AGENDA

LOCAL TRAFFIC COMMITTEE MEETING

SEPTEMBER 2020

The September 2020 meeting of the Inner West Local Traffic Committee will be held electronically with the Agenda emailed to Members for review. All comments are requested to be returned to Council by 5.00pm Monday 7 September 2020.

Location: Remote Meeting

Function of the Local Traffic Committee

Background

Roads and Maritime Services (RMS) is legislated as the Authority responsible for the control of traffic on all NSW Roads. The RMS has delegated certain aspects of the control of traffic on local roads to councils. To exercise this delegation, councils must establish a local traffic committee and obtain the advice of the RMS and Police. The Inner West Council Local Traffic Committee has been constituted by Council as a result of the delegation granted by the RMS pursuant to Section 50 of the Transport Administration Act 1988.

Role of the Committee

The Local Traffic Committee is primarily a technical review and advisory committee which considers the technical merits of proposals and ensures that current technical guidelines are considered. It provides recommendations to Council on traffic and parking control matters and on the provision of traffic control facilities and prescribed traffic control devices for which Council has delegated authority. These matters are dealt with under **Part A** of the agenda and require Council to consider exercising its delegation.

In addition to its formal role as the Local Traffic Committee, the Committee may also be requested to provide informal traffic engineering advice on traffic matters not requiring Council to exercise its delegated function at that point in time, for example, advice to Council's Development Assessment Section on traffic generating developments. These matters are dealt with under **Part C** of the agenda and are for information or advice only and do not require Council to exercise its delegation.

Committee Delegations

The Local Traffic Committee has no decision-making powers. The Council must refer all traffic related matters to the Local Traffic Committee prior to exercising its delegated functions. Matters related to State Roads or functions that have not been delegated to Council must be referred directly to the RMS or relevant organisation.

The Committee provides recommendations to Council. Should Council wish to act contrary to the advice of the Committee or if that advice is not supported unanimously by the Committee members, then the Police or RMS have an opportunity to appeal to the Regional Traffic Committee.

Committee Membership & Voting

Formal voting membership comprises the following:

- one representative of Council as nominated by Council;
- one representative of the NSW Police from each Local Area Command (LAC) within the LGA, being Newtown, Marrickville, Leichhardt and Ashfield LAC's.
- one representative from the RMS; and
- State Members of Parliament (MP) for the electorates of Summer Hill, Newtown, Heffron, Canterbury, Strathfield and Balmain or their nominees.

Where the Council area is represented by more than one MP or covered by more than one Police LAC, representatives are only permitted to vote on matters which effect their electorate or LAC.

Informal (non-voting) advisors from within Council or external authorities may also attend Committee meetings to provide expert advice.

Committee Chair

Council's representative will chair the meetings.

AGENDA

1 Apologies

2 Disclosures of Interest

3 Confirmation of Minutes **Page**

4 Matters Arising from Council's Resolution of Minutes

5 Part A – Items Where Council May Exercise Its Delegated Functions

Traffic Matters

Parking Matters

Late Items

Nil at time of printing.

6 Part B - Items for Information Only

7 Part C - Items for General Advice

Nil at the time of printing.

8 General Business

9 Close of Meeting

Minutes of Local Traffic Committee Meeting
Held electronically and via Skype on 3 August 2020

Meeting commenced at 10.04am

ACKNOWLEDGEMENT OF COUNTRY BY CHAIRPERSON

I acknowledge the Gadigal and Wangal people of the Eora nation on whose country we are meeting today, and their elders past and present.

COMMITTEE REPRESENTATIVES PRESENT

Clr Victor Macri	Councillor – Midjuburi-Marrickville Ward (Chair)
Bill Holliday	Representative for Jamie Parker MP, Member for Balmain
Chris Woods	Representative for Ron Hoenig MP, Member for Heffron
Cathy Peters	Representative for Jenny Leong MP, Member for Newtown
Zack Solomon	Representative for Jo Haylen MP, Member for Summer Hill
Tanmila Samin Islam	Transport for NSW (TfNSW)

NON VOTING MEMBERS IN ATTENDANCE

Clr Marghanita da Cruz	Councillor – Gulgadya-Leichhardt Ward (Alternative Chair)
Colin Jones	Inner West Bicycle Coalition
Adrian Prichard	Transit Systems – Inner West Bus Services
Asith Nagodavithane	Transit Systems – Inner West Bus Services
Cathy Edwards-Davis	IWC's Director Infrastructure
Manod Wickramasinghe	IWC's Traffic and Transport Planning Manager
George Tsaprounis	IWC's Coordinator Traffic Engineering Services
David Yu	IWC's Acting Traffic Engineering Services
Jenny Adams	IWC's Traffic Engineer
Felicia Lau	IWC's Traffic Engineer
Sunny Jo	IWC's Traffic and Parking Planner
Pierre Ayoub	IWC's Civil Engineer
Christina Ip	IWC's Business Administration Officer

VISITORS

Ganan Yin	Item 5 – Consultant

APOLOGIES

SC Stephen Flanagan	NSW Police – Leichhardt Police Area Command
SC Tony Kenny	NSW Police – Inner West Police Area Command
SC Sam Tohme	NSW Police – Burwood Police Area Command

DISCLOSURES OF INTERESTS:

Nil.

CONFIRMATION OF MINUTES

The minutes of the Local Traffic Committee meeting held in July 2020 were confirmed.

MATTERS ARISING FROM COUNCIL'S RESOLUTION OF MINUTES

The Local Traffic Committee recommendations of its meeting held in July 2020 were adopted at Council's meeting held on 28 July 2020.

EMAIL CONFIRMATION OF OFFICER'S RECOMMENDATION

The representative for NSW Police – Inner West supported the Officer's recommendations for the items in their PAC.

The representative for NSW Police – Leichhardt supported the Officer's recommendations for the items in their PAC.

The representative for NSW Police – Burwood supported the Officer's recommendations for the items in their PAC with the exception of Item 4 (refer to addendum to the Minutes).

LTC0820 Item 1 Wardell Road at Pile Street, Marrickville – Proposed works to increase amenity of the area and improve pedestrian safety - Signage and Line Marking Plan 10141 (Midjuburi – Marrickville Ward / Summer Hill Electorate / Inner West PAC)

SUMMARY

Council has finalised a design plan for intersection upgrade works in Wardell Road at Pile Street, Marrickville. The proposed works will improve road safety at the intersection and addresses resident's concerns about speeding, driver behaviour and pedestrian safety in the area.

Officer's Recommendation

THAT the detailed design plan for the intersection upgrade works and associated signs and line markings in Wardell Road at Pile Street, Marrickville (as per Design Plan No.10141) be APPROVED.

DISCUSSION

The TfNSW representative stated that splays are required for the pram ramps on Pile Street to avoid a trip hazard. Council Officers stated that splays can be incorporated in the detailed design.

The Committee members agreed with the Officer's recommendation.

COMMITTEE RECOMMENDATION

THAT the detailed design plan for the intersection upgrade works and associated signs and line markings in Wardell Road at Pile Street, Marrickville (as per Design Plan No.10141) be APPROVED.

For motion: Unanimous

LTC0820 Item 2 Smidmore Street, Marrickville – Marrickville Metro Expansion Works – Notice of Change Of Dates For An Approved Overnight Temporary Full Road Closure to Install A Pedestrian Bridge (Midjuburi – Marrickville Ward / Newtown Electorate / Inner West PAC)

SUMMARY

Notice of changes to Council approved dates for the temporary full road closure of Smidmore Street, between Edinburgh Road and Murray Street, Marrickville in order to install the pedestrian bridge connecting the existing and new centres at Marrickville Metro Shopping Centre have been received from MLA Transport Planning (MLATP). The previously approved dates were from 3:00pm on Wednesday 1 July 2020 to 9:00am Thursday 2 July 2020. The new proposed dates are now for a period of 16 hours from 2:00pm on Sunday 30 August 2020 to 6:00am Monday 31 August 2020 (contingency period of one-week start date Sunday 6 September 2020). It is recommended that the proposed change of dates for the temporary full overnight road closure be approved, subject to the conditions outlined in this report.

Officer's Recommendation

THAT the proposed temporary full road closure of Smidmore Street, between Edinburgh Road and Murray Street, Marrickville for a period of 16 hours from 2:00pm on Sunday 30 August 2020 to 6:00am Monday 31 August 2020 (contingency period of one-week start date Sunday 6 September 2020) be approved for the purpose of installing the pedestrian bridge connecting the existing and new Centres at Marrickville Metro subject to, but not limited to, the following conditions:

1. A Road Occupancy License be obtained by the applicant from the Transport Management Centre;

2. All affected residents and businesses, including the NSW Police Area Commander, Fire & Rescue NSW and the NSW Ambulance Services be notified in writing, by the applicant, of the proposed temporary full road closure at least 7 days in advance of the closure with the applicant making reasonable provision for stakeholders;

3. The occupation of the road carriageway must not occur until the road has been physically closed: and

4. Subject to written concurrence from Sydney Metro TSE Group and Transit Systems Sydney Buses is provided to Council.

DISCUSSION

The Committee members agreed with the Officer's recommendation.

COMMITTEE RECOMMENDATION

THAT the proposed temporary full road closure of Smidmore Street , between Edinburgh Road and Murray Street, Marrickville for a period of 16 hours from 2:00pm on Sunday 30 August 2020 to 6:00am Monday 31 August 2020 (contingency period of one-week start date Sunday 6 September 2020) be approved for the purpose of installing the pedestrian bridge connecting the existing and new Centres at Marrickville Metro subject to, but not limited to, the following conditions:

1. **A Road Occupancy License be obtained by the applicant from the Transport Management Centre;**

2. **All affected residents and businesses, including the NSW Police Area Commander, Fire & Rescue NSW and the NSW Ambulance Services be notified in writing, by the applicant, of the proposed temporary full road closure at least 7 days in advance of the closure with the applicant making reasonable provision for stakeholders;**

3. **The occupation of the road carriageway must not occur until the road has been physically closed: and**

4. **Subject to written concurrence from Sydney Metro TSE Group and Transit Systems Sydney Buses is provided to Council.**

For motion: Unanimous

LTC0820 Item 3 Edinburgh Street, Murray Street and Railway Parade, Marrickville – Marrickville Metro Expansion Works – Notice of Change of Dates of a Temporary Full Road Closure for a 6 Week Period Starting 31 August 2020 – To Undertake Excavation Works For Sewer Connection to Main Line (Midjuburi – Marrickville Ward / Newtown Electorate / Inner West PAC)

SUMMARY

Council has received notice, from John R Keith P/L (contractor to Marrickville Metro Shopping Centre expansion works/ADCO), of change of dates of a proposed temporary full road closure of parts of Edinburgh Road, Murray Street and Railway Parade, Marrickville for a 6 week period for the purpose of undertaking excavation works for a sewer connection to the main line. Prior dates were from 6 July to 1 August 2020 and now the new proposed dates are 31 August to 12 October 2020 (contingency period of one week start date Monday 7 September 2020. It is recommended that the proposed change of dates for the temporary full road closure be approved, subject to the conditions outlined in this report.

Officer's Recommendation

THAT the proposed temporary full road closure of Edinburgh Street, Murray Street and Railway Parade, Marrickville for a period of 6 weeks from Monday 31 August 2020 to 12 October 2020 (contingency period of one week start date Monday 7 September 2020) be approved for the purpose of sewer connection works relating to Marrickville Metro Expansion works subject to, but not limited to, the following conditions:

1. A Road Occupancy License be obtained by the applicant from the Transport Management Centre;

2. All affected residents and businesses, including the NSW Police Area Commander, Fire & Rescue NSW and the NSW Ambulance Services be notified in writing, by the applicant, of the proposed temporary full road closure at least 7 days in advance of the closure with the applicant making reasonable provision for stakeholders;

3. The occupation of the road carriageway must not occur until the road has been physically closed;

4. Subject to written concurrence from Sydney Metro TSE Group and Transit Systems / Sydney Buses is provided to Council; and

5. The temporary removal and reinstatement of any Council assets will be at the applicants cost and to Council satisfaction.

DISCUSSION

The Transit Systems representative advised that their approval of the road closure is subject to receiving a satisfactory swept path analysis for the proposed diversion route (i.e. buses can navigate their way through the bends at Murray Street/Victoria Road intersection and the intersection of Edgeware Road and Victoria Street).

The Committee members agreed with the Officer's recommendation.

COMMITTEE RECOMMENDATION

THAT the proposed temporary full road closure of Edinburgh Street, Murray Street and Railway Parade, Marrickville for a period of 6 weeks from Monday 31 August 2020 to 12 October 2020 (contingency period of one week start date Monday 7 September 2020) be approved for the purpose of sewer connection works relating to Marrickville Metro Expansion works subject to, but not limited to, the following conditions:

1. **A Road Occupancy License be obtained by the applicant from the Transport Management Centre;**
2. **All affected residents and businesses, including the NSW Police Area Commander, Fire & Rescue NSW and the NSW Ambulance Services be notified in writing, by the applicant, of the proposed temporary full road closure at least 7 days in advance of the closure with the applicant making reasonable provision for stakeholders;**
3. **The occupation of the road carriageway must not occur until the road has been physically closed;**
4. **Subject to written concurrence from Sydney Metro TSE Group and Transit Systems / Sydney Buses is provided to Council; and**
5. **The temporary removal and reinstatement of any Council assets will be at the applicants cost and to Council satisfaction.**

For motion: Unanimous

LTC0820 Item 4 Chandos Street, Haberfield - Proposed Intersection Modification (Gulgadya-Leichhardt Ward/Summer Hill Electorate/Burwood PAC)

SUMMARY

Council at its meeting held on 23 June 2020 resolved to close Chandos Street, Haberfield to left turning vehicles from Parramatta Road. This is intended to restrict eastbound rat-run traffic into the Haberfield local street network.

Officer's Recommendation

THAT:

1. the Council resolution to close Chandos Street, Haberfield to left turning vehicles from Parramatta Road be supported and a Traffic Management Plan (TMP) be prepared and forwarded to TfNSW for approval.

2. this closure be implemented by signposting of a 'No Left Turn' restriction and installation of an interim linemarking and road flap treatment

3. design and construction of a kerb extension to physically restrict left turn movements be listed on Council's capital works program.

DISCUSSION

Council Officers tabled the final consultation results, as follows:

- A total of 324 submissions were received, with 41 in support of the proposal (support rate of 13%). 21 responses were received from Chandos Street properties supporting the proposal.
- A summary of the main objections from the consultation are summarised below:
  - Objection to the increase in travel time to Haberfield Public School as Chandos Street is one of the main roads to access the school drop-off/pick-up area.
  - Objection to the loss of direct access to the driveways of the businesses on Parramatta Road at Chandos Street (childcare centre and car dealership).
  - Objection to the increase in traffic in other streets (especially Bland Street) that are currently congested during school pick-up/drop-off times.
  - Loss of an essential route to access the west end of the Haberfield Village shops.
  - Safety risk to students, staff and wider community during school drop-off/pick-up where parents arriving from Bland Street would do a U-turn in Denman Avenue to drop-off/pick-up children on the school side.

The representative for the Member for Balmain requested that the proposal include 'Bicycles Excepted' at the 'No Left Turn' at Chandos Street.

The representative for the Member for Summer Hill did not support the recommendation and requested that the item be deferred for wider community consultation and to allow the proposal to be considered in the context of broader network integration changes proposed by Transport for NSW. The representative stated that residents of Chandos Street and surrounding streets, and Haberfield Public School P&C have raised concerns with the lack of consultation and the timing of the proposal given that proposed road network changes in Haberfield have not been finalised. In addition, the representative commented that a holistic approach is needed to address the traffic issues in the area.

Clr da Cruz stated that residents have raised similar concerns with her and commented that the proposal is based on a local traffic study that has not been updated since the opening of the WestConnex portal. Clr da Cruz stated that the consultation for the proposal was not wide enough and a traffic study should be conducted to identify where traffic will be diverted if Chandos Street is closed.

Clr Macri supported the recommendation stating that the residents of Chandos Street have been experiencing higher traffic volumes in the street from rat-running since the opening of the M4 East and deferring it would not benefit residents.

The TfNSW representative abstained from voting and advised that TfNSW will need to

approve the TMP if the proposal proceeds. The representative requested confirmation of the type of permanent treatment to be proposed should the restriction proceed. Council Officers advised that a kerb extension, prohibiting the left turn movement is the proposed final treatment and a design would be prepared and referred to Traffic Committee.

The Committee members returned a Split Vote on the Officer's recommendation.

COMMITTEE RECOMMENDATION (SPLIT-VOTE)

THAT:

1. **the Council resolution to close Chandos Street, Haberfield to left turning vehicles from Parramatta Road be supported and a Traffic Management Plan (TMP) be prepared and forwarded to TfNSW for approval.**

2. **this closure be implemented by signposting of a 'No Left Turn' restriction and installation of an interim linemarking and road flap treatment**

3. **design and construction of a kerb extension to physically restrict left turn movements be listed on Council's capital works program.**

For motion: Council

Against motion: Member for Summer Hill

ADDENDUM:

The NSW Police Burwood PAC representative stated via email that they do not support this proposal as it does not address congestion or rat running in the area and will move traffic into Bland Street, which is already heavily congested in peak hour times. The representative stated that the proposed signage, line markings and road flaps will not discourage motorists from turning left and it will become an enforcement issue for which the police do not have time and resources to manage.

These comments were not available at the time of the Skype meeting.

LTC0820 Item 5 Tempe South Draft Local Area Traffic Management (LATM) Study (Midjuburi - Marrickville Ward/Heffron Electorate/Inner West PAC)

SUMMARY

Council prepared a draft Local Area Traffic Management (LATM) study to address key community concerns about traffic, pedestrian and cycling facilities for the Tempe South area. The LATM study was undertaken to fulfill the development approval conditions for the Tempe Bunnings development at 728-750 Princess Highway, Tempe.

The recommendations aim to align with Council policies and strategies, with an emphasis on improving pedestrian and cyclist movements, whilst retaining safe and acceptable traffic volume and speeds in local streets.

Traffic count data and on-street parking data in a number of areas was collected in February 2020 to assist the study. Further site observations and intersection counts were used to develop a draft plan to mitigate the impact of the Bunnings development.

Community submissions received during the Tempe Bunnings development were reviewed

to gauge local traffic and parking concerns in the area. Considering the changes in the local area in Smith Street, a number of recommendations are provided for endorsement and public exhibition of the draft scheme.

Officer's Recommendation

THAT:

1. The Committee endorse the draft Tempe South Local Area Traffic Management (LATM) Study and proposed treatments for community consultation; and

2. The draft report be placed on Public Exhibition, providing a minimum 28 days for community feedback and the results be reported back to the Traffic Committee.

DISCUSSION

Clr Macri stated that residents raised a number of concerns regarding the proposal, as follows:

- The summary states that traffic counts were conducted in February 2020; however, the body of the report states that counts were conducted in March 2020. Clr Macri requested that the summary be amended to indicate that traffic counts were taken in March 2020 at the height of COVID-19. Council Officers advised that the results of the traffic counts were found to be useful for the study despite the study being undertaken when COVID-19 restrictions were in place, and this can be noted in the report.
- The bus stop in front of the Bunnings site is proposed to be removed/relocated. The Transit Systems representative advised that they still require a bus stop at the current location. Further analysis will be conducted and the bus stop may be moved slightly.
- Union Street will likely become congested with traffic coming from Princes Highway to access Unwins Bridge Road. Edwin Street and Tramway Street will be impacted by this as the streets will become a rat run. Clr Macri requested that traffic counts and analysis be conducted for Edwin Street and Tramway Street.
- Residents prefer the option of a no straight through into Union Street from Smith Street to mitigate any impacts of traffic coming from the Bunnings site.
- There are concerns that streets such as Wentworth, Hart and Station streets will not be able to absorb the parking that will be lost from Smith Street, as proposed in the report.
- Footway parking exists in the aforementioned streets due to the narrow roads. Clr Macri asked if the kerb could be treated to accommodate safe footway parking. Council Officers advised that this issue was considered and it was determined that reconstructing the kerb would be costly and the applicant would have limited funds for this.

Clr da Cruz asked if a one-way arrangement is being considered for Smith Street. Council Officers advised that traffic volumes in the area does not warrant a one-way treatment and Smith Street is the main access point for trucks and other vehicles into the Bunnings site.

The representative for the Member for Heffron requested that Council, during the public exhibition period, arrange for a pop-up consultation facility or public meeting at Sydenham Town Hall on a weekday evening and a weekend to allow residents to be better informed about the proposed options, and provide their feedback directly to Council Officers. Council Officers advised that face-to-face or Town Hall meetings cannot be held at this time due to COVID-19 restrictions. However, Council Officers are considering holding online presentations and extending the public exhibition period. Clr Macri agreed with the proposal to extend the consultation period and requested Council Officers provide a consultation plan

to the Committee.

The representative for the Member for Heffron also sought clarification on the decision not to allow a right hand turn for northbound (city) traffic turning into the Bunnings site, which was the most favoured community option for managing the store traffic, as opposed to the right hand turn at Smith Street. Council Officers advised that vehicular access to the Bunnings site would have been considered and approved under the DA and is outside the scope of this study. Council Officers stated that an explanation of the traffic arrangements along Princes Highway can be included in future consultation letters.

The TfNSW representative made the following comments:

- The final proposal in the LATM for Smith Street, should not limit the scope of the upcoming signal changes that are part of the Bunnings development.
- Signal changes, including the right turn bay from Princes Highway into the development have not been fully approved and can be subject to change.
- The right turn only out of Bunnings needs to be agreed with Bunnings.
- TfNSW do not generally support the proposed angled ramp where there are no constraints. It will encourage pedestrians to use the ramp to cross at an unprotected location and leads them to nowhere. It is recommended that if there is no other way to lead cyclists off the path, then the kerb ramp should be installed perpendicular to the road. This will also allow cyclists better sight distance to any oncoming traffic as well.
- The shared path on the south western side of Smith Street uses driveway for cyclist transition. This is not supported.
- Central Islands should have 'Keep Left' signage.
- Where flat top humps are proposed, note that pedestrian fencing or landscaping is required adjacent to these, to ensure pedestrians do not misuse as a crossing.

COMMITTEE RECOMMENDATION

THAT:

1. **The Committee endorse the draft Tempe South Local Area Traffic Management (LATM) Study and proposed treatments for community consultation; and**

2. **The draft report be placed on Public Exhibition, providing an extended consultation period, greater than 28 days for community feedback, and the results be reported back to the Traffic Committee.**

For motion: Unanimous

LTC0820 Item 6 Nelson Street, Annandale (at The Crescent) - Proposed existing pedestrian/cyclist shared path reinstallation (Baludarri-Balmain Ward/ Balmain Electorate/ Leichhardt PAC)

SUMMARY

Council has finalised a design plan for the proposed existing shared path reconstruction at the intersection of Nelson Street and The Crescent, Annandale to improve cyclist and pedestrian safety in the area.

Officer's Recommendation

THAT the detailed design plan (Design Plan No.10124) for the proposed existing shared path reconstruction and associated works, at the intersection of Nelson Street and The Crescent, Annandale be approved.

DISCUSSION

Clr da Cruz commented that the red footpath of the shared area may be confusing because the City of Sydney uses blue markings and requested that the colour be standardised. Clr da Cruz also requested the marking be extended to the driveway. Council Officers advised that the red duratherm treatment is used to indicate a hazard as sightlines are poor around the bend in the footpath and this is also why it has not been extended further than proposed. Council Officers will have the Council's Design team check the standard colour for this type of treatment.

Clr da Cruz also raised concern that there is too much signage at the steep shared area and requested that alternate routes connecting cyclists from The Crescent to the Johnstons Creek shared path be investigated as the proposed connection is unsafe.

The TfNSW representative stated that pavement markings are not to be installed on the kerb ramp as this forms a slip hazard.

The Committee members agreed with the Officer's recommendation.

COMMITTEE RECOMMENDATION

THAT the detailed design plan (Design Plan No.10124) for the proposed existing shared path reconstruction and associated works, at the intersection of Nelson Street and The Crescent, Annandale be approved.

For motion: Unanimous

LTC0820 Item 7 Elswick Street, Leichhardt - Proposed Pedestrian (zebra) Crossing (Gulgadya-Leichhardt Ward/Balmain Electorate/Leichhardt PAC)

SUMMARY

Council has finalised a design plan for the proposed raised pedestrian (zebra) crossing in Elswick Street, close to the intersection of Whiting Street, Leichhardt to improve pedestrian and motorist safety in the area.

Officer's Recommendation

THAT the detailed design plan (Design Plan No.10129) for the proposed raised pedestrian (zebra) crossing with associated signposting and line marking in Elswick Street, north of Whiting Street, Leichhardt be approved.

DISCUSSION

The Committee members agreed with the Officer's recommendation.

COMMITTEE RECOMMENDATION

THAT the detailed design plan (Design Plan No.10129) for the proposed raised pedestrian (zebra) crossing with associated signposting and line marking in Elswick

Street, north of Whiting Street, Leichhardt be approved.

For motion: Unanimous

LTC0820 Item 8 Ramsay Street/Alt Street - Proposed Upgrade of Existing Pedestrian Refuge Island (Gulgadya-Leichhardt Ward/Summer Hill Electorate/Burwood PAC)

SUMMARY

As part of the Traffic Capital Works Program, Council has prepared a design plan for the upgrade of existing pedestrian refuge island in Ramsay Street near the intersection of O'Connor Street to a standard new refuge island and associated chevron line markings. The intention of the proposal is to improve road safety for pedestrians and motorists at the intersection.

Consultation was undertaken with owners and occupiers of properties in Ramsay Street and O'Connor Street regarding the proposal. A summary of the consultation results is presented in this report for consideration.

Officer's Recommendation

THAT the detailed design plan for the proposed upgrade of the existing refuge island and new adjacent kerb ramps and associated line markings in Ramsay Street near O'Connor Street, Haberfield (as per Plan No. 10128) be APPROVED.

DISCUSSION

It was noted that the report was erroneously titled "Ramsay Street/Alt Street" and the title should read "Ramsay Street/O'Connor Street".

The Inner West Bicycle Coalition representative asked whether the pedestrian refuge island at Ramsay Street/Alt Street will be compliant. Council Officers advised that there are no plans to change the pedestrian refuge island at this stage. Council Officers also advised that as this is a pedestrian (zebra) crossing, no refuge area is required as pedestrians have priority to cross the entire length of the facility.

The Committee members agreed with the Officer's recommendation.

COMMITTEE RECOMMENDATION

THAT the detailed design plan for the proposed upgrade of the existing refuge island and new adjacent kerb ramps and associated line markings in Ramsay Street near O'Connor Street, Haberfield (as per Plan No. 10128) be APPROVED.

For motion: Unanimous

LTC0820 Item 9 Holbeach Avenue, Tempe – Temporary Full Road Closures for MS Sydney to the Gong Bike Ride on Sunday 1 November 2020 – (Midjuburi - Marrickville Ward/Heffron Electorate/Newtown PAC)

SUMMARY

Council has received an application under Section 68 of the Local Government Act 1993 to use Holbeach Avenue and Tempe Recreation Reserve to hold the annual 'MS Sydney to the Gong Bike Ride' supported by Multiple Sclerosis (MS) Australia on Sunday, 1 November 2020. This event will necessitate the temporary full road closure of Holbeach Avenue, Tempe and southbound lane closures on Princes Highway from the car park entrance of IKEA to Cooks River along with closures (residents excepted) of South Street, Hart Street, Bay Street and Old Street, Tempe between 4am to 10am on Sunday, 1 November 2020.

It is recommended that the comments of the Local Traffic Committee be referred to Council's Development Assessment Section for consideration in determining the Development Application.

Officer's Recommendation

THAT:

1. The proposed temporary full road closure of Holbeach Avenue, Tempe and southbound lane closures on Princes Highway from the car park entrance of IKEA to Cooks River along with closures (residents excepted) of South Street, Hart Street, Bay Street and Old Street, Tempe on Sunday, 1 November 2020 between the hours of 4:00am to 10:00am be supported as per the submitted TMP and TCPs (subject to TfNSW approval);

2. All residents and businesses in and around the affected area are to be notified of the temporary road closure in writing by the applicant in advance (at least 7 days prior to the event) with the applicant making reasonable provision for stakeholders; and

3. The occupation of the road carriageway must not occur until the road has been physically closed.

DISCUSSION

The Committee members agreed with the Officer's recommendation.

COMMITTEE RECOMMENDATION

THAT:

1. **The proposed temporary full road closure of Holbeach Avenue, Tempe and southbound lane closures on Princes Highway from the car park entrance of IKEA to Cooks River along with closures (residents excepted) of South Street, Hart Street, Bay Street and Old Street, Tempe on Sunday, 1 November 2020 between the hours of 4:00am to 10:00am be supported as per the submitted TMP and TCPs (subject to TfNSW approval);**

2. **All residents and businesses in and around the affected area are to be notified of the temporary road closure in writing by the applicant in advance (at least 7 days prior to the event) with the applicant making reasonable provision for stakeholders; and**

3. **The occupation of the road carriageway must not occur until the road has been physically closed.**

For motion: Unanimous

General Business

LTC0820 Item 10 Traffic in Alt Street, Ashfield

Concerns were raised with the amount of traffic in Alt Street between Church Street and Charlotte Street, Ashfield, which is a major pedestrian route to schools. The Inner West Bicycle Coalition representative requested that traffic, speed and pedestrian counts be conducted in the street with the view of installing a pedestrian crossing if it meets the warrants.

LTC0820 Item 11 Street parking at 176-190 Lord Street, Newtown

The representative for the Member for Newtown stated that state rail contractors have taken 20 street parking spaces in front of the development site of 176-190 Lord Street, Newtown, for five months. The representative will forward correspondence to Council Officers for investigation.

LTC0820 Item 12 Update on intersection improvements at Edgeware Road, Alice Street and Llewellyn Street, Marrickville

The representative for the Member for Newtown stated that residents are still concerned about safety at the intersection of Edgeware Road, Alice Street and Llewellyn Street, Marrickville and asked for an update on action to be taken. Council Officers advised that a site investigation has been completed and a formal response will be provided to the Office of Jenny Leong MP with the outcome.

LTC0820 Item 13 Road safety and maintenance in Audley Street, Petersham

A resident has observed northbound motorists on Audley Street illegally turning right into Addison Road and then turning left to continue along Audley Street. The representative for the Member for Newtown will forward the resident's correspondence to Council Officers for investigation. In addition, the representative also reported that a large piece of cement is missing from the road at the corner of Addison Road and Audley Street.

LTC0820 Item 14 Parking on Princes Highway, St Peters

Clr Macri tabled a letter from a business owner requesting timed parking on Princes Highway, St Peters, due to WestConnex vehicles taking up the majority of the unrestricted parking spaces. TfNSW are liaising with the WestConnex team on this matter and will investigate further.

Meeting closed at 11.17am.

Item 1

Item No: **LTC0920 Item 1**

Subject: **NELSON STREET, ANNANDALE (AT BOOTH STREET) - PROPOSED ADJUSTMENTS TO TRAFFIC LINE MARKINGS AND PAVEMENT SYMBOLS (GULGADYA-LEICHHARDT WARD/ BALMAIN ELECTORATE/ LEICHHARDT PAC)**

Prepared By: Vinoth Srinivasan - Engineer - Traffic and Parking Services

Authorised By: Manod Wickramasinghe - Traffic and Transport Planning Manager

SUMMARY

Council has finalised a design plan for the proposed adjustments to traffic line markings and pavement symbols at Nelson Street, close to the intersection of Booth Street, Annandale to improve cyclist and pedestrian safety in the area.

RECOMMENDATION

THAT the detailed design plan (Design Plan No.10121) for the proposed adjustments to traffic line markings and pavement symbols at Nelson Street, close to the intersection of Booth Street, Annandale be approved.

BACKGROUND & OTHER STAFF COMMENTS

Council officers were requested by Council's Bicycle Working Group to investigate and improve traffic line marking and pavement symbols at Nelson Street, close to the intersection of Booth Street, Annandale.

The detailed design plan shown in **Attachment 1** outlines the proposed works at Nelson Street, Annandale and includes the following treatments:

- Re-install and re-align centre line markings to accommodate traffic lane widening
- Re-install bicycle logos and "40" pavement symbols
- Re-install edge line and bicycle lane line markings

The proposal will not result in the loss of any on-street parking spaces.

FINANCIAL IMPLICATIONS

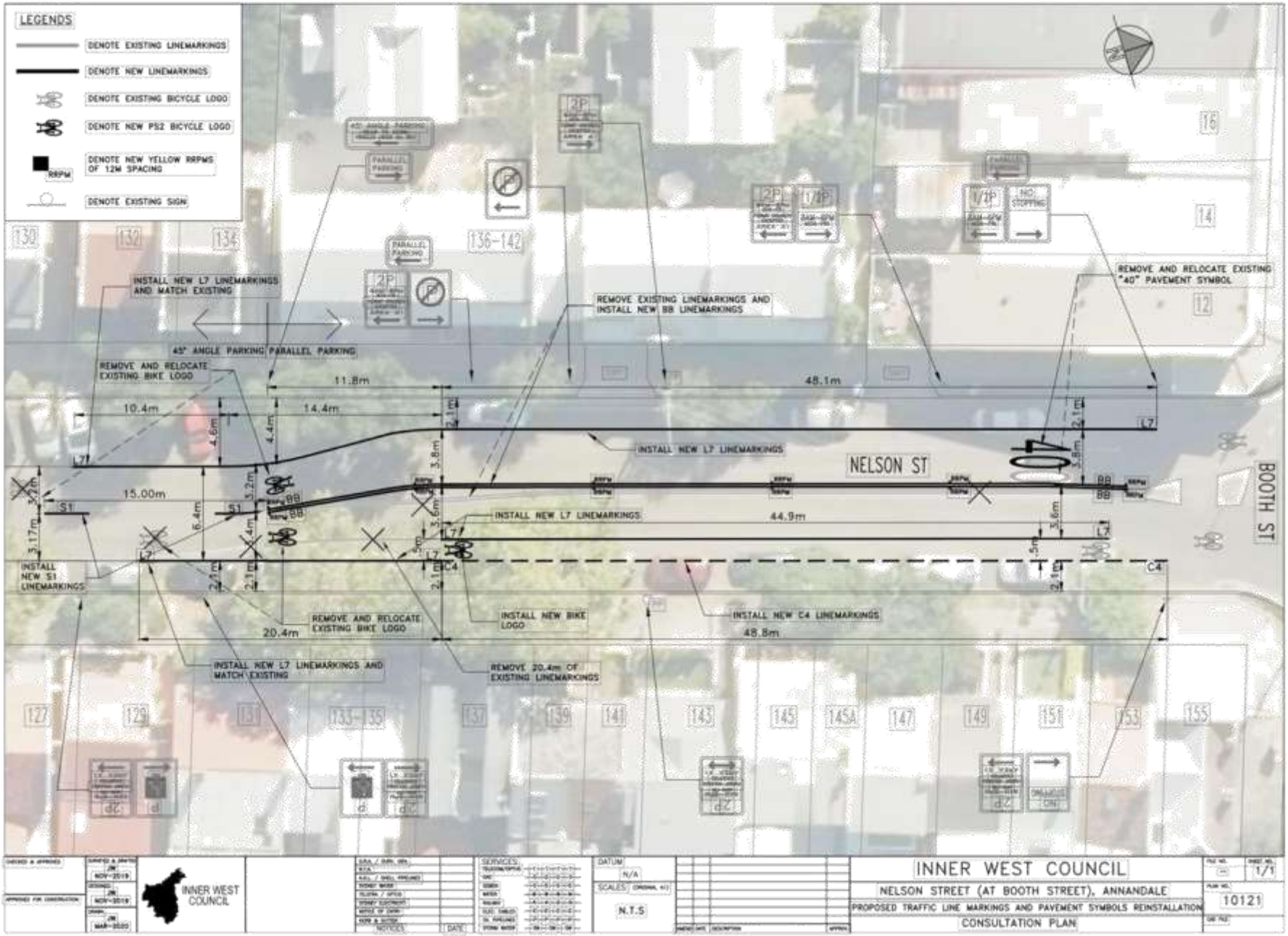
The proposed works have not yet been scheduled and will be reviewed for inclusion as part of a future works program.

PUBLIC CONSULTATION

A letter outlining the proposal was mailed out to the affected properties (21 properties) in Nelson Street and Booth Street, Annandale Street. No responses were received.

ATTACHMENTS

1.⇩ Detailed Design Plan - Nelson Street, Annandale


LEGENDS
DENOTE EXISTING LINEMARKINGS
DENOTE NEW LINEMARKINGS
DENOTE EXISTING BICYCLE LOGO
DENOTE NEW PS2 BICYCLE LOGO
DENOTE NEW YELLOW RRPMS OF 12M SPACING
DENOTE EXISTING SIGN
INSTALL NEW L7 LINEMARKINGS AND MATCH EXISTING
REMOVE AND RELOCATE EXISTING BIKE LOGO
45° ANGLE PARKING
PARALLEL PARKING
REMOVE EXISTING LINEMARKINGS AND INSTALL NEW B8 LINEMARKINGS
REMOVE AND RELOCATE EXISTING "40" PAVEMENT SYMBOL
INSTALL NEW L7 LINEMARKINGS
INSTALL NEW S1 LINEMARKINGS
INSTALL NEW BIKE LOGO
INSTALL NEW C4 LINEMARKINGS
REMOVE 20.4m OF EXISTING LINEMARKINGS
NELSON ST
BOOTH ST
11.8m
14.4m
48.1m
10.4m
15.00m
44.9m
20.4m
48.8m
INNER WEST COUNCIL
NELSON STREET (AT BOOTH STREET), ANNANDALE
PROPOSED TRAFFIC LINE MARKINGS AND PAVEMENT SYMBOLS REINSTALLATION
CONSULTATION PLAN
N.T.S
10121

Item 2

Item No: **LTC0920 Item 2**

Subject: **KINTORE STREET AT BLACKWOOD AVENUE, DULWICH HILL – MODIFICATIONS TO EXISTING RAISED PEDESTRIAN CROSSING - DESIGN PLAN 10139 (DJARRAWUNANG - ASHFIELD WARD / SUMMER HILL ELECTORATE / INNER WEST PAC)**

Prepared By: Jennifer Adams - Engineer – Traffic and Parking Services

Authorised By: Manod Wickramasinghe - Traffic and Transport Planning Manager

SUMMARY

Council has finalised a design plan for pedestrian safety improvement works in Kintore Street at Blackwood Avenue, Dulwich Hill. The proposed works will modify the existing raised pedestrian crossing to improve pedestrian and motorist safety and addresses concerns about pedestrian safety, particularly school children, and driver behaviour in the area.

RECOMMENDATION

THAT the detailed design plan for the modification of the existing raised pedestrian crossing and new adjacent kerb ramps and associated signs and line markings in Kintore Street at Blackwood Avenue, Dulwich Hill (as per Plan No.10139) be APPROVED.

Specifically, the proposed scope of works includes the following:

In Kintore Street:

- removal of the existing approach crossing ramps on both sides of the crossing and construction of new flatter approach ramps to make it more accessible for pedestrians and children;
- reconstruction of footpaths leading to the pedestrian crossing;
- trimming of the existing tree in front of No.35 to improve site distance;
- Replacement of the existing streetlight in front of No.33 with a new floodlight to ensure the required lighting levels are provided for pedestrian crossing;
- Relaying of the grass verge and relocation of the existing 'No Stopping' sign.

In Blackwood Ave:

- Extension of the concrete footpath out into the road pavement and construction of a new kerb ramp to improve safety for pedestrians at this location;
- Provision of new LED streetlight to existing power pole on approach to the intersection.

In addition, some new linemarking will be provided and existing line markings will be repainted. Additional signage will be provided as shown on the plan. The existing garden beds will be reshaped as necessary and plantings replaced as required.

This proposal will result in the loss of one on-street parking space.

FINANCIAL IMPLICATIONS

The project is listed on Council's Traffic Facilities Capital Works budget for 2020/2021 and funding of $15,000 has been allocated to this project.

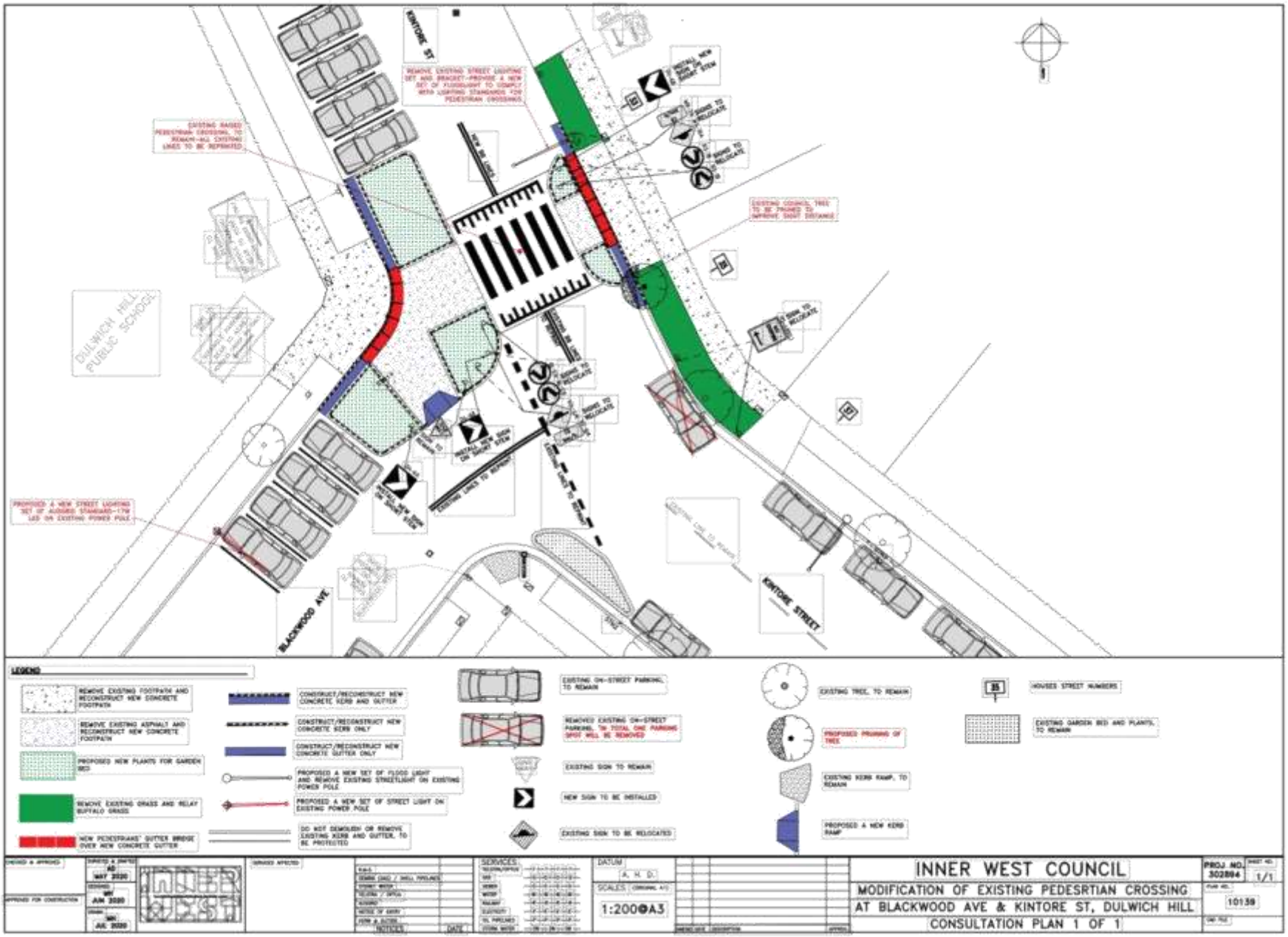
PUBLIC CONSULTATION

Consultation was conducted between 7 July and 5 August 2020. A letter along with a copy of the design plan was sent to Dulwich Hill Public School and the local residents in the immediate locality. A total of 47 letters were distributed.

There were two responses. Generally, the responses were supportive of the modifications to the existing raised pedestrian crossing. One resident's comments mainly concerned drainage and engineering measures of design details. Neither were concerned with the loss of one on-street parking space.

ATTACHMENTS

1.⇩ Kintore Street Blackwood Avenue - Raised Crossing Plan


KINTORE ST
BLACKWOOD AVE
KINTORE STREET
DULWICH HILL PUBLIC SCHOOL
LEGEND
REMOVE EXISTING FOOTPATH AND RECONSTRUCT NEW CONCRETE FOOTPATH
REMOVE EXISTING ASPHALT AND RECONSTRUCT NEW CONCRETE FOOTPATH
PROPOSED NEW PLANTS FOR GARDEN BED
REMOVE EXISTING GRASS AND RELAY BUFFALO GRASS
NEW PEDESTRIANS' GUTTER BRIDGE OVER NEW CONCRETE GUTTER
CONSTRUCT/RECONSTRUCT NEW CONCRETE KERB AND GUTTER
CONSTRUCT/RECONSTRUCT NEW CONCRETE KERB ONLY
CONSTRUCT/RECONSTRUCT NEW CONCRETE GUTTER ONLY
PROPOSED A NEW SET OF FLOOD LIGHT AND REMOVE EXISTING STREETLIGHT ON EXISTING POWER POLE
PROPOSED A NEW SET OF STREET LIGHT ON EXISTING POWER POLE
DO NOT DEMOLISH OR REMOVE EXISTING KERB AND GUTTER, TO BE PROTECTED
EXISTING ON-STREET PARKING, TO REMAIN
REMOVED EXISTING ON-STREET PARKING, 1m TOTAL ONE PARKING SPOT WILL BE REMOVED
EXISTING SIGN TO REMAIN
NEW SIGN TO BE INSTALLED
EXISTING SIGN TO BE RELOCATED
EXISTING TREE, TO REMAIN
PROPOSED PRUNING OF TREE
EXISTING KERB RAMP, TO REMAIN
PROPOSED A NEW KERB RAMP
85 HOUSES STREET NUMBERS
EXISTING GARDEN BED AND PLANTS, TO REMAIN
INNER WEST COUNCIL
MODIFICATION OF EXISTING PEDESRTIAN CROSSING
AT BLACKWOOD AVE & KINTORE ST, DULWICH HILL
CONSULTATION PLAN 1 OF 1
SCALES 1:200@A3
PROJ NO. 302884
1/1
10139

Item 3

Item No: **LTC0920 Item 3**

Subject: **UN-NAMED LANE REAR TO CHARLOTTE STREET, ASHFIELD - TEMPORARY FULL ROAD CLOSURE (DJARRAWUNANG-ASHFIELD WARD/ SUMMER HILL ELECTORATE/ BURWOOD PAC)**

Prepared By: Boris Muha - Engineer – Traffic and Parking Services

Authorised By: Manod Wickramasinghe - Traffic and Transport Planning Manager

SUMMARY

An application has been received for the temporary full road closure of the un-named lane rear of Charlotte Street, between Elizabeth Street and Station Street, from 12 October 2020 to 13 October 2020, between 7.00am-3.00pm to stand a mobile crane and replace failed air conditioning units to the Club Ashfield, premises No. 1-11 Charlotte Street, Ashfield.

RECOMMENDATION

THAT the proposed temporary full road closure of the rear un-named lane to Charlotte (between Elizabeth Street and Station Street), Ashfield, from Monday 12 October to Tuesday 13 October 2020, between 7.00am-3.00pm for a mobile crane to replace failed air conditioning units to the Club Ashfield be approved; subject to, but not limited to, the following conditions:

1. **A Road Occupancy License be obtained by the applicant from the Transport Management Centre;**

2. **All affected residents and businesses, including the NSW Police Area Commander, Fire & Rescue NSW and the NSW Ambulance Services be notified in writing, by the applicant, of the proposed temporary full road closure at least 14 days in advance of the closure with the applicant making reasonable provision for stakeholders; and**

3. **The occupation of the road carriageway must not occur until the road has been physically closed.**

BACKGROUND

Rhino Traffic Control Services has applied to Council to arrange a 20t (small) city mobile crane and support vehicle to stand in the rear lane to the Club Ashfield and replace failed air-conditioning units to the premises.

FINANCIAL IMPLICATIONS

The applicant has paid all the relevant fees under the Council's fees and charges for the road occupation and advertisement of the closure in accordance with the Road Act 1993.

