

Andrew Beattie - Submission Details for David Gray (comments)

From: David Gray <dgray@parracity.nsw.gov.au>
To: <andrew.beattie@planning.nsw.gov.au>
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 Department of Planning

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Name: David Gray
 Email: dgray@parracity.nsw.gov.au

Address:
 30 Darcy St

Parramatta, NSW
 2150

Content:
 Parramatta City Council Officer Submission

2 May 2012

Proposed Homebush Bay public transport and pedestrian/cycleway bridge (Wentworth Point to Rhodes)

Consideration for future light rail

Parramatta City Council has been developing a light rail concept for Western Sydney including a potential corridor from Parramatta to Concord via Wentworth Point/Rhodes. See attachment.

As part of the pre-feasibility stage of the project Council has consulted with Transport for NSW, Sydney Olympic Park Authority and Canada Bay Council officers for their initial opinions, suggestions and input.

Council is preparing to undertake a feasibility study shortly into the Western Sydney Light Rail network with support from Transport for NSW. Council has applied to the Federal Government for funding to assistance with the feasibility study.

In regards to the proposed Parramatta to Concord light rail route the suggested corridor is along the Holker Street Newington, Hill St, Homebush Bay Bridge, and Rhodes. The section from Rhodes to Concord Hospital and Concord would be a likely future extension that could extend as far as Breakfast Point or Cabarita.

There is an additional proposed corridor from Holker Street, Newington to Sydney Olympic Park with potential additional links to either or Lidcombe or Strathfield.

The light rail feasibility study will determine the future corridors. It is highly likely to recommend the use of Homebush Bay Bridge as it will have the ability to connect the significant population in both Rhodes and Wentworth Point to increased employment opportunities in Western Sydney and in particularly Parramatta.

Officers recommend that the design of the bridge considers the ability of accommodating light rail vehicles in the future due to the residential population growth. The option of bus transport is likely to be exceeded shortly after 2023 as a bus every 3 minutes is stretching the ability of bus transport to accommodate the demand while maintaining reliability. One light rail vehicle can replace 4 buses therefore increasing the ability to accommodate the predicted travel demand in the future.

Officers recommend that the optimal bridge lane configuration option is 2a which is segregated pedestrians, cyclists and public transport. We suggest 3m wide for the pedestrian facility and a minimum of 3.5m for the cycle facility as per RTA Guidelines.

Pedestrian and Cycle provision

Parramatta City Council is currently implementing an east-west cycle route along the Parramatta River as part of the regional cycle network through local, State and Federal Government funding.

Council officers have concerns with the proposed cycle provision on the bridge not meeting the standards set out in the RTA's NSW Bicycle Guidelines.

There appears to be no assessment of the number of cyclists or pedestrians expected to use the bridge and therefore the width of the pedestrian and cycle facilities is raised as to their suitability.

The proposed width of the pedestrian space is 2.4m (on the approach) which is questioned as width of double pram or mobility scooter is approximately 750mm plus reasonable operating clearance leaving little passing space for such a long span bridge. We would suggest a minimum of 3m along the whole of the bridge including the approach.

There is no proposed width for cycling lane as a shared bus-cycle lane is proposed. We recommend a separate cycle facility as outlined below. The RTA Guidelines recommends a minimum width of 2.75m plus clearance of 0.5m on both sides for fences and balustrades (Figure 8.8).

The proposed arrangement for cyclists is to share the bus lane which has a width of 3.95m on the approach and 3.65m on the bridge with balustrades on both sides.

The RTA Guidelines recommend shared bus-cycle lanes of 3.0 to 4.5m (Figure 5.5) for which the proposal meets. However the proposal does not consider the need for additional width due to the continuous balustrade. The RTA guidelines recommends clearance of 0.5m to 1.0m to walls and fences (Table 6.2). This is for off-road cycle routes but we believe it is applicable to this on-road situation as there is a continuous balustrade across the bridge. In addition this clearance becomes more important when factoring the effect of cross-winds across Homebush Bay upon cyclists crossing the bridge.

The proposal has not fully considered the volume of buses. The bridge is estimated to carry 8-10 buses per hour (every 7 to 6 minutes) upon opening and 20 buses per hour (every 3 minutes) by 2023.

The RTA Guidelines recommend that when volumes and speeds are high (>10 buses per hour >30kph), visual separation is recommended (5.1.3). And therefore the cycle and bus traffic should be separated as it is likely to reach this level of traffic at opening or shortly thereafter. The RTA Guidelines recommend a configuration of 3 - 3.3m bus lane and 1.2 - 2.5m cycle lane.

The RTA Guidelines recommend that when volumes are in excess of 20 buses per hour (by 2023) and speed area above 50 kph, physical separation is advisable (5.1.3.) that when volumes and speeds are high (>10 buses per hour >30kph). Even at opening at 8-10 buses per hour the RTA Guidelines recommend visual separation.

The proposal appears to have not considered the typical cyclist who will use the bridge. They are likely to contain a high proportion of young children and adults with limited cycling experience wishing to make use of the extensive off-road cycle facilities within Sydney Olympic Park. There is also a likelihood that this group of cyclists will stop on the bridge to enjoy the new vista created. There is also a high possibility that young families will cycle on the footpath for safety as they are currently allowed to do so. (Person under 12 and accompanying adults can cycle on footpaths unless specifically prohibited).

Officers recommend that the optimal bridge lane configuration option is 2a which is segregated pedestrians, cyclists and public transport. We suggest 3m wide for the pedestrian facility and a minimum of 3.5m for the cycle facility as per RTA Guidelines.

