

**BEFORE A BOARD OF INQUIRY
NORTHERN CORRIDOR PROPOSAL**

UNDER of the Resource Management Act 1991 (**RMA**)

AND

IN THE MATTER of notices of requirement for designation and resource consent applications by the New Zealand Transport Agency for the Northern Corridor Proposal (the **Proposal**)

**SUMMARY OF TRAFFIC AND TRANSPORT EVIDENCE OF KATHRYN KING
20 July 2017**



Simpson Grierson

Barristers & Solicitors

G C Lanning / W M Bangma / D W Simpson

Telephone: +64-9-358 2222

Facsimile: +64-9-307 0331

Email: gerald.lanning@simpsongrierson.com

DX CX10921

Private Bag 92518

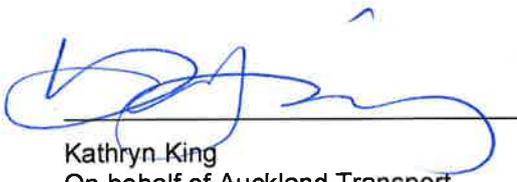
Auckland

1. My Name is Kathryn King. I am the Walking, Cycling and Safety Manager at Auckland Transport (**AT**). My background and experience is set out in section 1 of my evidence.
2. In summary, the key conclusions set out in section 3.2 of my evidence in chief (**EIC**) are:
 - 2.1 I strongly support the improved walking and cycling links to be provided as part of this Norther Corridor Improvements project (**the proposal**);
 - 2.2 The completion of the shared use path (**SUP**) will add key strategic 'metro' north-south and east-west links to the Auckland Cycle Network (**ACN**);
 - 2.3 The SUP also links to key destinations, most notably to existing and planned public transport interchanges. This aligns with the broad investment objectives of the regional AT Cycling Programme Business Case; and
 - 2.4 The absence of sufficient local connections is a concern. If cyclists cannot safely and easily reach the SUP, this may reduce and delay the benefits that might otherwise be expected to be delivered as part of this project.
3. I attended the expert conferencing on transport and traffic – general and signed the joint witnessing statements (JWS) dated 26 June 2017. I have read the relevant transport evidence, rebuttal evidence and other JWS joint witnessing statements. There is nothing in these documents that changes the views I have expressed in my EIC or the JWS.
4. In respect of 2.(d) above, following expert conferencing the NZTA and AT has worked to identify and propose measures that will connect the SUP to walking and cycling infrastructure on the local road network. This includes connections and safety in the vicinity of Oteha Valley Road interchange, McCylmonts Road, Caribbean Drive and Albany Highway north.
5. In respect of the matters raised by Kiwi Self Storage Ltd in their submission and by Mr Hall in section 8(g) SH1/SUP Gradient of the transport and traffic – general JWS. My position remains unchanged and I consider the best outcome for the SUP and its users is a gradient within the 5% gradient guidelines as set out in the Minimum Requirements for the proposal derived from AT's Transport Design Manual) unless there is a compelling reason otherwise. While steeper grades can be acceptable, they should be minimised to increase accessibility and encourage path use

6. Commenting on whether the reasoning put forward by Kiwi Self Storage Ltd is compelling or otherwise is outside my area of expertise. However, I can confirm that when a SUP exceeds 5% an engineering responses is required to ensure the safety and functionality of the SUP for all users. For information, I have included in **Attachment 1** to this statement the standards on SUP gradients in AT's Transport Design Manual. These standards are consistent with international best practice and have been accepted by the Capital Project Accessibility Group that AT consults with.

7. As set out in section 8 of my evidence, I continue to conclude that I strongly support the walking and cycling improvements included as part of the Proposal. The SUP aligns with the planned ACN and fills a gap in the existing network. Over time the SUP will likely develop into the centre of the upper North Shore cycle network.

Dated at Auckland this 20th day of July 2017



Kathryn King
On behalf of Auckland Transport

Attachment 1 - SUP gradients in AT's Transport Design Manual

1. Gradient

Running grades on shared-use paths should be designed to not exceed 5 percent (1:20) where possible.

Maximum lengths of grades before requiring a rest platform:

- 5% (1:20) for a maximum of 120m;
- 8.33% (1:12) for a maximum of 45m;
- 10% (1:10) for a maximum of 9m; and
- 12.5% (1:8) for a maximum of 3m.

Where the gradient falls outside of the thresholds specified above the maximum length shall be aggregated based on the percentage and length it falls within ie 6% for a maximum of 95m.

Note: Cycle design speed should be managed by change of direction, block length and other measures to prevent high differential speed when meeting pedestrians and other path users. Where the function of the path requires a design cycle speed greater than 25 km/h, separation should be provided.

2. Change in Gradient

Change of gradient should be made with a vertical curve of at least 10 m radius and at least 2 m long except at low speed crossing ramps.

*3 m landing excludes the length of a transition curve at each end.

3. Platforms and Rest areas

Rest platforms are beneficial for all shared path users, particularly for people with mobility impairments that expend more effort to walk than other pedestrians. The frequency of rest areas is dependent on the terrain and maximum lengths of grade identified above.

The preferably length of a rest platform is 4m. The minimum length shall be 3m.

A rest platform shall also be provided off the main pathway with a minimum width of 3m. This provides an opportunity for users to move off the path, instead of remaining on the path to stop and rest.

The off path rest area shall be located on the uphill left hand side where possible and accommodate accessible design for amenities such as benches, where provided.

Rest platform shall be less than 2% in grade.