

**Before a Board of Inquiry
Northern Corridor Improvements Project**

Under the Resource Management Act 1991 ('the Act')

In the matter of a Board of Inquiry appointed under section 149J of the Act to consider notices of requirement for designations and resource consent applications by the New Zealand Transport Agency for the Northern Corridor Improvements Project

Rebuttal evidence of Shannon Bray for the New Zealand Transport Agency (Urban design, landscape and visual)

Dated 15 June 2017

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STATEMENT OF REBUTTAL EVIDENCE OF SHANNON BRAY FOR THE NEW ZEALAND TRANSPORT AGENCY

1 Qualifications and experience

- 1.1 My full name is Shannon Bray. I am the director and owner of my own landscape architectural practice, Shannon Bray Ltd, in Hawke's Bay.
- 1.2 My qualifications and experience are set out in my Evidence in Chief ('**EIC**') dated 20 April 2017.
- 1.3 I repeat the confirmation that I provided in the EIC that I have read, and agree to comply with the Code of Conduct for Expert Witnesses 2014.
- 1.4 My rebuttal evidence relates to the notices of requirement ('**NoRs**') and resource consent applications lodged by the New Zealand Transport Agency ('**Transport Agency**') with the Environmental Protection Authority ('**EPA**') on 14 December 2016 for the Northern Corridor Improvements Project ('**Project**').

2 Scope of evidence

- 2.1 In this rebuttal evidence, I will address matters raised in the evidence of:
 - a Andrew Fraser and Howard Trautvetter, Sam Allan and Geoff Land on behalf of Kiwi Self Storage Limited ('**Kiwi**');
 - b Ian Kennedy and Andrea Brabant on behalf of Waste Management NZ Ltd ('**WMNZ**');
 - c Peter Fogarty; and
 - d Stephen Brown, Joanna Hart and Maylene Barrett on behalf of Auckland Council.
- 2.2 The fact that this rebuttal statement does not respond to every matter raised in the evidence of submitter witnesses within my area of expertise should not be taken as acceptance of the matters raised.

3 Evidence of Mr Fraser and Mr Trautvetter, Mr Land, and Mr Allan

- 3.1 Section 6.18 of Messers Fraser and Trautvetter's evidence discusses what they perceive as the 'overbearing' height of the proposed retaining wall within the site, and express their concern that the wall will block visibility of the Kiwi facility from SH1.
- 3.2 The wall in this location will be up to 8.2 metres in height (based on the General Alignment Drawing 206-RevH). It is located in the context of the Kiwi building which is largely windowless (other than the feature windows on the corner of the building), and of a similar (if not higher) height, to other windowless tall buildings in the vicinity, such as the neighbouring Bunnings Warehouse. I consider that, despite its height, the wall, being adjacent to a commercial facility and an unvegetated parking/storage area, creates negligible adverse effects on visual amenity in this location.
- 3.3 Section 6 of Mr Land's evidence discusses the potential visibility of the Kiwi site from SH1. In my opinion, Mr Land over-emphasises the visibility of the site when a traveller is immediately adjacent to it. I have traversed the road on a numerous occasions, both for this Project and at other times, and my opinion of the visibility of the Kiwi site is as follows:
- a The best visibility is achieved when travelling southbound, particularly in outer lanes. When driving across the Rosedale Wastewater Treatment Ponds ('**RWWTP**') the site comes into view, and is at its most prominent, after a small patch of planting on the roadside (as identified in Mr Land's Photo 2).
 - b After the first view, the prominence of the building and signage diminishes as a traveller gets closer to the site, as a result of topography and existing planting. Adjacent to the site, travelling south, the main facade of the building is no longer visible, and large parts of the side of the building are below the level of the motorway.
 - c Travelling northbound, visibility of the site is harder to achieve as it is not in the main peripheral vision of a driver (who should, theoretically, be looking forward, focussed on the road ahead), or of a passenger

who is located on the other side of the car. Mr Land's Photo 4 shows that the signage is partially obscured in this location.

