

HEARING SUMMARY – DARREN WU – CONSTRUCTION TRAFFIC

Scope

1. My role has been to assess the effects on traffic of the construction works for the Project.
2. I am part of the about one third of Beca employees (roughly 1,200 people) who hold shares in the Beca Group. I do not receive any additional direct financial benefit if approvals for this Project are obtained; or lose anything if not. My shareholding does not affect my ability to comply with the expert code of conduct.

Corrections

3. Since preparing my evidence in chief/rebuttal I have noted the following two corrections:
 - (a) Statement 4.3 of my EIC should also note Ms Lesley Hopkins' evidence on Conditions as an item I have relied on for my EIC.
 - (b) Statement 8.9 of my EIC – the forecasted range for increase in journey time on SH20 should say between 0% and 50% rather than between 19% and 50% as follows:

Journey times on SH20 (between Hillsborough Interchange and Auckland International Airport) are forecast to increase by between ~~190%~~ (2 minutes equivalence) and 50% (8 minutes equivalence) depending on the year, direction of travel and the capacity reduction test that was carried out.

My key conclusions/findings are:

4. Overall, I consider that the construction traffic effects can be appropriately managed with the proposed conditions, including the Construction Traffic Management Plan (CTMP) framework provided for in the conditions. In addition, I note that all temporary traffic management in NZ must comply with the requirements set out in the Code of Practice for Temporary Traffic Management. Those measures are enforced by the Road Controlling Authorities (who are Auckland Transport for local roads and the Auckland Motorway Alliance for state highways).
5. Whilst a detailed construction methodology has not yet been confirmed, I have assessed the potential construction traffic impacts for the proposed construction activities based on the proposed construction works methodology described in the application documents.
6. The conditions require that a CTMP be produced for the overall project and that Site Specific Traffic Management Plans (SSTMPs) be developed and approved for any activity that varies the normal conditions of any public road.
7. My rebuttal evidence (in paras 4.2 to 4.8) provides a detailed summary of the purposes of these documents and how they work to support the management of potential construction traffic effects. I thought it might be helpful to show the purpose of these documents and their relationships diagrammatically and have prepared a figure to show this. See attached diagram.
8. In brief, the CTMP will be an overarching project document (prepared at the outset of the project) that provides a high level summary of the likely traffic management activities, management controls to minimise the effects and processes for temporary traffic management. All temporary traffic management activities for the Project should adhere to the principles outlined in this document.

9. Further to this, every activity that varies the normal conditions of a public road will require a SSTMP. This details the specific work and that will take place (including location and timing), layout drawings where there are physical changes to the road layout and measures for the management of temporary traffic effects. This must be approved by the Road Controlling Authority before a contractor can carry out the work.
10. The works on State Highway 20 will cause some delays to peak period journeys. However, the majority of the works on State Highway 20 will maintain the same number of lanes as per the existing layout. There will likely be the narrowing of lanes and temporary barriers installed to create a safe environment between motorists and construction working areas.
11. Works on both State Highways will cause some vehicles to take alternative routes. There is likely to be some transfer between SH20 and SH1 as works are being carried out on one or the other. There is also likely to be some vehicles that will move onto parallel local road corridors, which was primarily noted when works on SH1 took place.
12. The greatest requirement for truck movements will be for the construction of the embankment with an estimate of 55 trucks per direction per day (110 truck movements per day in both directions). It is expected that most of these movements can take place during off-peak hours and are not anticipated to have significant effect on existing network operations.
13. The Waikaraka Walkway will need to be closed (either in part or in full) however, walking and cycling connections to/from Mangere and along Orpheus Drive are able to be maintained. The provision of a safe detour route has been proposed as a condition on consent if a closure is required.
14. The proposed conditions, the CTMP, the SSTMP process and responsibilities of the RCAs will work collectively to govern any temporary traffic management activities for this project. As a result, my expectations are that the contractor will be required to conduct more detailed assessments of construction traffic impacts and plan to minimise and mitigate the effects before carrying out any work.

Issues outstanding as between myself and other experts:

15. In my opinion all issues raised by other experts relating to construction traffic effects have been discussed in conferencing sessions and through direct discussions and have been largely addressed where necessary in the proposed conditions. The primary concerns raised, related to the ability for ongoing access to private properties and there have been revisions to the relevant construction traffic conditions to provide greater robustness of requirements by contractors to engage with affected residents and businesses as part of the planning for any work that may disrupt entry/egress.

Temporary Traffic Management for this project will be governed by...

- **Code of Practice for Temporary Traffic Management (CoPTTM)** | For both AT & NZTA controlled roads
- **Auckland Transport Code of Practice (ATCOP) – Chapter 26** | For AT controlled roads

