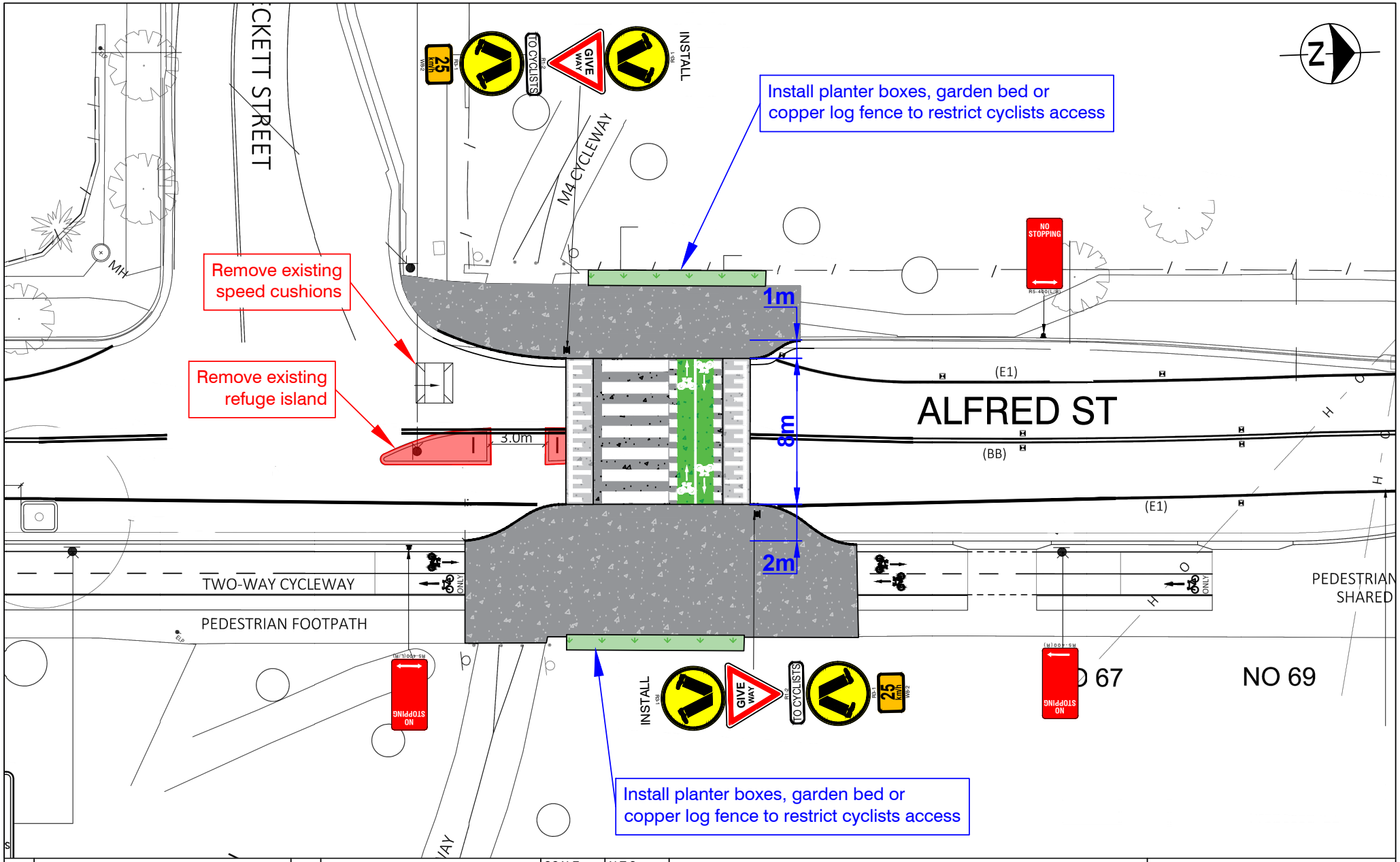
TRAFFIC MANAGEMENT PLAN

PLAN NUMBER 17907

Sheet No : 1

Revision :

20, December, 2022 11:57:29 a.m.
Drawing: GOOD ST_KT.DWG



DATE	AMENDMENT	INIT.	NOTES	SCALE	N.T.S.	CITY OF PARRAMATTA COUNCIL	STD DWG
			ALL SIGN POSTING TO BE IN ACCORDANCE WITH AS.1742	DESIGNED	BS	TRAFFIC AND TRANSPORT SERVICES	
			ALL DIMENSIONS ARE IN METRES	DRAWN	12/01/2023		
			CAUTION: SERVICES TO BE LOCATED PRIOR TO EXCAVATION	CHECKED			
				APPROVED			

CITY OF PARRAMATTA COUNCIL

Parramatta Traffic Committee Agenda Item

ITEM NO: 2302 A2

SUBJECT: Intersection of Raymond Street and High Street, Parramatta & Granville – Installation of a raised pedestrian crossing and speed cushions

APPLICANT: City of Parramatta Council

REPORT OF: Traffic and Transport Engineer

WARD: Rosehill

SED: Parramatta

Purpose

This report seeks approval for the installation of a raised pedestrian crossing and speed cushions at the intersection of Raymond Street and High Street, Parramatta & Granville. The purpose of this proposal is to improve pedestrian safety and reduce vehicle speeds on the approach to the intersection.

OFFICER'S RECOMMENDATIONS:

1. That a raised pedestrian crossing with associated signs and pavement markings be installed in High Street north of Raymond Street, Parramatta as shown in the attached sketch.
2. That speed cushions (1.6m to 1.9m wide x 2m long) with associated '25km/h' and 'Speed Hump' signs be installed on the westbound, eastbound, and northbound approaches to the roundabout at the intersection of Raymond Street and High Street, Parramatta & Granville as shown in the attached sketch.
3. That detailed design plans for the raised pedestrian crossing in High Street north of Raymond Street as referred to in recommendation 1 above be submitted to Transport for NSW (TfNSW) for approval prior to commencement of construction.

Background

City of Parramatta Council has received an offer of 100% funding from the 2022/23 Australian Government Black Spot Program to install a raised pedestrian crossing in High Street north of Raymond Street, and install speed cushions on the westbound, eastbound, and northbound approaches to the roundabout at the intersection of Raymond Street and High Street, Parramatta and Granville.

Location Details

Raymond Street and High Street are local roads with a speed limit of 50km/h. A roundabout is located at the intersection of Raymond Street and High Street. The intersection straddles the suburbs of Parramatta and Granville with Parramatta located to the north of Raymond Street and Granville located to the south of Raymond Street.

Both Raymond Street and High Street north of Raymond Street provide a single travel lane with kerb side parking in each direction. High Street immediately south of Raymond Street provides a single travel lane in each direction with a one-lane angled slow point located 15m south of the intersection.

Church Street is a state road intersecting with Raymond Street approximately 115m west of High Street. The intersection of High Street and Raymond Street is 220m walking distance from Harris Park Station, 310m from St Oliver's Primary School, 400m from Harris Park CBD and 800m from Parramatta CBD. The intersection is surrounded by automotive dealerships and low-high density residential properties.

Figure 1 shows the map of the area near the intersection of Raymond Street and High Street, Parramatta & Granville.

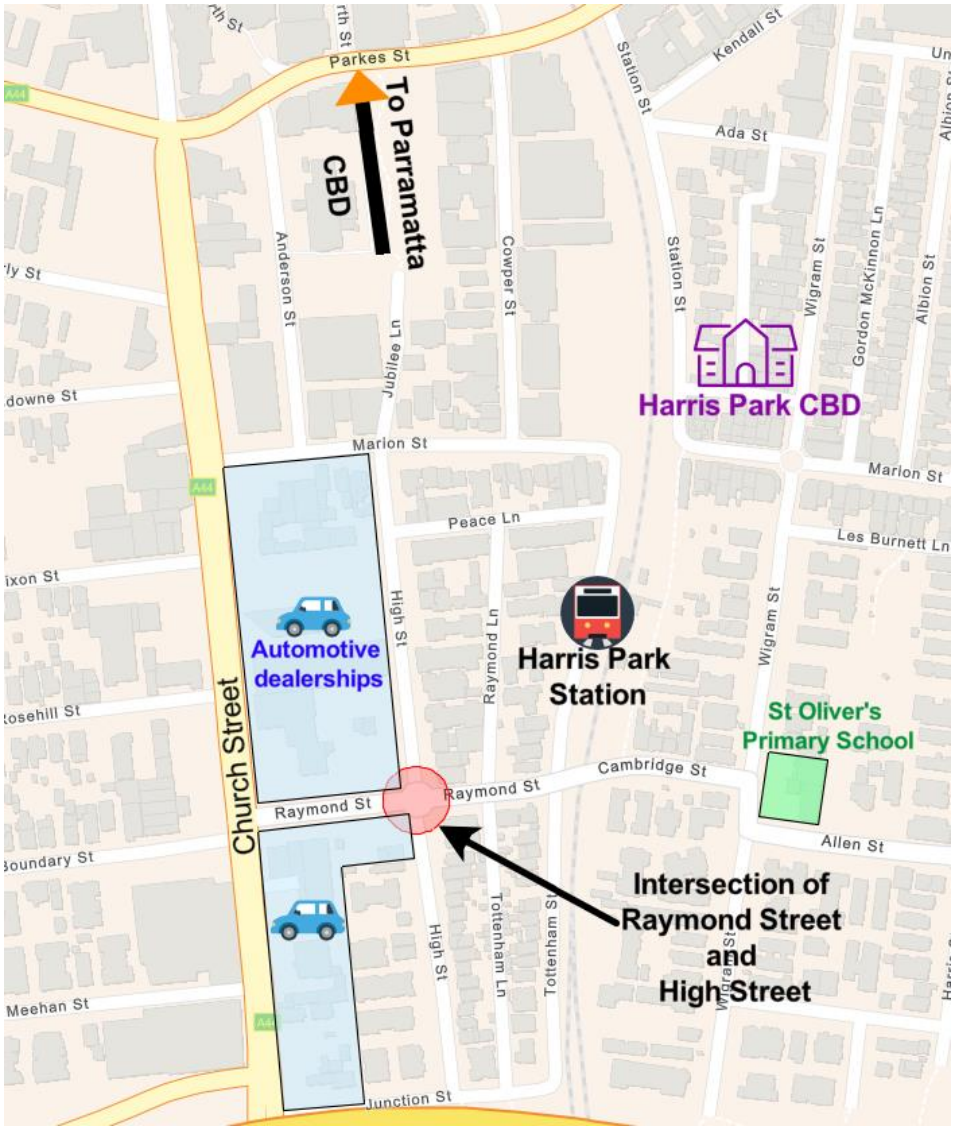


Figure 1: Location map of the area near the intersection of Raymond Street and High Street, Parramatta & Granville

An intersection pedestrian and vehicle count undertaken on 19 August 2020 indicated that the volume of pedestrians crossing High Street north of Raymond Street peaked at thirty-six (36) pedestrians during the afternoon period between 4:30pm and 5:30pm. During the same period eleven (11) pedestrians crossed the southern leg, eight (8) pedestrians crossed the eastern leg, and four (4) pedestrians crossed the western leg of the intersection.

Figure 2 shows the pedestrian, approach and exit volumes between 4:30pm and 5:30pm at the intersection of Raymond Street and High Street, Parramatta & Granville.

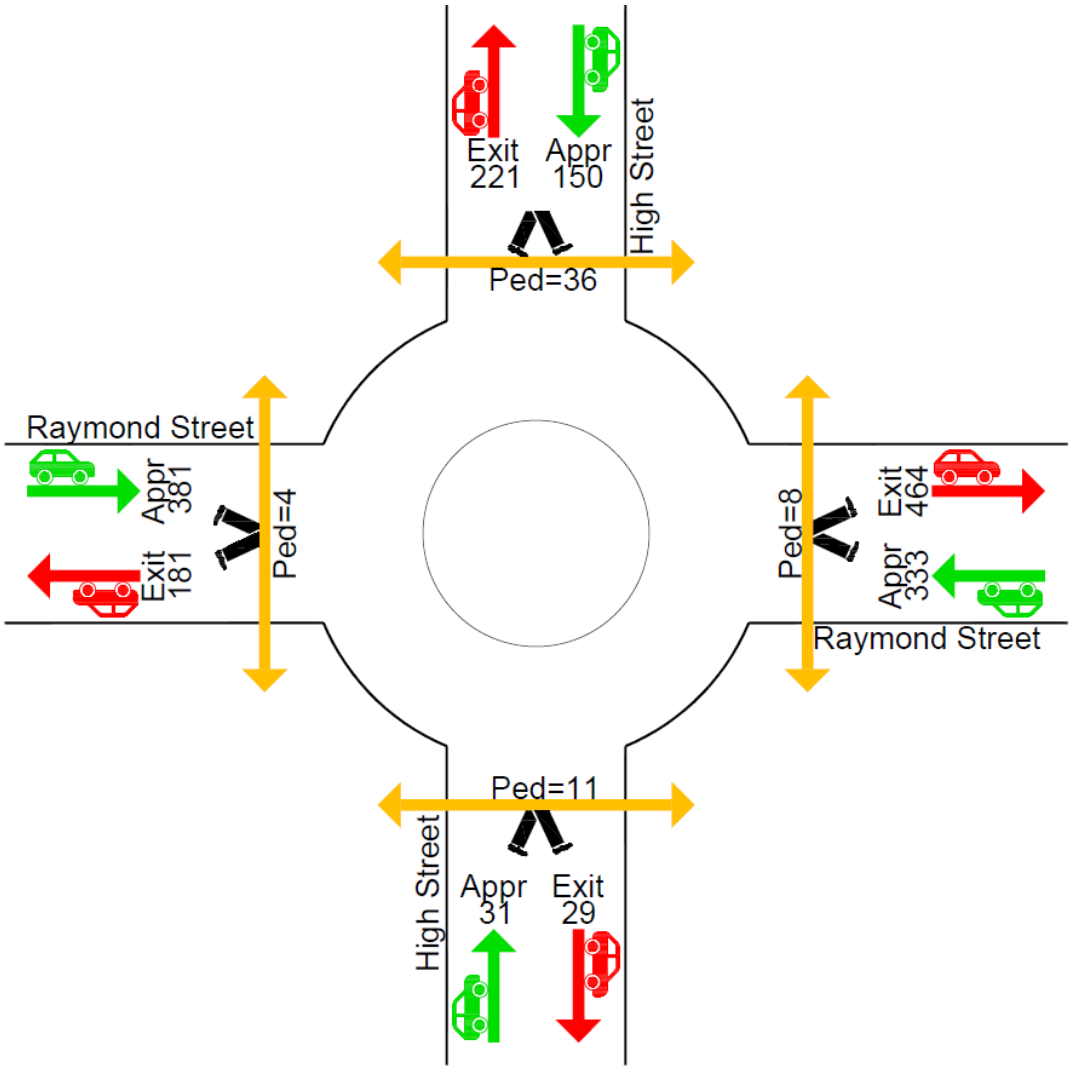


Figure 2: Pedestrian, Approach and Exit volumes at the intersection of Raymond Street and High Street, Parramatta & Granville (4:30pm to 5:30pm)

On 22 February 2021, Council adopted interim guidelines for the installation of pedestrian crossings on local roads within the Parramatta LGA with speed limits of 50km/h or less. According to the guidelines, a raised pedestrian crossing can be installed at locations where the speed limit is 50km/h or less and there is a minimum of 20 pedestrians per hour crossing the road. High Street north of Raymond Street meets Council's requirement for the installation of a raised pedestrian crossing.

According to TfNSW crash data, there were two (2) injury crashes at the intersection of Raymond Street and High Street during the 5-year period between April 2017 and March 2022 as shown in Figure 3. In both instances, a motorist collided with a pedestrian.

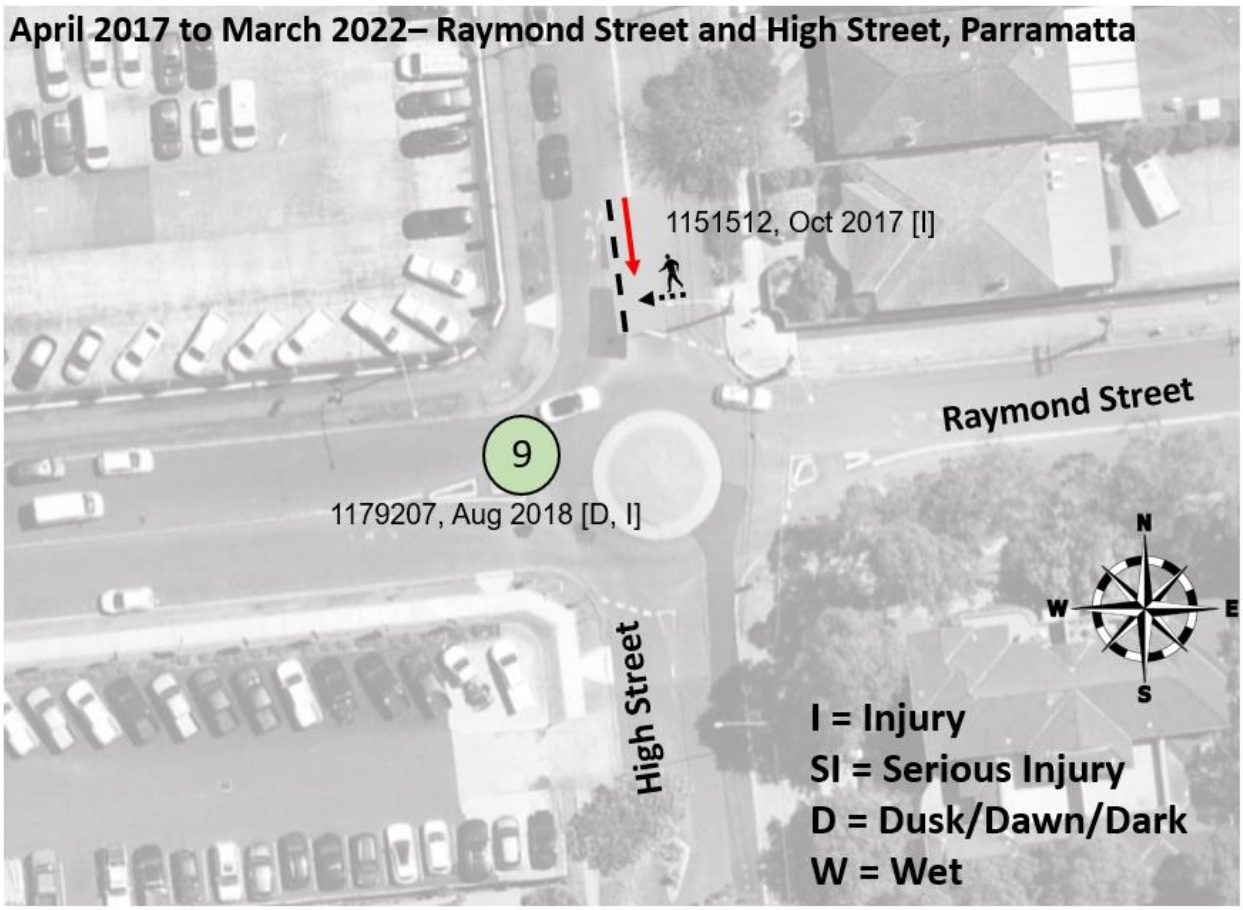


Figure 2: Crash diagram at the intersection of Raymond Street and High Street based on Transport for NSW crash data during the 5-year period between 01 April 2017 and 31 March 2022

Proposed Treatments

To reduce vehicle speed on the approach to the intersection and improve pedestrian safety, City of Parramatta is proposing to install speed cushions with associated '25km/h' and 'Speed Hump' signs on the westbound, eastbound, and northbound approaches to the roundabout, and install a raised pedestrian crossing with associated signs and pavement markings in High Street north of Raymond Street.

The raised pedestrian crossing is to be designed and installed in accordance with Austroads Guide to Traffic Management Part 8 – Local Street Management, Australian Standard AS1742 series and TfNSW Supplement to AS1742.10. Furthermore, the platform width of the raised pedestrian crossing is to be minimum 7.5m to ensure adequate provision for a future upgrade to a raised combined pedestrian and cyclist crossing is maintained. In addition to the above, the kerb and gutter will be realigned, and street lighting and storm water drainage will be upgraded as part of this project. The existing 'PS-3' bicycle pavement symbols on High Street south of Raymond Street intended for use on off-road bicycle paths will be replaced with a 'PS-2' bicycle pavement symbol for on-road use.

It should be noted that the turning path of a 20m long Vehicle Delivery Truck is not impacted by this proposal.

A concept plan for the proposed raised pedestrian crossing and speed cushions is shown in Figure 3 and Attachment B of this report.

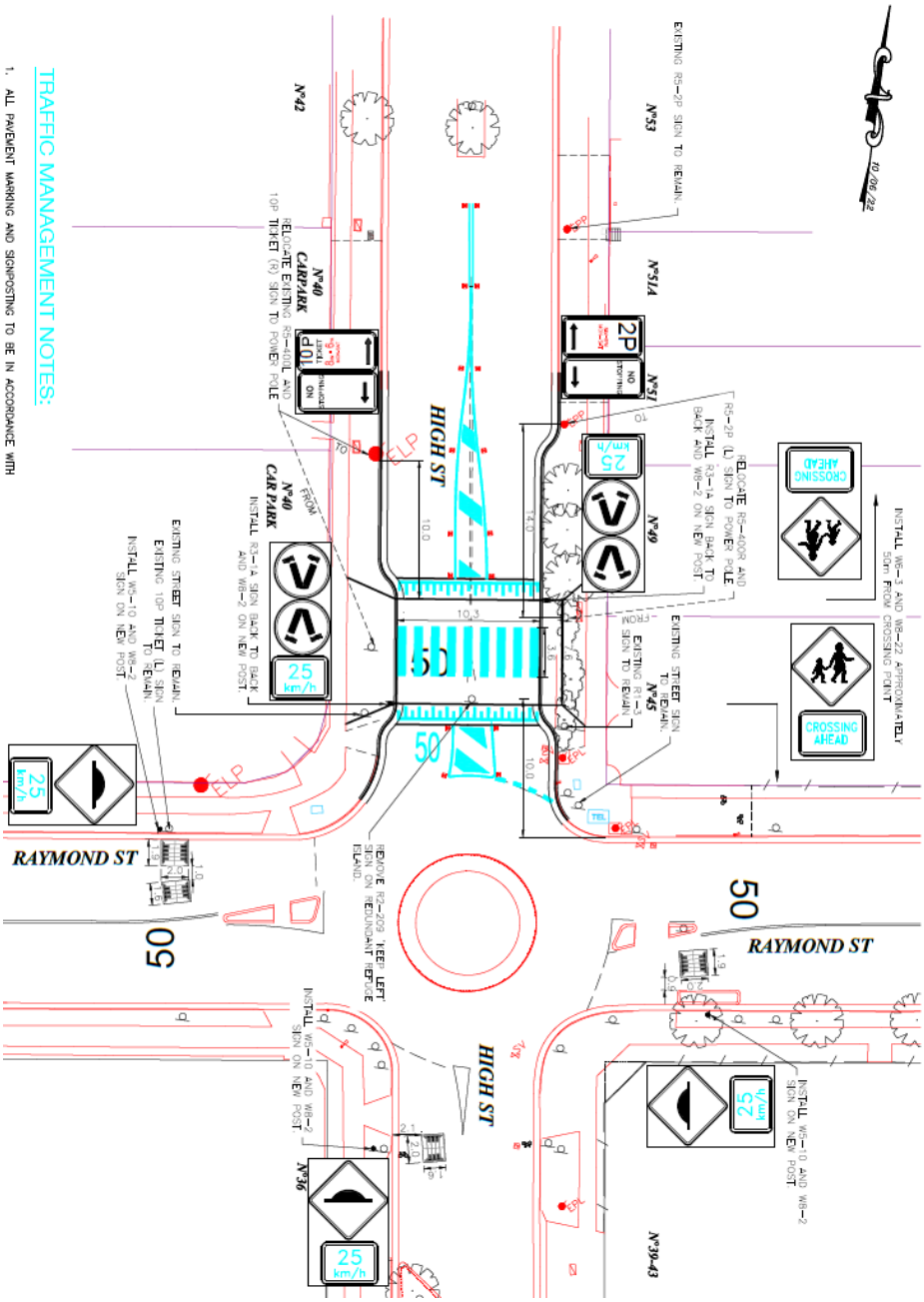


Figure 3: Concept plan of the proposed raised pedestrian crossing and speed cushions at the intersection of Raymond Street and High Street, Parramatta & Granville

Community Consultation

Community consultation was undertaken for the proposed speed cushions and raised pedestrian crossing at the intersection of Raymond Street and High Street, Parramatta. The consultation invited submissions by 20 December 2022 and involved the engagement channels listed below:

- City of Parramatta website (On-Exhibition page)
- Email to Bus Service Providers
- Local Parramatta newspaper
  - Parra News (published 22 November 2022)
- Mailout to owners & occupiers (138 letters, 75m radius from intersection)
- On-site Corflute signs

The opportunity to provide feedback on the proposed improvements at the intersection of Raymond Street and High Street culminated in nine (9) responses at the time of writing this report. Of the nine (9) responses, six (6) supported the proposal, one (1) supported the proposal to an extent and two (2) raised no objections. The survey respondent who supported the proposal to an extent was a member of the public who noted that this intersection was not part of their commute. The Bus Service Provider raised no objections to the proposal.

The TfNSW Customer Journey Planning team and Bus Service Providers raised no objections.

The Public Consultation Summary and Council Officer's Response is available in Attachment A of this report.

FINANCIAL IMPLICATIONS

The estimated cost of the proposed raised pedestrian crossing and speed cushions at the intersection of Raymond Street and High Street, Parramatta restriction is $262,000. This project is 100% funded by the 2022/23 Australian Government Black Spot Program.

Randil Pohorambage
Traffic and Transport Engineer
17/01/2023
Attachments – A. Public Consultation Summary and Council Officer's Response
B. Sketch Plan – Raymond Street and High Street, Parramatta & Granville

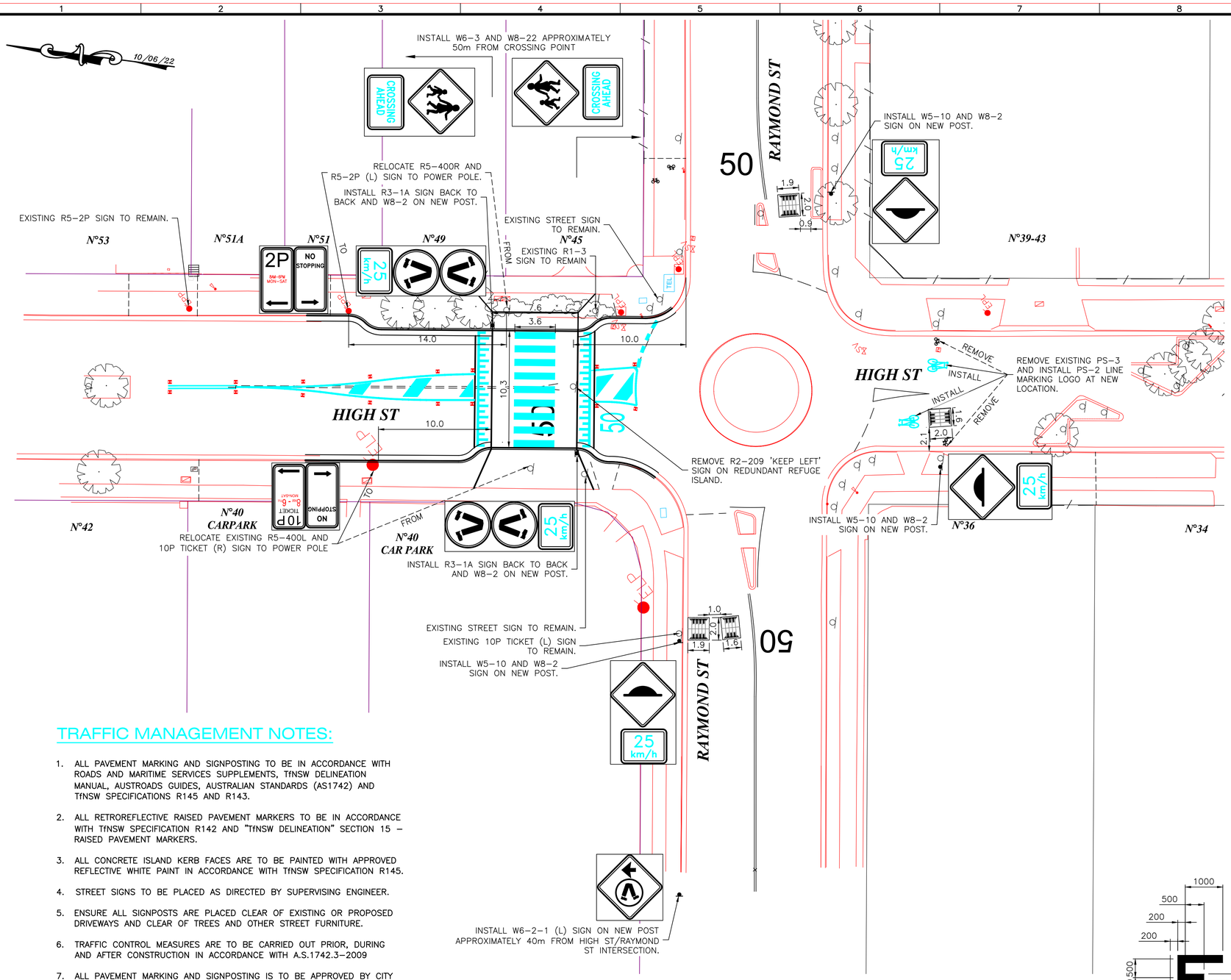
Attachment A: Public Consultation Summary and Council Officer's Responses

Date	Stakeholder Type	Opinion and Key Concerns	Council Officer Response
18/11/2022	Transport for NSW Customer Journey Planning Team (D08774438)	No Objection subject to addressing concerns of Bus Service Providers.	Noted.
27/11/2022	Local Resident (D08783681)	Support.	Noted.
29/11/2022	Local Alliance Committee (D08787660)	Support. • Install additional lighting. • Resurface the roundabout and adjacent surfaces. • Install more parking restrictions.	Noted. • Street lighting will be reviewed as part of this project and upgraded if deemed necessary. • Resurfacing of the roundabout and adjacent surfaces is outside the scope of this project. • Parking restrictions will be installed in accordance with technical guidelines, regulations, and legislation.
29/11/2022	Local Resident (D08787665)	Support.	Noted.

29/11/2022	City of Parramatta's Transport Planning Team (D08790514)	Support. • Requests that the existing footpath on the north side of Raymond Street between High Street and Church Street be converted to a shared path. • Requests that the proposal for a raised pedestrian crossing be changed to a combined raised pedestrian and cyclist crossing.	Noted. • An upgrade to the existing footpath on the north side of Raymond Street between High Street and Church Street is outside the scope of this project. • The platform width of the raised pedestrian crossing will be widened to provide provision for a future upgrade from a raised pedestrian crossing to a combined raised pedestrian and cyclist crossing.
14/12/2022	Local Resident (D08806416)	Support. • Reduce speed limits from 50km/h to 40km/h or install additional speed cushions at mid-block points as rat-running is a problem.	Noted. • A reduction of the speed limit is outside the scope of this project. Speed limits are set by Transport for NSW (TfNSW) in accordance with TfNSW guidelines. 40km/h speed limits are generally installed in areas of High Pedestrian Activity. Furthermore, residents are likely to object to a reduction of the speed limit.
14/12/2022	Member of public (D08807530)	Support.	Noted.
20/12/2022	Member of public (D08813536)	Support to an extent. The intersection of Raymond Street and High Street is not within commute.	Noted.

16/01/2023	Transit Systems, Bus Service Provider (D08833980)	No Objection.	Noted.

10/06/22



TRAFFIC MANAGEMENT NOTES:

1. ALL PAVEMENT MARKING AND SIGNPOSTING TO BE IN ACCORDANCE WITH ROADS AND MARITIME SERVICES SUPPLEMENTS, TfNSW DELINEATION MANUAL, AUSTROADS GUIDES, AUSTRALIAN STANDARDS (AS1742) AND TfNSW SPECIFICATIONS R145 AND R143.
2. ALL RETROREFLECTIVE RAISED PAVEMENT MARKERS TO BE IN ACCORDANCE WITH TfNSW SPECIFICATION R142 AND "TfNSW DELINEATION" SECTION 15 – RAISED PAVEMENT MARKERS.
3. ALL CONCRETE ISLAND KERB FACES ARE TO BE PAINTED WITH APPROVED REFLECTIVE WHITE PAINT IN ACCORDANCE WITH TfNSW SPECIFICATION R145.
4. STREET SIGNS TO BE PLACED AS DIRECTED BY SUPERVISING ENGINEER.
5. ENSURE ALL SIGNPOSTS ARE PLACED CLEAR OF EXISTING OR PROPOSED DRIVEWAYS AND CLEAR OF TREES AND OTHER STREET FURNITURE.
6. TRAFFIC CONTROL MEASURES ARE TO BE CARRIED OUT PRIOR, DURING AND AFTER CONSTRUCTION IN ACCORDANCE WITH A.S.1742.3–2009
7. ALL PAVEMENT MARKING AND SIGNPOSTING IS TO BE APPROVED BY CITY OF PARRAMATTA COUNCIL TRAFFIC ENGINEER.
8. ALL SIGN POSTS IN CONCRETE TO BE HELD IN POSITION WITH V–LOCKS.
9. ALL PAINTWORK TO BE COMPLETED ON DAY OF INSTALLATION.
10. ALL LINEMARKING TO BE APPROVED WHITE THERMOPLASTIC PAINT.
11. ALL REDUNDANT SIGNS AND LINEMARKING WITHIN LIMIT OF WORKS TO BE REMOVED AS REQUIRED. RECOVERED POSTS TO BE REUSED.
12. ALL "TB", "TF" HOLDING LINES TO BE 300mm WIDE UNLESS NOTED OTHERWISE. REFER TO "TfNSW DELINEATION" SECTION 6 – TRANSVERSE MARKINGS

PLAN VIEW

SCALE 1:200

PROPOSED STREET SIGNS SCHEDULE

GRAPHIC SYMBOL	NAME / TYPE	N° REQUIRED	REMARKS
	R3–1A	4	AS INDICATED ON PLAN (TO BE INSTALLED BACK TO BACK ON NEW POSTS)
25 km/h	W8–2	5	AS INDICATED ON PLAN (INSTALL 2 SIGNS ON SAME NEW POST AS SIGN R3–1A AT RAISED CROSSING. INSTALL 3 SIGNS AT NEW SPEED CUSHION LOCATIONS)
	W6–3	2	AS INDICATED ON PLAN (INSTALL ON NEW POST APPROXIMATELY 50m FROM RAISED CROSSING POINT)
CROSSING AHEAD	W8–22	2	AS INDICATED ON PLAN (INSTALL ON SAME POST AS W6–3)
	W5–10	3	AS INDICATED ON PLAN (AT NEW SPEED CUSHION LOCATION. INSTALL ON NEW POST)
	W6–2–1L	1	AS INDICATED ON PLAN (INSTALL ON NEW POST)

EXISTING SIGNS TO BE RELOCATED/REMOVED STREET SIGNS SCHEDULE

GRAPHIC SYMBOL	NAME / TYPE	N° REQUIRED	REMARKS
NO STOPPING	R5–400R	1	SIGN TO BE RELOCATED TO POWERPOLE AS INDICATED ON PLAN. SIGN POST CAN BE REUSED OR DISPOSED.
NO STOPPING	R5–400L	1	SIGN TO BE RELOCATED TO POWERPOLE AS INDICATED ON PLAN. SIGN POST CAN BE REUSED OR DISPOSED.
2P 9AM–6PM MON–SAT	R5–2P (L)	1	SIGN TO BE RELOCATED WITH R5–400R AS INDICATED ON PLAN
10P TICKET 8AM–6PM MON–SAT	10P TICKET R	1	SIGN TO BE RELOCATED WITH R5–400L AS INDICATED ON PLAN
KEEP LEFT	R2–209	1	SIGN AND POST TO BE REMOVED ON REDUNDANT REFUGE ISLAND.

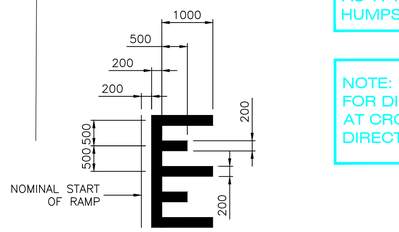
NOTE:
REFER TO TfNSW SPECIFICATION R145 FOR ZEBRA CROSSING BARS

NOTE:
FOR PIANO KEY MARKINGS REFER TO AS 1742.10-2009, AS 1742.13-2009 FIGURE 4.3 PAVEMENT MARKINGS FOR HUMPS ALONG WITH CLAUSE 4.6.6 AND DETAIL RIGHT

NOTE:
FOR DIRECTION ON STOPPING AND PARKING RESTRICTIONS AT CROSSINGS REFER TO TfNSW TECHNICAL DIRECTION TDT 2002/12c

PAVEMENT SYMBOL SCHEDULE

GRAPHIC SYMBOL	NAME / TYPE	N° REQUIRED	REMARKS
	PS–2	2	AS INDICATED ON PLAN



RAMP PAINT DETAIL
N.T.S. (mm)

SCALE OF METRES 1:200

FOR TRAFFIC COMMITTEE

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UNLESS DETAILED ON THIS DRAWING ALL WORK SHALL CONFORM TO AUSPEC

PLAN FEATURES		PUBLIC UTILITIES	
EXISTING/MISCELLANEOUS	PROPOSED	ABOVEGROUND	U/GROUND
KERB AND GUTTER:	KERB AND GUTTER:	TELSTRA:	
EDGE OF BITUMEN:	EDGE OF BITUMEN:	ELECTRICITY:	
ROAD ℄/CROWN:	ROAD ℄/CROWN:	GAS & MISC.:	
EARTH BATTERS:	EARTH BATTERS:	SEWER:	
PIPE DRAINS:	PIPE DRAINS:	WATER:	
DRAINAGE PITS:	DRAINAGE PITS:	POLES:	
TREES & SHRUBS:	SUB-SOIL DRAIN:	OVERHEAD:	
SPOT LEVELS:	SET-OUT LINE:	SURVEY:	

No.	AMENDMENTS DETAIL	CHECKED	DATE

DESIGN CHECKED AND APPROVED ...../...../.....
DESIGNED ...../...../.....
APPROVED Manager Capital Projects ...../...../.....
DRAWN ...../...../.....
ACCEPTED Client ...../...../.....
DRAWING REVIEW ...../...../.....

DATUM: A.H.D.
CO–ORDS: MGA
RATIO: 1:200
TRIM No: F2022/03009
STATUS: DRAFT

CITY OF PARRAMATTA COUNCIL

HIGH STREET, AT RAYMOND STREET
HARRIS PARK
PROPOSED RAISED PEDESTRIAN CROSSING AND ASSOCIATED WORKS
TRAFFIC COMMITTEE PLAN

PLAN NUMBER 17906
Sheet No :
Revision :

31, January, 2023 9:07:19 a.m.
Drawing: 17906 – HIGH ST–CIVIL–SIGNAGE PLAN.DWG

CITY OF PARRAMATTA COUNCIL

Parramatta Traffic Committee Agenda Item

ITEM NO: 2302 A3

SUBJECT: John Ian Wing Parade at Louise Sauvage Pathway, Sydney Olympic Park – Installation of raised combined pedestrian and cyclist crossing

APPLICANT: City of Parramatta Council

REPORT OF: Traffic and Transport Engineer

WARD: Rosehill

SED: Parramatta

Purpose

This report seeks approval for the installation of a raised combined pedestrian and cyclist crossing in John Ian Wing Parade at Louise Sauvage Pathway, Sydney Olympic Park. The purpose of this proposal is to improve pedestrian and cyclist safety, and to reduce vehicle speeds in John Ian Wing Parade.

OFFICER'S RECOMMENDATIONS:

1. That a raised combined pedestrian and cyclist crossing with associated signs and pavement markings be installed in John Ian Wing Parade at Louise Sauvage Pathway, Sydney Olympic Park as shown in the attached sketch.
2. That detailed design plans for the raised combined pedestrian and cyclist crossing as referred in recommendation 1 above be submitted to Transport for NSW (TfNSW) for approval prior to commencement of construction.

Background

City of Parramatta Council has received an offer of 100% funding from the 2022/23 Get NSW Active Program to install a raised combined pedestrian and cyclist crossing in John Ian Wing Parade at Louise Sauvage Pathway, Sydney Olympic Park.

Location Details

John Ian Wing Parade is a Local Road with a speed limit of 50km/h that connects the Newington residential precinct with Hill Road. Louise Sauvage Pathway is a popular recreational shared path providing a connection between Parramatta River to the north and the shared path parallel to M4 Western Motorway to the south.

Louise Sauvage Pathway crosses John Ian Wing Parade approximately 300m west of Hill Road, 350m south of Newington Public School and 700m travel distance from the M4 Western Motorway on-ramp and off-ramp at Hill Road.

Currently, there is a gap in the median island on John Ian Wing Parade that provides refuge for pedestrians and cyclists on Louise Sauvage Pathway enabling them to cross in two-stages. However, with this treatment, motorists on John Ian Wing Parade have priority over pedestrians and cyclists crossing at Louise Sauvage Pathway. Consequently, pedestrians and cyclists must give way to motorists.

Figure 1 shows the aerial view of the area around John Ian Wing Parade at Louise Sauvage Pathway and Figure 2 shows a street view of the area.

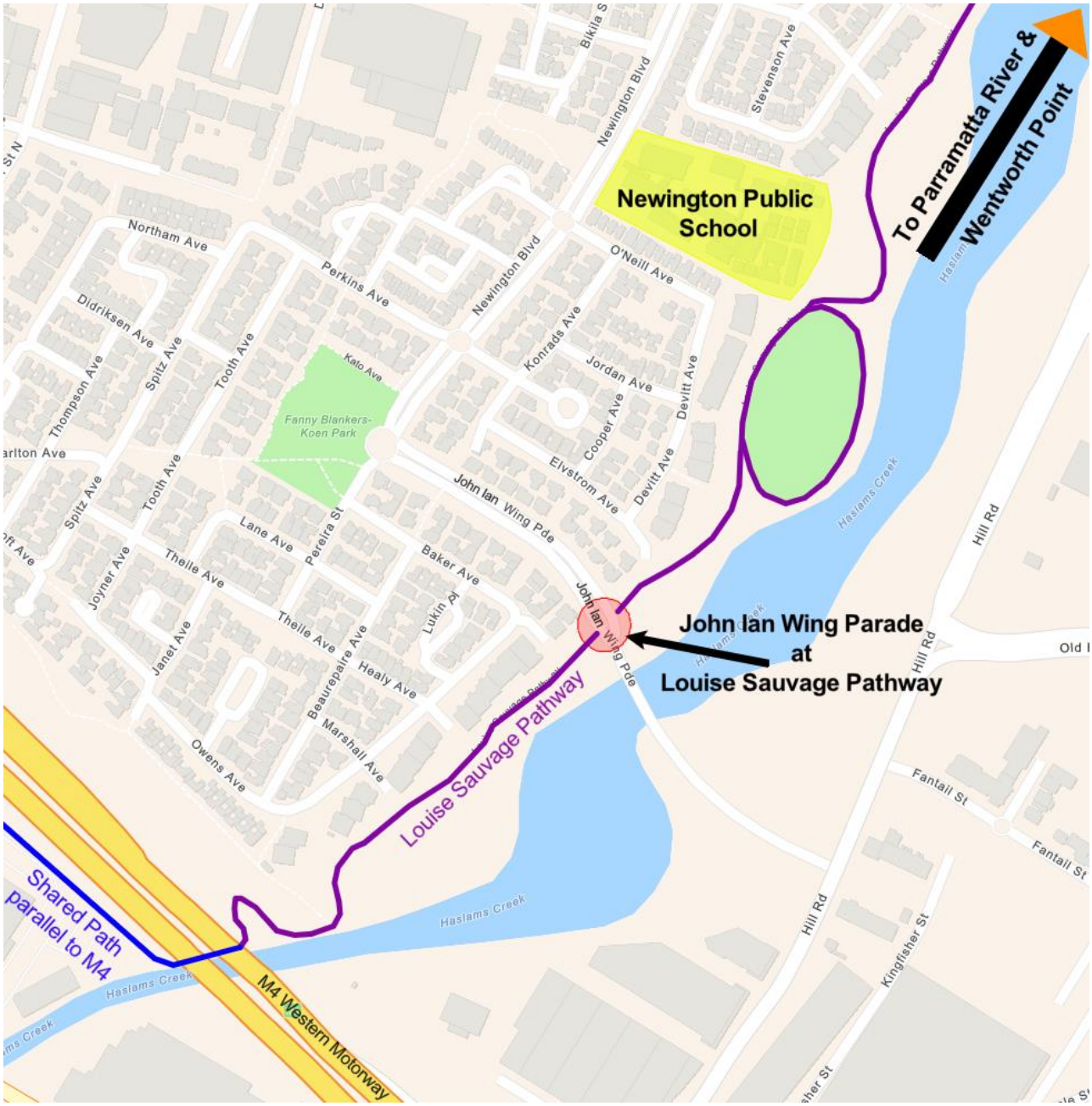


Figure 1: Location map of the area around John Ian Wing Parade at Louise Sauvage Pathway, Sydney Olympic Park

Figure 2: Street view of John Ian Wing Parade at Louise Sauvage Pathway, Sydney Olympic Park facing north-west

A mid-block pedestrian and vehicle count undertaken on 13 November 2021 indicated that the volume of pedestrians and cyclists crossing John Ian Wing Parade at Louise Sauvage Pathway peaked at thirty-six (36) pedestrians and twenty-five (25) cyclists during the morning period between 10:00am and 11:00am. During the same period (388) motorists and cyclists travelled through John Ian Wing Parade at Louise Sauvage Pathway. It should be noted that cyclists also turned between John Ian Wing Parade and Louise Sauvage Pathway.

Figure 3 shows the pedestrian, motorist, and cyclist volumes between 10:00am and 11:00am in John Ian Wing Parade at Louise Sauvage Pathway.

