



Brisbane Central Business District Bicycle User Group

CBD BUG

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The Right Honourable Cr Graham Quirk
Lord Mayor of Brisbane
GPO Box 2287
BRISBANE QLD 4001

Via email to: lord.mayor@brisbane.qld.gov.au

Dear Lord Mayor

I write to you on behalf of Brisbane Central Business District Bicycle User Group (CBD BUG) members following the recent announcement regarding changes to the Brisbane Metro project. The CBD BUG would like to thank your administration for reviewing the design after public consultation and ensuring the needs of people riding bikes are now incorporated into the repurposed Victoria Bridge, which is viewed as a very positive development.

However, the CBD BUG strongly holds the view that significantly more can be done in the project's design to make conditions safer for people riding bikes in the CBD and Melbourne St precincts. The CBD BUG is very focused to ensure that public funds are spent as efficiently as possible and this includes ensuring cyclist infrastructure needs are appropriately incorporated into projects to reduce the requirement for expensive retro fitting works. Accordingly, the following sections of this letter detail design improvements we hold as essential for incorporation into the Brisbane Metro's plan.

CBD precinct

The CBD BUG has noted that currently the bikelanes across the Victoria Bridge terminate at North Quay. The CBD BUG would like to see these lanes continue to George St via North Quay and Adelaide St. The CBD BUG believes this link should be provided in the form of protected bi-directional bikelanes, similar to what is proposed across Victoria Bridge. This will provide an important link to the CBD road network without requiring people on bicycle to travel through Reddacliff Place. Due to Metro and other buses being provided with the priority along this corridor, traffic lights for cycle traffic could be sequenced inline providing a highly desirable travel path for cycle traffic, reducing the demand for people on bicycle to travel through Reddacliff Place.

The CBD BUG notes that substantial works will be occurring to North Quay to facilitate Metro. We currently understand that the ramp linking the Bicentennial Bikeway to North Quay, located between Adelaide and Queen Streets, is not included in the scope of works. The existing ramp provides a very important link between the Bicentennial Bikeway and the CBD, with extensive use despite it not being compliant with AS1428.1. The CBD BUG sees this project as a prime opportunity to improve the accessibility and compliance of this ramp, avoiding a costly retro fit in the near future should regulations regarding accessible infrastructure be tightened.

Melbourne Street precinct

As stated above the CBD BUG is very pleased that BCC has reassessed the Metro design in the “Draft Design Report – Consultation Outcomes” and has incorporated dedicated bikelanes into the design across the Victoria Bridge. It is disappointing, however, that this safe facility disappears just before the very busy bus stop on Melbourne Street (within the project envelope), when safe and efficient treatments for bicycle paths near bus stops are well known and are accepted best practice in many parts of Australia, the United States of America, the United Kingdom, New Zealand, and of course the Netherlands (to name just a few).

As heavy vehicles, buses pose a particular danger to cyclists, with trucks and buses being involved in 22-26% of cyclist fatality crashes (according to BITRE Australian cycling safety: casualties, crash types and participation levels). The currently proposed design poses a particular risk because it forces buses to cross the cycle path twice, in dark and shadowy area, in what is anticipated to be an extremely busy bus stop and cycle route. Furthermore, the current design forces cyclists to ride between moving buses, and buses which may pull out at any second.

Current West End bus timetables indicate that at least 31 to 32 bus services per hour will use these stops during peak periods. The CBD BUG fears that these numbers maybe as high as 61 to 76, should services which currently terminate or commence at the Cultural Centre continue to do so (See Tables 1, 2, 3 and 4 for details). Even at the low end of these estimates, cyclist and bus interactions will be frequent. It should be also noted that the current design from the “Draft Design Report – Consultation Outcomes” indicates an anticipation of extremely heavy use, through the provision of

1. Indented bus bay to allow for buses to “leap frog” overtake when needed
2. Indent length sufficient for three standard 12.5m rigid buses.

From the CBD BUG’s review of relevant planning documents it is noted that BCC City Plan 2014 list Melbourne St as a “Secondary Cycle Route” (Figure 12) and is listed as part of the Transport and Main Roads “Principal Cycle Network Plan - 2017” (Figure 13) as a “Priority A” route suggesting it be delivered within 10 years of 2017 (Figure 14). The current design is not suitable for bicycle riders of all ages and abilities, and may become a barrier in an otherwise high quality route between the rapidly growing population in West End, and the CBD; as such the current design is not in-line with the stated priority in either of these plans.

The CBD BUG has taken onsite measurements of between the Railway Bridge abutments which provides an opening of ≈27m, and has used these as the bases of three alternative design proposals. As a point of reference, Figure 2 represents in section/elevation of BCC’s current proposal (note the highly dangerous and uncomfortable positioning of people on bicycles between stationary and moving buses).

The first alternative is to simply extend the protected bi-directional cycle track along the north west side of Melbourne Street, to Merivale St intersection (or even further), as shown in Figures 1 & 3. This design would not take up any more space than the current design (and could even take up slightly less), and has the benefit that high-volume pedestrian movements between the surface bus stops and South Bank, South Brisbane Station or Cultural Centre Station would not have to cross the cycle path. This design would protect cyclists from buses at this busy stop.

A second alternative identified by the CDB BUG is to provide two uni-directional cycle paths behind the bus stops. This single-lane design provides even less of a barrier for pedestrians to cross, and maximises cyclists use of the proposed scramble crossing at Grey Street, so that they don’t have to cross Melbourne Street further up. Although likely requiring slightly more space than the previously outlined alternative, this should still take up no more space than the current plan. This design also protects cyclists from buses at this busy stop.

A third alternative is for the project designers to re-consider the need for indented bus stops at this stop. If terminating and commencing buses can be eliminated from this stop (or routed through the busway tunnel) then it is likely that every single bus will need to stop. If every bus is stopping, then the need for buses to overtake can be effectively eliminated, and ample extra space can be made available for protected bicycle routes and pedestrians in any configuration.

