WESTCONNEX NEW M5 PEDESTRIAN & BICYCLE TRANSPORT NETWORK REVIEW

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0	For Issue	21.02.17	LP	DK
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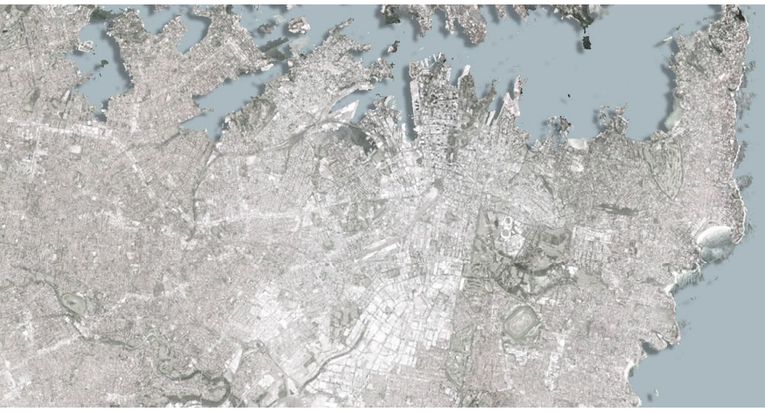
Contents



1.0 Introduction

1.1 PROJECT INTRODUCTION

WestConnex Project

The New M5 tunnel, Stage 2 of WestConnex, is being delivered by Sydney Motorway Corporation (SMC) on behalf of the NSW Government.

The New M5 will run via twin tunnels from the existing M5 East at Kingsgrove to a new interchange at St Peters, more than doubling capacity of the corridor and substantially improving east west corridor access between the Sydney CBD, Port Botany and Sydney Airport precincts and the South West growth areas.

The New M5 will deliver approximately nine kilometres of new tunnels, motorway to motorway connections to the King Georges Road Interchange Upgrade at Beverly Hills, which is currently under construction, and a new interchange at St Peters. This is shown in Figure 1.01.

Figure 1.01 - WestConnex Project

Figure 1.02 - St Peters Interchange Location

What is active transport?

Active transport is non-motorised forms of transport which include physical activity, for example walking or cycling (examples below). An Active Transport Network (ATN) provides infrastructure to enable convenient, pleasant and safe walking and cycling trips.

WestConnex and Active Transport

Inner Sydney and inner western Sydney has had significant increase in active transport and there has been significant growth over the last 10 years in trips undertaken by active transport. This growth has occurred due to a combination of the provision of infrastructure, changing inner Sydney demographics, and in-fill development in the region. A significant barrier to increased active transport is the lack of adequate infrastructure.

Cycle and pedestrian paths form part of the WestConnex project to improve connectivity and safety and contribute to the ATN. The New M5 includes a number of active transport measures including new and improved pedestrian / cycle paths which consists of the following:

- Cycling / pedestrian bridge over Alexandra Canal
- Connection linking Mascot town centre with St Peters and Sydney Park
- A new cycling / pedestrian bridge over Campbell Road connecting Sydney Park with future open space at St Peters Interchange.

This report outlines the investigation of active transport at the St Peters Intersection (SPI) as well as a review of the M5 Linear Park and the M5 East Green Link ATN route from Kingsgrove to St Peters.

Examples of Active Transport Networks in Sydney

Cooks River - Sydney

George Street Cycle Way - Sydney

The Bay Run - Sydney

Sydney Olympic Park - Sydney

1.2 NETWORK REVIEW OBJECTIVES AND METHODOLOGY

This review has been undertaken to address planning condition B50 of the New M5 planning approval. The B50 planning condition requires that the following be undertaken:

The Proponent must undertake a Pedestrian and Cycleway Network Review. The Review must be prepared and approved by the Secretary within six months from the date of this approval (or as otherwise agreed by the Secretary) to identify pedestrian and cycle facilities that are to be provided by the Proponent as part of the SPI. The Review must be prepared by a suitably qualified and experienced person(s) that has been approved by the Secretary. The Review must be undertaken in consultation with the relevant councils and Bicycle NSW and address the matters raised during consultation. The Review must identify (and consider), but not be limited to:

- *A. Current and future land use and associated pedestrian and cycle demand and needs;*
- *B. Pedestrian and cycle impacts associated with the project;*
- *C. The King Street Gateway Project, including potential Princes Highway traffic calming initiatives;*
- *D. Alexandria Canal initiatives;*
- *E. Regional and local pedestrian and cycling strategies;*
- *F. Pedestrian and cycle safety, accessibility and connectivity, including to the public realm;*
- *G. Intersection and signal phasing opportunities to reduce waiting and crossing times for pedestrians and cyclists;*
- *H. Provision of upgraded cycle and pedestrian facilities within 1,000 metres of the boundary of the SPI, apart from the areas addressed in conditions B62(c) and B64; and*
- *I. Concept designs for pedestrian and cycleway infrastructure and implementation timeframes.*

The Review is also to consider the delivery of the 'M5 East Green Link' between Kingsgrove and Mascot approved as part of the M5 East Motorway project. The review shall address past constraints to the delivery of this project and options to overcome these constraints.

The Review must not result in a reduced level of cycle and pedestrian infrastructure as identified in the documents referred to in condition A2, unless required by these conditions.

Our approach is to undertake a review of the ATN proposed as part of the New M5. In this review we have identified gaps between the proposed ATN and the existing ATN. The second stage of the project will be to develop a strategy to address the identified gaps. A summary of how the planning conditions have been addressed in this report are shown in Table 1.01

Project Method

Figure 1.01 shows our approach and method in undertaking this review:

Report Structure

The following describes the structure of this report:

Section 2: Analysis

This section of the report provides an overview of the existing ATN in the M5 East Green Link to St Peters corridor including trip generators, and existing and proposed ATN routes and a summary of the outcomes from the stakeholder workshop.

Section 3: Review of St Peters Interchange ATN

This section of the report reviews the ATN at SPI within a 1km boundary to understand and improve connectivity.

Section 4: Review of M5 East Green Link

This section of the report reviews the previous history of the proposed routes and the outcomes of the proposed routes as they where investigated from 1994 to 2004 as part of the M5 East.

Section 5: Review of M5 East Linear Park

This section of the report provides an analysis on the existing ATN around the M5 East Linear Park and its close surroundings.

A. Current and future land use and associated pedestrian and cycle demand and needs	Refer section 2
B. Pedestrian and cycle impacts associated with the project	Refer section 2.8
C. The King Street Gateway Project, including potential Princes Highway traffic calming initiatives	Refer section 2.5
D. Alexandria Canal initiatives	Refer section 2.6
E. Regional and local pedestrian and cycling strategies	Refer Section 2.3 & 2.4
F. Pedestrian and cycle safety, accessibility and connectivity, including to the public realm	Refer Section 2.12 & 3
G. Intersection and signal phasing opportunities to reduce waiting and crossing times for pedestrians and cyclists	Refer Section 2.10
H. Provision of upgraded cycle and pedestrian facilities within 1,000 metres of the boundary of the SPI, apart from the areas addressed in conditions B62(c) and B64	Refer Section 3.2.1
I. Concept designs for pedestrian and cycleway infrastructure and implementation timeframes	Refer Section 3.3
The Review must not result in a reduced level of cycle and pedestrian infrastructure as identified in the documents referred to in condition A2 unless required by these conditions	Refer Section 6.1
The Review is also to consider the delivery of the 'M5 East Green Link' between Kingsgrove and Mascot approved as part of the M5 East Motorway project. The review shall address past constraints to the delivery of this project and options to overcome these constraints.	Refer Section 4

Table 1.01 - Planning Conditions Summary
* Safety of the existing and planned network is considered in detail in the safety audits undertaken as part of the B51 report.

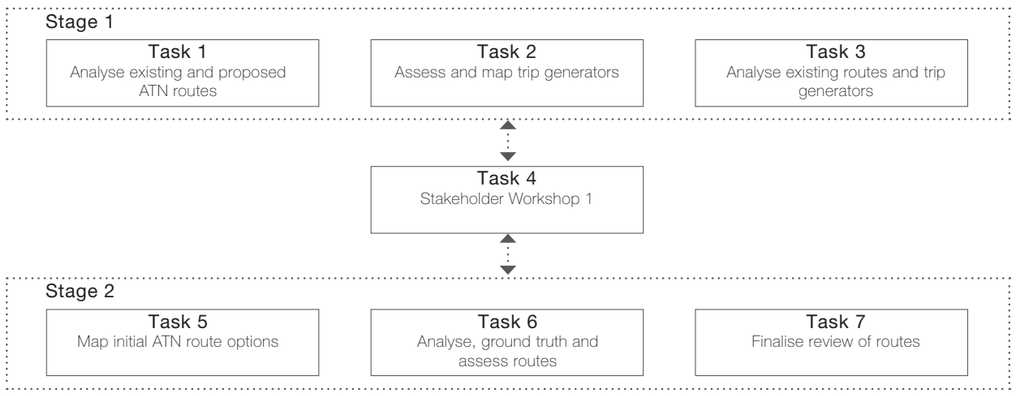


Figure 1.01 - Approach and Method

2.0 Analysis

2.1 TRIP GENERATORS

An analysis of the key trip generators was undertaken within the corridor to understand the key origins and destinations for trips, particularly local trips. A large proportion of trips are local trips.

The key trip generators included the following groups:

- Employment zones including the CBD, industrial zones, Green Square, Mascot
- Major education institutions including Sydney University, UTS
- Transportation centres including Sydney Airport
- Train stations including Sydenham, Green Square, Mascot, Newtown, St Peters
- Major public open space including Sydney Park, Camdenville Park, Enmore Park and Pool
- Major shopping areas including Marrickville Metro, King Street
- Existing major route destinations including Cooks River, Bourke Rd cycle way
- Major town centres including Newtown, Marrickville, Green Square, Rockdale

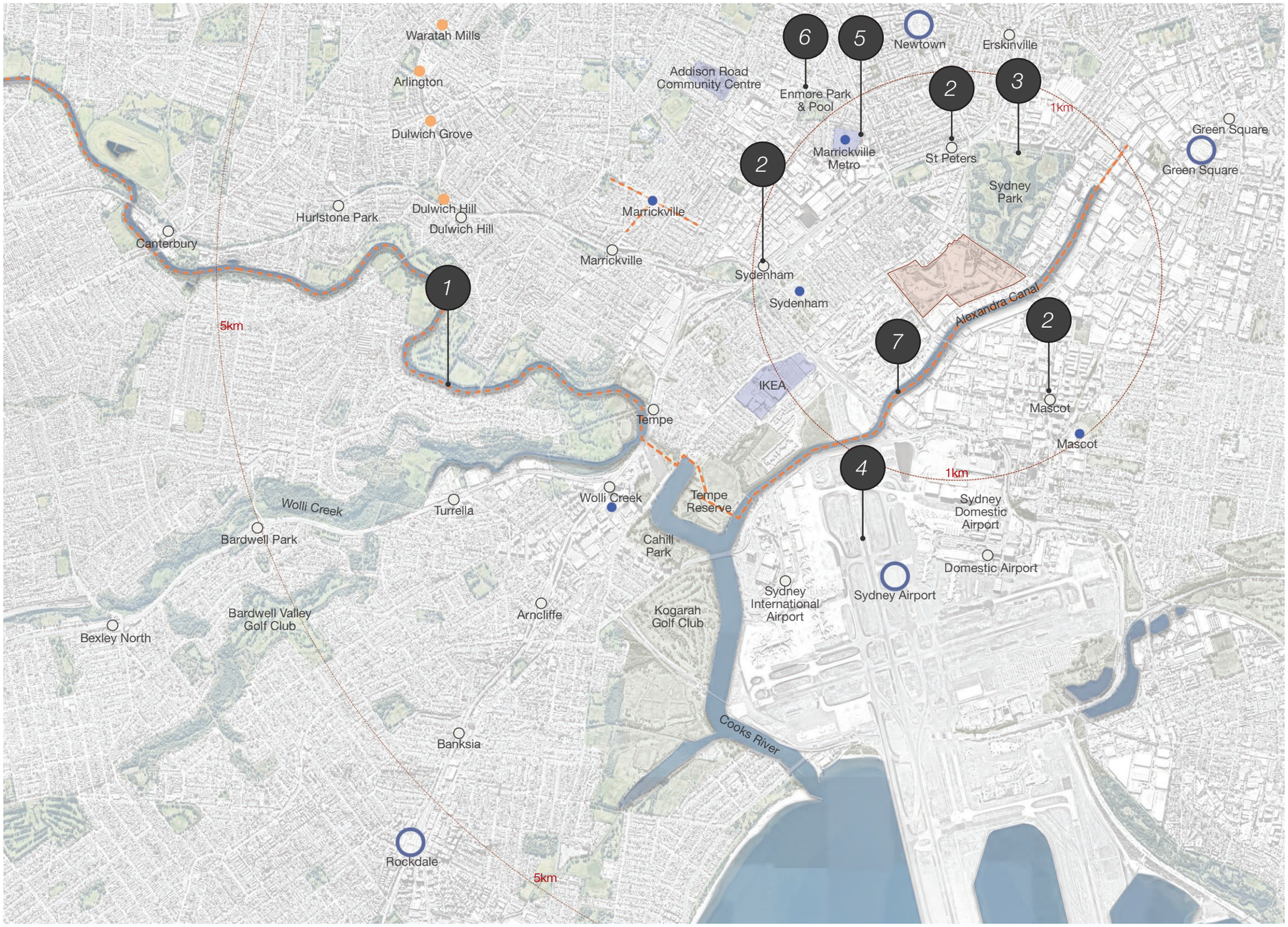
The major trip generators are shown in Figure 2.01.

Cooks River Foreshore

Sydney Railway Stations

Sydney Park - St Peters

Sydney Airport



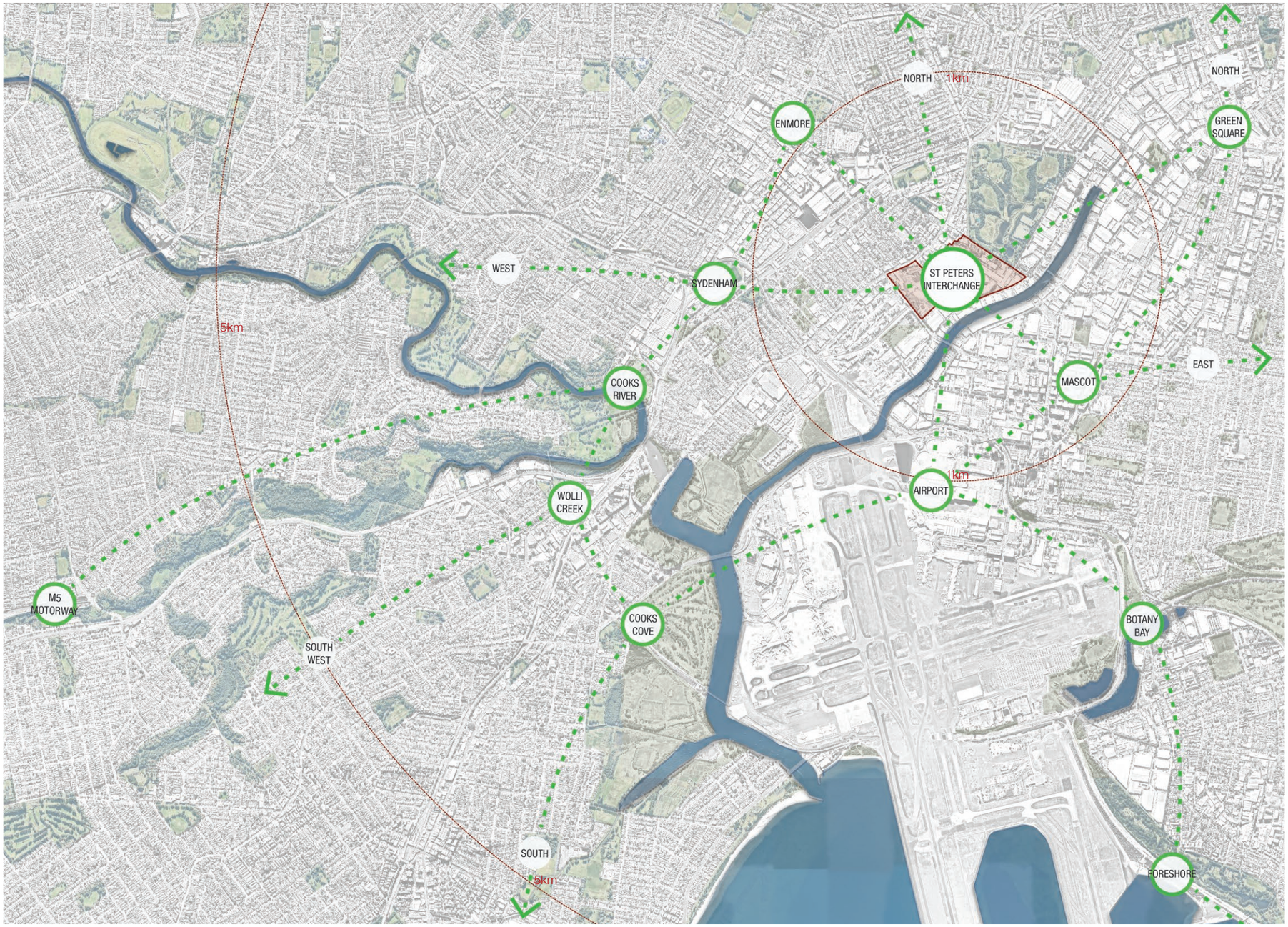
Legend

- Major Centres
- Minor Centres
- Train Stations
- Light Rail Stations
- Trip Generators
- St Peters Interchange Site
- 1km & 5km Boundary from Interchange
- 1 Cooks River Foreshore
- 2 Sydney Railway Stations (St Peters, Sydenham, Mascot)
- 3 Sydney Park - St Peters
- 4 Sydney Airport
- 5 Marrickville Metro
- 6 Enmore Park & Pool
- 7 Alexandria Canal

Figure 2.01 - Trip Generators

2.2 SURROUNDING NODES

A summary of the trip generators and their connectivity is shown in the Figure 2.02. This shows the desired paths of movement however it is important to note that there are a range of additional destinations that are not shown. Figure 2.02 is a summary of the key drivers for the connectivity required and route selection.



Legend

- St Peters Interchange Site
- 1km & 5km Boundary from Interchange
- Connection Requirements

Figure 2.02 - Surrounding Nodes

2.3 INNER CITY REGIONAL ROUTE

The Inner Sydney Regional Bicycle Network is a plan that was developed with a number of councils to identify cross regional cycling links within inner Sydney. The project was undertaken in 2010 and included an economic analysis of the route including a cost/benefit ratio. The network plan has been refined on a number of occasions since its original development.

The plan was developed to ensure a coordinated and connected network was developed for inner Sydney. The network includes 160 kilometres of cycleways which are separated from general traffic and 70 kilometres of upgraded shared paths.

The relevant sections of the network plan is shown in Figure 2.03.

Figure 2.03 - Inner City Regional Routes

2.4 CITY OF SYDNEY AND INNER WEST COUNCIL REGIONAL ROUTES

In addition to the inner Sydney Regional Bicycle Network, Inner Sydney Councils including the former Leichhardt Council, former Marrickville Council, Rockdale, Botany Bay, Cantebury and the City of Sydney have developed cycle strategies. These strategies identify a number of regional routes and local routes which supplement and support the Inner Sydney Regional Bicycle Network.

The City of Sydney has also developed a Liveable Green Network which includes a pedestrian network in addition to the cycle network. The routes in the network are designed to encourage walking to local destinations and include footpath widening, lower speed limits and improved crossings as well as facilities such as seating and bubblers.

These regional active transport networks are shown in the Figure 2.04.

There are a number of local strategy documents that are relevant to this report and these are outlined below.

The NSW Government's Long Term Transport Master Plan (2012) sets the framework for the NSW Government to deliver an integrated, modern transport system. The final version sets out short, medium and long term actions to integrate and manage the transport network across NSW. The Master Plan contains a specific target to double the number of bicycle trips in Metropolitan Sydney by 2016, with further growth in cycling for all trips in NSW by 2031, particularly in urban centres.

The NSW Government's Sydney's Cycling Future (2013) develops a strategy for bicycle infrastructure planning in metropolitan Sydney. The focus of the strategy is people who would like to ride more often if cycling was made safer and more convenient. The strategy aims to prioritise investment on projects that have the greatest potential to get the most people to shift transport trips to bicycle. The priority is to invest in routes within 5 kilometres of major centres and public transport interchanges. It proposes a three-tier hierarchy of safe cycleways to major centres and seeks to invest in state priority corridors to safely link with inner Sydney.

The CBD, Sydney Airport and Green Square are the most relevant trip generators for this project that have been identified in the strategy.

The key objectives of the City of Sydney's Cycle Strategy and Action Plan (2007) are

"The City aims to making cycling an equal transport choice for residents, workers and visitors by 2017. Specific aims of the Strategy are:

- Creating and maintaining a comfortable and bicycle friendly environment in Sydney to encourage more residents, visitors and workers onto bicycles;
- Improving cycling safety.
- Promoting the benefits of cycling; and
- Increasing the number of trips made by bicycle in Sydney"

The key objectives of the former Marrickville Council's Marrickville Bicycle Strategy (2007) is to:

- Develop a coherent bicycle network plan
- Bicycle parking plan
- Develop better integration with public transport
- Bicycle friendly streets neighbourhoods

The key objectives of the (former) Canterbury City Council's Bike Plan (Draft, 2016) is

"integration with other transport modes and connections to surrounding LGAs…to create cycling environments that engage people who otherwise would not regularly ride and reduce the reliance on private car use to help achieve a more efficient transport network."

The former Councils of Hurstville and Rockdale Council have cycle network maps. The former Botany Council is currently developing a cycle strategy.

This report objectives are consistent with the regional strategies and aims to:

- Increase the number of trips made active transport and providing a network to encourage more people to use active transport
- Develop a safe, coordinated bicycle network
- Integrate with key destinations including public transport including Sydney Airport, the CBD and Green Square and other main centres

Figure 2.04 - Council Regional Routes

NOTE: 'Regional Route - Council' include both existing and planned routes

2.5 KING STREET GATEWAY

Project Overview

Roads and Maritime Services (RMS) is developing a concept design for the King Street Gateway project. The concept design will provide positive public domain outcomes for the vibrant and diverse community of Newtown and St Peters.

The project will provide an opportunity to tackle the significant issues surrounding vehicular, bicycle and pedestrian traffic while reinstating the streets and creating dynamic pubic spaces. The concept design will also look to revitalize the existing amenity at Sydney Park and improve the landscape and urban design outcomes for this area.

The project is being developed in consultation with both City of Sydney and Inner West Council. The site is on the boundary of these two local government areas. Princess Highway and Barwon Park Road form part of the Inner West Council while Sydney Park and Sydney Park Road fall into the City of Sydney local government area.

Project Location

The project is located at the southern end of King Street beginning at the Princes Highway, ends with Campbell Street intersection, Barwon Park Road and extending to the intersection of Sydney Park Road and Euston Road as shown in the Figure 2.05.

South King Street, St Peters Triangle and Sydney Park have been included as part of the study area.

At each end of the site the project will be integrated with WestConnex Stage 2 which is currently being undertaken by the Sydney Motorway Corporation. This project has so far highlighted the need to reconfigure the intersection between Princes Highway, King Street and Sydney Park Road. This site will be significant for the development of the concept design.

The King Street Gateway will function as a transition route as driver's move from the motorway system back to the local road network. This shift will afford the street to function as a high street with more emphasis upon pedestrian movement and will create further urban design opportunities.

Project Objectives

The following project objectives have been proposed for King Street Gateway:

- Improve the 'gateway' to King Street by changing the area around the entry to St Peters station and the entry to Sydney Park and the movement between these areas to provide a better pedestrian environment.
- Downgrade of Princes Highway and Sydney Park Road by limiting capacity of Princes Highway north of Campbell Street to achieve a balance for all users.
- Improve the footpath environment through widening and other measures.
- Improve the environment for "Active Transport" - cyclists and pedestrians.
- Reduce lane widths on Princes Highway north of Campbell Street and on Sydney Park Road and increase space for pedestrians and cyclists consistent with proposed road usage and place making.
- Improve at-grade pedestrian and cyclist access to Sydney Park across the Princes Highway (north of Campbell Street) and across Sydney Park Road, including amendments to ensuring these are single-leg crossings for pedestrians where appropriate. Include new mid-block crossings on Princes Highway and Sydney Park Road aligned to pedestrian and cyclist desire lines.

King Street Gateway completion date (2020) is subject to approval. Works will commence on opening of WestConnex Stage 2 New M5 in 2019.

Figure 2.05 - King Street Gateway Project

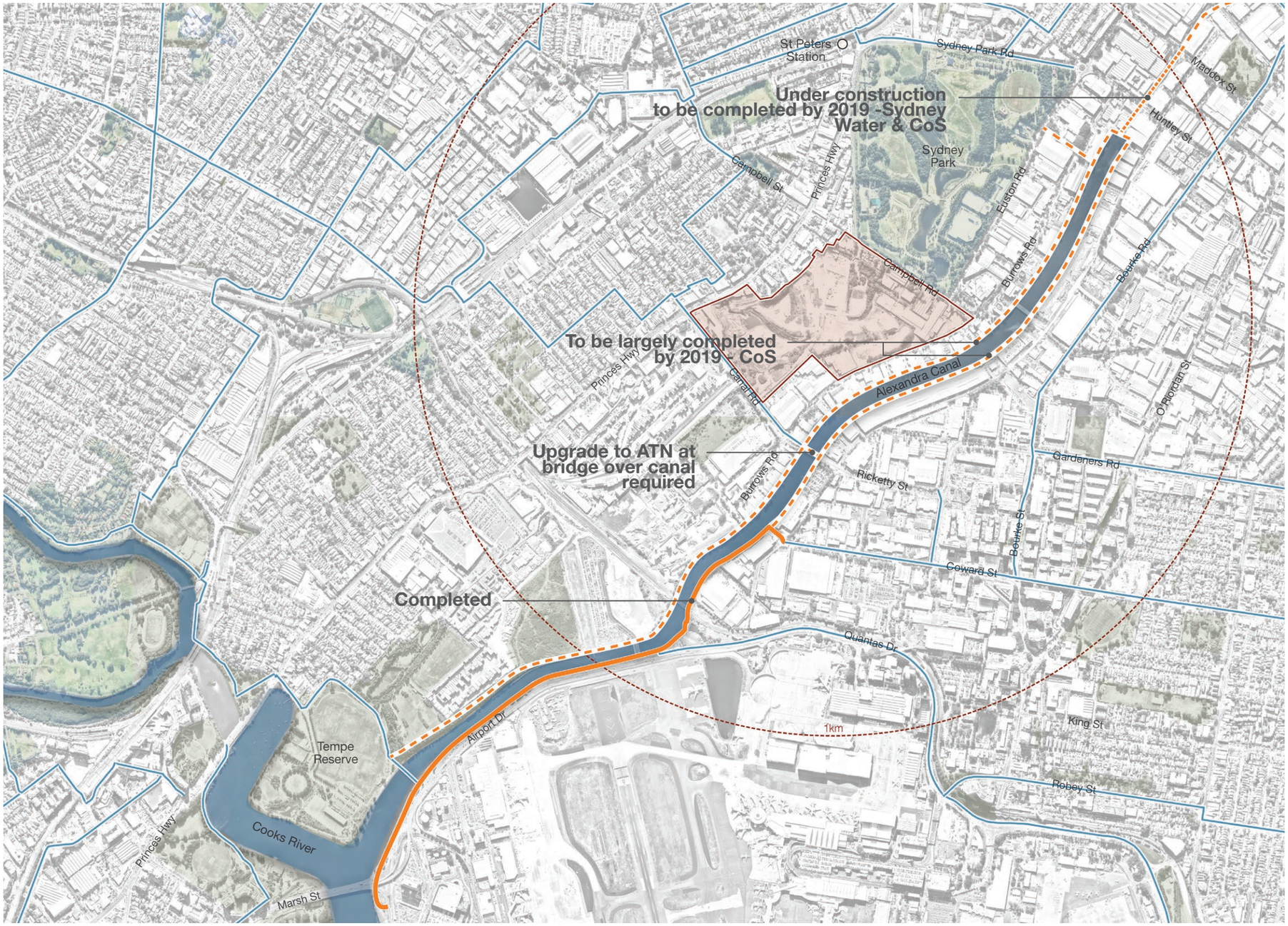
2.6 ALEXANDRA CANAL INITIATIVES

City of Sydney has developed a strategy that promotes Alexandra Canal to be a part of the regional cycle network for the Sydney Region.

The route begins at the north of Alexandra Canal at Maddox Street as a part of the ‘Green Square Trunk Drain Project.' Sydney Water is providing a shared cycle and pedestrian path as a part of these works.

City of Sydney is currently developing concept designs for the remaining sections (both east and west sides of the canal).

Updates on the Alexandra Canal staging of works are shown in the Figure 2.06.



Legend

- Completed
- Under Construction
- Proposed / Concept Design Stage
- Regional Route - Council

NOTE: 'Regional Route - Council' include both existing and planned routes

Figure 2.06 - Alexandra Canal Initiatives

2.7 DEVELOPMENT SITES

Property development offers a significant opportunity to develop ATN, including:

- New connectivity for pedestrians and cyclists with new roads, lanes, pedestrian and cyclist links, particularly in former industrial areas which have large lot sizes
- New infrastructure including dedicated on road and off road ATNs
- Increased demands for ATN as households which are located close to work are increasingly carless households
- New areas which attract people as an end destination such as new retail centres, new transport nodes, etc.

In the vicinity of the SPI there is a major transformation of the former industrial lands into high density residential and mixed use development. SPI will transform significantly both in the short and long term in areas such as:

- Green Square Town Centre
- St Peters Triangle,
- Ashmore Estate
- Industrial land adjacent to Sydney Park
- Sydenham Victoria Rd Precinct
- Mascot town centre
- Wolli Creek

SPI will also include significant redevelopment in the longer term with redevelopment likely to occur in the following areas:

- Greater Green Square
- Southern employment lands including Rosebery North
- Cooks Cove
- Sydney Airport lands

SPI is strategically located between the airport and the CBD with close links to the Eastern suburbs and Inner West. This is a dynamic area with major opportunities for ATN infrastructure.

Mascot Town Centre, Mascot


Green Square Cycle Way, Zetland

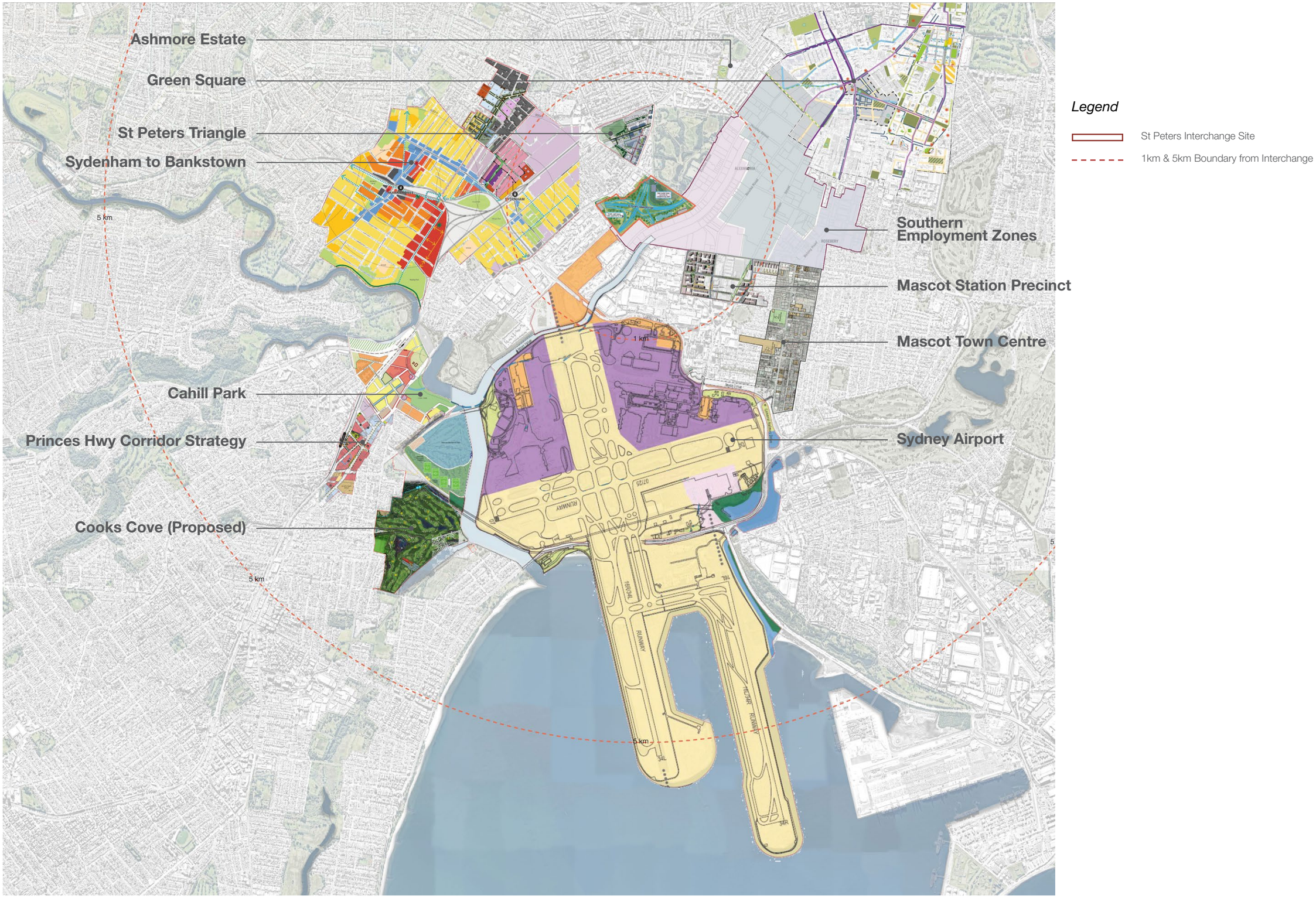


Figure 2.07 - Development Sites

2.8 CONSTRUCTION IMPACTS

During construction on the M5 East Motorway, existing shared pedestrian and cycle paths will be impacted.

As a part of construction management, access to properties will be maintained, traffic control will be ensured and residents will receive 5 days' notice prior to the closure of any footpaths.

The construction of SPI will impact surrounding local roads, however there are no existing pedestrian or cycle paths within the SPI area to be impacted by construction of the SPI. The local roads construction works on Campbell Rd and Euston Rd will have construction impacts, however Campbell Rd and Euston Rd are not existing identified bicycle routes and Sydney Park shared pathways will remain open to allow safe connections through this area.

There are temporary removals of the shared paths within the M5 Linear Park related to the construction works for the New M5 tunnel portals. In all cases temporary safe diversions have been provided to ensure uninterupted access for pedestrians and cyclists along the M5 corridor. Figure 2.08 below provides a copy of communications provided to the public identifying the temporary diversions in the M5 Linear Park. The temporary closures around the King Georges Rd intersection have now been removed.

In the vicinity of the SPI there are no existing shared paths or cycle paths which are impacted by construction works due to the SPI. The roads in the vicinity of the SPI are very low volume cycle traffic due to the lack of dedicated infrastructure, use of routes by heavy vehicles and relatively narrow roads. With the exception of Campbell St they are also relatively low pedestrian traffic due to the industrial nature of the adjacent development and absence of retail or commercial development.

There will be temporary impacts to a number of pedestrian paths during construction including the following pedestrian paths:

- Temporary closures of footpaths on Euston Rd due to road widening and footpath re-construction works
- Temporary impacts to the footpath on Sydney Park Rd due to footpath re-construction works
- Temporary impacts to the footpath on Campbell Rd due to road widening and footpath re-construction works
- Temporary impacts to the footpath on Canal Rd due to road widening and footpath re-construction works
- Temporary impacts to the footpath on Canal Rd due to road widening and footpath re-construction works

In all cases pedestrian access will be provided through the diversion of pedestrians onto a footpath on the opposite side of the road to the road works, or alternative temporary access will be provided along the road through the use of temporary barriers or equivalent. In all cases the footpaths will be reinstated and detour routes for cyclists and pedestrians will be adequately sign posted. Refer to B51 report for full details of reinstatement of footpath/shared path/separated cycle path details.

Refer appendix 3 for copies of notifications that have been issued via the WestConnex website detailing changes to roads, paths, cycleways, during construction of the SPI local road upgrades. Additional similar notifications will continue to be issued as the work progresses.

