

<p><b>MINUTES OF THE PEDESTRIAN, CYCLIST AND TRAFFIC CALMING ADVISORY COMMITTEE</b> <b>HELD ON THURSDAY 12 May 2016</b> <b>THE MEETING COMMENCED AT 10:02 AM</b></p>
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**PRESENT**

**Committee representatives:**

Clr Chris Woods	Councillor (Chair)
S/C Stephen Flanagan	Marrickville Police
Mr Brandon Morson	Roads and Maritime Services – Engineer
Ms Cathy Peters	Representative for Jenny Leong MP
	Member for Newtown

**Councillors and Officers in attendance:**

Mr Peter Whitney	State Transit Authority
Mr Wal Petschler	Council's Manager, Design and Investigation
Mr George Tsaprounis	Council's Coordinator, Traffic Services
Mr Emilio Andari	Council's Engineer, Traffic Services
Mr Felix Liu	Council's Traffic Management Planner
Mr Benny Horn	Council's Cycling Planner
Ms Mary Bailey	Council's Parking Planner
Ms Christina Ip	Council's Administration Assistant

**Visitors:**

Ms Aleka Poretsanos	Resident of Darley Street, Marrickville (Item A2.1.3)
Mr Mark Sefein	Director, Sefnet Pty Ltd (Item C1)
Ms Geraldine Sefein	Secretary, Sefnet Pty Ltd (Item C1)

<b>1. Apologies</b>
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Mr Ken Hind	Roads and Maritime Services – Engineer
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<b>2. Disclosures of Interest</b>
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Nil.

<b>3. Council resolution relating to the Pedestrian, Cyclist and Traffic Calming Advisory Committee - Minutes of meeting held on 13 April 2016</b>
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The Pedestrian, Cyclist and Traffic Calming Advisory Committee's recommendations of its meeting held on 13 April 2016 were adopted at Council's Infrastructure, Planning and Environmental Services Committee meeting held on 3 May 2016, with the exception of Items A3.1, A3.2 and C3 where Council resolved as follows:

Item A3.1: Yule Street, Dulwich Hill (Central Ward/Summer Hill) – Proposed traffic calming – Design Plans

*THAT Council approves the installation of slow points and speed bumps; and introduces angle parking in the street as soon as possible.*

Item A3.2:     Ness Avenue, Dulwich Hill (Central Ward/Summer Hill) – Proposed traffic calming – Design plans

*THAT:*

- 1. in relation to the section of Ness Avenue between Ewart and Balfour Streets, Council approaches Energy Australia to request installation of improved street lighting as a pedestrian safety measure and to encourage more use of the Ewart & Balfour Streets area for local overflow resident or visitor parking at night; and*
- 2. in relation to the northern side, from no. 29 Ness Avenue through to the regulation ten metres from the Garnett St intersection and where tree zones permit, Council investigates the implementation of angle parking to create additional parking spaces.*

Item C3:     Regional Bicycle Route 7 – Concept Plans (Central & North Wards/Summer Hill & Newtown)

*THAT:*

- 1. the advice from Council's Director Infrastructure Services be noted that outstanding matters with RMS and Sydney Buses, relating to the design of Railway Terrace, have now been resolved;*
- 2. the concept plans for Regional Bicycle Route 7 be placed on public exhibition for 28 days; and*
- 3. following public exhibition, a further report be prepared detailing the outcomes of consultation and the final proposed concept plan.*

<b>Item No:</b> C4
<b>Subject:</b> LOCAL BICYCLE ROUTES 3 & 18 WITH STREETSCAPE IMPROVEMENTS – CONCEPT PLANS (CENTRAL & WEST WARDS/SUMMER HILL)
<b>File Ref:</b> 50337.16
<b>Author:</b> Benny Horn – Cycling Planner, Infrastructure Planning and Property

## **SUMMARY**

Council has developed draft concept plans for upgrades to two bicycle routes, and associated streetscape improvements, identified in Council's Bicycle Plan:

- Local Route 3, from Livingstone Road (at the Bankstown rail line) to Marrickville Park; and
- Local Route 18, from Dulwich Hill train station to Marrickville train station.

Consistent with objectives of Council's Community Strategic Plan, the proposed changes promote bike riding as a sustainable transport mode by providing safe routes that enhance access to public transport and local destinations for people of all ages and cycling abilities.

The concept plans address constraints along the routes, such as by high traffic volumes and narrow road carriageways, by proposing:

- streetscape modifications to improve pedestrian safety and amenity, including new crossing treatments and shared path widening, and separation of pedestrians and bicycles;
- upgraded route treatments to improve bicycle rider safety, comfort and convenience, including protected on-road bike paths, shared paths and mixed traffic lanes as appropriate. The treatments are consistent with Roads and Maritime Services (RMS) guidelines for separation of bicycles and motor vehicles and support NSW Government policy of providing bike infrastructure that meets user needs and improves local cycling catchments; and
- changes to bus stops, intersections and on-street parking to accommodate the changes.

The plans incorporate preliminary input from the local community, RMS, State Transit Authority, Bike Marrickville and internal stakeholders.

In line with the NSW Government's commitment to improving bicycle infrastructure, Council received a 50/50 RMS grant for concept planning of both routes in 2015/16. Council has received a further 50/50 grant from RMS to develop detailed designs for the routes in 2016/17.

This report recommends that the concept plans for Local Routes 3 and 18 be placed on public exhibition for 28 days, with a further report to be prepared detailing outcomes of the consultation and the final proposed concept plan for the route.

## **Traffic Committee Discussion**

Committee members sought some clarity on the impact of on parking spaces from the proposed changes and were advised that there is a potential of a net gain of 8 parking spaces if the proposed angle parking is approved. The Committee members were also advised that in light of recent parking studies which indicated the occupancy rate around Livingstone Road is between 45%-65%, there is potential capacity for the existing supply of parking to accommodate some of the parking loss.

The Committee members agreed with the Officer's recommendation.

**Officer's Recommendation:**

**THAT:**

1. The draft concept plan for Local Route 3 be placed on public exhibition for 28 days, pending the modelling of proposed changes to the intersection of Livingstone Road and Marrickville Road;
2. The draft concept plan for Local Route 18 be placed on public exhibition for 28 days;
3. Following public exhibition, a further report be prepared detailing outcomes of consultation and the final concept plans for both routes.

**Traffic Committee Recommendation:**

**THAT** the Officer's recommendation be adopted.

**For Motion:** Unanimous

**Item No:** C4

**Subject:** LOCAL BICYCLE ROUTES 3 & 18 WITH STREETSCAPE IMPROVEMENTS – CONCEPT PLANS (CENTRAL & WEST WARDS/SUMMER HILL)

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- streetscape modifications to improve pedestrian safety and amenity, including new crossing treatments and shared path widening, and separation of pedestrians and bicycles;
- upgraded route treatments to improve bicycle rider safety, comfort and convenience, including protected on-road bike paths, shared paths and mixed traffic lanes as appropriate. The treatments are consistent with Roads and Maritime Services (RMS) guidelines for separation of bicycles and motor vehicles and support NSW Government policy of providing bike infrastructure that meets user needs and improves local cycling catchments; and
- changes to bus stops, intersections and on-street parking to accommodate the changes.