The CBD BUG acknowledges that some people see these types of bus stop designs as posing an undue risk to pedestrians. However available case studies, research, and guidelines indicate that the risk of conflict between pedestrian & bicycle traffic is minor (especially when compared to risk posed by buses). An example is in London in front of "St Thomas Hospital" (Figure 7) where a YouTube video (<https://youtu.be/xTotVUOopwg>) clearly shows how effective and sensible this design is. This design of cycle traffic is also used in Utrecht on Vredenburg (Figure 8). This street is effectively a busway & busway Station. With cycle traffic traveling behind the bus stop the street comfortably transports over 32,000 cycle movements a day. This number is well in excess of expected bicycle rider volumes along Melbourne St.

The CBD BUG would also point out this design is the standard for the City of Sydney Cycleways (Figure 4) as well being within the Qld TMR TN128 "Selection and Design of Cycle Tracks" (Figure 6). It is also noted that this design has been in use for years along Coronation Drive at Toowong (Figure 9) in addition to new construction occurring as part of the Woolloongabba Bikeway along Annerley Rd. Furthermore, it should be noted that even on the very busy and commuter corridor Bicentennial Bikeway, pedestrians are able to easily cross the cyclist path without incident.

With either of these designs, the CBD BUG suggests that the volume of pedestrians crossing the bikeway could be reduced by providing an underpass "concourse" for transfer to the Cultural Centre Station (or South Brisbane Station). This would further facilitate transfers between West End and South East Busway Buses by allowing users to avoid a detour and traffic light at Grey Street.

Summary

In closing the CBD BUG is dedicated to ensuring maximum benefit can be gained through these practical and desirable amendments to the current Brisbane Metro plans. The provision of dedicated protected bikelanes along Adelaide St, North Quay & Melbourne St (as outlined above) when substantial road corridor works are to occur is not only sensible but financially prudent. If Brisbane is ever to be a "New world city", we need to take our lessons from the old world cities (London, Amsterdam), which clearly show that sensible use of road space through the provision of the protected dedicated bikelanes are the most effective infrastructure in encouraging people to ride bikes.

CBD BUG members now look forward to working with BCC so these amendments making bicycle riding safer for people of all ages and abilities are factored into the Brisbane Metro's plans for these precincts.

Yours faithfully



Donald Campbell
Co-convenor
Brisbane CBD BUG
16 January 2019

Cc: Space4Cycling Brisbane
Ms Anne Savage, CEO, Bicycle Queensland
Cr Jonathan Sri - Gabba Ward
Cr Vicki Howard - Central Ward
Trevor Evans MP - Member for Brisbane
Terri Butler MP - Member for Griffith

Table 1													
Existing Services – Culture Centre, P1 (Inbound) – AM Peak													
	West End Services				Commencing BUZ services					Commencing non-BUZ Services			
TIME	CG60	192	196	199	330	333	345	385	444	300	301	306	322
8.01				XX				XX					
8.02										XX			
8.03													
8.04													
8.05	XX	XX											
8.06				XX			XX		XX				
8.07													
8.08													
8.09	XX												
8.10													
8.11				XX									
8.12			XX			XX							
8.13					XX								
8.14	XX												
8.15													
8.16				XX				XX					
8.17										XX			
8.18													
8.19	XX												
8.20													
8.21				XX			XX		XX				
8.22			XX										
8.23													
8.24	XX												
8.25												XX	XX
8.26		XX		XX									
8.27						XX							
8.28	XX				XX								
8.29													
8.30													
8.31				XX				XX					
8.32			XX							XX			
8.33	XX												
8.34													
8.35				XX									
8.36							XX		XX				
8.37											XX		
8.38													
8.39	XX												
8.40				XX									
8.41													
8.42			XX			XX							
8.43					XX								
8.44	XX												
8.45				XX									
8.46								XX					
8.47										XX			
8.48	XX												
8.49													
8.50				XX									
8.51		XX					XX		XX				
8.52			XX										
8.53	XX												
8.54													
8.55				XX									
8.56													
8.57	XX					XX				XX			XX
8.58					XX								
8.59													
9.00													
	12	3	5	12	4	4	4	4	4	5	1	1	2
	32 SERVICES				20 SERVICES					9 SERVICES			
	61 SERVICES												

Table 2													
Existing Services – Culture Centre, P2 (Outbound) – AM Peak													
	West End Services				Terminating BUZ services					Terminating non-BUZ Services			
TIME	CG60	192	196	199	330	333	345	385	444	300	301	306	322
8.01													
8.02				XX			XX						
8.03								XX					
8.04	XX									XX			
8.05													XX
8.06						XX							
8.07			XX	XX			XX						
8.08	XX								XX				
8.09													
8.10													
8.11													
8.12							XX						
8.13	XX			XX				XX					
8.14		XX								XX			
8.15					XX								
8.16													
8.17	XX											XX	
8.18				XX		XX			XX				
8.19													
8.20													
8.21			XX										
8.22	XX												
8.23				XX		XX		XX					
8.24													
8.25					XX						XX		
8.26	XX												
8.27													
8.28						XX							
8.29				XX			XX			XX			
8.30			XX										
8.31	XX												
8.32									XX				
8.33						XX		XX					
8.34				XX	XX								
8.35	XX											XX	
8.36													
8.37													
8.38				XX		XX							
8.39							XX						
8.40													
8.41	XX	XX											
8.42									XX				
8.43			XX			XX		XX					
8.44				XX						XX			
8.45												XX	
8.46													
8.47	XX												
8.48						XX							
8.49				XX	XX		XX						
8.50													
8.51													
8.52	XX		XX						XX				
8.53								XX			XX		
8.54				XX			XX						
8.55													
8.56	XX												
8.57													XX
8.58						XX							
8.59				XX	XX					XX			
9.00							XX						
	12	2	5	12	5	9	8	6	5	5	2	4	1
	31 SERVICES				33 SERVICES					12			
	76 SERVICES												