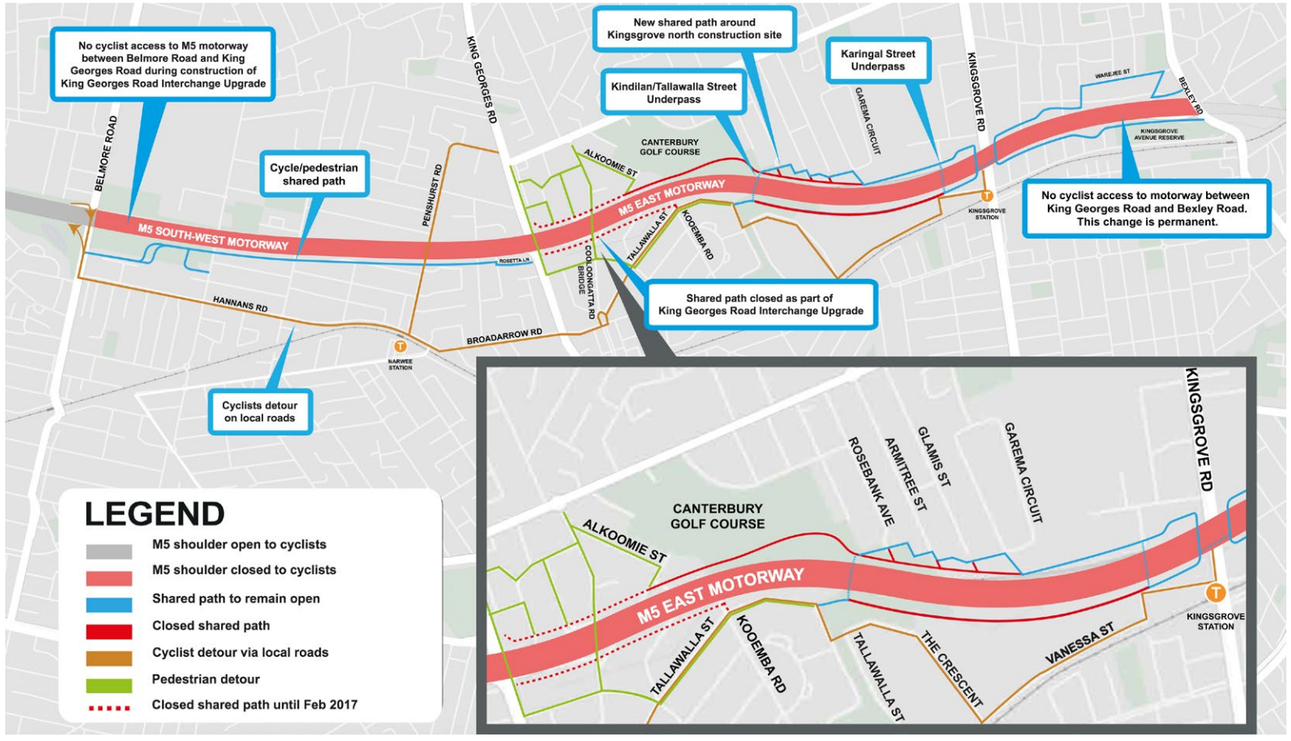


Figure 2.08 - Changes to shared pedestrian and cyclist paths between Bexley Road and Belmore Road as part of WestConnex New M5 - WestConnex

2.9 INTERSECTION UPGRADES

Intersection upgrades create a number of opportunities to reduce waiting and crossing times for pedestrians and cyclists. The intersections are categorised into four upgrade types:

New Signalised Intersections:

Campbell Road - Bourke Road

The intersection of Bourke Road and Campbell Road is proposed to be signalised with the provision of three pedestrian crossings. Cyclists have the opportunity to use a shared path on the northern side of the new Campbell Road Bridge.

Upgrade to Signalised Intersections:

Sydney Park Road - Euston Road

Adequate pedestrian connectivity is maintained through the upgrade of the intersection of Euston Road with Sydney Park Road from a round-a-bout to a signalised intersection.

Campbell Street - St Peters Street

The intersection of St Peters Street and Campbell Street will be upgraded to a signalised intersection with two pedestrian crossings providing pedestrian access between the northern and southern side of side of Campbell Street.

Campbell Street - Albert Street

An at grade pedestrian crossing at the signalised intersection proposed at Albert Street.

Realignment and Upgrade of Intersections:

Campbell Street - Unwins Bridge Road

Adequate pedestrian connectivity is maintained through the realignment and upgrade of the intersection. As with the existing intersection of Unwins Bridge Road with Campbell Street four pedestrian crossings have been provided.

Major Intersection Upgrade and tie-in Works to New M5 Ramps

Campbell Road - Euston Road

Adequate pedestrian connectivity is maintained through the upgrade of the intersection. Signalised pedestrian and cyclist crossings have been provided across Campbell Road and Euston Road.

Location	Crossing Configuration	Cycle Times
Campbell St / May St / Unwins Bridge Rd	Equivalent access. Fourth leg of pedestrian crossing added.	Improved. Single crossing of Campbell St. Traffic island removed. Additional crossing of Campbell St added.
Campbell St / Hutchinson St	Equivalent access	Improved. Dedicated cycle crossing. Raised threshold
Campbell St / Brown St	Equivalent access	No change
Campbell St / Florence St	Equivalent access	No change
Campbell St / St Peters St	Equivalent access	Improved. New signalised pedestrian crossing s on two legs of intersection
Campbell St / Church St	Equivalent access	No change
Campbell St / Princes Hwy	Equivalent access. Fourth leg of pedestrian crossing added.	Improved. Additional crossing of Princes Highway added. Campbell Road wider than previous.
Campbell St / Crown St	No change	Improved. Dedicated cycle crossing. Raised threshold.
Campbell St / Barwon Park Rd	No change	Improved. Dedicated cycle crossing. Raised threshold. Reduced crossing length.
Campbell St / Harber St	No change	Improved. Dedicated cycle crossing. Raised threshold.
Campbell Rd / Euston Rd	New 4 way intersection crossings to 3 sides of intersection	Slower crossing due to size of intersection. Includes dedicated cycle crossing on north side
Campbell Rd / Burrows Rd	New 4 way intersection crossings of Burrows only	Improved. Slower crossing due to size of intersection. Includes dedicated cycle crossing on north side and pedestrian crossing on south side.
Euston Rd / Sydney Park entries	New single leg pedestrian crossings of Euston Rd added	Improved. New signalised crossing of Euston Rd at Park entry points.
Euston Rd / Sydney Park Rd / Huntley St	Removal of round about. Full 4 way signalised intersection including pedestrian crossings	Improved. Wider intersection but signalised pedestrian crossing on all 4 links
Gardeners Rd / Kent Rd	No change	Widened intersection with signalised crossings
Gardeners Rd / Bourke Rd	No change	Widened intersection with signalised crossings
Campbell Rd / Bourke	New intersection	Widened intersection with signalised crossings and dedicated cycle crossing
M5 / King Georges Road	Pedestrian crossing added to north side King Georges Road	Improved. Reduced crossing time due to added pedestrian crossing
Princes Hwy / Canal Rd	No change	No change. Identified for improvement under Condition B51

Figure 2.09 - Impacted Intersections

2.10 STAKEHOLDER WORKSHOP

A stakeholder workshop was held 18th November 2016. The stakeholder workshop included representatives from Roads and Maritime Service, City of Sydney, Inner West Council, Bicycle NSW, Bayside Council and Canterbury Bankstown Council.

The workshop was undertaken to identify the following:

- Gaps in the mapping analysis of existing and proposed routes and trip generators that had been undertaken to date
- Current infrastructure works that were being undertaken or where currently being planned or designed
- Issues with the current network and required improvement upgrades
- Significant projects and opportunities in the existing ATN which would provide significant gains in the regional network

The key outcomes of the workshop were as follows (see appendix for meeting minutes and presentation):

St Peters Interchange

- All routes as proposed at the SPI where considered desirable including the proposed shared path between the SPI and behind the properties identified as 178 to 310 Princes Hwy, St Peters.
- The shared path behind the properties at 178 to 310 Princes Highways was seen as an important addition to the ATN as it provides an alternate route to Princes Highway and link between the suburbs of St Peters and Sydenham to the south and Sydney Park and the city to the north.
- It was noted that the shared path needed to be safe and meet Crime Prevention Through Environmental Design (CPTED) principles. Work is being undertaken by the nominated contractor to address safety concerns including ensuring sight lines, lighting, CCTV and other safety design principles.
- It has been identified that proposed connectivity at either end of the proposed route through the western side of SPI is inadequate and requires attention.
- Works focused on the safety of these routes have been undertaken by the nominated contractor (straight lines lighting, CCTV)

M5 East Green Link

- The M5 East Green Link was supported as a future initiative
- The M5 East Green Link was considered a regional route and the infrastructure needed to reflect that of a regional route
- There was a general preference for an off road route, despite the reduced connection to local routes that an off road route would require due to the physical geography of Wolli Creek

M5 East Linear Park

- Connectivity at a number of the proposed locations need better connection to integrate with the surrounding ATN
- Improve connections west across King Georges Road
- Discussion about whether the existing ATN met the current design standard

	Attendees	Apologies
RMS	– Grant Sutton – Bob McCulloch – Wayde Hazelton	– Leon Paap
City of Sydney	– Bryony Cooper	– Fiona Campbell
Inner West Council	– Simon Lowe – Kendall Banfield	
Bicycle NSW	– Ray Rice	
Georges River Council		– Shereny Selim
Bayside Council	– Michael Lee	– Colin Mable
Canterbury Bankstown Council	– Rene Chau	– Peter Lay
McGregor Coxall	– David Knights – Logan Pennington	
Department of Planning and Environment		– Swati Sharma – Jacqui Mcleod

Table 2.10.1 Stakeholder Workshop Attendees

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2.11 SITES OF INTEREST

The structure of the report has been divided into the following sections (also seen in Figure 2.11)

- St Peters (refer section 3)
- M5 East Green Way (refer section 4)
- M5 Linear Park (refer section 5)

These sites are discussed in further detail in the following sections.

Figure 2.11 - Sites of Interest

2.12 ST PETERS SAFETY AUDIT

A safety Audit was undertaken of the selected local routes surrounding the SPI. These local routes consisted of the following 4 sites as follows:

- Mitchell Road: Mitchell Road between the intersection of Mitchell Road and Sydney Park Road and Belmont Street
- Campbell Street: The intersection of Campbell Street and May Street including Bedwin Road Bridge and the entrance to Camdenville Park from May Street
- Princes Hwy Intersection: The intersection of Princes Hwy and Canal Road
- Canal Road: Canal Road between Princes Hwy and Ricketty Street

The audit results can be found in appendix 04.

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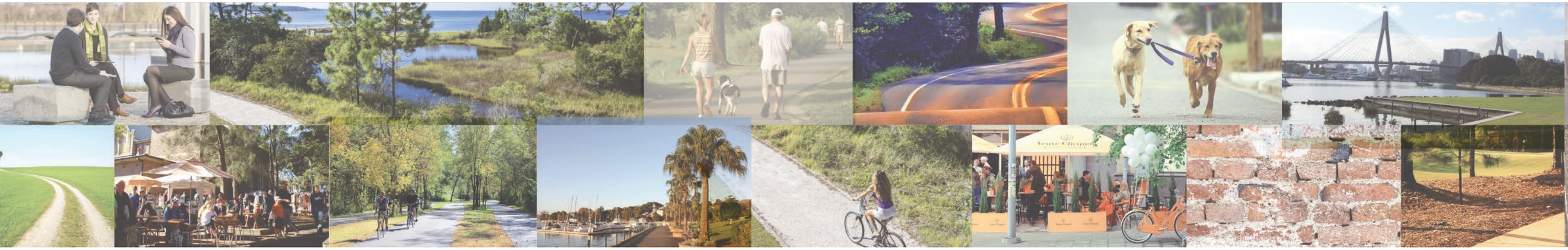


3.0 St Peters Review

3.1 ST PETERS OVERVIEW

St Peters and the surrounding area incorporates the suburbs of Newtown, Erskineville, Sydenham, Tempe and Mascot.

The area includes industrial land uses to the south and east, including supporting facilities for Port Botany and the Airport, and residential land uses to the west. The residential areas include former industrial areas currently undergoing transformation to multi-dwelling residential including Ashmore Estate. There is limited open space in the industrial areas to the south and east of the interchange.

The area is also significantly influenced by Sydney Park, a large regional open space immediately to the north of the interchange.

The area has a number of distinct characteristics. The industrial areas are dominated by heavy vehicle movements, poor streetscapes and limited pedestrian and cycle movement. The residential areas to the north are undergoing transformation to high density apartments buildings and the areas to the west are dominated by single dwelling residential areas.

The area also includes the significant and highly valued ATN including the Cooks River shared path as well as the proposed Alexandra Canal cycleway and Bourke Street cycleway.

Currently there is poor connectivity between these regional links. In particular the industrial areas act as a significant barrier east to west as well as from north to south. The road network within the residential areas to the established residential suburbs to the west are also relatively narrow, and there is limited off street parking.

1

Princess Highway


2

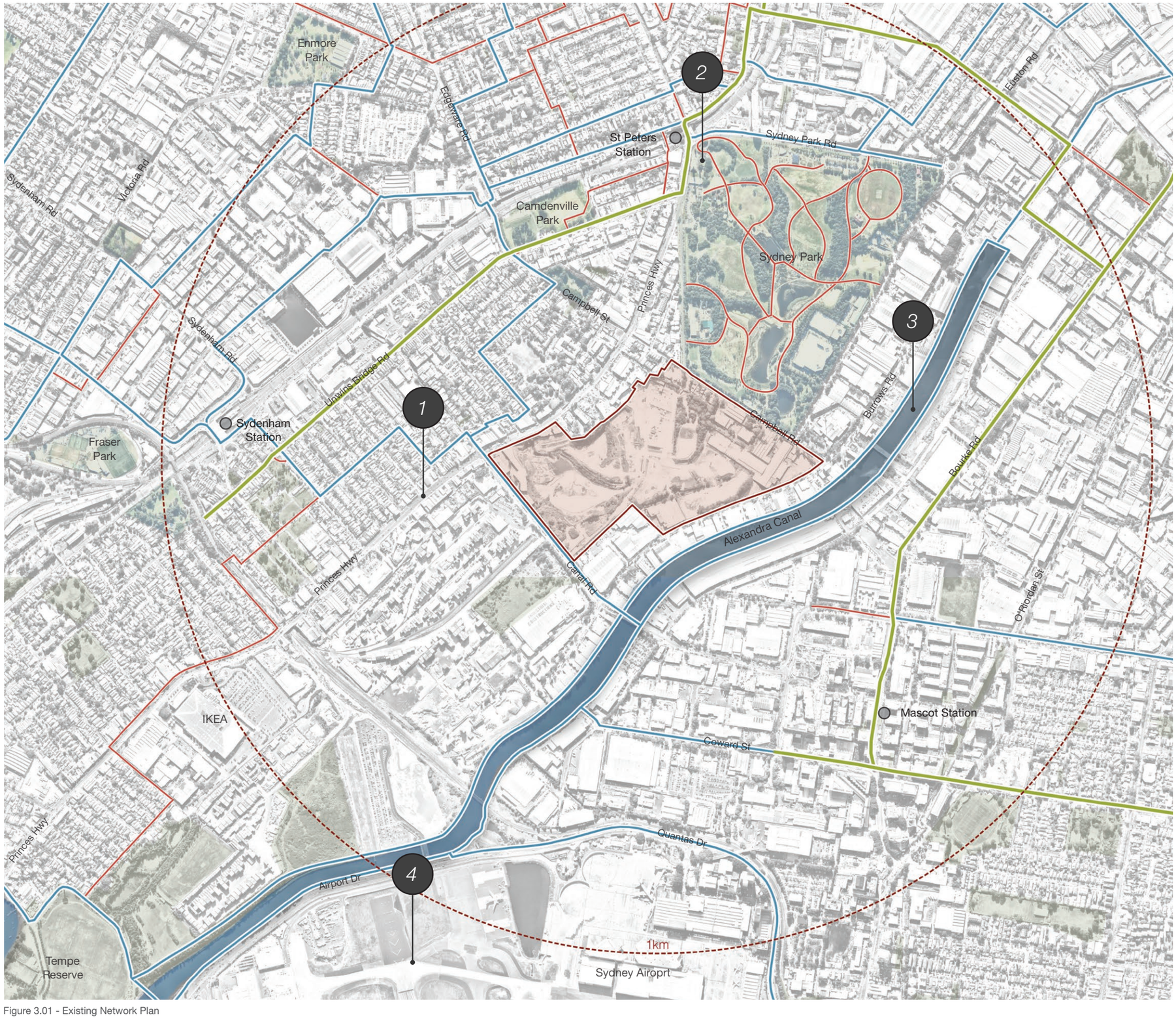
Sydney Park Chimneys

3

Alexandra Canal


4

Sydney Airport



Legend

- Regional Route - Inner City
- Regional Route - Council
- Local Route - Council
- St Peters Interchange Boundary
- 1km Boundary from Interchange
- 1 Princess Highway
- 2 Sydney Park Chimneys
- 3 Alexandra Canal
- 4 Sydney Airport

NOTE: 'Regional Route - Council' include both existing and planned routes

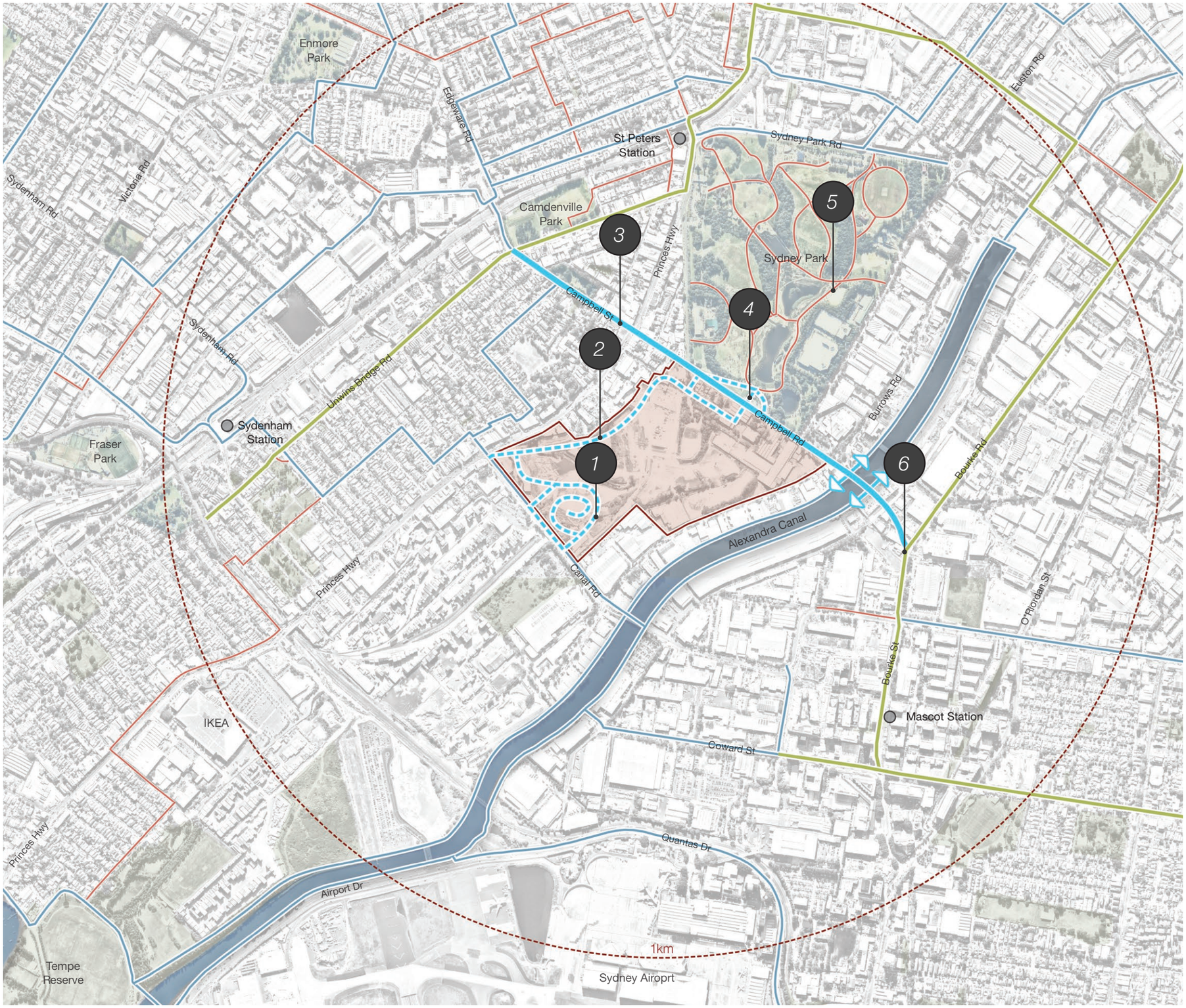
Figure 3.01 - Existing Network Plan

3.2 ST PETERS INTERCHANGE ATN - PLANNED

As part of the SPI works for the New M5, a number of initiatives are being planned and are proposed to be constructed by WestConnex. These works include the following:

1. An off-road shared path running on the western side of the interchange
2. An off-road shared path running on the northern side of the interchange (subject to modification of Ministers Condition of Approval B67 to enable public access along this route).
3. A separated cycleway along the eastern edge of Campbell Street from Unwins Bridge Road to Bourke Street
4. A bridge into Sydney Park from the SPI over Campbell Road
5. CoS council proposal to direct cyclists through Sydney Park via Mitchell Road and Harber Street has been considered by RMS as an alternate to the Euston Road shared path.
6. Cycleway along Bourke Road from Campbell Street. Ongoing discussions to determine type of cyclepath at this location.

These routes are shown in Figure 3.02. Note that the exact configuration and design for some of these routes are still being finalised.



Legend

- WCX Commitments - Separated Cycleway
- WCX Commitments - Shared Cycleway
- Regional Route - Inner City
- Regional Route - Council
- Local Route - Council
- St Peters Interchange Boundary
- 1km Boundary from Interchange
- 1 Interchange West
- 2 Interchange North
- 3 Campbell St
- 4 Campbell Road Pedestrian Bridge
- 5 Sydney Park
- 6 Bourke Road

NOTE: 'Regional Route - Council' include both existing and planned routes

Figure 3.02 - St Peters Interchange ATN Review

3.3 ST PETERS INTERCHANGE ATN - REVIEW

Due to the location of the SPI, it plays a significant role in providing connectivity to a number of regional ATN routes. This includes links to the

- Existing regional route along Bourke Street providing connectivity to Green Square, Mascot and the city
- Airport and southern suburbs of Sydney through the Alexandra Canal and Cooks River cycle path
- South west of Sydney through future proposed regional Sydenham to Bankstown route as part of the Sydenham to Bankstown corridor redevelopment
- Proposed regional route through Erskineville and Alexandria connecting to Redfern and the city

Connectivity of ATN's is a key element of a well planned system. Hence, the proposed ATN works, as part of the SPI for the New M5, have been reviewed in terms of their connectivity to existing and planned ATN. This connectivity review has identified the following:

A. Airport Connection: The connectivity at Canal Road is currently limited as it connects to a narrow footpath with poor connectivity over the bridge over Alexandra Canal. This is a key link to connect to the future Sydney Gateway ATN which provides an important connection to Sydney Airport.

B. Sydenham Connection: South west connection at Princes Highway has limited connectivity to the surrounding network and is a current gap in the proposed network. Currently the ATN ends at Princes Highway at the footpath a short distance from the intersection with Canal Road.

C. Enmore/Marrickville Connection: Connectivity to the west is limited at the Western end of Campbell Road. The connection across the Bankstown Rail line is currently poor with limited potential on the existing bridge and narrow lanes over the rail overpass. ATN links along Unwins Bridge Road are also currently poor.

D. Newtown Connection: There is good potential for future connection to Newtown through the provision of a proposed ATN route along Princes Highway between Campbell Road and Lord Street as part of the King Street Gateway project.

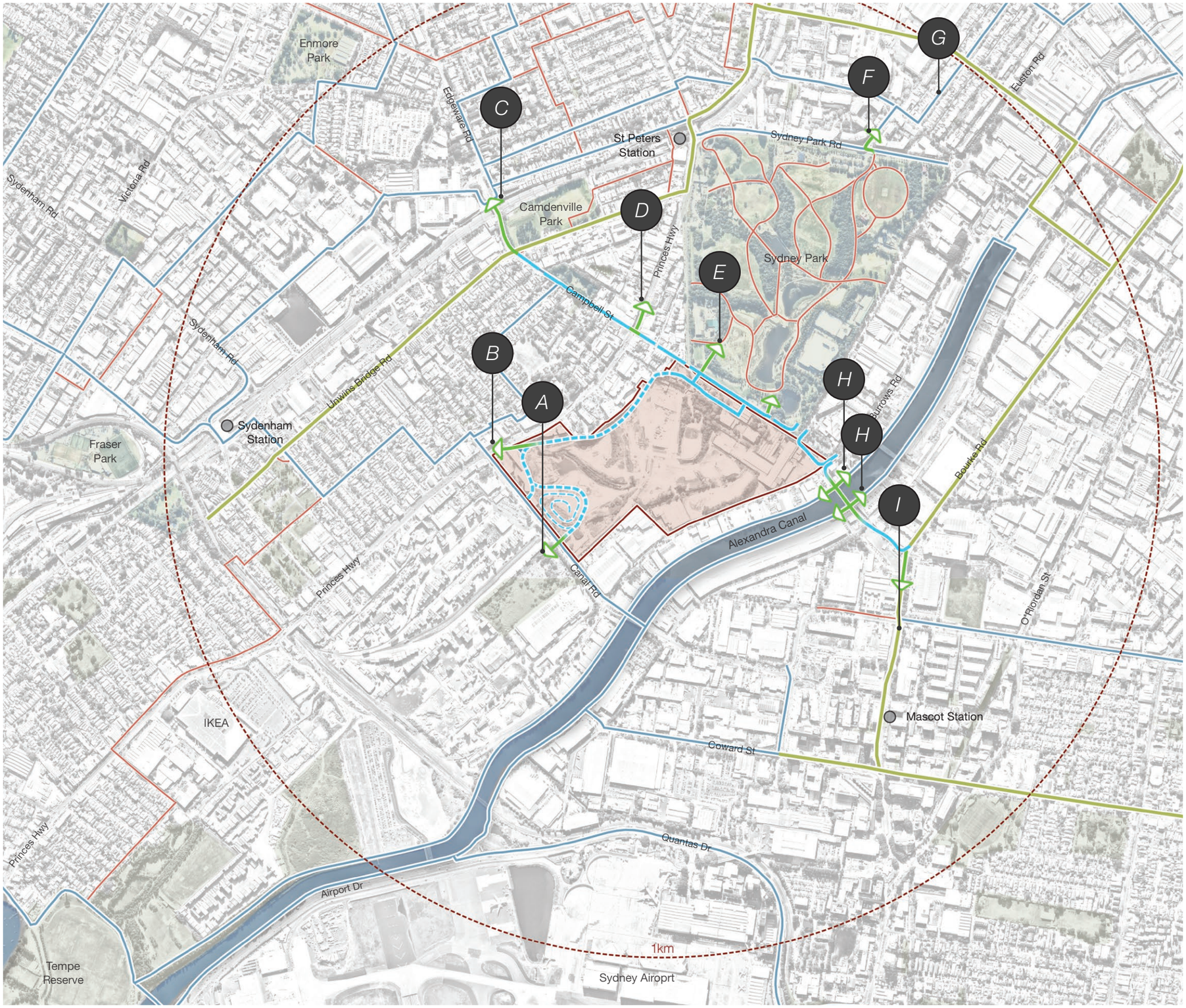
E. Sydney Park Connection: Access into Sydney Park from Campbell Road is currently limited due to the change in elevation and lack of paths on the southern boundary of Sydney Park. Better access would facilitate movement north and south through Sydney Park to the proposed SPI ATN.

F. Erskineville Connection: Connection to the north through Erskinville is provided by the route along Euston Road or through Sydney Park and Sydney Park Road. However there is currently poor connectivity along Mitchell Road and Huntley Street. Both roads contain shared paths on existing footpaths which are relatively narrow and are constrained by trees, poles and driveways. There is also a relatively poor crossing at Huntley Street to access Belmont Street.

G. Alexandria to Moore Park (A2MP) Connection: There is a current gap between the end of the SPI ATN, existing and proposed ATN, and the Alexandria to Moore Park ATN.

H. Alexandra Canal Connection: WestConnex will enable a connection between the future Alexandra Canal ATN and the Campbell Road bike path.

I. Mascot Connection: Access to the south east is good with important connections into the existing Bourke St ATN route and surrounding area.



Legend

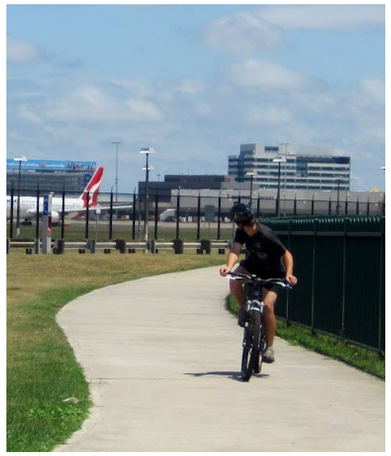
- WCX Commitments - Separated Cycleway
- WCX Commitments - Shared Cycleway
- Connectivity Analysis
- Regional Route - Inner City
- Regional Route - Council
- Local Route - Council
- St Peters Interchange Boundary
- 1km Boundary from Interchange
- A — Airport Connection
- B — Sydenham Connection
- C — Enmore/ Marrickville Connection
- D — Newtown Connection
- E — Sydney Park Connection
- F — Erskineville Connection
- G — A2MP Connection
- H — Alexandra Canal Connection
- I — Mascot Connection

NOTE: 'Regional Route - Council' include both existing and planned routes

Figure 3.03 - St Peters Interchange ATN Review

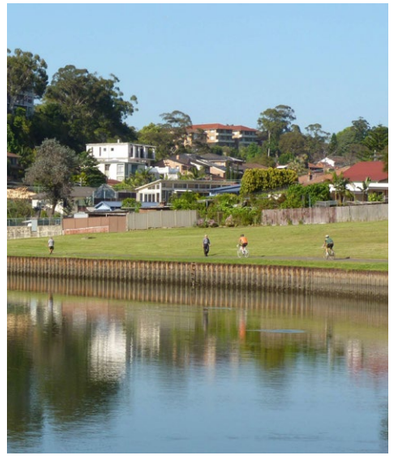
3.4 ST PETERS INTERCHANGE ATN - MISSING CONNECTORS

	Name	Summary	Status	Completion Date	Delivered by
A	Airport Connection/Canal Road	Currently limited connectivity to Airport and along Canal Road	Gap. Being addressed as part of Sydney Gateway project	2023	RMS
B	Sydenham Connection (Princes Highway)	Currently limited connectivity into Inner West Council ATN to access Sydenham Station	Gap. To be addressed in Condition B51	2020	RMS and Councils
C	Enmore/Marrickville Connection	Currently limited connectivity into Inner West Council ATN to access Enmore/Marrickville and Camdenville Park	Gap. To be addressed in Condition B51	2020	RMS and Councils
D	Newtown Connection	Currently limited connectivity into Newtown town centre and existing Lord/Concord Street ATN	Gap. To be addressed as part of King St Gateway, which is implemented after opening of WCX New M5	2021	RMS
E	Sydney Park Connection	Currently limited connectivity from Campbell Road to Sydney Park	Gap. Being addressed as part of Condition B62 Campbell Rd Bridge	2020	RMS
F	Erskineville/Alexandra Connection	Connection to the north through Belmont Street regional route Existing shared path to Belmont Street ATN is not adequate.	Gap. To be addressed in Condition B51	2020	RMS
G	Alexandria to Moore Park Connection	Currently limited connectivity from Sydney Park Road/Euston Road to planned A2MP ATN	Gap. To be addressed in Condition B51 via Mitchell Road, Harley Street and McEvoy Street	2020	RMS
H	Alexandra Canal Connection	Facilitating City of Sydney's planned Alexandra Canal cycle path	Planned as part of existing Westconnex works – bridge design does not impact councils proposal	2020	WCX
I	Mascot connection	Connectivity to Bourke Road ATN and Mascot town centre	Planned as part of existing Westconnex works	2020	WCX



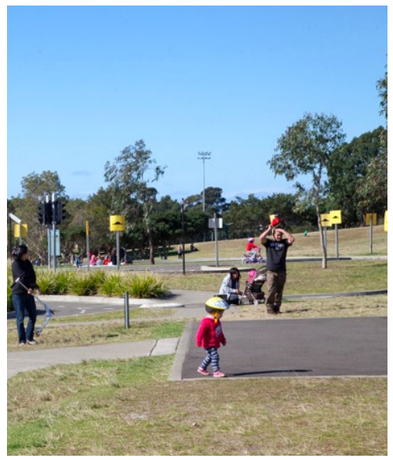
Connecting Inner West suburbs to the Airport via the Sydney Gateway

Connecting Princess Highway with Canal Road



Connecting Cooks River to inner west stations via the Sydenham creative industries precinct

Providing a connection from Sydenham & St Peters to Newtown along the major arterial route of Princes Hwy and King St



Closing the gap between Euston Road to Maddox Street and the A2MP

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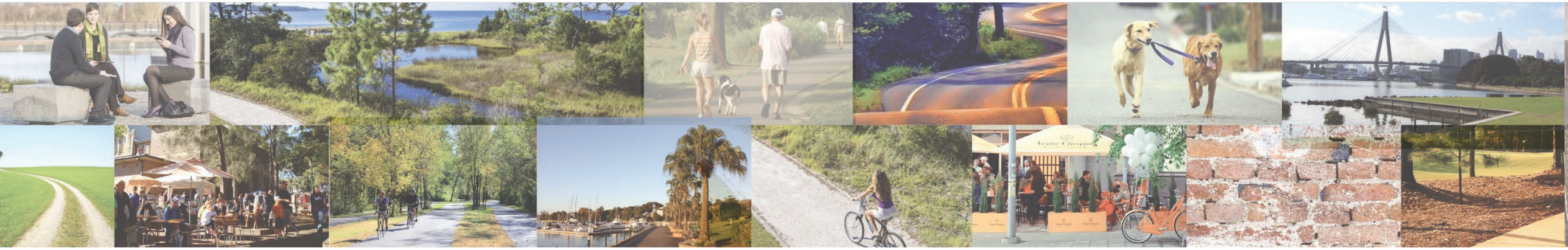


4.0 M5 East Green Link

4.1 M5 EAST GREEN LINK OVERVIEW

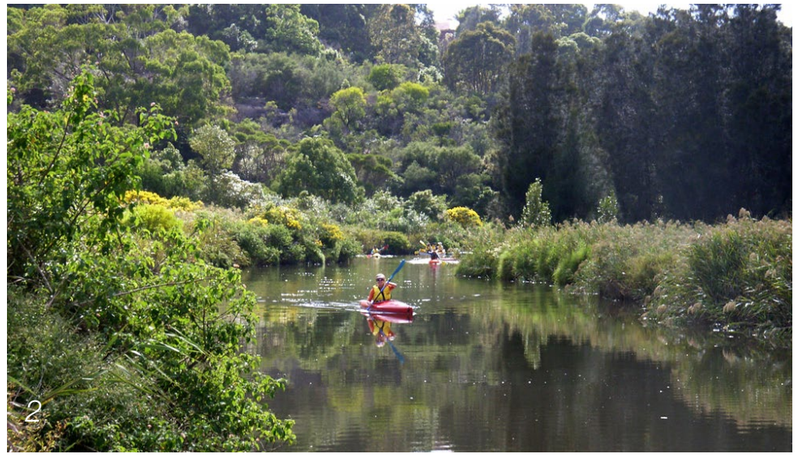
The M5 East Green Way and the surrounding area includes the suburbs of Kingsgrove, Bexley North, Turrella, Wolli Creek, Bardwell Park and Arncliffe.

The area includes Wolli Creek Reserve and the adjoining Cooks River with their accompanied qualities. Outside these water systems, residential housing populates the majority of the area with new development to the east, between Arncliffe and Wolli Creek Stations, and a major rail line travelling southwest from Sydney.

At a regional level, currently, there is poor connectivity between frequently used existing routes including the Cools River shared path, the M5 East Linear Park and the Alexandra Canal cycle path. In particular there is a lack of ATN infrastructure linking these routes resulting in poor connectivity.

The following sub sections (4.2 and 4.3) review the history (1994-2016) of previous works towards the implementation of a shared path / cycle way connecting Alexandra Canal to Turrella Station and Bexley North Station.

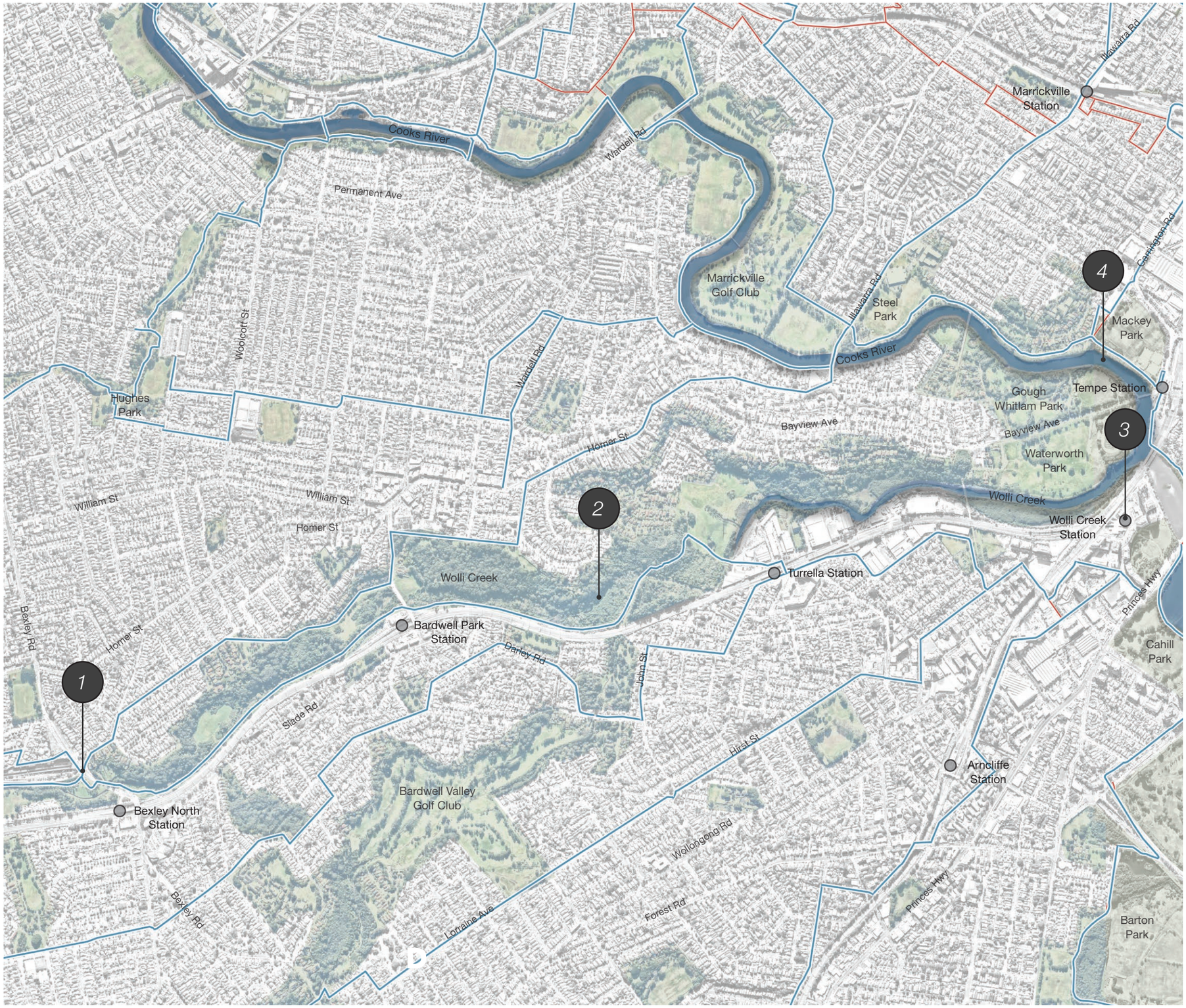
Bexley Road Pedestrian Bridge



Wolli Creek

Wolli Creek Train Station

Cooks River



Legend

- Regional Route - Council
- Local Route - Council

1. Bexley Road Pedestrian Bridge
2. Wolli Creek
3. Wolli Creek Train Station
4. Cooks River

NOTE: 'Regional Route - Council' include both existing and planned routes

Figure 4.01 - Existing Network Plan

4.2 TURRELLA TO ALEXANDRA CANAL - REVIEW

2002 February - M5 East Cycleways

Description

An update on the progress on the M5 East Cycle way states the following:

- A new shared 3 meter wide pedestrian and cycle path has been constructed along both sides of the M5 East between King Georges Road and Bexley Road.
- The section of path along Alexandra Canal from Coward Street to Giovanni Burnetti Bridge was constructed
- The connection from Turrella Station to Giovanni Burnetti Bridge and Alexandra Canal was not further planned due to the significant development proposed at Wolli Creek Station and Turrella Station. It was considered that the cycleway would be constructed as part of the future development. This section did not get completed as part of the re-development hence the gap that still remains in the present route.
- A shared path along Tempe Recreational Reserve included a cycle bridge over the canal. This was not constructed.
- The section between Princes Highway bridge and Turrella station was not constructed due to the significant amount of redevelopment occuring. It was understood that the route from Princes Highway bridge and Turrella station would be constructed by future development. This did not occur.

