

27th June 2016

To Whom it may concern,

Submission supporting a new metro rail line between Chatswood and Sydenham

I submit the following responses to the Environmental Impact Statement (EIS) produced by Transport for NSW Sydney Metro Delivery Office:

General response on environmental impacts and their mitigation

Air, water, noise and visual pollution are well considered under the proposal, and should not present an impediment to proceeding to construction. The mitigation and remediation approaches outlined in the EIS are supported. Particular vigilance in protecting site values is required in relation to the estuarine environments of Sydney Harbour, and the built heritage values at Central Station.

Integration of the Metro Project with Broader CBD Access and Mass Transit Initiatives

The majority of this submission is concerned with ensuring the maximum positive socio-economic impacts are attained when the metro line becomes operational in the middle of next decade.

The following points are made with the assumption of subsequent approval for the Sydenham to Bankstown conversion to metro. A corresponding release of spare timetable capacity for other rail lines routed through the City Circle and on the North Shore lines is noted under this scenario.

Uptake of Commutes involving Transit Interchange

Sydney's current transport network is such that only a minority of commuters are accustomed to transferring between services during a mass transit journey to or from the CBD. At the currently functioning interchange locations like Central or Strathfield, commuters rarely encounter a 'turn-up-and-go' frequency level when making transit connections. Further, a physical transfer often entails moving between fairly distant alighting and re-boarding zones, so reducing time efficiency.

A key indicator of a higher-performing future transport network will be the widespread adoption of public transport journeys using efficient and reliable connections, particularly into and across the CBD. An inner city is ideally traversable by a suite of high capacity, intersecting mass transit pathways and active transport precincts. This facilitates travel efficiencies, congestion alleviation and consequently, attractiveness to commuters to a much greater degree than is otherwise attainable on a more traditional radial network.

Some infrastructure initiatives through which large numbers of commuters will adopt these new, more efficiency-targeted travel patterns in the coming years are:

- This project's metro line, greatly expanding north-south capacity in the city, offering transfers with the Sydney Trains network at two CBD and four suburban stations
- A surface light rail line of high capacity on the former primary bus spine of George Street
- Reorganisation of some bus networks into feeder services, or terminating services around the CBD's periphery - implementation being already underway and continuing in stages, as the southeast light rail and northwest metro begin operation

The opal ticketing system provides accompanying pricing-based incentives that are complementary to these network enhancements.

To ensure that this project is meeting a goal of decongesting the commute of the greatest range of customers, areas in which the intent expressed in the EIS should be further developed, and a more detailed description given in the Preferred Project Report are as follows:

1. Permeability of each Station to its Passenger Catchment

Goal – the preferred project conveys deliverables for each underground station, in terms of visibility, interfaces with key surrounding public realm, arcade or pedestrian subway connections, and efficiency of movement to and from any nearby transit hubs

By the time of planned first CBD metro operations in 2024, the behaviour shift towards interchanging during transit journeys for many commuters will be underway. A highly walkable CBD zone will extend between three of the busiest existing underground railway stations, encompassing a pedestrianised George Street between Town Hall and Wynyard, and upgrades around Martin Place.

Case Example: Underground Station with High Permeability to its surrounds

Wynyard station (not on the metro line) will likely set a new standard of premium service among underground stations for permeability to its surroundings, arising from the combined amenity of:

- The Wynyard Walk accessible link to Barrangaroo South - 2016
- A new Clarence Street station entry with reactivated Kent Street connection – 2016
- Upgraded or expanded ticket gates, York Street entry, paid zone and platform access – 2016
- A light rail stop at the George Street entry – 2019
- A new and expanded transit hall between George and Carrington Streets provided under a voluntary planning agreement by the private sector – 2020
- Existing retail connections to Hunter, Pitt, George, Jamison and Margaret Streets; and
- The existing northern CBD buses hub on Clarence, York and Carrington Streets

Wynyard's permeability is further increased by having platforms situated only 5-15 metres below street level, each accessible via multiple stairways from the concourse level. The egress, access and transfer time for commuters between Wynyard's platforms and their trip end points is thus minimised.

The preferred project should include sufficient detail on the design intent of the new underground CBD stations to allow their evaluation against the above standard set by the upgraded Wynyard Station and its surrounding commuter and pedestrian infrastructure.

Street-level and arcade connections are integral in the case of the metro stations, due to their additional platform depth and the consequent time that this contributes to an overall commute. An efficient network of access and egress points at CBD stations is the most practical way of maintaining the otherwise clear time advantages of travelling on the metro, e.g. its service frequency, short dwell times and high operating speeds.

