



Ms M Kemp Campbell Brown PO Box 147001 Brown Street, Ponsonby **Auckland 1144**

17 October 2025

Copy via email: Michelle@campbellbrown.co.nz

Dear Michelle,

SPECIALIST COMMENTS RESPONSE - RANGITOOPUNI

Further to your recent instructions, we have reviewed comments received on 8 October 2025 and have responded to the transport matters raised.

1 FAST TRACK PANEL REQUEST FOR FURTHER INFORMATION

The Rangitoopuni Expert Consenting Panel (the Panel) has directed the Environmental Protection Authority (EPA) to request further information from you under section 67 of the Fast-track Approvals Act 2024, relating to the Rangitoopuni Development application.

This memo addresses the traffic related matters raised.

1.1.1 ITEM 5 - ACCESS 2 SIGHT DISTANCE

Comment:

The Commute response in relation to traffic matters identified one location (Access 2) where sight lines from the right turn bay are limited (~158m) vs 166m required Commute anticipated that the minor non-compliance with sight distance can be remedied with mitigation measures and that movement of Access 2 is not required. Commute suggested that these mitigation measures could include:

- High friction surfacing to assist in further reducing speeds of westbound traffic; and
- Additional signage showing a concealed exit for westbound traffic.

The Applicant is requested to provide further information in relation to whether this access limitation can feasibly be addressed by more detailed design and if so, provide such a revised design to address the sightline shortfall.

Commute response:

Given the 8m shortfall in sight distance looking west from access 2 It is suggested that mitigation measures including a high friction surfacing is considered to be an acceptable measure to reduce the sopping distance of approaching cars and not necessarily the approach speed.

High Friction Surfacing (HSF) is used on roads to increase the skid resistance of the road surface, especially to assist drivers stopping the vehicles to reduce the risk of accidents at high speeds. This HSF surface is expected to contribute to a safer driving environment on busy roads.



HSF treatments are pavement treatments that dramatically and immediately reduce crashes, injuries, and fatalities associated with friction demand issues, such as:

- A reduction in pavement friction during wet conditions, and/or
- A high friction demands due to vehicle speed and/or roadway geometrics.

A key example is shown in Figure 1 below.

Figure 1: Mill Road / Alfriston Road Intersection Southern Approach HFS Example



Limited information is available in New Zealand regarding high friction surface performance; however, the U.S Federal Highway Administration found that high friction surfaces are able to reduce stopping distances by between 25-30%¹. A review of eight high friction surfaces in London found average skid resistance ranged from 0.453 to over 0.6², higher than the 0.36 value used in AUSTROAD's Sight Distance assessments. It is also noted that the provision of a 50m approach of HFS is appropriate.

Sight distance as per Table 3.2 of AUSTROAD's Guide to Road Design Part 4A is made up of 3 seconds of observation time, 2 seconds of reaction time and the remaining being time to stop. Based on surveyed speeds of 76km/h (21.11 m/s) the required 166m sight distance (as per the Commute

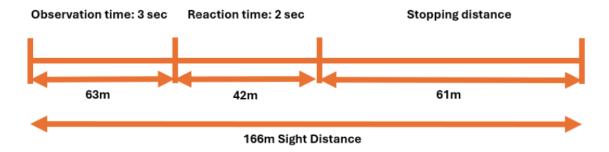
¹ Federal Highway Administration. (n.d.). High Friction Surface Treatment Curve Selection and Installation Guide. U.S. Department of Transportation. Retrieved from https://highways.dot.gov/safety/rwd/keep-vehicles-road/pavement-friction/high-friction-surface-treatment-curve-selection-and

² Stephenson, M., Hodgson, M., & Premathilaka, A. (2014). *A review of the use of High Friction Surfacing in London*. W.D.M. Limited, Royal Borough of Greenwich, CH2M HILL. Retrieved from https://saferroadsconference.com/wp-content/uploads/2016/05/Monday-pm-MA-3-Stephenson Mark 114 V1 2014127-A-review-of-the-use-of-High-Friction-surfacing-in-London.pdf



response dated 19 August 2025) has been distributed between observation time, reaction time, and stopping distance as per Figure 2.

Figure 2: Sight Distance Breakdown



Applying a conservative 25% reduction to just the stopping distance as a result of the high friction surface, the resulting stopping distance is reduced to ~46m (15m reduction). Therefore, the required sight distance at access 2 with a HFS would be approximately 151m which the provided sight distance from the right turn bay easily met (158m).

Refer to Appendix A for a plan of the HFS for a 50m approach in both directions at access 2.

Yours sincerely

Commute Transportation Consultants







APPENDIX A – HFS PLAN



Revision notes:						
Rev:	Date:	Notes:				

Drawn by:	
HA	
J003122	
Client:	

Proposed Residential Development

Drawing Title: Sight Distance

High Friction Surfacing Plan

Scale @ A3: 1:500 Revision:





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