Legend

Proposed Route (not constructed)

Completed Cycleway

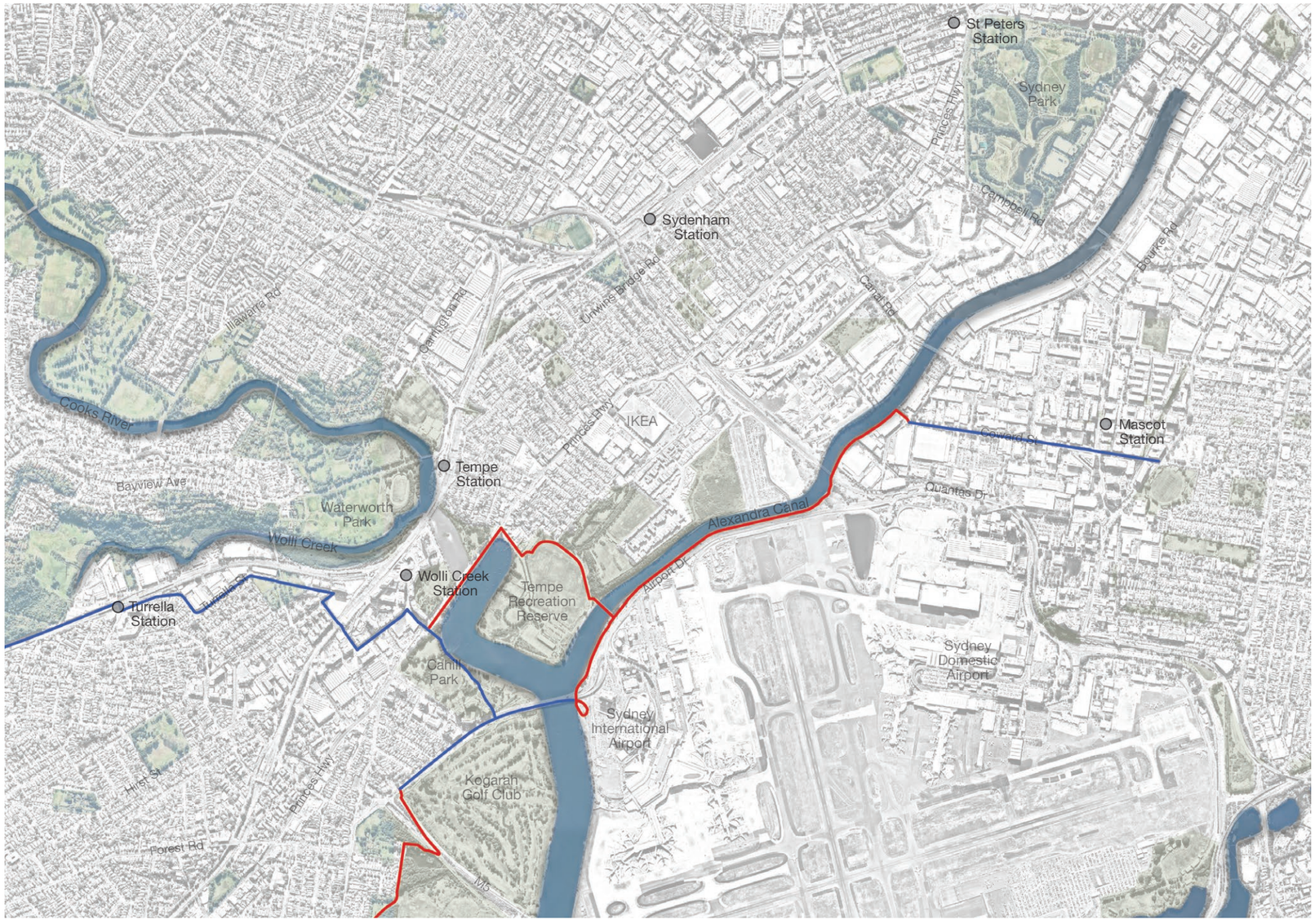


Figure 4.02 - 2002 M5 East Cycleways
Source: Roads and Traffic Authority NSW

2016 - M5 East Cycleways

Description

At present, Sydney Water is constructing a shared pedestrian and cycle way from Maddox Street to the north end of the Alexandra Canal as part of the 'Green Square Trunk Stormwater Drain' project. Recent meetings with stakeholders have also noted that the western and eastern sides of the canal have a proposed cycleway that will be predominantly constructed by 2019.

In 2016 a new pedestrian cycle bridge was constructed over Princes Highway. Bayside Council has also under taken planning for cycleways through Wolli Creek and Cahill Park.

Legend

- Completed ATN
- Incomplete ATN
- Marsh St Link - RMS (2016-2018)
- Cahill Park Link - Bayside Council

Figure 4.03 - 2016 M5 East Cycleways
Source: Roads and Traffic Authority NSW

4.3 BEXLEY NORTH TO TURRELLA - REVIEW

1994 - M5 East Motorway Bicycle Planning Report (ARUP)

Description

This report adressed the bicycle planning routes which relate to the proposed tunnel section of the M5 East Motorway

A number of alternative schemes where developed for the tunnel section of the M5 East. They break down into four categories:

1. Do nothing
2. Provide lanes in the M5 Tunnel
3. A cycle path in the Wolli Creek Valley
4. An on-road cycle route

Category 1 and 2 were not considered feasible. Three options / routes had been identified for each of the last two categories, routes 3, 4 & 5 are shown in fig 4.04 and are as follows:

- Route 3: Dual use cycle / pedestrian path through Wolli Creek Valley
- Route 4: High quality cycle path through Wolli Creek Valley
- Route 5: Cycle path parallel to the East Hills rail reservation

Preferred Route

The preferred alternative bicycle route scheme, based on a variety of weighted criteria ranking costs and benefits was Route 5, a high quality bicycle path along side or within the railway reserve for the tunnel section of the M5.'

Outcomes

- The preferred route was taken forward for further investigation. In Jan 1999 and again in August 2001 in principle agreement was received from the then 'Rail Infrastructure Corporation'
- The cycleway planning was being further developed for the preferred route.

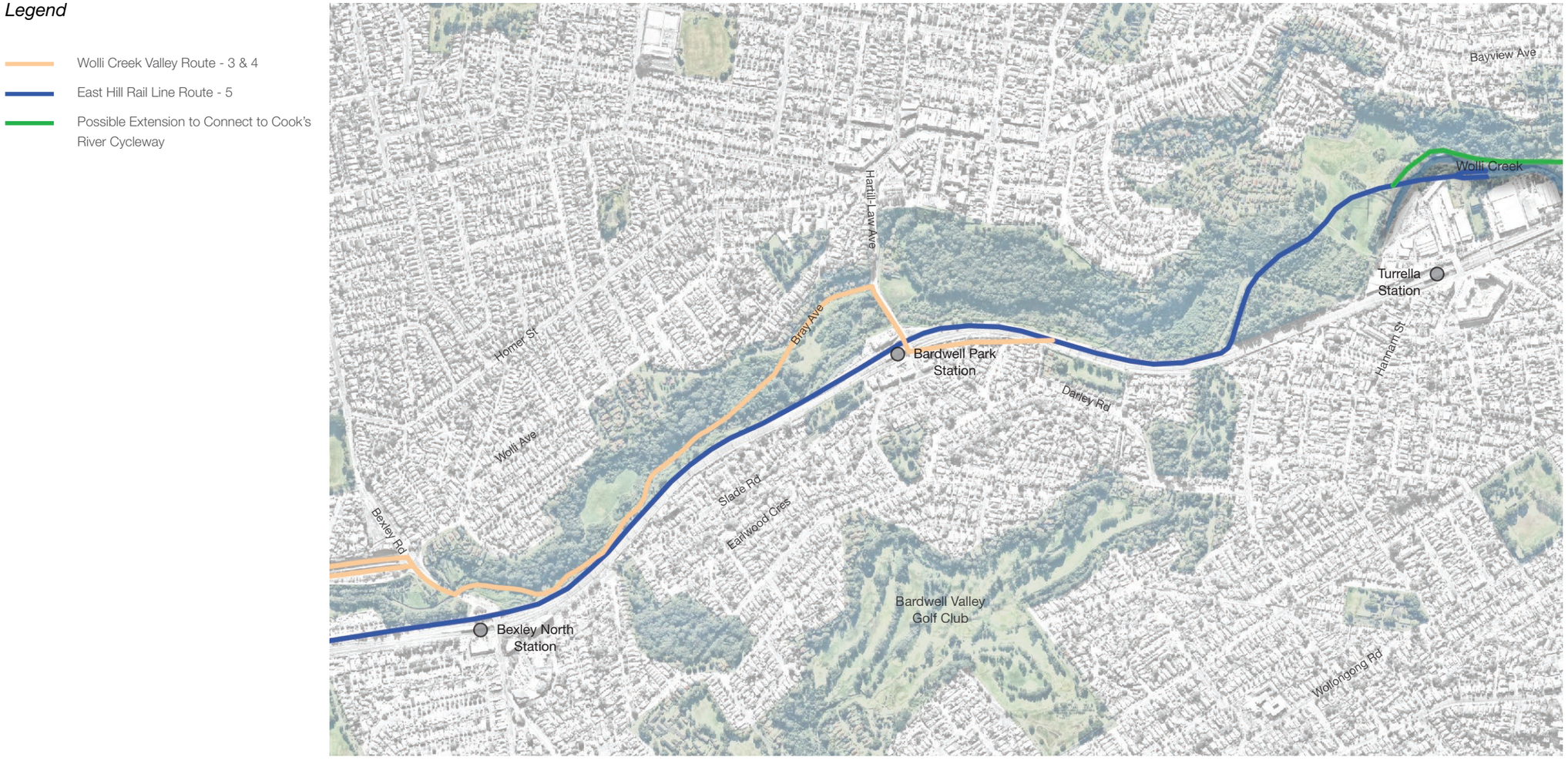


Figure 4.04 - M5 East Motorway Bicycle Planning Report
Source: ARUP 1994

2001 October - M5 East Cycle Way

Description

Up until mid 2001 the preferred route was consistently identified as the route through Rail Infrastructure Corporation (RIC) Land adjacent to the East Hill rail line. This was consistent with the preferred route identified in the original 1994 planning report. During this period substantial planning and design work was progressed including a Review of Environmental Factors for the project and completion of 90% documentation for the preferred route.

However from mid 2001 concerns began to be raised about the feasibility of this route. While informal and in-principle approval had been provided by RIC on a number of occasions including in mid 2000, there was no formal approval from RIC for the use of the rail corridor.

Hence, as a result, three routes were considered at a schematic level for further discussion internally within RMS. These routes included an on-road route, a Wolli Creek Reserve route and the original rail corridor option. These alternate options were developed because concerns were being raised about the potential for delays to the project.

Preferred Route

The rail corridor route was confirmed as the preferred route and it was resolved to continue progressing this route. The on-road route was not considered a suitable route for a regional level of cycle path and this route was identified as being opposed by Bicycle NSW while Wolli Creek reserve was not considered suitable due to the steep grades that needed to be traversed and potential requirement for steps.

Outcomes

- The rail corridor option was still considered as the preferred route.
- Cycleway planning and design was further developed for the preferred route.

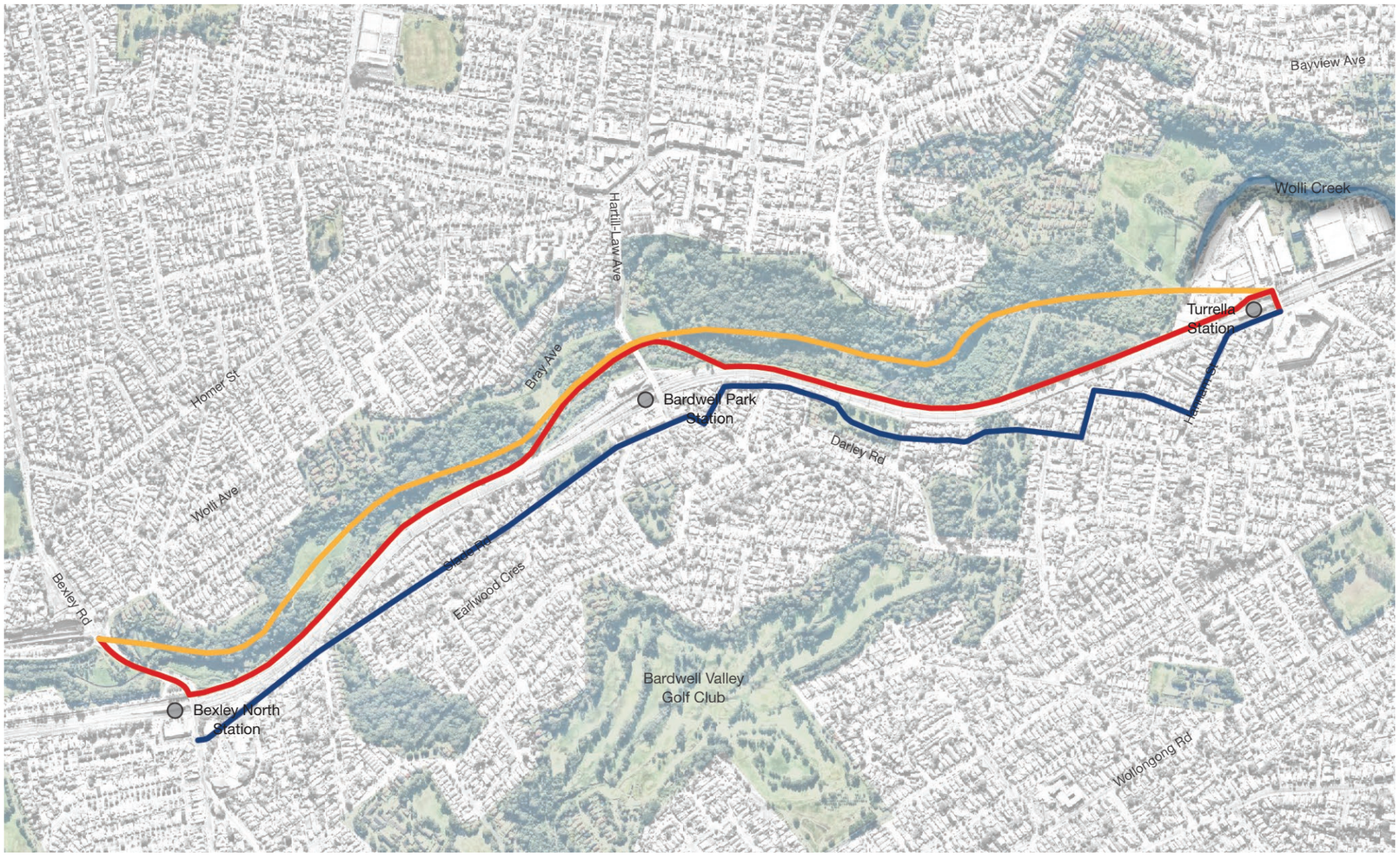


Figure 4.05 - M5 East Cycle Way
Source: Roads and Traffic Authority NSW 2001

2002 February - M5 East Cycleway

Description

In February 2002 a Ministerial briefing note was issued which confirmed that further support for use of RIC land had been sought and been confirmed in late January 2002. As a result of discussions with RIC, the former Road and Traffic Authority (RTA) were notified that relocation of RIC infrastructure (such as signalling equipment) was required to accommodate the cycle path along the rail embankment.

It was agreed that RIC would investigate what rail infrastructure was required to be relocated and to advise on the costs to relocate this infrastructure to accommodate the cycleway.

Based on the ongoing discussions and progression of the project with RIC, the original preferred route was confirmed and a construction program was developed in consultation with RIC with the expectation that construction work would commence in April 2002.

Progress on routes

The preferred route remained the route along the rail corridor.

Outcomes

Investigations for the relocation and costing of the RIC infrastructure were being undertaken by RIC. Planning and design for the preferred route were further progressed including a proposed program which anticipated that construction would commence in 2012.

Legend

- Completed Cycleway
- Under Construction - RTA
- Under Construction - Relevant Councils

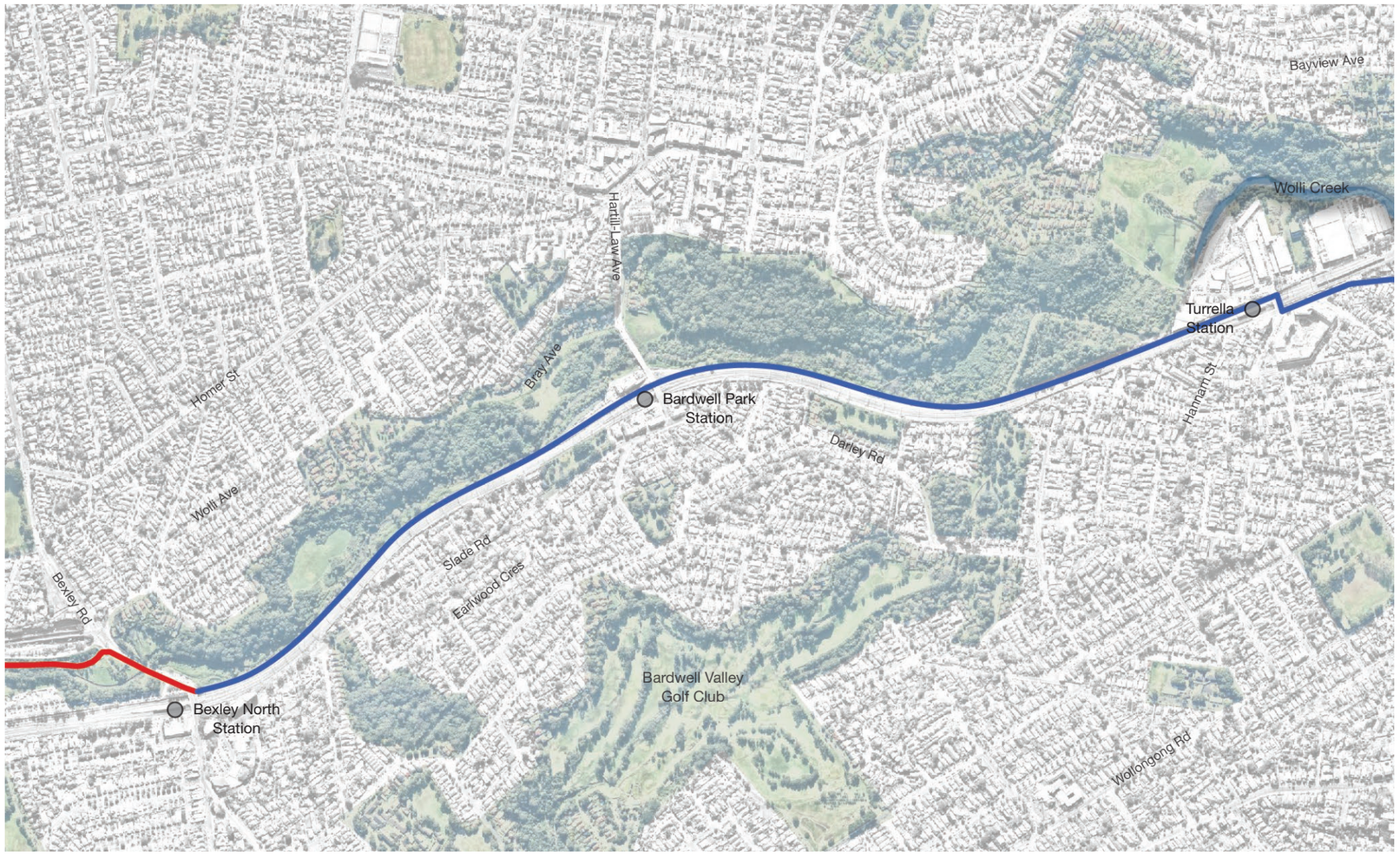


Figure 4.06 - M5 East Cycleway
Source: Roads and Traffic Authority NSW 2002

2002 November - M5 East Cycle Ways Options A-E

Description

Additional route planning was undertaken by RTA resulting in the identification and development of five alternative routes (Options A to E). These routes all considered alternate routes on the southern side of the rail corridor using a combination of on-road routes and open space. A route along the northern side of the rail was not considered feasible due to the steep grades and topography.

These routes were being considered due to concerns over cost and delays in approval on the original preferred route along the rail corridor. RIC had completed investigations into relocating rail infrastructure and had advised RTA that the cost to relocate this infrastructure would be approximately $2.6M. Most of these costs were associated with relocating infrastructure in the proximity of Turella Station.

The following concerns were raised:

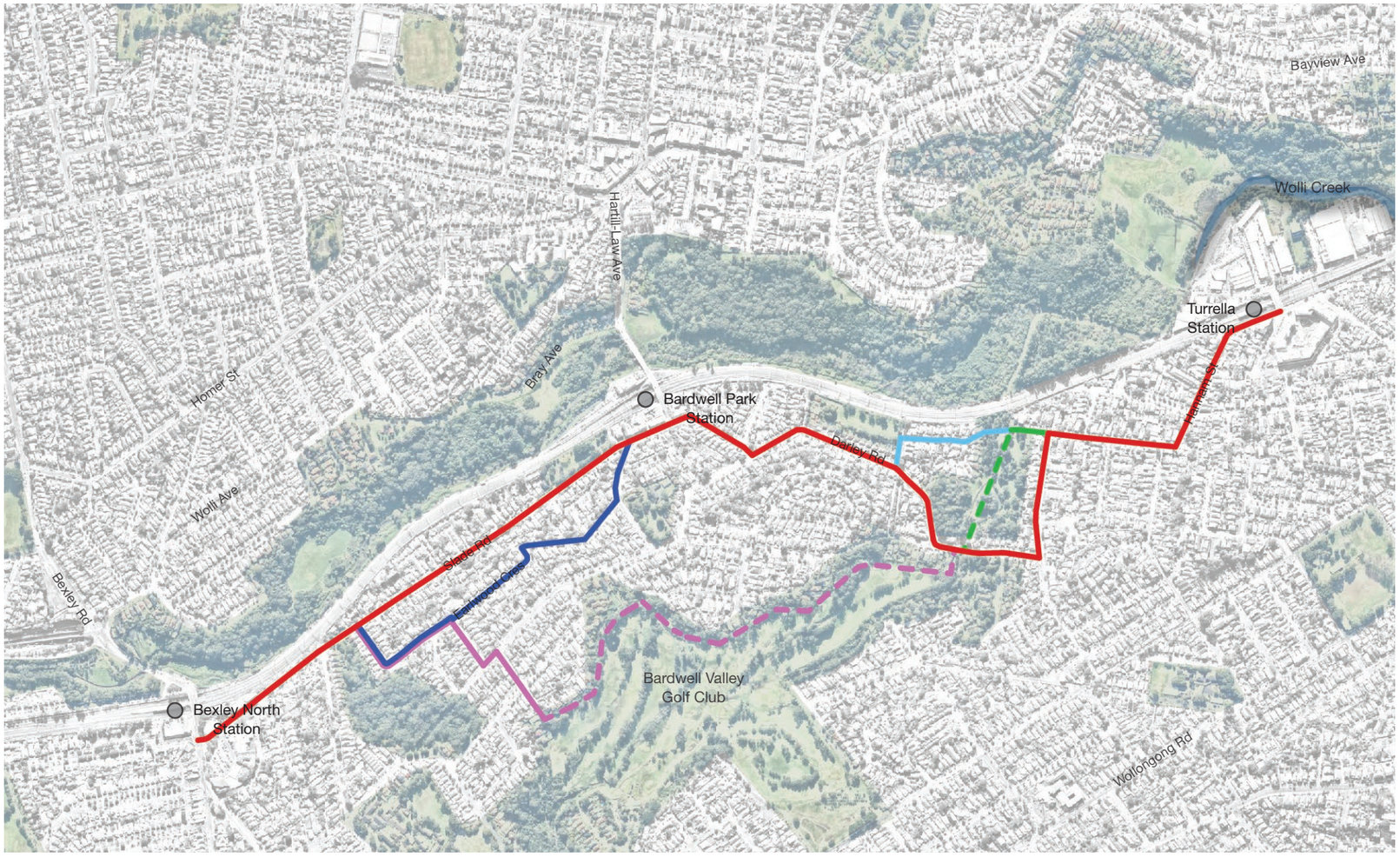
- Delays in approval from RIC
- Lack of support from RIC management for a cycle path in the rail corridor
- Lack of access to and from the route as access was only available at Turella Station, Bardwell Park Station and Kingsgrove Station with no access outside of these locations

Preferred Route

The additional route planning did not state a preference for a preferred route out of the five options that were developed for the southern side of the rail corridor.

Outcomes

It was recommended that the alternate routes be further considered prior to the final decision on the preferred route.



Legend

- Option A - Along Slade Rd
- Option B - Using Bardwell Creek
- Option C - Along Golf Course
- Option D - Avoiding Slade Rd
- Option E - New Bardwell Creek Crossing

Figure 4.07 - M5 East Cycle Ways Options A-E
Source: Roads and Traffic Authority NSW 2002

2003 February - Bush Bikes & Bitumen

Description

A community group, the “Wolli Pathfinders” raised objections to the original preferred route through the bushland of the Wolli Creek Valley. The group prepared a report on the existing route identifying the issues with the existing route and also proposed alternative routes.

The group’s main concern was the potential impacts on the bushland due to the construction of a regional cycle path and the subsequent use of that cycle path. It was considered that this regional cycle path would significantly impact on one of the remaining remnant bushland zones in the region. The report noted that the Wolli Creek Valley was a narrow ecological zone and particularly south east of Bardwell Park station was considered to have high value including providing habitat for water birds which would be disturbed by the cycle path.

The report investigated a number of routes which are discussed further below and recommended an on-road route on the southern side of the rail line. The report noted that while not the groups preferred option, if they had to choose a portion of the Wolli Creek Valley to install a cycleway they would choose the western end of the route and preserve the eastern end.

Preferred route

The proposed route involves a mix of on road routes, traffic calming, and some off road construction in areas much less sensitive than the banks of Wolli Creek including:

- An on road route starting at Slade Road, continuing on through quiet streets towards Rickard Street and onto Turrella Station with a new bridge over Bardwell Creek between Edith Street and Hannam Street
- An option to avoid Slade Road which runs on the south side of the rail corridor through a grassed park.
- A northern option on road along Bray Ave, Forrest Ave and Johnston Street then linking with a cycle bridge across the railway and onto the southern route.

Outcomes

Based on the ongoing uncertainty and increasing cost of the rail corridor route option and the objections raised in the report to the use of the Wolli Creek Valley as a regional cycle route RTA resolved to undertake further route planning analysis including a review of the recommendations in the report.

Legend

- Option A - Creek Side Cycle Plan - RTA
- Option B - Wolli Pathfinders Routes

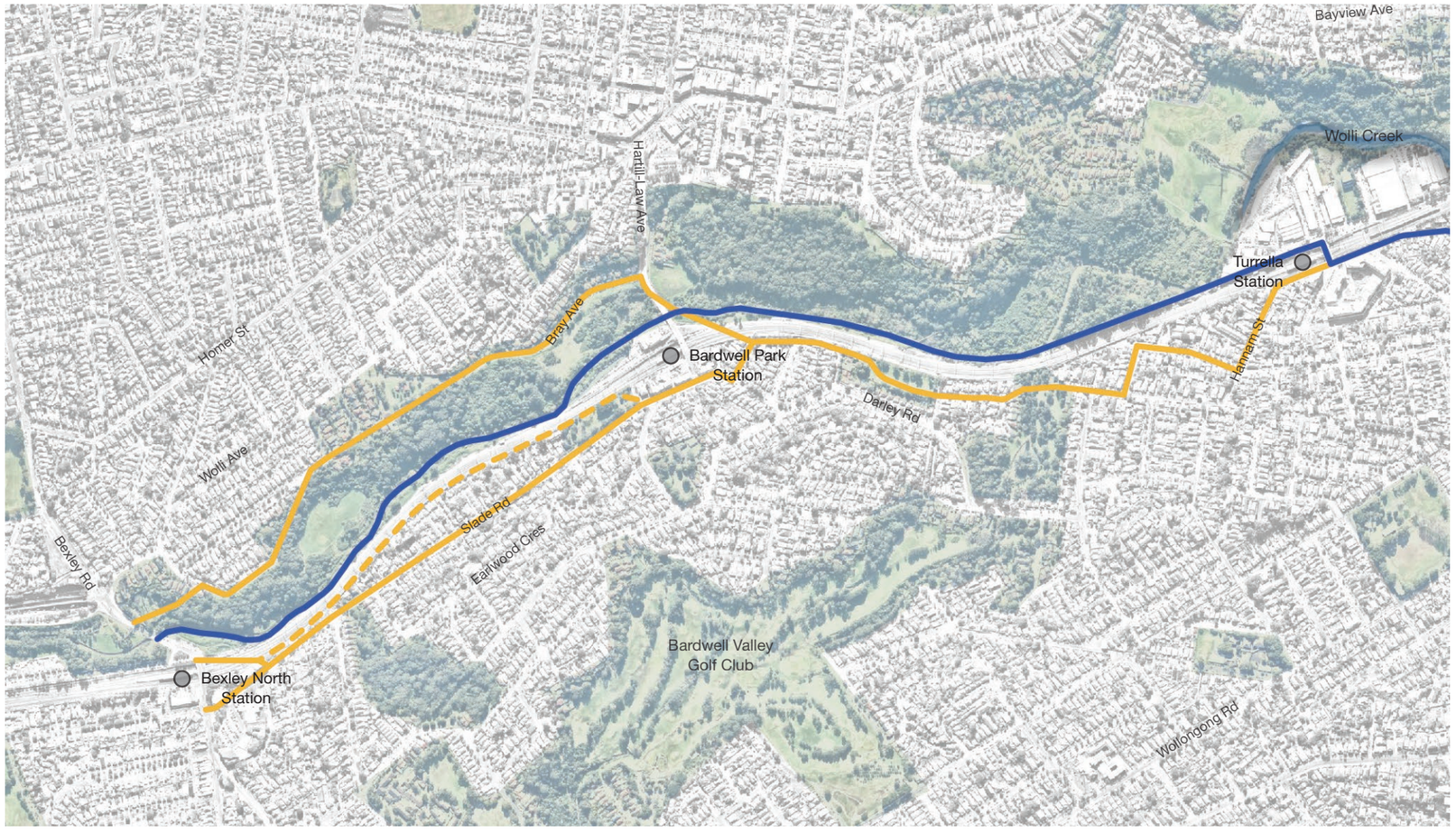


Figure 4.08 - Bush Bikes & Bitumen
Source: The Wolli Pathfinders 2003

2003 March - M5 East Cycleways

Description

This report reviewed alternative options developed in February 2003 as a result of opposition from the community and additional information from RIC relating to costs of relocating infrastructure in the rail corridor.

Rail Infrastructure Corporation provided an estimate for the relocation of rail utilities required to be undertaken as part of the project. The estimated cost of the project (rail corridor option – red colour) increased to $9.5M, which excluded any track possession costs that may be required during the works. The original strategic cost estimate was $4.8M.

Given the estimated cost of the current route and resistance from RIC to construct the cycleway in the rail corridor, particularly adjacent to Turrella Station, alternative options developed in February 2003 were assessed.

Preferred Route

Option E: Composite Road / Rail as it avoided the most sensitive bushland areas and also high cost of RIC infrastructure location.

Outcomes

The preferred route was investigated further and additional options were considered

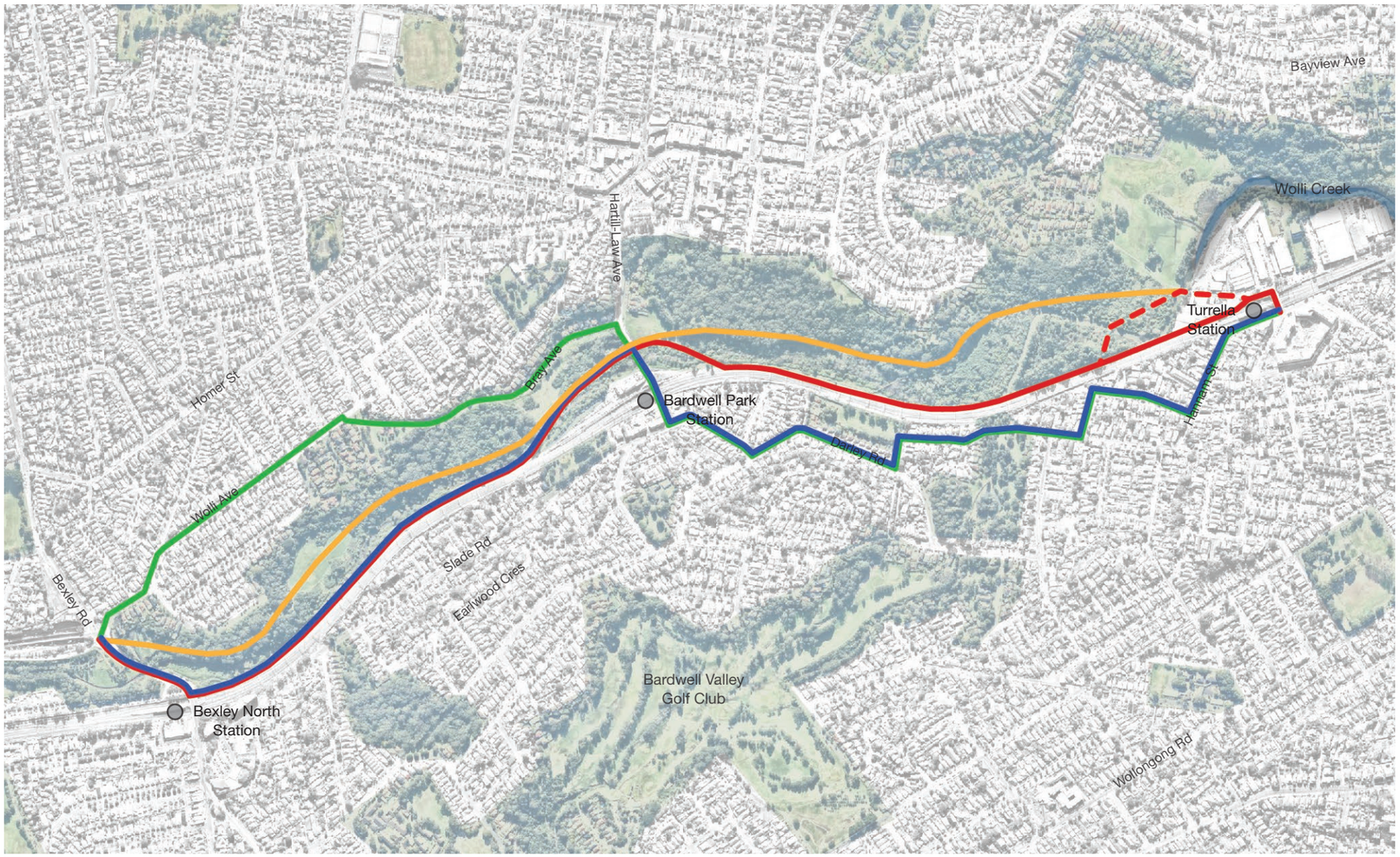


Figure 4.09 - M5 East Cycleways
Source: Roads and Traffic Authority NSW 2003

2003 April - Bexley North to Turrella Cycleway

Description

Further route planning and investigations were undertaken to further develop those routes previously identified in March 2003. An additional route, Route F, was developed in addition to the 5 previous route options. This route was the original rail corridor option from Bexley North Station to Bardwell Park Station and an on-road option between Bardwell Park Station and Turella Station. The option included use of predominantly local roads and a crossing of Bardwell Valley Creek.

Preferred route

Internal discussions within the RTA identified that Option F was the preferred route out of the 6 options that had been developed. The route was chosen as a 'compromise' route which partially met the preferences of Bicycle NSW for a dedicated off-road regional route and partially met the concerns raised by the local community with regards to the potential impacts of a regional cycle path on Wolli Creek Valley.

