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Auckland Council
Private Bag 92300
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Attention: Ben Willis / Peter Vari

12 May 2023

Dear Ben,

SH16 Brigham Creek to Kumeū Stage 2 - Notice of Requirement Further Section 92 Responses

Further to the two emails received from Peter Vari (directed to Tessa Robins at Waka Kotahi, dated 1 March 2023), the following provides responses to further queries posed by Auckland Council specialists on street tree and landscape matters. For ease of reading, we have listed the questions asked by Council's specialists in bold and followed with both our previous response in green text (if relevant) and then our further response in black text. It is noted that in some cases, the project team has had to interpret/reword the particular question being asked based on the comments of Council's Urban Design specialist in the Landscape Specialist Report dated 8 December 2022, so the text is not copied word for word.

We note that we have assigned new numbering below as the questions were received in separate formats within the two emails noted above.

Waka Kotahi is still in the process of responding to the further requests for traffic information. This will be provided in due course separately and therefore is not included in this response.

Council Parks (Street Trees)

- 1. My query was about why some existing street trees worthy of protection (also identified in the arb report) and which will be within the works footprint (new street landscaping) are not shown on the plans. The plans contain a key item for this purpose and multiple instances where non-notable trees are shown on the plans and noted to be protected and retained if possible.**

Macrocarpa, Poplar, Totara, Oak, Radermachera, Puriri, Magnolia, Kauri, Liquidamber, Ash and other unidentified trees (not notable) are labelled on the landscape plans for retention if possible, however, the street trees I have highlighted are not. This is inconsistent and implies that trees not noted on the drawings are not recorded and noted in the existing environment and worthy of protection if possible.

Various images of Landscape and Ecological Planting Plan extracts provided. [Excluded from this letter]

Updated drawings have not been provided to give effect to the comment. It is unclear why a note to protect most trees is provided on the drawings and others are not. This implies that only the identified trees are intended to be retained if possible, or simply reflects an inconsistent approach.

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Therefore, in my opinion, the drawings warrant being updated to also note the trees in group 108. This would make the drawings consistent with the written s92 explanation.

Previous response:

It is the intent along the design alignment to limit vegetation removal as far as practicable and that existing trees would be retained and protected where practicable. Trees identified in group 108 are intended to be retained and integrated into the proposed landscaping design where existing tree species are healthy, appropriate and consistent with the project landscaping approach. The works in proximity to this tree group are limited to installation of new street light poles so the trees will likely not be impacted significantly by the works and can be retained and protected.

Further response:

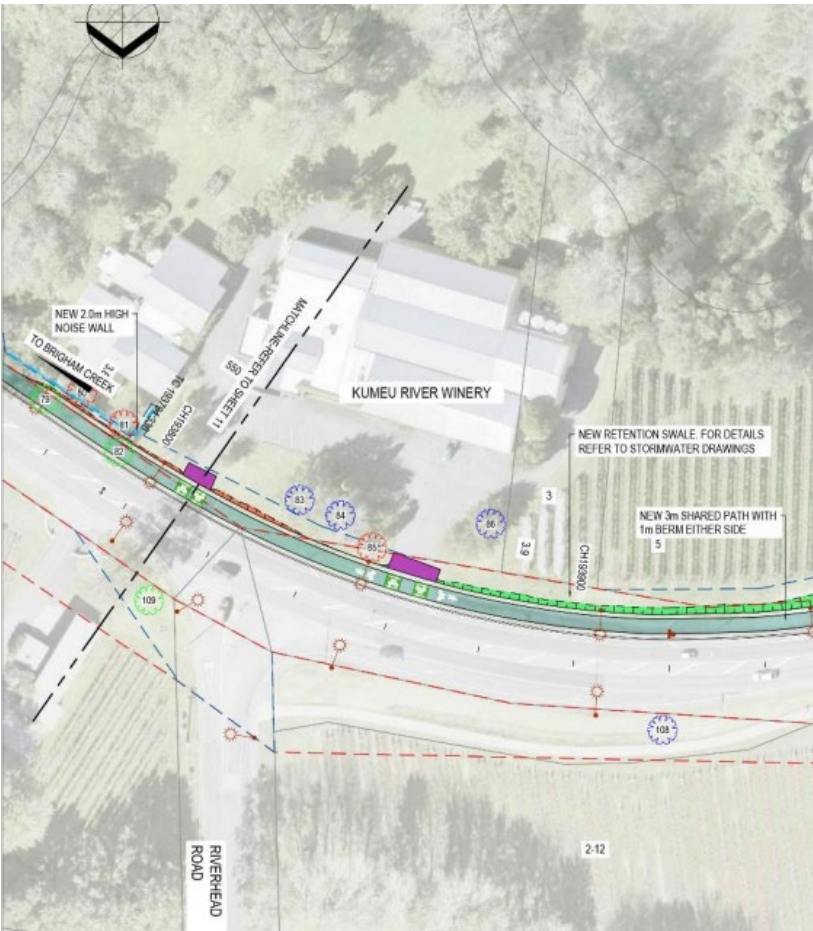
In summary, it is acknowledged that tree group 108 is not specifically recorded on the Landscape and Ecological Planting Plans as being protected/retained. However it is confirmed that tree group 108 will be protected and retained, as clearly evidenced within both the tree survey / plans within the Arboricultural Report and on the Site Clearance Plans. As a result, it is considered unnecessary to make any updates to the Landscape and Ecological Planting Plan. The purpose and content of the various Project plan sets included within the lodgement documentation is set out below.