- 3.4 Messrs Fraser and Trautvetter discuss, at paragraph 6.14 of their evidence, the statistics that make up Kiwi's sales, indicating that many people contact Kiwi because they have driven past the site. In section 4, they allude to customers using the facility daily. Both factors indicate to me that a majority of their customers are local, and I would anticipate that they are likely to drive along the motorway regularly. This is relevant, because one of the most powerful influencers of the way people experience and understand landscape is through frequency of viewing. The more people travel through a landscape, the more detailed the picture of that landscape is developed in their memory. They do not need to see things for a long period of time, or for great distances, even fleeting glimpses of certain features become reinforced into the subconscious every time they are seen. Details, such as forms, colours and activities are built up in the viewers memory on every trip.
- 3.5 In my opinion, the 'drive-by' customers Messrs Fraser and Trautvetter talk about are most likely to be people who have seen the Kiwi facility on more than one occasion. These people will have strong memories of the landscape through which they travel (and future customers will build this memory over time), even if only snapshot views are available.
- 3.6 Understanding this, I accept that the structure changes brought about to the motorway will restrict visibility of the Kiwi site for vehicles directly adjacent to the site (as depicted in the cross section in Mr Land's evidence, image A03). However, the proposed lane additions southbound across the RWWTP ponds,¹ together with the removal of the existing tall planting, will, in my opinion, increase the visibility of the most prominent view of the facility – that being a head-on view for those travelling south (Mr Land's Photos 2 and 3, without the vegetation, as this is to be removed to create the additional lanes as part of the Project).

¹ At CH15000, as depicted on the General Arrangement plans, Sheet 5 (drawing DRG-0205 Rev H) shows the proposal for four lanes (one being an exit lane). Currently this part of the motorway is two lanes wide. This is also depicted in the Typical Cross Section drawings, Section H (CH15000), Sheet 5 (drawing DRG-0305 Rev F). The existing outer lane will essentially become Lane 3 (with two lanes to the outside, plus the busway and SUP), as the central median remains in the same location.

- 3.7 Pages 47 and 48 of the UDLF indicate that there is significant scope for planting throughout the SH1/SH18 interchange, and particularly on the south eastern side of the RWWTP. My preference for planting in this area would be to include tall species that help to anchor and screen the new structures (as alluded to in my EIC, paragraph 13.43). Such planting would effectively eliminate all views to (and from) neighbouring properties (that is the point of it), including the Kiwi facility. However, I appreciate that there are times when visibility is desirable by adjacent land uses, as indicated by Kiwi's witnesses. I therefore refer to my EIC (paragraph 14.19) where I indicate that only low planting is proposed adjacent to SH1 in the vicinity of the Kiwi site, and that this has been noted in the UDLF. To reinforce the necessity for this to be undertaken, I have revised the note in Section 6 of the UDLF, and attached to this rebuttal evidence as **Annexure A** is a revised Section 6 which will be incorporated into final revision UDLF to be referred to in the conditions. The use of lower planting will result in a reduction in the landscape benefits discussed above, but in my opinion will still provide appropriate mitigation for the new structures.
- 3.8 In addition, Table 24 of the *Assessment of Transport Effects* (2 December 2016) provides projected patronage information on expected bus travellers on the proposed Busway in 2021 as a result of the Project. It is predicted that the patronage in the morning and afternoon peaks travelling southbound will increase to 5,380 (an increase of 8% compared to the same route without the Project). With the location of the busway being closer to the Kiwi site, on the eastern side of the motorway corridor, and bus passengers generally being both regular and passive travellers (more time to view and memorise a landscape), I would anticipate that these could all be considered as potential future customers that will see the Kiwi site.
- 3.9 I therefore conclude that there will remain significant numbers of viewers, both in vehicles and in buses, who will remain having good (or even better) visibility of the Kiwi site when travelling southbound. Regular travellers will remain able to build up images of the Kiwi building the more frequently they travel past it, and I consider that the loss of visibility to the

site at locations directly adjacent will have a negligible effect on viewers awareness of the facility.

- 3.10 In response to Mr Allan's evidence, paragraph 6.4, I consider that the design of a billboard, including its size, colouring and message, can significantly impact whether it is clear and legible, or regarded as 'visual clutter'. Kiwi already relies on signage to ensure that their name and phone number are visible, and I consider that the inherent nature of the name, 'Kiwi Self Storage', is very indicative of what services they provide. In my view a billboard will still provide a level of visibility of the business for those viewers on the State highway adjacent.
- 3.11 In paragraph 7.2(f), Messers Fraser and Trautvetter make the suggestion that the guard rail adjacent to the SUP could be constructed of transparent material. I do not agree with this suggestion, as typically glass or acrylic screens are targets for vandalism and would unnecessarily increase the maintenance costs for the Project. The use of transparent materials is typically reserved for situations where there is high amenity (such as views to a park or water), rather than views across a commercial and industrial estate. On this basis, I do not consider that installing a transparent screen is appropriate for this location.

