

STRATEGIC REVIEW OF THE CANADA BAY BIKE PLAN

FOR

**THE CITY OF CANADA BAY
COUNCIL**

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Prepared By



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APPENDICES

- Appendix A Workshop Meeting Notes, dated 24 February 2014
 Appendix B Second Meeting Notes, dated 17 March 2014

Technical Notes are provided separately

1.0 INTRODUCTION

Transport and Urban Planning Pty Ltd has been engaged by the City of Canada Bay Council (CCBC) to carry out a strategic review of its 2005 Bike Plan, to produce a number of specified outcomes. These outcomes are detailed in section 1.3.

1.1 Summary of the Brief

CCBC has a long history of supporting cycling in its area. During the early 2000's, shortly after CCBC was formed by the merger of Concord and Drummoyne Councils, CCBC worked closely with local stakeholders to develop a detailed bicycle planning document. This document was the 2005 Bike Plan. While this plan has been a very useful document, particularly in its early years, it is now close to 9 years old and it has proven somewhat unrealistic in its scope and cost. This project will review the 2005 Bike Plan, identify key aspects and items and select features that can be included in a 4 year works program and 5 to 10 year indicative program.

The aim will be to construct a cohesive bike network complementing existing facilities and providing consistent, logical links to regional routes and local destinations.

The project also aims to audit the current condition and compliance with standards and guidelines of Council's existing bicycle network. It will be essential that any new cycleway or facility identified must be capable of complying with relevant guidelines.

Where an existing cycleway is identified as not meeting current guidelines due to road asset or pavement deterioration, a recommendation will be made on how to address each situation, including the possibility of temporary removal from the Bike Plan, until the asset renewal program can allow the cycleway to be reinstated.

1.2 Methodology

The detailed tasks that have been undertaken, are as follows:

- i) Review the 2005 Bike Plan;
- ii) Identify all bicycle works carried out since 2005 and bring the Bike Plan up to date;
- iii) Identify changed bicycle facility standards and update the 2005 Bike Plan where relevant;
- iv) Liaise closely with Council staff throughout the project, to identify current issues, priorities, programs, funding forecast and any other relevant matters;
- v) Confirm consultation processes with Council staff and identify stakeholders;
- vi) Facilitate the first consultation meeting;
- vii) Develop the updated Bike Plan, taking into account Council's priorities, stakeholder input and the auditing of the existing cycleway network with reference to Council's renewable roads program;

- viii) Develop in detail the core spinal cycleway network plans through the Canada Bay LGA;
- ix) Identify any pinch points, intersection design issues or other site specific items and provide sketch plans of potential remedies;
- x) Prepare a 4 year priority list of works to commence in 2015/16, based on Council's forecast budgeting;
- xi) Prepare a preliminary 5 to 10 year list of works, including indicative costings;
- xii) Hold the second consultation meeting and after assessing the outcomes of the meeting, include any appropriate modifications in the Bike Plan or programs;
- xiii) Produce the final 2014 Bike Plan Review report, including a summary; 4 year priority works with detailed estimates of cost; 5 to 10 year priority list of works with indicative cost estimate; and a Bike Map showing current and 4 year program of works cycle routes in a format suitable for Council's web site and CADD system;

1.3 Expected Outcomes

The following outcomes of the strategic review, which will be contained in the remainder of this report, are:

- Review the recommendations of the 2005 Bike Plan and provide an updated list of cycle routes;
- Prepare a 4-year priority list of works, funded at \$200,000 per year commencing in the 2015/16 financial year;
- Forecast works that may be provided over the following 5-10 years, with indicative cost estimates;
- Provide sketch drawings of any pinch points on the priority routes;
- Produce a final updated Bike Plan Review report (this report) including;
 - A summary of the review;
 - 4-year priority list of works with detailed cost estimates;
 - 5 to 10 year priority list of works with indicative cost estimates;
 - A Bike Map showing current facilities and 4-year priority works.

These outcomes are to be achieved taking into account feedback and submissions received from stakeholders at 2 consultation meetings.

2.0 CONSULTATION

During January 2014, CCBC distributed a letter to its known cycling contacts, inviting them to the first of two planned consultation meetings. The first meeting was a workshop where attendees could highlight their key issues, locations and priorities. It was held on Monday 24 February at Concord Library. Detailed Meeting Notes are included as Appendix A.

2.1 Meetings and Workshops

The first meeting was attended by several key BayBUG Members, some of whom had been involved in the formation of the 2005 Bike Plan. Concern was raised that the 2005 Bike Plan was being abandoned or ignored. This was later clarified in an email to all attendees dated 6 March 2014 that the 2005 Bike Plan is not being ignored or dismissed. In fact most recent cycle facility works by Council were Bike Plan recommendations, and future works are expected to continue to come from it. The primary aim of the current review is to advise Council on short to medium term work programs. These work programs are expected to mainly be drawn from the 2005 Bike Plan, with relevant adjustments for recent developments, priorities and funding opportunities.

The attendees at the first meeting were invited to provide written submissions on their issues and priorities, in preparation for the second meeting. All attendees did so, and copies of their submissions have been provided in a supplement to this report titled Technical Notes.

The second meeting was held on Monday 17 March and detailed Meeting Notes are attached as Appendix B. This meeting finalised all attendees input to this strategic review.

2.2 Consultation Outputs

A summary of the main issues and priorities resulting from the two meetings follows:

- Current Interim Bike Map on Council's website is not a full representation of all existing bike routes. The bike map should be comprehensive.
- BayBUG believes current annual capital funding of \$200,000 is inadequate given Council's corporate position of supporting cycling and sustainable futures.
- Recent development approvals have not provided improvements for cycling and Council's planning approvals should achieve better outcomes for cycling.
- Recent introduction of the new style of on road bike route marking, using logos in traffic lanes, is strongly supported on low-moderate volume roads. It eliminates car door danger, alerts motorists to cycling activity in the area and indicates to motorists that cyclists can travel in traffic lanes.
- Bike routes and facilities around Westconnex should be identified and RMS funding or implementation sought.
- Way finding signs have gone missing and not been replaced, or not installed as part of new works.

- Parking facilities at shops, schools and centres need to be provided.
- The bicycle maintenance request form appears to be missing from Council's new website.
- Marking of more (all) bike routes is preferred to constructing short lengths or spot treatments.
- Need to provide No Stopping at access ramps.
- Council should provide more cycling programs for school children.
- Council to consider reconvening a quarterly Bicycle Planning Committee.

2.3 Suggested Priority Works

The following specific locations were identified as priority works by the attendees (these are not in priority order):

- a) Cintra Park, Renown Street, Watts Street, southern edge of Barnwell Park golf course, William Street to Bevin Avenue. This would be parallel to the Queens Road / Gipps Street and Lyons Road West routes, but on quieter, safer streets.
- b) Chicanes on Correys Avenue and its poor pavement make it unsafe for cyclists. Consider Davidson Avenue as an alternate route, between Brewer Street and Links Lane.
- c) The link between Nullawarra Avenue and John Whitton Bridge and Ryde Bridge is essential. On-road along Leeds Street, Llewellyn Street, Killoola Street, Fremont Street and Hospital Road, off road through McIlwaine Park, shared footpath along Concord Road and the existing shared path to Killoola Street.
- d) The railway subway near Concord West station needs improvement to facilitate cyclists, especially with the school development.
- e) Killoola Street from Fremont Street to Queen Street across Concord Road needs to be facilitated, then Queen Street can easily become a significant length of on-street cycle route through use of logos, linking to Homebush Bay paths and providing a good parallel route to Concord Road. Also a link from Killoola Street along Harrison Avenue to Homebush Bay Drive and the subway on the west side of the railway line would complete a good link for all cycle routes in the area.
- f) The 'walking track' on Health Dept land between Majors Bay and Kokoda Track area is a great opportunity that can easily be developed. Noting it is State owned land, Council should lobby government for this.
- g) Halliday Park path needs to be widened to become a shared path – Wymston Parade on-road route is excellent but there needs to be a better connection through Halliday Park to Lyons Road West.
- h) A solution to the Lyons Road West section west of Preston Avenue is a priority because it will link Great North Road and Wymston Parade routes to the Concord Shared Pathway. Consider footpath widening and a shared path or road shoulder

protected by median along the north side, for two-way cycling on the north side, to eliminate the difficult crossing of Lyons Road West. Then use James Street and Friend Avenue to avoid the difficult westbound usage through roundabouts at Harris Road and Williams Street. Existing pedestrian refuge east of Preston Avenue is not suitable for cyclists. (Consider widening the refuge in the short term?)

- i) Drummoyne scenic cyclists seek a linking route from Wymston Parade around Abbotsford Point to Blackwall Point Road, Bortfield Drive to Lysaght Park.
- j) Byrne Avenue access ramp is unsuitable for cyclists due to its design and parking. If cycle path must go on-street there, the ramps and on-road design must be improved.
- k) A scenic route along St Georges Crescent linking through to Birkenhead Point Shopping Centre. Current connection to the centre through Salton Reserve is difficult.
- l) A link between the existing Esplanade foreshore path across Taplin Park to Cometrowe Street or using Thompson Street in lieu of Taplin Park, then across Drummoyne Park (widen existing path) and Bayswater Street would be a good link between Lyons Road/Drummoyne to the foreshore path. This could also extend along Tranmere Street to Brett Park.
- m) More access ramps along the Bay Run, particularly in the section south of Rodd Point.
- n) Broughton Street south of Gipps Street to the pedestrian bridge over Parramatta Road and on to Burwood needs route development. Consider a route in Goddard Park.
- o) Crossing over Homebush Bay from Rhodes to Wentworth Point on proposed new bridge. Also, consider a new railway overbridge to allow east/west connections to the new bridge.
- p) Complete the interchange on Homebush Bay Drive as part of the Australand development.
- q) Link between Rhodes railway station and McIlwaine Park.
- r) Link between Queens Road and Parramatta Road via Arlington Street, which links to Ashfield Council bike route along Croydon Road.

Finally, several bike routes through land not under Council's control were discussed. It was advised that routes that traverse community title land, such as Breakfast Point, Abbotsford Cove and others, can only be installed by and with agreement of the relevant Community Association. Also, the track around Dame Edith Walker Hospital, Concord Hospital and Rivendell is on State Government controlled land and to be upgraded as a cycle route would be a matter for the State.

3.0 CONDITION ASSESSMENT

As part of the strategic review, an on-site condition assessment was carried out on all existing routes shown on Council's Interim Bike Map. The details of the assessment are provided in table form in the supplementary document titled Technical Notes.

4.0 REVIEW OF THE 2005 BIKE PLAN

The 2005 Bike Plan contained a total of 34 bike routes, categorized into 4 types:

- Regional Routes (RR1 to RR5). These routes had RTA funding available at the time.
- Strategic Routes (SR1 to SR6). Routes of regional or strategic significance but with no RTA funding.
- Links to Adjacent Jurisdictions (LAJ1 to LAJ11). Links at CCBC boundaries into adjacent areas.
- Local Routes (LR1 to LR12). Other cycleways along local streets and through parks or reserves.