The General Arrangement Plans illustrate the general Project proposal and the Proposed Designation Boundary (refer AEE Report Appendix A).

The Project Arborist has undertaken a tree survey (in May 2022) of all the trees within the existing environment, categorised these in the context of the proposed works and proposed alteration to the state highway designation (i.e. expanded designation footprint) and included the tree schedule data as Appendix 1 to the Arboricultural Assessment with a corresponding set of General Arrangement Plans with Trees. Section 2.4 of the Arboricultural Assessment discusses 'Alteration and removal of trees within road reserve zoning' (i.e. street trees on local roads) and specifically covers the removal of trees from Coatesville-Riverhead Highway (CRH) (tree group 168) and the works within the root zone of street trees (tree group 189). Tree works within the road reserve is a district matter and no resource consent is required, yet Tree Owner Approval (TOA) is required for the alteration and removal of Council owned trees. TOA has been obtained from Auckland Transport.

The original s92 query from Council Parks notes that Rodney Local Board has recently implemented street tree planting on the SH16/Kennedy Road corner and along the road frontages of the Kumeū Centre. It is understood from that query and the further information sought, that the trees of interest to Council Parks are the trees in group 108, located on the northern side of SH16 to the west of Riverhead Road just prior to the Kumeū town centre. Although these trees were planted by Rodney Local Board, they have been planted within an existing Waka Kotahi designation for road widening purposes (Designation 6768, which is shown as the red hashed line in the below figure).

Figure 1: Location of Tree Group 108 within existing Waka Kotahi Designation 6768



Source: Arborist Report Appendix 1 General Arrangement Plan with Trees Sheet 12 (extract)

It is unclear exactly when Council/Rodney Local Board planted these trees and Waka Kotahi has no record of a request for/provision of RMA s176(1)(b) written approval from Waka Kotahi for the planting of trees within Designation 6768.

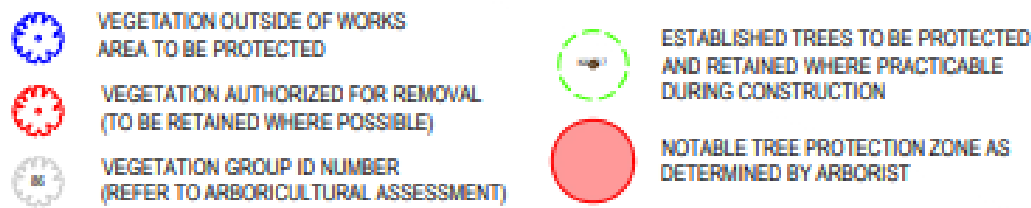
Tree group 108 have been surveyed as follows:

ID #	Species	Height (m)	Canopy spread radius (m)	Diameter @ 1.4m (mm)	Colour assigned	Location	Condition	Comments
108	Sweetgum x6	3	1	30	Green	Existing SH16 designation	Moderate, Poor	Will not be affected by the works.

* Noting **Category Green** = Vegetation within current Waka Kotahi SH16 designation and pest plant species within altered designation (non-protected vegetation). The removal of these trees does not require resource consent.

In terms of process, the tree survey data and categorisation were transferred onto the Site Clearance Plans in a simplified way with a focus on illustrating the potential tree impacts and identifying the specific trees that would require resource consent for tree works, using the below Legend.

