

## PRELIMINARY ANALYSIS ON OPTION 3B

Auckland Light Rail Group – 28 October 2021

*This paper sets out some very early thoughts on option “3B”, which is tunnelled light rail through the CBD, running on the surface from the CBD end of Dominion road. The analysis is still very preliminary. Full economic analysis is unlikely to be available for another 2-3 weeks.*

### Context

We have recommended tunnelled light rail, with a tunnel from Wynyard to Mt Roskill. Our final recommendation was that this option be investigated further to ensure greater certainty on scheme design, costs, and schedule. Options on the extent of tunnelling at the northern end of the route (including the possibility of a shorter tunnel, with more surface running Light Rail) could be explored.

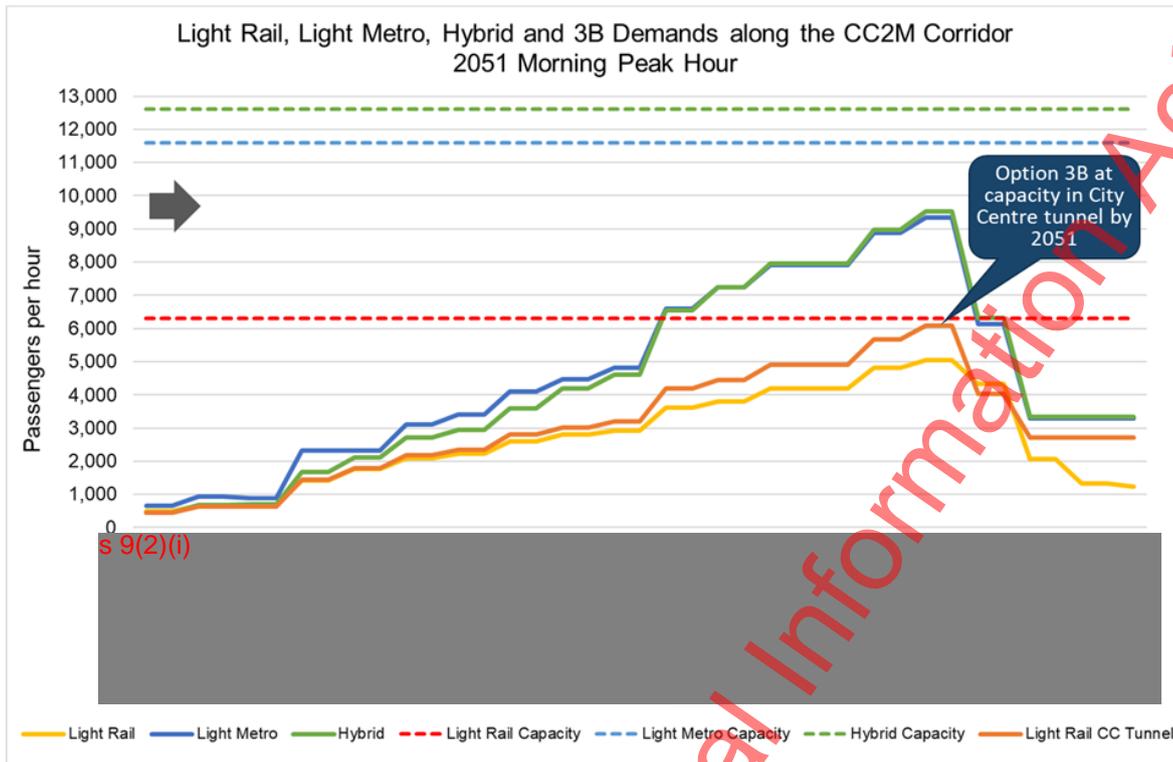
At the request of sponsors, we have done some preliminary work on option “3B”, which proposes surface light rail for most of the CC2M corridor but with the alignment descending into a tunnel through the City Centre (between Dominion Junction and Wynyard Quarter).

### Benefits:

- Costs less than Light Metro or Tunnelled Light Rail
- City centre disruption reduced
- Future RTN integration enabled - The ARTP envisages a future rapid transit network with North Shore and Northwest lines that converge in the City Centre. Surface Light Rail will not have sufficient capacity to enable a direct interlinked network connection to the future North Shore and Northwest lines. The addition of a City Centre tunnel (whether as part of Option 3B or TLR) would solve that problem and allow a connected future network without the need for a transfer.

### Trade-offs

- Longer travel times
- More cost than surface light rail *but* a City Centre tunnel will likely be required for the future RTN at some point anyway so it may simply be a case of moving investment forward (and if surface light rail and a tunnel are both eventually built this would be the highest cost option).
- Lower levels of patronage and mode shift than Tunnelled Light Rail due to inability to run higher frequency services through central isthmus (compared to TLR option)
- Attracts higher demand than Light Rail due to the University station and faster travel times. However, initial demand modelling (received today) shows it is at capacity by 2051 – before connecting to N Shore and NW or introducing congestion pricing.



- Lower BCR – Given the higher costs and lower levels of benefits from patronage Option 3B is likely to have a lower BCR than the CLR or TLR options. This is not necessarily surprising as the benefits are linked to future network benefits and the avoidance of construction impacts.

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