OTHER STAFF COMMENTS

The un-named lane to the rear of Charlotte Street is one-way southbound between Elizabeth Street and Station Street. It only serves rear lane access to business and residential properties fronting Charlotte, Station and Wood Streets. Traffic can and readily detours via Charlotte Street (one-way south), Station Street (one-way east) and Wood Street (one-way north) to and from Elizabeth Street. - **See Attachments 1 and 2 for the Traffic Management Plan and Traffic Control Plan respectively.**

PUBLIC CONSULTATION

The applicant will notify all affected residents and assist in property access where possible. The work is proposed to be carried out on the one day, with a second day made for contingency or wet weather. The proposed road closure is currently advertised on Council's website in accordance with the Roads Act 1993.

CONCLUSION

It is recommended that the proposed temporary full closure of the un-named lane, rear of Charlotte, between Elizabeth Street and Station Street, Ashfield, be approved, subject to the conditions outlined in the report.

ATTACHMENTS

1.⇩ Traffic Management Plan (TMP) - Rear lane to 1-11 Charlotte Street, Ashfield.
2.⇩ Traffic Control Plan (TCP) Rear lane to 1-11 Charlotte Street, Ashfield.

Item 3

Rhino Traffic Control Services
Professional - Reliable - Safe

Traffic Management Plan (TMP)

Full Road Closure – 11 Charlotte St, Ashfield NSW 2131, Australia

Rhino Traffic Control Services Pty Ltd
ABN: 92 153 683 973
Unit 13/1 Bowmans Rd, Kings Park NSW 2148
PO Box 194, Kings Langley NSW 2147

M: 0455 131 120
P: 02 8678 3737
E: ops@rhinotrafficcontrol.com.au
W: www.rhinotrafficcontrol.com.au

TMP Prepared for: **St George Cranes + Innerwest Council**
TMP Prepared By: Phillip Blair
Accreditation: RMS PWZTMP 'Prepare a Work Zone Traffic Management Plan Certificate No. 0052151584 Exp: 22/09/2022

Attachment 1

Rhino Traffic Control

About this release

Document Number:	RTC-TMP: 20/8975
Title:	Traffic Management Plan – 11 Charlotte St, Ashfield (Un Named Rd Closure – Rear Lane)
Author:	Mr Phillip Blair

Issue	Date	Revision Description	Authorised by
Ed 1 / Rev 0	29/07/2020	New Plan – Full Road Closure / Detour at the rear of 11 Charlotte St, Ashfield to stand a 20t City Crane & Support Truck to Lift Air Con Units onto Club Ashfield.	Director

Management Review

Planned Review Date	Scope	Review By	Review Record Ref no. Date
12/10/2020	Full Plan Review	Project Manager	

Endorsement of TMP

Project Manager

Date

/ /

Managing Director – Rhino Traffic Control

Date

29th July 2020

Rhino Traffic Control

Contents

Rhino Traffic Control

Project Details

Project Description:	**Full Road Closure / Detour within the rear lane of Club Ashfield (Un Named Rd) to Stand a 20t City Crane & Support Truck to Lift Air Conditioning units onto Club Ashfield.**
Location:	**11 Charlotte St, Ashfield NSW Australia (Un Named Rear Lane)**
Client:	**St George Cranes**
Project Manager:	**Glen Willis**
Proposed Date:	**Monday 12th October 2020**
Backup Date/s:	**Tuesday 13th October 2020**
Proposed Times:	**7.00am – 3.00pm**
Local Government Area:	**Innerwest Council**

1 Development of this TMP and TCP's

A Traffic Management Plan (TMP) must be prepared for any activity or event that results in a temporary road closure. Council submits all applications for road closures to Transport for New South Wales (RMS) for approval.

This TMP is drawn as set out in the RMS's guidelines titled "Procedures for use in the Preparation of a Traffic Management Plan (TMP)" Ver 2.0 dated December 2001.

This TMP and associated TCP's includes the provision for the safe movement of vehicular traffic, the protection of workers from passing traffic, the provision of traffic controllers and traffic control measures, the installation of temporary signs and safety devices as required throughout the duration of the works.

The purpose of this TMP and TCP's is to illustrate the required Traffic Control measures for the activities that impact roads and footpaths. The TMP describes how risks, hazards and traffic impacts will be mitigated with the implementation of Traffic Management under the direction of Authorised Traffic Controllers.

The Traffic Control Plan and Detour Route that is detailed in section 21+22, should be implemented taking due account of on-site conditions as will occur over the course of the works. Accordingly, the Traffic Management Crews are expected to respond in a pro-active manner to ensure that the plan is implemented to maximum effect and with no obvious safety issues being overlooked. The following matters are considered noteworthy:

- All signs are to be placed where clear visibility is available, and
- Installations should be checked intermittently during the day/s.

It is noted that Rhino Traffic Control is responsible for the preparation of this TMP only and not for its implementation, which is the responsibility of the Project Manager.

2 Objectives

a) This Plan is to be read in conjunction with the Principal Contractor's Project Work Health & Safety Management Plan.

b) The objectives of this TMP are to:

- Provide for a safe environment for all road users;
- Provide protection to workers, visitors, agents of the principal and the general public from traffic hazards that may arise as a result of the project activity;
- To actively monitor traffic impacts related to the construction works so that information can be applied to the planning and implementation of traffic control plans
- Keep all site traffic delays to a minimum,
- Maintain satisfactory property access,
- Minimise disturbance to the environment and

- Meet the requirements of relevant Australian Standards (specifically AS1742.3) and the RMS Traffic Control at Worksites (TCAWS) Manual V5.
- To ensure network performance is maintained at an acceptable level throughout the term of the project contract;
- Ensure access to adjacent commercial premises are maintained at all times.

c) To achieve the above objectives, the Traffic Management Plan will:

- Ensure whenever possible, that a sufficient number of traffic lanes to accommodate vehicle traffic volumes are provided.
- Ensure that delays and traffic congestion are kept to a minimum and within acceptable levels;
- Ensure that appropriate/sufficient warning and information signs are installed, and that adequate guidance is provided to delineate the travel paths through or around the work site;
- Ensure that the work area is free of hazards and that all road users are adequately protected;
- Ensure that all needs of road users, motorists, pedestrians, cyclists, public transport passengers and people with disabilities are accommodated at and through the work site;
- Provide for work activities to be undertaken sequentially to reduce the adverse impacts of the work; and
- Communicate the arrangements for impacts of maintenance activities affecting traffic flow in and around the Project to stakeholders and local authorities as applicable.

3 Responsibilities & Authorities

Project Team Responsibilities

	Project Manager	Traffic Control Planner	Traffic Control Team Leader	Traffic Controllers	Vehicle Driver
Prepare the Traffic Management Plan		X			
Approve the TMP	X	X			
Traffic Control Risk Assessment		X	X	X	
Prepare Traffic Control SWMS	X	X	X		
Obtain ROL		X			
Prepare TCPs		X			
Make minor changes to TCPs		X	X		
Implement TCPs			X	X	
Worksite Inspections	X	X	X		
Safety on site	X	X	X	X	
Managing accidents at site	X		X	X	
Reviewing the TMP	X	X			

Rhino Traffic Control

Monitoring traffic controls			X	X	
Vehicle Pre -Start Log Book			X		X

4 Risk Management

Risk Assessment

a) An assessment will be undertaken to evaluate the potential health and safety risks to the client, the public and all persons working on, delivering to or visiting the work site. The measures necessary to control these risks will be determined.

b) The Project Manager and Traffic Control Team Leader shall ensure that site safety risks are assessed prior to commencement of work on site.

c) Control measures shall be determined in accordance with the "hierarchy of controls" and in accordance with applicable legislation, Codes of Practice and Australian Standards.

1	**ELIMINATION**	Can the risk or hazard be totally eliminated?
2	**SUBSTITUTION**	Can the risk or hazard be replaced with a less hazardous method, material or system?
3	**ISOLATION**	Can the hazard or risk be distanced from persons or can it be enclosed to prevent entry/access?
4	**ENGINEERING CONTROLS**	Can the hazard or risk be guarded or made safe by engineering methods?
5	**ADMINISTRATIVE CONTROLS**	Can training, increased supervision, rotation or signage assist?
6	**PERSONAL PROTECTIVE EQUIPMENT (PPE)**	Can PPE protect the worker from the hazard or risk?

Risk Assessment Prior to Establishing Traffic Controls

d) Prior to implementing traffic controls, a Traffic Control Risk Assessment or similar shall be completed. Where required adjustments shall be made to the applicable TCP and reasons for change recorded.

High Risk Construction Work

e) A SWMS must be developed for traffic control work.

f) All workers shall be trained in the SWMS and have signed onto the SWMS before work commences

5 Road Occupancy Licence & Local Government Permits

a) Rhino Traffic Control will manage risks associated with traffic management by ensuring that no activity commences, which influences traffic without an approved Road Occupancy Licence and other relevant local government approvals.

b) An ROL is required for all works, mobile or static that impact on traffic flow within and on the approaches to this Project. The Traffic Control Planner shall obtain the ROL from TfNSW's Road Occupancy Unit (ROU). Local Government approvals are to be sought from Innerwest Council.

c) All ROL's and Council Permits related to this project shall be provided to site traffic controllers to ensure all conditions are always adhered to.

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6 Selecting & Implementing Traffic Control Plans

TCPs

a) Before undertaking any works that impact on traffic, the Traffic Control Officer shall prepare a Traffic Control Plan to address the safe movement of traffic past, through or around the worksite.

b) TCPs shall be issued to site traffic controllers to be implemented. Refer to section 21.

Minor modifications to TCPs

c) If a standard TCP does not exist for the work being planned, a standard TCP can be modified.

d) Only holders of an RMS 'Prepare Work Zone Traffic Management Plan' Card can make minor modifications to TCPs.

e) A Traffic Control Risk Assessment must be completed before modifying the TCP.

f) Minor modification of standard TCPs would include the following:

- The inclusion of any road work speed zones
- Varying the size of signs in accordance with RMS Traffic Control at Work Sites Manual section 3.2.2, advance warning sign distances
- Varying the spacing of signs and including additional signs in accordance with RMS Traffic Control at Work Sites Manual section 3.2.3, spacing between signs
- Duplicating signs in accordance with RMS Traffic Control at Work Sites Manual section 3.2.4, duplication of signs
- Including any variable message signs used in addition to all other signs shown on the TCP
- Placing additional signs if it is felt that expected queue lengths might require them in accordance with RMS Traffic Control at Work Sites Manual section 3.5.7, avoiding end of queue collisions
- Varying the positioning of signs and devices in accordance with RMS Traffic Control at Work Sites Manual section 3.5.8, tolerances on positioning of signs and devices
- Detailing the location of signs required for a roadwork speed zone in accordance with RMS Traffic Control at Work Sites Manual section 8.2, roadwork speed zones and TCP 57
- Including the location of signs indicating workers are on site for TCPs showing traffic arrangements when workers are not on site
- Adding additional signs where it is considered they are required for safety reasons i.e. On the approaches to crests or sharp bends
- Adding additional signs where a minor side street joins a work site.

g) Any TCPs modified using the principles above shall be authorised and marked or numbered to show that they are a modification and which standard TCP they are a modification of. It is not acceptable to modify a previously modified TCP.

7 Worksite Inspections

a) The Traffic Control Team Leader shall monitor traffic control devices. Traffic control devices that are damaged, fall over, moved out of location shall be replaced/rectified/replaced at the correct location

b) Each day the Traffic Control Team Leader shall verify that traffic control and traffic control devices are in accordance with the TCP, after set-up but prior to start of work, during the day, at the end of the day. The inspection shall be recorded on the Traffic Control Daily Inspection form.

c) Any discrepancies with the TCP shall be rectified.

Rhino Traffic Control

8 Training & Competency

a) Only competent persons who possess an appropriate certification will be appointed as traffic controllers.

b) All personnel performing Traffic management tasks will possess a certificate, issued by a Registered Training Organisation accredited by the Australian National Training Authority.

c) All site personnel shall be trained and made aware of the Traffic Management Plan requirements, including PPE as detailed within the Project Management Plan, as part of the Project Site Specific Induction.

d) The following qualifications are required:

Task	RMS Traffic Control Qualification
Prepare Work Zone Traffic Management Plan	RIICWD503A - Prepare Work Zone Traffic Management Plan – (formally Red/Orange Card)
Traffic Controller	RIISS00044 – Authorised Traffic Controller – Blue Card
Implement Traffic Control Plans	RIISS00041 - Implement Traffic Control Plans – Yellow Card

9 Safe Work Practices

Fatigue

a) Breaks must be taken at a suitable time and on a rotational basis, approval must be gained by the Traffic Control Team Leader and Project Manager before taking any breaks.

b) Traffic Controllers who perform stop / slow duties continuously shall be relieved after two hours work and may either be rested or placed on other duties for a period of at least 15 minutes before being returned to stop / slow duties.

Mobile Phones

c) Mobile phones must not be used whilst engaging in traffic control duties.

Pedestrians

d) Ensure that pedestrians do not enter areas identified as unsafe

e) A safe alternate route should be identified. Pedestrians should be directed/escorted to the safe route.

Personal Protective Equipment

f) All personnel undertaking traffic control duties shall wear the appropriate high visibility safety clothing that complies with AS/NZS 1906 & 4602. This may be in addition to other protective equipment required on the site (e.g. protective footwear, gloves (on your person) eye protection, helmet, sun protection, respiratory devices etc).

g) PPE required:

- Authorised Traffic Controller high visibility yellow vest.
- White or Orange hard hat with sun brim.
- Safety glasses clear/tinted.
- Yellow high visibility rain gear.
- White high visibility night overalls.
- Night wand.

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Plant and Equipment

h) All plant and equipment at the workplace shall meet statutory requirements and have the required registration, licences or certification where required and have completed prestart checks to ensure serviceability of equipment.

i) All mobile equipment shall be fitted with suitable reversing alarms.

j) All mobile plant and vehicles shall be fitted with rotating flashing yellow lamps in accordance with AS1742.3 2009.

k) Vehicle operators shall complete the Daily Pre- Start Log Book daily.

l) No personnel shall to ride on the back of the vehicle when in motion, this includes for setting down and / or collecting signage. Vehicles must be stationary and secure before accessing the back.

Plant or Vehicle Movements

m) Ensure sufficient distance is kept between workers, members of the public and vehicles. A 3-metre clearance should be maintained.

Sequence for Erection and Removal of Signs and Devices

9.1.2 Sequence of erection

a) Before work commences, signs and devices at approaches to the work site shall be erected in accordance with the adopted TCP, in the following order: -

- Advance warning and regulatory signs
- All intermediate advance warning and regulatory signs and devices required in advance of the taper or start of the work area
- All delineating devices required to form a taper including flashing arrow signs or temporary hazard markers where required
- Delineation of the work area or side track
- All other warning and regulatory signs, including termination and end of temporary speed zone signs.

b) Delineation devices such as cones and bollards shall be placed in the same sequence, i.e. those furthest in advance of the work placed first.

c) Where a work area is moving progressively along the road, relocation of the signs ahead should take place in the above sequence. Those behind should be relocated in the reverse sequence.

d) Signs and devices that are erected before they are required shall be covered by a suitable, opaque material and, if necessary, inspected at night to ensure they do not give conflicting messages. The cover shall be removed immediately prior to the commencement of work.

9.1.3 Erection of signs and devices

a) Always travel in the direction of normal traffic flow.

b) A work vehicle with a flashing arrow or rotating or flashing light(s) shall be positioned between the workers and approaching traffic during placement of traffic control devices.

c) Workers shall not cross roads or carriageways on foot when erecting or removing signs.

9.1.4 Removal of signs and devices

a) Removal of traffic control signs and devices should be undertaken in the reverse order of erection, progressing from the work area out toward the approaches.

b) Workers shall not cross roads or carriageways on foot when erecting or removing signs.

Rhino Traffic Control

a) Lane closures delineated by cones and bollards: - a work vehicle shall be positioned between the workers and approaching traffic and should generally slowly reverse along the closed roadway allowing workers to remove the traffic control devices. However, subject to the approval of the works supervisor, the work vehicle may proceed in a forward direction towards approaching traffic along the closed roadway, provided that this does not create motorist confusion or distraction, such as headlight glare at night.

Site Access

b) Care should be taken when accessing specific TCP zones to avoid other vehicles behind following the maintenance vehicle into the TCP zone.

c) Flashing lights should be used when accessing and exiting the TCP zone

d) Should traffic require to be stopped during works, a Licensed/Competent Traffic Controller shall be responsible for ensuring safe access to and from site.

Traffic Speed

e) Traffic Controllers shall be allowed to operate only in an area where traffic speeds have been reduced to 60 km/h or less.

10 Accidents at Work Sites

a) In the event of a traffic accident occurring near the works being carried out, workers may render assistance to ensure that traffic flows are maintained in a safe manner.

b) Workers shall notify the Project Manager of the occurrence,

c) A qualified traffic controller shall ensure that the incident scene is made safe to the persons involved in the incident, the travelling public and emergency services until the arrival of the RMS response crew (if required) who will take over traffic control once their cordon is established.

11 Reviews

Project / Site Audits

a) Audits of the implementation of traffic control shall be scheduled by the Traffic Control Team Leader and/or Traffic Control Planner and form part of the company's audit schedule.

b) The aim of the audits is to not only verify compliance with this Traffic Management Plan but to also identify improvements to this plan.

12 Description or detailed plan of proposed measures

Proposed works are for the Full Road Closure / Detour at the rear of 11 Charlotte St, Ashfield between Elizabeth St and Station St to stand a 20t City Crane & Support Truck to Lift Air Conditioning Units onto Club Ashfield.

Works are proposed to take place on **Monday 12th October 2020** between the hours of **7.00AM – 3.00PM**, for a 6-8 hour period. Whilst the road closure is in effect, the 20t City Crane and truck will Stand occupying all trafficable lanes at the rear of Club Ashfield (Un Named Rd) in all directions between Elizabeth St and Station St, and will enter the work area in a forward motion from Elizabeth St. Work vehicles will exit the work area in a forward motion travelling Southbound towards Station St. At no stage are any work vehicles permitted to reverse into the Rear Lane Way from either end of the work site.

All local traffic movements within the closure on the Un Named Rd will be maintained under the strict instruction and guidance of Authorised Traffic Controllers. All access to residences will be Maintained

along the rear lane way where applicable. Emergency Services vehicles will be accommodated through the work area as required utilising the approved diversion routes.

The detour route is to be clearly signposted and advance warning signs will be installed to inform motorists of the changed traffic conditions. Traffic Controllers are to maintain close communication with all workers onsite and members of the public to ensure a safe and hazard free work site for all members of the public and worksite personnel.

These works have been planned to take into consideration the impacts identified that these works will have to the local road network, Shopping Centre trading hours, other local business operations and residential impacts. Appropriate steps will be taken to alleviate these impacts and to ensure public notification.

13 Identification and assessment of impact of proposed measures

Rear Lane Way behind Club Ashfield is a local road which is owned and maintained by Innerwest Council. The Lane Way is considered to be a Local road for traffic which carries a Low level of traffic volume during normal operating hours. The road is a Two (2) lane (1) Way single carriageway road which is approximately 4m wide in most sections of the roadway.

It is anticipated that the proposed times and dates to carry out these works will have low impacts to the area due to the Part of the Road being Closed can be easily Diverted. Rhino Traffic Control will endeavor to ensure the worksite is clearly signposted, local access will be maintained and traffic will be diverted to use surrounding streets.

All affected properties will be notified of the proposed works at least 7 days prior to commencement of works by the way of a 'Letterbox Drop'. Any concerns or objections will be rectified prior to works.

"Local Traffic Only" signs are to be erected at each road closure point to ensure local access is maintained.

All pedestrian movements in the area will be monitored by Traffic Controllers and diverted away from the Work Area. Access to local Residences will always be accommodated to ensure minimum disruption.

All worksite personnel including Traffic Control staff are to be in two radio contact with each other at all times to ensure prompt communication. All precautions are to be taken when conducting works as described in the Traffic Control Crew's Safe Work Method Statement (SWMS).

All proposed control measures will be in place for an approximate 6-8hr period and are precautionary safety measures for the unlikely chance of incident.

A Traffic Control Plan (TCP) and Detour Route as detailed in section 21+22, has been developed to ameliorate conditions whilst work is taking place. Short delays to motorists on the affected road are possible. The operation is to be planned for when Innerwest Council's Traffic Committee gives approval.

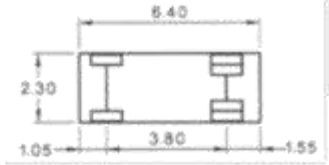
14 Schedule of Works & Truck Movements

The Traffic Control Team is to ensure, that no vehicles associated with these works will enter the work area until the appropriate traffic control measures are implemented as per the approved Permits. This is to ensure no impacts are caused to the road network until approved to do so. Work vehicles and other

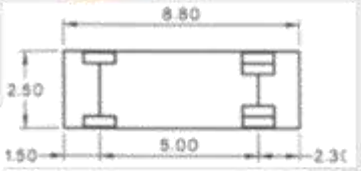
support vehicles will be scheduled in such a manner to arrive onsite when called upon by Traffic Control. All vehicles approaching the work site will adhere to the road rules and observe any signage in place.

There will be a combination of a 20t City Crane, Delivery Truck and Traffic Control Ute which will access and egress the road closure throughout the shift. Vehicle movements will be limited and conducted under the guidance of Authorised Traffic Controllers.

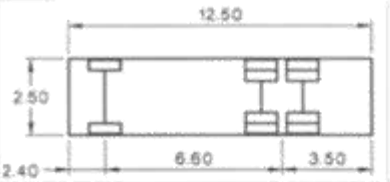
TIME	*No. of Vehicles*	*Movements Required*	*Size of Vehicles Required*
6.30am Traffic Control Crews Arrive.	1x Traffic Control Utes	1 /day (Start of Shift)	LCV (Light Commercial Vehicle)
7.00am Mobile Crane Arrives.	1x 20t City Crane	1 /day (Start of Shift)	HRV (Heavy Rigid Vehicle) 9m (L)
7.15am Delivery Truck Arrives.	1x Delivery Truck	1 /day (Start of Shift)	HRV (Heavy Rigid Vehicle) 12.5m (L)
2.00pm Delivery Truck Leaves	1x Delivery Truck	1 /day (End of Shift)	HRV (Heavy Rigid Vehicle) 12.5m (L)
2.30pm Mobile Crane Leaves	1x 20t City Crane	1 /day (End of Shift)	HRV (Heavy Rigid Vehicle) 9m (L)
3.00pm Traffic Control Crews Leave.	1x Traffic Control Ute	1 /day (End of Shift)	LCV (Light Commercial Vehicle



(a) Small rigid vehicle
Clearance height 3.50
Design turning radius 7.1

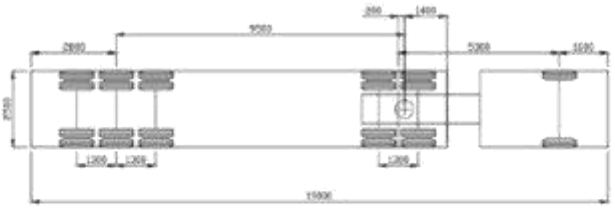


(b) Medium rigid vehicle
Clearance height 4.50
Design turning radius 10.0



(c) Heavy rigid vehicle
Clearance height 4.50
Design turning radius 12.5

(d) Heavy Rigid Articulated Vehicle (19m Length) – Generally a 3 Axel Rigid Truck & 3 Axel Trailer Clearance Height 4.50m Design Turning Radius 12.5m.



15 Measures to ameliorate the impact of re-assigned traffic

Rhino Traffic Control

The Traffic Control Plan (TCP) and the Traffic Management Plan (TMP) are to go to Innerwest Council and NSW Police for approval.

Authorised Traffic Controllers, and all advanced warning signs are to be on-site to assist road traffic whilst work is being carried out.

16 Assessment of public transport services effected.

Rear Lane at Club Ashfield is not a Bus Route, Work Zone is in the immediate vicinity to a Railway Station. This proposed closure will not have any impact whatsoever to any bus and Minimum Impacts to rail services or networks.

17 Details of provisions made for emergency vehicles, heavy vehicles, cyclist and pedestrians.

Emergency vehicles will have access to the Un Named Rd in most parts. All emergency services vehicles are to adhere to the changed traffic conditions through the work zone and must obey any direction given to them by an Authorised Traffic Controller. Appropriate measures will be taken to ensure emergency service vehicles are moved through the work zone as quickly as possible when under lights and sirens.

Pedestrian movements will be restricted to follow Traffic Controller directions at all times to be safely guided around the work area as per the Traffic Control Plan (TCP) as detailed in section 21.

All Cyclist movements are to be stopped at the Worksite, asked to dismount from their bicycle and follow the diversion route until they can safely return to the bicycle lanes or roadway. If this cannot be achieved, Cyclists are to follow traffic movements through the work zone and adhere to the changed traffic conditions at all times.

Heavy vehicles, as with all road traffic will be under the direction of Authorised Traffic Controllers and must adhere to the changed traffic conditions through the work zone.

18 Assessment of effect on existing and future developments with transport implications near the proposed measures.

There will be no effect as the road will not be changed and once work is completed the road will be returned to normal operation.

19 Assessment of effect of proposed measures on traffic movements in adjoining Council areas.

There will be no disruption to adjoining council areas.

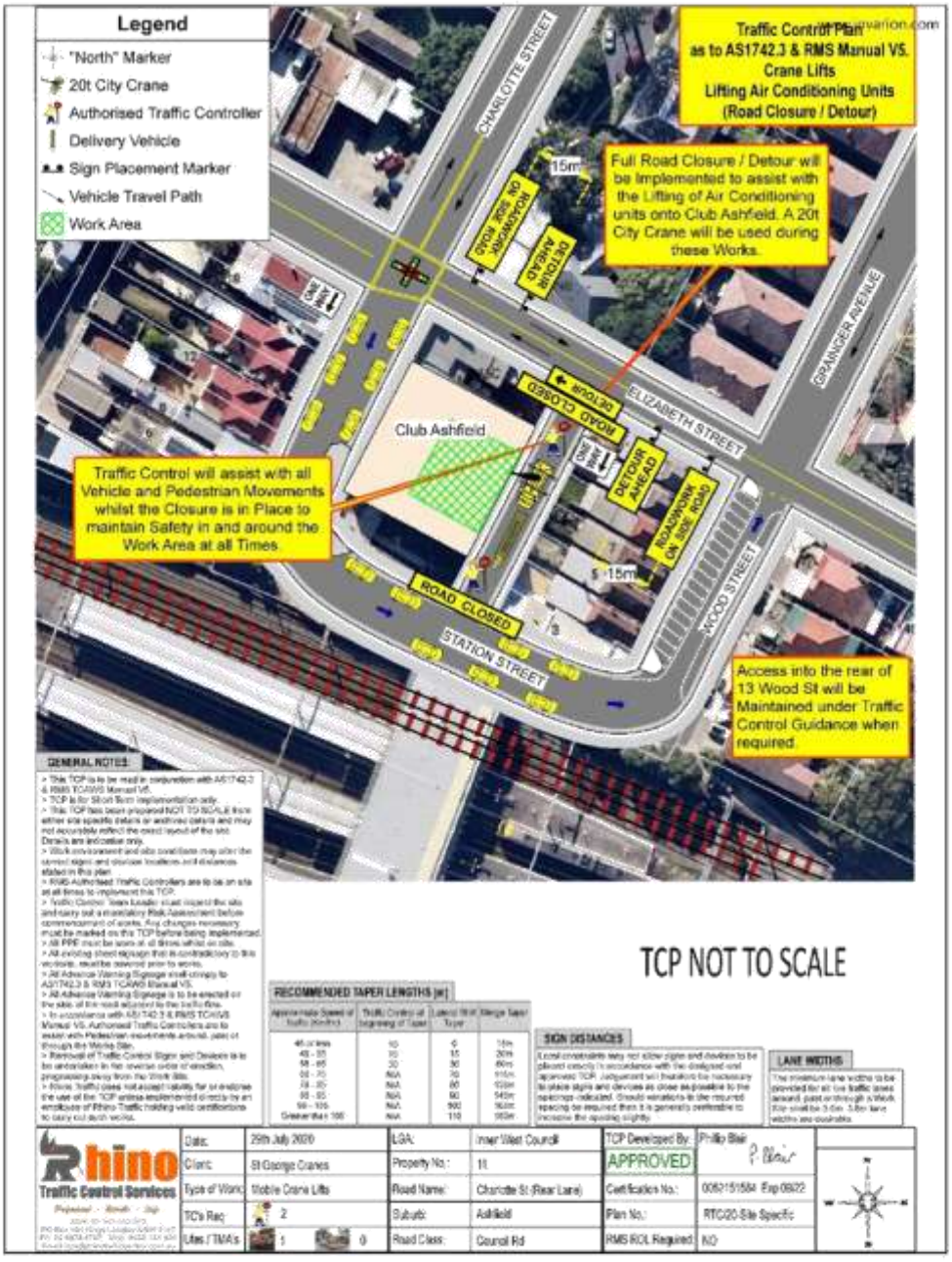
20 Public Consultation Process.

All affected properties will be notified of the proposed works at least 7 days prior to commencement of works by the way of a 'Letterbox Drop'. Any concerns or objections will be rectified prior to works.

Item 3

Rhino Traffic Control

21 Traffic Control Plan (TCP

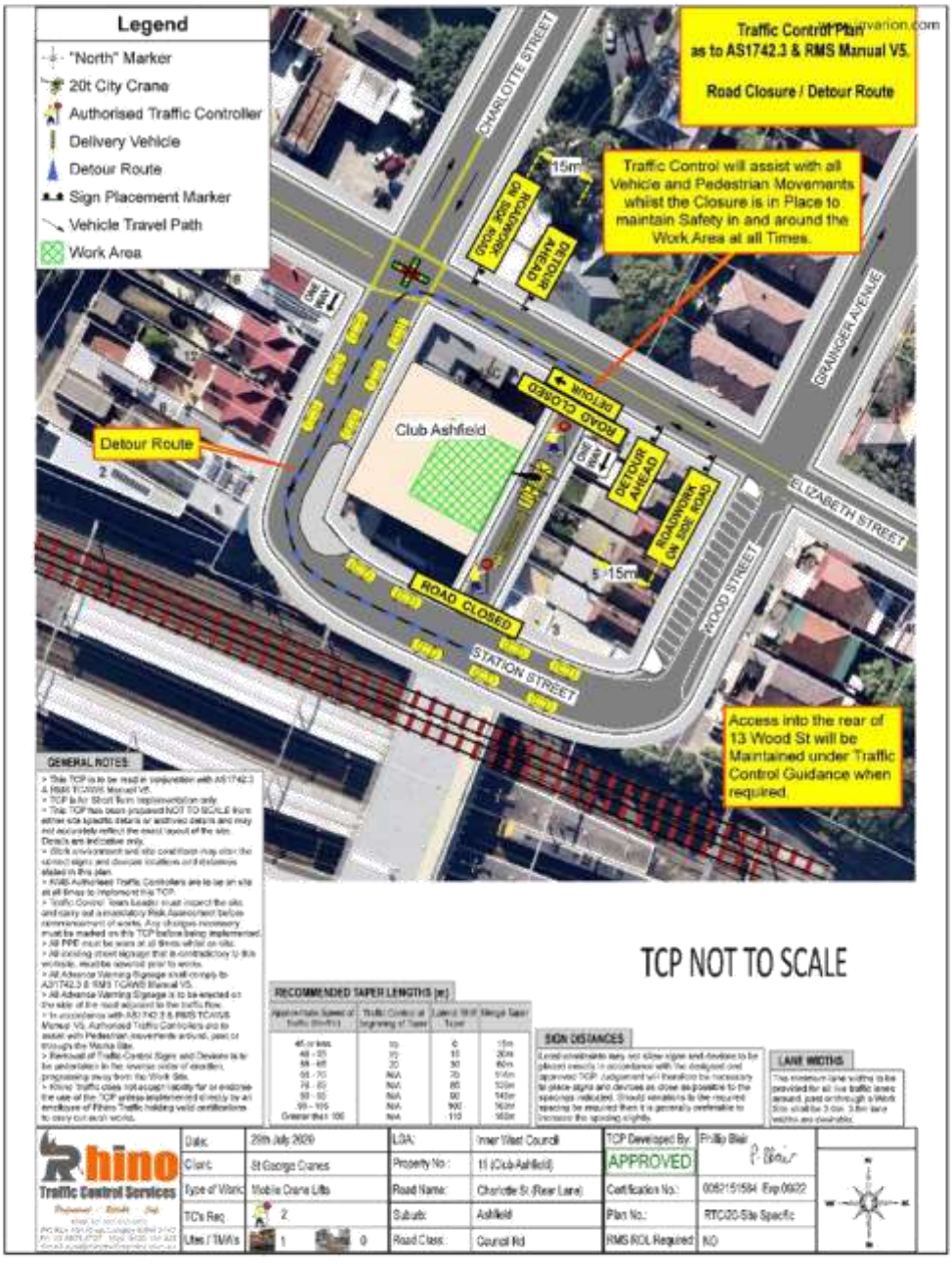


Attachment 1

Item 3

Rhino Traffic Control

22 Detour Route



Attachment 1

Item 3

Rhino Traffic Control

www.rhinotrafficcontrol.com.au

Transport Roads & Maritime Services

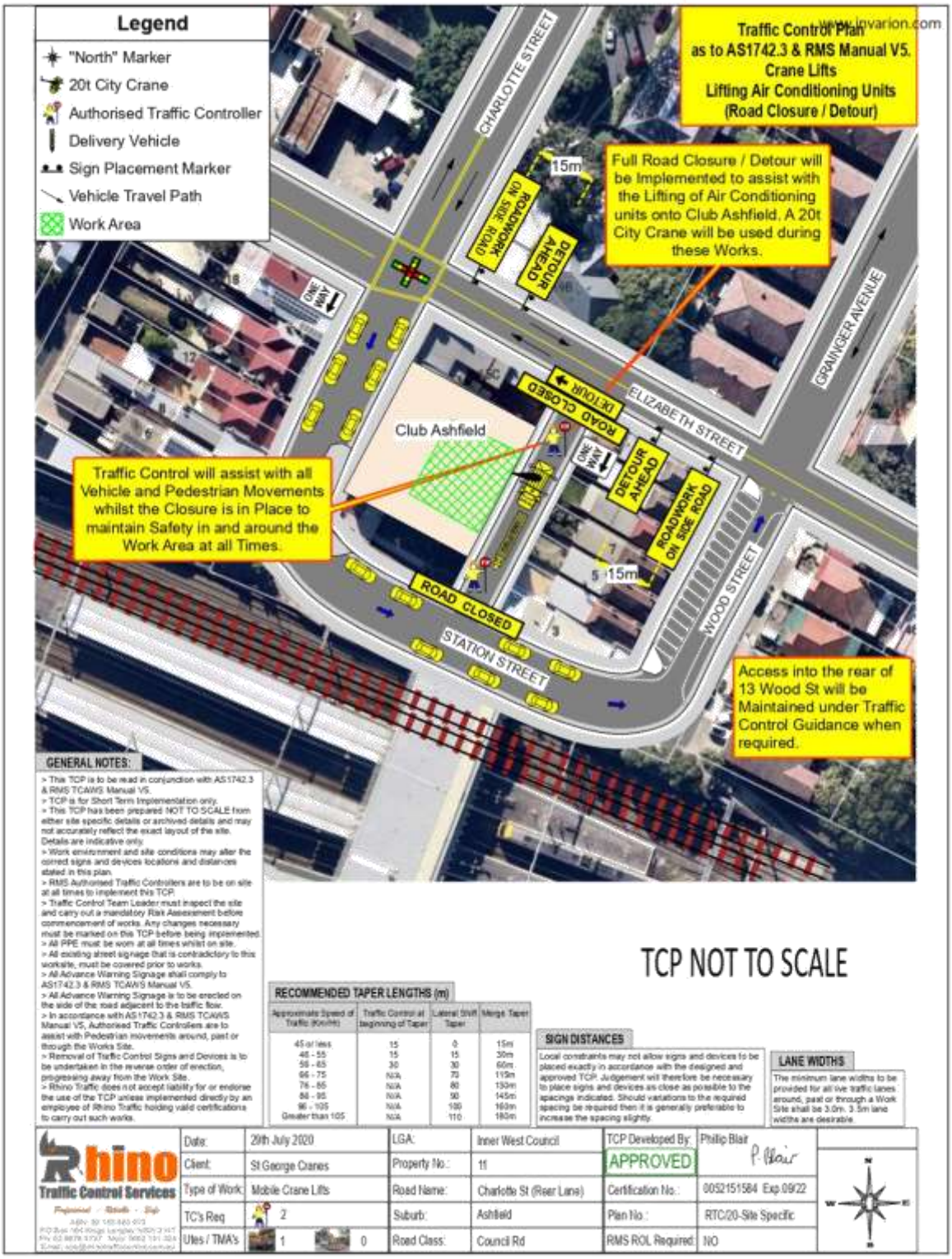
Accredited By: RMS

MEMBER

Proud Member of: Civil Contractors Federation

END DOCUMENT

Attachment 1



Item 3

Attachment 2

Item 4

Item No: **LTC0920 Item 4**

Subject: **BALMAIN ROAD AND MARION STREET, LEICHHARDT - PROPOSED EXPANDED BICYCLE STORAGE AREA (GULGADGA - LEICHHARDT & BALUDARRI - BALMAIN WARD/ BALMAIN ELECTORATE/ LEICHHARDT PAC)**

Prepared By: David Yu - Acting Coordinator Traffic Engineer Services (North)

Authorised By: Manod Wickramasinghe - Traffic and Transport Planning Manager

SUMMARY

As part of the Cycleway Capital Works Program, Council has prepared a concept design plan for the proposed new expanded bicycle storage area at the intersection of Balmain Road and Marion Street, Leichhardt. The intention of the proposal is to provide a dedicated bicycle lane at this intersection to improve road safety and prevent cyclists from impeding left turning vehicles at the intersection.

RECOMMENDATION

THAT the concept design plan for the proposed expanded bicycle storage area and associated signage and line markings in Balmain Road at the intersection of Marion Street, Leichhardt (as per Plan No. 10120) be APPROVED, subject to TfNSW approval.

BACKGROUND & OTHER STAFF COMMENTS

Council is proposing a new expanded bicycle storage area at the intersection of Balmain Road and Marion Street, Leichhardt as part of Cycleway Capital Works Programs.

The project was identified through the Council Bike Plan (2007) for the former Leichhardt Municipal Council and was prioritised in accordance with adopted Asset Planning Prioritisation Criteria.

Additionally, Council officers were requested at Council's Bicycle Working Group to provide a dedicated bicycle lane at this intersection to improve road safety and prevent cyclists from impeding left turning vehicles when travelling north along Balmain Road.

The concept design plan shown in **Attachment 1** outlines the proposed works at the intersection and includes the following treatments:

- Installation of new expanded bicycle storage area with associated green surface treatment.
- Installation of other associated pavement line markings and signage as required;
- Installation of bike lantern on existing traffic signal posts and Traffic Control Signal (TCS) design of proposed cycleway; and
- Mill and resurfacing of existing roadway.

This proposal will not result in the loss of any on-street parking spaces.

FINANCIAL IMPLICATIONS

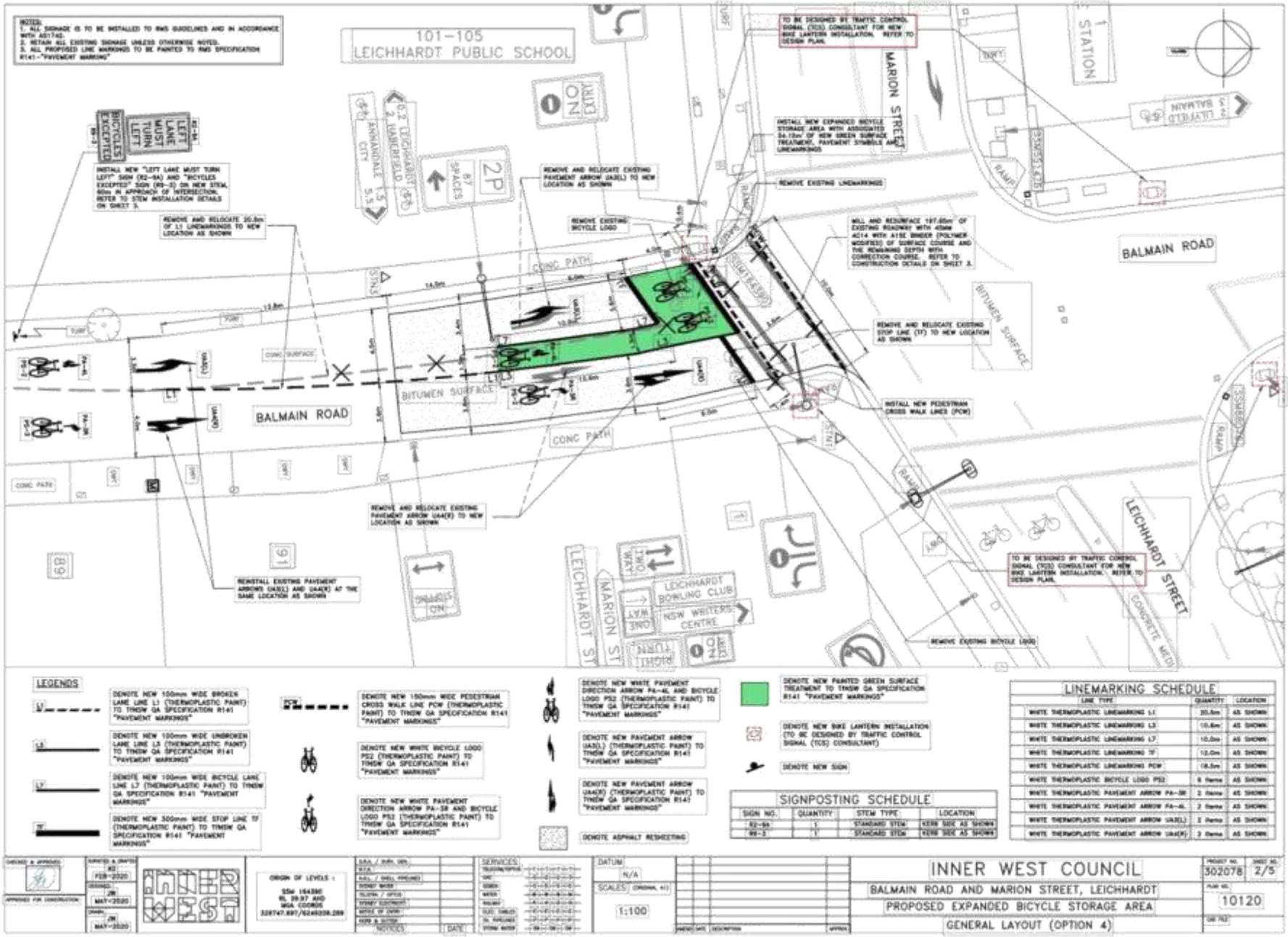
Funding of $75,000 has been allocated to this project for construction in the 2020/21 Cycleways Capital Works Program.

PUBLIC CONSULTATION

Nil

ATTACHMENTS

1.⇩ Design Plan - Proposed Expanded Bicycle Storage Area (Balmain Road and Marion Street, Leichhardt)


101–105
LEICHHARDT PUBLIC SCHOOL
BALMAIN ROAD
MARION STREET
LEICHHARDT STREET
LEICHHARDT BOWLING CLUB
NSW WRITERS CENTRE
LEGENDS
LINEMARKING SCHEDULE
SIGNPOSTING SCHEDULE
INNER WEST COUNCIL
BALMAIN ROAD AND MARION STREET, LEICHHARDT
PROPOSED EXPANDED BICYCLE STORAGE AREA
GENERAL LAYOUT (OPTION 4)
1:100
302078
2/5
10120

Item 5

Item No: **LTC0920 Item 5**

Subject: **BEATTIE STREET/ HARRIS STREET, BALMAIN - PROPOSED GARDEN BED/KERB EXTENSION (BALUDARRI - BALMAIN WARD/ BALMAIN ELECTORATE/ LEICHHARDT PAC)**

Prepared By: David Yu - Acting Coordinator Traffic Engineer Services (North)

Authorised By: Manod Wickramasinghe - Traffic and Transport Planning Manager

SUMMARY

Council has received concerns regarding vehicles causing building damage to No. 197 Beattie Street, Balmain whilst manoeuvring near the corner of Harris Street and Beattie Street, Balmain. This has raised concerns for both the structural integrity of the building and pedestrian safety.

RECOMMENDATION

THAT:

1. **The proposed garden bed/kerb extension at the intersection of Beattie Street and Harris Street, Balmain be supported;**

2. **That this project be listed for consideration in a forward capital works program; and**

3. **Prior to construction of any physical device, an interim treatment of a painted island and road flaps are provided in lieu of the garden bed/kerb extension.**

BACKGROUND & OTHER STAFF COMMENTS

Concerns have been raised regarding vehicles causing building damage to No.197 Beattie Street, Balmain whilst manoeuvring near the corner of Beattie Street and Harris Street, Balmain.

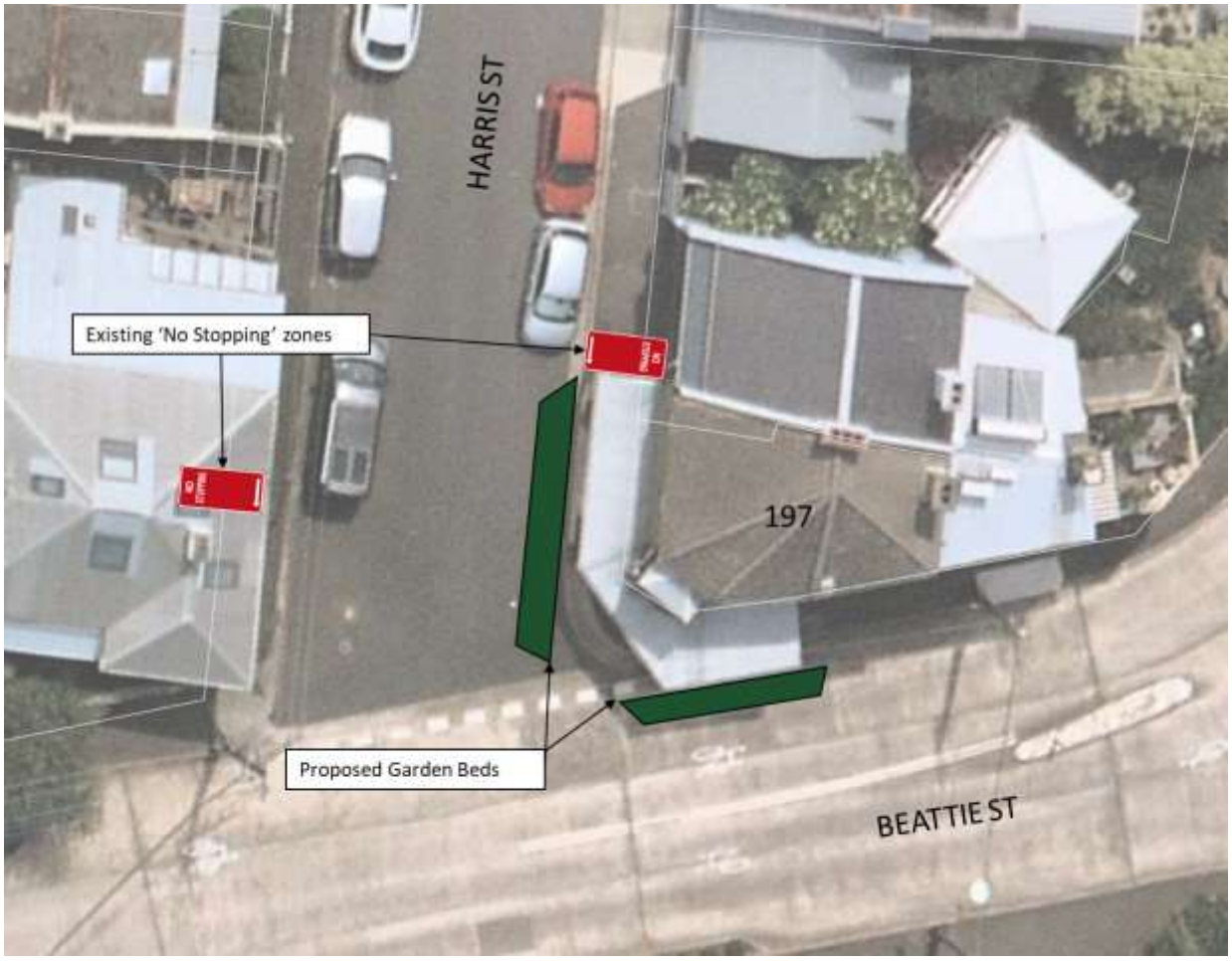
At this location, the building awning supports are located adjacent to the road carriageway and trucks have caused previous structural damage to the awning whilst parking and manoeuvring through the intersection.