Figure 2: Site Clearance Plans Legend

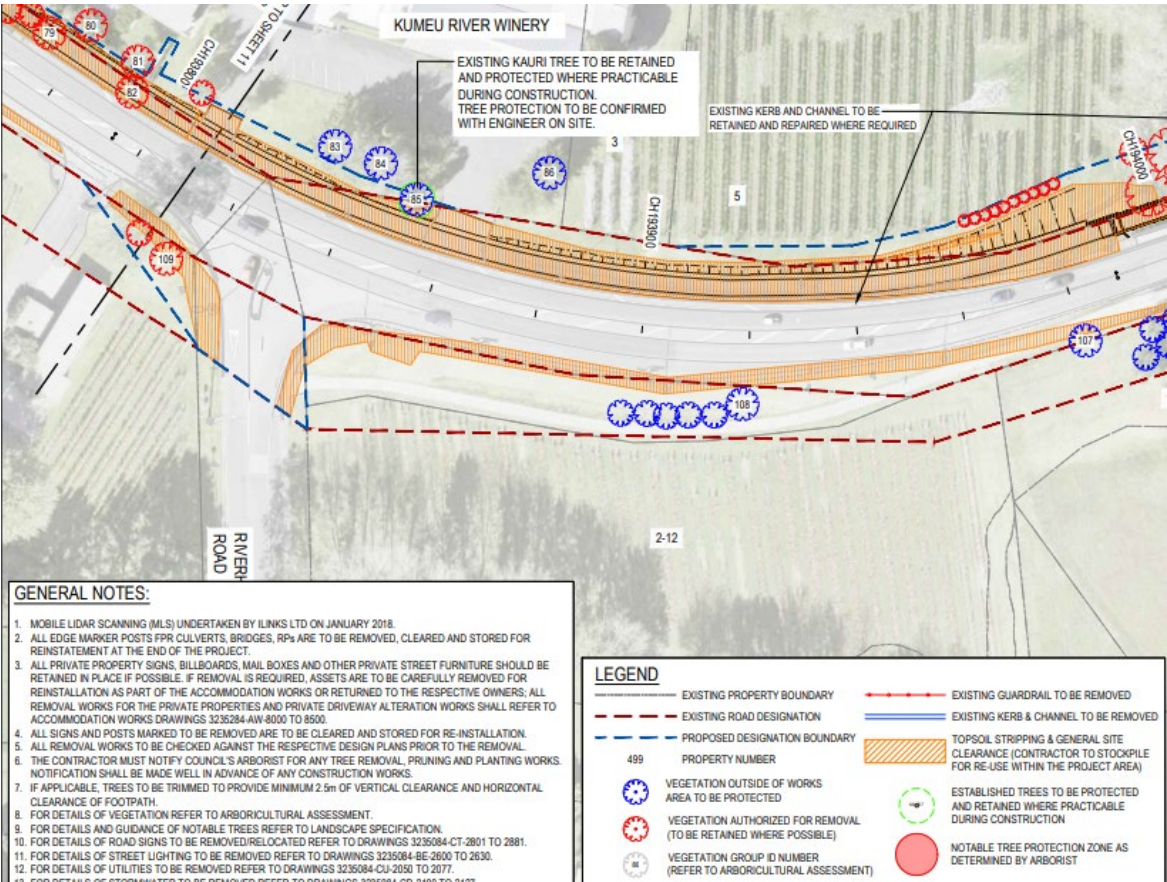


Source: Site Clearance Plans (extract)

The Site Clearance Plans (refer AEE Report Appendix J) show the proposed earthworks and potentially impacted trees within the context of the proposed alteration to the state highway designation (i.e. expanded footprint). The trees shown as blue are outside of the works area and will be protected. The trees shown as red are inside the proposed works area and resource consent is being sought for their removal (on a worse case envelope approach to consenting), yet they will be retained where possible.

Tree Group 108 is within the existing Waka Kotahi designation 6768 for road widening purposes and could be removed by Waka Kotahi as the Requiring Authority for that designation (so long as Waka Kotahi also has ownership of the land). However it is confirmed (as shown on Site Clearance Plan – Sheet 12) that these trees are outside of the proposed physical works area and are to be protected and retained.

Figure 3: Tree Group 108 on Site Clearance Plan – to be protected



Source: Site Clearance Plan Sheet 12 (extract)

12 (in blue) as trees outside the works area and to be protected. It is therefore considered unnecessary to make any updates to the plan sets submitted with the NoR and resource consent application as the Site Clearance Plans already indicate which trees (regardless of ownership) will be retained or consented for removal, and the Landscape Plans already indicate the proposed landscape planting which has left sufficient room for tree group 108 to be retained and integrated within the new landscaping.

Lastly, it is considered that the proposed works methodology set out in the Arborist Report is sufficient to manage the Project's impact on the protected root zone of trees.

