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23 June 2016



NSW Department of Planning and Environment  
Attention: Director, Infrastructure Projects  
(Major Projects Assessment)  
GPO Box 39  
SYDNEY NSW 2001

**Comments on EIS Chatswood to Sydenham Metro  
Application Number SSI 15\_7400**

**Statement of support**

In principle, I support the general thrust of the project but I have objections to some aspects of the details. Some deficiencies would merit a total hold on the project until resolved.

My comments follow.

**My qualifications to comment.**

I have a degree in Mechanical and Electrical Engineering from Sydney University. I am a Member of the Institution of Engineers, Australia (MIEAust) and a retired Chartered Professional Engineer. (CPEng (ret)).

I have wide experience in private enterprise as a General Manager of profitable manufacturing companies in a variety of industries. This includes responsibility for planning, product development, and profitability.

I have had over 10 years' experience as a consultant on a variety of projects, with clients including NSW Rail and Queensland Rail. For these clients, I have been involved with rolling stock maintenance, including design of new workshops, moving freight and passenger vehicle maintenance facilities to new premises as well as productivity studies at numerous sites in NSW and Queensland. Many were "greenfield sites, with my being involved in the initial studies for layouts, sizing and operation.

I can be available to expand on this submission if required.

James A Young  
MIEAust CPEng (ret)

## SUMMARY OF COMMENTS

### Referencing the Summary for Chatswood to Sydenham and Chapter 6:

1. Page 8: “Project objectives”. (dot points) “Support the productivity of the Global Economic Corridor” This would be better achieved if the line passed through the airport terminals. This should be supported by removing the current surcharge on the two stations
2. Page 8: “Key Benefits” (dot points) “Transport benefits: ..’enhanced customer satisfaction’ and ‘improved safety’”. As there will be only 25% of passengers with a seat (my estimate – see later), there will be many aged or handicapped passengers standing, with increased passenger discomfort and reduced safety.
3. “City-building benefits” This whole section is not proven and is just waffle. It should be removed.
4. “Catering for growth”. ‘Rail is expected to experience the highest growth in travel demand with the number of people travelling to Sydney CBD during the morning and evening peaks forecast to grow’. Where is the proof of this statement? If the “Global Economic Corridor” strategy is successful, there will be less need to travel to the CBD. The statement about ‘30 trains per hour through the Sydney CBD’ is also not a benefit, for the same reasons.
5. “Increased accessibility and trip diversity” ‘more direct connections to high-capacity Sydney CBD stations’. See (4) above.
6. “This will facilitate a greater mode shift to rail from car”. Almost all of the areas serviced by the Metro City are now covered by standard rail or bus. How will the Metro make a change from car? (In my case, I live in Chatswood and will still have to walk to the station. If rail is not convenient, I’ll still have to drive. Public transport is good, providing:
  - The person is not encumbered (luggage, heavy shopping, children, grandma)
  - the weather is reasonable
  - there is public transport within reasonable distance of both origin and destination



- Time is relatively unimportant (some of my 20 minute trips by car take over an hour by public transport, when available).

7. Page 14 “Catching a train” This section lauds the Metro as a boon to customers.

‘Customers are at the centre’ does not appear to be so. I have been unable to determine the number of seats per carriage. I have phoned 1300 305 695 as stated, but the person who answered said that he was from “Planning” and didn’t know about the vehicles. He was uninterested in advising me where to enquire next. His sole advice was to “Put in a submission”. At the viewing at Chatswood on 21 May, I asked a number of staff the same question and nobody knew. One of the engineers volunteered to find out and email me. He has advised that he finally found someone who would know and arranged for that person to email me. No-one has emailed me. Looking at the sketches (e.g. page 97), it is apparent that there are very few seats on the trains – perhaps less than 25% of passengers seated. The few “hangers” are far too high for older people and children to reach and there are few other places to grasp. This means that some frailer (or shorter) passengers could be standing unsupported for up to an hour (66 kilometres from end to end). Children would also suffer. This is a poor comparison with buses, where 80% have seats.

8. If the trains are to reach 100 km/h as stated, the acceleration and deceleration will be quite extreme, making for a difficult and unsafe journey for any standing frail or young passengers. It is very uncomfortable to stand in a vehicle continually changing speeds.
9. The sketches show that there are very few seats at the stations – page 14 doesn’t have any, though there is one set on page 12. Every station should have seats for tired or frail passengers, waiting for trains or just plain “resting” after a walk to the station.
10. In view of the above, the term used “safe and comfortable” for passengers is not a factual statement, and should not be used. Perhaps “Fast and furious”? (Joke)
11. With no staff on the trains, who is it that helps passengers when needed? Who administers first-aid or CPR? Who advised the distant “train controllers” that help is urgently needed? Who advises them what sort of help is needed? How will help be given between stations in cases of accident, violence, heart attacks? Who is it that takes charge in a difficult situation? It is no use saying that “someone” will use the help phone, especially when urgent help is required such as a medical emergency. I have been advised by the engineers at the Chatswood meeting that there is a connection between the two tunnel shafts at regular intervals (250 metres?). To stop the trains in the opposite direction, clear them from the track and bring in help (fire, medical, police) seems to be a lengthy procedure. I don’t see any evidence that it has been thought about.