Outcomes

Further investigation of the preferred route was undertaken

Legend

- Option A - Rail Corridor
- Option B - Modified Rail Corridor
- Option C - Park Route
- Option D - On Road
- Option E - Composite Road/Park
- Option F - Composite Rail/Road

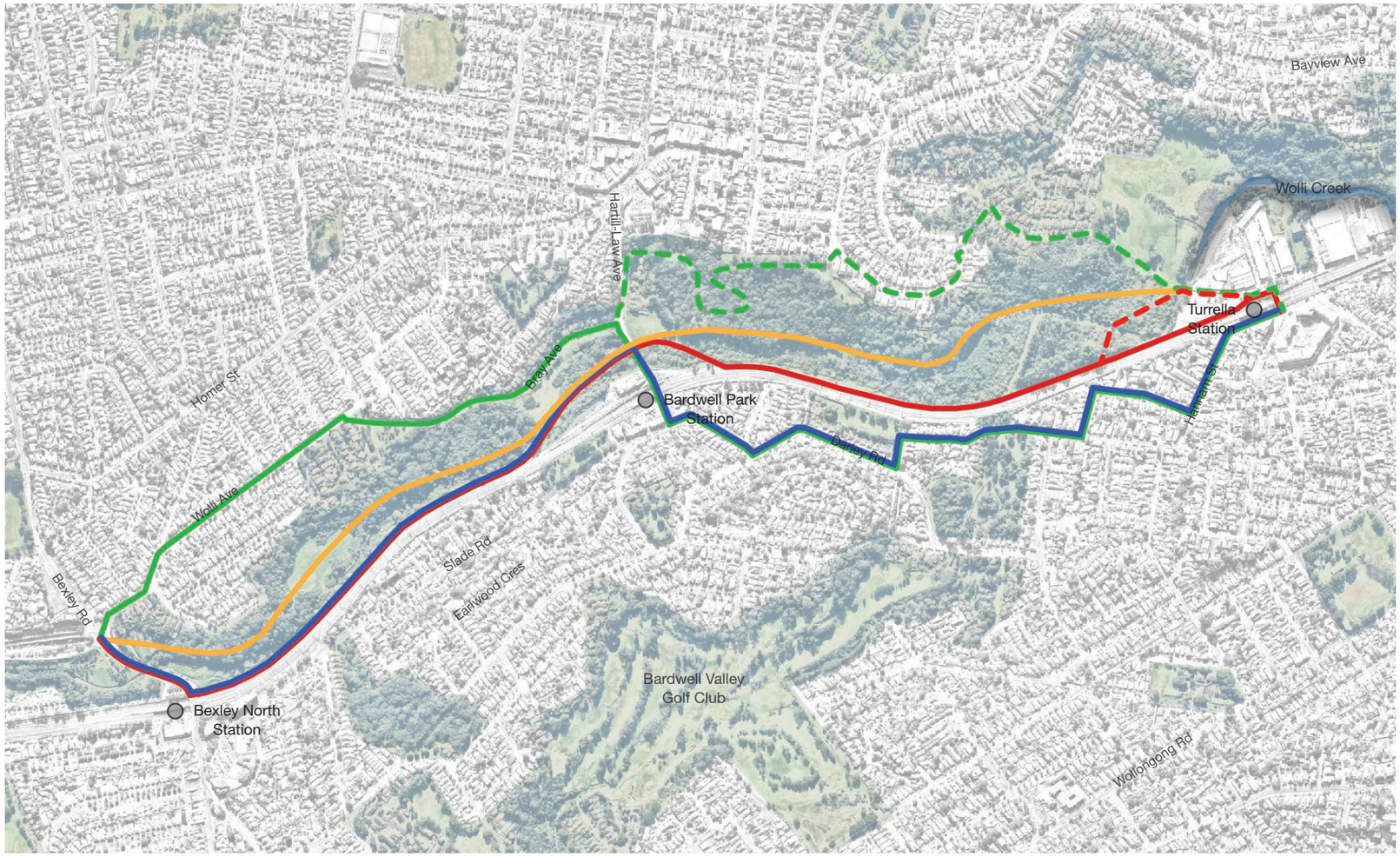


Figure 4.10 - Bexley North to Turrella Cycleway
Source: Roads and Traffic Authority NSW 2003

2004 March - Turrella Cycleway Options Assessment

Description

Geotech investigation on the rail embankment between Bexley North and Bardwell Park Stations was undertaken in October 2003 and found that the embankment was unstable. Due to cost impacts, an on road route was further considered. These included a series of routes for the Bexley to Turrella cycleway through a range of land ownership groups. These routes consisted of sections that were both on road and off road. Each route had identified preliminary design nonconformities such as grades, speed limits, detour factors and stops per average km. Preliminary major risks were identified such as environmental disturbances, flooding, personal safety, railway protection and geotechnical stability. The identified routes are shown in figure 4.11.

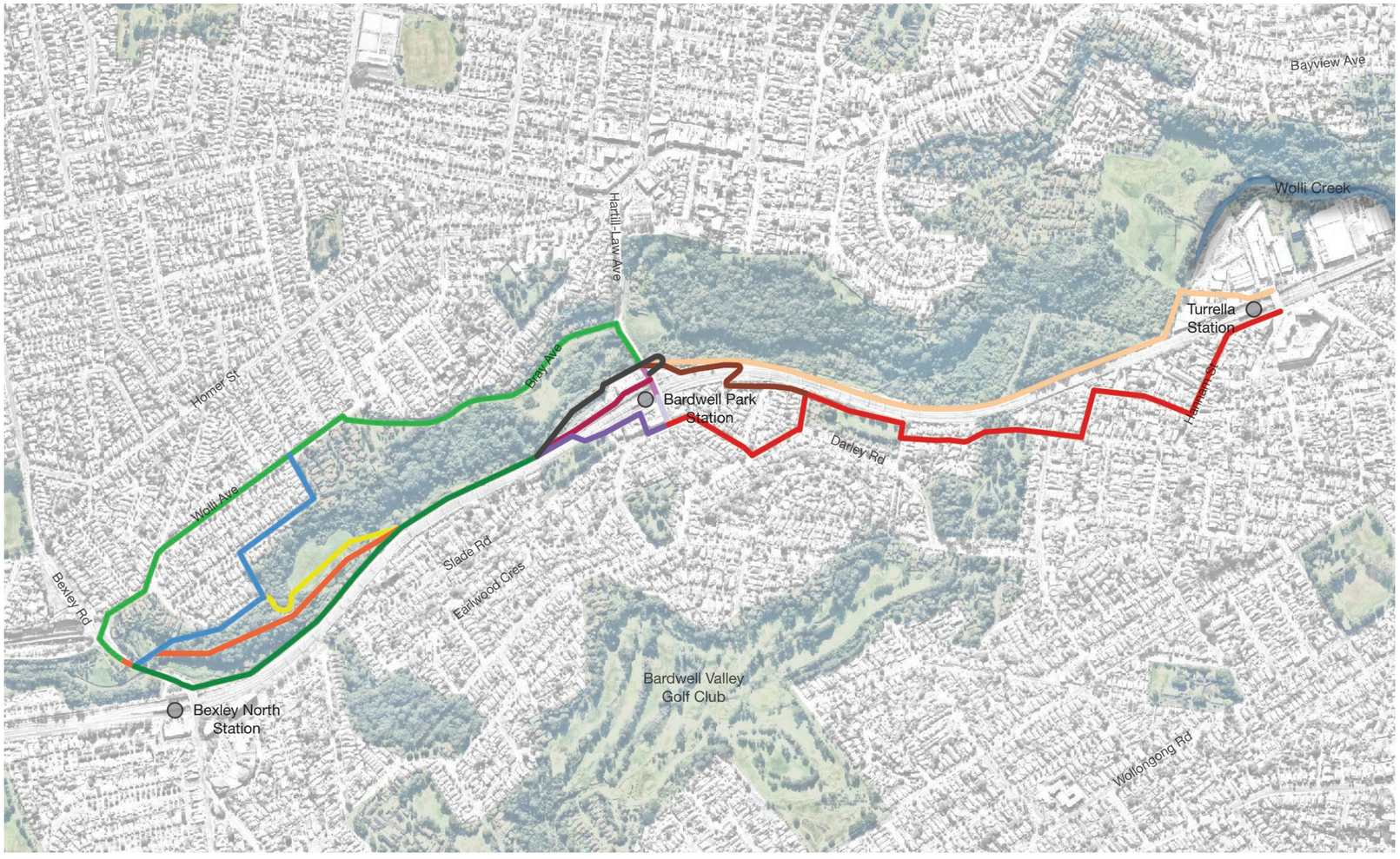
Preferred Route

No preferred route was identified, but routes that have been noted as 'Feasible Option' are as follows:

- A5: Rail Corridor BN-BP - off road 3m wide concrete path, bridge
- B5: Bridge over railway west of Bardwell Station - 3m wide concrete path, bridge
- B6: Bridge over railway east of Bardwell Station - 3m wide concrete path, bridge
- B7: Through RSL car park adjacent to railway - on road
- B8: RSL adjacent to Wolli Creek - 3m wide concrete path
- C2: Rail corridor BP-T - on road, some off road sections

Outcomes

- Key stakeholders were identified
- Strategic estimated costs were identified
- No preferred route was identified



Legend

- A1: Wolli Ave - on and off road
- A2: Through Reserve and Laneway - off road 3m wide concrete path
- A3: From Johnston St over Wolli Creek to Railway - off road 3m wide concrete path, bridge
- A4: Through Wolli Creek Regional Park - off road 3m wide concrete path, bridge
- A5: Rail Corridor BN-BP - off road 3m wide concrete path, bridge
- B1: Hartill-Law Ave Lane reconfiguration - on road
- B2: Hartill-Law Ave Bridge Widening - on road
- B3: Through shopping strip, awning adjustment - on road
- B4: Through shopping strip, minimum treatment - on road
- B5: Bridge over railway west of Bardwell Station - 3m wide concrete path, bridge
- B6: Bridge over railway east of Bardwell Station - 3m wide concrete path, bridge
- B7: Through RSL car park adjacent to railway - on road
- B8: RSL adjacent to Wolli Creek - 3m wide concrete path
- C1: On road through mostly local roads - on road, some off road sections
- C2: Rail corridor BP-T - on road, some off road sections

Figure 4.11 - Turrella Cycleway Options Assessment
Source: Roads and Traffic Authority NSW 2004

2004 March - Turrella Cycleway Options Assessment Preferred Routes

Description

As an outcome of the 'Turrella Cycleway Options Assessment', five preferred routes were selected which are shownin figure 4.12.

Preferred route

From these five routes, a favoured route was not documented

Outcomes

There is no further archival records on the planning for the M5 East Green Link

Legend

Entire Route Option 1:
- A5: Rail Corridor BN-BP
- B8: RSL adjacent to Wolli Creek
- C2: Rail corridor BP-T

Entire Route Option 2:
- A5: Rail Corridor BN-BP
- B8: RSL adjacent to Wolli Creek
- B6: Bridge over railway east of Bardwell Station
- C1: On road through mostly local roads

Entire Route Option 3:
- A5: Rail Corridor BN-BP
- B5: Bridge over railway west of Bardwell Station
- C1: On road through mostly local roads

Entire Route Option 4:
- A5: Rail Corridor BN-BP
- B8: RSL adjacent to Wolli Creek
- B5: Bridge over railway west of Bardwell Station
- C1: On road through mostly local roads

Entire Route Option 5:
- A1: Wolli Ave - on and off road
- B6: Bridge over railway east of Bardwell Station
- C1: On road through mostly local roads

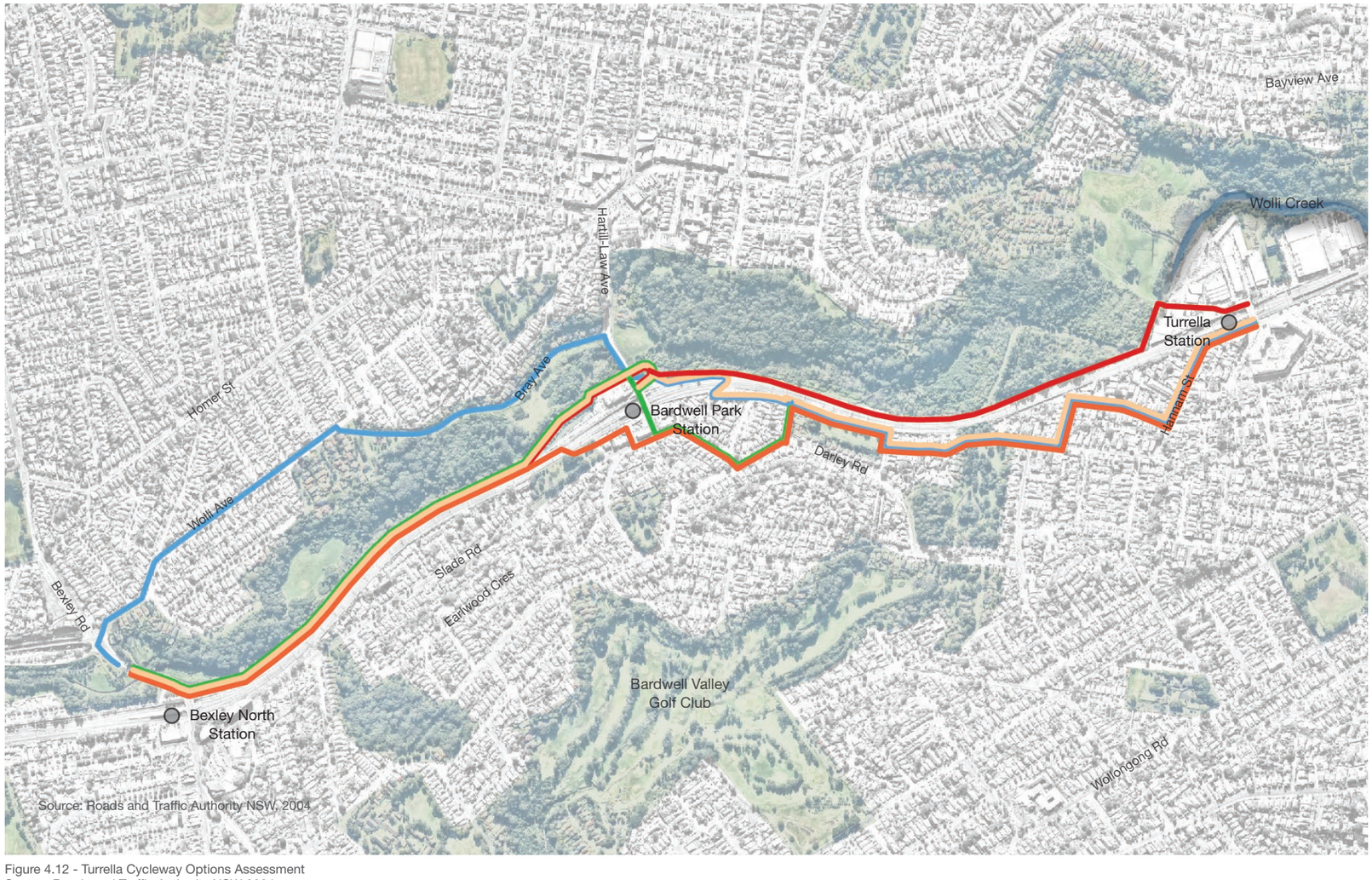


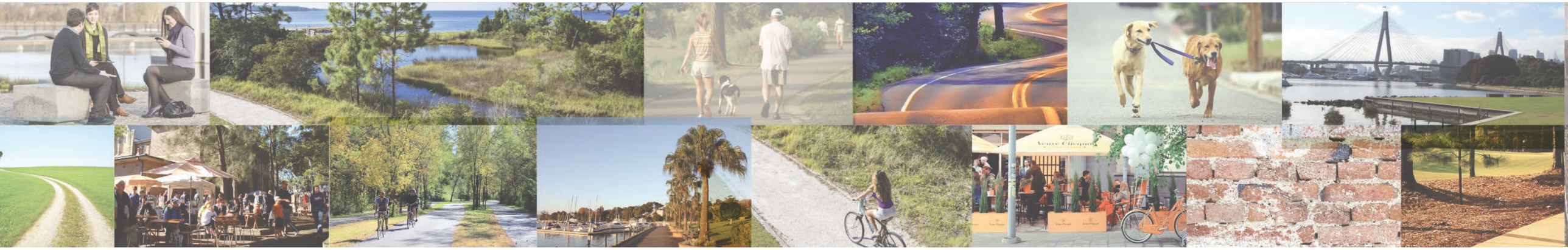
Figure 4.12 - Turrella Cycleway Options Assessment
Source: Roads and Traffic Authority NSW 2004

History Review - Summary of Turrella to Bexley North

A wide range of routes were investigated for a cycle path between Turella to Bexley North between 1994 to 2004. However despite substantial planning and design development, the original preferred route along the rail corridor was not considered feasible, at the time, due to the delays in obtaining RIC approval for use of the corridor, cost increases associated with the requirement to relocate RIC infrastructure, and community concerns raised over the potential impact on Wolli Creek Valley. Route planning considered on-road route options, however these were not favoured by Bicycle NSW, had considerable constraints in terms of the steep grades of the local topography and ability to achieve a reliable connected network due to pinch points in a number of locations, particularly along Slade Road. A summary of the route investigation and planning is included in Table 4.01

Year	Route Type	Description	Discussion / Outcome	Constraints Identified	Stakeholder Issues
1994	– Wolli Creek Valley – Rail Line	– Wolli Creek Valley: Route through Wolli Creek Valley – Rail Line: Route along side of the railway embankment on RIC land	Concepts were produced to identify a preferred cycle route for the tunnel section of the M5 East. Preferred route was the rail line route.	– Wolli Creek Valley: Concept stage only – Rail Line: Concept stage only	– None identified
2001 Oct	– On road – Wolli Creek Reserve – Rail Corridor	– Bicycle route along the south side of Wolli Creeks embankment – Route through Wolli Creek Valley – On road route from Bexley North Station to Turrella Station	Due to delayed approvals from RIC, additional routes were considered.	– On road: Steep grade on Slade Road and Darley Road – Wolli Creek Reserve: May impact on the health of the land – Rail Corridor: Relocation of RIC infrastructure	– RIC in-principle support was given
2002 Feb	– Rail line	– Rail Line: Route along the railway embankment on RIC land	Support from RIC was obtained.	– Rail Line: Relocation of RIC infrastructure	– Formal approval had not been achieved for use of RIC land
2002 Nov	– Entirely on road – Parklands route – Golf Club route – On road alternative – On and off road	– Entirely on road: On road route from Bexley North Station to Turrella Station – Parklands Route: Diverting through Coolibah Reserve and connecting back on road at Hannam Street – Golf Club route: Route through Bardwell Valley Golf Club and Coolibah Reserve – On road alternative: Using Earlwood Crescent as an alternative to a section of Slade Road – On and off road: Diverting off of Darley Road to a bridge crossing over Bardwell Creek then connecting back onto Hannam Street	RIC investigated the relocation of infrastructure cost to be $2.6M, alternative routes were proposed.	– Entirely on road: Steep grade on Slade Road and Darley Road – Parklands Route: New infrastructure through parklands – Golf Club route: Bardwell Valley Golf Club – On road alternative: Steep grade on Earlwood Crescent – On and off road: New Infrastructure through parklands	– RIC approval had not been achieved
2003 Feb	– Wolli Creek side – On road and off road – Entirely on road – Rail line	– Wolli Creek side: Bicycle route along the south side of Wolli Creeks embankment – On road and off road: Off road through Illoura Reserve, on road to Turrella Station – Entirely on road: On road route from Bexley North Station to Turrella Station – Rail line: Bicycle route along the south side of the rail line	RTA proposed a route along the Wolli Creek embankment, 'Wolli Creek Pathfinders' proposed alternative routes as the RTA proposal impacted the health of the land.	– Wolli Creek side: May impact on the health of the land – On road and off road: Infrastructure requirements through Illoura Reserve – Entirely on road: Steep grade on Slade Road and Darley Road – Rail line: Disruption of private properties	– Significant community approval concerns were raised over impacts on Wolli creek
2003 Mar	– Rail corridor – Rail corridor modified – Park route – On road – Road/Rail	– Rail corridor: Bicycle route along the south side of Wolli Creeks embankment – Rail corridor modified: Bicycle route along the south side of Wolli Creeks embankment – Park route: Route through Wolli Creek Valley – On road: On road route north of Wolli Creek, crossing Bardwell Park Station and continuing on road on the south side of Wolli Creek – Road/Rail: Route along the rail line from Bexley North to Bardwell Park Stations then on road towards Turrella Station	Further investigation into alternative routes led to a preferred route that was both on road and in the rail corridor.	– Rail corridor: May impact on the health of the creek – Rail corridor modified: May impact on the health of the creek – Park route: May impact on the health of the creek – On road: Steep grade on Bray Ave – Road/Rail: Relocation of RIC infrastructure	– Bicycle NSW opposed on-road option
2003 Apr	– Rail corridor – Rail corridor modified – Park route – On road – Road/park – Road/rail	– Rail corridor: Bicycle route along the south side of Wolli Creeks embankment – Rail corridor modified: Bicycle route along the south side of Wolli Creeks embankment – Park route: Route through Wolli Creek Valley – On road: On road route north of Wolli Creek, crossing Bardwell Park Station and continuing on road on the south side of Wolli Creek – Road/Park: On road route north of Wolli Creek then off road through the north side of the Wolli Creek Valley until conecting to Turrella Station – Road/Rail: Route along the rail line from Bexley North to Bardwell Park Stations then on road towards Turrella Station	Further investigations towards a preferred route were undertaken. A hybrid (option F) was selectedas the preferred option for further planning.	– Rail corridor: May impact on the health of the land – Rail corridor modified: May impact on the health of the creek – Park route: May impact on the health of the land – On road: Steep grade on Bray Ave – Road/Park: New infrastructure through park – Road/Rail: Relocation of RIC infrastructure	– Concerns of stakeholders including Bicycle NSW, Friends of Wolli Creek and RIC were considered in route investigation
2004 Mar	– Rail Corridor – Road/Rail – Road/Rail – Road/Rail – On road	– Rail corridor: Bicycle route along the south side of Wolli Creeks embankment – Road/Rail: Route along the rail line from Bexley North to Bardwell Park Stations then on road towards Turrella Station – Road/Rail: Route along the rail line from Bexley North to just before Bardwell Park Station then on road towards Turrella Station – Road/Rail: Route along the rail line from Bexley North to Bardwell Park Stations then on road towards Turrella Station – On road: On road route north of Wolli Creek, crossing Bardwell Park Station and continuing on road on the south side of Wolli Creek	Geotech investigation found that the Wolli Creek embankment was unstable. Further investigations towards alternative routes were undertaken yet no preferred route was agreed.	– Rail corridor: May impact on the health of the creek – Road/Rail: New infrastructure over rail corridor – On road: Steep grade on Bray Ave	– Concerns of stakeholders including Bicycle NSW, Friends of Wolli Creek and RIC were considered in route investigation

Table 4.01 - Summary of route investigation



5.0 M5 East Linear Park

5.1 M5 EAST LINEAR PARK OVERVIEW

The M5 East Linear Park consists of open space adjacent to the north and south of the M5 between Bexley North and Kingsgrove. The open space varies in width along the route and is typically 10 to 30m in width along its route on both sides of the M5. The park consists of a shared path along the length of the park on both sides of the M5. The M5 Linear Park contains of four underpasses which enables pedestrian and cycle connectivity across the M5.

Currently, a regional cycle route runs parallel to the M5 East Motorway on both the north and south providing good quality access for pedestrians and cyclists travelling from King Georges Road in the west to Bexley Road in the east. This route consists of a 3 meter wide shared path with lighting on north and south of the M5 along its extent. The M5 East Linear Park cycle way access to this route from the north is relatively good while access to the south is limited due to the large industrial lots and Wolli Creek channel providing barriers to the shared path. Access from the east is limited as there is lack of connections beyond Bexley Road towards the east. Connections to the M5 East Linear Park to the west exit via the improved pedestrian crossings at King Georges Road. Paths then continue west on the south side of the M5.

A section of the M5 Linear Park ATN will be temporarily removed as part of the construction of the New M5 western tunnel entry and exit portals. The ATN network will be reinstated after the construction works to its equivalent condition.

A copy of the design drawings for the new sections of 3m shared pathway delivered by the King Georges Road Interchange Upgrade Project and the New M5 Project are included as appendix 05.

King Georges Road Overpass

M5 East Cycleway

Wolli Creek Channel alongside the M5 East Motorway

Kingsgrove Avenue Reserve

Legend

- Regional Route - Council

1. King Georges Road Overpass
2. M5 East Cycleway
3. Wolli Creek Channel
4. Kingsgrove Avenue Reserve

NOTE: 'Regional Route - Council' include both existing and planned routes

Figure 5.01 - M5 East Linear Park Overview
Source: Roads and Traffic Authority NSW 2004

5.2 KING GEORGES ROAD INTERSECTION

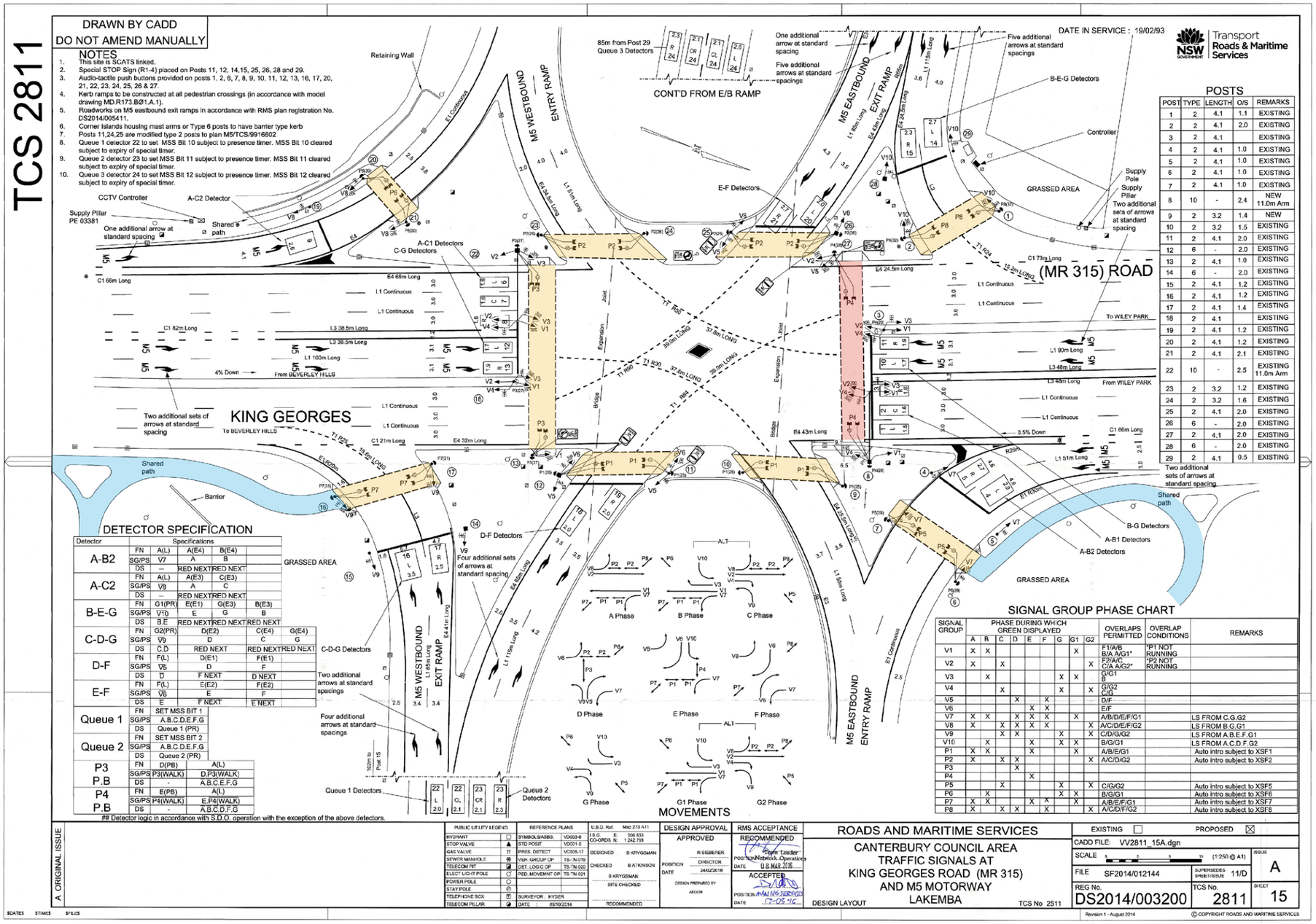
The Westconnex Stage 2 M5 King Georges Road Interchange Upgrade investigated options to improve the King Georges Road intersection for pedestrians and cyclists. This was addressed as part of the “Cyclist and Pedestrian Access Strategy: Part 2 Implementation”.

Westconnex completed a design review and feasibility assessment of the options presented in the EIS. An option to modify the signals at the intersection was also considered which included introducing a signal to the northern side of the intersection.

This option was accepted and the design for a modified signal intersection was further progressed. The approved design is shown in the following Figure 5.02.

It will enable a pedestrian or cyclist to cross from the north western corner to the north eastern corner of King Georges Road during peak periods within 1 minute of activating the crossing request. The study notes that the validity of this option is predicated on low pedestrian and cyclist use in peak periods in order not to compromise the vehicle traffic efficiency at the intersection.

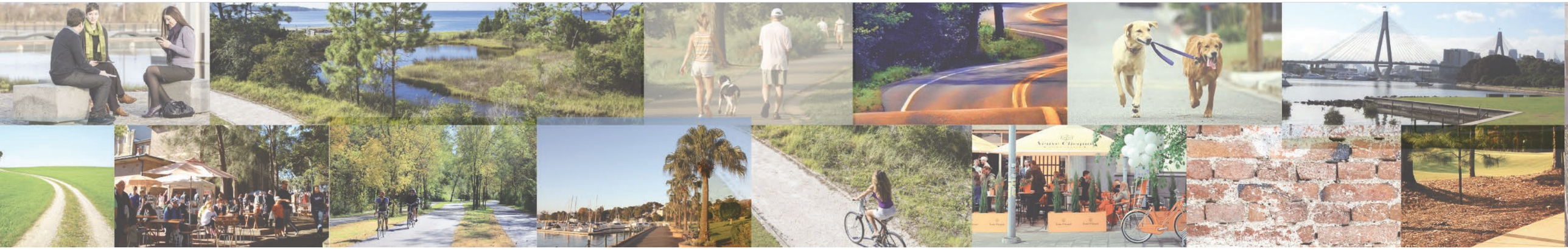
The TCS 2811 option is a better solution than the proposals put forward in the EIS which will result in an improved outcome for pedestrians and cyclists. This scope of work has been included in the King Georges Road Interchange Upgrade Project, with the work currently in progress. The revised traffic intersection will be completed and operational by the end of February 2017.



Legend

- Proposed Pedestrian / Cycle Crossing
- Existing Pedestrian / Cycle Crossing
- Existing Pedestrian / Cycle Shared Path

Figure 5.02 - King Georges Road Upgrade_TCS 2811
Source: KGRIU Cyclist & Pedestrian Strategy Part 2: Implementation V02 may 2016



6.0 Conclusion

6.1 CONCLUSION

This report has reviewed the existing ATN network route plans, existing ATN routes and the proposed routes as part of WestConnex New M5. A condition of this review is that there is not a reduced level of cycle and pedestrian infrastructure. With regards to the condition this review has found that there is not a reduced level of cycle and pedestrian infrastructure and specifically:

- There is an improved level of pedestrian and cycling infrastructure at St Peters Interchange including construction of a number of shared and separated paths
- There is a similar level of pedestrian and cycling structure in Kingsgrove/Bexley North after the reinstatement of the M5 East Linear Path northern shared path
- There is no substantive change to the pedestrian and cycling infrastructure along the “M5 East Green Link”

The following sections summarises the outcomes of this review on the impacts on pedestrian and cycling infrastructure as well as identification of proposed changes to improve the connectivity of the proposed New M5 pedestrian and cycling network to existing and planned local and regaional networks.

St Peters Interchange

The current ATN network is limited in the vicinity of the SPI. The SPI will add connectivity to the former landfill, a site that currently has no connectivity and will provide further connectivity, to the south through the future Sydney Gateway proposal. After completion of these two projects there will be a link from the airport and Alexandra Canal ATN in the south to Sydney Park and Bourke St Cycleway in the north.

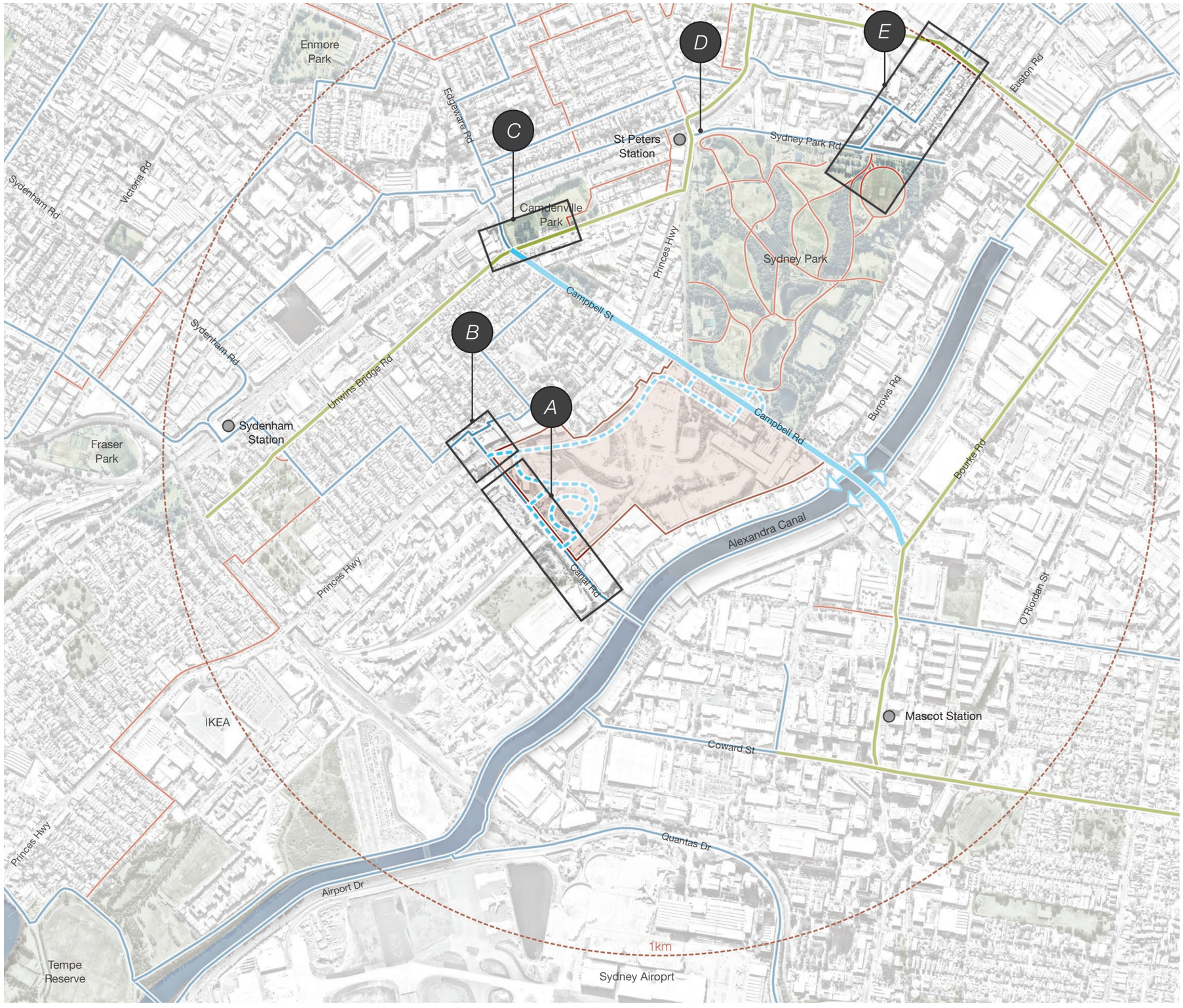
As well as key regional level connectivity, there is enhanced local ATN connectivity to be provided as part of the SPI. This is outlined in the table below.

A number of connection links for further investigation were identified for the ATN at

Element	Description	Length
Campbell Road cycle path	Separated cycleway along Campbell Road between Bourke Street and Unwins Bridge Road	1300 m
Alexandra Canal Bridge	New bridge providing connectivity between Mascot and St Peters and Sydney Park	100 m
Bourke Road separated cycle path	Shared cycleway along Bourke Road between Campbell Road and Church Ave	650 m
Campbell Road Landbridge	Improved connectivity into Sydney Park over Campbell Road	20-50 m
SPI Shared path	Behind properties 178-310 to Princes Highway	750 m
SPI Shared path	Along Canal Road linking to future Sydney Gateway ATN	500 m
Euston Road shared path (subject to further discussion with CoS)	Shared path along Euston Road between Campbell Road and Sydney Park Road	700 m
Sydney Park Road shared path	Shared path along Sydney Park Road between Mitchell Road and Euston Road	250m
New signalised intersection	Providing improved connectivity at Euston Road and Campbell Street	N/A
New signalised intersection replacing 2 lane round-about	Providing improved connectivity at Euston Road and Sydney Park Road	N/A
New signalised intersection replacing zebra crossing	Providing improved connectivity at Campbell St and St Peters St	N/A

Option		Description	Next Steps
A	Airport Connection	Connectivity to future Sydney Gateway	Develop concept as part of Sydney Gateway & Canal Road investigated as part of B51 planning condition
B	Sydenham Connection	Connecting St Peters Interchange to the residents of Sydenham and Sydenham Station across Princes Highway	Develop concept as part of B51 planning condition
C	Enmore & Marrickville connection	Connecting end of Campbell Street, across railway and south west towards Cooks River	Develop concept as part of B51 planning condition
D	Newtown Connection	King Street Gateway & Newtown link	Develop concept as part of King Street Gateway
E	A2MP Connection	Connecting Sydney Park Road to the beginning of the Alexandria to Moore Park Upgrade	Develop concept as part of B51 planning condition

The following figure shows the connectivity gaps which are to be addressed in planning condition B51 and as part of the King Street Gateway.