As evident with Wynyard's proposed transit hall, any above-station commercial activation should be a secondary consideration which supports, rather than competes with, the achievement of these strengthened public accessibility goals. Some specific recommendations are presented in table form below for each station.

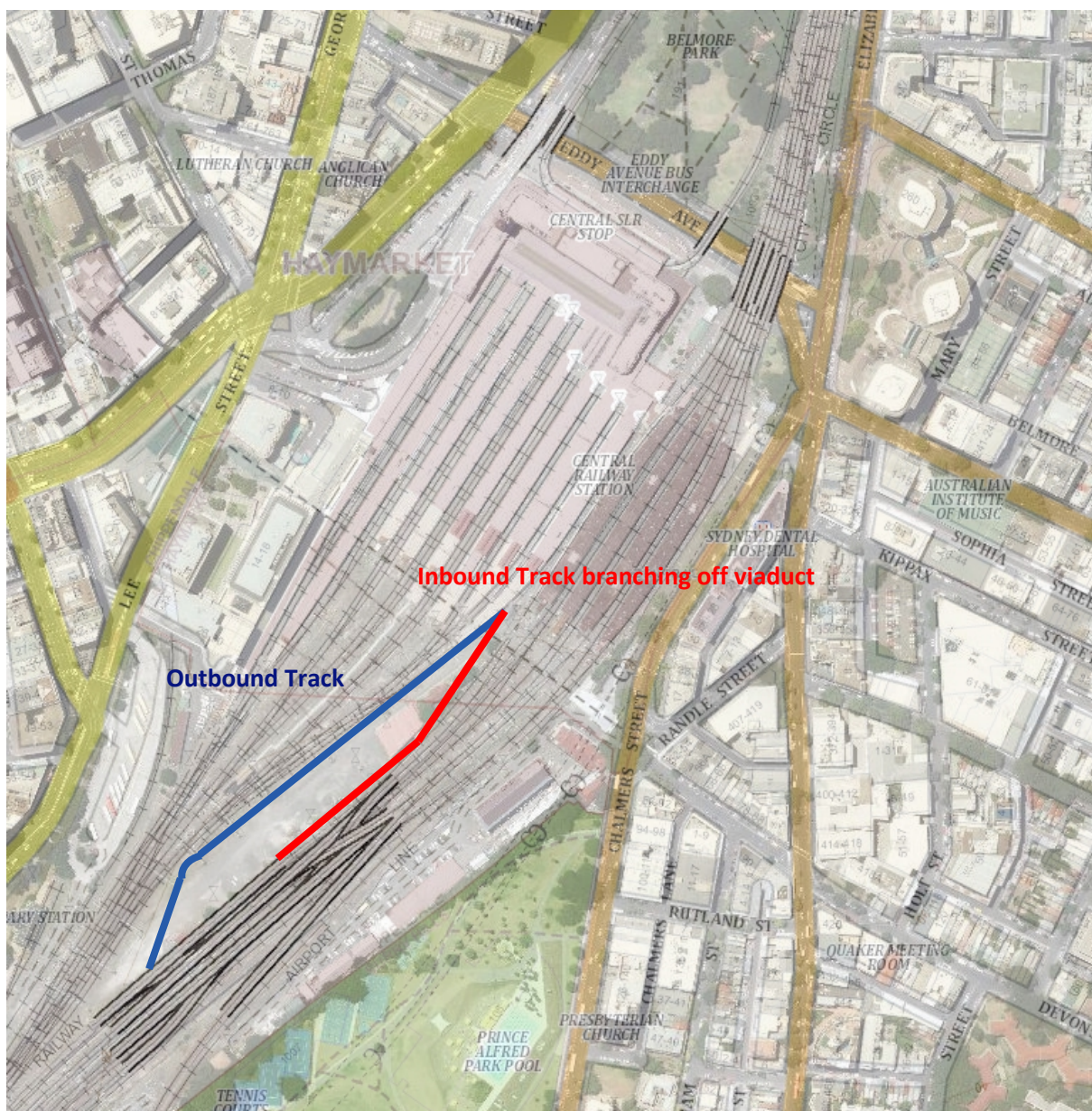
Station	Constraints to be addressed	Opportunities to be pursued
Martin Place	Retention of some form of underground access between Martin Place at Castlereagh Street and the existing Martin Place station concourse – i.e. implement alternative street-frontage entry portals replacing any plaza stairwell access points that are removed	<p>Northern metro entry, and the proposed link to O'Connell Street under 33 Bligh Street is strongly supported. This gives the metro station efficient reach into the City North precinct, where a number of bus routes now terminate.</p> <p>Investigate with Sydney Buses whether O'Connell Street's bus layover area could accommodate a future metro/bus interchange zone, e.g. for routes which currently turn around via Gresham and Loftus Streets.</p>
Pitt Street	Position of the station's Park Street entry is on the diagonally opposite corner of Pitt and Park street compared with previous station proposals in this area (e.g. former CBD metro scheme, 2009). Consequently, the station loses proximity to the future public square situated between Pitt and George Streets. If property acquisitions had already occurred at 295 Pitt St for the previous station, the NSW government should work with City of Sydney to provide an expanded public square all the way to Pitt St. A below-ground connection easement under the new square and existing street intersection to the metro concourse should also be preserved.	<p>Retail arcade connections surround both station entries. Park Street is a primary corridor for bus traffic and subject to associated road and footpath congestion. Integration with the below-street arcade networks should be pursued to take some of the pressure of commuter surges off the surface street crossings and bus stop zones</p> <p>Areas of interest include –</p> <ul style="list-style-type: none"> • Arcade commencing in 35-53 Park Street, with a direct thoroughfare from Museum Station and the adjacent bus hub on Elizabeth Street via a 2-3 minute walk. • Galleries Victoria, which connects from Town Hall to Pitt and Park Streets in the vicinity of the new northern metro station entry • The Greenland development at 115 Bathurst St, which is likely to integrate with existing arcade connections from Town Hall Station and the George Street entertainment precinct
Central	EIS envisages restoring the under-platform walkways between Central's suburban and intercity platforms at the conclusion of works. Clarify whether a connection from the southern end of the underground metro concourse level into this network would be achieved. This affects the directness of pedestrian connectivity with the bus hub at Railway Square via Devonshire tunnel.	Proposal to provide dual-sided loading and unloading of trains on Central's Platform 16 in conjunction with this project (as per Fig. 6-27) is supported. In addition to the reasons given below under heading 2, this upgrade increases the efficiency of passenger movements between Central's current busiest surface platform and the new underground metro platforms.