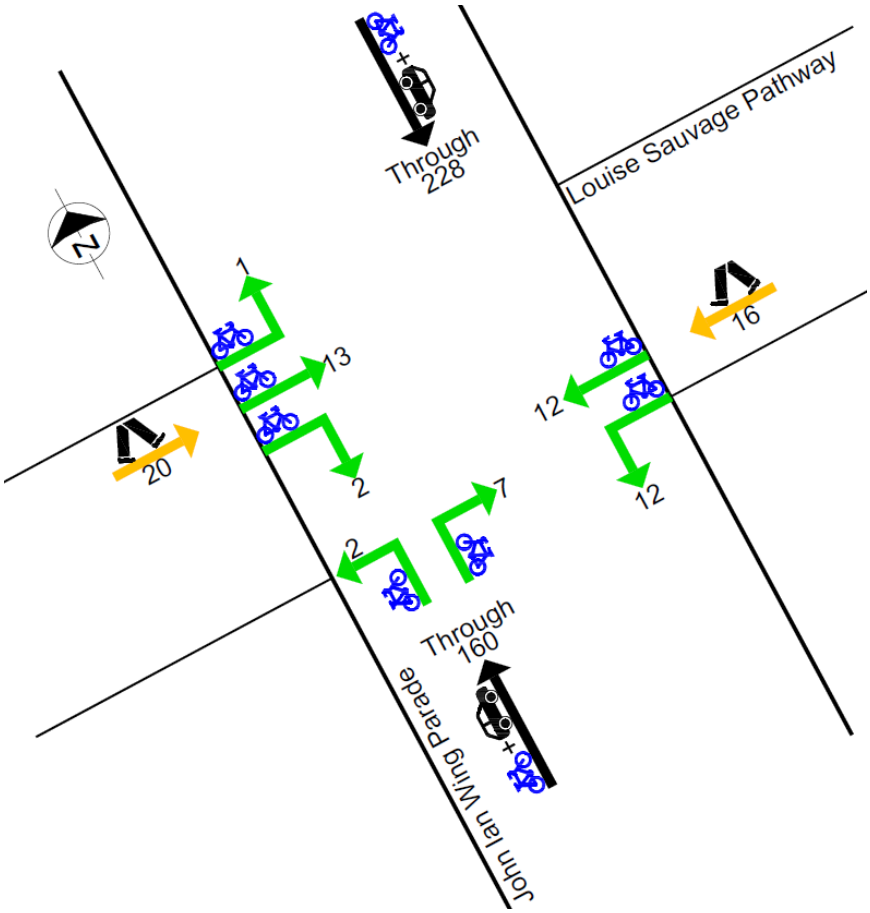


Figure 3: Pedestrian, motorist, and cyclist volumes in John Ian Wing Parade at Louise Sauvage Pathway, Sydney Olympic Park (10:00am to 11:00am)

On 22 February 2021, Council adopted interim guidelines for the installation of pedestrian crossings on local roads within the Parramatta LGA with speed limits of 50km/h or less. According to the guidelines, a raised pedestrian crossing can be installed at locations where the speed limit is 50km/h or less and there is a minimum of 20 pedestrians per hour crossing the road. John Ian Wing Parade at Louise Sauvage Pathway meets Council's requirement for the installation of a raised pedestrian crossing.

Proposed Treatment

To improve pedestrian and cyclist safety by reducing vehicle speeds at the crossing and giving priority to pedestrians and cyclists, City of Parramatta is proposing to install a raised combined pedestrian and cyclist crossing with associated signs and pavement markings in John Ian Wing Parade at Louise Sauvage Pathway, Sydney Olympic Park.

The facility is to be designed and installed in accordance with Austroads Guide to Traffic Management Part 8 – Local Street Management, Australian Standard AS1742 series, TfNSW Supplement to AS1742.10 and TfNSW Technical Directions on Delineation and Pedestrian Refuges (Ref. TDT 2011/01a). In addition to the above, the kerb and gutter will be realigned, and street lighting and storm water drainage will be upgraded as part of this project. 'PS-3' bicycle pavement logos will be installed on the bicycle lanes approximately 70m south of the proposed facility.

A concept plan for the proposed raised combined pedestrian and cyclist crossing is shown in Figure 4 and Attachment B of this report.

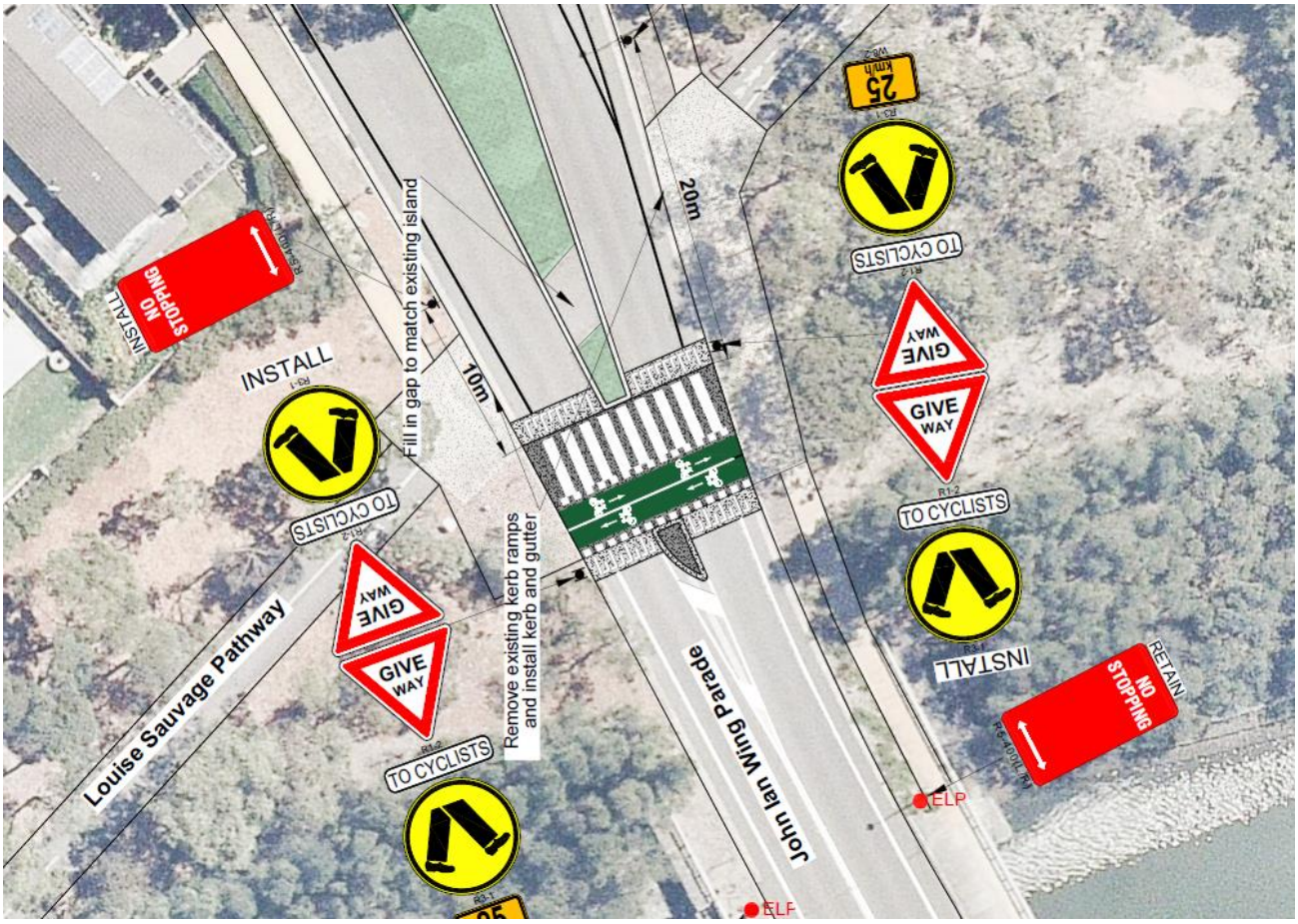


Figure 4: Concept plan of the proposed raised combined pedestrian and cyclist crossing in John Ian Wing Parade at Louise Sauvage pathway, Sydney Olympic Park

Community Consultation

Community consultation was undertaken for the proposed raised combined pedestrian and cyclist crossing in John Ian Wing Parade at Louise Sauvage pathway, Sydney Olympic Park. The consultation invited submissions by 20 December 2022 and involved the engagement channels listed below:

- City of Parramatta website (On-Exhibition page)
- Email to Bus Service Providers
- Local Parramatta newspaper
  - Parra News (published 22 November 2022)
- Mailout to owners & occupiers (18 letters, 70m radius from the facility)
- On-site Corflute signs

The opportunity to provide feedback on the proposed traffic facility resulted in fourteen (14) responses at the time of writing this report. Of the fourteen (14) responses, ten (10) supported the proposal, one (1) supported the proposal to an extent and three (3) raised no objections.

The three (3) respondents that raised no objections were Bus Service Providers and the TfNSW Customer Journey Planning team.

Three (3) respondents who supported the proposal and one (1) respondent who supported the proposal to an extent raised concerns regarding the offset of the proposed facility on John Ian Wing parade from the Louise Sauvage Pathway pedestrian/cyclist desire line as shown in Figure 4. The proposed raised combined pedestrian and cyclist crossing on John Ian Wing Parade is offset south from Louise Sauvage Pathway, creating a deflection in the pedestrian/cyclist crossing desire line to reduce cyclist entry speeds into the facility. This improves safety for cyclists on the shared path by increasing motorist recognition of cyclists approaching the crossing.

Considering the above, it is proposed to proceed with the installation of a raised combined pedestrian and cyclist crossing in John Ian Wing Parade at Louise Sauvage pathway, Sydney Olympic Park.

The Public Consultation Summary and Council Officer's Response is available in Attachment A of this report.

FINANCIAL IMPLICATIONS

The estimated cost of the proposed raised combined pedestrian and cyclist crossing in John Ian Wing Parade at Louise Sauvage Pathway, Sydney Olympic Park is $240,000. This project is 100% funded by the 2022/23 State Government Get NSW Active Program.

Randil Pohorambage
Traffic and Transport Engineer
18/01/2023

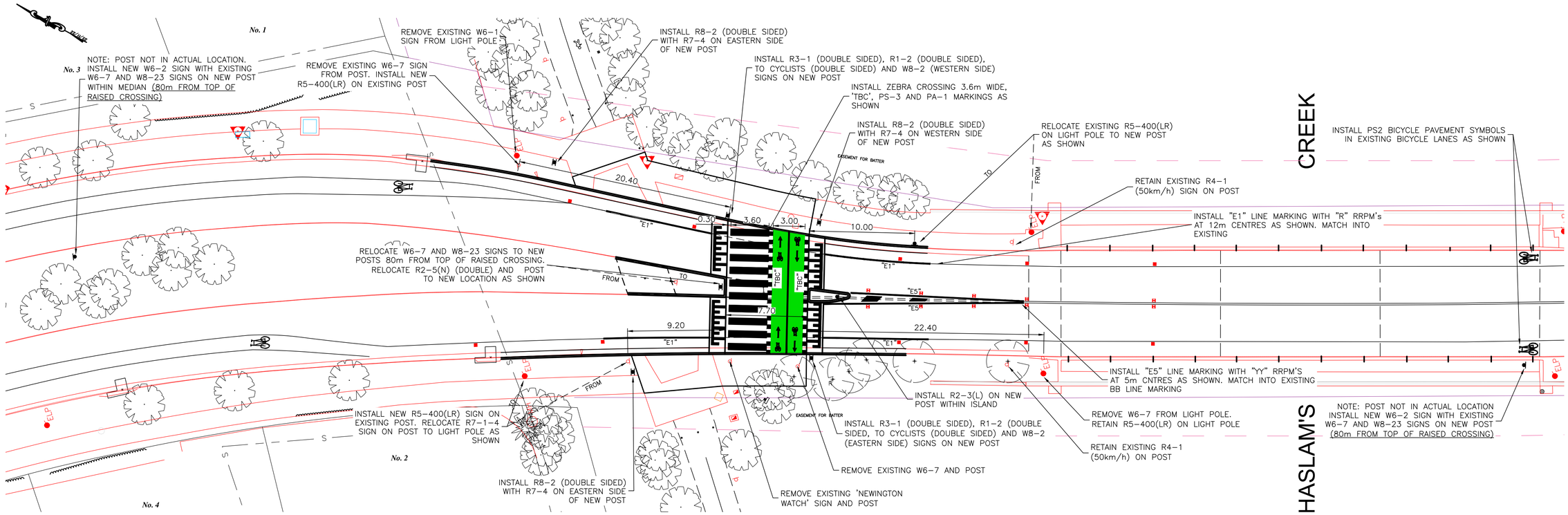
Attachments – A. Public Consultation Summary and Council Officer's Response
B. Sketch Plan – John Ian Wing Parade at Louise Sauvage Pathway, Sydney Olympic Park

Attachment A: Public Consultation Summary and Council Officer's Responses

Date	Stakeholder Type	Opinion and Key Concerns	Council Officer Response
18/11/2022	Transport for NSW Customer Journey Planning Team (D08774445)	No Objection subject to addressing concerns of Bus Service Providers.	Noted.
23/11/2022 & 26/11/2022	Resident (D08779620, D08783671)	Support to an extent. • Requests that the proposed facility be located on John Ian Wing Parade at the pedestrian/cyclist desire line of Louise Sauvage Pathway. • Install a garbage bin and bubbler with dog trough at this crossing.	Noted. • The proposed raised combined pedestrian and cyclist crossing on John Ian Wing Parade is offset south from Louise Sauvage Pathway, creating a deflection in the pedestrian/cyclist crossing desire line to reduce cyclist entry speeds into the facility. This improves safety for cyclists on the shared path by increasing motorist recognition of cyclists approaching the crossing. • The installation of a garbage bin and bubbler with dog trough is outside the scope of this project. Designs that encourage pedestrians to linger at the entrance to pedestrian crossings should be avoided. This creates confusion for motorists as they anticipate pedestrians to cross the street instead of waiting on one side.

27/11/2022	Resident (D08783685)	Support.	Noted.
29/11/2022	Resident (D08787672)	Support.	Noted.
29/11/2022	City of Parramatta's Transport Planning Team (D08790520)	Support. • Add a note on the sketch plan to remove the existing kerb ramps on John Ian Wing Parade.	Noted. • A note has been added to the concept plan with an instruction to remove the redundant kerb ramps.
5/12/2022	Member of public (D08792284)	Support.	Noted.
7/12/2022	Member of public (D08796603)	Support. • Questioned the offset of the facility from the Louise Sauvage Pathway pedestrian/cyclist crossing desire line.	Noted. Refer to previous Council Officer Response.
14/12/2022	Resident (D08806424)	Support. • Questioned the offset of the facility from the Louise Sauvage Pathway pedestrian/cyclist crossing desire line.	Noted. Refer to previous Council Officer Response.
14/12/2022	Member of public (D08807553)	Support. • Questioned the offset of the facility from the Louise Sauvage Pathway pedestrian/cyclist crossing desire line.	Noted. Refer to previous Council Officer Response.

20/12/2022	Member of public (D08813539)	Support.	Noted.
3/01/2023	Member of public (D08827444)	Support.	Noted.
12/01/2023	Resident (D08833196)	Support.	Noted.
19/01/2023	Transit Systems, Bus Service Provider (D08838312)	No Objection. • Requests that the raised combined pedestrian and cyclist crossing be installed in accordance with State Transit Bus Infrastructure Guide which states: *"Where a raised pedestrian crossing is to be constructed on a bus route, the height shall not exceed 75mm with ramp grades no greater than 1 in 16 (6.25%)."*	Noted. Ramp gradients will not be greater than 1 in 16 (6.25%) and the platform height will not exceed 75mm. Turning paths are not affected by this proposal. The design of the raised pedestrian crossing will factor in adjacent civil assets.
19/01/2023	Bus Ways, Bus Service Provider (D08838305)	No Objection.	Noted.



LEGEND:

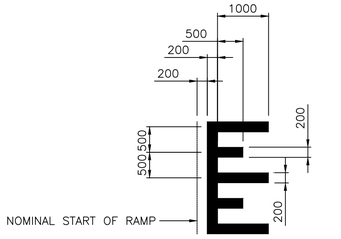
ZEBRA CROSSING IN ACCORDANCE WITH TfNSW DELINEATION – SECTION 7 – TRANSVERSE LINES PEDESTRIAN FACILITIES, TfNSW SPECIFICATION R145, AUSTROAD GUIDE TO ROAD DESIGN PART 4 INTERSECTIONS AND CROSSINGS AND AUSTRALIAN STANDARD AS 1742.10

GREEN PAINT FOR CYCLEWAYS

REDUNDANT LINE MARKING TO BE REMOVED

TRAFFIC MANAGEMENT NOTES:

1. ALL PAVEMENT MARKING AND SIGNPOSTING TO BE IN ACCORDANCE WITH ROADS AND MARITIME SERVICES SUPPLEMENTS, TfNSW DELINEATION MANUAL, AUSTROADS GUIDES, AUSTRALIAN STANDARDS (AS1742) AND TfNSW SPECIFICATIONS R145 AND R143.
2. ALL RETROREFLECTIVE RAISED PAVEMENT MARKERS TO BE IN ACCORDANCE WITH TfNSW SPECIFICATION R142 AND "TfNSW DELINEATION" SECTION 15 – RAISED PAVEMENT MARKERS.
3. ALL CONCRETE ISLAND KERB FACES ARE TO BE PAINTED WITH APPROVED REFLECTIVE WHITE PAINT IN ACCORDANCE WITH TfNSW SPECIFICATION R145.
4. STREET SIGNS TO BE PLACED AS DIRECTED BY SUPERVISING ENGINEER.
5. ENSURE ALL SIGNPOSTS ARE PLACED CLEAR OF EXISTING OR PROPOSED DRIVEWAYS AND CLEAR OF TREES AND OTHER STREET FURNITURE.
6. TRAFFIC CONTROL MEASURES ARE TO BE CARRIED OUT PRIOR, DURING AND AFTER CONSTRUCTION IN ACCORDANCE WITH A.S.1742.3–2009
7. ALL PAVEMENT MARKING AND SIGNPOSTING IS TO BE APPROVED BY CITY OF PARRAMATTA COUNCIL TRAFFIC ENGINEER.
8. ALL SIGN POSTS IN CONCRETE TO BE HELD IN POSITION WITH V–LOCKS.
9. ALL PAINTWORK TO BE COMPLETED ON DAY OF INSTALLATION.
10. ALL LINEMARKING TO BE APPROVED WHITE THERMOPLASTIC PAINT, GREEN PAINT USED FOR CYCLEWAY AREAS TO BE IN ACCORDANCE WITH TFNSW R110 SPECIFICATION 'COLOURED SURFACE COATING FOR BUS LANES AND CYCLEWAYS'.
11. ALL REDUNDANT SIGNS AND LINE MARKING WITHIN LIMITS OF WORK TO BE REMOVED AS REQUIRED. RECOVERED POSTS TO BE REUSED.



RAMP PAINT DETAIL
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STOPPING AND PARKING RESTRICTIONS:
1. FOR DIRECTION ON STOPPING AND PARKING RESTRICTIONS AT INTERSECTIONS AND CROSSINGS REFER TO 'TfNSW' TECHNICAL DIRECTION TDT 2002/12c

PIANO KEY MARKINGS:
1. FOR PIANO KEY MARKINGS REFER TO AS 1742.10-2009, AS 1742.13-2009 FIGURE 4.3 PAVEMENT MARKINGS FOR HUMPS ALONG WITH CLAUSE 4.6.6 AND DETAIL SHOWN .....

NEW TRAFFIC SIGNS SCHEDULE

GRAPHIC SYMBOL	NAME / TYPE	Nº REQUIRED	REMARKS
	R3–1A	4	AS INDICATED ON PLAN
GIVE WAY	R1–2	4	AS INDICATED ON PLAN
25 km/h	W8–2	2	AS INDICATED ON PLAN
TO CYCLISTS	TO CYCLISTS	4	AS INDICATED ON PLAN
	W6–2	2	AS INDICATED ON PLAN

NEW TRAFFIC SIGNS SCHEDULE

GRAPHIC SYMBOL	NAME / TYPE	Nº REQUIRED	REMARKS
NO STOPPING	R5–400LR	2	AS INDICATED ON PLAN
	R8–2	6	AS INDICATED ON PLAN
END	R7–4	3	AS INDICATED ON PLAN
KEEP LEFT	R2–3L	1	AS INDICATED ON PLAN

4 3 2 1 0 4 8 12 16 20
SCALE OF METRES 1:200

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UNLESS DETAILED ON THIS DRAWING ALL WORK SHALL CONFORM TO AUS SPEC

PLAN FEATURES		PUBLIC UTILITIES	
EXISTING/MISCELLANEOUS	PROPOSED	ABOVEGROUND	U/GROUND
KERB AND GUTTER:	KERB AND GUTTER:	TELSTRA:	
EDGE OF BITUMEN:	EDGE OF BITUMEN:	ELECTRICITY:	SUB STATION
ROAD ℄/CROWN:	ROAD ℄/CROWN:	GAS & MISC.:	GAS
EARTH BATTERS:	EARTH BATTERS:	SEWER:	
PIPE DRAINS:	PIPE DRAINS:	WATER:	
DRAINAGE PITS:	DRAINAGE PITS:	POLES:	
TREES & SHRUBS:	SUB–SOIL DRAIN:	OVERHEAD:	
SPOT LEVELS:	SET–OUT LINE:	SURVEY:	

No.	AMENDMENTS DETAIL	CHECKED	DATE

DESIGN CHECKED AND APPROVED ...../...../.....
APPROVED FOR CONSTRUCTION Manager Capital Projects ...../...../.....
ACCEPTED Client ...../...../.....
DESIGNED ...../...../.....
DRAWN ...../...../.....
DRAWING REVIEW ...../...../.....

DATUM: A.H.D.
CO–ORDS: MGA
RATIO: 1:200
TRIM NO: F2022/03153
STATUS: DRAFT

CITY OF PARRAMATTA COUNCIL

JOHN IAN WING PARADE, NEWINGTON
INTERSECTING LOUISE SAUVAGE PATH PEDESTRIAN AND CYCLSIT RAISED CROSSING AND ASSOCIATED WORKS
CONCEPT TRAFFIC MANAGEMENT PLAN

PLAN NUMBER 17910
Sheet No : 2
Revision : 1

CITY OF PARRAMATTA COUNCIL

Parramatta Traffic Committee Agenda Item

ITEM NO: 2302 A4

SUBJECT: Bulli Road and Binalong Road, Toongabbie – Installation of speed cushions

APPLICANT: City of Parramatta Council

REPORT OF: Traffic and Transport Engineer

WARD: Parramatta

SED: Winston Hills

Purpose

This report seeks approval for the installation of speed cushions on all approaches to the roundabout at the intersection of Bulli Road and Binalong Road, Toongabbie. The purpose of the proposal is to reduce vehicle speed and improve safety at the roundabout.

OFFICER'S RECOMMENDATIONS:

That the installation of speed cushions on all approaches to the roundabout at the intersection of Bulli Road and Binalong Road, Toongabbie as shown on the plan attached to the report be approved.

Background

City of Parramatta Council has received an offer of 100% funding from Federal Government's Black Spot program to install speed cushions on all approaches to the roundabout at the intersection of Bulli Road and Binalong Road, Toongabbie in 2022/23.

Binalong Road (12.4m wide) and Bulli Road (12.6m wide) are local roads with default urban speed limits of 50km/h. Bulli Road provides a single travel lane with kerb side parking lane in each direction. Binalong Road provides a single travel lane, bicycle lane and kerb side parking lane in each direction. This road also provides access to Toongabbie Public School, Pendle Hill High School and Binalong Park. Motorists use Binalong Road and Bulli Road to travel between Old Windsor Road (Constitution Hill) and Wentworth Avenue (Toongabbie and Pendle Hill). Many pedestrians use these roads to access schools and Pendle Hill Railway Station.

Figure 1 shows the aerial view of the area near the intersection of Bulli Road and Binalong Road. Figure 2 shows the street view of the intersection looking eastbound from Bulli Road towards Binalong Road. Bulli Road (western leg) and Binnalong Road are within the bus route (Regular Route No. 711 and school bus services). The existing bus stops are also shown on Figure 1.

Figure 1: Aerial view of the area around the roundabout at the intersection of Bulli Road and Binalong Road, Toongabbie

Figure 2: Street view of the roundabout at the intersection of Bulli Road and Binalong Road, Toongabbie

A vehicle volume and speed survey undertaken in March 2020 indicated that the average daily traffic volume in Binalong Road (between Burrabogee Road and Bora Street) was 4,804 vehicles. Of these, 2,203 vehicles were traveling in the northbound direction. At the point of measurement, 85% of vehicles travelled at or below 58.1 km/h speed in both north- and southbound directions.

According to Transport for NSW crash data, there were four (4) crashes at the intersection of Bulli Road and Binalong Road, Toongabbie during the 5-year period between April 2017

and March 2022 Of these accidents, three (3) were injury accidents with two (2) cross traffic involving southbound vehicles. The other injury accident involved a pedal cyclist. The non-injury accident was an overtaking accident between westbound vehicles. Figure 3 shows the crash diagram at the intersection.

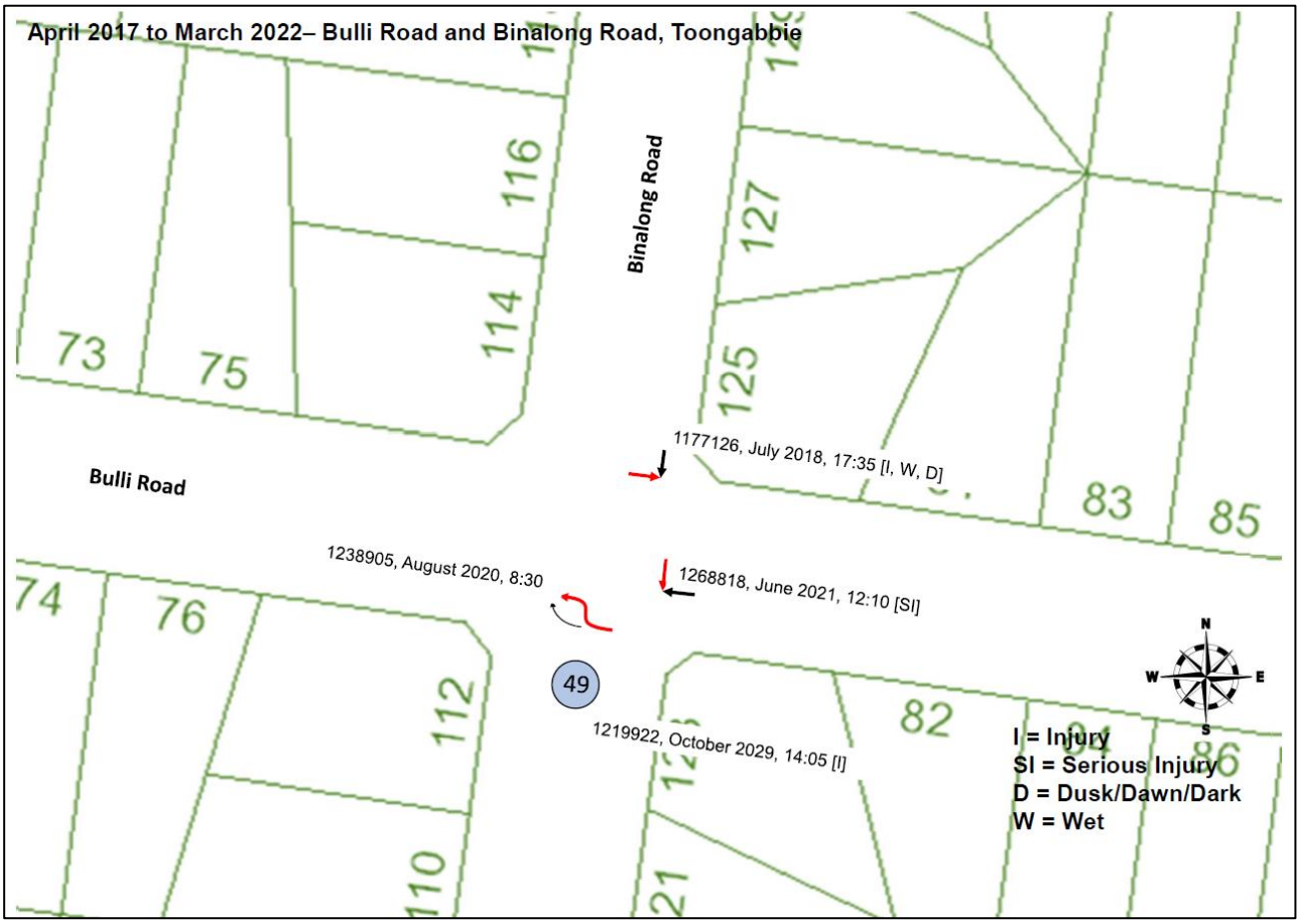


Figure 1: Crash diagram of Bulli Road and Binalong Road based on Transport for NSW crash data during the 5-year period between April 2017 and March 2022

To reduce vehicle speed and traffic accidents, City of Parramatta is proposing to install speed cushions with associated '25km/h' and 'Speed Hump' signs on all approaches to the roundabout at the intersection of Bulli Road and Binalong Road, Toongabbie as shown in Figure 4. A copy of the plan is also attached to the report.

The proposed design and positioning of the speed cushions in the northbound direction maintains the functionality of the existing cycle lane while promoting increased vehicle deflection, resulting in a more effective traffic calming solution that goes beyond solely relying on horizontal deflection.

Community Consultation

Community consultation was undertaken between 22 November and 20 December 2022 and involved the engagement channels listed below:

- Mailout to owners & occupiers
- Email to bus service providers
- Local Parramatta newspaper
  - Parramatta News (published Tuesday 22 November 2022)

- City of Parramatta On Exhibition webpage
- Proposed designs shown to Active Transport Advisory Committee (ATAC)

Council received four responses from residents, two bus service providers (Transit System and CDC) and Transport for NSW (TfNSW) with all agreeing to the proposal.

Council presented two designs to the Active Transport Advisory Committee (ATAC) for review and feedback. The ATAC expressed support for the option detailed in this report.

The Public Consultation Summary and Council Officer's Response is available in Attachment A of this report.

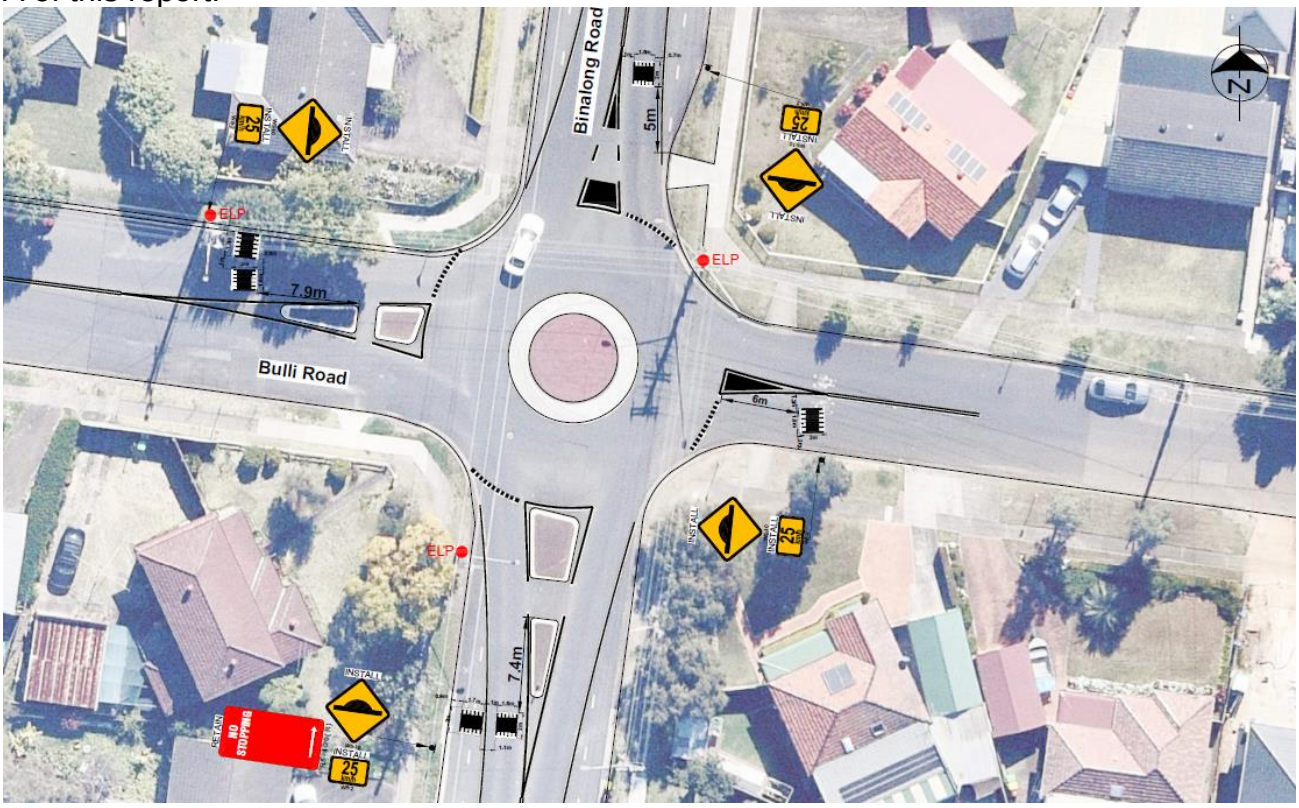


Figure 2: Concept plan of the proposed speed cushions at the roundabout at the intersection of Bulli Road and Binalong Road, Toongabbie

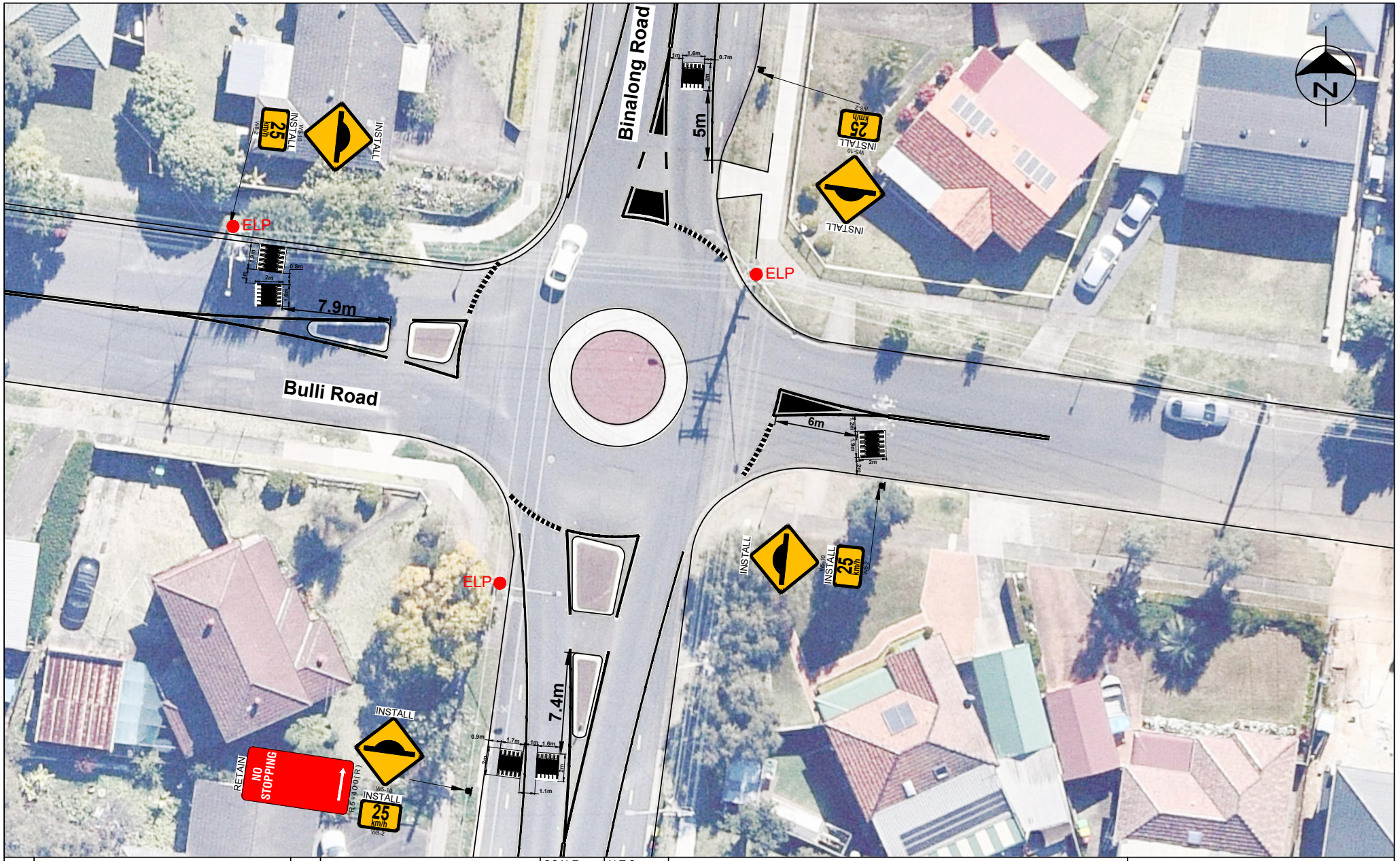
FINANCIAL IMPLICATIONS

The cost estimate for the proposed speed cushions at all approaches to the roundabout at the intersection of Bulli Road and Binalong Road, Toongabbie is $16,000. This project is 100% funded by Federal Government's Black Spot Programs in 2022/23. Accordingly, there will not be any direct impact on Council's budgets.

Nathan McLauchlan
Traffic and Transport Engineer
1/02/2023
Attachments – A. Public Consultation Summary and Council Officer's Response
B. Sketch Plan – Bulli Road and Binalong Road, Toongabbie

Attachment A. Public Consultation Summary and Council Officer's Response

Date	Stakeholder Type	Opinion and Key Concerns	Council Officer Response
17/11/2022	TfNSW (D08772644)	Supported subject to any comments / issues provided by bus operators are addressed	Note that bus operators have not raised any concerns on this proposal.
17/11/2022	CDC NSW (D08772723)	Supported	
17/11/2022	Transit Systems (D08772725)	Supported	
23/11/2022	Resident (D08778741)	Supported	



DATE	AMENDMENT	INIT.

NOTES

ALL SIGN POSTING TO BE IN ACCORDANCE WITH AS.1742

ALL DIMENSIONS ARE IN METRES

CAUTION: SERVICES TO BE LOCATED PRIOR TO EXCAVATION

SCALE	N.T.S.
DESIGNED	JG
DRAWN	14/11/2022
CHECKED	
APPROVED	

CITY OF PARRAMATTA COUNCIL

TRAFFIC AND TRANSPORT SERVICES

STD DWG

TS 2022 47

CITY OF PARRAMATTA COUNCIL

Parramatta Traffic Committee Agenda Item

ITEM NO: 2302 A5

SUBJECT: Victoria Street at Bridge Street, Epping – Installation of raised combined pedestrian and cyclist crossing

APPLICANT: City of Parramatta Council

REPORT OF: Traffic and Transport Engineer

WARD: Epping

SED: Epping

Purpose

This report seeks approval for the installation of a raised combined pedestrian and cyclist crossing in Victoria Street south of Bridge Street, Epping. The purpose of this proposal is to improve pedestrian and cyclist safety, and to reduce vehicle speeds on the approach to the intersection.

OFFICER'S RECOMMENDATIONS:

1. That a raised combined pedestrian and cyclist crossing with associated signs and pavement markings be installed in Victoria Street south of Bridge Street, Epping as shown in the attached sketch.
2. That the existing 'Stop' restriction with associated 'Stop (TF)' line and 'Stop' sign be replaced with a 'Give Way' restriction with associated 'Give Way (TB)' line and 'Give Way' sign as shown in the attached sketch.
3. That detailed design plans for the raised combined pedestrian and cyclist crossing as referred in recommendation 1 above be submitted to Transport for NSW (TfNSW) for approval prior to commencement of construction.

Background

City of Parramatta Council has received an offer of 100% funding from the 2022/23 Get NSW Active Program to install a raised combined pedestrian and cyclist crossing in Victoria Street south of Bridge Street, Epping.

Location Details

Victoria Street and Bridge Street, Epping are Local Roads with a speed limit of 50km/h. Stop restrictions are installed in Victoria Street on both approaches to its intersection with Bridge

Street. As a result, motorists exiting Victoria Street must stop and give way to any vehicle in, entering or approaching the intersection. Both Bridge Street and Victoria Street provide a single travel lane with kerb side parking in each direction.

The intersection is surrounded by low-high density residential properties with a service station located at the south-west corner. There are bus stops on both sides of Victoria Street approximately 30m south of Bridge Street as well as a bus stop on the north side of Bridge Street 140m west of the intersection and on the south side of Bridge Street 270m west of the intersection. Victoria Street is part of the 541 bus route between Epping and Eastwood. The intersection is 60m east of Boronia Park, 450m walking distance from Epping Station, 110m west of Rawson Street which connects to the Epping Town Centre and 220m west of Beecroft Road which is a State Road. There is a shared path located on the south side of Bridge Street between High Street and Wyralla Avenue which is part of the Epping to Carlingford cycleway connecting to the future Carlingford Light Rail Station.

Figure 1 shows the aerial view of the area around the intersection of Bridge Street and Victoria Street and Figure 2 shows a street view of Victoria Street south of Bridge Street.

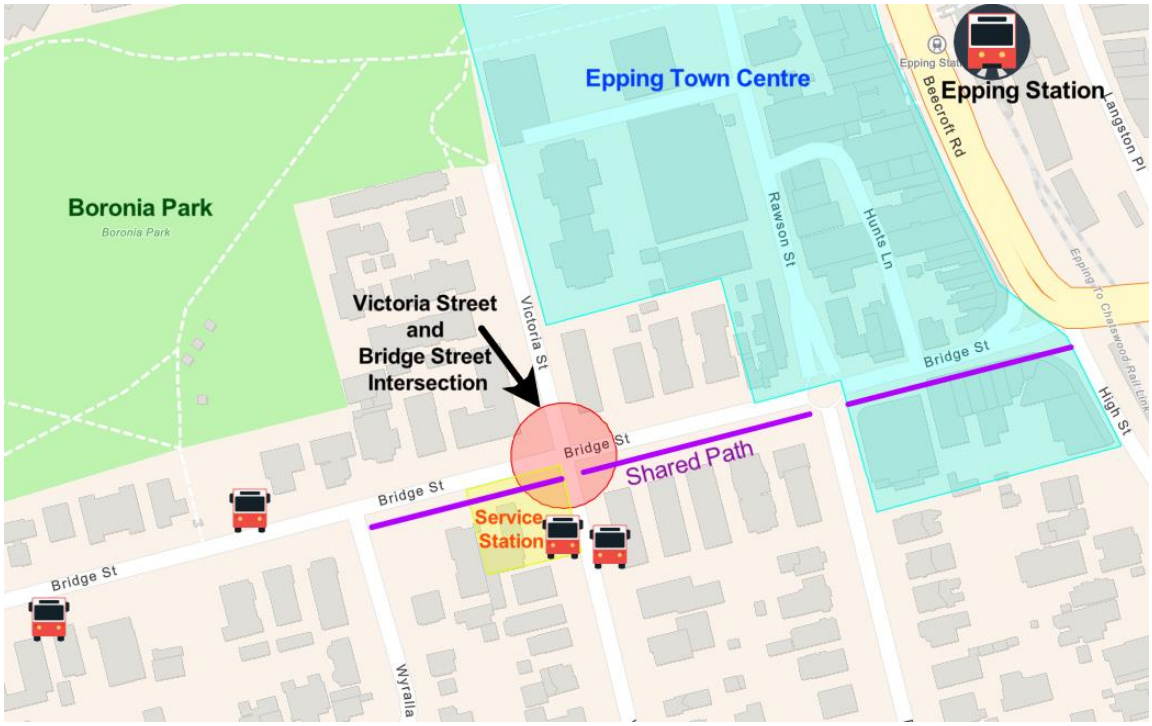


Figure 1: Location map of the area around the intersection of Victoria Street and Bridge Street, Epping

Figure 2: Street view of Victoria Street south of Bridge Street, Epping facing north

A classified intersection volume count survey undertaken on 31 January 2018 indicated that the volume of pedestrians crossing Victoria Street south of Bridge Street, Epping peaked at fifty-eight (58) pedestrians during the morning period between 6:45am and 7:45am. During the same period fifty-seven (57) motorists or cyclists travelled through Victoria Street south of Bridge Street.

Figure 3 shows the flow diagram between 6:45am and 7:45 am at the intersection of Victoria Street and Bridge Street, Epping.

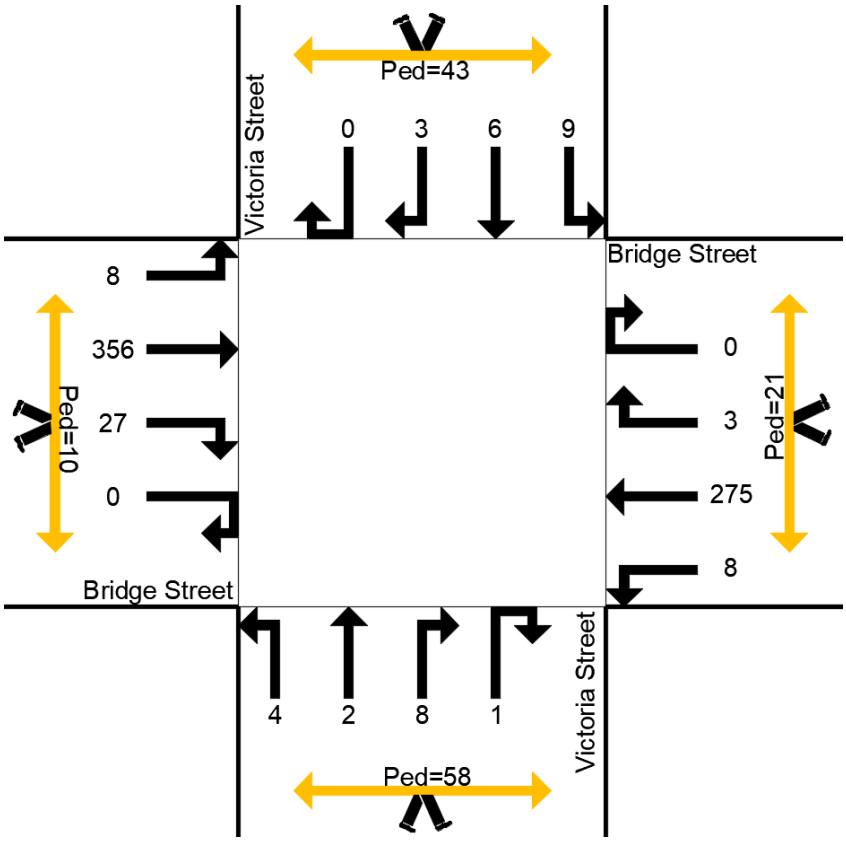


Figure 3: Flow diagram at the intersection of Victoria Street and Bridge Street, Epping (6:45am to 7:45am)

On 22 February 2021, Council adopted interim guidelines for the installation of pedestrian crossings on local roads within the Parramatta LGA with speed limits of 50km/h or less. According to the guidelines, a raised pedestrian crossing can be installed at locations where the speed limit is 50km/h or less and there is a minimum of 20 pedestrians per hour crossing

the road. Victoria Street south of Bridge Street, Epping meets Council's requirement for the installation of a raised pedestrian crossing.