4 Evidence of Ian Kennedy and Andrea Brabant

- 4.1 At sections 6.2 and 6.3 of Mr Kennedy's evidence and sections 9.2 and 7.5(c) of Ms Brabant's evidence both witnesses outline concerns in regard to reverse sensitivity that might be created as a result of the SUP alignment close to the WMNZ site.
- 4.2 I met with Mr Kennedy and discussed this concern. As a result of this discussion, it is proposed that a 2.0m high solid wall will be installed along the boundary of the SUP in the vicinity of the WMNZ Site, as part of the Project. This will include partially down the stairs connecting the SUP to Rosedale Road. To ensure this is undertaken, I have included a note in the revised Section 6 of the UDLF attached to this rebuttal evidence as

Annexure A. I also understand that **Mr Burn** has updated condition UDL.4(e) to reflect this addition.²

5 Evidence of Mr Fogarty

5.1 In Section 2 of his evidence, Mr Fogarty raises similar concerns in regard to the location of the SUP along SH18 as Mr Brown. I therefore refer to my comments below (paragraph 6.5) in this regard.

5.2 On page 5 of his evidence, Mr Fogarty suggests the extending of a noise barrier along the boundary between SH18 and residential properties past Paul Matthews Drive. I have included in my EIC (paragraph 13.45) the addition of a 2.4m high boundary fence between Carribbean Drive and the end of the noise wall adjacent to 59 Barbados Drive. Whilst I am not a noise expert, this high fence may provide positive noise benefits for residents in this area.

5.3 I disagree with the suggestion of Mr Fogarty that this wall should be placed between SH18 and the SUP, for two important reasons:

- a. It would essentially create a narrow corridor in which the SUP is located, between the wall and any boundary fencing, which is not consistent with best practice CPTED principles. The purpose of the wall is to provide visual screening, and therefore there would be no passive surveillance of the SUP.
- b. The topography of the area is such that, for the most part, the road and SUP are located below the residential properties. A visual barrier is better located at the upper elevation.

6 Evidence of Auckland Council

Stephen Brown

6.1 Paragraph 96 of Mr Brown's evidence concludes '*the design refinements now proposed by NZTA, together with the revisions to the UDLF and Mr Bray's details assessment of landscape and urban design effects, have adequately addressed many of the concerns that I initially raised...*'. He

² Annexure A of Mr Burn's Rebuttal Evidence.

then sets out all of the elements of the Project which he now considers are adequately covered. His conclusion is supported by his statement in paragraph 95:

I fully agree with Mr Bray that it is critical for the UDLP to implement the revised Sections 4, 5 and 6 of the revised UDLF. Having read Mr Burn's evidence addressing proposed conditions, I am also now satisfied that the opportunities for consultation and review by Council are sufficient in relation to the UDLP that it should achieve high quality and appropriate design outcomes.

- 6.2 Mr Brown indicates that he agrees with my assessment of effects, as set out in his paragraph 78:

As a result, I generally agree with his overall conclusions (paragraph 16.4) that the NCI project would have a very low to quite limited impact on most residential areas and other receiving environments exposed to SH1 and SH18. This includes those generally living in close proximity to SH18 ... I consider that the mitigation proposed – mainly fencing and planting – is appropriate.

- 6.3 Mr Brown's remaining concerns in regard to the Project (set out in his paragraph 97) centre around the alignment of the SUP along SH18 and potential pedestrian and cycle connections across SH18, including the Rook Reserve underpass. I note that none of these concerns relate to any adverse landscape, visual amenity or urban design effects as would be considered under the Resource Management Act 1991, but rather relate to 'nice to haves' from an urban design consideration.
- 6.4 In this respect, I largely agree with Mr Brown that it would have been beneficial to be able to provide better pedestrian and cycle connectivity across SH18. I worked hard with the wider Project Team to explore various options that might achieve this additional connectivity (as set out in my EIC, paragraphs 11.26 to 11.31). None of the alternative options investigated were considered feasible. I also understand from **Mr Moore**