The plans incorporate preliminary input from the local community, RMS, State Transit Authority, Bike Marrickville and internal stakeholders.

In line with the NSW Government's commitment to improving bicycle infrastructure, Council received a 50/50 RMS grant for concept planning of both routes in 2015/16. Council has received a further 50/50 grant from RMS to develop detailed designs for the routes in 2016/17.

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## OFFICER'S RECOMMENDATION

### THAT

1. The draft concept plan for Local Route 3 be placed on public exhibition for 28 days, pending the modelling of proposed changes to the intersection of Livingstone Road and Marrickville Road;
  2. The draft concept plan for Local Route 18 be placed on public exhibition for 28 days;
  3. Following public exhibition, a further report be prepared detailing outcomes of consultation and the final concept plans for both routes.
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## BACKGROUND

In August 2007, Council adopted the Marrickville Bicycle Plan following consultation with relevant stakeholders including the local community. A key objective of the Bicycle Plan is to make cycling easier, safer and more attractive in Marrickville and reduce community car use.

The Bicycle Plan identifies 'Regional Routes' and 'Local Routes' to cater for a range of trip purposes. Local routes (LR) link residents and visitors with public transport and local destinations such as schools and shops, and regional routes for destinations further afield.

In 2015/16, Council received 50/50 grant funding from RMS through the NSW Government's Active Transport Program to develop concept designs for improvements to three local routes, reflecting the NSW Government's stated commitment to provide bicycle infrastructure that meets user needs and improves local cycling catchments:

- Part of LR3 on Livingstone Road from the Bankstown Line rail corridor to Marrickville Park (at Porter Avenue and Frazer Street);
- LR16 on Addison Road from Livingstone Road to Juliett Street (via Enmore Park), and
- Part of LR18 between Dulwich Hill station and Marrickville station (via Wardell Road, Pine Street and Arthur Street).

Council engaged Lambert & Rehbein in early 2016 to undertake this work for all three routes. Draft concept plans for LR3 and LR18 have been prepared and are presented in this report. Draft concept plans for LR16 (Addison Road) are still being developed and will be presented to the Traffic Committee at a later date. In April 2016, RMS subsequently awarded Council further 50/50 grants to develop detailed designs for all three routes in 2016/17.

### LR3 (Livingstone Road)

Livingstone Road is the preferred LR3 north-south route between the Bankstown Line rail corridor and Marrickville Park due to a lack of alternative direct route options. LR3 was extended 50 metres south to Jersey Street in order to maintain its connectivity to LR18.

### LR18 (Dulwich Hill station to Marrickville station)

The preferred LR18 route was identified via Dudley Street, School Parade, Albermarle Street, Livingstone Road, Jersey Street, Herb Greedy Place and Warburton Street. This route follows



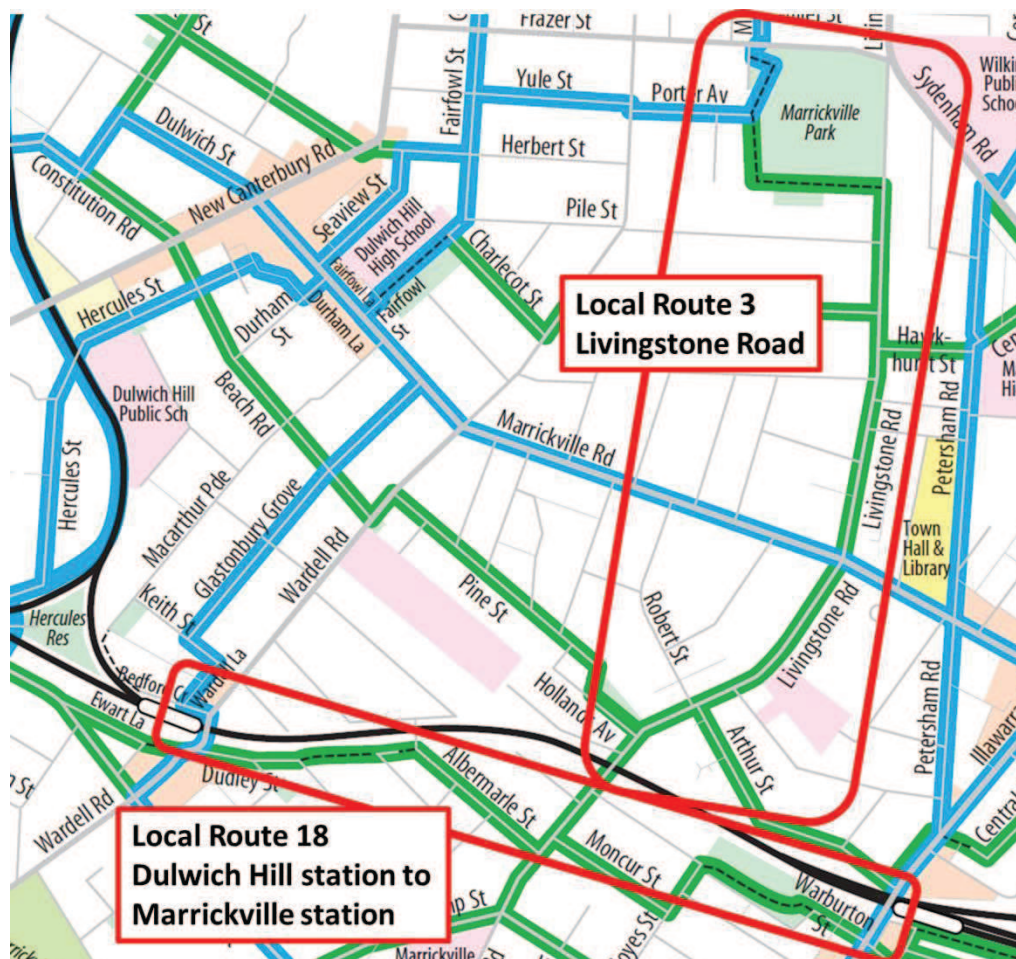
much of Council's LR19 alignment, except Jersey Street (rather than Moncur Street) and Herb Greedy Place (rather than McNeilly Park).

The preferred LR18 option via Albermarle Street (referred to in this report as *LR18/19*) is a flatter and more direct route, primarily along low traffic streets, and considered more comfortable and convenient for bicycle riders than the original LR18 route via Wardell Road. This was reflected in initial consultations, with stakeholders expressing a preference for the southern route option. The LR18/19 option also uses existing bicycle route upgrades on part of the route: a 90-metre long two-way protected bicycle path at School Parade and a 180-metre long shared path between School Parade and Albermarle Street.