Proposed Treatment

To improve pedestrian and cyclist safety by reducing vehicle speeds at the crossing and giving priority to pedestrians and cyclists, City of Parramatta is proposing to install a raised combined pedestrian and cyclist crossing with associated signs and pavement markings in Victoria Street south of Bridge Street, Epping.

The facility is to be designed and installed in accordance with Austroads Guide to Traffic Management Part 8 – Local Street Management, Australian Standard AS1742 series, TfNSW Supplement to AS1742.10 and TfNSW Technical Directions on Delineation and Pedestrian Refuges (Ref. TDT 2011/01a). In addition to the above, the kerb and gutter will be realigned, and street lighting and storm water drainage will be upgraded as part of this project. Turning path analysis demonstrates that a 19m articulated bus can turn left from Bridge Street into Victoria Street while a 14m long rigid bus turns right out from Victoria Street into Bridge Street.

The existing 'Stop' restriction with associated 'Stop (TF)' line and 'Stop' sign is to be replaced with a 'Give Way' restriction with associated 'Give Way (TB)' line and 'Give Way' sign. The replacement of the 'Stop' restriction with a 'Give Way' restriction is to ensure that the 'Stop' sign does not conflict with the 'Give Way To Cyclists' sign located at the raised combined pedestrian and cyclist crossing.

A concept plan for the proposed raised combined pedestrian and cyclist crossing is shown in Figure 4 and Attachment B of this report.

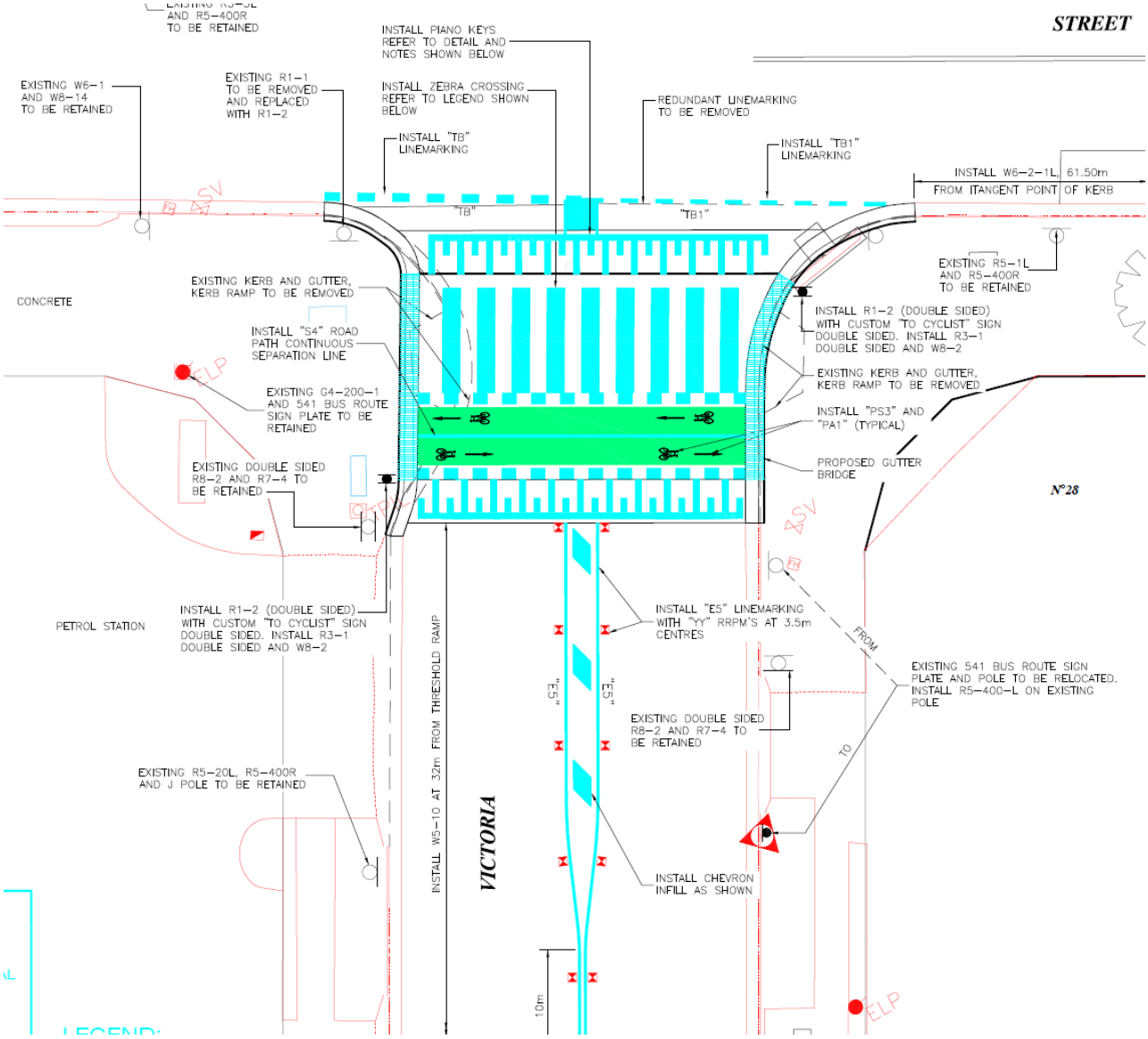


Figure 4: Concept plan of the proposed raised combined pedestrian and cyclist crossing in Victoria Street south of Bridge Street, Epping

Community Consultation

Community consultation was undertaken for the proposed raised combined pedestrian and cyclist crossing in Victoria Street south of Bridge Street, Epping. The consultation invited submissions by 20 December 2022 and involved the engagement channels listed below:

- City of Parramatta website (On-Exhibition page)
- Email to Bus Service Providers
- Local Parramatta newspaper
  - Parra News (published 22 November 2022)
- Mailout to owners & occupiers (254 letters, 70m radius from the facility)
- On-site Corflute signs

The opportunity to provide feedback on the proposed traffic facility culminated in thirteen (13) responses at the time of writing this report. Of the thirteen (13) responses, five (5) supported the proposal, two (2) supported the proposal to an extent, four (4) did not support the proposal and two (2) raised no objections.

The two (2) respondents that raised no objections were a Bus Service Provider and the TfNSW Customer Journey Planning team.

The key comments and reasons for objection to the consultation have been provided below:

1. On-street parking will be reduced.
2. Concerned about the narrowing of Victoria Street south of Bridge Street.
3. Motorists waiting to exit Victoria Street south of Bridge Street will need to stop over the proposed facility while waiting for a gap in the traffic stream.

Comments on Survey Respondents' Concerns:

1. Only one (1) parking space is lost as a result of this proposal.
2. While the initial proposal used in the consultation process had the road width of Victoria Street south of Bridge Street narrowed to 8m, the proposal has since been changed to accommodate a 11.5m wide road such that a 19m articulated bus can turn left from Bridge Street into Victoria Street while a 14m long rigid bus turns right out from Victoria Street into Bridge Street. An image of the concept plan used in the consultation process is shown in Figure 5.

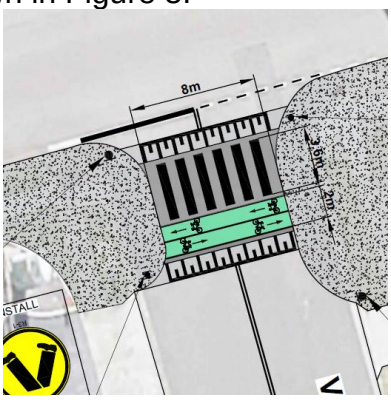


Figure 4: Concept plan of the raised combined pedestrian and cyclist crossing used in the community consultation process

3. It is acknowledged that motorists will have to stop over the proposed facility when exiting Victoria Street and waiting to find a gap in the traffic stream. This is a common scenario where pedestrian crossings are installed at intersections. While it is desirable to provide storage area for at least one vehicle between the raised crossing and the 'Give Way' line, it is not feasible on Victoria Street south of Bridge Street, Epping.

   Council officers have considered alternative options that could provide a storage area:
   - Option 1. Install a kerb extension on the major road (Bridge Street) and extend the 'Give Way' lines to the tangent point of the kerb extensions.
   - Option 2. Relocate the crossing on Victoria Street further south of Bridge Street.

   Option 1 will increase the cost of construction, remove additional on-street parking spaces and prevent westbound motorists on Bridge Street from passing motorists waiting to turn right from Bridge Street into Victoria Street north of Bridge Street. Option 2 will also increase the cost of construction, remove additional on-street parking spaces, require pedestrian fencing to be installed and bus stops to be relocated. Furthermore, with Option 2, the proposed crossing will be over 30m south of the pedestrian desire line which will encourage pedestrians to use driveways as crossing points.

Considering the above, it is proposed to proceed with the installation of a raised combined pedestrian and cyclist crossing in Victoria Street south of Bridge Street, Epping.

The Public Consultation Summary and Council Officer's Response is available in Attachment A of this report.

FINANCIAL IMPLICATIONS

The estimated cost of the proposed raised combined pedestrian and cyclist crossing in Bridge Street south of Victoria Street, Epping is $250,000. This project is 100% funded by the 2022/23 State Government Get NSW Active Program.

Randil Pohorambage
Traffic and Transport Engineer
18/01/2023
Attachments – A. Public Consultation Summary and Council Officer's Response
B. Sketch Plan – Victoria Street at Bridge Street, Epping

Attachment A: Public Consultation Summary and Council Officer's Responses

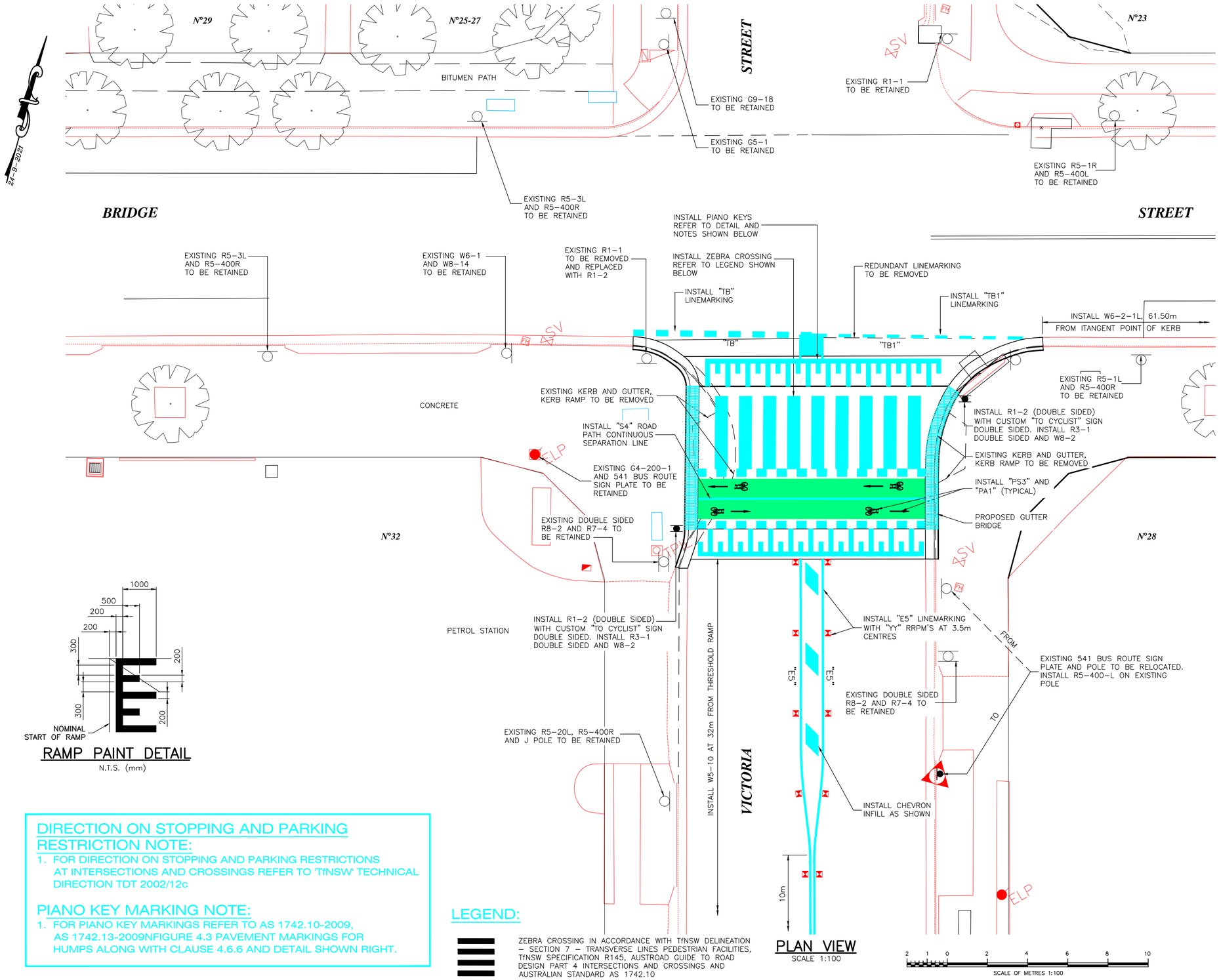
Date	Stakeholder Type	Opinion and Key Concerns	Council Officer Response
18/11/2022	Transport for NSW Customer Journey Planning Team (D08774457)	No Objection subject to addressing concerns of Bus Service Providers.	Noted.
23/11/2022	Resident (D08779632)	Do Not Support. • On-street parking will be reduced.	• Only one (1) parking space is lost as a result of this proposal.
26/11/2022	Resident (D08783548)	Support.	Noted.
27/11/2022	Resident (D08783693)	Support.	Noted.

29/11/2022	Resident (D08787681)	Support. • Concerned about the narrowing of Victoria Street south of Bridge Street. • Review 'No Parking' restrictions in Wyralla Avenue to make the road safer.	Noted. • While the initial proposal used in the consultation process had the road width of Victoria Street south of Bridge Street narrowed to 8m, the proposal has since been changed to accommodate a 11.5m wide road such that a 19m articulated bus can turn left from Bridge Street into Victoria Street while a 14m long rigid bus turns right out from Victoria Street into Bridge Street. • The parking restrictions in Wyralla Avenue are outside the scope of this project. Council officers will investigate this separately.
29/11/2022	City of Parramatta's Transport Planning Team (D08790563)	Support.	Noted.
1/12/2022	Resident (D08790461)	Do Not Support. • On-street parking will be reduced. • There is no need for this facility.	• Refer to previous comment. • A classified intersection volume count survey undertaken on 31 January 2018 quantitively indicates the presence of a pedestrian desire on Victoria Street at Bridge Street.

1/12/2022	Member of public (D08792136)	Do Not Support. • There is no need for this facility. • Motorists waiting to exit Victoria Street south of Bridge Street will need to stop over the proposed facility while waiting for a gap in the traffic stream.	• Refer to previous comment. • It is acknowledged that motorists will have to stop over the proposed facility when exiting Victoria Street and waiting to find a gap in the traffic stream. This is a common scenario where pedestrian crossings are installed at intersections. While it is desirable to provide storage area for at least one vehicle between the raised crossing and the 'Give Way' line, it is not feasible on Victoria Street south of Bridge Street, Epping. There are two options that provide a storage area: Option 1- Install a kerb extension on the major road (Bridge Street) and extend the 'Give Way' lines to the tangent point of the kerb extensions. Option 2- Relocate the crossing on Victoria Street further south of Bridge Street. Option 1 will increase the cost of construction, remove additional on-street parking spaces and prevent motorists travelling westbound on Bridge Street from passing motorists waiting to turn right into Victoria Street north of Bridge

			Street. Option 2 will also increase the cost of construction, remove additional on-street parking spaces, require pedestrian fencing to be installed and bus stops to be relocated. Furthermore, with Option 2, the proposed crossing will be over 30m south of the pedestrian desire line.
14/12/2022	Resident (D08806450)	Support.	Noted.
18/12/2022	Resident (D08810985)	Do Not Support. • There is no problem crossing Victoria Street at Bridge Street as the traffic volume is light.	• It is acknowledged that some individuals find it easier to cross the road than others. However, the purpose of the raised combined crossing is to improve pedestrian and cyclist safety by reducing vehicle speeds at the crossing and giving priority to pedestrians and cyclists making it a more safe, attractive, and pleasant experience for all members of the community and encourage short trips (up to 2km) to local centres.
19/12/2022	Resident (D08811844)	Support to an extent. • Widen the road at the entry to ensure buses and trucks can turn.	Noted. • Refer to previous comment.
7/12/2022	Bus Ways, Bus Service Provider (D08838305)	No Objection.	Noted.

20/12/2022	Member of public (D08813584)	Support to an extent. The intersection of Victoria Street and Bridge Street is not within commute.	Noted.



RAMP PAINT DETAIL

N.T.S. (mm)

DIRECTION ON STOPPING AND PARKING RESTRICTION NOTE:

1. FOR DIRECTION ON STOPPING AND PARKING RESTRICTIONS AT INTERSECTIONS AND CROSSINGS REFER TO 'TfNSW' TECHNICAL DIRECTION TDT 2002/12c

PIANO KEY MARKING NOTE:

1. FOR PIANO KEY MARKINGS REFER TO AS 1742.10-2009, AS 1742.13-2009NFIGURE 4.3 PAVEMENT MARKINGS FOR HUMPS ALONG WITH CLAUSE 4.6.6 AND DETAIL SHOWN RIGHT.

LEGEND:

ZEBRA CROSSING IN ACCORDANCE WITH TfNSW DELINEATION – SECTION 7 – TRANSVERSE LINES PEDESTRIAN FACILITIES, TfNSW SPECIFICATION R145, AUSTROAD GUIDE TO ROAD DESIGN PART 4 INTERSECTIONS AND CROSSINGS AND AUSTRALIAN STANDARD AS 1742.10

PLAN VIEW

SCALE 1:100

SCALE OF METRES 1:100

NEW TRAFFIC SIGNS SCHEDULE

GRAPHIC SYMBOL	NAME / TYPE	N° REQUIRED	REMARKS
NO STOPPING	R5-400(L)	1	AS INDICATED ON PLAN
	W5-10	1	AS INDICATED ON PLAN
	R3-1A	4	AS INDICATED ON PLAN WITH W8-2
25 km/h	W8-2	2	AS INDICATED ON PLAN WITH R3-1A
GIVE WAY	R1-2	4	AS INDICATED ON PLAN
TO CYCLIST	CUSTOM MADE SIGN	2	AS INDICATED ON PLAN
	W6-2-1L	1	AS INDICATED ON PLAN

TRAFFIC SIGNS FOR RELOCATION SCHEDULE

GRAPHIC SYMBOL	NAME / TYPE	N° REQUIRED	REMARKS
541	EXISTING CUSTOM SIGN	1	AS INDICATED ON PLAN

TRAFFIC MANAGEMENT NOTES:

1. ALL PAVEMENT MARKING AND SIGNPOSTING TO BE IN ACCORDANCE WITH ROADS AND MARITIME SERVICES SUPPLEMENTS, TfNSW DELINEATION MANUAL, AUSTROADS GUIDES, AUSTRALIAN STANDARDS (AS1742) AND TfNSW SPECIFICATIONS R145 AND R143.
2. ALL RETROREFLECTIVE RAISED PAVEMENT MARKERS TO BE IN ACCORDANCE WITH TfNSW SPECIFICATION R142 AND "TfNSW DELINEATION" SECTION 15 – RAISED PAVEMENT MARKERS.
3. ALL CONCRETE ISLAND KERB FACES ARE TO BE PAINTED WITH APPROVED REFLECTIVE WHITE PAINT IN ACCORDANCE WITH TfNSW SPECIFICATION R145.
4. STREET SIGNS TO BE PLACED AS DIRECTED BY SUPERVISING ENGINEER.
5. ENSURE ALL SIGNPOSTS ARE PLACED CLEAR OF EXISTING OR PROPOSED DRIVEWAYS AND CLEAR OF TREES AND OTHER STREET FURNITURE.
6. TRAFFIC CONTROL MEASURES ARE TO BE CARRIED OUT PRIOR, DURING AND AFTER CONSTRUCTION IN ACCORDANCE WITH A.S.1742.3–2009
7. ALL PAVEMENT MARKING AND SIGNPOSTING IS TO BE APPROVED BY CITY OF PARRAMATTA COUNCIL TRAFFIC ENGINEER.
8. ALL SIGN POSTS IN CONCRETE TO BE HELD IN POSITION WITH V–LOCKS.
9. ALL PAINTWORK TO BE COMPLETED ON DAY OF INSTALLATION.
10. ALL LINEMARKING TO BE APPROVED WHITE THERMOPLASTIC PAINT.
11. ALL REDUNDANT SIGNS AND LINEMARKING WITHIN LIMIT OF WORKS TO BE REMOVED AS REQUIRED. RECOVERED POSTS TO BE REUSED.
12. ALL "TB", "TF" HOLDING LINES TO BE 300mm WIDE UNLESS NOTED OTHERWISE. REFER TO "TfNSW DELINEATION" SECTION 6 – TRANSVERSE MARKINGS

BEFORE YOU DIG www.byda.com.au

UNLESS DETAILED ON THIS DRAWING ALL WORK SHALL CONFORM TO AUSPEC

PLAN FEATURES		PUBLIC UTILITIES	
EXISTING/MISCELLANEOUS	PROPOSED	ABOVEGROUND	U/GROUND
KERB AND GUTTER:	KERB AND GUTTER:	TELSTRA:	
EDGE OF BITUMEN:	EDGE OF BITUMEN:	ELECTRICITY:	
ROAD ℄/CROWN:	ROAD ℄/CROWN:	GAS & MISC.:	
EARTH BATTERS:	EARTH BATTERS:	SEWER:	
PIPE DRAINS:	PIPE DRAINS:	WATER:	
DRAINAGE PITS:	DRAINAGE PITS:	POLES:	
TREES & SHRUBS:	SUB-SOIL DRAIN:	OVERHEAD:	
SPOT LEVELS:	SET-OUT LINE:	SURVEY:	

No.	AMENDMENTS DETAIL	CHECKED	DATE

DESIGN CHECKED AND APPROVED ...../...../.....	DESIGNED ...../...../.....	DATUM: A.H.D.	CITY OF PARRAMATTA COUNCIL
APPROVED FOR CONSTRUCTION Manager Capital Projects ...../...../.....	DRAWN ...../...../.....	CO-ORDS: MGA	VICTORIA AND BRIDGE STREET, EPPING
ACCEPTED Client ...../...../.....	DRAWING REVIEW ...../...../.....	RATIO: 1:100	RAISED PEDESTRIAN CROSSING AND ASSOCIATED WORKS AT INTERSECTION OF VICTORIA AND BRIDGE STREET
		TRIM NO: F2022/02967	TRAFFIC MANAGEMENT PLAN
		STATUS: DRAFT	PLAN NUMBER 17904
			Sheet No : 16
			Revision :

23, January, 2023 8:38:25 a.m.
Drawing: 17904_CIVIL (ACAD 2019).DWG

CITY OF PARRAMATTA COUNCIL

Parramatta Traffic Committee Agenda Item

ITEM NO: 2302 A6

SUBJECT: Albion Street, Harris Park – Installation of speed humps

APPLICANT: City of Parramatta Council

REPORT OF: Traffic and Transport Engineer

WARD: Rosehill

SED: Parramatta

Purpose

This report seeks approval for the installation of three (3) Watts profile speed humps in Albion Street, Harris Park. The purpose of the proposal is to reduce vehicle speeds and improve safety in Albion Street.

OFFICER'S RECOMMENDATIONS:

That the installation of three (3) Watts profile speed humps in Albion Street, Harris Park as shown in the plan attached to the report be approved.

Background

As a result of recent discussions between Ward Councillors and Council's Place Manager for Rosehill Ward, Council has reviewed traffic conditions in Albion Street, Harris Park.

Albion Street is a 9.6m wide local road located within the Harris Park Town Centre. A '40km/h High Pedestrian Activity Area (HPAA)' restriction applies in the Town Centre including in Albion Street. Albion Street provides a single travel lane with kerb side parking lane in each direction. Albion Street is also utilized by motorists to park and walk to local restaurants.

Figure 1 shows the location of the street within the Town Centre. Figure 2 shows the street view of Albion Street looking northbound from Marion Street towards Una Street.

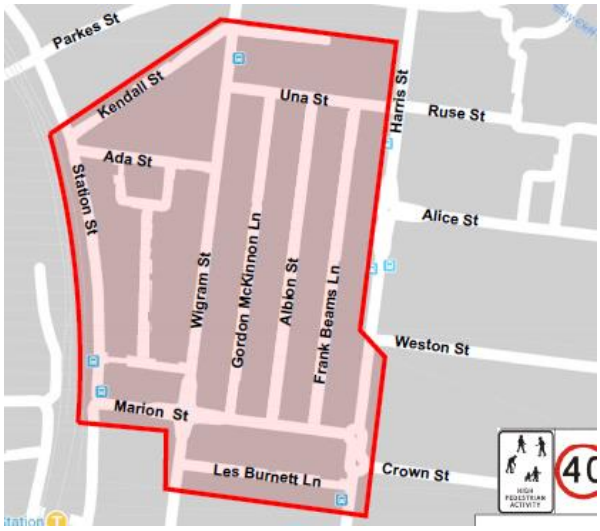


Figure 1: Location of Albion Street within the Harris Park Town Centre

Figure 2: Street view of Albion Street, Harris Park

According to Transport for NSW crash data, there was one (1) crash in Albion Street, Harris Park during the 5-year period between April 2017 and March 2022. The accident involved a northbound vehicle losing control in Albion Street. Figure 3 shows the crash diagram at the intersection.

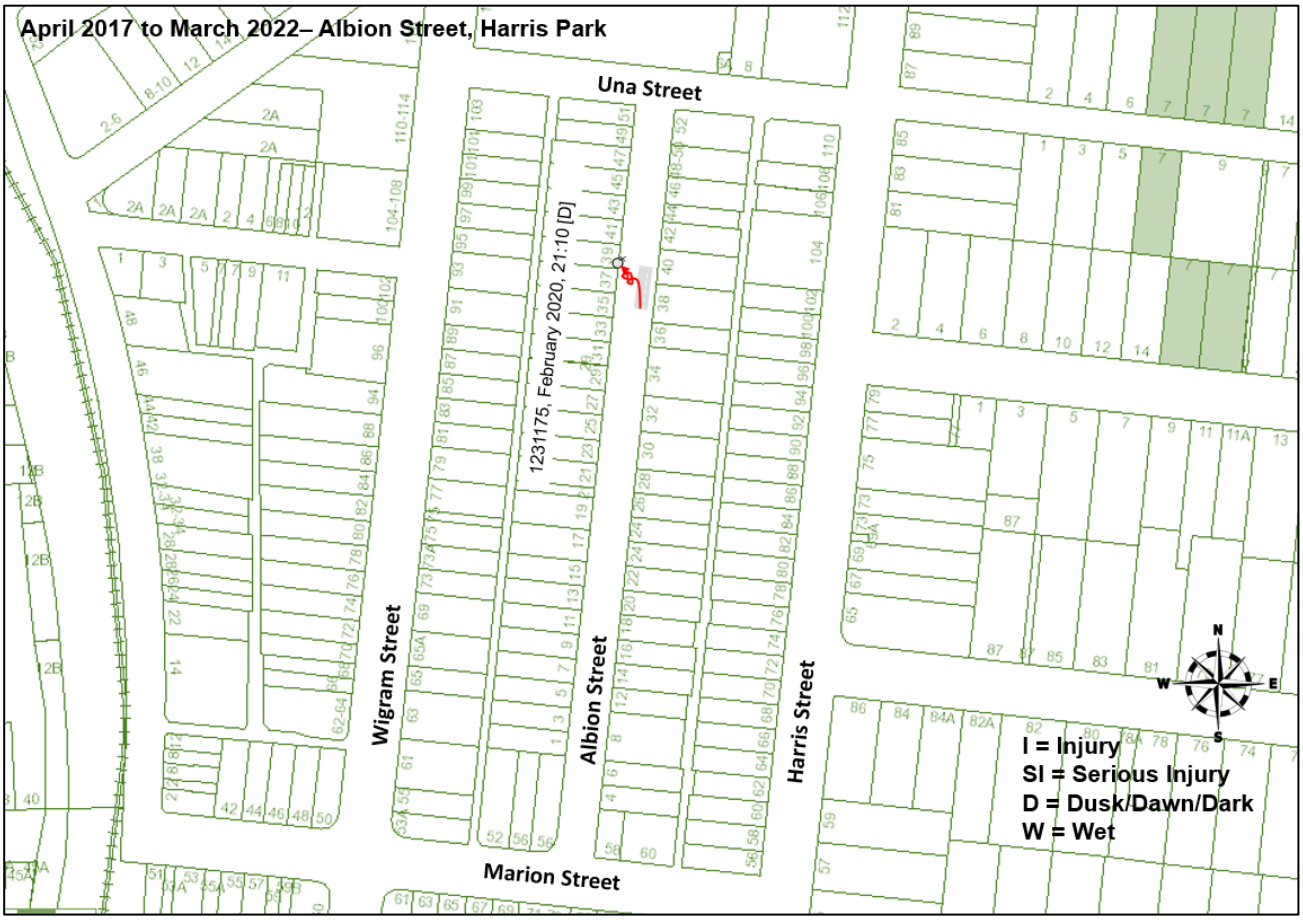


Figure 1: Crash diagram of Albion Street based on Transport for NSW crash data during the 5-year period between April 2017 and March 2022

To reduce vehicle speed and improve safety, City of Parramatta is proposing to install three (3) Watts profile speed humps, associated '25km/h' and 'Speed Hump' signs and pedestrian fencing in Albion Street, Harris Park as shown in Figure 4. A copy of the plan is also attached to the report.

Figure 2: Concept plan of the proposed speed humps in Albion Street, Harris Park

Community Consultation

Community consultation was undertaken between 18 November and 16 December 2022 and involved the engagement channels listed below:

- Mailout to owners & occupiers
- Corflute signs in the street
- Local Parramatta newspaper
  - Parramatta News (published Tuesday 15 November 2022)
- City of Parramatta On Exhibition webpage

Council received twelve (11) responses with nine (9) from residents, two (2) from businesses and one (1) from Endeavour Energy with seven (7) agreeing to the proposal. Of the 7 responses that supported the proposal, two requested minor changes to the location of speed humps, which have been accommodated in the design (refer to Figures 5 and 6).

Endeavour Energy did not raise any objections to the proposal. However, it has requested that adequate height clearance be provided at location with overhead cables and there is to be no impact on adjacent electricity infrastructure in the street.

The remaining four (4) respondents objected to the proposal mainly due to the loss of on street parking. It is to be noted that there will not be any loss of on street parking from this proposal.

The Public Consultation Summary and Council Officer's Response is available in Attachment A of this report.

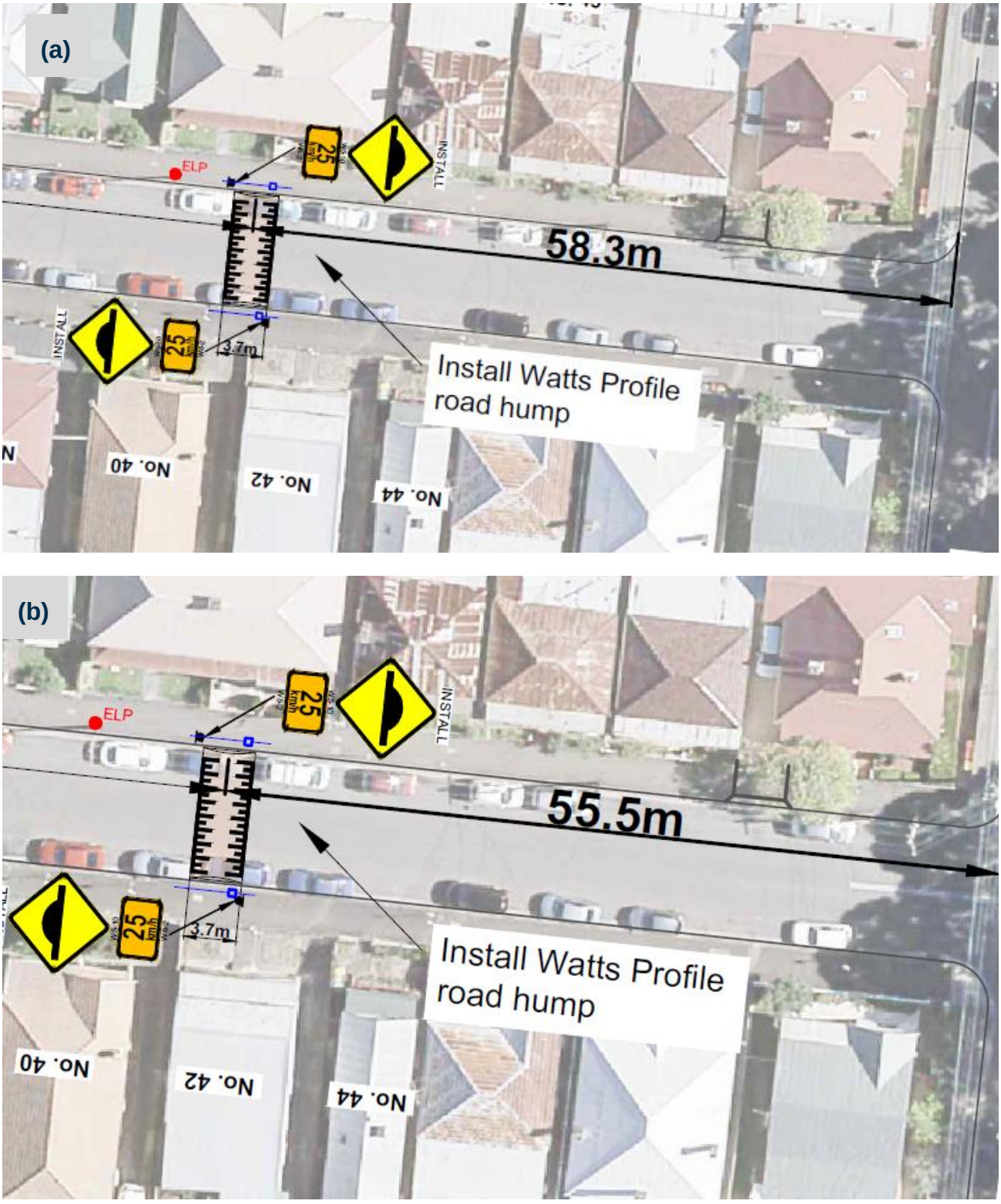


Figure 5: Concept plan of the proposed speed hump near the northern end of Albion Street, Harris Park (a) advertised location; (b) revised location to accommodate the new driveway.

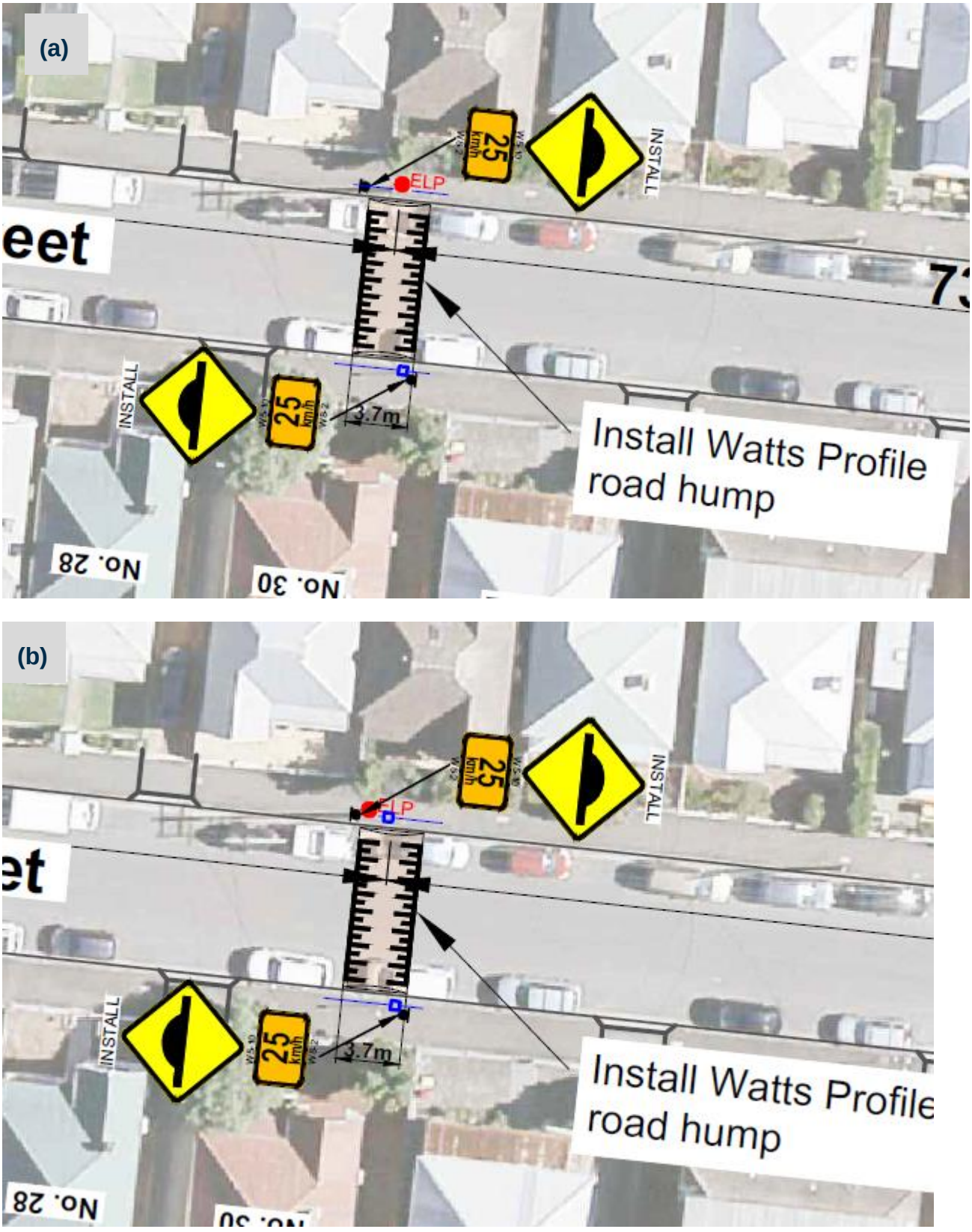


Figure 6: Concept plan of the proposed speed hump House No. 30 Albion Street, Harris Park (a) advertised location; (b) revised location to accommodate a space away from the hump.

FINANCIAL IMPLICATIONS

The estimated cost of the proposed installation of three (3) speed humps with associated signage and pavement markings is $50,000. This project is to be funded from Council's Ward Initiative, PTC Traffic Facilities funds, and Transport for NSW (TfNSW) Block Grant fund.

Nathan McLauchlan
Traffic and Transport Engineer
1/02/2023
Attachments – A. Public Consultation Summary and Council Officer's Response
B. Sketch Plan – Speed Humps in Albion Street, Harris Park

Attachment A. **Public Consultation Summary and Council Officer's Response**

Date	Stakeholder Type	Opinion and Key Concerns	Council Officer Response
15/11/2022	Local Resident (D08767978)	Supported	
16/11/2022	Local Resident (D08768412)	Supported provided that there is no loss of on street parking	There will not be any loss of parking as part of this proposal.
16/11/2022	Local Resident (D08772639)	Objected for the following reasons: • Noise caused by speed humps • Fume pollution from cars slowing down / speeding up	A previous noise study undertaken City of Parramatta Council indicated that there is no significant increase in noise nor significant acoustical differences between two locations with and without speed humps.
17/11/2022	Local Resident (D08772729)	Supported. The respondent requested that the northern most hump be moved further north to accommodate a new driveway at 40 Albion Street as per the development application submitted to Council.	The design has been modified to accommodate the new driveway (refer to Figure 5 in the report).
5/12/2022	Local Business (D08793267)	Supported. The respondent also requested that speed humps be installed in Station Street.	Station Street is outside the scope if this project.
11/8/2022	Local Resident (D08801478)	Supported.	The installation of one-way restriction in Albion Street would increase the travel

		The respondent also requested that one-way restriction be installed in Albion Street.	distance for some local traffic and delivery vehicles. It may encourage motorists to speed due to the effective increased width of the travel lane. It may also increase traffic volumes in other adjacent local streets and is unlikely to be supported by the majority of local residents and businesses. Accordingly, it is not proposed to install a 'One-Way' restriction in Albion Street, Harris Park.
14/12/2022	Local Resident (D08805712)	Objected to the proposal for the following reasons: • Proposal will reduce on street parking • Pedestrian fencing will restrict ability for pedestrians to easily cross the street • Noise caused by speed humps	• There will not be any loss of on street parking as part of this proposal. • Pedestrian fencing will only be installed at speed humps in accordance with Australian Standards to deter pedestrians to cross at the speed humps as they are not a pedestrian crossing. • A previous noise study undertaken City of Parramatta Council indicated that there is no significant increase in noise nor significant acoustical differences between two locations with and without speed humps.
16/12/2022	Local Business (D08809496).	Objected to the proposal for the following reasons: • Proposal will reduce on street parking • Very little movement of children	• There will not be any loss of on street parking as part of this proposal. • Speed humps are proposed to reduce vehicle speed and

		or elders on the road.	increase safety for all road users and pedestrians, not exclusively for children and the elderly
16/12/2022	Local Residents (D08809536) Note that this response includes 17 signatures from 10 properties.	Supported. The submission requested that the middle speed hump be relocated by 1 to 2m to accommodate a vehicle space outside House No. 30.	The design has been modified to accommodate a car space clear of the speed hump (refer to Figure 6 in the report). However, it is to be noted that there will not be any loss of on street parking as part of this proposal.
16/12/2022	Local Resident (D08809884)	Supported	
19/12/2022	Local Resident (D08815598)	Objected to the proposal for the following reason: • Speed humps cause vehicle lights to dazzle other vehicles	Speed humps will reduce vehicle speed in Albion Street and thereby improve the safety of road users. This benefit outweighs any discomfort or inconvenience that would be experienced by dazzling of lights.
9/01/2022	Endeavour Energy (D08827494)	Raised no objection to the proposal subject to adequate height clearance is provided at location with overhead cables and no impact on adjacent electricity infrastructures in the street.	Noted

DATE	AMENDMENT	INIT.

NOTES
ALL SIGN POSTING TO BE IN ACCORDANCE WITH AS.1742
ALL DIMENSIONS ARE IN METRES
CAUTION: SERVICES TO BE LOCATED PRIOR TO EXCAVATION

SCALE	N.T.S.
DESIGNED	NM
DRAWN	23/01/2023
CHECKED	
APPROVED	

CITY OF PARRAMATTA COUNCIL

TRAFFIC AND TRANSPORT SERVICES

STD DWG

CONSULTATION

Albion Street

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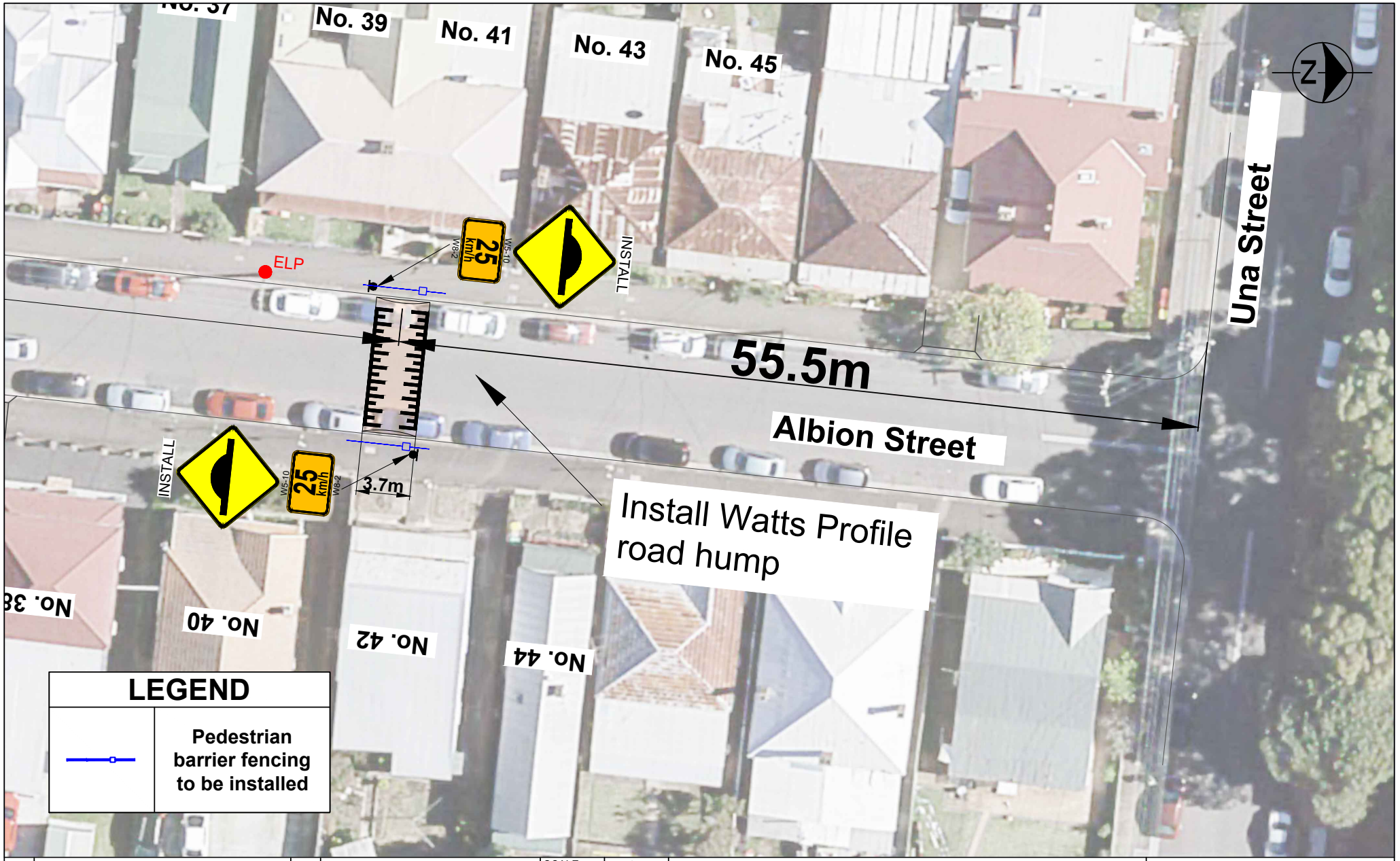
TRAFFIC AND TRANSPORT SERVICES

STD DWG

CONSULTATION
Albion Street



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CITY OF PARRAMATTA COUNCIL

TRAFFIC AND TRANSPORT SERVICES

STD DWG

CONSULTATION
Albion Street

CITY OF PARRAMATTA COUNCIL

Parramatta Traffic Committee Agenda Item

ITEM NO: 2302 A7

SUBJECT: Bennelong Parkway at The Piazza, Wentworth Point – Installation of a blister island and changes to linemarking

APPLICANT: City of Parramatta Council

REPORT OF: Traffic and Transport Engineer

WARD: Rosehill

SED: Auburn

Purpose

This report seeks approval for the installation of a rubber blister island with 'Chevron Alignment Marker' sign and alterations to linemarking in Bennelong Parkway to provide deflection on the eastbound approach to the roundabout at The Piazza, Wentworth Point. The purpose of the proposal is to reduce vehicle speed and improve safety at the roundabout.