This has raised concerns for both the structural integrity of the building and pedestrian safety. It should be noted that the awning is located over the public footpath.

In order to address this issue, it is proposed to provide kerb extensions and a garden bed within the existing ‘No Stopping’ zones of this intersection, as shown in the attached concept plan.

Due to the position of the garden beds within the existing ‘No Stopping’ zones, there will be no loss of on-street parking.

It is also proposed that prior to the construction of any physical device, an interim treatment of a painted island and road flaps are provided in lieu of the garden bed and kerb extension.



FINANCIAL IMPLICATIONS

Nil

PUBLIC CONSULTATION

A letter outlining the above proposal was mailed out to the affected properties (19 properties) in Harris Street and Beattie Street, Balmain requesting residents' views regarding the proposal.

One (1) response was received in support of the proposal.

In addition to supporting the proposal, the resident also requested Harris Street be converted to one-way traffic with parallel parking. Resident also requested the review of existing traffic island arrangement at the intersection of Beattie Street and Ewell Street. These items will be investigated as part of a separate investigation.

ATTACHMENTS

Nil.

Item 6

Item No: **LTC0920 Item 6**

Subject: **BOOTH STREET, ANNANDALE - PROPOSED SPEED CUSHION UPGRADES AND CYCLE LANE IMPROVEMENTS (GULGADYA-LEICHHARDT WARD/BALMAIN ELECTORATE/LEICHHARDT PAC)**

Prepared By: Felicia Lau - Engineer - Traffic and Parking Services

Authorised By: Manod Wickramasinghe - Traffic and Transport Planning Manager

SUMMARY

Council has prepared a detailed design plan to replace existing speed cushions and formalise the dedicated bicycle lane with associated new kerb blisters in front of No.135 Booth Street, Annandale. The intention of the proposal is to slow traffic and improve road safety for pedestrians, cyclists and motorists at the intersection.

RECOMMENDATION

THAT the design plan (Design Plan No.10143) for the proposed speed cushion upgrades and cycle lane improvements frontage of No.135 Booth Street, Annandale be approved.

BACKGROUND

As part of the 2020/2021 Traffic Facilities (LATM) Capital Works Program, Council is proposing to upgrade the existing speed cushion and to formalize the dedicated existing cycle lane treatment frontage of No.135 Booth Street, Annandale. This project is expected to improve safety for pedestrians, cyclists and motorists at the intersection.

The initial design plan has been revised as a result of the community consultation.

The revised design plan is shown in **Attachment 1** outlines the proposed works at Booth Street, Annandale and includes the following treatments:

- Upgrading the existing rubber speed cushions to asphalt speed cushions.
- Installing a traffic treatment in the form of kerb blisters to formalise dedicated bicycle lane on the frontage of No.135 Booth Street, Annandale.

The proposal will not result in the loss of any on-street parking spaces.

FINANCIAL IMPLICATIONS

Funding of $15,000 has been allocated to this project for construction in the 2020/2021 Capital Works Program.

PUBLIC CONSULTATION

A letter outlining the above proposal was distributed to the directly affected properties (11 properties) in Booth Street, Annandale. Five (5) responses were received to date, four (4) in objection to the proposal. The main concerns are outlined below.

Summary of some main objection from the initial design plan consultation are:

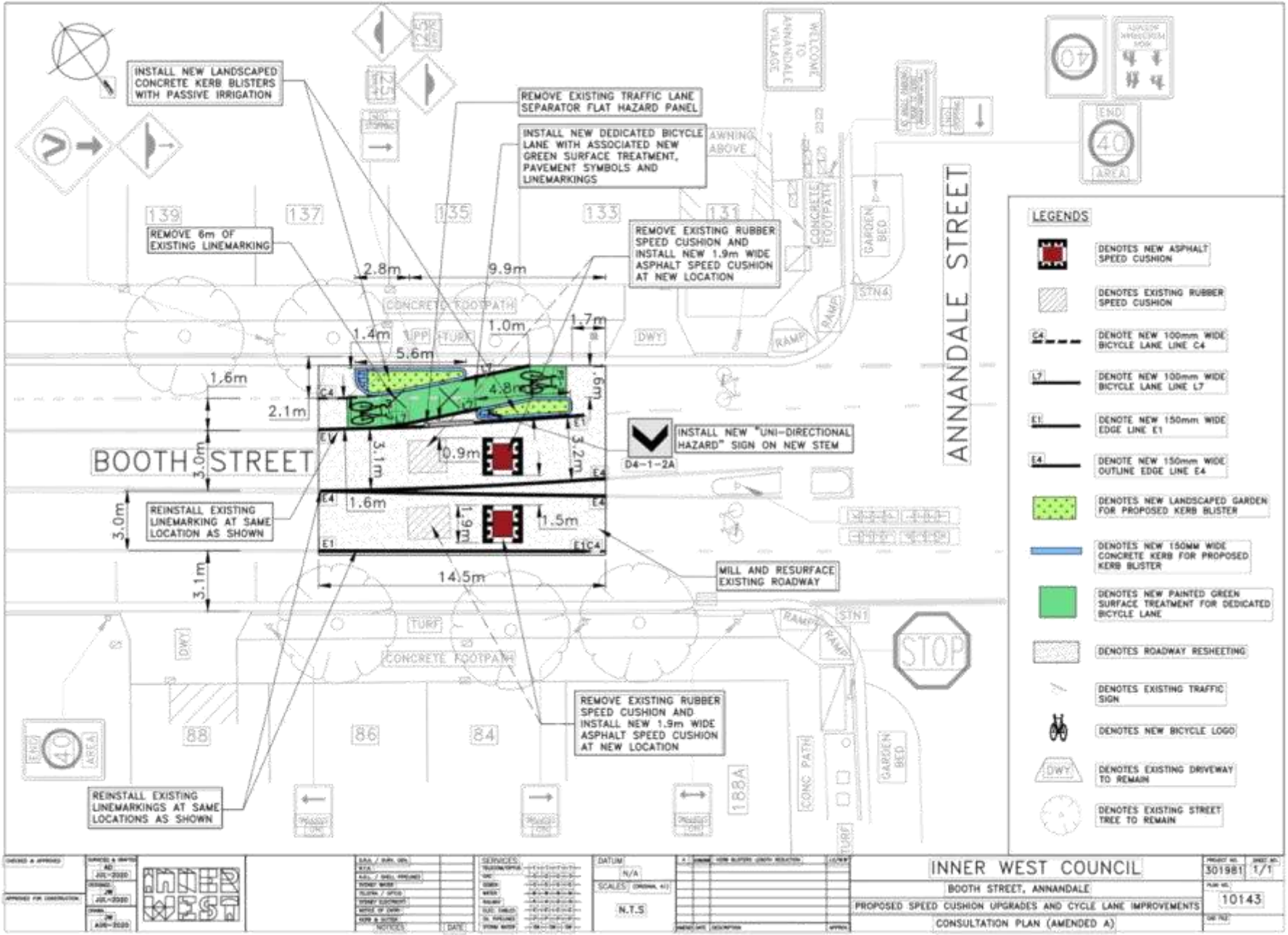
- Kerb blister would result in a loss of on-street parking space.
- Kerb blister would obstruct the use of the driveway to No.133 Booth Street, Annandale.

Based on the feedback a revised design has been prepared (**Attachment 1**). The revised design plan includes a minor reduction of the western-most kerb blister to ensure that 8 standard parking spaces are retained to the west of the treatment.

The eastern-most kerb blister has also been reduced in length to provide a 1.7m offset from the driveway of No.133 Booth Street instead of the previous 1.1m offset. A swept path analysis has been undertaken and confirms that the driveway of No.133 Booth Street, Annandale is not obstructed by the proposal.

ATTACHMENTS

1.⇩ Design Plan 10143A


INSTALL NEW LANDSCAPED CONCRETE KERB BLISTERS WITH PASSIVE IRRIGATION
REMOVE EXISTING TRAFFIC LANE SEPARATOR FLAT HAZARD PANEL
INSTALL NEW DEDICATED BICYCLE LANE WITH ASSOCIATED NEW GREEN SURFACE TREATMENT, PAVEMENT SYMBOLS AND LINEMARKINGS
REMOVE 6m OF EXISTING LINEMARKING
REMOVE EXISTING RUBBER SPEED CUSHION AND INSTALL NEW 1.9m WIDE ASPHALT SPEED CUSHION AT NEW LOCATION
INSTALL NEW "UNI-DIRECTIONAL HAZARD" SIGN ON NEW STEM
D4-1-2A
REINSTALL EXISTING LINEMARKING AT SAME LOCATION AS SHOWN
MILL AND RESURFACE EXISTING ROADWAY
REMOVE EXISTING RUBBER SPEED CUSHION AND INSTALL NEW 1.9m WIDE ASPHALT SPEED CUSHION AT NEW LOCATION
REINSTALL EXISTING LINEMARKINGS AT SAME LOCATIONS AS SHOWN
BOOTH STREET
ANNANDALE STREET
LEGENDS
DENOTES NEW ASPHALT SPEED CUSHION
DENOTES EXISTING RUBBER SPEED CUSHION
DENOTE NEW 100mm WIDE BICYCLE LANE LINE C4
DENOTE NEW 100mm WIDE BICYCLE LANE LINE L7
DENOTE NEW 150mm WIDE EDGE LINE E1
DENOTE NEW 150mm WIDE OUTLINE EDGE LINE E4
DENOTES NEW LANDSCAPED GARDEN FOR PROPOSED KERB BLISTER
DENOTES NEW 150MM WIDE CONCRETE KERB FOR PROPOSED KERB BLISTER
DENOTES NEW PAINTED GREEN SURFACE TREATMENT FOR DEDICATED BICYCLE LANE
DENOTES ROADWAY RESHEETING
DENOTES EXISTING TRAFFIC SIGN
DENOTES NEW BICYCLE LOGO
DENOTES EXISTING DRIVEWAY TO REMAIN
DENOTES EXISTING STREET TREE TO REMAIN
INNER WEST COUNCIL
BOOTH STREET, ANNANDALE
PROPOSED SPEED CUSHION UPGRADES AND CYCLE LANE IMPROVEMENTS
CONSULTATION PLAN (AMENDED A)
301981
1/1
10143
N.T.S

Item No: **LTC0920 Item 7**

Subject: **EDINBURGH STREET, MURRAY STREET AND RAILWAY PARADE, MARRICKVILLE – MARRICKVILLE METRO EXPANSION WORKS – NOTICE OF FURTHER CHANGE OF DATES OF A TEMPORARY FULL ROAD CLOSURE FOR A 6 WEEK PERIOD NOW STARTING 20 SEPTEMBER 2020 – TO UNDERTAKE EXCAVATION WORKS FOR SEWER CONNECTION TO MAIN LINE (MIDJUBURI – MARRICKVILLE WARD / NEWTOWN ELECTORATE / INNER WEST PAC)**

Prepared By: Jennifer Adams - Engineer – Traffic and Parking Services

Authorised By: Manod Wickramasinghe - Traffic and Transport Planning Manager

SUMMARY

Council has received notice, from MLATP (contractor to Marrickville Metro Shopping Centre expansion works/ADCO), of a further change of dates of the proposed temporary full road closure of parts of Edinburgh Road, Murray Street and Railway Parade, Marrickville for a 6 week period for the purpose of undertaking excavation works for a sewer connection to the main line. It is recommended that the proposed new change of dates for the temporary full road closure be approved, subject to the conditions outlined in this report.

RECOMMENDATION

THAT the proposed temporary full road closure of Edinburgh Street, Murray Street and Railway Parade, Marrickville for a period of 6 weeks from 12 September 2020 to 24 October 2020 (contingency period of one week start date 25 September 2020) be approved for the purpose of sewer connection works relating to Marrickville Metro Expansion works subject to, but not limited to, the following conditions:

1. **A Road Occupancy License be obtained by the applicant from the Transport Management Centre;**

2. **All affected residents and businesses, including the NSW Police Area Commander, Fire & Rescue NSW and the NSW Ambulance Services be notified in writing, by the applicant, of the proposed temporary full road closure at least 7 days in advance of the closure with the applicant making reasonable provision for stakeholders;**

3. **The occupation of the road carriageway must not occur until the road has been physically closed;**

4. **Subject to written concurrence from Sydney Metro TSE Group and Transit Systems / Sydney Buses is provided to Council;**

5. **Subject to written concurrence from Transport for New South Wales; and**

6. **The temporary removal and reinstatement of any Council assets will be at the applicants cost and to Council satisfaction.**

BACKGROUNDAND OTHER STAFF COMMENTS

These proposed road closures were previously considered and supported at both the 6 July 2020 and 3 August 2020 Local Traffic Committee. Council has now received notice, from MLATP (contractor to Marrickville Metro Shopping Centre expansion works), of a further change of dates of the proposed 6-week temporary full road closure of parts of Edinburgh Road, Murray Street and Railway Parade, Marrickville.

Prior dates were from 6 July to 1 August 2020, then 31 August to 12 October 2020 and now the new proposed dates are 20 September 2020 to 31 October 2020 (contingency period of one week start date Monday 27 September 2020).

Council has now been informed that previous concerns raised by both TfNSW and Transit Systems with the adequacy of the proposed detour routes for the Transit Systems 308 Route and the State Transit 355 Route have now been resolved. Sydney Metro TSE Group and JRK have come to some consensus in working together with the temporary full road closure and completing their own works in a condensed time frame.

The previous Traffic Control Plan (TCP) and Traffic Management Plan (TMP) is attached at the end of this report.

Edinburgh Road is a local road and acts as a collector road between Victoria Road in the west and Edgeware Road in the east. Between Murray Street and Edgeware Road, Edinburgh Road carries an average 9151 vehicles per day. Along its length it is generally a one lane two-way undivided roadway with kerbside parking on both sides of the road. Its closure will have a major impact especially with the partial closure of Smidmore Street in place at the same time.

Temporary removal and reinstatement of Council assets

As per recent reports to previous Local Traffic Committee meetings on this same matter, for suitable bus access a number of Council's assets will need to be temporarily removed and it is noted that removal and reinstatement of Council assets will be at the applicants cost and to Council satisfaction. An extension of the existing 'No Parking' restrictions on the eastern side of Murray Street at Victoria Road intersection will be required and two on-street car parking spaces will be temporarily lost and approval for the extensions to those signs will be the subject of a separate report and considered under delegated authority.

FINANCIAL IMPLICATIONS

Under Council's Fees & Charges, the applicant is to pay a fee for the temporary full road closure along with any other required road occupancy and/or road opening permit fees.

All works and costs of implementation will be borne by the applicant

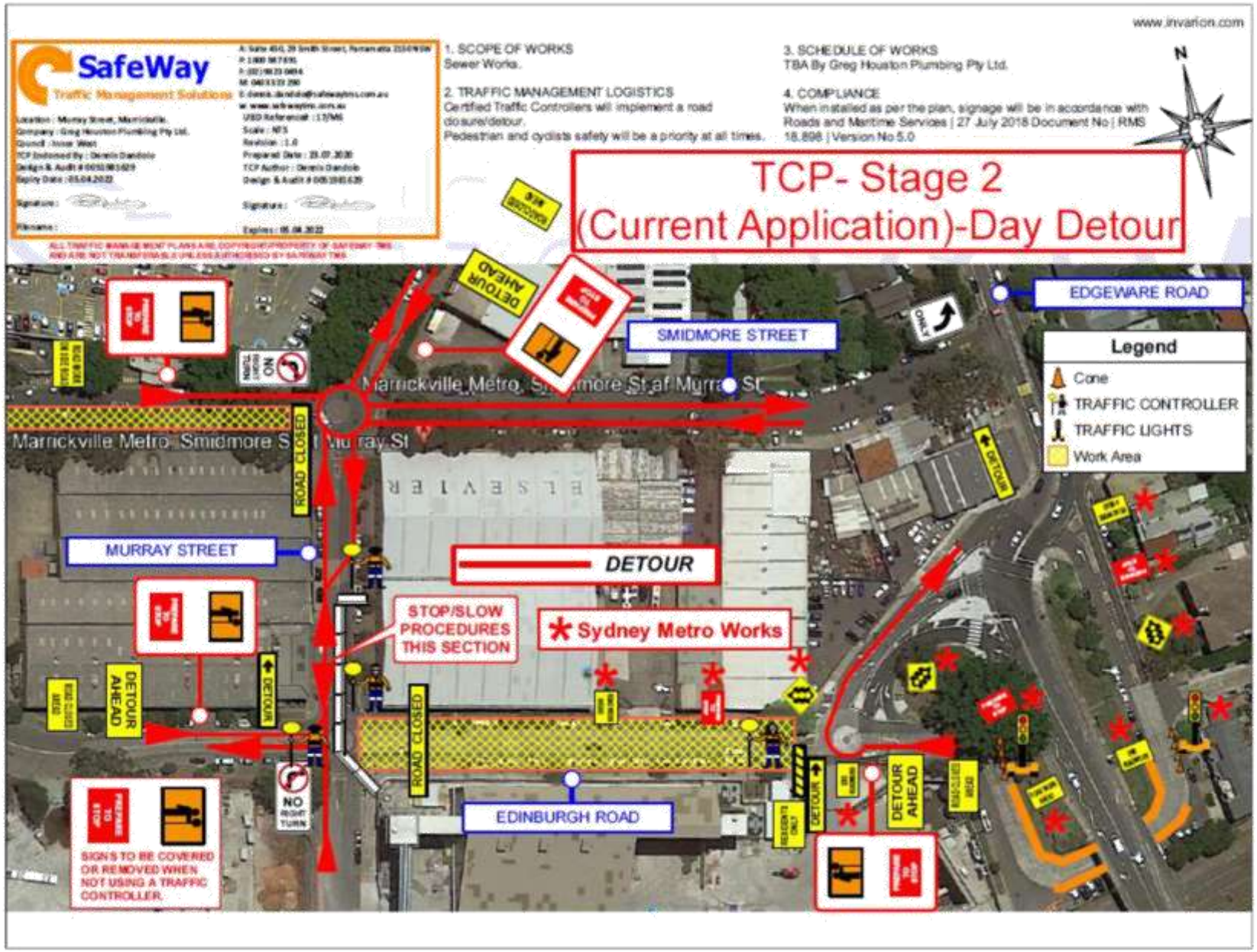
PUBLIC CONSULTATION

The applicant is to notify all affected residents and businesses in writing at least 7 days prior to the commencement of works.

The proposed road closure has been advertised on Council's website in accordance with the Roads Act 1993.

ATTACHMENTS

1.⇩ Traffic Control Plan - 200723-Edinburgh Road Traffic Management Plan
2.⇩ Edinburgh Road Traffic Management Plan


www.invarion.com
SafeWay
Traffic Management Solutions
1. SCOPE OF WORKS
Sewer Works.
2. TRAFFIC MANAGEMENT LOGISTICS
Certified Traffic Controllers will implement a road closure/detour.
Pedestrian and cyclists safety will be a priority at all times.
3. SCHEDULE OF WORKS
TBA By Greg Houston Plumbing Pty Ltd.
4. COMPLIANCE
When installed as per the plan, signage will be in accordance with Roads and Maritime Services | 27 July 2018 Document No | RMS 18.898 | Version No 5.0
TCP- Stage 2
(Current Application)-Day Detour
EDGEWARE ROAD
SMIDMORE STREET
Marrickville Metro Smidmore St at Murray St
MURRAY STREET
DETOUR
STOP/SLOW PROCEDURES THIS SECTION
Sydney Metro Works
ROAD CLOSED
EDINBURGH ROAD
DETOUR AHEAD
NO RIGHT TURN
SIGNS TO BE COVERED OR REMOVED WHEN NOT USING A TRAFFIC CONTROLLER
Legend
Cone
TRAFFIC CONTROLLER
TRAFFIC LIGHTS
Work Area

Transport Planning

Edinburgh Road, Marrickville Proposed Temporary Road Closure

Traffic Management Plan

Edinburgh Road, Marrickville
Proposed Temporary Road Closure

Traffic Management Plan

Report Version: Final

Report Date: 23 July 2020

Report Reference: 20008r04D-200723

Client: Adco Constructions Pty Ltd

Table of Contents

List of Figures

Appendices

1 Introduction

This traffic management plan (TMP) has been prepared by MLA Transport Planning (MLA) in relation to a proposed temporary closure road of Edinburgh Road, Marrickville between Murray Street and Railway Parade. Figure 1.1 shows the location of proposed road closure.

Figure 1.1: Location of Proposed Upgrade Works

The proposed road closure is jointly proposed by Adco and Sydney Metro to undertake works within Edinburgh Road in relation to their respective project as follow:

- Adco proposes to complete the required sewer diversion connection works which connect the existing/new centres and the existing neighbourhood sewer line to the existing oviform on Edinburgh Road, and
- Sydney Metro proposes to complete high voltage electrical trenching works along the southern side of Edinburgh Road.

The works will be undertaken during the hours from 6:00am to 5:00pm.

The proposed road closure is for a period of six weeks starting 31 August 2020 to 11 October 2020.

During the proposed closure period, Edinburgh Road will be closed to through traffic in both directions. Access to affected properties will be maintained. Vehicles accessing affected properties will be escorted through the use of qualified traffic controllers and signage.

In addition, during the period of the proposed closure of Edinburgh Road, Smidmore Street will continue to permit one-way traffic in the eastbound direction only.

2 Detailed Plan of Proposed Measures

Is a detailed plan of the proposed measures necessary?	
Yes	☑
No	☐

Traffic management measures are proposed to manage traffic in the vicinity of the site. The traffic management measures are contained in the traffic control plan (TCP) prepared by SafeWay Traffic Management Solutions which is provided in Appendix A.

3 Identification and Assessment of Impact of Proposed Measures

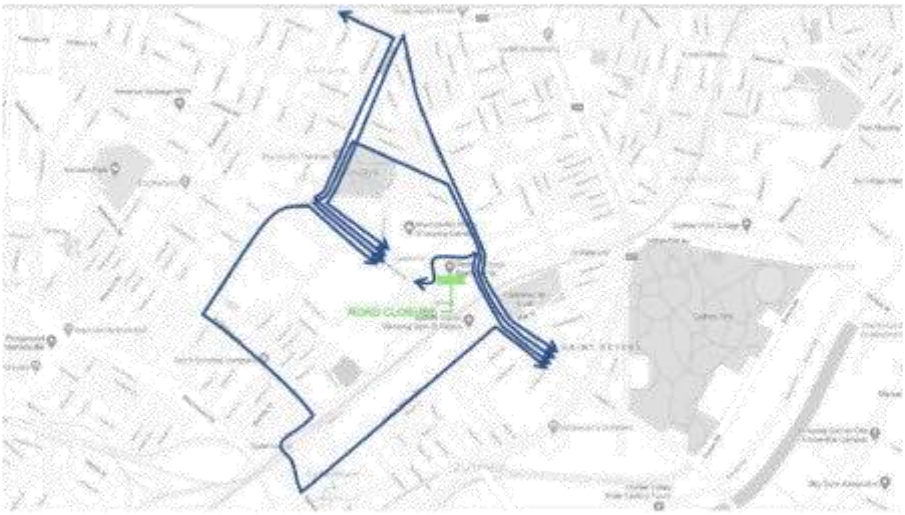
Is a detailed assessment necessary?	
Yes	☐
No	☑

The closure of Edinburgh Road between Murray Street and Railway Parade will require traffic to be diverted to alternative routes. These include:

- Smidmore Street/Murray Street/Edinburgh Road
- Edgeware Road/Llewellyn Street/Enmore Road/Edinburgh Road
- Edgeware Road/Enmore Road/Edinburgh Road
- Bedwin Road/Unwins Bridge Road/Gleeson Avenue/Railway Parade/Sydenham Road/Victoria Road/Edinburgh Road, and
- Stanmore Road/Enmore Road/Edinburgh Road.

The alternative routes are shown in Figure 3.1.

Figure 3.1: Diverted Traffic Routes



4 Measures to Ameliorate the Impact of Re-Assigned Traffic

Is an assessment required?	
Yes	☐
No	☑

There are numerous available alternative routes. Following the temporary closure of Edinburgh Road, the traffic on Edinburgh Road could be diverted across a number of alternative routes within the road network. As such, the traffic once it has been diverted to the various alternative routes, it would be spread out across the road network and is not expected to create any adverse traffic impacts. Therefore, ameliorate measures would not be required.

5 Assessment of Affected Public Transport Services

Is an assessment required?	
Yes	☒
No	☐

The proposed temporary closure of Edinburgh Road would affect the operation of bus services along Edinburgh Road.

Adco and Sydney Metro will continue to work and liaise with the bus operators to ensure disruption to bus services is kept to a minimal.

In addition, MLA has consulted STA and Transit Systems in relation to re-directing their existing bus services in the area, namely Bus Routes 308, 352 and 355. MLA has developed options to re-direct these services which are shown in Appendix B. MLA is currently seeking feedback from the bus operators.

6 Details of Provision Made for Emergency Vehicles, Heavy Vehicles, Cyclists and Pedestrians

Are these details required?	
Yes	☑
No	☐

Emergency vehicles access will be maintained. Emergency vehicles will be let through where required.

Heavy vehicles will be diverted around the closed section of Edinburgh Road using the previous identified alternative routes.

It is noted that the section of Edinburgh Road proposed to be closed at present does not have any facilities for cyclists.

Pedestrian access will be diverted to alternative routes.

7 Assessment of Effect on Existing and Future Developments with Transport Implications in the Vicinity of the Proposed Measures

Is an assessment required?	
Yes	☐
No	☑

In relation to existing developments, access will be maintained for affected properties.

In relation to future developments, the proposed road closure is a temporary road closure for a period of six weeks. It is not expected that it would have any implications to future developments in the vicinity of the proposed road closure.

8 Assessment of Effect of Proposed Measures on Traffic Movements in Adjoining Council Areas

Is an assessment required?	
Yes	☐
No	☑

There will be no impacts on traffic movements in adjoining Council areas. The proposed works is located entirely within the administrative area of Inner West Council.

9 Public Consultation Process

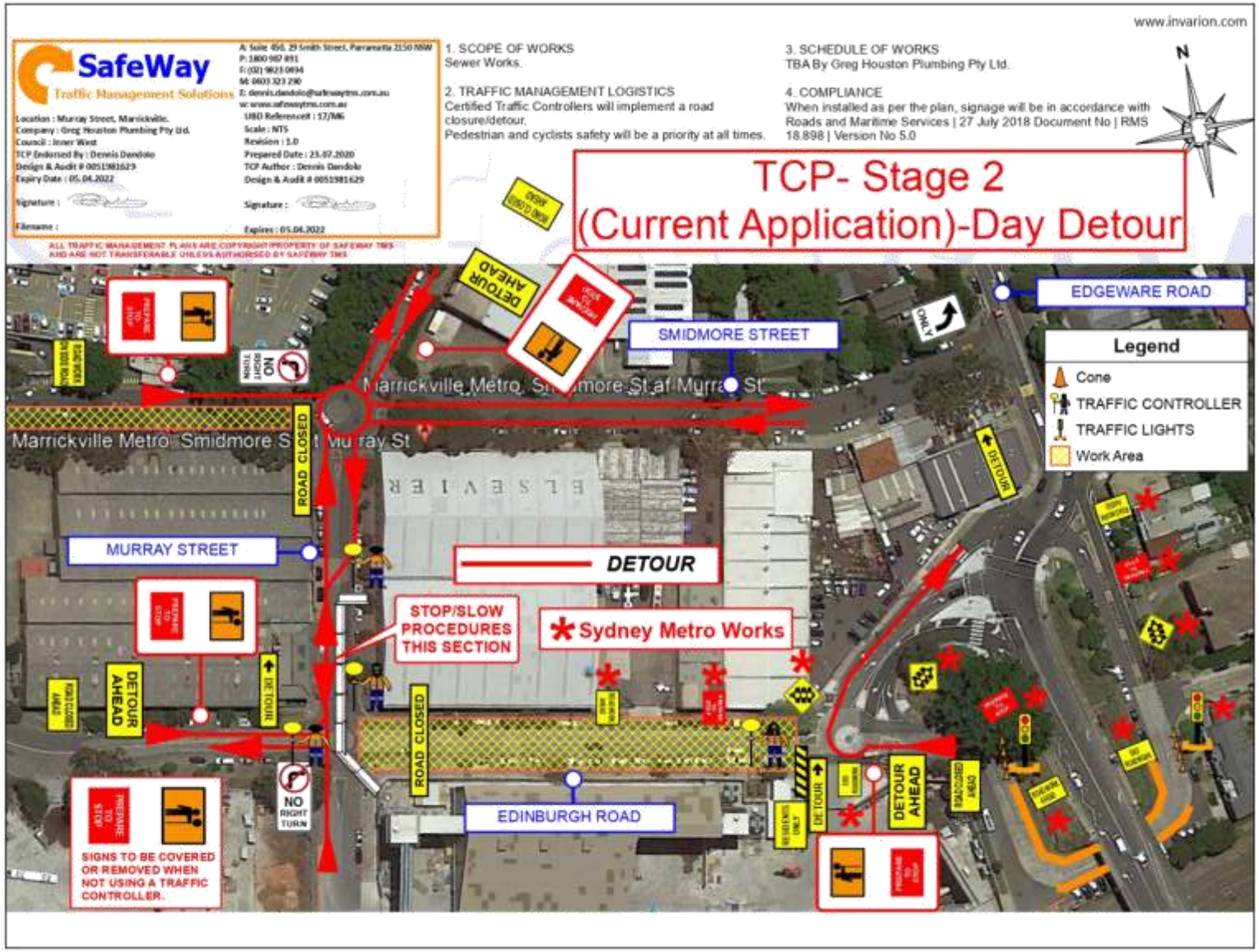
Is a public consultation process required?	
Yes	☑
No	☐

Adco and Sydney Metro will continue to work and liaise with the bus operators to ensure disruption to bus services is kept to a minimal. The consulting process will continue post approval by Inner West Council Local Traffic Committee.

In relation to local residents and businesses, it is understood that Inner West Council has advertised the proposed closure on Council's website for a period of 28 days.

Appendix A

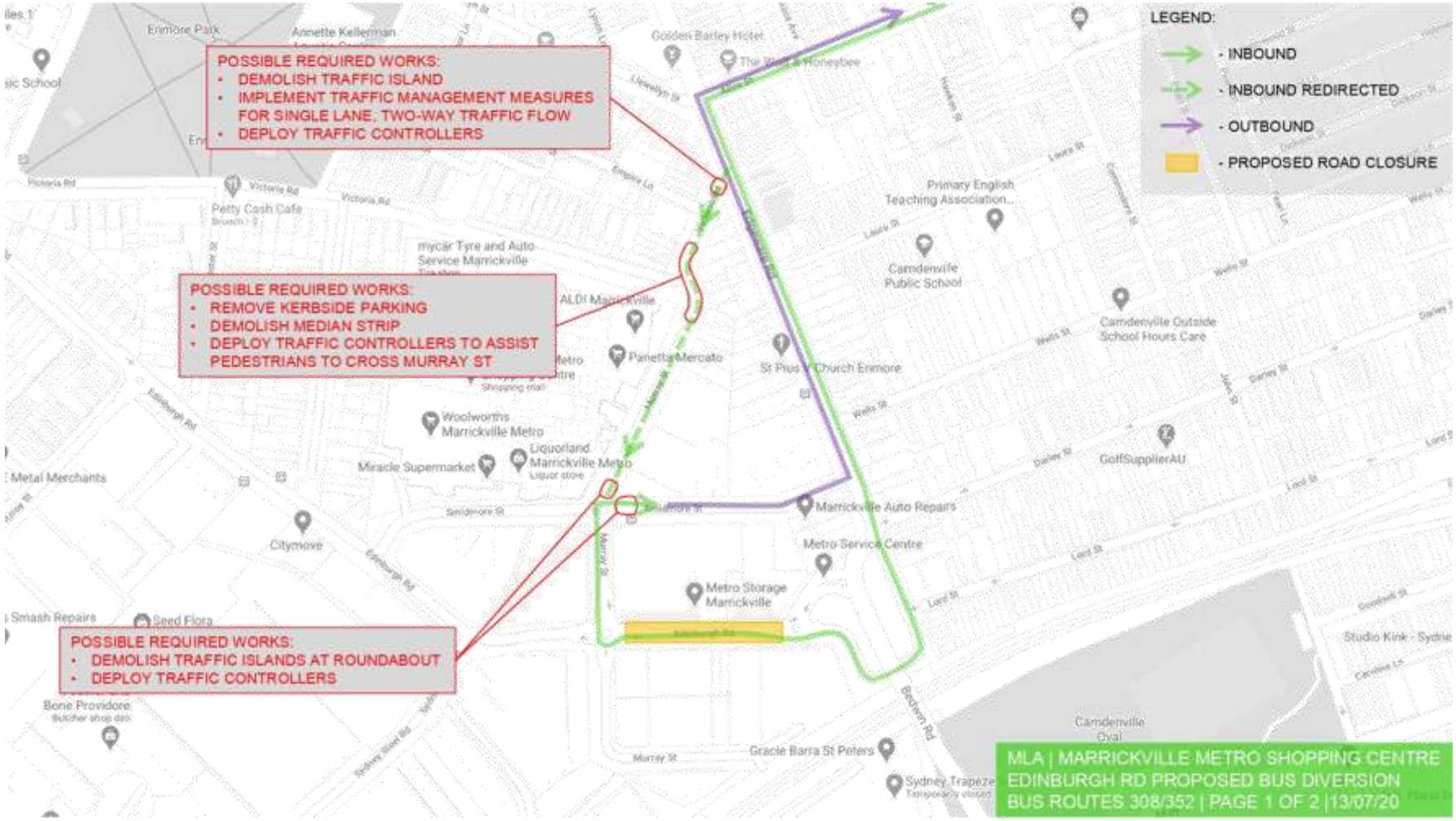
Traffic Control Plan



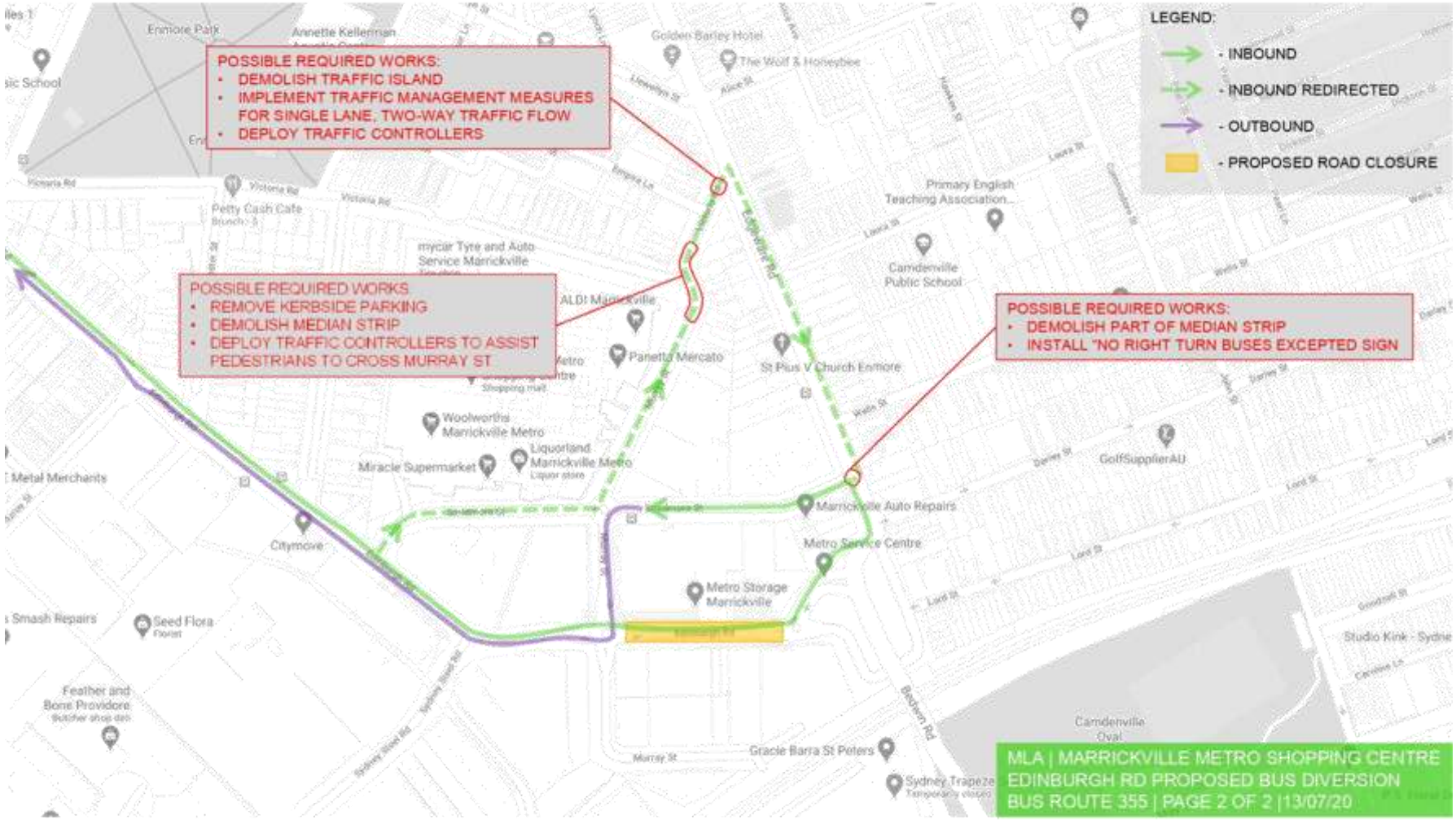
Attachment 2 **Item 7**

Appendix B

Proposed Diversion for Bus Services



Attachment 2 **Item 7**



Attachment 2 **Item 7**

Item 7

Attachment 2

Item No: **LTC0920 Item 8**

Subject: **LILYFIELD PRECINCT PARKING STUDY**

Prepared By: Sunny Jo - Traffic and Parking Planner

Authorised By: Manod Wickramasinghe - Traffic and Transport Planning Manager

SUMMARY

The Lilyfield Precinct Parking Study reviewed the location, supply, demand and distribution of short and long stay parking, commercial, residential, employee, and commuter parking. The work consisted of examining existing conditions including parking data, community submissions, observed parking conditions, existing permit allocation, and future land uses within the Lilyfield precinct. A community survey was also undertaken to gauge the parking issues faced by different users. With consideration future sporting events at Leichhardt Oval, a draft parking management strategy for Lilyfield was developed.

RECOMMENDATION

THAT:

1. **The Draft Lilyfield Precinct Parking Study including the Draft Lilyfield Parking Strategy be endorsed for community consultation; and**

2. **The draft report be placed on Public Exhibition, providing a minimum 28 days for submissions and the results be reported back to the Traffic Committee.**

BACKGROUND

The Study was initiated in order to review the existing parking issues in Lilyfield which include streets near trip generators such as Leichhardt Aquatic Centre, Leichhardt Oval, educational facilities within Callan Park, Orange Grove Market and local shopping village, Inner West light rail stops, and recreational facilities such as Le Montage and The Bay Run.

The map of the study area is provided in **Attachment 1** and does not include Callan Park which is managed by the Department of Planning, Industry & Environment (formerly Office of Environment and Heritage).

It should be noted that at the time of writing this report Council is currently assisting Transport for NSW to develop a Resident Parking Scheme for the streets within and beyond the eastern end of the Lilyfield Precinct Parking Study area. This is intended to address the current parking issues experienced as a result of the current WestConnex Construction works in the Rozelle Rail Yards site.

OTHER STAFF COMMENTS

The Lilyfield Precinct Parking Study was undertaken by GTA Consultants by examining the parking occupancy and duration data collected in February 2020, existing on-street parking inventory, current supply and demand, and feedback received through Council's Community Engagement undertaken in February and March 2020. Further observations were undertaken in February and March at different times to understand current conditions.
Unfortunately, due to COVID-19 restrictions a planned parking survey during the scheduled NRL match held on 22 March 2020 at Leichhardt Oval could not be completed as the event proceeded behind closed doors without spectators.

Parking trends within the study area had the following characteristics:

- Average peak parking occupancies (average of the four highest hourly occupancies) are at a low or optimal level during weekdays with only isolated streets of high demand. There was no evidence of high parking demand near light rail stops or clusters of employee parking, indicating any demand from these activities does not overwhelm underlying parking supply.
- On weekends, there is a similar trend of low or optimal parking levels, with the exception of a cluster of high parking near the Orange Grove Markets.
- Average duration of stay and turnover ratios during weekday and weekend are consistent for a predominantly residential setting, with long-stay parking (>3hrs) parking observed and supported by turnover ratio (<2hrs)
- There are pockets of higher turnover and/or lower duration of stay were observed in areas such as the aquatic centre, Leichhardt Park and the shopping area in Balmain Road.
- Boat trailer parking was not observed to be a widespread occurrence in Lilyfield in a manner that prevents drivers from accessing parking given the broad availability of parking throughout Lilyfield.

The draft study concluded with the following draft strategies for consideration:

Lilyfield Precinct Parking Study **Draft Parking Strategy 2020**			
Short term (0-5 years)			
Item no.	Description	Streets affected	Priority
1	'2P 8am-1pm Sat, permit holders excepted' parking changes in streets near Orange Grove Markets (existing parking restrictions such as Bus Zone, Mobility Impaired Parking, No parking, No Stopping, Loading Zone will remain)	Glover Street (east side), Fredbert Street, Emmerick Street (east side), Rayner Street (north of Eric Street), Eric Street, Balmain Road (between Perry and Eric Streets) Perry Street is a State Road under the care and control of Transport for NSW and has not supported time limited parking	High
2	Introduction of angle parking (rear to kerb) in Hubert Street and Charles Street. Change to rear to kerb angle parking on east side of Francis Street.	Hubert Street, Charles Street, Francis Street	High
3	Special Event Parking Scheme to replace existing LY permit zone. Undertake further parking survey during large sporting event in Leichhardt Oval and review permit zone extent.	Street within Lilyfield with existing LY permit zone	High
4	Develop an event Traffic Management Plan (TMP)	Streets near Leichhardt Oval during events	Medium
5	Replacement of redundant, faded, damaged signs	Streets identified in the signage audit within study area.	Medium
6	Development of Parking Hierarchy	All streets within Balmain East	Low
Long term (5+ years)			
Item no.	Description	Streets affected	Priority
7	Changes to boat trailer parking management consistent with other areas within Inner West LGA	Streets with historical boat trailer issues	Low

8	Liaise with Leichhardt Oval event organisers to develop a bus shuttle service and satellite parking area.		Medium

CONSULTATION

Council posted 3,560 letters to residents, businesses, organisations and institutions, inviting to participate an online questionnaire on parking in Lilyfield. Members of the public could also request a paper-based copy of the questionnaire.

A total of 390 submissions were received, with the main findings as follows:

- Some level of support for the existing RPS scheme with support for better enforcement
- Good level of support for maintain status quo for parking to address commuter parking, and setting a limited number of parking specifically for commuters, possibly charging for use
- Very high level of support to explore an off-site parking to address Leichhardt Oval event parking with a shuttle bus service.

FINANCIAL IMPLICATIONS

The cost to implement the Lilyfield Parking Management Strategy will be funded from Council's traffic facilities budget, subject to Local Traffic Committee support and adoption by Council. Subsequent reports during implementation the Strategy will provide estimates on signage and administrative costs to expand the resident parking permit scheme if required.

ATTACHMENTS

1.⇩ Lilyfield Precinct Study Area
2.⇩ Lilyfield Precinct Draft Parking Strategy Map
3.⇩ Lilyfield Precinct Parking Study

Item 8

Attachment 1

Lilyfield Precinct Parking Study
Draft Parking Strategy 2020

Short term (0-5 years)

Item no.	Description	Streets affected	Priority
1	'2P 8am-1pm Sat Permit Holders Excepted' parking changes in streets near Orange Grove Markets (existing parking restrictions such as Bus Zone, Mobility Impaired Parking, No Parking, No Stopping, Loading Zone will remain)	Glover Street (east side), Fredbert Street, Emmerick Street (east side), Rayner Street (north of Eric Street), Eric Street, Balmain Road (between Perry and Eric Streets) Perry Street is under the care and control of Transport for NSW and has not support time limited parking	High
2	Introduction of angle parking (rear to kerb in Hubert Street and Charles Street. Change to rear to kerb angle parking on east side of Francis Street	Hubert Street, Charles Street, Francis Street	High
3	Special Event Parking Scheme to replace existing LY permit zone Undertake further parking survey during large sporting event in Leichhardt Oval and review permit zone extent	Street within Lilyfield with existing LY permit zone	High
4	Develop an event Traffic Management Plan (TMP)	Streets near Leichhardt Oval during event days only	Medium
5	Replacement of redundant, faded, damaged signs	Streets identified in the signage audit within study area	Medium
6	Development of Parking Hierarchy	All streets within Balmain East	Low

Long term (5+ years)

Item no.	Description	Streets affected	Priority
7	Charges to boat trailer parking management consistent with other areas within Inner West LGA	Streets with historical boat trailer issues	Low
8	Liaise with Leichhardt Oval event organisers to develop a bus shuttle service and satellite parking area		Medium

Area denotes existing LY permit zone

Area denotes existing L1 permit zone

Lilyfield Precinct Parking Study

Inner West Council
Draft Report

Prepared by: GTA Consultants (NSW) Pty Ltd for Inner West Council
on 20/07/2020
Reference: N184030
Issue #: A-Dr4

GTAconsultants

Lilyfield Precinct Parking Study

Inner West Council
Draft Report

Client: Inner West Council

on 20/07/2020

Reference: N184030

Issue #: A-Dr4

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A-Dr	06/04/20	Draft	G. Cheng, Z. Abbasi	A. Leung	V. Buhl	
A-Dr2	14/05/20	Updated Draft	G. Cheng, Z. Abbasi	A. Leung	V. Buhl	
A-Dr3	03/07/20	Updated Draft	G. Cheng, Z. Abbasi	A. Leung	V. Buhl	
A-Dr4	20/07/20	Updated Draft	G. Cheng, Z. Abbasi	A. Leung	V. Buhl	

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CONTENTS

Figures

Tables

1. INTRODUCTION

1.1. Project Background

Lilyfield is located in the Inner West Local Government Area of the Sydney Metropolitan Area and is approximately four kilometres west of the Sydney CBD and 17 kilometres east of Parramatta CBD. The suburb is situated within the boundaries of the Inner West Council. The area generally comprises of a combination of residential homes and units, educational institutions, commercial and light industrial lands, parks and recreational land.

Figure 1.1: Lilyfield within the Sydney Metropolitan Area

Base map: OpenStreetMap

The Lilyfield precinct incorporates a range of trip generators that all have varying parking requirements. The trip generators include:

- Residential Dwellings
- Local Commercial Centre
- Educational facilities like University of Tasmania and Orange Grove Public School
- Light rail stops including Leichhardt North and Lilyfield Light Rail Stations
- Sports Facilities like Leichhardt Park Aquatic Centre, Leichhardt Oval, Callan Park
- Recreational facilities like Le Montage Function Centre.

INTRODUCTION

Inner West Council has requested a review of parking within the Lilyfield precinct as a basis for determining a parking management strategy and has commissioned GTA Consultants (GTA) to undertake a review of parking within the Lilyfield precinct and develop a strategy that sets forward how parking will be provided and managed in the future.