Legend

- Connectivity Gaps to be addressed in B51
- WCX Commitments - Separated Cycleway
- WCX Commitments - Shared Cycleway
- Regional Route - Inner City
- Regional Route - Council
- Local Route - Council
- St Peters Interchange Boundary
- 1km Boundary from Interchange
- A — Airport Connection (indicative)
- B — Sydenham Connection
- C — Enmore & Marrickville Connection
- D — Newtown Connection
- E — A2MP Connection

NOTE: 'Regional Route - Council' include both existing and planned routes

Figure 6.01 - Connectivity gaps to be addressed in B51

The ATN at SPI plays an important component in linking concurrent and future ATN projects which are planned including:

- City of Sydney Alexandra Canal path
- King St Gateway ATN network
- Sydney Gateway path network
- Alexandria to Moore Park path network

M5 Green Link (Mascot to Bexley North)

A review of the M5 Green Link has been undertaken. This review found that:

- The eastern section along Alexandra Canal from Coward Street to Marsh Street was constructed including a link to Tempe Recreational Reserve in the south
- The central eastern section was not constructed between Princes Highway and Turella as considerable re-development was under construction (e.g. Discovery Point at Wolli Creek) and this infrastructure was expected to be completed as part of the re-development. However this infrastructure was not constructed as part of the re-development.
- The central western section between Turella and Bexley North was not constructed. The original preferred route along the rail line was not achievable due to a combination of technical cost and timing constraints. Alternate routes were considered including a route along Wolli Creek which was not considered acceptable by sections of the local community due to its potential impacts on the health of the Wolli Creek bushland reserve. A large number of on-road routes were considered but each of these routes included constraints which limited suitability including steep terrain and/or narrow road carriageways
- The western section along the M5 Linear Park between Bexley North and Kingsgrove was constructed as a shared path on both sides of the existing M5.

The key existing impediment to the M5 Green Link is the section between Turella and Bexley North. A number of recent strategies, including by Council and RMS, have considered sections of this route but are not considered to have fully resolved the constraints or provided a regional 'Green Link' connection.

This review found that the M5 Green Link between Turella and Princes Highway is an important link in a regional ATN, as it links key destinations and existing ATN routes. This review has identified a number of issues in the historical implementation of the M5 East Green Link. All of these historical issues remain to date as do the various preferences and requirements of landowners and stakeholders regarding the preferred route.

Resolution of these issues and determination of the preferred route would require more time and resources due to the complexity of the route planning, the land ownership, the local site factors and the preferences of the various landowners and stakeholders.

As the M5 East Green Link is an important regional link it is recommended that further options be developed and a preferred route is identified. The key step for this to occur is discussions with landowners and stakeholders. It is noted that while there may be differences in the preferred route alignment between stakeholders, there is general agreement on the requirement for the M5 East Green Link as in important component of regional ATN infrastructure.

A process to identify and further develop the preferred option for the M5 East Green Link is outlined below

- Meet with key landowners, particularly Railcorp, NPWS, local Councils and Discovery Point development as well as local Councils to obtain their current position on co-location of regional ATN infrastructure within their land
- Identify and meet with relevant stakeholders and their key contacts (including Bicycle NSW, community groups such as the Wolli Creek Preservation Society, local residents) and obtain their current position on the development of the regional ATN infrastructure
- Document key issues and outcomes of stakeholder and landowners
- Develop route options based on stakeholder and landowner consultation
- Undertake consultation with landowners on the route options focussing on the proposed routes on their land
- Shortlist route options based on discussions with landowners and present shortlisted route options to all relevant stakeholders to determine preferred routes
- Refine shortlisted route options based on discussion with stakeholders and undertake further focussed consultation with relevant landowners as required
- Document and report on outcomes of route planning options and preferred route option

M5 East Linear Park (Kingsgrove to Bexley North)

There are temporary impacts associated with construction due to the impacts on sections of the shared path along the M5 Linear Path. However these impacts are minor due to the alternatives available including use of alternate shared paths. Post construction, the existing level of cyclist and pedestrian will be maintained after the re-construction of the existing shared paths to the same standards as existing shared paths.

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APPENDIX

1. Stakeholder Workshop Meeting Minutes - WestConnex Stage 2: Planning Conditions B50 Pedestrian and Cycle Implementation Strategy.
2. Stakeholder Workshop Meeting Presentation
3. Sample notifications of road and pathway modifications around SPI
4. Safety Audit
5. M5 Linear Park - Shared Path Upgrade

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MCGREGOR
COXALL

APPENDIX 01

WCX Stage 2 – Planning Condition B50 – Pedestrian and Cycle Implementation Strategy

Name of meeting:	WestConnex Stage 2 - Planning Conditions B50 Pedestrian and Cycle Implementation Strategy
Location of meeting:	City of Sydney Council, Town Hall House
Meeting facilitator:	Grant Sutton, Project Manager, RMS
Date:	18 November 2016
Attendees:	Bryony Cooper (BC), CoS Elise Webster (EW), CoS Rene Chau (RC), Canterbury Bankstown Council Simon Lowe (SL), Inner West Council Michael Lee (ML), Bayside Council Ray Rice (RR), Bicycle NSW Leon Paap (LP),RMS Wayde Hazelton (WH), RMS Grant Sutton (GS), RMS David Knights (DK), McGregor Coxall Logan Pennington (LoP), McGregor Coxall
Subject:	Review of Pedestrian and Cycling Network and M5 East Green Link

	Meeting Minutes	**ACTION**
1	The Review of the WestConnex and Council existing and / or proposed cycleways and routes were presented and the previous state of planning for the M5 East Green Link (refer attached presentation) Comments: • A comment was received on inclusion of Alexandra Canal and it was an agreed that this was an error that this was not included	DK to amend plans DK to include in next revision
2	**St Peters Interchange** Refer attached presentation for information presented on overall area and existing, planned and proposed New M5 Routes. It was noted that there was substantial redevelopment occurring and connectivity to key areas was discussed. • Discussion was held on the provision of facilities along the Sydney	Noted

	Meeting Minutes	ACTION
	Gateway project • The loss of connection along Qantas Drive was discussed and raised as a major issue. Councils and RMS support keeping the ATN link on Qantas Drive (BC/SL/RR/ML) • Discussion was held on Euston Rd and the provision of ATN infrastructure along Euston Rd and street tree planting. It was noted that there were ongoing discussions about Euston Rd with City of Sydney which impacted on the proposed ATN along Euston Rd (BC) • Alexandra Canal Bike Paths: Intended for eastern side to be completed by 2019 and western side was to be implemented by ongoing projects as they occurred (BC) • The shared path along the northern boundary of the St Peters Interchange was supported, and it was noted that the safety (CPTED) for users of the shared path, width of the path and links at the south western end were the main outstanding concerns that needed to be addressed (SL/BC)	DK, GS to confirm Noted. Noted, DK to ensure consistency. Noted, allowance for connectivity to be provided. Noted. DK/GS to investigate
3	**M5 Linear Park** • Connectivity across King Georges Rd was raised as an issue and the requirement to minimise waiting times for cyclists and pedestrians to cross the interchange (RR) • Bridge across King Georges Rd was discussed (RR). It was noted that a bridge was not currently proposed as part of the KGRI upgrade works (DK/GS) • A query was raised about the existing widths and lighting of the shared paths in the linear park and whether they met current standards (RR) • A query was raised about the proposed widths and lighting of the shared paths to be replaced in the linear park and what standards were to be provided (RR)	DK to further investigate DK to investigate DK to investigate
4	**M5 East Green Link** WH discussed his latest strategy as part of the principle bicycle network planning. Noted: • The M5 Green Link was noted as an important link between south-western Sydney and the airport (RR, WH) • Canterbury Council has proposed an on-road route along the north side, but that this was only considered as a local route/connection (RC) • There was discussion about the route and the preferred route and potential options (All) • Bicycle NSW indicated that there was a preference for an important regional route such as this to be an off road route, as direct as possible (RR) • It was noted that previous historical concerns about impacts on Wolli Creek may have changed with time due to improvements in	DK to include comments in report.

	Meeting Minutes	ACTION
	construction approaches • It was noted that alternate designs to allow simpler construction along the rail corridor could make the rail option simpler and more feasible • It was noted that at the western end of the route the rail corridor was generally preferred	
5	Further Actions: • RMS to finalise and issue B50 report • RMS to incorporate comments and to further develop concepts as part of B51 report	DK/GS GS

APPENDIX 02

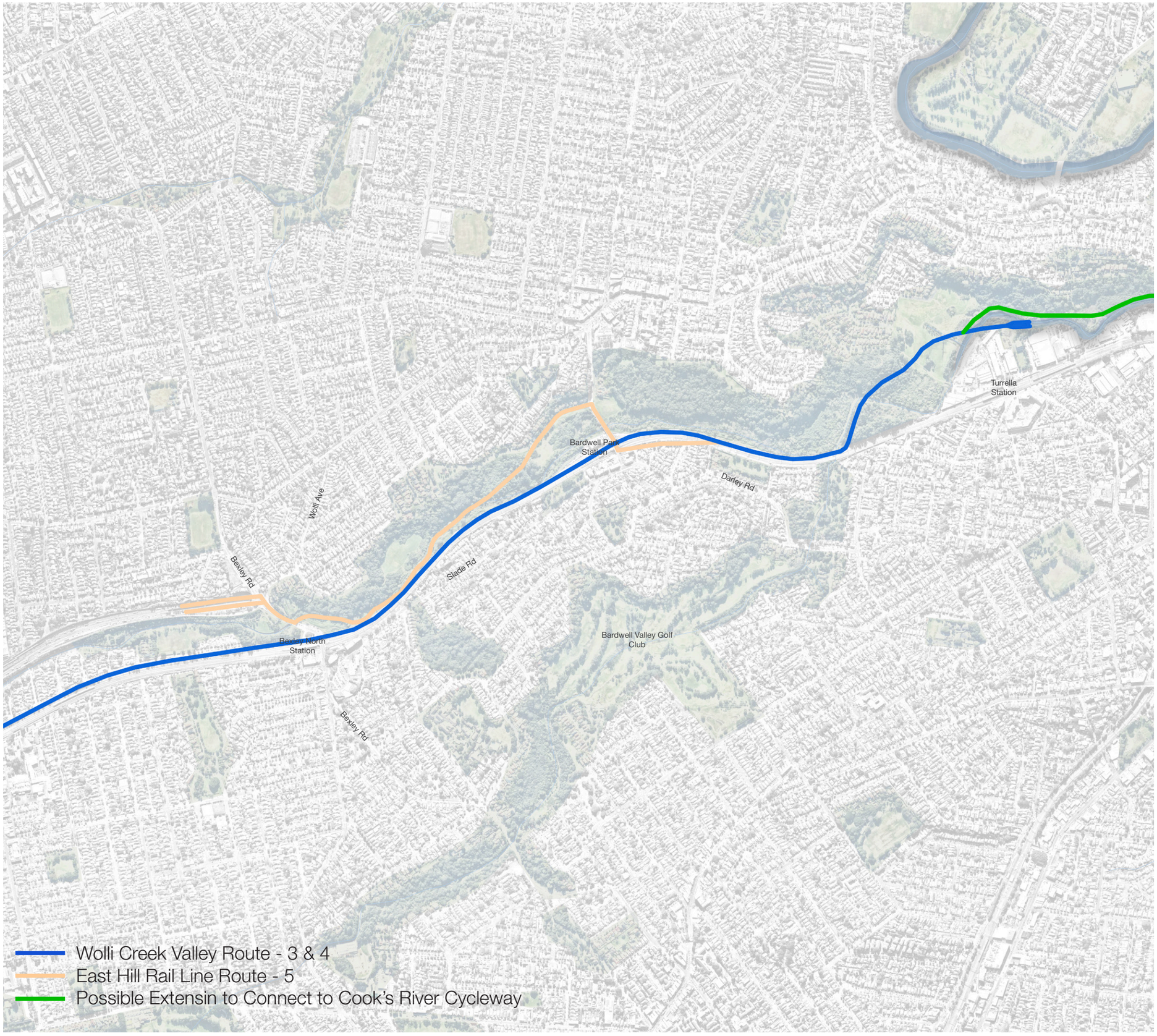
M5 East Green Link Presentation

M5 EAST GREEN LINK ACTIVE TRANSPORT NETWORK

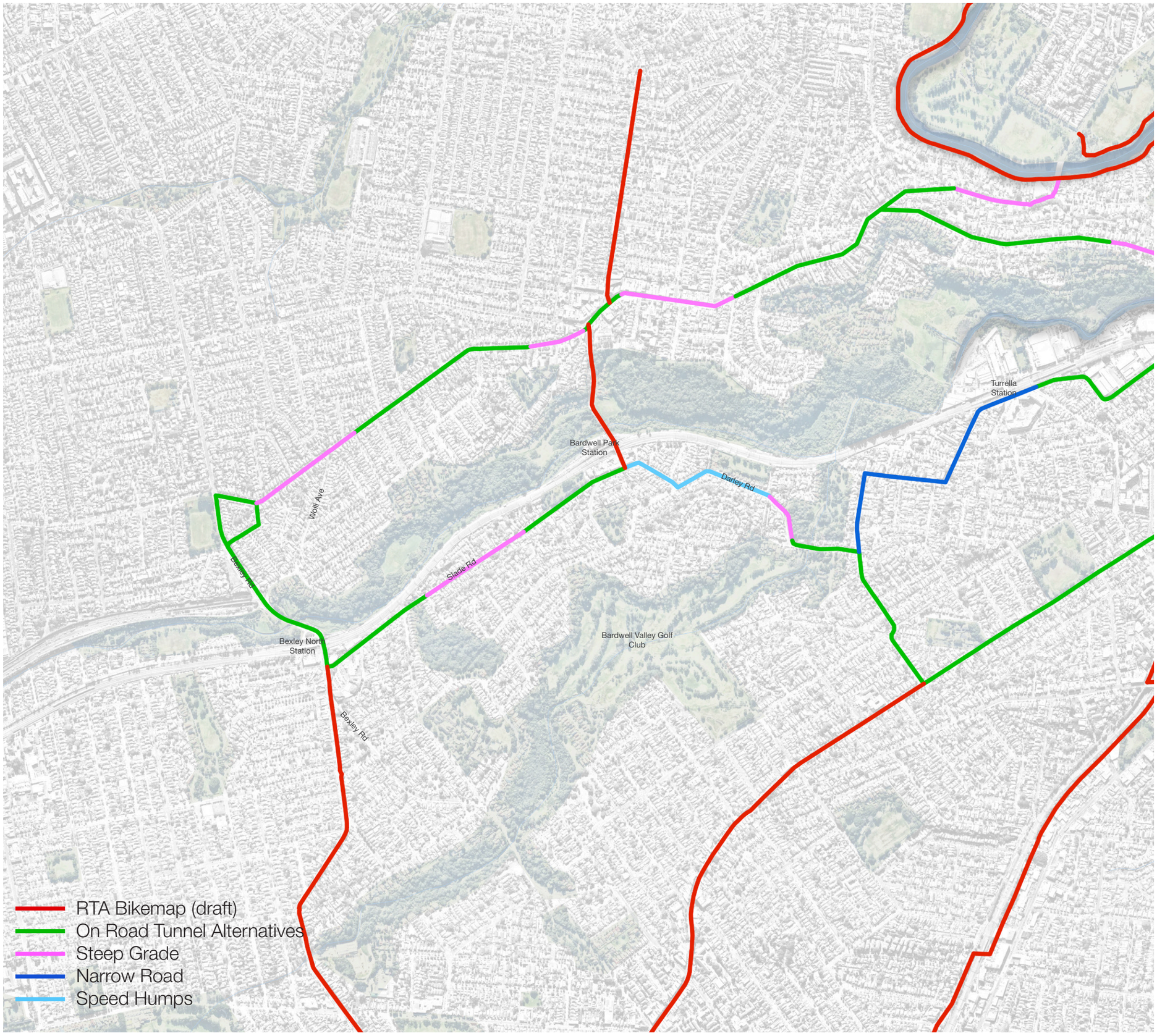
Workshop

18.11.2016

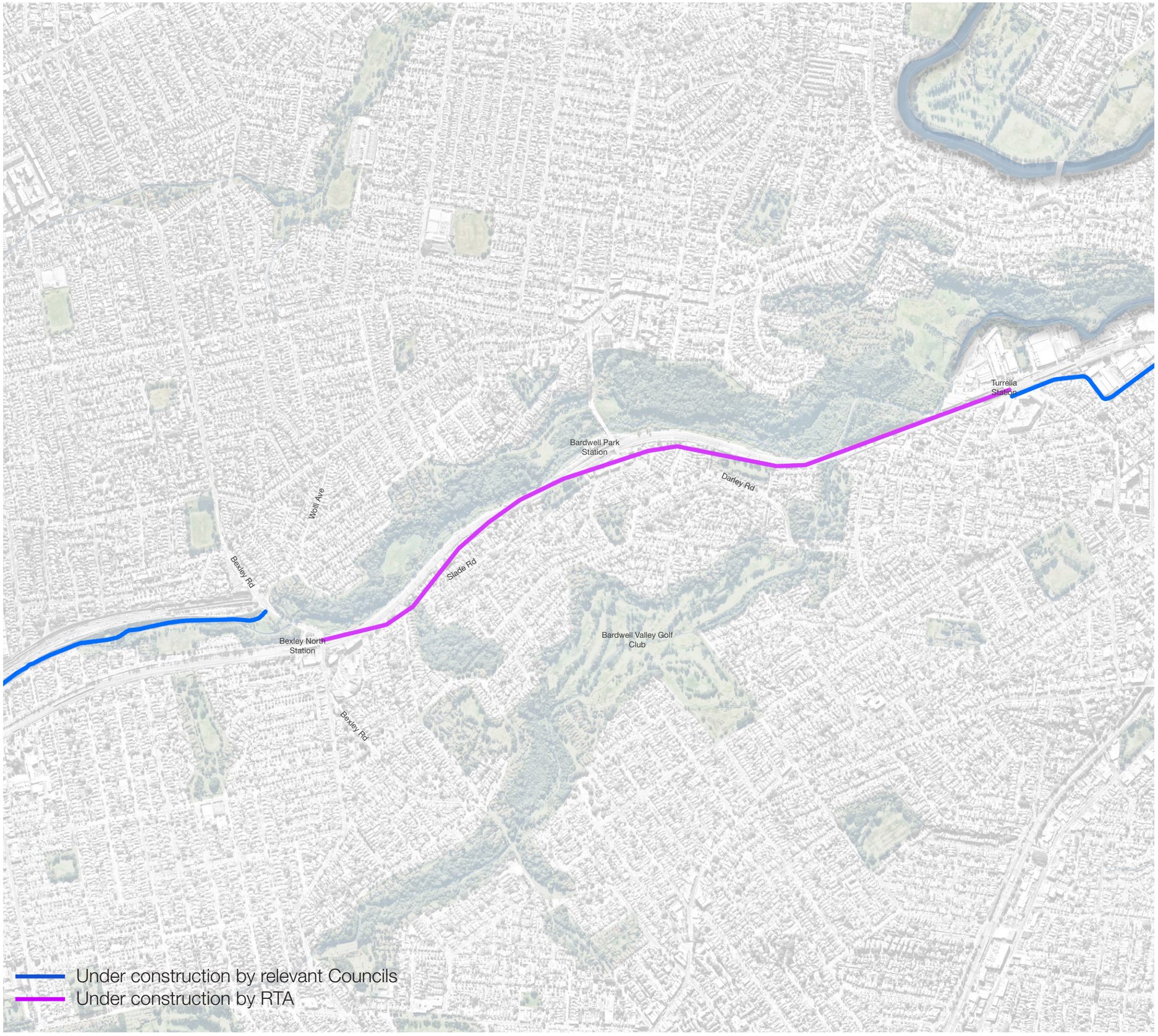
M5 East Motorway Bicycle Planning Report 1994



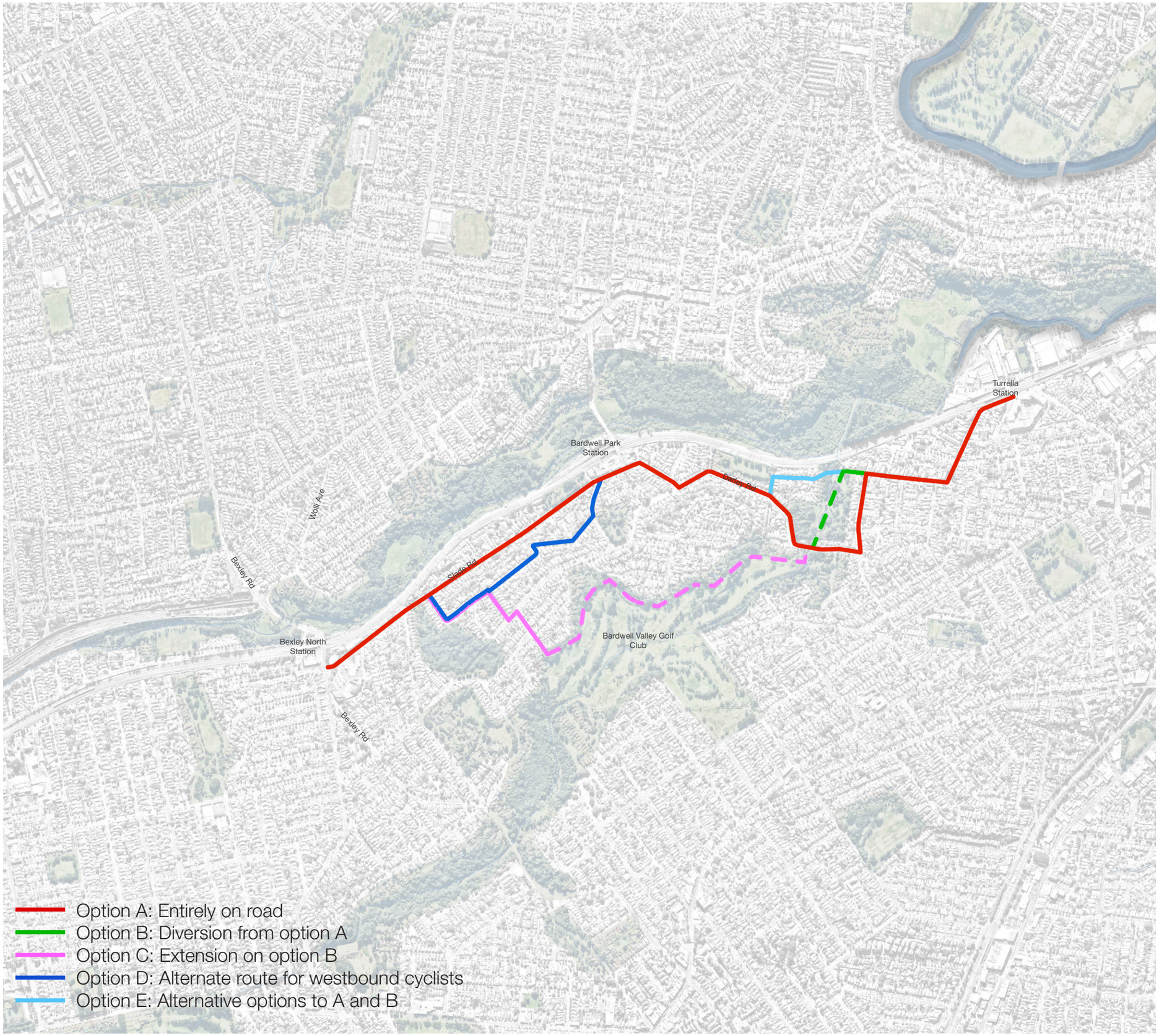
M5 East Motorway Bicycle Planning Report 1994



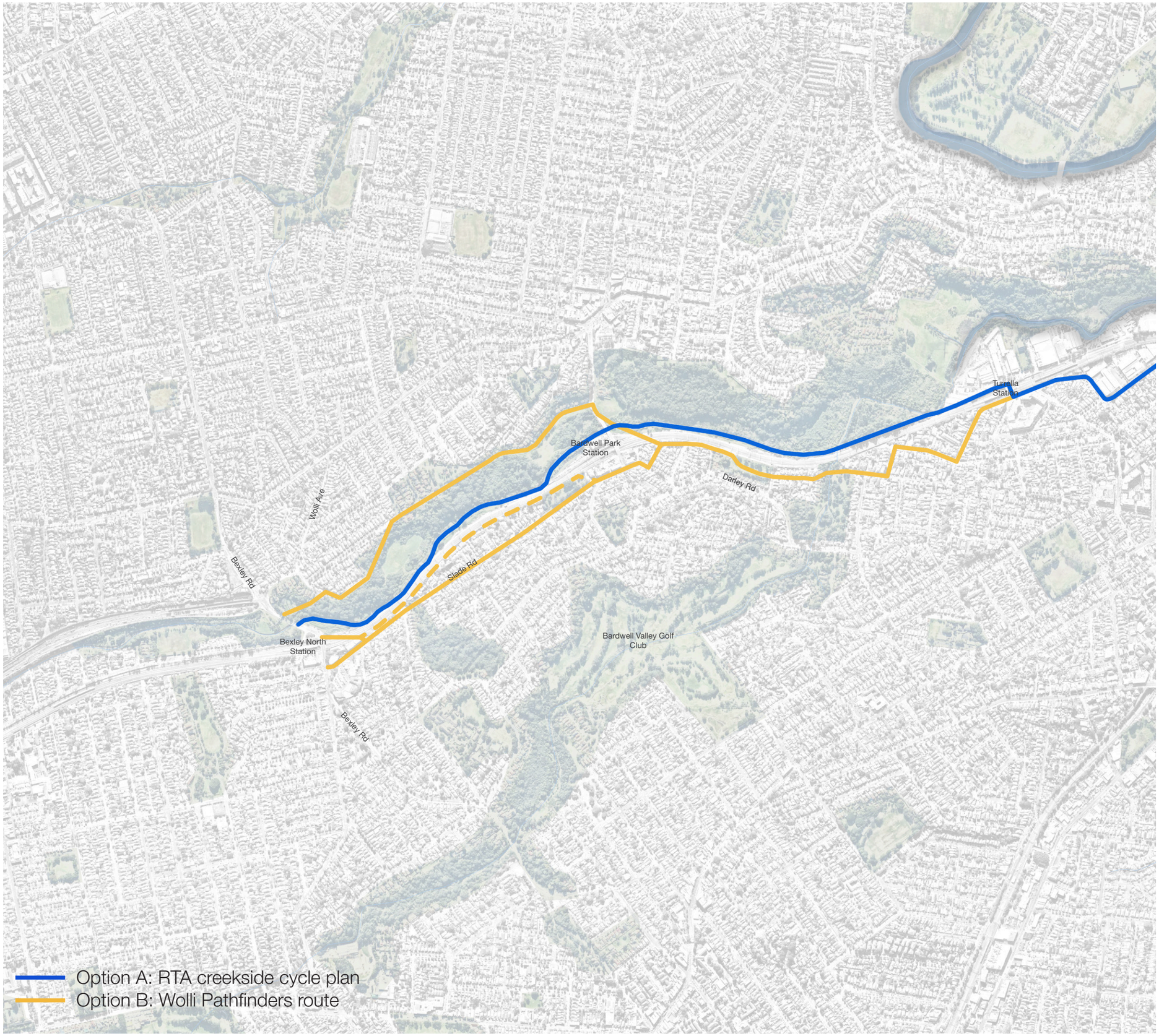
M5 East Cycleways
August 2001



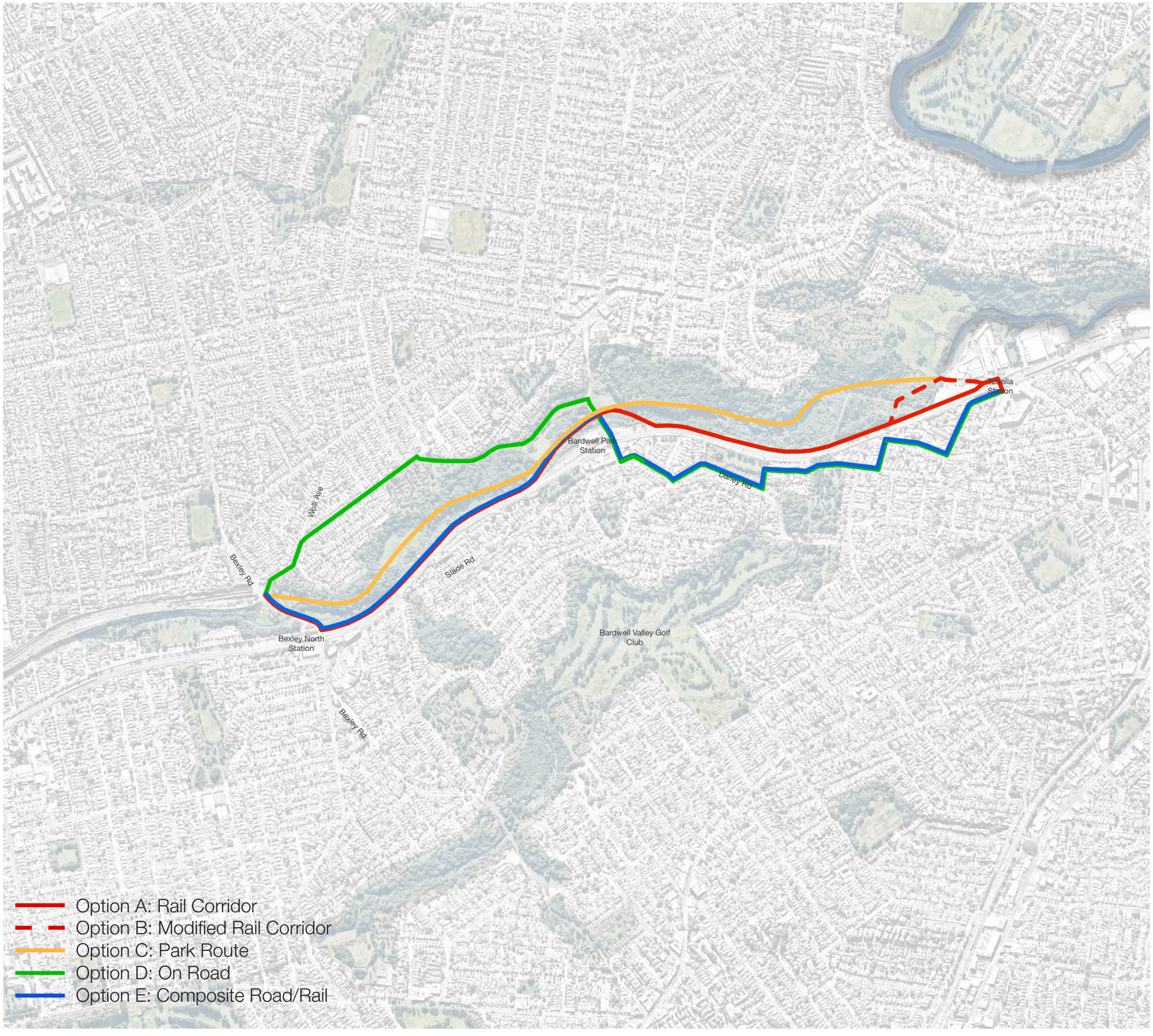
M5 East Cycleways
Options A-E
July 2002



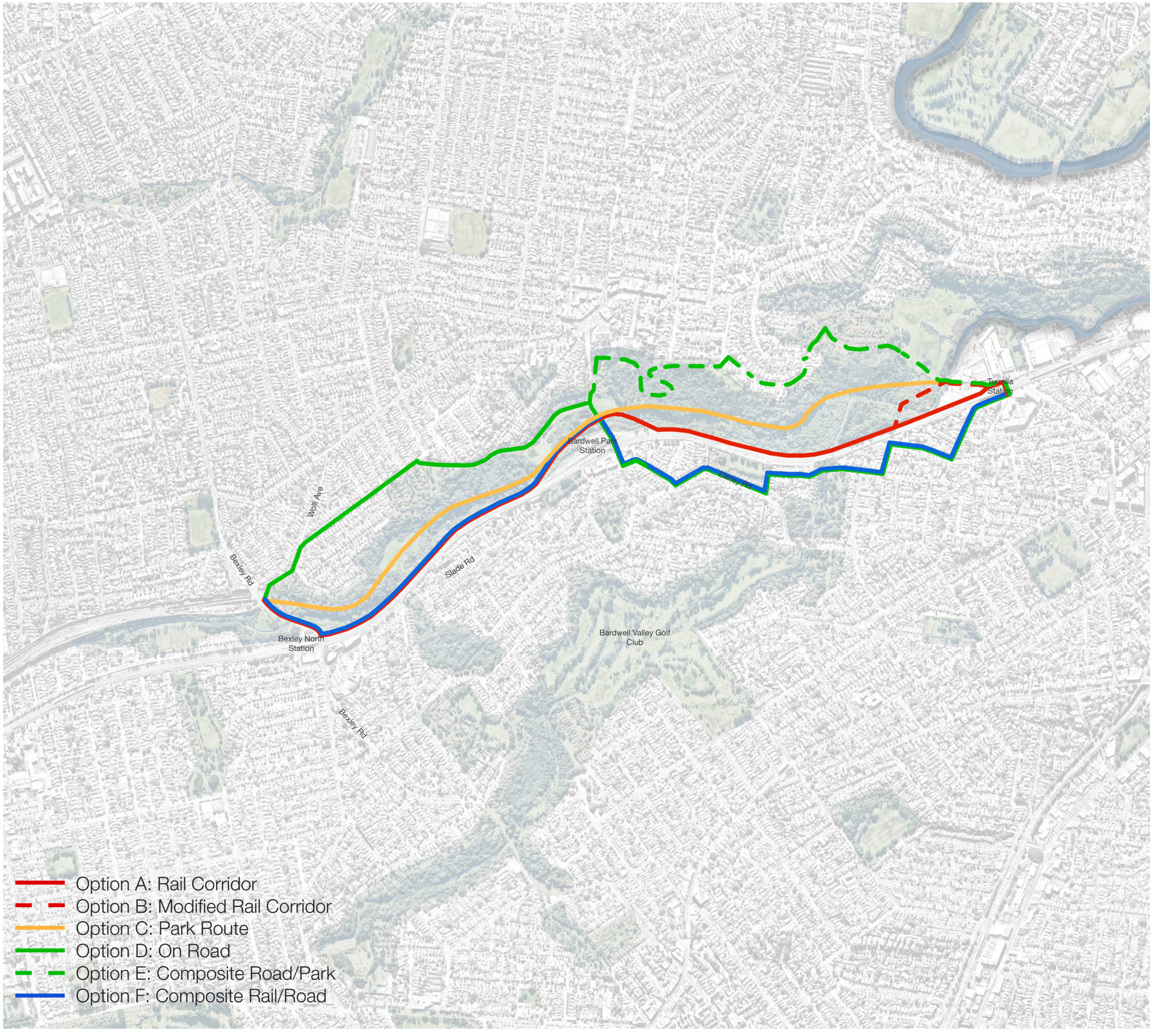
Bush, bikes & bitumen
February 2003



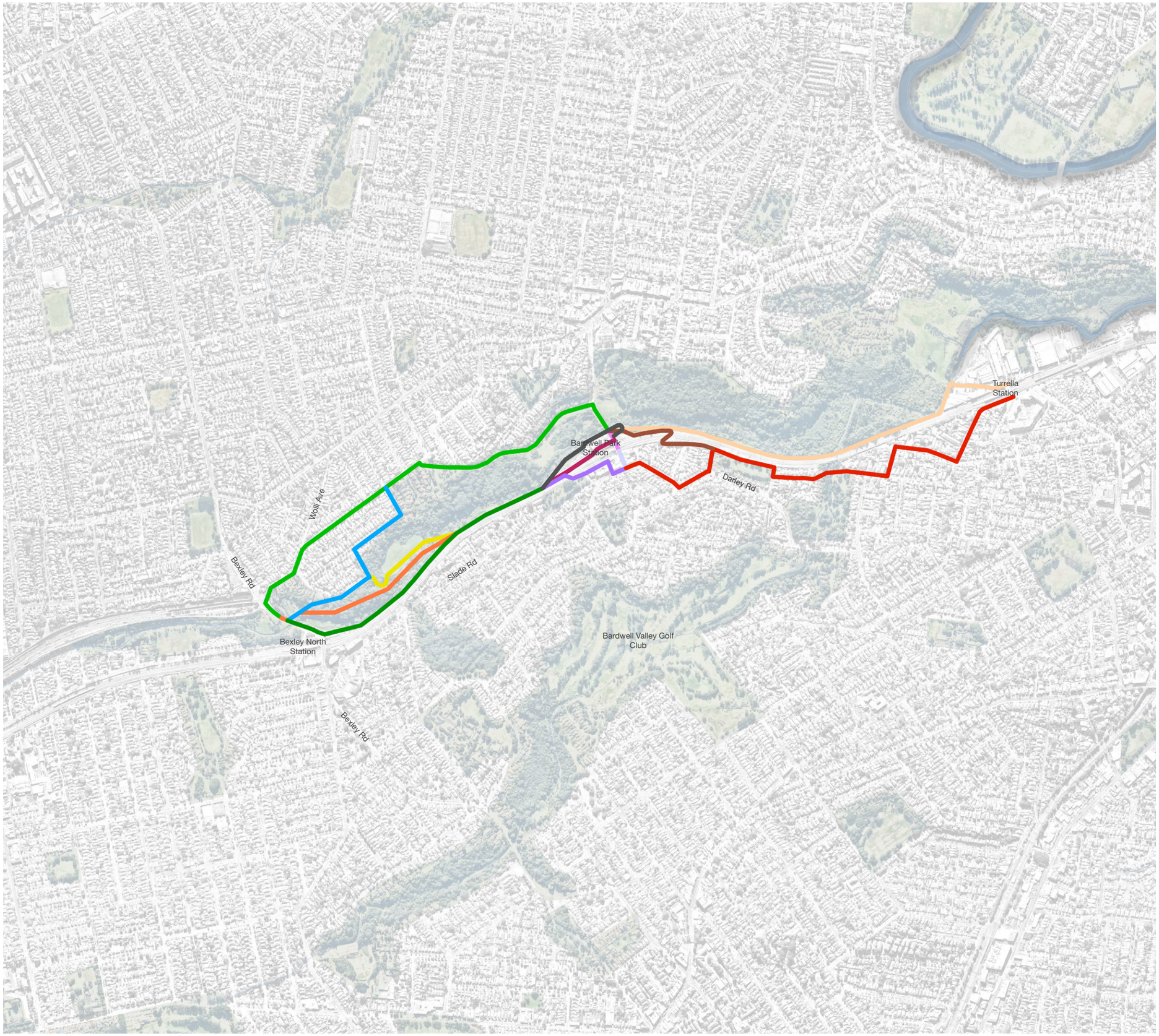
M5 East Cycleways
March 2003



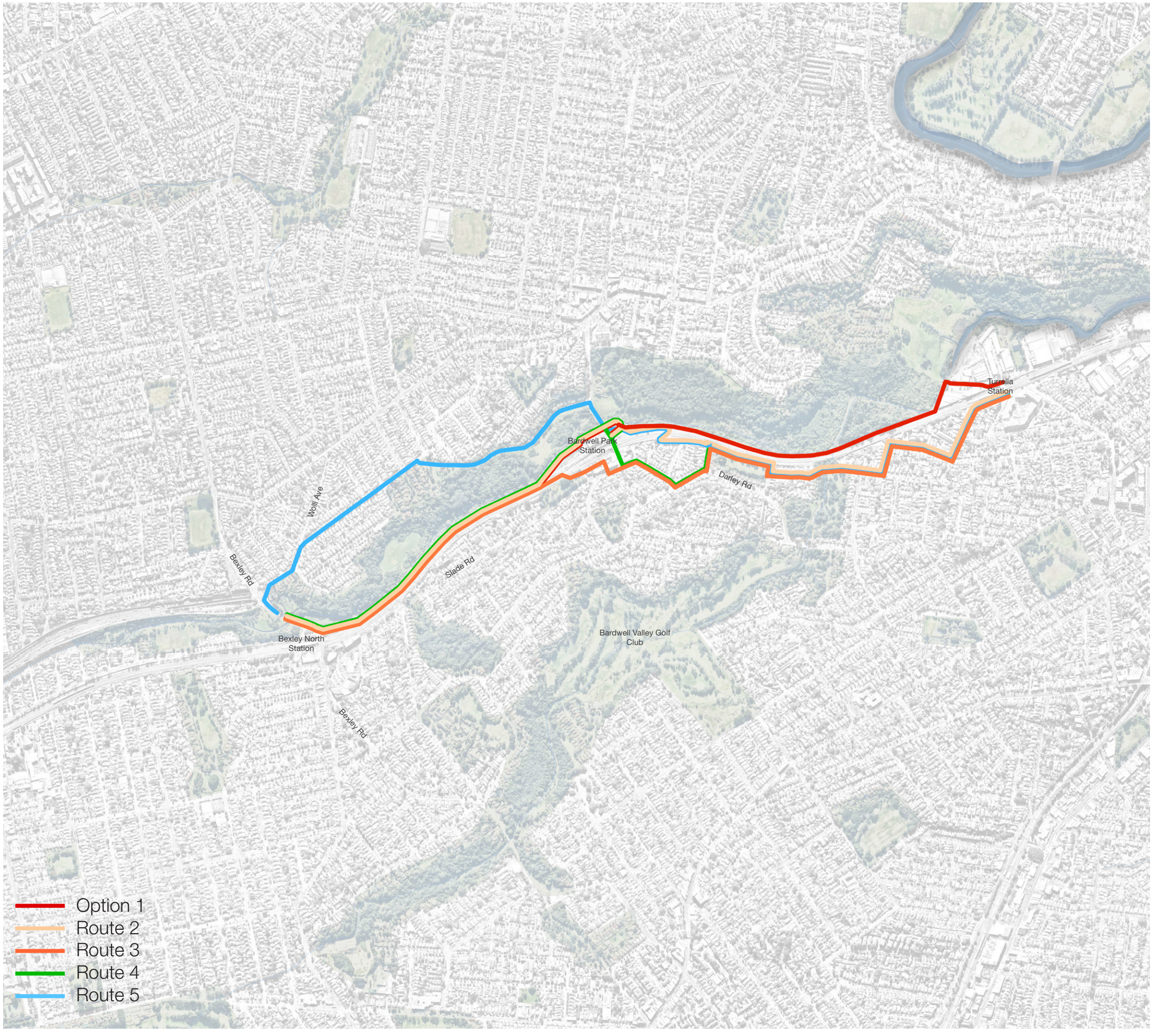
Bexley North to Turrella Cycleway April 2003



Turella Cycleway Options Assessment March 2004



Turella Cycleway
Options
Assessment
Preffered Options
March 2004



M5 EAST GREEN LINK ACTIVE TRANSPORT NETWORK

Workshop

18.11.2016

APPENDIX 03

Sample Notifications of Pathway Modifications around SPI

21 March 2017

Night work on Euston Road, Alexandria

Work is underway to establish the New M5 construction site along **Euston Road between Sydney Park Road and Maddox Street**. The project is expected to be completed by the start of 2020. We will advise residents of upcoming night works on a regular basis. This notification provides a summary of night work expected to occur over **March and April.**

Due to high traffic volumes on Euston Road, certain construction activities need to occur at night to ensure the safety of workers and road users. Construction activities will include:

- Utility investigations to inform design for service relocations
- Installation of electrical conduits to prepare for the widening of Euston Road
- Upgrading the signalised intersection at Maddox Street to prepare for the widening of Euston Road
- Commence construction at the roundabout of Sydney Park Road and Euston Road in preparation for the new signalised intersection

Timing and work hours

The first period of night work is expected to start on **Monday 27 March** at both the Sydney Park roundabout and Maddox Street intersection and will occur intermittently over four nights between **7pm and 5am**, weather permitting.