Urban Design - ULDMP and context for landscape design treatment

It is noted that the following further assessments are provided following feedback that the previous response was insufficient. In the absence of specific feedback comments, we have taken the approach of reviewing the responses and identifying (with reference to the Urban Design memorandum shared with us) where we could expand on the original response.

2. The consistent design along the corridor means that it does not appear to be responsive to local place-making or locally significant features.

Please provide information and context on why this design approach has been taken and why a context-based design (including views out of the corridor) wasn't.

Previous response:

Please refer to Appendix K of the lodged NOR package entitled Urban and Landscape Design Masterplan (ULDMP) for further information. The overarching Corridor Strategy is set out in Section 2.3.

Further response:

The Project did use a context-based design which identified key local features along the corridor extent that contribute to local amenity values. These informed our design philosophy and focussed on the natural features including the Kumeū River and Ngongetepara Stream. It is acknowledged that the restricted width of the proposed additional designation area has resulted in a consistent linear landscape treatment approach to the corridor. However, more location specific landscaping consideration is demonstrated by the five planting categories that have been set out within the Landscape Design which are designed to mitigate specific adverse effects or enhance specific amenity values.

The adjacent landscape character of the corridor was acknowledged through the design with the landscape planting mixes being adapted to assimilate with the higher ecological value areas of the aforementioned existing stream/ river corridors that dissect the corridor. These planting mixes are also used in low lying areas where stormwater bioretention swales and wetland systems have been integrated. Due to the narrow additional designation extent there is less opportunity for providing extensive treatments in these areas.

Views were considered across the corridor and where possible lower planting has been included to allow views to the rural landscape. This was balanced with creating buffer planting for residential properties along the corridor.

Local place-making design features are intended to be incorporated at Coatesville-Riverhead roundabout, Kumeū Bridge and along the SUP which will involve partnership with mana whenua.

3. In addition, confirmation is required that the species selection is consistent with WF7, WF8 or WF11 where appropriate.

Previous response:

We understand prior to human settlement, the SH16 Project corridor is likely to have been covered by puriri dominated broadleaf forest, kahikatea-pukatea dominated forest, and Kauri, podocarp, broadleaved forest. We have integrated some of these specimen tree species within the canopy tree mix where appropriate.

Further response:

We confirm that the species selection is consistent with the WF zones. We have selected tree species from the various forest types (WF7, WF8 and WF11) to be incorporated within the planting mix. These include Puriri, Tītoki, Metrosideros, Mahoe, Nikaū Palm and Rimu. Further plant species including Baumea, Carex, Juncus, Mānuka, Phormium and Coprosma from the forest types above have been supplemented with native restoration species that are fast growing and will achieve canopy cover within 5 years as per the Waka Kotahi P39 Standard specification for highway landscape treatments. The landscape specifications set by Waka Kotahi for landscaping adjacent to road corridors have been applied to all planting areas within the project area. These include the requirements for embankment slope treatment, topsoil depths and mulching specifications to name a few.

When considering species along the corridor, consideration was given to the number and size of tree species within the tight designation. Larger shrubs and tree species were chosen to avoid shadow casting and wind throw over the road as well as impacts of shade on neighbouring properties.

4. The Ecological assessment refers to restoration planting but it is not clear if this is included on the Landscape and Ecological Plans.

Previous response:

Restoration planting is integrated within the Landscape and Ecological Planting Plans along the riparian margins and in new stormwater areas.

Further response:

The plant mix which is specific to ecological restoration planting areas is the Wetland/ Riparian Planting (WRP) mix. This planting mix is included along riparian margins and within wetland areas within the proposed alteration to the designation area.

5. The proposed roundabout design at the Coatesville-Riverhead Highway does not appear to reference the local rural environment.

Provide explanation for in particular the usage of stones/boulders in the design.

Previous response:

Please refer to ULDMP (Appendix K of the lodged NOR package) for further information. Page 18 explains the design response and rationale for the roundabout design.

Further response:

The Roundabout design treatments are still at concept stage and have not yet been detailed. This is an area we are seeking to partner with mana whenua on, to establish a place-based response for the central island of the roundabout. Following further engagement with mana whenua, the design will be detailed and reference mana whenua values within the rural SH16 context.

Whilst mana whenua engagement is ongoing, early feedback was received that mana whenua have a preference for a hardscape solution rather than the soft landscaping that exists at Taupaki Roundabout. It has also been discussed that there are opportunities to integrate mahi toi (iwi artworks) within the centre of the roundabout in collaboration with mana whenua artists and this is currently being explored.