Table 3													
Existing Services – Culture Centre, P1 (Inbound) – PM Peak													
	West End Services				Commencing BUZ services					Commencing non-BUZ Services			
TIME	CG60	192	196	199	330	333	345	385	444	300	301	306	322
5.01							XX						
5.02	XX				XX					XX			
5.03													
5.04		XX		XX									
5.05													
5.06							XX	XX					
5.07	XX					XX			XX				
5.08			XX										
5.09				XX									
5.10													
5.11							XX						
5.12					XX					XX			
5.13	XX												
5.14				XX									
5.15													
5.16							XX	XX					
5.17						XX			XX				
5.18			XX									XX	
5.19	XX			XX									
5.20													
5.21							XX						
5.22					XX					XX			
5.23	XX												
5.24				XX									
5.25													
5.26								XX					
5.27						XX			XX		XX		
5.28	XX		XX										
5.29				XX									
5.30													
5.31							XX						
5.32					XX								
5.33	XX												
5.34		XX		XX									
5.35													
5.36								XX					
5.37	XX		XX			XX			XX	XX			
5.38													
5.39				XX									XX
5.40													
5.41							XX						
5.42	XX				XX								
5.43													
5.44				XX									
5.45													
5.46	XX							XX					
5.47			XX			XX			XX				
5.48													
5.49				XX									
5.50													
5.51	XX						XX						
5.52					XX					XX			
5.53													
5.54				XX									
5.55												XX	
5.56	XX							XX					
5.57			XX			XX			XX		XX		
5.58				XX									
5.59													
6.00													
	12	2	6	12	6	6	8	6	6	5	2	2	1
	32 SERVICES				32 SERVICES					10 SERVICES			
	74 SERVICES												

Table 4													
Existing Services – Culture Centre, P2 (Outbound) – PM Peak													
	West End Services				Terminating BUZ services					Terminating non-BUZ Services			
TIME	CG60	192	196	199	330	333	345	385	444	300	301	306	322
5.01													
5.02													
5.03	XX												
5.04										XX			
5.05				XX									
5.06													XX
5.07	XX												
5.08								XX					
5.09			XX			XX							
5.10				XX									
5.11		XX											
5.12	XX				XX		XX						
5.13													
5.14													
5.15				XX					XX				
5.16	XX												
5.17													
5.18													
5.19			XX			XX							
5.20				XX									
5.21	XX												
5.22													
5.23								XX					
5.24											XX		
5.25													
5.26	XX												
5.27				XX	XX		XX						
5.28													
5.29			XX			XX							
5.30	XX												
5.31		XX											
5.32				XX						XX			
5.33													
5.34									XX				
5.35	XX												
5.36													
5.37				XX									
5.38								XX					
5.39			XX			XX							
5.40	XX												
5.41												XX	
5.42				XX	XX		XX						
5.43													
5.44													
5.45	XX												
5.46				XX									
5.47													
5.48													
5.49			XX			XX							
5.50	XX												
5.51				XX							XX		
5.52		XX								XX			
5.53								XX					
5.54													
5.55	XX												
5.56				XX					XX				
5.57					XX		XX						
5.58													
5.59			XX			XX							
6.00													
	12	3	6	11	4	6	4	4	3	3	2	1	1
	32 SERVICES				21 SERVICES					7 SERVICES			
	60 SERVICES												