that connecting Paul Matthews Drive to Rook Reserve is also not feasible.³

- 6.5 I remain of the opinion that the best long term urban design outcome is to locate the SUP on the northern side of SH18, as this locks the path in place now and leaves open the option for an additional path on the southern side in the future. It is my understanding that if the SUP was located on the southern side as part of this Project, this would eliminate any future possibility of a path on the northern side.
- 6.6 I reiterate my comments in paragraph 11.31 of my EIC that all of the SUP facilities proposed will enhance pedestrian and cycling connectivity in the wider area. None of the proposals reduce the existing cross-connectivity across the network. As set out in **Mr Clark's** rebuttal evidence, the Project will reduce, and not increase transportation severance across SH18, between Unsworth Heights and Rosedale.⁴ The demand for the Underpass may increase as a result of SUP on SH18 but this will be offset by:
- a The reassignment of some walking/cycling trips to the new connection on the Paul Matthews Road overbridge; and
 - b the fact that there is already a connection to the Alexandra Creek path from Omega Street.
- 6.7 Therefore people using the new SUP via the connection to/from William Pickering Drive, may simply divert from the Omega Street Link. Accordingly, **Mr Clark** does not expect the Project to lead to a significant increase in the demand for the SH18 pedestrian underpass.⁵
- 6.8 I remain open to any opportunities to improve the Rook Reserve underpass, but I make the important observation that the proposed motorway will not adversely impact the current underpass arrangement in any way. It will remain a connection for people underneath the corridor for those who wish to use it. In addition, there are also CPTED issues beyond the underpass itself (particularly on the northern side which is in a gully

³ Paragraph 7.5(a) of Mr Moore's rebuttal evidence.

⁴ Paragraph 3.4 of Mr Clark's rebuttal evidence.

⁵ Paragraph 3.4 to 3.5 of Mr Clark's rebuttal evidence.

and not lit at night), and that replacing the underpass does not solve these issues, and they are out of the scope of this Project (and the Transport Agency) to resolve.

Maylene Barrett

- 6.9 Section 7.46 of Ms Barrett's evidence discusses a proposed plan for Rook Reserve. Since the lodgement of her evidence, the Transport Agency has met with Auckland Council to discuss opportunities for Rook Reserve, and I have been involved in developing potential landscape concepts. **Mr Burn** has updated condition UDL.6A to reflect the requirements from Auckland Parks based on these conversations and my input (I refer to this in more detail in paragraph 6.15 below).⁶ I confirm that this condition will achieve the positive outcomes I refer to in my EIC. I consider that the outcomes of the project will result in an enhancement of the activities that can be undertaken at Rook Reserve, and in the amenity experienced by users.
- 6.10 I have responded to the concerns Ms Barrett raises in sections 7.53 and 7.54 of her evidence, in regard to the location of the SUP and Rook Reserve underpass, above at paragraphs 6.6 to 6.7.
- 6.11 At 7.60, Ms Barrett suggests the addition of further SUPs and connections which are currently outside of this Project. As outlined by **Mr Moore**, none of the potential connections Ms Barrett suggests (with the exception of upgrading the Rook Reserve underpass, which in my opinion will be more challenging once a motorway is in operation) will be prevented if the Project proceeds. As I have indicated in my EIC (paragraph 11.18), the inclusion of the SUP in the Project is as a 'backbone or arterial link within the broader AT network', and is designed to allow future connections as needs arise and funding allows.
- 6.12 At 7.74, Ms Barrett discusses the inclusion of permeable fencing along the boundary of the Rosedale Landfill, the provision for future connections, and the replacement of any lost plantings. I have updated Section 6 of the UDLF to this effect and attached it to this rebuttal evidence as **Annexure A**, but note that such a fence is already a

⁶ Annexure A of Mr Burn's rebuttal evidence.

requirement as outlined in the General Alignment drawings (eg Typical Cross Sections, Drawing 304, Section E (CH14200), shows a 1.4m high fence on the outside of the SUP – this would be a permeable fence similar in style to a typical pool fence).

Joanna Hart

6.13 At paragraph 10.10, Ms Hart concludes that *'based on the evidence of Mr Brown and the proposed conditions, including my suggested amendments in Annexure A of this evidence, it is my opinion that the actual and potential effects [in regard to urban design, landscape and visual effects] can be appropriately avoided or mitigated.'*

6.14 The amendments to the conditions that Ms Hart refers to are as follows:

- UDL.2.b – adding the words urban design;
- UDL.4 – ensuring appropriate reference to the latest revision of the UDLF; and
- UDL.7 – inclusion of comments by the Advisory Panel in the submission of the UDLP.

I agree with these amendments.