Compared with hardscape treatment, Waka Kotahi has identified that there are increased safety risks associated with the maintenance of roundabouts that include soft landscaping and that these would require more significant traffic management for maintenance crews.

The concept design shows boulders and stones. This was requested by the Waka Kotahi Urban Design specialist to deter antisocial behaviour on the roundabout because there are precedents of this behaviour occurring on similar scaled roundabouts around the North Island (refer to Figure 5 for an example). Safety has been the priority in determining the design of the new roundabout, the detail of which will be decided in partnership with mana whenua who have specifically requested integration of mahi toi. As part of this process, which is ongoing, the appropriateness of boulders and stones will also be confirmed as the selected treatment must balance safety, maintenance and incorporate local values (such a mahi toi).

Figure 5: Example of antisocial behaviour occurring on Pickering Road roundabout (Cambridge) where there are no boulders/stones (noting that these behaviours occur when the treatment is flat hardscaping).



Source: Waka Kotahi Urban Design specialist

It is for the above reasons that the concept design for the CRH roundabout is hard landscaping over soft landscaping. Engagement with mana whenua on the final design is ongoing.

Shared Path

6. The general arrangement drawings show the shared path labelled as having a 1m berm either side. This does not appear to be consistent with the typical sections and landscape plans that show narrower strips with planting on one side and chipseal on the other.

Please provide clarification on these inconsistencies within the plans and what should we be expecting to see on the ground.

Previous response:

The shared path generally maintains the stated 1m wide berm either side along the alignment. In several locations the berms vary in treatment type and width in response to the existing site constraints or infrastructure such as bus stops, crossings etc. Typically the front berm will be a 1.3m

berm (including 300mm kerb) which is proposed to be chip sealed to provide required separation and reduce high risk maintenance activities adjacent to the corridor. The back berm is generally 1m wide with low level amenity planting and provides for lighting and other infrastructure where required. Fall restraint fencing is also provided where retaining or steep batters are required. In other locations such as at proposed bus stops, crossings and the existing Taupaki Roundabout the shared path width is increased and extends to the kerb.

Further response:

The shared path generally maintains the stated 1m wide berm either side along the alignment, however it is acknowledged that it is not precisely 1m wide at every single part of the alignment, and that in several locations the berms vary in treatment type and width in response to the existing site constraints or infrastructure such as bus stops, crossings etc. Typically, the front berm will be a 1.3m berm (including 300mm kerb) which is proposed to be chip sealed to provide required separation and reduce high risk maintenance activities adjacent to the corridor.

The back berm is generally 1m wide with low level amenity planting and provides for lighting and other infrastructure where required. Fall restraint fencing is also provided where retaining or steep batters are required. In other locations such as at proposed bus stops, crossings and the existing Taupaki roundabout the shared path width is increased and extends to the kerb.

The proposed barriers are not only consistent with other areas of the highway, they are also a necessary safety measure for protecting people using the shared path given the speeds of the traffic and proximity of the path to the road corridor.

Lastly, maintenance of a small strip of planting close to the road corridor is not practical.

Noise Walls

7. **Reference is made to replicating the pattern and colour used on the noise walls from Lincoln Road to Westgate –it is considered that this is an urban area and that a rural design would be more appropriate.**

What information do you have to justify the use of noise walls and their design in a rural environment.

Previous response:

Please refer to the SH16 Safety Improvements Stage 2: Brigham Creek Road to Kumeū Assessment Of Acoustic Effects dated 3 Nov 2022 (Appendix X of the AEE) for the justification of noise walls within the design. Please also refer to ULDMP (Appendix K of the lodged NOR package) for further information. Page 17 explains the design response and rationale for the noise wall treatments.

The purpose of the ULDMP was to set a framework of options to consider during the design of noise walls should they be required; it was not to provide the final solution. It is acknowledged that Lincoln Road to Westgate is more of an urban environment. The reference to the noise walls in this location was intended to refer to their textures and surface patterns rather than the exact material. The actual proposed noise wall design includes a timber material (with landscape planting in front where practicable), which is considered to be more appropriate for the rural context of the Project area, despite the fact this area will urbanise over time.

Further response:

The noise walls at Lincoln Road were a useful local reference point, however, the proposed walls along the Project alignment use timber (instead of concrete that is used for Lincoln Road) to reflect

the more rural environment they will sit within. Timber is considered more appropriate and in keeping with the rural environment and therefore consistent with the visual amenity anticipated here. Discussions with mana whenua are ongoing for developing the specific design.