The second period of night work is expected to start on **Wednesday 26 April** at both the Sydney Park roundabout and midway up Euston Road between Sydney Park Road and Maddox Street, and will occur intermittently over six nights (into May) between **7pm and 5am**, weather permitting.

A calendar outlining the expected dates of work, subject to weather conditions, is provided overleaf. We will contact you prior to night work commencing and let you know if there are changes to the dates.

Equipment for this work include trucks, lighting towers, cranes, tipper trucks, excavator, vacuum truck, concrete saw, plate compactor, light vehicles, generators, power tools and hand tools.

Minimising community impact

You may experience some noise during this work. Every effort will be made to minimise noise and light spill associated with this work by:

- implementing noise mitigation equipment such as eco barriers and noise blankets
- scheduling noisy work to take place earlier in the night where possible
- turning off equipment and vehicles when not in use
- using non-tonal reversing beepers on all machinery
- directing noise generating equipment and lights away from residential properties where possible

Traffic changes

Changed traffic conditions will be in place throughout this night time work and will include:

- temporary lane closures at the roundabout located at Sydney Park Road and Euston Road
- temporary closure of the northbound and southbound median lanes along Euston Road. Slow lanes will remain open.
- temporary removal of street parking along southbound lane of Euston Road and the Maddox Street intersection
- reduced speed limits

- footpath closures with detours provided

Traffic control and signage will be in place to assist local residents and road users, to navigate through the changes. Access to streets and properties adjoining Euston Road will be maintained, and impacts to access will be reinstated each day.

For more information about the changed traffic conditions during this night work, including maps showing the closure location and detour routes, please **visit westconnex.com.au/NewM5**. If you have a question about this work, please **call 1800 660 248** and ask to speak to a member of the New M5 community engagement team or **email info@newm5.com.au.** Alternatively, please feel free to visit the New M5 Community Information Centre located at 27 Burrows Road, St Peters. The centre is open Monday to Friday, 9am – 5pm.

Calendar of upcoming night work

March

Mon	Tues	Wed	Thurs	Fri	Sat	Sun
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

April

Mon	Tues	Wed	Thurs	Fri	Sat	Sun
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Location of night work on Euston Road, Alexandria

First period of night work (over four nights)

Second period of night work (over six nights which could continue into May)

Any changes to this calendar will be communicated with nearby residents. If you would like to receive updates via email, please provide your email address to info@newm5.com.au

Notification No. 206

20 March 2017

Update – Road closure Campbell Street, St Peters

Further to our previous notifications, utilities adjustment work is being carried out to accommodate the widening of Campbell Street and Campbell Road. To facilitate this work, changed traffic conditions will be in place intermittently on Campbell Street, St Peters.

Traffic Changes

Location	Date and time	Traffic management
Campbell Street between Unwins Bridge Road and Princes Highway	**Saturday 25th March** between **7am and 6pm** Saturday 1 April between 7am and 6pm (if required). Every effort will be made to complete this work on Saturday 25th March.	• Full road closure • Access for local residents and businesses will be maintained. • Refer to **Map A** overleaf for the location and detour route

Traffic control and signage are in place to assist local residents, road users, pedestrians and cyclists navigate through the changes. Access to streets and properties will continue to be maintained under traffic control.

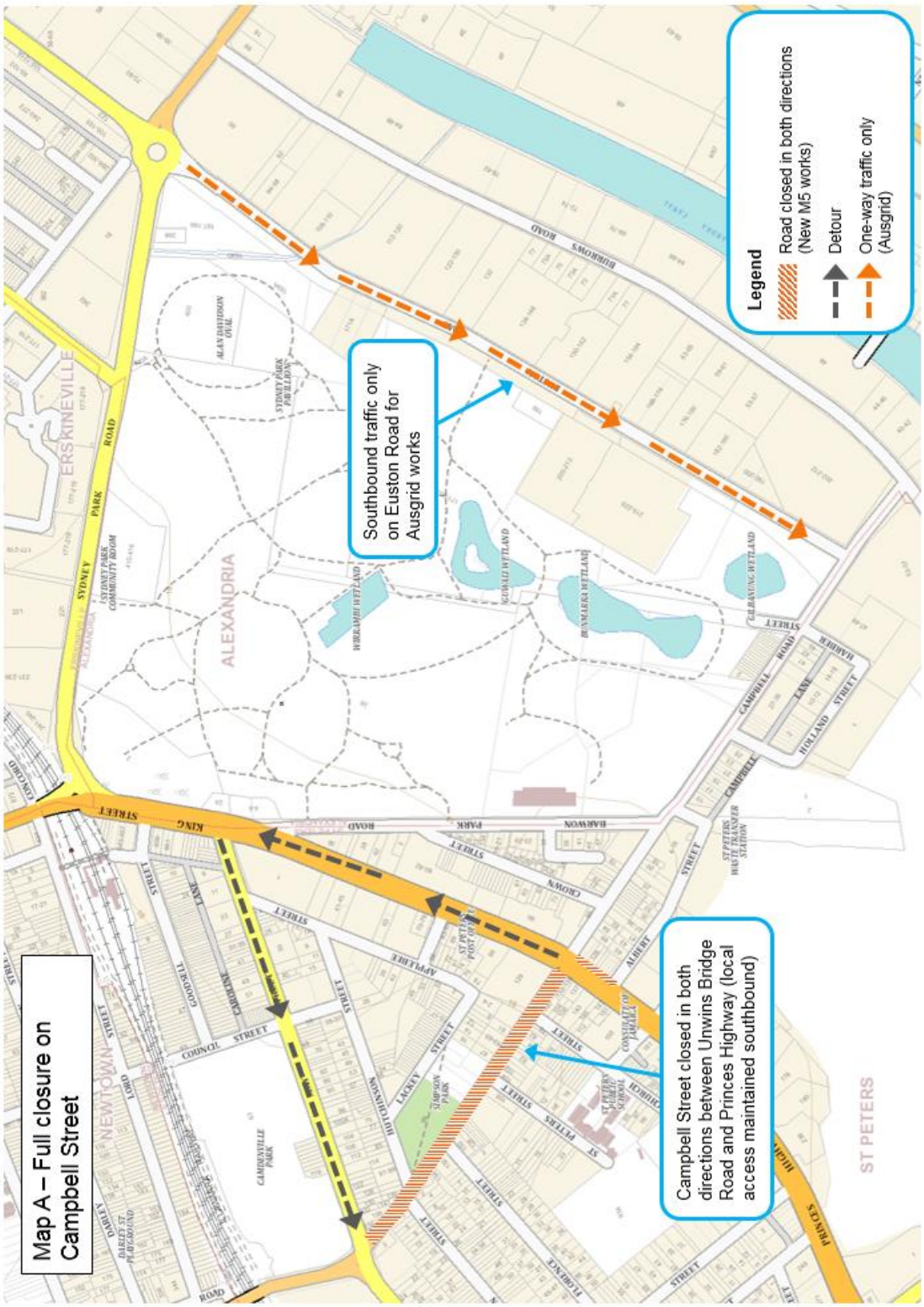
Work hours

Our working hours are generally between **7am and 6pm, Monday to Friday** and **8am and 1pm on Saturdays**. There will be no works on Sundays or public holidays. Extended work hours are required on **Saturday 25th March** and 1st April (if required) between **7am and 6pm** as part of the utilities adjustment work.

If you have a question about this work, please call **1800 660 248** and ask to speak to a member of the New M5 community engagement team or email info@newm5.com.au.

Notification No. 202

Traffic changes on Campbell Street, St Peters



28 February 2017

Update – Road closures on St Peters Street, Campbell Street / Campbell Road and Florence Street, St Peters

Further to our previous notifications, utilities adjustment work is being carried out to accommodate the widening of Campbell Street and Campbell Road. To facilitate this work, changed traffic conditions will be in place intermittently on St Peters Street, Campbell Street and Campbell Road and Florence Street, St Peters.

Traffic Changes

Location	Date and time	Traffic management
St Peters Street at the Campbell Street intersection	**Saturday 4th March** between **7am and 6pm**	• Partial road closure. One lane will be open. Access for local residents will be maintained.
Campbell Street / Campbell Road between Church Street and Burrows Road	**Thursday 9th March** between **6am and 6pm**	• Partial road closure. One way traffic travelling towards Princes Highway (eastbound) permitted. • Access for local residents will be maintained. • Refer to **Map A** overleaf for the location and detour route
Florence Street at the Campbell Street intersection	**Saturday 11th March** between **7am and 6pm**	• No entry into Florence Street from Campbell Street • Access for local residents via Silver Street
Campbell Street between Unwins Bridge Road and Princes Highway	**Saturday 11th March** between **7am and 6pm**	• Full road closure • Access for local residents will be maintained. • Refer to **Map B** overleaf for the location and detour route

Traffic control and signage are in place to assist local residents, road users, pedestrians and cyclists navigate through the changes. Access to streets and properties will continue to be maintained under traffic control.

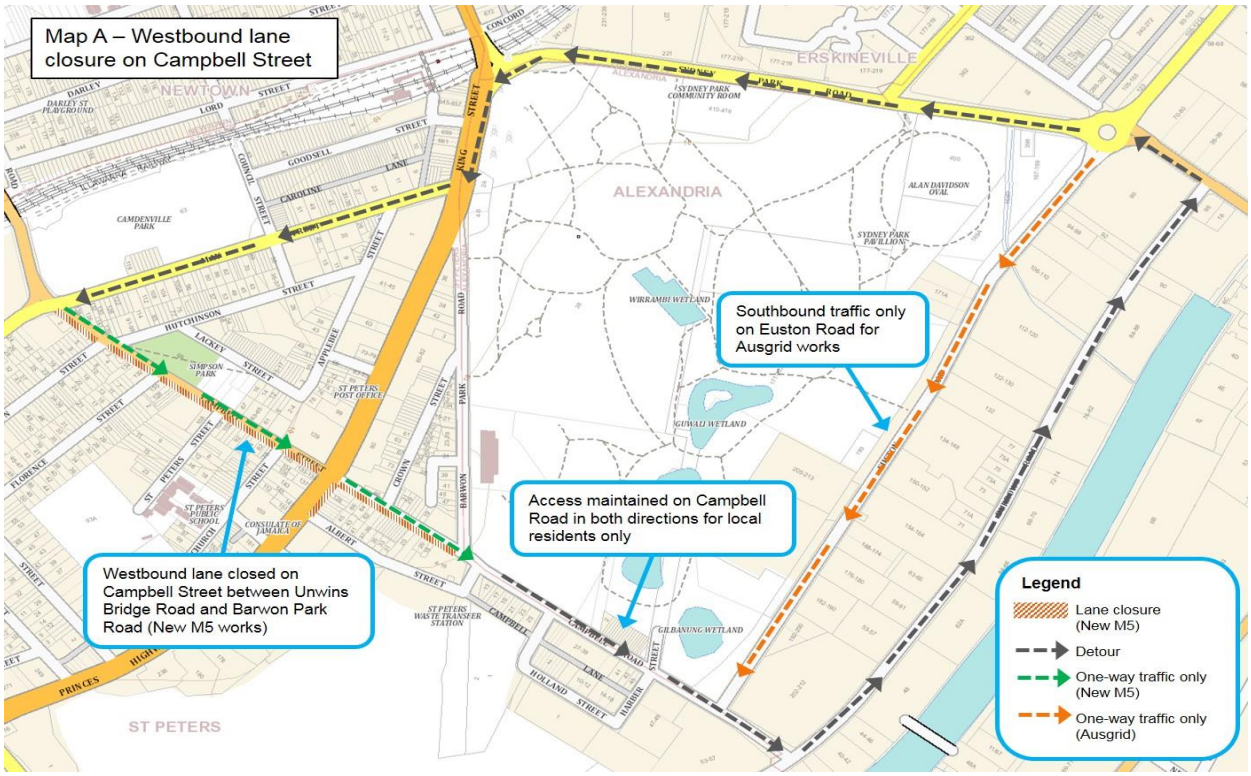
Work hours

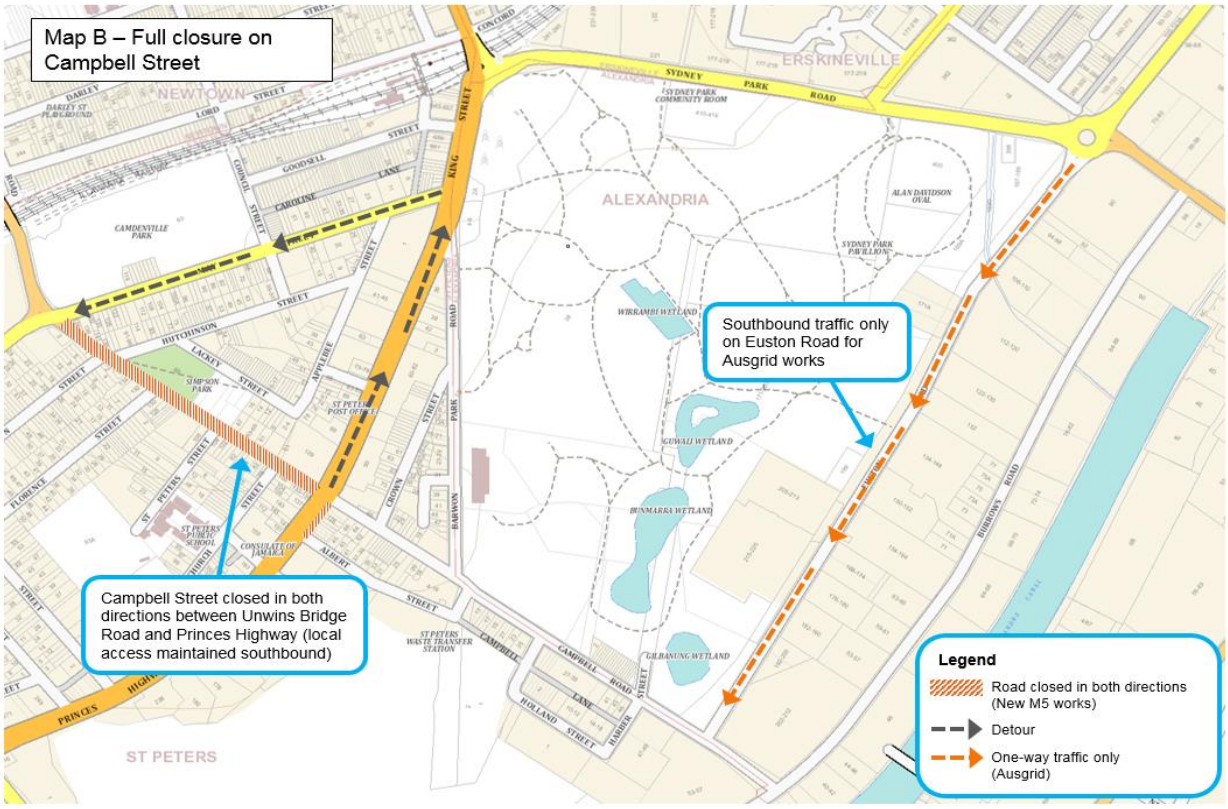
Our working hours are generally between **7am and 6pm, Monday to Friday** and **8am and 1pm on Saturdays**. There will be no works on Sundays or public holidays. Extended work hours are required on **Saturday 4th and 11th March** between **7am and 6pm** as part of the utilities adjustment work.

If you have a question about this work, please call **1800 660 248** and ask to speak to a member of the New M5 community engagement team or email info@newm5.com.au.

Notification No. 202

Traffic changes on St Peters Street, Campbell Street / Campbell Road and Florence Street, St Peters





10 March 2017

Site establishment – Bourke Road and Bourke Street near Gardeners Road, Mascot

As part of the WestConnex New M5 project, Bourke Road and Bourke Street will be upgraded to connect to the future St Peters Interchange at the former Alexandria Landfill.

The widening and upgrading work will be delivered progressively in stages and is expected to be completed by early 2020. The first stage of the upgrades will involve working along the western side of Bourke Road and the eastern side of Bourke Street. A map showing the work areas is provided overleaf.

In preparation for the start of construction, site establishment and preparatory work will be undertaken from **14 March 2017** and be ongoing for approximately four months.

Work activities

Site establishment will involve:

- installing concrete barriers and fencing
- trimming and clearing trees and vegetation
- geotechnical and environmental drilling and surveying
- identifying and adjusting existing utility services such as power, water and gas
- ongoing work to clear vacant buildings and structures within the project footprint
- implementing traffic management, including line marking and signage.

Traffic and transport changes

Changed traffic conditions will be in place during site establishment and ongoing throughout construction for the safety of road users, pedestrians, cyclists and workers. This includes reduced speed limits, footpath closures and detours and lane closures.

Traffic control and signage will be in place to guide motorists, pedestrians and cyclists safely past the work areas. If you are travelling through the area, please allow extra time for your journey and follow the signs and directions from traffic controllers.

Bus stops on Bourke Road near Gardeners Road will be closed for 18 months (northbound stop) and 24 months (southbound stop). Check the map overleaf for nearby bus stops. See signs at stops or visit transportnsw.info for more information.

Footpath and cycleway changes

The footpath on the eastern side of Bourke Road in front of Bunnings will be closed. Pedestrians will be detoured via the shared path on the western side of the road.

The cycleway on the western side of Bourke Street between Church Avenue and Gardeners Road will be closed. Cyclists will be detoured via the shared path on the eastern side of the road.

The Australia Post mail box on the western footpath on Bourke Road will be removed as it is within the work zone.

Some night work will be required for some activities, including the installation of concrete barriers on Bourke Road and Bourke Street. Residents will be notified in advance of any night work.

For more information
info@newm5.com.au
1800 660 248
westconnex.com.au

Easing congestion

Creating jobs

Connecting communities

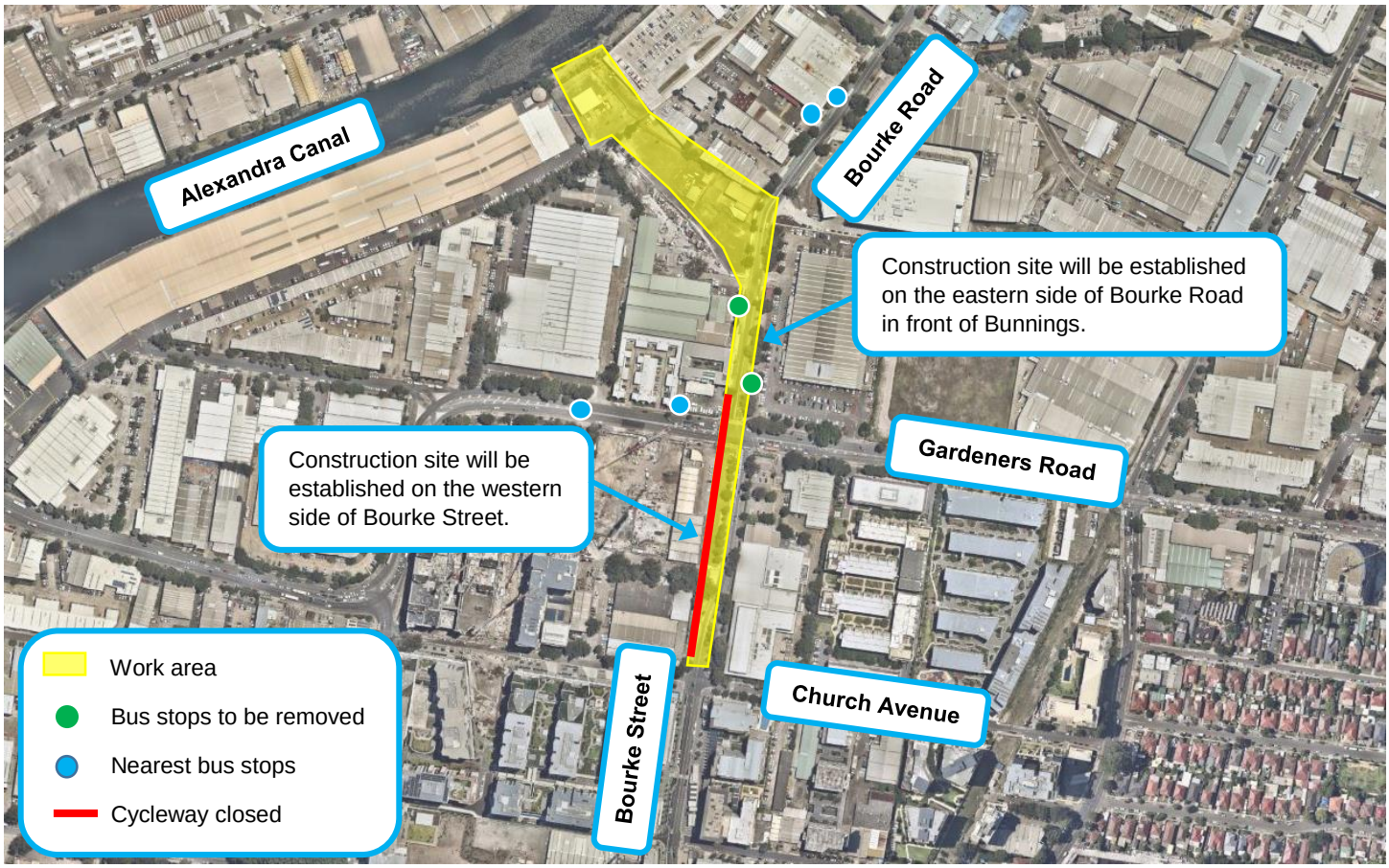
Work hours

Site establishment and construction work will generally be carried out between **7am and 6pm, Monday to Friday and 8am to 1pm on Saturdays**. There will be no work on Sundays or public holidays, unless notified otherwise.

More information

If you have any questions about this work, please call **1800 660 248** and ask to speak to a member of the New M5 Community Engagement Team or email **info@newm5.com.au**. You can also visit the New M5 Community Information Centre located at 27 Burrows Road, St Peters. The centre is open on weekdays from 9am to 5pm.

Location of site establishment on Bourke Road/Street, Mascot



Interpreter

We speak your language

To learn more simply visit westconnex.com.au/yourlanguage.

Need an interpreter? Call the Translating and Interpreting Service on **131 450**

28 February 2017

Update – Road closures on St Peters Street, Campbell Street / Campbell Road and Florence Street, St Peters

Further to our previous notifications, utilities adjustment work is being carried out to accommodate the widening of Campbell Street and Campbell Road. To facilitate this work, changed traffic conditions will be in place intermittently on St Peters Street, Campbell Street and Campbell Road and Florence Street, St Peters.

Traffic Changes

Location	Date and time	Traffic management
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Traffic control and signage are in place to assist local residents, road users, pedestrians and cyclists navigate through the changes. Access to streets and properties will continue to be maintained under traffic control.

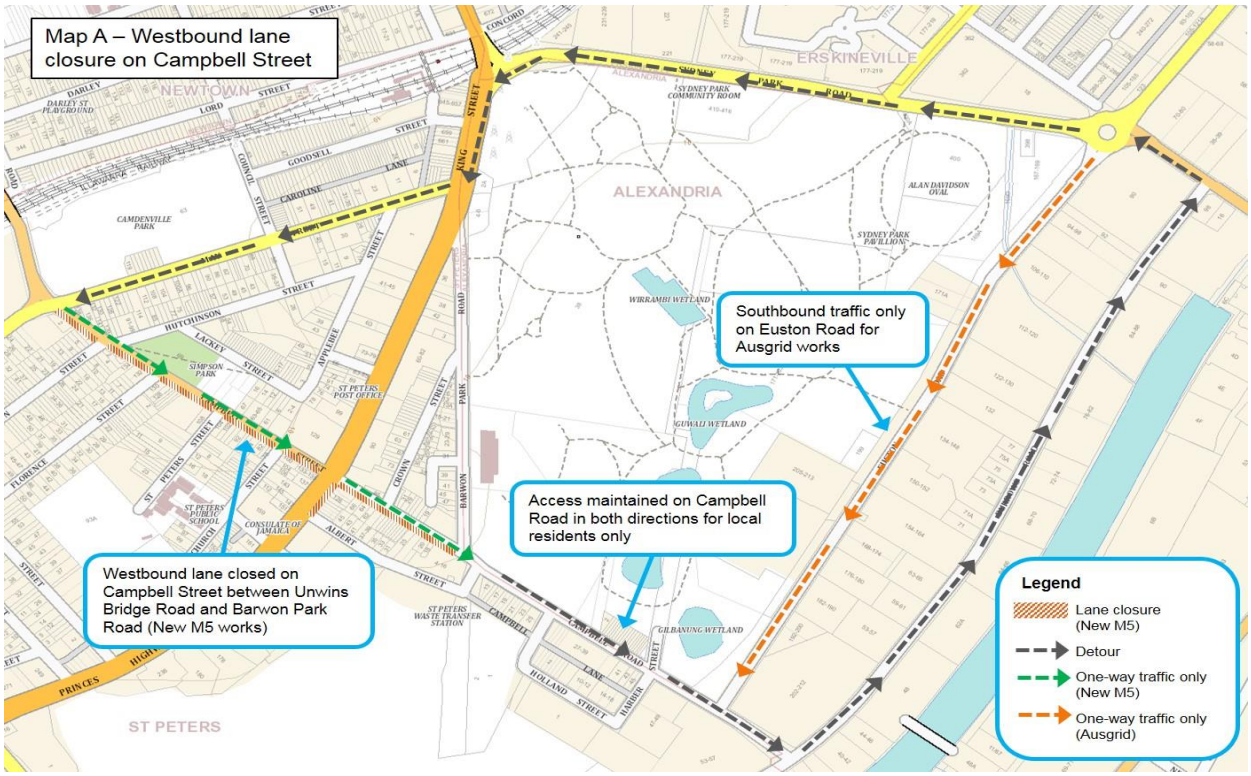
Work hours

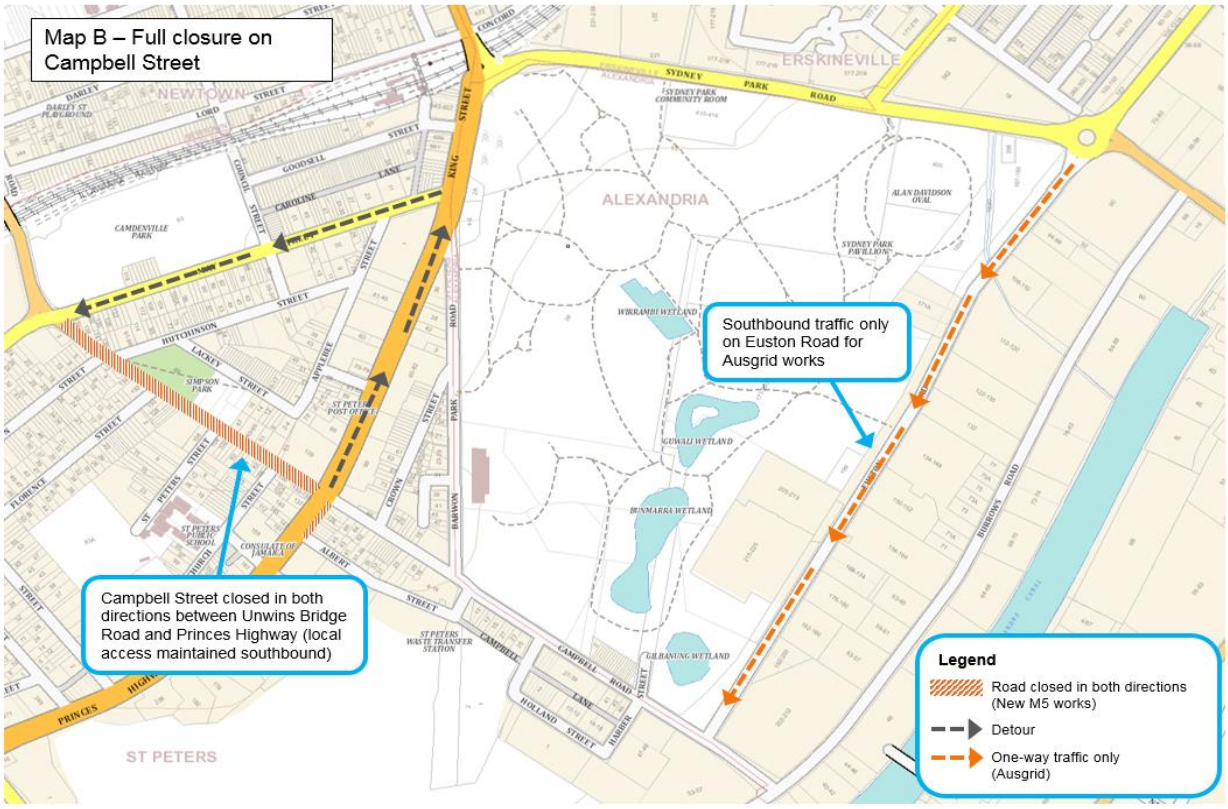
Our working hours are generally between **7am and 6pm, Monday to Friday** and **8am and 1pm on Saturdays**. There will be no works on Sundays or public holidays. Extended work hours are required on **Saturday 4th and 11th March** between **7am and 6pm** as part of the utilities adjustment work.

If you have a question about this work, please call **1800 660 248** and ask to speak to a member of the New M5 community engagement team or email info@newm5.com.au.

Notification No. 202

Traffic changes on St Peters Street, Campbell Street / Campbell Road and Florence Street, St Peters





WestConnex

New M5 | **Construction update | Autumn 2017**

St Peters Interchange and local road upgrades

Welcome to the WestConnex New M5 autumn construction update for work occurring in the St Peters, Alexandria and Mascot area. This edition will provide an update about current construction and upcoming activities over the next three months.

Progress of St Peters New M5 tunnel, February 2017

Tunnelling has commenced for the New M5 with roadheader machines being deployed at the St Peters, Bexley and Arncliffe sites. There are currently three roadheaders working at these sites and this will increase to 16 roadheaders across the project when construction peaks.

Work is well underway to establish the sites at the St Peters Interchange and surrounding local roads in preparation for local roads upgrades, which includes new connections between St Peters and Mascot for motorists, pedestrians and cyclists.

Work hours

New M5 work will generally be carried out during standard construction hours between **7am and 6pm from Monday to Friday and 8am and 1pm on Saturday**. There will be no work on Sunday or public holidays unless notified otherwise.

For safety some activities may be undertaken at night time. Nearby residents and businesses will be notified in advance of any night work commencing. Every effort will be made to minimise the impact of work.

For more information

Drop in to the Community Information Centre

Open 9:00am to 5:00pm Monday to Friday (excluding public holidays)

27 Burrows Road, St Peters, NSW 2134

1800 660 248

info@newm5.com.au

westconnex.com.au

Australian Government

BUILDING OUR FUTURE

NSW MAKING IT HAPPEN

Constructed by

CPB CONTRACTORS | DRAGADOS | SAMSUNG C&T

We speak your language
To learn more, visit westconnex.com.au. Need an interpreter? Call the Translating and Interpreting Service on **131 450.**

St Peters Interchange

The former Alexandria Landfill is taking shape to become the site for the future St Peters Interchange. Ongoing earthworks have been transforming the footprint since last year.

There are a number of upcoming construction activities taking place within the site, which include:

- ongoing earthworks including excavating, moving and compacting material
- continuing construction of the cut and cover tunnel near Canal Road and the Princes Highway, involving bored pile installation and concrete pours
- ongoing remediation work to formally close the Alexandria Landfill
- continuing 24-hour tunnelling excavation under the Princes Highway and tunnel support activities
- oversized deliveries to the Canal Road and Albert Street gates outside of standard construction hours

Euston Road

The past few months has seen site establishment work along Euston Road from Campbell Road to Sydney Park Road advancing.

The road is being widened and will include an upgrade of the intersection of Sydney Park Road and Euston Road to a signalised intersection. Activities over the next three months along Euston Road include:

- continuing property and vegetation removal and ground levelling within the established work site
- ongoing potholing to identify existing services
- ongoing excavation and backfilling ground to install conduits for new and relocated services
- installing new water mains and drainage systems
- installing a temporary site office within the established work site adjacent to Euston Road

Site establishment will soon begin on Euston Road between Sydney Park Road and Maddox Street in preparation for road construction. Site establishment is expected to take three months to complete and includes:

- installing temporary construction fencing and concrete barriers to establish the work site
- trees and vegetation removal within the project footprint. An arboriculture report has been prepared for this work and is available at **www.westconnex.com.au**
- levelling the ground in preparation for road construction

Euston Road construction area between Campbell Road and Sydney Park Road, February 2017

- excavating and backfilling ground to install conduits in preparation for new and relocated services
- installation of new drainage systems and various utilities
- implementing traffic changes to facilitate the work

Campbell Street/Road

Property clearing along Campbell Street/Road is almost complete with traffic in both directions now open again. Thank you for your patience while we completed this work.

Intermittent road and lane closures will be required throughout March while we finish the property clearing and power adjustment work. Upcoming construction activities include:

- permanently reinstating footpaths and roads along the underground power cable route in St Peters
- completing work to clear properties within the project footprint including removal of buildings, tree removal and levelling the ground
- ongoing power adjustment work including removing overhead power lines and installing new underground power cables, which will continue until late March

Aerial photograph of St Peters Interchange construction site, February 2017

- constructing temporary noise walls along the project boundary on Campbell Street and Road
- continuing geotechnical and utility investigations in the vicinity of the local road upgrades to inform the detailed design

Subject to approval, work to establish a temporary construction compound near Campbell Street at Camdenville Basin will commence to support local road upgrades.