Figure 1 - CBD BUG, Melbourne St Bus Stop concept image

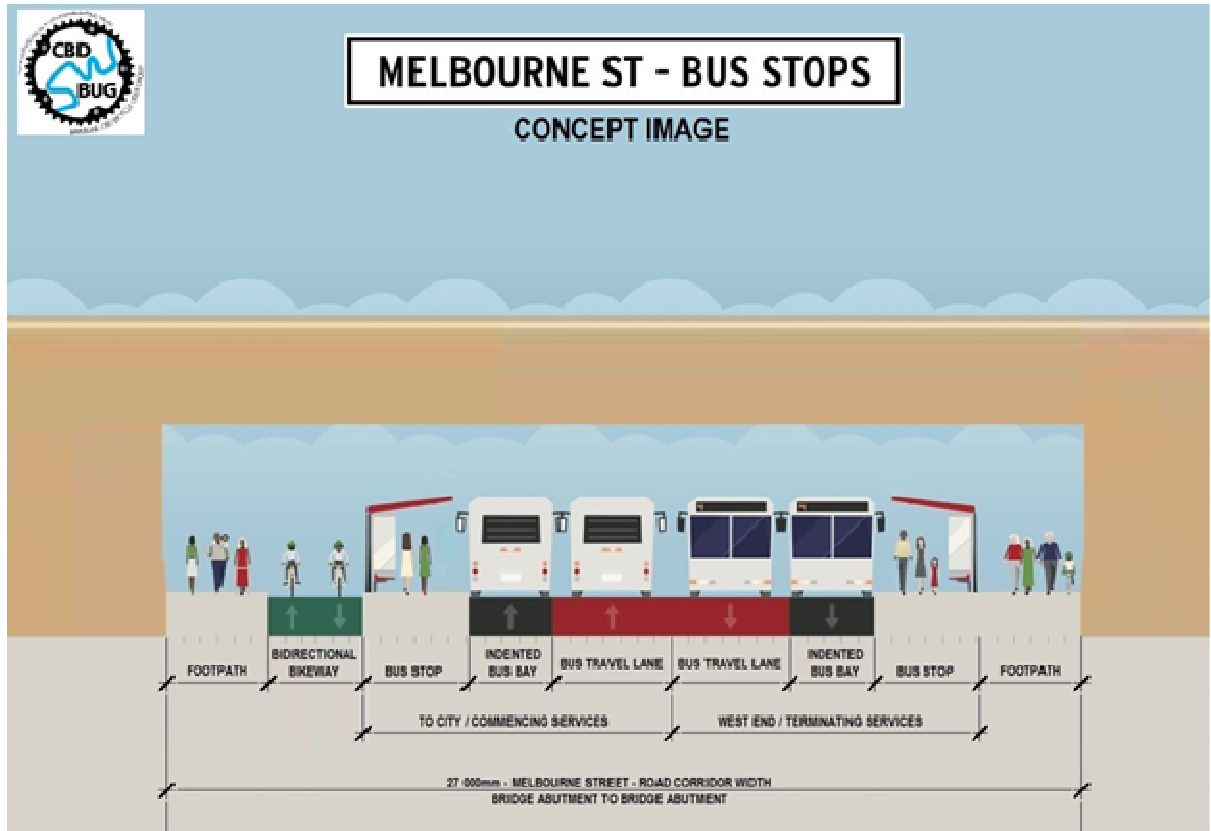


Figure 2 – Melbourne