1.2. Purpose of Study

The objectives of the project are:

- To review parking within the Lilyfield precinct, looking at location, supply, demand and distribution of both long-stay residential and short-stay commercial parking as well as any evidence of long-stay commuter parking, as the basis for determining future car parking requirements. This includes considering on-street and private off-street parking and undertaking community consultation and working with stakeholders to understand community views in relation to parking in the study area.
- To review state and local parking strategies and policies including Council's Development Control Plan parking rates for Lilyfield associated with new development.
- To undertake a parking supply and demand assessment and report of parking in Lilyfield. Develop an inventory of existing on-street and off-street parking identifying the parking regulations associated with this parking. Survey the parking demand of on-street and off-street parking areas to identify long and short-stay parking requirements.
- To review the impact of parking associated with events at Leichhardt Oval on parking supply in the surrounding residential streets and to identify management techniques to address event parking.
- To develop a Lilyfield Parking Management Strategy considering Council's strategies and plans, community views, parking demand and supply, existing and active transport (walking and cycling) and public transport (bus and light rail), to improve ease of access to parking.
- To identify any discrepancies in parking policies and restrictions within Lilyfield under Inner West Council and identify opportunities for standardisation.

1.3. What is Parking

Before developing a set of parking strategy principles and objectives, and how these integrate with overall transport objectives, we must have a comprehensive understanding of what parking is.

As a general rule, land uses generate and attract visitors, customers, staff and/or residents resulting in economic activity. A by-product of access to these land uses is, in its simplest form, a "trip". Trips can be made by a variety of methods including, but not limited to, walking, cycling, public transport and/or the private motor vehicle.

Where does car parking enter this equation? Car parking provides an end-of-trip facility for the private motor vehicle mode.

1.4. Types of Parking

The type of land use has differing levels of attractiveness (i.e. trip generation) and therefore has different requirements for car parking. Different uses also have different user bases and in turn different needs in regard to their required length of stay. Accordingly, different types of car parking are required (for example, pick-up/drop-off parking requires 5 to 15 minutes, short-stay parking requires one to three hours and long-stay parking is required over four hours or all day to satisfy differing needs. In a setting such as the local centre in Lilyfield, a parking event can serve a number of trip purposes and a single space can be shared between a number of users over the course of the day due to the different temporal patterns of land uses. While in residential areas, a single space can only be shared between a limited number of vehicles as long-stay parking is prevalent amongst residents, potentially also used by commuters accessing the nearby light rail stations as well as visitors to Leichhardt Park.

With consideration of the above, it is important to prioritise the demands of short-stay commercial user groups within the commercial village environment in Lilyfield while limiting long-stay conflicting user groups that may arise from commuters. While in the residential area, it is important to have a sufficient amount and prioritisation of car parking relative to resident demands in the area, while limiting the needs and demand of conflicting user groups that car parking will have on the residential streets.

1.5. The Lilyfield Context

In this context then, it is important that car parking within Lilyfield precinct be managed to:

- Recognise that the parking space does not attract people; it is the destination that attracts people and parking is only a by-product.
- Prioritisation of demand from different user-groups, specifically the parking demand from residents, commuters, workers and event attendees on residential streets and commercial user-groups within the local commercial core.
- Balance the demand for commuter parking and residential parking especially near the light rail stops.
- Address the demand for the special event parking permit scheme near Leichhardt Oval.
- Standardise the previous different parking permits format applied to the study area as a result of amalgamation of different council jurisdictions.

2. EXISTING CONDITIONS

2.1. Planning Context

In preparing this report, relevant policies and guidelines applicable to the Lilyfield precinct were explored, which include both the still in effect *2013 Local Environmental Plan* (LEP 2013) and *2013 Development Control Plan* (DCP 2013), developed by the former Leichhardt Council and the recently published *Inner West Integrated Transport Strategy* (ITS) by Inner West Council. In addition, the *Permit Parking Guidelines* (October 2018), developed by the former Roads and Maritime Services (now Transport for NSW (TfNSW)), are referenced as the official guidelines in permit parking designs to better understand the context and design parameters of permit parking schemes and how it can be utilised in a parking management strategy. This guideline is discussed further in sub-section 2.1.1.

Inner West Council also recently released a *'Draft Public Domain Parking Policy'* which is under Council review following community consultation. A summary of the draft policy is discussed in sub-section 2.1.2, which examines how public parking is managed throughout the Inner West LGA and brings together the different management approaches adopted by the former constituent councils of Inner West Council.

2.1.1. Permit Parking Guidelines - Road and Maritime Services

The *Permit Parking Guidelines* is a document that sets out criteria and guidelines for designing, implementing and administering permit parking schemes in NSW from the former Roads and Maritime Services and was last updated in October 2018.

Permit parking schemes help to improve amenity for particular classes of road users in locations where there is insufficient off-street parking and where on-street parking is limited. Permit parking also helps to balance the needs of the local community with those of the broader community in high demand areas.

There are six classes of permit parking scheme prescribed in clause 95 of the Road Transport (General) Regulation 2013, including:

- business
- commuter
- resident
- resident's visitor
- special event
- declared organisation.

According to the guideline, if local councils propose to establish a permit parking scheme, it must comply with the Regulation and this mandatory guideline. In the case of Lilyfield, a key part of this study will be to investigate whether existing schemes need to be amended and whether other types of permits are warranted (e.g. event permits).

The guideline expresses the eligibility criteria for all permit schemes and the six classes of parking permits, with the relevant general criteria and specific criteria for the context of Lilyfield summarised below.

EXISTING CONDITIONS

Eligibility criteria and other features common to all permit parking schemes

- High demand for parking in the area.
- Inadequate off-street parking and no potential to modify premises or create off-street parking.
- Little or no unrestricted on-street parking close by.
- Vehicle is not a truck, bus, or trailer (boat or caravan).
- Parking authorities have discretion over the total number of permits issued in their area of operations and how they will distribute these permits across the relevant classes of permit parking schemes.

Resident parking permits

- The number of permits issued for an area should not exceed the number of available on-street parking spaces in the area.
- A maximum of one permit per bedroom in a boarding house, or two permits per household. In exceptional circumstances, the number of permits may be increased.
- When issuing permits to eligible residents who have off-street parking, the number of permits which may be issued is the difference between the maximum number per household in the scheme and the number of off-street spaces available to the household.
- Where the number of requests for permits exceeds the number of available on-street parking spaces, only residents who do not have access to unrestricted parking along their kerbside are eligible to apply for a resident parking permit. Applications should be prioritised as follows:
  - no off-street parking space
  - one off-street car space
  - two or more off-street car spaces.

Commuter parking permits

Commuter parking schemes are established to encourage people to use public transport. They can only be established after a 12-month commuter parking trial.

Commuter parking permits may be issued as follows:

- One permit per commuter.
- The parking authority should ensure there is a reasonable chance the commuter will find a parking space within the commuter permit parking area.

Resident's visitor parking permits

Residents may apply for visitor parking permits so their visitors can park within the permit area without time or fee restrictions.

- There is no off-street visitor parking at the resident's address.
- There are no unrestricted on-street parking spaces in front of the residence or along the kerbside.
- The parking authority may offer long-term and/or short-term visitor parking permits.

Special event parking permits

Special event parking permits may be issued to residents or businesses that are affected by special event traffic management. They can be issued for individual events and the permit must include the date/s and location of the special event. Alternately, they may be issued as an annual permit for areas where there are a large number of special events, e.g. Leichhardt Oval.

2.1.2. Draft Public Domain Parking Policy

On-street parking and Council managed car parks across Inner West Council currently operate under different policies from the former Leichhardt, Marrickville and Ashfield Councils. However, since amalgamation there has been an absence of a unified parking management policy to manage public parking throughout the Inner West LGA.

To this end, Inner West Council prepared the *Draft Public Domain Parking Policy* which sets out a governing framework for the investigation, development, implementation and ongoing management of parking schemes and controls in the public domain including on-street parking and council managed car parks. The draft Public Domain Parking Policy proposes one consistent approach across all the Inner West.

The Policy draft covers several areas of parking management including permits for residential and commercial areas, timed parking restrictions in commercial areas, exceptions (such as Mobility Parking Scheme Permits), paid parking, authorised vehicle zones, taxi zones, and more. Relevant elements of this draft policy to Lilyfield are explored below.

Resident Parking Permits

Resident parking permits enable eligible residents, who do not have sufficient on-site parking, to park on-street and avoid time limits and parking fees.

A resident parking permit is issued for a vehicle of an eligible resident provided the property does not have on-site parking available for that vehicle.

The maximum number of permits issued to any one rateable property will not exceed the following limits:

Zone Type A

- A household in Zone Type A, without any on-site parking spaces, is eligible for one parking permit.
- The one permit will be transferable for use on up to three nominated vehicles registered to that address.
- Each room of an eligible boarding house will be treated as a separate dwelling eligible for one resident parking permit.
- No permits will be issued to households with one or more on-site parking spaces.

Zone Type B

- A household in Zone Type B, without any on-site parking spaces, is eligible for up to two parking permits.
- Each room of an eligible boarding house will be treated as a separate dwelling eligible for one resident parking permit.
- A household with one on-site parking space is eligible for one parking permit for a second vehicle.
- No permits will be issued to households with two or more on-site parking spaces.

The current L1 parking permit scheme on Halloran Street and Norton Street in Lilyfield operates as Type B.

Visitor Parking Permits

Visitor parking permits enable residents' visitors to park on-street and avoid time limits and parking fees for the period of operation of the permit. Visitor permits are issued for residential properties only.

Such visitor permits will be single use, one-day permits. The annual allocation of visitor permits for eligible households will be up to 30 one-day permits.

2.1.3. Relationship between *Permit Parking Guidelines* and *Draft Public Domain Parking Policy*

Both the Roads and Maritime guideline and Inner West Council policy follow a similar philosophy of prioritising distribution to households with no available off-street parking. The Roads and Maritime guideline is more standardised with a fixed allocation of one per bedroom or two per household, capped by the maximum available on-street parking space.

The Inner West Council provision is varied with permits allowance based zonally, where Zone Type A has stricter criteria while also providing fewer on-street parking spaces per household. These Zones have not yet been defined by the policy. The Council also has specific rules regarding different types of development of which specific types will be excluded from the schedule depending on the area of the LGA. There are no clauses within the policy on limiting total number of permits issued in regard to the quantum of available parking spaces on a street. Accordingly, as the policy is silent on this limit, it is expected that the issuance of resident parking permits should not exceed the cap set by the Roads and Maritime guideline, that is, the maximum available on-street parking spaces on a street.

2.2. Study Area

2.2.1. The Study Area

Lilyfield is predominantly a residential suburb with a mix of single dwellings and low-density multi-storey unit blocks, with large tracts of recreational areas in the form of Leichhardt Park, Leichhardt Park Aquatic Centre, Leichhardt Oval and Callan Park in the north of the suburb bordering the Parramatta River. The study area mainly consists of residential streets and is bordered by the A4 City-West Link Road and the Inner West Light Rail line to the south.

The parking study's study area is shown below in Figure 2.1 and excludes Callan Park which falls under the jurisdiction of the NSW Government's Office of Environment and Heritage.

Figure 2.1: Study area

Base map: Google Maps

2.2.2. Key Streets and Sites

The study area comprises key streets and sites that greatly affect the dynamics of the precinct and how the area functions. Figure 2.2 identifies six major streets and seven key places of interest that play a vital role in the study area, and these are further detailed in Table 2.1.

EXISTING CONDITIONS

Figure 2.2: Map of Key streets and sites within the Lilyfield Precinct

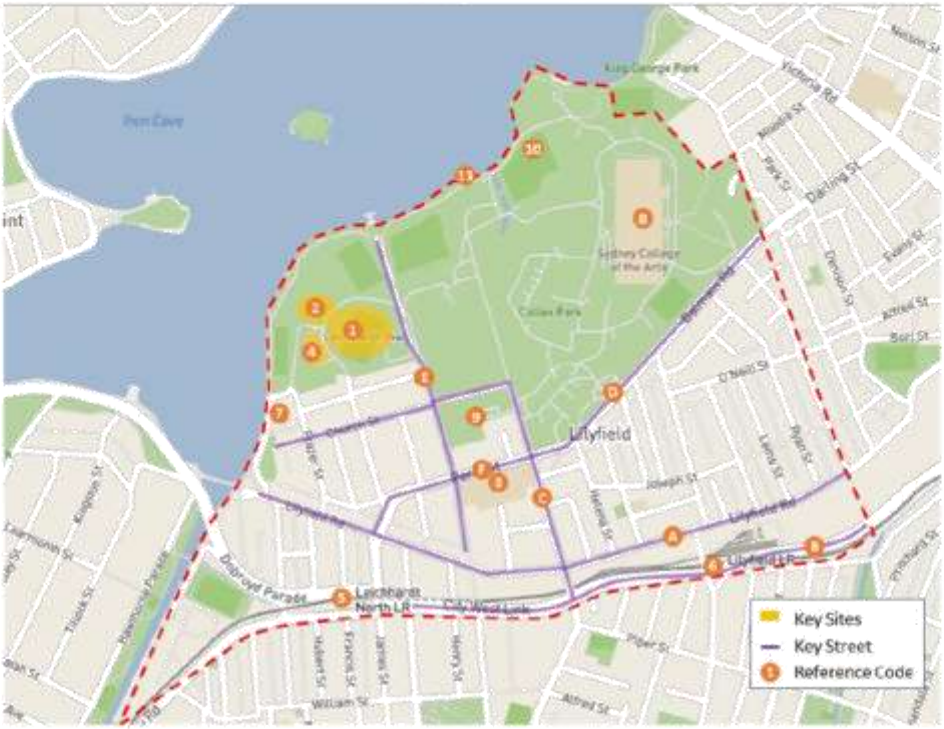


Table 2.1: Key streets and sites within the Lilyfield Precinct

Reference	Key Streets	Description
A	Lilyfield Road	Main local road aligned east-west connecting Lilyfield to Rozelle and Annandale.
B	City West Link	Important corridor providing alternative route to Parramatta Road into Sydney CBD in an east-west alignment.
C	Wharf Road	A collector road with north south alignment in the centre of the area.
D	Balmain Road	Main local road from north-east to south-west connecting Lilyfield to Rozelle and passing through residential and commercial areas.
E	Glover Street	A collector road with north south alignment in the centre of the area.
F	Perry Street	Main local collector road with east west alignment connecting Balmain Road to Mary Street.
1	Leichhardt Oval	A rugby league and soccer stadium with a capacity of 20,000 which can highly affect the local transportation and parking capacity.
2	Leichhardt Park Aquatic Centre	Is sitting on the edge of Iron Cove Bay at north west of Lilyfield.
3	Orange Grove Public School and Market	Orange Grove Public School is a primary school located at Perry Street having around 500 students. The school operates from 8:00 to 4:00pm Mondays to Fridays.

EXISTING CONDITIONS

Reference	Key Streets	Description
		The Orange Grove Market located at Balmain Road &, Perry Street which is Saturday Market operating from 8:00am to 1:00pm selling organic products.
4	Leichhardt Park car park	Leichhardt Park car park located at Mary Street, Lilyfield providing 200 parking bays free with restrictions of 2 hours all days from Monday to Sunday. It is a public parking.
5	Leichhardt North light rail stop	Located in the southwest of the study area on the light rail line connecting the Inner West to the CBD with trams every 8 minutes.
6	Lilyfield light rail stop	Located in the south of the study area on the light rail line connecting the Inner West to the CBD with trams every 8 minutes.
7	Le Montage Function Centre	A Sydney waterfront venue overlooking Iron Cove Bay located at 38 Frazer Street, Lilyfield. It is a Sydney venue for weddings, corporate events and private functions. It operates all weekdays from 9 am to 6:00pm except Tuesdays and Wednesdays when it remains open until 9:00pm. All event spaces have the capacity for 1500 to 2500 people.
8	Sydney College of the Arts*	Located within eastern end of Callan Park, off Balmain Road with on-site visitor parking.
9	Offices, including University of Tasmania, Callan Park and NSW Ambulance offices*	Located at the south-western end of Callan Park with on-site parking available.
10	Callan Park Oval*	Sportsground inside Callan Park attracting scheduled cricket games in the summer and soccer games in the winter, as well as recreational sport participants.
11	The Bay Run*	A popular local shared use path running along the shoreline.

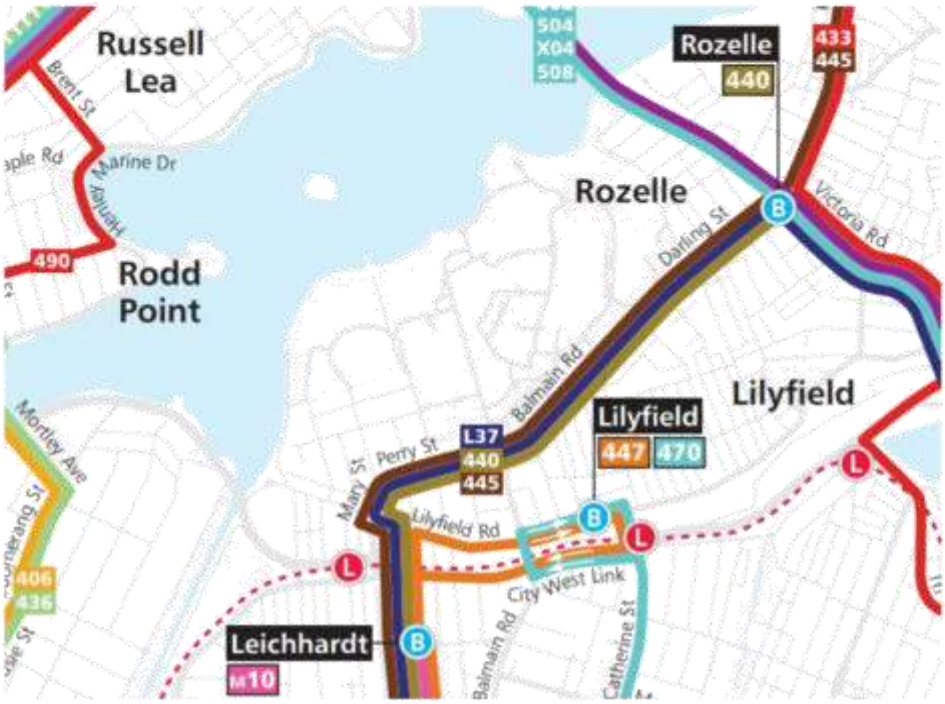
**Callan Park is owned and operated by the Office of Environment and Heritage, belonging to the NSW state government. Parking management for the Callan Park area is excluded from this study.*

2.2.3. Public Transport

The Lilyfield precinct is well connected by public transport and is served by light rail (Dulwich Hill Line) and frequent bus services. The entire precinct has access to the public transport stops within typical walking distances. Local public transport services are shown in Figure 2.3 and described in Table 2.2.

EXISTING CONDITIONS

Figure 2.3: Map of public transport provided within the study area



Source: https://transportnsw.info/travel-info

Table 2.2: Public Transport within the Area

Service	Route Number	Route Description	Frequency on/off- Peak
Bus	447	Lilyfield to Leichhardt Marketplace (Loop Service)	Every 60 min/ 2 service on Saturdays
	470	Lilyfield to City Martin Place	Every 20min/every 20 min
	440	Bondi Junction to Rozelle	Every 8 min/ every 10 min
	445	Campsie to Balmain via Leichhardt Marketplace	Every 15 min/ every 15 min
	L37 (Limited stop)	Haberfield to City Town Hall	Every 15 min (7:00-8:00 and 16:30-17:40)-Monday to Friday
Light Rail	L1	Dulwich Hill Line	Every 8 min/ every 10 min

Source: https://transportnsw.info/trip#/

2.3. Existing Travel Behaviour

2.3.1. Journey to Work

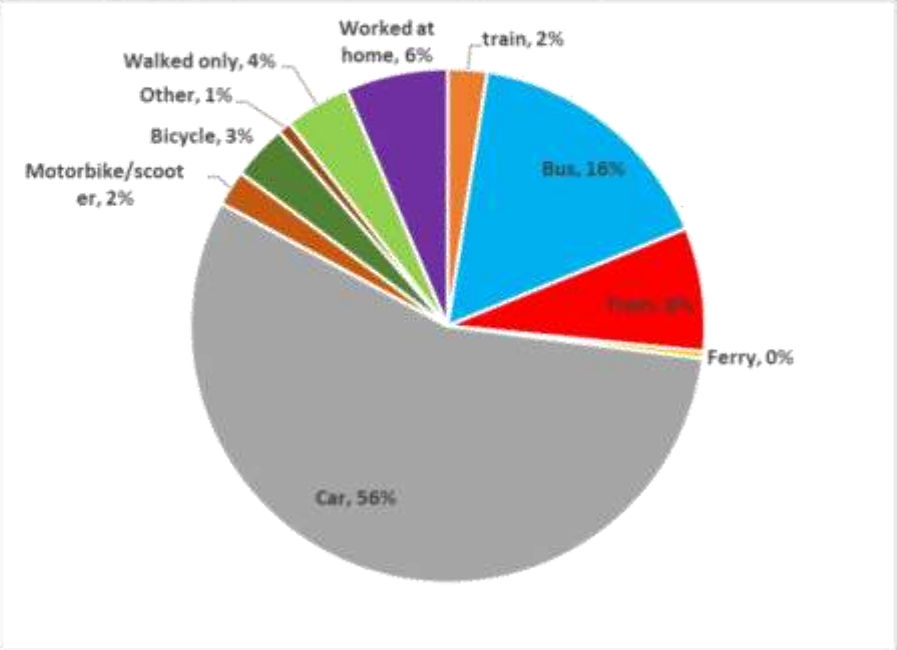
The 2016 Census Statistical Areas 1 (SA1) that make up the Destination Zones (DZ) covering the study area for the purpose of a journey to work mode share analysis are shown in Figure 2.4.

Figure 2.4: Boundary of the relevant SA1s in the study area

Source: https://itt.abs.gov.au/itt/r.jsp?ABSMaps

As indicated in Figure 2.5, residents in the relevant SA1s have a non-car journey to work mode share of 44 per cent. This fairly high non-car mode share is likely a result of the SA1s' close proximity to both the Lilyfield and Leichhardt North light rail stops providing frequent services to Pyrmont and Central Station, as well as access to frequent bus services toward the city centre and Leichhardt.

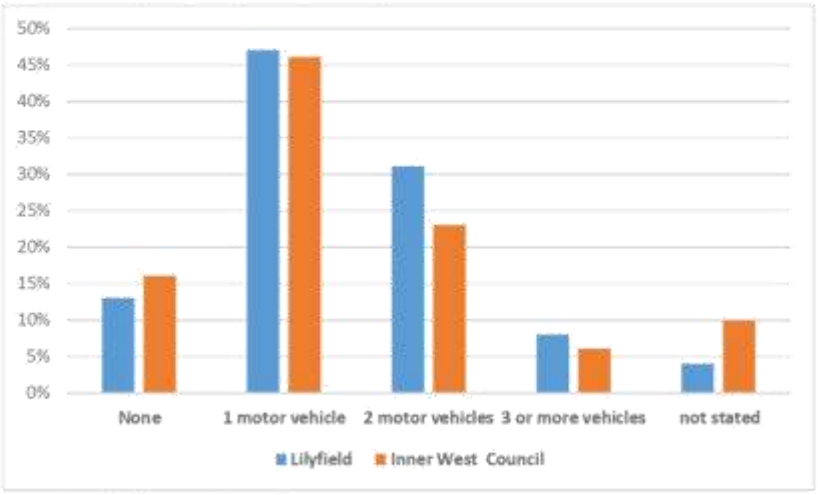
Figure 2.5: Journey to work mode share for residents in the relevant SA1s



2.3.2. Car Ownership

Based on the 2016 Census, Lilyfield recorded 13 per cent of households in the study area as not owning a car while 47 per cent of households owned one car. Figure 2.6 shows that this percentage of zero car ownership is similar to the Inner West Council area while the rate of car ownership of two vehicles is higher than the Inner West at-large. This indicates that the suburb of Lilyfield is slightly more reliant on private vehicles as a method of travel, which is also reflected in the overall rate of car ownership of 1.4 vehicles per household in Lilyfield compared to 1.2 vehicles per household in the overall Inner West Council area. This higher car ownership rate may be due to Lilyfield's location at the start of Balmain peninsula that is relatively isolated from other parts of the Inner West and Greater Sydney, despite the strong public transport access to the city centre (which represents only one of many possible destinations).

Figure 2.6: Percentage of vehicle ownership



Source: https://quickstats.censusdata.abs.gov.au/

2.4. Local Car Sharing Initiatives

Car share schemes have become increasingly common throughout Sydney and are now recognised as a viable transport option for drivers. They offer an alternative to the private car and are of benefit to the residents of the area. Car share forms an integral part of the ongoing transformation of the Inner West to reduce vehicle ownership of existing and future residents, especially as a second vehicle. This is crucial for areas gravitating towards high-density living where on-site car parking typically does not support ownership of more than one vehicle.

GoGet car share has several car share pods within the Lilyfield area as shown in Figure 2.7. With further development of the local area, there will be opportunities for more car share providers to increase supply nearby as viability increases with more residents and workers.

Car Next Door is a peer to peer car sharing businesses where car owners are able to rent out their car when it is not being used at a time-based rate. Given its crowdsourcing nature, there is no permanent fleet established in Sydney in the same manner as GoGet. However, the Car Next Door website reveals there are vehicles available for hire in the Lilyfield study area.

Figure 2.7: Go-Get car share pods in the Lilyfield Precinct

Source: Go-Get Cars (www.goget.com.au)

2.5. Parking Supply and Conditions

2.5.1. Background to Parking in Lilyfield

Parking in Lilyfield principally comprises on-street parking on residential streets with the exception of small pockets of time-restricted parking in the shopping area along Balmain Road near the Wharf Road intersection. Furthermore, on-street parking near Leichhardt Oval has a one-hour limit during sporting events at Leichhardt Oval for those without a residential parking permit.

The major off-street parking area in Lilyfield is the Leichhardt Park car park which is to service the customers using the Aquatic Centre and nearby natural amenities.

2.5.2. Parking Supply within Lilyfield

Figure 2.8: Lilyfield Parking Restrictions Map

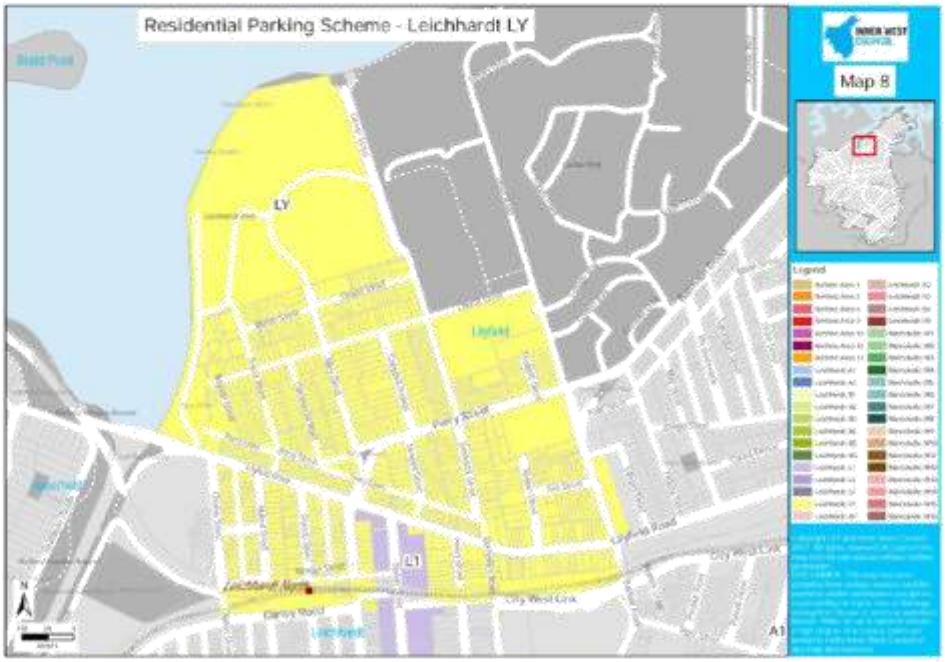
**LY full description – "1 Hour Parking During Sporting Fixtures At Leichhardt Oval, Authorised Resident Vehicles Excepted LY"*

Figure 2.8 shows an overview of the parking restrictions in Lilyfield. The on-street parking is predominantly unrestricted in the residential areas, with the exception of streets west of Wharf Road having specific one-hour event restriction for non-permit holders during an event at Leichhardt Oval (LY on the figure above). On-street parking shown as LY are unrestricted at all other times.

Short-term (under two hours) time-restricted parking exists in small pockets outside the shops along Balmain Road and the aquatic centre. Disabled parking spaces are available across the Lilyfield area, in both residential and commercial areas.

2.5.3. Resident Parking Scheme

Figure 2.9: Residential Parking Scheme – Leichhardt LY



Retrieved from https://www.innerwest.nsw.gov.au/live/information-for-residents/parking/permit-parking (March 2020)

According to Figure 2.9, two residential parking schemes are active within the Lilyfield study area, as follows:

- LY Permit Zones – Street signage in this zone display "1P During sporting fixtures at Leichhardt Oval authorised residents vehicles excepted", which covers a major portion of the study area highlighted in yellow in the figure above. This zone is established to prioritise on-street parking spaces on residential streets for residents over visitors to Leichhardt Oval during sporting fixtures. Whereas parking spaces adjacent to Leichhardt Oval but not on residential streets (e.g. parking spaces at Leichhardt Park) do not have such restrictions.
- L1 Permit Zones – Street signage in this zone display "2P 8am-10pm Permit Holder Excepted" and this zone is present on Norton Street and O'Halloran Street only within the study area. This zone is established to maintain parking spaces for residents from staff at nearby businesses as land uses in the L1 permit zone contain multiple commercial office buildings, commercial services and other places of employment.

Resident parking permits are currently issued to residents living in the properties shown in Figure 2.9, with a maximum of two permits issued to a household if there is no off-street parking and two or more vehicles are registered to a property. These permits are free of charge to eligible residents.

2.6. Parking Demand

2.6.1. Parking Surveys

The on-site parking surveys were conducted on Saturday 15 February and Wednesday 19 February 2020. The overall survey extent is the same as the study area as shown earlier in Figure 2.1. The parking survey included all Council-controlled on-street and off-street parking available to the public and involved the following tasks:

- Parking inventory collection
  - Inventory of parking capacity and restrictions
  - Parking signage audit comprising photographs and GPS coordinates of all signs.
- Parking Occupancy and duration of stay/turnover rate surveys
  - Two-hourly interval (Wednesday, 8am to 8pm)
  - Two-hourly interval (Saturday, 10am to 2pm).

2.6.2. Survey Analysis

Occupancy

The reported 'average peak' parking occupancy rate in this study is expressed as the mean of the four highest hourly occupancies, irrespective of when those highest occupancies occurred. This metric is known as 'average peak occupancy' and GTA uses this method to offset any outliers of extremely high demand as well as avoiding being solely focused on the peak hour of occupancy. This method is a more realistic measure of an occupancy rate that road users can expect throughout the day rather than at one specific hour.

The Saturday parking data, having only three observations, was compiled and calculated as an average instead.

The occupancy rates are subsequently grouped into three different categories, they are as below:

- **0%-69%**, these parking spaces are regarded as low usage, where car parks are sparsely occupied, and customers are expected to find a parking spot at first instance.
- **70%-89%**, these parking spaces are at an optimal utilisation level where it has a high degree of utilisation indicating the kerbside space or land allocated to parking are not underused but there are enough spaces available for drivers to be able to find a parking space without circling around.
- **90%+**, these car parks are almost if not already at full capacity and drivers will struggle to find any available spaces in the first instance, leading to localised cruising for parking and consequent congestion.

The weekday average peak and weekend average parking occupancies from the parking surveys are shown in Figure 2.10 and Figure 2.12.

EXISTING CONDITIONS

Figure 2.10:Weekday Average Peak Occupancy

Weekday average peak demands are generally low across the area with ample availability of unrestricted on-street parking. Commuter demand exists mostly in the form of incoming workers to the local offices around the Norton street area and WestConnex just south of Lilyfield Road in the eastern end of the area. Callan Park also contains multiple offices and recreational land uses but these have parking within the park, so it is surmised that the spillover onto Balmain Road and other nearby streets would not be significant, as reflected in the predominant 0 to 70 per cent and 70 to 90 per cent parking occupancies on streets near Callan Park.

The presence of the two light rail stations of Lilyfield and Leichhardt North does not cause any noticeable influx in demand for parking, as shown by Figure 2.10, given there are no streets exhibiting high average peak occupancies of or greater than 90 per cent surrounding both Lilyfield and Leichhardt North stations.

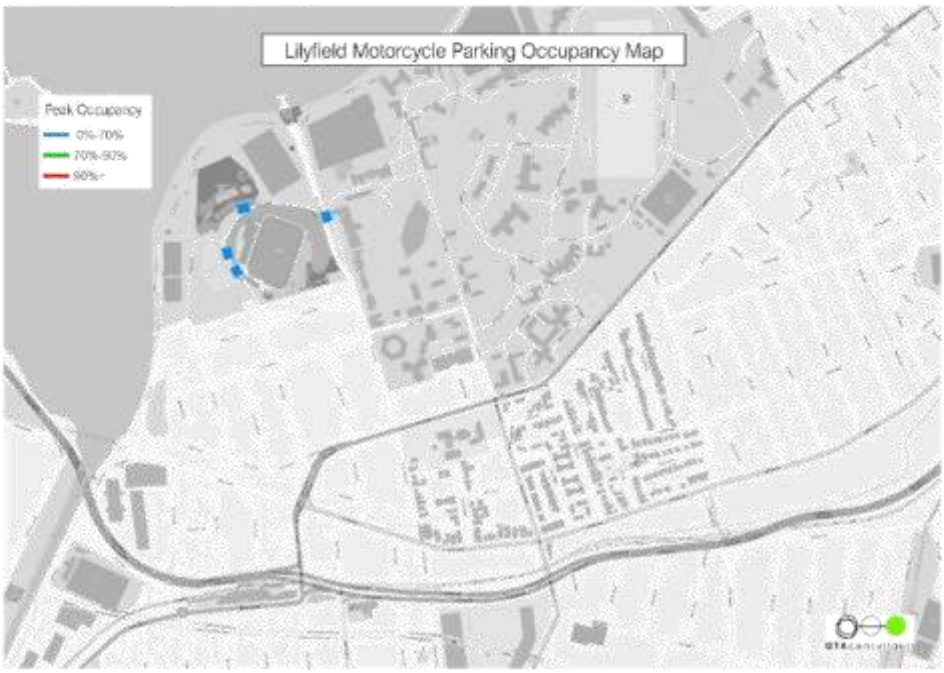
The off-street car park at the aquatic centre is utilised at an optimal level of between 70 and 90 per cent, indicating the car park (and by extension the swimming pool) is well-utilised with visitors also able to find a parking space easily.

In the Orange Grove shopping village, some streets have high occupancy (90 per cent or more) while others have lower occupancies, meaning shop-goers should be able to find available spaces nearby within a short 100-metre walk.

The weekday occupancy data of dedicated motorcycle parking was provided Council as shown below. All motorcycle parking pockets within Lilyfield at the time of the survey have a low demand with ample capacity available.

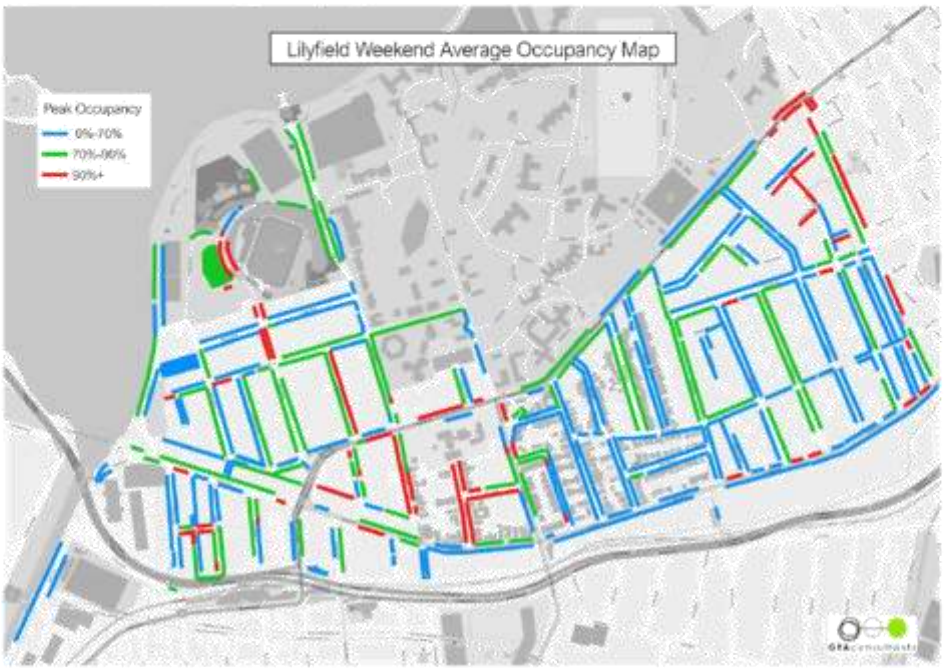
EXISTING CONDITIONS

Figure 2.11:Motorcycle Occupancy



EXISTING CONDITIONS

Figure 2.12:Weekend Average Occupancy



The weekend parking demand is generally low across the residential areas, with the streets on the south-eastern portion of the study area having more parking availability in the absence of workers going to nearby businesses or WestConnex. Callan Park also contains recreational land uses but there is available parking within the park, so it is surmised that the spillover onto Balmain Road and other nearby streets would not be significant, as reflected in the predominant 0 to 70 per cent and 70 to 90 per cent parking occupancies on streets near Callan Park.

Given the expected change of people activity from work to recreational leisure in the weekend, the demand for parking also reflect this. Places of high parking demands include streets near the Rozelle shops in the north-eastern corner of the study area as well as the streets near the Orange Grove markets.

The Orange Grove Markets in Lilyfield is a popular local attraction that operates every Saturday morning from 8am to 1pm. The market is situated inside Orange Grove School between Balmain Road and Perry Street. The parking demand is very high on the adjacent side streets where demand almost saturates capacity.

The on-street parking at Leichhardt Oval and surrounding facilities have a noticeable increase demand in the weekend, especially on Mary Street and Glover Street. However, the parking supply in this area still had the availability to meet the demand on other nearby streets, meaning visitors were not required to leave the immediate area to find an available parking space.

EXISTING CONDITIONS

Duration of Stay

Duration of stay is evaluated by recording the total dwell time of all surveyed parked vehicles. Over the entire survey period, the durations of stay for all individual vehicles surveyed are averaged to derive an average duration of stay calculation for every street. The average duration of stay metric is useful for understanding the characteristics of the intended parking purpose of users. Short-stay parking is defined as a parking duration of less than three hours while any duration of three hours or more is long-stay parking. Short-stay parking could encompass people visiting residents or the local shops while long-stay parking could comprise residents' parking, commuter parking or staff parking from nearby places of employment. The weekday and weekend average durations of stay are displayed in Figure 2.13 and Figure 2.14.

Figure 2.13:Weekday Average Duration of Stay

Figure 2.14: Weekend Average Duration of Stay

As most of the Lilyfield area comprises unrestricted parking within residential streets, the average durations of stay observed for the surveyed weekday and weekend are principally greater than three hours with some streets exhibiting average durations of stay greater than eight hours also observed on the weekday, which constitutes long-stay parking. It is not known whether there were average durations of stay greater than eight hours on the surveyed weekend since the survey period only lasted four hours.

Notwithstanding the predominance of long-stay parking, pockets of short-stay parking were observed near Leichhardt Oval and the surrounding Bay Run area as well as near shops and businesses on both the weekday and weekend. Interestingly despite the Orange Grove Markets ostensibly attracting a steady flow of visitors on the weekend with a high demand for parking, the average duration of stay for this area on the weekend was high at predominantly over three hours, which suggests the streets may be occupied by residents or vendors staying for long durations instead of market-goers.

Turnover Ratio

Turnover is the total number of individual cars occupying a certain parking space or street of parking spaces over a defined survey period. High turnover indicates more parking activity at a location (e.g. more customers accessing on-street parking to go to the shops) while low turnover indicates very few individual cars park at a location during a survey period due to an absence of attractors that generate visitation.

Relying on turnover data alone will induce biases due to spatial variances in parking capacity where streets with a high capacity could result in higher turnover despite having a relatively low occupancy rate. To address this bias, GTA uses the turnover ratio metric to appraise how frequent a street is used by parking users during a survey period in relation to that street's parking capacity. This ratio is calculated by dividing the number of individual cars parked on a street on the survey day by the parking capacity.

The weekday and weekend turnover ratios are displayed in Figure 2.15 and Figure 2.16.

Figure 2.15:Weekday Turnover Ratio

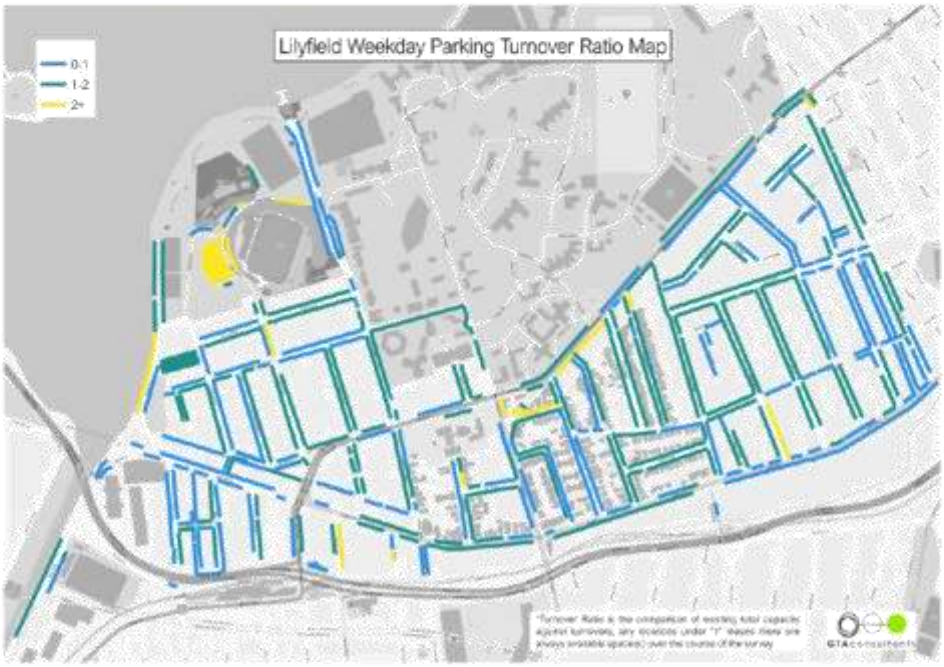
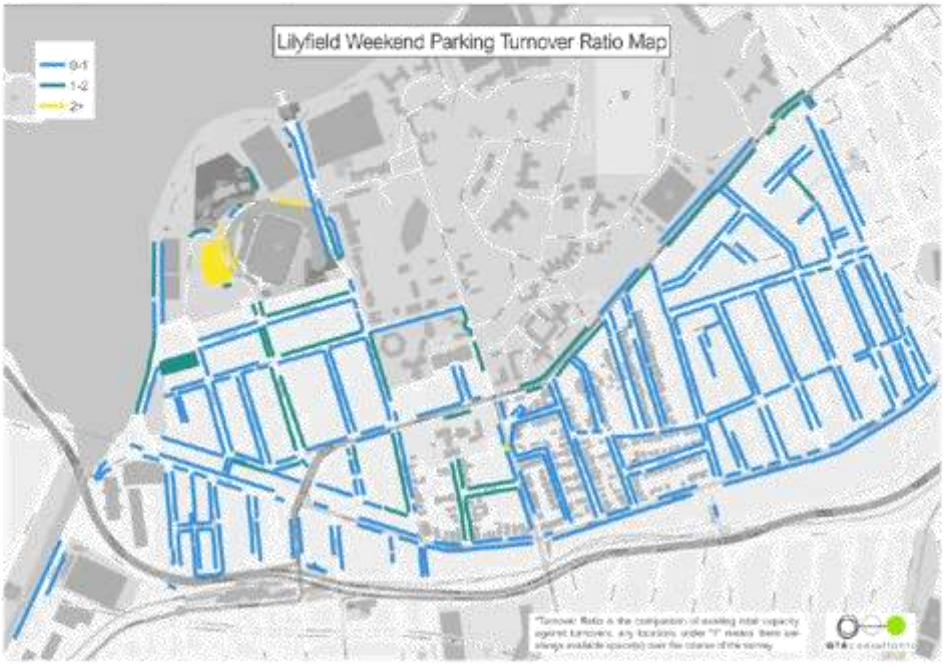


Figure 2.16:Weekend Turnover Ratio



The turnover ratios are higher during weekdays, with the streets near the shops and recreational areas having noticeably higher ratios where they are experiencing more than twice as many parked cars compared to the underlying capacity. The residential streets generally have a ratio of less than one or two, indicating the total demand over the course of the day will either not exceed the capacity or there was a small degree of parking turnover but not to an extent that there is a noticeable churn of vehicles on the residential streets.

In comparison, the surveyed weekend exhibited lower turnover ratios and hence parking activity compared to a weekday, with a greater coverage of streets having a ratio of less than once, indicating high parking availability and low usage. This trend, especially in the Orange Grove Markets area, supports the earlier assertion that long durations of stay near the Markets stymie the ability for short-stay visitors to access nearby parking spaces.

2.6.3. Accessible Parking Spaces

A total number of 59 accessible parking spaces including off-street and on-street parking was recorded in the study area as part of the survey. Average peak occupancy during weekdays was 66 per cent against 52 per cent during the weekend, which are generally considered as low levels of occupancy with ample availability of accessible parking spaces. An average duration of stay of 5 hours and 51 minutes and an average turnover ratio of around one was observed for vehicles parked within the disabled parking spaces during the weekday survey, which is considered long-stay parking. Consequently, the use of accessible parking spaces in Lilyfield is generally for long-stay and low turnover parking.

2.6.4. Boat Trailer Surveys

As part of the conducted surveys, the presence of boat trailers parked on-street was also recorded to inform Council whether this occurrence is prevalent in the study area. For example, if boat trailer parking was found to be ubiquitous in Lilyfield, resulting in boat trailers taking up kerbside space that could otherwise have been used for on-street parking or other uses, then Council could use this evidence to inform future policy approaches to manage boat trailer parking.

To that end, the results of the survey for boat trailer parking across the same survey days are shown in Figure 2.17 and Figure 2.18.