Work is also progressing to establish the work compound on Campbell Street between the Princes Highway and Albert Street to support construction of the cut and cover tunnel structure that will connect to the future M4-M5.

Heritage salvage

Heritage salvage at properties along Campbell Street is complete, with the items now being catalogued and placed into storage. The salvaged items will either be reused within the urban design for the project or made available to the community, free of charge. We will provide an update when the items are ready to be distributed.

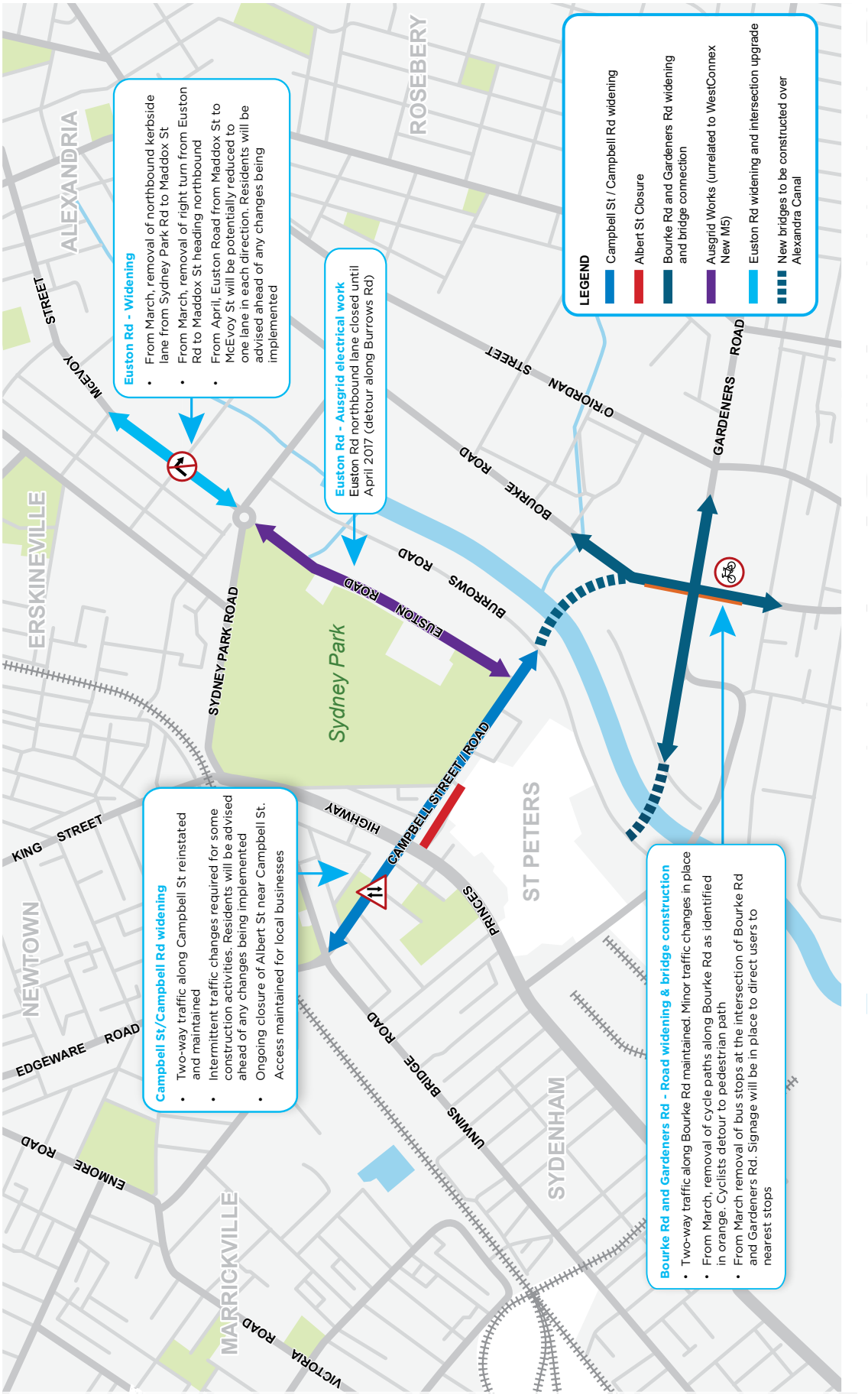
Gardeners Road & Bourke Road

Work is commencing on Gardeners Road and Bourke Road this month to establish the site for construction activities. When finished, the roads will be upgraded and widened to connect to the new bridges across Alexandria Canal.

Activities to be undertaken over the next three months will include:

- installing construction fencing and concrete barriers to establish the project footprint
- Ground levelling works in preparation for road construction
- Trees and vegetation removal within the project footprint. An arboriculture report has been prepared for this work and available at www.westconnex.com.au
- ongoing potholing to inform utility investigation and relocation work
- conducting structural assessment and hazardous materials removal in preparation for property clearing work on Gardeners Road within the project footprint
- implementing traffic changes to facilitate the work.

St Peters Construction Traffic Changes Map



APPENDIX 04

Condition B51 Safety Audit

WESTCONNEX RMS PLANNING
CONDITION B51 SAFETY AUDIT

Legend

- WCX Commitments - Separated Cycleway
- WCX Commitments - Shared Cycleway
- Regional Route - Council Existing
- Regional Route - Council Proposed
- Local Route - Low Vehicle Interaction
- Local Route - Med Vehicle Interaction
- St Peters Interchange Boundary
- 1km Boundary from Interchange

1km

Enmore Park

Edgeware Rd

Victoria Rd

St Peters Station

Sydney Park Rd

Camdenville Park

Metro Park

Princes Hwy

Sydney Park

Euston Rd

A2MP Shared Path

Sydenham Rd

Unwins Bridge Rd

Sydenham Station

Fraser Park

Burrows Rd

Bourke Rd

Alexandra Canal

Canal Rd

Airport Link

Princes Hwy

O'Riordan St

IKEA

Mascot Station

Coward St

Quantas Dr

Airport Dr

1km

Sydney Airoprt

Legend

- Connectivity Gaps to be addressed in B51
- WCX Commitments - Separated Cycleway
- WCX Commitments - Shared Cycleway
- Regional Route - Council Existing
- Regional Route - Council Proposed
- Local Route - Low Vehicle Interaction
- Local Route - Med Vehicle Interaction
- St Peters Interchange Boundary
- 1km Boundary from Interchange

Edgeware Rd
St Peters Station
Sydney Park Rd
Euston Rd
Camdenville Park
Metro Park
Princes Hwy
Sydney Park
Burrows Rd
Sydenham Station
Princes Hwy
Airport Link
Alexandra Canal

SAFETY AUDIT - MITCHELL ROAD

Site	Code	Description	Safety issue	Probability	Severity of consequence
Mitchell Road					
	A 1	Accumulation of soil and other sediments at low point in pavement (various locations)	Cyclist may loose traction over dirt	Possible	Minor
	A 2	Uneven pavers due to tree roots (various locations)	Cyclist may hit uneven surface	Possible	Minor
	A 3	Overgrowth of plants narrows shared path (various locations)	May cause congestion and a collision	Likely	Minor
	A 4	Blind corner driveway	May cause congestion and a collision	Likely	Moderate
	A 5	Blind corner driveway	May cause congestion and a collision	Likely	Moderate
	A 6	Overgrowth of plants narrows shared path (various locations)	May cause congestion and a collision	Likely	Minor
	A 7	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	A 8	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	A 9	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	A 10	Shared path narrows to 1.6m	May cause congestion and a collision	Possible	Minor
	A 11	Narrow shared path and edge level drop off	Cyclist may via off path and become unstable on level change	Possible	Minor
	A 12	Service pit lid provides uneven surface	Cyclist may hit uneven surface	Possible	Minor
	A 13	Accumulation of soil and other sediments at low point in pavement (various locations)	Cyclist may hit dirt	Possible	Minor
	A 14	Shared path ends, limited signage, no designated crossing	Confusing for cyclists, lack of priority	Possible	Not significant
	A 15	Accumulation of soil and other sediments at low point in pavement (various locations)	Cyclist may loose traction over dirt	Possible	Minor
	A 16	Pavement cycle symbol in car park zone	Cyclist may follow symbol too close to parked vehicles	Unlikely	Minor
	A 17	Road break	Cyclists have to merge onto footpath and may cause conflict with pedestrians	Likely	Not significant
	A 18	Tree roots	Tree roots may hinder future development of path	N/A	N/A

Likelihood			Potential Consequences				
			L6	L5	L4	L3	L2
			Minor injuries or discomfort. No medical treatment or measureable physical effects.	Injuries or illness requiring medical treatment. Temporary impairment.	Injuries or illness requiring hospital admission.	Injury or illness resulting in permanent impairment.	Fatality
			Not Significant	**Minor**	**Moderate**	**Major**	**Severe**
	Expected to occur regularly under normal circumstances	**Almost Certain**	**Medium**	**High**	**Very High**	**Very High**	**Very High**
	Expected to occur at some time	**Likely**	**Medium**	**High**	**High**	**Very High**	**Very High**
	May occur at some time	**Possible**	**Low**	**Medium**	**High**	**High**	**Very High**
	Not likely to occur in normal circumstances	**Unlikely**	**Low**	**Low**	**Medium**	**Medium**	**High**
	Could happen, but probably never will	**Rare**	**Low**	**Low**	**Low**	**Low**	**Medium**

SAFETY AUDIT - MITCHELL ROAD

MCGREGOR COXALL

McGregor Coxall Pty Ltd. ACN 082 334 290
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Melbourne: +61 3 9999 1608
sydney@mcgregorcoxall.com
melbourne@mcgregorcoxall.com
Web: www.mcgregorcoxall.com

Client
Roads and Maritime Service

Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 500 @ A3

0 2 4 6 8 10 M

All dimensions are in millimetres unless otherwise noted. Do not scale from this drawing.

Revision Log

Rev	Revision Description	By/Checked	Date
A	For Consultation	LP/DK	8/3/17

Sheet Title
Audit - Mitchell Road

Sheet No. 01-01-01

Rev A

SAFETY AUDIT - MITCHELL ROAD

MCGREGOR COXALL

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Sydney: +61 2 9977 3853
Melbourne: +61 3 9999 1608
sydney@mcgregorcoxall.com
melbourne@mcgregorcoxall.com
Web: www.mcgregorcoxall.com

Client
Roads and Maritime Service

Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 500 @ A3

0 2 4 6 8 10 M

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Revision Log

Rev	Revision Description	By/Checked	Date
A	For Consultation	LP/DK	8/3/17

Sheet Title
Audit - Mitchell Road

Sheet No. 01-01-02

Rev A

SAFETY AUDIT - MITCHELL ROAD

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Client
Roads and Maritime Service

Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 500 @ A3

0 2 4 6 8 10 M

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Revision Log

Rev	Revision Description	By/Checked	Date
A	For Consultation	LP/DK	8/3/17

Sheet Title
Audit - Mitchell Road

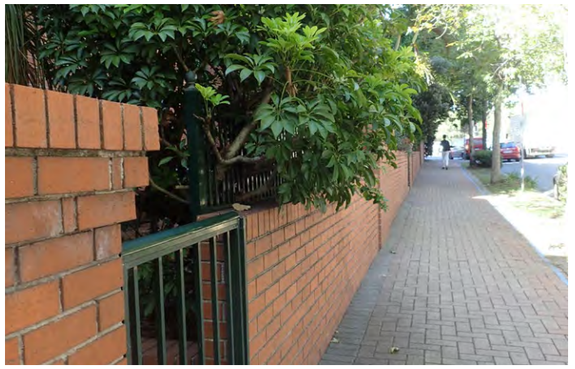
Sheet No.
01-01-03

Rev
A

SAFETY AUDIT - MITCHELL ROAD

A 1

A 2



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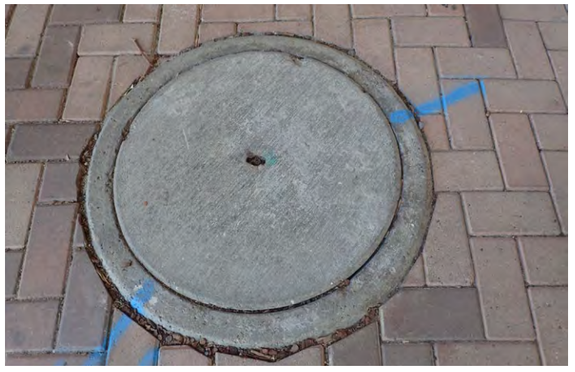

A 7

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SAFETY AUDIT - MITCHELL ROAD

A 13

A 14

A 15

A 16

A 17

A 18

SAFETY AUDIT - CAMPBELL STREET

Site	Code	Description	Safety issue	Probability	Severity of consequence
Campbell Street					
	B 1	Footpath narrows due to light post (various locations)	May cause congestion and a collision	Likely	Minor
	B 2	Vehicle barrier narrows footpath	May cause congestion and a collision	Possible	Minor
	B 3	Footpath narrows to 1.5m on both sides of the bridge	May cause congestion and a collision	Likely	Minor
	B 4	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	B 5	Narrow vehicle lanes on busy road	On road cyclist may get hit by a moving vehicle	Possible	Major
	B 6	Footpath narrows due to road signs (various locations)	May cause congestion and a collision	Likely	Minor
	B 7	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	B 8	Footpath narrows due to road signs (various locations)	May cause congestion and a collision	Likely	Minor
	B 9	Footpath narrows due to over grown tree (various locations)	May cause congestion and a collision	Likely	Minor
	B 10	Excessive amount of signage, poor way-finding	May cause confusion to cyclist		
	B 11	Gap between fence and footpath (various locations)	Cyclist may fall down gap	Possible	Minor
	B 12	Footpath narrows due to over grown tree (various locations)	May cause congestion and a collision	Likely	Minor
	B 13	Footpath narrows due to rubbish bins on the street after rubbish day	May cause congestion and a collision	Likely	Minor
	B 14	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	B 15	Gap between railing and footpath (various locations)	Cyclist may fall down gap	Possible	Minor
	B 16	Bollard in the middle of narrow shared path	Cyclist may hit bollard and bollard may be unseen at night	Likely	Minor

			Potential Consequences				
			L6	L5	L4	L3	L2
			Minor injuries or discomfort. No medical treatment or measureable physical effects.	Injuries or illness requiring medical treatment. Temporary impairment.	Injuries or illness requiring hospital admission.	Injury or illness resulting in permanent impairment.	Fatality
			Not Significant	Minor	Moderate	Major	Severe
Likelihood	Expected to occur regularly under normal circumstances	Almost Certain	Medium	High	Very High	Very High	Very High
	Expected to occur at some time	Likely	Medium	High	High	Very High	Very High
	May occur at some time	Possible	Low	Medium	High	High	Very High
	Not likely to occur in normal circumstances	Unlikely	Low	Low	Medium	Medium	High
	Could happen, but probably never will	Rare	Low	Low	Low	Low	Medium

SAFETY AUDIT - CAMPBELL STREET

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WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 500 @ A3

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Revision Log

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A	For Consultation	LP/DK	8/3/17

Sheet Title
Audit - Campbell Street

Sheet No. 01-02-01

Rev A

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Sheet Title
Audit - Campbell Street

Sheet No. 01-02-02

Rev A

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Audit - Campbell Street

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01-02-03

Rev
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A	For Consultation	LP/DK	8/3/17

Sheet Title
Audit - Campbell Street

Sheet No. 01-02-04

Rev A

SAFETY AUDIT - CAMPBELL STREET

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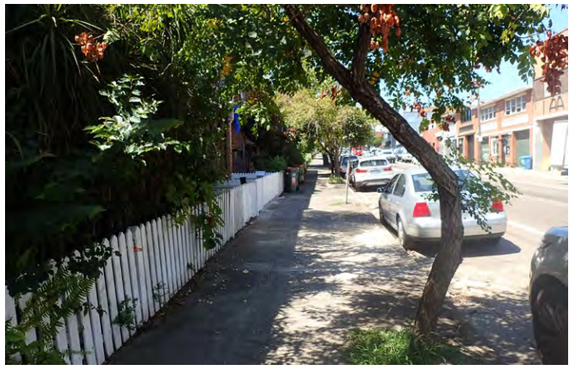

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SAFETY AUDIT - CAMPBELL STREET

B 13

B 14

B 15

B 16

SAFETY AUDIT - PRINCES HWY / CANAL ROAD

Site	Code	Description	Safety issue	Probability	Severity of consequence
Princes Hwy / Canal Road					
	C 1	Overgrowth of plants narrows shared path (various locations)	May cause congestion and a collision	Likely	Minor
	C 2	Very busy intersection, long waiting times at pedestrian crossing	Pedestrian / cyclist may atempt to cross road before signalised crossing	Possible	Minor
	C 3	Lack of pedestrian ramps at crossing	Cyclist has to via off crossing to use ramp	Likely	Moderate
	C 4	Uneven surface (various locations)	Cyclist may hit uneven surface	Likely	Minor
	C 5	High volumes of traffic in narrow one way side street	Not much room for on road cyclist	Likely	Moderate
	C 6	Poor alignment for pedestrian crossing	Pedestrian / cyclist may atempt to short cut corner of crossing	Likely	Minor
	C 7	Excessive amount of signage at entrance to May Street, poor way-finding	Cyclist may hit sign posts	Possible	Moderate
	C 8	Uneven surface (various locations)	Cyclist may hit uneven surface	Likely	Moderate
	C 9	Narrow footpath due to road signage (various locations)	Cyclist may hit sign next to busy road	Possible	Moderate
	C 10	Bus stop narrows footpath	Cyclist may have to dismount to get around bus stop	Likely	Not significant
	C 11	No pedestrian crossing - Pedestrians have to use 3 crossings to cross south western side of Princes Hwy	Pedestrian / cyclist may atempt to cross road with no signalised crossing	Possible	Minor

			Potential Consequences				
			L6	L5	L4	L3	L2
			Minor injuries or discomfort. No medical treatment or measureable physical effects.	Injuries or illness requiring medical treatment. Temporary impairment.	Injuries or illness requiring hospital admission.	Injury or illness resulting in permanent impairment.	Fatality
			Not Significant	**Minor**	**Moderate**	**Major**	**Severe**
Likelihood	Expected to occur regularly under normal circumstances	**Almost Certain**	**Medium**	**High**	**Very High**	**Very High**	**Very High**
	Expected to occur at some time	**Likely**	**Medium**	**High**	**High**	**Very High**	**Very High**
	May occur at some time	**Possible**	**Low**	**Medium**	**High**	**High**	**Very High**
	Not likely to occur in normal circumstances	**Unlikely**	**Low**	**Low**	**Medium**	**Medium**	**High**
	Could happen, but probably never will	**Rare**	**Low**	**Low**	**Low**	**Low**	**Medium**

SAFETY AUDIT - PRINCES HWY / CANAL ROAD

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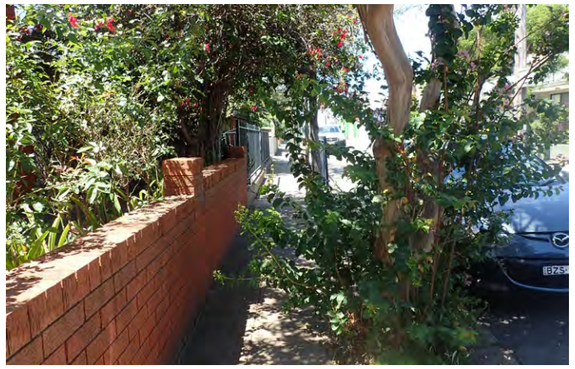
Sheet Title
Audit - Princes Hwy Intersection

Sheet No. 01-03-01

Rev A

SAFETY AUDIT - PRINCES HWY / CANAL ROAD



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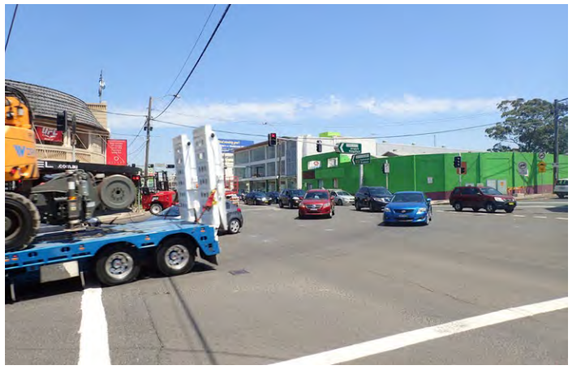

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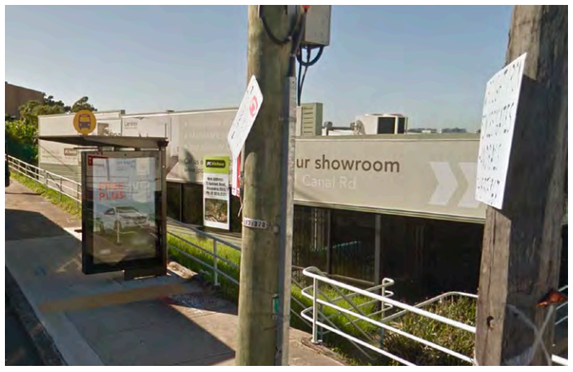

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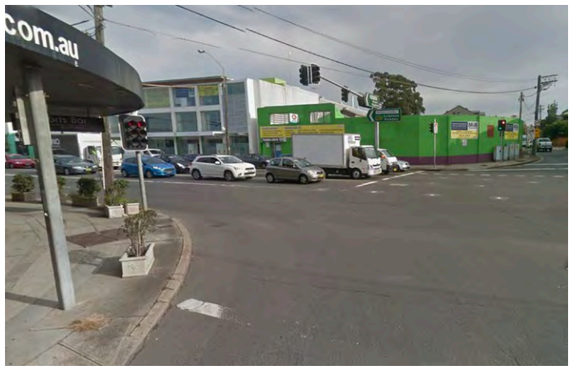

C 11

SAFETY AUDIT - CANAL ROAD

Site	Code	Description	Safety issue	Probability	Severity of consequence
Canal Road					
	D 1	Footpath narrows due to over grown grass (various locations)	May cause congestion and a collision	Likely	Minor
	D 2	Uneven surface (various locations)	Cyclist may hit uneven surface	Likely	Moderate
	D 3	Footpath narrows due to bus stop (various locations)	May cause congestion and a collision	Likely	Minor
	D 4	Footpath narrows due to over grown plants (various locations)	May cause congestion and a collision	Likely	Minor
	D 5	Uneven surface (various locations)	Cyclist may hit uneven surface	Likely	Moderate
	D 6	Uneven surface (various locations)	Cyclist may hit uneven surface	Likely	Moderate
	D 7	Leaf litter and dirt covering footpath (various locations)	cyclist may loose traction over leaf litter and dirt	Likely	Moderate
	D 8	Uneven surface (various locations)	Cyclist may hit uneven surface	Likely	Moderate
	D 9	Footpath narrows due to bus stop (various locations)	May cause congestion and a collision	Likely	Minor
	D 10	Footpath narrows due to over grown plants (various locations)	May cause congestion and a collision	Likely	Minor
	D 11	Small pedestrian crossing island	Pedestrians / cyclists are very close to miving vehicles	Possible	Moderate
	D 12	Footpath narrows due to hand rail and light post	May cause congestion and a collision	Likely	Minor
	D 13	Broken footpath at entrance to narrow bridge footpath	Pedestrians / cyclists are very close to vehicles	Possible	Severe
	D 14	Footpath narrows and kerb dissapears	Pedestrians / cyclists are very close to vehicles	Possible	Severe
	D 15	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	D 16	No barrier between shop car park and footpath	Cyclist may get hit by vehicle	Possible	Minor
	D 17	Footpath narrows due to cuts in pavement	Cyclist may hit uneven surface	Possible	Minor
	D 18	Footpath narrows due to powerline post and services lid (various locations)	Cyclist may hit post or service lid	Possible	Minor
	D 19	Footpath narrows due to bus stop (various locations)	May cause congestion and a collision	Likely	Minor
	D 20	Footpath narrows due to cuts in pavement	Cyclist may hit uneven surface	Possible	Minor
	D 21	Footpath narrows due to sign post in pavement (various locations)	Cyclist may hit sign post	Likely	Minor
	D 22	Lack of pedestrian crossing infrastructure	Cyclist has to check with truck driver before crossing	Possible	Minor
	D 23	Footpath narrows due to powerline post (various locations)	Cyclist may hit powerline post	Likely	Minor
	D 24	Footpath narrows due to over grown plants (various locations)	May cause congestion and a collision	Likely	Minor
	D 25	Footpath narrows due to over grown plants and post	May cause congestion and a collision	Likely	Minor
	D 26	Footpath narrows due to over grown plants and post	May cause congestion and a collision	Possible	Minor
	D 27	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	D 28	Footpath dissapears and narrows	Cyclist may loose traction over dirt, cause congestion or colision	Likely	Moderate
	D 29	Narrow bridge footpath	Pedestrians / cyclists are very close to vehicles	Possible	Moderate
	D 30	Light post in the middle of narrow footpath next to busy road	Cyclist may fall off trying to move around light pole	Possible	Major

			Potential Consequences				
			L6	L5	L4	L3	L2
			Minor injuries or discomfort. No medical treatment or measureable physical effects.	Injuries or illness requiring medical treatment. Temporary impairment.	Injuries or illness requiring hospital admission.	Injury or illness resulting in permanent impairment.	Fatality
			Not Significant	**Minor**	**Moderate**	**Major**	**Severe**
Likelihood	Expected to occur regularly under normal circumstances	**Almost Certain**	**Medium**	**High**	**Very High**	**Very High**	**Very High**
	Expected to occur at some time	**Likely**	**Medium**	**High**	**High**	**Very High**	**Very High**
	May occur at some time	**Possible**	**Low**	**Medium**	**High**	**High**	**Very High**
	Not likely to occur in normal circumstances	**Unlikely**	**Low**	**Low**	**Medium**	**Medium**	**High**
	Could happen, but probably never will	**Rare**	**Low**	**Low**	**Low**	**Low**	**Medium**

SAFETY AUDIT - CANAL ROAD

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Address
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Phase
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Scale & Orientation
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Revision Log

Rev	Revision Description	By/Checked	Date
A	For Consultation	LP/DK	8/3/17

Sheet Title
Audit - Canal Road

Sheet No.
01-04-01

Rev
A

SAFETY AUDIT - CANAL ROAD

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Sheet Title
Audit - Canal Road

Sheet No.
01-04-02

Rev
A

SAFETY AUDIT - CANAL ROAD

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Sheet Title
Audit - Canal Road

Sheet No. 01-04-03

Rev A

SAFETY AUDIT - CANAL ROAD

Route Quality - Excellent
Route Quality - Good
Route Quality - Average
Route Quality - Bad
Route Quality - Terrible
A # Audit Code

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01-04-05

Rev
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SAFETY AUDIT - CANAL ROAD

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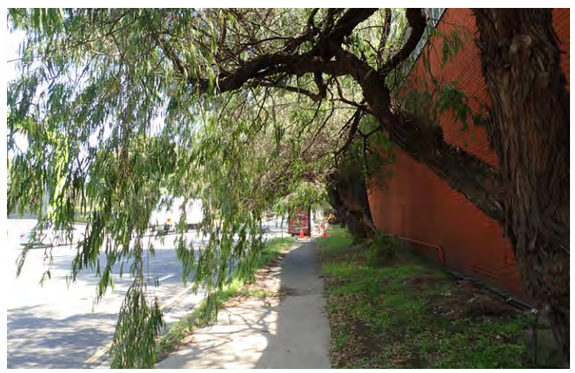

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SAFETY AUDIT - CANAL ROAD

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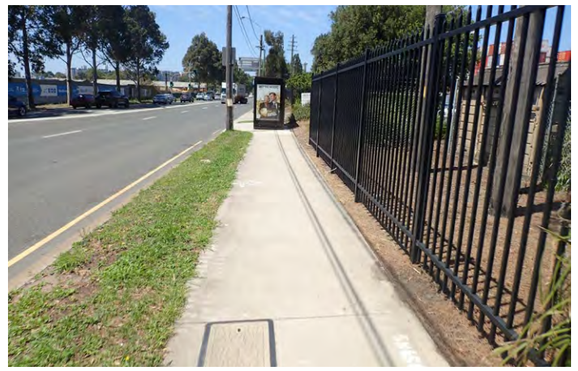

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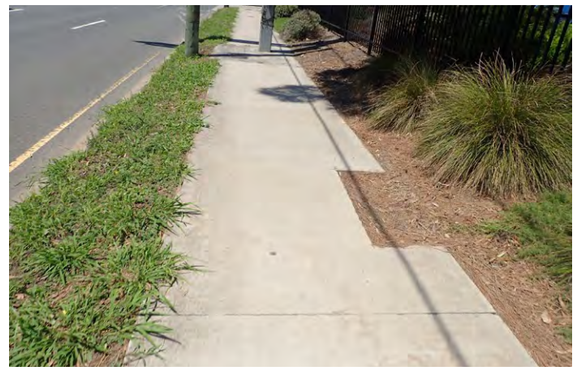

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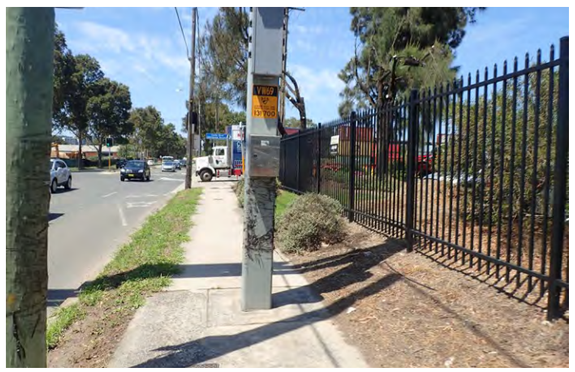

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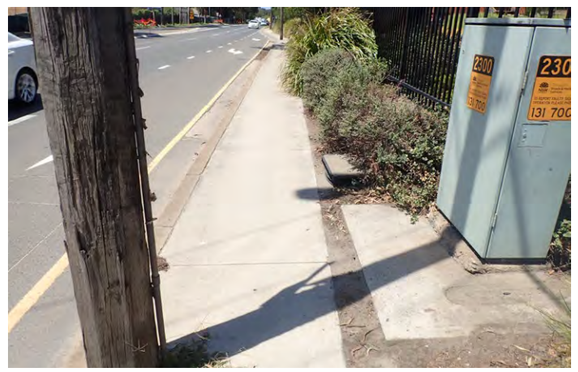

D 23

D 24

SAFETY AUDIT - CANAL ROAD

D 25

D 26

D 27

D 28

D 29

D 30

D 31

SAFETY AUDIT - SYDNEY PARK

Site	Code	Description	Safety issue	Probability	Severity of consequence
Sydney Park					
	E 1	Changes in pavement materials and no barrier infront of dropoff	May cause congestion and a collision	Likely	Minor
	E 2	Bollards are hard to see in low light	Cyclist may hit bollards	Possible	Minor
	E 3	Steep hill	Cyclist may loose control down hill	Unlikely	Minor
	E 4	Uneven surface due to tree roots (various locations)	Cyclist may hit uneven surface	Possible	Minor
	E 5	New path recently constructed	N/A	N/A	N/A

			Potential Consequences				
			L6	L5	L4	L3	L2
			Minor injuries or discomfort. No medical treatment or measureable physical effects.	Injuries or illness requiring medical treatment. Temporary impairment.	Injuries or illness requiring hospital admission.	Injury or illness resulting in permanent impairment.	Fatality
			Not Significant	**Minor**	**Moderate**	**Major**	**Severe**
Likelihood	Expected to occur regularly under normal circumstances	**Almost Certain**	**Medium**	**High**	**Very High**	**Very High**	**Very High**
	Expected to occur at some time	**Likely**	**Medium**	**High**	**High**	**Very High**	**Very High**
	May occur at some time	**Possible**	**Low**	**Medium**	**High**	**High**	**Very High**
	Not likely to occur in normal circumstances	**Unlikely**	**Low**	**Low**	**Medium**	**Medium**	**High**
	Could happen, but probably never will	**Rare**	**Low**	**Low**	**Low**	**Low**	**Medium**

SAFETY AUDIT - SYDNEY PARK

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Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 2000 @ A3

0 2 4 6 8 10 M

All dimensions are in millimetres unless otherwise noted. Do not scale from this drawing.

Revision Log

Rev	Revision Description	By/Checked	Date
A	For Consultation	LP/DK	8/3/17

Sheet Title
Audit - Sydney Park

Sheet No. 01-05-01

Rev A

SAFETY AUDIT - SYDNEY PARK

MCGREGOR COXALL

McGregor Coxall Pty Ltd. ACN 082 334 290
Sydney: +61 2 9977 3853
Melbourne: +61 3 9999 1608
sydney@mcgregorcoxall.com
melbourne@mcgregorcoxall.com
Web: www.mcgregorcoxall.com

Client
Roads and Maritime Service

Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 2000 @ A3

0 2 4 6 8 10 M

All dimensions are in millimetres unless otherwise noted. Do not scale from this drawing.