4.1 Recent Cycleway Developments

The main new works undertaken in recent years (since the 2005 Bike Plan) by Canada Bay Council are:

- The Concord Shared Pathway. Links Lyons Road West and Cintra Park to Greenlees Park, via St Lukes Park, Stanley Street, Queen Elizabeth Park, Rothwell Park and Jesse Stewart Reserve.
- Rhodes foreshore path, between Blaxland Road boat ramp and Sydney Olympic Park.
- Blaxland Road, between boat ramp and Rhodes railway station.
- The Esplanade between Raymond Place and Lysaught Park, via the Esplanade, Taplin Park and Russell Park.
- Ingham Avenue between Barnstaple Road and Fairlight Street.
- Victoria Road between Iron Cove Bridge and Gladesville Bridge, via Rosebey Street, Park Avenue, Renwick Street, Wrights Road, Drummoyne Avenue, Cambridge Road to Victoria Road at Gladesville Bridge.
- The Bay Run from Iron Cove Bridge to Dobroyd Parade via Henley Marine Drive and Timbrell Drive.

4.2 Review Factors

This review has considered the following factors for each of the 34 routes, resulting in the details shown in Table 4.1.

- All works undertaken on the cycle network since 2005;
- Current standards for cycleways;
- The feedback received during the consultation phase of this study;
- The condition assessment of the existing network;
- A review of bicycle crashes supplied by the RMS;
- Current bike maps from the RMS, adjoining Councils and Sydney Olympic Park; and
- Council officers' input.

TABLE 4.1

2005 BIKE PLAN – 2014 REVIEW OF BIKE ROUTES

Route No.	Route Description	Current Status	Comments and Recommendations
RR1	Victoria Road. Gladesville Bridge, Wolseley Street, Wrights Road, Renwick Street, Day Street, Park Avenue, Victoria Road, Iron Cove Bridge	Exists	Route cannot use Victoria Road footpath between Gladesville Bridge and Wolseley Street, due to steep grade and residents pedestrian accesses conflicting with cyclists. Current route is directed along Victoria Road, Cambridge Road, Drummoyne Avenue, Wrights Road. Route is very well constructed and delineated between Iron Cove Bridge and Wolseley Street with additional logos required north of Wolseley Street. A suggestion for a parallel route along St Georges Crescent between Drummoyne Avenue and Birkenhead Point was considered, however cannot be recommended due to very difficult sections of narrow, hilly road and one way traffic near Drummoyne Wharf. This review also was directed to avoid parallel routes due to funding limitations.
RR2	Eastwood/Strathfield Rail Trail. John Whitton Bridge, Blaxland Road, Walker Street, Homebush Bay pathways, Queen Street, Railway lands, Parramatta Road	Exists at northern end, southern end does not exist	Recent works in Rhodes have completed several bike paths, both along the foreshore to Sydney Olympic Park and along the railway line to Rhodes station. A further link on Australand property is expected to connect Blaxland Road to Homebush Bay Dr shortly. The southern extent of this route ends on the west side of Powells Creek, at Pomeroy Street. The recent rail freight line upgrade has taken up spare land along the rail corridor, so that concept is no longer viable. An alternate route along Pomeroy Street, Queen Street and Princess Avenue to Concord Road is recommended.
RR3	Short term alternate to RR2. Manson Road, Cooper Street, Moseley Street	Route does not exist and is not considered practical. Alternative to be considered	The proposed short term alternative to the use of the rail corridor in RR2 is impractical because it has no clear connections. However, planning for the Strathfield Triangle residential development includes a cycle route linking that area to Strathfield town centre via Cooper Street from Parramatta Road, across new traffic signals on Leicester Avenue to Moseley Street and Strathfield railway station and subway. This would be a new local route LR13.
RR4	Homebush Bay to City. Concord Road, Patterson Street, Gipps Street, Queens Road, Fairlight Street, Ingham Avenue, Henley Marine Drive, Timbrell Avenue	State Road route controlled by RMS, exists from Patterson Street to Ingham Avenue, and also on Tibrell Drive.	This route needs to extend further west than Concord Road. It should cross Concord Road and the gap between Ingham Avenue and Timbrell Drive should be completed. It should cross Concord Road using signals at Patterson Street, then use a shared footpath to Princess Avenue, then joining the proposed alternate route for RR2 along Queen Street. There are several possible links between Ingham Avenue and Timbrell Drive. The recommended route is Minnesota Avenue, across Henley Marine Drive with a new connection to the off road path in Timbrell Park. This path leads to both Timbrell Drive and on to the City, and to SR6 across Iron Cove Creek to meet existing bike paths in Ashfield LGA. Only a small amount of construction is required to complete this route.

Route No.	Route Description	Current Status	Comments and Recommendations
RR5	Safe Alternative to RR4. Parallel to RR4, using Patterson Street, Crane Street, Cintra Park, Renown Street, Watts Street, Barnwell Park golfcourse, William Street, Bevin Avenue, Harris Road, Henry Street, Barnstaple Road, Ingham Avenue	This route exists between Bevin Avenue and Ingham Avenue, and on Patterson Street only.	This route should use part of the recently constructed Concord Shared Pathway, from the intersection of Patterson Street and Crane Street, through Queen Elizabeth Park, Stanley Street, St Lukes Park to Cintra Park. However the centre section, between Cintra Park and Bevin Avenue has some impediments to easy implementation. It would need to cross the Cintra Park netball courts which can be congested on weekends, and Barnwell Park golf course, requiring extensive path construction and possible minor alterations to the golf course. As this section is likely to be long term, use of Lyons Road West between St Lukes Park and William Street is the recommended alternative.
SR1	Ryde Bridge to City via Lyons Road West. Ryde Bridge, Llewellyn Street, Hospital Road, Nullawarra Avenue, Norman Street, Majors Bay Road, Archer Street, Lancelot Street, Ellis Street, Brewer Street, Spring Street, Warbrick Street, Greenlees Avenue, Empire Avenue, Salt Street, Ward Street, Lyons Road West, then RR5.	Exists from Nullawarra Avenue to RR5.	This route is incomplete north west of Nullawarra Avenue. Also its route between Greenlees Avenue and Lyons Road West has been superseded by the Concord Shared Pathway. The recommended route is Ryde Bridge, Llewellyn Street, Mcllwaine Park, Concord Road shared footpath, Killoola Street, Fremont Street, Hospital Road, then the existing SR1 route to Greenlees Avenue, then the Concord Shared Pathway to Lyons Road West, then RR5.
SR2	North South Rail Trail John Whitton Bridge, Blaxland Road, Australand site link, Harrison Avenue, Killoola Street, Queen Street.	Recently extended along full length of Blaxland Road. Australand site link due to open shortly. Killoola Street and Queen Street not implemented.	Route north of Homebush Bay Drive is nearing completion at the time of this report. The Harrison Avenue/Killoola Street/Queen Street section is undeveloped. This section could be implemented by use of bike logos in traffic lanes for its full length, linking to proposed Pomeroy Street and Queen Street route RR4. The only pinch point is the intersection of Harrison Avenue and Killoola Street, where a section of shared footpath would need to be created (around No. 2 Harrison Avenue).
SR3	The Bay Run Off road path fully circling Iron Cove.	Exists	Recent works by CCBC between Thompson Street and Iron Cove Bridge has completed the full length of The Bay Run to a very high standard throughout Canada Bay. The only future work is the Timbrell Drive section where a proposed new bridge over Iron Cove Creek is proposed, to eliminate an existing pinch point.
SR4	Parks Route The Concord Shared Pathway, then Massey Park golf course, Sanders Parade, Zoeller Street, foreshore path from Exile Bay to Canada Bay and St Lukes Park.	The Concord Shared Pathway now exists. Some sections of the remainder of this route exist.	This route is partially complete and forms sections of RR5, SR1 and SR5. The remaining sections may no longer be viable. The section through Masey Park golf course would require extensive path and possibly bridge construction and conflict with the golf course design is likely to be insurmountable. The foreshore path between the golf course and Bayview Park runs over private land and a Community Association has refused permission for the path to be used for cycling. It is recommended that this route be deleted in lieu of the proposals for RR5, SR1 and SR5.

Route No.	Route Description	Current Status	Comments and Recommendations
SR5	<p>Sydney Harbour Foreshore Cycleway</p> <p>A foreshore route using on and off road opportunities between Iron Cove and Sydney Olympic Park.</p>	Many sections of this very long route exist, and many sections require development.	<p>This very long, complex route could be created by several short term links around long term sections, and could provide a continuous scenic recreational route around the entire foreshore of the City of Canada Bay. This route has potential to be promoted as a major recreational route in the region, and could become as well known as The Bay Run. (Consider a catchier name, such as The River Ride). Recommendations are;</p> <ul style="list-style-type: none"> - Commence at RR1 at Drummoyne Avenue ; - Use Drummoyne Avenue, Victoria Place, Raymond Avenue stairs to The Esplanade; - Follow Esplanade route to Swannell Avenue, then Withers Street, Blackwell Point Road to Great North Road; - Follow Great North Road to Altona Street, St Albans Street, Charlton Street to Wymston Parade; - Along Wymston Parade, Halliday Park, Preston Avenue, Lyons Road West to Marceau Drive (short term, use Hill Street, McGrath Avenue to go around Halliday Park); - Existing on road route on Marceau Drive to Ward Street, Burwood Road, Salt Street, Zoeller Street to rejoin the foreshore path at Massey Park golf course and on to Prince Edward Park; - Then Phillip Street, Collingwood Avenue, Dorking Road, Waine Street, Cabarita Road to Cabarita Park; - Then follow the existing foreshore path around Breakfast Point development site to Tennyson Road; - Then on road along Palace Lane, Hilly Street, Northcote Street, Bennett Street, Edwin Street to foreshore path link to Bertram Street. A new path across an unnamed reserve to Kingston Avenue will be required; - Then from Kingston Avenue, Deakin Street, Rickard Street, Norman Street to meet SR1. (longer term, use future foreshore path from Deakin Street to Edith Walker Hospital track, Concord Hospital and Rivendell track, joining SR1 at Killoola Street). <p>Note: the former bike route around the foreshore between Exile Bay and Canada Bay can no longer be used as a designated bike route, due to sections that are too narrow, close to water and a community association refusing permission for bicycle usage. This link will be shown on the plan as a pedestrian pathway.</p>