Figure 2.17:Weekday Boat Trailer Parking

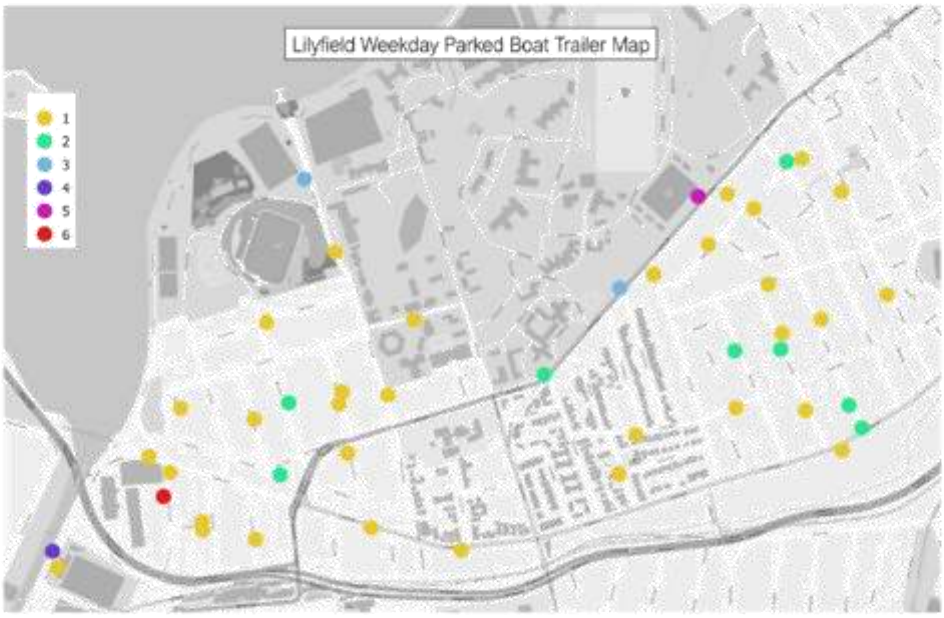
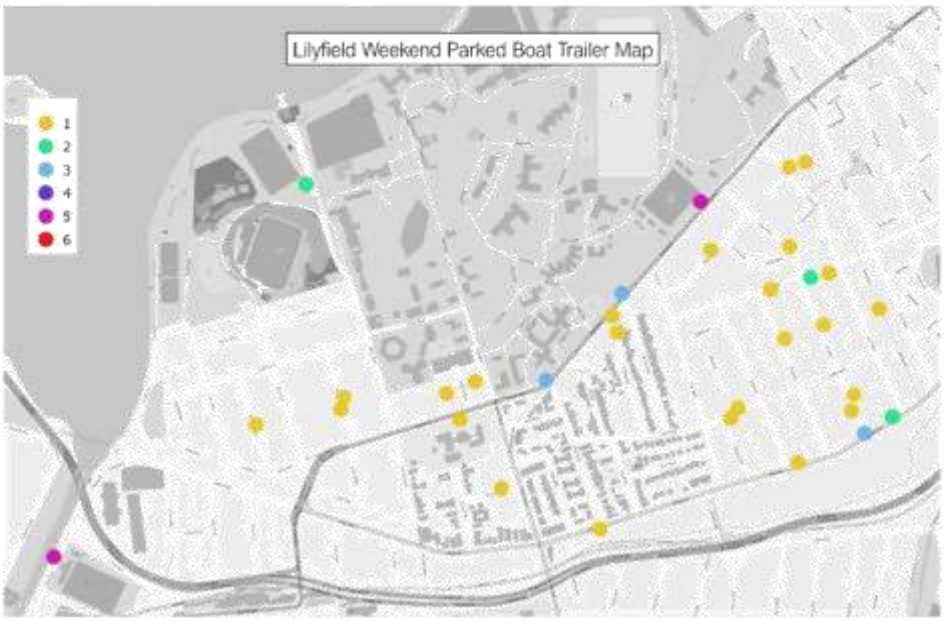


Figure 2.18:Weekend Boat Trailer Parking



As shown by these figures, there was a discernible spread of boat trailers parked on-street on the weekday, with the presence of principally one to two boat trailers surveyed throughout the study area in conjunction with isolated pockets of streets having three or more boat trailers parked. Despite this distribution of parked boat trailers, given they number only a handful across different streets, it has not necessarily reached a level where it has become problematic and denies access to a premium of parking, given earlier occupancy survey results showing that there is a high degree of parking availability throughout the study area.

In the surveyed weekend, the presence of parked boat trailers decreases, presumably as more people take their boats out onto the water during the weekend.

2.6.5. Demand Implications

Based on the results of the preceding occupancy, duration of stay, turnover, accessible parking and boat trailer parking analysis, the following conclusions can be made about parking demand characteristics in Lilyfield:

- Average peak parking occupancies in Lilyfield are at a low or optimal level on the weekday with only isolated streets of high demand (at or over 90 per cent). There was no evidence of high parking demand near light rail stops or clusters of places of employment, indicating any demand from these activities does not overwhelm underlying parking supply.
- On the weekend, there is a similar trend of low or optimal levels of parking occupancy throughout the study area, with the exception of a cluster of high parking demand near the Orange Grove Markets as these markets generate parking activity.
- The average durations of stay and turnover ratios observed on both the weekday and weekend are consistent with that of a predominantly residential setting; principally long-stay parking greater than three hours was the most widespread parking duration observed and supported by turnover ratios of less than two hours.

- Notwithstanding the predominant average duration of stay and turnover ratio trends, pockets of higher turnover and/or lower durations of stay were observed in areas such as the aquatic centre, Leichhardt Park and the shopping area on Balmain Road. This trend was not observed near the Orange Grove Markets, suggesting the pattern of high parking occupancy is caused by long-stay vehicles such as local residents or market vendors.
- Boat trailer parking was not observed to be a widespread occurrence in Lilyfield in a manner that prevents drivers from accessing parking given the broad availability of parking throughout Lilyfield.

2.7. Parking Signage Check

A product of the amalgamation of the former constituent councils of Inner West Council is an amalgam of different signage types that regulate parking throughout the LGA. Many of these signs have been used historically but no longer represent standard practice as stipulated by TfNSW and many of the signs that regulate the same aspect of parking (e.g. a 1/4P restriction) may look different depending on the location within the LGA.

Accordingly, as part of this study, GTA was tasked with identifying general inconsistencies in signage and recommend standardisation where appropriate. GTA used the TfNSW standards on signage as the as the source of truth for what is the correct parking signage[1] to be used throughout the LGA moving forward.

Furthermore, Council experienced enforcement issues under the existing '1P during sporting fixtures only' signage in the LY residential parking permit zone. GTA will make recommendations in Section 5 of this report on how this signage could be improved, along with enforcement recommendations drawing from case studies on event parking management in other jurisdictions in Section 4.3 of this report.

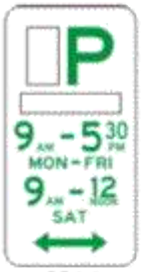
To ensure consistency with the current TfNSW parking signage standards, GTA reviewed all photographed signs captured as part of the parking survey in Lilyfield and identified that outdated and irregularly dimensioned signs are present within the study area. All non-compliant signs, examples of their location and the recommended TfNSW signs are identified in Table 2.3 below. Another observation is the common sighting of discoloured or damaged signs that might potentially render them legally void. GTA recommends Council replace such signs promptly to avoid enforcement complications from illegible signs.

The detailed locations of the non-compliant signs are available from the repository of sign photographs and geographical location IDs provided to Council by GTA via email and electronic file transfer on 18 March 2020.

[1] https://www.rms.nsw.gov.au/cgi-bin/index.cgi?action=searchtrafficsigns.form

EXISTING CONDITIONS

Table 2.3: Non-compliant signs

Locations	Current sign and issue	Recommended TfNSW sign example
Balmain Road, Mary Street, Charles Street, Leichhardt Park car park,	 P15 minutes is not a standard sign	 R5-15
Balmain Road, Mary Street, Hubert Street	 "1 hour" is no longer used	 R5-1-1

EXISTING CONDITIONS

Locations	Current sign and issue	Recommended TfNSW sign example
Mary Street, Leichhardt Park Aquatic Centre parking lane, Glover Street	 Angle parking sign irregular dimension	 R9-205
LY zone	 Signs indicating "1 hour" are no longer used and current wording on sporting fixtures leads to enforcement issues as previously indicated by Council	 R5-62-4 Refer to Section 5 of this report for more information on event parking

2.8. Resident Permit Parking Allocation

A key aspect of the existing parking conditions in Lilyfield is the current operation of the LY and L1 residential parking permit zone and the quantum of permits that are allocated. The amount of permits allocated in comparison to the parking capacity of a street or the permit zone reveals the proportion of the capacity that has been set aside for residential permit parking. For the LY zone, this only relates to residential permit parking during sporting fixtures at Leichhardt Oval, notwithstanding its present unenforceability as informed by Council. The *Permit Parking Guidelines* from Roads and Maritime Services stipulate that the number of permits issued for an area should not exceed the number of available on-street parking spaces in that area.

In the case of Lilyfield and based on data provided by Inner West Council, there are 196 resident permits issued for the LY zone. Meanwhile, there are 626 parking spaces in this zone, meaning the amount of parking permits issued in the LY zone is consistent with the guidelines referenced above. One possible explanation of low quantity of permits issued in relation to capacity is that the permits are only valid during sporting fixtures at Leichhardt Oval and the lack of enforceability means there is little incentive to apply for this permit.

Regarding the L1 zone that applies only to Norton Street and Halloran Street within the study area but is actually a broader zone that lies mostly outside of the study area, it is not possible to evaluate how many L1 permits have been issued to properties on this street in relation to these streets' parking capacity given the data received from Council pertains to the entire L1 zone.

2.9. Community Survey

In order to understand the day-to-day community views on the current parking situation, Council has directly engaged with the local community including residents, business owners and shopkeepers. An extensive questionnaire letter "Make parking fairer" detailing this parking study was advertised via social media and the Council website. Anyone member of the public could also request a physical copy of the questionnaire.

2.9.1. Survey Statistics

After a consultation period of one month during February to March 2020, Council received 390 questionnaire responses; the key insights to the responses are as follows:

- 90 per cent of the respondents responded "Yes" to living in Lilyfield.
- 91 per cent of the respondents lives in a house.
- 79 per cent of the respondents usually park less than 100 metres away from their place of residence.
- 42 per cent of the respondents responded "Yes" to having off-street parking at their residence.
- Weekday evenings/nights was the most chosen timeframe for issues finding a parking spot near the respondents' residence.
- 66 per cent of the respondents who work in Lilyfield responded "No" to parking off-street at work.
- 97 per cent of the respondents live in the Lilyfield postcode area, the others are all from adjacent postcode areas.

2.9.2. Survey Responses

In addition to the respondents' characteristics highlighted above, the questionnaire also asked respondents on their views toward different aspects of parking management in Lilyfield, especially concerning ways to manage residential parking, commuter parking and event parkin near Leichhardt Oval. The results and commentary are provided below.

EXISTING CONDITIONS

Figure 2.19: Respondents' views toward addressing residential parking management

Based on Figure 2.19, the respondents highly favour resident parking permits to be made available to only those residents of dwellings without any off-street parking or in a manner that can be purchased by residents on an as-needed basis. Notwithstanding these views, a large proportion of respondents (108) also wanted the existing scheme to remain as is and to remain free and be supported by better enforcement of the time limits.

Figure 2.20: Respondents' views toward addressing commuter parking

Based on Figure 2.20, while a plurality of respondents were favourable to setting aside some spaces for possible paid commuter on-street parking, a large group of respondents also favoured the status quo or excluding commuters from parking near light rail stops via time-restricted parking.

EXISTING CONDITIONS

Figure 2.21: Respondents' views toward addressing event parking near Leichhardt Oval

Regarding Figure 2.21, the exploration of using event shuttles from another origin for patrons to access Leichhardt Oval is the most sought-after intervention by the respondents, which could be similar to event buses that ran to Moore Park from Central Station before the City and Southeast Light Rail opening.

A group of respondents also suggests expanding the area of the LY permit parking zone, indicating the presence of event-visitors may cause parking and traffic disruption to residents living near Leichhardt Oval.

Separate correspondence was received from residents living on Hubert Street requesting angled parking on Hubert Street to increase parking capacity. However, upon reviewing parking occupancy and demand, the street currently has insufficient demand (less than 85 per cent) to warrant the implementation of this suggested measure as directed by Council's draft Public Domain Parking Policy.

Separate correspondence was also received from the community regarding a request for time-restricted parking on Canal Road. Having regard to the weekday and weekend occupancy results for this road which were below 70 per cent and the low turnover ratio on this street (suggesting the parking may be used by staff at the nearby film studios), there is no clear case for change in the parking management approach on this road.

3. SWOT ANALYSIS

3.1. SWOT Analysis

In developing the parking study, a SWOT (strength, weaknesses, opportunities and threats) analysis of parking within Lilyfield was undertaken. The results of the SWOT analysis for Lilyfield within the context of parking is presented in Table 3.1.

Table 3.1: SWOT Analysis for Balmain East Precinct Parking Study

Strengths	Weaknesses
• Existing low to medium residential density has not generated high parking occupancies that are pervasive throughout the study area. • Any parking generated by light rail commuters or local working staff has not resulted in high parking occupancies. • Areas of high parking occupancy are isolated or ephemeral (e.g. Orange Grove Markets). • Majority of residents able to park in their immediate surrounds (<100m). • Residents appreciate prioritising paid parking permits on an as-needed basis. • A significant portion of the study area's properties (especially east of Wharf Road) have off-street parking via rear lane garages or conventional street frontage access.	• Leichhardt Oval generates high demand for parking but parking enforcement during event days is not possible. • Parking near Orange Grove Markets does not exhibit sufficient turnover to support access by multiple visitors.
Opportunities	**Threats**
• Reform existing LY permit parking scheme into an enforceable special event permit parking scheme. • Explore potential for shuttle bus for Leichhardt Oval event days. • Standardise parking signage across the study area as well as the LGA. • Explore opportunities to expand the coverage and quantum of car share pods to increase its convenience to residents as a means to reduce car ownership rates and on-street parking demand.	• Any future medium to high development activity in Lilyfield and the resultant parking demand need to be appropriately managed through public and private domain parking policy measures, the absence of which would result in unfettered growth in demand for on-street parking.

4. PARKING MANAGEMENT CASE STUDIES

4.1. Introduction

The purpose of this section is to run through relevant examples of how parking issues similar to those found in Lilyfield have been dealt with to inform this parking study's recommendations contained in Section 5 of this report. In particular, management approaches to parking on residential streets and event parking will be explored.

4.2. Parking Management on Residential Streets

4.2.1. Parking hierarchies in other cities

Parking hierarchies are a common policy approach used by local governments across Australia and New Zealand to address issues of competing demand for kerbside space on residential streets as well as other street types among differing user groups. Such hierarchies serve as a guideline to accommodate and prioritise various user groups within a local place context.

Austroads

According to the *Austroads Guide to Traffic Management Part 11* on parking, a robust parking hierarchy should take into account the following:

- Safety and convenience of all road users
- Encourage moving shift from private vehicle usage
- Equitable and transparent parking space allocation
- Enable a consistent vision for parking infrastructure.

The guide presents an example parking hierarchy that sets out a recommended hierarchy across different place contexts, as shown in Figure 4.1.

PARKING MANAGEMENT CASE STUDIES

Figure 4.1: Example parking hierarchy from Austroads

Priority	Inner core of commercial centre		Outer area	
	On-street	Off-street	On-street	Off-street
Essential	Loading	Disability permit holders	Public transport	Long-stay/ commuter
↓	Public transport	Short to medium-stay	Residents	Short to medium-stay
↓	Drop-off/pick-up	Drop-off/pick-up	Short to medium-stay	Drop-off/pick-up
↓	Short to medium-stay	Loading	Disability permit holders	Park and ride
↓		Motorcycle/ scooter	Loading	Residents
↓	Motorcycle/ scooter and cyclists	Long-stay/ commuter & residents	Long-stay/ commuter	Motorcycle/ scooter
Least important	Disability permit holders	Cyclists	Drop-off/pick-up and motorcycle/ scooter and cyclists	Disability permit holders and loading and cyclists
Not allowed in this zone	Long-stay/ commuter and Park and ride	Park & ride		Public transport
	Residents	Public transport		

Source: Austroads Guide to Traffic Management Part 11 (2017) based on Glenorchy City Council (2007)

As shown in Figure 4.1, it recommends kerbside space be allocated for public transport and residents as the highest priority for 'outer areas' (which could include residential streets such as those in Lilyfield), while commuter parking is a low priority. On commercial streets such as those found in the small section of shops on Balmain Road, kerbside uses that support businesses such as loading, public transport and short-stay parking for customers are a high priority while long-stay parking and parking for residents is discouraged.

It is noted that Figure 4.1 is only an example guide and councils have the discretion to set out their own parking management hierarchies. For instance, the current version of Council's draft *Public Domain Parking Policy* does not include a parking management hierarchy.

The subsequent sub-sections detail examples of parking management hierarchies put into practice by cities in other jurisdictions.

PARKING MANAGEMENT CASE STUDIES

Christchurch, New Zealand

Figure 4.2: Parking management hierarchy in Christchurch

	Commercial Areas	Residential Areas	Other Areas (such as Industrial)
1st priority	Safety	Safety	Safety
2nd priority*	Movement and Amenity	Movement and Amenity	Movement and Amenity
3rd priority	Mobility Parking	Mobility Parking	Mobility Parking
4th priority	Bus stops/ Cycle parks/Bike corrals Shared parking (bike share or car share)/ Micromobility parking (e.g. scooters)	Bus Stops	Bus stops/ Cycle parks/ Bike corrals Shared parking (bike share or car share)/ Micromobility parking (e.g. scooters)
5th priority	Taxi Ranks (special passenger vehicle stands)	Residents Parking	Short Stay Parking
6th priority	Loading Zones	Cycle parks/ Bike corrals Shared parking (bike share or car share)/ Micromobility parking (e.g. scooters)	Residents Parking
7th priority	Short Stay Parking	Short Stay Parking	Commuter Parking
8th priority	Residents Parking	Commuter Parking	
9th priority	Commuter Parking		

Christchurch City Council in New Zealand has adopted a parking management hierarchy to manage kerbside parking in its suburbs (Figure 4.2). The hierarchy is broadly consistent with the Austroads guideline where public transport and disability parking are prioritised in residential areas followed by parking for residents. Short-stay parking is more prioritised in commercial areas and commuter parking is consistently the least important across all place contexts.

Kingston, VIC

Figure 4.3: Parking management hierarchy in Kingston, VIC

Residential Areas			Activity / Commercial Areas		
A	B	C	A	B	C
Residents	Traders	Loading Zones	Disabled	Traders	Residents
Bus and Taxi stops	Commuters	Short Term Parking	Short-term Parking	Commuters	Schools
	Foreshore	School	Bus and Taxi stops	Foreshore	
	Disabled			Loading Zones	

Source: Parking Management Strategy, City of Kingston Victoria (2019)

The City of Kingston, VIC acknowledges the current demand for parking often exceeds the available supply in their municipality and has established a framework for parking user priorities across different areas (e.g. residential and commercial areas). The priorities (with A being the most important and C the least important) are used to provide a clear hierarchy in establishing future traffic and parking regulations.

In residential areas, priority for kerbside space is given to parking for residents and public transport over other user groups such as commuters and school pick up and drop off, while short-stay parking is prioritised in commercial areas.

4.3. Event Parking

Despite the event parking survey to assess the impacts of a sporting fixture at Leichhardt Oval on parking in the surrounding streets not proceeding due to COVID-19 related cancellations, the case study examples below are useful for informing management approaches that could be used for the streets in proximity to Leichhardt Oval during future sporting fixtures. The case studies to be reviewed comprise:

- Eden Park, Kingsland, Auckland, New Zealand
- Suncorp Stadium, Milton, QLD.

These two case studies will subsequently be compared with an example of a traffic management plan (TMP) that was implemented in Leichhardt Oval for National Rugby League (NRL) matches in 2015.

4.3.1. Eden Park, Auckland, New Zealand

In the streets surrounding Eden Park in the residential suburb of Kingsland in Auckland, New Zealand, in the hours prior to, during and after a sporting fixture, on-street parking is restricted to local residents only via the issue of residential event parking permits that are free of charge. Parking for residents is on a first-come, first-served basis and there is no guarantee of parking space. There is no parking at the stadium.

This parking restriction is enforced by Auckland Transport parking wardens and contracted towing companies and occasionally the New Zealand Police who can close off selected streets. An example of the residential parking permit zone in force is shown below in Figure 4.4.

Figure 4.4: Event parking and traffic access restrictions for Eden Park, Auckland

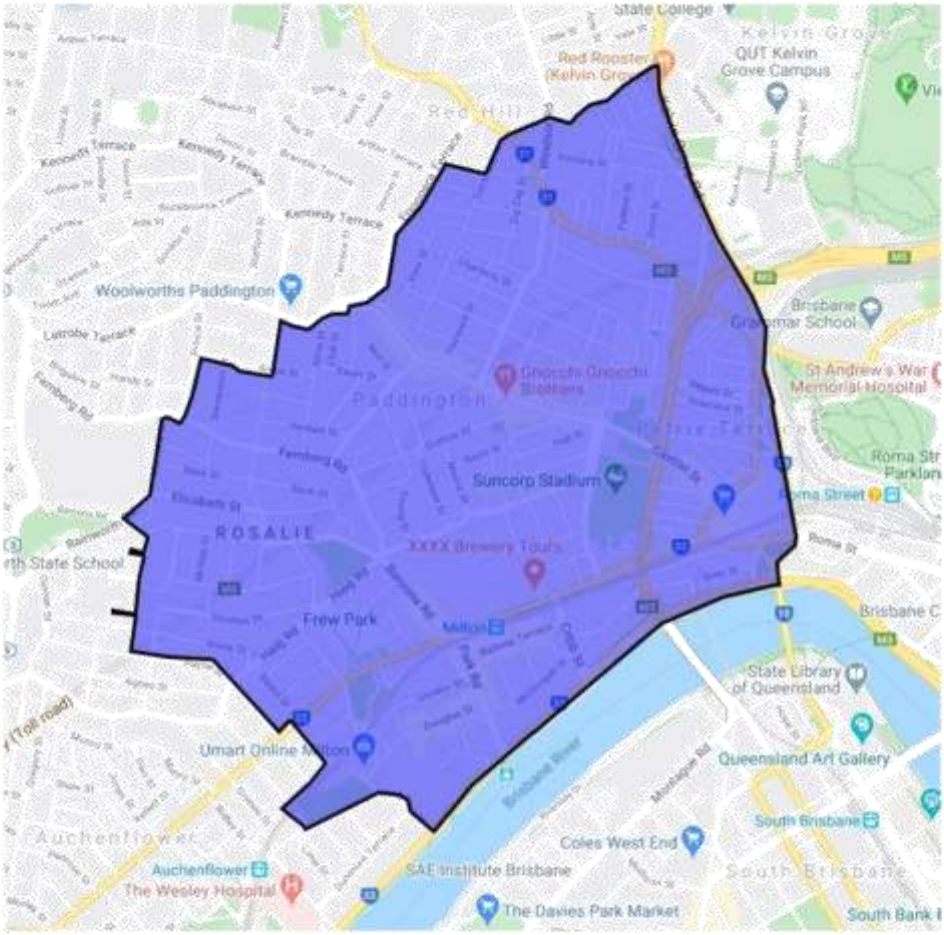
Source: Eden Park (https://edenpark.co.nz/wp-content/uploads/2020/01/NZLvINDi-ODI-Sat-8-Feb-2020-v3.pdf)

4.3.2. Suncorp Stadium, Milton, QLD

The streets surrounding Suncorp Stadium in the suburb of Milton in Brisbane is subject to the Suncorp Stadium (Lang Park) Traffic Area, meaning in the two hours prior to and two hours after an event, on-street parking is restricted to 15 minutes unless a car has a residential parking permit which is only issued to residents living in the Traffic Area. This Traffic Area is enforced by Brisbane City Council parking rangers and contracted towing companies and communicated via fixed, temporary and VMS signage. There is no parking at Suncorp Stadium.

The Traffic Area boundary is shown below:

Figure 4.5: Suncorp Stadium (Lang Park) Traffic Area



Source: Brisbane City Council (https://www.brisbane.qld.gov.au/traffic-and-transport/parking-in-brisbane/special-event-parking/suncorp-stadium-lang-park-traffic-area)

4.3.3. Leichhardt Oval Traffic Management Plan 2015

On Sunday 19 April 2015, officers from the former Leichhardt Municipal Council conducted pre-match and post-match observations of local traffic and parking conditions in the streets surrounding Leichhardt Oval for a NRL match that took place at 2.00pm. The purpose of these observations was to inform the development of a TMP to manage NRL matches at Leichhardt Oval in the future. The following observations in Table 4.1 were made by the officers at the time.

PARKING MANAGEMENT CASE STUDIES

Table 4.1: Pre-match and post-match observations of a NRL match on Sunday 19 April 2015 at 2.00 pm

Type	Pre-match	Post-match
Traffic	Minimal traffic queueing.	Traffic queueing in all roads surrounding the site, in particular Glover Street, Mary Street, Lilyfield Road, James Street, Perry Street, Balmain Road and Darling Street.
	Intersections operating within capacity.	Intersections operating at capacity.
	Mary Street closed between Leichhardt Oval and Leichhardt Park Car Park approximately 30 minutes prior to kick-off except for VIP cars to reduce pedestrian-vehicular conflict; this closure is managed by Wests Tigers' security staff.	Mary Street closed by security adjacent to Leichhardt Park Car Park southern entry, which converts to left turn exit only from the car park. No traffic is permitted to travel southbound in this section of Mary Street.
		Police control traffic at Mary Street/Perry Street, Glover Street/Perry Street and Mary Street/Lilyfield Road.
		Additional traffic signal phase time given to vehicles leaving the venue at intersections of James Street, Norton Street, Balmain Road with City West Link Road to reduce queuing.
		Parked cars on eastern side of James Street between City West Link and Lilyfield Road impact on queuing of southbound vehicles exiting the event.
		Traffic generation around the site returned to normal approximately one hour after completion of game which is similar to other sporting venues.
Parking	On-street parking in the surrounding streets and Glover Street car park at capacity.	On-street parking in the surrounding streets and Glover Street car park at capacity.
	Leichhardt Oval Car Park managed by security staff allowing only LPAC patrons and VIP Wests Tigers/NRL access to car park.	Leichhardt Oval Car Park managed by security staff allowing only LPAC patrons and VIP Wests Tigers/NRL access to car park.
Walking	Significant pedestrian activity in Glover Street, Mary Street, James Street with Mary Street the predominant access point to the Oval.	Significant pedestrian activity in Glover Street, Mary Street, James Street, Perry Street and Balmain Road with pedestrians taking over the carriageway on Mary Street and Glover Street.
Public Transport	Standard bus and light rail services; no special event services provided.	Standard bus and light rail services; additional four special event services provided for leaving customers on Perry Street in front of Orange Grove Public School.
	Taxis dropping off match-goers at Mary Street immediately opposite Leichhardt Oval entrance.	

Based on these observations, the former Leichhardt Municipal Council collaborated with NSW Police, State Transit Authority (STA) and Roads and Maritime Services to develop a commonly agreed TMP for subsequent NRL match days. Elements of this TMP are outlined in Table 4.2.

Table 4.2: Elements of the 2015 TMP for NRL match days

Type	Measures
Traffic	Police point duty at the intersections of Mary Street/ Perry Street, Glover Street/ Perry Street, Mary Street/ Lilyfield Road.
	Additional signal phase time for southbound traffic in James Street, Norton Street and Balmain Road at the intersections of James Street, Norton Street and Balmain Road with City West Link Road to manage post-match traffic.
	Special Event Clearway on the eastern side of James Street, between Lilyfield Road and City West Link, Lilyfield for a six-hour period on game day starting two hours prior to kick-off, to facilitate southbound traffic for visitors exiting the Oval. This clearway was enforced by tow truck.
Public Transport	Temporary bus zone set up on Perry Street, northern side between Glover Street and Wharf Road, with the responsibility for the installation of temporary bus zone signs falling with STA.
	Council community bus to run a loop providing patrons of both Leichhardt Oval and LPAC access from Lilyfield Road to Leichhardt Oval.

Based on Table 4.2, the TMP measures targeted issues associated with traffic queuing and congestion through the adjustment of signal phase times, police point duty and use of clearways. The effectiveness of ancillary measures such as the Council community bus is unclear, especially given the short distance of the route which could be walked by most visitors. As shown in Table 4.2, there were no measures targeting the enforcement of the LY parking zone, which has been a longstanding issue for Council as it has encountered difficulties in enforcing the one-hour time limit for non-residents during sporting fixtures at Leichhardt Oval.

Given the considerable time since the publication of the aforesaid TMP and the amalgamation of the former Leichhardt Municipal Council into Inner West Council, it is not clear whether this TMP was still in place for NRL matches in 2019 and whether this TMP extended to other sporting fixtures such as A-League soccer games.

4.3.4. Event Parking Summary

While on the surface the existing LY permit parking scheme operates like an event parking scheme similar to that of Brisbane and Auckland, the main difference is that the scheme in Lilyfield is not enforceable due to ambiguous signage and based on discussions with Council at a meeting on 13 March 2020, has not been well enforced in the past due to parking ranger capacity constraints.

The reasons why the schemes in Brisbane and Auckland have functioned well are due to their ability to be enforced and communicated via:

- Effective event traffic management, including street closures supported by the Police and static and VMS signage to inform and dissuade visitors driving into the stadium vicinity; and
- Effective enforcement, this requires a joint effort during an event day from Council parking rangers and contracted towing companies to promptly remove vehicles without a permit from permit zones, supported by legal and unambiguous signage indicating the special event permit restrictions (such as that recommended by TfNSW in Table 2.3).

4.4. Summary

By leaning on the findings from the above case studies on parking management for residential streets and event parking, there are aspects that could be incorporated by Council across Lilyfield and the wider Inner West area. The most relevant lessons transferrable to the Lilyfield and Inner West context include:

- Consistent kerbside space hierarchy that aligns with the local place context and allocates space to the different user groups accordingly
- Close collaboration between all event traffic and parking management mechanisms to ensure event parking restrictions are informed and upheld via a mixture of signage, enforcement and street closures to ensure events that are held at Leichhardt Oval do not adversely affect residents from a parking and traffic perspective.

5. RECOMMENDATIONS

5.1. Introduction

The following details the development of a set of car parking strategy recommendations for the Lilyfield study area. These recommendations have been developed following the SWOT analysis in Section 3 and the review of case studies in Section 4. The primary aim of these recommendations is to managing existing car parking provision and demands in a balanced manner which considers the needs of all stakeholders.

5.2. Key Strategic Objectives

The review of existing conditions and the parking surveys undertaken in February 2020 showed that overall, parking supply in Lilyfield is sufficient for the demand in the precinct. However, there are small areas of high demand observed and recorded around the Aquatic Centre, shops at Balmain Road and near the Orange Grove Markets on the surveyed Saturday. Taking into account these characteristics and the anticipated high parking demand generated by events at Leichhardt Oval, a number of recommendations have been developed to achieve the following:

- Prioritisation of long-stay residential parking on residential streets over the provision for non-residential long-stay user groups (i.e. commuters or employees).
- Consideration for the demand of short-stay user-groups for the local attractions where appropriate.
- Consistent parking policies and planning across the Inner West LGA.

These priorities relate to the background policy documents and existing conditions and community views presented in earlier sections of this report. The recommendations will provide an immediate benefit to the Lilyfield precinct as well as include options to achieve the long-term management of parking resources in the Lilyfield area in the view of future development.

5.3. Recommendations

5.3.1. Parking hierarchy

GTA has identified there is existing competition for road space between residents and visitors (commuters, eventgoers and local workers) as shown from the community consultation and parking survey data. To resolve such conflicts, a clear framework is required to inform current and future management approaches to allocating kerbside space, including for parking.

This can be achieved by establishing a clear parking management hierarchy for the Inner West that includes residential areas such as Lilyfield. This could be adopted into future iterations of the draft *Public Domain Parking Policy* before it is ratified by Council and will assist Council in allocating valuable kerbside space for different types of parking as well as other transport functions, depending on the local environment. A recommended hierarchy for the residential and commercial areas in Lilyfield (and indeed the Inner West at-large) could take the forms shown in Figure 5.1.

RECOMMENDATIONS

Figure 5.1: Recommended parking management hierarchy

	Residential		Commercial/Activity Centre	
Priority	Arterial	Non-arterial	Arterial	Non-arterial
1	Safety: *Reduced crash risk.*	Safety: *Reduced crash risk.*	Safety: *Reduced crash risk.*	Safety: *Reduced crash risk.*
2	Existing Property access *(e.g. ensure existing property accesses are retained and also accommodate vehicle movements along the street to access to properties).*	Existing Property access *(e.g. ensure existing property accesses are retained and also accommodate vehicle movements along the street to access to properties).*	Existing Property access *(e.g. ensure existing property accesses are retained and also accommodate vehicle movements along the street to access to properties).*	Existing Property access *(e.g. ensure existing property accesses are retained and also accommodate vehicle movements along the street to access to properties).*
3	Footpath *(e.g. new footpaths or widening to accommodate high demand from pedestrians).*	Footpath *(e.g. new footpaths or widening to accommodate high demand from pedestrians).*	Footpath *(e.g. new footpaths or widening to accommodate high demand from pedestrians).*	Footpath *(e.g. new footpaths or widening to accommodate high demand from pedestrians).*
4	Public transport and cycling *(e.g. public transport stops, bus lane, cycleway).*	Public transport and cycling *(e.g. public transport stops, bus lane, cycleway).*	Public transport and cycling *(e.g. public transport stops, bus lane, cycleway).*	Public realm improvements *(e.g. trees, landscaping, dining areas).*
5	Other vehicle movements *(e.g. cars, vans, trucks, motorbikes).*	Vehicle parking for residents.	Other vehicle movements *(e.g. cars, vans, trucks, motorbikes).*	Mobility Parking.
6	Vehicle parking for residents.	Public realm improvements: *(e.g. trees, landscaping, dining areas).*	Mobility Parking.	Cycle parking.
7	Public realm improvements *(e.g. trees, landscaping, dining areas).*	Other vehicle movements *(e.g. cars, vans, trucks, motorbikes).*	Cycle parking.	Public transport and cycling *(e.g. public transport stops, bus lane, cycleway).*
8	Commuter parking.	Commuter parking.	Public realm improvements *(e.g. trees, landscaping, dining areas).*	Vehicle parking for visitors.
9			Vehicle parking for visitors.	Other vehicle movements *(e.g. cars, vans, trucks, motorbikes).*

It is worth highlighting that a high ranking on this hierarchy does not necessarily mean all kerbside space should be allocated to that user group. Rather, it means that user group should be considered first and if their needs are evaluated to have been met, then other user groups lower in the hierarchy should be considered. For example, a high public transport priority in residential areas does not mean all space should be given to a bus stop. If there is no bus route, then Council can consider the next user group on the list such as parking for residents. However, if a bus stop needed to be expanded due to operational adjustments and some unrestricted parking spaces used primarily by residents needed to be acquired, then the application of the hierarchy would mean the bus stop should take precedence.

The application of this parking management hierarchy also offers guidance for the management of narrow kerbside space on narrow streets. For instance, it states that safety, property access and footpath provision should be the three highest priorities for residential streets. Accordingly, on narrow streets (e.g. those less than 2.5 m in carriageway width), the safety of all road users and access to properties (e.g. for residents' cars and emergency vehicles) as well as providing footpaths should be prioritised.

It is understood that through the ratification of Council's *Integrated Transport Strategy* at the Extraordinary Council Meeting on 3 March 2020, Council's longstanding practice of allowing vehicle parking over footpaths on narrow streets in selected suburbs such as Balmain East can be rolled out LGA-wide. Adopting the recommended hierarchy would not be in conflict with this policy. The hierarchy only states that safety, property access and footpaths should be considered before vehicle parking for residents. In this regard, where all three aspects can be provided in a narrow street, then vehicle parking can continue to be provided.

5.3.2. Orange Grove Markets

Upon review and analysis of the parking surveys conducted, it is recommended that Saturday time-restricted parking be implemented to encourage higher turnover and lower durations of stay near the Orange Grove Markets to facilitate access by a broader variety of visitors during market opening hours. The area of operation for this time-restricted parking could be that shown in Figure 5.2.

Figure 5.2: Recommended Saturday time-restricted parking area

Basemap Source: Google Maps

Given that the markets open from 8am to 1pm on Saturday, the time-restriction duration could adopt a similar timespan with either 1P or 2P restrictions.

5.3.3. Residential Parking in Lilyfield

Given the survey results indicate that average peak parking occupancies on most residential streets in Lilyfield are either at a low or optimal range, there is no clear case to consider adopting a residential permit parking scheme anywhere in Lilyfield like with other suburbs in the Inner West LGA (noting that the existing LY scheme operates like an event parking permit rather than a residential parking permit). Accordingly, the recommendation is to maintain the status quo of unrestricted residential parking throughout the study area's residential streets. As for the small sections of L1 residential parking in the study area which is currently under Zone B, this can be rolled over into the same 'Zone Type B' scheme under the draft *Public Domain Parking Policy*, meaning any dwelling with two or more parking spaces is ineligible for a permit. If parking conditions change considerably in the future, then there may be a case to re-examine parking demands and the most suitable parking management approach.

Mobility parking is observed to be generally in low demand with ample supply; therefore, no further expansions are recommended in the current state. Notwithstanding, additional disability parking can be implemented under Council review and adhering to Council's Parking Policy document.

5.3.4. Leichhardt Park Aquatic Centre Car Park

In the Leichhardt Park Aquatic Centre Car Park, the parking survey results showed that the off-street car park was optimally utilised with an average peak parking occupancy that ranged between 70 to 90 per cent on the weekday and weekend while parking turnover was high with an average duration of stay less than three hours, which is expected of a recreational facility that attracts a constant churn of visitors. There is also a limited quantity of on-street parking along Mary Street outside the Leichhardt Park Aquatic Centre that exhibited high average peak parking occupancy of greater than 90 per cent on the weekday and weekend. Accordingly, although a small section of on-street parking appears to have an issue with high occupancy, the vast majority of parking at the Leichhardt Park Aquatic Centre's off-street car park does not have occupancy or turnover concerns. As such, no specific parking management intervention is recommended for this car park but it should be regularly monitored via surveys to adjust the management approach in the future if necessary.

5.3.5. Boat Trailer Parking

Boat trailer parking was found not to be a significant issue in Lilyfield due to the small quantity of boat trailer parking relative to the widespread availability of parking and low parking demand. Accordingly, no specific intervention is recommended in this regard, notwithstanding the discernible clusters observed on Balmain Road, Charles Street and Canal Road.

In the future if the boat trailers are found parking for long durations on streets with high demand (90 per cent occupancy or more) where there is evidently a premium of parking, Council could consider implementing measures to restrict their presence on such streets. It is noted that boat trailers parked on the public roadway will be subject to locational parking restrictions providing these restrictions are clearly designated with legally enforceable signage. Members of the public are within their rights to report to Council's Customer Service to lodge any safety or amenity issues related to boats trailers.

5.3.6. Commuter Parking

The surveys revealed that any instances of commuter parking near light rail stations was not sufficiently high to cause widespread high average peak occupancies of 90 per cent or greater in the streets surrounding the Leichhardt North and Lilyfield light rail stations. Accordingly, no specific intervention is recommended. Noting that if the situation changes in the future in terms of greater commuter parking demand, there are opportunities to investigate angled parking on Charles Street and Hubert Street. However, commuter parking remains the lowest priority in the recommended parking management hierarch.

5.3.7. Motorcycle Parking

The data provided by Council indicates the demand for dedicated motorcycle parking is low and does not require a further capacity upgrade.

5.3.8. Disabled Parking

The data provided by Council indicates the demand for dedicated disabled parking is low and does not require a further capacity upgrade.

5.3.9. Parking Signage Update

Given the inconsistencies in selected parking signs in the study area as identified in Section 2.7 of this report, it is recommended that such signage be replaced with the standard signage is identified in Table 2.3.

5.3.10.Event Parking Management

Notwithstanding the TMP that was in place for NRL games at Leichhardt Oval, the existing LY resident permit parking scheme for streets near Leichhardt Oval that operates during sporting fixtures is only as effective as the amount of enforcement provided. Given its past experience with enforcement, a reform is required.

Accordingly, it is recommended that this scheme be replaced with a Special Event Parking Permit scheme over the same area as the existing LY zone as per the Roads and Maritime permit parking guidelines and supported by special event parking signage such as that shown in Table 2.3.

To support the implementation of the special event parking permit scheme, on major event days, Council is advised to rollout a full suite of management techniques across multiple facets including:

- Event traffic management and legal signages (including VMS) to inform and dissuade non-residents from entering restricted areas.
- Resourcing parking ranger patrols as well as considering contracting towing companies to remove non-compliant vehicles.
- Investigate direct shuttle services at Central Station for transporting eventgoers to and from Leichhardt Oval.

Through this recommendation, local residents' parking needs and amenity will be prioritised while visitors to Leichhardt Oval can still access the stadium via other means such as light rail, taxi and on-demand vehicle pick-up/ drop off, public bus and any prospective event bus service. In terms of an event bus service, the feasibility of running such as service, including service areas, operational costs and resourcing is recommended to be further investigated, especially given the prospect of more events at Leichhardt Oval following the COVID-19 pandemic due to the temporary closure of Sydney Football Stadium and Sydney Olympic Stadium. These recommendations can be incorporated into a new TMP for Leichhardt Oval that covers not only NRL games but also A-League and other events.

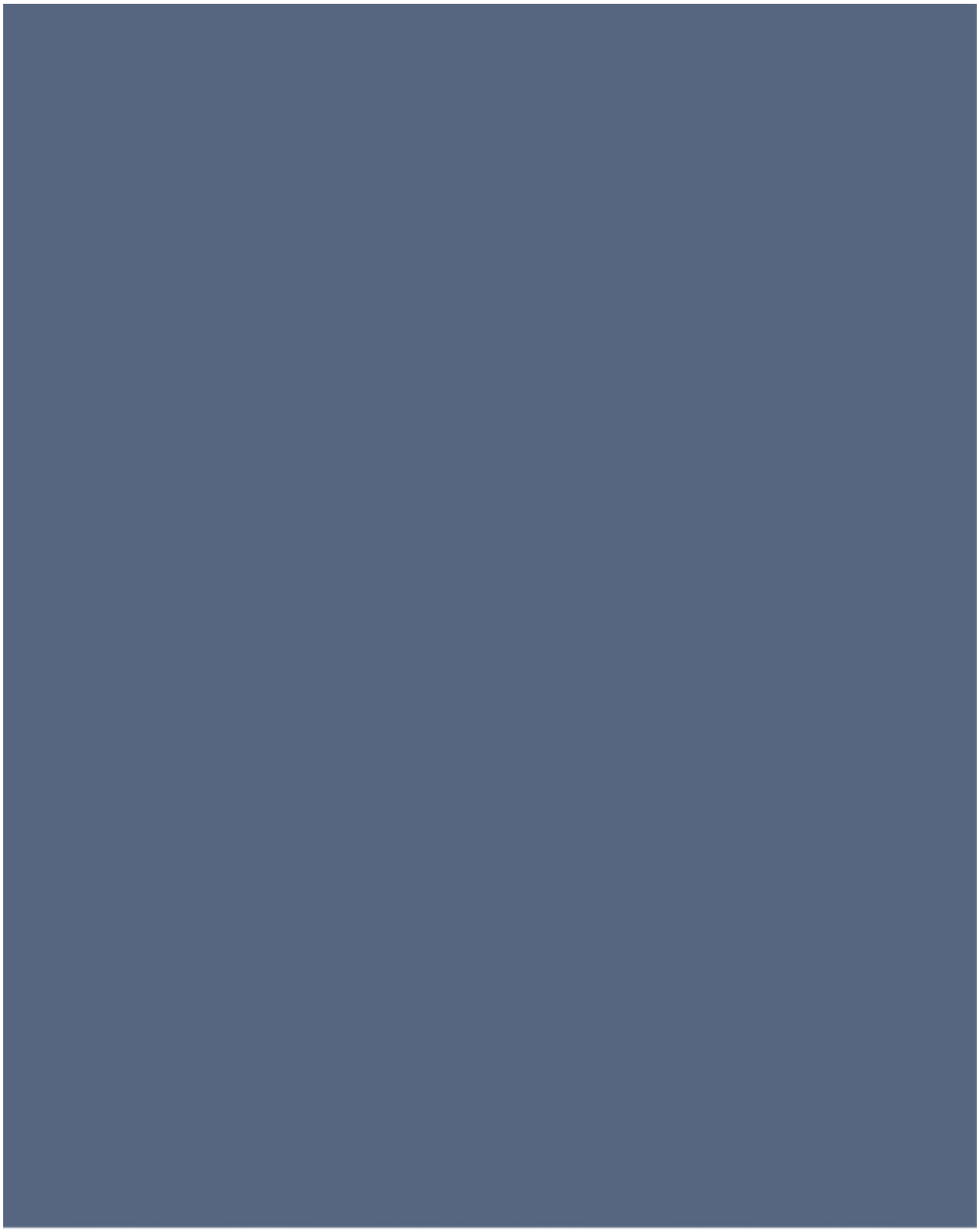
5.3.11.Implementation Timeframe

In terms of the implementation of the recommendations, these have been categorised into short-term and long-term recommendations which reflect their relative priority and requisite timeframe required for implementation.

Short term (0-5 years)			
Item no.	Description	Streets affected	Priority
1	2P 8am-1pm Sat parking changes in streets near Orange Grove Markets	Perry Street (managed by TfNSW), Glover Street, Wharf Road, Fredbert Street, Emmerick Street, Rayner Street, Eric Street, Balmain Road, Lilyfield Road	High
2	Introduction of angle parking in Hubert Street and Charles Street	Hubert Street, Charles Street	High
3	Special Event Parking Scheme to replace existing LY permit zone.	Street within Lilyfield with existing LY permit zone.	High

RECOMMENDATIONS

	Undertake further parking survey during large sporting event in Leichhardt Oval and review LY permit zone extent.		
4	Develop an event Traffic Management Plan (TMP)	Streets near Leichhardt Oval during events	Medium
5	Replacement of redundant, faded, damaged signs	Streets identified in the signage audit within study area.	Medium
6	Development of Parking Hierarchy	All streets within Lilyfield	Low
Long term (5+ years)			
Item no.	Description	Streets affected	Priority
8	Liaise with Leichhardt Oval event organisers to develop a bus shuttle service and satellite parking area.		Medium
9	Changes to boat trailer parking management consistent with other areas within Inner West LGA	Streets with historical boat trailer issues	Low



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Item 8

Attachment 3

Item No: **LTC0920 Item 9**

Subject: **BALMAIN EAST PRECINCT PARKING STUDY**

Prepared By: Sunny Jo - Traffic and Parking Planner

Authorised By: Manod Wickramasinghe - Traffic and Transport Planning Manager

SUMMARY

The Balmain East Precinct Parking Study reviewed the location, supply, demand and distribution of short and long stay parking, commercial, residential, employee, and commuter parking. The work consisted of examining existing conditions including parking data, community submissions, observed parking conditions, existing permit allocation, and future land uses within the Balmain East precinct. A community survey was also undertaken to gauge the parking issues faced by different users. This led to the development of a draft parking strategy for Balmain East.

RECOMMENDATION

THAT:

1. **The Draft Balmain East Precinct Parking Study including the Draft Balmain East Parking Strategy be endorsed for community consultation; and**

2. **The draft report be placed on Public Exhibition, providing a minimum 28 days for submissions and the results be reported back to the Traffic Committee.**

BACKGROUND

The Study was initiated in order to review the existing parking issues in Balmain East which include streets near trip generators such as the Balmain East shopping village, Balmain East Ferry Wharf, reserves and schools.

The map of the study area is provided in **Attachment 1**.

The Balmain East Precinct Parking Study was undertaken by GTA Consultants by examining parking occupancy and duration data in February 2020, existing on-street parking inventory, current supply and demand, and feedback received through Council's Community Engagement undertaken in February and March 2020. Further site observations were undertaken throughout February and March at different times to understand current conditions. Parking trends within the study area had the following characteristics:

- Average peak parking occupancies (average of the four highest hourly occupancies) are high on the weekday in the central core of streets subject to the BE residential parking permit zone such as Darling Street, Nicholson Street and Johnston Street, but occupancies taper off in the residential streets closer to the edges of the study area and Balmain Peninsula to a level that ensures outside visitors have a chance to find parking without circulation.
- On the weekend, occupancies taper off compared to the weekday, suggesting more residents are taking their cars out for excursions, leaving more on-street parking capacity available. Conversely, more residents leave their cars parked on a weekday, suggesting more trips to work via other means, which is consistent with the greater than 50 per cent non-car journey to work mode share found during the 2016 Census survey.

- The average durations of stay and turnover ratios observed on both the weekday and weekend are consistent with that of a predominantly residential setting; principally long-stay parking greater than three hours was the most widespread parking duration observed and supported by turnover ratios of less than two hours.