OFFICER'S RECOMMENDATIONS:

That the existing pavement markings be altered, and rubber blister island with Chevron Alignment Marker' sign be installed on Bennelong Parkway west of The Piazza, Wentworth Point to provide deflection on the eastbound approach of the roundabout as shown on the plan attached to the report.

Background

City of Parramatta Council has received requests from residents for a review of traffic conditions in Bennelong Parkway to reduce the speed of vehicles on the eastbound approach to the roundabout at The Piazza, Wentworth Point.

Bennelong Parkway and The Piazza are local roads with default urban speed limits of 50km/h. Bennelong Parkway provides a single travel lane with kerb side bicycle lane in each direction. Motorists use this road to travel between Silverwater Road and Homebush Bay Drive. This road is also within bus route No. 533.

Figure 1 shows the aerial view of the area near the intersection of Bennelong Parkway and The Piazza, Wentworth Point. Figure 2 shows the street view of the intersection looking westbound from Bennelong Parkway east of The Piazza.

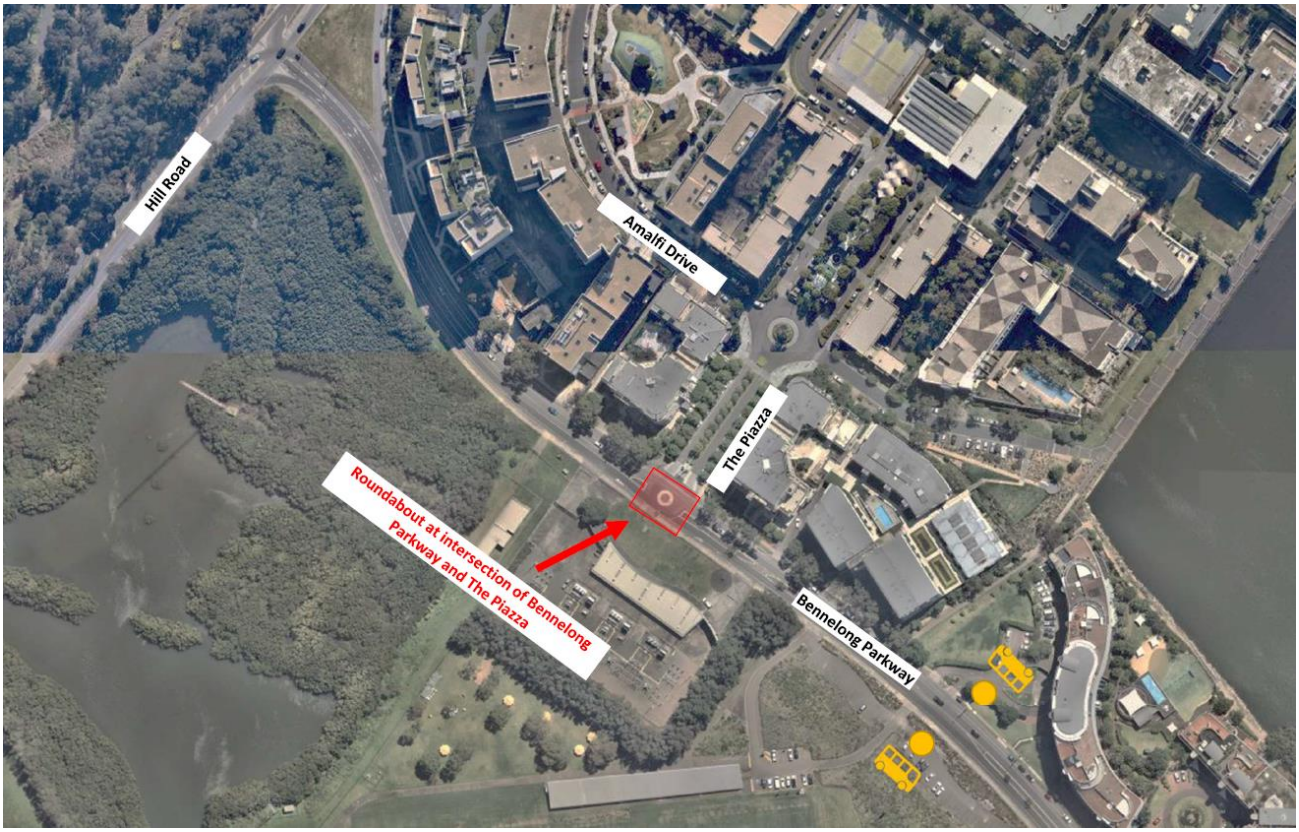


Figure 1: Aerial view of the area near the roundabout at the intersection of Bennelong Parkway and The Piazza, Wentworth Point

Figure 2: Street view of the roundabout at the intersection of Bennelong Parkway and The Piazza, Wentworth Point

According to Transport for NSW crash data, there were three (3) crashes on Bennelong Parkway near The Piazza during the 5-year period between April 2017 and March 2022. Of these accidents, one was a rear end accident, and one involved a vehicle making a U-turn (refer to Figure 3). Both these accidents involved eastbound vehicles. The third accident was between vehicles travelling in the same direction; however, the direction of travel and movement type were unknown.

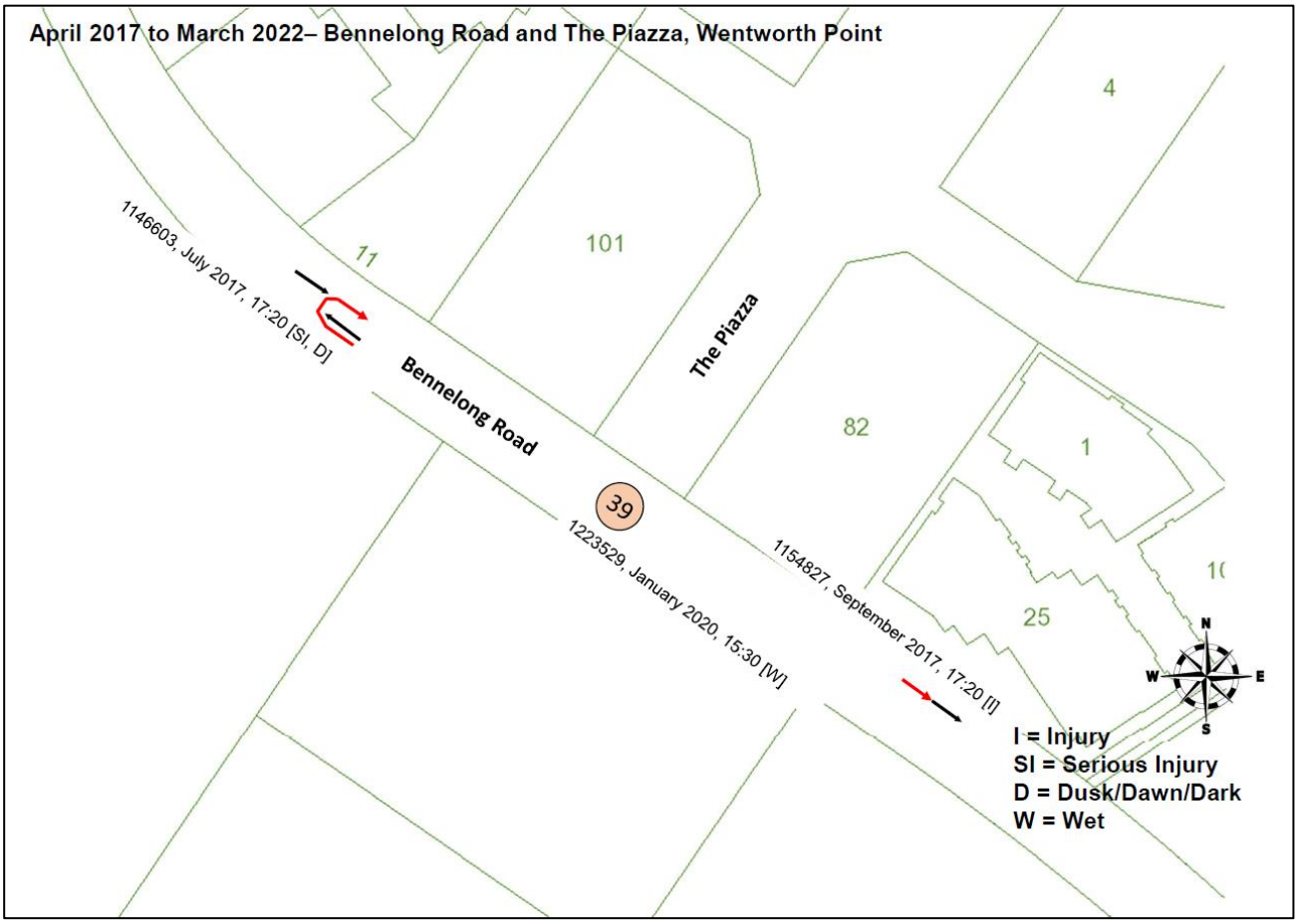


Figure 1: Crash diagram of Bennelong Road and The Piazza, Wentworth Point based on Transport for NSW crash data during the 5-year period between April 2017 and March 2022

There is minimal deflection for motorists travelling on Bennelong Parkway on both approaches to the roundabout at The Piazza. It is important that motorists on the approach to The Piazza slow down so that motorists exiting The Piazza can safely access the roundabout. Accordingly, it is proposed to alter the existing pavement markings and install a rubber blister island on Bennelong Parkway to provide deflections on the eastbound approach to the roundabout at The Piazza, Wentworth Point. A concept plan of the proposal is shown in Figure 4 and also attached to this report. The bicycle lane is retained at its current width on the approach to the roundabout.

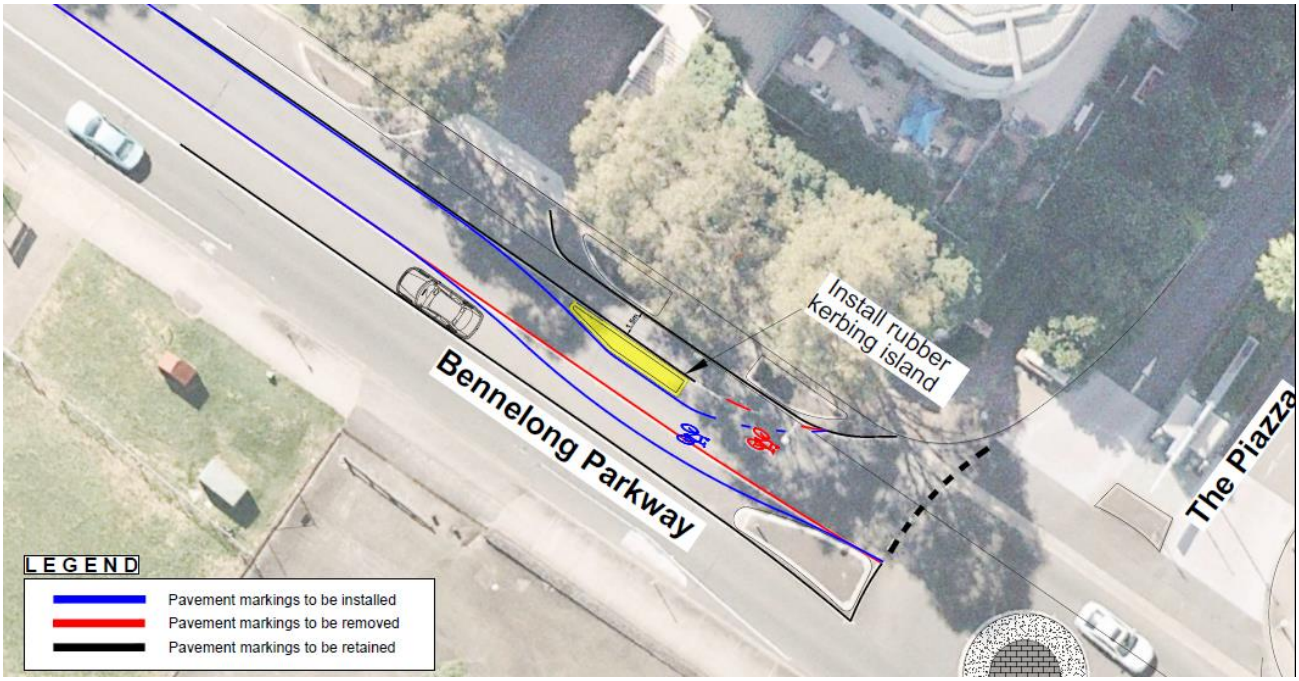


Figure 2: Current concept plan of the proposed traffic facilities on the eastbound approach to the roundabout in Bennelong Parkway at The Piazza, Wentworth Point

Community Consultation

Community consultation was undertaken between 22 November and 20 December 2022 for the installation of two (2) speed cushions and alteration of line marking as shown in Figure 5. The purpose of this proposal was to encourage motorists to straddle the narrow speed cushion in the travel lane subject to their travel following a path with increased deflection. This would have the impact of reducing travel speeds approaching the roundabout.

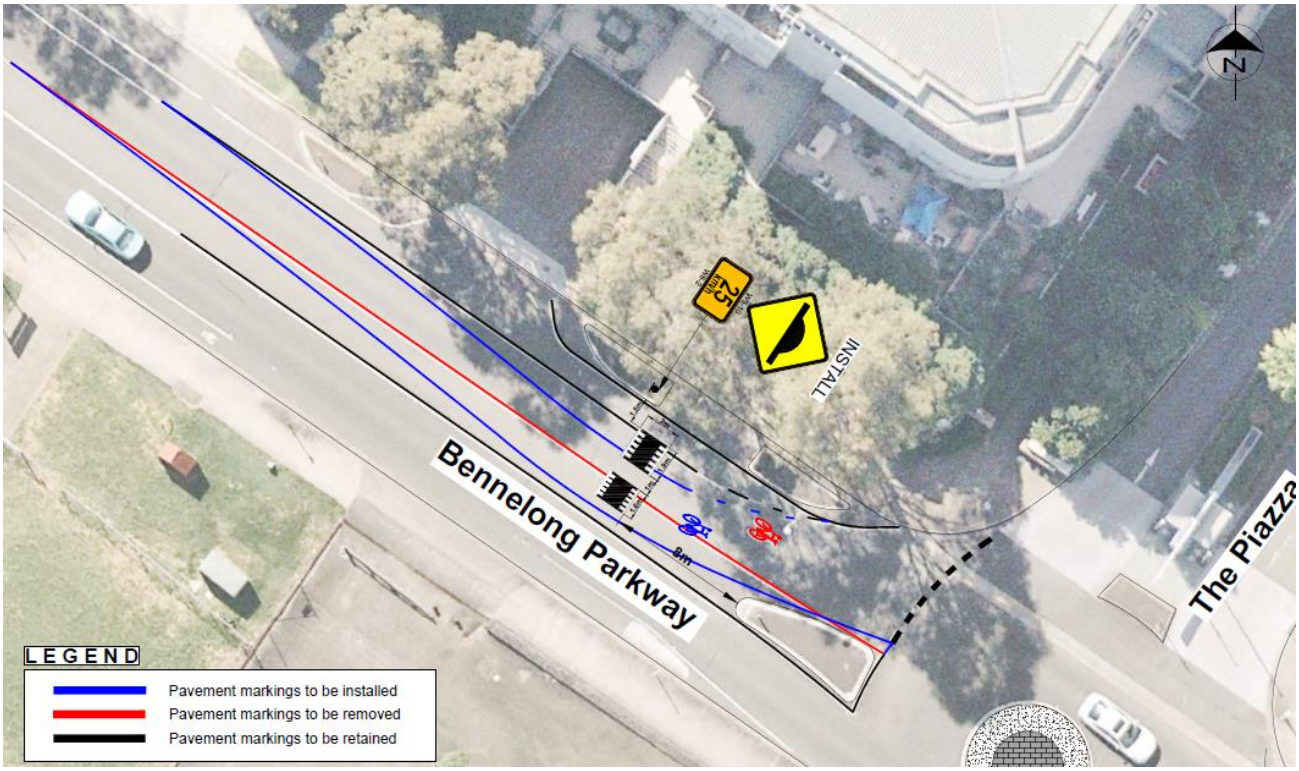


Figure 5: Original concept plan that was advertised for the proposed speed cushions at the roundabout in Bennelong Parkway at The Piazza, Wentworth Point

The consultation involved the engagement channels listed below:

- Mailout to owners & occupiers
- Local Parramatta newspaper
  - Parramatta News (published Tuesday 22 November 2022)
- City of Parramatta On Exhibition webpage

Council received eight (8) responses from residents and businesses with one (1) completely and two (2) partially agreeing to the proposal. The two respondents who partially agreed to the proposal requested that the current painted median be retained so that the residents of 1 The Piazza can utilise the painted median as a waiting area to enter and exit the driveway of the property.

The other five (5) respondents objected to the proposal and raised concerns on accessing the driveway of 1 The Piazza, noise pollution, swerving from the designated roadway, potential exacerbation of back pain and the possibility of vehicle lights causing glare for other road users.

As a result of the feedback received, it is not proposed to proceed with the installation of speed cushions in Bennelong Parkway. Instead, it is proposed to install a rubber blister island to reinforce the deflection that was proposed on the eastbound approach in the original proposal. The linemarking has also been altered to provide a storage area on the painted median in Bennelong Parkway for vehicles accessing the driveway for 1 The Piazza.

The Public Consultation Summary and Council Officer's Response is available in Attachment A of this report.

FINANCIAL IMPLICATIONS

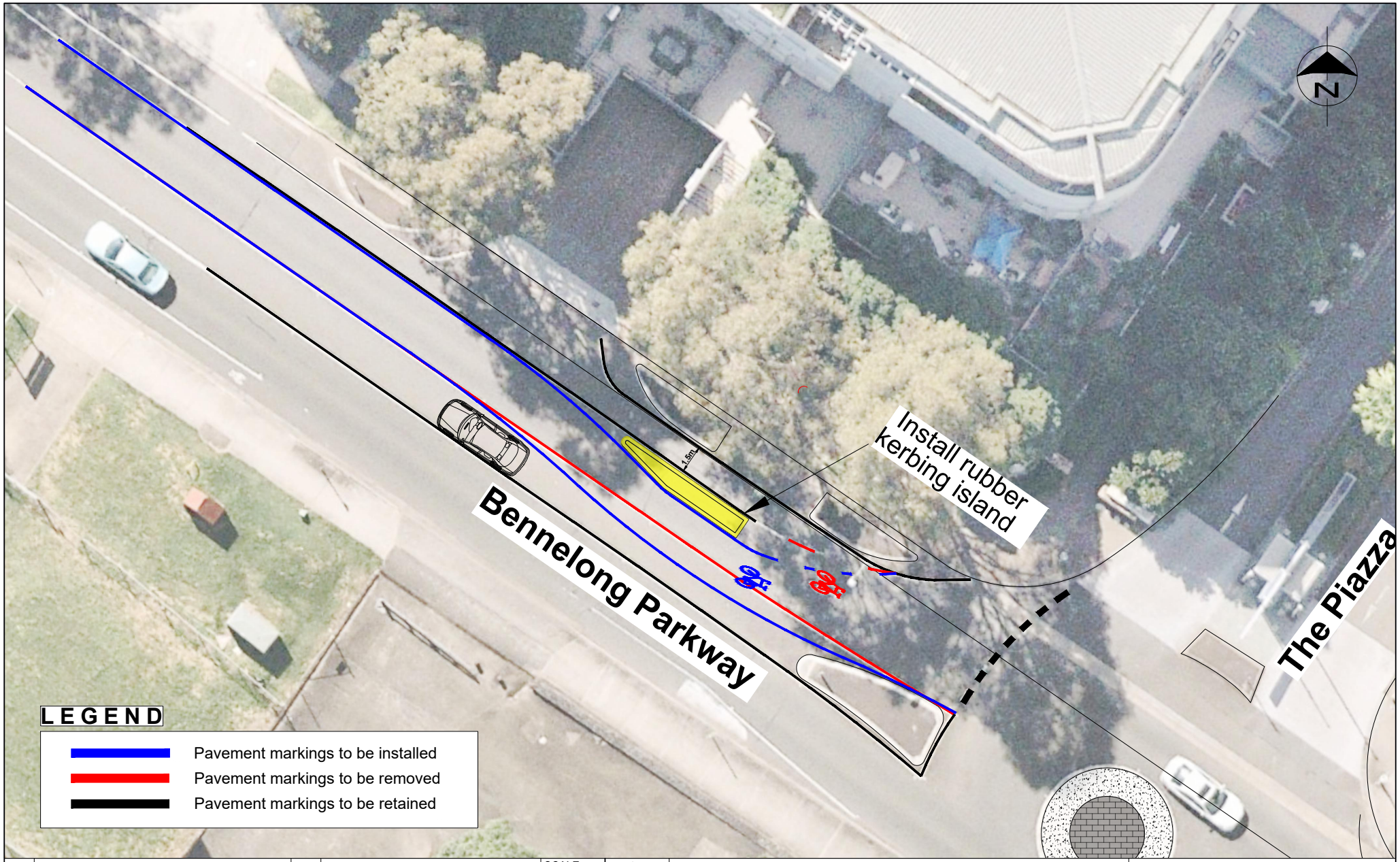
The estimated cost of the proposed installation of rumble bars and traffic delineators, and alteration of pavement markings is $7,500. This project is 100% funded by Council from its Ward Initiative Funds in 2022/23.

Nathan McLauchlan
Traffic And Transport Engineer
30/01/2023
Attachments – A. Public Consultation Summary and Council Officer's Response
B. Sketch Plan – Proposed blister island in Bennelong Parkway west of The Piazza, Wentworth Point

Date	Stakeholder Type	Opinion and Key Concerns	Council Officer Response
23/11/2022	Business (D08778760)	Objected	
26/11/2022	Local Resident (D08783558)	Supported The respondent also requested that speed cushions be also installed on the westbound approach of the roundabout.	The Piazza is a terminating street at the T-intersection with Bennelong Parkway. It is important that motorists on the approach side of The Piazza slow down so that motorists on The Piazza can safely access the roundabout. Furthermore, according to Transport for NSW crash data, there were three (3) crashes on Bennelong Parkway near The Piazza during the 5-year period between April 2017 and March 2022. Of these crashes, two involved eastbound vehicles (refer to Figure 3). Accordingly, at this stage it is not proposed to install a speed cushion on the westbound approach.
27/11/2022	Local Resident (D08783565)	Objected to the proposal for following reasons: • Increase back pain whilst travelling over speed cushions. • Motorists manoeuvre unsafely to avoid driving over speed cushions. • Speeding is an issue near the bridge not near the roundabout.	As a result of the feedback received, it is not proposed to proceed with the installation of speed cushions in Bennelong Parkway. Instead, it is proposed to install a rubber blister island to reinforce the deflection that was proposed through linemarkings only. It is to be noted that speeding near the Haslam's Creek Bridge is outside the scope of this project.

28/11/2023	Local Resident (D08783571)	Objected to the proposal for following reasons: • Residents of 1 The Piazza use the painted median as a storage area so that the driveway can be accessed in two stages • Increase rear end collision • Noise	The design has been modified so that motorists can wait on the painted median to access the driveway of 1 The Piazza. Speed cushions are now removed from the design. Instead, it is proposed to install a rubber blister island to reinforce the deflection that was proposed through linemarkings only.
9/12/2022	Local Resident (D08801404)	Support the speed cushion and objected to the removal of the painted median island from outside the driveway of 1 The Piazza.	The design has been modified so that motorists can wait on the painted median to access the driveway of 1 The Piazza.
17/12/2022	Local Resident (D08810957)	Supported	
19/12/2022	Local Resident (D08812121)	Objected to the proposal for following reasons: • High maintenance as easily get damaged. • Uncomfortable for bus passengers who have severe back pain / disability • Drivers regularly swerve at speed around the speed cushions with an increases risk of a serious incident Requested that raised pedestrian crossings be installed at the roundabout and near Haslam's Creek Bridge near	Speed cushions are now removed from the design. Instead, it is proposed to install a rubber blister island to reinforce the deflection that was proposed through linemarkings only. The request for pedestrian facilities is outside the scope of this project. However, for information only, Council is currently constructing traffic signals at the intersection of Hill Road and Bennelong Parkway. The signals will include pedestrian and bicycle phases on Bennelong Parkway and Hill Road. Council is also undertaking a feasibility study to provide pedestrian and cyclist

		the pedestrian and cyclist crossing point.	facilities near the Haslam's Creek Bridge.
19/12/2022	Motorist (D08815598)	Objected to the proposal • Speed cushions cause vehicles to shine headlights into oncoming vehicles and dazzle other road users. • Speed cushions are slippery when wet	Speed cushions are now removed from the design. Instead, it is proposed to install a rubber blister island to reinforce the deflection that was proposed through linemarkings only.



DATE	AMENDMENT	INIT.	NOTES	SCALE	N.T.S.	CITY OF PARRAMATTA COUNCIL	STD DWG
			ALL SIGN POSTING TO BE IN ACCORDANCE WITH AS.1742	DESIGNED	RP	TRAFFIC AND TRANSPORT SERVICES	Bennelong Parkway
			ALL DIMENSIONS ARE IN METRES	DRAWN	30/01/2023		
			CAUTION: SERVICES TO BE LOCATED PRIOR TO EXCAVATION	CHECKED			
				APPROVED			

CITY OF PARRAMATTA COUNCIL

Parramatta Traffic Committee Agenda Item

ITEM NO: 2302 A8

SUBJECT: Slough Avenue, Silverwater – Proposed Speed Humps and Angle Parking

APPLICANT: City of Parramatta Council

REPORT OF: Traffic and Transport Investigations Engineer

WARD: Rosehill

SED: Auburn

Purpose

This report seeks approval for the installation of two speed humps and angle parking on the east side of Slough Avenue, Silverwater as part of the upgrading of Newington Reserve. The purpose of this proposal is to provide additional parking for the reserve in a safe manner.

OFFICER'S RECOMMENDATIONS:

1. That Council construct two speed humps in Slough Avenue, Silverwater at the northern and southern ends of Newington Reserve as shown in the plan attached to this report.
2. That Council construct angle parking including two disabled parking spaces on the eastern side of Slough Avenue, Silverwater along the frontage of Newington Reserve as shown in the plan attached to this report.
3. That recommendations 1-2 be completed as part of the project to upgrade Newington Reserve.

Background

City of Parramatta Council is upgrading Newington Reserve located at the corner of Holker Street and Slough Avenue, Silverwater. As part of the works, Council is proposing to install angle parking on the eastern side of Slough Avenue along the frontage of the reserve.

Slough Avenue is a local access road within the Silverwater industrial area east of Silverwater Road. The road is bounded by Holker Street to the north and Fariola Street to the south and has an existing road width of approximately 12.9m.

Figure 1: Aerial view of the location surrounding Newington Reserve

As part of the proposal, the kerb along the eastern side of the road will be re-aligned to accommodate angle parking. As a result, the width of Slough Avenue will be reduced to 10.3m excluding the angle parking spaces.

Due to the road being located within an industrial area, it has a high volume of heavy vehicles which presents an additional risk for vehicles reversing out from the angle parking spaces. Accordingly, it is being proposed that two speed humps be installed with one at either end of the angle parking spaces.

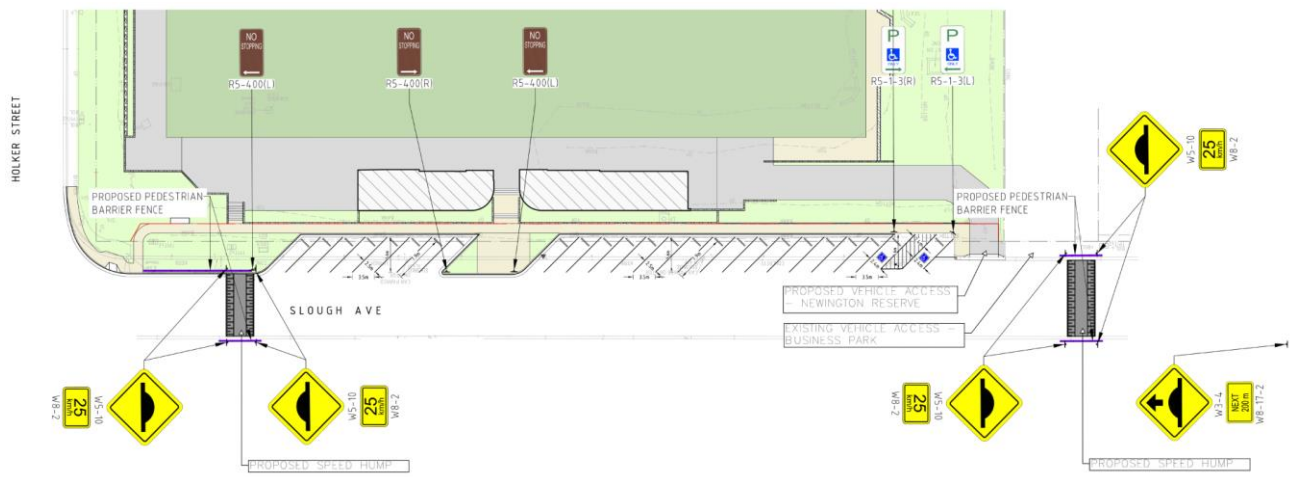


Figure 2: Design plan for the proposed speed humps and angle parking spaces in Slough Avenue, Silverwater

<u>Holker Street and Silverwater Road Intersection Upgrade</u>

Transport for NSW (TfNSW) is proposing to upgrade the intersection of Silverwater Road and Holker Street to improve traffic flow. A key feature of this project is to widen Holker Street on the westbound approach to provide an additional right turn lane and an extended through and left turn lane into Silverwater Road.

Council's proposal to upgrade Newington Reserve has taken this project into consideration to confirm that the future widening of Holker Street will not encroach onto the reserve playing fields.

Community Consultation

Community consultation for the upgrade of Newington Reserve including the proposed raised thresholds and angle parking, was undertaken between 10 October 2022 and 7 November 2022 and involved the engagement channels listed below:

- Signage with QR code on-site
- Participate Parramatta Project Page
- Social media campaign

Council received a total of 46 responses from which 32 supported the proposed works, six (6) supported to an extent, and six (6) opposed the works.

The main reasons cited from the community members who raised andobjection to the proposal were in regards to the synthetic turf and in regards to prioritisation of funds where they believed funding should be given to upgrading Hill Road. It is noted that there were no objections specific to the proposed raised thresholds and angled parking spaces, however, one member did note that parking was insufficient for the field.

The complete Engagement Report is available in Attachment 1 of this report.

FINANCIAL IMPLICATIONS

The estimated construction cost of the proposed speed humps and angle parking is approximately $90,000 plus overheads such as labour and site set up costs. These works will be funded as part of the upgrade of Newington Reserve which has an approved budget allocation of $7.27 million within Council's Delivery Program and Operational Plan plus additional grant funding of $6.02 million from various sources including Football NSW – Let's Light up Football fund, NSW Office of Sport: Greater Cities Sports Facility Fund 2021/22 and NSW Office of Sport: Multi-Sport Community Facility Fund 2021/22.

Behzad Saleh
Traffic and Transport Investigations Engineer

30/01/2023

Attachments – 1. Feedback received from public consultation
2. Design Plans

CITY OF PARRAMATTA

Newington Reserve Upgrade Stage 2

Engagement Report & Key Findings

14 November 2022

CITY OF PARRAMATTA

Newington Reserve Upgrade Stage 2

Engagement Report & Key Findings

14 November 2022

cityofparramatta.nsw.gov.au

CONTENTS

1. INTRODUCTION

In October and November 2022, City of Parramatta invited the community to comment on a draft design for upgrades to Newington Reserve on the corner of Slough Avenue and Holker Street in Silverwater.

1.1. Context

Council first presented a Draft Concept Plan of proposed upgrades at Newington Reserve in December 2020 to gauge community support. Through the initial online survey, 78% of participants said 'YES!' they support the proposed concept design, and a further 12.5% provided some level of support.

The Final Draft Concept Plan for the new recreational facility at Newington Reserve in this round of consultation includes:

- A full-size football (soccer) field
- A mini-size football (soccer) field
- Sports field lighting
- A sports pavilion building
- Spectator seating
- Site levelling including retaining walls
- Park furniture, electric BBQ's, and outdoor exercise equipment
- Garden beds and shade tree planting,
- On-street car parking and traffic calming (subject to approvals)

How will the community's feedback influence this project?

Community feedback will inform preparation of the final landscape plan , including whether or not to proceed with synthetic turf, as well as the construction of on-street angled car parking and traffic calming devices (speed humps) on Slough Avenue.

2. EXECUTIVE SUMMARY

The engagement was targeted towards residents in surrounding areas, occupants of the neighbouring business estates and participants in the Stage 1 survey.

Overall, **331 people** viewed the project page and **46 online survey contributions** were received during the four-week consultation. The landscape plan was downloaded 80 times.

The majority (32 of 46 or 69.57% of respondents) support the upgrades shown in the Final Draft Concept Plan. Please see Part 4: Key Findings for further analysis of the community response to elements of the design including a synthetic turf field and traffic provisions.

Figure 1 View of Newington Reserve

3. ENGAGEMENT EVALUATION

Below is a description of the methods used to promote awareness of the Final Draft Concept Plan for Newington Reserve.

Overall, the opportunity to share feedback was presented on 26,250 occasions, culminating in 331 views of the project page and 46 engagements (survey submissions).

3.1. Resources

- Signage with QR code placed onsite and in the neighbouring business estates (24 scans)
- Participate Parramatta project page displaying the concept plan and traffic plan

Figure 2 Participate Parramatta project page

3.2. Social Media Campaign

A targeted paid social media campaign was held to promote the project. The campaign reached an audience of 6,908 and generated 393 post engagements.

Paid socials	Campaign Result	Benchmark
Spend	$199.40	n/a
Reach	6908	n/a
Impressions	17674	n/a
Frequency (no. times ad seen p/p)	2.56	2-3
Link clicks	378	n/a
CPC (cost per click)	$0.53	$0.50-$1
CTR (click through rate)	2.14%	More than 1%
Post engagements	393	n/a
Engagement rate (ER)	2.22%	More than 2%

Insights, Comments & Recommendations

- Overall, the paid campaign performed within and above KPI averages.
- Frequency was within the target range indicated audience size and spend was appropriate for this campaign
- Positive CTR and ER indicated the audience was engaged with the content and interested in providing their feedback.
- Recommendations for future campaigns is to include more higher quality creative to assist with campaign optimisations.

Most popular ad

355 link clicks, $0.52 CPC

Organic campaign results:

The Newington Reserve project was shared with the Participate Parramatta Facebook and Instagram page followers.

Participate FB/Insta Organic Advertisements		Benchmarks
Followers	7466	
Reach	139	n/a
Post Engagements	3	n/a
Engagement rate	2.2%	2-3%

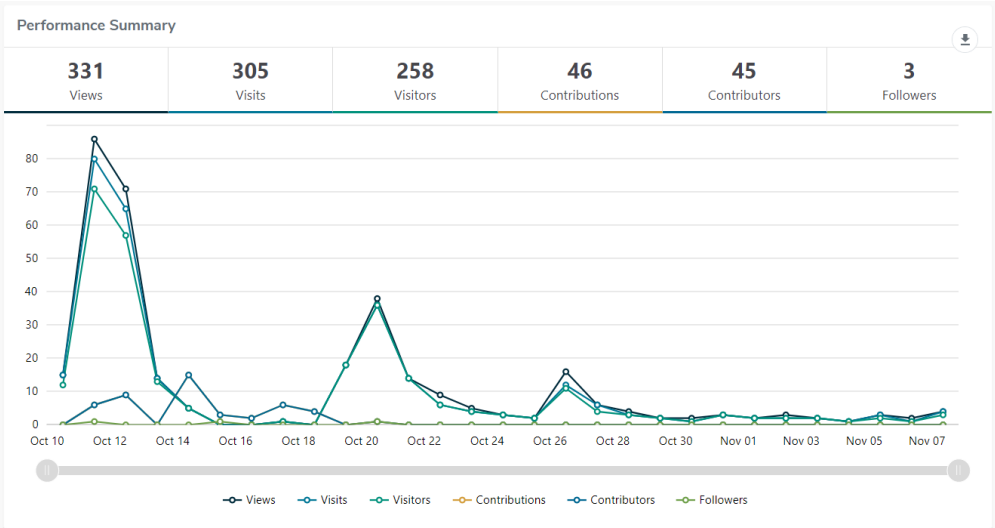
Electronic Direct Notification

The project was included in Participate Parramatta's October newsletter, receiving 102 link clicks.

Channel	List	Open rate
Participate Parramatta Community Panel Newsletter – October 11	11,848	47%

3.3. PARTICIPATE Parramatta

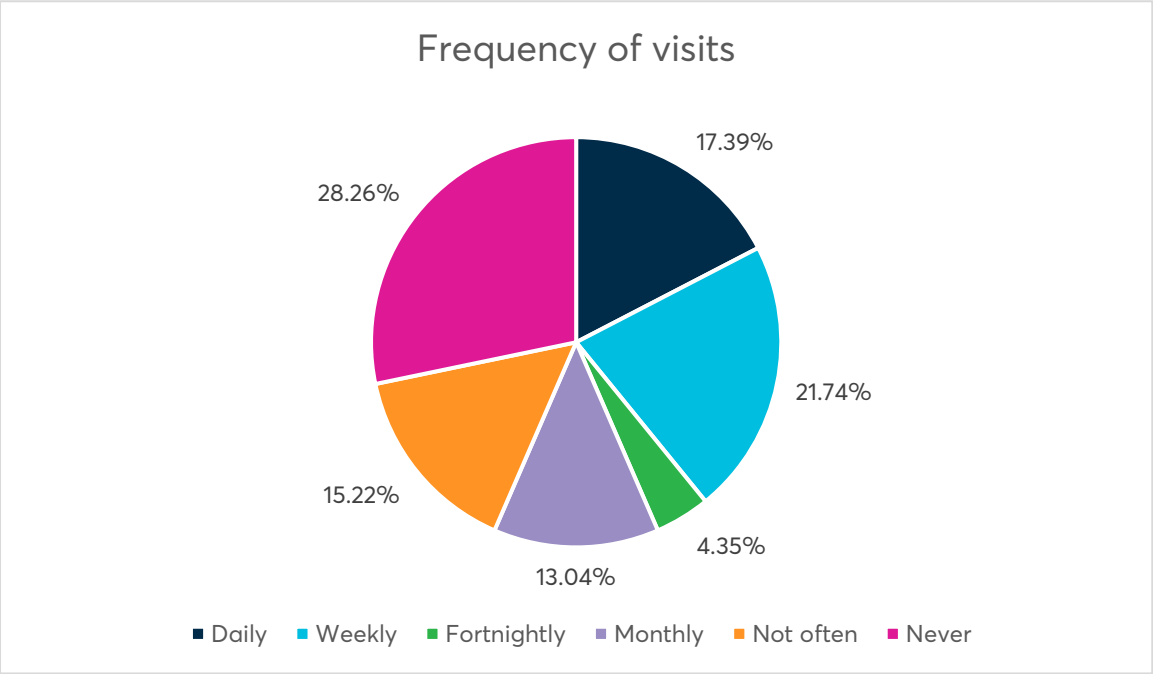
Project Page Events	
Views	331
Visitors	258
Total contributions	46
Downloads	80



4. KEY FINDINGS

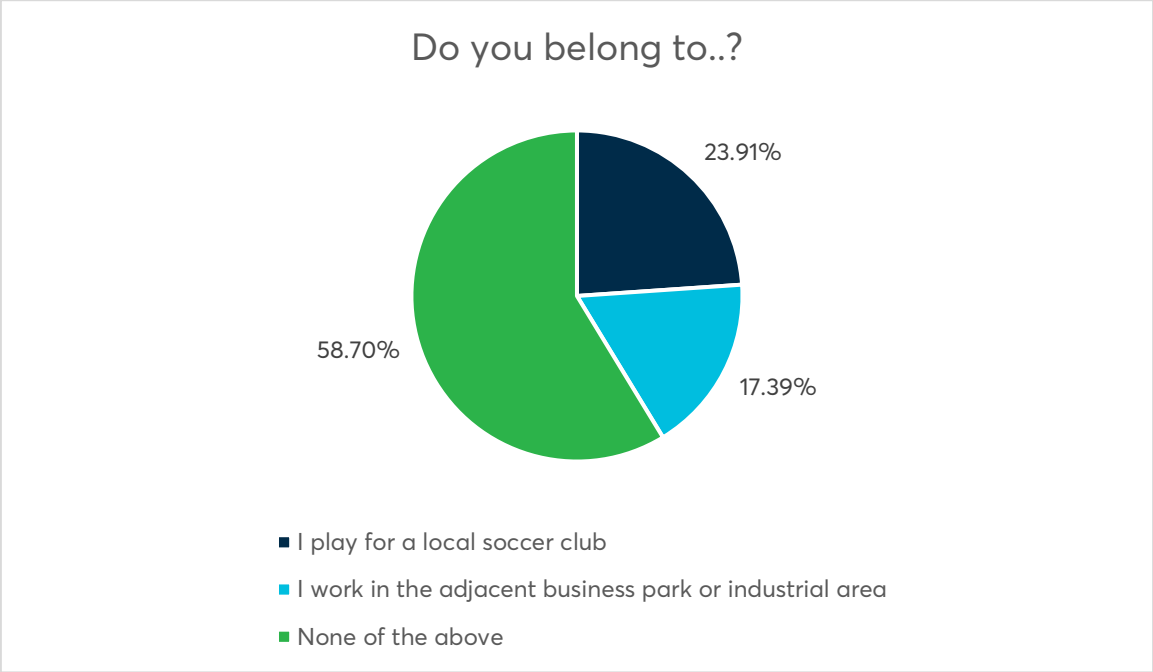
Below is an analysis of answers to the **online survey. Full comments can be found in the Appendix.**

Q1 asked, "How often to do you visit Newington Reserve?" Twenty-six (26) or 56.52% of participants use the park once a month or more.



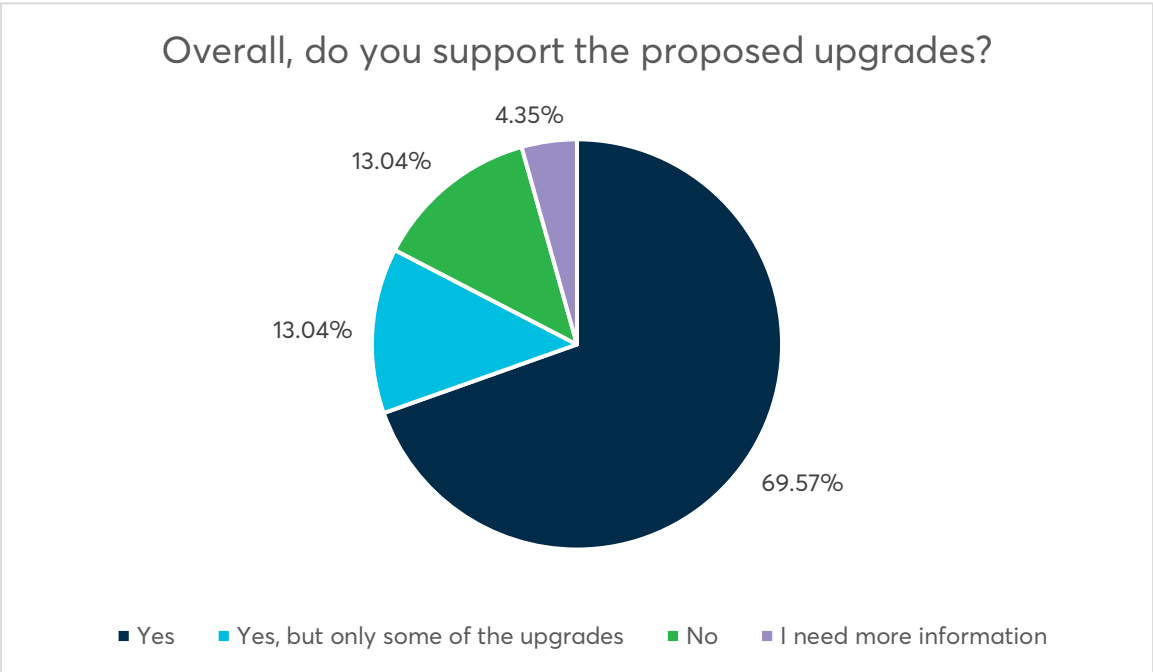
Answer Choices	Percent	Count
Daily	17.39%	8
Weekly	21.74%	10
Fortnightly	4.35%	2
Monthly	13.04%	6
Not often	15.22%	7
Never	28.26%	13
Total	**100.00%**	**46**

Q2 asked about the survey participant's relationship to the Reserve. "Do you belong to any of the following?" Eleven (11) or 23.91% said that they belong to the soccer club and eight (8) or 17.39% said that they work in the adjacent business park.



Answer Choices	Percent	Count
I play for a local soccer club	23.91%	11
I work in the adjacent business park or industrial area	17.39%	8
None of the above	58.70%	27
Total	**100.00%**	**46**

Q3 asked participants about their overall support for the Final Draft Concept Plan with 32 or 69.57% answering Yes and six (6) or 13.04% answering No.



Answer Choices	Percent	Count
Yes	69.57%	32
Yes, but only some of the upgrades	13.04%	6
No	13.04%	6
I need more information	4.35%	2
Total	**100.00%**	**46**

Q4 asked, "Why did you provide that answer?"

An analysis of the comments reveals people who support the upgrades believe the field is needed; will replace a lost field and provide recreation benefits to the area:

> "I think it's a great opportunity to utilise an underutilised space. It would also allow a chance for the surrounding businesses to play sports and exercise."
>
> "There is no local soccer ground for Olympic Park, Newington, Wentworth Point. Ideally there should be 2 soccer pitches, but something is better than nothing."

