

24 April 2018

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Dear Rachelle

**SH3 Mt Messenger Bypass
Response to Applicant's Responses to S92 Information Requests**

I have read the Applicant's responses dated 6 April 2018 to the S92 matters you raised. The following are my responses to the applicant's response to the "Alternatives Assessment", and the "Traffic and Transport Assessment" sections and "Question 151".

The numbers below correlate to the numbers in the Applicant's responses.

10. The response is at odds with the statements made in the Longlist report that cost and affordability were excluded from the assessment criteria. On that basis Option C1 should have been taken forward to the shortlist investigations.
- 11a and 11c With regard to the large landslide, please refer to the Geotechnical specialist for comment.

With regard to the long bridges (two) on the southern approach and the complex interaction with the existing road, these interactions are manageable. The total length of bridges in Option E (5 bridges in total) equates to 862m, whereas the total length of bridges in Option Z (3 bridges in total) equates to 580m. This suggests that the costs for bridges would be higher in Option E, than Option Z.
- 12b With regard to earthwork volumes, the response does not provide information for the quantum of cut or fill or the balance of quantities for the options within the shortlist report, only a total earth shifted volume. Providing this information would enable a comparison with the volumes in the longlist report and would help to better understand the construction difficulties of Options E and Z.
13. The response is at odds with the statements made in the Longlist report that cost and affordability was excluded from the assessment criteria. On that basis a full tunnel option should have been investigated because it meets all the project objectives and has the least construction footprint on the existing ground of all the options.
16. The response did not provide a comparison of the constructability challenges of Option Z compared to Option E as requested. It is difficult to determine whether the work associated with Option E is reasonably necessary when comparing the construction challenges associated with Option Z.
- 18b and 18c The response did not provide information as to why one criterion was used to represent 3 project objectives, other than they are transport related. The response stated that the MCA process was not a direct assessment against the project objectives. Other than Section 11.3.3.2 of the AEE, I can find no specific mention of an assessment of the options against the project objectives. In my experience on previous projects for the NZ Transport Agency, options are assessed against the project objectives to understand whether the work is reasonably necessary. This is particularly relevant when comparing the work required to construct Option E over Option Z including the extent of site clearance and earthwork quantities, of which Option Z has much less work than Option E.

- 19a The response doesn't explain why those particular weightings were applied. Are they weightings correlated to the LTMA or the GPS or something else? It would be helpful to understand how these weightings were derived by the Transport expert and whether they are related to other requirements of the NZ Transport Agency.
- 19b, 19c The response confirms that scoring of safety is directly correlated to the width of the shoulder but doesn't explain why a consistent shoulder width wasn't applied to make all options as safe as each other. It appears to me that safety is compromised when traversing over structures and that a minimum shoulder width of 1.5 should have been mandatory and this would have changed the scoring of Option Z to a higher score.
- 19d, 19e In the MCA assessment where cost was not a consideration, passing lanes should have formed part of Option Z as the vertical grade meant that they were required to align with the Design Philosophy adopted by the Applicant and this would have changed the scoring of Option Z to a higher score.
- 19h The response is inconsistent with the NZ transport Agency's codes and practices. The assessment of travel time should have occurred over the length of the project, which at the shortlist stage was Uriti to Ahititi. This would change the scoring of the Travel Time criterion within the transport criteria and give Option Z a higher score.
- 20a – 20d The response for 20a and 20b states that routine maintenance is the factor for the scoring of operational maintenance. The response to 20c states that delay was used as a proxy for operational resilience, which is in line with Section 3.1 of Appendix F in Longlist report. The response by the applicant would indicate that the scoring of operational resilience in the MCA process should be re-visited.
- 21a. I don't agree with the Applicant's response. At the time of the MCA, the scale of the work (earthworks, number of bridges and site clearance) is significantly less for Option Z when compared to Option E. I agree that the number of interactions with the state highway would be less for Option E than Option Z. but I think that these interactions and challenges are manageable (as provided in the Applicants response to 21b) and as such Option Z should have an equal or higher score than Option E in terms of constructability.
- 22b I don't agree with the Applicant's response that 44.4Ha of site clearance is "largely irrelevant to the constructability scoring". For this project, I think the clearing of the land is a significant aspect of the work to be undertaken and options that minimise that quantum of work should have been scored higher. I think the scoring in the MCA process would be different if the option in the Application was the one being scored.
- The response also states that the 44.4Ha is relevant to the designation boundary, which is at odds with the AEE, which states in the executive summary that there will be 44.4Ha of vegetation loss (site clearance).
- 23a – 23c The response confirms that the scoring of Option Z should have been higher in the MCA process.
24. The response regarding the width of the shoulders is at odds with the Transport Agency's own standards in relation to safety. Both Austroads Parts 3 and 6 all recommend a 1.5m shoulder width and this is the width that should be built.
- 151 Fog is known to occur in the valleys either side of Mt Messenger and on occasion the summit is shrouded in cloud or mist. It is primarily the responsibility of drivers to drive to the conditions. With regard to black ice, the Transport Agency should be able to confirm whether this occurs and what their response would be (eg gritting) as the Agency responsible for the safe operation of the state highways.

Yours sincerely

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