2. Optimising Central Station during Peak Capacity Periods

Goal –Existing system pinch points are relieved as part of the reinstated track and platform array spanning terminus platforms 13-15 to suburban platform 16

The proposal to integrate Platform 15 as a terminating suburban platform is supported. This needs to operate as an effective turnback point for outer suburban trains while permitting brief headways between train arrivals. The platform would ideally therefore connect to the suburban rail tracks, rather than the congestion-prone array of bifurcating intercity tracks that invariably impair train speeds in both directions between the Cleveland Street underpass and the terminal at Central.

Works in the Sydney Yard area of Central are required under this project. It would be most practical to incorporate new rail track connections for the rebuilt Platform 15 around the margins of this yard alongside the metro construction program. A rough visual representation of the connectivity being suggested is shown below.



Platforms 13-15 should be reinstated with sufficient length to accommodate 10 carriage train arrays, as may be required in the future for some outer suburban Sydney Trains services to meet patronage growth.

As expressed previously, the proposed dual-sided loading and unloading of trains on Central's Platform 16 is strongly supported. If well managed, this new capacity would consistently reduce station dwell times for T1 northbound services across the morning and evening peaks, and so enhance timetable reliability more broadly.

3. Future Metro Connections

Goal –that network coverage can be expanded along logical corridors in the future without causing service disruptions to metro operations

The stub tunnels currently proposed north of Sydenham station may be a limitation on the alignment of future network expansion. For example, potential metro lines serving the Broadway/Chippendale area or the Bays precinct would not logically have their branching point in the vicinity of Sydenham.

Stub junction tunnels in the line section between Central and Waterloo are therefore recommended to be excavated, to properly future-proof the line. The planned stub tunnels north of Victoria Cross are supported.

Closing comment regarding the next project stage EIS

In relation to preparation of an EIS for the Sydenham to Bankstown line conversion – it is suggested that a range of alternative transport strategies, to run during the temporary closure of the T3 Bankstown Line, be included as a section of the EIS document to allow for public comment on that aspect. Options considered should include:

- A closure of the line in stages, to limit the period of being wholly reliant on replacement buses
- The potential to run express or shuttle trains from Campsie to Sydenham across the daily peak hours by diverting onto the adjacent freight track
- Continuing some of the Bankstown to Lidcombe peak services to run express to/from the city, sharing tracks of the T2 South and Inner West service

Best contact:	Via email address as provided at submission
Overall position of this submission:	Supportive of project, with qualifications noted on various points related to the quality of outcomes
Basis of interest in the project:	Commuter; Sustainability Practitioner