6.15 **Ms Hart** adds a new condition in regard to Rook Reserve,⁷ to the effect that the reinstatement plan shall include:

- a Naturalised retaining and planting around the new stormwater pond;*
- b Play elements constructed adjacent to the stormwater pond, including a basketball half-court;*
- c Re-contouring and landscaping of the remainder of the reserve and including recreational features such as boardwalks, walkways, seating, and viewing platforms; and*
- d For the existing fitness equipment in Rook Reserve to be removed and replaced with new equipment in Barbados Reserve;*

⁷ Annexure A, page 50 of Ms Hart's Evidence.

- e *A new underpass that meets the standards of the new UDLF section 5.6 requirements for underpass; or*
- f *That as an alternative a pedestrian over-bridge be provided; or*
- g *In the event that the above two options are not feasible because of engineering or other significant reasons, then an alternative underpass or over-bridge be provided between Bluebird Reserve and William Pickering Drive that meets the UDLF section 5.6 requirements.*

6.16 In my opinion this amendment goes beyond the discussions that I have had with Auckland Council Parks and the potential development options that I have developed for the reserve (as outlined above, paragraph 6.9). **Mr Burn** has recommended adding a new condition UDL.6B and I agree with his proposed addition.

6.17 An additional condition is also suggested by Ms Hart in regard to the Rosedale Landfill:⁸

In addition to the Reserve Reinstatement Plans above, the UDLP shall in relation to the Rosedale Closed Landfill provide boundary fencing, replace any trees and landscaping equivalent to those removed or affected by the construction of the retaining wall and sightlines for the new motorway.

6.18 As set out in **Mr Burn's** evidence, a new conditions UDL.6C has been added to this effect.⁹

6.19 Finally, Ms Hart adds a new condition, SUP.1, which proposes additional urban design works that are not currently part of the proposed Project and do not appear to relate to any effects identified in either her or Mr Brown's evidence. These works include formed SUP connection 'stubs', pedestrian footpath/cycleway connections, and upgrades to pedestrain/cycle lanes, In my opinion, this proposed condition is not necessary and is not within the scope of the Project. I refer also to paragraph 11.19 of my EIC, where I note that future connections to the

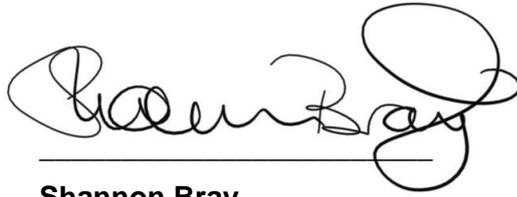
⁸ Annexure A, page 50 of Ms Hart's evidence.

⁹ Annexure A of Mr Burn's rebuttal evidence.

SUP can be made at any time. I do not consider it appropriate to add a 'stub' to a path that currently does not exist, where the location is not certain, and the timing (or likelihood) of its future delivery is not defined.

7 Conclusion

- 7.1 I understand many of the concerns raised by the submitters throughout both their submissions and evidence. Where possible, I have worked with the Project Team to incorporate changes that can be made in response to the concerns, or provide appropriate, useful additional information where this has been required.
- 7.2 However, some of the requests, particularly by Council are, in my opinion, out of the scope of the Project and therefore cannot be incorporated. Whilst I agree, from an urban design perspective, that increasing connectivity along and across is a desired outcome, there is only so much that any single project can deliver. In my opinion, the Project contributes to enhancement of pedestrian and cycling movement in the wider area, and importantly does not reduce it. In addition, the Project does not preclude additional development (such as a SUP on the south side of SH18) in the future, but rather secures opportunities that are currently available.
- 7.3 I also reiterate that the proposed planting across the Project area will bring significant benefits in terms of both landscape outcomes and visual mitigation. However, the downside of planting is that it will screen views to some properties. Where possible, I have ensured that planting is kept low to allow such visibility, but this has to be balanced against the other benefits, and the fact that planting is a permitted, and desirable, outcome.
- 7.4 I remain of the opinion that the Project has positive urban design outcomes, positive landscape effects, and low to moderate visual effects overall. I acknowledge that there remain some properties that will experience higher effects, but in my opinion these effects can either be mitigated, or are acceptable outcomes within the context of the Project.

A handwritten signature in black ink, appearing to read "Shannon Bray". The signature is written in a cursive style with a large, looping initial "S". A horizontal line is drawn across the signature.

Shannon Bray

15 June 2017