Route No.	Route Description	Current Status	Comments and Recommendations
SR6	Iron Cove Creek Timbrell Park, Iron Cove Creek Reserve, Reg Coady Reserve, Jegorow Reserve under Parramatta Road via culvert.	Cycle paths exist in and around Timbrell Park and across Iron Cove Creek to Reg Coady Reserve and on to Martin Street and Waratah Street in Ashfield LGA	The suggested use of a large drainage culvert under Parramatta Road is not recommended. There are substantial costs involved and risks during flood events cannot be mitigated. There is also no link to any cycleways south of Parramatta Road. It is recommended that this route end at the bridge over Iron Cove Creek at the western end of Timbrell Park. The path to this bridge should be widened to a full shared path width.
LAJ1	Rhodes to Homebush Bay New bridge from Rhodes to Wentworth Point	Planning approval for the new bridge has been achieved, program for delivery by developers is not known.	The proposed new bridge includes a bike path, which will link the Rhodes foreshore bike path to cycling facilities in Wentworth Point. The linkage from the bridge to the existing foreshore bike path should be part of the bridge construction project. An on-road route along Gauthorpe Street to Walker Street is also proposed.
LAJ2	Sydney Olympic Park Victoria Avenue link under Homebush Bay Drive	No bicycle route facilities exist although existing road link is suitable.	This location is very lightly trafficked and cyclists currently use roads to access Sydney Olympic Park. A new government primary school is under construction in Victoria Avenue which will significantly increase activity on school days. Recommended to provide on road bike route from Sydney Olympic Park along Victoria Avenue, then George Street, Station Avenue, railway subway to Queen Street joining SR2. The railway subway can be used immediately but could also have its access, signage and lighting improved in the medium term.
LAJ3	Cooks River Trail Pomeroy Street	Cooks River Trail exists west of Powells Creek. No bicycle route facilities exist on Pomeroy Street or Queen Street.	Pomeroy Street is heavily trafficked, however it is one of only two locations where the rail corridor can be crossed between Parramatta Road and Homebush Bay Drive. It makes a logical completion of RR4, linking Sydney Olympic Park and the Cooks River Trail to the entire Canada Bay LGA. On road logos are recommended on Pomeroy Street between the Cooks River Trail and Queen Street.
LAJ4	Strathfield Station Franklyn Street, Parramatta Road, Moseley Street	No bicycle route facilities exist.	Extremely heavy traffic conditions on Parramatta Road and the matter of Moseley Street being in Burwood LGA and not being part of their bike network, suggests this route should be replaced with the proposed new Strathfield Triangle route, LR13.
LAJ5	Burwood Park Broughton Street and the pedestrian overbridge at Parramatta Road.	No bicycle route facilities exist.	Broughton Street is heavily trafficked, often with extensive queuing approaching Parramatta Road. A shared footpath could be installed on the western side of Broughton Street, between Burton Street and the overbridge access ramp, then on road logos on Broughton Street between Burton Street and Park Avenue. An off road bike path on Goddard Park could then link to the signalised crossing of Gipps Street, linking to the Concord Shared Pathway in Queen Elizabeth Park. However the level of funding involved makes this a longer term project. It is recommended this route be retained in the Bike Plan for future review.

Route No.	Route Description	Current Status	Comments and Recommendations
LAJ6	Burwood Station Cintra Park, Luke Avenue, Parramatta Road, Shaftsbury Road	No bicycle route facilities exist.	This proposed linking route has a number of issues, including crossing heavy traffic on Parramatta Road and Gipps Street, extensive path construction required and Burwood Council's Bike Plan does not use Shaftesbury Road, which is very narrow. It is recommended that this route be deleted from the Bike Plan.
LAJ7	Croydon West Walker Street, Cheltenham Road	No bicycle route facilities exist.	This route does link to Burwood Council's bike route network. It would link the RR4 east west route with the Burwood LGA. Signals exist at the intersection of Queens Road and Walker Street and Walker Street at Parramatta Road, allowing cyclists to cross these busy roads safely. A minor modification to the road closure in Walker Street, north of Parramatta road to allow cyclists through is required. Also if RR5 is developed along Renown Street in the future, LAJ7 could easily extend north along Walker Street to link to it. It is recommended this route be retained in the Bike Plan for future review.
LAJ8	Croydon East Harris Road, Parramatta Road, Byron Street	No bicycle facilities exist.	This route would need to cross Parramatta Road at a T-junction, then a new shared footpath would be required on the southern side of Parramatta Road to Byron Street. This is within Burwood LGA, however Burwood do not have this route in their bike network. Given the difficulty of crossing Parramatta Road, the need for a significant modification to Burwood Council's Bike Plan and other parallel routes are available, it is recommended that this route be deleted from the Bike Plan.
LAJ9	Ashfield Croydon Road, Arlington Street, Longview Street, Murralong Avenue, Langsworth Way, Croker Park	No bicycle route facilities exist.	There are significant hurdles for this route, notably crossing Great North Road at an uncontrolled location, crossing Croker Park, requiring pathway construction and no link to a destination or other route at Croker Park. A more logical link would be to use on road logos along the full length of Arlington Street. This would link RR4 at Queens Road to Ashfield Council's existing bike route on Croydon Road, using the signals on Parramatta Road at Arlington Street/Croydon Road intersection to cross. It is recommended that this route be altered to only Arlington Street and that it be implemented using logos.
LAJ10	Haberfield Ingham Avenue, Waratah Street	Route partially exists	See RR4 and SR6. Additional logos are required on Ingham Avenue and Minnesota Avenue, and a new access onto the Timbrell Park off road bike path would complete this link into Ashfield LGA. The path across Timbrell Park to the bridge over Iron Cove Creek needs to be widened.
LAJ11	Dobroyd Point Timbrell Drive, Mortley Avenue	Cycleway exists on both sides of Dobroyd Parade, with traffic signals providing crossing between each section.	No action required.

Route No.	Route Description	Current Status	Comments and Recommendations
LR1	Homebush Bay to Brays Bay Harrison Avenue, Killoola Street	No bicycle route facilities exist.	This short route would link the proposed SR1 and SR2 routes using the existing signalised crossing over Concord Road. It is recommended it be implemented with on road logos when SR1 and SR2 are fully implemented.
LR2	Liberty Grove to Bakehouse Quarter Oulton Avenue, Wentworth Drive, Settlers Boulevard, Charlton Drive, Concord Avenue, King Street, Victoria Avenue, George Street	No bicycle route facilities exist.	This route is proposed on private land through Liberty Grove, which can only be implemented by the Community Association. Also it runs parallel to SR1 (Queen Street) and RR2 (Sydney Olympic Park) and therefore may be redundant. It is recommended that this route be deleted from the Bike Plan.
LR3	Homebush Bay to Mortlake Ferry Victoria Avenue, railway subway, Queen Street, Victoria Avenue, Concord Road, Wilga Street, Nullawarra Road then SR5 to Mortlake Ferry	Section west of Queen Street would be LAJ2. No bicycle route facilities exist east of Queen Street.	This proposed route would provide an east-west link between Sydney Olympic Park and SR1. It would cross Concord Road at T-junction signals, requiring a shared footpath on the eastern side of Concord Road. However, this route would be parallel to two other east-west routes, RR4 and LR6, which are both more viable. It is recommended that this route be deleted from the Bike Plan.
LR4	Majors Bay to Strathfield From SR1 to Strathfield via numerous local streets	No bicycle route facilities exist.	This proposed route would be parallel to sections of SR1 and the Concord Shared Pathway. It also cannot easily connect to Strathfield across busy Parramatta Road. It is recommended that this route be deleted from the Bike Plan.
LR5	Alternative to SR1 Norman Street, Rickard Street, Brays Road, Frederick Street, Ian Parade	Other than isolated spot treatments for bicycles at roundabouts on Ian Parade and Frederick Street, no bicycle route facilities exist.	This proposed bike route runs parallel to SR1 and has no apparent destination or linkages to other routes. It is recommended that this route be deleted from the Bike Plan.

Route No.	Route Description	Current Status	Comments and Recommendations
LR6	North Strathfield to Cabarita Pomeroy Street, Beronga Street, Tenterfield Street, Correys Avenue, Smythes Street, Lancelot Street, Archer Street, Denison Street, Brays Road, Elphinstone Street, Stamford Avenue, Cabarita Road	Some sections of this route have old faded logos, other sections have no bicycle route facilities.	<p>This east-west route links North Strathfield with Cabarita, but the currently proposed route is torturous and does not provide any connections at each end. It adds confusion to an area of intersecting future routes in the Concord-Mortlake area. It also uses Smythes Street, which is one way traffic. However, an east-west route in this region of Concord may have value if it can be linked to other bike routes and its route simplified. During consultation it was also suggested to re-route it from Correys Avenue to Davidson Avenue, to avoid the angled chicanes and poor road surface. The recommended route is:</p> <ul style="list-style-type: none"> - Commence at RR4, Pomeroy Street, then Beronga Street, Tenterfield Street and Correys Avenue, crossing Concord Road at the Correys Avenue signals; - From Correys Avenue, along Davidson Lane to Davidson Avenue to Majors Bay Road. Use a contra-flow in Davidson Lane, or revert lane to two way traffic; - A shared footpath will be required on the southern side of Davidson Avenue between McCarthy Lane and Majors Bay Road; - Use pedestrian crossings (later provide cyclist crossings) across Majors Bay Road to Brewer Street, connecting to the Concord Shared Pathway; - Follow SR1 north to Archer Street, then Denison Street, shared footpath to Brays Road, Elphinstone Street, Stamford Avenue, widen path through Kendall Reserve to Cabarita Road at Waine Street, linking to SR5.
LR7	Abbotsford to Five Dock Great North Road	Exists from Abbotsford to Halley Street	A squeeze point exists for southbound cyclists at the pedestrian refuge near Gow Street. Council is currently reviewing this location for improvement options.
LR8	Five Dock to Drummoyne Barnstaple Road, Seabrook Avenue, Brent Street, Lenore Street, Mary Street, Polding Street, Edwin Street, Alexandra Street, Queen Victoria Street	Exists on Barnstaple Road only, then uses The Bay Run to the east.	This proposed route is formed by a section of RR5, then it would travel to Drummoyne on a parallel route to The Bay Run (SR3). Although it would parallel SR3, it may have future value due to the high pedestrian usage of The Bay Run, by allowing cyclists to use quiet local streets. It is recommended that the route remain in the Bike Plan, for future review.
LR9	Chiswick to Haberfield Bibby Street, Sibbick Street, Russell Street, Myalora Street, Ingham Avenue	No bicycle route facilities exist.	This proposed route would provide a north-south route between SR5 and RR5. An alternative route along Pine Avenue, Wareemba Street, Hampden Road, Margaret Street and Parkview Road has been suggested by Council staff. It is suggested that either of these routes are suitable, however, the route has a low priority and it is recommended for retention in the Bike Plan for future review.