IP Address: c122-106-59-77.rivrw1.nsw.optusnet.com.au - 122.106.59.77

Submission: Online Submission from David Gray (comments)

https://majorprojects.affinitylive.com?action=view_diary&id=29408

Submission for Job: #4331 Homebush Bay Bridge - Project Application

https://majorprojects.affinitylive.com?action=view_job&id=4331

Site: #2374 Homebush Bay Bridge

https://majorprojects.affinitylive.com?action=view_site&id=2374

David Gray

E : dgray@parracity.nsw.gov.au

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PARRA
MATT A

December 2011

Western Sydney Light Rail/Metro Network

Western Sydney Light Rail/Metro Network

Issue

Significant uplift in public transport capacity is needed to develop employment centres close to the homes of people in Western Sydney.

The Parramatta Epping Rail Link won't be built for decades and buses do not have the capability to deliver a significant increase.

Solution

Light rail/metro is a viable solution for Parramatta and Western Sydney. It is more reliable than bus transport as it can command more segregation from congested roads. It is also cheaper and quicker to implement than heavy rail and does not need deep bored tunnels.

Light rail provides the opportunity for increased land use intensity and renewal along the corridor of the proposed lines.

It is possible to build a modern light rail/metro system that can facilitate fast and frequent rail services along dedicated alignments segregated from traffic. See proposed network diagram.

Benefits of Stage

The priority for Stage 1 is:

Stage 1a - West Central Line

Connects Castle Hill, Parramatta and Bankstown to establish an important north-south regional connection (shown in yellow). The benefits of the West Central Line include:

- > An attractive sustainable alternative to car travel on the congested Windsor Rd from the Hills
- > Access to high value-adding jobs in the Parramatta CBD
- > Development of a Parramatta North station, supporting the northward extension of the CBD and regional access to Parramatta Stadium and Park
- > Improved access to the Bankstown Airport specialised employment centre.

Stage 1b - Carlingford Line

Utilises the Carlingford Line to bring urban renewal opportunities to Telopea, Rydalmere and Cumberland Hospital and as well as improving transport connections to University

of Western Sydney and the Westmead Hospital precinct which are rapidly growing.

Stage 1c - Macquarie Line

Provides Western Sydney with a direct connection to the knowledge jobs and university in Macquarie Park, and Parramatta with access to the North Shore workers.

Potential future stages are shown in black. The light rail network could be converted to metro/single deck heavy rail in the future depending on growth along the corridor.

Cost

The initial estimate for Stage 1 (44km): \$3 billion. The remainder of the network (105km) is estimated at \$6.5 billion.

Sydney's top 5 employment destinations

Sydney	274,473
Parramatta	79,360
North Sydney	73,307
Ryde	70,769
Chatswood	62,273

Source: ABS Census 2006, employment data by Statistical Local Area

Light rail/metro examples from around the world





Proposed Western Sydney Light Rail/Metro Network

Light rail/metro offers a viable, quick-to-build solution for Western Sydney in between bus and heavy rail options. It preserves strategic transport corridors and facilitates the emergence of regional centres that can supply growing populations with localised employment and pressure relief for Sydney CBD.

Legend

- Existing CityRail network
- Planned North West Rail Link
- Proposed Western Sydney Light Rail/Metro network
- Stage 1a – West Central Line
- Stage 1b – Carlingford Line
- Stage 1c – Macquarie Line

Cost Breakdown* (includes track, stations, light rail vehicles, depot, land acquisitions)

Stage 1

1a West Central Line (Castle Hill – Bankstown)	25km	\$1.83b
1b Carlingford Line (Carlingford – Westmead)	10km	\$500m
1c Macquarie Line (Dundas – Macquarie Park)	9km	\$740m

Stage 1 Total **44km** **\$3b**

* Based on Gold Coast Light Rail 13km \$950m for new line inc depot and Lilyfield-Dulwich Hill Light Rail extension 5.6km \$1.76m for rail line conversion.

Rail to deliver *NSW 2021* in Western Sydney

A focus on the social and economic development of Western Sydney and Parramatta is needed to advance the objectives of NSW 2021.

Public transport can help the rapidly expanding Western Sydney population access employment and training opportunities close to home, including in the region's capital Parramatta and through the West Central half of Western Sydney.

Parramatta is the centre of Sydney and already the second largest employment centre outside the Sydney CBD, with a broad economic base and high value-adding industries.

It is uniquely placed to alleviate pressure on Sydney's transport networks and to progress the NSW 2021 priorities of:

Goal 1 - Improving the performance of the economy through investment, jobs growth and the emergence of specialised sectors.

Goal 4 - Increasing competitiveness through enhanced business confidence and innovation in key industries.

Goal 6 - Strengthening the NSW skill base by improving access to education and training.

Goal 20 - Building liveable centres that encourage jobs growth close to where people live.

New rail infrastructure is required to support the growth of Western Sydney and the emergence of a knowledge based employment destination at Parramatta.

Two NSW 2021 goals form the basis of the road solution contained in this document:

Goal 7 - Reduce travel times by minimising public transport waiting times for customers.

Goal 8 - Growing patronage on public transport by making it a more attractive option, particularly for journey to work travel.

NSW 2021 State Goal	Western Sydney Goal	Proposal	Estimated Cost
Goal 7 - Reduce travel times by minimising public transport waiting times for customers	Providing faster more reliable public transport options	<i>Develop Light Rail Metro for Western Sydney, prioritising intraregional connections between Parramatta and surrounding centres.</i>	Stage 1 \$3 billion Remainder \$6.5 billion
Goal 8 - Growing patronage on public transport by making it a more attractive option, particularly for journey to work travel	Increasing public transport connectivity between Parramatta employment opportunities and Western Sydney labour markets		