St Bus Stops - Current BCC proposal

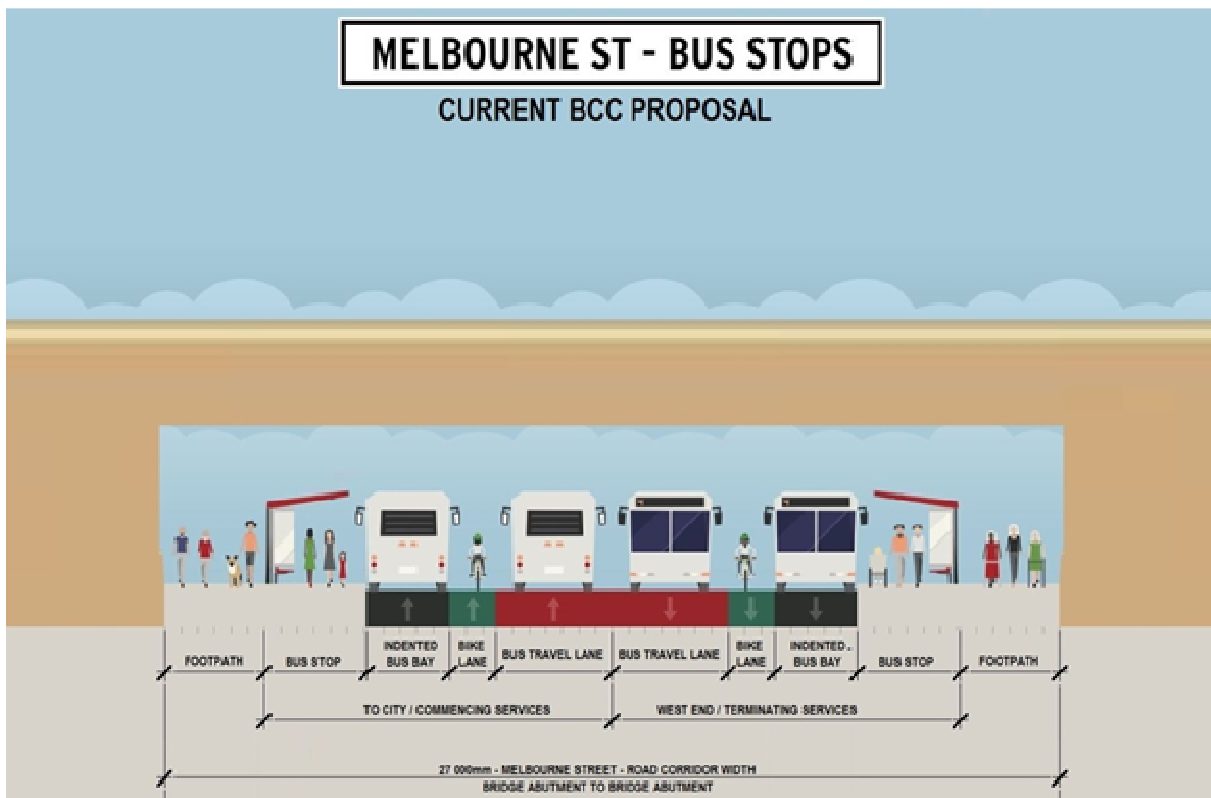
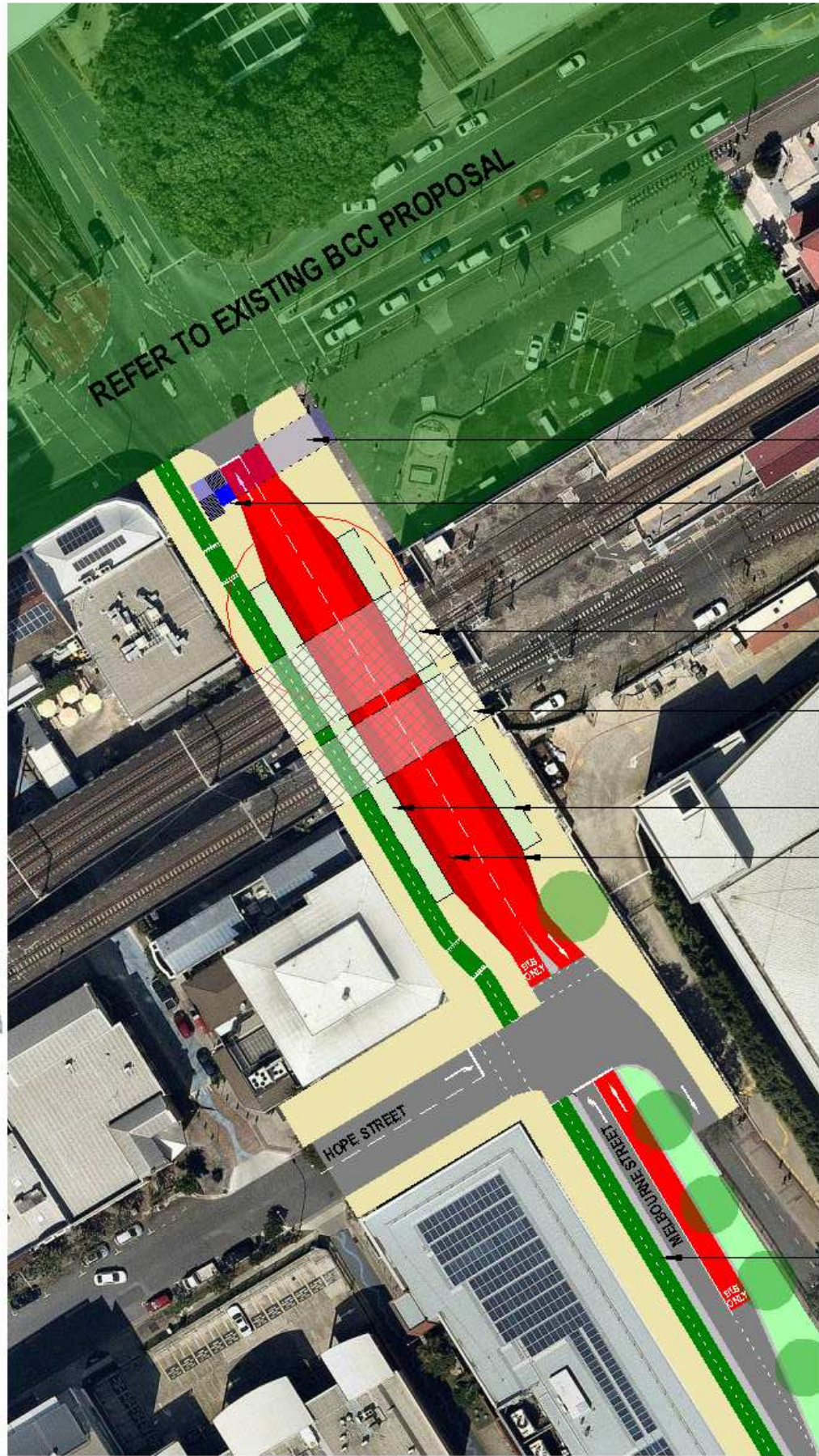