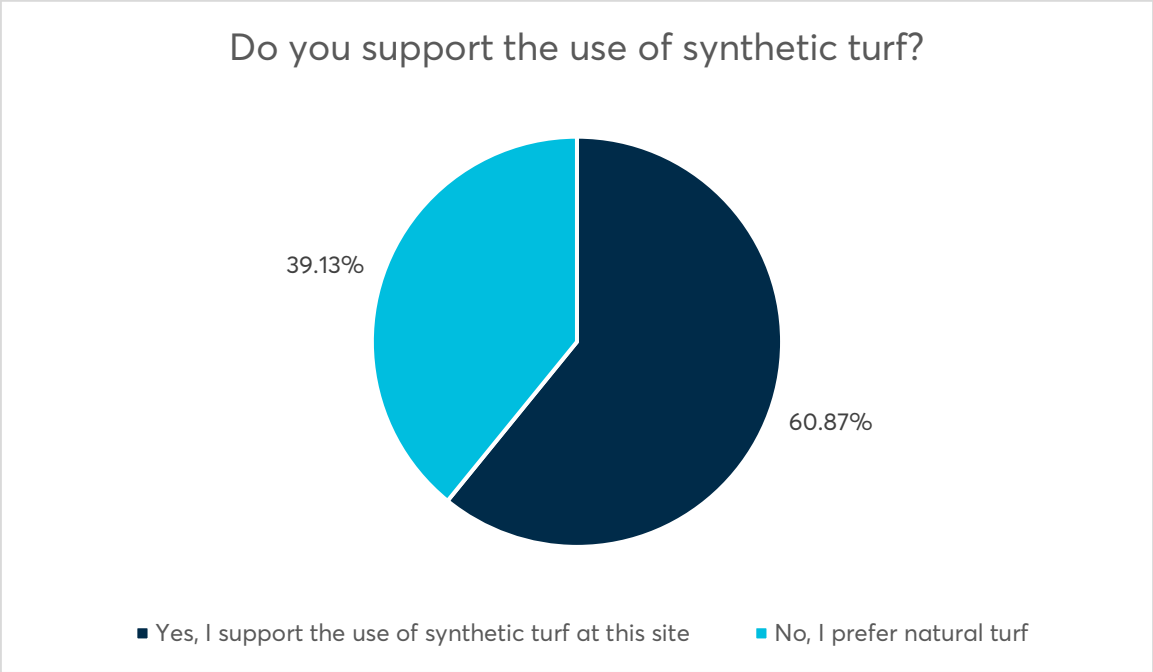
Others offered suggestions, for example: a basketball space, fences to keep the balls away from the busy roads and making the field available for informal sport.

> "I am hoping this will become a community sports field that can be used without restriction unlike Rydalmere synthetic."

People who were unsure or opposed to the upgrades did not support a change in the park's character or the loss of mature trees:

> "The current relaxing open space is available to everyone, however will now be a dedicated sporting facility. Change in character and loss of trees and habitat for local birds."
>
> "It's nice to have an open area to walk around in and to admire nature trees, local wildlife. It would be a shame to lose all that."

Q5 addressed the proposed use of a synthetic turf sports field at this site asking, "Do you support the use of synthetic turf? Twenty-eight (28) or 60.87% said Yes; and 18 or 39.13% said No, I prefer natural turf.



Answer Choices	Percent	Count
Yes, I support the use of synthetic turf at this site	60.87%	28
No, I prefer natural turf	39.13%	18
Total	**100.00%**	**46**

Q6 asked, "Why did you provide that answer?"

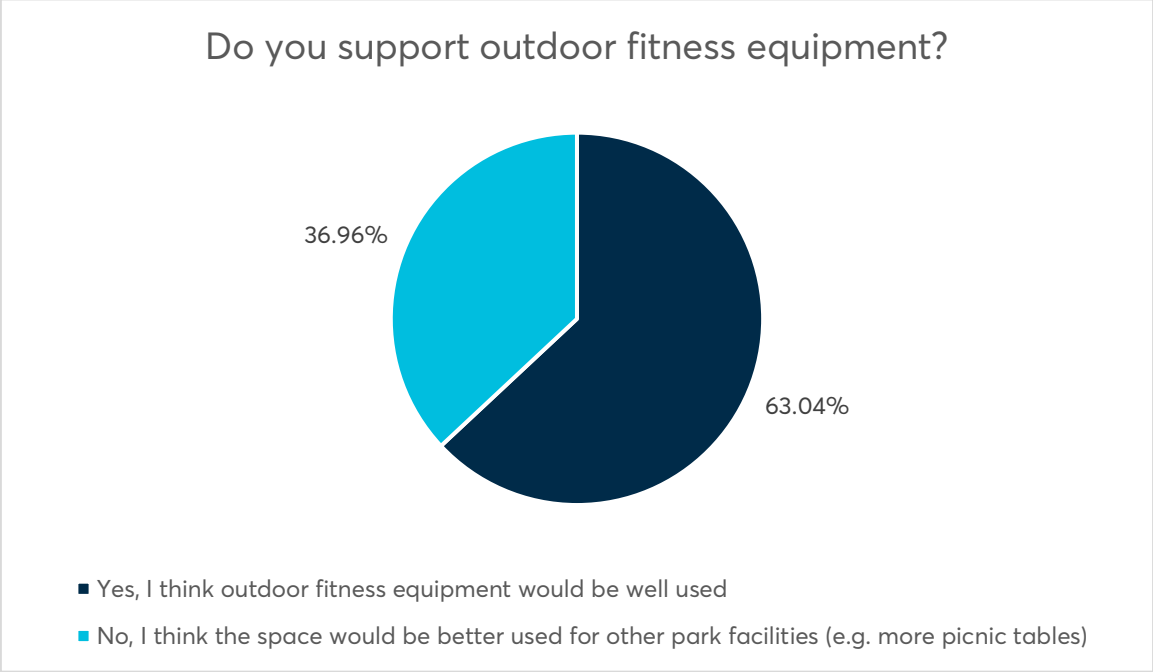
People who support synthetic turf commented on the benefit of it being an all-weather option. Others described it as versatile and durable.

> "Good for multiple uses and longevity without the need for labour intensive ground keeping"
>
> "With all the rain, hopefully this area kids can practice still on the synthetic turf area if the grounds are wet."

People who oppose synthetic turf use point out the heat absorbed by the surface and the advantages perceived in retaining natural grass.

> "Synthetic absorbs more heat. Temperature in Newington are already high."
>
> "Natural turf is cooler and does not radiate heat, is more natural, converts carbon dioxide to oxygen, and absorbs water. It is also in keeping with the current reserve. Synthetic turf radiates heat, breaks down over time, leaches contaminants which eventually migrate into the environment etc."

Q7 asked, "Looking specifically at the general park facilities, do you support the inclusion of outdoor fitness equipment? Outdoor fitness equipment was popular with 29 or 63.04% of people.



Answer Choices	Percent	Count
Yes, I think outdoor fitness equipment would be well used	63.04%	29

No, I think the space would be better used for other park facilities (e.g. more picnic tables)	36.96%	17
Total	100.00%	46

Q8 asked "Please provide more details".

Comments from those supporting the exercise equipment were not collected. Comments from those opposing showed a preference for seating, picnic tables, a bbq, a half size basketball court or kids play area.

Eight (8) participants felt the exercise equipment was not needed:

> "Lots of fitness facilities for residents in the area."

> "Outdoor exercise space is often not well used."

The remaining questions were optional demographic questions. Full comments are provided in the Appendix.

5. RECOMMENDATION

This report presents and analyses the key findings and sentiment from the Newington Reserve Upgrades Stage 2 consultation.

Careful consideration should be given to all the feedback and views presented in this report before a decision is made.

Council should respond to each concern and suggestion raised.

A summary of findings should also be reported back to the community (when appropriate but in a timely manner), highlighting how community feedback has influenced the project. The final decision and reasons why should be made public and reported back to those who provided feedback.

These recommendations are in line with Council's engagement principles and commitments outlined in the Community Engagement Strategy and Community and Stakeholder Engagement Policy.

> *"We make our decisions in an open and transparent way and provide feedback to our stakeholders in order to explain our decisions and let them know how their input has been considered".*

6. APPENDIX

6.1. Full comments provided via the online survey

Comments for Question 4 paired with Overall Support response n = 36 (Yes = Green, Yes to an extent = Yellow, No = Red, Unsure = Mauve)	
Already a congested area	
It's nice to have an open area to walk around in and to admire nature trees, local wildlife. It would be a shame to lose all that.	
Fix Hill road. Tarmac, lights and crossings. Every other project is a waste of money until this is done	
As a local, there are no fields that are synthetic, the park grounds have very limited drainage, even in summer the grounds are wet and most of them covered in overgrown weeds and pot holes. Further, most are near reptile habitats.	
Will enable residents and those that work nearby access to recreation facilities	
Good facilty that partially offsets the loss of sports field at wilson park	
I think it's a great opportunity to utilise an underutilised space. It would also allow a chance for the surrounding businesses to play sports and exercise.	
There should be a kids play area/equipment. Particularly for families visiting those in the surrounding business parks during the week or at lunch breaks.	
Parking is insufficient for field in a busy area.	
Parramatta City Council has absolutely zero concept of priorities. Do not waste money on rubbish like this until you have upgraded/TARMAC Hill road so it stops sounding like a runway outside our homes.	
We use this park area to kick a soccer ball with our dogs. Something we are unable to do at the local dog parks as they are crowded or not large enough for the long kicks (over half a full size soccer field).	
Where does the funding for this come from? Is it a state or Commonwealth grant , rates money or some other source? Such a large amount to spend with very little explanation of where the money came from?	
We need a basketball field in newington too.	
It's needed. There is so much space to take advantage of	
It can feel a bit unsafe and exposed so infrastructure toto encourage more traffic is welcome	
A synthetic field is an excellent choice to provide an all weather option when fields are extremely limited in this developing part of Sydney. A great option for the public to use, increase physical activity and foster community. A great use of funding!	
Another grass park taken out from the community.	
because what is there now is not useful and a waste of space	
I am hoping this will become a community sports field that can be used without restriction unlike Rydalmere synthetic.	
My children play for the local soccer team . The Newington Gunners. Their fields were sold many years ago to the cricketers . They have been pushed around and have no home ground .	

This would be a welcome addition for them and the whole community . Especially when are trying to promote physical activity amongst children post Covid .	
My son plays for Newington Gunners soccer club and does not have home ground and field to practice. This will be good for the community but its taking a long time, waiting patiently for whats to come	
Think that the upgrade is in keeping with community recreational and sporting needs. The proposed synthetic football fields will enable all weather options for local clubs.	
The local soccer club needs groups to make up for those taken away from them.	
Currently hardly anyone uses Newington reserve On the few occasions I have seen tradies use bbq facilities However once the upgrade is finished I can see the whole community using the proposed facilities Wether it be local soccer clubs,families or just people who like exercising outdoors	
There is going to be a need for more parking and Holker St at certain times gets clogged with cars	
There is no local soccer ground for Olympic Park, Newington, Wentworth Point. Ideally there should be 2 soccer pitches, but something is better than nothing.	
Synthetic football field is needed for the area	
Needed to support local sorts teams	
A new sport and recreation facility in this area will support the people of Wentworth Point	
I used to play for the Newington Gunners and Wilson Park was our home/training ground but that is gone now to Cricket NSW. We need more and better football (soccer) facilities for our growing community. That said, traffic is already a nightmare on Holker St/Slough Ave at the best of times because of the nearby turn traffic lights onto Silverwater Rd and the fact that a lot of people “rat run” through Wentworth Point as part of their commute and when there are events on at Sydney Olympic Park and with the growing Wentworth Point Community on a peninsula with only one road in and out, so the upgrade of Newington Reserve should only go ahead if planning for traffic and surrounding areas is taken into account and also planned for with proper foresight, planning and infrastructure!	
I live in the neighbouring suburb of Newington and know that the local football club struggles with having local facilities to practice on, so this would be a good facility for them to use once it’s up and running. The outdoor equipment facilities, bbq and bench area also seem nice.	
It will be beneficial to have proper playing fields set up, there should be adequate barriers / fencing to ensure there is little risk of balls escaping the field and crossing traffic on the roads. I hope that local schools can make use of the fields during sports activities.	
Soccer is a fast growing sport in Australia and there are not enough soccer fields for the community to play and practice	
Synthetic surface might seem like a good solution for utilisation, but the dealbreaker is that it's a giant area of plastic that will further harm the environment and possibly those that use it. If you're going to use the utilisation as an excuse then build an indoor facility instead. At least that way you could put real plants on the roof or solar panels or something.	
The current relaxing open space is available to everyone, however will now be a dedicated sporting facility. Change in character and loss of trees and habitat for local birds.	
I am concerned at the removal of all existing trees. It will mean habitat removal for birds and animals which smaller trees, when planted, can't provide.	

Comments for Q6 paired with Yes/No response to synthetic turf n = 34 (Yes = Green, No = Red)	
Synthetic absorbs more heat. Temperature in Newington are already high.	
Real turf is a biome. Synthetic is not	
Yes, it is a requirement, given all fields are almost unusable for majority of each year due to poor drainage. There are no fields for the local community within safe walking distance. As this area is also away from the wetlands, it's less affected to attract mosquitoes where there is dampness on other local park grounds.	
Natural turf is always better. Synthetic can be quite problematic from an overall aesthetic point of view, people tend to not take care of it very well and may discourage usage	
Good for multiple uses and longevity without the need for labour intensive ground keeping	
Synthetic turf is fine if it is high quality and doesn't burn players who fall on it. Natural turf is good but harder to maintain	
Less upkeep	
Protest. Tarmac Hill road	
The local area needs an all weather soccer field	
Real grass makes for better playing surface.	
The church would be extremely hot during summer it is poisonous to human people and we should support the green environment by having green turf	
Easier to maintain and some people have allergies to grass	
Temperature in summer	
Fantastic. Great for all when space us limited and soccer is a popular sport in a multicultural hub like newington	
Less construction and more natural. We need real grass.	
Synthetic can be used in any weather	
So it can be utilised even when it rains .	
With all the rain, hopefully this area kids can practice still on the synthetic turf area if the grounds are wet.	
Synthetic turf provides all weather option for local community and sporting clubs	
Provides all weather use. Though I would like to see the REF exhibited as well.	
All natural turf activities are suspended during wet weather but with synthetic turf they can still be used and costs to repair and maintain natural turf will be eroded	
There are burns and abrasions with synthetic turf	
Better in Wet weather. So many grounds are closed, but the synthetic pitch at Rydalmere is open.	
good for all training purposes	
Best for soccer	
Its in an industrial area so if there anywhere it would be beneficial its here. Plus with so many apartments nearby it may get a decent amount of use.	
happy with the reason provided.	
It's a relatively small area and because of the topography and where run off would be with heavy rains (and let's face it we have more of that with La Niña) synthetic turf makes sense.	
I am concerned about the ecological impacts of synthetic turf, considering the breakdown and runoff of micro plastics into the environment.	
There are a number of playing fields in the area that require council to maintain (mowing etc). I am not aware of whether there are any challenges with the soil / drainage of the site or other reason why synthetic turf would be preferred.	

The time and cost to repair damaged synthetic turf could become prohibitive, particularly if it becomes a site of regular vandalism. Without close monitoring it will be hard to catch the culprits or make sufficient deterrent	
Synthetic turf gets warmer during summer and people wouldn't be able to stay long in that area	
Synthetic surface might seem like a good solution for utilisation, but the dealbreaker is that it's a giant area of plastic that will further harm the environment and possibly those that use it. If you're going to use the utilisation as an excuse then build an indoor facility instead. At least that way you could put real plants on the roof or solar panels or something.	
Natural turf is cooler and does not radiate heat, is more natural, converts carbon dioxide to oxygen, and absorbs water. It is also in keeping with the current reserve. Synthetic turf radiates heat, breaks down over time, leaches contaminants which eventually migrate into the environment etc.	
I would support synthetic turf if a number of existing trees remain, otherwise all the current natural environment is being removed.	

Comments for Q8 paired with Yes/No response to exercise equipment n = 17 (Yes = Green, No = Red)	
Lots of fitness facilities for residents in the area.	
Would expect better use with seating or picnic tables in the area rather than equipment….unless they are of top quality and variety	
I think outdoor fitness equipment never gets used, a half-court basketball court is the way to go	
Stop wasting infrastructure funds	
NA	
More space for families to use gyms are easily available and accessible near by We need basketball ring too	
These items are used less than intended. When families and other people visit an outdoor area like this, a table or other equipment is used more.	
Bbq	
I am against more and more infrastructure around this area. There is no people living there so it won’t be used.	
I don't think the outdoor fitness equipment are actually useful.	
Kids play area?	
Outdoor exercise space is often not well used.	
There is a gym nearby	
Another mini soccer field would be ideal.	
Better for families	
More picnic facilities would be great	

HOLKER STREET

PROPOSED PEDESTRIAN BARRIER FENCE

NO STOPPING
R5-400(L)

NO STOPPING
R5-400(R)

NO STOPPING
R5-400(L)

P ONLY
R5-1-3(R)

P ONLY
R5-1-3(L)

PROPOSED PEDESTRIAN BARRIER FENCE

3.5m
5.4m
7.9m
2.4m

SLOUGH AVE

W8-2 25 km/h W5-10

W5-10 25 km/h W8-2

W8-2 25 km/h W5-10

W5-10 25 km/h W8-2

W3-4 NEXT 200 m W8-17-2

NEWINGTON RESERVE

SIGNAGE AND LINEMARKING PLAN
OPTION 1 - TIN-IN WITH EXISTING KERB LINE

SK13.01 : REV B

DATE : 05.10.22

REF : SY203226

NORTHROP

SCALE 1:250@ A1

0 2 4 6 8 10 12m

203226_SKC13.01_Signage and Linemarking.dwg

CITY OF PARRAMATTA COUNCIL

Parramatta Traffic Committee Agenda Item

ITEM NO: 2302 A9

SUBJECT: Dunlop Street, First Avenue, Ryde Street – Proposed Shared Paths, Kerb Build Out, and Raised Pedestrian and Cyclist Crossings

APPLICANT: City of Parramatta

REPORT OF: Senior Transport Planner

WARD: Epping

SED: Epping

Purpose

This report seeks approval for the installation of shared paths, kerb build out, and raised pedestrian and cyclist crossings along Dunlop Street, First Avenue and Ryde Street, Epping. The purpose of this infrastructure is to improve walking and cycling connectivity, amenity and safety regionally on the Epping to Carlingford Cycling link, and locally to the new Epping South Public School.

OFFICER'S RECOMMENDATION:

1. That Council approve the construction of a separated shared path and footpath on the northern verge of Dunlop Street between Hermington Street and Neil Street, and the eastern verge of First Avenue between Dunlop Street and Grimes Lane, Epping as shown on the plan attached to the report.
2. That Council approve the construction of a shared path on the northern verge of Dunlop Street between Neil Street and Ryde Street, and western verge of Ryde Street between Wyralla Avenue and Dunlop Street, Epping as shown on the plan attached to the report.
3. That Council approve the construction of a raised pedestrian and cyclist crossings of Neil Street and Park Street at Dunlop Street, and Dunlop Street at First Avenue, Epping as shown on the plan attached to the report.
4. That Council approve the construction of a kerb buildout on the western side of Ryde Street at Wyralla Avenue, Epping as shown on the plan attached to the report.
5. That recommendations 1 to 4 are subject to the funding being secured.

Background

Development of the Epping to Carlingford Cycleway

Between 2018 and 2022, Council received $3.5M funding from the *Stronger Communities Fund* and *TfNSW Get Active NSW Program* to improve cycling connectivity on the 4.5kms between Carlingford and Epping. Endorsed by Council 11 May 2020, this project included a mix of bicycle paths and shared paths on busy streets, mixed traffic riding in quieter streets, a new lightweight bridge, as well as a number of improved crossing points and "cut-throughs" in parks and cul-de-sacs. These works included PS-2 logos along Dunlop Street and Ryde

Street that were installed in early 2022 and a refuge island in Midson Road at Wyralla Avenue that was completed in September 2021.

Development of the Dunlop Street Paths

There is a small portion of the community who are comfortable riding with vehicles no matter how busy the street. However, through international research it has been identified that two-thirds of the community are "interested but concerned" about cycling, and the key factor is safety. During earlier consultation on the broader Epping to Carlingford Cycleway it was identified that Dunlop Street and Ryde Street carried a higher number of vehicles compared to other streets identified for on-road riding, however additional infrastructure on these routes was beyond the budget of the project.

The new Epping South Primary School (currently under construction) has been approved by the Department of Planning, Industry and Environment for 600 Kindergarten to Year 6 students and 38 staff for Stage 1, and up to 1,000 students and 54 staff by Stage 3. If all students were dropped off with a private vehicle there would have significant adverse impacts to the surrounding road network and neighbourhood.

The delivery of a new school also elevates the need for pedestrian and cyclist infrastructure in the verge and out of traffic on these streets to ensure that primary school students and their parents would feel safe and comfortable riding to and from school. Therefore, Council is proposing paths along Dunlop Street, Ryde Street and First Avenue to the front gate of the school to serve both the wider regional cycling link and local infrastructure to support children walking and riding to school. This will support healthy, active access to a new primary school as well as contribute to reduced future traffic generation.

On 22 February 2021, Council adopted interim guidelines for the installation of pedestrian crossings on local roads within the Parramatta LGA with speed limits of 50km/h or less. According to the guidelines, pedestrian crossings can be installed on local roads if the number of pedestrians crossing the road in one hour is 20 or more. The raised pedestrian and/or cyclist crossings are proposed at locations where the pedestrian warrants are currently met, or are projected to once the school has opened and the proposed paths are in use. Pedestrian volume counts in Dunlop Street are provided in Table 1 below, cells highlighted in grey identify proposed priority crossing locations.

	Time	No	Pedestrian Forecast	Cyclist Forecast	Total	Notes
	Park Street / Third Avenue					
North	7:45-8:45	N/A	10	10	20	See notes below table
South	7:45-8:45	N/A				
West	7:45-8:45	N/A				
East	7:45-8:45	N/A				
	Neil Street / Second Avenue					
North	8:00-9:00	14	10	10	34	8 adults and 3 minors (counting as 2)
South	8:00-9:00	23				17 adults, 1 elderly and 2 minors (counting as 2)
West	8:00-9:00	6				
East	8:00-9:00	3				
	Ryde Street / First Avenue					

North	7:45-8:45	6				4 adults and 1 minor (counting as 2)
South	7:45-8:45	22				20 adults and 1 minor (counting as 2)
West	7:45-8:45	24	15	10	54	16 adults and 4 minors (counting as 2)
East	7:45-8:45	6				2 adults and 2 minors (counting as 2)

Table 1: Pedestrian volume counts in Dunlop Street, Epping

Based on current counts, the northern side of the Third and Second Avenue intersections do not meet the Council's warrants, however with the completion of this infrastructure, the regional walking and cycling link as well as the new school, it is projected that the warrants will be exceeded in these locations. The design and approvals of the project were during COVID lockdown with remote learning, therefore counts from that time could not be used. Historical counts were sourced, with the closest being from December 2020, and these were only available for the Second and First Avenue intersections. The 2020 counts are likely to have captured students walking to Epping West Public School that will shift to Epping South once open, and in the future will also include students north of Dunlop Street that currently walk up to Epping West. It is also worth noting there is no footpath for most of the northern verge of Dunlop Street, contributing to the higher number of people to walking on the south in 2020.

Figure 1 below shows the school location (dashed red), catchment (dashed grey) and walking catchment (shades of green based on proximity). Highlighted in pink is the area within walking and cycling distance of the school that is north of Dunlop Street. This is the location students likely to use the future paths are coming from, with close to 200 dwellings it is anticipated that a minimum of 10 additional students will either walk or ride from the area west of Third Avenue, with a minimum additional 15 crossing Dunlop Street at First Avenue. This location is the most convenient and safest place to cross Dunlop Street, and is on the desire line of the main school entrance. When adding these projected numbers onto the counts from 2020, the warrants are met.

Figure 1: Walking and cycling catchment (pink) for Dunlop Street Paths within school catchment overlayed onto Epping South Public School Transport and Accessibility Impact Assessment.

Consultation on Dunlop Street Paths

On 27 September 2021 Council considered draft plans for the Dunlop Street and George Street Pedestrian and Cyclist Paths (refer Figure 2 below) and resolved:

a) *That Council approve the attached draft Dunlop Street pedestrian and cyclist paths at Attachment 1 for the purposes of exhibition.*
b) *That Council approve the attached draft George Street East pedestrian and cyclist paths at Attachment 2, for the purposes of exhibition*
c) *That the draft plans be placed on exhibition for a minimum period of 28 days.*
d) *Further, that the outcomes of public exhibition of the plans be reported to Parramatta Traffic Committee, and in turn to Council.*

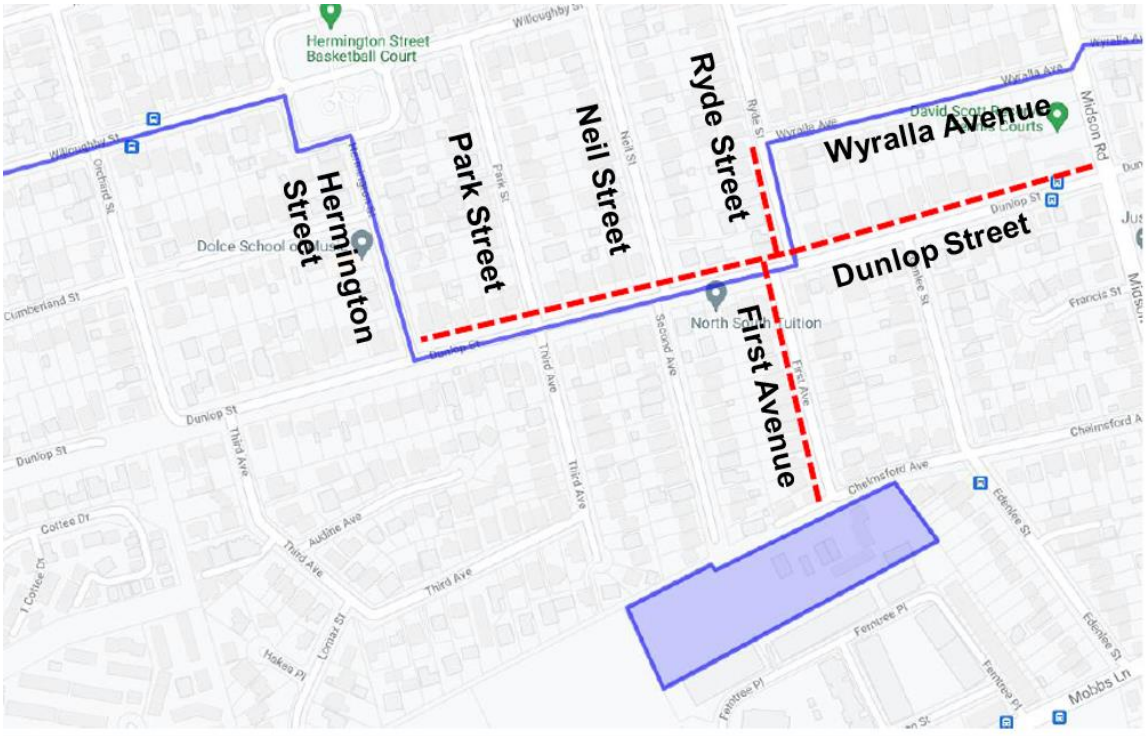


Figure 2: Location of proposed Dunlop Street Pedestrian and Cyclist Paths shown in dashed red. Existing Epping to Carlingford on road route (in blue), School (shaded blue).

In line with Council's resolution, letters were sent to local residents and businesses on 7 October 2021 inviting submissions on the proposal within 28 days. The consultation area is shown in Figure 3. On 12 October 2021, the proposal was also advertised in the local newspaper in accordance with the Roads Act 1993 and on Council's website. "Phone a planner" sessions and remote meetings were also offered.

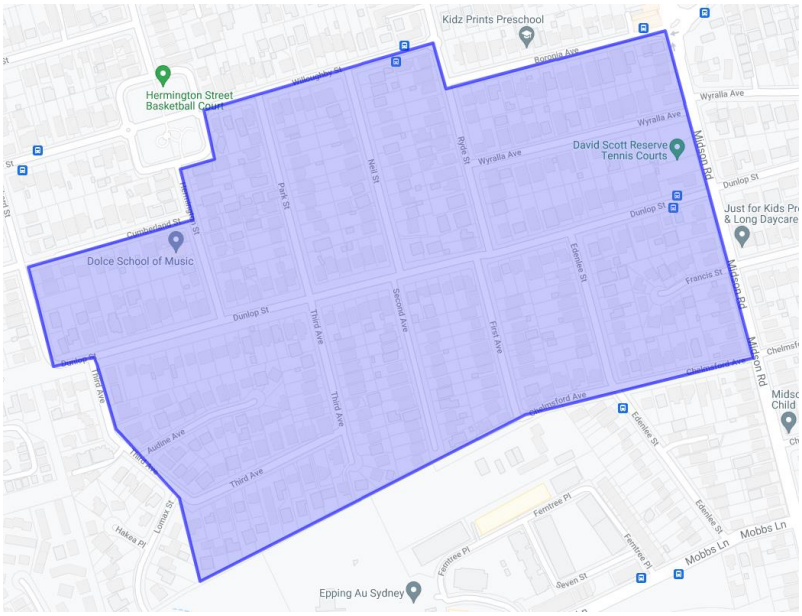


Figure 3: Dunlop Street Paths distribution area within Epping Ward

The outcome of the consultation is provided below.

Consultation Summary

A total of 19 individual responses were received from the community, all except two were from within the Epping Ward. Five (5) supported the proposal, two (2) with qualified support, four (4) against and five (5) stating no preference. This feedback is provided in detail in the Council Agenda in Attachment 1 including Council Officer responses. The social media campaign reached just under 20,000 with 521 clicking through to the website. The project attracted 18 likes, 1 love, and 9 comments. At the 8 November 2021 Council meeting Councillors tabled a petition on the project from the public, and resolved:

a) That the petition be received and copy of the petition be circulated to all Councillors.
b) Further, that all Petitioners be notified of the outcome of the matter.

A petition objecting to the proposal has been signed by 33 of the 62 households in Dunlop Street between Midson Road and Hermington Street.

Key themes from all consultation are summarised the table below.

Comment / Theme	Council officer response
There are very few pedestrians and cyclists at the moment, so why build footpaths and bicycle paths / no one will use.	The new public school will generate a significant number of new trips in the peak hours. The pedestrian and cyclist paths are proposed to provide a safe, comfortable alternative so that children can actively ride and walk to school, rather than being driven and contributing to local traffic congestion.
A bike path on Willoughby Street is a better alternative to Dunlop Street.	Throughout 2019 and 2020 Council investigated potential routes and infrastructure types between Epping and Carlingford and the community was consulted on a bike path on Willoughby Street. There was not general support from the community for a facility on Willoughby Street, and on 11 May 2020, Council

	resolved that the preferred alignment for the broader Epping to Carlingford cycling route is Dunlop Street.
The proposal alters the existing streetscape.	Some of the existing verges do not have footpaths, meaning any pedestrian with limited mobility, pram or wheelchair have restricted accessibility. Through providing additional paths it increases the accessibility of the street to all people. This is more critical given the recently approved school. The streetscape will change, but will be comprised of public domain elements that are common across Sydney and Australia more broadly such as: footpaths, shared paths and priority crossings.
The proposal is dangerous for cyclists and mobility scooters because of: Driveways, uneven terrain.	Any vehicle using a driveway should use caution and be moving slowly as they are required to give way to any people on the verge, this includes children on scooters who may be using the current footpath that is closer to the property boundary.
A shared path is dangerous for primary school students to share with adults.	A shared path is a standard arrangement used across Australia. With the cyclists having to change direction on approach to the crossings (and therefore lose speed), it is unlikely that fast moving cyclists will use the path. They are more likely to take the road where they have priority over all side streets and turning vehicles (like other cars) and can move more quickly.
Remove the parking and put the bike path there.	It is not proposed to remove parking from one side of the street as part of this proposal so as to minimise the impact to resident parking availability.
Too much parking is being removed.	Parking is only being removed where necessary for mandatory no stopping adjacent to intersections and crossings.
Speed limits should be reduced around the new school.	Speed limits are under the control of TfNSW and new School Zones with associated speed limits will be implemented with the delivery of the new school.
Tree removal must be avoided.	Tree removal is avoided unless absolutely necessary. 10 local offset planting locations along the route have been identified, subject to resident consultation at the time of planting.
There are existing problems with drainage / stormwater / pipes.	Should the project proceed, it will be engineered to take into account services and drainage.

Stakeholder Consultation

The following stakeholder consultation has been undertaken in relation to this matter:

Date	Stakeholder	Stakeholder Comment	Officer Response
Oct 2021	School Infrastructure NSW	SINSW has reviewed the proposal and the pedestrian and cycling facilities are enthusiastically supported. These measures will reduce road safety risks for the student pedestrians/cyclists through provision of shared paths and raised crossings.	Noted.

Councillor Consultation

A Ward Councillor briefing was held in January 2022, and in relation to this matter:

Date	Councillor	Councillor Comment	Officer Response
28 Jan 2022	LM Davis, Clr Wearne, Clr Maclean	Councillors will take more time to consider all the community feedback to determine their position on this matter, and will be a part of the decision making process when the project is reported to Council.	Noted
9 March 2022	Standard briefing prior to Council meeting	Report finalised prior to briefing session	Report finalised prior to briefing session

During public exhibition, significant challenges managing large stormwater events were uncovered on Dunlop Street, east of Ryde Street. Widening the existing footpath into a shared path would exacerbate these existing issues with adverse impacts for residents. Due to these issues and in response to the community feedback (15 of the petitioners have frontage in the section of Dunlop Street between Midson Road and Ryde Street), it is recommended that the shared path east of Ryde Street and priority crossing over Ryde Street no longer proceed. Refer to Figure 3.

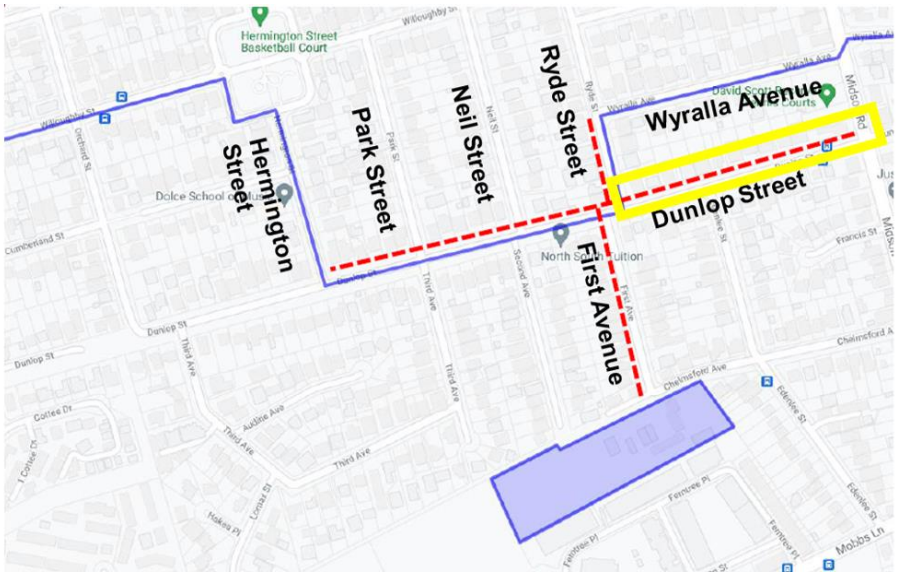


Figure 4: Extent of Dunlop Street Pedestrian and Cyclist Paths (as exhibited) –section highlighted in yellow will no longer proceed.

Subsequent to the consultation period, on 14 March 2022 Council resolved, as reflected in the Officer's recommendation in this report:

a) *That Council note the feedback from the community consultation documented at Attachment 1.*
b) *That Council approve the reduced scope of works to support walking and cycling to the new Epping South Public School, as set out below and at Attachment 2 for submission to the Parramatta Traffic Committee for consideration:*
    1. *Install a shared path with separate footpath on the northern verge of Dunlop Street between Hermington Street and Neil Street, and the eastern verge of First Avenue between Dunlop Street and Grimes Lane, Epping.*
    2. *Install a shared path on the northern verge of Dunlop Street between Neil Street and Ryde Street, and western verge of Ryde Street between Wyralla Avenue and Dunlop Street.*
    3. *Install raised pedestrian and cyclist crossings of Neil Street and Park Street at Dunlop Street, and Dunlop Street at First Avenue, Epping.*
    4. *Install a kerb buildout on the western side of Ryde Street at Wyralla Avenue, Epping.*
c) *That subject to approval by the Parramatta Traffic Committee, an application be made to external grant bodies to fund construction of the project.*
d) *Further, that all submission authors and petitioners be advised of Council's decision*.

Previous PTC report

In accordance with the above resolution, a report was tabled to the Parramatta Traffic Committee regarding this proposal. Council at its meeting held on 12 December 2022 considered the recommendations of the Committee and resolved in part:

> *That progress and the making of a funding application for item IV 22/1 Dunlop Street Cycleway, Epping, be deferred for a briefing with Epping Ward Councillors.*

A subsequent Ward Councillor briefing was held on 23 January 2023 where the Dunlop Street Cycleway was further discussed in line with the above resolution. During this meeting, it was determined to proceed with referring a report to the Parramatta Traffic Committee and to Council for the approval of the shared paths, kerb extensions and a combined raised pedestrian and cyclists crossing in Dunlop Street, Epping.

FINANCIAL IMPLICATIONS

The total estimated cost of construction of this project including paths, lighting and crossings is $1.25 million ex GST for all the works.

It is intended to commence construction when funding for the project becomes available.

Mark Crispin

Mark Crispin
Senior Transport Planner
30/01/2023

Attachment 1. Design Plans

DUNLOP STREET CYCLEWAY, EPPING

THE CITY OF PARRAMATTA COUNCIL

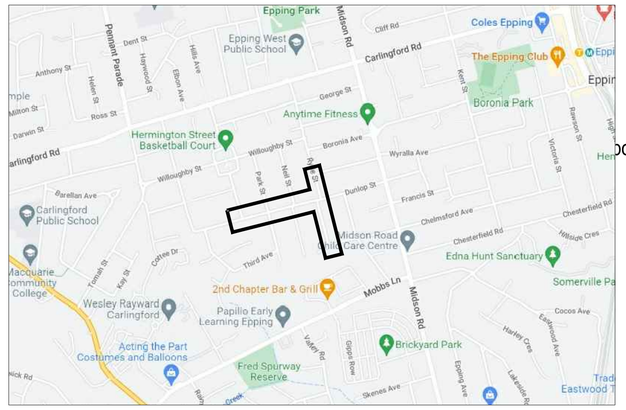
DRAFT DETAILED DESIGN

PROJECT NUMBER: INF03332

Scheme Drawings			
Project Number	Sheet Number	Dwg Revision Issue	Sheet Title
INF03332	001	B	Project Cover Sheet
INF03332	002	B	General Notes
INF03332	200	B	Construction Details - Sheet 1 of 3
INF03332	201	B	Construction Details - Sheet 2 of 3
INF03332	202	B	Construction Details - Sheet 3 of 3
INF03332	300	B	Survey Control and Service Location Plan - Sheet 1 of 6
INF03332	301	B	Survey Control and Service Location Plan - Sheet 2 of 6
INF03332	302	B	Survey Control and Service Location Plan - Sheet 3 of 6
INF03332	303	B	Survey Control and Service Location Plan - Sheet 4 of 6
INF03332	304	B	Survey Control and Service Location Plan - Sheet 5 of 6
INF03332	305	B	Survey Control and Service Location Plan - Sheet 6 of 6
INF03332	400	B	General Arrangement Plan - Sheet 1 of 6
INF03332	401	B	General Arrangement Plan - Sheet 2 of 6
INF03332	402	B	General Arrangement Plan - Sheet 3 of 6
INF03332	403	B	General Arrangement Plan - Sheet 4 of 6
INF03332	404	B	General Arrangement Plan - Sheet 5 of 6
INF03332	405	B	General Arrangement Plan - Sheet 6 of 6
INF03332	500	B	Setout Plan - Sheet 1 of 14
INF03332	501	B	Setout Plan - Sheet 2 of 14
INF03332	502	B	Setout Plan - Sheet 3 of 14
INF03332	503	B	Setout Plan - Sheet 4 of 14
INF03332	504	B	Setout Plan - Sheet 5 of 14
INF03332	505	B	Setout Plan - Sheet 6 of 14
INF03332	506	B	Setout Plan - Sheet 7 of 14
INF03332	507	B	Setout Plan - Sheet 8 of 14
INF03332	508	B	Setout Plan - Sheet 9 of 14
INF03332	509	B	Setout Plan - Sheet 10 of 14
INF03332	510	B	Setout Plan - Sheet 11 of 14
INF03332	511	B	Setout Plan - Sheet 12 of 14
INF03332	512	B	Setout Plan - Sheet 13 of 14
INF03332	513	B	Setout Plan - Sheet 14 of 14
INF03332	600	B	Longitundinal Sections - Sheet 1 of 13
INF03332	601	B	Longitundinal Sections - Sheet 2 of 13
INF03332	602	B	Longitundinal Sections - Sheet 3 of 13
INF03332	603	B	Longitundinal Sections - Sheet 4 of 13
INF03332	604	B	Longitundinal Sections - Sheet 5 of 13
INF03332	605	B	Longitundinal Sections - Sheet 6 of 13
INF03332	606	B	Longitundinal Sections - Sheet 7 of 13
INF03332	607	B	Longitundinal Sections - Sheet 8 of 13
INF03332	608	B	Longitundinal Sections - Sheet 9 of 13
INF03332	609	B	Longitundinal Sections - Sheet 10 of 13
INF03332	610	B	Longitundinal Sections - Sheet 11 of 13
INF03332	611	B	Longitundinal Sections - Sheet 12 of 13
INF03332	612	B	Longitundinal Sections - Sheet 13 of 13

Scheme Drawings			
Project Number	Sheet Number	Dwg Revision Issue	Sheet Title
INF03332	700	B	Cross Sections - Sheet 1 of 21
INF03332	701	B	Cross Sections - Sheet 2 of 21
INF03332	702	B	Cross Sections - Sheet 3 of 21
INF03332	703	B	Cross Sections - Sheet 4 of 21
INF03332	704	B	Cross Sections - Sheet 5 of 21
INF03332	705	B	Cross Sections - Sheet 6 of 21
INF03332	706	B	Cross Sections - Sheet 7 of 21
INF03332	707	B	Cross Sections - Sheet 8 of 21
INF03332	708	B	Cross Sections - Sheet 9 of 21
INF03332	709	B	Cross Sections - Sheet 10 of 21
INF03332	710	B	Cross Sections - Sheet 11 of 21
INF03332	711	B	Cross Sections - Sheet 12 of 21
INF03332	712	B	Cross Sections - Sheet 13 of 21
INF03332	713	B	Cross Sections - Sheet 14 of 21
INF03332	714	B	Cross Sections - Sheet 15 of 21
INF03332	715	B	Cross Sections - Sheet 16 of 21
INF03332	716	B	Cross Sections - Sheet 17 of 21
INF03332	717	B	Cross Sections - Sheet 18 of 21
INF03332	718	B	Cross Sections - Sheet 19 of 21
INF03332	719	B	Cross Sections - Sheet 20 of 21
INF03332	720	B	Cross Sections - Sheet 21 of 21
INF03332	1000	B	Signage and Linemarking Plan - Sheet 1 of 6
INF03332	1001	B	Signage and Linemarking Plan - Sheet 2 of 6
INF03332	1002	B	Signage and Linemarking Plan - Sheet 3 of 6
INF03332	1003	B	Signage and Linemarking Plan - Sheet 4 of 6
INF03332	1004	B	Signage and Linemarking Plan - Sheet 5 of 6
INF03332	1005	B	Signage and Linemarking Plan - Sheet 6 of 6
INF03332	1500	B	Demolition Plan - Sheet 1 of 6
INF03332	1501	B	Demolition Plan - Sheet 2 of 6
INF03332	1502	B	Demolition Plan - Sheet 3 of 6
INF03332	1503	B	Demolition Plan - Sheet 4 of 6
INF03332	1504	B	Demolition Plan - Sheet 5 of 6
INF03332	1505	B	Demolition Plan - Sheet 6 of 6

ABBREVIATIONS TABLE	
DESCRIPTION	ABBREVIATION
Asphalt Concrete	A.C.
Australian Height Datum Derived	A.H.D.d
Australian Standard	A.S.
Average Least Dimension	ALD
Bottom of Wall	BOW
California Bearing Ratio	C.B.R.
Centres of plant/trunk	ccs
Chainage	Ch
Crime Prevention Through Environmental Design	CPTED
Dense Grade	DG
Department of Agriculture, Fisheries and Forestry	D.A.F.F.
Department of Environment and Heritage Protection	D.E.H.P.
Department of Transport and Main Roads	D.T.M.R.
Dial Before You Dig	D.B.Y.D.
Diameter	dia.
Disability Discrimination Act	D.D.A.
Environmental Management Plan	EMP
Environmental Protection Act	E.P.A
Existing Level	EX
Fibre Reinforced Concrete Pipe	FRC
Finished Surface Level	FSL
Free Height of Fall	FHOF
Geocentric Datum of Australia	GDA
Guideline - 'Specifying Trees - A Guide to Assessment of Tree Quality'. Author: Ross Clark	NATSPEC
Gully Invert Pit	GIP
Invert Level	IL
Kerb and Gutter	K & G
Manhole	MH
Manual of Uniform Traffic Control Devices	M.U.T.C.D.
Number	No.
Permanent Survey Mark	PSM
Person with Disability	PWD
Powder-coat	P/C
Reduced Level	RL
Reinforced Concrete Box Culvert	RCBC
Reinforced Concrete Pipe	RCP
Stainless Steel	S/S
Standard Drawing for Parks and Open Space	SP.
Survey Station Mark	STN
Top of Barrel	T.O.B.
Top of Conduit	T.O.C.
Top of Wall	TOW
Traffic and Road Use Management Manual	T.R.U.M.
Tree Protection Zone	TPZ
Water Sensitive Urban Design	WSUD
Workplace Health and Safety	W.H. & S.



LOCALITY PLAN
(Not to scale)

osed area of works

COMPLETE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA					
Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	Civil
Certifier Name	
Certifier No.	
Date	

Signature: .....