In addition to the visual design considerations, the noise wall treatment has been informed by a noise specialist who has recommended a solid material with a specified weight be used to reduce existing high noise levels. Given the limited choices for solid materials, timber was chosen as it is more relevant than concrete which was considered as an alternative. Concrete noise walls are evident across a significant number of highway corridors around Auckland, however, these areas are typically urban with limited outlook to the landscape. Concrete is considered suitable for urban environments. A timber response is much more appropriate in the rural context due to the softer nature of the material.

Notwithstanding the above, the noise wall design treatments are still at concept stage and have not yet been detailed, this is an area we are seeking to partner with mana whenua to establish a place based response for the noise walls.

Some noise wall design treatments will also take into consideration feedback obtained from the individual properties these structures will serve (e.g. the Kumeū River Wines noise barrier mitigation at 550 State Highway 16, Kumeū will be integrated within the existing yellow concrete block wall).

8. **It is also noted that the proposed material for the noise walls is ply, which has been shown to deteriorate badly. A simple robust and rural design is recommended. Consideration should also be given to requiring noise walls to be removed when future subdivision or development occurs.**

Have you done any analysis of ply as a building material and have any conditions been thought about for removal of noise walls following future development?

Previous response:

The durability and maintenance of the proposed timber noise walls has been considered during the design. Timber noise walls have been utilised in several other locations on the state highway network and when maintained appropriately have been successful in their implementation. The proposed timber design is considered to be 'a simple robust and rural design' and is considered to be in keeping with the rural environment. Please refer to ULDMP (Appendix K of the lodged NOR package) for further information. Page 17 explains the design response and rationale for the noise wall treatments.

Potential future removal of noise walls would need to be considered within the context of any proposed future development which is unknown at this point in time.

Further response:

It is acknowledged that timber noise walls will have reduced durability and as a result likely increased maintenance requirements when compared to concrete noise walls. This was considered in conjunction with the landscape visual amenity effects of having concrete walls within a rural environment whilst balancing safety concerns relating to the blunt ends of concrete walls (that are required for their installation) which would impact the function of property accesses at locations where they are proposed.

Notwithstanding the maintenance considerations, timber noise walls have been utilised in several other locations on the state highway network and when maintained appropriately have been successful in their implementation (refer to Figures 6, 7 and 8). The proposed timber design is

considered to be ‘a simple robust and rural design’ and in keeping with rural environment amenity values.

Figure 6: Timber noise wall on SH20 along Onehunga, constructed November 2009



Figure 7: Timber noise wall along Northern Busway on SH1, constructed prior to 2009



Figure 8: Timber nose wall at Te Atatū interchange on SH16



As noted above, the noise walls for this Project have been offered to reduce existing high noise levels (rather than mitigate a Project effect). Discussions with impacted landowners have been undertaken and are ongoing. Some landowners have provided feedback on the proposed noise wall and some landowners have confirmed they do not want to accept the offer of a noise wall. Noise wall design is also subject to mana whenua consultation.

Potential future removal of noise walls would need to be considered within the context of any proposed future development which is unknown at this point in time.

9. While the majority of noise walls are suitably screened, the following are not and consideration should be given to mitigating effects: 218 SH16, 315 SH16, 340 SH16, and 550 Sh16 (low amenity planting only).