The draft study concluded with the following draft strategies for consideration:

Balmain East Precinct Parking Study **Draft Parking Strategy 2020**			
Short term (0-5 years)			
Item no.	Description	Streets affected	Priority
1	Inclusion of additional properties in Clifton Lane to RPS (these properties will be limited to 1 BE permit only)	Simmons Street	High
2	2P 8am-10pm Permit Holders Excepted area BE RPS expansion in Darling Street between Duke Street and The Avenue (this section will be limited to 1 BE permit and 1 visitor permit per property)	Darling Street (between Duke Street and The Avenue)	High
3	Reduction of 6m length No Parking zone in east side of Gallimore Avenue, 30m north of Darling Street.	Gallimore Avenue	High
4	Parking management in Jubilee Place. Angle parking opposite Police Marine Area Command to be time limited 4P 8am-6pm Mon-Fri, subject to NSW Police Marine Area Command dedicating Jubilee Place to Council as a public road.	Jubilee Place	High
5	Work with carshare operators to introduce additional fixed car share spaces in Balmain East	n/a	Medium
6	Development of Parking Hierarchy	All streets within Balmain East	Low
7	Replacement of redundant, faded, damaged signs	Streets identified in the signage audit within study area.	Medium
Long term (5+ years)			
Item no.	Description	Streets affected	Priority
8	1P or 2P 8am-6pm Mon-Fri, 8am-1pm Sat (no permit exceptions), 2P 6pm-10pm Mon-Fri Permit Holders Excepted area BE. Existing Bus Zones, Motorbike parking and Mobility Impaired spaces will remain.	Darling Street	High
9	Changes to boat trailer parking management consistent with other areas within Inner West LGA	Streets with historical boat trailer issues	Low
10	Introduction of permit pricing on second residential permit	All streets with RPS in Balmain East	Low
11	Introduce residential permit parking in Gallimore Avenue carpark (corner of Brett Avenue and Gallimore Avenue)	Gallimore Avenue	Low
12	Transition to Permit zone type A within Balmain East (Household without any on-site parking spaces, is eligible for one parking permit, transferrable up to three nominated vehicles registered to that address. Households with one or more spaces are not	All streets with RPS in Balmain East	Low

	eligible for permits)		

CONSULTATION

Council posted 1,550 letters to residents, businesses, organisations and institutions, inviting to participate an online questionnaire through YourSay Inner West on parking in the precinct. Members of the public were given the option to request a paper-based copy of the questionnaire.

A total of 369 submissions were received, reflecting a 23% response rate with the main findings listed below:

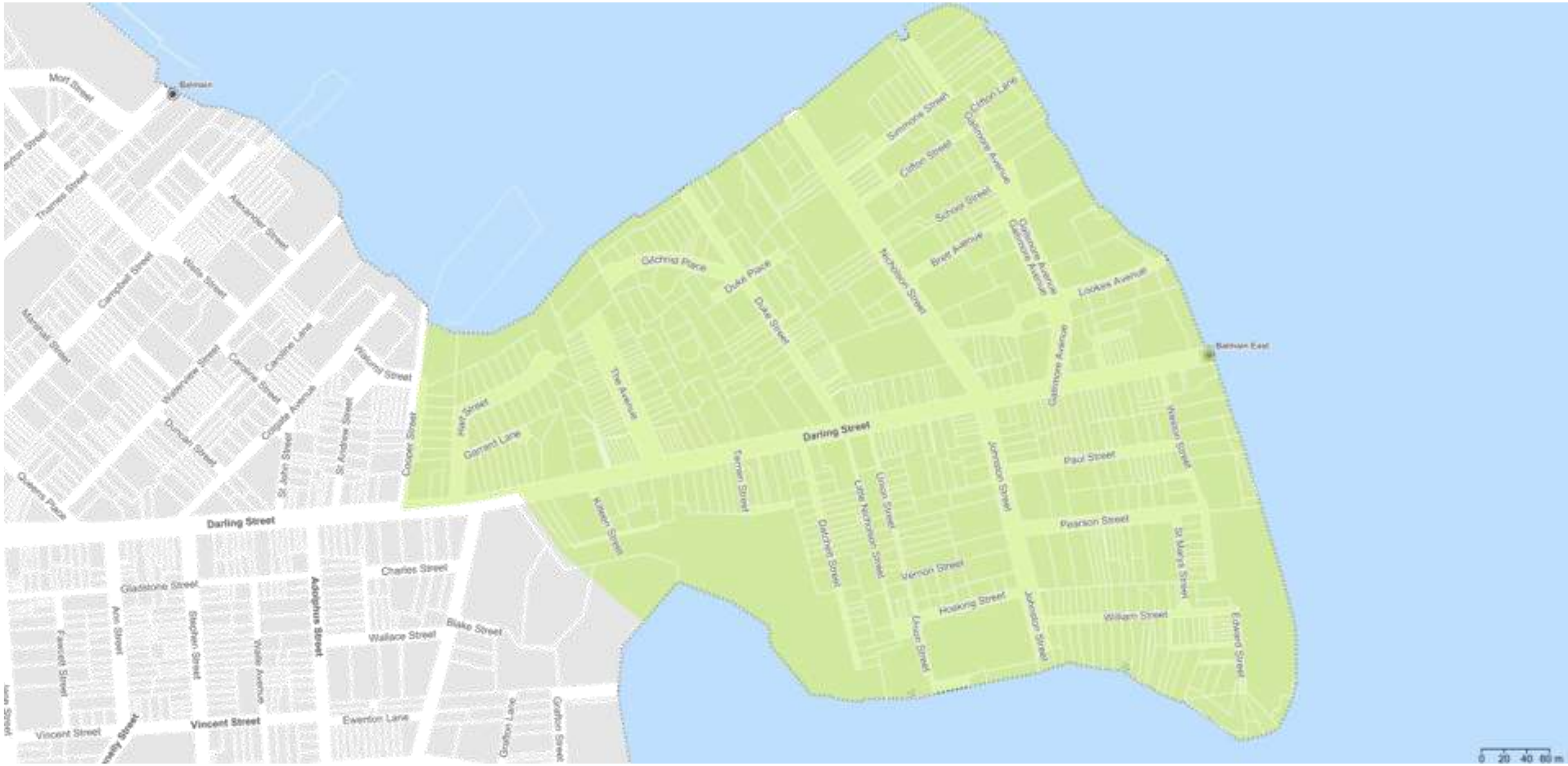
- Good support for resident parking permits to only those residents without any off-street parking or in a manner that can be purchased by residents on an as-needed basis.
- There was also good response to retain status quo.
- There was a high level of support to deter commuter parking via weekday business hour time restrictions, which is how the existing BE RPS scheme operates.

FINANCIAL IMPLICATIONS

The cost to implement the Balmain East Parking Management Strategy will be funded from Council's traffic facilities budget, subject to Local Traffic Committee support and adoption by Council. Subsequent reports during implementation the Strategy will provide estimates on signage and administrative costs to expand the resident parking permit scheme if required.

ATTACHMENTS

1.⇩ Balmain East Precinct Study Area
2.⇩ Balmain East Draft Parking Strategy Map
3.⇩ Balmain East Precinct Parking Study


Darling Street
Nicholson Street
Johnston Street
Paul Street
Pearson Street
William Street
Vernon Street
Hosking Street
Union Street
Duke Street
Duke Place
Gilchrist Place
Lookes Avenue
School Street
Clifton Street
Simmons Street
Little Nicholson Street
Datchett Street
Kittson Street
Ternan Street
The Avenue
Weston Street
St Marys Street
Edward Street
Charles Street
Gladstone Street
Wallace Street
Blake Street
Vincent Street
Ewenton Lane
Adolphus Street
Cooper Street
St John Street
Campbell Street
Thames Street
Darling Street
0 20 40 80 m

Balmain East Precinct Parking Study
Draft Parking Strategy 2020

Short term (0-5 years)

Item no.	Description	Streets affected	Priority
1	Inclusion of additional properties in Clifton Lane to RPS (these properties will be limited to 1 BE permit only)	Simmons Street	High
2	2P 8am-10pm Permit Holders Excepted area BE RPS expansion in Darling Street between Duke Street and The Avenue (this new section will be limited to 1 BE permit and 1 visitor permit per property). Existing Bus Zone, Mobility Impaired Space and No Parking zones will remain.	Darling Street (between Duke Street and The Avenue)	High
3	Reduction of 6m length No Parking zone in east side of Gallimore Avenue, 30m north of Darling Street.	Gallimore Avenue	High
4	Parking management in Jubilee Place. Angle parking opposite Police Marine Area Command to be time limited 4P 8am-6pm Mon-Fri, subject to NSW Police Marine Area Command dedicating Jubilee Place to Council as a public road.	Jubilee Place	High
5	Work with carshare operators to introduce additional fixed car share spaces in Balmain East	n/a	Medium
6	Development of Parking Hierarchy	All streets within Balmain East	Low
7	Replacement of redundant, faded, damaged signs	Streets identified in the signage audit within study area.	Medium

Long term (5+ years)

Item no.	Description	Streets affected	Priority
8	1P or 2P 8am-6pm Mon-Fri, 8am-1pm Sat (no permit exceptions), 2P 6pm-10pm Mon-Fri Permit Holders Excepted area BE. Existing Bus Zones, Motorbike parking and Mobility Impaired spaces will remain.	Darling Street	High
9	Changes to boat trailer parking management consistent with other areas within Inner West LGA	Streets with historical boat trailer issues	Low
10	Introduction of permit pricing on second residential permit	All streets with RPS in Balmain East	Low
11	Introduce residential permit parking in Gallimore Avenue carpark (corner of Brett Avenue and Gallimore Avenue)	Gallimore Avenue	Low
12	Transition to Permit zone type A within Balmain East (Household without any on-site parking spaces, is eligible for one parking permit, transferrable up to three nominated vehicles registered to that address. Households with one or more spaces are not eligible for permits)	All streets with RPS in Balmain East	Low

Area denotes existing BE permit zone

Balmain East Precinct Parking Study

Inner West Council
Draft Report

Prepared by: GTA Consultants (NSW) Pty Ltd for Inner West Council
on 20/07/2020
Reference: N184030
Issue #: A-Dr4

GTAconsultants

Balmain East Precinct Parking Study

Inner West Council
Draft Report

Client: Inner West Council

on 20/07/2020

Reference: N184030

Issue #: A-Dr4

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A-Dr	06/04/20	Draft	G. Cheng, Z. Abbasi	A. Leung	V. Buhl	
A-Dr2	14/05/20	Updated Draft	G. Cheng, Z. Abbasi	A. Leung	V. Buhl	
A-Dr3	03/07/20	Updated Draft	G. Cheng, Z. Abbasi	A. Leung	V. Buhl	
A-Dr4	20/07/20	Updated Draft	G. Cheng, Z. Abbasi	A. Leung	V. Buhl	

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CONTENTS

Figures

Tables

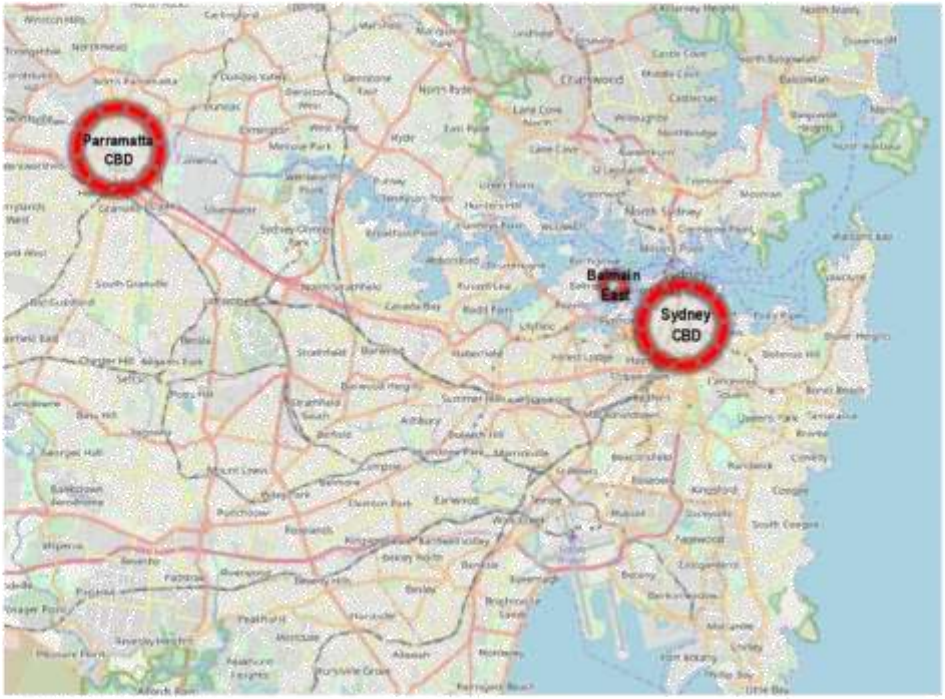
1. INTRODUCTION

1.1. Project Background

Balmain East is a precinct in the Inner West Local Government Area of the Sydney Metropolitan Area and is approximately three kilometres west of the Sydney CBD and 18 kilometres east of Parramatta CBD. The precinct is situated on the eastern end of the Balmain peninsula in Sydney Harbour and shares a boundary with the suburb of Balmain to the west.

Balmain is predominantly a residential suburb with a mix of single dwellings and low-density multi-storey unit blocks, with a small shopping strip on Darling Street and foreshore areas which have been redeveloped into open domains. The study area mainly consists of residential streets with Darling Street being the only connection going in and out of the peninsula. Public transport options comprise bus services along Darling Street and ferries from Balmain East Wharf.

Figure 1.1: Balmain East within the Sydney Metropolitan Area



Basemap Source: OpenStreetMap

The Balmain East precinct incorporates a range of major developments, consisting of commercial areas, public infrastructures and foreshore redevelopment.

The trip generators for the precinct include:

- Residential dwellings
- Balmain East shopping village
- Schools such as Nicholson Street Public School
- NSW Police Marine Area Command
- Balmain East Wharf
- Various industrial units and places of employment along the northern foreshore
- Parks and informal sports facilities.

Inner West Council has requested a review of the overall parking situation within the Balmain East Precinct as a basis for determining a parking management strategy and has commissioned GTA Consultants (GTA) to undertake a review of parking within the Balmain East precinct and to develop a strategy that sets forward how parking will be provided and managed in the future.

1.2. Purpose of the Study

The objectives of the project are:

- To review parking within Balmain East precinct, looking at location, supply, demand and distribution of both long-stay residential and short-stay commercial parking as well as any evidence of long-stay commuter parking, as the basis for determining future car parking requirements. This includes considering on-street and private off-street parking and undertaking community consultation and working with stakeholders to understand community views in relation to parking in the study area.
- To review state and local parking strategies and policies including Council's Development Control Plan parking rates for Balmain East associated with new development.
- To undertake a parking supply and demand assessment and report of parking in Balmain East. Develop an inventory of existing on-street and off-street parking identifying the parking regulations associated with this parking. Survey the parking demand of on-street and off-street parking areas to identify long and short-stay parking requirements.
- To develop a Balmain East Parking Management Strategy considering Council's strategies and plans, community views, parking demand and supply, existing active transport (walking and cycling) and public transport (bus and ferry), to improve ease of access to parking.
- To identify any discrepancies in parking policies and restrictions within Balmain East under Inner West Council and identify opportunities for standardisation.

1.3. What is Parking

Before developing a set of parking strategy principles and objectives, and how these integrate with overall transport objectives, we must have a comprehensive understanding of what parking is.

As a general rule, land uses generate and attract visitors, customers, staff and/or residents resulting in economic activity. A by-product of access to these land uses is, in its simplest form, a "trip". Trips can be made by a variety of methods including, but not limited to, walking, cycling, public transport and/or the private motor vehicle.

Where does car parking enter this equation? Car parking provides an end-of-trip facility for the private motor vehicle mode.

1.4. Types of Parking

The type of land use has differing levels of attractiveness (i.e. trip generation) and therefore has different requirements for car parking. Different uses also have different user bases and in turn different needs in regard to their required length of stay. Accordingly, different types of car parking are required (for example, pick-up/drop-off parking requires 5 to 15 minutes, short-stay parking requires one to three hours and long-stay parking is required over four hours or all day to satisfy differing needs. In a setting such as the local centre in Balmain East, a parking event can serve a number of trip purposes and a single space can be shared between a number of users over the course of the day due to the different temporal patterns of land uses. While in residential areas, a single space can only be shared between a limited number of vehicles as long-stay parking is prevalent among residents and potentially is also used by commuters accessing the ferry at Balmain East.

With consideration of the above, it is important to prioritise the demands of short-stay commercial user groups within the commercial village environment in Balmain East while limiting long-stay conflicting user groups that may arise from commuters. While in the residential area, it is important to have a sufficient amount and prioritisation of car parking relative to resident demands in the area, while limiting the needs and demand of conflicting user groups that car parking will have on the residential streets.

1.5. The Balmain East Context

In this context then, it is important that car parking within Balmain East be managed to:

- Recognise that the parking space does not attract people; it is the destination that attracts people and parking is only a by-product.
- Prioritisation of demand from different user-groups, specifically the parking demand from residents, commuters and workers on residential streets and commercial user-groups within the local commercial core.
- Balance demand for commuter parking and residential parking specially nearby to the Balmain East Wharf.
- Standardise the previous different parking permits format applied to the study area as a result of amalgamation of different council jurisdictions.

2. EXISTING CONDITIONS

2.1. Planning Context

In preparing this report, relevant policies and guidelines applicable to the Balmain East precinct were explored, which include both the still in effect *2013 Local Environmental Plan* (LEP 2013) and *2013 Development Control Plan* (DCP 2013), developed by the former Leichhardt Council and the recently published *Inner West Integrated Transport Strategy* (ITS) by Inner West Council. In addition, the *Permit Parking Guidelines* (October 2018) developed by Roads and Maritimes Services (now Transport for NSW (TfNSW)) are referenced as the official guidelines in permit parking designs to better understand the context and design parameters of permit parking schemes and how it can be utilised in a parking management strategy. This guideline is discussed further in sub-section 2.1.1.

Inner West Council also recently released a *'Draft Public Domain Parking Policy'* which is under Council review following community consultation. A summary of the draft policy is discussed in sub-section 2.1.2, which examines how public parking is managed throughout the Inner West LGA and brings together the different management approaches adopted by the former constituent councils of Inner West Council.

2.1.1. Permit Parking Guidelines - Road and Maritime Services

The *Permit Parking Guidelines* is a document that sets out criteria and guidelines for designing, implementing and administering permit parking schemes in NSW from the former Roads and Maritime Services and was last updated in October 2018.

Permit parking schemes help to improve amenity for particular classes of road users in locations where there is insufficient off-street parking and where on-street parking is limited. Permit parking also helps to balance the needs of the local community with those of the broader community in high demand areas.

There are six classes of permit parking scheme prescribed in clause 95 of the Road Transport (General) Regulation 2013, including:

- business
- commuter
- resident
- resident's visitor
- special event
- declared organisation.

According to the guideline, if local councils propose to establish a permit parking scheme, it must comply with the Regulation and this mandatory guideline. In the case of Balmain East, a key part of this study will be to investigate whether existing schemes need to be amended and whether other types of permits are warranted (e.g. commuter permits).

The guideline expresses the eligibility criteria for all permit schemes and the six classes of parking permits, with the relevant general criteria and specific criteria for the context of Balmain East summarised below.

EXISTING CONDITIONS

Eligibility criteria and other features common to all permit parking schemes

- high demand for parking in the area
- inadequate off-street parking and no potential to modify premises or create off-street parking
- little or no unrestricted on-street parking close by
- vehicle is not a truck, bus, or trailer (boat or caravan)
- parking authorities have discretion over the total number of permits issued in their area of operations and how they will distribute these permits across the relevant classes of permit parking schemes.

Resident parking permits

- the number of permits issued for an area should not exceed the number of available on-street parking spaces in the area
- a maximum of one permit per bedroom in a boarding house, or two permits per household. In exceptional circumstances, the number of permits may be increased
- when issuing permits to eligible residents who have off-street parking, the number of permits which may be issued is the difference between the maximum number per household in the scheme and the number of off-street spaces available to the household
- where the number of requests for permits exceeds the number of available on-street parking spaces, only residents who do not have access to unrestricted parking along their kerbside are eligible to apply for a resident parking permit. Applications should be prioritised as follows:
  - no off-street parking space
  - one off-street car space
  - two or more off-street car spaces.

Commuter parking permits

Commuter parking schemes are established to encourage people to use public transport. They can only be established after a 12-month commuter parking trial.

Commuter parking permits may be issued as follows:

- one permit per commuter
- the parking authority should ensure there is a reasonable chance the commuter will find a parking space within the commuter permit parking area.

Resident's visitor parking permits

Residents may apply for visitor parking permits so their visitors can park within the permit area without time or fee restrictions.

- there is no off-street visitor parking at the resident's address
- there are no unrestricted on-street parking spaces in front of the residence or along the kerbside
- the parking authority may offer long-term and/or short-term visitor parking permits.

2.1.2. Draft Public Domain Parking Policy

On-street parking and Council managed car parks across Inner West Council currently operate under different policies from the former Leichhardt, Marrickville and Ashfield Councils. However, since the amalgamation there has been an absence of a unified parking management policy to manage public parking throughout the Inner West LGA.

To this end, Inner West Council prepared the *Draft Public Domain Parking Policy* which sets out a governing framework for the investigation, development, implementation and ongoing management of parking schemes and controls in the public domain including on-street parking and council managed car parks. The draft Public Domain Parking Policy proposes one consistent approach across all the Inner West.

The Policy draft covers several areas of parking management including permits for residential and commercial areas, timed parking restrictions in commercial areas, exceptions (such as Mobility Parking Scheme Permits), paid parking, authorised vehicle zones, taxi zones, and more. Relevant elements of this draft policy to Balmain East are explored below.

Resident Parking Permits

Resident parking permits enable eligible residents, who do not have sufficient on-site parking, to park on-street and avoid time limits and parking fees.

A resident parking permit is issued for a vehicle of an eligible resident provided the property does not have on-site parking available for that vehicle.

The maximum number of permits issued to any one rateable property will not exceed the following limits:

Zone Type A

- A household in Zone Type A, without any on-site parking spaces, is eligible for one parking permit.
- The one permit will be transferable for use on up to three nominated vehicles registered to that address.
- Each room of an eligible boarding house will be treated as a separate dwelling eligible for one resident parking permit.
- No permits will be issued to households with one or more on-site parking spaces.

Zone Type B

- A household in Zone Type B, without any on-site parking spaces, is eligible for up to two parking permits.
- Each room of an eligible boarding house will be treated as a separate dwelling eligible for one resident parking permit.
- A household with one on-site parking space is eligible for one parking permit for a second vehicle.
- No permits will be issued to households with two or more on-site parking spaces.

The existing resident permit parking scheme in Balmain East is operating as Zone B.

Visitor Parking Permits

Visitor parking permits enable residents' visitors to park on-street and avoid time limits and parking fees for the period of operation of the permit. Visitor permits are issued for residential properties only.

Such visitor permits will be single use, one-day permits. The annual allocation of visitor permits for eligible households will be up to 30 one-day permits.

2.1.3. Relationship between *Permit Parking Guidelines* and *Draft Public Domain Parking Policy*

Both the Roads and Maritime guideline and Inner West Council policy follow a similar philosophy of prioritising distribution to households with no available off-street parking. The Roads and Maritime guideline is more standardised with a fixed allocation of one per bedroom or two per household, capped by the maximum available on-street parking space.

The Inner West Council provision is varied with permits allowance based zonally, where Zone Type A has stricter criteria while also providing fewer on-street parking spaces per household. These Zones have not yet been defined by the policy. The Council also has specific rules regarding different types of development of which specific types will be excluded from the schedule depending on the area of the LGA. There are no clauses within the policy on limiting total number of permits issued in regard to the quantum of available parking spaces on a street. Accordingly, as the policy is silent on this limit, it is expected that the issuance of resident parking permits should not exceed the cap set by the Roads and Maritime guideline, that is, the maximum available on-street parking spaces on a street.

2.2. Study Area

2.2.1. The Study Area

The Balmain East Parking Study area is positioned at the north eastern end of the newly formed Inner West Council, which merged from the three councils of Ashfield, Leichhardt and Marrickville in 2016; Balmain East having been within the jurisdiction of former Leichhardt Council. The area generally comprises of a combination of residential units and homes, a small shopping strip at the crest of Darling Street hill and some commercial/industrial sites at the northern part of the suburb. There are also redeveloped industrial sites and much of the foreshore lands were converted to open space. The study area includes Balmain East Wharf, which was upgraded in 2015 to improve ferry services. This parking study area is bounded within the Balmain Peninsula east of Cooper Street and Jubilee Place as shown in Figure 2.1.

EXISTING CONDITIONS

Figure 2.1: Balmain East study area

2.2.2. Key Streets and Sites

The study area comprises a few key streets and sites that greatly affect the dynamics of the precinct and how the area functions. Figure 2.2 identifies two major streets and 12 key places of interest that play a vital role in the study area and these are further detailed in Table 2.1.

EXISTING CONDITIONS

Figure 2.2: Key streets and sites within the Balmain East Precinct

Table 2.1: Key streets and sites within the Balmain East Precinct

Reference	Key Streets	Description
A	Darling Street	Main thoroughfare and high street of Balmain East and a noted café and restaurant strip. The main local road is aligned east-west and has both residential and commercial activities.
B	Nicholson Street	Main local collector road aligned north-south with commercial and residential uses.
1	Balmain East Wharf	Having operated since 1840, it is served by Sydney Ferries' Cross Harbour route operating between Pyrmont Bay and Watsons Bay via Barangaroo. Balmain East wharf is also served by weekday and Saturday evening Parramatta River services from Sydney Olympic Park.
2	Balmain East shopping village	Located in the heart of Balmain East with Darling Street being the main core of commercial activity. The area comprises of local shops, cafes, restaurants, and a hotel.
3	Nicholson Street Public School and Balmain East Out of School Care	Nicholson Street Public School with 150 students.

Reference	Key Streets	Description
4	NSW Police Marine Area Command	Located at south west of Balmain East at the end of Jubilee Place, the NSW Marine Area Command has the responsibility for all coastal areas in NSW.
5	Illoura Reserve	Located on the eastern shoreline of Balmain, Illoura Reserve looks directly at Barangaroo Reserve and is situated next to Balmain East Ferry Wharf.
6	Lookes Avenue Reserve	Located at the end of Lookes Avenue (east of Balmain East). A small local park with good views of the western side of Sydney Harbour Bridge. Free entry and opening times from 8am to 1:30am.
7	Simmons Point Reserve	Located at the north east of the area. A small local park with views of the western side of Sydney Harbour Bridge. Opening hours from 10am to 1:30am.
8	Origlass Park	Located at the centre of the area and is open 24 hours. Has three walkway accesses with no car access.
9	Propeller Park	Also referred to as The Avenue. It is an open space along the foreshore with views out to Sydney Harbour. Located at the north west of the area.
10	Svitzer Australia Pty Ltd	A company located at the north west corner of the area with transportation services providing harbour towage, terminal towage, and emergency response in the sea.
11	Water Wharf Workshops	Waterview Wharf Workshops is a heritage-listed former shipping company workshops at 37 Nicholson Street, Balmain.
12	Commercial Building	The commercial building includes some different business premises in located North side of Nicholas Street. The operation time for the business are from 9:00am to 5:00pm.

2.2.3. Public Transport

The precinct is well covered by public transport including bus and ferry providing access to the Sydney CBD. The Balmain East ferry wharf located in the east of the precinct provides access to the Inner Harbour ferry services, with ferry services to Circular Quay and Darling Harbour.

There is one bus service that leaves from Balmain East, Route 442, which is a frequent bus service from Balmain East to the Queen Victoria Building in the Sydney city centre.

EXISTING CONDITIONS

Figure 2.3: Public Transport Map within the Precinct

Source: https://transportnsw.info/

Table 2.2: Public transport within the Precinct

Service	Route Number	Route Description	Frequency On/Off-Peak
Bus	442	City QVB to Balmain East Wharf (Loop Service)	6 per hour peak/ 6 per hour off-peak
Ferry	F4	Cross Harbour	2 per hour peak/2 per hour off-peak
	F3	Circular Quay	2 per hour peak/ 2 per hour off-peak

2.3. Existing Travel Behaviour

2.3.1. Journey to Work

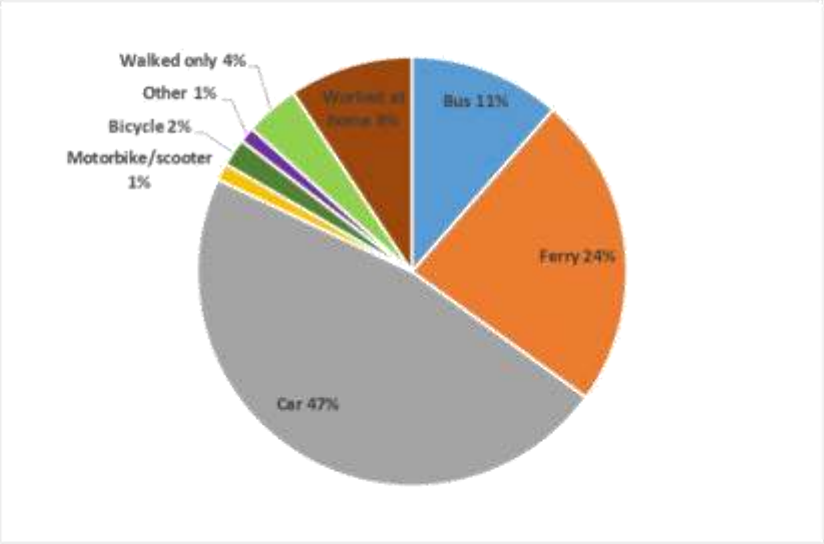
The 2016 Census Statistical Areas 1 (SA1) that make up the Destination Zones (DZ) covering the study area for the purpose of a journey to work mode share analysis are shown in Figure 2.4.

Figure 2.4: Boundary of the relevant SA1s in the study area

Source: https://itt.abs.gov.au/itt/r.jsp?ABSMaps

As indicated in Figure 2.5, residents in the relevant SA1s have a high non-car journey to work mode share of 53 per cent. This high non-car mode share is likely a result of the SA1s' close proximity to the Balmain East Wharf and the bus route 442 providing frequent services to the major employment centre in Sydney CBD.

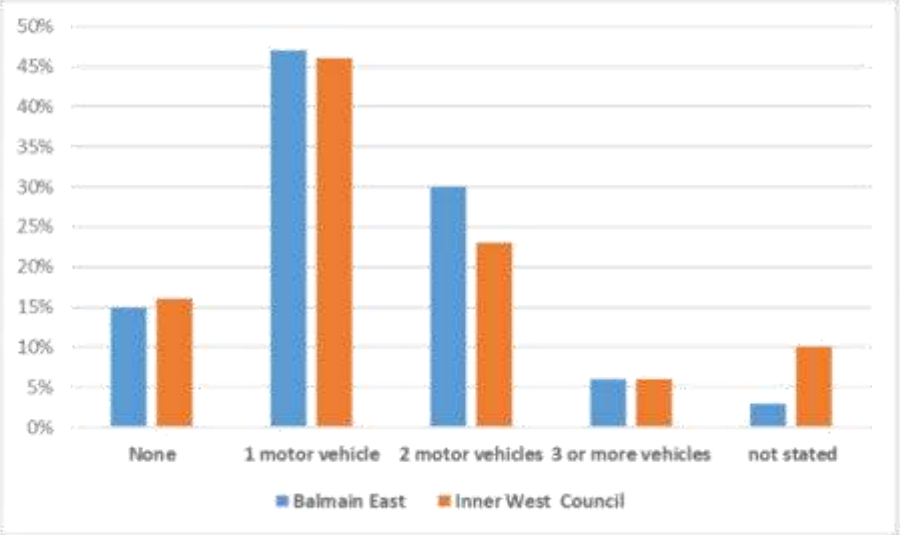
Figure 2.5: Journey to work mode share for residents in the relevant SA1s



2.3.2. Car Ownership

Based on the 2016 Census, the suburb of Balmain East has 15 per cent of households not owning a motor vehicle and 47 per cent of households owning one car. Figure 2.6 shows that this percentage of zero car ownership and one-car ownership is consistent with that of the entire Inner West Council area while the rate of ownership of two cars in Balmain East is higher than Inner West at-large. This indicates that the suburb of Balmain East is comparably more dependent on private vehicles as a method of travel, which is also reflected in the overall rate of car ownership of 1.3 vehicles per household in Balmain East compared to 1.2 vehicles per household in the overall Inner West Council area. This slightly higher car ownership rate may be due to Balmain East's location at the end of a peninsula that is relatively isolated from other parts of the Inner West and Greater Sydney, despite the strong public transport access to the city centre (which represents only one of many possible destinations).

Figure 2.6: Percentage of vehicle ownership



Source: https://quickstats.censusdata.abs.gov.au/

2.4. Local Car Sharing Initiatives

Car share schemes have become increasingly common throughout Sydney and are now recognised as a viable transport option for drivers. They offer an alternative to the private car and are of benefit to the residents of the area. Car share forms an integral part of the ongoing transformation of the Inner West to reduce vehicle ownership of existing and future residents, especially as a second vehicle. This is crucial for areas gravitating towards high-density living where on-site car parking typically does not support ownership of more than one vehicle.

GoGet car share has three car share pods within the Balmain East area as shown in Figure 2.7 but this amount is generally limited compared to other suburbs in the Inner West LGA due to the absence of major employment activities and medium to high density residential developments in this suburb.

Car Next Door is a peer to peer car sharing businesses where car owners are able to rent out their car when it is not being used at a time-based rate. Given its crowdsourcing nature, there is no permanent fleet established in Sydney in the same manner as GoGet. However the Car Next Door website indicates there are vehicles available for hire in the Balmain East study area.

Figure 2.7: Go-Get car share pods in the Balmain East Precinct

Source: Go-Get Cars (www.goget.com.au)

2.5. Parking Supply and Conditions

2.5.1. Background to Parking in Balmain East

Parking in Balmain East principally comprises on-street parking on residential streets with the exception of small pockets of time-restricted parking along the small shopping strip on Darling Street in the centre of Balmain East, as well as pockets of public off-street parking as documented in Figure 2.2.

2.5.2. Parking Supply within Balmain East

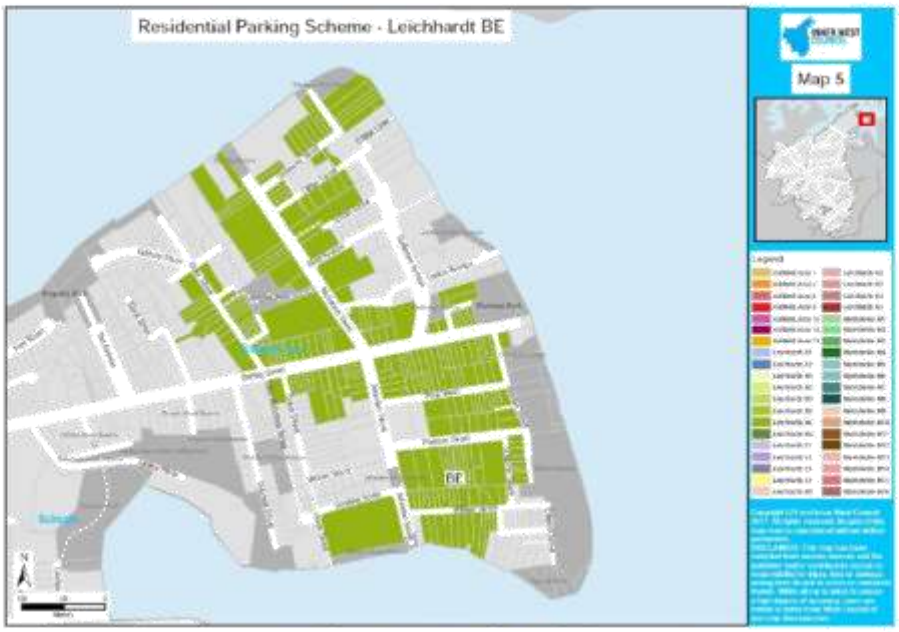
Figure 2.8: Balmain East Parking Restrictions Map

BE – "8am-6pm / Permit holders excepted Area A BE" or "8am-10pm / Permit Holders Excepted Area BE"

Figure 2.8 shows an overview of the parking restrictions in Balmain East. The on-street parking in the eastern half of the suburb is predominantly subject to the 'BE' resident permit parking zone, exempting holders of a resident parking permit from the prevailing two-hour time restriction (refer to the sub-section below). The remaining streets as shown in Figure 2.8 have unrestricted parking, with small pockets of time-restricted parking near the shops on Darling Street and elsewhere in the suburb. A small selection of disabled parking spaces is available across the study area in both residential and commercial areas.

2.5.3. Resident Parking Scheme

Figure 2.9: Residential Parking Scheme – Leichhardt BE



Source: Inner West Council (https://www.innerwest.nsw.gov.au/live/information-for-residents/parking/permit-parking) (March 2020)

The BE residential parking scheme in the Balmain East study area is depicted in Figure 2.9. As mentioned earlier in the preceding sub-section, the BE zone allows holders of a resident parking permit to be exempt from the prevailing two-hour time restriction, which is a 2P restriction from Monday to Friday from 8am to 6pm. Resident parking permits are currently issued to residents living in the properties shown in Figure 2.9, with a maximum of two permits issued to a household if there is no off-street parking and two or more vehicles are registered to a property. These permits are free of charge to eligible residents.

2.6. Parking Demand

2.6.1. Parking Surveys

The on-site parking surveys were conducted on Saturday, 15 February and Wednesday, 19 February 2020. The overall survey extent is the same as the study area as shown earlier in Figure 2.1. The parking survey included all Council-controlled on-street and off-street parking available to the public and involved the following tasks:

- Parking inventory collection
  - Inventory of parking capacity and restrictions
  - Parking signage audit comprising photographs and GPS coordinates of all signs.
- Parking Occupancy and duration of stay/turnover rate surveys
  - Two-hourly interval (Wednesday, 8am to 8pm)
  - Two-hourly interval (Saturday, 10am to 2pm).

2.6.2. Survey Analysis

Occupancy

The reported 'average peak' parking occupancy rate in this study is expressed as the mean of the four highest hourly occupancies, irrespective of when those highest occupancies occurred. This metric is known as 'average peak occupancy' and GTA uses this method to offset any outliers of extremely high demand as well as avoiding being solely focused on the peak hour of occupancy. This method is a more realistic measure of an occupancy rate that road users can expect throughout the day rather than at one specific hour.

The Saturday parking data, having only three observations, was compiled and calculated as an average instead.

The occupancy rates are subsequently grouped into three different categories, they are as below:

- **0%-69%**, these parking spaces are regarded as low usage, where car parks are sparsely occupied, and customers are expected to find a parking spot at first instance.
- **70%-89%**, these parking spaces are at an optimal utilisation level where it has a high degree of utilisation indicating the kerbside space or land allocated to parking are not underused but there are enough spaces available for drivers to be able to find a parking space without circling around.
- **90%+**, these car parks are almost if not already at full capacity and drivers will struggle to find any available spaces in the first instance, leading to localised cruising for parking and consequent congestion.

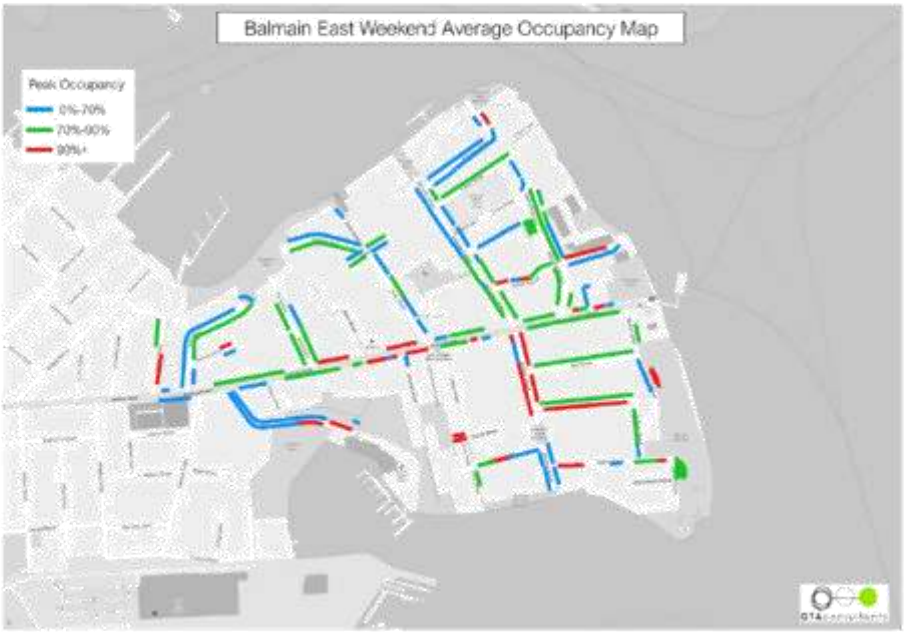
The weekday average peak and weekend average parking occupancies from the parking surveys are shown in Figure 2.10 and Figure 2.11.

EXISTING CONDITIONS

Figure 2.10: Weekday average peak occupancy

As shown in Figure 2.10, there is evidence of high average peak occupancies on the surveyed weekday, reaching or exceeding 90 per cent along streets with residential permit parking restrictions such as Nicholson Street, Darling Street and Johnston Street. Farther away from the centre of Balmain East, the average peak occupancy declines to an optimal range of between 70 to 90 per cent on streets closer to the edges of the study area and the Balmain peninsula.

Figure 2.11: Weekend average occupancy



As shown in Figure 2.11, weekend average occupancies are discernibly lower than those of the surveyed weekday with only selected street segments exhibiting average occupancies of or over 90 per cent. The remainder of the study area's weekend average occupancy ranges between 70 and 90 per cent on streets closer to the centre of Balmain East while average occupancies are below 70 per cent on streets near the edges of the study area and the Balmain peninsula.

A potential explanation between the differences in the weekday and weekend occupancies is that on the weekday, residents leave their cars parked on-street while they go to work using other transport modes, while on the weekend more residents take their cars out for weekend excursions which reduces the average occupancy. Moreover, it is more likely there is commuter parking on a weekday than the weekend, which also contributes to the higher occupancies on the weekday.

Duration of stay

Duration of stay is evaluated by recording the total dwell time of all surveyed parked vehicles. Over the entire survey period, the durations of stay for all individual vehicles surveyed are averaged to derive an average duration of stay calculation for every street. The average duration of stay metric is useful for understanding the characteristics of the intended parking purpose of users. Short-stay parking is defined as a parking duration of less than three hours while any duration of three hours or more is long-stay parking. Short-stay parking could encompass people visiting residents or the local shops while long-stay parking could comprise residents' parking, commuter parking or staff parking from nearby places of employment. The weekday and weekend average durations of stay are displayed in Figure 2.12 and Figure 2.13.

EXISTING CONDITIONS

Figure 2.12: Weekday average duration of stay

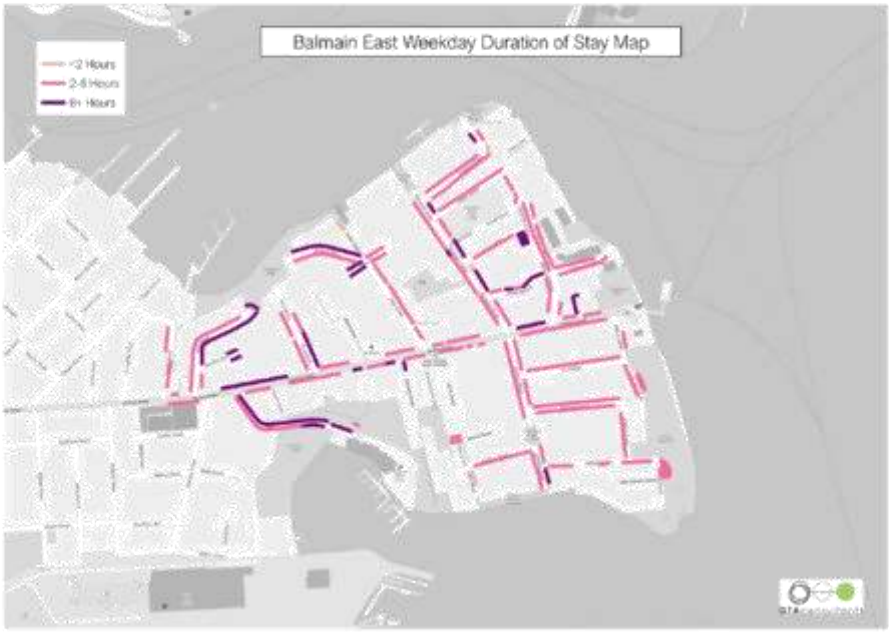


Figure 2.13: Weekend average duration of stay

EXISTING CONDITIONS

As most of the Balmain East study area comprises unrestricted parking or residential permit parking within residential streets, the average durations of stay observed for the surveyed weekday and weekend are principally greater than three hours with some streets exhibiting average durations of stay greater than eight hours also observed on the weekday, which constitutes long-stay parking. It is not known whether there were average durations of stay greater than eight hours on the surveyed weekend since the survey period only lasted four hours.

Notwithstanding the predominance of long-stay parking as shown in Figure 2.12 and Figure 2.13, short-stay parking was observed primarily in the weekend near the shops on Darling Street as well as near Illoura Reserve and Thornton Park at the eastern edge of the study area beside Balmain East wharf.

Turnover Ratio

Turnover is the total number of individual cars occupying a certain parking space or street of parking spaces over a defined survey period. High turnover indicates more parking activity at a location (e.g. more customers accessing on-street parking to go to the shops) while low turnover indicates very few individual cars park at a location during a survey period due to an absence of attractors that generate visitation.

Relying on turnover data alone will induce biases due to spatial variances in parking capacity where streets with a high capacity could result in higher turnover despite having a relatively low occupancy rate. To address this bias, GTA uses the turnover ratio metric to appraise how frequent a street is used by parking users during a survey period in relation to that street's parking capacity. This ratio is calculated by dividing the number of individual cars parked on a street on the survey day by the parking capacity.

The weekday and weekend turnover ratios are displayed in Figure 2.14 and Figure 2.15.

Figure 2.14: Weekday turnover ratio

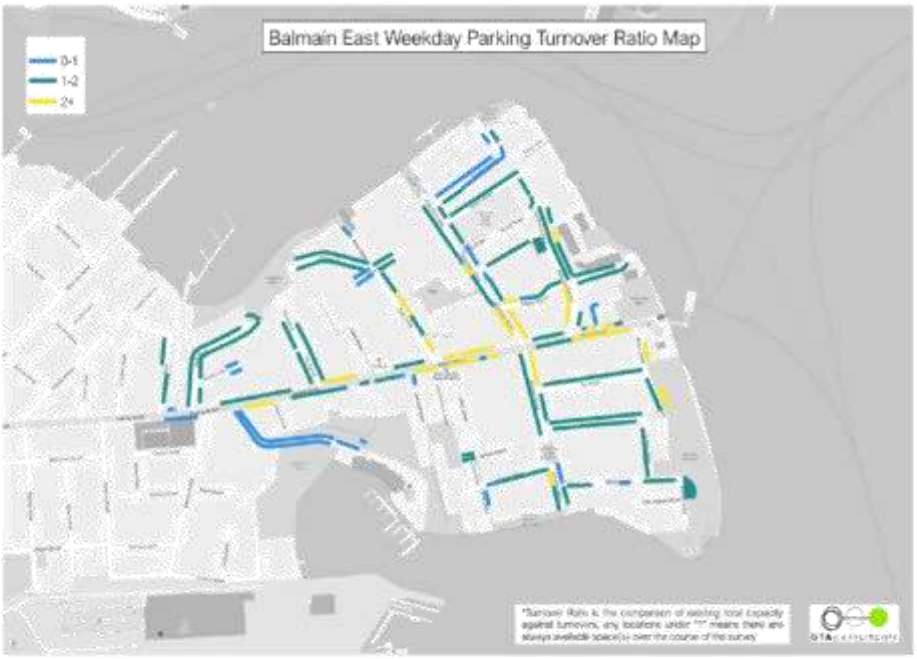


Figure 2.15: Weekend turnover ratio

The turnover ratios observed in Figure 2.14 and Figure 2.15 are higher during weekdays especially along Darling Street where there is some retail and hospitality activity attracting more than twice as many cars compared to parking supply over the weekday survey period. The residential streets elsewhere on the weekday have a ratio less than two, indicating a low level of demand over the course of the day in relation to capacity. This likely means that these streets do not attract many individual vehicles other than those that usually park there such as residents' vehicles.

On the weekend, the turnover ratio is demonstrably lower than the weekday with many more streets having a ratio of less than one. This suggests that in conjunction with the lower occupancies on a weekend, as residents take their car out for weekend excursions, there is a low level of replacement from other individual vehicles on the weekend and there is higher parking availability and lower usage compared to the weekday.

2.6.3. Accessible Parking Spaces

As observed in Figure 2.8, disabled parking spaces are sporadically spread across Balmain East, and a total of 11 parking spaces comprising both on-street and off-street spaces were counted during the survey. The average peak occupancy for these accessible parking spaces was 64 per cent during the weekday while it is 43 per cent for the weekend. Based on the analysis provided in sub-section 2.6.2, occupancy rates for accessible parking in Balmain East are considered to be low with a high degree of availability.