The study areas of the preferred routes are shown at Figure 1.

## DISCUSSION

The LR3 and LR18/19 concept plans and consultant's report are attached. The plans propose a combination of mixed traffic lanes, shared paths and two-way protected on-road bike paths as appropriate to make bike riding safer, more comfortable and more convenient for people of all riding abilities (Figure 2). Associated streetscape improvements will enhance pedestrian safety and amenity on sections of the routes, with some changes to on-street parking provision, bus stops and intersections proposed to accommodate the bicycle route and pedestrian amenity improvements.

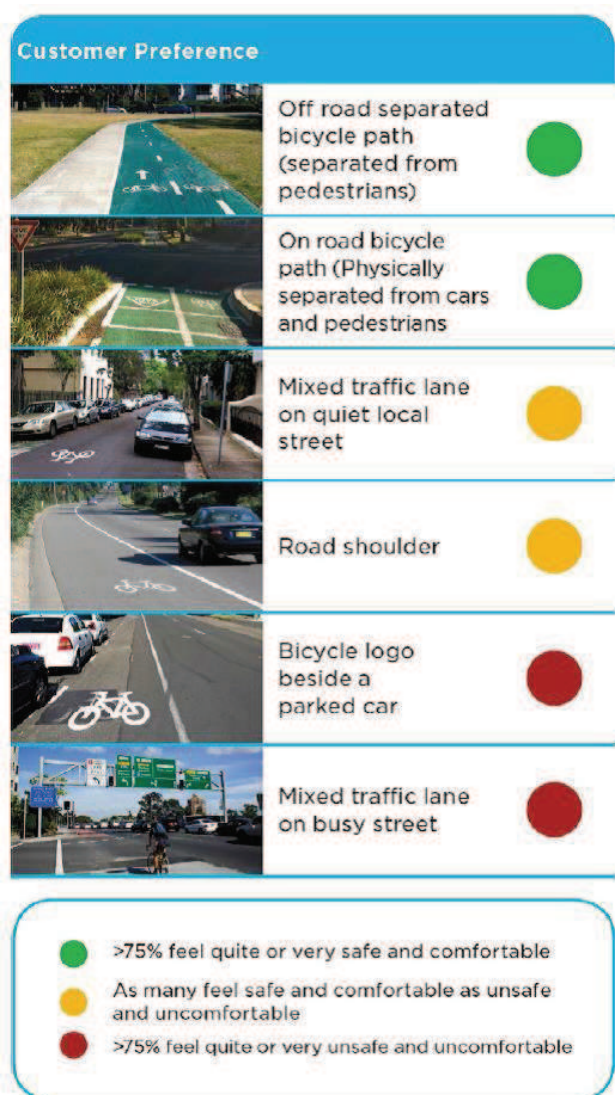


**Figure 2 LR3 and LR18/19 route study areas**

### Community Strategic Plan and Marrickville Bicycle Plan

LR3 and LR18/19 join one another at Livingstone Road (at Jersey Street). Together, the proposed route improvements will encourage bike riding in Marrickville LGA by providing high quality bicycle connections for residents and visitors to:

- public transport (at Marrickville and Dulwich Hill stations, and along Livingstone Road and Marrickville Road);
- other local destinations including local shops, schools, the planned Marrickville Library and Community Hub and Marrickville Park; and
- other bicycle routes including the Regional Route 7 priority cycleway between Lewisham and inner Sydney (via a planned route from Marrickville Park to Parramatta Road), the Cooks River path and the GreenWay.



**Figure 3 Bicycle infrastructure to meet user needs (Transport for NSW 2013, *Sydney's Cycling Future*)**



Council's Community Strategic Plan has a stated goal of a "vibrant economy and well planned, sustainable urban environment and infrastructure" and identifies specific strategies to encourage bike riding to help achieve this goal:

<b>Outcome</b>	<b>Strategies</b>
<i>3.3 The community walks, rides bikes and uses public transport</i>	<i>3.3.1 Plan and provide accessible and well-connected footpaths, cycleways and associated facilities</i>  <i>3.3.2 Promote accessibility of railway stations and bus stops</i>  <i>3.3.3 Support and promote cycling, walking and use of public transport and other alternative modes to reduce car use</i>
<i>3.4 Marrickville's roads are safer and less congested</i>	<i>3.4.2 Reduce the impact of traffic and improve pedestrian and cyclist safety, particularly around schools and urban centres</i>

### **LR3 (LIVINGSTONE ROAD)**

#### **The Concept Plan**

The LR3 draft concept plan proposes the following changes:

- New two-way protected on-road bike path on the western side of Livingstone Road between Randall Street and Marrickville Park to provide appropriate separation of bicycles and motor vehicles and a safe, comfortable and convenient route. Length 1,250m.
- Removal of the parking lane on the western side of Livingstone Road to accommodate the bike path; localised removal of on-street parking on the eastern side for related changes.
- New angled parking on eight side streets to offset removal of parking on Livingstone Road.
- Intersection modifications at Livingstone Road/Marrickville Road to improve bike rider safety and route connectivity through the intersection (subject to RMS agreement).
- New 'shared environment intersection' treatments across six side streets to improve pedestrian and bike rider safety and route connectivity along Livingstone Road.
- Minor relocation of seven bus stops, including provision of in-lane bus stops on the western side of Livingstone Road, to accommodate the bike path (subject to STA agreement). Four bus stops also under review by STA for removal.
- Minor realignment and narrowing of road lanes, and minor relocation of existing pedestrian median refuges, on Livingstone Road to accommodate the protected bike path.
- As part of Council's upgrade to Marrickville Park, shared paths will link Livingstone Road to Porter Avenue and Frazer Street, and are incorporated into the concept plans.

The key features of the changes are discussed below, with more detailed information, including the draft plan, at Attachment 1.

#### **Safer, more comfortable and more convenient bicycle routes**

Traffic volumes (9,000 – 11,250vpd (2014)) and speeds along sections of Livingstone Road (85<sup>th</sup> percentile speed of 55.8km/h between Sydenham Road and George Street) are high. The RMS guideline for appropriate segregation of bicycles (Figure 3) recommends the provision of

protected bike paths to segregate bicycles and motor vehicles on roads with this combination of traffic volume and speed.

Presently, LR3 has no dedicated bicycle facilities. It is an unmarked route along Livingstone Road in which bike riders are required to travel in the traffic lane with motor vehicles. Community feedback, and traffic volumes and speeds indicate that these conditions are unsafe for bicycle riders. There have been three collisions involving bicycle on this section of Livingstone Road since 2010.

The proposed two-way protected bike path on the western side of Livingstone Road is consistent with RMS guidelines for appropriate bicycle facilities. An example of this type of infrastructure is shown at Figure 4. This will improve bike rider safety, providing an important, high-quality north-south link that will encourage the use of bicycles to access local destinations and public transport in Marrickville.