Route No.	Route Description	Current Status	Comments and Recommendations
LR10	Hen and Chicken Bay to Rodd Park Hill Street, Kerang Street, Pine Avenue, Russell Street, Lyons Road, Brent Street	No bicycle route facilities exist.	This future route runs east-west, linking routes SR5 and LR7 to LR8. It has a low priority and is recommended for retention in the Bike Plan for future review.
LR11	Hen and Chicken Bay to Iron Cove Bickleigh Street, Hampden Road, Lyons Road, Janet Street, The Parade, Gipps Street, Plunkett Street, Henley Street	No bicycle route facilities exist.	This future route runs east-west and parallel to proposed route LR10. It has lower justification than LR10, uses busier roads and is therefore recommended for deletion from the Bike Plan.
LR12	Five Dock Bay to Birkenhead Point Thompson Street, Cometrowe Street, Drummoyne Park, Bayswater Street, Lyons Road, Tranmere Street, Day Street, Brett Park	No bicycle route facilities exist.	During the consultation process this route was suggested to run across Taplin Park in lieu of Thompson Street, which appears a good suggestion now that the Esplanade route (SR5) has been constructed through Taplin Park. However the crossing of busy Lyons Road and the need for shared footpaths on Lyons Road between Bayswater Road and Tranmere Street are significant impediments. Given that this route is a parallel route to RR1, it has a low priority. It is recommend for retention in the Bike Plan for future review.

4.3 Summary of Reviewed Bike Routes

The 34 Bike Plan routes have been rationalized and where possible combined into longer routes, while some redundant and parallel routes have been replaced.

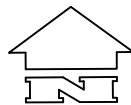
It has also become apparent that the four 2005 Bike Plan route categories are no longer appropriate, as the basis for RMS funding has changed. Currently RMS will only fund new construction works and the separation of Regional, Strategic, Links to Adjoining Jurisdictions and Local may no longer be relevant. It is also worth re-categorising the routes to reduce complexity and potential confusion. To differentiate the categories from current nomenclature, it is proposed to use only two categories, **Main Routes** and **Secondary Routes**.

Main Routes are generally long and traverse a significant portion of the LGA, and connect several destinations. These routes are where the majority of funds and resources should be allocated. There are 7 Main Routes and these are shown on **Figure 1**.

Secondary Routes are the remainder, generally shorter and provide links between Major Routes and/or to a single destination. There are 17 Secondary Routes and these are shown on **Figure 2**.

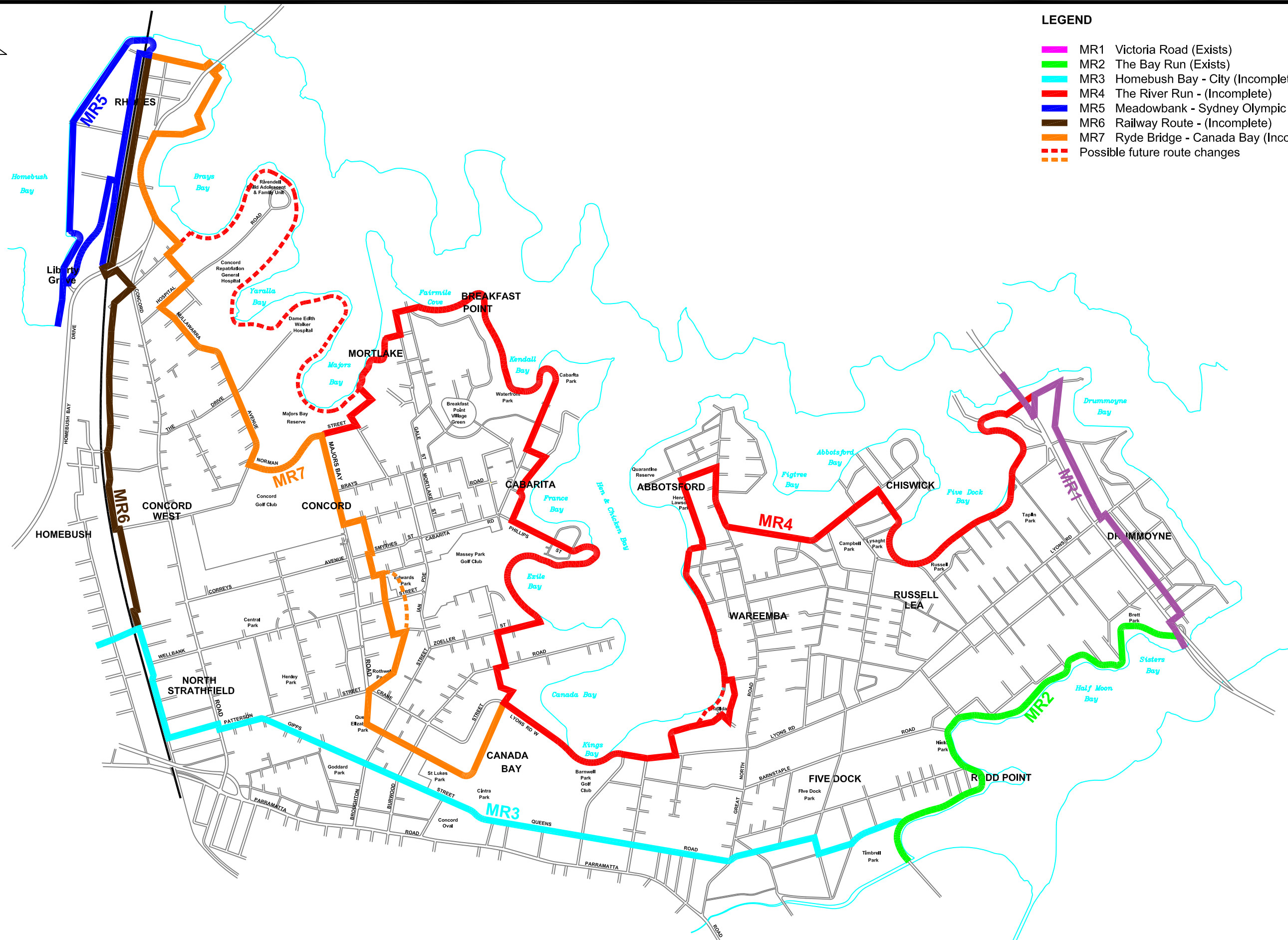
The full combined future bike network is shown on **Figure 3**. Note: this figure shows all routes including those that are not likely to be implemented within the 10 year program period.

The following Table 4.2 details these Main and Secondary Routes, their former route number(s), any significant works required to implement them and an assessment of the works relative priority. The priority takes into account the comparative justification of each item compared to the cost of the work involved. (i.e. an item with moderate justification and low cost will be ranked higher than an item of high justification and high cost).



LEGEND

- MR1 Victoria Road (Exists)
- MR2 The Bay Run (Exists)
- MR3 Homebush Bay - City (Incomplete)
- MR4 The River Run - (Incomplete)
- MR5 Meadowbank - Sydney Olympic Park (Exists)
- MR6 Railway Route - (Incomplete)
- MR7 Ryde Bridge - Canada Bay (Incomplete)
- Possible future route changes



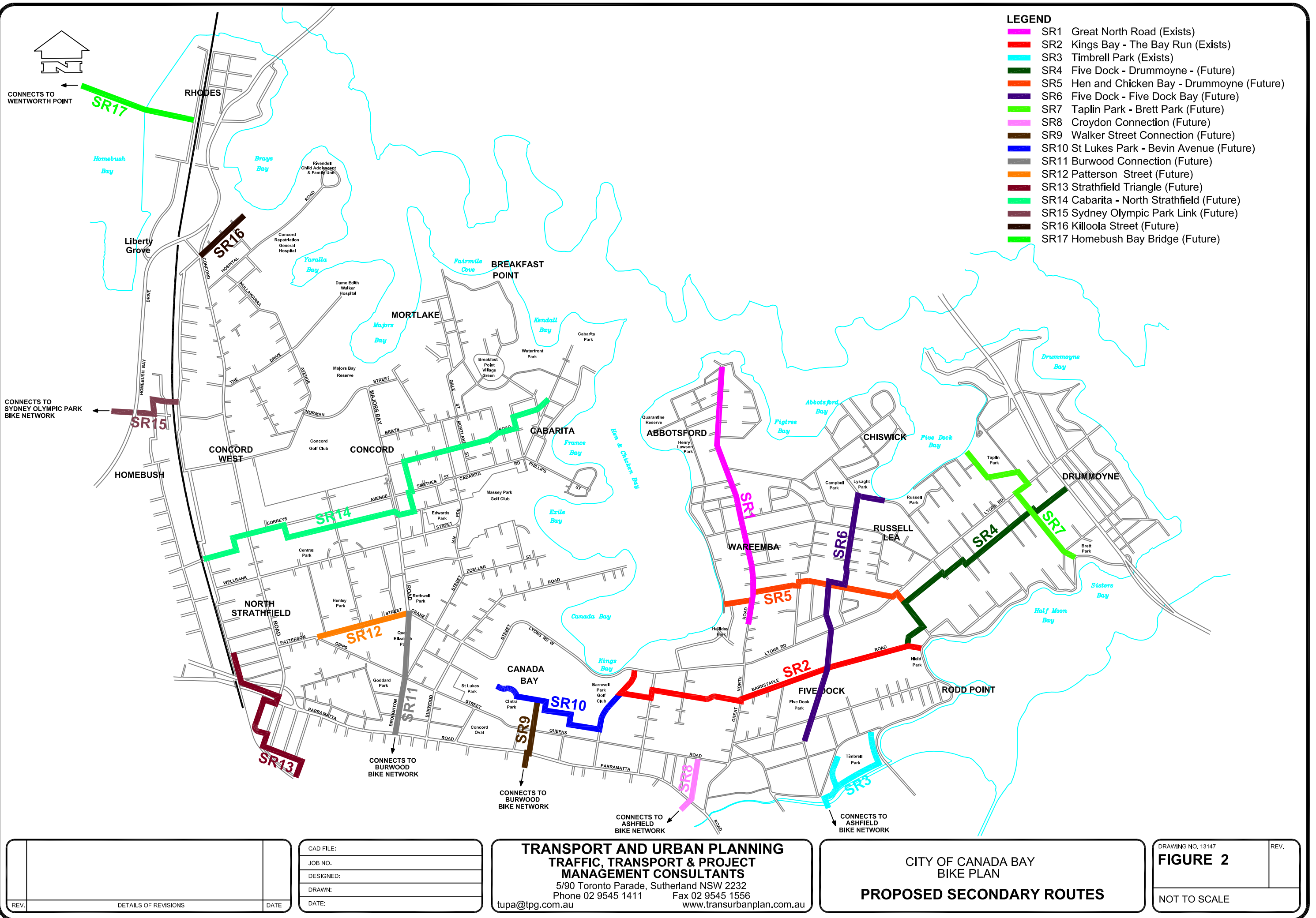
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CITY OF CANADA BAY
BIKE PLAN
PROPOSED MAIN ROUTES