Revision Log

Rev	Revision Description	By/Checked	Date
A	For Consultation	LP/DK	8/3/17

Sheet Title
Audit - Sydney Park

Sheet No. 01-05-03

Rev A

SAFETY AUDIT - SYDNEY PARK

E 1

E 2

E 3

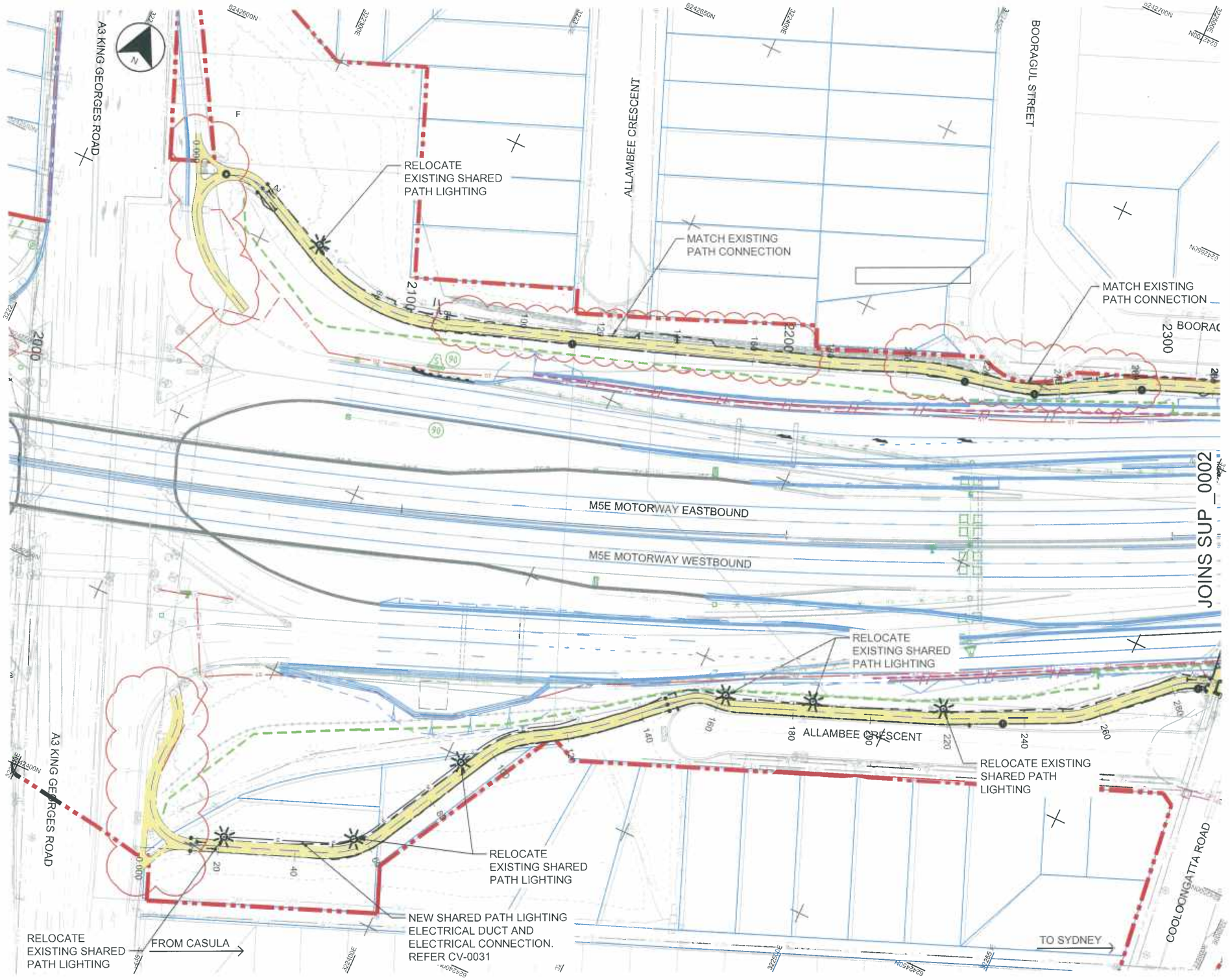
E 4

MCGREGOR
COXALL

APPENDIX 05

M5 Linear Park – Shared Path Upgrades

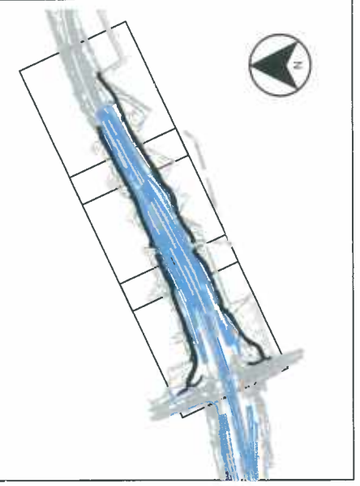
Cad ref C:\pwworkng\aecom_au\scheelingsb\dms303116\WCX2-IFD-20-2100-CV-1101.dwg Last modified: 14 Sep 15 - 15:46



LEGEND

- SHARED PATH CONTROL LINE
- 100 CONTROL LINE CHAINAGE
- PROJECT BOUNDARY
- CADASTRAL BOUNDARY
- DEPOSITED PLAN (DP) BOUNDARY
- NEW NOISE WALL
- SHARED PATH DESIGN
- KING GEORGE RD INTERCHANGE UPGRADE DESIGN
- SURVEY
- SHARED PATH
- RELOCATED SHARED USER PATH LIGHTING

KEYPLAN



FOR INFORMATION ONLY

CLIENT	DESIGNER		SCALES		
Transport Roads & Maritime Services	AECOM Australia Pty Ltd A B N 20 093 846 925		5 0 5 10 15 20m 1 : 1000 FULL SIZE A3		WESTCONNEX M5 KING GEORGES RD INTERCHANGE UPGRADE SHARED PATH ALIGNMENT PLAN - SHEET 1

INFORMATION DOCUMENT

DOCUMENT NO

PROJECT NO - DOC TYPE - PROJECT PHASE - DISCIPLINE - DATE (YYYYMMDD) - DESCRIPTION:

WCX2-IFD-20-2100-CV-20150814_SUP_0001

Cad ref: C:\pwworking\aecom_au\scheelingsb\dms30316\WCX2-IFD-20-2100-CV-1102.dwg Last modified: 14 Sep 15 - 15:48

BOORAGUL STREET

COOLOONGATTA ROAD

ELOUERA STREET

KIRRANG STREET

CT 2333,428

RELOCATE EXISTING SHARED PATH LIGHTING

M5E MOTORWAY EASTBOUND

M5E MOTORWAY WESTBOUND

MATCH EXISTING DRAINAGE PIT LEVELS FROM CHAINAGE 70 TO 150

RELOCATE EXISTING SHARED PATH LIGHTING

MATCH EXISTING PATH CONNECTION LEVELS

FROM CASULA

TO SYDNEY

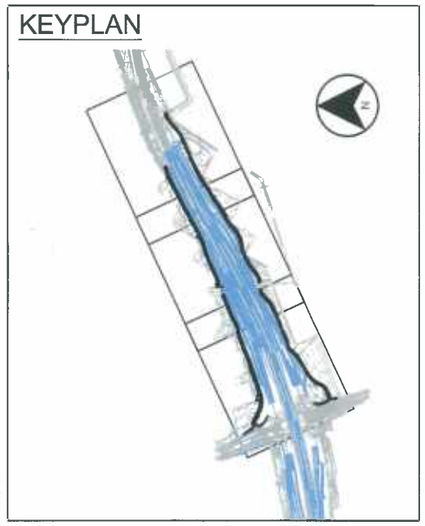
JOINS SUP_0001

JOINS SUP_0003

LEGEND

- SHARED PATH CONTROL LINE
- 100 CONTROL LINE CHAINAGE
- PROJECT BOUNDARY
- CADASTRAL BOUNDARY
- DEPOSITED PLAN (DP) BOUNDARY
- NEW NOISE WALL
- SHARED PATH DESIGN
- KING GEORGE RD INTERCHANGE UPGRADE DESIGN
- SURVEY
- SHARED PATH
- RELOCATED SHARED USER PATH LIGHTING

KEYPLAN



FOR INFORMATION ONLY

CLIENT: Transport Roads & Maritime Services

DESIGNER: AECOM Australia Pty Ltd A.B.N. 20 093 846 925

SCALES: 5 0 5 10 15 20m — 1 | 1000 FULL SIZE A3

WESTCONNEX M5 KING GEORGES RD INTERCHANGE UPGRADE SHARED PATH ALIGNMENT PLAN - SHEET 2

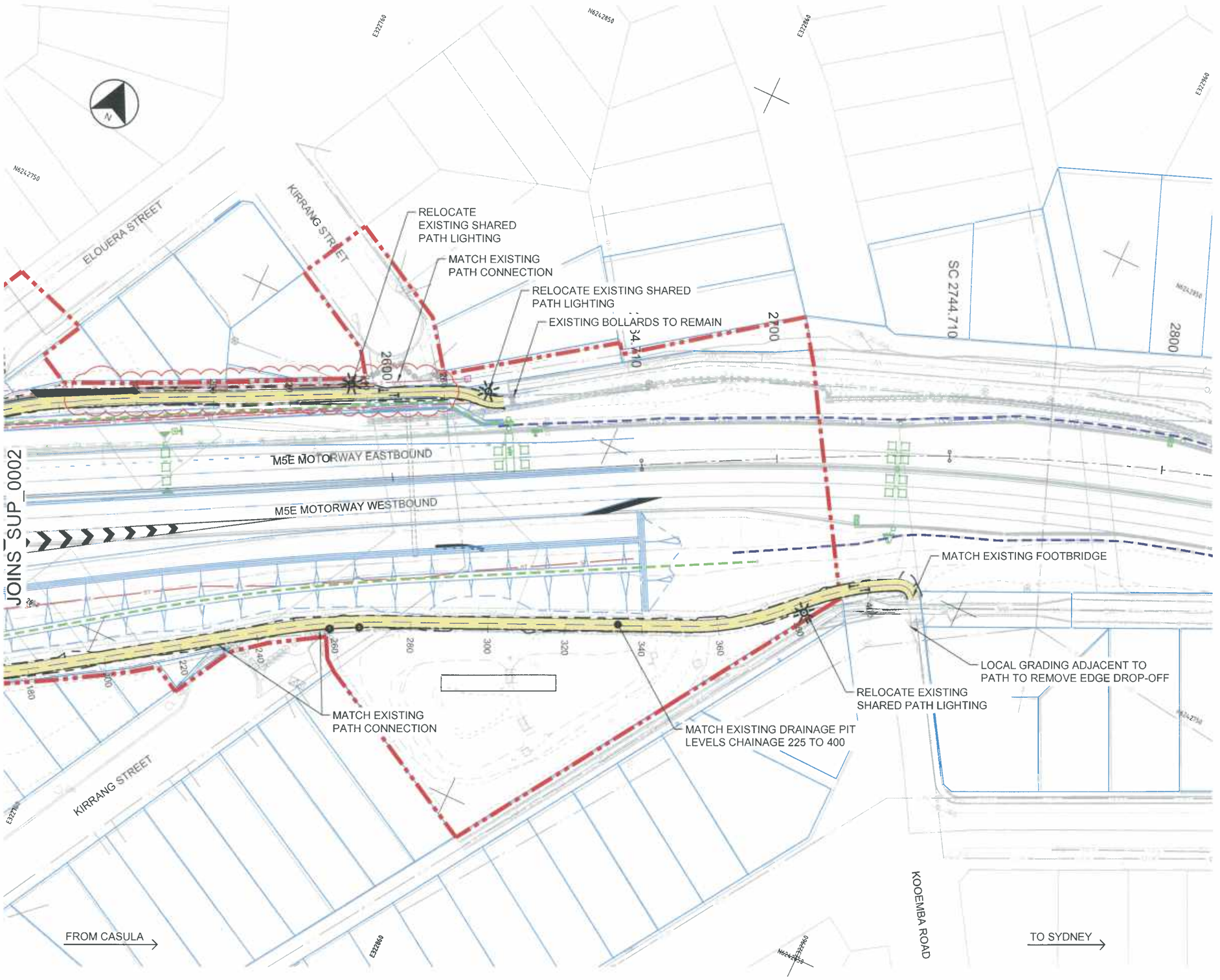
INFORMATION DOCUMENT

DOCUMENT NO

PROJECT NO - DOC TYPE - PROJECT PHASE - DISCIPLINE - DATE (YYYYMMDD) - DESCRIPTION.

WCX2-IFD-20-2100-CV-20150914_SUP_0002

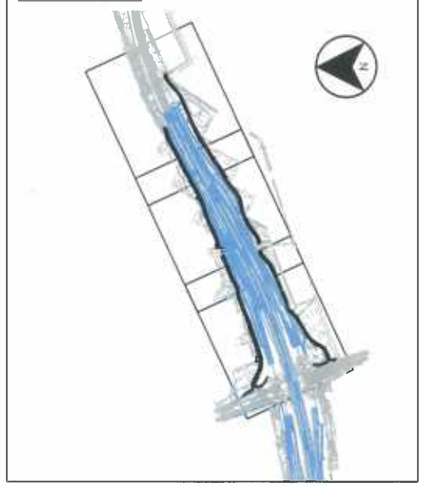
Cad ref: C:\pwworking\aecom_au\scheelings\dms30316\WCX2-IFD-20-2100-CV-1103.dwg Last modified: 14 Sep 15 - 15:44



LEGEND

- SHARED PATH CONTROL LINE
- 100 CONTROL LINE CHAINAGE
- PROJECT BOUNDARY
- CADASTRAL BOUNDARY
- DEPOSITED PLAN (DP) BOUNDARY
- NEW NOISE WALL
- SHARED PATH DESIGN
- KING GEORGE RD INTERCHANGE UPGRADE DESIGN
- SURVEY
- SHARED PATH
- RELOCATED SHARED USER PATH LIGHTING

KEYPLAN



FOR INFORMATION ONLY

CLIENT	DESIGNER		SCALES		
Transport Roads & Maritime Services	AECOM Australia Pty Ltd A.B.N. 20 093 846 925		5 0 5 10 15 20m 1 : 1000 FULL SIZE A3		WESTCONNEX M5 KING GEORGES RD INTERCHANGE UPGRADE SHARED PATH ALIGNMENT PLAN - SHEET 3

INFORMATION DOCUMENT

DOCUMENT NO

PROJECT NO - DOC TYPE - PROJECT PHASE - DISCIPLINE - DATE (YYYYMMDD) - DESCRIPTION

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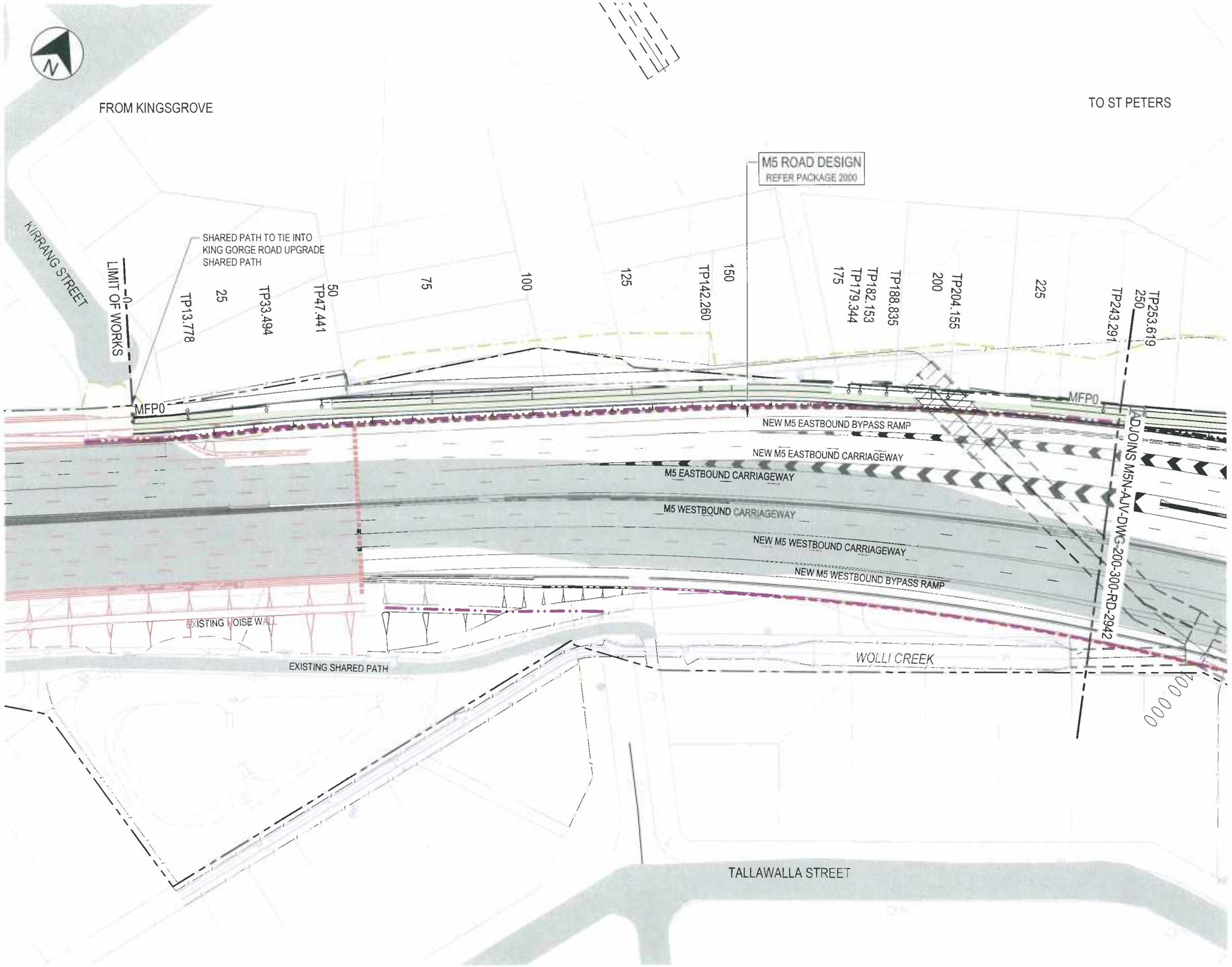

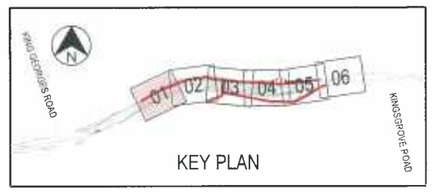

KEY PLAN

NOT FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

50mm ON A3 SIZE ORIGINAL

DRAWING FILE LOCATION \ NAME					PROJECT BREAKDOWN STRUCTURE
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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL	SCALES ON A3 SIZE DRAWING
M5N-AJV-MOD-200-300-RD-WESTERN SUP_A.txt	A	22.04.2016	DEVELOPED CONCEPT DESIGN	M.P	SCALE 1:1000 10 0 10 20 AT A3
					CO-ORDINATE SYSTEM: MGA ZONE 56 HEIGHT DATUM: AHD

WestConnex New M5

CPB CONTRACTORS | DRAGADOS | SAMSUNG C&T | Golder Associates | HASSELL

AJV AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
22/04/2016 9:54:37 AM	mthatcher

	NAME	DATE
TITLE		
DRAWN	C.BROCK	22.04.2016
DRG CHECK	S. BYRNE	22.04.2016
DESIGN	M. JAMES	22.04.2016
DESIGN CHECK	A.GOSBY	22.04.2016
ZONE MANAGER	J. YIP	22.04.2016
DESIGN MANAGER	M.PERCIVAL	22.04.2016

CLIENT

DOCUMENT NUMBER
M5N-AJV-DWG-200-300-RD-2941

WESTCONNEX NEW M5

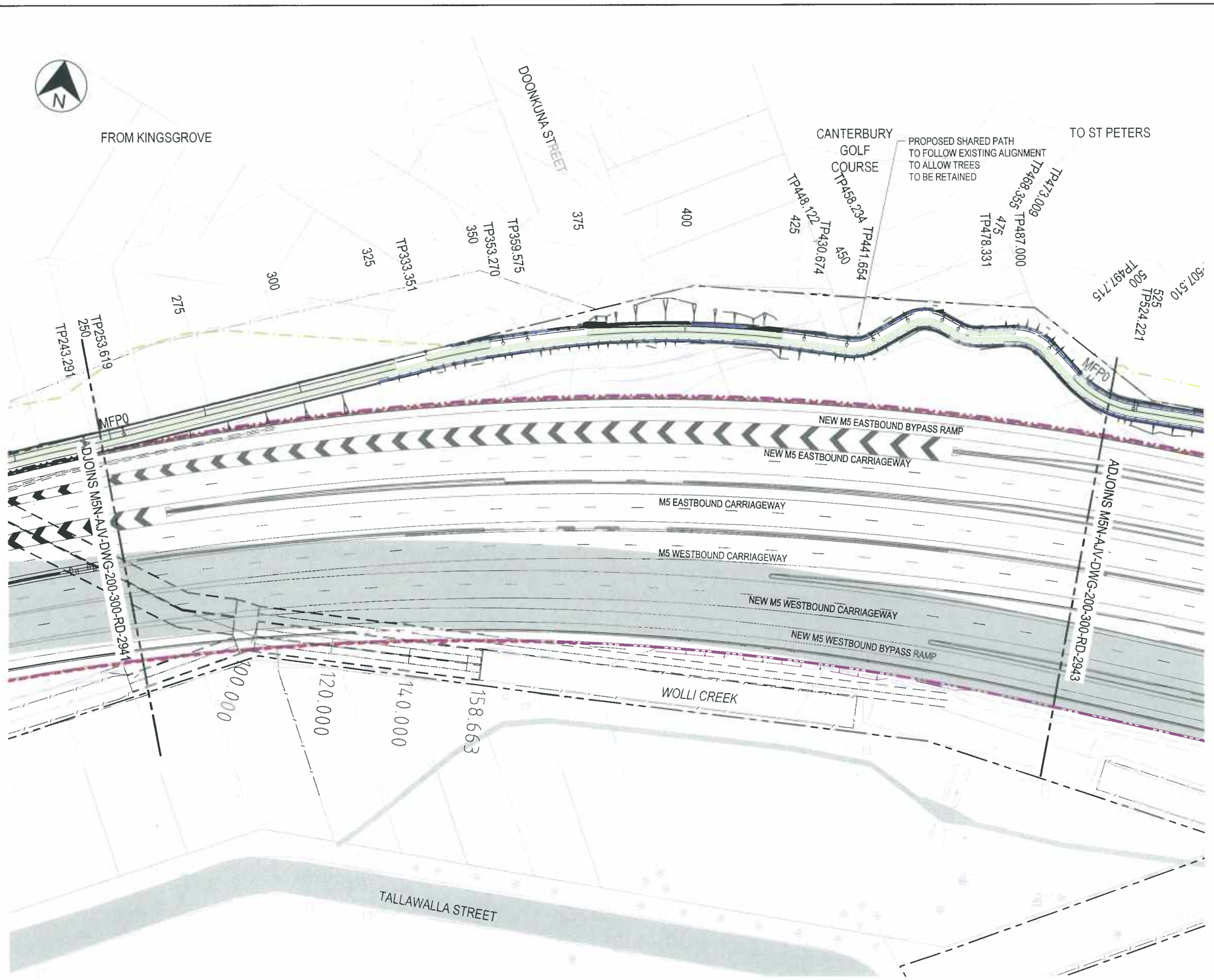
A3

WESTERN INTERCHANGE AND PORTALS
SHARED USE PATH GEOMETRY
PLAN

SHEET 1 OF 6

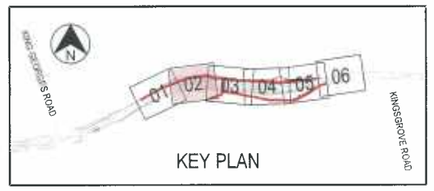
RMS REGISTRATION No.

ISSUE STATUS	EDMS No.	SHEET No.	REV
DEVELOPED CONCEPT DESIGN		RD-2941	A



LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORK BOUNDARY
- SURVEY
- CADASTRAL
- KING GEORGE ROAD UPGRADE (BY OTHERS)
- EXISTING PAVEMENT
- CUT AND COVER STRUCTURE
- SHARED PATH
- MAINLINE TUNNEL
- RETAINING WALL
- NOISE WALL
- MAINTENANCE GATE FOR CROSS CARRIAGEWAY ACCESS
- BOUNDARY FENCE
- CYCLE SAFE BALUSTRADE
- MFPX — CONTROL LINE - SHARED PATH



KEY PLAN

NOT FOR CONSTRUCTION

DRAWING FILE LOCATION \ NAME
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M5N-AJV-MOD-200-300-RD-WESTERN SUP_A.txt	A	22.04.2016	DEVELOPED CONCEPT DESIGN	M.P

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-200-300-RD-2010

SCALES ON A3 SIZE DRAWING
SCALE 1:1000 10 0 10 20 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

CPB CONTRACTORS · DRAGADOS · SAMSUNG · SAMSUNG C&T · Golder Associates · aJJV · HASSELL

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME: 22/04/2016 9:55:06 AM
PLOT BY: mthatcher

TITLE	NAME	DATE
DRAWN	C.BROCK	22.04.2016
DRG CHECK	S. BYRNE	22.04.2016
DESIGN	M. JAMES	22.04.2016
DESIGN CHECK	A.GOSBY	22.04.2016
ZONE MANAGER	J. YIP	22.04.2016
DESIGN MANAGER	M.PERCIVAL	22.04.2016

CLIENT

DOCUMENT NUMBER
M5N-AJV-DWG-200-300-RD-2942

WESTCONNEX NEW M5

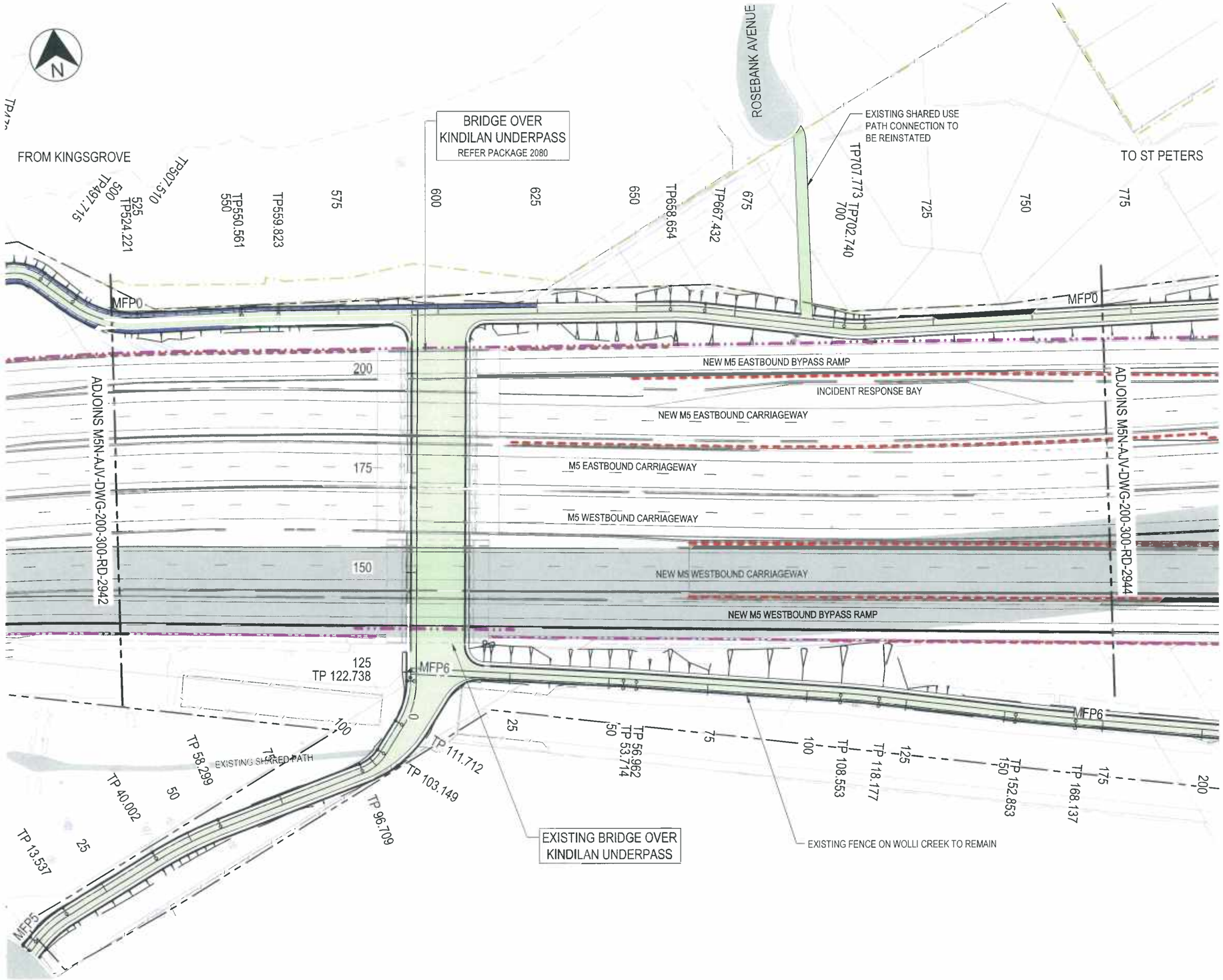
A3

WESTERN INTERCHANGE AND PORTALS
SHARED USE PATH GEOMETRY
PLAN

SHEET 2 OF 6

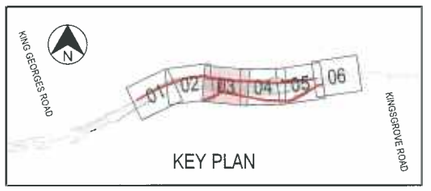
RMS REGISTRATION No.

ISSUE STATUS	EDMS No.	SHEET No.	REV
DEVELOPED CONCEPT DESIGN		RD-2942	A



LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORK BOUNDARY
- SURVEY
- CADASTRAL
- KING GEORGE ROAD UPGRADE (BY OTHERS)
- EXISTING PAVEMENT
- CUT AND COVER STRUCTURE
- SHARED PATH
- MAINLINE TUNNEL
- RETAINING WALL
- NOISE WALL
- MAINTENANCE GATE FOR CROSS CARRIAGEWAY ACCESS
- BOUNDARY FENCE
- CYCLE SAFE BALUSTRADE
- MFPX — CONTROL LINE - SHARED PATH



KEY PLAN

NOT FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING: M5N-AJV-MOD-200-300-RD-WESTERN SUP_A.txt

REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
A	22.04.2016	DEVELOPED CONCEPT DESIGN	M.P

PROJECT BREAKDOWN STRUCTURE: M5N-AJV-DPK-200-300-RD-2010

SCALES ON A3 SIZE DRAWING: SCALE 1:1000 (10 0 10 20) AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56 — HEIGHT DATUM: AHD

WestConnex New M5

CPB CONTRACTORS · DRAGADOS · SAMSUNG · SAMSUNG C&T · Golder Associates · aJJV · HASSELL

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME: 22/04/2016 9:55:26 AM — PLOT BY: mthatcher

TITLE	NAME	DATE
DRAWN	C.BROCK	22.04.2016
DRG CHECK	S. BYRNE	22.04.2016
DESIGN	M. JAMES	22.04.2016
DESIGN CHECK	A.GOSBY	22.04.2016
ZONE MANAGER	J. YIP	22.04.2016
DESIGN MANAGER	M.PERCIVAL	22.04.2016

CLIENT

DOCUMENT NUMBER: M5N-AJV-DWG-200-300-RD-2943

WESTCONNEX NEW M5

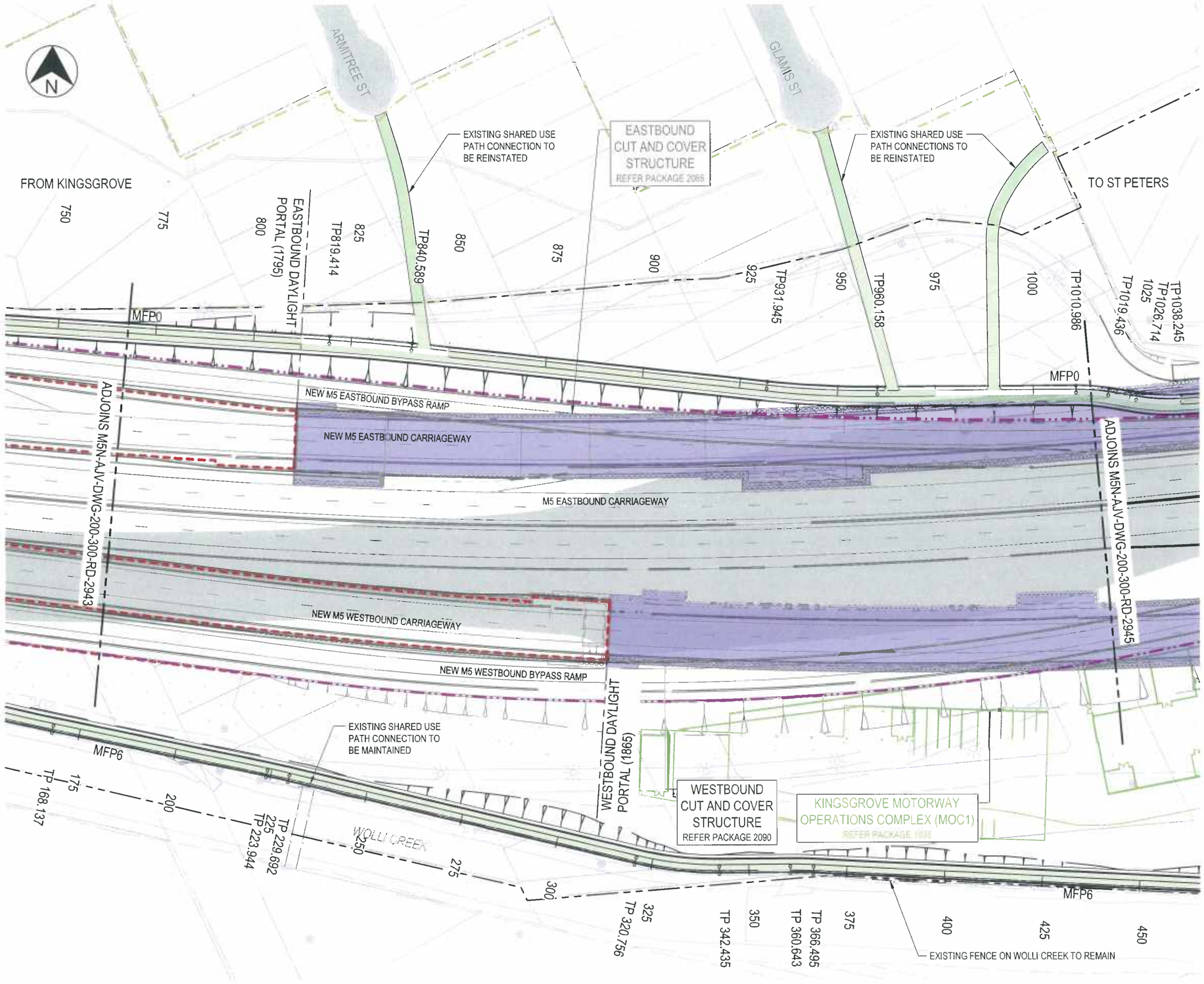
A3

WESTERN INTERCHANGE AND PORTALS
SHARED USE PATH GEOMETRY
PLAN

SHEET 3 OF 6

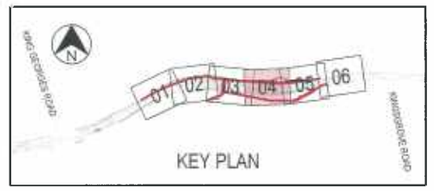
RMS REGISTRATION No.

ISSUE STATUS	EDMS No.	SHEET No.	REV
DEVELOPED CONCEPT DESIGN		RD-2943	A



LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORK BOUNDARY
- SURVEY
- CADASTRAL
- KING GEORGE ROAD UPGRADE (BY OTHERS)
- EXISTING PAVEMENT
- CUT AND COVER STRUCTURE
- SHARED PATH
- MAINLINE TUNNEL
- RETAINING WALL
- NOISE WALL
- MAINTENANCE GATE FOR CROSS CARRIAGEWAY ACCESS
- BOUNDARY FENCE
- CYCLE SAFE BALUSTRADE
- MFPX — CONTROL LINE - SHARED PATH



NOT FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED 50mm ON A3 SIZE ORIGINAL

DRAWING FILE LOCATION \ NAME
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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
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PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-200-300-RD-2010

SCALES ON A3 SIZE DRAWING
SCALE 1.1000 10 0 10 20 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME: 22/04/2016 9:55:45 AM
PLOT BY: mthatcher

TITLE	NAME	DATE
DRAWN	C.BROCK	22.04.2016
DRG CHECK	S. BYRNE	22.04.2016
DESIGN	M. JAMES	22.04.2016
DESIGN CHECK	A.GOSBY	22.04.2016
ZONE MANAGER	J. YIP	22.04.2016
DESIGN MANAGER	M.PERCIVAL	22.04.2016

CLIENT

DOCUMENT NUMBER
M5N-AJV-DWG-200-300-RD-2944

WESTCONNEX NEW M5

A3

WESTERN INTERCHANGE AND PORTALS
SHARED USE PATH GEOMETRY
PLAN

SHEET 4 OF 6

RMS REGISTRATION No.

ISSUE STATUS	EDMS No.	SHEET No.	REV
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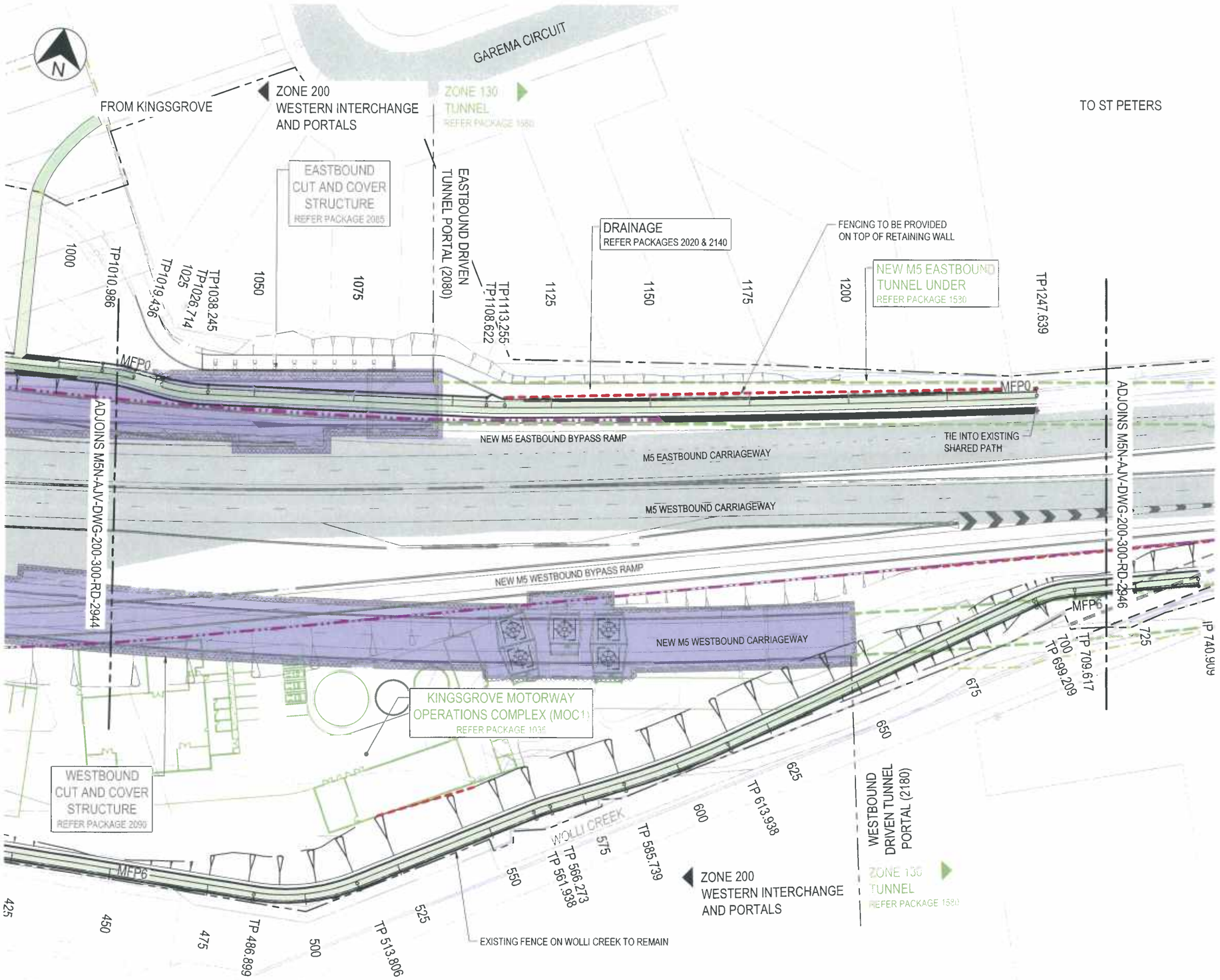
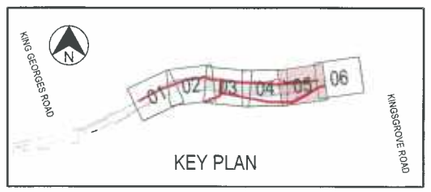


LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORK BOUNDARY
- SURVEY
- CADASTRAL
- KING GEORGE ROAD UPGRADE (BY OTHERS)
- EXISTING PAVEMENT
- CUT AND COVER STRUCTURE
- SHARED PATH
- MAINLINE TUNNEL
- RETAINING WALL
- NOISE WALL
- MAINTENANCE GATE FOR CROSS CARRIAGEWAY ACCESS
- BOUNDARY FENCE
- CYCLE SAFE BALUSTRADE
- MFPX — CONTROL LINE - SHARED PATH



KEY PLAN

NOT FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED
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DRAWING FILE LOCATION \ NAME
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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING
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REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
A	22.04.2016	DEVELOPED CONCEPT DESIGN	M.P

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-200-300-RD-2010

SCALES ON A3 SIZE DRAWING
SCALE 1:1000 10 0 10 20 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

CPB CONTRACTORS · DRAGADOS · SAMSUNG C&T · Golder Associates · HASSELL

AJJV AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME: 22/04/2016 9:56:04 AM
PLOT BY: mthatcher

TITLE	NAME	DATE
DRAWN	C.BROCK	22.04.2016
DRG CHECK	S. BYRNE	22.04.2016
DESIGN	M. JAMES	22.04.2016
DESIGN CHECK	A.GOSBY	22.04.2016
ZONE MANAGER	J. YIP	22.04.2016
DESIGN MANAGER	M.PERCIVAL	22.04.2016

CLIENT

DOCUMENT NUMBER
M5N-AJV-DWG-200-300-RD-2945

WESTCONNEX NEW M5

A3

WESTERN INTERCHANGE AND PORTALS
SHARED USE PATH GEOMETRY
PLAN

SHEET 5 OF 6

RMS REGISTRATION No.

ISSUE STATUS	EDMS No.	SHEET No.	REV
DEVELOPED CONCEPT DESIGN		RD-2945	A