An average duration of stay of 6 hours and 12 minutes was observed for vehicles parked within the disabled parking spaces during the weekday survey, which is considered as long-stay parking and is supported by an average turnover ratio of 1.1 over the same survey period. Consequently, accessible parking use in Balmain East is characterised by long-stay and low turnover parking, albeit at a level that does not cause high parking occupancy levels.

2.6.4. Boat Trailer Surveys

As part of the conducted surveys, the presence of boat trailers parked on-street was also recorded to inform Council whether this occurrence is prevalent in the study area. For example, if boat trailer parking was found to be ubiquitous in Balmain East, resulting in boat trailers taking up the premium of kerbside space that could otherwise have been used for on-street parking or other uses, then Council could use this evidence to inform future policy approaches to manage boat trailer parking.

To that end, the results of the survey for boat trailer parking across the same survey days are shown in Figure 2.16 and Figure 2.17 below.

Figure 2.16: Weekday boat trailer parking

Figure 2.17: Weekend boat trailer parking

As shown, scant boat trailers were observed during the surveys, with a total of three boat trailers observed on the weekday and the weekend both confined to Jubilee Place and Edward Street. Based on Figure 2.16 and Figure 2.17, it is concluded that boat trailer parking is not an ubiquitous phenomenon in Balmain East.

2.6.5. Demand Implications

Based on the results of the preceding occupancy, duration of stay, turnover and boat trailer parking analysis, the following conclusions can be made about parking demand characteristics in Balmain East:

- Average peak parking occupancies in Balmain East are high on the weekday (at or over 90 per cent) in the central core of streets subject to the BE residential parking permit zone such as Darling Street, Nicholson Street and Johnston Street, but occupancies taper off in the residential streets closer to the edges of the study area and Balmain Peninsula to a level that ensures outside visitors have a chance to find parking without circling around.
- On the weekend, occupancies taper off compared to the weekday, suggesting more residents are taking their cars out for excursions, leaving more on-street parking capacity available. Conversely, more residents leave their cars parked on a weekday, suggesting more trips to work via other means, which is consistent with the greater than 50 per cent non-car journey to work mode share in Figure 2.5.
- The average durations of stay and turnover ratios observed on both the weekday and weekend are consistent with that of a predominantly residential setting; principally long-stay parking greater than three hours was the most widespread parking duration observed and supported by turnover ratios of less than two hours.

- Notwithstanding the predominant average duration of stay and turnover ratio trends, pockets of higher turnover and lower durations of stay were observed in areas such as the small shopping strip on Darling Street as well as the parks near Balmain East wharf.
- Boat trailer parking was not observed to be a widespread occurrence in Balmain East.

2.7. Parking Signage Check

A product of the amalgamation of the former constituent councils of Inner West Council is an amalgam of different signage types that regulate parking throughout the LGA. Many of these signs have been used historically but no longer represent standard practice as stipulated by TfNSW and many of the signs that regulate the same aspect of parking (e.g. a 1/4P restriction) may look different depending on the location within the LGA.

Accordingly, as part of this study, GTA was tasked with identifying general inconsistencies in signage and recommend standardisation where appropriate. GTA used the TfNSW standards on signage as the as the source of truth for what is the correct parking signage[1] to be used throughout the LGA moving forward.

To ensure consistency with the current TfNSW parking signage standards, GTA reviewed all photographed signs captured as part of the parking survey in Balmain East and identified that outdated and/or irregularly dimensioned signs are present within the study area. All non-compliant signs, examples of their locations and the recommended TfNSW signs are identified in Table 2.3 below. Another observation is the common sighting of discoloured or damaged signs that might potentially render them legally void. GTA recommends that Council replace such signs promptly to avoid enforcement complications from illegible signs.

The detailed locations of the non-compliant signs are available from the repository of sign photographs and geographical location IDs provided to Council by GTA via email and electronic file transfer on 18 March 2020.

Table 2.3: Non-compliant signs and recommended sign

Locations	Current sign and issue	Recommended TfNSW sign example
Darling Street, Paul Street	 "1 hour" or "2 hour" is no longer used	 R5-1-1

[1] https://www.rms.nsw.gov.au/cgi-bin/index.cgi?action=searchtrafficsigns.form

EXISTING CONDITIONS

Locations	Current sign and issue	Recommended TfNSW sign example
William Street	 "No parking" is no longer used	 R5-40

2.8. Resident Permit Parking Allocation

A key aspect of the existing parking conditions in Balmain East is the current operation of the BE residential parking permit zone and the quantum of permits that are allocated. The number of permits allocated in comparison to the parking capacity of a street or the permit zone reveals the proportion of the capacity that has been set aside for residential permit parking. The *Permit Parking Guidelines* from Roads and Maritime Services stipulate that the number of permits issued for an area should not exceed the number of available on-street parking spaces in that area.

In the case of Balmain East and based on data provided by Inner West Council, there are 303 resident permits, 317 visitor permits and 18 business permits issued for the BE zone. Meanwhile, across the entire BE permit parking zone, there are only 227 total permit parking spaces available, indicating the total quantum of permits issued is almost three times the available parking capacity. Accordingly, there is evidence of overallocation of parking permits in Balmain East, contrary to the guidelines referenced above.

Table 2.4 provides a detailed breakdown of the number of permits issued per street in relation to the total capacity of parking spaces on a street subject to the BE zone, which provides an insight into which streets exhibit localised overallocation. Streets with overallocation are highlighted in red in the table. As shown in Table 2.4, permit overallocation is pervasive across all streets except Johnston Street and Weston Street.

Table 2.4: BE residential parking permit zone – number of permits issued per street in relation to the total capacity of parking spaces subject to the BE zone

Location	Number of business permits	Number of residential permits	Total capacity of parking spaces subject to the BE zone
Brett Avenue		4	0
Clifton Street		3	0
Darling Street	12	64	37
Duke Street		27	8
Gallimore Avenue		4	0
Hosking Street		14	0

Location	Number of business permits	Number of residential permits	Total capacity of parking spaces subject to the BE zone
James Lane		3	4
Johnston Street		8	21
Lookes Avenue		9	13
Nicholson Street	5	51	46
Paul Street		36	20
Pearson Street	1	38	20
Simmons Street		9	13
St Marys Street		8	9
Weston Street		3	10
William Street		21	9
Balmain East total	18	303	227

The consequence of this overallocation is that there are more permits issued than the parking capacity of the zone or street allows, causing further difficulties for residents to find an available parking space as more than the available capacity has been set aside for residential permit parking, and is a classic example of the 'tragedy of the commons'. In contrast, had the Roads and Maritime guidelines been adhered to or the permit cap set at below capacity, then those issued with residential parking permits should not be confronted with parking resource allocation problems.

2.9. Community Survey

In order to understand the day-to-day community views on the current parking situation, Council has directly engaged with the local community including residents, business owners and shopkeepers. An extensive questionnaire letter "Make parking fairer" detailing this parking study was advertised via social media and the Council website. Anyone member of the public could also request a physical copy of the questionnaire.

2.9.1. Survey Statistics

After a consultation period of one month during February to March 2020, Council received 369 questionnaire responses; the key insights to the responses are as follows:

- 83 per cent of the respondents responded "Yes" to living in Balmain East
- 79 per cent of the respondents live in a house
- 42 per cent of the respondents usually park less than 100 metres away from their place of residence
- 49 per cent of the respondents responded "Yes" to having off-street parking at their residence, 28% percent of whom have more than one off-street parking space
- 70 per cent of the respondents responded having trouble finding parking daily in their area
- throughout the week, evenings/nights are the most chosen timeframe for issues finding a parking spot near the respondents' residence
- 97 per cent of the respondents live in the Balmain East postcode area, the others are all from adjacent postcode areas.

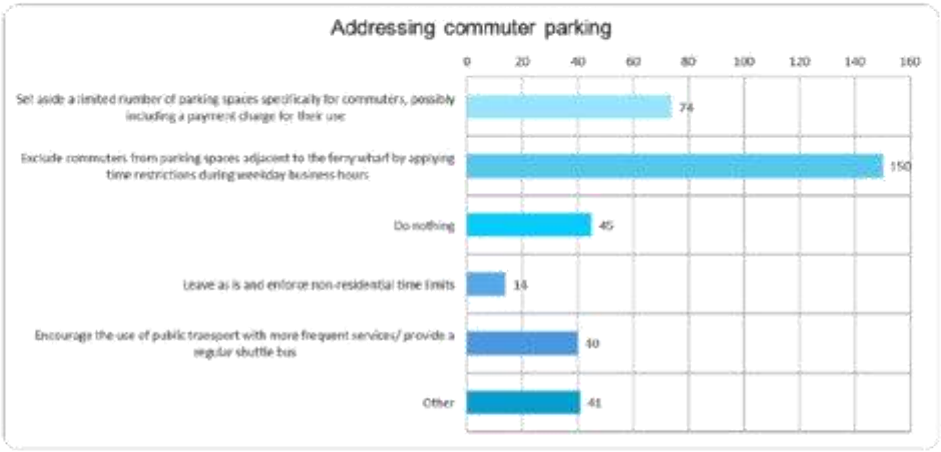
2.9.2. Survey Responses

In addition to the respondents' characteristics highlighted above, the questionnaire also asked respondents on their views towards different aspects of parking management in Balmain East, especially concerning ways to manage residential parking, commuter parking and visitor parking. The results and commentary are provided below.

Figure 2.18: Respondents' views toward addressing residential parking management

The respondents highly favour resident parking permits to be made available to only those residents of dwellings without any off-street parking or in a manner that can be purchased by residents on an as-needed basis. There is also a substantial number of respondents favouring the status quo of free residential parking permits and leaving the existing scheme untouched with better enforcement.

Figure 2.19: Respondents' views toward addressing commuter parking



The most popular mechanism supported by respondents is to deter commuter parking via weekday business hour time restrictions, which is how the existing BE resident parking scheme operates.

3. SWOT ANALYSIS

3.1. SWOT Analysis

In developing the parking study, a SWOT (strength, weaknesses, opportunities and threats) analysis of parking within Balmain East was undertaken. The results of the SWOT analysis for Balmain East within the context of parking is presented in Table 3.1

Table 3.1: SWOT Analysis for Balmain East Precinct Parking Study

Strengths	Weaknesses
• Low residential density and low capacity for redevelopment, resulting in low growth in parking demand from residents in the future. • Residents appreciate prioritising paid parking permits on an as-needed basis. • Low turnover and higher durations of stay mean that visitor parking demand for the residential streets outside of the main Darling Street is low.	• Most properties in Balmain East do not have off-street parking, meaning demand for parking cannot be internalised. • High (≥90 per cent) parking occupancy on some residential streets combined with a residential parking permit system that does not encourage turnover and is not allocated by need or price, meaning this occurrence may persist. • Coverage of residential permit parking zone over the main Darling Street makes it hard for visitors to access the parking to visit the local cafes and shops.
Opportunities	**Threats**
• Reform residential parking permit allocation to ensure there is no overallocation and is allocated better according to parking needs. • Explore opportunities to expand the coverage and quantum of car share pods to increase its convenience to residents as a means to reduce car ownership rates and on-street parking demand.	• Longstanding overallocation of residential parking permits (residents, visitors and businesses) creates the perception that anyone eligible for a permit can get a parking space, despite capacity constraints.

4. PARKING MANAGEMENT CASE STUDIES

4.1. Introduction

The purpose of this section is to run through relevant examples of how parking issues similar to those found in Balmain East have been dealt with to inform this parking study's recommendations contained in Section 5 of this report. In particular, management approaches to parking on residential streets will be explored.

4.2. Parking Management on Residential Streets

Parking hierarchies are a common policy approach used by local governments across Australia and New Zealand to address issues of competing demand for kerbside space on residential streets as well as other street types among differing user groups. Such hierarchies serve as a guideline to accommodate and prioritise various user groups within a local place context.

4.2.1. Parking hierarchies in other cities

Austroads

According to the *Austroads Guide to Traffic Management Part 11* on parking, a robust parking hierarchy should take into account the following:

- safety and convenience of all road users
- encourage moving shift from private vehicle usage
- equitable and transparent parking space allocation
- enable a consistent vision for parking infrastructure.

The guide presents an example parking hierarchy that sets out a recommended hierarchy across different place contexts, as shown in Figure 4.1.

PARKING MANAGEMENT CASE STUDIES

Figure 4.1: Example parking hierarchy from Austroads

Priority	Inner core of commercial centre		Outer area	
	On-street	Off-street	On-street	Off-street
Essential	Loading	Disability permit holders	Public transport	Long-stay/ commuter
	Public transport	Short to medium-stay	Residents	Short to medium-stay
	Drop-off/pick-up	Drop-off/pick-up	Short to medium-stay	Drop-off/pick-up
	Short to medium-stay	Loading	Disability permit holders	Park and ride
		Motorcycle/ scooter	Loading	Residents
	Motorcycle/ scooter and cyclists	Long-stay/ commuter & residents	Long-stay/ commuter	Motorcycle/ scooter
Least important	Disability permit holders	Cyclists	Drop-off/pick-up and motorcycle/ scooter and cyclists	Disability permit holders and loading and cyclists
Not allowed in this zone	Long-stay/ commuter and Park and ride	Park & ride		Public transport
	Residents	Public transport		

Source: Austroads Guide to Traffic Management Part 11 (2017) based on Glenorchy City Council (2007)

As shown in Figure 4.1, it recommends kerbside space be allocated for public transport and residents as the highest priority for 'outer areas' (which could include residential streets such as those in Balmain East), while commuter parking is a low priority. On commercial streets such as those found in the shopping strip on Darling Street, kerbside uses that support businesses such as loading, public transport and short-stay parking for customers are a high priority while long-stay parking and parking for residents is discouraged.

It is noted that Figure 4.1 is only an example guide and councils have the discretion to set out their own parking management hierarchies. For instance, the current version of Council's draft *Public Domain Parking Policy* does not include a parking management hierarchy.

The subsequent sub-sections detail examples of parking management hierarchies put into practice by cities in other jurisdictions.

PARKING MANAGEMENT CASE STUDIES

Christchurch, New Zealand

Figure 4.2: Parking management hierarchy in Christchurch

	Commercial Areas	Residential Areas	Other Areas (such as Industrial)
1st priority	Safety	Safety	Safety
2nd priority*	Movement and Amenity	Movement and Amenity	Movement and Amenity
3rd priority	Mobility Parking	Mobility Parking	Mobility Parking
4th priority	Bus stops/ Cycle parks/Bike corrals Shared parking (bike share or car share)/ Micromobility parking (e.g. scooters)	Bus Stops	Bus stops/ Cycle parks/ Bike corrals Shared parking (bike share or car share)/ Micromobility parking (e.g. scooters)
5th priority	Taxi Ranks (special passenger vehicle stands)	Residents Parking	Short Stay Parking
6th priority	Loading Zones	Cycle parks/ Bike corrals Shared parking (bike share or car share)/ Micromobility parking (e.g. scooters)	Residents Parking
7th priority	Short Stay Parking	Short Stay Parking	Commuter Parking
8th priority	Residents Parking	Commuter Parking	
9th priority	Commuter Parking		

Christchurch City Council in New Zealand has adopted a parking management hierarchy to manage kerbside parking in its suburbs (Figure 4.2). The hierarchy is broadly consistent with the Austroads guideline where public transport and disability parking are prioritised in residential areas followed by parking for residents. Short-stay parking is more prioritised in commercial areas to generate more visitors.

It is worth nothing commuter parking is consistently of the least importance across all place contexts; this is in agreement with the sentiments reflected from public consultation.

PARKING MANAGEMENT CASE STUDIES

Kingston, VIC

Figure 4.3: Parking management hierarchy in Kingston, VIC

Residential Areas			Activity / Commercial Areas		
A	B	C	A	B	C
Residents	Traders	Loading Zones	Disabled	Traders	Residents
Bus and Taxi stops	Commuters	Short Term Parking	Short-term Parking	Commuters	Schools
	Foreshore	School	Bus and Taxi stops	Foreshore	
	Disabled			Loading Zones	

Source: Parking Management Strategy, City of Kingston Victoria (2019)

The City of Kingston, VIC acknowledges the current demand for parking often exceeds the available supply in their municipality and has established a framework for parking user priorities across different areas (e.g. residential and commercial areas). The priorities (with A being the most important and C the least important) are used to provide a clear hierarchy in establishing future traffic and parking regulations.

In residential areas, priority for kerbside space is given to parking for residents and public transport over other user groups such as commuters and school pick up and drop off, while short-stay parking is prioritised in commercial areas.

4.2.2. Residential parking permit cap

Since the Roads and Maritime permit parking guideline sets out a residential parking permit cap of no more than 100 per cent of the parking capacity of the permit zone, discretion is available to councils to set this cap at below 100 per cent of capacity. While this has not been practised in Balmain East, Auckland in New Zealand is one city which has implemented a residential parking permit cap of 85 per cent of the total number of parking spaces in a residential permit parking zone[2]. The rationale behind this reduced cap is that it ensures a greater availability of parking for residents and visitors at all times and avoids permit overallocation problems altogether. Such a system has now been rolled out to selected inner city historic suburbs in Auckland where residential off-street parking is scarce, which is a similar environment to Balmain East.

4.3. Summary

By leaning on the findings from the above case studies on parking management for residential streets, there are aspects that could be incorporated by Council across Balmain East and the wider Inner West area. The most relevant lessons transferrable to the Balmain East and Inner West context include the establishment of a kerbside space hierarchy that aligns with the local place context and allocates space to the different user groups accordingly.

[2] https://at.govt.nz/driving-parking/parking-permits/residential-parking-zone-permits-coupons/

5. RECOMMENDATIONS

5.1. Introduction

The following details the development of a set of car parking strategy recommendations for the Balmain East study area. These recommendations have been developed following the SWOT analysis in Section 3 and the review of case studies in Section 4. The primary aim of these recommendations is to managing existing car parking provision and demands in a balanced manner which considers the needs of all stakeholders.

5.2. Key Strategic Objectives

The review of existing conditions and the parking surveys undertaken in February 2020 showed that overall, average peak parking occupancies in Balmain East are high on the weekday (at or over 90 per cent) in the central core of streets subject to the BE residential parking permit zone but occupancies taper off in the residential streets closer to the edges of the study area. In addition, pockets of higher turnover and lower durations of stay were observed in areas such as the small shopping strip on Darling Street as well as the parks near Balmain East wharf. Taking into account these characteristics, a number of recommendations have been developed to achieve the following:

- Prioritisation of long-stay residential parking on residential streets over the provision for non-residential long-stay user groups (i.e. commuters or employees).
- Consideration for the demand of short-stay user-groups for businesses where appropriate.
- Consistent parking policies and planning across the Inner West LGA.

5.3. Recommendations

5.3.1. Parking hierarchy

GTA has identified an existing high demand for on-street parking spaces as shown from the community consultation and parking survey data, which results in conflict between residents and visitors for a limited parking resource. To resolve such conflicts, a clear framework is required to inform current and future management approaches to allocating kerbside space, including for parking.

This can be achieved by establishing a clear parking management hierarchy for the Inner West that includes residential areas such as Balmain East. This could be adopted into future iterations of the draft *Public Domain Parking Policy* before it is ratified by Council and will assist Council in allocating valuable kerbside space for different types of parking as well as other transport functions, depending on the local environment. A recommended hierarchy for the residential and commercial areas in Balmain East (and indeed the Inner West at-large) could take the forms shown in Figure 5.1.

RECOMMENDATIONS

Figure 5.1: Recommended parking management hierarchy

	Residential		Commercial/Activity Centre	
Priority	**Arterial**	**Non-arterial**	**Arterial**	**Non-arterial**
1	Safety: *Reduced crash risk.*	Safety: *Reduced crash risk.*	Safety: *Reduced crash risk.*	Safety: *Reduced crash risk.*
2	Existing Property access *(e.g. ensure existing property accesses are retained and also accommodate vehicle movements along the street to access to properties).*	Existing Property access *(e.g. ensure existing property accesses are retained and also accommodate vehicle movements along the street to access to properties).*	Existing Property access *(e.g. ensure existing property accesses are retained and also accommodate vehicle movements along the street to access to properties).*	Existing Property access *(e.g. ensure existing property accesses are retained and also accommodate vehicle movements along the street to access to properties).*
3	Footpath *(e.g. new footpaths or widening to accommodate high demand from pedestrians).*	Footpath *(e.g. new footpaths or widening to accommodate high demand from pedestrians).*	Footpath *(e.g. new footpaths or widening to accommodate high demand from pedestrians).*	Footpath *(e.g. new footpaths or widening to accommodate high demand from pedestrians).*
4	Public transport and cycling *(e.g. public transport stops, bus lane, cycleway).*	Public transport and cycling *(e.g. public transport stops, bus lane, cycleway).*	Public transport and cycling *(e.g. public transport stops, bus lane, cycleway).*	Public realm improvements: *(e.g. trees, landscaping, dining areas).*
5	Other vehicle movements *(e.g. cars, vans, trucks, motorbikes).*	Vehicle parking for residents.	Other vehicle movements *(e.g. cars, vans, trucks, motorbikes).*	Mobility Parking.
6	Vehicle parking for residents.	Public realm improvements: *(e.g. trees, landscaping, dining areas).*	Mobility Parking.	Cycle parking.
7	Public realm improvements: *(e.g. trees, landscaping, dining areas).*	Other vehicle movements *(e.g. cars, vans, trucks, motorbikes).*	Cycle parking.	Public transport and cycling *(e.g. public transport stops, bus lane, cycleway).*
8	Commuter parking.	Commuter parking.	Public realm improvements: *(e.g. trees, landscaping, dining areas).*	Vehicle parking for visitors.
9			Vehicle parking for visitors.	Other vehicle movements *(e.g. cars, vans, trucks, motorbikes).*

It is worth highlighting that a high ranking on this hierarchy does not necessarily mean all kerbside space should be allocated to that user group. Rather, it means that user group should be considered first and if their needs are evaluated to have been met, then other user groups lower in the hierarchy should be considered. For example, a high public transport priority in residential areas does not mean all space should be given to a bus stop. If there is no bus route, then the local authority can then consider the next user group on the list such as parking for residents. However, if a bus stop needed to be expanded due to operational adjustments and some unrestricted parking spaces used primarily by residents needed to be acquired, then the application of the hierarchy would mean the bus stop should take precedence.

The application of this parking management hierarchy also offers guidance for the management of narrow kerbside space on narrow streets. For instance, it states that safety, property access and footpath provision should be the three highest priorities for residential streets. Accordingly, on narrow streets (e.g. those less than 6.0 m in carriageway width), the safety of all road users, access to properties (e.g. for residents' cars and emergency vehicles) as well as providing footpaths should be prioritised.

It is understood that through the ratification of Council's *Integrated Transport Strategy* at the Extraordinary Council Meeting on 3 March 2020, Council's longstanding practice of allowing vehicle parking over footpaths on narrow streets in selected suburbs such as Balmain East can also be rolled out LGA-wide. Adopting the recommended hierarchy would not be in conflict with this policy. The hierarchy only states that safety, property access and footpaths should be considered before vehicle parking for residents. In this regard, where all three aspects can be provided in a narrow street, then vehicle parking can continue to be provided.

5.3.2. Residential Parking in Balmain East

Permit Cap

Based on the review and analysis of the parking surveys undertaken in February 2020, the high occupancy rate along with longer average durations of stay in some residential streets may be a function of high demand as well as the overallocation of residential parking permits relative to total parking capacity.

In fact, it is contrary to the mandatory Roads and Maritime permit parking guideline to issue more parking permits than total parking capacity. As residential parking permits are reset throughout the LGA under the soon-to-be-adopted *Public Domain Parking Policy*, it is recommended to at least cap the number of resident parking permits to capacity or a 1:1 parking space to permits ratio, if not lower for Balmain East and all other areas that have a resident parking permit scheme.

Resident Parking Permit Scheme

Aside from the permit cap recommendation, given the predominant residential character of the study area and the need to supply parking for residents' vehicles as most properties do not have off-street parking, it is recommended that the existing BE resident permit parking scheme be continued under the new regime of the *Public Domain Parking Policy*.

In terms of which zone (Zone Type A or Zone Type B) of the new regime should be implemented in Balmain East, it is recommended that Balmain East changes from Zone Type B to Type A, meaning only those dwellings without an off-street parking space is eligible for one permit only and any dwelling with one parking space or more is ineligible for a permit. This recommendation is based on the predominance of narrow streets and a premium of parking throughout the study area and the need to ensure the quantum of permits issued do not exceed capacity. Assuming a 100 per cent of capacity permit cap, implementing Zone Type A will result in fewer permits issued but across more eligible households, freeing up more space on-street for those residents without any off-street parking, as well as for visitors (see sub-section below).

In contrast, adopting Zone Type B at a 100 per cent of capacity cap means that the cap would be saturated earlier since more households can apply for more than one permit on a first-come first-serve basis, resulting in fewer households overall being able to get one permit.

Moreover, implementing Zone A and capping it further (e.g. at 85 per cent) would result in an even greater availability of parking for residents and visitors alike.

Permit Scheme Pricing

As the Roads and Maritime parking permit guideline and the draft *Public Domain Parking Policy* are silent on permit pricing, it is recommended Council use the opportunity of priced parking permits (as current exists in the former Ashfield Council area of the Inner West LGA) to better balance the allocation of residential parking permits to those with a genuine need for on-street permit parking and a willingness to pay (i.e. those residents without off-street parking but own a car have more willingness to pay), which is not inconsistent with the feedback from the community survey. Hence, the pricing will be able to offset some of the demand for parking permits.

5.3.3. Residential Visitor Parking Permit

Visitor parking permits under the *Public Domain Parking Policy* would continue in the form of the current annual allocation of up to 30 one-day permits for eligible households. However, the availability of parking spaces for visitors (irrespective of whether a visitor permit is used) is closely correlated with which zone under the *Public Domain Parking Policy* is used for Balmain East and how it is implemented. To elaborate further, in the case that Zone A is adopted for Balmain East and capped at 100 per cent of available parking capacity, there is a better chance for visitors or even tradespeople to find a parking space.

In contrast, maintaining Zone B would result in more permits being issued since it is more likely households are issued with multiple permits, leading to a greater demand for parking and less chance for visitors to access parking.

5.3.4. Parking near shops on Darling Street

GTA's on-site observations along with the parking survey results show that there is an insufficient turnover of parking along the small section of shops on Darling Street in Balmain East to provide a churn of customer access to these local cafes and stores. This is a result of very few solely time-restricted spaces available on Darling Street with most time-restricted spaces being subject to the BE residential parking permit zone that exempts residents from the time restriction.

Accordingly, it is recommended that Council allocate more time-restricted parking spaces with 1P or 2P during business hours on weekdays and on Saturday from 8am until 1pm without any residential permit parking overlay, and then after these business hours these spaces revert to unrestricted parking, during which residents could park. The recommended coverage of this time-restricted area is shown in Figure 5.2.

Figure 5.2: Recommended time-restricted parking area for Balmain East shops

Basemap Source: Google Maps

5.3.5. Boat Trailer Parking

Boat trailer parking was found not to be a significant issue in Balmain East due to the small quantity of boat trailer parking relative to the study area size. Accordingly, no specific intervention is recommended in this regard but in the future if the situation changes Council could consider implementing measures to restrict it.

5.3.6. Commuter Parking Permit Scheme

Based on community feedback, commuter parking for ferry users would be unpopular and is discouraged via the existing BE residential permit parking scheme, although this could be better enforced based on this feedback. Moreover, it is considered that commuter parking should not be encouraged in the study area given its location at the end of a peninsula, as the increase in traffic flow to Balmain East from commuters would cause discernible additional traffic effects on the study area. As such, the recommendation would be to maintain the status quo of discouraging commuter parking through the operation of the reformed Zone A permit parking zone that would by extension exclude commuter parking.

The Gallimore Avenue car park, given its proximity to the ferry wharf is likely to be used for commuter parking during business hours and residential parking at other times given the surrounding residential land use. To further discourage commuter parking, Council could consider incorporating this car park into the recommended Zone A permit parking scheme for Balmain East through updated signage. This car park is not recommended for conventional parking metering as such measures are typically only appropriate for short-stay parking in activity centres.

5.3.7. Parking Signage Update

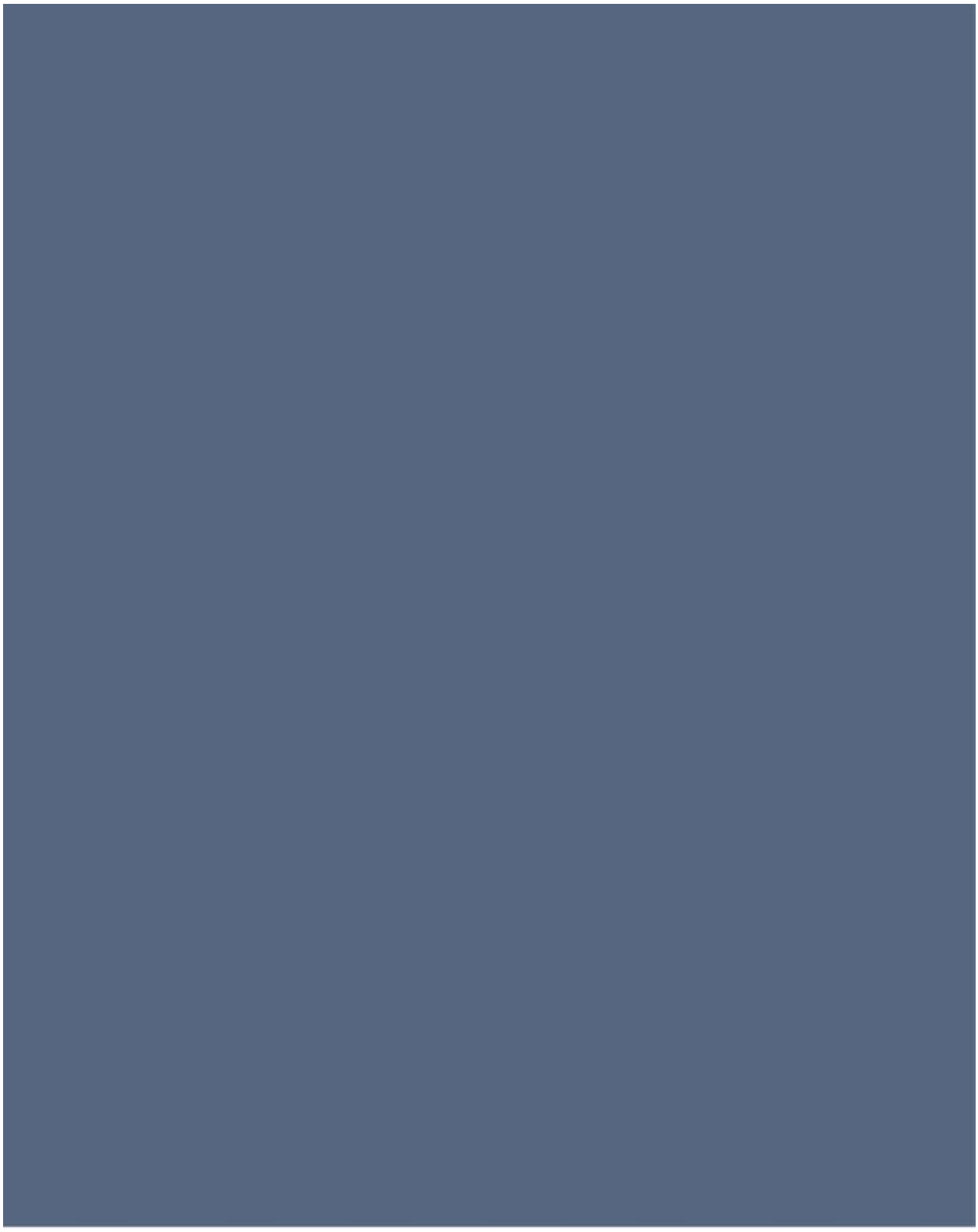
Given the inconsistencies in selected parking signs in the study area as identified in Section 2.7 of this report, it is recommended that such signage be replaced with the standard signage is identified in Table 2.3.

5.3.8. Implementation Timeframe

In terms of the implementation of the recommendations, these have been categorised into short-term and long-term recommendations which reflect their relative priority and requisite timeframe required for implementation.

Short term (0-5 years)			
Item no.	Description	Streets affected	Priority
1	Inclusions of additional properties Clifton Lane to RPS (these properties will be limited to 1 BE permit only)	Simmons Street	High
2	2P 8am-10pm Permit Holders Excepted area BE RPS expansion in Darling Street between Duke Street and The Avenue (this new section will be limited to 1 BE permit and 1 visitor permit per property)	Darling Street (between Duke Street and The Avenue)	High
3	Reduction of 6m length No Parking zone in east side of Galimore Avenue, 30m north of Darling Street.	Galimore Avenue	High
4	Parking management in Jubilee Place. Angle parking opposite Police Marine Area Command to be time limited 4P 8am-6pm Mon-Fri, subject to dedication of land from NSW Police.	Jubilee Place	High
5	Work with carshare operators to introduce additional fixed car share spaces in Balmain East	n/a	Medium
6	Development of Parking Hierarchy	All streets within Balmain East	Low
7	Replacement of redundant, faded, damaged signs	Streets identified in the signage audit within study area.	Medium
Long term (5+ years)			
Item no.	Description	Streets affected	Priority
8	Parking changes on Darling Street shopfront/commercial area	Darling Street	High
9	Changes to boat trailer parking management consistent with other areas within Inner West LGA	Streets with historical boat trailer issues	Low
10	Introduction of permit pricing on second residential permit	All streets with RPS in Balmain East	Low
11	Introduce residential permit parking in Gallimore Avenue carpark	Galimore Avenue	Low

	(corner of Brett Avenue and Galimore Avenue)		
12	Transition to Permit zone type A within Balmain East (Household without any on-site parking spaces, is eligible for one parking permit, transferrable up to three nominated vehicles registered to that address. Households with one or more spaces are not eligible for permits)	All streets with RPS in Balmain East	Low



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Item No: **LTC0920 Item 10**

Subject: **WARDELL ROAD, DULWICH HILL - REQUEST FOR EXTENSION TO EXISTING SCHOOL DROP OFF ZONE ADJACENT TO ST MAROUN'S COLLEGE AT NOS.149-206 WARDELL ROAD (DJARRAWUNANG WARD/SUMMER HILL ELECTORATE/INNER WEST PAC)**

Prepared By: George Tsaprounis - Coordinator – Traffic and Parking Services

Authorised By: Manod Wickramasinghe - Traffic and Transport Planning Manager

SUMMARY

Representations have been received from the Principal of St Maroun's College and parents of children attending the school for an extension to the existing school drop off / pick up zone on Wardell Road, Dulwich Hill. The Principal of the school stated that the length of the drop off/pick up zone has been a safety problem for some time. In a discussion with the Principal it was agreed between the parties that the extension of the zone would be to the school boundary (some 10m) which would provide a further 2 spaces for drop off and pick up. It is envisaged that the additional two drop off/pick spaces will reduce the instances of vehicles queuing on Wardell Road in the peak periods thereby improving safety.

It is recommended that the existing 30 metre length of school drop off zone along the southern side of Wardell Road, Dulwich Hill (adjacent to St Maroun's College) be extended by 10 metres (in line with the north-east school boundary line) to cater for the safe drop of and collection of children attending St Maroun's College.

RECOMMENDATION

THAT:

1. **The existing 'No Parking 8.00am-9.30am; 2.30pm-4.00pm School Days' restrictions adjacent to St Maroun's College on Wardell Road (southern side of roadway) be extended 10 metres eastward (to the school boundary line west of Gilbert Barry Reserve) to improve road safety outside St Maroun's College; and**

2. **Council's Parking Officers be requested to regularly enforce the parking restrictions outside St Maroun's College in Wardell Road, Dulwich Hill during morning and afternoon school peak periods.**

BACKGROUND

St Maroun's College is located on the eastern side of Wardell Road, between Challis and Pine Streets, Dulwich Hill.

The current parking restrictions outside the school are as follows:

- 'No Parking 8.00am-9.30am; 2.30pm-4.30pm School Days' restrictions used by parents for the drop-off and pick-up of students (30 metres in length accommodating 5 car parking spaces).
- 'No Stopping' restrictions located directly outside the school's main entrance and extending to the south of marked foot crossing.
- 'Bus Zone 8.45am-9.15am and 2.45pm-3.15pm School Days' restrictions south of the crossing, between the 'No Stopping' restrictions and Challis Avenue (16 metres in length).

A proposal for extending the drop off/pick up zone was previously considered by the Traffic Committee in April 2019. The proposed length of the zone was also 10m. The recommendation of the Traffic Committee at the time was as follows;

"1. The extension of the existing 'No Parking 8.00am-9.30am; 2.30pm-4.00pm School Days' restrictions adjacent to St Maroun's College on Wardell Road be deferred.

2. Council's Road Safety Officer be requested to liaise with St Maroun's College regarding management of school pick-up and drop-off in the existing 'No Parking 8.00am-9.30am; 2.30pm-4.00pm School Days' zone."

The above recommendation was adopted by Council in May 2019.

Council's Road Safety Officer and Coordinator, Traffic and Parking Services have met with the Principal of St Maroun's College to discuss management of the school pick-up and drop-off in the existing zone as well as other options.

FINANCIAL IMPLICATIONS

The costs of relocating the existing signpost is to be funded within Council's signs and line marking budget.

OTHER STAFF COMMENTS

It is acknowledged that a number of surrounding residents have voiced concerns with the loss in parking as a result of the proposed extension of the drop off/pick up zone. In this respect Council Officers investigated a number of alternate solutions to obtain additional pick up/drop off area without an overall loss of unrestricted parking along Wardell Road. The options included;

- Removal of the existing School Bus Zone on the north side of Wardell Road (opposite St Maroun's College) – Bus Zone still in operation for school buses. Not feasible.

- Provision of drop off/pick up area within the School – road width constraints at the school gates would result in school children and motor vehicles mixing at the exit to the school which is a potentially hazardous environment for school children. Furthermore, other vehicles can only depart when the lead vehicle departs (space constraints) making the operation cumbersome. Not feasible.

- Provision of a drop off pick up zone in the nearby side street – Too many house frontages would be impact as well as the zone being located too far from the school gate and the route to leave the area would be circuitous. Not feasible.

During the afternoon site visit it was witnessed that school staff did manage children and parents around the drop off/pick up and this worked well in most cases. However, on several occasions it was also witnessed that queuing of vehicles on Wardell Road attempting access the drop off/pick up zone did occur. With a high utilisation of parking in the area in general and with very few other safe pick up or drop off opportunities available to parents, extending the current drop off/pick up zone is seen as a reasonable proposal. The proposed extension of the zone will only be as far as the school boundary eastward (to the school boundary west of Gilbert Barry Reserve) and unrestricted parking will still be available along the remaining section of Wardell Road (Refer to map below).

PUBLIC CONSULTATION

Council's Road Safety Officer and Coordinator, Traffic and Parking Services met with the Principal of St Maroun's College on 27 July, 2020 to discuss the issue of management of the drop off/pick and safety of parents and motorist in general around drop off and pick up times. Council's Road Safety Officer also liaised with Sydney Buses to determine the current utilisation of the adjacent Bus Zones along Wardell Road. Previous consultation indicated three objections to the loss of parking associated with an extension to the drop-off/pick-up restrictions on the school frontage.

CONCLUSION

It is considered that a 10 metre extension to the existing 'No Parking 8.00am-9.30am; 2.30pm-4.00pm School Days' restrictions on Wardell Road on the southern side of the roadway (eastward to the school boundary line, west of Gilbert Barry Reserve) will assist parents and carers with the safe drop off and pick up of children attending St Maroun's College and is recommended.

ATTACHMENTS

Nil.

Item 11

Item No: **LTC0920 Item 11**

Subject: **GORDON CRESCENT, STANMORE - PROPOSED 'NO PARKING 7AM-7PM – MOTOR VEHICLES UNDER 4.5T GVM EXCEPTED' RESTRICTIONS (DAMUN - STANMORE WARD/ NEWTOWN ELECTORATE/ INNER WEST PAC)**

Prepared By: Scipio Tam - Engineer – Traffic and Parking Services

Authorised By: Manod Wickramasinghe - Traffic and Transport Planning Manager

SUMMARY

Council has received concerns of long-term parking of certain vehicles, including boat and other trailers, oversized vehicles and in some instance's caravans, in Gordon Crescent. Council subsequently proposed 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' restrictions in an attempt to resolve this matter.

RECOMMENDATION

THAT the following 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' restrictions along Gordon Crescent, between Stanley Street and Douglas Street be approved:

1. **A 24-metre 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' section from existing 'No Parking' signage, opposite Property No. 36 to opposite 52A Gordon Crescent, Stanmore;**
2. **A 140-metre 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' section from 12 metres east of above proposed '10P' section, opposite Property No. 52 to the intersection of Gordon Crescent and Bruce Street;**
3. **A 145-metre 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' section beginning from 22 metres east of above proposed '10P' section, to opposite rear of 5 Douglas Street, 12 metre west of existing pram ramp; and**
4. **A 49-metre 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' section beginning east of existing pram ramp to existing car share signage.**

BACKGROUND

In order to minimise the amount of abandoned or long-term parking of vehicles, Council is proposing to install 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' restrictions along the southern side of Gordon Crescent, between Stanley Street and Douglas Street. These restrictions are shown on the included plan below.

FINANCIAL IMPLICATIONS

Nil.

OTHER STAFF COMMENTS

Council Officers originally proposed a '10P' zone to deal to the issue of including boats and other trailer, oversized vehicles and caravans as this was seen as a flexible solution when dealing with long term parking of these vehicles and community engagement was undertaken along on this proposal. However, in discussions with Council Ranger Services it was stated that such restrictions would be more difficult to enforce. As a result Council Officers have amended the original proposal to 'No Parking 7am-7pm Motor Vehicles under 4.5t GVM Excepted' which is in line with the parking restrictions along Railway Avenue.

The disadvantage of the proposed 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' restrictions is that it will not allow for the short term parking of trucks or trailers for short term durations which maybe required from time to time. This is seen as an occasional circumstance, therefore other parking management strategies can be employed to deal with these instances.

Three 12 metre sections of unrestricted parking will remain along Gordon Crescent in order to facilitate trailer, boat or truck parking opportunities. This approach is aimed to reduce downstream effects of such parking in other streets when the proposal is implemented whilst improving the visual amenity for residents of Gordon Crescent.

PUBLIC CONSULTATION

A letter detailing the '10P' proposal was distributed to properties in Gordon Crescent, Stanley Street, Bruce Street and Douglas Street, Stanmore. The extent of the consultation is illustrated below.

The consultation survey results at the point of writing, are as summarised as follows:

- 5 support
- 1 conditional support

The comment received has been summarised below and was considered in preparation of the recommendation.

Although it is envisaged that residents would also be accepting of the proposed 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' restrictions because the same goal would essentially be achieved, a notification letter was also sent out following the change in proposal to advise the residents of the change.

Residential Parking Scheme

During the community engagement, a resident requested the implementation for Residential Parking Scheme (RPS) parking in conjunction with the current '10P' proposal. However, as per Council guidelines, RPS is not generally introduced along public lane with no residential frontages. Additionally, it was observed on site, many residential properties are able to adequately hold at least 2 vehicles within their off-street parking and driveway, making the scheme redundant; Council guidelines allows a maximum of 2 permits, minus one with each available off-street parking.

CONCLUSION

In order to address concerns of long-term parking of certain vehicles, it is recommended the proposal of 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' restrictions parking along the southern side of Gordon Crescent, Stanmore be approved.

ATTACHMENTS

Nil.

Item No: **LTC0920 Item 12**

Subject: **TERMINUS STREET, PETERSHAM - PROPOSED 'NO PARKING 7AM-7PM – MOTOR VEHICLES UNDER 4.5T GVM EXCEPTED' RESTRICTIONS (DAMUN - STANMORE WARD/ NEWTOWN ELECTORATE/ INNER WEST PAC)**

Prepared By: Scipio Tam - Engineer – Traffic and Parking Services

Authorised By: Manod Wickramasinghe - Traffic and Transport Planning Manager

SUMMARY

Council is currently reviewing concerns of long-term parking of certain vehicles along the railway corridor and Terminus Street, Petersham has been identified as a potential problem location. These include boat and other trailers, oversized vehicles and in some instances, caravan. Council is proposing a parking strategy in order to regulate and enforce long-term parking of such vehicles.

RECOMMENDATION

THAT the implementation of 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' restrictions be APPROVED along the unrestricted parking located on the southern side of Terminus Street, Petersham, between Crystal Street and Palace Street, with the inclusion of one 12 metre unrestricted section between Crystal Street and Railway Street and one 12 metre unrestricted section between Railway Street and Palace Street.

BACKGROUND

In order to minimise the amount of abandoned or long-term parking of vehicles, Council is proposing to install 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' restrictions along the southern side of Terminus Street, between Crystal Street and Palace Street, with the inclusion of one 12 metre unrestricted section between Crystal Street and Railway Street and one 12 metre unrestricted section between Railway Street and Palace Street.

Council is aware of the current Petersham Station Upgrade undertaken by Transport of New South Wales (TfNSW) and any approved changes will be implemented following the completion of construction works (estimated in August 2022).

FINANCIAL IMPLICATIONS

Nil.

OTHER STAFF COMMENTS

Council Officers originally proposed a '10P' zone to deal to the issue of including boats and other trailer, oversized vehicles and caravans as this was seen as a flexible solution when dealing with long term parking of these vehicles and community engagement was undertaken along on this proposal. However, in discussions with Council Ranger Services it was stated that such restrictions would be more difficult to enforce. As a result Council Officers have amended the original proposal to 'No Parking 7am-7pm Motor Vehicles under 4.5t GVM Excepted' which is in line with the parking restrictions along Railway Avenue.

The disadvantage of the proposed 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' restrictions is that it will not allow for the short term parking of trucks or trailers for short term durations which maybe required from time to time. This is seen as an occasional circumstance, therefore other parking management strategies can be employed to deal with these instances.

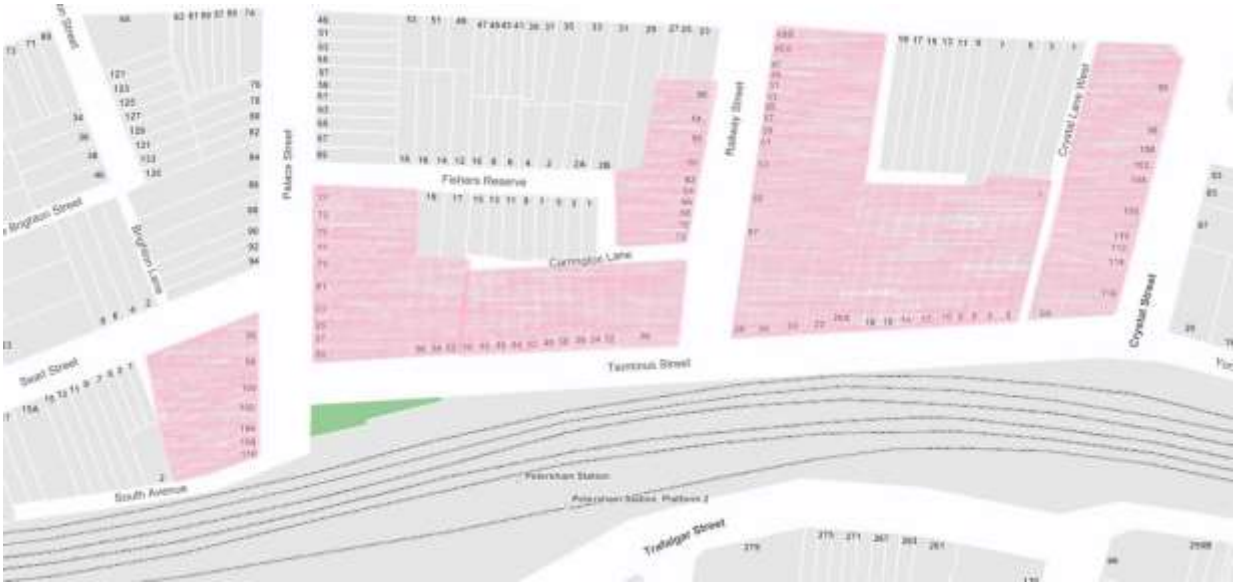
Three 12 metre sections of unrestricted parking will remain along Terminus Street in order to facilitate trailer, boat or truck parking opportunities. This approach is aimed to reduce downstream effects of such parking in other streets when the proposal is implemented whilst improving the visual amenity for residents of Gordon Crescent.