DRAWING NO. 13147
FIGURE 1
NOT TO SCALE



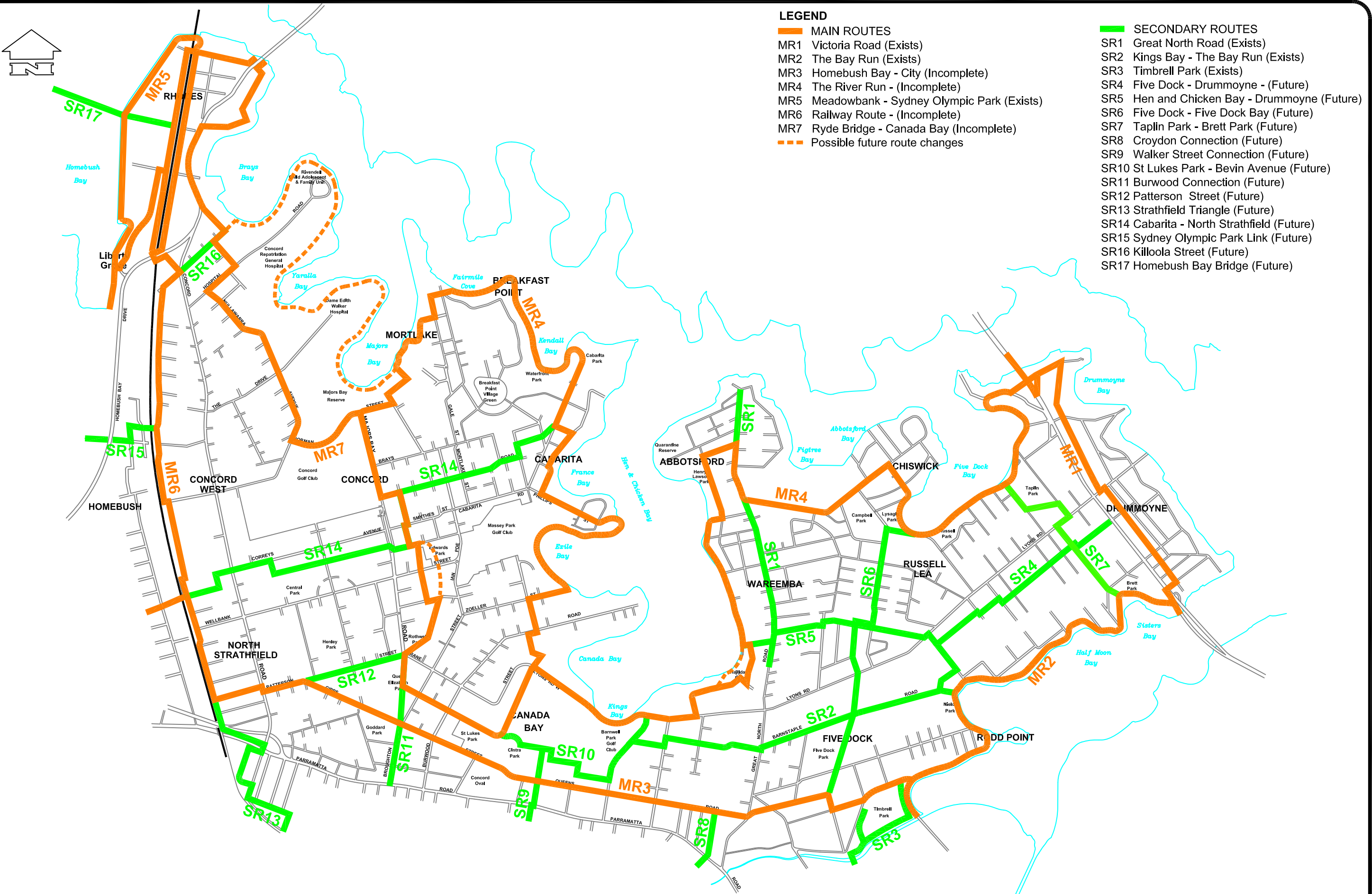
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CITY OF CANADA BAY
BIKE PLAN
PROPOSED SECONDARY ROUTES

DRAWING NO. 13147
FIGURE 2
NOT TO SCALE



LEGEND

MAIN ROUTES

- MR1 Victoria Road (Exists)
- MR2 The Bay Run (Exists)
- MR3 Homebush Bay - City (Incomplete)
- MR4 The River Run - (Incomplete)
- MR5 Meadowbank - Sydney Olympic Park (Exists)
- MR6 Railway Route - (Incomplete)
- MR7 Ryde Bridge - Canada Bay (Incomplete)
- Possible future route changes

SECONDARY ROUTES

- SR1 Great North Road (Exists)
- SR2 Kings Bay - The Bay Run (Exists)
- SR3 Timbrell Park (Exists)
- SR4 Five Dock - Drummoyne - (Future)
- SR5 Hen and Chicken Bay - Drummoyne (Future)
- SR6 Five Dock - Five Dock Bay (Future)
- SR7 Taplin Park - Brett Park (Future)
- SR8 Croydon Connection (Future)
- SR9 Walker Street Connection (Future)
- SR10 St Lukes Park - Bevin Avenue (Future)
- SR11 Burwood Connection (Future)
- SR12 Patterson Street (Future)
- SR13 Strathfield Triangle (Future)
- SR14 Cabarita - North Strathfield (Future)
- SR15 Sydney Olympic Park Link (Future)
- SR16 Killoola Street (Future)
- SR17 Homebush Bay Bridge (Future)

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CITY OF CANADA BAY
BIKE PLAN
CANADA BAY BIKE NETWORK

DRAWING NO. 13147	REV.
FIGURE 3	
NOT TO SCALE	

TABLE 4.2

PROPOSED BIKE ROUTE NETWORK

Route No.	Name	Former Route No.	Existing	Works Required	Works Priority (H/M/L)
MAIN ROUTES					
MR1	Victoria Road	RR1	Yes	Additional logos on Wrights Road and Drummoyne Avenue.	High
MR2	The Bay Run	SR3	Yes	Additional access ramps in southern section. Provide new bridge over Iron Cove Creek.	Ramps: Low Bridge: Medium
MR3	Homebush Bay - City	RR4	Partly	Extend west end across Concord Road then via Princess Avenue, Queen Street, Pomeroy Street to meet the Cooks River Trail. Extend east end via Ingham Avenue, Minnesota Avenue, across Henley Marine Drive onto Timbrell Park cyclepath to Timbrell Drive and The Bay Run at Dobroyd Parade.	Medium
MR4	The River Ride	RR1, SR5, SR1, RR2	Partly	This long new route, generally following the Parramatta River foreshore, is a long term development route. There are a number of low cost links which could be implemented easily which would allow the route to be used in the near future, while more complex sections will require longer term planning. (see items in Tables 4.3 and 4.4).	Medium
MR5	Meadowbank - Sydney Olympic Park via Rhodes	RR2	Yes	No action required.	-
MR6	Railway Route	SR2	Partly	Blaxland Road and Australand section are nearing completion. Complete the connection along Harrison Avenue, Killoola Street and Queen Street to Pomeroy Street using on road logos and a shared footpath on the corner of Harrison Avenue/Killoola Street	Medium
MR7	Ryde Bridge - Canada Bay	SR1, Concord Shared Pathway	Partly	Complete on road bike route along Leeds Street, Llewellyn Street, Killoola Street, Fremont Street and Hospital Road. Complete off road sections in McIlwaine Park, Concord Road shared footpath, shared path to Killoola Street. Complete Concord Shared Pathway through Greenlees Park and Edwards Park and remove route on Spring Street and Warbrick Street.	Leeds Street to Nullawarra Avenue – High Concord Shared Pathway - Medium

Route No.	Name	Former Route No.	Existing	Works Required	Works Priority (H/M/L)
SECONDARY ROUTES					
SR1	Great North Road	LR7	Yes	Council is currently modifying a squeeze point for southbound cyclists at a pedestrian refuge near Gow Street. No other action required.	-
SR2	Kings Bay - the Bay Run	RR5 LR8	Yes	No action required.	-
SR3	Timbrell Park	SR6 LAJ10	Yes	Widen path at bridge over Iron Cove Creek, western end of Timbrell Park.	Low
SR4	Five Dock - Drummoyne	LR8	No	Develop future on-road route.	Low
SR5	Hen and Chicken Bay - Drummoyne	LR10	No	Develop future on-road route.	Low
SR6	Five Dock - Five Dock Bay	LR9	Partly	Only a short section exists on Ingham Avenue, between Barnstaple Road and First Avenue. Develop future on-road route. Install on road logos on Ingham Avenue between First Avenue and Fairlight Street as a priority, so a link is completed between existing routes MR3 and SR2. Remainder of SR6 to be low priority.	High/Low
SR7	Taplin Park - Brett Park	LR12	No	Provide new shared paths through Taplin Park, Drummoyne Park, Brett Park and develop future on-road route linking them.	Low
SR8	Croydon Connection	LAJ9	No	Provide on-road route on Arlington Street, linking MR3 to existing bike route on Croydon Road.	Medium
SR9	Walker Street Connection	LAJ7	No	Develop future on-road route.	Low
SR10	St Lukes Park - Bevin Avenue	RR5	No	Develop future on-road route, with links through Cintra Park netball courts and Barnwell Park golf course.	Low
SR11	Burwood Connection	LAJ5	No	Develop future route, on-road, shared footpath and off road in Goddard Park.	Low
SR12	Patterson Street	RR5	Yes	This short section will link existing MR3 and MR7 at Concord Shared Pathway. Existing edgelines and logos are adequate but connections at each end are untreated.	Medium

Route No.	Name	Former Route No.	Existing	Works Required	Works Priority (H/M/L)
SR13	Strathfield Triangle	LAJ4	No	Develop future on-road route to connect Strathfield Town Centre to MR3, via Moseley Street, Cooper Street, shared footpath on Leicester Avenue, cross Leicester Avenue at new traffic signals into Cooper Street (West), then to Parramatta Road, shared footpath to signals at Leicester Avenue, across Parramatta Road to Queen Street, meeting MR3 at Princess Street.	Low
SR14	Cabarita – North Strathfield	LR6	Partly	Develop future on-road route.	Low
SR15	Sydney Olympic Park Link	LR3 LAJ2	No	Develop future on-road route and improve access through railway subway.	Medium
SR16	Killoola Street	LR1	No	Develop future on-road route.	Low
SR17	Homebush Bay Bridge	LAJ1	No	New bridge to be provided by development contribution and will include on road route along Gauthorpe Street to Walker Street.	Low

4.4 Prioritisation of Works

Development of the Canada Bay Bike Network from the existing network shown on the Interim Bike Map is proposed in the following two work programs:

- A 4 year works program, 2014/15 to 2017/18;
- A 5-10 year indicative works program.

Council manages its capital works program for bicycle facilities over a long lead time, because funding from State sources requires advance planning, negotiation and commitment between Council and the State Departments involved. Currently Council has planning expectations for the following projects to be jointly funded through State grants within the next few years, including the remainder of the 2013/14 financial year:

- Lysaught Park shared path extension to Swannell Avenue;
- A new Iron Cove Creek Bridge, connecting The Bay Run between Timbrell Drive and Dobroyd Parade;
- Extend the Concord Shared Pathway, between Greenlees Avenue and Brewer Street;
- Upgrade The Bay Run, between Arthur Street and Iron Cove Creek;
- Upgrade the shared path on Byrne Avenue, between Russell Park and Lysaught Park; and
- Provide a shared path between Zoeller Street and the Exile Bay foreshore path, at Massey Park golf course.