Figure 3 – CBD BUG, Melbourne St Bus Stop concept plan

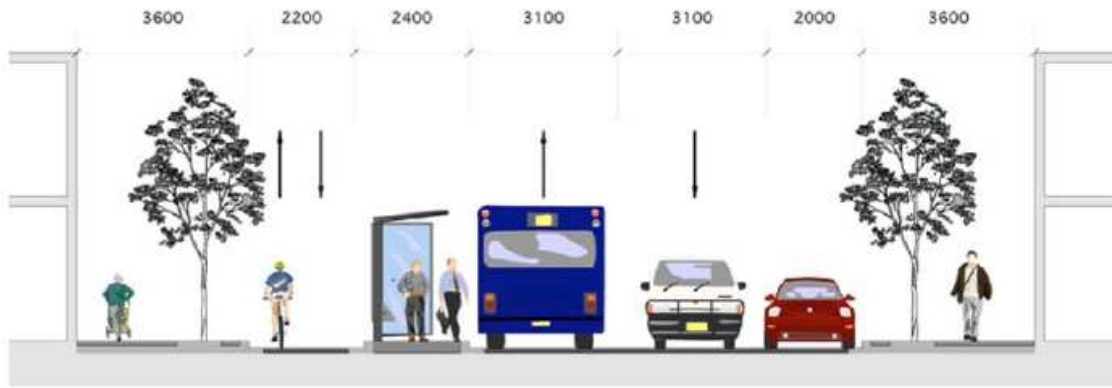
MELBOURNE ST - BUS STOPS CONCEPT PLAN



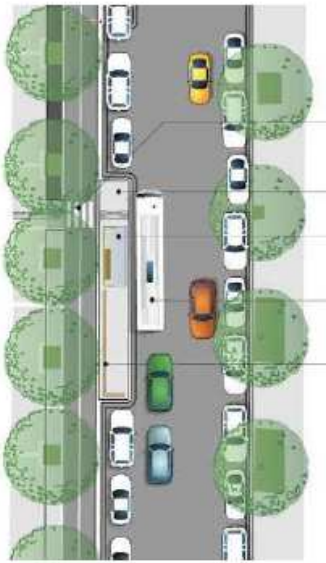
LIFT, STAIRS AND UNDER ROAD CONCOURSE LINKING
INBOUND MELBOURNE ST BUS STOP WITH NEW
CULTURAL CENTRE PLATFORMS

INDENTED BUS BAYS
"PREMIUM" BUS STOP WITH FULL LENGTH ROOF
EXISTING RAIL BRIDGES OVER SHOWN HATCHED
BI-DIRECTIONAL PROTECTED BIKELANE