Drawing Status: FINAL DETAILED DESIGN

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project: **DUNLOP STREET CYCLEWAY, EPPING**

Drawing Title: **PROJECT COVER SHEET**

	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	001	B

SAFETY IN DESIGN NOTES:

1. Potential safety hazards identified by the Designer have been assessed for this project in accordance with Safe Design of Structures - Code of Practices by Safe Work Australia, 2012.
2. Any person who undertakes alterations, variations or modifications to these design drawings, without consultation and approval from the original or subsequent designer, will assume the duties of a designer and will be held responsible for the safety in design for this project.
3. All works must comply with W.H. & S. Act, 2011.

GENERAL NOTES:

1. If any archaeological or cultural material is exposed on the work site all works shall cease. The D.E.H.P., Aboriginal Land Council and B.M.C.C are to be notified.
2. All works are to comply with the requirements of the Environmental Protection Act, 1994.
3. Prior to commencement of work a Risk Management Plan to minimise the chance of spreading Fire Ants is to be completed. Refer to Blue Mountains City Council's Risk Management Plan for procedures on movement controls for Red Imported Fire Ants.
4. The positions shown on drawings for public utilities services are based on the D.B.Y.D. information supplied at time of design and are indicative only. Prior to construction the current Service Authority information is to be obtained from D.B.Y.D. (website: www.1100.com.au or Phone 1100). The position and depth of each service is to be verified by the relevant Service Authority on site before the start of any construction.
5. Where these drawings make reference to the Engineer, Consulting Engineer and or Council Engineer it shall mean the Superintendent managing the works.
6. Prior to commencement of work contact Blue Mountains City Council's Technical Services Manager if any PSM's are in the vicinity of the work site.
7. Information on these drawings shall take precedence if there is any discrepancy and or conflict between these drawings and Standard Drawings (either Council's or Transport for NSW). Advise Design Services immediately of any and all discrepancies.
8. The Scheme Drawings listed on the Project Cover Sheet are to be read as a whole and not in isolation. Any isolated drawing separated from the control set will be considered voided and is not to be used.
9. All drawings are to be read in conjunction with the project's specification and all relevant Standard Drawings.
10. All drawings are to be read in conjunction with the Abbreviation Table shown.

EROSION AND SEDIMENT CONTROL NOTES:

1. During construction all necessary precautions shall be taken to control erosion and downstream sedimentation. Monitor the prevailing weather conditions and protect any downstream construction and gully inlets.
2. All sediment control devices, sediment fences, check dams, straw bales, stone traps and entry/exit sediment traps are to be in accordance with Council's Standards.
3. During construction provide inlet protection at affected inlets. Unless shown otherwise on the drawings, place reinforced turf matting to invert of all earth V-drains or as directed otherwise by the Council Engineer.
4. Existing grassed areas to be maintained where possible.
5. On road verge turf all disturbed areas within 48 hours of reaching finish surface levels or as directed by the Council Engineer.
6. Dumped rock shall not be less than the nominated d50. If the nominated size is not available then advise the Council Engineer of the proposed replacement rock size for approval.
7. Stone size value of d50 means 50% of the stone size will be of the size quoted and the rest of the stones shall be larger but not greater than 1.5 times.
8. Dumped rock to be placed on an underlay of bidim A34 by Geofabrics Australia or on underlay approved by Council Engineer.

EARTHWORK NOTES:

1. All works to be in accordance with A.S. 3798-2007.
2. All clearing and grubbing to be in accordance with the specification or as directed by the Council Engineer.
3. All unsuitable material is to be stripped prior to placement of structural fill.
4. All unsuitable material is to be removed in accordance with the specification or as directed by the Council Engineer.
5. All contaminated soil to be removed in accordance with the specification or as directed by the Council Engineer.
6. Road embankment fill greater than 0.3 metre below pavement subgrade to be compacted to 95% standard dry density in accordance with A.S. 1289.5.4.1 or as directed by the Council Engineer.
7. Road embankment fill less than 0.3 metre below pavement subgrade to be compacted to 100% standard dry density in accordance with A.S. 1289.5.4.1 or as directed by the Council Engineer.
8. All road embankment fill greater than 0.5 metre in depth shall be supervised by a qualified Geotechnical Engineer in accordance with A.S. 3798-2007.
9. If wet or soft spots in existing subgrade are encountered, in order to determine treatment contact the Council Engineer to seek further advice.
10. Earthwork quantities include existing road pavement excavated where applicable.
11. Earthwork quantities include unsuitable and or contaminated material except where noted otherwise.
12. Earthwork quantities in cut are bank (nett) volumes and in fill are compacted volumes.

ROADWORK NOTES:

1. Kerb and gutter profiles to be in accordance with Construction Details.
2. For setout for kerb and gutter refer ***Kerb Setout Detail*** adjacent.
3. Existing driveways affected by works shall be reconstructed in the same material as existing or as directed by the Council Engineer.
4. All Residential driveways have been designed using the B85 vehicle in accordance with A.S.2890.1.2004.
5. All Commercial driveways have been designed using the B99 vehicle in accordance with A.S.2890.1.2004.
6. For levels to setout all non-standard driveways, refer the Driveway Cross Sections. Driveway Cross Sections are located on the centerline of the driveway unless noted otherwise.
7. Where special requirements are identified prior to pouring concrete, driveways shall be initially formed with gravel and where possible check for operation with the resident's vehicle.
8. Existing culverts and endwalls to be removed where kerb and gutter is installed unless otherwise specified.
9. All existing driveway culverts and endwalls to be reconstructed in accordance with the Council's Standards.
10. All roofwater drain pipes to be connected to new kerb and gutter.
11. All kerb ramps shall be constructed in accordance with Council's Standards.
12. All footpaths shall be constructed in accordance with Construction Details. Refer drawings for location and width.
13. All existing water supply service crossings are to be located prior to commencement of construction.
14. All existing gas supply service crossings are to be located prior to commencement of construction. Inform Gas Authority of any service conflict and relocate if required.

LINEMARKING NOTES:

1. All linemarking, signs and traffic devices shall comply with TfNSW guidelines.
2. Thermoplastic linemarking is to be used for stop lines, give way lines and pavement arrows unless directed by the Council Engineer.
3. All signs are to be size "A" unless noted otherwise.
4. Dimensions to linemarking are measured from the nominal kerb and gutter invert and or from the nominal kerb face of island and medians.
5. Install or reinstate valve and hydrant identification markers in accordance with the Water Authority.
6. Ensure that signage has clear sight distance, otherwise adjust location accordingly.
7. Superseded linemarking and signage to be removed.

STORMWATER DRAINAGE NOTES:

1. All reinforced concrete pipes and fibre reinforced concrete pipes are to be class 2 unless noted otherwise on the drawings.
2. All reinforced concrete pipes to comply with A.S. 4058-2007.
3. All fibre reinforced concrete pipes to comply with A.S. 4139-2003.
4. All reinforced concrete box culverts and link slabs to comply with A.S. 1597.1-2010 and A.S. 1597.2.
5. Manholes are to be in accordance with Council's requirements.
6. Gully Inlet Pits are to be in accordance with Council's requirements.
7. Field Inlet Pits are to be in accordance with Standard Drawings Council's requirements.
8. Excavation, bedding and back filling of drainage pipes and culverts to be in accordance with Council's requirements.
9. Subsurface drainage to be in accordance with Standard Drawings Council's requirements.
10. Stormwater pipe measurements are to centre of pits unless noted otherwise on the drawings.
11. Centre of pit for lip in line Gully Inlet Pits are to be located 0.49 metre from the lip of the kerb and gutter.
12. Centre of pit for kerb in line Gully Inlet Pits are to be located 0.285 metre from the lip of the kerb and gutter.

SERVICE ADJUSTMENT NOTES:

1. Service Authority infrastructure adjustments are to be performed by contractors approved by the relevant service authority.

LEGEND

EXISTING SERVICES

- Communication
- Communication to be removed
- Communication to be abandoned
- Drainage Downpipe
- Drainage Pipe
- Drainage Pipe to be removed
- Electricity
- Electricity to be removed
- Electricity Overhead
- Electricity to be abandoned
- Fire Service
- Fire Service to be removed
- Fire Service to be abandoned
- Gas Main
- Gas Main to be removed
- Gas Main to be abandoned
- Petroleum Main
- Petroleum Main to be removed
- Petroleum Main to be abandoned
- Recycled Water Main
- Recycled Water to be removed
- Recycled Water to be abandoned
- Sewer Main
- Sewer Main to be removed
- Sewer Main to be abandoned
- Sewer Rising Main
- Sewer Rising Main to be removed
- Sewer Rising Main to be abandoned
- Unidentified Service
- Unidentified Service to be removed
- Unidentified Service to be abandoned
- Water Main
- Water Main to be Removed
- Water Main to be Abandoned

EXISTING FEATURES

- Building Line
- Driveway Crossover
- Existing Property Boundary
- Existing Easement Boundary
- Fence Guard Rail
- Fence Hand Rail
- Fence Line
- Kerb and Gutter
- Kerb Only
- Kerb Only Island
- Park Garden Edge
- Path
- Railway Ballast Edge
- Railway Line
- Road Edge of Bitumen
- Road Edge of Track
- Road Edge Unsealed
- Surface Toe of Bank
- Surface Top of Bank
- Tree Spread of Canopy

EXISTING SYMBOLS

- Communication Pit
- Communication Pilar
- Communication Pole
- Communication Manhole
- Drainage Down Pipe Outlet
- Drainage GIP
- Drainage Manhole
- Electricity Light Pole
- Electricity Power Pole with Light
- Electricity Power Pole
- Electricity Manhole
- Electricity Pit
- Electricity Stay Wire
- Fence Gate
- Fence Post
- Gas Pit
- Geotech Bore Hole
- Mail Box on Pole
- Mail Box on Slab
- Pothole
- Traffic Signal Pole
- Traffic Signal Control Box
- Traffic Signal Pit
- Traffic Sign
- Traffic Parking Meter
- Traffic Delineator Guide Post
- Tree
- Existing trees affected by proposed roadworks to be removed. Prior to removal consult with ICC's Superintendent. Unless noted otherwise.
- Sewer Manhole
- Survey PSM
- Survey STN
- Water Fire Hydrant
- Water Meter
- Water Valve
- Water Zone Valve
- Water Scour
- Water Reducer
- Water Deadend

PROPOSED SERVICES

- Communication
- Drainage Down Pipe
- Drainage Pipe/Box Culvert
- Electricity
- Fire
- Gas Main
- Petroleum Main
- Recycled Water
- Sewer Main
- Sewer Rising Main
- Water Main

PROPOSED FEATURES

- Building Line
- Control Line
- Fence Guard Rail
- Fence Hand Rail
- Fence Line
- Kerb & Gutter
- Kerb Only Face
- Kerb Only Future
- Kerb Only Interim
- Kerb Only Island
- Landscaping
- Road Crown - Change of Grade
- Road Edge of Bitumen
- Road Shoulder
- Road Unsealed Edge
- Path
- Proposed Property Boundary
- Saw Cut Full Depth
- Subsoil Drainage
- Toe of Bank
- Top of Bank

PROPOSED SYMBOLS

- Fence Gate
- Fence Post
- Sewer Manhole
- Stormwater FIP
- Stormwater GIP
- Stormwater Headwall
- Stormwater Manhole
- Water Fire Hydrant
- Water Valve
- Water Scour
- Water Deadend
- Water Connector
- Water Test/Chlorination Point
- Water Reducer
- Water Meter (SC)
- Water Thrust/Anchor Block

NOTE:

This design must be read in conjunction with Design Advice provided to the client from Complete Urban during the design process and supplied with the For Construction documentation. This advice forms part of the design.

COMPLETE

REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA

Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	Civil
Certifier Name	
Certifier No.	
Date	

Signature:

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

Drawing Status: FINAL DETAILED DESIGN

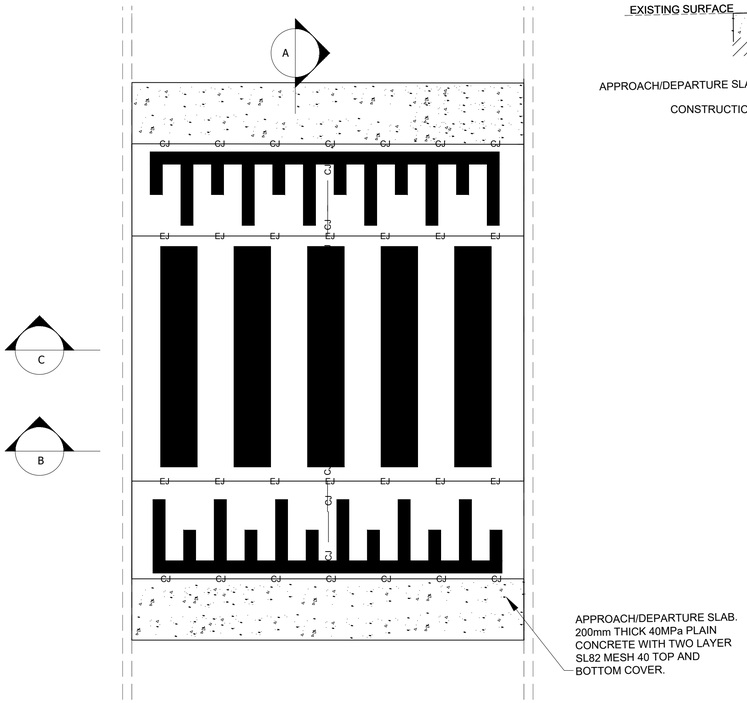
TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project: **DUNLOP STREET CYCLEWAY, EPPING**

Drawing Title: **GENERAL NOTES**

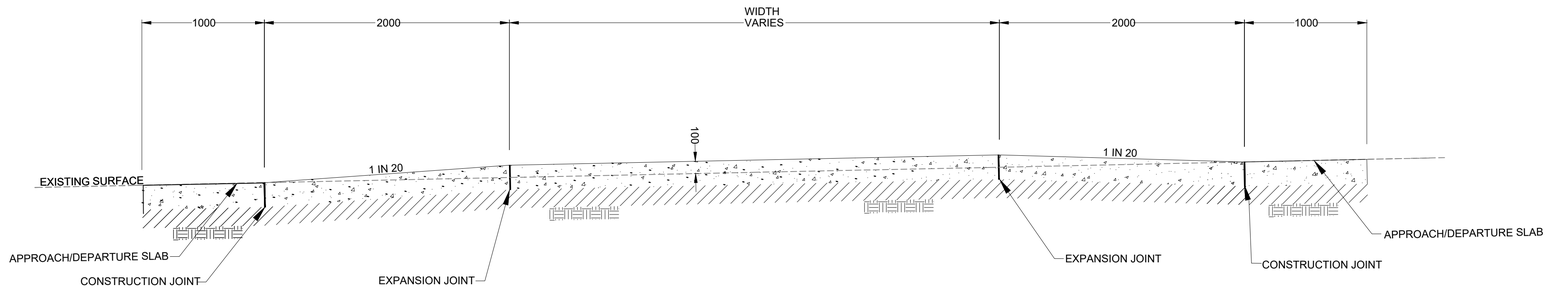
	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	002	B



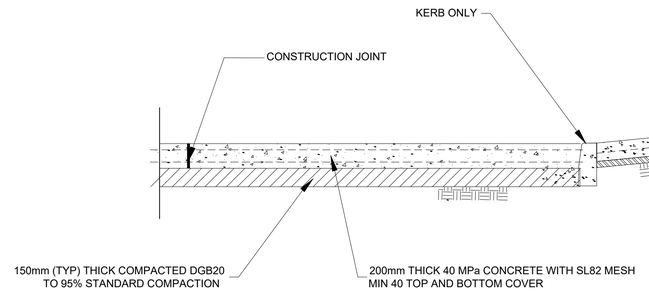
TYPICAL RAISED CROSSING JOINTING PLAN

SCALE 1:50



TYPICAL RAISED CROSSING PROFILE SECTION - SECTION A

SCALE 1:25



TYPICAL RAISED CROSSING CROSS SECTION - SECTION B

SCALE 1:25

WARNING!

BEWARE OF UNDERGROUND SERVICES

The location of underground services has been compiled from engineering survey and interpolated from Dial Before You Dig as provided by the Service Authorities. No responsibility is taken for the accuracy of the interpolated information supplied. Ensure all services are accurately located prior to commencement of work.

WARNING!

BEWARE OF AERIAL SERVICES

Overhead powerlines and communication cables within work area. Contact service provider for advice prior to commencement of work.

NOTE:

1. This drawing is to be read in conjunction with the Notes and Legend on Drg. INF03332/ 002.

COMPLETE

REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA

Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	Civil
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

Drawing Status: FINAL DETAILED DESIGN

TECHNICAL SERVICES

126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project

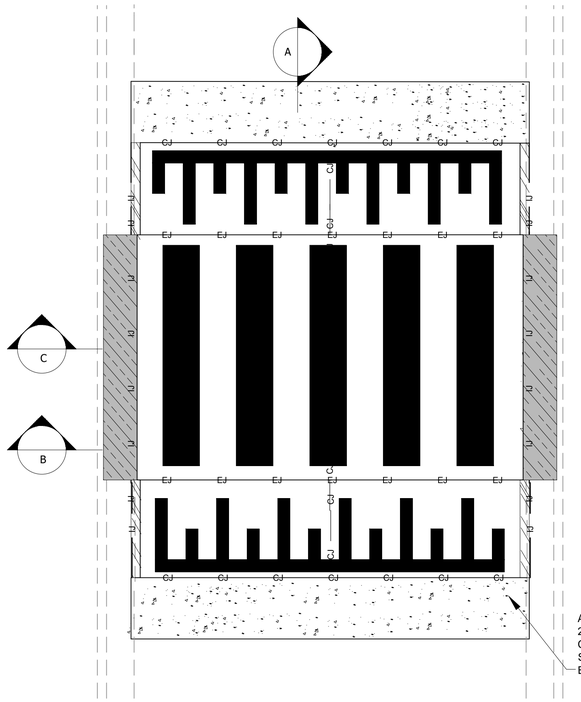
DUNLOP STREET CYCLEWAY, EPPING

Drawing Title

CONSTRUCTION DETAILS - SHEET 1 OF 3

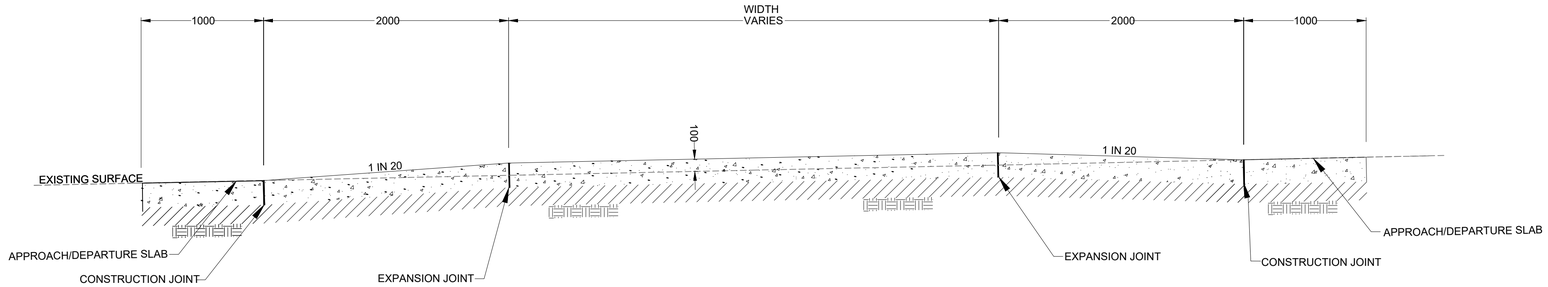
	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	200	B



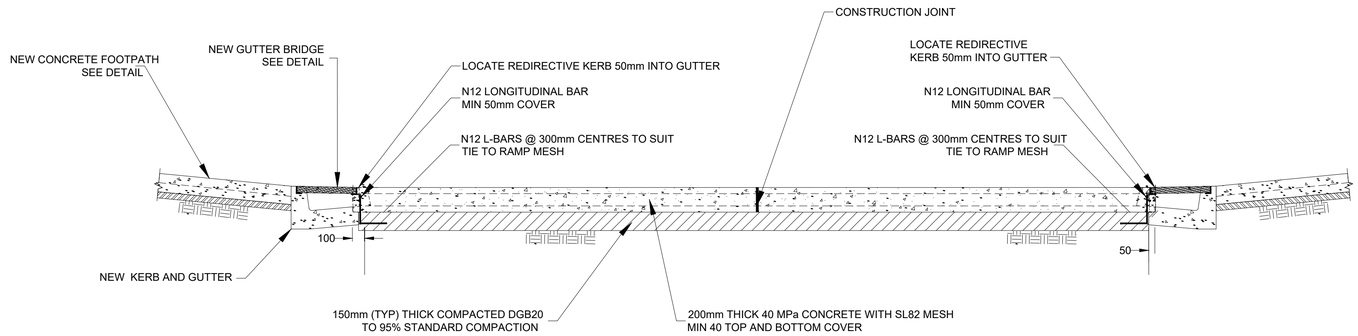
TYPICAL RAISED CROSSING JOINTING PLAN WITH GUTTER BRIDGE

SCALE 1:50



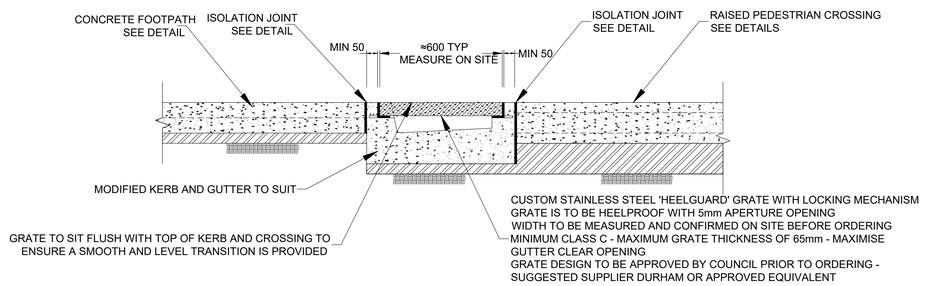
TYPICAL RAISED CROSSING PROFILE SECTION - SECTION A

SCALE 1:25



TYPICAL RAISED CROSSING CROSS SECTION - SECTION B

SCALE 1:25



REDIRECTIVE KERB DETAIL

SCALE 1:10

GUTTER BRIDGE DETAIL - SECTION C

SCALE 1:15

WARNING!

BEWARE OF UNDERGROUND SERVICES

The location of underground services has been compiled from engineering survey and interpolated from Dial Before You Dig as provided by the Service Authorities. No responsibility is taken for the accuracy of the interpolated information supplied. Ensure all services are accurately located prior to commencement of work.

WARNING!

BEWARE OF AERIAL SERVICES

Overhead powerlines and communication cables within work area. Contact service provider for advice prior to commencement of work.

NOTE:

1. This drawing is to be read in conjunction with the Notes and Legend on Drg. INF03332/ 002.

COMPLETE

REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA

Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	Civil
Certifier Name	
Certifier No.	
Date	

Signature: .....

Drawing Status: FINAL DETAILED DESIGN

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

TECHNICAL SERVICES

126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project

DUNLOP STREET CYCLEWAY, EPPING

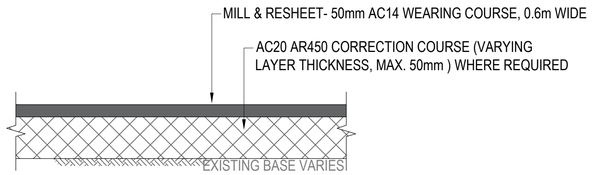
Drawing Title

CONSTRUCTION DETAILS - SHEET 2 OF 3

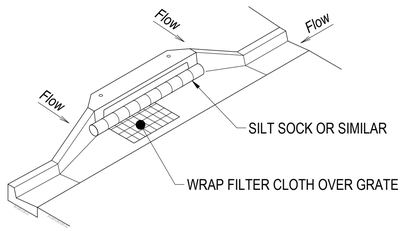
	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	201	B

STANDARD DWG NO.	DRAWING DESCRIPTION
DS1	KERBS AND LAYBACKS
DS2	ROOFWATER OUTLET
DS3	FOOTPATH
DS3A	FOOTPATH ARTICULATE JOINT DETAIL AT TREES
DS4	KERB RAMP
DS6	TYPICAL CYCLEWAY / SHARED PATHWAY (CONTINUOUS AND ALTERNATE POURS)
DS8	VEHICULAR CROSSING
DS11	SIGN POST SUPPORT (IN TURFED FOOTPATH AREA)
DS11B	SIGN POST SUPPORT (IN CONCRETE FOOTPATH AREA)
DS21	KERB INLET PIT (ON GRADE)
DS24	GRATED SAG PIT USING PRECAST LINTEL
DS26	JUNCTION PIT
DS42	TURFING DETAIL
AS 4970-2009	TREE PROTECTION TIMBER HOARDING



ROAD PAVEMENT MILL & RESHEET DETAIL
Scale: 1:10



INLET PROTECTION DETAIL
Not to scale

WARNING!

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WARNING!

BEWARE OF AERIAL SERVICES
Overhead powerlines and communication cables within work area. Contact service provider for advice prior to commencement of work.

NOTE:
1. This drawing is to be read in conjunction with the Notes and Legend on Drg. INF03332 / 002.

COMPLETE

REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA

Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	Civil
Certifier Name	
Certifier No.	
Date	

Signature: .....

Drawing Status: FINAL DETAILED DESIGN

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

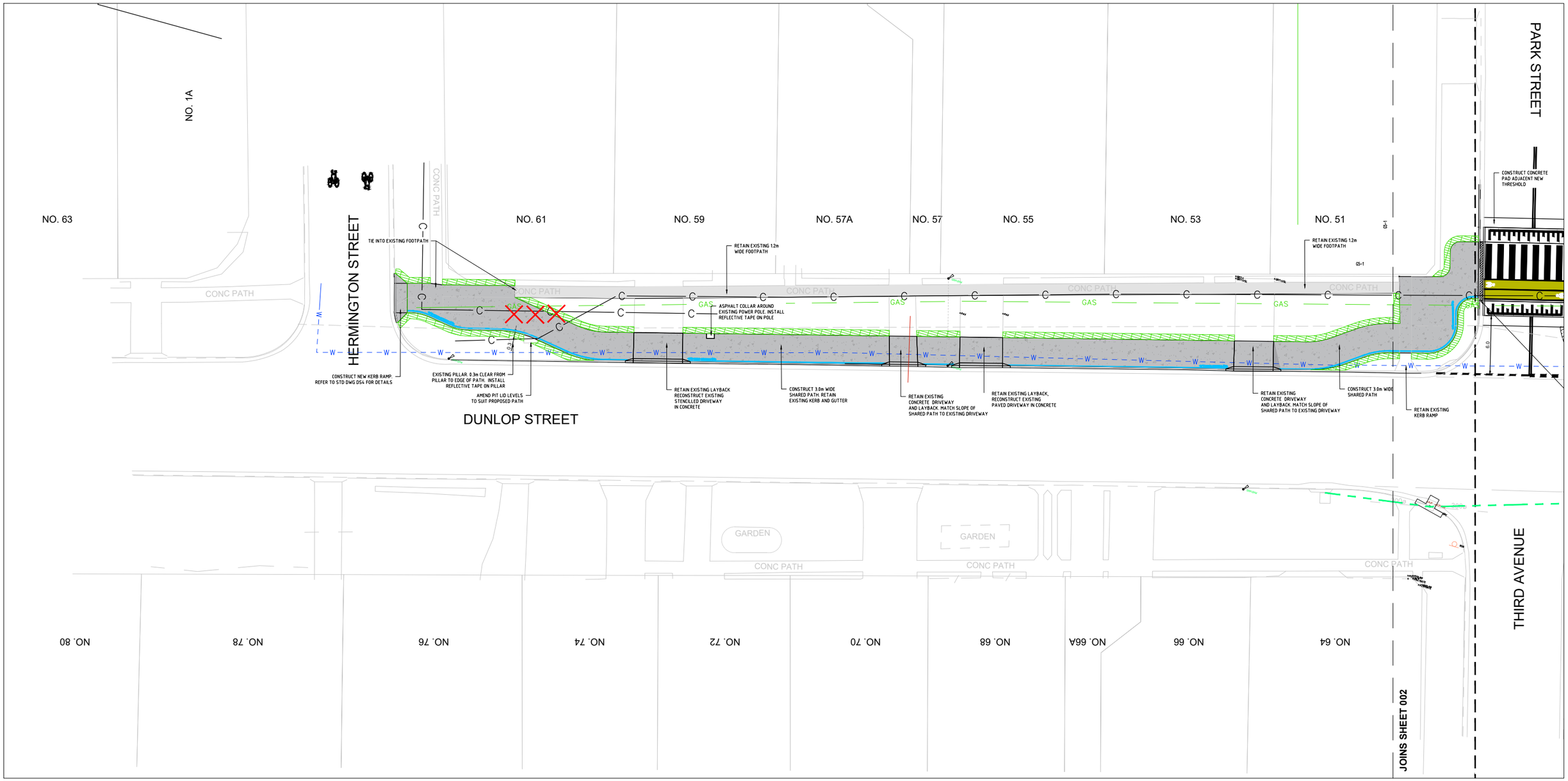
TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project
DUNLOP STREET CYCLEWAY, EPPING

Drawing Title
CONSTRUCTION DETAILS - SHEET 3 OF 3

	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	202	B



COMPLETE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA

Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Scale 0 2 4 6 8 10 1:200

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	Civil
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: FINAL DETAILED DESIGN

TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project

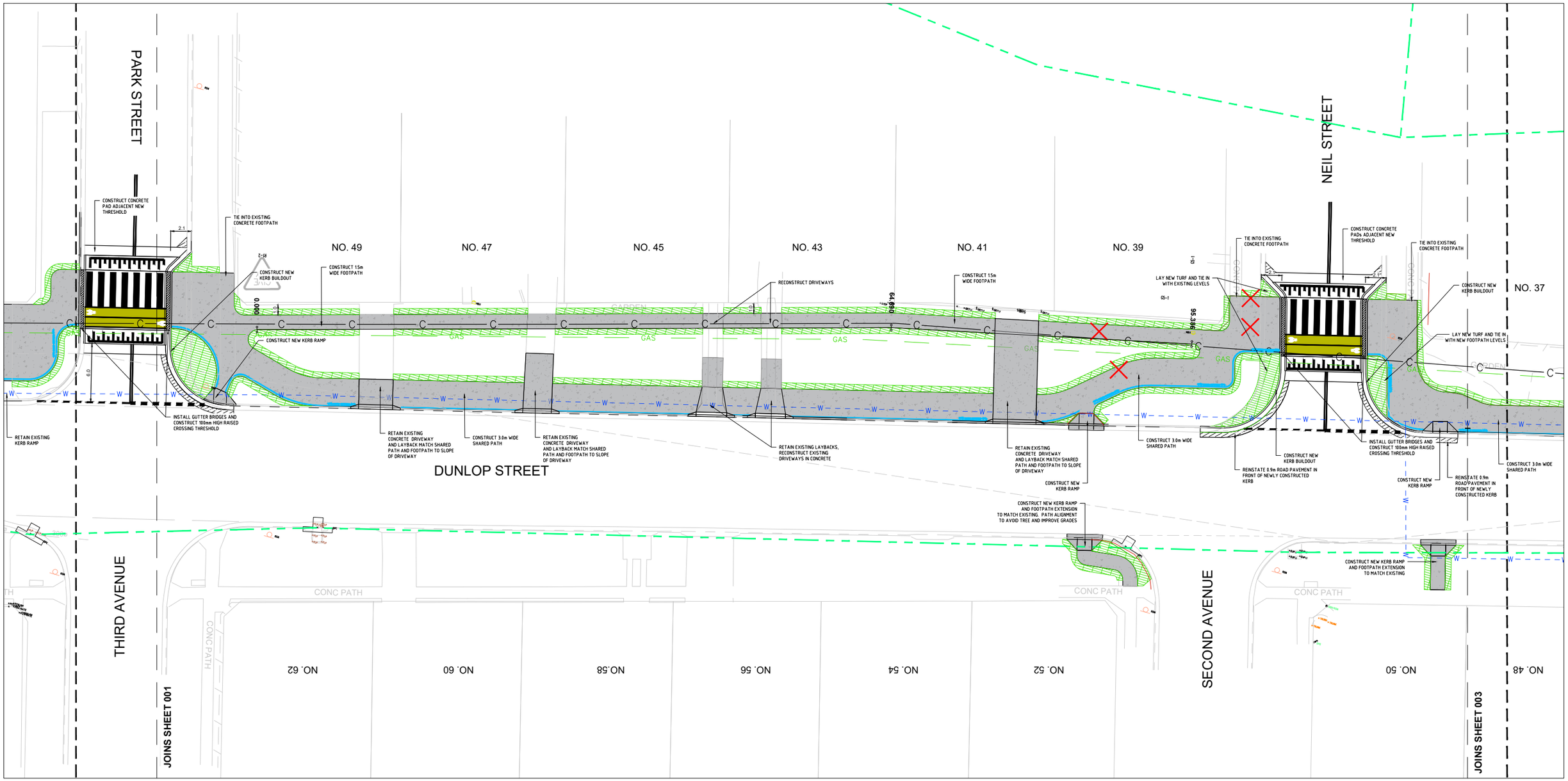
DUNLOP STREET CYCLEWAY, EPPING

Drawing Title

GENERAL ARRANGEMENT PLAN - Sheet 001 of 006

	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	400	B



COMPLETE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA					
Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Scale 0 2 4 6 8 10 1:200

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	Civil
Certifier Name	
Certifier No.	
Date	
Signature:	

Drawing Status: FINAL DETAILED DESIGN

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project

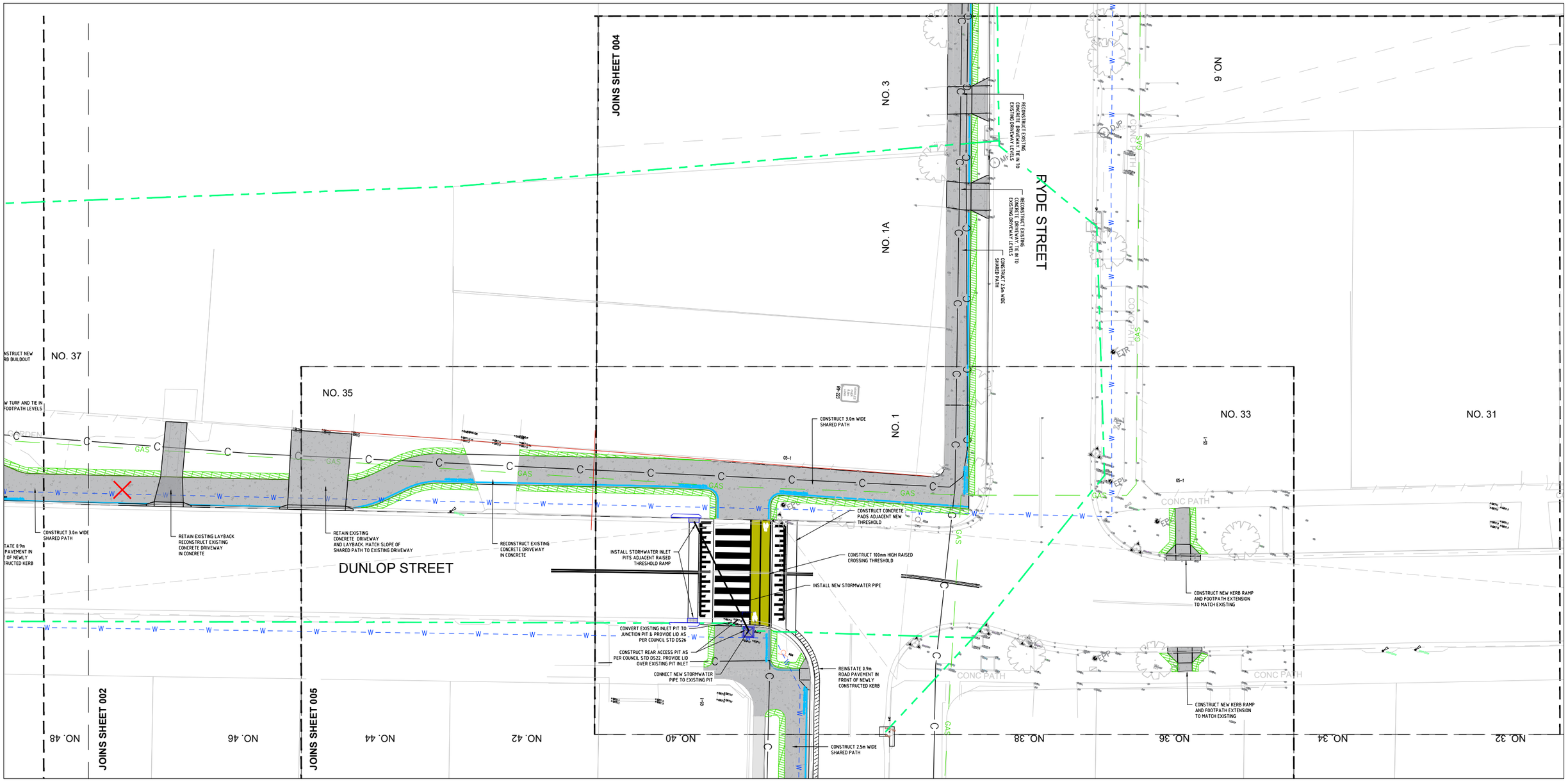
DUNLOP STREET CYCLEWAY, EPPING

Drawing Title

GENERAL ARRANGEMENT PLAN - Sheet 002 of 006

	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	401	B



COMPLETE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA					
Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Scale 0 2 4 6 8 10 1:200

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	Civil
Certifier Name	
Certifier No.	
Date	
Signature:	

Drawing Status: FINAL DETAILED DESIGN

COUNCIL APPROVAL

Approved By

(For) **General Manager (I&E)**

Date:

TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project

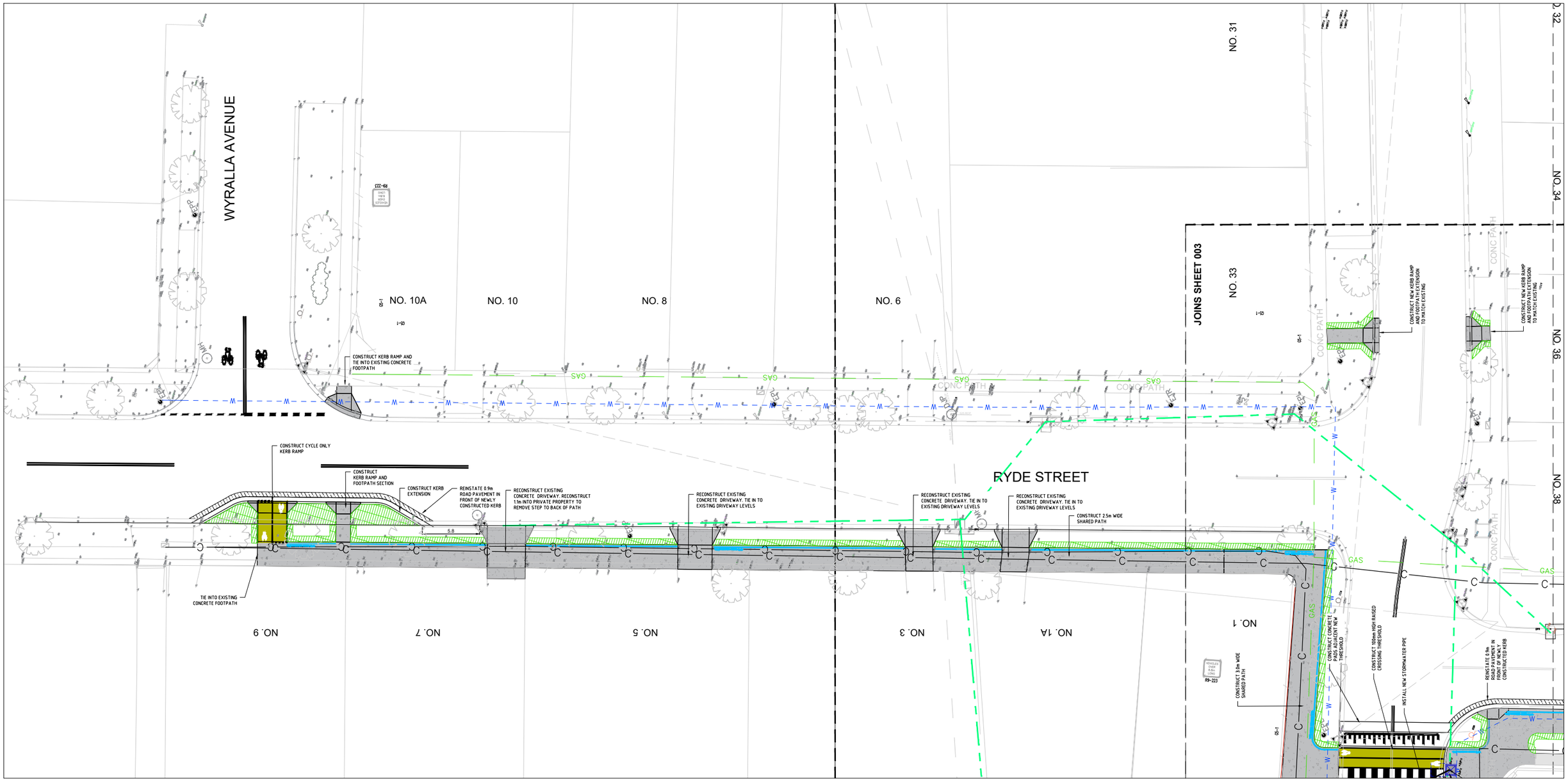
DUNLOP STREET CYCLEWAY, EPPING

Drawing Title

GENERAL ARRANGEMENT PLAN - Sheet 003 of 006

	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	402	B



COMPLETE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA					
Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Scale 0 2 4 6 8 10 1:200

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	Civil
Certifier Name	
Certifier No.	
Date	
Signature:	

Drawing Status: FINAL DETAILED DESIGN

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project

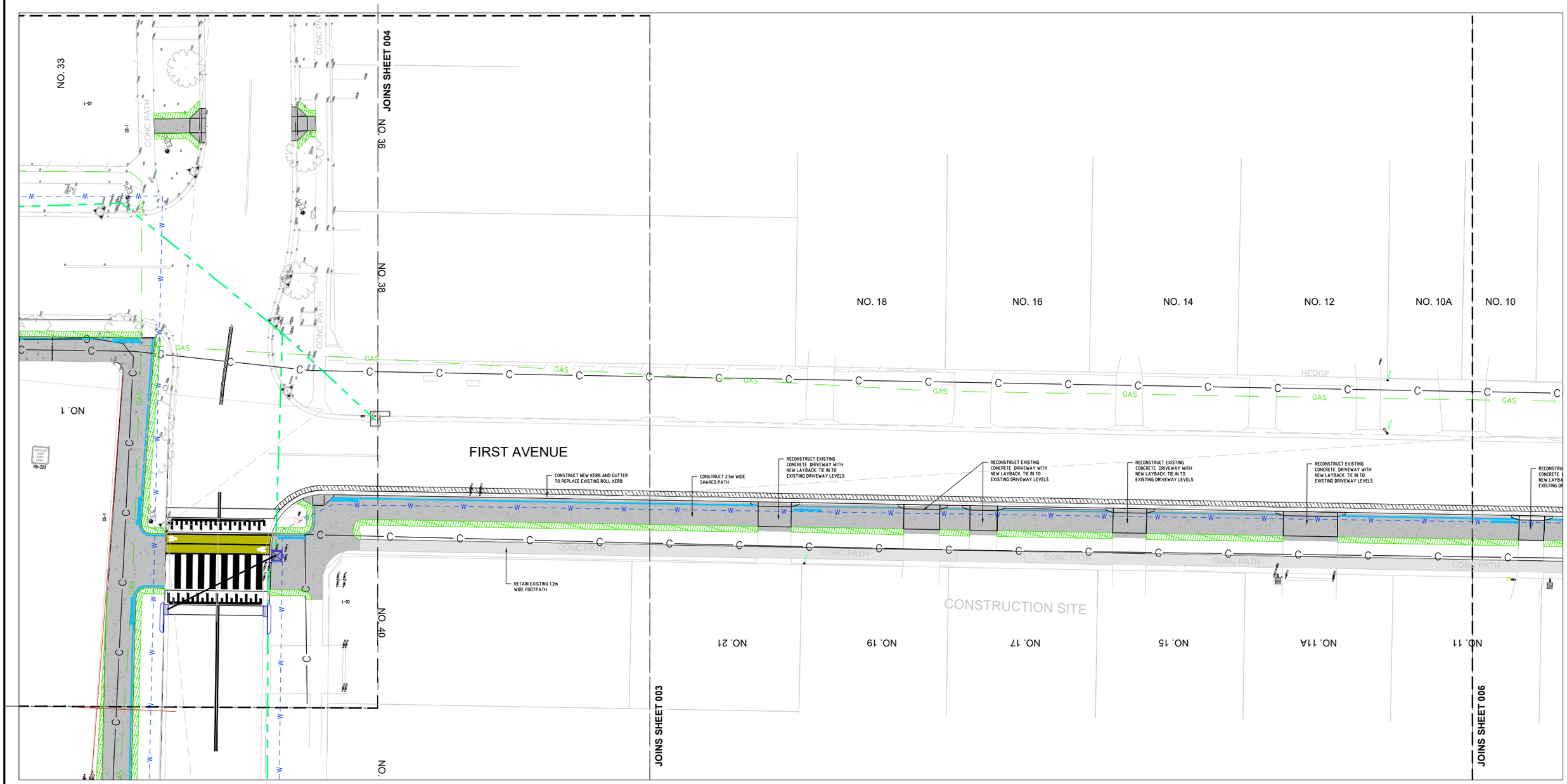
DUNLOP STREET CYCLEWAY, EPPING

Drawing Title

GENERAL ARRANGEMENT PLAN - Sheet 004 of 006

	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	403	B



COMPLETE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA					
Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Scale 0 2 4 6 8 10 1:200

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	Civil
Certifier Name	
Certifier No.	
Date	
Signature:	.....