4.5 Short Term Priority Works

The following works are recommended as short term priorities for the 4 year works program, commencing July 2014.

TABLE 4.3**SHORT TERM PRIORITY WORKS (2014/15 TO 2017/18)**

Route	Work	Location	Est. Cost
MR1 Victoria Road	Logos on road	Wrights Rd, Drummoyne Ave	\$500
MR2 The Bay Run	New bridge	Over Iron Cove Creek	\$1,000,000
	Upgrade shared path	Between Iron Cove Creek and Arthur St	\$600,000
MR3 Homebush Bay - City	Logos on road	Pomeroy St, Queen St, Princess Ave, cyclists dismount sign between Princess Ave and Patterson St. Logos on Ingham Ave, Minnesota Ave	\$1,500
	Cyclist refuge and access ramp	On Henley Marine Dr to provide access between Minnesota Ave and cycle path in Timbrell Park	\$15,000
MR4 The River Run	Logos on road	Drummoyne Ave and Victoria Place, between Cambridge Rd and Raymond Ave. Swannell Ave, Withers St, Blackwall Point Rd. Spring St, St Albans St, Charlton St, Wymston Pde, Hill St, McGrath Ave, Kevin Ave, Preston Ave.	\$3,000
	Upgrade shared path	Existing shared path on Byrne Avenue between Russell Park and Lysaught Park is to be widened with kerb realignment to narrow Byrne Avenue.	\$100,000
	Upgrade bicycle refuge	On Lyons Road West, upgrade the existing pedestrian refuge east of Preston Ave for bicycle usage.	\$10,000
	Upgrade shared path	Link Zoeller Street to foreshore path at Exile Bay, across Massey Park golf course.	\$100,000
MR6 Railway Route	Logos on road	Harrison Ave, Killoola St (west), Queen St to Pomeroy St	\$1,500
	Shared footpath linemarking, access ramps	Footpath link between Harrison Ave and Killoola St (west)	\$10,000
MR7 Ryde Bridge – Canada Bay	Logos on road	Leeds St, Llewellyn St, Killoola St, Fremont St, Hospital Rd	\$1,500
	Linemarking on shared path	Existing shared path between Killoola St and Concord Rd, behind houses in Loch Maree Pde	\$1,000
	Shared footpath, linemarking, access ramps	Concord Shared Pathway project, between Greenlees Ave and Brewer St. Includes removal of existing on- road logos along Spring St and Warbrick St; and along Greenlees Ave, Empire Ave, Salt St, Burwood Rd and Ward St.	\$200,000
SR6 Five Dock -Five Dock Bay	Logos on road	Ingham Avenue between First Avenue and Fairlight Street	\$500
SR8 Croydon Connection	Logos on road	Full length of Arlington Street	\$500
SR15 Sydney Olympic Park Link	Logos on road	Station Ave (west), George St, Victoria Ave (west)	\$1,000
	Upgrade railway subway	Improve pavement on east side of subway, upgrade logos and signage	\$5,000
All existing routes	Directional Signage Upgrade Program	Carry out an LGA – wide review of existing bicycle directional signs and prepare a program for installation or renewal on a priority basis. To be funded from available maintenance funds on a regular basis	Variable

In summary, there are 19 short term priority works. There are 5 major works of \$100,000 or greater, which are expected to be jointly funded between CCBC and the State, while the remaining 14 minor works comprise of:

- | | |
|--|----------|
| - 8 on road logo projects, totaling: | \$10,000 |
| - 1 linemarking shared path: | \$ 1,000 |
| - 1 new section of shared footpath with access ramps (Harrison Ave/Killoola St): | \$10,000 |
| - 1 upgrade to access at the Concord West railway subway: | \$ 5,000 |
| - 2 new bicycle refuge and access ramps (Timbrell Park, Lyons Rd West): | \$25,000 |
| - 1 directional signage upgrade program; cost variable, say | \$10,000 |

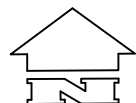
The total preliminary estimate of cost for these minor works is \$61,000 which should be available within normal maintenance budget allocations within the 4 year planning time frame. Therefore, Table 4.3 shows the proposed 4 year works program resulting from the strategic review. **Figure 4** shows the existing bike route network plus the above 4 year works program items, which therefore is expected to be the completed bike route network at the end of 2017/18.

In response to the submissions from Bay BUG in regard to the Interim Bike Map, we recommend that Council's public Bike Map be based on Figure 4, because it shows the existing routes and short term, future routes that are planned to be provided within the 4 year works program.

4.6 Medium Term Works

There are a large number of work items that would be required to completely provide all the Main and Secondary Routes identified in this review. While future funding of the Bike Plan during the 5-10 year program period is uncertain, it will be assumed for the purpose of this review that funding levels will continue at a similar level, i.e. \$200,000 p.a for capital projects and \$10,000 - \$20,000 p.a for minor works.

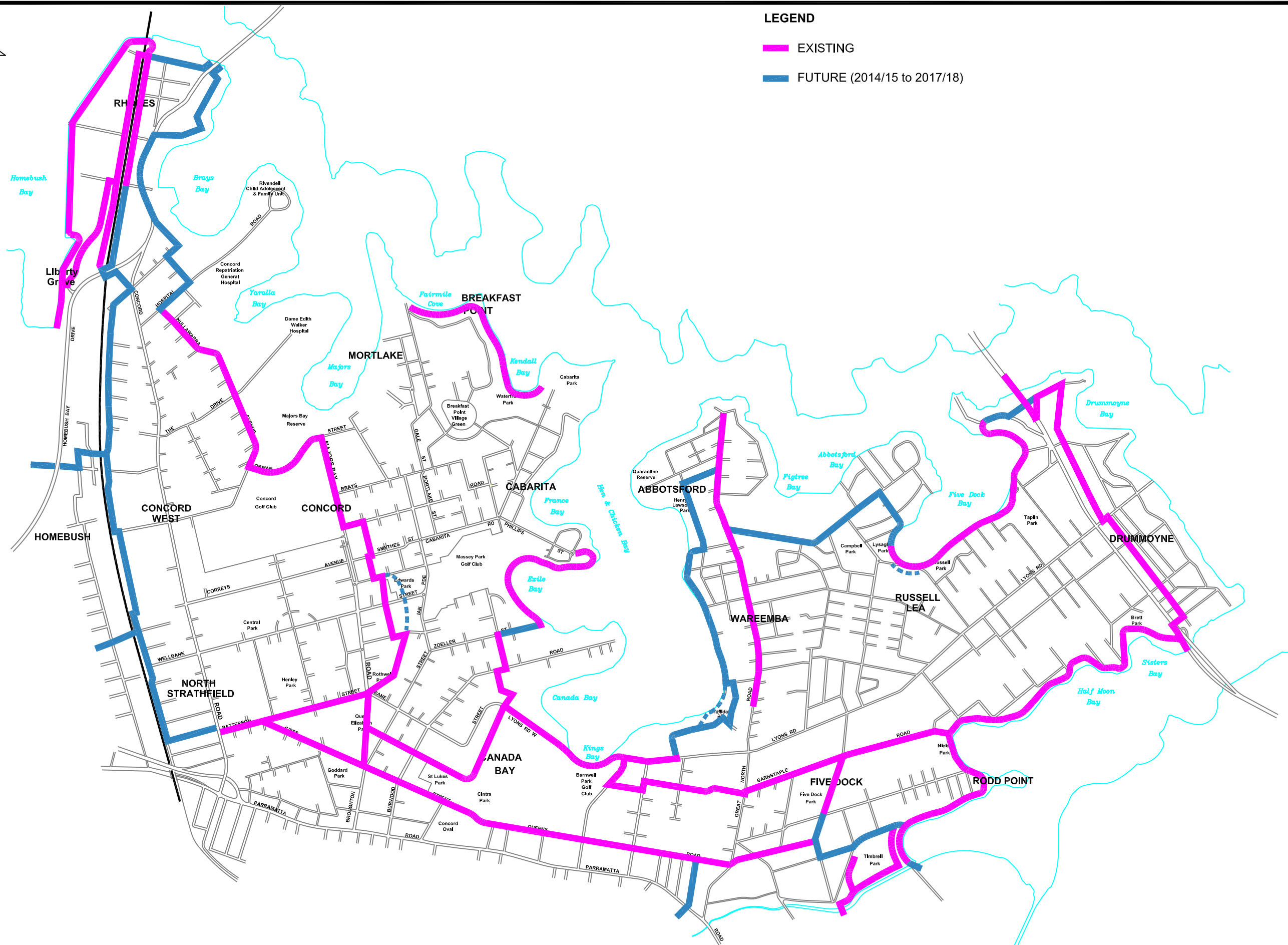
Table 4.4 shows the works that are recommended as priorities for the 5 – 10 year works program, using indicative cost estimates and the above forecast funding.



LEGEND

EXISTING

FUTURE (2014/15 to 2017/18)



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CITY OF CANADA BAY
BIKE PLAN
EXISTING AND SHORT TERM
FUTURE BIKE NETWORK