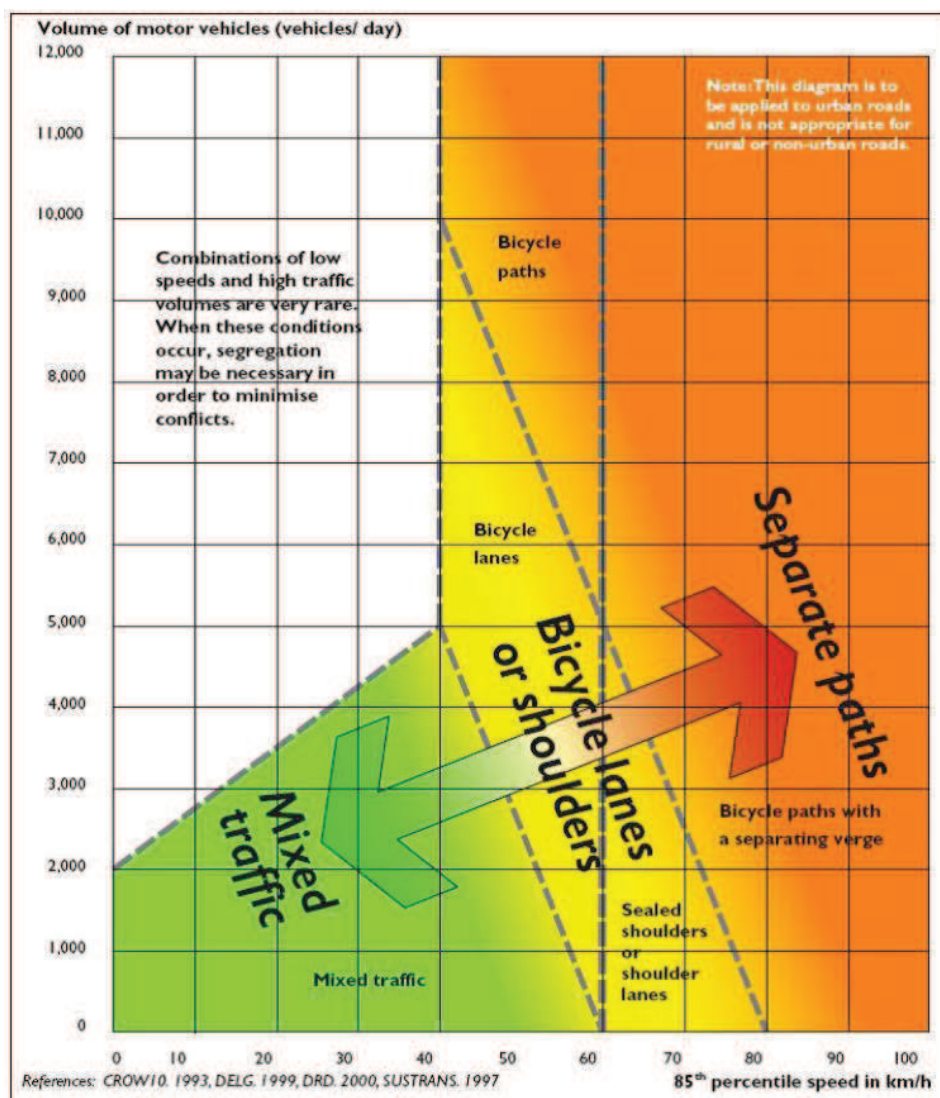


Figure 4 RMS guideline for appropriate bicycle facilities (RTA 2005, NSW Bicycle Guidelines)



**Figure 5 Example of a two-way protected bike path (Bourke Street, Surry Hills)**

Other LR3 treatment options were evaluated but discounted. The reasons for not supporting other options are set out in the following table.

Alternative LR3 option	Rationale for not supporting this option
Retain existing on-road mixed traffic conditions on Livingstone Road	The present conditions on Livingstone Road are unsafe for existing bicycle riders and deter potential bicycle riders, due to existing traffic volumes and speeds, and inconsistent with RMS guidelines for appropriate separation of bicycles and motor vehicles.
Provide bike shoulder lanes	<p>Bike shoulder lanes are also considered unsafe on Livingstone Road based on RMS guidelines due to existing traffic volumes and speeds.</p> <p>As Livingstone Road is a bus route, there is a requirement for wider traffic lanes (min. 3.2m). This only allows for very narrow bike shoulder lanes (1.2m) with no physical separation between bicycles and parked cars, increasing the safety hazard to bicycles from opening of car doors.</p>
Provide a shared path on the existing footpath along Livingstone Road	<p>Existing footpaths on Livingstone Road typically vary in width between 1.2m and 1.8m, and would require widening to 2.5m to serve as a functional shared path wide enough to accommodate two-way bike and pedestrian movements. This would require removal of a significant number of existing street trees and substantial loss of amenity for pedestrians and residents due to the loss of trees.</p> <p>Shared paths are unsuitable where pedestrian volumes are</p>

	<p>likely to be high, such as near the intersection of Marrickville Road.</p> <p>Shared paths are also inconsistent with NSW Government policy of providing bike infrastructure that separates bicycles, pedestrians and motor vehicles where possible.</p>
Provide a protected bike path without removing a parking lane	Livingstone Road is a 12.8m wide road. In some circumstances roads of this width can accommodate a protected bike path without affected parking lanes. However, as described above, there is a requirement for wider traffic lanes on Livingstone Road as buses travel along the street. As a result, Livingstone Road is not wide enough to accommodate two traffic lanes, two parking lanes and a two-way protected bike path.
Provide a protected bike path on the eastern side of Livingstone Road	A path on the eastern side of Livingstone Road was also considered, however a path on the western side of Livingstone Road provides the best connectivity to Marrickville Park and has slightly smaller impacts on on-street parking on Livingstone Road.
Use an alternative route	There are no alternative north-south routes near Livingstone Road that could provide a reasonably direct option for bike riders.

### **Improved Pedestrian Amenity**

The LR3 draft concept plan proposes streetscape improvements that will enhance pedestrian safety, amenity and access.

‘Shared environment intersection’ treatments are proposed at six locations on the LR3 route: at the intersections of Livingstone Road with Marrickville Avenue, Hollands Avenue, Robert Street, Hastings Street, Enfield Avenue and George Street. Shared environment intersections give right of way to pedestrians crossing the side streets, and will improve pedestrian safety and access (Figure 5) north-south along Livingstone Road. The treatment features raised thresholds to reduce vehicle speeds and a distinctive pavement to signify a changed environment and warn motorists of pedestrian and bicycle movements across the side streets. The treatment suitable for low-volume side streets (i.e. <30 vehicles per hour (vph)) and has been endorsed by RMS for further trials for side streets in the range of 30-60vph. Traffic counts indicate that four of the six side streets have less than 30 vph, with two (Enfield Street, 31vph, and George Street, 39vph) in the range of 30-60vph.