Drawing Status: FINAL DETAILED DESIGN

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project

DUNLOP STREET CYCLEWAY, EPPING

Drawing Title

GENERAL ARRANGEMENT PLAN - Sheet 005 of 006

	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	404	B

COMPLETE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA					
Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Scale 0 2 4 6 8 10 1:200

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	Civil
Certifier Name	
Certifier No.	
Date	
Signature:	

COUNCIL APPROVAL

Approved By

(For) **General Manager (I&E)**

Date:

Drawing Status: FINAL DETAILED DESIGN

TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project

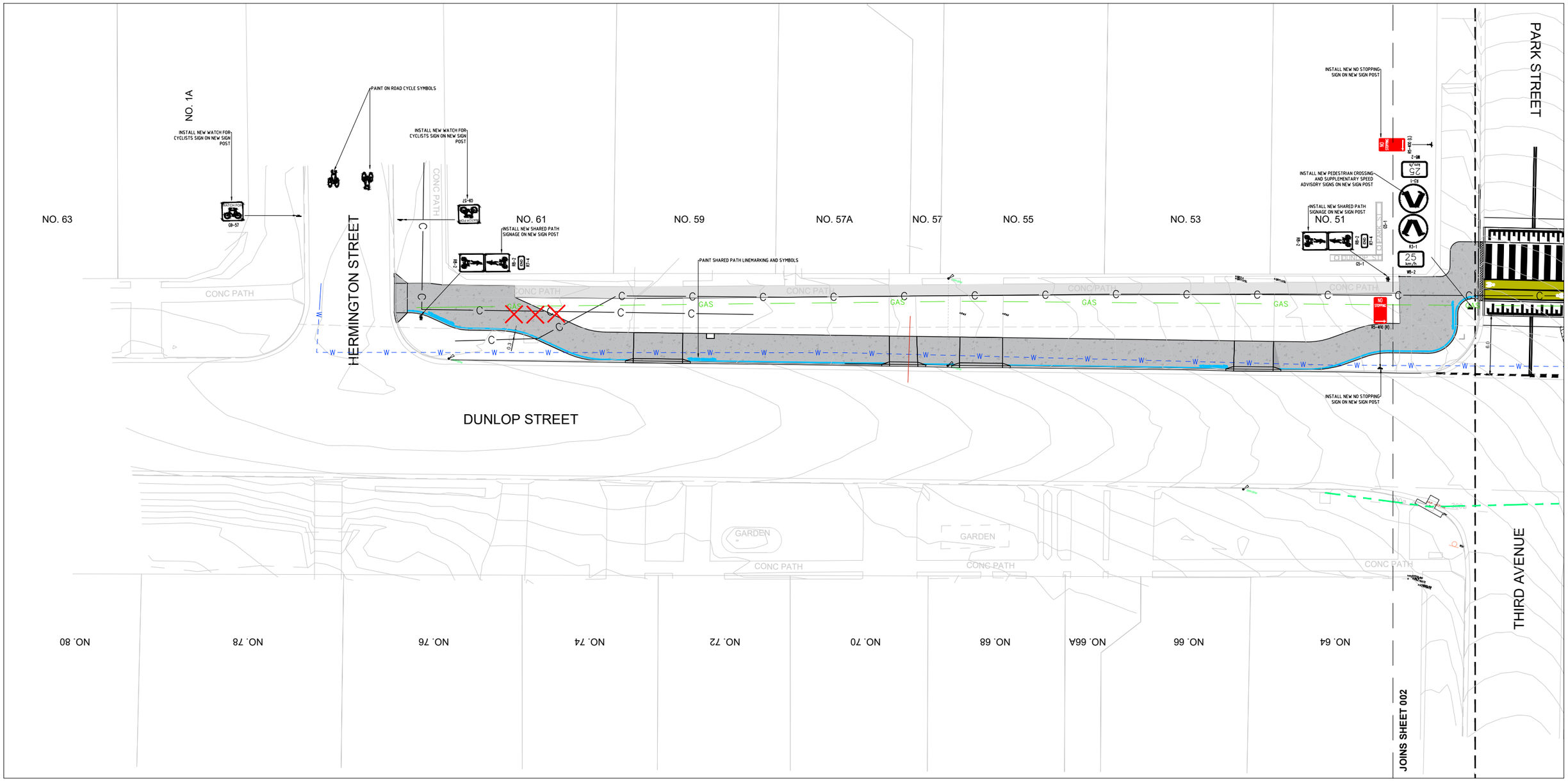
DUNLOP STREET CYCLEWAY, EPPING

Drawing Title

GENERAL ARRANGEMENT PLAN - Sheet 006 of 006

	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	**405**	B



PAVEMENT MARKING TYPES

No.	TYPE	EXAMPLE	WIDTH	DESCRIPTION
LONGITUDINAL AND TRANSVERSE LINES				
A	Give Way Line		150mm	Continuous
C	Shared Path Line (T1L01)		150mm	Continuous

COMPLETE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA

Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Scale 0 2 4 6 8 10 1:200

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	Civil
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: FINAL DETAILED DESIGN

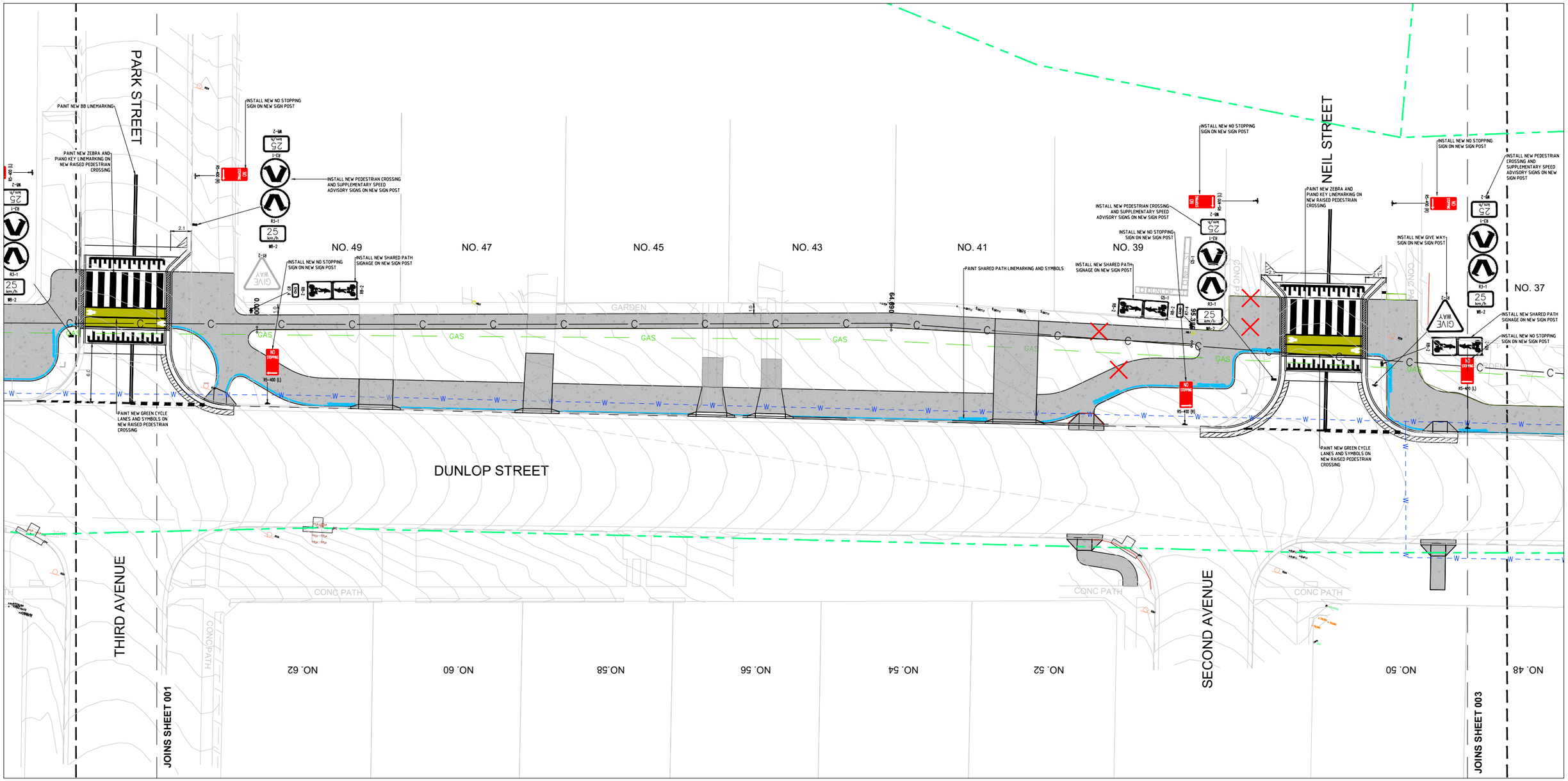
TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project: **DUNLOP STREET CYCLEWAY, EPPING**

Drawing Title: **SIGNAGE AND LINEMARKING PLAN - Sheet 001 of 006**

	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	1000	B



PAVEMENT MARKING TYPES

No.	TYPE	EXAMPLE	WIDTH	DESCRIPTION
LONGITUDINAL AND TRANSVERSE LINES				
A	Give Way Line		150mm	Continuous
B	BB Line		100mm	Continuous
C	Shared Path Line (T1L01)		150mm	Continuous

COMPLETE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA

Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Scale 0 2 4 6 8 10 1:200

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	Civil
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: FINAL DETAILED DESIGN

TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project

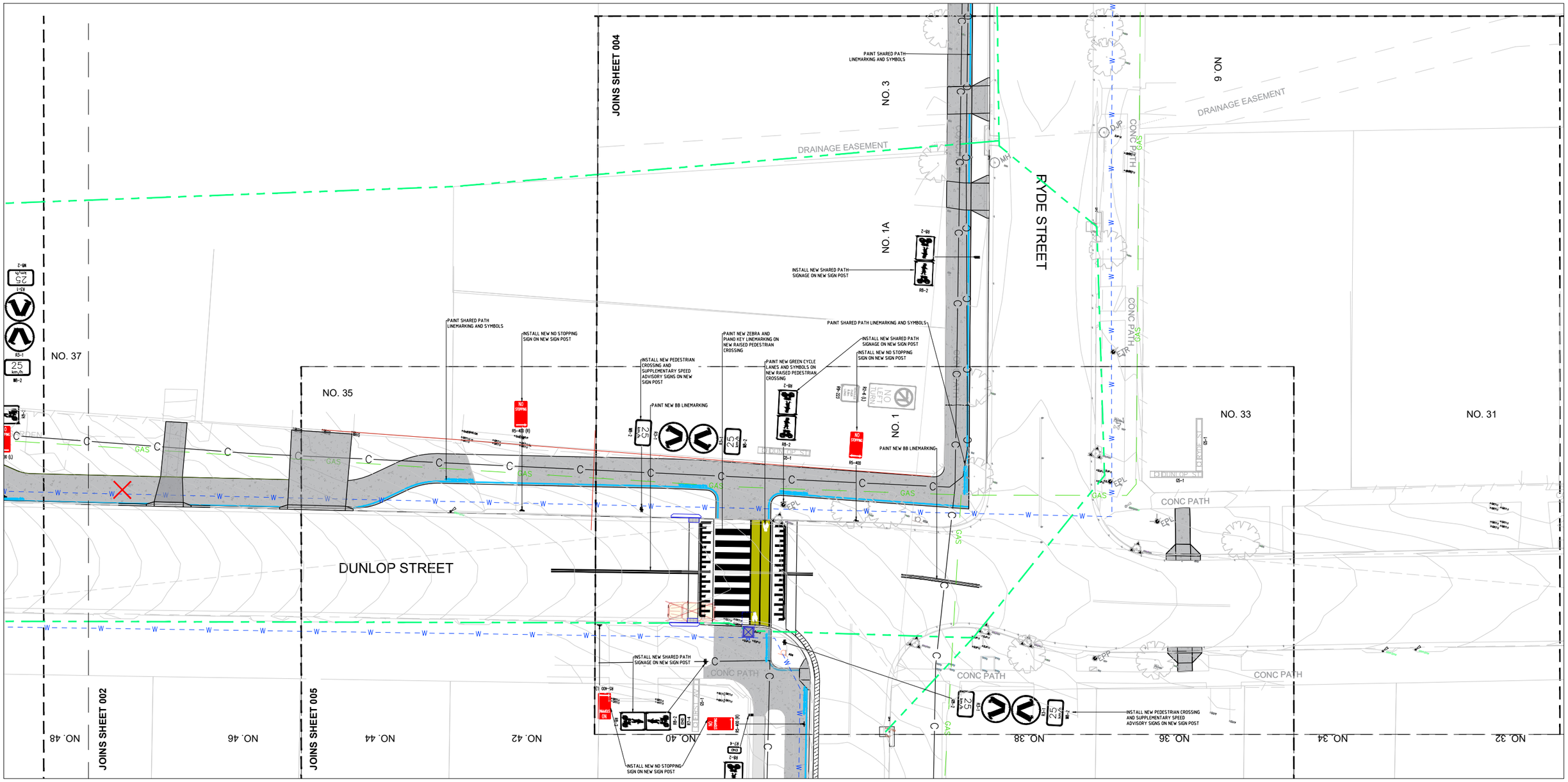
DUNLOP STREET CYCLEWAY, EPPING

Drawing Title

SIGNAGE AND LINEMARKING PLAN - Sheet 002 of 006

	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	1001	B



PAVEMENT MARKING TYPES

No.	TYPE	EXAMPLE	WIDTH	DESCRIPTION
LONGITUDINAL AND TRANSVERSE LINES				
A	BB Line		100mm	Continuous
B	Shared Path Line (T1L01)		150mm	Continuous

COMPLETE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA					
Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Scale 0 2 4 6 8 10 1:200

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	Civil
Certifier Name	
Certifier No.	
Date	
Signature:	

Drawing Status: FINAL DETAILED DESIGN

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

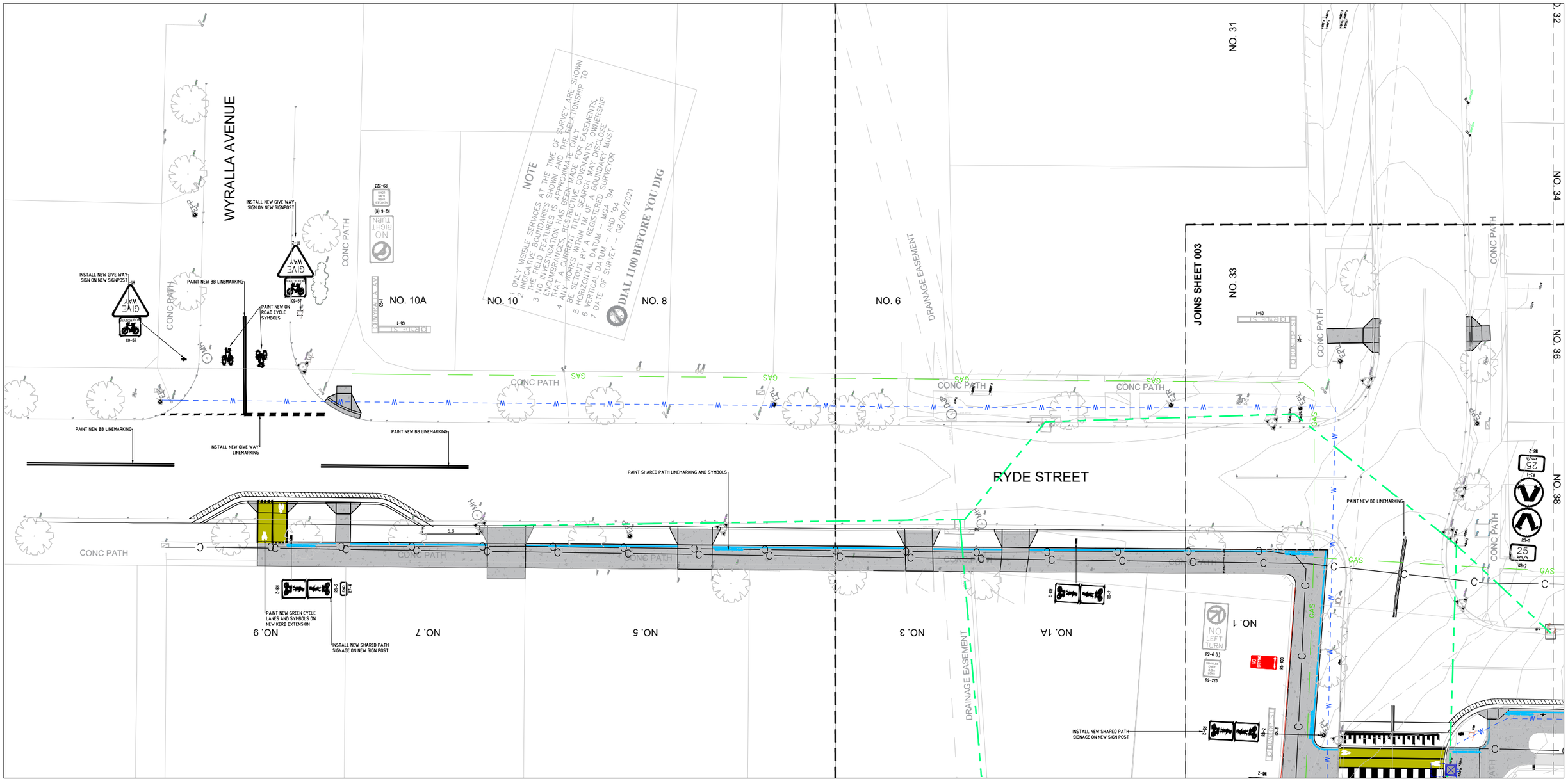
TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project: DUNLOP STREET CYCLEWAY, EPPING

Drawing Title: SIGNAGE AND LINEMARKING PLAN - Sheet 003 of 006

	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	1002	B



PAVEMENT MARKING TYPES

No.	TYPE	EXAMPLE	WIDTH	DESCRIPTION
LONGITUDINAL AND TRANSVERSE LINES				
A	Give Way Line		150mm	Continuous
B	BB Line		100mm	Continuous
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COMPLETE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA					
Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Scale 0 2 4 6 8 10 1:200

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	Civil
Certifier Name	
Certifier No.	
Date	

Signature: .....

Drawing Status: FINAL DETAILED DESIGN

COUNCIL APPROVAL

Approved By

.....

(For) **General Manager (I&E)**

Date:

TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project

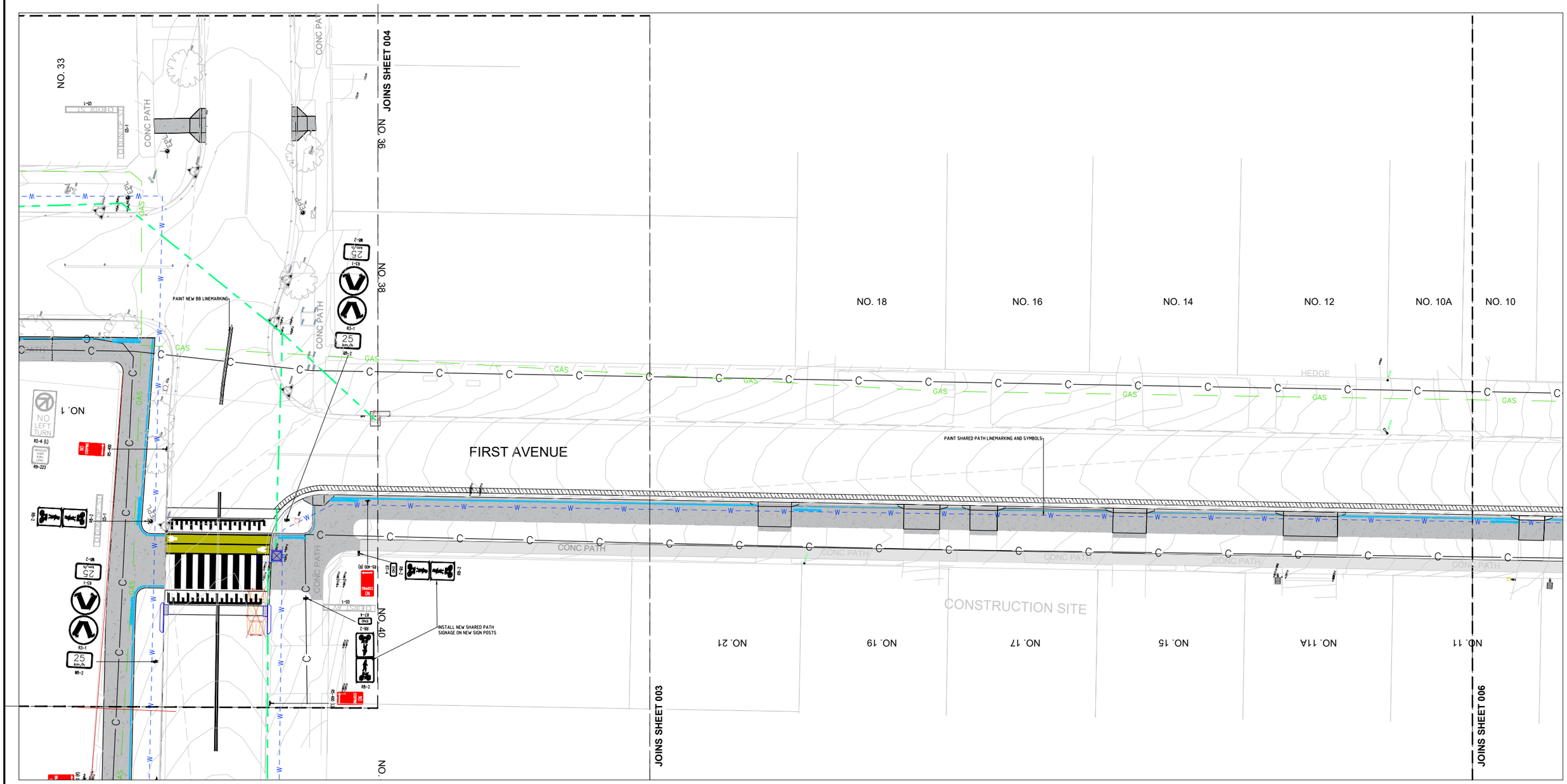
DUNLOP STREET CYCLEWAY, EPPING

Drawing Title

SIGNAGE AND LINEMARKING PLAN - Sheet 004 of 006

	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	1003	B



PAVEMENT MARKING TYPES

No.	TYPE	EXAMPLE	WIDTH	DESCRIPTION
LONGITUDINAL AND TRANSVERSE LINES				
A	BB Line		100mm	Continuous
B	Shared Path Line (T1L01)		150mm	Continuous

COMPLETE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

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Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Scale 0 2 4 6 8 10 1:200

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	Civil
Certifier Name	
Certifier No.	
Date	
Signature:	

COUNCIL APPROVAL
Approved By
(For) General Manager (I&E)
Date:

Drawing Status: FINAL DETAILED DESIGN

TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project

DUNLOP STREET CYCLEWAY, EPPING

Drawing Title

SIGNAGE AND LINEMARKING PLAN - Sheet 005 of 006

	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	1004	B

PAVEMENT MARKING TYPES

No.	TYPE	EXAMPLE	WIDTH	DESCRIPTION
LONGITUDINAL AND TRANSVERSE LINES				
C	Shared Path Line (T1L01)		150mm	Continuous

COMPLETE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
B	Detailed Design	MO	10/22
A	Draft Detailed Design	MO / NP	09/22

SURVEY DATA

Horiz. Datum	AHD	Vertical Datum	AHD	Level Book	MGA1994

Size: A1 - Scales before reduction:

Scale 0 2 4 6 8 10 1:200

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	Civil
Certifier Name	
Certifier No.	
Date	
Signature:	

COUNCIL APPROVAL

Approved By

(For) **General Manager (I&E)**

Date:

Drawing Status: FINAL DETAILED DESIGN

TECHNICAL SERVICES
126 Church Street, Parramatta
Telephone: (02) 9806 5050
e-mail: Council@cityofparramatta.nsw.gov.au

Project

DUNLOP STREET CYCLEWAY, EPPING

Drawing Title

SIGNAGE AND LINEMARKING PLAN - Sheet 006 of 006

	Name	Date
Drawn	M.OWEN	10/22
Designed	M.OWEN	10/22
Checked	N.PARISH	10/22

Project No.	Sheet No.	Rev.
INF03332	1005	B

CITY OF PARRAMATTA COUNCIL

Parramatta Traffic Committee Agenda Item

ITEM NO: 2302 A10

SUBJECT: Asquith Street, Beaconsfield Street and Stubbs Street, Silverwater – Installation of median islands and speed cushions

APPLICANT: City of Parramatta Council

REPORT OF: Traffic and Transport Investigations Engineer

WARD: Rosehill

SED: Auburn

Purpose

This report seeks approval for the construction of new median islands and speed cushions at the intersections of Asquith Street and Stubbs Street, Asquith Street and Melton Street North and Beaconsfield Street and Stubbs Street, Silverwater. The purpose of this proposal is to ensure that vehicles slow down when approaching the intersections and comply with the existing 'Give Way' and 'Stop' restrictions.

OFFICER'S RECOMMENDATIONS:

1. That Council install speed cushions and construct median islands in Asquith Street, Silverwater with associated signs and linemarking on both its approaches to Stubbs Street as shown in the plan attached to this report.
2. That Council install speed cushions and construct median islands in Asquith Street, Silverwater with associated signs and linemarking on both its approaches to Melton Street North as shown in the plan attached to this report.
3. That Council install speed cushions with associated signs and linemarking on all approaches to the existing roundabout at the intersection of Beaconsfield Street and Stubbs Street as shown in the plan attached to this report.

Background

City of Parramatta Council has received an offer of 100% funding from the 2022/23 Australian Government Black Spot Program for the construction of new median islands and speed cushions at the intersections of Asquith Street and Stubbs Street, Asquith Street and Melton Street North and Beaconsfield Street and Stubbs Street, Silverwater.

The location of the proposed works are within a residential area but are in close proximity to the Silverwater Industrial Precinct. The street network in this area is set out in a grid format with several cross intersections. As a result, Council has observed a pattern of cross intersection crash types occurring which are likely the result of a see-through affect where motorists keep looking beyond the intersection and fail to identify the 'Stop' or 'Give Way' restriction.

Asquith Street predominantly provides access to residential properties east of Stubbs Street and industrial properties west of Stubbs Street. The residential side of Asquith Street has an existing 3 tonne Load Limit restriction and intersections along the street are generally controlled by 'Stop' restrictions.

Stubbs Street is one of the primary access points from Parramatta Road to the Silverwater industrial area. The intersection of Stubbs Street and Beaconsfield Street is controlled by a mountable roundabout.

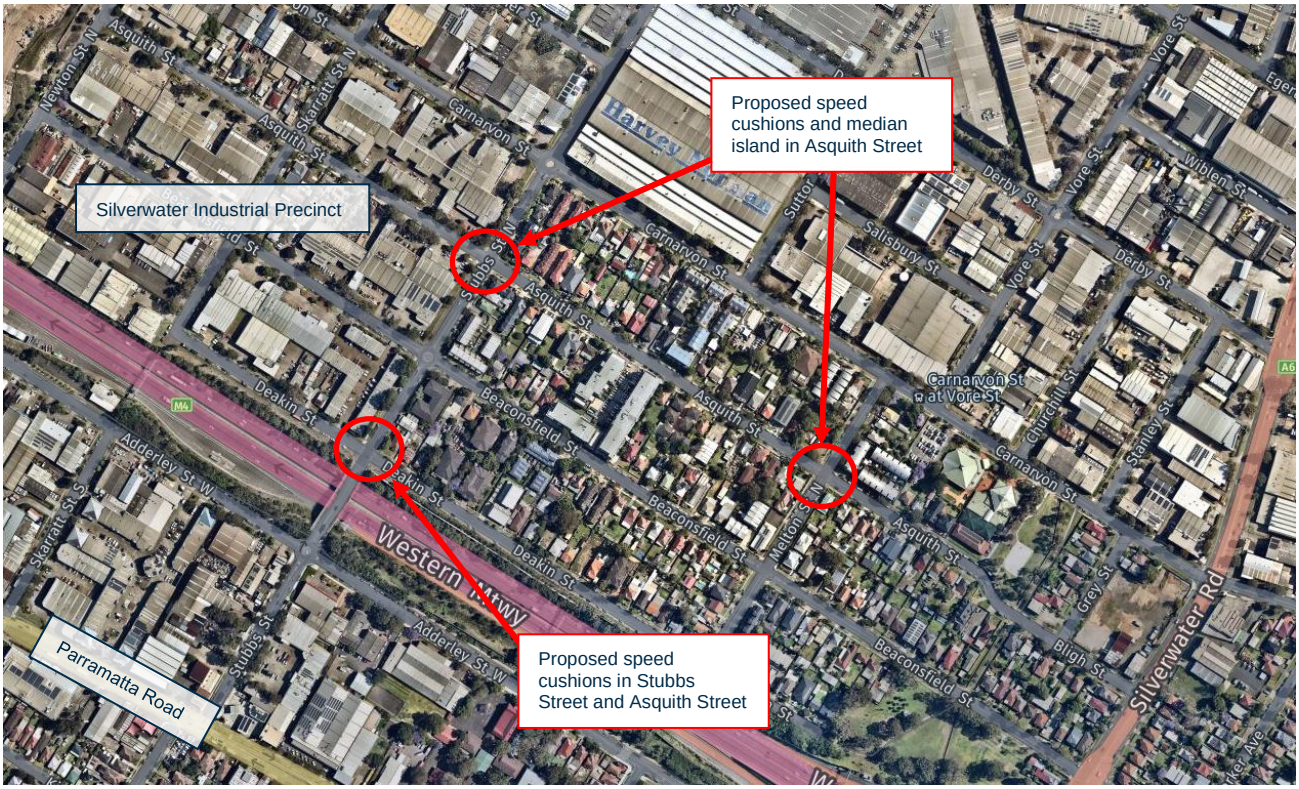


Figure 1: Aerial view of the location surrounding the proposed treatments

A review of the crash history during the five (5) year period between July 2015 and June 2020 revealed that there has been three (3) injury crashes at the intersection of Asquith Street and Stubbs Street, one (1) injury crash related to intersection movements at Asquith Street and Melton Street North, and one (1) injury crash at the intersection of Stubbs Street and Beaconsfield Street. Details of the nature of these crashes is provided in Figure 2 below.

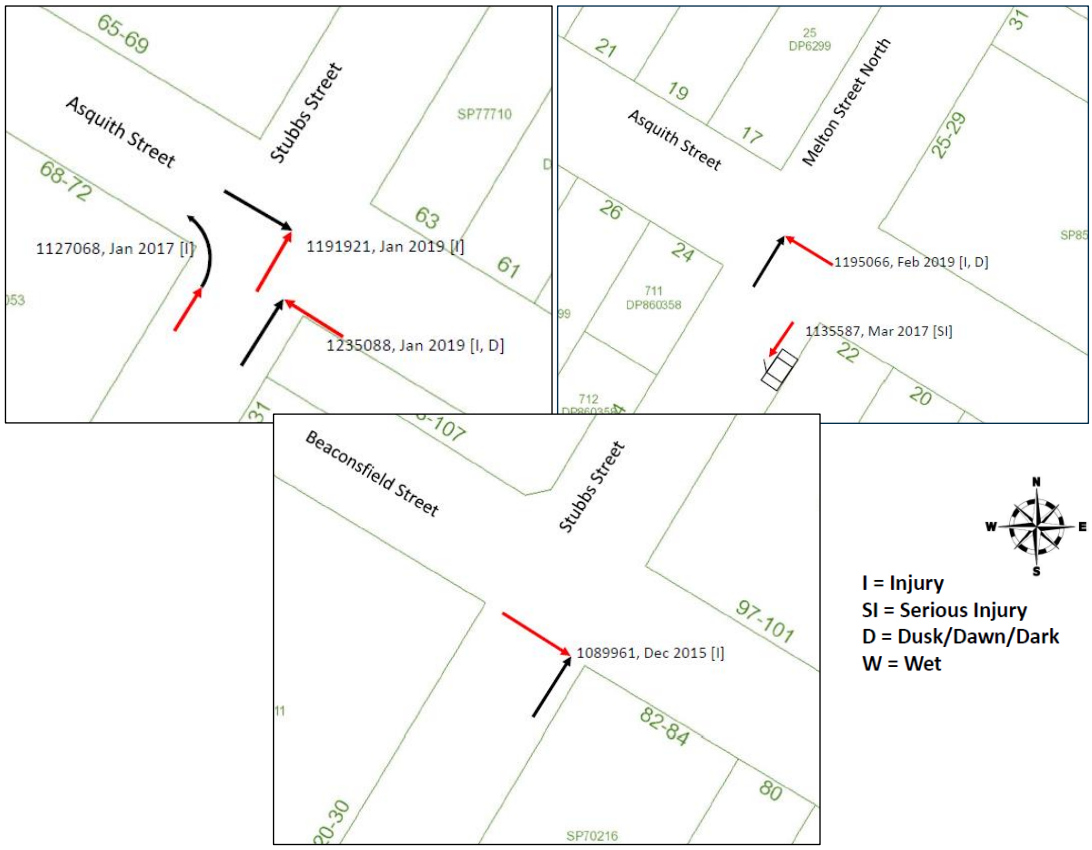


Figure 2: Crash diagrams for the five-year period between July 2015 and June 2020

Proposed Treatment

For the intersections of Asquith Street and Stubbs Street and Asquith Street and Melton Street North, Council is proposing to install two speed cushions and a median island on each of the secondary road approaches. The purpose of this treatment is to ensure that vehicles slow down and adhere to the existing 'Stop' restrictions. The additional speed cushion in each parking lane and the median islands is included as part of the proposal to ensure that motorists are not able to bypass the cushions.

Figure 3: Street View of the intersections of Asquith Street and Stubbs Street on the left and Asquith Street and Melton Street North on the right

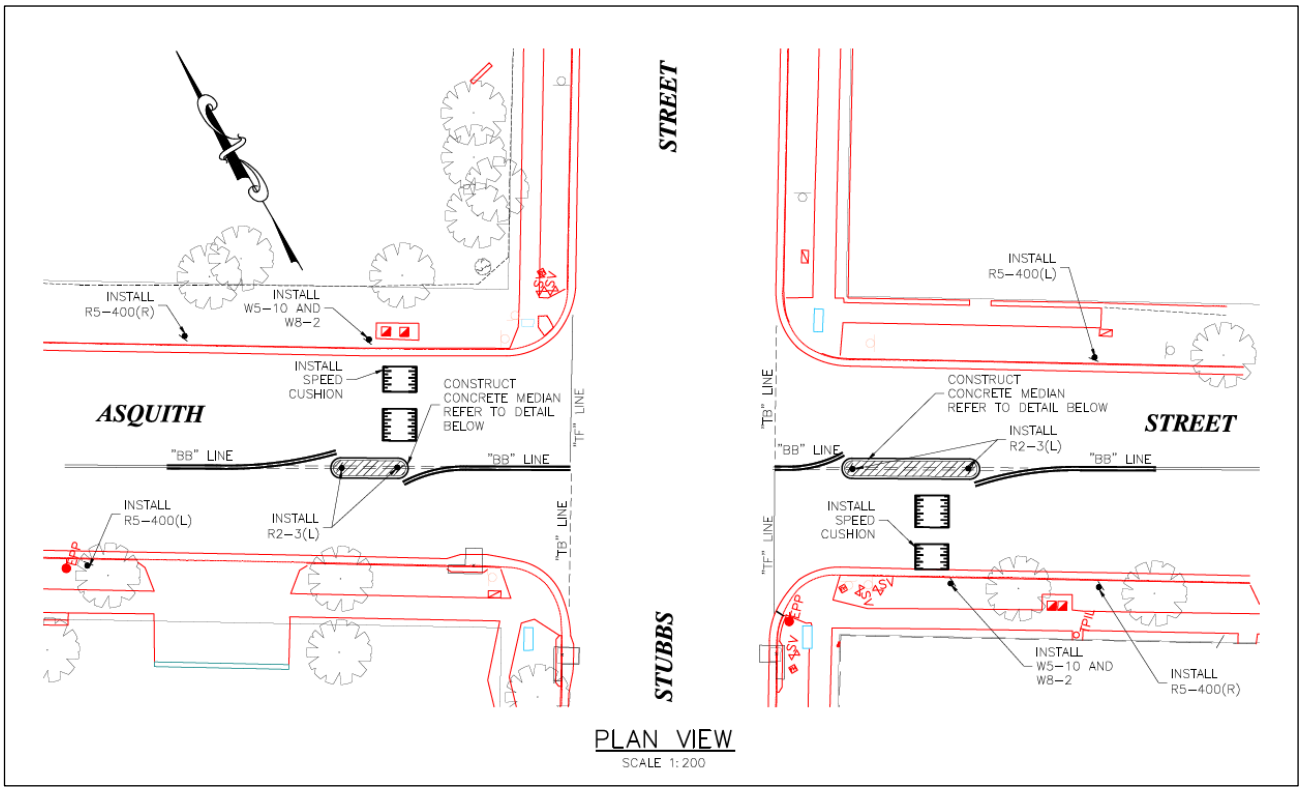


Figure 4: Design plan for the intersection of Asquith Street and Stubbs Street, Silverwater

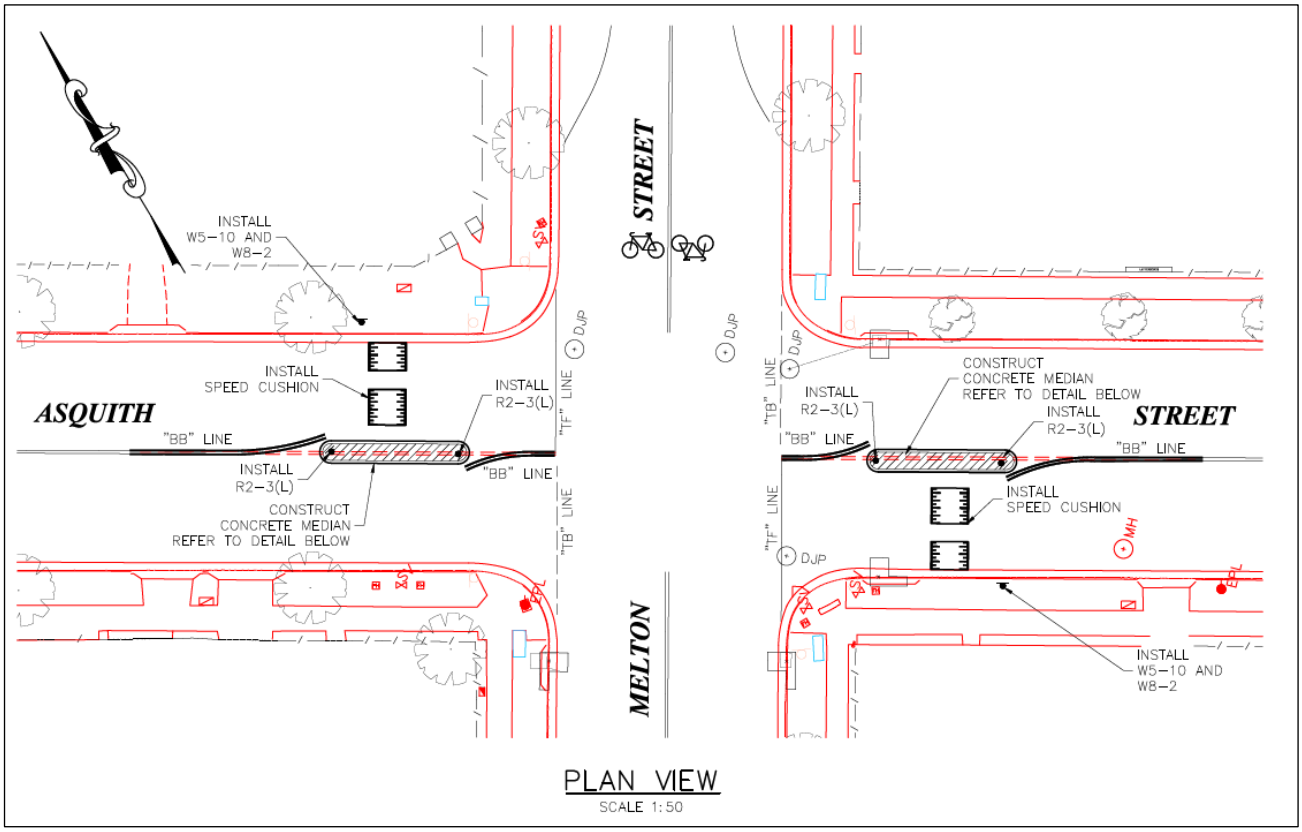


Figure 5: Design plan for the intersection of Asquith Street and Melton Street North, Silverwater

For the intersection of Stubbs Street and Beaconsfield Street, Council is proposing to install speed cushions on each approach of the roundabout. This is to ensure that vehicles slow down when approaching the roundabout and deter motorists from driving over the mountable central island at speed.

Figure 6: Street View of the intersection of Stubbs Street and Beaconsfield Street, Silverwater

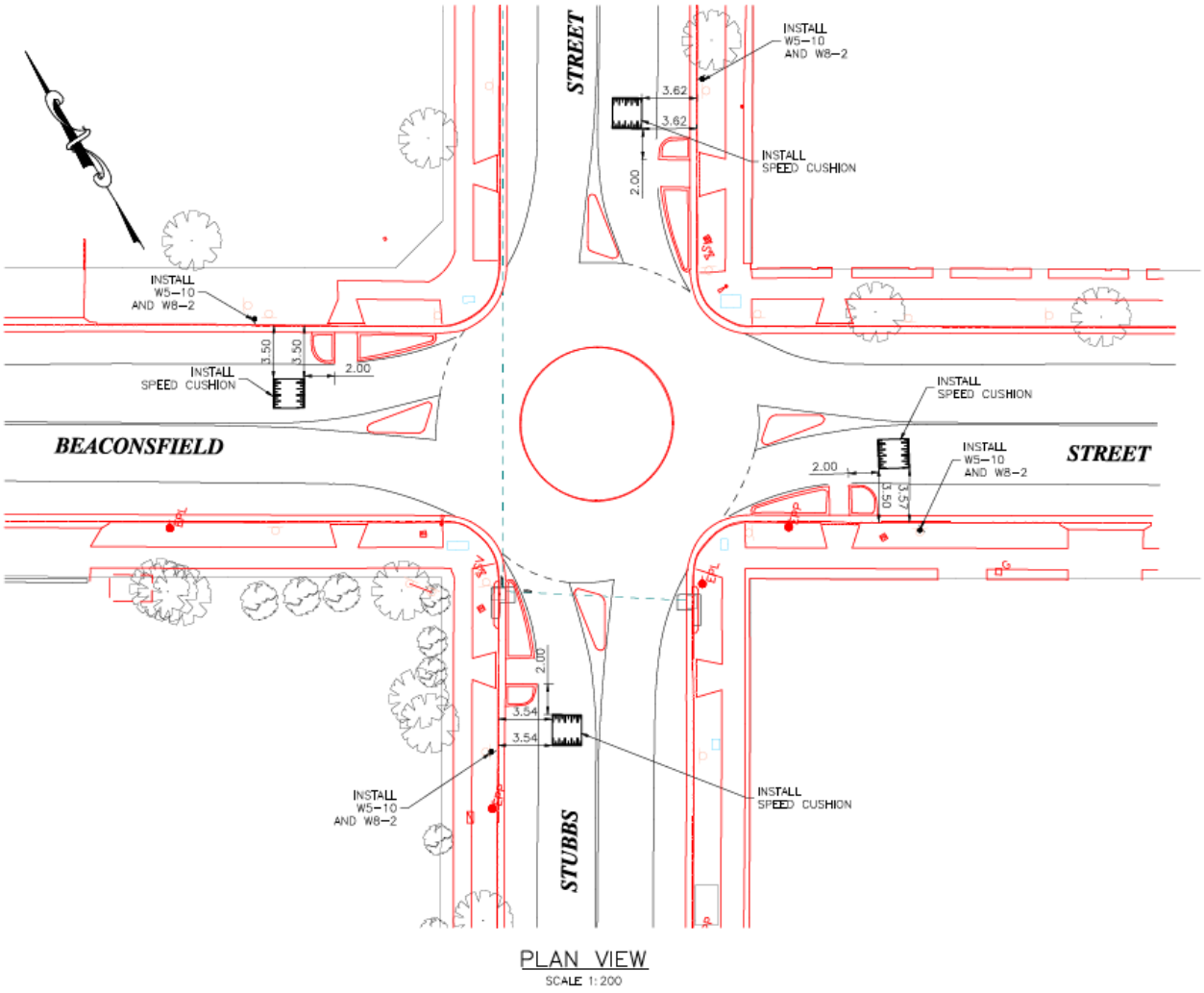


Figure 7: Design plan for the intersection of Stubbs Street and Beaconsfield Street, Silverwater

Community Consultation

Community consultation was undertaken for the proposed median islands and speed

cushions at the intersections of Asquith Street and Stubbs Street, Asquith Street and Melton Street North, and Beaconsfield Street and Stubbs Street, Silverwater for the period between 22 November 2022 and 20 December 2022 and involved the engagement channels listed below:

- City of Parramatta website (On-Exhibition page)
- Email to Bus Service Providers
- Local Parramatta newspaper
  - Parra News (published 22 November 2022)
- Mailout to owners & occupiers (138 letters, 75m radius from intersection)
- On-site Corflute signs

For the proposed works at the intersection of Asquith and Stubbs, Council received two responses from the community with both responses objecting to the proposal. For the intersection of Asquith Street at Melton Street North, Council received three responses from the community with one in support of the proposal and two opposing the proposal. For the intersection of Stubbs Street and Beaconsfield Street, Council received five (5) responses from the community with one (1) response in support of the proposal and four (4) responses objecting to the proposal.

It is noted that one response from each of the three locations was from a community member who was not from the area, however, was objecting only to the idea of speed cushions as opposed to installing the devices at the proposed locations. The other community members that objected to the proposal generally cited noise generation from the devices as the main reason for their objection.

Asquith Street is a side street with lower traffic volumes. The speed cushions proposed in this street are proposed immediately before the ‘Stop’ restrictions meaning that as per the Road Rules, vehicles must slow down and come to a complete stop before proceeding to travel through the intersection. This will result in vehicles making the acceleration noise regardless of whether the speed cushions are installed. Therefore, it is considered that the noise generation by the speed cushions in Asquith Street will be less compared to a mid-block location and given the accident history at this intersection, the safety benefits from having the devises outweigh any perceived negative impacts on the surrounding environment.

In regards to the proposed speed cushions at the roundabout at the intersection of Stubbs Street and Beaconsfield Street, it is similarly expected that vehicles slow down and travel through the intersection at a safe speed and therefore, the acceleration noise by traffic will exist regardless of the proposed devises. However, to further minimise noise generation, Council will install speed cushions that have a width of 1.6m at this intersection, which will mean that motorist will be able to straddle over the humps or just clip the edges provided that their path of travel is correctly aligned. This will minimise the noise that they generate whilst still slowing the vehicles down enough to achieve the desired traffic calming objective.

FINANCIAL IMPLICATIONS

The estimated cost for the construction of the median island and speed cushions at the intersections of Asquith Street and Stubbs Street, Asquith Street and Melton Street North, and Beaconsfield Street and Stubbs Street, Silverwater is $160,000. This project is 100% funded by the 2022/23 Australian Government Black Spot Program.