12. The study for the dive site at Pacific Highway and Mowbray Road, Chatswood is not complete and there remain many problems. Further comment is made below. In its present state, an accurate assessment of costs and timing cannot be made. **Until this work is completed, this EIS should not be approved**

## **DETAILED COMMENTS.**

### **Train Operations (page 16)**

I have been advised that all train maintenance will be carried out at Rouse Hill. (Cudgegong Road). It is not shown in detail on the map on page 7, but mention is made of maintenance and stabling at the Metro Northwest facility. To have just one facility on a 66 kilometre track seems inadequate. Compare this with the existing rail, where minor work is carried out at a number of depots (and at places like Hornsby even boggy changes can be made). Overnight, there can be the need for major cleaning, repairs to seats, lighting, air conditioning etc. It would be almost impossible to move every carriage requiring some maintenance to Cudgegong Road. With no other facility planned until 2024 at the earliest, present planning appears to be inadequate.

Overnight stabling only gets a mention as “Stabling will also occur at a smaller supplementary facility near the southern end of the network”. (Presumably this is Bankstown). and “Any additional facilities required to support operations will be delivered and assessed as part of the Sydenham to Bankstown components of the Project”.

It would appear to me that there should be stabling at Cudgegong Road, Sydenham and Bankstown at least. Unless this is done, the morning start-up will be prolonged, with trains having to start only from Bankstown and Cudgegong Road, and minor maintenance will be difficult or impossible. If stabling were at stations only, where there is no access for maintenance crews and their equipment, maintenance would not be possible.

### **Traffic and transport (page 19 and Chapter 8)**

Some understanding is shown of the traffic problems for the dive site area at Pacific Highway and Mowbray Road, Chatswood. However much information is missing and no final decision has been made on solutions. The situation is such that this Submission should not be approved in its present form.



Haul routes: The map on page 45 shows that spoil will be transported by truck from Mowbray Road, right turn into Pacific Highway and then north. The staff at the Chatswood display on 21 May advised that no contractor had been appointed to move the spoil and no direction to the dump site is known, so why is a route shown? Trucks may proceed west on Mowbray Road instead, which would cause more congestion on Mowbray Road, a narrow 50 kph restricted road now. An aim of recycling 100% of the spoil, without knowing if a contractor can be found with a suitable use for the material, seems wishful thinking.

The plan includes closing the Nelson Street bridge. Although it is mentioned on page 270 of Chapter 8, no survey of traffic appears to have been made of traffic turning off Pacific Highway, left into Nelson Street, in order to travel west on Mowbray Road. This traffic cannot now make a right-hand turn at Pacific Highway into Mowbray Road. A solution has been proposed to have 2 right-hand lanes from Pacific Highway, heading south, into Mowbray Road. (See page 270 in Chapter 8). **Traffic at this intersection is grade F (see page 300, Figure 8-15).**

*(Page 263 Table 8-2 defines level of service criteria. Grading of F is for intersections that are over-loaded and exceed capacity. Incidents will cause delays in excess of 70 seconds per vehicle)*

The proposed solution (page 298) “It is proposed to construct an all-vehicle right-turn movement from the Pacific Highway southbound to Mowbray Road westbound. For the purposes of traffic assessment, two right-turn lanes have been assumed, however the exact nature of this turn provision would be determined during detailed construction planning. This would require the localised widening of the Pacific Highway to the north of Mowbray Road intersection ...”

This is no more than a proposal and is subject to RMS action. There is no room at this intersection for 2 additional lanes on the Highway. Property acquisition would be necessary but this is not foreshadowed and it would be very difficult as no free land is available.

At this stage no agreed solution has been determined.

The intersections of Pacific Highway and Gore Hill Freeway ramps, Pacific Highway and Victoria Avenue (AM period) and Pacific Highway and Fullers Road (AM period) are also graded **F** and no solutions have been offered.

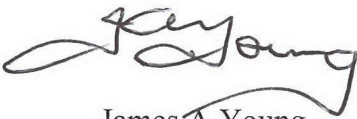
**Consequently, this proposal should not proceed further until these matters have been finalised.**

### **Train safe operation**

Although there are metro-style trains in operation elsewhere, I have not found any with no “driver” on board, except for very short passenger transfer trains at airport. Some systems have the driver set the train in motion, then change to auto-control. This gives the person “something to do” instead of just watching the scenery go by. The issue is one of safety – someone to check for unusual noises, vibrations, signal not at expected status, something or someone on the track or a handicapped person having difficulty boarding or alighting. As an example, noises could be caused by rail irregularities (chipped, broken etc.) and the “driver” would advise the controller. The controller can decide to continue operations or perhaps stop following trains, etc. until safety can be assured.

This person could have the role of “incident controller” for situations affecting passengers, as mentioned in point 11 on page 3.

In summary, I am not in favour of a totally unmanned operation. It raises too many safety issues.

A handwritten signature in black ink, appearing to read 'J. Young' with a stylized flourish at the end.

James A Young

23 June 2016