DRAWING NO. 13147	REV.
FIGURE 4	
NOT TO SCALE	

TABLE 4.4**MEDIUM TERM PRIORITY WORKS (2018/19 TO 2023/24)**

Route	Work	Location	Est. Cost
MR3 Homebush Bay - City	Shared footpath and access ramp. Bicycle signal crossing.	Concord Rd, between Patterson St and Princess Ave	\$15,000
MR4 The River Run	Widen Existing path to become a shared path	Halliday Park, between Wymston Pde and Preston Ave	\$200,000
	On road logos, signage	Phillips St, Collingwood Ave, Dorking Rd, Waine St, Cabarita Rd, Cabarita Park to Breakfast Point foreshore path. Also on Salt St, Zoeller St to Exile Bay.	\$10,000
	On road logos, signage and shared path connection	From Breakfast Point foreshore path along Palace Lane, Hilly St, Northcote St, Bennett St, Edwin St, foreshore path to Bertram St. A new off road shared path between Bertram St and Kingston Ave, then on road to Deakin St, Rickard St, Norman St to meet MR7 at Majors Bay Rd.	Partly funded by development, off road section by Council and RMS grant. Total cost \$200,000
	Upgrade shared path	Foreshore path around Exile Bay, between Bushells site and Prince Edward Park, including bridge over canal. Widening and or fencing along water.	\$800,000
SR3 Timbrell Park	Widen off road path to become a shared path	Western end of Timbrell Park, to the existing bridge over Iron Cove Creek	\$100,000
SR9 Walker St Connection	On road logos plus access path around road closure	Walker St between Queens Rd and Parramatta Rd	\$5,000
	On road logos	Walker St between Queens Rd and Renown St. (Only after SR10 is completed)	\$1,000
SR10 St Lukes Park – Bevin Ave	Mixture of new off road shared paths and on road logos, with a new bicycle refuge.	New off road shared path from St Lukes Park cricket oval across canal, through netball courts to Renown St. On road logos along Renown St, Bayview Rd, Watts St. From Watts St cross golf course with a new shared path along southern edge to Five Dock Leisure Centre car park, cross canal near Kings Rd and continue on a new shared footpath along the west side of William St to Bevin Ave. A new bicycle refuge across William St at Bevin Ave.	\$450,000
SR11 Burwood Connection	Shared footpath, on road logos and off road shared path, with access ramps.	Shared footpath on west side of Broughton St between pedestrian bridge and Burton St. On road logos on Broughton St between Burton St and Park Ave. New off road shared path in Goddard Park between Park Ave and traffic signals at Gipps St.	\$350,000
SR12 Patterson Street	Access ramps and shared footpath.	Improve connection to MR4 with shared footpath to avoid roundabout. Also improve connection to MR3 at Gipps Street.	\$15,000
SR14 Cabarita – North Strathfield	On road logos. New shared footpath signage	Logos on Beronga St, Tenterfield St, Correys Ave to Davidson Lane. Davison Lane to become two way. Logos on Davidson Ave to Majors Bay Rd, including a shared footpath between McCarthy Lane and the pedestrian crossing at Majors Bay Rd. Signage to guide cyclists to dismount using pedestrian crossings to Brewer St. Logos on Brewer St to Ellis St and the Concord shared pathway.	\$20,000
	On road logos and linemarked shared path.	Logos on Archer St from Lancelot St to Mortlake St, then along Denison St to Kitchener Ave. Lane to Brays Rd to be linemarked for shared use. Logos on Brays Rd, Elphinstone St, Stamford Ave to Kendall Reserve.	\$2,000
	New shared path, access ramps	Widen existing path through Kendall Reserve to link Stamford Ave to Waine St.	\$150,000
SR16 Killoola St	On road logos, linemarked shared path	Logos on Killoola St between Fremont St and cul-de-sac at Concord Rd. Linemarked shared footpath to signalised crossing of Concord Rd.	\$2,000

Route	Work	Location	Est. Cost
SR17 Homebush Bay Bridge	New bridge	Bridge to be fully funded by developers of Wentworth Point.	-

In summary, there are 16 medium term priority works. These include 7 major projects where joint Council / State funding would be required. These are:

• Halliday Park, new shared pathway;	\$200,000
• Foreshore shared path between Edwin St and Kingston Ave, Mortlake;	\$200,000
• Timbrell Park, new shared pathway;	\$100,000
• New link between St Lukes Park and Bevin Ave;	\$450,000
• Goddard Park and Broughton St, new shared path and shared footpath;	\$350,000
• Kendall Reserve, new shared pathway;	\$150,000
• Exile Bay foreshore path, upgrade shared path	\$800,000
Sub total	\$2,250,000

However, current forecast future funding will only provide about 50% of this amount. Prioritisation of these works will be required closer to the commencement of the 5-10 year program.

There is one major medium term project which is to be provided by property developers, SR17 the new bridge over Homebush Bay.

The remaining 9 minor works projects comprise of:

• 5 on road logos, linemarking, signage and access ramps totaling;	\$20,000
• 1 new shared footpath and bicycle signal crossing (Concord Rd / Patterson St / Princess Ave);	\$15,000
• 2 new shared footpath, logos, access ramp, signage (Patterson Street, Davidson Ave);	\$35,000
Sub total	\$70,000

These minor works have a total indicative cost of \$70,000 which is expected to be available within normal maintenance budget allocations within the 6 year time frame of the 5 – 10 year program.

4.7 Long Term Works

The remaining low priority routes which are not expected to be funded in the next 10 years, but should remain in the Bike Plan in case additional funds become available or priorities change, are:

- SR4 - Five Dock – Drummoyne
- SR5 - Hen and Chicken Bay – Drummoyne
- SR6 - Five Dock - Five Dock Bay
- SR7 - Taplin Park – Brett Park
- SR13 - Strathfield Triangle

5.0 BICYCLE CRASH ANALYSIS

RMS supplied 2008-2012 bicycle crash data for the City of Canada Bay LGA. The full data are included in the Technical Notes document, and the following information is drawn from the data. Note that RMS crash data is sourced from police reported crashes with a minimum criteria of at least one vehicle towed away or one person injured.

- During the 5 years of available data there were 75 bicycle involved crashes. The locations are mapped on **Figure 5**;
- 74 crashes involved at least one injury. There was a total of 77 injuries and no fatalities;
- 23 crashes were not at intersections. Of the 52 that were at intersection, 18 were at roundabouts;
- Bicycle crashes made up about 3% of all serious crashes in the LGA;
- The number of bicycle crashes each year ranged from 11 to 21, and averaged 15;
- The peak day for bicycle crashes was Wednesday (17 crashes) and lowest was Sunday (4 crashes);
- The average number of crashes on weekdays was 12.4, while on weekend days the average was 6.5;
- The peak hours for bicycle crashes were 7am-8am (14 crashes) and 5pm-6pm (10 crashes);
- 55 crashes (73%) occurred in daylight; 8 (11%) at dawn/dusk; and 12 (16%) in darkness;
- Multiple locations for bicycle crashes included;
 - 6 at Ingham Avenue/Barnstaple Road (roundabout, local roads)
 - 3 at Flavelle Street/Wellbank Street (roundabout, local roads)
 - 2 at Majors Bay Road/Brays Road (roundabout, local roads)
 - 2 at Ian Parade/Wellbank Street (roundabout, local roads)
 - 2 at Queens Road/Bayview Road (T junction, State road)
 - 2 at First Avenue/Ingham Avenue (roundabout, local roads)
 - 2 at First Avenue/Arthur Street (roundabout, local roads)
 - 2 at Lyons Road/Moore Street (T junction, State road)
 - 2 at Henley Marine Drive/South Street (T junction, local roads)

While this data and analysis provides valuable information to assist Council address safety issues at frequent bicycle crash locations, it also helps justify upgrading bicycle route facilities. Well maintained bicycle logos, linemarking and warning signs should alert motorists to the potential of encountering a cyclist and help legitimise cyclists' presence on the road in the minds of motorists.

Considering the frequency of bicycle crashes at roundabouts, it is recommended that Council investigate safer cycling treatments at roundabouts in general, and particularly at the two sites at the top of the multiple crash list above.



LEGEND

- ACCIDENT LOCATION
- 2 NUMBER OF ACCIDENTS

REV.	DETAILS OF REVISIONS	DATE

CAD FILE:	
JOB NO.	
DESIGNED:	
DRAWN:	
DATE:	

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CITY OF CANADA BAY
BICYCLE ACCIDENT MAP
5 YEARS TO 2012

DRAWING NO. 13147	REV.
FIGURE 5	
NOT TO SCALE	

6.0 WESTCONNEX

The proposed Westconnex motorway project covers a 33km length of existing and future motorway that runs from the M4 at Parramatta through Strathfield and Haberfield to Sydney Airport, and also includes the M5 East duplication.

The first stage is the upgrade of the existing M4 Motorway west of Strathfield and the new extension from Strathfield to Haberfield. This section runs along the southern boundary of the City of Canada Bay, and is due to be completed by 2019. (source: www.westconnex.com.au, Home page, May 2014).

Cycling is referred to in the *Westconnex Strategic Environmental Review, September 2013*. In Section 6, Assessment of Strategic Priority Issues, it identifies “The key challenge will be to maximize the traffic and transport benefits of Westconnex and minimize its impacts.” (p.37). It identifies six strategic indicators including “Improved public transport options” (p.43) and states -

“The reductions in traffic volumes are expected to be a catalyst for the rejuvenation of urban life on Parramatta Road. The scheme will also enable significant improvements to bus operations, cycling and walking on and across Parramatta Road. Improved liveability, public and active transport improvements along and around Parramatta Road will create opportunities for public transport and urban renewal in the inner west suburbs.

Westconnex will also provide scope for improving Sydney’s bicycle and pedestrian facilities. In general, reduced traffic volumes from roads such as Parramatta Road, Princes Highway and the Sydenham/Marrickville area will free up these areas for pedestrian and bicycle use. There is also the possibility for improvements to north-south linkages across the Parramatta Road corridor which will give pedestrians and bicycle users enhanced safety by providing more and better crossings e.g pedestrian overpasses, bike crossings at signals etc. As design and development of Westconnex progresses the opportunities for stakeholder consultation will increase, allowing for further exploration of potential pedestrian and bicycle initiatives.”

Direct contact was made with the RMS during May 2014 to identify any cycling enhancement works that may be being planned as part of, or complementary to, Westconnex. The advice was that any information about this would be provided in the upcoming EIS for the project, but the indications are that no new cycling facilities are planned. It was advised that there would be care taken to not exclude the possibility of a future cycle route along the M4 corridor west of Strathfield, and any existing facilities that may be affected by the project would be treated to ensure no loss of effectiveness, however it is apparent that the expectation of the RMS is that it will mainly provide opportunities for others to provide new facilities.

Council will have the opportunity to raise cycling improvements with the RMS as part of its response to the project EIS, and also through consultation processes that are occurring with affected Councils.

Sections of the future Canada Bay Bicycle Route Network that could be raised with the RMS in relation to Westconnex include:

- MR3; Homebush Bay – City. Along Pomeroy Street, Queen Street, Princess Street, across Concord Road to Patterson Street, (parallel to the Westconnex route)
- SR9; Across Parramatta Road;
- SR11; Across Parramatta road; and
- SR14; from Pomeroy Street across Concord Road to Concord and Cabarita.

7.0 CONCLUSIONS AND RECOMMENDATIONS

This strategic review of the 2005 Canada Bay Bike Plan has been carried out in consultation with local cycling stakeholders, particularly Bay BUG, and with Council officer's guidance on recently completed works and currently planned major projects.

An on-site condition assessment has been carried out of all existing routes shown on Council's Interim Bike Map and the results are provided separately in the Technical Notes document. Also in that document are details of bicycle involved crashes for the period 2008-2012. These crashes indicate that roundabouts are over represented in bicycle crash statistics. It is recommended that council investigate roundabout bicycle treatments, in order to reduce the rate of bicycle crashes across the LGA.

Extensive consultation with the executive members of Bay BUG produced valuable information on priorities for Council's attention. Strong support was received for installing bicycle logos on traffic lanes on low to moderate volume roads, which will improve Council's ability to complete the local bike route network in a reasonable time frame and to maintain it in a cost effective manner into the future.

A rationalization of the 2005 Bike Plan routes and their classification has produced a long term future comprehensive bicycle route network, based on 7 major routes supported by 17 secondary routes (see **Figure 3**).

This future network has been prioritized to achieve a realistic Existing and Short Term Bike Route Network, as shown in **Figure 4**. Given current funding expectations this network is achievable within the 4 year works program to end 2017/18.

It is also recommended that **Figure 4** be used as the basis for the published Bike Map for the City of Canada Bay.

The RMS has indicated that the Westconnex project will be constructed along the southern boundary of the City between 2015 and 2019, and this will create opportunities to provide new bike facilities parallel to and across Parramatta Road. Several bike route improvements are identified in Section 6 and Council should raise these opportunities with RMS at Westconnex consultation meetings and in response to the project EIS.