Behzad Saleh
Traffic and Transport Investigations Engineer

25/01/2023

Attachments – 1. Feedback received from public consultation
2. Detailed Design Plans

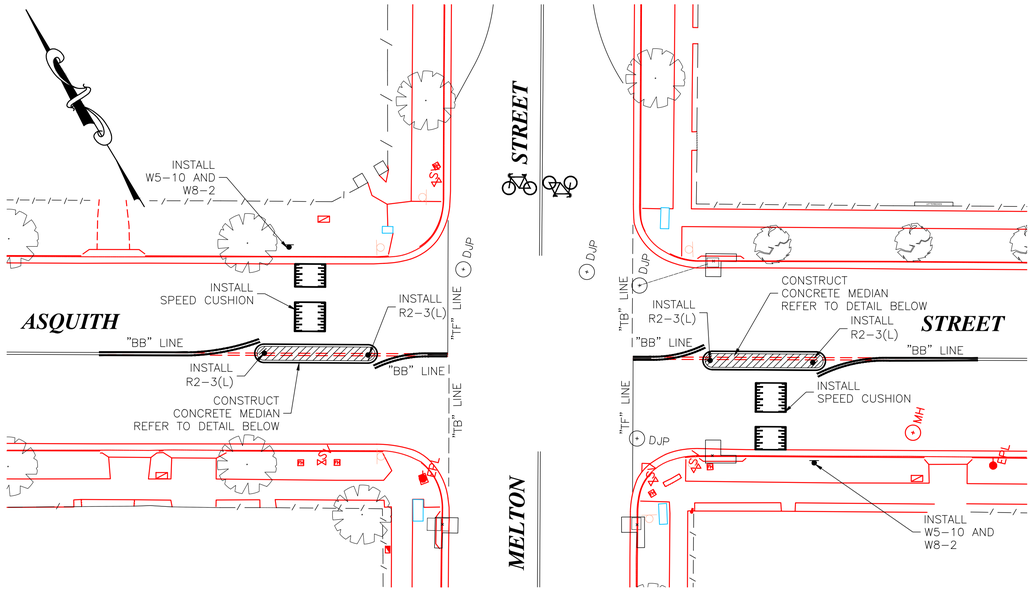
Attachment 1: Feedback received from Stakeholder consultation and Council Officer's Response

Date	Stakeholder	Stakeholder Comment	Council Officer Response
Asquith Street at Stubbs Street (TS 2022 63)			
17/11/2022	TfNSW Customer Journey Planning Team	No Objections	Noted
29/11/2022	Employee	Objected; The customer, who works in the area, believed that speed cushions would not resolve the issue which they believed to be heavy vehicles parking in the street which obstruct sight lines. The customer believes that a roundabout would be a more appropriate solution.	Council has observed a trend of cross traffic related crashes at cross intersections such as at the intersection of Asquith Street and Stubbs Street. This issue is believed to be the result of a see-through effect where motorists keep looking beyond the intersection and fail to see the Give Way or Stop restrictions. The proposed speed cushions and median islands will increase the prominence of the intersection and force motorists to slow down.
19/12/2022	Community Member	Objected; The customer, who lives outside of the area objected to speed humps in general and believes that they are more hazardous for the following reasons: 1. The speed humps may cause the headlights of an oncoming vehicle to 'dazzle' a road user. 2. Speed cushions offer less traction then the surrounding pavement in wet weather. The customer cited an example of when their vehicle lost traction in braking due to the declining face of existing speed cushions at the intersection of Oakes Road and Murray Farm Road.	The speed cushions will reduce the speed of approaching motorists and therefore improve safety at this intersection. The benefits of having the speed cushions outweigh the negative impacts associated with glare from headlights. In regards to the reduced grip at the speed cushions, the speed at which traffic will be traveling through will be low and an advisory speed of 25km/h will be signposted. Furthermore, the speed cushions are a few meters away from the intersection allowing drivers to correct any loss of traction. Therefore, it is not considered that the introduction of speed cushions will create a safety concern regarding loss of traction.
Asquith Street at Melton Street North (TS 2022 64)			

17/11/2022	TfNSW Customer Journey Planning Team	No Objections	Noted
29/11/2022	Resident	Supported; The resident was supportive of this proposal and stated that they have observed motorists not stopping in Asquith Street at the Stop restriction.	Noted
7/12/2022	Resident	Objected; The resident objected to the proposal stating that it will affect their wellbeing due to the noise being generated by vehicles driving over the speed cushions. The resident believes that a roundabout would be a more suitable solution.	Installing a roundabout at this intersection would result in significantly higher costs when compared to the proposed speed cushions and median island. It is noted that although there have been accidents at this intersection, the number are still not high enough for this location to be given priority for a more substantial treatment such as a roundabout and is therefore unlikely to be given funding through the Blackspot program.
19/12/2022	Community Member	Objected; The customer, who lives outside of the area objected to speed humps in general and believes that they are more hazardous for the following reasons: 3. The speed humps may cause the headlights of an oncoming vehicle to 'dazzle' a road user. Speed cushions offer less traction then the surrounding pavement in wet weather. The customer cited an example of when their vehicle lost traction in braking due to the declining face of existing speed cushions at the intersection of Oakes Road and Murray Farm Road.	The speed cushions will reduce the speed of approaching motorists and therefore improve safety at this intersection. The benefits of having the speed cushions outweigh the negative impacts associated with glare from headlights. In regards to the reduced grip at the speed cushions, the speed at which traffic will be traveling through will be low and an advisory speed of 25km/h will be signposted. Furthermore, the speed cushions are a few meters away from the intersection allowing drivers to correct any loss of traction. Therefore, it is not considered that the introduction of speed cushions will create a safety concern regarding loss of traction.

Beaconsfield Street and Stubbs Street (TS 2022 65)			
17/11/2022	TfNSW Customer Journey Planning Team	No Objections	Noted
17/11/2022	Busways	No Objections	Noted
27/11/2022	Resident	Objected; Reasons for objections not provided	Noted
6/12/2022	Business	Objected; The Business owner stated that it is already difficult for articulated vehicles to navigate this intersection and having the speed cushions will make the situation worse.	It is noted that the installation of the speed cushions will not affect turning paths of vehicles as they will be able to drive over the device. However, concerns regarding discomfort caused and issues with driving over the devices at very low speeds by large vehicles is noted.
18/12/2022	Resident	Objected; The resident has objected to the proposal due to noise generation caused by vehicles travelling over the devices, especially in the early morning and late at night when residents are trying to sleep.	The customers concerns are noted, however, it is considered that the safety benefits from installing the devices outweigh the negative impacts.
19/12/2022	Resident	Support; The resident is supportive of the proposal stating that trucks are currently not slowing down for the roundabout and drive through the central median at speed which creates noise pollution.	Noted.
19/12/2022	Community Member	Objected; The customer, who lives outside of the area objected to speed humps in general and believes that they are more hazardous for the following reasons: 4. The speed humps may cause the headlights of an oncoming vehicle to 'dazzle' a road user. Speed cushions offer less traction then the surrounding pavement in wet weather.	The speed cushions will reduce the speed of approaching motorists and therefore improve safety at this intersection. The benefits of having the speed cushions outweigh the negative impacts associated with glare from headlights. In regards to the reduced grip at the speed cushions, the speed at which traffic will be traveling through will be low and an advisory speed of 25km/h will be signposted.

		The customer cited an example of when their vehicle lost traction in braking due to the declining face of existing speed cushions at the intersection of Oakes Road and Murray Farm Road.	Furthermore, the speed cushions are a few meters away from the intersection allowing drivers to correct any loss of traction. Therefore, it is not considered that the introduction of speed cushions will create a safety concern regarding loss of traction.



PLAN VIEW

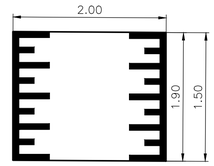
SCALE 1:50

NEW TRAFFIC SIGNS SCHEDULE

GRAPHIC SYMBOL	*NAME / TYPE*	*N° REQUIRED*	*REMARKS*
	W5-10	2	AS INDICATED ON PLAN WITH W8-2
	W8-2	2	AS INDICATED ON PLAN WITH W5-10
	R2-3(L)	4	AS INDICATED ON PLAN

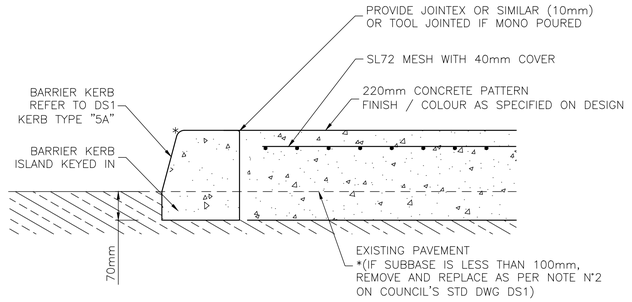
TRAFFIC MANAGEMENT NOTES:

1. ALL PAVEMENT MARKING AND SIGNPOSTING TO BE IN ACCORDANCE WITH ROADS AND MARITIME SERVICES SUPPLEMENTS, TfNSW DELINEATION MANUAL, AUSTROADS GUIDES, AUSTRALIAN STANDARDS (AS1742) AND TfNSW SPECIFICATIONS R145 AND R143.
2. ALL RETROREFLECTIVE RAISED PAVEMENT MARKERS TO BE IN ACCORDANCE WITH TfNSW SPECIFICATION R142 AND "TfNSW DELINEATION" SECTION 15 – RAISED PAVEMENT MARKERS.
3. ALL CONCRETE ISLAND KERB FACES ARE TO BE PAINTED WITH APPROVED REFLECTIVE WHITE PAINT IN ACCORDANCE WITH TfNSW SPECIFICATION R145.
4. STREET SIGNS TO BE PLACED AS DIRECTED BY SUPERVISING ENGINEER.
5. ENSURE ALL SIGNPOSTS ARE PLACED CLEAR OF EXISTING OR PROPOSED DRIVEWAYS AND CLEAR OF TREES AND OTHER STREET FURNITURE.
6. TRAFFIC CONTROL MEASURES ARE TO BE CARRIED OUT PRIOR, DURING AND AFTER CONSTRUCTION IN ACCORDANCE WITH A.S.1742.3–2009
7. ALL PAVEMENT MARKING AND SIGNPOSTING IS TO BE APPROVED BY CITY OF PARRAMATTA COUNCIL TRAFFIC ENGINEER.
8. ALL SIGN POSTS IN CONCRETE TO BE HELD IN POSITION WITH V–LOCKS.
9. ALL PAINTWORK TO BE COMPLETED ON DAY OF INSTALLATION.
10. ALL LINEMARKING TO BE APPROVED WHITE THERMOPLASTIC PAINT.
11. ALL REDUNDANT SIGNS AND LINEMARKING WITHIN LIMIT OF WORKS TO BE REMOVED AS REQUIRED. RECOVERED POSTS TO BE REUSED.



SPEED CUSHION

NOT TO SCALE



CONCRETE TO BE OF 32MPa COMPRESSIVE STRENGTH (Fc) @ 28 DAYS
* ALL BARRIER KERB SHARP EDGES TO CHAMFER / FILLET WITH R20

MEDIAN ISLAND DETAIL

N.T.S.

4 3 2 1 0 4 8 12 16 20

SCALE OF METRES 1:200

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UNLESS DETAILED ON THIS DRAWING ALL WORK SHALL CONFORM TO AUSPEC

PLAN FEATURES

EXISTING/MISCELLANEOUS	PROPOSED
KERB AND GUTTER:	KERB AND GUTTER:
EDGE OF BITUMEN:	EDGE OF BITUMEN:
ROAD ℄/CROWN:	ROAD ℄/CROWN:
EARTH BATTERS:	EARTH BATTERS:
PIPE DRAINS:	PIPE DRAINS:
DRAINAGE PITS:	DRAINAGE PITS:
TREES & SHRUBS:	SUB-SOIL DRAIN:
SPOT LEVELS:	SET-OUT LINE:

PUBLIC UTILITIES

ABOVEGROUND	U/GROUND
TELSTRA: PIT PBL	T
ELECTRICITY: SUB-STATION	E
GAS & MISC.: PG PM PLH	GAS
SEWER: MH	S
WATER: PH PV	W
POLES: LSP PLP PPT	
OVERHEAD:	
SURVEY: STN OPM SCPM PSM SSM_NOW	

AMENDMENTS

No.	DETAIL	CHECKED	DATE

DESIGN CHECKED AND APPROVED 29/11/22

APPROVED

Manager Capital Projects ...../...../.....

ACCEPTED

Client ...../...../.....

DESIGNED 29/11/22

DRAWN 29/11/22

DRAWING REVIEW ...../...../.....

DATUM: A.H.D.

CO-ORDS: M.G.A.

RATIO: 1:200

TRIM No: F2022/02791

STATUS: FINAL

CITY OF PARRAMATTA COUNCIL

ASQUITH ST. SILVERWATER AT MELTON ST.

KERB BLISTER AND MEDIAN CONSTRUCTION AND ASSOCIATED WORKS

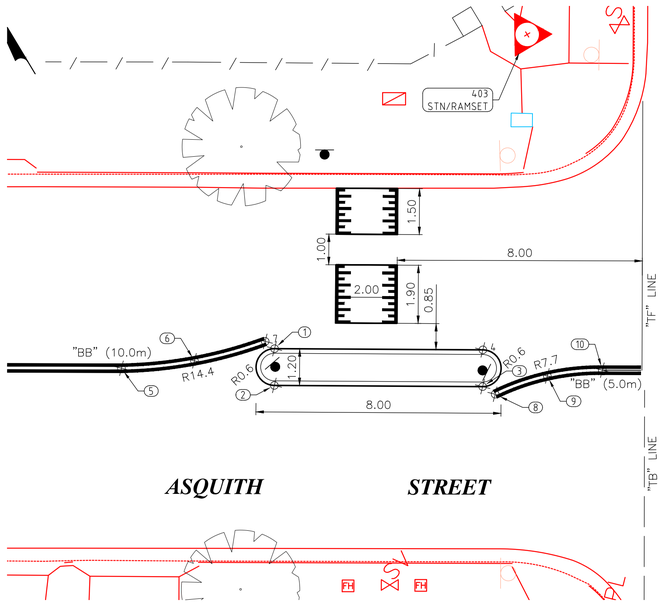
TRAFFIC MANAGEMENT PLAN

PLAN NUMBER 17901

Sheet No : 1

Revision :

29, November, 2022 12:46:36 p.m.
Drawing: ASQUITH MELTON_KT_19.DWG



SETOUT PLAN

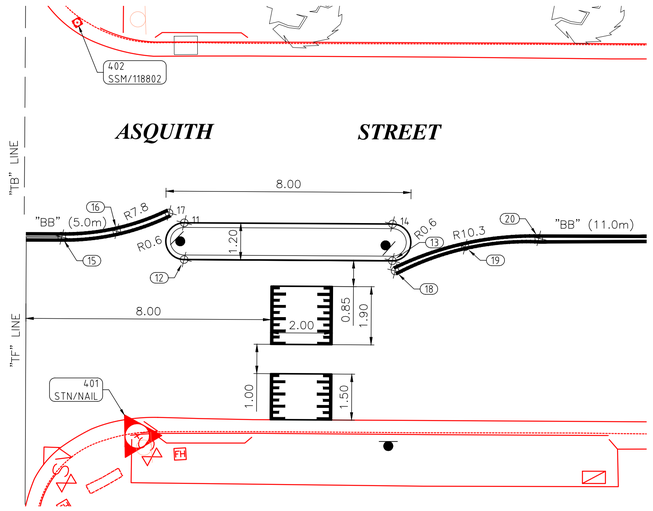
SCALE 1:100

SURVEY CONTROL MARKS

POINT No:	DESCRIPTION	EASTING	NORTHING	R.L.	REMARKS
401	STN/NAIL	318841.880	6253965.033	9.955	CORNER OF ASQUITH AND MELTON STREETS (EAST)
402	SSM/118802	318847.155	6253977.606	7.856	CORNER OF ASQUITH AND MELTON STREETS (SOUTH)
403	STN/RAMSET	318834.288	6253990.215	7.776	CORNER OF ASQUITH AND MELTON STREETS (NORTH)

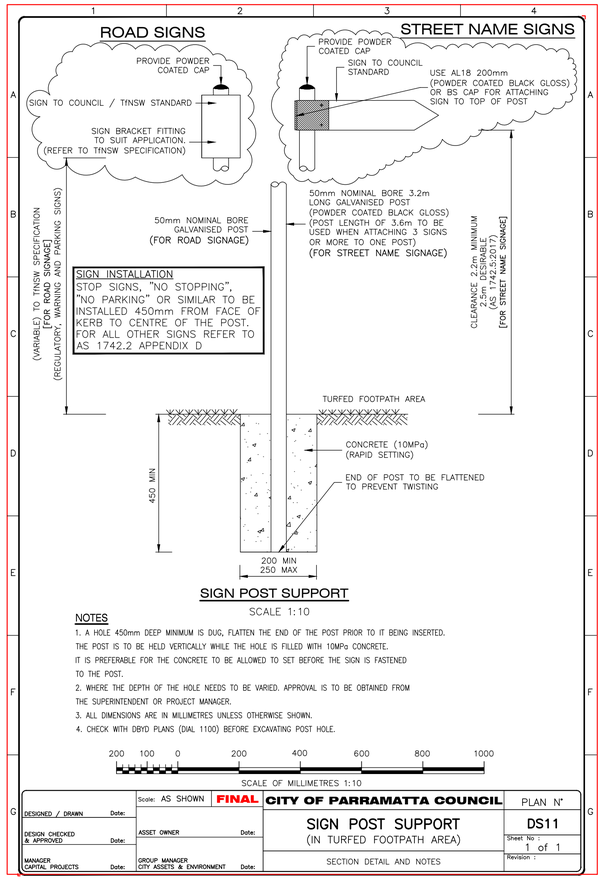
SETOUT POINTS

POINT	EASTING	NORTHING	REMARKS
1	318821.936	6253985.672	1.2m WIDE CONCRETE MEDIAN
2	318821.312	6253984.647	CONCRETE MEDIAN
3	318827.121	6253981.111	CONCRETE MEDIAN
4	318827.745	6253982.136	CONCRETE MEDIAN
5	318817.324	6253987.698	"BB" LINE
6	318819.490	6253986.679	"BB" LINE R=14.4m
7	318821.796	6253986.033	"BB" LINE
8	318827.344	6253980.689	"BB" LINE
9	318829.112	6253980.323	"BB" LINE R=7.7m
10	318830.748	6253979.559	"BB" LINE
11	318846.781	6253970.203	1.2m WIDE CONCRETE MEDIAN
12	318846.157	6253969.178	CONCRETE MEDIAN
13	318851.965	6253965.642	CONCRETE MEDIAN
14	318852.589	6253966.667	CONCRETE MEDIAN
15	318843.114	6253971.866	"BB" LINE
16	318844.750	6253971.102	"BB" LINE R=7.8m
17	318846.519	6253970.736	"BB" LINE
18	318851.871	6253965.313	"BB" LINE
19	318854.238	6253964.809	"BB" LINE R=10.3m
20	318856.441	6253963.808	"BB" LINE



SETOUT PLAN

SCALE 1:100



SIGN POST SUPPORT

SCALE 1:10

NOTES

1. A HOLE 450mm DEEP MINIMUM IS DUG, FLATTEN THE END OF THE POST PRIOR TO IT BEING INSERTED. THE POST IS TO BE HELD VERTICALLY WHILE THE HOLE IS FILLED WITH 10MPa CONCRETE. IT IS PREFERABLE FOR THE CONCRETE TO BE ALLOWED TO SET BEFORE THE SIGN IS FASTENED TO THE POST.
2. WHERE THE DEPTH OF THE HOLE NEEDS TO BE VARIED, APPROVAL IS TO BE OBTAINED FROM THE SUPERINTENDENT OR PROJECT MANAGER.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
4. CHECK WITH DBYD PLANS (DIAL 1100) BEFORE EXCAVATING POST HOLE.

200 100 0 200 400 600 800 1000

SCALE OF MILLIMETRES 1:10

DESIGNED / DRAWN Date:	Scale: AS SHOWN FINAL	CITY OF PARRAMATTA COUNCIL	PLAN N°
DESIGN CHECKED & APPROVED Date:	ASSET OWNER Date:	SIGN POST SUPPORT (IN TURFED FOOTPATH AREA)	DS11
MANAGER CAPITAL PROJECTS Date:	GROUP MANAGER CITY ASSETS & ENVIRONMENT Date:	SECTION DETAIL AND NOTES	Sheet No : 1 of 1
			Revision :

2 1 0 2 4 6 8 10

SCALE OF METRES 1:100

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UNLESS DETAILED ON THIS DRAWING ALL WORK SHALL CONFORM TO AUSPEC

PLAN FEATURES		PUBLIC UTILITIES	
EXISTING/MISCELLANEOUS	PROPOSED	ABOVEGROUND	U/GROUND
KERB AND GUTTER:	KERB AND GUTTER:	TELSTRA:	T
EDGE OF BITUMEN:	EDGE OF BITUMEN:	ELECTRICITY: SUB-STATION	E
ROAD ℄/CROWN:	ROAD ℄/CROWN:	GAS & MISC.:	GAS
EARTH BATTERS:	EARTH BATTERS:	SEWER:	S
PIPE DRAINS:	PIPE DRAINS:	WATER:	W
DRAINAGE PITS:	DRAINAGE PITS:	POLES:	
TREES & SHRUBS:	SUB-SOIL DRAIN:	OVERHEAD:	
SPOT LEVELS:	SET-OUT LINE:	SURVEY: STN SCPM	

No.	AMENDMENTS DETAIL	CHECKED	DATE

DESIGN CHECKED AND APPROVED 29/11/22

APPROVED Manager Capital Projects ...../...../.....

ACCEPTED Client ...../...../.....

DESIGNED 29/11/22

DRAWN 29/11/22

DRAWING REVIEW ...../...../.....

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CITY OF PARRAMATTA COUNCIL

ASQUITH ST. SILVERWATER AT MELTON ST.

KERB BLISTER AND MEDIAN CONSTRUCTION AND ASSOCIATED WORKS

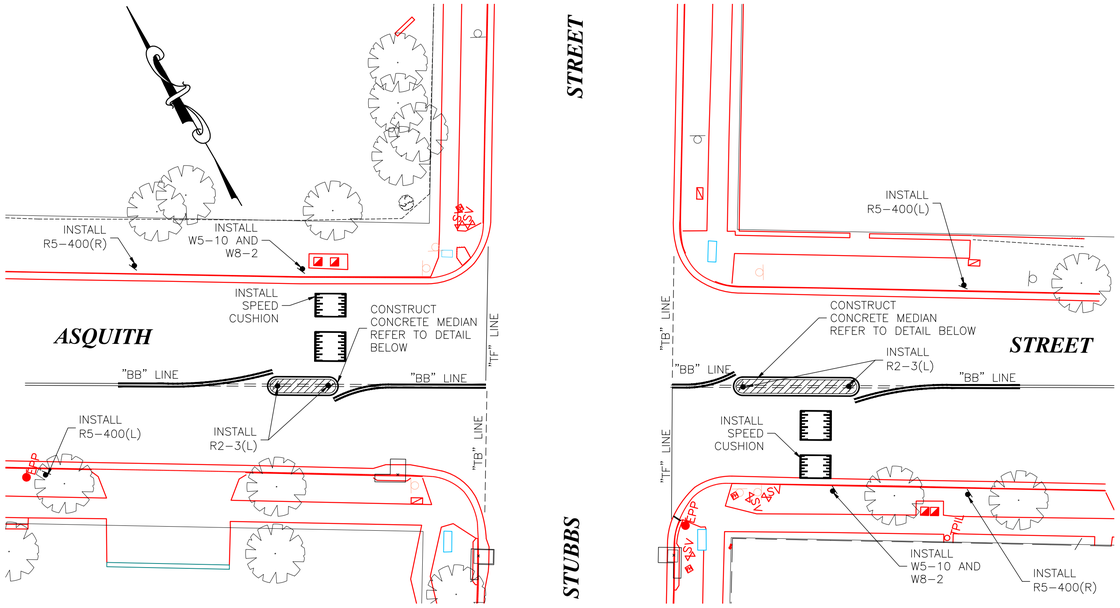
SETOUT PLAN

PLAN NUMBER 17901

Sheet No : 2

Revision :

29, November, 2022 12:49:05 p.m.
Drawing: ASQUITH MELTON_KT_19.DWG



PLAN VIEW
SCALE 1:200

NEW TRAFFIC SIGNS SCHEDULE

GRAPHIC SYMBOL	NAME / TYPE	N° REQUIRED	REMARKS
	W5-10	2	AS INDICATED ON PLAN WITH W8-2
	W8-2	2	AS INDICATED ON PLAN WITH W5-10
	R2-3(L)	4	AS INDICATED ON PLAN
	R5-400(L)	2	AS INDICATED ON PLAN
	R5-400(R)	2	AS INDICATED ON PLAN

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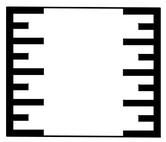
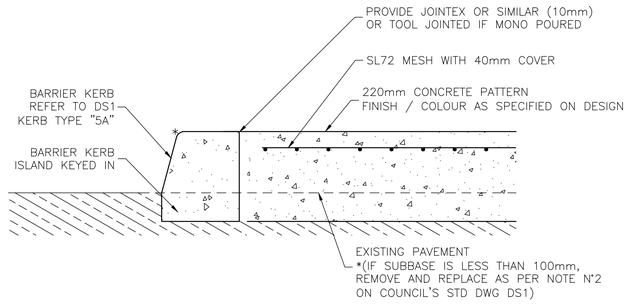


SPEED CUSHION
NOT TO SCALE



CONCRETE TO BE OF 32MPa COMPRESSIVE STRENGTH (Fc) @ 28 DAYS
* ALL BARRIER KERB SHARP EDGES TO CHAMFER / FILLET WITH R20

MEDIAN ISLAND DETAIL
N.T.S.

4 3 2 1 0 4 8 12 16 20
SCALE OF METRES 1:200

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UNLESS DETAILED ON THIS DRAWING ALL WORK SHALL CONFORM TO AUS SPEC

PLAN FEATURES		PUBLIC UTILITIES	
EXISTING/MISCELLANEOUS	PROPOSED	ABOVEGROUND	U/GROUND
KERB AND GUTTER:	KERB AND GUTTER:	TELSTRA:	
EDGE OF BITUMEN:	EDGE OF BITUMEN:	ELECTRICITY:	
ROAD ℄/CROWN:	ROAD ℄/CROWN:	GAS & MISC.:	GAS
EARTH BATTERS:	EARTH BATTERS:	SEWER:	
PIPE DRAINS:	PIPE DRAINS:	WATER:	
DRAINAGE PITS:	DRAINAGE PITS:	POLES:	
TREES & SHRUBS:	SUB-SOIL DRAIN:	OVERHEAD:	
SPOT LEVELS:	SET-OUT LINE:	SURVEY:	

AMENDMENTS			
No.	DETAIL	CHECKED	DATE

DESIGN CHECKED AND APPROVED 29/11/22
APPROVED Manager Capital Projects ...../...../.....
ACCEPTED Client ...../...../.....
DESIGNED 29/11/22
DRAWN 29/11/22
DRAWING REVIEW ...../...../.....

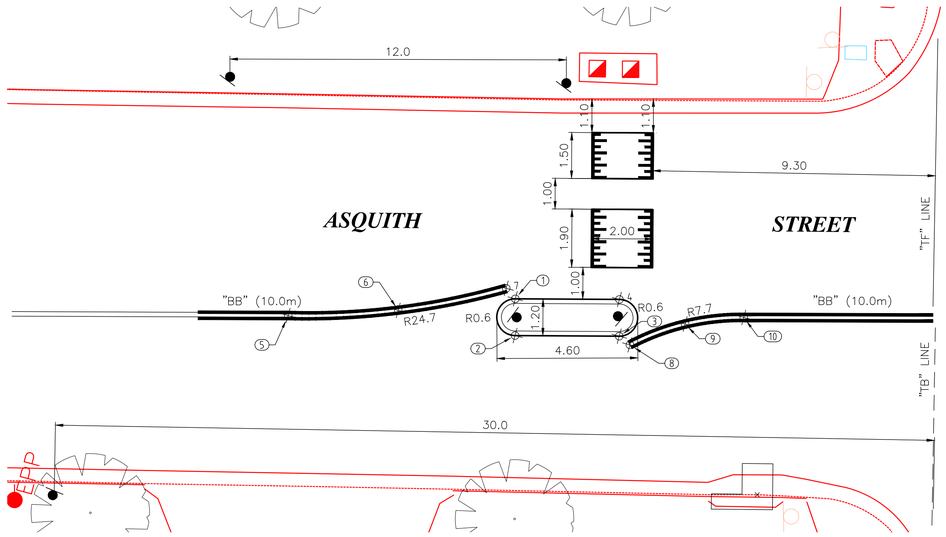
DATUM: A.H.D.
CO-ORDS: M.G.A.
RATIO: 1:200
TRIM No: F2022/02790
STATUS: FINAL

CITY OF PARRAMATTA COUNCIL

ASQUITH ST. SILVERWATER AT STUBBS ST.
KERB BLISTER AND MEDIAN CONSTRUCTION AND ASSOCIATED WORKS
TRAFFIC MANAGEMENT PLAN

PLAN NUMBER 17902
Sheet No : 1
Revision :

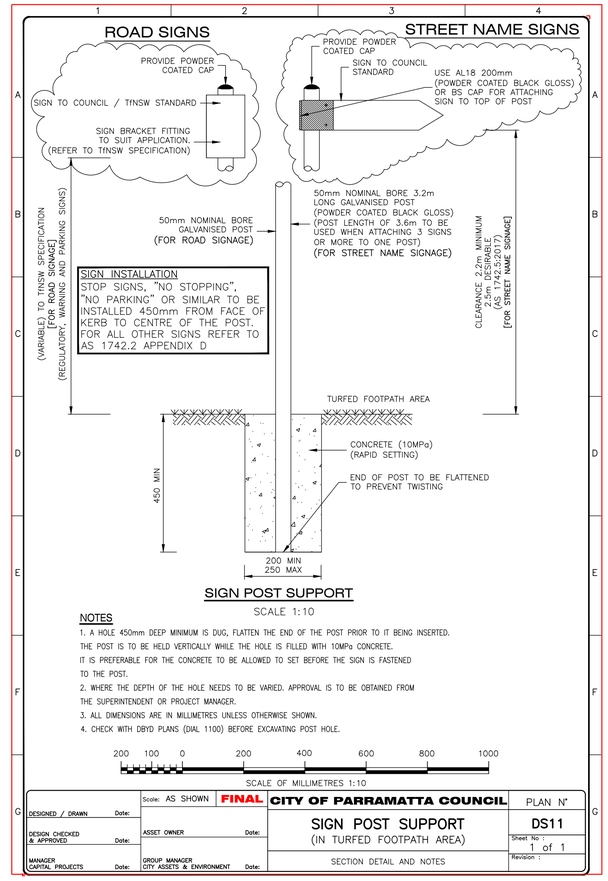
29, November, 2022 12:51:51 p.m.
Drawing: ASQUITH STUBBS_RP.DWG



SETOUT PLAN
SCALE 1:100

SURVEY CONTROL MARKS					
POINT No:	DESCRIPTION	EASTING	NORTHING	R.L.	REMARKS
402	SRM/BOLT	318517.511	6254176.790	9.745	
403	SRM\NAIL	318510.482	6254162.650	10.117	
1005	SRM\DHW	318506.986	6254163.716	10.320	

SETOUT POINTS			
POINT	EASTING	NORTHING	REMARKS
1	318489.503	6254185.741	1.2m WIDE CONCRETE MEDIAN
2	318488.897	6254184.705	CONCRETE MEDIAN
3	318491.832	6254182.988	CONCRETE MEDIAN
4	318492.438	6254184.024	CONCRETE MEDIAN
5	318482.809	6254188.976	"BB" LINE
6	318486.006	6254187.325	"BB" LINE R=24.7m
7	318489.419	6254186.186	"BB" LINE
8	318491.993	6254182.569	"BB" LINE
9	318493.893	6254182.257	"BB" LINE R=7.7m
10	318495.660	6254181.486	"BB" LINE
11	318515.839	6254170.508	1.2m WIDE CONCRETE MEDIAN
12	318515.233	6254169.472	CONCRETE MEDIAN
13	318521.275	6254165.937	CONCRETE MEDIAN
14	318521.881	6254166.973	CONCRETE MEDIAN
15	318512.381	6254171.821	"BB" LINE
16	318513.895	6254171.211	"BB" LINE R=6.6m
17	318515.512	6254170.985	"BB" LINE
18	318521.397	6254165.515	"BB" LINE
19	318524.457	6254164.585	"BB" LINE R=19.6m
20	318527.326	6254163.169	"BB" LINE

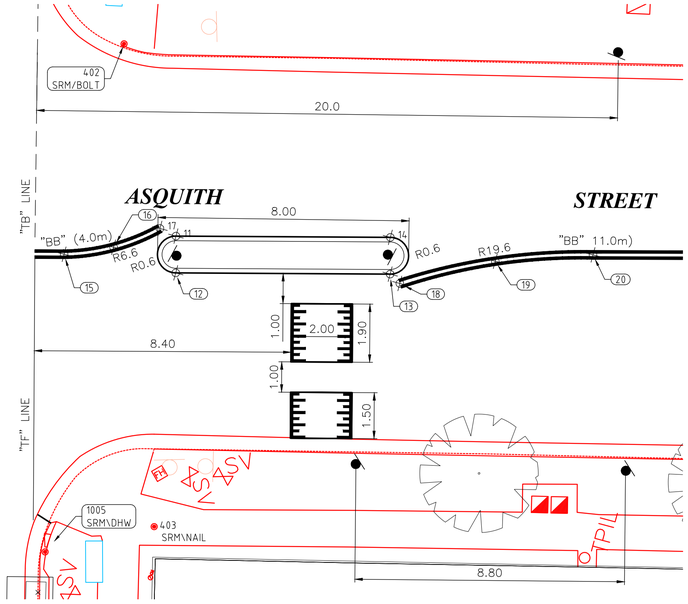


SIGN POST SUPPORT
SCALE 1:10

NOTES
1. A HOLE 450mm DEEP MINIMUM IS DUG, FLATTEN THE END OF THE POST PRIOR TO IT BEING INSERTED. THE POST IS TO BE HELD VERTICALLY WHILE THE HOLE IS FILLED WITH 10MPa CONCRETE. IT IS PREFERABLE FOR THE CONCRETE TO BE ALLOWED TO SET BEFORE THE SIGN IS FASTENED TO THE POST.
2. WHERE THE DEPTH OF THE HOLE NEEDS TO BE VARIED, APPROVAL IS TO BE OBTAINED FROM THE SUPERINTENDENT OR PROJECT MANAGER.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
4. CHECK WITH DBYD PLANS (DIAL 1100) BEFORE EXCAVATING POST HOLE.

200 100 0 200 400 600 800 1000
SCALE OF MILLIMETRES 1:10

DESIGNED / DRAWN Date:	Scale: AS SHOWN FINAL	CITY OF PARRAMATTA COUNCIL	PLAN N°
DESIGN CHECKED & APPROVED Date:	ASSET OWNER Date:	SIGN POST SUPPORT (IN TURFED FOOTPATH AREA)	DS11
MANAGER CAPITAL PROJECTS Date:	GROUP MANAGER CITY ASSETS & ENVIRONMENT Date:	SECTION DETAIL AND NOTES	Sheet No : 1 of 1 Revision :



SETOUT PLAN
SCALE 1:100

2 1 0 2 4 6 8 10
SCALE OF METRES 1:100

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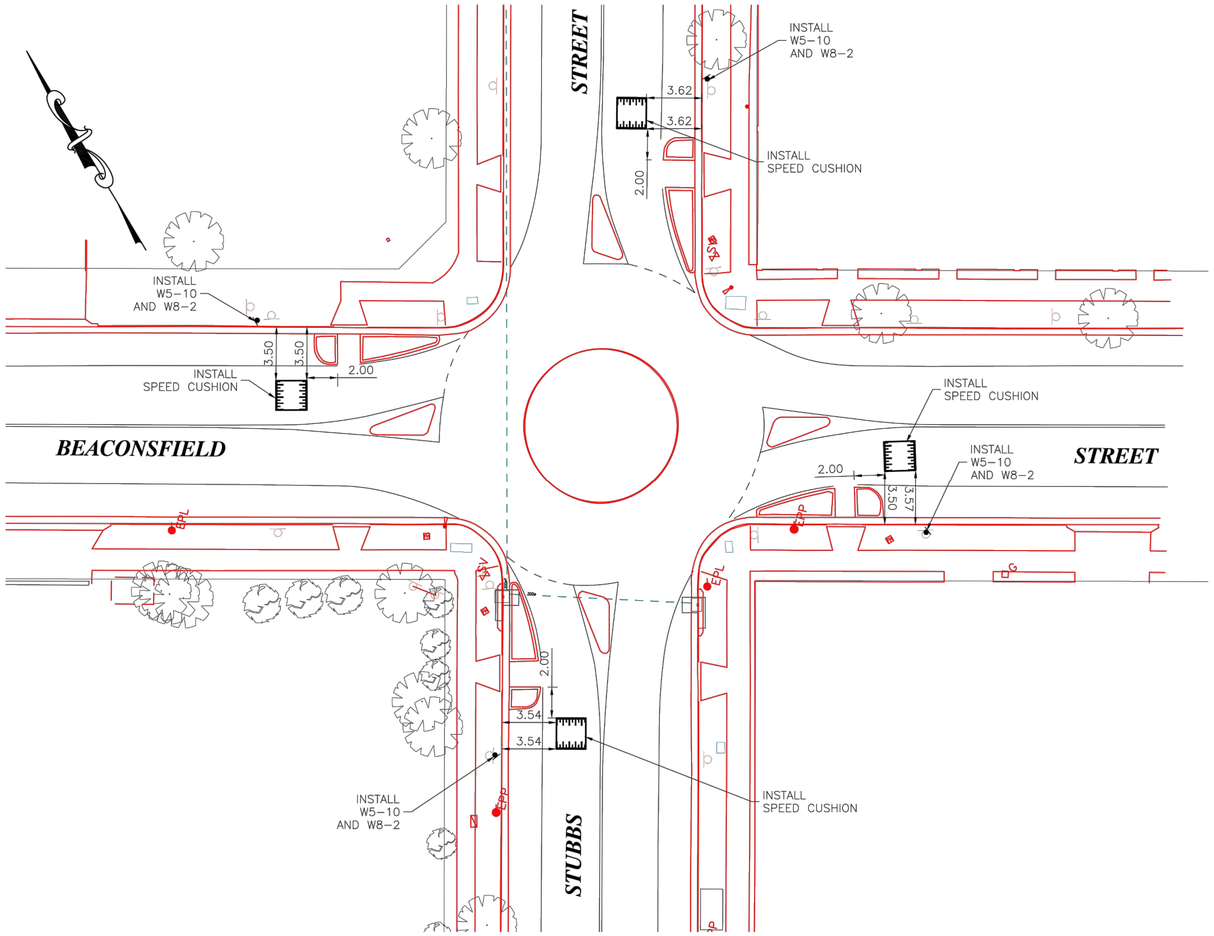
UNLESS DETAILED ON THIS DRAWING ALL WORK SHALL CONFORM TO AUSPEC

PLAN FEATURES		PUBLIC UTILITIES	
EXISTING/MISCELLANEOUS	PROPOSED	ABOVEGROUND	U/GROUND
KERB AND GUTTER:	KERB AND GUTTER:	TELSTRA:	
EDGE OF BITUMEN:	EDGE OF BITUMEN:	ELECTRICITY:	
ROAD ℄/CROWN:	ROAD ℄/CROWN:	GAS & MISC.:	
EARTH BATTERS:	EARTH BATTERS:	SEWER:	
PIPE DRAINS:	PIPE DRAINS:	WATER:	
DRAINAGE PITS:	DRAINAGE PITS:	POLES:	
TREES & SHRUBS:	SUB-SOIL DRAIN:	OVERHEAD:	
SPOT LEVELS:	SET-OUT LINE:	SURVEY:	

AMENDMENTS			
No.	DETAIL	CHECKED	DATE

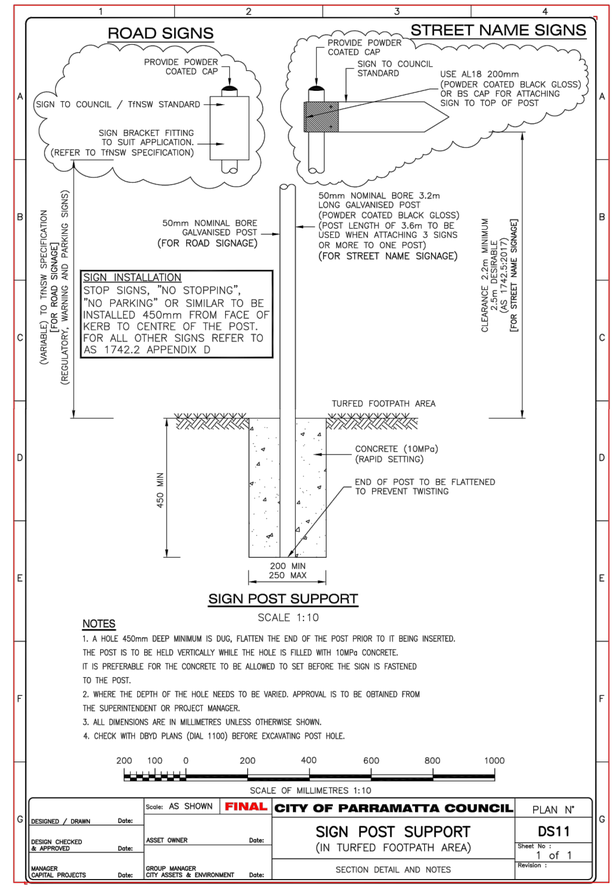
DESIGN CHECKED AND APPROVED	29/11/22	DESIGNED	29/11/22	DATUM: A.H.D.	CITY OF PARRAMATTA COUNCIL	PLAN NUMBER
APPROVED Manager Capital Projects	...../...../.....	DRAWN	29/11/22	CO-ORDS: M.G.A.	ASQUITH ST. SILVERWATER AT STUBBS ST.	17902
ACCEPTED Client	...../...../.....	DRAWING REVIEW	...../...../.....	RATIO: 1:100	KERB BLISTER AND MEDIAN CONSTRUCTION AND ASSOCIATED WORKS	Sheet No : 2
				TRIM No: F2022/02790	SETOUT PLAN	Revision :
				STATUS: FINAL		

29, November, 2022 12:52:49 p.m.
Drawing: ASQUITH STUBBS_RP.DWG



PLAN VIEW

SCALE 1:200



SIGN POST SUPPORT

SCALE 1:10

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200 100 0 200 400 600 800 1000

SCALE OF MILLIMETRES 1:10

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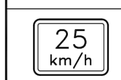
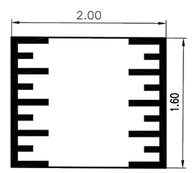
MANAGER CAPITAL PROJECTS Date:	GROUP MANAGER CITY ASSETS & ENVIRONMENT Date:	SECTION DETAIL AND NOTES	Sheet No : 1 of 1
			Revision :

TRAFFIC MANAGEMENT NOTES:

1. ALL PAVEMENT MARKING AND SIGNPOSTING TO BE IN ACCORDANCE WITH ROADS AND MARITIME SERVICES SUPPLEMENTS, TfNSW DELINEATION MANUAL, AUSTROADS GUIDES, AUSTRALIAN STANDARDS (AS1742) AND TfNSW SPECIFICATIONS R145 AND R143.
2. ALL RETROREFLECTIVE RAISED PAVEMENT MARKERS TO BE IN ACCORDANCE WITH TfNSW SPECIFICATION R142 AND "TfNSW DELINEATION" SECTION 15 – RAISED PAVEMENT MARKERS.
3. ALL CONCRETE ISLAND KERB FACES ARE TO BE PAINTED WITH APPROVED REFLECTIVE WHITE PAINT IN ACCORDANCE WITH TfNSW SPECIFICATION R145.
4. STREET SIGNS TO BE PLACED AS DIRECTED BY SUPERVISING ENGINEER.
5. ENSURE ALL SIGNPOSTS ARE PLACED CLEAR OF EXISTING OR PROPOSED DRIVEWAYS AND CLEAR OF TREES AND OTHER STREET FURNITURE.
6. TRAFFIC CONTROL MEASURES ARE TO BE CARRIED OUT PRIOR, DURING AND AFTER CONSTRUCTION IN ACCORDANCE WITH A.S.1742.3–2009
7. ALL PAVEMENT MARKING AND SIGNPOSTING IS TO BE APPROVED BY CITY OF PARRAMATTA COUNCIL TRAFFIC ENGINEER.
8. ALL SIGN POSTS IN CONCRETE TO BE HELD IN POSITION WITH V–LOCKS.
9. ALL PAINTWORK TO BE COMPLETED ON DAY OF INSTALLATION.
10. ALL LINEMARKING TO BE APPROVED WHITE THERMOPLASTIC PAINT.
11. ALL REDUNDANT SIGNS AND LINEMARKING WITHIN LIMIT OF WORKS TO BE REMOVED AS REQUIRED. RECOVERED POSTS TO BE REUSED.

NEW TRAFFIC SIGNS SCHEDULE

GRAPHIC SYMBOL	NAME / TYPE	N° REQUIRED	REMARKS
	W5–10	4	AS INDICATED ON PLAN WITH W8–2
	W8–2	4	AS INDICATED ON PLAN WITH W5–10



SPEED CUSHION

NOT TO SCALE

4 3 2 1 0 4 8 12 16 20

SCALE OF METRES 1:200

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PIPE DRAINS:	PIPE DRAINS:	WATER:	
DRAINAGE PITS:	DRAINAGE PITS:	POLES:	
TREES & SHRUBS:	SUB-SOIL DRAIN:	OVERHEAD:	
SPOT LEVELS:	SET-OUT LINE:	SURVEY:	

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APPROVED Manager Capital Projects ...../...../.....

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DESIGNED 29/11/22

DRAWN 29/11/22

DRAWING REVIEW ...../...../.....

DATUM: A.H.D.

CO-ORDS: M.G.A.

RATIO: 1:200

TRIM No: F2022/02789

STATUS: FINAL

CITY OF PARRAMATTA COUNCIL

BEACONSFIELD ST. SILVERWATER AT STUBBS ST.

SPEED CUSHIONS INSTALLATION AND ASSOCIATED WORKS

TRAFFIC MANAGEMENT PLAN

PLAN NUMBER 17903

Sheet No : 1

Revision :

29, November, 2022 1:39:09 p.m.