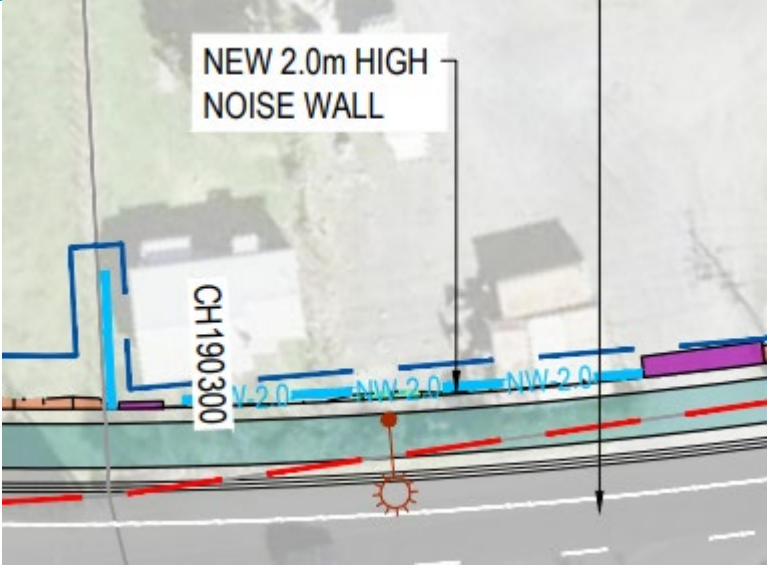
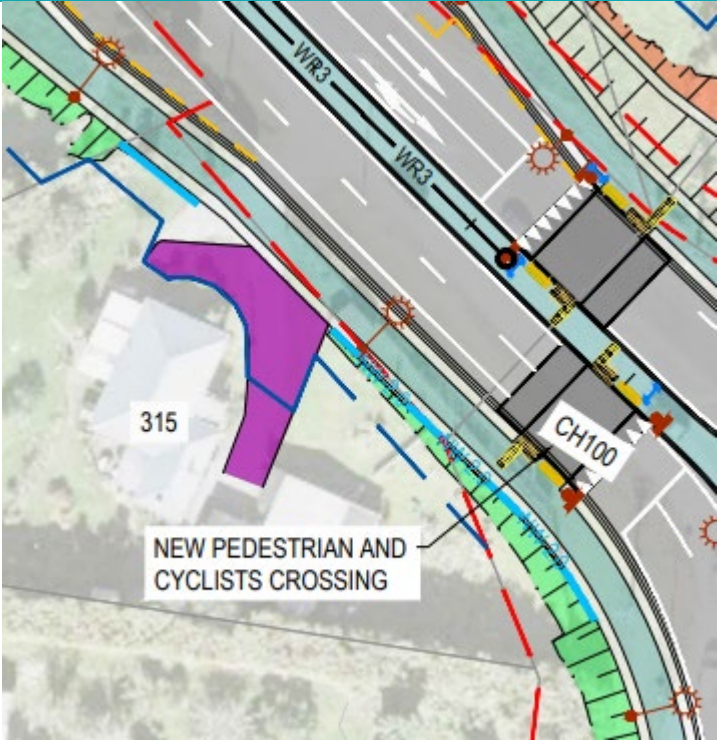
Please provide justification for why these areas are not screened?

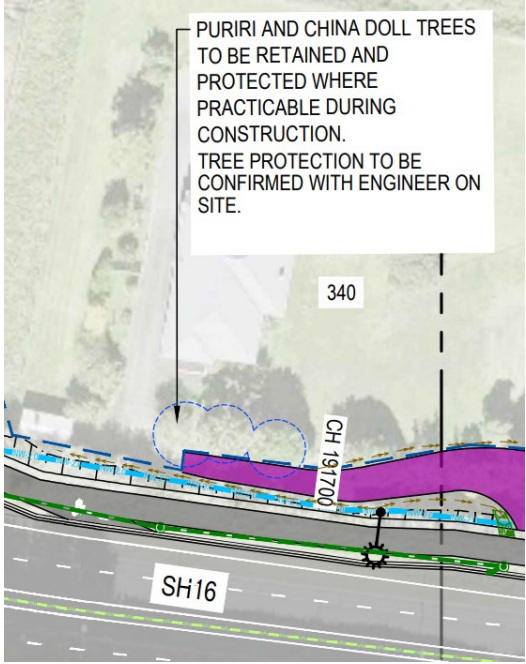
Previous response:

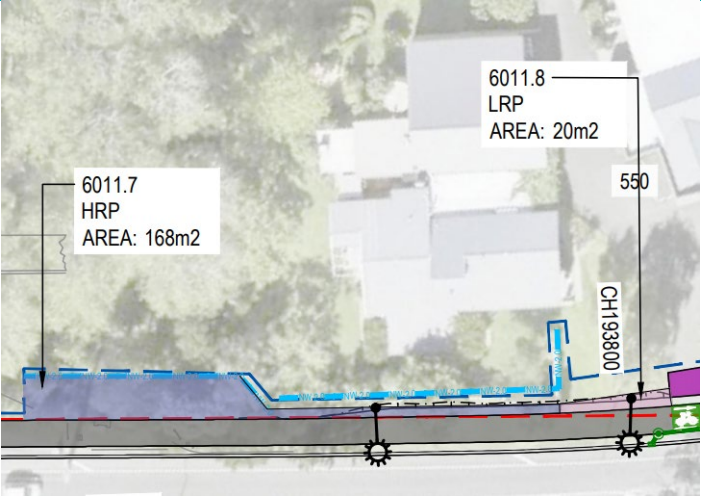
Space constraints along the corridor have limited the opportunity to provide larger screen planting in these areas.