Figure 4 - City of Sydney, Sydney Cycleways - standard drawing



Section showing typical treatment at bus stops along two-way cycleway



Typical Plan



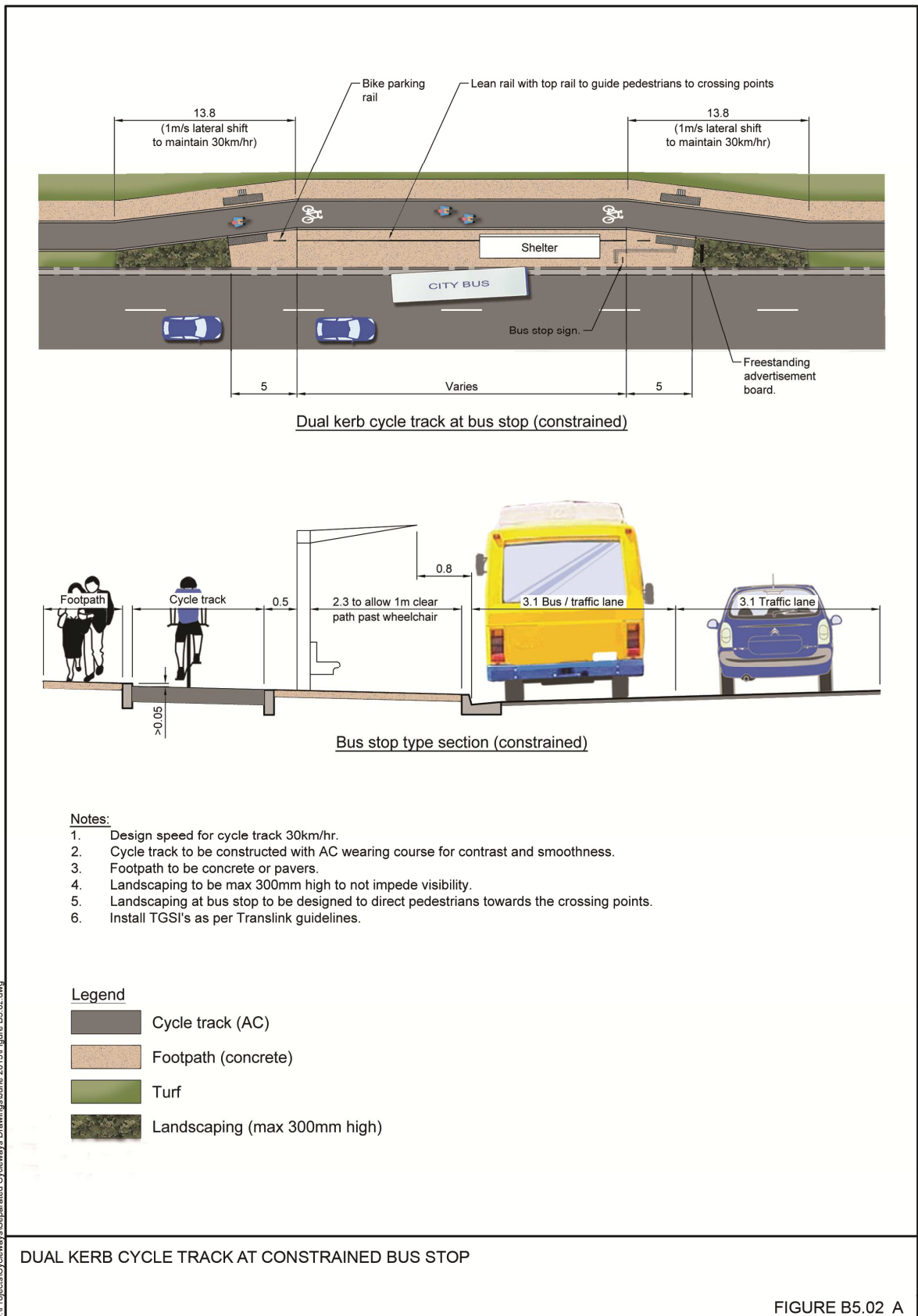
Example Image

Figure 5 - Auckland Transport - Karangahape Road reconstruction- CrossSection

Cross-section of section 1A



Figure 6 - Transport and Main Roads - TN128



G:\Projects\Cycleways\Separated Cycleways\June 2013\Figure B5.02.dwg

Figure 7 - London – Bus Stop Bypass – St Thomas Hospital

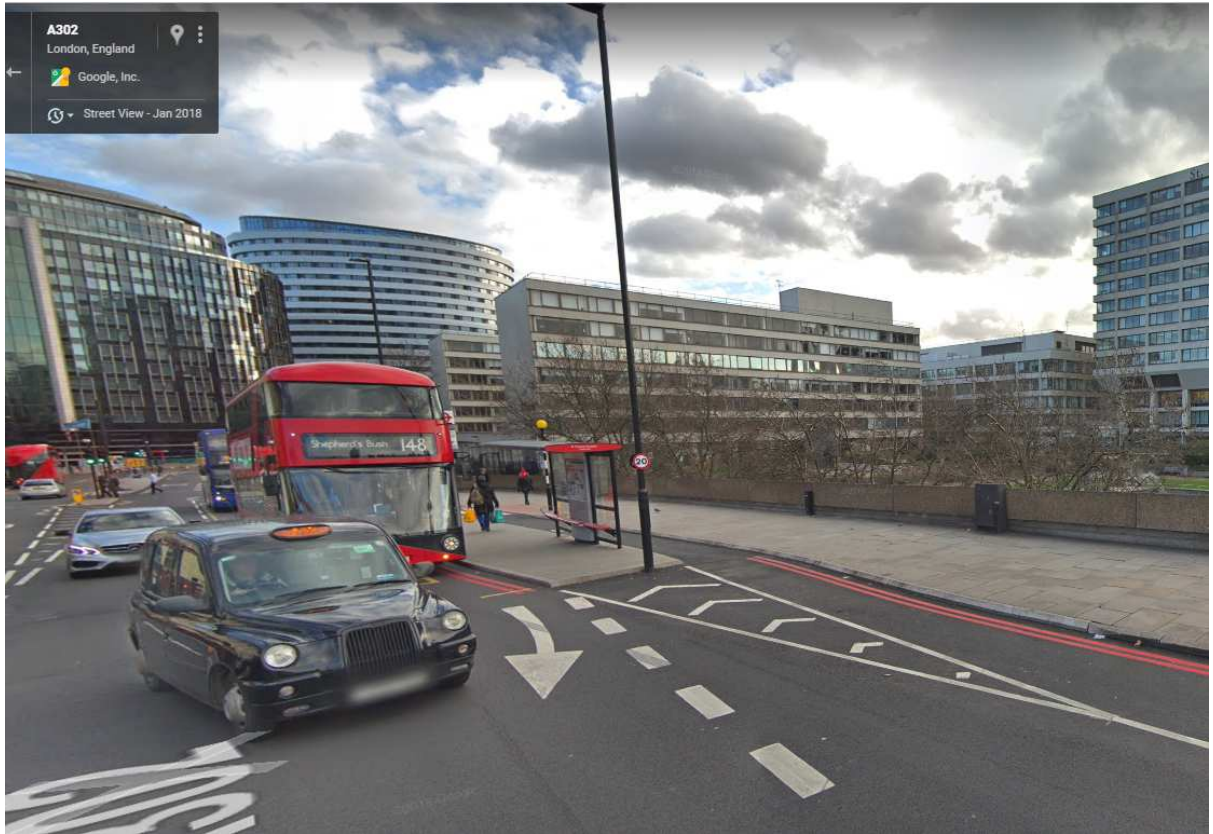


Figure 8 - Utrecht, Netherlands – Vredenburg



Figure 9 - Coronation Dr, Brisbane - Existing Bus Stop Bypass



Figure 10 - CG60 "Leap Frogging" BUZ199, Stop 36 - 10pm Friday evening 30/11/18, This is will also occur at the new proposed Melbourne St Bus Stops.