**Figure 6 Example of a shared environment intersection (George Street, Redfern)**

The proposed two-way protected on-road bike path along the western side of Livingstone Road will also improve pedestrian amenity by increasing the buffer between the footpath area and the busy roadway.

The draft LR3 concept also incorporates changes to improve pedestrian amenity being implemented as part of Council's Marrickville Park upgrade. This includes path widening to provide a shared path facility through the park between Lawson Avenue, Porter Avenue and Livingstone Road that bypasses children's play areas in order to minimise the risk of pedestrian/bicycle conflict in the park.

### **On-street parking**

In order to implement the proposed improvements to LR3 and associated minor bus stop relocations, changes to on-street parking on Livingstone Road are required, including the removal of the parking lane on the western side of Livingstone Road.

The installation of a two-way protected bike path will require the removal of the on-street parking lane on the western side of Livingstone Road. Data from two Council parking studies incorporating:

- Livingstone Road and adjacent side streets between Arthur Street and Enfield Street (Marrickville Town Centre Parking Strategy, 2013); and
- Enfield Street and Frazer Street (Petersham Parking Survey, 2016)

indicate that on-street parking occupancy rates along Livingstone Road (and surrounding side streets) range between 45% and 65%, and suggest that the existing availability of parking spaces can absorb the removal of some on-street parking.

Between Jersey Street and Marrickville Park, a total of eight properties fronting the western side of Livingstone Road (where on-street parking is proposed to be removed) do not have access to off-street parking (e.g. driveways or rear-lane garage) or parking on an adjacent side street. These residents are potentially most directly impacted by the proposed removal of on-street parking in front of their houses.



To mitigate the impacts of removing parking on Livingstone Road, the concept plan also considers opportunities to provide angled parking on side streets. Eight side streets along the LR3 route (Marrickville Avenue, Robert Street, Francis Street, Hastings Street, Graham Avenue, Enfield Street and Pile Street) are of sufficient width to accommodate 90 degree angled parking in close proximity to Livingstone Road.

The changes proposed in the concept plan would result in a net overall gain of 25 parking spaces on Livingstone Road between Jersey Street and Marrickville Park.

Proposed changes to on-street parking provision are shown in the concept plan and summarised in the table below:

Location	No. of spaces	Comments
<b>Livingstone Rd (between Jersey St and Marrickville Rd): Net loss of one space</b>		
Livingstone Road (western side)	-37	Removed for protected bike path
Livingstone Road (eastern side)	-3 -10	Removed due to relocation of bus stop Removed to accommodate changes to the Marrickville Road intersection
Marrickville Avenue	+15	Proposed angled parking on southern side
Robert Street	+24	Proposed angled parking on eastern side
Francis Street	+10	Proposed angled parking on northern side
<i>Net change</i>	<i>-1</i>	
Number of properties on western side without off-street and/or adjacent side street parking: 2		
<b>Livingstone Rd (between Marrickville Rd and Marrickville Park): Net gain of 26 spaces</b>		
Livingstone Road (western side)	-62	Removed for protected bike path
Livingstone Road (eastern side)	-9	Removed due to relocation of two bus stops
Hastings Street	+24	Proposed angled parking on northern side
Graham Avenue	+20	Proposed angled parking on northern side
Enfield Street	+12	Proposed angled parking on northern side
Hawkhurst Street	+22	Proposed angled parking on northern side
Pile Street	+19	Proposed angled parking on northern side
<i>Net change</i>	<i>+26</i>	
Number of properties on western side without off-street and/or adjacent side street parking: 6		

### Other road modifications

Proposed minor changes to bus stops are set out in the draft concept plan:

- the provision of three in-lane bus stops (with bend out bike path treatments behind the stops) at three existing bus stop locations on the western side of Livingstone Road, and
- minor relocation of bus stops on the eastern (four stops) side of Livingstone Road to provide sufficient width to accommodate the proposed two-way protected bike path.

In-lane bus stops with bend-out bike paths have been installed elsewhere in Sydney, for example along the Bourke Road Alexandria bike path (see Figure 4). The bend-out bike path treatment ensures that appropriate separation of pedestrians and bicycles is maintained through the bus stop area and is suitable when there is no adjacent parking lane.

The installation of protected bike paths requires the narrowing of travel lanes on Livingstone Road to 3.25m in some sections. This is consistent with State Transit Authority's (STA) design guidelines, which indicate that the minimum desirable travel lane width on bus routes is 3.2m (NB: The desirable minimum lane width increases to 3.5m when the bus travel lane is against the kerb. This condition does not apply on these routes).



**Figure 7 Example of an in-lane bus stop with bend-out bike path (Bourke Road, Alexandria)**

In initial consultations, STA has provided in-principle agreement with the proposed changes, with minor modifications to proposed bus stop relocations proposed and to be incorporated following further consultation in the public exhibition phase. STA has also indicated that two bus stops on Livingstone Road near Pile Street are under consideration for removal as part of Transport for NSW's bus stop rationalisation program. A decision on bus stop rationalisations will be made in coming months and any changes incorporated into the plans for the route.

The LR3 concept plan proposes reconfiguration of the intersection of Marrickville Road and Livingstone Road to accommodate the proposed two-way bike path. The changes include provision of a new dedicated right-turn lane on the northbound and southbound approaches to the intersection. Initial consultations have been held with RMS, with RMS indicating that intersection modelling to assess the impact of the proposed changes will be required. Council will undertake modelling of these impacts and will present the findings to RMS for consideration and feedback during the public exhibition period.

## LR18/19 (DULWICH HILL STATION TO MARRICKVILLE STATION)

### The Concept Plan

The LR18/19 draft concept plan proposes the following changes:

- New 30m shared path and 30m two-way protected on-road bike path on the northern side of Dudley Street connecting to the existing two-way bike path at School Parade, to provide a safe, direct and high quality bike link to Dulwich Hill train station.
- Minor relocation of the bus stop and part of the on-street parking lane on the northern side of Dudley Street to accommodate the bike path and shared path treatments. Requires the removal of three on-street parking spaces on the northern side of Dudley Street.
- New pedestrian crossing on Dudley Street to improve pedestrian safety and access to the train station and local shops. Requires the removal of two on-street parking spaces.
- Widening of shared path to 2.5m between School Parade and Kays Avenue East (subject to Sydney Trains agreement) to improve pedestrian and bicycle rider comfort and safety.
- Improved bicycle roadmarkings on Albermarle Street, Jersey Street and Herb Greedy Place to enhance bike rider safety and bicycle visibility for other road users.
- New two-way protected on-road bike path on the western side of Livingstone Road between Albermarle Street and Randall Street to provide appropriate separation of bicycles and motor vehicles and a safe, comfortable and convenient bicycle route between Dulwich Hill and Marrickville train stations, local shops and schools, Marrickville Community Hub and Marrickville Park. Total length 90m.
- Removal of the parking lane on the western side of Livingstone Road to accommodate the bike path; localised removal of on-street parking on the eastern side for related changes.
- Angled parking on Randall Street to offset removal of parking spaces on Livingstone Road.
- New 'shared environment intersection' treatment across Randall Street to improve pedestrian and bike rider safety and route connectivity along Livingstone Road.
- Minor relocation of two bus stops, including provision of an in-lane bus stop on the western side of Livingstone Road, to accommodate the bike path (subject to STA agreement).
- Minor realignment and narrowing of road lanes, and minor relocation of existing pedestrian median refuges, on Livingstone Road to accommodate the protected bike path.
- Bicycle access at the western end of Herb Greedy Place; and provision of bicycle contraflow roadmarkings in Herb Greedy Place to improve safety by enhancing motorist awareness of bike contraflow provisions in the lane.

The key features of the changes are discussed below, with more detailed information, including the draft plan, at Attachment 2.

### Safer, more comfortable and more convenient bicycle routes

Presently, LR18/19 is a bicycle route comprised mostly of on-road mixed traffic conditions, with a short section of two-way protected bike path at School Parade and a shared path between School Parade and Albermarle Street. LR18/19 mostly follows local roads with low traffic volumes (<2000vpd) and low speeds in which the mixed traffic conditions are considered safe and appropriate for bicycle riders.

Exceptions to the low traffic volume conditions on LR18/19 are at the crossing points of Wardell Road (13,500vpd), Livingstone Road (9,000vpd) and Illawarra Road (16,500vpd). Pedestrian volumes at Wardell Road and Illawarra Road are also likely to be high given the proximity to Dulwich Hill and Marrickville train stations, respectively.

The concept plan for LR18/19 proposes the retention of the existing protected bike path, shared path and mixed traffic treatments on most sections of the route, with localised improvements to bicycle roadmarkings to increase awareness of bicycles for other road users.

Upgrades to provide separation of bicycles and motor vehicles are proposed where this is appropriate based on existing motor vehicle volumes and/or to improve the comfort and convenience of the route. This includes:

- a protected bike path at Livingstone Road (between Albermarle and Randall Streets);
- a protected bike path and shared path at Dudley Street; and
- widening of the shared path between School Parade and Kays Avenue East to 2.5 metres.

### **Improved Pedestrian Amenity**

In addition to enhancements to bicycle infrastructure, the LR18/19 draft concept plan proposes associated streetscape improvements that will enhance pedestrian safety, amenity and access.

A new pedestrian crossing is proposed at Dudley Street to replace the existing pedestrian median refuge. This will upgrade an important link in the local walking network, improving pedestrian safety and access to/from Dulwich Hill train station and local shops on the eastern side of Wardell Road south of Dudley Street. Two parking spaces would be removed to accommodate the pedestrian crossing.

The LR18/LR19 concept plans also propose widening the existing shared path between School Parade and Kays Avenue East to 2.5 metres, by encroaching on the Bankstown Line rail corridor. This would greatly reduce the safety hazard for pedestrians by providing increased space to share the path with bicycle riders.

A 'shared environment intersection' treatment is proposed at Randall Street to give right of way to pedestrians crossing the side street and improve pedestrian safety and access. The treatment is approved for use in low-volume side streets (i.e. <30vph). Traffic counts indicate that Randall Street falls within this range.

The two-way protected on-road bike path proposed along the western side of Livingstone Road will improve pedestrian amenity by increasing the buffer between the footpath area and the busy roadway.

### **On-street parking**

Five parking spaces on Dudley Street are proposed to be removed to allow for improvements to local pedestrian and bicycle amenity and access to the train station and local shops.

The proposed two-way protected bike path on Livingstone Road, between Albermarle Street and Jersey Street, will require the removal of the on-street parking lane on the western side. Six properties fronting the western side of Livingstone Road do not have access to off-street or adjacent side street parking, and these properties are potentially the most directly affected by the proposed changes.

The concept plan proposes angled parking on Randall Street to offset the removal of parking spaces. The proposed changes are summarised below:

### **Dudley Street: Net loss of five spaces**

Dudley Street (northern side)	-3	Removed for protected bike path
Dudley Street (southern side)	-2	Removed for new pedestrian crossing
<i>Net change</i>	-5	

### **Livingstone Road (between Albermarle Street and Jersey Street): Net loss of one space**

Livingstone Road (western side)	-12	Removed for protected bike path
Livingstone Road (eastern side)	-4	Removed due to relocation of bus stop and pedestrian refuge
Randall Street	+15	Proposed angled parking on southern side
<i>Net change</i>	-1	

Number of properties on western side without off-street and/or adjacent side street parking: 6

### **Other road modifications**

The installation of the proposed two-way protected bike paths on Dudley Street and Livingstone Road requires modifications to bus stops and narrowing of travel lanes on these roads.

Minor changes to bus stops would involve:

- the provision of an in-lane bus stop (with bend out bike path treatments behind the stops) on the northern side of Dudley Street, and
- minor relocation of two bus stops on Livingstone Road (one on each side) to provide sufficient width to accommodate the proposed two-way protected bike path.

### **STAKEHOLDER ENGAGEMENT**

Consultation with internal and external stakeholders on LR3 and LR18/19 route options was undertaken in February and March 2016. This included:

- An online discussion forum on Council's 'Your Say Marrickville' website
- Liaison with key external stakeholders, including Bike Marrickville, RMS and Sydney Buses
- Consultation with internal stakeholders at Council.

Feedback and suggestions received were considered and have been incorporated into the concept plans where feasible. A summary of issues raised is set out below.

#### Community engagement

A 'Your Say Marrickville' online discussion forum was established to seek preliminary input into route options for three local routes: LR3 (Livingstone Road), LR16 (Addison Road) and LR18 (Dulwich Hill station to Marrickville station). The online forum was advertised to the community and other stakeholders using social media and signposting along the proposed



routes, and was active from 17 February to 16 March 2016. A total of 16 comments were received from nine contributors (with 12 comments pertaining to the Addison Road route).

