The White Bay Green Link

An overview

Revision 1.1

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Authorised by the Executive Committee of EcoTransit Sydney

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Development of the precinct in the currently planned scheme will therefore place unsustainable amount of additional car traffic on overcrowded CBD streets – an unacceptable and counterproductive outcome.

At present, public transport from the inner west to the central and northern CBD relies almost completely on buses entering the CBD on an indirect route via the Anzac Bridge or Parramatta Road, Broadway and George Street. The WBGL would resolve this situation (which is bond to be worsened by the planned concentration of workers and residents in Barangaroo) by making Barangaroo the main access point for commuters from the inner west and, via future light rail extensions along Victoria Road, the inner north-west.

Combined with the Dulwich Hill light rail extension currently under construction, the WBGL will create an'arc' through the inner west, allowing light rail to expand into an integrated network catering for inner Sydney (see map 2). With the WBGL solution in place, commuters from these regions of Sydney would save as much as 30 minutes on current peak period journey times.

This role could be enhanced by strategically located park-and-ride stations, large-capacity bicycle lockups and light rail–bus interchanges, on the existing and future light rail system.

As this network expands and more people rely on the WBGL to enter the city it will considerably reduce the number of private vehicles and buses on Inner Sydney roads.

**Connection to the CBD light rail**

The WBGL light rail would connect to the planned CBD light rail loop at Hickson Road. The immediate priority being for a comprehensive service to Barangaroo and the central CBD, the WBGL link would, in the first instance, proceed south towards the centre of the Barangaroo precinct where the line would join the CBD loop at Napoleon Street. A second stage extension would proceed north along Hickson Road, under the Harbour Bridge and around to George Street.

**Impact on, and advantages for, Balmain**

The WBGL route will take it along the White Bay waterfront – using the existing, now unused, freight rail corridor, and in the case of the cycleway component, sections of the foreshore – and then proceed in tunnel down the East Balmain peninsula to a 400m submerged tube tunnel beneath Darling Harbour (see Map 1).

The route will not impact on the historic fabric of Balmain or adversely affect residents or businesses while the advantages for this historic suburb are considerable. For residents, the route will create a quicker route to CBD jobs and retail. A proposed light rail stop beneath Gladstone Park will bring new customers to the Darling Street retail precinct and better connect Balmain Hospital to the rest of the Inner West and the CBD, securing its future as a medical centre for Balmain and the region.

The WBGL will therefore strengthen the commercial viability of the Balmain village whilst relieving its narrow streets of traffic congestion.

In the event that plans for a White Bay Cruise Passenger Terminal (CPT) proceed (and EcoTransit stresses it is not in favour of this location) the WBGL would provide a direct link to the CBD hotels and popular tourist precincts as well as providing a convenient and direct light rail link to the Main Western and Bankstown suburban rail lines. Importantly, this would obviate the necessity for large hardstand areas to assemble the fleets of buses that would otherwise be necessary to transport cruise passengers to their destinations. This would free up
Illustration 2: A sustainable public and active transport connection

Gradient issues

Taking into consideration the depth of the harbour where the immersed tube would be located, and the need for the tube to be laid in a trench leaving sufficient headroom for a protective “rock blanket” above it, the base of the tube would be about 28m below water level.

Modern light rail vehicles can climb a maximum slope of 10%, (approximately 5.7 degrees) but this would be normal only for short distances. A more acceptable gradient would be 7% (4 degrees). On the Balmain side, the bored tunnel from the Gladstone Park stop to the immersed tube beginning at the East Balmain waterline would be on a gentle gradient of approximately 1.5 degrees. On the CBD side A 4 degree slope would allow light rail vehicles to climb back to the level of Hickson Road over about 500m.

These gradients would also comfortably accommodate cycling.

The cycleway

The cycleway component of the WBGL would connect with the proposed City West Cycle Link (CWCL) to provide a safe, off-road, express cycle route between the northern and central CBD and the inner west.

At White Bay the cycleway would run beside the light rail line but would diverge from it at the point where the light rail entered the Balmain tunnel portal. The cycleway would continue along the shoreline until it joined the light rail tunnel via a short tunnel on the eastern side of Ewenton Park. From here it would share the light rail’s bored tunnel (with the cycleway running on the south side of the light rail tracks) to the immersed tube. On the CBD side, in the northern section of the Barangaroo site, lifts would take cyclists to the level of Hickson Road with the possibility that a cycleway would also continue beside the light rail tracks as