Due to the current Petersham Station Upgrade project, the definite boundaries of unrestricted parking along the southern side of Terminus Street remain uncertain. However, if the proposal is approved, Council Officers will attend on-site once construction has completed to best implement the recommendation.

The proposal has illustrated below. However, due to the uncertainty of parking arrangements subsequent to the Petersham Station Upgrade project, along the southern side of Terminus Street, Petersham, it shall be taken as an approximation only.

PUBLIC CONSULTATION

A letter detailing the '10P' proposal was distributed to properties in Palace Street, Terminus Street, Railway Street and Crystal Street, Petersham. The extent of the consultation is illustrated below.



At the point of writing, no feedback has been received.

Although it is envisaged that residents would also be accepting of the proposed 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' restrictions because the same goal would essentially be achieved, a notification letter was also sent out following the change in proposal to advise the residents of the change.

CONCLUSION

In order to address concerns of long-term parking of certain vehicles, it is recommended the proposal of 'No Parking 7AM-7PM – Motor Vehicles under 4.5t GVM Excepted' restrictions parking along the southern side of Terminus Street, Petersham be approved.

ATTACHMENTS

Nil.

Item 13

Item No: **LTC0920 Item 13**

Subject: **PARRAMATTA ROAD URBAN AMENITY IMPROVEMENT PROGRAM (PRUAIP) PUBLIC ART PROGRAM - NORTON STREET, LEICHHARDT (GULGADYA - LEICHHARDT WARD/ BALMAIN ELECTORATE/ LEICHHARDT PAC)**

Prepared By: Vinoth Srinivasan - Engineer - Traffic and Parking Services

Authorised By: Manod Wickramasinghe - Traffic and Transport Planning Manager

SUMMARY

The PRUAIP, is funded by the Department of Planning Infrastructure & Environment (DPI&E) and is a $198 million initiative to improve open space and active transport links along the Parramatta Road corridor. Six local Councils will be provided funding under the program to deliver 32 projects in and around Parramatta Road. This is part of the government's commitment to revitalisation precincts between the inner west and Parramatta.

A key feature of DPI&E's commitment to revitalisation is the commissioning of public art to activate locations and tell stories of place, and this includes a public art site for Norton Street, Leichhardt. A commissioned artwork currently undergoing design development and critical engineering investigation, will become a key feature of the Norton Street/ Parramatta Road site upgrade. The work is an exciting and significant design proposal; encompassing a suspended light sculpture, strung between uprights which form a custom-made support structure. The structure will replace the existing flag poles situated at the public art site – and will be situated above the road between Renwick Lane and Parramatta Road, Leichhardt. The engineering for the safe installation of the work is currently underway, and will involve a rigorous three-point certification process, with an additional peer review by a suitably qualified engineer before the work is installed.

The proposal presented reflects the outcomes of a recent concept design stage, including community consultation, and approval to proceed with design development by DPI&E. This report invites early feedback from the Local Traffic Committee, and is presented in advance of a further presentation when the work's design is resolved, and when approval for the Traffic Management Plan for installation of the work is presented. A Development Application for the work will also be submitted as part of the approvals process.

RECOMMENDATION

THAT committee ENDORSE the design proposal for submission as part of a Development Application, with the understanding that the 100% public art design and TMP be presented for approval prior to the installation of the work.

BACKGROUND

The PRUAIP Master Plan with the inclusion of the Norton Street Public Art Site was approved by Council on the 8th of October 2019

The public art supports the PRUAIP aims by:

- improving the experience for pedestrians, cyclists, and commuters
- humanising the site with site specific public art
- responding to community support for public art and placemaking measures
- identifying the location with a signature gateway artwork
- telling stories of place.

A Development Application must be submitted in relation to the Norton Street Public Art proposal, providing an opportunity to communicate updated information about the project to the community.

SAFETY

Early advice regarding the clearance required under the work is that 5.3 metres will allow safe passage of TfNSW vehicles, light rigid trucks and the double decker buses of the Sydney Bus Museum under the artwork. This height will also alleviate the need for additional signage regarding clearances. The artists have also been advised to minimise the colours relating to traffic lights (red, amber, green) – at the Parramatta Road end of the work, as it approaches a set of traffic lights at that end.

FINANCIAL IMPLICATIONS

The project is fully funded by the DPI&E and is managed by Inner West Council.

OTHER STAFF COMMENTS

The artwork is designed by artist team Alessandra Rossi and Adam Cruikshank, and will offer a significant visual lift to this site, activating the location. It will be a key feature in the urban design upgrade at the Parramatta Road end of Norton Street.

The work entitled Chiaroscuro (Light and dark), references:

- Italian Chain migration, the craftmanship of Murano glass and stained glass makers (through the use of acrylic Plexiglass),
- native eels via its eel-like form – as Parramatta (Burramatta) means *meeting place of the eel* or *place where eels lie down.*
- The geometric forms also symbolise interconnectedness*.*

This work sits seamlessly with Council's successful application to the Geographic Names Board to have a precinct including Norton and Marion Streets designated as Little Italy. This will honour of the many thousands of Italian migrants who contributed to Australia after landing in Leichhardt.

Cross Cultural Thematics

1/ Aboriginal meaning of Parramatta for the Burramatta Peoples (Dharug) is referenced is the "eel" like form of the work, and is a respectful nod by the artist's to the Aboriginal community of Leichhardt and wider Sydney.

The Burramatta breakdown of the word is:

- Burra meaning place, and matta meaning eels*.*
- This work is also being presented to the Aboriginal Consultative Committee for comment.

2/ the work's material references Venetian glass makers and Italian Catholicism - as the arrival of the St. Fiacres Brothers in Leichhardt, became a significant historical drawcard for Italians to settle in Leichhardt. St Fiacres Ministry and Church was established to support Italian immigrants migrants on their arrival to Sydney.

PUBLIC CONSULTATION

The concept design will be presented for comment as part of the Development Approval exhibition period. Prior community engagement processes have occurred in both 2019 and

early in 2020. The latter consultation plans presented a non-specified public artwork in this location as this was prior to the selection of the successful artist team by the Public art Assessment Panel. These images identified the Norton Street public artwork as a light based work suspended above Norton Street on a catenary system. The outcomes of these earlier consultation processes were presented to the November 2019 Local Traffic Committee meeting.

CONCLUSION

It is recommended that Local Traffic Committee endorse the current early stage design proposal for the Norton Street site, and that the Committee provides early stage traffic and/ or safety concerns for consideration in resolving the design to 100% completion.

ATTACHMENTS

1.⇩ Urban Design Plan by Tract (100% complete)
2.⇩ Design Proposal - in development (75% complete)

Master Plan Design - Norton Street

Character Statement: Updated paving and refreshed furniture with some minor kerb realignments to allow for a improved buffer between pedestrian footpath and the busy vehicle space. Art work looks to making a dramatic statement with a memorable ceiling of light.

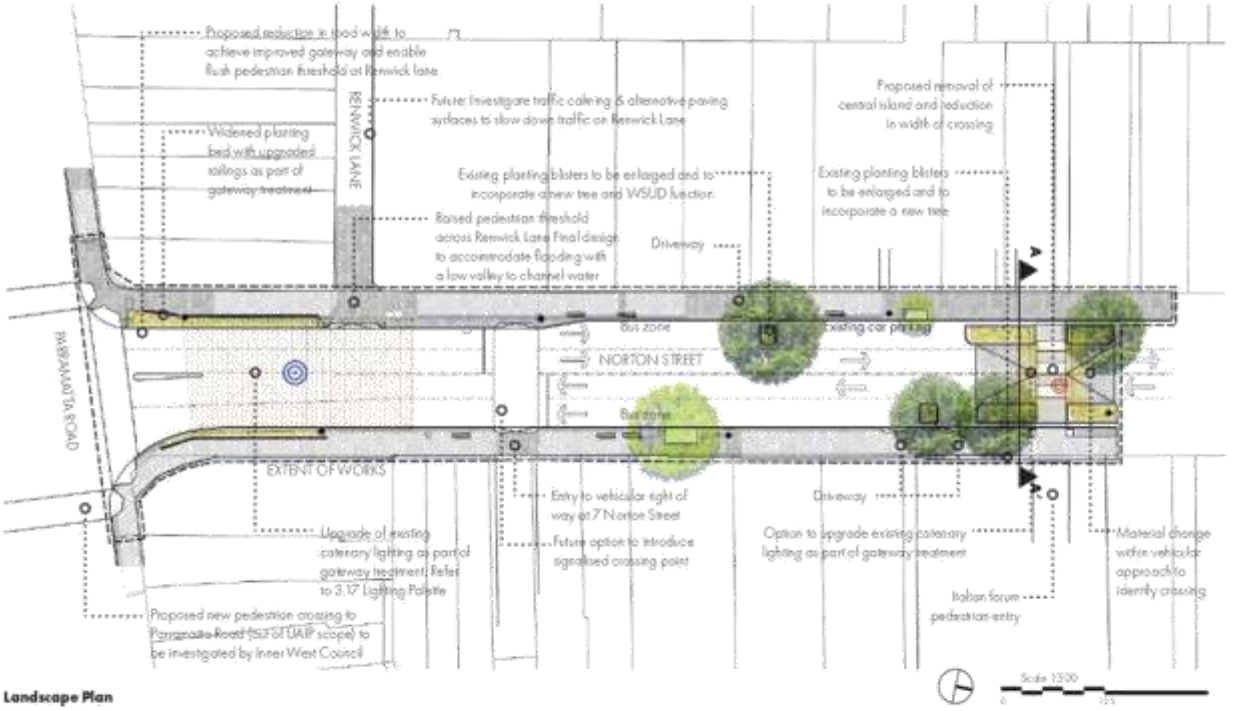
Key Design Actions:

- Creation of a precinct Gateway using existing catenary lighting system and new feature pedestrian railings.
- Incorporate passive irrigation to provide trees and planted areas the best chance of success
- Expand existing planting areas and convert into rain gardens which intercept and filter urban storm water
- Replacement of small street trees with larger specimens for enhanced shade and amenity
- Replacement of existing paving with a consistent, high quality paving finish
- Provide an additional pedestrian crossing across Parramatta Road to Petersham Street.
- Priority public art project to be included as part of these works.

LEGEND

- Existing Tree to be protected and retained
- New Street Trees
  Potential Tree species:
  - Waterhousea floribunda 'Green Avenue'
  - Lophostemon confertus.

  Refer to Schedules: Plant Palette - Street Trees
- New Concrete unit Paving to Pedestrian and Shared spaces.
  Refer to Schedules: Paving Material Palette
- New Planting / Rain Garden
  Refer to Schedules: Plant Palette Ground cover
- Priority Public Art Project
  See Art Strategy Appendix
- Art Opportunities
  See Art Strategy Appendix
- Upgraded smart pole lighting. Refer to Schedules: Lighting Palette



Landscape Plan

Catenary lighting elements

Concrete brick paving with integrated garden beds.

Section A - A' 1:100

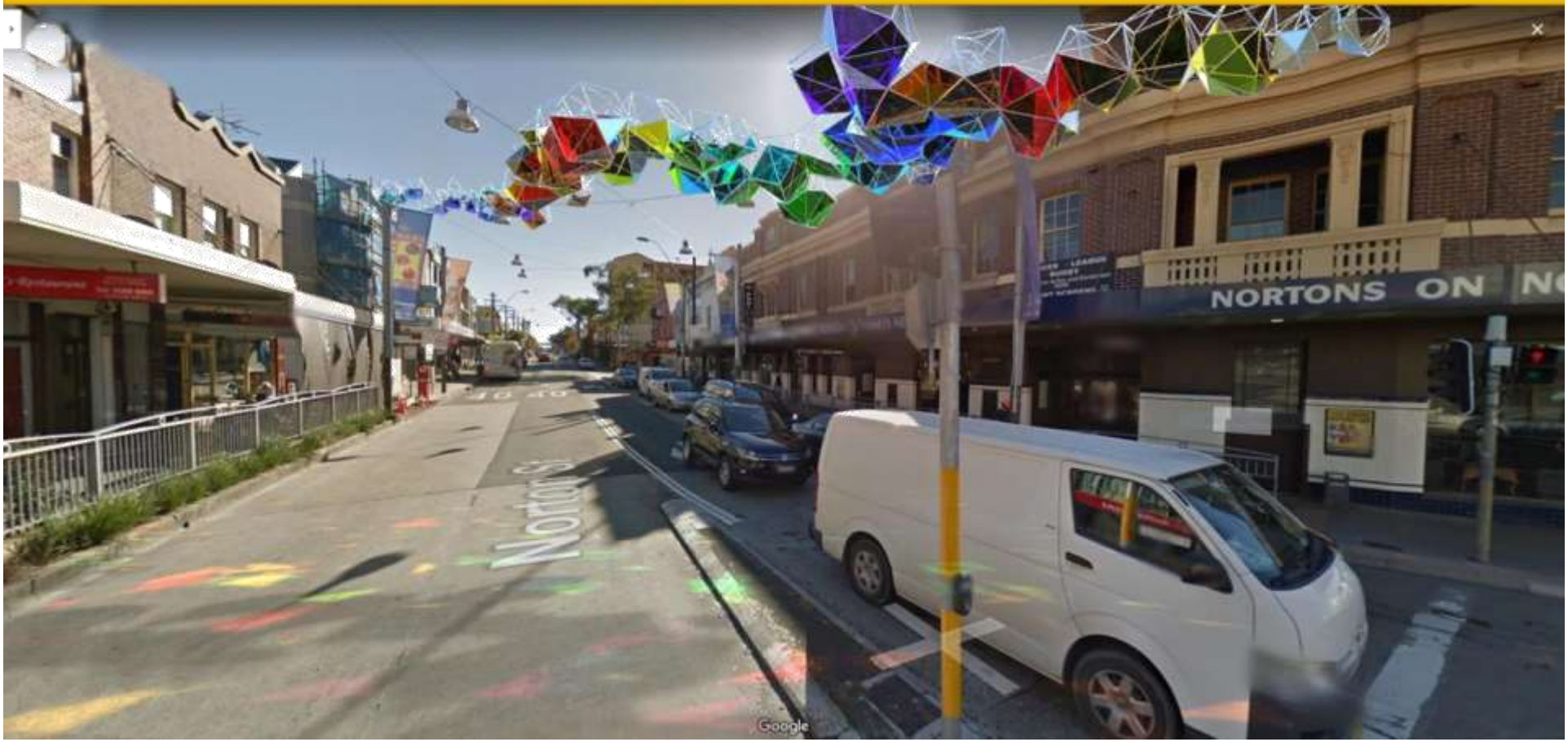
Existing

Artist's Impression of Proposal - Day

Artist's Impression of Proposal - Night

Chiaroscuro

PARAMATTA ROAD PUBLIC ART PROGRAM LEICHARDT & PETERSHAM PRECINCTS
DESIGN SUBMISSION ALESSANDRA ROSSI & ADAM CRUICKSHANK



PARAMATTA ROAD PUBLIC ART PROGRAM: LEICHHARDT & PETERSHAM PRECINCTS

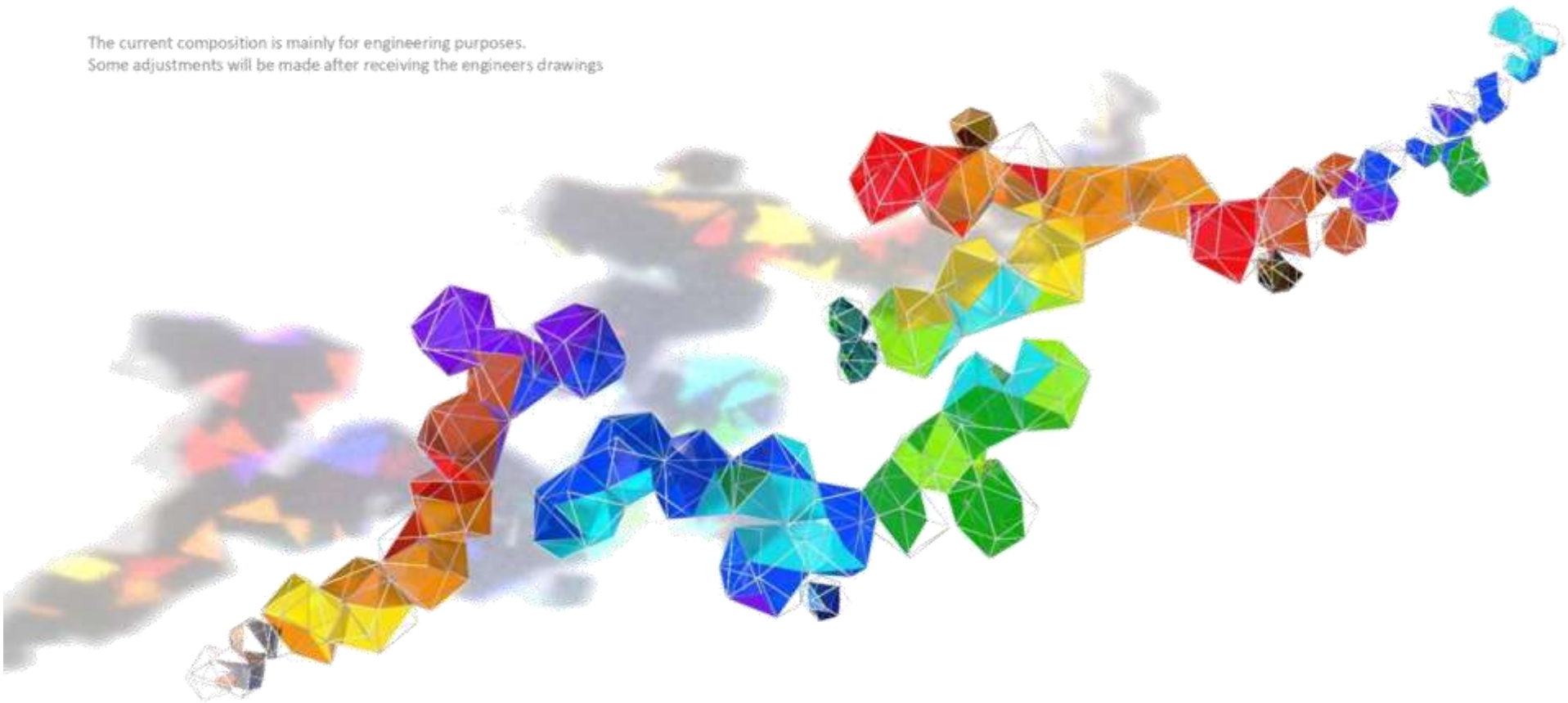
DESIGN SUBMISSION ALESSANDRIA ROSSI & ADAM CRUICKSHANK

PARAMATTA ROAD PUBLIC ART PROGRAM, LEICHARDT & PETERSHAM PRECINCTS

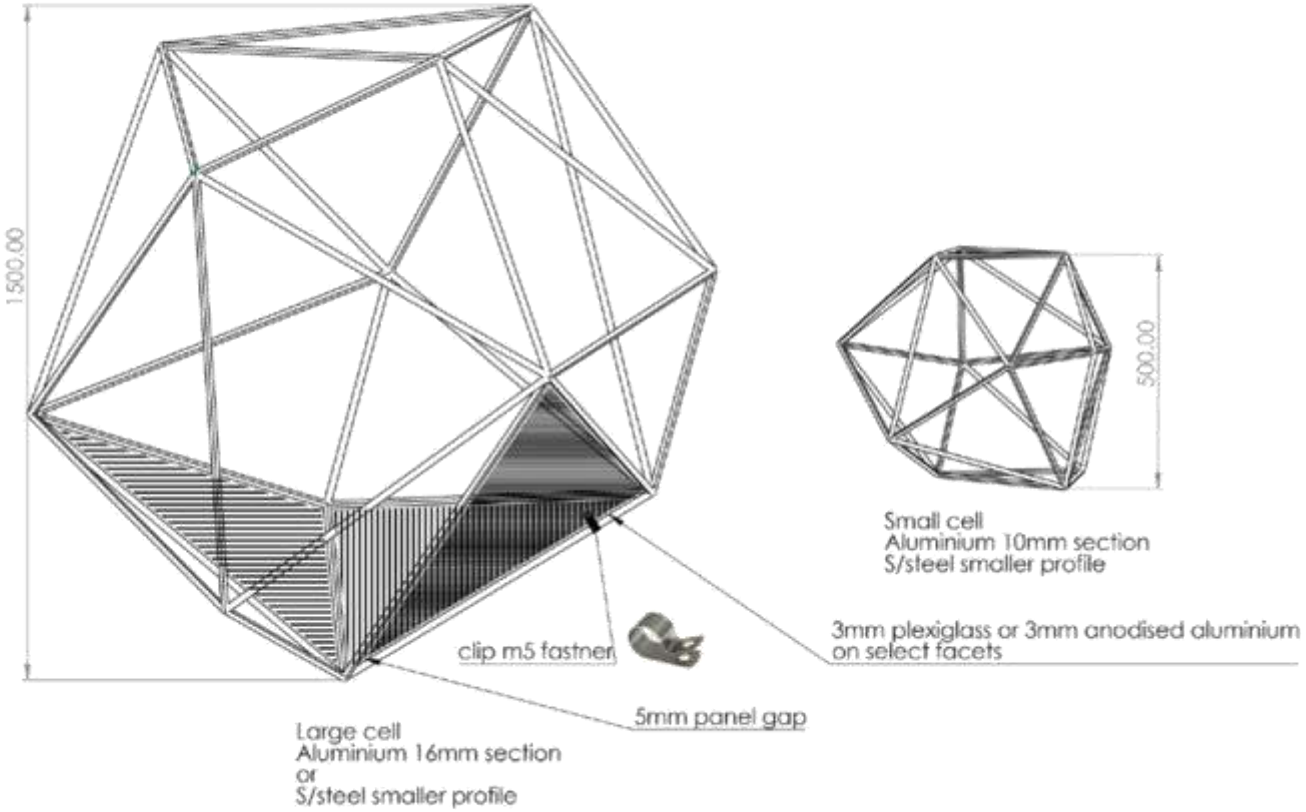
DESIGN SUBMISSION ALESSANDRA ROSSI & ADAM CRUICKSHANK |

Chiaroscuro colour scheme and aerial view

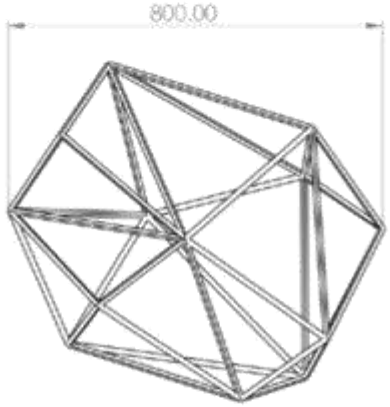
The current composition is mainly for engineering purposes.
Some adjustments will be made after receiving the engineers drawings



Chiaroscuro Cell details



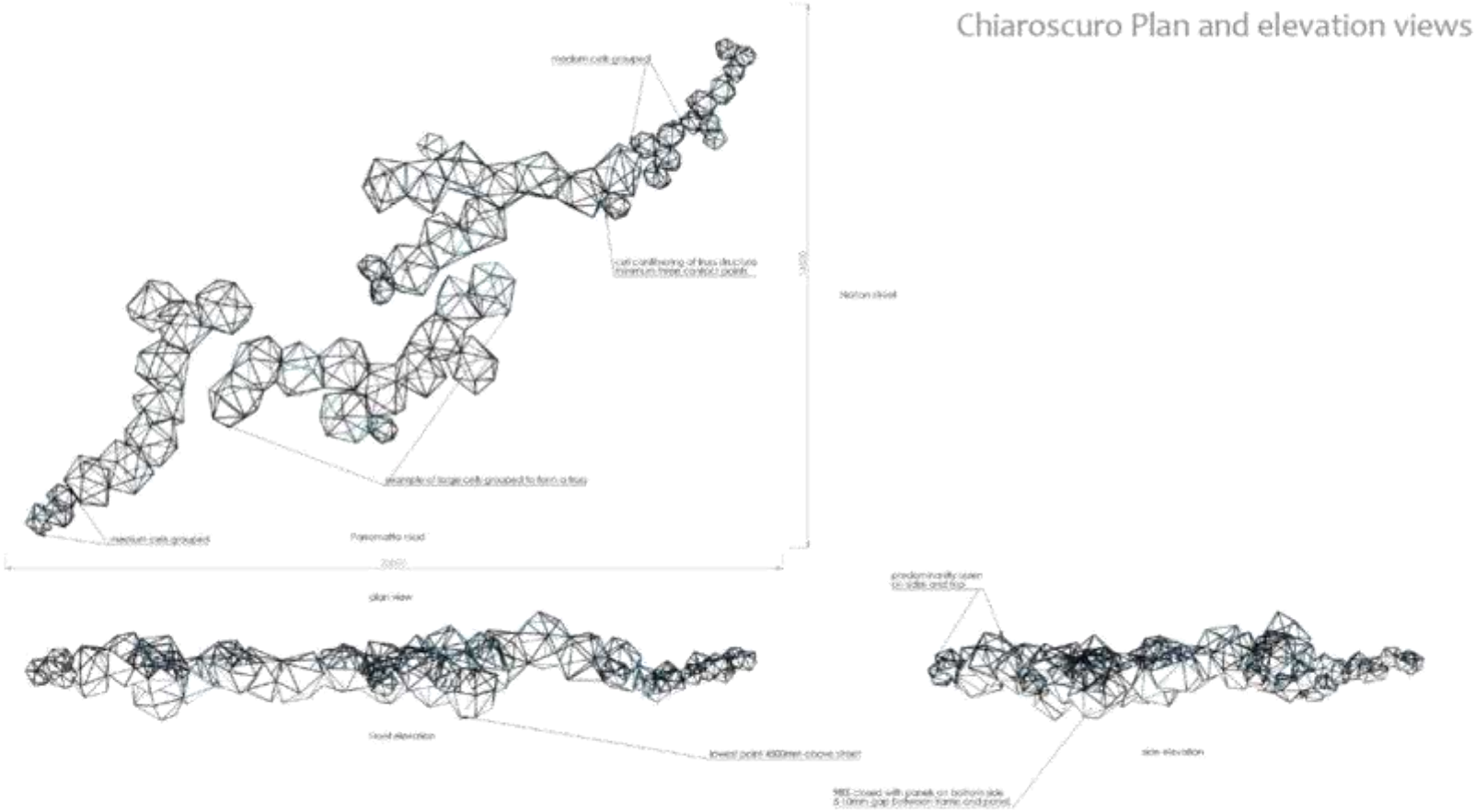
Small cell
Aluminium 10mm section
S/steel smaller profile



Medium cell
Aluminium 12mm section
S/steel smaller profile

PARAMATTA ROAD PUBLIC ART PROGRAM: LEICHARDT & PETERSHAM PRECINCTS

DESIGN SUBMISSION ALESSANDRA ROSSI & ADAM CRUICKSHANK



PARAMATTA ROAD PUBLIC ART PROGRAM: LEICHHARDT & PETERSHAM PRECINCTS

DESIGN SUBMISSION ALESSANDRA ROSSI & ADAM CRUICKSHANK

MATERIALS

The materials have been selected to compliment the Norton Street precinct and are both durable and hard-wearing, requiring little to no maintenance.

Pending the engineers report we would like to see the main cell bodies made from stainless steel rod, alternatively a lighter option of anodized aluminum rod has been proposed.

The panels will be fitted to the under side and extend up to the lower sides of the cell bodies. Plexiglass has been identified as being suitable for external applications for its superior long term optical quality, chemical resistance, and weatherability. A secondary panel material of anodised aluminium with medium reflectivity will be used on the smaller cells. All panels will have a 10mm gap from the frame, and mechanically fixed with s/steel clips.

https://www.plexiglas.com/export/sites/plexiglas/.content/medias/downloads/sheet-docs/plexiglas-g.pdf
https://www.plexiglas.com/en/acrylic-sheet/chip-gallery/

Lighting modules will be fitted to a select number of cells spreading across the entire installation. A Natural white LED will be used to illuminate the translucent colours of the plexiglass panels . In order to make the installation more community interactive, the lighting scenes will be ever changing, and once a month there will be a special treat drawing people to the precinct. For the first Friday of every month, starting at dusk, the installation will come to life with a series of lighting scenes that have been programed to be in-sync with various songs from different genres. The public will be able to tune into the scheduled play list on their smartphones via the inner west council website.

Some of the items in the budget are yet to be confirmed and subject to the engineering report

Budget

Item	Contractor supplier	Est. price ex-GST
Meetings/Administration	Client, engineering, suppliers, fabricators	7000
Artist fee	Rossi/Cruickshank	50000
Fixings fastners art work, not including catenary	Multifix	3000
Transportation local and interstate	TNT and capital	9000
Installation/access equip allowance	All metal fabrication	TBC
Production welding and prep for anodising	All metal fabrication	TBC
Fully adressable led lighting display, equip	Light application	25000
Lighting programming and commisioning	Light application	TBC
Catenery susupension hardwares required engineer advice	TBC	TBC
Anodised aluminium panels various colours/Plexiglass various colour	Saphire aluminium	22500
Engineering art work only/Pole and footing design	Partridge	4050/5950
Aluminium sheets for structure	Capral aluminium	15000
Anodising structure	Anodisers WA	TBC
Electrician install LED to art work	EOS electrical	TBC
Electrican site install/acess equip allowance	Harkness electrical solutions	TBC
Airfares	Virgin/Qantas	3000
CNC cutting anodised panels	Artcom fabrication	7200
CNC cutting sheets structure	Artcom fabrication	15300
Bending cells	QSM fabrication	18000
Living allowance Sydney	Leichardt sydney 1 week	3500
Community workshop artist time	Rossi/Cruickshank	3200
Community workshop materials	Rossi/Cruickshank	500
Contingency unforseen expences/engineering	Rossi/Cruickshank	5000/4000
Car hire sydney	Thrifty	400
Painting poles/Includes access equipmet/materials	Rossi/Cruickshank	13,000
Working prototype structure assembly and electrical housing	Anodisers WA,QSM,Capral, AMF	5000
Prototype materials	Capral, light aplication, mulit fix	2000
(road closure and trafic management not included)	**TOTAL**	TBC

Item No: **LTC0920 Item 14**

Subject: **CAMBRIDGE STREET, ROZELLE - TEMPORARY FULL ROAD CLOSURE FOR CRANE WORKS (BALUDARRI - BALMAIN/ BALMAIN ELECTORATE/ LEICHHARDT PAC)**

Prepared By: Vinoth Srinivasan - Engineer - Traffic and Parking Services

Authorised By: Manod Wickramasinghe - Traffic and Transport Planning Manager

SUMMARY

Council has received an application from Jim's Traffic Control for approval of a temporary full road closure of Cambridge Street, between Darling Street and Moodie Street, Rozelle on Saturday, 26 September 2020 from 7:00am to 5:00pm for the setup of a mobile crane to install the site tower crane at 731 Darling Street, Rozelle.

RECOMMENDATION

THAT the proposed temporary full road closure of Cambridge Street, between Darling Street and Moodie Street, Rozelle on Saturday, 26 September 2020 from 7:00am to 5:00pm (contingency period 2 weeks start date from Sunday, 27 September 2020 – 11 October 2020) be approved for the setup of a mobile crane to install the site tower crane at 731 Darling Street, Rozelle subject to, but not limited to, the following conditions:

1. **A Road Occupancy License be obtained by the applicant from the Transport Management Centre;**

2. **All affected residents and businesses, including the WestConnex, NSW Police Area Command, Fire & Rescue NSW and the NSW Ambulance Services be notified in writing, by the applicant, of the proposed temporary full road closure at least 7 days in advance of the closure with the applicant making reasonable provision for stakeholders;**

3. **The occupation of the road carriageway must not occur until the road has been physically closed; and**

BACKGROUND AND OTHER STAFF COMMENTS

Council has received an application from Jim's Traffic Control for approval of a temporary full road closure of Cambridge Street, between Darling Street and Moodie Street, Rozelle on Saturday, 26 September 2020 from 7:00am to 5:00pm.

This road closure application is sought for the setup of a mobile crane to install the site tower crane at 731 Darling Street, Rozelle.

The Traffic Control Plan (TCP) and Traffic Management Plan (TMP) submitted with the application is attached.

FINANCIAL IMPLICATIONS

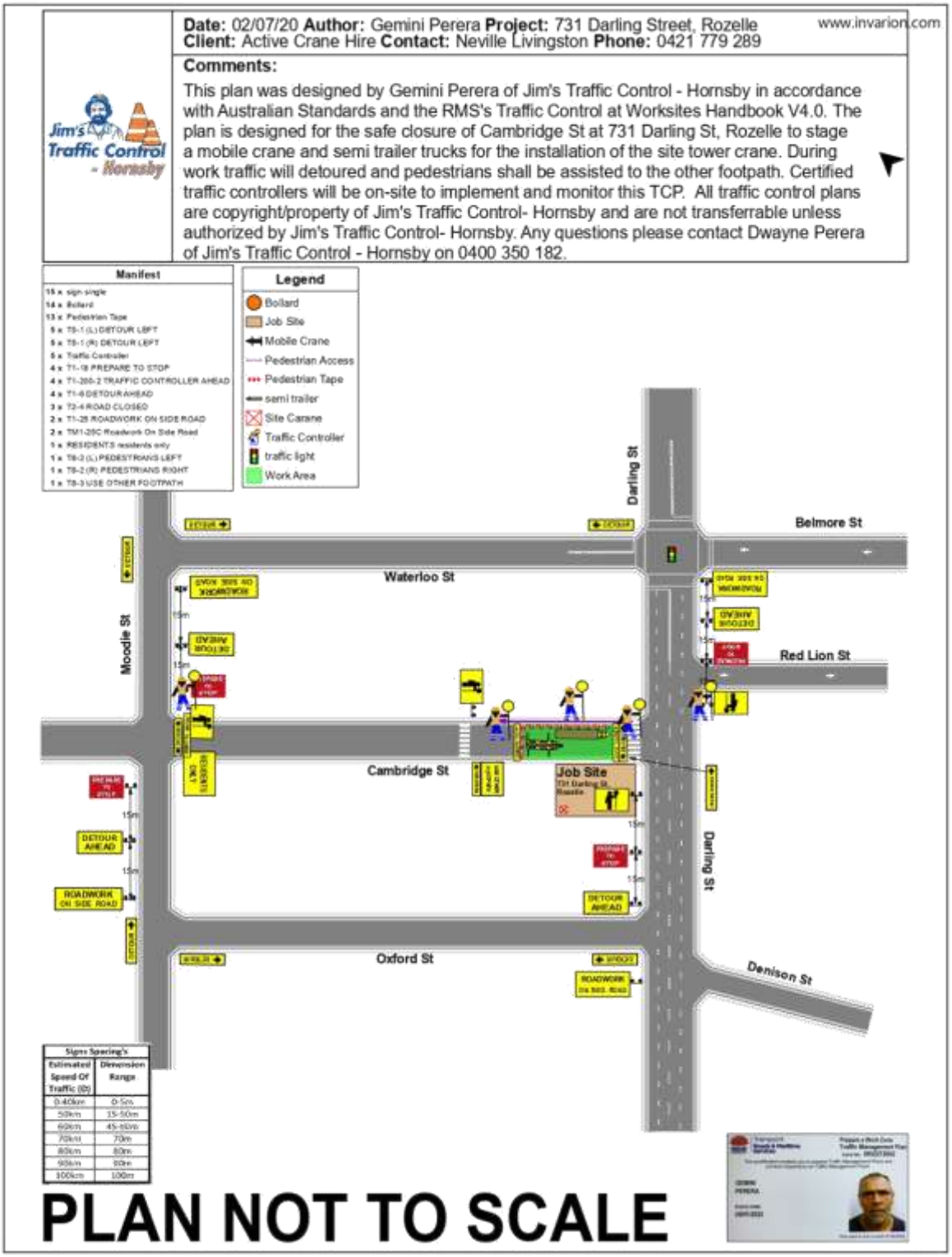
Under Council's Fees & Charges, the applicant is to pay a fee for the temporary full road closure.

PUBLIC CONSULTATION

The applicant is to notify all affected residents and businesses in writing at least 7 days prior to the commencement of works.
The proposed road closure is currently advertised on Council's website in accordance with the Roads Act 1993.

ATTACHMENTS

1.⇩ Cambridge Street, Rozelle - Traffic Control Plan
2.⇩ Cambridge Street, Rozelle - Traffic Management Plan


Date: 02/07/20 Author: Gemini Perera Project: 731 Darling Street, Rozelle
Client: Active Crane Hire Contact: Neville Livingston Phone: 0421 779 289
www.invarion.com
Comments:
This plan was designed by Gemini Perera of Jim's Traffic Control - Hornsby in accordance with Australian Standards and the RMS's Traffic Control at Worksites Handbook V4.0. The plan is designed for the safe closure of Cambridge St at 731 Darling St, Rozelle to stage a mobile crane and semi trailer trucks for the installation of the site tower crane. During work traffic will detoured and pedestrians shall be assisted to the other footpath. Certified traffic controllers will be on-site to implement and monitor this TCP. All traffic control plans are copyright/property of Jim's Traffic Control- Hornsby and are not transferrable unless authorized by Jim's Traffic Control- Hornsby. Any questions please contact Dwayne Perera of Jim's Traffic Control - Hornsby on 0400 350 182.
Jim's Traffic Control - Hornsby
Manifest
Legend
Bollard
Job Site
Mobile Crane
Pedestrian Access
Pedestrian Tape
semi trailer
Site Carane
Traffic Controller
traffic light
Work Area
Darling St
Belmore St
Waterloo St
Moodie St
Red Lion St
Cambridge St
Job Site
Darling St
Oxford St
Denison St
DETOUR AHEAD
ROADWORK ON SIDE ROAD
Signs Spacing's
PLAN NOT TO SCALE

Traffic Management Plan

A Traffic Management Plan (TMP) must be prepared for any activity or event that results in a temporary road closure. Council submits all applications for road closures to the Roads and Maritime Services (RMS) for approval.

The RMS require all TMP's to be prepared and submitted as detailed in the RMS's guidelines titled "Procedures for use in the Preparation of a Traffic Management Plan (TMP)" Ver 2.0 dated December 2001. The relevant details required for the TMP is reproduced below.

Activity/Event	Installation of Site Tower Crane
Location	731 Darling Street, Rozelle
Applicant	Jim's Traffic Control (Hornsby)
Work Date(s)	Saturday 26th September 2020 (27/9, 3/10, 4/10, 10/10, 11/10, 17/10, 18/10 as backups)
Work Hours	7am-5pm

Description or detailed plan of proposed measures

Active Crane Hire© propose to close Cambridge Street from Darling Street to Moodie Street for the Installation of the site tower crane.

The below points are to provide further information on the job schedule and process:

- Trucks will be reversed on Darling Street into position on Cambridge Street for loading/unloading.

Traffic Management

Traffic Management will be provided, for each of the below stages associated with the works:

1. **Road Closure of Cambridge Street (Darling Street Intersection):** 2x Traffic Controllers will close Cambridge Street at the Darling Street intersection. This will be done as follows:
    a. 1x Traffic Controller will close Cambridge Street and manage pedestrian/cyclist activity and resident access.
    b. 1x Traffic Controller to stop Westbound traffic when trucks enter/exit Cambridge Street.

2. **Footpath Closure of Cambridge Street:** 2x Traffic Controllers will close the footpath on the either side of job site. This will be done as follows:
    a. 2x Traffic Controllers close the footpath and manage pedestrian traffic on Cambridge Street, ensuring no pedestrians cross into the crane exclusion zone.

3. **Road Closure of Cambridge Street (Moodie Street Intersection): 1**x Traffic Controller will close Cambridge Street at the Moodie Street intersection. This will be done as follows:
    a. 1x Traffic Controller will close Cambridge Street and manage pedestrian/cyclist activity.

All measures will be in place for the duration of the works and are precautionary safety measures for the unlikely chance of incident.

A Traffic Control Plan (TCP) has been developed to ameliorate conditions whilst the works is taking place. Short delays to motorists on the affected road are possible.

Measures to ameliorate the impact of re-assigned traffic

Traffic Controllers will carry 2-way radios to ensure communication can be maintained between the traffic controllers. Local resident access will be maintained for the duration of the works.

Assessment of public transport services effected

Public Transport will not be impacted by these works as no busses use Cambridge Street. Traffic will be only temporarily stopped (1 truck/hour) on Darling Street to allow trucks to enter/exit the work area.

Details of provision made for emergency vehicle, heavy vehicles, cyclist and pedestrians

All emergency services will have been notified of the day of activities prior to the works commencing to ensure prompt action in the case of an emergency situation. In the event that an emergency vehicle requires access to the road, traffic controllers will instruct construction vehicles to cease activities and move to the side of the road and assist emergency vehicles access the required location. Traffic Controllers will check first with the emergency vehicle which section needs to be accessed to guide them to the correct access point as the road will be blocked by the mobile crane and/or trucks.

Public Consultation Process

To provide early notification to the public a letter box drop will be done 1 week prior to the works and a newspaper ad will be placed in the local newspaper 1 week prior to the works.

Item 14

Attachment 2

Traffic Control Plan:

Date: 02/07/20 **Author:** Gemini Perera **Project:** 731 Darling Street, Rozelle www.invarion.com
Client: Active Crane Hire **Contact:** Neville Livingston **Phone:** 0421 779 289

Comments:

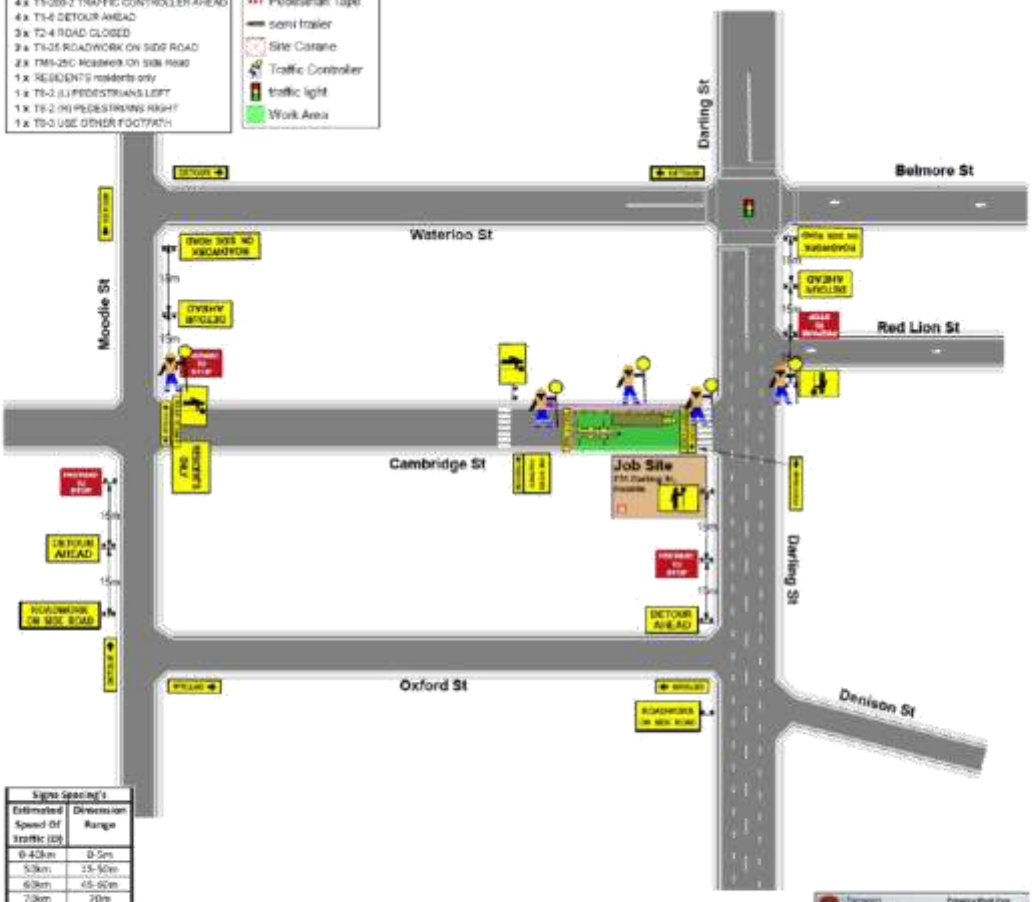
This plan was designed by Gemini Perera of Jim's Traffic Control - Hornsby in accordance with Australian Standards and the RMS's Traffic Control at Worksites Handbook V4.0. The plan is designed for the safe closure of Cambridge St at 731 Darling St, Rozelle to stage a mobile crane and semi trailer trucks for the installation of the site tower crane. During work traffic will detoured and pedestrians shall be assisted to the other footpath. Certified traffic controllers will be on-site to implement and monitor this TCP. All traffic control plans are copyright/property of Jim's Traffic Control- Hornsby and are not transferrable unless authorized by Jim's Traffic Control- Hornsby. Any questions please contact Dwayne Perera of Jim's Traffic Control - Hornsby on 0400 350 182.

Manifest

15 x sign single
14 x Bollard
13 x Pedestrian Tape
9 x TI-1 (L) DETOUR LEFT
5 x TI-1 (R) DETOUR LEFT
5 x Traffic Controller
4 x TI-16 PREPARE TO STOP
4 x TI-050-2 TRAFFIC CONTROLLER AHEAD
4 x TI-6 DETOUR AHEAD
3 x T2-4 ROAD CLOSED
3 x TI-25 ROADWORK ON SIDE ROAD
2 x TMS-25C Roadwork On Side Road
1 x RESIDENTS residents only
1 x TI-2 (L) PEDESTRIANS LEFT
1 x TI-2 (R) PEDESTRIANS RIGHT
1 x TI-3 USE OTHER FOOTPATH

Legend

- Bollard
- Job Site
- Mobile Crane
- Pedestrian Access
- Pedestrian Tape
- semi trailer
- Site Cranne
- Traffic Controller
- traffic light
- Work Area



Signs Spacing's	
Estimated Speed Of Traffic (Kh)	Dimension Range
0-40km	0-5m
50km	15-50m
60km	45-90m
70km	70m
80km	80m
90km	90m
100km	100m

PLAN NOT TO SCALE

Letter to Residents:

Jim's Traffic Control (Hornsby)

Crane Works at 731 Darling Street, Rozelle on Saturday 26th September 2020

There will be changed traffic conditions on Cambridge Street, Rozelle on Saturday 26th September from 7am-5pm. For the duration of the works, the road will be closed on Cambridge Street for the setup of a mobile crane to install the site tower crane at 731 Darling Street, Rozelle. Backup dates for these works will be 27/9, 3/10, 4/10, 10/10, 11/10, 17/10, 18/10. We ask that you please ensure 1 day prior no vehicles/trailers be left in these areas to allow our works to run smoothly and quickly to minimise local disruption.

We apologise for any inconveniences caused throughout the works and plan to minimise disruption to local residents/traffic. To help minimise and/or eliminate such disturbances during operation, traffic controllers will be in attendance to help guide construction vehicles and pedestrians around the work area as seen in the below Traffic Control Plan. We will also be maintaining resident access for the duration of the works.

For any concerns on the days of the work or to find out further details please contact the site supervisor Dwayne Perera on 0400 350 182.

Kind Regards
Dwayne Perera
Managing Director
Jim's Traffic Control (Hornsby)
0400 350 182

Jim's Traffic Control - Hornsby

Letterbox Drop Zones:

Item 14

Newspaper Ad:

Temporary Road Closure

Cambridge Street, Rozelle

Saturday 26th September 2020

Cambridge Street, Rozelle will be temporarily closed to traffic from Moodie Street to Darling Street, from 7am to 5pm Saturday 26th September. Traffic controllers will be in attendance at Cambridge Street, Moodie Street and Darling Street to provide assistance and local access. The back-up date for these works will be 27/9, 3/10, 4/10, 10/10, 11/10, 17/10, 18/10.

For further information please contact Dwayne Perera on 0400 350 182.

Attachment 2