Two comments were received pertaining to LR3 and two comments were received pertaining to LR18/19. These are summarised in the table below:

Route	Issue/Section	Comment	Number of comments
LR3	Livingstone Road	Road surface is unsafe (cracks between the concrete and bitumen surfaces).	1
LR3	Intersection of Livingstone Rd and Marrickville Rd	The intersection is unsafe for bike riders due to reduced sight distance south of intersection and a pedestrian median refuge pinch point north of intersection.	1
LR18	Route option	A southern route option via Warburton Street is better.	1
LR18	Dulwich Hill station	The connection to Dulwich Hill station needs improvement.	1

#### Internal stakeholders

In March preliminary options were presented to internal stakeholders at Council - including Council officers from Infrastructure Planning & Property; Design and Investigation; Planning Services; Environmental Services; Culture & Recreation Services; and Corporate Strategy & Communications teams. A summary of issues discussed is presented below:

##### LR3 (Livingstone Road):

- Intersection of Livingstone Road and Marrickville Road is a challenge
- This is a local route – thus should encourage beginner bike riders
- The route passes local schools – opportunity to improve bike riding safety to school
- The bus stops along Livingstone Road will be pinch points
- The Marrickville Hub redevelopment will be a new local trip attractor along the route
- Protected on-road paths are preferred rather than shared paths
- Incorporate opportunities for street trees
- Consider the volume of heavy vehicles

##### LR18/19 (Dulwich Hill station to Marrickville station):

- The southern route via Albermarle Street is preferred
- The connection to Dulwich Hill station needs to be improved
- Wardell Road may be able to accommodate a two-way path (northern alignment).

#### Bike Marrickville

Council's Cycling Planner met with representatives of Bike Marrickville on 15 March to present the consultant's initial consideration of options and seek feedback. A summary of issues discussed is set out below:

##### LR3 (Livingstone Road):

- Two-way protected bike path is supported

- People using the tennis courts at Marrickville Park would rely on the availability of nearby on-street parking
- There may be parking issues around Casimir Catholic College, although this mostly occurs on Marrickville Road while Livingstone Road may be accessed more by students catching the school buses there.

LR18/19 (Dulwich Hill station to Marrickville station):

- The southern route option via Albermarle Street is preferred
- Much of the required infrastructure for the southern route is already in place
- The locked gate at Herb Greedy Place deters bicycle riders
- McNeilly Park is not suitable as many children use the park
- Using Moncur Street allows travel time on Livingstone Road to be minimised.

### RMS

RMS have provided initial feedback indicating that:

- Potential signalisation of the intersection of Illawarra Road, Warburton Street and Schwebel Street is unlikely to be supported. This has been removed from the plan.
- Any proposed changes to the intersection of Livingstone Rd and Marrickville Rd requires traffic modelling to assess the impacts to the operation of the intersection. This has been initiated, with the results to be discussed with RMS before the concept plans are taken to public exhibition.
- The proposed pedestrian crossing at Dudley Street will need to satisfy applicable warrants.

Further consultation with RMS and minor changes will take place during the public exhibition period.

### Sydney Trains

Sydney Trains has not yet responded to requests for comment on proposed widening of the shared path connecting School Parade and Kays Avenue East by encroaching on rail land. Council will directly request a meeting with Sydney Trains representatives during the public exhibition period (refer to Engagement Plan below) to discuss the proposed change.

### STA

In initial consultations, STA has provided in-principle agreement to the proposed changes, including the provision of in-lane bus stops on Livingstone Road and the narrowing of traffic lanes in localised sections to 3.2m. Some minor modifications to proposed bus stop relocations have been raised. Changes reflecting STA feedback have been made with further consultation in the public exhibition phase.

STA has also indicated that two bus stops on Livingstone Road near Pile Street are under consideration for removal. A decision will be made in coming months and any changes incorporated into the final concept plan.

## ENGAGEMENT PLAN

Engagement during public exhibition will include direct consultation with the following stakeholders:

Issue and comments	Route	Key stakeholders
<u>Modification to signalised intersections:</u> <ul style="list-style-type: none"> <li>Livingstone Road/Marrickville Road</li> </ul>	LR3	RMS
<u>Narrowing of traffic lanes along bus routes:</u> <ul style="list-style-type: none"> <li>Livingstone Road</li> <li>Dudley Street</li> </ul>	Both	STA
<u>Minor relocation of bus stops:</u> <ul style="list-style-type: none"> <li>Livingstone Road (both sides)</li> <li>Dudley Street (northern side)</li> </ul>	Both	STA
<u>Removal of on-street parking to accommodate two-way bike path and provision of angled parking on side streets:</u>  <i>Removal of on-street parking</i> <ul style="list-style-type: none"> <li>Livingstone Rd (between Jersey St and Marrickville Park)</li> <li>Livingstone Rd (between Albermarle St and Jersey St)</li> <li>Dudley Street</li> </ul> <i>Installation of angled parking</i> <ul style="list-style-type: none"> <li>Marrickville Avenue; Robert Street; Francis Street; Hastings Street; Graham Avenue; Enfield Street; Hawkhurst Street; Randall Street</li> </ul>	Both	Affected residents and businesses
<u>Encroachment on Sydney Trains land</u> <ul style="list-style-type: none"> <li>Widening of shared path between School Parade and Kays Avenue East</li> </ul>	LR18/19	Sydney Trains
<u>Installation of pedestrian crossing</u> <ul style="list-style-type: none"> <li>Dudley Street</li> </ul>	LR18/19	RMS
<u>Relocation of Australia Post mail zone</u> <ul style="list-style-type: none"> <li>Livingstone Road</li> </ul>	LR3	Australia Post

## CONCLUSION

The proposed bicycle route and streetscape upgrades will provide substantial improvements to bicycle rider safety, comfort and connectivity between Dulwich Hill and Marrickville stations, and Marrickville Park. The improvements will encourage bike riding in Marrickville by providing high quality links to local destinations and thus contribute to Council's vision for increased use of sustainable transport modes and reduced car use in the community.

The proposed bicycle route improvements and associated changes will result in a net increase of 24 on-street parking spaces on Livingstone Road and adjacent side streets. This will occur as a result of the removal of an on-street parking lane on Livingstone Road to accommodate a 1,250 metre two-way on-road protected bike path and the provision of new angled parking on nine side streets. Parking occupancy data indicates that demand for on-street parking on and near Livingstone Road can be accommodated by the changes. On Dudley Street, proposed pedestrian and bicycle route improvements will require the removal of five spaces.

This report recommends that intersection modelling requested by RMS be undertaken, and the draft concept plans for Local Route 3 and Local Route 18/19 be placed on public exhibition for 28 days. Affected residents and businesses, and agencies including RMS, STA and Sydney Trains, will be consulted on the draft concept plans during the public exhibition period. A further report detailing outcomes of consultation and a final proposed concept plan will be presented to the Committee for endorsement.

## FINANCIAL IMPLICATIONS

RMS has committed 50/50 funding for the development of concept plans by June 2016, with Council funds allocated to these projects in the 2015/16 budget.



## APPENDIX 1

### LOCAL ROUTE 3 (LIVINGSTONE ROAD)



Photo 1: Livingstone Road (near Casimir College). Proposed two-way protected on-road bike path to replace existing parking lane on western side (at left).



Photo 2: Enfield Street near Livingstone Road. Angled parking proposed on one side of street.