The recommended 4 year works program is detailed with preliminary estimates of cost in Table 4.3 of this report.

The indicative 5 – 10 year works program is detailed in Table 4.4.

APPENDIX A

City of Canada Bay - Strategic Review of Bike Plan

Meeting: Workshop with BayBUG and other bicycle users

Details: Monday 24 February 2014, 7pm Concord Library

Meeting Notes

Attendees: Geoff Ashton, Rolf Muller, Paul Wijngaarden, Joan Wright (BayBUG); Paul Hanly. George el Kazzi, Tony Connop (CCBC); Terry Lawrence, Geoff Morris (TUP)

1. TL opened meeting at 7pm and provided background of the current Strategic Review. Indicative funding levels discussed, being regular \$200k spend p.a., plus special project grants. Aims are to review 2005 Bike Plan, conduct a condition audit and advise Council on potential 4-year works program plus a 5-10 year indicative works program.
2. Workshop commenced with following issues from attendees recorded:
3. BayBUG says starting point should be the 2005 Bike Plan, not Council's current Interim Bike Map (**IBM**) which is on Council's web site.
4. BayBUG says funding levels of \$200k p.a. are inadequate, especially with Council's stated position of supporting alternate transport and corporate direction of sustainable future.
5. A comprehensive Bike Plan needs to exist to assist development funding. Recent DA approvals have done nothing for cycling and Council planning should insist on better outcomes for cycling from development.
6. Bike facilities should be funded from developments, e.g. bike parking, signage.
7. The Bike Plan/Program should have multiple purposes, including directing Council town planning policies, identifying potential future facilities, providing people with route and facility information for now and future, encouraging more use by cyclists of recommended routes.
8. Current IBM omits sections of routes which were shown on the 2005 plan as existing. This is not acceptable and existing routes should all be on the current plan.
9. Llewellyn St and Leeds St are examples, they have markings, are on regional bike maps and Council's 2005 plan and map, but aren't on the current IBM.
10. Linemarking options discussed, with new style of markings in traffic lanes strongly supported (e.g. Ingham Ave at Five Dock Park) over logos in the road shoulder where parking occurs. This style is limited to low-moderate traffic volumes, not suitable for roads such as Gipps St.

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11. Agreed that new style is better because it eliminates car door danger, indicates to motorists that cyclists travel in traffic lanes and alerts drivers to cyclist activity in the area.
12. Request for better enforcement against cars parking too far from kerbs, restricting cycling width.
13. The workshop moved on to discuss the missing links on the current IBM. East-west links were strongly desired.
14. Link between Great North Rd and Lyons Rd West discussed and agreed that it should use Halliday Park. Queried that existing path along Wymston Pde is not on IBM. As link on waterfront between Friend Ave & Halliday Park is not available, route must use Preston Ave, Lyons Rd West and then either James St & Friend Ave, or use Lyons Rd West between Preston Ave and golf course. Lyons Rd West was preferred over James/Friend, however crossing Lyons Rd West at Prestons Ave is a safety problem.
15. At Rhodes, to complement the future Homebush Bay Bridge, a new crossing of the rail line sought as per previous submissions to Council by Paul W, (rail overbridge near Council community building at crest on Blaxland Rd)
16. Open the link along west edge of Australand site to Homebush Bay Drive.
17. Renewal of logos/signs on Leeds St and Llewellyn St.
18. Link Llewellyn St to McIlwaine Park, then reactivate a shared path along Concord Rd, then along existing off-road path to Killoola St.
19. Renew logos/signs along Killoola St, Fremont St, Hospital Rd to Nullawarra Rd.
20. Subway under Concord Rd Ryde Bridge needs attention to ensure safe use for bicycles.
21. Review location of access ramp on northern corner Llewellyn St Concord Rd at Ryde Bridge, consider a fence.
22. Review path route from Concord Rd subway to Llewellyn St.
23. Review flooding issue near McIlwaine Park 200m north of Mary St.
24. Consider a signpost link across Concord Rd at Mary St, linking the McIlwaine Park and Blaxland Rd north-south paths. Request RMS to add bike lanterns to signals.
25. East-west link required as alternative to Lyons Rd West and Queens Rd/Gipps St routes. Use local streets, Cintra Park netball courts and Barnwell Park golf course. Link current route

APPENDIX A

from Bevin Ave, along William St, across golf course, Watts St, Renown St, across netball courts and canal to existing path in St Luke's Park.

26. Routes around Westconnex need to be developed – seek RMS involvement and lobby for planning and provision of cycle routes around M4 and through entire area. (e.g. Queens St route, the above Cintra Park route)
27. Breakfast Point streets are missing from 2005 plan because they are new. Links should be provided through Breakfast Point.
28. A new Hen & Chicken Bay circuit should be identified as a long term goal, similar to the Bay Run.
29. Consider including missing links on the current IBM, stating that they are the 'best available' routes even though they might not be delineated or meet standards.
30. Wayfinding signs have gone missing and not replaced, are vandalised or not installed as part of new works. Need a detailed program of new wayfinding signs.
31. Parking facilities at shops, schools and even Council Chambers have not been provided or improved adequately.
32. Request for this study to follow the formal RMS Bike Planning process. (It was pointed out that Council is doing a Strategic Review, not a new Bike Plan, which would be a much longer and exhaustive process. The aims are to advise Council on short to medium term works programs, not the complete future Bike Plan. However, the works program can include renewal and upgrades to facilities such as wayfinding signs, not just construction projects)
33. Bicycle maintenance form on web site seems to have disappeared from the new site – Council to follow up. In the meantime, all were advised that maintenance issues should be sent to Council by e-mail or phone and they will be actioned.
34. Workshop concluded with discussion about whether a follow up meeting should be held to obtain further identified priorities and missing links from attendees. Council is to determine after meeting.
35. Attendees were invited to send in further suggestions/comments to the consultants e-mail address (admin@transurbanplan.com.au).
36. The workshop closed at 8.50pm.

APPENDIX B

City of Canada Bay - Strategic Review of Bike Plan

Meeting: Second Workshop with BayBUG and other bicycle users

Details: Monday 17 March 2014, 7pm Concord Library

Meeting Notes

Attendees: BayBUG: Geoff Ashton, Rolf Muller, Paul Wijngaarden; Joan Wright (BayBUG and Drummoyn Community Centre Scenic Riders Coordinator)

Terry Lawrence, Geoff Morris (TUP)

1. The meeting opened at 7.03pm
2. It was acknowledged as per the e-mail sent on 6/3/14 that the 2005 Bike Plan was not being ignored or dismissed, simply being reviewed to identify short and medium term priorities.
3. All attendees had sent e-mails to TUP prior to the meeting, providing their comments on the Bike Plan review, issues and their priorities for improvements. Each attendee then elaborated on their e-mailed information and group discussion occurred on many of these items.
4. Each attendees' submission will be an Appendix in the report to Council, so it is not necessary to re-produce the details in these meeting notes, however the following list of points were made during the discussion and are recorded here to supplement the items in the submissions:
 - a. Cintra Park/Barnwell Park golf course route. Understood that netball and golf users may object, however potential conflicts can be managed in design. e.g. the route could travel along the east edge of the golf course between Bevin Ave and the leisure centre car park, with a fence to shield cyclists from golf balls, then the route could take the south edge of the golf course to Watts St. There's a 7m wide gap between some of the netball courts which should be adequate for separation of cyclists and spectators.
 - b. Chicanes on Correys Ave are a squeeze point, and pavement of Correys is very poor, unsafe. Consider using Davidson, with a shared path or contra-flow at the east end to get past the one way section.
 - c. The link from Nullawarra to Ryde Bridge is essential and should use the western path behind the child care centre and a shared path along Concord Rd. Access ramps at Killoola and Llewellyn need No Stopping improvements.

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- d. The railway subway near Concord West needs improvement to facilitate cyclists, especially with the school development.
- e. Killoola to Queens St across Concord Rd needs to be facilitated, then Queen St can easily become a significant length of on-street cycle route through use of logos, linking to Homebush Bay paths and providing a good parallel route to Concord Rd.
- f. The 'walking track' on Health Dept land between Majors Bay and Kokoda Track area is a great opportunity that can easily be developed. Noting it is State owned land, Council should lobby for this.
- g. Halliday Park path needs to be widened to become a shared path – Wymston Pde on-road route is excellent but there needs to be a better connection to and through Halliday Park.
- h. A solution to the Lyons Rd West section west of Preston Ave is a priority because it will link Great North Rd and Wymston Pde routes to the Concord Shared Pathway. Consider footpath widening and a shared path or road shoulder protected by median along the north side, for two-way cycling on the north side, to eliminate the difficult crossing of Lyons Rd West. Then use James St and Friend Ave to avoid the difficult westbound usage through roundabouts at Harris Rd and William St. Existing pedestrian refuge east of Preston Ave is not suitable for cyclists.
- i. Drummoyne scenic cyclists seek a linking route from Wymston Pde around Abbotsford Pt to Blackwall Pt Rd, Bortfield Dr to Lysaght Park.
- j. It was explained that where proposed routes traversed community title development lands or private roads (e.g. Breakfast Point, Abbotsford Cove) that bike facilities could only be installed by and with agreement from the relevant Community Association.
- k. Byrne Ave access ramp is unsuitable for cyclists due to design and parking. If cycle path must go on-street there, the ramps and on-road design must be improved.
- l. A scenic route along St Georges Cres linking through to Birkenhead Pt centre. Current connection to the centre is difficult.
- m. A link between the existing Esplanade foreshore path across Taplin Park to Cometrowe St, across Drummoyne Park (widen existing path) and Bayswater St would be good to link Lyons Rd/Drummoyne to the foreshore path.
- n. Requirements for bicycle parking for residents and visitors in new developments, at building entries and preferably under cover, are sought. (Note extract from Council's current DCP attached, shows current requirements for bicycle storage and parking facilities)

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- o. Bike parking at shops and public buildings is required. Previous facilities have been inadequate and some have disappeared. (Note comment that no bike parking for public at Council Chambers exists)
 - p. Route marking, arrows at turns should be a priority – agree that marking extensive routes is preferable to short lengths of concrete. BayBUG would offer to provide signage audit info if requested.
 - q. More access ramps along Bay Run, particularly in section south of Rodd Park.
 - r. Broughton St south of Gipps St to bridge over Parramatta Rd and on to Burwood needs route development. Look at route along Goddard Park.
 - s. Need to improve bike access to the new school on Victoria Ave. The rail subway, footpaths, access ramps and crossings. This will help alleviate concern about traffic in George St.
 - t. Need to provide No Stopping at access ramps.
 - u. Council needs to develop more cycling programs for school children.
 - v. Council's Bike Map should show the full Bike Plan, not just current routes that meet standards.
 - w. Re-start Council's Bicycle Planning Committee.
5. Attendees were thanked for their input and the workshop closed at 8.35pm.