Figure 11 - Existing BCC Proposal - Melbourne St

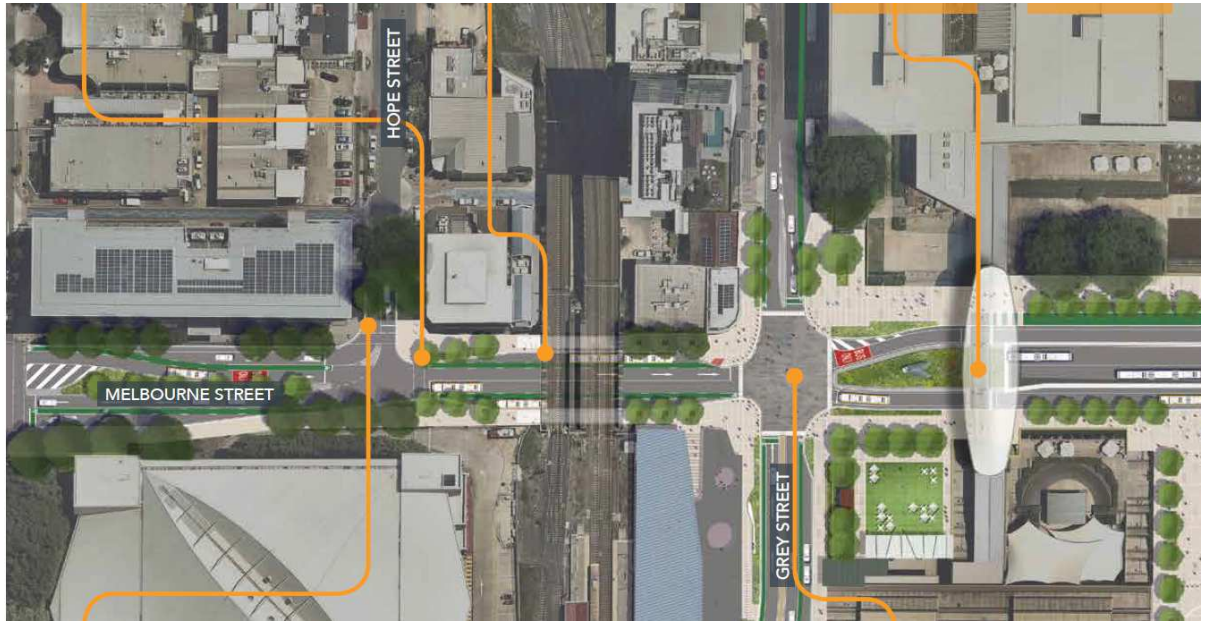


Figure 12 - BCC City Plan 2014 - Bicycle Network Overlay

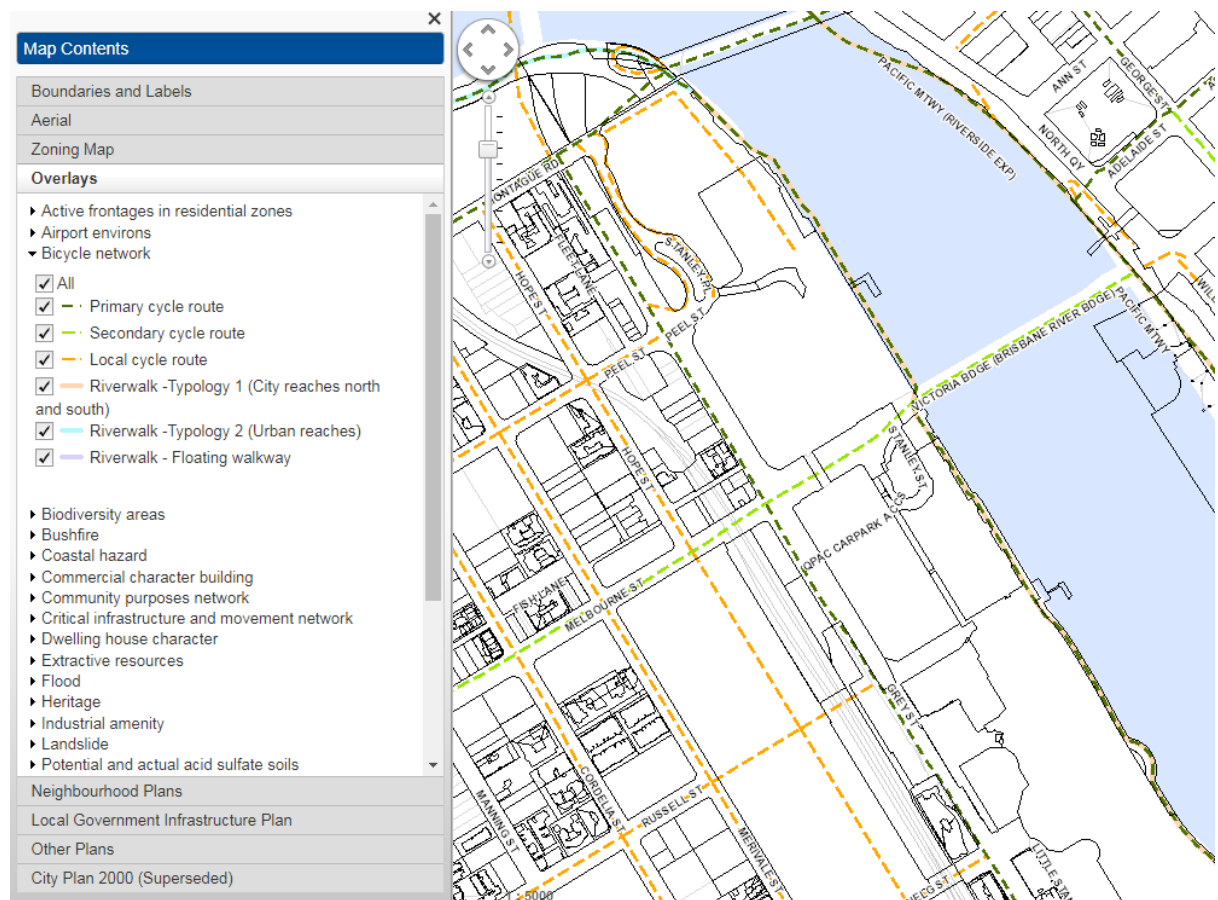


Figure 13 - TMR Principal Cycle Network Plan

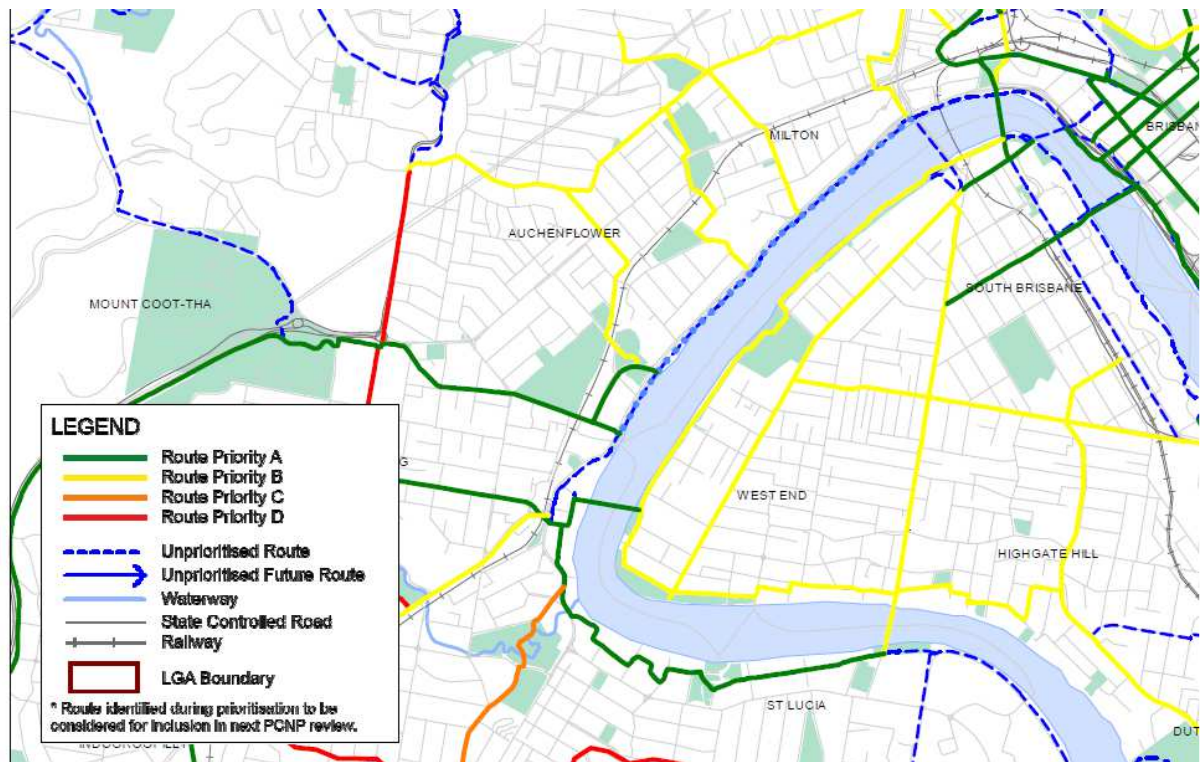


Figure 14 - TMR - Definition of priority ranking

1.2 How were priority routes identified?

Principal cycle network routes were identified as Priority A (focus of delivery in the next 10 years), Priority B (10 to 15 years), Priority C (15 to 20 years), or Priority D (for delivery in the next 20 years or more). The priority given to each route was informed by workshops and consultation with local government and the Department of Transport and Main Roads regional officers, based on criteria focused on supporting trips to work, school, shops, and other major attractors. Consultation with cycling and other stakeholders will occur as part of future detailed investigations of the priority routes.

Prioritisation considered safety, topography, land use, current usage, and local knowledge of current or latent demand, planning, feasibility, and opportunities. A number of routes are shown as unprioritised. They are either already constructed or not considered a priority for investment at this stage. However, facilities may be delivered on unprioritised routes as part of other projects.