Photo 3: Livingstone Road at Marrickville Park. Proposed transition from on-road bike path to shared path through park (with path widened as per Council's Marrickville Park upgrade).



**LOCAL ROUTE 18/19 (DULWICH HILL STATION TO MARRICKVILLE STATION)**



Photo 4: Dudley Street. Proposed minor relocation of bus stop (subject to STA agreement) and changes to on-street parking provision (at left) to accommodate a shared path transitioning to an on-road bike path.

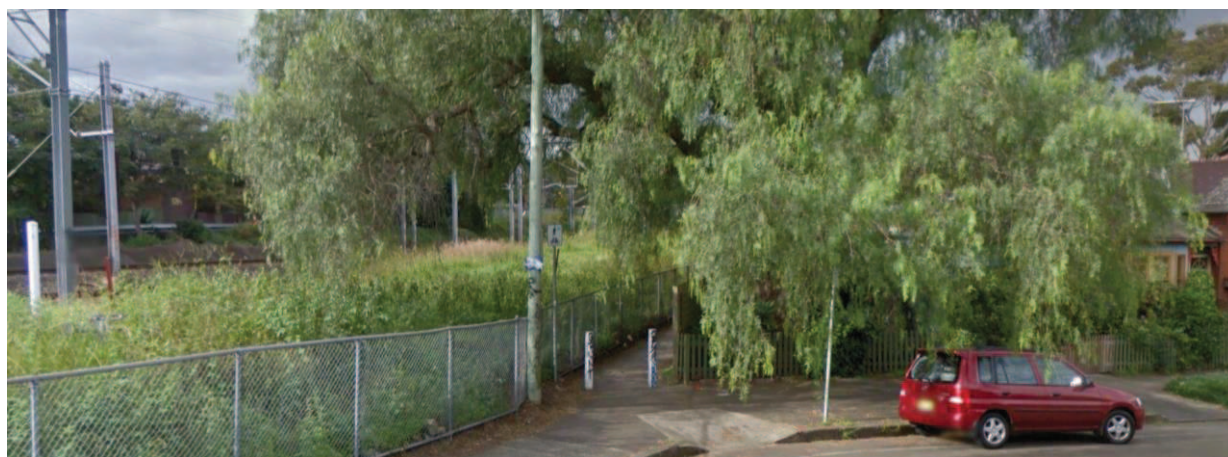


Photo 5: Shared path between School Parade and Kays Avenue East. Proposed widening of existing path to 2.5 metres.

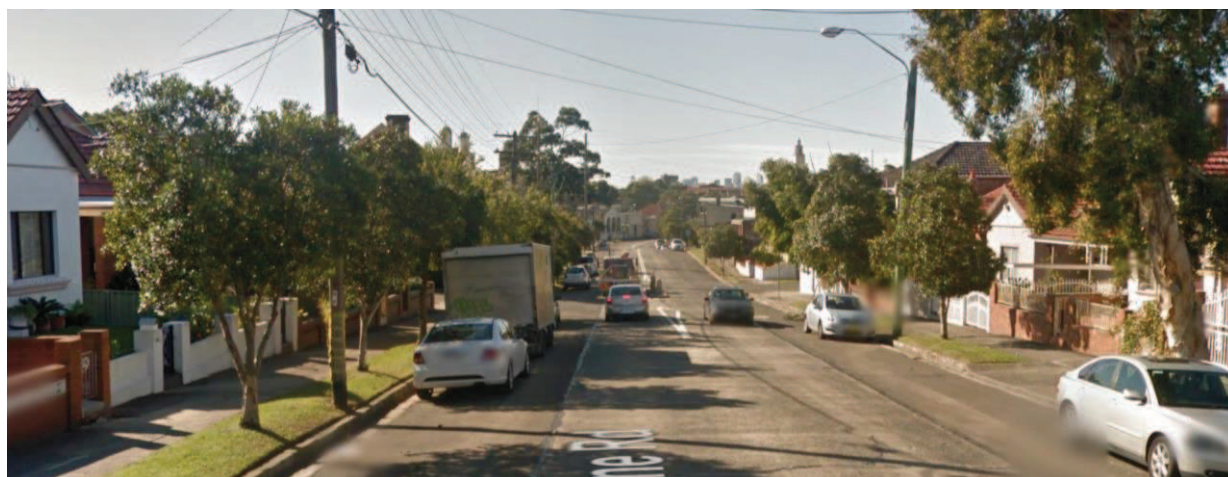


Photo 6: Livingstone Road (near Albermarle Street). Proposed two-way protected on-road bike path to replace existing parking lane (at left).

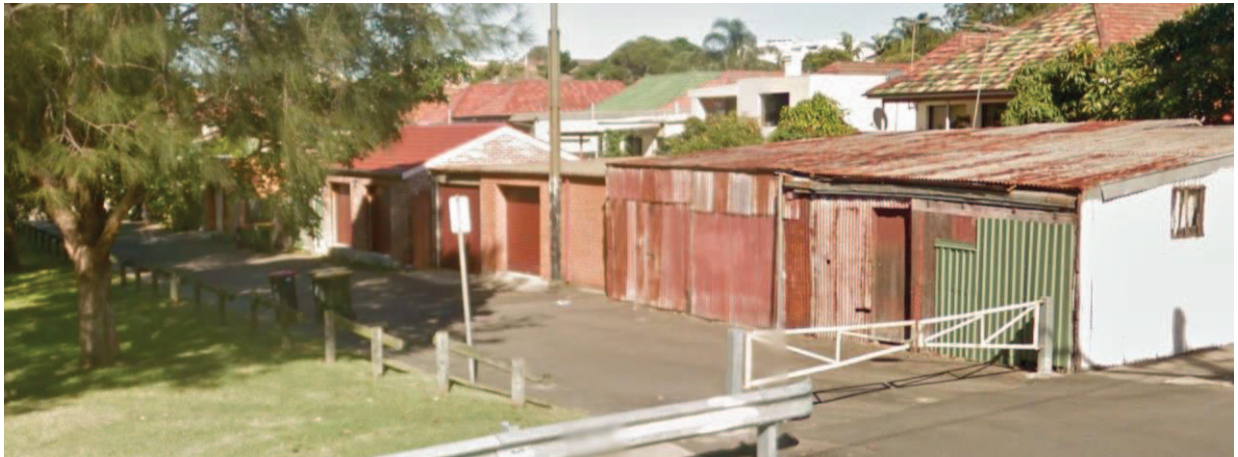


Photo 7: Herb Greedy Place. Proposed replacement of gate with bollards and bicycle roadmarkings in the lane.

**ATTACHMENT 1 – LR3 CONSULTANT’S REPORT AND CONCEPT DESIGN  
PLANS**

**(Attached separately)**

**ATTACHMENT 2 – LR18 CONSULTANT’S REPORT AND CONCEPT DESIGN  
PLANS**

**(Attached separately)**