Further response:

Space constraints along the corridor have limited the opportunities to provide larger screen planting in these areas. Decisions to omit larger specimen plants or planting altogether in some places was balanced against onsite constraints that would result in other adverse effects if mitigation planting was prioritised. A site-specific analysis is provided in the following Table:

Property	Justification
218 SH16	 Figure 9: Snip of 218 SH16 taken from the General Arrangement Plans There is a small strip of land available between the proposed SUP and the proposed noise wall. However, the strip is only 1.6m wide. Due to the minimum 700mm offset requirement of planting from the edge of the pathway for safety reasons, practically there may only be space to provide low level amenity planting adjacent to the noise wall. Requiring land to accommodate screening planting would result in the need to shift or remove the existing dwelling which is considered unreasonable. The accessory buildings immediately west of the existing dwelling shown on the aerial are no longer located there.
315 SH16	 Figure 10: Snip of 315 SH16 taken from the General Arrangement Plans

Property	Justification
	There is insufficient land area available between the proposed SUP and the proposed noise wall to accommodate larger amenity planting or between the existing driveway/dwelling and the proposed noise wall within the site. Requiring land to accommodate planting would result in the loss of onsite vehicle manoeuvring area that is required to ensure vehicles can exit the site facing forward to achieve safe egress. A loss of sufficient vehicle manoeuvring area would result in vehicles reversing out of the driveway straight onto the state highway which is unsafe at this location.
340 SH16	 PURIRI AND CHINA DOLL TREES TO BE RETAINED AND PROTECTED WHERE PRACTICABLE DURING CONSTRUCTION. TREE PROTECTION TO BE CONFIRMED WITH ENGINEER ON SITE. 340 CH 191700 SH16 Figure 11: Snip of 340 SH16 taken from the Landscape and Ecological Planting Plan The narrow corridor width reduces opportunities for larger amenity planting without requiring additional land to accommodate this. A greater land requirement will result in impacts on established trees within the site that are intended to be retained and further reduction of onsite driveway width. The retention of these trees will maintain some screening of the proposed wall for the occupants of the dwelling.

Property	Justification
550 SH16	 Figure 12: Snip of 550 SH16 taken from the Landscape and Ecological Planting Plan The noise mitigation design here will be integrated with the existing yellow concrete block wall which is being retained at the request of the landowners (see Figure 13). Therefore insufficient land area is available in front of the wall to provide for larger plants between the SUP and the wall at this location without requiring the removal of the existing wall.  Figure 13: Streetview of the existing concrete block wall at 550 SH16

Retaining Walls

10. Provide a review of the retaining walls at Ch190900 and 191630 to ensure visual impacts are mitigated/screened.

Further response:

The Project Landscape Architect has reviewed the potential visual impacts of the retaining walls at Ch190900 and 191630 and provides the following high-level comments:

Retaining wall SRW1 at CH190900 on the Westbound side of the alignment retains the Shared Use Path and will not be visible from the state highway corridor. The recommendation from the Project Arborist was to protect the existing established large trees at Ch190900. These trees will provide visual screening of the wall and reduce visual impact of this retaining wall to adjacent properties.

Retaining wall GRW2A at CH190900 on the Eastbound side of the alignment retains the embankment and adjacent property. Space constraints along the corridor including existing critical services have limited the opportunity to provide larger areas for planting/screening in this area and have resulted in a retaining wall close to the corridor. The timber pole retaining wall is yet to be confirmed due to services as mentioned above. However, it is anticipated that this wall will have a visual impact within the landscape due to the 230m (approx.) length of wall and the maximum height extending to 2.6-2.9m high above the corridor. The wall is set back from the corridor behind the planted stormwater swale which will provide some low level planting to soften the edge of the wall. The visual impacts of the wall could be further mitigated through the integration of climbing plant species along the base of the wall. This would need to be undertaken in collaboration with a mana whenua artist as this retaining wall has been identified as an opportunity for timber panelling art installation.

Retaining wall GRW3 at CH191630 on the Westbound side of the alignment retains the embankment and adjacent property. Space constraints along the corridor in relation to minimising land requirements have limited the opportunity to provide larger areas for planting/screening in this area and has resulted in a retaining wall close to the corridor. The timber pole retaining wall is a maximum height of 1.4m and will have a visual impact for both path users and drivers along SH16 due to the close vicinity of the retaining wall to the SUP on the edge of the corridor.

The remaining responses to traffic specific matters will be provided in due course. Please contact us if you require further clarification of the response provided above.

Yours sincerely



Ashlie Carlyle

Senior Associate - Planning

on behalf of

Beca Limited

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